

**MEMORANDUM**

---

**TO:** Housing Needham (HONE) Advisory Group  
**FROM:** Katie King, Deputy Town Manager  
**SUBJECT:** Capital Impacts Assessment on Proposed MBTA Communities Act Zoning  
**DATE:** April 26, 2024

---

One component of the Housing Needham (HONE) Advisory Group’s charge, as it creates multi-family zoning that complies with the MBTA Communities Act, is to “evaluate build-outs, projections, and analyses of fiscal, school enrollment, and infrastructure impacts provided by staff and consultants.” The Town’s consultant, RKG Associates, has run six analyses to answer various questions of interest to HONE and to the community:

- **Propensity for Change:** What is the likely number of housing units that will be developed under each zoning proposal?
- **Net Absorption of Multi-family Units:** What is an estimated time frame for this build out?
- **School Enrollment:** What is the estimated number of school aged-children that could result from each of the zoning scenarios?
- **Fiscal Impact Analysis:** On a per unit basis, how will the potential tax revenues from new development compare to the municipal and school operating costs needed to support that development?
- **Tax Implication Analysis:** How does the existing property tax revenue generated from these parcels today compare to the anticipated tax revenue generated under each zoning proposal?
- **Economic Feasibility Analysis:** Can a reasonable variety of multi-family housing types be feasibly developed at a proposed affordability level of 12.5%? This analysis is required by the State for any community that includes an affordability requirement of greater than 10%.

Initial results from each of these analyses have been presented to HONE and are included in RKG’s final report. For context, the chart below compares the number of existing housing units in the proposed area for rezoning with the unit capacity under Needham’s existing zoning and HONE’s two proposals. Unit capacity is a calculation of the maximum number of units that could be built if every parcel started as a blank slate today (no existing buildings) and was built to the maximum allowed under the zoning.

Existing Units	Existing Zoning Unit Capacity	Existing Zoning with Overlay Special Permit Unit Capacity	Base Compliance Plan Unit Capacity	Neighborhood Housing Plan Unit Capacity
775	1,019	1,636	1,868	3,294

This chart summarizes the likely and maximum build out under each plan:

	<b>Base Compliance Plan</b>	<b>Neighborhood Housing Plan</b>
Likely Build Out	222 units, 19 students, 334 – 666 residents <sup>1</sup>	1,099 units, 91 students, 1,703 – 3,297 residents
Full Build Out	1,868 units, 151 students, 2,897 - 5,607 residents	3,294 units, 264 students, 5,106 – 9,882 residents

**Methodology for Capital Impacts Assessment:** Relevant Town departments, including the Finance Department, Needham Public Schools, Department of Public Works (including Engineering, Highway Division, and Water, Sewer, and Drains Division), Building Department, Police Department, and Fire Department, were consulted on the sections of the RKG Associates analyses related to each department. Staff reviewed the anticipated development growth, including projects number of housing units, student enrollment, and population growth, under these zoning proposals. Staff compared the proposals and related analyses to known Town capital infrastructure needs and proposed improvement projects<sup>2</sup> informed by their expertise and the source documents cited in the footnotes and summarized on the last page of this memo. Below are the anticipated impacts on capital projects that are already being planned for and new projects that may result from development under the zoning scenarios.

**SCHOOLS**

**Background:** The School District's current FY25-39 enrollment projection<sup>3</sup> predicts that the District will return to pre-pandemic, 'capacity' enrollment levels within the next 15 years, particularly at the elementary and middle school levels. The largest projected elementary enrollment of 2,628 (FY39) is at the District's 2,634 calculated capacity for its five existing elementary schools. The largest projected middle school class of 1,347 (also in FY39) is close to the middle level capacity of 1,419 students.

To address the 'capacity' conditions of existing schools, the School Department engaged a consultant to develop a master plan<sup>4</sup> for updating aging school facilities and creating enrollment capacity, district-wide. The School Committee's preferred master plan scenario, entitled "High Rock as Elementary School (C1a)", addresses these needs by: a) positioning grades 6 - 8 under one roof at the Pollard School, b) repurposing the High Rock as a sixth elementary school and c) renovating the aging Mitchell School as a smaller, 3-section elementary school. An alternative version of this plan (C3) would leave open the possibility of re-constructing the Mitchell as a 4-section school, its current configuration. The School Committee's preferred master plan scenarios increase the district's elementary and middle school enrollment capacities, largely as a result of re-purposing High Rock as a sixth elementary school. The current anticipated cost of the C1a Master Plan is \$465.8 million, and would begin with a proposed

---

<sup>1</sup> Resident estimates are based on a low and high assumption of people living in each unit type: Studio with 1–2 people, one-bed with 1-2 people, two-bed with 2-4 people, and 3-bed with 3–5 people. These were then applied to RKG Associates' build out assumptions of 10% studios, 45% one-beds, 35% two-beds, and 10% three-bed units.

