



# Watertown City Council

Administration Building  
149 Main Street  
Watertown, MA 02472  
Phone: 617-972-6470

## ELECTED OFFICIALS:

Mark S. Sideris,  
Council President

Vincent J. Piccirilli, Jr.,  
Vice President &  
District C Councilor

John M. Airasian,  
Councilor At Large

Caroline Bays,  
Councilor At Large

John G. Gannon,  
Councilor At Large

Anthony Palomba,  
Councilor At Large

Nicole Gardner,  
District A Councilor

Lisa J. Feltner,  
District B Councilor

Emily Izzo,  
District D Councilor

## CITY COUNCIL MEETING

**TUESDAY, AUGUST 9, 2022 AT 6:15 PM**

**RICHARD E. MASTRANGELO COUNCIL CHAMBER  
ADMINISTRATION BUILDING, 149 MAIN STREET**

## AGENDA

### ACCESS INFORMATION:

- A. The meeting will be televised through WCATV (Watertown Cable Access Television): <http://vodwcatv.org/CablecastPublicSite/?channel=3>
- B. The Public may join the virtual meeting online:  
<https://watertown-ma.zoom.us/j/92991331344>
- C. Public may join the virtual meeting audio only by phone: (877) 853-5257 or (888) 475-4499 (Toll Free) and enter Webinar ID: 929 9133 1344 #
- D. Public may comment through email: [vpiccirilli@watertown-ma.gov](mailto:vpiccirilli@watertown-ma.gov)

- 
- 1. ROLL CALL
  - 2. EXECUTIVE SESSION - 6:15 P.M.
    - A. To Consider the Purchase, Exchange, Lease, or Value of Real Property as an Open Meeting May Have a Detrimental Effect on the Negotiating Position of the Public Body – 124 Watertown Street – Property 118 20
  - 3. RETURN TO SESSION – 7:00 P.M.
  - 4. PLEDGE OF ALLEGIANCE
  - 5. PUBLIC FORUM
  - 6. EXAMINATION OF RECORDS OF PREVIOUS MEETINGS
    - A. Special City Council Meeting Minutes - June 21, 2022
    - B. City Council Meeting Minutes - June 28, 2022
    - C. City Council Meeting Minutes - July 12, 2022
  - 7. PRESIDENT'S REPORT
    - A. Resolution Authorizing a Petition for Special Legislation Regarding Adoption of an Act Relative to Property Tax Classification
    - B. Consideration and Action on the City Auditor's Position

8. PRESENTATIONS OF PETITIONS, PROCLAMATIONS, AND SIMILAR PAPERS AND MATTERS
  - A. Informational Presentation on the Final Draft of the Resilient Watertown Climate and Energy Plan
9. PUBLIC HEARINGS
  - A. Public Hearing and Vote on a Petition from National Grid for Consideration of a Grant of Location in Irving Street and a Private Way to Complete in Irving Street Relay and Maintenance of Approximately 480 Linear Feet of 4-Inch Plastic Gas Main from Riverside to the End of Main and Tie into the Existing 4-Inch Plastic Gas Main in Fifield Street and to Complete in the Private Way Relay of 490 Linear Feet of 2-Inch Plastic Gas Main Serving 114-146 Charles River Road from Irving Street to the End of Main. Upon Completion of the Department of Public Works Review, Said Work Is Subject to the Recommendations and Conditions by the City Council Should the Grant of Location Be Approved for This Application
  - B. Public Hearing and Vote on a Proposed Order Authorizing That the Sum of \$750,000 Is Appropriated to Pay Costs of Designing, Engineering and Constructing Sewer System Improvements, Including All Costs Incidental and Related Thereto; That to Meet This Appropriation, the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow Said Amount Under and Pursuant to M.G.L. c.44, §7(1) or §8(14), or Pursuant to Any Other Enabling Authority, and to Issue Bonds or Notes of the City Therefor
  - C. Public Hearing and Vote on a Proposed Order Authorizing That the Sum of \$1,000,000 Is Appropriated to Pay Costs of Replacing a Water Main Located Throughout Mt. Auburn Street, Including All Costs Incidental and Related Thereto; That to Meet This Appropriation, the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow Said Amount Under and Pursuant to M.G.L. c.44, §8(5), or Pursuant to Any Other Enabling Authority, and to Issue Bonds or Notes of the City Therefor; That the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow All or a Portion of Such Amount from the Massachusetts Water Resources Authority (the "Authority") Pursuant to the Authority's Local Water Service Assistance Program and in Connection Therewith to Enter into a Loan Agreement and/or Financial Assistance Agreement with the Authority and Otherwise to Contract with the Authority with Respect to Such Loan and for Any Grants or Aid Available for the Project or for the Financing Thereof; and That the City Manager Is Authorized to Accept and Expend Any Grants or Aid Available for the Project or for the Financing Thereof, Provided That the Amount of the Authorized Borrowing for the Project Shall be Reduced by the Amount of Any Such Grants or Aid Received
  - D. Public Hearing and Vote on a Proposed Order Authorizing That the Sum of \$300,000 Is Appropriated to Pay Costs of Replacing Lead Pipes that Connect Service Lines to Water Mains, Including All Costs Incidental and Related Thereto; That to Meet This Appropriation, the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow Said Amount Under and Pursuant to M.G.L. c.44, §7(1), or Pursuant to Any Other Enabling Authority, and to Issue Bonds or Notes of the City Therefor; That the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow All or a Portion of Such Amount from the Massachusetts Water Resources Authority (the "Authority") Pursuant to the Authority's Lead Service Line Replacement Program and in Connection Therewith to Enter into a Loan Agreement and/or Financial Assistance Agreement with the Authority and Otherwise to Contract with the Authority with Respect to Such Loan and for Any Grants or Aid Available for the Project or for the Financing Thereof; and That the City Manager Is Authorized to Accept and Expend Any Grants or Aid Available for



the Project or for the Financing Thereof, Provided that the Amount of the Authorized Borrowing for the Project Shall Be Reduced by the Amount of Any Such Grants or Aid Received

- E. Public Hearing and Vote on a Proposed Order Authorizing That the Sum of \$1,530,000 Is Appropriated to Pay Costs of Designing, Engineering and Constructing Sewer System Improvements to Eliminate Inflow and Infiltration in the System, Including All Costs Incidental and Related Thereto; That to Meet This Appropriation, the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow Said Amount Under and Pursuant to M.G.L. c.44, §7(1) r §8(14), or Pursuant to Any Other Enabling Authority, and to Issue Bonds or Notes of the City Therefor; That the Treasurer, with the Approval of the City Manager, Is Authorized to Borrow All or a Portion of Such Amount from the Massachusetts Water Resources Authority (the “Authority”) Pursuant to the Authority’s Inflow and Infiltration Assistance Program and in Connection Therewith to Enter into a Loan Agreement and/or Financial Assistance Agreement with the Authority and Otherwise to Contract with the Authority with Respect to Such Loan and for Any Grants or Aid Available for the Project or for the Financing Thereof; and That the City Manager Is Authorized to Accept and Expend Any Grants or Aid Available for the Project or for the Financing Thereof, Provided that the Amount of the Authorized Borrowing for the Project Shall Be Reduced by the Amount of Any Such Grants or Aid Received

#### 10. MOTIONS, ORDINANCES, ORDER, AND RESOLUTIONS

- A. An Order Accepting Easements Along Arsenal Street in Connection with Corridor Improvements and Authorizing the City Manager to Execute the Acceptance of Said Easements
- B. An Order Accepting a Multi-Use Path Easement Area in Connection with 330 Arsenal Street and Authorizing the City Manager to Execute the Acceptance of Said Easement
- C. Resolution Approving the Acceptance and Expenditure of a Gift of Funds in the Amount of \$1,293 Honoring Janet Jameson for the Creation of Public Art in Watertown
- D. Consideration and Action on Polling Location Changes
- E. Vote to Accept M.G.L. Chapter 41, Section 110A
- F. Consideration and Action on the Assignment of Police Officers at Polling Locations

#### 11. REPORTS OF COMMITTEES

- A. Committee on Climate and Energy Report Regarding the Watertown Climate and Energy Plan, the Six Cross-Cutting Strategies with a Focus on Buildings and Energy - Anthony Palomba - Chair
  - B. Committee on Climate and Energy Report Regarding the Watertown Climate and Energy Plan Focusing on Transportation and Mobility and Infrastructure and Waste Management - Anthony Palomba, Chair
  - C. Committee on Climate and Energy Report Regarding the Watertown Climate and Energy Plan Focusing on Natural Resources and Public Health and Community Preparedness - Anthony Palomba, Chair
- ACTION ITEM:  
That the City Council Approve the Climate and Energy Plan as Presented to the Committee on Climate and Energy and to Instruct Said Committee to Review Its Progress on a Regular Basis

#### 12. NEW BUSINESS

13. COMMUNICATIONS FROM THE CITY MANAGER
  - A. Health and Human Services Study
14. REQUESTS FOR INFORMATION/REVIEW OF LIST OF PENDING MATTERS
15. ANNOUNCEMENTS
16. PUBLIC FORUM
17. RECESS OR ADJOURNMENT

## **RESOLUTION AUTHORIZING A PETITION FOR SPECIAL LEGISLATION**

### **REGARDING ADOPTION OF AN ACT RELATIVE TO PROPERTY TAX CLASSIFICATION**

RESOLUTION #

R-

Whereas, the City of Watertown is undergoing substantial growth in large-scale commercial and industrial development; and

Whereas, residents of Watertown have embraced residential, commercial, and industrial development benefitting the entire region while tolerating the negative impacts from that growth; and

Whereas, Watertown has adopted Chapter 200 of the Acts of 1988, amending M.G.L. c. 58, § 1A, to allow cities and towns to give Residential property taxpayers greater tax relief by adopting a shift of up to 175% of the property tax burden from Residential taxpayers to the Commercial, Industrial and Personal Property (CIP) taxpayers, provided certain parameters are not exceeded; and

Whereas, pursuant to Chapter 200, Commercial/Industrial/Personal Property taxpayers cannot pay more than 175% of their full and fair cash value share of the tax levy, and Residential taxpayers must pay the greater of 50% of their full and fair cash value share of the levy or the lowest percentage share of the tax levy they have paid since classification began; and

Whereas, in fiscal year 2022, Watertown's CIP percentage share grew by 2.48%, from 21.87% to 24.35%. With the allowable 175% shift, the CIP's percentage share of the levy would have been 42.61% with the Residential share being 57.39%, thus triggering the lowest historical residential percentage since certification at 61.2420% and creating the inability to shift 175%; and

Whereas, in fiscal year 2022, \$7.8 million in new growth was generated with 92.9% coming from the CIP. Due to the lowest residential historical residential percentage floor, a 55% share of \$7.8 million new growth was borne by the residential class; and

Whereas, future projections of commercial and industrial new growth will continue to outpace residential development and the inequity of being unable to shift 175% will continue to burden and exasperate the residential class; and

Whereas, to help the City continue and grow a diverse, equitable, and inclusive residential class, commercial and industrial classes need to be assessed their share of the impacts of such future development.

NOW THEREFORE BE IT RESOLVED that the City Council of the City of Watertown hereby authorizes the filing of a petition with the General Court for special legislation to allow for adoption of new minimum residential factor of 50% for fiscal years 2023, fiscal year 2024, fiscal year 2025 provided the percentage of total tax levy imposed on any class of real or personal property does not exceed 175%, as follows:

## **An Act Relative to Property Tax Classifications in the City of Watertown**

**SECTION 1.** Notwithstanding section 1A of chapter 58 of the general laws or any other general or special law or rule or regulation to the contrary, the commissioner of revenue shall further adjust the minimum residential factor of the city of Watertown determined under the third sentence of the second paragraph of said section 1A for fiscal years 2023, 2024 and 2025, if adoption of such factor for any such year would otherwise have been determined through application of the percentage limitation contained in subpart (b) of said third sentence. The new minimum residential factor for such year shall be: (i) for fiscal year 2023, 50 per cent, subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 175 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city of Watertown; (ii) for fiscal year 2024, 50 per cent, subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 175 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city of Watertown; and (iii) for fiscal year 2025, 50 per cent, subject to such adjustment upward as may be required to provide that the percentage of the total tax levy imposed on any class of real or personal property shall not exceed 175 per cent of the full and fair cash valuation of the taxable property of that class divided by the full and fair cash valuation of all taxable real and personal property in the city of Watertown.

**SECTION 2.** This act shall take effect upon its passage.

AND BE IT FURTHER RESOLVED that the General Court may make clerical or editorial changes of form only to the proposed special act, unless the City Council approves such changes as are consistent with the public purposes of this petition prior to enactment by the General Court.

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Council Member

I hereby certify that at a regular meeting of the City Council for which a quorum was present, the above Resolution was adopted by a vote of \_\_\_ for and \_\_\_ against on \_\_\_\_\_, 2022.

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Mark S. Sideris, Council President

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Marilyn Pronovost, Council Clerk

# Watertown, MA – City Auditor



## Position Statement

Watertown, MA (35,329 pop.), is a thriving community that provides a suburban-like setting with urban amenities. Located just six miles from Boston, the City is a hidden gem offering many of the benefits of a smaller town with access to the economic, cultural, and educational resources of a big city. Cultural destinations like the Arsenal Center for the Arts and the Armenian Museum of America are complemented by welcoming neighborhoods, a good school system, international food offerings, coffee shops, and fresh green grocers. The City, which has a diverse population including the second-largest Armenian population in the country, celebrates and supports the rich and varied cultures within the community. Watertown is a City in transition as it has been experiencing demographic and socio-economic changes in recent years. Watertown recently appointed a new City Manager following the retirement of a City Manager who served the community for 45 years. The new City Manager joins the Watertown team in August 2022.



Watertown is well managed and well situated for continued success. It has an AAA rating and an FY23 budget of approximately \$174 million. The City's challenges include managing its growth, maintaining its superior financial stability, maintaining the City's relative affordability, continuing to build a strong team of municipal department heads as retirements occur, increasing communications with residents, and moving to the forefront on social issues, including diversity, inclusion, and anti-racism efforts. Watertown recognizes that climate change impacts community health, local natural resources, and infrastructure and is diligently working to mitigate the impacts and to enhance climate resiliency.

**The position of City Auditor** has become available following the current City Auditor's decision to retire after a long and successful tenure. Watertown is seeking an experienced, knowledgeable, and talented financial professional with excellent financial management skills, strong knowledge of governmental accounting, and strong organizational skills to serve as its next City Auditor. Preferred candidates must have a bachelor's degree (master's preferred) in finance, accounting, or a related field and a minimum of five years of experience in governmental financial management or an equivalent combination of education and experience.

**Annual Salary: \$130,000+/-.** The successful candidate will receive an attractive total compensation package including health and retirement plans, commensurate with qualifications and experience. Watertown is an Affirmative Action/Equal Opportunity Employer.

## Government

Watertown recently completed a charter review process in which a revised [Home Rule Charter](#) was adopted with a number of modifications including a revised preamble, creation of a Community Engagement Officer, and creation of a Human Rights Commission. It retained its Council-Manager form of government but redesignated itself to be known as the City of Watertown. The nine-member City Council serves as the legislative and policy-making body of Watertown. The Council appoints the City Manager as the Chief Administrative Officer of the City. The City Auditor works under the policy direction of the City Council. The City Auditor supervises a staff of five full-time employees and one part-time employee.



## Finances

Watertown has an FY23 budget of approximately \$174 million and a Standard and Poor's rating of AAA with a stable outlook. The City is in exceptionally strong and stable financial condition. Watertown has a fully funded Retirement System (as of July 2021) and a long-range funding plan has been created for addressing the unfunded OPEB liability which is scheduled to be fully funded in 2031. Additionally, it has a Building for the

Future plan, which is a comprehensive, forward-looking initiative to address learning, operational, and capacity improvements for all school facilities. The FY22 tax rate is \$13.25 for residential properties and \$21.28 for commercial properties.



Approximately 7.9% of the City's budget comes from state aid. New growth in FY21 was \$3.4 million, in FY22 is \$7.9 million, and is projected to be \$4 million in FY23. The total assessed value of Watertown properties in FY21 is nearly \$9.4 trillion. Free cash for FY22 is approximately \$22.66 million.

The next City Auditor must have superior financial acumen and thorough knowledge of the methods and procedures relating to governmental accounting. The City Auditor must have knowledge of budget development and administration, understand the operations of other City departments, and have strong communication skills.

### Important Links:

- [City of Watertown](#)
- [Home Rule Charter](#)
- [City Code](#)
- [City Auditor](#)
- [Annual Town/City Reports](#)
- [FY23 Preliminary Budget Overview](#)
- [FY22 & FY21 Budgets](#)
- [City Auditor Dept. FY23 Budget](#)
- [Watertown Comprehensive Plan](#)
- [Arsenal Park Master Plan](#)
- [Economic Development Report](#)
- [Resilient Watertown Climate and Energy Plan](#)
- [Watertown Organizational Chart](#)



## Economic and Community Development

Watertown, founded in 1630 as a settlement based on agriculture, is today transitioning into a post-industrial community with a mix of cultural, racial, educational, and economic diversity. The City benefits from its location, bordering Soldiers Field Road and the Massachusetts Turnpike, which are major arteries into downtown Boston. It is close to Cambridge and Kendall Square.

With a network of squares and multi-modal corridors, Watertown is a well-connected and attractive place to live and work. A variety of housing types and innovative reuse of old industrial sites along the river and former rail corridor provides flexible options for a mix of business and residential uses. In addition to having a key location, Watertown is a well-maintained community, with a popular public library, recently constructed police station, three well-maintained fire stations, relatively new DPW facility, and upgraded recreation fields. The City is thriving, which is apparent via its vibrant downtown, squares, and mixed-use developments.



There has been considerable investment in Watertown from biotechnology and life science industries as well as in the retail and restaurant sectors in recent years. Additionally, a second hotel in the City was recently completed and opened for business. A number of prestigious academic institutions have facilities located in or near Watertown, including Harvard University, Massachusetts Institute of Technology, and Boston University. Watertown is a thriving community with such major employers as Perkins School for the Blind, Exergen Corporation, Athena Health, and Vanasse Hangen Brustlin Inc. In addition to easy access to the Mass. Turnpike and Route 128, Watertown is served by several MBTA bus and trackless trolley routes as well as two community shuttles. Residential and open space account for slightly over 78% of the City's total property valuation.

## Departments

Watertown's department heads and employees are collaborative and supportive of the City's many initiatives. The finance-related departments – Auditor, Assessing, and Treasurer/Collector – are well regarded and strive to assist the City Council and City Manager in maintaining Watertown's current financial stability. The City recently created the position of Community Engagement Officer which is charged with reaching out to residents and increasing transparency. All departments continue to adapt to increased service requirements in relation to the City's ongoing development.

## Open Space, Recreation, and Climate Resiliency

Watertown has beautiful open space along the Charles River, in the reservation owned and managed by the Massachusetts Department of Conservation and Recreation, including more than four miles of direct frontage. The City is also home to the multi-use [Arsenal Park](#), Filippello Park, the Whitney Hill Conservation Area, the [John A. Ryan Arena](#) (skating rink), and 10 playgrounds. The City's [Open Space and Recreation Plan](#) was developed to identify Watertown's open space and recreation resources and to ensure that the resources are not lost due to pressures of development or uncoordinated individual actions. Watertown is continuing its efforts to increase the amount of protected open space. Additionally, the City is committed to equity, communication, and innovation while reducing greenhouse gas emissions and enabling all residents to thrive in the face of climate change. Watertown is a leader in making high efficiency buildings the norm and powering them with clean energy. Watertown has three municipal solar installations and two new elementary schools will be Net-Zero through a combination of energy efficiency and aggressive rooftop and canopy solar deployment.





## City Auditor Responsibilities

The City Auditor is responsible for the compliance with public finance laws and the application of general accounting practices and other financial practices of the City. The City Auditor works under the policy direction of the City Council and is responsible for supervising five full-time employees and one part-time employee. Staffing in the City Auditor's office includes the Auditor, Assistant Auditor, and three Principal Account Clerks, who are responsible for Accounts Payable, Payroll, and Benefits, respectively. Some of the duties and responsibilities of the position are:

- Ensures that the City fully complies with Massachusetts laws concerned with public finance. Participates in and oversees the accounting related functions. Ensures the accuracy of payments to vendors and contractors, as well as the accuracy of payment to City employees.
- Assists City departments with the tracking of expenditures, solving problems and the preparation of the annual budget. Ensures that all City department expenditures are within budget. Reviews all City contracts to ensure the accuracy and the appropriateness of the contract for services.
- Prepares and maintains financial records of the City. Works with independent auditors to ensure that necessary information and schedules are provided to ensure that a proper audit of City finances is accomplished.
- Prepares financial reports required by state or federal agencies. Prepares financial reports for the City Council and responds to information requests from the Council. Performs financial analysis of expenditures and participates in the budgeting process. Serves as a member of the financial management team to ensure effective planning.
- Serves as *ex officio* member of the Watertown Contributory Retirement Board. Oversees investment activity and ensures that monthly payrolls for retirees and beneficiaries are completed. Ensures compliance with public retirement laws.
- Performs similar or related duties as required by general laws, charter, ordinance or vote of City Council.

## Ongoing City Projects

- Construction of a new high school is expected to begin in 2023 with the facility slated to open in 2026. The high school is to be co-funded by the City and MSBA.
- A new elementary school is scheduled to open later this year, a second elementary school has nearly completed construction, and a third elementary school is slated to begin construction. Total cost of the three schools is \$170 million and is being funded within the confines of Proposition 2½.
- Continuing work on updating the Comprehensive Plan.
- The Watertown Open Space Study is in progress.
- Determining future use of the former police station building.
- Possible recruitment and hiring of a Deputy City Manager.
- Recruitment of a Community Engagement Officer.
- Continuing efforts to acquire additional open space.
- Determining resolution to space needs at City Hall.
- Continuing to increase the City's walkability.
- Determining appropriate use of ARPA funding.
- Recently established Municipal Affordable Housing Trust.
- Completion of a Climate Action Plan.





## The Ideal Candidate

- Bachelor's degree (Master's preferred) in finance, accounting, or a related field.
- Minimum of 5 years of experience in governmental financial management; or an equivalent combination of education and experience.
- Thorough knowledge of the methods and procedures relating to governmental accounting.
- Knowledge of automated accounting systems and fiscal management systems.
- Knowledge of budget development and administration.
- Thorough knowledge of fiscal planning.
- General knowledge of the operations of other city departments and procedures, and relevant federal, state, and local laws and regulations.
- Ability to establish and maintain effective working relationships with City officials.
- Ability to analyze financial management problems and find solutions.
- Ability to interpret state laws relating to local government finance.
- Ability to prepare detailed financial reports.
- Ability to maintain accurate records.
- Strong organizational skills.
- Excellent verbal and written communication skills.
- Recognizes and embraces the diversity of the community and supports the goals of equity and inclusion.
- Embraces anti-racist policies and practices.
- Treats everyone fairly and respectfully.
- Knowledgeable of financial best practices.

## How To Apply

Send cover letter and résumé via email, in a single PDF, by September 6, 2022, 3:00 p.m. EST to:

[Apply@communityparadigm.com](mailto:Apply@communityparadigm.com)

**Subject: Watertown  
City Auditor**

Questions regarding the position should be directed to:

Bernard Lynch, Principal  
Community Paradigm Associates  
[Blynch@communityparadigm.com](mailto:Blynch@communityparadigm.com)  
978-621-6733

*The City of Watertown, Mass., is an Affirmative Action/Equal Opportunity Employer.*







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## LETTER FROM CITY MANAGER

Watertown is a vibrant community where people from diverse backgrounds and cultures come together and thrive. Our rich history of evolving industry and innovation informs a present commitment to developing equitably and sustainably. As challenges emerge, we face them together.

Climate change is the most pressing issue of our time, and we are already beginning to experience some of the impacts today. In Watertown, acting on climate change means preserving our unique neighborhoods and natural resources, while also enabling growth, technological innovation, and community well-being. *Resilient Watertown*, our Climate & Energy Plan, is a unified vision that outlines goals, strategies, and actions to drastically reduce our contribution to climate change and enhance our resilience to its impacts.

*Resilient Watertown* is the result of a collaborative process. We are grateful for the countless hours spent by members of the public, dedicated volunteers, and City staff for their contributions and active participation in meetings, workshops, surveys, and more. I am proud to join them in advancing Watertown's commitment to ensuring a sustainable and resilient future for all those who live, work, and play in Watertown.

Sincerely,

**Tom Tracy**

**Watertown Acting City Manager**

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## LETTER FROM CITY COUNCIL

We are pleased to support Watertown's Climate & Energy Plan, *Resilient Watertown*. This plan demonstrates Watertown's dedication to addressing climate change, a formidable challenge that we are prepared to face together.

Watertown is a community long committed to leadership and environmental stewardship. From our state designation as a Green Community over ten years ago to our commitment to supporting the transition to 100% renewable energy, we are already acting boldly to address climate change. *Resilient Watertown* takes these efforts a step further in ensuring our long-term sustainability and resilience. The Plan identifies opportunities for lasting improvements here in Watertown, by reducing climate change-causing greenhouse gas emissions and other pollutants and improving quality of life for all residents in the face of extreme events and prolonged stressors.

We would like to thank the Watertown community and all those who participated in the development of this plan for their dedication to climate action. We look forward to working together to implement our Climate & Energy Plan.

Sincerely,

**Watertown City Council**

# ACKNOWLEDGEMENTS

*Resilient Watertown* was developed through a collaborative effort between municipal staff and the community with support from our consultant team.

## Municipal Staff (Core Team)

|                |                                                                            |
|----------------|----------------------------------------------------------------------------|
| Steve Magoon   | Assistant City Manager; Director, Community Development & Planning         |
| Laurel Schwab  | Senior Environmental Planner                                               |
| Laura Weiner   | Senior Transportation Planner                                              |
| Ed Lewis       | Energy / Project Manager; Interim Director, Department of Public Buildings |
| Greg St. Louis | Superintendent, Department of Public Works                                 |

## Stakeholder Advisory Group

### Buildings & Energy Working Group

**Chair: Brian Hebeisen, WE3C**

#### Members:

|                         |                                     |
|-------------------------|-------------------------------------|
| Dante Angelucci         | Alexandria Real Estate Equities     |
| Ed Lewis                | Department of Public Buildings      |
| Marcus de Castro        | Boylston Properties                 |
| Michael Lara            | Watertown Housing Authority         |
| Pat Rathbone            | Watertown Faces Climate Change      |
| Rick Malmstrom          | Alexandria Real Estate Equities     |
| William C. (Bill) Clark | Resident and climate science expert |

### Transportation & Mobility Working Group

**Chair: Laura Wiener, Senior Transportation Planner**

#### Members:

|                     |                                     |
|---------------------|-------------------------------------|
| Amy Plovnick        | Bicycle & Pedestrian Committee      |
| Andy Compagna       | Bicycle & Pedestrian Committee      |
| Bridger McGaw       | athenahealth                        |
| Doug Orifice        | Watertown Business Coalition        |
| Eric Kemp-Benedict  | Resident and climate science expert |
| Ernesta Krackiewicz | Watertown Faces Climate Change      |



### Natural Resources Working Group

**Chair: Ellen Menounos, WE3C**

**Members:**

|                  |                                              |
|------------------|----------------------------------------------|
| Bob DiRico       | Department of Public Works                   |
| David Meshoulam  | Teens for Trees                              |
| Dira Johanif     | Charles River Watershed Association          |
| Greg Mosman      | Former Tree Warden                           |
| Janet Buck       | Stormwater Advisory Committee/Planning Board |
| Leo Martin       | Conservation Commission                      |
| Libby Shaw       | Trees for Watertown                          |
| May Cort         | Sunrise Watertown                            |
| Paul Kwiatkowski | Mt. Auburn Cemetery                          |
| Sarah Moylan     | Arsenal Yards                                |

### Infrastructure & Waste Management Working Group

**Chair: Vincent Coljee, Resident and climate science expert**

**Members:**

|                |                                            |
|----------------|--------------------------------------------|
| Greg St. Louis | Superintendent, Department of Public Works |
| Julie Wormser  | Mystic River Watershed Association         |
| Tom Watkins    | Department of Public Works                 |

### Public Health & Community Preparedness Working Group

**Chair: Larry Ramdin, Department of Public Health**

**Members:**

|                     |                                                                    |
|---------------------|--------------------------------------------------------------------|
| Anne-Marie Gagnon   | Council on Aging                                                   |
| Dr. Kimberlee Henry | Director of Diversity, Equity & Inclusion, Watertown Public School |
| Jan Singer          | Watertown Community Foundation                                     |
| Kim Charlson        | Perkins School for the Blind                                       |
| Robert Quinn        | Watertown Fire Department                                          |
| Sabrina Lopez       | Sunrise Watertown                                                  |
| Stephanie Venizelos | Department of Public Health                                        |

**Consultant Team: Kim Lundgren Associates, Inc.**



# ACRONYMS

|       |                                                            |
|-------|------------------------------------------------------------|
| CPC:  | Community Preservation Committee                           |
| CRWA: | Charles River Watershed Association                        |
| DCDP: | Watertown Department of Community Development and Planning |
| DCR:  | Massachusetts Department of Conservation and Recreation    |
| DEP:  | Massachusetts Department of Environmental Protection       |
| DPB:  | Watertown Department of Public Buildings                   |
| DPH   | Watertown Department of Public Health                      |
| DPW:  | Watertown Department of Public Works                       |
| EVs:  | electric vehicles                                          |
| GHGs: | greenhouse gases/greenhouse gas emissions                  |
| HFCs: | hydrofluorocarbons                                         |
| MBTA: | Massachusetts Bay Transportation Authority                 |
| SWAC: | Stormwater Advisory Committee                              |
| WE3C: | Watertown Environment and Energy Efficiency Committee      |
| WEC:  | Watertown Electricity Choice                               |
| WHA   | Watertown Housing Authority                                |
| WTMA: | Watertown Transportation Management Association            |



Watertown Free Public Library improves the quality of life in the community, providing valuable services and resources to all residents. Credit: City of Watertown



Watertown is committed to taking action on climate change while preserving and strengthening our unique neighborhoods, natural resources, and diverse communities. *Resilient Watertown*, our Climate & Energy Plan, outlines 61 priority actions to ensure Watertown is on a path to a net zero, climate resilient future.

## PLAN AT A GLANCE

### Cross-Cutting Strategies

**Goal 1: Achieve synergies across multiple Plan Element goals and enable implementation of all strategies and actions**

- » Strategy CC1: Add staff capacity and resources to the Energy Manager's Office, the DPW Forestry Division, and the Department of Community Development and Planning
- » Strategy CC2: Create an overarching *Resilient Watertown* Outreach & Education Campaign
- » Strategy CC3: Develop assistance mechanisms and resources for renters and landlords (regarding energy efficiency, EV charging, etc.)
- » Strategy CC4: Collaborate regionally with other communities and entities
- » Strategy CC5: Explore establishing a Transportation Infrastructure Fund with funding from developers and the City to implement recommendations of this Plan
- » Strategy CC6: Encourage and require sustainable, climate-resilient development patterns



Image Credit: City of Watertown



## **Buildings & Energy**

### **Goal 1: By 2050, 100% of electricity is sourced from renewables**

#### » **Strategy BE1: Accelerate the transition to renewable energy city-wide**

- ◆ Action BE1.1: Expand and strengthen the existing solar ordinance
- ◆ Action BE1.2: Investigate implementing commercial PACE and other innovative financing programs
- ◆ Action BE1.3: Develop and implement a targeted outreach campaign focused on recruiting for Watertown Electricity Choice program and installing rooftop solar on homes and businesses



### **Goal 2: By 2050, Watertown's buildings are efficient, resilient, and carbon neutral**

#### » **Strategy BE2: Require the highest standards for efficiency and carbon neutrality for new construction and major renovations**

- ◆ Action BE2.1: Adopt the State's Net Zero Stretch Code as soon as permissible
- ◆ Action BE2.2: Enact fees for residential gas hookups to promote electrification
- ◆ Action BE2.3: Promote workforce development and training programs for net zero construction
- ◆ Action BE2.4: Work with municipalities in the region to eliminate fossil fuels (e.g., identifying mechanisms like home rule petition)
- ◆ Action BE2.5: Include the use of Whole Building Life Cycle Assessment as a condition for granting permits for applicable developments and work towards setting progressively tighter standards

#### » **Strategy BE3: Electrify existing buildings running on fossil fuels**

- ◆ Action BE3.1: Investigate and support development of geo-microgrid pilot programs
- ◆ Action BE3.2: Develop and implement a targeted outreach campaign focused on promoting heat pumps for residential homes on oil heat and natural gas (e.g., zero-interest loans for heat pumps)
- ◆ Action BE3.3: Incentivize the transition to heat pumps through HEAT Smart or other programs

#### » **Strategy BE4: Enhance and actively promote deep retrofit and aggressive conservation programs**

- ◆ Action BE4.1: Enact a Building Energy Use Disclosure Ordinance
- ◆ Action BE4.2: Provide technical assistance for clean energy, energy efficiency, and financing activities (e.g., home energy guidance, collaborating on retrofits of Watertown Housing Authority properties)
- ◆ Action BE4.3: Upgrade major existing municipal facilities to achieve net zero energy performance
- ◆ Action BE4.4: Develop a bulk procurement and purchasing program to support smaller commercial properties with deep energy retrofits
- ◆ Action BE4.5: Incentivize large grocery stores and buildings with significant refrigeration to get certified in EPA GreenChill program to reduce HFCs

Image Credit: City of Watertown





## Transportation & Mobility

**Goal 1: By 2050, non-vehicular transportation options are accessible, affordable, and connected throughout Watertown, and personal vehicular travel miles are reduced by 50%**

- » Strategy TM1: Enhance and actively promote zero-carbon mobility options for travel
  - ◆ Action TM1.1: Install well-shaded bike and pedestrian-only infrastructure for protected and off-street connections in densely developed areas and areas of high traffic volume
  - ◆ Action TM1.2: Collaborate regionally to increase and improve safe, interconnected pathways for bicyclists and pedestrians
  - ◆ Action TM1.3: Increase use of transit, bike, and pedestrian travel through outreach, incentives, and policy changes (e.g., decreasing zoning requirements for parking, traffic calming, safe routes to schools)
  - ◆ Action TM1.4: Work with MBTA to improve accessibility of routes, stops, and CharlieCard purchasing stations within Watertown, and electrification of the bus fleet
  - ◆ Action TM1.5: Implement bus prioritization projects such as dedicated lanes and signal priority
  - ◆ Action TM1.6: Develop an integrated, publicly accessible electric transit system that connects to MBTA and other points of interest not accessible by MBTA, including on-demand transportation options

**Goal 2: By 2050, 100% of all vehicles in Watertown are electric**

- » Strategy TM2: Accelerate the shift to electric vehicles (EVs)
  - ◆ Action TM2.1: Develop and implement an EV Roadmap for Watertown
  - ◆ Action TM2.2: Transition City-owned, leased, and contracted vehicles to electric, including, but not limited to, school bus, garbage truck, and maintenance fleets
  - ◆ Action TM2.3: Support the development of Multi-Use Parking Arrangements to develop EV charging at places of worship and other organizations with large parking lots in residential neighborhoods
  - ◆ Action TM2.4: Develop an outreach and incentive campaign to those with a vehicle over 10 years old to promote and incentivize EV purchase
  - ◆ Action TM2.5: Increase the availability of charging stations on municipal property
  - ◆ Action TM2.6: Incentivize homeowners and landlords to install EV chargers



Image Credit: City of Watertown





## Natural Resources

**Goal 1: By 2050, Watertown's natural assets and green space are enhanced, equitably distributed, and delivering full ecosystem benefits**

» **Strategy NR1: Protect and enhance forest and open space parcels**

- ◆ Action NR1.1: Incorporate pocket parks into all neighborhoods lacking green space
- ◆ Action NR1.2: Promote biodiversity improvements to existing and new parks and open space by codifying existing DPW planting and maintenance practices and strengthening requirements for private development
- ◆ Action NR1.3: Acquire more open space, where possible, and create more open space on private property
- ◆ Action NR1.4: Establish equitable and accessible natural-habitat corridors along water bodies, trails, and utility easement areas, and protect existing ones

» **Strategy NR2: Protect, enhance, and diversify the tree canopy**

- ◆ Action NR2.1: Establish an enforceable tree ordinance focused on preservation, diversification, and equitable distribution of tree canopy on public and private property
- ◆ Action NR2.2: Establish a community outreach program to increase awareness and appreciation of the importance of the urban forest in mitigating climate change impacts
- ◆ Action NR2.3: Substantially increase annual street and municipal tree plantings and prioritize tree plantings in neighborhoods at high risk for urban heat impacts

» **Strategy NR3: Promote regenerative landscaping and maintenance practices**

- ◆ Action NR3.1: Develop a regenerative landscaping education and outreach plan with expanded opportunities for resident involvement (e.g., "Leave the Leaves" campaign)
- ◆ Action NR3.2: Utilize school gardens and community gardens as nature-based landscaping demonstration sites
- ◆ Action NR3.3: Update current development regulations to require the use of appropriate native plants for new- and re-development and de-emphasize non-native lawn spaces

» **Strategy NR4: Minimize quantity and improve quality of stormwater runoff**

- ◆ Action NR4.1: Expand and accelerate existing Green Stormwater Infrastructure (GSI) policies and management programs for public projects
- ◆ Action NR4.2: Promote and/or incentivize the incorporation of green stormwater infrastructure into existing large impervious areas
- ◆ Action NR4.3: Enhance incentives and ongoing education related to individual actions such as rain barrels, planting strips, and depaving private residential properties



Image Credit: City of Watertown



## Infrastructure & Waste Management

### **Goal 1: By 2050, Watertown has achieved a net zero waste community status**

#### » Strategy IW1: Transition community attitudes and actions around consumption and disposal practices

- ◆ Action IW1.1: Create a bulk purchasing network for compostable and environmentally friendly goods among the commercial and industrial sectors
- ◆ Action IW1.2: Design and implement an education and outreach campaign focused on reducing waste sent to the incinerator and the climate impacts of our current consumption patterns, including topics such as single use plastics and meat consumption
- ◆ Action IW1.3: Create a convenient and free or affordable organics recycling program, setting annual goals for enrollment and engaging residents in education and outreach on the topic
- ◆ Action IW1.4: Establish an Environmentally Preferable Purchasing policy (EPP) that focuses on reducing consumption, particularly of single use items within municipal government
- ◆ Action IW1.5: Investigate opportunities to pursue a circular economy in Watertown or within the Metro Boston region (e.g., plastic item bans, grey water recycling, pay-per-bag program, additions to recyclable items)



### **Goal 2: By 2050, Watertown's infrastructure is well maintained and resilient to the impacts of climate change**

#### » Strategy IW2: Systematically integrate climate change projections into the design of all new and upgraded infrastructure projects

- ◆ Action IW2.1: Require that all major new infrastructure and upgrades incorporate resilient design guidelines, such as Envision™, that take climate impacts into account over the lifespan of the infrastructure
- ◆ Action IW2.2: Review and enhance current infrastructure maintenance systems and protocols to align with the needs of a changing climate
- ◆ Action IW2.3: Advocate with partners for the safe removal of the Watertown Dam
- ◆ Action IW2.4: Investigate local back-up power, microgrid, and battery options in coordination with utilities

Image Credit: City of Watertown



## Public Health & Community Preparedness

### **Goal 1: By 2030, Watertown is a model for community resilience to climate change**

#### » Strategy PH1: Promote climate literacy through education and training

- ◆ Action PH1.1: Launch a climate preparedness educational campaign
- ◆ Action PH1.2: Actively recruit volunteers to participate in the Community Emergency Response Team (CERT) program

#### » Strategy PH2: Acknowledge climate change's impact on and provide resources to enhance overall community health and well-being

- ◆ Action PH2.1: Complete a Climate Change and Health Vulnerability Assessment and develop Adaptation Guidelines (including issues like vector borne disease, pests, mental health)
- ◆ Action PH2.2: Mitigate existing and prevent new urban heat islands in Watertown
- ◆ Action PH2.3: Continue to enhance access to local food by expanding resources and support for food pantries and community fridge programs, community gardens, and the Farmers' Market for those who are food insecure

#### » Strategy PH3: Provide equitable access to emergency preparedness and response resources

- ◆ Action PH3.1: Identify and reduce structural barriers (e.g., internet access, language and cultural barriers, cognitive and/or physical disabilities, social isolation, access to services and emergency information) that prevent individuals and neighborhoods from taking care of themselves during and after extreme weather
- ◆ Action PH3.2: Require all commercial building owners to rebroadcast and post Watertown Alert announcements to building occupants in English and Spanish
- ◆ Action PH3.3: Launch a "Sign Up" campaign to ensure equitable access to communication resources
- ◆ Action PH3.4: Enhance emergency preparedness information on City website

#### » Strategy PH4: Promote overall community connectivity

- ◆ Action PH4.1: Establish a network of resilience hubs that provide resources (e.g., cooling, phone-charging, pantry) that are easily accessible throughout the community
- ◆ Action PH4.2: Enhance the existing Live Well Watertown coalition and its programs to incorporate neighborhood connections to nature and to each other



Image Credit: City of Watertown

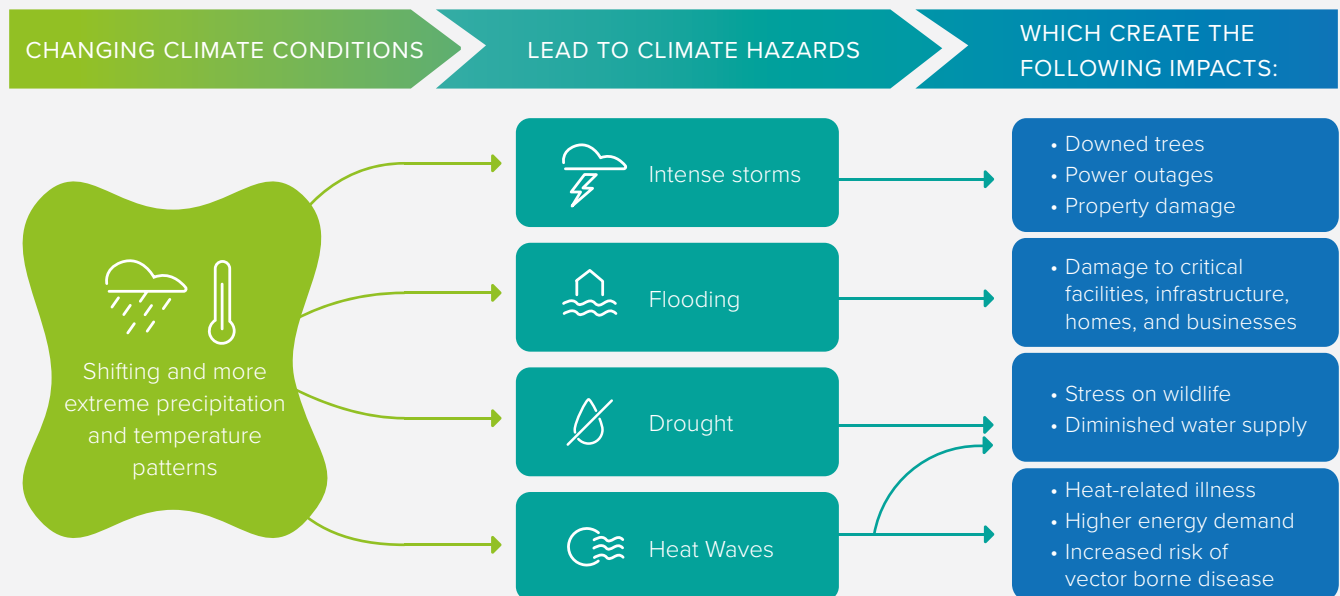
## WHAT MOTIVATES US?

There are **two primary ways to address climate change: minimizing our contribution to climate change by reducing our greenhouse gas (GHG) emissions and increasing our resilience to climate impacts through adaptation measures.** The *Resilient Watertown* Climate & Energy Plan identifies opportunities to do both. We recognize the responsibility to do our part to lessen climate impacts while responding to the realities of our changing climate here in Watertown.

Understanding how climate change trends and projections will play out in Watertown allows us to identify the greatest opportunities for climate resilience actions.

Changing conditions, like increasing temperature and precipitation, are and will continue to exacerbate existing climate hazards in Watertown, with impacts to community health, local natural resources, and infrastructure. As in many other municipalities throughout the region, in Watertown, changes to climate are taking shape through four primary hazards: intense storms, flooding, drought, and heat waves.

## CLIMATE HAZARDS





# CLIMATE CHANGE IN WATERTOWN



## INTENSE STORMS

The frequency and severity of intense storms—like nor’easters, ice storms, blizzards, hurricanes, windstorms, and heavy precipitation events—are increasing.

### Trends

**27% increase in heavy downpours** in Massachusetts between 1950 and 2014, ranking as the 11<sup>th</sup> state with the largest increase<sup>1</sup>

### Projections

**Up to 2.4 additional inches of precipitation** by 2050 and **up to 3.9 inches** by 2100 projected in Massachusetts<sup>2</sup>

### Impacts

In Watertown, one of the greatest concerns with intense storms is the threat of falling trees and poles, which have been known to lead to power outages.



Arsenal Street experienced downed power lines during a storm in 2018.

Credit: Watertown Police Department



Flooding in Watertown can cause serious damage and disruption, for example, blocking local roadways. Credit: iStock



## FLOODING

The frequency of high-intensity rainfall events is projected to increase, which will in turn increase the risk of flooding.

### Trends

**22 flood-related disasters** between 1954 and 2018 in Massachusetts, causing **\$35.2 million worth of damage** Middlesex County in March of 2010 alone<sup>3</sup>

### Projections

**Up to 10 more days per year** with precipitation of more than 1 inch by 2050<sup>4</sup>

### Impacts

Flooding has increasingly affected local roadways, in particular Howard and Pleasant Streets, as well as buildings in Watertown. As storms and precipitation

become more severe, Watertown’s stormwater and sewer systems will be at risk of overcapacity.





## DROUGHT

Although more annual precipitation is expected overall, it is anticipated to fall in fewer, more intense events, rather than sporadically throughout the year. This pattern will lead to longer periods without rainfall and increase the potential for drought.

### Trends

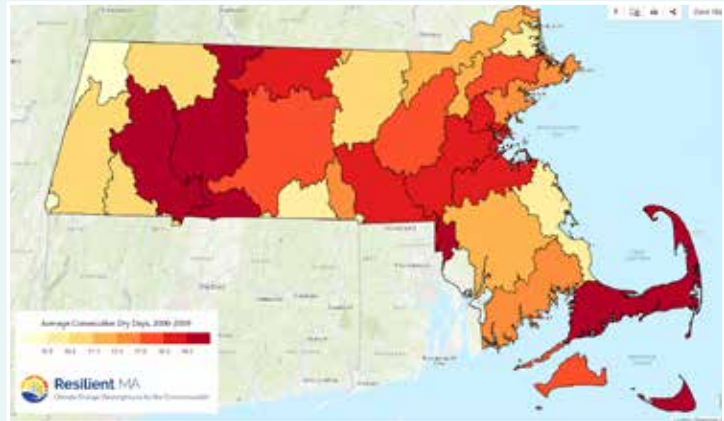
**48 weeks of “severe drought”** and **21 weeks of “extreme drought”** between 2001-2017 in Watertown<sup>5</sup>

### Projections

**Increase in frequency of short-term droughts<sup>6</sup>**

### Impacts

Though Watertown’s water supply, which is supplied by the Massachusetts Water Resources Authority, is not typically affected by drought, water scarcity can have an impact on the city’s tree canopy, plants, and landscapes.



Longer periods without rainfall, especially in summer or fall, are expected.

Source: Resilient MA



## HEAT WAVES

Increasing temperatures and heat waves—periods of three or more days over 90°F—are on the rise in Watertown.

### Trends

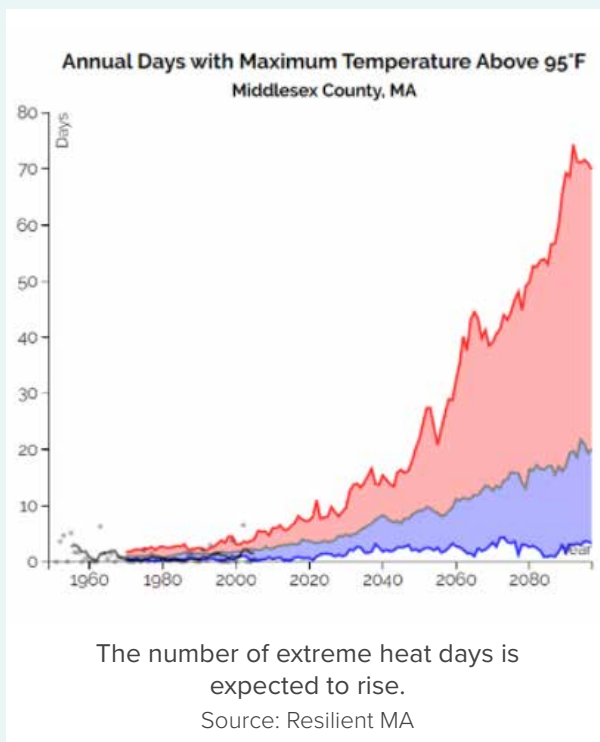
**11.5 days above 90°F** between 2010 and 2014 in Massachusetts, the highest number since 1950<sup>7</sup>

### Projections

**10 to 35 days more extreme heat days** and **17 to 39 fewer cold days** (under 32°F) by 2050<sup>8</sup>

### Impacts

Access to cooling has been identified as a top concern related to extreme heat in Watertown, particularly for sensitive populations including seniors and outdoor workers.

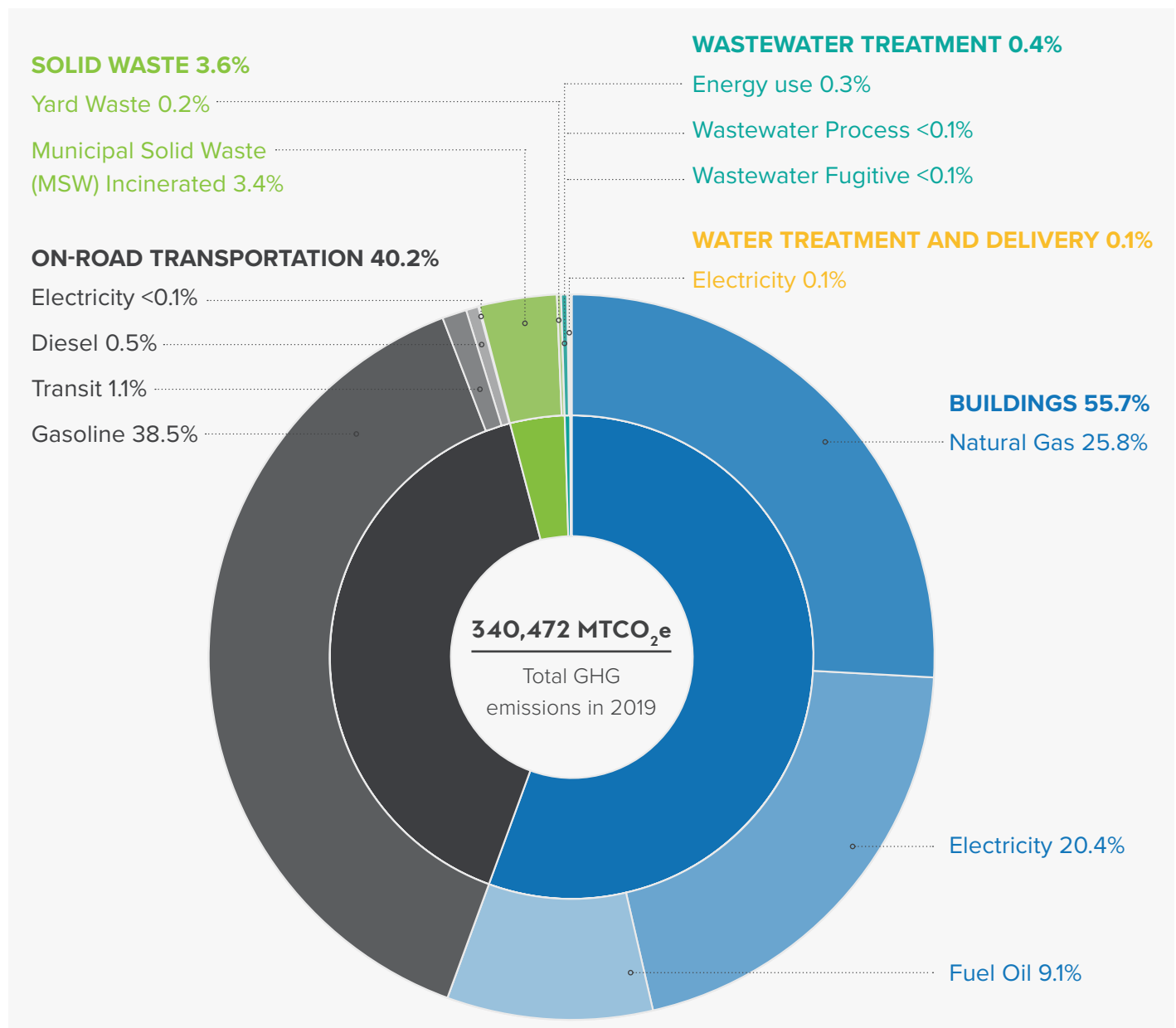


## WATERTOWN'S GREENHOUSE GAS EMISSIONS

It's important to understand where GHG emissions in Watertown are coming from so we can identify the greatest areas of opportunity to reduce our emissions in pursuit of our climate goals. As part of this planning process, Watertown conducted a GHG inventory to calculate 2019 community-wide and municipal emissions.<sup>9</sup>

Building energy use makes up more than half of Watertown's community emissions, and it is largely from the use of natural gas. Transportation makes up the second largest share and mostly come from use of gasoline in vehicles. In these two sectors, we'll need to focus our efforts on reducing building energy usage and miles traveled in private vehicles, while transitioning to renewable energy sources and non-vehicular transportation options. Solid waste makes up the next largest share of emissions and can be addressed through strategies to reduce waste generated and increase the percentage of waste that is recycled or composted.

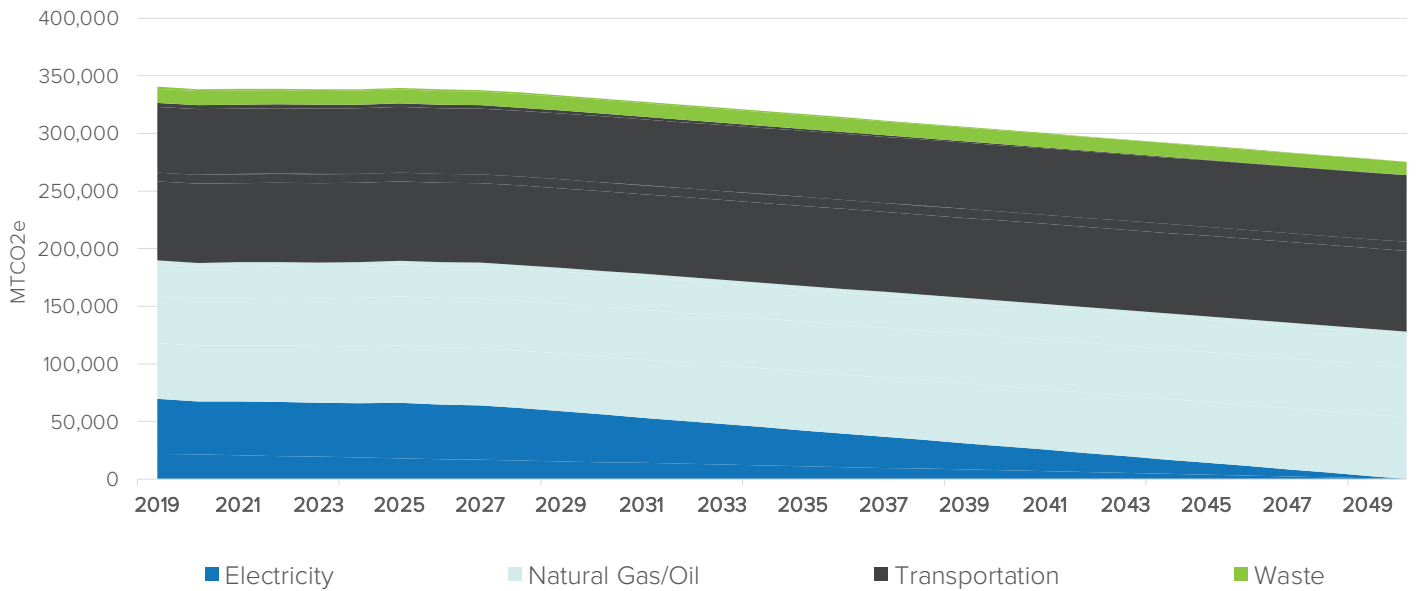
To estimate emissions and track progress, emissions of various GHGs are combined into a single weighted value for emissions, commonly references as **metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e)**.



## BUSINESS-AS-USUAL

The following chart forecasts what our emissions will look like if we take no intentional action. While we expect some emissions reductions over time due to the State's Renewable Portfolio Standard (requirements for the percentage of the state's electricity to come from renewable energy) and improved federal fuel economy standards, these actions alone will not put us on a path to achieve our goals.

**Business-As-Usual Scenario, 2019-2050**



### HFC Leaks

Hydrofluorocarbons (HFCs) are used in all types of refrigeration and cooling equipment. These chemicals have very high global warming potential values and are over 1,000 times as powerful at trapping heat as CO<sub>2</sub>. Even small amounts of leakage can have a big impact. Detailed leakage data is not available, but typical leakage rates applied to

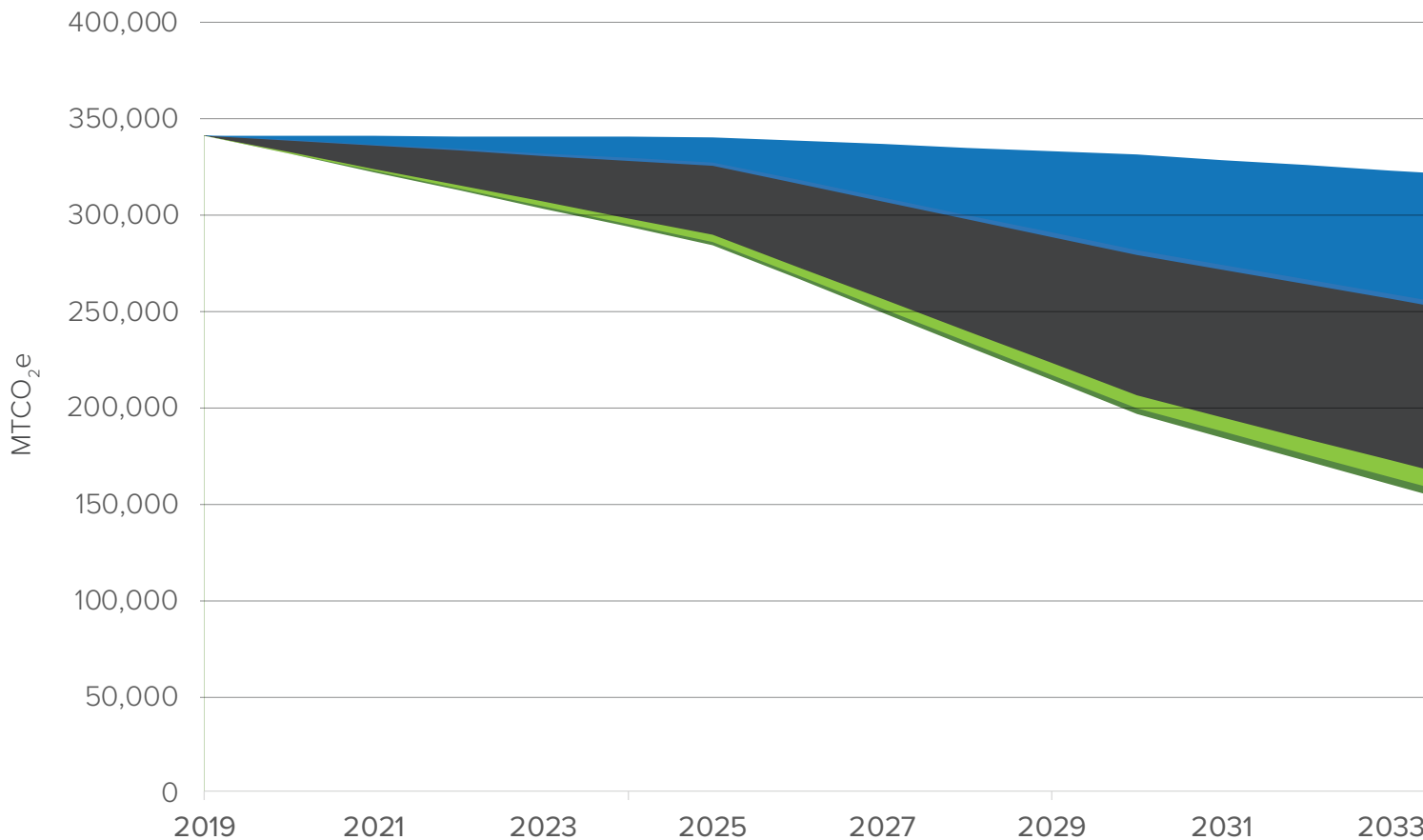
Watertown supermarkets and all the cars and buildings with air conditioning would likely raise our emissions profile by over 10,000 MTCO<sub>2</sub>e. The good news is that these chemicals are being phased out, but there are a lot of leaks that we can stop right away.



# WHERE DO WE GO FROM HERE?

## REDUCING OUR CONTRIBUTION TO CLIMATE CHANGE

The strategies outlined in this Climate & Energy Plan are designed to help us reach our climate goals. The chart below models the opportunity for GHG reductions in our community through 2050. The different bands in the graph correspond to the Plan's high impact strategies that will help us get to zero emissions.



### Transportation & Mobility

#### Potential to reduce up to 2,749,000 MTCO<sub>2</sub>e

- Strategy TM1: Enhance and actively promote zero-carbon mobility options for travel
- Strategy TM2: Accelerate the shift to electric vehicles (EVs)

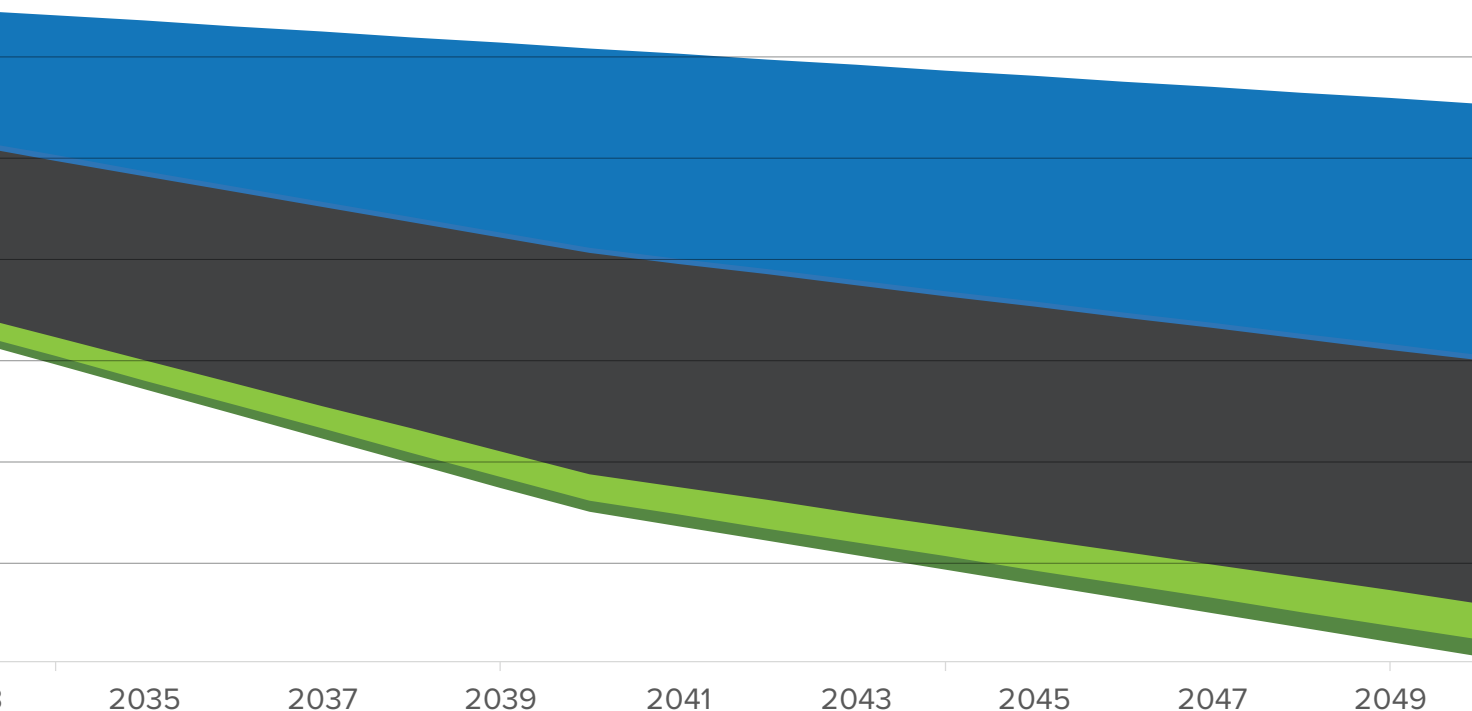


## Buildings & Energy

**Potential to reduce up to 2,917,000 MTCO<sub>2</sub>e**



- Strategy BE1: Accelerate the transition to renewable energy city-wide
- Strategy BE2: Require the highest standards for efficiency and carbon neutrality for new construction and major renovations
- Strategy BE3: Electrify existing buildings running on fossil fuels
- Strategy BE4: Enhance and actively promote deep retrofit and aggressive conservation programs



## Infrastructure & Waste Management

**Potential to reduce up to 182,000 MTCO<sub>2</sub>e**



- Strategy IW1: Transition community attitudes and actions around consumption and disposal practices

## Natural Resources

**Potential to reduce up to 5,000 MTCO<sub>2</sub>e**



- Strategy NR1: Protect and enhance forest and open space parcels
- Strategy NR2: Protect, enhance, and diversify the tree canopy



## ENHANCING OUR RESILIENCE TO CLIMATE IMPACTS

As climate hazards continue to threaten Watertown's infrastructure, resources, and people, there are actions we can take to reduce their impact. The strategies outlined below provide an opportunity to minimize climate change's worst impacts and enhance our resilience.

| Plan Element                                      | Strategy                                                                                                                          | Climate Change Hazards Addressed                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                   |                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                         |
| <b>Buildings &amp; Energy</b>                     | Strategy BE3: Electrify existing buildings running on fossil fuels                                                                |                                                                                                                                                                                                                                                                      |
| <b>Transportation &amp; Mobility</b>              | Strategy TM2: Accelerate the shift to electric vehicles (EVs)                                                                     |                                                                                                                                                                                                                                                                     |
| <b>Natural Resources</b>                          | Strategy NR1: Protect and enhance forest and open space parcels                                                                   |                                                                                                                                                                               |
|                                                   | Strategy NR2: Protect, enhance, and diversify the tree canopy                                                                     |                                                                                                                                                                               |
|                                                   | Strategy NR3: Promote regenerative landscaping and maintenance practices                                                          |                                                                                          |
|                                                   | Strategy NR4: Minimize quantity and improve quality of stormwater runoff                                                          |     |
| <b>Infrastructure &amp; Waste Management</b>      | Strategy IW2: Systematically integrate climate change projections into the design of all new and upgraded infrastructure projects |                                                                                                                                                                               |
| <b>Public Health &amp; Community Preparedness</b> | Strategy PH1: Promote climate literacy through education and training                                                             |     |
|                                                   | Strategy PH2: Acknowledge climate change's impact on and provide resources to enhance overall community health and well being     |     |
|                                                   | Strategy PH3: Provide equitable access to emergency preparedness and response resources                                           |                                                                                          |
|                                                   | Strategy PH4: Promote overall community connectivity                                                                              |                                                                                          |



**Intense Storms**



**Flooding**



**Heat Waves**



**Drought**

Climate Change Impacts Minimized

| Lessens damage to infrastructure, homes, and businesses | Prevents power outages | Provides back-up power | Reduces energy demand | Minimizes local flooding | Protects water quality | Helps maintain water supply | Reduces stress on wildlife | Prevents heat related illness | Provides resources to residents & businesses in need |
|---------------------------------------------------------|------------------------|------------------------|-----------------------|--------------------------|------------------------|-----------------------------|----------------------------|-------------------------------|------------------------------------------------------|
|                                                         | ✓                      | ✓                      |                       |                          |                        |                             |                            |                               |                                                      |
|                                                         |                        | ✓                      | ✓                     |                          |                        |                             |                            |                               |                                                      |
|                                                         |                        |                        | ✓                     | ✓                        | ✓                      |                             | ✓                          | ✓                             |                                                      |
|                                                         |                        |                        | ✓                     | ✓                        |                        |                             |                            | ✓                             |                                                      |
|                                                         |                        |                        |                       |                          | ✓                      | ✓                           |                            |                               |                                                      |
| ✓                                                       |                        |                        |                       | ✓                        | ✓                      |                             | ✓                          |                               |                                                      |
| ✓                                                       | ✓                      | ✓                      | ✓                     |                          |                        |                             |                            |                               |                                                      |
|                                                         |                        |                        |                       |                          |                        |                             |                            | ✓                             | ✓                                                    |
|                                                         |                        |                        |                       |                          |                        |                             |                            | ✓                             | ✓                                                    |
|                                                         |                        |                        |                       |                          |                        |                             |                            | ✓                             | ✓                                                    |
|                                                         |                        |                        |                       |                          |                        |                             |                            | ✓                             | ✓                                                    |

# CLIMATE ACTION IN WATERTOWN

Watertown is already taking important steps to mitigate and adapt to climate change. *Resilient Watertown* builds on these existing initiatives and past milestones.

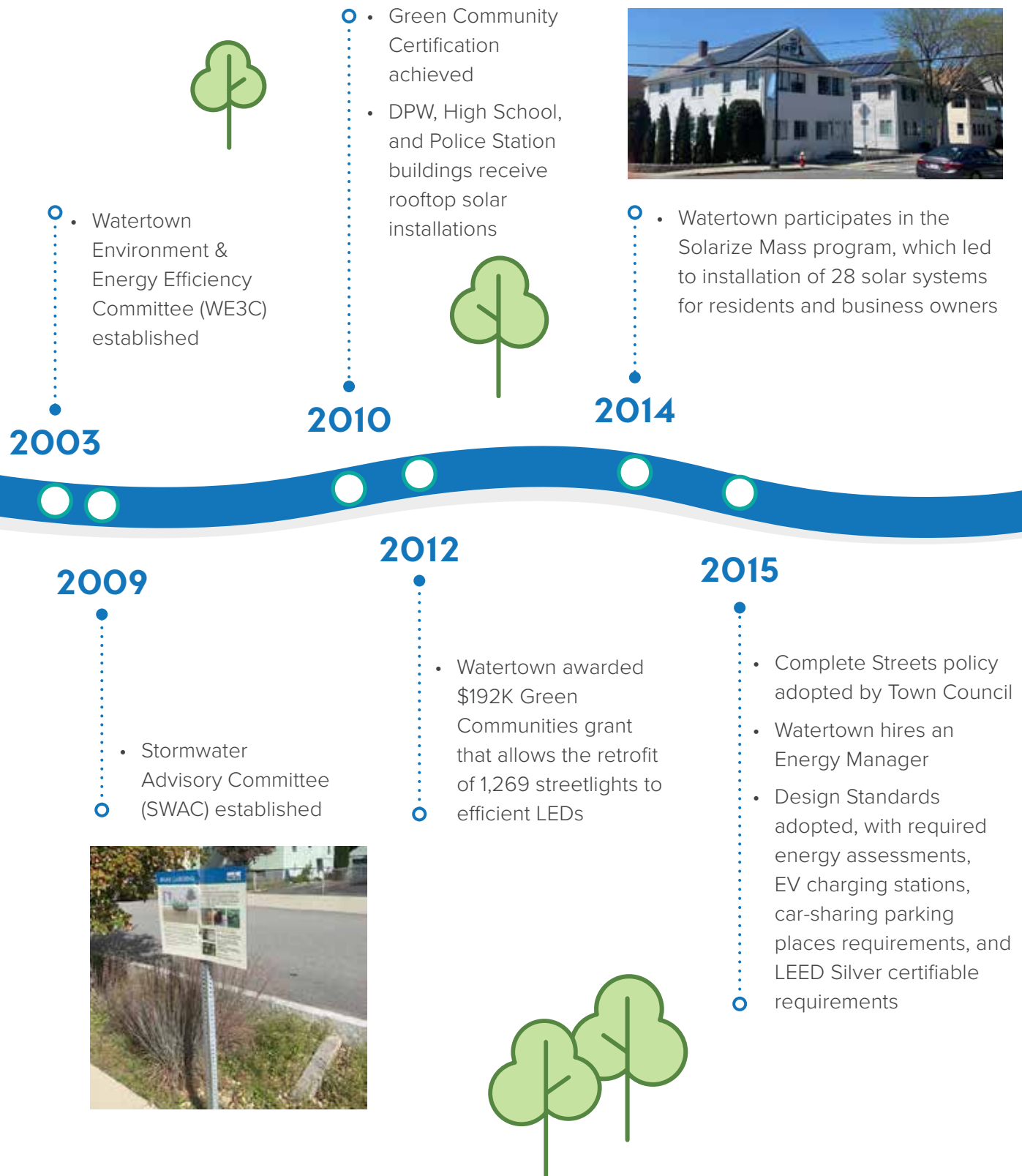


Image Credit: City of Watertown



- Construction of state's first net zero elementary school in Watertown
- Watertown awarded \$207,505 Green Community Competitive Grant to replace all remaining energy inefficient streetlights with LEDs
- Bicycle and Pedestrian Plan released
- Community Greening Program launched

2021

2019

- Watertown Electricity Choice launched
- Resolution to support transition to 100% renewable energy passed by Town Council

2017

- Transportation Demand Management requirement established for new developments

2018

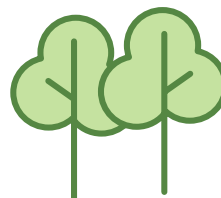
- LEED Silver ordinance passed
- First-in-New-England rooftop solar ordinance passed by Town Council, requiring equivalent of 50% roof coverage for new and substantially renovated buildings over 10,000 sq. ft. (or residential units of greater than 10 units) and 90% roof coverage of parking garages

2020

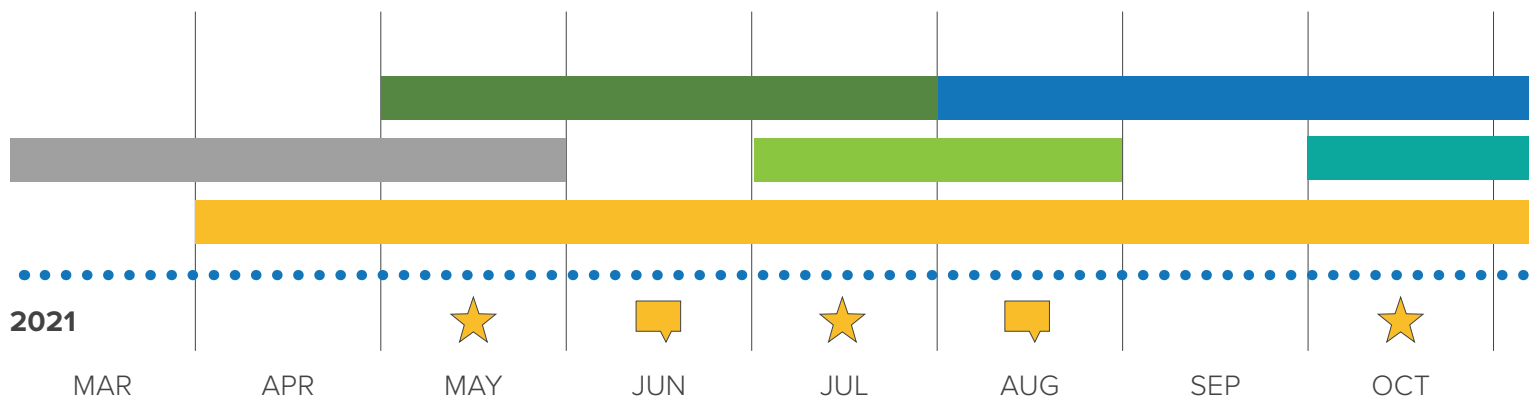
- Municipal Vulnerability Preparedness (MVP) Community certification achieved



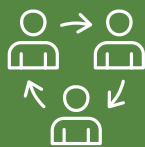
**MVP**  
Municipal Vulnerability  
Preparedness



# DEVELOPING THE PLAN



## Stakeholder Advisory Group



### The Resilient Watertown Stakeholder Advisory Group (RWSAG)

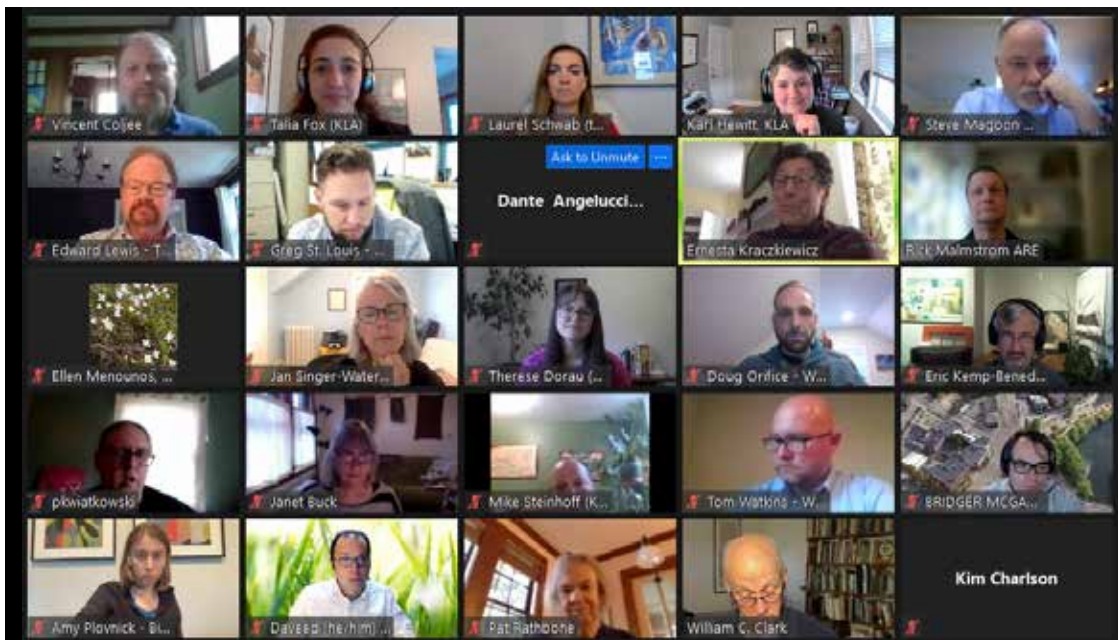
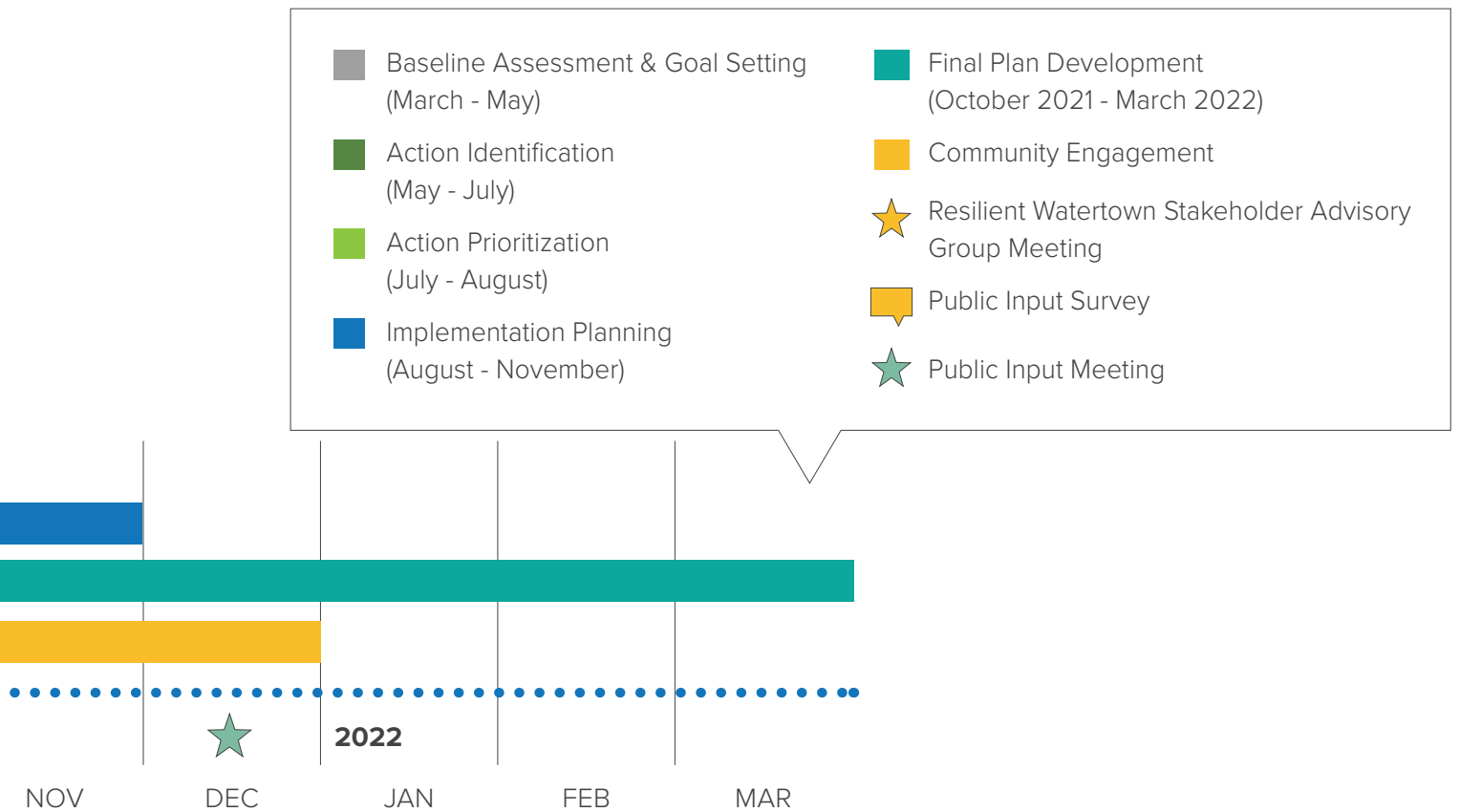
supported the planning process and directly informed the vision, goals, priority actions, and implementation steps throughout the plan's development. The 35-member Advisory Group consisted of municipal representatives and key stakeholders from universities, non-profits, businesses, and local environmental groups.

## Working Groups



In addition to convening as a group, the RWSAG was divided into **Working Groups** for each of the five plan elements based on expertise and interest. Working Groups met independently to collaboratively confirm goals, refine actions, and develop implementation blueprints for priority actions, as well as to support community engagement. The Advisory Group was integral to bringing community-based knowledge to shape the plan in addition to serving as ambassadors for climate action and *Resilient Watertown*.





The *Resilient Watertown* process launched Spring of 2021, building on the MVP planning efforts in 2020. The planning process consisted of five distinct phases that allowed the City to first assess existing conditions and projected climate impacts, and then develop goals, actions, and metrics based on that data and input from community members and stakeholders.

# ENGAGING OUR COMMUNITY



**645** Survey Responses



**931** Comments



**3,800** Residents engaged



The City connected with a total of about 3,800 residents during the year-long planning process. Impacts from a global pandemic compelled the City to shift to a primarily virtual approach using online engagement tools, in addition to a handful of outdoor events.

*Resilient Watertown* engagement was intended to build capacity for community members to understand climate issues and foster ongoing climate conversations, with a focus on residents most vulnerable to climate impacts. Across nine months of engagement, the City and community organizations gathered 645 online survey responses across four surveys with nearly 1,000 comments from community members. City staff distributed education materials, had personal conversations at five public events, and provided public access to the three Advisory Group meetings and multiple opportunities to offer feedback during the process.

## Equitable Engagement

**Spanish Language** – Over 9% of City residents identify as Hispanic and *Resilient Watertown* aimed to engage this audience in the planning process. Survey One was offered and advertised in Spanish to collect feedback from, and engage with, Spanish-speaking residents. Multilingual engagement efforts demonstrate that the City can work to build connections to Spanish-speaking community members.

**Visual Accessibility** – Watertown has significant cultural and institutional resources for community members with visual impairments, being the home of Perkins School for the Blind. To ensure that all community members could offer feedback, *Resilient Watertown* offered surveys in a platform that is more visually accessible. Future City planning processes can use best practices for accessibility during public outreach and stakeholder engagement and continue to reach out to include community members with visual impairments.



### 3 Goals for Engagement

- Gather input through an equitable process
- Build capacity of community members to understand climate issues
- Spark ongoing climate conversation



### Planning for Resilient Housing

Nearly half of Watertown residents rent their home—and there are unique challenges to making rental properties more sustainable. Through targeted outreach to renters and owners of rental properties in the form of virtual surveys and focus groups, we gathered data and stories from renters and landlords that was incorporated into the plan. Building capacity among renters and landlords to improve the sustainability of rental housing is a priority for the City, so we developed a public online **Resource Center** that houses valuable tools, how-to-guides, and funding opportunities. Engaging renters and landlords is crucial to understand the barriers and opportunities for action so that Watertown can promote the character of our unique neighborhoods and support affordable, safe, and resilient rental housing for all.

### Resilient Housing Resource Center

Almost 50% of Watertown residents rent their home and the Town is committed to ensuring that all residents live in safe, comfortable, and efficient homes. Whether you rent, own, or manage rental housing in Watertown, these resources can help you lower utility bills and operation costs, identify funding for building upgrades, and support a resilient rental housing market that is fit for the future. Many of these resources are valuable for homeowners, too!

Use the filters on the right to access exactly what you are looking for or, if you are unsure where to start, just scroll through and see what interests you.

How to Choose an Energy-Efficient Air Conditioner

Guide to Installing Electric Vehicle Charging Equipment

Light Fixture Product & Rebate Finder

#### Resource Type

- Databases
- Documents & Studies
- Financial Assistance
- How-To-Guides
- Online Tool
- Programs

#### Audience

- Renters
- Landlords & Property Managers

#### Topic

- Buildings
- Climate Impacts
- Cost Savings



# WHAT WE HEARD

Residents voiced strong support for the City’s climate goals, especially for protecting and enhancing natural resources and supporting connected, convenient, and accessible transportation systems. Survey respondents were keenly aware that Watertown is a desirable location for new development and want to ensure that the city is an affordable, vibrant, and well-connected community to live, work, and play, for decades to come.

