



**US Army Corps
of Engineers®**
New England District
696 Virginia Road
Concord, MA 01742-2751

PUBLIC NOTICE

Comment Period Begins: Nov. 23, 2010
Comment Period Ends: Dec. 23, 2010
File Number: 2010-531
In Reply Refer To: Amy Bourne
Phone: (978) 318-8651
E-mail: amy.c.bourne@usace.army.mil

The District Engineer has received a permit application from the applicant below to **conduct work in waters of the United States** as described below.

APPLICANT: Goodspeed Opera House Foundation, Attn: Michael P. Price

ACTIVITY: The applicant proposes to perform maintenance repairs to the existing Great Brook Dam. A detailed description and plans of the activity are attached.

WATERWAY AND LOCATION OF THE PROPOSED WORK

This work is proposed in Bates Pond, located northwest of the intersection of North Main Street and High Street, Chester, Connecticut. The proposed location on the USGS Deep River quadrangle sheet is at UTM coordinates Lat. 41°15'27" N and Long. 72° 53'50" W.

AUTHORITY

Permits are required pursuant to:

- Section 10 of the Rivers and Harbors Act of 1899
- Section 404 of the Clean Water Act
- Section 103 of the Marine Protection, Research and Sanctuaries Act).

The decision whether to issue a permit will be based on an evaluation of the probable impact of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which may reasonably accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are: conservation, economics, aesthetics, general environmental concerns, wetlands, cultural value, fish and wildlife values, flood hazards, flood plain value, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment

and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Where the activity involves the discharge of dredged or fill material into waters of the United States or the transportation of dredged material for the purpose of disposing it in ocean waters, the evaluation of the impact of the activity in the public interest will also include application of the guidelines promulgated by the Administrator, U.S Environmental Protection Agency, under authority of Section 404(b) of the Clean Water Act, and/or Section 103 of the Marine Protection Research and Sanctuaries Act of 1972 as amended.

SECTION 106 COORDINATION

Based on his initial review, the District Engineer has determined that little likelihood exists for the proposed work to impinge upon properties with cultural or Native American significance, or listed in, or eligible for listing in, the National Register of Historic Places. Therefore, no further consideration of the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended, is necessary. This determination is based upon one or more of the following:

- a. The permit area has been extensively modified by previous work.
- b. The permit area has been recently created.
- c. The proposed activity is of limited nature and scope.
- d. Review of the latest published version of the National Register shows that no presence of registered properties listed as being eligible for inclusion therein are in the permit area or general vicinity.
- e. Coordination with the State Historic Preservation Officer and/or Tribal Historic Preservation Officer(s)

ENDANGERED SPECIES CONSULTATION

The New England District, Army Corps of Engineers has reviewed the list of species protected under the Endangered Species Act of 1973, as amended, which might occur at the project site. It is our preliminary determination that the proposed activity for which authorization is being sought is designed, situated or will be operated/used in such a manner that it is not likely to adversely affect any Federally listed endangered or threatened species or their designated critical habitat. By this Public Notice, we are requesting that the appropriate Federal Agency concur with our determination.

The States of Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have approved **Coastal Zone Management Programs**. Where applicable the applicant states that any proposed activity will comply with and will be conducted in a manner that is consistent with the approved Coastal Zone Management Program. By this Public Notice, we are requesting the State concurrence or objection to the applicant's consistency statement.

The following authorizations have been applied for, or have been, or will be obtained:

- () Permit, License or Assent from State.
- (X) Permit from Local Wetland Agency or Conservation Commission.
- (X) Water Quality Certification in accordance with Section 401 of the Clean Water Act.

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FILE NO. NAE-2010-531

In order to properly evaluate the proposal, we are seeking public comment. Anyone wishing to comment is encouraged to do so. **Comments should be submitted in writing by the above date.** If you have any questions, please contact Amy Bourne at (978) 318-8651, (800) 343-4789 or (800) 362-4367, if calling from within Massachusetts.

Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider the application. Requests for a public hearing shall specifically state the reasons for holding a public hearing. The Corps holds public hearings for the purpose of obtaining public comments when that is the best means for understanding a wide variety of concerns from a diverse segment of the public.

The initial determinations made herein will be reviewed in light of facts submitted in response to this notice. All comments will be considered a matter of public record. Copies of letters of objection will be forwarded to the applicant who will normally be requested to contact objectors directly in an effort to reach an understanding.

In accordance with 33 CFR 325.2(a)(8), we publish monthly a list of permits issued or denied during the previous month at www.nae.usace.army.mil/reg, under the heading "Monthly General and Individual Permit Authorizations." Relevant environmental documents and the SOFs or RODs are available upon written request and, where applicable, upon the payment of administrative fees. Also visit www.nae.usace.army.mil for more information on the New England District Corps of Engineers programs.

THIS NOTICE IS NOT AN AUTHORIZATION TO DO ANY WORK.

Sincerely,



Diane M. Ray
Acting Chief, Permits and Enforcement Branch
Regulatory Division

If you would prefer not to continue receiving Public Notices, please contact Ms. Tina Chaisson at (978) 318-8058 or e-mail her at bettina.m.chaisson@usace.army.mil. You may also check here () and return this portion of the Public Notice to: Bettina Chaisson, Regulatory Division, U.S. Army Corps of Engineers, 696 Virginia Road, Concord, MA 01742-2751.

NAME: _____
ADDRESS: _____

PROPOSED WORK AND PURPOSE

The work includes the discharge of fill material for the purpose of repairing the existing Great Brook Dam. The proposed work includes removal of the center wall and replacement with a new wall in the same footprint; construction of a concrete sill and rip rap blanket against the north spillway; chinking and pointing up the north rubble stone training wall of the north spillway; replacement of missing step stones on the face of the south spillway; repair of deteriorated portions of the concrete crest of the south spillway; repair of the concrete apron at the base of the south spillway and installation of rip rap; sealing the abandoned penstock chamber with concrete fill; installation of a low permeability blanket on the bottom of the pond; raising a portion of the top of the south training wall south of the spillway; placement of fill up stream of the existing penstock gate chamber on top of the south abutment; and clearing and grubbing brush from the top surface of the south abutment of the dam and establish turf.

