

US EPA ARCHIVE DOCUMENT



Loureiro Engineering Associates, Inc.

Superfund Records Center
SITE: Centredale
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OTHER: 18813

May 29, 2003

U.S. Environmental Protection Agency
New England Regional Office
1 Congress Street, Suite 1100 (HBO)
Boston, Massachusetts 02114-2023

Attn: Anna Krasko, On-Scene Coordinator

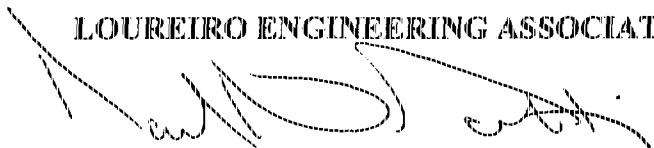
RE: Allendale Dam Restoration Drawings
Centredale Manor Restoration Project
North Providence, Rhode Island

Dear Ms. Krasko:

The Allendale Dam Restoration Drawings for the Centredale Manor Restoration Project are attached. One copy of the set of Drawings is provided along with an electronic copy provided on compact disc. Along with the data validation summary reports previously submitted under correspondence dated October 4, 2002, November 8, 2002, and November 22, 2002, the Allendale Dam Restoration Drawings comprise part of the Completion of Work Report. Upon your review of the attached Drawings, please feel free to contact me at (860) 410-2976 should you have any questions.

Sincerely,

LOUREIRO ENGINEERING ASSOCIATES, INC.



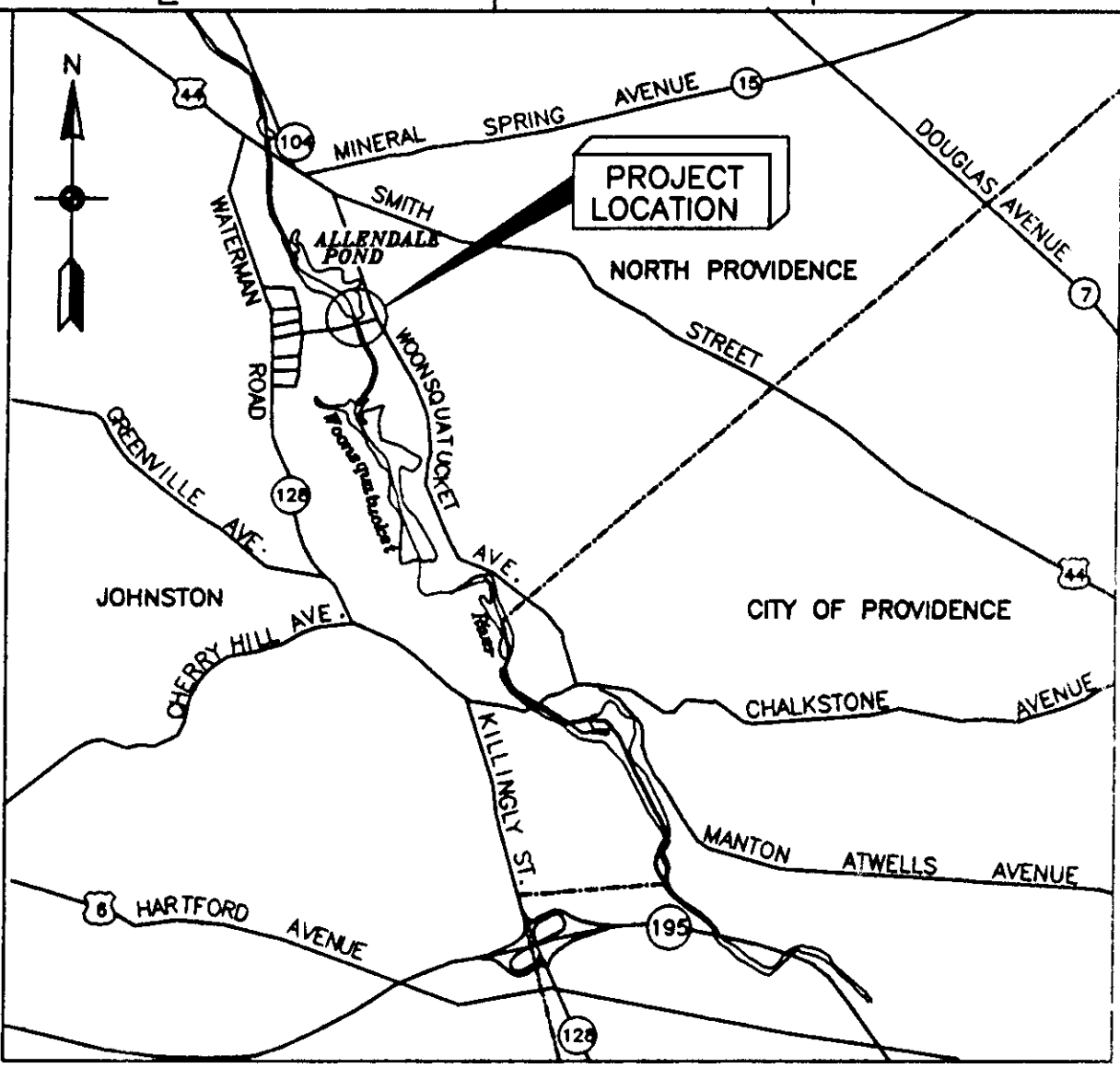
David N. Scotti, P.G.
Project Manager

Copy to: A. Borochaner (USACE)
L. Maccarone (RIDEM)
Centredale Manor Performing Parties Group (w/o attachment)

Attachment

ALLENDALE DAM REPLACEMENT

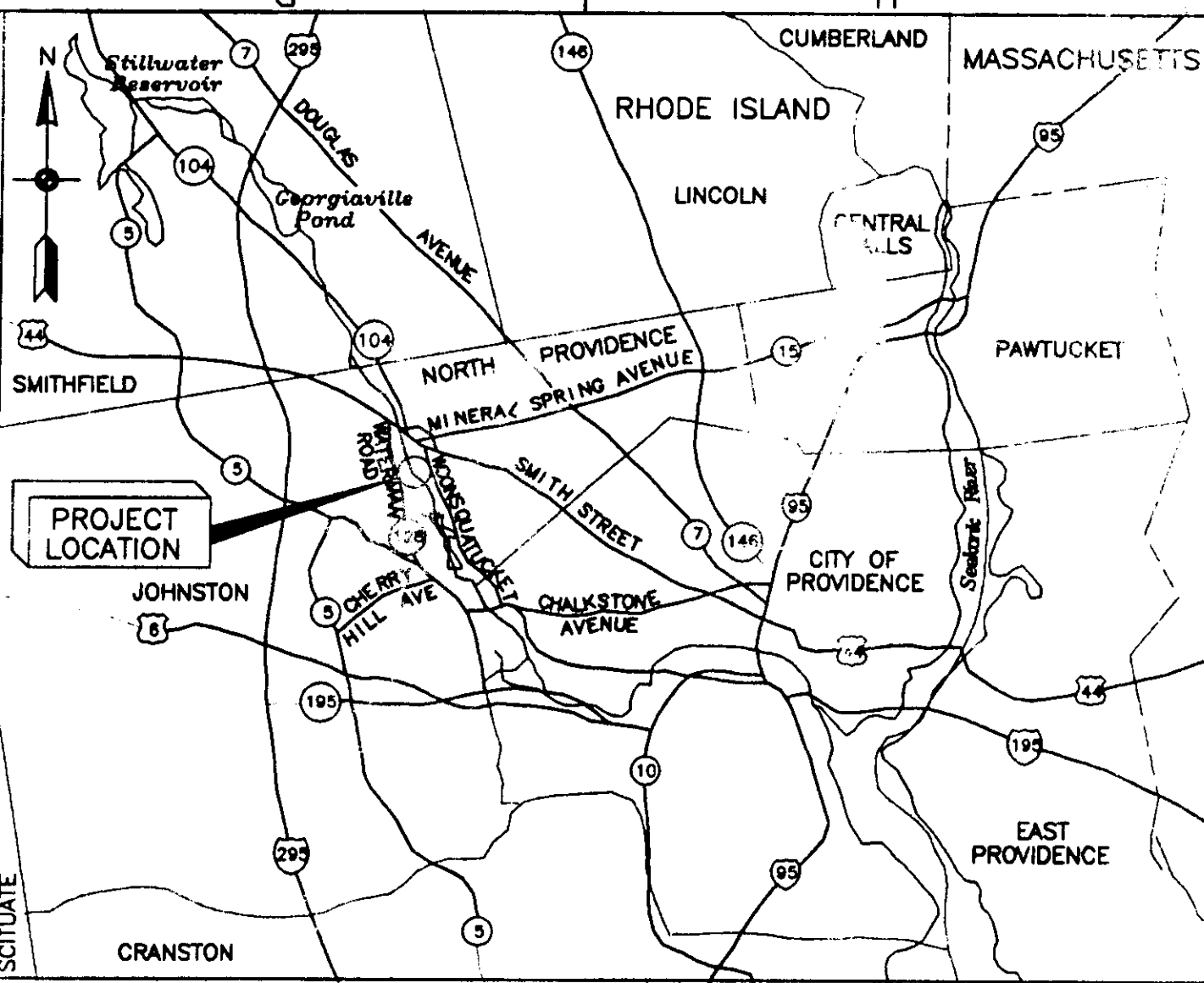
NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND



VICINITY MAP

SCALE: 1" = 3,000'

3000' 0 3000' 6000'



LOCATION MAP

SCALE IN MILES

1 0 1 2 3 Miles

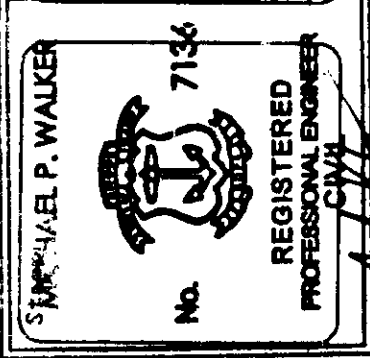
SECTION IDENTIFICATION LETTER
NUMBER OF REFERENCE ON WHICH SECTION IS DRAWN
SYMBOL WHERE SECTION IS TAKEN
SECTION IDENTIFICATION LETTER
NUMBER OF REFERENCE ON WHICH SECTION IS TAKEN
SUBTITLE FOR SECTION DRAWING
WHEN THE SECTION APPEARS ON A DIFFERENT DRAWING
FROM THAT ON WHICH THE SECTION IS TAKEN

LEGEND		
NEW	EXISTING	DESCRIPTION
90	90	CONTOUR
		CONTRACTOR'S WORK LIMIT
		CENTERLINE OF SANDBAG COFFERDAM/WEIR
		EARTH CUT
		EARTH FILL
		EDGE OF WATER
		FENCE
		GRANITE WALL
		STONE PROTECTION
		NATURAL GROUND SURFACE
		PAVED ROADWAY/WALKWAY (PLAN)
		UNPAVED ROADWAY
	93.54	SPOT ELEVATION
	93.54	SPOT ELEVATION - TOP OR BOTTOM OF THE SPILLWAY
		TREE OR BRUSH LINE
		CONCRETE BLOCK 3 UNITS HIGH
		BORING LOCATION AND DESIGNATION
	ou	OVERHEAD UTILITY

INDEX TO DRAWINGS		
SHEET NO.	DRAWING NO.	TITLE
1	T-1	COVER SHEET AND INDEX
2	C-1	GENERAL PLAN
3	C-2	SITE PLAN, PROFILE & SECTION - EXISTING CONDITIONS
4	C-3	SITE PLAN - BEFORE CONSTRUCTION
5	C-4	SITE PLAN - CONSTRUCTION
6	C-5	SITE PLAN - FINISH GRADING
7	C-6	SECTIONS - AND FINISH GRADING (1 of 2)
8	C-7	SECTIONS - AND FINISH GRADING (2 of 2)
9	C-8	SECTION AND EROSION AND SEDIMENTATION CONTROL DETAILS
10	S-1	DAM ELEVATION, SECTIONS AND DETAILS
11	S-2	STRUCTURAL SECTIONS AND CONCRETE REPAIR DETAILS

NOTE:
SOME OF THE INFORMATION SHOWN ON THESE SHEETS
WERE TAKEN FROM DRAWINGS PREPARED BY THE US ARMY
CORPS OF ENGINEERS, NEW ENGLAND DISTRICT, FOR THE
RECONSTRUCTION OF ALLENDALE DAM.