## STRENGTHS

**70%**

Of Survey 1 respondents strongly support green infrastructure practices

“

Watertown has a lot of open space, trails, and parks compared to most places I’ve lived. It makes the town a great place to live.



“

Walkability is one of the reasons I live in Watertown.

“

I opted up to 100% renewable energy on my electric bill as per the Watertown program. It costs a bit more, but worth it in the long run!



**63%**

Of Survey 1 respondents agree or strongly agree they have strong social ties in Watertown

Image Credit: City of Watertown

Renters and landlords expressed enthusiasm for creating more sustainable rental housing in Watertown and asked for City support for learning about funding, and implementing changes to make buildings healthier, safer, and better able to withstand impacts from climate change.



## OPPORTUNITIES

**65%**

Of Survey 2 respondents support increasing tree planting on public property and prioritizing tree planting in vulnerable neighborhoods first.

**37%**

Of Survey 2 respondents reported heat, or related poor air quality, could be a health risk for their families.

### Take our survey!

The Town of Watertown is creating a Climate and Energy Plan and wants your input.



THE RESILIENT WATERTOWN PLAN WILL FOCUS ON FIVE ELEMENTS



**Are you a renter?**

Take our survey just for you!

Watertown stands united to preserve and strengthen our unique neighborhoods and natural resources. With Resilient Watertown, our Climate & Energy plan, we are committed to equity, communication, and innovation while reducing our greenhouse gas emissions and enabling all residents to thrive in the face of climate change.



“

I would like to see education, and possibly financial incentives, for new and existing homeowners and landlords to transition their green spaces to be sustainable.

“

In Watertown I'd like to see less new construction destroying existing trees and plants.



“

I chose to sacrifice other things such as amenities, and some of my budget, in order to ensure I live right on the bus route. Not everyone is able to do that. Those inequities need to be addressed. Peoples' access is limited by their socioeconomics, disabilities, age, health, etc. Any changes made need to keep these factors in mind.

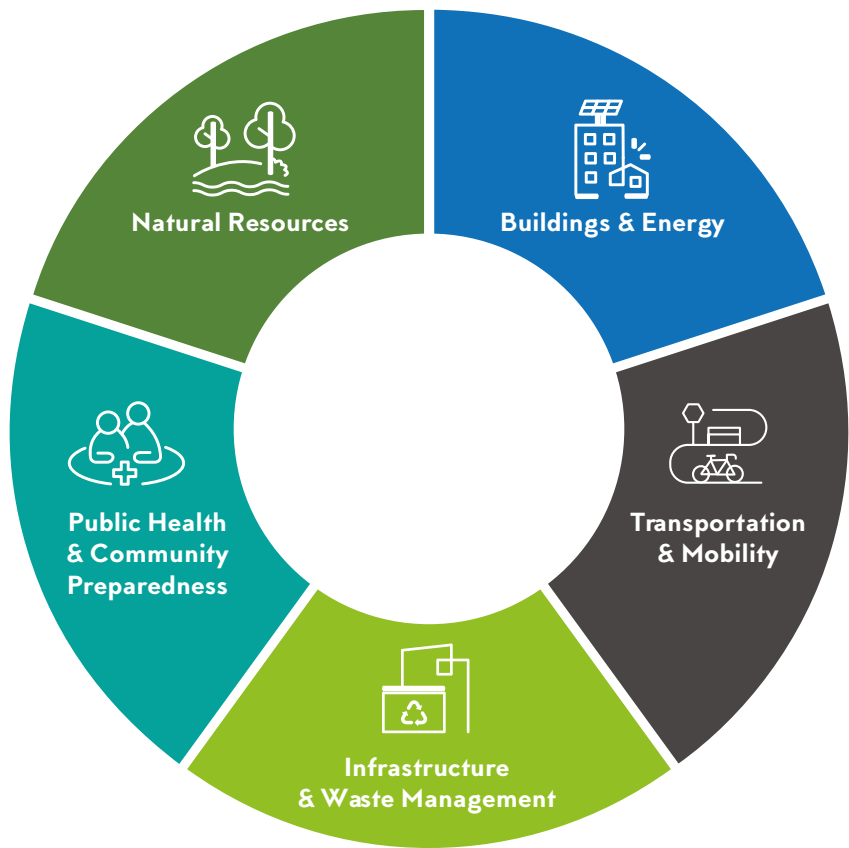
Image Credit: City of Watertown

# OUR PLAN

Watertown’s path forward for acting on climate change includes reducing our greenhouse gas emissions and adapting to unavoidable climate impacts. *Resilient Watertown* identifies opportunities to reduce our GHG emissions, while enhancing our resilience to the climate hazards we are already experiencing in Watertown.

The goals, actions, and metrics by which we will measure success will be substantially re-evaluated every five years to update and adjust actions and targets to adapt to emerging trends and technologies. The plan will undergo review by City staff and the Watertown Environment and Energy Efficiency Committee (WE3C) annually. While the goals and metrics in the plan are aligned to reach a 2050 target date, we hope to achieve much, if not all, of the goals before that date, and will update our timeframe if progress allows.

*Resilient Watertown* goals and actions are organized into **5 PLAN ELEMENTS**:



**6 GUIDING PRINCIPLES** aligned with Watertown’s priorities are the foundation for achieving our goals and actions:

|                                   |                   |                                   |
|-----------------------------------|-------------------|-----------------------------------|
| Greenhouse Gas Emission Reduction | Resilience        | Preservation of Natural Resources |
| Regional Collaboration            | Economic Vitality | Equity and Justice                |



## HOW TO READ THIS PLAN

Details for each of the plan elements are outlined in the sections ahead and follow the following format:



### Goals:

What Watertown intends to accomplish

### [Plan Element] & Our Climate:

The relationship between the Plan Element and its contribution to climate change

### Community Priorities:

Priorities and opportunities expressed by community members through engagement efforts

### Leading by Example:

Initiatives currently underway

## Strategies & Actions to Achieve our Goals:

Key strategies and actions prioritized through engagement and collaboration

|                 | Action | Timeframe | Cost | Implementation Champion | Cumulative 2050 GHG Reduction | Resilience Benefits |
|-----------------|--------|-----------|------|-------------------------|-------------------------------|---------------------|
| <b>Goal</b>     |        |           |      |                         |                               |                     |
| <b>Strategy</b> |        |           |      |                         |                               |                     |

**Strategy:** General approach the City will take to accomplish our goals

**Action:** Brief summary of the specific activity that will be undertaken

**Timeframe:** Approximately how long it will take to accomplish the action. Options include:

- Short = <1 year
- Medium = 1-3 years
- Long = 3-5 years

**Cost:** Estimated cost to implement the action. Options include:

- \$ = <10K
- \$\$ = <100K
- \$\$\$ = >100K

**Implementation Champion:** Entity responsible for leading implementation of the action

**Estimated GHG Reduction:** How much the strategy will help reduce our contribution to climate change, measured in metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e)

**Resilience Benefits:** How the strategies address the impacts of four primary climate hazards



### Measuring Success:

The indicators of success to effectively measure our goals, strategies, and actions.

| Metric (unit) | Baseline Data | 2030 Target | 2050 Target |
|---------------|---------------|-------------|-------------|
|               |               |             |             |

### Implementation Blueprint:

A roadmap that details steps, implementation champions, key partners, and timeframe. Blueprints were created for priority actions that were deemed to need more implementation details.

# CROSS-CUTTING STRATEGIES

*Resilient Watertown*'s five Plan Elements do not, and should not, exist in silos. Many of the issues within them overlap, indicating opportunity for synergies that help us achieve multiple goals at once. Furthermore, it's important that we pursue measures that enable our successful implementation of all strategies and actions, including by enhancing coordination and capacity, and building up our resources for implementation. Cross-cutting strategies help us reduce our contribution to climate change and protect us from its impacts by strengthening success across all strategies and actions. The City will pursue several additional strategies, which speak to these interconnections.

## STRATEGIES TO ACHIEVE OUR GOAL

### **Strategy CC1: Add staff capacity and resources to the Energy Manager's Office, the DPW Forestry Division, and the Department of Community Development and Planning**

- Pursuing the many actions in this Plan will require staff capacity. Creating new positions or expanding resources available to existing staff will be critical to the successful and timely implementation of the *Resilient Watertown* Climate & Energy Plan.

### **Strategy CC2: Create an overarching Resilient Watertown Outreach & Education Campaign**

- Community-wide education is essential to spreading the word about *Resilient Watertown* and how residents support implementation of actions. This might include toolkits targeted to residents about what they can do to reduce impervious surfaces, plant more trees, conserve energy, change their commuting habits, work together with neighbors, and more. This may also include creation of education materials for use as a "presentation in a box" for volunteers to use while presenting to interested groups.

### **Strategy CC3: Develop assistance mechanisms and resources for renters and landlords (regarding energy efficiency, EV charging, etc.)**

- When it comes to building improvements that support climate action, many landlords and renters want to help, but they may lack the funds, time, or information. The City can provide support to residents to help them access rebates or work with contractors to make changes to their homes.

### **Strategy CC4: Collaborate regionally with other communities and entities**

- Many neighboring municipalities and partner organizations (such as the Resilient Mystic Collaborative, Charles River Climate Compact, and Metropolitan Area Planning Council) share our vision for a net zero, resilient future. We can strengthen existing partnerships and build new ones, both to pursue collaborative projects and advocate for collective goals at the state level.

### **Strategy CC5: Explore establishing a Transportation Infrastructure Fund with funding from developers and the City to implement recommendations of this Plan**

- While still rare in the greater Boston area, a Transportation Infrastructure Fund could be a sustaining funding mechanism and a way of proactively demonstrating to the business community and community at large a strong public-private partnership between developers and City leaders to enable collective achievement of this plan's transportation goals.



## GOAL

**Achieve synergies across multiple Plan Element goals and enable successful implementation of all strategies and actions.**

### Strategy CC6: Encourage and require sustainable, climate-resilient development patterns

- Promoting more sustainable, climate-resilient development in Watertown will require both working closely with the development community and updating requirements, such as the upcoming Comprehensive Plan update and other relevant planning and regulatory processes. This might include working with prospective developers to address barriers to expanding reuse or redevelopment of historic and other existing properties. On the regulatory side, this could include enhancing requirements for developers to connect their properties to existing off-street paths to enhance multi-modal connectivity, in addition to strengthening our commitment to mixed-use development to facilitate the creation of “15-minute neighborhoods” where all one’s needs are a short distance from home.



Watertown’s downtown, located along Main Street, includes a variety of shops and restaurants, the Watertown Free Public Library, and more. Credit: City of Watertown





## BUILDINGS & ENERGY

The Buildings and Energy plan element is focused on investing in smart infrastructure and programs that reduce energy consumption and increase renewable energy supply, preserving valuable historic neighborhood character and providing diverse affordable housing.



The ~2,700 rooftop solar panels installed at Arsenal Yards represent the largest solar energy project in Watertown to-date. Watertown's zoning ordinance requires solar panels on new and substantially renovated buildings over 10,000 sq. ft. (or residential units of greater than 10 units) and parking garages. Credit: Dan Watkins for Arsenal Yards

### BUILDINGS, ENERGY, & OUR CLIMATE

We spend most of our daily lives—sleeping, working, eating—in buildings. Our homes, offices, grocery stores, and places of worship require a significant amount of energy to ventilate the air, manage temperatures, power our devices, and provide many of the other basic comforts we are accustomed to. These activities come at a cost. The fossil fuels used in buildings and those used to generate the electricity we consume emit a significant amount of GHGs into the atmosphere. As of 2019, buildings represent 56% of our community's total GHG emissions.<sup>10</sup> However, buildings also present the biggest opportunity for us to reduce our emissions, improve the daily lives of all of our community members, and design smart and efficient neighborhood systems that are resilient to climate change.



#### GOALS

**Goal 1: By 2050, 100% of electricity is sourced from renewables**

**Goal 2: By 2050, Watertown's buildings are efficient, resilient, and carbon neutral**

## COMMUNITY PRIORITIES:

- ✓ Electrification and efficiency requirements for new construction in Watertown (Survey 1)
- ✓ Keeping energy affordable (Renter Survey)
- ✓ Rebates and grants to support reduction of fossil fuel uses in homes and businesses (Survey 2)

## TRANSITIONING TO RENEWABLE ENERGY

Realizing a 100% clean energy future requires eliminating direct use of fossil fuels and shifting our electricity supply to renewables. While we expect continued changes in the regional electricity grid and will leverage Watertown Electricity Choice to accelerate the transition to renewables, we will also need to maximize installed solar capacity within the community.

**3,209 rooftops**



Solar Capacity in Watertown

2019: **3,209 rooftops<sup>11</sup>**

2050 Target: **6,700 rooftops**

### LEADING BY EXAMPLE:

#### Net Zero Schools

Several Massachusetts schools have been leading the way in getting to net-zero energy. Net-zero schools have lower energy consumption and can provide ample educational opportunities for students. The Cunniff School in Watertown is one of the first net-zero energy certified school buildings in the state.



## BUILDING NEW CONSTRUCTION EFFICIENTLY

To meet its GHG reduction targets, Watertown must eliminate fossil fuel use in both new and existing buildings. With new construction, we have an opportunity not only to reduce our community's emissions, but also to build highly efficient, dynamic, and healthier buildings. Electric systems are more efficient, and the more energy efficient a building is, the less power (and money) it will need to operate over time. Plus, eliminating fossil fuel powered appliances improves air quality and can enhance comfort.

Watertown will start by requiring all new construction to be powered with electricity by 2025 for most building types. Buildings with more unique energy needs, such as hospitals or labs, can be built in a way that facilitates the transition to electricity as technology allows.



## ELECTRIFYING OUR EXISTING BUILDINGS

Most of our residential buildings use natural gas and oil for heat. Accordingly, this is where most building emissions come from. With over 9,000 residential units to convert, the bulk of the work to electrify Watertown is in this sector. There are far fewer commercial buildings to convert, but their size presents opportunities for big wins with the right types of retrofits. To get this work done, the City will take advantage of State, Federal, and other financial support. As more and more communities continue to electrify, coordination with electrical providers will also be critical.

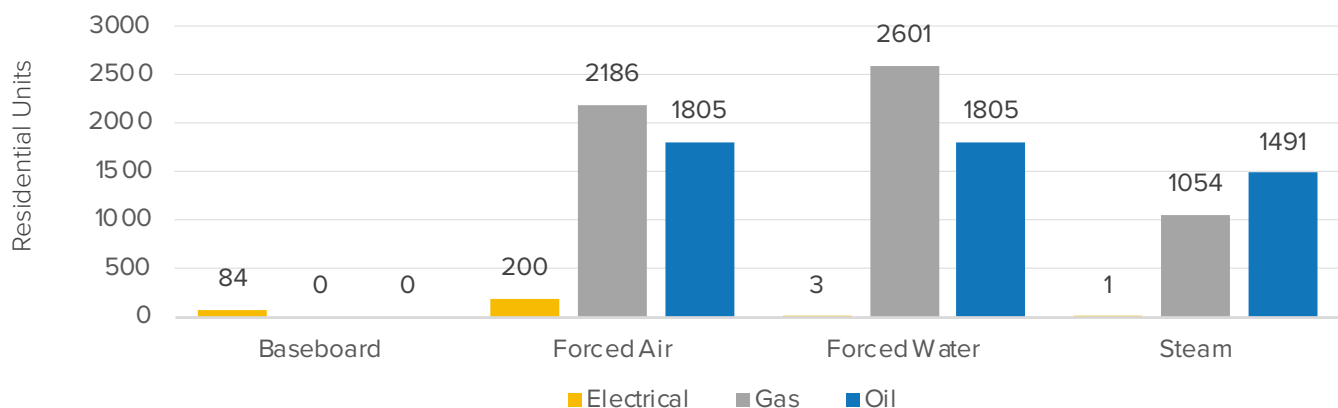
| Year                                          | 2025 | 2030 | 2050 |
|-----------------------------------------------|------|------|------|
| Electrification Target for Existing Buildings | 10%  | 40%  | 100% |

Watertown will prioritize and pursue these actions strategically. For example, over 2,500 residential units have forced air distribution systems.<sup>12</sup> These are the easiest to retrofit with today's heat pump technologies and should be targeted first. Other easy retrofits include domestic hot water heaters and those homes that are installing central AC. Our actions will also consider how types of housing may play into barriers to retrofitting more heating systems. Condominiums and other multifamily properties may need additional coordination among owners, but there is opportunity to update multiple units at once.

### Did You Know? The Benefits of Geo-Micro Grids

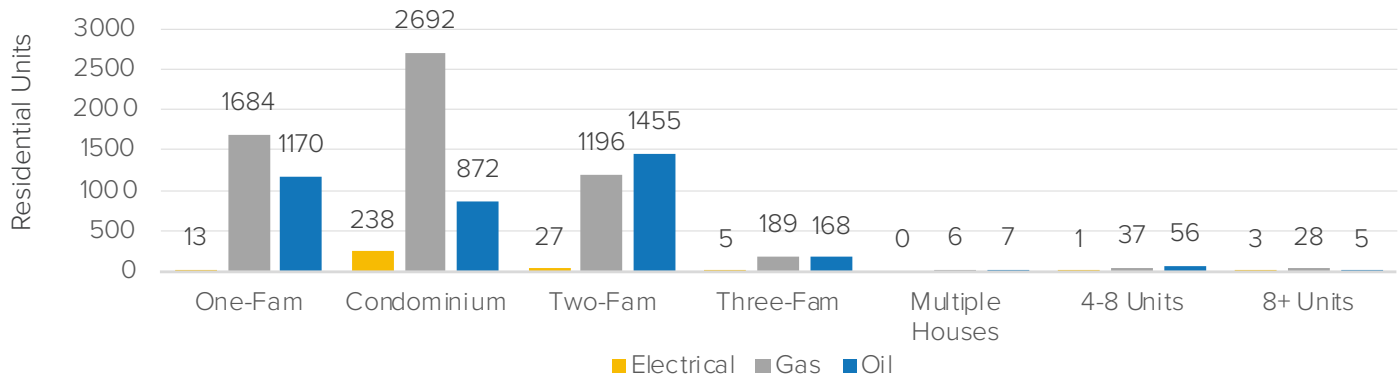
Scaling up electrification for larger commercial and institutional structures could benefit from the use of geo-micro grids, a decentralized solution that uses thermal energy transferred through heat pumps and a shared water loop. Larger, more energy intensive buildings could benefit from this technology as it could serve multiple buildings while providing other resilience benefits, such as enhanced power reliability.

**Residential Units by Heating Source (2021)**



Source: Watertown Assessor's Database

**Residential Units by Unit Type (2021)**



Source: Watertown Assessor's Database

## CONSERVING OUR ENERGY

As we electrify our buildings and power them with 100% clean energy, it may be tempting to discount conservation efforts to reduce GHGs. The fact is that it will be extremely difficult to produce or purchase all the clean energy we need if we do not find ways to make our buildings more efficient. Electrification in buildings alone will increase electricity use by 47% and electric vehicles will add even more. Combining deep energy retrofits as we electrify our buildings will stabilize the increase in electricity demand and make it easier to get to and maintain carbon-free electricity. Existing programs that help residents and businesses conserve energy include MassSave rebates, incentives, and no-cost energy assessments and the Massachusetts Clean Energy Center's Clean Heating and Cooling programs that offer financial assistance for heat pumps and other technologies.

| Residential Targets      | 2025 | 2030  | 2040  | 2050  |
|--------------------------|------|-------|-------|-------|
| Percent Retrofitted      | 10%  | 40%   | 80%   | 100%  |
| Target Units to Retrofit | 962  | 3,850 | 7,699 | 9,624 |
| Units to Retrofit / Year | 241  | 577   | 385   | 192   |

| Commercial Targets                  | 2025 | 2030 | 2040 | 2050 |
|-------------------------------------|------|------|------|------|
| Percent Retrofitted                 | 10%  | 40%  | 80%  | 100% |
| Total Buildings to Retrofit by year | 52   | 207  | 414  | 517  |
| Target Buildings to Retrofit / Year | 52   | 31   | 21   | 10   |

### Did You Know? Retrofits Support Equity

Households in Watertown below 30% of area median income (AMI) spend on average 16% of income on energy, compared to 2% for those earning higher than AMI.<sup>13</sup> Retrofits are therefore an important way to help low-income residents save money. Furthermore, technical and financial assistance proposed in this Plan will work to address these disparities as we transition our building systems.

## STRATEGIES & ACTIONS TO ACHIEVE OUR GOALS

The strategies and actions identified for Buildings and Energy focus on expanding opportunities for solar and other renewables, as well as creating standards and technical and financial support for new construction to be net zero, and for existing buildings to be all-electric and as efficient as possible.

|                                                                                                                                  | Action ID | Action                                                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GOAL 1: By 2050, 100% of electricity is sourced from renewables</b>                                                           |           |                                                                                                                                                                         |
| <b>Strategy 1: Accelerate the transition to renewable energy city-wide</b>                                                       | BE 1.1    | Expand and strengthen the existing solar ordinance                                                                                                                      |
|                                                                                                                                  | BE 1.2    | Investigate implementing commercial PACE and other innovative financing programs                                                                                        |
|                                                                                                                                  | BE 1.3    | Develop and implement a targeted outreach campaign focused on recruiting for Watertown program and installing rooftop solar on homes and businesses                     |
| <b>GOAL 2: By 2050, Watertown's buildings are efficient, resilient, and carbon neutral</b>                                       |           |                                                                                                                                                                         |
| <b>Strategy 2: Require the highest standards for efficiency and carbon neutrality for new construction and major renovations</b> | BE 2.1    | Adopt the State's Net Zero Stretch Code as soon as permissible                                                                                                          |
|                                                                                                                                  | BE 2.2    | Enact fees for residential gas hookups to promote electrification                                                                                                       |
|                                                                                                                                  | BE 2.3    | Promote workforce development and training programs for net zero construction                                                                                           |
|                                                                                                                                  | BE 2.4    | Work with municipalities in the region to eliminate fossil fuels (e.g., identifying mechanisms)                                                                         |
|                                                                                                                                  | BE 2.5    | Include the use of Whole Building Life Cycle Assessment as a condition for granting permits for developments and work towards setting progressively tighter standards   |
| <b>Strategy 3: Electrify existing buildings running on fossil fuels</b>                                                          | BE 3.1    | Investigate and support development of geo-microgrid pilot programs                                                                                                     |
|                                                                                                                                  | BE 3.2    | Develop and implement a targeted outreach campaign focused on promoting heat pumps, oil heat and natural gas (e.g., zero-interest loans for heat pumps)                 |
|                                                                                                                                  | BE 3.3    | Incentivize the transition to heat pumps through HEAT Smart or other programs                                                                                           |
| <b>Strategy 4: Enhance and actively promote deep retrofit and aggressive conservation programs</b>                               | BE 4.1    | Enact a Building Energy Use Disclosure Ordinance                                                                                                                        |
|                                                                                                                                  | BE 4.2    | Provide technical assistance for clean energy, energy efficiency, and financing activities (e.g., collaborating on retrofits of Watertown Housing Authority properties) |
|                                                                                                                                  | BE 4.3    | Upgrade major existing municipal facilities to achieve net zero energy performance                                                                                      |
|                                                                                                                                  | BE 4.4    | Develop a bulk procurement and purchasing program to support smaller commercial projects and retrofits                                                                  |
|                                                                                                                                  | BE 4.5    | Incentivize large grocery stores and buildings with significant refrigeration to get certified to reduce HFCs                                                           |



**Intense Storms**



**Flooding**



**Heat Waves**



**Drought**

|                              | Timeframe<br>Short (<1 year)<br>Medium (1-3 years)<br>Long (3-5 years) | Cost<br>\$ (<\$10K)<br>\$\$ (<\$100K)<br>\$\$\$ (> \$100K) | Cumulative 2050<br>GHG Reduction | Resilience Benefits |
|------------------------------|------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------|---------------------|
|                              |                                                                        |                                                            |                                  |                     |
|                              | Medium                                                                 | \$                                                         | 674,800 MTCO <sub>2</sub> e      |                     |
|                              | Short                                                                  | \$                                                         | 12% of total reductions          |                     |
| own Electricity Choice       | Short                                                                  | \$                                                         |                                  |                     |
|                              |                                                                        |                                                            |                                  |                     |
|                              | Medium                                                                 | \$                                                         | 154,200 MTCO <sub>2</sub> e      |                     |
|                              | Medium                                                                 | \$\$                                                       | 3% of total reductions           |                     |
|                              | Medium                                                                 | \$\$                                                       |                                  |                     |
| ms like home rule petition)  | Long                                                                   | \$                                                         |                                  |                     |
| mits for applicable          | Medium                                                                 | \$\$                                                       |                                  |                     |
|                              | Long                                                                   | \$\$\$                                                     | 2,029,000 MTCO <sub>2</sub> e    |                     |
| ps for residential homes on  | Medium                                                                 | \$\$                                                       | 35% of total reductions          |                     |
|                              | Short                                                                  | \$\$                                                       |                                  |                     |
|                              | Medium                                                                 | \$\$                                                       | 58,900 MTCO <sub>2</sub> e       |                     |
| (e.g., home energy guidance, | Medium                                                                 | \$\$\$                                                     | 1% of total reductions           |                     |
|                              | Long                                                                   | \$\$\$                                                     |                                  |                     |
| operties with deep energy    | Medium                                                                 | \$\$                                                       |                                  |                     |
| d in EPA GreenChill program  | Short                                                                  | \$\$                                                       |                                  |                     |



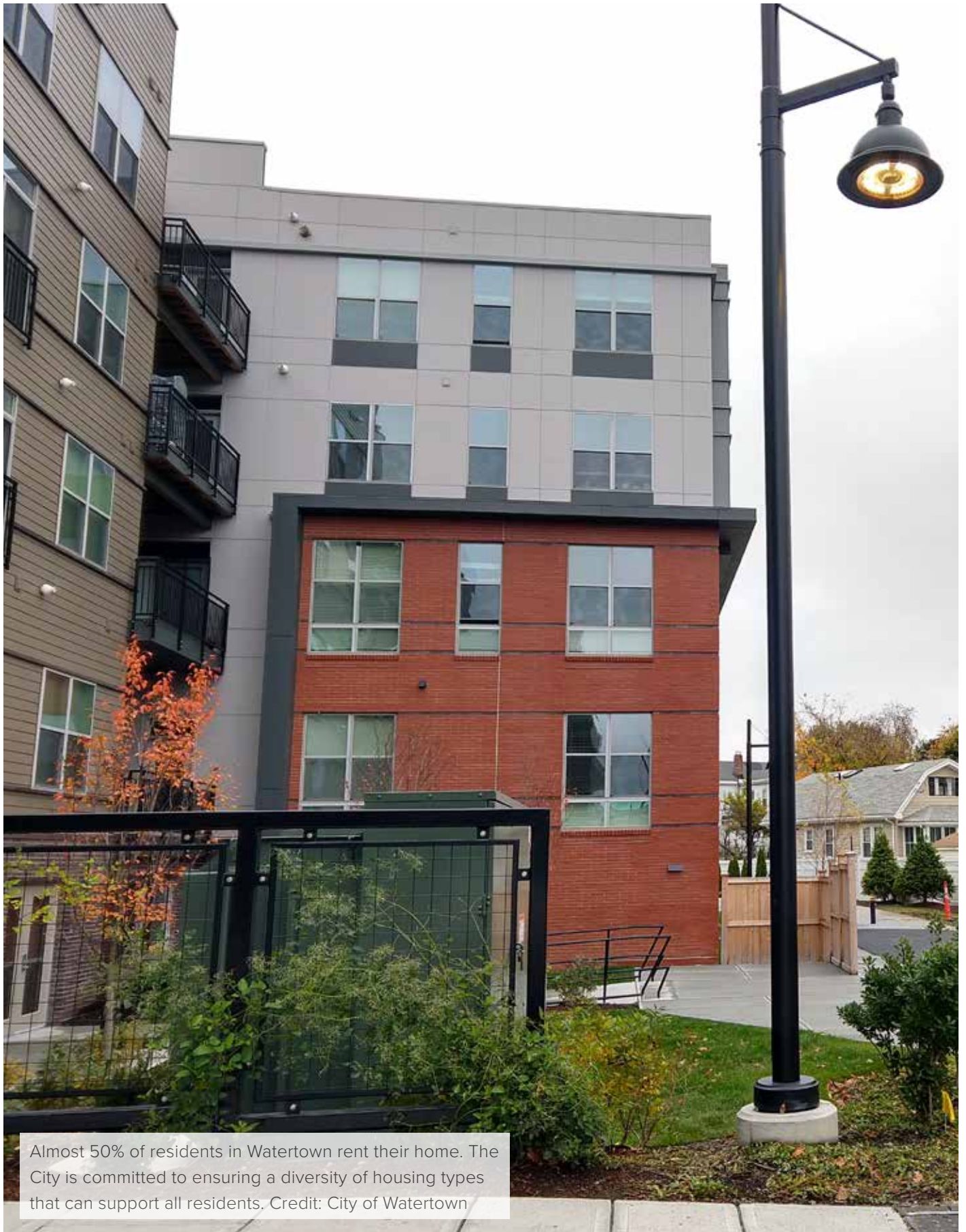
## MEASURING SUCCESS

The following indicators will help Watertown monitor progress toward our goals for Buildings and Energy. Multiple actions may contribute to a single target. The City will revisit these targets every five years.

| Metric (unit)                                                                             | Baseline Data                                                  | Baseline Year | 2030 Target                                                                      | 2050 Target | Source                                          |
|-------------------------------------------------------------------------------------------|----------------------------------------------------------------|---------------|----------------------------------------------------------------------------------|-------------|-------------------------------------------------|
| Percent of income spent on energy for households within 0% to 30% of AMI                  | 16% of income on energy (2% for those earning higher than AMI) | 2018          | 8%                                                                               | 2%          | US DOE Low Income Energy Affordability Database |
| Enrollment in Watertown Electricity Choice (%), enrollment in 100% renewable option (%)   | >82% enrollment, 3% of users with 100% renewable option        | 2019          | Increasing 100% Opt Up Participation                                             |             | Watertown Electricity Choice                    |
| Potential solar capacity (# of rooftops)                                                  | 3,209 rooftops                                                 | 2019          | 4,256                                                                            | 6,700       | Google Project Sunroof                          |
| Installed solar capacity (kW)                                                             | 4,521                                                          | 2021          | 33,600                                                                           | 112,000*    | MassCEC Production Tracking System Reports      |
| Estimated total solar electricity produced (MWh)                                          | 5,360                                                          | 2021          | 38,400                                                                           | 128,000*    | MassCEC Production Tracking System Reports      |
| Commercial energy use intensity (EUI)<br>For buildings >5,000 square feet (MMBtu/sq. ft.) | New Metric                                                     |               | To develop from disclosure reporting, with considerations for building use type. |             |                                                 |
| Number of gas/oil heated residential properties                                           | 9,625                                                          | 2019          | 5,775                                                                            | 0           | Watertown Assessor Database                     |
| Number of gas/oil heated commercial properties                                            | 521                                                            | 2019          | 312                                                                              | 0           | Watertown Assessor Database                     |

\*Maximum potential if all roof space utilized.







## TRANSPORTATION & MOBILITY

The Transportation and Mobility plan element is focused on promoting non-motorized, shared, and active transportation modes, ensuring a safe, accessible, and connected network for bicycles and pedestrians, and accelerating the transition to electric vehicles (EVs).



The Watertown Connector is operated by the Watertown Transportation Management Association. Credit: Kevin Bernier

### TRANSPORTATION AND MOBILITY & OUR CLIMATE

Transportation in Watertown is the second largest contributor to the City's GHG emissions. Transportation is critical to our daily lives, and Watertown has the opportunity to aid its residents and visitors in the transition to cleaner modes of commuting that are also connected and accessible for all. Simply put, the more people who bike, walk, and take transit, the fewer miles driven. From enhancing electric vehicle (EV) infrastructure to offering more and safer ways to walk and bike, we can decrease Watertown's contributions to climate change while also promoting public health and wellness and a more connected, vibrant community.



#### GOALS

**Goal 1: By 2050, non-vehicular transportation options are accessible, affordable, connected, and well-utilized throughout Watertown, and personal vehicular travel miles are reduced by 50%**

**Goal 2: By 2050, 100% of Watertown registered vehicles are electric**



## COMMUNITY PRIORITIES:

- ✓ Expanded local public transportation options to address resident needs (Survey 1)
- ✓ Convenient, active transportation and walkability. When asked to prioritize a list of nine options, “*walkable to transit*” and “*walkable to amenities like restaurants, shopping, and parks*” ranked number one and two as most important, respectively (Renter Survey)
- ✓ “*I absolutely want my next car to be electric and would love to see greater infrastructure for them.*” (Survey 1)

## MAKING PUBLIC TRANSPORTATION CONNECTED AND ACCESSIBLE

Plan actions around transit will work to ensure all Watertown residents have accessible and connected transit options available, continuing efforts such as the introduction of bus rapid transit (BRT) lanes for MBTA bus routes. Bus and shuttle services will need to be supplemented with on-demand services, combining all services in an integrated mobility solution. In doing so, Watertown is supporting increased employment opportunities for its residents and local economic development.



**16%**

**Only 16% of residents take public transit.<sup>14</sup>**



The Route 71 bus is one of many MBTA bus routes that transports passengers throughout Watertown. Credit: Kari Hewitt



## PROMOTING ACTIVE TRANSPORTATION MODES

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Active mobility by walking or biking is an important aspect of transportation in and around Watertown. Because walking and biking have no associated GHG emissions, they are a cleaner way to travel and commute. Since Watertown is home to a stretch of the Charles River Greenway and the Watertown-Cambridge Greenway, along with bike lanes and sidewalks throughout town, pedestrians, cyclists, and multi-modal commuters have options when it comes to alternate modes of transportation. It has been shown that better, safer bicycle infrastructure leads to higher cycling modal share.<sup>15</sup> With the Transportation and Mobility actions in this plan, Watertown aims to create a network of streets throughout the city that are safe and accessible for bicyclists and pedestrians of all ages and abilities.



Bicycle infrastructure, like bicycle parking, is an important aspect of making biking easy and accessible. Credit: City of Watertown

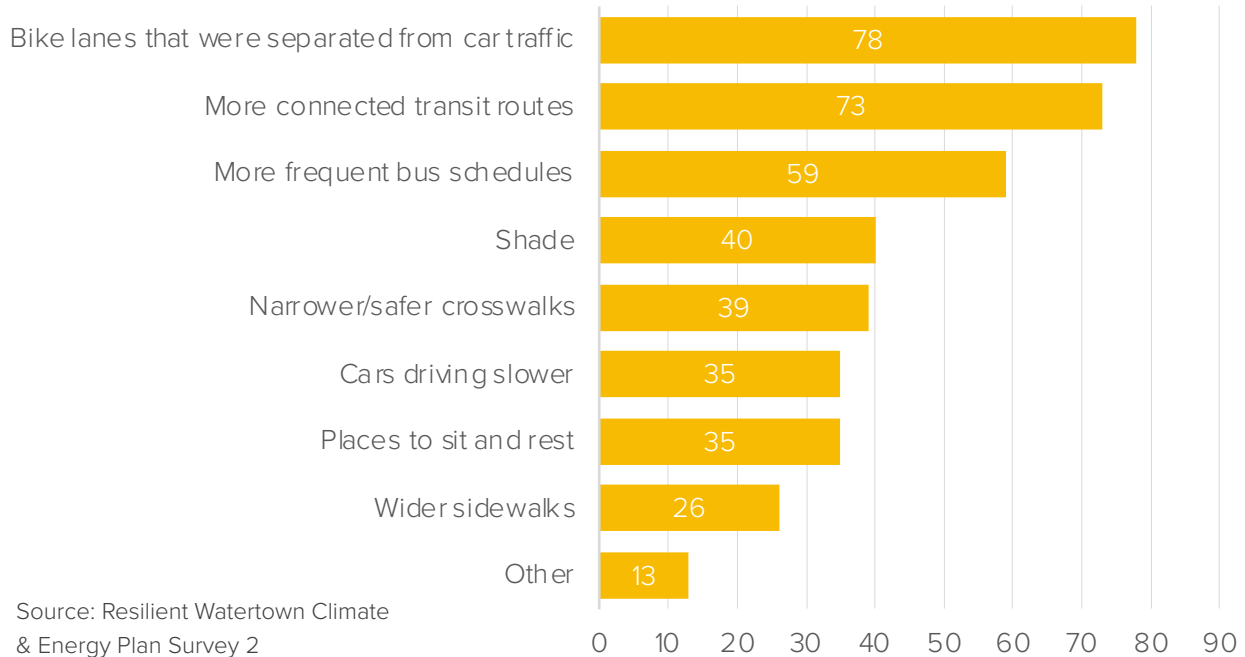
Data from the Bluebikes regional bike share program show that the top two destinations to and from Watertown are Boston and Cambridge, respectively. These destinations are also the two top destinations where Watertown residents work, suggesting an opportunity for increased active forms of commuting.

## INCREASING PEDESTRIAN AND CYCLIST SAFETY

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Resident surveys highlighted that road safety for cyclists, safer crossings for pedestrians, and accessibility improvements would enable community members to feel more comfortable as they move around the city.

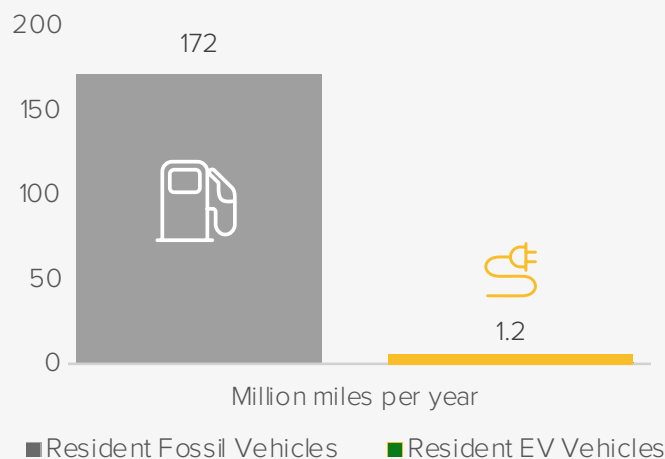
### Residents would be more comfortable biking, walking or taking transit if there were:



## TRANSITIONING TO ELECTRIC VEHICLES

In 2019, residents were responsible for 172 million miles of on-road vehicle miles traveled, just over half of all Watertown's transportation miles, yet only 0.7% of the total vehicles registered to Watertown were EVs. The fossil-fuel powered vehicles we use to get around produce the majority of Watertown's transportation-related emissions. We have an opportunity to reduce our emissions by transitioning to EVs, both within the community and our municipal fleet. As the grid transitions to renewable energy, the emissions associated with EV use will go down to zero. Relatedly, with the City's waste disposal contract up for renewal in June 2022, Watertown has an opportunity to introduce a hybrid or electric waste truck fleet.

### Watertown's Transportation Miles and Emission Rates (2019)



Source: Kim Lundgren Associates, Inc. (2021).



## HOW WE'LL GET THERE

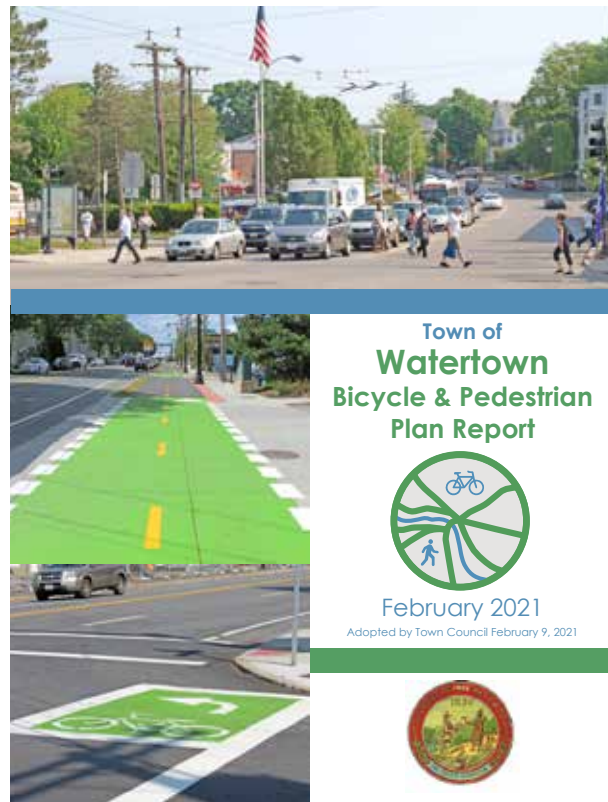
EV sales are booming across the U.S., priming cities like Watertown to accelerate the phase-out of fossil-fuel powered vehicles. The chart below illustrates how we will transition to EVs in order to achieve zero emissions by 2050. As of 2020, Watertown had approximately 172 EVs registered.

| Indicators                                  | 2025  | 2030  | 2040   | 2050   |
|---------------------------------------------|-------|-------|--------|--------|
| Vehicles to Replace with EVs by Target Year | 3,571 | 7,554 | 11,949 | 13,676 |
| Vehicles to Replace with EVs Per Year       | 680   | 797   | 439    | 173    |

### LEADING BY EXAMPLE:

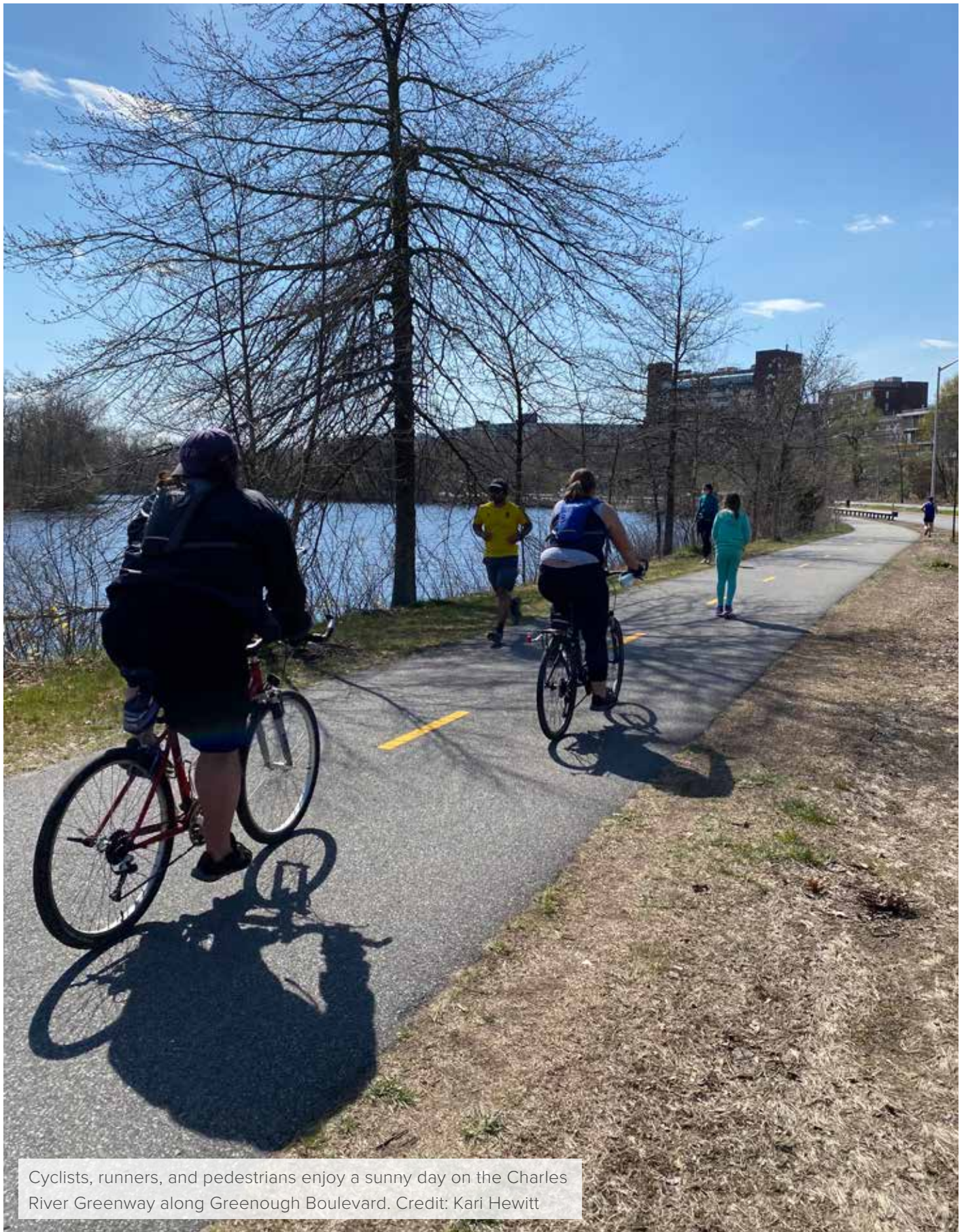
#### Bike and Pedestrian Plan (2021)

Following on the heels of our Complete Streets Plan (2018) and Bluebikes funding (2020), the City recently turned its focus toward a dedicated and detailed Bicycle & Pedestrian Plan. The Plan's vision is to support a bicycle and pedestrian network that is safe and accessible, interconnected, and promotes a culture of walking and biking. By developing infrastructure, policies, and programs that encourage residents and visitors to participate in alternative and multi-modal forms of transportation, the City continues to support public health and wellness and vibrant public spaces. The recommendations in the *Resilient Watertown* Climate & Energy Plan have been aligned to support and strengthen the recommendations in the Bicycle & Pedestrian Plan.



Credit: McMahon and Associates





Cyclists, runners, and pedestrians enjoy a sunny day on the Charles River Greenway along Greenough Boulevard. Credit: Kari Hewitt

## STRATEGIES & ACTIONS TO ACHIEVE OUR GOALS

The strategies and actions identified for Transportation and Mobility focus on ensuring accessible and connected transit for all residents, enhancing the safety and infrastructure for zero-carbon mobility options like walking and biking, and transitioning from fossil-fuel powered vehicles to EVs. In doing so, Watertown can work to safeguard the health and livelihoods of its residents while reducing its emissions contributions.

|                                                                                                                                | Action ID | Action                                                                                                                                                                                            |
|--------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GOAL 1: By 2050, non-vehicular transportation options are accessible, affordable, and connected throughout Watertown, a</b> |           |                                                                                                                                                                                                   |
| <b>Strategy 1: Enhance and actively promote zero-carbon mobility options for travel</b>                                        | TM 1.1    | Install well-shaded bike and pedestrian-only infrastructure for protected and off-street connections in densely developed areas and areas of high traffic volume                                  |
|                                                                                                                                | TM 1.2    | Collaborate regionally to increase and improve safe, interconnected pathways for bicyclists and pedestrians                                                                                       |
|                                                                                                                                | TM 1.3    | Increase use of transit, bike, and pedestrian travel through outreach, incentives, and policy changes (e.g., decreasing zoning requirements for parking, traffic calming, safe routes to schools) |
|                                                                                                                                | TM 1.4    | Work with MBTA to improve accessibility of routes, stops, and CharlieCard purchasing stations within Watertown, and electrification of the bus fleet                                              |
|                                                                                                                                | TM 1.5    | Implement bus prioritization projects such as dedicated lanes and signal priority                                                                                                                 |
|                                                                                                                                | TM 1.6    | Develop an integrated, publicly accessible electric transit system that connects to MBTA and other points of interest not accessible by MBTA, including on-demand transportation options          |
| <b>GOAL 2: By 2050, 100% of all vehicles in Watertown are electric</b>                                                         |           |                                                                                                                                                                                                   |
| <b>Strategy 2: Accelerate the shift to electric vehicles (EVs)</b>                                                             | TM 2.1    | Develop and implement an EV Roadmap for Watertown                                                                                                                                                 |
|                                                                                                                                | TM 2.2    | Transition all City-owned, leased, and contracted vehicles to electric, including school bus, garbage truck, and maintenance fleets                                                               |
|                                                                                                                                | TM 2.3    | Support the development of Multi-Use Parking Arrangements to develop EV charging at places of worship and other organizations with large parking lots in residential neighborhoods                |
|                                                                                                                                | TM 2.4    | Develop an outreach and incentive campaign to those with a vehicle over 10 years old to promote and incentivize EV purchase                                                                       |
|                                                                                                                                | TM 2.5    | Increase the availability of charging stations on municipal property                                                                                                                              |
|                                                                                                                                | TM 2.6    | Incentivize homeowners and landlords to install EV chargers                                                                                                                                       |





Intense Storms



Flooding



Heat Waves



Drought

| Timeframe<br>Short (<1 year)<br>Medium (1-3 years)<br>Long (3-5 years) | Cost<br>\$ (<\$10K)<br>\$\$ (<\$100K)<br>\$\$\$ (> \$100K) | Implementation<br>Champion | Cumulative 2050<br>GHG Reduction                                | Resilience Benefits |
|------------------------------------------------------------------------|------------------------------------------------------------|----------------------------|-----------------------------------------------------------------|---------------------|
| nd personal vehicular travel miles are reduced by 50%                  |                                                            |                            |                                                                 |                     |
| Medium                                                                 | \$\$\$                                                     | DPW                        | 449,400 MTCO <sub>2</sub> e<br><br>8% of total reductions       |                     |
| Medium                                                                 | \$                                                         | DCDP                       |                                                                 |                     |
| Long                                                                   | \$\$                                                       | DCDP                       |                                                                 |                     |
| Long                                                                   | \$                                                         | DCDP                       |                                                                 |                     |
| Medium                                                                 | \$\$\$                                                     | DPW                        |                                                                 |                     |
| Long                                                                   | \$\$\$                                                     | DCDP                       |                                                                 |                     |
|                                                                        |                                                            |                            |                                                                 |                     |
| Short                                                                  | \$\$\$                                                     | DCDP                       | 2,299,000 MTCO <sub>2</sub> e<br><br>39% of total<br>reductions |                     |
| Long                                                                   | \$\$\$                                                     | DPW                        |                                                                 |                     |
| Medium                                                                 | \$                                                         | DCDP                       |                                                                 |                     |
| Medium                                                                 | \$\$                                                       | DCDP                       |                                                                 |                     |
| Medium                                                                 | \$\$\$                                                     | DPW/DPB                    |                                                                 |                     |
| Long                                                                   | \$\$\$                                                     | DCDP                       |                                                                 |                     |



## MEASURING SUCCESS

The following indicators will help Watertown monitor progress toward our goals for Transportation and Mobility. Multiple actions may contribute to a single target. The City will revisit these targets every five years.

| Metric (unit)                                                                  | Baseline Data          | Baseline Year(s) | 2030 Target | 2050 Target | Source                              |
|--------------------------------------------------------------------------------|------------------------|------------------|-------------|-------------|-------------------------------------|
| Residents who use sustainable mode (bike, walk, transit) to travel to work (%) | 1 in 4 residents / 20% | 2013-2017 ACS    | 50%         | 60%         | US Census American Community Survey |
| Roads rated at a 4 or 5 stress level (# of miles)                              | 6.9 Miles              | 2018             | 3.5 Miles   | 0           | Bicycle and Pedestrian Plan         |
| Total electric vehicles (%)                                                    | 0.7%                   | 2020             | 54%         | 100%        | Watertown Excise Tax Records        |
| Population within a ½ mile radius of a public EV charging station (%)          | 23%                    | 2021             | 100%        | 100%        | DOE Alternative Fuel Data Center    |
| Number of publicly accessible EV charging stations                             | 17                     | 2021             | 575         | 1,050       | DOE Alternative Fuel Data Center    |





The Joseph Thompson Pedestrian Bridge allows pedestrians and cyclists using the Charles River Greenway to cross the Charles River safely. Credit: City of Watertown



## NATURAL RESOURCES

The Natural Resources plan element is focused on preserving and enhancing our open spaces, tree cover, habitats, and water resources through smart management practices.



The Charles River and surrounding vegetation provide both climate resilience and mitigation benefits. Credit: City of Watertown

### NATURAL RESOURCES & OUR CLIMATE

We rely on natural resources for some of our most essential needs—clean water and air, food, comfortable temperatures, and recreation opportunities. Healthy natural resources are therefore increasingly important to our well-being and ability to adapt as climate change impacts like extreme storms and heat intensify. Natural resources, particularly trees, natural landscapes, and other areas of green growth, can also sequester (remove) carbon from the atmosphere, reducing our contributions to climate change. We have an opportunity to work with—not against—our natural systems to protect habitats, infrastructure, and public health. It's our responsibility to ensure that everyone in the Watertown community can access and enjoy these benefits.



#### GOAL

**Goal 1: By 2050, Watertown's natural assets and green space are enhanced, equitably distributed, and delivering full ecosystem benefits**

## ENHANCING AND PRESERVING OUR TREES

Trees do important work in Watertown, like sequester carbon and provide shade and cooling. Carbon sequestration is the process of capturing and storing carbon dioxide, the most common greenhouse gas, from the atmosphere by trees and other plants. Typical suburban tree canopy can sequester approximately 4.5 MTCO<sub>2</sub>e per acre, every year.<sup>16</sup> Over time, that's a lot of carbon storage! Watertown's trees are estimated to store **60,718 MTCO<sub>2</sub>e** of carbon.

**Increased Tree Canopy Potential in Watertown**



Source: MassGIS (2016) & Nowak et al. (2013)

The diagram above shows different land uses in Watertown—like open space and residential or commercial impervious surfaces—that could accommodate an estimated 45 acres of additional tree cover (about a 10% increase). This additional tree cover could help remove a significant amount of carbon from the atmosphere in the coming 30 years, supporting our GHG reduction goals.



## 6,000 metric tons of CO<sub>2</sub>e

Sequestration potential associated with this increase in tree cover in Watertown<sup>17</sup>

In addition to carbon storage, Watertown's trees provide critical flood protection, habitat, and cooling, making them important assets as we adapt to climate changes in the region. The right amount of tree cover, for example, can lower summertime temperatures by as much as 10 °F, making trees an important tool to reducing the urban heat island effect.<sup>18</sup>

## PRIORITIZING GREEN INFRASTRUCTURE

Watertown has already taken steps to introduce green infrastructure throughout the community. This infrastructure replaces impervious surfaces with natural features that enhance water filtration and capture stormwater, reducing flooding and water pollution. As of 2016, 57% of the community's land area is covered by impervious surfaces.<sup>19</sup>



### Impervious Surface:

A hard surface (like pavement) that prevents water—particularly stormwater—from filtering into the soil. By contrast, pervious surfaces filter and absorb stormwater to protect water quality and provide cooling benefits.



### COMMUNITY PRIORITIES:

- ✓ Green infrastructure practices, like installing pervious pavers and rain gardens that provide habitat, flood protection, and cleaner air and water (scored 4.6 out of 5 on Survey 1)  
★★★★★
- ✓ More public funding for tree planting on public property, as well as in specific neighborhoods with fewer trees and residents with greater vulnerability to climate change impacts. Proper tree maintenance and support for maintenance (Survey 2)
- ✓ Incentives, rebates, and other financial support mechanisms for natural resources protection and maintenance (e.g., sustainable landscaping, replacement of impervious pavement, tree care) (Survey 2)



## PROMOTING NATIVE PLANTING

Even a lawn captures more carbon in biomass and soil than it respires. Increasing green growth areas of any kind removes carbon from the atmosphere. Where cost-effective and appropriate, landscaping should favor native plants. Native plants can minimize inputs such as water and fertilizer, requiring less maintenance and protecting against certain invasive and non-native species that can harm ecosystems.



### **Regenerative Landscaping:**

Regenerative landscapes are those that restore the environment and encourage long-term sustainability, increased biodiversity, and enhanced resilience by focusing on soil health and utilizing plant species that thrive locally and support local ecosystems.

#### LEADING BY EXAMPLE:

### **Pollinator Garden at Watertown DPW**

In partnership with the Watertown Department of Public Works (DPW) and the Watertown Conservation Commission, volunteers from Friends of Bees installed a pollinator garden at DPW in spring 2021. The garden has native flowers to attract local pollinators like bees and butterflies, which support other local plant and animal species.<sup>20</sup>



Credit: Pam Phillips



## STRATEGIES & ACTIONS TO ACHIEVE OUR GOALS

The strategies and actions identified for Natural Resources focus on physical improvements to preserve, enhance, and equitably distribute natural resources, as well as leverage their natural ability to protect us from climate impacts like flooding and extreme heat. Community education and awareness actions support these improvements by promoting collective stewardship of these resources.

|                                                                                                                                                | Action ID | Action                                                                                                                                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GOAL 1: By 2050, Watertown's natural assets and green space are enhanced, equitably distributed, and delivering full ecosystem services</b> |           |                                                                                                                                                                                                |
| <b>Strategy 1: Protect and enhance forest and open space parcels</b>                                                                           | NR 1.1    | Incorporate pocket parks into all neighborhoods lacking green space                                                                                                                            |
|                                                                                                                                                | NR 1.2    | Promote biodiversity improvements to existing and new parks and open space by codifying existing DPW planting and maintenance practices and strengthening requirements for private development |
|                                                                                                                                                | NR 1.3    | Acquire more open space, where possible, and create more open space on private property                                                                                                        |
|                                                                                                                                                | NR 1.4    | Establish equitable and accessible natural-habitat corridors along water bodies, trails, and utility easement areas, and protect existing ones                                                 |
| <b>Strategy 2: Protect, enhance, and diversify the tree canopy</b>                                                                             | NR 2.1    | Establish an enforceable tree ordinance focused on preservation, diversification, and equitable distribution of tree canopy on public and private property                                     |
|                                                                                                                                                | NR 2.2    | Establish a community outreach program to increase awareness and appreciation of the importance of the urban forest in mitigating climate change impacts                                       |
|                                                                                                                                                | NR 2.3    | Substantially increase annual street and municipal tree plantings and prioritize tree plantings in neighborhoods at high risk for urban heat impacts                                           |
| <b>Strategy 3: Promote regenerative landscaping and maintenance practices</b>                                                                  | NR 3.1    | Develop a regenerative landscaping education and outreach plan, with expanded opportunities for resident involvement (e.g., "Leave the Leaves" campaign)                                       |
|                                                                                                                                                | NR 3.2    | Utilize school gardens and community gardens as nature-based landscaping demonstration sites                                                                                                   |
|                                                                                                                                                | NR 3.3    | Update current development regulations to require the use of appropriate native plants for new- and re-development and de-emphasize non-native lawn spaces                                     |
| <b>Strategy 4: Minimize quantity and improve quality of stormwater runoff</b>                                                                  | NR 4.1    | Expand and accelerate existing Green Stormwater Infrastructure (GSI) policies and management programs for public projects                                                                      |
|                                                                                                                                                | NR 4.2    | Promote and/or incentivize the incorporation of green stormwater infrastructure into existing large impervious areas                                                                           |
|                                                                                                                                                | NR 4.3    | Enhance incentives and ongoing education related to individual actions such as rain barrels, planting strips, and de-paving private residential properties                                     |



**Intense Storms**



**Flooding**



**Heat Waves**



**Drought**

| Timeframe              | Cost              | Cumulative 2050 GHG Reduction                            | Resilience Benefits                                                                                                                                                                                                                                                     |
|------------------------|-------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short (<1 year)        | \$ (<\$10K)       |                                                          |                                                                                                                                                                                                                                                                         |
| Medium (1-3 years)     | \$\$ (<\$100K)    |                                                          |                                                                                                                                                                                                                                                                         |
| Long (3-5 years)       | \$\$\$ (> \$100K) |                                                          |                                                                                                                                                                                                                                                                         |
| <b>System benefits</b> |                   |                                                          |                                                                                                                                                                                                                                                                         |
| Long                   | \$\$              | 4,500 MTCO <sub>2</sub> e<br><br><1% of total reductions | <br>                                                                                           |
| Medium                 | \$                |                                                          |                                                                                                                                                                                                                                                                         |
| Long                   | \$\$\$            |                                                          |                                                                                                                                                                                                                                                                         |
| Medium                 | \$\$              |                                                          |                                                                                                                                                                                                                                                                         |
| Medium                 | \$                |                                                          |                                                                                                                                                                                                                                                                         |
| Short                  | \$                |                                                          |                                                                                                                                                                                                                                                                         |
| Medium                 | \$\$              |                                                          | <br><br> |
| Medium                 | \$                |                                                          |                                                                                                                                                                                                                                                                         |
| Short                  | \$                |                                                          |                                                                                                                                                                                                                                                                         |
| Medium                 | \$                |                                                          |                                                                                                                                                                                                                                                                         |
| Long                   | \$\$              |                                                          | <br>                                                                                          |
| Medium                 | \$\$              |                                                          |                                                                                                                                                                                                                                                                         |

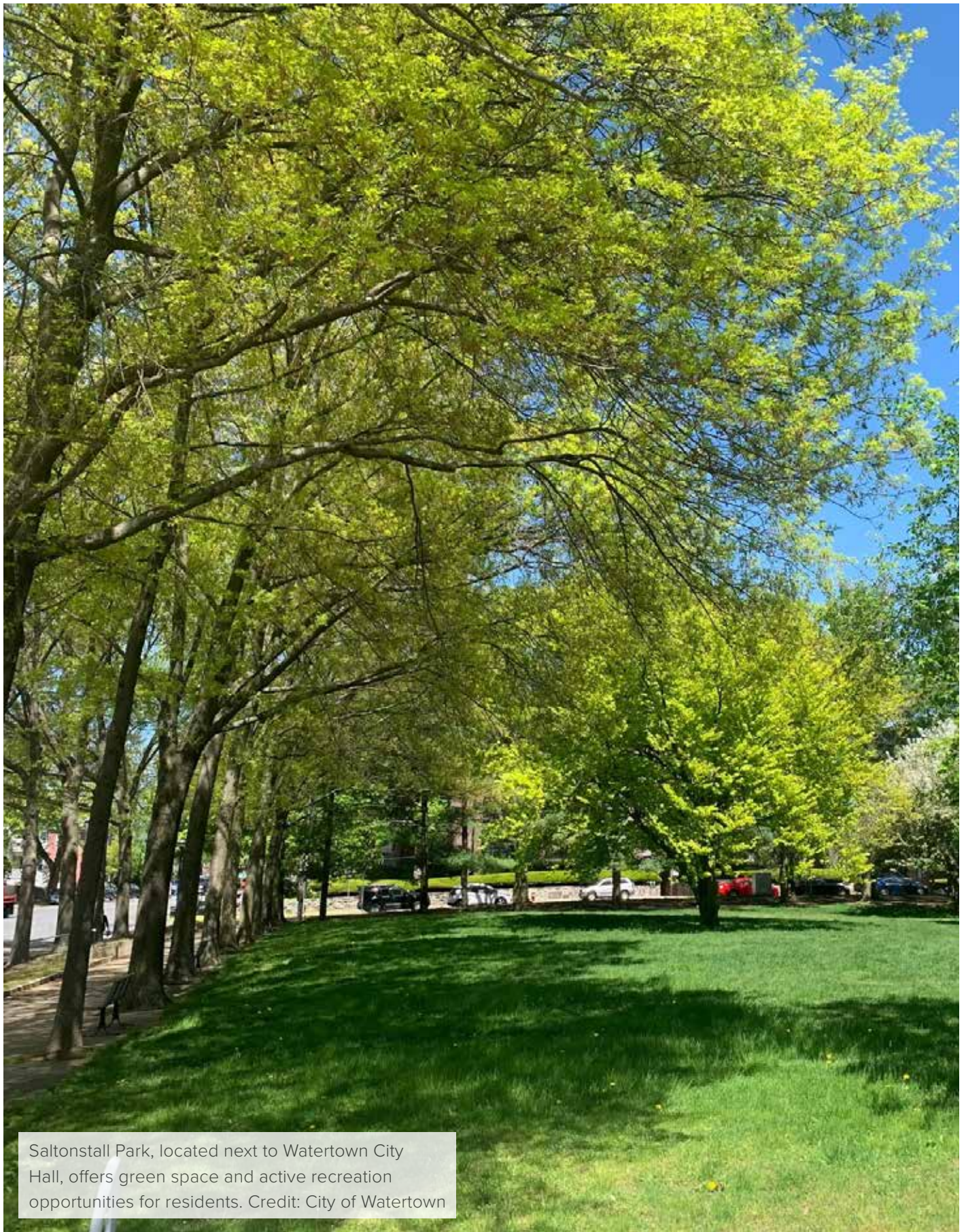


## MEASURING SUCCESS

The following indicators will help Watertown monitor progress toward our goals for Natural Resources. Multiple actions may contribute to a single target. The City will revisit these targets every five years.

| Metric (unit)                                     | Baseline Data               | Baseline Year | 2030 Target | 2050 Target | Source                                 |
|---------------------------------------------------|-----------------------------|---------------|-------------|-------------|----------------------------------------|
| Open space per person (acres/1,000 people)        | 3.25 acres per 1,000 people | 2020          | 5           | 10          | Community Preservation Act Plan        |
| Tree Canopy Coverage (%)                          | 20.89%                      | 2016          | 23%         | 27%         | MassGIS Land Use Land Cover data layer |
| Impervious Surfaces (%)                           | 57%                         | 2016          | 55%         | 50%         | MassGIS Land Use Land Cover data layer |
| Public Trees in Good Health (%)                   | 84%                         | 2018          | 90%         | 100%        | Trees for Watertown                    |
| Public Tree Sites Occupied (%)                    | 49%                         | 2018          | 75%         | 100%        | Trees for Watertown                    |
| Area (sf) of school gardens and community gardens | 20,350                      | 2021          | 24,000      | 30,000      | Field calculations                     |





Saltonstall Park, located next to Watertown City Hall, offers green space and active recreation opportunities for residents. Credit: City of Watertown





# INFRASTRUCTURE & WASTE MANAGEMENT

The Infrastructure and Waste Management plan element is focused on reducing consumption and waste generation, as well as ensuring that the infrastructure that supports resource distribution is helping to mitigate and enhance resilience to climate change.



The Watertown Dam spans the Charles River upstream from the Watertown Bridge. Several entities have recommended it be removed to allow safe passage of fish and wildlife. Credit: City of Watertown

## INFRASTRUCTURE AND WASTE MANAGEMENT & OUR CLIMATE

The critical services and infrastructure that keep Watertown running, including water, wastewater, energy, and waste services, are essential to our community well-being. Climate change impacts are already disrupting these essential services and infrastructure. How we choose to develop and operate these services, and whether we do so efficiently and sustainably, is key to minimizing consumption and waste and reducing climate impacts. We have an opportunity to build on our history of innovation right here in Watertown, implementing solutions that put us on a path toward net-zero waste and increase the reliability, efficiency, and cost-effectiveness of our infrastructure.



### GOALS

**Goal 1: By 2050, Watertown has achieved a net zero waste community status**

**Goal 2: By 2050, Watertown's infrastructure is well maintained and resilient to the impacts of climate change**

## REDUCING OUR CONSUMPTION

The more we consume, the more waste we throw away. While minimizing our waste on a larger scale can be challenging, there are policies, incentives, and educational awareness campaigns that can be used to make the transition easier.

### COMMUNITY PRIORITIES:

- ✓ Reducing consumption, by buying less, avoiding single use plastics, or reusing and repairing belongings scored 4.3 out of 5 for resident support (Survey 1)  
★★★★★
- ✓ Support for an expanded ban or fee on single-use plastic items, increasing plastic types acceptable for recycling, and a waste minimization awareness campaign to reduce plastic consumption (Survey 2)
- ✓ Top concerns include damage to critical facilities, infrastructure, and buildings, as well as power outages, higher energy demand, and leaks and flooding (Landlord and Renter Focus Groups)





# REDUCE, REUSE, THEN RECYCLE

The waste we produce contributes both to local environmental pollution and climate change through increased GHG emissions. That shiny new product we want requires a lot of resources to get to the point of purchase—from the raw materials to make it, to its packaging and transportation, all of which have associated emissions. There’s also the waste and emissions associated with discarding an older version of the product. Reducing our consumption, and finding useful alternatives for existing waste streams, allows us to move toward a circular economy.

## Circular Economy:



A model of material management that prevents waste and creates value through emphasis on reusing and regenerating, versus a linear model of using and discarding.

Identifying where waste comes from and how it is disposed of is important to understand the more and less wasteful components of our community. Approximately 23.3% of waste produced in Watertown is recycled. While we do not know how much of our waste stream is made up of food and yard waste, approximately 34% of waste produced in Massachusetts is made up of organics.<sup>21</sup>

Waste that is not recycled in Watertown is incinerated in a waste-to-energy facility. Most of the energy contained in solid waste that is incinerated is from plastic, effectively a fossil fuel, which leads to higher emissions.



In an acknowledgement of the importance of reforming our community’s waste and recycling practices, the City formed a Solid Waste and Recycling Advisory Committee in 2021. This body will be integral to the successful implementation of new and expanded programs around outreach and education, plastic item bans, organics recycling, and more.

## INCREASING OUR INFRASTRUCTURE'S RESILIENCE

Climate change can bring serious effects to our city's infrastructure—from waste management to the electrical grid. With these disruptions to service and infrastructure come impacts to the local economy and community health and well-being. Watertown is taking steps to mitigate impacts to infrastructure from climate change and received its Municipal Vulnerability Preparedness Community certification in 2020, created a Hazard Mitigation Plan in 2019, and has been installing emergency generators at critical facilities like schools.



**\$41.9 billion**

total property damages due to flooding in Middlesex County<sup>24</sup> (Hazard Mitigation Plan)

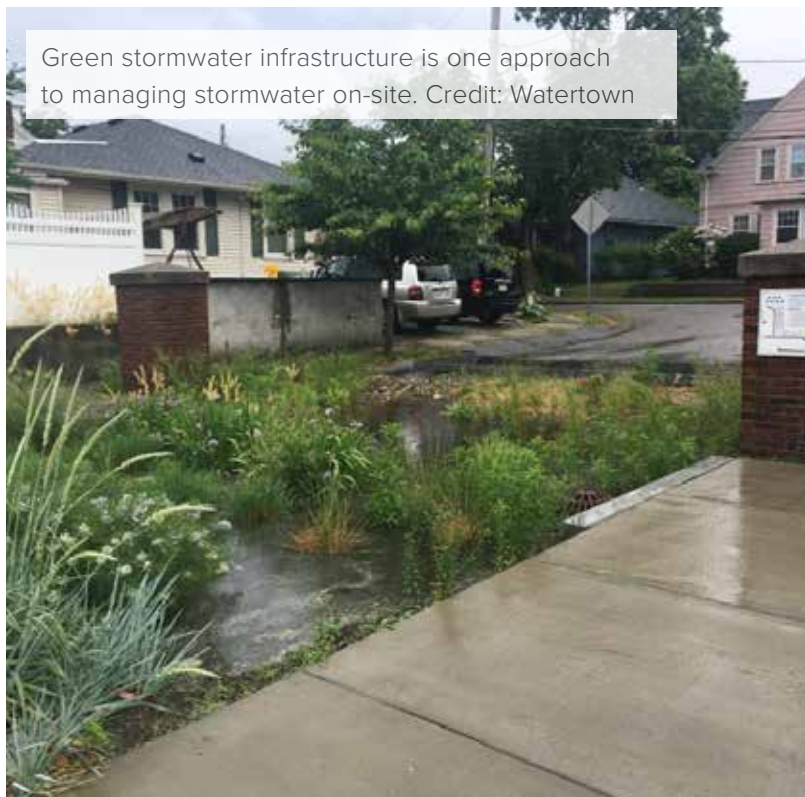
**11 major flood events**

that impacted Watertown between 1950 and 2010<sup>25</sup>

LEADING BY EXAMPLE:

### Stormwater Management and Erosion Control

After it rains, much of the water that builds up in our streets, known as stormwater runoff, is carried into our storm drains and local waterways, without treatment. Stormwater runoff is often contaminated from construction sites that can collect pollutants, like sediment, oil, or grease, or from paved surfaces, like roads. In 2019, the City passed an ordinance that requires certain projects to obtain a permit from the Department of Public Works to demonstrate proper stormwater management, pollution prevention, and erosion control during and after construction.<sup>26</sup>



Green stormwater infrastructure is one approach to managing stormwater on-site. Credit: Watertown



## STRATEGIES & ACTIONS TO ACHIEVE OUR GOALS

The strategies and actions identified for Infrastructure and Waste Management focus on increasing the sustainability and resiliency of Watertown's critical assets and infrastructure by altering consumption and disposal practices, as well as integrating information about climate change into our infrastructure.

|                                                                                                                                        | Action ID | Action                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GOAL 1: By 2050, Watertown has achieved a net zero waste community status</b>                                                       |           |                                                                                                                                                                                                                                          |
| <b>Strategy 1: Transition community attitudes and actions around consumption and disposal practices</b>                                | IW 1.1    | Create a bulk purchasing network for compostable and environmentally friendly goods among the commercial and industrial sectors                                                                                                          |
|                                                                                                                                        | IW 1.2    | Design and implement an education and outreach campaign focused on reducing waste sent to the incinerator and the climate impacts of our current consumption patterns, including topics such as single use plastics and meat consumption |
|                                                                                                                                        | IW 1.3    | Create a convenient and free or affordable organics recycling program, setting annual goals for enrollment and engaging residents in education and outreach on the topic                                                                 |
|                                                                                                                                        | IW 1.4    | Establish an Environmentally Preferable Purchasing policy (EPP) that focuses on reducing consumption, particularly of single use items within municipal government                                                                       |
|                                                                                                                                        | IW 1.5    | Investigate opportunities to pursue a circular economy in Watertown or within the Metro Boston region (e.g., plastic item bans, grey water recycling, pay-per-bag program, additions to recyclable items)                                |
| <b>GOAL 2: By 2050, Watertown's infrastructure is well maintained and resilient to the impacts of climate change</b>                   |           |                                                                                                                                                                                                                                          |
| <b>Strategy 2: Systematically integrate climate change projections into the design of all new and upgraded infrastructure projects</b> | IW 2.1    | Require that all major new infrastructure and upgrades incorporate resilient design guidelines, such as Envision™, that take climate impacts into account over the lifespan of the infrastructure                                        |
|                                                                                                                                        | IW 2.2    | Review and enhance current infrastructure maintenance systems and protocols to align with the needs of a changing climate                                                                                                                |
|                                                                                                                                        | IW 2.3    | Advocate with partners for the safe removal of the Watertown Dam                                                                                                                                                                         |
|                                                                                                                                        | IW 2.4    | Investigate local back-up power, microgrid, and battery options in coordination with utilities                                                                                                                                           |



### Intense Storms



### Flooding



### Heat Waves



### Drought

| Timeframe<br>Short (<1 year)<br>Medium (1-3 years)<br>Long (3-5 years) | Cost<br>\$ (<\$10K)<br>\$\$ (<\$100K)<br>\$\$\$ (> \$100K) | Implementation<br>Champion | Cumulative 2050<br>GHG Reduction                             | Resilience Benefits                                                                   |
|------------------------------------------------------------------------|------------------------------------------------------------|----------------------------|--------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Medium                                                                 | \$                                                         | DCDP                       | 182,400 MTCO <sub>2</sub> e<br><br>3% of total<br>reductions |                                                                                       |
| Medium                                                                 | \$                                                         | DCDP                       |                                                              |                                                                                       |
| Short                                                                  | \$\$                                                       | DPW                        |                                                              |                                                                                       |
| Short                                                                  | \$                                                         | Purchasing                 |                                                              |                                                                                       |
| Medium                                                                 | \$                                                         | DPW                        |                                                              |                                                                                       |
| Medium                                                                 | \$                                                         | DPW                        |                                                              |  |
| Medium                                                                 | \$                                                         | DPW                        |                                                              |                                                                                       |
| Long                                                                   | \$                                                         | DCDP                       |                                                              |                                                                                       |
| Medium                                                                 | \$\$\$                                                     | DPB                        |                                                              |                                                                                       |



## MEASURING SUCCESS

The following indicators will help Watertown monitor progress toward our goals for Infrastructure and Waste Management. Multiple actions may contribute to a single target. The City will revisit these targets every five years.

| Metric (unit)                                                   | Baseline Data | Baseline Year                        | 2030 Target | 2050 Target | Source                                                               |
|-----------------------------------------------------------------|---------------|--------------------------------------|-------------|-------------|----------------------------------------------------------------------|
| Tons of trash sent to incineration (tons)                       | 2019          | 9,836                                | 7,500       | 0           | Mass DEP 2019 Municipal Solid Waste and Recycling Survey + Estimates |
| Household Waste Generation Rate (lbs / household / year)        | 2019          | 1,552                                | 1,226       | 900         | Mass DEP 2019 Municipal Solid Waste and Recycling Survey             |
| Diversion rate (tons recycled/total tons waste generated)       | 2019          | 23.3% diversion                      | 50%         | 100%        | Mass DEP 2019 Municipal Solid Waste and Recycling Survey             |
| Number of households signed up for food waste pick-up           | 2021          | 400 households (Black Earth compost) | 2,500       | 10,000      | Conversation with Greg St. Louis                                     |
| Critical infrastructure in hazardous areas (e.g., flood plains) | 2019          | 3 critical facilities in flood area  |             |             | Watertown Hazard Mitigation Plan 2019 Update                         |



Watertown's schools are critical infrastructure that can be used to enhance residents' capacity to adapt to climate emergencies.  
Credit: Kari Hewitt





## PUBLIC HEALTH & COMMUNITY PREPAREDNESS

The Public Health and Community Preparedness plan element is focused on ensuring the well-being, health, and safety of Watertown residents through improved climate change preparedness and response, enhanced communications, and accessible resources for physical, mental, and emotional health.



Watertown Farmers' Market offers local affordable and healthy food options to residents, supporting an estimated 300 food insecure residents. Credit: Eva Kelleher

## PUBLIC HEALTH & OUR CLIMATE

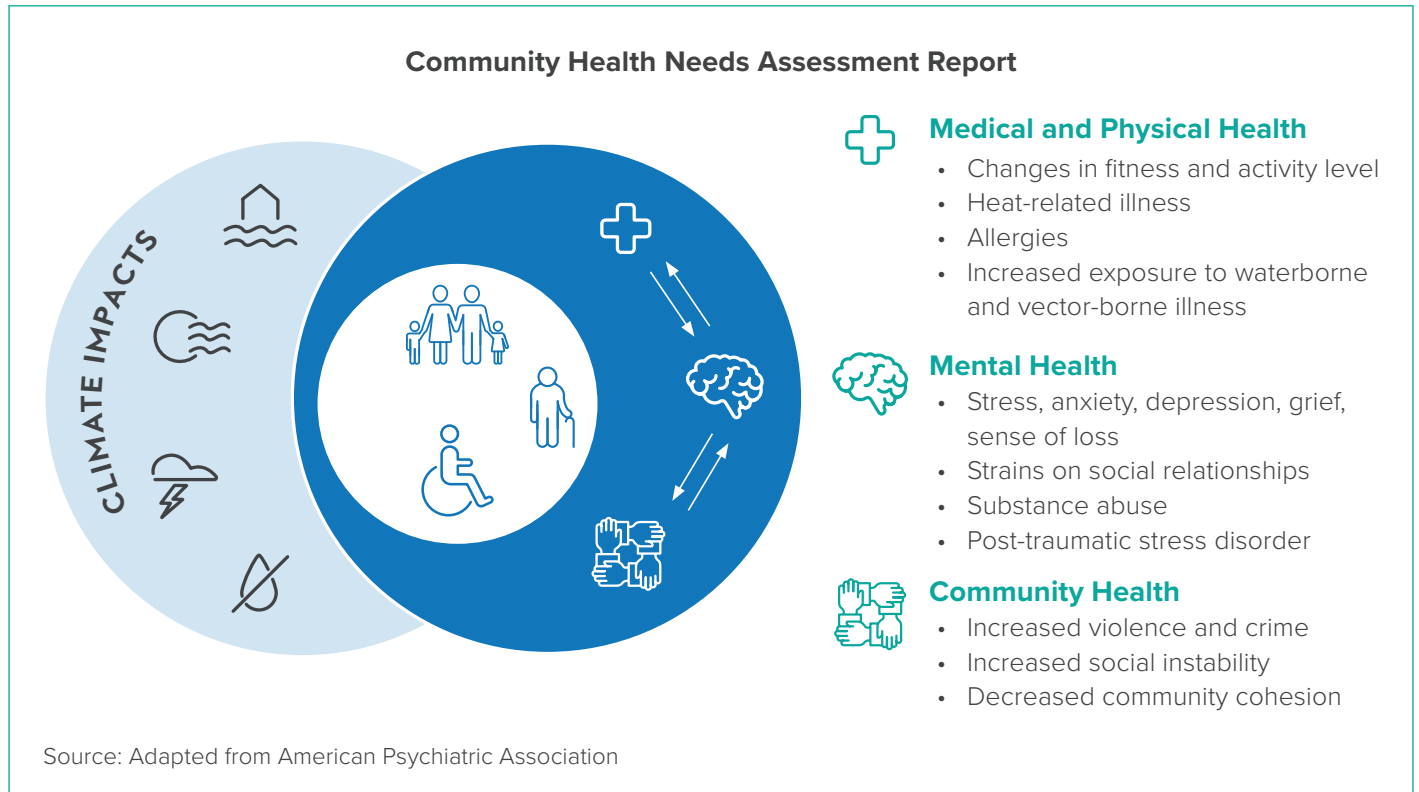
The COVID-19 pandemic has placed a spotlight on public health and our overall community resilience. The increased understanding and appreciation by many of our dependencies on our environment and on each other's actions can set us up for success as we add climate change impacts to the growing list of stressors that impact our physical and mental well-being. Research on climate change has shown that certain social demographics (e.g., health conditions, income, employment) can lead to worsened impacts, making it critical to ensure resources to increase resilience are equitable and accessible.



### GOAL

**Goal 1: By 2050,  
Watertown is a model for  
community resilience to  
climate change.**

In 2019, Watertown released the Community Health Needs Assessment Report. This report highlighted the major areas of concern based on engagement with community stakeholders. Mental health was one of the areas of greatest concern among all stakeholders. This is not surprising, given the current state of mental health in the nation. Two reasons cited for this high level of concern were lack of community connections and increased stress among residents. Accessibility, affordability, and awareness/advertising of services were also commonly cited concerns, specifically around equity of access for older residents, those without internet access, and non-native English speakers. Given these existing priorities, it is essential that actions to strengthen community preparedness focus on existing public health stressors that will be exacerbated by climate change.



## REDUCING VULNERABILITY TO EXTREME HEAT

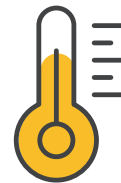
While Watertown is affected by a number of climate hazards, extreme heat poses the greatest risk to human life. In fact, extreme heat takes more lives than any other weather-related hazard in the U.S.<sup>27</sup>



**11.5: days over 90°F**  
on average between 2010-2014



**24: days over 90°F**  
in 2021, as of August 2021<sup>28</sup>



**Up to 35: days over 90°F**  
projected by 2050

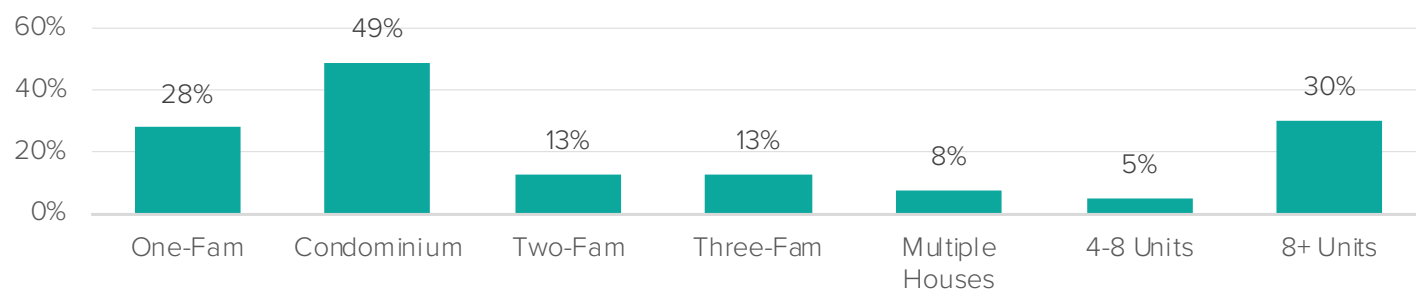
## COMMUNITY PRIORITIES:

- ✓ Survey respondents in Watertown noted highest concern with heat-related health impacts, such as increasing health risks due to heat and poor air quality, and temperatures that make traveling outdoors or staying at home unsafe and uncomfortable (Survey 2).
- ✓ Respondents felt that resources to make their home or business better able to withstand climate change were most important (Survey 2)
- ✓ Social ties, feeling connected to neighbors, scored 3.7 out of 5 (Survey 1)



Only 31% of households have central air conditioning and most of them are in newer condo units. Trees are an important resource for reducing extreme heat indoors and outdoors, from cooling outdoor air temperatures to reducing heating and cooling costs by shading buildings. Tree canopy covers less than 21% of the community in Watertown, compared to 27% tree canopy coverage in Boston.

**% of Units with Central AC (31% total)**



Source: Watertown Assessor's Database

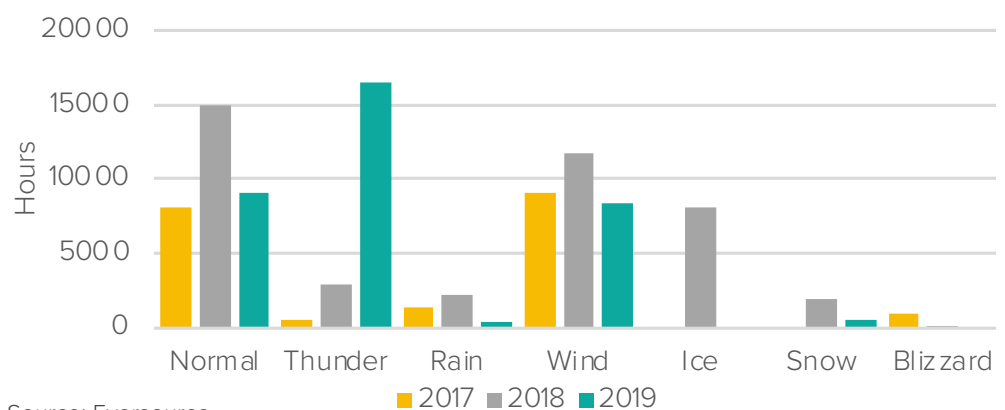
## PREPARING FOR INTENSE STORMS

Intense storms are another area of significant concern for Watertown from power outages or property damage due to wind and thunderstorms to at-risk seniors living alone. Power outages due to extreme weather have fluctuated over the past few years but have increased significantly due to thunderstorms.