<sup>2</sup> FY2025-2029 Capital Improvement Plan: <https://needhamma.gov/5495/FY2025-2029-Capital-Improvement-Plan>

<sup>3</sup> FY25 Enrollment Report to the School Committee (December 2023) and McKibben Population & Enrollment Forecast FY25-39 (November 2023)  
[https://www.needham.k12.ma.us/departments/business\\_operations/business\\_office/enrollment\\_growth\\_for\\_ecasts](https://www.needham.k12.ma.us/departments/business_operations/business_office/enrollment_growth_for_ecasts)

<sup>4</sup> Master Plan Extension Update Final Report and Master Plan Update (2023),  
<https://www.needham.k12.ma.us/cms/one.aspx?portalId=64513&pageId=37970530>

renovation/addition project at Pollard, done in partnership with the Massachusetts School Building Authority. A request of \$2.75 million for Pollard feasibility study funds is included in the 2024 Town Meeting warrant.

The new students predicted to result from the “Likely” and “Full” build out of each zoning scenario (in the chart above) represent an addition to the McKibben projections. These students would be distributed across the Sunita Williams, Newman, Eliot, and Broadmeadow districts, with the majority of students projected at Williams and Newman.

The zoning analysis does not predict the grade levels of the anticipated students. Below is an analysis comparing anticipated total school enrollment (McKibben FY39 estimates plus RKG estimates) with capacity under the school master plan preferred scenario. This analysis takes a conservative approach, first assuming that every new student generated from the rezoning enters an elementary school, and then a second calculation assuming that every new student generated enters into middle school.

In the unlikely event that the additional development would result in all elementary-aged students, the maximum elementary enrollment resulting from the “Likely” scenario of the Neighborhood Housing Plan would be 2,719, which is within the 2,854-student capacity of the C1a master plan (with Mitchell as a 3-section school). Additionally, the maximum elementary enrollment under the “Full” model of the Neighborhood Housing Plan (2,892) would fall within the capacity of the alternative C3 model (of 2,983, with Mitchell as a 4-section school). At the middle level, the potential maximum enrollments of 1,438 (“Likely”) and 1,611 (“Full”) under the Neighborhood Housing Plan, would also be within the master plan’s projected middle school capacity of 1,624 students.

In the most recent projection series, McKibben projects a peak high school population of 1,725 in FY35. Needham High School has a capacity of 1,800. In the unlikely event that every student generated from the proposed rezoning entered high school in this peak year, the potential student population under the Neighborhood Housing Plan would be over capacity at the “Likely” build (1,816 students) and “Full” build (1,989 students). Assuming that half of the students generated from the proposed rezoning entered high school in the peak year, the potential student population for the Neighborhood Housing Plan “Likely” build would be 1,770 (30 under NHS’ capacity) and for the Neighborhood Housing Plan “Full” build would be 1,857 (57 over capacity).

**Conclusion:** Based on best available information, the additional students projected under the “Likely” and “Full” build out scenarios for the Base Compliance Plan and the Neighborhood Housing Plan can be accommodated within the School Committee’s preferred master plan scenarios.

Over the next several years, the Needham Public Schools and Town will assess the impact of the MBTA Communities Act on school enrollment as developments materialize. In the short term, if enrollment increases at individual schools need to be accommodated, the district could consider temporary classrooms, redistricting and/or higher class sizes, as needed. In the long term, the School Department can adjust its plans for a renovated Mitchell school to accommodate more or fewer students.

## **POLICE & FIRE**

**Background:** The Town of Needham has recently made significant investments in the capital needs of the Police and Fire Departments. The Town opened a new Fire Station 2 in Needham Heights, at the intersection of Highland Avenue and Webster Street, in the Fall 2021. The Public Safety Building on

Chestnut Street, which houses the Needham Police Department and Fire Station 1, opened in 2022. These stations are located in close proximity to the areas proposed for multi-family housing zoning. The Fire Department's vehicles and apparatus can serve the height and density of the buildings that would be allowed under the proposed zoning, as buildings of this size (and larger) exist in town.

