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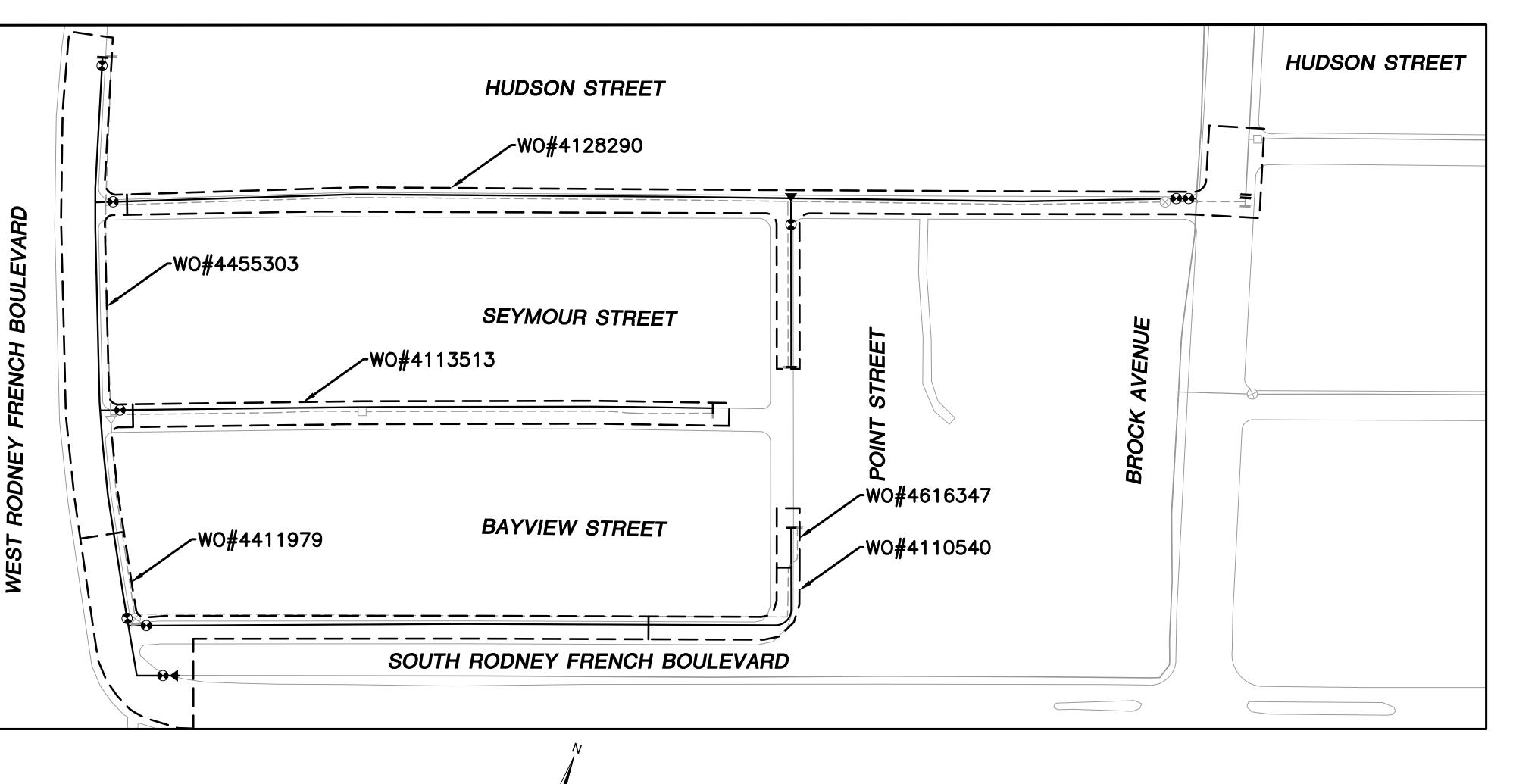
(SCALE: 1"=70') (DO NOT SCALE FROM DRAWINGS)

SSUED FOR NSTRUCTION 09/14/2021	SEALED BY:	SEALED ON: 09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	
		LICENSE EXPIRATION: 06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGING.COM	FIELD VERIFY PRIOR TO PIPE

	Portland St Portland St M Rodiney St Pench B Seymour St	Marine
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	10 LOCATION A - P	PHASE 1, 2 AND SCHEDULE OF MATERIALS
	11 LOCATION B AND	SCHEDULE OF MATERIALS
	12 LOCATION C AND	SCHEDULE OF MATERIALS
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	DRAWN BY / DATE CHECKED	D BY / DATE SHEET NUMBER REV. NO. /14/2021
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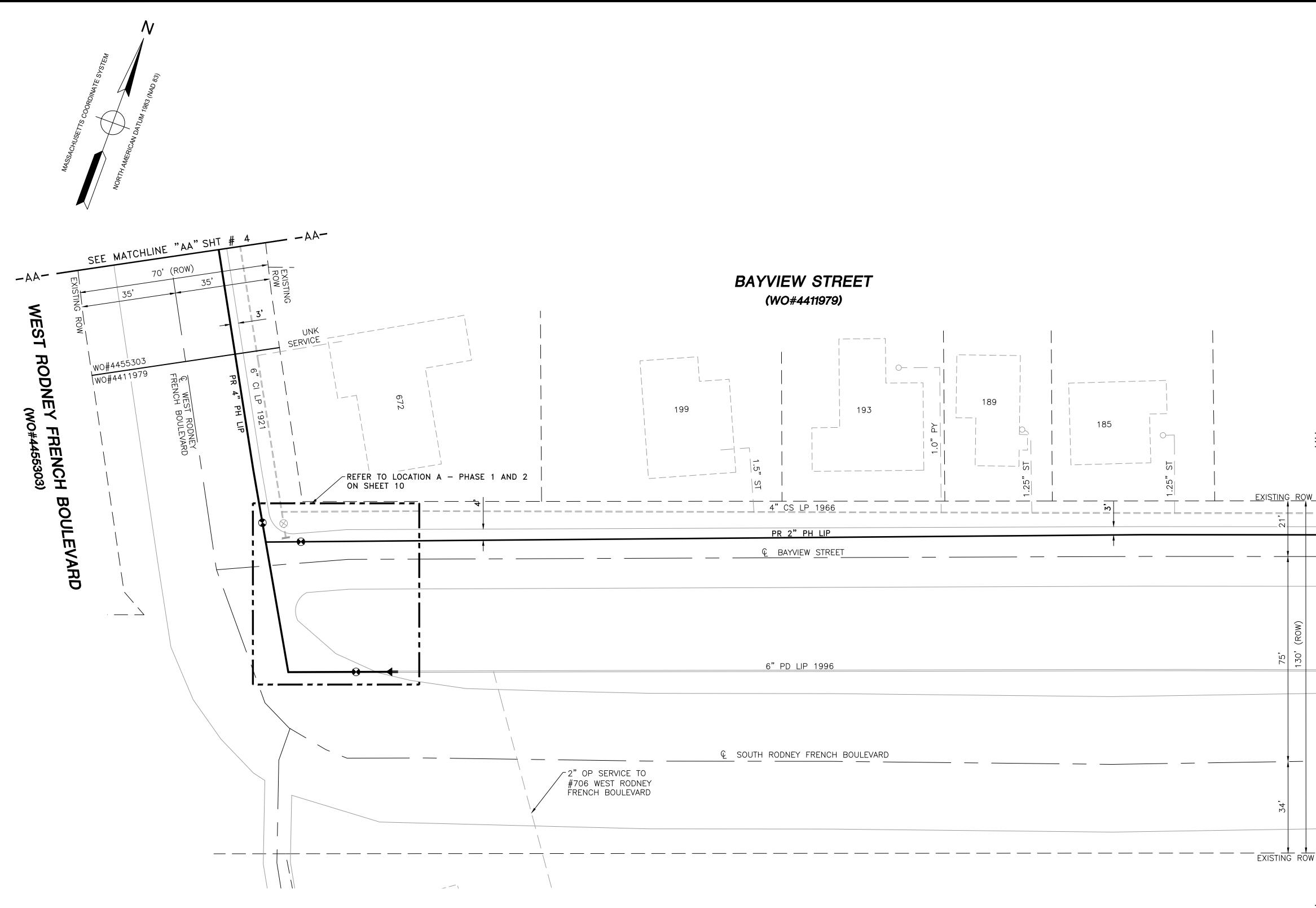
### GENERAL NOTES

- 1. 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.
  - A. IF THE TIE IN POINT MOVES TO A DIFFERENT SEGMENT OF PIPE THAN SHOWN
  - B. IF A CHANGE IN THE LOCATION OF VALVES IS REQUIRED
  - C. 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
  - D. IF A CHANGE IN PIPE SIZE, MATERIAL, FITTINGS, OR WALL THICKNESS IS REQUIRED.
- 2. MINOR CHANGES SUCH AS OFFSETS MAY NOT REQUIRE DRAWING CHANGES.
- 3. EXCAVATOR SHALL CALL DIGSAFE/CALL BEFORE YOU DIG (DIAL 811) AT LEAST 72 HOURS PRIOR TO CONSTRUCTION. SATURDAYS, SUNDAYS, AND HOLIDAYS ARE EXCLUDED FROM THE 72-HOUR TIME SPAN, NOT CONSIDERED BUSINESS WORKDAYS.
- 4. CONSTRUCTION DRAWINGS ARE BASED ON EVERSOURCE HISTORICAL DOCUMENTATION AND HAVE NOT BEEN FIELD VERIFIED. WHEN THE PIPE IS EXPOSED AND VARIANCES TO THE CERTIFIED DRAWINGS ARE FOUND, CONTACT GAS ENGINEERING TO DETERMINE PATH FORWARD.
- 5. ALL WORK SHALL BE PERFORMED PER EVERSOURCE, LOCAL, STATE, OSHA, AND FEDERAL REGULATIONS AND STANDARDS.
- 6. MATERIAL AND CONSTRUCTION SHALL CONFORM TO EVERSOURCE GAS STANDARDS.
- 7. THE LOCATIONS OF EXISTING UTILITIES AND UNDERGROUND STRUCTURES ARE APPROXIMATE AND MUST BE FIELD VERIFIED. ADDITIONAL UNDERGROUND FACILITIES MAY EXIST THAT ARE NOT SHOWN ON THESE DRAWINGS WHICH MAY REQUIRE ADDITIONAL OFFSETS IN THE PIPELINE.
- 8. WORK LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXACT LOCATIONS OF TIE-INS SHALL BE DETERMINED AT THE TIME OF CONSTRUCTION TO SUIT FIELD CONDITIONS AT THE SPECIFIC TIE-IN POINT. VERIFY LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY TIE-IN WORK.
- 9. ALL LIVE GAS WORK 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.
- 10. EXCAVATOR IS REQUIRED TO PROTECT EXISTING UTILITIES, STRUCTURES, LANDSCAPE FEATURES, SIGNAGE, CURBS, ETC. CARE SHOULD BE TAKEN NOT TO DISTURB OR DAMAGE SUCH 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.
- 11. IF THE PROJECT IS WITHIN 50 FEET OF A DISTRICT REGULATOR OR GATE STATION, ENSURE THAT A QUALIFIED I&R TECHNICIAN IS ON SITE.
- 12. 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.
- 13. PROPERTY LINES, STRUCTURES AND EXISTING CONDITIONS DEPICTED ON PLANS ARE BASED ON EVERSOURCE GIS INFORMATION AND HAVE NOT BEEN VERIFIED BY LAND SURVEY UNLESS NOTED.
- 14. EXISTING SERVICES SHOWN ON PLAN ARE FOR INFORMATION ONLY. PROPOSED SERVICES ARE NOT SHOWN ON PLANS AND ARE TO BE INSTALLED PER EVERSOURCE CONSTRUCTION STANDARDS.
- 15. PROPOSED WORK SHALL BE PERFORMED AND COMPLETED IN COMPLIANCE WITH ALL PERMITS AND APPROVALS.
- 16. MAINS AND SERVICES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH EVERSOURCE OM-205.
- 17. MAOP:
- LP = 14" W.C. LIP = 35 PSIG IP = 60 PSIG HP = 90 PSIG
- 18. ALL WORK SHALL BE PERFORMED PER EVERSOURCE, LOCAL, STATE AND FEDERAL REGULATIONS AND STANDARDS.
- 19. ALL PIPE WILL BE INSTALLED WITH A MINIMUM DEPTH IN ACCORDANCE WITH EVERSOURCE STANDARDS
- 20. SQUEEZE OPERATIONS SHOULD BE COMPLETED IN ACCORDANCE WITH OM-233
- 21. ENSURE ALL SERVICES BEING TRANSFERRED TO A HIGHER PRESSURE SYSTEM HAVE UPGRADED PRESSURE REGULATORS INSTALLED PRIOR TO ACTIVATION.
- 22. ENSURE VALVES ON EXISTING MAIN, WHERE PROPOSED MAIN WILL BE INSERTED HAVE BEEN MADE INOPERABLE.
- 23. ADDITIONAL VALVES AND TEES THAT ARE INCLUDED IN THE SCHEDULE OF MATERIALS MAY BE INSTALLED TEMPORARILY WHEN NEEDED TO FACILITATE TIE-INS AND PURGES.
- 24. METFIT FITTINGS MAY BE SUBSTITUTED FOR ELECTROFUSION FITTINGS WHERE NEEDED.
- 25. HIGH VOLUME TAPPING TEES ARE NOT TO BE PRE-TAPPED UNLESS OTHERWISE NOTED.
- 26. DO NOT SCALE FROM DRAWINGS.





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					NO. DESCRIPTION		DATE	DW/CK/AP
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	SEALED BY:	SEALED ON:	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.				RCE	
SSUED FOR	ERIC VINAL	09/15/2021	TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.		HUDSON STREET, S	EYMOUR STREET, AND B	AYVIEW STREET MA	IN RELAYS
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00,11,2021			29 BARTLETT STREET MARLBOROUGH, MA 01752		DRAWN BY / DATE WS 04/01/2021	CHECKED BY / DATE	SHEET NUMBER	REV. NO.
	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM		APPROVED BY / DATE EK 09/14/2021	AB 09/14/2021 MANEB21PIP063R0	MA-NEB-21-PIP-063-0	02 0



NOTES: 1. CONTRACTOR TO POTHOLE EXISTING UTILITIES

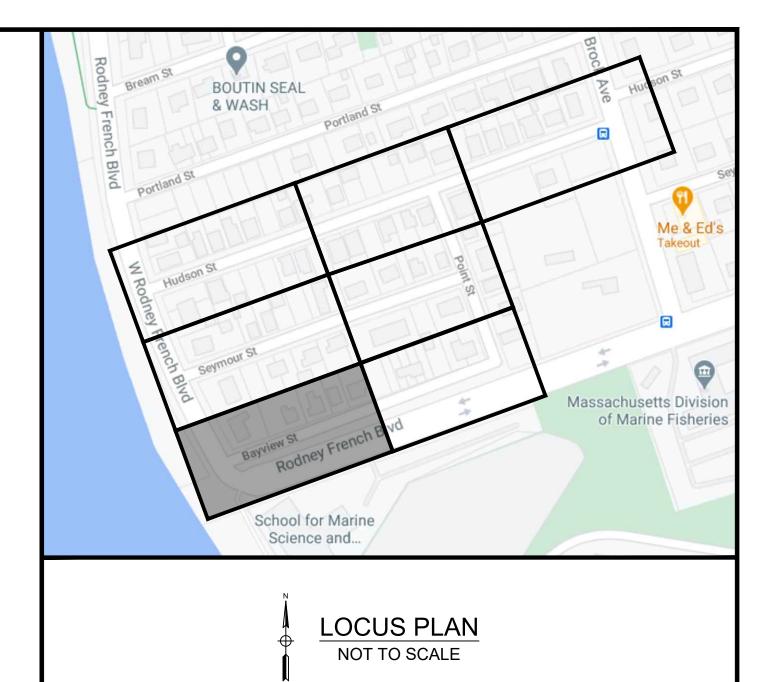
AT CROSSING LOCATIONS PRIOR TO CONSTRUCTION. 2. REFER TO GENERAL NOTES AND SCHEDULE OF MATERIALS ON SHEET #2.

