



# Public Facilities Committee Agenda

## City of Newton In City Council

**Wednesday, September 18, 2019**

**7:00 PM**  
**Room 204**

### ***Public Hearing***

#### **#305-19 National Grid petition for grant of location in Voss Terrace**

NATIONAL GRID petition for a grant of location to install and maintain 50' +/- of 6" gas main in Voss Terrace from the existing 6" gas main in front of house #40 southwesterly to the end of main in front of house #50 to provide new service to #50 Voss Terrace.

### ***Public Hearing***

#### **#306-19 National Grid petition for a grant of location in Dearborn Street**

NATIONAL GRID petition for a grant of location to install and maintain 85' +/- of 4" gas main in Dearborn St from the existing 4" gas main in front of house #56 southwesterly to the end of main in front of house #64 in order to provide service #64 Dearborn Street.

### ***Public Hearing***

#### **#307-19 Eversource petition for a grant of location in Woodward Street**

EVERSOURCE petitioning for a grant of location to install and maintain 693'± of conduit in WOODWARD STREET from the existing manhole #MH21030 in front of #991 Boylston Street in a northwesterly direction to a new proposed manhole in front of 38 Woodward Street, continuing on Woodward Street to a second proposed manhole at the intersection of Lincoln Street and Woodward Street thence turning and installing 182± of conduit on LINCOLN STREET in a northeasterly direction to utility pole #257/19 in front of #163 Lincoln Street. This work is necessary to perform system upgrades.

### ***Public Hearing***

#### **#308-19 Request for a main drain extension at 12 Ferncroft Road**

PETER AND PRUDENCE ROAF, 12 Ferncroft Road, Waban, petitioning for a main drain extension in FERNCROFT ROAD a distance of 90'± from the property at #12 Ferncroft Rd in a northerly direction to the existing drain manhole in front of #20 Ferncroft Rd.

**PETITIONER TO PAY ENTIRE COST**

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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](mailto: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: At 7:30 the Committee will meet jointly in the chamber with Programs & Services to receive an update from the Commissioner of Public Buildings Josh Morse on the NewCal project as required by Council Order #102-19. At 8:30 the Committee will resume in Room 204 with the following items and an update on the Sewer System Capital Improvement Plan.***

**#250-19 Inflow and Infiltration Mitigation Ordinance**

CITY ENGINEER requesting amendments to Chapter 29 of the City of Newton Ordinances to create an Infiltration and Inflow Mitigation Ordinance that would codify mitigation requirements for development projects over a certain size, potential for fees in lieu of mitigation and waiver of fees by the City Council.

**#251-19 Building Sewer, Water Service Pipe and Sidewalk Replacement Ordinance**

CITY ENGINEER requesting amendments to Chapter 29 of the City of Newton Ordinances to create a building sewer and water service pipe update ordinance that would require the removal and replacement of sewer and water connections, and replacement of sidewalk when a dwelling is demolished or substantially remodeled or rehabilitated.

**Respectfully submitted,**

**Deborah Crossley, Chair**

CITY OF NEWTON  
MASSACHUSETTS

2019 AUG 13 PETITION for GRANT OF LOCATION

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the Board of Aldermen before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. **The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review.** Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

Grant of Location Process:

1. Applicant submits completed Petition Form and required materials to the Board of Aldermen
2. Public Works Department conducts preliminary review and gives written comments to the applicant
3. Engineering Division files Petition Form with comments with the Clerk of the Board of Aldermen
4. Board of Aldermen schedules petition for a public hearing before the Public Facilities Committee of the Board of Aldermen
5. Public Facilities Committee recommendations are forwarded to the Board of Aldermen for a final decision

Questions my be directed to:

Lou Taverna, City Engineer, 617-796-1020  
Shawna Sullivan, Clerk of the Board of Aldermen, 617-796-1213

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name National Grid

Address 40 Sylvan Rd.  
Waltham, Ma. 02451

Phone Number 617-293-0480 Fax Number \_\_\_\_\_

Contact Person Barbara Kelleher Title Permit representative

Signature Barbara H. Kelleher Date 8/12/19  
Person filing application

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

II. DESCRIPTION OF PROJECT: to be completed by petitioner

A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion.

To install and maintain approximately 50 feet more or less of 6 inch gas main in Voss Ter., Newton. From the existing 6 inch gas main @ house # 40 southwesterly to the end of main at house # 50. In order to provide a gas service to #50 Voss Ter.

B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide:

Title of Plan 50 Voss Terrace, Newton Date of plan 5-15-19

**III. PUBLIC WORKS DEPARTMENT REVIEW**

Date received by Public Works Department Aug 12 2019

Check One:

Minor Project  Major Project  Lateral

(Refer to City Engineer Standard Requirements for Plans for definition of minor and major project)

Plans Submitted:

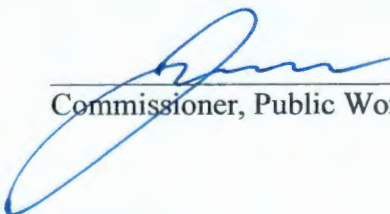
Certified Plot Plan  Stamped Plans

**DATE AND COMMENTS:**

**RECOMMENDATIONS:**

Trench Restoration per Street opening Permit 95% Compaction Required	
John D. H. Associate City Engineer	Aug 13, 2019

**V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:**

  
Commissioner, Public Works

8/15/19  
Date

PETITION OF NATIONAL GRID FOR GAS MAIN LOCATIONS

**City of Newton / City 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 Newton** 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 install and maintain approximately 50 feet more or less of 6 inch gas main in Voss Ter., Newton. From the existing 6 inch gas main at house # 40 southwesterly to the end of main at # 50. In order to provide a gas service to # 50 Voss Ter.**

Date: August 12, 2019

By: Barbara H. Kelleher  
Barbara H. Kelleher  
Permit Representative

**City of Newton / 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 Newton** substantially as described in the petition date August 12, 2019 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 Newton** 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 City of \_\_\_\_\_, MA on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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

\_\_\_\_\_  
Title

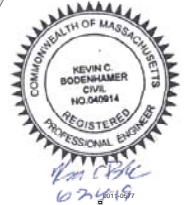
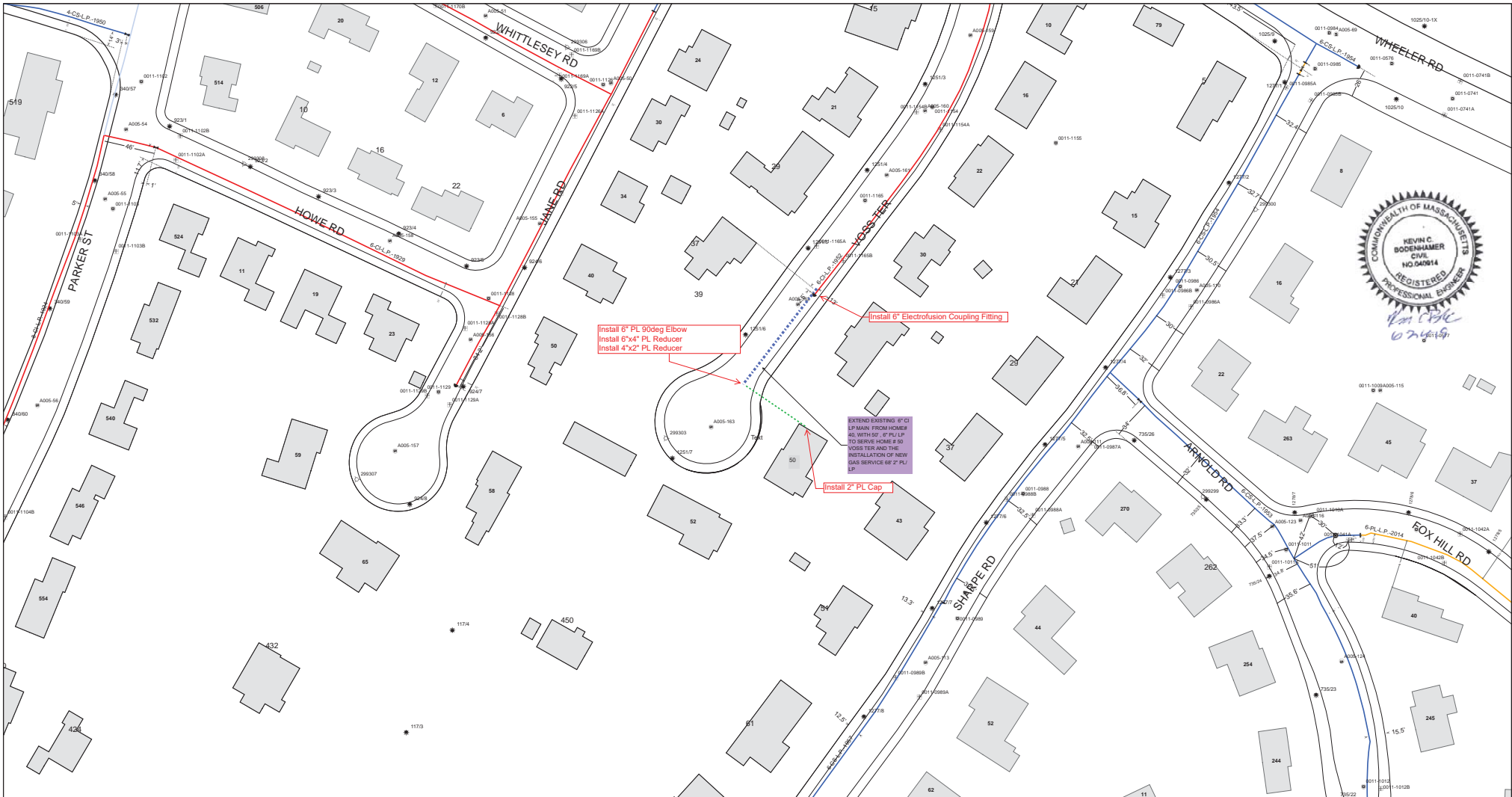
**WO #1250133**