**Conclusion:** Needham Police and Needham Fire do not anticipate any significant impact on their current operations. There may be a need for a small increase to staff over time as the Town's population grows, which is something that both departments regularly monitor. There are no anticipated public safety capital needs (e.g., new stations or equipment) as a result of these proposals. Proposed developments would be required to comply with all fire code and building codes. Under Massachusetts Building Code, new multi-family buildings with three or more units will be required to have fire sprinklers. To properly design the system, the project applicant must ascertain, through flow tests, that there is sufficient water available for the system to work. If the flow tests show there is not, the applicant must identify alternatives, such as an on-site water tank, to ensure the fire suppression system meets code.

### **DEPARTMENT OF PUBLIC WORKS**

The Department of Public Works (DPW) is both proactive in its planning around potential development and reactive to each development as they are built. DPW has several plans to investigate and manage the Town's infrastructure through master plans in the next 1-3 years for transportation, sewer, water, and drainage. These plans will provide the department with a comprehensive study of the age and condition of our infrastructure, identify locations for needed replacements and upgrades, and inform the prioritization of these projects. DPW will also be undertaking drainage, sewer, and transportation projects in the plan areas in upcoming years. The funding needed for these plans and anticipated projects are detailed below. These projects are necessary given the current conditions and any changes in zoning will be factored in to adjust the project scopes, as needed.

As discussed in more detail below, the DPW does not anticipate that the proposed MBTA zoning will result in a need for new capital projects to expand existing water or sewer capacity. The Executive Office of Housing and Livable Communities' guidelines state that "compliance with Section 3A does not require a municipality to install new water or wastewater infrastructure, or add to the capacity of existing infrastructure, to accommodate future multi-family housing production within the multi-family zoning district."<sup>5</sup> In order to be constructed, all projects will need to comply with Building Code and generally applicable DPW regulations. DPW provides a thorough review of all projects that go through the Planning Board to ensure that projects comply with local requirements related to water, sewer, and drainage, and this review will allow for consideration of any issues on a project-specific basis. The Town will not be required to shoulder any capital investment needed to make a specific project viable.

Each section below speaks to DPW's systemwide view of the Town's infrastructure, their oversight of specific development proposals, and how planned master plans will inform both in the coming years.

### **WATER**

**Background:** The Town's water distribution system is a single service pressure zone system supplied by two sources. The Town's primary source of water is the Charles River Well Field. The well field consists

---

<sup>5</sup> Executive Office of Housing and Livable Communities, *Compliance Guidelines for Multi-family Zoning Districts Under Section 3A of the Zoning Act*, August 17, 2023. <https://www.mass.gov/info-details/section-3a-guidelines>

of three groundwater-pumping stations. Needham’s second water source is a connection to the Massachusetts Water Resources Authority (MWRA) surface water supply originating at the Quabbin Reservoir and delivered through the Metrowest Tunnel and the Hultman Aqueduct. This water is pumped into the Needham system at the St. Mary’s Pumping Station located at the corner of St. Mary Street and Central Avenue. This supply is used when the Town’s demand for water is greater than the local supply, and serves as a backup should the Town’s wells need to be taken off-line. The Town can be supplied 100% of its water through the MWRA, if necessary. Water Division staff operate the water treatment plant and also operate, maintain, and repair the townwide water distribution system. The system is comprised of more than 143.5 miles of water mains, 1,344 public and private hydrants, 3,231 water gate valves, and 10,294 water service connections. This system supports 15,612 installed meters as of June 30, 2023.

Overall water production during calendar year 2023 declined by more than 126 million gallons of water compared to 2022 due to drought conditions in 2022 followed by flooding in 2023. The Town’s use of MWRA water declined by 41.6% from the prior year, 249.5 million gallons compared to 427 million gallons of water. During calendar year 2021, approximately 27.1% of the total water production came from the MWRA; during calendar year 2022, 32.5% of production came from the MWRA; during calendar year 2023, approximately 21.0% of production came from the MWRA. Water usage increases significantly every year during the summer months (as compared to the off-season), when the majority of the Town’s usage is due to outdoor watering. The Water Enterprise Fund operating budget is a self-supporting account. Water user fees and charges cover the entire cost of operations.

The Town has been investing in the Town’s water treatment, storage, and distribution systems over the past several years and the work continues. Planning is underway to add redundancy to Needham’s water system. Town Meeting appropriated design funding in FY2024 to create a fourth well at the Charles River Well Field, to add reliability to the Town water supply. DPW has requested \$3M in FY2026 to construct this fourth well. The MWRA is also advancing their Metropolitan Water Tunnel Program to create redundancy of the water distribution system to the Metropolitan Boston area.