**34%**  
of the 65+  
population in  
Watertown  
lives alone

**Electricity Customer-Outage Hours**

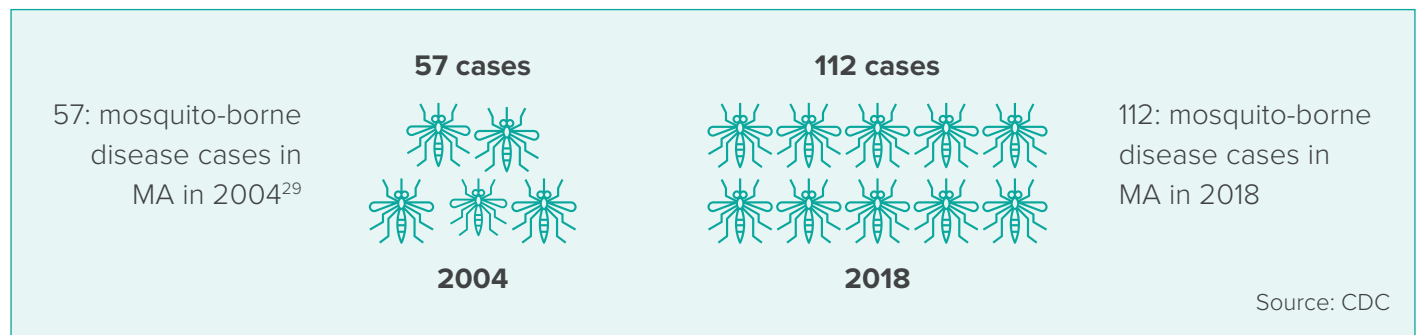


Source: Eversource



## PROTECTING AGAINST VECTOR-BORNE DISEASES

Viruses and diseases that occur in Massachusetts—like West Nile Virus, Eastern Equine Encephalitis (often known as “EEE” or “Triple E”), and Lyme Disease—are expected to present a higher risk with climate change. As temperatures increase, so does the primary source of vector-borne diseases: ticks and mosquitoes. Increasing precipitation and intense storms may also create new habitat for vectors. While the number of tick-borne disease cases in Massachusetts has fluctuated over time, mosquito-borne disease cases have been steadily increasing.



### LEADING BY EXAMPLE:

#### Live Well Watertown

In 2013, Watertown launched Live Well Watertown<sup>30</sup>, a collaborative initiative between Watertown’s Community Development and Department of Community Development and Planning and the Health Department, as well as a group of residents. The initiative aims to provide increased access to information, resources, and programs in order to promote healthy living and identify opportunities to build wellness.



Live Well Watertown often partners with other City programs and initiatives, such as promoting bikeshare as an active transportation option. Credit: Live Well Watertown



## STRATEGIES & ACTIONS TO ACHIEVE OUR GOALS

The strategies and actions identified for Public Health and Community Preparedness focus on addressing existing public health challenges and building a greater understanding among community members on how climate change affects each of us. Without making the personal connection and building knowledge and capacity, our residents and business owners will continue to be vulnerable to the changing climate.

|                                                                                                                                    | Action ID | Action                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>GOAL 1: By 2050, Watertown is a model for community resilience to climate change</b>                                            |           |                                                                                                                                                                                                                                                                                                                    |
| <b>Strategy 1: Promote climate literacy through education and training</b>                                                         | PH 1.1    | Launch a climate preparedness educational campaign                                                                                                                                                                                                                                                                 |
|                                                                                                                                    | PH 1.2    | Actively recruit volunteers to participate in the Community Emergency Response Team (CERT) program                                                                                                                                                                                                                 |
| <b>Strategy 2: Acknowledge climate change's impact on and provide resources to enhance overall community health and well-being</b> | PH 2.1    | Complete a Climate Change and Health Vulnerability Assessment and develop Adaptation Guidelines (including issues like vector borne disease, pests, mental health)                                                                                                                                                 |
|                                                                                                                                    | PH 2.2    | Mitigate existing and prevent new urban heat islands in Watertown                                                                                                                                                                                                                                                  |
|                                                                                                                                    | PH 2.3    | Continue to enhance access to local food by expanding resources and support for food pantries and community fridge programs, community gardens, and the Farmers' Market for those who are food insecure                                                                                                            |
| <b>Strategy 3: Provide equitable access to emergency preparedness and response resources</b>                                       | PH 3.1    | Identify and reduce structural barriers (e.g., internet access, language and cultural barriers, cognitive and/or physical disabilities, social isolation, access to services and emergency information) that prevent individuals and neighborhoods from taking care of themselves during and after extreme weather |
|                                                                                                                                    | PH 3.2    | Require all commercial building owners to rebroadcast and post Watertown Alert announcements to building occupants in English and Spanish                                                                                                                                                                          |
|                                                                                                                                    | PH 3.3    | Launch a "Sign Up" campaign to ensure equitable access to communication resources                                                                                                                                                                                                                                  |
|                                                                                                                                    | PH 3.4    | Enhance emergency preparedness information on City website                                                                                                                                                                                                                                                         |
| <b>Strategy 4: Promote overall community connectivity</b>                                                                          | PH 4.1    | Establish a network of resilience hubs that provide resources (e.g., cooling, phone-charging, pantry) that are easily accessible throughout the community                                                                                                                                                          |
|                                                                                                                                    | PH 4.2    | Enhance the existing Live Well Watertown coalition and its programs to incorporate neighborhood connections to nature and to each other                                                                                                                                                                            |



**Intense Storms**



**Flooding**



**Heat Waves**



**Drought**

| Timeframe<br>Short (<1 year)<br>Medium (1-3 years)<br>Long (3-5 years) | Cost<br>\$ (<\$10K)<br>\$\$ (<\$100K)<br>\$\$\$ (> \$100K) | Implementation<br>Champion | Resilience Benefits                                                                                                                                                                                                                                                                                                                                      |
|------------------------------------------------------------------------|------------------------------------------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short                                                                  | \$                                                         | DCDP                       |  <br>        |
| Short                                                                  | \$                                                         | Health                     |                                                                                                                                                                                                                                                                                                                                                          |
| Medium                                                                 | \$\$                                                       | Health                     |  <br>  |
| Medium                                                                 | \$\$\$                                                     | DCDP                       |                                                                                                                                                                                                                                                                                                                                                          |
| Medium                                                                 | \$\$                                                       | Health                     |                                                                                                                                                                                                                                                                                                                                                          |
| Medium                                                                 | \$\$                                                       | Health                     | <br><br>                                                                                  |
| Medium                                                                 | \$                                                         | DCDP                       |                                                                                                                                                                                                                                                                                                                                                          |
| Short                                                                  | \$                                                         | IT                         |                                                                                                                                                                                                                                                                                                                                                          |
| Short                                                                  | \$                                                         | IT                         |                                                                                                                                                                                                                                                                                                                                                          |
| Medium                                                                 | \$\$                                                       | Health/Fire                | <br><br>                                                                                  |
| Medium                                                                 | \$\$                                                       | Health                     |                                                                                                                                                                                                                                                                                                                                                          |

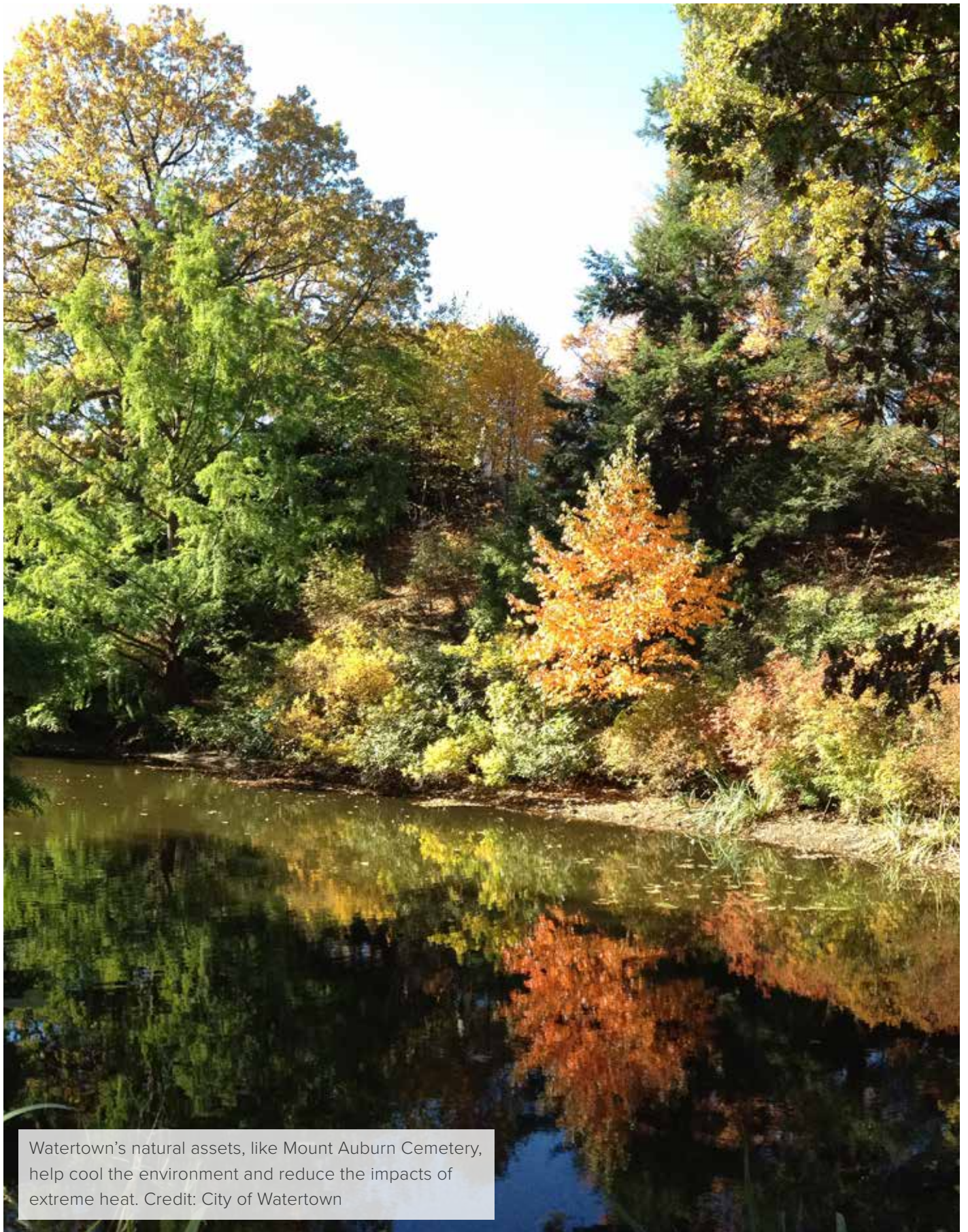


## MEASURING SUCCESS

The following indicators will help Watertown monitor progress toward our goals for Public Health & Community Preparedness. Multiple actions may contribute to a single target. The City will revisit these targets every five years.

| Metric (unit)                                                                  | Baseline Data                            | Baseline Year     | 2030 Target | 2050 Target | Source                                    |
|--------------------------------------------------------------------------------|------------------------------------------|-------------------|-------------|-------------|-------------------------------------------|
| Number of census tracts with moderate or higher heat vulnerability score       | 2 of 6                                   | 2019              | 0           | 0           | MAPC                                      |
| Community members signed up for emergency alerts and communications (%)        | 34% (12,068)                             | 2021              | 80%         | 100%        | Watertown Police                          |
| Businesses signed up for emergency alerts and communications (# of businesses) | 2,749 (need to ID total # of businesses) | 2021              | 80%         | 100%        | Watertown Police                          |
| Customer-hours of weather-related power outages                                | 28,965                                   | Average 2018-2020 | 14,000      | 0           | Eversource Outage Accident Reports to DPU |
| Number of residents served by resilience hubs annually                         | New Metric                               |                   |             |             |                                           |





Watertown's natural assets, like Mount Auburn Cemetery, help cool the environment and reduce the impacts of extreme heat. Credit: City of Watertown



# GLOSSARY

**Building Energy Use Disclosure Ordinance:** An ordinance that requires building owners to track and report their annual energy usage.

**Carbon Neutrality:** A state of net-zero carbon dioxide emissions that can be achieved by eliminating carbon dioxide emissions or balancing emissions of carbon dioxide with its removal (through carbon sequestration).

**Carbon Sequestration:** A process of capturing and storing carbon dioxide from the atmosphere. Carbon dioxide is naturally captured through biological and physical processes and is stored in forests, vegetation, wetlands, soils, and oceans. Scientists are exploring technological processes of capturing carbon dioxide.

**Circular Economy:** A model of material management that prevents waste and creates value through emphasis on reusing and regenerating, versus a linear model of using and discarding.

**Climate Change and Health Vulnerability Assessment:** An assessment that allows health departments to understand the people most susceptible to health impacts associated with climate change.

**Community Emergency Response Team (CERT):** A federally-sponsored program that educates people about disaster preparedness for hazards and trains them in basic disaster response skills.

**Envision™:** A rating system developed by The Institute for Sustainable Infrastructure to identify sustainable approaches during planning, design, and construction of infrastructure projects to continue throughout the project's operations and maintenance and end-of-life phases.

**Fugitive Gas Emissions:** Leaks or irregular release of gas that result primarily from oil and gas activity.

**GreenChill:** A voluntary EPA partnership program that works collaboratively with the food retail industry to reduce refrigerant emissions and decrease their impact on the ozone layer and climate change.

**HeatSmart Mass:** A program administered by the Massachusetts Clean Energy Center to increase the adoption of small-scale clean heating and cooling systems through community-based outreach and education.

**Impervious Surface:** A hard surface (like pavement) that prevents water—particularly stormwater—from filtering into the soil. By contrast, pervious surfaces filter and absorb stormwater to protect water quality and provide cooling benefits.

**Property Assessed Clean Energy (PACE):** A mechanism for financing energy efficiency and renewable energy improvements on private property.

**Regenerative Landscaping:** Regenerative landscapes are those that restore the environment and encourage long-term sustainability, increased biodiversity, and enhanced resilience by focusing on soil health and utilizing plant species that thrive locally and support local ecosystems.

**Sustainable Materials Management:** A systemic approach to using and reducing materials more productively over their life cycles.

**Whole Building Life-Cycle Assessment:** A tool that allows building professionals to understand the energy use and environmental impacts associated with all phases of a building, from material procurement to construction and operation.

**Zero-Carbon Mobility:** A collection of transportation solutions that result in zero carbon dioxide emissions.

## ACTION IMPLEMENTATION BLUEPRINTS

**Action Implementation Blueprints** are roadmaps that detail how to achieve priority actions and include implementation steps, implementation champion, key partners, and timeframe. The Blueprints on the following pages were created for actions that were deemed to need more implementation details.



Credit: City of Watertown



## ACTION BE1.1

Expand and strengthen the existing solar ordinance



### DESCRIPTION OF ACTION

Identify meaningful and achievable ways to build on Watertown's successful rooftop solar ordinance, which currently requires the equivalent of 50% roof coverage for new and substantially renovated buildings over 10,000 sq. ft. (or residential units of greater than 10 units) and 90% roof coverage of parking garages.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                                                                                                                                                                  | TIMEFRAME  | KEY PARTNERS                                                                                                                                                                              |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Analyze options for expanding ordinance. Consider feedback from existing ordinance and cost/benefit of proposed expansions. Consider phasing in changes. Potential changes include: expand to cover all new construction (or lower the square footage threshold for the requirement); include substantial rehab or retrofits; add a provision for solar canopies over parking; include existing parking garages. | 3-4 MONTHS | <ul style="list-style-type: none"> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Other Massachusetts municipalities</li> </ul>                                          |
| 2                    | Engage relevant property owners and developers in education, outreach, and strategic discussions.                                                                                                                                                                                                                                                                                                                | ONGOING    | <ul style="list-style-type: none"> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Watertown Business Coalition</li> <li>• Real estate and developer community</li> </ul> |
| 3                    | Develop a draft updated ordinance and timeline for further phases.                                                                                                                                                                                                                                                                                                                                               | 6 MONTHS   | <ul style="list-style-type: none"> <li>• WE3C</li> </ul>                                                                                                                                  |
| 4                    | Submit the draft development code update to the City Council to undergo the standard review process, including City Council meetings and public review opportunities.                                                                                                                                                                                                                                            | 3-4 MONTHS | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                          |
| 5                    | Incorporate public and other stakeholder input into language and submit final ordinance for adoption and approval.                                                                                                                                                                                                                                                                                               | 2 MONTHS   | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                          |
| 6                    | Annually evaluate buildings that have been built or upgraded to net zero standards to confirm they are meeting the standard. Plan for small/medium/ large maintenance to be done at roughly 1/3/10 years to maintain energy standard.                                                                                                                                                                            | ONGOING    | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                                          |



## TOOLS & RESOURCES

### Technical Resources

- [Current Watertown Solar Ordinance](#)
- [MAPC Municipal Net Zero Playbook](#)



## EQUITY CONSIDERATIONS

- ✓ Ensure the life-cycle benefits of solar are communicated equitably and to a diverse audience.
- ✓ Engage all community members when requesting input and comments.
- ✓ Work with regional partners (i.e., other cities) to generate a consistent message to developers, landlords, and tenants.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Publicize success and impact of existing ordinance to enhance support.
- ✓ Coordinate with other communities to ensure uniform adoption.





## ACTION BE1.2

Investigate implementing commercial PACE and other innovative finance programs



### DESCRIPTION OF ACTION

Investigate financial programs the City can adopt that increase participation in GHG reducing actions. These could include commercial PACE, CCA 2.0, alternative compliance payments from BEUDO, etc.



### CHAMPION

Energy Manager's Office

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                 | TIMEFRAME             | KEY PARTNERS                                                                                                                                                                                                                              |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Investigate possible options for financial programs and consider which would be most effective for Watertown's unique needs.                                                    | <b>6-12</b><br>MONTHS | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Other Massachusetts communities</li> <li>• Relevant financial experts</li> <li>• Relevant user stakeholders</li> </ul> |
| 2                    | Draft proposals for the highest priority options.                                                                                                                               | <b>4-6</b><br>MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> </ul>                                                                                                                                                                  |
| 3                    | Incorporate public and other stakeholder input into language.                                                                                                                   | <b>2</b><br>MONTHS    | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> </ul>                                                                                                                                                                  |
| 4                    | Submit the programs to City Council to undergo the standard review process for program and/or budget approval, including City Council meetings and public review opportunities. | <b>3-4</b><br>MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                                                                                          |
| 5                    | Incorporate revisions and submit final language for adoption.                                                                                                                   | <b>3</b><br>MONTHS    | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                                                                                          |



## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Clean Energy Center Grant Programs](#)
- [Green Communities Grant Program](#)

### Technical Resources

- [Commercial PACE information](#)
- [Local CCAs](#)
- [MAPC Municipal Net Zero Playbook](#)



## EQUITY CONSIDERATIONS

- ✓ Engage all community members when requesting input and comments.
- ✓ Target outreach to low-income, minority residents, seniors, renters, and small businesses (depending on the program). Develop compelling message for residential and commercial landlords as conduits for renters.
- ✓ Ensure benefits of the programs are prioritized to those traditionally excluded and those most at need. Build this into program rules.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Work with community partners to design and implement the programs and perform outreach.
- ✓ Work with regional partners to minimize overhead costs.



## ACTION BE1.3/BE3.2

Conduct outreach campaigns for solar, heat pumps, WEC, and energy efficiency



### DESCRIPTION OF ACTION

Create a multipronged publicity effort to radically increase adoption rates by residential and small commercial entities of solar installations, heat pump space and hot water heaters, City-provided bulk purchase high renewable electricity option (WEC), and deep energy efficiency retrofits and conservation actions.



### CHAMPION

Energy Manager's Office

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                       | TIMEFRAME | KEY PARTNERS                                                                                                                                                         |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Allocate financial resources for consultant services and seek City Council approval if required.                                                      | 3 MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• City Council</li> </ul>                           |
| 2                    | Identify best practices based on past outreach experience in Watertown and similar campaigns in other MA municipalities.                              | 3 MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• MAPC</li> </ul>                                   |
| 3                    | Develop a multi-phase, multi-year publicity plan with the assistance of expert consultants.                                                           | 6 MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> </ul>                                                   |
| 4                    | Launch initial phases. Include in-person demonstrations or tours to familiarize residents and businesses with relevant technologies or interventions. | 6 MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Other interested partner organizations</li> </ul> |
| 5                    | Continue ongoing rollout with annual evaluation of progress and adjustments made.                                                                     | ONGOING   | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Other interested partner organizations</li> </ul> |



## TOOLS & RESOURCES

### Financial Tools

- [MAPC Accelerating Climate Resiliency Grant Program](#)

### Technical Resources

- [WEC materials](#)
- [HeatSmart programs \(e.g., Belmont\)](#)
- [Solarize Mass](#)
- [MassSave](#)



## EQUITY CONSIDERATIONS

- ✓ Target outreach to low-income, minority residents, seniors, and renters. Develop compelling message for landlords as conduits for renters.
- ✓ Engage all community members when requesting input and comments.
- ✓ Work with regional partners (i.e., other cities) to generate a consistent message to developers, landlords, and tenants.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Coordinate with other communities and regional organizations for lessons learned (e.g., Newton) and to gain economies of scale.
- ✓ Use multiple forms of media and repetition to increase power of message.
- ✓ Partner with trusted community members and local organizations (e.g., church leaders, local businesses) to spread the message and leverage existing communication networks.





## ACTION BE2.1

Adopt the State's Net Zero Stretch Code as soon as permissible



### DESCRIPTION OF ACTION

Watertown will actively advocate for and participate in the development of a net zero stretch code by the Commonwealth of Massachusetts and adopt it immediately. This action will also allow Watertown to align with and contribute to the State of Massachusetts' net zero energy standard.



### CHAMPION

Energy Manager's Office

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                                                                                                             | TIMEFRAME   | KEY PARTNERS                                                                                                                                                                                                                                                                |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Designate a representative of the City of Watertown to engage in the state code development process. Attend regular meetings of the Board of Building Regulations and Standards and relevant energy working groups. Work with Key Partners to advocate for rapid development of a standard that aligns with Watertown's priorities for a net zero standard. | 8-12 MONTHS | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Other Massachusetts communities</li> <li>• Northeast Energy Efficiency Partnerships</li> <li>• Net zero developer and architectural community</li> </ul> |
| 2                    | Develop a draft stretch code adoption ordinance, tightening feasible standards as soon as possible for each building type. Include alternate compliance mechanisms to the net zero standard, if appropriate for furthering other resilience goals.                                                                                                          | 2-3 MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> </ul>                                                                                                                                                                                                    |
| 3                    | Submit the draft development code update to City Council to undergo the standard review process, including City Council meetings and public review opportunities.                                                                                                                                                                                           | 3-4 MONTHS  | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                                                                                                            |
| 4                    | Incorporate public and other stakeholder input into language.                                                                                                                                                                                                                                                                                               | 1 MONTH     | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                                                                                                            |
| 5                    | Submit final net zero standard language for City Council approval and adoption.                                                                                                                                                                                                                                                                             | 1 MONTH     | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                                                                                                            |



## TOOLS & RESOURCES

### Technical Resources

- [Boston Planning & Development Agency: Boston Net Zero Carbon Building Zoning Initiative](#)
- [Northeast Energy Efficiency Partnership: Massachusetts Energy Zero Code \(MA E-Z Code\)](#)
- [City of Cambridge: Green Building Requirements and Net Zero Narrative](#)
- [Passive House Institute US: The Passive House Standard](#)
- [Northeast Sustainable Energy Association: Building Energy Case Study Database](#)
- [Built Environment Plus \(former USGBC-MA\)](#)
- [ASHRAE: Advanced Energy Design Guide- Achieving Zero Energy series](#)



## EQUITY CONSIDERATIONS

- ✓ Work with existing developers to help them understand the available resources to comply with new standards.
- ✓ Ensure the life-cycle benefits of net zero construction are communicated equitably and to a diverse audience.
- ✓ Engage all community members when requesting input and comments.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Incorporate reporting and enforcement of new standards into existing responsibilities.
- ✓ Connect the development community with appropriate training resources and qualified partners who can meet the standard.
- ✓ Coordinate closely with the State of Massachusetts and develop adoption language concurrent with standard development so that adoption process can begin immediately.
- ✓ Coordinate with other communities to ensure uniform adoption.



## ACTION BE4.1

### Enact a Building Energy Use Disclosure Ordinance



#### DESCRIPTION OF ACTION

Adopt an ordinance to require property managers of buildings of designated sizes and types to track and report energy use to the City of Watertown. This will allow Watertown to set equitable building energy use reduction targets that tighten over time to drive reductions in greenhouse gases. Consider setting reduction targets initially rather than phasing it in over time.



#### CHAMPION

DCDP

#### OVERALL TIMEFRAME

Medium (1-3 years)

#### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                                                                                                           | TIMEFRAME  | KEY PARTNERS                                                                                                                                                                                                                                                                                                                                         |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Complete a review of existing ordinances from similar jurisdictions to determine best practices in both ordinance language and process of developing ordinances. Consider ordinances in jurisdictions that can be appropriately compared to Watertown, including those with similar building types and sizes, GHG emissions, energy sources, and climate. | 2-3 MONTHS | <ul style="list-style-type: none"> <li>• Energy Manager's Office</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Massachusetts Climate Action Network</li> <li>• Boston/Cambridge/other municipalities identified</li> <li>• Large property owners and commercial developers</li> <li>• Watertown Business Coalition</li> </ul> |
| 2                    | Identify data gaps in current assessment of energy use, especially around non-utility energy such as fuel oil, range of existing building performance levels, and other data to design reporting requirements to obtain a complete accounting of energy related GHGs, enabling development of performance standards.                                      | 3-4 MONTHS | <ul style="list-style-type: none"> <li>• Energy Manager's Office</li> <li>• DPB</li> <li>• WE3C</li> </ul>                                                                                                                                                                                                                                           |
| 3                    | Write draft Ordinance language. Ensure language specifically requires information on building energy sources and fuel mix.                                                                                                                                                                                                                                | 3-6 MONTHS | <ul style="list-style-type: none"> <li>• Energy Manager's Office</li> <li>• WE3C</li> </ul>                                                                                                                                                                                                                                                          |
| 4                    | Review reporting process design, data requirements, and other details with impacted parties to ensure feasibility and adjust as needed.                                                                                                                                                                                                                   | 3-4 MONTH  | <ul style="list-style-type: none"> <li>• Building and property managers</li> <li>• Eversource, National Grid</li> </ul>                                                                                                                                                                                                                              |
| 5                    | Submit the draft ordinance to City Council for subcommittee review and public input process.                                                                                                                                                                                                                                                              | 3-4 MONTHS | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                                                                                                                                                                                     |
| 6                    | Incorporate revisions and submit final Ordinance language for adoption.                                                                                                                                                                                                                                                                                   | 2-3 MONTHS | <ul style="list-style-type: none"> <li>• City Council</li> </ul>                                                                                                                                                                                                                                                                                     |



## TOOLS & RESOURCES

### Technical Resources

- [Institute for Market Transformation: Putting Data to Work](#)
- [Institute for Market Transformation: Analyzing Benchmarking Data](#)
- [Institute for Market Transformation: Sample Specifications for a Building Performance Reporting Software Platform](#)



## EQUITY CONSIDERATIONS

- ✓ Review existing reporting requirements for building managers/owners and determine if the intent of this action can be made through other means.
- ✓ Ensure the benefits of energy use reporting are communicated equitably and to a diverse audience.
- ✓ Consider a threshold (e.g., building size, building type) that would limit the buildings that need to comply with the ordinance.
- ✓ Identify systems that could automatically collect and report information (e.g., ENERGY STAR® Portfolio Manager®).
- ✓ Engage all community members when requesting input and comments.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Reach out to those who have implemented similar ordinances (e.g., in Massachusetts or the Northeast) for guidance.
- ✓ Develop a data review process and instructions for enforcement, establishing both incentives and penalties.
- ✓ Develop clear expectations, process, and schedule for phasing in public data disclosure, considering building types and landlord-tenant relationships.
- ✓ Phase in reporting at regular intervals to allow for managing data and supporting impacted property owners as the program matures to minimize reporting burden.
- ✓ Consider alternative compliance payments that could be redirected toward meeting other goals or be reinvested locally.
- ✓ Select initial thresholds for covered buildings that balance the need for obtaining a meaningful representative sample against the reporting burden for small entities. Phase additional building types and/or lower thresholds over time.
- ✓ Demonstrate the value of the data for understanding progress and highlighting tangible achievements and exceptional performance within the city.
- ✓ Explicitly link observed energy and GHG performance data obtained from the program into the periodic review and update of the Resilient Watertown Climate and Energy Plan.
- ✓ Utilize data on on-site fuel use to target local stationary combustion sources, which impact public health and local air quality.
- ✓ Provide regular training and technical assistance to help less-resourced building owners.
- ✓ Commit the City to retaining Renewable Energy Credits (RECs) for all municipal solar arrays.





## ACTION BE4.3

Upgrade major existing municipal facilities to achieve net zero energy performance



### DESCRIPTION OF ACTION

Analyze all existing municipal and school buildings and perform deep energy retrofits to achieve as close to net zero performance as possible. Analyze buildings designed for net zero performance to verify they meet the standard and make adjustments or improvements as needed.



### CHAMPION

DPB

### OVERALL TIMEFRAME

Long (3-5 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                        | TIMEFRAME            | KEY PARTNERS                                                                                                                                                             |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Analyze all existing municipal buildings for existing conditions and opportunities for deep energy retrofits, utilizing energy performance consultant services if deemed necessary.                                                    | <b>12</b><br>MONTHS  | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Eversource and National Grid</li> <li>• Library Trustees and Director</li> <li>• WHA</li> </ul> |
| 2                    | Create a priority list of facilities for upgrades based on urgency, cost, previously planned upgrades or renovations, barriers, and other factors identified.                                                                          | <b>2</b><br>MONTHS   | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> </ul>                                                                                                 |
| 3                    | Submit the budget items associated with the upgrades to the City Council for review during the normal budget process.                                                                                                                  | <b>4</b><br>MONTHS   | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                         |
| 4                    | Integrate net zero upgrades into planned renovations already in capital plans.                                                                                                                                                         | <b>3-4</b><br>MONTHS | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                         |
| 5                    | Install high quality energy monitoring equipment in all municipal buildings during construction.                                                                                                                                       | ONGOING              | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                         |
| 6                    | Evaluate (annually) buildings that have been built or upgraded to net zero standards to confirm they are meeting the standard. Plan for small/medium/large maintenance to be done at roughly 1/3/10 years to maintain energy standard. | ONGOING              | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• City Council</li> </ul>                                                                                         |



## TOOLS & RESOURCES

### Financial Tools

- [Green Communities Grant Program](#)

### Technical Resources

- [Boston Net Zero Carbon Building Zoning Initiative](#)
- [Massachusetts Energy Zero Code \(MA E-Z Code\), Northeast Energy Efficiency Partnership](#)
- [Green Building Requirements and Net Zero Narrative, City of Cambridge](#)
- [Building Energy Case Study Database, Northeast Sustainable Energy Association \(NESEA\)](#)
- [ASHRAE Advanced Energy Design Guide-Achieving Zero Energy series](#)



## EQUITY CONSIDERATIONS

- ✓ Consider equity impacts of upgrades when creating priority list of upgrades.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Incorporate ongoing monitoring of building energy performance against net zero standard into existing responsibilities.
- ✓ Establish a budget item for maintenance relative to energy performance to streamline process.



## ACTION TM1.2

Collaborate regionally to increase and improve safe, interconnected pathways for bicyclists and pedestrians



### DESCRIPTION OF ACTION

Continue to build out a robust bicycle and pedestrian network that reaches destinations beyond our municipal boundaries.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Medium (1-3 years)/Ongoing

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                    | TIMEFRAME | KEY PARTNERS                                                        |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------|
| 1                    | Include sidewalks and curbs wherever new road construction is planned.                                                                                                             | ONGOING   | • DPW                                                               |
| 2                    | Work with DPW and Complete Streets Committee to ensure that at least one project on each year's road plan improves bike safety. Protected bike lanes are preferred where feasible. | ONGOING   | • DPW                                                               |
| 3                    | Coordinate with Planning and Public Works Department in adjacent towns when road projects are close to borders.                                                                    | ONGOING   | • Cambridge, Boston, Newton, Waltham, Belmont                       |
| 4                    | Increase bike parking in business districts and transit nodes (Watertown Yard, Watertown Square and Coolidge Square).                                                              | ONGOING   | • DPW<br>• Local business community<br>• Real estate and developers |
| 5                    | Maintain and grow the number of Bluebikes stations to improve first and last mile travel options.                                                                                  | ONGOING   | • DPW<br>• Local business community<br>• Real estate and developers |



## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Chapter 90 Funding](#)
- [American Rescue Plan Act Funding](#)
- [Capital Improvement Plan](#)

### Technical Resources

- [Watertown Bicycle and Pedestrian Plan](#)
- [MAPC Net Zero Playbook: Zero Emission Mobility](#)



## EQUITY CONSIDERATIONS

- ✓ Prioritize investments in areas with Environmental Justice populations and climate-vulnerable communities.
- ✓ Consider how investments will connect to local and regional transit.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Consider long-term economic development of Watertown and the region to anticipate future mobility routes.
- ✓ Conduct frequent outreach to the public on the accessibility of pedestrian and bicycle movement in Watertown.





## ACTION TM1.3

Increase use of transit, bike, and pedestrian travel through outreach, incentives, and policy changes



### DESCRIPTION OF ACTION

Systematically expand use of non-vehicular travel by instituting and advertising changes such as decreased zoning requirements for parking, traffic calming, and safe routes to schools.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Long (3-5 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                       | TIMEFRAME | KEY PARTNERS                                                                                                                                                          |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Conduct an inventory of transportation assets and programs to generate a baseline.                                                                                                    | 2 MONTHS  | <ul style="list-style-type: none"> <li>• DPW</li> <li>• Bike/Ped Committee</li> </ul>                                                                                 |
| 2                    | Develop incentives to reduce parking needs, including expanding the shuttle program, sharing parking between businesses, and improving bike infrastructure in municipal parking lots. | 6 MONTHS  | <ul style="list-style-type: none"> <li>• DPW</li> </ul>                                                                                                               |
| 3                    | Consider policy changes such as reducing parking requirements or instituting parking maximums in the zoning code and better integrating traffic calming measures into road planning.  | 1 YEAR    | <ul style="list-style-type: none"> <li>• DPW</li> <li>• City Council</li> </ul>                                                                                       |
| 4                    | Expand and/or formalize programs aimed at specific locations in Watertown, such as "safe routes to school" and promoting walkability of the central business district.                | ONGOING   | <ul style="list-style-type: none"> <li>• DPW</li> <li>• Local business community</li> <li>• Watertown Public Schools</li> <li>• neighborhood organizations</li> </ul> |
| 5                    | Plan and promote events and other creative ways to communicate about existing and new programs and technologies.                                                                      | ONGOING   | <ul style="list-style-type: none"> <li>• DPW</li> <li>• Local business community</li> <li>• Bike/Ped Committee</li> </ul>                                             |



## TOOLS & RESOURCES

### Financial Tools

- [MAPC Accelerating Climate Resiliency Grant Program](#)
- [MassDOT Shared Streets and Spaces funds](#)

### Technical Resources

- [MAPC Net Zero Playbook: Zero Emission Mobility](#)
- [MAPC Maximum Parking Allowances](#)



## EQUITY CONSIDERATIONS

- ✓ Prioritize policy changes and incentive programs that will benefit low-income residents, renters, and other climate vulnerable populations.
- ✓ Conduct meaningful public engagement when discussing and adopting policy changes.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Engage property owners and businesses early on and lead with successful examples from other communities.
- ✓ Tie efforts to long-term economic and community development goals.



## ACTION TM1.6

Develop an integrated, publicly accessible electric transit system that connects to MBTA and other points of interest not accessible by MBTA, including on-demand transportation options



### DESCRIPTION OF ACTION

Increase the connectedness of mobility choices and destinations in and around Watertown using clean and affordable options.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Long (3-5 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                            | TIMEFRAME   | KEY PARTNERS                                                                                                                                                                                                                               |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Assess current ridership demographics and local and regional transit origin/destination needs.                                                                                                                                             | 3 MONTHS    | <ul style="list-style-type: none"> <li>• MBTA</li> <li>• WTMA</li> <li>• Surrounding communities (e.g., Belmont, Newton, Waltham)</li> <li>• Watertown businesses and employers</li> <li>• E-bikeshare providers</li> </ul>                |
| 2                    | Create a transit advisory group that reflects the demographics of the city to prioritize ridership, routes, and destinations to focus on and determine which are best serviced by shuttles, on-demand, or other modes.                     | 2 MONTHS    | <ul style="list-style-type: none"> <li>• MBTA</li> <li>• WTMA</li> <li>• WE3C</li> <li>• Council on Aging</li> </ul>                                                                                                                       |
| 3                    | Collaborate with transit partners to assess and develop an electrification plan for bus and shuttle fleet.                                                                                                                                 | 6 MONTHS    | <ul style="list-style-type: none"> <li>• Participating service providers</li> <li>• WTMA</li> </ul>                                                                                                                                        |
| 4                    | Collaborate with existing service providers in and around Watertown to discuss partnership opportunities for public use. Develop and implement Integrated Mobility Solutions so that services enhance rather than compete with each other. | 6-12 MONTHS | <ul style="list-style-type: none"> <li>• MBTA</li> <li>• WTMA</li> <li>• NewMO</li> <li>• Council on Aging</li> </ul>                                                                                                                      |
| 5                    | Expand the TDM Ordinance to apply to existing businesses. Collaborate with local businesses and anchor institutions on transportation demand management options. Amend or revise the TDM Ordinance to expand its reach.                    | 6 MONTHS    | <ul style="list-style-type: none"> <li>• Large employers in Watertown (e.g., Athenahealth, Riverworks, VHB)</li> <li>• WTMA</li> <li>• City Council</li> <li>• Watertown Public Schools</li> <li>• Perkins School for the Blind</li> </ul> |



|   |                                                                                                                                                                                                                                   |                           |                                                                                                                                                                                                     |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6 | Implement new bus routes, shuttle routes, priority bus lanes and signal priorities, and e-bikeshare stations as deemed relevant by the assessment in steps 1 and 2.                                                               | 1-2<br>YEARS<br>(ONGOING) | <ul style="list-style-type: none"> <li>• Participating service providers</li> <li>• MBTA</li> <li>• WTMA</li> <li>• Private property owners</li> <li>• Traffic Commission</li> <li>• DPW</li> </ul> |
| 7 | Review ridership fee structures for equity, in collaboration with chosen partners.                                                                                                                                                | 2<br>MONTHS               | <ul style="list-style-type: none"> <li>• Participating service provider partners</li> </ul>                                                                                                         |
| 8 | Rollout new services. Develop ridership guidebook that encompasses all publicly available routes, connections, service providers, and fees. Develop and release public outreach to advertise new transit options and connections. | 3<br>MONTHS               | <ul style="list-style-type: none"> <li>• Participating service provider partners</li> </ul>                                                                                                         |



## TOOLS & RESOURCES

### Financial Tools

- [Mascot: Community Transit Grant Program](#)
- [National Center for Mobility Management: Grants and Opportunities](#)

### Technical Resources

- [City of Newton: New-Mo](#)
- [Salem Skipper](#)
- [Uber Transit \(Partner of the MBTA\)](#)
- [Community Compact Cabinet: Best Practices Program, Transportation / Public Works](#)
- [Community Transportation of America](#)
- [Transit Planning 4 All](#)
- [National Center for Applied Transit Technology](#)
- [Operating a Successful Community Shuttle Program: A Guidebook](#)



## EQUITY CONSIDERATIONS

- ✓ Ensure accessibility for people with disabilities and seniors including both accessibility of stops and consideration of distance between stops.
- ✓ Consider affordability of ridership fee schedule and strategies to facilitate reduced fares.
- ✓ Identify neighborhoods that have specific transit needs (e.g., "transit deserts" or a larger percentage of 2nd and 3rd shift workers not served by current transit timetables).



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Ensure that new routes and ridership services cover a wide range of resident demographics to provide connectedness opportunities for all.
- ✓ Consider long-term economic development of Watertown to anticipate future routes and service needs.
- ✓ Collaborate early and often with the MBTA on forthcoming improvements to their routes and services to ensure synergy and reduce duplication of services.
- ✓ Engage the Watertown community through multiple strategies and at multiple touchpoints to gather the most accurate ridership needs data.
- ✓ Work with neighboring communities to fund and maintain regional transit and connection options.





## ACTION TM2.1

Develop and implement an EV Roadmap for Watertown



### DESCRIPTION OF ACTION

Create a detailed and actionable roadmap to install localized electric vehicle (EV) infrastructure and develop programs to increase EV adoption in Watertown.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Short (<1 year)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                              | TIMEFRAME | KEY PARTNERS                                                                                                                                                                                                                           |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Conduct a baseline assessment of current Watertown EV infrastructure (public and private), including existing number and adoption rate of EVs.                                                                                                                               | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Director of Public Buildings/Energy Manager</li> <li>• Watertown Registry of Motor Vehicles</li> </ul>                                                                                        |
| 2                    | Identify and engage with all critical and relevant parties, including the audience that will be directly or indirectly impacted by the Roadmap, and populations who have been underserved.                                                                                   | 1 MONTH   | <ul style="list-style-type: none"> <li>• Energy Manager</li> <li>• WE3C</li> <li>• DPB</li> <li>• DPW</li> <li>• Watertown Business Coalition</li> <li>• Large developers and property owners</li> </ul>                               |
| 3                    | Research best practices national and from surrounding communities, including ways to increase charging stations on both public and private property, unique charging infrastructure scenarios, and EV purchase incentives; understand upcoming developments in the industry. | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Surrounding communities</li> <li>• National Grid and Eversource</li> <li>• ChargePoint</li> <li>• Clean Cities Coalition</li> </ul>                                                           |
| 4                    | Define scope of EV Roadmap and set City goals for the Roadmap utilizing data collected from steps 1-3.                                                                                                                                                                       | 2 MONTHS  | <ul style="list-style-type: none"> <li>• Traffic Commission</li> <li>• Energy Manager</li> <li>• WE3C</li> <li>• DPB</li> <li>• DPW</li> <li>• Watertown Business Coalition</li> <li>• Large developers and property owners</li> </ul> |
| 5                    | Identify barriers to EV adoption at all scales and engage the community for feedback.                                                                                                                                                                                        | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Renters and landlords</li> <li>• Low-moderate income residents</li> <li>• Watertown visitors and commuters</li> <li>• Car dealerships</li> <li>• Businesses</li> <li>• Developers</li> </ul>  |



|          |                                                                                                                                                |                    |                                              |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------|
| <b>6</b> | Analyze data and community and stakeholder feedback, identify key themes, and compile and prioritize immediate, medium, and long-term actions. | <b>6</b><br>MONTHS | • Consultant                                 |
| <b>7</b> | Launch Roadmap in conjunction with a public outreach campaign and begin implementation.                                                        | <b>2</b><br>MONTHS | • WE3C<br>• Energy Manager<br>• City Council |



## TOOLS & RESOURCES

### Financial Tools

- [US Department of Transportation – Low or No Emission Vehicle Program](#)
- [US Department of Energy – Federal Tax Credits](#)
- [MassDOER – MOR-EV Rebate Program](#)
- [MassDOER – MOR-EV Trucks Program](#)

### Technical Resources

- [USDN - Electric Vehicle Charging Access for Renters: A Guide to Questions, Strategies, and Possible Next Steps](#)
- [MJ B&A - Regional EV Charging Infrastructure Location Identification Toolkit \(ILIT\)](#)
- [US Department of Energy – Electric Vehicle Infrastructure Projection Tool \(EVI-Pro\) Lite](#)
- [City of Boston – Recharge Boston](#)
- [Tucson Electric Power - Electric Vehicle 5-Year Strategic Roadmap](#)
- [Partnership between City of Melrose and National Grid to place EV chargers on utility poles](#)



## EQUITY CONSIDERATIONS

- ✓ Provide opportunities for renters to access and utilize EV infrastructure.
- ✓ Identify creative solutions for Watertown's building stock of older multifamily homes.
- ✓ Ensure EV charging is physically, logistically, and financially accessible to all residents of Watertown.
- ✓ Include actions that increase low-income access to electric vehicles.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Seek feedback proactively and have conversations with developers and landlords on any new policies and regulations, both while the Roadmap is in development and after launch.
- ✓ Ensure City implements a long-term maintenance plan for new EV infrastructure.
- ✓ Conduct early and frequent outreach to the public on the accessibility of new EV infrastructure.
- ✓ Consider future local and regional economic development plans to ensure EV infrastructure readily connects to other infrastructure.
- ✓ Ensure new infrastructure is guided by core principles, such as ability to enhance workforce development by way of expanded transit options.
- ✓ Provide technical assistance to property owners interested in hosting EV infrastructure.
- ✓ Evaluate pros and cons of private vs. public infrastructure ownership.
- ✓ Seek funding to offer financial incentives for gaps the Roadmap identifies in state and federal funding.



## ACTION NR1.1

Incorporate pocket parks into all neighborhoods lacking green space



### DESCRIPTION OF ACTION

Watertown will identify and implement pocket parks on public and private property, with a priority focus on neighborhoods lacking open space. This process will take place in coordination with private development activity wherein privately-owned public open space may be created.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Long (3-5 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                                                                                             | TIMEFRAME  | KEY PARTNERS                 |
|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------|
| 1                    | Identify sections of Watertown that meet the definition of "lacking green space" based on number of residents within a ten-minute walk to open space.                                                                                                                                                                                       | 1-2 MONTHS | • GIS consultants            |
| 2                    | Create a set of criteria that would make:<br>a) public property suitable for conversion to open space (minimum square footage, potential for other priority uses, abutting land uses, etc.)<br>b) private property appropriate for purchase by the City for use as open space (square footage range, current use, abutting land uses, etc.) | 1-2 MONTHS | • DPW<br>• Assessor's Office |
| 3                    | Conduct a mapping exercise to identify existing public properties that could accommodate open space and to identify small parcels the City can purchase.                                                                                                                                                                                    | 1-2 MONTHS | • GIS consultants            |
| 4                    | Develop a list of priority properties for acquisition (if applicable) and conversion.                                                                                                                                                                                                                                                       | 1-2 MONTHS | • DPW<br>• City Council      |
| 5                    | Incorporate priority public parcels for conversion into upcoming capital plans and aim for development of one pocket park per year via a combination of capital funds and applicable grant programs.                                                                                                                                        | 2 MONTHS   | • DPW                        |



## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Parkland Acquisitions and Renovations for Communities \(PARC\) Grant Program](#)
- [MassDevelopment: Commonwealth Places](#)
- [Municipal Vulnerability Preparedness \(MVP\) Action Grant](#)
- [Metropolitan Area Planning Council: Accelerating Climate Resiliency Grant Program](#)
- [MA DCR: Urban and Community Forestry Challenge Grants](#)
- [Community Preservation Act Grant Program](#)

### Technical Resources

- [National Recreation and Park Association: Issue Brief on Pocket Parks](#)
- [Trust for Public Land Pocket Park Toolkit](#)



## EQUITY CONSIDERATIONS

- ✓ Balance need for open space with other priority needs such as affordable housing.
- ✓ Identify local leadership for each site as it is developed to steer the process and generate buy-in for the future park.
- ✓ Prioritize green space enhancements in environmental justice communities and neighborhoods with low tree canopy coverage.
- ✓ Ensure programs and activities are sensitive to variety of cultures in Watertown, including types of activities as well as days activities are held.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Connect with existing volunteer groups (e.g., Friends of Bees, Watertown Community Gardens) for training, outreach, and support.
- ✓ Identify opportunities to use green space enhancements for climate resiliency objectives (e.g., trees for shading, rain gardens for stormwater management).
- ✓ Plan for any additional maintenance requirements for enhancements early on in the projects.



## ACTION NR1.4

Establish equitable and accessible natural-habitat corridors along water bodies, trails, and utility easement areas, and protect existing ones



### DESCRIPTION OF ACTION

Enhance our existing natural habitat corridors, improve the ecology along the Charles River, and identify opportunities to establish or formalize new habitat corridors.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                       | TIMEFRAME  | KEY PARTNERS                                                                                                                                                                                                  |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Conduct a mapping exercise and field study to identify areas where natural habitat corridors could exist or could be bolstered; keep regional connections in mind.    | 3 MONTHS   | <ul style="list-style-type: none"> <li>• DPW</li> <li>• WE3C</li> <li>• Conservation Commission</li> <li>• Mass Audubon</li> <li>• DCR</li> <li>• Mount Auburn Cemetery</li> <li>• Friends of Bees</li> </ul> |
| 2                    | Develop a priority list of specific properties, rights of way, and other parcels that should be naturalized and/or preserved in service of habitat corridor creation. | 3 MONTHS   | <ul style="list-style-type: none"> <li>• DPW</li> <li>• WE3C</li> <li>• Conservation Commission</li> </ul>                                                                                                    |
| 3                    | Add identified projects to capital plans as appropriate, seeking opportunities to add onto already planned work if feasible.                                          | 1-2 MONTHS | <ul style="list-style-type: none"> <li>• DPW</li> <li>• City Council</li> </ul>                                                                                                                               |
| 4                    | Work with DCR and partner groups to support the maintenance and improved health of habitat corridors on their properties.                                             | 1-2 MONTHS | <ul style="list-style-type: none"> <li>• DCR</li> <li>• Partner groups and stewardship volunteer organizations</li> </ul>                                                                                     |
| 5                    | Connect new habitat corridor efforts to outreach and education around natural resources and climate change.                                                           | ONGOING    | <ul style="list-style-type: none"> <li>• DCR</li> <li>• WE3C</li> <li>• Conservation Commission</li> </ul>                                                                                                    |





## TOOLS & RESOURCES

### Financial Tools

- [Municipal Vulnerability Preparedness \(MVP\) Action Grant](#)
- [Metropolitan Area Planning Council: Accelerating Climate Resiliency Grant Program](#)
- [MA DCR: Urban and Community Forestry Challenge Grants](#)
- [Community Preservation Act Grant Program](#)

### Technical Resources

- [Smart Cities Dive: Corridor Ecology and Planning](#)



## EQUITY CONSIDERATIONS

- ✓ Prioritize green space enhancements in environmental justice communities and neighborhoods with low tree canopy coverage.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Coordinate with regional organizations and neighboring municipalities to enhance habitat across city boundaries.
- ✓ Integrate this effort with the City's emerging pollinator program and multi-use path developments.



## ACTION NR2.3

Substantially increase annual street and municipal tree plantings and prioritize tree plantings in neighborhoods at high risk for urban heat impacts



### DESCRIPTION OF ACTION

Watertown will conduct an aggressive tree-planting campaign and ensure proper data collection, in order to prioritize areas with low canopy coverage and track progress towards a healthier and more robust urban tree canopy.



### CHAMPION

Forestry Division

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                                                                                                                                                                                         | TIMEFRAME  | KEY PARTNERS                                                                                                                           |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Develop historical data on tree canopy change in Watertown including current conditions.                                                                                                                                                                                                                                                                                                                                                | 3-4 MONTHS | • GIS consultants                                                                                                                      |
| 2                    | Set a goal of planting a minimum number of trees per year or expanding the baseline tree canopy by a minimum percentage per year in Watertown.                                                                                                                                                                                                                                                                                          | 2 MONTHS   | • DCDP<br>• DPW<br>• WE3C                                                                                                              |
| 3                    | Develop a strategy and budget allocation that will enable Watertown to meet or exceed its planting goals on an annual basis, outlining staff and equipment needs, cost estimates, volunteer/partnership opportunities, and other considerations deemed necessary.                                                                                                                                                                       | 6 MONTHS   | • WE3C<br>• Trees for Watertown<br>• Teens for Trees<br>• Conservation Commission<br>• Watertown Public Schools                        |
| 4                    | Establish a program of neighborhood-based bare-root tree planting events with special emphasis on greening tree-barren neighborhoods and those with greater urban heat island effects.                                                                                                                                                                                                                                                  | 6 MONTHS   | • Trees for Watertown<br>• Teens for Trees<br>• Conservation Commission<br>• Watertown Public Schools<br>• Watertown Housing Authority |
| 5                    | Invest in a detailed, GIS-based tree inventory database software package that can be graphically merged as an overlay with other city databases to give a detailed picture of Watertown's street infrastructure for planning purposes. software should have the following:<br>• Data able to be updated via cell phone<br>• Database input parameters able to be customized<br>• Feature a user-friendly interactive map for public use | 3 MONTHS   | • GIS consultants                                                                                                                      |
| 6                    | Rewrite Watertown's tree planting contract to require high quality planting stock from regional New England nurseries, optimal planting practices, and regular and adequate watering for the first two growing seasons.                                                                                                                                                                                                                 | 1 MONTH    | • DPW                                                                                                                                  |
| 7                    | Support newly planted trees with an educational campaign encouraging resident watering support.                                                                                                                                                                                                                                                                                                                                         | ONGOING    | • WE3C<br>• Trees for Watertown                                                                                                        |



## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Executive Office of Energy & Environmental Affairs: Municipal Vulnerability Preparedness Action Grant](#)
- [Metropolitan Area Planning Council: Accelerating Climate Resiliency Grant Program](#)
- [MA DCR: Urban and Community Forestry Challenge Grants](#)

### Technical Resources

- [City of Cambridge: Miyawaki Forest demonstration project](#)
- [City of Cambridge Urban Forest Master Plan](#)



## EQUITY CONSIDERATIONS

- ✓ Prioritize plantings in neighborhoods with higher percent impervious surface, lower income residents, and historically limited investment.
- ✓ Meaningfully engage abutting residents during projects proposing significant tree investments



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Leverage existing volunteer groups (e.g., Friends of Bees, Watertown Community Gardens, Master Naturalist, Master Gardener, Scouts) to support City staff.
- ✓ Work with student and teacher groups to integrate tree planting and care into school curricula and professional development programs. Support teachers with training to ensure they can develop and teach the curriculum.



## ACTION NR3.1

Develop a regenerative landscaping education and outreach plan with expanded opportunities for residential involvement



### DESCRIPTION OF ACTION

Create educational materials and incentives to facilitate resident engagement in landscaping practices that minimize pesticide use, support native species, and use green infrastructure and low-impact development.



### CHAMPION

DPW

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                  | TIMEFRAME  | KEY PARTNERS                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Review existing nature-based landscaping education and incentive programs in partnership with community members and City staff to understand opportunities to expand existing offerings and design new programs. | 3-4 MONTHS | <ul style="list-style-type: none"> <li>• Watertown Community Gardens</li> <li>• Friends of Bees</li> <li>• CRWA</li> <li>• Trees for Watertown</li> <li>• Teens for Trees</li> <li>• Watertown Free Public Library</li> <li>• Mount Auburn Cemetery</li> <li>• Recreation</li> <li>• Conservation Commission</li> <li>• Watertown Public Schools</li> <li>• Watertown Housing Authority</li> <li>• Watertown Community Education</li> </ul> |
| 2                    | Establish a City-approved pollinator plant and tree species list to distribute to developers and homeowners.                                                                                                     | 3-4 MONTHS | <ul style="list-style-type: none"> <li>• Above listed partners</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |
| 3                    | Develop an annual calendar for outreach and education that builds off both existing and new educational programs and is based on seasonal, consistent themes.                                                    | 1 MONTH    | <ul style="list-style-type: none"> <li>• Above listed partners</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |
| 4                    | Develop and launch a multimedia campaign in English and Spanish consistently promoting seasonal educational opportunities and programs and distribute materials to local landscaping companies.                  | 3 MONTHS   | <ul style="list-style-type: none"> <li>• Above listed partners</li> </ul>                                                                                                                                                                                                                                                                                                                                                                   |
| 5                    | Develop a sustainable landscaping workshop series for residents and/or commercial entities, in partnership with local experts.                                                                                   | 6 MONTHS   | <ul style="list-style-type: none"> <li>• Massachusetts Master Gardener Association</li> <li>• Mass Audubon</li> <li>• CRWA</li> <li>• DCR</li> <li>• Middlesex Conservation District</li> <li>• Watertown Community Education</li> <li>• Watertown Free Public Library</li> </ul>                                                                                                                                                           |
| 6                    | Connect education campaign to Watertown Public Schools curriculum and professional development, in coordination with action NR3.2.                                                                               | 1 YEAR     | <ul style="list-style-type: none"> <li>• Watertown Public Schools</li> </ul>                                                                                                                                                                                                                                                                                                                                                                |



## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Executive Office of Energy & Environmental Affairs: Municipal Vulnerability Preparedness Action Grant](#)
- [Metropolitan Area Planning Council: Accelerating Climate Resiliency Grant Program](#)
- [Toxics Use Reduction Institute: Community Grants](#)

### Technical Resources

- [City of Cambridge: Miyawaki Forest demonstration project](#)
- [Town of Concord: Sustainable Concord Landscape Handbook](#)
- [Ecological Landscape Alliance](#)
- [Massachusetts Horticultural Society](#)
- [Grow Native Massachusetts](#)
- [X-Cel Education program](#)
- [Boston Water & Sewer Commission and Boston Public Schools: Stormwater & Green Infrastructure Curriculum for Boston Public Schools](#)
- [USDA Conservation Districts](#)



## EQUITY CONSIDERATIONS

- ✓ Celebrate and actively incorporate non-western methods of sustainable landscaping (see Cambridge Miyawaki Forest example).
- ✓ Consider technology access, as well as physical, geographic, cultural, and/or linguistic barriers to participation when designing programs.
- ✓ Incorporate green infrastructure maintenance training into demonstration projects (modeled after and potentially via partnership with X-Cel Education Program).
- ✓ Prioritize support for projects in neighborhoods with higher percent impervious surface, lower income residents, and historically limited investment.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Identify existing programs to expand, such as the adopt-an-island program, and new programs to establish, such as distribution of free or discounted native pollinator seeds and guidance on how to maintain native plants.
- ✓ Leverage existing volunteer groups (e.g., Friends of Bees, Watertown Community Gardens, Master Naturalist, Master Gardener, Scouts) to support City staff.
- ✓ Work with student and teacher groups to integrate sustainable landscaping into school curricula and professional development programs. Support teachers with training to ensure they can develop and teach the curriculum.





## ACTION NR4.2

Promote and/or incentivize the incorporation of green stormwater infrastructure into existing large impervious areas



### DESCRIPTION OF ACTION

Create a green stormwater infrastructure promotion structure that incorporates ordinance updates, public outreach, incentives, and technical assistance. Include bioswales, rain gardens, trees, pervious pavement, and other green infrastructure techniques that help to filter pollutants out of stormwater and control flooding.



### CHAMPION

DPW

### OVERALL TIMEFRAME

Long (3-5 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                               | TIMEFRAME             | KEY PARTNERS                                                                                                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Convene an ad-hoc group to design incentives for both commercial and residential properties.                                                                                                                                                  | <b>6-8</b><br>MONTHS  | <ul style="list-style-type: none"> <li>• SWAC</li> <li>• DCDP</li> <li>• Conservation Commission</li> <li>• Schools</li> <li>• Large property owners</li> <li>• Developers</li> <li>• Charles River Watershed Association</li> <li>• Mystic River Watershed Association</li> </ul> |
| 2                    | Assess the types and locations of impervious surfaces, locations of frequent surface flooding, stormwater basins, and areas where infrastructure is due for replacement across Watertown to identify high-priority replacement opportunities. | <b>3-4</b><br>MONTHS  | <ul style="list-style-type: none"> <li>• SWAC</li> <li>• DCDP</li> <li>• GIS consultants</li> </ul>                                                                                                                                                                                |
| 3                    | Modify the Stormwater Management and Erosion Control Ordinance to lower the trigger size for including green infrastructure.                                                                                                                  | <b>6-12</b><br>MONTHS | <ul style="list-style-type: none"> <li>• SWAC</li> <li>• City Council</li> </ul>                                                                                                                                                                                                   |
| 4                    | Work with partners to promote the incentives, alongside expanded technical assistance and education opportunities.                                                                                                                            | <b>4-6</b><br>MONTHS  | <ul style="list-style-type: none"> <li>• SWAC</li> <li>• Conservation Commission</li> <li>• Schools</li> <li>• Large developers</li> </ul>                                                                                                                                         |
| 5                    | Develop demonstration projects for the various sectors represented focusing on sectors with limited existing information and educational resources.                                                                                           | <b>1-2</b><br>YEARS   | <ul style="list-style-type: none"> <li>• SWAC</li> <li>• Conservation Commission</li> <li>• Schools</li> <li>• Large developers</li> </ul>                                                                                                                                         |



## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Executive Office of Energy & Environmental Affairs: Municipal Vulnerability Preparedness Action Grant](#)
- [Metropolitan Area Planning Council: Accelerating Climate Resiliency Grant Program](#)
- [Massachusetts Department of Environmental Protection: Section 319 Nonpoint Source Grants Program](#)
- [National Fish & Wildlife Foundation: Resilient Communities Program](#)
- [US EPA: Green Infrastructure Funding Opportunities](#)

### Technical Resources

- [Devens Enterprise Commission: Green Infrastructure Guidelines for Devens Projects](#)
- [The Nature Conservancy: Eco-Urban Assessment](#)
- [Metropolitan Area Planning Council: Designing Parks and Playgrounds as Green Infrastructure for Stormwater and Climate Resilience](#)



## EQUITY CONSIDERATIONS

- ✓ Maximize public benefits of green infrastructure alternatives to impervious surfaces, particularly in neighborhoods experiencing more severe impacts (e.g., flooding, heat island).
- ✓ Incorporate the results of Mystic River Watershed Association's forthcoming heat island analysis (Wicked Hot Mystic) into the projects/locations that are incentivized.
- ✓ Provide job training opportunities for green infrastructure (potentially via partnership with X-Cel Education Program).
- ✓ Provide support for renters to have conversations with their landlords about the benefits of replacing impervious surface.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Offer a range of incentive options, tailored to different sectors and property types, to encourage replacement of existing impervious surfaces.
- ✓ Ensure that programs and incentives account for the realities of sector-specific constraints. For example, incentivizing existing commercial entities to convert their impervious surfaces may be cost-prohibitive, so capitalizing on existing pavement replacement or repair projects may be most effective.
- ✓ Seek creative opportunities to introduce green infrastructure (e.g., as part of projects to convert underutilized areas to parks or community green spaces).
- ✓ Direct local landscapers and contractors to green infrastructure training opportunities and resources (or provide these resources via the City, if possible).
- ✓ Pair City support with increased regulation regarding trigger size for green infrastructure.
- ✓ Plan for green infrastructure maintenance with necessary partners very early in projects.
- ✓ Use well-maintained demonstration projects to build buy-in with neighbors.



## ACTION IW1.5

Investigate opportunities to pursue a circular economy in Watertown or within the Metro Boston region



### DESCRIPTION OF ACTION

Investigate opportunities to pursue a circular economy in Watertown and throughout the region, such as plastic item bans, grey water recycling, pay-per-bag trash collection system, and other actions.



### CHAMPION

DPW

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                  | TIMEFRAME     | KEY PARTNERS                                                                                                                      |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Conduct research into examples of circular economy efforts in other municipalities for opportunities to replicate locally and/or join into and expand existing programs.                                                         | 3-4<br>MONTHS | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Recycling Committee</li> </ul>                           |
| 2                    | Evaluate options for expansion of services at recycling center to include hazardous waste, yard waste, and used clothing swap opportunities. Include these needs in any future upgrade or renovation plans for recycling center. | 3-4<br>MONTHS | <ul style="list-style-type: none"> <li>• DCDP</li> <li>• WE3C</li> <li>• Recycling Committee</li> </ul>                           |
| 3                    | Conduct a feasibility study on solid waste reduction programs such as “pay-as-you-throw” in partnership with solid waste contractor, built into new contract that is due to be renegotiated in June 2022.                        | 6<br>MONTHS   | <ul style="list-style-type: none"> <li>• Republic Waste Services (contractor)</li> <li>• Recycling Committee</li> </ul>           |
| 4                    | Implement programs that are deemed feasible and incorporate education about new programs into overarching Resilient Watertown outreach efforts.                                                                                  | 1-2<br>YEARS  | <ul style="list-style-type: none"> <li>• Recycling Committee</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> </ul> |



## TOOLS & RESOURCES

### Financial Tools

- [MassDEP: Sustainable Materials Recovery Program \(SMRP\) Municipal Grant](#)

### Technical Resources

- [MassDEP: Sustainable Materials Recovery Program \(SMRP\) Municipal Technical Assistance](#)
- [Natick Pay as You Throw Strategy](#)



## EQUITY CONSIDERATIONS

- ✓ Minimize the impact of programs such as pay-as-you-throw on low-income residents.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Integrate circular economy concepts into broader Resilient Watertown education and outreach efforts.
- ✓ Begin education and outreach efforts at start of effort.



## ACTION IW2.4

Investigate local back-up power, microgrid, and battery options in coordination with utilities



### DESCRIPTION OF ACTION

Identify opportunities for sustainable back-up power sources, microgrids, and battery energy storage for installation at City facilities or anchor institutions within the community with the goal to reduce disruptions during normal operations and during disasters.



### CHAMPION

DPB

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                                                  | TIMEFRAME | KEY PARTNERS                                                                                                                                                                                                                                                                                                 |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Develop and convene a joint working group with utilities and critical facilities/ large energy users to assess gaps and opportunities and set guiding principles.                                                                                                | 4 MONTHS  | <ul style="list-style-type: none"> <li>• Eversource</li> <li>• WE3C</li> <li>• DCDP</li> <li>• DPW</li> <li>• Critical facilities (e.g., schools, emergency response facilities)</li> <li>• Fire Department</li> <li>• WHA</li> <li>• Community organizations</li> <li>• Residents and businesses</li> </ul> |
| 2                    | Conduct a needs assessment of current infrastructure and resident and business energy use to identify where back-up power is needed and most critical. Evaluate opportunities to convert fossil fuel-based back-up power to renewable or microgrid technologies. | 8 MONTHS  | <ul style="list-style-type: none"> <li>• Joint working group</li> <li>• External consultants</li> </ul>                                                                                                                                                                                                      |
| 3                    | Develop an evaluation framework to use for project prioritization to maximize community resilience and reduce greenhouse gas emissions.                                                                                                                          | 2 MONTHS  | <ul style="list-style-type: none"> <li>• Joint working group</li> </ul>                                                                                                                                                                                                                                      |
| 4                    | Prioritize projects based on evaluation framework, urgency, cost, barriers, and other factors identified.                                                                                                                                                        | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Joint working group</li> </ul>                                                                                                                                                                                                                                      |
| 5                    | Establish an implementation plan and identify potential funding sources.                                                                                                                                                                                         | 4 MONTHS  | <ul style="list-style-type: none"> <li>• Joint working group</li> </ul>                                                                                                                                                                                                                                      |





## TOOLS & RESOURCES

### Financial Tools

- [Massachusetts Executive Office of Energy and Environmental Affairs: Municipal Vulnerability Preparedness Action Grant](#)
- [Massachusetts Department of Energy Resources \(DOER\): Community Clean Energy Resiliency Initiative](#)
- [Federal Emergency Management Agency \(FEMA\): Building Resilient Infrastructure and Communities \(BRIC\) Grant Program](#)

### Technical Resources

- [US Department of Energy: Energy Storage](#)
- [DOER & Massachusetts Clean Energy Center \(MassCEC\): State of Charge: A Comprehensive Study of Energy Storage in Massachusetts](#)
- [MassCEC: Microgrids Background and Studies](#)
- [MassCEC: Clean Energy and Resiliency Case Studies](#)
- [Rocky Mountain Institute: Solar Plus Storage Case Studies](#)
- [National Renewable Energy Laboratory: Renewable Energy Integration & Optimization Tool \(REopt\)](#)
- [U.S. Department of Energy: Solar-plus-storage economics: What works where, and why?](#)



## EQUITY CONSIDERATIONS

- ✓ Consider environmental justice communities and historically under-resourced neighborhoods in assessment and prioritization of investments.
- ✓ Collaborate with a diverse range of residents, businesses, agencies, and institutions during the assessment and prioritization phases.
- ✓ Consider where back-up power may benefit emergency response (e.g., evacuation centers, cooling centers).
- ✓ Identify opportunities for workforce development, local hiring, and vocational training opportunities during development of implementation plan.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Engage with a broad set of stakeholders, particularly utilities, early in the process to ensure project buy-in.
- ✓ Identify diversity of funding sources to cover upfront cost of investments and alleviate objections or concerns stakeholders may have about cost.
- ✓ Evaluate utility rates and demand response programs for potential funding.



## ACTION PH2.2

Mitigate existing and prevent new urban heat islands in Watertown



### DESCRIPTION OF ACTION

Reduce the impact of existing and future urban heat islands on Watertown neighborhoods by taking action to enhance green space, shading, water features, and reflective surfaces.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                                      | TIMEFRAME   | KEY PARTNERS                                                                                                                                                                                       |
|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Map existing impervious surfaces, surface temperatures, and environmental justice communities to understand the geographic and demographic distribution of urban heat islands.                                                       | 1<br>MONTH  | <ul style="list-style-type: none"> <li>• Tree Warden</li> <li>• DPW</li> <li>• DPH</li> <li>• GIS consultants</li> </ul>                                                                           |
| 2                    | Identify approaches for heat mitigation for residential and commercial properties, considering options including, but not limited to, a “cool roofs” program, an artificial turf ban, and incentives for de-paving private property. | 3<br>MONTHS | <ul style="list-style-type: none"> <li>• DPW</li> <li>• DPB</li> <li>• WE3C</li> <li>• Watertown Faces Climate Change</li> <li>• Large property owners</li> </ul>                                  |
| 3                    | Develop educational materials on the dangers of the urban heat island effect and the benefits of green space and tree canopy.                                                                                                        | 2<br>MONTHS | <ul style="list-style-type: none"> <li>• Education/outreach consultants</li> </ul>                                                                                                                 |
| 4                    | Conduct outreach to residents and businesses to understand the best approaches for heat mitigation. Use this step as an opportunity to continue education around heat impacts and strategies.                                        | 3<br>MONTHS | <ul style="list-style-type: none"> <li>• Watertown Free Public Library</li> <li>• Watertown Public Schools</li> <li>• Businesses</li> <li>• WE3C</li> <li>• Watertown Housing Authority</li> </ul> |
| 5                    | Establish targets to mitigate a percentage of existing urban heat islands each year.                                                                                                                                                 | 1<br>MONTH  | <ul style="list-style-type: none"> <li>• DPW</li> </ul>                                                                                                                                            |
| 6                    | Make appropriate zoning or other regulatory amendments to minimize urban heat island effects in the built environment.                                                                                                               | 6<br>MONTHS | <ul style="list-style-type: none"> <li>• Planning Board</li> <li>• City Council</li> </ul>                                                                                                         |
| 7                    | Implement new programs and/or regulations as identified to be feasible and impactful approaches for Watertown.                                                                                                                       | ONGOING     | <ul style="list-style-type: none"> <li>• DPW</li> <li>• WE3C</li> <li>• DPH</li> <li>• Large property owners</li> </ul>                                                                            |



## TOOLS & RESOURCES

### Financial Tools

- [MassDevelopment: Community Health Center Grant Program](#)
- [MassDevelopment: Commonwealth Places](#)
- [MA DCR: Urban and Community Forestry Challenge Grant](#)
- [EPA New England: Healthy Communities Grant Program](#)

### Technical Resources

- [Metropolitan Area Planning Council: Extreme Heat Resources](#)
- [Metropolitan Area Planning Council: Climate Vulnerability in Greater Boston](#)
- [US EPA: Keeping Your Cool](#)
- [City of Philadelphia: Beat the Heat Toolkit](#)



## EQUITY CONSIDERATIONS

- ✓ Ensure that initiatives target neighborhoods and populations that are most vulnerable to extreme heat (e.g., communities of color, low-income communities, elderly population, individuals experiencing homelessness).
- ✓ Incorporate practices into public housing projects or any publicly funded projects.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Promote the benefits of heat mitigation strategies, including green space, shading, water features, and reflective surfaces, to overcome the cost benefits of increasing pervious surfaces, like parking lots.
- ✓ Continue to seek feedback and conversations with property owners and residents on impacts of any new policies or zoning changes.
- ✓ Create a plan for monitoring progress, including review of heat maps and other heat-related indicators on a recurring basis.
- ✓ Conduct ongoing public outreach and education about urban heat islands and mitigation strategies.



## ACTION PH4.1

Establish a network of resilience hubs that provide resources (e.g., cooling, phone-charging, pantry) that are easily accessible throughout the community



### DESCRIPTION OF ACTION

Create a network of spaces that will serve residents during a climate-related emergency or other disruption, providing power, food and water, and other basic services.



### CHAMPION

DCDP

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                                                                       | TIMEFRAME | KEY PARTNERS                                                                                                                                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Create a list of criteria necessary for a resilience hub to have and quantify the number of hubs needed to serve Watertown. Consider locations that have other assets nearby like grocery stores for essential items. | 2 MONTHS  | <ul style="list-style-type: none"> <li>• Fire Department</li> <li>• Police Department</li> <li>• DPB</li> <li>• DPH</li> </ul>                 |
| 2                    | Engage residents to identify whether specific services are needed in different parts of Watertown.                                                                                                                    | 3 MONTHS  | <ul style="list-style-type: none"> <li>• DPH</li> <li>• Live Well Watertown</li> </ul>                                                         |
| 3                    | Conduct a mapping exercise to identify existing locations that are or can be used as a hub.                                                                                                                           | 2 MONTHS  | <ul style="list-style-type: none"> <li>• Fire Department</li> <li>• Police Department</li> <li>• DPB</li> <li>• DPH</li> </ul>                 |
| 4                    | Engage property owners, if applicable, to design and execute partnership agreements.                                                                                                                                  | 6 MONTHS  | <ul style="list-style-type: none"> <li>• Fire Department</li> <li>• Police Department</li> <li>• DPH</li> </ul>                                |
| 5                    | Develop final list of resilience hubs and develop protocol to follow during operation as a resilience hub, including coordination with City emergency preparedness communications.                                    | 2 MONTHS  | <ul style="list-style-type: none"> <li>• Fire Department</li> <li>• Police Department</li> <li>• DPH</li> <li>• Live Well Watertown</li> </ul> |
| 6                    | Publicize new network of resilience hubs to residents.                                                                                                                                                                | ONGOING   | <ul style="list-style-type: none"> <li>• Police Department</li> <li>• DPH</li> <li>• Live Well Watertown</li> </ul>                            |



## TOOLS & RESOURCES

### Financial Tools

- [Municipal Vulnerability Preparedness \(MVP\) Action Grant](#)

### Technical Resources

- [Resilient Medford: Resilience Hubs Report](#)
- [Cambridge Community Center Resilience Hub Plan](#)
- [Pew Charitable Trusts: Health Impact](#)



## EQUITY CONSIDERATIONS

- ✓ Engage climate-vulnerable populations to ensure their needs will be met during emergencies.
- ✓ Consider multi-modal accessibility to resilience hubs when identifying potential locations.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Coordinate implementation with existing Watertown Hazard Mitigation Plan.
- ✓ Integrate resilience hub upgrades into capital plan for public facilities, if applicable.





## ACTION PH4.2

Enhance the existing Live Well Watertown coalition and its programs to incorporate neighborhood connections to nature and to each other



### DESCRIPTION OF ACTION

Acknowledging the health and climate benefits associated with experiences in nature and connected communities, the Live Well Watertown coalition will enhance the existing “Walk with a Doc/Just Walk” program, which includes themed talks, building social connections, and movement for health, to include new partnerships and the incorporation of nature and environmental themed programs. This expanded initiative aims to eventually culminate into the creation of localized neighborhood walking networks that can also be utilized to distribute information and aid in an emergency.



### CHAMPION

Live Well Watertown

### OVERALL TIMEFRAME

Medium (1-3 years)

### PLANNING CONSIDERATIONS

| IMPLEMENTATION STEPS |                                                                                                                                                                  | TIMEFRAME | KEY PARTNERS                                                                                                                                                                                                                                                                                                                                                                        |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                    | Conduct community outreach to assess the interest and feasibility of partnering with local organizations on new, expanded Walk with a Doc/Just Walk programming. | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Watertown Free Public Library</li> <li>• Watertown Public Schools</li> <li>• Watertown Boys &amp; Girls Club</li> <li>• Watertown Recreation</li> <li>• Watertown Community Gardens</li> <li>• Friends of Bees</li> <li>• Trees for Watertown</li> <li>• Watertown Faces Climate Change</li> <li>• Riverside Neighborhood Group</li> </ul> |
| 2                    | Conduct education and outreach through new partnerships to strengthen the connection between health and nature in residents' minds.                              | 6 MONTHS  | <ul style="list-style-type: none"> <li>• Partners</li> </ul>                                                                                                                                                                                                                                                                                                                        |
| 3                    | Expand group of existing walk leaders by identifying a leader for each new walking group (and affiliated neighborhood).                                          | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Partners who are ready to participate in 2022</li> </ul>                                                                                                                                                                                                                                                                                   |
| 4                    | Launch new walking programs, staggering based on timing needs/constraints of each organization.                                                                  | 3 MONTHS  | <ul style="list-style-type: none"> <li>• Partners who are ready to participate in 2022</li> </ul>                                                                                                                                                                                                                                                                                   |
| 5                    | Establish localized networks of neighborhood walking groups that can also serve as information conduits and emergency preparedness safeguards.                   | ONGOING   | <ul style="list-style-type: none"> <li>• Partners</li> </ul>                                                                                                                                                                                                                                                                                                                        |



## TOOLS & RESOURCES

### Financial Tools

- [America Walks: Community Change Grants](#)
- [Environmental Protection Agency: Healthy Communities Grant Program](#)
- [Massachusetts DCR: MassTrails Grants](#)

### Technical Resources

- [America Walks: Resource Center](#)
- [MassDOT: Municipal Resource Guide for Walkability](#)



## EQUITY CONSIDERATIONS

- ✓ Ensure outreach, education, and newly created walking programs are reaching Environmental Justice areas and climate-vulnerable communities, as well as elderly, special needs populations, minorities, and those with limited mobility.



## OPPORTUNITIES TO OVERCOME POTENTIAL IMPLEMENTATION BARRIERS

- ✓ Work with coalition members and collaborators and leverage their established networks to add capacity for outreach, engagement, and participation.
- ✓ Consider looking at walking programs in nearby municipalities, such as WalkBoston, WalkUP Roslindale, or West Rox Walks.

# REFERENCES

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# Watertown City Council

Administration Building  
149 Main Street  
Watertown, MA 02472  
Phone: 617-972-6470

## ELECTED OFFICIALS:

Mark S. Sideris,  
Council President

Vincent J. Piccirilli, Jr.,  
Vice President &  
District C Councilor

John M. Airasian,  
Councilor At Large

Caroline Bays,  
Councilor At Large

John G. Gannon  
Councilor At Large

Anthony Palomba,  
Councilor At Large

Nicole Gardner,  
District A Councilor

Lisa J. Feltner,  
District B Councilor

Emily Izzo,  
District D Councilor

## NOTICE OF PUBLIC HEARING – NATIONAL GRID (WO # 1430328)

**Grant of Location: IRVING STREET AND A PRIVATE WAY**  
August 2, 2022

Dear Abutters:

The City Council of the City of Watertown will hold a public meeting on Tuesday, August 9, 2022 at 7:00 p.m. in the Richard E. Mastrangelo Council Chamber, 149 Main St., Watertown, MA along with remote opportunities for participation with public access provided as follows:

### ACCESS INFORMATION:

- A. The meeting will be televised through WCATV (Watertown Cable Access Television): <http://vodwcatv.org/CablecastPublicSite/?channel=3>
- B. The Public may join the virtual meeting online: <https://watertown-ma.zoom.us/j/92991331344>
- C. Public may join the virtual meeting audio only by phone: (877) 853-5257 or (888) 475-4499 (Toll Free) and enter Webinar ID: 929 9133 1344 #
- D. Public may also comment through email: [vpiccirilli@watertown-ma.gov](mailto:vpiccirilli@watertown-ma.gov)

on a petition from National Grid for the consideration of a Grant of Location in Irving Street and a Private Way:

- Irving Street – Relay and maintain approximately 480 linear feet of 4 -inch plastic gas main from Riverside Street to End of Main (EOM) and tie into the existing 4-inch plastic gas main in Fifield Street
- Private Way – Reay 490 linear feet of 2-inch plastic gas main serving 114-146 Charles River Road from Irving Street to EOM

This work is necessary to provide gas service to residences living on Irving Street and a Private Way.

Upon completion of our review, the following recommendations and conditions are being submitted for consideration by the City Council and will be required should the Grant of Location be approved for this application.

### Additional Conditions

1. During construction, uninterrupted pedestrian access (or temporary pedestrian facilities) shall be provided at all times or an appropriate alternative path provided.
2. Please be aware that there may be utility infrastructure that is not shown on the plan and may be encountered in the field. If a conflict occurs between the proposed installation and existing City-Owned and/or private utility infrastructure, The City Engineer shall be contacted directly to discuss an appropriate resolution.
3. It is the sole responsibility of the Applicant, and their Contractor, to ensure that and City-Owned and or private utilities, if located within the limits of work should be

properly marked and protected during construction activities. **The City of Watertown is not a member of Dig Safe and must be notified separately.**

4. The proposed scope of work requires a DPW Street Opening Permit through the Watertown DPW prior to the start of construction.
5. All disturbances to curbing, grass strips, sidewalks, walkways, and roadway surfaces, should be repaired in kind to the satisfaction of the City of Watertown DPW. If any existing sidewalk is proposed to be removed and replaced in full width, the restoration must be completed in accordance with all current ADA, AAB and City of Watertown standards.
6. All work within the right of way shall require the Contractor to schedule and coordinate a police traffic detail. Traffic control and safety measures shall be implemented in adherence to applicable OSHA requirements, Massachusetts DOT Work Zone Safety Guidelines and Part VI of the Manual of Uniform Traffic Control Devices.
7. All material stockpiled on roadways and/or roadway shoulders shall be protected with erosion control devices, such as silt fence or straw wattles. It will be the sole responsibility of the Contractor to remove any sediment that enters the City drainage system as a result of the proposed work.
8. Equipment, staging, and stockpiles shall not be located in a manner so as to interfere with intersection sightlines and be kept in a neat and orderly fashion.
9. Public shade trees within and adjacent to the proposed work zone must be protected. The Contractor shall install individual tree protection on any public shade tree that may be impacted, and the Contractor shall not stockpile material or equipment within the drip zone of a public shade tree.
10. Contractor shall coordinate with City Health Department on rodent control requirements.

Please feel free to contact Mary Mulroney at 617-894-3890 for any technical questions you may have.

Your participation is not necessary, if you choose not to object to the above petition.

Sincerely,

Watertown City Council



**CITY OF WATERTOWN**  
DEPARTMENT OF PUBLIC WORKS  
124 ORCHARD STREET  
WATERTOWN MA 02472

Gregory M. St. Louis, PE  
Superintendent of Public Works

(P) 617-972-6420  
(F) 617-972-6402

TYPE: Grant of Location  
DATE: June 15, 2022  
APPLICANT: National Grid  
WORK ORDER: WO# 1430328  
LOCATION: Irving Street and a Private Way

Watertown Department of Public Works has reviewed the attached petition by National Grid for consideration of a Grant of Location for the following installations:

- **Irving Street – Relay and maintain approximately 480 linear feet of 4-inch plastic gas main from Riverside Street to End of Main (EOM) and tie into the existing 4-inch plastic gas main in Fifield Street.**
- **Private Way – Relay 490 linear feet of 2-inch plastic gas main serving 114-146 Charles River Road from Irving Street to EOM.**

This work is necessary to provide gas service to residences living on Irving Street and a Private Way. Upon completion of our review, we are submitting the following recommendations and conditions for consideration by the City Council should the Grant of Location be approved for this application. A photo of the location of the proposed work is presented attached to this document.

**Additional Conditions**

1. During construction, uninterrupted pedestrian access (or temporary pedestrian facilities) shall be provided at all times or an appropriate alternative path provided.
2. Please be aware that there may be utility infrastructure that is not shown on the plan and may be encountered in the field. If a conflict occurs between the proposed installation and existing City-Owned and/or private utility infrastructure, The City Engineer shall be contacted directly to discuss an appropriate resolution.
3. It is the sole responsibility of the Applicant, and their Contractor, to ensure that and City-Owned and or private utilities, if located within the limits of work should be properly marked and protected during construction activities. **The City of Watertown is not a member of Dig Safe and must be notified separately.**
4. The proposed scope of work requires a DPW Street Opening Permit through the Watertown DPW prior to the start of construction.
5. All disturbances to curbing, grass strips, sidewalks, walkways, and roadway surfaces shall be repaired in kind to the satisfaction of the City of Watertown DPW. If any existing sidewalk is proposed to be removed and replaced in full width, the restoration must be completed in accordance with all current ADA, MAAB and City of Watertown standards.
6. All work within the Right of Way shall require the Contractor to schedule and coordinate a police traffic detail. Traffic control and safety measures shall be implemented in adherence to all applicable OSHA requirements, Massachusetts DOT Work Zone Safety Guidelines and Part VI of the Manual of Uniform Traffic Control Devices.
7. All material stockpiled on roadways and/or roadway shoulders shall be protected with erosion control devices such as silt fence or straw wattles. It will be the sole responsibility of the Contractor to remove any sediment that enters the City drainage system as a result of the proposed work.
8. Equipment, staging, and stockpiles shall not be located in a manner so as to interfere with intersection sightlines and shall be kept in a neat and orderly fashion.



9. Public shade trees within and adjacent to the proposed work zone must be protected. The Contractor shall install individual tree protection on any public shade tree that may be impacted and the Contractor shall not stockpile material or equipment within the drip zone of a public shade tree.
10. Contractor shall coordinate with City Health Department on rodent control requirements.



**Photo 1: View of Riverside Street and Irving Street where the gas main is proposed to be relayed along Irving Street.**



**Photo 2: View of Irving Street where the road has recent been repaved.**





**Photo 3: View of Irving Street facing Riverside Street where the road has recently been repaved.**



**Photo 4: View of Irving Street facing Riverside Street closer to Charles River Road.**





**Photo 5: View of Irving Street facing Riverside Street where the road is in need of repair. The limits of repair of Irving Street can be seen in the distance.**



**Photo 6: View of Irving Street facing Riverside Street closer to the Private Way where the proposed gas main will be relayed to provide service to the residences along the Private Way.**





**Photo 7: View of Private Way facing Irving Street.**



**Photo 8: View of Private Way and catch basin closer to Irving Street.**



**Photo 9: View of Private Way where alligator cracking was observed facing Irving Street.**



**PETITION OF NATIONAL GRID FOR GAS MAIN LOCATIONS**

**City of Watertown / Town Council:**

The Nationalgrid hereby respectfully requests your consent to the locations of mains as hereinafter described for the transmission and distribution of gas in and under the following public streets, lanes, highways and places of the **City of Watertown** and of the pipes, valves, governors, manholes and other structures, fixtures and appurtenances designed or intended to protect or operate said mains and accomplish the objects of said Company; and the digging up and opening the ground to lay or place same:

**To relay approximately 480 feet of 4-inch Cast Iron main with 4-inch Plastic main in Irving Street, from Riverside Street to EOM. Tie into existing 4-inch Plastic main in Fifield Street. Relay 490 feet of 4-inch Bare Steel main with 2-inch Plastic main in Pond Street (replacing Off Irving Street) serving #114 - #146 Charles River Road, from Irving Street to EOM.**

Date: January 27, 2022

By: \_\_\_\_\_

Mary Mulroney  
Permit Representative

**City of Watertown / City Council:**

IT IS HEREBY ORDERED that the locations of the mains of the Nationalgrid for the transmission and distribution of gas in and under the public streets, lanes, highways and places of the **City of Watertown** substantially as described in the petition dated January 27, 2022 attached hereto and hereby made a part hereof, and of the pipes, valves, governors, manholes and other structures, fixtures and appurtenances designed or intended to protect or operate said mains and/or accomplish the objects of said Company, and the digging up and opening the ground to lay or place same, are hereby consented to and approved.