Superfund Records Center
SITE: 000000
RRFAK: 000000
OTHER: 000000

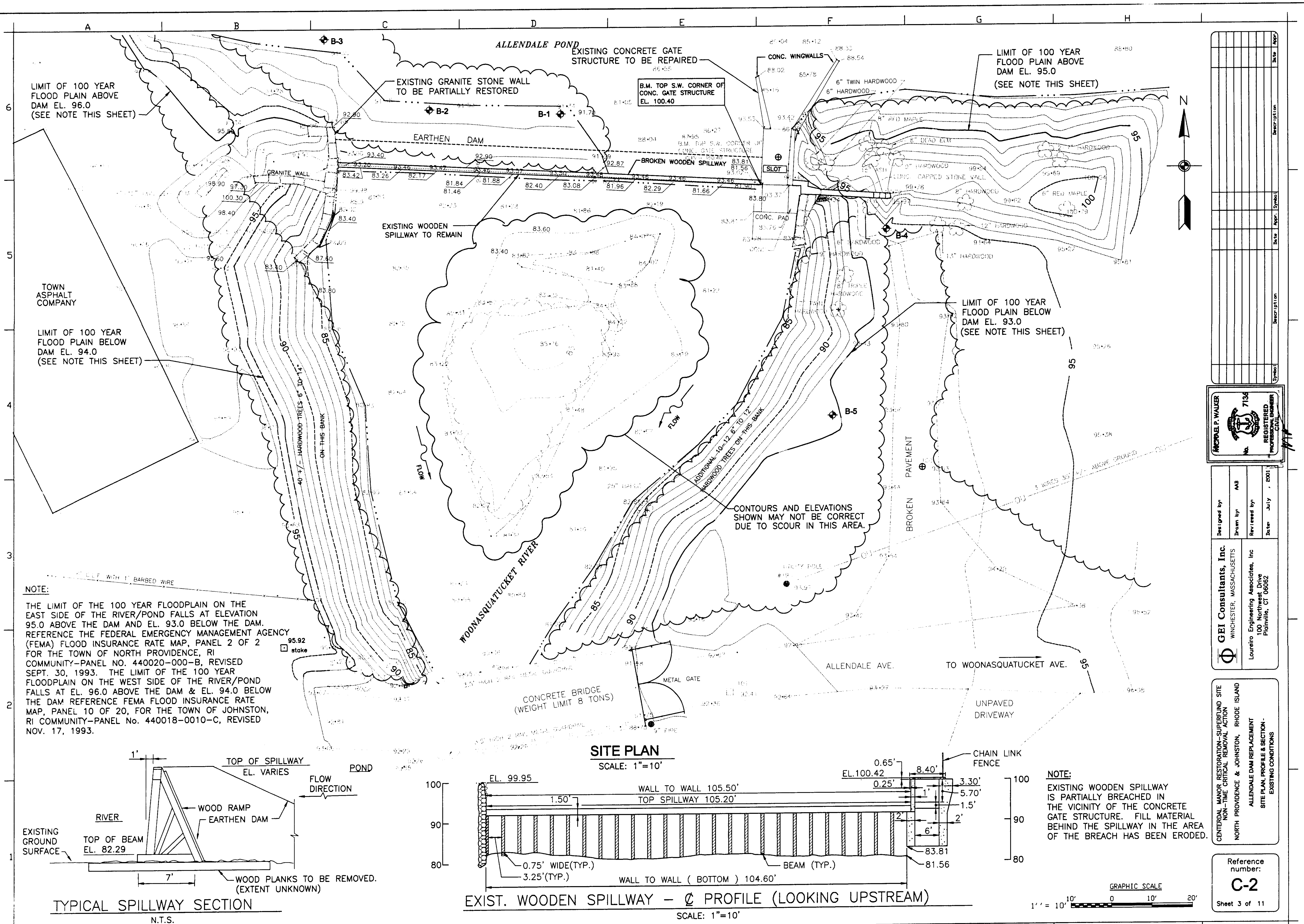


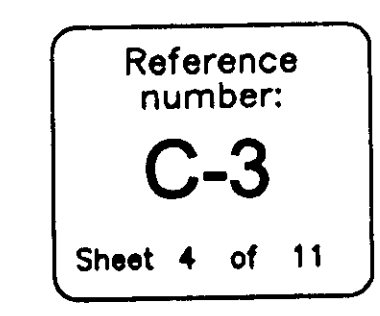
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ASB	ASB	ASB	July 2001

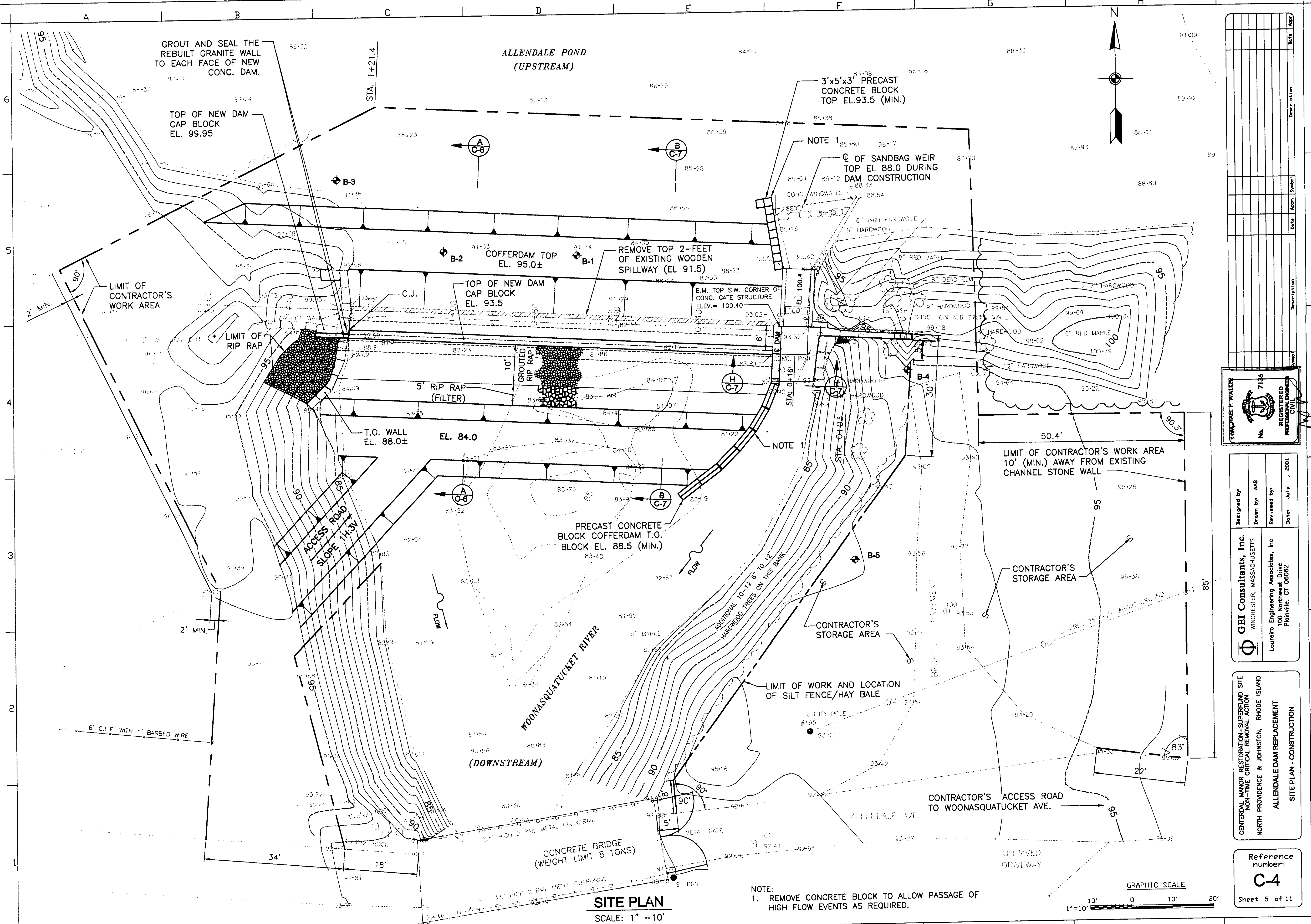
GEI Consultants, Inc.
WINCHESTER, MASSACHUSETTS
Loureiro Engineering Associates, Inc.
100 Northwest Drive
Palmville, CT 06062

CENTRAL MAJOR RESTORATION-SUPERFUND SITE
NON-TIME CRITICAL REMOVAL ACTION
NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND
ALLENDALE DAM REPLACEMENT
COVER SHEET AND INDEX

Reference number:
T-1
Sheet 1 of 11







Date	Appr.
Date	Designation
Date	Symbol
Date	Symbol

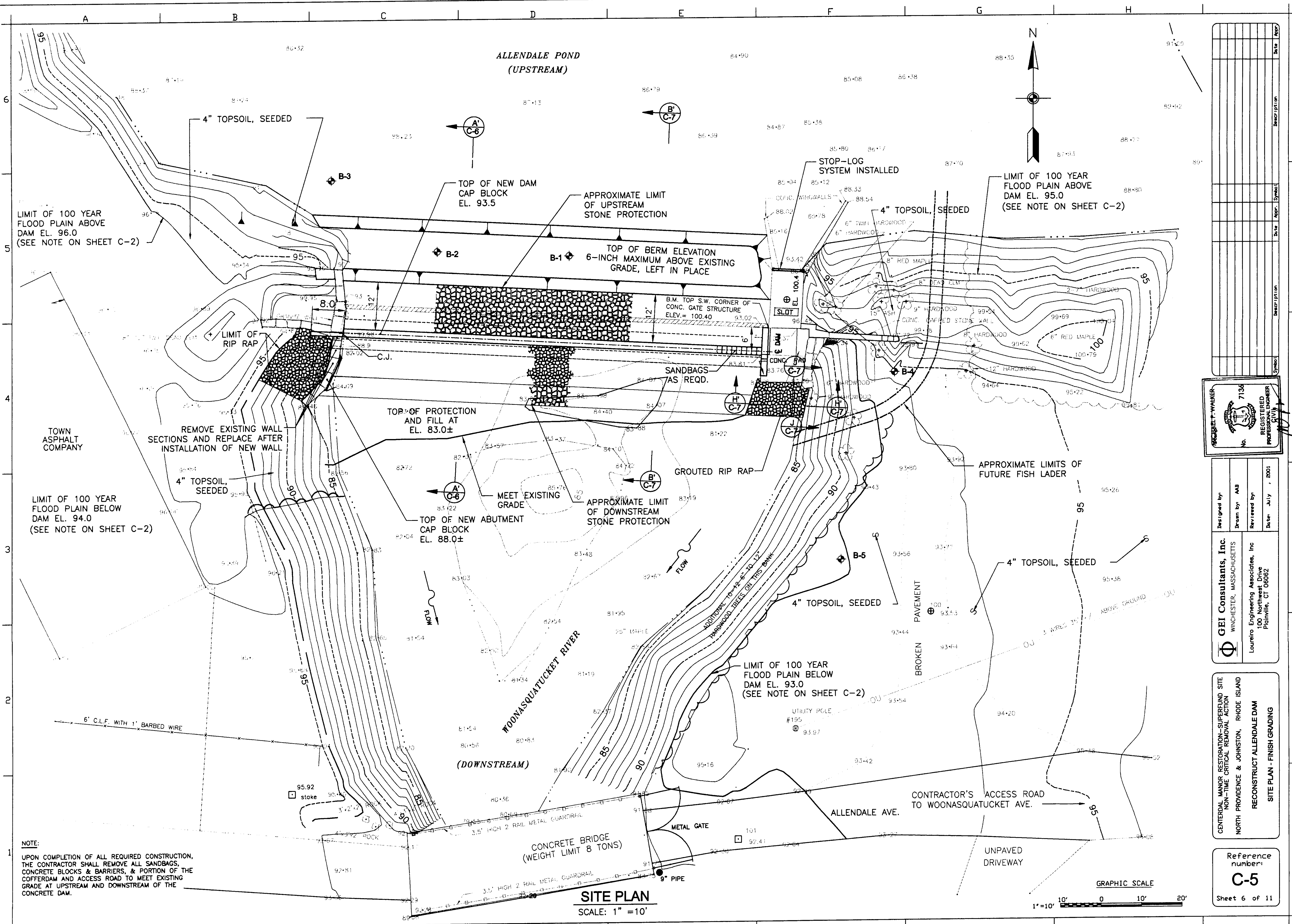
7136
REGISTERED
PROFESSIONAL ENGINEER
CIVIL