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

**ABUTTERS LIST**

Owner Name	Address	City State	ZIP Code
LEVINE IGOR	15 VOSS TER	NEWTON MA	02459-2618
NANDA ASHISH	16 VOSS TER	NEWTON MA	02459-2646
ZHANG XU	21 VOSS TER	NEWTON MA	02459-2618
ZHANG JIANWEI	22 VOSS TER	NEWTON MA	02459-2646
NURKO SAMUEL	29 VOSS TER	NEWTON MA	02459-2618
ZHANG WEN	30 VOSS TER	NEWTON MA	02459-2646
METELITSA MATTHEW	35 VOSS TER	NEWTON MA	02459-2618
VOSS TERRACE GROUP LLC	40 VOSS TER	NEWTON MA	02459-2646
50 VOSS TERRACE LLC	50 VOSS TER	NEWTON MA	02459-2646
BOEY DAVID	52 VOSS TER	NEWTON MA	02459-2646

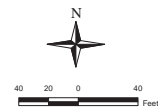
- PRESSURE GAUGES ARE REQUIRED AT ALL MAINS FOR ALL TIE-INS. REFER TO GCON-02001 PROCEDURE.
- CHECK ELECTRONIC MAPPING SYSTEM FOR MOST CURRENT MAPPING INFORMATION.



**Proposed Scope of Work**

50 Voss Ter, NEW

EXTEND EXISTING 6" CI LP MAIN FROM HOME# 40, WITH 50', 6" PL/ LP TO SERVE HOME # 50 VOSS TER AND THE INSTALLATION OF NEW GAS SERVICE 68' 2" PL/ LP



NOTE: The location of surface and underground objects shown are not warranted to be correct.

Map Designer	BMARKOS	SIZE	6"
DATE	05/15/2019	MATERIAL	PL
LENGTH	50'	PRESSURE	LP
SECTIONALS	7819072923	WORK ORDER #	1285295

ArcFM

CITY OF NEWTON  
MASSACHUSETTS

2019 AUG 13 ~~AP 19 19~~ PETITION for GRANT OF LOCATION

To the Petitioner:

David A. Blawie, City Engineer  
Newton, MA

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the Board of Aldermen before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. **The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review.** Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

**Grant of Location Process:**

1. Applicant submits completed Petition Form and required materials to the Board of Aldermen
2. Public Works Department conducts preliminary review and gives written comments to the applicant
3. Engineering Division files Petition Form with comments with the Clerk of the Board of Aldermen
4. Board of Aldermen schedules petition for a public hearing before the Public Facilities Committee of the Board of Aldermen
5. Public Facilities Committee recommendations are forwarded to the Board of Aldermen for a final decision

**Questions may be directed to:**

Lou Taverna, City Engineer, 617-796-1020  
Shawna Sullivan, Clerk of the Board of Aldermen, 617-796-1213

**I. IDENTIFICATION (Please Type or Print Clearly)**

Company Name National Grid

Address 40 Sylvan Rd.  
Waltham, Ma. 02451

Phone Number 617-293-0480 Fax Number \_\_\_\_\_

Contact Person Barbara Kelleher Title Permit Representative

Signature Barbara H. Kelleher Date 8-12-19  
Person filing application

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

**II. DESCRIPTION OF PROJECT: to be completed by petitioner**



A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion.

To install and maintain approx 85 feet more or less of 4 inch gas main in Dearborn St., Newton. From the existing 4 inch gas main at house # 56 southwesterly to the end of main @ house # 64. In order to provide a gas service to # 64 Dearborn Rd.

B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide:  
Title of Plan 64 Dearborn St., Newton Date of plan 7-30-2019

**III. PUBLIC WORKS DEPARTMENT REVIEW**

Date received by Public Works Department AUG. 12 2019

Check One:

Minor Project

Major Project

Lateral

(Refer to City Engineer Standard Requirements for Plans for definition of minor and major project)

Plans Submitted:

Certified Plot Plan

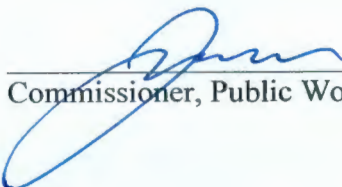
Stamped Plans

DATE AND COMMENTS:

RECOMMENDATIONS:

Trench Restoration per Street Opening Permit	
95% Completion Required.	
John Dyk	Associate City Engineer
Aug 13 2019	

**V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:**

  
Commissioner, Public Works

8/15/19  
Date

PETITION OF NATIONAL GRID FOR GAS MAIN LOCATIONS

**City of Newton / City 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 Newton** 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:

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Date: August 12, 2019

By: Barbara H. Kelleher  
Barbara H. Kelleher  
Permit Representative

**City of Newton / 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 Newton** substantially as described in the petition date August 12, 2019 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 Newton** 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 City of \_\_\_\_\_, MA on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

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

\_\_\_\_\_  
Title

WO #1250133

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

## ABUTTERS LIST

## DEARBORN ST

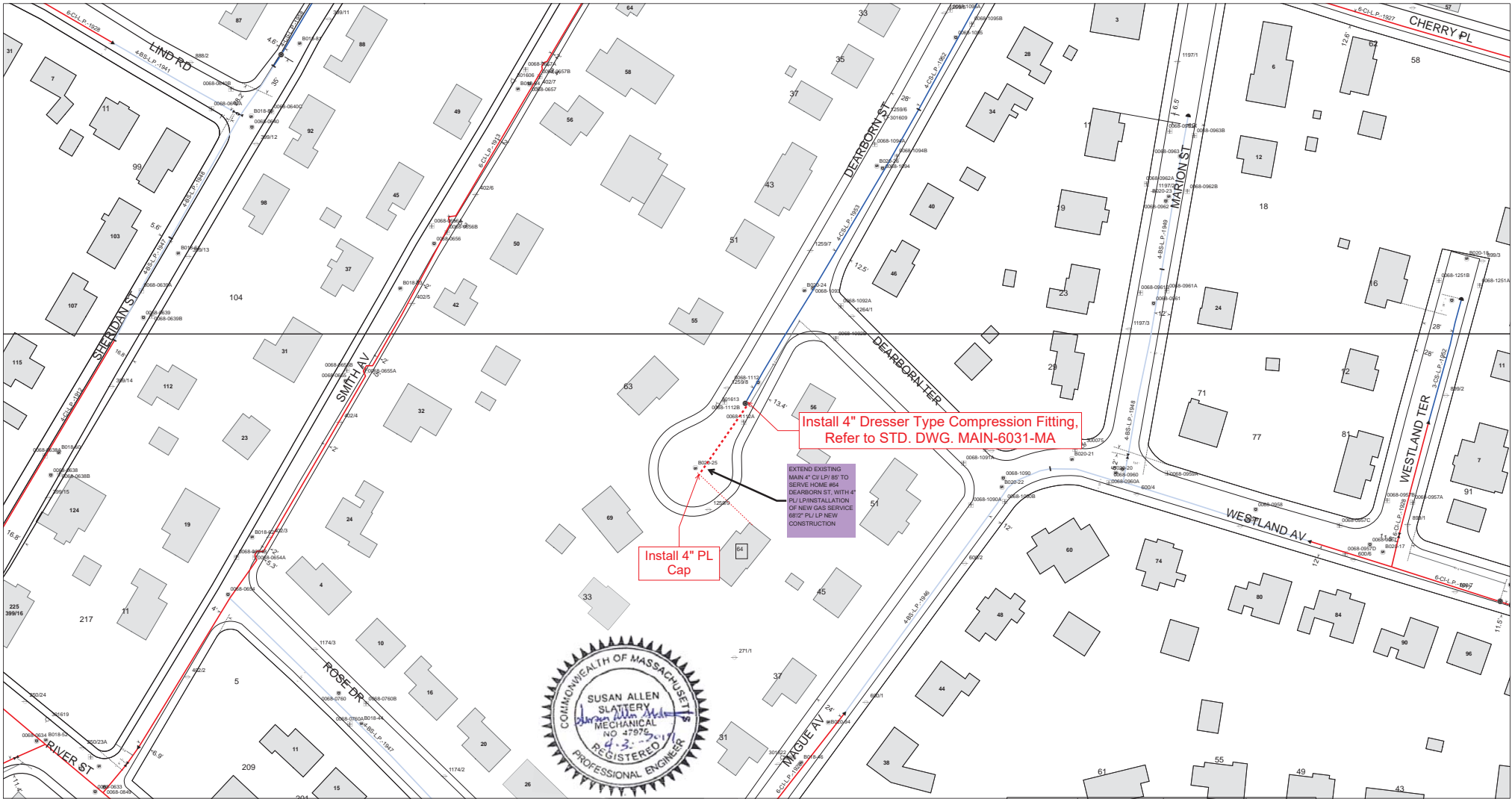
CHU EDWARD	25 DEARBORN ST	NEWTON	MA	02465
GUZZI PETER S	28 DEARBORN ST	NEWTON	MA	02465
NANCY E GAGNON T	31 DEARBORN ST	NEWTON	MA	02465
CIVITELLO MARYANN	33 DEARBORN ST	NEWTON	MA	02465
PAJAK ROBERT F	34 DEARBORN ST	NEWTON	MA	02465
CAPPELLO CAROLE M	37 DEARBORN ST	NEWTON	MA	02465
MCCARTY MARK E	40 DEARBORN ST	NEWTON	MA	02465
GEORGIAN LYNNE E	43 DEARBORN ST	NEWTON	MA	02465
PARKS HANA D (TE)	46 DEARBORN ST	NEWTON	MA	02465
BOCCIA MARCO	51 DEARBORN ST	NEWTON	MA	02465
SMITH SCOTT	55 DEARBORN ST	NEWTON	MA	02465
BLIGH DAVID M	56 DEARBORN ST	NEWTON	MA	02465
PATRICIA LONGBOTTOM T	63 DEARBORN ST	NEWTON	MA	02465
64 DEARBORN LLC	64 DEARBORN ST	NEWTON	MA	02465
BRATNIKOV ALEXANDER	69 DEARBORN ST	NEWTON	MA	02465