The said Nationalgrid shall comply with all applicable provisions of law and ordinances of the **City of Watertown** applicable to the enjoyment of said locations and rights.

Date this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

I hereby certify that the foregoing order was duly adopted by the \_\_\_\_\_ of the Town of \_\_\_\_\_, MA on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By: \_\_\_\_\_

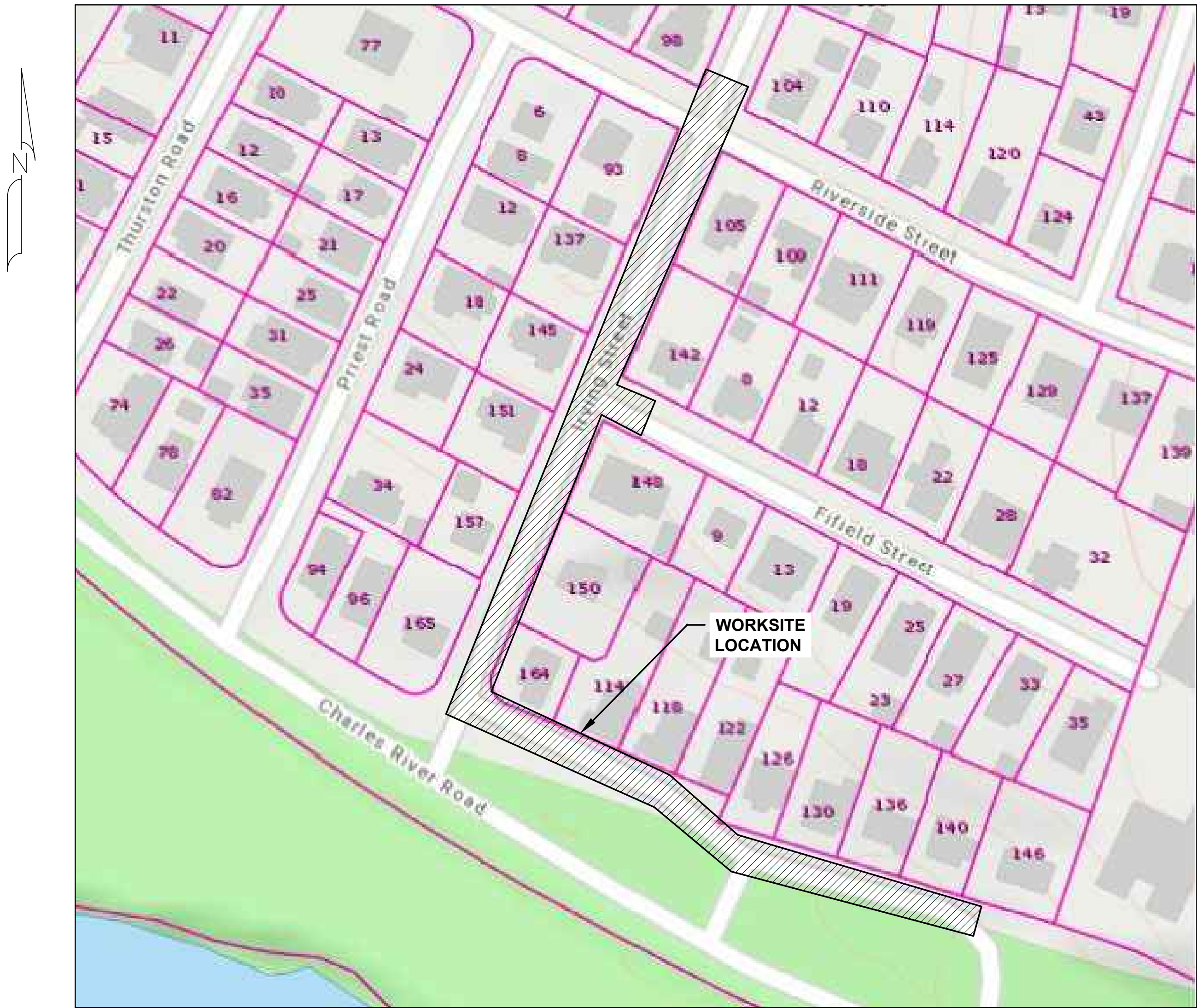
\_\_\_\_\_  
Title

**WO #1430328**

**RETURN ORIGINAL TO THE PERMIT SECTION  
NATIONAL GRID  
40 SYLVAN RD, WALTHAM, MA 02451  
RETAIN DUPLICATE FOR YOUR RECORDS**

FORM # 1444, Rev. 90

NATIONAL GRID  
APPROX. 490' OF 2"/480' OF 4" MDPE (LP TO 22 PSIG) GAS MAIN RELAY  
IRVING ST, POND ST, WATERTOWN, MA  
W.O. NO.: 1430328



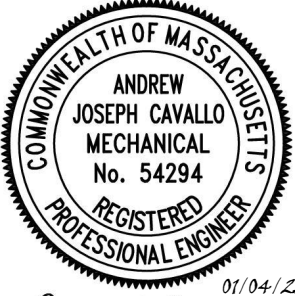
LOCUS  
SCALE: NTS

| INDEX OF SHEETS |                |                                         |
|-----------------|----------------|-----------------------------------------|
| PAGE            | NAME           | TITLE                                   |
| 1               | WAT-1430328-01 | COVER SHEET                             |
| 2               | WAT-1430328-02 | CONSTRUCTION NOTES                      |
| 3               | WAT-1430328-03 | BILL OF MATERIALS                       |
| 4               | WAT-1430328-04 | PROPOSED INSTALLATION PLAN OVERVIEW     |
| 5               | WAT-1430328-05 | PROPOSED INSTALLATION PLAN SHEET 1 OF 1 |
| 6               | WAT-1430328-06 | PROPOSED LOCATION DETAIL SHEET 1 OF 1   |
| 7               | WAT-1430328-07 | MISCELLANEOUS DETAIL 1 OF 3             |
| 8               | WAT-1430328-08 | MISCELLANEOUS DETAIL 2 OF 3             |
| 9               | WAT-1430328-09 | MISCELLANEOUS DETAIL 3 OF 3             |





Architecture  
Engineering  
Environmental  
Land Surveying  
Companies



ANDREW JOSEPH CAVALLO  
MECHANICAL  
No. 54294  
REGISTERED PROFESSIONAL ENGINEER  
01/04/2022  
SIGN & DATE

|     |                         |            |       |       |        |
|-----|-------------------------|------------|-------|-------|--------|
| 0   | ISSUED FOR CONSTRUCTION | 01/04/2022 | LA    | TA    | AC     |
| NO. | DESCRIPTION             | DATE       | DR.BY | CK.BY | APP.BY |

BOSTON GAS COMPANY  
d/b/a  
**nationalgrid**  
40 SYLVAN ROAD  
WALTHAM, MA 02451

IFC

PROPOSED GAS MAIN INSTALLATION  
2" AND 4" MDPE (LP TO 22 PSIG)  
IRVING ST  
WATERTOWN, MA

COVER SHEET

|           |             |            |            |              |           |
|-----------|-------------|------------|------------|--------------|-----------|
| DWG. SIZE | DESIGNER    | ENGINEER   | DATE:      | ASSET I.D.   | W.O. NO.: |
| 22"x34"   | L. AFFRONTI | A. CAVALLO | 01/04/2022 | DISTRIBUTION | 1430328   |

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|                |           |
|----------------|-----------|
| DRAWING NO.    | SHEET NO. |
| WAT-1430328-01 | G-001     |



|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
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| <div>CONSTRUCTION NOTES</div> <div>SCOPE OF WORK</div> <p>NATIONAL GRID WORK ORDER NUMBER 1430328:</p> <p>IRVING ST, POND ST, WATERTOWN, MA</p> <p>AS PART OF THE FY23 GPLNG PROGRAM, STRATEGIC ASSET AND SYSTEM PLANNING RECOMMENDS THE FOLLOWING:</p> <p>RELAY 480 FEET OF 4 INCH, LP CAST IRON MAIN WITH 4 INCH, 22 PSIG PLASTIC MAIN IN IRVING ST FROM RIVERSIDE ST TO EOM. TIE INTO EXISTING 4 INCH, 22 PSIG PLASTIC MAIN IN FIELD ST.</p> <p>RELAY 490 FEET OF 4 INCH, LP BARE STEEL MAIN WITH 2 INCH, 22 PSIG PLASTIC MAIN IN POND ST (REPLACING OFF IRVING ST), SERVING #114-146 CHARLES RIVER RD, FROM IRVING ST TO EOM.</p> <p>COORDINATE WITH PW W.O.#1424687</p> <p>2 MAIN CONNECTIONS / CUT OFFS.</p> <p>ALL ACTIVE SERVICES TO BE DISCONNECTED FROM THE MAIN TO BE RETIRED AND REPLACED.</p> <p>NOTE: THIS PROJECT INVOLVES REPLACING LP GAS MAIN WITH 22 PSIG GAS MAIN. ENSURE THAT ALL SERVICES ARE FITTED APPROPRIATELY WITH SERVICE REGULATORS PRIOR TO TRANSFERRING OVER FROM THE LP TO 22 PSIG SYSTEM.</p> <p>THIS WORK ORDER AND W.O.#1424687 TO BE COMPLETED CONCURRENTLY. SEE DESIGN W.O.#1424687 FOR OTHER CUT AND CAPS REQUIRED FOR FULL ABANDONMENT.</p> <div>GENERAL</div> <div><div>1</div><div>NO FIELD CHANGES SHALL BE MADE TO THIS DESIGN WITHOUT APPROVAL FROM THE ASSIGNED NATIONAL GRID ENGINEER:</div><div>ENGINEER: BRENDAN GALLAGHER</div><div>PHONE: (774) 813-7488</div><div>EMAIL: BRENDAN.GALLAGHER1@NATIONALGRID.COM</div></div> <div><div>2</div><div>NEW MAINS SHOULD BE INSTALLED IN ACCORDANCE WITH THE TYPICAL TRENCH DETAIL INCLUDED IN THESE DRAWINGS, UNLESS NOTED OTHERWISE.</div><div>A 36 INCHES OF COVER FROM FINAL GRADE WHERE PRACTICAL.</div><div>B STATE HIGHWAY MINIMUM COVER: 36 INCHES</div><div>C DISTRIBUTION MAIN MINIMUM COVER: 24 INCHES</div><div>D SAND PADDING IN ALL DIRECTIONS, 6 INCHES MINIMUM.</div><div>E CAUTION TAPE SHALL BE INCLUDED ONE FOOT BELOW GRADE.</div></div> <div><div>3</div><div>SERVICES SHOULD BE INSTALLED WITH 24 INCHES OF COVER.</div><div>A MINIMUM IN PUBLIC ROW: 18 INCHES</div><div>B MINIMUM IN PRIVATE PROPERTY: 12 INCHES</div><div>C SAND PADDING IN ALL DIRECTIONS, 6 INCHES MINIMUM.</div><div>D CAUTION TAPE SHALL BE INCLUDED ONE FOOT BELOW GRADE.</div></div> <div><div>4</div><div>REFER TO CNST-6030 FOR SHALLOW MAINS. PRIOR TO INSTALLING GAS MAINS WITH LESS THAN 24 INCHES OF COVER, COMPLETE REQUEST FOR WAIVER FORM AND CONTACT GAS PIPELINE SAFETY &amp; COMPLIANCE FOR APPROVAL:</div><div>A JENNIFER GILLIS - (617) 594-5157<br/>(MA EXCLUDING CAPE AND WEBSTER)</div><div>B LIEN GAUTHIER - (617) 438-9069<br/>(MA EXCLUDING CAPE AND WEBSTER)</div><div>C IF A PROPOSED TOP TEE CONNECTION RESULTS IN A SHALLOW MAIN THAT CANNOT MEET THE WAIVER CRITERIA, A FULL TEE CONNECTION IS AN ACCEPTABLE ALTERNATIVE. A SPHERICAL TEE IS ONLY ACCEPTABLE WITH APPROVAL FROM NATIONAL GRID STRATEGIC ASSET AND SYSTEM PLANNING.</div></div> <div><div>5</div><div>ALL MAINS SHOULD BE INSTALLED WITH CLEARANCE OF 12 INCHES FROM OTHER FACILITIES.</div><div>A DISTRIBUTION MINIMUM CLEARANCE: 6 INCHES</div><div>B APPROPRIATE PROTECTIVE MEASURES SHALL BE USED TO PROTECT THE GAS FACILITY IF MINIMUMS CANNOT BE ATTAINED. APPROVAL IS REQUIRED BY GAS SYSTEMS ENGINEERING.</div></div> <div><div>6</div><div>THE PIPE ALIGNMENT IS SHOWN FOR REFERENCE ONLY AS APPROXIMATELY 3 FEET FROM THE EXISTING MAIN (BASED ON AVAILABLE RECORD INFORMATION). THE ACTUAL ROUTE AND ALL VERTICAL AND HORIZONTAL OFFSETS ARE TO BE FIELD ROUTED WITHIN THE PUBLIC RIGHT-OF-WAY BASED ON THE ACTUAL LOCATION OF EXISTING UTILITIES. ADDITIONAL FITTINGS NOT SHOWN WILL BE REQUIRED.</div><div>A ELBOWS SHOWN ARE ASSUMED TO BE 45 DEGREES IN MOST APPLICATIONS. 90 DEGREE ELBOWS MAY BE NEEDED BASED ON FIELD CONDITIONS.</div></div> <div><div>7</div><div>VALVES DEPICTED IN THE DESIGN ARE THE MINIMUM REQUIRED FOR SECTIONALIZING, ISOLATION, CRITICAL VALVES, AND/OR TO ACCOMMODATE TIE-INS. ADDITIONAL FULL PORT VALVES MAY BE ADDED TO ACCOMMODATE CONSTRUCTION.</div><div>A VALVES FOR BRANCHES AT INTERSECTIONS SHOULD BE FIELD LOCATED JUST OUTSIDE OF THE INTERSECTION WHERE EASILY ACCESSIBLE, PRIOR TO THE FIRST SERVICE.</div></div> <div><div>8</div><div>ELECTROFUSION COUPLINGS MAY BE INTERCHANGED WITH BUTT FUSION WHERE APPLICABLE.</div></div> |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

9

TIE-IN LOCATIONS MAY VARY UP TO 100 FEET OF THE PROPOSED LOCATION TO ACCOMMODATE CONSTRUCTION, EXCEPT FOR WHEN THE FOLLOWING CONDITIONS APPLY:

A REGULATOR STATION WITHIN THE SCOPE OF THE JOB OR WITHIN 200 FEET OF THE TIE-IN LOCATION.

B CHANGE TO THE NUMBER OF CONNECTIONS (ADDITIONAL ADDED FROM AN INTERSECTION OR OTHERWISE).

C MATERIAL/SIZE CHANGE AT NEW LOCATION.

10

NOT ALL BYPASSES, GAUGES, PURGES AND OTHER MISCELLANEOUS FITTINGS ARE SHOWN. CONSTRUCTION SHALL INSTALL THESE FITTINGS AS NEEDED IN ACCORDANCE WITH THE APPROVED SOP.

11

WHEN CONNECTING NEW 'DEAD' MAIN TO NEW 'DEAD' MAIN: AS LONG AS THE CONNECTION BRANCH SIZE SHOWN IN THE DRAWINGS CAN BE ACHIEVED, THE FOLLOWING CONNECTION TYPES ARE ACCEPTED AND INTERCHANGEABLE:

A INLINE TEE

B PLASTIC HIGH VOLUME TAPPING TEE (2" BRANCH SIZE OR LESS)

C PLASTIC BRANCH SADDLE (WITH MAIN CUTTER SIZE SHOWN IN NATIONAL GRID POLICIES)

D STEEL THREE-WAY TEE (WITH MAIN CUTTER SIZE SHOWN IN NATIONAL GRID POLICIES)

12

THE LIVE MAIN CONNECTION DETAIL SHOWN IN THE DRAWINGS SHALL BE FOLLOWED. ANY CHANGES TO THE TIE IN CONNECTION TYPE SHALL BE APPROVED BY THE NATIONAL GRID ENGINEER PRIOR TO CONSTRUCTION.

13

ALL CUSTOMER SERVICES WITHIN THE SCOPE OF MAIN TO BE ABANDONED SHALL BE TRANSFERRED OR RELAYED BY THE CONTRACTOR TO THE NEW MAIN PRIOR TO ABANDONMENT. WHEN RELAYING A LOWER PRESSURE MAIN WITH A HIGHER PRESSURE MAIN, ALL SERVICES SHALL BE RELAYED OR INSERTED.

SEQUENCE OF CONSTRUCTION

1

CONTRACTOR SHALL CALL DIGSAFE (DIAL 811 OR 888-344-7233) AT LEAST 72 HOURS PRIOR TO CONSTRUCTION. SATURDAYS, SUNDAYS, AND HOLIDAYS ARE EXCLUDED.

2

CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES AND STRUCTURES DEPICTED OR NOT DEPICTED ON THIS DESIGN PRIOR TO CONSTRUCTION.

3

INSTALL MAIN AS INDICATED IN SCOPE OF WORK

4

PRESSURE TEST (SEE PRESSURE TESTING SECTION)

5

PURGE NEW MAIN INTO SERVICE WITH W.O.#1424687

6

REPLACE SERVICES AND TIE IN TO NEW MAIN

7

MAKE CONNECTION AT LOCATION 1

8

COMPLETE DISCONNECT AT LOCATION 2

9

SEE DESIGN W.O.#1424687 FOR OTHER CUT AND CAPS REQUIRED FOR FULL ABANDONMENT

10

PURGE OLD MAIN OUT OF SERVICE AND ABANDON

11

PERFORM RESTORATION

DESIGN CRITERIA

1

DESIGN IN ACCORDANCE WITH THE FOLLOWING:

A ENG02001 : DESIGN OF GAS SERVICES

B ENG04001: DESIGN OF DISTRIBUTION MAINS

C ENG04010: DESIGN REQUIREMENTS FOR INSTALLATION OF CASINGS

2

PROPOSED PIPING:

A DESIGN CLASS LOCATION – 4

B NOMINAL SIZE – 2, 4 INCH

C MATERIAL – MDPE

D SYSTEM MAOP – 22 PSIG

3

PIPE SIZE DETERMINED BY NATIONAL GRID STRATEGIC ASSET AND SYSTEM PLANNING.

CODES & STANDARDS

1

WORK SHALL CONFORM TO ALL LOCAL, STATE, AND FEDERAL CODES IN ADDITIONAL TO NATIONAL GRID GAS POLICIES AND WORK METHODS. WHERE ANY CONFLICTS OF CODES, STANDARDS AND REGULATIONS MAY EXIST, THE MORE STRINGENT CODE, STANDARD, OR REGULATION SHALL APPLY.

2

ALL REFERENCES SHALL BE IN ACCORDANCE WITH THE MOST CURRENT REVISION AVAILABLE AT THE TIME OF CONSTRUCTION.

3

FEDERAL & STATE

A TITLE 49: PART 192 TRANSPORTATION OF NATURAL AND OTHER GAS BY PIPELINE: MINIMUM FEDERAL SAFETY STANDARDS

B 220 CMR: DEPARTMENT OF PUBLIC UTILITIES

100.00 - 113.00: MASSACHUSETTS GAS DISTRIBUTION CODE

C AMERICAN SOCIETY OF MECHANICAL ENGINEERS

B31.8: GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS

4

CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL GRID GAS POLICIES AND WORK METHODS, INCLUDING BUT NOT LIMITED TO:

A CNST01003: BACKFILL AND RESTORATION

B CNST01005: PREPARATION OF GAS FACILITY HISTORICAL RECORDS

C CNST01006: COMMERCIALLY AVAILABLE SHORING SYSTEMS

D CNST02014: ENCAPSULATING CAST IRON JOINTS

E CNST03001: SQUEEZE-OFF OPERATIONS

F CNST03002: STOP-OFF OPERATIONS ON LOW PRESSURE MAINS

G CNST03005: PURGING REQUIREMENTS FOR GAS PIPELINES

a. CNST03006: PURGING OPERATIONS – DIRECT DISPLACEMENT

b. CNST03007: PURGING OPERATIONS – COMPLETE INERT FILL

c. CNST03008: PURGING OPERATIONS – SLUG METHOD

H CNST03014: STOP OFF OPERATIONS FOR KLEISS EQUIPMENT

I CNST04005: INSTALLING STEEL DISTRIBUTION MAINS

J CNST04007: FIELD COLD BENDING OF LINE PIPE

K CNST04008: INSTALLING PLASTIC MAINS

L CNST04011: ABANDONMENT OF MAINS

M CNST04012: GROUTING ABANDONED PIPELINES

N CNST04030: RAISING MAIN AND SERVICE GATE BOXES

O CNST05001: JOINING OF PLASTIC PIPE

P CNST05011: INSTALLATION OF DRESSER 700 COUPLINGS

Q CNST5010: GENERAL CONSTRUCTION REQUIREMENTS AND PIPE HANDLING

R DAM01011: EXCAVATION AND EXCAVATION NOTIFICATION REQUIREMENTS FOR UNDERGROUND FACILITIES FOR MASSACHUSETTS AND RHODE ISLAND

S DAM01015: LOCATE AND MARK-OUT REQUIREMENTS FOR UNDERGROUND GAS FACILITIES

T DAM01016: LOCATE AND MARK-OUT OF UNDERGROUND FACILITIES

U GCON02001: SYSTEM OPERATING PROCEDURE (SOP)

V GEN01100: OPERATOR QUALIFICATION PLAN

W GEN03002: PROCESSING GAS MAIN AND NEW SERVICE WORK PACKAGES

X GEN03004: CHANGE CONTROL PROCEDURE FOR STANDARD CONSTRUCTION PROJECTS

Y MAIN5030: INSTALLATION OF POLYETHYLENE PIPE

Z MECH5010: JOINTS OTHER THAN WELDED

AA 030018-CS: SPECIFICATION AND HANDLING OF TRAFFIC PLATES

5

SERVICE SPECIFIC CONSTRUCTION STANDARDS, GAS POLICIES AND WORK METHODS:

A CMS03002: CUSTOMER METER AND SERVICE REGULATOR DESIGN AND INSTALLATION POLICY

B CMS04002: PURGING PROCEDURES FOR CUSTOMER METER SERVICES

C CNST03011: NO-INTERRUPT SERVICE TRANSFER

D CNST06002: INSTALLING DISTRIBUTION SERVICES

E CNST06003: INSTALLATION & MAINTENANCE POLICY FOR CURB VALVES ON SERVICE LINES WITH INSTALLED METER CAPACITIES OVER 1,000 SCFH THAT DONT HAVE EXCESS FLOW VALVES

F CNST06009: METER/SERVICE RELOCATION GUIDELINE

G CNST06020: COMPLETION AND PROCESSING OF GAS SERVICE RECORD CARDS

H CNST06030: NOTIFICATION OF CUSTOMERS INVOLVED IN THE INTERRUPTION OF GAS SERVICE

I CS-SERV001: TYPICAL 1/2" SERVICE OUTSIDE SETS

J CS-SERV002: TYPICAL 1" SERVICE OUTSIDE SETS

K CS-SERV003: TYPICAL 1-1/4" SERVICE OUTSIDE SETS

L CS-SERV004: TYPICAL 2" SERVICE

M CS-SERV005: EXCESS FLOW VALVE REQUIREMENTS ON HP SERVICES

N CS-SERV009: TYPICAL 1/2" SERVICE INSIDE SETS

O CS-SERV010: TYPICAL 1" SERVICE INSIDE SETS

P HTAP-6010: NO-INTERRUPT 1 INCH CTS AND 1-1/4 INCH CTS SERVICE TRANSFER (NIST) LP TO 60 PSIG MAINS

Q SERV-5075: RELOCATION OF METER SET ASSEMBLIES INSIDE TO OUTSIDE

R SERV-6185: HOT TAPPING MD BRANCH SADDLES OFF 4IN - 12IN 60 PSIG MAOP LIVE PLASTIC GAS MAIN USING MCELROY HOT TAPPING TOOL

S VALV6110: 1/2 INCH - 3 INCH POLYETHYLENE GAS SERVICE VALVE INSTALLATION

6

SEE TIE IN DETAILS FOR APPLICABLE MAIN CONNECTION REFERENCES.

7

SEE BILL OF MATERIAL FOR MATERIAL SPECIFICATION, STANDARD AND/OR APPLICABLE NATIONAL GRID "FITS" REFERENCE.

FOR THIS PROJECT



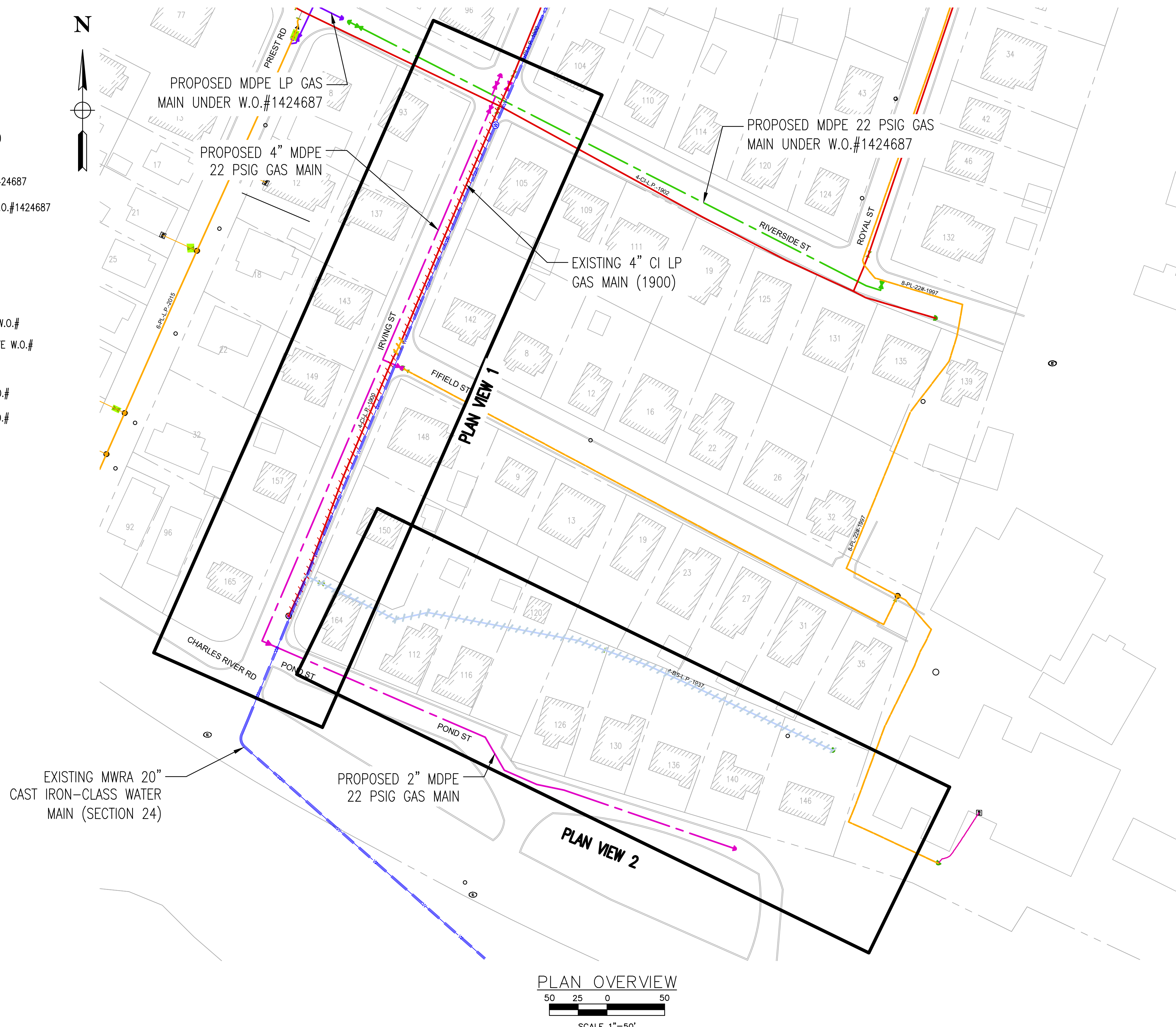
| BILL OF MATERIALS                                                                                                                                                                                                                        |     |      |                                                      |            |                         |               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------|------------------------------------------------------|------------|-------------------------|---------------|
| ITEM                                                                                                                                                                                                                                     | QTY | UOM  | DESCRIPTION                                          | SIZE (IN.) | NATIONAL GRID REFERENCE | SAP ID NUMBER |
| 1                                                                                                                                                                                                                                        | 480 | FT   | PIPE, PLASTIC, MDPE, SDR 11.5                        | 4          | 120026-MS               | 9340857       |
| 2                                                                                                                                                                                                                                        | 520 | FT   | PIPE, PLASTIC, MDPE, SDR 11 (COILS)                  | 2          | 120026-MS               | 9340876       |
| 3                                                                                                                                                                                                                                        | 1   | EA   | ELBOW, PLASTIC, 90 DEGREE, MDPE                      | 4          | CS-FIT011               | 9341397       |
| 4                                                                                                                                                                                                                                        | 1   | EA   | TEE, PLASTIC, FULL, MDPE                             | 4          | CS-FIT012               | 9342523       |
| 5                                                                                                                                                                                                                                        | 1   | EA   | REDUCER, PLASTIC, MDPE                               | 4 x 2      | CS-FIT013               | 9384553       |
| 6                                                                                                                                                                                                                                        | 2   | EA   | COUPLING, PLASTIC ELECTROFUSION                      | 4          | CS-FIT015               | 9314593       |
| 7                                                                                                                                                                                                                                        | 3   | EA   | VALVE, BALL, MDPE, FULL PORT                         | 4          | VALV6020                | 9341709       |
| 8                                                                                                                                                                                                                                        | 3   | EA   | VALVE, BOX ASSEMBLY (FOR FULL PORT 4" VALVE)         | 4          | VALV6020                | 9339892       |
| 9                                                                                                                                                                                                                                        | 1   | EA   | CAP, MDPE, BUTT FUSION                               | 4          | CS-FIT010               | 9339534       |
| 10                                                                                                                                                                                                                                       | 1   | EA   | CAP, PLASTIC, ELECTROFUSION                          | 4          | CS-FIT015               | 9393582       |
| 11                                                                                                                                                                                                                                       | 2   | EA   | END CAP, MECHANICAL, FOR R.S. CAST IRON, RESTRAINING | 4          | FITS6024                | 9315170       |
| 12                                                                                                                                                                                                                                       | 2   | EA   | END CAP, MECHANICAL, FOR O.S. CAST IRON, RESTRAINING | 4          | FITS6024                | 9391275       |
| 13                                                                                                                                                                                                                                       | 1   | EA   | CAP, MDPE, BUTT FUSION                               | 2          | CS-FIT010               | 9339540       |
| 14                                                                                                                                                                                                                                       | 1   | EA   | CAP, PLASTIC, ELECTROFUSION                          | 2          | CS-FIT015               | 9393634       |
| GENERAL                                                                                                                                                                                                                                  |     |      |                                                      |            |                         |               |
| G1                                                                                                                                                                                                                                       | A/R | FT   | TRACER WIRE                                          |            | CNST6061                | 9315005       |
| G2                                                                                                                                                                                                                                       | A/R | ROLL | YELLOW CAUTION TAPE - GAS MAIN - 6" WIDE             | 6          | CNST6060                | 9341904       |
| PRESSURE TESTING (TEMPORARY)                                                                                                                                                                                                             |     |      |                                                      |            |                         |               |
| P1                                                                                                                                                                                                                                       | A/R | EA   | CAP, MDPE, BUTT FUSION                               | 4          | CS-FIT010               | 9339534       |
| P2                                                                                                                                                                                                                                       | A/R | EA   | CAP, MDPE, BUTT FUSION                               | 2          | CS-FIT010               | 9339540       |
| CATHODIC PROTECTION                                                                                                                                                                                                                      |     |      |                                                      |            |                         |               |
| C1                                                                                                                                                                                                                                       | 1   | EA   | CP TEST BOX W/ COVER                                 | N/A        | 030026-CS               | (SEE STD)     |
| C2                                                                                                                                                                                                                                       | 1   | EA   | 17# ANODE                                            | N/A        | 030024-CS               | 9311183       |
| C3                                                                                                                                                                                                                                       | A/R | FT   | WIRE NO. 8                                           | N/A        | 030026-CS               | 9307539       |
| *ACTUAL LENGTH/QUANTITY OF PIPE AND FITTINGS MAY VARY DUE TO FIELD CONDITIONS. ADDITIONAL MATERIALS MAY NOT BE REFERENCED ABOVE THAT ARE INCLUDED IN THE BOM OF NATIONAL GRID CONSTRUCTIONS STANDARDS REFERENCED IN THIS DESIGN PACKAGE. |     |      |                                                      |            |                         |               |

|                                                                                            |                                             |                                                                                                                 |  |                         |  |            |  |                                                                                                                            |  |       |  |        |  |                                                                                                                                  |                                                                                                                       |
|--------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--|-------------------------|--|------------|--|----------------------------------------------------------------------------------------------------------------------------|--|-------|--|--------|--|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <br><b>Architecture<br/>Engineering<br/>Environmental<br/>Land Surveying<br/>Companies</b> | <br><i>Andrew J. Cavallo</i><br>SIGN & DATE | BOSTON GAS COMPANY<br>d/b/a<br><b style="color: green;">nationalgrid</b><br>40 SYLVAN ROAD<br>WALTHAM, MA 02451 |  |                         |  |            |  | PROPOSED GAS MAIN INSTALLATION<br>2" AND 4" MDPE (LP TO 22 PSIG)<br>IRVING ST<br>WATERTOWN, MA<br><b>BILL OF MATERIALS</b> |  |       |  |        |  | PAGE 3 OF 9                                                                                                                      |                                                                                                                       |
|                                                                                            |                                             | <div style="border: 2px solid red; padding: 5px; display: inline-block;"> <b>IFC</b> </div>                     |  |                         |  |            |  | <b>BILL OF MATERIALS</b>                                                                                                   |  |       |  |        |  | DRAWING NO.<br><br><div style="border: 1px solid black; padding: 10px; font-size: 24px; font-weight: bold;">WAT-1430328-03</div> | SHEET NO.<br><br><div style="border: 1px solid black; padding: 10px; font-size: 24px; font-weight: bold;">G-003</div> |
|                                                                                            |                                             | 0                                                                                                               |  | ISSUED FOR CONSTRUCTION |  | 01/04/2022 |  | LA                                                                                                                         |  | TA    |  | AC     |  |                                                                                                                                  |                                                                                                                       |
|                                                                                            |                                             | NO.                                                                                                             |  | DESCRIPTION             |  | DATE       |  | DR.BY                                                                                                                      |  | CK.BY |  | APP.BY |  |                                                                                                                                  |                                                                                                                       |



DRAWING LEGEND

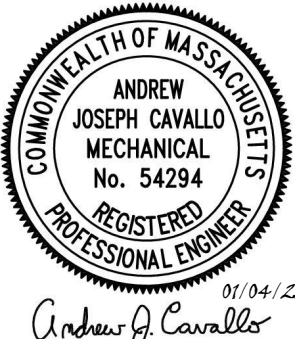
- EXISTING BS LP GAS MAIN
- EXISTING CI LP GAS MAIN
- EXISTING PE LP GAS MAIN
- EXISTING PE 22 PSIG GAS MAIN
- EXISTING BS LP GAS MAIN (TO BE ABANDONED)
- EXISTING CI LP GAS MAIN (TO BE ABANDONED)
- PROPOSED MDPE LP GAS MAIN UNDER W.O.#1424687
- PROPOSED MDPE 22 PSIG GAS MAIN UNDER W.O.#1424687
- PROPOSED MDPE 22 PSIG GAS MAIN
- PROPOSED VALVE
- PROPOSED REDUCER
- PROPOSED END CAP
- PROPOSED 22 PSIG VALVE UNDER ALTERNATE W.O.#
- PROPOSED 22 PSIG END CAP UNDER ALTERNATE W.O.#
- PROPOSED LP VALVE UNDER ALTERNATE W.O.#
- PROPOSED LP REDUCER UNDER ALTERNATE W.O.#
- PROPOSED LP END CAP UNDER ALTERNATE W.O.#
- EXISTING MWRA WATER MAIN
- EXISTING MWRA WATER MANHOLE



- NOTES:
- 1) THIS WORK ORDER AND W.O.#1424687 TO BE COMPLETED CONCURRENTLY. SEE DESIGN FOR W.O.#1424687 FOR OTHER CUT AND CAPS REQUIRED FOR FULL ABANDONMENT.
  - 2) GRANT OF LOCATION REQUIRED FOR NEW GAS MAIN INSTALL IN WATERTOWN.
  - 3) MWRA PERMIT REQUIRED FOR WORK WITHIN IRVING ST.
  - 4) NOTE: THIS PROJECT INVOLVES REPLACING LP GAS MAIN WITH 22 PSIG GAS MAIN. ENSURE THAT ALL SERVICES ARE FITTED APPROPRIATELY WITH SERVICE REGULATORS PRIOR TO TRANSFERRING OVER FROM THE LP TO 22 PSIG SYSTEM.



Architecture  
Engineering  
Environmental  
Land Surveying



01/04/22  
SIGN & DATE

| NO. | DESCRIPTION             | DATE       | DR.BY | CK.BY | APP.BY |
|-----|-------------------------|------------|-------|-------|--------|
| 0   | ISSUED FOR CONSTRUCTION | 01/04/2022 | LA    | TA    | AC     |

BOSTON GAS COMPANY  
d/b/a  
**nationalgrid**  
40 SYLVAN ROAD  
WALTHAM, MA 02451

IFC

PROPOSED GAS MAIN INSTALLATION  
2" AND 4" MDPE (LP TO 22 PSIG)  
IRVING ST  
WATERTOWN, MA

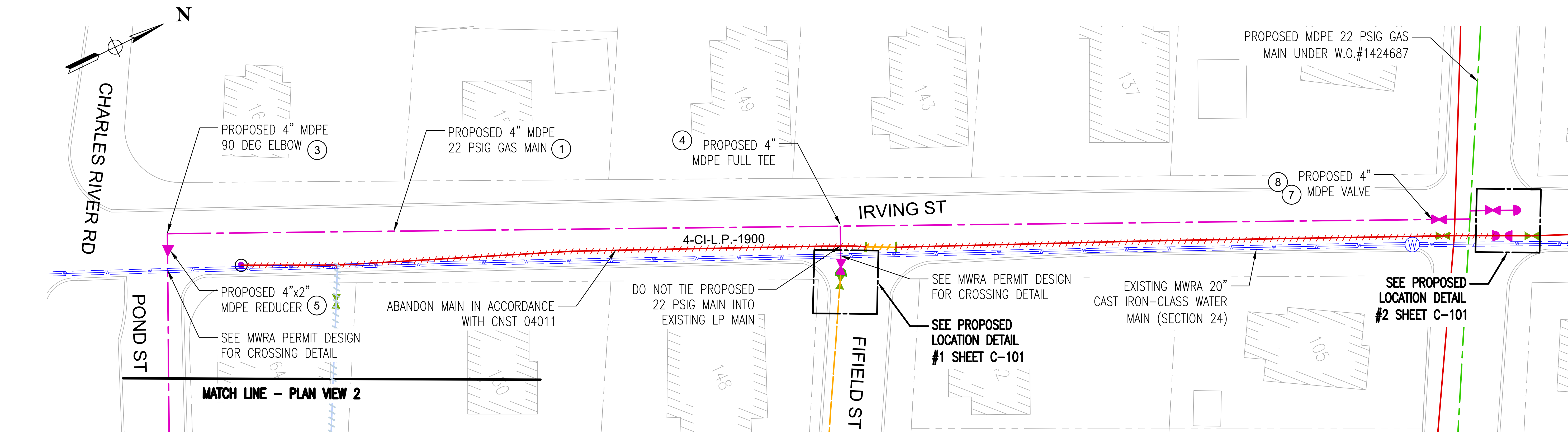
**PROPOSED INSTALLATION PLAN OVERVIEW**

| DWG. SIZE | DESIGNER    | ENGINEER   | DATE:      | ASSET I.D.   | W.O. NO.: |
|-----------|-------------|------------|------------|--------------|-----------|
| 22"X34"   | L. AFFRONTI | A. CAVALLO | 01/04/2022 | DISTRIBUTION | 1430328   |

PAGE 4 OF 9

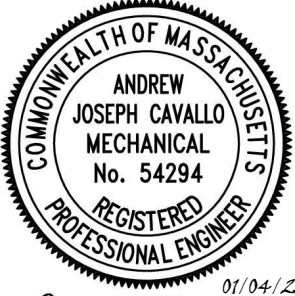
| DRAWING NO.    | SHEET NO. |
|----------------|-----------|
| WAT-1430328-04 | C-001     |







Architecture  
Engineering  
Environmental  
Land Surveying  
Companies



ANDREW JOSEPH CAVALLO  
MECHANICAL  
No. 54294  
REGISTERED PROFESSIONAL ENGINEER  
01/04/22  
SIGN & DATE

| NO. | DESCRIPTION             | DATE       | DR.BY | CK.BY | APP.BY |
|-----|-------------------------|------------|-------|-------|--------|
| 0   | ISSUED FOR CONSTRUCTION | 01/04/2022 | LA    | TA    | AC     |

BOSTON GAS COMPANY  
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40 SYLVAN ROAD  
WALTHAM, MA 02451

IFC

PROPOSED GAS MAIN INSTALLATION  
2" AND 4" MDPE (LP TO 22 PSIG)  
IRVING ST  
WATERTOWN, MA

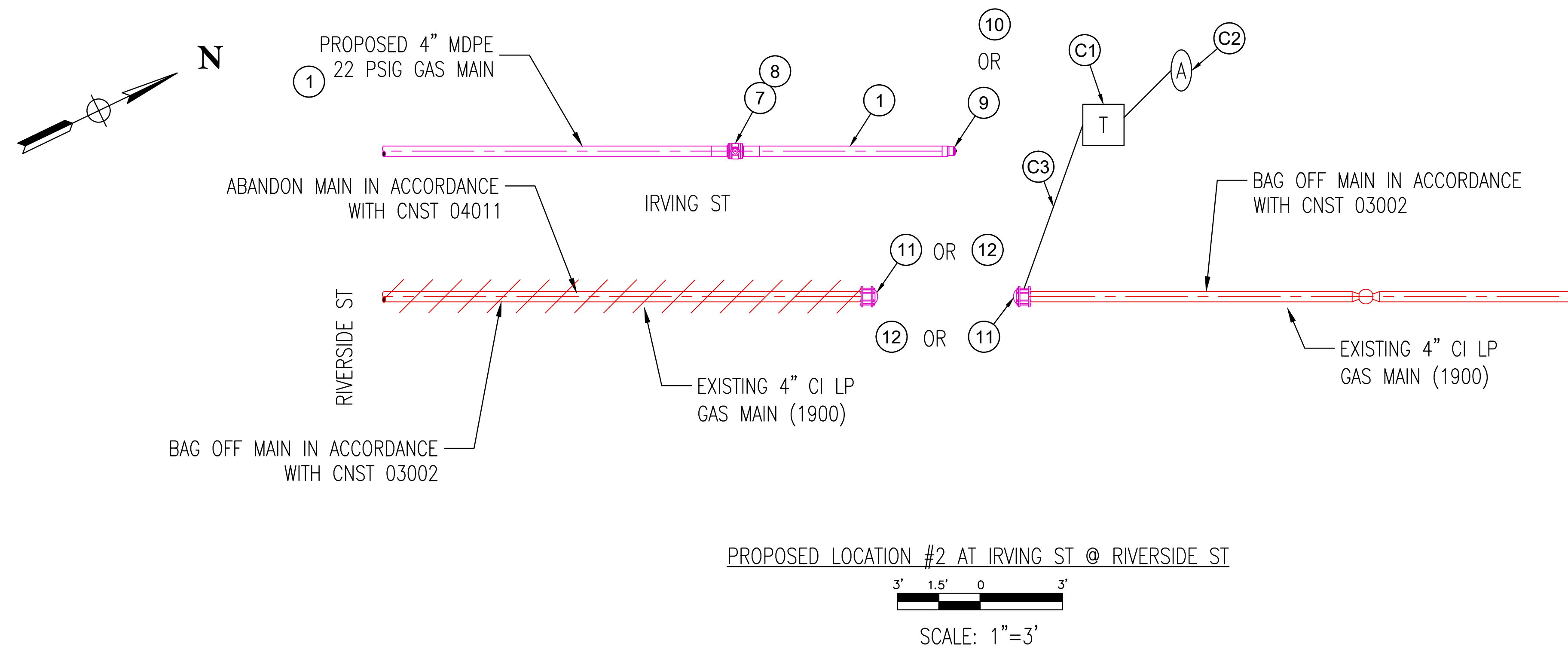
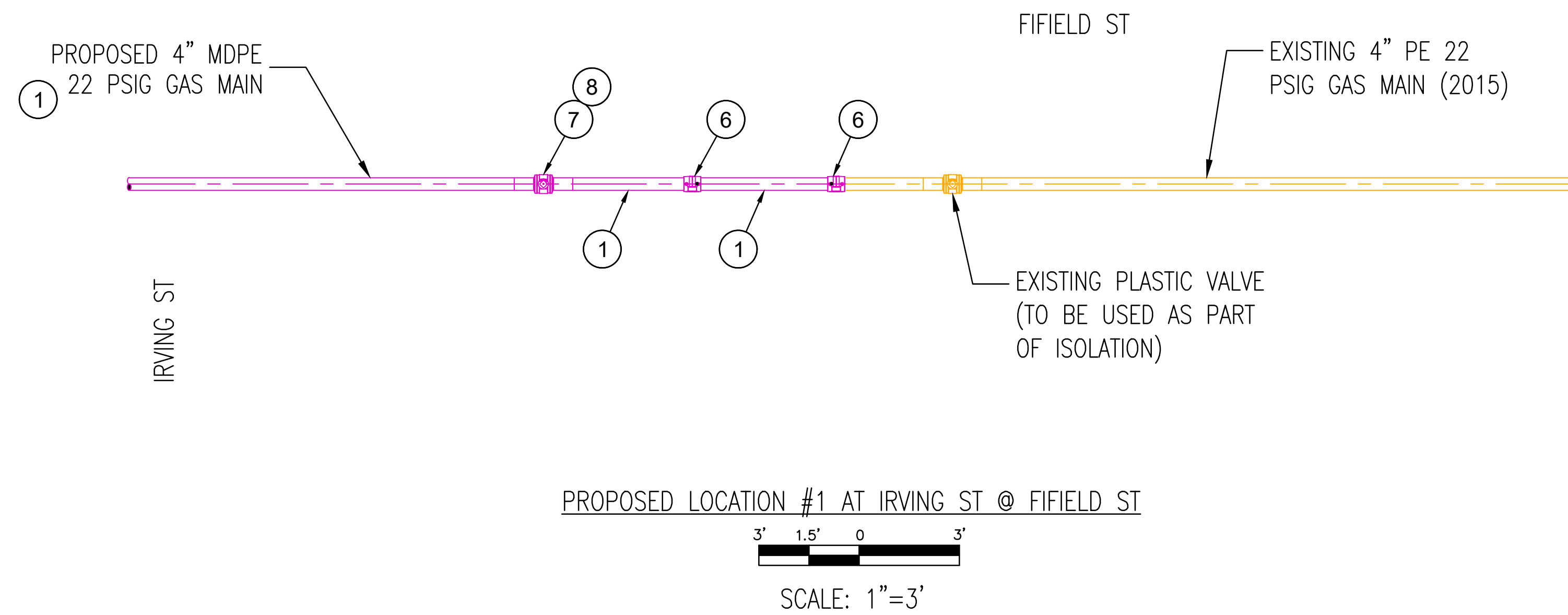
PROPOSED INSTALLATION PLAN SHEET 1 OF 1

| DWG SIZE | DESIGNER    | ENGINEER   | DATE       | ASSET I.D.   | W.O. NO.: |
|----------|-------------|------------|------------|--------------|-----------|
| 22"x34"  | L. AFFRONTI | A. CAVALLO | 01/04/2022 | DISTRIBUTION | 1430328   |

PAGE 5 OF 9

| DRAWING NO.    | SHEET NO. |
|----------------|-----------|
| WAT-1430328-05 | C-002     |

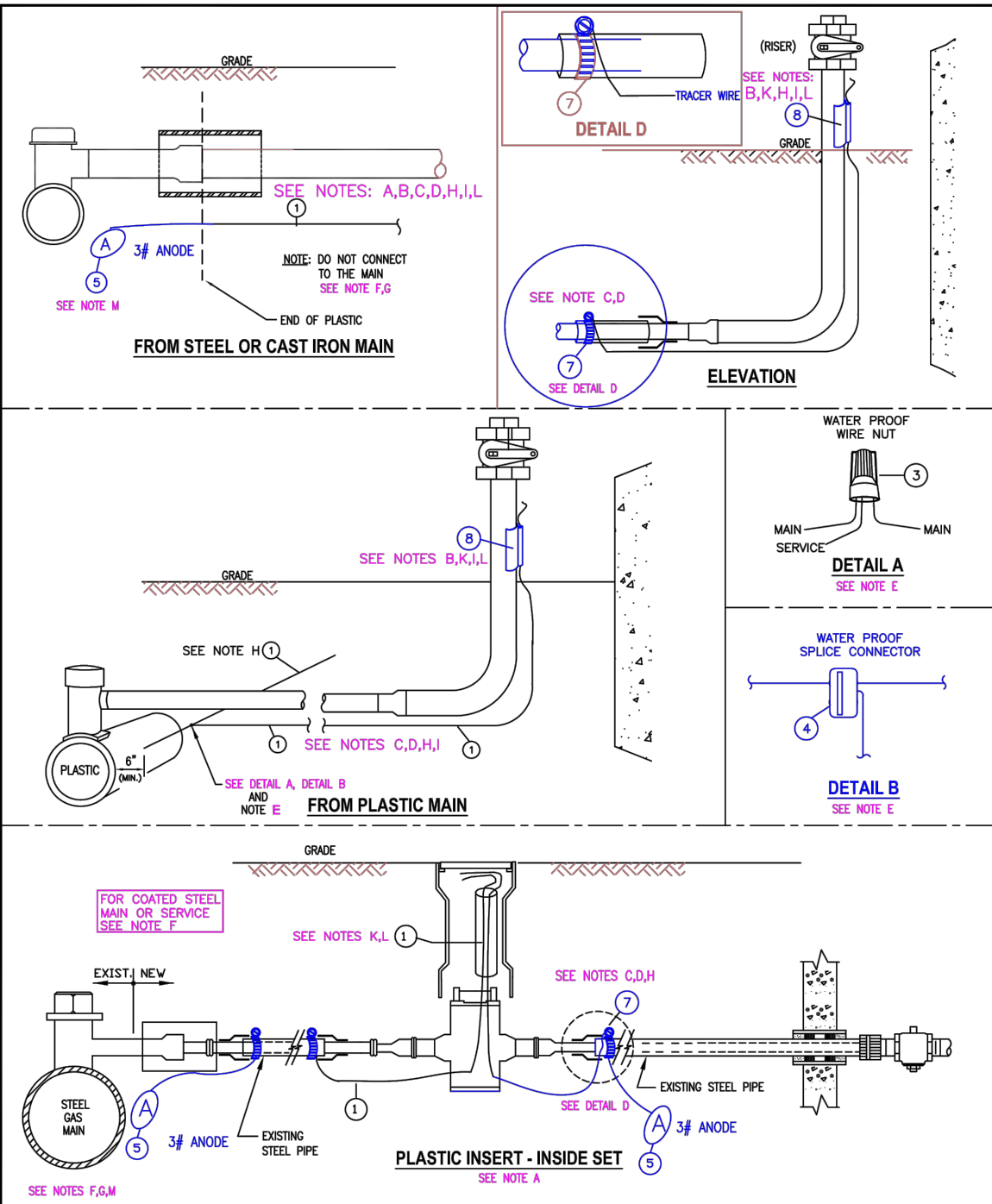




CORROSION REQUIREMENTS: INSTALL A 1-WIRE TEST STATION WITH 1-17# ANODE TO BE INSULATED ACTIVE STEEL MECHANICAL END CAP. INSTALL THE 9X9 TEST STATION IN AN ACCESSIBLE LOCATION.

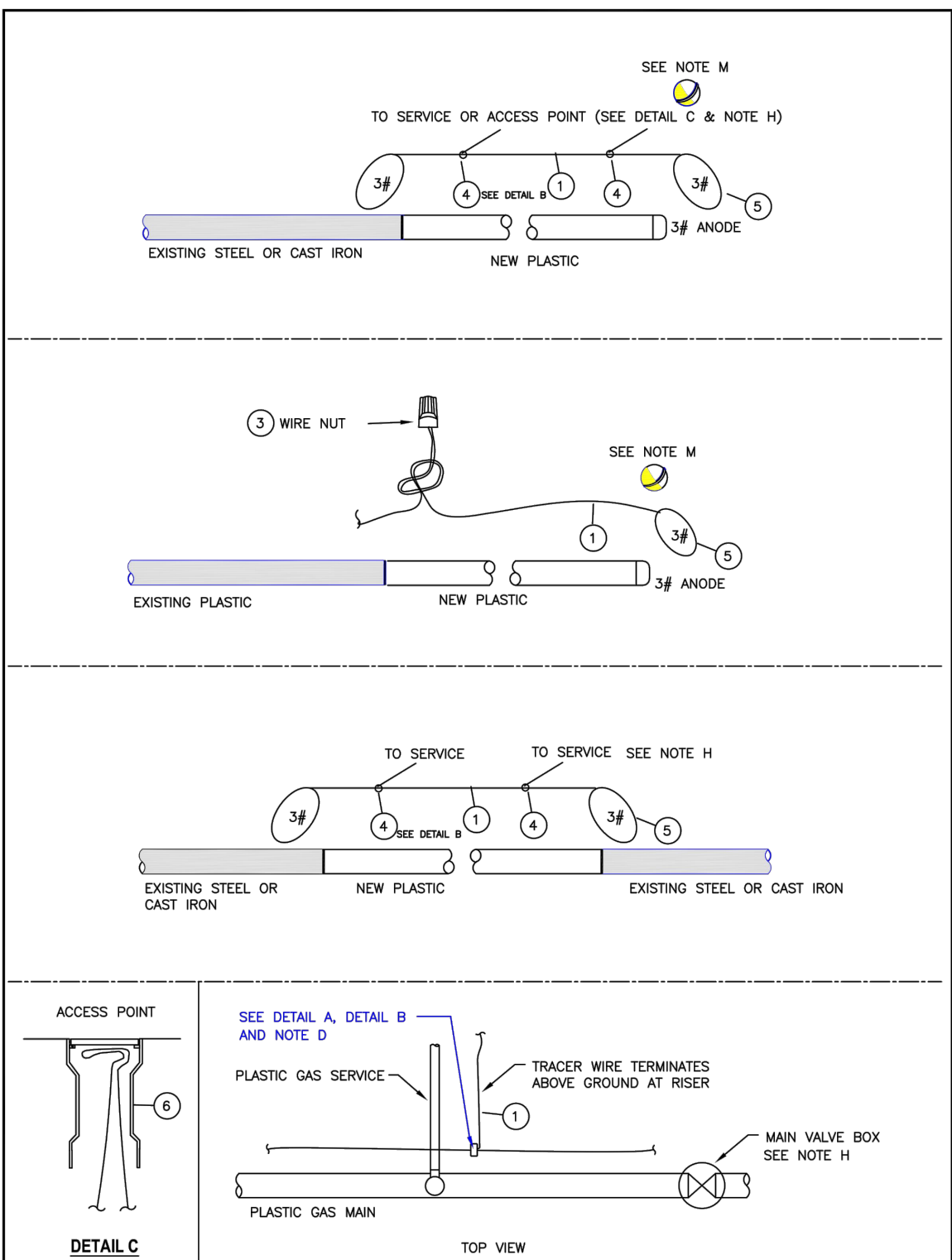
|                            |                                                                |                                                     |                                                                                                                   |                        |  |                                  |  |                     |                                                                                                |                        |                    |                            |                      |  |                                                                                          |                                                                               |
|----------------------------|----------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------|--|----------------------------------|--|---------------------|------------------------------------------------------------------------------------------------|------------------------|--------------------|----------------------------|----------------------|--|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <br><b>BL</b><br>Companies | Architecture<br>Engineering<br>Environmental<br>Land Surveying |                                                     | BOSTON GAS COMPANY<br>d/b/a<br><b>nationalgrid</b><br>40 SYLVAN ROAD<br>WALTHAM, MA 02451                         |                        |  |                                  |  |                     | PROPOSED GAS MAIN INSTALLATION<br>2" AND 4" MDPE (LP TO 22 PSIG)<br>IRVING ST<br>WATERTOWN, MA |                        |                    |                            |                      |  | PAGE 6 OF 9                                                                              |                                                                               |
|                            |                                                                |                                                     | <div style="border: 2px solid red; padding: 5px; display: inline-block; font-weight: bold; color: red;">IFC</div> |                        |  |                                  |  |                     | <b>PROPOSED LOCATION DETAIL SHEET 1 OF 1</b>                                                   |                        |                    |                            |                      |  | DRAWING NO.<br><br><div style="font-size: 24pt; font-weight: bold;">WAT-1430328-06</div> | SHEET NO.<br><br><div style="font-size: 24pt; font-weight: bold;">C-101</div> |
|                            |                                                                | 01/04/22<br><i>Andrew J. Cavallo</i><br>SIGN & DATE |                                                                                                                   | 01/04/2022<br>LA TA AC |  | 01/04/2022<br>DR.BY CK.BY APP.BY |  | DWG SIZE<br>22"x34" | DESIGNER<br>L. AFFRONTI                                                                        | ENGINEER<br>A. CAVALLO | DATE<br>01/04/2022 | ASSET I.D.<br>DISTRIBUTION | W.O. NO.:<br>1430328 |  |                                                                                          |                                                                               |





|                                               |                                                                                    |                                                                 |  |
|-----------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------|--|
| <b>nationalgrid</b><br>LI-MA-RI-UNY           |                                                                                    | <b>TRACER WIRE INSTALLATIONS FOR PLASTIC MAINS AND SERVICES</b> |  |
| REVISIONS: UPDATED ITEM ID'S<br>REVISED NOTES | DATE: 10/21/2024<br>DESIGN: GUGLIOTTA / MCGLOUGHIN<br>DRAWING: GUGLIOTTA / DIMAGNO | EFFECTIVE DATE: 06/25/2020<br>STD. DWG. NO. <b>CNST-6061</b>    |  |

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|                                               |                                                                                    |                                                              |  |
|-----------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------|--|
| REVISIONS: UPDATED ITEM ID'S<br>REVISED NOTES | DATE: 10/21/2024<br>DESIGN: GUGLIOTTA / MCGLOUGHIN<br>DRAWING: GUGLIOTTA / DIMAGNO | EFFECTIVE DATE: 06/25/2020<br>STD. DWG. NO. <b>CNST-6061</b> |  |
|-----------------------------------------------|------------------------------------------------------------------------------------|--------------------------------------------------------------|--|

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| NO. | ITEM                                                | SAP ITEM ID |
|-----|-----------------------------------------------------|-------------|
| 8   | TRACER WIRE SNAP, 2" (represents steel size)        | 9386134     |
| 8   | TRACER WIRE SNAP, 1 1/2" (represents steel size)    | 9386156     |
| 8   | TRACER WIRE SNAP, 1" (represents steel size)        | 9386150     |
| 8   | TRACER WIRE SNAP, 3/4" (represents steel size)      | 9385568     |
| 7   | CLAMP, STAINLESS                                    | 9331708     |
| 6   | VALVE BOX, ROADWAY                                  | 9339890     |
| 5   | ANODE, 3 LB MAGNESIUM                               | 9315645     |
| 4   | WIRE SPLICE CONNECTOR, WATERPROOF                   | 9308036     |
| 3   | WIRE NUT, PLASTIC, WATERPROOF                       | 9331644     |
| 2   | WIRE, DIRECTIONAL DRILL, STAINLESS, STRANDED 10 AWG | 9314197     |
| 1   | TRACER WIRE, DIRECT BURY, COPPER, 12 AWG            | 9315005     |

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**A. Inside sets:** Terminate tracer wire in the curb valve box. Allow enough wire to extend 18" to 24" above grade.

**B. Outside Sets:** Tracer wire should be extended approximately 18" above grade at riser. Connect tracer wire to the riser using a "tracer snap", Item #8. If the appropriate tracer snap is not available, wrap or tie the tracer wire to the riser. Do not permanently attach tracer wire to the riser. Tracer wire should not exceed 6" above the point where it is secured to the riser.

**C. Partially tubed services:** When the abandoned portion of an existing steel service pipe is used as a sleeve for the new plastic, all cut out sections of the steel pipe to be inserted with plastic, shall be connected using a section of tracer wire to maintain continuity. If the existing service is coated steel, see [Installation of Test Stations for Cathodic Protection \[030026-CS\]](#) and [Installation of Test Stations for Cathodic Protection \[COR04003\]](#) or contact corrosion department for more guidance.

**D. Thermite welding of tracer wire to abandoned steel service** is only acceptable prior to insertion of the plastic tubing. See [Installation of Test Stations for Cathodic Protection \[030026-CS\]](#).

**E. Plastic Mains:** The service tracer wire shall be connected to the plastic main tracer wire using item #3 detail A or item #4 (detail B - preferred) in accordance with [Installing Wire Connections \[COR04004\]](#).

**F. Coated Steel Mains:** Do not connect the tracer wire to the steel main. See [Installation of Test Stations for Cathodic Protection \[030026-CS\]](#) and [Installation of Test Stations for Cathodic Protection \[COR04003\]](#) or contact corrosion department for more guidance.

**G. Cast Iron or Bare steel Mains:** Do not connect the tracer wire to the main. It is required in LI and MA, and suggested in all other areas to terminate the tracing wire with a 3# anode.

**Tracer Wire Installation Notes**

H. Install tracer wire in close proximity to the plastic pipe. Approximately 4" to 6" away from the pipe. LI & MA- Above or alongside, UNY- alongside, RI-Under or alongside. Exception: For trenchless pipe installations, the minimum clearance is waived.

I. Maintain separation of approximately 4" from service riser. Do not permanently connect the tracer wire to the riser.

J. For horizontal directional drill installations, use stainless wire, item #2.

K. Tracer wire installed in boxes should allow enough wire to extend 18" to 24" above grade.

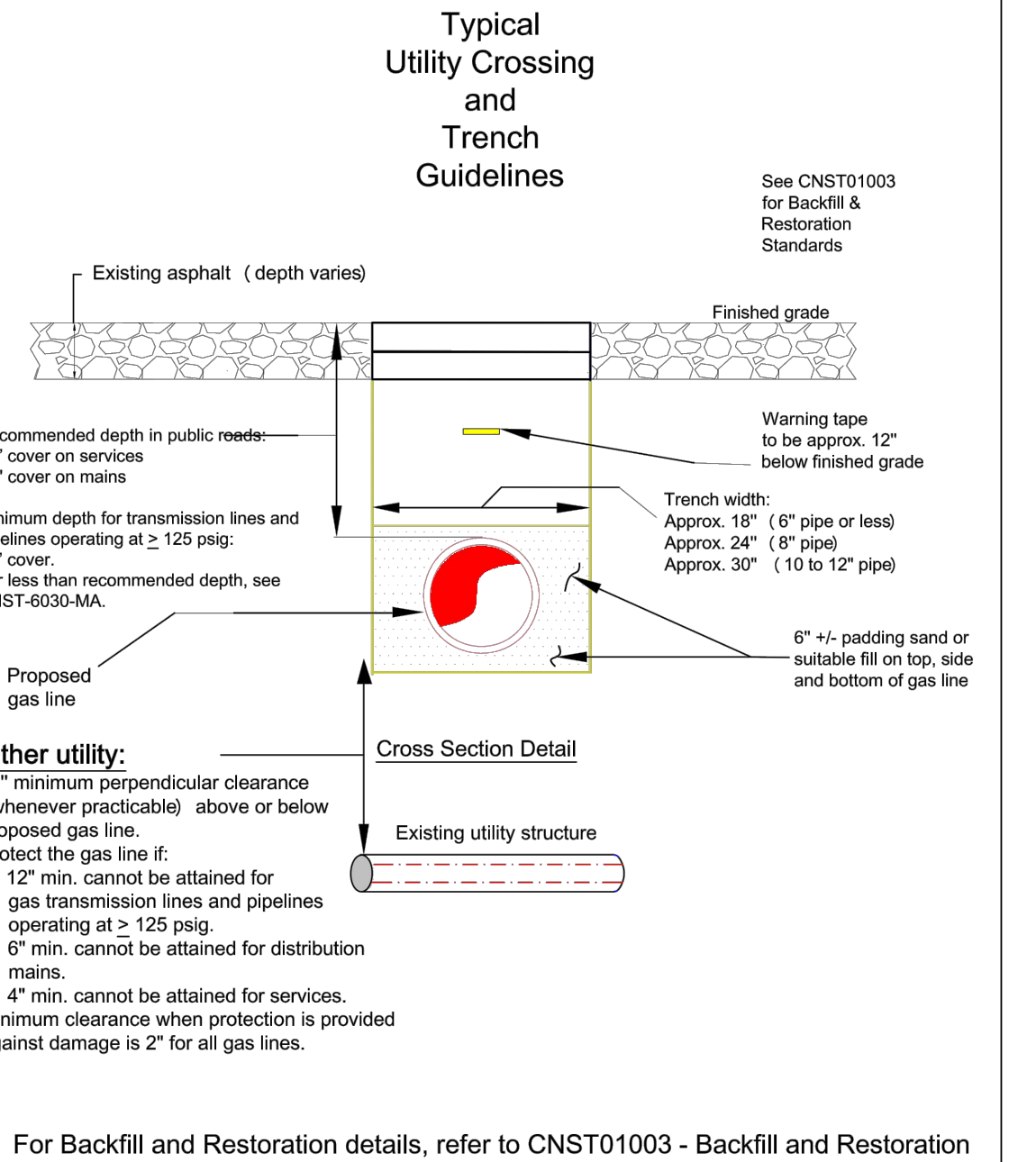
L. Verification: upon completion, the installer shall verify the location of the main or service using the tracer wire and locating device and perform a mark out using the conductive method.

M. LI and MA: Required to terminate the tracing wire with a 3# anode. This is to ground the tracer wire and increase signal strength when locating. This practice is recommended in all areas where signal strength is an issue.

**Regional Notes**

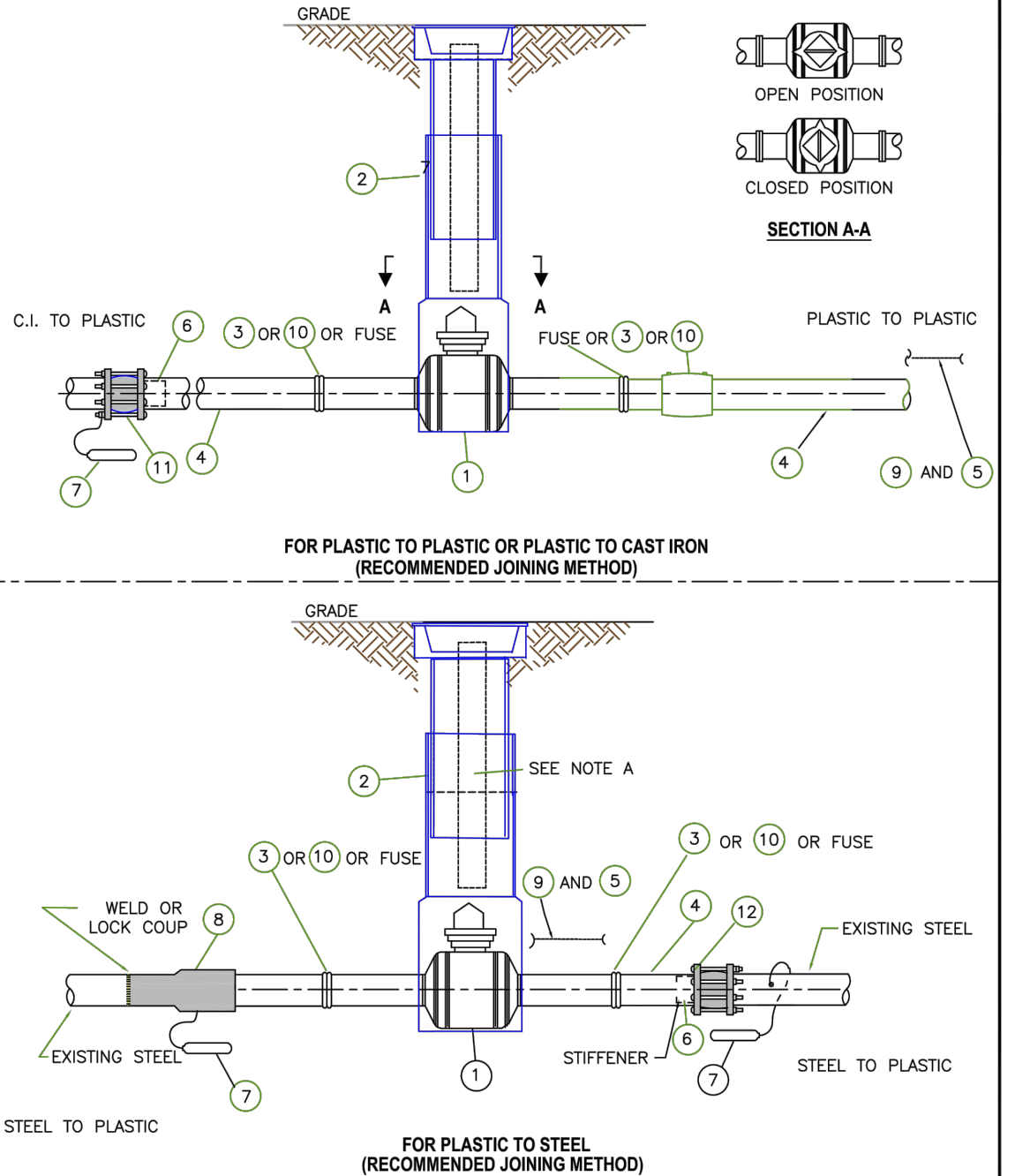
NYC ONLY: refer to [Installation of Marker Tapes and EMS Pipeline Locators for Mains and Services \[CNST6060-NYC\]](#) for installation of electronic marker ball in place of tracer wire.

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|                                              |                                                                    |                                                                  |  |
|----------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------|--|
| <b>nationalgrid</b><br>MASS.                 |                                                                    | <b>TYPICAL UTILITY CROSSING AND TRENCH GUIDELINES</b>            |  |
| Key Changes: REV 0<br>NEW STANDARD FOR MASS. | DATE: 09/15/2014<br>DESIGN: PAUL GUGLIOTTA<br>DRAWING: N. COSTANZO | EFFECTIVE DATE: 04/15/2019<br>STD. DWG. NO. <b>CS-CNST002-MA</b> |  |

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|                                    |                                                               |                                                              |  |
|------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------|--|
| <b>nationalgrid</b><br>ALL REGIONS |                                                               | <b>2"-12" PE VALVE TYPICAL INSTALLATION</b>                  |  |
| REVISIONS: UPDATED ITEM ID'S       | DATE: 07/01/2020<br>DESIGN: A.S. / MAM<br>DRAWING: P. DIMAGNO | EFFECTIVE DATE: 06/06/2020<br>STD. DWG. NO. <b>VALV-6020</b> |  |

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| NOTES:                                                                                                                       |                                         |                                                           |                                                |
|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-----------------------------------------------------------|------------------------------------------------|
| A. IN DNY LI REGION, INSTALL A LENGTH OF 2" DIAMETER PE OR SMALLER TUBING IN THE VALVE BOX TO IDENTIFY THE VALVE AS PLASTIC. |                                         |                                                           |                                                |
| B. INSTALL TRACER WIRE OR BALL MARKERS AS REQUIRED IN YOUR REGION FOR PE INSTALLATIONS.                                      |                                         |                                                           |                                                |
| C. NOT USED ON THE DNY LI 98 & 124 PSI ES SYSTEM.                                                                            |                                         |                                                           |                                                |
| D. REFER TO REGIONAL STANDARDS FOR MATERIAL IDS NOT GIVEN BELOW.                                                             |                                         |                                                           |                                                |
|                                                                                                                              | SAP ID                                  | SAP ID                                                    | SAP ID                                         |
| 1                                                                                                                            | VALVE, PE (PORT CONFIGURATION AS NOTED) | UNY AND RI<br>LP TO 100 PSIG HD                           | LI ONLY<br>99 AND 124 PSIG HD                  |
|                                                                                                                              |                                         | 9311203 12" DR 11 FULL PORT W/ GEAR OPERATOR RI ONLY      | 9341706 8" RED PORT DR 9                       |
|                                                                                                                              |                                         | 9307909 12" DR 13.5 FULL PORT W/ GEAR OPER UNY ONLY       | 9341705 8" RED PORT DR 9                       |
|                                                                                                                              |                                         | 9311173 8" DR 11 FULL PORT RI ONLY                        | 9341700 4" RED PORT DR 9                       |
|                                                                                                                              |                                         | 9315189 8" DR 13.5 FULL PORT UNY ONLY                     | 9341699 2" FULL PORT DR 9                      |
|                                                                                                                              |                                         | 9312116 8" DR 11 FULL PORT                                | 9323032 6" FULL PORT DR 11.5                   |
|                                                                                                                              |                                         | 9312058 4" DR 11 FULL PORT                                | 9341708 4" FULL PORT DR 11.5                   |
|                                                                                                                              |                                         | 9308561 3" DR 11 FULL PORT                                | 9323029 2" FULL PORT DR 11                     |
|                                                                                                                              |                                         | 9312080 2" DR 11 FULL PORT                                | 9341784 2" FULL PORT DR 11                     |
|                                                                                                                              |                                         | 9311146 2" DR 11 FULL PORT WITH PERMASERT ENDS            | 9341408 8" RED PORT DR 13.5                    |
| 2                                                                                                                            | ROADWAY VALVE BOX WITH COVER            | SELECT ROADWAY VALVE BOX BELOW TO MATCH SIZED VALVE GIVEN | LI, NYC AND NE<br>LP TO 60 PSIG MEDIUM DENSITY |
|                                                                                                                              |                                         | SEE DWG FITS 6360 (FOR 12" VALVE)                         | 9341704 12" FULL PORT DR 13.5                  |
|                                                                                                                              |                                         | 9311208 (FOR 2" THRU 8" VALVE)                            | 9386594 8" FULL PORT DR 13.5                   |
|                                                                                                                              |                                         | 9341706 8" RED PORT                                       | 9323032 6" FULL PORT DR 11.5                   |
|                                                                                                                              |                                         | 9341705 8" RED PORT                                       | 9341708 4" FULL PORT DR 11.5                   |
|                                                                                                                              |                                         | 9341700 4" RED PORT                                       | 9323029 2" FULL PORT DR 11                     |
|                                                                                                                              |                                         | 9341699 2" FULL PORT                                      | 9341784 2" FULL PORT DR 11                     |
|                                                                                                                              |                                         | SELECT ROADWAY VALVE BOX BELOW TO MATCH SIZED VALVE GIVEN | 9341408 8" RED PORT DR 13.5                    |
|                                                                                                                              |                                         | 9382626 FOR 12" FULL PORT                                 | 9341757 8" RED PORT DR 11.5                    |
|                                                                                                                              |                                         | 9326026 FOR 8" FULL PORT                                  | 9341693 4" RED PORT DR 11.5                    |

| No. | ITEM                                                                 |
|-----|----------------------------------------------------------------------|
| 3   | COUPLING ELECTROFUSE                                                 |
| 4   | PLASTIC PIPE                                                         |
| 5   | BURIAL TAPE                                                          |
| 6   | INSERT STIFFENER (SEE NOTE C)                                        |
| 7   | ANODE, 17 LB                                                         |
| 8   | TRANSITION FITTING STL TO PE                                         |
| 9   | TRACER WIRE OR (BALL MARKER IF USED IN REGION)                       |
| 10  | COUPLING 2" PERFECTION PERMASERT (SEE NOTE C)                        |
| 11  | COUPLING, PE TO CI, LOCKING INSULATING, MECHANICAL                   |
| 12  | COUPLING, PE TO STL, LOCKING, NON-INSULATING MECHANICAL (SEE NOTE C) |

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Architecture  
Engineering  
Environmental  
Land Surveying

COMMONWEALTH OF MASSACHUSETTS  
ANDREW JOSEPH CAVALLO  
MECHANICAL  
No. 54294  
REGISTERED PROFESSIONAL ENGINEER  
01/04/2022  
SIGN & DATE

| NO. | DESCRIPTION             | DATE       | DR BY | CK BY | APP BY |
|-----|-------------------------|------------|-------|-------|--------|
| 0   | ISSUED FOR CONSTRUCTION | 01/04/2022 | LA    | TA    | AC     |

BOSTON GAS COMPANY  
d/b/a  
40 SYLVAN ROAD  
WALTHAM, MA 02451

IFC

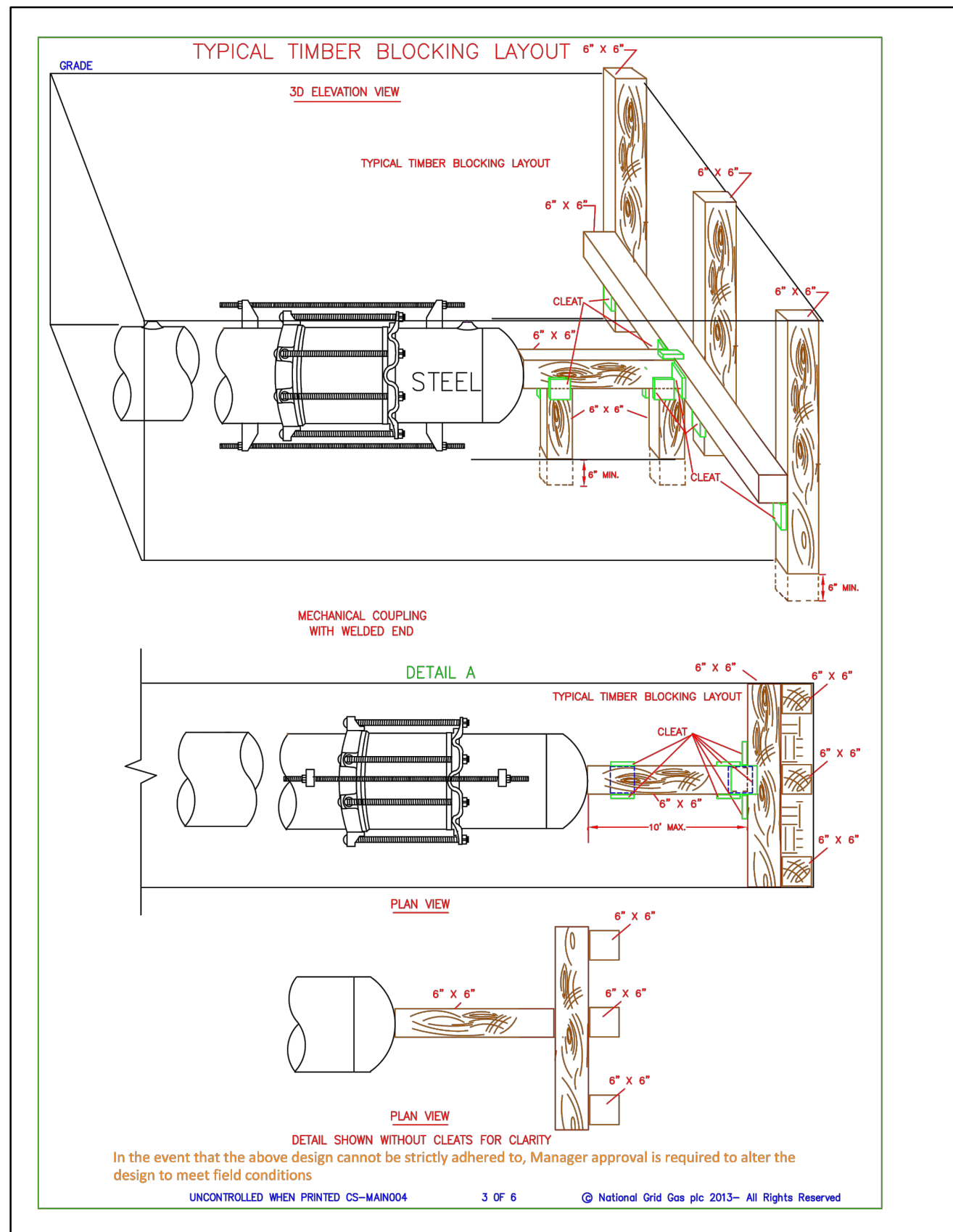
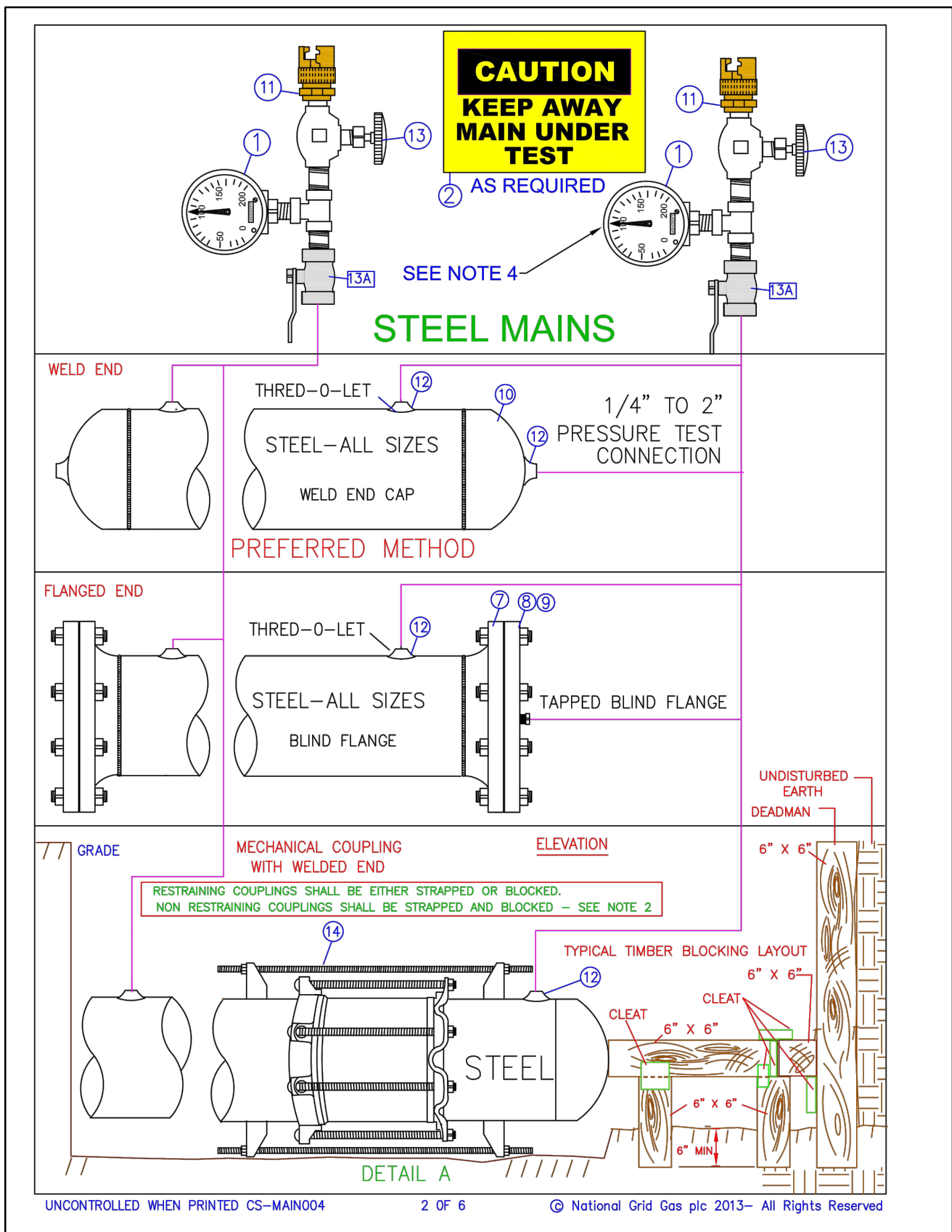
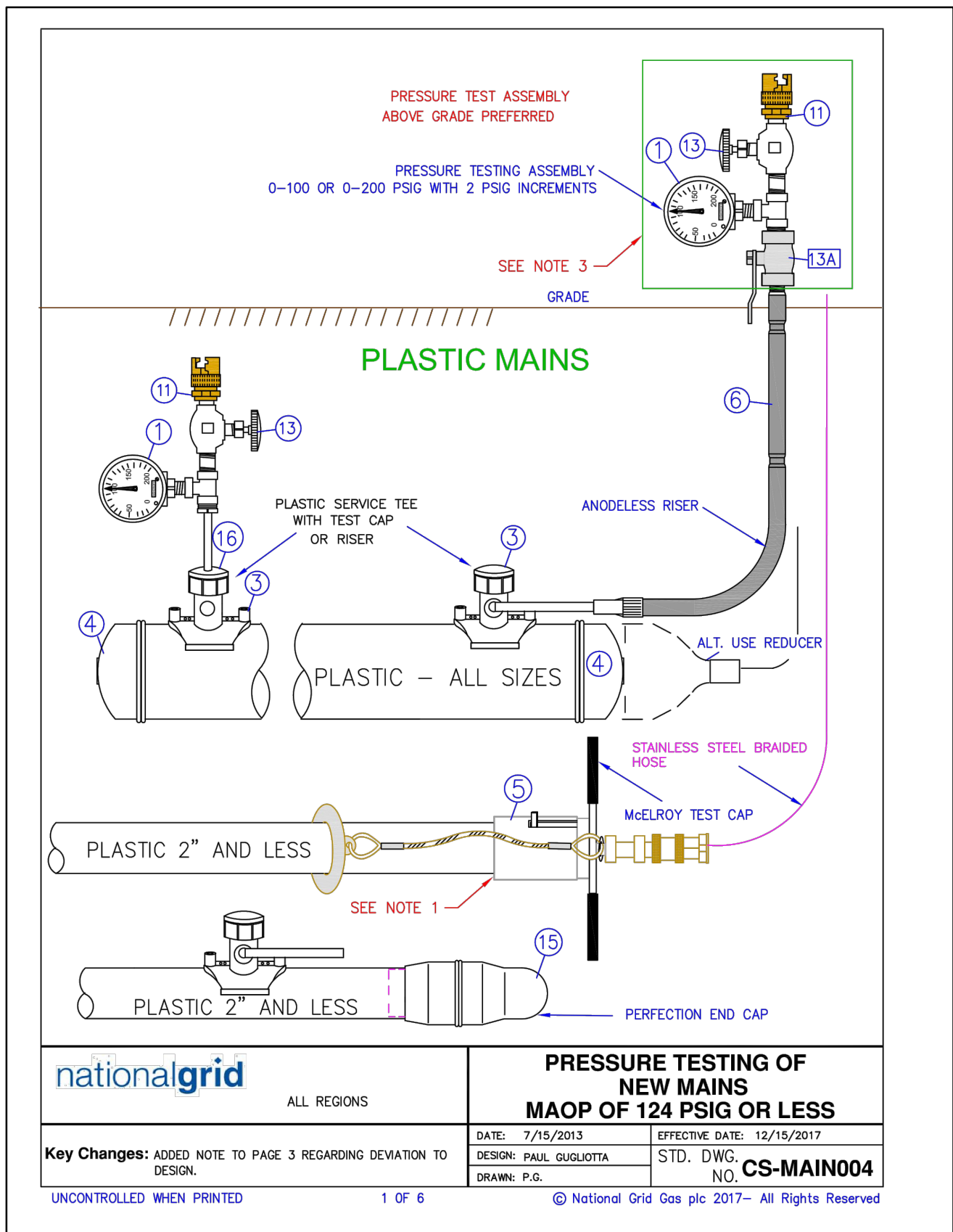
PROPOSED GAS MAIN INSTALLATION  
2" AND 4" MDPE (LP TO 22 PSIG)  
IRVING ST  
WATERTOWN, MA

**MISCELLANEOUS DETAIL 1 OF 3**

| DWG SIZE | DESIGNER    | ENGINEER   | DATE:      | ASSET I.D.   | W.O. NO.: |
|----------|-------------|------------|------------|--------------|-----------|
| 22"X34"  | L. AFFRONTI | A. CAVALLO | 01/04/2022 | DISTRIBUTION | 1430328   |

| PAGE 7 OF 9    |           |
|----------------|-----------|
| DRAWING NO.    | SHEET NO. |
| WAT-1430328-07 | C-201     |





**NOTES:**

1. INSTALL PER MUELOY MANUFACTURER'S INSTRUCTIONS.
2. WHEN USING MECHANICAL COUPLINGS (AS SHOWN IN DETAIL A), NON-RESTRAINING COUPLING SHALL BE STRAPPED AND THE ENDS SHALL BE BLOCKED PER APPROVED STANDARD DRAWINGS. RESTRAINING COUPLINGS NEED TO BE EITHER STRAPPED OR BLOCKED. WHEN USING RESTRAINING COUPLINGS, STRAPPING NUTS SHOULD BE HAND TIGHT.
3. ON EXISTING STEEL SYSTEMS: REFER TO THE TABLE BELOW FOR THE MINIMUM SAFE EMBEDMENT DISTANCE FROM THE WALL, THEN BLOCKING IS REQUIRED FOR THE PRESSURE TEST. IF AN ALL WELDED SYSTEM CAN NOT BE CONFIRMED, THE WELDED OR FLANGED ENDS SHALL BE BLOCKED.
4. REFER TO CONSTRUCTION STANDARD FITS-6025 AND FITS-6015 FOR LIST OF COUPLINGS.
5. IT IS RECOMMENDED THAT THE GAUGE ASSEMBLY BE ABOVE GRADE TO PREVENT PERSONNEL FROM ENTERING THE TRENCH WHILE THE PRESSURE TEST IS UNDERWAY.
6. ONE PRESSURE TEST GAUGE AT EACH PIPE END IS RECOMMENDED TO VERIFY THE PRESSURE. ALL GAUGES SHALL BE 0-100 OR 0-200 PSIG RANGE (2 PSIG INCREMENTS READ IN NY STATE ONLY).
7. REFER TO CONSTRUCTION STANDARD FITS-6025 AND FITS-6015 FOR LIST OF COUPLINGS.

