



# MASSACHUSETTS WATER RESOURCES AUTHORITY

Chelsea Facility  
2 Griffin Way  
Chelsea, Massachusetts 02150

Telephone: (617) 242-6000  
Facsimile: (617) 305-5990

Frederick A. Laskey  
Executive Director

November 18, 2008

Environmental Protection Agency - NE  
Office of Ecosystem Protection (CMU)  
Attn: Olga Vergara  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

DEP Division of Watershed Management  
627 Main Street, 2<sup>nd</sup> Floor  
Worcester, MA 01608

Re: General Permit for Construction Site Dewatering - MAG070000 and BRP WM 10 for Rehabilitation of Water Pumping Stations - Arlington, Boston and Brookline, Massachusetts

Dear Environmental Reviewer:

This is a resubmittal for MAG070238 – Rehabilitation of Water Pumping Stations, MWRA Contract No. 6375, which was previously permitted in December 2005, as required in a letter dated October 6, 2008 from Mr. David M. Webster of EPA to Mr. Francis DePaola of MWRA concerning the Notice of Dewatering General Permit Availability and the New Application Process.

Enclosed is a request for General Permit Coverage for the above referenced project under the NPDES General Permit MAG070000 and the state discharge permit BRP WM 10. The Massachusetts Water Resources Authority (MWRA) is continuing to rehabilitate the following four drinking water pumping stations under the above mentioned contract:

1. Brattle Court Pumping Station (BCPS): 18 Brattle Court, Arlington, MA 02176 (see attached Drawing C-1 & C-2).
2. Hyde Park Pumping Station (HPPS): 761 Hyde Park Avenue, Boston, MA 02136 (see attached Drawing C-6).
3. Reservoir Road Pumping Station (RRPS): Reservoir Road and Boylston Street, Brookline, MA 02146 (see attached Drawing C-10).
4. Spring Street Pumping Station (SSPS): Spring Street & Jason Street, Arlington, MA 02174 (see attached Drawing C-8).

At this time, work at one pumping station, the Belmont Pumping Station, is complete and has been removed from this submittal. The rehabilitation work will modernize these pumping

facilities, replace yard piping and appurtenance structures, establish reliable emergency backup provisions in the event of a mechanical or power failure, improve overall system redundancy within each service area, and provide capability to monitor, control and operate each station unstaffed, remotely, from the Operations and Control Center (OCC) at Chelsea via MWRA's Supervisory Control and Data Acquisition (SCADA) system.

The rehabilitation work also entails replacing mechanical and electrical equipment nearing the end of its useful life, so that the pumping stations will be secure and properly equipped to meet MWRA's needs for the next 20 to 30 years. Construction will be undertaken in stages, while the stations remain in service to ensure an adequate water supply is maintained throughout the construction period. Work on this contract began in October 2006 and will be completed in June 2010.

Table 1 summarizes pumping station locations that will require construction dewatering, and Sheet G-1 is attached as a general Locus Plan. Table 1 provides the latitude and longitude, anticipated maximum discharge, and duration information for the access areas. Reduced drawings are attached showing the excavation locations as referenced previously by station. It is anticipated at the locations listed in Table 1, that geotechnical testing may be needed to confirm groundwater depths and knowledge of required excavation locations for appurtenance replacement.

Except for Mill Brook at Brattle Court Pumping Station, all other pump station work is outside of riverfront areas. All discharges will comply with the limitations established in general permits MAG070000 and BRP WM 10. Dewatering pumps will discharge to on-site portable fractionation-tanks or temporary sediment basins to allow for settling of sediment. Settled water will discharge directly to the public storm water collection system at each site. Drawing C-27 (attached) provides details on sedimentation and erosion control.

A limited Geotechnical exploratory program was conducted for the BPS, HPPS, and SSPS by GZA GeoEnvironmental, Inc. (GZA) in February 1998, which consisted of ten borings. No borings were performed at RRPS. Boring soil samples were screened in the field for volatile organic compounds with no volatile organics detected. Therefore, no laboratory chemical analyses were performed. Ground water levels were observed during drilling. Here too, since no signs of volatiles were indicated during drilling no samples were collected or submitted for laboratory chemical analyzes.

