

# Report for the City Manager

## Community Services: Engineering

Date: October 11, 2023

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The purpose of this document is to summarize the work the City of Dover Engineering Department through **September 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  
Bill Boulanger – Special Projects Advisor  
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 neighborhoods. Included in that total are projects for other departments including but not limited to Planning (Downtown Pedestrian and Vehicular Improvements Project), Recreation (New Skate Park), and Library (Renovation).

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) and Ordinance Committee held two joint meetings this month to review a draft of the proposed ordinance. On September 28th, the Ordinance Committee voted unanimously to recommend the Stormwater and Flood Resiliency Utility Ordinance to the City Council for adoption. The first reading of the ordinance will occur in November with vote in December. If enacted as currently envisioned, the utility would begin at the start of the 2025 fiscal year on July 1, 2024.

**Transportation Advisory Committee (TAC) (Jillian Semprini):** TAC met on September 25<sup>th</sup> where topics such as speed, crosswalks and signage concerns were heard.

**Planning Board (Ken Mavrogeorge):** Planning Board met on September 12<sup>th</sup> and 26<sup>th</sup>. Highlights of the meetings were the approval of a redevelopment at 100 Education Way to accommodate Northeast Credit Union's new headquarters and a new headquarters for COAST Bus at their 42 Sumner Dr. campus.

**Municipal Alliance for Adaptive Management (MAAM) (Gretchen Young):** The MAAM communities and partners reviewed the second annual revision of the Adaptive Management Plan, at the

September 14<sup>th</sup> meeting. MAAM has solicited projects and proposals to be reviewed at the November 2<sup>nd</sup> Executive Committee meeting.

TIF Advisory/Cochecho Waterfront Development Committee (CWDAC)/Park Subcommittee (Jamie Stevens): The CWDAC met on September 26<sup>th</sup> where they heard updates on the construction of the public component of the Waterfront project and saw plans for the proposed public pavilion building to be located in the new waterfront park.

Other Staff Notes:

Three (3) of the City's engineering staff will be attending the 2023 UNH Civil and Environmental Engineering Alumni Technical Conference in October with two staff (Ken Mavrogeorge and Amelia DeGrace) presenting to the attendees. The City's Engineering staff is comprised of four (4) UNH Civil Engineering Graduates.

On September 12<sup>th</sup>, Gretchen Young, PE was a speaker at the Stormwater Financing Workshop, hosted by the Massachusetts River Alliance.

Gretchen Young, PE represents the New Hampshire Municipal Association on the State of New Hampshire Wetlands Council. This month, the Wetlands Council held a multi-day long administrative appeal.

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. There has been an increase in calls this year over past years due to the change in how Admin receives calls to the department. The greatest change this year has been asking callers to provide an email address. This single change has increased the quality and speed of responses.

Time Period	Logged Service Calls	Resolved Service Calls
Year to Date (2023)	318	300
Last Month (Month)	31	32

## Engineering 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.

Puttying Hill Water Treatment Plant: Contractors continued to work internally as well as completed some of the external sitework. Work continues to be on track for substantial completion in February with some time for start-up and operation in the spring of 2024.



Figure 1: Internal piping and electrical installation continues to progress on the Puttying Hill water Treatment Facility.



Figure 2: Engineering Staff present a project update at the City's Facilities and Grounds Building on Court Street.

## Street Reconstructions: Court and Union:

The second Neighborhood Meeting was held on September 21<sup>st</sup> at the Facilities and Grounds building on Court Street. Meeting materials presented that evening have been uploaded to the City's website for those who are interested in where the design stands. The project is expected to go out to bid at the end of 2023 and construction is expected to begin in early 2024.

Stormwater and Flood Resiliency Utility: The Dover Utilities Commission (DUC) and Ordinance Committee held two joint meetings this month to review a draft of the proposed ordinance. On September 28th, the Ordinance Committee voted unanimously to recommend the Stormwater and Flood Resiliency Utility Ordinance to the City Council for adoption. The first reading of the ordinance will occur in November with vote in December. If enacted as currently envisioned, the utility would begin at the start of the 2025 fiscal year on July 1, 2024.