**PRESSURE TESTING OF MAINS OPERATING BELOW 124 PSIG FOR TESTING AND DESIGN REQUIREMENTS.**

| ITEM | DESCRIPTION                                                                                                                                                                                                            | SAP ITEM ID LI/MA/ NYC                                                                        | SAP ITEMS RI AND UNY                                                                    |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1    | <b>PRESSURE GAUGE 0-100 OR 0-200 PSIG - 2 PSI INCREMENTS</b><br>0-200 PSIG STAINLESS STEEL 1/2" NPT 3-1/2" DIAL<br>0-200 PSIG STAINLESS STEEL 1/2" NPT 2-1/2" DIAL<br>0-100 PSIG STAINLESS STEEL 1/2" NPT              | 9354865<br>9355300<br>NON STOCK                                                               | TOOL ITEM<br>TOOL ITEM<br>TOOL ITEM                                                     |
| 2    | <b>WIRE - WARNING PRESSURE TEST (AS REQUIRED IN FIELD)</b>                                                                                                                                                             | 9332240                                                                                       | NON STOCK                                                                               |
| 3    | <b>TEE SERVICE - ELECTROFUSION YELLOW MD 1/2" CTS BUTT FUSE OUTLET</b><br>2" MAIN X 1/2" BUTT FUSE OUTLET<br>4" MAIN X 1/2" BUTT FUSE OUTLET<br>6" MAIN X 1/2" BUTT FUSE OUTLET<br>8" MAIN X 1/2" BUTT FUSE OUTLET     | 9342517 2X1/2<br>9342518 4X1/2<br>9342516 6X1/2<br>9342371 8X1/2                              | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                        |
| 4    | <b>TEE SERVICE - ELECTROFUSION YELLOW MD 1" CTS BUTT FUSE OUTLET</b><br>1-1/4" MAIN X 1" OUTLET LI<br>2" MAIN X 1" OUTLET LI<br>4" MAIN X 1" OUTLET LI<br>6" MAIN X 1" OUTLET LI<br>8" MAIN X 1" OUTLET LI             | 9342332 1-1/4 X 1<br>9342519 2X1<br>9342521 4X1<br>9342328 6X1<br>9342372 8X1                 | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                           |
| 5    | <b>TEE SERVICE - ELECTROFUSION BLACK HD 1" IPS BUTT FUSE OUTLET</b><br>2" MAIN X 1" IPS OUTLET<br>4" MAIN X 1" IPS OUTLET<br>6" MAIN X 1" IPS OUTLET<br>8" MAIN X 1" IPS OUTLET<br>12" MAIN X 1" IPS OUTLET LI NYC, MA | 9322853 2X1<br>9322828 3X1<br>9322620 4X1<br>9322826 6X1<br>9323497 8X1<br>9351831 12X1       | 9322853 2X1<br>9322828 3X1<br>9322620 4X1<br>9322826 6X1<br>9323497 8X1<br>9351831 12X1 |
| 6    | <b>TEE SERVICE - SADDLE FUSION HIGH DENSITY BLACK 1/2" CTS BUTT FUSE</b><br>2" MAIN X 1/2" OUTLET LI<br>4" MAIN X 1/2" OUTLET LI<br>6" MAIN X 1/2" OUTLET LI<br>8" MAIN X 1/2" OUTLET LI                               | 9342405 2X1/2<br>9342406 4X1/2<br>9342407 6X1/2<br>9342408 8X1/2                              | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                        |
| 7    | <b>TEE SERVICE - SADDLE FUSION HIGH DENSITY BLACK 1" CTS BUTT FUSE</b><br>2" MAIN X 1" OUTLET<br>4" MAIN X 1" OUTLET<br>6" MAIN X 1" OUTLET<br>8" MAIN X 1" OUTLET<br>12" MAIN X 1" OUTLET                             | 9342409 2X1 SDR 9<br>9342429 4X1 SDR 9<br>9342430 6X1 SDR 9<br>9342431 8X1 SDR 9<br>NON STOCK | 9315907 2X1<br>9315964 4X1<br>9315963 6X1<br>9315962 8X1<br>9314628 12X1                |
| 8    | <b>TEE SERVICE MECHANICAL X PERFECTION OUTLET</b><br>2" MAIN X 1/2" OUTLET<br>4" MAIN X 1/2" OUTLET<br>6" MAIN X 1/2" OUTLET<br>8" MAIN X 1/2" OUTLET<br>12" MAIN X 1/2" OUTLET                                        | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                 | 9308584 2X1/2<br>9308585 4X1/2<br>9308472 6X1/2<br>9308577 8X1/2<br>9315492 2X1         |
| 9    | <b>TEE SERVICE MECHANICAL X PERFECTION OUTLET</b><br>2" MAIN X 1" OUTLET<br>4" MAIN X 1" OUTLET<br>6" MAIN X 1" OUTLET<br>8" MAIN X 1" OUTLET<br>12" MAIN X 1" OUTLET                                                  | 9382122 2X1<br>9382123 3X1<br>9382116 4X1<br>9382149 6X1<br>9382192 8X1<br>9387387 12X1       | N/A<br>9315490 4X1<br>9308473 6X1<br>9308178 8X1<br>9387387 12X1                        |

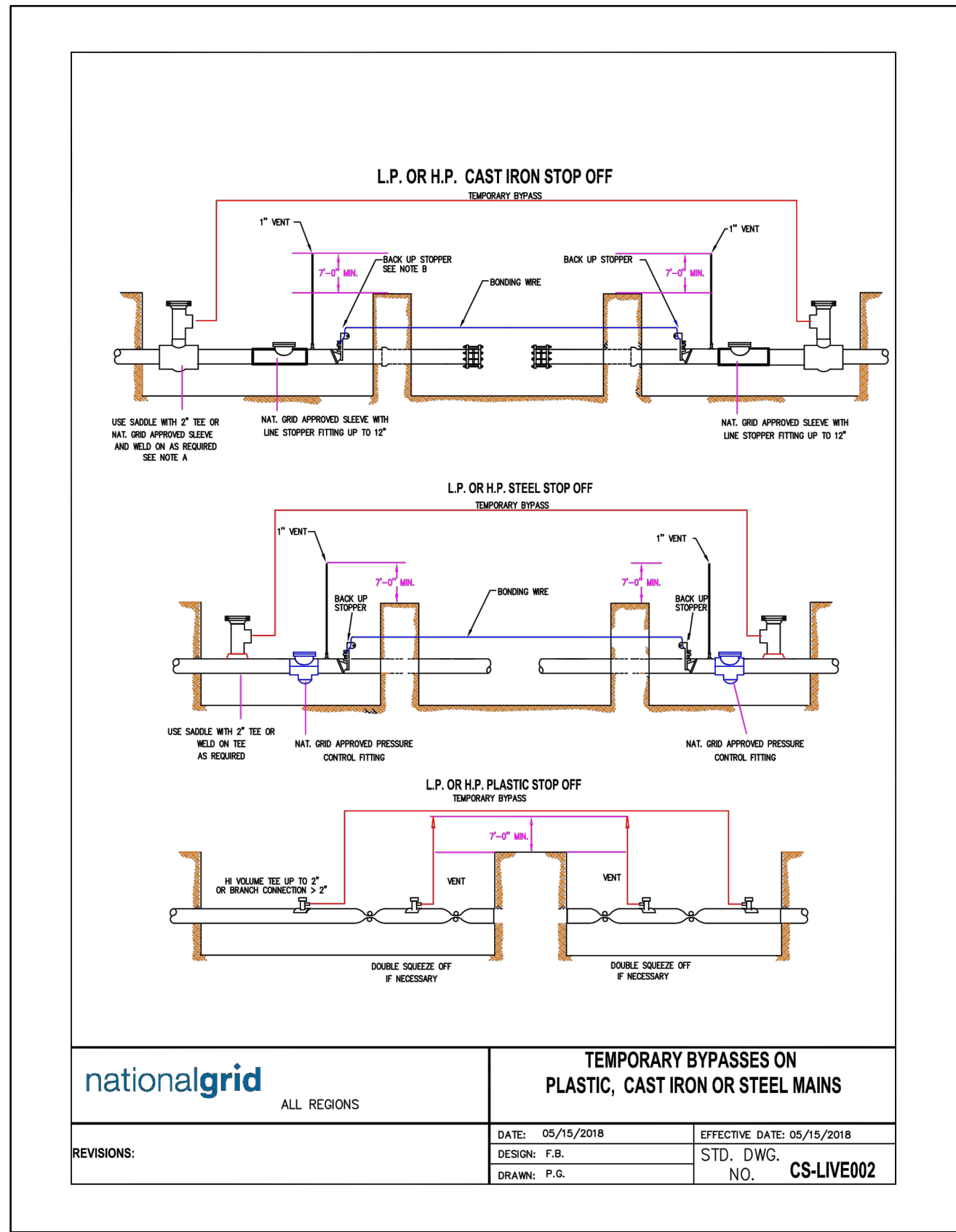
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| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                      | ORACLE ITEM ID LI/MA/ NYC                                                                                  | PEOPLESOF ITEM RI AND UNY                                                                                                       |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 4    | <b>CAP END PLASTIC MEDIUM DENSITY YELLOW BUTT FUSE</b><br>2" SDR 11<br>3" SDR 11<br>4" SDR 11<br>6" SDR 11<br>8" SDR 11.5<br>12" SDR 11.5                                                                                                                                                                                                        | 2" 9339540<br>3" 9339541<br>4" 9339534<br>6" 9339733<br>8" 9339559<br>12" 9339560                          | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                                      |
|      | <b>CAP END PLASTIC HIGH DENSITY BLACK BUTT FUSION</b><br>2" SDR 9<br>4" SDR 9<br>6" SDR 9<br>8" SDR 9                                                                                                                                                                                                                                            | 2" 9339538<br>4" 9339535<br>6" 9339536<br>8" 9339537                                                       | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                                                                |
|      | 2" SDR 11 MASS RI & UNY<br>3" SDR 11 MASS RI & UNY<br>4" SDR 11 MASS RI & UNY<br>6" SDR 11 MASS RI & UNY<br>8" SDR 11 MASS RI & UNY<br>12" SDR 11 MASS RI                                                                                                                                                                                        | 2" 9328624<br>3" 9328625<br>4" 9328640<br>6" 9328641<br>8" 9328642<br>12" 9308729                          | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                                      |
| 5    | <b>McELROY TEST CAPS (165 PSIG MAX)</b><br>1-1/4" MODEL TP<br>2" MODEL TP-310                                                                                                                                                                                                                                                                    | 2" 9314605<br>1-1/4" MODEL TP-310                                                                          | NON STOCK<br>NON STOCK                                                                                                          |
| 6    | <b>RISER</b><br>1" CTS MEDIUM DENSITY X 3/4" NPT OUTLET<br>1" CTS MEDIUM DENSITY X 1-1/4" IPS OUTLET<br>1" HIGH DENSITY X 1-1/4" OUTLET<br>1" CST SERVASER X 1" OUTLET<br>1" CTS HIGH DENSITY .090" WALL X 1" IPS STEEL OUTLET<br>3/4" CTS .090" WALL PERFECTION END X 3/4" NPT STEEL<br>1-1/4" CTS .090" WALL PERFECTION END X 1-1/4" NPT STEEL | 9344366<br>9340874<br>9340863<br>9322627<br>9316495<br>9310295<br>9308180                                  | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                         |
|      | OR TEST CAPS WITH STEEL OR PLASTIC PIPE TO TEST TREE<br>TEST CAP FOR CENTRAL PLASTIC ELECTROFUSE TAPPING TEE                                                                                                                                                                                                                                     | 9381846 OR TOOL ROOM ITEM                                                                                  | TOOL ROOM ITEM                                                                                                                  |
| 7    | <b>FLANGE 150# WELD END FLAT FACE</b><br>2"<br>3"<br>4"<br>6"<br>8"<br>12"<br>16"<br>20"                                                                                                                                                                                                                                                         | 9341432<br>9341438<br>9341430<br>9341084<br>9341015<br>9340979<br>9322363<br>9322362                       | 2" 9314322<br>3" 9314431<br>4" 9314430<br>6" 9308559<br>8" 9308746<br>12" 9308660<br>16" NON STOCK<br>20" NON STOCK             |
| 8    | <b>BLIND FLANGE CLASS 150# ASTM A-105</b><br>2" FLAT FACE WITH 3/4" CENTER NPT TAP<br>3" FLAT FACE WITH 3/4" CENTER NPT TAP<br>4" FLAT FACE WITH 3/4" CENTER NPT TAP<br>6" FLAT FACE WITH 3/4" CENTER NPT TAP<br>8" FLAT FACE WITH 3/4" CENTER NPT TAP<br>12" FLAT FACE<br>16" FLAT FACE<br>20" FLAT FACE                                        | 9341434<br>9341014<br>9341435<br>9340862<br>9360074<br>9385763<br>9385775<br>9385747<br>9341063<br>9340587 | 2" NON STOCK<br>3" NON STOCK<br>4" NON STOCK<br>6" NON STOCK<br>8" NON STOCK<br>12" NON STOCK<br>16" NON STOCK<br>20" NON STOCK |
| 9    | <b>GASKETS</b><br>2" FULL FACE 150#<br>3" FULL FACE 150#<br>4" FULL FACE 150#<br>6" FULL FACE 150#<br>8" FULL FACE 150#<br>12" RING TYPE 150#                                                                                                                                                                                                    | 9333167<br>9341198<br>9341259<br>9332598<br>9341168<br>9341165                                             | 2" 9315688<br>3" 9312067<br>4" 9312569<br>6" 9312568<br>8" 9315689<br>12" NON STOCK                                             |

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| ITEM | DESCRIPTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ORACLE ITEM ID LI/MA/ NYC                                                                                   | PEOPLESOF ITEM RI AND UNY                                                                                                                    |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| 10   | <b>END CAPS - STEEL WELD END STANDARD WALL - GRADE B</b><br>2"<br>3"<br>4"<br>6"<br>8"<br>10"<br>12"<br>16"<br>20"                                                                                                                                                                                                                                                                                                                                                                                                                           | 9339531<br>9339528<br>9339529<br>9339532<br>9339524<br>9339566<br>9339734<br>9339533<br>9339567             | 2" 9312095<br>3" 9308719<br>4" 9312096<br>6" 9312094<br>8" 9312093<br>10" 931162<br>12" 9312092<br>16" 9314824<br>20" 9314823                |
| 11   | <b>THOR FITTING</b><br>1/2" MALE NPT X HOSE CONNECTION<br>3/4" FEMALE X HOSE CONNECTION                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 9353292<br>9353311                                                                                          | NON STOCK<br>NON STOCK                                                                                                                       |
| 12   | <b>THRED-O-LET</b><br>12" - 6" X 3/4" 3000# PER ASTM A-105 GRADE B<br>10" - 6" X 1" 3000# PER ASTM A-105 GRADE B<br>8" - 12" X 1" 3000# PER ASTM A-105 GRADE B<br>2" X 1" 3000# PER ASTM A-105 GRADE B<br>10" - 6" X 1" 3000# PER ASTM A-105 GRADE B<br>36"-14" X 3/4" 3000# PER ASTM A-105 GRADE B                                                                                                                                                                                                                                          | 9341652 12-6X3/4<br>9341658 10-6X1<br>9342052 36-12X1<br>9307678 2X1<br>9307685 10-6X1<br>9307677 36-14X3/4 | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                                                   |
| 13   | <b>VALVE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                             |                                                                                                                                              |
| 14   | <b>VALVE (OPTIONAL - TO SHUT OFF TEST ASSEMBLY)</b><br>LUG ASSEMBLY<br>7/8" X 24" LONG (LI ONLY - SEE MAIN-6210)<br>7/8" X 44" LONG (LI ONLY - SEE MAIN-6210)<br>LUG GREEN 5" - 6" MAIN 7/8" DIAM. (NYC ONLY - SEE MAIN-6230 & MAIN-6230)<br>LUG YELLOW 10" - 30" MAIN 1-1/8" DIAM. (NYC ONLY - SEE MAIN-6230 & MAIN-6230)<br>ROD 3/4" X 12" LONG<br>ROD 1" X 12" LONG<br>LUG ASSEMBLY 3/4" X 30" LONG (UNY ONLY)                                                                                                                            | 9342211<br>9342212<br>9357904<br>9357905<br>9328152<br>9328150<br>9315741<br>9355524                        | NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK<br>NON STOCK                                         |
| 15   | <b>COUPLING - END 2" PERFECTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                             |                                                                                                                                              |
| 16   | <b>TEST CAP</b><br>FOR SADDLE FUSION TEE - CENTRAL PLASTICS<br>FOR SADDLE FUSION TEE - JM SADDLE / POLY / UPONOR<br>FOR SADDLE FUSION TEE - PERFORMANCE PIPE TEES<br>FOR HVT (HIGH VOLUME TAPPING TEE) SADDLE FUSION CENTRAL PLASTICS<br>FOR HVT (HIGH VOLUME TAPPING TEE) SADDLE FUSION - JM SADDLE / POLY / UPONOR<br>FOR HVT (HIGH VOLUME TAPPING TEE) SADDLE FUSION PERFORMANCE PIPE TEES<br>FOR HVT ELECTROFUSION TEE<br>FOR ELECTROFUSION TEE<br>FOR PERFECTION / MITT MECHANICAL TEE (CAP FITS ALL MAIN SIZE & OUTLET SIZES OF PMTTS) | 9325169<br>9325017<br>9341368<br>9384268<br>9384174<br>9323715<br>9382684<br>9381846<br>9339561             | TOOL ROOM ITEM<br>TOOL ROOM ITEM<br>TOOL ROOM ITEM<br>TOOL ROOM ITEM<br>TOOL ROOM ITEM<br>TOOL ROOM ITEM<br>TOOL ROOM ITEM<br>TOOL ROOM ITEM |

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**NOTES:**

- A. FOR BYPASSES ON THE LP SYSTEM ONLY SCREW TEES AND BAGHOLES MAY BE TAPPED DIRECTLY INTO THE MAIN.
- B. BACK UP STOPPERS WILL BE REQUIRED IF INSUFFICIENT STOP OFF CAN BE ACHIEVED OR IF WELDING BETWEEN THE STOPPERS WILL BE REQUIRED.
- C. STOP OFF CAN BE PERFORMED USING MUELLER, T.D. WILLIAMSON, KLIESS, BAGS, OR OTHER APPROVED STOP OFF SYSTEMS.

**SHT. 2 OF 2 CS-LIVE002**

NOTE: THE ENGINEER OF RECORD HAS REVIEWED THE PROVIDED NATIONAL GRID STANDARD DETAILS AND DETERMINED THEIR APPLICABILITY TO THE WORK IN THIS PACKAGE. THE ENGINEER OF RECORD DOES NOT CERTIFY THE ACCURACY OF ANY REFERENCED STANDARDS OR PROCEDURES NOT DIRECTLY RELATED TO THE WORK DESCRIBED IN THIS PLAN SET.

Architecture  
Engineering  
Environmental  
Land Surveying  
Companies

ANDREW JOSEPH CAVALLO  
MECHANICAL  
No. 54294  
REGISTERED PROFESSIONAL ENGINEER  
01/04/2022  
SIGN & DATE

BOSTON GAS COMPANY  
d/b/a  
**nationalgrid**  
40 SYLVAN ROAD  
WALTHAM, MA 02451

**IFC**

PROPOSED GAS MAIN INSTALLATION  
2" AND 4" MDPE (LP TO 22 PSIG)  
IRVING ST  
WATERTOWN, MA

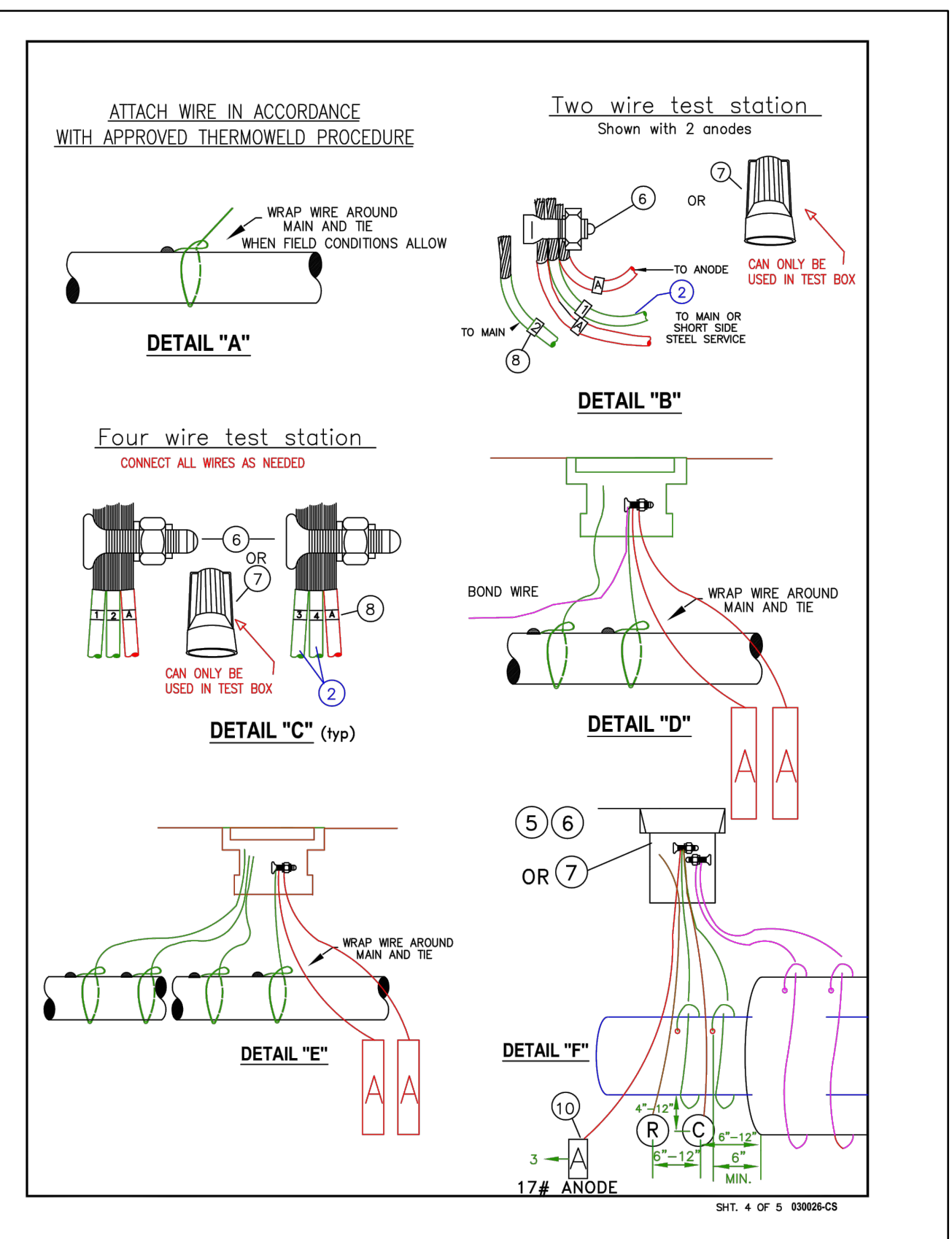
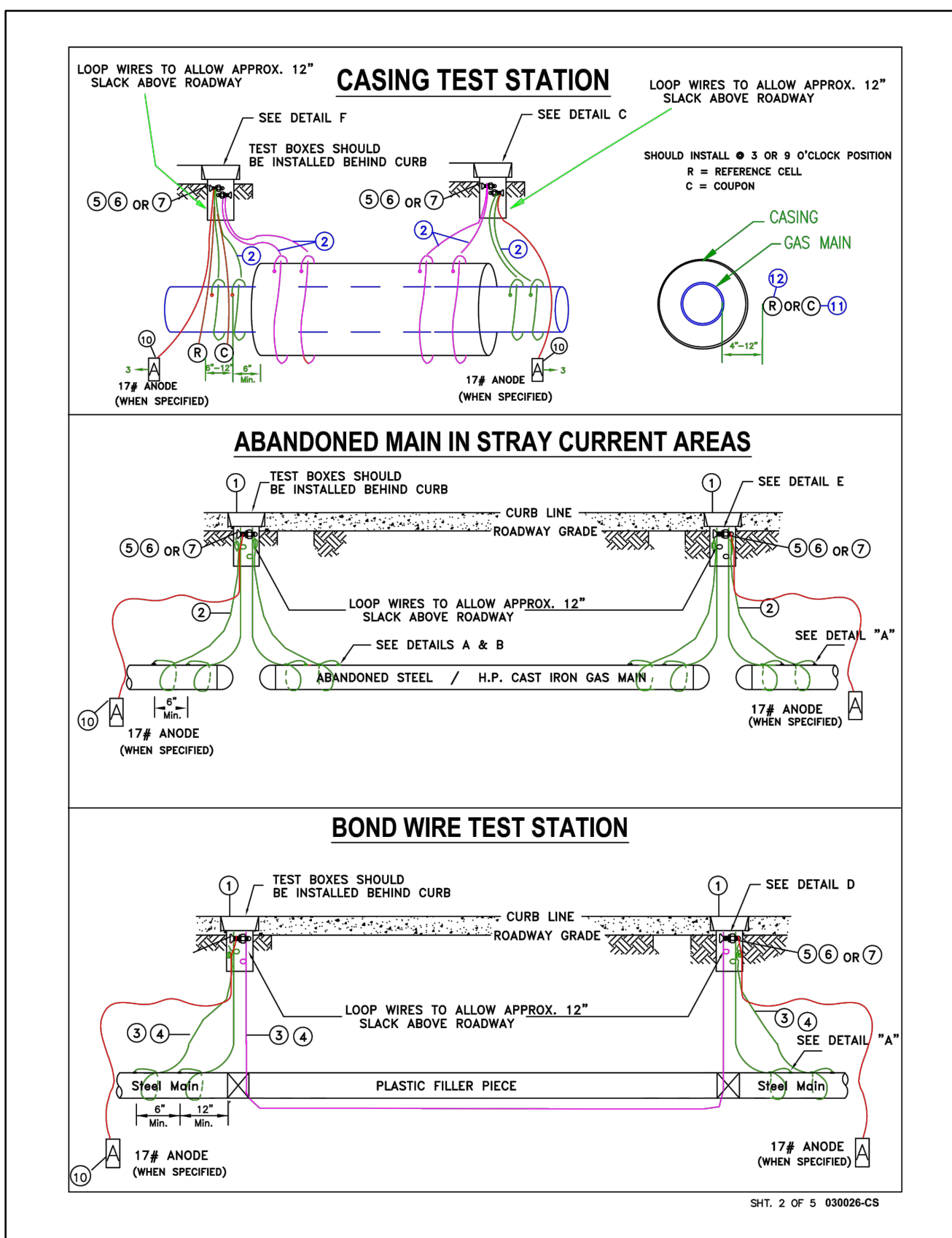
**MISCELLANEOUS DETAIL 2 OF 3**

| DWG SIZE | DESIGNER    | ENGINEER   | DATE:      | ASSET I.D.   | W.O. NO.: |
|----------|-------------|------------|------------|--------------|-----------|
| 22"X34"  | L. AFFRONTI | A. CAVALLO | 01/04/2022 | DISTRIBUTION | 1430328   |

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| DRAWING NO.    | SHEET NO. |
|----------------|-----------|
| WAT-1430328-08 | C-202     |





**DIRECT BURIED ANODE INSTALLATION**

TEST STATION  
IF REQUIRED

SIDEWALK

GRASS

LOOK WIRE TO ALLOW 12" APPROX. SLACK ABOVE GROUND

FOR ISOLATED SERVICES, INSTALL A 1/2" ANODE TO SPAN THE MAIN AND SERVICE, 3" FROM THE SERVICE INSULATOR.

6" (MINIMUM)

STEEL GAS MAIN

SERVICE VES.

1

WELD ALL WIRE SPLICES PER COMPANY PRACTICE

DO NOT REMOVE ANODE FROM SITE (TYPICAL)

SEE DETAIL A

ALTERNATE ANODE LOCATION (IN GRASS AREA)

12" (MINIMUM)

2

APPROX. 48" SPACING FOR MAINTENANCE APPROX. 96" SPACING FOR NEW CONSTRUCTION

INTERFERED ANODE (CORROSION)

**DETAIL "A"**

WIRE LEAD (SEE DETAIL "A")  
WRAP WIRE AROUND MAIN & TIE

NO. 12 SOLID ANODE WIRE

12" MIN.

12" MIN.

ANODE

2

NOTE: INSTALL ANODE 3 FT. MIN. FROM ANY ISOLATED FITTING

PIPE LEAD - NO. 8 WIRE (ITEM 2) OR ANODE LEAD - NO. 12 WIRE (TO DIRECT BURIED ANODE)

THERMOWELD

PIPE COATING

STEEL PIPE

**INSTALLATION OF MAGNESIUM ANODES**

DATE: 07/15/2010 EFFECTIVE DATE: 06/08/2020

DESIGN: PG STD. DWG. NO. 030024-CS

APPROVAL: PS

REVISIONS: UPDATED NEW SP ITEM ID'S

nationalgrid

ALL REGIONS

SHEET 1 OF 2

Page 149 of 370





CITY OF  
WATERTOWN  
*Office of the City Manager*

Administration Building  
149 Main Street  
Watertown, MA 02472

Thomas J. Tracy  
Acting City Manager

To: Honorable City Council  
From: Steven Magoon, Acting City Manager  
Date: July 7, 2022  
RE: Agenda Item – Proposed Loan Order

---

Enclosed please find correspondence from Gregory M. St. Louis, Superintendent of Public Works. As stated in Mr. St. Louis's correspondence, "the City's Capital Improvement Program (CIP) for the Water and Sewer Enterprise Funds identifies \$750,000 in FY23 funding for Sewer System Improvements - Line 7 of the FY23-27 CIP (SEB). This funding will be utilized for the design, engineering and construction of various Inflow and Infiltration (I&I) projects in line with the City's sanitary sewer capital plan."

As indicated in Superintendent St. Louis' correspondence, this funding is to supplement MWRA, and Operational Funds being utilized to maintain the City's sanitary sewer infrastructure.

Therefore, given the above, I respectfully request the attached Proposed \$750,000 Loan Order be placed on the July 12, 2022, City Council Agenda as a First Reading.

Thank you for your consideration in this matter.

cc: Gregory M. St. Louis, Superintendent of Public Works  
Matthew Shuman, City Engineer  
Tyler R Glode, Project Engineer  
Sharon Gallagher, Assistant City Auditor  
Melissa A. Morrissey, City Treasurer/Collector





28 State Street  
Boston, MA 02109-1775  
p: 617-345-9000 f: 617-345-9020  
hinckleyallen.com

Jay Gonzalez  
(617) 378-4256  
jgonzalez@hinckleyallen.com

June 30, 2022

Thomas J. Tracy  
Acting City Manager  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

RE: Draft Loan Order – Sewer System Improvement Bonds

Dear Tom:

As requested, I suggest the following form of loan order to approve the borrowing of funds to pay costs of sewer system improvements:

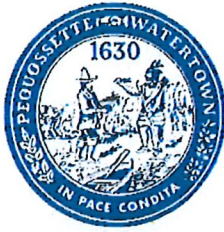
ORDERED: That the sum of \$750,000 is appropriated to pay costs of designing, engineering and constructing sewer system improvements, including all costs incidental and related thereto; that to meet this appropriation, the Treasurer, with the approval of the City Manager, is authorized to borrow said amount under and pursuant to M.G.L. c.44, §7(1) or §8(14), or pursuant to any other enabling authority, and to issue bonds or notes of the City therefor.

The order must be published in a local newspaper and on the City's website at least five days prior to the holding of a public hearing with respect to the order and its final passage and requires the affirmative vote of at least two-thirds of all members of the City Council, as in the case of any other loan order for bonds.

Please call me if there are any questions about the suggested proceedings.

Sincerely,

Jay Gonzalez



**CITY OF WATERTOWN**  
DEPARTMENT OF PUBLIC WORKS  
124 ORCHARD STREET  
WATERTOWN MA 02472

Gregory M. St. Louis, PE  
Superintendent of Public Works

(P) 617-972-6420  
(F) 617-972-6402

TO: Thomas J. Tracy – Acting City Manager  
FROM: Gregory St. Louis, PE – Superintendent of Public Works  
SUBJECT: Loan Order Request – Sewer System Improvements  
DATES: June 16, 2022

---

The City's Capital Improvement Program (CIP) for the Water and Sewer Enterprise Funds identifies \$750,000 in FY23 funding for Sewer System Improvements – Line 7 of the FY23-27 CIP (SEB). This funding will be utilized for the design, engineering and construction of various Inflow and Infiltration (I&I) projects in line with the City's sanitary sewer capital plan.

I&I consists of outside groundwater and stormwater that enters the sanitary sewer system through aging and damaged infrastructure including pipes and manholes. This flow reduces the capacity of sanitary sewers to carry sewer flows and drives up the annual sewer use charges paid by the City to the Massachusetts Water Resource Authority (MWRA). Additional information about the City's program is available at the DPW website: [www.watertowndpw.org/159/Inflow-Infiltration](http://www.watertowndpw.org/159/Inflow-Infiltration).

This funding is to supplement MWRA and Operational Funds being utilized to maintain the City's sanitary sewer infrastructure.

The Department of Public Works respectfully requests that you take the actions necessary to obtain authorization from the Honorable City Council for the \$750,000 loan order as outlined in the City's CIP Plan for Sewer System Improvements.

The objective of the proposed project is to engineer/design and construct rehabilitations identified during the sanitary sewer evaluation surveys completed in various areas of the City. This work is anticipated to have the following benefits:

- Eliminate infiltration to the sanitary sewer system;
- Eliminate inflow to the sanitary sewer system; and,
- Eliminate cross connection between the sanitary sewer and stormwater systems

We thank you in advance for your consideration.



FY 2023 - FY 2027 CIP WATER/SEWER FUNDS

| A  | B                                     | C        | D       | E     | F       | G     | H       | I     | J       | K     | L        | M     |
|----|---------------------------------------|----------|---------|-------|---------|-------|---------|-------|---------|-------|----------|-------|
|    |                                       | TOTALS   | FY23    |       | FY 24   |       | FY 25   |       | FY 26   |       | FY 27    |       |
| 1  |                                       |          |         |       |         |       |         |       |         |       |          |       |
| 2  | WATER/SEWER ENTERPRISE FUNDS          |          |         |       |         |       |         |       |         |       |          |       |
| 3  | SEWER                                 |          |         |       |         |       |         |       |         |       |          |       |
| 4  | Sewer/Drain System Rehabilitation     | 4,000.0  | 800.0   | SR    | 800.0   | SR    | 800.0   | SR    | 800.0   | SR    | 800.0    | SR    |
| 5  | Stormwater & Drainage Improvements    | 1,500.0  | 300.0   | SR    | 300.0   | SR    | 300.0   | SR    | 300.0   | SR    | 300.0    | SR    |
| 6  | 10 MWRA I & I                         | 5,250.0  | 1,050.0 | MWRAB | 1,050.0 | MWRAB | 1,050.0 | MWRAB | 1,050.0 | MWRAB | 1,050.0  | MWRAB |
| 7  | 10 Sewer System Improvements          | 3,750.0  | 750.0   | SEB   | 750.0   | SEB   | 750.0   | SEB   | 750.0   | SEB   | 750.0    | SEB   |
| 8  | 10 35 GWW Service Truck               | 170.0    |         |       |         |       | 170.0   | SEB   |         |       |          |       |
| 9  | 10 Street Sweeper                     | 0.0      |         |       |         |       |         |       |         |       |          |       |
| 10 | 10 Sewer Vac                          | 430.0    |         |       | 430.0   | SEB   |         |       |         |       |          |       |
| 11 | 10 Swap Dump Truck                    | 190.0    |         |       | 190.0   | SEB   |         |       |         |       |          |       |
| 12 | 10 Mini - Excavator                   | 130.0    |         |       |         |       |         |       | 130.0   | SEB   |          |       |
| 13 | SEWER SUBTOTAL                        | 15,420.0 | 2,900.0 |       | 3,520.0 |       | 3,070.0 |       | 3,030.0 |       | 2,900.0  |       |
| 14 |                                       |          |         |       |         |       |         |       |         |       |          |       |
| 15 | WATER                                 |          |         |       |         |       |         |       |         |       |          |       |
| 16 | Water system improvements             | 1,000.0  | 200.0   | WR    | 200.0   | WR    | 200.0   | WR    | 200.0   | WR    | 200.0    | WR    |
| 17 | 10 MWRA LWSAP                         | 2,500.0  | 500.0   | MWRAB | 500.0   | MWRAB | 500.0   | MWRAB | 500.0   | MWRAB | 500.0    | MWRAB |
| 18 | 10 MWRA LLP                           | 1,500.0  | 300.0   | MWRAL | 300.0   | MWRAL | 300.0   | MWRAL | 300.0   | MWRAL | 300.0    | MWRAL |
| 19 | 10 Trench Safety Box Truck            | 160.0    |         |       |         |       |         |       | 160.0   | WEB   |          |       |
| 20 | 5 Utility Truck                       | 60.0     | 60.0    | WEB   |         |       |         |       |         |       |          |       |
| 21 | 10 Gate Valve/Mini Vac Truck          | 140.0    |         |       | 140.0   | WEB   |         |       |         |       |          |       |
| 22 | 10 Service Response Truck             | 170.0    |         |       |         |       |         |       | 170.0   | WEB   |          |       |
| 23 | 10 Water Vactor                       | 450.0    |         |       |         |       |         |       |         |       |          |       |
| 24 | WATER SUBTOTAL                        | 5,980.0  | 1,060.0 |       | 1,140.0 |       | 1,000.0 |       | 1,330.0 |       | 1,450.0  |       |
| 25 |                                       |          |         |       |         |       |         |       |         |       |          |       |
| 26 | TOTAL WATER & SEWER                   | 21,400.0 | 3,960.0 |       | 4,660.0 |       | 4,070.0 |       | 4,360.0 |       | 4,350.0  |       |
| 27 |                                       |          |         |       |         |       |         |       |         |       |          |       |
| 28 | STORMWATER                            |          |         |       |         |       |         |       |         |       |          |       |
| 29 | Phase 2 MS4 Permit Management Plan    | 250.0    | 50.0    | TBD   | 50.0    | TBD   | 50.0    | TBD   | 50.0    | TBD   | 50.0     | TBD   |
| 30 | Phase 2 MS4 Construction/Improvements | 35,400.0 | 100.0   | TBD   | 100.0   | TBD   | 100.0   | TBD   | 100.0   | TBD   | 35,000.0 | TBD   |
| 31 | Phase 2 MS4 Phosphorous Control Plan  | 500.0    | 100.0   | TBD   | 100.0   | TBD   | 100.0   | TBD   | 100.0   | TBD   | 100.0    | TBD   |
| 32 | STORMWATER SUBTOTAL                   | 36,150.0 | 250.0   |       | 250.0   |       | 250.0   |       | 250.0   |       | 35,150.0 |       |
| 33 |                                       |          |         |       |         |       |         |       |         |       |          |       |
| 34 | TOT. WATER, SEWER & STORMWATER        | 57,550.0 | 4,210.0 |       | 4,910.0 |       | 4,320.0 |       | 4,610.0 |       | 39,500.0 |       |
| 35 |                                       |          |         |       |         |       |         |       |         |       |          |       |
| 36 | COSTS BY SOURCE OF FUNDS              |          |         |       |         |       |         |       |         |       |          |       |
| 37 | SEWER REVENUE                         | 5,500.0  | 1,100.0 |       | 1,100.0 |       | 1,100.0 |       | 1,100.0 |       | 1,100.0  |       |
| 38 | SEWER EQUIPMENT BONDS                 | 4,670.0  | 750.0   |       | 1,370.0 |       | 920.0   |       | 880.0   |       | 750.0    |       |
| 39 | TO BE DETERMINED                      | 36,150.0 | 250.0   |       | 250.0   |       | 250.0   |       | 250.0   |       | 35,150.0 |       |
| 40 | MWRAB MWRA Bond - Interest Free       | 7,750.0  | 1,550.0 |       | 1,550.0 |       | 1,550.0 |       | 1,550.0 |       | 1,550.0  |       |
| 41 | MWRAL                                 | 1,500.0  | 300.0   |       | 300.0   |       | 300.0   |       | 300.0   |       | 300.0    |       |
| 42 | WATER REVENUE                         | 1,000.0  | 200.0   |       | 200.0   |       | 200.0   |       | 200.0   |       | 200.0    |       |
| 43 | WATER EQUIPMENT BONDS                 | 980.0    | 60.0    |       | 140.0   |       | 0.0     |       | 330.0   |       | 450.0    |       |
| 44 | GRAND TOTAL - ENTERPRISE FUNDS        | 57,550.0 | 4,210.0 |       | 4,910.0 |       | 4,320.0 |       | 4,610.0 |       | 39,500.0 |       |





Thomas J. Tracy  
Acting City Manager

CITY OF  
WATERTOWN  
*Office of the City Manager*

Administration Building  
149 Main Street  
Watertown, MA 02472

To: Honorable City Council  
From: Steven Magoon, Acting City Manager   
Date: July 7, 2022  
RE: Agenda Item – Proposed Loan Order

---

Enclosed please find correspondence from Gregory M. St. Louis, Superintendent of Public Works. As stated in Mr. St. Louis's correspondence, the City's FY23 Annual Budget identifies \$500,000 in FY21 funding under conceptual recommendation #26 as well as an additional \$500,000 in FY23 funding on line 17 of the FY23-27 Capital Improvement Program (CIP) for the Water and Sewer Enterprise Fund totaling \$1,000,000 for the replacement of outdated unlined cast iron water mains.

As indicated in Superintendent St. Louis' correspondence, the Department is in the process of completing an application for participation in the Massachusetts Water Resources Authority's (MWRA) Local Water System Assistance Program (LWSAP) that provides a 0% interest free loan payable over 10 years.

Given all the above, I recommend pursuing the \$1,000,000 from the MWRA's LWSAP. As stated in the Fiscal Years 2022 and 2023 Budget Messages, all the work to the water, sewer and drain systems directly impacts the Water and Sewer Rates. Interest free loans and outright grants will enable the city to perform necessary work with little or minimal impact on the rate payers.

Therefore, I respectfully request the attached Proposed \$1,000,000 Loan Order be placed on the July 12, 2022, City Council Agenda as a First Reading.

Thank you for your consideration in this matter.

cc: Gregory M. St. Louis, Superintendent of Public Works  
Matthew Shuman, City Engineer  
Tyler R Glode, Project Engineer  
Sharon Gallagher, Assistant City Auditor  
Melissa A. Morrissey, City Treasurer/Collector





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hinckleyallen.com

Jay Gonzalez  
(617) 378-4256  
jgonzalez@hinckleyallen.com

June 30, 2022

Thomas J. Tracy  
Acting City Manager  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

RE: Draft Loan Order – MWRA Water System Improvement Bonds

Dear Tom:

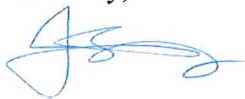
As requested, I suggest the following form of loan order to approve the borrowing of funds from the Massachusetts Water Resources Authority to pay costs of a water main replacement project:

ORDERED: That the sum of \$1,000,000 is appropriated to pay costs of replacing a water main located throughout Mt. Auburn Street, including all costs incidental and related thereto; that to meet this appropriation, the Treasurer, with the approval of the City Manager, is authorized to borrow said amount under and pursuant to M.G.L. c.44, §8(5), or pursuant to any other enabling authority, and to issue bonds or notes of the City therefor; that the Treasurer, with the approval of the City Manager, is authorized to borrow all or a portion of such amount from the Massachusetts Water Resources Authority (the “Authority”) pursuant to the Authority’s local water service assistance program and in connection therewith to enter into a loan agreement and/or financial assistance agreement with the Authority and otherwise to contract with the Authority with respect to such loan and for any grants or aid available for the project or for the financing thereof; and that the City Manager is authorized to accept and expend any grants or aid available for the project or for the financing thereof, provided that the amount of the authorized borrowing for the project shall be reduced by the amount of any such grants or aid received.

The order must be published in a local newspaper and on the City’s website at least five days prior to the holding of a public hearing with respect to the order and its final passage and requires the affirmative vote of at least two-thirds of all members of the City Council, as in the case of any other loan order for bonds.

Please call me if there are any questions about the suggested proceedings.

Sincerely,

A handwritten signature in blue ink, appearing to be 'Jay Gonzalez', with a stylized, cursive script.

Jay Gonzalez



**CITY OF WATERTOWN**  
DEPARTMENT OF PUBLIC WORKS  
124 ORCHARD STREET  
WATERTOWN MA 02472

Gregory M. St. Louis, PE  
Superintendent of Public Works

(P) 617-972-6420  
(F) 617-972-6402

TO: Thomas J. Tracy – Acting City Manager

FROM: Gregory St. Louis, PE – Superintendent of Public Works

SUBJECT: MWRA Local Water System Assistance Program

DATES: June 16, 2022

---

The City's FY23 Annual Budget identifies \$500,000 in FY21 funding under Conceptual Recommendation #26 as well as an additional \$500,000 in FY23 funding as noted on Line 17 of the FY23-FY27 CIP Water/Sewer Funds for a total of \$1,000,000 in funding for the replacement of outdated unlined cast iron water mains.

The Department of Public Works is in the process of completing an application for participation in the Massachusetts Water Resources Authority (MWRA) Local Water System Assistance Program. This MWRA funding program provides a 0% interest free loan payable over 10 years for eligible water system improvements including:

- Replacement or abandonment of unlined water mains;
- Slip-lining of unlined water mains;
- Water main cleaning and lining of unlined water mains;
- Replacement or abandonment of asbestos cement pipe or other water pipeline work performed for water quality purposes;
- Identification and replacement of water service connections constructed of lead or other services in poor condition;
- Looping of dead-end water mains;
- Water valve and hydrant installation or replacement;
- Water storage tank installation, rehabilitation or replacement; and,
- Engineering planning, design and construction services associated with the above items.

The Department requests that a \$1,000,000 loan order be prepared to complete water system improvements to the City's water infrastructure, in accordance with Conceptual Recommendation #26 of the FY23 Annual Budget and the FY23-FY27 Capital Improvement Plan approved by the Honorable City Council.

The proposed project will include the replacement of approximately 1,000 linear feet of 8-inch to 10-inch unlined pipe located throughout Mt. Auburn Street. This project will include identification and replacement of water service connections constructed of lead service material within the limit of work.

If approved for funding, we intend to bid and construct this project this calendar year.

Thank you for your consideration.

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FY 2023 - FY 2027 CIP WATER/SEWER FUNDS

| A  | B                                     | C        | D             | E | F             | G | H             | I | J             | K | L             | M |
|----|---------------------------------------|----------|---------------|---|---------------|---|---------------|---|---------------|---|---------------|---|
| 1  |                                       | TOTALS   | FY23          |   | FY 24         |   | FY 25         |   | FY 26         |   | FY 27         |   |
| 2  | WATER/SEWER ENTERPRISE FUNDS          |          |               |   |               |   |               |   |               |   |               |   |
| 3  | SEWER                                 |          |               |   |               |   |               |   |               |   |               |   |
| 4  | Sewer/Drain System Rehabilitation     | 4,000.0  | 800.0 SR      |   | 800.0 SR      |   | 800.0 SR      |   | 800.0 SR      |   | 800.0 SR      |   |
| 5  | Stormwater & Drainage Improvements    | 1,500.0  | 300.0 SR      |   | 300.0 SR      |   | 300.0 SR      |   | 300.0 SR      |   | 300.0 SR      |   |
| 6  | 10 MMWRA I & I                        | 5,250.0  | 1050.0 MMWRAB |   | 1050.0 MMWRAB |   | 1050.0 MMWRAB |   | 1050.0 MMWRAB |   | 1050.0 MMWRAB |   |
| 7  | 10 Sewer System Improvements          | 3,750.0  | 750.0 SEB     |   | 750.0 SEB     |   | 750.0 SEB     |   | 750.0 SEB     |   | 750.0 SEB     |   |
| 8  | 10 35 GVV Service Truck               | 170.0    |               |   |               |   | 170.0 SEB     |   |               |   |               |   |
| 9  | 10 Street Sweeper                     | 0.0      |               |   |               |   |               |   |               |   |               |   |
| 10 | 10 Sewer Vac                          | 430.0    |               |   | 430.0 SEB     |   |               |   |               |   |               |   |
| 11 | 10 Swap Dump Truck                    | 190.0    |               |   | 190.0 SEB     |   |               |   |               |   |               |   |
| 12 | 10 Mini - Excavator                   | 130.0    |               |   |               |   |               |   | 130.0 SEB     |   |               |   |
| 13 | SEWER SUBTOTAL                        | 15,420.0 | 2,900.0       |   | 3,520.0       |   | 3,070.0       |   | 3,030.0       |   | 2,900.0       |   |
| 14 |                                       |          |               |   |               |   |               |   |               |   |               |   |
| 15 | WATER                                 |          |               |   |               |   |               |   |               |   |               |   |
| 16 | Water system Improvements             | 1,000.0  | 200.0 WR      |   | 200.0 WR      |   | 200.0 WR      |   | 200.0 WR      |   | 200.0 WR      |   |
| 17 | 10 MMWRA LWSAP                        | 2,500.0  | 500.0 MMWRAB  |   | 500.0 MMWRAB  |   | 500.0 MMWRAB  |   | 500.0 MMWRAB  |   | 500.0 MMWRAB  |   |
| 18 | 10 MMWRA LLP                          | 1,500.0  | 300.0 MMWRAL  |   | 300.0 MMWRAL  |   | 300.0 MMWRAL  |   | 300.0 MMWRAL  |   | 300.0 MMWRAL  |   |
| 19 | 10 Trench Safety Box Truck            | 160.0    |               |   |               |   |               |   | 160.0 WEB     |   |               |   |
| 20 | 5 Utility Truck                       | 60.0     | 60.0 WEB      |   |               |   |               |   |               |   |               |   |
| 21 | 10 Gate Valve/Mini Vac Truck          | 140.0    |               |   | 140.0 WEB     |   |               |   |               |   |               |   |
| 22 | 10 Service Response Truck             | 170.0    |               |   |               |   |               |   | 170.0 WEB     |   |               |   |
| 23 | 10 Water Vactor                       | 450.0    |               |   |               |   |               |   |               |   | 450.0 WEB     |   |
| 24 | WATER SUBTOTAL                        | 5,980.0  | 1,060.0       |   | 1,140.0       |   | 1,000.0       |   | 1,330.0       |   | 1,450.0       |   |
| 25 |                                       |          |               |   |               |   |               |   |               |   |               |   |
| 26 | TOTAL WATER & SEWER                   | 21,400.0 | 3,960.0       |   | 4,660.0       |   | 4,070.0       |   | 4,360.0       |   | 4,350.0       |   |
| 27 |                                       |          |               |   |               |   |               |   |               |   |               |   |
| 28 | STORMWATER                            |          |               |   |               |   |               |   |               |   |               |   |
| 29 | Phase 2 MS4 Permit Management Plan    | 250.0    | 50.0 TBD      |   | 50.0 TBD      |   | 50.0 TBD      |   | 50.0 TBD      |   | 50.0 TBD      |   |
| 30 | Phase 2 MS4 Construction/Improvements | 35,400.0 | 100.0 TBD     |   | 100.0 TBD     |   | 100.0 TBD     |   | 100.0 TBD     |   | 35,000.0 TBD  |   |
| 31 | Phase 2 MS4 Phosphorous Control Plan  | 500.0    | 100.0 TBD     |   | 100.0 TBD     |   | 100.0 TBD     |   | 100.0 TBD     |   | 100.0 TBD     |   |
| 32 | STORMWATER SUBTOTAL                   | 36,150.0 | 250.0         |   | 250.0         |   | 250.0         |   | 250.0         |   | 35,150.0      |   |
| 33 |                                       |          |               |   |               |   |               |   |               |   |               |   |
| 34 | TOT. WATER, SEWER & STORMWATER        | 57,550.0 | 4,210.0       |   | 4,910.0       |   | 4,320.0       |   | 4,610.0       |   | 39,500.0      |   |
| 35 |                                       |          |               |   |               |   |               |   |               |   |               |   |
| 36 | COSTS BY SOURCE OF FUNDS              |          |               |   |               |   |               |   |               |   |               |   |
| 37 | SEWER REVENUE                         | 5,500.0  | 1,100.0       |   | 1,100.0       |   | 1,100.0       |   | 1,100.0       |   | 1,100.0       |   |
| 38 | SEWER EQUIPMENT BONDS                 | 4,670.0  | 750.0         |   | 1,370.0       |   | 920.0         |   | 880.0         |   | 750.0         |   |
| 39 | TBD TO BE DETERMINED                  | 36,150.0 | 250.0         |   | 250.0         |   | 250.0         |   | 250.0         |   | 35,150.0      |   |
| 40 | MMWRAB MMWRA Bond - Interest Free     | 7,750.0  | 1,550.0       |   | 1,550.0       |   | 1,550.0       |   | 1,550.0       |   | 1,550.0       |   |
| 41 | MMWRAL MMWRA LLP                      | 1,500.0  | 300.0         |   | 300.0         |   | 300.0         |   | 300.0         |   | 300.0         |   |
| 42 | WR WATER REVENUE                      | 1,000.0  | 200.0         |   | 200.0         |   | 200.0         |   | 200.0         |   | 200.0         |   |
| 43 | WEB WATER EQUIPMENT BONDS             | 980.0    | 60.0          |   | 140.0         |   | 0.0           |   | 330.0         |   | 450.0         |   |
| 44 | GRAND TOTAL - ENTERPRISE FUNDS        | 57,550.0 | 4,210.0       |   | 4,910.0       |   | 4,320.0       |   | 4,610.0       |   | 39,500.0      |   |



26. Proceed with the FY21 MWRRA Sewer Inflow & Infiltration Local Financial Assistance Program for \$1,050,000 consisting of a \$787,500 grant and a \$262,500 interest-free loan order; plus proceed with the FY21 MWRRA Local Water System Assistance Program \$500,000 interest-free loan order to replace outdated unlined cast iron water mains.
27. Proceed with the FY22 MWRRA Sewer Inflow & Infiltration Local Financial Assistance Program for \$1,050,000 consisting of a \$787,500 grant and a \$262,500 interest-free loan order; plus proceed with the FY22 MWRRA Local Water System Assistance Program \$500,000 interest-free loan order to replace outdated unlined cast iron water mains; plus proceed with the FY22 MWRRA Local Water System Assistance Program \$300,000 interest-free loan order to replace lead service lines.
28. Re-confirm the prior recommendation to proceed with the FY19 proposed Sewer Enterprise Fund loan order for \$270,000 for a Heavy-duty Crane and the prior recommendation to proceed with the FY19 proposed Water Enterprise Fund loan order for \$60,000 for a Utility Truck.
29. Regarding the former Police Station: as noted in #23 above, the School Administration offices will remain at the current location, therefore as noted in the Economic Development & Planning Committee Report from the March 14, 2017 City Council meeting, re-refer to the Economic Development & Planning Committee, for policy guidance, plans for the FY23 \$1,000,000 proposed loan order (FY23 CIP Line 4) for designing a new building at the site of former Police Station.
30. Regarding the Victory Field Artificial Turf Replacement: in consideration of Moxley Field being unavailable for use due to the temporary High School from October 2023 until Spring 2027, and with O'Connell Field unavailable due to Hosmer School construction until Spring 2023, and the needed renovations of Victory Field track, field and courts, the plan for the FY23 \$1,500,000 proposed loan order (FY23 CIP Line 147) to take the multi-use field out of service for turf replacement will present scheduling problems. Recommend the Administration develop a city-wide plan on field usage and availability with construction phasing, and consider an assessment of the artificial turf with consideration given to repairs to worn areas to extend its life.
31. Regarding the Special Needs baseball/softball diamond shown as a FY24 \$600,000 proposed loan order (FY23 CIP Line 150), refer to Parks and Recreation Committee for policy guidance on where this could be located and what the facility would entail, and subject to the condition that the Recreation Department shall hold community meetings to develop a design proposal and have one or more informational presentations to the City Council.
32. Regarding Electric Vehicle charging stations shown as FY24 \$90,000 and FY25 \$90,000 proposed loan orders (FY23 CIP Line 14), these were originally shown as FY23 and FY24 proposed loan orders in the (FY22 CIP (Line 15), and recommend moving them back to FY23 and FY24.



Thomas J. Tracy  
Acting City Manager

CITY OF  
WATERTOWN  
*Office of the City Manager*

Administration Building  
149 Main Street  
Watertown, MA 02472

To: Honorable City Council

From: Steven Magoon, Acting City Manager 

Date: July 7, 2022

RE: Agenda Item – Proposed Loan Order

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Enclosed please find correspondence from Gregory M. St. Louis, Superintendent of Public Works. As stated in Mr. St. Louis's correspondence, "the City's Capital Improvement Program (CIP) for the Water and Sewer Enterprise Funds identifies \$300,000 in funding for FY23 for replacement of lead goosenecks projects. This funding is to be applied for under the Massachusetts Water Resources Authority (MWRA) Local Water Systems Assistance Program for Lead Service Line Replacement."

As indicated in Superintendent St. Louis' correspondence, replacement of lead goosenecks is an eligible item under MWRA Lead Service Line Replacement Loan Program, which consists of a zero-interest loans payable over 10 years.

Given all the above, I recommend pursuing the \$300,000 from the MWRA's Local Water System Assistance Program for Lead Service Line Replacement. As stated in the FY22 and FY23 Budget Messages, all the work to the water, sewer and drain systems directly impacts the Water and Sewer Rates. Interest free loans and outright grants will enable the city to perform necessary work with little or minimal impact on the rate payers.

Therefore, I respectfully request the attached Proposed \$300,000 Loan Order be placed on the July 12, 2022, City Council Agenda as a First Reading.

Thank you for your consideration in this matter.

cc: Gregory M. St. Louis, Superintendent of Public Works  
Matthew Shuman, City Engineer  
Tyler R Glode, Project Engineer  
Sharon Gallagher, Assistant City Auditor  
Melissa A. Morrissey, City Treasurer/Collector





28 State Street  
Boston, MA 02109-1775  
p: 617-345-9000 f: 617-345-9020  
hinckleyallen.com

Jay Gonzalez  
(617) 378-4256  
jgonzalez@hinckleyallen.com

June 30, 2022

Thomas J. Tracy  
Acting City Manager  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

RE: Draft Loan Order – MWRA Lead Line Replacement Bonds

Dear Tom:

As requested, I suggest the following form of loan order to approve the borrowing of funds from the Massachusetts Water Resources Authority to pay costs of replacing lead pipes that connect service lines to water mains:

ORDERED: That the sum of \$300,000 is appropriated to pay costs of replacing lead pipes that connect service lines to water mains, including all costs incidental and related thereto; that to meet this appropriation, the Treasurer, with the approval of the City Manager, is authorized to borrow said amount under and pursuant to M.G.L. c.44, §7(1), or pursuant to any other enabling authority, and to issue bonds or notes of the City therefor; that the Treasurer, with the approval of the City Manager, is authorized to borrow all or a portion of such amount from the Massachusetts Water Resources Authority (the “Authority”) pursuant to the Authority’s lead service line replacement program and in connection therewith to enter into a loan agreement and/or financial assistance agreement with the Authority and otherwise to contract with the Authority with respect to such loan and for any grants or aid available for the project or for the financing thereof; and that the City Manager is authorized to accept and expend any grants or aid available for the project or for the financing thereof, provided that the amount of the authorized borrowing for the project shall be reduced by the amount of any such grants or aid received.

The order must be published in a local newspaper and on the City’s website at least five days prior to the holding of a public hearing with respect to the order and its final passage and requires the affirmative vote of at least two-thirds of all members of the City Council, as in the case of any other loan order for bonds.

Please call me if there are any questions about the suggested proceedings.

Sincerely,

A handwritten signature in blue ink, appearing to be 'Jay Gonzalez', with a stylized, cursive script.

Jay Gonzalez





**CITY OF WATERTOWN**  
DEPARTMENT OF PUBLIC WORKS  
124 ORCHARD STREET  
WATERTOWN MA 02472

Gregory M. St. Louis, PE  
Superintendent of Public Works

(P) 617-972-6420  
(F) 617-972-6402

TO: Thomas J. Tracy – Acting City Manager  
FROM: Gregory St. Louis, PE – Superintendent of Public Works  
SUBJECT: MWRA Lead Service Line Replacement Loan Program  
DATES: June 15, 2022

---

The City's Capital Improvement Program for the water and sewer enterprise funds identifies \$300,000 in funding for FY23 for replacement of lead goosenecks projects. This funding is to be applied for under the Massachusetts Water Resources Authority (MWRA) Local Water System Assistance Program for Lead Service Line Replacement: [www.mwra.com/comsupport/llp/llpprogram.html](http://www.mwra.com/comsupport/llp/llpprogram.html).

There are approximately 9,250 water services on record in the City. Review of City records indicate that there are no water services comprised completely of lead pipe. However, prior to standardizing on copper pipe, water services were often laid using iron pipe. To create a connection to the water main, short, angled pieces of lead pipe, typically about 2-feet in length, were used. We refer to these as "goosenecks."

Of the 9,250 water services, approximately 500 services are presumed to have lead goosenecks based on age and pipe material. Each year, the City removes lead goosenecks as part of the annual road reconstruction projects, water system improvements, and incidental repairs due to service leaks. Additionally, projects are required to remove lead services associated with new and significant redevelopment.



Photo of lead gooseneck connected to iron pipe  
(Source: Wikipedia)

Replacement of lead goosenecks is an eligible item under the Lead Service Line Replacement Program. Taking advantage of the MWRA program, which consists of a zero-interest loan payable over 10 years, would allow the City to accelerate lead gooseneck removals.

Therefore, the Department of Public Works requests that a \$300,000 loan order be prepared to complete lead gooseneck replacements, in accordance with the FY23 Capital Improvement Plans approved by the Honorable City Council.

The proposed project will include the replacement of approximately 90 lead goosenecks, including the replacement of the gooseneck, replacement of the

service from the water main/connection to the service box and surface restoration. The exact number of replacements will depend on the bid prices received.

The work will be performed in various locations throughout the City.

If approved for funding, we intend to bid and construct this project this calendar year.

Thank you for your consideration.





receives MWRA water on an emergency-only basis; Lynn, which receives MWRA water only for the GE plant; as well as Clinton, Leominster (emergency only), and Worcester (emergency only) that draw untreated (raw) water from the Wachusett Reservoir.

#### **I/I Program**

#### **List of MWRA member communities**

### **MWRA Lead in Tap Water Informational Brochures**



**Free Bill Insert Size brochure (Free download, PDF):** A colorful brochure emphasizing potential risks of lead in tap water, how customers can reduce lead exposure and the benefits of full lead service line replacements. (Dimensions 3.5" X 6.5").

To assist member communities and other stakeholders, MWRA is providing free Lead in Tap Water informational brochures (bill stuffer sized) for local distribution. For more information, please contact Stephen Estes-Smargiassi at **Stephen.Estes-Smargiassi@mwra.com** or Beverly Anderson at

**Beverly.Anderson@mwra.com**

### **Eligible Project Costs and Distribution/Repayment of Loan Funds**

The program provides 10-year zero-interest loans to communities to create local programs to fully remove lead service lines from the community water main all the way to the home or business.

The LLP Program Guidelines for Lead Service Line Replacement Loan Program Projects are available [here](#) (PDF). Details on eligible project costs are in Section 2.7 of the Program Guidelines and outlined below.

Applications for financial assistance are due to MWRA at least one month prior to the quarterly distribution date. Binding commitments to provide financial assistance for local water projects will be issued by MWRA in the form of a financial assistance and loan agreement subject to the availability of funds. The loan agreement will incorporate an opinion from the community's bond counsel stating that the loan is a valid general obligation of the municipality. Financial assistance will be distributed quarterly, on or about: **February 15, May 15, August 15, and November 15**. The financial assistance award will be transferred into a Massachusetts Municipal Depository Trust (MMDT) account established by the community. All Lead Loan Program financial assistance funds will be applied to the cost of approved community lead service line replacement project costs. All earned interest from the MMDT account, will be applied to the cost of approved community lead service line replacement project costs or other community water system rehabilitation projects. The interest-free loan will be repaid to MWRA over a ten-year period, beginning one year after the original quarterly funding distribution date.

Community projects to identify and replace water service lines so that all lead pipes are fully removed from both the public and private portions of the service line will be eligible



under the Lead Loan Program. As part of the application process, the community will be required to describe how they plan to address private lead service lines.

All project costs incurred on or after July 1, 2016 will be considered for eligibility in an application under the Lead Loan Program, as listed below:

- Identification of water service connections (or portions of service connections) constructed of lead including related records research, inventory/database development, house to house inspection, development of outreach/education materials, mapping of lead service lines, etc.
- Construction, rehabilitation, or other improvements to replace lead water service lines to fully remove all lead pipe. Costs for water pipeline rehabilitation incidental to the replacement of lead service lines are eligible. The replacement of lead gooseneck connections is eligible, either when encountered during water system rehabilitation/construction or if targeted through a specific rehabilitation project.
- Slip lining of lead water services will not be eligible.
- Community projects that provide a homeowner incentive for lead service line replacement through rebates for privately funded lead service line replacements or other similar incentive program will be eligible.
- Costs that are reasonable and necessary to repair private property areas directly impacted by eligible construction work so that the private property is as near as practical to existing conditions. Eligibility of work on private property may need to be reviewed on a project by project basis. Work to improve private property will not be eligible.
- Paving costs that are reasonable and necessary to repair the roadway and/or sidewalk areas directly impacted by eligible construction work will also be eligible and will be reviewed on a project by project basis. Eligibility of trench width pavement versus full width overlay pavement will be reviewed on a project by project basis. Cost for full depth roadway reconstruction will not be eligible.
- Police details associated with eligible project work are eligible.
- Planning and design services in connection with eligible lead service line replacement projects are eligible.
- Resident engineer inspection and construction administration services in connection with eligible lead service line replacement projects are eligible.
- Direct labor only (not including overhead or overtime costs) for force account work associated with planning, design, construction, or construction inspection of eligible lead service line replacement projects are eligible.

- Establishment of a Massachusetts Municipal Depository Trust (MMDT) or similar account used solely for the deposit, withdrawal, and tracking of financial assistance funds and Bond Counsel services, or other legal services, in connection with review of the Loan Agreement, Water Bond, and opinion of Bond Counsel are eligible.

### **MWRA Recommended Lead Service Line Replacement Program**

Under the Local Water System Assistance Program application process for both Lead Loan Program Projects and Water Projects, communities will need to acknowledge the MWRA recommended components for a **"Community Lead Service Line Replacement Program."** The MWRA recommended program incorporates at least the following:

1. Communities should clearly establish that it is their goal to fully remove all lead pipe from both publicly-owned and privately-owned water service line connections;
2. Communities should commit to a comprehensive lead service line inventory program to compile a listing of properties with full or partial lead service lines that will be made available to the public via web page or other similar public access vehicle (subject to disclaimer for accuracy based on best available information);
3. Communities should target proactive outreach to customers with lead service lines to provide educational information regarding the risks of lead exposure and information encouraging the customer to participate in the community lead service line replacement program so that the privately-owned portion is replaced concurrent with the publicly-owned portion;
4. Communities should maintain ongoing proactive outreach to customers with known privately-owned lead service lines;
5. Communities should include a unit cost bid item for public and private portion service line replacement in all water pipeline projects so that a mechanism exists for full removal of lead service lines; and,
6. As a secondary measure, communities' lead service line replacement programs should include replacement of lead gooseneck connections when encountered during infrastructure rehabilitation or construction.

### **Overview of MWRA-Funded Community Lead Service Line Programs**

#### **Community Projects That Have Been Funded**

During the first five years of the program (through March 2022), MWRA has distributed a total of \$29 million in Lead Service Line Replacement Loan Program funds to 13 communities:



- Quincy: \$1.5 million in FY17;
- Winchester: \$500,000 in FY17, \$500,000 in FY18, \$600,000 in FY20 and \$600,000 in FY21 (\$2.2 million total);
- Newton: \$4.0 million in FY17;
- Marlborough: \$1 million in FY18, \$1 million in FY19, \$1 million in FY20 and \$2 million in FY21 (\$5 million total);
- Revere: \$195,000 in FY18 and \$1.3 million in FY22 (\$1.5 million total);
- Winthrop: \$284,000 in FY18, \$487,850 in FY19, \$690,000 in FY20, \$750,000 in FY21, and \$750,000 in FY22 (\$2.96 million total);
- Needham: \$1.0 million in FY18;
- Everett: \$1 million in FY19, \$1 million and \$500,000 in FY20, \$1.5 million in FY21 (\$4 million total);
- Chelsea: \$100,000 in FY19, \$300,000 in FY20, \$300,000 in FY21, and \$300,000 in FY22 (\$1 million total);
- Somerville: \$900,000 in FY20, and \$1.6 million in FY22 (\$2.5 million total);
- Weston: \$160,000 in FY20;
- Watertown: \$600,000 in FY21; and
- BWSC: \$2.6 million in FY21.

#### **Sample Community Lead Service Line Replacement Projects**

- **Quincy** received a \$1.5 million loan in December 2016 to fund the construction portion of its program targeting the removal of 141 public/private lead services, with Quincy paying the full cost to replace both the public and private lead service lines. The City performed an extensive review of its Public Works records to develop a spreadsheet of addresses where lead services existed, were likely, or where the water service pipe material was unknown. A field crew inspected each suspect water service at the meter. Quincy initiated a public information campaign to inform property owners of the program, including: community meetings, website information, public information displays, letters targeted to suspect homes, translated information letters, and certified mail letters with participation agreements. Additional investigations during the project identified a total of 285 lead services, of which 163 were lead-lined steel services (see photo). The service line replacement construction began in April 2017 and was completed in September 2018. A total of 206 full or partial lead services were replaced with new copper services (104 lead services and 102 lead-lined services). The 206 replacements represent a 72% success rate of the total 285 identified lead services. For the 79 known private-side lead services that remain (18 lead services and 61 lead-lined steel services); non-participation by investment property owners

was the largest obstacle to a higher participation rate. Quincy's 206 lead services were replaced at an average construction cost of \$6,860 per lead service and a total of 7,180 feet of new copper water service pipe was installed at an average construction cost of \$197 per foot. Quincy received an *Outstanding Performance and Achievement Award* from MassDEP and recognition from Clean Water Action for the project's health benefits.



Sample photo of lead-lined steel water service line removed in Quincy



Quincy lead removal project

- **Newton** received a \$4.0 million loan in May 2017 to fund the planning, design, construction, and construction services for lead service line replacements. The project targeted all identified/suspect lead services with the City providing a customer incentive of a 10-year interest-free loan for all private-side lead service removal costs. Design was complete in spring 2017 and construction was complete in December 2019. All 433 full or



partial services were replaced at a construction cost of \$3.0 million. Based on construction test pits, no action was determined to be needed at 187 services included in the initial screening. Newton's project was completed at an average construction cost of \$6,930 per lead service and a total of 19,400 feet of new copper water service pipe was installed at an average construction cost of \$155 per foot. Newton spent an additional \$586,000 on engineering services to design and coordinate the lead removal program.



Long lead service line replacement in Newton

- **Winchester** received a \$500,000 loan in March 2017 and an additional \$500,000 in June 2018 to fund phases 1 and 2 of its lead service line removal program. The Town is paying the first \$1,200 of costs for replacing private-side lead services and property owners are billed for the remainder. At completion of a detailed inventory, 21 lead services (mostly private-side) and approximately 720 lead goosenecks on the public-side were identified. Winchester removed 52 lead goosenecks during 2016, prior to the MWRA loan project. Through 2019, Winchester has removed 20 of the 21 identified private-side lead services (one property owner refused to participate). An additional 93 lead goosenecks on the public-side were also removed. The phase 2 construction program will continue public-side lead gooseneck removal during the 2020 construction season. Winchester's 113 total service lines were replaced at an average construction cost of \$5,500 per lead service and a total of 2,570 feet of new copper water service pipe was installed at an average construction cost of \$240 per foot.
- **Marlborough** received a \$1.0 million loan in September 2017 to fund the replacement of approximately 200 lead service lines as the first phase of a large project targeting replacement of all 1,350 lead service lines. Marlborough is paying the full cost of both public and private lead service line replacements. The City is paying separately for the project planning, design, and construction services and has developed a detailed spreadsheet inventory of all public/private lead services. The construction project began in May 2018 and through September 2018, a total of 176 lead services had been replaced at a construction cost of \$1.01 million. Marlborough's 176 lead services were replaced at an average construction cost of \$5,835 per lead service and a total of 7,694 feet of new copper water service pipe was installed at an average construction cost of \$130 per foot. The City received a second \$1.0 million lead loan from MWRA in May 2019 that will fund phase 2 of the project.

- **Revere** received a \$195,000 loan in November 2017 to fund the design portion of its lead service line replacement project. Revere is paying the full cost of both public and private lead service line replacements. As part of the City's comprehensive water meter replacement program, Revere had the meter installers inspect and catalog all lead service lines entering each property. This effort resulted in a detailed spreadsheet of 282 properties with lead services. The lead service line replacement design for up to 300 lead services was completed and bid in June 2018. The construction bid cost averaged \$6,960 per lead service and was being funded through an MA State Revolving Fund loan.
- **Winthrop** received a \$284,000 loan in December 2017 and \$487,850 loan in May 2019 to fund Phases 1 and 2 of lead service line removals. Winthrop paid the full cost of both public and private lead service line replacements. The completed projects removed 156 total lead services at a cost of approximately \$800,000. Winthrop's lead services were replaced at an average construction cost of \$5,100 per lead service.
- **Needham** received a \$1.0 million loan in June 2018 targeting the removal of approximately 154 public/private lead services and 1,047 lead goosenecks. Needham is paying the full cost of both public and private lead service line replacements. Needham bid a multi-year construction contract for lead service line and lead gooseneck removals. Through December 2019, 33 full lead services, 61 private-side only lead services, and 309 lead goosenecks (main to sidewalk replacement) have been completed for a total construction cost of \$1.15 million. Needham's lead services were replaced at an average construction cost of \$2,860 per lead service. The construction is scheduled to continue in 2020.
- **Boston (BWSC)** BWSC's lead service line removal program (no MWRA funding) pays the first \$4,000 of cost of private-side lead service line removals and property owner pays the remainder with the option of spreading the payment out over four years via their monthly water bill. For small house lots with a relatively short water service line, BWSC finds the \$4,000 often covers the full cost of the private-side lead service removal. For more information see the [www.bwsc.org](http://www.bwsc.org)

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## Resources for Lead Service Line Replacement Programs

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### MWRA Information

#### What You Need to Know About Lead in Tap Water

#### What's Happening in Flint's Water System and How is MWRA Different

#### How to Get Your Water Tested

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### Lead Service Line Replacement (LSLR) Collaborative



The **Lead Service Line Replacement (LSLR) Collaborative**, a diverse coalition of 23 national public health, water utility, environmental, labor, consumer, housing and state and local government organizations, released an online toolkit designed to help communities across the United States accelerate removal of lead service lines. Removing these lead pipes provides an opportunity to significantly reduce the risk of exposure to lead in drinking water. The Collaborative's toolkit includes a road map for getting started, suggested practices to identify and remove lead service lines in a safe, equitable, and cost-effective manner, policies that federal and state leaders could adopt to support local efforts, and links to additional resources that may be helpful when developing local programs.

#### **LSLR Collaborative web site**

#### **LSLR Collaborative Communication Guide (PDF)**

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### **Information from American Waterworks Association**

#### **ANSI/AWWA C810-17 Replacement and Flushing of Lead Service Lines**

This standard describes essential procedures for the replacement of lead water service lines and flushing following replacement. It also describes procedures for partial replacement and repair situations where complete lead service line replacement is not possible or practical.

**Trenchless Lead Service Line Replacement: "HOW TO"** – from Lansing, Michigan Board of Water and Light as printed in *AWWA Opflow*, July 2016

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### **Information from the US Environmental Protection Agency**

#### **Lead and Copper Rule Resources**

#### **Basic Information About Lead in Drinking Water**

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### **Information from the Massachusetts Department of Environmental Protection**

#### **Lead and Copper Rule: Lead Service Line Replacement Requirements**

**310 CMR 22.00 MassDEP Drinking Water Regulations: *Control of Lead and Copper in Drinking Water* is Section 22.06B of the Drinking Water Regulations**

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### **Water Utilities that Have Lead Service Line Replacement Programs**

DC Water and Sewer – **Lead Service Pipe Replacements**

**Green Bay Wisconsin Water Utility**

Hamilton Ontario Canada Public Works – **Lead Pipe Service Replacement Program**

Lansing Michigan, Board of Water & Light – **Lead Service Line Replacement Program**

Louisville Kentucky Water - **Lead Service Line Replacement Program**

Madison Wisconsin Water Utility – **Lead Service Replacement Program**

Toronto Canada – **Priority Lead Water Service Replacement Program**

Winnipeg Canada – **Lead Pipe Replacement Program**

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## **1905 Massachusetts State Board of Health Annual Report**

**This 1905 report** (PDF) notes the materials used for water service pipes in cities and towns throughout Massachusetts. This article includes a table listing the number of water service pipes made from different materials for many Massachusetts communities. The water service pipe materials include: lead, lead lined, wrought iron, galvanized iron, cement lined, and tin lined.

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## **Additional Service Line Information**

### **Images of Lead Water Services from Google**

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#### **Back to top**

PDF files on this page require Adobe Acrobat Reader® (**free download**).

Updated April 29, 2022



**COST ANALYSIS OF BORROWING**  
**\$300,000 MWRA LEAD LOAN PROGRAM (LLP)**

| YEAR | FY   | PRINCIPAL PAYMENTS | INTEREST PAYMENTS | TOTAL PAYMENTS    |
|------|------|--------------------|-------------------|-------------------|
| 1    | 2023 | \$ 30,000          | \$ -              | \$ 30,000         |
| 2    | 2024 | \$ 30,000          | \$ -              | \$ 30,000         |
| 3    | 2025 | \$ 30,000          | \$ -              | \$ 30,000         |
| 4    | 2026 | \$ 30,000          | \$ -              | \$ 30,000         |
| 5    | 2027 | \$ 30,000          | \$ -              | \$ 30,000         |
| 6    | 2028 | \$ 30,000          | \$ -              | \$ 30,000         |
| 7    | 2029 | \$ 30,000          | \$ -              | \$ 30,000         |
| 8    | 2030 | \$ 30,000          | \$ -              | \$ 30,000         |
| 9    | 2031 | \$ 30,000          | \$ -              | \$ 30,000         |
| 10   | 2032 | \$ 30,000          | \$ -              | \$ 30,000         |
|      |      | <u>\$ 300,000</u>  | <u>\$ -</u>       | <u>\$ 300,000</u> |

INTEREST FREE LOAN PROGRAM

FY 2023 - FY 2027 CIP WATER/SEWER FUNDS

| A  | B                                     | C        | D            | E            | F            | G            | H            | I            | J            | K            | L            | M            |
|----|---------------------------------------|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
|    |                                       | TOTALS   | FY23         |              | FY 24        |              | FY 25        |              | FY 26        |              | FY 27        |              |
| 1  |                                       |          |              |              |              |              |              |              |              |              |              |              |
| 2  | WATER/SEWER ENTERPRISE FUNDS          |          |              |              |              |              |              |              |              |              |              |              |
| 3  | SEWER                                 |          |              |              |              |              |              |              |              |              |              |              |
| 4  | Sewer/Drain System Rehabilitation     | 4,000.0  | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     | 800.0 SR     |
| 5  | Stormwater & Drainage Improvements    | 1,500.0  | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     | 300.0 SR     |
| 6  | 10 MWRA I & I                         | 5,250.0  | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB | 1050.0 MWRAB |
| 7  | 10 Sewer System Improvements          | 3,750.0  | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    | 750.0 SEB    |
| 8  | 10 35 GVM Service Truck               | 170.0    |              |              |              |              | 170.0 SEB    |              |              |              |              |              |
| 9  | 10 Street Sweeper                     | 0.0      |              |              |              |              |              |              |              |              |              |              |
| 10 | 10 Sewer Vac                          | 430.0    |              |              | 430.0 SEB    |              |              |              |              |              |              |              |
| 11 | 10 Swap Dump Truck                    | 190.0    |              |              | 190.0 SEB    |              |              |              |              |              |              |              |
| 12 | 10 Mini - Excavator                   | 130.0    |              |              |              |              |              |              | 130.0 SEB    |              |              |              |
| 13 | SEWER SUBTOTAL                        | 15,420.0 | 2,900.0      |              | 3,520.0      |              | 3,070.0      |              | 3,030.0      |              | 2,900.0      |              |
| 14 |                                       |          |              |              |              |              |              |              |              |              |              |              |
| 15 | WATER                                 |          |              |              |              |              |              |              |              |              |              |              |
| 16 | Water system improvements             | 1,000.0  | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     | 200.0 WR     |
| 17 | 10 MWRA LWSAP                         | 2,500.0  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  | 500.0 MWRAB  |
| 18 | 10 MWRA LLP                           | 1,500.0  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  | 300.0 MWRAL  |
| 19 | 10 Trench Safety Box Truck            | 160.0    |              |              |              |              |              |              | 160.0 WEB    |              |              |              |
| 20 | 5 Utility Truck                       | 60.0     | 60.0 WEB     |              |              |              |              |              |              |              |              |              |
| 21 | 10 Gate Valve/Mini Vac Truck          | 140.0    |              |              | 140.0 WEB    |              |              |              | 170.0 WEB    |              | 450.0 WEB    |              |
| 22 | 10 Service Response Truck             | 170.0    |              |              |              |              |              |              |              |              |              |              |
| 23 | 10 Water Vactor                       | 450.0    |              |              |              |              |              |              |              |              |              |              |
| 24 | WATER SUBTOTAL                        | 5,980.0  | 1,060.0      |              | 1,140.0      |              | 1,000.0      |              | 1,330.0      |              | 1,450.0      |              |
| 25 |                                       |          |              |              |              |              |              |              |              |              |              |              |
| 26 | TOTAL WATER & SEWER                   | 21,400.0 | 3,960.0      |              | 4,660.0      |              | 4,070.0      |              | 4,360.0      |              | 4,350.0      |              |
| 27 |                                       |          |              |              |              |              |              |              |              |              |              |              |
| 28 | STORMWATER                            |          |              |              |              |              |              |              |              |              |              |              |
| 29 | Phase 2 MS4 Permit Management Plan    | 250.0    | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     | 50.0 TBD     |
| 30 | Phase 2 MS4 Construction/Improvements | 35,400.0 | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 35,000.0 TBD | 35,000.0 TBD |
| 31 | Phase 2 MS4 Phosphorous Control Plan  | 500.0    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    | 100.0 TBD    |
| 32 | STORMWATER SUBTOTAL                   | 36,150.0 | 250.0        | 250.0        | 250.0        | 250.0        | 250.0        | 250.0        | 250.0        | 250.0        | 35,150.0     | 35,150.0     |
| 33 |                                       |          |              |              |              |              |              |              |              |              |              |              |
| 34 | TOT. WATER, SEWER & STORMWATER        | 57,550.0 | 4,210.0      |              | 4,910.0      |              | 4,320.0      |              | 4,610.0      |              | 39,500.0     |              |
| 35 |                                       |          |              |              |              |              |              |              |              |              |              |              |
| 36 | COSTS BY SOURCE OF FUNDS              |          |              |              |              |              |              |              |              |              |              |              |
| 37 | SEWER REVENUE                         | 5,500.0  | 1,100.0      |              | 1,100.0      |              | 1,100.0      |              | 1,100.0      |              | 1,100.0      |              |
| 38 | SEWER EQUIPMENT BONDS                 | 4,670.0  | 750.0        |              | 1,370.0      |              | 920.0        |              | 880.0        |              | 750.0        |              |
| 39 | TO BE DETERMINED                      | 36,150.0 | 250.0        |              | 250.0        |              | 250.0        |              | 250.0        |              | 35,150.0     |              |
| 40 | MWRA Bond - Interest Free             | 7,750.0  | 1,550.0      |              | 1,550.0      |              | 1,550.0      |              | 1,550.0      |              | 1,550.0      |              |
| 41 | MWRA LLP                              | 1,500.0  | 300.0        |              | 300.0        |              | 300.0        |              | 300.0        |              | 300.0        |              |
| 42 | WATER REVENUE                         | 1,000.0  | 200.0        |              | 200.0        |              | 200.0        |              | 200.0        |              | 200.0        |              |
| 43 | WATER EQUIPMENT BONDS                 | 980.0    | 60.0         |              | 140.0        |              | 0.0          |              | 330.0        |              | 450.0        |              |
| 44 | GRAND TOTAL - ENTERPRISE FUNDS        | 57,550.0 | 4,210.0      |              | 4,910.0      |              | 4,320.0      |              | 4,610.0      |              | 39,500.0     |              |





CITY OF  
WATERTOWN  
*Office of the City Manager*

Administration Building  
149 Main Street  
Watertown, MA 02472

Thomas J. Tracy  
Acting City Manager

To: Honorable City Council  
From: Steven Magoon, Acting City Manager   
Date: July 7, 2022  
RE: Agenda Item – Proposed Loan Order

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Enclosed please find correspondence from Gregory M. St. Louis, Superintendent of Public Works. As stated in Mr. St. Louis's correspondence, the City's FY23 Annual Budget, and the FY23-27 Capital Improvement Program for the Water and Sewer Enterprise Funds identifies funding of \$1,530,000 for Inflow and Infiltration (I&I) projects. This funding will be utilized for the design, engineering, and construction of various I&I projects in line with the city's sanitary sewer capital plan.

