

**CITY OF NEWTON
MASSACHUSETTS**

PETITION for GRANT OF LOCATION

To the Petitioner:

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

Grant of Location Process:

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

Questions may be directed to:

Lou Taverna, City Engineer, 617-796-1020
Cassidy Flynn, Clerk of the Public Facilities Committee 617-796-1213

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name NATIONALGRID
Address 201 Rivermoor Street
West Roxbury, MA 02132

Phone Number 617-894-3896 Fax Number _____
Contact Person Mary Mulroney Title Permit Representative
Signature *Mary Mulroney* Date August 19, 2022
Person filing application

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

II. DESCRIPTION OF PROJECT: to be completed by petitioner

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

Due to Newton's upcoming road work, Nationalgrid recommends the relay of approximately:

- 1270 feet of 12-inch,6-inch,4-inch Cast Iron (1898-1924 gas main with approximately 1270 feet of 8-inch Plastic in Ward St from West Bourne Rd to Waverley Av.
- 10 feet of 6-inch Cast Iron (1924) gas main with approximately 10 feet of 6-inch Plastic in the intersection of Westbourne Rd and Ward St.
- 10 feet of 6-inch Cast Iron (1922) gas main with approximately 10 feet of 6-inch Plastic in the intersection of Coolidge Rd and Ward St.
- 30 feet of 4-inch Cast Iron (1899) gas main with approximately 30-feet of 6- inch Plastic in the intersection of Eastbourne Rd and Ward St.
- 10 feet of 4-inch Cast Iron (1914) gas main with approximately 10-feet of 6-inch Plastic in the intersection of Avondale Rd and Ward St.
- 30 feet of 6-inch Cast Iron (1927) gas main with approximately 30-feet of 6-inch Plastic in the intersection of Exmoor Rd and Ward St.
- 10 feet of 12-inch,6-inch, Cast Iron (1913) gas main with approximately 10feet of 6-inch Plastic in the intersection of Grant Av and Ward St.

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

Title of Plan _____ Date of plan _____

III. PUBLIC WORKS DEPARTMENT REVIEW

Date received by Public Works Department August 22, 2022

Check One:

Minor Project Major Project Lateral

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

Plans Submitted:

Certified Plot Plan Stamped Plans

DATE AND COMMENTS:

RECOMMENDATIONS:

Prior to construction a Traffic Management Plan will be required for review and approval by the Traffic Division. Pedestrian access shall be accommodated for the duration in accordance with the DPW Standards & Check List. Siltation control shall be required in all catch basins within the construction zone. Accommodations to MBTA & school bus stops shall be ensured by NGrid & subcontractors. Any municipal services damaged shall be repaired immediately.

MWRA M8 permits will be required for the multiple crossings with transmission mains within the proposed gas main alignment. Restoration shall be per the Street Opening Permit, all pavement markings shall be restored in kind and to DPW standards. upon completion an as built plan shall be submitted to the DPW. *John Daghlain, Associate City Engineer*
August 25, 2022

V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:

Shawna Sullivan

Digitally signed by Shawna Sullivan
Date: 2022.08.25 16:11:00 -0400

Commissioner, Public Works

Date

PETITION OF NATIONAL GRID FOR GAS MAIN LOCATIONS

City of Newton / City Council:

The Nationalgrid hereby respectfully requests your consent to the locations of mains as hereinafter described for the transmission and distribution of gas in and under the following public streets, lanes, highways and places of the **City of Newton** and of the pipes, valves, governors, manholes and other structures, fixtures and appurtenances designed or intended to protect or operate said mains and accomplish the objects of said Company; and the digging up and opening the ground to lay or place same:

Due to Newton's upcoming road work, Nationalgrid recommends the relay of approximately:

- 1270 feet of 12-inch,6-inch,4-inch Cast Iron (1898-1924 gas main with approximately 1270 feet of 8-inch Plastic in Ward St from West Bourne Rd to Waverley Av.
- 10 feet of 6-inch Cast Iron (1924) gas main with approximately 10 feet of 6-inch Plastic in the intersection of Westbourne Rd and Ward St.
- 10 feet of 6-inch Cast Iron (1922) gas main with approximately 10 feet of 6-inch Plastic in the intersection of Coolidge Rd and Ward St.
- 30 feet of 4-inch Cast Iron (1899) gas main with approximately 30-feet of 6- inch Plastic in the intersection of Eastbourne Rd and Ward St.
- 10 feet of 4-inch Cast Iron (1914) gas main with approximately 10-feet of 6-inch Plastic in the intersection of Avondale Rd and Ward St.
- 30 feet of 6-inch Cast Iron (1927) gas main with approximately 30-feet of 6-inch Plastic in the intersection of Exmoor Rd and Ward St.
- 10 feet of 12-inch,6-inch, Cast Iron (1913) gas main with approximately 10feet of 6-inch Plastic in the intersection of Grant Av and Ward St.

Date **August 19,2022**

By:

Mary Mulroney

Mary Mulroney
Permit Representative

City of Newton / City Council:

IT IS HEREBY ORDERED that the locations of the mains of the Nationalgrid for the transmission and distribution of gas in and under the public streets, lanes, highways and places of the **City of Newton** substantially as described in the petition date **August 19,2022** attached hereto and hereby made a part hereof, and of the pipes, valves, governors, manholes and other structures, fixtures and appurtenances designed or intended to protect or operate said mains and/or accomplish the objects of said Company, and the digging up and opening the ground to lay or place same, are hereby consented to and approved.

The said Nationalgrid shall comply with all applicable provisions of law and ordinances of the **City of Newton** applicable to the enjoyment of said locations and rights.

Date this _____ day of _____, 20 ____.

I hereby certify that the foregoing order was duly adopted by the _____ of the City of _____, MA on the _____ day of _____, 20 ____.

WO # 1449994

By:
Title

256-355 Ward Street Newton 1449994

All Grants of Location for the City of Newton must answer the following in detail:

A. Are there any leaks on this road? If yes, how many?

There are no leaks on this road within the address range.

B. If not, why is the gas main being extended or replaced?

The main is being replaced to remove aging infrastructure, including leak prone pipe, prior to the street being repaved. The new corridor is prompted by MWRA plans to install a new water main in this section of Ward Street that would directly conflict with our gas infrastructure if National Grid were to relay the existing main in the existing corridor. The new gas corridor is reflective of a proactive effort to minimize and/or eliminate any future conflicts/need for National Grid to access this section of Ward Street.

C. Is it in response to upcoming roadwork or new development?

Yes, the main replacement is in response to Newton roadwork.

D. Is capacity increasing? If yes, why?

No, capacity is not increasing.

Requested by the Commissioner: When NationalGrid engineers develop the GOL plans these standard questions be answered in a written format & submitted with the GOL package.

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION

APPROXIMATELY 1,270' OF 8" AND 100' OF 6" PLASTIC L.P. MAIN

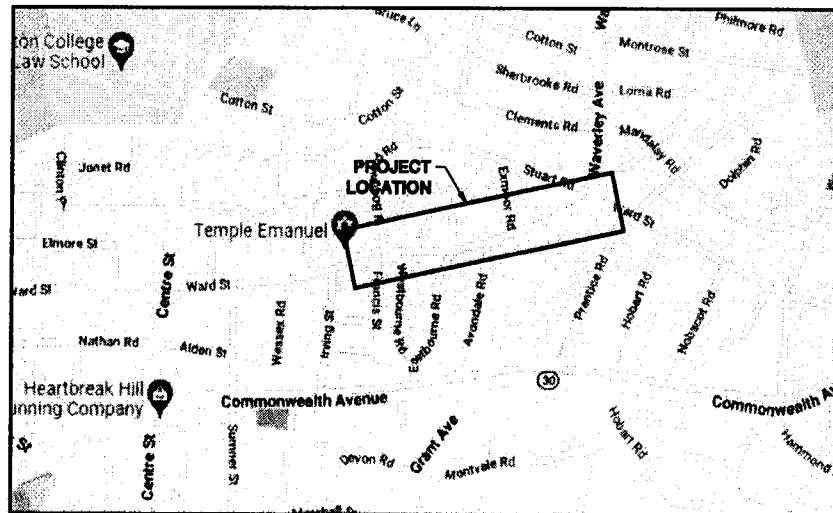
#256 - #355 WARD STREET

NEWTON, MASSACHUSETTS

W.O. NO.: 1449994



LEGEND	
⊙	ELECTRIC LIGHT POLE
⊙	ELECTRIC MANHOLE
⊙	ELECTRIC BOX
⊙	WATER MANHOLE
⊙	WATER MANHOLE
⊙	STORM MANHOLE
⊙	SANITARY MANHOLE
⊙	UTILITY POLE
⊙	TEST STATION
⊙	END CAP
⊙	STOPPLE FITTING
⊙	VALVE
⊙	WELDER
⊙	WELD-END INSULATOR
⊙	ELECTROFUSION COUPLING
⊙	TRANSITION FITTING
⊙	COUPLING
⊙	SQUEEZE
⊙	BUILDING
⊙	EXISTING R.O.D.
⊙	EDGE OF PAVEMENT
⊙	RAILROAD
⊙	EXISTING FENCE
⊙	EXISTING COATED STEEL GAS MAIN
⊙	EXISTING BARE STEEL GAS MAIN
⊙	EXISTING CAST IRON GAS MAIN
⊙	EXISTING WROUGHT IRON GAS MAIN
⊙	EXISTING PLASTIC GAS MAIN
⊙	EXISTING CRITICAL GAS MAIN
⊙	RETICED GAS
⊙	PROPOSED GAS
⊙	SANITARY SEWER
⊙	STORM DRAIN
⊙	ELECTRIC LINE
⊙	OVERHEAD ELECTRIC
⊙	WATER
⊙	PROPOSED WATER



N

LOCATION MAP
 NEWTON, MASSACHUSETTS
 (NOT TO SCALE)

SHEET INDEX	
SHEET NUMBER	DESCRIPTION
1	LOCATION MAP, LEGEND AND SHEET INDEX
2	CONSTRUCTION NOTES
3	SCHEDULE OF MATERIALS
4	OVERVIEW PLAN
5	INSTALLATION PLAN #1
6	INSTALLATION PLAN #2
7	INSTALLATION PLAN #3
8	INSTALLATION DETAIL #1 AND #2
9	INSTALLATION DETAIL #3 AND #4
10	INSTALLATION DETAIL #5 AND #6
11	INSTALLATION DETAIL #7 AND #8
12	TYPICAL CROSSING DETAIL
13	MISCELLANEOUS DETAILS
14	MISCELLANEOUS DETAILS
15	MISCELLANEOUS DETAILS
16	MISCELLANEOUS DETAILS
17	MISCELLANEOUS DETAILS



Engineering
 20 SHAWLEY STREET
 WILMINGTON, MA 01897
 TEL: 603-543-7770
 FAX: 603-543-7772
 WWW.ENGINEERINGMA.COM

NO.	DESCRIPTION	DATE	BY	CHECK	APP'D
1	ISSUED SHEET INDEX	04/24/2022	E.A.	S.S.	E.A.
2	NO CHANGES TO THIS SHEET	04/29/2022	T.A.	S.S.	E.A.
3	ISSUED SHEET INDEX	04/29/2022	A.B.	S.S.	E.A.
4	ISSUED SHEET INDEX	04/29/2022	S.A.	S.S.	E.A.
5	ISSUED SHEET INDEX	04/29/2022	S.A.	S.S.	E.A.