The pump stations are primarily in residential & business districts. All work will be done in areas that have been previously disturbed during the original installation. No impacts to historical or archaeological resources are expected. According to the Massachusetts Natural Heritage Atlas (2000-2001 Edition), there are no Estimated Habitats of Rare Species Wildlife located at these pump stations.

**Table 1 – MWRA Rehabilitation of Water Pumping Station**

<b>No.</b>	<b>Pumping Station</b>	<b>City/Town</b>	<b>Drawing(s)</b>	<b>Latitude - N</b>	<b>Longitude - W</b>	<b>Estimated Maximum Discharge (gpm)</b>	<b>Duration (days)</b>
1	Brattle Court	Arlington	C-1 & C-2	42° 25' 20"	71° 10' 12"	10	20
2	Hyde Park	Boston	C-6	42° 16' 27"	71° 07' 14"	10	20
3	Reservoir Road	Brookline	C-10	42° 19' 37"	71° 08' 52"	10	20
4	Spring Street	Arlington	C-8	42° 24' 27"	71° 10' 02"	10	20

Page 4

This pump station rehabilitation project is an important public service project, and we would appreciate your timely review of this Request for General Permit Coverage. Thank you for your assistance in this matter. If you have any questions or require additional information please contact me at (617) 305-5714.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Carpman', with a long, sweeping horizontal flourish extending to the right.

Edward Carpman, P. E.  
Project Manager

Attachments: Drawings C-1, C-2, C-6, C-8, C-10, C-27, G-1 (reduced to 11" x 17")  
MA-DEP Transmittal Form X 225094  
MA-DEP BRP WM10 Form

cc: David S. Belknap, Black & Veatch  
Mary White, MWRA



# BRP WM 10

## Request for General Permit Coverage Construction Site Dewatering

Date Received

### A. Facility Information

**Important:**  
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



1. Project owner:

Massachusetts Water Resources Authority (MWRA)

Name

2 Griffin Way

Street/PO Box:

MA

State

Kevin O'Brien

Contact Person

Chelsea

City

02150

Zip Code

617-305-5764

Telephone Number

2. Project operator (if different from above):

Name

Street/PO Box:

City

State

Zip Code

Contact Person

Telephone Number

3. Facility Data (attach topographic map or other map showing facility location):

MWRA - Rehabilitation of Five (5) Pumping Stations

Name

Various - (attached letter/drawings)

Street/PO Box

Arlington, Belmont, Boston, Brookline

City

MA

State

02150

Zip Code

Email address (optional)

617-305-5714

Telephone Number

E. Carpman

Contact Person

4. Standard Industrial Code (SIC) and description:

4941

Standard Industrial Code (SIC)

Water Pump Stations

Description

5. Describe any storage of petroleum and chemicals on site:

Gasoline will be present during construction to fuel generators for miscellaneous construction equipment. Gasoline will be stored inside facility, trailer or bermed/lined area. Fuel oil to power emergency generators is also on site.



# BRP WM 10

## Request for General Permit Coverage Construction Site Dewatering

Date Received

### A. Facility Information (continued)

6. Describe the history of land use at the site:

Land use at the site(s) provide access to MWRA's pumping facilities. These facilities provide uninterrupted water service to MWRA's customers.

### B. Effluent Characteristics (Refer to general permit in Federal Register Volume 67, Number 184, September 28, 2002, page 59503-59519)

No. of Discharge Points	Duration	Volume	Rate
1, 2, 3 & 4 Outfall No.	20-days (ea.)		10-gpm
Outfall No.			
Outfall No.			
Estimated start and completion dates for construction:		October 2006 Start Date	June 2010 Completion Date

Description of any wastewater treatment:

Wastewater will be treated by settling/filtration to remove TSS to meet permit standards (50/100 mg/L). No other pollutants are known or suspected in the groundwater.