LENGTH	SIZE	MATERIAL	DESCRIPTION
390'	2"	РН	INSTALL
195'	4"	РН	INSTALL
5'	6"	РН	INSTALL
385'	4"	CS	RETIRE
110'	6"	CI	RETIRE



# SOUTH RODNEY FRENCH BOULEVARD

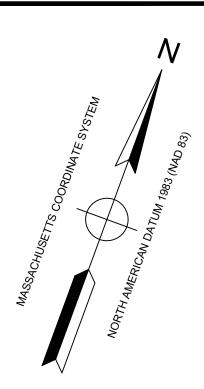
ISSUED FOR ONSTRUCTION 09/14/2021	ERIC VINAI KUMAR No. 54771	SEALED ON: 09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY DIMENSIONS
		LICENSE EXPIRATION:	29 BARTLETT STREET MARLBOROUGH, MA 01752	PRIOR TO PIPE FABRICATIO
	SIGNATURE	06/30/2022	TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

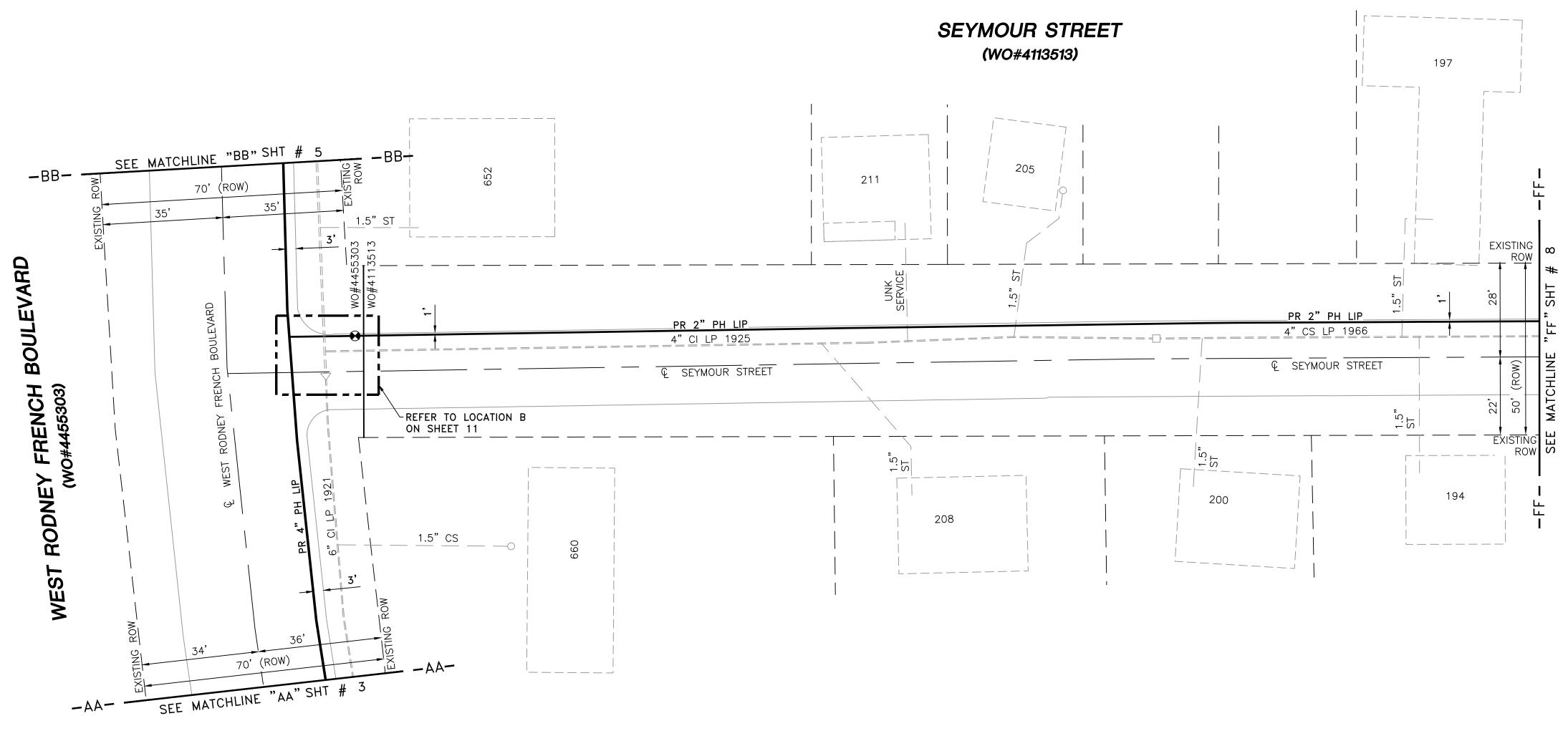


### DRAWING LEGEND

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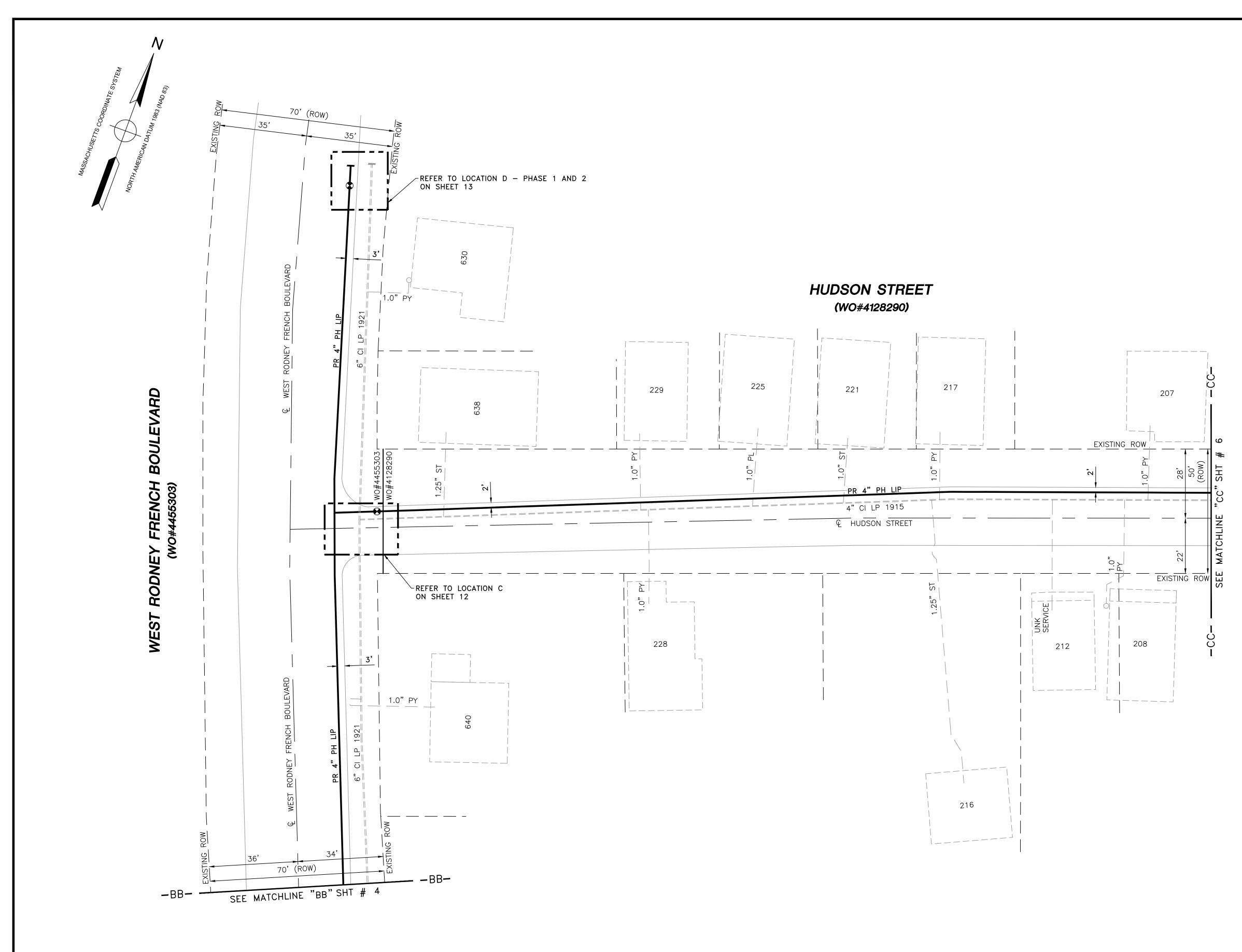
NOTES: 1. CONTRACTOR TO POTHOLE EXISTING UTILITIES AT CROSSING LOCATIONS PRIOR TO CONSTRUCTION. 2. REFER TO GENERAL NOTES AND SCHEDULE OF MATERIALS ON SHEET #2.

LENGTH	SIZE	MATERIAL	DESCRIPTION
360'	2"	РН	INSTALL
155'	4"	РН	INSTALL
245'	4"	CI	RETIRE
110'	4"	CS	RETIRE
150'	6"	CI	RETIRE

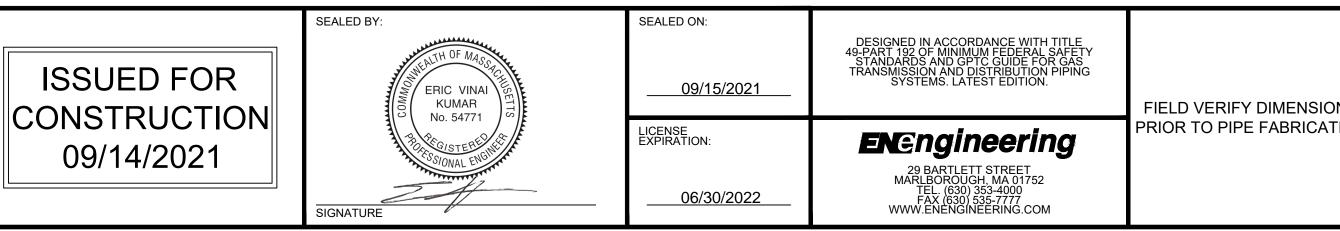


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		LICENSE EXPIRATION: 06/30/2022	ENERGINEERING 29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	PRIOR TO PIPE

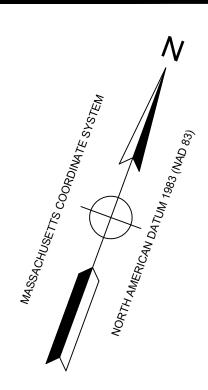
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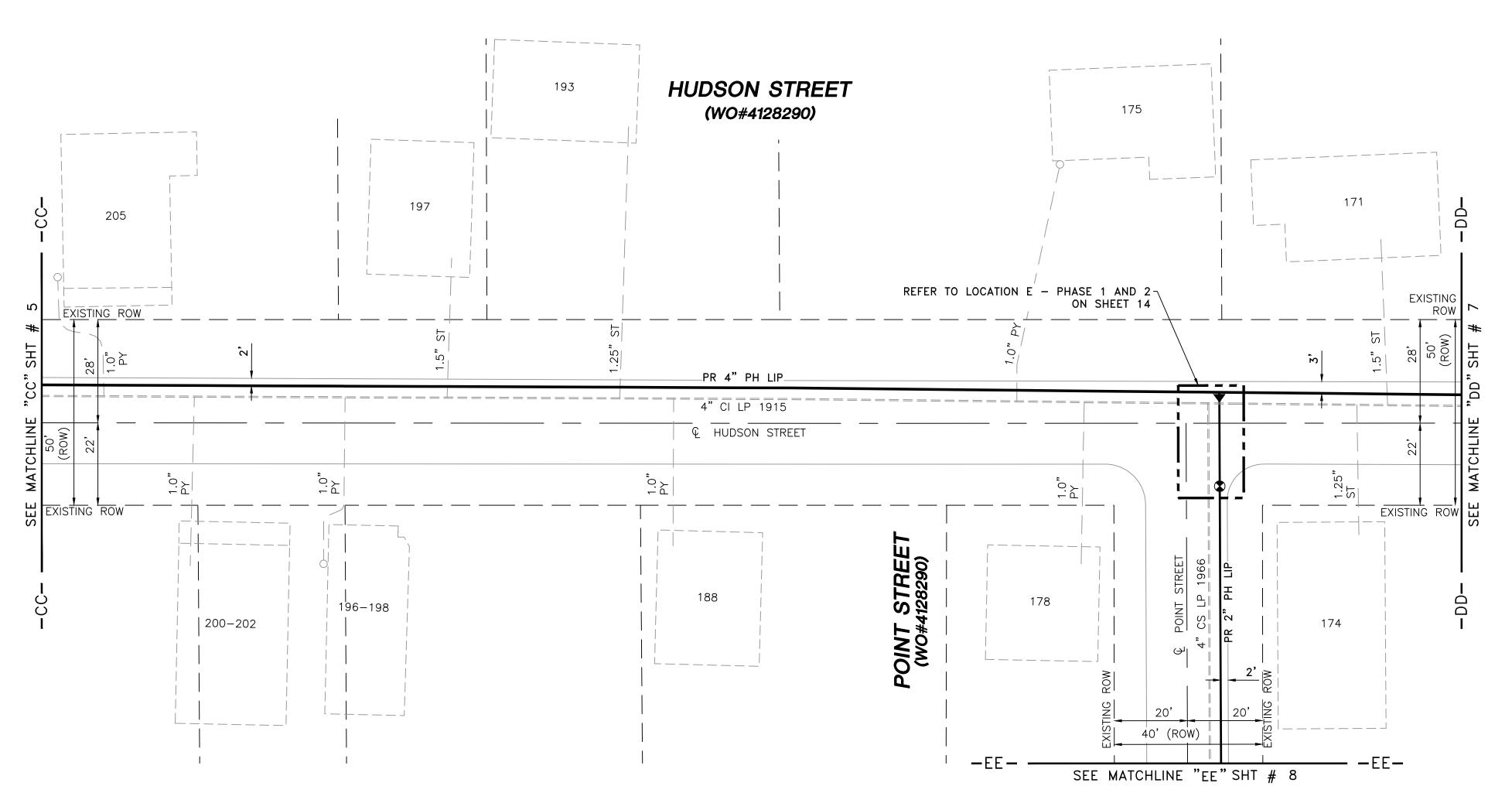


<ul> <li><u>NOTES</u>:</li> <li>1. CONTRACTOR TO POTHOLE EXISTING UTILITIES AT CROSSING LOCATIONS PRIOR TO CONSTRUCTION.</li> <li>2. REFER TO GENERAL NOTES AND SCHEDULE OF MATERIALS ON SHEET #2.</li> </ul>					
LENGTH	SIZE	MATERIAL	DESCRIPTION		
645'	4"	РН	INSTALL		
350'	4"	CI	RETIRE		
290'	6"	CI	RETIRE		



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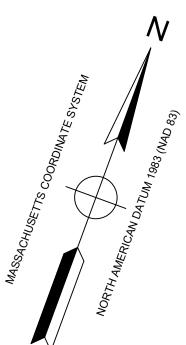
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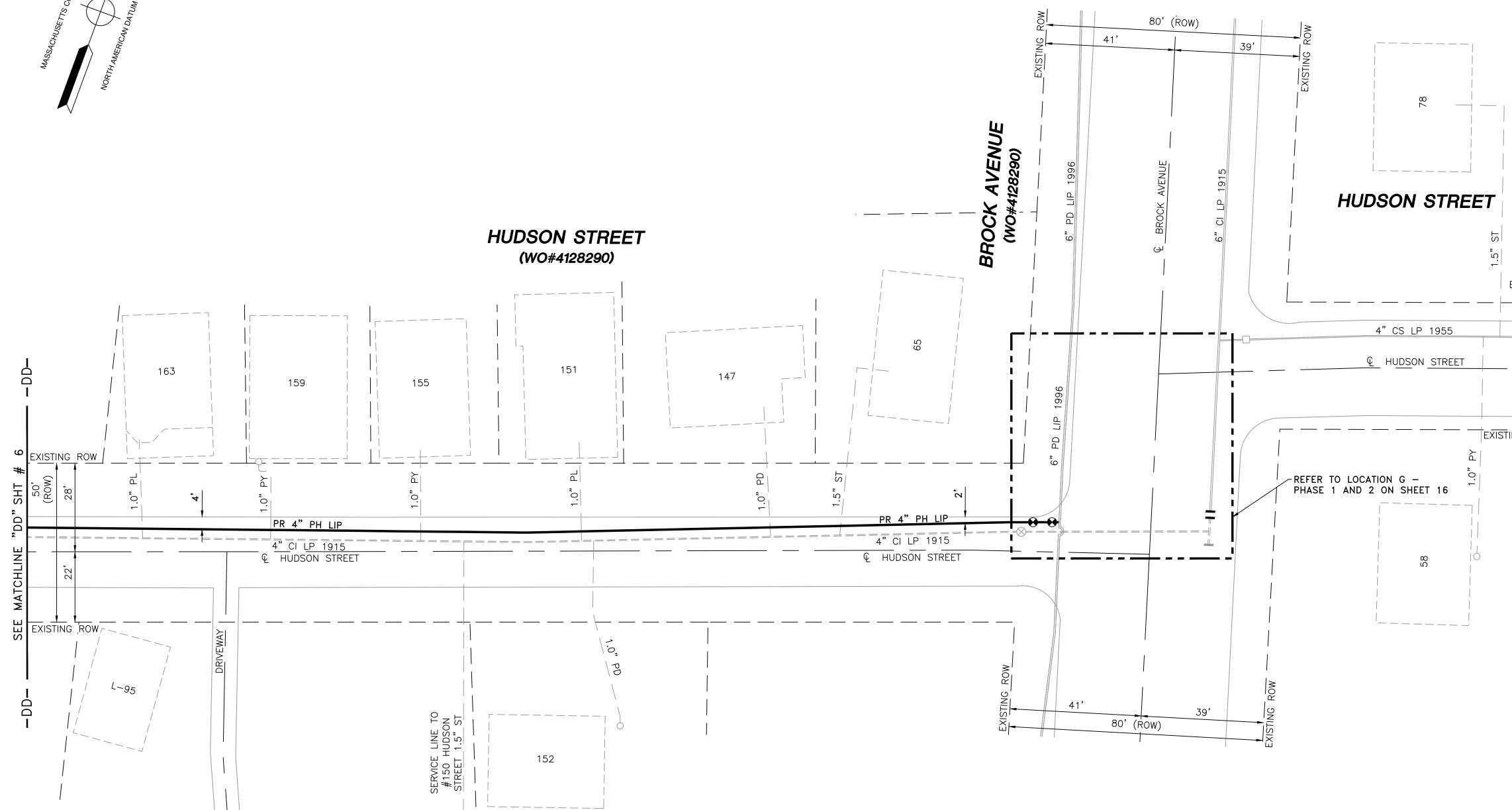
LENGTH	SIZE	MATERIAL	DESCRIPTION
100'	2"	РН	INSTALL
385'	4"	РН	INSTALL
385'	4"	CI	RETIRE
100'	4"	CS	RETIRE



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ISSUED FOR	ERIC VINAI KUMAR No. 54771	09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY
CONSTRUCTION 09/14/2021	10. 54771	LICENSE EXPIRATION:	<b>EN</b> ©ngineering	PRIOR TO PIPE
09/14/2021	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

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		UTILITY POLE		EXISTING GAS MAIN
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		CATCH BASIN		PROPOSED GAS MAIN
	000	FIRE HYDRANT		EXISTING SERVICE
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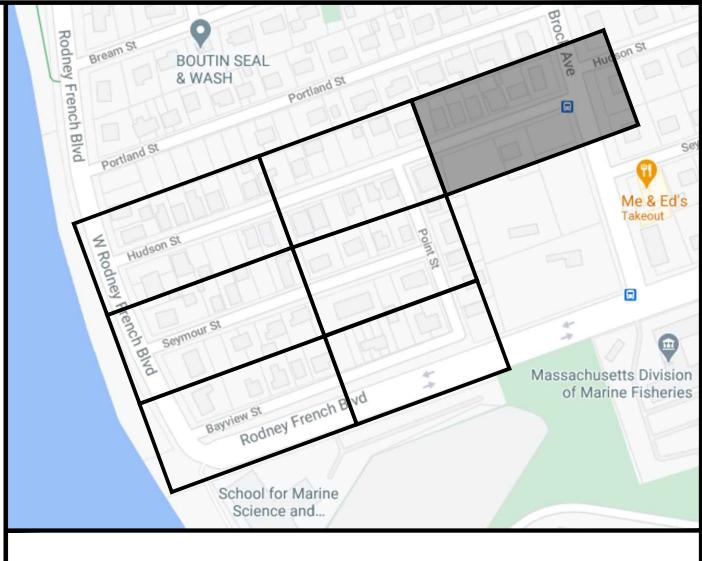


<ul> <li><u>NOTES</u>:</li> <li>1. CONTRACTOR TO POTHOLE EXISTING UTILITIES AT CROSSING LOCATIONS PRIOR TO CONSTRUCTION.</li> <li>2. REFER TO GENERAL NOTES AND SCHEDULE OF MATERIALS ON SHEET #2.</li> </ul>						
	LENGTH SIZE MATERIAL DESCRIPTION					
	325'	4"	РН	INSTALL		
	375'	4"	CI	RETIRE		
	10'	6"	CI	RETIRE		