nationalgrid
 NATIONAL GAS COMPANY
 40 BELLEVUE ROAD
 WILMINGTON, MA 01897

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
 #256-355 WARD STREET
 NEWTON, MASSACHUSETTS
 LOCATION MAP, LEGEND AND SHEET INDEX

DATE: 04/29/2022
 DESIGNED BY: R. GRUBBS
 CHECKED BY: S. SOLEMAN
 DRAWN BY: D. BROWN
 SCALE: 22"=100'

SHEET 1 OF 17	
DRAWING NO.	SHEET NO.
ENE-NEW-2105950.53	G-001

BILL OF MATERIALS						
ITEM	QTY	UOM	DESCRIPTION	SIZE (IN.)	NATIONAL GRID REFERENCE	SAP ID NUMBER
1	± 1270	FT	PIPE, PLASTIC MD	8"	120026-MS	9340602
2	± 100	FT	PIPE, PLASTIC MD	6"	120026-MS	9384339
3	± 50	FT	PIPE, PLASTIC MD	4"	120026-MS	9340667
4	± 5	FT	PIPE, PLASTIC MD	12"	120026-MS	9340663
5	8	EA	VALVE, PLASTIC	8"	VALV6020	9386504
6	8	EA	VALVE BOX ASSEMBLY	-	FITS-6370	(SEE STD)
7	2	EA	COUPLING, ELECTROFUSION	8"	CS-FIT015	9314581
8	1	EA	CAP, PLASTIC MD	8"	CS-FIT010	9339559
9	2	EA	COUPLING, ELECTROFUSION	12"	CS-FIT015	9314939
10	1	EA	CAP, PLASTIC MD	12"	CS-FIT010	9339560
11	19	EA	ELBOW, PLASTIC, 45 DEGREE	8"	CS-FIT011	9341402
12	6	EA	TEE, PLASTIC	8"	CS-FIT012	9342070
13	6	EA	REDUCER, PLASTIC	8" X 8"	CS-FIT013	9342616
14	2	EA	REDUCER, PLASTIC	8" X 4"	CS-FIT013	9342678
15	1	EA	REDUCER, PLASTIC	12" X 8"	CS-FIT013	9342617
16	5	EA	ELBOW, PLASTIC, 45 DEGREE	8"	CS-FIT011	9341401
17	2	EA	ELBOW, PLASTIC, 45 DEGREE	4"	CS-FIT011	9341400
18	3	EA	CAP, MECHANICAL	6"	FITS8024	9315189
19	2	EA	RS CI CAP	4"	FITS8024	9315170
20	3	EA	INSULATED COUPLING, COMPRESSION	6"	FITS8025	9312223
21	3	EA	STIFFENER, INSERT	6"	FITS8025	9340225
22	2	EA	INSULATED COUPLING, COMPRESSION	4"	FITS8025	9315709
23	2	EA	STIFFENER, INSERT	4"	FITS8025	9340106
24	1	EA	ELECTROFUSION CAP (OPTIONAL)	8"	CS-FIT015	9393633
25	2	EA	COUPLING, ELECTROFUSION	6"	CS-FIT015	9314592
26	1	EA	CAP, PLASTIC MD	8"	CS-FIT010	9339733
27	1	EA	ELECTROFUSION CAP (OPTIONAL)	6"	CS-FIT015	9393681
28	2	EA	ELBOW, PLASTIC, 90 DEGREE	8"	CS-FIT011	9341398
GENERAL						
G1	A/R	FT	TRACER WIRE	N/A	CNST8061	(SEE STD)
G2	A/R	ROLL	YELLOW CAUTION TAPE	N/A	CNST8060	9341904
PRESSURE TESTING (TEMPORARY)						
CATHODIC PROTECTION						
C1	5	EA	CP TEST BOX SQUARE HEAD STY. # 178	N/A	030026-CS	9339391
C2	5	EA	TEST BOX COVER SQUARE	N/A	030026-CS	9339797
C3	5	EA	17# ANODE	N/A	030024-CS	9311183

* ACTUAL LENGTH/QUANTITY OF PIPE AND SMALL FITTINGS (EQ) MAY VARY DUE TO FIELD CONDITIONS. FINAL VALUES MAY CHANGE SUBJECT TO MEETING NATIONAL GRID STANDARDS AND DESIGN/SPEC REQUIREMENTS.



eneengineering

20 SHAWLETT STREET
NEWTON, MASSACHUSETTS 02459
TEL: 617-552-3633
FAX: 617-552-3777
WWW.ENENGINEERING.COM

NO.	DESCRIPTION	DATE	BY	CHKD	APP'D
1	ISSUED FOR PERMITS	04/14/2021	EA	EA	EA
2	ISSUED TO THE SHOP	04/20/2021	EA	EA	EA
3	ISSUED FOR CONSTRUCTION	04/20/2021	EA	EA	EA
4	ISSUED FOR CONSTRUCTION	04/20/2021	EA	EA	EA

FORUM ONE COMPANY
N/A/A

nationalgrid

40 BLYTHE ROAD
WILMINGTON, MA 01897

IFC

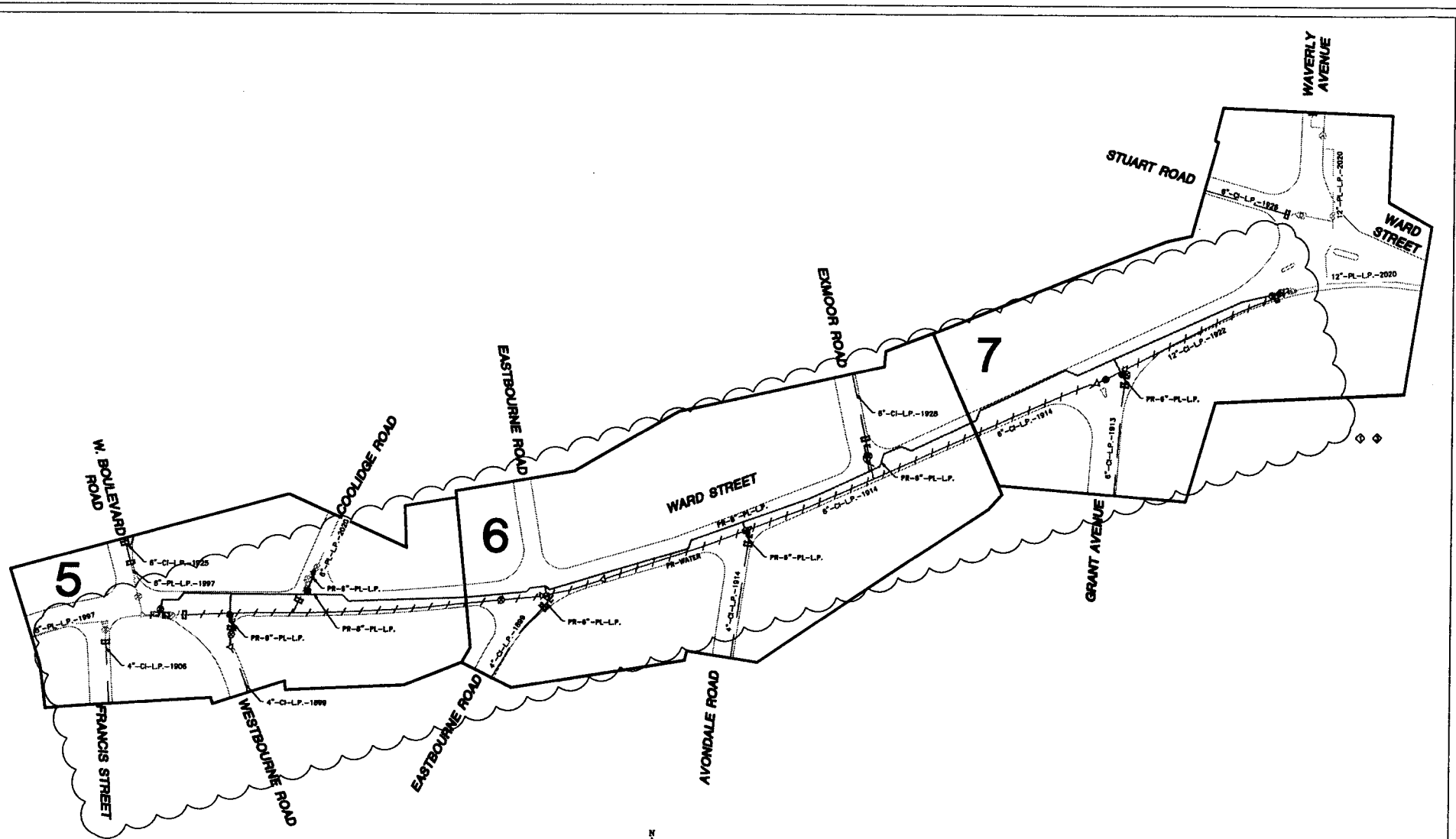
NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
290-295 WARD STREET
NEWTON, MASSACHUSETTS
SCHEDULE OF MATERIALS

REV.	DATE	DESCRIPTION	BY	CHKD	APP'D	DATE	REVISION
01	04/14/2021	ISSUED FOR PERMITS	EA	EA	EA	04/14/2021	1

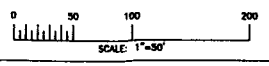
SHEET 3 OF 17

DRAWING NO. SHEET NO.

ENE-NEW-2105950.53 C-003



OVERVIEW PLAN
(SCALE: 1"=50')



Engineering
20 BARILETT STREET
WILMINGTON, MA 01798
TEL: 508-363-4999
FAX: 508-363-7777
WWW.DHEENGINEERING.COM

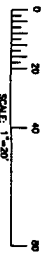
NO.	DESCRIPTION	DATE	BY	CHKD.	APP'D.
3	ISSUED PROPOSED GAS ALIGNMENT IN THIS SET	04/14/2012	E.S.	E.S.	E.S.
2	NO CHANGES TO THIS SHEET	04/10/2012	V.B.	E.S.	E.S.
1	ISSUED PROPOSED GAS LABEL AND PROPOSED GAS ALIGNMENT	04/09/2012	E.S.	E.S.	E.S.
1	ISSUED FOR CONSTRUCTION	04/09/2012	E.S.	E.S.	E.S.