Receiving waterbody:

Discharges will be directed to public storm water collection system if available, or temporary sedimentation basins or sedimentation tanks

- Is the site located within Indian country?  Yes  No
- Are any listed or proposed threatened or endangered species or designated critical habitat in proximity to the discharge site?  Yes  No
- Was the US Fish & Wildlife Service and/or the National Marine Fisheries Service contact in determining eligibility under the Endangered Species Act requirements? If yes, submit copy of written concurrence, where applicable.  Yes  No



# BRP WM 10

## Request for General Permit Coverage Construction Site Dewatering

Date Received

### B. Effluent Characteristics (continued)

Is any historic property listed or eligible for listing on the National Register of Historic Places located on the facility or in proximity to the discharge?  Yes  No

Was the State Historic Preservation Officer or Tribal Historic Preservation Officer contacted in determining eligibility?  Yes  No

### C. Certification

I certify that each discharge for which I am seeking coverage under the general permit consists solely of effluent from discharges from the construction dewatering activities; and, based on the instruction at 1.C.1c, Limitations of Coverage, I have met the eligibility criteria under the Endangered Species Act and the National Historic Preservation Act. I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Kevin F. O'Brien*

Signature

Kevin F. O'Brien, Director, Wastewater Engineering, MWRA

Printed Name and Title

NOI Preparer:

MWRA

Name

2 Griffin Way

Address

MA

State

Edward Carpman

Contact Person

Chelsea

City

02150

Zip Code

617.305.5714

Telephone Number



Enter your transmittal number

X 225094

Transmittal Number

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml or call MassDEP's InfoLine at 617-338-2255 or 800-462-0444 (from 508, 781, and 978 area codes).

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. Copy 2 must accompany your fee payment. Copy 3 should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

\* Note: For BWSC Permits, enter the LSP.

A. Permit Information

BRP WM 10

1. Permit Code: 7 or 8 character code from permit instructions

Construction Site Dewatering

3. Type of Project or Activity

Dewatering General Permit

2. Name of Permit Category

B. Applicant Information - Firm or Individual

Massachusetts Water Resources Authority (MWRA)

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. Last Name of Individual

2 Griffin Way

5. Street Address

Chelsea

6. City/Town

Kevin O'Brien

11. Contact Person

3. First Name of Individual

MA

7. State

02150

8. Zip Code

(617) 305-5764

9. Telephone #

4. MI

10. Ext. #

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

MWRA-Rehabilitation of Water Pumping Stations

1. Name of Facility, Site Or Individual

Various (see attached letter/drawings)

2. Street Address

Arlington, Belmont, Boston, Brookline

3. City/Town

MA

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)\*

MWRA

1. Name of Firm Or Individual

2 Griffin Way

2. Address

Chelsea

3. City/Town

Edward Carpmann

8. Contact Person

MA

4. State

02150

5. Zip Code

(617) 570-5714

6. Telephone #

7. Ext. #

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? [ ] yes [X] no
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Special Provisions:

- 1. [ ] Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less). There are no fee exemptions for BWSC permits, regardless of applicant status.
2. [ ] Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. [ ] Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. [ ] Homeowner (according to 310 CMR 4.02).

Permit No:

Rec'd Date:

Reviewer:

217315

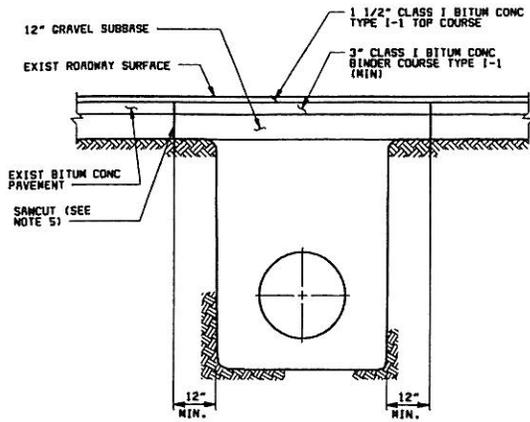
Check Number

\$385.00

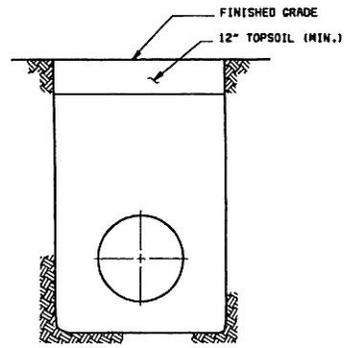
Dollar Amount

11/13/08

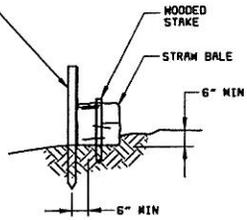
Date



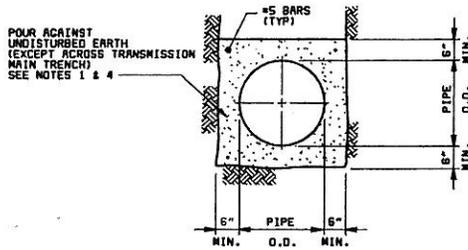
**TRENCH SURFACE RESTORATION  
AT PUBLIC ROAD** (C)  
NOT TO SCALE



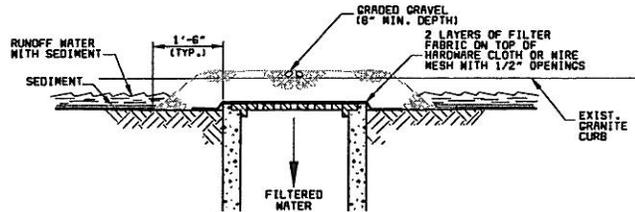
**TRENCH SURFACE RESTORATION-OFF ROAD** (D)  
NOT TO SCALE



**SECTION 3**

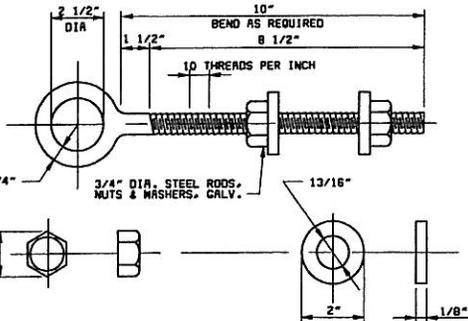


**CONCRETE ENCASEMENT** (G)  
NOT TO SCALE



NOTES:  
1. CONTRACTOR SHALL CLEAN OUT CATCH BASINS PRIOR TO INSTALLING SEDIMENT CONTROLS AND AFTER REMOVING THEM

**STORM DRAIN INLET PROTECTION** (E)  
NOT TO SCALE



**GUIDE, NUT AND WASHER**

**M GUIDE** (J)  
D SCALE (C-27)

NO.	DATE	BY	CHK'D	REVISION

DATE: JULY 2005  
DESIGNED BY: LAG, CMP  
DRAWN BY: ANL, WAG  
CHECKED BY: NSF  
APPROVED BY: GHR

SCALE: NO SCALE

**MASSACHUSETTS  
WATER RESOURCES AUTHORITY**

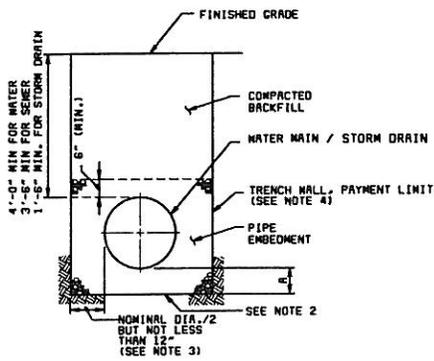
**REHABILITATION OF  
WATER PUMPING STATIONS**

**CIVIL  
MISCELLANEOUS DETAILS**

CONTRACT NO. : 6375  
DRAWING NO. : C-27  
ACCESSION NO. : 512945

**Black & Veatch**  
BOSTON, MASSACHUSETTS

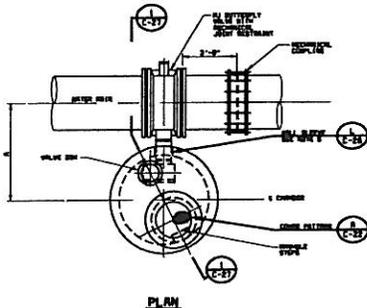
32 of 168



**TABLE A**  
EMBEDMENT DEPTH BELOW PIPE

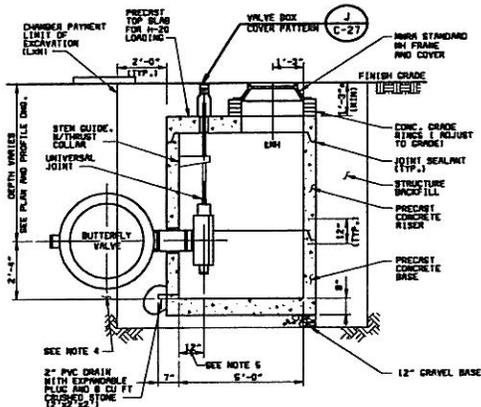
NOMINAL PIPE DIA.	A MIN. SOIL	A MIN. ROCK
LESS THAN 30"	3"	6"
30" TO 36"	4"	9"