## DEARBORN TER

NG EDWOOD	16 DEARBORN TER	NEWTON	MA	02465
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- PRESSURE GAUGES ARE REQUIRED AT ALL MAINS FOR ALL TIE-INS. REFER TO GCON-7010 PROCEDURE.
- CHECK ELECTRONIC MAPPING SYSTEM FOR MOST CURRENT MAPPING INFORMATION.

THE GCON-7010 PROCEDURE  
HAS BEEN SUPERSEDED BY  
THE GCON-02001 PROCEDURE



**Proposed Scope of Work**

64 Dearborn St, NEW

EXTEND EXISTING MAIN 4" CI/ LP/ 85' TO SERVE HOME #64 DEARBORN ST, WITH 4" PL/ LP /INSTALLATION OF NEW GAS SERVICE 68 1/2" PL/ LP NEW CONSTRUCTION HOME



NOTE: The location of surface and underground objects shown are not warranted to be correct.

Map Designer	BMarkos	SIZE	4"
DATE	03/18/2019	MATERIAL	PL
LENGTH	85'	PRESSURE	LP
SECTIONALS	7819072923	WORK ORDER #	1250133

ArcFM



CITY OF NEWTON  
MASSACHUSETTS

308-19

PETITION for GRANT OF LOCATION

RECEIVED  
CITY ENGINEER  
2019 AUG 15 PM 3:45  
Dated: A. [unclear]  
[unclear] MA [unclear]

To the Petitioner:

City of Newton Ordinance Section 23-52 requires that each petition for grant of location be submitted to the City Council before it is sent to the Public Works Department for a preliminary review. The comments of the Public Works Commissioner will be part of the record submitted to the City Council. Upon filing with the City Council, the petition will be scheduled for a public hearing before the Public Facilities Committee of the City Council. **The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review.** Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

Grant of Location Process:

1. Applicant submits completed Petition Form and required materials to the City Council
2. Public Works Department conducts preliminary review and gives written comments to the applicant
3. Engineering Division files Petition Form with comments with the Clerk of the City Council
4. City Council schedules petition for a public hearing before the Public Facilities Committee of the City Council
5. Public Facilities Committee recommendations are forwarded to the City Council for a final decision

Questions my be directed to:

Lou Taverna, City Engineer, 617-796-1020  
City Council Office, 617-796-1210

**I. IDENTIFICATION (Please Type or Print Clearly)**

Company Name Eversource Energy

Address 200 Calvary Street  
Waltham, MA 02453

Phone Number 781-314-5053 Fax Number 781-314-5165

Contact Person Maureen Carroll Title Right of Way Agent

Signature Maureen Carroll Date 8-9-2019  
Person filing application

If a telecommunications company, indicate how certified by the Department of Telecommunications and Energy:

condition: mill & overlay curb to curb

**II. DESCRIPTION OF PROJECT: to be completed by petitioner**

A. Write here or attach a description of the project including, location, proposed time frame for completion, type of materials to be used, benefit provided to the City, project mitigation plan as applicable, street reconstruction plan including timetable for completion.

Eversource to install approximately 693 feet of conduit and one (1) manhole #30780 in Woodward Street

Eversource to install approximately 182 feet of conduit and one (1) manhole #30781 in Lincoln Street

B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide:

Title of Plan Woodward Street, Newton

Date of plan July 27, 2019

**III. PUBLIC WORKS DEPARTMENT REVIEW**

Date received by Public Works Department Aug 16 2019

Check One:

Minor Project

Major Project

Lateral

(Refer to City Engineer Standard Requirements for Plans for definition of minor and major project)

Plans Submitted:

Certified Plot Plan

Stamped Plans

**DATE AND COMMENTS:**

**RECOMMENDATIONS:**

Woodward Rd & Lincoln St	Excavatable from the top
were rehabilitated curb line to	of the conduit encasement
curb line in 2018. After	to w/in 18" of the binder
the conduit is installed	grade then filled with
9" back filled with Control	Dense Grade compacted to
Density Fill CDF Type I-E	95% Compaction the roads
	shall be milled & overlaid with
	John Day's super pavement

**V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:**

Associate City Eng Aug 16 2019

Shauna Sullivan  
Commissioner, Public Works

8/16/19  
Date

August 8, 2019

City Council  
City of Newton  
1000 Commonwealth Avenue  
Newton, MA 02459

RE: Woodward Street  
Newton, MA  
W/O #2308033

Dear Members of the Council:

The enclosed petition and plan are being presented by the NSTAR ELECTRIC COMPANY dba EVERSOURCE ENERGY for the purpose of obtaining a Grant of Location to install approximately 693 feet of conduit and one manhole (#30780) in Woodward Street and approximately 182 feet of conduit and one manhole (#30781) in Lincoln Street.

We have also submitted a permit request to Mass DOT to install approximately 80 feet of conduit in Boylston Street (Route 9).

This work is necessary to perform system upgrades.

If you have any further questions, contact Maureen Carroll at (781) 314-5053. Your prompt attention to this matter would be greatly appreciated.

Very truly yours,



Richard M. Schifone, Supervisor  
Rights and Permits

RMS/kj  
Attachments

**PETITION OF NSTAR ELECTRIC COMPANY dba EVERSOURCE ENERGY FOR LOCATION FOR CONDUITS AND MANHOLES**

To the City Council of the City of Newton Massachusetts

Respectfully represents **NSTAR ELECTRIC COMPANY dba EVERSOURCE ENERGY** a company incorporated for the transmission of electricity for lighting, heating or power, that it desires to construct a line for such transmission under the public way or ways hereinafter specified.

WHEREFORE, your petitioner prays that, after due notice and hearing as provided by law, the Council may by Order grant to your petitioner permission to construct, and a location for, such a line of conduits and manholes with the necessary wires and cables therein, said conduits and manholes to be located substantially as shown on the plan made by **A. DeBenedictis** dated **July 27, 2019** and filed herewith, under the following public way or ways of said City.

**Woodward Street** - **Northwesterly from Boylston Street (Route 9), opposite Elliot Street, a distance of 693 ± feet - conduit**


**Install one (1) manhole #30780**

**Lincoln Street** - **At Woodward Street, running northeasterly, thence turning and running easterly, a distance of 182 ± feet - conduit**

**Install one (1) manhole #30781**

**WO# 2308033**

NSTAR ELECTRIC COMPANY  
dba EVERSOURCE ENERGY

By:   
Richard M. Schifone, Supervisor  
Rights and Permits

Dated this 8<sup>th</sup> day of August 2019

City of Newton, Massachusetts

Received and filed \_\_\_\_\_, 2019



ORDER FOR LOCATION FOR CONDUITS AND MANHOLES

City of Newton Massachusetts, 308-19  
In City Council

WHEREAS, **NSTAR ELECTRIC COMPANY dba EVERSOURCE ENERGY** has petitioned for permission to construct a line for the transmission of electricity for lighting, heating, or power under the public way or ways of the City hereinafter specified, and notice has been given and a hearing held on said petition as provided by law.

It is ORDERED that **NSTAR ELECTRIC COMPANY dba EVERSOURCE ENERGY** be and hereby is granted permission to construct, and a location for, such a line of conduits and manholes with the necessary wires and cables therein under the following public way or ways of said City:

**Woodward Street** - **Northwesterly from Boylston Street (Route 9), opposite Elliot Street, a distance of 693 ± feet - conduit**

**Install one (1) manhole #30780**

**Lincoln Street** - **At Woodward Street, running northeasterly, thence turning and running easterly, a distance of 182 ± feet - conduit**

**Install one (1) manhole #30781**

**WO# 2308033**

All construction work under this Order shall be in accordance with the following conditions:

1. Conduits and manholes shall be located as shown on plan made by **A. DeBenedictis** dated **July 27, 2019**
2. Said Company shall comply with the requirements of existing ordinances and such as may hereafter be adopted governing the construction and maintenance of conduits and manholes.
3. All work shall be done to satisfaction of the City Council or such officer or officers as it may appoint to supervise the work.