As indicated in Superintendent St. Louis' correspondence, action is necessary to obtain authorization for the remaining Phase 11 and Phase 12 funds available to the city from the MWRA under this program in the amounts of \$240,000 and \$1,290,000 respectively for a total of \$1,530,000 to be funded through a \$1,147,500 MWRA grant and a \$382,500 MRWA interest free loan.

Therefore, given the above, I respectfully request the attached Proposed \$1,530,000 Loan Order be placed on the July 12, 2022, City Council Agenda as a First Reading.

Thank you for your consideration in this matter.

cc: Gregory M. St. Louis, Superintendent of Public Works  
Matthew Shuman, City Engineer  
Tyler R Glode, Project Engineer  
Sharon Gallagher, Assistant City Auditor  
Melissa A. Morrissey, City Treasurer/Collector



28 State Street  
Boston, MA 02109-1775  
p: 617-345-9000 f: 617-345-9020  
hinckleyallen.com

Jay Gonzalez  
(617) 378-4256  
jgonzalez@hinckleyallen.com

June 30, 2022

Thomas J. Tracy  
Acting City Manager  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

RE: Draft Loan Order – MWRA Sewer System Improvement Bonds

Dear Tom:

As requested, I suggest the following form of loan order to approve the borrowing of funds from the Massachusetts Water Resources Authority to pay costs of sewer system improvements project:

ORDERED: That the sum of \$1,530,000 is appropriated to pay costs of designing, engineering and constructing sewer system improvements to eliminate inflow and infiltration in the system, including all costs incidental and related thereto; that to meet this appropriation, the Treasurer, with the approval of the City Manager, is authorized to borrow said amount under and pursuant to M.G.L. c.44, §7(1) or §8(14), or pursuant to any other enabling authority, and to issue bonds or notes of the City therefor; that the Treasurer, with the approval of the City Manager, is authorized to borrow all or a portion of such amount from the Massachusetts Water Resources Authority (the “Authority”) pursuant to the Authority’s inflow and infiltration assistance program and in connection therewith to enter into a loan agreement and/or financial assistance agreement with the Authority and otherwise to contract with the Authority with respect to such loan and for any grants or aid available for the project or for the financing thereof; and that the City Manager is authorized to accept and expend any grants or aid available for the project or for the financing thereof, provided that the amount of the authorized borrowing for the project shall be reduced by the amount of any such grants or aid received.

The order must be published in a local newspaper and on the City’s website at least five days prior to the holding of a public hearing with respect to the order and its final passage and requires the affirmative vote of at least two-thirds of all members of the City Council, as in the case of any other loan order for bonds.



Please call me if there are any questions about the suggested proceedings.

Sincerely,

A handwritten signature in blue ink, appearing to be 'Jay Gonzalez', with a stylized, cursive script.

Jay Gonzalez



**CITY OF WATERTOWN**  
DEPARTMENT OF PUBLIC WORKS  
124 ORCHARD STREET  
WATERTOWN MA 02472

Gregory M. St. Louis, PE  
Superintendent of Public Works

(P) 617-972-6420  
(F) 617-972-6402

TO: Thomas J. Tracy – Acting City Manager  
FROM: Gregory St. Louis, PE – Superintendent of Public Works  
SUBJECT: MWRA Local Sewer System Assistance Program  
DATES: June 16, 2022

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The City's FY23 Annual Budget and Capital Improvement Program (CIP) for the Water and Sewer Enterprise Funds identifies a total of \$2,100,000 in funding from FY21 and FY22 for inflow and infiltration projects noted under Conceptual Recommendations #26 and #27 respectively for \$1,050,000 each. Per the recommendations, this funding is to be obtained under the Massachusetts Water Resources Authority (MWRA) Inflow and Infiltration (I/I) Assistance Program: <https://www.mwra.com/comsupport/ii/iiprogram.html>, and will be utilized for the design, engineering and construction of various Inflow and Infiltration (I&I) projects in line with the City's sanitary sewer capital plan.

Phase 11 and Phase 12 of The MWRA funding program provides an allocation of funds towards eligible projects, including engineering investigation and design, sewer pipe replacement, removal of non-sanitary sewer sources, and sewer rehabilitation and construction, in the form of a 75% grant and 25% interest free loan payable over ten years to each MWRA Community. The City of Watertown currently has \$240,000 available from Phase 11, and has been allocated \$1,290,000 in Phase 12 from the MWRA.

I&I consists of outside groundwater and stormwater that enters the sanitary sewer system through aging and damaged infrastructure including pipes and manholes. This flow reduces the capacity of sanitary sewers to carry sewer flows and drives up the annual sewer use charges paid by the City to the MWRA. Additional information about the City's program is available at the DPW website: [www.watertowndpw.org/159/Inflow-Infiltration](http://www.watertowndpw.org/159/Inflow-Infiltration).

The Department of Public Works respectfully requests that you take the actions necessary to obtain authorization for the remaining Phase 11 and Phase 12 funds available to the City from the MWRA under this program in the amounts of \$240,000 and \$1,290,000 respectively for a total of \$1,530,000 to be funded through a \$1,147,500 MWRA grant and a \$382,500 MWRA interest free loan.

The objective of the proposed project is to engineer/design and construct rehabilitations identified during the sanitary sewer evaluation surveys completed in various areas of the City. This work is anticipated to have the following benefits:

---

- Eliminate infiltration to the sanitary sewer system;
- Eliminate inflow to the sanitary sewer system; and,
- Eliminate cross connection between the sanitary sewer and stormwater systems

The project is a part of the City's Sanitary Sewer Capital Improvement Program. The construction project will implement rehabilitations identified during the CIP Project 1, 2, 3 & 4 Investigations.

Separately, the DPW will continue investigations into proposed CIP Project 5 area this summer.

If approved, we intend to put the project out to bid in the late summer with construction to begin in the fall.

We thank you in advance for your consideration.



26. Proceed with the FY21 MWRA Sewer Inflow & Infiltration Local Financial Assistance Program for \$1,050,000 consisting of a \$787,500 grant and a \$262,500 interest-free loan order; plus proceed with the FY21 MWRA Local Water System Assistance Program \$500,000 interest-free loan order to replace outdated unlined cast iron water mains.
27. Proceed with the FY22 MWRA Sewer Inflow & Infiltration Local Financial Assistance Program for \$1,050,000 consisting of a \$787,500 grant and a \$262,500 interest-free loan order; plus proceed with the FY22 MWRA Local Water System Assistance Program \$500,000 interest-free loan order to replace outdated unlined cast iron water mains; plus proceed with the FY22 MWRA Local Water System Assistance Program \$300,000 interest-free loan order to replace lead service lines.
28. Re-confirm the prior recommendation to proceed with the FY19 proposed Sewer Enterprise Fund loan order for \$270,000 for a Heavy-duty Crane and the prior recommendation to proceed with the FY19 proposed Water Enterprise Fund loan order for \$60,000 for a Utility Truck.
29. Regarding the former Police Station: as noted in #23 above, the School Administration offices will remain at the current location, therefore as noted in the Economic Development & Planning Committee Report from the March 14, 2017 City Council meeting, re-refer to the Economic Development & Planning Committee, for policy guidance, plans for the FY23 \$1,000,000 proposed loan order (FY23 CIP Line 4) for designing a new building at the site of former Police Station.
30. Regarding the Victory Field Artificial Turf Replacement: in consideration of Moxley Field being unavailable for use due to the temporary High School from October 2023 until Spring 2027, and with O'Connell Field unavailable due to Hosmer School construction until Spring 2023, and the needed renovations of Victory Field track, field and courts, the plan for the FY23 \$1,500,000 proposed loan order (FY23 CIP Line 147) to take the multi-use field out of service for turf replacement will present scheduling problems. Recommend the Administration develop a city-wide plan on field usage and availability with construction phasing, and consider an assessment of the artificial turf with consideration given to repairs to worn areas to extend its life.
31. Regarding the Special Needs baseball/softball diamond shown as a FY24 \$600,000 proposed loan order (FY23 CIP Line 150), refer to Parks and Recreation Committee for policy guidance on where this could be located and what the facility would entail, and subject to the condition that the Recreation Department shall hold community meetings to develop a design proposal and have one or more informational presentations to the City Council.
32. Regarding Electric Vehicle charging stations shown as FY24 \$90,000 and FY25 \$90,000 proposed loan orders (FY23 CIP Line 14), these were originally shown as FY23 and FY24 proposed loan orders in the (FY22 CIP (Line 15), and recommend moving them back to FY23 and FY24.







## Community Support Program Infiltration/Inflow Local Financial Assistance

Massachusetts Water Resources Authority

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[Sewer System](#)

[Harbor and Bay](#)

[School](#)

[Program](#)

[Doing Business  
with MWRA](#)

[Contact MWRA](#)

MWRA's I/I Local Financial Assistance Program provides \$760 million in grants and interest-free loans to MWRA sewer communities to perform local Infiltration and Inflow "I/I" reduction and sewer rehabilitation. Funds are approved for distribution through Fiscal Year 2030.

In June, 2018, on recommendation of the MWRA Advisory Board, the MWRA Board of Directors approved a \$300 million addition to the community Infiltration/Inflow Local Financial Assistance Program for FY19-30.

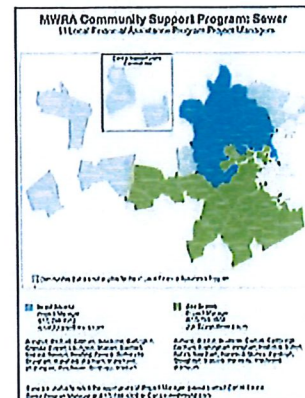
Program enhancements include:

- Addition of Phase 11 and 12 funds (\$100 million per Phase);
- Phase 11 and 12 funds distributed as 75% grant and 25% interest-free loan
- Addition of \$100 million Phase 13 funds that are a loan only allocation;
- Loan repayment over ten (10) years;
- 90-day notification to MWRA for community applications exceeding \$2 million; and,
- Continuation of projected 3-year community spending plan.

Eligible projects are detailed in the Program Guidelines and include:

- Pipeline Replacement
- Public and Private Inflow Source Removal
- I/I Reduction Planning
- Sewer Rehabilitation Construction
- Engineering Design

### MORE INFORMATION



[I/I Project Managers Map and  
Contact Information](#)

[Go back to Community  
Support Program Page](#)

[Annual I/I Reduction  
Report \(PDF\)](#)

[I/I Local Financial  
Assistance Funding  
Summary updated December  
2020 \(PDF\)](#)

[I/I Funding Summary By  
Phase updated December  
2020 \(PDF\)](#)

### I/I PROGRAM GUIDELINES AND APPLICATION FORMS

[I/I Program Guidelines  
\(.DOC\) | \(.PDF\)](#)  
Updated July 2019

[I/I Program Application  
\(.DOC\) | \(.PDF\)](#)  
Updated July 2019

[Other Community Support  
Program Pages](#)

[LWSAP Program](#)

[LLP Program Page](#)



- Engineering Services During Construction

## **PROJECT BENEFITS**

MWRA's I/I Local Financial Assistance Program was initiated in May 1993 to provide funding to member sewer communities to perform I/I reduction and sewer system rehabilitation projects within their locally-owned collection systems.

This program is a critical component of MWRA's Regional I/I Reduction Plan. Specifically, local sewer system rehabilitation projects are intended to at least offset ongoing collection system deterioration thus preventing a net increase in regional I/I. In the long-term, system rehabilitation should result in lower I/I, which will allow for future increases in sanitary flows (residential, commercial, industrial, and institutional) without a net increase in total wastewater flow. The program fosters efficient operation and maintenance of local sewer systems.

Regional progress on I/I reduction is detailed in **MWRA's Annual I/I Reduction Report**.

Since the program began in 1993, \$457 million has been distributed to fund 616 local I/I identification and sewer system rehabilitation projects.

## **HOW FUNDS ARE ALLOCATED AND DISTRIBUTED**

I/I Local Financial Assistance Funds are allocated to member sewer communities based on their percent share of wholesale sewer charges. For grant/loan funds remaining under Program Phases 7/8, member communities receive a 45% grant and a 55% interest-free loan. The loan is repaid to MWRA over a 5-year period beginning one year after distribution of the financial assistance.

For grant/loan funds under Program Phases 9 through 12, member communities will receive a 75% grant and a 25% interest-free loan. The loan will be repaid to MWRA over a 10-year period beginning one year after distribution of the financial assistance. Communities are required to exhaust their remaining earlier phase funds prior to becoming eligible for distribution of later phase funds. Phase 10 and 11 funds become available to a community in the fiscal year following the distribution of half of its Phase 9 funds. Phase 12 funds became available to a community in the fiscal year following the distribution of half of its Phase 11 funds. The allocation of Phase 11 through 13 funds are based upon each community's percent share of the FY19 wholesale sewer charges, as detailed in the **Funding Summary Table (see link above)**.

## **APPLICATIONS OVER \$2 MILLION ARE SUBJECT TO A 90-DAY NOTIFICATION**

The I/I Local Financial Assistance Guidelines require communities to submit completed financial assistance applications at least 30 days prior to the target funding distribution date. For Phase 9 through 13 funds, community funding applications that exceed \$2 million are subject to a 90-day notification period prior to the target distribution date. The completed funding application is still due to MWRA 30-days prior to the target

distribution date. However, the extended notification period for large funding applications will assist MWRA in budgeting for the Program and management of its Construction Fund. Based on the combined impact of each quarter's community funding assistance applications, MWRA's Executive Director is authorized to waive the 90-day notification rule on a case-by-case basis.

### **COMMUNITY PROJECTED SPENDING PLAN**

Beginning in March 2015, MWRA staff (with assistance from the Advisory Board) has surveyed the communities each spring to develop 3-year rolling projected spending plan for Phase 9 through 13 funds. Community projections for the first year should be as close to actual as possible, with the second and third year being planning estimates. The goal will be to provide the best available information to the MWRA Budget Department in early May to assist in finalizing MWRA's annual CIP.

### **BACKGROUND ON INFILTRATION AND INFLOW**

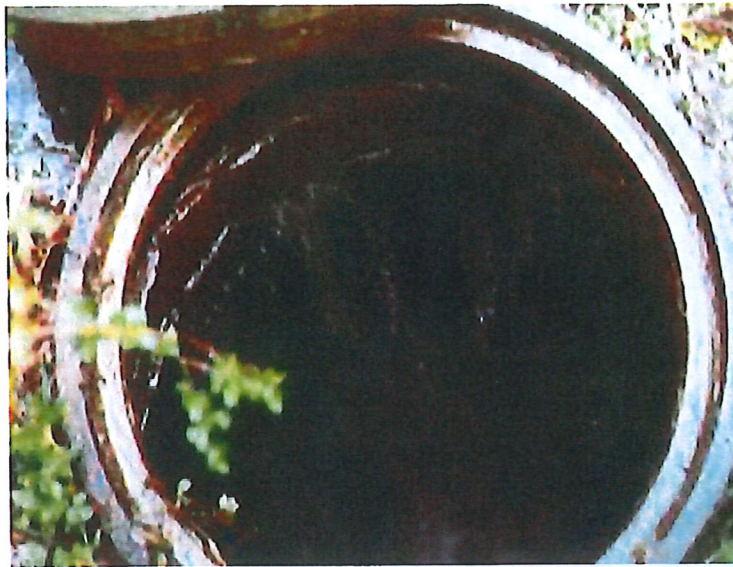
Wastewater discharged by member sewer communities to MWRA is influenced by seasonal and wet-weather conditions related to infiltration and inflow (I/I). I/I is extraneous water that enters all wastewater collection systems through a variety of sources. I/I, as well as stormwater from combined sewers, reduce sewer system capacity that would otherwise be available to transport sanitary flow.



**Infiltration into a sanitary sewer**

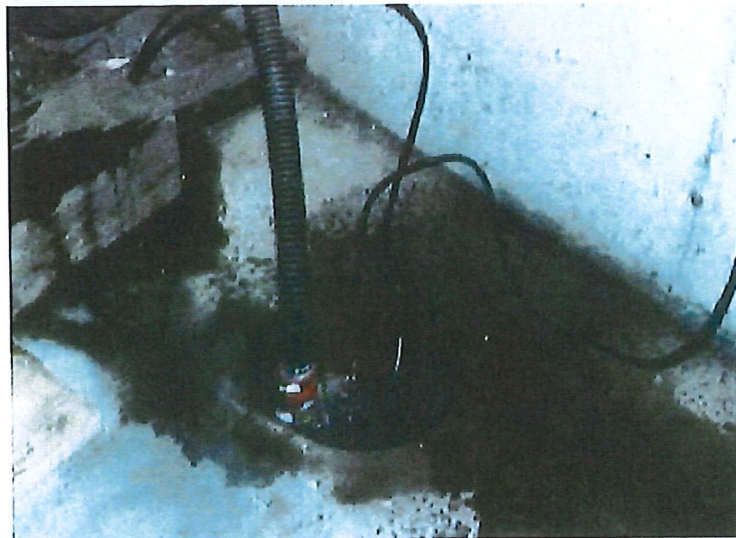
**Infiltration** is groundwater that enters the collection system through physical defects such as cracked pipes/manholes or deteriorated joints. Typically, many sewer pipes (as well as private service laterals connecting homes and businesses) are below the surrounding groundwater table. Therefore, leakage into the sewer (infiltration) is a broad problem that is difficult and expensive to identify and reduce.





Inflow into a manhole

**Inflow** is extraneous flow entering the collection system through point sources and may be directly related to storm water run-off from sources such as roof leaders, yard and area drains, basement sump pumps, manhole covers, cross connections from storm drains or catch basins, drains from springs and swampy areas, leaking tide gates, etc.



Private inflow from a sump pump

Inflow causes a rapid increase in wastewater flow that occurs during and after storms. The volume of Inflow entering a collection system typically depends on the magnitude and duration of a storm event, as well as related impacts such as snowmelt and storm tides.

#### **TYPICAL SEWER SYSTEM REHABILITATION PROJECTS**

Internal television Inspection of sewers is performed to identify sewer defects and I/I. The photos below show a technician remotely operating a TV inspection camera inside a



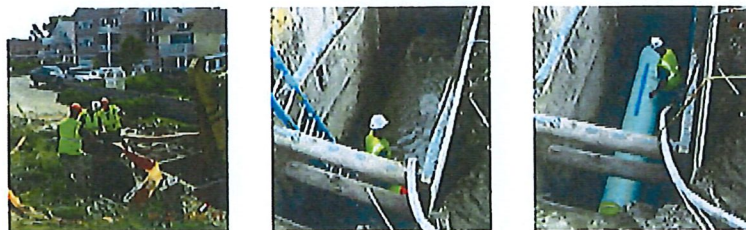
sewer pipe. In the second photo, groundwater infiltration into the sewer pipe is viewed through the video from the TV inspection camera.



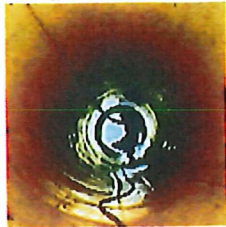
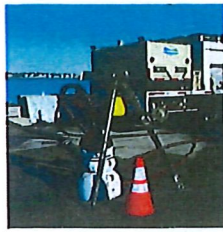
Smoke testing of sewers is performed to identify direct and indirect stormwater connections to a separate sewer system. Smoke is blown into the sewer system filling the pipes. Smoke escapes through direct or indirect connections which can identify catch basins or area drains improperly connected to a separate sewer system. The photos below show catch basins connected to the sewer system identified through smoke testing.



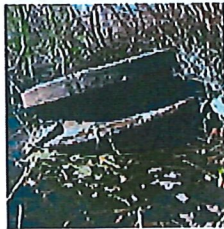
Sewers and sewer manholes that are in poor physical condition are often replaced using open-cut construction. The three photos below show sewer and manhole replacement in an area near a salt marsh with high groundwater.



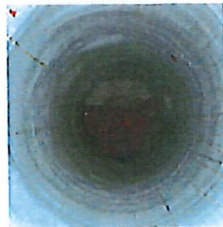
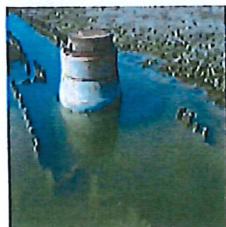
Sewer rehabilitation using a cured-in-place pipe liner is one of many "trenchless" technologies for extending the service life of sewers and eliminating groundwater infiltration. The photos below show installation of cured-in-place pipe and a finished lined pipe.



Sewer manholes located in wetland areas, low areas subject to flooding, or salt marshes are more susceptible to physical defects that may allow inflow to enter the sewer system. Winter freeze-thaw cycles can be damaging to sewer manhole structures. The use of geographic information system (GIS) mapping can be particularly effective in identifying sewer structures located in low lying areas. These structures can then be prioritized for periodic inspection. The three photos below show a defective sewer manhole in a wetland area before and after rehabilitation.



The photos below show a rehabilitated sewer manhole in a salt marsh and the interior of a manhole following the lining process.



Basement sump pumps and roof downspouts directly connected to the sewer (via house or building plumbing) can be significant sources of Inflow. These direct connections are not allowed in areas served by separate sanitary sewers. They can be identified through community house-to-house inspection surveys. The first two photos below are typical examples of basement sump pumps connected to house plumbing. The third photo is an example of a roof downspout routed into the building basement where it connects to the house plumbing.



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PDF files on this page require Adobe Acrobat Reader ® ([free download](#)).

Updated December 22, 2020



## **Inflow & Infiltration**

Watertown DPW has a program to address inflow and infiltration (I/I) into the municipal sewer system.

Unlike our water distribution system, which uses full pipes under pressure to deliver water to homes, the sewer system is rarely full when wastewater is flowing from homes to the sewage treatment plant. When a water main breaks, it leaks water out. When a sewer pipe breaks, it allows groundwater and stormwater to leak into the pipe.

When groundwater or stormwater leaks into the sewer system, it takes up extra space that could be carrying wastewater. This can contribute to sewer backups and overflows. In addition, this additional “clean” groundwater and stormwater is treated at the MWRA Wastewater Treatment Plant, at the Town’s expense.

### **Inflow**

Inflow is stormwater that is directly piped into the sanitary sewer system to control runoff. These connections, which may include storm drains in the street, parking lots, driveways, sump pumps, foundation drains, and gutters, should not be connected into our sanitary sewer system, which is designed only to carry wastewater.

### **Infiltration**

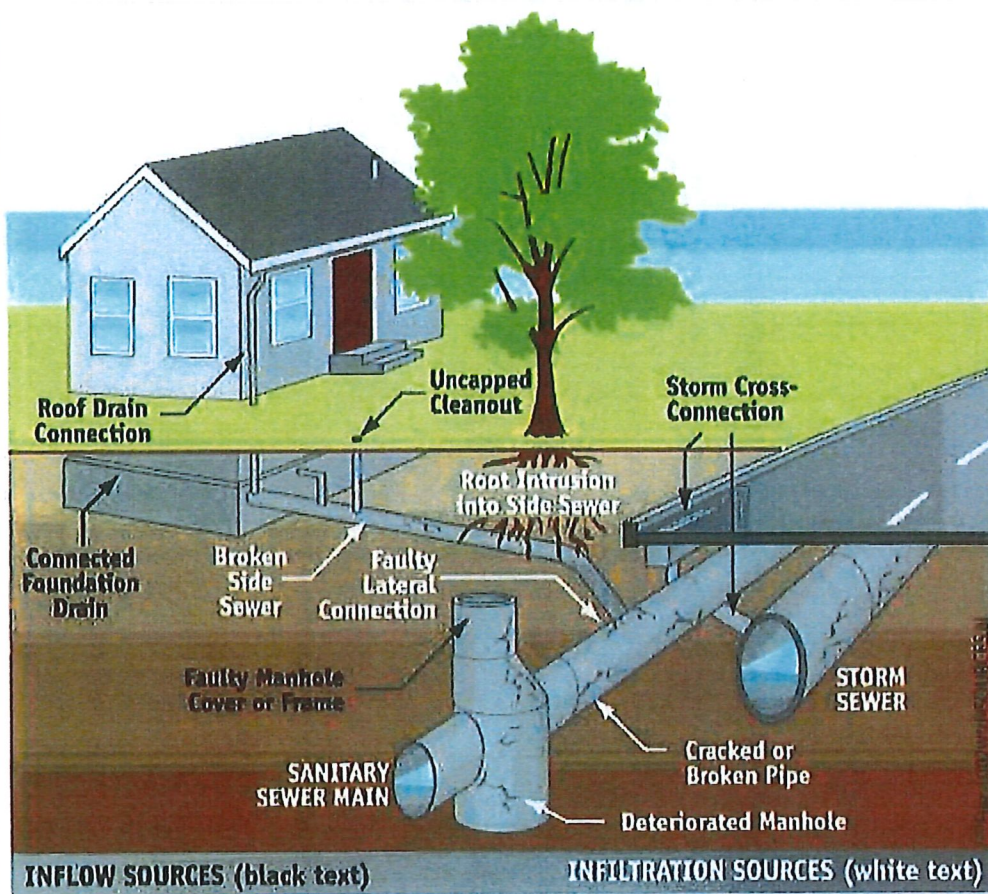
Infiltration is excess water that gets into the sanitary sewer system through open joints, cracks, root intrusion, and breaks in the pipes. These deficiencies may allow constant infiltration of groundwater. Cracked or collapsed sewer lines are generally caused by deterioration over time, poor design, installation, or maintenance.

The DPW's I/I program consists of annual monitoring and maintenance of the sewer system. Monitoring consists of remote television inspection of the sewer system for signs of blockage, deterioration, root intrusion, and illegal stormwater connections. Manholes are similarly inspected for signs of inflow and infiltration. Flow isolation is another type of monitoring method, which helps quantify the amount of I/I in a sewer segment. During flow isolation, manhole to manhole segments of sewer are isolated and the amount of flow in the line is measured during the early morning hours (between 12 a.m. and 6 a.m.). The majority of residents are sleeping during these hours (so there is little wastewater in the system), and therefore it can be assumed that the measured flow is mostly I/I.

Maintenance activities include cleaning sewer lines and making repairs as noted during the monitoring phase. There are many methods to repair or even replace damaged sewer lines. "Trenchless" technologies now exist that permit rehabilitation without interruption of sewer service or traffic disruption. DPW prefers to use these technologies and uses "open cut" methods only when there are no other alternatives.

## **Inflow & Infiltration Diagram**





## Contact Us

### Water & Sewer Division

#### Physical Address

124 Orchard Street  
Watertown, MA 02472

Phone: 617-972-6420

Fax: 617-972-6402

### Water/Sewer Division

#### Normal Business Hours

Monday - Friday  
7 a.m. - 3:30 p.m.





August 4, 2022

**Katharine Lord Klein**  
[kklein@k-plaw.com](mailto:kklein@k-plaw.com)

**BY HAND DELIVERY AND  
ELECTRONIC MAIL ([TTracy@watertown-ma.gov](mailto:TTracy@watertown-ma.gov))**

Mr. Thomas J. Tracy  
City Manager  
Watertown Administration Building  
149 Main Street  
Watertown, MA 02472

Re: Arsenal Street Corridor Easements

Dear Mr. Tracy:

I am writing to you regarding a proposed Order concerning Grants of Easement for the Arsenal Street corridor improvements.

As you are aware, the City is planning a significant public infrastructure improvement project along Arsenal Street from Louise Street to Greenough Boulevard. The western segment, known as Package B, will be implemented and funded by Alexandria Real Estate (ARE) as mitigation for the Arsenal-on-the-Charles development and covers Louise Street to Arsenal Court. The eastern segment, known as Package A, is being funded by a \$3.4 million MassWorks grant, a further contribution from ARE, use of mitigation monies from Boylston Properties in connection with the Arsenal Yards development and City of Watertown funds. It covers Arsenal Court to Greenough Boulevard.

There are a total of 17 easements required from seven property owners. Each of the owners is donating the easements on their property to the City.

Below is a brief description of these easements, going west to east (and using the numbering system associated with, respectively, Package B and Package A as shown on the plans):

- (1) Arsenal View, LLC, 330 Arsenal Street (LEXUS) (Easement B1) for traffic signal equipment and sidewalk mixing area/ramp;
- (2) ARE-MA Region No. 75, LLC, 311 Arsenal Street (Arsenal-on-the-Charles) (Easements B2, B3, B4, B6 and B7) for traffic signal equipment, a bus shelter and related accessibility landing pad, benches, sidewalk, and street lighting systems;
- (3) Arsenal Associates, 455-465 Arsenal Street (Arsenal Apartments) (Easements B8 and B9 and Easements A6 and A7, which is part of both Package B and Package A) for a bus shelter, sidewalk landing pad, and traffic signal equipment;
- (4) Arsenal Yards Holding LLC, 615 Arsenal Street (Arsenal Yards) (Easements A4, A4-1 and A5) for a bus shelter and sidewalk landing pad;

Mr. Thomas J. Tracy

City Manager

August 4, 2022

Page 2

- (5) BP Watertown Hotel LLC, 570 Arsenal Street (Marriott Hotel) (Easement A3) for a bus shelter;
- (6) 626 Arsenal Street Realty Trust (Sarris Auto) (Easement A2) for traffic signal equipment; and
- (7) RMG Four-Fourteen LLC, 640 Arsenal Street (Dunkin Donuts) (Easement A1) for sidewalk and traffic signal equipment.

The Department of Community Development and Planning has reviewed the Grants of Easement, is satisfied that they provide the access needed for this public infrastructure project, and approves the documents.

I recommend that the City Council vote to approve the enclosed Grants of Easement and authorize the City Manager to execute the documents. I have provided a proposed Order covering all of the Grants of Easement.

Please contact Mark Reich or me with any questions regarding this matter.

Very truly yours,



Katharine Lord Klein

KLK/caa

Enc.

cc: Department of Community Development and Planning ([SMagoon@watertown-ma.gov](mailto:SMagoon@watertown-ma.gov))

#824931/WATR/0164



**An Order Accepting Easements Along Arsenal Street in Connection with Corridor Improvements and Authorizing the City Manager to Execute the Acceptance of said Easements**

**WHEREAS**, significant public infrastructure improvements, including, but not limited to, traffic control, pedestrian/bicycle, bus shelter, lighting, street and safety facilities, are planned for that segment of Arsenal Street between Greenough Boulevard and Louise Street, requiring city and/or public access to portions of seven private properties along the corridor; and

**WHEREAS**, the seven private property owners have agreed to convey to the City easements for the purposes of installing, operating, maintaining, repairing and replacing the public infrastructure improvements (the “Easements”) for no consideration; and

**WHEREAS**, Arsenal View, LLC, a Massachusetts limited liability company (“LEXUS Grantor”), is the owner of certain real property commonly identified as 330 Arsenal Street, Watertown, Massachusetts, as described in that certain Quitclaim Deed recorded with the Middlesex South District Registry of Deeds (the “Registry”) in Book 33760, Page 193 (the “LEXUS Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, LEXUS Grantor is willing to grant to the City an easement for traffic signal equipment and sidewalk mixing area/ramp in that portion of the LEXUS Grantor Parcel shown as “Easement B1 236± S.F.” on that certain plan of land entitled “Easement Plan of Land in Watertown, MA (Middlesex County),” dated April 7, 2022, prepared by Precision Land Surveying, Inc. (the “Precision Plan”); and

**WHEREAS**, ARE-MA Region No. 75, LLC, a Delaware limited liability company (“ARE Grantor”), is the owner of certain real property commonly identified as 311 Arsenal Street, Watertown, Massachusetts, as described in that certain Quitclaim Deed recorded with the Registry in Book 73848, Page 56 (the “ARE Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, ARE Grantor is willing to grant to the City easements for certain highway related improvements, including traffic signal equipment, a bus shelter and related accessibility landing pad, benches, sidewalk, and street lighting systems in certain portions of the ARE Grantor Parcel shown as “Easement B2 1,532± S.F.,” “Easement B3 70± S.F.,” “Easement B4 65± S.F.,” “Easement B5 639± S.F.,” “Easement B6 13± S.F.” and “Easement B7 552± S.F.” on the Precision Plan; and

**WHEREAS**, Arsenal Associates, a Delaware limited partnership (“Arsenal Associates Grantor”), is the owner of certain real property commonly identified as

455-465 Arsenal Street, Watertown, Massachusetts, as described in that certain Quitclaim Deed recorded with the Registry in Book 14145, Page 220 (the “Arsenal Associates Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, Arsenal Associates Grantor is willing to grant to the City an easement for a bus shelter and sidewalk landing pad in those portions of the Arsenal Associates Grantor Parcel shown as “Easement B8 52.5± S.F.” and “Easement B9 21± S.F” on the Precision Plan; and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, Arsenal Associates Grantor is also willing to grant to the City an easement for traffic signal equipment in those portions of the Arsenal Associates Grantor Parcel shown as “Easement A6 111± S.F.” and “Easement A7 169± S.F” on that certain plan entitled “Easement Plan of Land Arsenal Street, Watertown, Massachusetts,” dated April 20, 2022, prepared by Feldman Geospatial (the “Feldman Plan”); and

**WHEREAS**, Arsenal Yards Holding LLC, a Delaware limited liability company (“Arsenal Yards Grantor”), is the Successor Declarant and holder of the Special Declarant Rights as such terms are defined in that certain Amended and Restated Master Deed of the Arsenal Condominium dated June 5, 2018 and recorded with the Registry in Book 71113, Page 277, as amended, which provides Arsenal Yards Grantor authority to enter into, *inter alia*, easements with respect to the land commonly identified as 615 Arsenal Street (the “Arsenal Yards Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, Arsenal Yards Grantor is willing to grant to the City an easement for a bus shelter and sidewalk landing pad in those portions of the Arsenal Yards Grantor Parcel shown as “Easement A4 15± S.F.,” “Easement A4-1 20± S.F.” and “Easement A5 76± S.F.” on the Feldman Plan; and

**WHEREAS**, BP Watertown Hotel, LLC, a Massachusetts limited liability company (“BP Watertown Hotel Grantor”), is the owner of certain real property commonly identified as 570 Arsenal Street, Watertown, Massachusetts as described in that certain Quitclaim Deed recorded with the Registry in Book 60722, Page 586 (the “BP Watertown Hotel Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, BP Watertown Hotel Grantor is willing to grant to the City an easement for a bus shelter in that portion of the BP Watertown Hotel Grantor Parcel shown as “Easement A3 76± S.F.” on the Feldman Plan; and

**WHEREAS**, George Sarris, Trustee of the 626 Arsenal Street Realty Trust, under Declaration of Trust dated December 11, 2019, evidenced by Trustee’s Certificate filed as Document No. 1832814 (“Sarris Grantor”) is the owner of certain real property commonly identified as 626 Arsenal Street, as described in that certain Quitclaim Deed filed with the Middlesex South District of the Land Court as Document No. 1832813,

and Certificate of Title No. 272379 and shown as Lots C and D on Land Court Plan 19746A (the “Sarris Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, Sarris Grantor is willing to grant to the City an easement for traffic signal equipment in that portion of the Sarris Grantor Parcel shown as “Easement A2 278± S.F.” on the Feldman Plan; and

**WHEREAS**, RMG Four-Fourteen LLC, a Massachusetts limited liability company (“RMG Grantor”), is the owner of real property commonly identified as 640 Arsenal Street, Watertown, Massachusetts as described in that certain Quitclaim Deed recorded with the Registry in Book 68647, Page 570 (the “RMG Grantor Parcel”); and

**WHEREAS**, in connection with the Arsenal Street corridor improvements, RMG Grantor is willing to grant to the City an easement for sidewalk and traffic signal equipment in that portion of the RMG Grantor Parcel shown as “Roadway Easement 483 Sq. Feet” on that certain plan entitled “Easement Plan of Land in Watertown, Massachusetts,” dated March 6, 2022, prepared by VHB, Inc.; and

**NOW THEREFORE BE IT ORDERED**, that the City Council of the City of Watertown hereby accepts each of the Easements along Arsenal Street, on the terms and conditions as set forth in the Easement Agreements with LEXUS Grantor, ARE Grantor, Arsenal Associates Grantor, Arsenal Yards Grantor, BP Watertown Hotel Grantor, Sarris Grantor and RMG Grantor, conveying the said Easements to the City of Watertown;

**AND BE IT FURTHER ORDERED**, that the City Council hereby authorizes the City Manager to execute the Acceptance to each of the Easements along Arsenal Street as set forth in the Easement Agreements with LEXUS Grantor, ARE Grantor, Arsenal Associates Grantor, Arsenal Yards Grantor, BP Watertown Hotel Grantor, Sarris Grantor and RMG Grantor, conveying the said Easements to the City of Watertown.

---

Council Member

I hereby certify that at a regular meeting of the City Council for which a quorum was present, the above Order was adopted by a vote of \_\_\_ for, \_\_\_ against and \_\_\_ present on \_\_\_\_\_, 2022.

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Marilyn Pronovost, Council Clerk

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Mark S. Sideris, Council President



## **GRANT OF EASEMENT**

This GRANT OF EASEMENT ("Grant") is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2022 by and between **Arsenal View, LLC**, a Massachusetts limited liability company ("Grantor"), having a mailing address of 149 Arsenal Street, Watertown, Massachusetts 02472, and the **City of Watertown**, a Massachusetts municipal corporation ("City"), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### WITNESSETH:

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of, *inter alia*, a certain parcel of land, commonly identified as 330 Arsenal Street, containing approximately 3.45 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in that certain Quitclaim Deed recorded with the Middlesex South District Registry of Deeds (the "Registry") in Book 33760, Page 193 (the "Grantor Parcel"). The Grantor Parcel abuts Arsenal Street, a public way of the City.

B. In connection with a public infrastructure project on Arsenal Street, including improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to grant to the City an easement for highway purposes in that portion of the Grantor Parcel shown

as “Easement B1 236± S.F.” on that certain plan of land entitled “Easement Plan of Land in Watertown, MA (Middlesex County)”, dated April 7, 2022, prepared by Precision Land Surveying, Inc. (the “Plan”), a reduced copy of which is attached hereto as Exhibit B, and which is recorded with the Registry herewith as Plan \_\_\_\_ of 2022. The above highway easement area is hereinafter referred to as the “Highway Easement Area.” A legal description of the Highway Easement Area is set forth in Exhibit A attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easement from Grantor to the City. Grantor hereby grants to the City, and to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Highway Easement Area, the perpetual non-exclusive right and easement (the “Highway Easement”), in common with the Grantor, to use the Highway Easement Area for highway purposes, including, without limitation, public use, construction, installation, operation, maintenance, repair, and replacement of roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, signs, and traffic control devices, including all appurtenances to the foregoing, together with pedestrian and vehicular access (except as hereinafter limited) to, in, over, under, through, across, upon, on and along the Highway Easement Area for purposes of the construction, installation, operation, maintenance, repair, and replacement of such improvements and performance of all acts incidental thereto. The City’s exercise of the Highway Easement shall not unreasonably interfere with Grantor’s use of the Grantor Parcel, as set forth in Paragraph 3 below.

2.     Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Area consisting now or hereafter of a sidewalk, the right of the City and the public to use, pursuant to the Highway Easement, such sidewalk shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of a Highway Easement Area, other than (i) any mobility device, or (ii) in connection with the maintenance, repair or replacement of any sidewalk portion of a Highway Easement Area, including, without limitation, snow removal from such sidewalk portion. The term “mobility device,” as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the public to use, pursuant to the Highway Easement, any sidewalk portion of a Highway Easement Area shall not be deemed to include a right to park bicycles (except where authorized through the appropriate location of a bike storage rack or rental docking station) or motor vehicles, motorcycles, or other motorized or non-motorized transportation devices within any sidewalk portion of a Highway Easement Area at any time. Further, the City and/or any member of the public shall not place within any sidewalk portion of a Highway Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of a Highway Easement Area).

3.     Reserved Rights. The Highway Easement hereby granted does not grant to the City or the public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Area. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Area, in a manner that does not unreasonably interfere with the



Highway Easement, including, without limitation: (a) to erect, outside of and along any sidewalk portion of a Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of a Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of a Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and pedestrian connections between the Grantor Parcel and any sidewalk portion of a Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easement, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of any Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of a Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easement.

4. Release. It is the intention of the parties that access to the Highway Easement Area, including, without limitation, the sidewalk portions thereof, shall be used for recreational purposes and shall be free of charge or fee and that to the fullest extent permitted by law, the Highway Easement constitutes an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights

granted hereunder including, without limitation, a minor or any other person on the Highway Easement Areas.

5. Performance of Work. The City shall be responsible for the maintenance, repair and replacement of highway improvements located in the Highway Easement Area, including, without limitation, all roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, and traffic control devices, including all appurtenances to the foregoing improvements. Any construction, maintenance or replacement work to be performed by the City within any Highway Easement Area pursuant to the Highway Easement (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor. The City agrees, except in the event of emergency, to give Grantor 48 hours' prior notice (which may be oral) of any construction, maintenance or replacement work within any Highway Easement Area, and, further, shall make all reasonable efforts to ensure vehicular access to the Grantor Parcel at all times, provided, however, the parties acknowledge that such access may be obstructed for periods of limited duration. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within any Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including any Highway Easement Area), the City shall take such action, at its sole cost and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

6. Restoration. In connection with any construction or other work by the City within a Highway Easement Area pursuant to the Highway Easement, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcel, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

7. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, "Force Majeure"), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have



personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person's sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

Arsenal View, LLC  
149 Arsenal Street  
Watertown, MA 02472

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

11. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded.

12. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

13. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

**ARSENAL VIEW, LLC**

By: \_\_\_\_\_

Name: Murray S. Patkin

Office: Manager

Hereunto duly authorized

COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared Murray S. Patkin, as Manager of ARSENAL VIEW, LLC, proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose and acknowledged said instrument to be the free act and deed of ARSENAL VIEW, LLC.

\_\_\_\_\_  
Notary Public

My Commission Expires:

[City signatures on next page]

## ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easement contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

### CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name: Katharine Lord Klein, Esq.  
Title: City Attorney

### COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_



EXHIBIT A

HIGHWAY EASEMENT AREA

**Easement B1**

Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated northerly of Arsenal Street, and is shown as Easement B1 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most southwesterly corner thereof, said point being S 83°38'03" E 1.73' from the most southwesterly corner of the Rounding Easement shown on Plan No. 536 of 2000; thence running

|               |                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------|
| N 06°38'47" E | 9.09' to a point; thence turning and running                                                    |
| N 84°30'56" E | 11.76' to a point; thence turning and running                                                   |
| S 83°21'13" E | 12.79' to a point; thence turning and running                                                   |
| S 39°52'10" W | 1.34' to a point; thence turning and running                                                    |
| S 51°14'31" E | 3.22' to a point of non-tangency; thence turning and running                                    |
| WESTERLY      | 20.56' by a curve to the right having a radius of 22.97' to a point; thence turning and running |
| N 83°38'03" W | 8.41' to the POINT OF BEGINNING.                                                                |

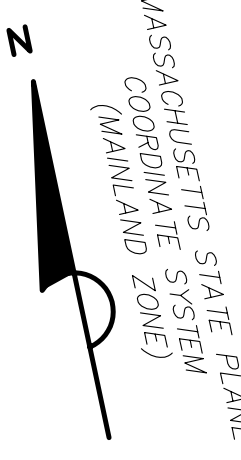
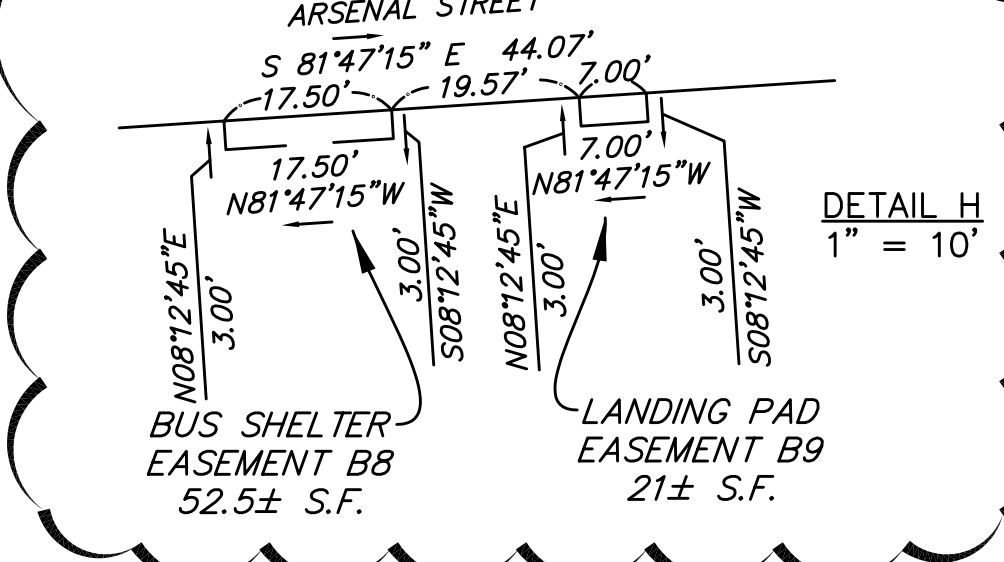
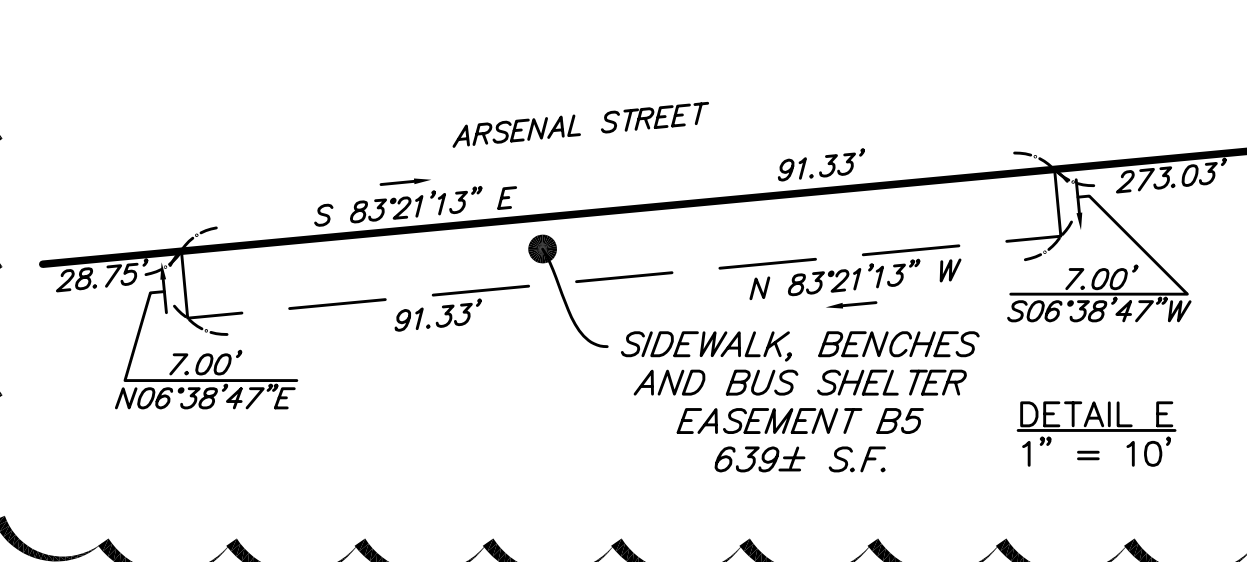
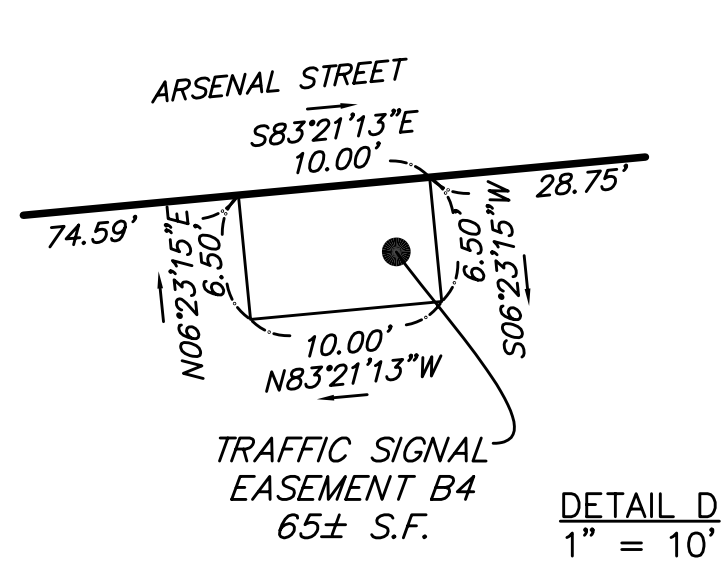
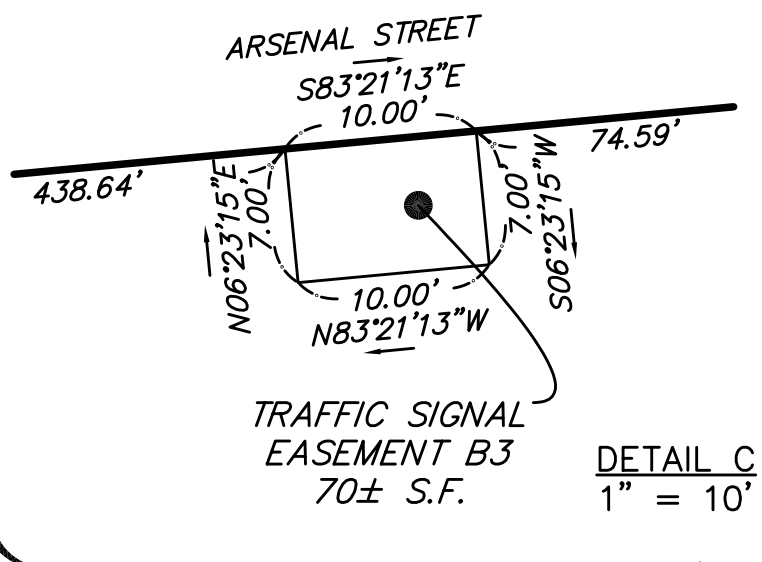
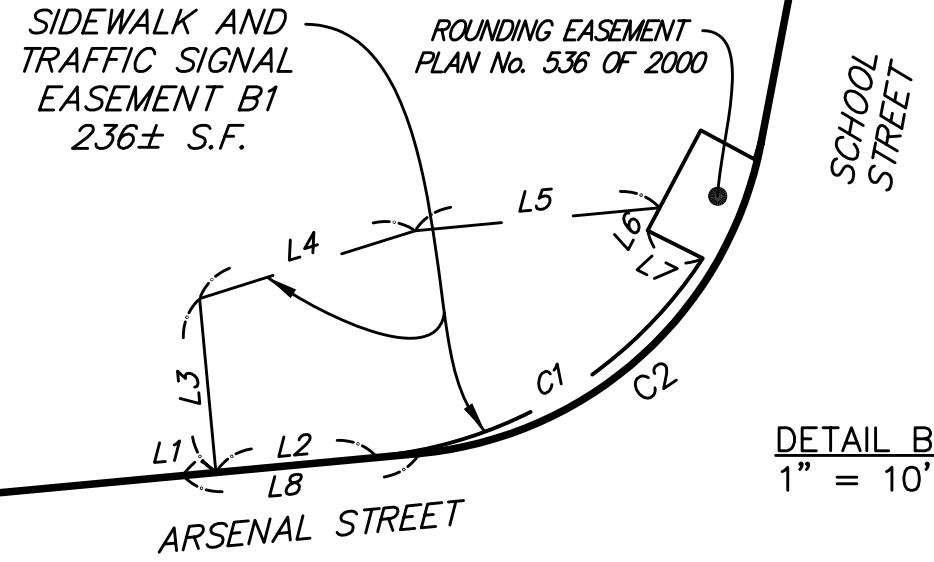
Containing 236 square feet more or less.

## EXHIBIT B

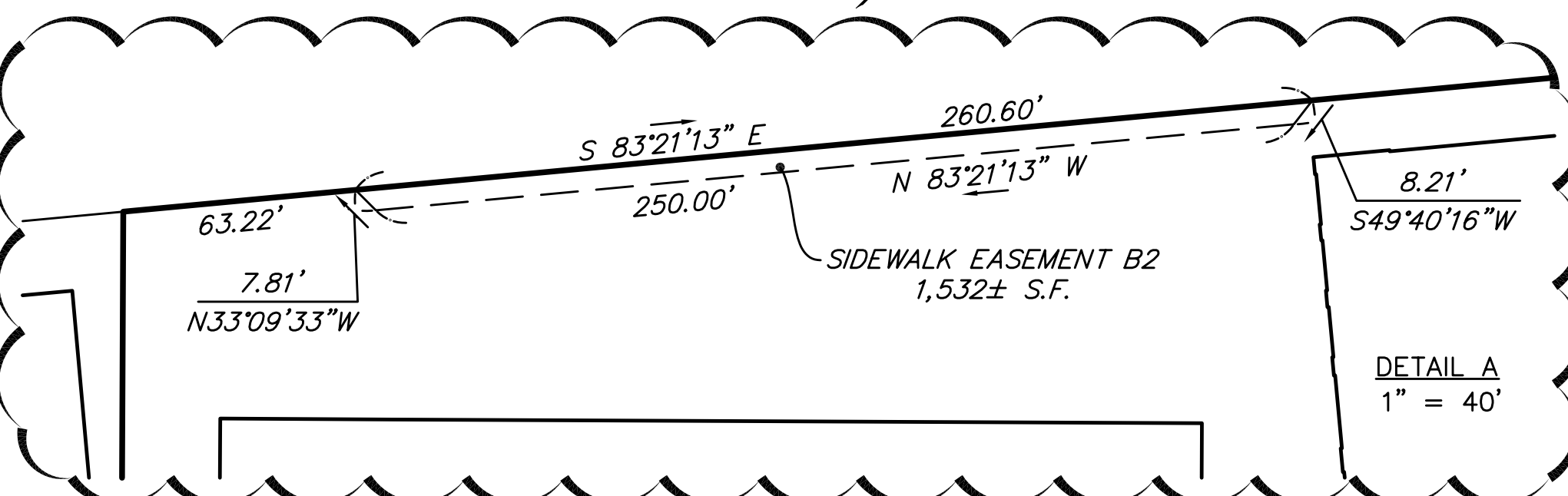
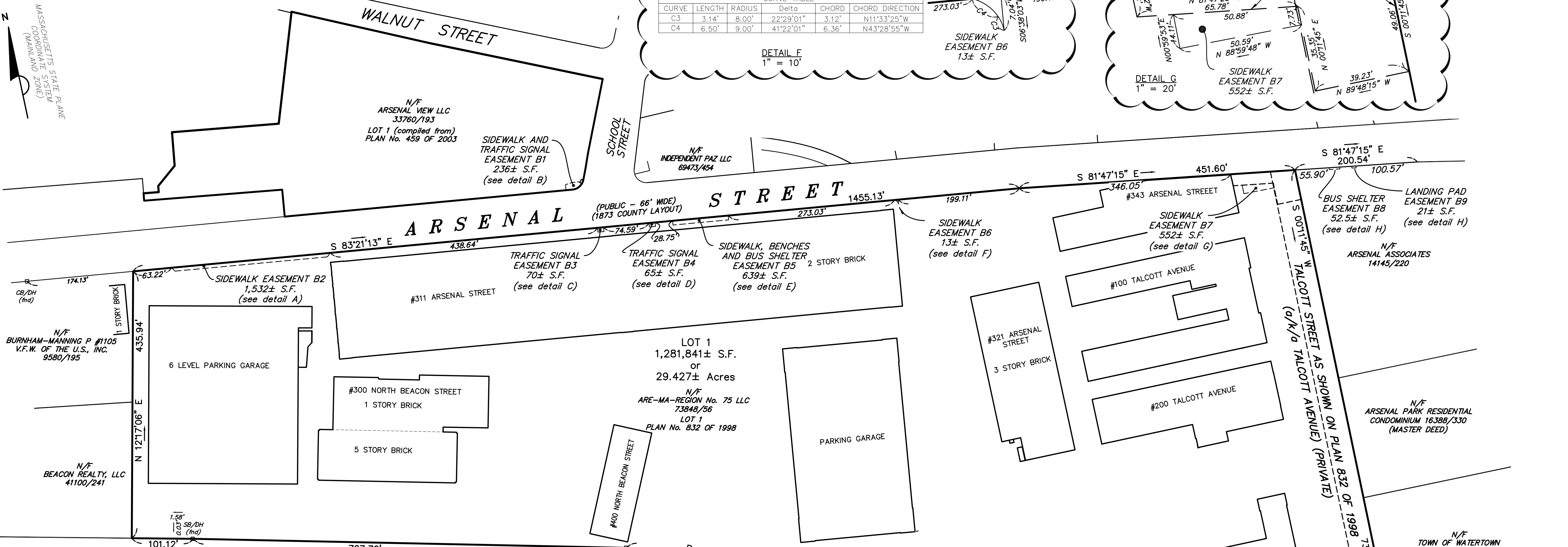
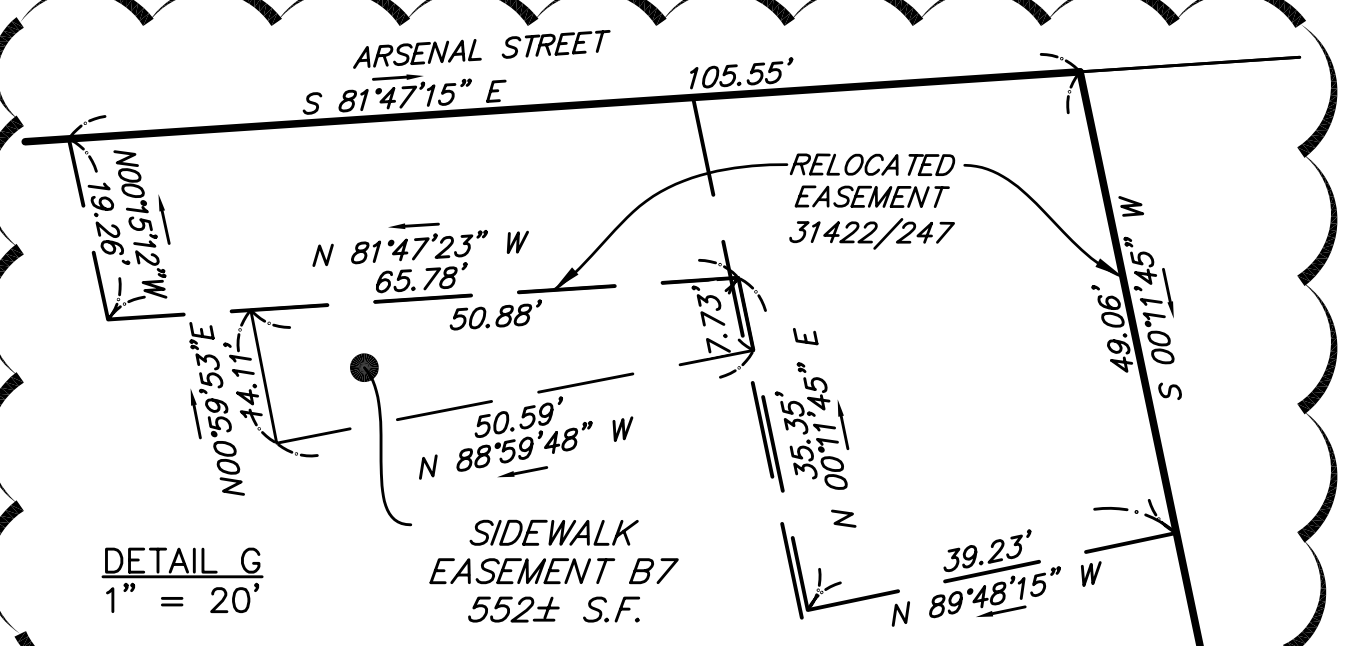
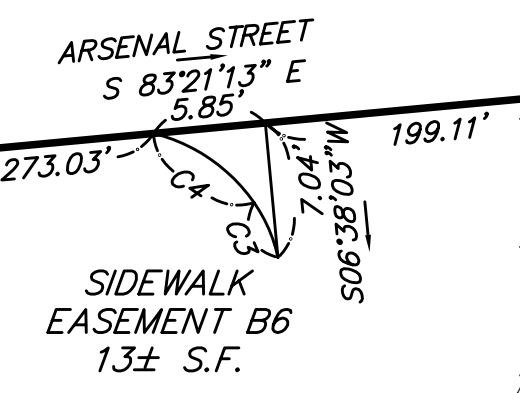
### PLAN

| LINE TABLE |        |             |
|------------|--------|-------------|
| LINE       | LENGTH | BEARING     |
| L1         | 1.73   | S83°38'03"E |
| L2         | 8.41   | N83°38'03"W |
| L3         | 9.10   | N06°38'47"E |
| L4         | 11.76  | N84°30'56"E |
| L5         | 12.79  | S83°21'13"E |
| L6         | 1.34   | S39°52'10"W |
| L7         | 3.22   | S51°14'31"E |
| L8         | 12.38  | N83°21'13"W |
| L9         | 123.79 | S23°12'51"W |
| L10        | 25.67  | S21°15'30"W |
| L11        | 18.09  | S22°49'45"W |

| CURVE TABLE |        |        |           |        |
|-------------|--------|--------|-----------|--------|
| CURVE       | LENGTH | RADIUS | Delta     | CHORD  |
| C1          | 20.55' | 22.97' | 51°16'40" | 19.87' |
| C2          | 25.77' | 20.00' | 73°49'02" | 24.02' |



| CURVE TABLE |        |        |           |       |
|-------------|--------|--------|-----------|-------|
| CURVE       | LENGTH | RADIUS | Delta     | CHORD |
| C3          | 3.14'  | 8.00'  | 22°29'01" | 3.12' |
| C4          | 6.50'  | 9.00'  | 41°22'01" | 6.36' |



I HEREBY CERTIFY THAT:

- THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.
- THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR DIVISIONS OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

MICHAEL PUSTIZZI, PLS No. 46505 DATE 4/7/2022



EASEMENT PLAN OF LAND IN  
**WATERTOWN, MA**  
(MIDDLESEX COUNTY)

SCALE: 1"= 80' DATE: APRIL 7, 2022

0 80 160 240 320 ft

Precision Land Surveying, Inc.  
32 Tumpike Road  
Southborough, Massachusetts 01772  
TELE NO.: (508) 460-1789 FAX NO.: (508) 970-0096  
442116EP1.DWG

EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE



## CONSENT AND SUBORDINATION TO EASEMENT

The undersigned, in connection with that certain Mortgage and Security Agreement, dated as of October 1, 2001, made by ARSENAL VIEW, LLC , a Massachusetts limited liability company, as mortgagor (“Grantor”), to Murray S. Patkin, as mortgagee (“Mortgagee”), recorded with the Middlesex South District Registry of Deeds in Book 41100, Page 322, encumbering the real estate and the improvements thereon commonly known as 330 Arsenal Street, Watertown, Massachusetts, as more particularly described in said Mortgage (“Grantor’s Property”), hereby acknowledges that it has received a copy of the foregoing Grant of Easement (the “Easement Agreement”) between Grantor and the City of Watertown, and hereby consents to said Easement Agreement. Mortgagee hereby unconditionally and irrevocably subordinates all of its interest, now or hereafter arising, in Grantor’s Property to the Easement Agreement; this consent and subordination shall be binding on Mortgagee and its successors and assigns.

Executed this \_\_\_\_ day of \_\_\_\_\_, 2022.

\_\_\_\_\_  
MURRAY S. PATKIN

## COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, ss.

On this \_\_\_\_ day of \_\_\_\_\_, 2022 before me, the undersigned notary public, personally appeared MURRAY S. PATKIN, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose as the voluntary act of MURRAY S. PATKIN.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

[AFFIX SEAL]

### **GRANT OF EASEMENT**

This GRANT OF EASEMENT (“Grant”) is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2022 by and between **ARE-MA Region No. 75, LLC**, a Delaware limited liability company (“Grantor”), having a mailing address of 26 North Euclid Avenue, Pasadena, CA 91101, and the **City of Watertown**, a Massachusetts municipal corporation (“City”), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

#### **WITNESSETH:**

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of, *inter alia*, a certain parcel of land, commonly identified as 311 Arsenal Street, containing approximately 29.42 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in that certain Quitclaim Deed recorded with the Middlesex South District Registry of Deeds (the “Registry”) in Book 73848, Page 56 (the “Grantor Parcel”). The Grantor Parcel abuts Arsenal Street, a public way of the City.

B. In connection with a public infrastructure project on Arsenal Street, including improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to grant to the City easements for certain highway related improvements, including traffic signal equipment, a bus shelter and related accessibility landing pad, benches, sidewalk, and street lighting systems in certain portions of the Grantor Parcel shown on that certain plan of land entitled “Easement Plan of Land in Watertown, MA (Middlesex County),” dated April 7, 2022, prepared by Precision Land Surveying, Inc. (the “Plan”), a reduced copy of which is attached hereto as Exhibit A, and which is recorded with the Registry herewith. The above easement areas are hereinafter referred to herein from time to time singly as the “Highway Easement Area” and collectively as the “Highway Easement Areas.” A legal description of each Highway Easement Area is set forth in Exhibit B attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easements from Grantor to the City. Grantor hereby grants to the City, subject to the terms hereof and limited to the extent of Grantor’s interest in the respective Highway Easement Areas, the perpetual non-exclusive right and easement (the “Highway Easements”), in common with the Grantor, to use the following Highway Easement Areas for the following purposes:

(a) in the area labeled on the Plan as “Sidewalk Easement B2 1,532± S.F.,” easements for the purposes of installing, operating, maintaining, inspecting, repairing, replacing and removing drainage and irrigation facilities at and below grade (including a manhole, piping and sleeving), sidewalk and curbing, together with all fittings,

equipment and other fixtures and appurtenances necessary or useful in connection therewith, all of which shall be at or below grade, and together with the right to permit the general public to access and use said sidewalk and curbing;

(b) in the areas labeled on the Plan as “Traffic Signal Easement B3 70± S.F.” and “Traffic Signal Easement B4 65± S.F.,” easements for the purposes of installing, operating, maintaining, inspecting, repairing, replacing and removing traffic signals, post and controller cabinets, together with all fittings, equipment and other fixtures and appurtenances necessary or useful in connection therewith;

(c) in the area labeled on the Plan as “Sidewalk, Benches and Bus Shelter Easement B5 639± S.F.,” an easement for the purposes of installing, operating, maintaining, inspecting, repairing, replacing and removing a bus shelter, bench seating, landing pad, sidewalk and curbing, together with all fittings, equipment and other fixtures and appurtenances necessary or useful in connection therewith, and together with the right to permit the general public to access and use the same;

(d) in the area labeled on the Plan as “Sidewalk Easement B6 13± S.F.,” easements for the purposes of installing, operating, maintaining, inspecting, repairing, replacing and removing sidewalk, ramp and curbing, and together with the right to permit the general public to access and use the same; and

(e) in the area labeled on the Plan as “Sidewalk Easement B7 552± S.F.,” (“Easement Area B7”) easements for the purposes of installing, operating, maintaining, inspecting, repairing, replacing and removing roadway, sidewalk, ramp, curbing and street lighting systems, together with all fittings, equipment and other fixtures and



appurtenances necessary or useful in connection therewith and together with the right to permit the general public to access and use said roadway, sidewalk, ramp and curbing. The City's exercise of the Highway Easements shall not unreasonably interfere with Grantor's use of the Grantor Parcel, as set forth in Paragraph 3 below. With respect to any work to be performed by the City in Easement Area B7, all work shall be subject to prior approval by Grantor, which approval shall not be unreasonably withheld, conditioned or delayed, as well as the right of Grantor to require work on certain days and times to ensure minimal disruption to its tenants.

2. Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Areas consisting now or hereafter of a sidewalk, bus shelter area, accessibility landing pad area, bench seating area or bicycle parking rack, the right of the City and the public to use, pursuant to the Highway Easements, such areas shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of a Highway Easement Area, other than (i) any mobility device, or (ii) in connection with the maintenance, repair or replacement of any portion of such Highway Easement Area, including, without limitation, snow removal from such portion. The term "mobility device," as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the public to use, pursuant to the Highway Easements, any portion of a Highway Easement Area shall not be deemed to include a right to park bicycles (except for the easement area for the bicycle parking rack) or motor vehicles, motorcycles, or other motorized or non-motorized transportation devices

within any portion of a Highway Easement Area at any time. Further, the City and/or any member of the public shall not place within any portion of a Highway Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of a Highway Easement Area).

3.     Reserved Rights. The Highway Easements hereby granted do not grant to the City or the public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Areas. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Areas, in a manner that does not unreasonably interfere with the Highway Easements, including, without limitation: (a) to erect, outside of and along any sidewalk portion of a Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of a Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of a Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and pedestrian connections between the Grantor Parcel and any sidewalk portion of a Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easements, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of any Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of a Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easements.

4.     Release. It is the intention of the parties that access to the Highway Easement Areas, including, without limitation, the sidewalk portions thereof, shall be used for recreational

purposes and shall be free of charge or fee and that to the fullest extent permitted by law, the Highway Easements constitute an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights granted hereunder including, without limitation, a minor or any other person on the Highway Easement Areas.

5.     Performance of Work. The City shall be responsible for the maintenance, repair and replacement of highway improvements located in the Highway Easement Areas, including, without limitation, all roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, benches, tree wells, landscaping, bus shelters, accessibility landing pads and traffic control devices, including all appurtenances to the foregoing improvements. Any construction, maintenance, repair or replacement work to be performed by the City within any Highway Easement Area pursuant to the Highway Easements (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor. The City agrees, except in the event of emergency, to give Grantor not less than three (3) weeks’ prior notice of any construction, maintenance or replacement work within any Highway Easement Area, and, further, shall make all reasonable efforts to ensure vehicular access to the Grantor Parcel at all times, provided, however, the parties acknowledge that such access may be

obstructed for periods of limited duration. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within any Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including any Highway Easement Area), the City shall take such action, at its sole cost and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

6. Restoration. In connection with any construction or other work by the City within a Highway Easement Area pursuant to the Highway Easements, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcel, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

7. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial



reasons) (collectively, “Force Majeure”), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person’s sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

ARE-MA Region No. 75, LLC  
c/o Alexandria Real Estate Equities, Inc.

26 North Euclid Avenue  
Pasadena, CA 91101  
Attention: Corporate Secretary

With copy to:

ARE-MA Region No. 75, LLC  
c/o Alexandria Real Estate Equities, Inc.  
400 Technology Square, Suite 101  
Cambridge, MA 02139  
Attention: Dante Angelucci, Senior Vice President - Development

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

11. Permitted Encumbrances. The easements and rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded.

Without limiting the foregoing, the easements and rights granted herein are subject to all easements, restrictions and covenants contained in that certain Quitclaim Deed, dated August 20 1998, recorded with the Middlesex County (Southern District) Registry of Deeds at Book 29012, Page 420, from the United States of America, acting by and through the Secretary of the Army (the "Army"), to the Watertown Arsenal Development Corporation ("WADC"), with respect to the Grantor Parcel (the "Army Deed"), which Army Deed includes, without limitation,

covenants in Part IV of the Army Deed associated with the Army's obligations under the Federal Facility Agreement between the Army and the United States Environmental Protection Agency ("EPA"), and covenants in Part XI associated with certain historical resources at the Grantor Parcel.

Notice is hereby given that a Grant of Environmental Restriction and Easement, dated August 11, 1998, pursuant to Massachusetts General Laws Chapter 21E, has been recorded by the Army with the Middlesex County (Southern District) Registry of Deeds at Book 28978, Page 549, as amended by a First Amendment to Grant of Environmental Restriction and Easement, dated February 5, 1999, recorded at Book 29779, Page 359, as affected by a Subordination Agreement, dated March 16, 1999, recorded at Book 29957, Page 104, as further affected by a Subordination Agreement, dated March 24, 1999, recorded at Book 29985, Page 151, as further amended by a Second Amendment to Grant of Environmental Restriction and Easement, dated April 15, 1999, recorded at Book 30066, Page 116, as further affected by a Partial Release of Environmental Restriction and Easement, dated June 10, 1999, recorded at Book 30278, Page 511, as further amended by a Third Amendment to Grant of Environmental Restriction and Easement, dated June 7, 1999, recorded at Book 30278, Page 513, and further amended by a Fourth Amendment to Grant of Environmental Restriction and Easement, dated July 22, 2000, recorded at Book 31682, Page 99, as further amended by a Fifth Amendment to Grant of Environmental Restriction and Easement dated July 14, 2004, and recorded with said Registry of Deeds in Book 44119, Page 1; as affected by a plan entitled "Plan Showing Excavation Areas B, E, and G in Watertown, Massachusetts," dated February 20, 2002, as revised on September 25, 2002, prepared by Dunn McKenzie, Inc., recorded as Plan No. 1348 of 2004; as further amended by a Sixth Amendment to Grant of Environmental Restriction and Easement dated March 21, 2005, and

recorded with said Registry of Deeds in Book 45129, Page 1; as further affected by a plan entitled “Plan Showing Commercial Reuse Area in Watertown, Massachusetts,” dated October 25, 2004, as revised on March 16, 2005, prepared by Dunn McKenzie, Inc., recorded as Plan No. 523 of 2005; as further amended by a Seventh Amendment to Grant of Environmental Restriction and Easement dated August 9, 2006, and recorded with said Registry of Deeds in Book 48562, Page 187; and as further affected by a plan entitled “Plan Showing Commercial Reuse Area in Watertown, Massachusetts,” dated August 16, 2004, as revised on March 16, 2005 and February 10, 2006, prepared by Dunn McKenzie, Inc., recorded as Plan No. 1480 of 2006 (the “Grant of Environmental Restriction and Easement”). This restriction on the activities conducted on the Grantor Parcel and use limitations contained in the Grant of Environmental Restriction and Easement are hereby incorporated by reference and shall be independently enforceable by the Army under the Grant of Environmental Restriction and Easement and under the Army Deed as a Restrictive Covenant and equitable servitude.

Notice is hereby further given that three Notices of Activity and Use Limitations, pursuant to Massachusetts General Laws Chapter 21E, have been recorded with the Middlesex County (Southern District) Registry of Deeds, (1) dated August 11, 1998, recorded at Book 28959, Page 92; (2) dated August 11, 1998, recorded at Book 28959, Page 190, as amended by a First Amendment to Notice of Activity and Use Limitations, dated October 26, 1999, recorded at Book 30801, Page 319, as further amended by a Second Amendment to Notice of Activity and Use Limitations, dated December 9, 2019, recorded at Book 73807, Page 226; and (3) dated February 4, 1999, recorded at Book 29766, Page 17, as amended by a First Amendment to Notice of Activity and Use Limitations, dated August 19th, 2004, recorded at Book 43589, Page 438, and as further amended by a Second Amendment to Notice of Activity and Use Limitation, dated February 28,



2005, recorded at Book 44737, Page 453 (the “Notices of AULs”). The restriction on activities conducted on the Grantor Parcel and use limitations contained in the Notices of AULs are hereby incorporated by reference and shall be independently enforceable by the Army under this Deed as a Restrictive Covenant and equitable servitude.

Notice is hereby given that the WADC reserved an easement and right of access on, over and through the Grantor Parcel for inspection in order to fulfill its obligations under the Army Deed, in the Quitclaim Deed from the WADC to Charles River Business Center Associates, LLC, dated December 1, 1998 and recorded with the Middlesex County (Southern District) Registry of Deeds at Book 29502, Page 92.

12. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

13. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

ARE-MA REGION NO. 75, LLC, a Delaware  
limited liability company

By: \_\_\_\_\_  
Hunter L. Kass, Authorized Signer per  
M.G.L. c. 15C, § 66

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, HUNTER L. KASS personally appeared, proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose as Authorized Signer of ARE-MA Region No. 75, LLC, a Delaware limited liability company, as the voluntary act of said limited liability company.

