



Public Safety & Transportation Committee Agenda

City of Newton In City Council

Wednesday, September 22, 2021

730 PM NOTE Late start time

The Public Safety & Transportation Committee will join the Public Facilities Committee who will hold this meeting as a virtual meeting on Wednesday, September 22, 2021 at 7:30 PM. To view this meeting using Zoom, use this link: <https://us02web.zoom.us/j/84179099274> or call 1-646-558-8656 and use the following Meeting ID: 841 7909 9274

Items Scheduled for Discussion:

Chair's Note: *The committee will meet jointly with the Public Facilities Committee to discuss the following three items:*

Referred to Public Facilities Committee

#344-21

Update on the proposed Street Sweeping Pilot

PUBLIC FACILITIES COMMITTEE requesting an update from the Department of Public Works on the proposed Street Sweeping Pilot.

Referred to Public Facilities and Public Safety & Transportation Committees

#250-21

Discussion regarding the status of fire hydrants throughout the City

COUNCILORS LAREDO, LIPOF, LEARY, GREENBERG AND OLIVER requesting a discussion with the Fire Department and the Department of Public Works regarding the status of fire hydrants throughout the city, including their current condition and plans for future maintenance, repair, and replacement as needed.

The location of this meeting is accessible and reasonable accommodations will be provided to persons with disabilities who require assistance. If you need a reasonable accommodation, please contact the city of Newton's ADA Coordinator, Jini Fairley, at least two business days in advance of the meeting: jfairley@newtonma.gov or (617) 796-1253. The city's TTY/TDD direct line is: 617-796-1089. For the Telecommunications Relay Service (TRS), please dial 711.

Chair's Note: The committees will discuss the criteria to use when prioritizing sidewalk installation and repair, as well as changes to sidewalks for ADA compliance and crossing safety.

Referred to Public Facilities and Public Safety & Transportation Committees

#81-20 Discussion on transportation priorities and public works
PUBLIC FACILITIES COMMITTEE, PUBLIC SAFETY & TRANSPORTATION COMMITTEE AND COUNCILOR LEARY requesting a discussion with the administration and school officials on transportation priorities and public works/streets/sidewalks etc.
Public Facilities Held 7-0, Councilor Kelley not voting on 01/22/20
Public Safety & Transportation Held 5-0, on 01/22/20
Public Safety & Transportation Held 7-0, Councilor Lipof not voting on 04/21/21

Respectfully submitted,

Andreae Downs, Chair

City of Newton

DEPARTMENT OF PUBLIC WORKS

Ruthanne Fuller

OFFICE OF THE COMMISSIONER

Mayor

1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Date: September 20, 2021

To: City Council

From: James McGonagle, Commissioner
Shawna Sullivan, Deputy Commissioner

Subject: Street Sweeping Pilot

At the request of the Ward 1 Councilors and a few community leaders, we have begun to develop a street sweeping pilot proposal. Below is a proposal that should be brought to a community meeting for input.

The draft proposal includes the below targeted streets which comprise approximately 4 miles of curb line.

Targeted Streets

- Dalby St, Faxon St, Jasset St, Beech St, Allison St, Los Angeles St, Cook St, Morgan Pl, Green St, (from Cook to Pearl), Kennedy Circle, and Middle St

The pilot would ban parking on both sides of the street one day a month (preferably a Tuesday, Wednesday, or Thursday) between the hours of 7 am to 11 am. Data will be gathered on current parking conditions prior to the pilot and monitored throughout the pilot.

The proposed enforcement would be a written warning the first month, a ticket the second month and ticket and towing the third month.

The duration of the pilot should be at least six months to gather accurate data.

We anticipate starting this on April 15, 2022 after the snow season.

James McGonagle
Commissioner

Telephone: (617) 796-1010 • Fax: (617) 796-1050 • jmcgonagle@newtonma.gov

**City of Newton
Department of Public Works
Utilities Division**

Theodore J. Jerdee, Utilities Director
60 Elliot Street
Newton, Ma. 02461
Telephone (617) 796-1623
tjerdee@newtonma.gov

Memorandum

TO: James McGonagle, Commissioner of Public Works
Shawna Sullivan, DPW Chief of Staff

FROM: Theodore J. Jerdee, Utilities Director

DATE: September 20, 2021

RE: Response to question for 9/22/21 PFC-Hydrants

The following are my responses to questions to Teresa Sauro's email dated August 1, 2021 pertaining to malfunctioning hydrants during a fire at 44/46 Cook Street on January 23, 2019.