Permanent impacts as a result of excavation and placement of fill will be approximately 3,500 square feet; 1,014 square feet of the 3,500 square feet will be the net fill area. Approximately 1,000 square feet of submerged aquatic vegetation (SAV) will be temporarily impacted for equipment access; the work will be done during the summer when there is no water in the pond.

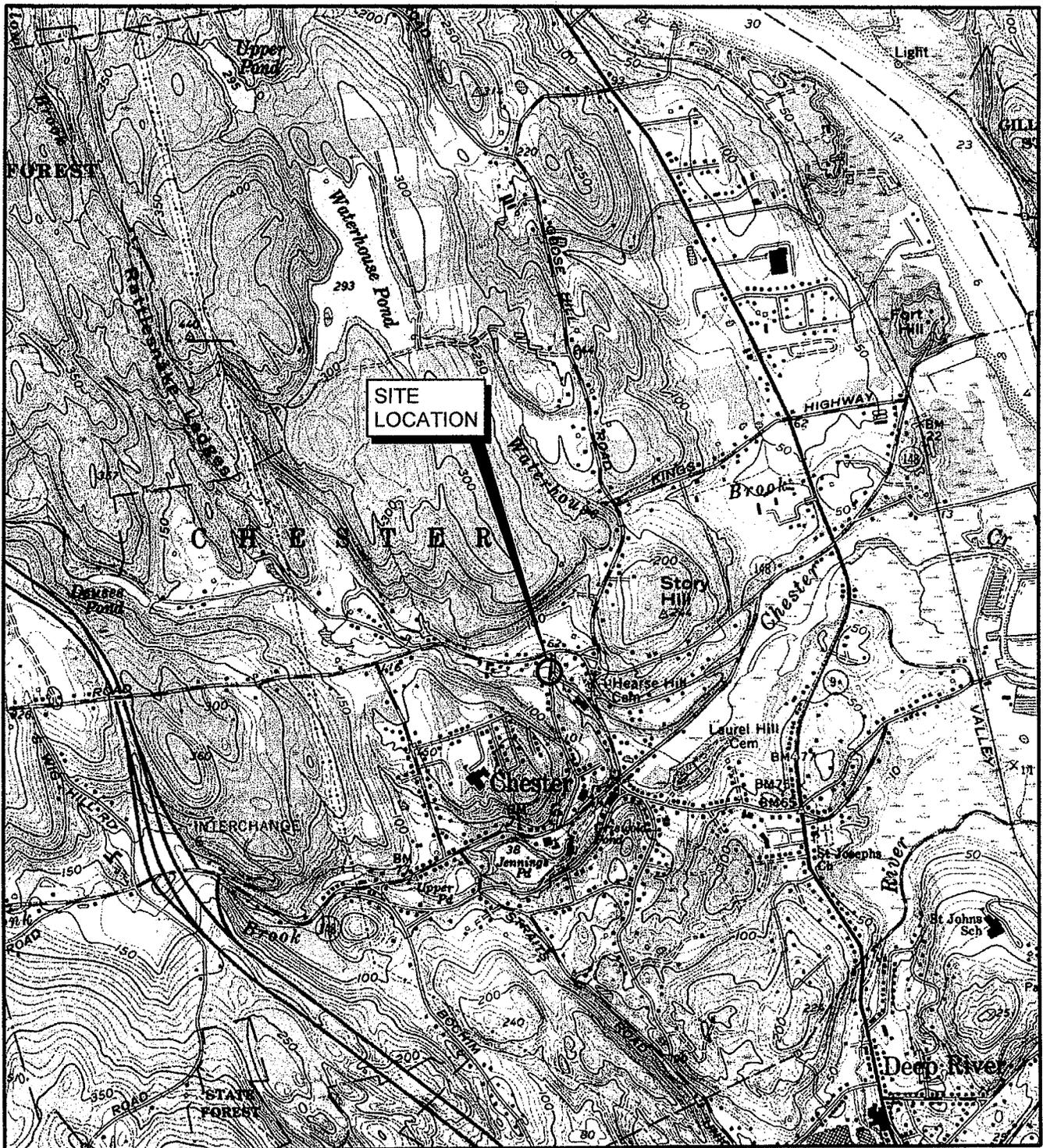
The work is described on the enclosed plans entitled "REPAIRS TO GREAT BROOK DAM," (10 sheets) and dated "March 5, 2010 and revised October 21, 2010."

MITIGATION

The applicant provided six alternate proposals for the dam repair to address avoidance and minimization of impacts including a no action alternative; eliminating the replacement and removal of the deteriorated center wall between the north and south spillway and the sealing of the waterward sides of the dam training wall; eliminating the low permeability soil blanket and concrete slope paving proposed to remediate the leakage below the spillways; using an alternative method to remediate the leakage beneath the north and south spillway; eliminating the installation of the concrete sills and concrete slope paving blocks immediately upstream of the spillways; eliminating the installation of the concrete sill at the base of the north spillway and the rip rap at the base of both spillways; and eliminating the fill on top of the south spillway.

These avoidance and minimization measures were reviewed and found to not adequately satisfy the needs put forth by the CTDEP Dam Safety Section in regard to a repair providing a long term stable condition; therefore, the proposed plan was chosen.

The applicant will remove invasive species on site including *Fallopia japonica* (japanese knotweed) and *Lythrum salicaria* (purple loosestrife) by hand during dewatering of the pond.