DESIGN AND CONSTRUCTION
nationalgrid
60 SYLVAN ROAD
WALTHAM, MA 02451
IFC

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
380-390 WARD STREET
NEWTON, MASSACHUSETTS
OVERVIEW PLAN

DWG. SIZE	DESIGNED BY	ENGINEER	DATE	SHEET NO.	TOTAL NO.
22"x34"	E. WARD	S. GOLDSMAN	04/14/2012	001	1

SHEET 4 OF 17
DRAWING NO. ENE-NEW-2105950.53
SHEET NO. C-001





Engineering
 123456789
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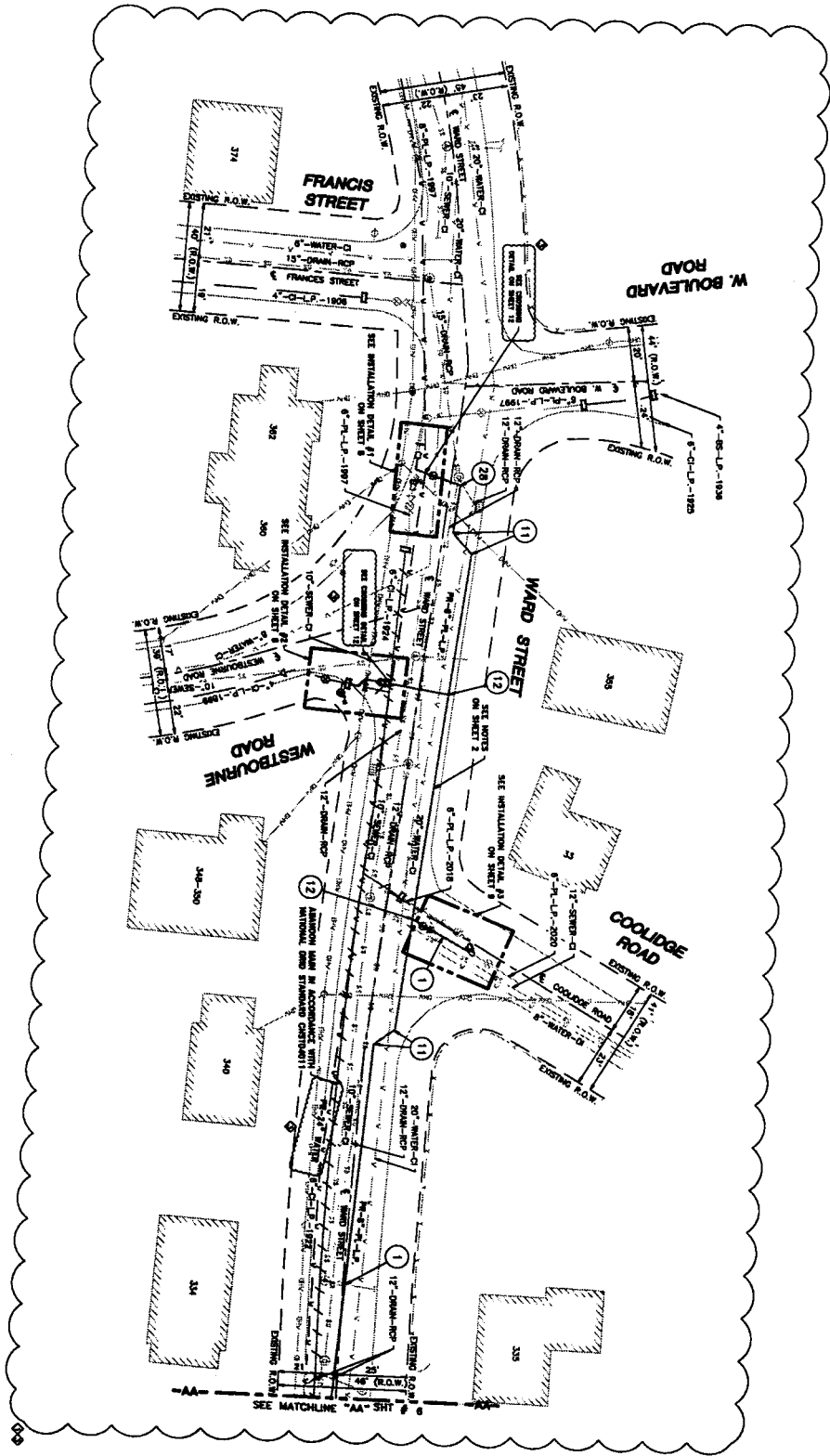
nationalgrid
 NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
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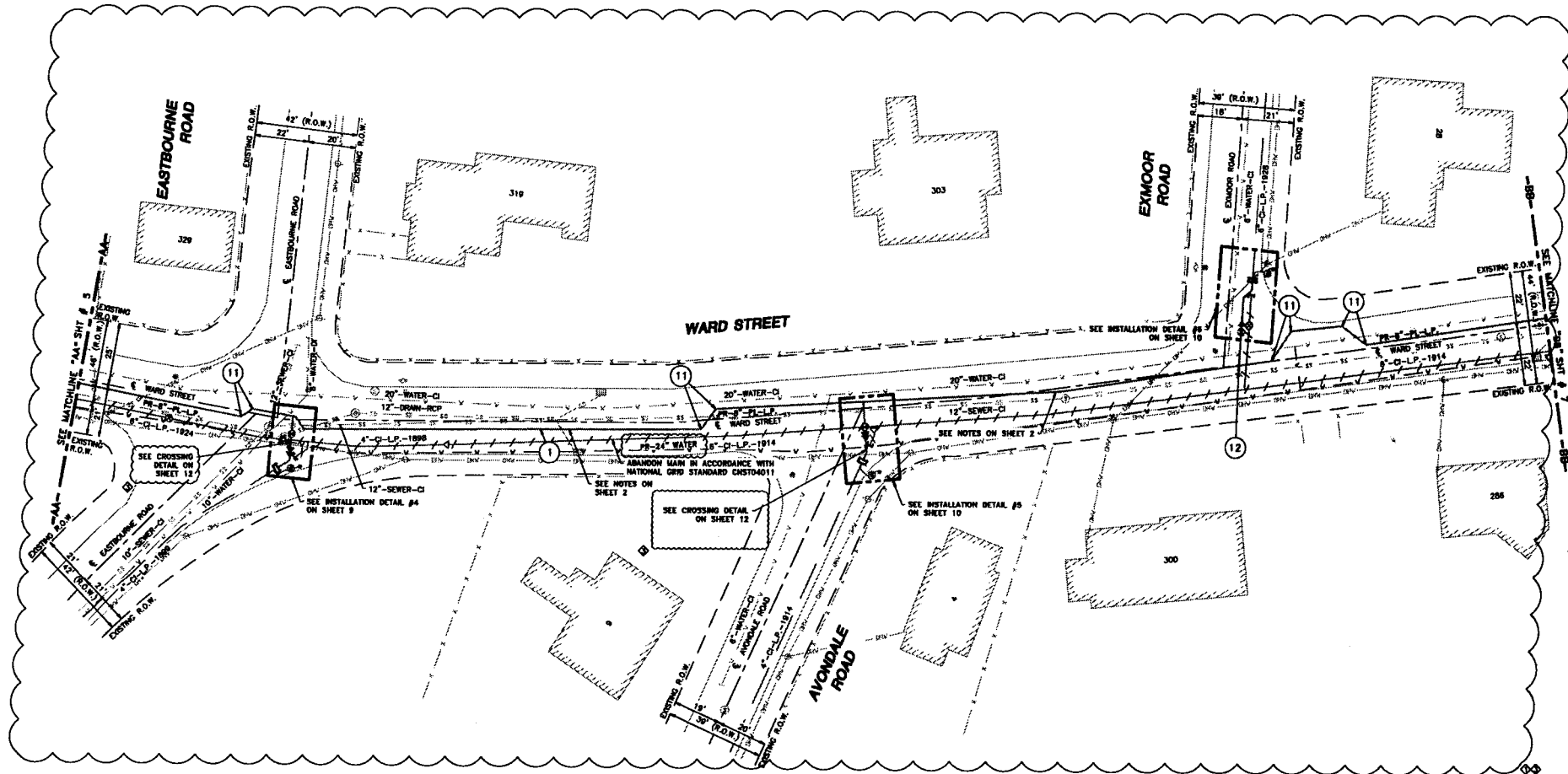
NO.	DESCRIPTION	DATE	BY	CHECKED	APPROVED
1	ISSUED FOR PERMITS	12/31/2022	J. SMITH	M. JONES	K. BROWN
2	ISSUED FOR CONSTRUCTION	12/31/2022	J. SMITH	M. JONES	K. BROWN
3	ISSUED FOR AS-BUILT	12/31/2022	J. SMITH	M. JONES	K. BROWN

PROJECT NO. **ENC-NEW-2105950.53**

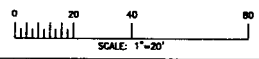
SHEET NO. **C-002**


INSTALLATION PLAN #1
(SCALE: 1"=80')





INSTALLATION PLAN #2
(SCALE: 1"=20')



ENEengineering
20 BARTLEY STREET
NEWTON, MASSACHUSETTS 01746
TEL: 617-552-9999
FAX: 617-552-7777
WWW.ENENGINEERING.COM

NO.	DESCRIPTION	DATE	BY	CHECKED	APP'D
1	ISSUED FOR CONSTRUCTION	04/24/2012	E.S.	E.S.	E.S.
2	ISSUED FOR PERMITS	04/24/2012	E.S.	E.S.	E.S.
3	ISSUED FOR CONSTRUCTION	04/24/2012	E.S.	E.S.	E.S.

nationalgrid
NATIONAL GRID COMPANY
4747
60 SYLVAN ROAD
NEWTON, MA 02459

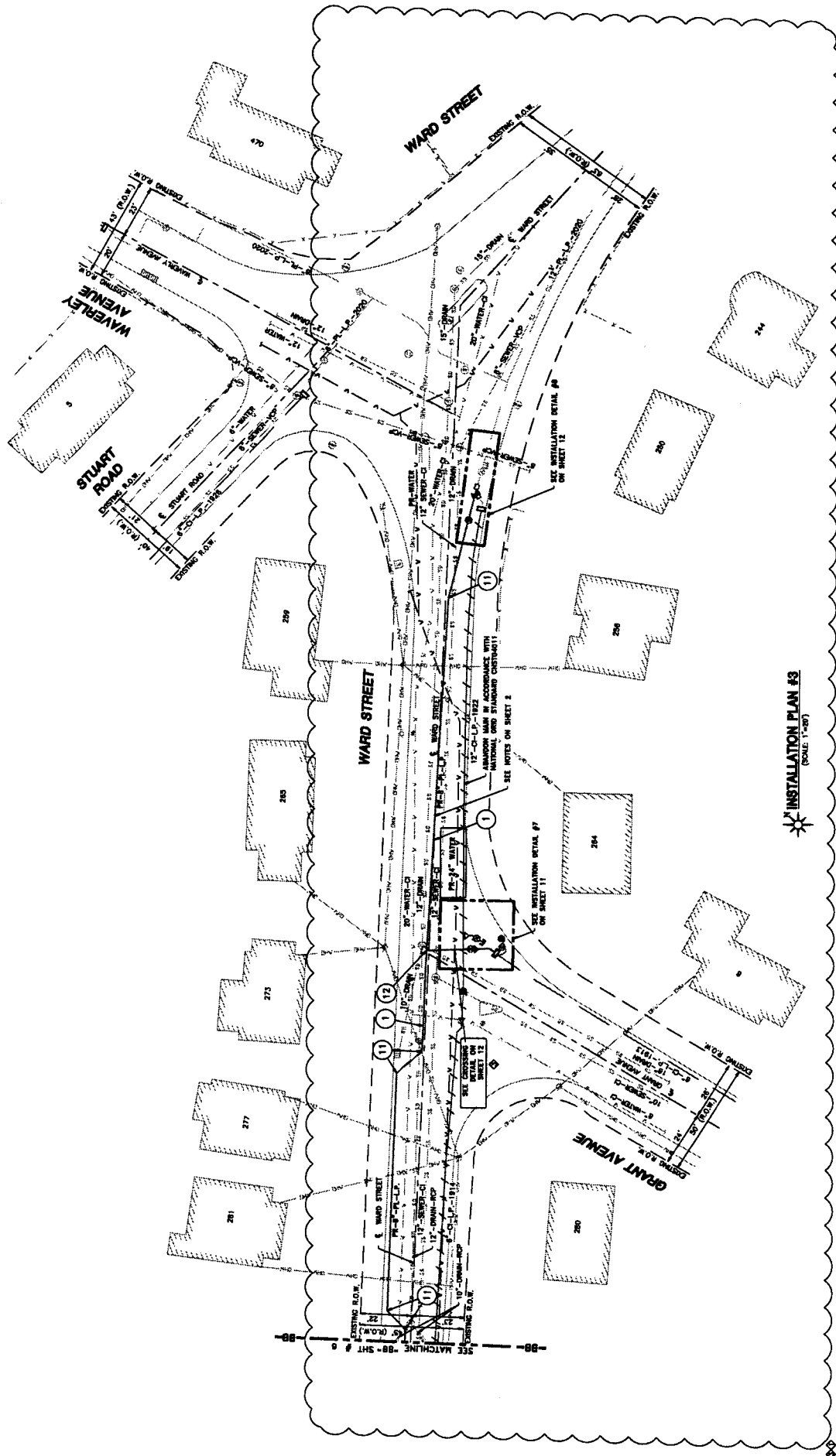
IFC

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
286-303 WARD STREET
NEWTON, MASSACHUSETTS
INSTALLATION PLAN #2

DATE	REVISION	ENGINEER	DATE	SHEET NO.	T.O.S. NO.
04/24/2012	1	A. SOLEMAN	04/24/2012	04/24/2012	140000

SHEET 4 OF 17

DRAWING NO.	SHEET NO.
ENE-NEW-2105950.53	C-003



INSTALLATION PLAN #3
(SCALE: 1"=20')