RESPONSES TO TERESA SAURO EMAIL DATED AUGUST 1, 2021:

1. Q; When does street sweeping start and when does it end? The first week of November I saw the street sweeper hook up to the hydrant and then proceeded to sweep the street. I said to myself "why on earth would he street sweep today as it is freezing out. Then I said to myself he should have waited till next week as the parking ban starts and then he actually can sweep the street as their will be no cars on the street. (The night of the fire this hydrant was frozen. From doing my research if the hydrant is not secured properly condensation sets up and the hydrant freezes.)

A: Street sweeping is weather dependent, normally starting in mid-March and ending around mid-December. All hydrants in Newton are dry barrel hydrants, the hydrant is designed so that when the hydrant is closed, any water remaining in the barrel is to drain through waste holes at the base of the hydrant. When hydrants are inspected, this is one function that is checked.

2. Q: How many hydrants are in the City? Do you keep track of old ones and new ones?

A: There are 2,577 public hydrants in the city, we do not keep track of the old ones, hydrants are replaced when the city performs water main rehabilitation annually, hydrants are replaced/repared by the Utilities Division when they are reported by Fire Department, residents or DPW personnel.

3. Q: Who maintains the hydrants? Is it Public Works? How often are they checked once a month, 6 months, or once a year? If a hydrant is broken how long does it take to repair it? (Picture attached shows the hydrant to the side of Steamers collapsed the night of my fire as they hooked up the hose and it fell over) This hydrant was reported broken prior to my fire. If a hydrant is checked within the said time and then breaks how do you know? Is there an alarm in them or is there something in them that it will show that it is broken to Public Works? We all know the first few minutes are crucial in fighting a fire..

A: The DPW-Utilities Division maintains the hydrants, the hydrants are checked annually by the Fire Department. Once a broken hydrant is reported to the Utilities Division, the repair is attempted to be completed in 10 days. If a hydrant breaks between inspections you will not know, unless the hydrant is hit by a car and reported, is wasting water and located by our semi-annual leak detection survey, or personnel are authorized to use the hydrant and is reported to the Utilities Division that it is not functioning. There are no alarm systems that would report a non-functioning hydrant.

4. Q: The hydrant to the side of my house was frozen, the one up the street (Steamers) collapsed when they tried to hook up, they were able to run a hose up at Middle Street and then one at the end of Cook Street, and then went to Pearl hooked up and ran hoses through neighbor's back yard coming into my back yard. My husband went to the Chief to have him send message to the men as there was a pool there. It was 2:00 in the morning.

A: The NFD has in the past contacted the Utilities Emergency On Call person to report an issues that arises out of the distribution system in the course of firefighting.

5. Q: I understand the fire departments flushes the hydrants as well. How many times does that happen in a year and does that coincide with Public Works checking the hydrants.

A: The NFD in the course of testing the hydrant for functionally will flow water from the hydrant in order to remove sediment from the barrel of the hydrant in order to maintain water quality within the system, this is done during the summer/fall seasons (annually). The Utilities Division performs unidirectional hydrant flushing spring through fall. This requires the Utilities Division to operate the hydrants and valves to assure their functionally, this is not done city wide annually, but through about 20% of the city annually.

6. Q: After the fire on Cook Street, two fire hydrants were changed. After the fire the frozen hydrant was changed and moved to a different location on Cook Street and then they relocated the other hydrant at end of the street and moved it across the street. Why? How many hydrants to a street? Cook Street has two hydrants

A: On Wednesday January 23, 2019, crews were sent to Cook Street to defrost/unthaw hydrants in the area. The two hydrants you mentioned above were relocated under the watermain cleaning & lining program in 2020, also an additional hydrant was installed. Hydrants in residential areas are normally placed 500 feet apart from each other.

7. Q: Chief Proia and his crew did an amazing job despite conditions as if it was the night before with such horrific winds the street would have gone. Thank God nobody was hurt, nobody perished in the fire, and the two cats were also saved. It was a three-alarm fire.

A: I agree with your statement

8. Q: There is a hydrant on Mill Street top of the hill that looks like 100 years old. I worry as I am a walker and now look at all hydrants throughout the City. I noticed the fire hydrants in Newton Highland locations look newer as the ones in Nonantum seem older. How long do fire hydrants last and how frequently are they changed.

A: Well maintained hydrants have a service life of 50-60 years, during the city's cleaning and lining program, hydrants are replaced on the streets that the work is being performed, since 2009 there have been 307 new hydrants installed. The Utilities Division (9/1/18 to 8/11/21) has repaired 30 hydrants. The City entered into an Engineering Service Agreement in 2019 with Tata & Howard to perform Hydrant Inspections/Unidirectional Flushing and enter that data into the city's PeopleGIS data base, to date over 400 hydrant inspections have been performed.

