

CITY OF NEWTON

IN BOARD OF ALDERMEN

PUBLIC FACILITIES COMMITTEE AGENDA

WEDNESDAY, NOVEMBER 7, 2012

7 PM
Room 209

THE FOLLOWING THREE ITEMS ARE SCHEDULED FOR PUBLIC HEARING:

- #314-12 HIS HONOR THE MAYOR requesting a water main be extended through a proposed easement from an existing water main in the public way portion of Boulder Road a distance of approximately 300' across the private way portion of BOULDER ROAD to an existing water main in DEDHAM STREET. [10/10/12 @ 11:11 AM]
- #355-12 NATIONAL GRID requesting a grant of location to install and maintain 110' ± of 4" gas main in WINSTON ROAD from the existing 4" gas main at 46 Winston Road westerly to 38 Winston Road. (Ward 5) 10/10/12 @ 1:47 PM]
- #356-12 NSTAR ELECTRIC petitioning for a grant of location to install 12,432' ± of supplemental 8" diameter steel cooling circulation pipeline and a 4" conduit in the same trench in DEDHAM STREET from the Boston town line near the intersection of Spiers Road and Dedham Street to the intersection of Dedham, Winchester and Needham Streets. The project also includes the installation of eleven street rated hand-holes (3' x 3' x 3) in Dedham Street to facilitate the installation of fiber optic cable as shown on the plan and profile drawings. The pipeline and conduit will continue down Needham Street (state road) to the Elliot Street Substation. NStar is requesting the grant of location in order to address the need to provide additional electric transmission reliability and capacity to address current and future demand supply at the existing Elliot Street Substation #292 in Newton. (Ward 5 & 8) [10-18-12 @ 4:34 PM]

ITEMS SCHEDULED FOR DISCUSSION:

REFERRED TO PROG & SERV AND PUBLIC FACILITIES COMMITTEES

- #302-12 HIS HONOR THE MAYOR, with the support of Ald. Rice, Crossley, Yates, Fischman, and Kalis, requesting authorization to execute a 99-year lease between the City of Newton and the Massachusetts Bay Transportation Authority (MBTA) for .97 miles of unused MBTA rail bed that runs parallel to Needham Street to create a multi-purpose recreational pathway. [09/24/12 @ 5:00 PM]

The location of this meeting is handicap accessible, and reasonable accommodations will be provided to persons requiring assistance. If you have a special accommodation need, please contact the Newton ADA Coordinator Trisha Guditiz, 617-796-1156, via email at TGuditiz@newtonma.gov or via TDD/TTY at (617) 796-1089 at least two days in advance of the meeting date.

- #99-12 ALD. LAREDO, ALBRIGHT, CROSSLEY & KALIS requesting a discussion with His Honor the Mayor regarding the creation of a long-range master plan (20-25 years) regarding the means, methods, timing, and coordination to address the City's complete infrastructure needs, including but not limited to school buildings, fire stations, other municipal buildings, streets, sidewalks, trees, playgrounds and other recreational facilities, water, stormwater, and sewer systems, and all other facilities and infrastructure identified in the city's recent capital assessment. The master plan should be comprised of specific plans from individual departments and at a minimum, the master plan should (a) identify those infrastructure needs and (b) present a phased plan, with identifiable funding sources for meeting those needs. [04-04-12 @ 10:30 PM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

- #319-12 ALD. FULLER, LAPPIN AND SALVUCCI requesting a discussion of the benefits and drawbacks of using a Construction Manager at Risk and the most effective ways of managing construction and controlling costs. [10/02/12 @ 10:57 AM]

The Committee will meet jointly with Programs & Services to discuss the following item:

REFERRED TO PROGRAMS & SERV. AND PUBLIC FACILITIES COMMITTEES

- #315-12 ALD. FULLER, RICE AND GENTILE of the Angier School Building Committee providing updates and discussion on the Angier School Building project as it develops through the site plan approval process. [10-02-12 @ 3:37PM]

ITEMS NOT SCHEDULED FOR DISCUSSION:

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

- #54-12(2) PUBLIC FACILITIES COMMITTEE proposing that Chapter 26, Section 71 (b)(1) & (2) and Section 73(c)(2) of the City of Newton Ordinances be amended by increasing the assessment minimum from five hundred dollars (\$500) to no more than two thousand dollars (\$2,000). [10/17/12]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

- #41-10(2) COMMUNITY PRESERVATION COMMITTEE requesting authorization to appropriate the sum of one hundred eighty thousand dollars (\$180,000) from the Community Preservation Fund for the purpose of providing supplemental funding for the Newton Community Farm Barn Rehabilitation Project.

REFERRED TO FINANCE AND APPROPRIATE COMMITTEES

- #322-12 HIS HONOR THE MAYOR submitting the FY14-FY18 Capital Improvement Program pursuant to section 5-3 of the Newton City Charter. [10/09/12 @ 2:38 PM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

- #320-12 ALD. SALVUCCI AND GENTILE requesting a discussion with the Engineering Division of the Public Works Department regarding the billing and collecting of street opening permit fees. [09/28/12 @ 10:28 AM]

REFERRED TO PUB.FAC, ZONING&PLANNING, PROG & SERV COMMITTEES

- #316-12 DEPARTMENT HEADS HAVENS, ZALEZNIK, LOJEK requesting amendments to **Sec. 26-30. Licenses for cafe furniture on sidewalks.** to streamline the procedure allowing businesses to place café furniture on public sidewalks. [09/24/12 @3:17 PM]

REFERRED TO FINANCE AND APPROPRIATE COMMITTEES

- #257-12 RECODIFICATION COMMITTEE recommending (1) review of the Fees, Civil Fines/Non-Criminal Disposition contained in Chapter 17 LICENSING AND PERMITS GENERALLY and Chapter 20 CIVIL FINES/NON-CRIMINAL DISPOSITION CIVIL FINES to ensure they are in accordance with what is being charged and (2) review of the acceptance of G.L. c. 40 §22F, accepted on July 9, 2001, which allows certain municipal boards and officers to fix reasonable fees for the issuance of certain licenses, permits, or certificates.

REFERRED TO PROG & SERV, PUB. FAC., ZAP, AND FINANCE COMMITTEES

- #256-12 ALD. HESS-MAHAN, SANGIOLO & SWISTON proposing an ordinance promoting economic development and the mobile food truck industry in the City of Newton. [08/06/12 @4:46 PM]
- #246-12 RECODIFICATION COMMITTEE recommending Sec. 25-1, which requires a permit to create a trench, be reviewed to determine if a new section relative to excavation should be established to regulate unsafe excavation beyond the regulation of trenches, as the City Engineer has advised that all trenches are excavations, but not all excavations are trenches, which amendment would replace **Sec. 20-53. Excavations; protection; erection of barriers.**, which was deleted as part of recodification because it conflicted with Sec. 25-1.
- #245-12 RECODIFICATION COMMITTEE recommending that Chapter 11, RECYCLING AND TRASH as most recently amended by Ordinance Z-68 and Z-87, dated 6/21/10 and 5/16/11, respectively, be reviewed and be amended as necessary.
- #244-12 LEO D. SULLIVAN requesting an opportunity to make a presentation on a Community Choice Aggregation Program to lower the electric power rates for residents of Newton. 06/22/12 @ 1:36 PM

REFERRED TO PUBLIC FACILITIES AND PROGRAMS & SERVICES COMMITTEES

- #231-12 RECODIFICATION COMMITTEE recommending that **Sec. 11-11. Permit to cart trash and/or recyclable materials.** be deleted as G.L.c.111 §31A authorizes the Health Department to require registration. for “garbage,” which is addressed in Sec. 11-5.

REFERRED TO PROG & SERV AND PUBLIC FACILITIES COMMITTEES

- #170-12 ALD. SANGIOLO, BAKER, BLAZAR, JOHNSON, and YATES requesting the creation of an ordinance to govern the naming of public assets of the City, including the interior and exterior features of public buildings, lands, and water bodies of the City, as well as any public facilities and equipment associated with them, all to serve the best interests of the City and to insure a worthy and enduring legacy for the City's physical facilities and spaces, including appropriately honoring historic events, people, and places. [05/29/12 @ 1:34 PM]
- #98-12 ALD. SALVUCCI AND CICCONE requesting an update on the new water meter installation project and information on how the meters and related equipment are functioning. [03-27-12 @ 9:06 AM]

REFERRED TO PROG. & SERV AND PUBLIC FACILITIES COMMITTEES

- #36-12 ALD. CROSSLEY & FULLER requesting Home Rule legislation or an ordinance to require inspections of private sewer lines and storm water drainage connections prior to settling a change in property ownership, to assure that private sewer lines are functioning properly and that there are no illegal storm water connections to the city sewer mains.
- A) Sewer lines found to be compromised or of inferior construction would have to be repaired or replaced as a condition of sale;
 - B) Illegal connections would have to be removed, corrected, and re-inspected in accordance with current city ordinances and codes, as a condition of sale.
- [01/24/12 @ 8:07 AM]
- #418-11 ALD. CROSSLEY, HESS-MAHAN, LINSKY AND SALVUCCI requesting a report from the administration on the status of a strategy to meet the City's obligation as a Department of Energy Resources Green Community to reduce municipal energy consumption by 20% over five years, and how that strategy is incorporated into the capital improvement plan. [12/08/11 @ 4:09 PM]

REFERRED TO PS&T AND PUBLIC FACILITIES COMMITTEES

- #413-11 ALD. CICCONE, SALVUCCI, GENTILE & LENNON updating the Public Facilities and Public Safety & Transportation Committees on the progress of renovations to the city's fire stations. [11-17-11 @ 11:07 AM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

- #383-11(4) HIS HONOR THE MAYOR recommending that Section 29-80 (b)(1) of the City of Newton Revised Ordinances, 2007 be amended by revising the stormwater rates as follows: single-family residences \$25 per year, two-family residences \$37.50 per year, and multi-family (3 units or more), commercial, industrial, and institutional properties (to include non-profits) would be charged at a rate of \$25 per Equivalent Residential Unit of 2,600 square feet of impervious surface on the property to take effect on July 1, 2012. [04-09-12 @ 2:39 PM]

#352-11 ALD. JOHNSON & SCHNIPPER requesting a discussion with the Utilities Department regarding the City of Newton's current water billing practices. [10/14/11 @ 2:31 PM]

#172-11 ALD. CROSSLEY, FULLER AND SCHNIPPER requesting discussion with the Utilities Division of the Public Works Department regarding the identification of storm water inflow connections to the sewer system, so as to begin the process of systematically eliminating such illegal connections, including notifications to property owners, educational materials, requirements for corrective actions and technical and financial assistance that may be available from the City in order to facilitate removal of inflow connections. [05/26/11 @3:33 PM]

#139-11 ALD. LINSKY, DANBERG & SALVUCCI proposing that §26-71, 26-72 and 26-73, **Sidewalk construction requested by owners, Materials for sidewalk construction, and New curbing installation**, respectively, be amended to extend participation in the betterment program to property owners who voluntarily pay the residual 50% of the costs over time in addition to the 50% initial payment provided under the ordinance. [04-27-11 @9:38 AM]

#138-11 ALD. CROSSLEY AND SCHNIPPER requesting a report from the Department of Public Works regarding the energy use and maintenance costs for the City's streetlights and gaslights and costs/payback associated with recommended energy efficiency measures. [04-21-11 9:08 AM]

REFERRED TO PS&T AND PUBLIC FACILITIES COMMITTEE

#41-11 ALD. JOHNSON, LENNON AND DANBERG requesting discussion of the elimination, except during snow emergencies, of the overnight parking ban which is in effect from November 15 through April 15. [01/18/11 @ 9:00 PM]

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#311-10(A) HIS HONOR THE MAYOR requesting an appropriation in the amount of three million three hundred thirty-five thousand dollars (\$3,035,000) from bonded indebtedness for the purpose of funding the FY 2011 Capital Improvement Plan projects as follows: [11/29/ 10 @ 3:23 PM]

Architectural Design and Engineering/Next Scheduled Fire Station \$400,000
A-2 - HELD 6-0 \$270,000 for final design bidding and construction admin on 12/08/10

REFERRED TO PROG & SERV AND PUBLIC FACILITIES COMMITTEES

#245-10 ALD. SCHNIPPER AND SANGIOLO requesting discussion with National Grid regarding the possible damage to trees as a result of gas leaks. [09/01/10 4:00 PM]

- #244-10 ALD. SALVUCCI requesting discussion with the Utilities Director and the Public Works Commissioner regarding the possibility of installing second water meters for outside irrigation. [08/17/10 @ 12:18 PM]
- #223-10 ALD. YATES & ALBRIGHT requesting updates on the status of the reconstruction of the Needham/Newton Street corridor, which include details on the reconstruction funding, plans for the revitalization of the area, and plans for the implementation of transportation improvements. [07/15/10 @ 1:02 PM]
- #367-09 PUBLIC FACILITIES COMMITTEE requesting discussion with the Law Department on how to resolve the dispute with NStar regarding whose responsibility it is to repair the streetlight connection between the manhole and the base of the streetlight. [10/21/09 @ 9:00 PM]
- #175-09 PUBLIC FACILITIES COMMITTEE requesting monthly updates from the Department of Public Works on the Commonwealth Avenue project. [06-03-09 @ 10:30 PM]
- #253-07 ALD. LINSKY ALBRIGHT, JOHNSON, HARNEY, SANGIOLO, SALVUCCI, MANSFIELD, BURG, SCHNIPPER requesting (1) a review as to how provisions of applicable ordinances, specifically 5-58, were implemented during the course of the Newton North project, and (2) consider proposed revisions of 5-58 including, but not limited to:
- (a) timely provision of documentation by the public building department to the Board of Aldermen and Design Review Committee;
 - (b) establishment of liaison committees to facilitate communications and input from neighborhoods affected by projects subject to this ordinance;
 - (c) approval of final design plans by the Board of Aldermen of projects subject to this ordinance;
 - (d) oversight during the construction phase of projects subject to this ordinance by appropriate Board committee(s) both in respect to approval of change orders as well as design changes; and
 - (e) generation of a required record detailing the entire construction process by the public building department to guide present and future oversight of projects subject to this ordinance. [08/07/07 @ 3:12 PM]
 - (f) establishment of a committee to provide oversight for public building construction and renovation during all phases of planning, design and construction.

Respectfully submitted,

Anthony J. Salvucci, Chairman



DEPARTMENT OF PUBLIC WORKS

OFFICE OF THE COMMISSIONER
1000 Commonwealth Avenue
Newton Centre, MA 02459-1449

Setti D. Warren
Mayor

October 9, 2012

To: Mayor Setti D. Warren

From: David F. Turocy, Commissioner of Public Works

Via: Robert R. Rooney, Chief Operating officer

Re: Request for Land Taking of Main Drain and Sewer Easement,
Private Way Portion of Boulder Road
For Connection (Looping) of Dead End Water Main

APPROVED

10-9-12

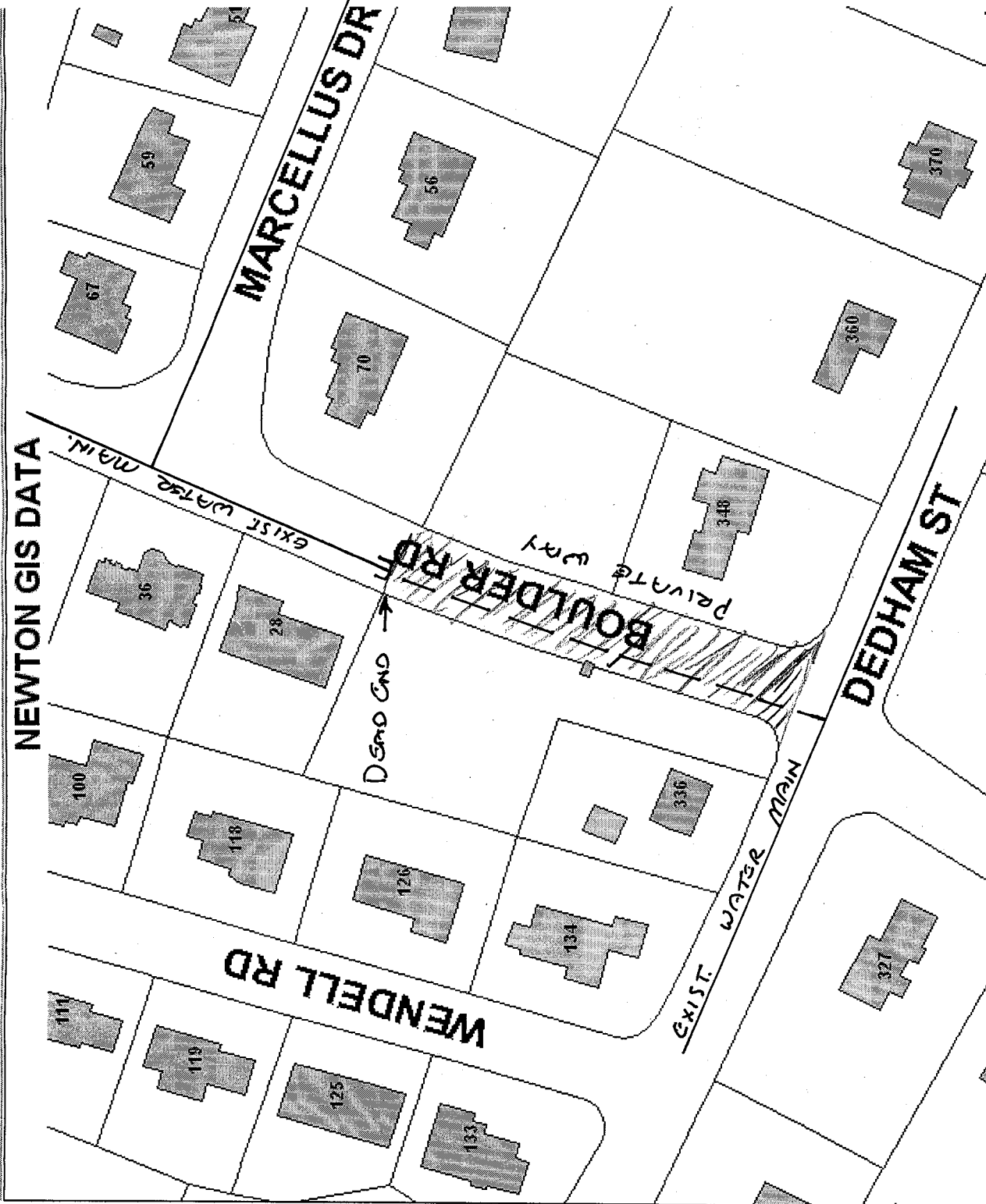
Public Works intends to connect the dead end portion of the existing water main in Boulder Road to an existing water main in Dedham Street. This connection is for the purpose of looping the water main and eliminating the dead end, thereby improving water quality in this neighborhood. See sketch attached.

Currently, the City has no permanent easement in the private way portion of Boulder Road. The easement is taken for the purpose of maintaining the water main. The easement may also be used for sewer and drain extensions at some time in the future, although none are proposed at this time.

Should you agree to take the permanent easement, please ask the City Clerk to place the matter on the docket of the Public Facilities Committee of the Board of Aldermen for their consideration at the next available meeting date. Engineering is currently preparing the easement plan.

cc: R. Waddick, Law Department
L. Taverna, City Engineer
F. Russell, Director of Utilities

RECEIVED
Newton City Clerk
2012 OCT 10 AM 11:11
DAVID A. OLSON, CMC
NEWTON, MA 02459



NEWTON GIS DATA

The information on this map is from the Newton Geographic Information System (GIS). The City of Newton cannot guarantee the accuracy of this information. Each user is responsible for determining the data's suitability for its intended purpose.
 City departments will not approve applications based solely on GIS data. City staff correct errors as they are identified.

Property Location:
 No Property Selected

Property ID:

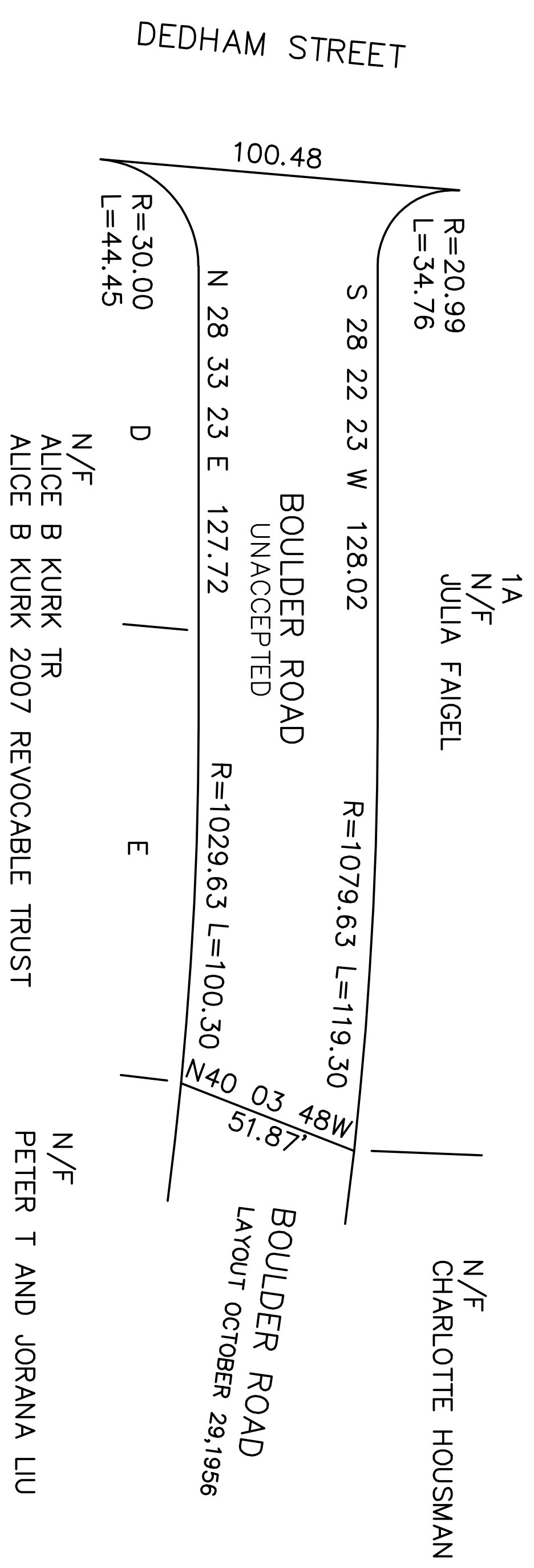
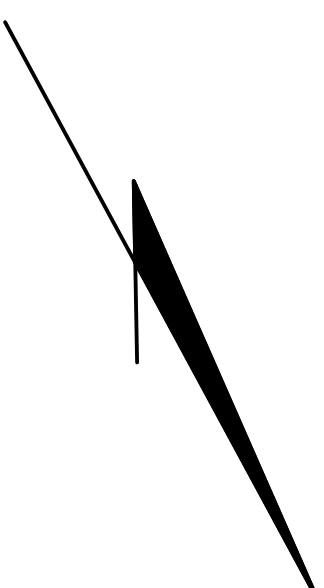
Land Use: Lot Size:

1 inch = 100 Feet
 MAP DATE: October 09, 2012

Legend:

- Property Boundaries
- Easements
- 10 ft Contours
- 2 ft Contours
- Wetlands
- Floodplains
- Rivers Prot. Areas

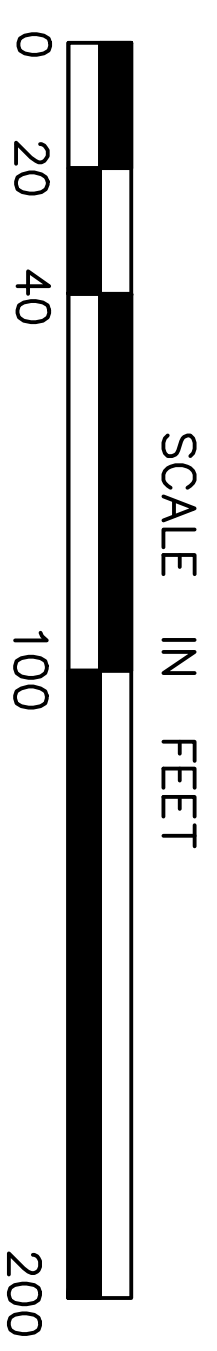
North Arrow: N, S, E, W



I CERTIFY THAT THIS PLAN CONFORMS WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS OF THE COMMONWEALTH OF MASSACHUSETTS

APPROVAL OF THIS PLAN UNDER THE SUBDIVISION CONTROL LAW NOT REQUIRED

TREES, LANDSCAPING, WALLS, STRUCTURES, BUILDINGS UTILITIES, AND ANY OTHER FEATURES ARE NOT SHOWN



BOULDER ROAD
 LAND TAKEN FOR MAIN
 DRAIN AND COMMON SEWER
 SCALE 1" = 40' OCTOBER 10, 2012
 LOUIS M. TAVERNA P.E. CITY ENGINEER
 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 Public Works Department for a preliminary review before the applicant files the petition with the Board of Aldermen. The comments of the Public Works Commissioner will be part of the record submitted to the Board of Aldermen. Upon filing with the Board of Aldermen, the petition will be scheduled for a public hearing before the Public Facilities Committee of the Board of Aldermen. **The petitioner is responsible for insuring that the petition is complete and all required materials are in order for review.** Attached please find the City Engineer's Standard Requirements for Plans and the Department of Public Works Permit Processing brochure.

Grant of Location Process:

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

Questions may be directed to:

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

RECEIVED
Newton City Clerk
2012 OCT 10 PM 1:47
David A. Olson, CMC
Newton, MA 02459

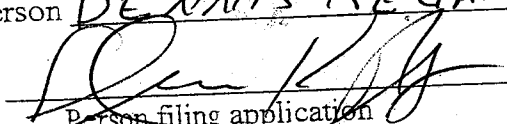
IDENTIFICATION (Please Type or Print Clearly)

Company Name NATIONAL GRID

Address 40 SYLVAN RD
WALTHAM MA 02451

Phone Number 617-293-0480 Fax Number _____

Contact Person DENNIS REGAN Title PERMIT REPRESENTATIVE

 Date 10-10-12

Person filing application

ations company, indicate how certified by the Department of Telecommunications and

IN OF PROJECT: to be completed by petitioner

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

TO INSTALL AND MAINTAIN APPROXIMATELY 110 FEET OF 4 INCH GAS MAIN IN WINSTON RD NEWTON. FROM THE EXISTING 4 INCH GAS MAIN AT HOUSE #46 WESTERLY TO HOUSE #39 FOR A NEW GAS SERVICE

B. Include or attach a sketch to provide a visual description of the project. If plans are attached, provide:
Title of Plan 38 WINSTON RD NEWTON MA Date of plan 10-2-2012
02459

III. PUBLIC WORKS DEPARTMENT REVIEW

Date received by Public Works Department _____

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:
10/11/12

RECOMMENDATIONS:

- | | |
|---|---|
| 1. Street opening permit required from City of Newton | 1. 36" minimum cover on all trench areas |
| 2. Notify Engineering 48 hours prior to work | 2. Backfill shall be 95% compaction |
| 3. Police detail required | 3. Bituminous concrete roadways shall be replaced in kind to City of Newton specifications |
| | 4. Bituminous concrete sidewalks and concrete curbs damaged shall be replaced in kind and grade to City of Newton specifications. |
| | 5. Trees shall be protected from any damage. |

All permit fees must be paid prior to beginning construction. 6. Traffic shall be maintained.

V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:

L. Tavana 10/11/12

[Signature]
Commissioner, Public Works

10/11/12
Date

PETITION OF NATIONAL GRID FOR GAS MAIN LOCATIONS

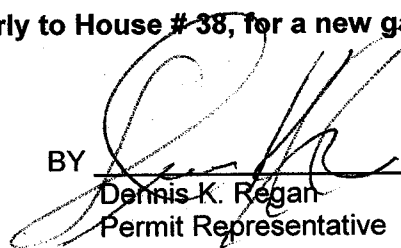
#355-12

City of Newton/ Board of Alderman:--

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

**To install and maintain approximately 110 feet more or less of 4 inch gas main in Winston Rd, Newton.
From the existing 4 inch gas main at House # 46 Westerly to House # 38, for a new gas service.**

DATE October 9, 2012

BY 
Dennis K. Regan
Permit Representative

ORDER FOR GAS MAIN LOCATION

City of Newton/ Board of Alderman:

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 dated October 9, 2012 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.

Dated this _____ day of _____, 20 ____.

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

BY _____

Title

RECEIVED
Newton City Clerk
2012 OCT 10 PM 1:47
David A. Olson, CMD
Newton, MA 02459

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

Final Label Report

Winston

| SBL | Owner | Number | Street | Unit |
|-------------|---------------------------------|--------|----------------|------|
| 81051 0029 | WANG DA ZHI | 70 | BURDEAN RD | |
| 81051 0042 | SAGE WILLIAM & MARCI | 59 | LITTLEFIELD RD | |
| 81051 0043 | SEGAL MAX | 75 | LITTLEFIELD RD | |
| 81051 0029A | BOVARNICK CHERYL | 15 | WINSTON RD | |
| 81051 0022K | GOODSTEIN MARK K & SHERRI F | 20 | WINSTON RD | |
| 81051 0047A | BAMEL JON | 28 | WINSTON RD | |
| 81051 0022J | WILCOX SARAH W | 30 | WINSTON RD | |
| 81051 0022H | EMANI SIRISHA & SLTARAM M | 38 | WINSTON RD | |
| 81051 0022G | GORDON ANGELA & WILLIAM | 46 | WINSTON RD | |
| 81051 0022F | RABB MICHAEL | 54 | WINSTON RD | |
| 81051 0028A | GOYAL PREM & RAJ K | 61 | WINSTON RD | |
| 81051 0022E | BOVARNICK JON & JILL D | 62 | WINSTON RD | |
| 81051 0028 | GORELIK LEONID | 69 | WINSTON RD | |
| 81051 0022D | SCHNEIDER ARLYN B | 70 | WINSTON RD | |
| 81051 0024 | ALLABADI BABAK | 77 | WINSTON RD | |
| 81051 0022C | GREENSTEIN ROSANNE | 78 | WINSTON RD | |
| 81051 0024A | PILLAY SRINIVASAN S | 83 | WINSTON RD | |
| 81051 0022B | ELBERT MICHAEL ARON & GALINA TR | 86 | WINSTON RD | |
| 81051 0022 | THEALL MATTHEW D & KATHY P | 91 | WINSTON RD | |
| 81051 0022A | TURETSKY MARSHA K | 94 | WINSTON RD | |

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

Grant of Location Process:

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

Questions my be directed to:

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

RECEIVED
Newton City Clerk
2012 OCT 18 PM 4:34
David A. Olson, CMC
Newton, MA 02459

I. IDENTIFICATION (Please Type or Print Clearly)

Company Name NSTAR Electric

Address One NSTAR Way

Westwood, MA 02090

Phone Number 781-441-8233

Fax Number _____

Contact Person Domenic J. Nicotera

Title Project Manager

Signature *Domenic J. Nicotera*
Person filing application

Date 10/18/12

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

II. DESCRIPTION OF PROJECT: to be completed by petitioner

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

The NSTAR Cooling Circulation Pipeline Project will involve the installation of a supplemental 8 -inch diameter steel cooling circulation pipeline from the West Roxbury town line in Dedham Street near the intersection with Spiers Road through the intersection of Dedham Street and Winchester Street at Needham Street (a state road), a midpoint pipe manhole, 4-inch fiber optic conduit, and eleven conduit handholes. The pipe will be buried beneath pavement and generally parallel to the existing NSTAR 115kV lines (the 292-522 Line and 292-523 Line). Construction would start April 1, 2013 and be complete by November 1, 2013. The benefits of the project include increasing the cooling capacity of the existing pipe-type cable in Dedham Street thereby increasing the electric rating, supply capacity and reliability of this line and improving overall customer service.

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

Title of Plan "Installation of 292-CIR (pipe) between Station 110-Baker St. and Station 292-Newton, Newton, MA" Date of plan October 16, 2012

III. PUBLIC WORKS DEPARTMENT REVIEW

Date received by Public Works Department _____

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

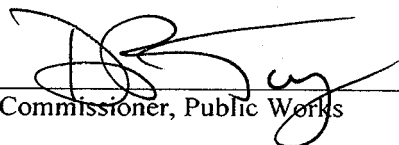
DATE AND COMMENTS:

RECOMMENDATIONS:

| | |
|-----------------------|--|
| SSS Comments Attached | |
| | |
| | |
| | |
| | |

Russ M. Terence 11/2/12

V. RECOMMENDATION TO PUBLIC FACILITIES COMMITTEE:


Commissioner, Public Works

11/2/12
Date



One NSTAR Way, Westwood, MA 02090-9230

#356-12

October 17, 2012

City of Newton
Board of Alderman
Newton City Hall
1000 Commonwealth Avenue
Newton Centre, MA 02459

RECEIVED
Newton City Clerk
2012 OCT 18 PM 12:57
David A. Olson, Clerk
Newton, MA 02459

Subject: NSTAR Cooling Circulation Pipeline Project -
Baker Street Substation #110, West Roxbury to Elliot Street Substation #292
Grant of Location Petition, Dedham Street, Newton, MA

Board of Alderman Clerk:

NSTAR Electric has an urgent need to provide additional electric transmission reliability and capacity to address current and future demand supply at the existing Elliot Street Substation #292 in Newton. To meet this need, NSTAR is proposing modifications to the existing NSTAR 115 kV pipe-type cable lines (the 292-522 Line and 292-523 Line) located between NSTAR's Baker Street Substation #110 (West Roxbury) to Elliot Street Substation #292 (Newton) buried within Baker Street and Dedham Street, respectively.

NSTAR is providing herein the project description, the proposed pipeline route location map, and 1:20 scale plan and profile drawings located in the City of Newton pursuant to its request for a Grant of Location (GOL).

Project Description

The NSTAR Cooling Circulation Pipeline Project (Project) will involve the installation of a supplemental 8-inch diameter steel cooling circulation pipeline between the Baker Street Substation #110 in Baker Street in West Roxbury and the Elliot Street Substation #292 in Dedham Street in Newton. The request for a GOL in Dedham Street includes installing 12,432 linear feet of 8-inch pipe from the West Roxbury town line in Dedham Street near the intersection with Spiers Road through the intersection of Dedham Street and Winchester Street at the Needham Street (a state road) intersection, and a midpoint pipe manhole. The steel pipeline will be buried beneath pavement and generally parallel to the existing NSTAR 115kV lines (the 292-522 Line and 292-523 Line) and connected to heat exchangers at the Baker Street Substation #110 and the Elliot Street Substation #292. The Project will also involve the installation of one 4-inch diameter PVC conduit in the same trench as the 8-inch steel pipe in Dedham Street between the intersection of Country Side Road and Winchester Street at the Needham Street (a state road) intersection. Specifically for the Grant of Location, the PVC conduit will be installed in Dedham Street from the utility Pole 117/44 (station 135+50) near the intersection of Country Side Road to the intersection of Dedham Street and Winchester Street and Needham Street (a state road). The PVC conduit will accommodate fiber optic communication cable. In this street segment, eleven street rated hand-holes (3 ft. x 3 ft. x 3



ft.) will also be installed to facilitate the installation of the fiber optic cable into the conduit as shown on the Plan and Profile drawings. The interconnection transition for the cable from below-ground to above-ground will be accomplished by installing a riser conduit to the existing distribution pole 117/44 on Dedham Street.

Project Benefits

The benefits of the Project include:

- Increasing the cooling capacity of the existing pipe-type cable in Dedham Street called the "Baker Street to Newton 115kV lines 292-522 and 292-523", thereby increasing the electric rating, supply capacity and reliability of this line; and,
- improving the ability of the 115kV transmission system to reliably supply the Elliot Street Substation #292 and minimize outages, and improve overall customer service.

