# **Report for the City Manager**

## **Community Services: Engineering**

Date: February 10, 2025

The purpose of this document is to summarize the work the City of Dover Engineering Division of the Community Services Department from January 1<sup>st</sup> through January 31, 2025.

### Staff Profile: Jordan Chambers

Jordan Chambers, a dedicated and valuable member of the City of Dover's Engineering Department, has five years of experience in municipal work to his role as Engineering Technician. His diverse background with the City provides him with a unique perspective and practical understanding of Dover's infrastructure and development processes.

Jordan's career with the City began with the Utilities crew, where he honed his skills in essential services such as water and sewer repair, main break response, and snow removal operations. This experience instilled in him an understanding of the city's utility systems and the challenges involved in maintaining them. He is a CDL Class B operator, further enhancing his ability to support various city operations.

For nearly three years, Jordan has served as an Engineering Technician, where he plays a crucial role in ensuring the quality and compliance of private development projects. He acts as the Engineering Division's representative, observing construction activities and working closely with civil engineers and

contractors. His focus is on verifying that projects adhere to Planning Board-approved plans, contributing to the orderly growth and development of the city.

Jordan's responsibilities also include the review and approval of various permits, including obstruction, excavation, driveway, and utilities/paving licenses. Furthermore, he holds certifications as a Stormwater Inspector and a Job Site Inspector, demonstrating his commitment to environmental protection and quality control.

A lifelong resident of Dover, Jordan is deeply invested in the community. Beyond his professional contributions, he is actively involved in local basketball. He coaches the Dover High School freshman boys' team, referees' youth programs, and enjoys playing the sport himself. His dedication to mentoring young athletes reflects his commitment to the city's future.

Jordan Chambers is a valuable asset to the City of Dover, combining his practical experience, technical expertise, and community spirit to serve the residents of Dover effectively.



Tim Puls, PE – Environmental Project Manager



Figure 1: Engineering Technician Jordan Chambers.



### Staff News:

#### NHWWA:

Waterfront Construction Manager, Jamie Stevens, was nominated and received the official chair position of NHWWA on January 16, 2025. Join us in congratulating Jamie on the honor.

#### NEWEA:

Deputy City Engineer Jillian Semprini, City Engineer Ken Mavrogeorge, and Environmental Project Manager Tim Puls attended the NEWEA Annual Technical Conference in Boston on January 27<sup>th</sup>. The conference includes a day full of training seminars on various engineering topics focused on water.

#### Board, Committee, and Commission Support:

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.



Figure 2: Waterfront Construction Manager Jamie Stevens accepting the official chair position of NHWWA.

<u>Dover Utilities Commission (Krystian Kozlowski)</u>: The Dover Utilities Commission (DUC) met on January 27th. There was no meeting in December. Topics discussed at the meeting included the following:

- Abatement Review Team Report
- Utilities Report
- Finance Report

There were no abatements heard by the Commission at the meeting. The next meeting is scheduled for March 3, 2025.

<u>Transportation Advisory Committee (TAC) (Jillian Semprini):</u> TAC did not have a quorum for the January 27, 2025 meeting. The next meeting is scheduled for March 24, 2025.

<u>Planning Board (Ken Mavrogeorge)</u>: Planning Board met twice on January 14<sup>th</sup>. The first meeting was a meet and greet with the other Dover boards and commissions for their annual update and the second was a regularly scheduled meeting. Topics on the January agendas included:

- City-wide Conservation and Open Space Chapter update
- Natural Resource Inventory Update
- Discussion of Land Use Amendments/Goal Setting
- Various lot line adjustments and subdivision plans
- TDR applications for a project on Court Street

A site walk for the Court Street project was also held on January 11<sup>th</sup> with abutters and citizens interested in the project.

Municipal Alliance for Adaptive Management (MAAM) (Director John Storer and Tim Puls): MAAM did not meet in January. The next meeting is scheduled for February 13, 2025.



<u>Seacoast Stormwater Coalition (SSC) (Tim Puls)</u>: The SSC met on January 15<sup>th</sup>. Topics of the meetings included the following:

- 2026 EPA Multi-Sector General Permit
- 2024 Massachusetts Draft Small MS4 General Permit Overview
- LPCP Year 7 Requirements

The next Coalition meeting is scheduled for February 19, 2025.

