



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, 2nd 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

No.	Pumping Station	City/Town	Drawing(s)	Latitude - N	Longitude - W	Estimated Maximum Discharge (gpm)	Duration (days)
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

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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,



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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program

BRP WM 10

Request for General Permit Coverage Construction Site Dewatering

X 225094

Transmittal Number

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. Carpmann

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.



Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Watershed Permitting Program

X 225094

Transmittal Number

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	20-days (ea.)		10-gpm
Outfall No.			
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



Massachusetts Department of Environmental Protection
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BRP WM 10

Request for General Permit Coverage Construction Site Dewatering

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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 ☒ 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

Permit No:

Rec'd Date:

Reviewer:

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).

217315

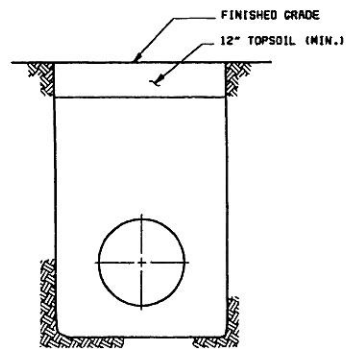
Check Number

\$385.00

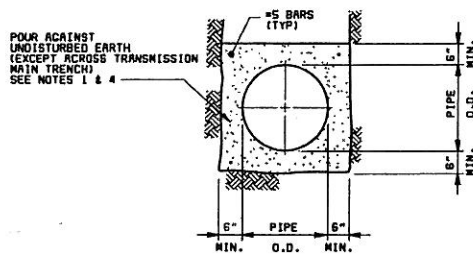
Dollar Amount

11/13/08

Date



TRENCH SURFACE RESTORATION-OFF ROAD 
NOT TO SCALE



RUNOFF WATER WITH SEDIMENT

SEDIMENT

1'-6" (TYP.)

GRADED GRAVEL (8" MIN. DEPTH)

2 LAYERS OF FILTER FABRIC ON TOP OF HARDWARE CLOTH OR WIRE MESH WITH 1/2" OPENINGS

EXIST. GRANITE CURB

FILTERED WATER

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



M GUIDE J
 O SCALE C-27

NO.	DATE	BY	CHK'D	REVISION

DATE: JULY 2005

SCALE: NO SCALE

DESIGNED BY: LAD CAMP
 DRAWN BY: RAL MAG
 CHECKED BY: NSF
 APPROVED BY: RHB



MASSACHUSETTS
WATER RESOURCES AUTHORITY

REHABILITATION OF WATER PUMPING STATIONS

CIVIL
MISCELLANEOUS DETAILS

CONTRACT NO. : 6375

ACCESSION NO. : 512945

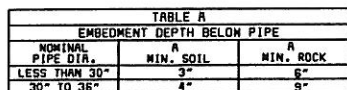
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C-27

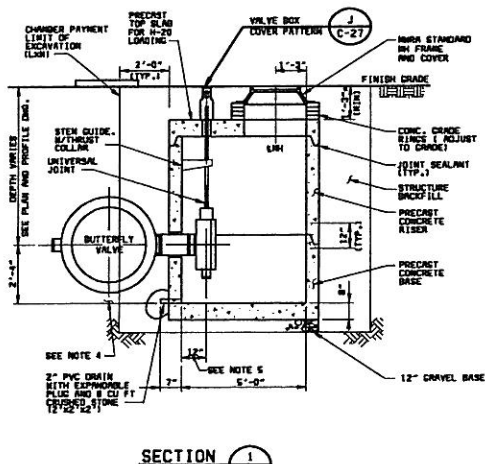


Black & Veatch
BOSTON, MASSACHUSETTS

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VALVE SIZE	A	SLAVE DIAMETER
20"	5'-8"	10"
24"	5'-8"	10"
30"	5'-2"	10"
36"	5'-8"	12"
42"	5'-8"	12"
48"	5'-8"	12"



EXIST. DRIVEWAY

1 1/2" TOP COURSE

2 1 1/2" BINDER

12" GRAVEL BASE

SAWCUT (SEE NOTE 5)

12" MIN.