9. Q: We had a Safety Meeting two years ago when Jay was head of this committee. Chief Proia attended the meeting. We couldn't ask these questions as they did not pertain to him and that's when we learned it was Public Works who maintain the hydrants and fire department flushes them, I think twice a year?

A: The DPW-Utilities Division is responsible for the Operation & Maintenance of the fire hydrants, The NFD is responsible to inspect the hydrants for operability annually. Any deficiencies discovered with any hydrants during the inspection is brought to the attention of the Utilities Division for repairs or replacement.

10. Q: Why was the street sweeper doing street sweeping the second week of November? Do they extend timelines? Does it always end in October?

A: The DPW-Streets Division sweeps streets throughout the year. Water is not used when temperatures fall below freezing.

Hydrant Inspection Procedure Updated 2021

General information

- The City of Newton uses dry barrel fire hydrants that are open “RIGHT” clockwise.
- For safety reasons, operation of fire hydrant should be done from behind the hydrant.
- Do not use a persuader or leverage bar on any part of the fire hydrant.
- Board/tarp needed on ground so flowed water from hydrant minimizes lawn damage.

PROCEDURE

1. Note fire hydrant location.
2. Visually inspect the area around the hydrant.
 - a. Hydrant visible on arrival, hydrant marker flag, minimum clearance of 3 feet around the hydrant is required in all directions.
3. Visually check the hydrant for any defects.
 - a. Remove all caps and check the threads. (remove the first cap slowly to ensure there is no pressure on the hydrant).
 - b. Check for water or ice in barrel.
 - c. Clean threads with a wire brush, lubricate inside of caps with Never Seez, replace caps.
 - d. If hydrant has safety chains on caps, ensure the chains are loose and do not bind on the cap.
 - e. Check the breakaway flange for damage or loose bolts.
4. Remove 4 ½” cap, open hydrant SLOWLY, approximately 3 to 5 turns. Allow time for the air to escape from the hydrant barrel (approximately 1/3 of 4 ½” barrel should be flowing).
 - a. Check the ease of operation – if opening is difficult try opening and closing the hydrant.
 - b. Check for leakage at the flanges, operating nut, nozzles, and nozzle caps.
 - c. Allow the water to flow for a minimum of 3 to 5 minutes to flush the hydrant and water lines.
5. When testing is complete, check the water using a solid white cup.
 - a. Look for discoloration and debris. Continue to flush hydrant until water is clear.
 - b. If needed, the flow may be reduced by closing the hydrant VERY SLOWLY.
6. Once the water is clear (using the white cup to check), close hydrant VERY SLOWLY.
 - a. Be aware that some hydrants may not seem to slow down when you turn them, this usually means the hydrant may slam (it will have some slop in the stem and may make a thump sound when closing). This causes water hammer and could cause major damage to the water distribution system. Therefore it is imperative that hydrants are closed VERY SLOWLY.
7. Wait to make sure the hydrant stops dripping. It should not be necessary to close the hydrant with great force.
 - a. If the hydrant does not shutoff completely, there may be debris stuck between the disc and seat. Over tightening of the hydrant can do permanent damage to the disc. Open the hydrant to flush the debris, then close the hydrant again. If the hydrant will not shut off completely, notify the Utilities - Water Division.



Hydrant Survey, Static/Flow Test, Flushing and GPS Proposal

**FOR THE CITY OF NEWTON
MASSACHUSETTS**

PROPOSAL PREPARED FOR

Theodore Jerdee

City of Newton, Massachusetts

1000 Commonwealth Ave

Newton, MA 02459

PREPARED BY

Jon Levulis

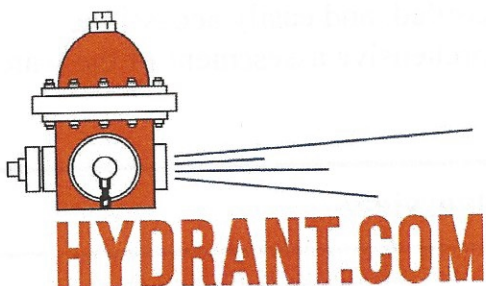
Inspector/Consultant

HYDRANT.COM

2000 N Loop W

Houston, TX 77018

281-407-6161



General Description of Project

This agreement outlines tasks to be performed by HYDRANT.COM (further known as “Contractor”) in fulfillment of the City of Newton Massachusetts Hydrant Survey, Inspections, Static/Flow Testing, Flushing. And GPS Project (Newton Massachusetts further known as “The City”). The purpose of the project is to survey, inspect, static/flow test, flush, gather data, and provide notices and reports about The City’s water distribution system and hydrants. Contractor will provide all labor, materials, and equipment required to SURVEY and CONDUCT a Fire Hydrant Survey, Inspections, Static/Flow Testing, Flushing, GPS and Work Order Program for The City.