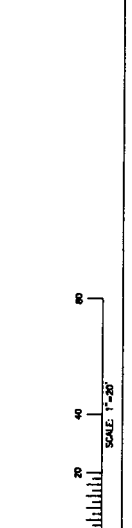
SHEET 2 OF 17
DRAWING NO.
ENE-NEW-2105950.53 C-004

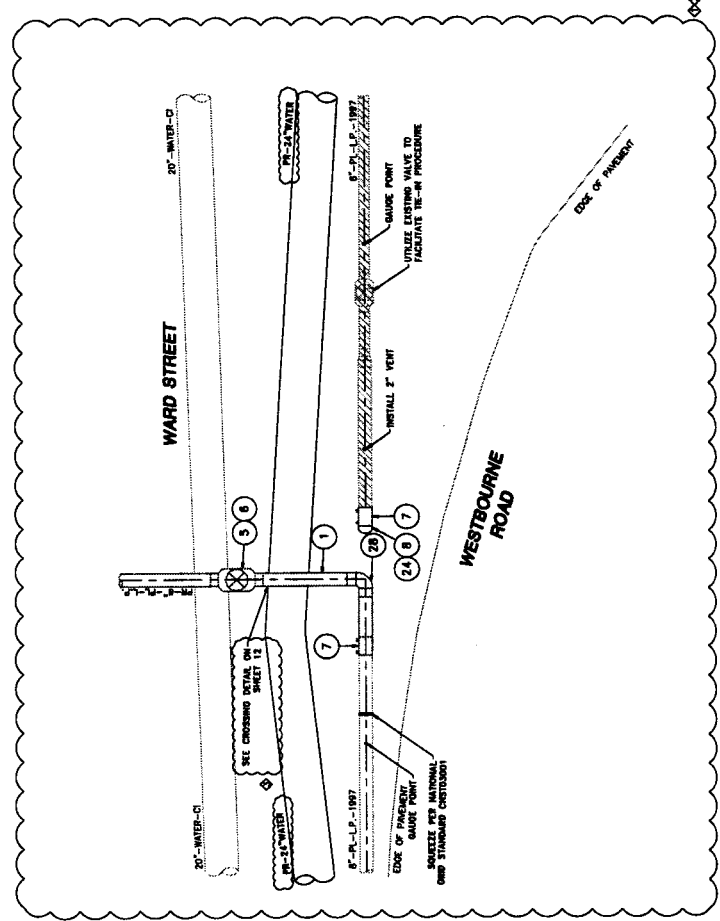
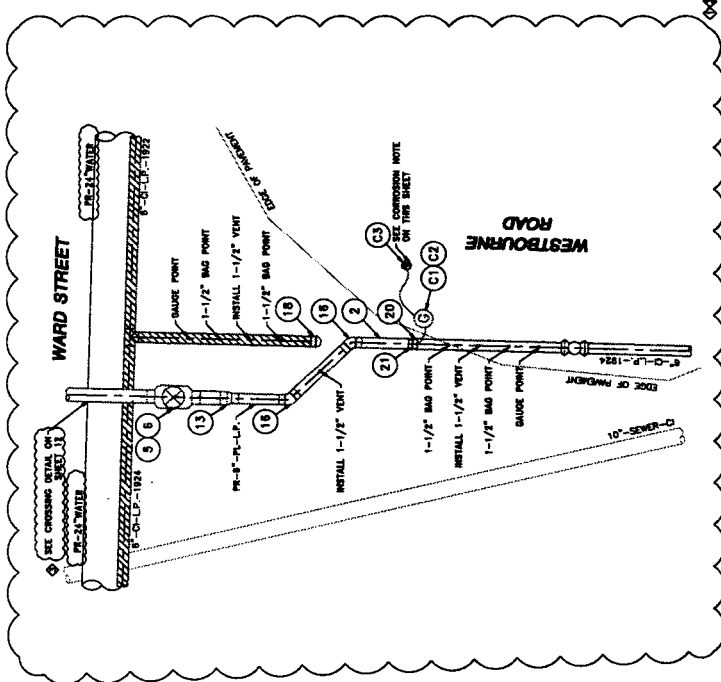
NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
380-385 WARD STREET
INSTALLATION PLAN #3

DESIGNED BY	CHECKED BY	DATE	SCALE	SHEET NO.

NO.	REVISION	DATE	BY	CHKD.	APP'D.
1	ISSUED FOR PERMIT				
2					
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engineering
100 WARD STREET, SUITE 100
ANN ARBOR, MI 48106
TEL: 313-333-3777
WWW.ENGINEERING.COM





INSTALLATION DETAIL #2
SCALE: 1"=3'

INSTALLATION DETAIL #1
SCALE: 1"=3'

CONCRETE 10" DIA. 10'-0" HIGH. USE AN ISOLATED COUPLING (BARBER BOOT FACING THE GAS MAIN/10'-0" STATION) AND USE THE CLIP BRING IT UP INTO A TEST STATION WITH 1-178 ANODE. NOTE: THE ISOLATED COUPLING AND 1-178 TEST STATION WITH 1-178 ANODE ON THE TRANSITION PIECE ONLY.



msengineering
100 WESTBOURNE ROAD
WESTBORNE, MA 01581
TEL: 508-365-7777
WWW.MSENGINEERING.COM

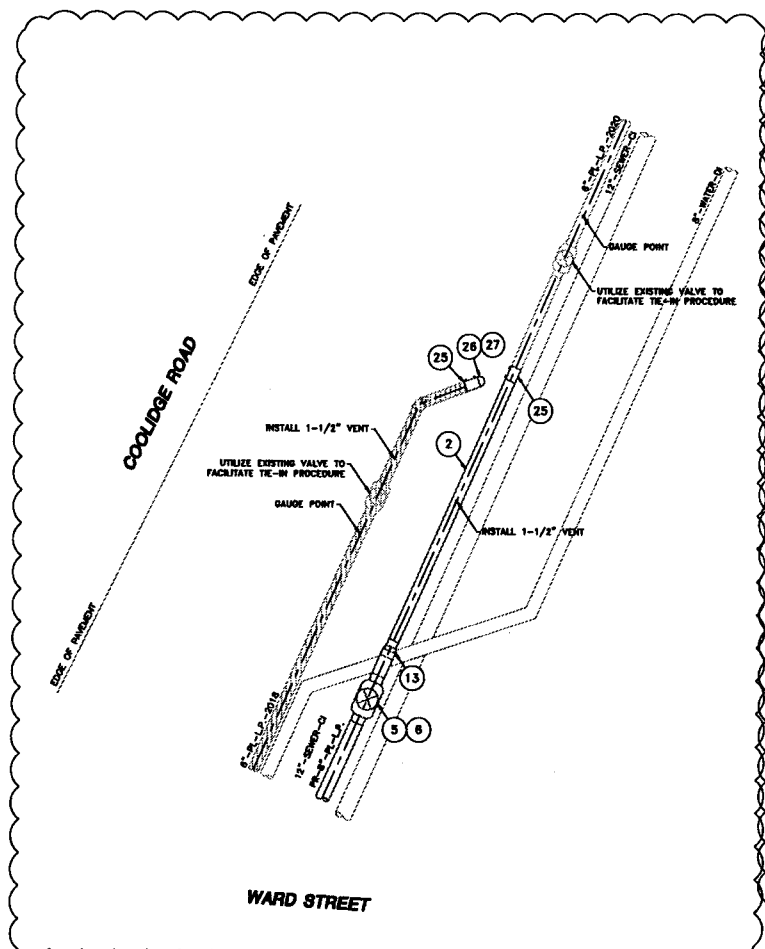
NO.	DESCRIPTION	DATE	BY	CHKD.	APP'D.
1	ISSUED FOR PERMITS				
2	ISSUED FOR CONSTRUCTION				
3	ISSUED FOR RECORD				
4	ISSUED FOR AS-BUILT				
5	ISSUED FOR FINAL REVIEW				
6	ISSUED FOR CLOSURE				
7	ISSUED FOR ARCHIVE				

NATIONAL GRID
476.4
40 STYRING ROAD
MILWAUKEE, WI 53219

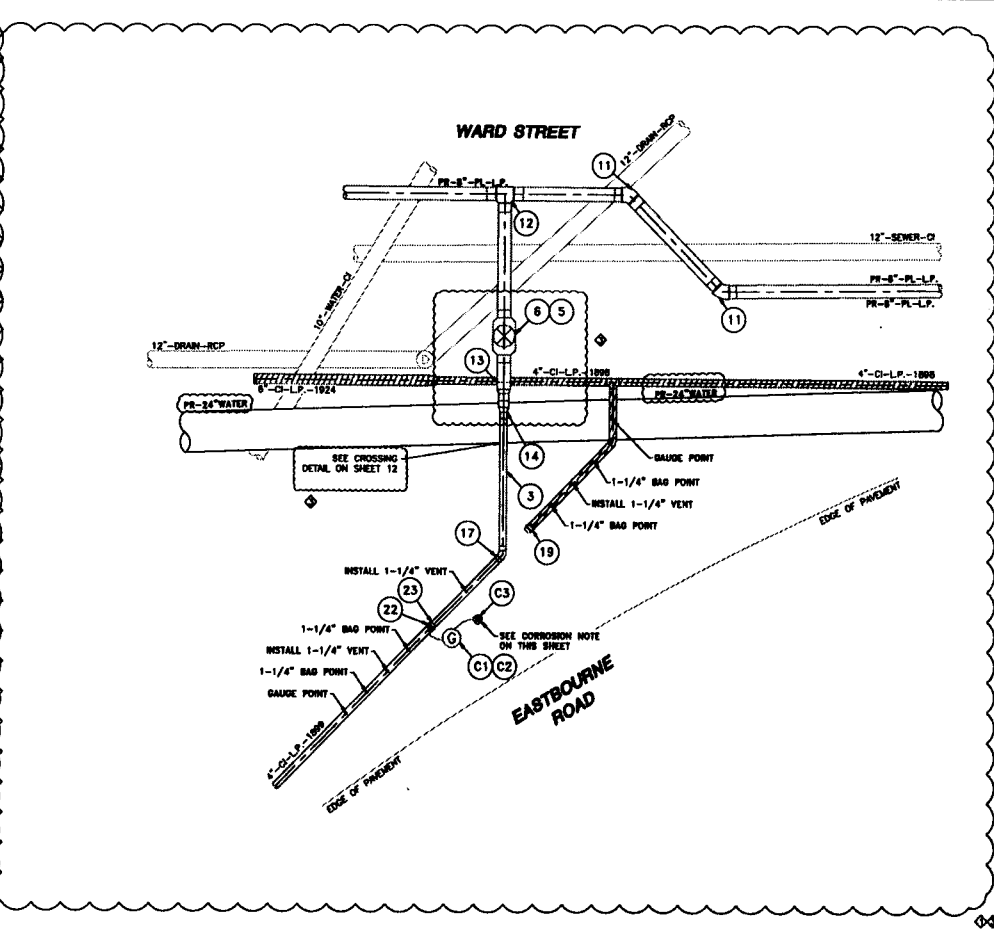
NATIONAL GRID PROFESSIONAL GAS MAIN INSTALLATION
384-388 WARD STREET
WESTON, MASSACHUSETTS
INSTALLATION DETAIL #1 AND #2

