



TOWN OF ANDOVER

Town Clerk's Office

36 Bartlet Street
Andover, MA 01810
978-623-8230
townclerk@andoverma.gov

NOTICE

You are hereby notified that a Public Hearing will be held by the Andover Select Board on October, 16, 2023 in the School Committee Conference Room, 30 Whittier Court, at 7 PM.

This hearing is on the petition of Eversource Gas of Massachusetts requesting permission to excavate for the purpose of extending its gas lines, according to blueprints hereto annexed and made a part of this petition, and to make the necessary connections as follows:

#23GMSYSACT - This project is to install 6 telemetry cabinets and associated service lines in Andover for the purpose of remote pressure monitoring per the DPU Safety Enhancement Assessment. These locations are:

**78 River Street
109 Gould Road
464 River Road**

**Bellevue @ Barron
Elm @ Farnsworth
Upland @ Summer**

Plan(s) of the proposed work can be found in the Meeting Packet on the Select Board's page on the Town of Andover website, www.andoverma.gov.

Representatives from the utility company will present their petition during the meeting and will also be available before the meeting at 6:45 P.M. on the above date to answer questions you may have relating to the proposed work.

By order of the
Select Board

Austin Simko
Assistant Town Manager/Town Clerk

Plan No.: #23GMSYSACT
Date: October 4, 2023



RECEIVED
TOWN CLERK'S OFFICE

2023 SEP 29 PM 12: 23 2023 SEP 29 PM 12: 23

TOWN OF ANDOVER, MASS

Date: 9/29/2023

Selectboard Members
Andover, Massachusetts

Selectboard:

Eversource Gas of Massachusetts respectfully asks permission to excavate for the purpose of extending its gas lines, according to blueprints hereto annexed and made a part of this petition, and to make the necessary connections as follows:

This project is to install 6 telemetry cabinets and associated service lines in Andover for the purpose of remote pressure monitoring per the DPU Safety Enhancement Assessment. These locations are:

- 78 River Street
- 109 Gould Road
- 464 River Road
- Bellevue @ Barron
- Elm @ Farnsworth
- Upland and Summer

Project ID: 23GMSYSACT

Please see attached plans detailing the location of the proposed gas main.

Eversource Gas of Massachusetts agrees to provide and maintain proper warnings and traffic management. Excavation and refilling will be done promptly, and to the satisfaction of the Highway Department. The restoration of sidewalk and/street surfaces will be done to the satisfaction of the Highway Department. Eversource Gas of Massachusetts will guarantee refilling and resurfacing for one year from completion of the work.

Eversource Gas of Massachusetts agrees to hold the Town of Andover harmless from claims of any nature by persons alleging to have been injured, in their persons or in their property, as a result of the excavation. Eversource Gas of Massachusetts agrees to defend against all such claims, whether groundless or not.

Louie DeRoxas
Project Engineer
Eversource Gas of Massachusetts

Permission is hereby granted Eversource Gas of Massachusetts to excavate and to install and maintain gas service pipe as requested above.

_____ Approved by Selectboard - Date: _____

_____ Issued by Director of Public Works - Date: _____



**Town of Andover
BOARD OF SELECTMEN**

License and Permit Application Public Hearing Questionnaire

Please be willing and able to address these questions before the Board of Selectmen during your hearing.

Construction, Excavation & Installation Projects

Name	Louie DeRoxas		
Address	55 Marston St, Lawrence		
Title	Senior Project Engineer		
Company	Eversource Gas of Massachusetts		
Overview of this project, its purpose, and a brief scope of work.	This project is to install gas telemetry cabinets and associated service lines at 6 locations in Andover for the purpose of remote pressure monitoring per the DPU Safety Enhancement Assessment. All locations on Town Right of Way.		
What time of day will this work take place?	Daylight hours		
Have you notified abutters that may be impacted by this project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Have you provided a contact number for the project manager?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Will the project create traffic detours or prohibit access to roadways or driveways?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Will the project involve work on private property or town right of way that is adjacent to or near private property?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Please provide any additional information that may be useful to the Board.	Project Manager: Louie DeRoxas Email: louie.deroxas@eversource.com Cell: 978-701-3625 55 Marston Street, Lawrence, MA 01841		

TOWN OF ANDOVER, MASSACHUSETTS



ANDOVER TOWN CLERK
RCUD 2023 AUG 25 AM 10:00

PRIVATE UTILITY PETITION CHECKLIST

TO BE FILLED OUT BY PETITIONER

COMPANY: Eversource Gas of Massachusetts	#23GMSYSACT
PROJECT MANAGER NAME: Louie DeRoxas	
PROJECT MANAGER CONTACT NUMBER: 978-701-3625	
DESCRIPTION OF PROPOSED WORK: Installation of gas telemeter cabinets at various locations to remotely monitor pressures in various Andover gas systems. Part of the DPU's Gas Safety Enhancement Plan.	
LIST OF IMPACTED ADDRESSES HAS BEEN ATTACHED (<input checked="" type="radio"/> YES / NO):	
SITE PLAN SHOWING PROPOSED WORK HAS BEEN ATTACHED (<input checked="" type="radio"/> YES / NO):	
PLAN AND DETAILS PREPARED BY P.E. REGISTERED IN MA (<input checked="" type="radio"/> YES / NO):	
PETITIONER IS REQUIRED TO ATTACH PICTURES SHOWING AREA OF PROPOSAL	
PICTURES HAVE BEEN ATTACHED (<input checked="" type="radio"/> YES / NO):	

TO BE FILLED OUT BY TOWN OF ANDOVER STAFF

<u>DPW</u>
SUPPORT PROJECT (<input checked="" type="radio"/> YES / NO) SIGNATURE: <u>[Signature]</u>
TITLE: <u>Town Engineer</u>
COMMENTS:
<u>POLICE DEPARTMENT</u>
SUPPORT PROJECT (YES / NO) SIGNATURE: _____
TITLE: _____
COMMENTS:
<u>FIRE DEPARTMENT</u>
SUPPORT PROJECT (YES / NO) SIGNATURE: _____
TITLE: _____
COMMENTS:

TOWN OF ANDOVER, MASSACHUSETTS



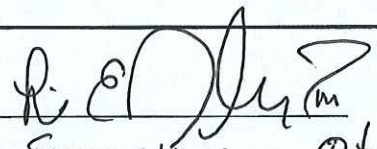
ANDOVER TOWN CLERK
RCUD 2023 AUG 25 AM 10:11

PRIVATE UTILITY PETITION CHECKLIST

TO BE FILLED OUT BY PETITIONER

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PLAN AND DETAILS PREPARED BY P.E. REGISTERED IN MA (<input checked="" type="radio"/> YES / NO):	
PETITIONER IS REQUIRED TO ATTACH PICTURES SHOWING AREA OF PROPOSAL	
PICTURES HAVE BEEN ATTACHED (<input checked="" type="radio"/> YES / NO):	

TO BE FILLED OUT BY TOWN OF ANDOVER STAFF

<u>DPW</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____
<u>POLICE DEPARTMENT</u>	
SUPPORT PROJECT (<input checked="" type="radio"/> YES / NO)	SIGNATURE: 
COMMENTS:	TITLE: Executive Officer
<u>FIRE DEPARTMENT</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____

TOWN OF ANDOVER, MASSACHUSETTS



ANDOVER TOWN CLERK
RCUD 2023 AUG 25 AM 10

PRIVATE UTILITY PETITION CHECKLIST

TO BE FILLED OUT BY PETITIONER

COMPANY: Eversource Gas of Massachusetts	# 23GMSYSACT
PROJECT MANAGER NAME: Louie DeRoxas	
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PLAN AND DETAILS PREPARED BY P.E. REGISTERED IN MA (<input checked="" type="radio"/> YES / NO):	
PETITIONER IS REQUIRED TO ATTACH PICTURES SHOWING AREA OF PROPOSAL.	
PICTURES HAVE BEEN ATTACHED (<input checked="" type="radio"/> YES / NO):	

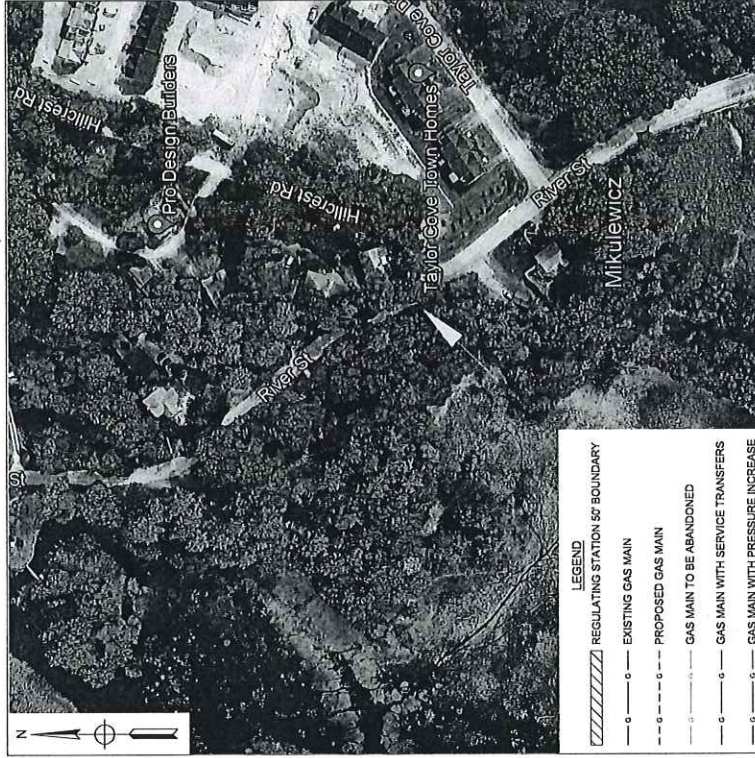
TO BE FILLED OUT BY TOWN OF ANDOVER STAFF

<u>DPW</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____
<u>POLICE DEPARTMENT</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____
<u>FIRE DEPARTMENT</u>	
SUPPORT PROJECT (<input checked="" type="radio"/> YES / NO)	SIGNATURE: <u>MB Mansfield</u>
COMMENTS:	TITLE: <u>Fire Chief</u>

TABLE OF CONTENTS

SHEET #	TITLE
1 OF 6	COVER SHEET
2 OF 6	NOTES & DETAILS
3 OF 6	LEGEND
4 OF 6	PROJECT LOCATION PLAN
5 OF 6	STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP
6 OF 6	STANDARD NATIONAL GRID ELECTRICAL SERVICE

EVERSOURCE ENERGY



WORK SCOPE

PASTE EXCEL FOOTAGE TABLE HERE

CHIENGINEERING An IWS Company



CONSTRUCTION

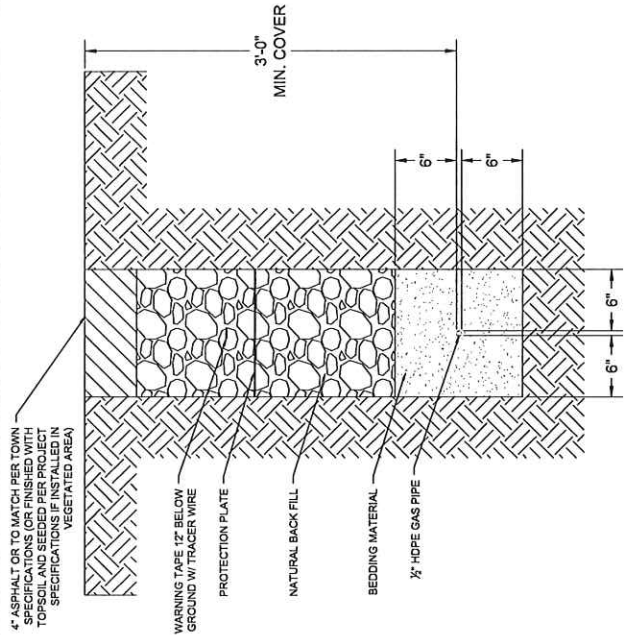
FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

No.	CONSTRUCTION	Description	Date	DW/CCK
EVERSOURCE ENERGY PROJECT # Z3GMSYSACT COVER SHEET				
SCALE: NONE SHEET 01 OF 06				
FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION				
CHL 5/02/2023	Created By / Date	XXX / XXX/XXXXXX	MA-LAW-TM-23-553-01	A

78 RIVER ST, ANDOVER, MA
PROJECT #Z3GMSYSACT

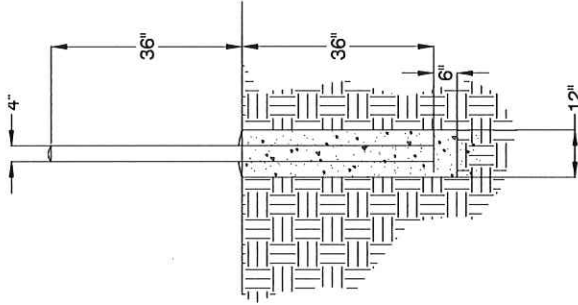
GENERAL NOTES:

- A. IF ANY OF THE FOLLOWING OCCUR A DRAWING REVISION IS REQUIRED AND MUST BE APPROVED AND/OR STAMPED BY THE ENGINEER OF RECORD. CHANGES CAN BE APPROVED AND/OR STAMPED BY A PROJECT ENGINEER, BUT THE ENGINEER OF RECORD MUST BE INFORMED.
 - 1. IF THE TIE IN POINT MOVES TO A DIFFERENT SEGMENT OF PIPE THAN SHOWN.
 - 2. IF A CHANGE IN THE LOCATION OF VALVES IS REQUIRED.
 - 3. IF THERE IS ANY CHANGE TO WHAT IS SHOWN ON THE DRAWING WITHIN 50 FT OF A PRESSURE REGULATING STATION, DISTRICT REGULATOR, OR GATE STATION.
 - 4. IF A CHANGE IN PIPE SIZE, MATERIAL, OR WALL THICKNESS IS REQUIRED.
 - 5. ALTERNATE FITTINGS THAT ARE ACCEPTABLE FOR ANY TIE-IN DETAIL WILL BE CALLED OUT IN THE DRAWING. FITTING CHANGES NOT SHOWN AS ALTERNATIVES ON THE DRAWING WILL NEED TO FOLLOW THE DRAWING CHANGE PROCESS.
- B. CONSTRUCTION DRAWINGS, LOCATIONS OF EXISTING UTILITIES, UNDERGROUND STRUCTURES AND WORK LOCATIONS ARE BASED ON BEST AVAILABLE INFORMATION BUT HAVE NOT BEEN FIELD VERIFIED.
- C. ALL WORK, MATERIAL AND CONSTRUCTION SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL PERMITS AND APPROVALS PER EVERSOURCE, LOCAL, STATE, OSHA AND FEDERAL REGULATIONS AND STANDARDS.
- D. ALL LIVE GAS WORK EXCEPT SERVICE SIZE TAPS, INCLUDING BUT NOT LIMITED TO TAPPING OR FITTINGS ON LIVE MAINS, STOPPING, MANIPULATING VALVE, ABANDONMENT, SHALL BE PERFORMED BY, OR AT THE DIRECTION, AND UNDER THE DIRECT SUPERVISION OF EVERSOURCE GAS PERSONNEL AND IN ACCORDANCE WITH THE WRITTEN PROCEDURE. DRAWING CHANGES MAY ALSO REQUIRE A CHANGE TO THE PROCEDURE.
- E. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPES FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISTURB OR DAMAGE SUCH ITEMS. ROADWAY, SIDEWALKS, AND GRASS DISTURBED SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OR TOWN. PLANT BEDS WILL BE RELOCATED TO THEIR EXISTING REGULAR LOCATION.
- F. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), INCLUDING ALL REVISIONS AND ADDENDA. ALL TRAFFIC CONTROL DEVICES WILL BE SUPPLIED BY EXCAVATOR.
- G. EXISTING CONDITIONS SHOWN ARE BASED ON A SURVEY BY CH ENGINEERING. EXISTING UTILITIES WERE COMPILED FROM EXISTING CONDITIONS IN THE FIELD AS WELL AS RECORD DRAWINGS OBTAINED FROM LOCAL UTILITIES.
- H. LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND IS NOT WARRANTED TO BE CORRECT.
- I. CONTRACTOR MUST NOTIFY DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- J. NEW PIPING SHALL BE PRESSURE TESTED AT 1.5 TIMES MAOP FOR A MINIMUM OF 1 HOUR. 150 PSIG IS THE MINIMUM TEST PRESSURE.
- K. ALL FIELD COATING SHALL BE PERFORMED PER EVERSOURCE SPECIFICATIONS.



TYPICAL GAS TRENCH

NOT TO SCALE
PROPOSED UTILITIES SHALL MAINTAIN MINIMUM 12" SEPARATION FROM EXISTING UTILITIES)



BOLLARD DETAIL

NOT TO SCALE
DOME TOP WITH CONCRETE
STANDARD STEEL PIPE FILLED WITH CONCRETE
CONCRETE BASE SLOPED AWAY FROM PIPE AT BASE



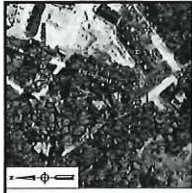
P. J. ST
06/17/2023

CH ENGINEERING
An IIVS Company

CONSTRUCTION

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

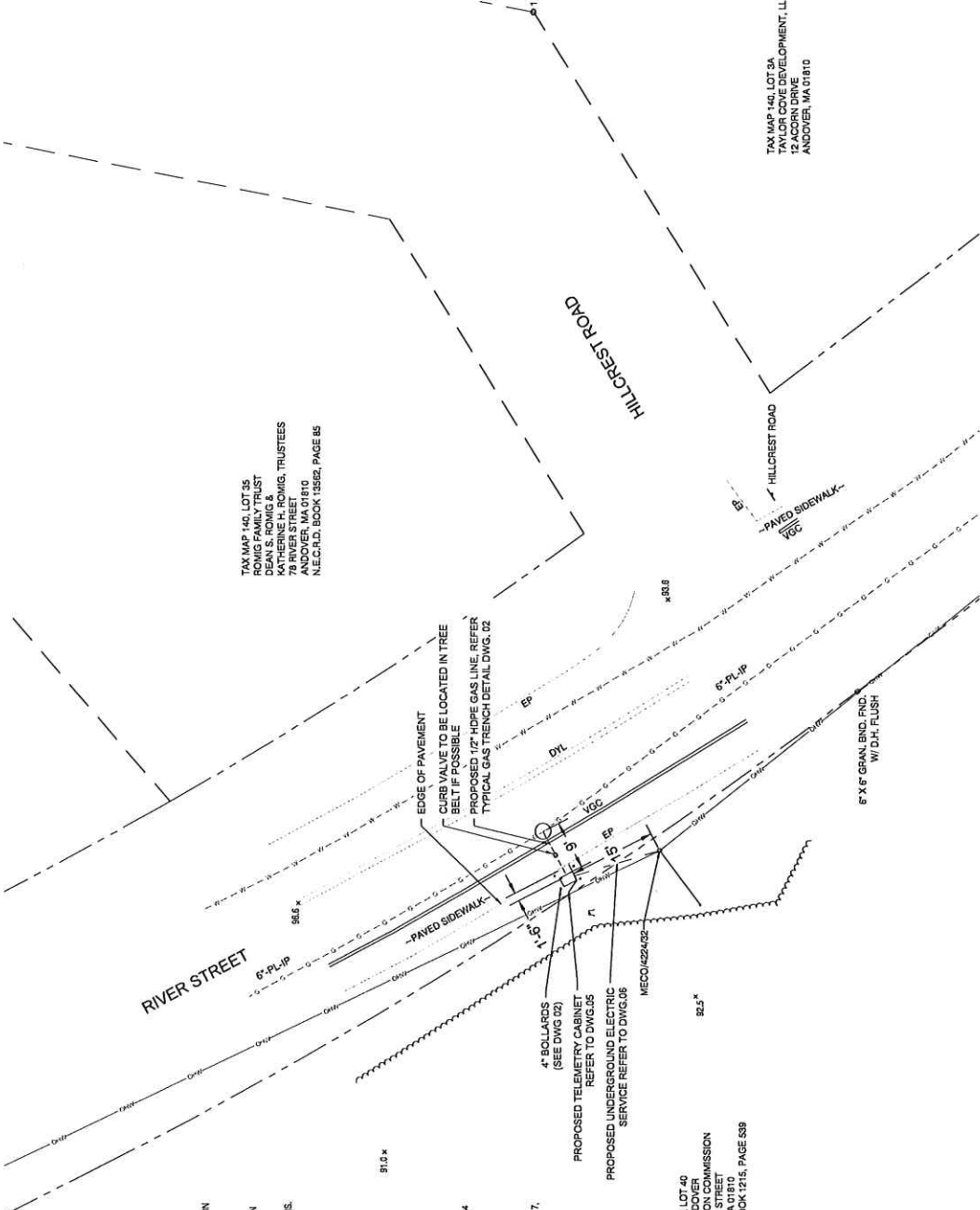
No.	Description	Date	Dw/Ck
A	CONSTRUCTION		
78 RIVER ST., ANDOVER, MA			
PROJECT # 23GMSYSACT			
NOTES & DETAILS			
SCALE NONE			
Drawn By / Date	Checked By / Date	SHEET 02 OF 05	
CHL 5/30/2023	XXX XXXXX/XXXX	Drawing Number	
	MA-TLM-LAW-23-553-02	Rev. No.	
		A	



KEY MAP
SCALE: N.T.S.

TAX MAP 140, LOT 35
TAYLOR COVE DEVELOPMENT, LLC
DEAN S. ROWIG, TRUST
KATHERINE H. ROWIG, TRUSTEES
78 RIVER STREET
ANDOVER, MA 01810
N.E.C.R.D. BOOK 13862, PAGE 85

TAX MAP 140, LOT 3A
TAYLOR COVE DEVELOPMENT, LLC
78 RIVER STREET
ANDOVER, MA 01810



- NOTES FOR RIVER STREET, ANDOVER, MASSACHUSETTS:
- FIELD SURVEY PERFORMED BY D.L.B. & D.W.D. (COLLECT SURVEY DURING MARCH 2023) USING A TRIMBLE S7 TOTAL STATION AND A TRIMBLE R10 SURVEY GRADE GPS WITH A TRIMBLE SCS3 DATA COLLECTOR AND AN AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
 - UNDERGROUND UTILITIES PLOTTED ON THE DRAWING ARE BASED SURVEY LOCATED MEASUREMENTS. RECORD GIS INFORMATION RECEIVED FROM THE CITY OF ANDOVER ON MARCH 10, 2023.
 - UNDERGROUND GAS IS BASED ON RECORD INFORMATION PROVIDED BY EVERSOURCE GAS.

- REFERENCE PLANS:
- "PLAN OF LOTS ON RIVER STREET, ANDOVER, MASS., SUGGINS PART OF NATIONAL HARWOOD LAND" DATED SEPTEMBER 1988 BY JOHN FRANKLIN, N.E.C.R.D. PLAN 896.
 - "PLAN OF RIVER STREET, ANDOVER, MASS., AS Laid OUT BY THE BOARD OF SELECTMEN TOWN OF ANDOVER, MASSACHUSETTS" DATED JANUARY, 1970 BY HARRY R. FELDMAN, N.E.C.R.D. PLAN 6172.
 - "PLAN OF LAND IN ANDOVER" DATED NOVEMBER 8, 1979 BY ROBERT G. GOODWIN, N.E.C.R.D. LAND COURT PLAN 4039A.
 - "PLAN OF LAND IN ANDOVER, MASS., PREPARED FOR SANDRA KEBLEY" DATED JULY 11, 1984 BY ANDOVER CONSULTANTS INC. N.E.C.R.D. PLAN 6322.
 - "GENERAL CONDOMINIUM SITE PLAN 'TAYLOR COVE CONDOMINIUM' ANDOVER, MASS." DATED OCTOBER 15, 2014 BY ANDOVER CONSULTANTS INC. N.E.C.R.D. PLAN 17197.
 - "CONDOMINIUM SITE PLAN 'TAYLOR COVE CONDOMINIUM' ANDOVER, MASS." DATED MAY 7, 2020 BY ANDOVER CONSULTANTS INC. N.E.C.R.D. PLAN 1857.

TAX MAP 140, LOT 40
TOWN OF ANDOVER
CONSERVATION COMMISSION
78 RIVER STREET
ANDOVER, MA 01810
N.E.C.R.D. BOOK 12115, PAGE 539

GHENGINEERING An IVIS Company



CONSTRUCTION

78 RIVER ST., ANDOVER, MA	
PROJECT # 23GMSYSACT	
PROJECT LOCATION PLAN	
SCALE: 1"=10' ON 22'X34"	SHEET 04 OF 08
Drawn by / Date	Checked by / Date
XXX XXXXX/XXXX	XXX XXXXX/XXXX
CHL 5/30/2023	MA-LAW-TJ-M-23-543-04
	Rev. No.
	A

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

No.	Description	Date	Dwg/Ck
A	CONSTRUCTION		

DETAIL A: TAPS FOR CAST IRON MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY	PART NO.	QUANTITY
14	FITTING, TEE, THREADED BRASS BASE SERVICE, 1-1/4 IN NPT X 1 CTS X 0.690 IN WALL, POLYETHYLENE BODY, PE4710	554022	15	560810	
14.1	FITTING, REDUCER, COUPLING, LYCOFIT, 1 IN CTS X 0.690 IN X 1/2 IN CTS X 0.690 IN THK WALL, HOPE, CMA, 21658092	601132	1	610765	

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	CLAMP PIPE, SERVICE, 3 IN DIA, 9 IN LG, W/ 1-1/4 IN ID OUTLET, FOR CAST IRON PIPE, FITTING, ID 11833	578017	
14	CLAMP PIPE, REPAIR, 4 IN CIP, SS, W/ 1/4 NPT TAP, FOR 4.74 - 5.14 IN PIPE	542884	
14	CLAMP PIPE, REPAIR, 6 IN CIP, SS, W/ 1/4 NPT TAP, FOR 6.84 - 7.24 IN PIPE	542882	
14	CLAMP PIPE, REPAIR, 8 IN CIP, SS, W/ 1/2 IN TAP, ALTERNATE IN 578014 (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578014	
14	NUTS & BOLTS, BUNA-N GASKET (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578016	

DETAIL B: TAPS FOR STEEL MAINS

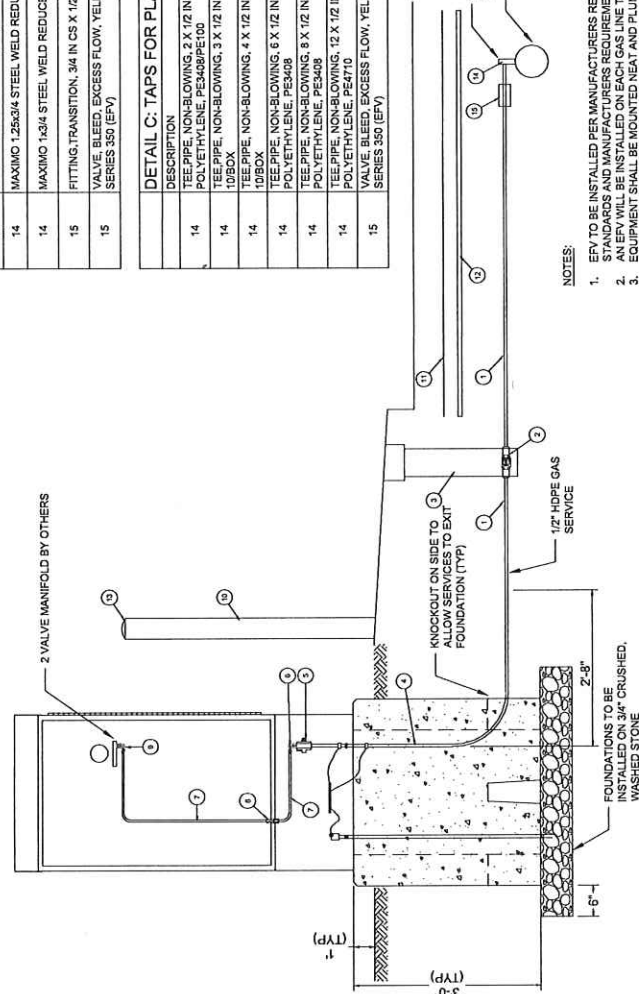
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14/15	3/4" X 1/2" UMAC 40556 SELF TAP WELD TEE, PPS X CTS & 5/8" OD COMPRESSION ADAPTER OUTLET WITH SER400 EFV	N/A	
OR			
14	TEE PIPE, NON-BLOWING, 1-1/4 IN TEE OUTLET X 1-1/4 IN MAIN, WELDED, 250 PSIG, W/ CI CAP, CMA, 44786004	610658	
14	TEE PIPE, NON-BLOWING, 1 IN, WELDED ENDS, LIGHT WALL, FORGED STEEL BODY, W/ CI CAP	50712	
14	MAXIMO 1.25X3/4 STEEL WELD REDUCER	577887	
14	MAXIMO 1X3/4 STEEL WELD REDUCER	566175	
15	FITTING, TRANSITION, 3/4 IN CS X 1/2 IN THK WALL, PE4710 SDR 7, STEEL WELD X PLASTIC BUTT END	546267	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFV)	592085	

DETAIL C: TAPS FOR PLASTIC MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	TEE PIPE, NON-BLOWING, 2 X 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408/PE100	500866	
14	TEE PIPE, NON-BLOWING, 3 X 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 1008X	578017	
14	TEE PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 1008X	500867	
14	TEE PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, ELECTROFUSION X COMPRESSION ENDS.	500869	1
14	TEE PIPE, NON-BLOWING, 8 X 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, ELECTROFUSION X COMPRESSION ENDS.	578014	
14	TEE PIPE, NON-BLOWING, 12 X 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE4710	560847	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFV)	592085	

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	PIPE, 1/2 IN CTS X 0.690 IN THK WALL, SDR 7, 58 IN OD, 500 FT LG COIL, POLYETHYLENE, PE3408/PE100	554022	15'
2	VALVE BALL, FULL PORT, 1/2 IN CTS, SDR 7.0, PE 4710, BUTT FUSE, POLYETHYLENE, BLACK FINISH, REPLACED IN 551834	601132	1
3	CURB VALVE BOX 334 18X24 IN SHAFT LENGTH W NON-LOCKING COVER MARKED "GAS" WALL THICKNESS .725+-0.15, FOR USE WITH 1/2-1-1/4" PERFECTION PSV PLASTIC BALL VALVE	557812	1
4	RISER ANODELESS 1/2 X 3/4 PERFECTION 77571, 059W PE 3408 CTS X NPT W/ 12 PIGTAIL	610786	1
5	VALVE, 3/4 IN, SS, THREADED, BALON, LS07592	589557	1
6	ELBOW, MALE 90 SWAGelok, 3/4 NPT X 3/8 TUBE SWAGelok SS-600-2-12 (NON-STOCK EVERSOURCE ITEM)	N/A	1
7	TUBING, 3/8 IN OD, 10 FT LG, 0.035 IN THK WALL, 316/316L SS, CAMBRIDGE VALVE & FITTING - SS-76-S-035-20 - 20'	509511	8FT.
8	BULL HEAD UNION, 3/8" SWAGelok, SS-600-51 (NON-STOCK EVERSOURCE ITEM)	N/A	1
9	ELBOW, MALE 90 SWAGelok, 1/2 NPT X 3/8 TUBE SWAGelok SS-600-2-8 (NON-STOCK EVERSOURCE ITEM)	N/A	1
10	POST, 4 IN X 8 FT, YELLOW, POWDER COATED, 125 LBS, CONCRETE, FOR METER PROTECTION	592751	4
11	TAPE WARNING, MARKED BURIED GAS LINE, 400 M, (1312 FT) ROLL, 6 IN, 6 MIL, POLYETHYLENE, YELLOW, LOCATABLE - RFID TAG EVERY 4008142	603277	15'
12	8 FT, RECTANGULAR, PROTECTION, 4 IN X 7 IN, HOPE, YELLOW, ANTIBUB BEVELED EDGE DRAIN HOLES, FOR OVERPIPE, CMA	610782	2
13	BOLLARD COVER, YELLOW, 4.5" X 52" LONG, HOPE, POST GUARD OR EQUAL (NON-STOCK EVERSOURCE ITEM)	N/A	4



NOTES:

- EFV TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS. EFV SHALL BE PROPERLY SIZED FOR APPLICATION PER EVERSOURCE STANDARDS AND MANUFACTURERS REQUIREMENTS.
- AN EFV WILL BE INSTALLED ON EACH GAS LINE TO A TRANSMITTER. (EXCEPT FOR LOW PRESSURE SERVICES)
- EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.