Project Overview

HYDRANT.COM provides a Hydrant Survey, Inspections, Static/Flow Testing, Flushing, and GPS, and Worker Order Program to evaluate and improve water distribution system reliability through the execution of a hydrant survey project. Data gathered during the program helps increase the reliability of the distribution system by documenting and evaluating the operational and physical characteristics of all water distribution system hydrants throughout The City.

Through THE comprehensive pressure and flow testing program, low flow areas affected by valve closures will be identified. Low flow areas are considered flowing under 750 GPM (20 PSI) or significantly lower than adjacent hydrants. Two pressure tests will be conducted on each hydrant (static and flow). Each hydrant is fully opened and fully pressurized (before flowing) to gather a static pressure. Each hydrant is fully flowed to determine flow capabilities. Residual fire flow tests using 2 hydrants will also be conducted throughout The City. Residual tests provide data representing pressure potential throughout the system.

Flushing lines freshens the water supply and identifies areas needing to be flushed at more regular intervals. Locations where hydrants flow dirty over 5 minutes are immediately reported to The City. Through a 50+ point safety inspection, the ISO Condition of each hydrant is recorded. ISO Conditions provided for each hydrant help minimize ISO ratings and provide data necessary for an ISO audit review. Hydrants needing to be GPSed will have their coordinates differentially corrected.

Upon completion of the survey, all information gathered will be provided in a hard and soft copy report containing prioritized and categorized deficiencies. Information can be used to update and amend The City’s GIS through the integration of all survey data. Categorized reporting combined with a detailed work order system allows for the current hydrant status and maintenance history to be prioritized, electronically recorded, and easily accessible. Pressure testing, inspections, and flushing is vital to a comprehensive assessment of the water distribution system.



Phase 1: Review Water System Distribution Data

Contractor will use GIS shapefiles of The City's water distribution system information to review data of hydrant locations and attributes. If GIS maps are unavailable, a copy of all available maps will be provided. For GIS maps, all hydrants will have or will be assigned Unique ID #s by The City before generating shapefiles. Unique ID #s are used for post-hydrant survey data integration. The City will provide Contractor with two hard copies of maps of the water distribution system with the following attributes: hydrant, hydrant unique ID #, water lines, water line sizes, street names, parcels, and City boundaries. Contractor will review The City's existing water distribution system information databases and other relevant data about hydrants.

Phase 2: Inspections, Static/Flow Test, Flushing, GPS, & Report

Contractor will physically locate, identify, inspect, static test, flow test, flush, GPS, record data, and assess the operational condition of hydrants in The City's water distribution system. Contractor will document various operational attributes, necessary repairs, and ISO conditions of each hydrant. The purpose of Phase 2 is to provide the framework for maintaining operational water distribution system hydrants and an optimal ISO rating, and remedy areas possibly affected by low flows. Once the hydrant survey report is complete, a finalized Hydrant Survey, Static/Flow Test, Inspection, and Flush Report of all system hydrants will be provided to help with water distribution system optimization.

Scope of Survey

50+ Point Safety-Inspection:

A 50+ point inspection is performed on each hydrant to ensure safe use during emergencies.

- Inoperable hydrants are immediately reported to The City
- Verify hydrants are unobstructed and easy to access.
- Remove hose cap and verify adequate lubrication is present on hose and pumper nozzle threads.
- Inspect each flange and bonnet bolt and record the quantity of structurally compromised bolts.
- The hydrant is fully opened and fully pressurized to ensure safe use during an emergency.
- The hydrant is slowly depressurized with the flow apparatus, then a flow test is conducted with the hydrant fully open.
- The flow test is conducted flowing from a 2.5in hose nozzle through the flow apparatus.



50+ Point Safety-Inspection (continued):

- Hydrant is fully flowed to verify maximum flow out of hose nozzle and verify valves are open.
- Verify all chains are present and S-hooks are properly connected.
- Determine if the hydrant needs to be raised or lowered.
- Locate position of the hydrant isolation valve cover and notate if valve cover is not visible.
- Notate if the blue marker needs to be replaced or is missing.
- Check the condition of the paint and notate if the hydrant is properly color-coded for flow.
- Verify hydrant main valve closes properly (valves that do not close properly increase the probability of a water hammer).
- Classify the hydrant according to its ISO rating.
- Hydrants exhibiting possible unauthorized operation will be documented.
- The exact location of the hydrant will be taken using GPS “x,y,z” coordinates (if not already GPSed). GPS coordinates will be differentially corrected.
- Hydrant mapping discrepancies will be recorded to ensure an up-to-date GIS/mapping system.