DATE: SHEET NO. SHEET 2 OF 2
S. DICKINSON S. DICKINSON S. DICKINSON S. DICKINSON

SHEET 2 OF 2
DRAWING NO.
ENE-NEW-2105850.53
C-101

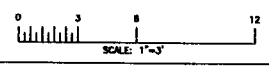


INSTALLATION DETAIL #3
 (SCALE: 1"=3')
 (SEE SHEET #3)



INSTALLATION DETAIL #4
 (SCALE: 1"=3')
 (SEE SHEET #4)

CORROSION NOTE:
 IF TE-W IS TO NON-CP SYSTEM OR CAST IRON -
 USE AN INSULATED COUPLING (RUBBER BOOT FACING
 THE CAST IRON/NON-CP SYSTEM) AND USE THE CLIP
 ON THE COUPLING TO INSTALL A TEST WIRE AND
 BRING IT UP INTO A TEST STATION WITH 1-17#
 ANODE. NOTE: IF AN INSULATED COUPLING AND
 TRANSITION STEEL PIECE ARE USED - INSTALL A
 1-WIRE TEST STATION WITH 1-17# ANODE ON THE
 TRANSITION PIECE ONLY.



msengineering
 20 SHAWLEY STREET
 WILMINGTON, MA 01978
 TEL: 603-383-0028
 FAX: 603-383-1777
 WWW.DENVERGRID.COM

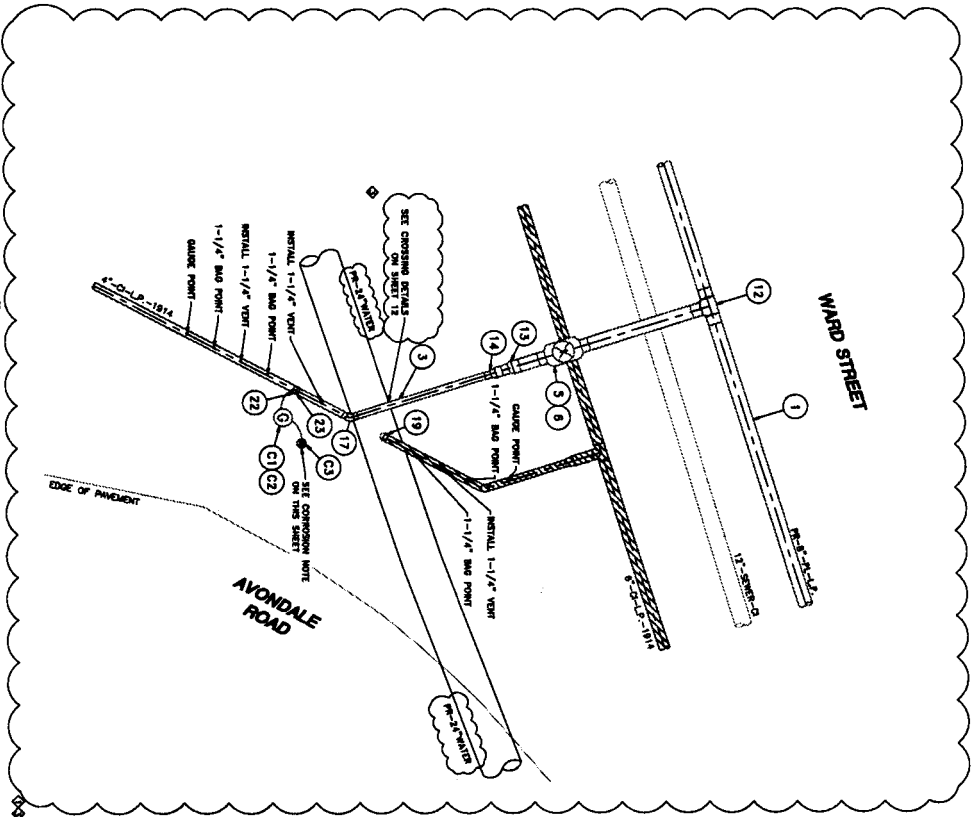
NO.	DESCRIPTION	DATE	BY	CHKD	APP'D
3	ADDED CORROSION WIRE A UPWARD WIRE SHIP	04/14/2022	E.S.	S.S.	E.S.
2	NO CHANGES TO THIS SHEET	04/14/2022	V.B.	S.S.	E.S.
1	ADDED INSULATED COUPLING	04/14/2022	E.S.	S.S.	E.S.
0	ISSUED FOR CONSTRUCTION	04/14/2022	E.S.	S.S.	E.S.
00	REVISION				

NORTH GAS COMPANY
 447A
nationalgrid
 40 WYMAN ROAD
 WILMINGTON, MA 01978

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
 300-300 WARD STREET
 NEWTON, MASSACHUSETTS
 INSTALLATION DETAIL #3 AND #4

DATE: 04/14/2022
 ENGINEER: S. SOLEMAN
 CHECKER: E. GIBSON
 DESIGNED BY: S. SOLEMAN
 DRAWN BY: E. GIBSON

SHEET 9 OF 17	
DRAWING NO.	SHEET NO.
ENE-NEW-2105950.53	C-102



INSTALLATION DETAIL #5
(SCALE: 1"=3')
(SEE SHEET #0)

CONCRETE NOT TO BE SET ON TOP OF STORM OR CURB FORM -
USE AN ISOLATED COURSE (E. ROSSER BOOT FRAME
OR E. ROSSER BOOT FRAME) TO SUPPORT THE
CATCH BASIN/BOX. THE CATCH BASIN/BOX AND THE
CATCH BASIN/BOX SHALL BE SET ON THE
GRADE AND A TEST STATION WITH 1-1/2"
HORIZONTAL CENTERLINE AND
1-1/2" HORIZONTAL CENTERLINE AND
1-1/2" HORIZONTAL CENTERLINE.



INSYGNIA
AN AMERICAN COMPANY
1000 N. W. 10th St.
Fort Lauderdale, FL 33304
WWW.INSYGNIA.COM

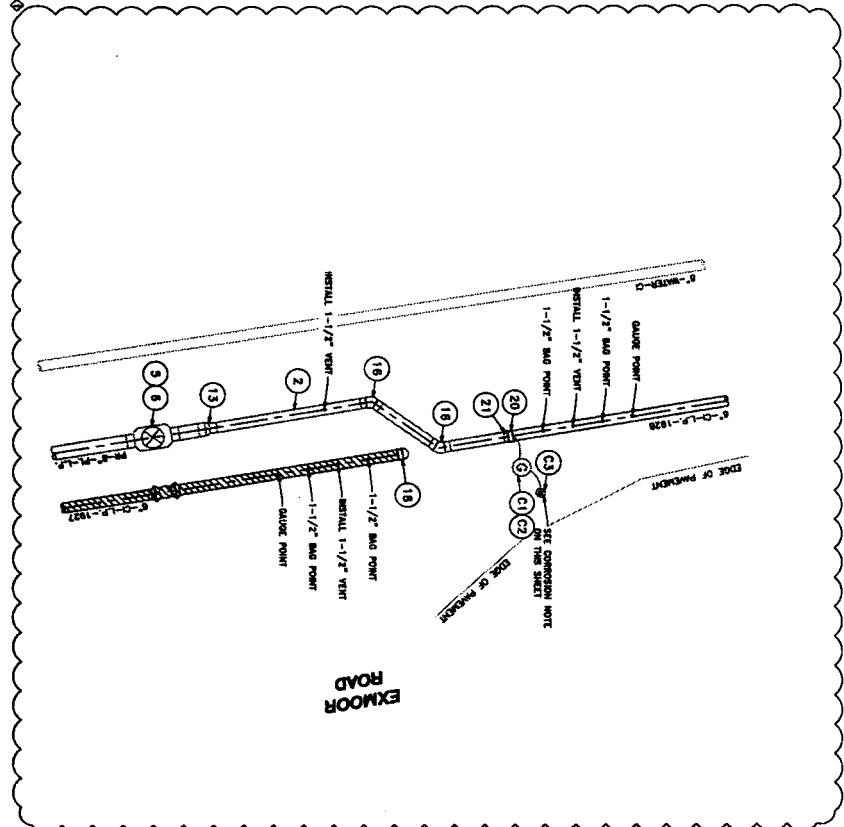
NO.	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR PERMITS	12/20/02
2	ISSUED FOR CONSTRUCTION
3	ISSUED FOR AS-BUILT

nationalgrid
A NATIONAL GRID COMPANY
1000 N. W. 10th St.
Fort Lauderdale, FL 33304

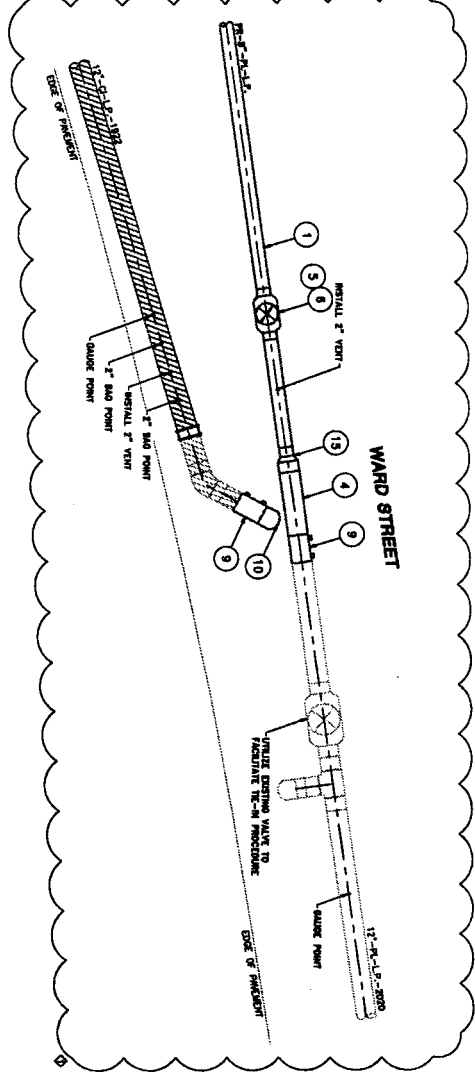
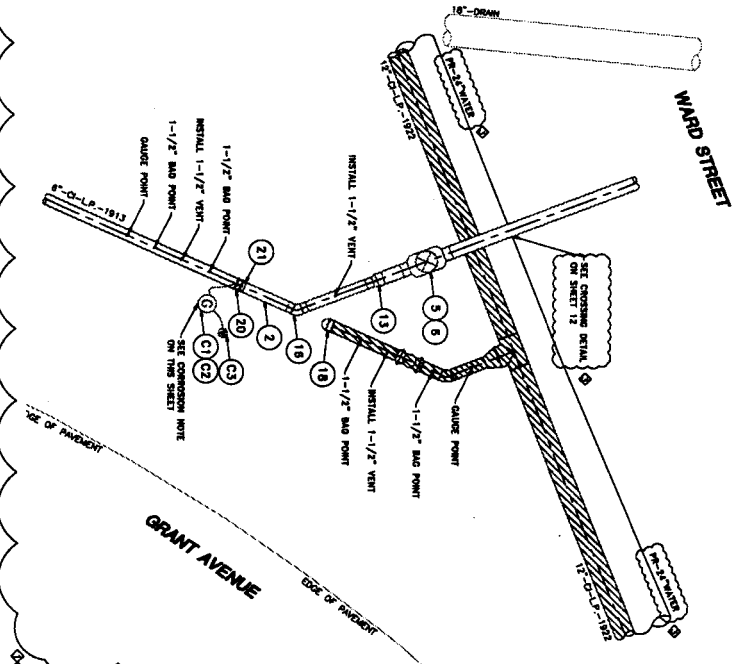
NATIONAL GRID PROJECTS AND AS-BUILT INSTALLATION
NATIONAL GRID PROJECTS AND AS-BUILT INSTALLATION
INSTALLATION DETAIL OF AND #0

