

**ORDER FOR
HIGH DENSITY POLYETHYLENE GEOTHERMAL AMBIENT LOOP PIPE**

By the City Council of the City of Framingham, Massachusetts notice having been given and a public hearing held, as provided by law, **IT IS HEREBY ORDERED:**

That permission be and hereby granted to **NSTAR Gas Company (d/b/a EVERSOURCE Energy) F.W.O #NTGT0N2Y** locations for and permission to install one (1) new 8 inch diameter High- Density Polyethylene (HDPE) Geothermal Ambient Loop Pipe, one (1) ancillary 8-inch HDPE loop pipe and associated valves, fixtures, and appurtenances to be owned and used by your petitioner, along and across the following public ways: Normandy Road, Berkshire Road, Prindiville Avenue, Hampshire Road, Lindberg Road, and Concord Street in support of new geothermal ambient loop pipe, as requested by Patricia A. Quinn, Supervisor T&D Rights and Survey on **March 13, 2023**.

Berkshire Road – Extending northerly from Prindiville Avenue along East side for a distance of approximately 460± feet

Plan Ref. PROJECT NO. 253460-273904 (Issued For Construction),

FILE NAME: **C011STPL, C-11** Dated: **2/23/2023**

Install one (1) 8” diameter HDPE Geothermal Ambient Loop Pipe, two (2) 2” service connections, five (5) 1 ½” service connections, and all associated valves, fixtures, and appurtenances necessary or useful in connection therewith

All construction under this order shall be in accordance with the conditions set forth in a letter dated April 24, 2023 from the Framingham Department of Public Works as follows:

1. The applicant (or applicant’s designee) shall be registered as a utility within the Dig-Safe system and will be responsible to comply with all applicable laws and regulations pertaining to utility location and marking, including MGLc.82, sec.40 and 220 CMR 99. The applicant (or applicant’s designee) shall fulfill the definition of “Company” as set forth in the aforementioned law and regulations.
2. The Geothermal pipe shall be colored black and labeled appropriately as Geothermal piping on four sides evenly spaced around and through-out the length of the pipe
3. The proposed 8-inch HDPE pipe shall be installed a minimum three feet away from City utilities.
4. The DPW requests notification prior to the start of work to verify final location in the field.
5. Pavement restoration: all trenches shall be appropriately backfilled and compacted with minimum 4-inches of binder (6-inches on Concord Street) or match existing pavement thickness if greater. The trenches shall settle minimum 120-days or a winter season. After the settlement period, the trenches shall be restored as follows:
 - a. Berkshire Road, Prindiville Avenue, Hampshire Road, and Lindbergh Road: shall be milled and paved the trench width plus minimum 2-feet past the trench boundaries.
 - b. For the section of Concord Street in the vicinity of the intersection of Hartford Street, the restoration will be determined at the time of the Street Opening Permit and may include full width restoration depending on the coordination with the planned intersection

improvements.

c. The remaining length of Concord Street shall be milled for the entire width of the vehicular travel lane in which the trench is located.

d. Normandy Road: the restoration will include full-width milling and paving for the section between Arsenal Road and the project limits. For the section between Arsenal Road and Concord Street, the restoration shall include trench mill and pave to the edge of the road provided that the pipe is installed at the location included in the plans. If the pipe is moved significantly, the restoration may include full-width mill and pave.

e. Rose Kennedy Lane: Eversource Gas shall accelerate their planned gas pipe replacement scheduled for next year and conduct that work this year. Eversource shall then mill and pave the entire width of the roadway to account for the impact for both utilities. For the cul-de-sac where the Geothermal well field will be located, Eversource shall coordinate with the City for a comprehensive reconstruction of this area.

6. All work shall conform to the City of Framingham construction standards.

I hereby certify that the foregoing order was adopted at a meeting of the City Council of the City of Framingham, Massachusetts held on the 25th day of April 2023.