\_\_\_\_\_  
Notary Public

Print Name: \_\_\_\_\_

My Commission Expires: \_\_\_\_\_

[affix seal]

[City signatures on next page]

## ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easement contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

### CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:  
Title: City Attorney

### COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

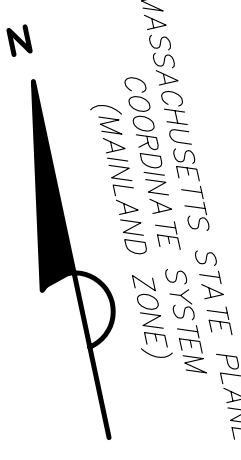
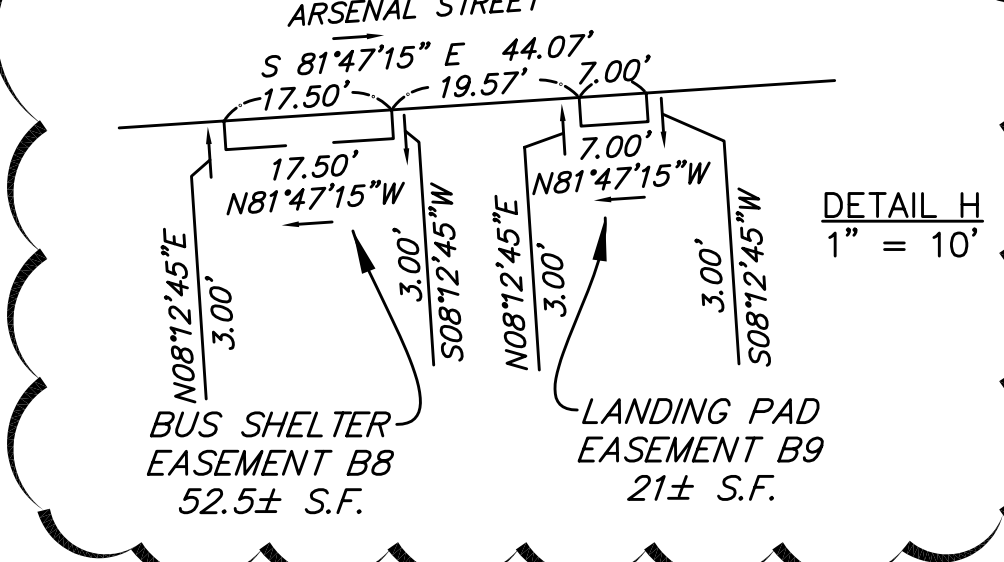
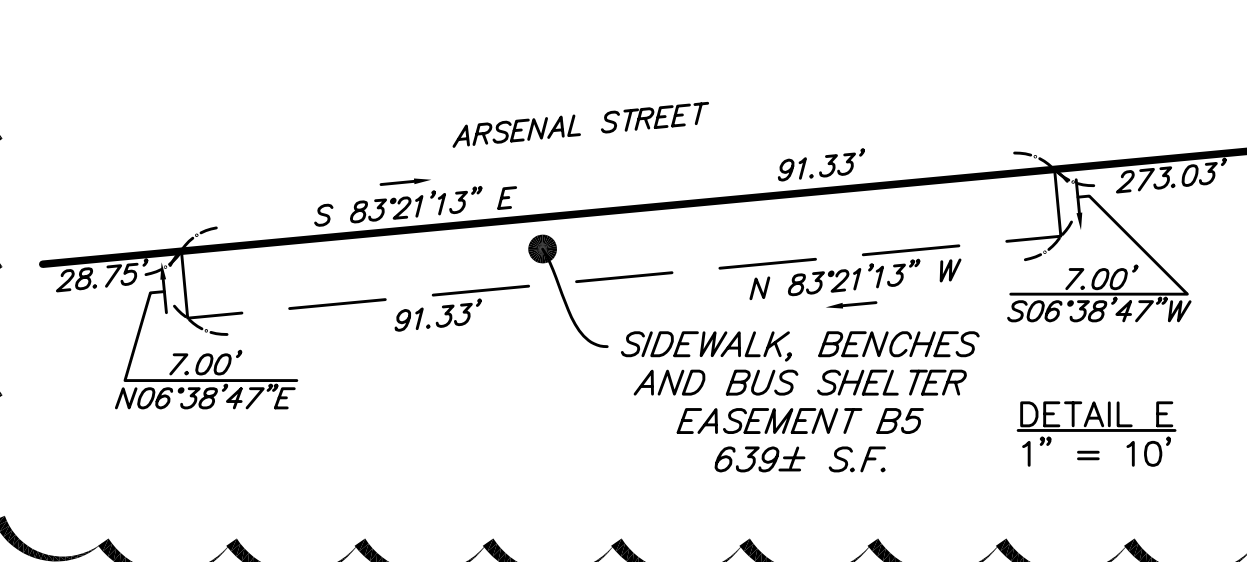
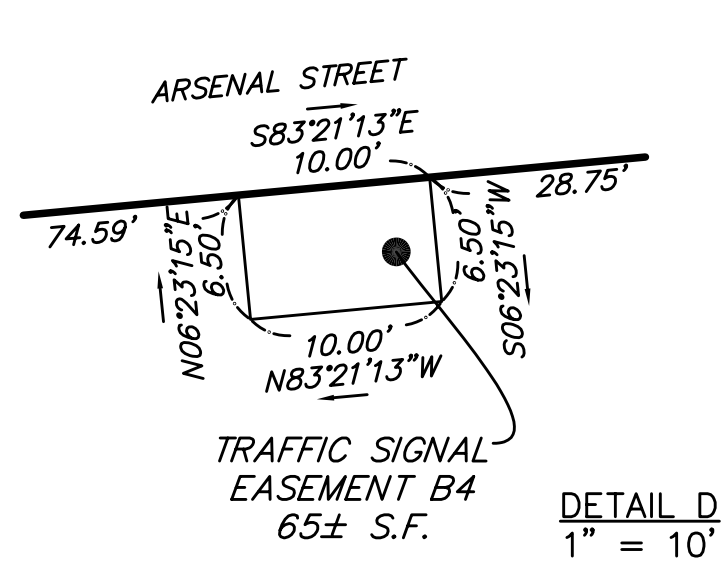
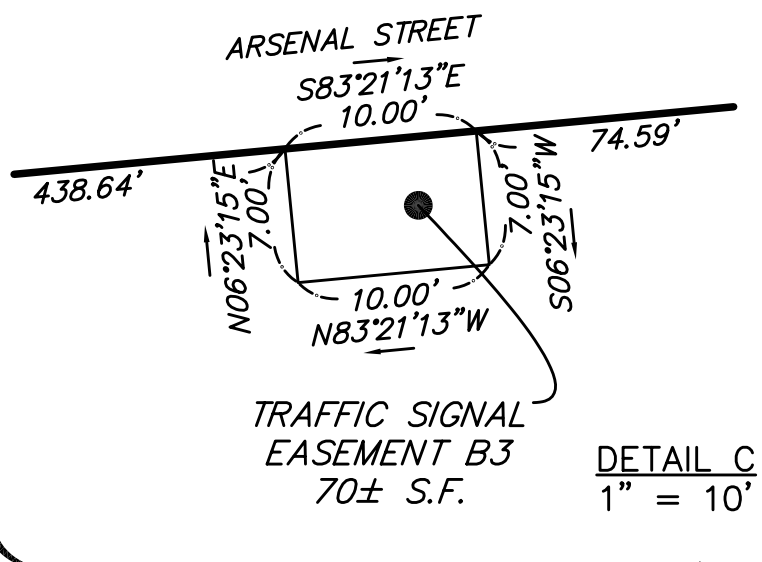
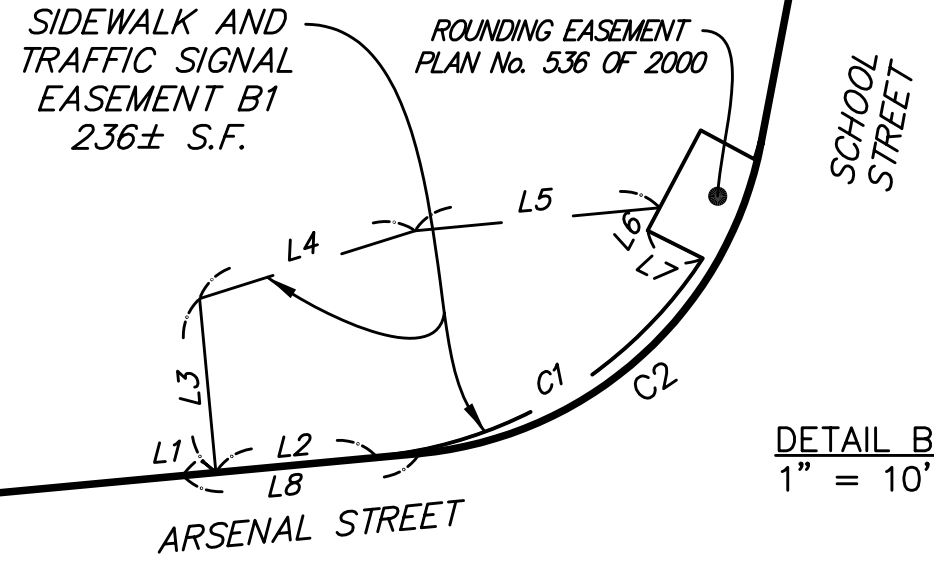
\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

EXHIBIT A  
REDUCED COPY OF PLAN  
(see attached)

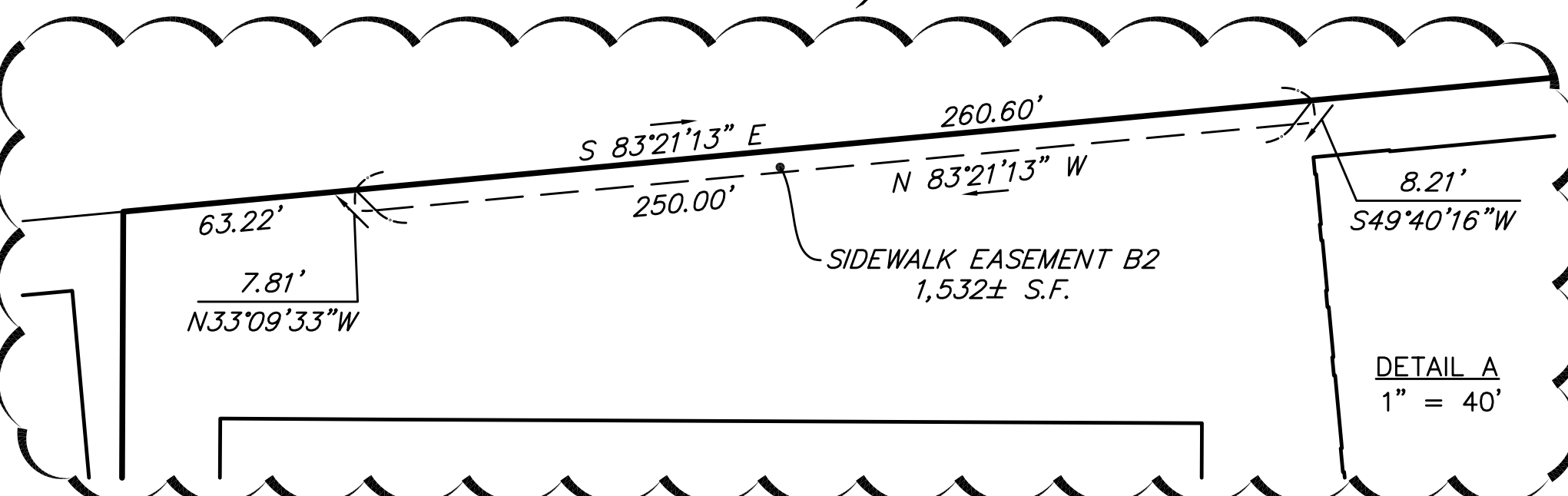
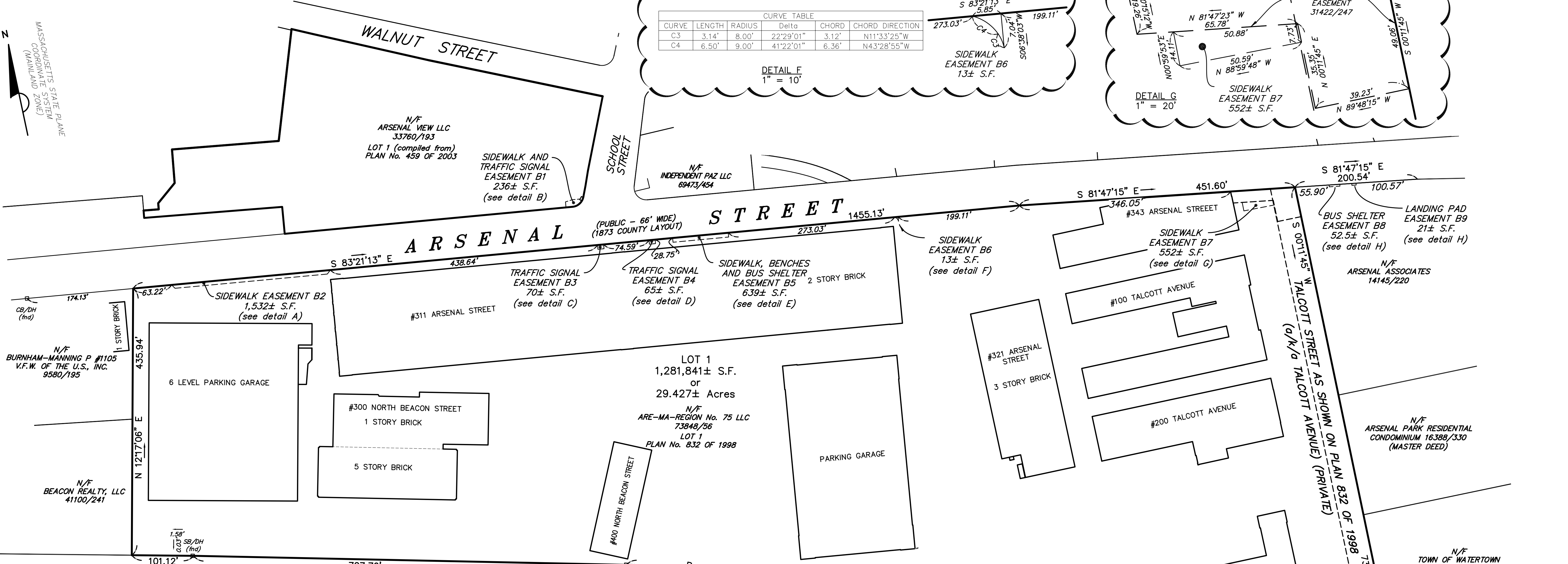
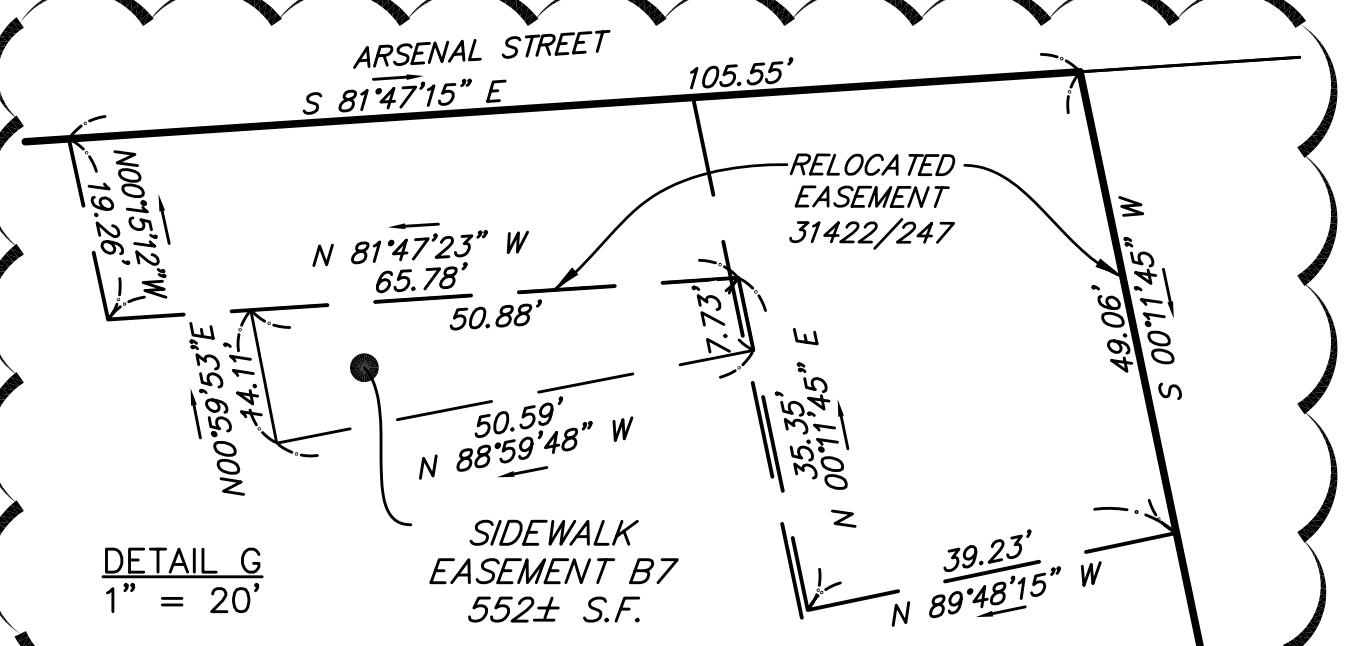
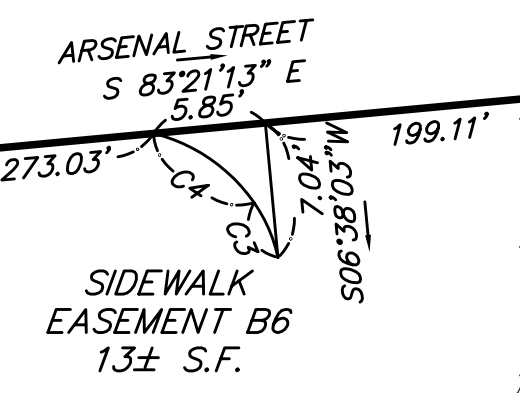


| LINE TABLE |        |             |
|------------|--------|-------------|
| LINE       | LENGTH | BEARING     |
| L1         | 1.73   | S83°38'03"E |
| L2         | 8.41   | N83°38'03"W |
| L3         | 9.10   | N06°38'47"E |
| L4         | 11.76  | N84°30'56"E |
| L5         | 12.79  | S83°21'13"E |
| L6         | 1.34   | S39°52'10"W |
| L7         | 3.22   | S51°14'31"E |
| L8         | 12.38  | N83°21'13"W |
| L9         | 123.79 | S23°12'51"W |
| L10        | 25.67  | S21°15'30"W |
| L11        | 18.09  | S22°49'45"W |

| CURVE TABLE |        |        |           |        |
|-------------|--------|--------|-----------|--------|
| CURVE       | LENGTH | RADIUS | Delta     | CHORD  |
| C1          | 20.55' | 22.97' | 51°16'40" | 19.87' |
| C2          | 25.77' | 20.00' | 73°49'02" | 24.02' |



| CURVE TABLE |        |        |           |       |
|-------------|--------|--------|-----------|-------|
| CURVE       | LENGTH | RADIUS | Delta     | CHORD |
| C3          | 3.14'  | 8.00'  | 22°29'01" | 3.12' |
| C4          | 6.50'  | 9.00'  | 41°22'01" | 6.36' |



I HEREBY CERTIFY THAT:

- THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.
- THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR DIVISIONS OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

MICHAEL PUSTIZZI, PLS No. 46505 DATE 4/7/2022



EASEMENT PLAN OF LAND IN  
**WATERTOWN, MA**  
(MIDDLESEX COUNTY)

SCALE: 1"= 80' DATE: APRIL 7, 2022

0 80 160 240 320 ft

Precision Land Surveying, Inc.  
32 Tumpike Road  
Southborough, Massachusetts 01772  
TELE NO.: (508) 460-1789 FAX NO.: (508) 970-0096  
442116EP1.DWG

EXHIBIT B

HIGHWAY EASEMENT AREAS

**Sidewalk Easement B2**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B2 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S83°21'13"E 63.22' from the northwesterly corner of the parcel owned by ARE-MA Region No. 75 LLC at #311 Arsenal Street; thence running

|               |         |                                                                                    |
|---------------|---------|------------------------------------------------------------------------------------|
| S 83°21'13" E | 260.60' | by the southerly sideline of Arsenal Street to a point; thence turning and running |
| S 49°40'16" W | 8.21'   | to a point; thence turning and running                                             |
| N 83°21'13" W | 250.00' | to a point; thence turning and running                                             |
| N 33°09'33" W | 7.81'   | to the POINT OF BEGINNING.                                                         |

Containing 1,532 square feet, more or less.

**Traffic Signal Easement B3**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B3 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S83°21'13"E 762.46' from the northwesterly corner of the parcel owned by ARE-MA Region No. 75 LLC at #311 Arsenal Street; thence running

|               |                                                                                           |
|---------------|-------------------------------------------------------------------------------------------|
| S 83°21'13" E | 10.00' by the southerly sideline of Arsenal Street to a point; thence turning and running |
| S 06°23'15" W | 7.00' to a point; thence turning and running                                              |
| N 83°21'13" W | 10.00' to a point; thence turning and running                                             |
| N 06°23'15" E | 7.00' to the POINT OF BEGINNING.                                                          |

Containing 70 square feet, more or less.

**Traffic Signal Easement B4**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B4 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S83°21'13"E 847.05' from the northwesterly corner of the parcel owned by ARE-MA Region No. 75 LLC at #311 Arsenal Street; thence running

|               |                                                                                           |
|---------------|-------------------------------------------------------------------------------------------|
| S 83°21'13" E | 10.00' by the southerly sideline of Arsenal Street to a point; thence turning and running |
| S 06°23'15" W | 6.50' to a point; thence turning and running                                              |
| N 83°21'13" W | 10.00' to a point; thence turning and running                                             |
| N 06°23'15" E | 6.50' to the POINT OF BEGINNING.                                                          |

Containing 65 square feet, more or less.



**Sidewalk, Benches and Bus Shelter Easement B5**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B5 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S83°21'13"E 885.80' from the northwesterly corner of the parcel owned by ARE-MA Region No. 75 LLC at #311 Arsenal Street; thence running

|               |                                                                                           |
|---------------|-------------------------------------------------------------------------------------------|
| S 83°21'13" E | 91.33' by the southerly sideline of Arsenal Street to a point; thence turning and running |
| S 06°38'47" W | 7.00' to a point; thence turning and running                                              |
| N 83°21'13" W | 91.33' to a point; thence turning and running                                             |
| N 06°38'47" E | 7.00' to the POINT OF BEGINNING.                                                          |

Containing 639 square feet, more or less.

**Sidewalk Easement B6**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B6 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S83°21'13"E 1250.16' from the northwesterly corner of the parcel owned by ARE-MA Region No. 75 LLC at #311 Arsenal Street; thence running

|               |                                                                                                        |
|---------------|--------------------------------------------------------------------------------------------------------|
| S 83°21'13" E | 5.85' by the southerly sideline of Arsenal Street to a point; thence turning and running               |
| S 06°38'03" W | 7.04' to a point of non-tangency; thence turning and running                                           |
| NORTHERLY     | 3.14' by a curve to the left having a radius of 8.00' to a point of compound curvature; thence running |
| NORTHWESTERLY | 6.50' by a curve to the left having a radius of 9.00' to the POINT OF BEGINNING.                       |

Containing 13 square feet, more or less.

**Sidewalk Easement B7**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated southerly of Arsenal Street, and is shown as Easement B7 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S00°15'12"E 19.26' and S81°47'23"E 14.90' from the most northwesterly corner of the Relocated Easement as described in Deed Book 31422 Page 247; thence running

|               |                                               |
|---------------|-----------------------------------------------|
| S 81°47'23" E | 50.88' to a point; thence turning and running |
| S 00°11'45" W | 7.73' to a point; thence turning and running  |
| N 88°59'48" W | 50.59' to a point; thence turning and running |
| N 00°59'53" E | 14.11' to the POINT OF BEGINNING.             |

Containing 552 square feet, more or less.

EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE



## GRANT OF EASEMENT

This GRANT OF EASEMENT (“Grant”) is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2022 by and between Arsenal Associates, a Delaware limited partnership (“Grantor”), having a mailing address of Gilbane Development Company c/o Arsenal Associates, 7 Jackson Walkway, Providence, RI 02903, and the City of Watertown, a Massachusetts municipal corporation (“City”), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### WITNESSETH:

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of, inter alia, a certain parcel of land, commonly identified as 455-465 Arsenal Street, Watertown, Massachusetts, containing approximately 2.866 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in that certain Quitclaim Deed recorded with the Middlesex South District Registry of Deeds (the “Registry”) in Book 14145, Page 220 (the “Grantor Parcel”). The Grantor Parcel abuts Arsenal Street, a public way of the City.

B. In connection with a public infrastructure project on Arsenal Street, including the construction of improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to grant to the City easements for the highway purposes described herein in those portions of the Grantor Parcel shown as “Easement A6” (containing 111± S.F.) and “Easement A7” (containing 169± S.F.) on that certain plan entitled “Easement Plan of Land Arsenal Street, Watertown, Massachusetts,” dated April 20, 2022, prepared by Feldman Geospatial (the “Feldman Plan”), a reduced copy of which is attached hereto as Exhibit B-1, and is recorded

with the Registry herewith as Plan \_\_\_\_ of 2022 and “Easement B8” (containing 52.5± S.F.) and “Easement B9” (containing 21± S.F.) on that certain plan entitled “Easement Plan of Land in Watertown, MA (Middlesex County),” dated April 7, 2022, prepared by Precision Land Surveying, Inc. (the “Precision Plan,” together with the Feldman Plan, the “Plans”), a reduced copy of which is attached hereto as Exhibit B-2, and is recorded with the Registry herewith as Plan \_\_\_\_ of 2022. The above highway easement areas are hereinafter referred to singly as the “Highway Easement Area” and collectively as the “Highway Easement Areas.” A legal description of each Highway Easement Area is set forth in Exhibit A attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easements From Grantor to the City. Grantor hereby grants to the City, and, where applicable, to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Highway Easement Areas, the perpetual, non-exclusive right and easement, in common with the Grantor, to use the Highway Easement Areas for the following purposes:

(a) in the areas labeled on the Plans as Easement A6 and Easement A7, easements for the purpose of constructing, installing, operating, maintaining, repairing and replacing sidewalk, handicap ramps, traffic signals, posts and controller cabinets, together with all fittings, equipment and other fixtures and appurtenances necessary or useful in connection herewith.

(b) in the area labeled on the Plans as Easement B8, an easement for the purpose of constructing, installing, operating, maintaining, repairing, replacing and removing a bus shelter

and pad, together with all fittings, equipment and other fixtures and appurtenances necessary or useful in connection therewith, together with the right to permit the general public to access and use the same; provided, however, the City is expressly prohibited from placing or permitting others to place, advertisements on the bus shelter.

(c) in the area labeled on the Plans as Easement B9, an easement for the purposes of constructing, installing, operating, maintaining, inspecting, repairing, replacing and removing an accessibility landing pad for the use of persons with disabilities, together with the right to permit the general public to access and use the same.

2. Easements From Grantor to the General Public. Grantor grants to the general public, subject to the terms hereof and limited to the extent of Grantor's interest in the Highway Easement Areas, the perpetual, non-exclusive right to use the Highway Easement Areas for pedestrian access (except as hereinafter limited).

The improvements described in this Section 1 are collectively referred to as the "Improvements."

The City's and/or the general public's use of the Highway Easements shall not unreasonably interfere with Grantor's use of or access to the Grantor Parcel, and the Highway Easement Areas.

3. Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Areas upon which, now or hereafter, a sidewalk is located, and which the City and the general public have a right to use the same pursuant to this Grant, such sidewalk shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of a Highway Easement Areas, other than (i) any mobility device, or

(ii) in connection with the maintenance, repair or replacement of any sidewalk portion of a Highway Easement Area, including, without limitation, snow removal from such sidewalk. The term “mobility device,” as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the general public to use, pursuant to this Grant, any portion of a Highway Easement Area upon which a sidewalk is located, shall not be deemed to include a right to park bicycles or motor vehicles, motorcycles, or other motorized or non-motorized transportation devices within any sidewalk portion of a Highway Easement Area at any time. Further, the City and/or any member of the general public shall not place on any sidewalk located in a Highway Easement Area any obstructions (except for temporary obstructions placed on the Highway Easement Areas by the City to the extent required in connection with the maintenance, repair or replacement of a Highway Easement Area).

4. Reserved Rights. The Highway Easements hereby granted do not grant to the City or the general public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Areas. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Areas, in a manner that does not unreasonably interfere with the Highway Easements, including, without limitation: (a) to erect, outside of and along any sidewalk portion of a Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of a Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of a Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and



pedestrian connections between the Grantor Parcel and any sidewalk portion of a Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easements, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of any Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of a Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easements.

5.     Release. It is the intention of the parties that access to the Highway Easement Areas, including, without limitation, the sidewalk portions thereof, shall be used for recreational purposes and shall be free of charge or fee to the users thereof, and that to the fullest extent permitted by law the Highway Easement Areas constitute an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the general public in connection with the rights granted hereunder including, without limitation, a minor or any other person on the Highway Easement Areas.

6.     Performance of Work. The City shall be responsible for the maintenance, repair and replacement of the Improvements, as well as all portions of such Improvements lying outside of the Highway Easement Areas. Any construction, maintenance or replacement work to be performed by the City within any Highway Easement Area (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules,

and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor; and, once commenced, the City shall diligently pursue completion of the same. The City agrees, except in the event of emergency, to give Grantor 48 hours' prior notice (which may be oral) of any construction, maintenance or replacement work within any Highway Easement Area. The City's use of the Highway Easement Areas shall not impede vehicular access to the Grantor Parcel. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within any Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including any Highway Easement Area), the City shall promptly take such action, at its sole cost and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

7. Restoration. In connection with any construction or other work by the City within a Highway Easement Area, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City (but not members of the general public) causes any damage to the Grantor Parcel, the City shall promptly restore and repair the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

8. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by

reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, “Force Majeure”), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

9. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person’s sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

10. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited

overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

Gilbane Development Company  
c/o Arsenal Associates  
7 Jackson Walkway  
Providence, RI 02903  
Attn: Sarah Sarafian

With a copy to:

Molly Stolmeier, Esq.  
General Counsel  
Gilbane Development Company  
5670 Liberton Ct.  
Dublin, OH 43017

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

11. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

12. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded. Grantor makes no representations or warranties with



respect to the terms, conditions or restrictions imposed on the Highway Easement Areas by any such matters of record.

13. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

14. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

ARSENAL ASSOCIATES

By: \_\_\_\_\_

Name: \_\_\_\_\_

Office: \_\_\_\_\_

Hereunto duly authorized

COMMONWEALTH/STATE OF \_\_\_\_\_

\_\_\_\_\_, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, as \_\_\_\_\_ of \_\_\_\_\_, proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose and acknowledged said instrument to be the free act and deed of \_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

[City signatures on next page]

ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easements contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:  
Title: City Attorney

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

EXHIBIT A  
HIGHWAY EASEMENT AREAS

EASEMENT A6

A certain parcel of land on the south side of Arsenal Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the south side of Arsenal Street at the southeasterly corner of the intersection with Arsenal Court;

thence turning and running S 79°08'03" E, a distance of 9.90 feet by said Arsenal Street;

thence turning and running S 10°51'57" W, a distance of 3.16 feet;

thence turning and running S 77°50'29" W, a distance of 18.76 feet;

thence turning and running N 57°04'26" W, a distance of 3.46 feet to the east side of Arsenal Court, the last 3 courses through land now or formerly of Arsenal Associates;

thence along a curve turning to the right having a radius of 22.97 feet an arc length of 14.24 feet a chord bearing of N 59°50'26" E and a chord length of 14.01 feet to the point of beginning.

Said parcel contains an area of about 111 square feet and is shown as Easement A6 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex County South registry of deeds.



## EASEMENT A7

A certain parcel of land on the south side of Arsenal Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the south side of Arsenal Street at the southwesterly corner of the intersection with Arsenal Court;

thence along a curve turning to the right having a radius of 22.97 feet an arc length of 16.43 feet a chord bearing of S 42°40'33" E and a chord length of 16.08 feet, the last course by Arsenal Court;

thence turning and running S 64°02'52" W, a distance of 3.77 feet;

thence turning and running N 58°54'45" W, a distance of 27.59 feet;

thence turning and running N 08°16'16" E, a distance of 2.28 feet to Arsenal Street, the last 3 courses through land now or formerly of Arsenal Associates;

thence turning and running S 79°08'03" E, a distance of 16.08 feet by said Arsenal Street to the point of beginning.

Said parcel contains an area of about 169 square feet and is shown as Easement A7 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex County South registry of deeds.

**Easement B8**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B8 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S81°47'15"E 55.90' from the northwesterly corner of parcel owned by Arsenal Associates at #455-465 Arsenal Street; thence running

|               |                                                                                           |
|---------------|-------------------------------------------------------------------------------------------|
| S 81°47'15" E | 17.50' by the southerly sideline of Arsenal Street to a point; thence turning and running |
| S 08°12'45" W | 3.00' to a point; thence turning and running                                              |
| N 81°47'15" W | 17.50' to a point; thence turning and running                                             |
| N 08°12'45" E | 3.00' to the POINT OF BEGINNING.                                                          |

Containing 52.5 square feet, more or less.

**Easement B9**  
Arsenal Street, Watertown, MA

A certain easement located in the Commonwealth of Massachusetts, County of Middlesex, City of Watertown, situated on the southerly sideline of Arsenal Street, and is shown as Easement B9 on "Easement Plan of Land in Watertown, MA," dated April 7, 2022 by Precision Land Surveying, Inc, to be recorded with the Middlesex South Registry of Deeds, more particularly bounded and described as follows:

Beginning at the most northwesterly corner thereof, said point being S81°47'15"E 92.97' from the northwesterly corner of parcel owned by Arsenal Associates at #455-465 Arsenal Street; thence running

|               |                                                         |
|---------------|---------------------------------------------------------|
| S 81°47'15" E | 7.00' to a point to a point; thence turning and running |
| S 08°12'45" W | 3.00' to a point; thence turning and running            |
| N 81°47'15" W | 7.00' to a point; thence turning and running            |
| N 08°12'45" E | 3.00' to the POINT OF BEGINNING.                        |

Containing 21 square feet, more or less.

EXHIBIT B-1

Feldman Plan



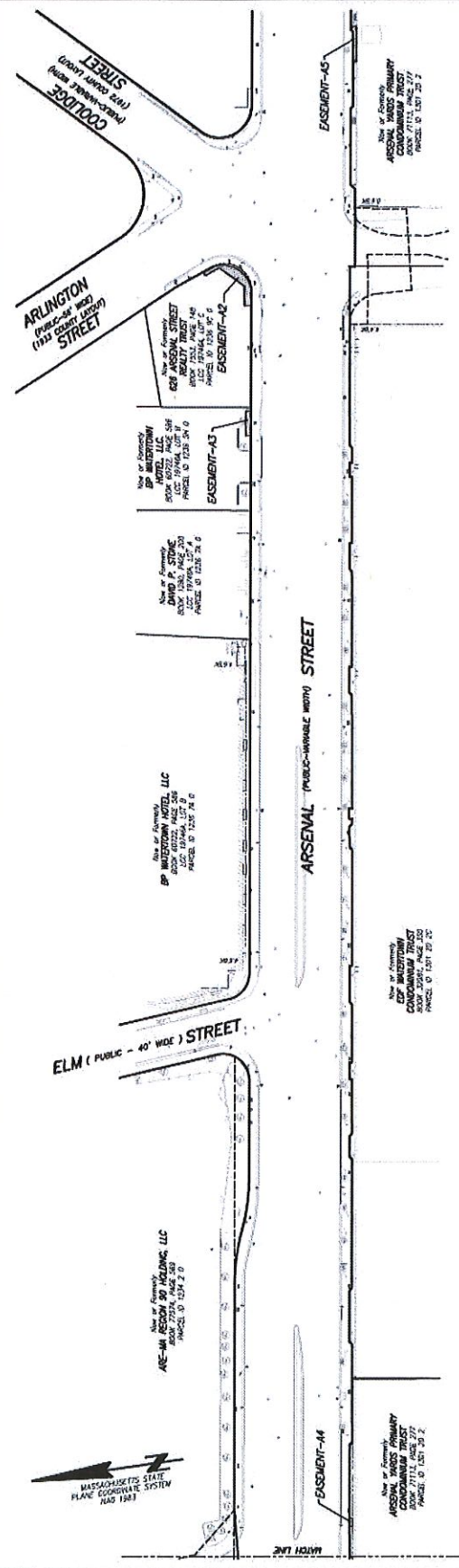
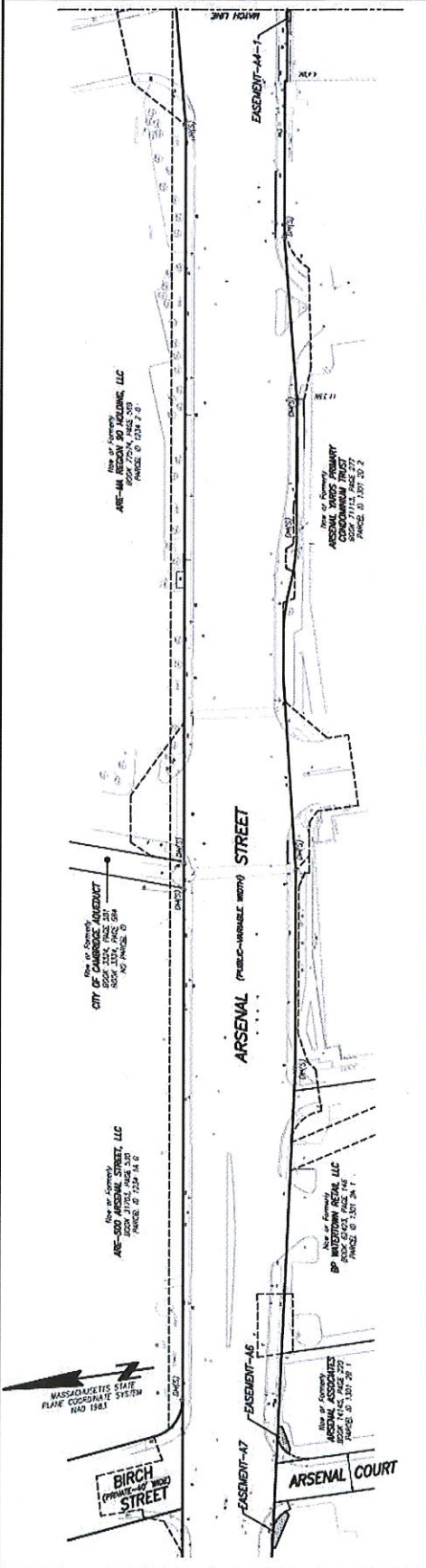
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|------------|------------|
| RESEARCH   | FIELD DATA |
| ANALYSIS   | APPROVED   |
| DATA       | DATA       |
| FIELD DATA | FIELD DATA |

AS

**5 DAYS**

**EASEMENT  
PLAN OF LAND**

6006-1000



CEATED THAT THE PLAN CONFLICTS WITH THE RULES AND REGULATIONS OF THE HOUSING OF CITIES.



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*for information*

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FILE NO. 21 TOWNSHIP RECORDS  
RECEIVED BY TOWNSHIP CLERK  
DEPT. HEALTH 21, 1982

FILE NO. 500 "PAGE 2 OF 2"  
DEPT. HEALTH 21, 1982

FILE NO. ON ANIMAL STREET  
RECEIVED BY TOWNSHIP CLERK  
DEPT. HEALTH 21, 1979

FILE NO. 14705 PAGE 43  
RECEIVED BY TOWNSHIP CLERK  
DEPT. HEALTH 21, 1982

FILE NO. 14705 PAGE 44  
RECEIVED BY TOWNSHIP CLERK  
DEPT. HEALTH 21, 1982

FILE NO. 14705 PAGE 122  
TOWNSHIP CLERK  
DEPT. HEALTH 21, 1982

FILE NO. 14705 PAGE 336  
(POLYMER THIN)  
DEPT. HEALTH 21, 1982

FILE NO. 14705 PAGE 1179  
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FILE NO. 14705 PAGE 1183  
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FILE NO. 14705 PAGE 1184  
RECEIVED BY TOWNSHIP CLERK  
DEPT. HEALTH 21, 1982

FILE NO. 14705 PAGE 1185  
RECEIVED BY TOWNSHIP CLERK  
DEPT. HEALTH 21, 1982

[illegible][illegible]

80 FT. SQUARE FEET METROPOLITAN DISTRICT COMMISSION

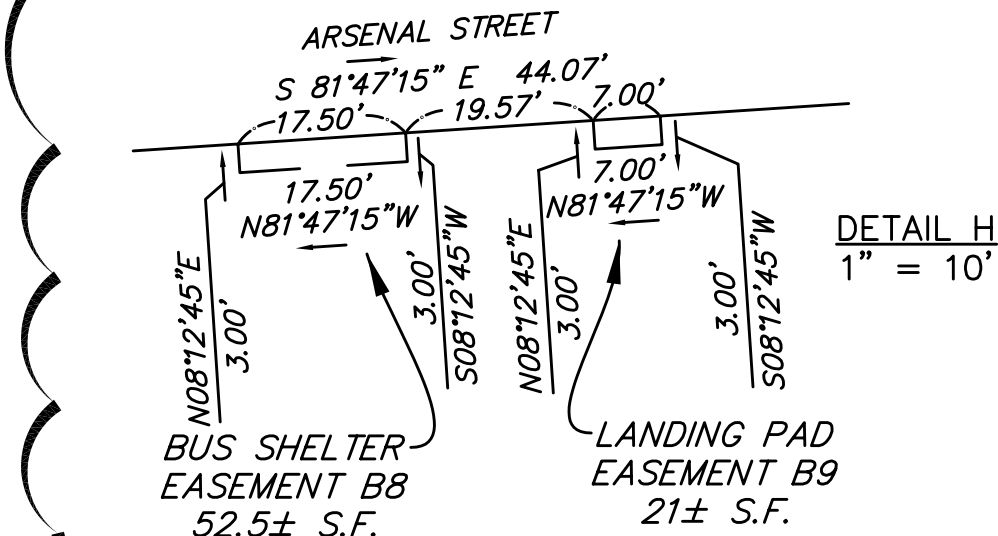
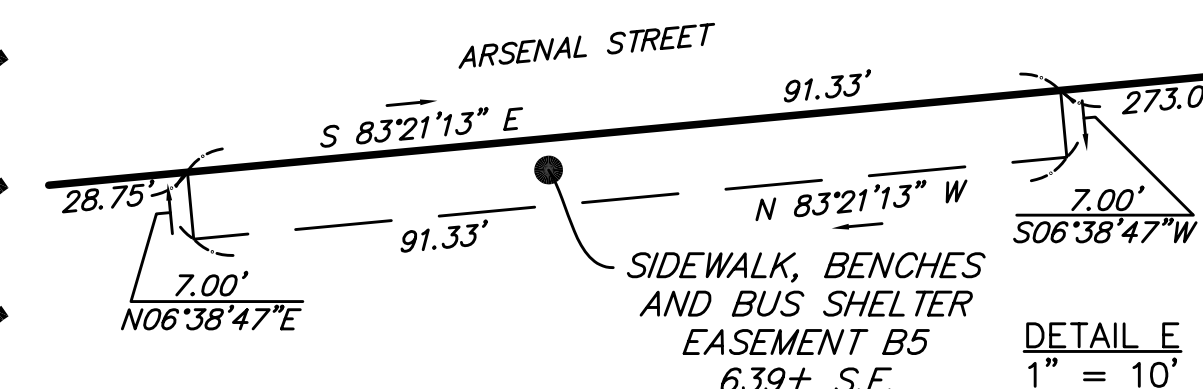
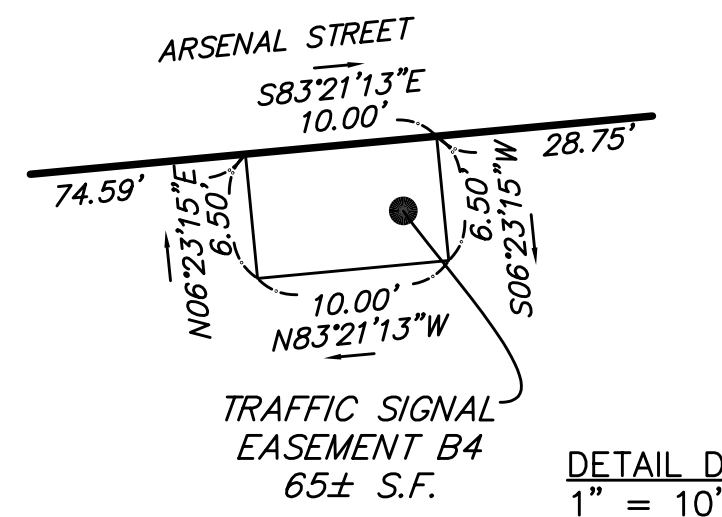
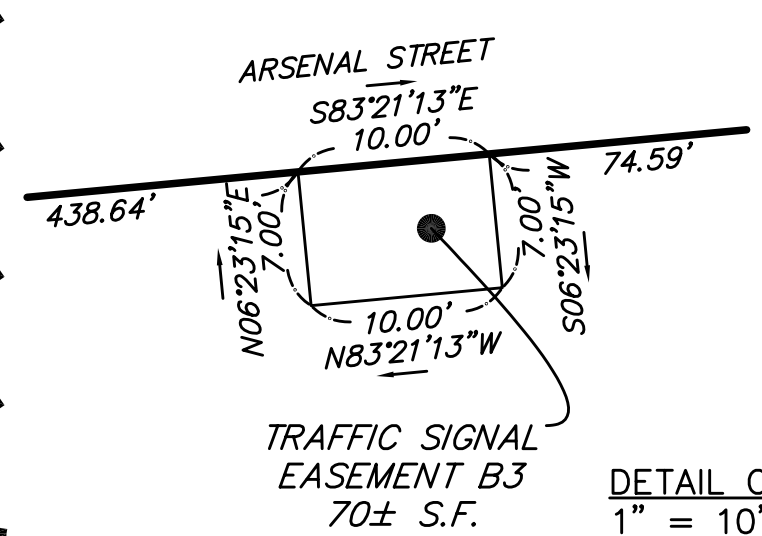
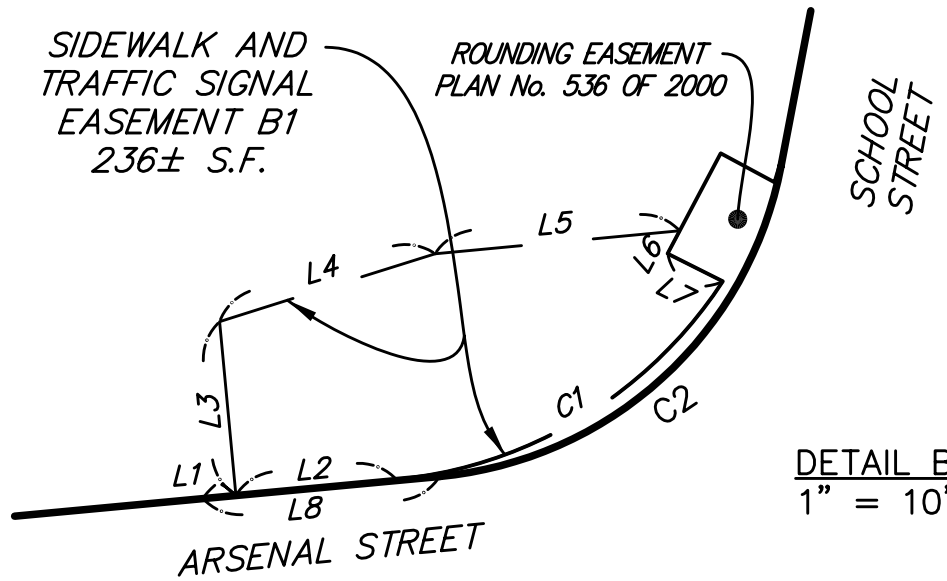


## EXHIBIT B-2

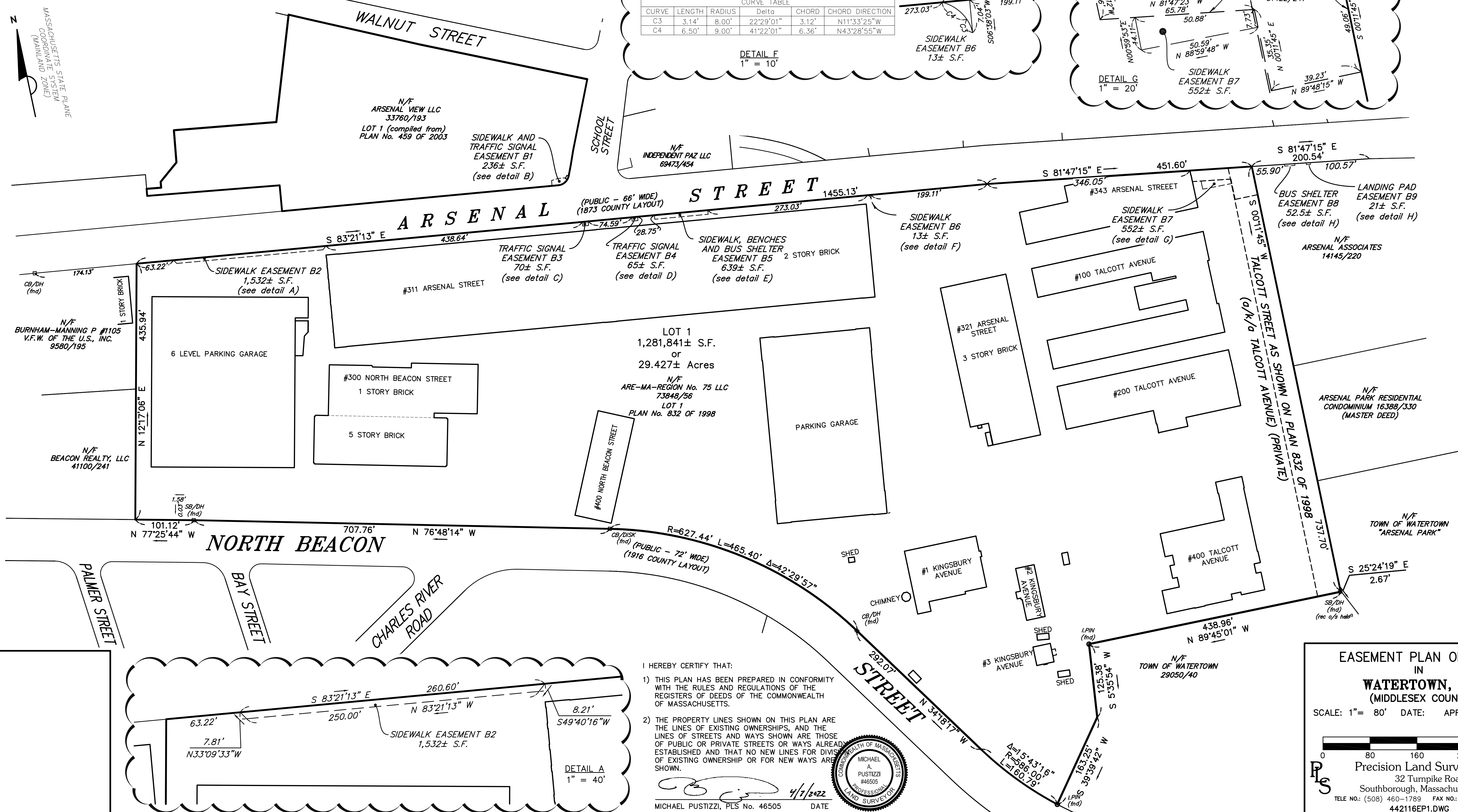
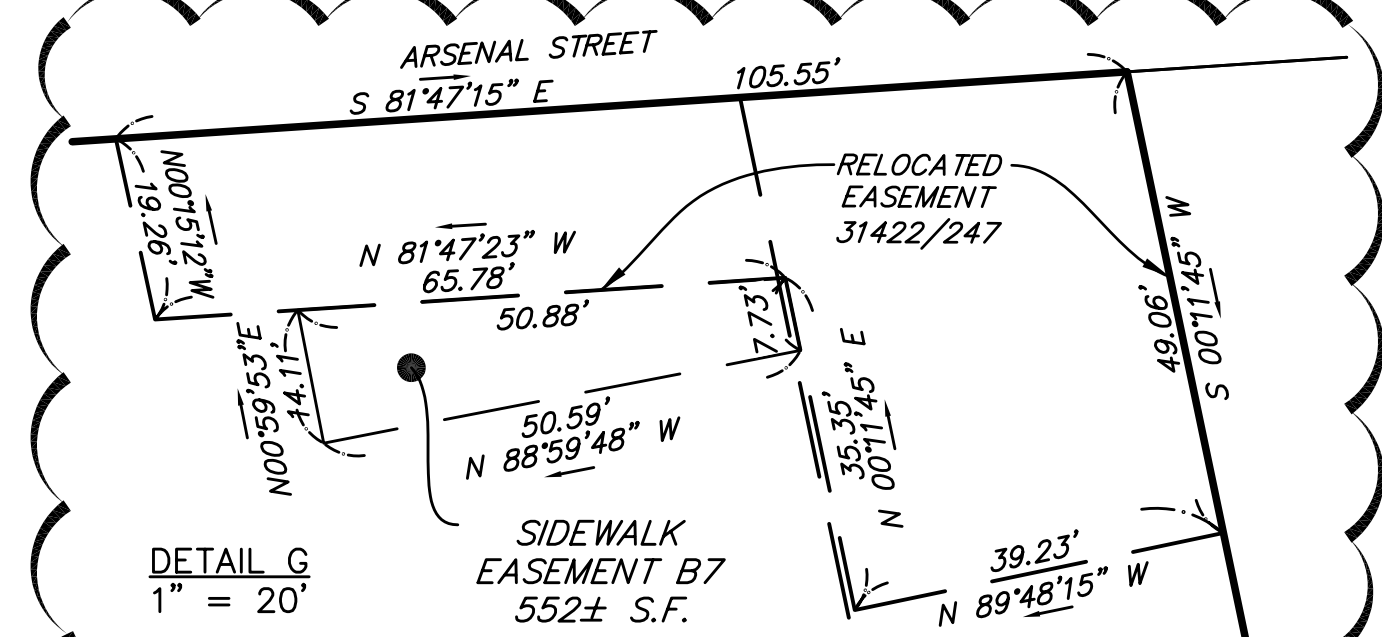
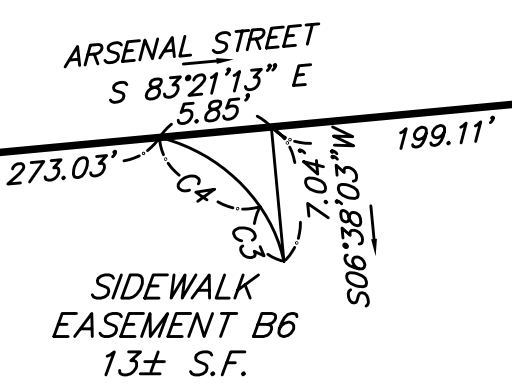
### Precision Plan



| CURVE TABLE |        |        |           |        |                 |
|-------------|--------|--------|-----------|--------|-----------------|
| CURVE       | LENGTH | RADIUS | Delta     | CHORD  | CHORD DIRECTION |
| C1          | 20.55' | 22.97' | 51°16'40" | 19.87' | N70°43'37"E     |
| C2          | 25.77' | 20.00' | 73°49'02" | 24.02' | N59°44'16"E     |



| CURVE TABLE |        |        |           |       |                 |
|-------------|--------|--------|-----------|-------|-----------------|
| CURVE       | LENGTH | RADIUS | Delta     | CHORD | CHORD DIRECTION |
| C3          | 3.14'  | 8.00'  | 22°29'01" | 3.12' | N11°33'25"W     |
| C4          | 6.50'  | 9.00'  | 41°22'01" | 6.36' | N43°28'55"W     |



HEREBY CERTIFY THAT:

- 1) THIS PLAN HAS BEEN PREPARED IN CONFORMITY WITH THE RULES AND REGULATIONS OF THE REGISTERED PLANNERS OF THE COMMONWEALTH OF MASSACHUSETTS.
- 2) THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED AND THAT NO NEW LINES FOR EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.

  
MICHAEL PUSTIZZI, PLS No. 46505

4/7/2022  
DATE

**EASEMENT PLAN OF LAND**  
**IN**  
**WATERTOWN, MA**  
**(MIDDLESEX COUNTY)**

SCALE: 1"= 80'      DATE:      APRIL 9, 2022



0      80      160      240      320 ft

**PS**

Precision Land Surveying, Inc.  
32 Turnpike Road  
Southborough, Massachusetts 01772  
TELE NO.: (508) 460-1789      FAX NO.:(508) 970-0096  
**442116EP1.DWG**



EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE

## CONSENT AND SUBORDINATION TO EASEMENT

The undersigned, in connection with that certain Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing, dated as of January 28, 2021, made by Arsenal Associates, a Delaware limited partnership, as mortgagor ("Grantor"), to M&T Realty Capital Corporation, as mortgagee ("Mortgagee"), recorded with the Middlesex South District Registry of Deeds in Book 123 Page 121, encumbering the real estate and the improvements thereon commonly known as 465 Arsenal Street, Watertown, Massachusetts, as more particularly described in said Mortgage ("Grantor's Property"), hereby acknowledges that it has received a copy of the foregoing Grant of Easements (the "Easement Agreement") between Grantor and the City of Watertown, and hereby consents to said Easement Agreement. Mortgagee hereby unconditionally and irrevocably subordinates all of its interest, now or hereafter arising, in Grantor's Property to the Easement Agreement; this consent and subordination shall be binding on Mortgagee and its successors and assigns.

Executed this \_\_\_\_ day of \_\_\_\_\_, 2022.

M&T Realty Capital Corporation

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

COMMONWEALTH/STATE OF \_\_\_\_\_

\_\_\_\_\_, ss.

On this \_\_\_\_ day of \_\_\_\_\_, 2022 before me, the undersigned notary public, personally appeared \_\_\_\_\_, in his/her capacity as \_\_\_\_\_ of \_\_\_\_\_, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose in such capacity, as the voluntary act of M&T Realty Capital Corporation.

\_\_\_\_\_  
Notary Public

My Commission Expires:

[AFFIX SEAL]

## **GRANT OF EASEMENT**

This GRANT OF EASEMENT ("Grant") is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2022 by and between **Arsenal Yards Holding LLC**, a Delaware limited liability company ("Grantor"), having a mailing address of c/o Boylston Properties, 800 Boylston Street, Suite 1390, Boston, Massachusetts 02199, and the **City of Watertown**, a Massachusetts municipal association ("City"), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### **WITNESSETH:**

Reference is made to the following facts which constitute the background to this instrument:

- A. Grantor is the "Successor Declarant" and holder of the "Special Declarant Rights" as such terms are defined in that certain Amended and Restated Master Deed of the Arsenal Condominium dated June 5, 2018 and recorded with the Middlesex South District Registry of Deeds (the "Registry") in Book 71113, Page 277, as amended (the "Master Deed").
- B. Sections 3.1 and 4.3 of the Master Deed, among other provisions of the Master Deed, reserve to Successor Declarant the right to grant, create, and use utility and other easements through the General Common Elements for the purpose of making and operating improvements on, in or within the Land (as defined in the Master Deed), which includes the land commonly

identified as 615 Arsenal Street, containing approximately 15.910 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in the Master Deed (the “Grantor Parcel”). The Grantor Parcel contains common areas and facilities of Arsenal Yard Primary Condominium. The Grantor Parcel abuts Arsenal Street, a public way of the City.

C. In connection with a public infrastructure project on Arsenal Street, including improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to grant to the City an easement(s) for highway purposes in those portions of the Grantor Parcel shown respectively as “Easement A4 Area = 15± S.F.”, “Easement A4-1 Area = 20± S.F.”, and Easement A5 Area = 76± S.F.” on that certain plan of land entitled “Easement Plan of Land, Arsenal Street, Watertown, Massachusetts”, dated April 20, 2022, prepared by Feldman Geospatial (the “Plan”), a reduced copy of which is recorded herewith as Exhibit B, and is recorded with the Registry as Plan \_\_\_\_ of 2022. The above highway easement areas are hereinafter referred to singly as the “Highway Easement Area” and collectively as the “Highway Easement Areas”. A legal description of each Highway Easement Area is set forth in Exhibit A attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easements from Grantor to the City. Grantor hereby grants to the City, and to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Highway Easement Areas, the perpetual non-exclusive right and easement (the “Highway Easements”), in common with the Grantor, to use the Highway Easement Areas for



highway purposes, including, without limitation, public use, construction, installation, operation, maintenance, repair, and replacement of roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, signs, and traffic control devices, including all appurtenances to the foregoing, together with pedestrian and vehicular access (except as hereinafter limited) to, in, over, under, through, across, upon, on and along the Highway Easement Areas for purposes of the construction, installation, operation, maintenance, repair, and replacement of such improvements and performance of all acts incidental thereto. The City's exercise of the Highway Easements shall not unreasonably interfere with Grantor's use of the Grantor Parcel, as set forth in Paragraph 3 below.

2. Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Areas consisting now or hereafter of a sidewalk, the right of the City and the public to use, pursuant to the Highway Easements, such sidewalk shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of a Highway Easement Area, other than (i) any mobility device, or (ii) in connection with the maintenance, repair or replacement of any sidewalk portion of a Highway Easement Area, including, without limitation, snow removal from such sidewalk portion. The term "mobility device," as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the public to use, pursuant to the Highway Easements, any sidewalk portion of a Highway Easement Area shall not be deemed to include a right to park bicycles (except where authorized through the appropriate location of a bike storage rack or rental docking station) or motor

vehicles, motorcycles, or other motorized or non-motorized transportation devices within any sidewalk portion of a Highway Easement Area at any time. Further, the City and/or any member of the public shall not place within any sidewalk portion of a Highway Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of a Highway Easement Area).

3. Reserved Rights. The Highway Easements hereby granted do not grant to the City or the public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Areas. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Areas, in a manner that does not unreasonably interfere with the Highway Easements, including, without limitation: (a) to erect, outside of and along any sidewalk portion of a Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of a Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of a Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and pedestrian connections between the Grantor Parcel and any sidewalk portion of a Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easements, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of any Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of a Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easements.

4. Release. It is the intention of the parties that access to the Highway Easement Areas, including, without limitation, the sidewalk portions thereof, shall be used for recreational purposes and shall be free of charge or fee and that to the fullest extent permitted by law, the Highway Easements constitute an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be

afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights granted hereunder including, without limitation, a minor or any other person on the Highway Easement Areas.

5. Performance of Work. The City shall be responsible for the maintenance, repair and replacement of highway improvements located in the Highway Easement Areas, including, without limitation, all roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, and traffic control devices, including all appurtenances to the foregoing improvements. Any construction, maintenance or replacement work to be performed by the City within any Highway Easement Area pursuant to the Highway Easements (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor. The City agrees, except in the event of emergency, to give Grantor 48 hours' prior notice (which may be oral) of any construction, maintenance or replacement work within any Highway Easement Area, and, further, shall make all reasonable efforts to ensure vehicular access to the Grantor Parcel at all times, provided, however, the parties acknowledge that such access may be obstructed for periods of limited duration. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within any Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including any Highway Easement Area), the City shall take such action, at its sole cost



and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

6. Restoration. In connection with any construction or other work by the City within a Highway Easement Area pursuant to the Highway Easements, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcel, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

7. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, "Force Majeure"), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer,

manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person's sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

Arsenal Yards Holding LLC  
c/o Boylston Properties  
800 Boylston Street, Suite 1390  
Boston, MA 02199  
Attention: William P. McQuillan

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

11. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded.

12. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

13. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

Arsenal Yards Holding LLC

By: BP Watertown Retail LLC,  
a Delaware limited liability company,  
its Managing Member

By: BP/Arsenal Group LLC,  
a Delaware limited liability  
company, its Manager

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, ss

On this \_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public,  
personally appeared \_\_\_\_\_ as  
\_\_\_\_\_ of BP/Arsenal Group  
LLC, the Manager of BP Watertown Retail LLC, the Managing Member of Arsenal Yards  
Holding LLC, proved to me through satisfactory evidence of identification, which was  
\_\_\_\_\_, to be the person whose name is signed on the preceding or  
attached document, and acknowledged to me that he signed it voluntarily for its stated purpose  
on behalf of \_\_\_\_\_.

\_\_\_\_\_  
Notary Public  
My commission expires:

[City signatures on next page]



## ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easements contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

### CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:  
Title: City Attorney

### COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

## EXHIBIT A

### HIGHWAY EASEMENT AREAS

#### EASEMENT A4

A certain parcel of land on the south side of Arsenal Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the south side of Arsenal Street, said point being about 108 feet westerly of the northeast corner of land now or formerly of Arsenal Yards Primary Condominium Trust and 57.35' westerly of an angle point in Arsenal Street;

thence running S 08°05'49" W, a distance of 2.50 feet;

thence turning and running N 81°54'11" W, a distance of 6.00 feet;

thence turning and running N 08°05'49" E, a distance of 2.50 feet to the south side of Arsenal Street, the last 3 course through land now or formerly of Arsenal Yards Primary Condominium Trust;

thence turning and running S 81°54'11" E, a distance of 6.00 feet by said Arsenal Street to the point of beginning.

Said parcel contains an area of about 15 square feet and is shown as Easement A4 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex County South registry of deeds.

#### EASEMENT A4-1

A certain parcel of land on the south side of Arsenal Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the south side of Arsenal Street, said point being about 196 feet westerly of the northeast corner of land now or formerly of Arsenal Yards Primary Condominium Trust and 87.44' westerly of an angle point in Arsenal Street;

thence running S 08°05'49" W, a distance of 2.50 feet;

thence turning and running N 81°54'11" W, a distance of 8.00 feet;

thence turning and running N 08°05'49" E, a distance of 2.50 feet to Arsenal Street, the last 3 courses through land now or formerly of Arsenal Yards Primary Condominium Trust;

thence turning and running S 81°54'11" E, a distance of 8.00 feet by said Arsenal Street to the point of beginning.

Said parcel contains an area of about 20 square feet and is shown as Easement A4-1 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex County South registry of deeds.

## EASEMENT A5

A certain parcel of land on the south side of Arsenal Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the south side of Arsenal Street, said point being about 159 feet easterly of the northeast corner of land now or formerly of EDF Watertown Condominium Trust and a northerly corner of land now or formerly of Arsenal Yards Primary Condominium Trust;

thence running S 81°47'19" E, a distance of 23.03 feet;

thence turning and running N 53°12'41" E, a distance of 2.83 feet;

thence turning and running S 81°47'19" E, a distance of 2.48 feet, the last 3 courses by the south side of Arsenal Street;

thence turning and running S 08°35'45" W, a distance of 4.50 feet;

thence turning and running N 81°47'19" W, a distance of 27.50 feet;

thence turning and running N 08°35'45" E, a distance of 2.50 feet to the point of beginning, the last 3 courses through land now or formerly of Arsenal Yards Primary Condominium Trust.

Said parcel contains an area of about 76 square feet and is shown as Easement A5 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex County South registry of deeds.



## EXHIBIT B

### PLAN





EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE



## **GRANT OF EASEMENT**

This GRANT OF EASEMENT ("Grant") is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2022 by and between **BP WATERTOWN HOTEL, LLC**, a Massachusetts limited liability company ("Grantor"), having a mailing address of 13215 Bee Cave Parkway, Suite B-300, Austin, Texas, and the **City of Watertown**, a Massachusetts municipal corporation ("City"), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### WITNESSETH:

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of, *inter alia*, a certain parcel of land, commonly identified as 570 Arsenal Street, containing approximately 1.54 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in that certain Quitclaim Deed recorded with the Middlesex South District Registry of Deeds/filed with the Middlesex South District of the Land Court (the "Registry") in Book 60722, Page 586 (the "Grantor Parcel"). The Grantor Parcel abuts Arsenal Street, a public way of the City.

B. In connection with a public infrastructure project on Arsenal Street, including improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to

grant to the City an easement for highway purposes in that portion of the Grantor Parcel shown as “Easement A3 Area = 76± S.F.” on that certain plan of land entitled “Easement Plan of Land Arsenal Street Watertown, Massachusetts”, dated April 20, 2022, prepared by Feldman Geospatial (the “Plan”), a reduced copy of which is recorded herewith as Exhibit B, and is recorded with the Registry as Plan \_\_\_\_ of 2022. The highway easement area is hereinafter referred to as the “Highway Easement Area.” A legal description of the Highway Easement Area is set forth in Exhibit A attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easement from Grantor to the City. Grantor hereby grants to the City, and to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Highway Easement Area, the perpetual non-exclusive right and easement (the “Highway Easement”), in common with the Grantor, to use the Highway Easement Area for highway purposes, including, without limitation, public use, construction, installation, operation, maintenance, repair, and replacement of roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, signs, and traffic control devices, including all appurtenances to the foregoing, together with pedestrian and vehicular access (except as hereinafter limited) to, in, over, under, through, across, upon, on and along the Highway Easement Area for purposes of the construction, installation, operation, maintenance, repair, and replacement of such improvements and performance of all acts incidental thereto. The City’s exercise of the Highway Easement shall not unreasonably interfere with Grantor’s use of the Grantor Parcel, as set forth in Paragraph 3 below.

2. Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Area consisting now or hereafter of a sidewalk, the right of the City and the public to use, pursuant to the Highway Easement, such sidewalk shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of the Highway Easement Area, other than (i) any mobility device, or (ii) in connection with the maintenance, repair or replacement of any sidewalk portion of the Highway Easement Area, including, without limitation, snow removal from such sidewalk portion. The term “mobility device,” as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the public to use, pursuant to the Highway Easement, any sidewalk portion of the Highway Easement Area shall not be deemed to include a right to park bicycles (except where authorized through the appropriate location of a bike storage rack or rental docking station) or motor vehicles, motorcycles, or other motorized or non-motorized transportation devices within any sidewalk portion of the Highway Easement Area at any time. Further, the City and/or any member of the public shall not place within any sidewalk portion of the Highway Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of a Highway Easement Area).

3. Reserved Rights. The Highway Easement hereby granted does not grant to the City or the public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Area. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Area, in a manner that does not unreasonably interfere with the

Highway Easement, including, without limitation: (a) to erect, outside of and along any sidewalk portion of the Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of the Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of the Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and pedestrian connections between the Grantor Parcel and any sidewalk portion of the Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easement, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of the Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of the Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easement.

4. Release. It is the intention of the parties that access to the Highway Easement Area, including, without limitation, the sidewalk portions thereof, shall be used for recreational purposes and shall be free of charge or fee and that to the fullest extent permitted by law, the Highway Easement constitutes an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights



granted hereunder including, without limitation, a minor or any other person on the Highway Easement Area.

5. Performance of Work. The City shall be responsible for the maintenance, repair and replacement of highway improvements located in the Highway Easement Area, including, without limitation, all roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, and traffic control devices, including all appurtenances to the foregoing improvements. Any construction, maintenance or replacement work to be performed by the City within the Highway Easement Area pursuant to the Highway Easement (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor. The City agrees, except in the event of emergency, to give Grantor 48 hours' prior notice (which may be oral) of any construction, maintenance or replacement work within the Highway Easement Area, and, further, shall make all reasonable efforts to ensure vehicular access to the Grantor Parcel at all times, provided, however, the parties acknowledge that such access may be obstructed for periods of limited duration. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within the Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including the Highway Easement Area), the City shall take such action, at its sole cost and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

6. Restoration. In connection with any construction or other work by the City within the Highway Easement Area pursuant to the Highway Easement, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcel, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

7. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, "Force Majeure"), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have

personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person's sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

Summit Hotel Properties, Inc.  
13215 Bee Cave Parkway, Suite B-300  
Austin, Texas 78738  
Attention: Legal Department

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

11. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded.

12. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

13. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

BP WATERTOWN HOTEL, LLC

By: \_\_\_\_\_  
Name: Jonathan Stanner  
Office: Chief Manager  
Hereunto duly authorized

STATE OF TEXAS

COUNTY OF TRAVIS, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared Jonathan Stanner, as Chief Manager of BP Watertown Hotel, LLC, proved to me through satisfactory evidence of identification, which was Texas driver's license, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose and acknowledged said instrument to be the free act and deed of BP Watertown Hotel, LLC.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

[City signatures on next page]



## ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easement contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

### CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:  
Title: City Attorney

### COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

## EXHIBIT A

### HIGHWAY EASEMENT AREA

A certain parcel of land on the north side of Arsenal Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the north side of Arsenal Street, said point being 2.94 feet westerly of the southwest corner of land now or formerly of 626 Arsenal Street Realty Trust and the southeast corner of land now or formerly of BP Watertown Hotel, LLC;

thence running N 81°47'27" W, a distance of 19.00 feet by said Arsenal Street;

thence turning and running N 08°12'33" E, a distance of 4.00 feet;

thence turning and running S 81°47'27" E, a distance of 19.00 feet;

thence turning and running S 08°12'33" W, a distance of 4.00 feet to the point of beginning, the last 3 courses through land now or formerly of BP Watertown Hotel, LLC.

Said parcel contains an area of about 76 square feet and is shown as Easement A3 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex County South registry of deeds.

## EXHIBIT B

### PLAN







EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE

## **GRANT OF EASEMENT**

This GRANT OF EASEMENT (“Grant”) is entered into as of the \_\_\_\_ day of July, 2022 by and between **George Sarris, Trustee of the 626 Arsenal Street Realty Trust, under Declaration of Trust dated December 11, 2019, evidenced by Trustee’s Certificate filed as Document No. 1832814** (“Grantor”), having a mailing address of 626 Arsenal Street, Watertown, Massachusetts 02472, and the **City of Watertown**, a Massachusetts municipal association (“City”), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### WITNESSETH:

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of, *inter alia*, a certain parcel of land, commonly identified as 626 Arsenal Street, containing approximately 0.273 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in that certain Quitclaim Deed filed with the Middlesex South District of the Land Court (the “Registry”) as Document No. 1832813, and Certificate of Title No. 272379, shown as Lots C and D on Land Court Plan 19746A (the “Grantor Parcel”). The Grantor Parcel abuts Arsenal Street, a public way of the City.

B. In connection with a public infrastructure project on Arsenal Street, including improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to

grant to the City an easement for highway purposes in that portion of the Grantor Parcel shown as “Easement A2” on that certain plan of land entitled “Easement Plan of Land, Arsenal Street, Watertown, Mass.”, dated April 20, 2022, prepared by Feldman Geospatial (the “Plan”), a reduced copy of which is attached hereto as Exhibit B, and is recorded with the Registry herewith as Plan \_\_\_\_ of 2022. The above highway easement area is hereinafter referred to as the “Highway Easement Area.” A legal description of the Highway Easement Area is set forth in Exhibit A attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easements from Grantor to the City. Grantor hereby grants to the City, and to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Highway Easement Area, the perpetual non-exclusive right and easement (the “Highway Easement”), in common with the Grantor, to use the Highway Easement Area for highway purposes, including, without limitation, public use, construction, installation, operation, maintenance, repair, and replacement of roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, signs, and traffic control devices, including all appurtenances to the foregoing, together with pedestrian and vehicular access (except as hereinafter limited) to, in, over, under, through, across, upon, on and along the Highway Easement Area for purposes of the construction, installation, operation, maintenance, repair, and replacement of such improvements and performance of all acts incidental thereto. The City’s exercise of the Highway Easement shall not unreasonably interfere with Grantor’s use of the Grantor Parcel, as set forth in Paragraph 3 below.

2. Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Area consisting now or hereafter of a sidewalk, the right of the City and the public to use, pursuant to the Highway Easement, such sidewalk shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of the Highway Easement Area, other than (i) any mobility device, or (ii) in connection with the maintenance, repair or replacement of any sidewalk portion of the Highway Easement Area, including, without limitation, snow removal from such sidewalk portion. The term “mobility device,” as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the public to use, pursuant to the Highway Easement, any sidewalk portion of the Highway Easement Area shall not be deemed to include a right to park bicycles (except where authorized through the appropriate location of a bike storage rack or rental docking station) or motor vehicles, motorcycles, or other motorized or non-motorized transportation devices within any sidewalk portion of the Highway Easement Area at any time. Further, the City and/or any member of the public shall not place within any sidewalk portion of the Highway Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of the Highway Easement Area).

3. Reserved Rights. The Highway Easement hereby granted does not grant to the City or the public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Area. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Area, in a manner that does not unreasonably interfere with the

Highway Easement, including, without limitation: (a) to erect, outside of and along any sidewalk portion of the Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of the Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of the Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and pedestrian connections between the Grantor Parcel and any sidewalk portion of the Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easement, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of the Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of the Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easement.

4. Release. It is the intention of the parties that access to the Highway Easement Area, including, without limitation, the sidewalk portions thereof, shall be used for recreational purposes and shall be free of charge or fee and that to the fullest extent permitted by law, the Highway Easement constitutes an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights



granted hereunder including, without limitation, a minor or any other person on the Highway Easement Area.

5. Performance of Work. The City shall be responsible for the maintenance, repair and replacement of highway improvements located in the Highway Easement Area, including, without limitation, all roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, and traffic control devices, including all appurtenances to the foregoing improvements. Any construction, maintenance or replacement work to be performed by the City within the Highway Easement Area pursuant to the Highway Easement (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor. The City agrees, except in the event of emergency, to give Grantor 48 hours' prior notice (which may be oral) of any construction, maintenance or replacement work within the Highway Easement Area, and, further, shall make all reasonable efforts to ensure vehicular access to the Grantor Parcel at all times, provided, however, the parties acknowledge that such access may be obstructed for periods of limited duration. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within the Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including the Highway Easement Area), the City shall take such action, at its sole cost and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

6. Restoration. In connection with any construction or other work by the City within the Highway Easement Area pursuant to the Highway Easement, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcel, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

7. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, "Force Majeure"), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have

personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person's sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

George Sarris, Trustee of the  
626 Arsenal Street Realty Trust  
626 Arsenal Street  
Watertown, MA 02472

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

11. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded.

12. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

13. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

626 ARSENAL REALTY TRUST

By: \_\_\_\_\_  
George Sarris, Trustee of the  
626 Arsenal Realty Trust

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of July, 2022, before me, the undersigned notary public, personally appeared George Sarris, Trustee of the 626 Arsenal Street Realty Trust, proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose and acknowledged said instrument to be the free act and deed of the 626 Arsenal Street Realty Trust.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

[City signatures on next page]



## ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easement contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

### CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:  
Title: City Attorney

### COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

## EXHIBIT A

### HIGHWAY EASEMENT AREA

A certain parcel of land on the northwest corner of the intersection of Arsenal Street and Arlington Street, situated in the City of Watertown, Middlesex County, Commonwealth of Massachusetts bounded and described as follows:

beginning at a point on the northerly side of Arsenal Street at the westerly corner of the intersection with Arlington Street;

thence running N 81°47'27" W, a distance of 12.61 feet by Arsenal Street;

thence turning and running N 8°12'33" E, a distance of 5.00 feet;

thence turning and running S 81°47'27" E, a distance of 15.00 feet;

thence turning and running N 43°48'35" E, a distance of 24.52 feet;

thence turning and running N 20°16'48" W, a distance of 12.50 feet;

thence turning and running N 69°43'12" E, a distance of 3.00 feet to the west side of Arlington Street, the last 5 courses through land now or formerly of 626 Arsenal Street Realty Trust;

thence turning and running S 81°47'27" E, a distance of 15.00 feet;

thence along a curve turning to the right having a radius of 20.00' an arc length of 0.51 feet a chord bearing of S 19°33'09" E and a chord distance of 0.51';

thence along a curve turning to the right having a radius of 22.97' an arc length of 37.54 feet a chord bearing of S 38°02'16" W and a chord distance of 33.49 to the point of beginning, the last 3 courses by Arlington Street.

Said parcel contains an area of about 278 square feet and is shown as Easement A2 on a plan titled "EASEMENT PLAN OF LAND" prepared by Feldman Geospatial and dated April 20, 2022, to be recorded in the Middlesex South District Registry of Deeds.

EXHIBIT B

PLAN







EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE

## **GRANT OF EASEMENT**

This GRANT OF EASEMENT ("Grant") is entered into as of the \_\_\_\_ day of June, 2022 by and between **RMG Four-Fourteen LLC**, a Massachusetts limited liability company ("Grantor"), having a mailing address of 414 Main Street, Watertown, Massachusetts 02472 , and the **City of Watertown**, a Massachusetts municipal association ("City"), having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### WITNESSETH:

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of, *inter alia*, a certain parcel of land, commonly identified as 640 Arsenal Street, containing approximately 0.511 acres located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in that certain Quitclaim Deed recorded with the Middlesex South District Registry of Deeds (the "Registry") in Book 68647, Page 570 (the "Grantor Parcel"). The Grantor Parcel abuts Arsenal Street, a public way of the City.

B. In connection with a public infrastructure project on Arsenal Street, including improvements to the road, sidewalk, and traffic signal devices, Grantor is willing to grant to the City an easement for highway purposes in that portion of the Grantor Parcel shown

as “Roadway Easement Area = 483 Sq.Ft. (0.01 Acres)” on that certain plan of land entitled “Easement Plan of Land in Watertown Massachusetts”, dated March 6, 2022, prepared by VHB, Inc. (the “Plan”) a reduced copy of which is attached hereto as Exhibit B, and is recorded with the Registry herewith as Plan \_\_\_\_ of 2022. The above highway easement area is hereinafter referred to as the “Highway Easement Area.” A legal description of the Highway Easement Area is set forth in Exhibit A attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows:

1. Highway Easement from Grantor to the City. Grantor hereby grants to the City, and to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Highway Easement Area, the perpetual non-exclusive right and easement (the “Highway Easement”), in common with the Grantor, to use the Highway Easement Area for highway purposes, including, without limitation, public use, construction, installation, operation, maintenance, repair, and replacement of roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, signs, and traffic control devices, including all appurtenances to the foregoing, together with pedestrian and vehicular access (except as hereinafter limited) to, in, over, under, through, across, upon, on and along the Highway Easement Area for purposes of the construction, installation, operation, maintenance, repair, and replacement of such improvements and performance of all acts incidental thereto. The City’s exercise of the Highway Easement shall not unreasonably interfere with Grantor’s use of the Grantor Parcel, as set forth in Paragraph 3 below.

2.     Limitations on Use of Sidewalks. Notwithstanding anything to the contrary contained in this Grant, with respect to any portion of the Highway Easement Areas consisting now or hereafter of a sidewalk, the right of the City and the public to use, pursuant to the Highway Easement, such sidewalk shall not be deemed to include any rights for motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over any sidewalk portion of the Highway Easement Area, other than (i) any mobility device, or (ii) in connection with the maintenance, repair or replacement of any sidewalk portion of a Highway Easement Area, including, without limitation, snow removal from such sidewalk portion. The term “mobility device,” as used in this instrument, means a wheelchair, crutch, cane, walker, or other device, both motorized and non-motorized, that functions similarly to allow an injured or disabled person increased mobility for sidewalk travel. Additionally, the right of the City and the public to use, pursuant to the Highway Easement, any sidewalk portion of the Highway Easement Area shall not be deemed to include a right to park bicycles (except where authorized through the appropriate location of a bike storage rack or rental docking station) or motor vehicles, motorcycles, or other motorized or non-motorized transportation devices within any sidewalk portion of the Highway Easement Area at any time. Further, the City and/or any member of the public shall not place within any sidewalk portion of the Highway Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of the Highway Easement Area).

3.     Reserved Rights. The Highway Easement hereby granted does not grant to the City or the public any rights on, across or over any portion of the Grantor Parcel other than the Highway Easement Area. Grantor reserves the right to continue to use the Grantor Parcel, including the Highway Easement Area, in a manner that does not unreasonably interfere with the

Highway Easement, including, without limitation: (a) to erect, outside of and along any sidewalk portion of the Highway Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary or appropriate; (b) to install and maintain landscaping within any sidewalk portion of the Highway Easement Area up to the paved edge of the pedestrian path located within the sidewalk portion of the Highway Easement Area; (c) to establish such driveways, roads, paths or other traveled ways within the Grantor Parcel, including but not limited to vehicular and pedestrian connections between the Grantor Parcel and any sidewalk portion of the Highway Easement Area, that do not unreasonably interfere with the exercise of the Highway Easement, as well as vehicular connections between the Grantor Parcel and Arsenal Street; (d) to repair, replace, improve, maintain and use the sidewalk portion of any Highway Easement Area; and (e) to use, or to grant to others the right to use, any sidewalk portion of the Highway Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Highway Easement.

4. Release. It is the intention of the parties that access to the Highway Easement Area, including, without limitation, the sidewalk portions thereof, shall be used for recreational purposes and shall be free of charge or fee and that to the fullest extent permitted by law, the Highway Easement constitutes an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights



granted hereunder including, without limitation, a minor or any other person on the Highway Easement Area.

5. Performance of Work. The City shall be responsible for the maintenance, repair and replacement of highway improvements located in the Highway Easement Area, including, without limitation, all roads, curbs, sidewalks, crosswalks, wheelchair ramps, street lights, landscaping, bus shelters, and traffic control devices, including all appurtenances to the foregoing improvements. Any construction, maintenance or replacement work to be performed by the City within any Highway Easement Area pursuant to the Highway Easement (i) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations and (ii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcel by the Grantor. The City agrees, except in the event of emergency, to give Grantor 48 hours' prior notice (which may be oral) of any construction, maintenance or replacement work within any Highway Easement Area, and, further, shall make all reasonable efforts to ensure vehicular access to the Grantor Parcel at all times, provided, however, the parties acknowledge that such access may be obstructed for periods of limited duration. In the event that any contractor, subcontractor or other person or entity engaged directly or indirectly on behalf of the City in connection with the performance of any work within any Highway Easement Area records or files any lien or other encumbrance against any portion of the Grantor Parcel (including any Highway Easement Area), the City shall take such action, at its sole cost and expense, to cause such lien or other encumbrance to be dissolved or released as soon as reasonably practicable.

6. Restoration. In connection with any construction or other work by the City within a Highway Easement Area pursuant to the Highway Easement, the City shall, at its sole cost and expense, promptly restore, as close as reasonably practicable, said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcel, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcel was in prior to such damage, as close as reasonably practicable.

7. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, pandemic, work stoppages arising out of collective bargaining strikes, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, "Force Majeure"), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of ownership of the Grantor Parcel. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have

personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person's sole recourse shall be to the estate and interest of Grantor in and to Grantor Parcel. No employee, official, agent or representative of the City shall have personal liability under this Grant. Notwithstanding anything to the contrary contained in this Grant, in the event of any breach of any term, condition, or obligation hereof, the sole remedy of any party shall be an action at law for money damages or a suit in equity for specific performance or other equitable relief, but no such breach shall operate as a forfeiture, reversion, or termination of any rights granted or arising hereunder.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

RMG Four-Fourteen LLC  
414 Main Street  
Watertown, MA 02472

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Estoppel. Each party shall, without charge and from time to time, deliver within thirty (30) days of written request by the other party, a certificate (addressed to the requesting party and/or its potential lenders, tenants and purchasers) with respect to the status of this Grant and each party's obligations thereunder.

11. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, with the exception of monetary encumbrances, for which a subordination shall be obtained and recorded.

12. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted. If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

13. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant may be executed and each shall be deemed an original.

[Signatures on the Following Pages]

EXECUTED as a sealed instrument as of the day and year first above written.

GRANTOR:

RMG FOUR-FOURTEEN LLC

By: \_\_\_\_\_

Name:

Office: Manager

Hereunto duly authorized

COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, SS.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, as Manager of RMG FOUR-FOURTEEN LLC, proved to me through satisfactory evidence of identification, which was \_\_\_\_\_, to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose and acknowledged said instrument to be the free act and deed of RMG FOUR-FOURTEEN LLC.

\_\_\_\_\_  
Notary Public

My Commission Expires:

[City signatures on next page]



## ACCEPTANCE OF EASEMENT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, 2022, a certified copy of which is attached hereto as Exhibit C, hereby accepts the Highway Easement contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

### CITY OF WATERTOWN

\_\_\_\_\_  
Name:  
Title: City Manager  
Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:  
Title: City Attorney

### COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the City of Watertown, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

## EXHIBIT A

### HIGHWAY EASEMENT AREA

A certain easement over a parcel of land situated south of Coolidge Avenue and east of Arsenal Street in the City of Watertown, in the County of Middlesex and the Commonwealth of Massachusetts bounded and described as follows:

Beginning at a point on the southerly sideline of Coolidge Avenue at a point of curvature; thence

N 44°13'58" E a distance of Sixty and Ninety Nine Hundredths feet (60.99') by the sideline of Coolidge Avenue to a point; thence

S 45°46'02" E a distance of One and No Hundredths feet (1.00') to a point; thence

S 37°13'00" W a distance of Thirty Three and Fifty Eight Hundredths feet (33.58') to a point; thence

Southwesterly and curving to the right along the arc of a curve having a radius of One Hundred Twenty and No Hundredths feet (120.00'), a length of Fourteen and Sixty Nine Hundredths feet (14.69') to a point; thence

S 44°13'58" W a distance of Fifteen and Thirty Seven Hundredths feet (15.37') to a point; thence

Southerly and curving to the left along the arc of a curve having a radius of Twenty and No Hundredths feet (20.00'), a length of Forty Three and Ninety Nine Hundredths feet (43.99') to a point; thence

S 81°48'06" E a distance of Thirteen and No Hundredths feet (13.00') to a point; thence

S 08°11'54" W a distance of Two and Fifty Hundredths feet (2.50') to a point; thence

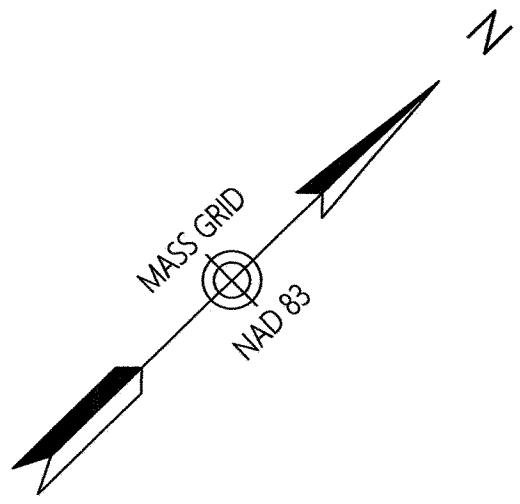
N 81°48'06" W a distance of Twelve and Forty Two Hundredths feet (12.42') to a point; thence

Northerly and curving to the right along the arc of a curve having a radius of Twenty Five and No Hundredths feet (25.00'), a length of Fifty Four and Ninety Nine Hundredths feet (54.99'), the last two courses by the sideline of Arsenal Street to the point of beginning

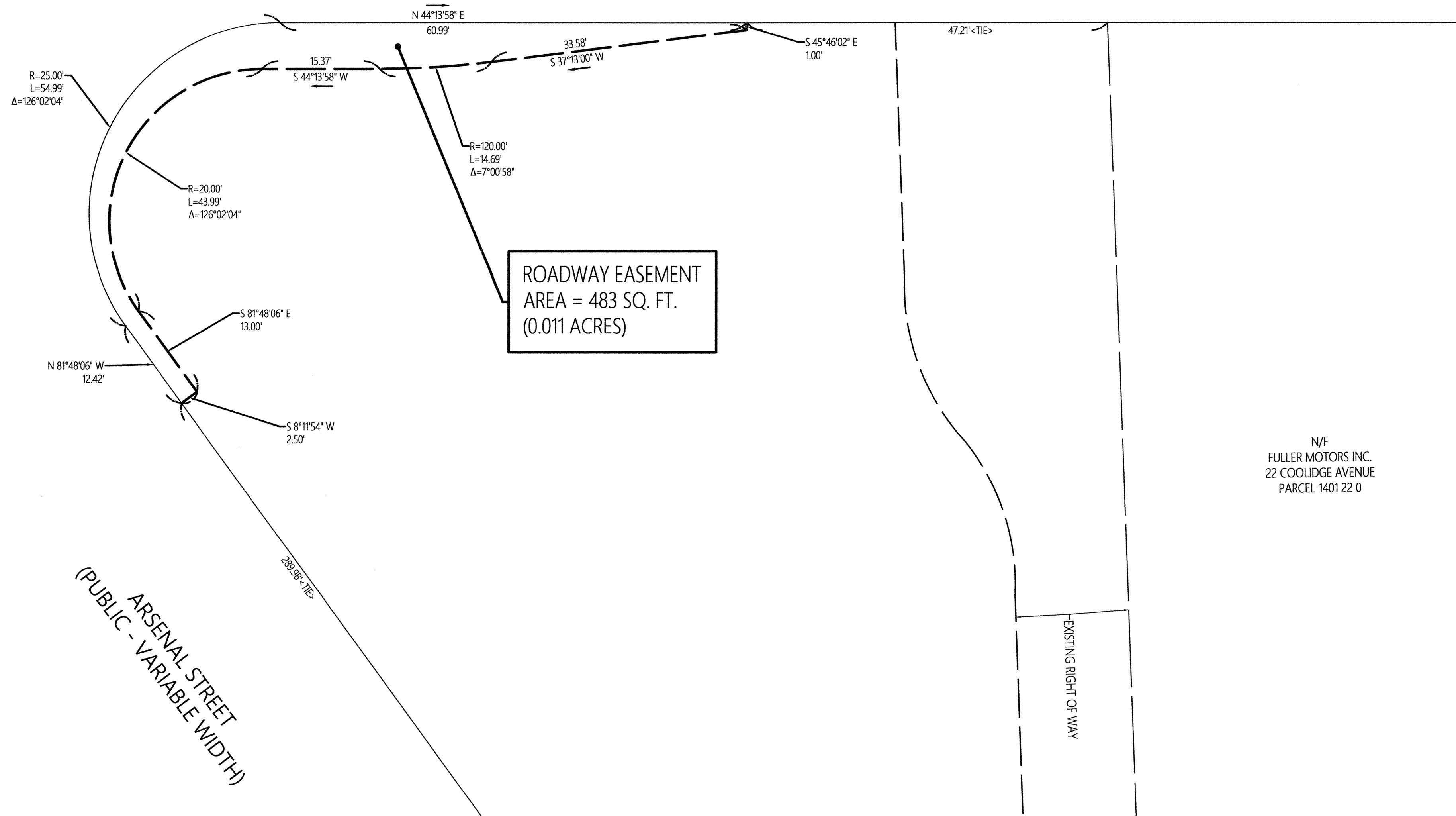
The above described easement contains approximately 483 square feet, more or less.