DATE: 12/20/02
SCALE: 1"=3'

SHEET NO. 11	PROJECT NO. ENE-NEW-2105950.53
SHEET NO. C-103	



INSTALLATION DETAIL #6
(SCALE: 1"=3')
(SEE SHEET #0)



CONNECTION NOTE:
 1. USE AN ISOLATED COMPANIE (NUMBER BOOT FLASHING ON THE BOTTOM OF THE FLASHING) AND USE THE CLIP BRING IT UP AND A TEST STATION WITH 1-1/2\"/>

INSTALLATION DETAIL #7
 (SCALE 1"=3')



Engineering
 2000 WESTLAND AVENUE
 WESTLAND, MI 48090
 (313) 487-1100
 WWW.ENGINEERING.COM

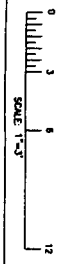
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2	REVISION	12/15/03	JL	JL
3	REVISION	12/15/03	JL	JL
4	REVISION	12/15/03	JL	JL
5	REVISION	12/15/03	JL	JL
6	REVISION	12/15/03	JL	JL
7	REVISION	12/15/03	JL	JL
8	REVISION	12/15/03	JL	JL
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13	REVISION	12/15/03	JL	JL
14	REVISION	12/15/03	JL	JL
15	REVISION	12/15/03	JL	JL
16	REVISION	12/15/03	JL	JL
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29	REVISION	12/15/03	JL	JL
30	REVISION	12/15/03	JL	JL

nationalgrid
 1100 WESTLAND AVENUE
 WESTLAND, MI 48090
 (313) 487-1100
 WWW.NATIONALGRID.COM

INSTALLATION DETAIL #8
 (SEE SHEET #7)

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
 2000 WESTLAND AVENUE
 WESTLAND, MI 48090
 (313) 487-1100
 WWW.NATIONALGRID.COM

PROJECT NO.	ENC-NEW-2105950.53
SHEET NO.	C-104
DATE	12/15/03
SCALE	1"=3'
BY	JL
CHECKED	JL
DATE	12/15/03
PROJECT	ENC-NEW-2105950.53
LOCATION	2000 WESTLAND AVENUE, WESTLAND, MI 48090
CLIENT	NATIONAL GRID
DESIGNED BY	JL
CHECKED BY	JL
DATE	12/15/03
PROJECT	ENC-NEW-2105950.53
LOCATION	2000 WESTLAND AVENUE, WESTLAND, MI 48090
CLIENT	NATIONAL GRID



Engineering
 200 W. WASHINGTON STREET
 SUITE 200
 TAMPA, FL 33602
 TEL: 813-288-1234
 FAX: 813-288-1235
 WWW.ENGINEERING.COM

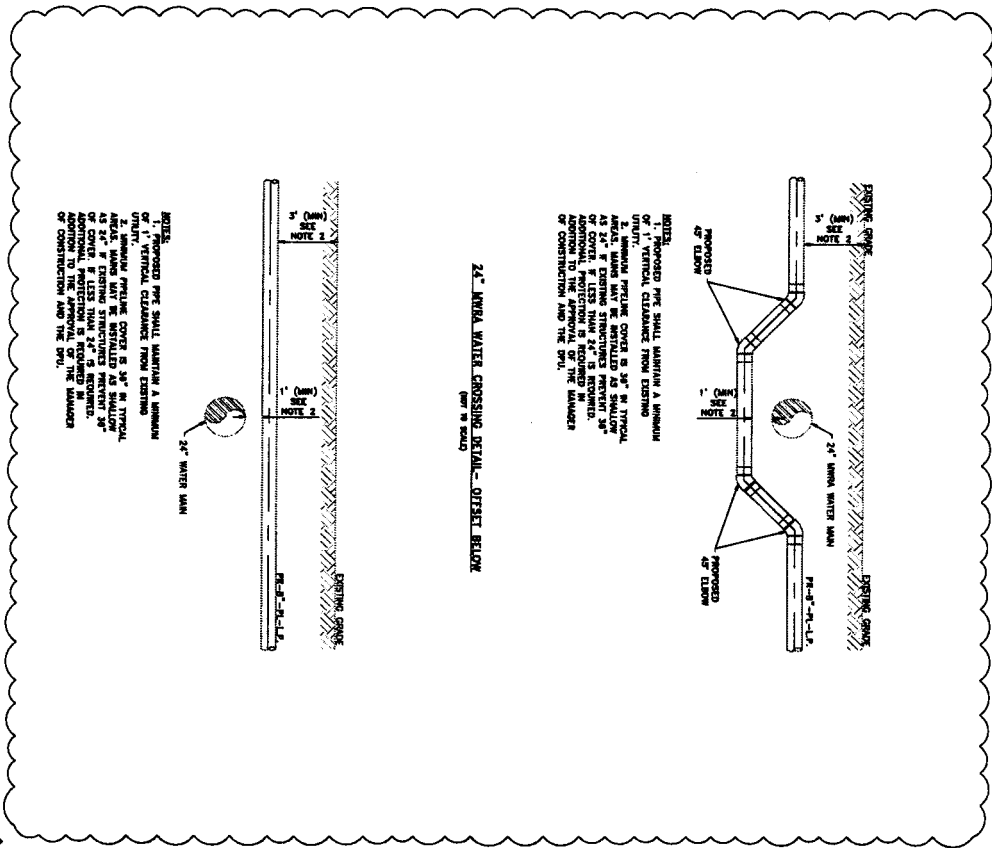
NO.	DESCRIPTION	DATE	BY	CHECKED
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2	REVISIONS	12/1/83	JL	JL
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4	REVISIONS	12/1/83	JL	JL
5	REVISIONS	12/1/83	JL	JL
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7	REVISIONS	12/1/83	JL	JL
8	REVISIONS	12/1/83	JL	JL
9	REVISIONS	12/1/83	JL	JL
10	REVISIONS	12/1/83	JL	JL

STATE AND COUNTY OF FLORIDA
 NATIONAL GRID
 NO. 12121
 DATE 12/1/83
 J.L.

NATIONAL GRID PROPOSED AND MAIN INSTALLATION
 300-300 W. WASHINGTON STREET
 TYPICAL CROSSING DETAIL
 SHEET NO. C-105
 SHEET 11 OF 11

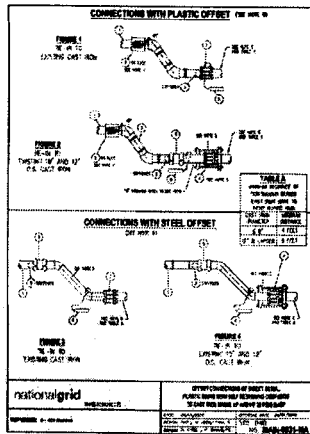
ENE-NEW-2108950.53
 SHEET NO. C-105

TYPICAL CROSSING DETAIL
 (NOT TO SCALE)



NOTES:
 1. PROPOSED PIPE SHALL MAINTAIN A MINIMUM OF 1' VERTICAL CLEARANCE FROM EXISTING UTILITY.
 2. MINIMUM PAVEMENT COVER IS 36\"/>

24" MINIA WATER CROSSING DETAIL - OFFSET BELOW
 (NOT TO SCALE)



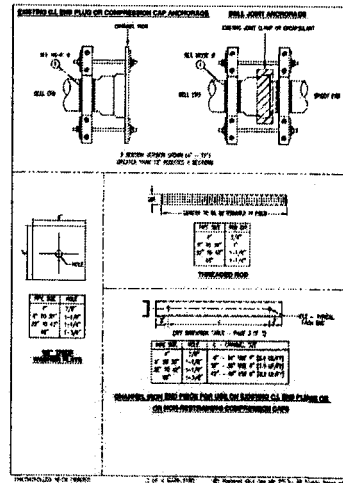
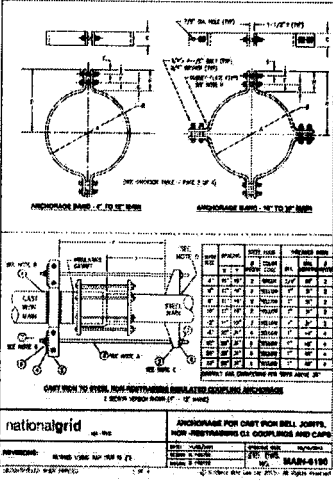
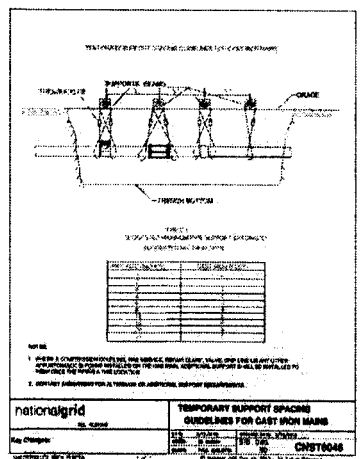
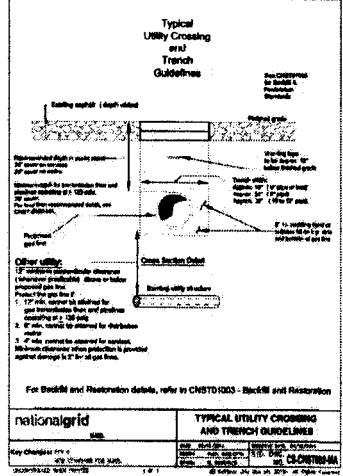
NOTE:

- THIS CONNECTION FOR STAINLESS STEEL SHALL BE USED FOR CONNECTIONS OF PLASTIC TO CAST IRON.
- THIS CONNECTION IS TO BE USED FOR CONNECTIONS OF STAINLESS STEEL TO CAST IRON.
- A CAST IRON BUSH CONNECTION SHALL BE USED WHERE STAINLESS STEEL SHALL BE USED FOR CONNECTIONS TO STAINLESS STEEL.
- TO MAINTAIN PROPER CLEARANCE, THE PLASTIC SHALL BE CUT TO FIT THE CAST IRON BUSH.
- TO MAINTAIN PROPER CLEARANCE, THE PLASTIC SHALL BE CUT TO FIT THE CAST IRON BUSH.
- TO MAINTAIN PROPER CLEARANCE, THE PLASTIC SHALL BE CUT TO FIT THE CAST IRON BUSH.
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- TO MAINTAIN PROPER CLEARANCE, THE PLASTIC SHALL BE CUT TO FIT THE CAST IRON BUSH.
- TO MAINTAIN PROPER CLEARANCE, THE PLASTIC SHALL BE CUT TO FIT THE CAST IRON BUSH.
- TO MAINTAIN PROPER CLEARANCE, THE PLASTIC SHALL BE CUT TO FIT THE CAST IRON BUSH.