#### <u>TIF Advisory Committee/Cocheco Waterfront Development Committee (CWDAC)/Park</u> <u>Subcommittee (Jamie Stevens):</u>

• CWDAC Park Sub-committee met on January 21<sup>st</sup> at the waterfront site for a tour.

### 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 Engineering related calls year to date and over the past month.

Time Period	Logged Service Calls	Resolved Service Calls
Jan 2025	16	17
2025 YTD	16	17

### SAVE THE DATE:

To kick off Public Works Week 2025, Community Services will be hosting a Touch-a-Truck Open House at their 271 Mast Road Facility! The event will be held on Saturday May 17<sup>th</sup> at a time yet to be determined. On and offsite parking will be available with a shuttle to the event being provided. Come meet members of the Community Services Team and see what we are up to!



### 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.

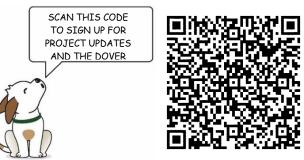


Figure 3: Rover the Community Services Dog and a QR Code to sign up for project specific updates and the Dover Download.



### Addressing the Challenges Facing Dover's Infrastructure: Aging Infrastructure and the Rising Costs of Construction

Across the United States, a silent crisis is unfolding beneath our feet and above our heads: our infrastructure is aging. Roads are cracking, bridges are corroding (some to the point of catastrophic failure), and water systems are leaking. This deterioration, coupled with the soaring costs of construction, presents a formidable challenge to communities everywhere.

The current means of infrastructure investment by the federal government, states and local municipalities is insufficient to maintain or improve on the system. According to the American Society of Civil Engineers (ASCE)'s 2017 infrastructure report card, NH's infrastructure received a grade of C-. The country's overall grade in the 2021 report card was also a C-.

As such, the ASCE continues to advocate for increased investment in the infrastructure of the U.S. According to the ASCE 2021 infrastructure report card, investing in our infrastructure at our current rate will lead to a loss of \$10 trillion in our gross domestic product (GDP), \$2.4 trillion in exports, and more than three million jobs by the year 2039. To break that down further, the ASCE estimates that underinvestment in the country's infrastructure will cost the average American household \$3,300 annually or approximately \$63 per week. In the midst of rising costs of living, deferring maintenance and

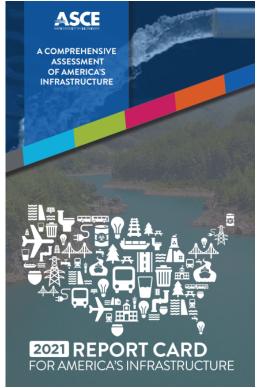


Figure 4: 2021 Infrastructure Report Card by ASCE.

necessary improvements to public infrastructure is not something to take lightly.

#### The Weight of Time:

Much of the country's infrastructure was built decades ago, designed for a different era with lower traffic volumes, less focus on safety standards, less extreme weather, and much smaller populations. Time is unforgiving and eventually takes its toll on the infrastructure we depend on every day. Bridges weaken under the constant strain of traffic, roads crumble from freeze-thaw cycles, and pipes corrode, leading to leaks and even breaks.

#### **Consequences of Neglect:**

Ignoring this decay has dire consequences for communities of all sizes. Consequences include, but are not limited to:



Figure 5: Fifth Street Deterioration in May 2023 prior to reconstruction (via Google).

• Safety Risks: Crumbling infrastructure poses safety hazards to our population, from potholes causing car accidents and injuries, to bridge failures with potentially catastrophic outcomes.



- Economic Drag: Inefficient transportation networks hinder commerce, costing businesses time and money. Water leaks waste precious resources and drive-up costs.
- Diminished Quality of Life: Aging infrastructure impacts daily life, from traffic congestion to water quality issues.

#### The Price of Progress:

Addressing the eventual decay of infrastructure is further complicated by the rising costs of construction. These rising costs



Figure 6:Water main break in Central Ave near Second Street from November 9, 1993.

make it more difficult to complete necessary projects within existing budgets that were estimated sometimes years before the project even made it to the design phase. When this happens, the City is forced to prioritize carefully, often delaying or scaling back essential maintenance and upgrades. The rising costs of construction include but aren't limited to the following:

- Material Costs: The price of essential materials like steel, concrete, and asphalt have increased due to supply chain disruptions, inflation, and increased demand.
- Labor Shortages: A scarcity of skilled labor in the construction industry is driving up wages, adding to project expenses.
- Regulatory Burden: Meeting modern environmental regulations and building codes, while important, does increases project design costs, complexity, and construction cost.