Please contact me with any questions or comments on this Project. We look forward to receiving confirmation of the Board of Alderman Grant of Location public hearing date for this Project.

Sincerely,



Domenic Nicotera, Project Manager
NSTAR Electric Company

Enclosures:

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Newton City Clerk
2012 OCT 18 PM 12:57
David A. Olson, CMC
Newton, MA 02459



PETITION OF NSTAR ELECTRIC COMPANY FOR LOCATION FOR CONDUITS AND MANHOLES

To the **Board of Aldermen** of the City of **Newton** Massachusetts

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

WHEREFORE, your petitioner prays that, after due notice and hearing as provided by law, the Board may by Order grant to your petitioner permission to construct, and a location for, such a line of conduits and manholes with the necessary wires and cables therein, said conduits and manholes to be located substantially as shown on the plan made by **SMC Consultant** Dated **10/16/12** and filed herewith, under the following public way or ways of said City:

Dedham Street - At and northwesterly from the Newton - Boston City Line to the beginning of Winchester Street a distance of about 12,342 feet - install pipes and conduits and eleven (11) proposed hand holes and one (1) proposed manhole

Winchester Street - At and westerly from Dedham Street a distance of 90 feet - install pipes and conduits

NSTAR ELECTRIC COMPANY

By: *William D. Lemos*
William D. Lemos, Supervisor
Rights and Permits

RECEIVED
Newton City Clerk
2012 OCT 18 PM 12:57
David A. Olson, CMC
Newton, MA 02459

Dated this _____ 18th of _____ October _____, 2012

City of Newton, Massachusetts

Received and filed _____, 2012

ORDER FOR LOCATION FOR CONDUITS AND MANHOLES #356-12

City of Newton Massachusetts, _____, 2012

In Board of Aldermen

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

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

- Dedham Street - At and northwesterly from the Newton - Boston City Line to the beginning of Winchester Street a distance of about 12,342 feet - install pipes and conduits and eleven (11) proposed hand holes and one proposed manhole
- Winchester Street - At and westerly from Dedham Street a distance of about 90 feet - install pipes and conduits

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

1. Conduits and manholes shall be located as shown on a plan made by **SMC Consultant** Plan dated 10/16/12
2. Said Company shall comply with the requirements of existing ordinances and such as may hereafter be adopted governing the construction and maintenance of conduits and manholes.
3. All work shall be done to satisfaction of the Board of Aldermen

or such officer or officers as it may appoint to supervise the work.

A True Record. Attest: _____

City Clerk

Approved _____ 2012

Mayor

CERTIFICATE

I hereby certify that the foregoing Order was adopted after due notice and public hearing as prescribed by Section 22 of Chapter 166 of the General Laws (Ter. Ed.) and any additions thereto or amendments thereof, to wit:--after written notice of the time and place of the hearing mailed at least seven days prior to the date of the hearing by the City Clerk to all owners of real estate abutting upon that part of the way or ways upon, along or across which the line is to be constructed under said Order, as determined by the last preceding assessment for taxation and a public hearing held on the ___ day of _____ 2012, at Board of Aldermen in the said City

City Clerk

CERTIFICATE

I hereby certify that the foregoing are true copies of the Order of the Board of Aldermen of the City of Newton Massachusetts duly adopted on the _____ day of _____, 2012 and recorded with the records of location Orders of said City. Book ___ Page ___ and of the certificate of notice of hearing thereon required by Section 22 of Chapter 166 of the General Laws (Ter. Ed.), and any additions thereto or amendments thereof, as the same appear of record.

Attest: _____

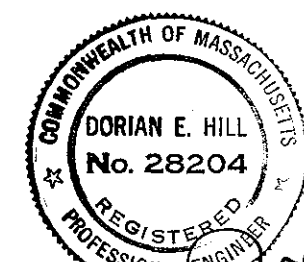
Clerk of City of Newton, Massachusetts

RECEIVED
Newton City Clerk
2012 OCT 18 PM 12:57
David A. Olson, City Clerk
Newton, MA 02459

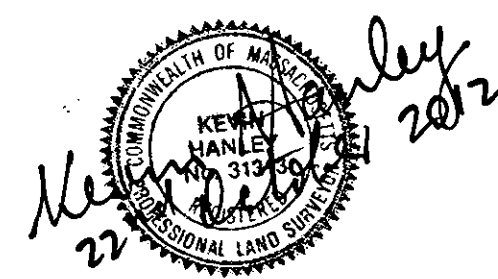
INSTALLATION OF 292-CIR BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON NEWTON, MA.

THIS DRAWING SET PROVIDES INFORMATION FOR THE INSTALLATION OF A FLUID RECIRCULATION PIPE, IDENTIFIED AS 292-CIR, APPROXIMATELY 12,432 LINEAR FEET FROM THE WEST ROXBURY TOWN LINE IN DEDHAM STREET NEAR THE INTERSECTION WITH SPIERS ROAD THROUGH THE INTERSECTION OF DEDHAM STREET AND WINCHESTER STREET AT THE NEEDHAM STREET (A STATE ROAD) INTERSECTION, LOCATED IN NEWTON, MA.
THE PIPE IS AN 8-5/8 INCH DIAMETER SCHEDULE 40 STEEL PIPE COATED WITH PRITEC.

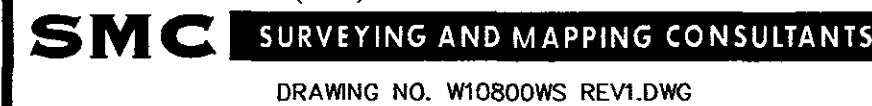
THE TECHNICAL SPECIFICATION, NO. TG-690, TITLED TECHNICAL SCOPE OF WORK - FLUID RECIRCULATION PIPE INSTALLATION BETWEEN STATION 110 AND STATION 292 PROVIDES TECHNICAL INFORMATION, SPECIFICATIONS AND REFERENCES FOR THE INSTALLATION OF THIS FLUID RECIRCULATION PIPE.



Dorian E. Hill
2/24/2012



Kevin Hanley
2/24/2012



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|---|------------------|-------------------|----------------|-------|
| REVISION | | | | |
| | | | | |
| TITLE PAGE | | | | |
| INSTALLATION OF 292-CIR | | | | |
| BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON | | | | |
| NEWTON, MASSACHUSETTS PLAN (SHEET 11 OF 22) | | | | |
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH/MC | C'H'K D. KH | APPR. |
| DRAWING NO. | | REV. | | |

TABLE OF CONTENTS

| SHEET NO. | TITLE/DESCRIPTION |
|-----------|---|
| T1 | TITLE SHEET |
| T2 | TABLE OF CONTENTS, NOTES, LEGEND & REFERENCES |
| KM | KEY MAP |
| 1 | DEDHAM STREET (STA 59+80 TO STA 65+00) |
| 2 | DEDHAM STREET (STA 65+00 TO STA 71+00) |
| 3 | DEDHAM STREET (STA 71+00 TO STA 77+00) |
| 4 | DEDHAM STREET (STA 77+00 TO STA 83+00) |
| 5 | DEDHAM STREET (STA 83+00 TO STA 89+00) |
| 6 | DEDHAM STREET (STA 89+00 TO STA 95+50) |
| 7 | DEDHAM STREET (STA 95+50 TO STA 101+50) |
| 8 | DEDHAM STREET (STA 101+50 TO STA 108+00) |
| 9 | DEDHAM STREET (STA 108+00 TO STA 114+00) |
| 10 | DEDHAM STREET (STA 114+00 TO STA 120+00) |
| 11 | DEDHAM STREET (STA 120+00 TO STA 126+00) |
| 12 | DEDHAM STREET (STA 126+00 TO STA 132+00) |
| 13 | DEDHAM STREET (STA 132+00 TO STA 137+00) |
| 14 | DEDHAM STREET (STA 137+00 TO STA 144+00) |
| 15 | DEDHAM STREET (STA 144+00 TO STA 148+00) |
| 16 | DEDHAM STREET (STA 148+00 TO STA 154+50) |
| 17 | DEDHAM STREET (STA 154+50 TO STA 160+50) |
| 18 | DEDHAM STREET (STA 160+50 TO STA 164+00) |
| 19 | DEDHAM STREET (STA 164+00 TO STA 170+00) |
| 20 | DEDHAM STREET (STA 170+00 TO STA 176+00) |
| 21 | DEDHAM STREET (STA 176+00 TO STA 182+00) |
| 22 | DEDHAM STREET (STA 182+00) TO NEEDHAM STREET (STA 186+00) |
| D1 | DETAIL SHEET WEST ROXBURY & NEWTON 1 OF 2 |
| D2 | DETAIL SHEET WEST ROXBURY & NEWTON 2 OF 2 |
| D3 | DETAIL SHEET NEWTON |

LEGEND

| | | | |
|--------|--------------------------------|-------|---|
| □ SB | STONE BOUND | MBTA | MASSACHUSETTS BAY TRANSPORTATION AUTHORITY |
| △ IP | IRON PIPE | CI | CAST IRON PIPE |
| EP/LP | PK., NAIL, SPIKE | PL | PLASTIC PIPE |
| FND | ESCUTCHEON PIN IN LEAD PLUG | BS | BRUSHED STEEL PIPE |
| (R) | FOUND | DI | DUCTILE IRON |
| ----- | RECORD | MWRA | MASSACHUSETTS WATER RESOURCES AUTHORITY |
| ----- | TOWN LINE | CU | CONTINUATION UNKNOWN |
| ----- | TREE LINE | o GG | GAS GATE |
| ----- | HEDGE | o TMH | TELEPHONE MANHOLE |
| ----- | FENCE | o EMH | ELECTRIC MANHOLE |
| ----- | CHAIN LINK FENCE | o SMH | SEWER MANHOLE |
| ----- | WROUGHT IRON FENCE | o WG | WATER GATE |
| ----- | BITUMINOUS CONCRETE | o | HYDRANT |
| ----- | GRANITE | ----- | EXISTING 115 KILOVOLT ELECTRIC LINE PIPE TYPE |
| o GP | GUARD POST (BOLLARD) | ----- | CABLE CONDUIT, NUMBER AND SIZE AS NOTED |
| o FL | FLOOD LIGHT | ----- | CABLE TELEVISION LINE |
| TRANSF | TRANSFORMER | ----- | DRAIN LINE |
| o S | SIGN | ----- | ELECTRIC LINE |
| o TS | TRAFFIC SIGNAL | ----- | GAS LINE |
| MAST | TRAFFIC SIGNAL/MAST ARM | ----- | SEWER LINE |
| ARM | | ----- | TRAFFIC SIGNAL LINE |
| TSCC | TRAFFIC SIGNAL CONTROL CABINET | ----- | TELEPHONE LINE |
| FA | FIRE ALARM BOX | ----- | WATER LINE |
| HH | HANDHOLE | ----- | MONITORING WELL |
| ← | GUY WIRE | ----- | UNDERGROUND |
| UP# | UTILITY POLE | ----- | ABANDONED |
| UP/LP | UTILITY POLE/LIGHT POLE | ----- | ELEVATION |
| LP | LIGHT POLE | ----- | DIAMETER |
| LPB | LIGHT POLE BASE | ----- | 8-5/8" DIAMETER SCHEDULE 40 STEEL |
| (M) | MARKED IN FIELD | ----- | FLUID CIRCULATION PIPE COATED WITH PRITECH |
| DMH | DRAIN MANHOLE | ----- | CONCRETE WALK |
| CB | CATCH BASIN | ----- | BITUMINOUS CONCRETE WALK |
| R | RIM | ----- | HEAT EXCHANGER |
| I | INVERT | ----- | SPOT ELEVATION |
| NPV | NO PIPE VISIBLE | ----- | DECIDUOUS |
| TOS | TOP OF SILT | ----- | EVERGREEN |
| TOW | TOP OF WATER | ----- | BUSH |
| ALT | ALTERNATE ROUTE | ----- | |
| GC | GRANITE CURB | ----- | |
| BCC | BITUMINOUS CONCRETE CURB | ----- | |
| CC | CONCRETE CURB | ----- | |
| EOP | EDGE OF PAVEMENT | ----- | |

REFERENCES:

- S-4366 BAKER STREET TO NEWTON HIGHLANDS PLAN AND PROFILE OF 115KV PIPE TYPE CABLE
- BOSTON EDISON COMPANY VETERANS OF FOREIGN WARS PARKWAY WEST ROXBURY, MA BRIGHTON TO BAKER STREET 115KV PIPE LINES SCALE: 1"=40' DATE: 12/10/57 PLAN NO. S-4168
- NATIONAL GRID GAS BAKER STREET, WEST ROXBURY, MA SHEET NO. WRO 415 & WRO 466 DEDHAM STREET, NEWTON, MA SHEET NO. NEW 3130, NEW 3150, DATED: 2/27/12
- NSTAR ELECTRIC BAKER STREET, WEST ROXBURY, MA DEDHAM STREET, NEWTON, MA SCALE: 1"=40'
- VERIZON BAKER STREET, WEST ROXBURY, MA DEDHAM STREET, NEWTON, MA SCALE: 1"=40' PLATS 118-1 TO 118-8 & 322
- COMCAST BAKER STREET, WEST ROXBURY, MA DEDHAM STREET, NEWTON, MA DRAWING NO. S 362-525, 363-525, 364-524, 365-523, 365-524, 366-523, 367-522, 367-523, 368-522, 369-521 & 369-522
- MASSACHUSETTS WATER RESOURCES AUTHORITY UPPER NEPONSET VALLEY REPLACEMENT SEWER MWRA SEWER SECTION 685 SCALE: 1"=40' DATE: DECEMBER 2004 CONTRACT NO. 6191, ACCESSION NO. 225,761 DRAWING NO. C-13, SHEET 16 OF 47
- MASSACHUSETTS WATER RESOURCES AUTHORITY UPPER NEPONSET VALLEY REPLACEMENT SEWER MWRA SEWER SECTIONS 685 AND 687 SCALE: 1"=40' DATE: DECEMBER 2004 CONTRACT NO. 6191, ACCESSION NO. 225,762 DRAWING NO. C-14, SHEET 17 OF 47
- MASSACHUSETTS WATER RESOURCES AUTHORITY WATER TRANSMISSION MAINS SECTIONS 95 & 100 SECTION 100-PLAN AND PROFILE OF WATER MAIN STA 105+75 TO 113+05 BROOKLINE STREET, NEWTON SCALE: 1"=40' DATE: JUNE 1997 CONTRACT NO. 6108 DRAWING NO. P-21, SHEET 24 OF 50
- COMMONWEALTH OF MASSACHUSETTS METROPOLITAN DISTRICT COMMISSION PARK ENGINEERING DIVISION CHANGES TO TRAFFIC SIGNAL SYSTEM VETERANS OF FOREIGN WARS PARKWAY, BAKER & GLENHAM STREET, WEST ROXBURY SCALE: 1"=20' DATE: 11/21/74 ACCESSION NO. 48864, PLAN NO. L-1
- COMMONWEALTH OF MASSACHUSETTS METROPOLITAN DISTRICT COMMISSION ENGINEERING DIVISION VETERANS OF FOREIGN WARS PARKWAY, BOSTON - BROOKLINE ROADWAY REHABILITATION PROJECT SCALE: 1"=20' DATE: 12/31/86 CONTRACT NO. P79-0596-CIA ACCESSION NO. 50493
- BOSTON WATER AND SEWER COMMISSION DEDHAM STREET, NEWTON, MA PLAN NO. S: N74-34272 N53-16382 DATE: JULY 24, 1919 N77-33572
- CITY OF NEWTON PLAN AND PROFILE SHOWING SEWER AND SEWER ASSESSMENT DEDHAM STREET PLAN NO. S: S-51 27288 DATE: DECEMBER 11, 1939 S-51 27289 DATE: DECEMBER 11, 1939 S-52 29739 DATE: NOVEMBER 4, 1946 S-52 30248 DATE: DECEMBER 22, 1947 S-52 30280 DATE: DECEMBER 22, 1947 S-52 31184 DATE: JULY 17, 1950 S-52 31185 DATE: JULY 17, 1950 S-52 31186 DATE: JULY 17, 1950 S-52 31187 DATE: JULY 17, 1950 S-53 31751 DATE: AUGUST 13, 1951
- CITY OF NEWTON PLAN AND PROFILE OF DRAIN DEDHAM STREET PLAN NO. S: P-25 22683 DATE: 1927 N-59 21442 DATE: NOVEMBER 17, 1928 P-26 28007 DATE: 1937 P-26 28941 DATE: 1940 N-75 30818 DATE: FEBRUARY 24, 1949
- PROJECT SPECIFICATIONS TG-690

NOTES:

- THIS PLAN DEPICTS SELECTED TOPOGRAPHIC FEATURES TAKEN FROM THE CITY OF BOSTON GEOGRAPHIC INFORMATION SYSTEM DATABASE AND CITY OF NEWTON GEOGRAPHIC INFORMATION SYSTEM DATABASE LOCATED BY ON-THE-GROUND INSTRUMENT SURVEY MADE BETWEEN JANUARY 1 AND MARCH 4, 2012.
- COORDINATES, IF SHOWN, ARE IN U.S. SURVEY FEET AND ARE IN THE MASSACHUSETTS COORDINATE SYSTEM, MAINLAND ZONE, REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, 1996 ADJUSTMENT (NAD 83/96), AS DETERMINED BY SMC'S PROJECT NETWORK OF OBSERVATIONS OF THE KEYNET GPS VIRTUAL REFERENCE SYSTEM (VRS) USING TRIMBLE GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) RECEIVERS AND TOTAL STATION TRAVERSING.
- ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88), AS DETERMINED BY SMC'S G.P.S. OBSERVATIONS USING THE KEYNET GPS VIRTUAL REFERENCE STATION SYSTEM (VRS) AND ARE APPROXIMATE ONLY.
- SUBSURFACE UTILITY LINES AND FEATURES, AS SHOWN HEREON, WERE COMPILED FROM FIELD EVIDENCE AND/OR AVAILABLE RECORD INFORMATION OBTAINED FROM PUBLIC AND PRIVATE UTILITY PROVIDERS, AND THEIR LOCATIONS ARE ONLY APPROXIMATE. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD.
- SMC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE DESIGNING/INSTALLING FUTURE CONNECTIONS OR LINES, THE APPROPRIATE UTILITIES MUST BE CONSULTED. BEFORE CONSTRUCTION, ALL UTILITIES, PUBLIC AND PRIVATE, MUST BE NOTIFIED (SEE MASSACHUSETTS GENERAL LAWS, CHAPTER 82 SECTION 40). CALL "DIG SAFE" 1-888-DIG-SAFE. (888-344-7233).

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND LOCATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.61m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 126 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-0" (2.59m) |
| 500 to 550 | 11'-3" (3.43m) |
| 764 to 800 | 14'-11" (4.53m) |

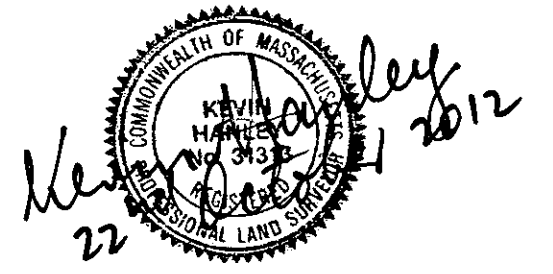
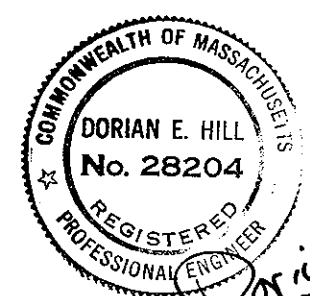
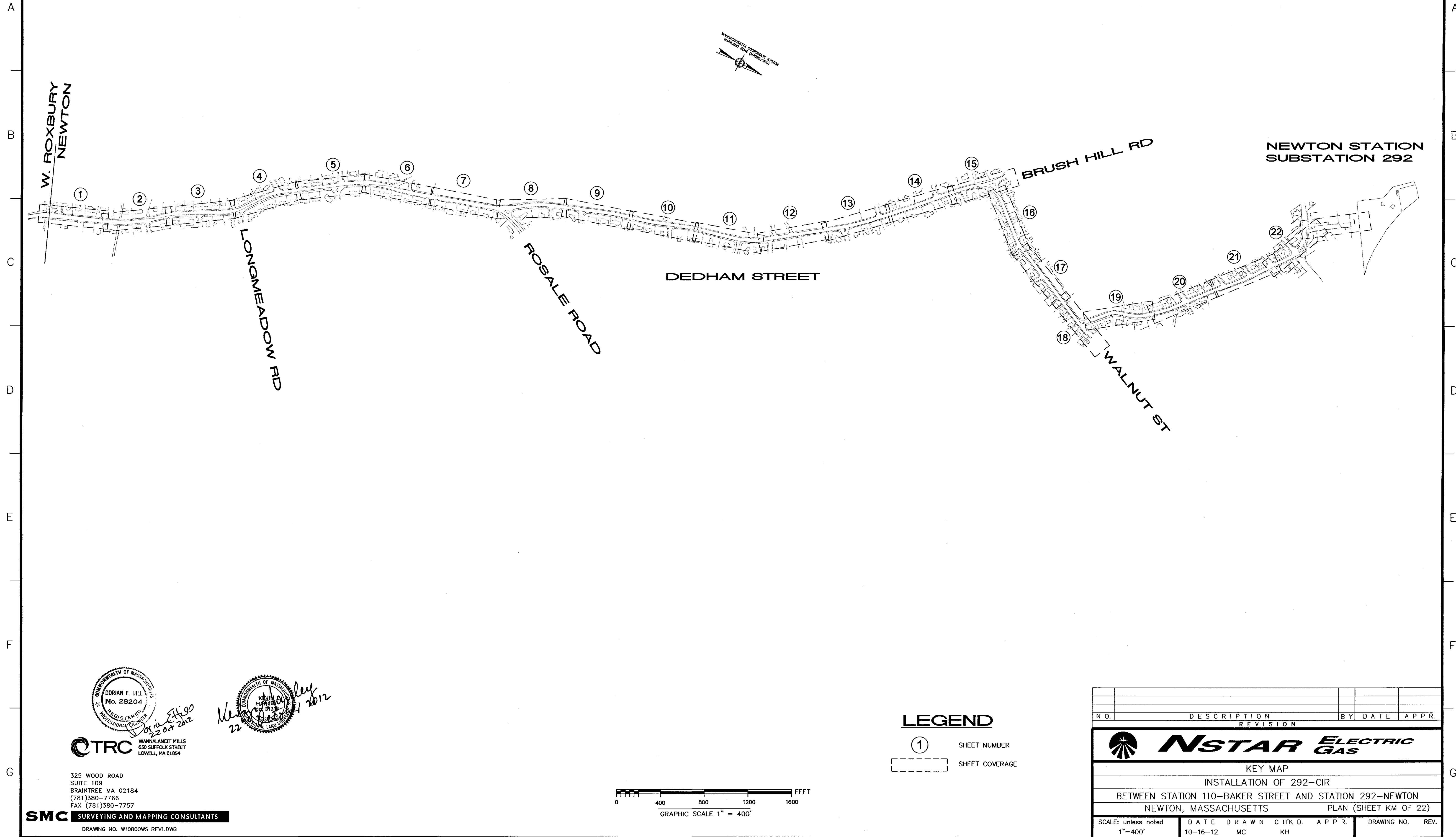
| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PRITECH | | |
| | | PIPE CHILL RINGS | | |
| | | T80 GATE VALVES | | |
| | | T80 | | |
| | | T80 | | |



325 WOOD ROAD
SUITE 109
BRAintree MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REV1.DWG

| NO. | DESCRIPTION | BY | DATE | APPR. |
|---|-------------|------------|----------|-------|
| | | | | |
| TABLE OF CONTENTS, NOTES AND LEGEND INSTALLATION OF 292-CIR BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON NEWTON, MASSACHUSETTS PLAN (SHEET T2 OF 22) | | | | |
| SCALE: unless noted | | DATE DRAWN | C'H'K D. | APPR. |
| H: 1"=20' V: 1"=4' | | 10-16-12 | MN/SH | KH |
| DRAWING NO. | | REV. | | |

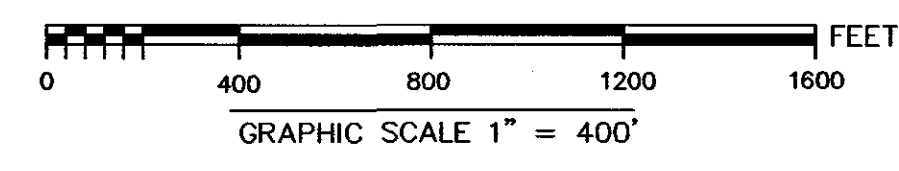


TRC
 WANNALANCI MILLS
 690 SUFFOLK STREET
 LOWELL, MA 01854

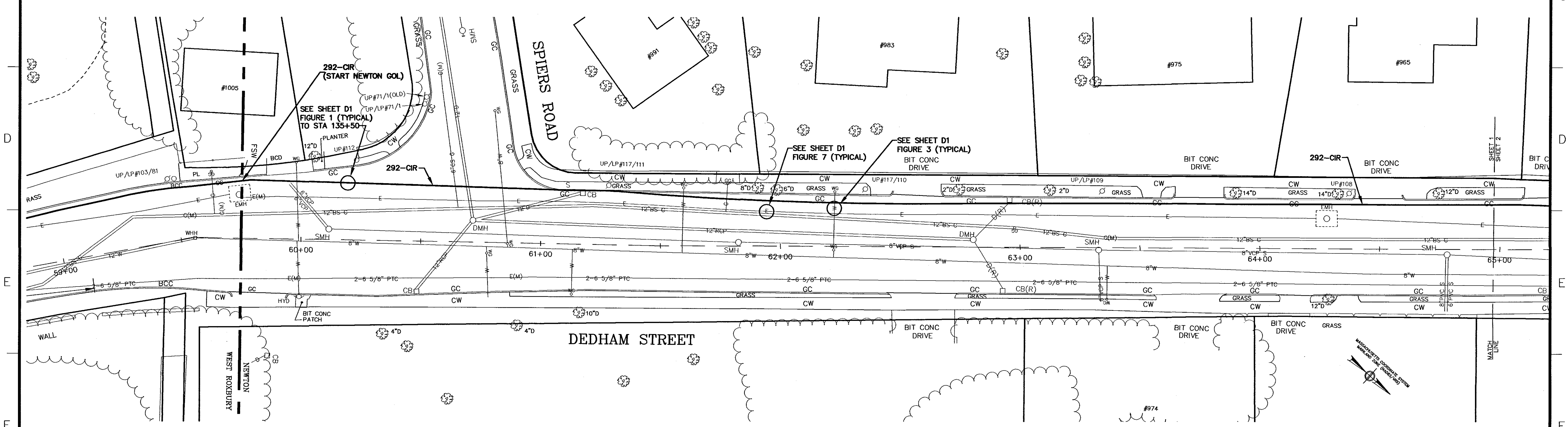
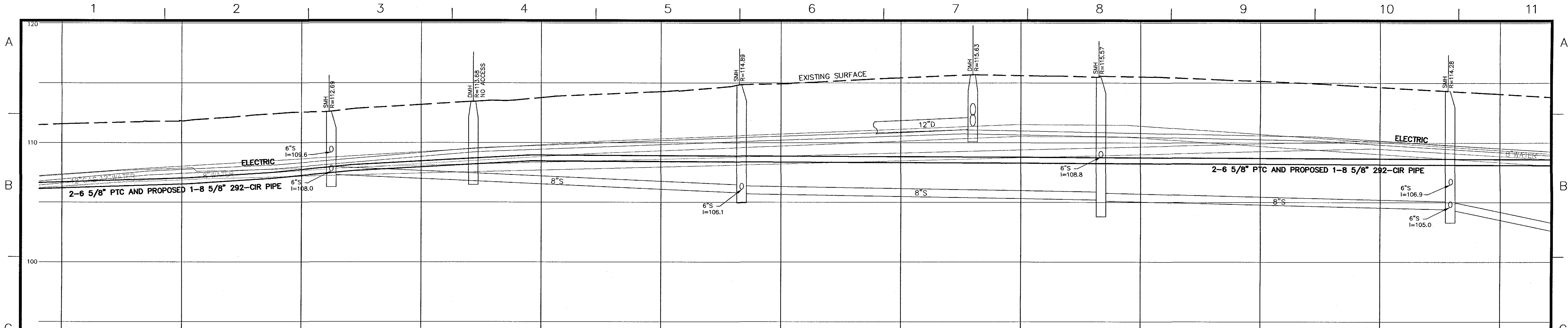
325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W108DOWS REV1.DWG

LEGEND
 ① SHEET NUMBER
 [---] SHEET COVERAGE



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|---|------------------|-------------|----------------|------------------|
| | REVISION | | | |
| | | | | |
| KEY MAP INSTALLATION OF 292-CIR BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON NEWTON, MASSACHUSETTS PLAN (SHEET KM OF 22) | | | | |
| SCALE: unless noted 1"=400' | DATE 10-16-12 | DRAWN MC | C.H.K.D. KH | APPR. |
| | | | | DRAWING NO. REV. |



KEVIN H. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS

DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS

TRC
 WANNALANCI MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

325 WOOD ROAD
 SUITE 109
 BRAINTREE MA 02184
 (781)380-7766
 FAX (781)380-7757

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND OPERATE ACCORDINGLY.

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|------------------------------|---------------------------|
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| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 169 to 242 | 5'-3" (1.58m) |
| 242 to 345 | 8'-6" (2.59m) |
| 345 to 550 | 11'-3" (3.42m) |
| 550 to 800 | 14'-11" (4.53m) |

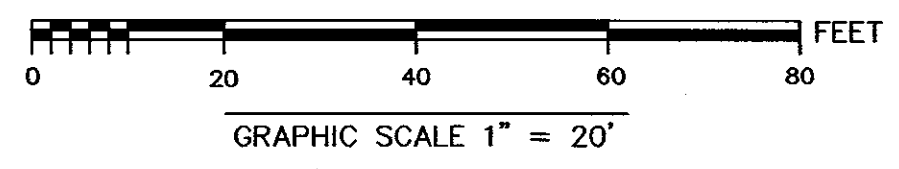
| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PROTECT | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

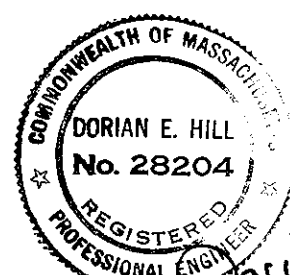
INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS
 PLAN (SHEET 1 OF 22)

SCALE: unless noted
 H: 1"=20' V: 1"=4'
 DATE 10-16-12
 DRAWN MN/SH
 C'HK D. KH
 APPR.

DRAWING NO. REV.



SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REV1.DWG



CTRC
WANNALANCIT MILLS
650 SUFFOLK STREET
LOWELL, MA 01854

325 WOOD ROAD
SUITE 109
BRAintree MA 02184
(781)380-7766
FAX (781)380-7757

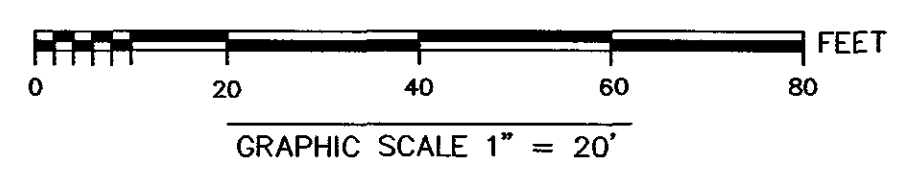
SMC SURVEYING AND MAPPING CONSULTANTS

DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 340 KVIC, 399V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 161 | 4'-0" (1.22m) |
| 161 to 242 | 5'-3" (1.59m) |
| 242 to 362 | 8'-6" (2.59m) |
| 362 to 550 | 11'-3" (3.43m) |
| 550 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PIPES | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

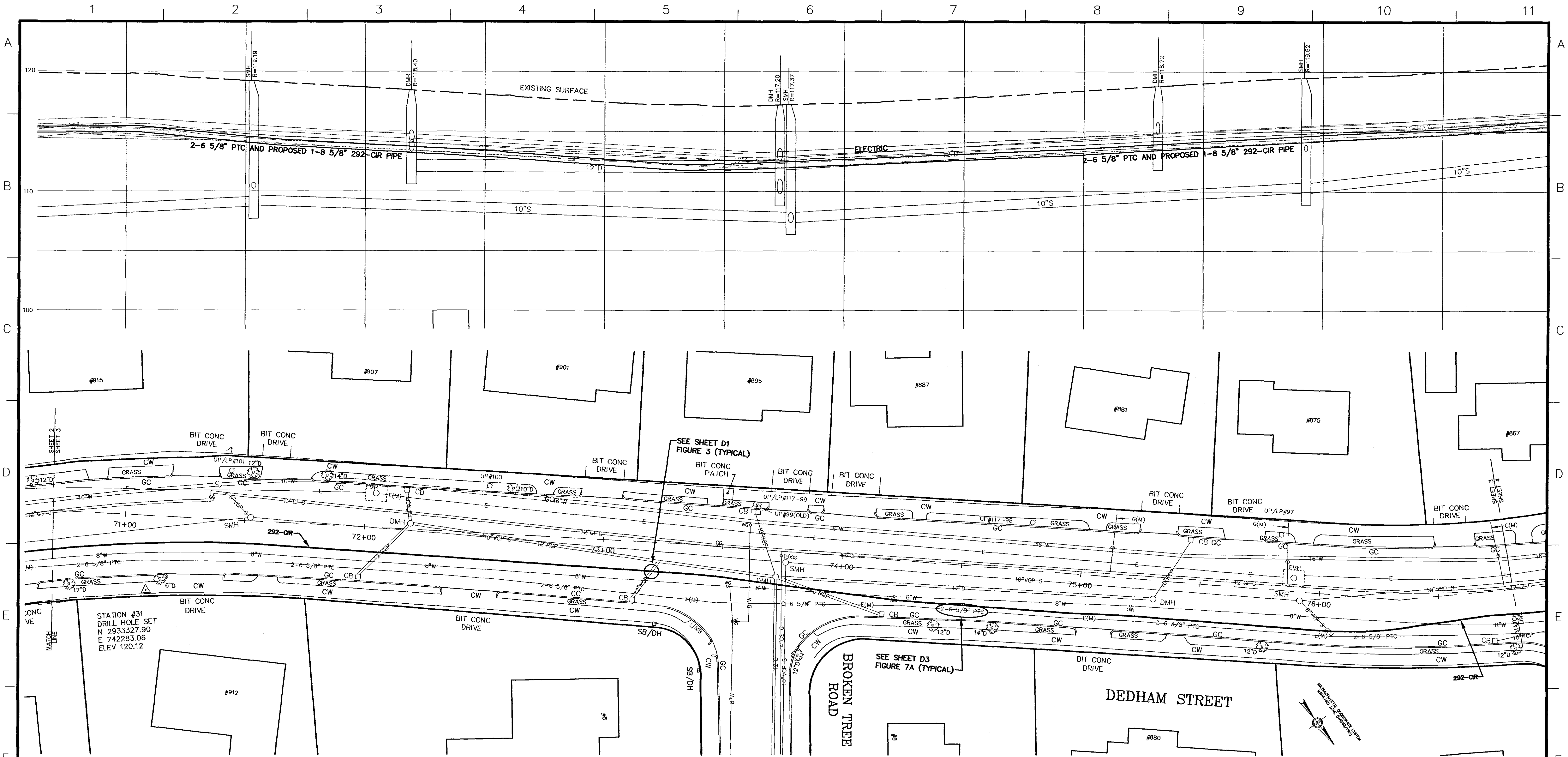


| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS PLAN (SHEET 2 OF 22)

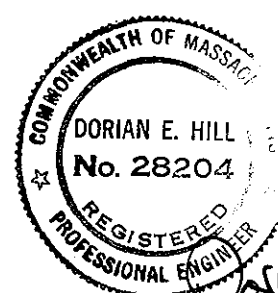
| | | | | | | |
|---|------------------|----------------|--------------|-------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK'D. KH | APPR. | DRAWING NO. | REV. |
|---|------------------|----------------|--------------|-------|-------------|------|



STATION #31
DRILL HOLE SET
N 2933327.90
E 742283.06
ELEV 120.12

SEE SHEET D1
FIGURE 3 (TYPICAL)

SEE SHEET D3
FIGURE 7A (TYPICAL)



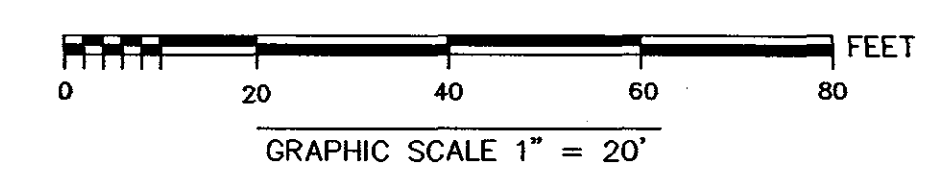
325 WOOD ROAD
SUITE 109
BRAINTREE MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REVI.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLT, 200V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.76m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.91m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 128 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|--|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FLEETS | | |
| | | PIPE ORILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

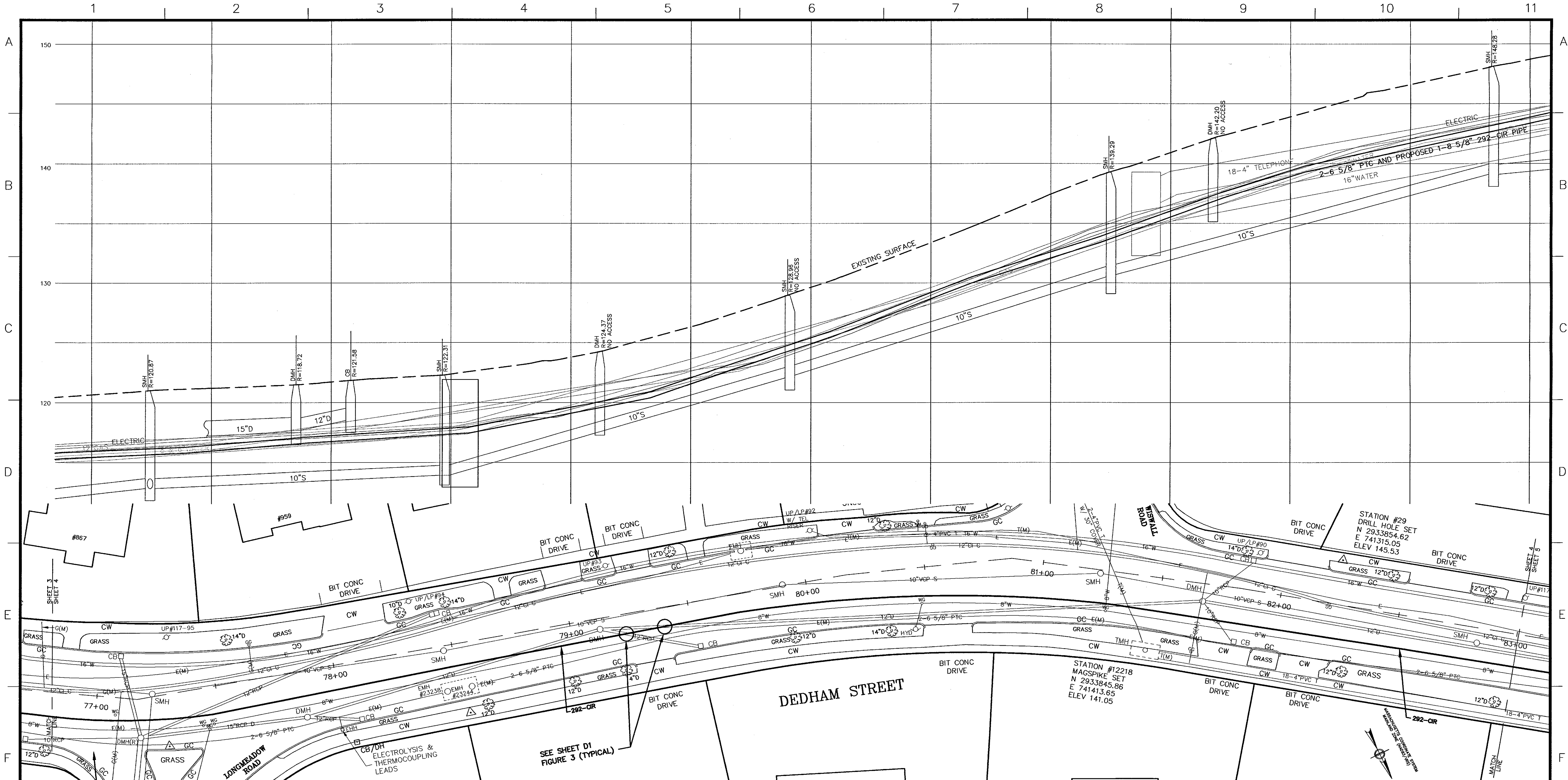


| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS

PLAN (SHEET 3 OF 22)

| | | | | | | |
|---|------------------|----------------|-------------|-------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK'D KH | APPR. | DRAWING NO. | REV. |
|---|------------------|----------------|-------------|-------|-------------|------|



COMMONWEALTH OF MASSACHUSETTS
DORIAN E. HILL
No. 28204
REGISTERED PROFESSIONAL ENGINEER
 22 Oct 2012

TRC
 WANNALANCT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757

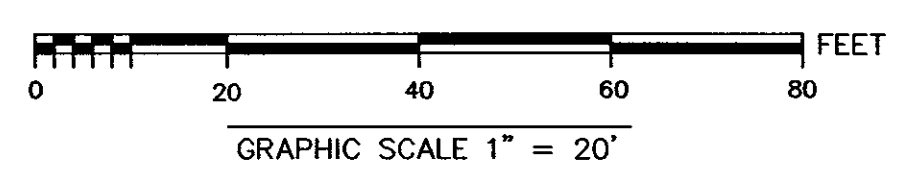
SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REVI.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVIC, 200V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 48.0 | 2'-7" (0.77m) |
| 48.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-7" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 900 | 14'-11" (4.53m) |

BILL OF MATERIAL

| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
|-----|------|--|--------------|--------|
| | | 8 5/8" DIAMETER SCHEDULE 40 SHEL. PIP. W/ FRIEZE | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

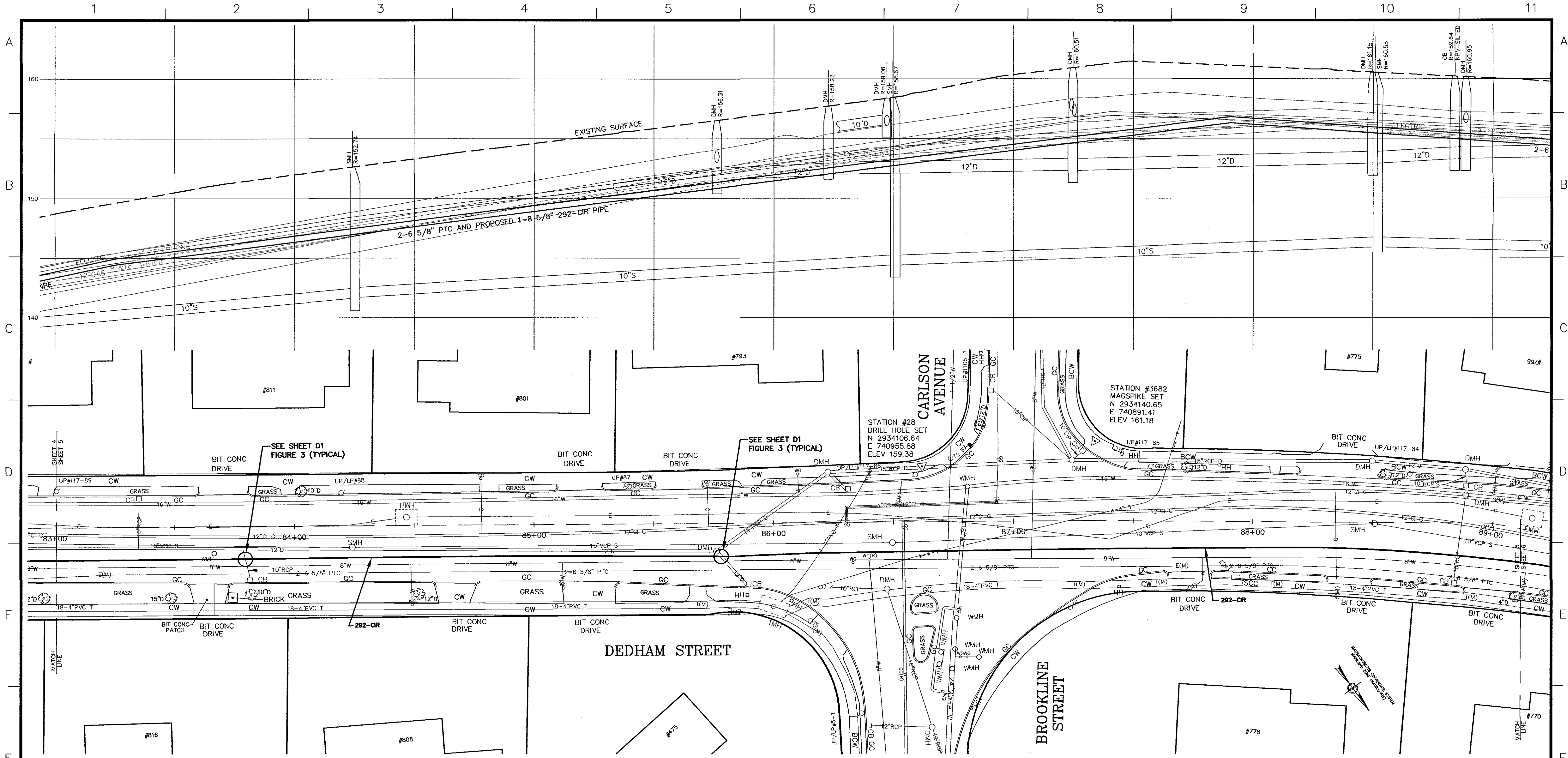


| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 4 OF 22)

SCALE: unless noted H: 1"=20' V: 1"=4'
 DATE DRAWN: 10-16-12 C.H.K.D. A.P.P.R. MN/SH KH
 DRAWING NO. REV.



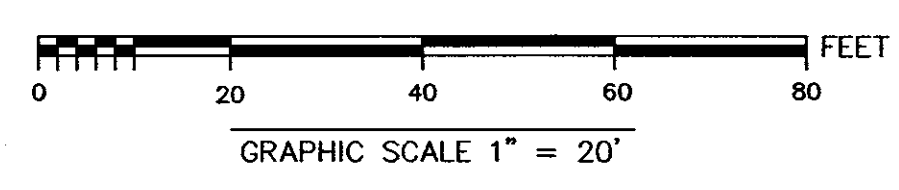
325 WOOD ROAD
SUITE 109
BRAINTREE MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVIC AND 125 KVIC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 138 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 SEL PIPE W/ FITTING | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

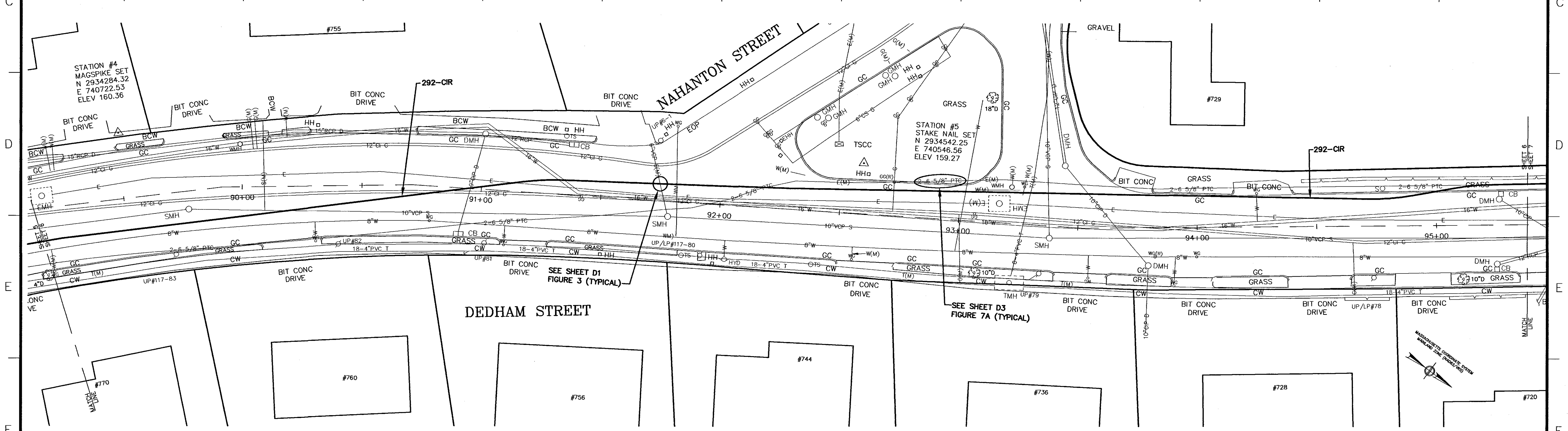
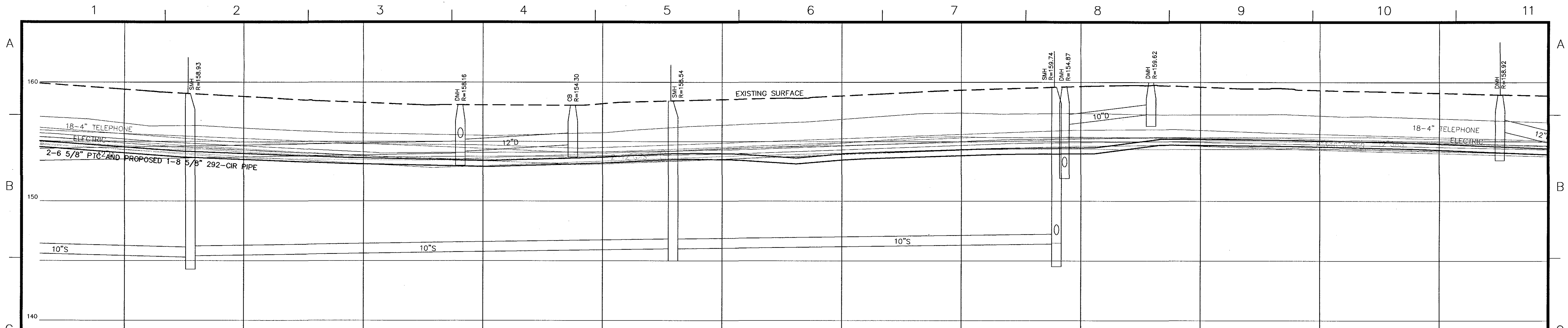


| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS PLAN (SHEET 5 OF 22)

| SCALE: unless noted | DATE | DRAWN | CHK'D. | APPR. | DRAWING NO. | REV. |
|---------------------|----------|-------|--------|-------|-------------|------|
| H: 1"=20' V: 1"=4' | 10-16-12 | MN/SH | KH | | | |



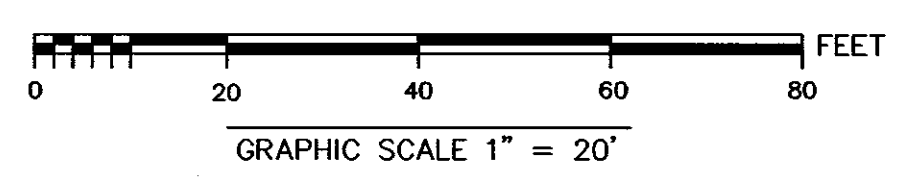
325 WOOD ROAD
SUITE 109
BRAintree MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REVI.DWG


THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLT, 208Y/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FROTECH | | |
| | | PIPE CHAIN RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



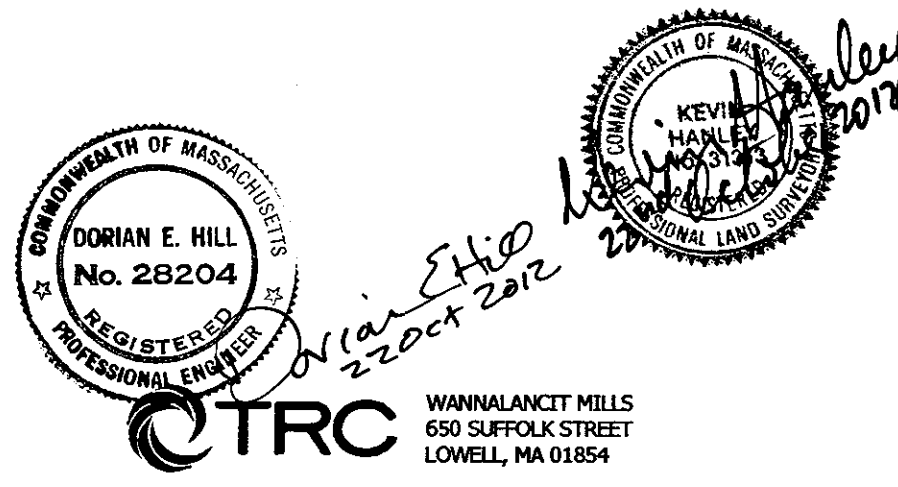
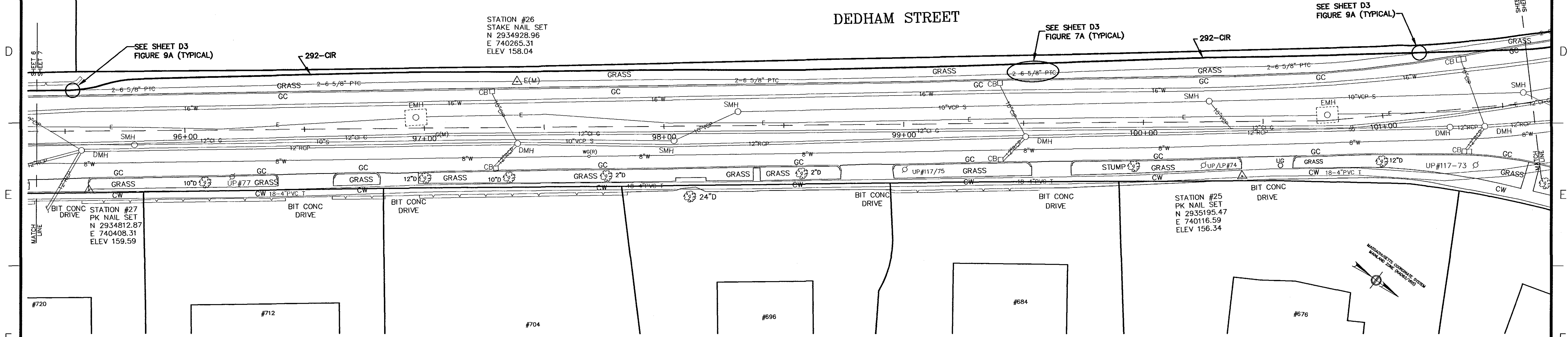
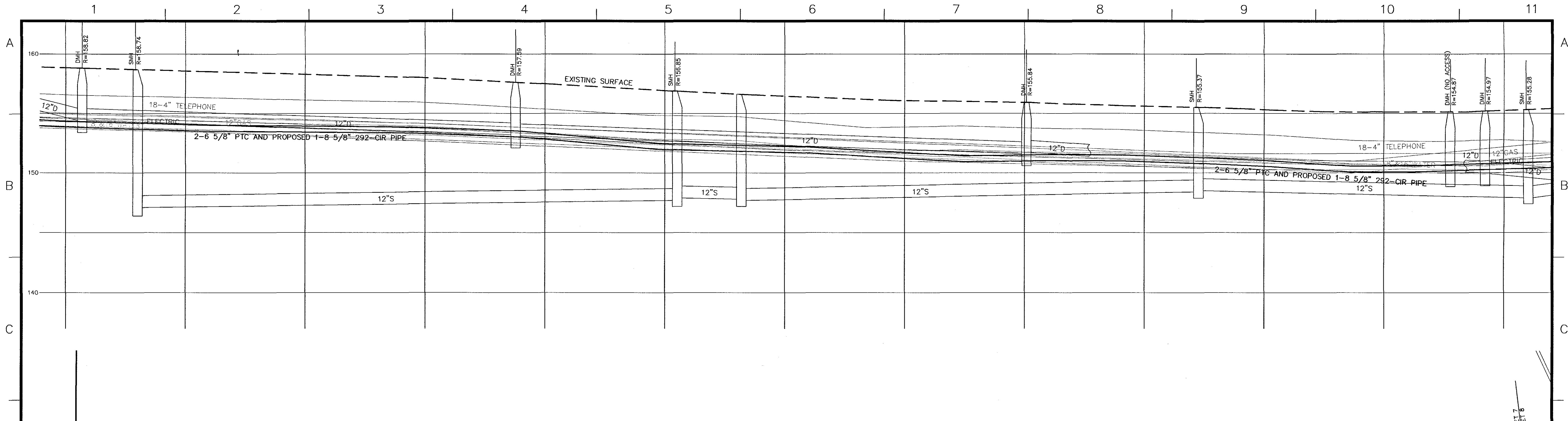
| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |



NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS PLAN (SHEET 6 OF 22)

| | | |
|---|---|------------------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE DRAWN CH'K D. APPR. 10-16-12 MN/SH KH | DRAWING NO. REV. |
|---|---|------------------|



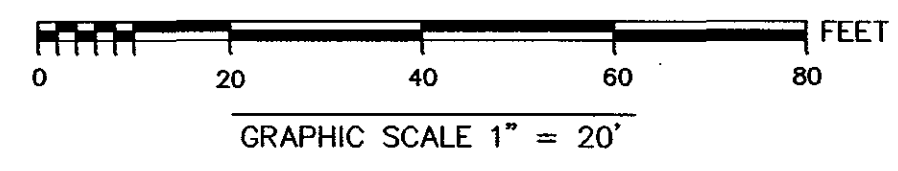
325 WOOD ROAD
SUITE 109
BRAintree MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 240 VOLT, 208/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Acid contact |
| 1.1 to 15.0 | 2'-1" (0.61m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 136 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 SEL PIPE W/ FRIBESH | | |
| | | PPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

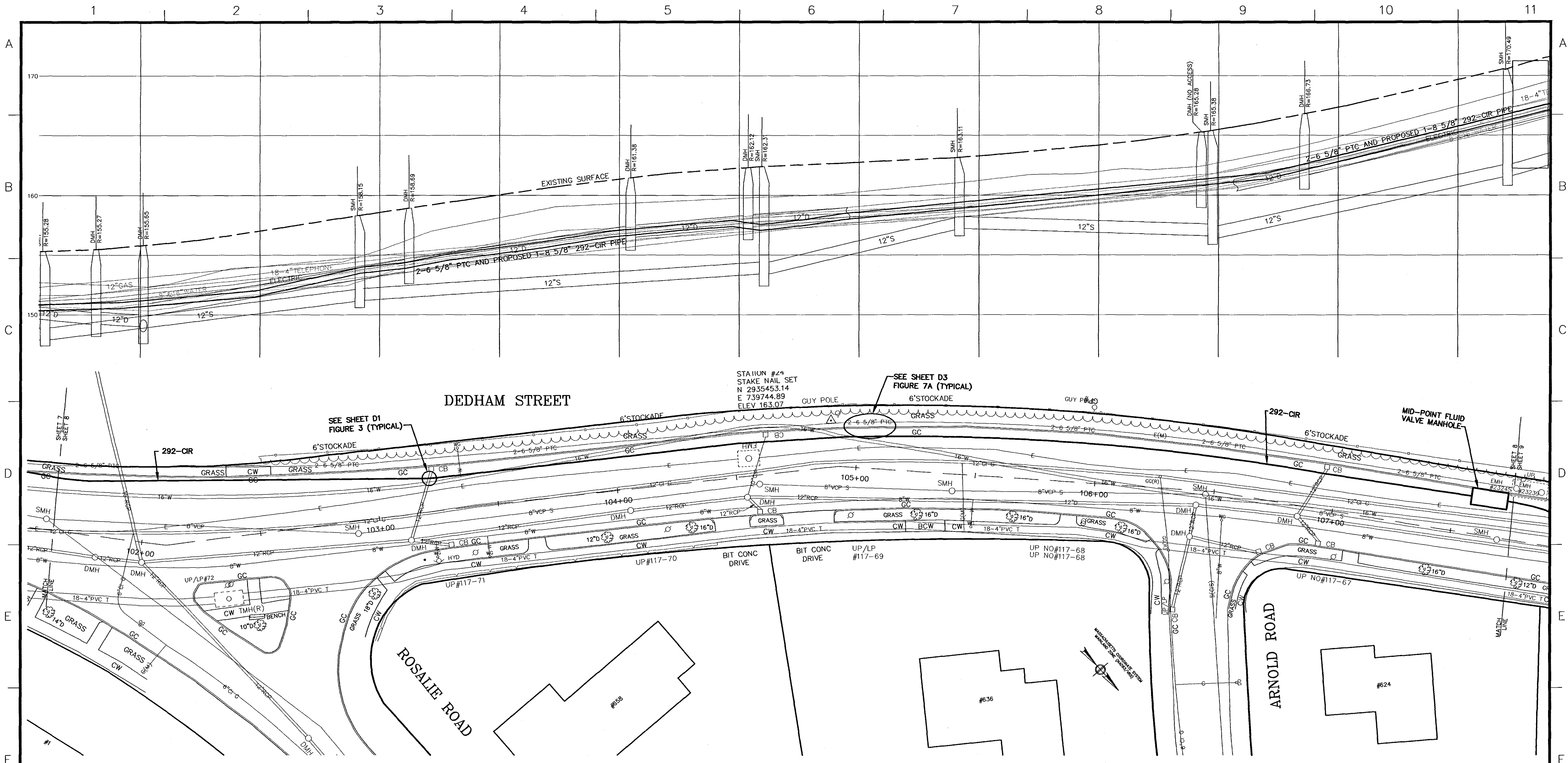


| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS PLAN (SHEET 7 OF 22)

| | | | | | | |
|---|------------------|----------------|--------------|-------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK D. KH | APPR. | DRAWING NO. | REV. |
|---|------------------|----------------|--------------|-------|-------------|------|



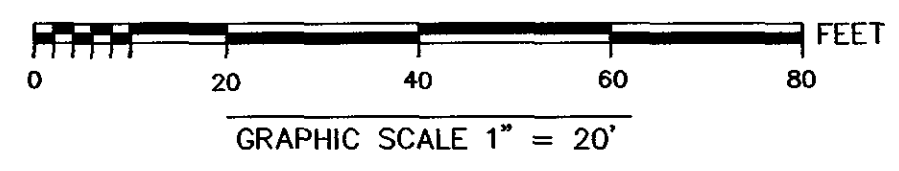
COMMONWEALTH OF MASSACHUSETTS
 DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 CIVIL
 22 Oct 2012
 WANNALANCT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757
SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REVI.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLT, 208V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilowatts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Aerial contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.73m) |
| 36.1 to 46.0 | 2'-7" (0.79m) |
| 46.1 to 72.5 | 3'-0" (0.91m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 245 to 362 | 6'-6" (2.00m) |
| 500 to 500 | 11'-3" (3.43m) |
| 764 to 800 | 14'-11" (4.55m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PROTECH | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

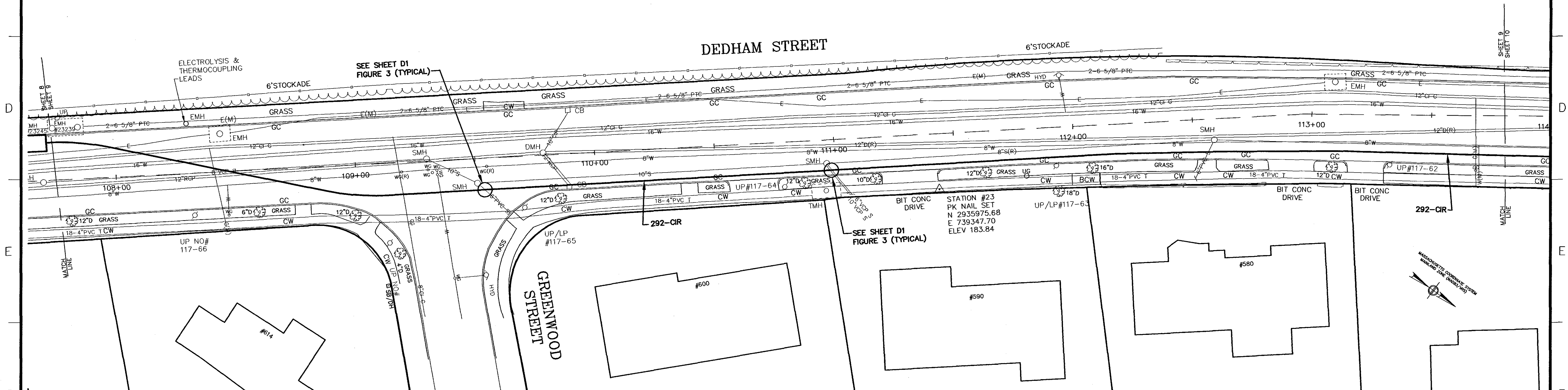
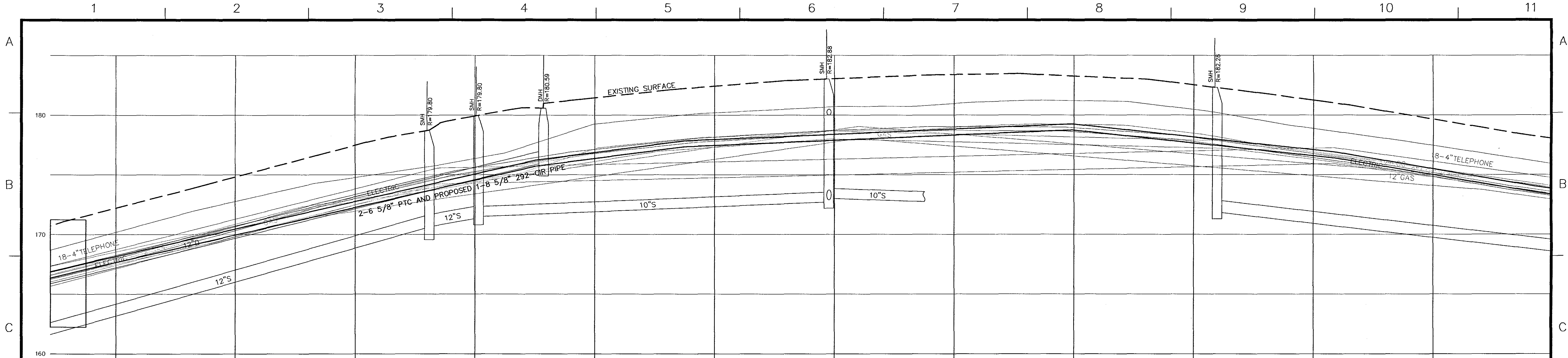


| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 8 OF 22)

| | | | | | | |
|---|------------------|----------------|--------------|----------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK'D. KH | A.P.P.R. | DRAWING NO. | REV. |
|---|------------------|----------------|--------------|----------|-------------|------|



DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 2/20/12
 22 Oct 2012

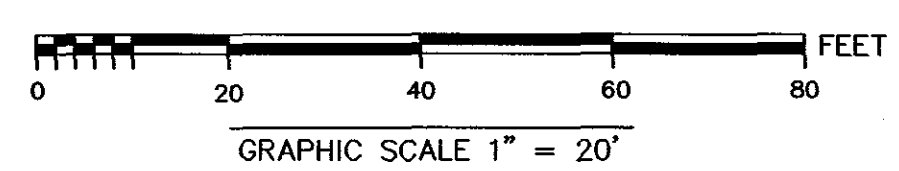
TRC WANNALANCIT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854
 325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 240 KVAC, 208/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND SOLUTE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Acid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 136 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

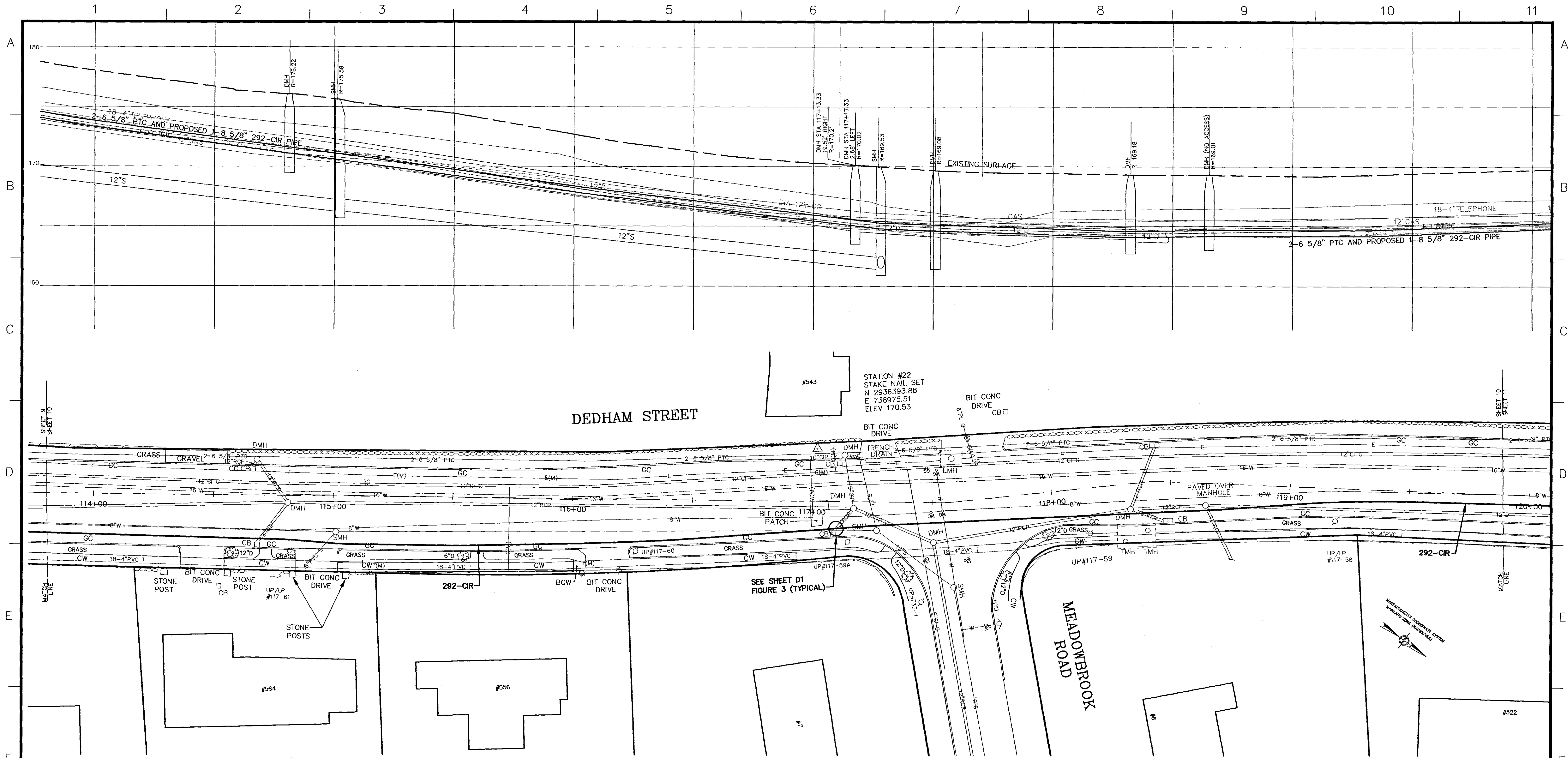
| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PRITECH | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS
 PLAN (SHEET 9 OF 22)

| | | | | | | |
|---|------------------|----------------|---------------|----------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHECKED KH | APPROVED | DRAWING NO. | REV. |
|---|------------------|----------------|---------------|----------|-------------|------|