Lisa A. Ferguson, City Clerk

We hereby declare that on April 25, 2023 at 7:00 PM at 150 Concord Street, Framingham, Massachusetts a public hearing was held on the petition of **NSTAR Gas (EVERSOURCE) F.W.O #NTGT0N2Y** for permission to construct, and a location for, such High Density Polyethylene Geothermal Ambient Loop Pipe and associated valves, fixtures, and appurtenances therein, described in the order herewith recorded, and that we mailed at least seven days before said hearing a written notice of the time and place of said hearing to each of the owners of real estate (as determined by the last preceding assessment for taxation) along the ways or parts of ways upon which the Companies are permitted to erect poles, wires, cables, fixtures and connections under said order.

It is noted that, due to the COVID-19 pandemic, this meeting and public hearing was held with City Council members present either in person or via Zoom. The meeting is available for viewing on the City of Framingham website under Government Channel.

And that thereupon said order was duly adopted.

City Council
City of Framingham, Massachusetts

CERTIFICATE

I hereby certify that the foregoing is a true copy of a joint location order and certificate of hearing with notice adopted by the Framingham City Council of the City of Framingham, Massachusetts on the 25th day of April, 2023 and recorded with the records of location orders of said City, Book 17, Page 23-2. This certified copy is made under the provisions of Chapter 166 of General Laws and any additions thereto or amendments thereof.

Attest:



Lisa A. Ferguson, City Clerk



CITY OF FRAMINGHAM

DEPARTMENT OF PUBLIC WORKS | OPERATIONS

OPERATIONS CENTER
100 Western Avenue
Framingham, MA 01702

508-532-6010
engineering@framinghamma.gov
www.framinghamma.gov

April 24, 2023

City Council
City of Framingham
Memorial Building
150 Concord Street
Framingham, MA 01702

Re: Grant of Location Request Eversource F.W.O. #NTGT0N2Y – Normandy Road, Berkshire Road, Prindiville Avenue, Hampshire Road, Lindbergh Road, Rose Kennedy Lane and Concord Street.

Dear City Council,

The Department of Public Works (DPW) is in receipt of a request from NSTAR Gas Company d/b/a Eversource Energy to install one (1) new 8-inch diameter High-Density Polyethylene (HDPE) Geothermal Ambient Loop Pipe, one (1) ancillary 8-inch diameter (HDPE) loop pipe and associated valves, fixtures, and appurtenances to be owned and used by your petitioner, along and across the following public ways: Normandy Road, Berkshire Road, Prindiville Avenue, Hampshire Road, Lindbergh Road, and Concord Street in support of new geothermal ambient loop pipe.

We have reviewed this Grant of Location request submitted to the City Council and recommend approval subject to the following conditions:

1. The applicant (or applicant's designee) shall be registered as a utility within the Dig-Safe system and will be responsible to comply with all applicable laws and regulations pertaining to utility location and marking, including MGL c.82, sec.40 and 220 CMR 99. The applicant (or applicant's designee) shall fulfill the definition of "Company" as set forth in the aforementioned law and regulations.
2. The Geothermal pipe shall be colored black and labeled appropriately as Geothermal piping on four sides evenly spaced around and throughout the length of the pipe.
3. The proposed 8-inch HDPE pipe shall be installed a minimum three feet away from City utilities.
4. The DPW requests notification prior to the start of work to verify final location in the field.

5. Pavement restoration: all trenches shall be appropriately backfilled and compacted with minimum 4-inches of binder (6-inches on Concord Street) or match existing pavement thickness if greater. The trenches shall settle minimum 120-days or a winter season. After the settlement period, the trenches shall be restored as follows:
- a. Berkshire Road, Prindiville Avenue, Hampshire Road, and Lindbergh Road: shall be milled and paved the trench width plus minimum 2-feet past the trench boundaries.
 - b. For the section of Concord Street in the vicinity of the intersection of Hartford Street, the restoration will be determined at the time of the Street Opening Permit and may include full-width restoration depending on the coordination with the planned intersection improvements.
 - c. The remaining length of Concord Street shall be milled for the entire width of the vehicular travel lane in which the trench is located.
 - d. Normandy Road: the restoration will include full-width milling and paving for the section between Arsenal Road and the project limits. For the section between Arsenal Road and Concord Street, the restoration shall include trench mill and pave to the edge of the road provided that the pipe is installed at the location included in the plans. If the pipe is moved significantly, the restoration may include full-width mill and pave.
 - e. Rose Kennedy Lane: Eversource Gas shall accelerate their planned gas pipe replacement scheduled for next year and conduct that work this year. Eversource shall then mill and pave the entire width of the roadway to account for the impact for both utilities. For the cul-de-sac where the Geothermal well field will be located, Eversource shall coordinate with the City for a comprehensive reconstruction of this area.
6. All work shall conform to the City of Framingham construction standards.