**FY25 - 29 Water Capital Project Requests:**

Project	FY25	FY26	FY27	FY28	FY29
Water Distribution Master Plan		\$300,000			
Water Supply Development (creation of 4 <sup>th</sup> Town well)		\$3,000,000			
Replacements: Mills Road from Sachem to Davenport; and Mayo Avenue from Harris to Great Plain		\$50,000	\$470,000		
Replacement: Kingsbury Street from Oakland to Webster			\$122,000	\$555,000	
Replacement: Oakland Avenue from May to Highland				\$380,000	\$500,000

**Conclusion:** The Town believes it has enough water capacity to support housing developments that may result from the proposed zoning. Needham has capacity in its local water supply in the off-season and augments that local supply with additional water available through the Massachusetts Water Resources

Authority. Irrespective of this zoning, the Town is working on redundancy systems for its local water supply and the MWRA is undertaking a redundancy project for their regional supply system.

DPW has requested \$300,000 in FY2026 for a water distribution system master plan to study and prioritize potential water distribution system improvements townwide. This study will inform future water capital projects and how they will be prioritized. At this time, DPW does not anticipate any new capital projects resulting from the proposed zoning, but may adjust the scope of projects (e.g., replace with a larger diameter pipe) to factor in any anticipated population growth.

For a specific development, the property owner/developer would be required to pay for the materials and construction to connect the pipes from their building into the existing water system.

## **SEWER**

**Background:** The Town's sewage collection system consists of more than 130 miles of collector and interceptor sewers, 3,700 sewer manholes, and ten sewer pump stations. The Town's sewer system is a collection system that discharges its wastewater to the MWRA system for treatment. Approximately 65% of the Town's sewer collection system is a gravity-only system, and 35% of the sewer system is pumped into the gravity system. Needham has two principal points of discharge into the MWRA system and nineteen other public locations where subdivisions discharge to the MWRA system. Personnel maintain and operate 24 sewer pumps, motors, switchgear, gates, valves, buildings, and grounds contained in ten pumping facilities located throughout Town. The Sewer Enterprise Fund budget is a self-supporting account. Sewer user fees and charges cover the cost of the sewer operations.

The Town has been preparing for several major sewer system infrastructure replacement and upgrade projects. As noted in *Needham 2025: Commercial and Residential Growth Impact Study*, "Overall, the current sewer system is reliable and can accommodate development on either side of I-95."<sup>6</sup> However, the study noted the largest challenge facing Needham's current sewer capacity and reliability is existing deficiencies with the Greendale Avenue/Route 128 sewer interceptor from Cheney Street to Great Plain Avenue. This is a trunk sewer that collects and conveys wastewater from numerous surrounding sewer lines and plays a critical role in the operation of the Town's sewer system. The existing interceptor sewer line is deteriorating and in need of rehabilitation in order to remain functional. This multi-phase project would consist of replacing or relining the 12,000 feet (2.5 miles) of 18-inch reinforced concrete gravity sewer main. Design funding was provided in FY2023, and Phase 1 of construction is currently underway, funded via the American Rescue Plan Act (ARPA). DPW has requested that Town Meeting appropriate \$13.6 million at the 2024 Annual Town Meeting to begin Phase 2 in FY2025. Due to the investment required to complete the remaining phases, the Town intends to apply for several sources of outside funding (including MWRA and MassDEP programs) to reduce the local funding required.

The Town of Needham is also under Administrative Orders from MassDEP to identify and remove Infiltration and Inflow (I/I) in its existing sewer systems. I/I is groundwater and stormwater that enter into the sewer system, rather than into stormwater drains, limiting the capacity to process sewer wastewater. Failure to address I/I will result in increases to the percentage of sewer costs from the

---

<sup>6</sup> Needham 2025: Commercial and Residential Growth Impact Study, prepared for the Town by Urban Partners, June 30, 2020. <https://needhamma.gov/DocumentCenter/View/22924/Needham-2025-Report-Final-Compressed?bidId=>

MWRA borne by the Town as well as additional administrative requirements. The Town completed a study in 2016 that identified target areas for I/I removal over the next ten years. DPW has been undertaking these projects using funds appropriated at Town Meeting, supplemented by funding from private development and grant funding secured from the MWRA, and all projects identified in the 2016 study have been completed. DPW has requested \$1M in FY2026 to formulate a new plan and cost estimates for the continuation of the I/I removal program. Most of the funding for the implementation of this updated plan will be sourced from private entities and developments, as required by the Town’s Sewer System Impact Program Regulations.<sup>7</sup>