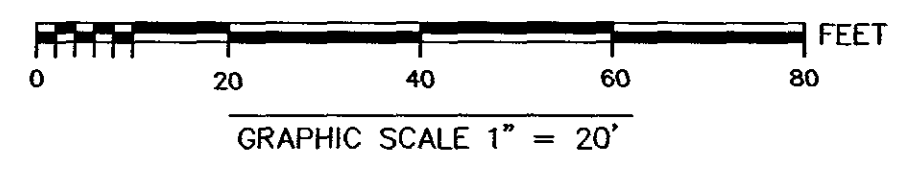
KEVIN HANLEY
 No. 28204
 22 Oct 2012

SMC SURVEYING AND MAPPING CONSULTANTS
 325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208Y/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 169 to 242 | 5'-3" (1.59m) |
| 242 to 362 | 6'-6" (2.00m) |
| 362 to 550 | 11'-3" (3.42m) |
| 550 to 800 | 14'-11" (4.53m) |

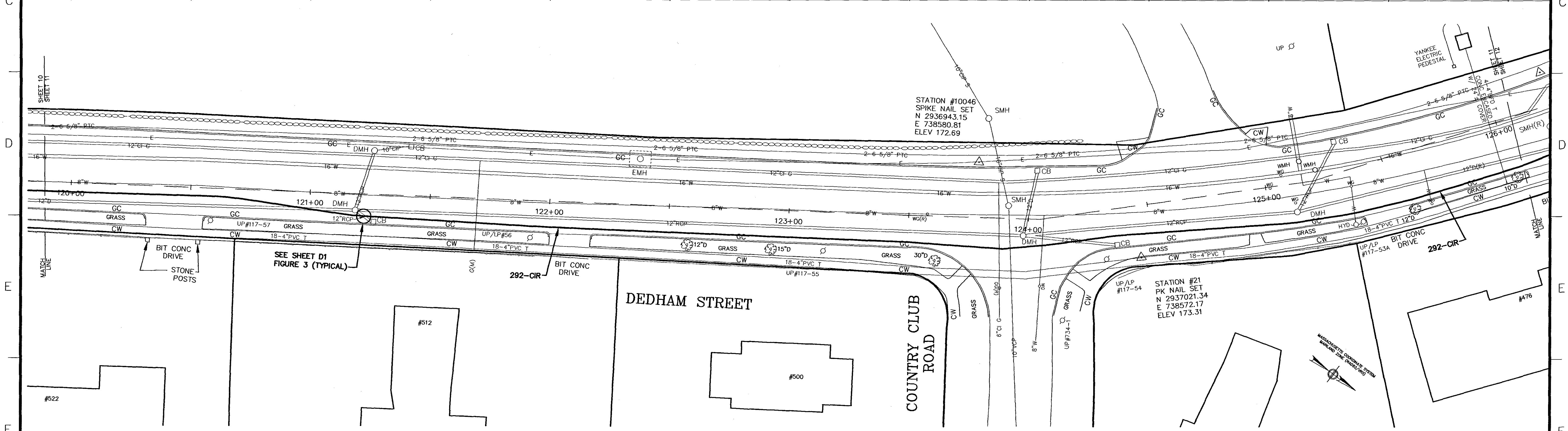
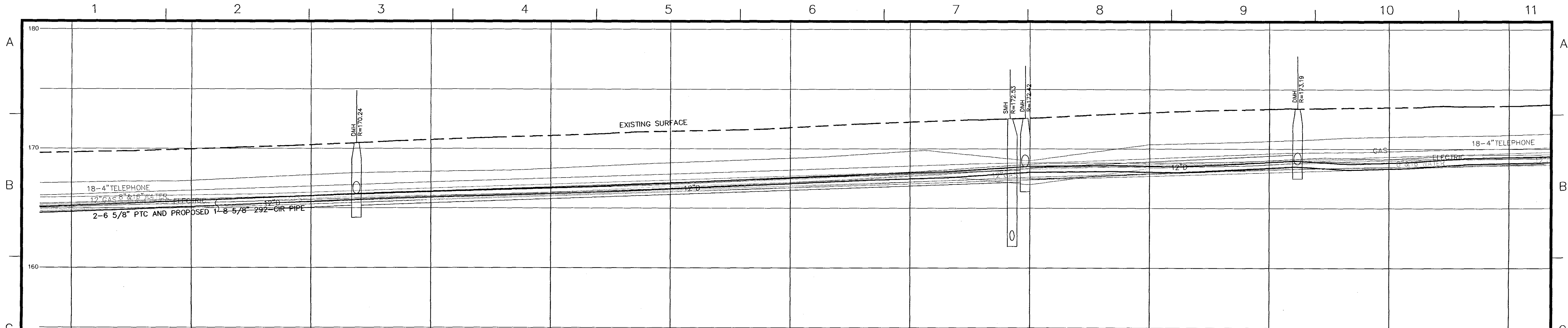
| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FITTING | | |
| | | PPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 10 OF 22)

| | | | | | | |
|---|------------------|----------------|---------------|----------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHECKED KH | APPROVED | DRAWING NO. | REV. |
|---|------------------|----------------|---------------|----------|-------------|------|



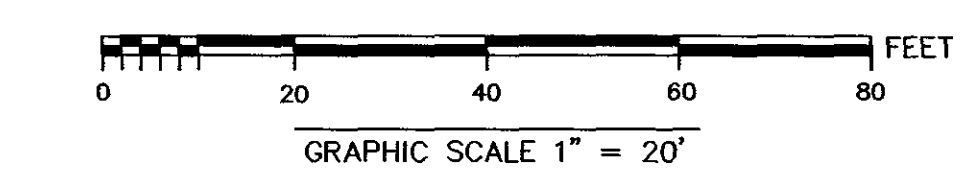
DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 State of Massachusetts
 220-1-2012

WANNALANCIT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854
 325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
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 FAX (781)380-7757
SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.73m) |
| 36.1 to 46.0 | 2'-7" (0.79m) |
| 46.1 to 72.5 | 3'-0" (0.91m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 138 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-5" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

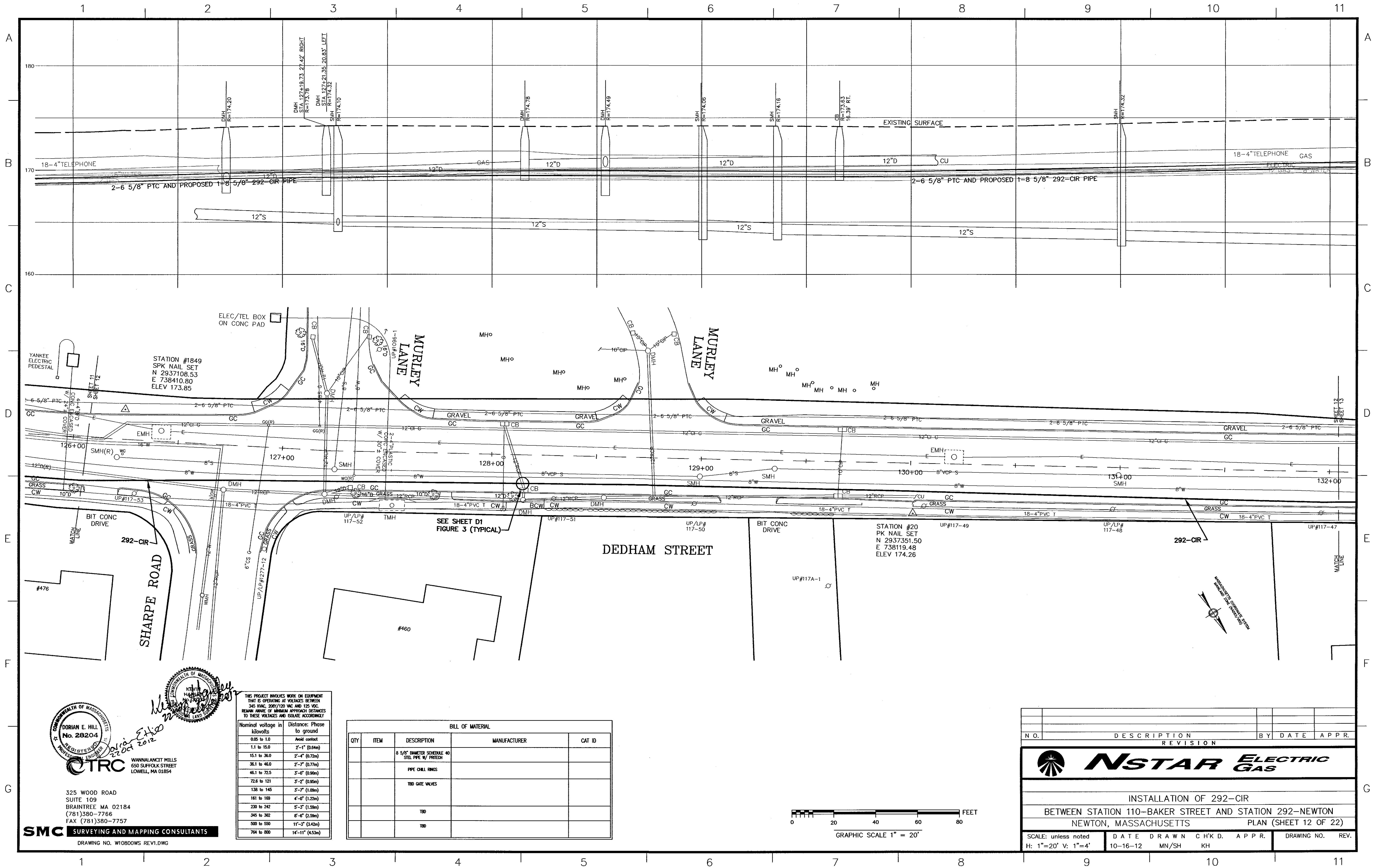
| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 SHEL PIPE W/ FRIBEX | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 11 OF 22)

| | | | | |
|---|------------------------|-----------------|----------------|---------------------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE DRAWN 10-16-12 | CHK'D. MN/SH | A.P.P.R. KH | DRAWING NO. REV. |
|---|------------------------|-----------------|----------------|---------------------|



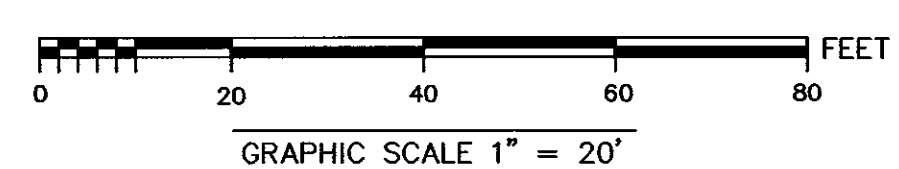
KEVIN HANLEY
 REGISTERED PROFESSIONAL ENGINEER
 27 OCT 2012

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SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLT, 208V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 138 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

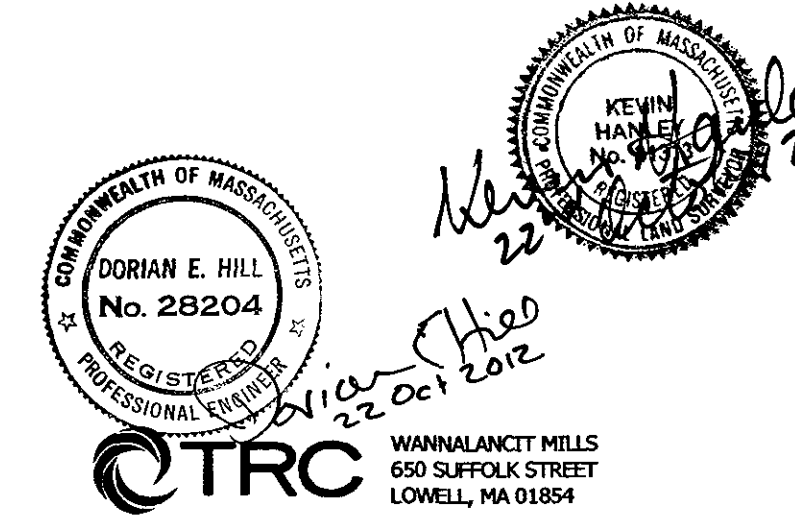
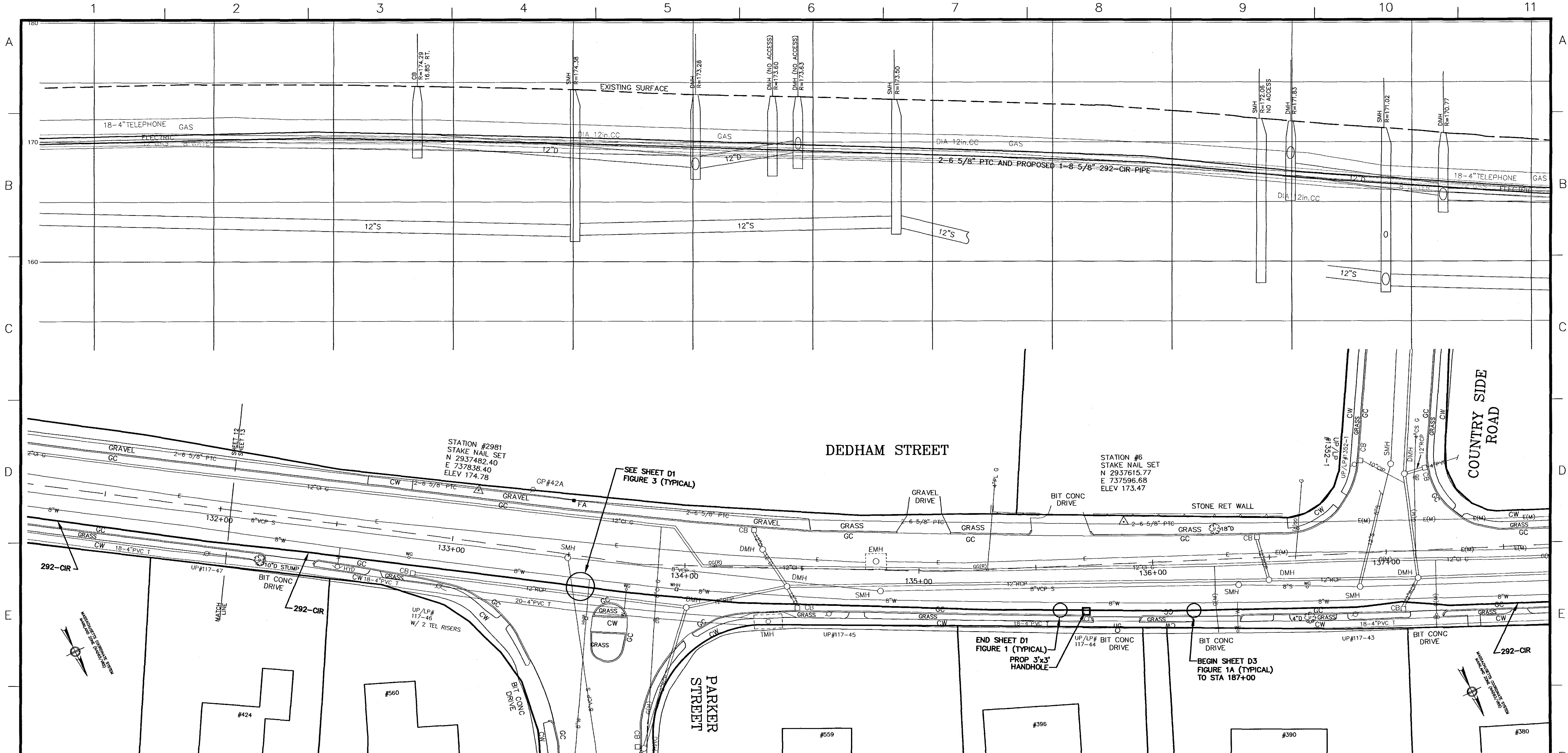
| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FRITESH | | |
| | | PPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| NO. | DESCRIPTION | REVISION | BY | DATE | APPR. |
|-----|-------------|----------|----|------|-------|
| | | | | | |

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 12 OF 22)

| | | | | | | |
|---|------------------|----------------|--------------|-------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK'D. KH | APPR. | DRAWING NO. | REV. |
|---|------------------|----------------|--------------|-------|-------------|------|

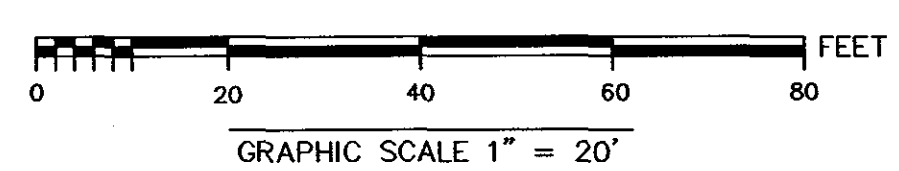


SMC SURVEYING AND MAPPING CONSULTANTS
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 FAX (781)380-7757
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND SOLUTE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.61m) |
| 15.1 to 36.0 | 2'-4" (0.73m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.93m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 136 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-8" (2.09m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|--|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PRITCH | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

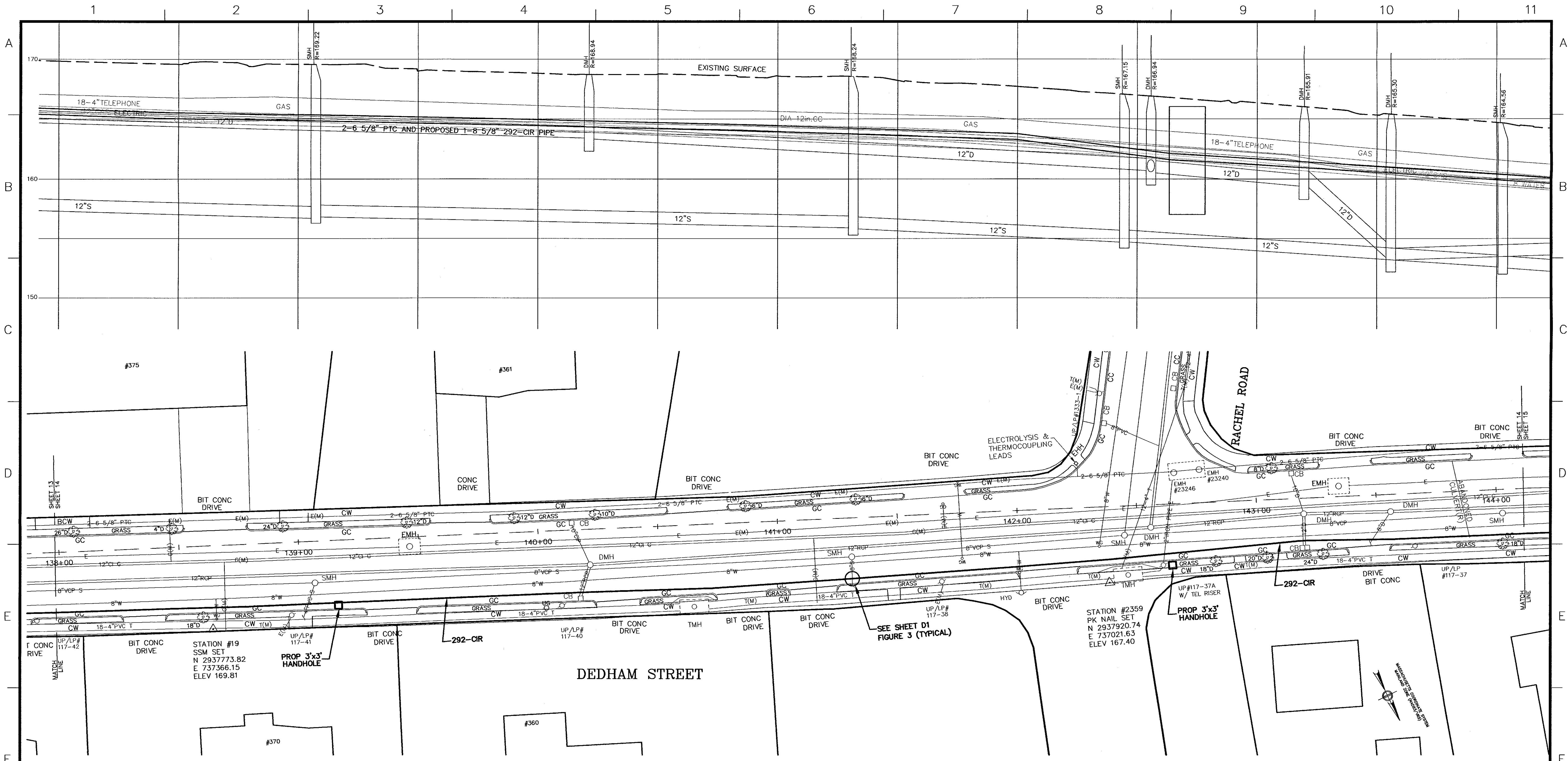


| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 13 OF 22)

SCALE: unless noted H: 1"=20' V: 1"=4'
 DATE DRAWN: 10-16-12
 C'H'K D.: MN/SH
 APPR.: KH
 DRAWING NO.:
 REV.:



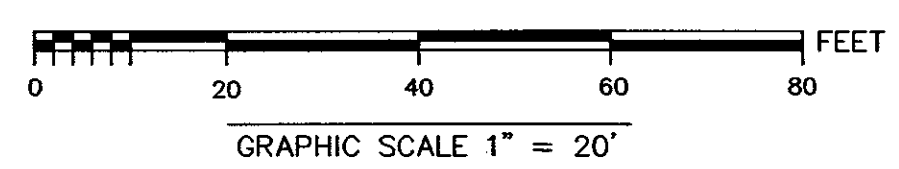
TRC
 325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REVI.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLTS, 208Y/120 PHASE AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.61m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 48.0 | 2'-7" (0.77m) |
| 48.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 138 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.43m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|--|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FRIEZE | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

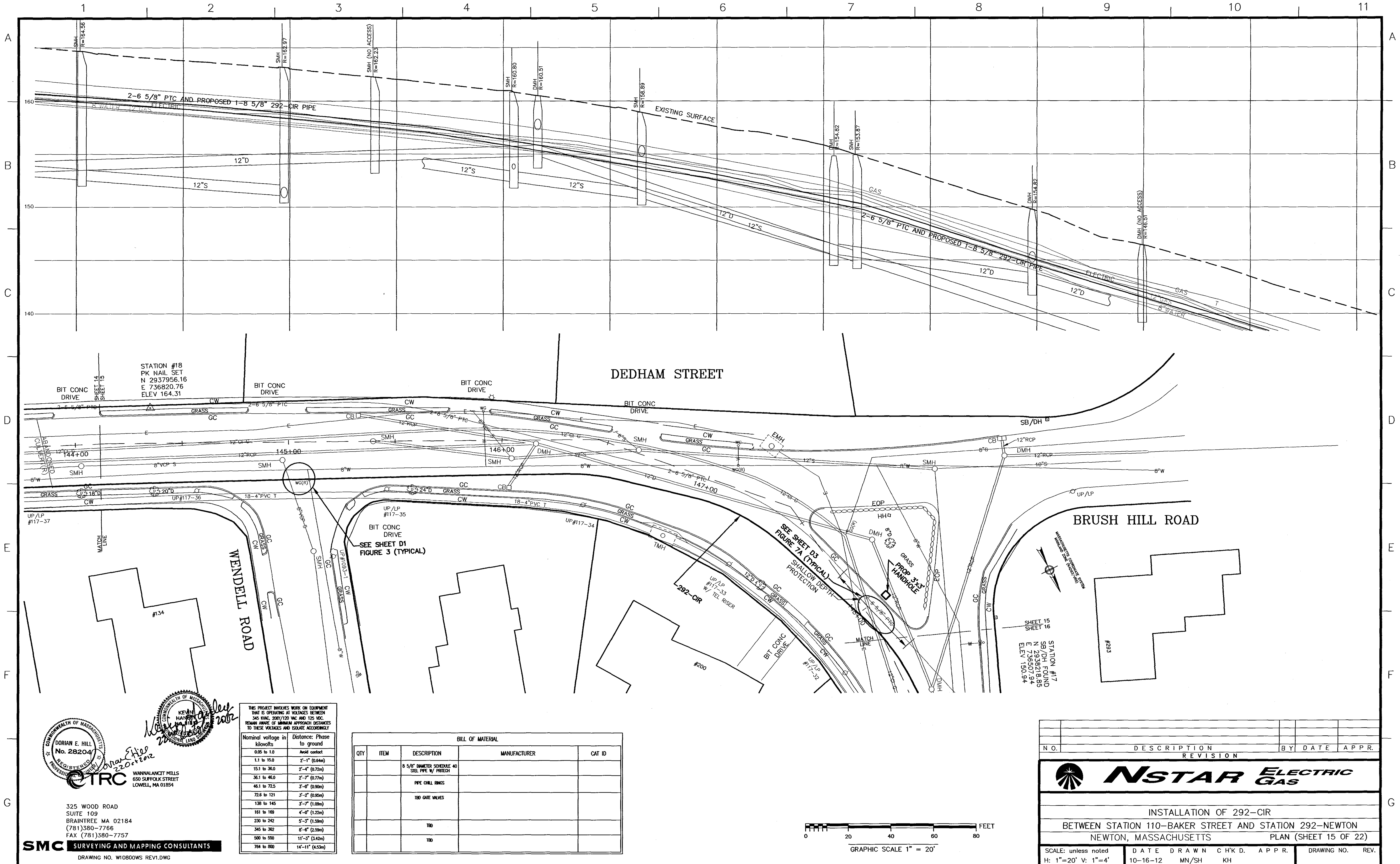


| | | | | |
|-----|-------------|----|------|-------|
| NO. | DESCRIPTION | BY | DATE | APPR. |
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 14 OF 22)

| | | | | | |
|---|------------------------|-----------------|-------------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE DRAWN 10-16-12 | CHK'D. MN/SH | APPR. KH | DRAWING NO. | REV. |
|---|------------------------|-----------------|-------------|-------------|------|



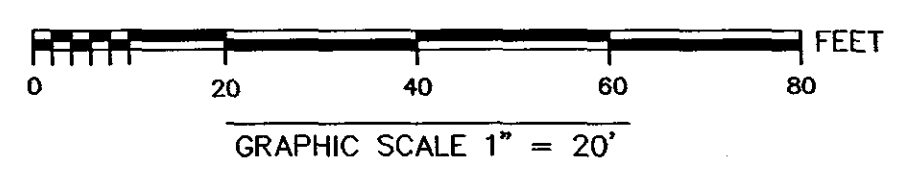
KEVIN H. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS
 WANNALANCIT HILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

SMC SURVEYING AND MAPPING CONSULTANTS
 325 WOOD ROAD
 SUITE 109
 BRAintree MA 02184
 (781)380-7766
 FAX (781)380-7757
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVIC, 208Y/120 VAC AND 125 VAC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

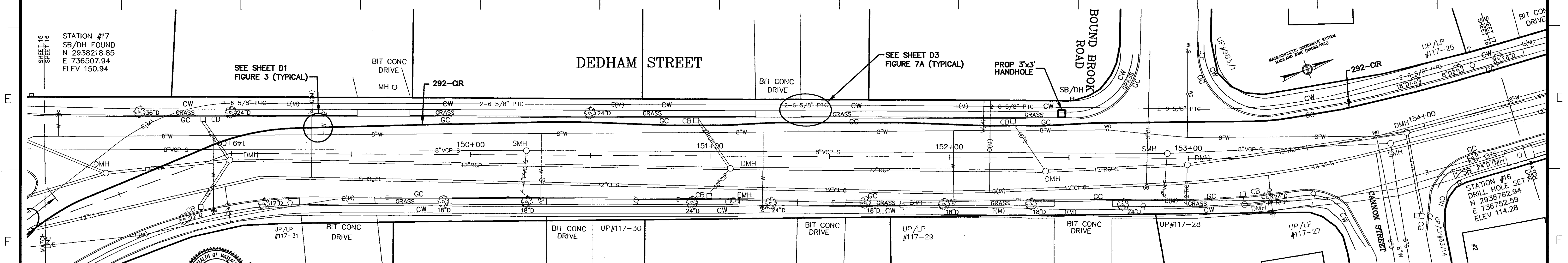
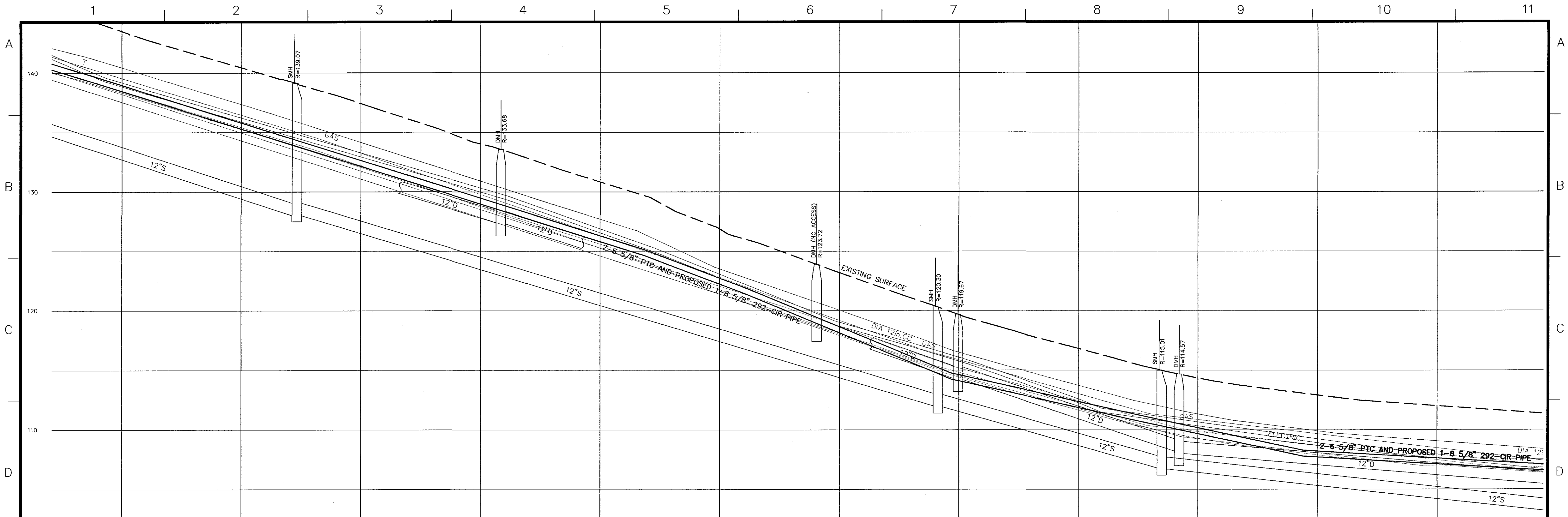
| BILL OF MATERIAL | | | | |
|------------------|------|--|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 SHEL. PIPE W/ PROTECT. | | |
| | | PPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 15 OF 22)

SCALE: unless noted H: 1"=20' V: 1"=4'
 DATE DRAWN 10-16-12 CH'K D. MN/SH A.P.P.R. KH
 DRAWING NO. REV.



SHEET 15
STATION #17
SB/DH FOUND
N 2938218.85
E 736507.94
ELEV 150.94

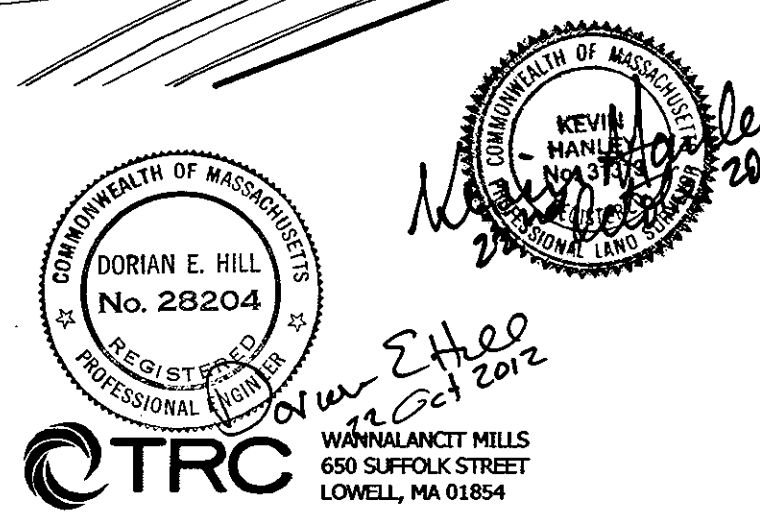
SEE SHEET D1
FIGURE 3 (TYPICAL)

DEDHAM STREET

SEE SHEET D3
FIGURE 7A (TYPICAL)

PROP 3'x3'
HANDHOLE

STATION #16
DRILL HOLE SET
N 2938762.94
E 736752.59
ELEV 114.28

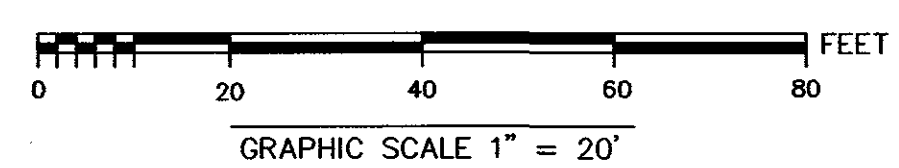


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FAX (781)380-7757
SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLT, 208Y/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 169 to 242 | 5'-3" (1.59m) |
| 242 to 362 | 8'-6" (2.59m) |
| 362 to 500 | 11'-3" (3.42m) |
| 500 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PRICE | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



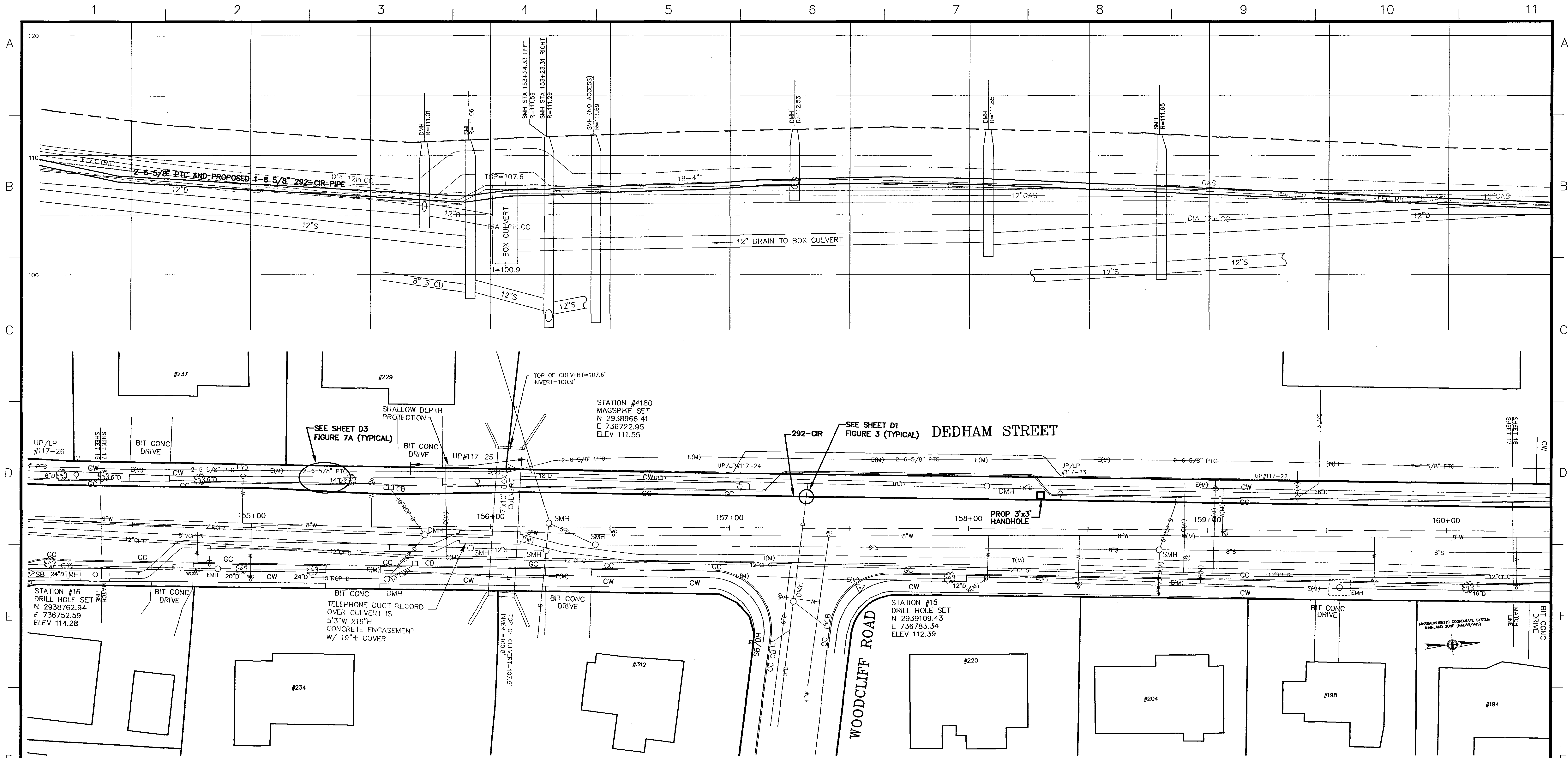
| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS PLAN (SHEET 16 OF 22)

SCALE: unless noted H: 1"=20' V: 1"=4'
DATE DRAWN C'H'K'D. A.P.P.R.
10-16-12 MN/SH KH

DRAWING NO. REV.