**TRENCH CROSS SECTION A**  
NOT TO SCALE

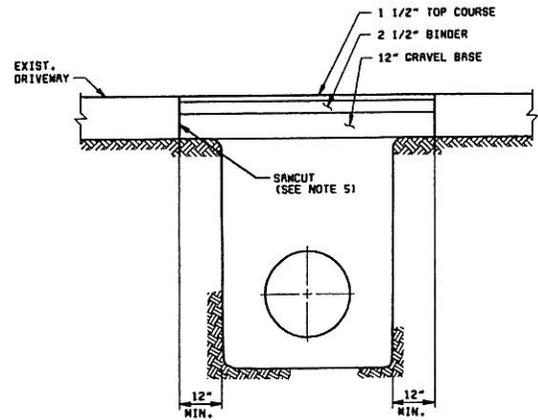


**BUTTERFLY VALVE CHAMBER DIMENSIONS**

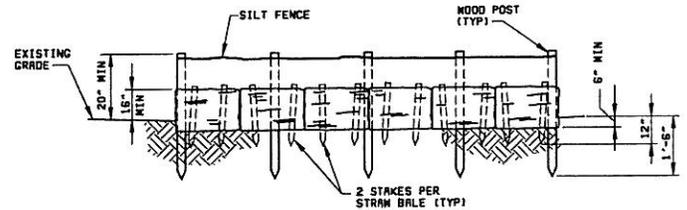
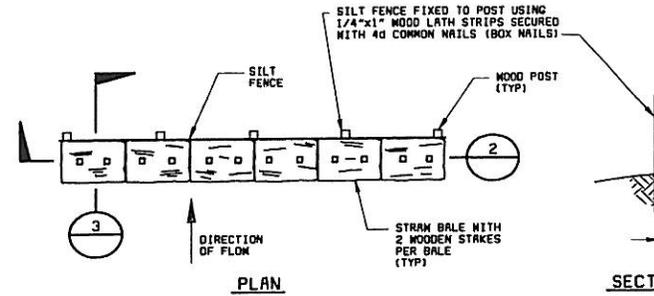
VALVE SIZE	A	B
20"	5'-0"	10"
24"	5'-6"	10"
30"	5'-3"	10"
36"	5'-6"	12"
42"	5'-6"	12"
48"	5'-6"	12"



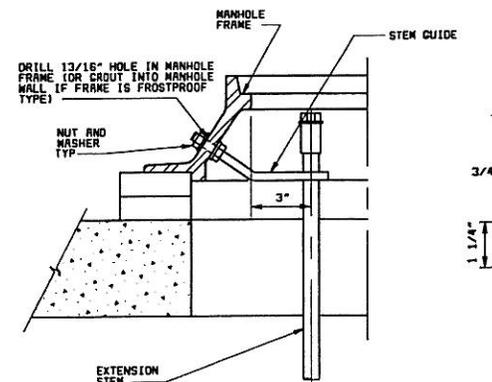
**BUTTERFLY VALVE AND CHAMBER I**  
NOT TO SCALE