#### A Perfect Storm:

The combination of aging infrastructure and escalating construction costs creates a perfect storm. Communities struggle to fund necessary repairs and upgrades, leading to a cycle of deferred maintenance and further deterioration. This situation is unsustainable, threatening both safety and economic well-being.



Figure 7: 1880s vintage 4-inch cast iron water main within Angle Street that is being replaced due to repeated failures. The pipe's capacity has been reduced significantly due to build up within the pipe.

#### **Finding Solutions:**

Navigating these challenges requires a multi-pronged approach including the following:

- Increased Investment: Governments can prioritize critical infrastructure spending, allocating funds for repairs, upgrades, and new construction based on sound estimates for construction cost.
- Innovation and Efficiency: Embracing new technologies and construction methods can help reduce costs and improve project delivery.
- Long-Term Planning: Developing comprehensive infrastructure plans that anticipate future needs and prioritize critical projects, like Dover's Capital Improvement Plan, is essential.



- Public-Private Partnerships: Exploring partnerships with the private sector can leverage expertise and resources to fund and construct infrastructure projects.
- State and Federal Government Funding: By exploring the various programs available at the state and federal level, local governments can move projects up the priority list.

#### What Happens if Federal Funds Dry Up?:

The last bullet above regarding state and federal funding plays a crucial role in supporting some of Dover's most significant local infrastructure projects. Grants and reimbursements from programs like the American Rescue Plan Act of 2021 and the Bipartisan Infrastructure Law help communities like Dover finance critical improvements to roads, bridges, water systems, and other essential infrastructure.

No municipality should rely on the federal government funding alone to maintain their infrastructure but having the ability to seek funding support can help get critical projects into construction years before local funds could be allocated. This ultimately ends up saving municipalities money on construction costs.



*Figure 8:Interior of the new Pudding Hill Water Treatment Plant that treats upwards of 1 MGD of drinking water.* 

For example, Dover's newest water treatment plant at Pudding Hill was constructed at over \$15 million with funds from a private responsible party and the state Department of Environmental Services using ARPA funds. That means the City of Dover was able to withdraw and treat upwards of 1 million gallons per day of groundwater or approximately 40% of the daily City demand.

Without federal support, a significant portion of the plant's construction would have fallen on the City to fund through its citizens. This example highlights how the possibility of a federal funding freeze poses a challenge for the City moving forward. A funding freeze would have a direct impact on Dover, potentially leading to:

- Project Delays or Cancellations: Projects that have already received federal funding could be delayed indefinitely or canceled altogether if City funds could not be secured to offset the loss of previously allocated funds. This could postpone much-needed repairs and upgrades, potentially leading to further deterioration and higher costs in the long run.
- Increased Local Burden: Without federal assistance, the burden of funding infrastructure projects would fall squarely on local taxpayers.
- Deferred Maintenance: A funding freeze could force us to defer routine maintenance, leading to a backlog of repairs and potentially compromising the long-term integrity of our infrastructure.

#### **Moving Forward:**

To mitigate the impact of these challenges, it is strongly recommended that the City continue to lead the charge in taking proactive measures including:

• Explore Alternative Funding Sources: We should encourage more civic engagement and expansion of alternative funding mechanisms, such as public-private partnerships, grants from state and local organizations, and innovative financing strategies.



- Advocate for Continued Federal Support: We must actively engage with our federal representatives to advocate for continued funding for critical local infrastructure projects that have significant benefit to the general public.
- Prioritize Critical Projects: We must continue to develop and maintain a clear and prioritized list of critical infrastructure projects, ensuring that available resources are directed where they are most needed.
- Long-Term Infrastructure Planning: We need to continue to develop a comprehensive long-term infrastructure plan that anticipates future needs and identifies sustainable funding solutions.