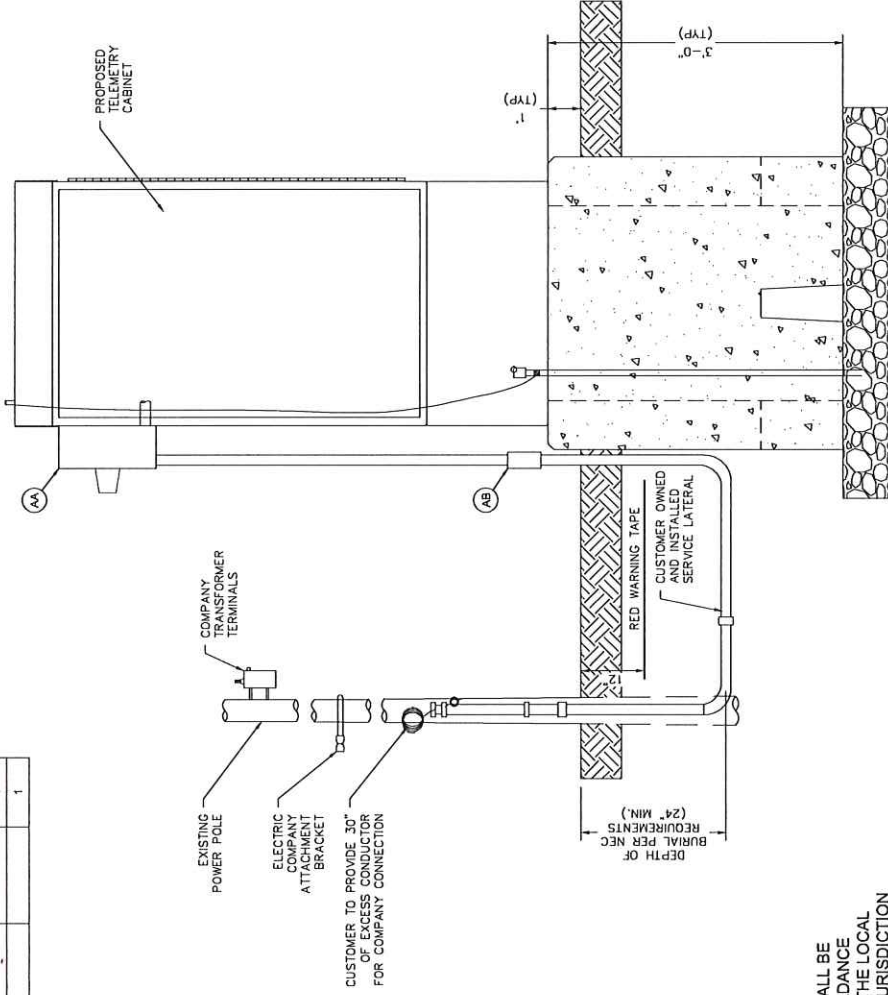
CONSTRUCTION

No.	Description	Date	Drawn/Checked
A	CONSTRUCTION		

87 RIVER ST., ANDOVER, MA
PROJECT # 23GMYSACT
STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP
SCALE: NTS ON 22"X34"
Sheet # of 06
Drawing Number
Checked By / Date
XXX XXXXXXXXX
MA-LAW-TLM-23-553-05

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
AA	ELECTRIC METER SOCKET PER ELECTRIC UTILITY REQUIREMENTS	-	1
AB	EXPANSION FITTING PER ELECTRIC UTILITY		1



- NOTES:
- SERVICE CONNECTION TO CABINET SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH NFPA 70. THE REQUIREMENT OF THE LOCAL UTILITY AND THE AUTHORITY HAVING JURISDICTION (AHJ).
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.

CHIENGINEERING
An IVIS Company



CONSTRUCTION

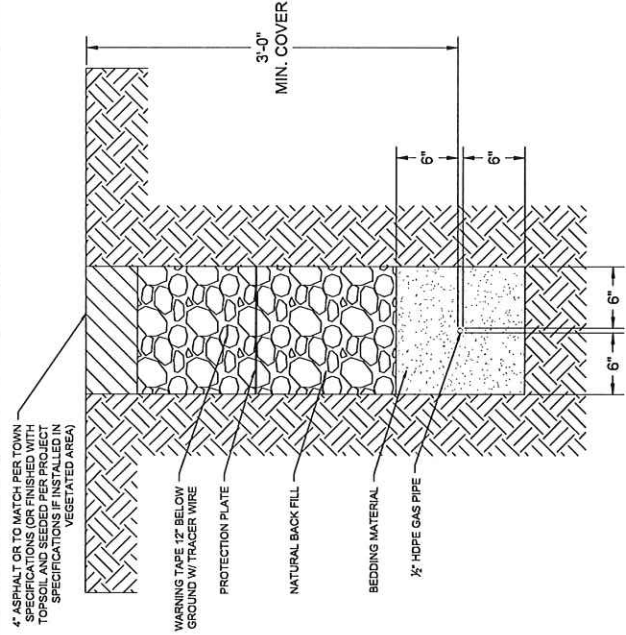
Revision/Status	Date	Drawn
A CONSTRUCTION		Dw/Ck

78 RIVER ST. ANDOVER, MA	PROJECT # 23GMSYSACT
STANDARD NATIONAL GRID ELECTRICAL SERVICE	SHEET 05 OF 05
Drawn By / Date	Checked By / Date
CHL 5/30/2023	XXX XXX/XXX/XXXX
MA-LAW-TL-M-23-553-06	Rev. No.
	A

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

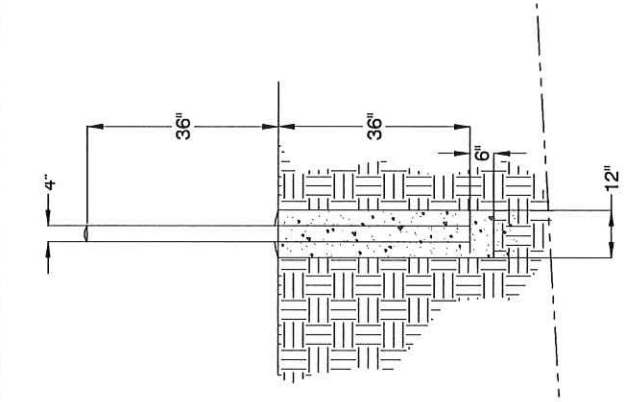
GENERAL NOTES:

- A. IF ANY OF THE FOLLOWING OCCUR A DRAWING REVISION IS REQUIRED AND MUST BE APPROVED AND/OR STAMPED BY THE ENGINEER OF RECORD. CHANGES CAN BE APPROVED AND/OR STAMPED BY A PROJECT ENGINEER, BUT THE ENGINEER OF RECORD MUST BE INFORMED.
 - 1. IF THE TIE IN POINT MOVES TO A DIFFERENT SEGMENT OF PIPE THAN SHOWN.
 - 2. IF A CHANGE IN THE LOCATION OF VALVES IS REQUIRED.
 - 3. IF THERE IS ANY CHANGE TO WHAT IS SHOWN ON THE DRAWING WITHIN 50 FT OF A PRESSURE REGULATING STATION, DISTRICT REGULATOR, OR GATE STATION.
 - 4. IF A CHANGE IN PIPE SIZE, MATERIAL OR WALL THICKNESS IS REQUIRED.
 - 5. ALTERNATE FITTINGS THAT ARE ACCEPTABLE FOR ANY TIE-IN DETAIL WILL BE CALLED OUT IN THE DRAWING. FITTING CHANGES NOT SHOWN AS ALTERNATIVES ON THE DRAWING WILL NEED TO FOLLOW THE DRAWING CHANGE PROCESS.
- B. CONSTRUCTION DRAWINGS, LOCATIONS OF EXISTING UTILITIES, UNDERGROUND STRUCTURES AND WORK LOCATIONS ARE BASED ON BEST AVAILABLE INFORMATION BUT HAVE NOT BEEN FIELD VERIFIED.
- C. ALL WORK, MATERIAL AND CONSTRUCTION SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL PERMITS AND APPROVALS PER EVERSOURCE, LOCAL, STATE, OSHA AND FEDERAL REGULATIONS AND STANDARDS.
- D. ALL LIVE GAS WORK EXCEPT SERVICE SIZE TAPS, INCLUDING BUT NOT LIMITED TO TAPPING OF FITTINGS ON LIVE MAINS, STOPPING, MANIPULATING VALVE, ABANDONMENT, SHALL BE PERFORMED BY, OR AT THE DIRECTION AND UNDER THE DIRECT SUPERVISION OF EVERSOURCE GAS PERSONNEL AND IN ACCORDANCE WITH THE WRITTEN PROCEDURE. DRAWING CHANGES MAY ALSO REQUIRE A CHANGE TO THE PROCEDURE.
- E. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPES FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISTURB OR DAMAGE SUCH ITEMS. ROADWAY, SIDEWALK, AND GRASS DISTURBED SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OR TOWN. PLANT BEDS WILL BE RELOCATED TO THEIR EXISTING REGULAR LOCATION.
- F. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), INCLUDING ALL REVISIONS AND ADDENDA. ALL TRAFFIC CONTROL DEVICES WILL BE SUPPLIED BY EXCAVATOR.
- G. EXISTING CONDITIONS SHOWN ARE BASED ON A SURVEY BY CHI ENGINEERING. EXISTING UTILITIES WERE COMPILED FROM EXISTING CONDITIONS IN THE FIELD AS WELL AS RECORD DRAWINGS OBTAINED FROM LOCAL UTILITIES.
- H. LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND IS NOT WARRANTED TO BE CORRECT.
- I. CONTRACTOR MUST NOTIFY DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- J. NEW PIPING SHALL BE PRESSURE TESTED AT 1.5 TIMES MAOP FOR A MINIMUM OF 1 HOUR. 150 PSIG IS THE MINIMUM TEST PRESSURE.
- K. ALL FIELD COATING SHALL BE PERFORMED PER EVERSOURCE SPECIFICATIONS.



TYPICAL GAS TRENCH

NOT TO SCALE
 (PROPOSED UTILITIES SHALL MAINTAIN MINIMUM 12" SEPARATION FROM EXISTING UTILITIES)



BOLLARD DETAIL

NOT TO SCALE
 DOME TOP WITH CONCRETE
 STANDARD STEEL PIPE FILLED WITH CONCRETE
 PAINT EXPOSED SURFACES YELLOW
 CONCRETE SLOPED AWAY FROM PIPE AT BASE

CHI ENGINEERING An IHS Company



CONSTRUCTION

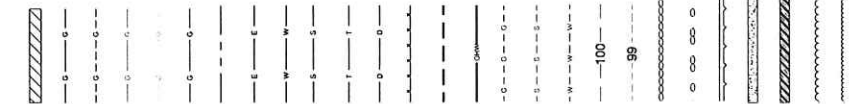
No.	Description	Date	Draw/Ck
A	CONSTRUCTION		

109 GOULD RD. ANDOVER, MA	
PROJECT # 23GMYSFACT	
NOTES & DETAILS	
SCALE: NONE	SHEET 02 OF 06
Drawn by: None	Checked by: Date
CHI-5020223	XXX XXX XXX XXX
	MA-LAW-TL-23-552-02
	A

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

DRAWING LEGEND

- Gas Main Symbology
- REGULATING STATION 50' BOUNDARY
- EXISTING GAS MAIN
- PROPOSED GAS MAIN
- GAS MAIN TO BE ABANDONED
- GAS MAIN WITH SERVICE TRANSFERS
- GAS MAIN WITH PRESSURE INCREASE



Gas Main Material/Pressure Label References

- MATERIAL CODES
- Cast Steel Gas Main
- Cast Iron Gas Main
- Bare Steel Gas Main
- Wrought Iron Gas Main
- High Density Polyethylene Gas Main
- Medium Density Polyethylene Gas Main
- Low Pressure (<0.5 PSIG or 14" W.C.)
- Intermediate Pressure (>2 PSIG \leq 10 PSIG)
- Medium Pressure (>10 PSIG \leq 60 PSIG)
- High Pressure (>60 PSIG)

Gas Facility Symbology

- Gas Valve
- Critical Gas Valve
- Gate - GV Plug - PV, PE Ball - BP, ST Ball - BV
- High Volume Tapping Tee
- Pressure Control Fitting - ShortStopp Tee
- Pressure Control Fitting - Spherical Tee
- Pressure Control Fitting - Mueller Bottom-out
- Pressure Control Fitting - Mueller Flange Tee
- Pressure Control Fitting - ShortStopp
- Pressure Control Fitting - Mueller Stopper
- Transition
- End Cap
- Reducer
- Electronic Marker
- Flush-mounted Tracer Wire Station
- Post Pipeline Marker with Tracer Wire
- Gas Main Marker without Tracer Wire
- Test Well
- Regulator Station
- Regulator Customer Regulator
- Meter with Regulator
- Test Point (Station)
- Gas Service Tie-over
- Gas Service Replacement
- Meter Move Out
- Spring Tie Symbol
- Telephone Manhole
- Drain Manhole
- Electric Manhole
- Catch Basin
- Sewer Manhole
- Fire Hydrant
- Property Marker
- Telephone Pedestal
- Unknown Manhole
- Water Box
- Water Cate
- Electric Pedestal
- Iron Pin
- Light Pole
- INSIDE METER
- OUTSIDE METER

NOTES:

- HORIZONTAL DATUM BASED ON NAD83(2011) MASSACHUSETTS STATE PLANE MANLAND COORDINATE ZONE (2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KENNET GPS VRS NETWORK.
- VERTICAL DATUM IS BASED ON APPROXIMATE NAVD83(2011) (L-2) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KENNET GPS VRS NETWORK.
- THIS MAP WAS PREPARED FROM LIMITED RECORD RESEARCH, OTHER MAPS, LIMITED FIELD SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.
- PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS MATERIAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DODGET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
- APPROXIMATE RIGHT-OF-WAY AND ABUTTER LINES, AS SHOWN HEREON, ARE BASED UPON A COMBINATION OF LIMITED MONUMENTATION LOCATION, LISTED REFERENCE PLANS AND GIS DATA FROM THE BUREAU OF GEOGRAPHIC INFORMATION (MassGIS), COMMONWEALTH OF MASSACHUSETTS, EXECUTIVE OFFICE OF TECHNOLOGY AND SECURITY SERVICES. NO VERIFICATION OR FURTHER RESEARCH HAS BEEN DONE TO DETERMINE THE RIGHT-OF-WAY.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
- ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TELEPHONE, SEWER, DRAIN SERVICES) ARE SHOWN AS APPROXIMATE LOCATIONS. FIELD VERIFICATION IS NOT PRACTICABLE NECESSARILY ACCURATE. NO WORK WATERSHED SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
- ABUTTERS NAMES, ADDRESSES AND REFERENCE DEEDS ARE BASED ON ONLINE TOWN ASSESSOR RECORDS.

CHENG ENGINEERING An IWS Company



CONSTRUCTION

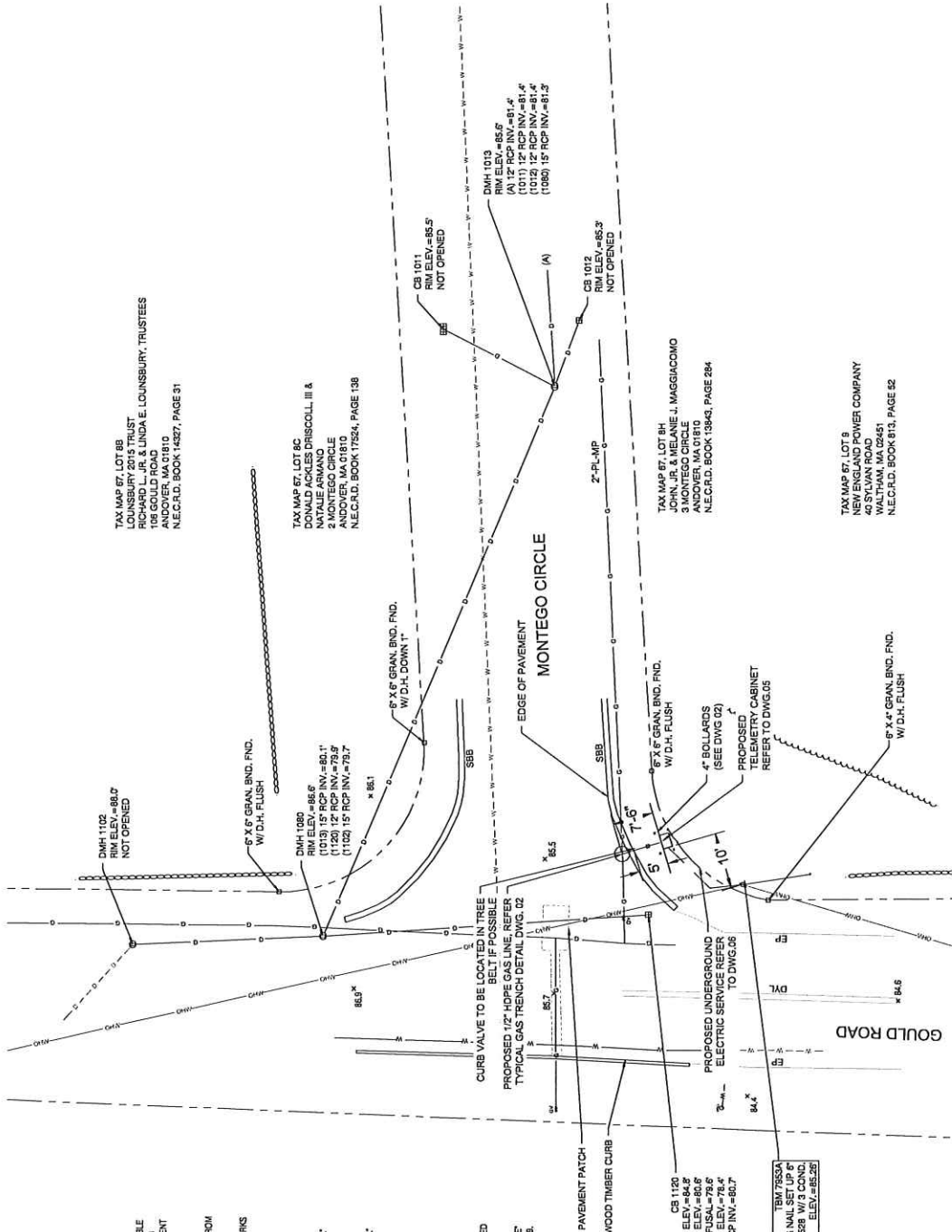
No.	Description	Date	Dwg/Ck
A	CONSTRUCTION		

109 GOULD RD. ANDOVER, MA
PROJECT # 23GMSYSACT

SCALE: NONE
Drawing Number: CH1-5302923
Checked by: User
XXX-XXX-XXXXX
MA-LAW-TLM-23-662-03
SHEET 03 OF 06
Date: 07/12/2023



KEY MAP
SCALE: INT'S.



NOTES FOR GOULD ROAD AND MONTEGO CIRCLE, ANDOVER, MASSACHUSETTS:

- A. FIELD SURVEY PERFORMED BY J.C.M. & C.B.B. DURING MARCH 2023 USING A TRIMBLE DATA COLLECTOR AND A TRIMBLE R72 SURVEY GRADE GPS WITH A TRIMBLE TSC3 BASED ON LEAST SQUARE ANALYSIS.
- B. UNDERGROUND UTILITIES PLOTTED ON THE DRAWING ARE BASED ON SURVEY-LOCATED MEASUREMENTS. RECORD GAS INFORMATION WAS RECEIVED FROM THE CITY OF ANDOVER ON MARCH 18, 2023.
- C. UNDERGROUND GAS IS BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE. RECORD INFORMATION WAS BASED UPON REFSOURCE GIS.

REFERENCE PLANS:

1. "PLAN OF LAND IN ANDOVER AND NORTH BEADING, MASSACHUSETTS TO BE CONVEYED TO NEW ENGLAND POWER COMPANY BY THOMAS A. THOMPSON ET AL." DATED MARCH 16, 1882 BY NEW ENGLAND POWER SERVICE COMPANY, N.E.C.R.D. PLAN 3914.
2. "PLAN OF LAND IN ANDOVER, MASS. BELONGING TO - THOMAS A. THOMPSON ET AL." DATED OCTOBER 29, 1892 BY ROBERT E. ANDERSON, N.E.C.R.D. PLAN 4540.
3. "PLAN OF LAND IN ANDOVER, MASS. BELONGING TO KENNETH H. AND LUELLA H. THOMPSON DATED SEPTEMBER 14, 1973 BY PAUL C. DANFORTH, N.E.C.R.D. PLAN 6894.
4. "PLAN OF LAND IN ANDOVER, MASS. OWNED BY KENNETH THOMPSON" DATED JANUARY 26, 1974 BY ROBERT E. ANDERSON, INC. N.E.C.R.D. PLAN 7002.
5. "PLAN OF LAND IN ANDOVER, MASS. OWNED BY DAVID H. THOMPSON ET AL. DATED MAY 17, 1977 BY ROBERT E. ANDERSON, INC. N.E.C.R.D. PLAN 7710.
6. "SUBDIVISION PLAN OF LAND IN ANDOVER, MASSACHUSETTS OF MONTEGO CIRCLE" DATED MAY 5, 1989 BY DANIEL F. PERINS & ASSOCIATES, INC. N.E.C.R.D. PLAN 1182.

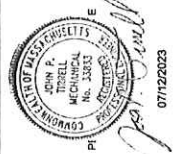
TAX MAP 67, LOT 10A
JACKLYN & ROBERT PORISIA
109 GOULD ROAD
ANDOVER, MA 01810
N.E.C.R.D. BOOK 13987, PAGE 179

TAX MAP 67, LOT 10
NEW ENGLAND POWER COMPANY
40 SYLVAN ROAD
WALTHAM, MA 02451
N.E.C.R.D. BOOK 813, PAGE 92

TELEMETRY CABINET
MAG NAIL SET (UP)
IN POLE 528 W/3 COND.
ELEV. = 85.26'

No.	Revision/Status	Date	Dwg/Ck
A	CONSTRUCTION		

CONSTRUCTION



CHENGINEERING An **HW** Company

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

109 GOULD RD, ANDOVER, MA	PROJECT # 23GNYSACT	SHEET 04 OF 06
PROJECT LOCATION PLAN	Checked By/Date	Drawing Number
SCALE: 1"=10' ON 22"x34"	CHL 5/30/2023	MA-LAW-TLM-23-552-04
Drawn By/Date	XXX XXXXXXXXX	Rev. No.

DETAIL A: TAPS FOR CAST IRON MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	FITTING, TEE, THREADED BRASS BASE SERVICE, 1-1/4 IN NPT X 1 CTS X 0.890 IN WALL, POLYETHYLENE BODY, PE-4710	56810	1
14.1	FITTING REDUCER, COUPLING, LYCOFITE, 1 IN CTS X .899 IN X 1/2 IN CTS X .890 IN THK WALL, HDPE, CMA 2168692	610785	1

DETAIL A1: SERVI-SEAL CLAMP

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	CLAMP PIPE SERVI-SEAL REPAIR, 3 IN DIA, 9 IN LG, W/ 1-1/4 IN ID OUTLET, FOR CAST IRON PIPE, FITTING, ID 11633	578017	1
14	CLAMP PIPE REPAIR, 4 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 4.74 - 5.14 IN PIPE	542984	1
14	CLAMP PIPE REPAIR, 6 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 6.84 - 7.24 IN PIPE	542982	1
14	CLAMP PIPE REPAIR, 8 IN CIP, SS, W/ 1-1/4 NPT TAP, ALTERNATE IN 578014 (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578014	1
14	CLAMP PIPE FULL CIRCLE REDUCIBLE BAND, W/ 2 IN NPT OUTLET, 12.75 TO 13.26 IN OD, 304 SS, 10 IN LONG, STEEL NUTS & BOLTS, BOMAN GASKET (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578016	1

DETAIL B: TAPS FOR STEEL MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14 / 15	3/4" X 1/2" UMAC 40558 SELF TAP WELD TEE IPS X CTS & 5/8" OD COMPRESSION ADAPTER OUTLET WITH SER400 EFV	N/A	1
14	TEE PIPE, NON-BLOWING, 1-1/4 IN TEE OUTLET X 1-1/4 IN MAIN, WELDED, 250 PSIG, W/ CI CAP, CMA 4478604	610059	1
14	TEE PIPE, NON-BLOWING, 1 IN, WELDED ENDS, LIGHT WALL, FORGED STEEL BODY, W/ CI CAP	567172	1
14	MAXIMO 1.25x3/4 STEEL WELD REDUCER	577887	1
14	MAXIMO 1x3/4 STEEL WELD REDUCER	568175	1
15	FITTING, TRANSITION, 3/4 IN CTS X 1/2 IN CTS X 0.890 IN THK WALL, PE4710 SDR 7, STEEL WELD X PLASTIC BUTT END	542627	1
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.89 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFV)	562085	1

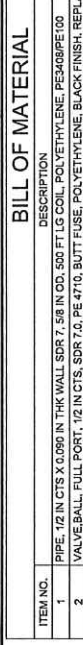
DETAIL C: TAPS FOR PLASTIC MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	TEE PIPE, NON-BLOWING, 2 X 1/2 IN CTS X 0.890 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408PE100	500866	1
14	TEE PIPE, NON-BLOWING, 3 X 1/2 IN CTS X 0.890 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 10/BOX	578017	1
14	TEE PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.890 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 10/BOX	500867	1
14	TEE PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.890 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408	500869	1
14	TEE PIPE, NON-BLOWING, 8 X 1/2 IN CTS X 0.890 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408	578014	1
14	TEE PIPE, NON-BLOWING, 12 X 1/2 IN CTS X 0.890 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE4710	569847	1
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.89 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFV)	562085	1

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	PIPE, 1/2 IN CTS X 0.890 IN THK WALL, SDR 7, 58 IN OD, 500 FT LG COIL, POLYETHYLENE, PE3408PE100	554222	10'
2	VALVE BALL, FULL PORT, 1/2 IN CTS, SDR 7.0, PE 4710, BUTT FUSE, POLYETHYLENE, BLACK FINISH, REPLACED IN 351834	601132	1
3	CURB VALVE BOX 334, 19X24 IN SHAFT LENGTH W/ NON-LOCKING COVER MARKED "GAS" WALL THICKNESS .125"- .015, FOR USE WITH 1/2"-1-1/4" PERFECTION PSV PLASTIC BALL VALVE	557912	1
4	RISER ANODELESS 1/2 X 3/4 PERFECTION 77571, .090W PE 3408 CTS X NPT W/ 12 PIGTAIL	610786	1
5	VALVE, 3/4 IN, SS, THREADED, BALON, LS07592	580857	1
6	ELBOW, MALE 90 SWAGelok, 3/4 NPT X 3/8 TUBE SWAGelok SS-600-2-12 (NON-STOCK EVERSOURCE ITEM)	N/A	1
7	TUBING, 3/8 IN OD, 10 FT LG, 0.035 IN THK WALL, 3169316L, SS, CAMBRIDGE VALVE & FITTING - SS-16-S-035-20 - 20'	500931	6FT.
8	BULKHEAD UNION, 3/8" SWAGelok SS-600-61 (NON-STOCK EVERSOURCE ITEM)	N/A	1
9	ELBOW, MALE 90 SWAGelok, 1/2 NPT X 3/8 TUBE SWAGelok SS-600-2-8 (NON-STOCK EVERSOURCE ITEM)	N/A	1
10	POST, 4 IN X 6 FT, YELLOW, POWDER COATED, 125 LBS, CONCRETE, FOR METER PROTECTION	553751	4
11	PLATE, RECTANGULAR, PROTECTION, 41 IN X 71 IN, HDPE, YELLOW, ANTI-SLIP BEVELED EDGE DRAIN HOLES, FOR OVERPIPE, CMA 44028102	603277	10'
12	PLATE, RECTANGULAR, PROTECTION, 41 IN X 71 IN, HDPE, POST GUARD OR EQUAL, (NON-STOCK EVERSOURCE ITEM)	610792	2
13	BOLLARD COVER, YELLOW, 4.5' X 5.2' LONG, HDPE, POST GUARD OR EQUAL, (NON-STOCK EVERSOURCE ITEM)	N/A	4

CONSTRUCTION



NOTES:

- EFV TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS. EFV SHALL BE PROPERLY SIZED FOR APPLICATION PER EVERSOURCE STANDARDS AND MANUFACTURERS REQUIREMENTS.
- AN EFV WILL BE INSTALLED ON EACH GAS LINE TO A TRANSMITTER. (EXCEPT FOR LOW PRESSURE SERVICES)
- EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.