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	SEALED BY:	SEALED ON:		
ISSUED FOR	ERIC VINAI KUMAR No. 54771 SIGNATURE	09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY DIMENSION
CONSTRUCTION 09/14/2021		LICENSE EXPIRATION:	<b>EN</b> ©ngineering	PRIOR TO PIPE FABRICATI
		06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

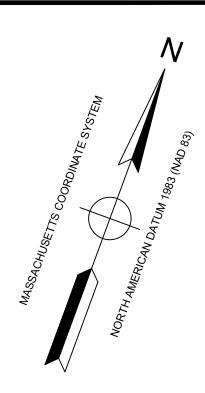


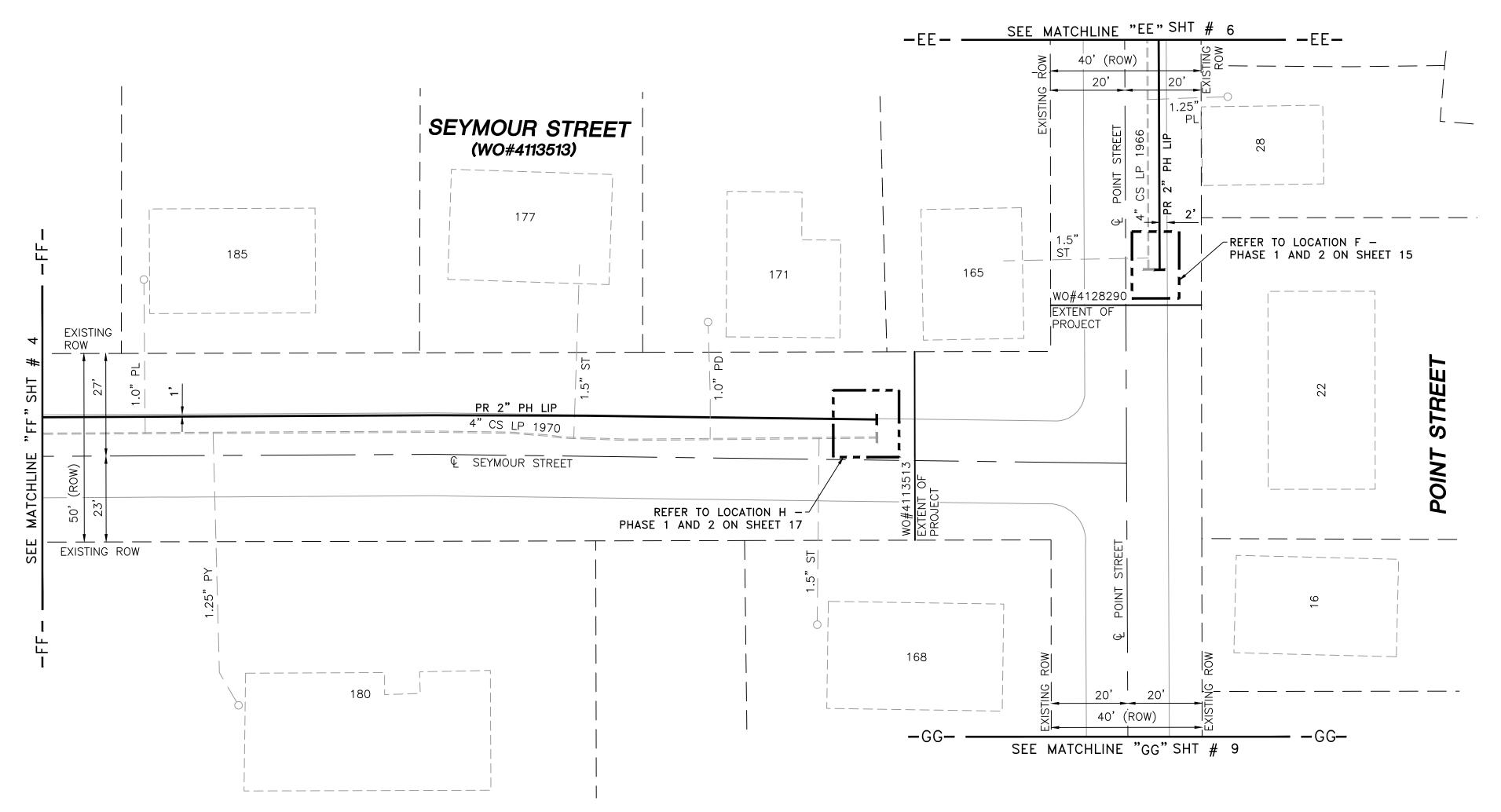


## DRAWING LEGEND

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EXISTING ROW  $\tilde{\mathbf{x}}$ 





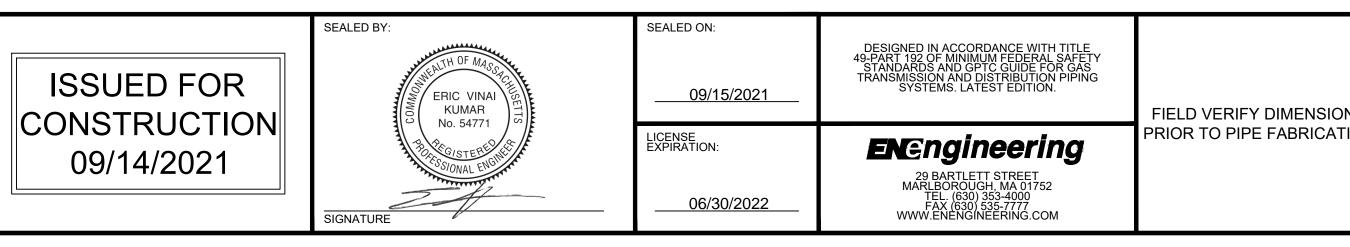
AT CROSSING	LOCATIONS PRI	XISTING UTILITIES OR TO CONSTRUCTIO ND SCHEDULE OF MAT	
LENGTH	SIZE	MATERIAL	DESCRIPTION
290'	2"	PH	INSTALL

RETIRE

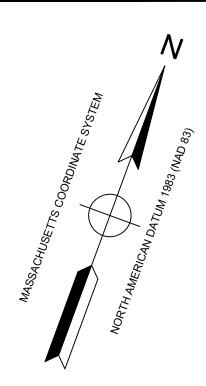
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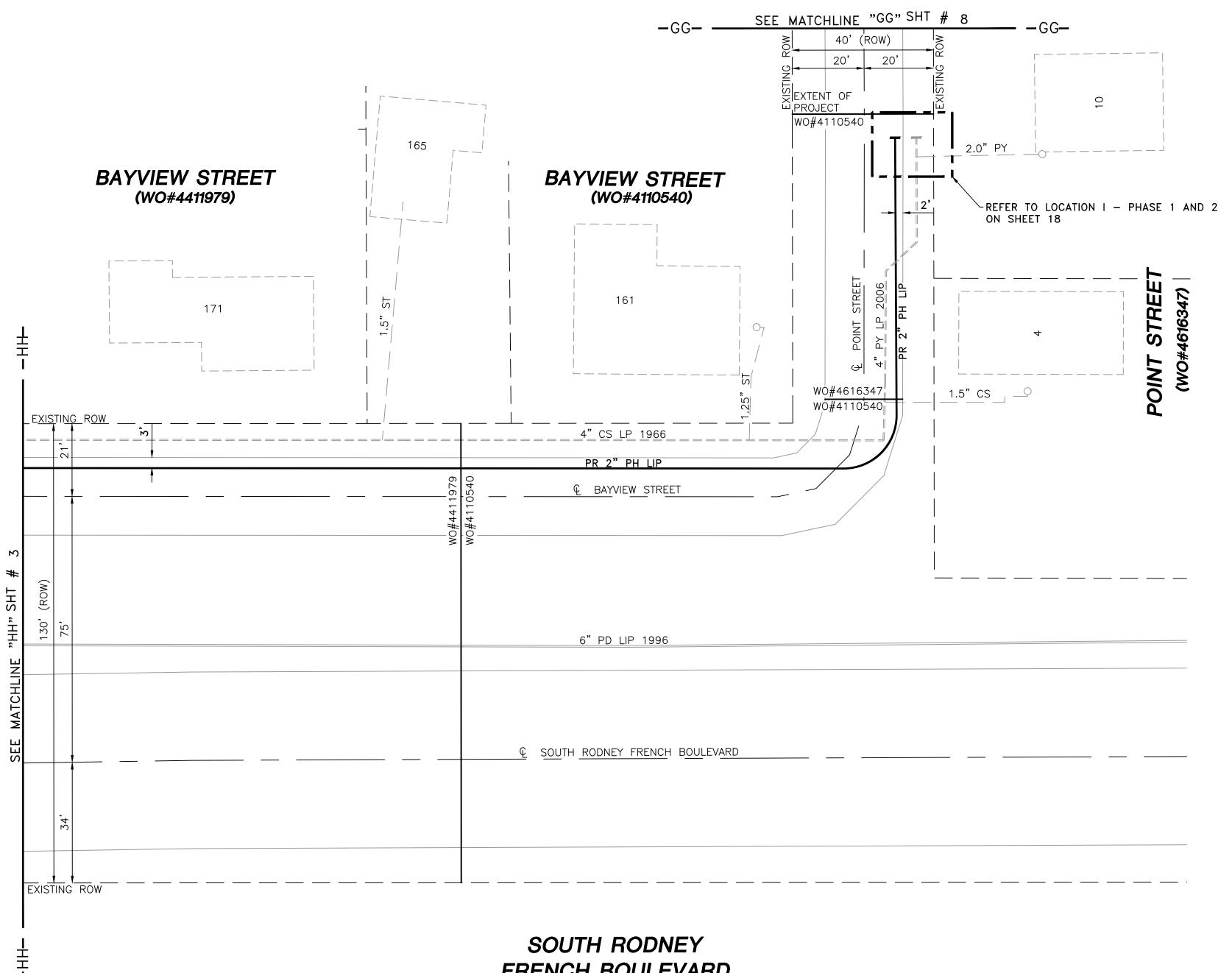
4"

290'



ey French Blvd	Bream St BOUTIN SEAL & WASH Portland St Portland St Hudson St Bayview St Rodney Frem Rodney Frem School for Mar Science and	och Bivd		Hudson St Me & Ed Takeout
	<del>( )</del> ——	CUS PLAN DT TO SCALE		
	DRAWI	NG LEGEND		
	UTILITY POLE		EXISTING G	AS MAIN
*	LIGHT POLE		RETIRED G	AS MAIN
	CATCH BASIN		PROPOSED	GAS MAIN
000	FIRE HYDRANT		EXISTING S	ERVICE
$\bigcirc$	UTILITY MANHOLE		RIGHT OF V	VAY
E	ELECTRIC MANHOLE	——— E ———	ELECTRIC	
T	TELEPHONE MANHOLE	— т —	TELEPHONI	E
W	WATER MANHOLE	W	WATER	
$\langle \bullet \rangle$	SANITARY MANHOLE	-<<<<<<<	SANITARY S	SEWER
	STORM MANHOLE	-<(<(<(<(<(	STORM SEV	VER
$\triangleright$	EXISTING REDUCER	►	PROPOSED	REDUCER
1	EXISTING CAP	l	PROPOSED	САР
$\otimes$	EXISTING VALVE	•	PROPOSED	VALVE
	EXISTING COUPLING	\$	PROPOSED	ANODE
ļ			1	Ι
	UED FOR CONSTRUCTIO	N	09/14/2021	
NO. DE		SION STATUS	DATE	DW/CK/A
N	STREET, SEYMOUR STRE NEW BEDFOR INSTAL	D, MASSACHUS LATION PLAN	GY EW STREET M ETTS	
DRAWN WS 04 APPROVE	"=20' (DO NOT SCALE FRO BY / DATE CHECKED BY /01/2021 AB 09/14/ D BY / DATE /14/2021 MANEB21PI	2021	SHEE SHEET NUMBER -NEB-21-PIP-063	ET 8 OF 7 REV. -08 0



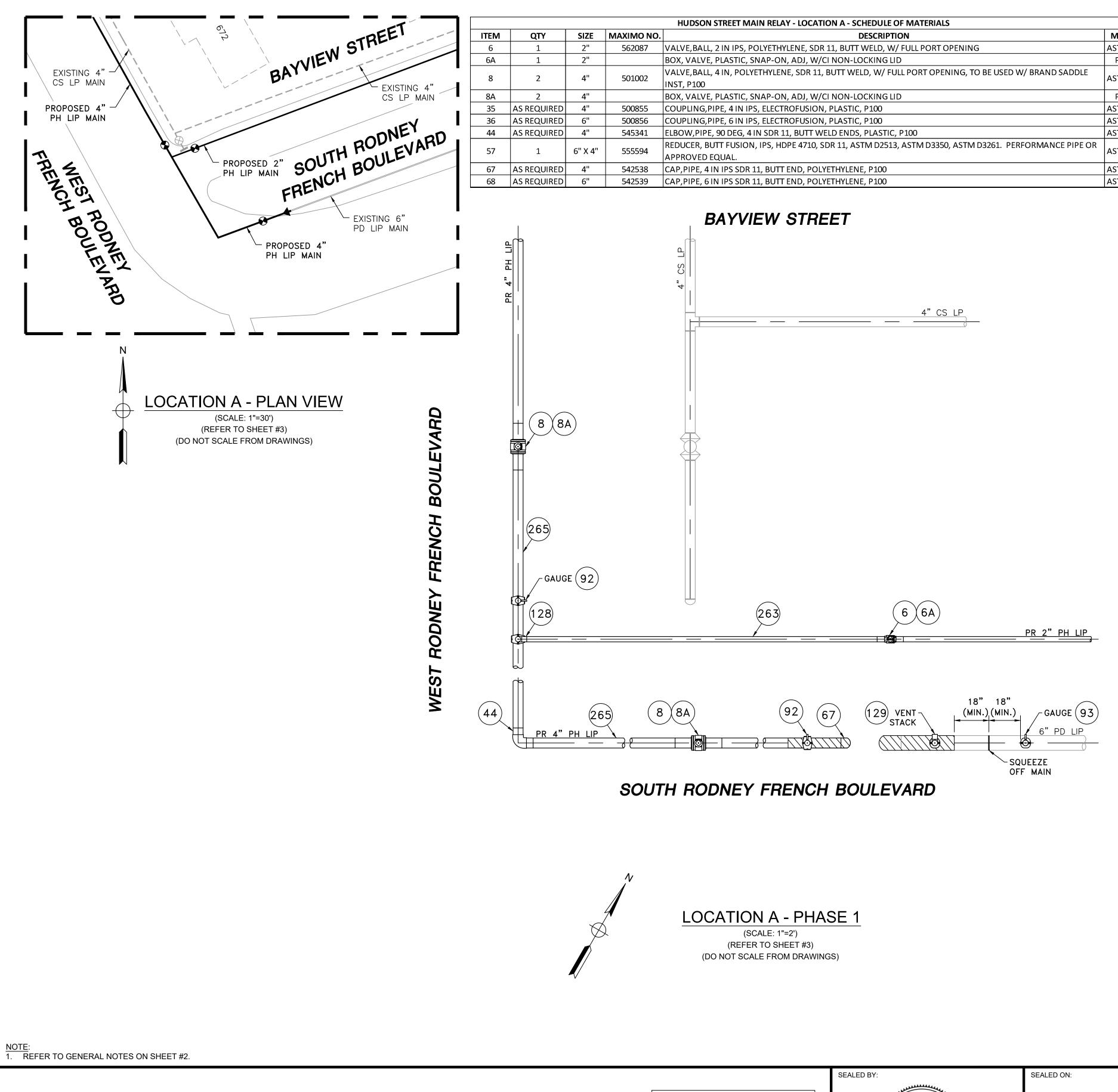


AT CROSSING	LOCATIONS PR	XISTING UTILITIES IOR TO CONSTRUCTIO ND SCHEDULE OF MAT	
LENGTH	SIZE	MATERIAL	DESCRIPTION
340'	2"	РН	INSTALL
245'	4"	CS	RETIRE
90'	4"	PY	RETIRE

FRENCH BOULEVARD

	SEALED BY:	SEALED ON:		
SSUED FOR	ERIC VINAI KUMAR No. 54771	09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY DIMENSIO
NSTRUCTION 09/14/2021	REGISTERE	LICENSE EXPIRATION:	<b>EN</b> ©ngineering	PRIOR TO PIPE FABRICATI
03/14/2021	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

ey French Blvd	bream St BOUTIN SEAL & WASH Portland St Portland St Hudson St Bayview St Rodney Fren Rodney Fren School for Mar Science and	ine		Hurbon St We & Ed Takeout C Usetts Division arine Fisherio
	<del>( )</del> ——	CUS PLAN DT TO SCALE		
	DRAWI	NG LEGEND		
	UTILITY POLE		EXISTING GA	AS MAIN
×	LIGHT POLE		RETIRED GA	S MAIN
	CATCH BASIN		PROPOSED	GAS MAIN
cOo	FIRE HYDRANT		EXISTING SE	RVICE
$\bigcirc$	UTILITY MANHOLE		RIGHT OF W	AY
E	ELECTRIC MANHOLE	——— E ———	ELECTRIC	
T	TELEPHONE MANHOLE	T	TELEPHONE	
Ŵ	WATER MANHOLE	W	WATER	
$\langle \bullet \rangle$	SANITARY MANHOLE	$\prec \neg \neg \neg \neg \neg \neg \neg \neg -$	SANITARY S	EWER
۲	STORM MANHOLE	~(((((	STORM SEW	/ER
$\triangleright$	EXISTING REDUCER	►	PROPOSED	REDUCER
1	EXISTING CAP	l	PROPOSED	CAP
$\otimes$	EXISTING VALVE	•	PROPOSED	VALVE
	EXISTING COUPLING	\$	PROPOSED	ANODE
	UED FOR CONSTRUCTIO	Ν	09/14/2021 DATE	ZS/AB/E DW/CK/A
	REVIS	SION STATUS		
1	STREET, SEYMOUR STRE NEW BEDFOR INSTAL	ENER EET, AND BAYVIE D, MASSACHUS LATION PLAN	GY EW STREET M/ ETTS	
DRAWN E WS 04/ APPROVE	Herein Construction         Constructing         Construction         Constr	//DATE /2021	SHEE SHEET NUMBER -NEB-21-PIP-063-	T         9         OF         7           REV.         REV.         09         0