GEI Consultants, Inc.
WINCHESTER, MASSACHUSETTS
Loureiro Engineering Associates, Inc.
100 Northwest Drive
Plainville, CT 06062

Designed by	Drawn by	Reviewed by	Date
AAB	AAB		July, 2001

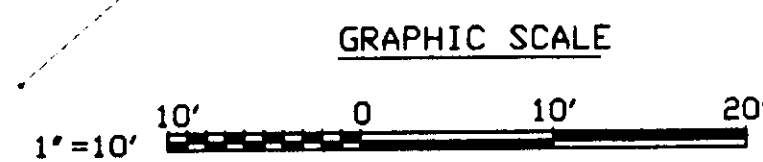
CENTRAL MANOR RESTORATION-SUPERFUND SITE
NON-TIME CRITICAL REMOVAL ACTION
NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND
ALLENDALE DAM REPLACEMENT
SITE PLAN - CONSTRUCTION

Reference number:
C-4
Sheet 5 of 11

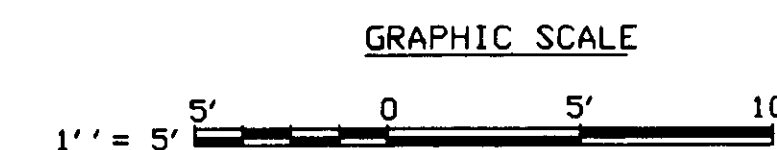
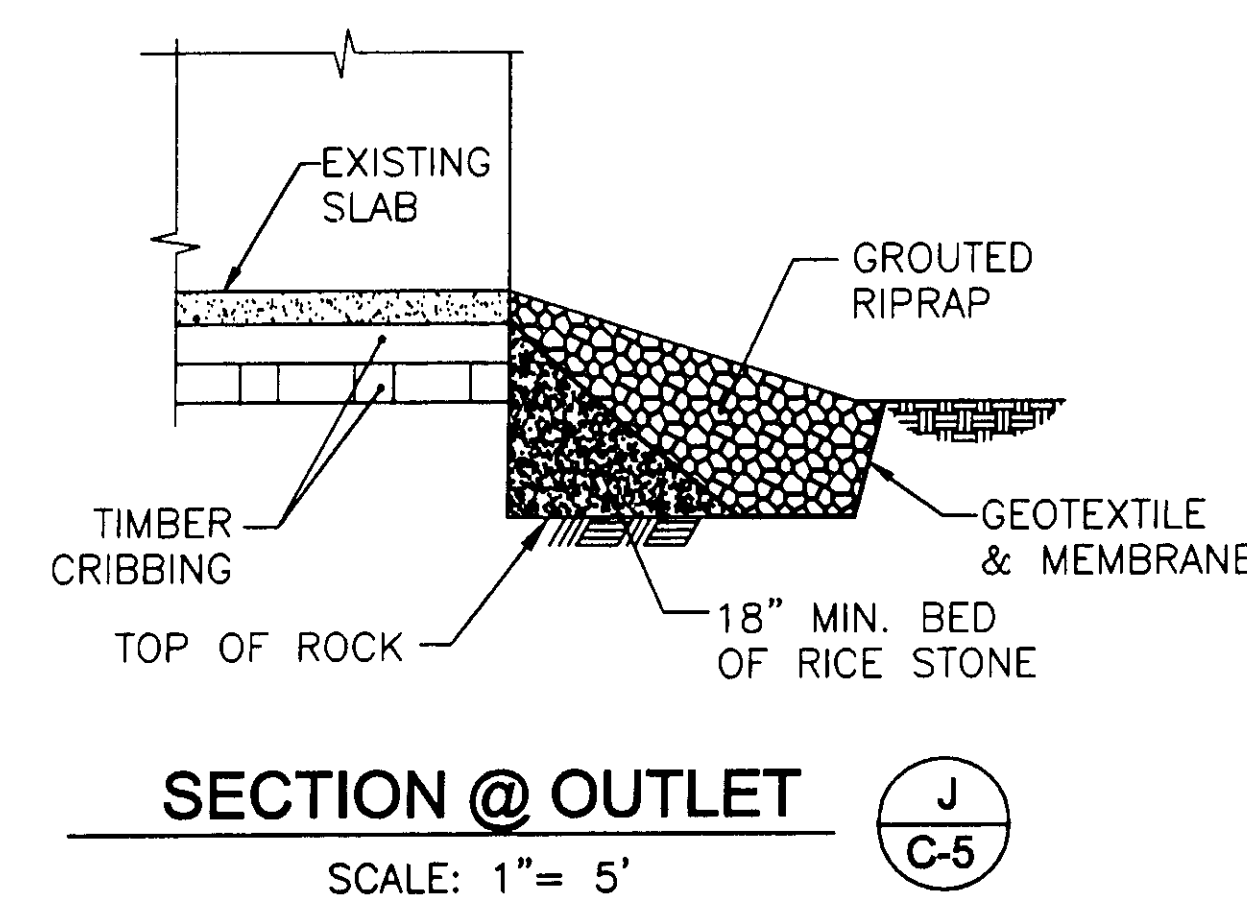
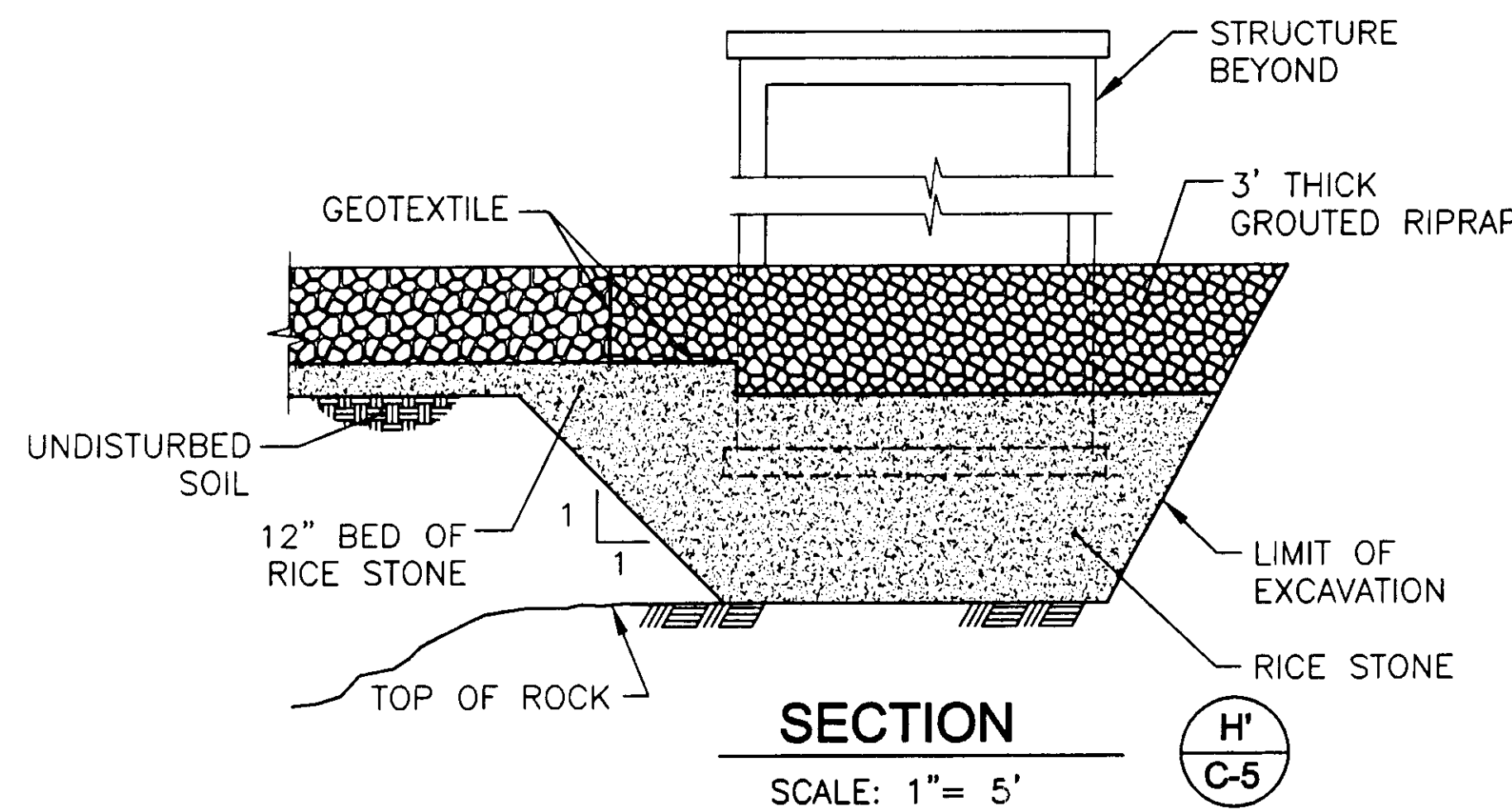
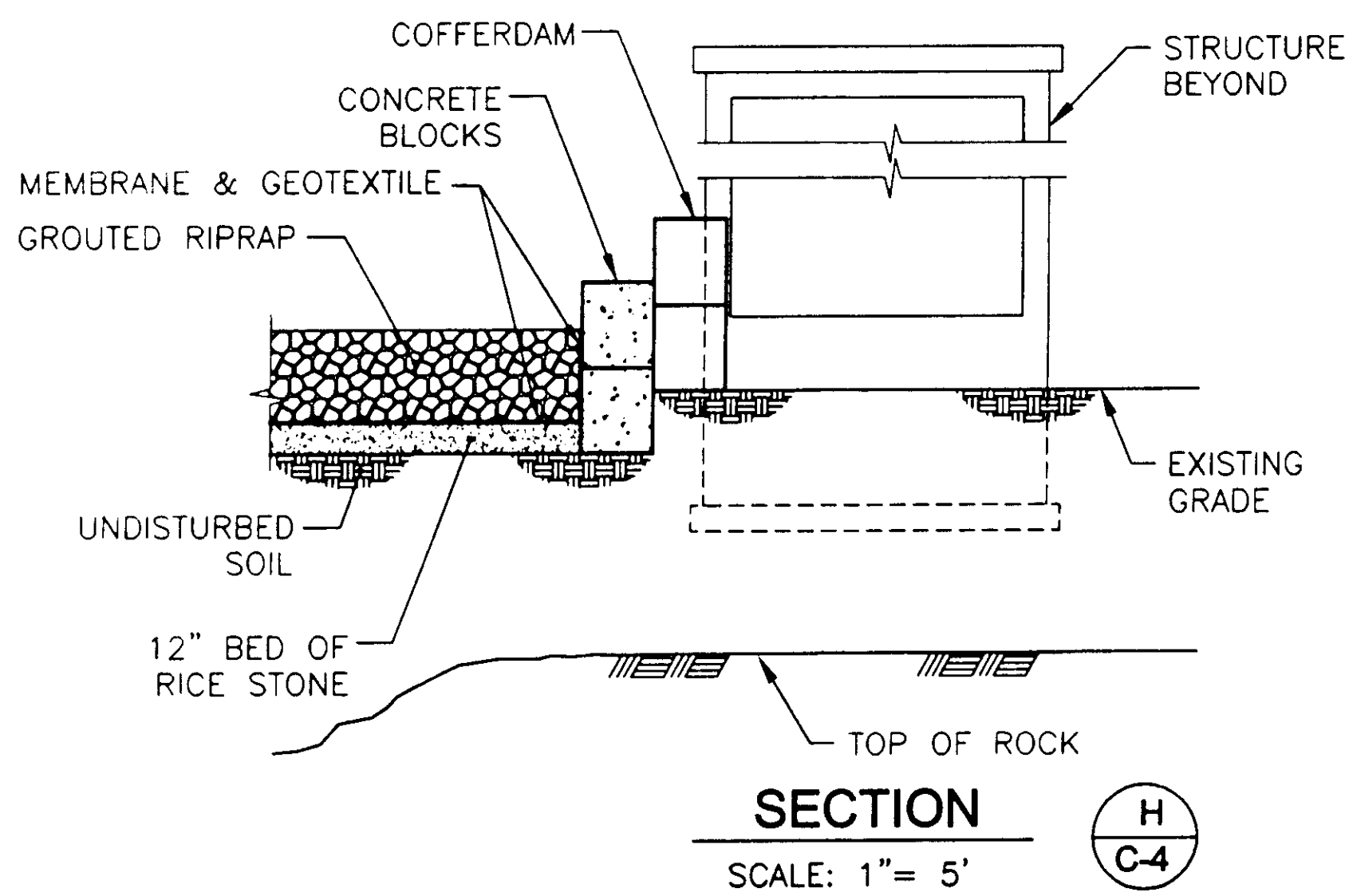
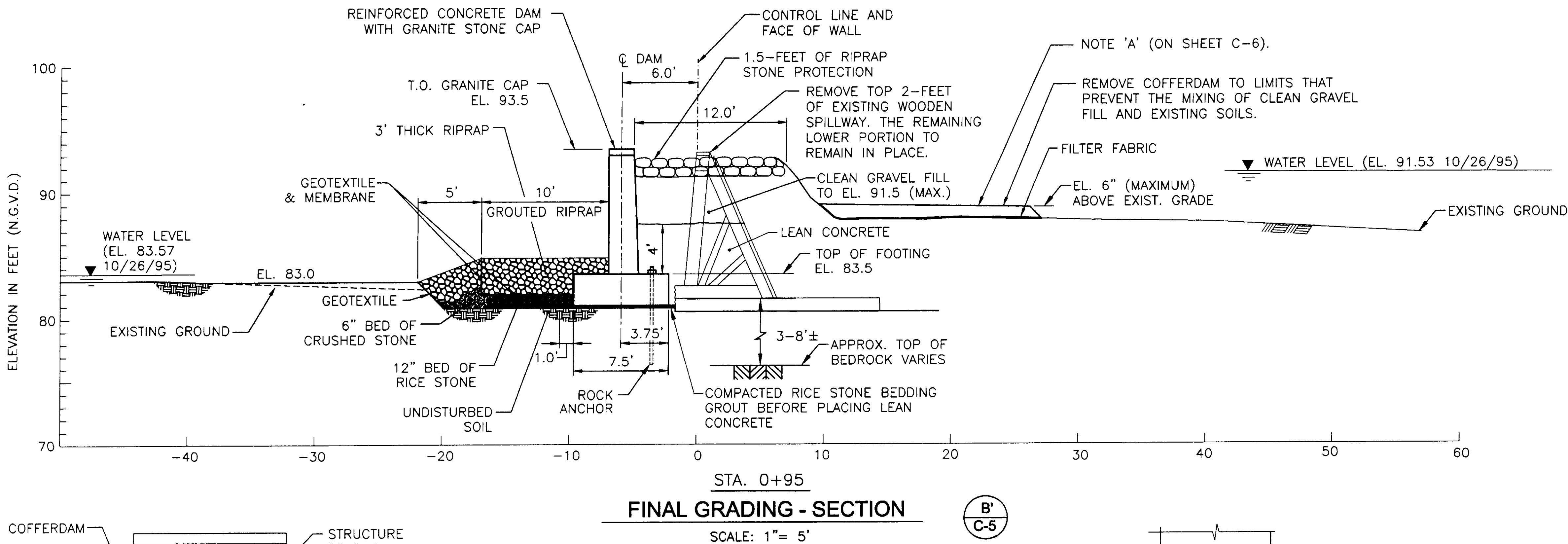
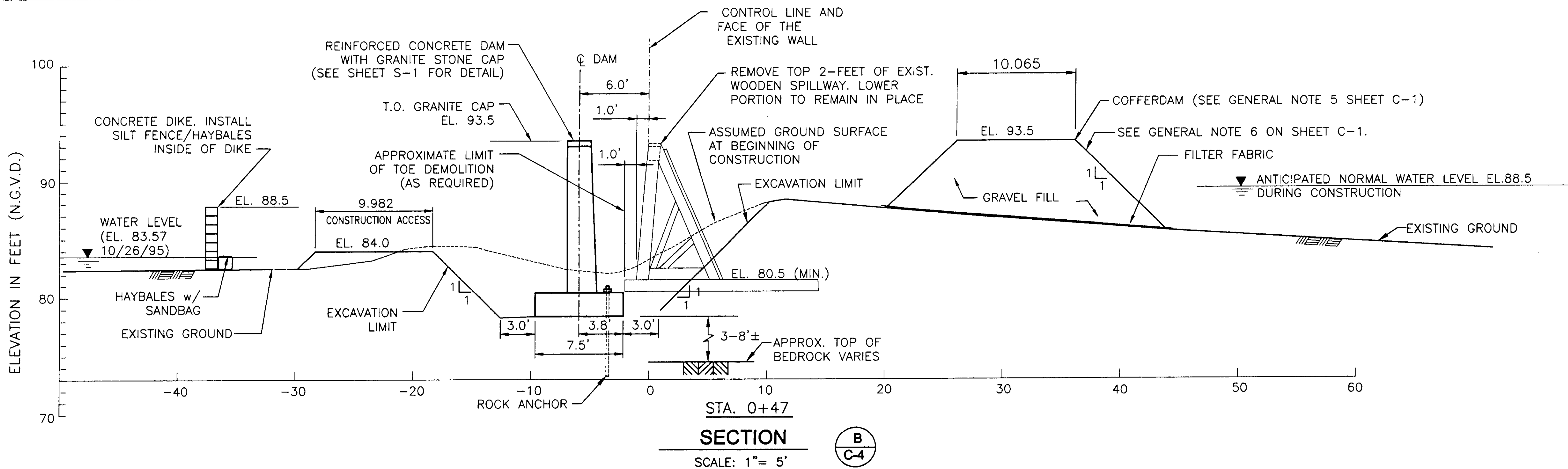