COMMONWEALTH OF MASSACHUSETTS
DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 22 Oct 2012

TRC
 WANNALANCKT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

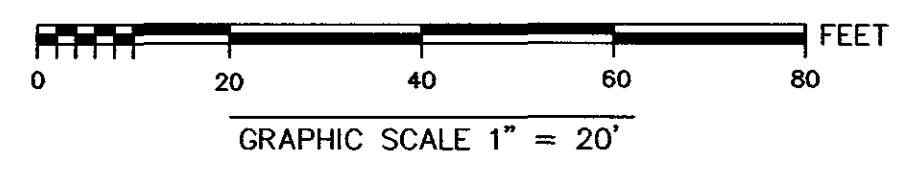
325 WOOD ROAD
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 (781)380-7766
 FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 245 KVA TO 208V/120 VAC AND 125 VDC. REMAIN AWARE OF HAZARDOUS APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.61m) |
| 15.1 to 30.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 130 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.43m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PRIBLOC | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |

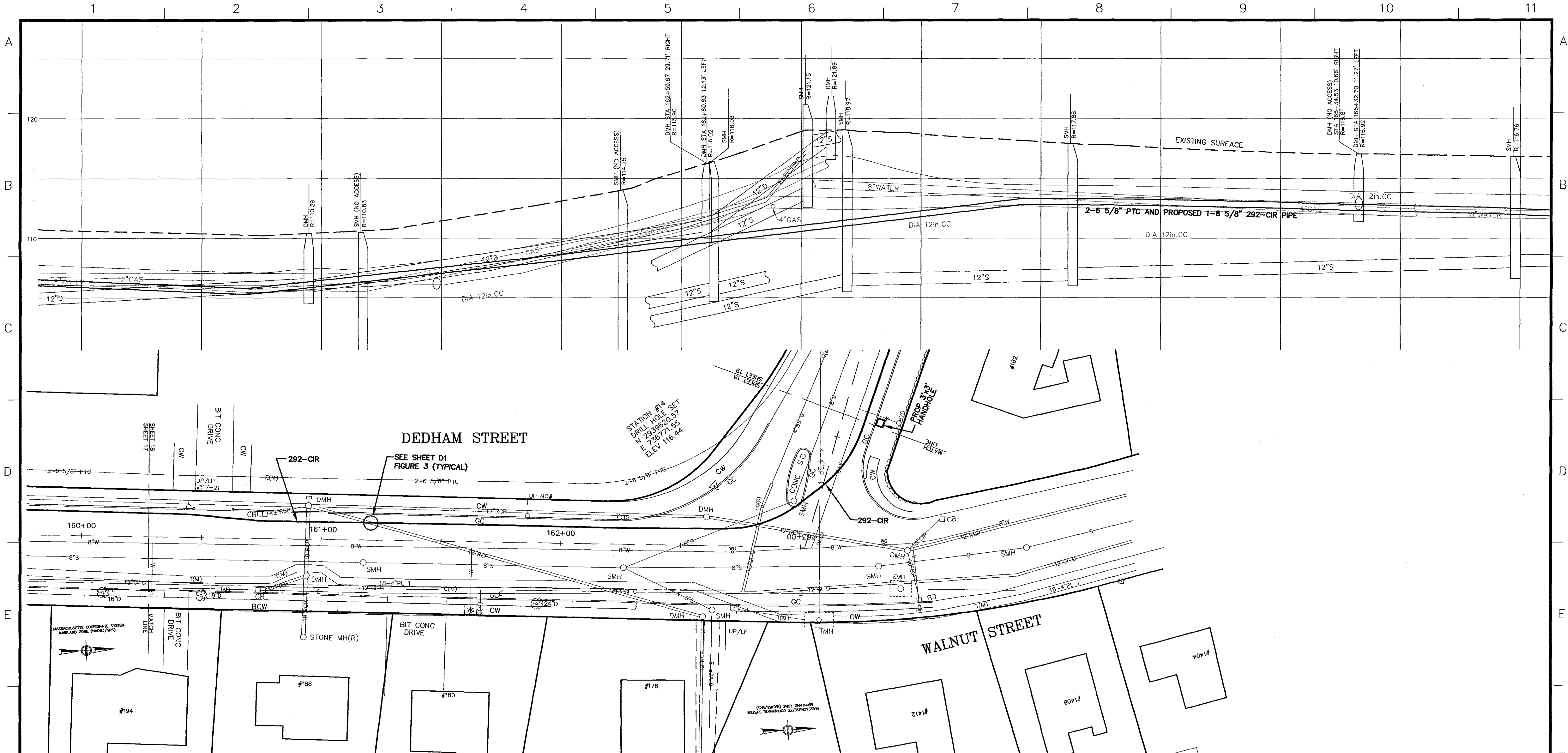


| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 17 OF 22)

| | | | | | | |
|---|------------------|----------------|---------------|-------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CH'K D. KH | APPR. | DRAWING NO. | REV. |
|---|------------------|----------------|---------------|-------|-------------|------|



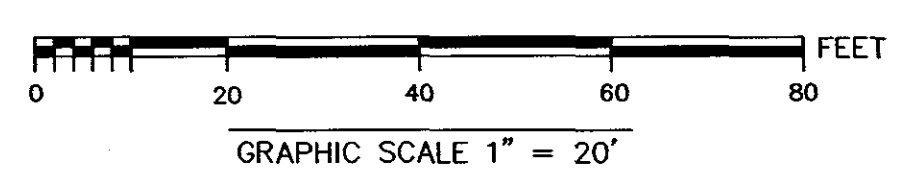
DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 STATE OF MASSACHUSETTS
 WANNALANCKIT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

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 FAX (781)380-7757
SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208Y/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND SOLUTE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.25 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 138 to 145 | 3'-7" (1.09m) |
| 161 to 189 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

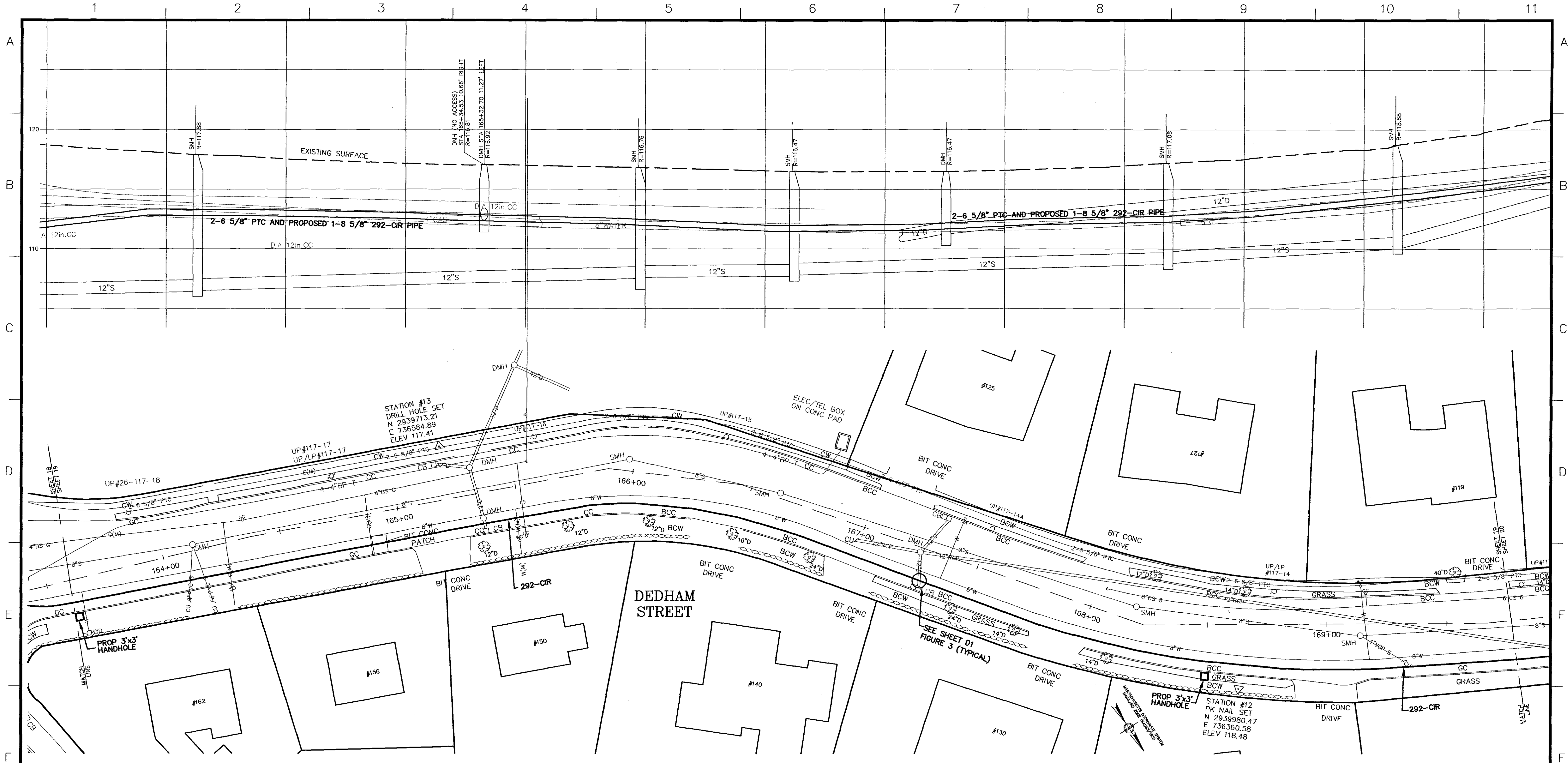
| BILL OF MATERIAL | | | | |
|------------------|------|--|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FRITTECH | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR
 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
 NEWTON, MASSACHUSETTS PLAN (SHEET 18 OF 22)

| | | | | | |
|---|------------------------------|---------------|----------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE DRAWN 10-16-12 MN/SH | CH'K D. KH | A.P.P.R. | DRAWING NO. | REV. |
|---|------------------------------|---------------|----------|-------------|------|



KEVIN H. HILL

 No. 28204

 REGISTERED PROFESSIONAL ENGINEER

 WANNALANCI MILLS

 650 SUFFOLK STREET

 LOWELL, MA 01854

SMC SURVEYING AND MAPPING CONSULTANTS

 325 WOOD ROAD

 SUITE 109

 BRAintree, MA 02184

 (781)380-7766

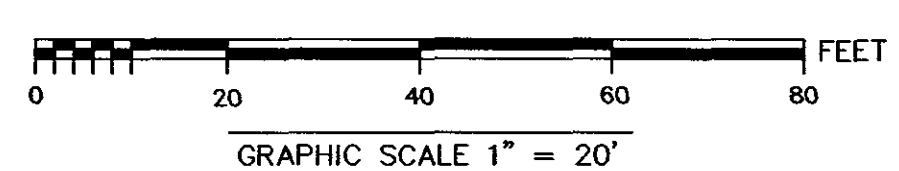
 FAX (781)380-7757

 DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 208Y/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND EQUIPTE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.61m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 48.0 | 2'-7" (0.77m) |
| 48.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 136 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-6" (2.00m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FITTING | | |
| | | PPC CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

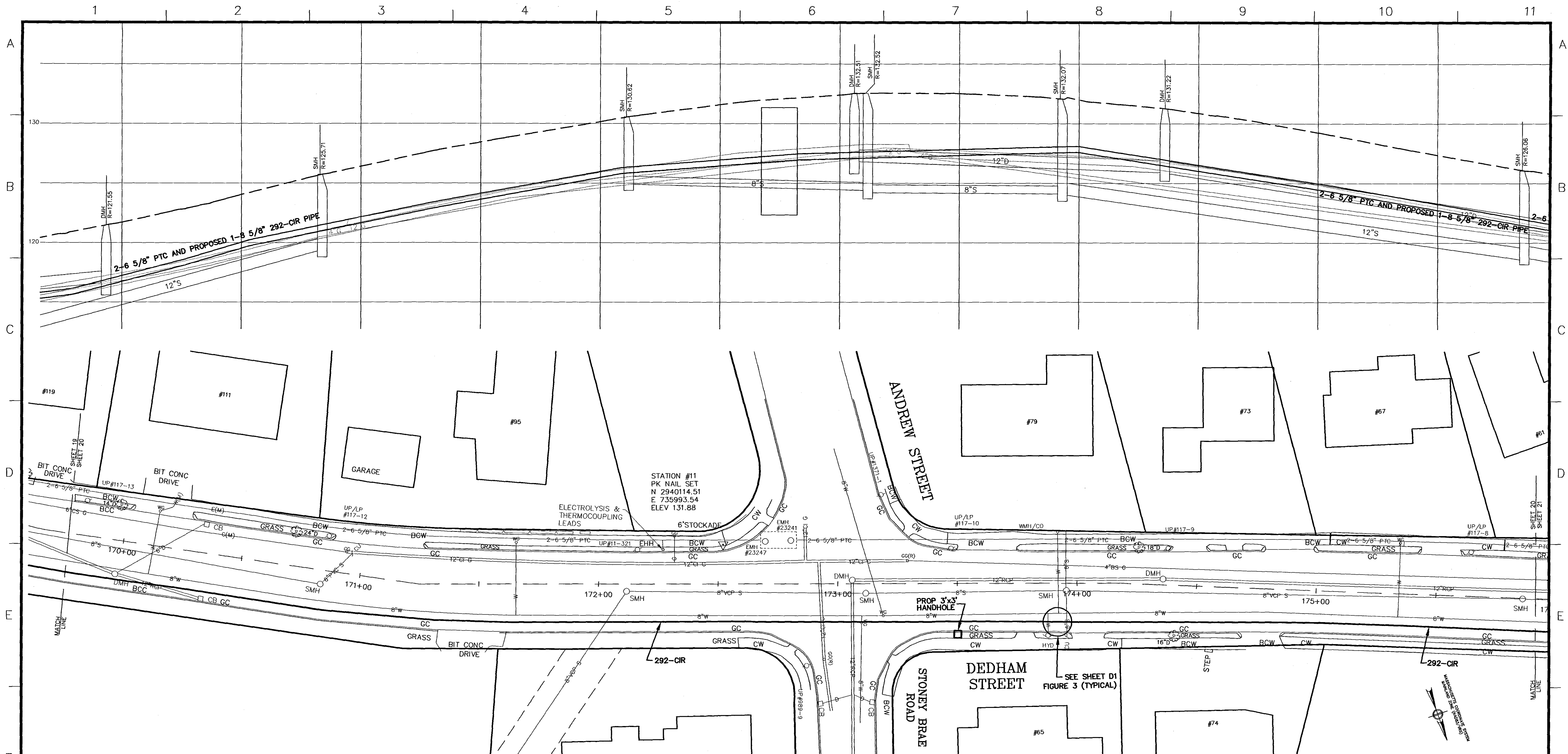
INSTALLATION OF 292-CIR

 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON

 NEWTON, MASSACHUSETTS

 PLAN (SHEET 19 OF 22)

| | | | | | |
|---|------------------------------|---------------|----------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE DRAWN 10-16-12 MN/SH | CH'K'D. KH | A.P.P.R. | DRAWING NO. | REV. |
|---|------------------------------|---------------|----------|-------------|------|



KEVIN HANLEY

 No. 28204

 2/20/2012

TRC

 325 WOOD ROAD

 SUITE 109

 BRAintree MA 02184

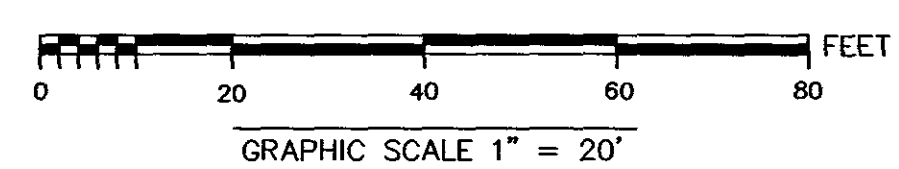
 (781)380-7766

 FAX (781)380-7757

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 KVAC, 200V/120 VAC AND 125 VDC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 121 to 145 | 3'-7" (1.09m) |
| 145 to 169 | 4'-0" (1.22m) |
| 169 to 242 | 5'-3" (1.59m) |
| 242 to 362 | 8'-6" (2.59m) |
| 362 to 500 | 11'-3" (3.42m) |
| 500 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|--|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PRITCH | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE VALVES | | |
| | | TBD | | |
| | | TBD | | |



| NO. | DESCRIPTION | BY | DATE | APPR. |
|-----|-------------|----|------|-------|
| | REVISION | | | |

INSTALLATION OF 292-CIR

 BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON

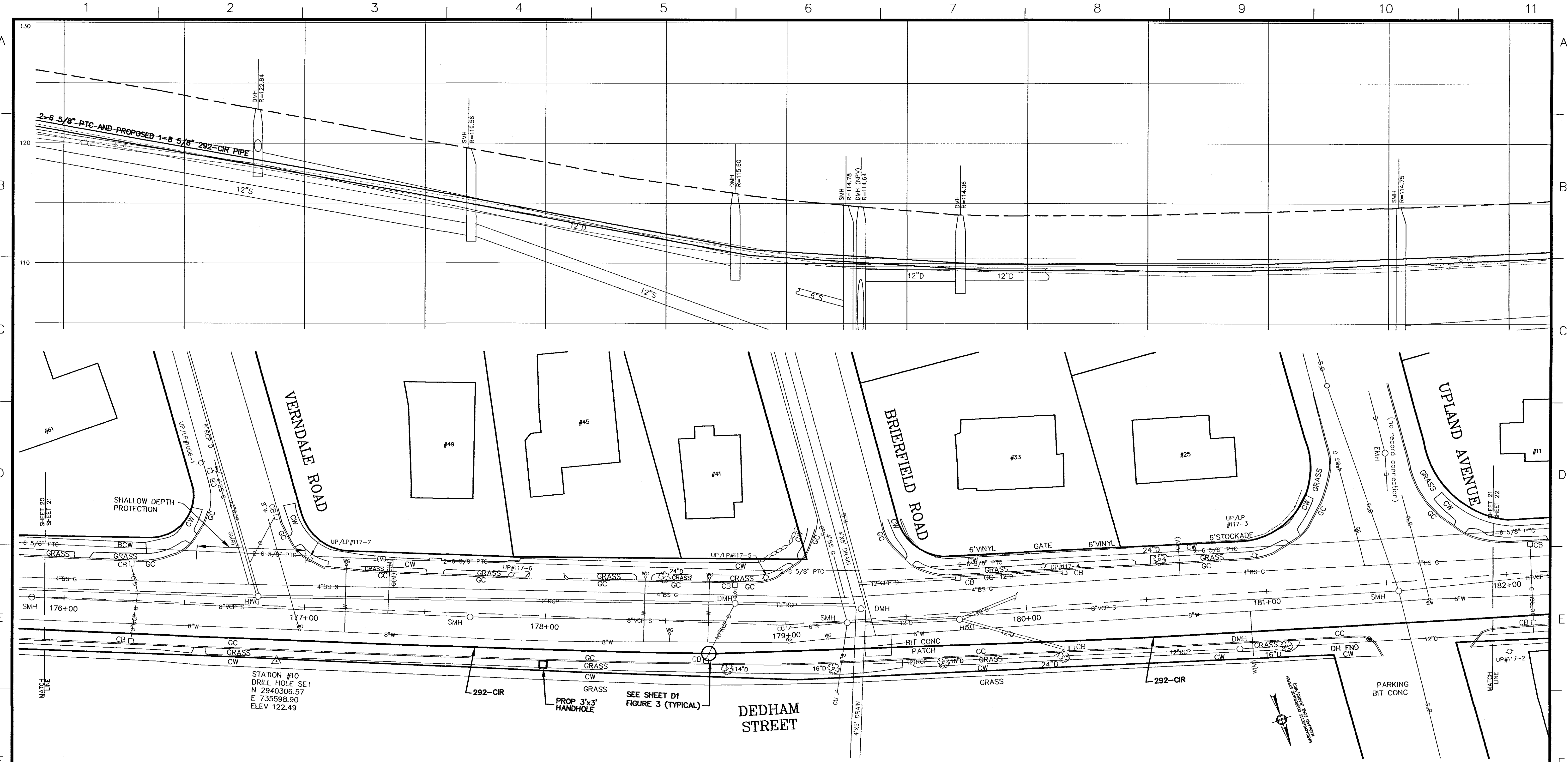
 NEWTON, MASSACHUSETTS

 PLAN (SHEET 20 OF 22)

| | | | | | | |
|---|------------------|----------------|---------------|----------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHECKED KH | APPROVED | DRAWING NO. | REV. |
|---|------------------|----------------|---------------|----------|-------------|------|

SMC SURVEYING AND MAPPING CONSULTANTS

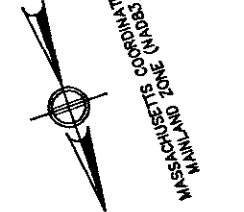
 DRAWING NO. W10800WS REV1.DWG



STATION #10
DRILL HOLE SET
N 2940306.57
E 735598.90
ELEV 122.49

SEE SHEET D1
FIGURE 3 (TYPICAL)

DEDHAM STREET



Kevin H. Hill
22 Oct 2012



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SMC SURVEYING AND MAPPING CONSULTANTS

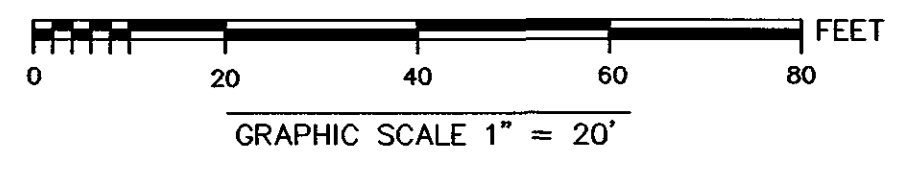
DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 VOLTS, 200Y/120V WYE AND 125 VOLT. REMAIN AWARE OF HAZARD APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

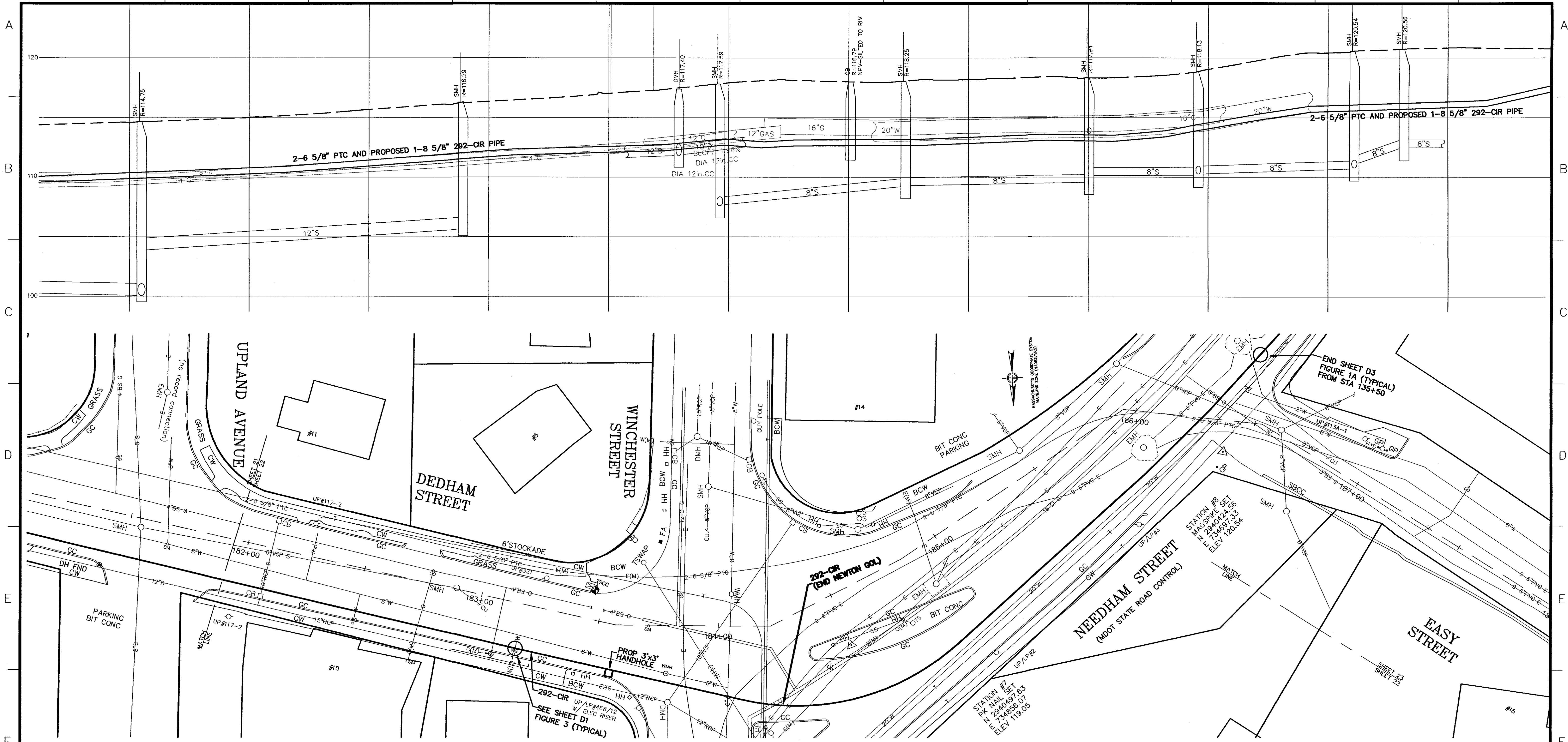
| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 136 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 6'-4" (2.59m) |
| 500 to 550 | 11'-3" (3.43m) |
| 764 to 900 | 14'-11" (4.55m) |

BILL OF MATERIAL

| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
|-----|------|--|--------------|--------|
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ FRISCH | | |
| | | PPE CHL RINGS | | |
| | | TBD GATE WAVES | | |
| | | TBD | | |
| | | TBD | | |



| N.O. | DESCRIPTION | BY | DATE | APPR. |
|--|------------------|----------------|-------------|-------|
| | REVISION | | | |
| | | | | |
| INSTALLATION OF 292-CIR BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON NEWTON, MASSACHUSETTS PLAN (SHEET 21 OF 22) | | | | |
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK'D KH | APPR. |
| DRAWING NO. | | | | REV. |



WANNALANCTT MILLS
650 SUFFOLK STREET
LOWELL, MA 01854

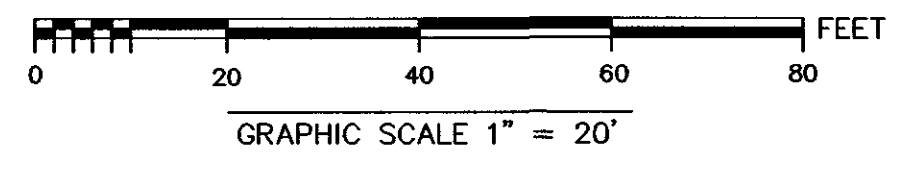
325 WOOD ROAD
SUITE 109
BRAintree MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS
DRAWING NO. W10800WS REV1.DWG

THIS PROJECT INVOLVES WORK ON EQUIPMENT THAT IS OPERATING AT VOLTAGES BETWEEN 345 W/VC, 208Y/120 W/VC AND 125 W/VC. REMAIN AWARE OF MINIMUM APPROACH DISTANCES TO THESE VOLTAGES AND ISOLATE ACCORDINGLY.

| Nominal voltage in kilovolts | Distance: Phase to ground |
|------------------------------|---------------------------|
| 0.05 to 1.0 | Avoid contact |
| 1.1 to 15.0 | 2'-1" (0.64m) |
| 15.1 to 36.0 | 2'-4" (0.72m) |
| 36.1 to 46.0 | 2'-7" (0.77m) |
| 46.1 to 72.5 | 3'-0" (0.90m) |
| 72.6 to 121 | 3'-2" (0.95m) |
| 136 to 145 | 3'-7" (1.09m) |
| 161 to 169 | 4'-0" (1.22m) |
| 230 to 242 | 5'-3" (1.59m) |
| 345 to 362 | 8'-6" (2.59m) |
| 500 to 550 | 11'-3" (3.42m) |
| 764 to 800 | 14'-11" (4.53m) |

| BILL OF MATERIAL | | | | |
|------------------|------|---|--------------|--------|
| QTY | ITEM | DESCRIPTION | MANUFACTURER | CAT ID |
| | | 8 5/8" DIAMETER SCHEDULE 40 STEEL PIPE W/ PROTECT | | |
| | | PIPE CHILL RINGS | | |
| | | TBD GATE WAVES | | |
| | | TBD | | |
| | | TBD | | |

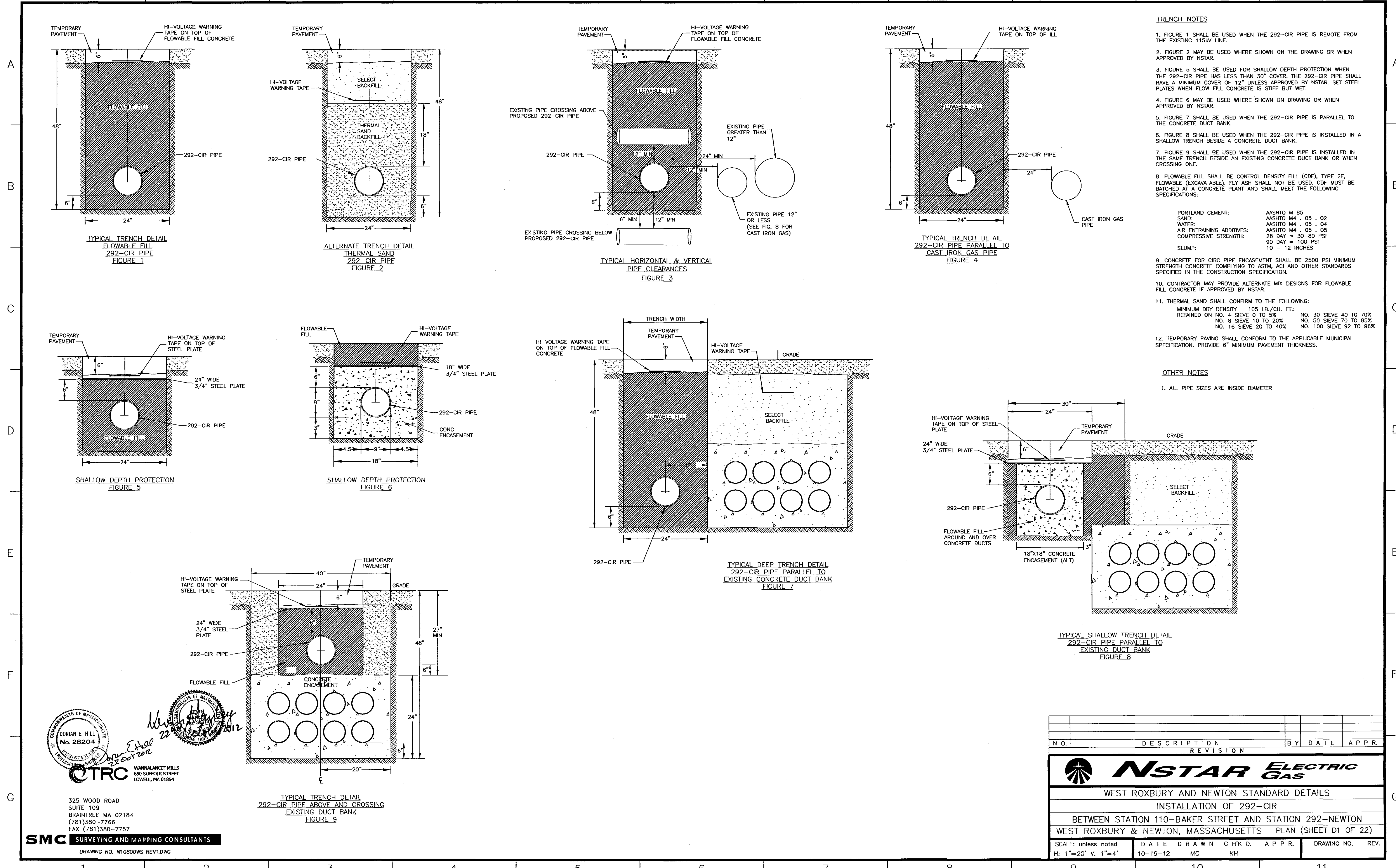


| N.O. | DESCRIPTION | BY | DATE | APPR. |
|------|-------------|----|------|-------|
| | REVISION | | | |

NSTAR ELECTRIC GAS

INSTALLATION OF 292-CIR
BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON
NEWTON, MASSACHUSETTS PLAN (SHEET 22 OF 22)

| | | | | | | |
|---|------------------|----------------|-------------|-------|-------------|------|
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MN/SH | CHK'D KH | APPR. | DRAWING NO. | REV. |
|---|------------------|----------------|-------------|-------|-------------|------|



- TRENCH NOTES**
- FIGURE 1 SHALL BE USED WHEN THE 292-CIR PIPE IS REMOTE FROM THE EXISTING 115KV LINE.
 - FIGURE 2 MAY BE USED WHERE SHOWN ON THE DRAWING OR WHEN APPROVED BY NSTAR.
 - FIGURE 5 SHALL BE USED FOR SHALLOW DEPTH PROTECTION WHEN THE 292-CIR PIPE HAS LESS THAN 30" COVER. THE 292-CIR PIPE SHALL HAVE A MINIMUM COVER OF 12" UNLESS APPROVED BY NSTAR. SET STEEL PLATES WHEN FLOW FILL CONCRETE IS STIFF BUT WET.
 - FIGURE 6 MAY BE USED WHERE SHOWN ON DRAWING OR WHEN APPROVED BY NSTAR.
 - FIGURE 7 SHALL BE USED WHEN THE 292-CIR PIPE IS PARALLEL TO THE CONCRETE DUCT BANK.
 - FIGURE 8 SHALL BE USED WHEN THE 292-CIR PIPE IS INSTALLED IN A SHALLOW TRENCH BESIDE A CONCRETE DUCT BANK.
 - FIGURE 9 SHALL BE USED WHEN THE 292-CIR PIPE IS INSTALLED IN THE SAME TRENCH BESIDE AN EXISTING CONCRETE DUCT BANK OR WHEN CROSSING ONE.
 - FLOWABLE FILL SHALL BE CONTROL DENSITY FILL (CDF), TYPE 2E, FLOWABLE (EXCAVATABLE). FLY ASH SHALL NOT BE USED. CDF MUST BE BATCHED AT A CONCRETE PLANT AND SHALL MEET THE FOLLOWING SPECIFICATIONS:

| | |
|---------------------------|----------------------|
| PORTLAND CEMENT: | AASHTO M 85 |
| SAND: | AASHTO M 4 - 05 - 02 |
| WATER: | AASHTO M 4 - 05 - 04 |
| AIR ENTRAINING ADDITIVES: | AASHTO M 4 - 05 - 05 |
| COMPRESSIVE STRENGTH: | 28 DAY = 30-60 PSI |
| | 90 DAY = 100 PSI |
| SLUMP: | 10 - 12 INCHES |
 - CONCRETE FOR CIRC PIPE ENCASEMENT SHALL BE 2500 PSI MINIMUM STRENGTH CONCRETE COMPLYING TO ASTM, ACI AND OTHER STANDARDS SPECIFIED IN THE CONSTRUCTION SPECIFICATION.
 - CONTRACTOR MAY PROVIDE ALTERNATE MIX DESIGNS FOR FLOWABLE FILL CONCRETE IF APPROVED BY NSTAR.
 - THERMAL SAND SHALL CONFIRM TO THE FOLLOWING:

| | |
|--|-------------------------|
| MINIMUM DRY DENSITY = 105 LB./CU. FT.: | |
| RETAINED ON NO. 4 SIEVE 0 TO 5% | NO. 30 SIEVE 40 TO 70% |
| NO. 8 SIEVE 10 TO 20% | NO. 50 SIEVE 70 TO 85% |
| NO. 16 SIEVE 20 TO 40% | NO. 100 SIEVE 92 TO 96% |
 - TEMPORARY PAVING SHALL CONFORM TO THE APPLICABLE MUNICIPAL SPECIFICATION. PROVIDE 6" MINIMUM PAVEMENT THICKNESS.