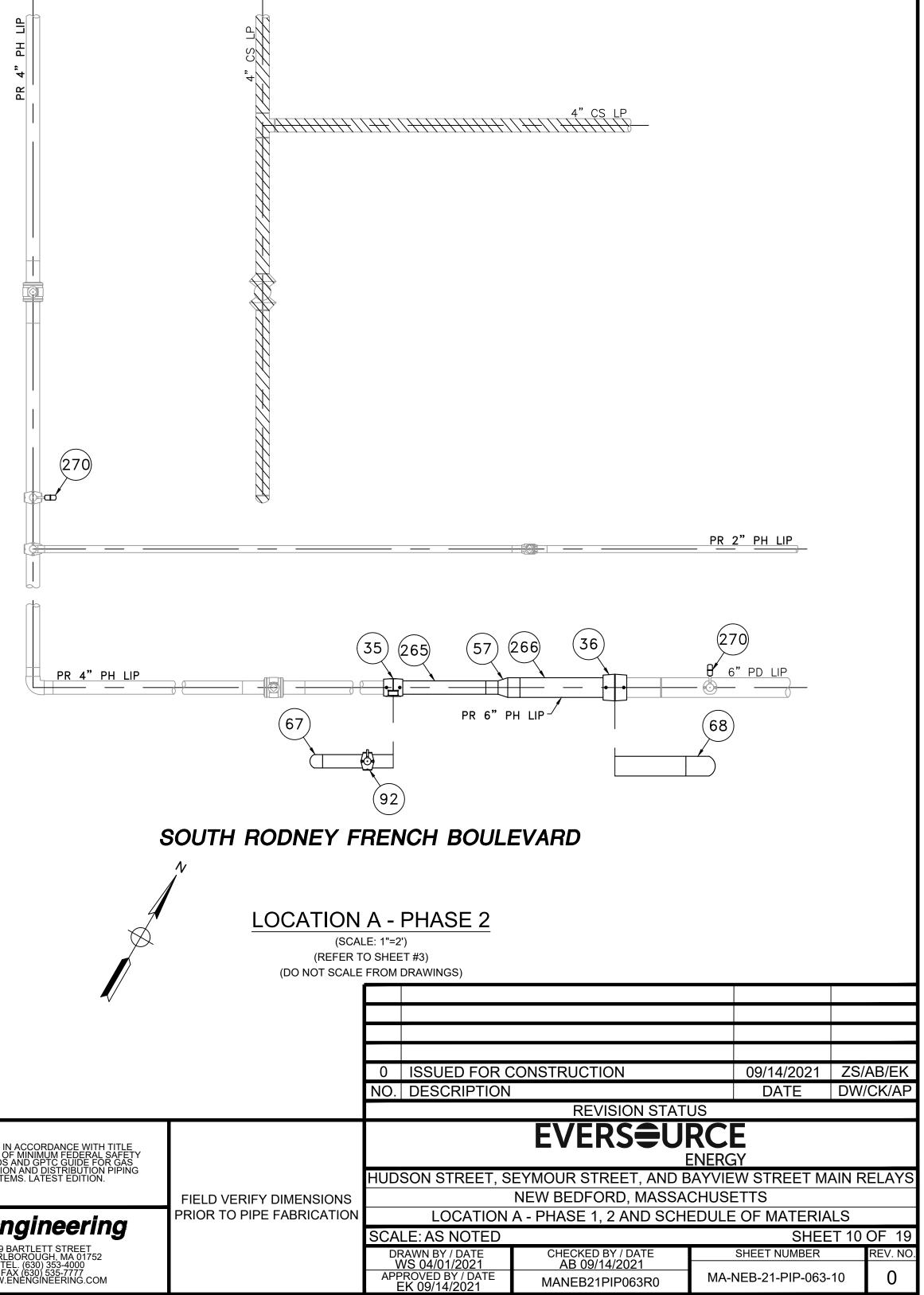
HUDSON STREET MAIN RELAY - LOCATION A - SCHEDULE OF MATERIALS	
DESCRIPTION	MATERIAL
LVE,BALL, 2 IN IPS, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING	ASTM D2513
X, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC
LVE,BALL, 4 IN, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING, TO BE USED W/ BRAND SADDLE ST, P100	ASTM D2513
X, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC
UPLING, PIPE, 4 IN IPS, ELECTROFUSION, PLASTIC, P100	ASTM D3350
UPLING, PIPE, 6 IN IPS, ELECTROFUSION, PLASTIC, P100	ASTM D3350
30W,PIPE, 90 DEG, 4 IN SDR 11, BUTT WELD ENDS, PLASTIC, P100	ASTM D2513
DUCER, BUTT FUSION, IPS, HDPE 4710, SDR 11, ASTM D2513, ASTM D3350, ASTM D3261. PERFORMANCE PIPE OR PROVED EQUAL.	ASTM D2513
P,PIPE, 4 IN IPS SDR 11, BUTT END, POLYETHYLENE, P100	ASTM D2513
P,PIPE, 6 IN IPS SDR 11, BUTT END, POLYETHYLENE, P100	ASTM D2513

92	3	4" X 1/2"	500867	TEE,PIPE,
92	5	4 \ 1/2	500607	WALL, PO
02	1	C" V 1/2"	500860	TEE,PIPE,
93	1	6" X 1/2"	500869	WALL, PO
128	1	4" X 2"	584304	FITTING,T
128			584504	WAS ITEM
129	1	6" X 2"	500870	TEE,PIPE,
263	20'	2"	554025	PIPE, 2 IN
265	35'	4"	554008	PIPE, 4 IN
266	5'	6"	554009	PIPE, 6 IN
270	AS REQUIRED	1/2"	579972	FITTING,C

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MA-NEB-21-PIP-063-10

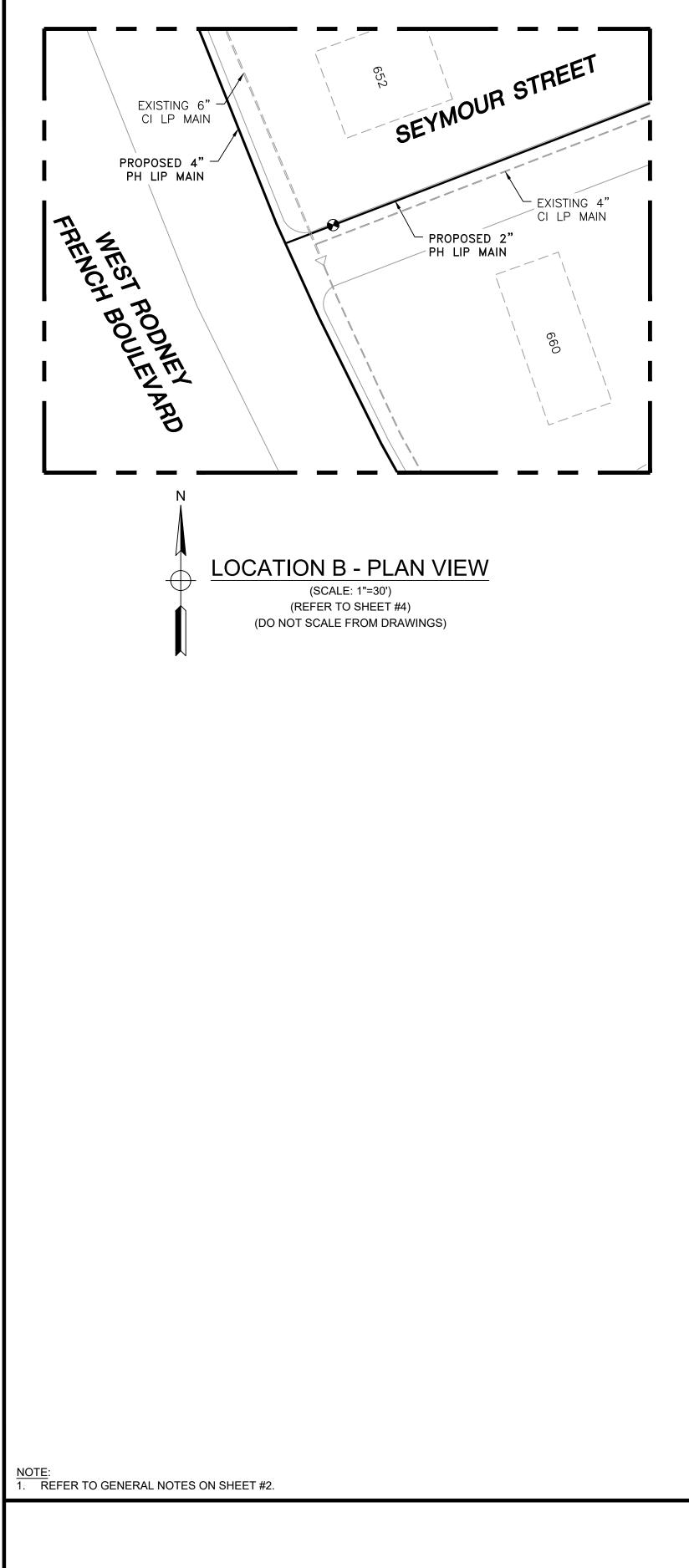
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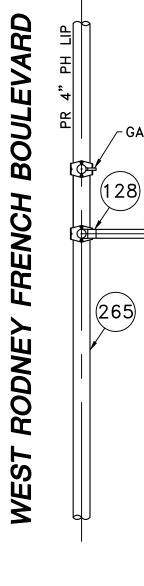
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ISSUED FOR	SEALED BY:	SEALED ON: 09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY D
CONSTRUCTION 09/14/2021	SIGNATURE	LICENSE EXPIRATION: 06/30/2022	ENERGINEERING 29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	PRIOR TO PIPE F

, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT	PE3408
OLYETHYLENE, PE3408/PE100, 1	F L3408
, NON-BLOWING, 6 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT	
OLYETHYLENE, PE3408/PE100	
TEE, 4 IN IPS X 2 IN IPS, ELECTROFUSION HIGH VOLUME TAPPING WITH BUTT FUSION OUTLET, HDPE, BLACK,	HDPE
M 577621	HUPE
, 6 X 2 IN IPS , ELECTROFUSION, PLASTIC, P100, W/ 1.8 IN PERF, 5/BOX	PLASTIC P100
N IPS X 0.216 IN THK WALL SDR 11, 2.375 IN OD, 350 FT LG COIL, POLYETHYLENE, PE3408/PE100	PE3408/PE100
N IPS X 0.409 IN THK WALL SDR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	PE3408/PE100
N IPS X 0.602 IN THK WALL SDR 11, 6.625 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100	PE3408/PE100
CAP, METFIT, 1/2 IN CTS X 0.90 IN THK WALL SDR 7, REPLACED IN 542609	

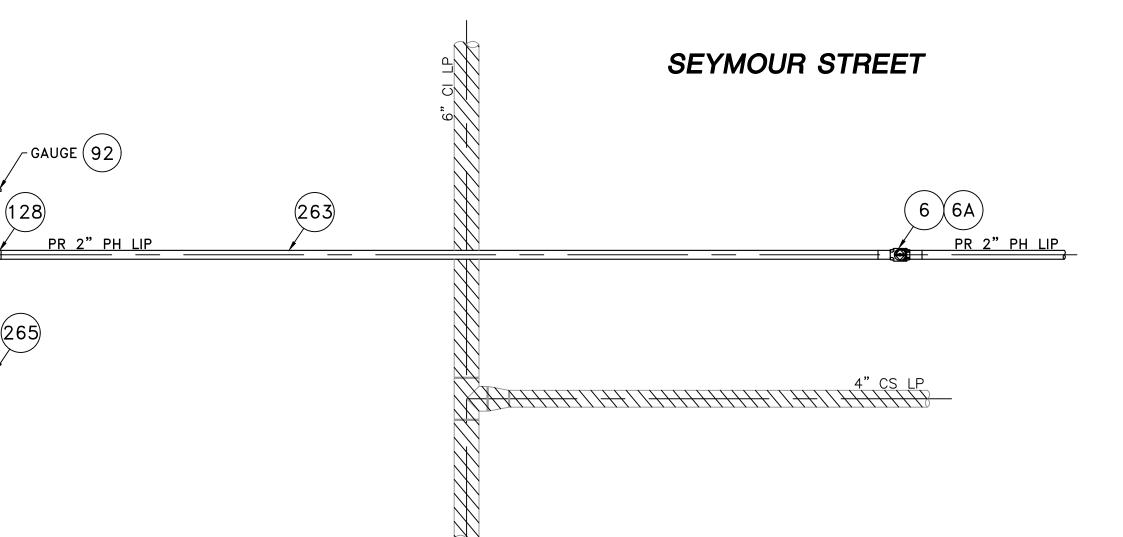
# **BAYVIEW STREET**

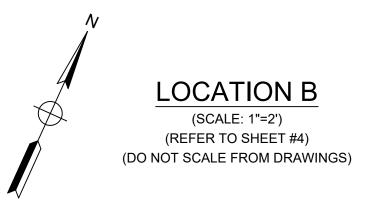




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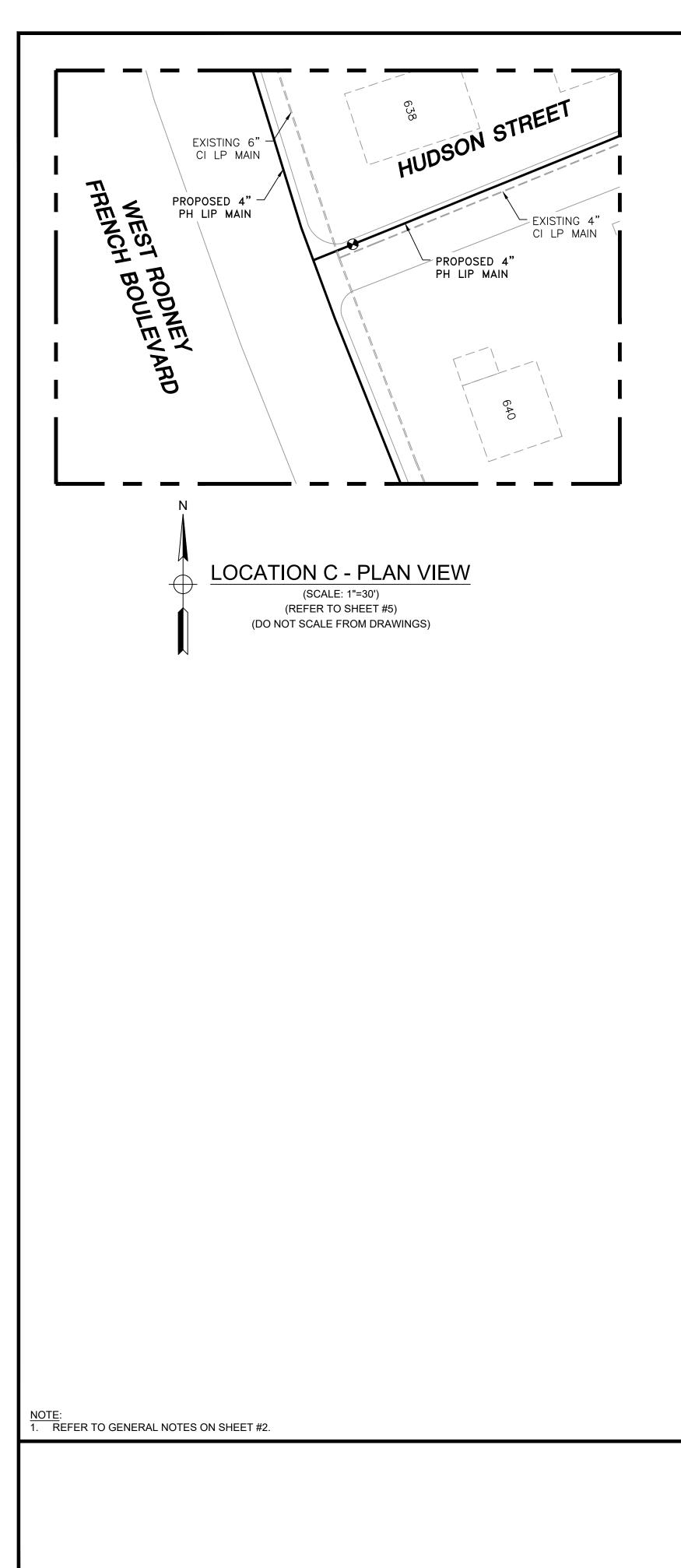
	HUDSON STREET MAIN RELAY - LOCATION B - SCHEDULE OF MATERIALS							
ITEM	QTY	SIZE	MAXIMO NO.	DESCRIPTION	MATERIAL			
6	1	2"	562087	VALVE,BALL, 2 IN IPS, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING	ASTM D2513			
6A	1	2"		BOX, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC			
92	1	4" X 1/2"	500867	TEE,PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408/PE100, 1	PE3408			
128	1	4" X 2"	584304	FITTING,TEE, 4 IN IPS X 2 IN IPS, ELECTROFUSION HIGH VOLUME TAPPING WITH BUTT FUSION OUTLET, HDPE, BLACK, WAS ITEM 577621	HDPE			
263	25'	2"	554025	PIPE, 2 IN IPS X 0.216 IN THK WALL SDR 11, 2.375 IN OD, 350 FT LG COIL, POLYETHYLENE, PE3408/PE100	PE3408/PE100			
265	15'	4"	554008	PIPE, 4 IN IPS X 0.409 IN THK WALL SDR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	PE3408/PE100			





	SEALED BY:	SEALED ON:	DESIGNED IN ACCORDANCE WITH TITLE	
ISSUED FOR	ERIC VINAI KUMAR No. 54771	09/15/2021	49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY D
09/14/2021	RECISIERED AND AND AND AND AND AND AND AND AND AN	LICENSE EXPIRATION:	<b>EN</b> @ngineering	PRIOR TO PIPE F
03/14/2021	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