NOTE:
UPON COMPLETION OF ALL REQUIRED CONSTRUCTION,
THE CONTRACTOR SHALL REMOVE ALL SANDBAGS,
CONCRETE BLOCKS & BARRIERS, & PORTION OF THE
COFFERDAM AND ACCESS ROAD TO MEET EXISTING
GRADE AT UPSTREAM AND DOWNSTREAM OF THE
CONCRETE DAM.

SITE PLAN
SCALE: 1" = 10'



PROJECT: F. WALKER 7136 REGISTERED PROFESSIONAL ENGINEER (CIVIL)	
Designed by	Drawn by
Reviewed by	Date: July 2001
GEI Consultants, Inc. WINCHESTER, MASSACHUSETTS Loureiro Engineering Associates, Inc. 100 Northwest Drive Plainville, CT 06062	
CENTRAL MANOR RESTORATION-SUPERFUND SITE NON-TIME CRITICAL REMOVAL ACTION NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND RECONSTRUCT ALLENDALE DAM SITE PLAN - FINISH GRADING	
Reference number: C-5 Sheet 6 of 11	

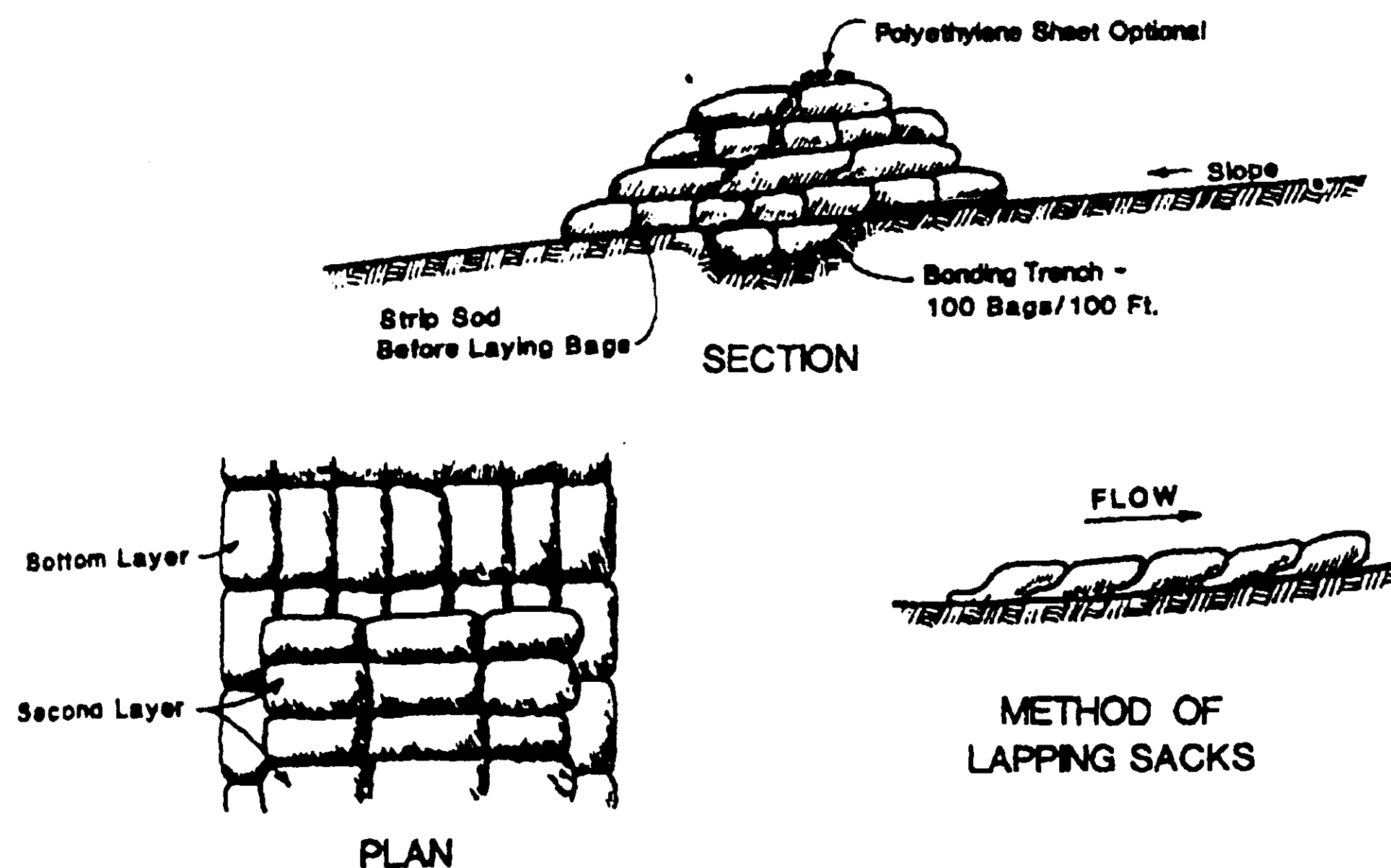
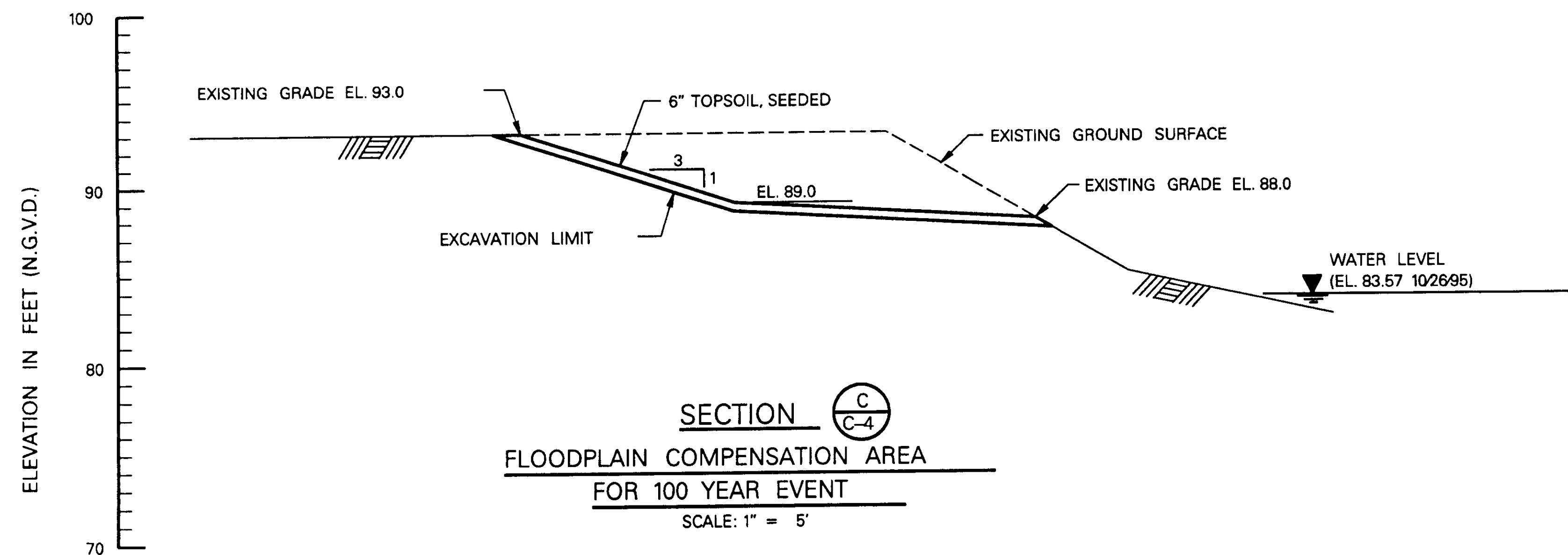