By addressing these challenges head-on, we can ensure that Dover's infrastructure remains safe, reliable, and capable of supporting our community for years to come.

and the	2015, Pri 20	16. Pt 2026, P	1816,716	( Calennis	highter
-	High	4-100p		*	Hough Govert Gulvert, Replacement
433966	High	2 High		WWTP	E2088 - WW System Improvements - WWTP - Capacity Liggrades, Institutest
62241	High	3 High	daw??	- WWTP	WWP - W Diselection
433.99	High	4 High		WWTP	22039 - WW Kystern Improvements - WWTP Capacity Upgrades - Numeric Removal 62032 - Water Tank - Smith Well
43324	High	5 cm 6 Hgh	DOF:	- Materials Management	62232 - Water Tank - tankti (Well Glee Hill Ril Stonge Rank
10100	High	a night	-	Matrix Maragement	Garenwaten Ahling
13322	High	8 400	100		Publicg Hill - WIP
43230	High	9 prog	0416		Watewater PS Avaluation - Matter Planning
	angle .	dia manan			Annual and the Control Annual Annual Control Manter Ray
413.96	High	11.000	eon.		62346 - Weterheat inflastructure
6321.1	High	12 mm	600		62211 - WW System Improvements - River St WW Aurop Station Rehabilitation
42304	High	13 000	000		E2381 - Asset Management - SCABA Radio Replacements & Upgrades (W/WW)
6231.8	High	34 can	608h		62113 - Retaining Ittall Reconstruction - Portland Ave
42303	High	15 ean	608-		12393 - Street Reconstruction - FRN 10/Snave R
62202	нур	36 Med		Street Respectruction	62362 - Street Reconstruction - Court Stylunion St
63374	High	32 High		Utility Upgrade	E2234 - Water listers improvements Highland M. (and and Export)
62221	High	18 Mied		Street Respectruction	62331 - WW System Improvements - Phase Climfow & Infitration Removal
43,581	High	29 High 20 High		Exclusion	E2081 - Water Bystern Improvements - Statter Madei Calibration E2080 - Witi System Improvements - Sanitary Seven Model Update and Calibration
62820	High	J1 Med		ficilitation	12281 - Will Syller's Inprovements - Sanitary Sever Woold Uplante and Calibration New Succili Space Development
41.004	High	32 High		Street Respectivelian	12288 - Steet Reconstruction - Henry Law Ava/Now: M
621801	High	23 High		Exakation	French Cross WIP, Hughes Well, Bauchard Well Study
42,365	High	34 Line		Water Facility Upgrade	12245 - Writer lysters improvements - magters theil Refusioitation
THD	High	25 High		Utility Upgrade	WM-Littlewarth, Columbus to French Cross
423-48	High	36 High		Curlat	E2243 - Norm Sever System Ingrovements - Cocheso St - Outful
62228	High	37 High		Materials Management	E2029 - Environmental Compliance - Dredge Cell Closure
62324	High	27.5 High			Tolena Na - Lavatila
6221.0	High	28 High		Water Facility Ubgrade	E2232 - Water System Improvements - Garrison Tank Rehabilitation
6281.5	нур	29 High		Street Resonation	E2015 - Steet Reconstruction - Lower Central Ave
110	High	AD High		Unitry Upgrade	WM- Chestruct ander RR tracks
622342	нур	as nigh		Street Respectruction	62232 - Steet Reconstruction - Third R/Chestrad R (Incl. NHDD? Roundshout)
62369	High	\$2 mgh		Utility Upgrade Parms Station Lingrade-	E2089 - Water Butters Improvements - Control Ave (Control Cont Ph 1) WM Replacement E2067 - WW System Improvements - MB St PL Rehabilitation
12,751	нар	83 High 84 High		Paring Station Liggrade	12242 - Will System Ingeneeriests - Mill Straderaultation 12248 - Will System Ingeneeriests - Charles III FM-Rehabilitation
62261	High	85 High			10 E224E – Starra Sever System Ingeneeren II Portland Ave Calvert Replacement & Emboriment Stabilization
62368	Hall	86 High			a 1224 - Bridge Replacement - Sulti M
62262	High	12 Hah			1 62262 - Starry Sewer System Ingerwenerts - Sich Staver Neyners Brook
12277	Hah	46 High		Street Reconstruction	12277 - Streat Recentmetters - Central Averilias and
