

Report for the City Manager

Community Services: Engineering

Date: July 12, 2023

The purpose of this document is to summarize the work the City of Dover Engineering Department through **June 30, 2023**.



Engineering

Community Services | Dover, NH

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

Amelia DeGrace – Assistant City Engineer (Utilities)

Jillian Semprini, PE – Assistant City Engineer (Transportation)

Eric Sanderson – Facilities Project Manager

Gretchen Young, PE – Environmental Projects Manager

Jamie Stevens – Waterfront Construction Manager

Jordan Chambers – Engineering Technician

Staff Workload:

The Engineering Staff is currently managing or involved with over 150 City projects ranging from annual projects such as the General Streets Improvements - Annual Paving Program to projects in the Capital Improvements Program such as the reconstruction of various neighborhood. Included in that total are projects for other departments including but not limited to Planning (Community Trail Solar System), Recreation (Jenny Thompson Pool Evaluation and New Skate Park), and Library (Roof Replacement).

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 next DUC meeting is scheduled for July 10, 2023.

Transportation Advisory Committee (Jillian Semprini): The next TAC meeting is scheduled for July 24, 2023.

Planning Board (Ken Mavrogeorge): Planning Board met twice in June.

Municipal Alliance for Adaptive Management (MAAM) (Gretchen Young): MAAM met at the Dover Community Services on June 8th with members discussing updates on the State of the Estuaries, PREP Research, and the PTAP tracking program.

Staff is also simultaneously working on developing standard procedures for the team in conjunction with operations and administrative staff. In addition, staff are also updating Construction Guidelines and developing specification that standardize around NHDOT specifications for capital construction projects.

Customer Service:

The Table below shows the total calls year to date and over the past month. There has been an increase in calls this year over past years due to the change in how Admin receives calls to the department. This has shown to result in a quicker response to callers many of whom provide an email address for a quicker response from Engineering staff.

Time Period	Logged Service Calls	Resolved Service Calls
Year to Date (2023)	228	217
Last Month (Month)	30	40

Projects

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

Portland Ave Retaining Wall: Engineering staff met with the design consultant to review alternatives to reduce construction costs. The consultant is moving the final construction documents forward with the preferred alternative, and the project is expected to go out to bid at the end of summer of 2023 and be completed during the winter.



Figure 1: Portland Ave Retaining Wall.

Street Reconstructions: The Engineering staff continues to advance the designs of multiple street reconstruction projects including the following: Fifth and Grove St; Court and Union St.; Henry Law and River St. It is anticipated that these projects will be ready for bid this summer and released for bid in the late summer/fall. Work for these projects are anticipated to occur in spring 2024 and continue through mid-2025. Street Reconstruction projects are Capital Improvement Plan projects that include comprehensive upgrades to water, sewer, drainage, lighting, road surfaces, and sidewalks within neighborhoods. It is anticipated that additional public meetings will be occurring in July of 2023 for each of the projects prior to going out to bid.

River Street Pump Station Upgrade: Bids were open on June 29, 2023 for the River Street Pump Station Upgrade project. Waterline Industries Corporation was the low bidder, and a Resolution to award the project is expected to go before City Council on July 12, 2023. Improvements to the pump station are expected to take 18 months to complete and coincide with the Waterfront Infrastructure Improvements project.

Pudding Hill Water Treatment Plant: Contractor is on track to complete project in Spring of 2024. Once completed the plan will be able to treat approximately 1 million gallons per day of drinking water to boost the City’s supply.



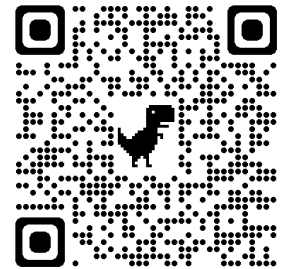
Figure 2: Engineering Staff collecting stormwater sample for MS4 compliance.

Stormwater Management Plan: MS4 permit year completed on June 30. The permit is in its final year and it is anticipated to be extended for a year, with a draft revised permit to become available for public comment in the Fall of 2023. Staff completed annual requirements including continuing wet weather sampling.

Leathers Lane Sidewalks and Intersection Improvements: Engineering and Operations staff are working to layout a new sidewalk on Leathers Lane in advance of paving of the roadway in 2023. The sidewalks and intersection improvements were part of the Copley Commons Site Plan Review Approvals.

Cocheco St Outfall Replacement: Engineering continues to meet with staff from Eversource to review a preliminary cost estimate, schedule, and logistics for the construction of the replacement for the existing stormwater outfall. It is anticipated that construction will start in November 2024 and run through March 2025.

Stormwater and Flood Resiliency Utility: A website/story map with information about the utility has been created to provide additional information to the public. The page can be accessed using the QR code to on this page. Staff also conducted Stormwater and Flood Resilience Utility outreach at the June Dover Rotary meeting.



Staff will host a joint Dover Utilities Commission (DUC) and Ordinance Committee meeting on July 10th. The goal of the joint meeting will be to discuss and seek recommendations for the utility's fee and credit structure. The Utility is on track for a presentation to, and possible vote on implementation by, City Council by the end of 2023.