Static Test

- The hydrant is opened gradually to prevent rapid pressurization of the hydrant barrel.
- The hydrant is fully opened, pressurized, and inspected for leaks.
- The static pressure apparatus is used to fully pressurize the hydrant without flowing it.
- During pressurization, any excessive underground leakage is recorded.
- Once pressurized, the static pressure apparatus is used to verify static pressure.
- Any part of the hydrant visibly leaking (gaskets, o-rings, flanges, bonnet, nozzles, quick connects, etc.) is notated. A static PSI is recorded.

Flow Test

Flow testing determines the hydrant’s capabilities before an emergency and the general conditions of the distribution system. In addition to the static pressure test, a flow pressure test is also conducted.



Flow Test (continued)

- To minimize potential water hammers, hydrant flow is reduced 90% PRIOR to shutting down the hydrant.
- Once flow pressure is reduced 90%, the hydrant is shut down. In such cases where the hydrant malfunctions and cannot be shut down, The City will be immediately notified.
- A calculation using static and simulated residual pressure provides a simulated Hazen Williams value at 20 PSI
- To prevent excessive flooding in case the hydrant cannot shut down, the flow is slowly reduced until the flow is reduced to zero.
- Occasionally, hydrants do not drain properly, water main valve issues will be notated.
- Main valves which have issues increasing the probability of a water hammer are notated

Residual Fire Flow Testing

Residual fire flow testing verifies water main capabilities and is conducted using 2 hydrants. Static pressure is taken on a residual hydrant. An adjacent flow hydrant is fully opened and fully flowed out of two hose nozzles. Flow rates are measured simultaneously as the residual pressure is recorded on the residual hydrant. Available GPM at 20 PSI is calculated using the Hazen-Williams formula with results provided both numerically and graphically. Testing is performed per NFPA 291. Up to two residual tests will be conducted daily, throughout The City. During the project planning, Contractor, along with The City staff will identify any potential locations of interest where residual fire flow testing is needed. Results can be used to place priorities with respect to upgrading older, smaller water mains and determine fire flows for new developments.

Flushing

Each hydrant is flushed to minimize corrosion, rust, sediment build-up within the distribution system, restore proper residuals and freshen the water supply. In cases when water quality is questionable, (not fully clear and colorless) a white cup will be used to verify water is clear and colorless. In cases when hydrants flush excessively dirty (over 5 minutes), The City is immediately notified. In locations where multiple hydrants flow dirty over 5 minutes, The Contractor will notify The City, and move to another location to provide time for The City to flush the dirty area. Once an excessively dirty area is flushed until water is clear and colorless, Contractor will return to the area. To provide an idea on water usage, if 60 hydrants are tested and flushed in a day, and flow an average of 1,000 gallons per minute, an estimated 60,000 gallons of water will be used daily.



Delivery of Report and Submission of Repairs Required for Water Distribution System Optimization

Upon the completion of the hydrant survey project, Contractor will develop a finalized Hydrant Survey, Static/Flow Test, Inspection, and Flush Report of all system hydrants. Included with the report is an inventory of repairs required for optimal hydrant operation and accessibility. Reports provided allow The City to prioritize repairs and remedy issues uncovered during the hydrant survey.

A work order management system is included with the report. Each report with hydrants in need of repair contains a link to all hydrants associated with the specified repair. Work orders can be generated for each specific issue, categorized, printed, filled out in the field, and updated electronically. After a hydrant is repaired, the work order can be added to its associated hard copy report and electronically updated within the work order management system.

Reports provided include:

1. **OUT OF SERVICE** hydrants
2. Low-pressure hydrants
3. Flow rates (GPM)
4. ISO condition classifications
5. Hydrant valves that slam closed
6. Hydrant valves that do not close properly while under pressure
7. Leaking hydrant main valves
8. Hydrants in extreme need of lubrication
9. Seized hose and pumper caps
10. Dirty flow locations
11. New hydrant locations found during the survey
12. Hydrant accessibility issues
13. Residual flow test data (results are provided both graphically and numerically)
14. Blue markers missing
15. Bonnet repairs
16. Chains and S-hooks
17. Extensions needed
18. Flange repairs
19. General lubrication
20. Hydrants in GIS that are not present in the field during the survey
21. Hydrants not in GIS
22. Main valve replacements
23. Make/Model/Year
24. Miscellaneous parts
25. Notes not associated with other reports
26. Private hydrant locations
27. Re-caulk hose/pumper nozzles
28. Hydrants needing paint
29. Unlabeled hydrants in GIS
30. Estimated gallons of water used to flow test and flush hydrants

Other reports are available, and additional reports can be added upon request.