Please contact me at (508) 532-6010 if you have any questions.

Yours very truly,



Eric V. Johnson, P.E.
City Engineer

cc: W. Sedewitz, Chief Engineer
R. Lewis, DPW Director
S. Luz, Sustainability Coordinator

K. Ronconi, DPW Highway and Sanitation
T. Nguyen, DPW Project Manager



247 Station Drive
Westwood, Massachusetts 02090

March 13, 2023

City of Framingham, City Council
Memorial Building
150 Concord Street
Framingham, MA 01704

RE: **Berkshire Road** – Grant of Location (GOL) Petition
Eversource Networked Geothermal Pilot – City of Framingham, MA (“City”)
F.W.O.# NTGT0N2Y

Hearing Required

Dear Members of the City Council:

The enclosed petition and plan are being presented by NSTAR GAS COMPANY d/b/a EVERSOURCE ENERGY for the purpose of obtaining a Grant of Location (GOL) to install one (1) new 8” diameter High-Density Polyethylene (HDPE) Geothermal Ambient Loop Pipe, two (2) 2” & five (5) 1 ½” service connections, and associated valves, fixtures, and appurtenances necessary or useful in connection therewith, pursuant to provisions of Massachusetts General Laws and City policy.

This work is necessary for installation and operation of a networked geothermal system providing clean and sustainable heating and cooling for customers within the City, and to demonstrate the effectiveness and benefits of operating a networked geothermal energy distribution system, a portion of which will be installed at **Berkshire Road**.

If you have any further questions, please contact James Blais at (781) 441-8732 or Eric Bosworth at (508) 836-7278.

Your prompt attention to this matter would be greatly appreciated.

Very truly yours,

Patricia A. Quinn

Patricia A. Quinn
Supervisor, T&D Rights and Survey

PAQ
enclosures
Attachments

PETITION OF NSTAR GAS COMPANY, dba EVERSOURCE ENERGY FOR
GEOTHERMAL ENERGY LOOP

March 13, 2023

To City Council of the City of Framingham, Massachusetts:

Respectfully represent **NSTAR GAS COMPANY, dba Eversource Energy, a Massachusetts** corporation having a place of business at 247 Station Drive, Westwood, MA 02090, its successors and assigns, or any licensee from it (hereinafter the "Petitioner"), subject to Massachusetts General Laws (Ter.Ed.), that they desire to locate, construct and maintain one (1) new 8" diameter High-Density Polyethylene (HDPE) Geothermal Ambient Loop Pipe, two (2) 2" service connections, five (5) 1 1/2" service connections, and appurtenances necessary or useful in connection therewith along and across the public way or ways hereinafter specified.

WHEREFORE, your Petitioner prays that after due notice and hearing as provided by law the **City Council** may by Order grant your Petitioner joint or identical locations for and permission for erection, construction, operation and maintenance of one (1) new 8" diameter HDPE Geothermal Ambient Loop Pipe, two (2) 2" & five (5) 1 1/2" service connections, to be owned and used by Petitioner, and for such other valves, fixtures and appurtenances as may be necessary or useful in connection therewith to sustain said geothermal network loop to be located, substantially as shown on the plans entitled "EVERSOURCE NETWORKED GEOTHERMAL DEMONSTRATION PILOT PROJECT, GEOTHERMAL LOOP PIPING PLANS VI & VII BERKSHIRE ROAD AND ROSE KENNEDY LANE", SHEET NO. C-11 , prepared by **CDM Smith, dated February 23, 2023**, and filed herewith, upon along and across the following public way or ways of said town:

Berkshire Road – Extending northerly from Prindiville Avenue along East side for a distance of approximately 460± feet