A True Record. Attest: \_\_\_\_\_  
City Clerk

Approved \_\_\_\_\_ 2019

\_\_\_\_\_  
Mayor

**CERTIFICATE**

I hereby certify that the foregoing Order was adopted after due notice and public hearing as prescribed by Section 22 of Chapter 166 of the General Laws (Ter. Ed.) and any additions thereto or amendments thereof, to wit:--after written notice of the time and place of the hearing mailed at least seven days prior to the date of the hearing by the City Clerk to all owners of real estate abutting upon that part of the way or ways upon, along or across which the line is to be constructed under said Order, as determined by the last preceding assessment for taxation and a public hearing held on the \_\_\_ day of \_\_\_\_\_ 2019, at **City Council** in the said City

\_\_\_\_\_  
City Clerk

**CERTIFICATE**

I hereby certify that the foregoing are true copies of the Order of the City Council of the City of NEWTON Massachusetts duly adopted on the \_\_\_\_\_ day of \_\_\_\_\_, 2019 and recorded with the records of location Orders of said City. Book \_\_\_ Page \_\_\_ and of the certificate of notice of hearing thereon required by Section 22 of Chapter 166 of the General Laws (Ter. Ed.), and any additions thereto or amendments thereof, as the same appear of record.

Attest: \_\_\_\_\_  
Clerk of City of NEWTON, Massachusetts

PETITION FOR WATER, DRAIN AND/OR SEWER



City of Newton

Date: 7/11/2019

To the City Council of Newton:

The undersigned believing that the public convenience the public health require it respectfully petition that a ~~water main, x main drain and/or common~~

~~sewer~~ be constructed in Ferncroft Road <sup>From a city manhole</sup> a distance of 90 <sup>in a northerly</sup> direction to a proposed new manhole <sup>in</sup>  
Insert street, way, or private lands, give names of owners

from ~~last drain manhole in front of 24 Ferncroft Road~~ to

~~in front of~~ 12 Ferncroft Road in that part of Newton called

Waban

Signatures of petitioners here:	Addresses
Peter Roaf and Prudence Roaf	12 Ferncroft Road, Newton, MA

RECEIVED  
CITY OF NEWTON  
2019 JUL 11 PM 1:41  
Creative Land & Water Engineering, LLC  
Newton, MA 02459

**Note:** The petitioners will responsible for the expense to extend the drain main according to the accompanying engineering plan by Creative Land & Water Engineering, LLC. dated July 1, 2019.

CITY OF NEWTON  
Department of Public Works  
ENGINEERING DIVISION

Memorandum

To: Council Deborah Crossley, Facilities Committee Chair.  
From: John Daghlian, Associate City Engineer  
Re: 12 Ferncroft Road Drain Main Extension  
Date: August 16, 2019  
CC: Jim Mcgonagle, Commissioner  
Shawna Sullivan, Chief of Staff  
Lou Taverna, PE City Engineer  
Ted Jerdee, Director of Utilities  
Nadia Khan, Committee Clerk

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In reference to the above location, the following are my comments for a plan entitled:

*Proposed Street Drain Extension & Connection  
12 Ferncroft Road  
Prepared by: Creative Land & Water Engineering, LLC  
Dated: 7-1-'19  
Revised: 7/23/'19*

Executive Summary:

This property is a by right development that has a high ground water issue within the new basement. The applicant is proposing a design to extend the City's drain main from the point where it terminates approximately 94-feet northerly of the site. The builder also has installed a defuser that discharges groundwater from the sump pump onto the front lawn that flows across the sidewalk and into the street, this is illegal, (see photo).



Diffuser discharges to lawn & overflows to sidewalk and street.



*Overflow onto sidewalk and street Photo Taken July 16, 2019*



*Looking Southerly towards #12 Ferncroft Road*

Capacity calculations are needed for the anticipated flows from the sump pump; the engineer of record shall submit hydraulic calculation of the downstream system to ensure that no flooding will occur. A plan & profile drawn to 1" = 10' horizontal & 1" = 1-foot vertical scale is required showing all utilities within 10 feet of the proposed drain main extension.

I will also require that 6-inch stubbed PVC connections be provided for each property from the new drain main to the back of sidewalk that the drain main extends by so that in the future these properties can connect without having to dig up the road.

Prior to construction and obtaining the proper permits, a Closed-Circuit Television (CCTV) Inspection must be performed and witnessed by the Engineering Division a record video shall be given to the Inspector after the Preconstruction inspection, additionally a Post Construction CCTV inspection shall also be performed and witnessed, a copy of the final inspection shall be delivered to the City Engineer.

Finalized utility connection plan reflecting the above changes that meets the minimal design standards of the City of Newton must be submitted for approval by the contractor of record with appropriate Bonds & Insurance. The Engineering Division makes no representations and assumes no responsibility for the design(s) in terms of suitability for the particular site conditions or of the functionality or performance of any items constructed in accordance with the design(s). The City of Newton assumes no liabilities for design assumption, error or omissions by the Engineer of Record.

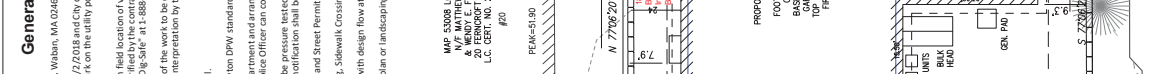
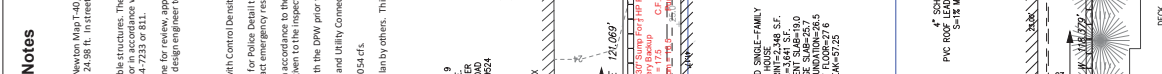
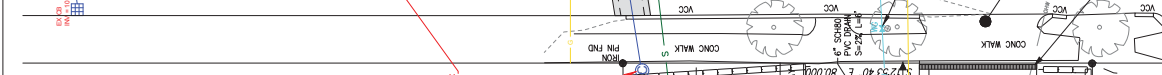
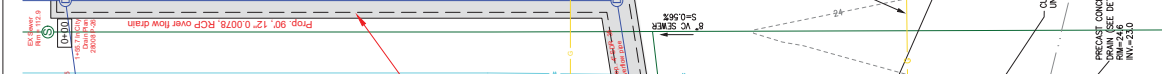
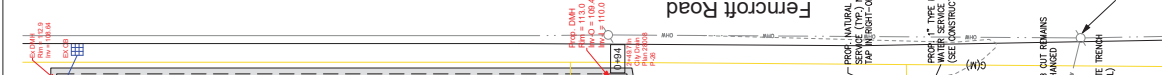
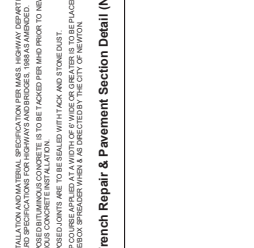
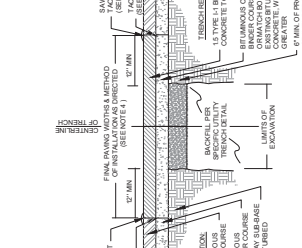
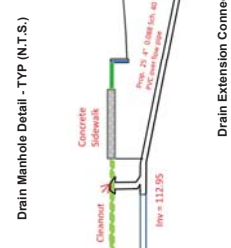
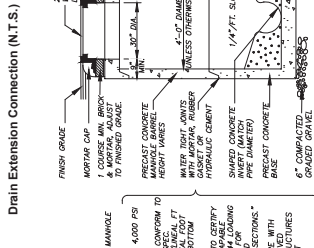
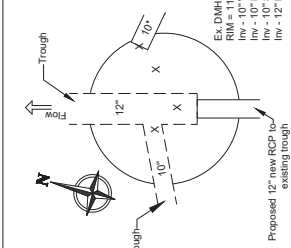
#### General Requirements:

1. A final as built plan showing the right of way with bearings and distances, rim and invert elevations pipe material and pipe slopes shall be clearly labeled on a plan & profile drawn to 1" = 10' horizontal & 1" = 1 foot vertical scale shall be submitted in electronic format and mylar copy, stamped by the engineer of record.
2. All trenches within the roadway shall be restored per the street open permit and pavement restoration policy.
3. The backfilling of the sewer main and services connection shall be with Control Density Fill (CDF) Type I-E Excavatable type, for the entire alignment.
4. If any service connections are disturbed by the contractor of record during construction, they shall be updated and replaced to the City's current Construction Standards. This note shall be on the final plan.
5. All downstream catch basins shall be retrofitted with an approved type of siltation control devices, details of this shall be submitted to the City Engineer. The contractor of record

shall maintain these catch basins throughout the construction process, and ensure that street and property flooding does not occur during construction.