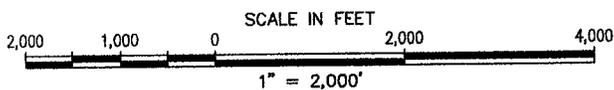


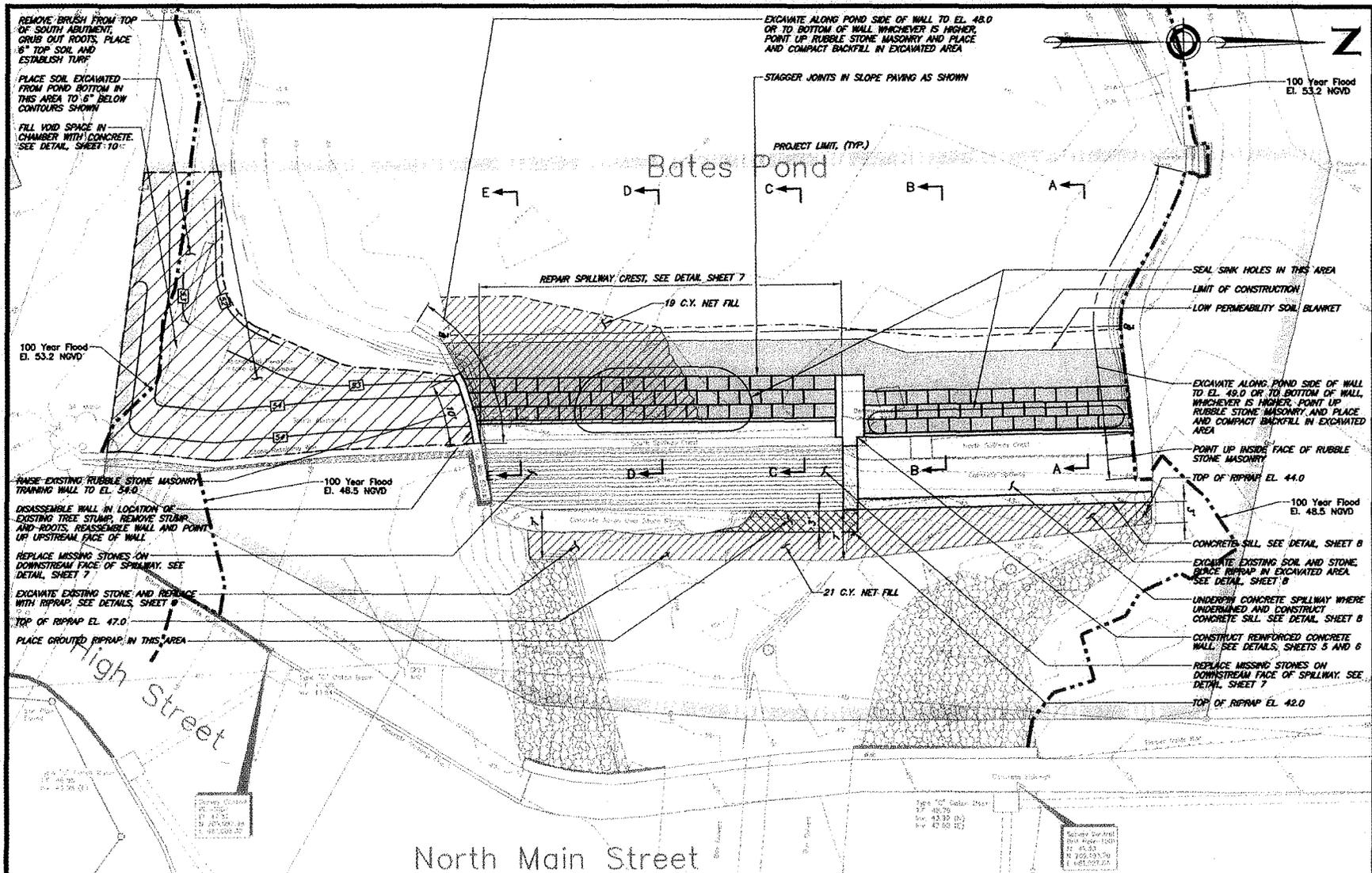
REFERENCE: U.S.G.S. DEEP RIVER, CONNECTICUT QUADRANGLE

SITE LOCATION PLAN

REPAIRS TO GREAT BROOK DAM
 CTDEP DAM NO. 2608
 TOWN OF CHESTER
 MIDDLESEX COUNTY
 STATE OF CONNECTICUT
 APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
 REV. DATE:

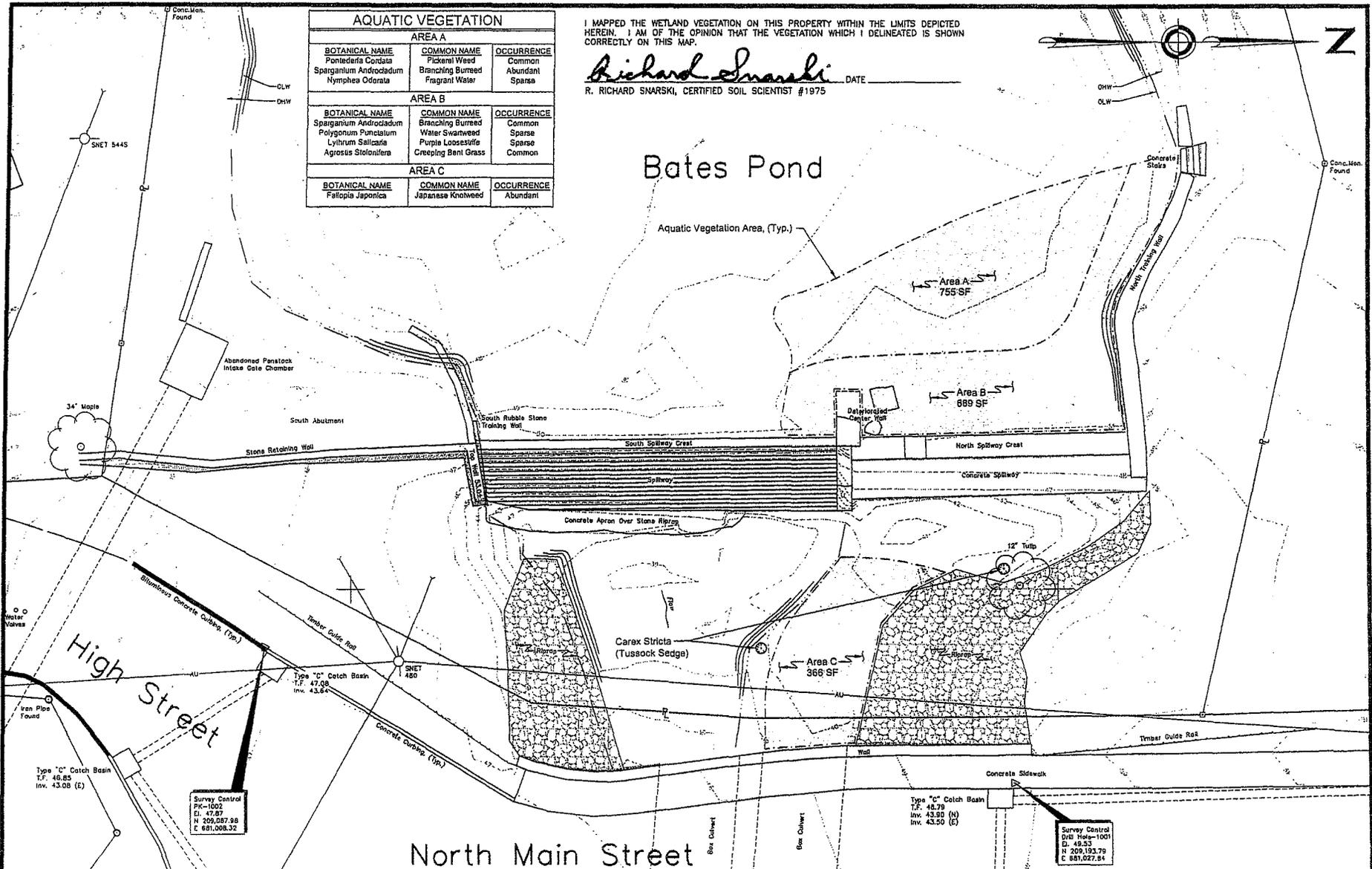




AQUATIC VEGETATION		
AREA A		
BOTANICAL NAME	COMMON NAME	OCCURRENCE
Pontederia Cordata	Pickeral Weed	Common
Sparganium Androcladum	Branching Burreed	Abundant
Nymphaea Odorata	Fragrant Water	Sparse
AREA B		
BOTANICAL NAME	COMMON NAME	OCCURRENCE
Sparganium Androcladum	Branching Burreed	Common
Polygonum Funiculatum	Water Swarweed	Sparse
Lytirum Salicaria	Purple Loosestrife	Sparse
Agrostis Stolonifera	Creeping Bent Grass	Common
AREA C		
BOTANICAL NAME	COMMON NAME	OCCURRENCE
Fallopia Japonica	Japanese Knotweed	Abundant

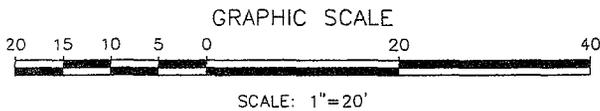
I MAPPED THE WETLAND VEGETATION ON THIS PROPERTY WITHIN THE LIMITS DEPICTED HEREIN. I AM OF THE OPINION THAT THE VEGETATION WHICH I DELINEATED IS SHOWN CORRECTLY ON THIS MAP.

Richard Snarski DATE _____
 R. RICHARD SNARSKI, CERTIFIED SOIL SCIENTIST #1975



NOTES:

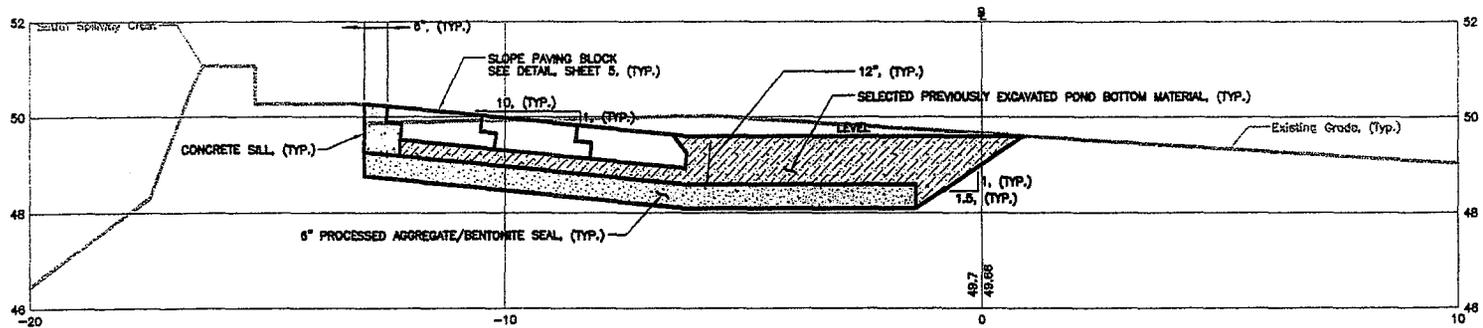
1. VERTICAL DATUM FOR THIS PROJECT IS NGVD 1929.



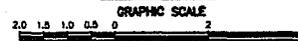
AQUATIC VEGETATION SURVEY

REPAIRS TO GREAT BROOK DAM
 CTDEP DAM NO. 2608
 TOWN OF CHESTER
 MIDDLESEX COUNTY
 STATE OF CONNECTICUT
 APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
 REV. DATE:



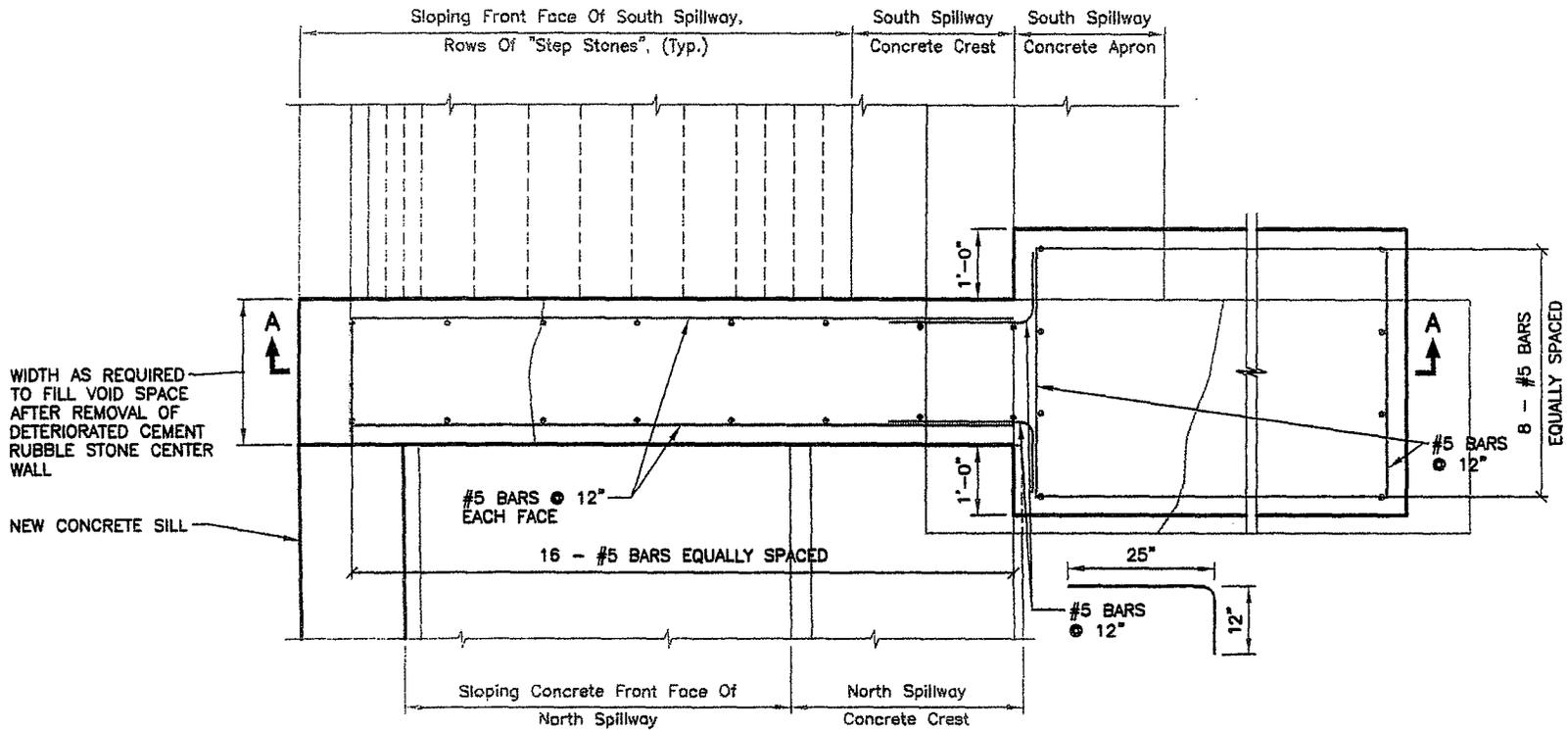
SECTION C-C



SECTION C-C

REPAIRS TO GREAT BROOK DAM
 CTDEP DAM NO. 2808
 TOWN OF CHESTER
 MIDDLESEX COUNTY
 STATE OF CONNECTICUT
 APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
 REV. DATE:



WIDTH AS REQUIRED
TO FILL VOID SPACE
AFTER REMOVAL OF
DETERIORATED CEMENT
RUBBLE STONE CENTER
WALL

NEW CONCRETE SILL

PLAN
CENTER WALLS BETWEEN SPILLWAYS

SCALE: 3/8" = 1'-0"

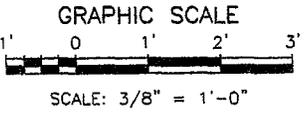
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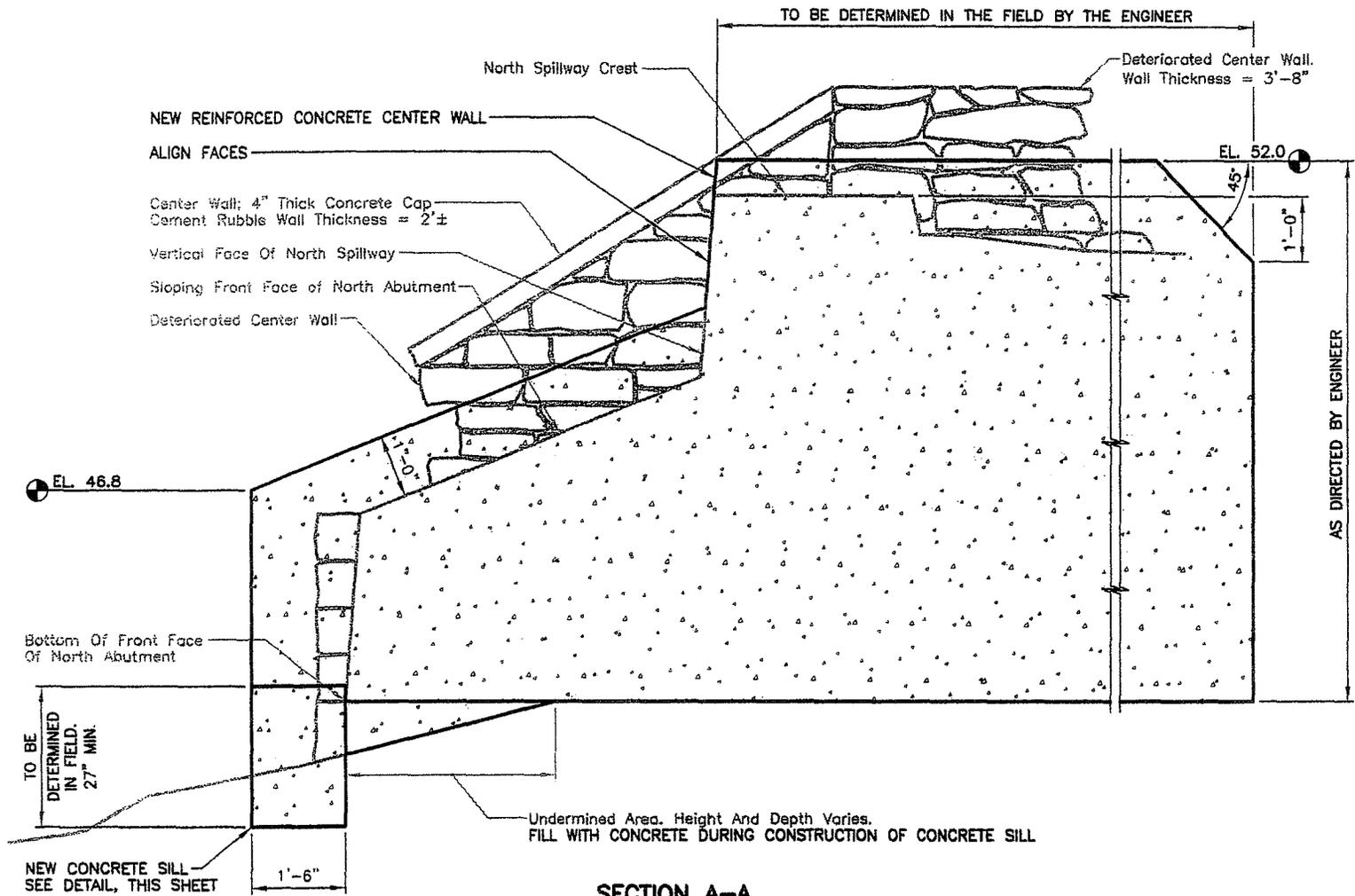
1. SEE SHEETS NUMBERED 2, 3, 4 AND 5 ON SHEET 2.