Plan Ref. PROJECT NO. 253460-273904 (Issued For Construction),
FILE NAME: C011STPL, C-11 Dated: 2/23/2023

Install one (1) 8" diameter HDPE Geothermal Ambient Loop Pipe, two (2) 2" service connections, five (5) 1 1/2" service connections, and all associated valves, fixtures, and appurtenances necessary or useful in connection therewith

Hearing Required

Also, for permission to excavate, lay and maintain underground laterals, pipes, cables, and wires in the above or intersecting public ways for the purpose of making connections with such associated, pipe, borefield, equipment, facilities and adjacent buildings as Petitioner may desire. Your Petitioner agrees to reserve space for sidewalks and passageway belonging to the municipality and used exclusively for municipal purposes.

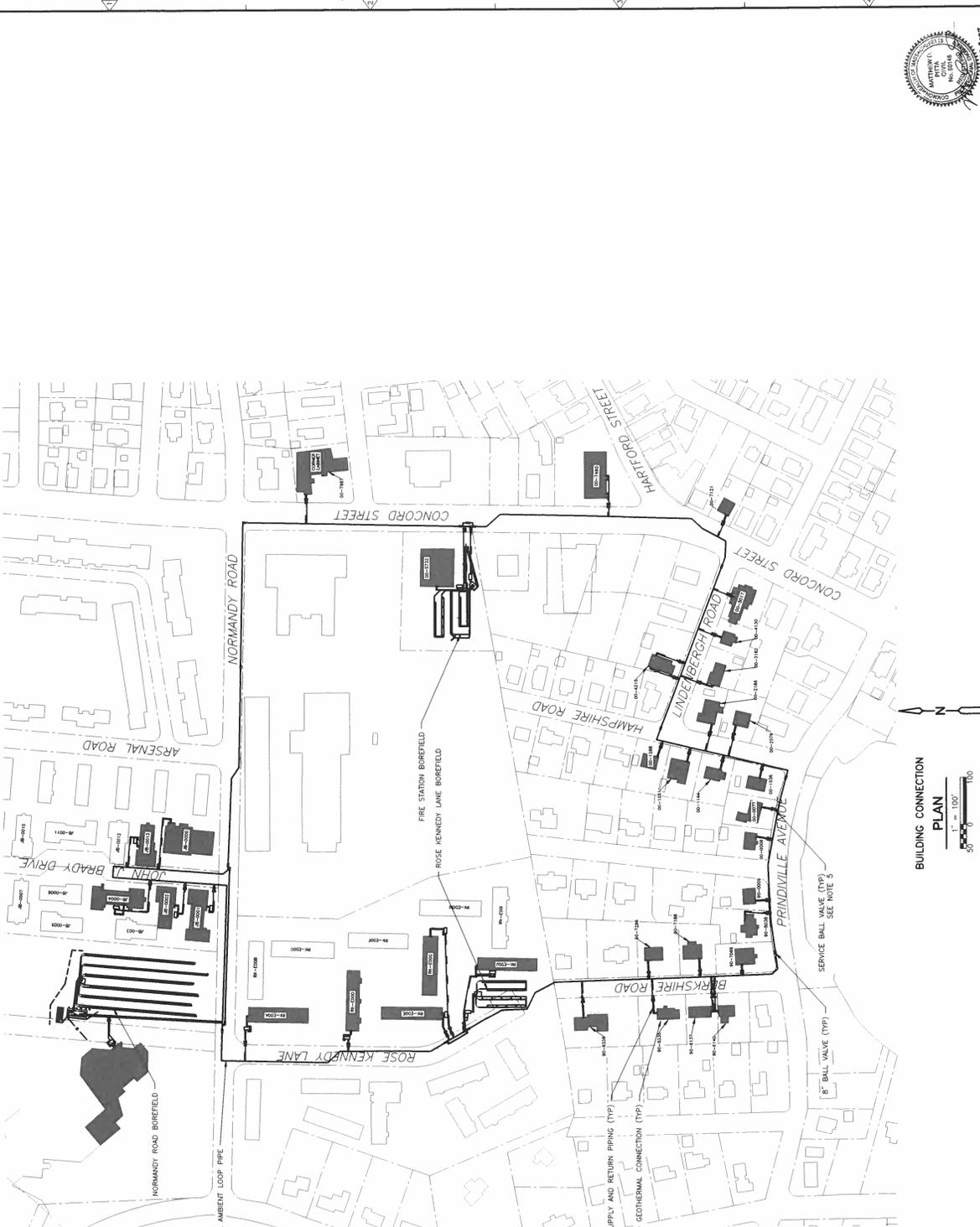
NSTAR GAS COMPANY, dba EVERSOURCE ENERGY