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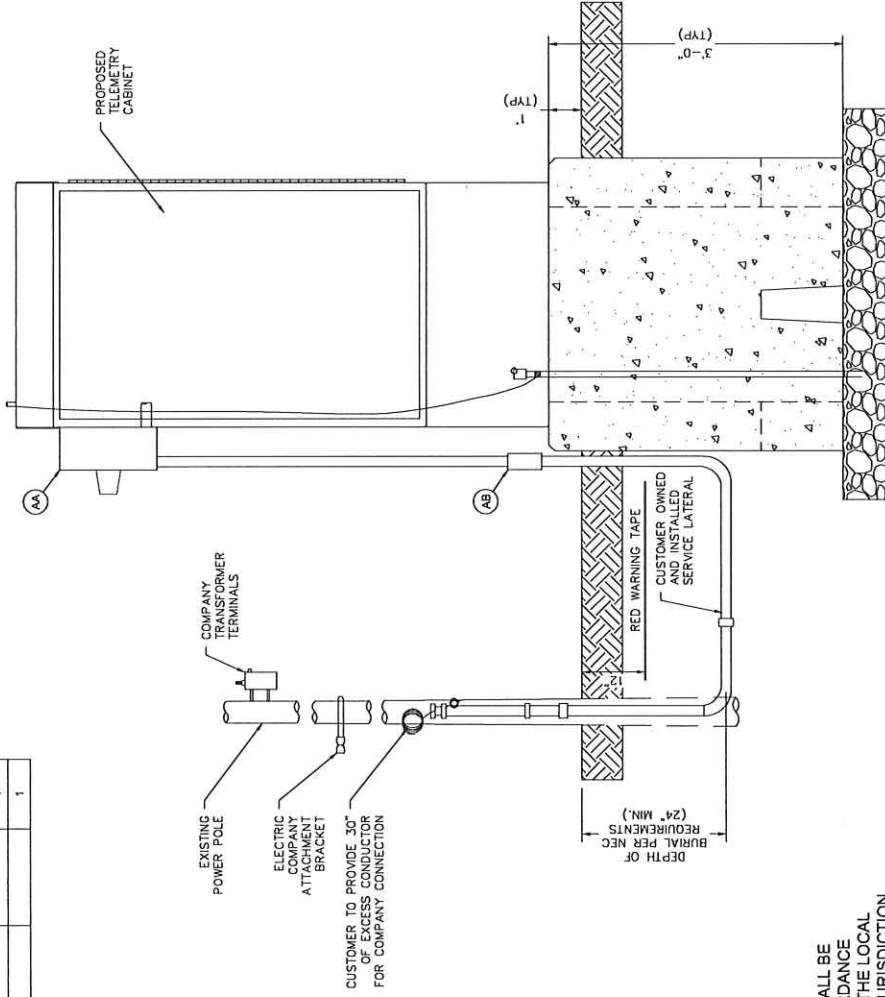
109 SOULD RD., ANDOVER, MA
PROJECT # 23GMSYACT
STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP
SHEET 05 OF 06
SCALE(S) ON 22" X 34"
Checked By: / Date: /
Drawing Number: XXX-XXX-XXXXXX
MA-LAW-TLM-23-552-05
Rev. No. A

07/12/2023

CONSTRUCTION

No.	Description	Date	Dwg/Ck
A	CONSTRUCTION		

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
AA	ELECTRIC METER SOCKET PER ELECTRIC UTILITY REQUIREMENTS		1
AB	EXPANSION FITTING PER ELECTRIC UTILITY		1



- NOTES:
- SERVICE CONNECTION TO CABINET SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH NFPA 70, THE REQUIREMENT OF THE LOCAL UTILITY AND THE AUTHORITY HAVING JURISDICTION (AHJ).
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.

GHE ENGINEERING An IMV5 Company

07/12/2023

PE [Signature]

COMMISSION OF REGISTRATION IN PROFESSIONAL ENGINEERING, MECHANICAL AND ELECTRICAL ENGINEERING, MASSACHUSETTS No. 23837

CONSTRUCTION

No.	Description	Date	Drawn/Checked

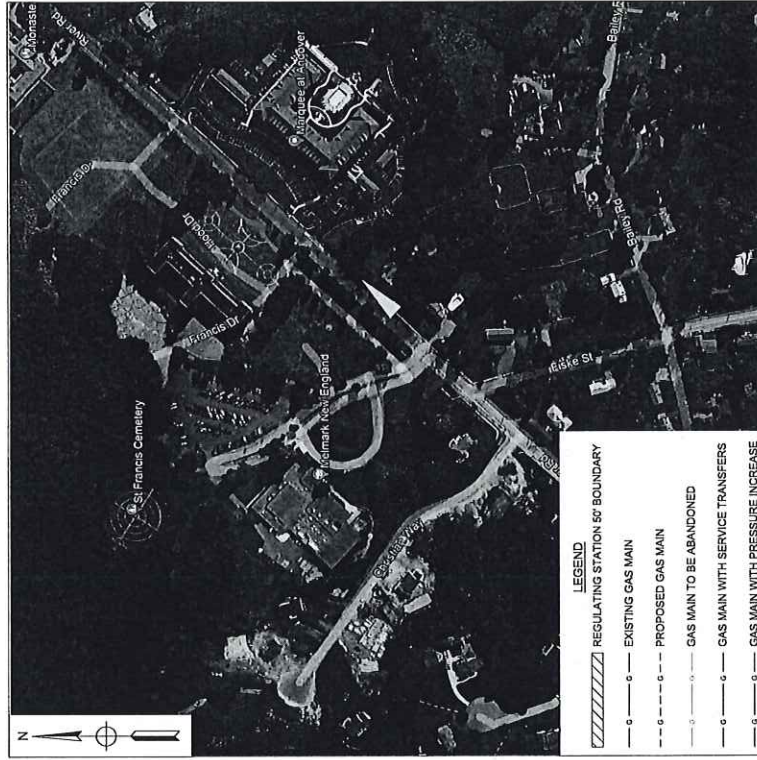
109 GOULD RD. ANDOVER, MA	PROJECT # 23GMYSACT
STANDARD NATIONAL GRID ELECTRICAL SERVICE	SHEET 06 OF 06
SCALE: 1/8" = 1'-0"	Drawing Number
CHI, 5/30/2023	Checked by/Date
XXX-XXX-XXXX	Drawing Number
MA-LAW-TLM-23-552-06	Scale No.

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

TABLE OF CONTENTS

SHEET #	TITLE
1 OF 6	COVER SHEET
2 OF 6	NOTES & DETAILS
3 OF 6	LEGEND
4 OF 6	PROJECT LOCATION PLAN
5 OF 6	STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP
6 OF 6	STANDARD NATIONAL GRID ELECTRICAL SERVICE

EVERSOURCE ENERGY



WORK SCOPE

PASTE EXCEL FOOTAGE TABLE HERE



CHIENGINEERING
An **WIS** Company

CONSTRUCTION

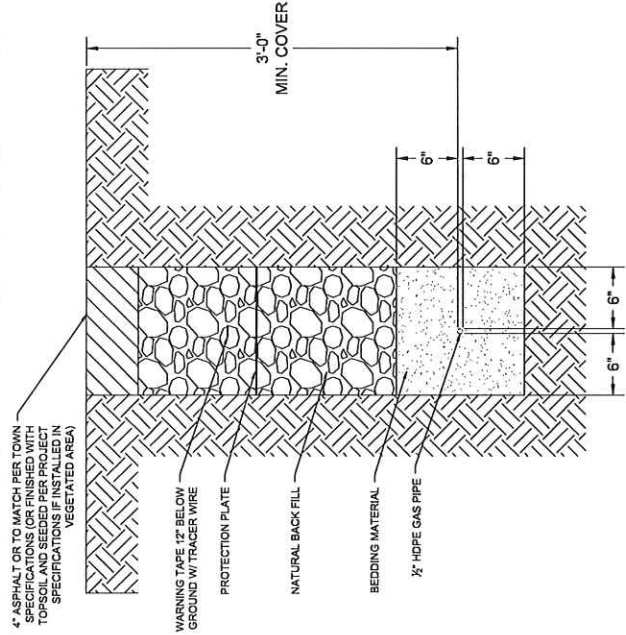
FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

A. CONSTRUCTION No.	Description	Revision/Status	Date	Dw/Ck
EVERSOURCE ENERGY				
464 RIVER RD, ANDOVER, MA				
PROJECT # 23GMSYSACT				
COVER SHEET				
SCALE: NONE		SHEET 01 OF 06		
Drawn by / Date		Checked by / Date		Item No.
CHI, 8/13/2023		XXX / XXXXXXXXXX		MA-LAW-TLM-23-514-01
				A

464 RIVER RD, ANDOVER, MA
PROJECT #23GMSYSACT

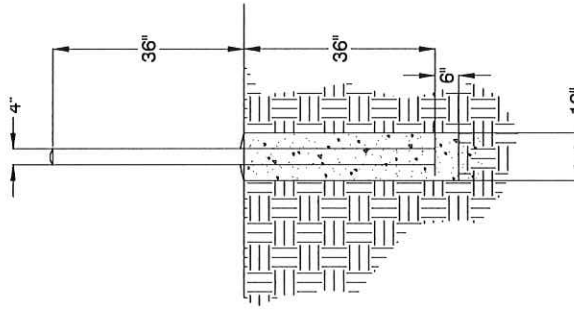
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- E. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPES FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISTURB OR DAMAGE SUCH ITEMS. ROADWAY, SIDEWALKS, AND GRASS DISTURBED SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OR TOWN. PLANT BEDS WILL BE RELOCATED TO THEIR EXISTING REGULAR LOCATION.
- F. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), INCLUDING ALL REVISIONS AND ADDENDA. ALL TRAFFIC CONTROL DEVICES WILL BE SUPPLIED BY EXCAVATOR.
- G. EXISTING CONDITIONS SHOWN ARE BASED ON A SURVEY BY CHI ENGINEERING. EXISTING UTILITIES WERE COMPILED FROM EXISTING CONDITIONS IN THE FIELD AS WELL AS RECORD DRAWINGS OBTAINED FROM LOCAL UTILITIES.
- H. LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND IS NOT WARRANTED TO BE CORRECT.
- I. CONTRACTOR MUST NOTIFY DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- J. NEW PIPING SHALL BE PRESSURE TESTED AT 1.5 TIMES MAOP FOR A MINIMUM OF 1 HOUR. 150 PSIG IS THE MINIMUM TEST PRESSURE.
- K. ALL FIELD COATING SHALL BE PERFORMED PER EVERSOURCE SPECIFICATIONS.



TYPICAL GAS TRENCH

NOT TO SCALE
 PROPOSED UTILITIES SHALL MAINTAIN MINIMUM 12" SEPARATION FROM EXISTING UTILITIES)



BOLLARD DETAIL

NOT TO SCALE
 DOME TOP WITH CONCRETE
 STANDARD STEEL PIPE FILLED WITH CONCRETE
 PAINT EXPOSED SURFACES YELLOW
 CONCRETE SLOPED AWAY FROM PIPE AT BASE

CHI ENGINEERING An IHS Company

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

07/12/2023

CONSTRUCTION

No.	Description	Revision/Status	Date	Draw/Ck
A	CONSTRUCTION			

464 RIVER RD. ANDOVER, MA
 PROJECT # 23GMSYSACT
 NOTES & DETAILS

SCALE: NONE
 Drawing No. CHL 6/13/2023
 Checked By: Date XXX XX/XX/XXXX
 MA-LAW-TLM-23-514-02

SHEET 02 OF 06
 Rev. No. A

DRAWING LEGEND

Gas Main Symbolology
REGULATING STATION 50' BOUNDARY

EXISTING GAS MAIN
PROPOSED GAS MAIN

GAS MAIN TO BE ABANDONED
GAS MAIN WITH SERVICE TRANSFERS

GAS MAIN WITH PRESSURE INCREASE
RIGHT-OF-WAY

ELECTRIC
WATER LINE

SEWER LINE
TELEPHONE

DRAIN LINE
FENCE LINE

CONDUIT
OVERHEAD WIRE

DIGITIZED GAS LINE (SEE NOTE 7)
DIGITIZED SEWER LINE (SEE NOTE 7)

DIGITIZED WATER LINE (SEE NOTE 7)
MAJOR CONTOUR LINE

MINOR CONTOUR LINE
STONEWALL

REMNANT STONE WALL
RETAINING WALL

CONCRETE
PILE

TREE LINE
SHRUB LINE

Gas Main Material/Pressure Label References

MATERIAL CODES
CS* Cast Steel Gas Main
CI* Cast Iron Gas Main
BS* Bare Steel Gas Main
WI* Wrought Iron Gas Main
PH* High Density Polyethylene Gas Main
PM* Medium Density Polyethylene Gas Main
PL* Low Density Polyethylene Gas Main
PS* Polypropylene Gas Main
*MP Intermediate Pressure (>2 PSIG or 14" W.C.)
*MP Medium Pressure (>10 PSIG or 60 PSIG)
*HP High Pressure (>60 PSIG)

MISCELLANEOUS CODES
*SER Service
*R Receptor
(C) Transmission Class
BND Found
D.H. Drill Hole
DYL Double Yellow Line
EP Edge of Pavement
GRAN. Granite
SRL Sloped Right-of-Way Line
SWL Sloped White Line
T.O.D Top of Hood
T.O.H Top of Hole
VGC Vertical Granite Curb

Gas Main Installation Method Label References
AT Attached
BH Bridge Hanger
BF Building Flanger
DB Drilling Bit
IS Inserted
OC Open Cut
PB Pneumatic Bore
PL Plowed
RT Roof Top
EX Existing
(F) Proposed

Gas Facility Symbolology

*X*GV
*X*PV
OX*HVT
OX*SS
OX*SPH
OX*MF-BO
OX*MF-FT
OX*SS
OX*MF
OX*XX* POLYAPP
Transition
End Cap
Receptor
Electronic Marker
Flush-mounted Tracer Wire Station
Post Pipeline Marker with Tracer Wire
Gas Main Marker without Tracer Wire
Test Well
Regulator Station
Spring Customer Regulator
Meter
Meter with Regulator
Test Point (Station)
Gas Service Tie-over
Gas Service Replacement
Meter Move Out

Spring Tie Symbolology
Telephone Manhole
Drain Manhole
Electric Manhole
Catch Basin
Sewer Manhole
Fire Hydrant
Inground
Property Marker
Telephone Pedestal
Television Pedestal
Unknown Manhole
Water Box
Water Curb
Electric Pedestal
Iron Pin
Light Pole

INSIDE METER
OUTSIDE METER

NOTES:

- HORIZONTAL DATUM BASED ON NAD83(2011) MASSACHUSETTS STATE PLANE MANLAND COORDINATE ZONE (2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KENNET GPS WRS NETWORK.
- VERTICAL DATUM IS BASED ON APPROXIMATE NAVIGATIONAL (29.14-2) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KENNET GPS WRS NETWORK.
- THIS MAP WAS PREPARED FROM LIMITED RECORD RESEARCH. OTHER MAPS, LIMITED FIELD SURVEY, AND OTHER RECORDS MAY BE AVAILABLE. THIS MAP IS NOT TO BE USED FOR RIGHT-OF-WAY SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.
- PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOCKET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
- APPROXIMATE RIGHT-OF-WAY AND ABUTTER LINES, AS SHOWN HEREON, ARE BASED UPON A COMBINATION OF LIMITED MONUMENTATION LOCATION, LISTED REFERENCE PLANS AND GIS DATA FROM THE BUREAU OF GEOGRAPHIC INFORMATION (MapInfo), COMMONWEALTH OF MASSACHUSETTS, EXECUTIVE OFFICE OF TECHNOLOGY AND SECURITY SERVICES. NO VERIFICATION OR FURTHER RESEARCH HAS BEEN DONE TO DETERMINE THE RIGHT-OF-WAY.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
- ALL UNDERGROUND UTILITIES INCLUDING GAS, TEL, WATER, SEWER, DRAIN SERVICES, ARE SHOWN AS LOCATIONS. THESE LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
- ABUTTERS NAMES, ADDRESSES AND REFERENCE DEEDS ARE BASED ON ONLINE TOWN ASSESSOR RECORDS.

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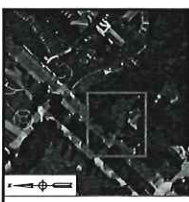


CONSTRUCTION

No.	Description	Date	Draw/Ck
1	A CONSTRUCTION		

464 RIVER RD, ANDOVER, MA	
PROJECT # 23GMSYSACT	
LEGEND	
SCALE: NONE	SHEET 03 OF 05
Drawn BY / Date	Checked BY / Date
CHL 8/13/2023	XXX XXX/XX/20XX
MA-LAW-TL-23-514-03	Rev. No.
	A

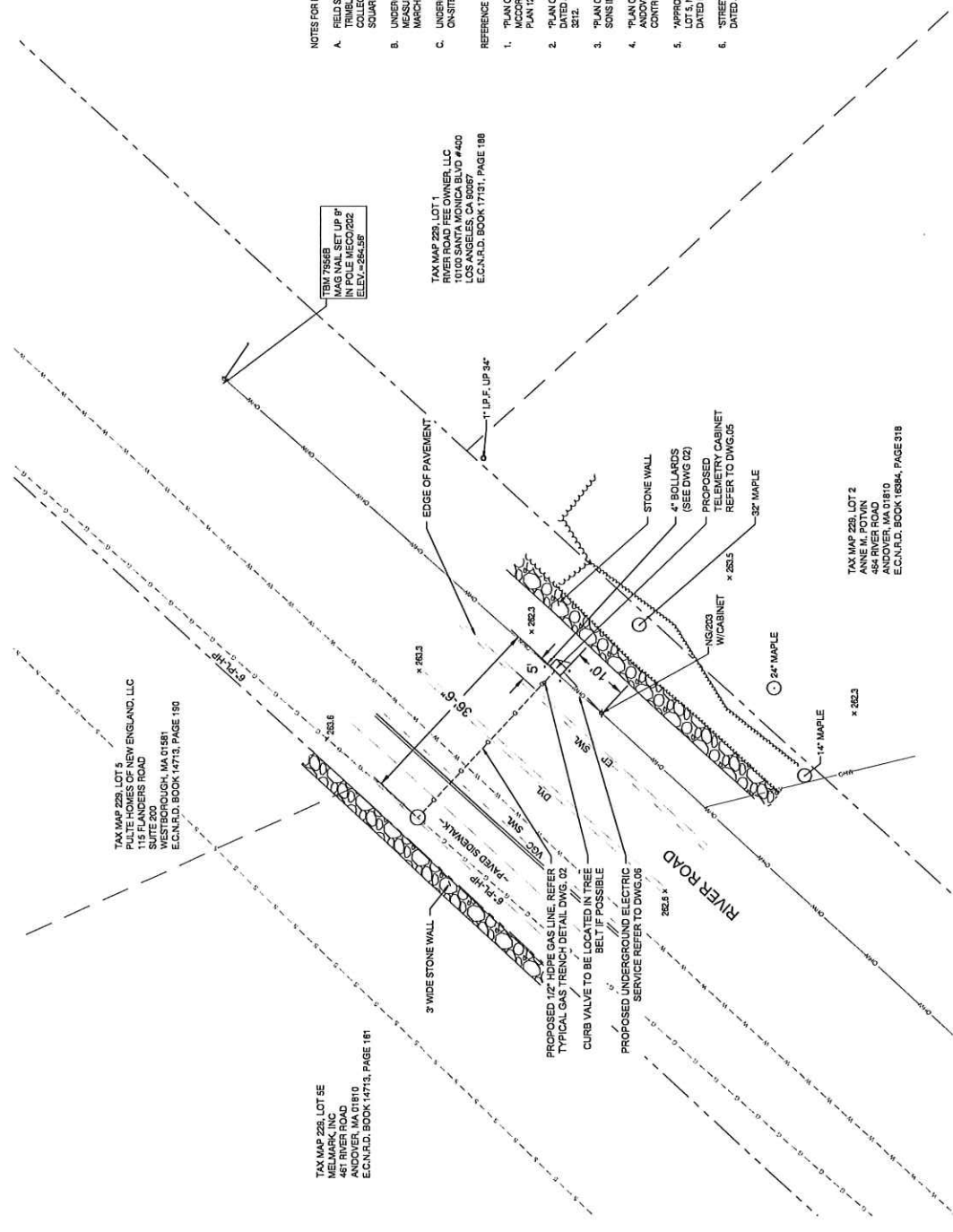
FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION



KEY MAP
SCALE: N.T.S.



- NOTES FOR RIVER ROAD, ANDOVER, MASSACHUSETTS:
- FIELD SURVEY PERFORMED BY D.J.B. & D.M.D. (COLLECT SURVEY DURING MARCH 2023 USING A TRIMBLE S8 TOTAL STATION AND A TRIMBLE R12 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DINI DIGITAL LEVEL. TRANSVERSE ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
 - UNDERGROUND UTILITIES PLOTTED ON THE DRAWING ARE BASED ON SURVEY-LOCATED MEASUREMENTS. RECORD GIS INFORMATION WAS RECEIVED FROM THE CITY OF ANDOVER ON MARCH 11, 2023.
 - UNDERGROUND GAS IS BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE. RECORD INFORMATION WAS BASED UPON EVERSOURCE GIS.
- REFERENCE PLANS:
- "PLAN OF LAND IN ANDOVER, MASS COMPILED FROM VARIOUS SOURCES FOR MRS. G.A. MCCORMACK" DATED OCTOBER 1899 BY BROOKS, JORDAN AND GRAVES CIVIL ENGRS. N.E.C.R.D. PLAN 1266.
 - "PLAN OF A PORTION OF LAND IN ANDOVER, MASS BELONGING TO ALFRED & ANGELEMA POTVIN" DATED JANUARY, 1988 BY J.C. & W.T. MOWHAN CIVIL ENGINEERS & SURVEYORS, N.E.C.R.D. PLAN 321Z.
 - "PLAN OF LAND IN ANDOVER & TOWNSHIRE, MASS" DATED JUNE 13, 1988 BY DANA F. PERKINS & SONS INC. N.E.C.R.D. PLAN 5505.
 - "PLAN OF LAND PULTE HOMES 0 & 489 RIVER ROAD LOT 4, MAP 228 & LOT 5, MAP 229 TOWN OF ANDOVER, MASSACHUSETTS" DATED MARCH 12, 2014 BY CONTROL POINT ASSOCIATES, INC. N.E.C.R.D. PLAN 1744D.
 - "APPROVAL NOT REQUIRED PLAN OF LAND PULTE HOMES 0 & 489 RIVER ROAD LOT 4, MAP 228 & LOT 5, MAP 229 TOWN OF ANDOVER, ESSEX COUNTY COMMONWEALTH OF MASSACHUSETTS" DATED MARCH 12, 2017 BY CONTROL POINT ASSOCIATES, INC. N.E.C.R.D. PLAN 1759H.
 - "STREET ACCEPTANCE PLAN CHRISTIAN WAY ANDOVER, MASS DRAWN FOR TOWN OF ANDOVER" DATED JUNE 12, 2014 BY MERRIMACK ENGINEERING SERVICES, N.E.C.R.D. PLAN 1765T.



TAX MAP 229, LOT 5E
MELMARK, INC.
ANDOVER, MA 01810
E.C.N.R.D. BOOK 14713, PAGE 181

TAX MAP 229, LOT 5
PULTE HOMES OF NEW ENGLAND, LLC
RIVER ROAD
SUITE 200
WESTBOROUGH, MA 01581
E.C.N.R.D. BOOK 14713, PAGE 180

TAX MAP 229, LOT 1
RIVER ROAD FEE OWNER, LLC
RIVER ROAD #4500
LOS ANGELES, CA 90047
E.C.N.R.D. BOOK 17131, PAGE 188

TAX MAP 229, LOT 2
ANNE M. POTVIN
RIVER ROAD
ANDOVER, MA 01810
E.C.N.R.D. BOOK 18384, PAGE 319

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CONSTRUCTION

464 RIVER RD, ANDOVER, MA	
PROJECT # 23GMSYSACT	
PROJECT LOCATION PLAN	
SCALE: 1"=10' ON 27"x36"	SHEET 04 OF 06
Drawn By / Date	Checked By / Date
CHL 6/13/2023	XXX XX000000X
Map No.	MA-LAW-TL-23-514-04
Rev. No.	A

No.	CONSTRUCTION	Description	Date	Drawn/Checked

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	PIPE, 1/2 IN CTS X 0.090 IN THK WALL SDR 7, 58 IN OD, 500 FT LG COIL, POLYETHYLENE, PE3409PE100	550222	40'
2	VALVE BALL, FULL PORT, 1/2 IN CTS, SDR 7.0, PE 4710, BUTT FUSE, POLYETHYLENE, BLACK FINISH, REPLACED IN 851634	601132	1
3	CURB VALVE BOX 334-18X24 IN SHAFT LENGTH W/ NON-LOCKING COVER MARKED 'GAS' WALL THICKNESS .125"- .015, FOR USE WITH 1/2"-1-1/4" PERFECTION PSV PLASTIC BALL VALVE	557812	1
4	RISER ANODELESS 1/2 X 3/4 PERFECTION 77571_059W PE 3408 CTS X NPT W/ 12 PIG TAIL	610786	1
5	VALVE, 3/4 IN, SS, THREADED, BALON, L507592	580987	1
6	ELBOW, MALE 90 SWAGelok, 3/4 NPT X 3/8 TUBE SWAGelok SS-600-2-12 (NON-STOCK EVERSOURCE ITEM)	N/A	1
7	TUBING, 3/8 IN OD, 10 FT LG, 0.035 IN THK WALL, 316/316L SS, CAMBRIDGE VALVE & FITTING - SS-76-S-035-20 - 20"	500931	6FT.
8	BULKHEAD UNION, 3/8" SWAGelok SS-600-61 (NON-STOCK EVERSOURCE ITEM)	N/A	1
9	ELBOW, MALE 90 SWAGelok, 1/2 NPT X 3/8 TUBE SWAGelok SS-600-2-8 (NON-STOCK EVERSOURCE ITEM)	580751	4
10	POST, 4 IN X 8 FT, YELLOW, POWDER COATED, 125 LBS, CONCRETE, FOR METER PROTECTION	603277	40'
11	TAPE WARNING, MARKED BURIED GAS LINE, 400 YD, (1312 FT) ROLL 6 IN., 5 MIL, POLYETHYLENE, YELLOW, LOCATABLE - RFID TAG EVERY 44028102	610792	7
12	PLATE, RECTANGULAR, PROTECTION, 41 IN X 71 IN, HDPE, YELLOW, ANTI-SLIP BEVELED EDGE DRAIN HOLES, FOR OVERPIPE, CMA	N/A	4
13	BOLLARD COVER, YELLOW, 4.5' X 5.2' LONG, HDPE, POST GUARD OR EQUAL (NON-STOCK EVERSOURCE ITEM)	N/A	4

DETAIL A: TAPS FOR CAST IRON MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	FITTING, TEE, THREADED BRASS BASE SERVICE, 1-1/4 IN NPT X 1 CTS X 0.090 IN WALL, POLYETHYLENE BODY, PE-4710	560810	
14.1	FITTING, REDUCER, COUPLING, LYCOFOT, 1 IN CTS X .089 IN X 1/2 IN CTS X .089 IN THK WALL, HDPE, CMA, #1683692	610785	