16.2	High	47 High		Utility Upgrade	Whit-Lacust R. Silver to West ington
180	High	48.1927		Utility Lograde	Wild - Locust, St Silver to Control (port up a joint Trainty to Control - because Silver to Trainty is AC7)
12221	High	491621		Utility Upgrade	13271 - Water System Improvements - Mount Vernan St. (Loveli to Sich St
12005	Med	50 Med		Utility Upgrade	12006 - Water System Improvements - Littleworth Rd WM Replacement
16364	Mec	S1 LOW		Street Reconstruction	20904 - Street Reconstruction - Duk Street Reconstruction
180	Med	52 Mid		Street Reconcincetion	Street Reconstruction - Darbarn Rd, Allarmin RJ to Mast Rd - congestion militation rests 138
12280	Mec.	S8 Mid		Street Reconstruction	12260 - Service Nece restruction - Adamic Ave
12222	Mexi	54 High 55 alterative		Linkly Lippace	12223 - Wild System Improvements - Mariney Robot/Did Dever Point Server Int 12223 - Wild System Improvements - Mariney Robot/Did Dever Point Server Int
12276	Nec	50 JOSOTOR	- adecraed	Unite Gaucale	12272 - Storm Saver System Improvements - Central Ave Drainage (Old Rollins, to Oth St) 82286 - Water System Improvements - Chapel 31,3 Pertianal Ave WM
12264	Vec	58 Med 57 Med		Street Reconstruction	12254 - Servet Reservation - Home Servet (A, WW, SS)
180	High	58.1425		Unite Lagrade	Reference Street metal sector of the advert (P), Prov. By
12289	Vec	50 Med		Famp Station Upgrade	12299 - Will System Improvements - Pump Station Upgrade - Children's Viuseam
18.2	Hall	60 High		Litate Logiale	Trately M. seven
22306	Nec	61 Med		Street Reconstruction	12306 - Street Reconstruction - Jeanses Stite Darhem Rd (W.WW.SS)
12156	Med	62 High		Intersection Improvement	Control & Lacest_Drospecit
12264	Med	63-14gh		Street Reconstruction	12264 - Street: Receivation - Rutland St
12.029	MHI .	N4 MH		Unitry Upgrade	EXTRE - WW system improvements - No the End Severy
12365	Mec	65 Low		Sidewalk	12308 - Asset Management - Sidewalk Construction - Dover Faint Road
TED .	Med	66 Med		Street Reconstruction	With & Rd Reconstruction - Nashington, Central to Taylor Le
162	Mec	67 High		Parap Station Upgrade	Wentworth Ter 15 Upgnede
12252	Med	GE Mod	_	Street Reconstruction	12252 - Saroot Rocc vatuation - Is wat DryNo Maid DryNartowood Rd
12215	Law Law	70 MH		Intersection Intersection Street Reconstruction	12233 - Intersection Improvements - Dever Point Pd Recordidend
12275					122% - Street Reconstruction -Washington St to Silver Sylverh St to Locart St 122% - New York State Reconstruction State Street State State Street St
13227	Low Low	72		Utility Upgrade	12275 - Storm Seven System Improve mento - Old Rochester Rd Großen Brook Drite Oxfore St. 12277 - Water/WW Extension - Durham Rd
12785	Low .	78	_	Polyating Cognical	12221 - Yorkeyvery later have - by transfer 12285 - Storm Soviet System Improvements - Drew Rd - Culvert System inn
12,265	Law	74		Street Reconstruction	12306 - Street Reconstruction - Proceeding-Alliack River (A/M/A/SS)
12286	Line	3		Utility Lograde	12/02 - Water System in a constant of the second state provide the second state Party state in the second state of the second
12231	Law	76		Utility Upgrade	12231 - Storm Seven System Improvements - Chapel Street Ravine (Cocheco Duthill Ph.2)
1228.5	taw	77	_	Street Record twellow	Downtown Pedecician & Vehicle Improvements
	Law	78		Sideverik	12307 - Asset Management - Sidewalk Construction - Outer Sixth Street
12167			_	conditive tapographie	13.51.5 - Maarin Jarweit Nytteen begacue terrers - typicary/tangle wated
12067	Link	79			
12167		79 60		Water Fed Ity Upgrafe	Smith Well fid Tank Dooster Fump
12367 +2414 12365 +2415	Line Line Line	80 81		Water Fed Ity Upgrafe	(2011) - Accel Management - Scandwalls - Renarch Masting
12367 62414 12363	Linv Low	60			