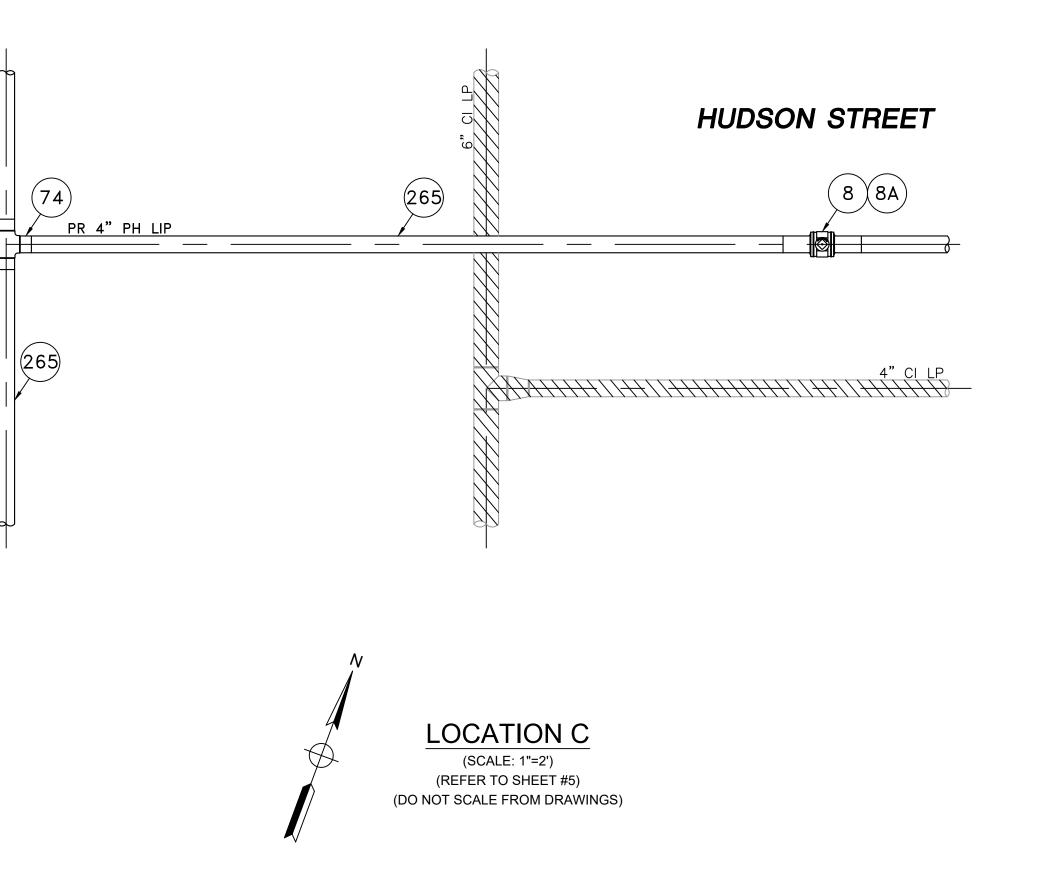
	0	ISSUED FOR C	CONSTRUCTION		09/14/2021	ZS/	AB/EK
	NO.	DESCRIPTION			DATE	DW/	CK/AP
	REVISION STATUS						
	<b>EVERS URCE</b>						
				NERG			
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						
Y DIMENSIONS	NEW BEDFORD, MASSACHUSETTS						
E FABRICATION	LOCATION B AND SCHEDULE OF MATERIALS						
	SCALE: AS NOTED SHEET 11 0					OF 19	
	DF	RAWN BY / DATE VS 04/01/2021	CHECKED BY / DATE AB 09/14/2021		SHEET NUMBER		REV. NO.
	APP	PROVED BY / DATE EK 09/14/2021	MANEB21PIP063R0	MA-N	IEB-21-PIP-063-	11	0



FRENCH BOULEVARD PH LIP PR 4" WEST RODNEY

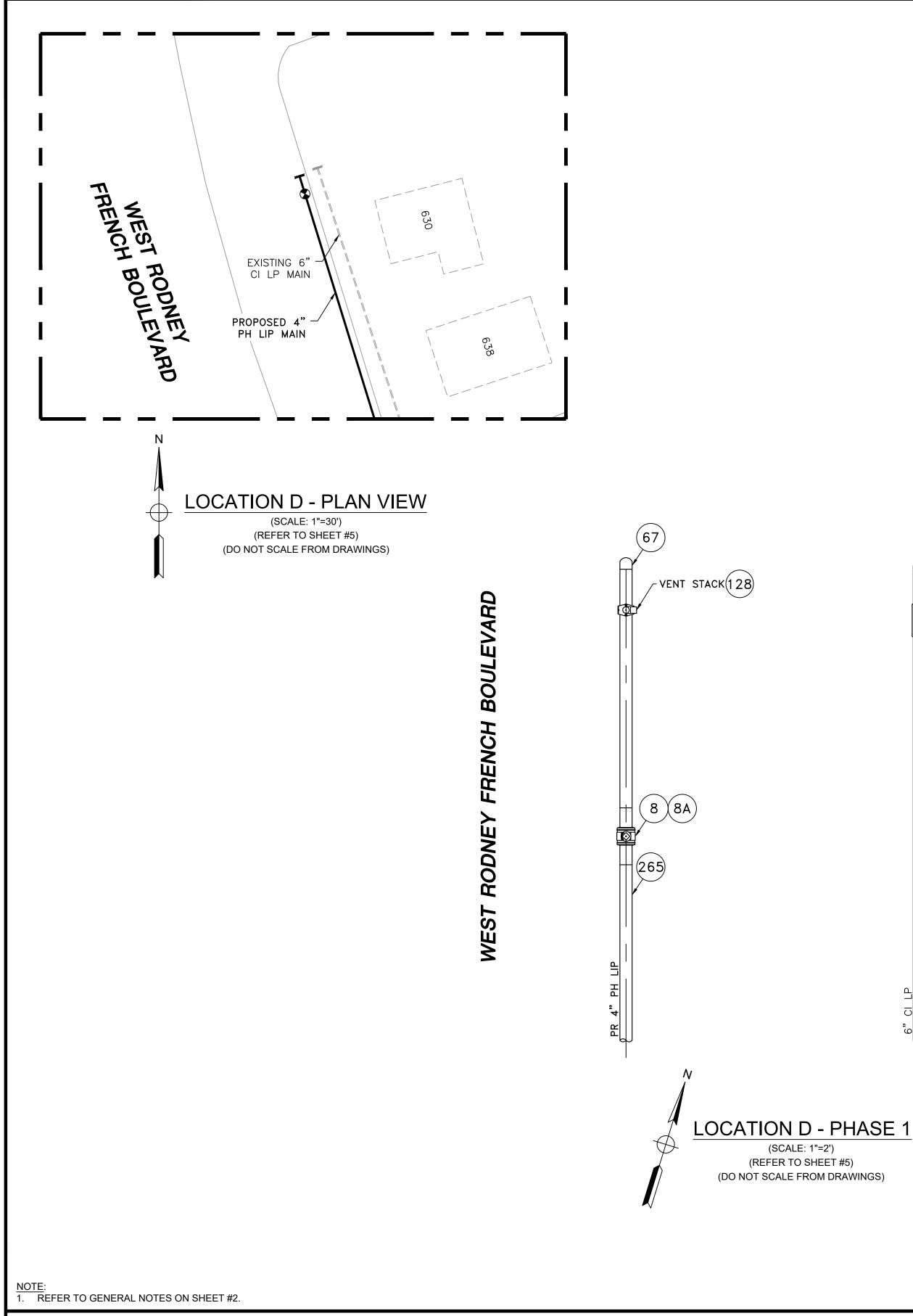
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	HUDSON STREET MAIN RELAY - LOCATION C - SCHEDULE OF MATERIALS						
ITEM	QTY	SIZE	MAXIMO NO.	DESCRIPTION	MATERIAL		
8	1	4"	1 501002	VALVE,BALL, 4 IN, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING, TO BE USED W/ BRAND SADDLE INST, P100	ASTM D2513		
8A	1	4"		BOX, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC		
74	1	4"	560679	TEE, PIPE, 4 IN SDR 11, BUTT ENDS, POLYETHYLENE, P100	ASTM D2513		
265	35'	4"	554008	PIPE, 4 IN IPS X 0.409 IN THK WALL SDR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	PE3408/PE100		



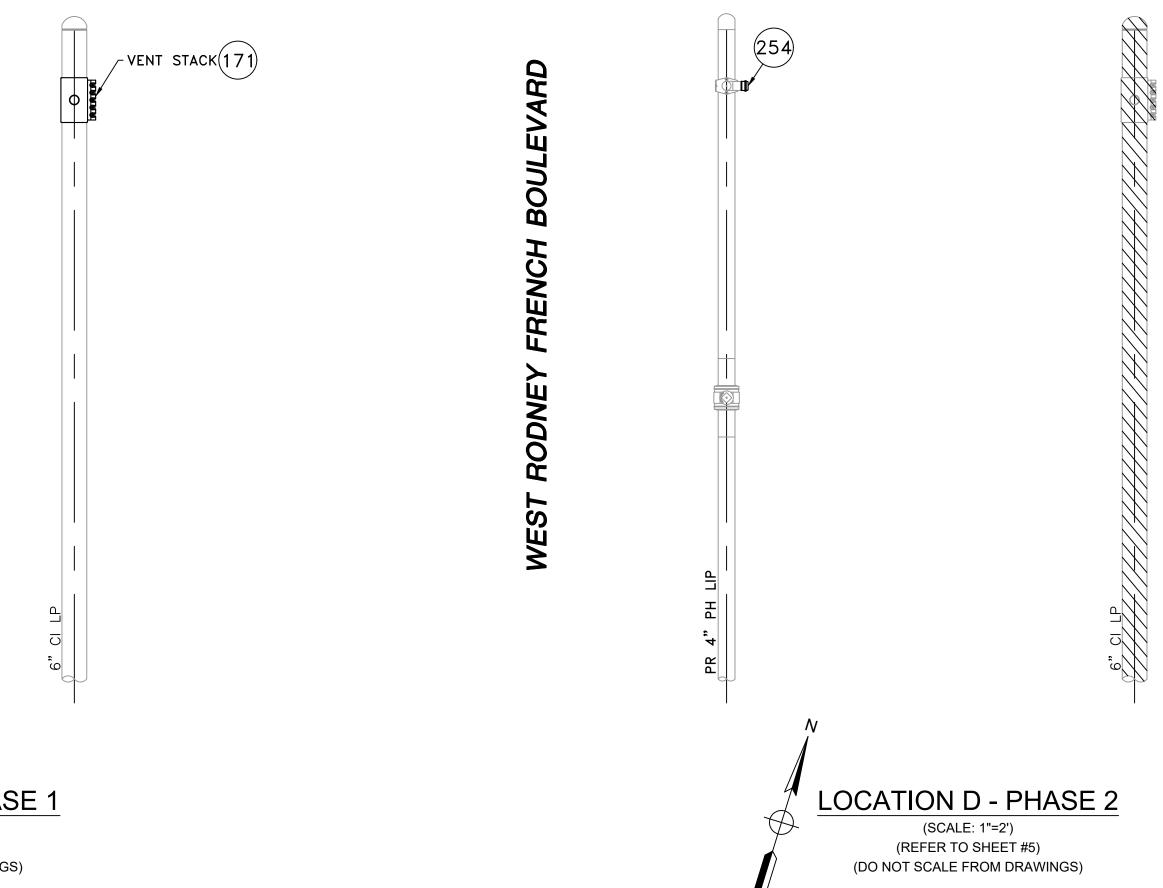
	SEALED BY:	SEALED ON:		
ISSUED FOR	WINTERIC VINAL KUMAR No. 54771	09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY D
ONSTRUCTION 09/14/2021	TRANSFERENCE AND	LICENSE EXPIRATION:	<b>EN</b> ©ngineering	PRIOR TO PIPE F
09/14/2021	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

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	0	ISSUED FOR C	ONSTRUCTION	09/14	/2021 ZS/	AB/EK		
	NO.	DESCRIPTION		DA	TE DW/	/CK/AP		
			REVISION STAT	JS				
	EVERS URCE ENERGY							
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS							
Y DIMENSIONS	NEW BEDFORD, MASSACHUSETTS							
PE FABRICATION	LOCATION C AND SCHEDULE OF MATERIALS							
	SCA	LE: AS NOTED			SHEET 12	OF 19		
		RAWN BY / DATE VS 04/01/2021	CHECKED BY / DATE AB 09/14/2021	SHEET N	UMBER	REV. NO.		
	APP	PROVED BY / DATE EK 09/14/2021	MANEB21PIP063R0	MA-NEB-21-I	PIP-063-12	0		



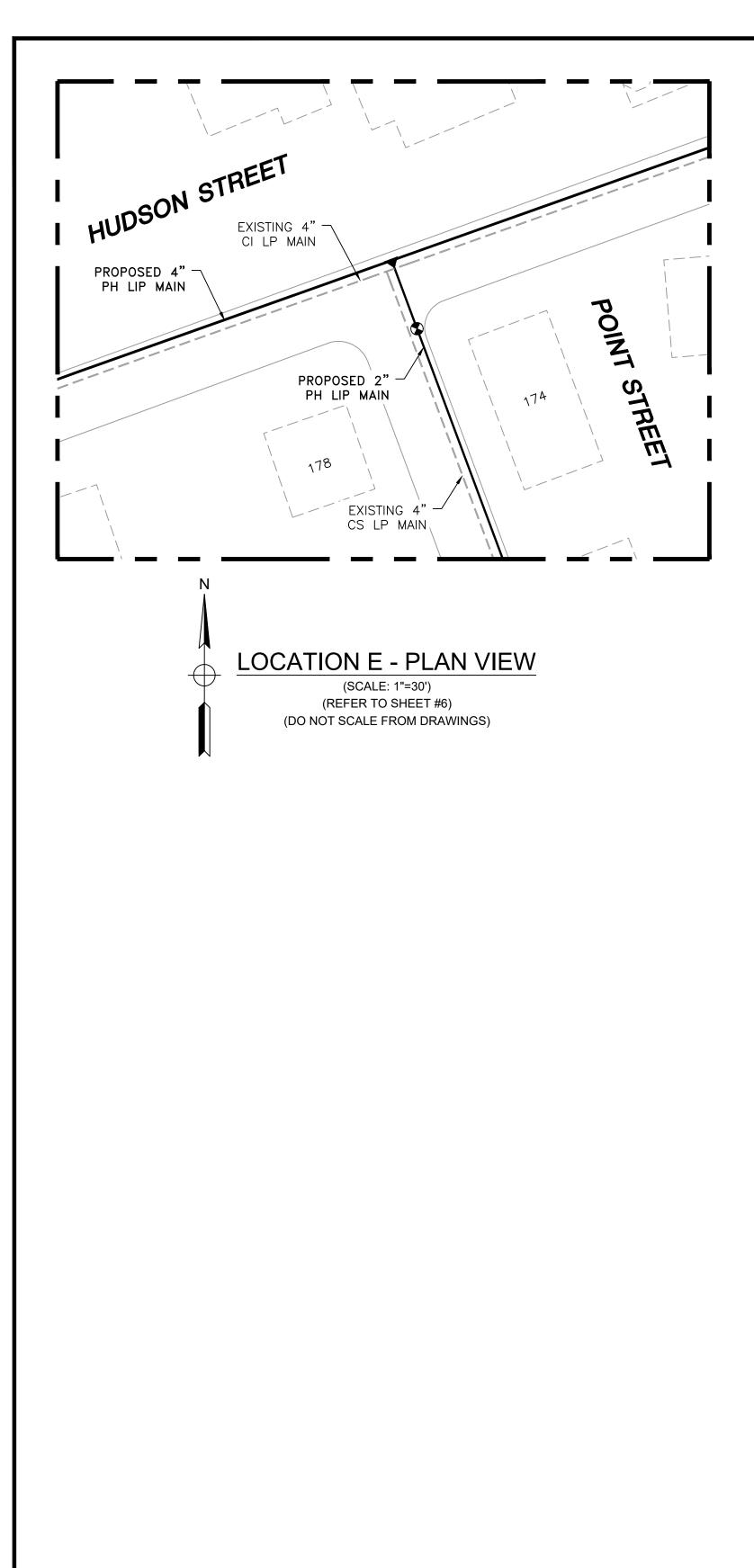
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HUDSON STREET MAIN RELAY - LOCATION D - SCHEDULE OF MATERIALS						
ITEM	QTY	SIZE	MAXIMO NO.	DESCRIPTION	MATERIAL	
8	1	4"	1 501002	VALVE,BALL, 4 IN, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING, TO BE USED W/ BRAND SADDLE INST, P100	ASTM D2513	
8A	1	4"		BOX, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC	
67	AS REQUIRED	4"	542538	CAP, PIPE, 4 IN IPS SDR 11, BUTT END, POLYETHYLENE, P100	ASTM D2513	
128	1	4" X 2"	1 584304	FITTING,TEE, 4 IN IPS X 2 IN IPS, ELECTROFUSION HIGH VOLUME TAPPING WITH BUTT FUSION OUTLET, HDPE, BLACK, WAS ITEM 577621	HDPE	
171	1	6" x 2"	578021	FITTING,CLAMP, SERVI-SEAL REPAIR, 6 IN DIA, 9 IN LG, W/ 2 IN OUTLET, FOR STEEL PIPE		
254	AS REQUIRED	2"	1 581633	FITTING,CAP, METFIT, 2 IN IPS X 0.216 IN THK WALL SDR 11, ASTM F1924 , FOR CAPPING PE GAS DISTRIBUTION PIPE AND TUBING, NSTAR M-410		
265	15'	4"	554008	PIPE, 4 IN IPS X 0.409 IN THK WALL SDR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	PE3408/PE100	



	SEALED BY:	SEALED ON:		
ISSUED FOR	ERIC VINAI KUMAR No. 54771	09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY I
ONSTRUCTION 09/14/2021	10. 54771	LICENSE EXPIRATION:	<b>EN</b> ©ngineering	PRIOR TO PIPE
09/14/2021	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

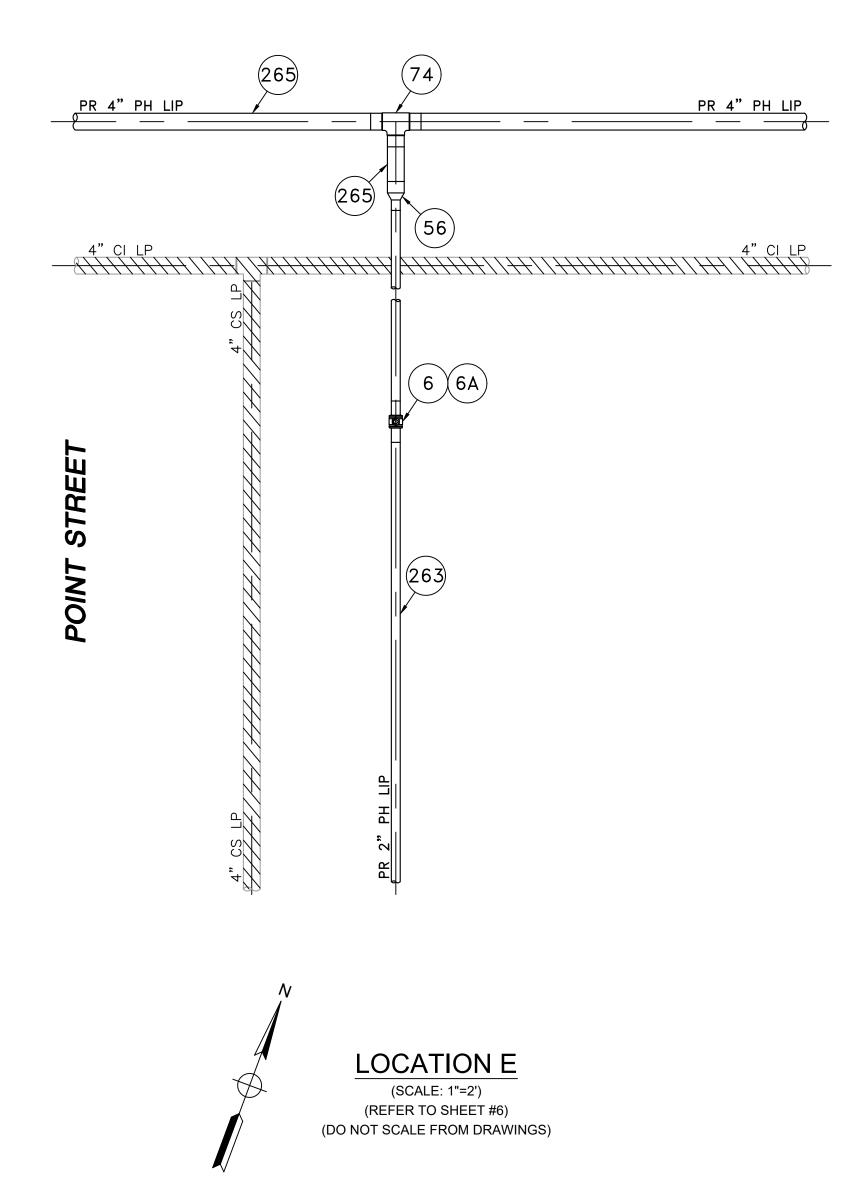
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	NO.	DESCRIPTION			DATE	DW/	CK/AP	
	REVISION STATUS							
	<b>EVERS©URCE</b>							
	EVENERGY							
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						ELAYS	
DIMENSIONS	NEW BEDFORD, MASSACHUSETTS							
FABRICATION	LOCATION D - PHASE 1, 2 AND SCHEDULE OF MATERIALS							
	SCALE: AS NOTED SHEET 1					T 13	OF 19	
	DF	RAWN BY / DATE VS 04/01/2021	CHECKED BY / DATE AB 09/14/2021	S	HEET NUMBER		REV. NO.	
	APF	PROVED BY / DATE EK 09/14/2021	MANEB21PIP063R0	MA-N	EB-21-PIP-063-	13	0	



NOTE: 1. REFER TO GENERAL NOTES ON SHEET #2.