DETAIL A1: SERVI-SEAL CLAMP

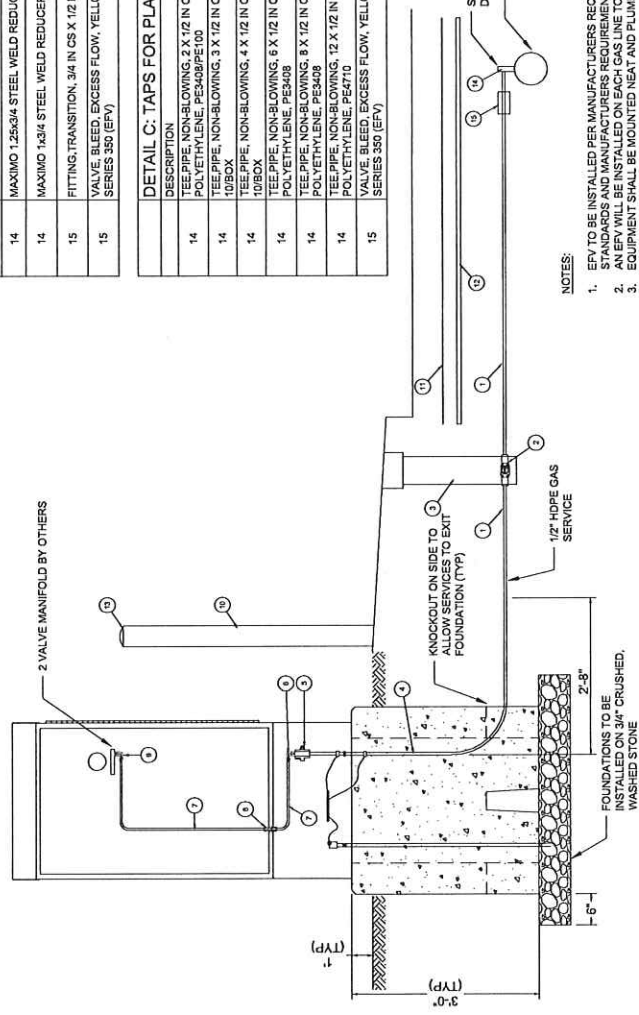
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	CLAMP PIPE, SERVI-SEAL REPAIR, 3 IN DIA, 9 IN LG, W/ 1-1/4 IN ID OUTLET, FOR CAST IRON PIPE, FITTING, ID 11633	578017	
14	CLAMP PIPE, REPAIR, 4 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 4.74 - 5.14 IN PIPE	542984	
14	CLAMP PIPE, REPAIR, 6 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 6.64 - 7.24 IN PIPE	543982	
14	CLAMP PIPE, REPAIR, 8 IN IPS, SS, W/ 2 IN TAP, ALTERNATE IN 578014 (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578014	
14	CLAMP PIPE, FULL CIRCLE REPAIR DOUBLE BAND, W/ 2 IN NPT OUTLET, 12.75 TO 13.26 IN OD, 3/4" SS, 10' LONG, STEEL NUTS & BOLTS, BUNNAN GASKET (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578016	

DETAIL B: TAPS FOR STEEL MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14 / 15	3/4" X 1/2" UMAG 40556 SELF TAP WELD TEE IPS X CTS & 3/8" OD COMPRESSION ADAPTER OUTLET WITH SER400 EFV OR	N/A	
14	TEE PIPE, NON-BLOWING, 1-1/4 IN TEE OUTLET X 1-1/4 IN MAIN, WELDED, 250 PSIG, W/ CI CAP, CMA, 44786004	610059	
14	TEE PIPE, NON-BLOWING, 1 IN, WELDED ENDS, LIGHT WALL, FORGED STEEL BODY, W/ CI CAP	560712	
14	MAXIMO 1.25x3/4 STEEL WELD REDUCER	577887	
14	MAXIMO 1x3/4 STEEL WELD REDUCER	566175	
15	FITTING, TRANSITION, 3/4 IN CS X 1/2 IN CTS X 0.090 IN THK WALL, PE4710 SDR 7, STEEL WELD X PLASTIC BUTT END	546257	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.08 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAG SERIES 350 (EFV)	552085	

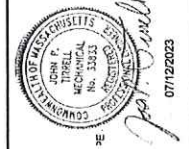
DETAIL C: TAPS FOR PLASTIC MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	TEE PIPE, NON-BLOWING, 2 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3409PE100	500866	
14	TEE PIPE, NON-BLOWING, 3 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 578017	500867	
14	TEE PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 10/60X	500868	
14	TEE PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408	500869	1
14	TEE PIPE, NON-BLOWING, 8 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, POLYETHYLENE, PE3408	578014	
14	TEE PIPE, NON-BLOWING, 12 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE4710	560847	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.08 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAG SERIES 350 (EFV)	552085	1



NOTES:

1. EFV TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS. EFV SHALL BE PROPERLY SIZED FOR APPLICATION PER EVERSOURCE STANDARDS AND MANUFACTURERS REQUIREMENTS.
2. AN EFV WILL BE INSTALLED ON EACH GAS LINE TO A TRANSMITTER (EXCEPT FOR LOW PRESSURE SERVICES)
3. EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.



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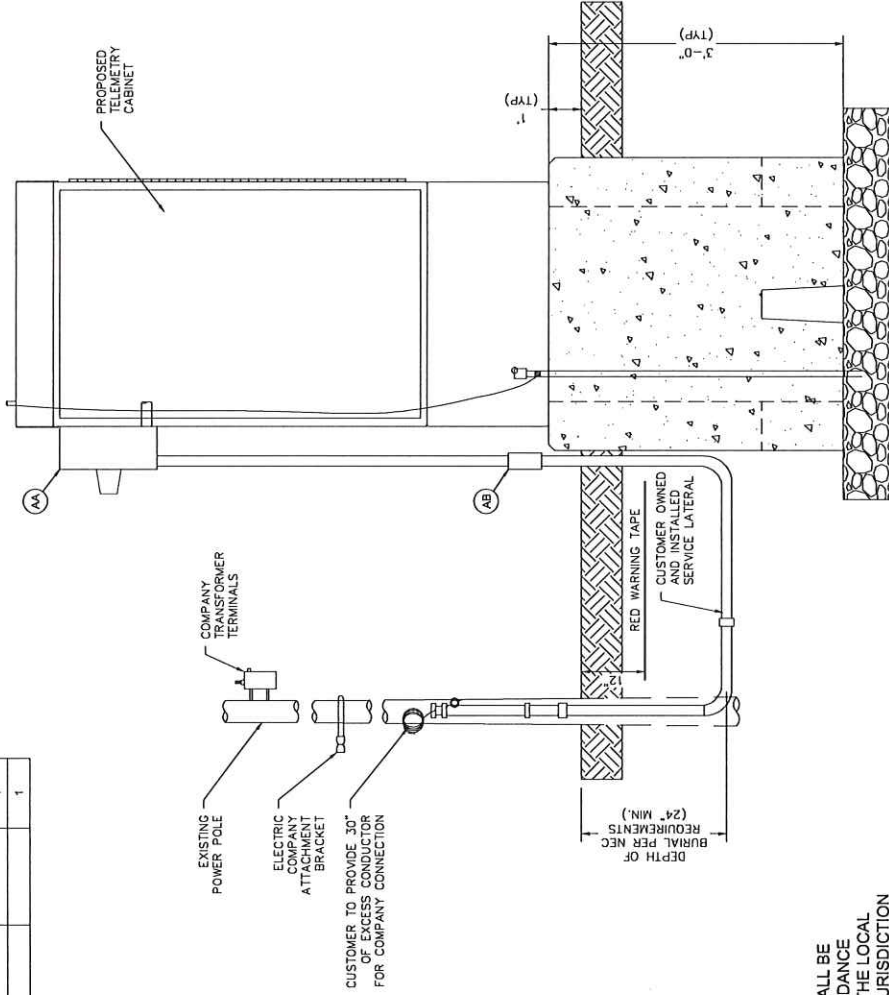
CONSTRUCTION

No.	Description	Date	Drawn/Checked
A	CONSTRUCTION		

464 RIVER RD. ANDOVER, MA
PROJECT # ZIGMSYSACT
STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MADO
SHEET 05 OF 06
SCALE(S) ON Z'X2'
Checked by: Date
Drawing Number
CHL 613/2023
XXX XXXXXXXXXX
MA-LAW-TLM-23-514-05
A

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

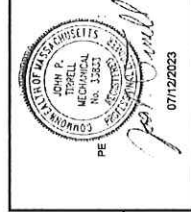
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
AA	ELECTRIC METER SOCKET PER ELECTRIC UTILITY REQUIREMENTS		1
AB	EXPANSION FITTING PER ELECTRIC UTILITY		1



- NOTES:
- SERVICE CONNECTION TO CABINET SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH NFPA 70, THE REQUIREMENT OF THE LOCAL UTILITY AND THE AUTHORITY HAVING JURISDICTION (AHJ).
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.

No.	Description	Date	Dr/Ck

CONSTRUCTION



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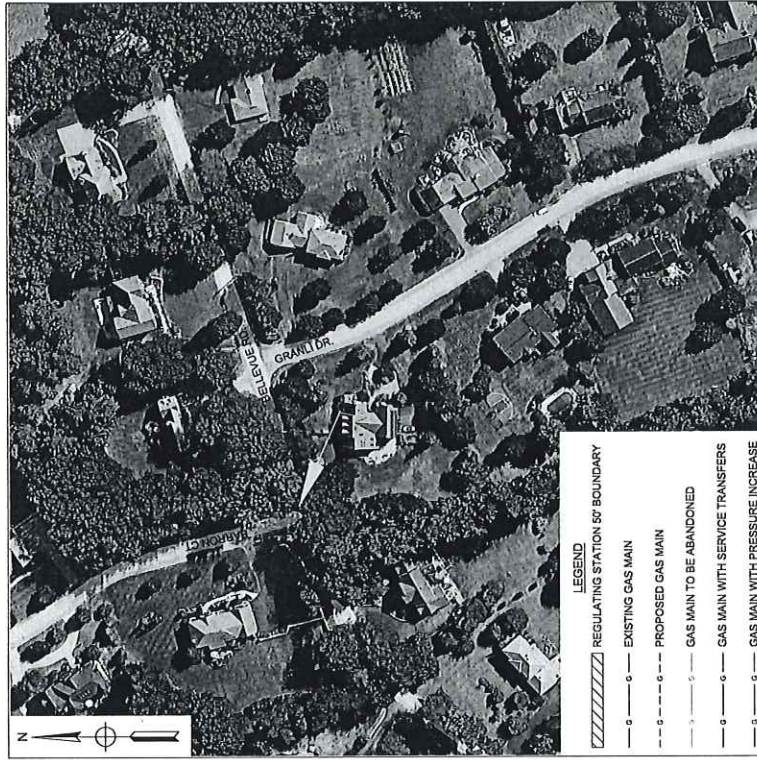
464 RIVER RD, ANDOVER, MA	PROJECT # 23GMYSACT
STANDARD NATIONAL GRID ELECTRICAL SERVICE	SHEET 06 OF 06
SCALES: 1/8" = 1'-0"	Drawing Number
Drawn by: Date	Checked by: Date
CHI 6/13/2023	XXX XXX XXX XXX
MA-LAW-TLM-23-514-06	Rev. No.
	A

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

TABLE OF CONTENTS

SHEET #	TITLE
1 OF 6	COVER SHEET
2 OF 6	NOTES & DETAILS
3 OF 6	LEGEND
4 OF 6	PROJECT LOCATION PLAN
5 OF 6	STANDARD TELEMTRY SERVICE DETAIL UP TO 98 PSIG MAOP
6 OF 6	STANDARD NATIONAL GRID ELECTRICAL SERVICE

EVERSOURCE ENERGY



LEGEND

	REGULATING STATION 50' BOUNDARY
	EXISTING GAS MAIN
	PROPOSED GAS MAIN
	GAS MAIN TO BE ABANDONED
	GAS MAIN WITH SERVICE TRANSFERS
	GAS MAIN WITH PRESSURE INCREASE

WORK SCOPE

PASTE EXCEL FOOTAGE TABLE HERE

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An IIVIS Company



CONSTRUCTION

05/03/2023

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

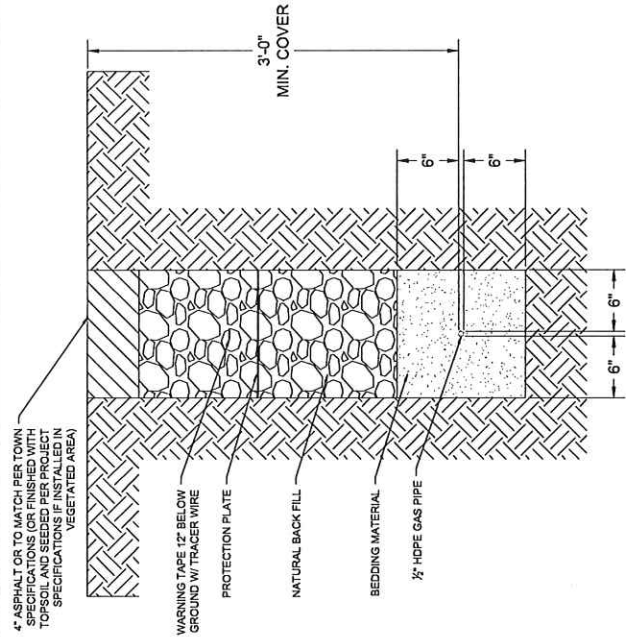
No.	Description	Date	Drawn By / Date	Checked By / Date	Revision / Status
2	CONSTRUCTION	5/3/2023	CHI		
1	CONSTRUCTION	4/18/2023	CHI		
0	CONSTRUCTION	1/12/2023	CHI		

EVERSOURCE ENERGY	
BELLEVUE RD. AND BARRON CT., ANDOVER, MA	
PROJECT # 23GMSYSACT	
COVER SHEET	
SCALE: NONE	SHEET 01 OF 06
Drawn By / Date	Drawing Number
CHI, 12/13/2022	XXX / XXX/XXXXXX
MA-LAW-TJM-23-518-01	Rev. No.
	2

BELLEVUE RD. AND BARRON CT., ANDOVER, MA
PROJECT #23GMSYSACT

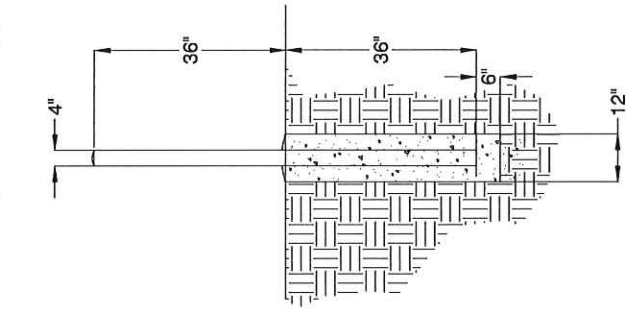
GENERAL NOTES:

- A. IF ANY OF THE FOLLOWING OCCUR A DRAWING REVISION IS REQUIRED AND MUST BE APPROVED AND/OR STAMPED BY THE ENGINEER OF RECORD. CHANGES CAN BE APPROVED AND/OR STAMPED BY A PROJECT ENGINEER, BUT THE ENGINEER OF RECORD MUST BE INFORMED.
 - 1. IF THE TIE IN POINT MOVES TO A DIFFERENT SEGMENT OF PIPE THAN SHOWN.
 - 2. IF A CHANGE IN THE LOCATION OF VALVES IS REQUIRED.
 - 3. IF THERE IS ANY CHANGE TO WHAT IS SHOWN ON THE DRAWING WITHIN 50 FT OF A PRESSURE REGULATING STATION, DISTRICT REGULATOR, OR GATE STATION.
 - 4. IF A CHANGE IN PIPE SIZE, MATERIAL, OR WALL THICKNESS IS REQUIRED.
 - 5. ALTERNATE FITTINGS THAT ARE ACCEPTABLE FOR ANY TIE-IN DETAIL WILL BE CALLED OUT IN THE DRAWING. FITTING CHANGES NOT SHOWN AS ALTERNATIVES ON THE DRAWING WILL NEED TO FOLLOW THE DRAWING CHANGE PROCESS.
- B. CONSTRUCTION DRAWINGS, LOCATIONS OF EXISTING UTILITIES, UNDERGROUND STRUCTURES AND WORK LOCATIONS ARE BASED ON BEST AVAILABLE INFORMATION BUT HAVE NOT BEEN FIELD VERIFIED.
- C. ALL WORK, MATERIAL AND CONSTRUCTION SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL PERMITS AND APPROVALS PER EVERSOURCE, LOCAL, STATE, OSHA AND FEDERAL REGULATIONS AND STANDARDS.
- D. ALL LIVE GAS WORK EXCEPT SERVICE SIZE TAPS, INCLUDING BUT NOT LIMITED TO TAPPING OF FITTINGS ON LIVE MAINS, STOPPING, MANIPULATING VALVE, ABANDONMENT, SHALL BE PERFORMED BY, OR AT THE DIRECTION AND UNDER THE DIRECT SUPERVISION OF EVERSOURCE GAS PERSONNEL AND IN ACCORDANCE WITH THE WRITTEN PROCEDURE. DRAWING CHANGES MAY ALSO REQUIRE A CHANGE TO THE PROCEDURE.
- E. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPES FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISTURB OR DAMAGE SUCH ITEMS. ROADWAY, SIDEWALKS, AND GRASS DISTURBED SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OR TOWN. PLANT BEDS WILL BE RELOCATED TO THEIR EXISTING REGULAR LOCATION.
- F. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), INCLUDING ALL REVISIONS AND ADDENDA. ALL TRAFFIC CONTROL DEVICES WILL BE SUPPLIED BY EXCAVATOR.
- G. EXISTING CONDITIONS SHOWN ARE BASED ON A SURVEY BY CHI ENGINEERING. EXISTING UTILITIES WERE COMPILED FROM EXISTING CONDITIONS IN THE FIELD AS WELL AS RECORD DRAWINGS OBTAINED FROM LOCAL UTILITIES.
- H. LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND IS NOT WARRANTED TO BE CORRECT.
- I. CONTRACTOR MUST NOTIFY DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- J. NEW PIPING SHALL BE PRESSURE TESTED AT 1.5 TIMES MAOP FOR A MINIMUM OF 1 HOUR. 160 PSIG IS THE MINIMUM TEST PRESSURE.
- K. ALL FIELD COATING SHALL BE PERFORMED PER EVERSOURCE SPECIFICATIONS.



TYPICAL GAS TRENCH

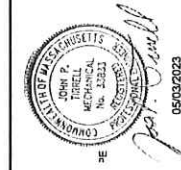
NOT TO SCALE
 (PROPOSED UTILITIES SHALL MAINTAIN MINIMUM 12" SEPARATION FROM EXISTING UTILITIES)



BOLLARD DETAIL

NOT TO SCALE
 DOME TOP WITH CONCRETE
 STANDARD STEEL PIPE FILLED WITH CONCRETE
 PAINT EXPOSED SURFACES YELLOW
 CONCRETE SLOPED AWAY FROM PIPE AT BASE

CHI ENGINEERING
 An IJWIS Company



CONSTRUCTION

No.	Description	Date	Dwg/CK
2	CONSTRUCTION	5/22/2023	CHI
1	CONSTRUCTION	1/19/2023	CHI
0	CONSTRUCTION	1/12/2023	CHI
Revision/Status			
SCALE: NONE			
Drawing Number			
SHEET 02 OF 06			
PROJECT # 23GMSYSACT			
BELLEVUE RD. AND BARRON CT., ANDOVER, MA			
Drawn By/Date	Checked By/Date	Rev. No.	
CHI: 12/13/2022	XXX: XX/XX/XXXX	MA-LAW-TLW-23-518-02	
FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION			2

DRAWING LEGEND

Gas Main Symbolology
REGULATING STATION 50' BOUNDARY



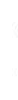
EXISTING GAS MAIN



PROPOSED GAS MAIN



GAS MAIN TO BE ABANDONED



GAS MAIN WITH SERVICE TRANSFERS



GAS MAIN WITH PRESSURE INCREASE



RIGHT-OF-WAY



ELECTRIC



WATER LINE



SEWER LINE



TELEPHONE



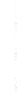
DRAIN LINE



FENCE LINE



CONDUIT



OVERHEAD WIRE



DIGITIZED GAS LINE (SEE NOTE 11)



DIGITIZED SEWER LINE (SEE NOTE 11)



DIGITIZED WATER LINE (SEE NOTE 11)



MAJOR CONTOUR LINE



MINOR CONTOUR LINE



Gas Main Material/Pressure Label References

MATERIAL CODES

- CS* Coated Steel Gas Main
- CI* Cast Iron Gas Main
- BS* Bare Steel Gas Main
- WIP* Wrought Iron Gas Main
- PM* Polyethylene Polyethylene Gas Main
- PP* Polyethylene Polyethylene Gas Main
- LP* Low Pressure (<0.5 PSIG or 14" W.C.)
- MP* Medium Pressure (>0.5 PSIG < 10 PSIG)
- HP* High Pressure (>10 PSIG)

MISCELLANEOUS CODES

- *SER Service
- *R Riser
- (TO) Transmission Class
- BND, FND, Bound Found
- D, H, Drill Hole
- EL, Edge of Pavement
- GRAN, Granite
- SBB, Stopped Bituminous Berm
- SWL, Single White Line
- T.O.D, Top of Hood
- T.O.H, Top of Hood
- VGC, Vertical Granite Curb

Gas Main Installation Method Label References

- AT, Above
- BH, Bridge Hanger
- BLGH, Building Hanger
- DB, Directional Bore
- IS, Inserted
- OC, Open Cut
- PI, Precast Bore
- PT, Pile
- RT, Root Top
- EX, Existing
- (E), Proposed
- (P), Proposed

Gas Facility Symbolology

- x*GV Gas Valve
- x*PV Gate - GV, Plug - PV, PE Ball - BP, ST Ball - BV
- O*HVTT High Volume Tapping Tee
- O*HVT ShortStop Tee
- O*SPH Pressure Control Fitting - Spherical Tee
- O*MF-BO Pressure Control Fitting - Mueller Bottom-out
- O*MF-SO Pressure Control Fitting - Mueller Side-out
- O*MF-FT Pressure Control Fitting - Mueller Flange Tee
- Z*SS Pressure Control Fitting - ShortStop
- X*XPOLY/TAP Pressure Control Fitting - Mueller Stopper Transition
- E*XCAP Eric Cap
- R*REDUCER Reducer
- E*EMARKER Electronic Marker
- P*PUSH-IN-UNDER Tracer Wire Station
- P*PUSH-IN-UNDER Tracer Wire
- G*GMARKER Gas Main Marker without Tracer Wire
- T*TEST WELL Test Well
- R*REGULATOR Regulator Station
- S*SCUSTOMER Single Customer Regulator
- M*METER Meter with Regulator
- T*TEST POINT (Station) Test Point
- G*GAS SERVICE Gas Service Replacement
- M*METER MOVE Meter Move Out

Swing Tie Symbolology

- Telephone Manhole
- Drain Manhole
- Electric Manhole
- Electric Base
- Sewer Manhole
- Fire Hydrant
- Utility Pole
- Property Marker
- Telephone Pedestal
- Telephone Pedestal
- Water Box
- Water Gate
- Electric Pedestal
- Iron Pin
- Light Pole
- INSIDE METER
- OUTSIDE METER

NOTES:

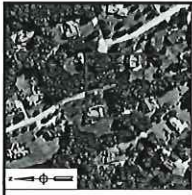
- FIELD SURVEY PERFORMED BY J.C.M. & G.B.B. (DOCKET SURVEY) DURING NOVEMBER 2022 USING A TRIMBLE S6 TOTAL STATION AND A TRIMBLE R12 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DNI DIGITAL AUTO LEVEL. TRAVEL ADJUSTMENT BASED ON LEAST SQUARE ANALYSIS.
- HORIZONTAL DATUM BASED ON NAD83(2011) MASSACHUSETTS STATE PLANE MAINLAND COORDINATE ZONE (2011) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET VRS NETWORK.
- VERTICAL DATUM IS BASED ON APPROXIMATE NAVD83(2011) (1-2) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KEYNET VRS NETWORK.
- THIS MAP WAS PREPARED FROM RECORD RESEARCH, OTHER MAPS, LIMITED FIELD MEASUREMENTS AND OTHER SOURCES. IT IS NOT TO BE CONSTRUED AS A PROPERTY BOUNDARY SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.
- PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOCKET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
- ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL, WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH, CALL DIG-SAFE AT 1-888-DIG-SAFE.
- OVERALL APPROXIMATE POSITION LOT LINES AS SHOWN HEREON ARE BASED ON GIS DATA FROM THE BUREAU OF GEOGRAPHIC INFORMATION AND PLANNING OF MASSACHUSETTS, EXECUTIVE OFFICE OF TECHNOLOGY AND SECURITY SERVICES, AND ARE IN THEIR ORIGINAL LOCATION.
- APPROXIMATE RIGHT-OF-WAY LINES ARE BASED UPON REFERENCE PLAN 1. NO VERIFICATION OR RESEARCH FURTHER THAN REFERENCE PLAN 1 HAS BEEN DONE TO DETERMINE THE RIGHT-OF-WAY.
- UTILITY INFORMATION PLOTTED ON THE DRAWING IS BASED SOLELY ON RECORD INFORMATION PROVIDED BY THE TOWN OF NORTH ANDOVER DEPARTMENT OF PUBLIC WORKS AND EVERSOURCE ENERGY.



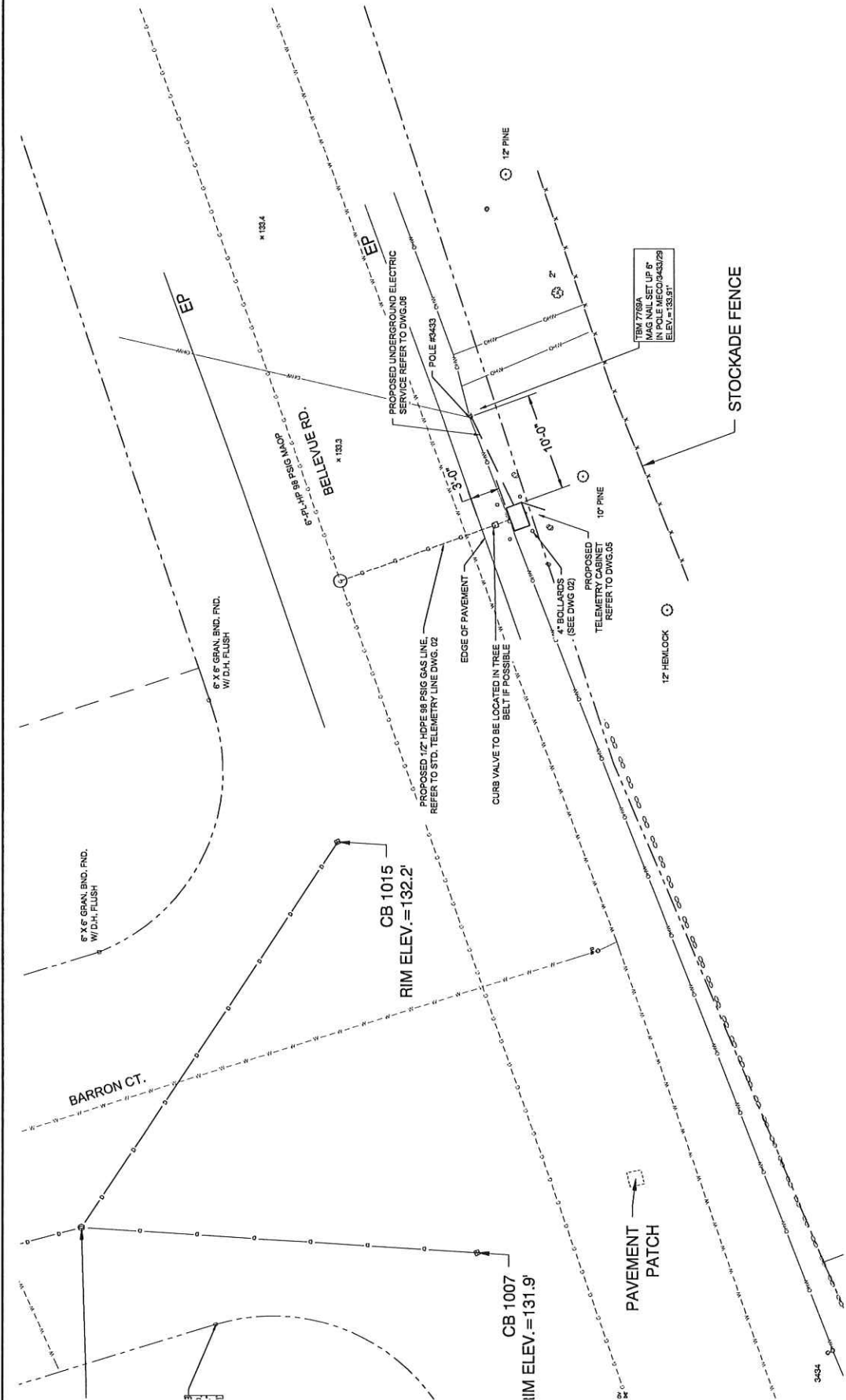
CHI ENGINEERING
An IVIS Company

CONSTRUCTION

2	CONSTRUCTION	5/8/2023	CHI
1	CONSTRUCTION	1/8/2023	CHI
0	CONSTRUCTION	1/12/2023	CHI
No.	Description	Date	Drawn
Revision/Status			
SCALE: NONE			
PROJECT # 23GMSYSACT			
BELLEVUE RD. AND BARRON CT., ANDOVER, MA			
SHEET 03 OF 06			
Drawing Number			
Checked by Date			
XXX XXXXXXXXXX			
MA-LAW-TLM-23-518-03			
Rev. No.			
2			



KEY MAP
SCALE: N.T.S.