No.	Description	Date	Appr.	Symbol
1	REINFORCED CONCRETE DAM WITH GRANITE STONE CAP (SEE SHEET S-1 FOR DETAIL)			
2	CONCRETE DIKE. INSTALL SILT FENCE/HAYBALES INSIDE OF DIKE			
3	WATER LEVEL (EL. 83.57 10/26/95)			
4	HAYBALES w/ SANDBAG			
5	EXISTING GROUND			
6	EXCAVATION LIMIT			
7	ROCK ANCHOR			
8	CONTROL LINE AND FACE OF THE EXISTING WALL			
9	REMOVE TOP 2- FEET OF EXIST. WOODEN SPILLWAY. LOWER PORTION TO REMAIN IN PLACE			
10	ASSUMED GROUND SURFACE AT BEGINNING OF CONSTRUCTION			
11	EXCAVATION LIMIT			
12	EL. 80.5 (MIN.)			
13	APPROX. TOP OF BEDROCK VARIES			
14	GRAVEL FILL			
15	COFFERDAM (SEE GENERAL NOTE 5 SHEET C-1)			
16	SEE GENERAL NOTE 6 ON SHEET C-1.			
17	FILTER FABRIC			
18	ANTICIPATED NORMAL WATER LEVEL EL.88.5 DURING CONSTRUCTION			
19	EXISTING GROUND			

Designed by	Drawn by	Reviewed by	Date
Michael P. Walker	AAB		July 2001
GEI Consultants, Inc. WINCHESTER, MASSACHUSETTS Loureiro Engineering Associates, Inc. 100 Northwest Drive Plainville, CT 06062			

CENTRAL MANOR RESTORATION-SUPERFUND SITE NON-TIME CRITICAL REMOVAL ACTION NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND ALLENDALE DAM REPLACEMENT SECTIONS - FINISH GRADING 2 of 2

Reference number: C-7
Sheet 8 of 11

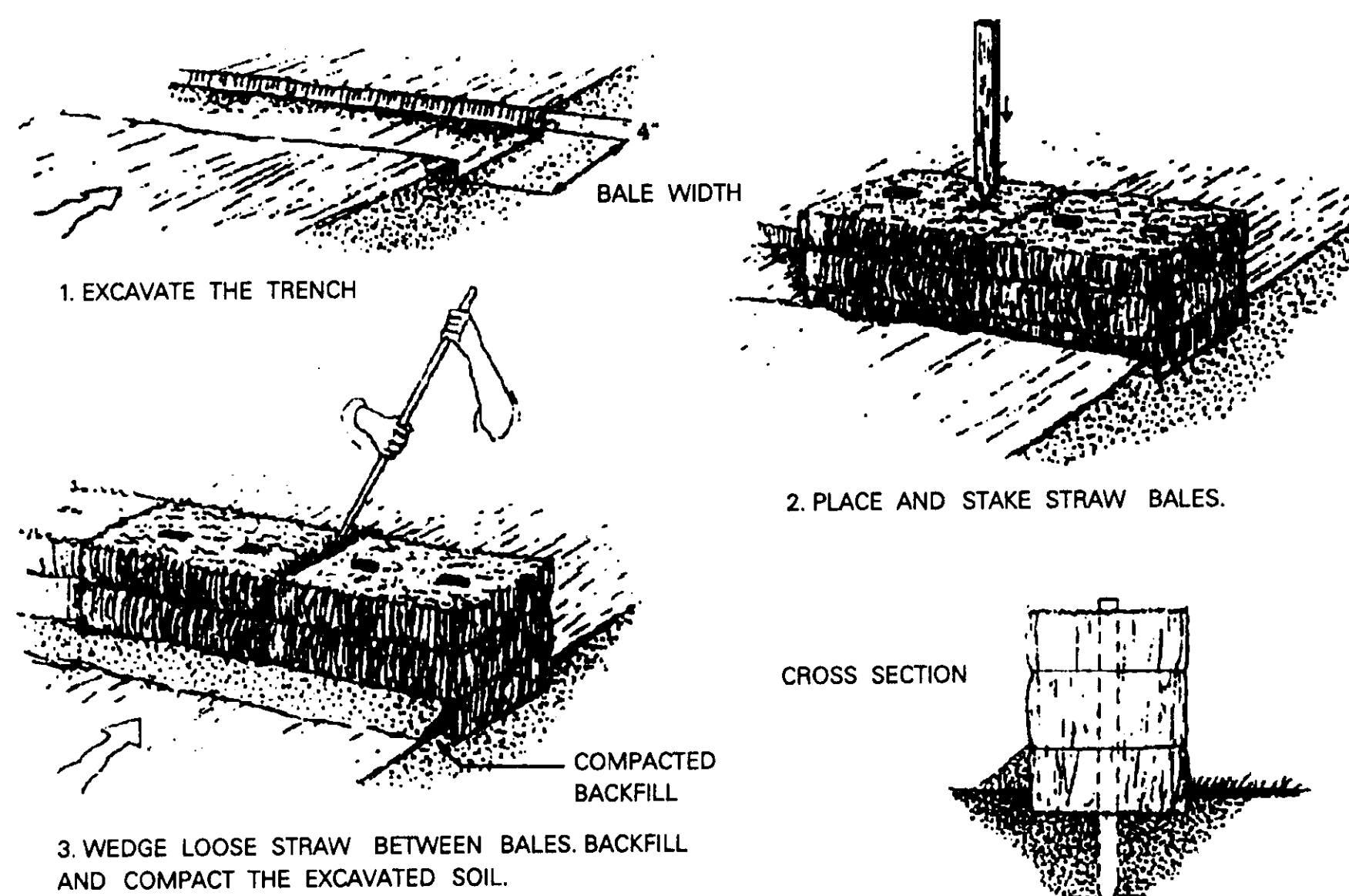


- Notes:
1. ALTERNATE DIRECTION OF SACKS. I.E.: BOTTOM LAYER PLACED LENGTHWISE PARALLEL TO THE SLOPE; NEXT LAYER PLACED PERPENDICULAR TO FIRST, ETC.
 2. LAP UNFILLED PORTION UNDER NEXT BAG.
 3. TYING OR SEWING OF BAGS IS NOT NECESSARY
 4. BAGS SHOULD BE APPROXIMATELY ONE-HALF TO TWO-THIRDS FULL.
 5. TAMP THOROUGHLY IN PLACE.

MATERIALS REQUIRED FOR 100 LINEAR FEET		
Height Above Ground	Approx. Bags Required	Cu. Yds.
1 Ft.	600-800	10-13
2 Ft.	1400-2000	23-33
3 Ft.	2200-3400	37-57
4 Ft.	5300	88
5 Ft.	7600	137
6 Ft.	10000	167

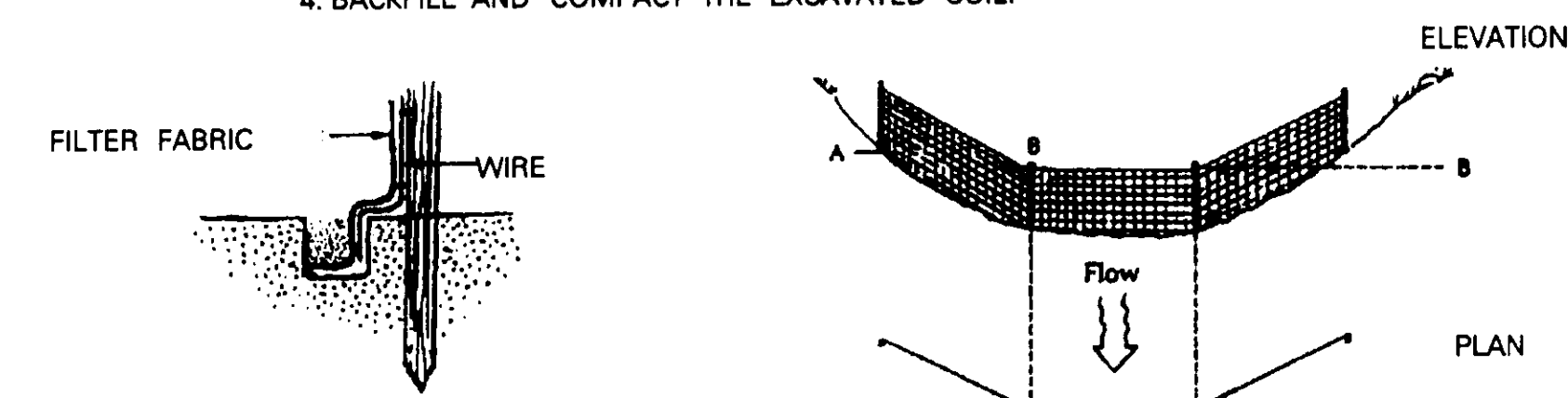
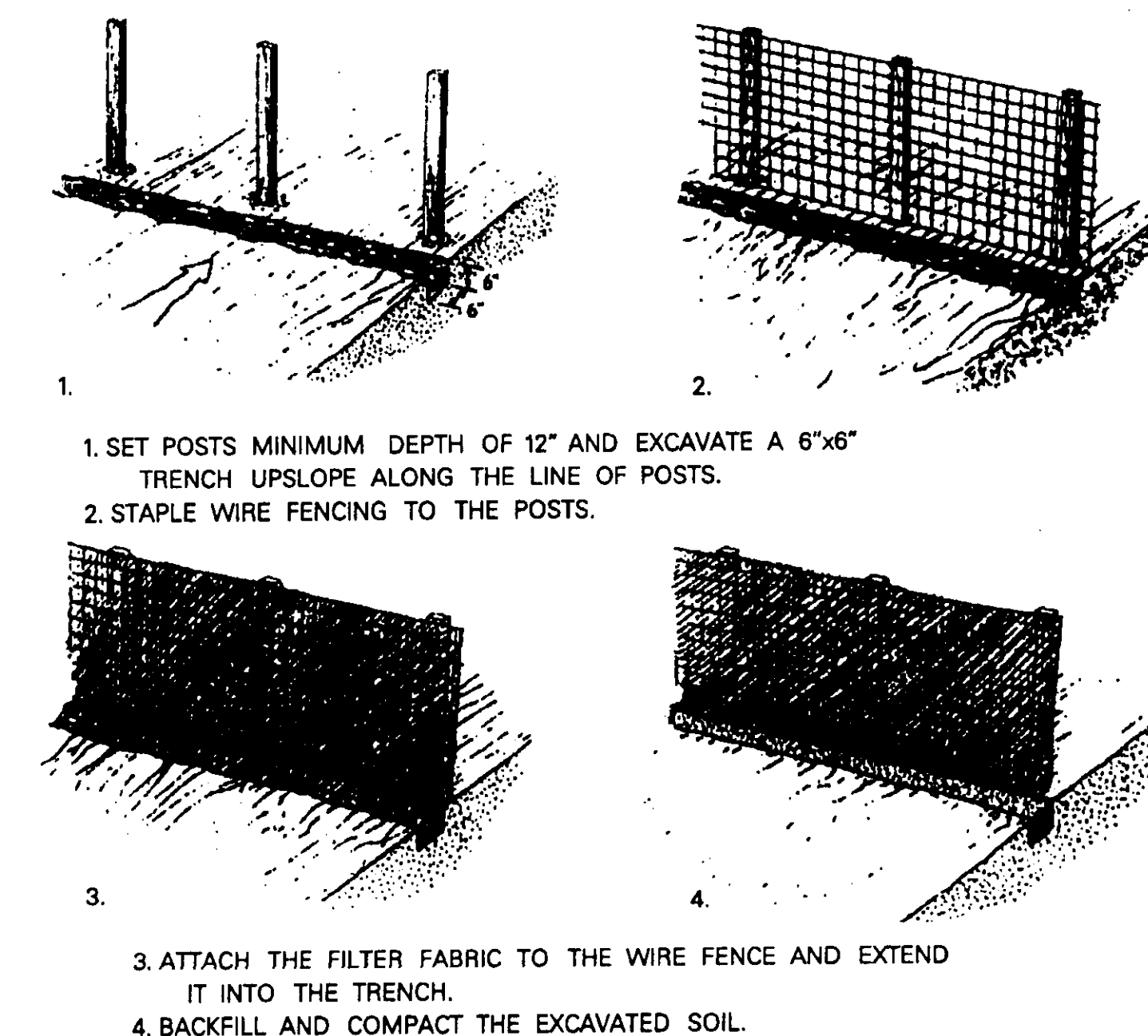
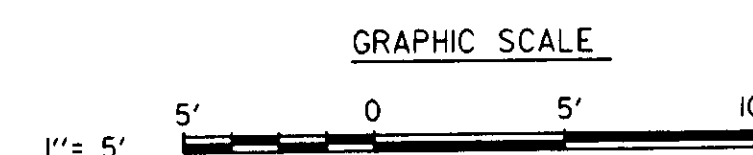
SANDBAG DIKE CONSTRUCTION TECHNIQUES