Risk of Loss:

Many issues can occur when performing these tests. Hydrant.com cannot be held liable for issues that may occur during testing. Issues include but are not limited to: hydrant main valves which do not operate properly may slam closed and could result in a water hammer. Water hammers can rupture water lines and cause property damage. Hydrants can break when pressurized which may cause property damage and/or flooding. Flushing water lines can cause sediment to be displaced causing issues with commercial and residential water supply. Hydrants may separate from the flange upon pressurizing. Isolation valves may need to be dug up when main valves do not seal properly, or main-line valves may need to be shut down for hydrants without isolation valves. Several other issues can occur during this type of testing. Although most of these items do not cause any damage and rarely occur, The City of Newton backknowledges these risks and cannot hold Hydrant.com liable for any damage caused by performing fire hydrant testing. The primary purpose for inspecting, pressurizing, and flow testing hydrants is to discover any problems with fire hydrants, water lines, and valves.

Costs:

The cost of the physical inspection, flow test, and flush is \$55 per hydrant location surveyed, and a cost of \$8 to GPs each hydrant location. The cost to GPS only new hydrants/unapped hydrant locations would be a daily cost determined by the number of hydrants to be GPSed. An additional charge of \$55 for any hydrants that need to be re-tested applies. The hydrant survey project schedule is currently pending. Pricing is subject to local regulations and ordinances in your area.

Conclusion:

A hydrant survey program will assure your residents, and community that the fire hydrant's operability is verified, and deficiencies can be remedied before an emergency. Annually testing all hydrants within your system helps lower your ISO rating which lowers insurance costs for residents. Immediate notifications are provided regarding serious issues. A hardcopy report provides specific details of each fire hydrant. Reports provided to The City at the end of the survey contain all data gathered during the surveying, inspecting, testing, and flushing project, in multiple file types.



Hydrant Survey, Static/Flow Test, Flushing, and GPS Preliminary Proposal

Date: August 2nd, 2021

To: City of Newton Massachusetts
 1000 Commonwealth Ave
 Newton, MA 02459
 617-796-1623



<i>Start Date:</i> TBD		<i>Contact:</i> Jon Levilis		
<i>Finish Date:</i> TBD		<i>Payment Terms:</i> TBD		
<i>Location of work:</i> City of Newton, MA (On-site)		<i>Payment Due:</i> TBD		
ITEM NO.	QTY.	DESCRIPTION	PRICE EACH	AMOUNT
1	2,575	Hydrant Safety Inspection, Static/Flow Tests, Flushing and Survey (4-6 week time frame - 6:00 AM to 5:00 PM)	55.00	141,625.00
2	2,575	GPSing all hydrants for the purpose of integrating hydrant survey data into GIS (*if all hydrants are not GPSed). Shape file will be provided	8.00	20,600.00
3	1	Provide soft copy back up with work order management system.	25.00	25.00
4	1	Hardcopy report of fire hydrant distribution system.	100.00	100.00
5	85	Estimated total of 85 residual flow tests No Charge provided when hydrant survey takes places	480.00	0.00
<div style="border: 1px solid black; padding: 5px;"> <ol style="list-style-type: none"> 1. All hydrants maintained by the City of Newton. 2. Pricing based on actual number of hydrants surveyed, GPSed and conducting GPS locations during hydrant survey. 3. *To GPS only new hydrants, a daily cost would be determined based on the amount of hydrant locations to GPS. 4. The City of Newton understands the risks involved with a fire hydrant flow testing and surveying program. The City of Newton will incur cost related to repairing/replacing broken/damaged hydrants and any/all costs related to a hydrant testing program. 5. A charge of \$55 applies for each re-tested hydrant. 6. Pricing based hydrant survey scheduled for 2022. </div>				
			<i>Total:</i>	162,350.00

REPLY TO: **HYDRANT.COM**

5380 West 34th Street #214
 Houston Texas, 77092
 Phone: (281) 407-6161
 E-Mail: Jon@Hydrant.com

This pricing is preliminary and based on the information we have received. Pricing will be finalized once we receive all requested documentation.



Preliminary Proposal

8. After the hydrant is closed, back off on the operating nut about 1/4 turn.
 - a. This removes the pressure from the operating nut and stem. The main valve will remain closed.
9. Check to see if hydrant drains, if hydrant does not drain notify the Utilities–Water Division.
10. Replace the caps.
 - a. Caps should be tight enough to prevent removal by hand but loose enough to be removed with ease using a spanner wrench.

Note any problems on inspection form:

If the hydrant operates with difficulty, discontinue the inspection.