American Rescue Plan Act (ARPA) Project	Amount
Sewer Main Replacement: 128-Interceptor Phase 1 (CY2024)	\$3,000,000

**FY25 - 29 Sewer Capital Project Requests:**

Project	FY25	FY26	FY27	FY28	TBD
128-Interceptor Phase 2: Kenney Street to Valley Road at Norwich Road	\$13,600,000				
128-Interceptor Phase 3					\$14,000,000
128-Interceptor Phase 4					\$6,000,000
Cooks Bridge Sewer Pump Station Replacement		\$195,000	\$3,900,000		
Sewer System Infiltration & Inflow Assessment		\$1,000,000			

**Conclusion:** Sewer infrastructure is in place throughout the areas proposed for rezoning. DPW has requested \$1M in FY2026 for a townwide sewer system infiltration and inflow assessment to identify priority capital projects with cost estimates. At this time, DPW does not anticipate any new sewer capital projects resulting from the proposed zoning, but may adjust the scope of priority projects identified in the I/I assessment if they fall in the area of the proposed rezoning. Current conditions require the Town’s investment in rehabilitating the Rt.128 sewer interceptor. The proposed zoning will not impact the scope, timeline, or estimated cost of that project. Individual housing developments will be subject to DPW’s Sewer System Impact Program Regulations to reduce I/I.

**STORMWATER**

**Background:** The DPW Water, Sewer, and Drains divisions oversee the collection and transportation of stormwater (drains program) originating from rain and snowstorms for discharge into streams, brooks, rivers, ponds, lakes, flood plains and wetlands throughout Town. The Town’s drainage infrastructure consists of approximately 100 miles of various size drainage pipes, 4,300 catch basins, 1,500 drainage manholes, and 295 drainage discharges. DPW’s oversight includes managing both the quality and the quantity of stormwater in Needham. In terms of quality, stormwater and associated discharges are now considered by the federal government as potentially contaminated and have come under increasingly severe discharge performance standards. The intention is to reduce or eliminate contaminants

<sup>7</sup> DPW Sewer System Impact Program: <https://www.needhamma.gov/DocumentCenter/View/25715/Sewer-System-Impact-Program-Requirements-Final-2016>

contained in the flow washed from ground surfaces considered to be harmful to the environment. In terms of quantity, Needham has experienced increased levels of flooding during intense rainfall events. The Town is focused on strengthening infrastructure, protecting critical assets, and educating residents about flood protection best practices. The Town is looking at two sets of strategies for stormwater management. The first are the system-wide improvements needed in the Town's stormwater drainage system. The second are site-specific improvements required of developments under the Town's Stormwater Bylaw.<sup>8</sup>

For system-wide improvements, DPW has requested that the May 2024 Annual Town Meeting appropriate \$250,000, as part of Article 31 for Public Works Infrastructure to supplement ARPA funds to support a Stormwater Plan that would evaluate the capacity and the condition of the existing townwide stormwater drainage system. The plan would identify, prioritize, and address the health and safety, regulatory, and capacity concerns associated with the management of stormwater. It would also provide estimates for the financial investments that would be required for the construction and maintenance of future storm drain improvement projects, including storage areas for discharge (e.g., retention ponds, underground vaults, dry wells).

The Stormwater Plan would be closely tied to the ongoing master planning of the Town's brooks and culverts, which function as another important component of the stormwater network capacity by controlling the flow of surging water during heavy rains/storms. Destructive flooding in the summer of 2023 continued a pattern of increasingly erratic weather that is expected to worsen over time, further illustrating the need to continuously maintain and improve stormwater management infrastructure through holistic planning.

In addition to the capacity and resiliency considerations, the Stormwater Plan would allow the Town to identify ways to improve surface water quality by mitigating pollutants through the stormwater drainage system. This portion of the Stormwater Capacity Plan would assist the DPW in their efforts to comply with standards set by the National Pollutant Discharge Elimination System (NPDES) permit. To meet these permit obligations, the Town must increase its investment in stormwater infrastructure management.