ITEM #	DESCRIPTION	QTY	SHIP ITEM ID
1	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
2	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
3	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
4	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
5	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
6	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
7	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
8	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
9	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207
10	PIPE END F. BRASS/STEEL END FLANGE	10.00	080207

BILL OF MATERIAL

1	COPING END F. END FL. 1.5	AS PER	080203
1	COPING END F. END FL. 1.5	AS PER	080203
1	COPING END F. END FL. 1.5	AS PER	080203
1	COPING END F. END FL. 1.5	AS PER	080203
1	COPING END F. END FL. 1.5	AS PER	080203
1	COPING END F. END FL. 1.5	AS PER	080203
1	COPING END F. END FL. 1.5	AS PER	080203
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1	COPING END F. END FL. 1.5	AS PER	080203



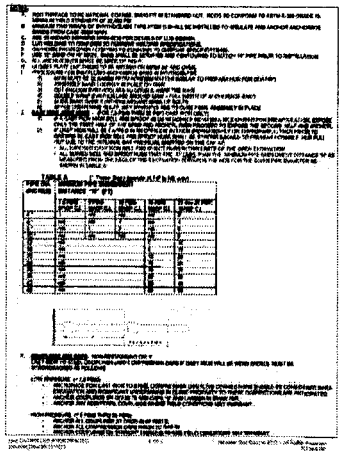
APPROVAL AND COMMENTS

NO.	DATE	BY	DESCRIPTION
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

BILL OF MATERIAL

ITEM #	DESCRIPTION	QTY	SHIP ITEM ID
1	ITEM # 1 DESCRIPTION QTY SHIP ITEM ID		
2	ITEM # 2 DESCRIPTION QTY SHIP ITEM ID		
3	ITEM # 3 DESCRIPTION QTY SHIP ITEM ID		
4	ITEM # 4 DESCRIPTION QTY SHIP ITEM ID		
5	ITEM # 5 DESCRIPTION QTY SHIP ITEM ID		
6	ITEM # 6 DESCRIPTION QTY SHIP ITEM ID		
7	ITEM # 7 DESCRIPTION QTY SHIP ITEM ID		
8	ITEM # 8 DESCRIPTION QTY SHIP ITEM ID		
9	ITEM # 9 DESCRIPTION QTY SHIP ITEM ID		
10	ITEM # 10 DESCRIPTION QTY SHIP ITEM ID		

nationalgrid



NOTE:
1. THESE DETAILS WERE PROVIDED BY NATIONAL GRID TO BE USED AS STANDARD INSTALLATION DETAILS FOR EQUIPMENT SHOWN ON THIS SHEET FOR REFERENCE ONLY.

EPC
ENR
100-11-11

Engineering
20 BURLINGTON STREET
BOSTON, MA 02116
TEL: 617-552-5000
FAX: 617-552-7777
WWW.ENR.COM

NO.	REVISION	DATE	BY	CHKD	APP'D
1	NO CHANGES TO THIS SHEET	04/19/2011	G.S.	S.S.	G.S.
2	NO CHANGES TO THIS SHEET	04/19/2011	T.R.	S.S.	G.S.
3	NO CHANGES TO THIS SHEET	04/19/2011	G.S.	S.S.	G.S.
4	SHARP FOR CONSTRUCTION	04/19/2011	G.S.	S.S.	G.S.

BOSTON GAS COMPANY
GAS

nationalgrid

40 DEWEY ROAD
NEWTON, MA 02459

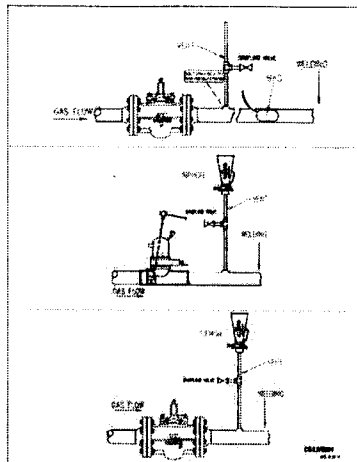
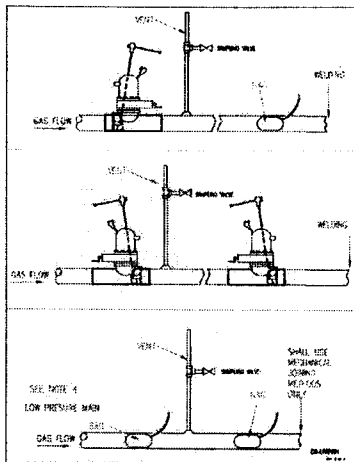
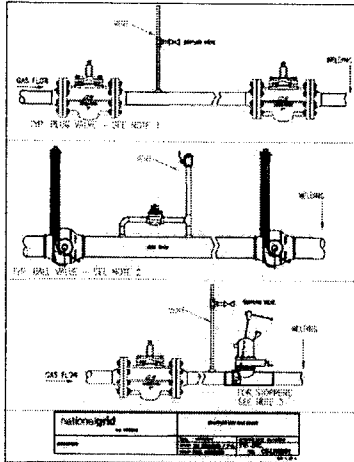
IPC

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
888-888 WARD STREET
NEWTON, MASSACHUSETTS
MISCELLANEOUS DETAILS

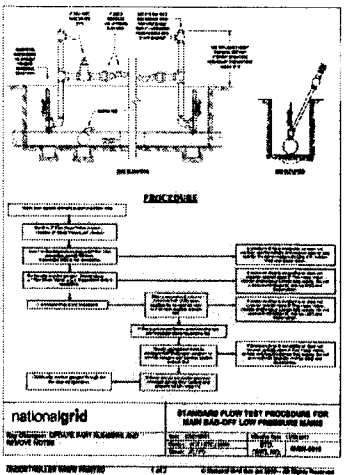
DATE	DESIGNER	CHECKER	DATE	ASSET ID	U.S. NO.
04/19/2011	S. GORDON	S. SOLEMAN	04/19/2011	0000000000	1498994

HEET 13 OF 17

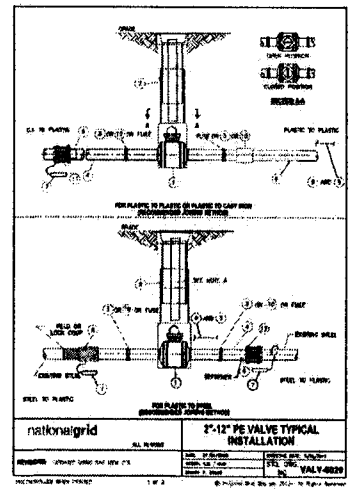
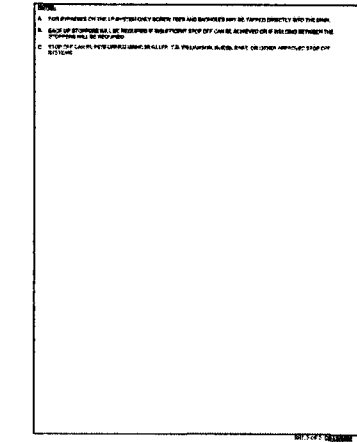
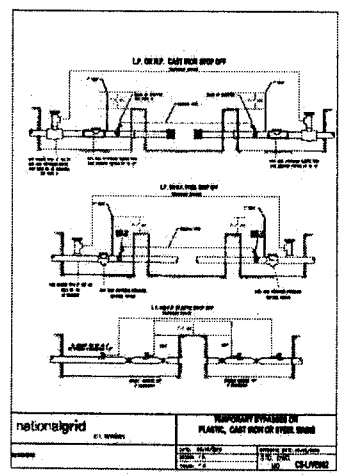
BRANDING NO.	SHEET NO.
ENE-NEW-2105950.53	C-201



- NOTES:
1. PLUG VALVES SHOULD BE CHECKED PRIOR TO SHUTTING OFF TO INSURE TEST SHUTOFF.
 2. USE THE BALL VALVE'S BLOCK AND BLEED AND / OR PURGE ASSEMBLY IF AVAILABLE TO BURY GAS BETWEEN THE TWO CLOSED VALVES.
 3. REFER TO MANUFACTURER'S LITERATURE FOR PRESSURE LIMITS OF STOPPERS AND DRILLING EQUIPMENT.
 4. WELDING SHALL NOT BE PERFORMED AGAINST A BAG WHERE THE BAG IS USED AS THE PRIMARY MEANS OF STOPPING THE GAS FLOW. SEE STOP-OFF OPERATIONS ON LOW PRESSURE MAINS BEST PRACTICE.



ITEM	QTY	DESCRIPTION
1	1	STOP VALVE
2	1	STOP VALVE
3	1	STOP VALVE
4	1	STOP VALVE
5	1	STOP VALVE
6	1	STOP VALVE
7	1	STOP VALVE
8	1	STOP VALVE
9	1	STOP VALVE
10	1	STOP VALVE
11	1	STOP VALVE
12	1	STOP VALVE
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23	1	STOP VALVE
24	1	STOP VALVE
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26	1	STOP VALVE
27	1	STOP VALVE
28	1	STOP VALVE
29	1	STOP VALVE
30	1	STOP VALVE



ITEM	QTY	DESCRIPTION
1	1	STOP VALVE
2	1	STOP VALVE
3	1	STOP VALVE
4	1	STOP VALVE
5	1	STOP VALVE
6	1	STOP VALVE
7	1	STOP VALVE
8	1	STOP VALVE
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25	1	STOP VALVE
26	1	STOP VALVE
27	1	STOP VALVE
28	1	STOP VALVE
29	1	STOP VALVE
30	1	STOP VALVE

NOTE:
1. THESE DETAILS WERE PROVIDED BY NATIONAL GRID TO BE USED AS STANDARD INSTALLATION DETAILS FOR EQUIPMENT SHOWN ON THIS SHEET FOR REFERENCE ONLY.