Figure 9: The Engineering Staff meets regularly to update their priority project list.



### Engineering Projects:

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

#### Fifth and Grove Reconstruction:

The City's contractor, N. Granese and Sons, has largely ceased work on the Fifth and Grove project for the winter with the exception of some electrical work including the installation of decorative lighting within the project limits. Work is expected to resume in the spring with the construction of sidewalks, tying in driveways, top coat of pavement and landscaping.

#### Cochecho Waterfront Redevelopment:

The relatively mild winter weather allowed the Cochecho Waterfront Development to maintain strong momentum and progress. Key developments for the private and public portions of the project include:



*Figure 10: Work continues on the waterfront with the private buildings inching higher and higher. The foundation of the park pavilion building can be seen in what will become Nebi Park.* 

#### Private Improvements:

Significant vertical progress continues on all buildings.

- Building "C": Fifth-floor framing is approaching the halfway point, and a portion of the ground floor slab has been completed.
- Building "D": Fourth-floor framing is nearing completion.
- E-3 Townhomes: Rough exterior construction is nearly finished.
- E-1 Townhomes: Rough exterior framing for the 11-unit building is complete.
- E-2 Townhomes: Rough framing is expected to begin in the coming weeks.



Public Improvements:

- Flex MSE Treatment: Completed at station 1+00 along the shoreline, with a small remaining portion to be finished after the granite bridge deck stairs are installed.
- Granite Toe Wall: Construction is underway on the north (upriver) side of the existing bulkhead.
- Seaport Way: Water and sewer installations are complete within the right-of-way.
- Utility Relocation: Eversource has relocated poles and associated wiring, and the sole telecom vendor has relocated their services. Existing poles and guide wires have been removed, allowing NEEM to proceed with remaining drainage and road improvements.
- City Park Pavilion: Frost protection has been installed to safeguard the foundation's interior.
- RAP Closure Grading: Well underway around the Pavilion building to facilitate the pre-RAP survey.
- Power Supply: The City continues to coordinate with Eversource. Temporary poles were installed on Payne Street and Lower Washington Street this month. NEEM's electrical contractor, Yates Electric, installed the remaining conduits and risers to the Payne Street temporary pole. Eversource is expected to provide temporary power to the construction site in the coming months.
- Material Processing: Onsite material crushing continues, providing processed materials for the City's infrastructure elements.
- Building "F" Footprint: Subgrade improvements are ongoing. Stockpiled RAP materials from the Cathartes' work area are being moved to the dredge cell area for stockpiling.

#### Non-destructive Testing of Traffic Signals:

In December, the City entered into an agreement with John Turner Consulting (JTC) for non-destructive testing of traffic signal infrastructure. This testing was recommended by a citywide traffic signal assessment conducted in 2023. The City expects that the nondestructive testing can identify which traffic signal infrastructure is in greatest need of replacement. The recently approved CIP has money set aside for annual signal upgrades that are long overdue. Disruptions to traffic are not expected during the assessment by JTC. Work on this project will get underway in mid-February.



Figure 11: Central Ave and Washington Intersection Signals. The structural components of the signals will be inspected with nondestructive testing methods.



#### Sixth Street Bridge:

The Sixth Street Bridge over Blackwater Brook was constructed in 1937 and consists of a 14-foot concrete box culvert. According to the latest NHDOT Bridge Inspection Report, the condition rating is rated in 'poor' condition, and the bridge was placed on the NHDOT Municipal Red List in 2010 due to its deteriorating condition. In December, a contract was awarded to VHB for the assessment, design, and permitting for a replacement bridge. Survey field work began in December.

Engineering staff met with VHB in January to discuss preliminary findings and alternatives that were under consideration. The timeline for construction is heavily dependent on how soon permits can be obtained but



Figure 12: Sixth St. Bridge Replacement Project Limits.

the City hopes that a replacement bridge can be constructed in 2025 with minimal disruption to the traveling public.

#### Angle St Water Main Replacement:

Special Project Advisor Bill Boulanger has been developing a project to replace a water main on Angle Street which runs between Central Ave and Academy Street. In addition to a new water main, perforated underdrain will be installed to alleviate high groundwater issues within the roadway. Work on the project began at the end of January by SUR and is expected to last 4-6 weeks depending on weather and other unforeseen site conditions.

#### Mill St Pump Station Reconstruction:

In January, engineers from Woodard & Curran met with CS staff to review their alternatives analysis for the Mill St Pump Station and their recommendations. The alternatives analysis, which compares three alternative designs, has been finalized by the consultant. Based on discussions with the City, a fourth alternative is being investigated that could, if feasible, reduce the burden on the Charles Pump Station and the River St Pump Station. The City expects to receive an outline for the final design scope of services that are recommended by the consultant by mid-February.