In April 2023, the Needham Select Board approved a Stormwater Utility Fee Program,<sup>9</sup> which will spread the cost of this public service. Beginning in April 2024, residential and non-residential properties in Needham which have more than 200 square feet of impervious surface will incur a stormwater utility assessment. The assessment will be included in the monthly or quarterly water/sewer bill. Impervious surfaces are hard areas such as roofs, concrete, asphalt driveways, and patios that do not allow water to soak into the ground easily. Instead, water runs off the impervious surfaces, and then flows into a storm drain or a nearby body of water taking everything on that surface (pollution, trash, animal waste, etc.) with it. Properties with more impervious surface create more runoff and have a larger impact on water quality and quantity, therefore the fee charged is related to the amount of impervious area on the property. As every property generates runoff and benefits from a stormwater program, the utility model is a recommended method of collecting revenue from those who place a demand on the

---

<sup>8</sup> Needham General Bylaws Article 7, <https://www.needhamma.gov/DocumentCenter/View/17787/Stormwater-By-Law-OTM-for-warrant-9192018-Clean-FINAL?bidId=>

<sup>9</sup> Stormwater Fee: [https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t\(EMAIL\\_CAMPAIGN\\_5\\_25\\_2021\\_14\\_31\\_COPY\\_01\)](https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t(EMAIL_CAMPAIGN_5_25_2021_14_31_COPY_01))



stormwater management system. The revenue generated by the stormwater utility fee will be used to manage and upgrade our Town’s public stormwater drainage system.

Site-specific improvements required of developments fall under the Town’s Stormwater Bylaw, which requires new construction to collect and infiltrate 1-inch of water runoff from the roof. If a new building is located on a site with more than 4,000 square feet of impervious surface, that development is required to ensure that there is no impact from water runoff to abutting properties. The original focus of the Town’s Stormwater Bylaw was on water quality and reducing pollutants. The Select Board has appointed a Stormwater Bylaw Working Group<sup>10</sup> to make recommendations for revisions to the Town’s bylaws to strengthen requirements related to stormwater capacity. Recommendations from this working group are anticipated in 2025. Efforts to educate and encourage the designing of new buildings and the hardening of existing buildings against flood risk, are ongoing.

American Rescue Plan Act (ARPA) Project	Amount
Town Reservoir sediment removal	\$2,150,000
Walker Pond Improvements	\$750,000
Rosemary Lake Sluiceway Replacement	\$120,000

**FY25 - 29 Stormwater Capital Project Requests:**

Project	FY25	FY26	FY27	FY28	FY29
NPDES Support Projects		\$816,000	\$987,000	\$1,200,000	\$1,200,000
Public Works Infrastructure: Storm Drain Capacity	\$250,000				\$250,000
Public Works Infrastructure: Brooks & Culverts	\$225,000		\$1,100,000	\$250,000	

**Conclusion:** As projected flood risk continues to increase, addressing stormwater quality and capacity will be a Town priority for the foreseeable future. There has been flooding throughout Needham, including in some of the areas proposed for multi-family housing zoning. DPW has a variety of [stormwater improvement projects](#) completed, in process, and planned for throughout town. These and future investments will be informed by a townwide master plan and individual project scopes will be adjusted based on any zoning changes.

Housing developments under this proposed zoning are subject to the Town’s Stormwater Utility Fee and Stormwater Bylaw, and to any future amendments of the Stormwater Bylaw adopted by Town Meeting to strengthen on-site requirements for stormwater retention. New developments will also be subject to local and state wetlands regulations and the Town’s Flood Plain District requirements.

**ROADWAYS**

**Background:** The Department of Public Works is currently working on a redesign of two of the three main arterials running through the proposed zoning areas: Great Plain Avenue from Linden Street to Warren Street and Highland Avenue between Webster Street and Great Plain Avenue. The goals for these roadway improvement projects are to design with a Complete Streets approach, to slow car speeds, better accommodate bicycles and pedestrians, and improve traffic flow. The redesign of Great

<sup>10</sup> Stormwater Bylaw Working Group: <https://www.needhamma.gov/5492/Stormwater-By-Law-Working-Group>

Plain Ave will be funded by Chapter 90 and completed in 2025, with construction anticipated in 2026-2027. The Highland Avenue project is estimated in the next 5 – 7 years. This project will be designed with Chapter 90 funds, with a goal of having construction funded by the State if it is accepted as a Transportation Improvement Program (TIP) project. The designs of both projects are in an early enough stage that they will incorporate the anticipated traffic volumes associated with the proposed zoning.

DPW undertakes a periodic analysis of roadways townwide to determine a pavement condition index for each street to prioritize maintenance projects. A recent surface treatment of Chestnut Street was completed in 2023; one segment of the road was redone by Eversource after the completion of a gas main project with the balance undertaken by the Town due to need based on the roadway condition.