CENTER WALLS BETWEEN SPILLWAYS
PLAN

REPAIRS TO GREAT BROOK DAM
CTDEP DAM NO. 2608
TOWN OF CHESTER
MIDDLESEX COUNTY
STATE OF CONNECTICUT
APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
REV. DATE:





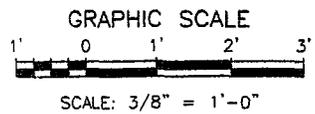
SECTION A-A

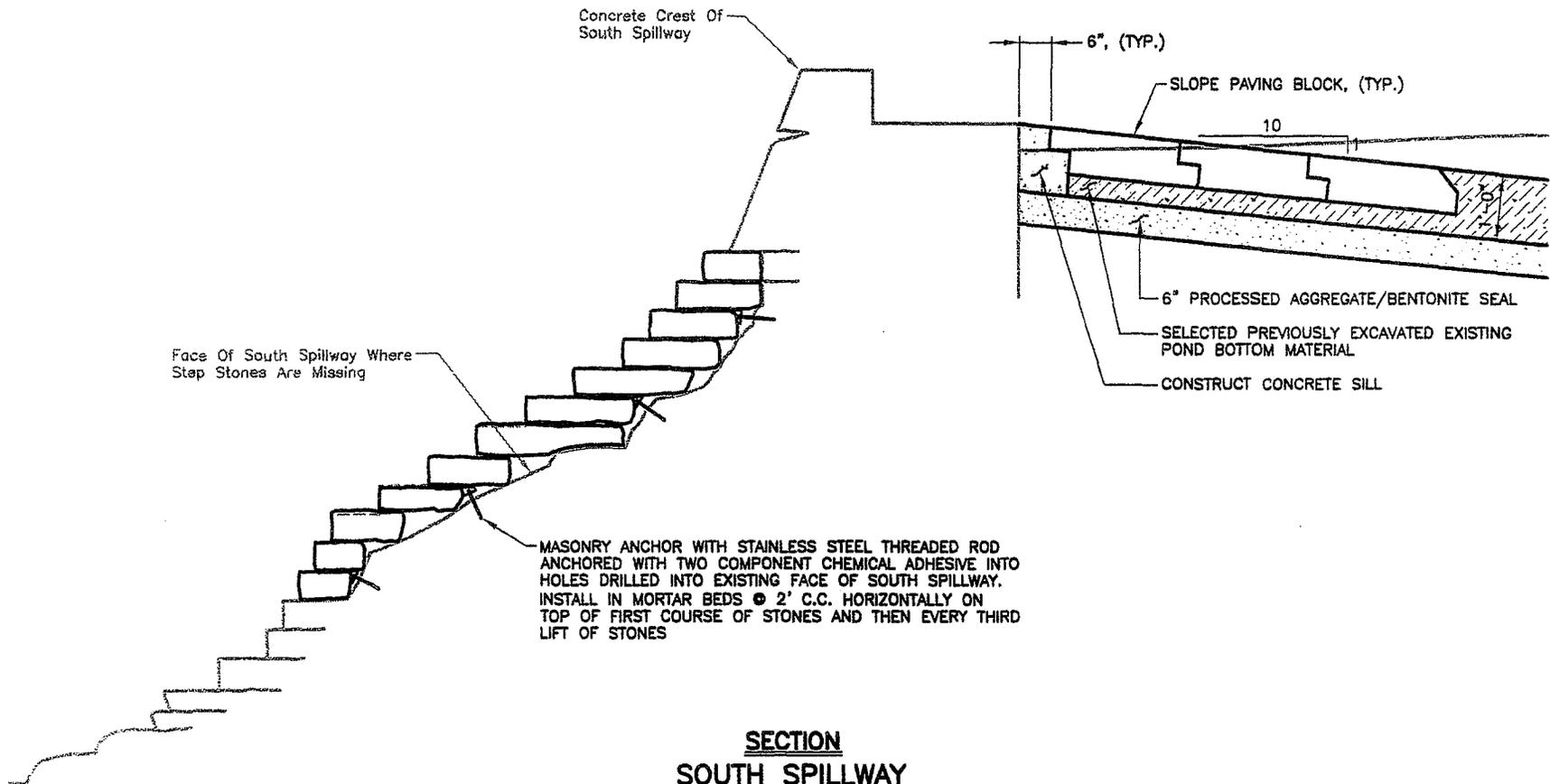
SCALE: 3/8" = 1'-0"

**CENTER WALLS BETWEEN SPILLWAYS
SECTION A-A**

REPAIRS TO GREAT BROOK DAM
 CTDEP DAM NO. 2608
 TOWN OF CHESTER
 MIDDLESEX COUNTY
 STATE OF CONNECTICUT
 APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
 REV. DATE:





**SECTION
SOUTH SPILLWAY**

SCALE: 3/8" = 1'-0"

NOTES:

1. DO NOT PREPARE FINAL GRADE OR PLACE PAVING BLOCKS UNTIL UNDERLYING PROCESSED AGGREGATE/BENTONITE SEAL HAS BEEN FULLY HYDRATED FOR THREE (3) DAYS TO PERMIT ANY SOIL SWELLING TO OCCUR.
2. INSTALL SLOPE PAVING AS LAST STEP IN DEWATERED CONSTRUCTION BEFORE DISCONTINUING DEWATERING OPERATIONS AND ALLOW POND TO FILL WITH WATER AS SOON AS SLOPE PAVING IS COMPLETED.