6. The contractor of record shall contact the Newton Police Department and arrange for Police Detail to help residents navigate around the construction equipment and since the street has underground nature gas main, the Police Officer can contact emergency response personnel.
7. The proposed main, manholes, and service connections shall be pressure tested in accordance to the City's Construction Standards. A representative of the Engineering Division shall witness the testing, 48-hours prior notification shall be given to the inspection.
8. The applicant's contractor shall apply for a Utility Connection and Street Permit with the DPW prior to any construction.
9. The contractor of record shall obtain a Trench, Street Opening, Sidewalk Crossing, and Utility Connection Permits with the DPW prior to construction.

If you have any questions or concerns please call me at 617-796-1023.





## Response to Review Comments

To: Council Deborah Crossley, Facilities Committee Chair.

John Daghlian, P.E. Associate Town Engineer

From: Desheng Wang, Ph.D., P.E., Creative Land & Water Engineering, LLC.

Re: 12 Ferncroft Road Drain Main Extension

Date: July 23, 2019

CC: Jim Mcgonagle, Commissioner  
Shawna Sullivan, Chief of Staff  
Lou Taverna, PE City Engineer  
Ted Jerdee, Director of Utilities  
Nadia Khan, Committee Clerk  
Prudence Roaf, Owner and Applicant

---

We have received and reviewed the review comments by Mr. John Daghlian dated July 17, 2019 in reference to the above location. On July 22, 2019, we met with Mr. Daghlian at the site to go over all the issues related to the drain extension and connection. We would like to provide our responses to Mr. Daghlian's comments reflecting the consensus we reached in the field. We will quote the comments first in italic and then respond in Bold:

### Executive Summary:

*This property is a by right development that has a high ground water issue within the new basement. The applicant is proposing a design to extend the City's drain main from the point where it terminates approximately 94-feet northerly of the site. The builder also has a installed a diffuser that discharges groundwater from the sump pump onto the front lawn that flows across the sidewalk and into the street, this is illegal.*

**Response: The discharge was allowed as a continuation of the pre-existing sump-pump discharging, which was discussed during our site meeting with the Engineering staff. We will remove it as a result of connection to street drainage system.**

*The plan indicates a connection to a drain manhole 94 feet from the property, however there are two manholes juxtaposed & labeled "DRAIN" the engineer of record needs to identify which exact manhole is the drain vs. sanitary sewer.*

**Response: The manholes are existing. The one on the left (east) is the storm drain and the one on the right (west) is the sewer manhole. They will be noted on the revised plan.**



*The proposed pipe is PVC SDR 35 pipe, the City Standard is reinforced concrete pipe or ductile iron pipe the plan needs correction. Prior to construction a Closed-Circuit Television (CCTV) Inspection must be performed and witnessed by the Engineering Division a record video shall be given to the Inspector after the Preconstruction inspection, additionally a Post Construction CCTV inspection shall also be performed and witnessed, a copy of the final inspection shall be delivered to the City Engineer. A final as built plan showing the right of way with bearings and distances, rim and invert elevations pipe material and pipe slopes shall be clearly labeled on a plan & profile drawn to 1" = 10' horizontal & 1" = 1 foot vertical scale shall be submitted in electronic format and mylar copy, stamped by the engineer of record.*

**Response: We revised plan to use 12" RCP for the street drain main extension .We will conduct existing and as-built CCTV inspection of the drain line and a final as-built plan with proper scale.**

Capacity calculations are needed for the anticipated flows form the sump pump; the engineer of record shall submit hydraulic calculation of the downstream system to ensure that no flooding

will occur. The plan needs to have stationing added to the proposed system, starting at the downstream manhole at station 0+00 and sequencing up to the property line.

**Response: The sump pump flow was calculated based on the high water condition as 0.054 cfs while the downstream 12” RCP has a capacity of 3.42 cfs for full pipe flow and 10.23 cfs for surcharge flow. So the added flow will not significant impact the downstream condition given that the flow is originally flowing into the same drainage system through road gutter. See attached Calculation sheets for detail.**

*The lever spreader is not acceptable and must be removed from the design. The curb line for both sides of the roadway is needed on the plan. Connection from the sump pump to the City drain main shall be via a new manhole on the property (where the diffuser is) so that the flow is by gravity to the City system.*

**Response: As we noted above the sum pump drain line was continued as pre-existing condition. We believe that the level spreader will help to reduce flow rate. However, we will remove it and connect to the street drain through a new manhole in the street. As we explained to Mr. Dighlian at the site, the sump pump drain has changed from force main to a 4” gravity line and we do not need another manhole at the diffuser but we will add a clean out at the location of diffuser.**

*I will also require that 6-inch stubbed PVC connections be provided for each property from the new drain main to the back of sidewalk that the drain main extends by so that in the future these properties can connect without having to dig up the road.*

**Response: At our meeting with Mr. Daghlian, we have looked at the need for stub to abutting properties between the existing manhole and the proposed manhole. It is our consensus that the abutting property could easily connect to the two manholes as we will do for 12 Ferncroft Road, which is a better way to connect to street drainage system. Therefore, we agreed that no subs will be needed for the drain extension.**

*Finalized utility connection plan reflecting the above changes that meets the minimal design standards of the City of Newton must be submitted for approval by the contractor of record with appropriate Bonds & Insurance. The Engineering Division makes no representations and assumes no responsibility for the design(s) in terms of suitability for the particular site conditions or of the functionality or performance of any items constructed in accordance with the design(s). The City of Newton assumes no liabilities for design assumption, error or omissions by the Engineer of Record.*

**Response: After the plan is approved, the Contractor who will carry out the drain extension and connection will provide required Bonds & Insurance. We agreed that the function of the drain will not be the responsibility of City of Newton or its representatives.**

General Requirements:

1. *All trenches within the roadway shall be restored per the street open permit and pavement restoration policy.*

**Response: Agreed and City standard detail of the restoration has been added to the plan.**

2. *The backfilling of the sewer main and services connection shall be with Control Density Fill (CDF) Type I-E Excavatable type, for the entire alignment.*

**Response: Agree and incorporate into the plan.**

3. *If any service connections are disturbed by the contractor of record during construction, they shall be updated and replaced to the City's current Construction Standards. This note shall be on the final plan.*

**Response: Agreed.**

4. *All downstream catch basins shall be retrofitted with an approved type of siltation control devices, details of this shall be submitted to the City Engineer. The contractor of record shall maintain these catch basins throughout the construction process, and ensure that street and property flooding does not occur during construction.*

**Response: Agreed. Silt sack or equal erosion control measures will be installed in the two downstream catch basins or erosion control. Detail of the silt sack is added to the plan.**

5. *The contractor of record shall contact the Newton Police Department and arrange for Police Detail to help residents navigate around the construction equipment and since the street has underground nature gas main, the Police Officer can contact emergency response personnel.*

**Response: Agreed. A note is added to the plan.**

6. *The proposed main, manholes, and service connections shall be pressure tested in accordance to the City's Construction Standards. A representative of the Engineering Division shall witness the testing, 48-hours prior notification shall be given to the inspection.*

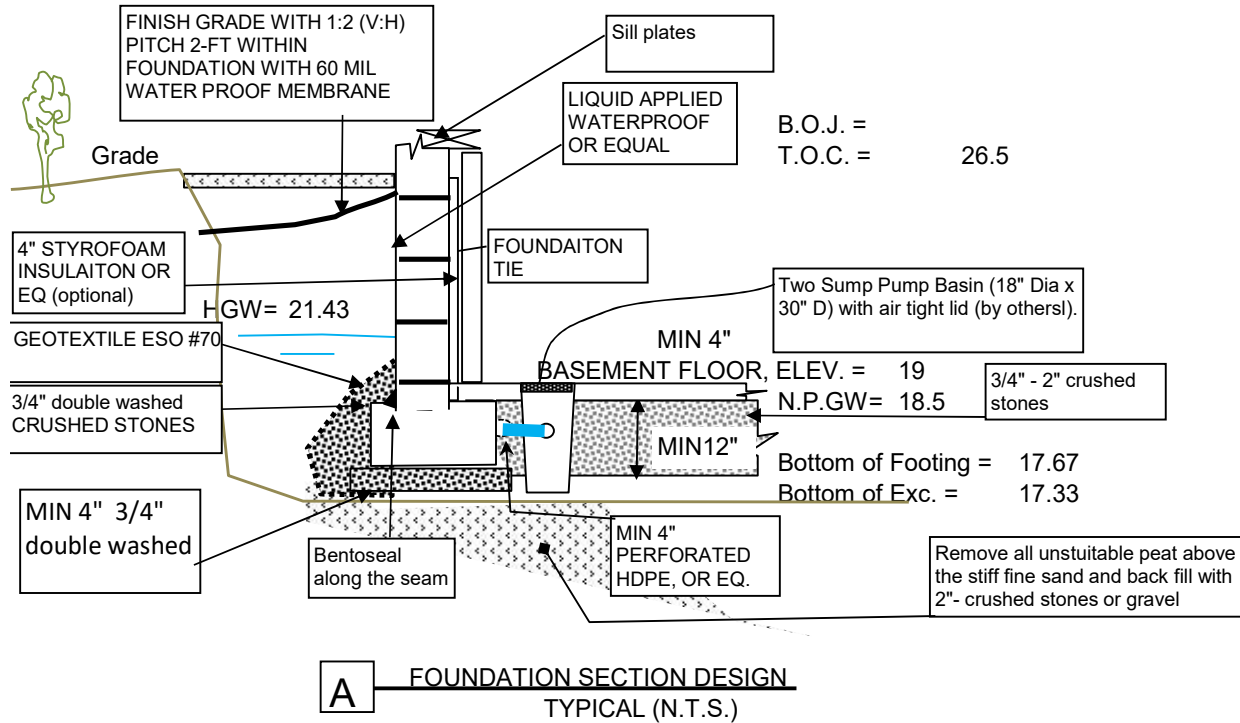
**Response: Agreed.**

7. *The applicant's contractor shall apply for a Utility Connection and Street Permit with the DPW prior to any construction.*