#### Annual Street Paving Program:

Deputy City Engineer Jillian Semprini has been working closely with Public Works Superintendent Brian Landry to develop the annual Street Paving List for 2025. Engineering staff have been utilizing the Pavement Condition Index Report conducted in 2022 to prioritize streets for rehabilitation. Street improvements range from a simple overlay of a thin course of pavement to a full depth reclamation.

Garrison Hill Water Tank Rehabilitation: Sargent Corporation was the low bidder and was awarded the project in January. Work is expected to begin in the spring to allow time to get the tank back and running in time for the larger demand

Street	From	То	Avg. Width (ft)	Approx. Length (ft)
BACK RIVER RD	PISCATAQUA RD	DURHAM RD	34	8284
ALUMNI DR	BELLAMY RD	DURHAM RD	26	1783
BAKER ST	EAST CONCORD ST	BROADWAY	28	856
DOVER ST	PARK ST	EAST ST	33	555
EAST CONCORD ST	HAM ST	HILL ST	28	871
ELA ST	PEARL ST	OAK ST	20	452
EVERETT ST	HAM ST	BAKER ST	28	482
IVANS LN	DOVER POINT RD	END	24	608
OLD DOVER POINT RD	DOVER POINT RD (E)	DOVER POINT RD (W)	22	1675
ASH ST	END	CENTRAL AV	25	1570
GLENWOOD AVE	CENTRAL AVE	GLENCREST AVE	20	1240
HOUGH ST	HORNE ST	HILLCREST ST	24	515
REDDEN ST	OAK HILL DR	HORNE ST	22	2785
OAK HILL DR	REDDEN ST	REDDEN ST	30	1026
HORNE ST	ASH ST	GLENWOOD AVE	26	2848
LINCOLN ST	GROVE ST	CHESTNUT ST	28	613
ELMWOOD AVE	END	OAK ST	20	798
FAIRVIEW AVE	OAK ST	ELMWOOD AV	21	761
CROSS ST	ATLANTIC AV	ELMWOOD AV	20	2008
BELKNAP ST	WASHINGTON ST	SILVER ST	24	1277
FOLSOM ST	CUSHING ST	BELKNAP ST	29	419
ANGLE ST	ACADEMY ST	CENTRAL AV	22	295
SILVER ST	178 SILVER ST	ROUNDABOUT	38	800
HENRY LAW AVE	PAYNE ST	BACK ROAD	22	5310

Figure 13: Preliminary Street 2025 Street Paving List.

later in the year. The rehabilitation of the tank is possible due to the construction of the new elevated tank brought online earlier in 2024.

#### Garrison Hill and Oak St. Water Main:

Special Project Advisor Bill Boulanger is working with engineering firm Underwood Engineering to design water main improvements in the Broadway area. The water main will run first from the Garrison Hill Tank down to Oak St. Then, from Oak St the water main will head east down towards Broadway before heading south towards Florence St. These water main upgrades will address numerous water main breaks that have occurred recently in this area due to pipe beyond their useful life. It is anticipated that the water main will be under construction summer of 2025 in conjunction with the improvements at the Garrison Hill Tank.

#### Traffic Signal Management:

CS and IT staff have been meeting with vendors regarding new technologies for traffic detection at intersections. The traffic cameras that the City currently uses are nearing a quarter century in age and staff are in the process of determining what improvements can be made to signalized intersections to improve traffic flow and resident experience.

#### Website Updates:

Engineering staff met with Media Services to discuss improvements to the City's Engineering webpage. The most notable change is the addition of monthly reports to the City Manager on the Engineering page.

#### Bicycle-Friendly Streetscape Guidelines:

Engineering staff is currently working with other City Departments to review and update the Bicycle-Friendly Streetscape Guidelines document. It is expected that improvements to bike and shared lanes will be rolled out in 2025 in accordance with the revised plan.



### Facilities Projects:

#### Library Renovation:

The library renovation project is underway. On January 15th, the City Council awarded the construction contract to Bonet, Paige & Stone (BPS). Staff met with BPS on the 16<sup>th</sup> of January to discuss project logistics and identify library areas that needed to be cleared. It was determined that wheels could be added to several shelving units to make them mobile. Facilities, Grounds, and Cemeteries (FGC) staff assisted with constructing the mobile shelving, which will allow for easy relocation within the building. During the week of the 27th, movers were hired to transport furniture and books to the temporary library location in the McConnell Center, which was scheduled to open on February 3rd.