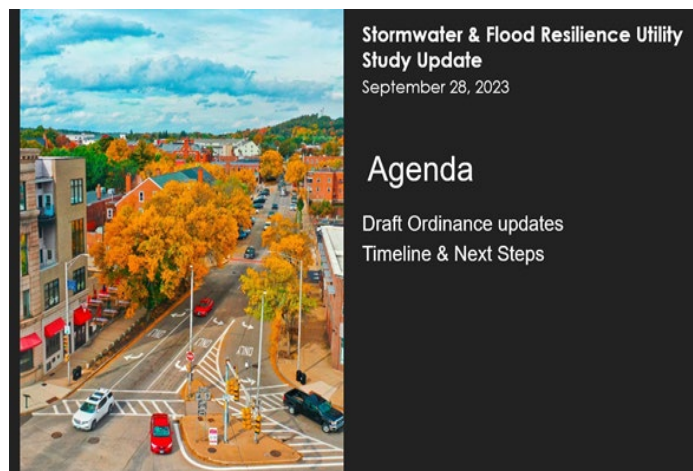


Figure 3: Presentation materials for the Stormwater Utility

Court Street Emergency Sewer Repair: Community Services Engineering and Operations staff worked together on the emergency repair of a collapsed sewer main within Court St. The existing 24-inch pipe failure was discovered last year during the data collection phase of the Court Street Reconstruction Project. The new sewer main has been installed, tested, and is in operation. The restoration of the road has been completed to a condition which should permit the City to maintain the roads through the winter until the total roadway reconstruction project can start in early 2024.

Waterfront Redevelopment: The City's contractor, Northeast Earth, continues to mobilize equipment at the Waterfront in anticipation of starting in-water work in fall 2024 as well as blasting for additional bluff removal.

Site security has been improved due to the temporary closing of the public paddle dock and temporary relocation of the Great Bay Rowing Club to Hilton Park.

Stormwater, water and sewer installation work is progressing from the intersection of Washington and River Street south towards the City's dredge cell and Maglaras Park.

The temporary relocation of existing overhead power and communication utilities connections are being coordinated with the utility companies to allow for vegetation and tree removal to occur along the shoreline.

River Street Pump Station Upgrade: Waterline Industries Corporation was the selected bidder for the River Street Pump Station Improvements Project. They are prioritizing submittals for long lead time items, several of which have already been reviewed and released. Improvements to the pump station are expected to take 18 months to complete and coincide with the Waterfront Infrastructure Improvements project.

Smith Well Road Elevated Tank: Construction of the tank pedestal is complete and fabrication of the tank continues at ground level. The Contractor will complete as much work as possible at ground level before the tank is lifted onto the pedestal which is anticipated to occur at the end of October.

Installation of watermain, sewer, and drainage on Smith Well Rd will continue through the fall of 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.



*Figure 4: Drainage pipe installation within future waterfront street network.*



*Figure 5: New Tank being welded in preparation for raising to the top of the pedestal.*

Garrison Hill Water Tank Rehabilitation: The City's consultant, Underwood Engineers, continues to advance the plans for the Garrison Hill Water Tank. Ninety percent drawings were submitted to the City for review and comment. It is anticipated that the tank rehabilitation will be ready for bid in early 2024 and under construction by fall of 2024.

Street Paving Program: Engineering staff coordinated with the Streets and Drains Division to select roads for routine maintenance (crack sealing). A request for bids (RFB) for crack sealing was released in August 2023 with bids due September 21, 2023. One bid was received and a recommendation to award is to be heard at Council in mid-October. It is anticipated that the crack sealing will begin shortly after award and continue through the fall of 2023.

Sidewalk Improvements: Engineering staff developed a Request for Proposals (RFP) for the assessment of the City's sidewalks to help inform future sidewalk reconstruction projects. The RFP was released in early August and bids opened in September. Green International Affiliates, Inc. was selected as the firm to complete the assessment which Engineering staff anticipates lasting from the fall of 2023 through the spring of 2024. The assessment aims to establish 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 improving ADA accessibility.

#### Traffic Signal Management

The City's traffic engineering consultant, Sebago Technics, held 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. In September a discussion was had focusing on accessibility improvements to pedestrian crossings at intersections with a representative from the NHDOT.