**Response: Agreed.**

8. *The contractor of record shall obtain a Trench, Street Opening, Sidewalk Crossing, and Utility Connection Permits with the DPW prior to construction.*

**Response: Agreed.**



Dewatering Calculation:

Depth, ft:	2.5
Perimeter length, ft:	216
Hydraulic Cond., K ft/s:	0.0001
Total flow, cfs:	0.054
gpm:	24.24

Drain pipe capacity:

Slope:	0.005
diameter:	4
Manning n	0.012
Flow, cfs:	0.146

Basement Dewatering Sump pump Analysis

Creative Land & Water Engineering, LLC  
 Environmental Science and Engineering  
 P.O. Box 584, Southborough, MA 01772

Subject: **Circular Pipe Analysis**

Existing drain capacity

By: DSW

Date: 23-Jul-19

Ferncroft Road

Chkd:

Date:

Tel: (508)281-1694

Email: deshengw@yahoo.com

Location: 12 Ferncroft Rd

Job No.: J207-9

Sheet: 1

**Input Report:**

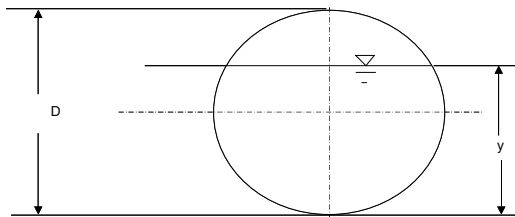
Project: **Outflow Pipe Capacity and Erosion Control Calculations**

Pipe diameter (in):	12	Pipe length:	155.70	ft	Pipe x-sec., A <sub>o</sub> (sq. ft):	0.785
Slope (ft/ft):	0.0068	U/S INV, Z <sub>u</sub> :	108.66	ft	Manning's n:	0.012
Calc. slope (ft/ft):	0.0068	D/S INV, Z <sub>d</sub> :	107.60	ft		
Design Discharge (cfs):	3	Entrance Head:	4.24	ft	Flow Coef.:	0.79
Design Velocity (ft/s):	4.35	E.L.F.:	10.23	cfs	Surcharge	
Design Storm (year):	100	W.L. at Inlet:	112.9	ft		
Design flow depth (in):	10.18					

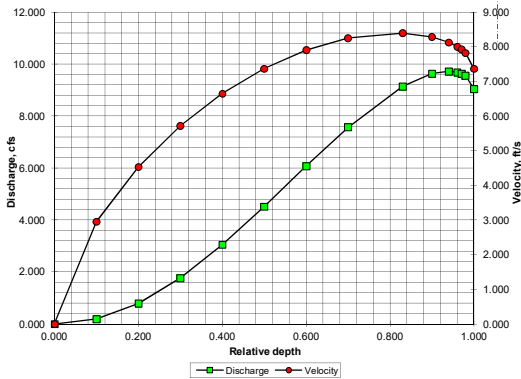
**Output Report:**

Remarks:

Flow Capacity				Critical Flow		
Relative depth	Flow area A, sq. ft	Hyd. Rad. R, ft	Velocity V, ft/s	Discharge Q, cfs	Angle rad.	Slope ft/ft
0.000	0.000	0.000	0.000	0.000	0.000	
0.100	0.041	0.064	1.626	0.066	0.644	0.061
0.200	0.112	0.121	2.493	0.279	0.927	0.237
0.300	0.198	0.171	3.145	0.623	1.159	0.523
0.4000	0.293	0.214	3.656	1.073	1.369	0.911
0.5	0.393	0.250	4.052	1.591	1.571	1.396
0.6	0.492	0.278	4.346	2.138	1.772	1.979
0.7	0.587	0.296	4.538	2.665	1.982	2.667
0.83	0.697	0.304	4.618	3.218	2.292	3.808
0.9	0.745	0.298	4.556	3.392	2.498	4.706
0.94	0.766	0.289	4.469	3.424	2.647	5.522
0.96	0.775	0.283	4.401	3.410	2.739	6.183
0.97	0.779	0.279	4.357	3.392	2.793	6.674
0.98	0.782	0.274	4.303	3.363	2.858	7.411
1	0.785	0.250	4.052	3.183	3.142	0.033



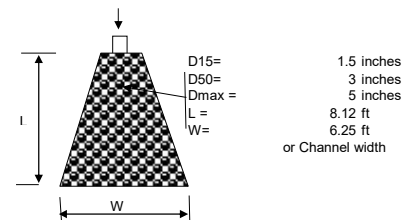
Average Daily flow: 4.50 gpd  
 Peak/Average ratio: 0  
 Peak flow: 0 gpd  
 0 cfs



**For the given condition:**

Discharge Q (cfs)=	3	Stone specific gravity (S <sub>s</sub> )=	2.65
Width/Dia. B (in) =	12	Stability factor (S <sub>f</sub> )=	1.2
Roughness n=	0.012	Stone repose angle (φ):	42.00
Slope slope=	0.0068	Bank slope angle (θ):	18.00
Design Vel V (ft/s)=	4.35	D50 correction factor (C):	1.00
Flow Depth (ft) =	0.85	Bank angle correction K1:	0.887
<b>Channel riprap size:</b>		D50 (in) =	1.28

**Riprap at outfall:**



Note: The riprap shall be concaved with pool depth of 1/2 of D.



Ref. HEC No. 11, Design of Riprap Revetment, US DOT, FHWA, Publication No. FHWA-IP-89-016, March 1989

Fair, G.M. and Gayer, J.C. "Water Supply and Waste-water Disposal", 1st Ed., John Wiley & Sons, Inc., New York (1954), p.136.  
 Channel flow analysis Version 1.1 (c) 2012 by Desheng Wang, Ph.D., P.E.

CITY OF NEWTON

IN CITY COUNCIL

June 3, 2019

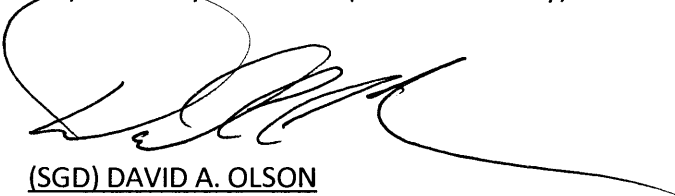
ORDERED:

That, in accordance with the recommendation of the Public Facilities Committee and Finance Committee through their respective Chairs Deborah J. Crossley and Leonard J. Gentile, the sum of four hundred thousand dollars (\$400,000) to be appropriated from Free Cash, be and is hereby appropriated, granted, and expenditure authorized for the purpose of funding the completion of feasibility, schematic design, and site plan approval for the NewCAL project.


FROM:	Free Cash (01-3497).....	\$400,000
TO:	NewCAL Feasibility, Design, & Site Approval (38E11520A-5795) .....	\$400,000

Condition: The Public Buildings Department and the NewCAL Working Group must return to the Council upon completing their evaluation and recommendation of one or more sites, which must be done prior to the expenditure of \$150,000 of the \$400,000 appropriated, and that the Public Buildings Commissioner update the Council when the site list is narrowed to 3 to 5 sites.

Under Suspension Rules  
Readings Waived and Approved  
~~23~~ years ~~0~~ days 1 absent (Councilor Kelley)



(SGD) DAVID A. OLSON  
City Clerk



(SGD) RUTHANNE FULLER  
Mayor

Date 6/7/19

City of Newton



**DEPARTMENT OF PUBLIC WORKS  
ENGINEERING DIVISION  
OFFICE OF THE CITY ENGINEER  
1000 Commonwealth Avenue  
Newton Centre, MA 02459-1449**

Ruthanne Fuller  
Mayor

**MEMORANDUM**

**DATE:** June 20, 2019  
**TO:** Public Facilities Committee  
**FROM:** Lou Taverna, P.E., City Engineer

RECEIVED  
NEWTON CITY CLERK  
2019 JUN 20 PM 3:57  
DANIEL A. GREEN, CITY  
ENGINEER, MA 02459

**RE: #XXX-19 Inflow and Infiltration Mitigation Ordinance**  
CITY ENGINEER proposing to amend Chapter 29 of the Revised Ordinances of the City of Newton to create an Infiltration and Inflow Mitigation ordinance that would codify mitigation requirements for certain size development projects, potential for fees in lieu of mitigation and waiver of fees by the City Council.