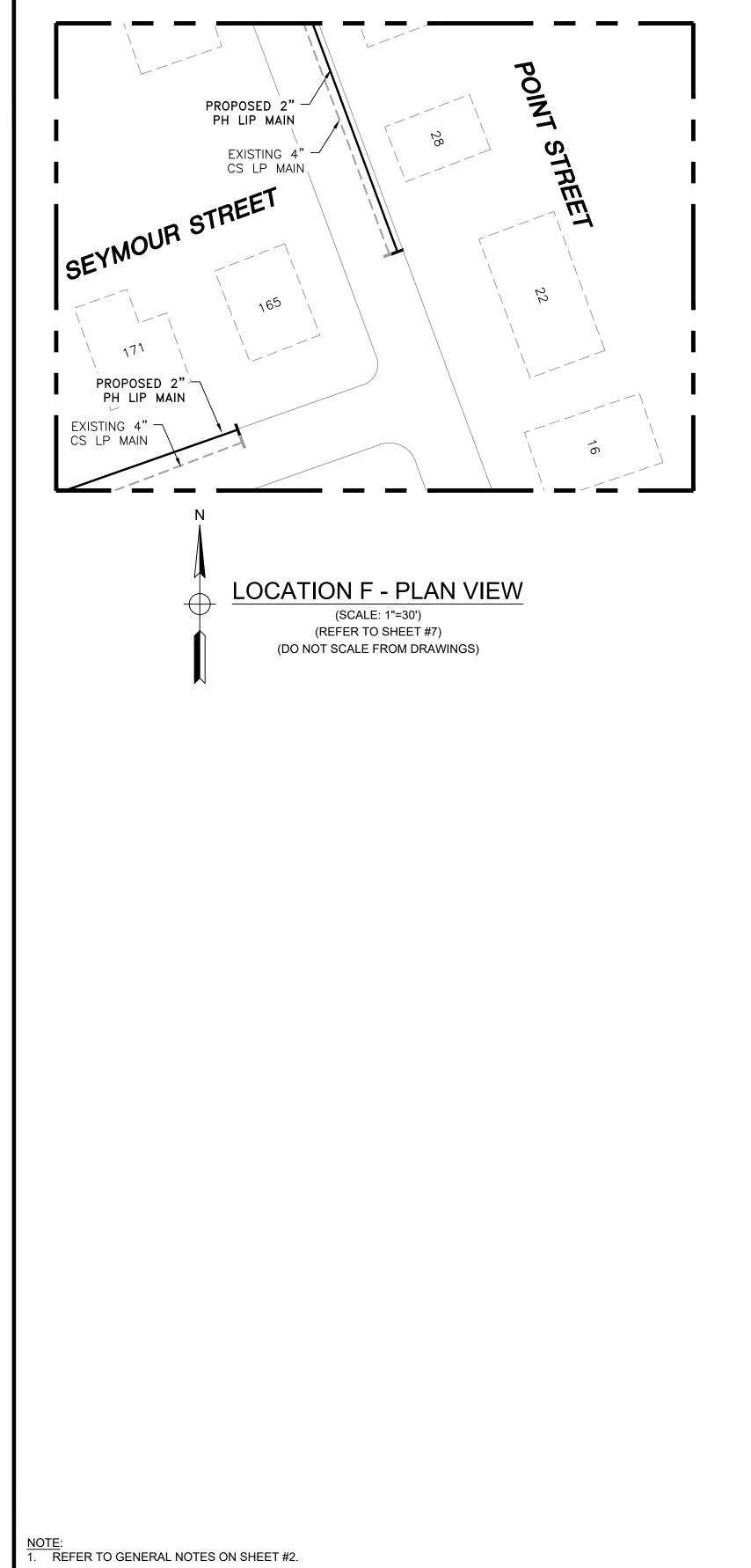
	HUDSON STREET MAIN RELAY - LOCATION E - SCHEDULE OF MATERIALS							
ITEM	QTY	SIZE	MAXIMO NO.	DESCRIPTION	MATERIAL			
6	1	2"	562087	VALVE,BALL, 2 IN IPS, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING	ASTM D2513			
6A	1	2"		BOX, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC			
56	1	4" X 2"	555593	REDUCER, BUTT FUSION, IPS, HDPE 4710, SDR 11, ASTM D2513, ASTM D3350, ASTM D3261. PERFORMANCE PIPE OR	ASTM D2513			
74	1	4"	560679	TEE, PIPE, 4 IN SDR 11, BUTT ENDS, POLYETHYLENE, P100	ASTM D2513			
263	20'	2"	554025	PIPE, 2 IN IPS X 0.216 IN THK WALL SDR 11, 2.375 IN OD, 350 FT LG COIL, POLYETHYLENE, PE3408/PE100	PE3408/PE100			
265	30'	4"	554008	PIPE, 4 IN IPS X 0.409 IN THK WALL SDR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	PE3408/PE100			



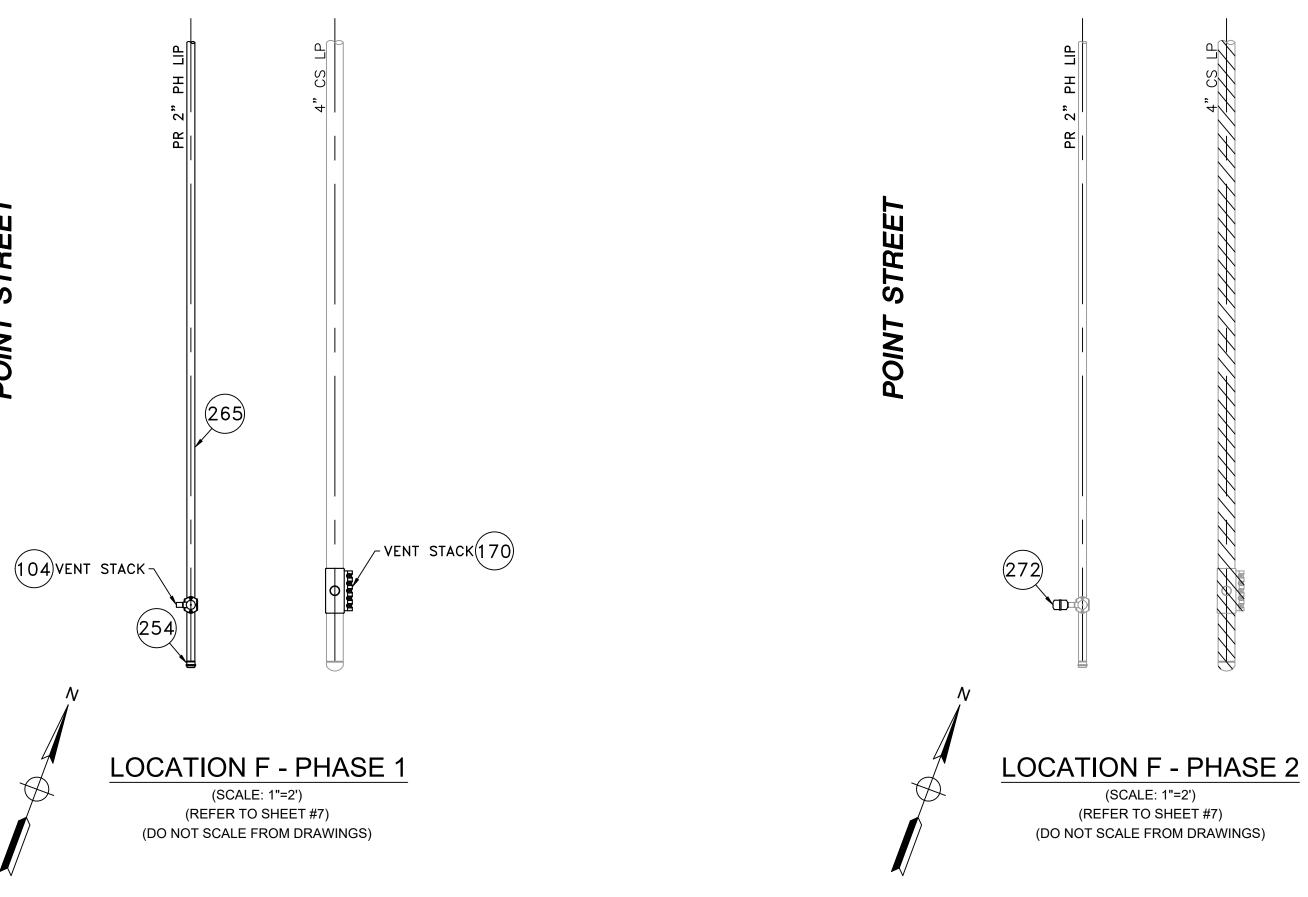
# HUDSON STREET

	SEALED BY:	SEALED ON:	DESIGNED IN ACCORDANCE WITH TITLE	
SSUED FOR	ERIC VINAL KUMAR No. 54771	09/15/2021	49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY D
09/14/2021	RECONSTRACT	LICENSE EXPIRATION:	<b>EN</b> @ngineering	PRIOR TO PIPE F
03/14/2021	SIGNATURE	06/30/2022	29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	

	0	ISSUED FOR C	ONSTRUCTION		09/14/2021	ZS/	AB/EK
	NO.	DESCRIPTION			DATE	DW/	CK/AP
			REVISION STAT	JS			
	EVERS URCE ENERGY						
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						
Y DIMENSIONS	NEW BEDFORD, MASSACHUSETTS						
PE FABRICATION	LOCATION E AND SCHEDULE OF MATERIALS						
	SCA	LE: AS NOTED			SHEE	T 14	OF 19
	DF	RAWN BY / DATE VS 04/01/2021	CHECKED BY / DATE AB 09/14/2021		SHEET NUMBER		REV. NO.
	APP	PROVED BY / DATE EK 09/14/2021	MANEB21PIP063R0	MA-N	NEB-21-PIP-063-	14	0



STREET POINT



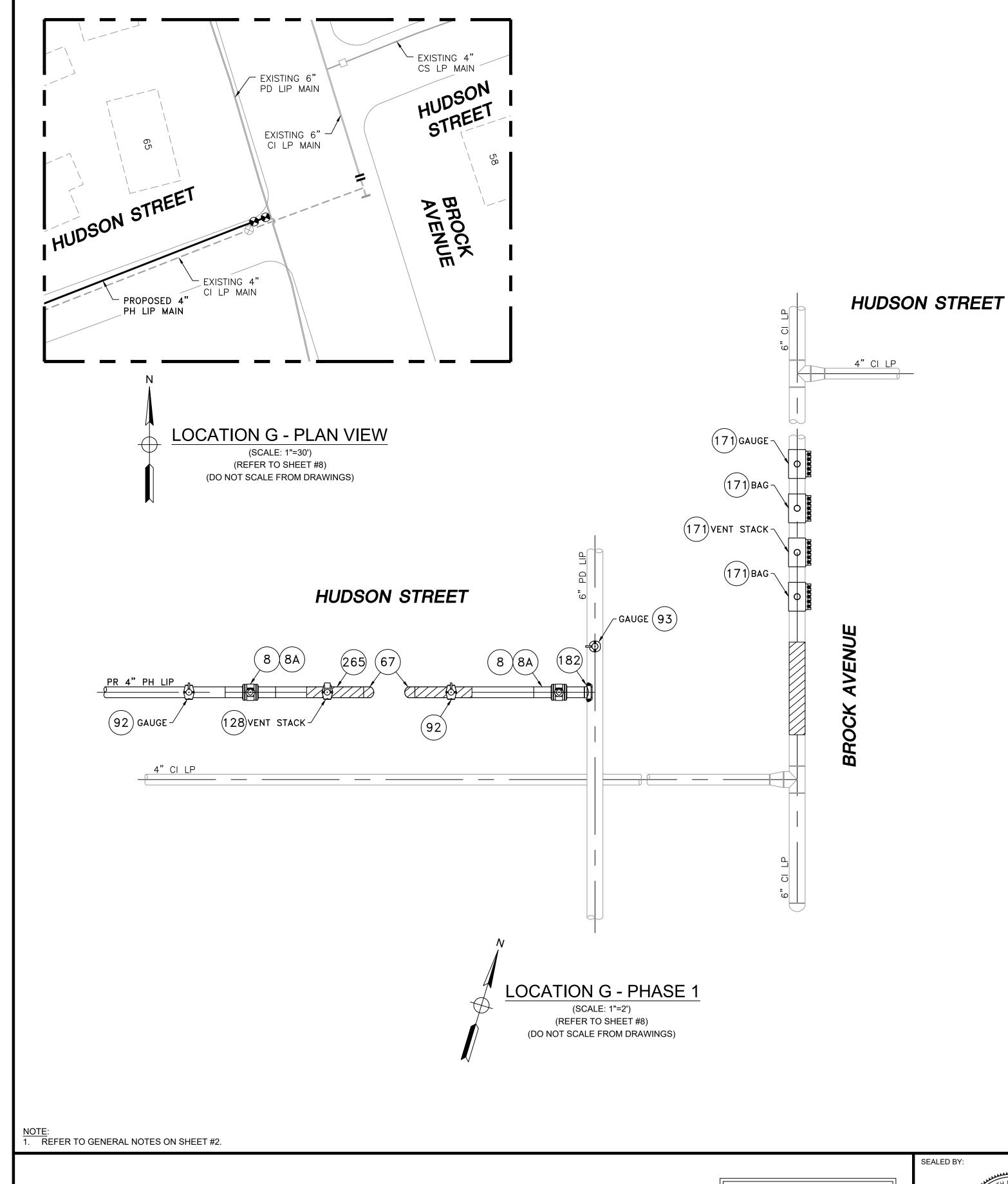


				HUDSON STREET MAIN RELAY - LO
ITEM	QTY	SIZE	MAXIMO NO.	
104	1	2‼ V 1‼	F.CO770	TEE, PIPE, NON-BLOWING, 2 X 1 IN IP
104		2 X 1	560779	POLYETHYLENE, PE3408/PE100
170	1	4" x 2"	543028	CLAMP, PIPE, REPAIR, 4 IN IPS, SS, W
254		211	504 600	FITTING,CAP, METFIT, 2 IN IPS X 0.21
254	AS REQUIRED	Z	581633	AND TUBING, NSTAR M-410
265	15'	4"	554008	PIPE, 4 IN IPS X 0.409 IN THK WALL SE
272		11	F02102	FITTING,CAP, METFIT, 1 IN IPS X 0.11
272	AS REQUIRED	Ţ	583182	AND TUBING, REPLACED IN 542612
	104 170 254	104     1       170     1       254     AS REQUIRED       265     15'	104     1     2" X 1"       170     1     4" x 2"       254     AS REQUIRED     2"       265     15'     4"	104       1       2" X 1"       560779         170       1       4" x 2"       543028         254       AS REQUIRED       2"       581633         265       15'       4"       554008