Place “Out of Service” ring

- If the hydrant will not open.
- Caps cannot be removed.
- Water leaking from hydrant.

Any problems with hydrants need to be reported to the Utilities-Water Division with the following information.

- Date,
- Location
- Problem
- Type of hydrant. (Darling, Kennedy, Mueller, etc.)

City of Newton

DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER

1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Ruthanne Fuller
Mayor

Date: September 20, 2021

To: Public Facilities Committee

From: James McGonagle, Commissioner
Shawna Sullivan, Deputy Commissioner

Subject: Criteria Used when Prioritizing Sidewalk Installation and Repair, and
ADA Compliance and Sidewalk Crossing Safety during Construction

Sidewalk Prioritization

Sidewalk improvements include the construction of new concrete sidewalks where none currently exist or filling in missing gaps of sidewalk networks. Public Works is focusing on school zones, as well as village centers, for new sidewalk installations and the repair to existing sidewalks that are cracked, lifted or otherwise not properly accessible. Accessible curb cuts are also added and/or updated along with sidewalk installation and repair.

Public Works is in consultation with Safe Routes to School, the Transportation Advisory Group, the Council on Aging, the Commission on Disabilities, and Community Development Block Grants, in selecting sidewalks and ADA ramps to be installed.

Utilizing construction contractors dedicated to sidewalk repair, as well as in-house staff, the Department of Public Works will add over 2 miles of new sidewalk to the City and repair over 2 miles of existing sidewalks annually. Public Works does numerous sidewalk repairs across the City both proactively when DPW sees a problem and when a resident should alert us to an issue. In FY 2022, Public Works started on sidewalk installation and repairs along walking routes near the Pierce School. In FY2023, Public Works will focus on installing and repairing sidewalks in the walking routes around Mason Rice School, Williams School, and City Hall campus.

Sidewalk maintenance is prioritized based on the 311-work order system and is performed by city crews.

Currently, Public Works is completing an inventory of all sidewalks and accessible ramps city wide. The inventory should be completed by spring 2022. Once completed, our consulting engineer will be tasked to develop a sidewalk and accessible ramp priority list, based on asset management techniques, like that prepared for the roads' maintenance program. This should be completed by Fall 2022.

ADA Compliance and Sidewalk Crossing Safely during Construction

Public Works has developed, and has been using, “Temporary Access During Construction” methods for the past two construction seasons, and we continue to insist that city contractors, as well as utility contractors, implement these techniques. All Public Work contracts for construction projects include requirements that the contractor provide temporary access for pedestrians. These techniques worked well during the West Newton Square and Newtonville Square construction projects. Public Works construction inspectors will continue with training on these techniques this upcoming winter, so they can recognize deficiencies and instruct contractors to perform to these techniques.

See attached “Pedestrians Checklist and Considerations for Temporary Traffic Control Zones”

Sincerely,

James McGonagle
Commissioner Public Works

Pedestrians Checklist and Considerations for Temporary Traffic Control Zones

For those who plan, design, and construct temporary traffic control (TTC) zones, the *Manual on Uniform Traffic Control Devices (MUTCD)* provides guidance considerations regarding pedestrians, accessibility, and worker safety. This document provides a checklist and overview of pedestrian-related considerations during planning, design, and construction phases for a project and is designed to enhance pedestrian safety and accessibility, maintain Americans with Disabilities Act of 1990 (ADA) compliance, and provide positive guidance to avoid pedestrian confusion throughout each phase. This side of the document provides pedestrian considerations for use during the planning and design phases, while the other side provides information for users while out in the field.

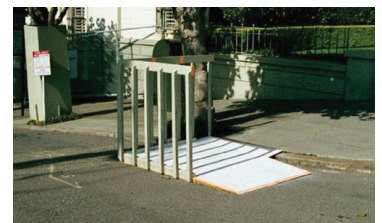
Pedestrian Considerations during Planning and Design

Planning

- Provide a safe, convenient travel path for pedestrians that replicates as nearly as possible the most desirable characteristics of the existing sidewalks or footpaths throughout all phases of construction.
- Avoid creating pedestrian paths that lead pedestrians into direct conflicts with work site vehicles, equipment, operations.
- Avoid creating pedestrian paths that lead pedestrians into direct conflicts with mainline traffic moving through or around the work site.
- Determine the TTC impact on pedestrians, including significant generators such as schools, senior centers, transit stops and shopping areas.
 - Determine the level of accessibility needed for pedestrians in the TTC zone through observing existing pedestrian travel patterns, and make accommodations prior to the start of work. Consider meeting with local community organizations (i.e., local blind organization, city ADA coordinator, etc.) through open houses to address concerns and needs. Develop outreach products available in the appropriate formats for those with special needs.
- Assess the TTC impact on existing pedestrian flow.
 - Ensure that temporary facilities replicate as nearly as practical the accessibility features present in the existing pedestrian facility when the existing facilities are disrupted, closed, or relocated in a TTC zone.