**#XXX-19 Building Sewer, Water Service Pipe and Sidewalk Replacement Ordinance**  
CITY ENGINEER proposing amendments to Chapter 29 of the Revised Ordinances of the City of Newton to create a building sewer and water service pipe update ordinance that would require the removal and replacement of sewer and water connections, and replacement of sidewalk when a dwelling is demolished or substantially remodeled or rehabilitated.

**CC:** John Lojek, Commissioner of Inspectional Services  
Marie Lawlor and Jonah Temple, Law Department  
Jonathan Yeo, Chief Operating Officer  
Maureen Lemieux, Chief Financial Officer

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**Infiltration and Inflow Ordinance**

**Background**

Infiltration, generally groundwater, is water other than sanitary wastewater that enters the sewer system through cracks and structural defects in the system. Inflow, generally stormwater, is water other than sanitary wastewater that enters the sewer system, either illegally or incorrectly, through roof leaders, sump pumps, cellar drains, cooling towers, yard drains, driveway drains, catch basins, and other storm drain connections. Infiltration and Inflow (I/I) cause a range of problems including overloading wastewater treatment facilities and thereby reducing their ability to adequately cleanse sanitary flows, increasing operations and maintenance costs for sanitary



pumping equipment, limiting capacity for sanitary flows, and creating sewer system overflows with the attendant health and environmental risks.

The City's existing sewer infrastructure is old and has limited capacity. New development can and will substantially increase the burden on the system and will impact its capacity and capability. In order to address the local and regional impacts of both the insufficient capacity and increased demand on the City sewer system, the City has had a long-standing policy, administered by the Department of Public Works (DPW) Engineering Division, that regulates connections to the sewer system from private properties.

#### City of Newton Policy

The purpose of the City's policy is to decrease the burden on the City's sewer system by ensuring that I/I is removed in sufficient amounts to accommodate the increased demand on the City's sewer pipes resulting from new developments. Since 2000, the City has performed sewer I/I removal projects in many of the interceptor and collector sewer pipes and manholes throughout the City. However, much work remains to be completed. The City initiated a strategic sewer I/I removal plan in 2012, encompassing the entire sewer infrastructure city-wide.

The City's policy is consistent with and informed by permits, policies and guidance issued by the MWRA, Environmental Protection Agency (EPA), and the Massachusetts Department of Environmental Protection (MassDEP), applicable federal and state regulations, and by City Ordinances. Reducing I/I is a requirement of the permits issued to Newton as well as policies and regulations enforced by the EPA, MassDEP and MWRA to which Newton is subject. In 2014, MassDEP revised 314 CMR 12.00, and in 2017 issued revised policies and guidance for I/I removal. Consequently, the City's stormwater, sewer system, and I/I management policies that have been employed since the 1990s are subject to state review and enforcement.

The City Engineer recently issued a comprehensive update to the City's policy. A copy of the current policy is attached. The Law Department recommends that the City's longstanding policy be codified into a formal ordinance in order to ensure that the City's mitigation requirements are consistently applied and enforced.

#### Proposed Ordinance

The proposed ordinance mirrors the terms and substance of the City's current updated policy. The following highlights the key parts of the proposed ordinance:

1. I/I mitigation is required for all new connections to the City's sewer system and for all existing connections where the property is substantially remodeled or rehabilitated. The specific mitigation required is the removal of I/I at a minimum rate of four gallons of I/I removal for each gallon of wastewater that will be discharged to the sewer system. This applies to both residential and commercial development. The requirement applies to by-right development, special permits and comprehensive permits.
2. The only exemption to this mitigation requirement is for residential and mixed-use buildings that include four or fewer residential units.
3. When the mitigation requirement applies, a developer may instead choose to pay a payment in lieu prior to the issuance of a building permit. The fee will be deposited in a dedicated account that funds the City's sewer system rehabilitation and cleaning and lining projects administered by the Department of Public Works.

ADD A NEW ARTICLE TO CHAPTER 29 AS FOLLOWS:

**ARTICLE VII.  
REQUIRED REMOVAL AND  
REPLACEMENT OF BUILDING SEWER,  
WATER SERVICE PIPES AND SIDEWALKS**

**Sec. 29-157. Definitions.**

Unless the context specifically indicates otherwise, the meaning of terms used in this article shall be as follows:

*Building sewer pipe:* The sewer pipe which connects a building's sewer system to the public sewer main.

*CCTV inspection:* A closed circuit television inspection.

*Commissioner:* The commissioner of public works of the City of Newton or his authorized deputy, agent or representative.

*Substantially remodeled or rehabilitated:* When a dwelling or building is (1) renovated and/or gutted more than fifty percent (50%) or (2) an addition to a building is constructed that increases the footprint by more than 1,000 square feet, or increases the total square footage more than 1,000 square feet.

*Water service pipe:* The water pipe which connects a building's plumbing system to the nearest water gate valve serving the building.

**Sec. 29-158. Updates to building sewer, water service pipes and sidewalks.**

(a) When a dwelling or building is demolished and a new building is constructed, or when a building is substantially remodeled or rehabilitated, the following shall be removed and replaced at the owner's expense:

- (1) The building sewer pipe(s) to the public sewer main;
- (2) The water service pipe(s) to the water valve; and

(3) The sidewalk and curbing across the entire public way frontage of the lot(s) the dwelling or structure is located on.

(b) The existing building sewer pipe(s), water service pipe(s), and sidewalk and curbing shall be removed and replaced in accordance with the provisions of this article and shall conform to the requirements of the State Building and Plumbing Codes, any standards and specifications established by the city engineer, and any other applicable federal, state, and city laws, ordinances, rules and regulations.

**Sec. 29-159. Building sewer pipe removal and replacement procedure.**

When removing and replacing building sewer pipe(s) under this article, the owner shall comply with the procedures and standards set forth in sections 29-60 and 29-61 of article III, which includes the approval of materials by the commissioner of public works.

**Sec. 29-160. Building sewer pipe exemption.**

The commissioner, upon request from an applicant, may determine that a building sewer pipe(s) is not required to be removed and replaced if all of the following requirements are met:

- (a) the existing building sewer pipe(s) is less than twenty (20) years old;
- (b) the owner obtains a CCTV inspection of the interior of the existing building sewer pipe(s) by an entity licensed to conduct such an inspection and submits with the building permit application a copy of the CCTV inspection along with a signed statement from the inspector attesting to the date of the inspection and the address of the property inspected; and
- (c) the commissioner makes a determination, based on the material and manner of construction of the building sewer pipe(s) and the CCTV inspection, that the existing

building sewer pipe(s) has the ability to be adequately reused without replacement.

**Sec. 29-161. Water service pipe update procedure.**

When removing and replacing water service pipe(s) under this article, the owner shall comply with the procedures and standards set forth in section 29-27 of article II, which includes the approval of materials by the commissioner of public works.

**Sec. 29-162. Water service pipe exemption.**

The commissioner, upon request from an applicant, may determine that the water service pipe(s) is not required to be removed and replaced if all of the following requirements are met:

- (a) the existing water service pipe(s) is less than twenty (20) years old; and
- (b) the commissioner makes a determination, based on the material and manner of construction of the water service pipe(s), that the existing water service pipe(s) has the ability to be adequately reused without replacement.

**Sec. 29-163. Adjoining sidewalks and access curb cuts.**

Removal and replacement of sidewalk and curbing under this article shall include appropriate transition to adjoining curbing and walkways, including accessible curb cuts and other access as required.

**Sec. 29-164. Sidewalk exemption.**

(a) The commissioner, upon request from an applicant, may determine that the sidewalk and/or curbing across the entire frontage of a lot is not required to be removed and replaced under this article at those locations where the commissioner determines that either: (1) the existing sidewalk complies with the current applicable codes, standards and specifications and is in good condition; (2) the lack of existing sidewalk and/or curbing is consistent with the current or future nature of the neighborhood; or (3) such updates are not feasible due to public safety, site constraints, or conflicts with future plans for the area.

**Sec. 29-165 Compliance: 250-19/251-19**

The city engineer shall certify to the commissioner of inspectional services when the provisions of this article have been complied with. The commissioner of inspectional services shall not issue a certificate of occupancy for any property subject to this article prior to receipt of such certification.

**Sec. 29-166. Severability.**

The provisions of this article are severable. If any provision, paragraph, sentence, or clause, of this article or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this article.

4. The City Engineer is responsible for calculating wastewater flows and fees whenever a building permit application is submitted. The calculation of wastewater flow is based on DEP regulations, which are updated periodically. The per gallon fee is established annually on January 1 of each calendar year based on the program costs to remove I/I. The fee is calculated by the City Engineer based on a capital cost analysis report prepared by the City's consulting engineer. A copy of the most recent capital cost analysis is attached to the City's current policy. The 2019 I/I mitigation fee currently in effect is \$19.77 per gallon.
5. The ordinance allows the City Council to waive the mitigation fee, upon the request from an applicant, in certain circumstances. There are three criteria that must be met to waive the fee: (a) The City Engineer and Director of Planning and Development recommend the waiver to the City Council; (b) The City council finds that the waiver will benefit the health and is well-being of the public and in the best interest of the city; and (c) The applicant makes a voluntary payment to the city in amount equal to no less than 75% of the mitigation fee being waived. This waiver provision allows for full or partial waivers of the I/I fee. An example of a partial waiver is detailed in the existing City policy.
6. The ordinance will apply to any project that has not yet received its building permit or special permit.