By: *Patricia A. Quinn*

Patricia A. Quinn
Supervisor, T&D Rights and Survey

Dated this _____ day of _____ 2023

City of FRAMINGHAM, Massachusetts
Received and filed _____ 2023



PROJECT NO. 25144-15-000
 FILE NAME: C06S2FL
 SHEET NO. C-6
 ISSUED FOR CONSTRUCTION

BUILDING CONNECTION PLAN

**EVERSOURCE
 NETWORKED GEOTHERMAL DEMONSTRATION
 PILOT PROJECT**

**CDM
 Smith**
 25 STATE STREET, SUITE 200
 BOSTON, MASSACHUSETTS 02108
 TEL: (617) 762-0000

NO.	DATE	DRWN	CHKD	REMARKS

- GENERAL NOTES**
- ALL PROPOSED GEOTHERMAL PIPE ALIGNMENT SHOWN IS APPROXIMATE OF FINAL ALIGNMENT BASED ON FIELD CONDITIONS. COORDINATE WITH INSTALLATION FOR OWNER, CITY OR PROPERTY APPROVAL PRIOR TO INSTALLATION.
 - CONTRACTOR SHALL MINIMIZE IMPACTS TO EXISTING FEATURES TO THE EXTENT POSSIBLE AND RESTORE TO ORIGINAL OR BETTER CONDITION. EXISTING UTILITIES SHALL BE IDENTIFIED AND PROTECTED AS SPECIFIED.
 - DURING AMBIENT LOOP INSTALLATION LIMIT THE AMOUNT OF DISTURBANCE WITHIN THE RIGHT-OF-WAY AND OPEN EXCAVATION TO NEAREST ADJACENT PROPERTY AS SPECIFIED.
 - TEMPORARY CONSTRUCTION FENCE TO BE INSTALLED BY CONTRACTOR TO LIMIT WORK ZONES TO ACTIVE CONSTRUCTION AREAS AS TO NOT SHALL IMPACT RESIDENTS ACCESS AND PARKING AS WORK PROGRESSES.
 - SERVICE LINE BALL VALVES SHALL BE SAME SIZE AS SERVICE LINE. SEE NOTE 5.
 - LET'S SUMP PUMP DISCHARGE PIPING TO BE FIELD ROUTED TO NEAREST SEWER.



