

# Report for the City Manager

## Community Services: Engineering

Date: May 7, 2024



The purpose of this document is to summarize the work the City of Dover Engineering Department from April 1<sup>st</sup> through April 30, 2024.

The Engineering Division is comprised of a dedicated team of individuals who work collectively to, as the Division's statement reads, "provide the City of Dover with professional engineering services that ensure long-range comprehensive planning, sound project design, and quality construction management, and to provide technical engineering assistance to other Departments of the City."

Ken Mavrogeorge, PE – City Engineer  
Bill Boulanger – Special Projects Advisor  
Amelia DeGrace – Assistant City Engineer (Utilities)  
Jillian Semprini, PE – Assistant City Engineer (Transportation)  
Eric Sanderson – Facilities Project Manager  
Jamie Stevens – Waterfront Construction Manager  
Jordan Chambers – Engineering Technician  
Courtney Mitchell – Environmental Project Manager

### **Staff Workload:**

In addition to their daily project management responsibilities, the City's Engineering staff also participate in the following Commissions, Committees, and Boards as either activate members or staff liaisons.

Dover Utilities Commission (Amelia DeGrace): The Dover Utilities Commission (DUC) met on April 15<sup>th</sup> where abatement, utilities, and finance reports were reviewed.

Transportation Advisory Committee (TAC) (Jillian Semprini): TAC met on April 29<sup>th</sup>. At the meeting citizen concerns regarding Silver and Locust Street were heard as well as staff updates on CIP projects around the City including Fifth and Grove Reconstruction and Portland Ave Wall.

Planning Board (Ken Mavrogeorge): Planning Board met on April 9<sup>th</sup> and 23<sup>rd</sup> to review various presentations including one on CDBG funding and a housing project on Whittier St. Other projects reviewed include a proposed bank on Webb Place.

Municipal Alliance for Adaptive Management (MAAM) (Courtney Mitchell): There was no meeting of the MAAM in April. The next meeting is scheduled for June 6<sup>th</sup> in Rochester, NH.

Seacoast Stormwater Coalition (SSC) (Courtney Mitchell): The SSC met on April 17<sup>th</sup> remotely to discuss Stormwater and Wastewater Asset Management Grant, MCM #3 System Mapping Phase 2, Existing/Old Permittees and New Permittees Year 6 Requirements, NH Municipal Road and Soils Management Effort, and the new version of MS4 Permit Updates. In addition there will



be an Eelgrass Resilience Project Advisory Committee Meeting held on May 7 Noon to 4 pm in Greenland, NH.

TIF Advisory/Cocheco Waterfront Development Committee (CWDAC)/Park Subcommittee (Jamie Stevens): The TIF advisory committee did not meet in April. The CWDAC committee met on Tuesday April 16<sup>th</sup>. Project updates were provided on the Waterfront, River St Pump Station, and Henry Law and River St reconstruction.

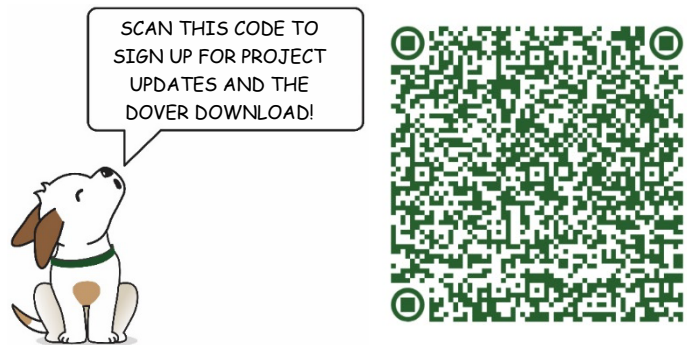
### **Customer Service:**

In addition to supporting other City Departments and working on Capital Projects, Engineering staff takes Service Calls from the public and responds to them as quickly as they can. The team meets regularly to review open Service Calls and discuss how to respond. The Table below shows the total calls year to date and over the past month.

Time Period	Logged Service Calls	Resolved Service Calls
Year to Date (2024)	47	61
April 2024	12	10

### **Public Outreach:**

The Engineering Team routinely provides updates to Media Services for the various projects that are shared in advance of public meetings, major milestones, or in the event of a service shutdown or temporary road closure. Anyone can sign up for project specific updates using the QR code below.



*Figure 1: Rover the Community Services Dog and a QR Code to sign up for project specific updates and the Dover Download.*

### **Public Works Week is Coming!**

Public Works Week is coming up May 19<sup>th</sup> through May 25<sup>th</sup> and Engineering staff is working with Media Services and the other Community Service Division heads to plan activities and media materials that celebrate all the things that make Public Works an important part of all of our daily lives. A kickoff to the week will be held at Community Services on Saturday May 18<sup>th</sup> and include a touch a truck event for families. The Engineering staff has secured volunteers from some of the firms designing projects in the City to present on past and current projects in the city. The event will run from 11 am until 2 pm and include tours of the new water treatment plant at Pudding Hill.