CHI ENGINEERING An AMES Company



CONSTRUCTION

BELLEVUE RD. & BARRON CT., ANDOVER, MA	
PROJECT # 23GM575ACT	
PROJECT LOCATION PLAN	
SCALE: 1"=5' ON 22"X34"	
Sheet Number	04 OF 06
Drawn By / Date	XXX XX/XX/XXXX
Checked By / Date	MA-LAW-TLM-23-518-04
Issue No.	2

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

No.	Description	Date	Dw/Ch
2	CONSTRUCTION	5/9/2023	CHI
0	CONSTRUCTION	1/19/2023	CHI
0	CONSTRUCTION	1/12/2023	CHI

REVISION/STATUS

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	PIPE, 1/2 IN CTS X 0.090 IN THK WALL SDR 7, 58 IN OD, 500 FT LG COIL, POLYETHYLENE, PE3406PIPE100	554222	20'
2	VALVE BALL, FULL PORT, 1/2 IN CTS, SDR 7.0, PE 4710, BUTT FUSE, POLYETHYLENE, BLACK FINISH, REPLACED IN 551834	601132	1
3	CURB VALVE BOX 334, 18X24 IN SHAFT LENGTH W NON-LOCKING COVER MAKED "GAS" WALL THICKNESS .125"-0.15, FOR USE WITH 1/2"-1-1/4" PERFECTION P5V PLASTIC BALL VALVE	557812	1
4	RISER ANODELESS 1/2 X 3/4 PERFECTION 7797, .090W PE 3408 CTS X NPT W/ 12 DIGITAL	610786	1
5	VALVE, 3/4 IN, SS, THREADED, BALON, LS07592	580957	1
6	ELBOW, MALE 60 SWAGelok, 3/4 NPT X 3/8 TUBE SWAGelok SS-400-2-12 (NON-STOCK EVERSOURCE ITEM)	N/A	1
7	TUBING, 3/8 IN OD, 10 FT LG, 0.035 IN THK WALL, 31631 6L SS, CAMBRIDGE VALVE & FITTING - SS-TS-035-20 - 20'	500931	6FT.
8	BULKHEAD UNION, 3/8" SWAGelok SS-600-61 (NON-STOCK EVERSOURCE ITEM)	N/A	1
9	ELBOW, WALE 60 SWAGelok, 1/2 NPT X 3/8 TUBE SWAGelok SS-400-2-8 (NON-STOCK EVERSOURCE ITEM)	N/A	1
10	POST, 4 IN X 6 FT, YELLOW, POWDER COATED, 125 LBS, CONCRETE, FOR METER PROTECTION	593751	4
11	TAPE WARNING, MARKED BURIED GAS LINE, 400 M, (1312 FT) ROLL, 6 IN, 6 MILL, POLYETHYLENE, YELLOW, LOCATABLE - RFID TAG EVERY 8 IN	603277	20'
12	PLATE, RECTANGULAR, PROTECTION, 41 IN X 71 IN, HOPE, YELLOW, ANTI-SLIP BEVELED EDGE DRAIN HOLES, FOR OVERPIPE, CMA 44028102	610792	4
13	BOLLARD COVER, YELLOW, 4.5' X 5.2' LONG, HOPE, POST GUARD OR EQUAL (NON-STOCK EVERSOURCE ITEM)	N/A	4

DETAIL A: TAPS FOR CAST IRON MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	FITTING, FEE, THREADED BRASS BASE SERVICE, 1-1/4 IN NPT X 1 CTS X 0.090 IN WALL, POLYETHYLENE BODY, PE4710	560810	
14.1	FITTING, REDUCER, COUPLING, LYCOFIT, 1 IN CTS X .089 IN X 1/2 IN CTS X .090 IN THK WALL, HOPE, CMA 21656692	610785	

DETAIL A1: SERVI-SEAL CLAMP

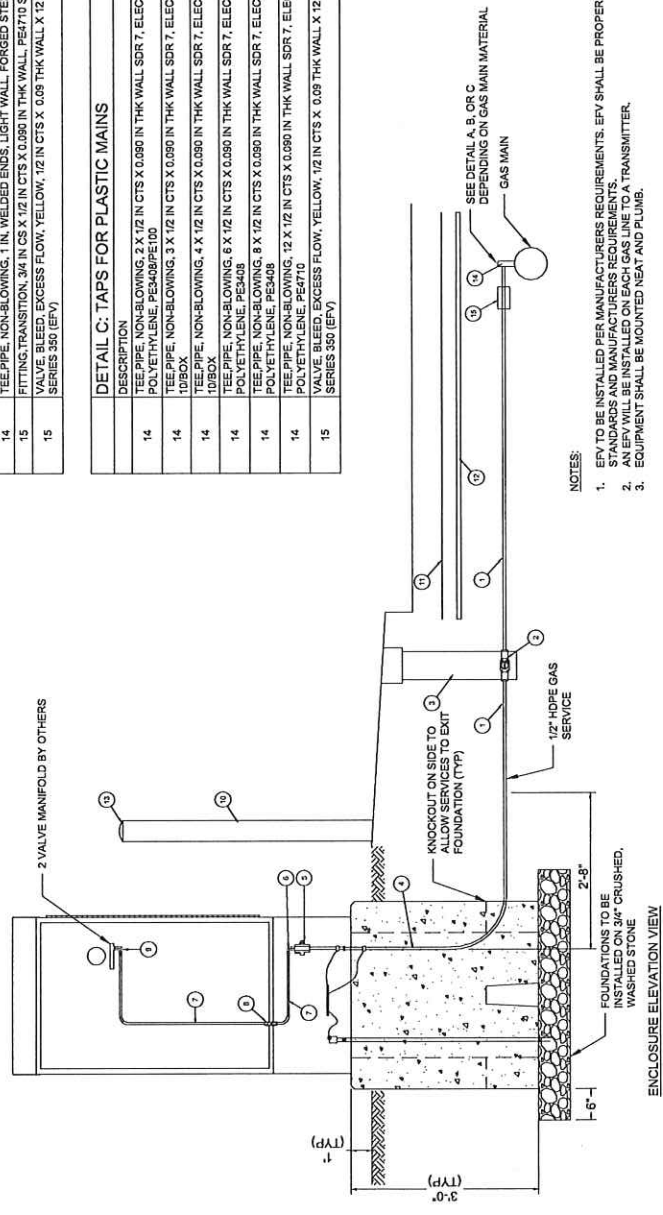
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
	CLAMP PIPE SERVI-SEAL REPAIR, 3 IN DIA, 9 IN LG, W/ 1-1/4 IN ID OUTLET, FOR CAST IRON PIPE, FITTING, ID 11633	578017	
	CLAMP PIPE REPAIR, 4 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 4.74 - 5.14 IN PIPE	542984	
	CLAMP PIPE REPAIR, 6 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 6.84 - 7.24 IN PIPE	542982	
	CLAMP PIPE REPAIR, 8 IN IPS, SS, W/ 2 IN TAP, ALTERNATE IN 578014 (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578014	
	CLAMP PIPE FULL CIRCLE REPAIR DOUBLE BAND, W/ 2 IN NPT OUTLET, 12.75 TO 13.26 IN OD, 3/4 SS, 10 IN LONG, STEEL NUTS & BOLTS, BOMAN GASKET (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578016	

DETAIL B: TAPS FOR STEEL MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14 / 15	3/4"X1/2" UMAC 40056 SELF TAP WELD TEE IPS X CTS & 5/8" OD COMPRESSION ADAPTER OUTLET WITH SER400 EFV	N/A	
	OR		
14	TEE PIPE, NON-BLOWING, 1-1/4 IN TEE OUTLET X 1-1/4 IN MAIN, WELDED, 250 PSIG, W/ CI CAP, CMA 44789004	610059	
14	TEE PIPE, NON-BLOWING, 1 IN, WELDED ENDS, LIGHT WALL, FORGED STEEL BODY, W/ CI CAP	560712	
15	FITTING, TRANSITION, 3/4 IN CS X 1/2 IN CTS X 0.090 IN THK WALL, PE4710 SDR 7, STEEL WELD X PLASTIC BUTT END VALVE BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFV)	542627	
15		562085	

DETAIL C: TAPS FOR PLASTIC MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	TEE PIPE, NON-BLOWING, 2 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408/PE100	500866	
14	TEE PIPE, NON-BLOWING, 3 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 100BOX	578017	
14	TEE PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 100BOX	500867	
14	TEE PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 100BOX	500869	1
14	TEE PIPE, NON-BLOWING, 8 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 100BOX	578014	
14	TEE PIPE, NON-BLOWING, 12 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE4710	560847	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFV)	592085	1



- NOTES:**
- EFV TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS. EFV SHALL BE PROPERLY SIZED FOR APPLICATION PER EVERSOURCE STANDARDS AND MANUFACTURERS REQUIREMENTS.
 - AN EFV WILL BE INSTALLED ON EACH GAS LINE TO A TRANSMITTER.
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.



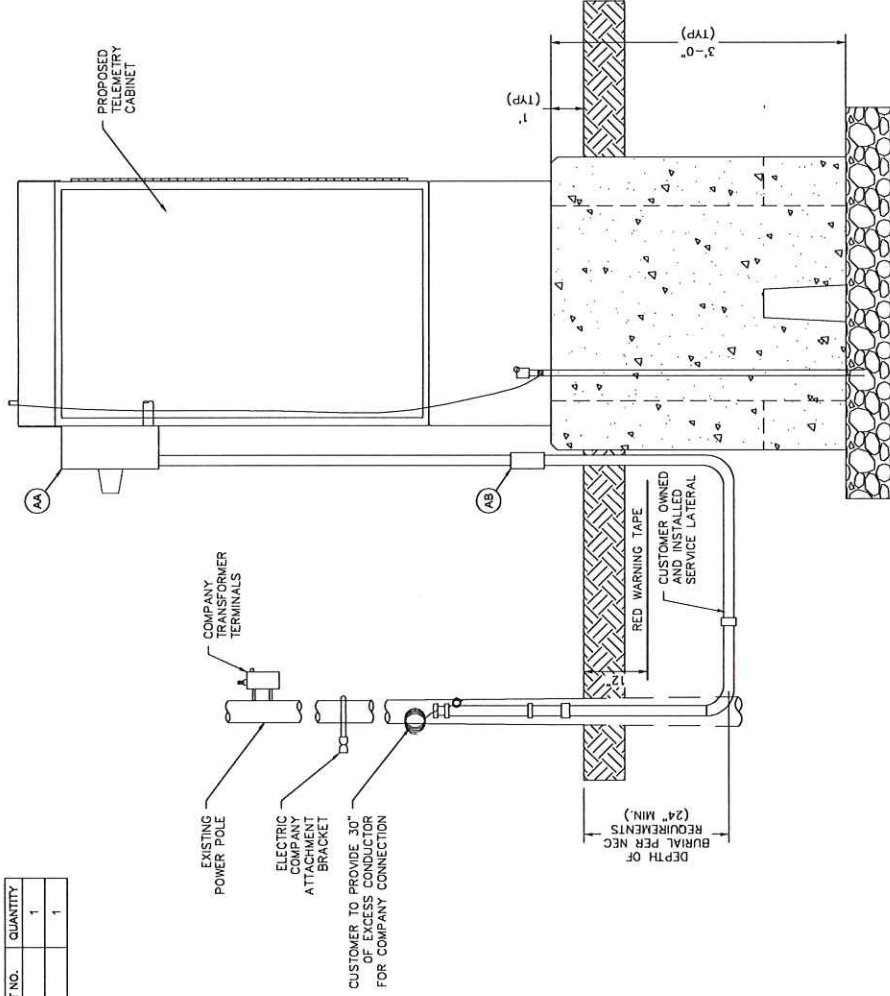
CHI ENGINEERING
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BELLEVUE RD. AND BARRON CT., ANDOVER, MA	
PROJECT # 23GMSYACT	
STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP	
Scale: 1/2" = 1'-0"	Sheet: 05 OF 06
Drawn By: J.D.	Checked By: J.D.
CH, 10/24/2022	XXX XXXXXXXXXX
MA-LAW-TL-M-23-518-05	2

CONSTRUCTION

No.	Description	Date	Dw/CK
2	CONSTRUCTION	5/2/2023	CHI
1	CONSTRUCTION	11/9/2023	CHI
0	CONSTRUCTION	11/22/2023	CHI

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
AA	ELECTRIC METER SOCKET PER ELECTRIC UTILITY REQUIREMENTS		1
AB	EXPANSION FITTING PER ELECTRIC UTILITY		1



- NOTES:**
- SERVICE CONNECTION TO CABINET SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH NFPA 70, THE REQUIREMENT OF THE LOCAL UTILITY AND THE AUTHORITY HAVING JURISDICTION (AHJ).
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.

No.	Description	Date	Drawn/Checked
2	CONSTRUCTION	5/5/2023	CHI
1	CONSTRUCTION	1/19/2023	CHI
0	CONSTRUCTION	1/17/2023	CHI

CONSTRUCTION



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An NIMS Company

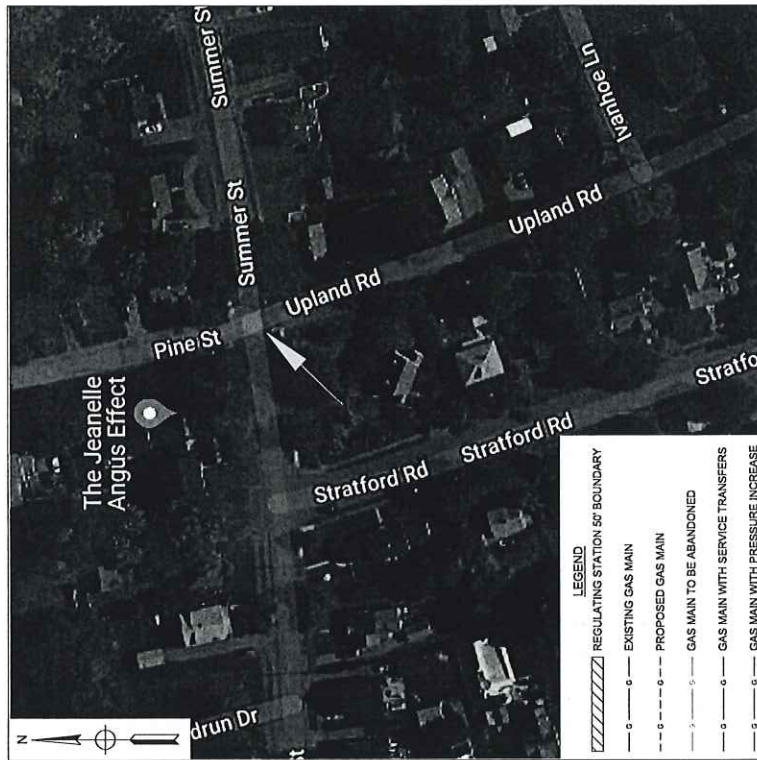
BELLEVUE RD. AND BARRON CT., ANDOVER, MA	
PROJECT # 23GMSYSACT	
STANDARD NATIONAL GRID ELECTRICAL SERVICE	
SCALE: 1/8" = 1'-0"	SHEET 06 OF 06
Drawn By: Date	Checked By: Date
CHI, 12/13/2022	XXX, 00/00/0000
Drawn Number	Sheet Number
	MA-LAW-TLM-23-518-06
	2

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

EVERSOURCE ENERGY

TABLE OF CONTENTS

SHEET #	TITLE
1 OF 6	COVER SHEET
2 OF 6	NOTES & DETAILS
3 OF 6	LEGEND
4 OF 6	PROJECT LOCATION PLAN
5 OF 6	STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP
6 OF 6	STANDARD NATIONAL GRID ELECTRICAL SERVICE



LEGEND

	REGULATING STATION 50' BOUNDARY
	EXISTING GAS MAIN
	PROPOSED GAS MAIN
	GAS MAIN TO BE ABANDONED
	GAS MAIN WITH SERVICE TRANSFERS
	GAS MAIN WITH PRESSURE INCREASE

WORK SCOPE

PASTE EXCEL FOOTAGE TABLE HERE

UPLAND RD. AND SUMMER ST., ANDOVER, MA
PROJECT #23GMSYSACT

No.	CONSTRUCTION	Description	Revision/Status	Date	Checked by / Date	Drawn by / Date
0				7/18/2023	CHI	Dwck

EVERSOURCE ENERGY
PROJECT # 23GMSYSACT
COVER SHEET

SCALE: NONE
SHEET: 01 OF 06
FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

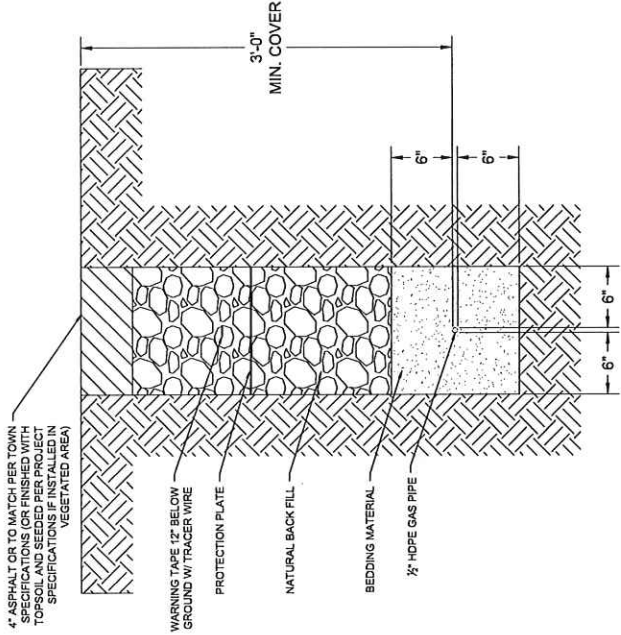
CHI ENGINEERING An INVS Company



CONSTRUCTION

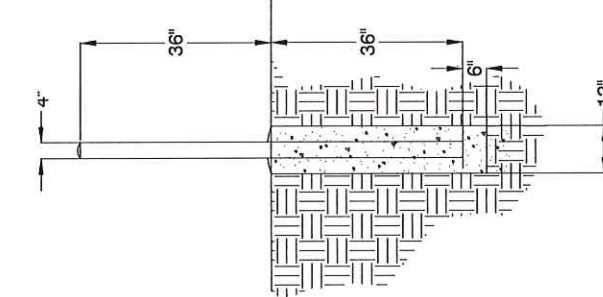
GENERAL NOTES:

- A. IF ANY OF THE FOLLOWING OCCUR A DRAWING REVISION IS REQUIRED AND MUST BE APPROVED AND/OR STAMPED BY THE ENGINEER OF RECORD. CHANGES CAN BE APPROVED AND/OR STAMPED BY A PROJECT ENGINEER, BUT THE ENGINEER OF RECORD MUST BE INFORMED.
 - 1. IF THE TIE IN POINT MOVES TO A DIFFERENT SEGMENT OF PIPE THAN SHOWN.
 - 2. IF A CHANGE IN THE LOCATION OF VALVES IS REQUIRED.
 - 3. IF THERE IS ANY CHANGE TO WHAT IS SHOWN ON THE DRAWING WITHIN 50 FT OF A PRESSURE REGULATING STATION, DISTRICT REGULATOR, OR DATE STATION.
 - 4. IF A CHANGE IN PIPE SIZE, MATERIAL, OR WALL THICKNESS IS REQUIRED.
 - 5. ALTERNATE FITTINGS THAT ARE ACCEPTABLE FOR ANY TIE-IN DETAIL WILL BE CALLED OUT IN THE DRAWING. FITTING CHANGES NOT SHOWN AS ALTERNATIVES ON THE DRAWING WILL NEED TO FOLLOW THE DRAWING CHANGE PROCESS.
- B. CONSTRUCTION DRAWINGS, LOCATIONS OF EXISTING UTILITIES, UNDERGROUND STRUCTURES AND WORK LOCATIONS ARE BASED ON BEST AVAILABLE INFORMATION BUT HAVE NOT BEEN FIELD VERIFIED.
- C. ALL WORK, MATERIAL AND CONSTRUCTION SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL PERMITS AND APPROVALS PER EVERSOURCE, LOCAL, STATE, OSHA AND FEDERAL REGULATIONS AND STANDARDS.
- D. ALL LIVE GAS WORK EXCEPT SERVICE SIZE TAPS, INCLUDING BUT NOT LIMITED TO TAPPING OF FITTINGS ON LIVE MAINS, STOPPING, MANIPULATING VALVE, ABANDONMENT, SHALL BE PERFORMED BY, OR AT THE DIRECTION AND UNDER THE DIRECT SUPERVISION OF EVERSOURCE GAS PERSONNEL AND IN ACCORDANCE WITH THE WRITTEN PROCEDURE. DRAWING CHANGES MAY ALSO REQUIRE A CHANGE TO THE PROCEDURE.
- E. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPES FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISBUR OR DAMAGE SUCH ITEMS. ROADWAY, SIDEWALKS, AND GRASS DISTURBED SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OR TOWN. PLANT BEDS WILL BE RELOCATED TO THEIR EXISTING REGULAR LOCATION.
- F. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), INCLUDING ALL REVISIONS AND ADDENDA. ALL TRAFFIC CONTROL DEVICES WILL BE SUPPLIED BY EXCAVATOR.
- G. EXISTING CONDITIONS SHOWN ARE BASED ON A SURVEY BY CHI ENGINEERING. EXISTING UTILITIES WERE COMPILED FROM EXISTING CONDITIONS IN THE FIELD AS WELL AS RECORD DRAWINGS OBTAINED FROM LOCAL UTILITIES.
- H. LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND IS NOT WARRANTED TO BE CORRECT.
- I. CONTRACTOR MUST NOTIFY DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- J. NEW PIPING SHALL BE PRESSURE TESTED AT 1.5 TIMES MAOP FOR A MINIMUM OF 1 HOUR. 160 PSIG IS THE MINIMUM TEST PRESSURE.
- K. ALL FIELD COATING SHALL BE PERFORMED PER EVERSOURCE SPECIFICATIONS.



TYPICAL GAS TRENCH

NOT TO SCALE
 (PROPOSED UTILITIES SHALL MAINTAIN MINIMUM 12" SEPARATION FROM EXISTING UTILITIES)



BOLLARD DETAIL

NOT TO SCALE
 DOME TOP WITH CONCRETE
 STANDARD STEEL PIPE FILLED WITH CONCRETE
 6" MIN. THICKNESS
 CONCRETE SLOPED AWAY FROM PIPE AT BASE

CHI ENGINEERING
 An IMHS Company

01/22/2023

RE: [Signature]

01/22/2023

MECHANICAL
 No. 38223

CONSTRUCTION

No.	Description	Revision/Status
0	CONSTRUCTION	CHI Date: 1/18/2023 Dwg/Ck

UPLAND RD. AND SUMMER ST., ANDOVER, MA
 PROJECT # 23GMSYSACT
 NOTES & DETAILS
 SCALE: NONE
 Sheet #/ Date: 02 OF 06
 Checked by/ Date: XXXX/XXXX/XXXX
 No. MA-LAW-TLM-23-613-02

DRAWING LEGEND

Gas Main Symbolology	
REGULATING STATION 50' BOUNDARY	
EXISTING GAS MAIN	
PROPOSED GAS MAIN	
GAS MAIN TO BE ABANDONED	
GAS MAIN WITH SERVICE TRANSFERS	
GAS MAIN WITH PRESSURE INCREASE	
RIGHT-OF-WAY	
ELECTRIC	
WATER LINE	
SEWER LINE	
TELEPHONE	
DRAIN LINE	
FENCE LINE	
CONDUIT	
OVERHEAD WIRE	
DIGITIZED GAS LINE (SEE NOTE 1)	
DIGITIZED SEWER LINE (SEE NOTE 1)	
DIGITIZED WATER LINE (SEE NOTE 1)	
MAJOR CONTOUR LINE	
MINOR CONTOUR LINE	

Gas Main Material/Pressure Label References

MATERIAL CODES	Coated Steel Gas Main
CS*	Cast Iron Gas Main
CI*	Bare Steel Gas Main
W*	Welded Steel Gas Main
PH*	High Density Polyethylene Gas Main
PM*	Medium Density Polyethylene Gas Main
PRESSURE CODES	Low Pressure (<0.5 PSIG or 1/2" W.C.)
*LP	Medium Pressure (>0.5 PSIG or 1/2" W.C.)
*MP	High Pressure (>80 PSIG)
*HP	
MISCELLANEOUS CODES	
*-R	Riser
(TC)	Transmission Class
BN.D.	Bound Fourth
DYL	Double Yellow Line
EP	Edge of Pavement
GRAN.	Granite
SBB	Sloped Bituminous Berm
SWL	Single White Line
TOP	Top of Debris
TCH	Top of Curb
VGC	Vertical Granite Curb
Gas Main Installation Method Label References	
AT	Attached
BH	Bridge Hanger
BLGH	Building Hanger
DB	Directional Bore
IS	Inserted
PG	Open Cut
PL	Piped
RT	Root Top
(E)	Existing
(P)	Proposed

Gas Facility Symbolology

x x GV	Gas Valve
x x PV	Gate - GV, Plug - PV, PE Ball - BP, ST Ball - BV
O x HVT	High Voltage Transformer
O x SST	Pressure Control Fitting - ShortStop Tee
O x SPH	Pressure Control Fitting - Spherical Tee
O x MF-BO	Pressure Control Fitting - Mueller Bottom-out
O x MF-SO	Pressure Control Fitting - Mueller Side-out
R x SS	Pressure Control Fitting - ShortStop
X x W	Pressure Control Fitting - Mueller Flange Tee
X x X x POLY/APP	Pressure Control Fitting - Mueller Stopper
1	End Cap
2	Riser
3	Electronic Marker
4	Electric Marker
5	Unencased Tracer Wire Station
6	Gas Main Marker with Tracer Wire
7	Gas Main Marker without Tracer Wire
8	Test Well
9	Regulator Station
10	Single Customer Regulator
11	Meter
12	Meter with Regulator
13	Tracer Point (Station)
14	Gas Service Tie-over
15	Gas Service Replacement
16	Meter Move Out
17	Telephone Manhole
18	Drain Manhole
19	Manhole
20	Catch Basin
21	Sewer Manhole
22	Fire Hydrant
23	Utility Pole
24	Property Marker
25	Telephone Pedestal
26	Telephone Pedestal
27	Unknown Manhole
28	Water Box
29	Water Gate
30	Electric Pedestal
31	Iron Pin
32	Light Pole
33	INSIDE METER
34	OUTSIDE METER

NOTES:

- FIELD SURVEY PERFORMED BY J.C.M. & G.B.B. (DOUGET SURVEY) DURING NOVEMBER 2022 USING A TRIMBLE S6 TOTAL STATION AND A TRIMBLE RT3 SURVEY GRADE GPS WITH A TRIMBLE TSC3 DATA COLLECTOR AND A TRIMBLE DNI DIGITAL AUTO LEVEL. TRAVERSE ADJUSTMENT BASED ON LEAST SQUARE METHOD.
- HORIZONTAL DATUM BASED ON NAD83(2011) MASSACHUSETTS STATE PLANE MANU AND COORDINATE ZONE (2001) DERIVED FROM REUNDANT GPS OBSERVATIONS UTILIZING THE KENNET GPS VRS NETWORK.
- VERTICAL DATUM IS BASED ON APPROXIMATE WAD98(GEOD10A) (1-2) DERIVED FROM REDUNDANT GPS OBSERVATIONS UTILIZING THE KENNET GPS VRS NETWORK.
- THIS MAP WAS PREPARED FROM RECORD RESEARCH, OTHER MAPS, LIMITED FIELD MEASUREMENTS AND OTHER SOURCES. IT IS NOT TO BE CONSTRUED AS A PROPERTY/BOUNDARY SURVEY AND IS SUBJECT TO SUCH FACTS AS SAID SURVEYS MAY DISCLOSE.
- PROPER FIELD PROCEDURES WERE FOLLOWED IN ORDER TO GENERATE CONTOURS AT 1' INTERVALS. ANY MODIFICATION OF THIS INTERVAL WILL DIMINISH THE INTEGRITY OF THE DATA, AND DOUGET SURVEY WILL NOT BE RESPONSIBLE FOR ANY SUCH ALTERATION PERFORMED BY THE USER.
- UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON OBSERVED PHYSICAL EVIDENCE AND PAINT MARKS FOUND ON-SITE.
- ALL UNDERGROUND UTILITIES (ELECTRIC, GAS, TEL, WATER, SEWER DRAIN SERVICES) ARE SHOWN IN SCHEMATIC FASHION. THEIR LOCATIONS ARE NOT PRECISE OR NECESSARILY ACCURATE. NO WORK WHATSOEVER SHALL BE UNDERTAKEN USING THIS PLAN TO LOCATE THE ABOVE SERVICES. CONSULT WITH THE PROPER AUTHORITIES CONCERNED WITH THE SUBJECT SERVICE LOCATIONS FOR INFORMATION REGARDING SUCH. CALL DIG-SAFE AT 1-888-DIG-SAFE.
- OVERALL APPROXIMATE ADJUTER LOT LINES AS SHOWN HEREON ARE BASED ON GIS DATA FROM THE BUREAU OF GEOGRAPHIC INFORMATION (MASSGIS), COMMONWEALTH OF MASSACHUSETTS, EXECUTIVE OFFICE OF TECHNOLOGY AND SECURITY SERVICES, AND ARE IN THEIR ORIGINAL LOCATION.
- APPROXIMATE RIGHT-OF-WAY LINES ARE BASED UPON REFERENCE PLAN 1. NO VERIFICATION OR RESEARCH FURTHER THAN REFERENCE PLAN 1 HAS BEEN DONE TO DETERMINE THE RIGHT-OF-WAY.
- UTILITY INFORMATION PLOTTED ON THE DRAWING IS BASED SOLELY ON RECORD INFORMATION PROVIDED BY THE TOWN OF NORTH ANDOVER DEPARTMENT OF PUBLIC WORKS AND EVERSOURCE ENERGY.