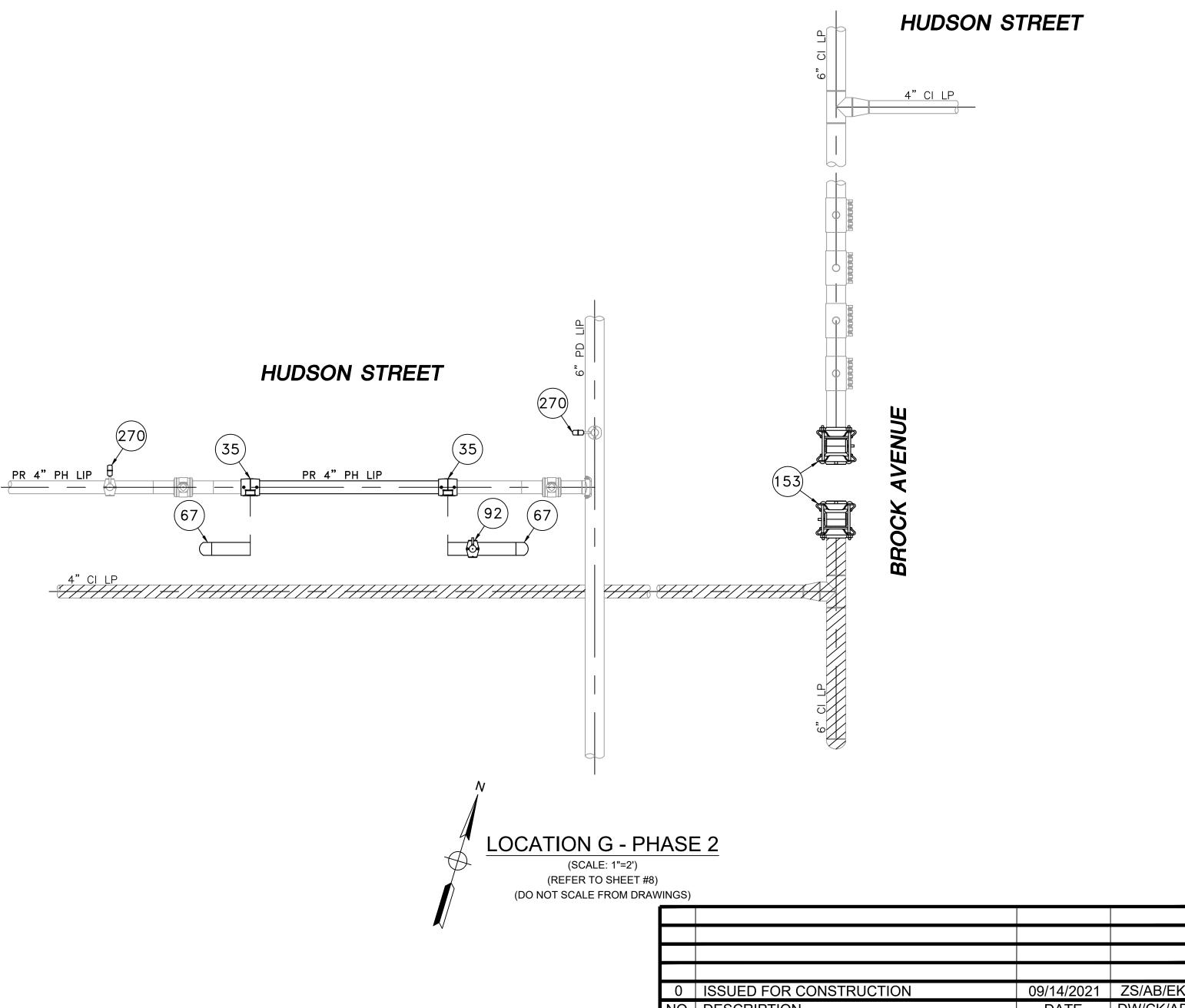
ISSUED FOR	WIND ERIC VINAI KUMAR	SEALED ON: 09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY DI
ONSTRUCTION 09/14/2021	No. 54771 66	LICENSE EXPIRATION: 06/30/2022	<b>ENERGINEERING</b> 29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	PRIOR TO PIPE FA

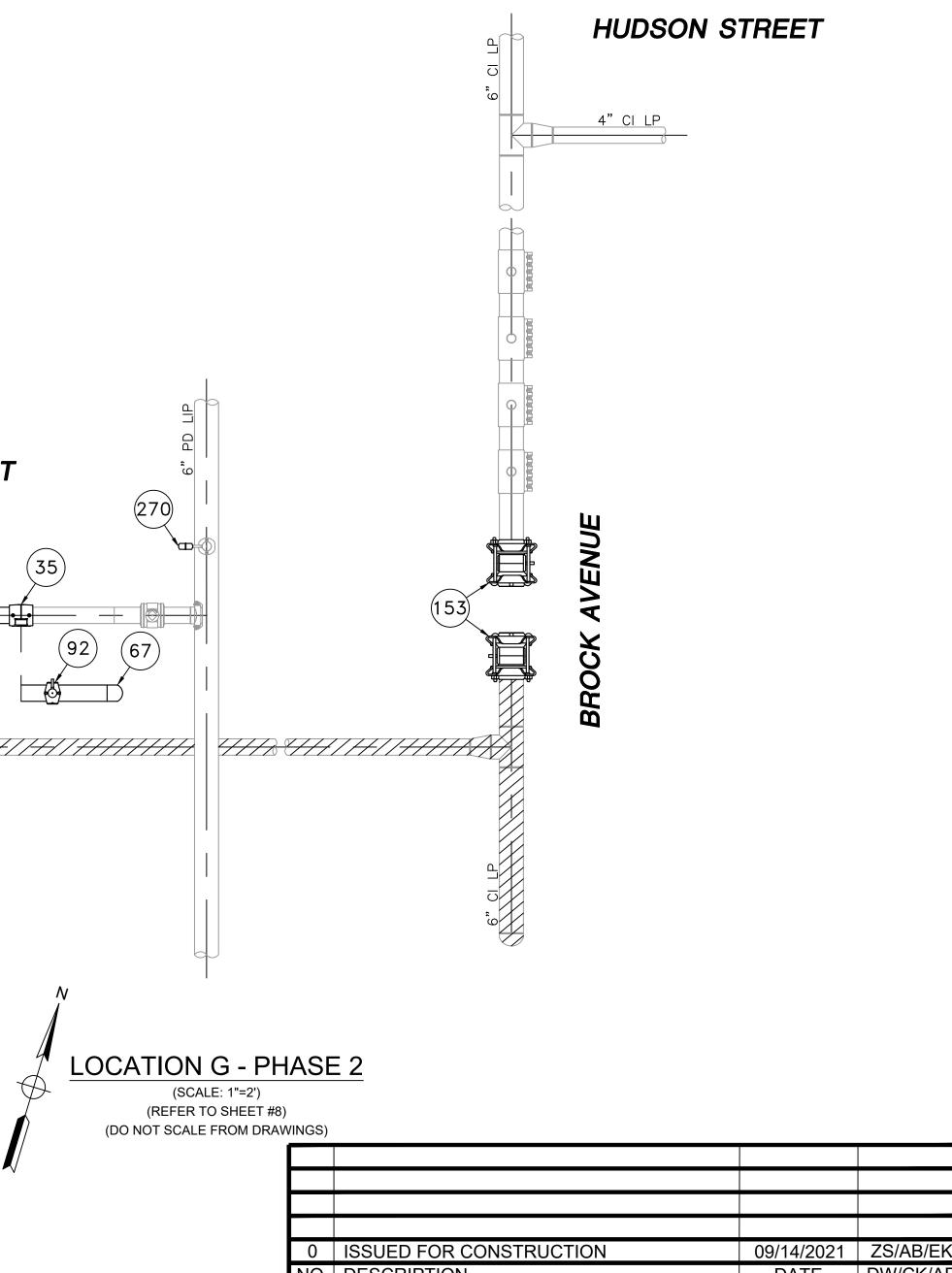
OCATION F - SCHEDULE OF MATERIALS	
DESCRIPTION	MATERIAL
PS SDR 11, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL,	PE3408
//2 IN TAP	
16 IN THK WALL SDR 11, ASTM F1924 , FOR CAPPING PE GAS DISTRIBUTION PIPE	
DR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	
19 IN THK WALL SDR 11, ASTM F1924 , FOR CAPPING PE GAS DISTRIBUTION PIPE	

	0	ISSUED FOR C	ONSTRUCTION		09/14/2021	ZS/	AB/EK
	NO.	DESCRIPTION			DATE	DW/	/CK/AP
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	ENERGY						
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						
TY DIMENSIONS	NEW BEDFORD, MASSACHUSETTS						
PE FABRICATION	LOCATION F - PHASE 1, 2 AND SCHEDULE OF MATERIALS						
	SCA	LE: AS NOTED			SHEE	T 15	OF 19
		RAWN BY / DATE VS 04/01/2021	CHECKED BY / DATE AB 09/14/2021	S	HEET NUMBER		REV. NO.
	APP	ROVED BY / DATE	MANEB21PIP063R0	MA-N	EB-21-PIP-063-	15	0



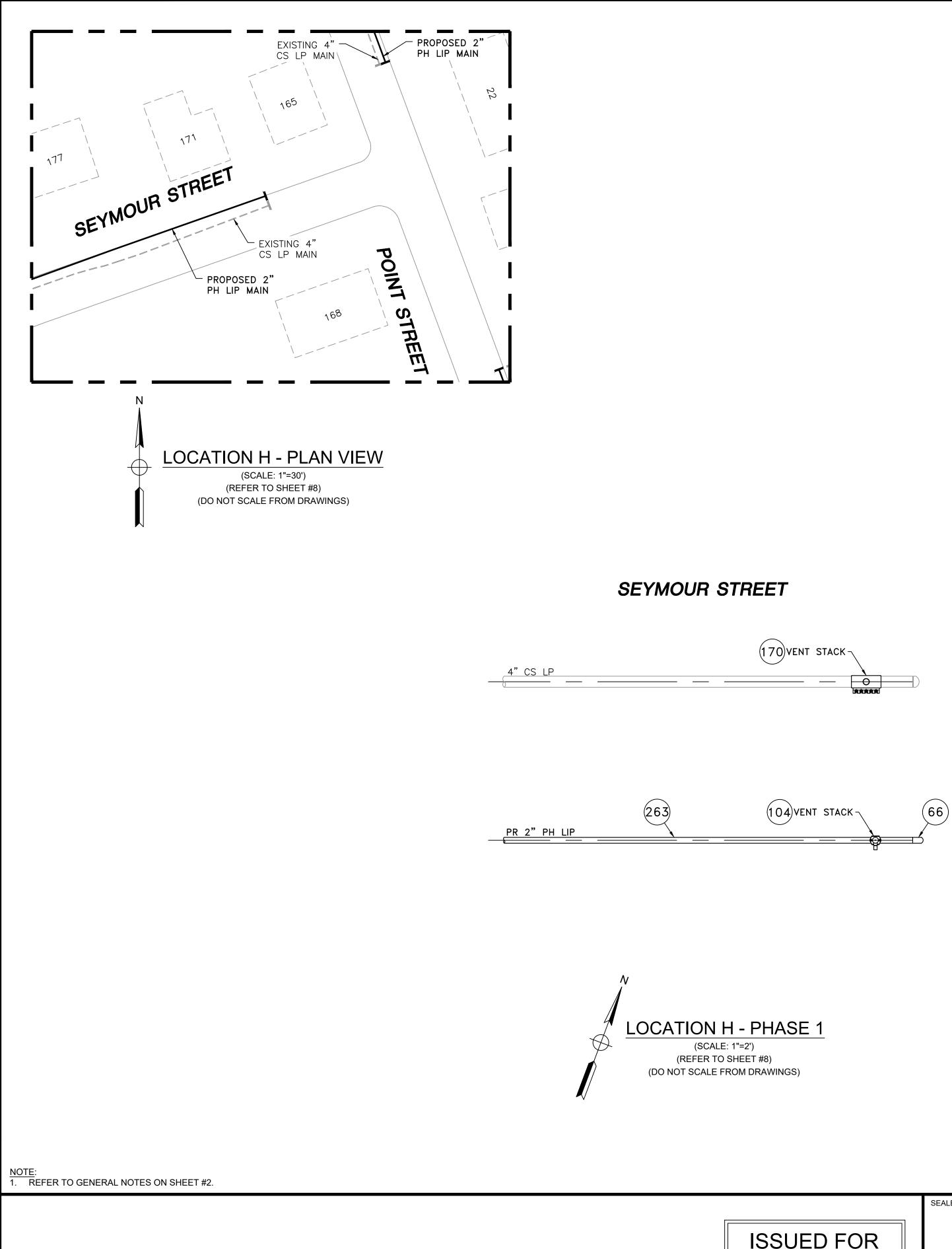
	HUDSON STREET MAIN RELAY - LOCATION G - SCHEDULE OF MATERIALS					
ITEM	QTY	SIZE	MAXIMO NO.	DESCRIPTION	MATERIAL	
8	2	4"	501002	VALVE,BALL, 4 IN, POLYETHYLENE, SDR 11, BUTT WELD, W/ FULL PORT OPENING, TO BE USED W/ BRAND SADDLE INST, P100	ASTM D2513	
8A	2	4"		BOX, VALVE, PLASTIC, SNAP-ON, ADJ, W/CI NON-LOCKING LID	PLASTIC	
35	AS REQUIRED	4"	500855	COUPLING, PIPE, 4 IN IPS, ELECTROFUSION, PLASTIC, P100	ASTM D3350	
67	AS REQUIRED	4"	542538	CAP, PIPE, 4 IN IPS SDR 11, BUTT END, POLYETHYLENE, P100	ASTM D2513	
92	3	4" X 1/2"	500867	TEE, PIPE, NON-BLOWING, 4 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408/PE100, 1	PE3408	
93	1	6" X 1/2"	500869	TEE, PIPE, NON-BLOWING, 6 X 1/2 IN CTS X 0.090 IN THK WALL SDR 7, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408/PE100		
128	1	4" X 2"	584304	FITTING, TEE, 4 IN IPS X 2 IN IPS, ELECTROFUSION HIGH VOLUME TAPPING WITH BUTT FUSION OUTLET, HDPE, BLACK, WAS ITEM 577621	HDPE	
153	2	6"	578129	FITTING,COUPLING, VENTED, INSULATED, W/ END CAP, FOR 6 CI PIPE		
171	4	6" x 2"	578021	FITTING,CLAMP, SERVI-SEAL REPAIR, 6 IN DIA, 9 IN LG, W/ 2 IN OUTLET, FOR STEEL PIPE		
182	1	6" x 4"	500876	SADDLE, PIPE, BRANCH, 6 IN IPS SADDLE X 4 IN IPS OUTLET SDR 11, ELECTROFUSION , PLASTIC, P100	PLASTIC P100	
265	25'	4"	554008	PIPE, 4 IN IPS X 0.409 IN THK WALL SDR 11, 4.5 IN OD, 40 FT LG, POLYETHYLENE, PE3408/PE100, 1200 FT/BUNDLE	PE3408/PE100	
270	AS REQUIRED	1/2"	579972	FITTING,CAP, METFIT, 1/2 IN CTS X 0.90 IN THK WALL SDR 7, REPLACED IN 542609		





ISSUED FOR	SEALED BY:	SEALED ON: 09/15/2021	DESIGNED IN ACCORDANCE WITH TITLE 49-PART 192 OF MINIMUM FEDERAL SAFETY STANDARDS AND GPTC GUIDE FOR GAS TRANSMISSION AND DISTRIBUTION PIPING SYSTEMS. LATEST EDITION.	FIELD VERIFY I
CONSTRUCTION 09/14/2021	SIGNATURE	LICENSE EXPIRATION: 06/30/2022	<b>ENERGINEERING</b> 29 BARTLETT STREET MARLBOROUGH, MA 01752 TEL. (630) 353-4000 FAX (630) 535-7777 WWW.ENENGINEERING.COM	PRIOR TO PIPE

### NO. DESCRIPTION DATE DW/CK/AF **REVISION STATUS EVERS©URCE** ENERGY HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS NEW BEDFORD, MASSACHUSETTS Y DIMENSIONS PE FABRICATION LOCATION G - PHASE 1, 2 AND SCHEDULE OF MATERIALS SCALE: AS NOTED SHEET 16 OF 19 DRAWN BY / DATE WS 04/01/2021 APPROVED BY / DATE EK 09/14/2021 CHECKED BY / DATE AB 09/14/2021 SHEET NUMBER REV. NO MA-NEB-21-PIP-063-16 0 MANEB21PIP063R0



HUDSON STREET MAIN RELAY - LOCATION H - SCHEDULE OF MATERIALS						
ITEM	ITEM QTY SIZE MAXIMONO. DESCRIPTION					
66	1	2"	542572	CAP, BUTT FUSION, IPS, HDPE 4710, SDR 11, ASTM D2513, ASTM D3350, ASTM D3261. PERFORMANCE PIPE OR APPROVED EQUAL.	ASTM D2513	
104	1	2" X 1"	560779	TEE, PIPE, NON-BLOWING, 2 X 1 IN IPS SDR 11, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL, POLYETHYLENE, PE3408/PE100	PE3408	
170	1	4" x 2"	543028	CLAMP,PIPE, REPAIR, 4 IN IPS, SS, W/2 IN TAP		
263	15'	2"	554025	PIPE, 2 IN IPS X 0.216 IN THK WALL SDR 11, 2.375 IN OD, 350 FT LG COIL, POLYETHYLENE, PE3408/PE100	PE3408/PE100	
272	AS REQUIRED	1"	583182	FITTING,CAP, METFIT, 1 IN IPS X 0.119 IN THK WALL SDR 11, ASTM F1924 , FOR CAPPING PE GAS DISTRIBUTION PIPE AND TUBING, REPLACED IN 542612		

## SEYMOUR STREET

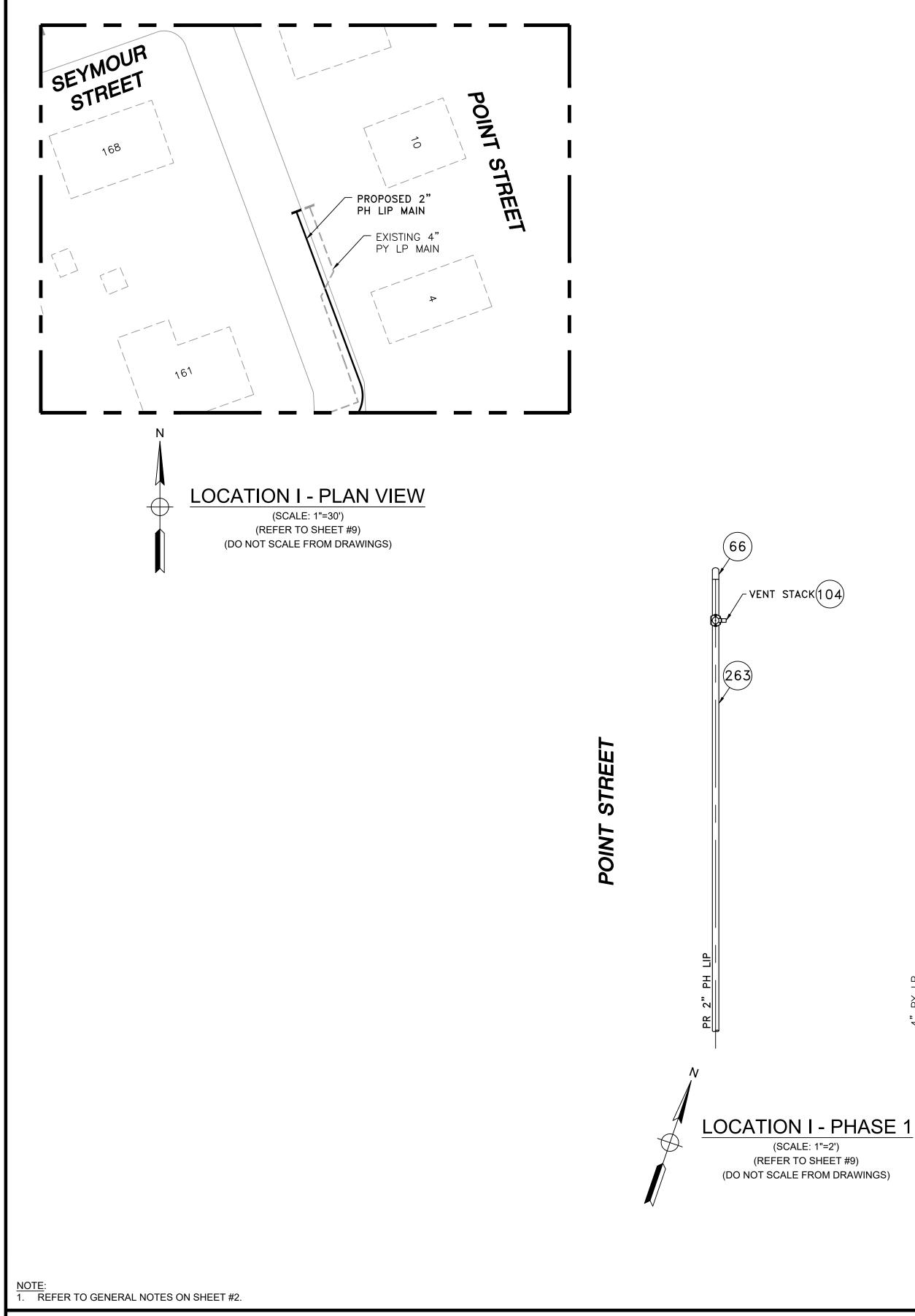
LOCATION H - PHASE 2 (SCALE: 1"=2') (REFER TO SHEET #8) (DO NOT SCALE FROM DRAWINGS)