Figure 2: Scan this QR code for access to the Water Service Line inventory.

Water Service Line Inventory:

The United States Environmental Protection Agency’s (EPA’s) revised Lead and Copper Rule (LCRR) requires all community water systems to prepare a service line inventory by October 16, 2024. This revision is in response to the Flint, MI water crisis; inventories will be available to the public and will be used to identify service lines with potential lead contamination.

Led by Assistant City Engineer, Amelia DeGrace, preparation of the inventory has been a true team effort, with the Office of Information Technology (OIT), Community Services Utilities, Water & Sewer Billing, Media Services, and Engineering all pitching in. NHDES awarded the City a \$75k grant to prepare the inventory.

The inventory work to date includes the organizing of over 10,000 meters that the team will need to identify the service materials for. In order to determine the materials of service lines, staff must comb through record drawings, water tie cards, and other City documents. To help staff identify materials for services lines, an online survey has been developed and is currently live through the City’s website for the public to submit information on their water service. The survey can be accessed by scanning the QR code in Figure 2. As of May 6, 2024 there have been 527 responses to the survey.

Consumer Confidence Report (CCR):

Mike Nadeau (Utilities Superintendent) and Courtney Mitchell (Environmental Projects Manager) put together the 2024 CCR. The CCR is an annual water quality report that a community water system provides to its customers. It explains the quality of the drinking water, any contaminants in the water and how their health may be affected, and future protection. Community water systems must directly deliver a CCR to each consumer and NHDES by mail, hand delivery, or electronically by July 1 annually. The CCR report was distributed in the Quarterly Water Bills and electronically.



**2024 Consumer Confidence Report**

Dover Water Department

PWS ID# 0651010



**Water**

Community Services | Dover, NH

## **Engineering Projects:**

As noted above, the Engineering staff is actively supporting a number of projects across the city. The following are some highlights on just some of the active projects.

### **Pudding Hill Water Treatment Plant:**

The City's consultant and contractor have begun to test the processes needed to start up the treatment plant in March and April. The plant is on track for final completion by summer 2024. The plant could provide an additional 1 million gallons of drinkable water per day to City residents, boosting its current capacity back to levels prior to when the aquifer was taken offline. **On May 2<sup>nd</sup> the plant was started up and successfully sent treated water back to the City's municipal system from the Pudding Hill Aquifer for the first time in over 6 years!**



Figure 3: Seth Thompson of Community Services fires up the Pudding Hill Water Treatment Plant for the first time on May 2, 2024.

### **Smith Well Road Elevated Tank:**

Work continues on the interior of the new elevated storage tank. The new 1-million-gallon tank is being constructed to allow the City to take the Garrison Hill tank offline in 2024/2025 for rehabilitation. The new tank is currently schedule for final completion in mid-2024.

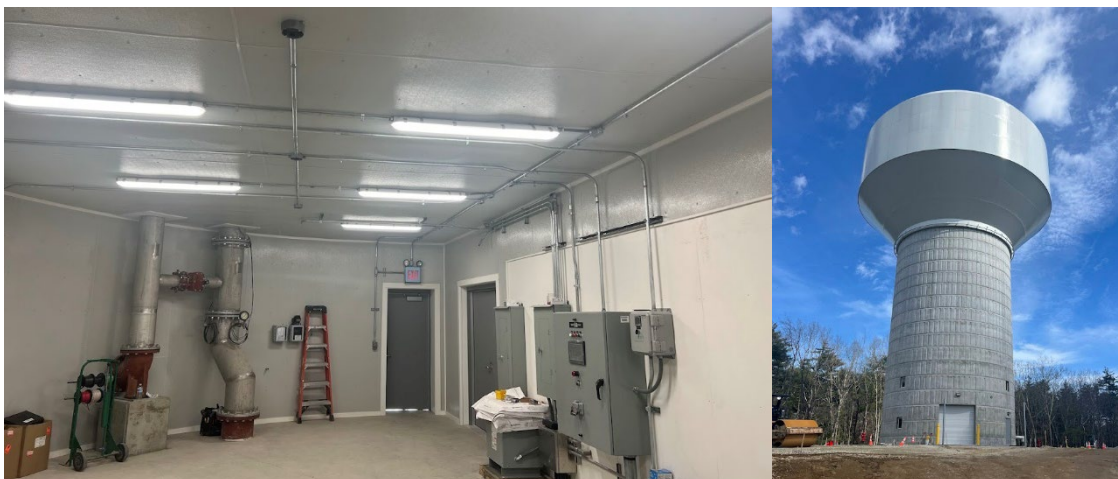


Figure 4: Interior of the new elevated storage tank pedestal and exterior view of the tank nearing completion.