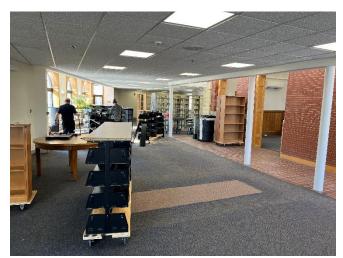


Figure 14: The library renovation is about to start ramping up.

BPS plans to mobilize for construction in mid-to-late February by installing a construction fence around the work area. During construction, temporary traffic and walkway patterns will be implemented to ensure safety in the parking lot.

Facilities Project Manager Eric Sanderson is scheduled to meet with various city departments and tenant groups in the McConnell Center to inform them of the upcoming changes. As construction begins, signage will be installed to guide patrons during this period.

Jenny Thompson Pool Renovation: In January, the pool rehabilitation project reached another milestone with selection of Northeast Earth Mechanics (NEEM) to complete the necessary repairs and renovations to the outdoor pool.

The City Council approved the selection NEEM as the contractor at its January 15th meeting. City staff will work with NEEM in the coming months to finalize project schedule. The plan is to close pool at the end of the 2025 season (end August) to allow demolition crews to remove existing features before



Figure 15: Jenny Thompson Pool.

construction crews begin installing new ones. Final construction will be completed in the spring of 2026, with the pool reopening in June.



#### Inspection Services Building Construction:

Construction of the Inspection Services building at 269 Mast Road is nearing completion. Insulation, drywall, and painting are finished, and crews are preparing to install flooring and the drop ceiling. In February, contractors will complete remaining tasks, including the installation of plumbing fixtures, cabinets, and doors. The project is on schedule to be turned over to the city at the beginning of April.



Figure 17: Security upgrades are nearing complete at various facilities around the City.

Municipal Security Upgrades: The City has contracted Allied Universal Systems to design and install security cameras and access controls in several city buildings. Electrical crews have installed new wiring at the McConnell Center and the Community Services Building. Technicians are now installing door control equipment. Following the design phase, wiring and equipment will be installed at other city locations.



Figure 16: Interior of the new Inspection Service building on Mast Road is moving

Facilities Project	Status
Inspection Services building (New Construction)	In Progress
Library Renovation	Pre-Construction
Jenny Thompson Pool Renovation	Pre-Construction
Municipal Security - Access controls and CCTV	In Progress
Public Works Facility HVAC upgrades	Pre-Construction
Dover Indoor Pool lighting upgrades	Planning
Dover Ice Arena Generator Installation	Planning
Rotary Arts Pavilion façade repairs	Planning
City Hall HVAC replacement	Planning
Water system tube gate replacement	Planning
McConnell Center Boiler replacement	Planning
Garrison Hill Park Improvements	Planning
Input new assets into Asset Management Program	In Progress
Create Maintenance plan from closeout documents	In Progress



### Permits and Licenses:

#### Permit and License Summary for January 2025:

	0				
Driveway Permits:	0				
Utility Licenses:	4				
Paving Licenses:	1				
Excavation Permits:	2				
Certificate of Occupancy Inspections:	5				
Construction:	2				
Obstruction Permits:	1				
Wastewater Permit Review Summary for January 2025:					
Sewer Connection Permit: 0					
Septic Design Reviews: 2					



Figure 18: Lenox Dr.

### 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 the final quarter of the year that required Engineering review:

Figure 19: Education Way Redevelopment.

- 30 Grapevine Drive McDonald's
- 239 Knox Marsh Road 264 units including an 84-unit hotel.

#### Preconstruction Meetings:

There were two (2) preconstruction meetings held between January 2025.

- Locust Street Residential
- 56 Sixth Street Storage Facility



#### 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:

- Goosetail Dr (757 Central Ave.)
- 725 Central Ave Development (Central Ave and Brick Rd.)
- Northeast Credit Union (Education Way)
- Emerson Ridge (Old Oak St.)
- Ember Dr (New Rochester Rd.)
- Mixed Use Residential The Station (2 Grove St)
- Waterfront Private Development
- Chase Bank on Central Ave
- Pointe Place
- Fisher St. Residential
- 48 Whittier St. Residential
- McIntosh Commons
- 59 Tolend Rd.