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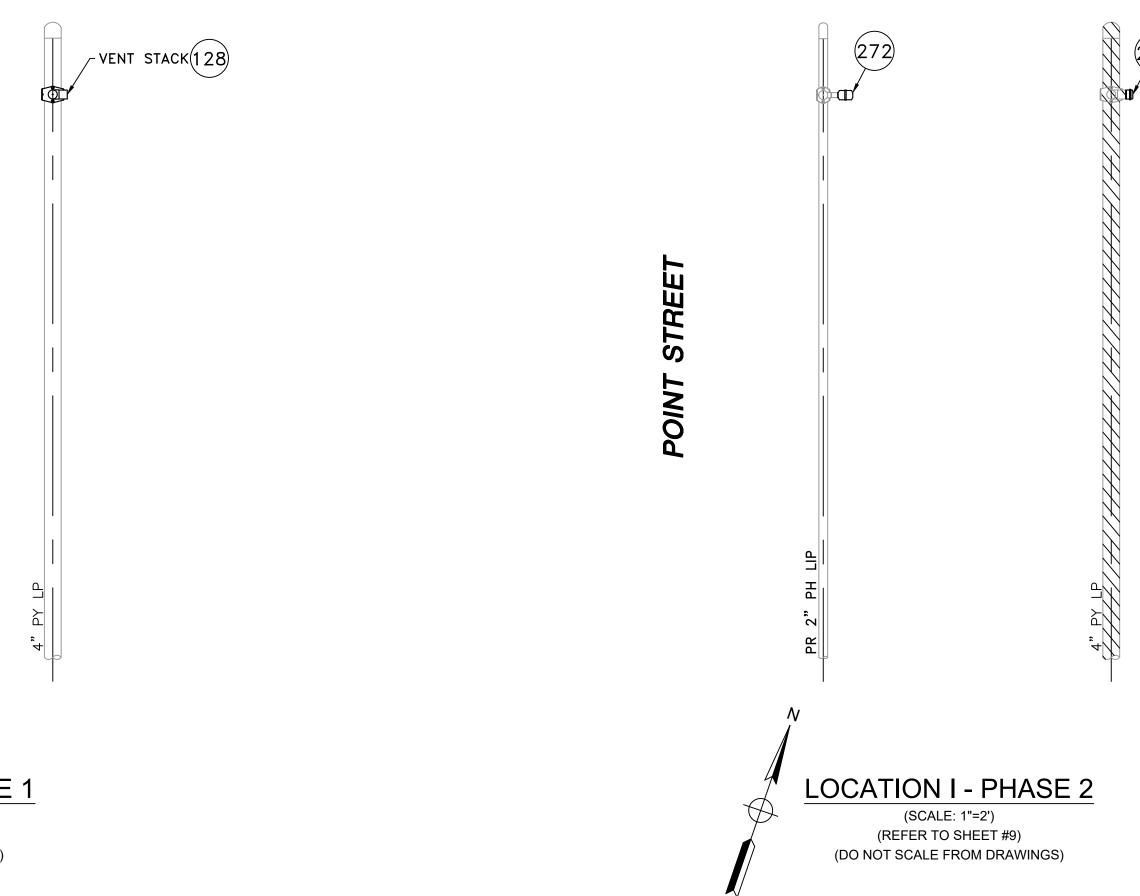
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	ENERGY						
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						
Y DIMENSIONS	NEW BEDFORD, MASSACHUSETTS						
E FABRICATION	LOCATION H - PHASE 1, 2 AND SCHEDULE OF MATERIALS						
	SCALE: AS NOTED		SHEE	T 17 OF 19			
	DRAWN BY / DATE WS 04/01/2021	CHECKED BY / DATE AB 09/14/2021	SHEET NUMBER	REV. NO.			
	APPROVED BY / DATE EK 09/14/2021	MANEB21PIP063R0	MA-NEB-21-PIP-063-	.17 0			







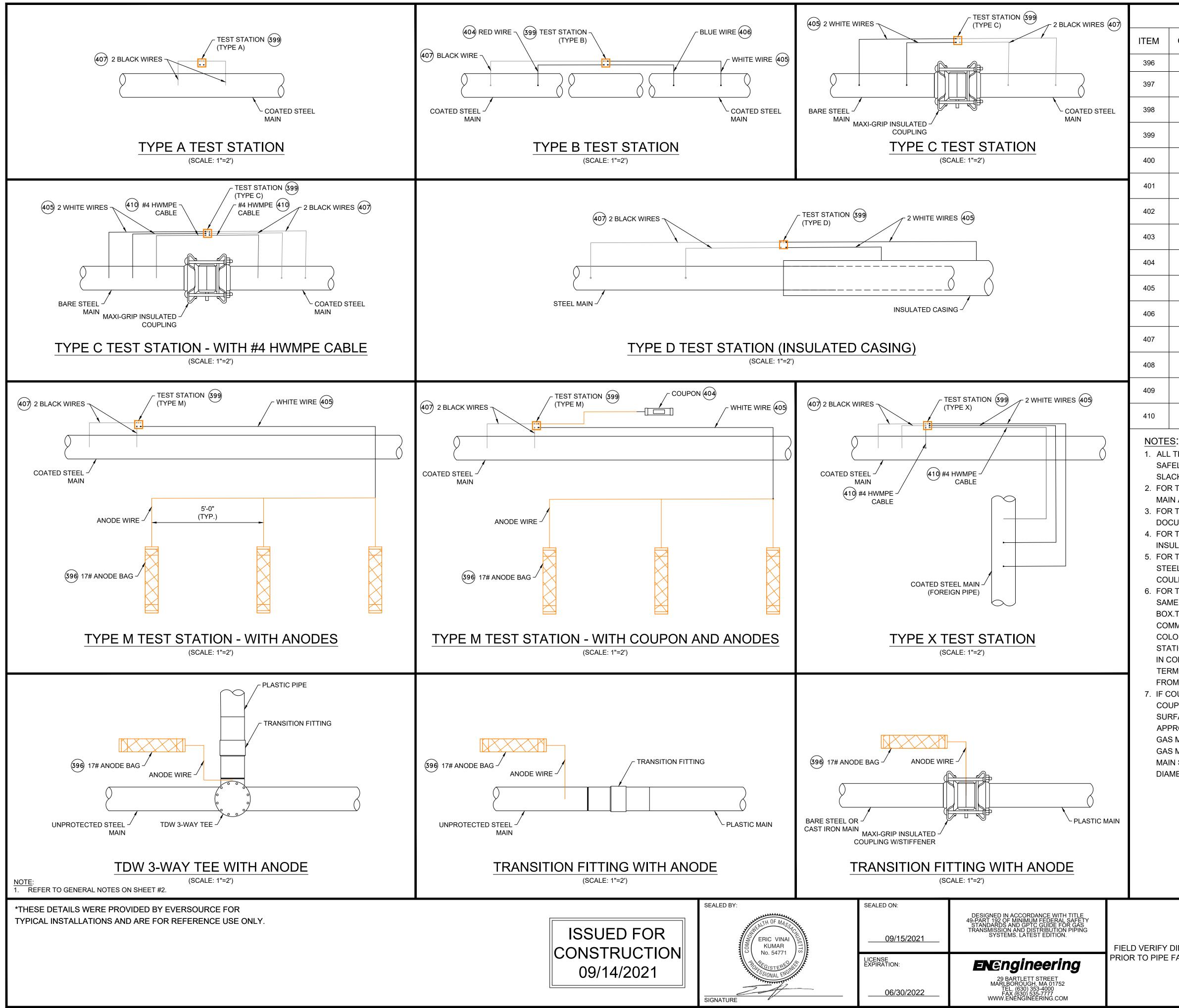
				HUDSON STREET MAIN RELAY - LOCATION I - SCHEDULE OF MATERIALS					
ITEM	QTY	SIZE	MAXIMO NO.	DESCRIPTION	MATERIAL				
66	AS REQUIRED	QUIRED 2" 5	542572	CAP, BUTT FUSION, IPS, HDPE 4710, SDR 11, ASTM D2513, ASTM D3350, ASTM D3261. PERFORMANCE PIPE OR	ASTM D2513				
				APPROVED EQUAL.					
104	1	1 2" X 1"	560779	TEE, PIPE, NON-BLOWING, 2 X 1 IN IPS SDR 11, ELECTROFUSION X COMPRESSION ENDS, LIGHT WALL,	PE3408				
104	L L			2 7 1	2 / 1	2 / 1	2 7 1	500775	POLYETHYLENE, PE3408/PE100
120	1	1 4" X 2"	1 4" X 2"	584304	FITTING, TEE, 4 IN IPS X 2 IN IPS, ELECTROFUSION HIGH VOLUME TAPPING WITH BUTT FUSION OUTLET, HDPE, BLACK,				
128				4 X Z	4 7 2	4 8 2	4 8 2	584304	WAS ITEM 577621
254		2" 581633	501622	FITTING, CAP, METFIT, 2 IN IPS X 0.216 IN THK WALL SDR 11, ASTM F1924 , FOR CAPPING PE GAS DISTRIBUTION PIPE					
254	254 AS REQUIRED 2"		581633	AND TUBING, NSTAR M-410					
263	15'	2"	554025	PIPE, 2 IN IPS X 0.216 IN THK WALL SDR 11, 2.375 IN OD, 350 FT LG COIL, POLYETHYLENE, PE3408/PE100	PE3408/PE100				
270	AS REQUIRED	1/2"	579972	FITTING,CAP, METFIT, 1/2 IN CTS X 0.90 IN THK WALL SDR 7, REPLACED IN 542609					



	ISSUED FOR ONSTRUCTION 09/14/2021	FIELD VERIFY
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	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						
DIMENSIONS	NEW BEDFORD, MASSACHUSETTS						
FABRICATION	LOCATION I - PHASE 1, 2 AND SCHEDULE OF MATERIALS						
	SCALE: AS NOTED SHEET 18 OF 19						
		RAWN BY / DATE	CHECKED BY / DATE	SHEET NUM	IBER	REV. NO.	
	APF	VS 04/01/2021 PROVED BY / DATE EK 09/14/2021	AB 09/14/2021 MANEB21PIP063R0	MA-NEB-21-PIF	P-063-18	0	



CATHODIC PROTECTION BILL OF MATERIALS				
QTY	SIZE	MAXIMO NO.	DESCRIPTION	
Х	EA	577776	ANODE,BAG, 17 LB NET, HIGH POTENTIAL MAGNESIUM, W/ 10 FT #10 AWG TW ORANGE LEAD WIRE, PACKED IN CARDBOARD BOX 42 LB TOTAL WEIGHT	
x	EA	517626	CONNECTOR, SPLIT BOLT, 12 SOLID - 10 STRANDED, CU TO CU, HOUSING (COVER) MATE IN 590389,	
x	EA	590389	HOUSING, 50 V MAX, 10 AWG MAX, FOR PROTECTING TRACER WIRE SPLICES, USED WITH CONNECTOR IN 517626. 10/BAG	
x	EA	590871	BOX VALVE, TEST STATION, CP TEST #178, 10-1/4 IN DIA. LID, 8-3/8 IN I.D. 16 IN H., ASTM A48 CL 25 CAST IRON, FOR OFF-ROAD USE ONLY	
x	BOX	508567	POWDER, CARTRIDGE, TYPE IS F-33, ALLOY , CAP COLOR CLEAR, 15 GM CHARGE, 20/PAC, FOR STEEL PIPE	
x	EA	559168	SLEEVE,ELECTRICAL, #14 TO 10 AWG, W/ THERMITE WELDER, FOR CATHODIC PROTECTION	
x	ES	584045	EDI CONCENTRIC COUPON ASSEMBLY INCLUDING UCB-ZIN-LW010, 10 FT OF CABLE	
x	ES	603126	EDI CONCENTRIC COUPON ASSEMBLY INCLUDING UCB-ZIN-LW025, 25 FT OF CABLE	
x	ROLL	603140	WIRE,ELECTRICAL, THHN, 1/C, #10 AWG, STRANDED, RED, INSULATED, CU, 500 FT SPOOL, WIRE	
x	ROLL	578415	WIRE,ELECTRICAL, THHN, 1/C, #10 AWG, STRANDED, WHITE, INSULATED, CU, 500 FT SPOOL, WIRE	
x	ROLL	603141	WIRE,ELECTRICAL, THHN, 1/C, #10 AWG, STRANDED, BLUE INSULATED, CU, 500 FT SPOOL, WIRE	
x	ROLL	603139	WIRE,ELECTRICAL, THHN, 1/C, #10 AWG, STRANDED, BLACK, INSULATED, CU, 500 FT SPOOL,WIRE	
x	EA	500804	WELDER,THERMITE, THERMITE, FOR GAS PIPE, #12 CABLE,HORIZONTAL STEEL PIPE 4 IN AND LARGER DIAMETER	
x	EA	500805	WELDER,THERMITE, THERMITE, FOR GAS PIPE, #12 CABLE, HORIZONTAL STEEL PIPE 3/4 - 3-1/2 IN DIAMETER	
x	FT	513850	CABLE, INSULATED, CATHODIC PROTECTION, 1/C, #4 AWG, 7 STR, 600 V, BLACK, HMWPE, CU, 1000 FT ROLLS	

1. ALL TEST STATION BOXES SHOULD BE INSTALLED IN A SAFE LOCATION WHERE ONE INDIVIDUAL CAN SAFELY OPEN AND ACCESS THE TEST WIRES. ALL TEST WIRES INSIDE THE BOX SHOULD HAVE ENOUGH SLACK ON THE WIRES SO THEY CAN EXTEND A MINIMUM OF 12" ABOVE GRADE.

2. FOR TYPE A TEST STATIONS, THE TWO WIRES SHOULD BE THERMITE WELDED TO THE COATED STEEL MAIN AND BE THE SAME COLOR. (COUPONS COULD BE ADDED TO THE TEST STATION TYPE) 3. FOR TYPE B TEST STATIONS, EACH OF THE FOUR WIRES SHOULD BE A DIFFERENT COLOR AND DOCUMENTED

4. FOR TYPE C TEST STATIONS, THE WIRES SHOULD BE THE SAME COLOR ON EACH SIDE OF THE INSULATED COUPLING. (ANODES AND/OR COUPONS COULD BE ADDED TO THIS TEST STATION TYPE) 5. FOR TYPE D TEST STATIONS WHICH ARE AT A CASING, WHITE WIRES ARE NORMALLY INSTALLED ON THE STEEL CASING AND BLACK WIRES ON INSTALLED ON THE CARRIER PIPE. (ANODES AND/OR COUPONS COULD BE ADDED TO THIS TEST STATION TYPE).

6. FOR TYPE M TEST STATIONS, THE TWO WIRES THERMITE WELDED TO THE CARRIER PIPE SHOULD BE THE SAME COLOR WIRE. THERE IS ALSO MAGNESIUM ANODE(S) WIRE(S) LOCATED INSIDE THE TEST STATION BOX.THE WIRE COLOR (TYPICALLY ORANGE) FOR THE ANODES. IF THE ANODE WIRES ARE SPLICED TO A COMMON ANODE HEADER CABLE, THE ANODE HEADER CABLE SHOULD BE A (WHITE OR RED) DIFFERENT COLOR WIRE THAN THE WIRE THAT WAS THERMITE WELDED TO THE CARRIER PIPE. AT A TYPE M TEST STATION, NO MAGNESIUM ANODES SHOULD BE DIRECTLY THERMITE WELDED TO THE CARRIER PIPE OR IN CONTACT WITH THE CARRIER PIPE. THE ANODE HEADER WIRE OR INDIVIDUAL ANODE WIRES SHOULD TERMINATE INSIDE THE TEST STATION BOX. ANODES SHOULD BE SPACED A MINIMUM OF 5' ON CENTER FROM EACH OTHER AND A MINIMUM OF 12" AWAY AND BELOW THE BOTTOM OF THE STEEL MAIN. 7. IF COUPONS ARE TO BE INSTALLED, FIRST REMOVE THE PROTECTIVE LABEL COVERING THE STEEL COUPON AND THE RED STICKERS COVERING EACH SENSING PORT. CLEAN THE ENTIRE STEEL COUPON SURFACE WITH ALCOHOL TO REMOVE THE CORROSION INHIBITOR .PLACE THE COUPON ASSEMBLY APPROXIMATELY 12" FROM THE GAS MAIN BEING MONITORED WITH THE SENSING PORTS FACING THE GAS MAIN. THE COUPON ASSEMBLY SHOULD BE LOCATED ADJACENT TO THE BOTTOM PORTION OF THE GAS MAIN, ANYWHERE BETWEEN 3 O'CLOCK AND 9 O'CLOCK. THE SOIL BETWEEN THE COUPON AND THE MAIN SHOULD BE WELL COMPACTED AND CONTAIN NO ROCKS LARGER THAN A CENTIMETER IN DIAMETER OR FOREIGN MATERIAL.

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DIMENSIONS	ENERGY						
	HUDSON STREET, SEYMOUR STREET, AND BAYVIEW STREET MAIN RELAYS						
	NEW BEDFORD, MASSACHUSETTS						
FABRICATION	STANDARD CORROSION DETAILS						
	SCALE: AS NOTED SHEET 19 OF 1					OF 19	
	DF	RAWN BY / DATE VS 04/01/2021	CHECKED BY / DATE AB 09/14/2021		SHEET NUMBER		REV. NO.
	APF	PROVED BY / DATE EK 09/14/2021	MANEB21PIP063R0	MA-N	NEB-21-PIP-063-	19	0