No.	0	CONSTRUCTION	Description	1/18/2023	CHI
			Revision/Status	Date	DWCK
LEGEND					
PROJECT # ZGMSYSACT					
UPLAND RD. AND SUMMER ST., ANDOVER, MA					
SCALE NONE					
SHEET 03 OF 06					
Checked By / Date					
XXX XXXXXXXXXX					
MA-LAW-TLM-23-513-03					

CH ENGINEERING An **INC** Company

01/22/2023

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

CONSTRUCTION

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	PIPE, 1/2 IN CTS X 0.090 IN THK WALL SDR 7, 58 IN OD, 500 FT LG COIL, POLYETHYLENE, PE3408PE100	554022	30'
2	VALVE BALL, FULL PORT, 1/2 IN CTS, SDR 7.0, PE 4710, BUTT FUSE, POLYETHYLENE, BLACK FINISH, REPLACED IN 561834	601132	1
3	CURB VALVE BOX 334 19X24 IN SHAFT LENGTH W/ NON-LOCKING COVER MARKED "GAS" WALL THICKNESS .125--0.15, FOR USE WITH 1/2-1-1/4" PERFECTION PSV/PLASTIC BALL VALVE	567912	1
4	RISER ANODELESS 1/2 X 3/4 PERFECTION 77571, .050W PE 3408 CTS X NPT W/ 12 PIGTAIL	610766	1
5	VALVE, 3/4 IN, SS, THREADED, BALON, LS07592	580957	1
6	ELBOW, MALE 90 SWAGelok, 3/4 NPT X 3/8 TUBE SWAGelok SS-600-2-12 (NON-STOCK EVERSOURCE ITEM)	N/A	1
7	TUBING, 3/8 IN OD, 10 FT LG, 0.035 IN THK WALL, 316/316L SS, CAMBRIDGE VALVE & FITTING - SS-TS-035-20 - 20'	500931	6FT.
8	BULKHEAD UNION, 3/8" SWAGelok SS-600-61 (NON-STOCK EVERSOURCE ITEM)	N/A	1
9	ELBOW, MALE 90 SWAGelok, 1/2 NPT X 3/8 TUBE SWAGelok SS-600-2-8 (NON-STOCK EVERSOURCE ITEM)	N/A	1
10	POST, 4 IN X 6 FT, YELLOW, POWDER COATED, 125 LBS, CONCRETE FOR METER PROTECTION	593751	4
11	TAPE WARNING, MARKED BURIED GAS LINE, 400 YL (1312 FT); ROLL 6 IN, 6 MIL, POLYETHYLENE, YELLOW, LOCATABLE - RFID TAG EVERY 8 FT	603277	30'
12	PLATE, RECTANGULAR, PROTECTION, 41 IN X 71 IN, HOPE, YELLOW, ANTISLIP BEVELED EDGE DRAIN HOLES, FOR OVERPIPE, CMA 44028102	610792	6
13	BOLLARD COVER, YELLOW, 4.5' X 5.5' LONG, HOPE, POST GUARD OR EQUAL (NON-STOCK EVERSOURCE ITEM)	N/A	4

DETAIL A: TAPS FOR CAST IRON MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	FITTING, TEE, THREADED BRASS BASE SERVICE, 1-1/4 IN NPT X 1 CTS X 0.090 IN WALL, POLYETHYLENE BODY, PE4710	560810	
14.1	FITTING, REDUCER, COUPLING, LYCOPHT, 1 IN CTS X .089 IN X 1/2 IN CTS X .090 IN THK WALL, HOPE, CMA 21656092	610785	

DETAIL A1: SERVI-SEAL CLAMP

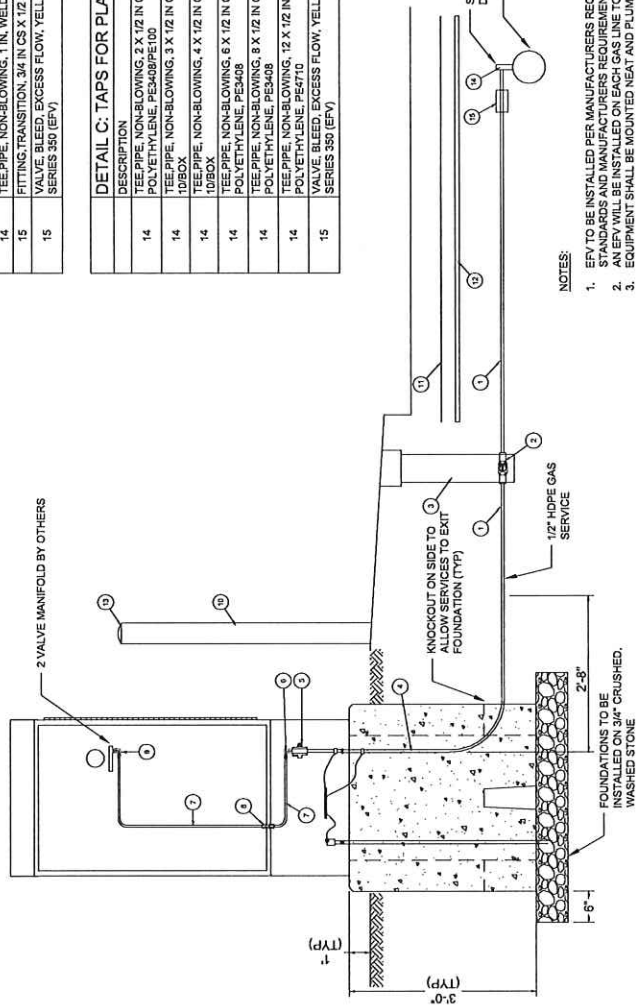
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	CLAMP PIPE, SERVI-SEAL REPAIR, 3 IN DIA, 9 IN LG, W/ 1-1/4 IN ID OUTLET, FOR CAST IRON PIPE, FITTING, ID 11633	578017	
14	CLAMP PIPE, REPAIR, 4 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 4.74"-5.14 IN PIPE	542984	
14	CLAMP PIPE, REPAIR, 6 IN CIP, SS, W/ 1-1/4 NPT TAP, FOR 6.84"-7.24 IN PIPE	542982	
14	CLAMP PIPE, REPAIR, 8 IN CIP, SS, W/ 1-1/4 NPT TAP, ALTERNATE IN 578014 (REQUIRES 2 X 1-1/4" REDUCING BUSHING)	578014	
14	CLAMP PIPE, FULL CIRCLE REPAIR DOUBLE BAND, W/ 2 IN NPT OUTLET, 12.75 TO 13.26 IN OD, 304 SS, 10 IN LONG, STEEL NUTS & BOLTS, BOWMAN GASKET (REQUIRES 2 X 1-1/4" REDUCING BUSHING)	578016	

DETAIL B: TAPS FOR STEEL MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14 / 15	3/4"X1/2" UMAC 40556 SELF TAP WELD TEE IPS X CTS & 5/8" OD COMPRESSION ADAPTER OUTLET WITH SER400 EFV	N/A	
	OR		
14	TEE PIPE, NON-BLOWING, 1-1/4 IN TEE OUTLET X 1-1/4 IN MAIN, WELDED, 250 PSIG, W/ CI CAP, CMA 44789004	610059	
14	TEE PIPE, NON-BLOWING, 1 IN, WELDED ENDS, LIGHT WALL, FORGED STEEL BODY, W/ CI CAP	560712	
15	FITTING, TRANSITION, 3/4 IN CTS X 1/2 IN CTS X 0.090 IN THK WALL, PE4710 SDR 7, STEEL WELD X PLASTIC BUTT END	546257	
	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 380 (EFV)	592085	

DETAIL C: TAPS FOR PLASTIC MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	TEE PIPE, NON-BLOWING, 2 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408PE100	500886	1
14	TEE PIPE, NON-BLOWING, 3 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 10/6 BOX	578017	
14	TEE PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 10/6 BOX	500967	
14	TEE PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, POLYETHYLENE, PE3408	500869	
14	TEE PIPE, NON-BLOWING, 8 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, POLYETHYLENE, PE3408	578014	
14	TEE PIPE, NON-BLOWING, 12 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE4710	560847	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 380 (EFV)	592085	1



NOTES:

- EFV TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS. EFV SHALL BE PROPERLY SIZED FOR APPLICATION PER EVERSOURCE STANDARDS AND MANUFACTURERS REQUIREMENTS.
- AN EFV WILL BE INSTALLED ON EACH GAS LINE TO A TRANSMITTER.
- EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.



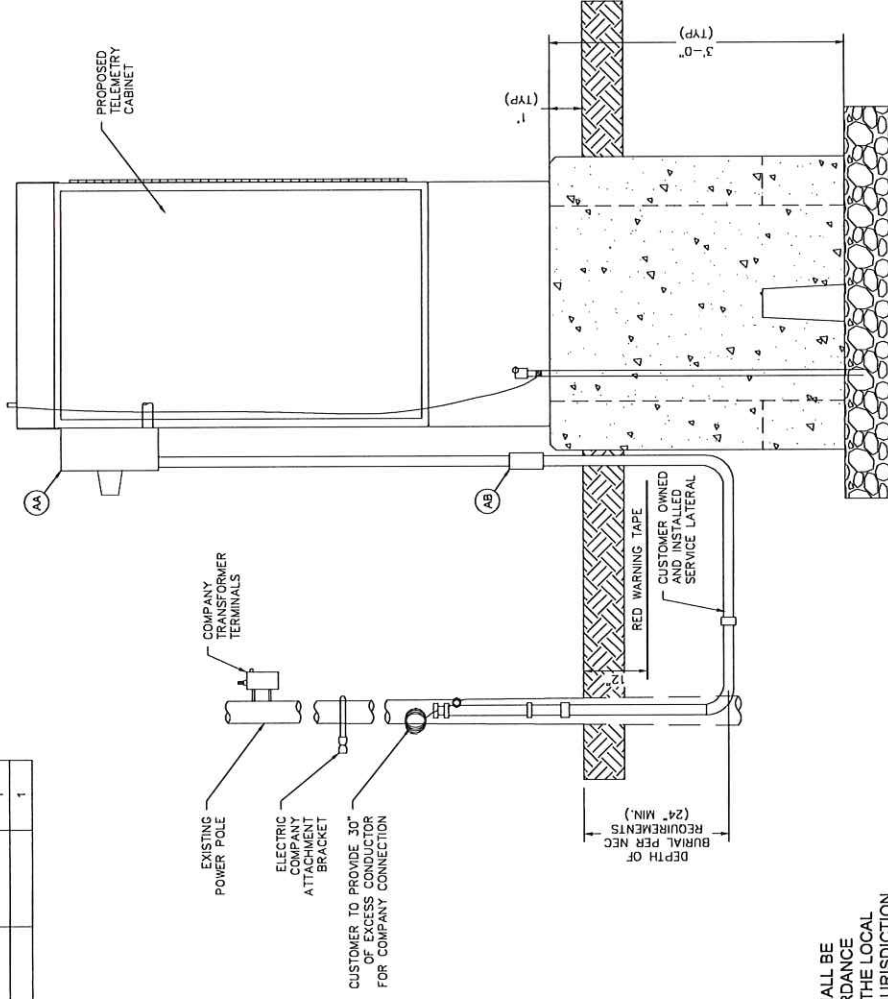
CHI ENGINEERING
An **HWIS** Company

CONSTRUCTION

No.	Description	Date	Dw/CK	Revision/Status
1	CONSTRUCTION-QUANTITY CHANGE	2/23/2023	CHI	
0	CONSTRUCTION	1/19/2023	CHI	

UPLAND RD. AND SUMMER ST., ANDOVER, MA	
PROJECT # ZGMSYSACT	
STANDARD TELEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP	
SHEET	05 OF 06
Drawn by	JDm
Checked by	J.Dm
Date	10/24/2022
Drawn No.	XXX-000000000
Rev. No.	MA-LAW-TM-23-513-05

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
AA	ELECTRIC METER SOCKET PER ELECTRIC UTILITY REQUIREMENTS		1
AB	EXPANSION FITTING PER ELECTRIC UTILITY		1



- NOTES:**
- SERVICE CONNECTION TO CABINET SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH NFPA 70, THE REQUIREMENT OF THE LOCAL UTILITY AND THE AUTHORITY HAVING JURISDICTION (AHJ).
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.

CHI ENGINEERING An MW's Company



CONSTRUCTION

No.	Description	Date	By
0	CONSTRUCTION	1/19/2023	CHI
			Dw/CK

UPLAND RD. AND SUMMER ST., ANDOVER, MA	
PROJECT # 23GWSYSACT	
STANDARD NATIONAL GRID ELECTRICAL SERVICE	
SCALE: 1/8" = 1'-0"	SHEET 06 OF 06
Drawn By: Date	Drawing Number
Checked By: Date	000 XXXXX0000
CHI, 12/13/2022	MA-LAW-TLM-23-513-06
	0

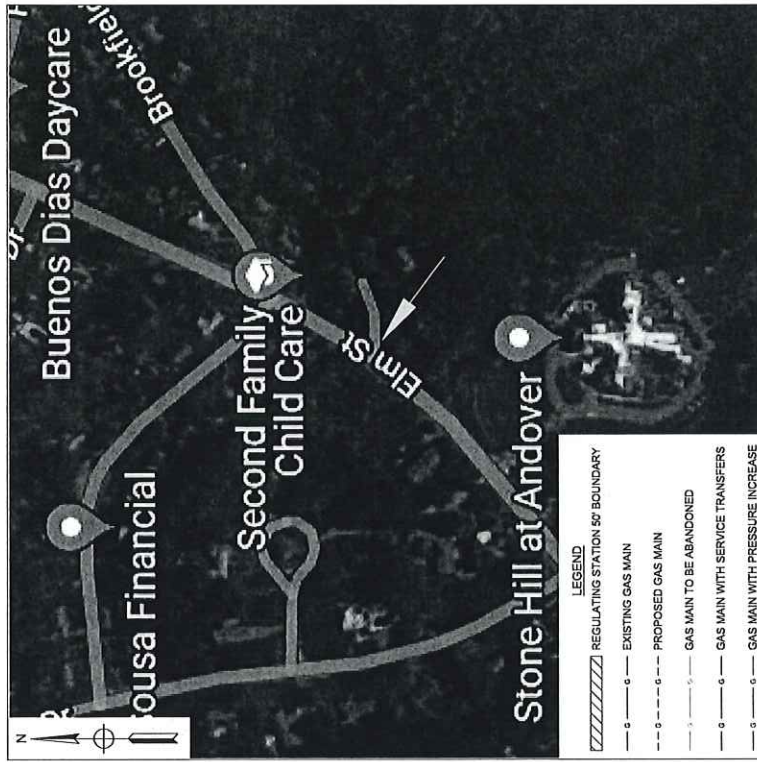
FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

TABLE OF CONTENTS

SHEET # **TITLE**

- 1 OF 6 COVER SHEET
- 2 OF 6 NOTES & DETAILS
- 3 OF 6 LEGEND
- 4 OF 6 PROJECT LOCATION PLAN
- 5 OF 6 STANDARD TELLEMETRY SERVICE DETAIL UP TO 98 PSIG MAOP
- 6 OF 6 STANDARD NATIONAL GRID ELECTRICAL SERVICE

EVERSOURCE ENERGY



WORK SCOPE

PASTE EXCEL FOOTAGE TABLE HERE

ELM ST. AND FARNSWORTH RD., ANDOVER, MA
PROJECT #23GMSYSACT

2	CONSTRUCTION	5/2/2023	CHI
1	CONSTRUCTION	7/18/2023	CHI
0	CONSTRUCTION	7/7/2023	CHI
No.	Description	Date	DWCK
Revision Status			
EVERSOURCE ENERGY			
PROJECT # 23GMSYSACT			
ELM ST. AND FARNSWORTH RD., ANDOVER, MA			
COVER SHEET			
SCALE: NONE			
SHEET 01 OF 06			
Checked by / Date			
Drawing Number			
MA-LAW-TLM-23-515-01			
Rev. No.			
2			

CHIENGINEERING An IVE Company

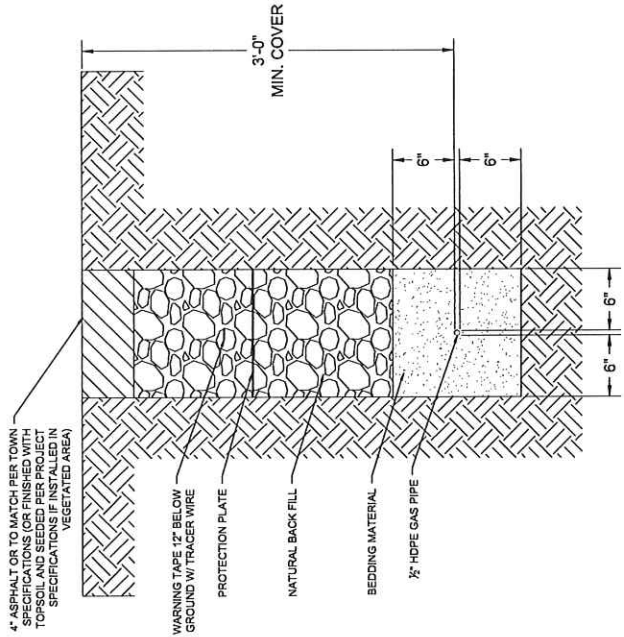
05032023

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

CONSTRUCTION

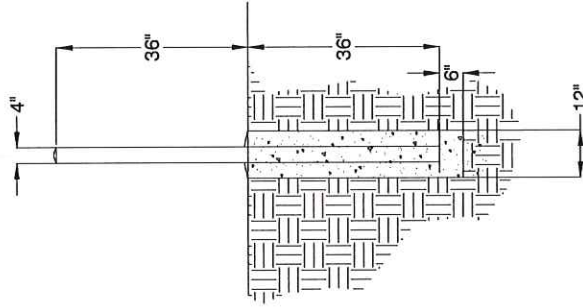
GENERAL NOTES:

- A. IF ANY OF THE FOLLOWING OCCUR A DRAWING REVISION IS REQUIRED AND MUST BE APPROVED AND/OR STAMPED BY THE ENGINEER OF RECORD. CHANGES CAN BE APPROVED AND/OR STAMPED BY A PROJECT ENGINEER, BUT THE ENGINEER OF RECORD MUST BE INFORMED.
 - 1. IF THE TIE IN POINT MOVES TO A DIFFERENT SEGMENT OF PIPE THAN SHOWN.
 - 2. IF A CHANGE IN THE LOCATION OF VALVES IS REQUIRED.
 - 3. IF THERE IS ANY CHANGE TO WHAT IS SHOWN ON THE DRAWING WITHIN 50 FT OF A PRESSURE REGULATING STATION, DISTRICT REGULATORY, OR GATE STATION.
 - 4. IF A CHANGE IN PIPE SIZE, MATERIAL, OR WALL THICKNESS IS REQUIRED.
 - 5. ALTERNATE FITTINGS THAT ARE ACCEPTABLE FOR ANY TIE-IN DETAIL WILL BE CALLED OUT IN THE DRAWING. FITTING CHANGES NOT SHOWN AS ALTERNATIVES ON THE DRAWING WILL NEED TO FOLLOW THE DRAWING CHANGE PROCESS.
- B. CONSTRUCTION DRAWINGS, LOCATIONS OF EXISTING UTILITIES, UNDERGROUND STRUCTURES AND WORK LOCATIONS ARE BASED ON BEST AVAILABLE INFORMATION BUT HAVE NOT BEEN FIELD VERIFIED.
- C. ALL WORK, MATERIAL AND CONSTRUCTION SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL PERMITS AND APPROVALS PER EVERSOURCE, LOCAL, STATE, OSHA AND FEDERAL REGULATIONS AND STANDARDS.
- D. ALL LIVE GAS WORK EXCEPT SERVICE SIZE TAPS, INCLUDING BUT NOT LIMITED TO TAPPING OF FITTINGS ON LIVE MAINS, STOPPING, MANIPULATING VALVE, ABANDONMENT, SHALL BE PERFORMED BY, OR AT THE DIRECTION AND UNDER THE DIRECT SUPERVISION OF EVERSOURCE GAS PERSONNEL AND IN ACCORDANCE WITH THE WRITTEN PROCEDURE. DRAWING CHANGES MAY ALSO REQUIRE A CHANGE TO THE PROCEDURE.
- E. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPE FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISTURB OR DAMAGE SUCH ITEMS. ROADWAY, SIDEWALKS, AND GRASS DISTURBED SHALL BE RESTORED TO THE SATISFACTION OF THE CITY OR TOWN. PLANT BEDS WILL BE RELOCATED TO THEIR EXISTING REGULAR LOCATION.
- F. ALL TRAFFIC CONTROL SHALL CONFORM TO THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), INCLUDING ALL REVISIONS AND ADDENDA. ALL TRAFFIC CONTROL DEVICES WILL BE SUPPLIED BY EXCAVATOR.
- G. EXISTING CONDITIONS SHOWN ARE BASED ON A SURVEY BY CHI ENGINEERING. EXISTING UTILITIES WERE COMPILED FROM EXISTING CONDITIONS IN THE FIELD AS WELL AS RECORD DRAWINGS OBTAINED FROM LOCAL UTILITIES.
- H. LOCATION OF UNDERGROUND UTILITIES IS APPROXIMATE AND IS NOT WARRANTED TO BE CORRECT.
- I. CONTRACTOR MUST NOTIFY DIG SAFE (811) AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION.
- J. NEW PIPING SHALL BE PRESSURE TESTED AT 1.5 TIMES MAOP FOR A MINIMUM OF 1 HOUR. 150 PSIG IS THE MINIMUM TEST PRESSURE.
- K. ALL FIELD COATINGS SHALL BE PERFORMED PER EVERSOURCE SPECIFICATIONS.



TYPICAL GAS TRENCH

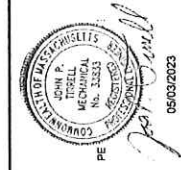
NOT TO SCALE
 (PROPOSED UTILITIES SHALL MAINTAIN MINIMUM 12" SEPARATION FROM EXISTING UTILITIES)



BOLLARD DETAIL

NOT TO SCALE
 DOME TOP WITH CONCRETE
 STANDARD PAINT
 PAINT FINISHED SURFACES YELLOW
 CONCRETE SLOPED AWAY FROM PIPE AT BASE

CHI ENGINEERING
 An IHS Company



CONSTRUCTION

No.	Description	Date	Revision/Status
2	CONSTRUCTION	5/3/2023	CHI
1	CONSTRUCTION	7/19/2023	CHI
0	CONSTRUCTION	7/12/2023	CHI
			Dw/ck

SCALE: NONE	Checked By: [Blank]	Issue No. 02 OF 05
Drawn By: [Blank]	Project # 23GMYSYACT	Drawing Number
CHI, 12/13/2022	MA-LAW-TLM-23-15-02	Sheet No. 2

FIELD VERIFY DIMENSIONS PRIOR TO PIPE FABRICATION

ELM ST. AND FARNSWORTH RD., ANDOVER, MA

DRAWING LEGEND

Gas Main Symbolology	
REGULATING STATION OR BOUNDARY	
EXISTING GAS MAIN	
PROPOSED GAS MAIN	
GAS MAIN TO BE ABANDONED	
GAS MAIN WITH SERVICE TRANSFERS	
GAS MAIN WITH PRESSURE INCREASE	
RIGHT-OF-WAY	
ELECTRIC	
WATER LINE	
SEWER LINE	
TELEPHONE	
DRAIN LINE	
FENCE LINE	
CONDUIT	
OVERHEAD WIRE	
DIGITIZED GAS LINE (SEE NOTE 1)	
DIGITIZED SEWER LINE (SEE NOTE 1)	
DIGITIZED WATER LINE (SEE NOTE 1)	
MAJOR CONTOUR LINE	
MINOR CONTOUR LINE	

Gas Main Material/Pressure Label References

MATERIAL CODES	Coated Steel Gas Main
CS*	Cast Iron Gas Main
CI*	Bare Steel Gas Main
BS*	High Density Polyethylene Gas Main
PH*	Medium Density Polyethylene Gas Main
PM*	Low Pressure (<4.5 PSIG or 4" W.C.)
LP*	Medium Pressure (4.5 PSIG to 60 PSIG)
IP*	High Pressure (>60 PSIG)
HP*	
MISCELLANEOUS CODES	
*SER	Service
*R	Riser
(TC)	Transmission Class
B.N.D. F.N.D.	Bound Found
D.Y.L.	Double Yellow Line
D.Y.L.	Edge of Pavement
EP	Granite
GRAN.	Sloped Bituminous Berm
SBB	Single White Line
SWL	Top of Debris
T.O.D.	Top of Road
T.O.H	Vertical Granite Curb
VGC	
Gas Main Installation Method Label References	
AT	Attached
BH	Bridge Hanger
BLGH	Building Hanger
DB	Directional Bore
IS	Inserted
OC	Open Cut
PL	Placed
RT	Root Top
(E)	Existing
(P)	Proposed

Gas Facility Symbolology

xx"xv	Gas Valve
xx"xv	Critical Gas Valve
High Voltage Fitting	High Voltage Fitting
Ox-HVT	High Voltage Tee
Ox-SST	Service Stop Tee
Ox-SPH	Pressure Control Fitting - Spherical Tee
Ox-WF-B0	Pressure Control Fitting - Mueller Bottom-out
Ox-WF-S0	Pressure Control Fitting - Mueller Side-out
Ox-WF-FT	Pressure Control Fitting - Mueller Flange Tee
xx"xv	Pressure Control Fitting - ShortStop
xx"xv	Pressure Control Fitting - Mueller Stopper
xx"xv	Pressure Control Fitting - Mueller Stopper Transition
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2	Riser
3	Reducor
4	Electronic Marker
5	Plus Encoded Tracer Wire Station
6	Plus Encoded Tracer Wire
7	Gas Main Marker without Tracer Wire
8	Test Well
9	Regulator Station
10	Single Customer Regulator
11	Water with Regulator
12	Water with Regulator
13	Gas Service Tee-over
14	Gas Service Replacement
15	Meter Move Out
MNO	Meter Move Out
Swing Tie Symbology	
16	Telephone Manhole
17	Drain Manhole
18	Manhole
19	Catch Basin
20	Sewer Manhole
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32	OUTSIDE METER

NOTES:

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- UTILITY INFORMATION PLOTTED ON THE DRAWING IS BASED SOLELY ON RECORD INFORMATION PROVIDED BY THE TOWN OF NORTH ANDOVER DEPARTMENT OF PUBLIC WORKS AND EVERSOURCE ENERGY.

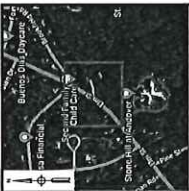
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1	CONSTRUCTION	1/18/2023	CHI
0	CONSTRUCTION	1/12/2023	CHI
No.	Description	Date	DWCK
Revision/Status			
LEGEND			
SCALE: NONE			
PROJECT # 23GMSYSACT			
ELM ST. AND FARNSWORTH RD., ANDOVER, MA			
Checked By / Date	Checked By / Date	Sheet No.	Draw No.
XXX XXX/XXX/XXXX	XXX XXX/XXX/XXXX	MA-LAW-TM-23-515-03	2

CHI ENGINEERING An **HWIS** Company

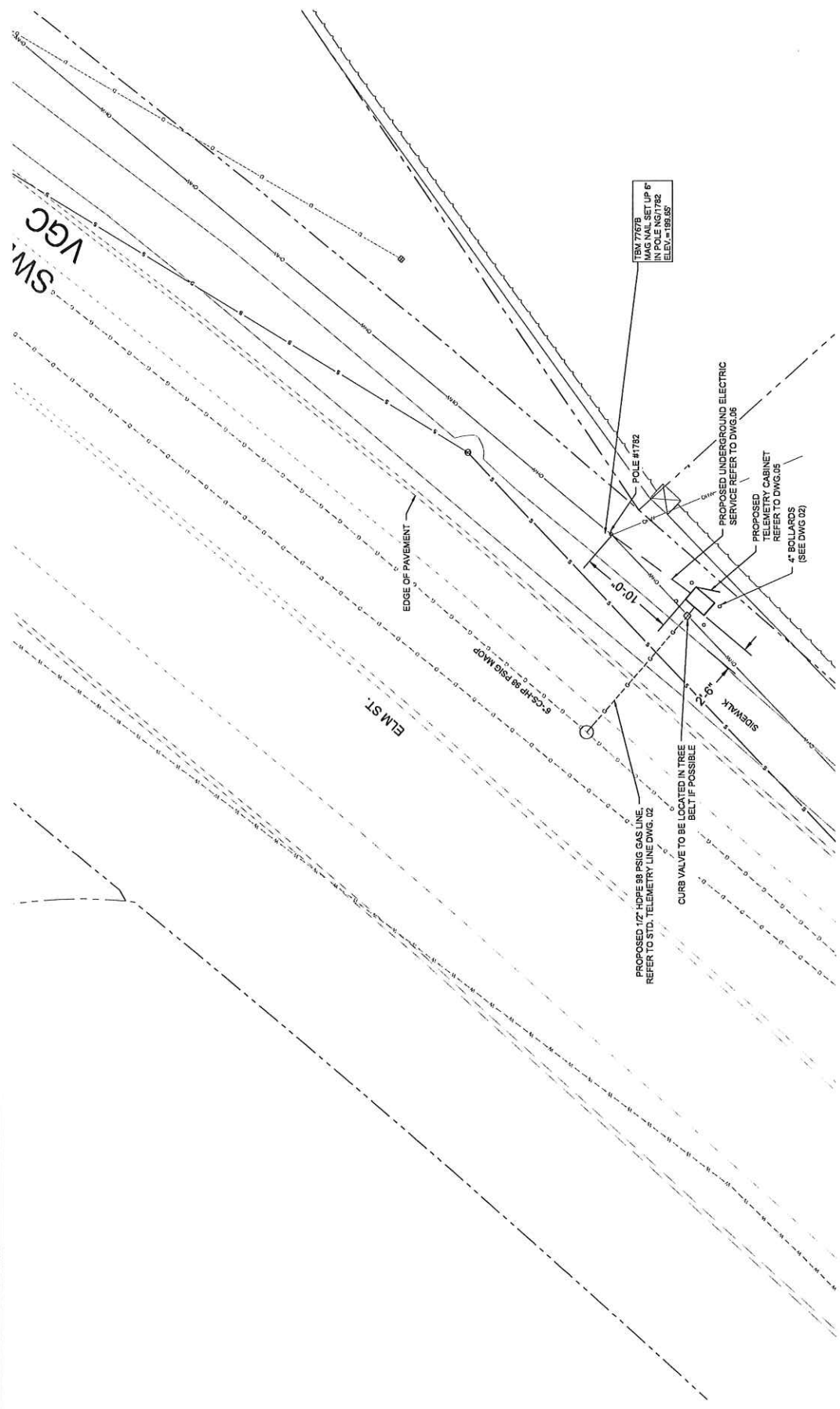
05/03/2023

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

CONSTRUCTION



KEY MAP
SCALE: N.T.S.