The Department is currently partnering with the Metropolitan Area Planning Council (MAPC) to complete a Transportation Master Plan, anticipated by the end of 2025. This master plan will analyze Needham’s existing transportation infrastructure from a holistic perspective, not just in terms of infrastructure maintenance but also in terms of safety considerations, use patterns and traffic flows, community connectivity, walking and biking accommodations, and how to best bridge gaps. The plan will be a foundational document from which the Town’s Mobility Planning & Coordination Committee will establish transportation goals, set standards governing when and where to install bike lanes, identify target areas for improvement, and cost out solutions. The study will also investigate how the Town’s transportation network integrates with surrounding communities to improve multimodal connectivity throughout the region.

**FY25 - 29 Roadway Capital Project Requests:**

Project	FY25	FY26	FY27	FY28	FY29
Public Works Infrastructure: Street Resurfacing	\$1,700,000	\$1,800,000	\$1,900,000	\$2,000,000	\$2,000,000
Public Works Infrastructure: Sidewalks	\$995,000	\$1,100,000	\$1,100,000	\$1,200,000	\$1,200,000
Public Works Infrastructure: Intersection Improvements	\$1,100,000 Hunnewell at Central	\$1,300,000 Central at Great Plain	\$405,000 Central at Gould; Kendrick at 4	\$802,000 Central at Gould	\$250,000 Great Plain at Greendale

**Conclusion:** Major roadway improvement projects of two of the three main arterials running through the proposed zoning areas are underway. Improvements to Chestnut Street are not currently in the Town’s FY25-29 capital improvement plan and may become a priority, depending on where multi-family development occurs. There has not been a feasibility study nor design of what a major roadway improvement project of this corridor would cost, but the Department has suggested \$10 - \$20 million as an order-of-magnitude estimate to undertake a major redesign of Chestnut Street, including drainage infrastructure, wider sidewalks, new pavement, and other amenities.

The Town has also studied the build-out of additional segments of the Rail Trail, between High Rock Street to Needham Junction and from Needham Heights to Newton. Funding for these projects, or alternative networks of bicycle accommodations on our roadways, are not currently in the Town’s FY25-

29 capital improvement plan and may become a higher priority with an increase in nearby, transit-oriented development.

At its April 18, 2024 meeting, the HONE Advisory Group voted to request that a traffic study be completed for the proposed zoning area, if funds can be identified and traffic counts can be collected before the end of the school year. This would provide a more comprehensive understanding of current conditions, and anticipated traffic conditions, under the Base Compliance Plan and the Neighborhood Housing Plan. Staff are working towards this goal as of the writing of this memo.

## **PARKING**

**Background:** Needham’s current zoning by-law requires 1.5 parking spaces per housing unit. The proposed zoning reduces that requirement to 1 parking spot per unit for multi-family residential uses in the overlay area only. This is informed by two parking studies: the Metropolitan Area Planning Council’s Perfect Fit Parking study<sup>11</sup> and the Needham Center & Needham Heights Parking Study conducted for the Town by Stantec in 2023.<sup>12</sup>

MAPC has conducted four phases of their study, conducting overnight weeknight parking counts at multi-family housing sites in Greater Boston to get data on peak parking utilization. Phases 1 and 2 examined nearly 200 sites and found that “only 70% of the off-street parking spaces provided at multifamily developments were occupied during peak hours (in the middle of the night), while Phase 3 similarly found only 76% parking utilization during peak hours.” Needham participated in Phase 4 of the study, which focused on communities west of Boston (Bedford, Belmont, Brookline, Concord, Framingham, Lexington, Natick, Needham, Newton, Sudbury, Waltham, Watertown, and Wayland). Parking counts were conducted at 37 multi-family housing sites and concluded that the parking supply was 1.45 spaces/unit while the parking demand was 0.92 spaces/unit. This is a parking utilization rate of 62%. The data collected in Needham showed a parking utilization rate of 57%, with parking supply of 1.20 spaces/unit and parking demand of 0.57 spaces/unit.

As part of a comprehensive parking study undertaken by the Town of Needham, Stantec provided a zoning analysis comparing Needham’s requirements for parking in comparison to best practice national standards. In nearly all categories of land use, including residential, office, medical office, and retail, Needham’s zoning requirement is higher than the national standards. For residential developments, the national standard is 1.15 spaces per unit.

The proposed zoning does not change any of the parking requirements for non-residential uses. It also maintains the Town’s on-street overnight parking ban.

**Conclusion:** The parking requirement of a minimum of 1 space per unit is expected to be sufficient. A multi-family housing developer may choose to build additional parking, if they believe that a higher ratio is necessary to successfully rent or sell each unit based on market demand.