OTHER NOTES

- ALL PIPE SIZES ARE INSIDE DIAMETER

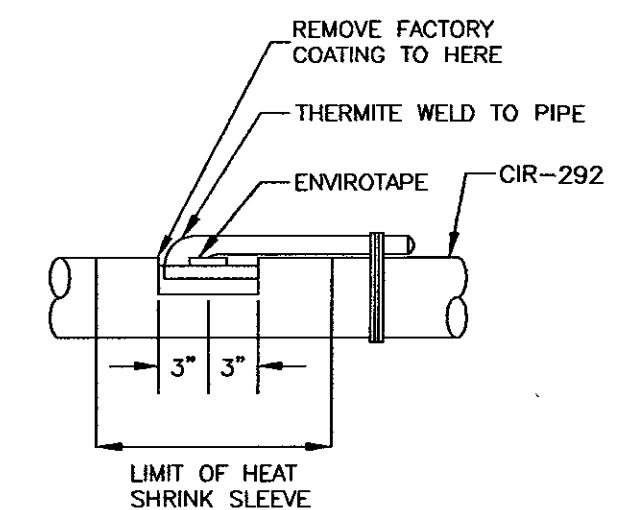
COMMONWEALTH OF MASSACHUSETTS
 DORIAN E. HILL
 No. 28204
 REGISTERED PROFESSIONAL ENGINEER
 OCT 22 2012

WANNALANCIT MILLS
 650 SUFFOLK STREET
 LOWELL, MA 01854

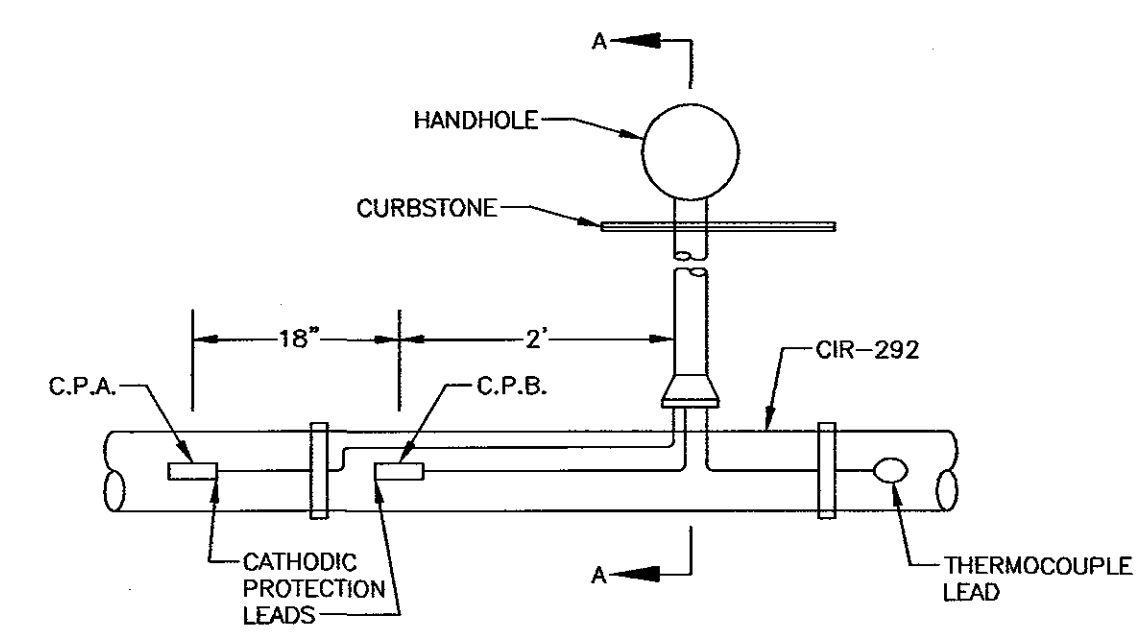
SMC SURVEYING AND MAPPING CONSULTANTS
 325 WOOD ROAD
 SUITE 109
 BRAINTREE MA 02184
 (781)380-7766
 FAX (781)380-7757
 DRAWING NO. W10800WS REV1.DWG

| NO. | DESCRIPTION | BY | DATE | APPR. |
|--|-------------|-------|--------|-------|
| REVISION | | | | |
| | | | | |
| WEST ROXBURY AND NEWTON STANDARD DETAILS | | | | |
| INSTALLATION OF 292-CIR | | | | |
| BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON | | | | |
| WEST ROXBURY & NEWTON, MASSACHUSETTS PLAN (SHEET D1 OF 22) | | | | |
| SCALE: unless noted | DATE | DRAWN | C'K'D. | APPR. |
| H: 1"=20' V: 1"=4' | 10-16-12 | MC | KH | |
| DRAWING NO. | REV. | | | |
| | | | | |

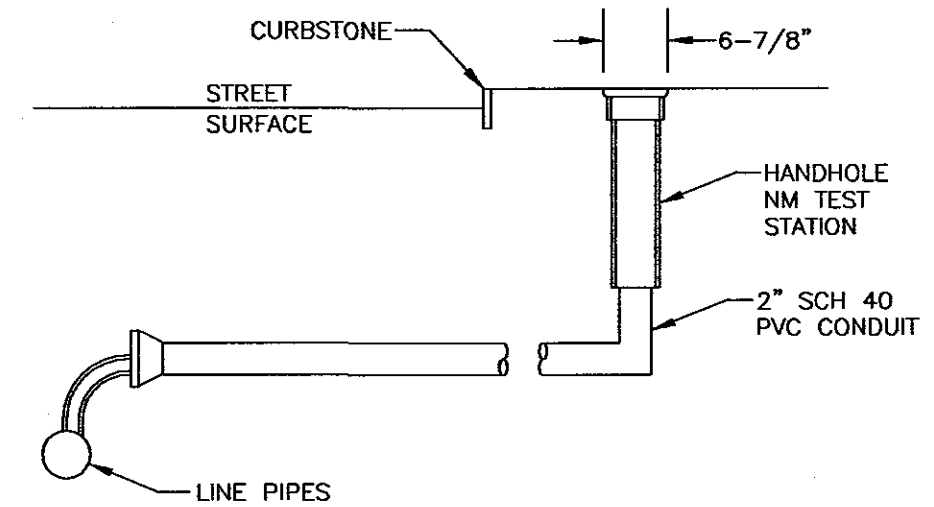
A
B
C
D
E
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G



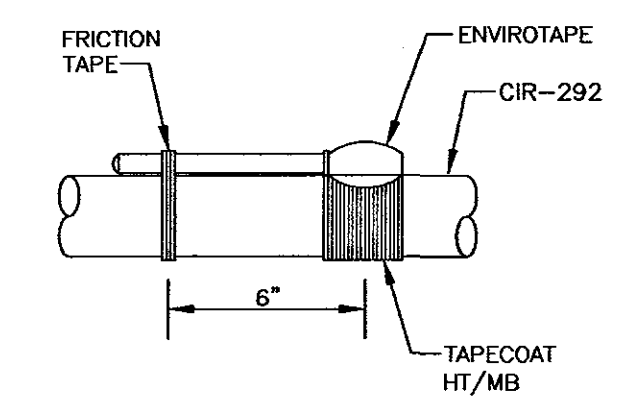
DETAIL OF CATHODIC PROTECTION LEAD ATTACHMENT
FIGURE 10



PLAN
INSTALLATION OF THERMOCOUPLE &
CATHODIC PROTECTION TEST LEADS
PIPE TYPE CABLE LINES
FIGURE 11



A-A
FIGURE 12



DETAIL OF THERMOCOUPLE LEAD ATTACHMENT
FIGURE 13

THERMOCOUPLE AND CATHODIC PROTECTION LEAD NOTES

1. HANDHOLE SHALL BE INSTALLED IN SIDEWALKS OR THE LOCATION SHOWN ON THE PLAN.
2. HANDHOLES SHALL HAVE A TWO PIECE TELESCOPING BODY.
3. TRAIL LEADS OVER AND AWAY FROM PIPES IN SUCH MANNERS THAT NO SHARP BENDS OR KINKS OCCUR.
4. LEAVE SLACK IN ALL LEADS TO ALLOW FOR SETTLING.
5. ALL LEADS SHALL BE CONTINUOUS (NO SPLICES) FROM ATTACHMENT TO HANDHOLE LEADS SHALL BE SECURED TO THE TOP OF THE PIPES BY FRICTION TAPE AT 2' INTERVALS.
6. USE DUCT SEAL ON 2" PVC CONDUIT.
7. THERMOCOUPLE LEADS SHALL BE EXTENDED INTO THE HANDHOLE WITH 5' OF COILED WIRE. EACH THERMOCOUPLE WIRE SHALL HAVE A PERMANENT IDENTIFICATION TAG.
8. THERMOCOUPLE LEADS SHALL BE #16 COPPER-CONSTANTAN POLYVINYL PLASTIC INSULATED WIRE WITH POLYVINYL PLASTIC INSULATION OVERALL, A.S. RICHARDS CO. CAT #16 TX-PP EXTENSION WIRE OR APPROVED EQUAL.
9. THERMOCOUPLE LEADS SHALL BE ASSEMBLED BY REMOVING ALL INSULATION FOR A DISTANCE OF 3' FROM THE END OF THE CABLE, SCRAPING THE EXPOSED CONDUCTORS CLEAN USING THE BACK OF A KNIFE, AND TWISTING THE CONDUCTORS TIGHTLY TOGETHER.
10. THE THERMOCOUPLE WIRE SHALL BE ATTACHED TO THE PIPE BY ALIGNING THE EXPOSED CONDUCTORS AGAINST THE SURFACE OF THE PIPE COATING AND SEALING OVER THE CONDUCTORS BY WRAPPING ONE LAYER OF TAPECOAT HT/MB A MINIMUM OF 1.5 TIMES AROUND THE PIPE.
11. CATHODIC PROTECTION LEADS SHALL BE #12 AWG COPPER CONDUCTOR, 600 VOLT CABLE WITH A HYPALON JACKET, DURASHEALTH POWER CABLE BY BICC OR EQUAL.
12. EACH CATHODIC PROTECTION LEAD SHALL HAVE A PERMANENT IDENTIFICATION TAG ON EACH LEAD. IDENTIFICATION SHALL CONSIST OF THE TYPE OF LEAD AND LINE NUMBER AS FOLLOWS: CP A (292-CIR PIPE), CP B (292-CIR PIPE).
13. CATHODIC PROTECTION LEAD SHALL BE ATTACHED TO THE PIPE BY REMOVING THE PIPE COATING FROM THE TOP OF THE PIPE FOR A 3"x3" SQUARE, THOROUGHLY CLEANING THE PIPE WITH A WIRE BRUSH AND THERMITE WELD THE LEAD TO THE PIPE. APPLY TWO 6" WIDE LAYER OF TAPECOAT ENVIROTAPE. THE FIRST LAYER SHALL BUTT UP AGAINST THE LEAD WIRE. THE LEAD WIRE SHALL BE BENT OVER THE TOP OF THE FIRST LAYER, AND THE SECOND LAYER SHALL BE INSTALLED OVER THE LEAD WIRE WITH A 1" OVERLAP OF THE FIRST LAYER. APPLY A 17" WIDE HEAT SHRINK SLEEVE OVER THE ENTIRE AREA.

22 Oct 2012

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 650 SUFFOLK STREET
 LOWELL, MA 01854

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SMC SURVEYING AND MAPPING CONSULTANTS
 DRAWING NO. W0800WS REV1.DWG

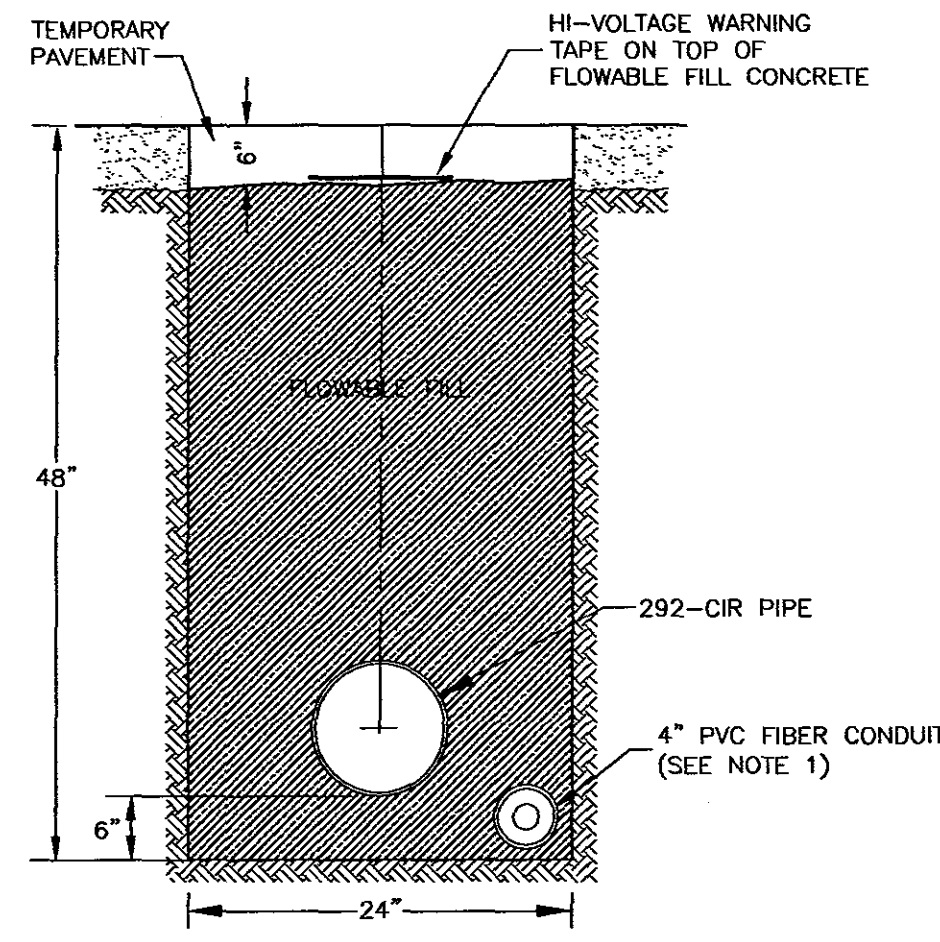
| N.O. | DESCRIPTION | BY | DATE | APPR. |
|--|------------------|-------------|---------------|-------------|
| REVISION | | | | |
| | | | | |
| WEST ROXBURY AND NEWTON STANDARD DETAILS | | | | |
| INSTALLATION OF 292-CIR | | | | |
| BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON | | | | |
| WEST ROXBURY & NEWTON, MASSACHUSETTS PLAN (SHEET D2 OF 22) | | | | |
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE 10-16-12 | DRAWN MC | CHECKED KH | APPR. KH |
| DRAWING NO. | | | REV. | |

OTHER NOTES

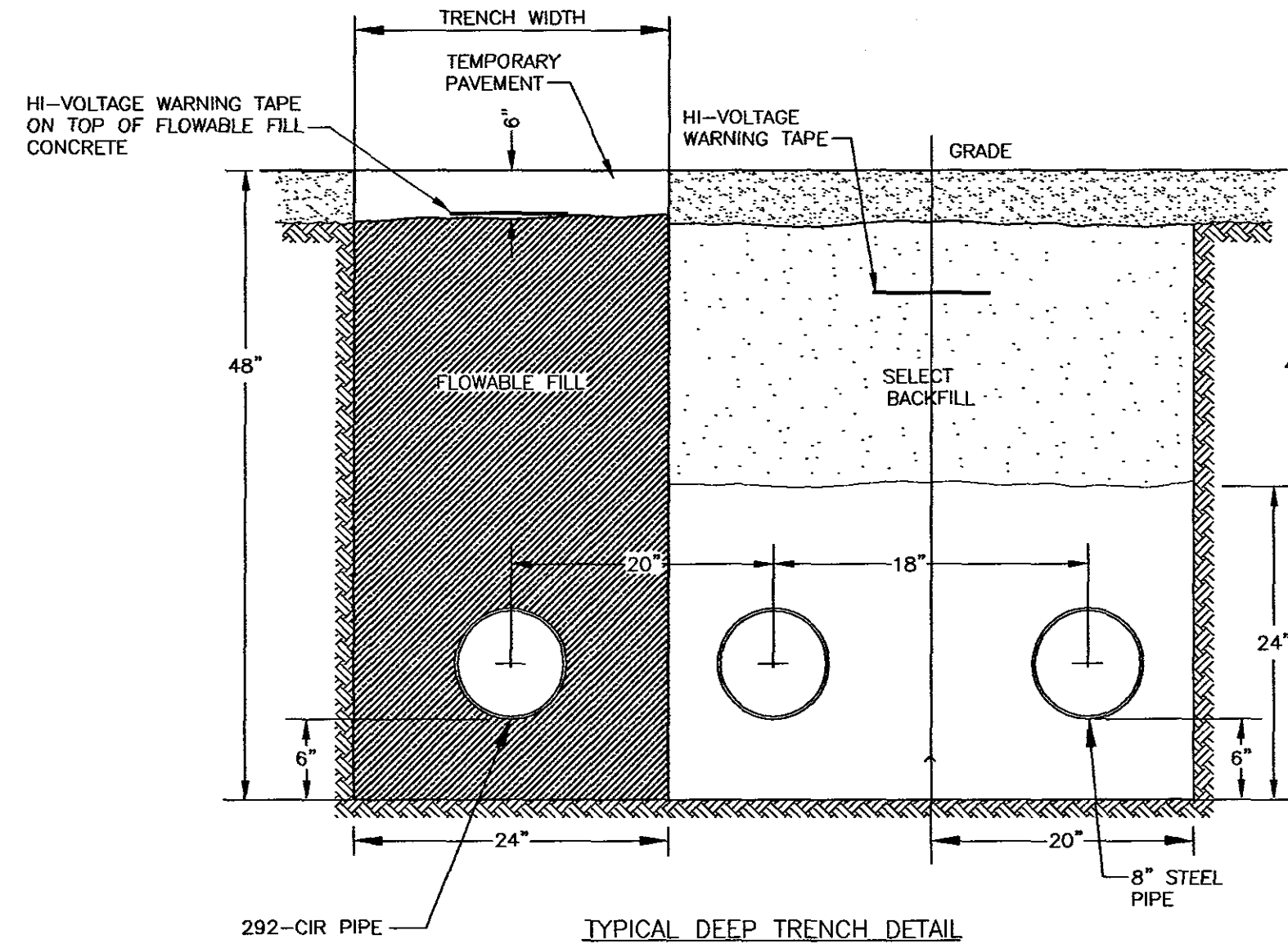
1. ALL PIPE SIZES ARE INSIDE DIAMETER

TRENCH NOTES

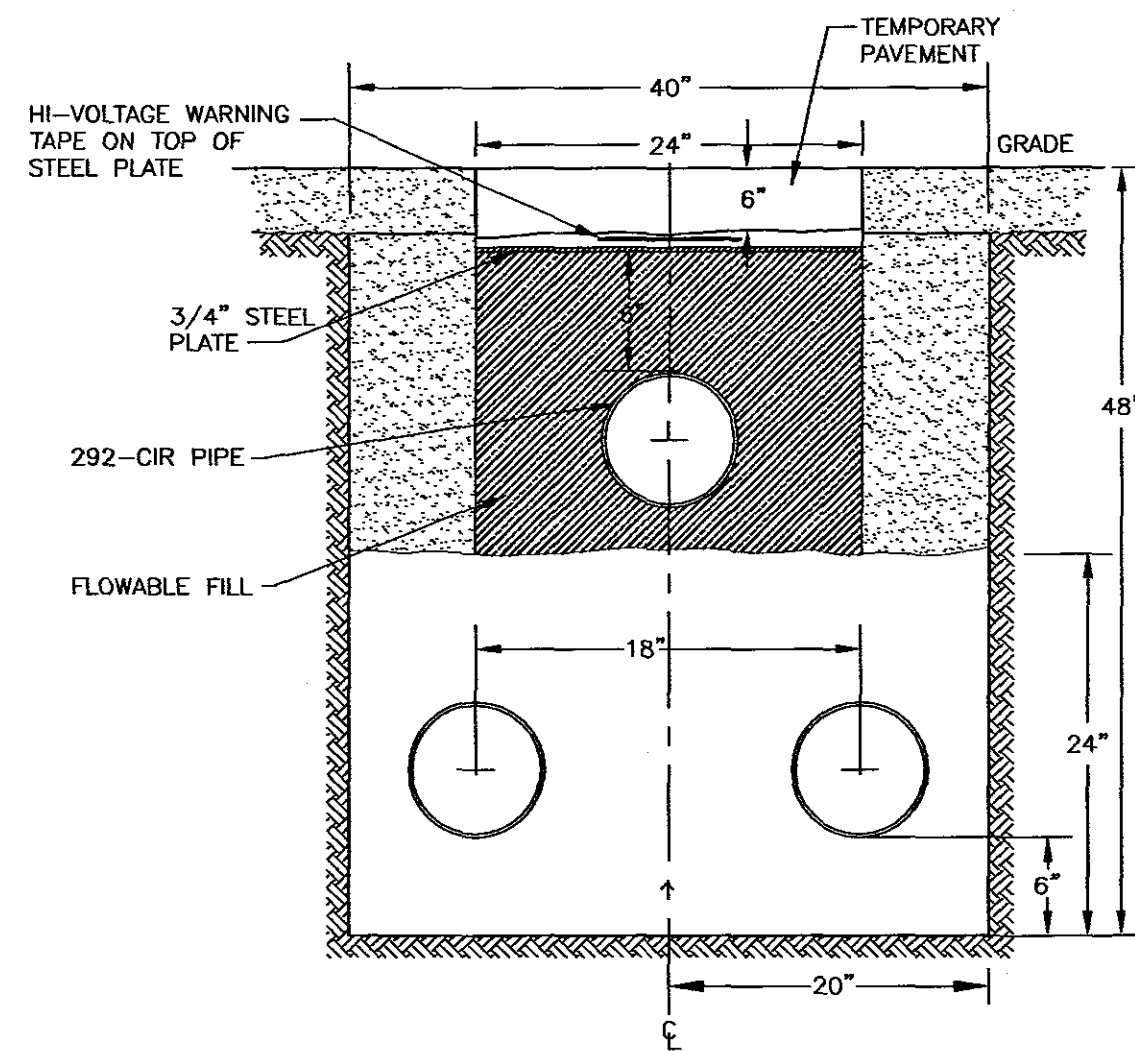
1. 4" PVC FIBER CONDUIT TO BE INSTALLED IN TRENCH NEAREST THE CURB AT UTILITY POLE #117/44 NORTHERLY TO STATION #292, DEPARTING SLIGHTLY TO HANDHOLES AS SHOWN ON PLAN SHEETS 13 TO 22.
2. FIGURE 1 SHALL BE USED WHEN THE 292-CIR PIPE IS REMOTE FROM THE EXISTING 115KV LINE.
3. FIGURE 7A SHALL BE USED WHEN THE 292-CIR PIPE IS PARALLEL TO THE PTC.
4. FIGURE 9A MAY BE USED WHERE SHOWN ON THE DRAWING OR WHEN APPROVED BY NSTAR.
5. CONTRACTOR MAY PROVIDE ALTERNATE MIX DESIGNS FOR FLOWABLE FILL CONCRETE IF APPROVED BY NSTAR.
6. THERMAL SAND SHALL CONFIRM TO THE FOLLOWING:
 MINIMUM DRY DENSITY = 105 LB./CU. FT.:
 RETAINED ON NO. 4 SIEVE 0 TO 5% NO. 30 SIEVE 40 TO 70%
 NO. 8 SIEVE 10 TO 20% NO. 50 SIEVE 70 TO 85%
 NO. 16 SIEVE 20 TO 40% NO. 100 SIEVE 92 TO 96%
7. TEMPORARY PAVING SHALL CONFORM TO THE APPLICABLE MUNICIPAL SPECIFICATION. PROVIDE 6" MINIMUM PAVEMENT THICKNESS.



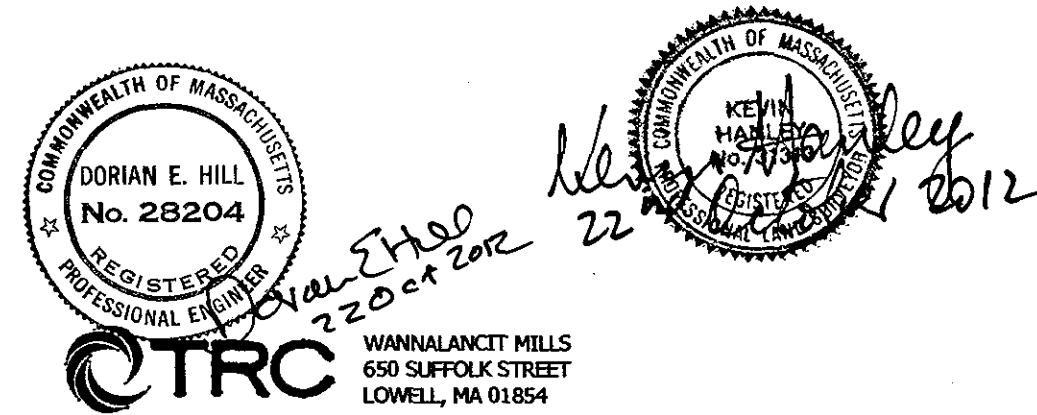
TYPICAL TRENCH DETAIL
FLOWABLE FILL
292-CIR PIPE
FIGURE 1A



TYPICAL DEEP TRENCH DETAIL
292-CIR PIPE PARALLEL
TO EXISTING 115KV LINES
FIGURE 7A



TYPICAL SHALLOW TRENCH DETAIL
292-CIR PIPE ABOVE
EXISTING 115KV LINES
FIGURE 9A



325 WOOD ROAD
SUITE 109
BRAintree MA 02184
(781)380-7766
FAX (781)380-7757

SMC SURVEYING AND MAPPING CONSULTANTS

DRAWING NO. W10800WS REV1.DWG

| NO. | DESCRIPTION | BY | DATE | APPR. |
|--|-------------|-------|--------|-------|
| REVISION | | | | |
| NSTAR ELECTRIC GAS | | | | |
| NEWTON SPECIAL DETAILS | | | | |
| INSTALLATION OF 292-CIR | | | | |
| BETWEEN STATION 110-BAKER STREET AND STATION 292-NEWTON | | | | |
| WEST ROXBURY & NEWTON, MASSACHUSETTS PLAN (SHEET D3 OF 22) | | | | |
| SCALE: unless noted H: 1"=20' V: 1"=4' | DATE | DRAWN | CHK'D. | APPR. |
| | 10-16-12 | MC | KH | |
| DRAWING NO. | REV. | | | |

CITY OF NEWTON
ENGINEERING DIVISION

MEMORANDUM

To: Ald. Anthony Salvucci, Facilities Committee Chair.

From: John Daghlian, Associate City Engineer

Re: NStar ~ Installation of 292-CIR between 110 Baker St. & Substation 110

Date: November 1, 2012

CC: Lou Taverna, PE City Engineer (via email)
Shawna Sullivan, Associate City Clerk (via email)

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

*Installation of 292-CIR between Station 110-Baker Street & Station 292
Newton, MA*

*Prepared by: NStar Electric Gas
Dated: 10-12-'12*

Executive Summary:

NStar Electric is proposing to install an 8-inch diameter steel cooling circulation pipeline to carry 115kV lines from the *West Roxbury* town line in Dedham Street and running northerly approximately 19,000 feet to the *Electric Substation #292* at Elliot Street. The alignment will ultimately transverse the abandoned railroad that runs parallel to Needham Street. The applicant will also have to file with MassDOT to cross Needham Street.

Construction is expected to begin in April 2013 and to be completed by November 2013. The installation of the conduit and wire is to help improve supply capacity and reliability of the electric distribution system from the Elliot Street substation.

DPW requests a preconstruction meeting with NStar representatives, the contractor of record, and Police & Fire Departments. I recommend that construction within the Countryside School be limited or scheduled during the summer months when the school year is over.

Conditions & Special Provisions:

1. The trenches within the roadways shall be restored in accordance to the permanent trench detail of the City's Construction Standards & Specifications.
2. All sidewalks & existing curbing disturbed as a result of construction shall be restored in kind after the installation of underground work.
3. The contractor of record shall make arrangements to allow safe passage of pedestrians, wheelchair pedestrians within the construction zone that has existing sidewalks, and specifically within the Countryside School zone.
4. The backfilling of the trench shall be with Control Density Fill (CDF) Type I-E Excavatable type, for the entire alignment.
5. If any service connections such as water, sewer, or drainage are disturbed by the contractor of record during construction, they shall be updated and replaced to the City's current Construction Standards.
6. All catch basins shall be retrofitted with an approved type of siltation control devices, details of this shall be submitted to the City Engineer. The contractor of record shall maintain these catch basins throughout the construction process, and ensure that street and property flooding does not occur during construction.
7. The contractor of record shall contact the Newton Police Department and arrange for Police Detail to help residents navigate around the construction zone.
8. Upon final installation of the system, an As Built drawing [plan & profile] indicating rim elevations of any manholes, handholes shall be submitted in digital and hard copy format to the City Engineer.
9. The contractor of record shall obtain a Street Opening, Sidewalk Crossing Permits with the DPW prior to construction.
10. The contractor of record shall obtain appropriate Permits with the Inspectional Services Department for all electrical, telecommunications construction.
11. The contractor of record shall contact the Newton Police Department and arrange for Police Detail to help residents navigate around the construction activity.