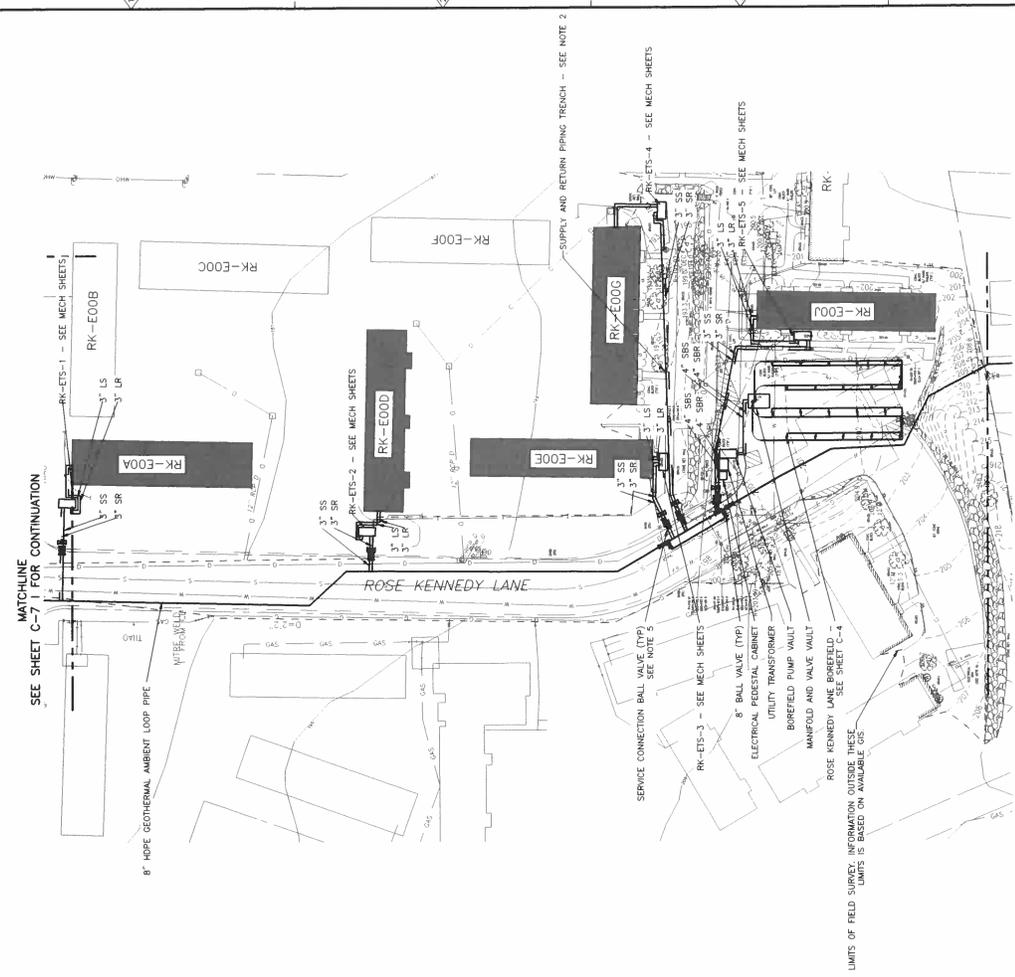
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GENERAL NOTES

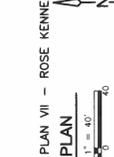
1. ALL PROPOSED GEOTHERMAL PIPE ALIGNMENT SHOWN IS APPROXIMATE OF FINAL ALIGNMENT BASED ON FIELD CONDITIONS. COORDINATE WITH ENGINEER AND/OR OWNER, CITY OR PROPERTY APPROVAL PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL MINIMIZE IMPACTS TO EXISTING FEATURES TO THE EXTENT POSSIBLE. ANY SURFACE AREA AND DAMAGES TO EXISTING FEATURES SHALL BE REPAIRED TO ORIGINAL CONDITION.
3. DURING AMBIENT LOOP INSTALLATION LIMIT THE AMOUNT OF DISTURBANCE WITHIN THE RIGHT-OF-WAY AND OPEN EXCAVATION TO MINIMUM. PROVIDE TRAFFIC AND PEDESTRIAN MANAGEMENT AS SPECIFIED.
4. TEMPORARY CONSTRUCTION FENCE TO BE INSTALLED BY CONTRACTOR AROUND WORK AREAS TO MAINTAIN CONSTRUCTION AREAS TO NOT IMPACT RESIDENTS ACCESS AND PARKING AS WORK PROGRESSES.
5. SERVICE LINE BALL VALVES SHALL BE SAME SIZE AS SERVICE LINE. SEE NOTE G-2 FOR SIZES AND SHEET G-3 FOR GENERAL LAYOUT.
6. STORM PUMP DISCHARGE PIPING TO BE FIELD ROUTED TO NEAREST STORM



GEOTHERMAL LOOP PIPING PLAN VI - BERKSHIRE ROAD



GEOTHERMAL LOOP PIPING PLAN VII - ROSE KENNEDY LANE



CDM Smith
 2400 Massachusetts Ave., Suite 100
 Cambridge, MA 02142
 Tel: 617-552-3000
 Fax: 617-552-3001

REV.	DATE	DRWN	CHKD	REMARKS

DESIGNED BY: C. PETERSON
 DRAWN BY: C. PETERSON
 CHECKED BY: M. J. PETERSON
 PROJECT NO.: 25-1462-17000
 SHEET NO.: C-11
 DATE: FEBRUARY, 2023