CHIENGINEERING An **INVS** Company



CONSTRUCTION

ELM ST. AND FARNSWORTH RD., ANDOVER, MA	
PROJECT # 23GMSYSACT	
PROJECT LOCATION PLAN	
SCALE: 1"=5' ON 27"X34"	SHEET 04 OF 06
Drawn by / Date	Checked by / Date
XXX XXXXXXXXX	XXX XXXXXXXXX
CHI, 12/21/2022	MA-LAW-TLM-23-15-04
	2

No.	Description	Date	Dw/CK
2	CONSTRUCTION	5/3/2023	CHI
1	CONSTRUCTION	1/18/2023	CHI
0	CONSTRUCTION	1/12/2023	CHI

BILL OF MATERIAL

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
1	PIPE, 1/2 IN CTS X 0.090 IN THK WALL SDR 7, 58 IN OD, 500 FT LG COIL, POLYETHYLENE, PE3408PIPE100	554222	20'
2	VALVE BALL, FULL PORT, 1/2 IN CTS, SDR 7.0, PE 4710, BUTT FUSE, POLYETHYLENE, BLACK FINISH, REPLACED IN 481834	601132	1
3	CURB VALVE BOX 334 18X24 IN SHAFT LENGTH W NON-LOCKING COVER MAKED "GAS" WALL THICKNESS .125"-.015, FOR USE WITH 1/2"-1-1/4" PERFECTION PSV PLASTIC BALL VALVE	557812	1
4	RISER ANODELESS 1/2 X 3/4 PERFECTION 71571, 0590W PE 3408 CTS X NPT W/ 12 DIGITAL	610798	1
5	VALVE, 3/4 IN, SS, THREADED, BALON, LS07592	580957	1
6	ELBOW, MALE 90 SWAGelok, 3/4 NPT X 3/8 TUBE SWAGelok SS-600-2-12 (NON-STOCK EVERSOURCE ITEM)	N/A	1
7	TUBING, 3/8 IN OD, 10 FT LG, 0.035 IN THK WALL, 318318L SS, CAMBRIDGE VALVE & FITTING - SS-76-S-035-20 - 20'	500931	6FT.
8	BULKHEAD UNION, 3/8" SWAGelok SS-600-61 (NON-STOCK EVERSOURCE ITEM)	N/A	1
9	ELBOW, MALE 90 SWAGelok, 1/2 NPT X 3/8 TUBE SWAGelok SS-600-2-8 (NON-STOCK EVERSOURCE ITEM)	583751	4
10	POST, 4 IN X 6 FT, YELLOW, POWDER COATED, 195 LBS, CONCRETE FOR METER PROTECTION	603277	20'
11	TAPE WARNING, MARKED BURIED GAS LINE, 400 YD, (1312 FT.) ROLL, 6 IN, 6 MIL, POLYETHYLENE, YELLOW, LOCATABLE - RED TAG EVERY 8 FT	610792	4
12	PLATE, RECTANGULAR, PROTECTION, 41 IN X 71 IN, HDPE, POST GUARD OR EQUAL, (NON-STOCK EVERSOURCE ITEM)	N/A	4
13	BOLLARD COVER, YELLOW, 4.5' X 52" LONG, HDPE, POST GUARD OR EQUAL, (NON-STOCK EVERSOURCE ITEM)	N/A	4

DETAIL A: TAPS FOR CAST IRON MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	FITTING, TEE, THREADED BRASS BASE SERVICE, 1-1/4 IN NPT X 1 CTS X 0.090 IN WALL, POLYETHYLENE BODY, PE-4710	560810	
14.1	FITTING, REDUCER, COUPLING, LYCOFIT, 1 IN CTS X .090 IN X 1/2 IN CTS X .090 IN THK WALL, HDPE, CMA 21658692	610785	

DETAIL A1: SERVI-SEAL CLAMP

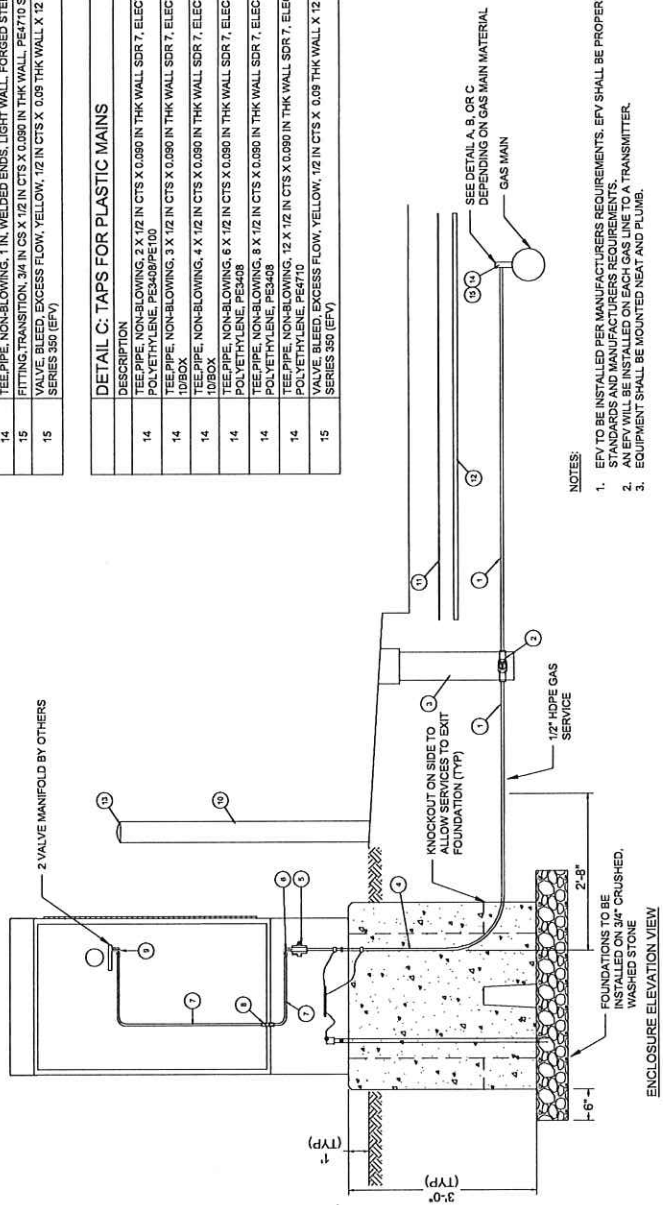
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
	CLAMP PIPE SERVI-SEAL REPAIR, 3 IN DIA, 9 IN LG, W/ 1-1/4 IN ID OUTLET, FOR CAST IRON PIPE, FITTING, ID 11633	578017	
	CLAMP PIPE REPAIR, 4 IN DIP, SS, W/ 1-1/4 NPT TAP, FOR 4.74 - 5.14 IN PIPE	542984	
	CLAMP PIPE REPAIR, 6 IN DIP, SS, W/ 1-1/4 NPT TAP, FOR 6.84 - 7.24 IN PIPE	542982	
	CLAMP PIPE REPAIR, 8 IN DIP, SS, W/ 1-1/4 NPT TAP, ALTERNATE IN 578014 (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578014	
	CLAMP PIPE FULL CIRCLE REPAIR (REQUIRES 2" X 1-1/4" REDUCING BUSHING)	578016	

DETAIL B: TAPS FOR STEEL MAINS

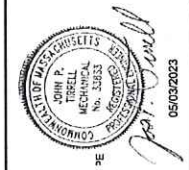
ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14 / 15	3/4" X 1/2" UMAC 40256 SELF TAP WELD TEE IPS X CTS & 5/8" OD COMPRESSION ADAPTER OUTLET WITH SER400 EFY OR	N/A	1
14	TEE PIPE, NON-BLOWING, 1-1/4 IN TEE OUTLET X 1-1/4 IN MAIN, WELDED, 250 PSIG, W/ CI CAP, CMA 44788004	610059	
14	TEE PIPE, NON-BLOWING, 1 IN, WELDED ENDS, LIGHT WALL, FORGED STEEL BODY, W/ CI CAP	560712	
15	FITTING, TRANSITION, 3/4 IN CTS X 1/2 IN CTS X 0.090 IN THK WALL, PE4710 SDR 7, STEEL WELD X PLASTIC BUTT END	546257	
15	SERIES 350 (EFY)	592085	

DETAIL C: TAPS FOR PLASTIC MAINS

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
14	TEE PIPE, NON-BLOWING, 2 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408PIPE100	500866	
14	TEE PIPE, NON-BLOWING, 3 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 100 BOX	578017	
14	TEE PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408, 100 BOX	500867	
14	TEE PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408	500869	
14	TEE PIPE, NON-BLOWING, 8 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, HOPE, PE3408	578014	
14	TEE PIPE, NON-BLOWING, 12 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE4710	560847	
15	VALVE, BLEED, EXCESS FLOW, YELLOW, 1/2 IN CTS X 0.09 THK WALL X 12 IN LG, MODEL #P41, PLASTIC, PE4710, UMAC SERIES 350 (EFY)	592085	



- NOTES:**
- EFY TO BE INSTALLED PER MANUFACTURERS REQUIREMENTS. EFY SHALL BE PROPERLY SIZED FOR APPLICATION PER EVERSOURCE STANDARDS AND MANUFACTURERS REQUIREMENTS.
 - AN EFY WILL BE INSTALLED ON EACH GAS LINE TO A TRANSMITTER.
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.



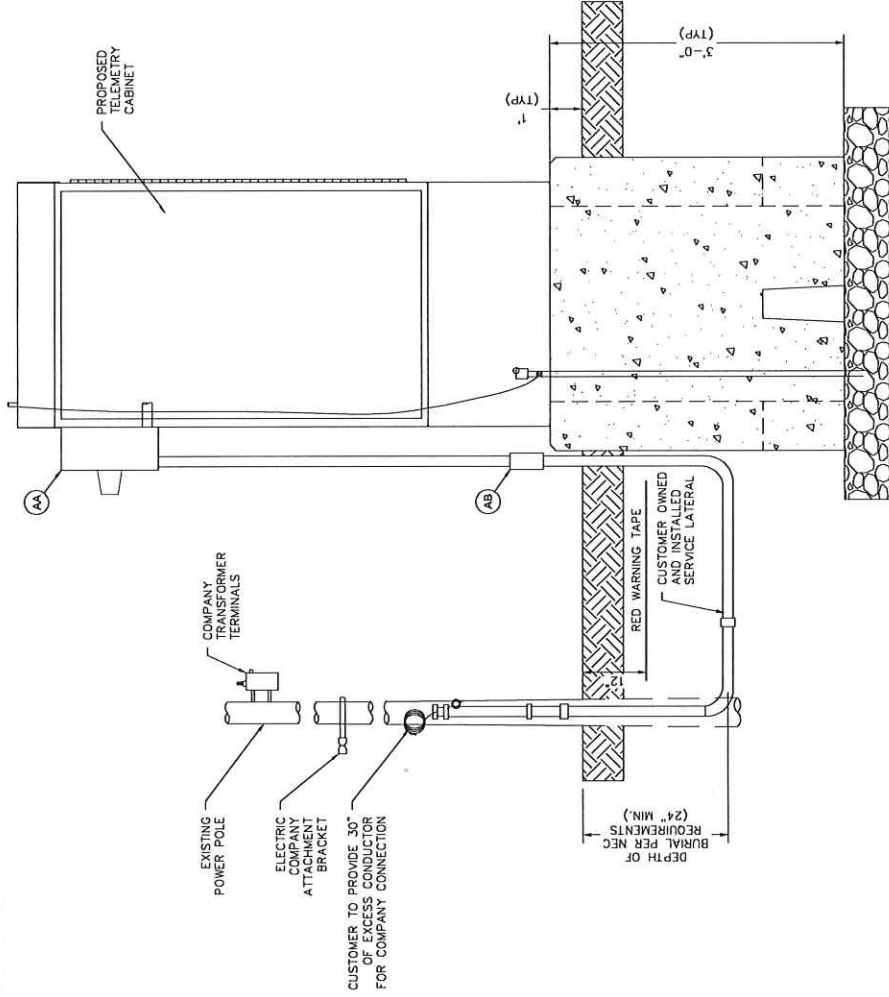
CHI ENGINEERING
An **HWIS** Company

ELM ST. AND FARNSWORTH RD., ANDOVER, MA	
PROJECT # ZGMSYSACT	
STANDARD TELEMETRY GRID SERVICE DETAIL UP TO 98 PSIG MAOP	
SHEET	05 OF 06
Drawn By / Date	Checked By / Date
CHI, 10/24/2022	XXX 00/00/0000
MA-LAW-TLM-23-515-05	

CONSTRUCTION

No.	Description	Date	Dw/CK
2	CONSTRUCTION	5/2/2023	CHI
1	CONSTRUCTION	11/19/2023	CHI
0	CONSTRUCTION	11/22/2023	CHI

ITEM NO.	DESCRIPTION	PART NO.	QUANTITY
AA	ELECTRIC METER SOCKET PER ELECTRIC UTILITY REQUIREMENTS		1
AB	EXPANSION FITTING PER ELECTRIC UTILITY		1



- NOTES:**
- SERVICE CONNECTION TO CABINET SHALL BE INSTALLED BY CONTRACTOR IN ACCORDANCE WITH NFPA 70, THE REQUIREMENT OF THE LOCAL UTILITY AND THE AUTHORITY HAVING JURISDICTION (AHJ).
 - EQUIPMENT SHALL BE MOUNTED NEAT AND PLUMB.



CH ENGINEERING
An NIVIS Company

CONSTRUCTION

No.	Description	Date	Dwg/CK
2	CONSTRUCTION	5/9/2023	CHI
1	CONSTRUCTION	11/18/2023	CHI
0	CONSTRUCTION	11/12/2023	CHI
			Dwg/CK

FIELD VERIFY DIMENSIONS
PRIOR TO PIPE FABRICATION

ELM ST. AND FARNSWORTH RD., ANDOVER, MA	
PROJECT # 2203USYSACT	
STANDARD NATIONAL GRID ELECTRICAL SERVICE	
SCALE: 1/8" = 1'-0"	SHEET 06 OF 06
Drawn By / Date	Checked By / Date
CHI, 12/13/2022	XXX, XX/XX/XXXX
MA-LAW-TLM-23-515-06	Rev. No.
	2