### Waterfront Redevelopment:

With the finishing of the blasting in early April, focus shifted back to the installation of the remaining utilities in the new public right of ways. As a result, the roadway gravel sections are being processed prior to installation.

The following is a summary of the utility installation at the waterfront:

**Water:** An additional 1000 feet of water main was installed. All 1000 feet of water main was placed in service upon passing of the required tests.

**Sewer:** The last section of sewer main has been installed along the southern loop road or River Street south. The City is waiting on test results of for this sewer main.

**Stormwater:** Work in the intersection at Seaport Way continues with only a few catch basins. In addition, work continues out by the former Butler Building. Both of these sections are waiting final test results as well.

**Shoreline restoration:** Granite toe wall construction continues towards the Makem Bridge. Recently Outfall One was installed along with its headwall assembly. The rip rap plunge pool is in the process of being constructed.

**Electrical and telecommunication duct banks:** Work continues on Seaport Way and throughout the River Street loop road. This work includes installation of vaults and concrete encasement.



*Figure 5: Shoreline granite wall and outfall construction.*



*Figure 6: Aerial view of the waterfront redevelopment project.*

### River St. Pump Station Rehabilitation:

The contractor for the project, Waterline, has mobilized equipment to the pump station on River Street (Payne Street) to start interior demolition. Work is expected to last over 12 months but be finished prior to the completion of the waterfront project. Improvements to the station will include improved odor control measures. The first construction meeting was held for the project remotely due to an early April snow storm. Materials continued to be delivered to the PS throughout April with a new roof having been installed at the end of April.

### Sidewalk Improvements:

Engineering staff is overseeing the assessment of all the City's sidewalks to help inform future sidewalk reconstruction projects. Green International Affiliates, Inc., the firm selected to complete the assessment is wrapping up their assessment all of the City's public sidewalks and curb ramps in preparation for the development of a summary of their findings and make recommendations for which sidewalks need repairs. This summary of findings will also include a 5-year sidewalk improvements program that the City can execute to improve sidewalks across the City with a focus on priority routes including those close to schools and businesses and those in need of ADA accessibility improvements. The summary of findings draft report was sent to the City in late April and is currently under review by the Engineering staff. A presentation to the City Council is anticipated to outline a plan to improve City sidewalks. To date 109 miles of sidewalks and over 1213 curb ramps have been assessed by the consultants.

### Dredge Cell Closure:

Dover's dredge cell is located west of Maglaras Park and was constructed in the early 2000s to dispose of material dredged from the Cocheco River in coordination with PSNH and the USACE. The City's consultant, Verdantas is under contract to design the final cap of the dredge cell and a public parking facility/snow dump on top of the cell. It is anticipated that construction on the dredge cell closure will begin in late 2025 once excess materials from the waterfront are moved up to areas in and around the dredge cell. As part of the design, the roadway from the waterfront is being extended up to Maglaras Park. Verdantas is in the process of planning additional survey of the dredge cell and Maglaras Park complex to support conceptual designs for the disposal of excess materials generated by the Waterfront Development. Concepts for the work are expected to be prepared in the summer of 2024.

### Fifth and Grove Reconstruction:

The City met with the selected contractor, N. Granese and Sons in April to kickoff the reconstruction project. The project team met also with residents at the third public meeting for the project held on April 30<sup>th</sup>. The project is expected to start in mid-May and last until December.

### Annual Street Paving Program:

The City's Engineering and Operations staff have been preparing to kickoff the annual street paving program with the selected contractor Brox Industries. Work from the 2023 program is wrapping up with paving recently having been completed on Locust Street from Central Ave to Silver Street. In advance of the 2024 paving work, Special Projects Advisor, Bill Boulanger has been walking each of the streets to be paved to identify potential water leaks that would need repair prior to paving activities. So far one water leak was found and repaired on Tanglewood Drive. Monitoring is occurring during normal hours of operations and on some busier roads into the evening hours to avoid heavy traffic.

### Portland Ave Retaining Wall:

In April Engineering staff held a project kickoff meeting with GW Brooks and Sons for the Portland Ave Wall Reconstruction Project. Trees were cleared to make way for demolition of the existing wall and abandoned

gas terminal building along Portland Ave. The contractor anticipates to fully mobilize in June with temporary traffic signals for one way alternating traffic. It is anticipated that work will last until the end of 2024.