Figure 3: Pedestal for Smith Well Road Elevated Tank

Smith Well Road Elevated Tank: Construction of the tank pedestal commenced during the month of June 2023. Pedestal construction and installation of watermain on Smith Well Rd are scheduled to for July 2023. The new 1-million-gallon tank is being constructed to allow the City to take the Garrison Hill tank offline in 2024 for rehabilitation. The new tank is currently on track for final completion in early 2024.

Cocheco Stormwater Master Plan: Engineering staff met with the NHDES and the City's consultant Kleinfelder on June 26th as part of a monthly check in for the Alternative drainage alignments in the Oak/Ham/Ela neighborhoods. This area consists of over 200 acres that drains to the recently installed

Broadway culvert that contributes to the Cocheco St. outfall. A preferred alternative will be selected and will serve as the basis of design for the Oak, Ham, and Ela Neighborhood reconstruction (+/- 100 acres). It is anticipated that the final report will be completed by the end of 2023.

Waterfront Redevelopment: Engineering staff received conformed documents for distribution to the contractor in June to aide in the layout of the project in advance of the start of construction. A formal groundbreaking for the project was held on June 20th at the project site in coordination with the private developer, Carthartes. The project is scheduled to last between 2 and 3 years. The private portion of the project is likely to start in early 2024 once the developer secures the necessary permits for their development from the state. Engineering staff will provide full time oversight of the public improvements and part time observation of the private work.

Street Paving Program: The kickoff meeting for the 2023 annual street maintenance project was held on June 6th and paving began the week of June 12th.

Hough Street Emergency Culvert Repair: Engineering staff continued to coordinate with the precast manufacturer, contractor, and the city's operations department for the installation of the replacement structure. Notices for temporary easements were sent out to affected properties, and two abutter meetings were held at the project site. The precast structure is scheduled to be delivered to the City in late July and installed shortly thereafter along with some minor utility improvements. This section of the road is expected to open prior to the end of August.

Traffic Signal Management

Engineering staff met with the city's traffic engineering consultant, Sebago Technics, twice in June. The first meeting held was to review the management software for the signals. The second meeting was a monthly meeting to review signal concerns received from calls to Community Services or other City Departments. Community Services is working with the consultant to develop a plan for traffic signal management including annual improvements, timing adjustments, and upgrades to include for capital improvement projects.

Facilities Projects:

Fish Ladder Park: Engineering staff is working with Operations staff to coordinate the installation of new light poles along fish ladder park in advance of landscaping improvements. The majority of work will occur in late summer 2023. Park improvements include new brick walkways, park bench pads, trash receptacles pads, and landscaping.

City Hall Tower Improvements: Community Services staff worked with the City's contractor to finish the installation of decorative lighting on the clock tower at City Hall. The multicolored LED lighting will be illuminated in various colors to celebrate special occasions such as the 400th anniversary of Dover and the fourth of July.



Figure 4: City Hall Tower lit up for the Fourth of July.



Figure 5: New Dover Skate Park Framing.

Skate Park: Artisan Skateparks has begun working on the concrete prep work for the skate park with concrete schedule for installation in July. Construction is estimated to take 2-3 months, followed by site work finishes to be completed in early fall. Once the new skate park is completed, the existing skate park will be demolished.

Inspection Services: Two bidders were selected to submit formal proposals for the expansion of the 271 Mast Road facility to house staff from Inspection Services. A contractor is expected to be awarded the project late summer with the design and construction to commence once permitting through Planning Board is completed. The project aims to address the needs identified in a space needs Assessment conducted by the Deputy City Manager in 2022. The goal is for Inspection Services to be moved into the expansion in the fall of 2024.

Permits:

Permit Summary for April 2023:

Driveway Permits:	10
Utility Licenses:	2
Paving Licenses:	2
Excavation Permits:	17
Certificate of Occupancy Inspections:	4
Obstruction Permits:	1

Site Review/Project Oversight Support:

Technical Review Committee: Four projects came to TRC in June that required Engineering review:

- Parking Lot improvements to Kids Culture on Back River Road
- Improvements to the COAST Bus facility on Knox Marsh Road
- A new storage facility at 56 Sixth Street
- An Electric vehicle charging facility on Sterling Way near Rt 16 exit 8E.

Wastewater Review Summary for June 2023:

Sewer Connection Permit:	0
Septic Design Reviews:	2



Figure 6: Copper Drive Subdivision

Construction Oversight: Engineering Technician, Jordan Chambers, continues to conduct oversight of over 60 private construction projects approved by the Planning Board. Projects that are underway or have been completed include:

- Bluebird Self Storage (Littleworth Rd.)
- Rutland Street Residential Development (Abbey Ln.)
- Copley Commons Subdivision (Leathers Ln.)
- Tiny Home Development (Back River Rd.)
- Porchlight Dr. Subdivision (Cataract Ave.)
- Copper Drive Subdivision (New Rochester Rd.)
- Sophie Drive Subdivision (Bellamy Rd.)

Other Staff News:

Gretchen Young, PE Dover's Environmental Projects Manager was a panelist at the Association of Environmental Engineering and Science Professors - Accelerating Implementation of Environmental Sustainability through Financial and Policy Incentives.

Asst. City Engineer Jillian Semprini, PE and City Engineer Ken Mavrogeorge, PE attended a Pavement Preservation Event in Portsmouth in June. Topics at the event focused on innovated pavement preservation techniques and tools to improvement the lifespan of our roadways.



Figure 7: Porchlight Dr.