Legend

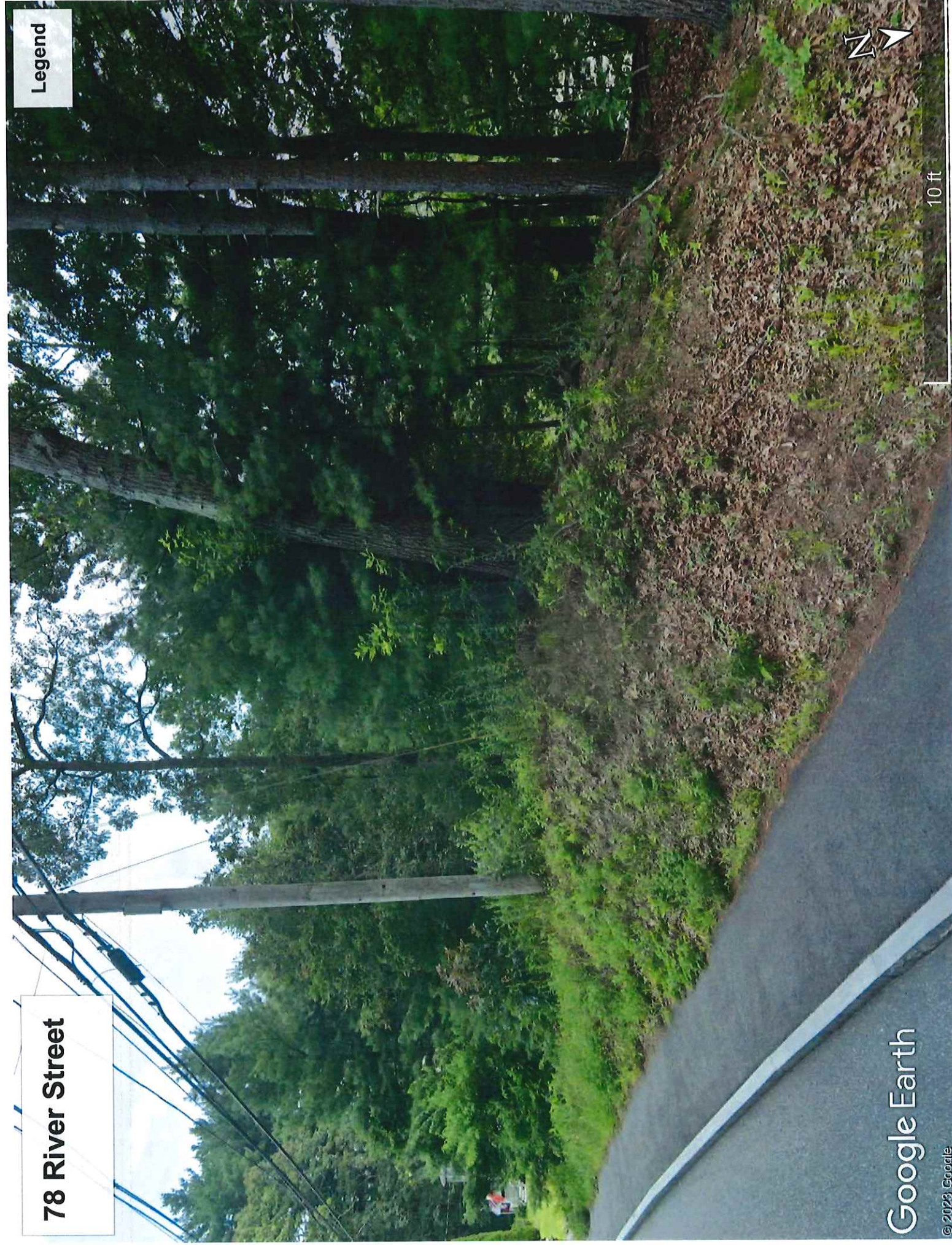


10 ft

78 River Street

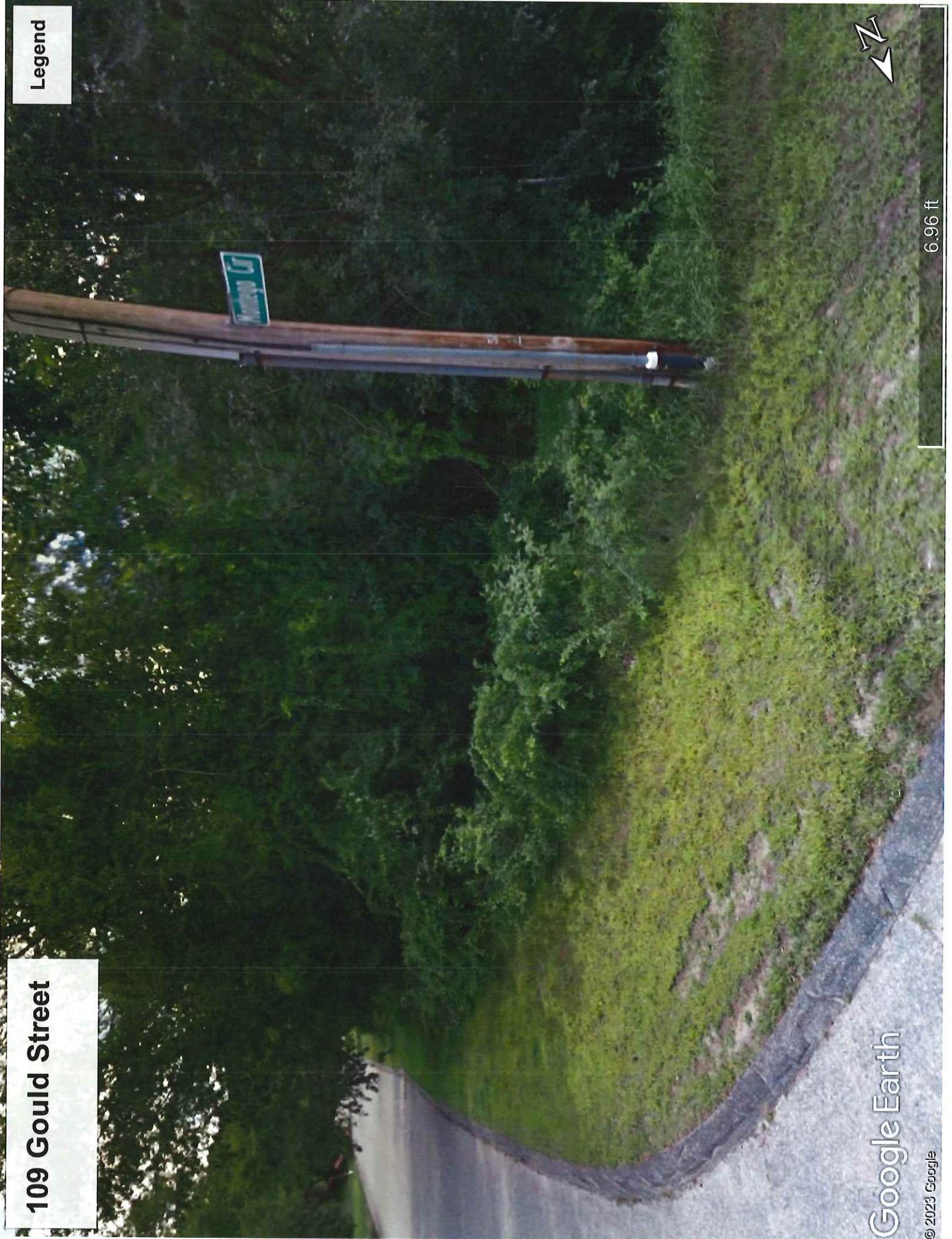
Google Earth

© 2023 Google



109 Gould Street

Legend



Google Earth

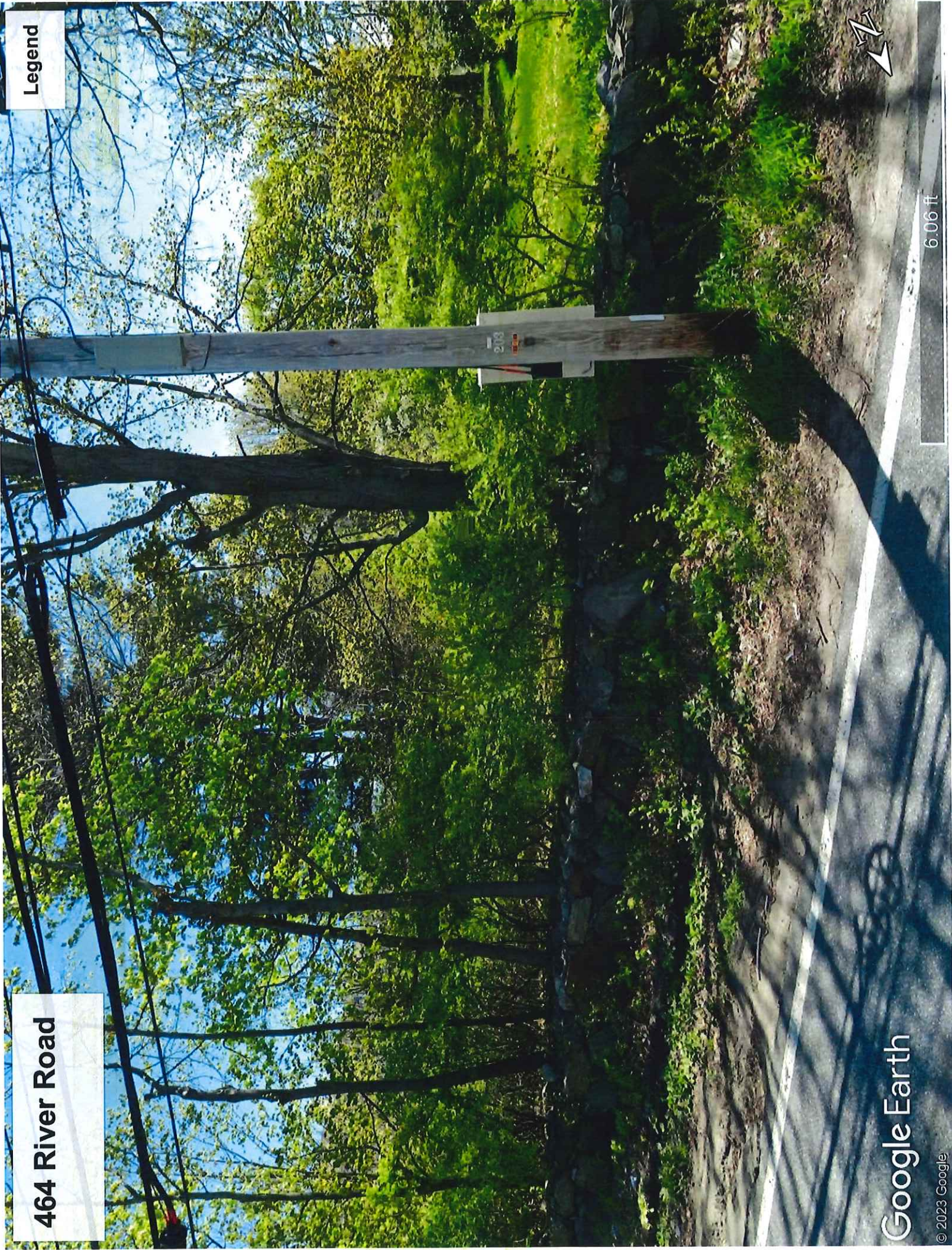
© 2023 Google

6.96 ft



464 River Road

Legend



Google Earth

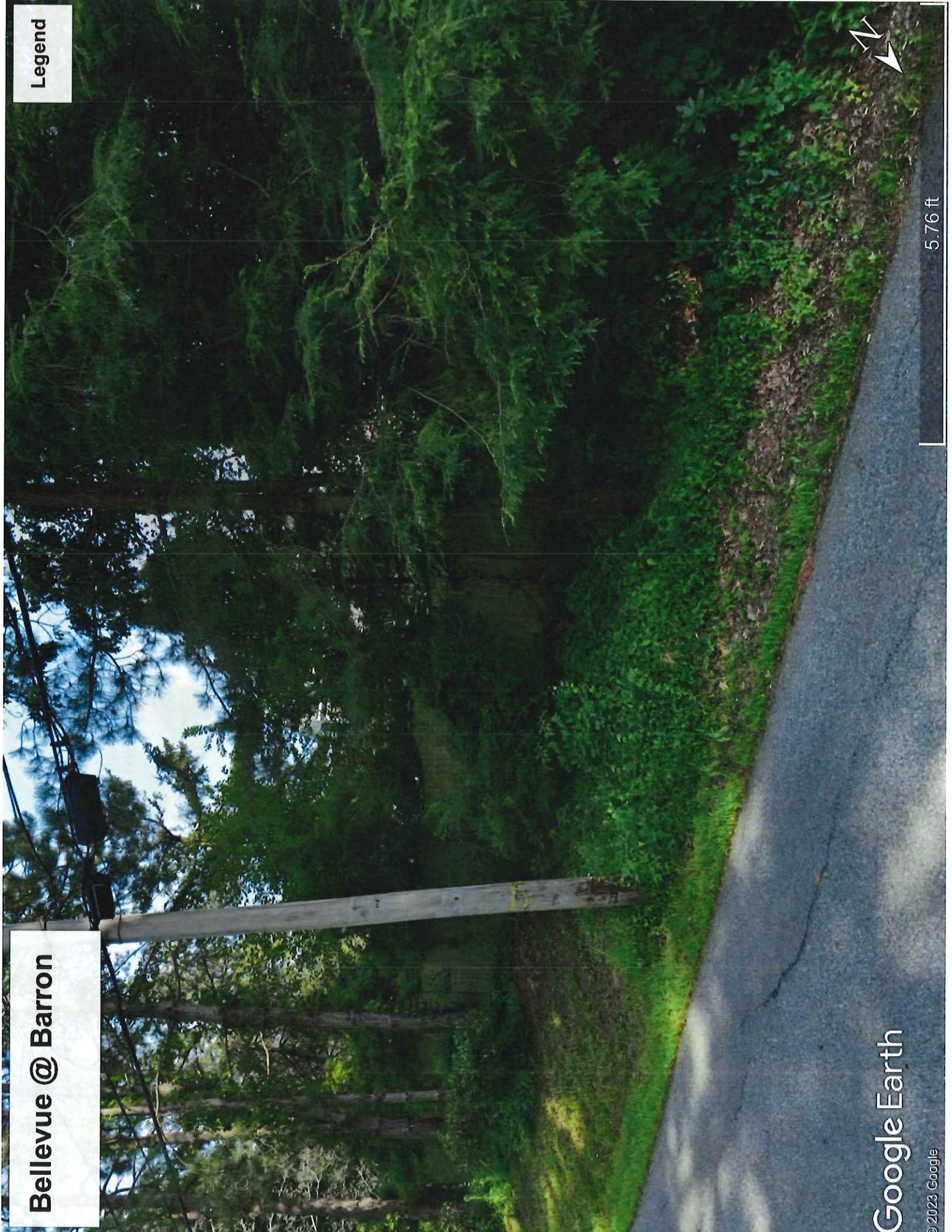
© 2023 Google

6.06 ft



Bellevue @ Barron

Legend



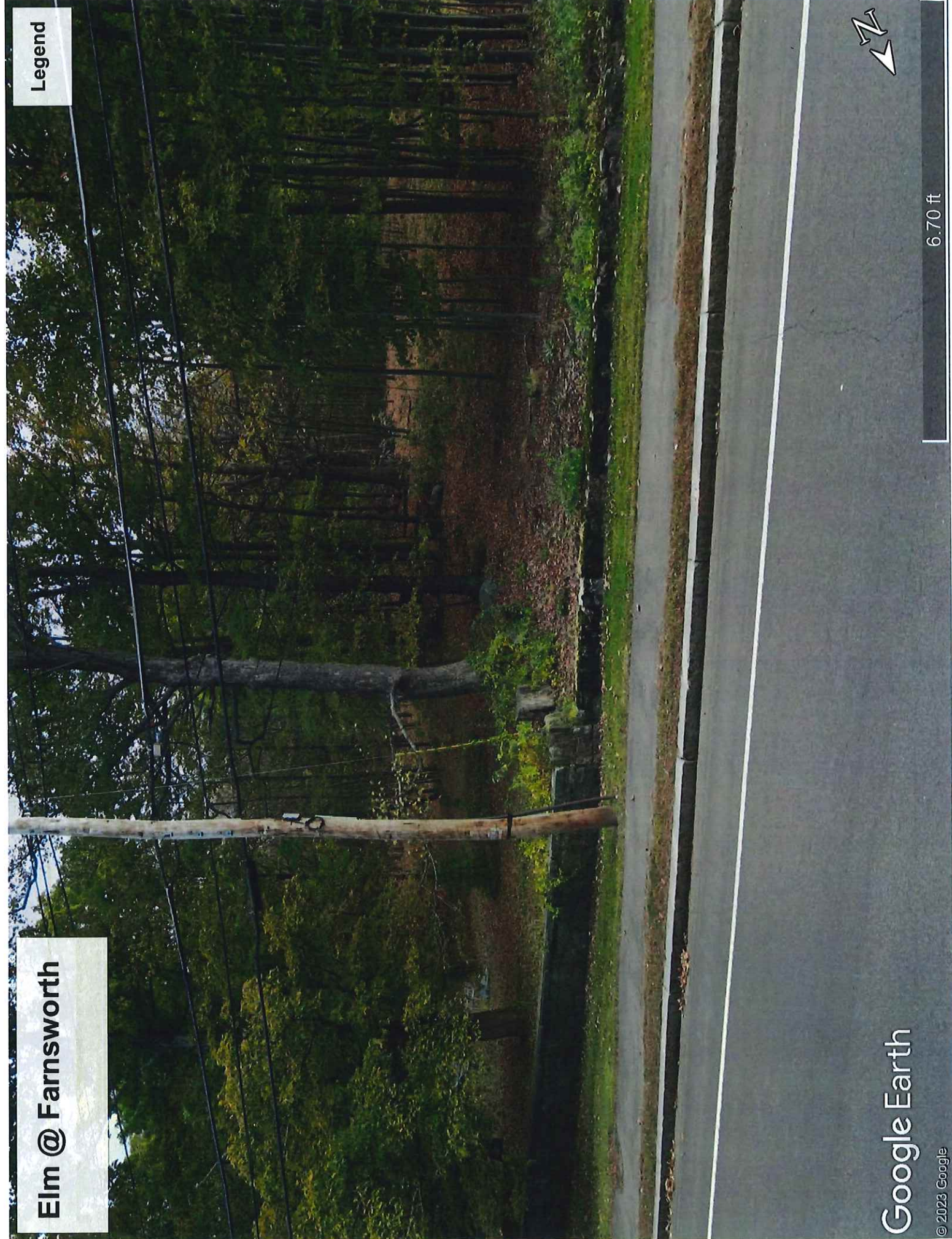
5.76 ft

Google Earth

© 2023 Google

Elm @ Farnsworth

Legend



Google Earth

© 2023 Google

6.70 ft

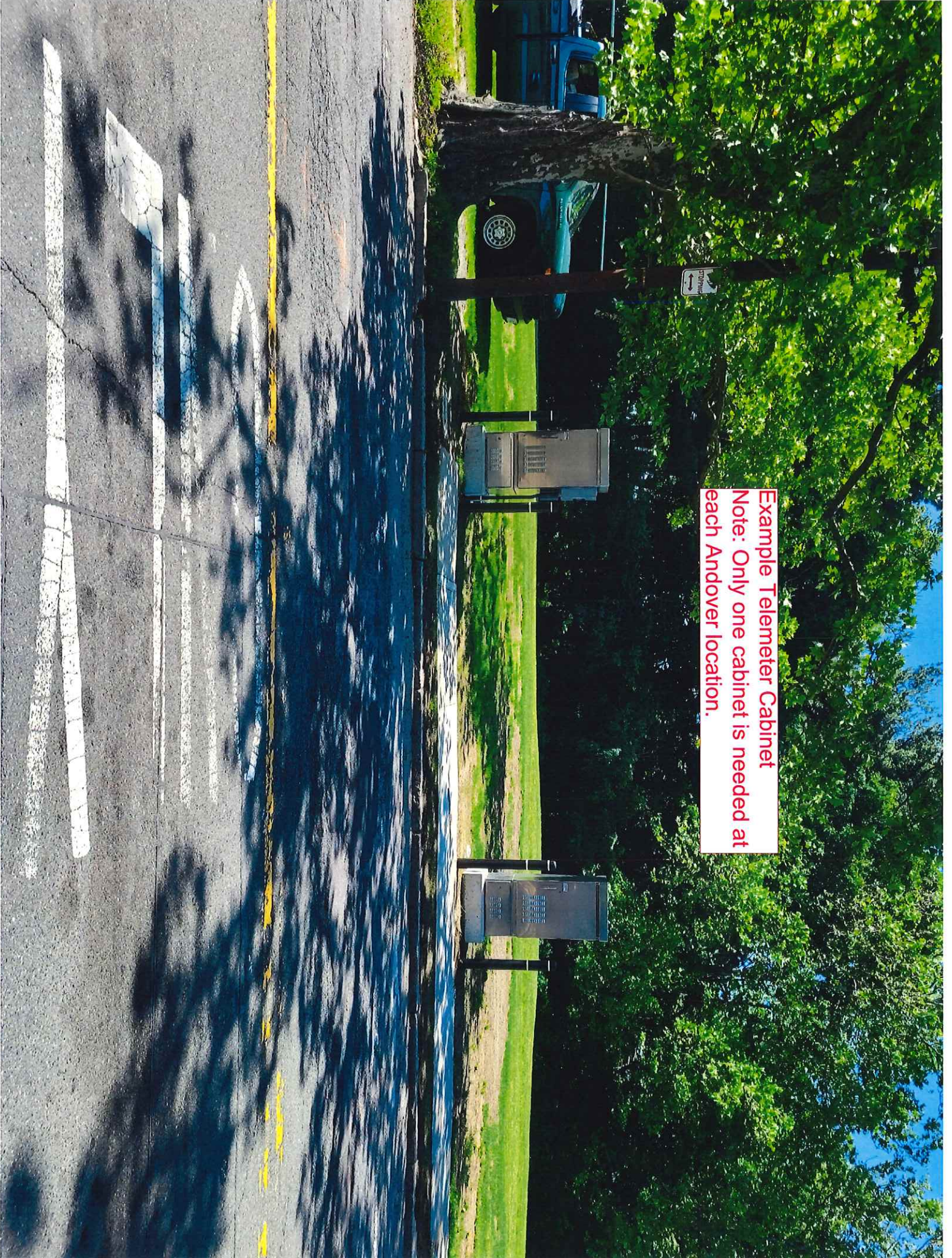


Upland and Summer

Legend



Example Telemeter Cabinet
Note: Only one cabinet is needed at each Andover location.



78 River Street

Legend



Google Earth

© 2023 Google

10 ft



109 Gould Street

Legend



Google Earth

© 2023 Google

6.96 ft



464 River Road

Legend



Google Earth

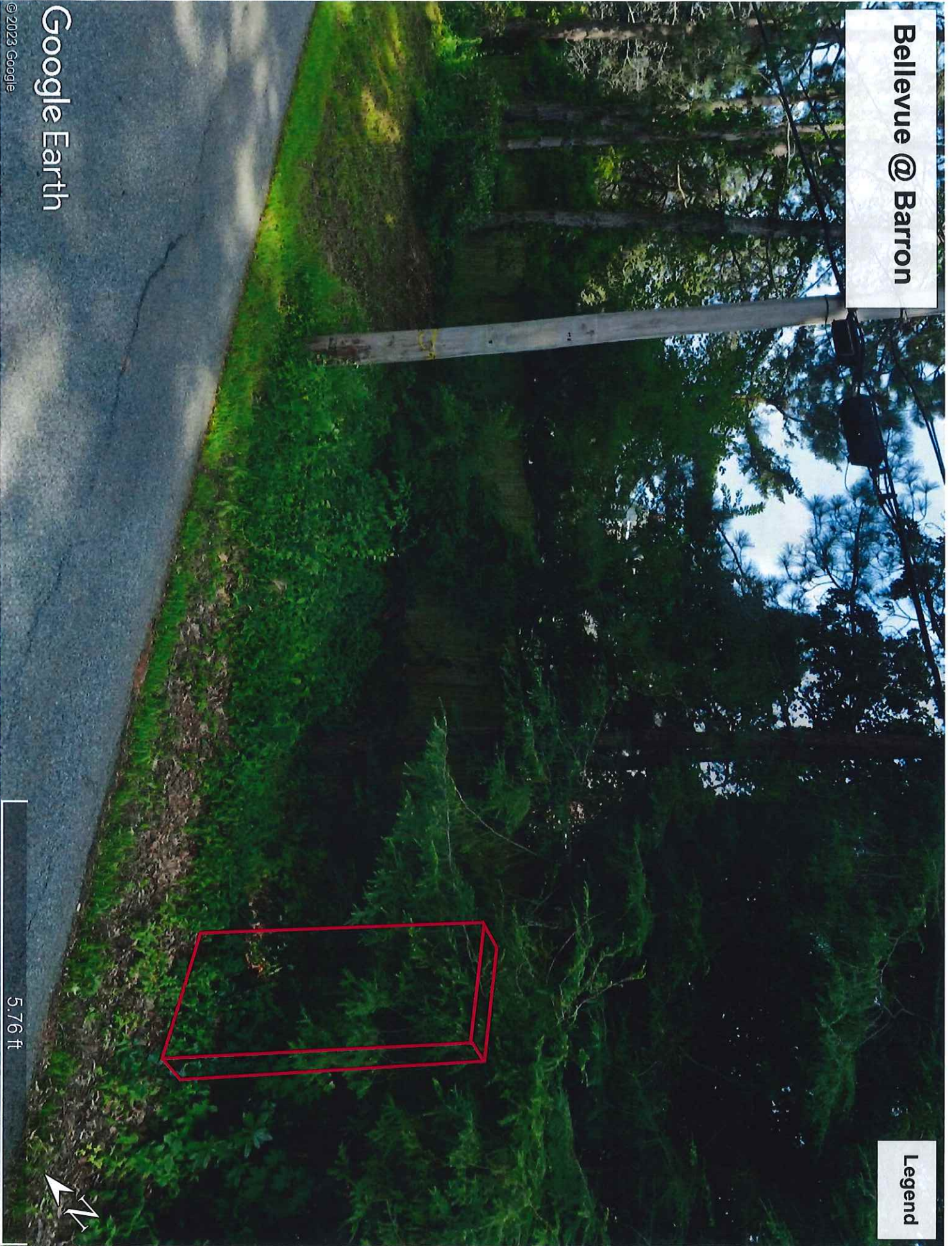
© 2023 Google

6.06 ft



Bellevue @ Barron

Legend



Google Earth

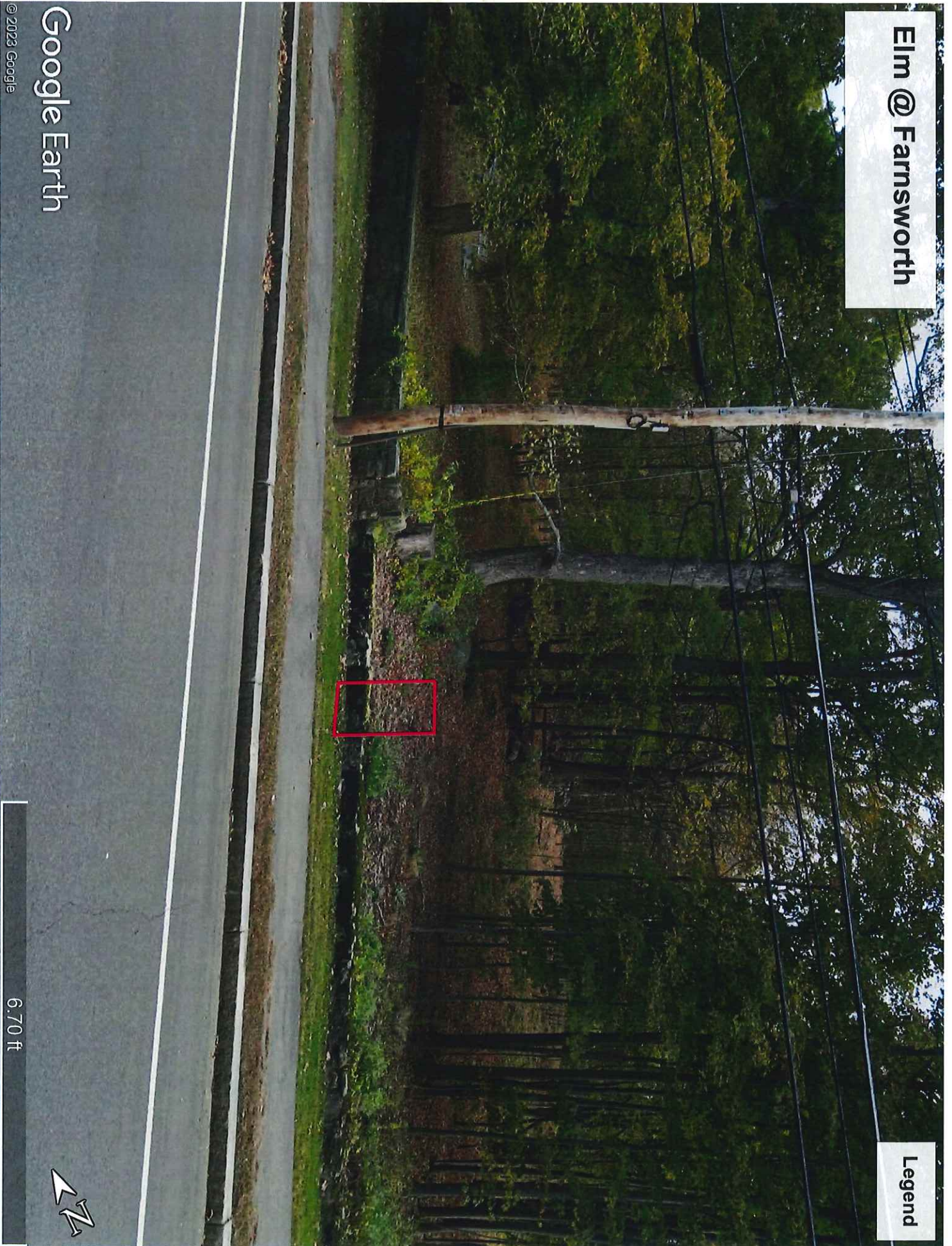
© 2023 Google

5.76 ft



Elm @ Farnsworth

Legend



Google Earth

© 2023 Google

6.70 ft



Upland and Summer

Legend



Google Earth

© 2023 Google

6.16 ft





TOWN OF ANDOVER

Town Clerk's Office

36 Bartlet Street
Andover, MA 01810
978-623-8230
townclerk@andoverma.gov

NOTICE

You are hereby notified that a Public Hearing will be held by the Andover Select Board on October, 16, 2023 in the School Committee Conference Room, 30 Whittier Court, at 7 PM.

This hearing is being held on the petition of National Grid requesting permission to construct a line of underground electric conduits, including the necessary sustaining and protecting fixtures, under and across the public way or ways hereinafter named.

#30436223 – Park Street – National Grid to install (2) 4” new concrete encased conduits with electric lines from existing P1588-50 in public way heading Southeast across the street +/-50’ to a new heavy duty hand hole #1588-51 located in sidewalk area in the public way to provide an underground service tap for town’s parking lot lighting cabinet.

Also, permission to excavate the public highways and to run and maintain underground electric conduits together with such sustaining and protecting fixtures as it may find necessary for the transmission of electricity, said underground conduits to be located substantially in accordance with the plan filed herewith marked – Park Street – Andover, Massachusetts.

Plan(s) of the proposed work can be found in the Meeting Packet on the Select Board’s page on the Town of Andover website, www.andoverma.gov .

Representatives from the utility company will present their petition during the meeting and will also be available before the meeting at 6:45 P.M. on the above date to answer questions you may have relating to the proposed work.

By order of the
Select Board

Austin Simko
Assistant Town Manager/Town Clerk

Plan No.: 30436223
Date: October 4, 2023

TOWN OF ANDOVER, MASSACHUSETTS



PRIVATE UTILITY PETITION CHECKLIST

TO BE FILLED OUT BY PETITIONER

COMPANY: nationalGRID	30436223
PROJECT MANAGER NAME: David Boucher	
PROJECT MANAGER CONTACT NUMBER: 978-314-5069	
LIST OF ADDRESSES IMPACTED BY PROPOSED WORK:	
Abutters can be attained through Town office	
PETITIONER IS REQUIRED TO ATTACH PICTURES SHOWING AREA OF PROPOSAL	
PICTURES HAVE BEEN ATTACHED	YES

TO BE FILLED OUT BY TOWN OF ANDOVER STAFF

DPW	
SUPPORT PROJECT (YES / NO)	SIGNATURE: <u>[Signature]</u>
	TITLE: <u>Town Engineer</u>
COMMENTS:	<u>Conduit is already installed as part of Lot reconstruction project.</u>

POLICE DEPARTMENT	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
	TITLE: _____
COMMENTS:	

FIRE DEPARTMENT	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
	TITLE: _____
COMMENTS:	

TOWN OF ANDOVER, MASSACHUSETTS



PRIVATE UTILITY PETITION CHECKLIST

TO BE FILLED OUT BY PETITIONER

COMPANY: nationalGRID	30436223
PROJECT MANAGER NAME: David Boucher	
PROJECT MANAGER CONTACT NUMBER: 978-314-5069	
LIST OF ADDRESSES IMPACTED BY PROPOSED WORK:	
Abutters can be attained through Town office	
PETITIONER IS REQUIRED TO ATTACH PICTURES SHOWING AREA OF PROPOSAL	
PICTURES HAVE BEEN ATTACHED	YES

TO BE FILLED OUT BY TOWN OF ANDOVER STAFF

DPW	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____

POLICE DEPARTMENT	
SUPPORT PROJECT (YES / NO)	SIGNATURE: <i>R. O. Lyons</i>
COMMENTS:	TITLE: <i>Executive Officer</i>

FIRE DEPARTMENT	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____

TOWN OF ANDOVER, MASSACHUSETTS



PRIVATE UTILITY PETITION CHECKLIST

TO BE FILLED OUT BY PETITIONER

COMPANY: nationalGRID	30436223
PROJECT MANAGER NAME: David Bouchor	
PROJECT MANAGER CONTACT NUMBER: 870-314-6080	
LIST OF ADDRESSES IMPACTED BY PROPOSED WORK:	
Abutters can be obtained through Town office	
PETITIONER IS REQUIRED TO ATTACH PICTURES SHOWING AREA OF PROPOSAL	
PICTURES HAVE BEEN ATTACHED	YES

TO BE FILLED OUT BY TOWN OF ANDOVER STAFF

<u>DEW</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____

<u>POLICE DEPARTMENT</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: _____
COMMENTS:	TITLE: _____

<u>FIRE DEPARTMENT</u>	
SUPPORT PROJECT (YES / NO)	SIGNATURE: <i>200 [Signature]</i>
COMMENTS:	TITLE: <i>Fire Chief</i>

nationalgrid

July 3, 2023

ANDOVER TOWN CLERK
RCUD 2023 JUL 26 AM9:24

The Board of Selectmen of Andover, Massachusetts

To Whom It May Concern:

Enclosed please find a petition of NATIONAL GRID covering the installation of underground facilities.

If you have any questions regarding this permit, please contact:

Dave Boucher 978-314-5069

Please notify National Grid's Jenn Iannalfo of the hearing date / time to
Jennifer.Iannalfo@nationalgrid.com

If this petition meets with your approval, please return an executed copy to:

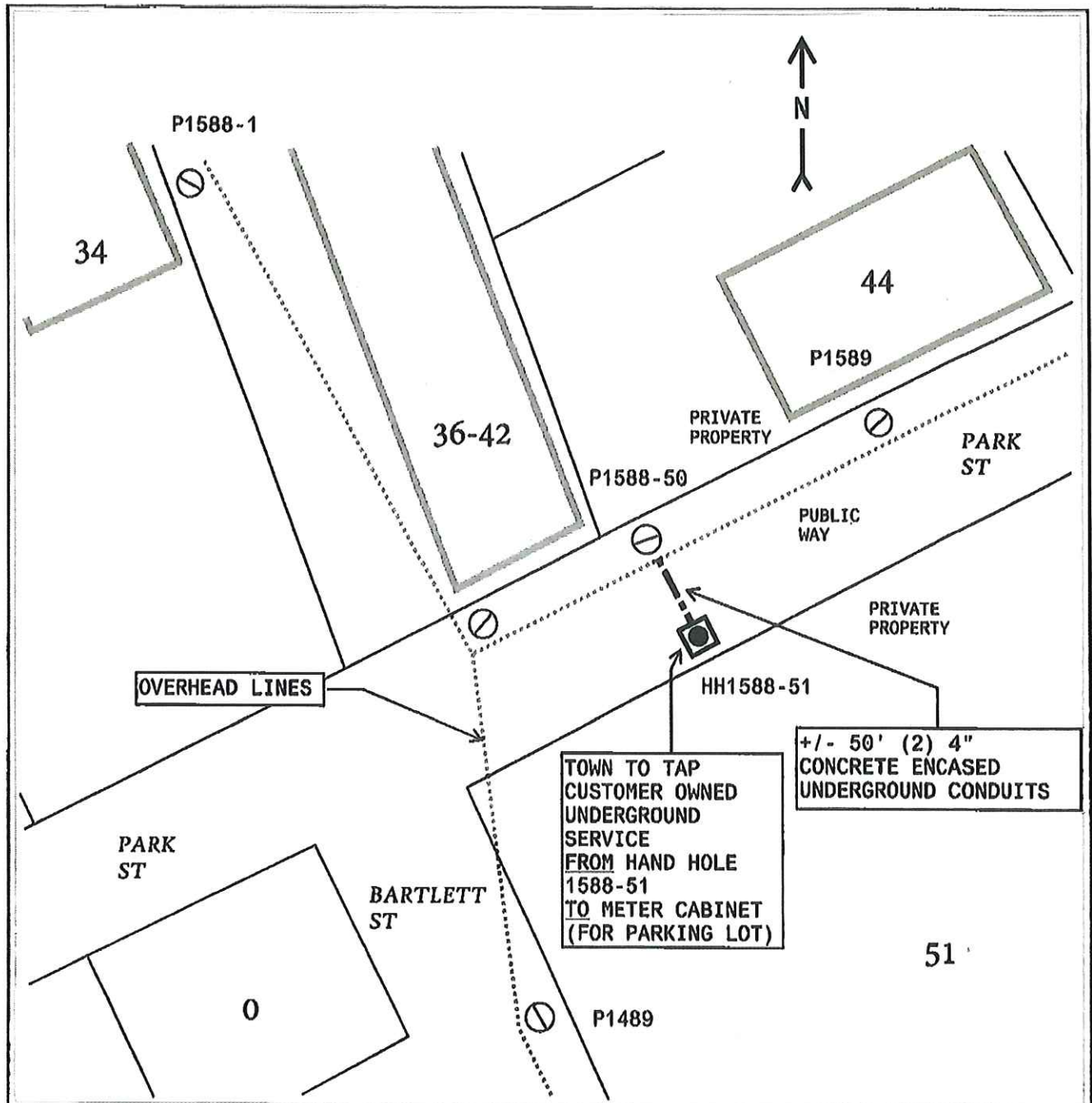
National Grid: Jennifer Iannalfo; 1101 Turnpike Street; North Andover, MA 01845; # 978-725-1418

Very truly yours,

Dave Johnson

Dave Johnson
Supervisor, Distribution Design

Enclosures






OVERHEAD LINES

TOWN TO TAP
CUSTOMER OWNED
UNDERGROUND
SERVICE
FROM HAND HOLE
1588-51
TO METER CABINET
(FOR PARKING LOT)

+/- 50' (2) 4"
CONCRETE ENCASED
UNDERGROUND CONDUITS

DISTRIBUTION ELECTRIC UNDERGROUND PETITION Plan Number 30436223

LEGEND

-  EXISTING J.O. POLE
-  PROPOSED NEW HEAVY DUTY HANDHOLE
-  PROPOSED (2)4" CONCRETE ENCASED CONDUITS

Date: 6/30/23 Drawn by: DJB

DRAWING NOT TO SCALE. DISTANCES ARE APPROXIMATE



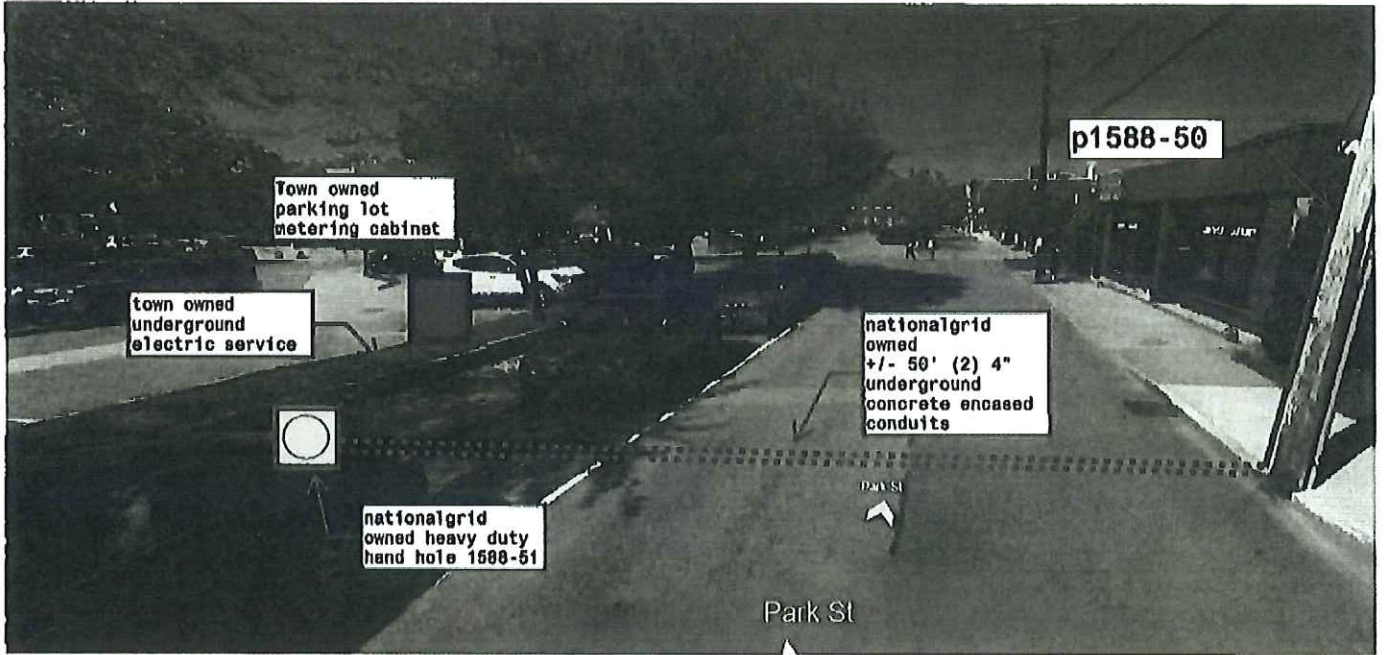
To The: TOWN OF ANDOVER, MA

For Proposed:
UNDERGROUND ELECTRIC SERVICE

Location:
0 PARK ST

Sketch to accompany petition for:

+/- 50' (2)4" CONCRETE ENCASED CONDUITS
FROM EXISTING POLE# 1588-50
TO NEW HEAVY DUTY HANDHOLE# 1588-51
FOR ELECTRIC SERVICE TO TOWN PARKING LOT



Town owned
parking lot
metering cabinet

p1588-50

town owned
underground
electric service

nationalgrid
owned
+/- 50' (2) 4"
underground
concrete encased
conduits



nationalgrid
owned heavy duty
hand hole 1588-51

DMS1

Park St