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

Final Label Report

Dedham

| SBL | Owner | Number | Street | Unit |
|-------------|------------------------------------|--------|-----------------|------|
| 83006 0016A | PECHAN PETER | 10 | ANDREW ST | |
| 83007 0004A | SWEET PHYLLIS K TR | 11 | ANDREW ST | |
| 83006 0020 | WALTUCK BENJAMIN H | 133 | ANDREW ST | |
| 83006 0019 | BEN-AKIVA HAGIT | 139 | ANDREW ST | |
| 84033 0008 | YEE JASON V & MIN X | 9 | APPLETON CIR | |
| 84033 0009 | HENSCH TAKAO | 19 | APPLETON CIR | |
| 84033 0010 | VOLOBUYEVA MARINA | 25 | APPLETON CIR | |
| 82012 0006 | LOCKE ADRIENNE C & JEFFREY B | 62 | ARNOLD RD | |
| 82011 0002 | ZONIS MARCIA R & MORTON S T/C | 69 | ARNOLD RD | |
| 81001 0006 | ZAFF DALE W | 116 | ARNOLD RD | |
| 81001 0005 | RUSSO BARUCH & HANNA | 124 | ARNOLD RD | |
| 81001 0004 | BAILLEN HELENE R | 130 | ARNOLD RD | |
| 81001 0003 | PERLMAN ROBERT S & LESLEY A | 138 | ARNOLD RD | |
| 81001 0002 | CARVER CAROL LEE | 146 | ARNOLD RD | |
| 81001 0001 | WEINER EDWIN & CAROLYN T/C | 156 | ARNOLD RD | |
| 81010 0005 | SUZUKI IRENE E | 178 | ARNOLD RD | |
| 81010 0004 | MARGOLIS-MAZZA LINDA G | 188 | ARNOLD RD | |
| 81018 0008 | FAIGEL JULIA | 20 | BOULDER RD | |
| 81018 0007 | HOUSMAN CHARLOTTE | 28 | BOULDER RD | |
| 83006 0008 | SON MARTIN | 5 | BOUND BROOK RD | |
| 83006 0007 | MANDELCORN HOWARD | 15 | BOUND BROOK RD | |
| 83023 0010 | HURWITZ ROBERT B & CARYL N TRS | 20 | BOUND BROOK RD | |
| 83009 0016 | CHARNESS PHILIP & YETTA | | BRIERFIELD RD | |
| 82018 0001 | WALLACH IRA M & CAROL H | 5 | BROKEN TREE RD | |
| 82017 0001 | ALON ADI & AMIT | 8 | BROKEN TREE RD | |
| 82018 0002 | RIMM ILONNIA J | 11 | BROKEN TREE RD | |
| 82017 0008 | SOLCOFF ABBY L TR | 18 | BROKEN TREE RD | |
| 82015 0115 | MOSES JAMES M & KATHY W | 462 | BROOKLINE ST | |
| 82016 0011 | CARRINGTON WALTER & ARESE | 469 | BROOKLINE ST | |
| 82015 0116 | LAYEVSKY DMITRY | 470 | BROOKLINE ST | |
| 82016 0010 | GREALY MICHAEL J L/E | 475 | BROOKLINE ST | |
| 83026 0001 | DAVIS DANIEL R & LISA F | 6 | BRUSH HILL RD | |
| 83023 0006 | CONRAD CHESTER H & GANN MARGERY J | 17 | BRUSH HILL RD | |
| 83024 0006 | HAWLEY SHERVIN B | 22 | BRUSH HILL RD | |
| 83036A0005 | MILLER STANLEY J & JANIS S | 15 | BUFF CIR | |
| 81019 0027 | MITCHELL ROBERT S & RENEE L | 2 | CANNON ST | |
| 81019 0019 | TOURSE DENNIS R&ROBBIE W CHRISTLER | 3 | CANNON ST | |
| 81019 0026 | KOBY HANNE M & DIANE J GALSON T/C | 8 | CANNON ST | |
| 81019 0025 | MAHESWARAN SUGUNA U | 18 | CANNON ST | |
| 84033 0006 | MT IDA INC | | CARLSON AVE | |
| 84031 0001 | MT IDA INC | | CARLSON AVE | |
| 84033 0007 | LIBSON EKATERINA | 15 | CARLSON AVE | |
| 84031 0019 | MCMANUS DENNIS P | 20 | CARLSON AVE | |
| 81011 0002 | KUO PAUL C & LESLIE W | 6 | COUNTRY CLUB RD | |
| 81010 0002 | CHERNY ELISE J TR | 15 | COUNTRY CLUB RD | |

| SBL | Owner | Number | Street | Unit |
|------------|-------------------------------------|---------|-----------------|------|
| 81011 0003 | RABY BENJAMIN A | 16 | COUNTRY CLUB RD | |
| 81010 0003 | DEMIDOV SERGEI | 27 | COUNTRY CLUB RD | |
| 82015 0016 | BROOKS STEVEN R & LYNNE M | 231 | COUNTRY CLUB RD | |
| 82015 0017 | WINDHEIM SUSAN J&GOLDSTONE RICHARD | 241 | COUNTRY CLUB RD | |
| 82015 0018 | DORALYNNE L BIBBY | 247 | COUNTRY CLUB RD | |
| 82015 0019 | SHI PHILIP Q & DOROTHY Y | 251 | COUNTRY CLUB RD | |
| 83036A0004 | CAROLE G JABBAWY L/E TR | 17 | COUNTRYSIDE RD | |
| 81011A0049 | POPE JOSEPH & MARY E | | DEDHAM ST | |
| 81021 0018 | LANCKTON A VAN C & ALICE K | | DEDHAM ST | |
| 81017 0007 | FREEDMAN JOHN D TR | | DEDHAM ST | |
| 82039 0001 | BRIMMER AND MAY SCHOOL | | DEDHAM ST | |
| 81017 0001 | KURK ALICE B TR | | DEDHAM ST | |
| 83010 0017 | CHEN LING | 5 | DEDHAM ST | |
| 83003 0053 | NORDSTROM HUGO M & ANNA L TRS | 10-12 | DEDHAM ST | |
| 83010 0018 | SELETSKY ROGER J & JOAN D | 11 | DEDHAM ST | |
| 83009 0014 | WANG DLANYUAN | 25 | DEDHAM ST | |
| 83009 0015 | NOVITSKY THOMAS J & CONSTANCE E TRS | 33 | DEDHAM ST | |
| 83008 0021 | GERSHTEYN MIKHAIL & MARIYA | 41 | DEDHAM ST | |
| 83008 0001 | GENTILE JAMES L & MARY A | 45 | DEDHAM ST | |
| 83008 0002 | TRACHTENBERG BARBARA | 49 | DEDHAM ST | |
| 83007 0001 | WEBER STEVEN & ALLISON E | 61 | DEDHAM ST | |
| 83007 0002 | DORFMAN JOEL S & LISA H | 67 | DEDHAM ST | |
| 83007 0003 | FELDMAN STEVEN L | 73 | DEDHAM ST | |
| 83003 0024 | FLASHEN GEORGE M & MARILYN TRS | 74 | DEDHAM ST | |
| 83007 0004 | KATCHER BETH & LAUFER DANIEL A | 79 | DEDHAM ST | |
| 83005 0018 | GOLUB HERBERT A & SYLVIA TRS | 92 | DEDHAM ST | |
| 83006 0016 | NELSON CAMILLE | 95 | DEDHAM ST | |
| 83006 0015 | ROHAN PATRICK J & JACQUELINE TIM TR | 111 | DEDHAM ST | |
| 83005 0017 | GREER JEAN E TR | 112-116 | DEDHAM ST | |
| 83006 0014 | ABOUHILAL FATEH | 119 | DEDHAM ST | |
| 83005 0016 | ALENGHAT FRANCIS J | 120 | DEDHAM ST | |
| 83006 0013 | REIF FRIDERIKA GOLDENSTEIN | 127 | DEDHAM ST | |
| 83005 0015 | PORRO SUSANA M TR | 130 | DEDHAM ST | |
| 83006 0012 | REIBSTEIN ROBERT H & LISA | 135 | DEDHAM ST | |
| 83005 0014 | FITZPATRICK WILLIAM D JR | 140 | DEDHAM ST | |
| 83005 0013 | REIF CHRISTINE | 150 | DEDHAM ST | |
| 83005 0012 | RODRIGUEZ LUIS C | 156 | DEDHAM ST | |
| 83005 0011 | PATTERSON HEIDE CHRISTINE | 162 | DEDHAM ST | |
| 81021 0023 | MANNING ROBERTA T | 176 | DEDHAM ST | |
| 81021 0022 | RAO ALAN L & LUCY Y | 180 | DEDHAM ST | |
| 81021 0021 | YEE WINSTON E & KATHY C | 188 | DEDHAM ST | |
| 81021 0019 | SAADATNEJADI TOUBA | 194 | DEDHAM ST | |
| 81021 0017 | LANCKTON A VAN C & ALICE K | 198 | DEDHAM ST | |
| 81021 0016 | SADOVNIK ISAAC | 204 | DEDHAM ST | |
| 81021 0015 | MALICK IRVING & MARILY TRS | 220 | DEDHAM ST | |
| 83006 0010 | BB&K REALTY CORP | 229 | DEDHAM ST | |
| 81019 0028 | YAMPOLSKY TATIANA | 234 | DEDHAM ST | |
| 83006 0009 | BORUKHOV JANET | 237 | DEDHAM ST | |
| 81019 0018 | HINENZON AVIRAM | 256 | DEDHAM ST | |
| 83023 0001 | KOVACS CARYN R | 257 | DEDHAM ST | |

| SBL | Owner | Number | Street | Unit |
|--------------|-------------------------------|--------|-----------|-------|
| 83023 0002 | HOWE LISA H | 265 | DEDHAM ST | |
| 81019 0017 | PASTOR LISA RICE | 268 | DEDHAM ST | |
| 83023 0003 | COHEN HERBERT T | 273 | DEDHAM ST | |
| 81019 0016 | KAGRAMANIAN STELLA | 274 | DEDHAM ST | |
| 83023 0004 | RUFO GENO ANTHONY | 281 | DEDHAM ST | |
| 81019 0015 | STEIN PRISCILLA W | 286 | DEDHAM ST | |
| 83023 0005 | LEVITAN MARTIN I & SUSAN F | 293 | DEDHAM ST | |
| 81019 0014 | KILGALLEN LAWRENCE J | 300 | DEDHAM ST | |
| 83026 0021 | TSAY FRANK & RITA HSIUNG | 303 | DEDHAM ST | |
| 83026 0020 | PERRIN SANDRA J | 315 | DEDHAM ST | |
| 83026 0019 | FRIM ROSALIND S | 327 | DEDHAM ST | |
| 81018 0009 | POOLE BENJAMIN H | 336 | DEDHAM ST | |
| 81017 0002 | KURK ALICE B TR | 348 | DEDHAM ST | |
| 83036A0001 | CHABAD LUBAVITCH INC | 349 | DEDHAM ST | |
| 81017 0003 | BLOUT BENJAMIN DREYFUS | 360 | DEDHAM ST | |
| 83036A0002 | LAU VICTOR & JOAN | 361 | DEDHAM ST | |
| 81017 0004 | FRIEDMAN SANFORD R & ELYSE M | 370 | DEDHAM ST | |
| 83036A0003 | SEMONIAN LEON JR & MARLON D | 373 | DEDHAM ST | |
| 81017 0005 | ZELLE ANTHONY R & ROBIN Z TRS | 380 | DEDHAM ST | |
| 81017 0006 | FREEDMAN JOHN D TR | 390 | DEDHAM ST | |
| 83036 0052 | SULLIVAN ROBERT E & ANNE M | 391 | DEDHAM ST | |
| 81017 0008 | ORKIN PETER M & RHONDA S | 396 | DEDHAM ST | |
| 83036 0003CK | KUSHINSKY JACK & JUDITH G TRS | 401 | DEDHAM ST | 401-B |
| 83036 0003CL | CHOW JOHN Y & MIN ZENG | 401 | DEDHAM ST | 401-C |
| 83036 0003CM | WISE JEROLD & BARBARA | 401 | DEDHAM ST | 401-D |
| 83036 0003CJ | GRABOWSKI JOSEPH J | 401 | DEDHAM ST | 401-A |
| 83036 0003CU | SHUMAN ROBERT S & FRANCES B | 403 | DEDHAM ST | 403-B |
| 83036 0003CV | SEIGAL NANCY K | 403 | DEDHAM ST | 403-C |
| 83036 0003CW | KOSOWSKY INGRID M TR | 403 | DEDHAM ST | 403-D |
| 83036 0003CY | FISCHMAN STEVEN S | 403 | DEDHAM ST | 403-F |
| 83036 0003CT | ROSENBAUM MAXWELL | 403 | DEDHAM ST | 403-A |
| 83036 0003CX | LEVY SANDRA R & RONALD TRS | 403 | DEDHAM ST | 403-E |
| 83036 0003CS | BAZER GEORGE | 405 | DEDHAM ST | 405-F |
| 83036 0003CQ | GOLDMAN HOWARD F | 405 | DEDHAM ST | 405-D |
| 83036 0003CP | BEAN EDWARD D | 405 | DEDHAM ST | 405-C |
| 83036 0003CO | FEGHI RAFIA TR | 405 | DEDHAM ST | 405-B |
| 83036 0003CN | KAY MILLARD M & LUCILLE TRS | 405 | DEDHAM ST | 405-A |
| 83036 0003CR | GOULD DORIS F | 405 | DEDHAM ST | 405-E |
| 83036 0003DD | SUGARMAN DEBRA | 411 | DEDHAM ST | 411-E |
| 83036 0003DB | KARLINSKY JOEL B | 411 | DEDHAM ST | 411-C |
| 83036 0003DA | RUDOFSKY LEONARD TR | 411 | DEDHAM ST | 411-B |
| 83036 0003CZ | KOSOW MARVIN P | 411 | DEDHAM ST | 411-A |
| 83036 0003DC | ORNSTEEN ALAN C | 411 | DEDHAM ST | 411-D |
| 83036 0003DI | KAPLAN JOSEPH P & JANET P | 413 | DEDHAM ST | 413-E |
| 83036 0003DE | KRAVITZ ARTHUR R & BARBARA N | 413 | DEDHAM ST | 413-A |
| 83036 0003DH | BERKMAN NANCY J TR | 413 | DEDHAM ST | 413-D |
| 83036 0003DG | HALE STERLING H | 413 | DEDHAM ST | 413-C |
| 83036 0003DF | SOKOL SAMUEL III | 413 | DEDHAM ST | 413-B |
| 83036 0003DK | ROSS MONA YAGUDA | 415 | DEDHAM ST | 415-B |
| 83036 0003DJ | GILMAN RICHARD H | 415 | DEDHAM ST | 415-A |

| SBL | Owner | Number | Street | Unit |
|--------------|----------------------------------|---------|-----------|-------|
| 83036 0003DN | DRUCKER WILLIAM B TR | 415 | DEDHAM ST | 415-E |
| 83036 0003DM | POORVU DAVID TR | 415 | DEDHAM ST | 415-D |
| 83036 0003DL | MURRAY RICHARD E & NICOLE M | 415 | DEDHAM ST | 415-C |
| 83036 0003BB | WEXLER GERRY P TR | 421 | DEDHAM ST | 421B2 |
| 83036 0003BC | BLACK GERALD J & JUDITH L | 421 | DEDHAM ST | 421C3 |
| 83036 0003BD | MILLENDER BONNIE C | 421 | DEDHAM ST | 421D4 |
| 83036 0003BA | FRANCO LISA M | 421 | DEDHAM ST | 421A1 |
| 83036 0003BG | WEIGENSBERG LINDA | 423 | DEDHAM ST | 423C3 |
| 83036 0003BF | GREENBERG LINDA P | 423 | DEDHAM ST | 423B2 |
| 83036 0003BH | JACOBS SUSAN S TR | 423 | DEDHAM ST | 423D4 |
| 83036 0003BE | TIERNEY MARY M TR | 423 | DEDHAM ST | 423A1 |
| 81011A0046 | MEI ZHE & ANNIE | 424 | DEDHAM ST | |
| 83036 0003BI | SANDLER SANDRA R & SIDNEY TRS | 425 | DEDHAM ST | 425A1 |
| 83036 0003BJ | TYE JUDITH C | 425 | DEDHAM ST | 425B2 |
| 83036 0003BK | YOUNG JEROLD O | 425 | DEDHAM ST | 425C3 |
| 83036 0003BL | GORDON ESTHER | 425 | DEDHAM ST | 425D4 |
| 83036 0003BO | KATES ROBERT J & PENNY | 431 | DEDHAM ST | 431C3 |
| 83036 0003BP | FRANK JOHN R & AUDREY B | 431 | DEDHAM ST | 431D4 |
| 83036 0003BN | BERMAN BARBARA G | 431 | DEDHAM ST | 431B2 |
| 83036 0003BM | BERMAN GEORGE M TR | 431 | DEDHAM ST | 431A1 |
| 81011A0047 | KAPLAN SUSAN J & L FREDERICK TRS | 432 | DEDHAM ST | |
| 83036 0003BR | BERMAN MICHAEL D | 433 | DEDHAM ST | 433B2 |
| 83036 0003BS | DRUCKER CAROLYN S | 433 | DEDHAM ST | 433C3 |
| 83036 0003BT | PILL ROBERT E & CYNTHIA J TRS | 433 | DEDHAM ST | 433D4 |
| 83036 0003BQ | SWARTZ PAMELA | 433 | DEDHAM ST | 433A1 |
| 83036 0003BV | GROSSER MARJORIE J | 435 | DEDHAM ST | 435B2 |
| 83036 0003BY | KATZ ROLEEN | 435 | DEDHAM ST | E5 |
| 83036 0003BX | HOOTSTEIN CAROL | 435 | DEDHAM ST | 435D4 |
| 83036 0003BU | FRANZBLAU CARL | 435 | DEDHAM ST | 435A1 |
| 83036 0003BW | VALKIN ADAM ALEXANDER | 435 | DEDHAM ST | 435C3 |
| 83036 0003CC | BRESKY HELEN A TR | 437 | DEDHAM ST | 437D4 |
| 83036 0003CB | COHEN LAWRENCE P & MERYL L | 437 | DEDHAM ST | 437C3 |
| 83036 0003CA | 437-B GABLES LLC | 437 | DEDHAM ST | 437B2 |
| 83036 0003BZ | HARMON MARK P & ELLYN R | 437 | DEDHAM ST | 437A1 |
| 83036 0003CE | HENKEN HERBERT & CHARLENE | 439 | DEDHAM ST | 439B2 |
| 83036 0003CF | COLMAN ALAN & MARJORIE | 439 | DEDHAM ST | 439C3 |
| 83036 0003CG | SAGE PHYLLIS S | 439 | DEDHAM ST | 439D4 |
| 83036 0003CH | KASARJIAN PARNAG H & NANCY D | 439 | DEDHAM ST | E5 |
| 83036 0003CI | MCCRAITH DOUGLAS L | 439 | DEDHAM ST | 439F6 |
| 83036 0003CD | JARRAS VICTORIA | 439 | DEDHAM ST | 439A1 |
| 81011A0048 | POPE MARY E TR | 450 | DEDHAM ST | |
| 81011A0001 | HOM HENRY & MAY W | 460 | DEDHAM ST | |
| 83036 0003 | CARAVOLAS ANN | 471 | DEDHAM ST | |
| 81011 0001 | KRAMER DENISE & ALBERT TRS | 476 | DEDHAM ST | |
| 83036 0004 | CHARLES RIVER COUNTRY CLUB INC | 483-655 | DEDHAM ST | |
| 81010 0001 | TACEY WENDY I & STEPHEN C | 500 | DEDHAM ST | |
| 81010 0008 | CERRUTI THOMAS A | 512 | DEDHAM ST | |
| 81010 0005A | ERSPAMER FRANCESCO | 522 | DEDHAM ST | |
| 81001 0014 | GRANDFIELD CHERYL L TR | 556 | DEDHAM ST | |
| 81001 0013 | GC DEDHAM STREET LLC | 564 | DEDHAM ST | |

| SBL | Owner | Number | Street | Unit |
|-------------|---------------------------------|--------|-----------|------|
| 81001 0012 | MASOOD AAMIR | 572 | DEDHAM ST | |
| 81001 0011 | LOVE DAVID | 580 | DEDHAM ST | |
| 81001 0010 | QI LU | 590 | DEDHAM ST | |
| 81001 0009 | DROOKER STEVEN TR | 600 | DEDHAM ST | |
| 82012 0001 | CHIN GENE S & JEAN LAU | 614 | DEDHAM ST | |
| 82012 0007 | DUEK HAIM D | 624 | DEDHAM ST | |
| 82011 0001 | YEE WALTER & BRENDA | 636 | DEDHAM ST | |
| 82011 0013 | KUNIGENAS MICHAEL P | 658 | DEDHAM ST | |
| 82015 0003 | ROSENFELD JOHN W & KETTY MUNAF | 676 | DEDHAM ST | |
| 82015 0002 | CARREIRO FREDERICK E & FORTUNNA | 684 | DEDHAM ST | |
| 82015 0001 | PHILBIN ENTERPRISES LLC | 696 | DEDHAM ST | |
| 82015 0126 | LANE ELIZABETH | 704 | DEDHAM ST | |
| 82015 0125 | CHOU JOSEPH S K & LOUISE M | 712 | DEDHAM ST | |
| 82015 0124 | MALININ LEONID & YELENA | 720 | DEDHAM ST | |
| 82015 0123 | GOLDBERG JOEL M | 728 | DEDHAM ST | |
| 83036 0005 | PRINCE MARIAN L | 729 | DEDHAM ST | |
| 82015 0122 | TEPPER RUTH C L/E | 736 | DEDHAM ST | |
| 82015 0121 | GOMEZ FRANK & HELEN | 744 | DEDHAM ST | |
| 82015 0120 | KASRAIE MOHAMMAD YOUSEF | 756 | DEDHAM ST | |
| 82015 0119 | MADDEN THOMAS J & DOLORES R | 760 | DEDHAM ST | |
| 84033 0004 | WEIN DORIS & BRENT | 765 | DEDHAM ST | |
| 82015 0118 | CHEN CHIN | 770 | DEDHAM ST | |
| 84033 0005 | ROSEN CAROLYN WEXLER | 775 | DEDHAM ST | |
| 82015 0117 | MIRKATULI ATHAR TR | 778 | DEDHAM ST | |
| 84031 0002 | FAYERWEATHER CHARLES | 793 | DEDHAM ST | |
| 84031 0003 | ORRICK JESS F & STACY E | 801 | DEDHAM ST | |
| 82016 0009 | HOOLEY MORGAN J & JOANNA | 808 | DEDHAM ST | |
| 84031 0004 | LAMPERT SUMNER & AVIS B | 811 | DEDHAM ST | |
| 82016 0008 | NOTARANGELO LUIGI | 816 | DEDHAM ST | |
| 84031 0005 | MANIGAT CAROLYN ORR | 819 | DEDHAM ST | |
| 82016 0007 | PUPKIN MORDECHAY | 824 | DEDHAM ST | |
| 82016 0006 | MARSHALL GEORGE J & SARAH K | 832 | DEDHAM ST | |
| 84001B0011 | OTERO CEFERINO A & AIDA M | 837 | DEDHAM ST | |
| 82016 0005 | HIRSCOVITZ-EDRY ILANA | 842 | DEDHAM ST | |
| 84001B0012 | MARGET HOWARD N | 847 | DEDHAM ST | |
| 82016 0004 | KLAPMAN JON E & EILEEN S | 850 | DEDHAM ST | |
| 84001B0013 | BRODER STEVEN N & AMY S | 853 | DEDHAM ST | |
| 84001B0014 | DREW LISA | 859 | DEDHAM ST | |
| 84001B0015 | HARAN PATRICIA A TR | 867 | DEDHAM ST | |
| 84001B0016 | NAGER NATHAN A & NANCY | 875 | DEDHAM ST | |
| 82017 0002 | HERSCOTT ALAN C & LORI S | 880 | DEDHAM ST | |
| 84001B0017 | HOM GEORGE H B & SHIRLEY L S | 881 | DEDHAM ST | |
| 84001B0018 | WONG REGINALD & DEANNA LEE | 887 | DEDHAM ST | |
| 84001B0019 | ZUO HONGSHAO | 895 | DEDHAM ST | |
| 84001B0020 | LIN CHAN-JUNG & SING MEI | 901 | DEDHAM ST | |
| 84001B0021 | LEON ZULVY S | 907 | DEDHAM ST | |
| 82018 0010 | GOLDBERG BERNARD | 912 | DEDHAM ST | |
| 84001C0049 | REARDON THOMAS & LUZ I | 915 | DEDHAM ST | |
| 82018 0009A | SAHINIDIS TASO & KIKI | 922 | DEDHAM ST | |
| 84001C0048 | BOUCHARD MICHAEL | 925 | DEDHAM ST | |

| SBL | Owner | Number | Street | Unit |
|-------------|----------------------------------|--------|-----------------|------|
| 84001C0047 | ETTLINGER ROY A & EDITH TRS | 937 | DEDHAM ST | |
| 82039 0005 | REISMAN LILLIAN & RICHARD | 948 | DEDHAM ST | |
| 84001C0013 | CHIN ANDREW G C & YU-FEE | 949 | DEDHAM ST | |
| 82039 0004 | MANDEAU DANIEL L & LYNN D | 960 | DEDHAM ST | |
| 84001C0014 | DRUMMEY ALEXANDER J | 961 | DEDHAM ST | |
| 84001C0015 | FRIDMAN BORIS & GALINA | 965 | DEDHAM ST | |
| 82039 0003 | BUCHANAN JOHN L | 970 | DEDHAM ST | |
| 82039 0002A | ROSS ALAN J & RUTH | 974 | DEDHAM ST | |
| 84001C0016 | BANK OF NY MELLON TR | 975 | DEDHAM ST | |
| 84001C0017 | SETHEE PREMINDRA S | 983 | DEDHAM ST | |
| 84001C0001 | SAM JERRY & LILLIAN | 991 | DEDHAM ST | |
| 84010 0001 | SAMARAWEEERA S PIYUM | 1005 | DEDHAM ST | |
| 84031 0018 | PRICE MICHAEL J & MARILYN | 12 | DOROTHY RD | |
| 84031 0017 | WEINOGRAD BRUCE G & MARIE M | 20 | DOROTHY RD | |
| 84031 0016 | LANDA PHILIP & JANE | 28 | DOROTHY RD | |
| 83026 0002 | CHAVIN JEFFREY M & VICKI A | 18 | DRUID HILL RD | |
| 83026 0003 | KUSSELL SARA F TR | 24 | DRUID HILL RD | |
| 51028 0026 | 15 NEEDHAM STREET LLC | 19 | EASY ST | |
| 84001C0051 | PACHAS WILLIAM N | 117 | ESTY FARM RD | |
| 84001C0046 | CABALLERO AUGUSTO ENRIQUE | 120 | ESTY FARM RD | |
| 84001C0050 | MOTWANE RAMESH & PUSHPA | 123 | ESTY FARM RD | |
| 81001 0008 | DOUBENSKI MIKHAIL Y & ANNA A | 303 | GREENWOOD ST | |
| 82012 0002 | LUSTIG LEOPOLD P & HELGA K M TRS | 304 | GREENWOOD ST | |
| 84001B0010 | FREEMAN BURTON H & PAULA M | 6 | INDIAN RIDGE RD | |
| 84001B0009 | RUSSELL ROGER K & JENNIFER I TRS | 12 | INDIAN RIDGE RD | |
| 84001B0008 | MILUNSKY KIRAN LANG & JEFFREY M | 18 | INDIAN RIDGE RD | |
| 84001B0007 | MEI TING BO & MILLIE WENG | 26 | INDIAN RIDGE RD | |
| 84001B0006 | BOROSCHEK GUNTHER S & JUDITH O | 32 | INDIAN RIDGE RD | |
| 84001B0005 | SHAEVEL WILLIAM H TR | 38 | INDIAN RIDGE RD | |
| 84001B0004 | CRAMER ROBERT A TR | 44 | INDIAN RIDGE RD | |
| 84001B0003 | TALEBZADEH MASOUD | 50 | INDIAN RIDGE RD | |
| 84001B0002 | HWANG RU-ING | 56 | INDIAN RIDGE RD | |
| 84001B0001 | ALPERIN MIKHAIL B & IRINA G | 64 | INDIAN RIDGE RD | |
| 81011A0035 | SHAPIRO EDWARD A | 65 | JANE RD | |
| 84001C0002 | ANGLIN GUSTAVE JR & MILDRED | 5 | JUNE LN | |
| 84001C0003 | LIN PHILIP J & WENDY W | 11 | JUNE LN | |
| 84001C0004 | BELOZEROV ANDREY | 21 | JUNE LN | |
| 84001C0005 | GERSHON DAVE | 27 | JUNE LN | |
| 84001C0006 | GUNDERSHEIM MARC & MARJORY G | 35 | JUNE LN | |
| 84001C0007 | SOLTE LESLEY A | 41 | JUNE LN | |
| 84001C0008 | SA REGO MONICA M | 47 | JUNE LN | |
| 84001C0052 | SCHAWBEL STEPHEN M & DEBORAH R | 55 | JUNE LN | |
| 83005 0028 | CROVO ANTHONY L | 20 | LEDGEWOOD RD | |
| 83023 0008 | GREEN RICHARD & ESME H | | LEEWOOD RD | |
| 83023 0009 | GREEN ESME H | 12 | LEEWOOD RD | |
| 83023 0007 | NOONAN ARTHUR T III & KATHRYN M | 24 | LEEWOOD RD | |
| 82017 0003 | CHUDNOVSKY ALEKSANDER | 5 | LONGMEADOW RD | |
| 82016 0003 | CHANG CHING HAW & HUI CHUAN | 8 | LONGMEADOW RD | |
| 82016 0002 | MITTMAN BRUCE J & KATZ ELLEN | 14 | LONGMEADOW RD | |
| 82017 0004 | HANNA DAVID R | 15 | LONGMEADOW RD | |

| SBL | Owner | Number | Street | Unit |
|-------------|--------------------------------|--------|----------------|------|
| 82016 0001 | HAHN WILLIAM C | 24 | LONGMEADOW RD | |
| 83026 0017 | LIPSON ELLEN B | 5 | MALUBAR LN | |
| 83026 0016 | BERGER LARRY B & LISA C | 15 | MALUBAR LN | |
| 83026 0015 | TYE THEODORE R & KATE F | 25 | MALUBAR LN | |
| 81017 0016 | DOSS SUSEELA & AMAL D | 30 | MARCELLUS DR | |
| 81017 0017 | SOLDATOV VADIM | 40 | MARCELLUS DR | |
| 81017 0018 | FINS CECILIA | 46 | MARCELLUS DR | |
| 81017 0019 | WEINER MELVIN MILTON | 56 | MARCELLUS DR | |
| 81001 0001A | SHEINFELD LEON TR | 7 | MEADOWBROOK RD | |
| 81010 0007 | RAVINA BERNARD M | 8 | MEADOWBROOK RD | |
| 81010 0006 | FRANTZ ELIZABETH K TR | 20 | MEADOWBROOK RD | |
| 84033 0002 | DALEY RICHARD A | 10 | NAHANTON ST | |
| 84033 0001 | CUTLER SAUL J & ANNE S | 20 | NAHANTON ST | |
| 83036 0006 | CARCHIA JOSEPHINE A | 23 | NAHANTON ST | |
| 83036 0007 | MARMAI PAUL J | 31 | NAHANTON ST | |
| 51028 0027 | KAITZ SAMUEL & LOUIS L & | | NEEDHAM ST | |
| 51028 0028 | KAITZ SAMUEL & LOUIS L & | 9 | NEEDHAM ST | |
| 83011 0014A | 14 NEEDHAM STREET LLC | 14 | NEEDHAM ST | |
| 51028 0025C | KSKIM UBC EQUITY PARTNERS LLC | 19-31 | NEEDHAM ST | 4 |
| 51028 0025A | KSKIM UBC EQUITY PARTNERS LLC | 19-31 | NEEDHAM ST | 21-2 |
| 51028 0025B | KSKIM UBC EQUITY PARTNERS LLC | 19-31 | NEEDHAM ST | 33-3 |
| 51028 0025 | KSKIM UBC EQUITY PARTNERS LLC | 19-31 | NEEDHAM ST | 21-1 |
| 51028 0025D | KSKIM UBC EQUITY PARTNERS LLC | 19-31 | NEEDHAM ST | 5 |
| 83011 0014 | HENTOFF DAVID TR | 32 | NEEDHAM ST | |
| 82018 0009 | BLAUSTEIN CECILE F | 137 | OAK HILL ST | |
| 82039 0006 | PERSICO SILVIA | 140 | OAK HILL ST | |
| 82015B0001P | FAIN BARBARA J | 26 | OBER RD | P |
| 82015B0001Q | LAMBERT JUDITH E | 28 | OBER RD | Q |
| 82015B0001 | ZHANG XUESONG | 30 | OBER RD | A |
| 82015B0001A | HARRINGTON SHEILA E TR | 32 | OBER RD | B |
| 82015B0001B | MASLER WENDY | 34 | OBER RD | C |
| 82015B0001C | HOWELL MARIAN B | 36 | OBER RD | D |
| 82015B0001R | TELLES-PALLADINO DEBORAH S TR | 38 | OBER RD | R |
| 82015B0001D | HECHTMAN ABIGAIL R | 40 | OBER RD | E |
| 82015B0001E | ROYSTER ROBERT S & JEAN | 42 | OBER RD | F |
| 82015B0001F | SHRIBER RICHARD J | 44 | OBER RD | G |
| 82015B0001N | ANTAL MIKLOS | 46 | OBER RD | O |
| 82015B0001G | WANG WENXIAN | 48 | OBER RD | H |
| 82015B0001U | WHISTLER PETER | 52 | OBER RD | U |
| 82015B0001T | LINN ANDREW I & JONATHON J TRS | 54 | OBER RD | T |
| 82015B0001W | REEM PROPERTY LLC | 56 | OBER RD | W |
| 82015B0001V | RIORDAN JAMES F | 58 | OBER RD | V |
| 82015B0001M | KELMAN ROCHELLE | 60 | OBER RD | N |
| 82015B0001L | KATS MARK | 62 | OBER RD | M |
| 82015B0001K | JONES MARY KATHERINE BURTON | 64 | OBER RD | L |
| 82015B0001J | KOLLAARD MACHIEL & DINGENA | 66 | OBER RD | K |
| 82015B0001H | BRUKER IZI | 68 | OBER RD | J |
| 82015B0001S | FINK CARL B | 70 | OBER RD | S |
| 82016 0018 | ZHOU LI | 41 | OLD FARM RD | |
| 82016 0019 | FINS MARK L TR | 47 | OLD FARM RD | |

| SBL | Owner | Number | Street | Unit |
|------------|-----------------------------------|--------|---------------|------|
| 82016 0020 | WEBBER ANTHONY & NANCY FOX | 55 | OLD FARM RD | |
| 82016 0021 | STEIN MARK A & DONNA I TRS | 65 | OLD FARM RD | |
| 82016 0022 | DOW CHARLES J | 73 | OLD FARM RD | |
| 81017 0011 | MELNICK BARRY | 545 | PARKER ST | |
| 81011A0043 | CUCCI ANTHONY S | 546 | PARKER ST | |
| 81017 0010 | LEE CHARLES G | 551 | PARKER ST | |
| 81011A0044 | MORIYA KIMIKO & OSAMU | 554 | PARKER ST | |
| 81017 0009 | HANSJELIANA VICTOR | 559 | PARKER ST | |
| 81011A0045 | MAURELES GEORGE T | 560 | PARKER ST | |
| 82039 0007 | TUCK RICHARD L | 5 | PEREGRINE RD | |
| 82039 0008 | BAKER DIANE M TR | 15 | PEREGRINE RD | |
| 82039 0009 | COHEN STAFFORD & DEBORAH TRS | 25 | PEREGRINE RD | |
| 82039 0010 | GUINNESS SHERRI L | 33 | PEREGRINE RD | |
| 82039 0011 | CLEBNIK MICHAEL D | 43 | PEREGRINE RD | |
| 82039 0012 | STOLLER MICHAEL | 51 | PEREGRINE RD | |
| 83026 0018 | FISHER JONATHAN | 17 | RACHEL RD | |
| 83036A0012 | YU DAVID C | 22 | RACHEL RD | |
| 82015 0004 | AKIN JEFFREY B | 1 | ROSALIE RD | |
| 82011 0012 | KATZ BARBARA TR | 22 | ROSALIE RD | |
| 81011A0003 | LANK JOSEPH S | 71 | SHARPE RD | |
| 81011A0002 | BLAUSTEIN GERSON & ELAINE | 81 | SHARPE RD | |
| 81011 0018 | MEIXNER ALAN & SANDRA TRS | 82 | SHARPE RD | |
| 84010 0002 | PORTER DAVID H & JANET F | 295 | SPIERS RD | |
| 83003 0022 | HUGG JOSEPH A & MYRA L | 59 | STONY BRAE RD | |
| 83005 0019 | LACHENMANN MARCEL J | 60 | STONY BRAE RD | |
| 83003 0023 | METZGER BERNHARD E & ZANDER KAREN | 65 | STONY BRAE RD | |
| 83010 0019 | STRAUSS SUSAN | 89 | UPLAND AVE | |
| 83009 0013 | CHARNESS YETTA TR | 92 | UPLAND AVE | |
| 83008 0003 | MCGOVERN JOYCE M | 9 | VERNDALE RD | |
| 83007 0016 | FRANCIS DAVID R & ROSEMARIE | 20 | VERNDALE RD | |
| 81021 0024 | MANNING ROBERTA T | | WALNUT ST | |
| 83005 0006 | MENZ JOHN BRIAN | 1381 | WALNUT ST | |
| 83005 0007 | KAY DIANE M | 1385 | WALNUT ST | |
| 83005 0008 | JOHNSTON DARREN C | 1389 | WALNUT ST | |
| 83005 0009 | FENG WEN-FENG | 1395 | WALNUT ST | |
| 83005 0010 | KUHN BETTY J | 1401 | WALNUT ST | |
| 81021 0025 | BECKETT KEVIN M & SHIRLEY M | 1412 | WALNUT ST | |
| 81019 0009 | ERLICH FRED & RAY MOLLY GOLDBERG | 105 | WENDELL RD | |
| 81019 0010 | JUNG JOON OH | 111 | WENDELL RD | |
| 81019 0011 | GRODBERG MARSHALL B & SONYA R | 119 | WENDELL RD | |
| 81019 0012 | FISHMAN ALIO M & MARILENA TRS | 125 | WENDELL RD | |
| 81018 0002 | TOLEDO EMIL & MARJORIE L | 126 | WENDELL RD | |
| 81019 0013 | HAZRA DELEEP K & ANJALI | 133 | WENDELL RD | |
| 81018 0001 | FRIEDLAND BERNARD & DEBRA G | 134 | WENDELL RD | |
| 83003 0049 | MORGAN DEVELOPMENT LLC | 82 | WINCHESTER ST | |
| 83003 0050 | BORRELLI PAUL D | 88 | WINCHESTER ST | |
| 83003 0051 | BORRELLI MATTHEW D | 90 | WINCHESTER ST | |
| 83003 0052 | 98 WINCHESTER LLC | 98-100 | WINCHESTER ST | |
| 83010 0016 | PENG ZHONGHONG | 112 | WINCHESTER ST | |
| 84031 0006 | HALPER ALFRED W TR | 5 | WISWALL RD | |

| SBL | Owner | Number | Street | Unit |
|------------|-------------------------------|---------------|---------------|-------------|
| 84031 0007 | ZWEIG ELISABETH | 15 | WISWALL RD | |
| 84031 0008 | SHAPIRO OKSANA | 25 | WISWALL RD | |
| 81021 0006 | SHANNON CHRISTOPHER A | 249 | WOODCLIFF RD | |
| 81021 0007 | SHEROFF ROBERT M | 255 | WOODCLIFF RD | |
| 81021 0008 | KIM HYUNG-HWAN | 263 | WOODCLIFF RD | |
| 81021 0009 | ZINNER JANET ROSEN | 269 | WOODCLIFF RD | |
| 81021 0010 | SHERMAN ROBIN | 275 | WOODCLIFF RD | |
| 81021 0012 | ZEREN MARK J | 301 | WOODCLIFF RD | |
| 81021 0013 | LOWINGER LAZAR & AUDREY TRS | 305 | WOODCLIFF RD | |
| 81020 0002 | FAHEY IDA | 308 | WOODCLIFF RD | |
| 81020 0001 | BROWN CHARLES D & ELIZABETH W | 312 | WOODCLIFF RD | |

Progress on Needham Street ROW Working Group

Executive Summary

A local group wants to establish a new Upper Falls Greenway, suitable for walking and biking, in place of the existing unused MBTA owned rail partially behind the stores and residences on Needham Street, and the Upper Falls neighborhood generally between Route 9 and the Charles River (which separates Newton and Needham). Recently, the MBTA agreed to sign a 99-year lease with Newton to accomplish this project with some stipulations including retaining the right to use the ROW for mass transit in the future. It is expected that Iron Horse Corporation would carry out the removal of the existing track and replacement with a trail surface without costs to the City except for insurance and in-kind labor contribution by city staff. Aside from additional costs for insurance, there is some controversy by residents in Chestnut Grove that abuts the Greenway related to privacy and other issues, and the feasibility of utilizing the entire ROW because of encroachment and other issues.