The purpose of the waiver provision is to allow greater flexibility in the use of mitigation funds in areas where I/I mitigation projects have previously been conducted, or are nearly finished, and where a greater need has arisen for mitigation of a different nature. Therefore, all development projects over 4 units that elect to pay a fee will pay either a I/I mitigation fee, or if the fee is waived, a voluntary payment to be used for other mitigations needs of the City as a result of the project. The Planning Department and the Department of Public Works will make a recommendation to the City Council for the use of the voluntary mitigation payment.

### **Building Sewer and Water Service Pipe and Sidewalk/Curb Replacement Ordinance**

The purpose of this ordinance is to require property owners to replace water and sewer connections and sidewalks whenever a dwelling or building is demolished and new building is constructed, or when a building is substantially remodeled or rehabilitated. The ordinance also provides the Commissioner of Public Works with discretion to waive all three replacement requirements.

As with the I/I ordinance, the City has had a longstanding policy, administered by the DPW Engineering Division, that regulates the replacement of water and sewer connections. A copy of the current policy is attached. The proposed ordinance seeks to codify the City's policy. The ordinance updates the terms of the policy and also includes the additional requirement that the sidewalk along the entire frontage must be replaced.

The following is intended to highlight the key parts of the proposed ordinance, which would codify the existing policy:

1. For tear downs and substantial remodels, the owner must replace the building sewer pipe that connects to the public sewer main, the water service pipe that connects to the City's water gate valve, and the sidewalk, driveway apron and curbing across the entire public way frontage of the lot on which the building is located.

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2. The Commissioner of Public Works may waive the requirement to replace the building sewer pipe in certain circumstances where the existing sewer pipe is less than 20 years old and where the owner obtains a CCTV inspection of the existing pipe that shows it is in good condition. The Commissioner may also waive the requirement to replace the water service pipe in similar circumstances. Such waivers are decided solely by the Commissioner at his or her discretion.
3. The Commissioner of Public Works may waive the sidewalk, driveway apron and curbing replacement upon making one of the following three determinations: (a) the existing sidewalk, driveway apron and curbing complies with current applicable codes and standards and is in good condition as determined solely by the Commissioner at his or her discretion; or (b) the lack of existing sidewalk, driveway apron and curbing is consistent with the current or future nature of the neighborhood; or (c) sidewalk, driveway apron and curbing replacement is not feasible due to public safety, site constraints, or conflicts with future plans for the area.
4. All removal and replacement work must be approved the Commissioner of Public Works and performed in accordance with the procedures and standards already set forth in sections 29-27, 29-60 and 29-61 of the Revised Ordinances.

ADD A NEW ARTICLE TO CHAPTER 29 AS FOLLOWS:

**ARTICLE VI.  
INFILTRATION AND INFLOW MITIGATION**

**Sec. 29-148. Definitions.**

For purposes of this article, the meaning of the terms used shall be as follows:

*Infiltration:* Water other than wastewater that enters the sewer system (including sewer service connections and foundation drains) from the ground through means which include, but are not limited to, defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow.

*Infiltration/Inflow:* The quantity of water from both infiltration and inflow without distinguishing the source.

*Inflow:* Water other than sanitary flow that enters the sewer system (including sewer service connections) from sources which include, but are not limited to, roof leaders, cellar drains, yard drains, area rains, drains from springs and swampy areas, manhole covers, cross connections between storm sewers and sanitary sewers, catch basins, cooling towers, storm waters, surface runoff, street wash waters, or drainage. Inflow does not include, and is distinguished from, infiltration.

**Sec. 29-149. Purpose.**

Infiltration and inflow causes a range of problems including reducing the ability of wastewater treatment facilities to adequately cleanse sanitary flows, increasing operations and maintenance costs for sanitary pumping equipment, limiting capacity for sanitary flows, and creating sanitary system overflows. The city's existing sewer infrastructure is old and has limited capacity. Particularly during intense rain events, the city's public sewer system has insufficient capacity to accommodate the flows, thereby creating flooding and surcharges or overflows at manholes or into buildings, particularly into below grade plumbing fixtures. New developments substantially increase the burden on the system and detrimentally impact its capacity and capability. The purpose of the mitigation

requirement is to decrease the burden on the city's capacity-limited and overtaxed public sewer system by ensuring that infiltration/inflow is removed in sufficient amounts to accommodate the increased demand on the public sewer system resulting from new developments. Mitigation of infiltration/inflow is necessary for the protection of the infrastructure of the city and to safeguard the public health, safety, welfare and the environment.

**Sec. 29-150. Mitigation Requirement.**

(a) For all new residential and commercial dwelling or building connections to the public sewer and for all existing residential and commercial connections where the existing dwelling or building is demolished or substantially remodeled or rehabilitated, infiltration/inflow must be removed from the public sewer at a rate of four gallons of infiltration/inflow removal for each gallon of wastewater that will be discharged to the public sewer.

(b) A property is "substantially remodeled or rehabilitated" when: (1) a dwelling or building is renovated and/or gutted more than 50% or (2) a dwelling or structure has an addition constructed that increases the footprint by more than 1,000 square feet or increases the total square footage more than 1,000 square feet.

(c) The city engineer may require a higher removal rate per gallon of sewer flow in sensitive areas, such as where there are frequent sewer overflow events, where overflows have the potential to impact wetlands, water resources or nitrogen sensitive areas, or where the area is so burdened by infiltration/inflow as to be a hazard to public health, as confirmed by the city's department of public health and human services.

(d) The removal of infiltration/inflow and/or payment of any monetary fee assessed in accordance with this article is required prior to the issuance of a building permit for the subject property.

**Sec. 29-151. Exemptions.**

Residential and mixed-use dwellings and buildings that include four or fewer residential dwelling units on any parcel or contiguous parcels comprising a development site are not subject to the infiltration/inflow mitigation requirement contained in this article.

**Sec. 29-152. Calculation of Wastewater Flow.**

In accordance with the Department of Environmental Protection regulations for the calculation of wastewater flows at 310 CMR 15.203, flow rate is based on the following:

- (a) For residential dwellings, the flow rate is based on the number of bedrooms and the flow rate of 110 gallons per day per bedroom.
- (b) For commercial buildings, the flow rate is based on the estimated generated flow for the proposed use set forth in 310 CMR 15.203.

The calculation of wastewater flow is based on the gross flow generated by the proposed development, without any discount for flow generated by an existing use. For the purpose of encouraging the installation of water-efficient fixtures and equipment, the city engineer shall use the low of (1) the manufacturer's specifications for such fixtures and/or equipment proposed to be installed as part of any development or (2) the estimated flow set forth in 310 CMR 15.00.

The city engineer is responsible for calculating the flows and fees for the use of any dwelling or building or portion thereof for which a building permit application is submitted and will provide applicants with a detailed response to their application within ten (10) business days of its filing.

**Sec. 29-153. Application.**

Applicants required to perform the infiltration/inflow mitigation requirement pursuant to this article may elect to pay a fee based on the project's infiltration/inflow calculated requirement. The fee will be deposited into a dedicated account that funds public sewer system rehabilitation and sewer cleaning and lining projects administered by the department of public works.

The per-gallon fee shall be established annually by the commissioner of public works on the first day of each calendar year based on the program costs to remove infiltration/inflow and shall be made available to the public. This fee shall be calculated by the city engineer based on a capital cost analysis report prepared by the city's consulting engineer and retained in the files of the engineering division of the department of public works.

Alternatively, applicants have the option of implementing the public sewer system capital improvement program, subject to the approval of the commissioner of public works and in accordance with plans and calculations approved by the city engineer, and it shall be the applicant's responsibility for completing the infiltration/inflow removal project prior to connecting to the public sewer.

**Sec. 29-154. Waiver of Infiltration/Inflow Mitigation Fee by City Council.**

The city council, upon petition from an applicant, may waive, in whole or in part, the infiltration/inflow mitigation fee for a particular dwelling, building, or project provided that:

- (a) the city council receives written recommendations of the requested waiver from the city engineer and the director of planning and development;
- (b) the city council determines that the waiver will benefit the health and well-being of the public and is reasonably in the best interest of the city; and
- (c) the applicant has agreed, in writing, to make a voluntary payment to the city for general development mitigation as a result of the project in an amount equal to no less than seventy-five percent (75%) of the portion of the infiltration/inflow fee being waived.

The city council, in making its determination, and the city engineer and the director of planning and development in making their written recommendation to the council as applicable, shall consider the following criteria:

- (a) the expected impact of the development on infiltration/inflow;
- (b) whether infiltration/inflow mitigation has previously been conducted in the general area; and
- (c) whether a greater need has arisen for mitigation of a different nature.

**Sec. 29-155. Effective Date.**

The requirements of this Article VI shall not apply to any building permit, special permit or comprehensive permit issued prior to the effective date of this amendment of xxxxxxx 1, 2019.

**Sec. 29-156. Severability.**

The provisions of this article are severable. If any provision, paragraph, sentence, or clause, of this article or the application thereof to any person, establishment, or circumstances shall be held invalid, such invalidity shall not affect the other provisions or application of this article.