EVERSOURCE
 NETWORKED GEOTHERMAL DEMONSTRATION
 PILOT PROJECT

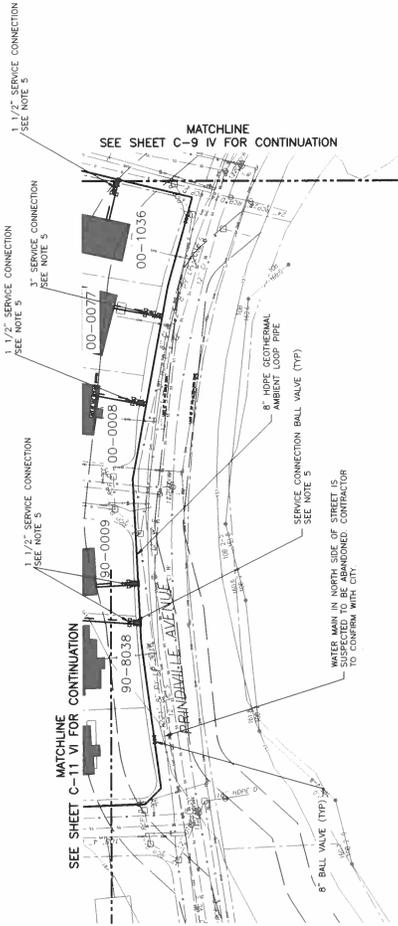
GEOTHERMAL LOOP PIPING PLANS VI & VII
 BERKSHIRE ROAD AND ROSE KENNEDY LANE

PROJECT NO.: 25-1462-17000
 FILE NAME: C011SFL
 SHEET NO.: C-11

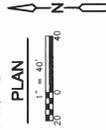
ISSUED FOR CONSTRUCTION

GENERAL NOTES

1. ALL PROPOSED GEOTHERMAL PIPE ALIGNMENT SHOWN IS APPROXIMATE ONLY. CONTRACTOR IS RESPONSIBLE FOR REVIEW AND DETERMINATION OF FINAL ALIGNMENT BASED ON FIELD CONDITIONS. COORDINATE WITH INSTALLATION OF OWNER, CITY OR PROPERTY APPROVAL PRIOR TO INSTALLATION.
2. CONTRACTOR SHALL MINIMIZE IMPACTS TO EXISTING FEATURES TO THE MAXIMUM EXTENT POSSIBLE. EXISTING UTILITIES SHALL BE RESTORED TO ORIGINAL CONDITION OR BETTER. DURING AMBIENT LOOP INSTALLATION LIMIT THE AMOUNT OF DIRT AND DEBRIS TO BE REMOVED FROM THE WORK AREA. PROVIDE TRAFFIC AND PEDESTRIAN MANAGEMENT AS SPECIFIED.
3. TEMPORARY CONSTRUCTION FENCE TO BE INSTALLED BY CONTRACTOR TO BE MAINTAINED THROUGHOUT CONSTRUCTION. FENCE SHALL NOT LIMIT WORK ZONES TO ACTIVE CONSTRUCTION AREAS AS TO NOT IMPACT RESIDENTS ACCESS AND PARKING AS WORK PROGRESSES.
4. SERVICE LINE BALL VALVES SHALL BE SAME SIZE AS SERVICE LINE. SEE NOTE 2 FOR SIZES AND SHEET C-3 FOR GENERAL LAYOUT.



GEOTHERMAL LOOP PIPING PLAN V - PRINDVILLE AVENUE



PROJECT NO. 253460-33924
 FILE NAME: C010STPL

SHEET NO. C-10

ISSUED FOR CONSTRUCTION

GEOTHERMAL LOOP PIPING PLAN V
 PRINDVILLE AVENUE

EVERSOURCE
 NETWORKED GEOTHERMAL DEMONSTRATION
 PILOT PROJECT



DESIGNED BY: C. PETERSON
 DRAWN BY: C. PETERSON
 CHECKED BY: D. FLAHERTY
 APPROVED BY: M. PITTA
 DATE: FEBRUARY, 2023

REV	DATE	UPN	CHD	REMARKS