Background

The Bicycle Pedestrian Task Force proposed that the former rail line from Newton Highlands to the Charles River in Upper Falls be turned into a trail for pedestrians and bikers using technology currently in the state to rip up the tracks and rails and replace them with a surface suitable for walking or bicycling. The cost of the process will be borne by sale of the metal for scrap. Upper Falls residents and activists adopted the concept and arranged a public hearing before the new Upper Falls Neighborhood Area Council. Notices about the hearing were sent out throughout Upper Falls. The hearing was held in the Emerson Community Center in _____ with more than 80 neighborhood residents in attendance. Speakers presented information and showed slides of the previous rail trails in the Commonwealth. Various questions were raised. The consensus of those present was in favor of the trail provided that no additional car traffic would be brought into Upper Falls because of it. The Upper Falls Neighborhood Area Council voted unanimously to support the establishment of the Upper Falls Greenway as the trail will be called. The Administration established a Working Group to implement this recommendation.

Group Membership

Frank Nichols, Engineering Department, Chair

Robert Waddick, Law Department

Derek Valentine, Planning Department

Carol Shien, Recreation Department

Susan Hoffman, NUFNAC

Robert Ohanian, NUFNAC

George Kirby, Bicycle Pedestrian Task Force

Brian Yates, Alderman

Mitch Fischman, Alderman

Other Aldermen and city officials have also attended.

Jerry Reilly and City Pedestrian Coordinator Alicia Bowman were added to the Working Group by election.

Activities

The Group has heard the presentation about the rail trail process in the city and walked the route of the Greenway from Curtis Street to the Charles River with a representative of the Iron Horse Corporation who would carry out the removal of the tracks and replacement with a trail surface. Attorney Waddick has tracked the status of the request to declare this segment and the remainder of this line in Needham, Dover, and Medfield surplus and available for the development of rail trails.

Legal Status

The MBTA Board of Directors has voted to authorize the General Manager to sign 99-year agreements with the interested municipalities to establish rail trail. Such agreements would allow the MBTA to end the use of the trails at any time in order to establish mass transit over the right of way. (The removal of tracks could also be the first step towards the use of the right of way for eventual transit.)

Issues

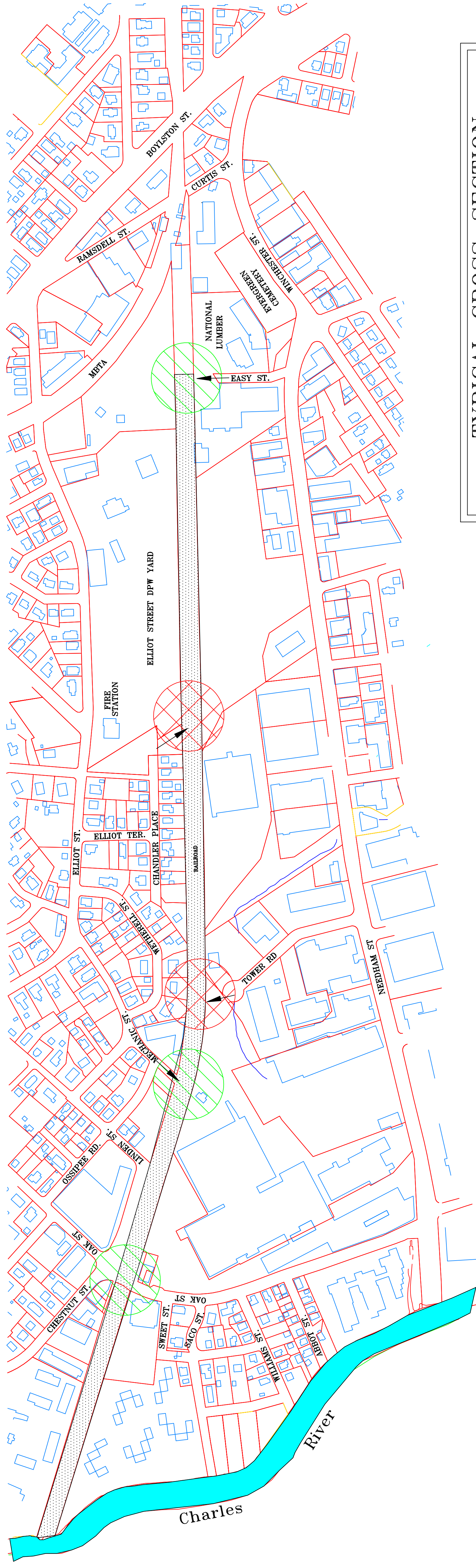
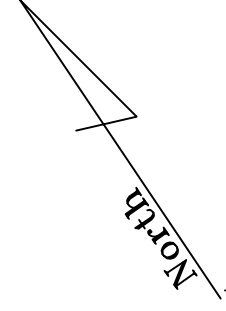
1. Insurance: There has been discussion in the Working Group about the need for the City to purchase liability insurance to protect against discovering/remediating hazardous waste during the rail removal. This issue is the subject of a recent docket item by the Administration.
2. Pedestrian Overlook: The Greenway's end at the rail trestle would probably involve the establishment of a pedestrian overlook/viewing station. The Charles River Pathway intersects the Greenway at this point although at different levels (generally below the trail along the river).. A

portion of the pathway owned by the Conservation Commission is to the south of the rail line and an easement to the north would connect the Greenway to the Braceland Playground. The Representative of the Iron House Corporation said that his workers would probably be able to build wooden steps down from the Greenway as part of the construction process.

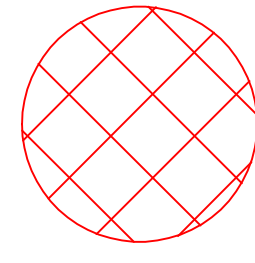
3. Chestnut Grove Development: Some residents of the nearby Chestnut Grove development that abuts the Greenway between Oak Street and the River oppose the Greenway as an intrusion on their privacy. The Upper Falls Neighborhood Council will meet with these residents and try to find a way to meet their objections. (Most of the Greenway in this section is well screened from the Chestnut Grove development by heavy vegetation. One portion of the development is not. Perhaps this problem can be overcome with plantings.)
4. Boundaries of the Rail Trail: The relatively easy access along the railroad right of way ends at Easy Street near the NewTV studio. Greenway users would have to use Easy Street to get to Needham Street. This location would be close to the only existing traffic light where pedestrians and bikers can cross the corridor for blocks in either distance. This light would provide access to the Tedeschi's shop and neighboring properties including the Newton Highlands playground. Travelers who continue north on Winchester Street would go past the South Burying Ground which has historic interest and no active driveways.

There was substantial interest in continuing the Greenway to Curtis Street, but substantial obstacles as well. New England Lumber has encroached on the right of way as has a large metal storage shed on the adjoining property. Several large metal pipes behind the shed discharge into the air and would be difficult to move. The MBTA has a building that would crowd the Greenway as well. In short, extension of the Greenway from Easy Street to Curtis Street would be very difficult.

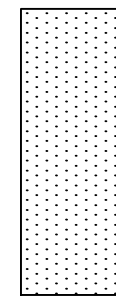
Proposed Greenway & Multi-Modal Corridor



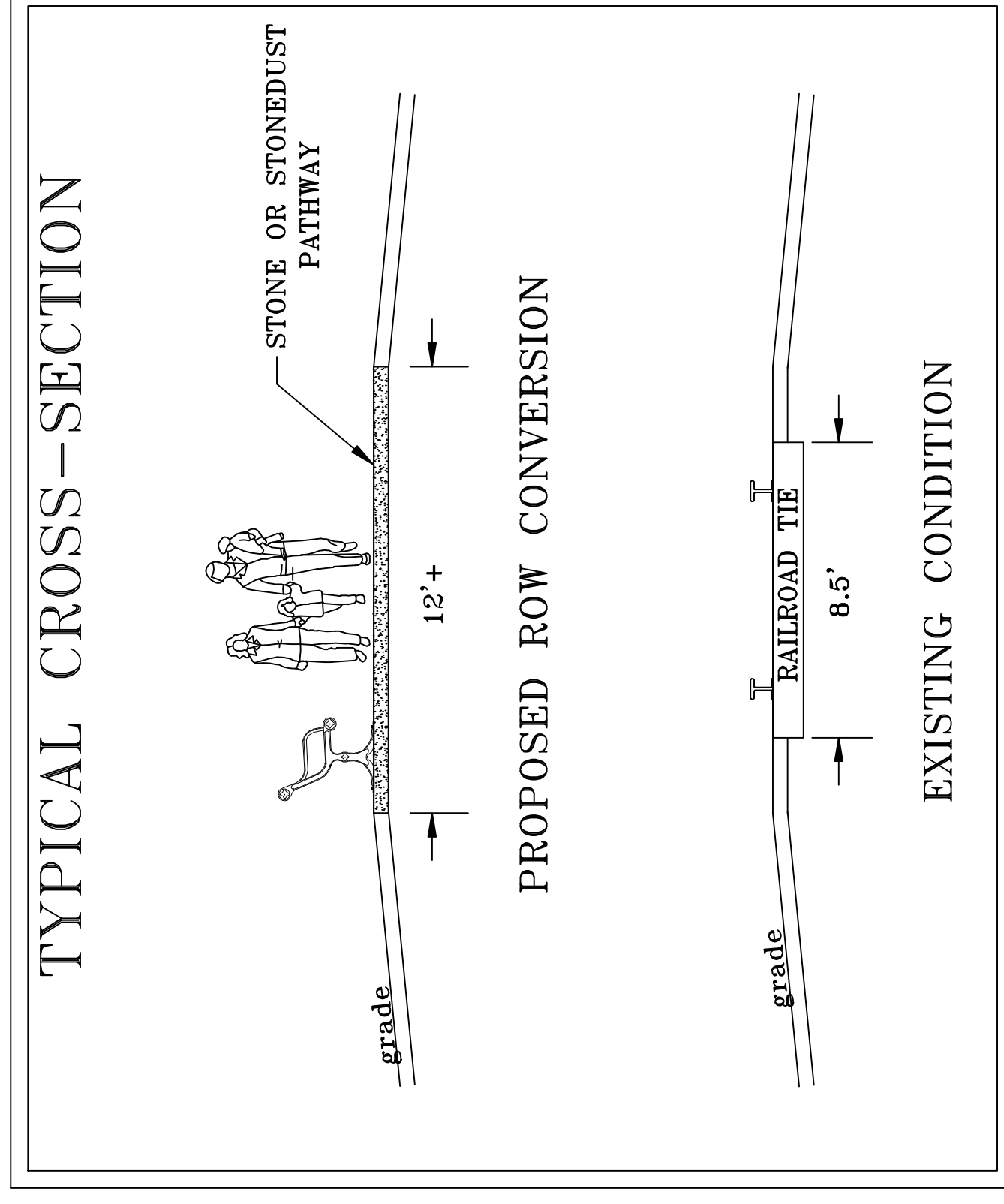
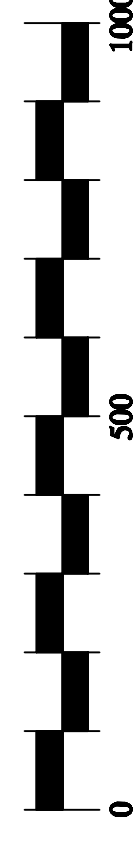
ACCESS POINTS



EMERGENCY ACCESS



MBTA RIGHT-OF-WAY



MASSACHUSETTS WALKWAY SYSTEM

DESIGNED BY:

DRAWN BY:

CHECKED BY:

APPROVED BY:

#277-12 NATIONAL GRID petitioning for a grant of location to install and maintain 90' ± of 4" gas main in NEAL STREET from the existing 4" gas main at Baker Place westerly to 19 Neal Street. (Ward 4) [09/05/12 @ 2:37 PM]

ACTION: **APPROVED WITH CONDITIONS 8-0**

NOTE: Dennis Regan, National Grid Permit Representative, presented the petition to install and maintain approximately 90' of 4" gas main in Neal Street in order to provide gas service to 19 Neal Street. The Department of Public Works has reviewed the petition and recommends approval of the petition. The public hearing was opened and no one spoke for or against the petition.

Ald. Danberg asked if the homes in the area of 135 Dedham Street were notified about the new gas main. Mr. Regan responded that all residents are notified that a new main is being installed but National Grid does not solicit perspective customers. With that, Ald. Gentile moved approval of the petition with the condition that the street opening and/or trench permit fees are paid before the Department of Public Works grants National Grid permission to open the street. The motion was approved unanimously. Please see the note for Docket Item #276-12 for the reason for the condition.

REFERRED TO PROG & SERV AND PUBLIC FACILITIES COMMITTEES

#302-12 HIS HONOR THE MAYOR, with the support of Ald. Rice, Crossley, Yates, Fischman, and Kalis, requesting authorization to execute a 99-year lease between the City of Newton and the Massachusetts Bay Transportation Authority (MBTA) for .97 miles of unused MBTA rail bed that runs parallel to Needham Street to create a multi-purpose recreational pathway. [09/24/12 @ 5:00 PM]

PROGRAMS & SERVICES HELD 7-0 on 10/03/12

ACTION: **HELD 8-0**

NOTE: The Committee met jointly with the Programs & Services Committee to discuss the above item. Chief Operating Officer Robert Rooney provided the attached PowerPoint during the discussion. Mr. Rooney presented the proposal to enter into a 99-year lease between the City and the MBTA. The City asked the MBTA for the lease, as it would allow the City to convert .97 miles of unused MBTA rail bed located parallel to Needham Street to a multi-purpose recreational pathway. Several other communities in the State have entered into a long-term lease with the MBTA and converted unused rail beds into recreational pathways. There would be no cost to the City for the lease of the right of way. The MBTA would have the ability to terminate the lease at any time with two years written notice and there would be no reimbursement for early termination of the lease. The lease also states that the City must follow best management practices of the Department of Environmental Protection during the conversion.

The City will also be indemnifying the MBTA against any responsibility if hazardous material is found during the length of the lease. The Administration has requested an appropriation under a separate docket item to fund the purchase of environmental insurance through the State's Brownfields Program. The program offers the City matching funds for the

insurance. The insurance would cover the city for up to \$3 million dollars if hazardous materials are discovered for a term of 5 years. The insurance is not mandatory but it would give the City additional protection. The Contractor and City representatives have walked the pathway and do not anticipate encountering any contamination.

A non-profit company that specializes in these types of conversions would do the pathway conversion. The company is currently working in New England, which makes it financially feasible for the City. The Department of Public Works would facilitate the construction of the pathway. There would be no cost to the City for the conversion. The company scraps the steel rail that it removes during the conversion process and its disposal of the railway ties is federally approved. The pathway would be level and have a compacted stone dust surface at the completion of the conversion. The project would be a one-year process and would become part of the City's parklands.

As it would be considered parkland, the Parks and Recreation Department would be responsible for maintaining the pathway. The maintenance concerns for the pathway are weed control and trash collection. The maintenance of the pathway should not cost much. There is less concern regarding erosion, as it should not be an issue for a number of years. There are potential enhancements such as trash bins, benches and signage that could be added on an as needed basis.

Most of the community around the pathway is supportive of the project and are well informed regarding the details of the project. Jerry Reilly and other members of the Right of Way Task Force have really reached out to the community. Several members of the Newton Upper Falls Neighborhood Area Council attended the meeting in support of the project. George Kirby from the Right of Way Task Force stated that the City is essentially getting free parkland that enhances the community. He added that he believed the State assumed the liability of a hazardous waste discovery after the insurance terminated. The pathway would offer a safe place for many types of activities such as jogging and bicycling.

The Committee was supportive of the project but had several concerns related to the discovery of hazardous material and liability. Ald. Gentile moved hold on the item for responses to the following questions:

- Have the communities that have converted old railway beds found contamination?
- If the MBTA terminates the lease with the City, could the City be held liable for any future discovery of environmentally hazardous materials?
- Is it possible to increase the amount of the environmental insurance and/or the length of coverage?
- Has the MBTA done any testing of the rail bed for any contamination?
- What would happen if an abutting site to the pathway was developed and environmental contamination from the rail bed was discovered? Would the City be responsible for paying for mitigation?

The Committee voted unanimously in favor of the motion to hold the item. The item will

be scheduled for discussion as soon as the requested information is available.

REFERRED TO PUBLIC FACILITIES AND FINANCE COMMITTEES

#54-12 ALD. SALVUCCI, BLAZAR AND FULLER requesting the creation of a revolving fund into which 50% of all betterment income shall be deposited to be used exclusively for individual requests for betterments. [02/02/12 @ 10:21 AM]

ACTION: **HELD 8-0**

NOTE: The item was held without discussion, as the Commissioner of Public Works was unavailable to discuss the item with the Committee.

#385-07 ALD. SCHNIPPER AND GENTILE updating the Public Facilities Committee on the progress of the Newton North High School Project. [11/21/07 @ 10:23 AM]

ACTION: **NO ACTION NECESSARY 8-0**

NOTE: The construction phase of the Newton North High School Project is complete and there will be no further updates on the progress. Therefore, Ald. Gentile moved no action necessary, which carried unanimously.

Respectfully submitted,

Anthony J. Salvucci, Chairman



#319-12

Understanding Your Choices: Chapter 149 or 149A

A comparison of the processes, risks and rewards

Tim Bonfatti, President, Compass Project Management

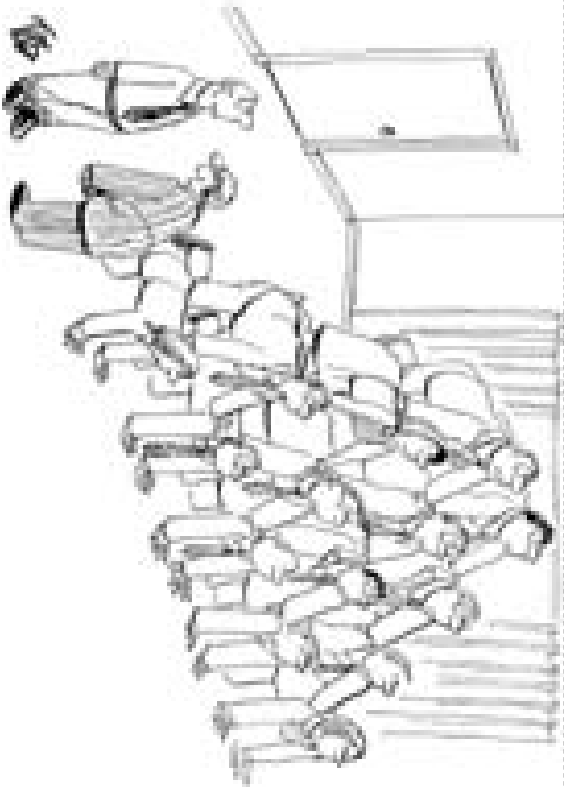
Mike Powers, Chairman, Symmes Maini & McKee Associates

Anthony Consigli, President/CEO, Consigli Construction

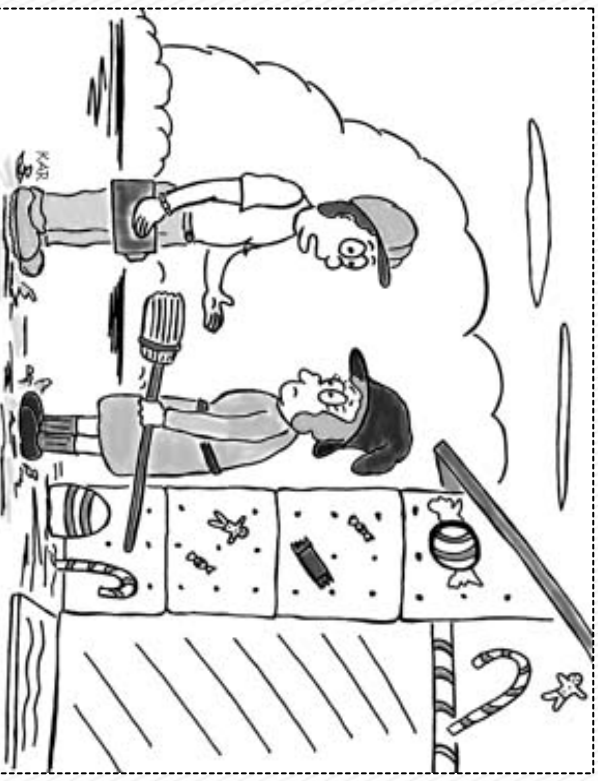


Understanding the Differences

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"You're this week's top person on the team pyramid."



"According to our records, your doors are being baked as we speak!"

CM at Risk

Design-Bid-Build

CM at Risk

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“During the 1970’s, a new type of firm evolved. Most were GC’s looking to provide services, work as part of teams, and eliminate adversarial environments on projects. In doing this they raised construction to a higher level of project delivery and added value to the end product”

*Project Delivery Systems for Construction published by AGC
2004*

Design-Bid Build

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“It is important to note that the constructor’s obligation is to satisfy the minimum requirements of the drawing and specifications. In the bidding process, the Owner asks for the lowest possible price to perform only those things that are absolutely required by the drawings and specifications and not more.”

*Project Delivery Systems for Construction published by
AGC 2004*

Key Difference

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- ▶ **With CM at Risk** – you are hiring a professional service firm which builds buildings
- ▶ **With D-B-B** – you are purchasing a building in accordance with detailed plans and specifications

Key Attributes

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- ▶ **CM at Risk**
 - Design Phase Services
 - Start before design is completed
 - Qualification–based selection
 - Negotiated price
 - “Open book” accounting
- ▶ **Design–Bid – Build**
 - No design phase services
 - Completed design
 - Lowest Responsive Bidder (prequalified)
 - Lump Sum Payment
 - Owner has no say in team (except prequalification of FSB’s)

Finding the Tipping Point

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- ▶ Bottom Line: Some projects are sufficiently “simple” that the initial cost savings with DBB outweigh the value-added services provided through CMR.
- ▶ IG Report on CMR: Owner’s view CM at Risk most appropriate for complex projects involving phasing, challenging logistics and aggressive schedules; DBB as most appropriate for new construction on open, clean sites, not time dependent.

OPM and CM at Risk

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- ◆ **REQUIRED SKILL SET** beyond Ch 149
 - Experience as CM or managing CM contracts
 - Know difference – CM contracts v Lump Sum
 - Working knowledge of construction accounting
 - Experience managing collaborative teams
 - Understand how CM's delineate scope between subcontractors
 - Understand differences between allowances, scope holds, and contingencies

OPM and CM at Risk

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MAJOR RESPONSIBILITIES

- ▶ Help AA decide on use of CMR or Ch 149
- ▶ Cultivate CM interest in project
- ▶ Draft CM RFQ and RFP – organize selection process
- ▶ Assist in drafting and negotiating CM contract
- ▶ Push for real value during preconstruction process

OPM and CM at Risk

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MAJOR RESPONSIBILITIES (cont'd)

- ▶ Negotiate GMP
- ▶ Understand and approve non-trade contractor scopes of work and procurement
- ▶ Manage “open book” – reimbursable costs vs. GC / Fee
- ▶ Recommend incentive payment – if applicable



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CM At Risk The Architect's Perspective



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CM At Risk Process

- ▶ Selection Process Critical
- ▶ Determine Appropriate Parameters
- ▶ Decide delivery process early
- ▶ Opportunity for construction input into design



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Optimization

- ▶ CM gives municipality an additional professional with construction savvy
- ▶ Bolsters Building Committee's knowledge of project
- ▶ CMR is a more comprehensive documentation process



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Value Engineering

- ▶ The most efficient time to value engineer any project is in the early phases.
- ▶ SMMA experiences on some of their school work clearly illustrate the difficulty of a later selection of the CM and the catch up process that ensues.



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Cost Control

- CMR process is introduced as quality-based process, however costs not guaranteed
- CMR leads to more confidence in pricing due to more comprehensive bid packages



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Relationships

- ▶ Team chemistry
- ▶ CM's should be chosen by experience with project type
- ▶ The opportunity for the team members to listen, evaluate and respond to various design oriented developmental issues during the design phase only enhances the final product.



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Assessing Project Risk

Hard Bid (149) vs. CM at Risk (149A)

- Chapter 149 – All risk factors need to be addressed prior to filed sub-bid process without input of GC

Lower risk projects more appropriate for Chapter 149

- Chapter 149A – CM engaged in pre-construction process to address risk factors prior to issuing trade and non-trade bid packages

Higher risk projects more appropriate for Chapter 149a



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Potential Project Risks

Factors Impacting Schedule, Cost and Quality:

- Unforeseen building or site conditions
- Incomplete architectural documents to bid
- Unqualified subcontractors, poor performance
- Subcontractor failures
- Working in and around occupied facilities
- Restoration or re-use of historic buildings
- Complex site logistics
- Adversarial team environment
- Inadequate GC staffing/general requirements
- Potential bid protests



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Lower Risk Projects Appropriate to Hard Bid (149)

- Minimal risk of concealed site and/or building conditions
- Adequate time to fully design into 100% construction documents
- Minimal logistical challenges
- Conventional schedule/schedule flexibility
- No need for early procurement



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Higher Risk Projects Appropriate for CM at Risk (149A)

- Schedule–driven, non–negotiable turnover dates
- Tight design–to–construction timeframe
- Requires early procurement to meet turnover date
- High probability of concealed conditions
- Complex logistical constraints
- Historical buildings
- Large projects with significant bid packages
- Occupied renovations
- Additions tied into existing buildings
- Projects targeting LEED and other sustainable goals



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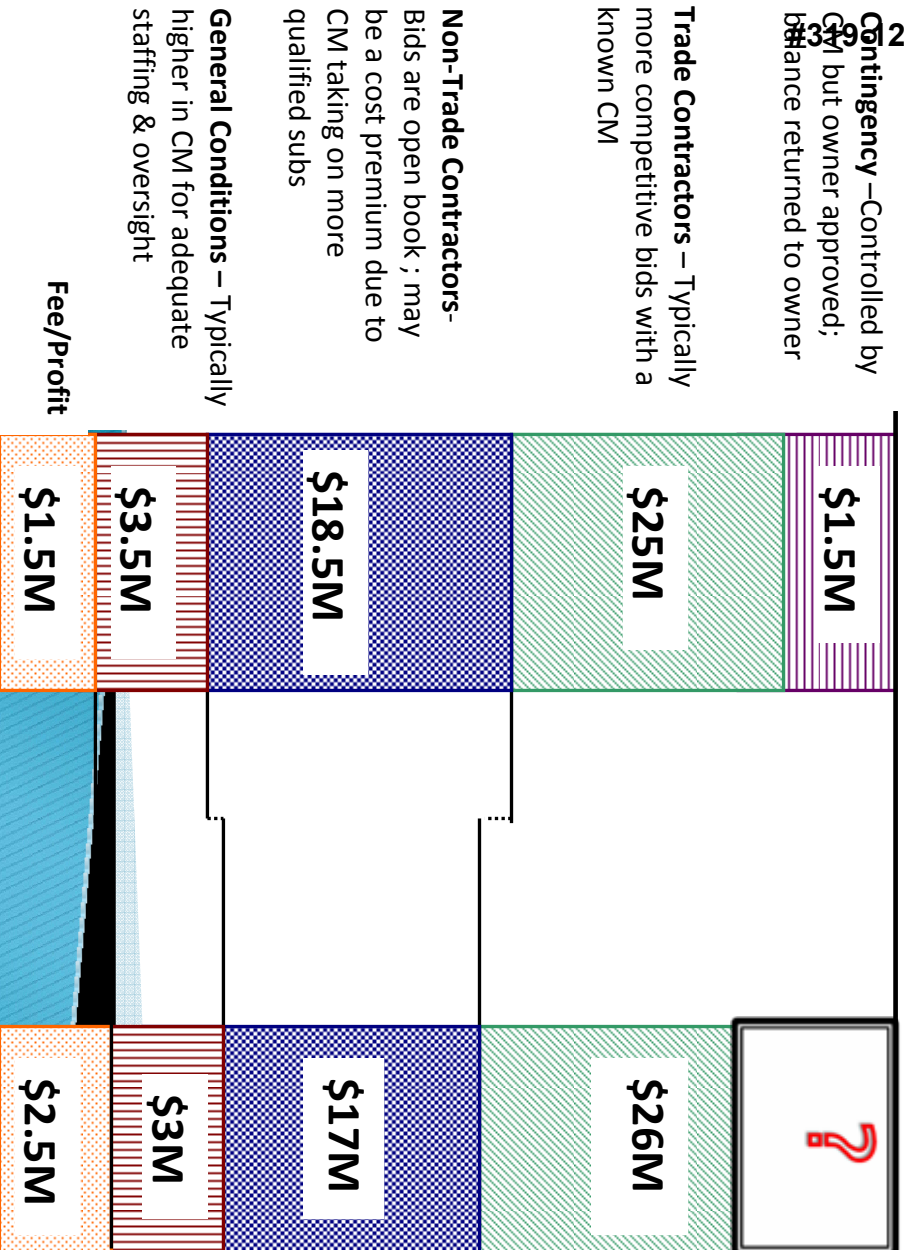
How Chapter 149A Can Help Mitigate Project Risks

- Opportunity to pre-qualify CMs and their teams
- Pre-construction services to address project risks
- Confirm existing conditions
- Design-to-budget process with architects
- Constructability reviews to 'fill in the gaps'
- Stricter subcontractor pre-qualification process
- CM contracts sub-bid packages
- Option to 'fast track' trades
- Open book
- Transparent GMP construction administration



Hypothetical \$50 Million K-12 School Project

How the number breaks down



Contingency – Controlled by GC but owner approved; balance returned to owner

Trade Contractors – Typically more competitive bids with a known CM

Non-Trade Contractors- Bids are open book ; may be a cost premium due to CM taking on more qualified subs

General Conditions – Typically higher in CM for adequate staffing & oversight

Fee/Profit

CM at Risk

Hard Bid

Change Orders - Typically higher % on hard bid – incomplete filed sub-bid packages and unknowns

Filed Sub-bids – Typically higher to cover risk of the unknown GC

Non-filed Sub-bids – Typically lower but owner does not have a chance to review bids

General Conditions – Typically lower to be low bidder

Fee/Profit – Higher fee on hard bid reflects buyout going back to GC



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Sub Bridging Document to Verify Full Scope

Department of Fire Services
Fire Fighter's Academy
Stow, MA
July 2, 2007



General Supplementary Conditions

Trade (Filed Sub-bids)

These supplementary conditions are intended to assist trade bidders (filed sub-bidders) in establishing items within the scope of their work. They are neither definitive nor all inclusive and do not relieve bidders of the responsibility to quote complete work packages. If any conflicts are found or any clarifications are needed, please forward an RFI to Consigli Construction immediately.

General: All bidders must provide for the following.

1. LEED conformance. See specification section 018113.
2. Prevailing wages. See attached appendix.
3. Phasing. See specification section 013110.
4. Show percentage of Commonwealth of Massachusetts State Office of Minority and Women Business Assistance (SOMWBA) certified minority and women business subcontractors and suppliers MBE/WBE included as part of your proposal. If certified Women and/or Minority businesses are included, please include a completed Schedule with your proposal. See Appendix B, Schedule XIII, and Letter of Intent and Schedule, attached.



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Open Book Subcontractor Procurement

LEVELING SHEET

Project: **Bridgewater State College Pope & Scott Halls**
 Trade: **Demolition**
 Estimated Value: **20,000**

Trade: **Demolition** MAKE BIDS Bidder Name Bid Amount Bidder Address Bidder Phone Bidder Fax Bidder Email

| Bidder Name | Bid Amount | Bidder Address | Bidder Phone | Bidder Fax | Bidder Email |
|----------------|------------|----------------|--------------|------------|--------------|
| CONSIGL | 422,160 | 700 528 | 603,000 | 6516 | |

Handwritten notes on the bid sheet:

- Yellow sticky note: *Self-performed trades bid against subs*
- Yellow sticky note: *Missed scope; bids adjusted*
- Yellow sticky note: *Total Adjusted Bids*

| EXCLUSIONS | removal of selected site elements - demo to be by site contractor | temporary protection | removal of existing foundations - to be by site contractor | striping of MEP systems to be done | by P/S's | NA | 6,873 | 12,460 | 10,895 | 11,715 |
|-----------------------------------|---|----------------------|--|------------------------------------|-------------------|----|-------|--------|--------|--------|
| BOND | Y | Y | Y | Y | Y | Y | | | | |
| TOTAL (incl. adjustments): | \$ 932,295 | \$ 690,087 | \$ 842,439 | \$ 743,349 | \$ 792,709 | | | | | |

- Estimators review bids to flag any missed scope
- Cost-adjusted bids compared on an "apples to apples" basis
- Competitive sub-bids presented in an open book process
- Process ensures that low bidder carries full scope of work



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Tools to Assess Project Risk

Risk: Working in and around an operational environment

Risk Prioritization:

Budget: Medium

Schedule: Medium

User Impact: High

Steps to minimize risk:

- Conduct interviews with all key stakeholders.
- Prepare and implement a detailed site logistics and safety plan
- Explore methods to minimize dust, noise and vibration
- Involve our Safety Director in site planning, pedestrian traffic and OSHA requirements
- Prepare periodic community outreach bulletins throughout the construction phase

Best Addressed By (Circle One):

CM at Risk

GC

Risk: Achieving turnover date of August 2010

Risk Prioritization:

Budget: Medium

Schedule: High

User Impact: High

Steps to minimize risk:

- Building investigation to confirm existing conditions
- Early procurement of windows and MEP equipment
- Pre-qualified subs with ability to deliver on aggressive schedules
- Process to develop 1 00% CDS

New K-12 School, Chapter 149

#319-12



- ▶ **Schedule:** Outdated current facility; new school will be approximately the same size as the replacement
- ▶ **Logistics:** Plenty of available land; site can be isolated and presents minimal logistical challenges
- ▶ **Budget:** Site has been investigated for concealed conditions; adequate time to develop 100% construction documents
- ▶ **Procurement:** No need for early procurement to achieve fall 2012 turnover date
- ▶ **Subcontractors:** Time to develop complete filed sub-bid documents, not an aggressive schedule

New K – 12 School – Chapter 149A

#319-12



- ▶ **Schedule:** Existing facility is overcrowded and outdated; some classes are in temporary trailers
- ▶ **Logistics:** Minimal available land; either need to build major addition onto current school or build new facility in close proximity
- ▶ **Budget:** Speed of process has not allowed adequate time to investigate site and/or existing building conditions to determine most efficient approach
- ▶ **Procurement:** Project will require early packages to achieve Fall 2011 turnover date
- ▶ **Subcontractors:** Schedule adherence, quality and safety are big concerns, especially in close proximity to students



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Questions:

Thank you for joining us.