N.T.S.



HAY BALE - INSTALLATION DETAILS

N.T.S.



Source: U.S. Department of Agriculture, Soil Conservation Service, Storrs, Connecticut.

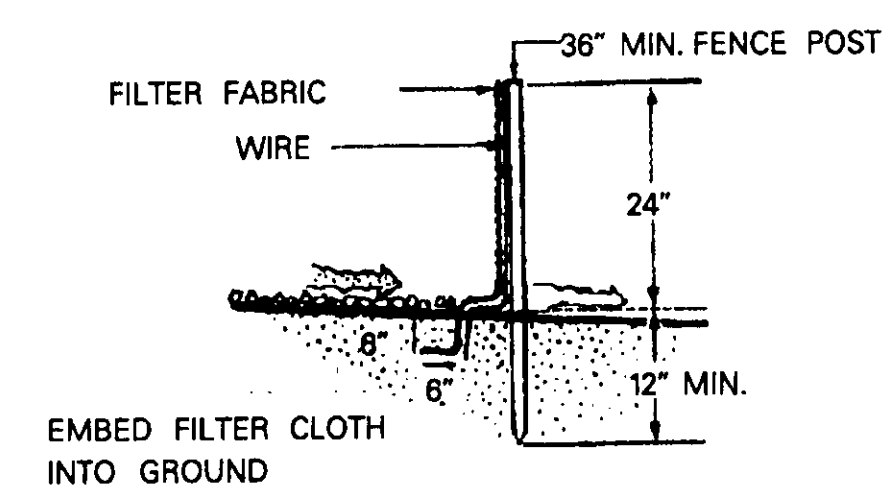
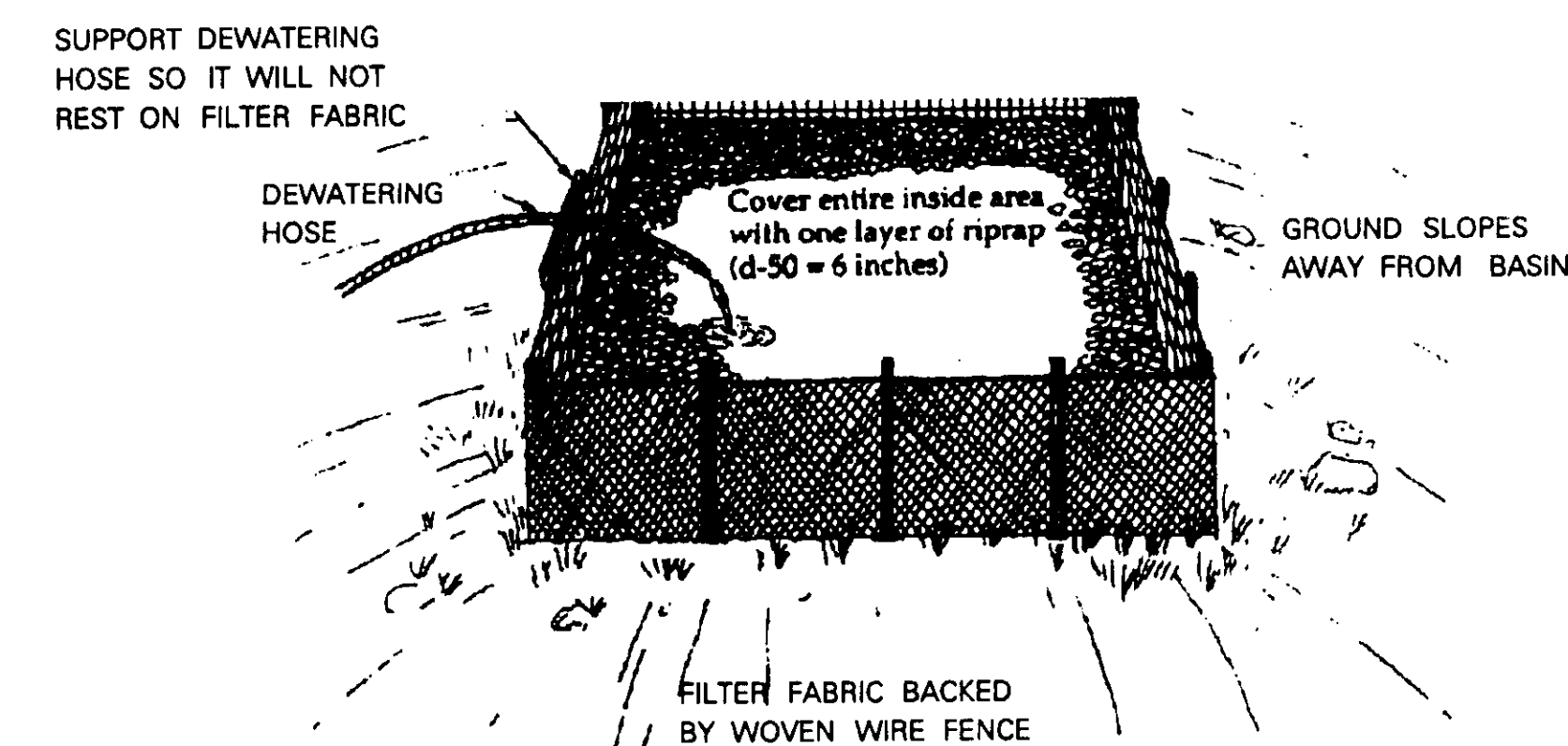


FIGURE 60-1 FILTER FABRIC BASIN FOR PUMPED DEWATERING DISCHARGE

Source: Rhode Island Department of Environmental Management

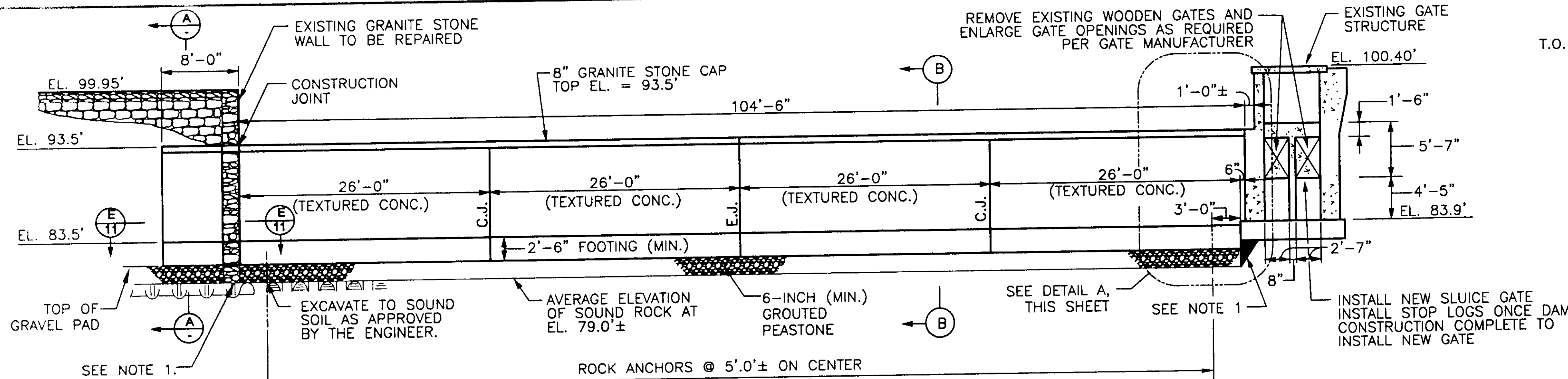
SILT FENCE - INSTALLATION DETAILS

N.T.S.

Designed by	Drawn by	Reviewed by	Date
AB	AB	AB	July 2001

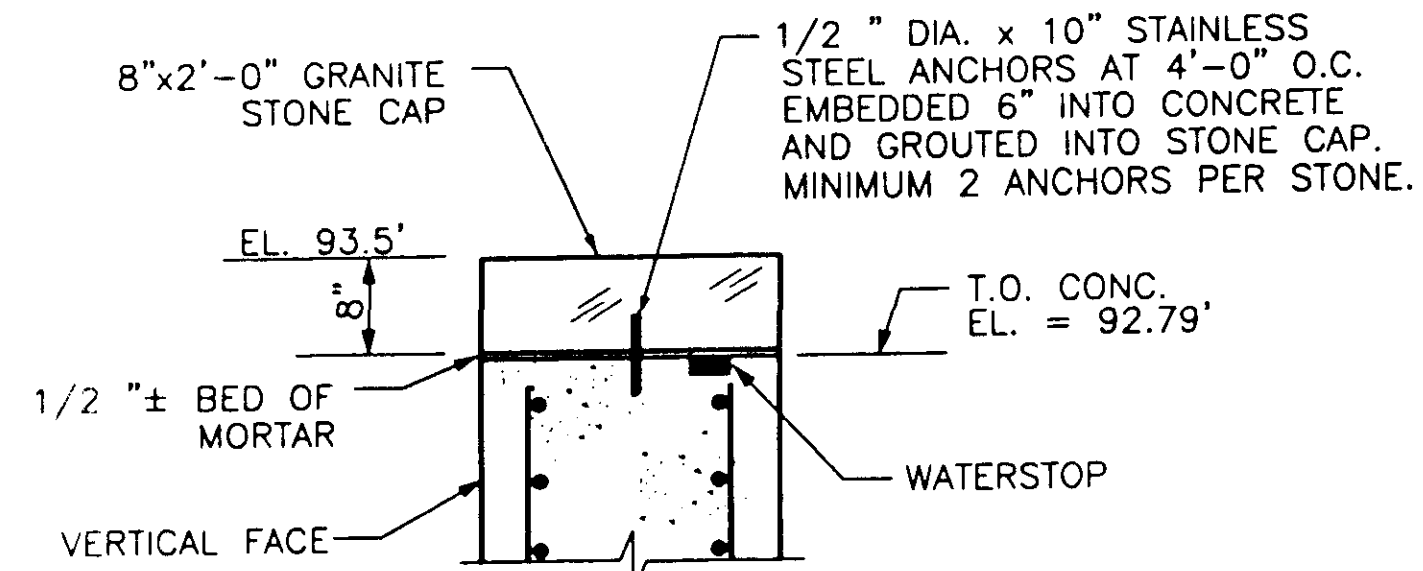
GEI Consultants, Inc.	7135
WINCHESTER, MASSACHUSETTS	REGISTERED PROFESSIONAL ENGINEER
Loureiro Engineering Associates, Inc.	100 Northwest Drive
Plainville, CT 06062	