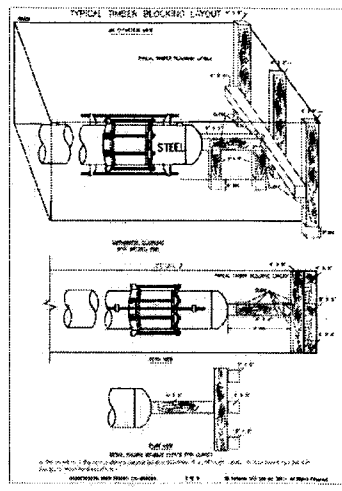
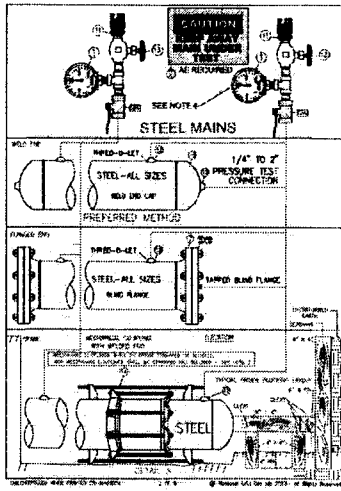
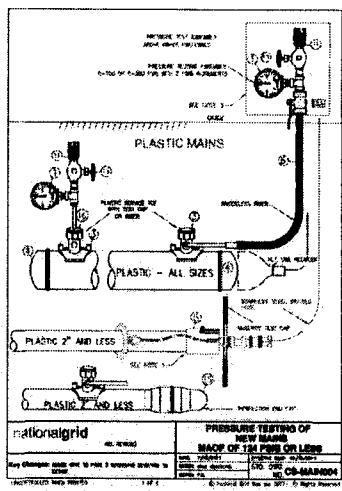
ENR Engineering
20 SHARPLEY STREET
WINDSOR, MA 01892
TEL: 508-363-4000
FAX: 508-363-7774
WWW.ENRENGINEERING.COM

NO.	DESCRIPTION	DATE	BY	CHECKED BY	APP. BY
1	NO CHANGES TO THIS SHEET	06/19/2012	E.A.	S.L.	E.A.
2	NO CHANGES TO THIS SHEET	06/19/2012	T.R.	S.L.	E.A.
3	NO CHANGES TO THIS SHEET	06/19/2012	E.A.	S.L.	E.A.
4	ORIGIN FOR CONSTRUCTION	06/19/2012	E.A.	S.L.	E.A.

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
895-895 WARD STREET
NEWTON, MASSACHUSETTS
MISCELLANEOUS DETAILS

ONE SIZE DESIGNER CHECKER DATE ASSET ID. T.O. NO.
27'x34" K. WOODRUFF E. SOLEMAN 06/19/2012 DESIGNED 110004

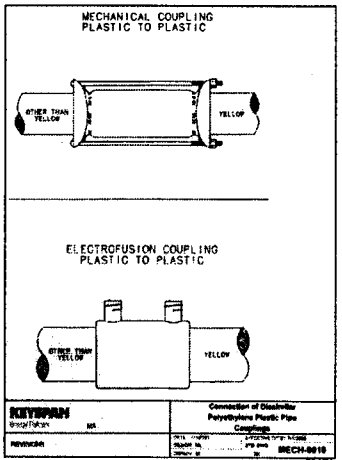
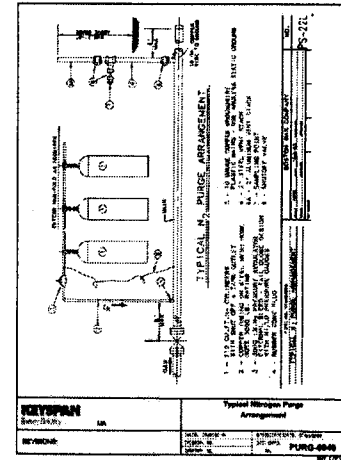
SHEET 14 OF 17	
DRAWING NO.	SHEET NO.
ENE-NEW-2105950.53	C-202



MATERIALS TO BE USED IN THIS PROJECT		QUANTITY	
ITEM NO.	DESCRIPTION	AMOUNT	UNIT
1	1/2\"/>		
2	1/4\"/>		
3	1/2\"/>		
4	1/4\"/>		
5	1/2\"/>		
6	1/4\"/>		
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29	1/2\"/>		
30	1/4\"/>		

MATERIALS TO BE USED IN THIS PROJECT		QUANTITY	
ITEM NO.	DESCRIPTION	AMOUNT	UNIT
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2	1/4\"/>		
3	1/2\"/>		
4	1/4\"/>		
5	1/2\"/>		
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27	1/2\"/>		
28	1/4\"/>		
29	1/2\"/>		
30	1/4\"/>		

ITEM	DESCRIPTION	QUANTITY	UNIT
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2	1/4\"/>		
3	1/2\"/>		
4	1/4\"/>		
5	1/2\"/>		
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30	1/4\"/>		



NOTE:
1. THESE DETAILS WERE PROVIDED BY NATIONAL GRID TO BE USED AS STANDARD INSTALLATION DETAILS FOR EQUIPMENT SHOWN ON THIS SHEET FOR REFERENCE ONLY.



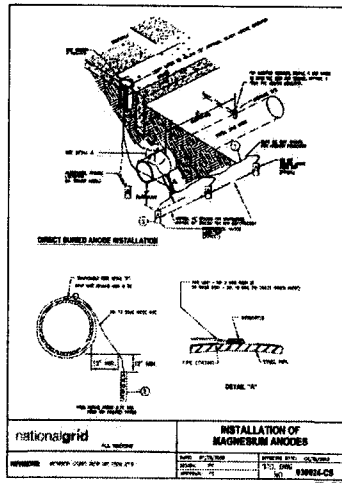
Engineering
40 SHAWLEY STREET
WILMINGTON, MA 01978
TEL: 603-363-0229
FAX: 603-363-7777
WWW.ENECORPORATION.COM

NO.	DESCRIPTION	DATE	BY	CHKD.	APP'D.
1	NO CHANGES TO THIS SHEET	06/14/2002	E.A.	E.A.	
2	NO CHANGES TO THIS SHEET	06/14/2002	V.A.	E.A.	
3	NO CHANGES TO THIS SHEET	06/14/2002	E.A.	E.A.	
4	ISSUED FOR CONSTRUCTION	06/14/2002	E.A.	E.A.	

BOSTON GAS COMPANY
nationalgrid
40 SHAWLEY ROAD
WILMINGTON, MA 01978
IPC

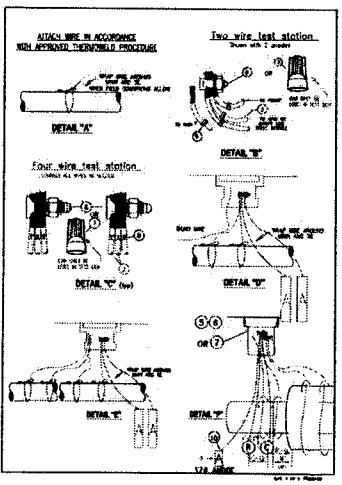
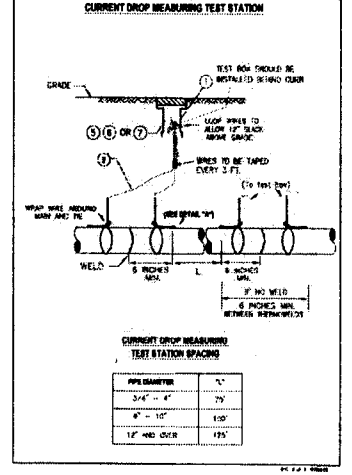
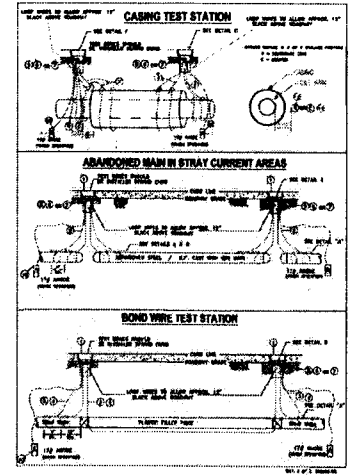
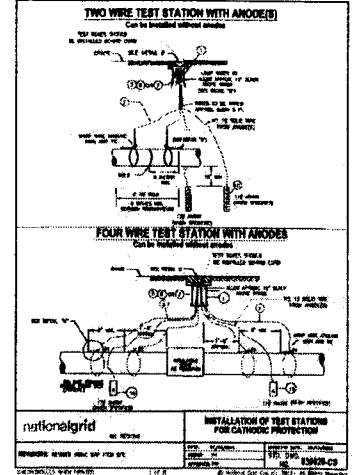
NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
393-395 WARD STREET
NEWTON, MASSACHUSETTS
MISCELLANEOUS DETAILS
DATE: 06/14/2002
DESIGNED BY: S. WILKINSON
CHECKED BY: S. WILKINSON
SCALE: 1/8\"/>

SHEET 15 OF 17	
DRAWING NO.	SHEET NO.
ENE-NEW-2105950.53	C-203



MATERIAL LIST

Description	Quantity	Material	Notes
1. CABLE NO. 14-2	100	14-2	14 AWG
2. ANODE MAGNESIUM	100	100	100
3. ANODE MAGNESIUM	100	100	100
4. ANODE MAGNESIUM	100	100	100
5. ANODE MAGNESIUM	100	100	100
6. ANODE MAGNESIUM	100	100	100
7. ANODE MAGNESIUM	100	100	100
8. ANODE MAGNESIUM	100	100	100
9. ANODE MAGNESIUM	100	100	100
10. ANODE MAGNESIUM	100	100	100



MATERIAL LIST

Description	Quantity	Material	Notes
1. WIRE MAGNESIUM	100	100	100
2. ANODE MAGNESIUM	100	100	100
3. ANODE MAGNESIUM	100	100	100
4. ANODE MAGNESIUM	100	100	100
5. ANODE MAGNESIUM	100	100	100
6. ANODE MAGNESIUM	100	100	100
7. ANODE MAGNESIUM	100	100	100
8. ANODE MAGNESIUM	100	100	100
9. ANODE MAGNESIUM	100	100	100
10. ANODE MAGNESIUM	100	100	100

MATERIAL LIST

Description	Quantity	Material	Notes
1. WIRE MAGNESIUM	100	100	100
2. ANODE MAGNESIUM	100	100	100
3. ANODE MAGNESIUM	100	100	100
4. ANODE MAGNESIUM	100	100	100
5. ANODE MAGNESIUM	100	100	100
6. ANODE MAGNESIUM	100	100	100
7. ANODE MAGNESIUM	100	100	100
8. ANODE MAGNESIUM	100	100	100
9. ANODE MAGNESIUM	100	100	100
10. ANODE MAGNESIUM	100	100	100

NOTE:
1. THESE DETAILS WERE PROVIDED BY NATIONAL GRID TO BE USED AS STANDARD INSTALLATION DETAILS FOR EQUIPMENT SHOWN ON THIS SHEET FOR REFERENCE ONLY.



ENR Engineering
20 SHAWLEY STREET
NEWTON, MASSACHUSETTS 02459
TEL: 617-552-3333
FAX: 617-552-7777
WWW.ENRENGINEERING.COM

NO.	DESCRIPTION	DATE	BY	CHKD	APP'D
1	NO CHANGES TO THIS SHEET	06/14/2007	R.S.	R.S.	R.S.
2	NO CHANGES TO THIS SHEET	06/14/2007	VA.	R.S.	R.S.
3	NO CHANGES TO THIS SHEET	06/14/2007	R.S.	R.S.	R.S.
4	REVISION FOR CHANGES	06/14/2007	R.S.	R.S.	R.S.

BOSTON GAS COMPANY
43A/4
nationalgrid
40 STURM ROAD
SALISBURY, MA 01901

NATIONAL GRID PROPOSED GAS MAIN INSTALLATION
890-895 WARD STREET
NEWTON, MASSACHUSETTS
MISCELLANEOUS DETAILS

DATE: 06/14/2007
DESIGNED BY: R. GIBSON
DRAWN BY: S. SOLEMAN
CHECKED BY: R. GIBSON
DATE: 06/14/2007
PROJECT NO.: 140894

SHEET 16 OF 17

DRAWING NO.	SHEET NO.
ENE-NEW-2105950.53	C-204