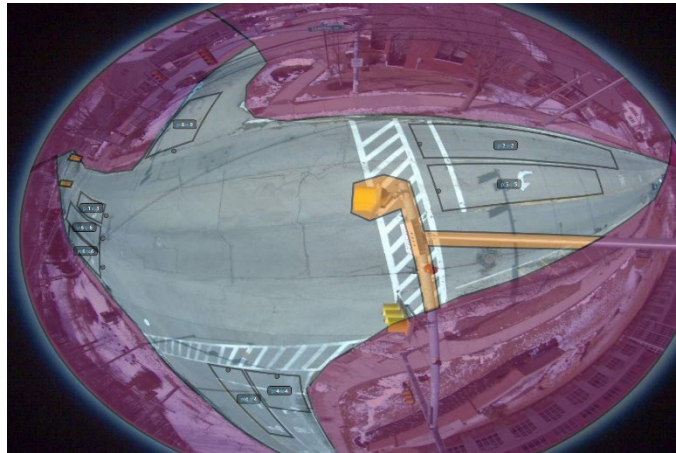


Figure 6: Typical Image from a network City traffic camera.

Cocheco Stormwater Master Plan: Engineering staff met with the NHDES and the City's consultant Kleinfelder on September 25<sup>th</sup> 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. The City's consultant is in the process of developing a Technical Memorandum with a recommended drainage system layout that will serve as the basis of design for the Oak, Ham, and Ela Neighborhood reconstruction (+/- 100 acres). It is anticipated that the design for the neighborhood reconstruction will begin in 2024.

**Facilities Projects:**

**Fish Ladder Park:** City Operations staff excavated trenches, installed conduit and set light pole bases for decorative lighting that will be installed in late October. York River Landscaping is adjusting the grade of the park to accommodate a new brick walkway. Brick walkways are expected to be completed by the week of October 15<sup>th</sup>. New park landscaping, including trees and shrubs, has been installed along with landscape fabric and bark mulch to finish off the planting beds.

**Inspection Services Expansion:** The City Council voted on September 27<sup>th</sup> to award the design-build contract to Martini Northern for the Inspection Services Expansion at Mast Rd. Their proposal included what the selection committee felt was a very thorough design concept and well thought out project schedule. Moving forward city staff will work with the team at Martini Northern to finalize the location of the new building and the best design for that space. Construction is planned to begin in early 2024.



*Figure 7: Computer rendering of the new Inspection Services Building at the City's Mast Rd Facility.*

**Skate Park:** The construction of the skate park elements has been completed, a ribbon cutting event is planned for October 21<sup>st</sup>. MacKinnon and Sons Excavation is working on the completion of grading around the park elements and the installation of a stormwater bioretention basin. Tri-State paving will install sidewalks from the entry apron to the upper side of the park where a future pavilion will be constructed.

**Permits:**

**Permit Summary for September 2023:**

Driveway Permits:	13
Utility Licenses:	2
Paving Licenses:	2
Excavation Permits:	6
Certificate of Occupancy Inspections:	8
Construction:	1
Obstruction Permits:	6

**Site Review/Project Oversight Support:**

**Technical Review Committee:** Two (2) projects came to TRC in September that required Engineering review:

- 256/264 Central Ave.: Site improvements to support the redevelopment along Central Ave.
- 180 Tolend Rd: Construction of a 104 ft wireless telecommunications facility.



Figure 8: Sophie Dr. nearing completion.



Figure 9: New medical office building on Durham Rd.



Figure 10: New residential structure at Arbor Woods..

**Wastewater Permit Review Summary for September 2023:**

Sewer Connection Permit:	1
Septic Design Reviews:	3

**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.)
- Copley Commons Subdivision (Leathers Ln.)
- Tiny Home Development (Back River Rd.)
- Copper Drive Subdivision (New Rochester Rd.)
- Sophie/Banner Drive Subdivision (Bellamy Rd.)
- Goosetail Dr (757 Central Ave)
- 725 Central Ave Development (Central Ave and Brick Rd)
- Medical Office Building (Durham Rd)
- Residential Subdivision (Wildcat Dr)
- 42-44 Third St Redevelopment (Former Asia Restaurant)

There were no preconstruction kickoff meetings in September.