**TEMPORARY SURFACE RESTORATION DRIVEWAY B**  
NOT TO SCALE



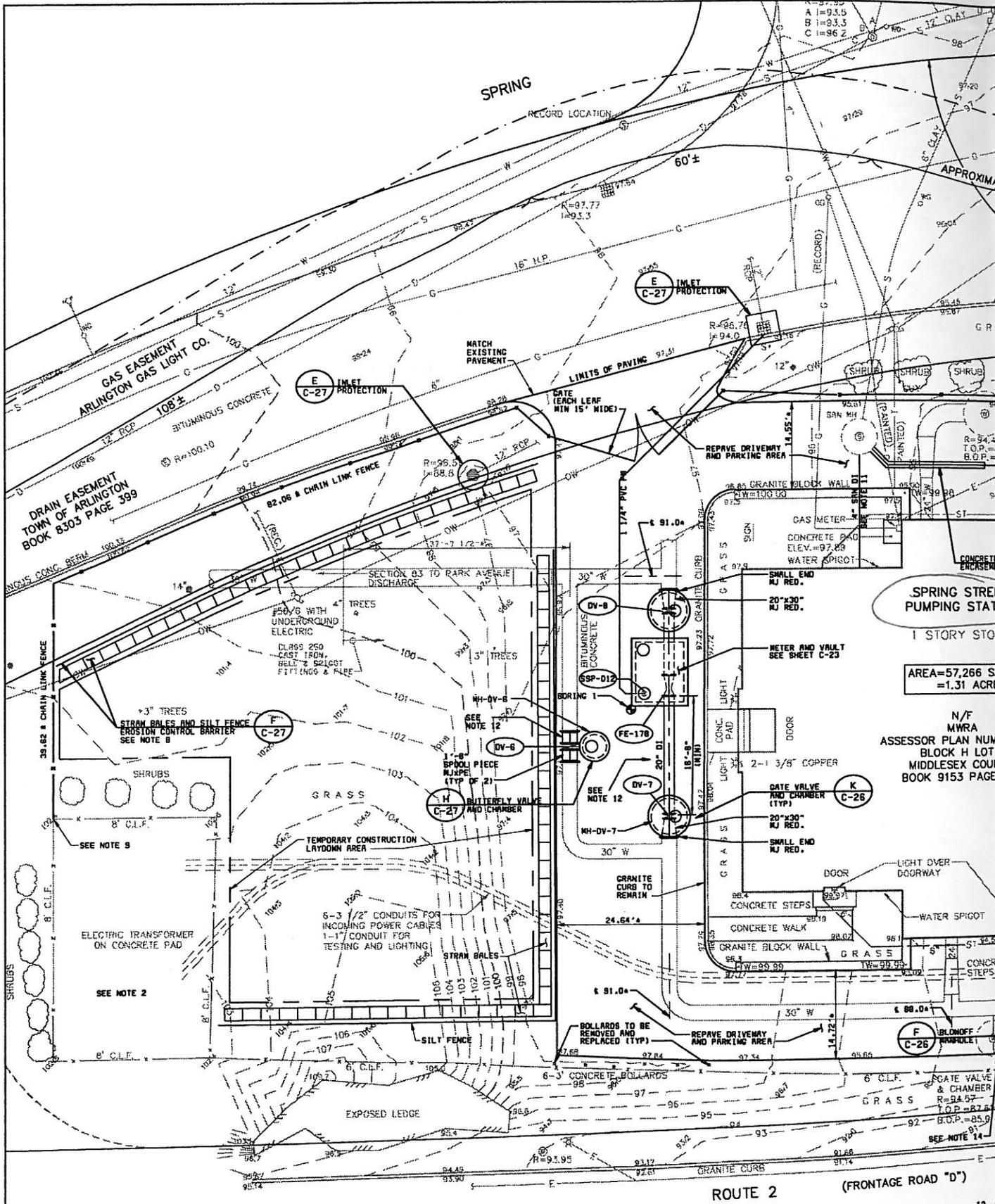
**SECTION 2**  
**STRAW BALES/SILT FENCE**  
**EROSION CONTROL DETAILS F**  
NOT TO SCALE



**STEM GUI**  
NOT TO SCALE

**NOTES:**

- WHERE APPLICABLE REMOVE UNSTABLE/UNSUITABLE MATERIAL TO DEPTH SHOWN ON PLAN AND PROFILE OR AS DETERMINED BY THE AUTHORITY. DENSITY SURGRADE AND PLACE COMPACTED BACKFILL TO TRENCH BOTTOM. SEE SPECIFICATION SECTION 02200.
- SHEETING AND SHORING ARE NOT SHOWN. MINIMUM SIDEWALL CLEARANCE IS THE CLEAR DISTANCE FROM EDGE OF PIPE TO TRENCH PROTECTION (SHEETING, TRENCH BOX ETC.). PAYMENT LIMIT IS BASED ON MINIMUM TRENCH WIDTH.
- NEW WATER MAIN SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER AND STORM DRAIN WHEREVER POSSIBLE.
- PAYMENT LIMIT FOR SURFACE RESTORATION SHALL BE MINIMUM TRENCH WIDTH PLUS 2 FEET.
- REFER TO CHART FOR SLEEVE DIAMETER. TO BE COORDINATED WITH VALVE MANUFACTURERS.