## **Facilities Projects:**

### **Library Boiler Replacement:**

The Facilities Project Manager assisted library staff with the design and installation of new boilers at the public library. In the fall of 2022, it was discovered that the existing cast iron section boiler had a crack in one of the sections, causing the boiler to leak with the fluctuating temperatures. When city staff consulted with the contracted preventative maintenance vendor; it was determined the best course of action would be to replace the boiler. The city solicited mechanical design services from SMP Architects who was already under contract to design interior upgrades to the existing building. Alliance mechanical was selected through a sealed bid process to replace the existing boiler with two high efficiency boilers along with boiler room piping and pumps. Work commenced on April 9<sup>th</sup> and is expected to be completed in May 2024.



*Figure 7: Library Boiler at approx. 75% complete.*

### **South End Fire hose tower heater replacement:**

The Facilities Project Manager assisted Fire Department staff with soliciting quotes to replace the gas unit heater, located in the hose tower, at the South End Fire Station. Dennis Munson Plumbing and Heating was selected to complete the removal and installation of the new heating unit.



*Figure 8: New Willand Pond Warming Center dumpster enclosure.*

### **Jenny Thompson Pool:**

On April 10<sup>th</sup>, City Council voted to hire Weston & Sampson Engineers to design renovations to Jenny Thompson Pool. They will design repairs to the pool, gutters, pool deck, and fencing along with mechanical upgrades. Facilities, Grounds and Cemeteries staff have been working with the Facilities Project Manager to prioritize repairs while opening the pool for the 2024 season. Construction is expected to begin in early fall and will be completed June 2025.

### **Willand Emergency Warming Shelter:**

On April 1, 2024 the warming center closed for the season and will reopen in the fall for the 2024-25 season. After many repairs and issues with the dumpster enclosure the facilities project manager worked with GC AAA Fence to replace the wooden fence with chain link fencing to increase safety and security.

## **Permits and Licenses:**

Contractor Paving Contractor and Utility Contractor Licenses are required to ensure contractors are properly qualified, suitably insured, and have provided the City with an emergency contact information. Licenses must be obtained prior to commencing work within the City of Dover. Licenses in Dover expire on December 31 each calendar year, regardless of when the license was obtained. The fee for the license is not prorated based on when the license is obtained.

Contractor Paving Contractor and Utility Contractor Licenses may be submitted online through the City's online permitting portal, EnerGov. The site can be reached by going to the following website:

[https://permits.dover.nh.gov/energov\\_prod/selfservice#/home](https://permits.dover.nh.gov/energov_prod/selfservice#/home)

### Licenses:

#### Paving Contractor License

A Paving Contractor License application and fee must be submitted to, and approved by, the Community Services Department prior to paving on the City's roads and within the City's rights-of-way.

#### Utility Contractor License

A Utility Contractor License application and fee must be submitted to, and approved by, the Community Services Department prior to working on water, sewer, or storm drainage systems owned or controlled by the City of Dover, including system connections located on private property that connect to the public system.

### Permit and License Summary for March 2024:

Driveway Permits:	17
Utility Licenses:	2
Paving Licenses:	5
Excavation Permits:	8
Certificate of Occupancy Inspections:	17
Construction:	1
Obstruction Permits:	5

## **Site Review/Project Oversight Support:**

### Technical Review Committee:

The City's Engineering staff typically takes between 1 to 4 hours for each review as part of the Technical Review Committee. The review focuses on engineering related design elements such as utilities (water and sewer), stormwater, parking lot layout and pedestrian pathways. To ensure that projects efficiently move through the TRC process, City Engineering staff is available for preapplication meetings with applicants. To schedule a meeting with staff, call 603-516-6450.

Two (2) projects came to TRC in March that required Engineering review:

- Unutil Gas Transmission Main
- 14 Broadway Revised site elements for project approved originally in 2021.



Wastewater Permit Review Summary for April 2024:

Sewer Connection Permit: 0  
Septic Design Reviews: 1

Construction Oversight:

Engineering Technician, Jordan Chambers, continues to conduct oversight of over 65 private construction projects approved by the Planning Board. Projects that are underway or have been completed include:

- Copley Commons Subdivision (Leathers Ln.)
- Tiny Home Development (Back River Rd.)
- Sophie/Banner Dr Subdivision (Bellamy Rd.)
- Goosetail Dr (757 Central Ave.)
- 725 Central Ave Development (Central Ave and Brick Rd.)
- Medical Office Building (Durham Rd.)
- Northeast Credit Union (Education Way)
- Emerson Ridge (Old Oak St.)



Figure 9: Emerson Ridge Development.

Preconstruction Kickoff Meetings:

There was one (1) preconstruction meeting in April for the Cochecho Waterfront Redevelopment (Developer's portion)