## **ENVIRONMENTAL**

Housing more people in denser homes has net positives for the Town’s per-capita emissions. The areas that have been selected for rezoning are largely already developed and seek to promote “in-fill”

---

<sup>11</sup> MAPC Parking Study: <https://perfectfitparking.mapc.org/>

<sup>12</sup> Stantec Parking 2023 Study: <https://www.needhamma.gov/5383/Needham-Center-and-Needham-Heights-Parki>

development or redevelopment that takes advantage of the fact that there is already utility infrastructure and a pre-existing building footprint that limits the need to add additional impervious surfaces. In addition, increasing public transit ridership and reducing transit-related emissions is one of the goals of Needham's Climate Action Roadmap, which is why revising local zoning requirements to ensure compliance with the MBTA Communities zoning law is one of the stated actions in the Roadmap.

Neither the MBTA Communities Act nor the proposed local zoning override state or local environmental regulations. The Town's existing bylaws (e.g., stormwater, floodplain, and wetlands) will still be applicable to any new development that occurs in these rezoned areas. This proposal does not rezone any Town-owned open space for housing.

Needham adopted the Opt-In Specialized Energy Code at the October 2023 Town Meeting, effective July 1, 2024. Any new multi-family housing over 12,000 square feet will need to meet Passive House standards and any new multi-family housing under 12,000 square feet will need to be all-electric or if using fossil fuel combustion systems, will need to provide pre-wiring for future appliances and HVAC electrification and install solar to offset energy usage.

## Sources

1. Resident estimates are based on a low and high assumption of people living in each unit type: Studio with 1–2 people, one-bed with 1-2 people, two-bed with 2-4 people, and 3-bed with 3–5 people. These were then applied to RKG Associates’ build out assumptions of 10% studios, 45% one-beds, 35% two-beds, and 10% three-bed units.
2. Town of Needham, *FY2025-2029 Capital Improvement Plan*, January 2024.  
<https://needhamma.gov/5495/FY2025-2029-Capital-Improvement-Plan>
3. FY25 Enrollment Report to the School Committee (December 2023) and McKibben Population & Enrollment Forecast FY25-39, November 2023.  
[https://www.needham.k12.ma.us/departments/business\\_operations/business\\_office/enrollment\\_growth\\_forecasts](https://www.needham.k12.ma.us/departments/business_operations/business_office/enrollment_growth_forecasts)
4. Master Plan Extension Update Final Report and Master Plan Update, 2023.  
<https://www.needham.k12.ma.us/cms/one.aspx?portalId=64513&pageId=37970530>
5. Executive Office of Housing and Livable Communities, *Compliance Guidelines for Multi-family Zoning Districts Under Section 3A of the Zoning Act*, August 17, 2023.  
<https://www.mass.gov/info-details/section-3a-guidelines>
6. Urban Partners, *Needham 2025: Commercial and Residential Growth Impact Study*, June 30, 2020. <https://needhamma.gov/DocumentCenter/View/22924/Needham-2025-Report-Final-Compressed?bidId=>
7. Town of Needham Department of Public Works Sewer System Impact Program:  
<https://www.needhamma.gov/DocumentCenter/View/25715/Sewer-System-Impact-Program-Requirements-Final-2016>
8. Needham General Bylaws Article 7, Stormwater Bylaw:  
<https://www.needhamma.gov/DocumentCenter/View/17787/Stormwater-By-Law-OTM-for-warrant-9192018-Clean-FINAL?bidId=>
9. Stormwater Fee: [https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t\(EMAIL\\_CAMPAIGN\\_5\\_25\\_2021\\_14\\_31\\_COPY\\_01\)](https://www.needhamma.gov/5548/Stormwater-Utility-Fee?ct=t(EMAIL_CAMPAIGN_5_25_2021_14_31_COPY_01))
10. Stormwater Bylaw Working Group: <https://www.needhamma.gov/5492/Stormwater-By-Law-Working-Group>
11. Metropolitan Area Planning Council (MAPC), *Perfect Fit Parking Study*, July 2023:  
<https://perfectfitparking.mapc.org/>
12. Stantec, *Needham Center and Needham Heights Parking Study*, 2023:  
<https://www.needhamma.gov/5383/Needham-Center-and-Needham-Heights-Parki>
13. Town Stormwater Projects: <https://www.needhamma.gov/5527/Town-Stormwater-Projects>
14. RKG Associates and Innes Associates, *Town of Needham, MA MBTA Communities Summary Report*, April 2024.