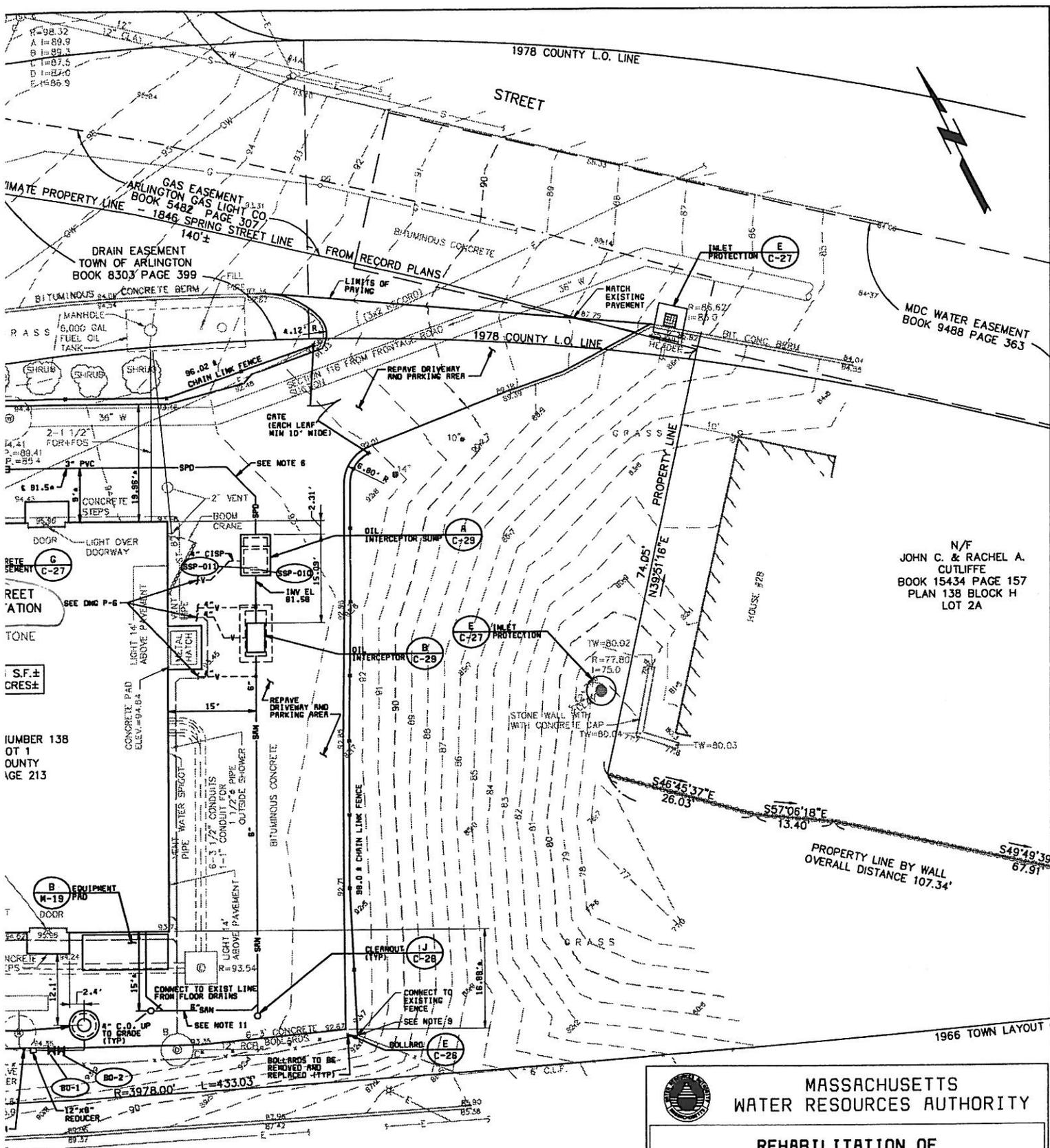


**NOTES**

1. SEE DEMOLITION SITE PLAN FOR PROPERTY BOUNDARIES.
2. REFER TO ELECTRICAL DRAWINGS FOR TRANSFORMER AND OTHER ELECTRICAL SITE IMPROVEMENTS.
3. ELEVATIONS IN FEET ARE BASED ON BOSTON CITY BASE DATUM.
4. SANITARY FORCE MAIN TO BE BURIED APPROX. 3.5 FT. BELOW GRADE. ENCASE IN CONCRETE, 8 IN. MINIMUM, WHERE IT CROSSES WATER MAIN. ENCASUREMENT TO EXTEND TO 10 FT. EITHER SIDE OF CROSSING. SANITARY FORCE MAIN TO ENTER EXISTING MH APPROX. 24 IN. ABOVE INVERT. THEN TURN DOWNWARD TO DISCHARGE 6-12 IN. ABOVE MANHOLE INVERT. USE MODULAR SEAL FOR WATERTIGHT PIPE CONNECTION AT MANHOLE.
5. PENETRATE EXISTING MH WALL WITH SANITARY GRAVITY SEWER, WITH INVERT 3 IN. ABOVE DISCHARGE LINE INVERT, AND FLUSH WITH MH INTERIOR.
6. PLUMBING SUB CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING SANITARY SEWER AND VENTS WITHIN 10'-0" OF BUILDING. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PUMPING SYSTEM PIPING, VALVES, AND APPURTENANCES.
7. EROSION CONTROL BARRIER TO BE INSTALLED, INSPECTED AND MAINTAINED AT LOCATIONS TO PREVENT OFF SITE MIGRATION OF SEDIMENT AND FOR ALL DISTURBED AREAS BY CONTRACTOR OPERATIONS, TO BE DISPOSED OF FOLLOWING SITE ACTIVITIES.
8. ALL GRASSED AND VEGETATED AREAS DISTURBED BY CONTRACTOR'S OPERATIONS SHALL BE RE-GRADED, RE-LOANED, RE-SEED, AND RESTORED TO ORIGINAL SITE CONDITIONS.
9. INSTALL POSTS AT TERMINATION OF CHAIN LINK FENCE RUNS AND CONNECT TO EXISTING CHAIN LINK FENCE.