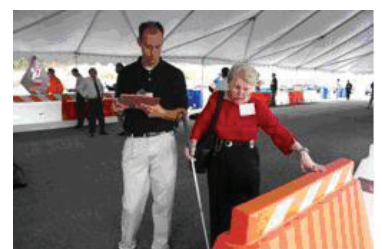


photo courtesy of AAA Foundation for Traffic Safety



Design

- Provide pedestrian information throughout the TTC zone.
 - Provide advance information, transition information, work area information, and ingress and egress directions for pedestrians. See *Accommodating Pedestrians in Work Zones* brochure developed by FHWA; FHWA-SA-03-011.
- The TTC pedestrian accommodation that utilizes a temporary route does the following:
 - Defines detoured routes clearly.
 - Provides advance signage at intersections rather than mid-block locations.
 - Separates pedestrians from vehicle traffic.
 - Avoids mid-block crossings.
 - Ensures that temporary routes are not much longer than the original route.
 - Provides clear and positive guidance to delineate a temporary route.
 - Provides continuous access to transit stops and/or relocates transit stops.
- Maintain a continuous accessible path of travel either around or through the construction site throughout all construction phases.
- Ensure compliance with Americans with Disabilities Act (ADA) of 1990 requirements.
 - Provide an alternate route when existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone. Temporary facilities should replicate the features present in the existing pedestrian facility.
 - Ensure a minimum sidewalk width of 36" (a 48" width is desirable), erect curb ramps, and provide passing space (minimum 5 foot by 5 foot space every 200 feet).
 - Maintain a minimum width and smooth surface to avoid creating tripping danger and to minimize barriers to wheelchair use. This includes providing ADA compliant facilities.
 - Make all barriers and channelizing devices detectable for pedestrians with visual disabilities. Note that the use of caution tape stretched between traffic control devices is not adequate and not acceptable.
 - Consider using additional devices for visual disabilities, such as audible information devices or accessible pedestrian signal.
- Maintain pedestrian access to businesses, residences, transit stops, etc.
- Provide temporary nighttime lighting for pedestrian walkways throughout the TTC zone.



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Pedestrians Checklist and Considerations for Temporary Traffic Control Zones

Continued

Pedestrian Considerations While in the Field

Construction/Maintenance/Utility

- Promote adequate pedestrian safety via physical separation from work space and vehicular traffic, overhead protection, etc.
- Provide adequate and safe detour(s) whenever sidewalks are closed or blocked.
 - Use signs at intersections to give advance notification of closures ahead, and inform pedestrians where to cross.
 - Provide audible signage for pedestrians with visual disabilities.
- Clear the path of debris and other items that may obstruct pedestrians' paths.
 - Avoid pedestrian walkway surfaces that are slippery when wet.
- Consider carefully the placement of intersection crosswalks, implement additional signing/markings, add and/or relocate transit stops, and modify traffic signals (traffic signal timing, pedestrian signals, push buttons) as necessary.
 - Take into account walking speeds and the distance pedestrians travel when traversing travel lanes to determine minimum green time.
- Inspect pedestrian accommodations during construction to ensure that the traffic control plan (TCP) is followed.
- Ensure traffic control devices are in good and safe condition.
 - Devices should be sturdy, firm to the grip, and smooth to the touch (have no rough edges).
 - Devices should not be potential tripping hazards.
 - Provide a continuous, detectable edging throughout the length of the facility such that pedestrians using a long cane can follow it.
- Make pedestrian routes ADA compliant and available to pedestrians during all phases of construction.



Helpful Resources

- U.S. Access Board www.access-board.gov
 - Public Rights-of-Way Accessibility Guidelines (PROWAG): <http://www.access-board.gov/prowac/draft.htm#Text> or US Access Board's PROW team: (800)872-2253.
 - Access Board videos on Accessible Sidewalks. <http://www.access-board.gov/news/sidewalk-videos.htm>.
 - Accessible Design for the Blind: www.accessforblind.org
- MUTCD. <http://mutcd.fhwa.dot.gov/index.htm>
- FHWA's pedestrian safety website. http://safety.fhwa.dot.gov/PED_BIKE/ped/index.htm.
- Federal Highway Administration, *Pedestrian Road Safety Audit Guidelines and Prompts Lists*, July 2007. FHWA-SA-07-007



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