CENTRAL MANOR RESTORATION-SUPERFUND SITE	Reference number:
NON-TIME CRITICAL REMOVAL ACTION	C-8
NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND	Sheet 9 of 11



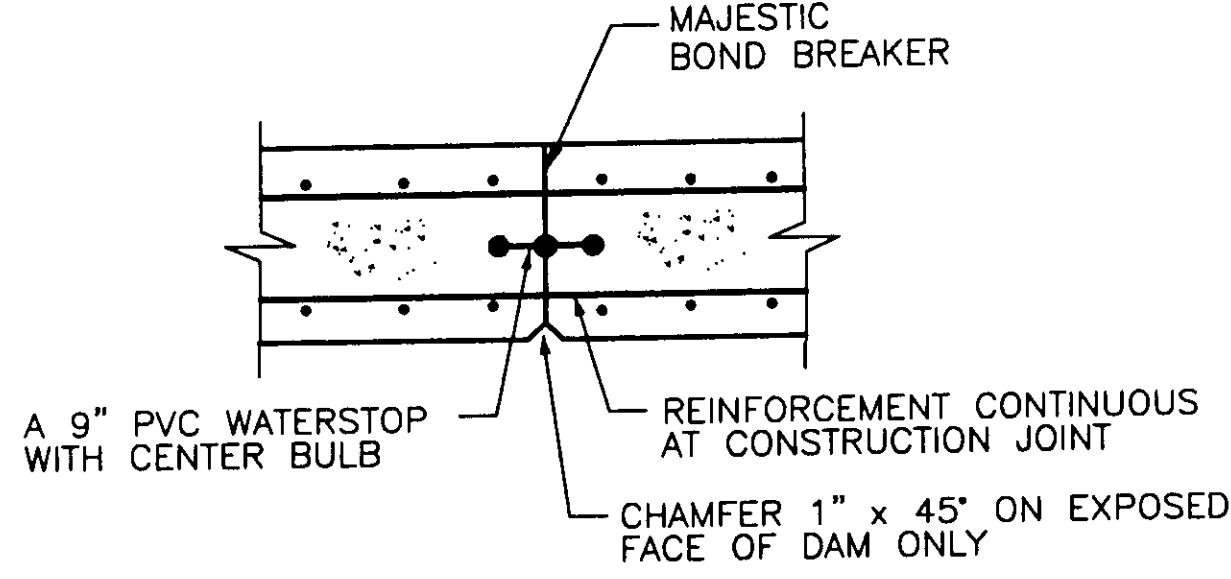
ELEVATION OF PROPOSED DAM

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



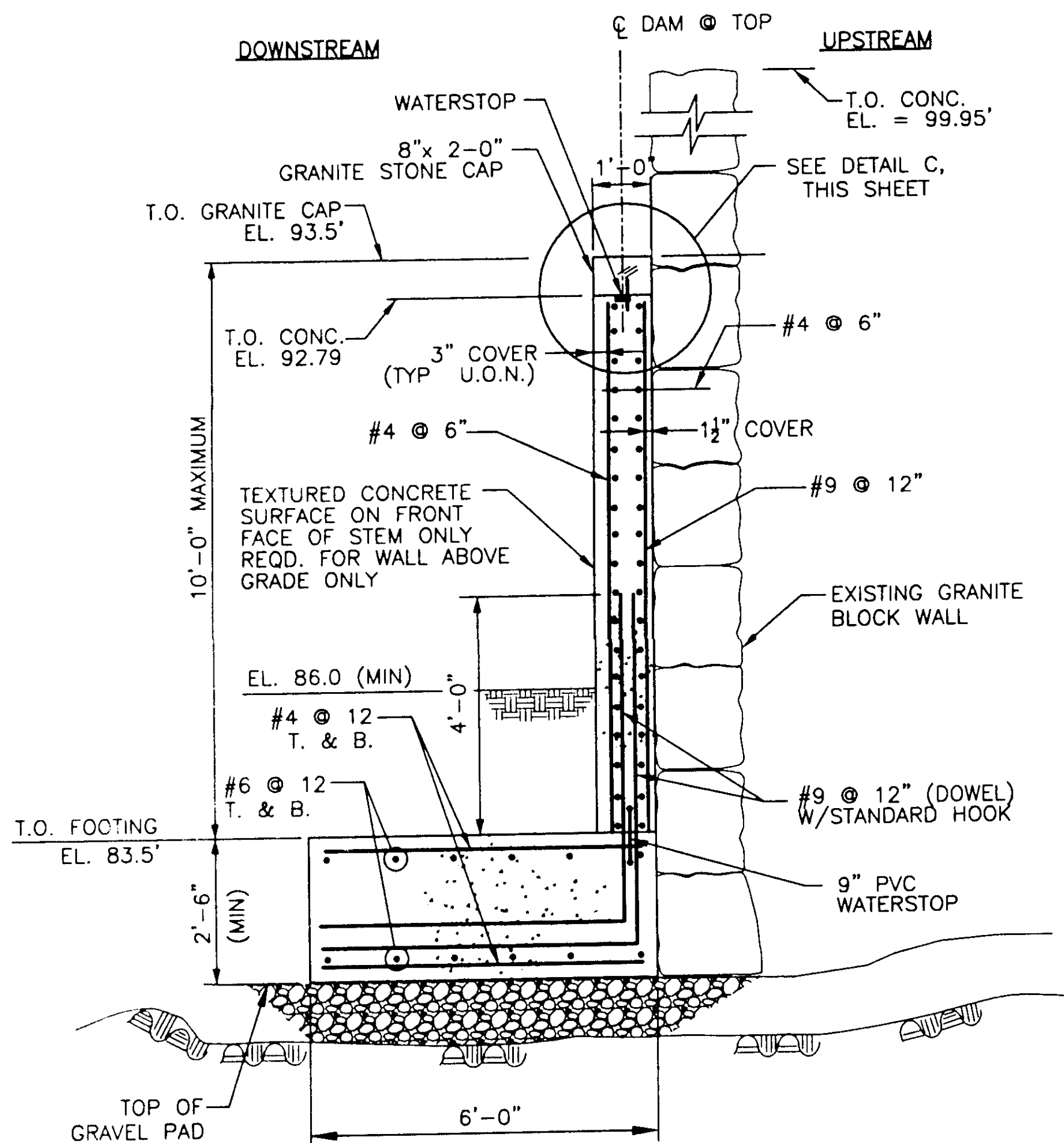
DETAIL C

SCALE: 3/4" = 1'-0"



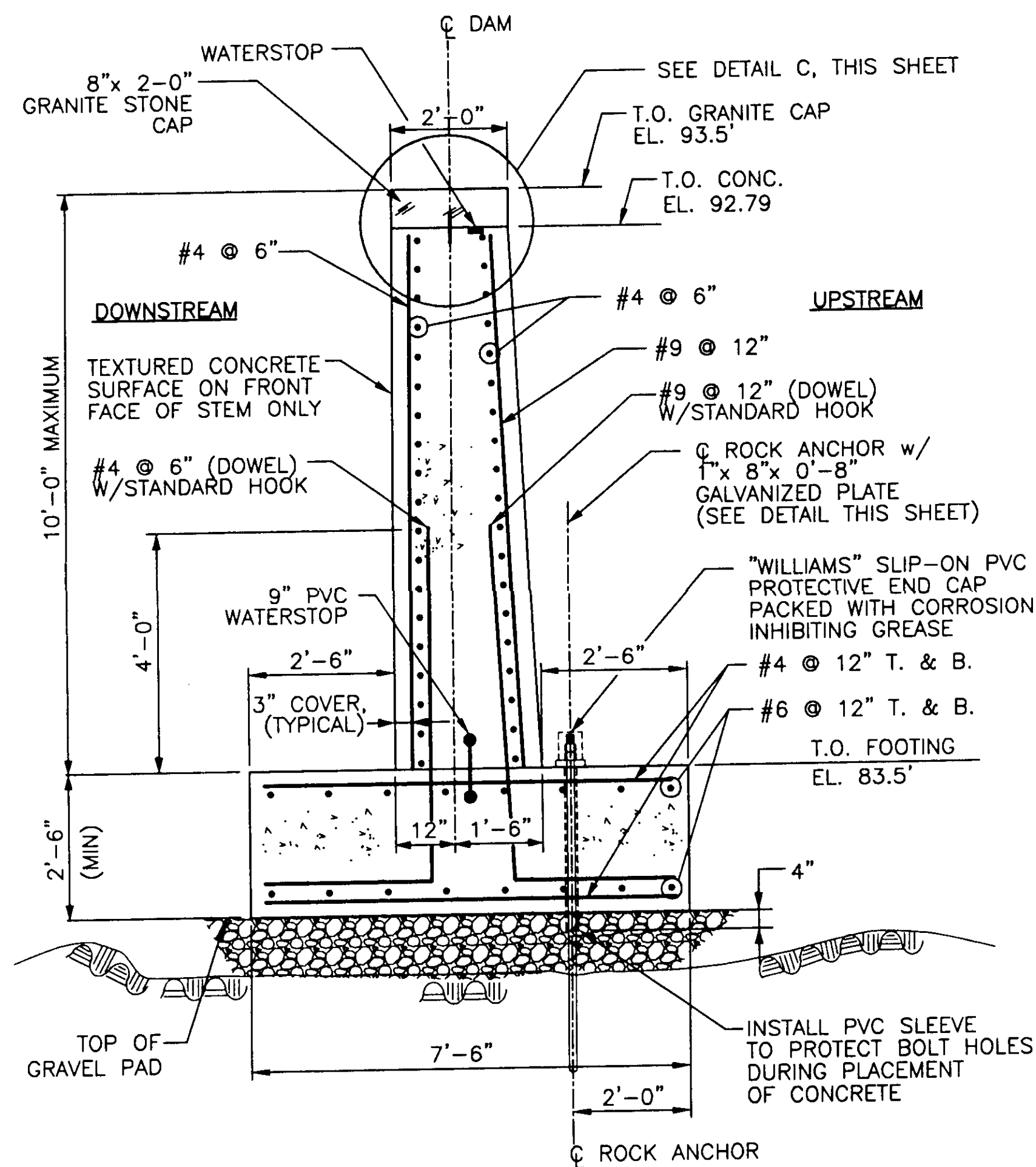
TYPICAL CONSTRUCTION JOINT DETAIL (U.O.N.)