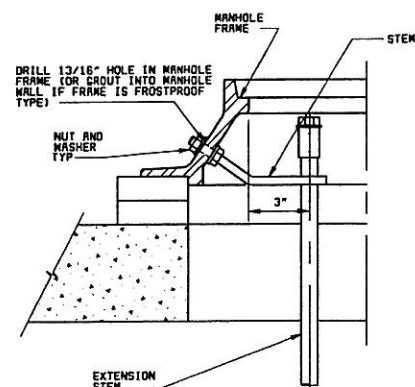
12" MIN.

Diagram illustrating the construction of a silt fence using straw bales. The fence is composed of several straw bales, each secured with two wooden stakes per bale. The bales are held together by 1/4"x1" wood lath strips, which are secured with 40 common nails (box nails). The fence is supported by wood posts (typical). A flag is attached to the end of the fence to indicate the direction of flow. The diagram is labeled "PLAN".

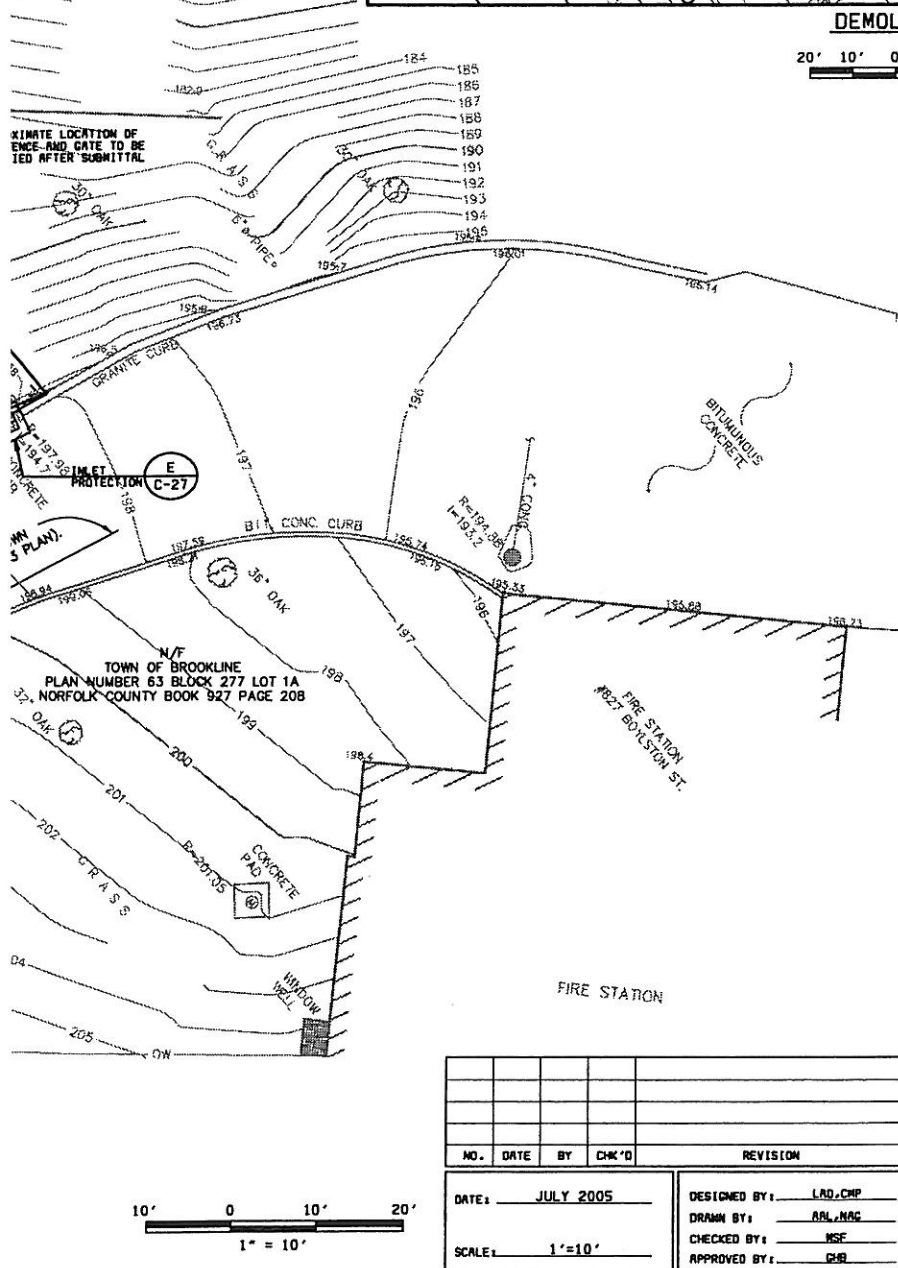
Labels in the diagram:

- SILT FENCE
- 1/4"x1" WOOD LATH STRIPS SECURED WITH 40 COMMON NAILS (BOX NAILS)
- WOOD POST (TYP)
- 2
- 3
- DIRECTION OF FLOW
- STRAW BALE WITH 2 WOODEN STAKES PER BALE (TYP)
- PLAN

STRAW BALES/SILT FENCE
EROSION CONTROL DETAILS (F)
NOT TO SCALE



1. WHERE APPLICABLE REMOVE UNSTABLE/UNSUITABLE MATERIAL TO DEPTH SHOWN ON PLAN AND PROFILE OR AS DETERMINED BY THE AUTHORITY. DENSIFY SUBGRADE AND PLACE COMPACTED BACKFILL TO TRENCH BOTTOM. SEE SPECIFICATION SECTION 02200.
2. 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.
3. 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.
4. PAYMENT LIMIT FOR SURFACE RESTORATION SHALL BE MINIMUM TRENCH WIDTH PLUS 2 FEET.
5. REFER TO CHART FOR SLEEVE DIAMETER. TO BE COORDINATED WITH VALVE MANUFACTURERS.



20' 10' 0 20' 40'

1"=20'

1. ALL GRASSED AREAS DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RE-LEARNED AND RE-SEEDED.
2. DEMOLISH EXISTING 18" SUCTION PIPING FROM BUILDING TO EXISTING STATION ISOLATION VALVE CHAMBER MM BY-7. REPLACE WITH NEW PIPING AND BYPASS LINE AS SHOWN, AT SAME CENTERLINE AS EXISTING PIPE (APPROX. 194.0 FT.)
3. PRIOR TO REPLACING SUCTION LINE, DO TEST PIT TO DETERMINE LOCATION AND DEPTHS OF 6" DRAIN AND SEWER LINES.
4. REMOVE TREE AND STUMP INDICATED LORN AND SEED. THERE ARE 7 TREES AND STUMPS TO BE REMOVED.
5. SLOPE 2" PVC FN TO EXISTING SANITARY MANHOLE TO ALL GRAVITY DRAINAGE OF FN. PROVIDE MINIMUM OF 4" COVER.
6. CORE EXISTING MM FOR CONNECTION OF 2" PVC FN. SEAL CONNECTION USING MODULAR SEAL.
7. PLUMBING CONTRACTOR IS RESPONSIBLE FOR SANITARY SEWER AND VENT PIPING WITHIN 10'-0" OF BUILDING.
8. CONTRACTOR TO COORDINATE UTILITY RELOCATION WITH APPROPRIATE UTILITIES. COORDINATION AS WELL AS RELOCATION SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE AUTHORITY.
9. EROSION CONTROL BARRIERS TO BE INSTALLED, INSPECTED, AND MAINTAINED TO PREVENT EROSION AND SITE MIGRATION OF SEDIMENTS FOR ALL DISTURBED AREAS BY CONTRACTOR OPERATIONS. TO BE DISPOSED OF FOLLOWING SITE ACTIVITIES.
10. FINISHED CONTOURS FOLLOWING TO MATCH EXISTING CONTOURS UNLESS OTHERWISE NOTED.
11. ALL SUMP PUMP DISCHARGES SHALL BE AT LEAST THREE FEET BELOW GRADE.
12. THE EXISTING YARD PIPING IS UNRESTRAINED. THE CONTRACTOR'S METHOD OF INSTALLING THE NEW PIPE SHALL TAKE THIS INTO CONSIDERATION.



REHABILITATION OF WATER PUMPING STATIONS

RESERVOIR ROAD PUMPING STATION
CIVIL
SITE AND DEMOLITION PLAN

C-10



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NO.	DATE	BY	CHK'D	REVISION	
DATE: JULY 2005				DESIGNED BY: LAD, CMP	
				DRAWN BY: ARL, MAC	
				CHECKED BY: MSE	
SCALE: 1"=10'				APPROVED BY: CHB	