## EXHIBIT B

### PLAN



COOLIDGE AVENUE  
(PUBLIC - VARIABLE WIDTH)



Plan References

REGISTRY  
PLAN BOOK 133 OF 1895  
PLAN BOOK 404 OF 1943  
PLAN BOOK 407 OF 1943  
PLAN BOOK 242 OF 1947  
PLAN BOOK 313 OF 1957  
PLAN BOOK 1483 OF 1960  
PLAN BOOK 710 OF 1962  
PLAN BOOK 966 OF 1963  
PLAN BOOK 6 OF 1964  
PLAN BOOK 473 OF 1964  
PLAN BOOK 1391 OF 1964  
PLAN BOOK 655 OF 1965  
PLAN BOOK 1344 OF 1968  
PLAN BOOK 1145 OF 1969  
PLAN BOOK 848 OF 1973  
PLAN BOOK 1052 OF 1973  
PLAN BOOK 1288 OF 1979  
PLAN BOOK 904 OF 1981  
PLAN BOOK 13 OF 1983  
PLAN BOOK 323 OF 1983  
PLAN BOOK 689 OF 1984  
PLAN BOOK 48 OF 1989  
PLAN BOOK 291 OF 1995  
PLAN BOOK 536 OF 2000  
PLAN BOOK 852 OF 2014

LAND COURT  
LCP 7173 A-C  
LCP 30789 A-B

COUNTY  
1972 COUNTY LAYOUT COOLIDGE AVENUE (3  
SHEETS) PLAN BOOK 1640 OF 1972  
1970 COUNTY LAYOUT GROVE STREET

COMMONWEALTH OF MASS.  
PLANS PROVIDED BY DCR OF GREENOUGH  
BOULEVARD

TOWN OF WATERTOWN  
4-302  
4-302a  
4-302B  
E-1  
E-3  
H-35  
H-61

Record Owner

PARCEL  
RMG FOUR-FOURTEEN LLC  
640 ARSENAL STREET  
ASSESSORS PARCEL 1401 20F 0  
BOOK 68647 PAGE 570

General Notes

- THE PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VANASSE HANGEN BRUSTLIN, INC. IN MAY, 2014 & UPDATED MAY 2021 AND FROM DEEDS AND PLANS OF RECORD.
- HORIZONTAL DATUM IS BASED ON MASS. GRID SYSTEM, NAD 1983.
- THE PURPOSE OF THIS PLAN IS TO SHOW A PROPOSED EASEMENT FOR ROADWAY PURPOSES.



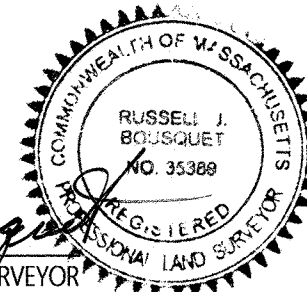
Certification

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS.

I HEREBY CERTIFY THAT THIS PLAN SHOWS THE PROPERTY LINES THAT ARE THE LINES OF EXISTING OWNERSHIPS, AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN. (MASS. GEN. LAWS CHAPTER 41, SEC. 81-X).

May 21, 2022  
DATE

Russell J. Cousens  
PROFESSIONAL LAND SURVEYOR



EASEMENT PLAN OF LAND  
IN

WATERTOWN  
MASSACHUSETTS

PREPARED FOR: CITY OF WATERTOWN

PREPARED BY: VHB, Inc.  
Engineers | Scientists | Planners | Designers  
101 Walnut Street, P.O. Box 9151  
Watertown, MA 02471-9151  
(617) 924-1770

SCALE: 1 INCH = 10 FEET

DATE: MARCH 6, 2022



EXHIBIT C

CERTIFIED COPY OF CITY COUNCIL VOTE



## CONSENT AND SUBORDINATION TO EASEMENT

The undersigned, in connection with that certain Commercial Mortgage, dated as of December 12, 2016, made by RMG FOUR-FOURTEEN LLC, a Massachusetts limited liability company, as mortgagor ("Grantor"), to WATERTOWN SAVINGS BANK, as mortgagee ("Mortgagee"), recorded with the Middlesex South District Registry of Deeds in Book 68647, Page 573, encumbering the real estate and the improvements thereon commonly known as 640 Arsenal Street, Watertown, Massachusetts, as more particularly described in said Mortgage ("Grantor's Property"), hereby acknowledges that it has received a copy of the foregoing Grant of Easement (the "Easement Agreement") between Grantor and the City of Watertown, and hereby consents to said Easement Agreement. Mortgagee hereby unconditionally and irrevocably subordinates all of its interest, now or hereafter arising, in Grantor's Property to the Easement Agreement; this consent and subordination shall be binding on Mortgagee and its successors and assigns.

Executed this \_\_\_\_ day of \_\_\_\_\_, 2022.

WATERTOWN SAVINGS BANK

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

\_\_\_\_\_, ss.

On this \_\_\_\_ day of \_\_\_\_\_, 2022 before me, the undersigned notary public, personally appeared \_\_\_\_\_, in his/her capacity as \_\_\_\_\_ of WATERTOWN SAVINGS BANK, proved to me through satisfactory evidence of identification which was \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose in such capacity, as the voluntary act of WATERTOWN SAVINGS BANK.

\_\_\_\_\_  
Notary Public  
My Commission Expires:

[AFFIX SEAL]

August 4, 2022

**Katharine Lord Klein**  
[kklein@k-plaw.com](mailto:kklein@k-plaw.com)

**BY HAND DELIVERY AND  
ELECTRONIC MAIL** ([TTracy@watertown-ma.gov](mailto:TTracy@watertown-ma.gov))

Mr. Thomas J. Tracy  
City Manager  
Watertown Administration Building  
149 Main Street  
Watertown, MA 02472

Re: LEXUS Community Path Easement

Dear Mr. Tracy:

I am writing to you regarding a proposed Order concerning a Community Path Easement on the LEXUS property at 330 Arsenal Street.

In connection with certain zoning relief granted by the City of Watertown Zoning Board of Appeals on February 26, 2014, Arsenal View LLC (LEXUS) committed to allow public access for a multi-use path along its property. Although this multi-use path (known now as the Community Path) was installed years ago and has been in active use, an easement agreement was never consummated. The proposed easement agreement would memorialize the right for the City and the public to access the Community Path.

The Department of Community Development and Planning has reviewed the Grant of Easement, is satisfied that it meets the Zoning Board's condition in connection with the zoning relief, and approves the document.

I recommend that the City Council vote to approve the enclosed Grant of Easement and the City Manager to execute the document. I have provided a proposed Order.

Please contact Mark Reich or me with any questions regarding this matter.

Very truly yours,

  
Katharine Lord Klein

KLK/caa  
Enc.

cc: Department of Community Development and Planning ([SMagoon@watertown-ma.gov](mailto:SMagoon@watertown-ma.gov))

#824930/WATR/0018

**ORDER #**

O-2022-

**An Order Accepting a Multi-Use Path Easement in connection with 330 Arsenal Street and Authorizing the City Manager to Execute the Acceptance of said Easement**

**WHEREAS**, Arsenal View, LLC, a Massachusetts limited liability company ("Grantor"), is the owner of certain real property commonly identified as 330 Arsenal Street, as described in those certain Quitclaim Deeds recorded with the Middlesex South Registry of Deeds in Book 44465, Page 219; Book 39372, Page 219; Book 33760, Page 193 and Book 62742, Page 389 (collectively, the "Grantor Parcels"); and

**WHEREAS**, in connection with certain zoning relief granted by the City of Watertown Zoning Board of Appeals on February 26, 2014 in Case Number ZBA-2014-05 SP/SR, and certain other zoning relief granted by the City of Watertown Zoning Board of Appeals on March 26, 2003 in Case No. 03-07SP, Grantor committed to allow public access of a path located on, across and along those portions of the Grantor Parcels shown as the "Multi-Use Path Easement Area" on a plan entitled "Multi-Use Path Easement Plan – Lexus of Watertown," dated March 22, 2022, prepared by McKenzie Engineering Group (the "Multi-Use Path Easement Area").

**NOW THEREFORE BE IT ORDERED**, that the City Council of the City of Watertown hereby accepts the Multi-Use Path Easement Area, on the terms and conditions as set forth in the Easement Agreement with Grantor conveying the Multi-Use Path Easement Area to the City of Watertown;

**AND BE IT FURTHER ORDERED**, that the City Council hereby authorizes the City Manager to execute the Acceptance to the Easement Agreement with Grantor conveying the Multi-Use Path Easement Area to the City of Watertown.

\_\_\_\_\_  
Council Member

I hereby certify that at a regular meeting of the City Council for which a quorum was present, the above Order was adopted by a vote of \_\_\_ for, \_\_\_ against and \_\_\_ present on \_\_\_\_\_, 2022.

\_\_\_\_\_  
Marilyn Pronovost, Council Clerk

\_\_\_\_\_  
Mark S. Sideris, Council President

## **GRANT OF EASEMENT**

This **GRANT OF EASEMENT** (“Grant”) is entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2022 by and between **ARSENAL VIEW, LLC**, a Massachusetts limited liability company (“Grantor”), having a mailing address of 149 Arsenal Street, Watertown, Massachusetts 02472, and the **CITY OF WATERTOWN**, a municipal corporation (“City”) having its usual place of business at 149 Main Street, Watertown, Massachusetts 02472.

### WITNESSETH:

Reference is made to the following facts which constitute the background to this instrument:

A. Grantor is the owner of certain parcels of land containing, in the aggregate, approximately 524,973 square feet located in the City of Watertown, Middlesex County, Massachusetts and more particularly described in those certain Quitclaim Deeds recorded with the Middlesex South Registry of Deeds (the “Registry”) in Book 44465, Page 219, in Book 39372, Page 219, in Book 33760, Page 193, and in Book 62742, Page 389, respectively (collectively, the “Grantor Parcels”).

B. In connection with certain zoning relief granted by the City of Watertown Zoning Board of Appeals on February 26, 2014 in Case Number ZBA-2014-05 SP/SR, and certain other zoning relief granted by the City of Watertown Board of Appeals on March 26, 2003 in Case No. 03-07SP (collectively, the “Zoning Decisions”), in each instance which zoning relief was granted in connection with the Grantor’s development of the Grantor Parcels, Grantor committed to allow public access of a path located on, across and along those portions of the Grantor Parcels

shown on a plan entitled “Multi-Use Path Easement Plan – Lexus of Watertown,” dated March 22, 2022, prepared by McKenzie Engineering Group, attached as Exhibit A-1 and incorporated herein (the “Plan”) as the “Multi-Use Path Easement Area” (the “Multi-Use Path Easement Area”). The Zoning Decisions are recorded with the Registry in Book 63622, Page 514 and in Book 39412, Page 433, respectively. A legal description of the Multi-Use Path Easement Area is set forth in Exhibit A-2 attached hereto.

NOW THEREFORE, for and in consideration of the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Grantor and the City hereby agree as follows

1. Multi-Use Path Easement from Grantor to the City. Grantor hereby grants to the City, and to the general public, subject to the terms hereof and limited to the extent of Grantor’s interest in the Multi-Use Path Easement Area, the perpetual non-exclusive right and easement, in common with the Grantor, to use the Multi-Use Path Easement Area for all purposes for which multi-use paths are lawfully used in the City of Watertown, including, without limitation, access by pedestrians on foot or by a mobility device (as that term is defined hereinafter) or by bicyclists on bicycles, together with the attendant customary uses (the “Path Right”). The term “mobility device,” as used in this instrument, means a wheelchair, crutch, cane, walker, or other device that functions similarly to allow an injured or disabled person increased mobility for travel. Notwithstanding the foregoing, the Path Right shall not be deemed to include any rights for horses or other load bearing animals or motor vehicles, motorcycles, or other motorized transportation devices to pass or repass on, across or over the Multi-Use Path Easement Area. Additionally, the Path Right shall not be deemed to include a right to park bicycles or motor vehicles, motorcycles, or other motorized or non-motorized



transportation devices within the Multi-Use Path Easement Area at any time. Further, the City and/or any member of the public shall not place within the Multi-Use Path Easement Area any obstructions (except for temporary obstructions necessary in connection with the maintenance, repair or replacement of the Multi-Use Path Easement Area). When and if the Multi-Use Path Easement Area is incorporated in a public way, the City shall be responsible for maintenance, repair and replacement, and the City's rights hereunder expressly shall be deemed to include the right to enter upon the Multi-Use Easement Area for the purpose of performing such maintenance, repair and replacement, and shall further include the right to pave the Multi-Use Easement Area. The City's exercise of the Path Right shall not interfere with Grantor's use of the Grantor Parcels, as set forth in Paragraph 2 below.

2. Reserved Rights. The Path Right hereby conveyed does not grant to the City or the public any rights on, across or over any portion of the Grantor Parcels other than the Multi-Use Path Easement Area. Grantor reserves the right to use those portions of the Multi-Use Path Easement Area shown on the plan as driveways ( the "Driveways") for unlimited and unfettered pedestrian and vehicular access to and from the Grantor Parcels and the abutting public ways by any persons, including, without limitation, employees, customers, contractors, invitees or agents of the Grantor or any tenants thereof, and the City agrees that such use shall not be deemed to interfere with the Path Right, it being the intent of the parties that the Path Right shall not interfere in any manner with the operation of the businesses now located or to be located in the future at the Grantor Parcels or any portion thereof. Grantor further reserves the right to continue to use the Grantor Parcels, including the Multi-Use Path Easement Area, for all purposes, including, without limitation: (a) to erect, outside of and along the Multi-Use Path Easement Area, such fences, vegetated buffers, or other measures it deems reasonably necessary

or appropriate; (b) to install and maintain landscaping within the Multi-Use Path Easement Area up to the paved edge of the pedestrian path located within the Multi-Use Path Easement Area; (c) to establish, relocate, maintain, construct, and replace such driveways, roads, paths or other traveled ways within the Grantor Parcels, including but not limited to vehicular and pedestrian connections between the Grantor Parcels and the Multi-Use Path Easement Area, as the Grantor, in its sole discretion, deems advisable; (d) to repair, replace, improve, maintain and use the Multi-Use Path Easement Area and path located therein; and (e) to use, or to grant to others the right to use, the Multi-Use Path Easement Area for any and all purposes, provided only that such use shall not materially interfere with the exercise of the Path Right.

3. Release. It is the intention of the parties that the Multi-Use Path Easement Area shall be used for recreational purposes and be free of charge or fee and that to the fullest extent permitted by law, this Path Right constitutes an “interest in land” under Massachusetts General Laws Chapter 21, Section 17C (or such other state or local law that hereafter affords the same or similar protections), and that Grantor and all those claiming by, through or under Grantor, shall be afforded all of the rights, protections, privileges and benefits granted thereunder, and as such, Grantor and all those claiming by, through or under Grantor, shall not be liable for personal injuries or property damage sustained by members of the public in connection with the rights granted hereunder including, without limitation, a minor or any other person on the Multi-Use Path Easement Area.

4. Performance of Work. The Grantor, at its sole cost and expense, has constructed the paved path within the Multi-Use Path Easement Area. Grantor, at its sole cost and expense, shall maintain, repair, and replace the Driveways, including keeping the same free of snow and ice. Grantor shall have no responsibility for keeping the paved path in sound and

safe repair, providing security services in the Multi-Use Path Easement Area, or maintaining, repairing, or replacing the paved path. The City acknowledges that the paved path in the Multi-Use Path Easement Area has been constructed in a good and workmanlike manner, in accordance with all applicable governmental permits, consents, and approvals, and in accordance with all applicable laws, ordinances, orders, rules, and regulations. The Grantor, at its sole cost and expense, shall keep the Multi-Use Path Easement Area in a safe condition, including, without limitation, keeping the same free of snow and ice (consistent with the City's Snow and Ice Removal Regulations), and shall maintain, repair and replace the Multi-Use Path Easement Area. If the Grantor shall fail to perform any of its maintenance or upkeep obligations within the Multi-Use Path Easement Area contemplated by this Grant, then the City shall have the right (but not the obligation) to perform such maintenance or upkeep directly. The City shall have the right to enter upon the Multi-Use Path Easement Area for the purpose of performing such maintenance, repair and replacement. Whenever any construction, maintenance or replacement work is to be performed by the City within the Multi-Use Path Easement Area pursuant to the Path Right, such work (i) shall not be undertaken until the City shall have procured all authorizations and all consents for any activity proposed to be performed from the Grantor (which consent shall not be unreasonably withheld) and all other parties having rights in the Multi-Use Path Easement Area, if and to the extent such consents are required, (ii) shall be performed in a safe, diligent and workmanlike manner and in compliance with all applicable laws, ordinances, orders, rules, and regulations, and (iii) shall be performed to the extent practicable in a manner that causes the minimum of interference with the use and enjoyment of the Grantor Parcels.

5. Restoration. To the extent that the exercise of the City's rights under this Grant of Easement involves construction or other work within the Multi-Use Path Easement

Area, the City shall, at its sole cost and expense, promptly restore said land or area to the condition said land or area was in immediately prior to such exercise (including any landscaping or similar improvements) to the extent consistent with the City's exercise of its rights hereunder. If the City, or any person claiming by, through, or under the City causes any damage to the Grantor Parcels, the City shall promptly restore the same, at its sole cost and expense, to the condition the Grantor Parcels were in prior to such damage.

6. Permissible Delay. Whenever performance is required of any party hereunder, such party shall use all due diligence to perform and take all necessary measures in good faith to perform; provided, however that if completion of performance shall be delayed at any time by reason of acts of God, war, civil commotion, riots, work stoppages arising out of collective bargaining strikes, pandemic, unavailability of materials or damage to work in progress by reason of fire or other casualty or causes beyond the reasonable control of a party (other than financial reasons) (collectively, "Force Majeure"), then the time for performance as herein specified shall be appropriately extended by the time of the delay actually caused.

7. Relocation. Grantor may, at any time and from time to time, relocate the Multi-Use Path Easement Area, or any portion thereof, including, without limitation, any driveways, to another location as the Grantor deems, in its sole discretion, advisable provided that such relocated area is reasonably adequate for the purposes of this Grant of Easement. Such relocation shall be at the sole cost and expense of the Grantor.

8. Bind and Inure. The rights created hereby shall run with the land and shall be binding upon and inure to the benefit of the parties, and their respective successors and assigns, including, in the case of the City, the public; provided, however, that the Grantor shall only be responsible hereunder for matters occurring and claims arising during its period of

ownership of the Grantor Parcels. No partner, member, shareholder, trustee, beneficiary, director, officer, manager, or employee of Grantor, or any partner of Grantor, or any affiliate of Grantor, shall have any personal liability under this Grant. In addition, no party to this Grant shall have personal liability under this Grant. In the event any person obtains a judgment against Grantor in connection with this Grant, such person's sole recourse shall be to the estate and interest of Grantor in and to the Grantor Parcels.

9. Notice. Any notice hereunder shall be given in writing to the party for whom it is intended, in person, by certified mail-return receipt requested, or by a recognized expedited overnight delivery service, at the following address, or such future address as may be designated by notice in writing:

If to Grantor, addressed to:

Arsenal View, LLC  
149 Arsenal Street  
Watertown, MA 02472  
Attention: Manager

If to the City, addressed to:

City of Watertown  
149 Main Street  
Watertown, MA 02472  
Attention: City Manager

10. Permitted Encumbrances. The rights granted herein are subject to all restrictions, covenants, easements and other encumbrances of record, whether now or hereafter existing, to the extent in force and applicable, except for monetary encumbrances, if any, for which a subordination shall be obtained.

11. Governing Law. This Grant shall be governed by the laws of the Commonwealth of Massachusetts, as the same may now exist or as may be hereinafter enacted.



If any provision of this Grant, or portions thereof, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Grant, or the application of such provision, or portion thereof, to any other person or circumstances shall not be affected thereby, and such provision of this Grant shall be valid and enforceable to the fullest extent permitted by law.

12. Counterparts. This Grant may be executed in several counterparts, each of which shall be deemed an original and all such counterparts shall constitute one and the same instrument. Several copies of this Grant shall be executed and each shall be deemed an original.

EXECUTED as a sealed instrument as of the day and year first above written.

**GRANTOR:**

**Arsenal View, LLC,**  
a Massachusetts limited liability company

By: \_\_\_\_\_  
Name: Murray S. Patkin  
Title: Manager  
Hereunto duly authorized

COMMONWEALTH OF MASSACHUSETTS

COUNTY OF \_\_\_\_\_ ss. \_\_\_\_\_, 2022

On this \_\_\_\_ day of \_\_\_\_\_, 2022 before me, the undersigned notary public, personally appeared Murray S. Patkin, Manager of Arsenal View, LLC, proved to me through satisfactory evidence of identification which were \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose in such capacity on behalf of Arsenal View, LLC.

\_\_\_\_\_  
Notary Public  
My commission expires: \_\_\_\_\_

**[City signatures on next page]**

## ACCEPTANCE OF EASEMENT RIGHT

On this \_\_\_\_ day of \_\_\_\_\_, 2022, the City of Watertown, acting by and through its City Manager pursuant to the vote taken by the City Council on \_\_\_\_\_, a certified copy of which is attached hereto as Exhibit B, hereby accepts the Path Right and Easement contained in the foregoing Grant of Easement granted to the City by Grantor, which is recorded herewith.

**CITY:**

**CITY OF WATERTOWN**

\_\_\_\_\_  
Name:

Title: City Manager

Hereunto duly authorized

Approved as to form by City Attorney:

\_\_\_\_\_  
Name:

Title: City Attorney

## ACKNOWLEDGMENT

COMMONWEALTH OF MASSACHUSETTS

MIDDLESEX, ss.

\_\_\_\_\_, 2022

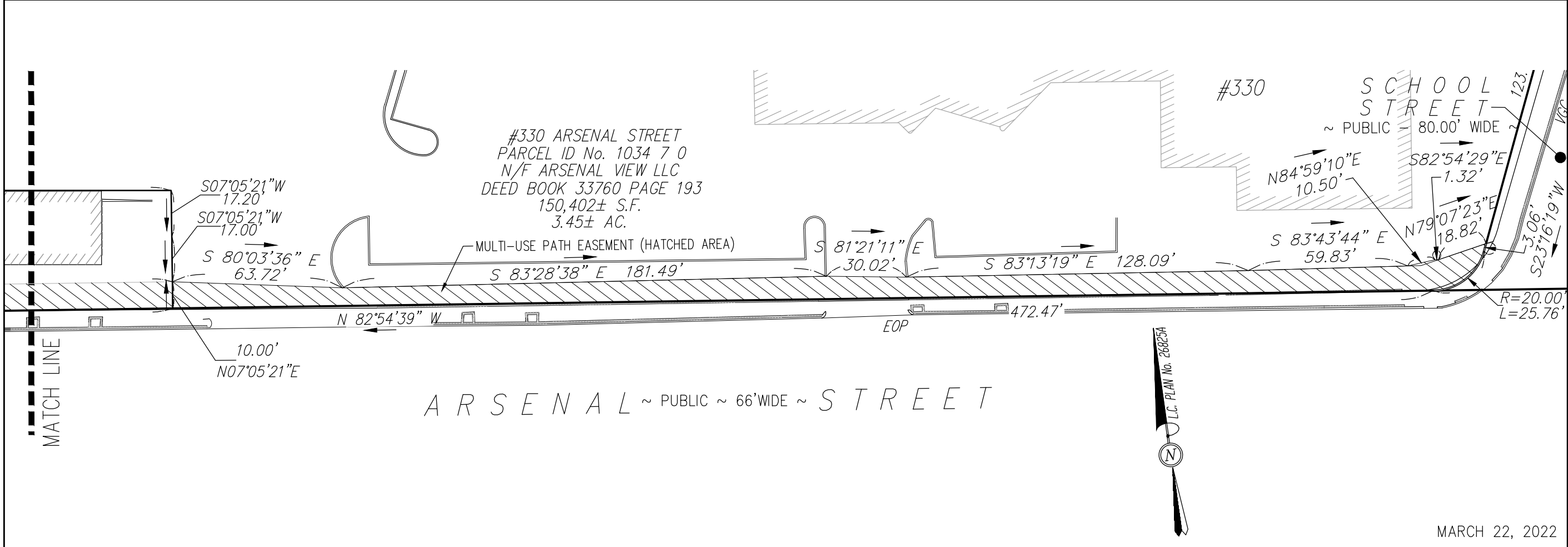
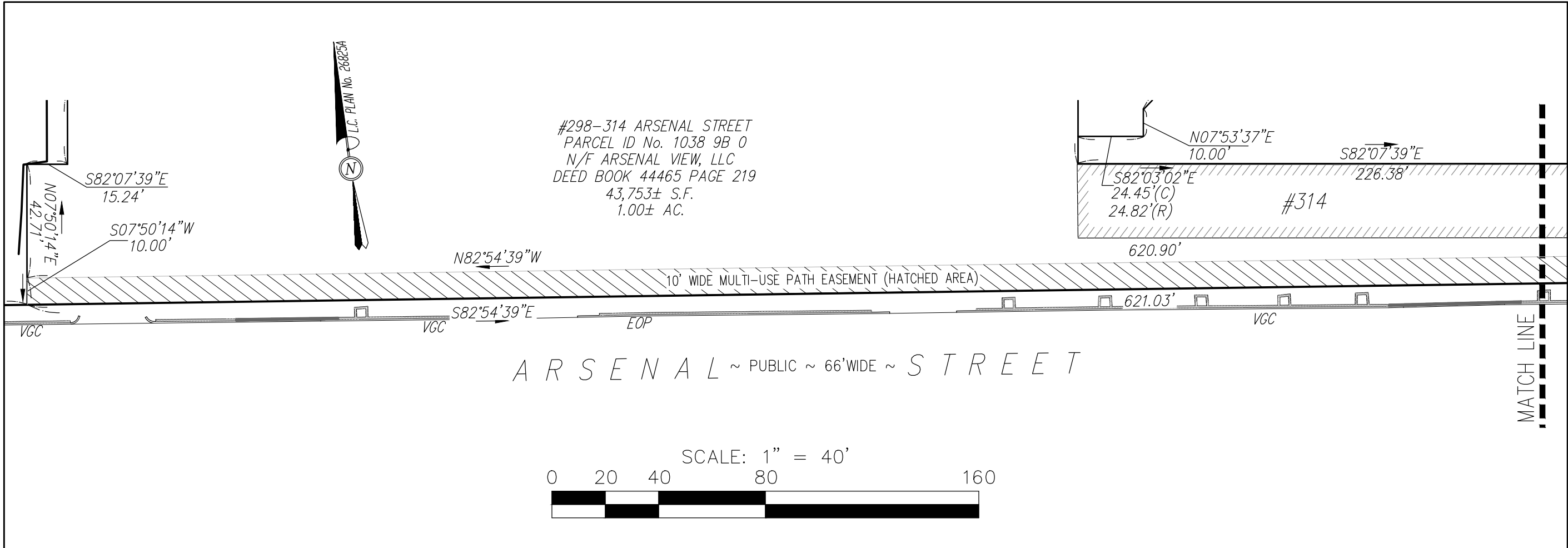
On this \_\_\_\_\_ day of \_\_\_\_\_, 2022, before me, the undersigned notary public, personally appeared \_\_\_\_\_, the City Manager of the CITY OF WATERTOWN, proved to me through satisfactory evidence of identification which were \_\_\_\_\_ to be the person whose name is signed on the preceding or attached document, and acknowledged to me that he/she signed it voluntarily for its stated purpose on behalf of the City of Watertown.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

EXHIBIT A-1

PLAN OF MULTI-USE PATH EASEMENT ARE



**EXHIBIT A-1**  
**LEXUS OF WATERTOWN**  
ARSENAL STREET  
WATERTOWN, MASSACHUSETTS

OWNER:  
Arsenal View, LLC  
330 Arsenal Street  
Watertown, MA 02472

MULTI-USE  
PATH  
EASEMENT  
PLAN

MARCH 22, 2022

FILE LOCATION: M:\



## **ATTACHMENT A-2**

### **Legal Description – “Multi-Use Path Easement”**

A certain easement over a parcel of land situated north of Arsenal Street and west of School Street in the City of Watertown, in the County of Middlesex and the Commonwealth of Massachusetts bounded and described as follows:

Beginning at a point on the northerly sideline of Arsenal Street, a public way, at the northwest corner of land now or formerly of Arsenal View, LLC known as 314 Arsenal Street; thence

|               |                                                                                                                                                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| N 07°50'14" E | a distance of Ten and No Hundredths feet (10.00') to a point; thence                                                                                                                                                                             |
| S 82°54'39" E | a distance of Six Hundred Twenty and Ninety Hundredths feet (620.90') to a point; thence                                                                                                                                                         |
| S 80°03'36" E | a distance of Sixty Three and Seventy Two Hundredths feet (63.72') to a point; thence                                                                                                                                                            |
| S 83°28'38" E | a distance of One Hundred Eighty One and Forty Nine Hundredths feet (181.49') to a point; thence                                                                                                                                                 |
| S 81°21'11" E | a distance of Thirty and Two Hundredths feet (30.02') to a point; thence                                                                                                                                                                         |
| S 83°13'19" E | a distance of One Hundred Twenty Eight and Nine Hundredths feet (128.09') to a point; thence                                                                                                                                                     |
| S 83°43'44" E | a distance of Fifty Nine and Eighty Three Hundredths feet (59.83') to a point; thence                                                                                                                                                            |
| N 84°59'10" E | a distance of Ten and Fifty Hundredths feet (10.50') to a point; thence                                                                                                                                                                          |
| S 82°54'29" E | a distance of One and Thirty Two Hundredths feet (1.32') to a point; thence                                                                                                                                                                      |
| N 79°07'23" E | a distance of Eighteen and Eighty Two Hundredths feet (18.82') to a point at the westerly sideline of School Street; thence                                                                                                                      |
| S 23°16'19" W | by the westerly sideline of School Street a distance of Three and Six Hundredths feet (3.06') to a point of curvature on the westerly sideline of School Street; thence                                                                          |
| Southwesterly | by a curve to the right with a radius of Twenty and No Hundredths feet (20.00'), an arc length of Twenty Five and Seventy Six Hundredths feet (25.76') to a point of tangency on the aforementioned northerly sideline of Arsenal Street; thence |

N 82°54'39" W      a distance of Four Hundred Seventy Two and Forty Seven Hundredths feet (472.47') by the northerly sideline of Arsenal Street to a point; thence

N 82°54'39" W      a distance of Six Hundred Twenty One and Three Hundredths feet (621.03') by the northerly sideline of Arsenal Street to the point of beginning.

The above described easement contains 10,628 square feet more or less.

EXHIBIT B

CITY COUNCIL VOTE



**City of Watertown  
Department of  
Community Development and Planning**

Administration Building  
149 Main Street  
Watertown, MA 02472  
(617) 972-6417  
FAX (617) 972-6484

To: Honorable City Council  
Thomas Tracy, Acting City Manager

From: Steve Magoon, DCDP Director, Acting Deputy City Manager

Date: August 4, 2022

Subject: Acceptance of Gift

The Town of Watertown is in receipt of donations from 9 different parties in recognition of the life and contributions of Janet Jameson to the City of Watertown.

In accordance with State law, Chapter 44, Section 53A ½, the City Council needs to accept such gifts. These contributions are made in her honor to be used in the production of public art, something that she was very involved in and passionate about. She was a founding member of the Public Arts Committee, and was instrumental in getting the committee functioning, which has now grown into a permanent funded function of the City of Watertown. The contributions total \$1,293 and will be dedicated to the creation of public art here in Watertown.

Therefore, I would respectfully request the Council consideration of the acceptance of these heartfelt gifts to the City.

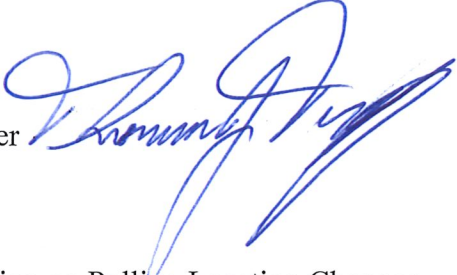


Thomas J. Tracy  
Acting City Manager

CITY OF  
WATERTOWN  
Office of the City Manager

Administration Building  
149 Main Street  
Watertown, MA 02472  
Phone: 617-972-6465  
Fax: 617-972-6404  
[www.watertown-ma.gov](http://www.watertown-ma.gov)  
[citymgr@watertown-ma.gov](mailto:citymgr@watertown-ma.gov)

To: Honorable City Council

From: Thomas J. Tracy, Acting City Manager 

Date: August 3, 2022

RE: Agenda Item – Consideration and Action on Polling Location Changes

---

Enclosed please find correspondence from Janet M. Murphy, City Clerk/Chief Election Officer regarding proposed polling location changes for Precincts in accordance with MGL Chapter 54 Section 24 which stipulates the City Council must vote on the changes.

The following are the proposed Precincts locations changes:

- Precincts 1 and 3 to vote at the Hosmer Elementary School, 1 Concord Road
- Precincts 7 to vote at the Middle School, 68 Waverley Avenue

I respectfully request this matter be placed on the August 9, 2022, City Council Agenda for your consideration and action.

Thank you for your consideration in this matter.

cc: Board of Election Commissioners  
Janet M. Murphy, City Clerk/Chief Election Officer  
Mark R. Reich, Esquire, KP | LAW  
Lauren F. Goldberg, Esquire, KP | LAW





# CITY OF WATERTOWN

Office of the City Clerk  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

Janet M. Murphy  
City Clerk/Chief Election Officer

Telephone (617) 972-6486  
Fax (617) 972-6595

To: Tom Tracy, Acting City Manager

From: Janet M. Murphy, City Clerk/Chief Election Officer

Subj: Agenda Item for City Council – Polling Locations for 2022 Elections

Date: 3 August 2022

Mr. Manager –

I am writing to request an item be placed on the City Council Agenda for Tuesday, August 9, 2022. MGL Chapter 54 Section 24 stipulates that whenever there is a change in a Polling Location, the City Council must vote on the change.

For the upcoming 2022 Election cycle, we are proposing the following breakdown of Polling Locations:

**District A:** Precincts 1, 2, 3 will all vote at the Hosmer Elementary School. Voters in Precincts 1 and 3 previously voted at the Hellenic Center, as the Hosmer was under construction. There is now ample space for all 3 precincts to be housed in that one location. This will eliminate the fee that we pay for the use of the Hellenic Center and keep the district together.

**District B:** Precincts 4, 5, 6 remain unchanged. Precincts 4 & 5 will vote at the Phillips School, while Precinct 6 will vote at the Hibernian. For future consideration, given the student body at the Phillips School, as well as the limitations of the space, we would be hoping to relocate these precincts elsewhere, preferably to one centralized location.

**District C:** Precincts 7, 8, 9. Due to the ongoing construction at the Lowell School, Precinct 7 will join Precincts 8 and 9 and vote at the Middle School.

**District D:** Precincts 10, 11, 12 remain unchanged, with Precinct 10 voting at the Police Station and Precincts 11 & 12 voting at the Cunniff Elementary School.

As we have discussed, the need to relocate some polling locations is justified and necessary. Looking ahead to the 2024 Presidential Election season, which will be extremely busy, it will not be feasible to continue using the Phillips School due to its size and parking and traffic limitations, as well as the needs of the student body.

If I can provide you with any additional information, please do not hesitate to ask.

Thank for your consideration of placing this item on the City Council Agenda.



Thomas J. Tracy  
Acting City Manager

CITY OF  
WATERTOWN  
*Office of the City Manager*

Administration Building  
149 Main Street  
Watertown, MA 02472  
Phone: 617-972-6465  
[www.watertown-ma.gov](http://www.watertown-ma.gov)  
[citymgr@watertown-ma.gov](mailto:citymgr@watertown-ma.gov)

To: Honorable City Council

From: Thomas J. Tracy, Acting City Manager 

Date: August 3, 2022

RE: Agenda Item – Vote to Accept M.G.L Chapter 41, Section 110A

---

Attached please find correspondence from Janet M. Murphy, City Clerk/Chief Election Officer requesting the City vote to accept the provisions of Massachusetts General Laws Chapter 44, Section 110A regarding Office hours on Saturday.

Therefore, given all of the above, I respectfully request your favorable consideration on this matter at the August 9, 2022 City Council Meeting.

cc: Janet M. Murphy, City Clerk/Chief Election Officer  
Steven Magoon, Acting Deputy City Manager/CD&P Director  
Department Heads



# CITY OF WATERTOWN

Office of the City Clerk  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

Janet M. Murphy  
City Clerk/Chief Election Officer

Telephone (617) 972-6486  
Fax (617) 972-6595

## MEMORANDUM

**TO:** Tom Tracy, Acting City Manager

**FROM:** Janet Murphy, City Clerk

**DATE:** 28 June 2022

**SUBJ:** Request to the City Council to Accept MGL

---

Mr. Manager,

I am writing to propose that the City Council accept MGL Chapter 41, Section 110A.

### Section 110A: Office hours on Saturday

Section 110A. Any public office in any city or town may remain closed on any or all Saturdays as may be determined from time to time, in a city by the city council, subject to the provisions of the city charter, or, in a town, by vote of the town at a special or regular town meeting, and the provisions of section nine of chapter four shall apply in the case of such closing of any such office on any Saturday to the same extent as if such Saturday were a legal holiday.

---

With the recent passing of the Votes Act, voter registration deadlines have changed. Most deadlines will now fall on a Saturday. With the acceptance of this MGL, we could opt to have our deadline be the previous business day at 5:00, eliminating the need to open and staff the Clerk's office on a Saturday. Should we be anticipating a very large voter turnout at any given election, we could choose to open on the Saturday for voter registration, but will no longer be required by law to do so. Most communities have accepted this MGL and its passage will not disenfranchise anyone from registering to vote. There are numerous avenues available for voter registration, including in person, by mail, online, or through the Registry of Motor Vehicles.

I would be happy to answer any questions you may have. Thank you for your consideration of this request.



Thomas J. Tracy  
Acting City Manager

CITY OF  
WATERTOWN  
*Office of the City Manager*

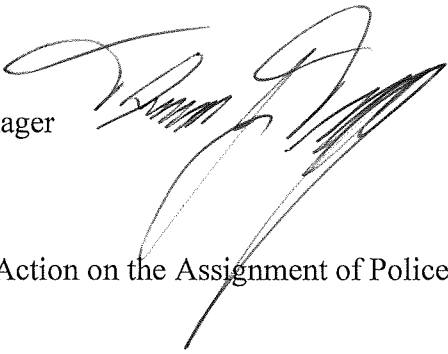
Administration Building  
149 Main Street  
Watertown, MA 02472  
Phone: 617-972-6465  
[www.watertown-ma.gov](http://www.watertown-ma.gov)  
[citymgr@watertown-ma.gov](mailto:citymgr@watertown-ma.gov)

To: Honorable City Council

From: Thomas J. Tracy, Acting City Manager

Date: August 4, 2022

RE: Agenda Item – Consideration and Action on the Assignment of Police Officers at Polling Locations



---

Enclosed please find correspondence from Janet M. Murphy, City Clerk/Chief Election Officer regarding the assignment of Police Officers at polling locations. As a follow-up to Ms. Murphy's correspondence, enclosed find an email from City Attorney Mark R. Reich.

I respectfully request this matter be placed on the August 9, 2022 City Council Agenda for your consideration and action.

Thank you for your consideration in this matter.

cc: Board of Election Commissioners  
Janet M. Murphy, City Clerk/Chief Election Officer  
Mark R. Reich, Esquire, KP Law  
Lauren F. Goldberg, Esquire, KP Law



## CITY OF WATERTOWN

Office of the City Clerk  
Administration Building  
149 Main Street  
Watertown, Massachusetts 02472

Janet M. Murphy  
City Clerk/Chief Election Officer

Telephone (617) 972-6486  
Fax (617) 972-6595

14 July 2022

Mr. Thomas Tracy, Acting City Manager  
City of Watertown  
149 Main Street  
Watertown, MA 02472

Re: Assignment of Police Officers at Polling Locations

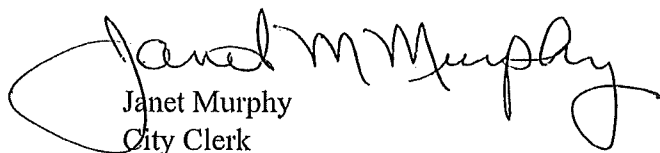
Dear Mr. Manager:

On June 22, 2022, the Election Reform Law (the "VOTES act"), was signed into law by Governor Baker. The VOTES act makes many of the changes from the pandemic permanent. Additionally, the assignment of police officers at polling places now requires a vote of the City Council. Section 72 of the VOTES act specifically states:

*Section 72. The select board, board of selectmen, town council or city council of each city and town, in consultation with its election officers and registrars, shall detail a sufficient number of police officers or constables for each building that contains the polling place for 1 or more precincts at every election therein to preserve order and to protect the election officers and supervisors from any interference with their duties and to aid in enforcing the laws relating to elections.*

The City of Watertown has 12 voting precincts. For each election, one police officer is assigned to each precinct during voting hours. Police Officers on duty that morning are responsible for delivering ballots, polling lists and voting machines to their assigned precinct in the morning, and then back to City Hall at the end of the night. In addition, we utilize one officer who is present at City Hall as ballots are returned and counted after the polls have closed. My request is that we continue with this schedule and system and that the City Council designate the Chief of Police to assign specific officers according to scheduling and availability.

Please let me know if you have any questions. Thank you.

  
Janet Murphy  
City Clerk

cc: Thomas Rocca, Chief of Police



**Hand, JoAnna**

---

**From:** Mark R. Reich <MReich@k-plaw.com>  
**Sent:** Friday, July 15, 2022 1:54 PM  
**To:** Hand, JoAnna  
**Cc:** Tracy, Tom; Osmond, Marsha  
**Subject:** RE: Assignment of Police Officers at Polling Locations

JoAnna –

Thank you for sending this e-mail.

We have been advising municipalities that this requirement under Section 72 of the VOTES Act should be delegated to the police chief as the chiefs are best able to address this staffing matter. I therefore agree that the City Council should consider delegating its obligation under Section 72 to the City's Police Chief as such delegation would allow for the orderly and appropriate designation of necessary officers for this purpose.

Please contact me with any further questions.

Thank you.

Mark

Mark R. Reich, Esq.  
**KP | LAW**  
101 Arch Street, 12th Floor  
Boston, MA 02110  
O: (617) 556 0007  
F: (617) 654 1735  
mreich@k-plaw.com  
www.k-plaw.com

This message and the documents attached to it, if any, are intended only for the use of the addressee and may contain information that is PRIVILEGED and CONFIDENTIAL and/or may contain ATTORNEY WORK PRODUCT. If you are not the intended recipient, you are hereby notified that any dissemination of this communication is strictly prohibited. If you have received this communication in error, please delete all electronic copies of this message and attachments thereto, if any, and destroy any hard copies you may have created and notify me immediately.

**From:** Hand, JoAnna <jhand@watertown-ma.gov>  
**Sent:** Friday, July 15, 2022 1:27 PM  
**To:** Mark R. Reich <MReich@k-plaw.com>  
**Cc:** Tracy, Tom <ttracy@watertown-ma.gov>; Osmond, Marsha <mosmond@watertown-ma.gov>  
**Subject:** Assignment of Police Officers at Polling Locations

Good afternoon Mark,

Tom asked me to forward the attached to you and ask you to review and advise what Janet is requesting in regards to the City Council designating the Police Chief to assign special officers.

Regards,

JoAnna Hand  
City Manager's Office

**Watertown City Council**  
**Committee on Climate and Energy**  
Councilor Palomba, Chair, Councilor Bays, Vice Chair, Councilor Airasian, Secretary  
**Committee Report**

The Committee on Climate and Energy met on **Thursday, July 7, 2022 at 5:30 PM** in the City Council Chambers to continue the discussion of the City's Climate and Energy Plan (Plan) with a focus on Cross Cutting Strategies and the Building & Energy Plan Element.

**Council Members Present:** Committee members Councilor Palomba (Chair), Councilor Bays (Vice Chair), Councilor Airasian (Secretary), and Councilor Feltner, District B City Councilor.

**Representatives from the Administration:** Laurel Schwab, Senior Environmental Planner at the Department of Community Development and Planning, Ed Lewis, Energy Manager/Program Manager at the Department of Public Buildings, and Steve Magoon, Assistant City Manager and Director of Community Development and Planning.

**Members of the Community:** Ernesta Krackiewicz, from Watertown Faces Climate Change and Member of the Transportation and Mobility Working Group of the Resilient Watertown Stakeholder Advisory Group, Brian Hebeisen, from Watertown Environment and Energy Efficiency Committee and Chair of the Buildings and Energy Working Group of the Resilient Watertown Stakeholder Advisory Group, Jolly Tager from Watertown Faces Climate Change, Connie Henry from Watertown Faces Climate Change, Pat Rathbone from Watertown Faces Climate Change, and other Watertown residents who were present on Zoom. Also present was Ms. Anne Korte who took the minutes of the meeting.

### **1. Call to Order**

Councilor Palomba called the Committee on Climate and Energy to order at 5:33 p.m. He indicated that the meeting was a hybrid format and that questions should be directed to Councilor Airasian at [jairasian@watertown-mass.gov](mailto:jairasian@watertown-mass.gov).

### **2. Meeting Discussion**

Councilor Palomba reiterated that the proposed course of action for the night's meeting was to review one of the five Plan elements, the Buildings & Energy Plan Element, and the Plan's six Cross Cutting Strategies (CCS).

Laurel Schwab (Senior Environmental Planner) showed the pertinent Plan slides on the video screen throughout the Committee's discussion. The Committee started with the six Cross Cutting Strategies on page 32 of the Plan. Laurel Schwab presented each strategy.

#### **CCS1: - Add staff capacity and resources to the Energy Manager's Office, the DPW Forestry Division, and the Department of Community Planning and Development (DCDP).**

Discussion focused on funding for staff including funds available to expand DCDP to hire someone responsible for staffing the Conservation Commission, thereby freeing up Ms. Schwab to work full-time on the Plan. Councilor Bays asked if there will be other hires. Steve Magoon answered that the City Council had approved an additional position for a full-time project manager for the Department of Public Buildings which would free up Ed Lewis to focus on the

Plan. Councilor Airasian asked if additional staffing requirements are needed. Laurel Schwab answered that this is a strong start and would like to reevaluate next budget season. She also mentioned the City has hired a new Forestry Supervisor/Tree Warden at the Department of Public Works (DPW) and that DPW may feel more staffing is needed to fulfill its role in the Plan. Councilor Palomba clarified that two full time people will be working on the Plan, Ms. Schwab and Mr. Lewis. Ed Lewis added that Watertown's Environment and Energy Efficiency Committee (WE3C) and resident groups will lend assistance.

**CCS2: - Create an overarching Resilient Watertown Outreach & Education Campaign.**

Councilor Airasian stressed the importance of getting information/education to residents. He noted that not everybody will be excited about the Plan, adding to the importance of information and education early and often.

**CCS3: - Develop assistance mechanisms and resources for renters and landlords (regarding energy efficiency, EV charging, etc.)**

There was a brief discussion about the City's **Resilient Housing Resource Center** that is a searchable database offering resources for renters.

**CCS4: - Collaborate regionally with other communities and entities.**

Councilor Bays noted how important this strategy is for building collaborative programs that any one city or town could not support alone.

**CCS5: - Explore establishing a Transportation Infrastructure Fund (TIF) with funding from developers and the City to implement recommendations of this Plan.**

In conjunction with discussion of CCS4, it was noted that Laura Wiener (Senior Transportation Planner) did outreach to communities with similar plans to create sustainable funding sources for dedicated bus lanes, on-demand transportation, and charging stations. Councilor Bays asked why CCS5 was a cross cutting strategy and not part of the Transportation and Mobility Plan Element. Laurel Schwab answered that its overarching nature didn't fit into just transportation, since the TIF could fund more than transportation initiatives. Councilor Airasian asked if the TIF fund is specifically for non-development areas. Laurel Schwab answered that that is her understanding; that it's a more general fund for system-wide needs.

**CCS6: - Encourage and require sustainable, climate-resilient development patterns.**

Laurel Schwab presented this strategy as an opportunity to view all elements of the Plan as interrelated and to give a bigger picture of climate resilience to avoid adverse consequences. In addition, it can inform the present effort to revise the Comprehensive Plan.

General discussion about Cross-Cutting Strategies ensued. Councilor Palomba noted that there are no deadlines for CCS and that some have deliverables. He then posed the question: Do we think timelines are necessary for Cross-Cutting Strategies, otherwise, how is it known when the goal is achieved? Laurel Schwab said Councilor Palomba made a good point and noted that some are more concrete than others. She explained that, in general, they can be interpreted as ongoing, and we can regularly evaluate those that are hard to measure (e.g. collaborate regionally). Ed Lewis reinforced Laurel Schwab's point that CCS don't always have an endpoint and that they are fluid (e.g. energy savings incentives for any particular year).

Councilor Feltner (via Zoom) asked who is managing the Resilient Watertown website and what is the time commitment? Laurel Schwab answered that Kim Lundgren Associates runs the website and will continue to do so.

Connie Henry (in person) asked about documentation and aspirational measures of the Plan. She said her particular interest is in the interactive processes to engage the community in conversation. She also noted that there is good data from the community surveys and she would like to see it incorporated into the CCS. In response, Laurel Schwab reiterated the intention is that this be a community endeavor and that there will be continual community conversations around climate mitigation and resilience as well as on-going efforts to collect and use data.

Brian Hebeisen (in person) made the point that the Plan is intended to be a living document. It was a deliberate/conscious choice to leave the CCS open-ended. He anticipated that the first year will be spent trying things and making mistakes, then making changes in subsequent years. He stated that he believes the Plan is a great start and that we will have a better idea in subsequent years how to revise it.

Larry Raskin (via Zoom) made two points: He stated that from his experience tasks can have concrete (even aspirational) goals. He also offered that Watertown Community Conversations has had some conversations with Laurel Schwab and would love to help with education and community outreach.

The discussion concluded and Councilor Palomba stated that no motion was necessary for the Cross-Cutting Strategies portion of the Plan. He then transitioned the focus of the meeting to the Buildings & Energy Plan Element.

### **Buildings & Energy Plan Element**

**Goal 1 – By 2050, 100% of electricity is sourced from renewables.**

**Goal 2 – By 2050, Watertown’s buildings are efficient, resilient, and carbon neutral.**

Ms. Schwab reviewed the specific Strategies and Actions for each of the two Goals. A discussion followed:

- Councilor Palomba asked Laurel Schwab to explain the **Whole Building Life Cycle Assessment** (Assessment) and asked whether it would be included as a condition for permit approval. Laurel Schwab explain that it requires the assessment of building materials before a shovel is in the ground, and “yes” it would be a condition for large developments.
- Brian Hebeisen stressed that it is important to estimate of how much carbon is used in the construction of the building, even if the carbon/energy of the building is net zero. He noted that a huge amount of energy is used in construction. He used the example of how much energy is used to mix concrete. Councilor Airasian asked and received confirmation that the Assessment would show not just how efficient the building will be but how efficient the building of the building will be.
- Councilor Palomba noted the recommendation to develop a bulk procurement and purchasing program of materials needed for deep retrofits. Mr. Lewis said when implemented the program could reduce the costs for small commercial property owners.

The Committee then moved to discussing the **Action Implementation Blueprints** (Action Blueprints) for the Buildings & Energy Plan Element.

**Action Blueprint BE 1.1 – Expand and strengthen the existing solar ordinance.**

**Action Blueprint BE 1.2 – Investigate implementing commercial PACE and other innovative finance programs.**

**Action Blueprint BE 1.3/BE 3.2 – Conduct outreach campaigns for solar, heat pumps, WEC, and energy efficiency.**

A discussion followed.

- Jolly Tager offering to share her draft of an expanded solar ordinance with the Committee.
- Ed Lewis explained that the **Property Assessed Clean Energy** (PACE) program being developed by the Commonwealth would help existing property owners get loans for solar installation.
- Councilor Airasian said he liked the program and expressed support for getting the information out to residential property owners as well as commercial owners and developers.
- Brian Hebeisen mentioned the difficulty of reaching renters, and that a consultant would be helpful with this task.
- Councilor Palomba asked whether the **HeatSmart** program was an informational/educational program or a source of funding. Brian Hebeisen responded that he believed the program had been shut down and that this is one of the reasons he believes the Plan needs to be a living document.
- Jolly Tager agreed that the Plan is a living document. She added the example of heat pumps and how they are currently unavailable or require a two-month lead time. She mentioned a similar issue with solar and that the price cannot be guaranteed right now. She stressed the importance of a long timeframe for the Plan.
- Councilor Palomba stressed that it is important to provide residents comprehensive education and information, for example, residents should be aware of what preparatory work might be needed to be done before heat pumps could be installed. It is important that people trust the recommendations made in the Plan and that examples are very helpful.

**Action Blueprint BE 2.1 – Adopt the State’s Net Zero Stretch Code as soon as permissible.**

**Action Blueprint BE 4.1 – Enact a Building Energy Use Disclosure Ordinance.**

**Action Blueprint BE 4.3 – Upgrade major existing Municipal Facilities to achieve net zero energy performance.**

A discussion followed.

- Ed Lewis said the State has been working on a net zero stretch code, but there is still substantive work to be done to improve the code. He added that he and the Building Inspector are members of an international energy code organization and they vote on international energy codes which are used to inform state building codes. He also mentioned that he and many others are pushing for a net zero stretch code.
- Councilor Bays asked if a net zero stretch code is more inclusive than **LEED** (Leadership in Energy and Environmental Design). Ed Lewis answered that a stretch code is more specific than LEED but they are related.
- Ms. Tager said she agrees that the goal is a net zero stretch code, but is disappointed that the present draft is not adequate. She suggested that the best thing to do right now is to move



from LEED silver, which the City already requires, to a LEED platinum requirement until the stretch code is extended.

- Pat Rathbone suggested it would help if Ed Lewis could list the three areas in which the State is holding back on net zero stretch code. He answered that there are multiple areas, but the biggest one is requiring no fossil fuel. For example there is no gas coming into Cunniff and Hosmer schools, they are all electric. That is where state is waffling. There are other areas, but the crux is requiring buildings to be powered by electricity.

- Ms. Schwab explained that a **Building Energy Use Disclosure Ordinance** (Ordinance) would require property managers of buildings of designated sizes and types to track and report energy use to the City.

- Ms. Tager voiced her support for the Ordinance and expressed her hope that it could be done quickly. (Attached please see an email from Ms. Tager on this subject.)

- Councilor Airasian asked if the Ordinance would require property owners to send in energy-related bills. Brian Hebeisen explained that it could be done semiannually or annually.

- Brian Hebeisen noted that historic buildings, like our City Hall, are a big challenge. Steve Magoon said the conversation brings up an important aspect of the Plan. Anytime you look at a long-term ordinance there are trade-offs, e.g. looking at how much energy is used to construct a building sometimes leads to renovating existing buildings, but existing buildings are hard to make energy efficient. He opined that here are two worthy goals in conflict with each other. With regard to City Hall, he made clear that nobody is talking about tearing it down and replacing it, but there are things that can be done to make it more energy efficient.

- Councilor Airasian asserted that it's really important for residents to see buy-in from the City and for the City to lead by example in all improvements, large and small.

- Steve Magoon added that the new schools have demonstrated the City's commitment to energy efficiency and now is the time to encourage the community to do their part.

Councilor Palomba announced that the Committee had accomplished its goal of reviewing the Cross Cutting Strategies and the Building & Energy Plan Element. He announced the next meeting would be on Thursday, July 14 when the Committee will review the Transportation & Mobility Plan Element and the Infrastructure and Waste Management Plan Element. He thanked his colleagues and Councilor Feltner, Anne Korte (Minute Taker), Ed Lewis, Laurel Schwab, and Steve Magoon as well as the residents present and those on Zoom for their participation.

### **3. Adjournment**

Councilor Palomba asked for a motion to adjourn. Councilor Bays made a motion to adjourn and it was seconded by Councilor Airasian. The motion passed 3-0. The meeting adjourned at 7:30 p.m. The minutes were prepared by Anne Korte.

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**CAP**

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**Jocelyn Tager** <tagfred@comcast.net>

Wed, Jun 29, 2022 at 7:55 AM

To: facingclimatechange-watertown-projects@googlegroups.com, Ischwab@watertown-ma.gov, elewis@watertown-ma.gov, cjbays@gmail.com, councilorpalomba@gmail.com

Hi Everyone,

I know it is late in the game, but I'm just looking at Somerville's Climate Forward Progress Report. The very good news is that our new City Manager, George Proakis will be very familiar with what we are working to do and a proponent. Not having this fight will be a huge, huge relief.

I don't have our plan in front of me and this may be in the details to be determined as we put the plan into action.

1. Somerville has curbside hazardous waste pick-up. Hopefully, our new recycling committee will take a good look at this, but it is part of a good CAP. I know local hazardous waste disposal (not having to drive to Lexington) was in the CAP working subcommittee suggestions on Waste and Infrastructure report.
2. Somerville has developed a Rental Registration and Energy Disclosure Ordinance which would establish a rental registration system and require owners of rental properties to provide information to prospective tenants. The ordinance is intended to increase awareness of energy efficiency, promote transparency, and improve city management.

In looking at GHG emissions from buildings in our CAP, we do have a BEURDO ordinance, but we don't have anything requiring landlords to let prospective tenants know what the energy use and costs of the unit they are considering renting. Such a Rental Energy Use Disclosure Ordinance would begin to address the fact that landlords pass on energy use and payment to their tenants and have little incentive to make their buildings more efficient. Also, small unit rental buildings won't fall under the BEURDO. This would create transparency and perhaps give landlords an incentive for creating more energy efficient rental units.

Perhaps the subcommittee looking at the CAP could recommend these inclusions.  
Jolly

## **Watertown City Council**

### **Committee on Climate and Energy**

**Councilor Palomba, Chair, Councilor Bays, Vice Chair, Councilor Airasian, Secretary**

### **Committee Report**

The Committee on Climate and Energy met on **Thursday, July 14, 2022 at 5:30 PM** in the City Council Chambers to continue the discussion of the City's Climate and Energy Plan (Plan) with a focus on the Transportation and Mobility Plan Element and the Infrastructure and Waste Management Plan Element.

**Council Members Present:** Committee members Councilor Palomba (Chair), Councilor Bays (Vice Chair), and Councilor Airasian (Secretary).

**Representatives from the Administration:** Laurel Schwab, Senior Environmental Planner at the Department of Community Development and Planning, Ed Lewis, Energy Manager/Program Manager at the Department of Public Buildings, Steve Magoon, Assistant City Manager and Director of Community Development and Planning, and Anya Pforzheimer, Sustainability and Recycling Coordinator at the Department of Public Works.

**Members of the Community in Person:** Ernesta Krackiewicz, from Watertown Faces Climate Change and Member of the Transportation and Mobility Working Group of the Resilient Watertown Stakeholder Advisory Group, Brian Hebeisen, from Watertown Environment and Energy Efficiency Committee and Chair of the Buildings and Energy Working Group of the Resilient Watertown Stakeholder Advisory Group, and Jolly Tager from Watertown Faces Climate Change. Also present was Ms. Anne Korte who took the minutes of the meeting.

**Members of the Community on Zoom:** Andy Compagna, Susan Downard, Anita Roy Dobbs, Silas Fyler, Ellen Menounos, Doug Orifice, Larry Raskin, Pat Rathbone, Ellen Rothman, Sharon Schumack, and Mackenzie Stratton.

#### **1. Call to Order**

Councilor Palomba called the Committee on Climate and Energy to order at 5:32 p.m. He indicated that the meeting was a hybrid format and that questions should be directed to Councilor Airasian at [jairasian@watertown-mass.gov](mailto:jairasian@watertown-mass.gov).

#### **2. Meeting Discussion – Discussion of the City's Climate and Energy Plan with a Focus on Transportation & Mobility and Infrastructure & Waste Management**

##### **Transportation and Mobility Plan Element:**

Ms. Schwab began by reading the two goals for the Plan Element:

**Goal 1 - By 2050, non-vehicular transportation options are accessible, affordable, connected, and well-utilized throughout Watertown, and personal vehicular travel miles are reduced by 50%.**

**Goal 2 - By 2050, 100% of Watertown registered vehicles are electric.**

Councilor Palomba asked where GHG reduction in Goal 1 would come from. Ms. Schwab answered that it would be the result of load shift from cars to traveling by bicycle, public transportation and walking.

Councilor Palomba asked for an explanation of “infrastructure” as it pertains to the Plan Element. Ms. Schwab answered that protected bike lanes for cyclists and off-street, multi-use paths used by pedestrians are two examples of what is meant by “infrastructure”.

Councilor Bays offered that Portland, Oregon has streets that are designated such that cyclists have priority. The streets are shared like our shared streets with lanes for cars, bicycles, and buses, but the bicycles are given priority.

Laurel Schwab reviewed some of the **Action Implementation Blueprints** (Action Blueprint) for this Plan Element.

**Action Blueprint TM 1.2 Collaborate regionally to increase and improve safe, interconnected pathways for bicyclists and pedestrians.** There were a series of questions asked by the Committee including:

- What is the cost of a Bluebike station? Steve Magoon answered approximately \$40k, and that there could be an additional charge if a certain thresholds of use is not met.

- What is the cost of a fast Electric Vehicle (EV) charging station? Ed Lewis answered that cost varies, but cable and infrastructure is the biggest cost and can be expensive. He illustrated the point by saying that without the grant the City received, the charging station behind the Library would have cost the City \$70k.

- Who oversees the **Safe Routes to School** program? Laurel Schwab answered that the School Department oversees the program and that it has not been as robust as in the past given the building of the Hosmer and Cunniff and the renovation of the Lowell.

- What are the zoning requirements for parking at new residential developments and can changing zoning reduce the requirements? Steve Magoon answered that parking requirements vary by unit size, and that the zoning question is a good one and it is being looked at.

Laurel Schwab explained a second Action Blueprint for this Plan Element.

**Action Blueprint TM 1.6 Develop an integrated, publicly accessible electric transit system that connects to the MBTA and other points of interests not accessible by MBTA, including on-demand transportation options.**

Councilor Palomba asked if on-demand transit options referred to Uber and Lyft. Ms. Schwab answered that in this case it refers to an option similar to Uber or Lyft but at a much-reduced cost. Mr. Magoon added that it would be a service provided and funded by the City for travel within the City and generally offered on weekdays. Ernesta Krackiewicz added that it's actually *on-demand micro-transit* (subsidized shared rides – mostly hybrid or electric) for people who don't have cars or want to reduce the use of their cars. She further added that on-demand micro-transit has shown to result in a significant reduction in vehicle use and GHG emissions.

Ed Lewis presented the strategy and action items for **Goal 2 – By 2050, 100% of all vehicles in Watertown are electric.** He noted that the first step is to update the baseline data from 2019 since a lot has changed since then. He emphasized the importance of not discouraging

people from buying EV because of a lack of charging stations and the importance of making sure we're addressing the needs of people who may not have access to EV charging stations at their homes. He suggested finding out what other communities are doing and what is working for them. He emphasized that to reach the 2050 target we'll have to be aggressive and flatten barriers to EV ownership.

Councilor Airasian asked about the number of cars registered in Watertown. Ed Lewis said he didn't know the current total number, but there were 172 electric cars registered when the 2019 baseline study was done. He added that work has already begun on adding charging stations and switching Department of Public Works (DPW) vehicles to electric. Councilor Airasian commented that, as a business owner, he would like there to be conversations on the Goal with other Watertown business owners.

Pat Rathbone (Zoom) asked about group buying and special incentives. Mr. Lewis answered that incentives were strong in the past but have since dried up. However he expects they will return and that there is a good chance the State will pass incentives to trade in gas cars for EVs.

Doug Orifice (Zoom), the co-president of the Watertown Business Coalition (WBC), said that WBC would like to advocate for parking in specific business districts, such as along Main Street, Mount Auburn Street, Arsenal Street, and in Coolidge Square to attract both local and regional/out-of-town customers.

#### **Infrastructure and Waste Management Plan Element:**

**Goal 1 – By 2050, Watertown has achieved a new zero waste community status.**

**Goal 2 – By 2050, Watertown's infrastructure is well maintained and resilient to the impact of climate change.**

Laurel Schwab reviewed **Strategy 1: Transition community attitudes and actions around consumption and disposal practices** for Goal 1. There were a series of questions asked by the Committee.

What are examples of where and how bulk purchasing could take place? Ms. Schwab replied that anywhere there is use of the same product across departments/offices/schools (e.g. office supplies for City Hall, food trays for public schools, etc.) bulking purchasing could take place.

What is gray water? Ms. Schwab explained that gray water is water that is used for a primary function but then is suitable for other uses.

How does the "pay as you throw" option work? Laurel Schwab explained that it's an attempt to change behavior by changing the perception that trash is free. People think of trash as free because the cost of trash pickup is built into property taxes. If residents had to pay for their trash, they might be more likely to recycle and compost. She added that other cities and towns have adopted the model. Councilor Airasian asked if residents would have to purchase the bags. Ms. Schwab answered that it depended on how the program was structured.



Ms. Tager commented that Minneapolis/St. Paul has a strong organic recycling program with organic recycling bins as tall as our trash bins, and that the recycling bins are picked up every week while regular trash is picked up every other week. Residents only pay for trash pickup which has been a huge motivator. Your trash bill is a function of how much trash you put out to be picked up. She also suggested the establishment of a user-friendly website for trash and recycling and the possibility of establishing a program that transports unused prepared food from restaurants to people in need. Arlington operates such a program.

Laurel Schwab reviewed **Strategy 2: Systematically integrate climate change projections into the design of all new and upgraded infrastructure projects** for Goal 2.

Councilor Palomba asked if major infrastructure projects, such as water and sewer replacements, would have to follow the recommendations in the Plan. Laurel Schwab clarified that for the **Municipal Vulnerability Program (MVP)** grant that the City received certain climate resilient design guidelines had to be followed for projects proposed in the grant. However at this time discussion of how major infrastructure projects would incorporate climate resilient design guidelines has only begun.

Ed Lewis reviewed the **Action Blueprint IW2.4 – Investigate local back-up power, microgrid, and battery options in coordination with utilities**. He acknowledged that this Action Blueprint poses some very big challenges and is a complex topic that will require ongoing research and attention to new technologies. He noted that solar fields at the Hosmer School require a back-up battery as a State requirement and that it is a challenge to determine where to locate back-up power for City buildings. In response to a question by Councilor Palomba about the recommendation for a joint working group, Mr. Lewis noted that the long list of potential representatives on the working group was an indication of how much coordination is needed to put in place the infrastructure required to have reliable back-up power.

Councilor Palomba expressed his appreciation to all the presenters and participants and announced that the next meeting will be on Tuesday, July 19, 2022 and would cover the Natural Resources Plan Element and the Public Health and Community Preparedness Plan Element.

### **3. Adjournment**

Councilor Bays made a motion to adjourn which was seconded by Councilor Airasian and the motion passed 3-0. The meeting adjourned at 7:00 p.m. The minutes were prepared by Anne Korte.

## **Watertown City Council**

### **Committee on Climate and Energy**

**Councilor Palomba, Chair, Councilor Bays, Vice Chair, Councilor Airasian, Secretary**

### **Committee Report**

The Committee on Climate and Energy met on **Tuesday, July 19, 2022 at 5:30 PM** in the City Council Chambers to continue the discussion of the City's Climate and Energy Plan (Plan) with a focus on the Natural Resources Plan Element and the Public Health and Community Preparedness Plan Element.

**Council Members Present:** Committee members Councilor Palomba (Chair), Councilor Bays (Vice Chair), and Councilor Airasian (Secretary) and Councilor President Mark Sideris and Councilor Emily Izzo, District D City Councilor.

**Representative from the Administration:** Laurel Schwab, Senior Environmental Planner at the Department of Community Development and Planning, Ed Lewis, Energy Manager/Program Manager at the Department of Public Buildings, Steve Magoon, Assistant City Manager and Director of Community Development and Planning, Stephanie Venizelos, Community Wellness Program Manager at the Health Department, and Mike Micieli, Forestry Supervisor/Tree Warden at the Department of Public Works (on Zoom).

**Members of the Community in Person:** Brian Hebeisen, from Watertown Environment and Energy Efficiency Committee and Chair of the Buildings and Energy Working Group of the Resilient Watertown Stakeholder Advisory Group and Jolly Tager from Watertown Faces Climate Change. Also present was Ms. Anne Korte who took the minutes of the meeting.

**Members of the Community on Zoom:** Sharon Bauer, Janet Buck, Anita Roy Dobbs, Jacqui Gross, Connie Henry, Ernesta Krackiewicz, Susan Laduc; Ellen Menounos, Larry Raskin and Jeanne Trubek

#### **1. Call to Order**

Councilor Palomba called the Committee on Climate and Energy to order at 5:34 p.m. He indicated that the meeting was a hybrid format and that questions should be directed to Councilor Airasian at [jairasian@watertown-mass.gov](mailto:jairasian@watertown-mass.gov).

#### **2. Meeting Discussion – Discussion of the City's Climate and Energy Plan with a Focus on Natural Resources and Public Health & Community Preparedness**

Councilor Palomba noted that these two Plan Elements focus on the second overall goal of the Climate and Energy Plan which is developing resiliency to the effects of climate change. He also mentioned that the Committee has not focused on the metrics for measuring success for the Plan Elements. He suggested these will be reviewed at future public meetings.

#### **Natural Resources**

Ms. Schwab began by reading the goal for the Plan Element:

**Goal 1 - By 2050, Watertown's natural assets and green space are enhanced, equitably distributed, and delivering full ecosystem benefits.** She also pointed out that Watertown had hired a new Tree Warden, Mike Micieli, and that he was present via Zoom. She went on to briefly review the four strategies for Goal 1.

**Strategy 1 - Protect and enhance forest and open space parcels.** The Strategy focuses on incorporating pocket parks, promoting biodiversity improvements, acquiring more open space where possible, and establishing equitable and accessible natural habitat spaces.

**Strategy 2 - Protect, enhance, and diversify the tree canopy.** The Strategy includes establishing a tree protection ordinance (currently being worked on), and outreach to increase awareness and the importance of the urban forest.

**Strategy 3 - Promote regenerative landscaping and maintenance practices.**

**Strategy 4 – Minimize quantity and improve quality of stormwater runoff.** Ms. Schwab noted this Strategy includes protecting existing natural habitat corridors like the Charles River, enhancing the partnership with the Department of Conservation & Recreation (DCR), enhancing the **Adopt an Island** program, and expanding community gardens.

Referring to **Action Implementation Blueprint NR2.3**, Councilor Palomba inquired about the implementation step to rewriting of the City’s tree planting contract. Ms. Schwab answered that the contract would be amended to place an emphasis on acquiring high quality planting stock from regional nurseries.

Councilor Bays mentioned the community organization Trees for Watertown and asked how they might contribute to implementing Goal 1 and the related Strategies. Ms. Schwab said Trees for Watertown was part of the Natural Resources Work Group of the Resilient Watertown Stakeholder Advisory Group and that its ongoing involvement will be very helpful. She added that the implementation of this Plan Element will require a lot of work and there are many opportunities for community groups to contribute. Councilor Bays suggested a website that provides activities and instructions on how to contribute to Goal 1 and the related Strategies. Councilor Airasian added that the Rotary Club takes care of an island and that members take great pride in maintaining it.

Councilor Palomba asked Mr. Micieli (new Tree Warden) if he had heard of the Miyawaki forest in Cambridge. He answered that he had heard about it and he was hoping to visit it in the coming weeks. Connie Henry (Zoom) commented that she’d like to see a Miyawaki forest at Walker Pond. She added that she thinks the word “adopt” is wrong for taking care of a piece of land and would like to see another word used. That sentiment was echoed by a member of the audience.

### **Public Health and Community Preparedness**

Laurel Schwab presented the goal and strategies for this Plan Element.

**Goal 1 - By 2030, Watertown is a model for community resilience to climate change.** She reviewed the four strategies for the Plan Element.

**Strategy 1 - Promote climate literacy.**

**Strategy 2 - Acknowledge climate change’s impact on and provide resources to enhance overall community health and well-being.**

**Strategy 3 - Provide equitable access to emergency preparedness and response resources.**

**Strategy 4 - Promote overall community connectivity.**

Ms. Schwab noted a few of the key **Actions** related to the Strategies included the creation of a **Community Emergency Response Team (CERT)** program, the implementation of a **Climate Change and Health Vulnerability Assessment**, a “Sign Up” campaign, and efforts to prevent new heat islands in Watertown. She also mentioned that a heat mapping exercise was done which provide valuable and current data.

Councilor Palomba asked where the big heat islands were in Watertown. Ms. Schwab said the data shows there are heat islands in many parts of the City, but they are concentrated in the East End and fanning out from Arsenal Street.

Councilor Bays asked about **Action PH3.3 - Launch a “Sign Up” campaign to ensure equitable access to communication resources**. Ms. Schwab said it was primarily an education and information effort that would require significant outreach to communities who have not traditionally accessed City resources.

Ms. Schwab noted the importance of creating “**resilient hubs**” that provide resources, for example air conditioning, and are needed during a heat wave like the one we are currently experiencing. The Committee discussed where such hubs might be located in the City. Ms. Schwab and others suggested that certain public buildings – the police and fire stations, the library, the senior center and our new schools might be ideal locations. However she noted that to make sure they are distributed geographically throughout the City it may be necessary to work with private property owners who might provide space for a hub.

The Committee turned its attention to **Action Implementation Blueprint PH4.2 – Enhance the existing Live Well Watertown coalition and its programs to incorporate neighborhood connections to nature and each other**.

Councilor Palomba invited Stephanie Venizelos, Watertown’s Community Wellness Program Manager and the coordinator of Live Well Watertown to speak about the connection between physical benefits of walking and climate and community preparedness. Both he and Councilor Airasian understood the health benefits of connecting with nature but did not understand the relationship to climate resiliency. Ms. Venizelos said that by expanding a program like Live Well Watertown, which addresses the physical and emotional benefits of connecting with nature, you are building connectivity between residents and creating greater opportunities for developing neighborhood groups. This increases the possibility that participants will naturally help each other during climate emergencies. Many people living in a city feel disconnected to nature and feel “nature is for other people”. By getting people to experience nature and its many benefits, the more they may become aware of the value of community cohesion and its importance in contributing to climate resiliency.

Councilor Palomba noted that the Committee had now completed the review of the Plan and thank everyone for their contributions at this meeting and the previous three Committee meetings.

The members of the Committee then discussed how it should monitor progress. Councilor Palomba suggested merging the Action timelines for each Plan Element and listing what is to be achieved in three months, in six months, in a year, etc. Councilor Bays suggested that the Action

Implementation Blue Prints should follow directly after Goals, Strategies and Actions of a Plan Element. She also voiced support for a monitoring process that emphasized transparency. Laurel Schwab said once the Plan is formally approved by the City Council, she and Mr. Lewis will create a process for monitoring progress that will be transparent and easily accessible to residents. Councilor Palomba suggested that the Committee meet again in six months to review the monitoring process created by the Ms. Schwab and Mr. Lewis and to review progress made toward achieving the goals of the Plan. Councilor Bays and Councilor Airasian agreed.

#### **Action Item**

Councilor Palomba made the following motion:

*That the Committee on Climate and Energy recommends that the full City Council approve the Climate and Energy Plan as presented to the Committee and instruct the Committee to review its progress on a regular basis.*

Councilor Airasian seconded the motion and it was approved 3-0.

#### **3. Adjournment**

Councilor Palomba made motion to adjourn, and it was seconded by Councilor Bays and passed 3-0. The meeting adjourned at 6:48 p.m. The minutes were prepared by Anne Korte.





Thomas J. Tracy  
Acting City Manager

CITY OF  
WATERTOWN  
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To: Honorable City Council  
From: Thomas J. Tracy, Acting City Manager  
Date: August 4, 2022  
RE: Health and Human Resources Study

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Attached please find email correspondence regarding the subject from Steven Magoon, Acting Deputy City Manager/CD&P Director.

I will bring this up under Communications from the City Manager at the August 9, 2022 City Council Meeting and respectfully request the matter be referred to Committee for policy consideration and guidance by the Honorable City Council.

cc: Steven Magoon, Acting Deputy City Manager/CD&P Director  
Mark R. Reich, Esquire, KP Law

**Hand, JoAnna**

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**From:** Magoon, Steve  
**Sent:** Tuesday, July 26, 2022 11:48 AM  
**To:** Sideris, Mark; Tracy, Tom  
**Cc:** Palomba, Anthony; Hand, JoAnna; Osmond, Marsha; Pronovost, Marilyn  
**Subject:** FW: Health and Human Resources Study  
**Attachments:** Health and Human Resources Scope.docx

Mr. President and Manager, attached is a potential agenda item for referral to Committee. This is a draft RFP for the study of health and human services in the City. As you can see below, there has been some discussion with Councilor Palomba, and I believe it is ready for referral. Please let me know if this is okay for the August 9 agenda. Thanks

**From:** Magoon, Steve  
**Sent:** Tuesday, July 26, 2022 10:44 AM  
**To:** Councilor Tony Palomba <councilorpalomba@gmail.com>  
**Subject:** RE: Health and Human Resources Study

That makes for an awfully long title, but it is attached.

**From:** Councilor Tony Palomba <councilorpalomba@gmail.com>  
**Sent:** Monday, July 25, 2022 6:32 PM  
**To:** Magoon, Steve <smagoon@watertown-ma.gov>  
**Subject:** Re: Health and Human Resources Study

Hi Steve,

Thanks for the quick response and revised draft. It sounds good to me. I would only ask that you change the title to read -

PROVIDE A HEALTH AND HUMAN SERVICES NEEDS ASSESSMENT FOR THE CITY OF WATERTOWN and THE ORGANIZATION AND OPERATION OF HEALTH AND HUMAN SERVICES IN WATERTOWN

Thanks again,  
Tony

On Mon, Jul 25, 2022 at 10:13 AM Magoon, Steve <smagoon@watertown-ma.gov> wrote:

Take a look at these revisions and let me know if they are what you are looking for. Thanks

**From:** Councilor Tony Palomba <councilorpalomba@gmail.com>  
**Sent:** Saturday, July 23, 2022 8:23 PM  
**To:** Magoon, Steve <smagoon@watertown-ma.gov>  
**Subject:** Re: Health and Human Resources Study

Hi Steve,

I hope that you see this after enjoying the weekend. I have reread the draft again and again. IAdding to my earlier comments, I read the draft as asking for a review of the existing services provided by the City directly through its departments or indirectly through programs it has a purchased services, determining if existing needs are being meant by the departments' service and the providers' service and if so are they adequate and being provided efficiently. This is all good stuff!

Two suggestions:

1) Eliminate " *There is a perceived unmet need in terms of mental health and substitute use disorder services.*" Let the consultant reach that conclusion after they do the evaluation.

2) Add the following sentences to the beginning of the Scoop

*"Conduct a City-wide health and human service needs assessment to determine the unmet needs of the residents of the City. Evaluate the non-profit and for profit health and human service agencies serving the residents of the City to determine the services they provide to residents".*

What I am trying to do is leave the reader with the understanding that there are two main thrusts - assessing the needs of the community and the agencies providing services and assessing the way some of these needs are met by the City departments and contractors.

Finally the timeline seems very tight - 60 days. I would opent it up a bit. A decent assessment with research and interviews could easily take 6 months.

Thanks again for getting the ball rolling. Once it is public I will share it with folks who actually do assessments for feedback and suggestions which they can share at a public meeting of the Committee on Human Services.

Best,

Tony

On Thu, Jul 21, 2022 at 9:49 AM Magoon, Steve <[smagoon@watertown-ma.gov](mailto:smagoon@watertown-ma.gov)> wrote:

I can make adjustments before the Council discusses this if you would like, let me know. Thanks

**From:** Councilor Tony Palomba <[councilorpalomba@gmail.com](mailto:councilorpalomba@gmail.com)>

**Sent:** Wednesday, July 20, 2022 10:14 PM

**To:** Magoon, Steve <[smagoon@watertown-ma.gov](mailto:smagoon@watertown-ma.gov)>

**Cc:** Palomba, Anthony <[apalomba@watertown-ma.gov](mailto:apalomba@watertown-ma.gov)>; Tracy, Tom <[ttracy@watertown-ma.gov](mailto:ttracy@watertown-ma.gov)>; Sideris, Mark <[msideris@watertown-ma.gov](mailto:msideris@watertown-ma.gov)>; Ramdin, Larry <[lrardin@watertown-ma.gov](mailto:lrardin@watertown-ma.gov)>; George, Patrick <[pgeorge@watertown-ma.gov](mailto:pgeorge@watertown-ma.gov)>; Shattuck, Gayle <[gshattuck@watertown-ma.gov](mailto:gshattuck@watertown-ma.gov)>; Rocca, Thomas <[trocca@police.watertown-ma.gov](mailto:trocca@police.watertown-ma.gov)>

**Subject:** Re: Health and Human Resources Study

Steve,

Thank you for sharing this with me. I look forward to Council President Sideris assigning it to the Committee on Human Services so we can convene a meeting to discuss it. I would like to share a concern I have about the draft. I went back to the minutes of the November 23 City Council meeting to recover the language of the motion that the Council passed. It reads as follows:

*The Council then voted on the motion instructing the City Manager to create an RFP for a comprehensive city-wide public health and human service needs assessment. The motion was adopted unanimously on a roll call vote.*

The draft RFP states, "*The City of Watertown is seeking the services of a Consultant to provide an assessment of the organization and operation of the Watertown Health and Human Services functions*".

I see a bit of a disconnect. Granted when you read the RFP carefully you can see that there is a call for assessing the public health and human services needs in the city, but there appears to be an emphasis on the operations of the City's health and human services function. I may be making a mountain out of a molehill, but the intention of the Committee on Human Services was to get a handle on what are the public health and human services needs of our residents, if and how those needs are being met and if they are not, how best can they be met. No doubt an assessment of the organization and operation of what and how the City provides services is critical, as are recommendations of how the City should be organized to provide

needed services. But I would not want to see a reader of the RFP walk away thinking we only, or primarily, want an assessment of City operations, like we might want in a study of the HR department.

Again, I may be off base, but I wanted to raise the concern. We can discuss it in more detail when the draft is formally assigned to the Committee on Human Services and we schedule a meeting. I am hoping to move this along as quickly as possible so I will urge the members of the Committee to meet soon after Labor Day.

Thanks again for getting the ball rolling on this.

Tony

On Wed, Jul 20, 2022 at 9:42 AM Magoon, Steve <[smagoon@watertown-ma.gov](mailto:smagoon@watertown-ma.gov)> wrote:

Councilor, attached is a draft scope of services for a study of the Health and Human Resources operations of the City for Council discussion. This has been reviewed by staff, and the only outstanding item is what to call it, as we have a similarly named study being done for our Human Resources departmental needs. Staff will be available when a committee meeting is scheduled to discuss. Thanks

Steve Magoon

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*Please be aware that the Secretary of State's office has determined that most e-mails are public records subject to the provisions of Massachusetts General Laws Chapter. 66, sec. 10, the Public Records Law, and therefore may not be confidential.*

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# REQUEST FOR PROPOSALS TO PROVIDE A HEALTH AND HUMAN SERVICES NEEDS ASSESSMENT FOR THE CITY OF WATERTOWN AND THE ORGANIZATION AND OPERATION OF HEALTH AND HUMAN SERVICES IN WATERTOWN

## RFP #

The City of Watertown is seeking the services of a Consultant to provide an assessment of the organization and operation of the Watertown Health and Human Services functions and an assessment of needs in the community.

### BACKGROUND

The City is eager to evaluate the provision of Health and Human Services in the City. The current provision of services includes a number of City departments and outside agencies.

### SCOPE OF SERVICES

Conduct a City-wide health and human service needs assessment to determine the unmet needs of the residents of the City. Evaluate the non-profit and for profit health and human service agencies serving the residents of the City to determine the services they provide to residents as background information. The consultant will then evaluate and make recommendations with regard to the operation of the various health and human services functions within the City. This will include the Health Department, Wayside, where the City contracts for a Social Services Resource Specialist, the Police Department, where the jail diversion program has 2 full time clinicians, the Veterans Services, and the Senior Center and any other City services. The Consultant should plan to report on whether this arrangement is optimal as it relates to health and human services.

The Consultant's scope of work would include, but not be limited to an examination of the present state of these efforts, the staffing and functions, which include, but are not limited to the management of the respective Departments and programs.

The Consultant shall determine whether best practices are being applied to the provision of health and human services to the public and staff. This should include both services that are currently being provided, and an assessment of any unmet needs for services in the community. This includes the provision of substance use disorders and mental health services, including quantitative analysis of services provided and needs within the community. The consultant should perform interviews of stakeholders, including City leadership, program providers, and the public in order to inform their work.

The Consultant shall conduct a review of existing programs and management, in an effort to determine whether they are considered up-to-date with respect to issues of crucial importance in today's environment. Finally, the Consultant shall determine whether best practices are being applied to the overall management of the provision of services. It shall recommend organizational and program efficiencies and enhancements, along with a timeline for implementation of the recommendations.

### TIMELINE OF DELIVERABLES

Review of programs and interviews of stakeholders shall be completed within one hundred and eighty (180) days of commencement of work. Consultant will produce a complete review within ninety (90) days

of completing interviews. Consultant shall provide the City with an Executive Summary and comprehensive Final Report of its findings and recommendations within thirty (30) days of completion of the review. Consultant should be prepared to make a presentation of its findings to the City Council and Administration upon completion of the Final Report.

#### CONSULTANT INFORMATION AND QUALIFICATIONS

All proposals should include items 1 through 7 below.

1. Name of Consultant.
2. Address of principal place of business and corresponding telephone and fax numbers.
3. Description of staff education, experience, qualifications, number of years with the Consultant and a description of their experience with projects similar to those described above. Please note specifically which staff will be assigned to work with the City.
4. Experience working with cities and other public entities.
5. References, especially those with knowledge of the Consultant's work with a public entity.
6. The Consultant's ability to provide the services in a timely fashion (including staffing, familiarity and location of key staff).
7. Any other information that the interested Consultant deems relevant.

#### PRICING

The proposal shall include a separate fee proposal in a total not-to-exceed amount for all services. The fee proposal should clearly indicate the services associated with the fees and reflect the full scope of services requested. Proposers shall also provide a schedule of titles and billing rates for key personnel. The Consultant will be compensated for actual hours worked and should submit monthly invoices detailing personnel, billing rate, task performed and hours worked. Other out of-pocket expenses, including printing and reproduction/copying, may be billed as a direct reimbursement as they are incurred based on unit costs. Travel time shall not be reimbursable