SCALE: NTS



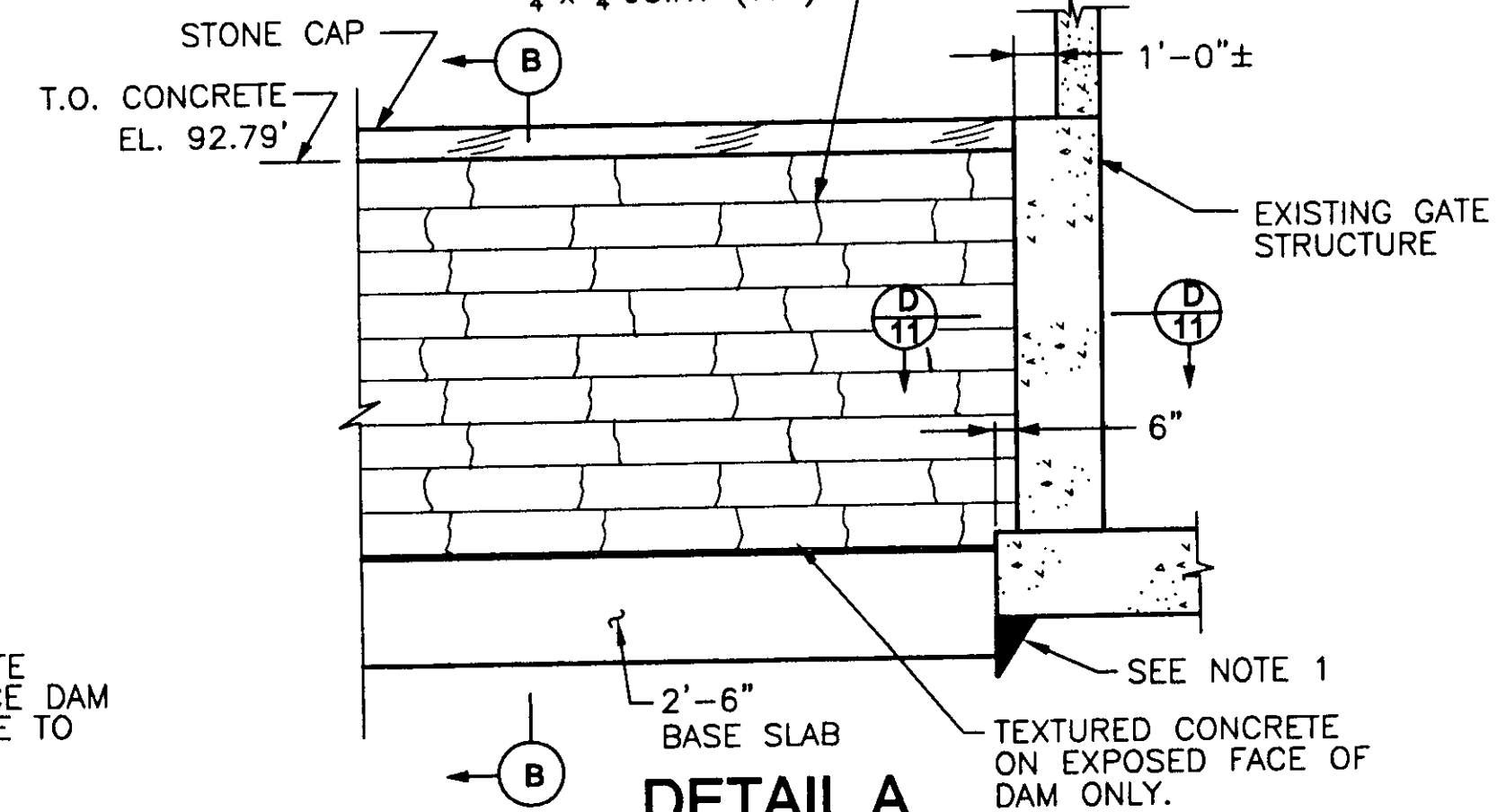
SECTION A-A

SCALE: 1/2" = 1'-0"



SECTION B-B

SCALE: 1/2" = 1'-0"

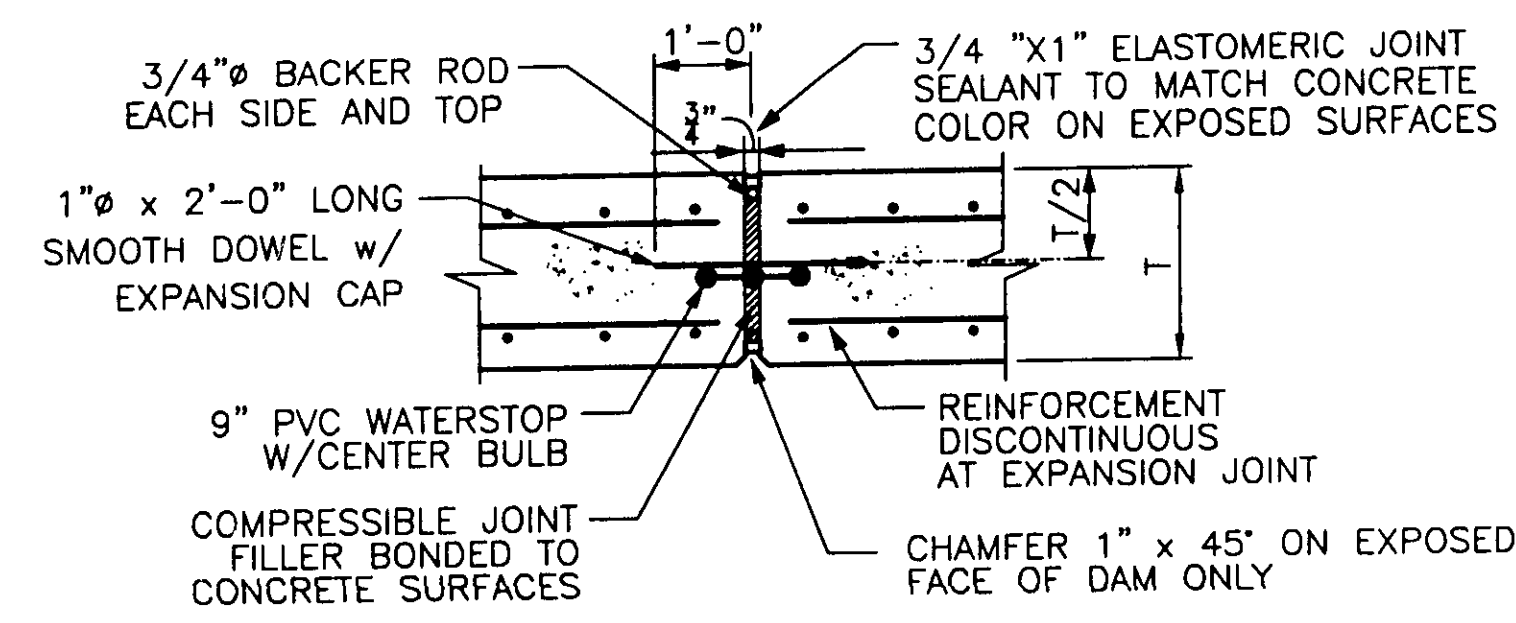


DETAIL A

SCALE: 1/4" = 1'-0"

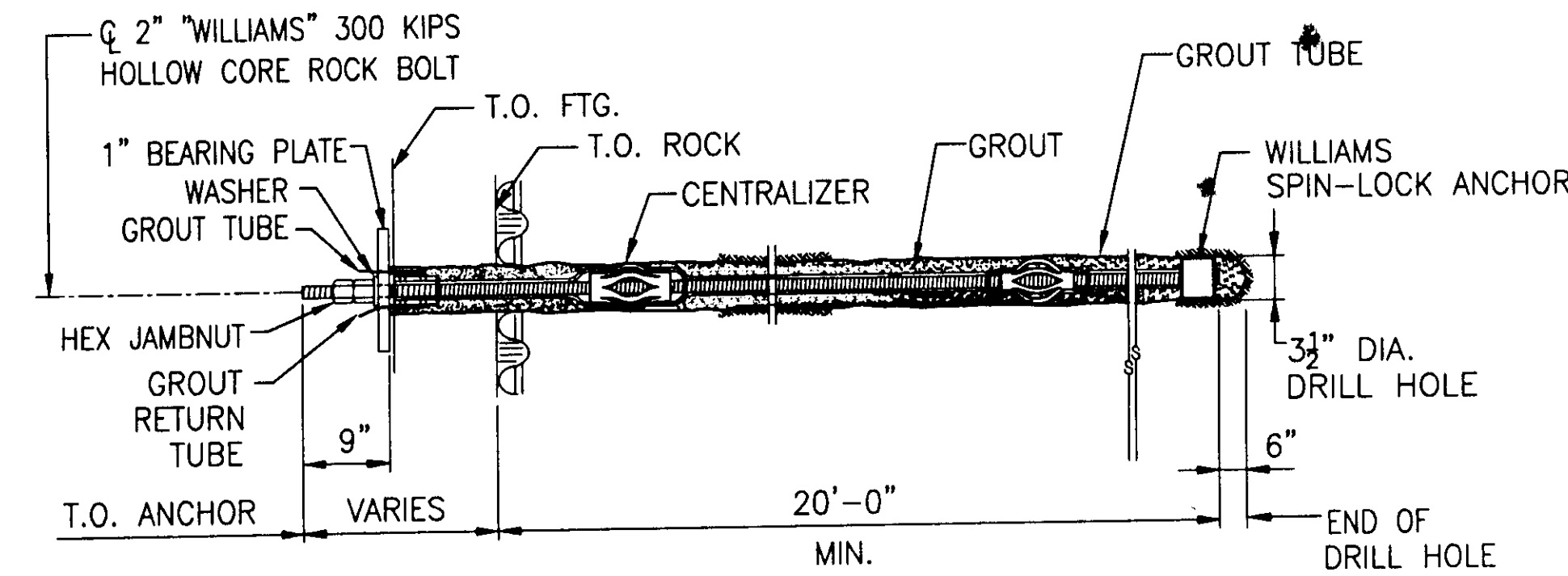
NOTES

1. BOTTOM ELEVATIONS OF EXISTING TIMBER DAM, STONE WALL AND GATE STRUCTURE ARE NOT KNOWN. CONTRACTOR SHALL FIELD VERIFY DEPTH SIZE AND LOCATION OF EXISTING FOOTINGS PRIOR TO EXCAVATION ACTIVITIES. CONTRACTOR SHALL PROVIDE A SEPARATE ALLOWANCE FOR THE DESIGN AND CONSTRUCTION OF ANY UNDERPINNING OPERATIONS THAT ARE NECESSARY.
2. FOR DIMENSIONS AND ELEVATIONS OF THE EXISTING TIMBER DAM, AND FOR OTHER EXISTING DIMENSIONS AND ELEVATIONS NOT SHOWN, REFER TO SHEET NO. C1.
3. ALL CONCRETE SHALL HAVE A 28 DAY COMPRESSIVE STRENGTH F_c OF 5,000 PSI MINIMUM.
4. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60.
5. REINFORCEMENT SHALL BE LAP SPLICED AS NECESSARY, AND IN ACCORDANCE WITH THE REQUIREMENTS OF ACI 318.
6. TEXTURED CONCRETE IS REQUIRED ONLY FOR THE EXPOSED (DOWN STREAM) FACE OF THE STEM. TEXTURED CONCRETE FORM LINER SHALL BE AS SPECIFIED AND APPROVED.
7. PRIOR TO CONSTRUCTION OF THE NEW DAM AT THE RIGHT ABUTMENT BACKFILL BEHIND THE EXISTING STONE WALL SHALL BE PARTIALLY EXCAVATED AS REQUIRED TO ALLOW EXCAVATION FOR THE NEW DAM. STORE STONES FOR RE-USE. THIS WILL RELIEVE SOIL PRESSURES ON THE WALL WHILE REPAIRS ARE UNDERWAY.
8. REPAIR THE EXISTING STONE WALL AFTER COMPLETION OF THE DAM.
9. OPENINGS IN THE EXISTING CONCRETE GATE STRUCTURE SHALL BE ENLARGED AS SHOWN PRIOR TO CONSTRUCTION OF THE COFFERDAM.



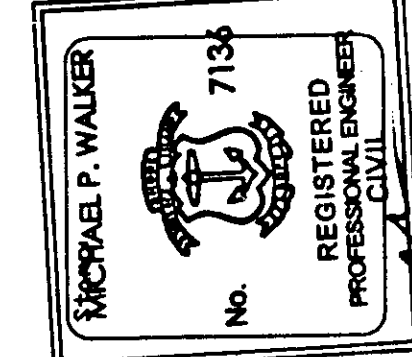
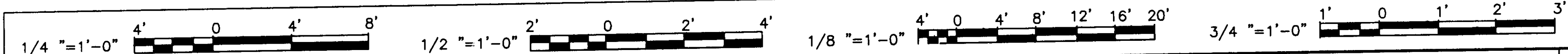
TYPICAL EXPANSION JOINT DETAIL

SCALE: NTS



TYPICAL ROCK ANCHOR DETAIL

N.T.S.



Designed by	Drawn by	Reviewed by	Date
	AAB		July 2001

GEI Consultants, Inc.
WINCHESTER, MASSACHUSETTS

Loureiro Engineering Associates, Inc.
100 Northwest Drive
Plainville, CT 06062

CENTRAL MANOR RESTORATION-SUPERFUND SITE
NOT-TIME CRITICAL REMOVAL ACTION

NORTH PROVIDENCE & JOHNSTON, RHODE ISLAND

ALLEDALE DAM REPLACEMENT

DAM ELEVATIONS, SECTIONS AND DETAILS

Reference number:
S-1

Sheet 10 of 11