10. FINISHED CONTOURS FOLLOWING CONSTRUCTION TO MATCH EXISTING CONTOURS UNLESS OTHERWISE NOTED.
11. 4" AND 6" SAN SEWER PIPE, DUCTILE IRON SPECIAL CLASS F2, DOUBLE LINED CEMENT, HMA C-151.
12. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF EXISTING PIPES BEFORE CONSTRUCTION, AND MATCH EXISTING PIPING ELEVATIONS.

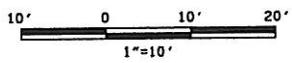
R=4020.00  
NO ACCESS L11

CR4530  
FC04530



N/F  
 JOHN C. & RACHEL A.  
 CUTLIFFE  
 BOOK 15434 PAGE 157  
 PLAN 138 BLOCK H  
 LOT 2A

PROPERTY LINE BY WALL  
 OVERALL DISTANCE 107.34'



- CONTRACTOR TO COORDINATE UTILITY RELOCATION WITH APPROPRIATE UTILITIES. COORDINATION AS WELL AS RELOCATION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE AUTHORITY.
- CONTRACTOR TO RESTRAIN ALL EXISTING JOINTS BACK TO 30" WATER LINE.
- ALL SUMP PUMP DISCHARGE LINES (SPD) SHALL BE AT LEAST THREE FEET BELOW GRADE AND SLOPED TO DISCHARGE POINT.
- THE EXISTING PIPING IN THE YARD IS UNRESTRAINED. THE CONTRACTOR'S MEANS & METHODS OF INSTALLING THE NEW PIPE SHALL TAKE THIS INTO CONSIDERATION.

NO.	DATE	BY	CHK'D	REVISION

DATE: JULY 2005  
 SCALE: 1"=10'

DESIGNED BY: LAD, CMP  
 DRAWN BY: AAL, RLC, MAG  
 CHECKED BY: NSF  
 APPROVED BY: GHR



**MASSACHUSETTS  
 WATER RESOURCES AUTHORITY**

**REHABILITATION OF  
 WATER PUMPING STATIONS**

**SPRING STREET PUMPING STATION  
 CIVIL  
 ENLARGED SITE PLAN**

CONTRACT NO. : 6375	DRAWING NO. : C-8
ACCESSION NO. : 512926	



**Black & Veatch**  
 BOSTON, MASSACHUSETTS

13 OF 168

0.00' L=358.29'  
 LINE (ROUTE 2)