SOUTH SPILLWAY SECTION

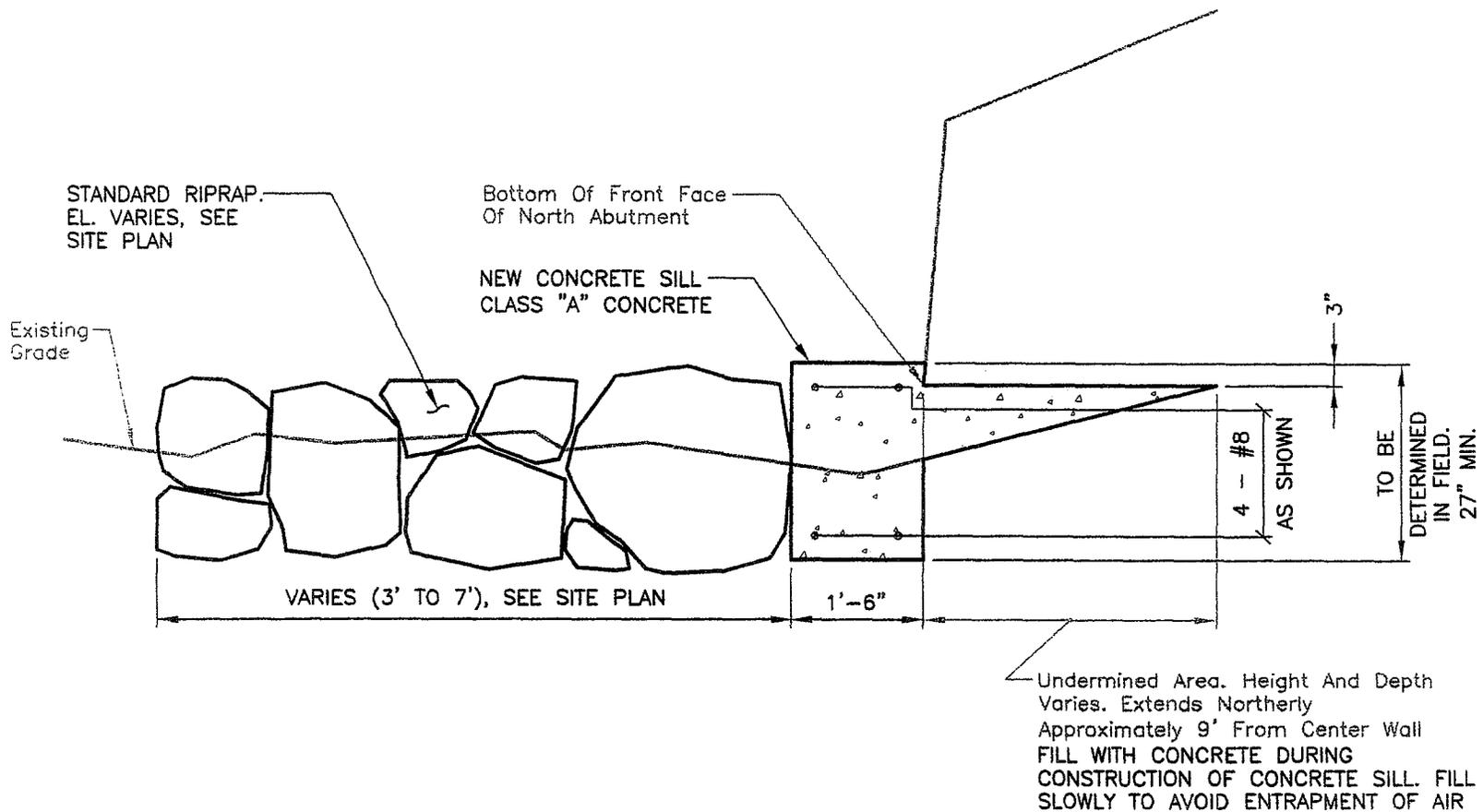
REPAIRS TO GREAT BROOK DAM
 CTDEP DAM NO. 2608
 TOWN OF CHESTER
 MIDDLESEX COUNTY
 STATE OF CONNECTICUT
 APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
 REV. DATE:

GRAPHIC SCALE



SCALE: 3/8" = 1'-0"

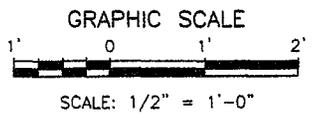


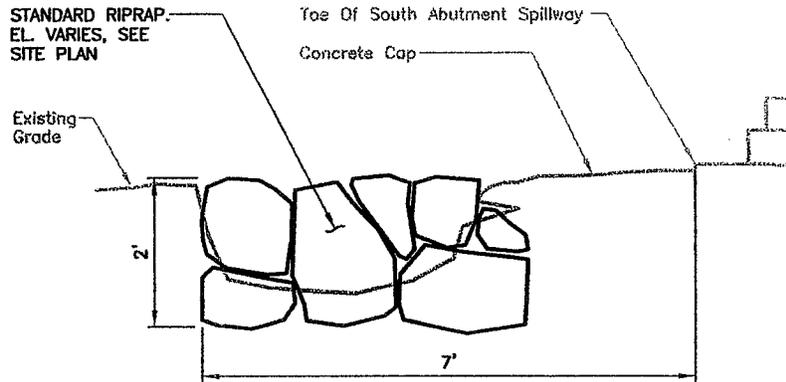
TYPICAL SECTION
NORTH ABUTMENT CONCRETE SILL
 SCALE: 1/2" = 1'-0"

NORTH ABUTMENT CONCRETE SILL
TYPICAL SECTION

REPAIRS TO GREAT BROOK DAM
 CTDEP DAM NO. 2608
 TOWN OF CHESTER
 MIDDLESEX COUNTY
 STATE OF CONNECTICUT
 APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

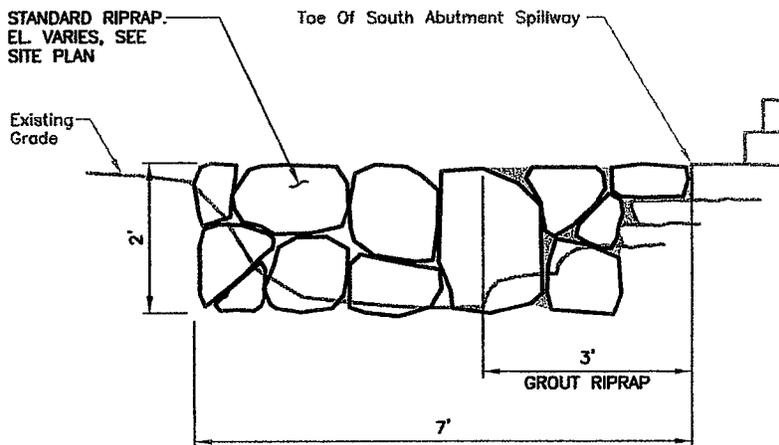
DATE: MARCH 5, 2010
 REV. DATE:





**RIPRAP DETAIL AT TOE OF SOUTH
SPILLWAY WITH CONCRETE APRON**

SCALE: 3/8" = 1'-0"



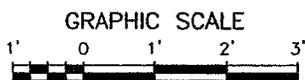
**RIPRAP DETAIL AT TOE OF SOUTH
SPILLWAY WITHOUT CONCRETE APRON**

SCALE: 3/8" = 1'-0"

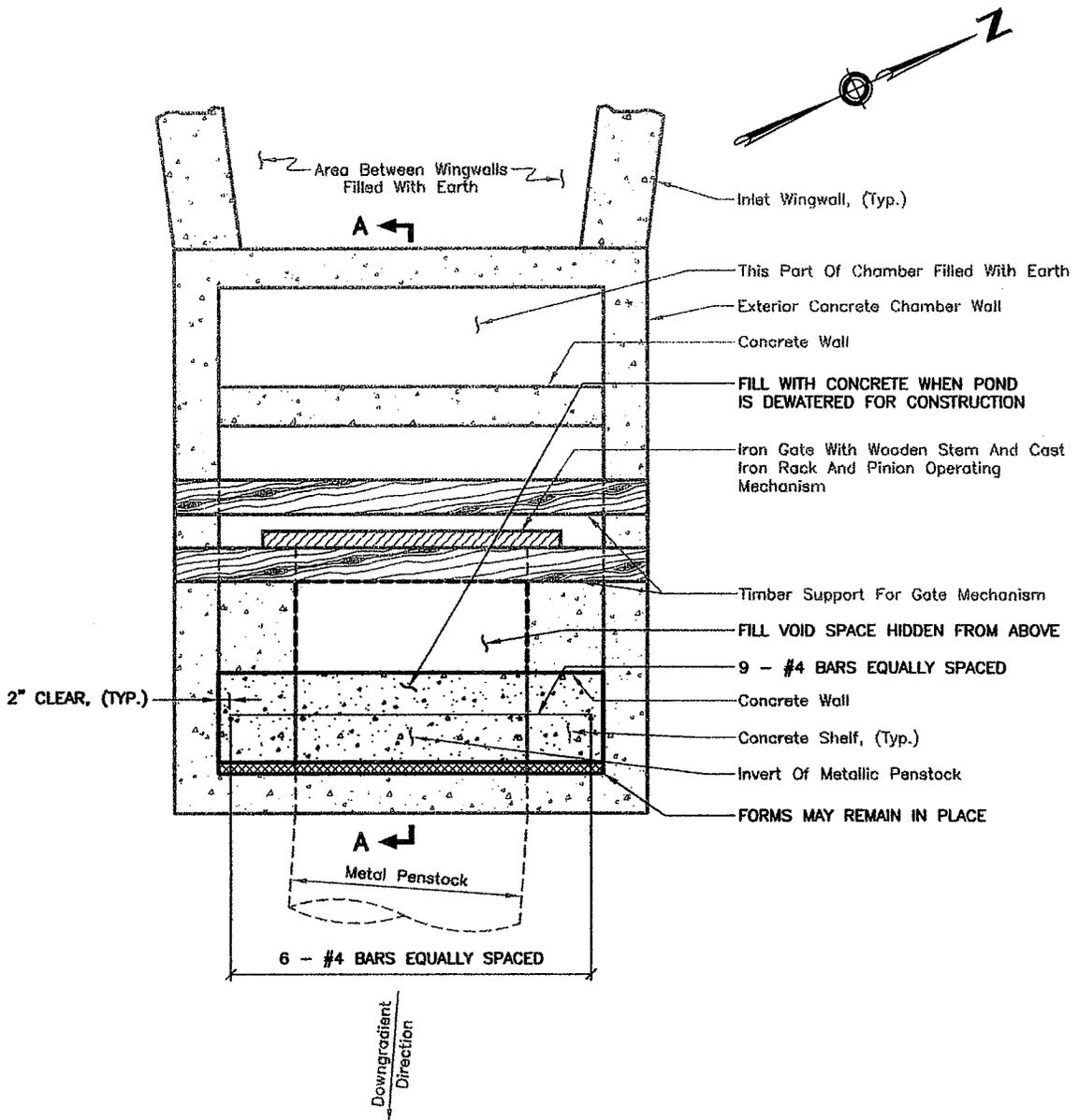
**RIPRAP DETAIL AT TOE OF
SOUTH SPILLWAY**

REPAIRS TO GREAT BROOK DAM
CTDEP DAM NO. 2608
TOWN OF CHESTER
MIDDLESEX COUNTY
STATE OF CONNECTICUT
APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

DATE: MARCH 5, 2010
REV. DATE:



SCALE: 3/8" = 1'-0"



PLAN
PENSTOCK INLET GATE CHAMBER

N.T.S.

NOTES:

1. THE GATE CHAMBER IS LOCATED ON THE SOUTH ABUTMENT OF DAM. SEE PHOTOS NO. 12, 13 AND 14 ON SHEET 2.
2. THE TOP OF THE INLET GATE CHAMBER IS MOSTLY COVERED WITH SIX SMALL PRECAST CONCRETE PLANKS, BUT AREA BETWEEN INTERIOR TRANSVERSE WALLS WHERE GATE AND GATE OPERATING MECHANISM ARE LOCATED IS OPEN BUT FILLED WITH EARTH.
3. CLEAN DEBRIS FROM PENSTOCK INVERT BEFORE PLACING CONCRETE.

PENSTOCK INLET GATE CHAMBER
PLAN

REPAIRS TO GREAT BROOK DAM
CTDEP DAM NO. 2608
TOWN OF CHESTER
MIDDLESEX COUNTY
STATE OF CONNECTICUT
APPLICANT: GOODSPEED OPERA HOUSE FOUNDATION, INC.

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