

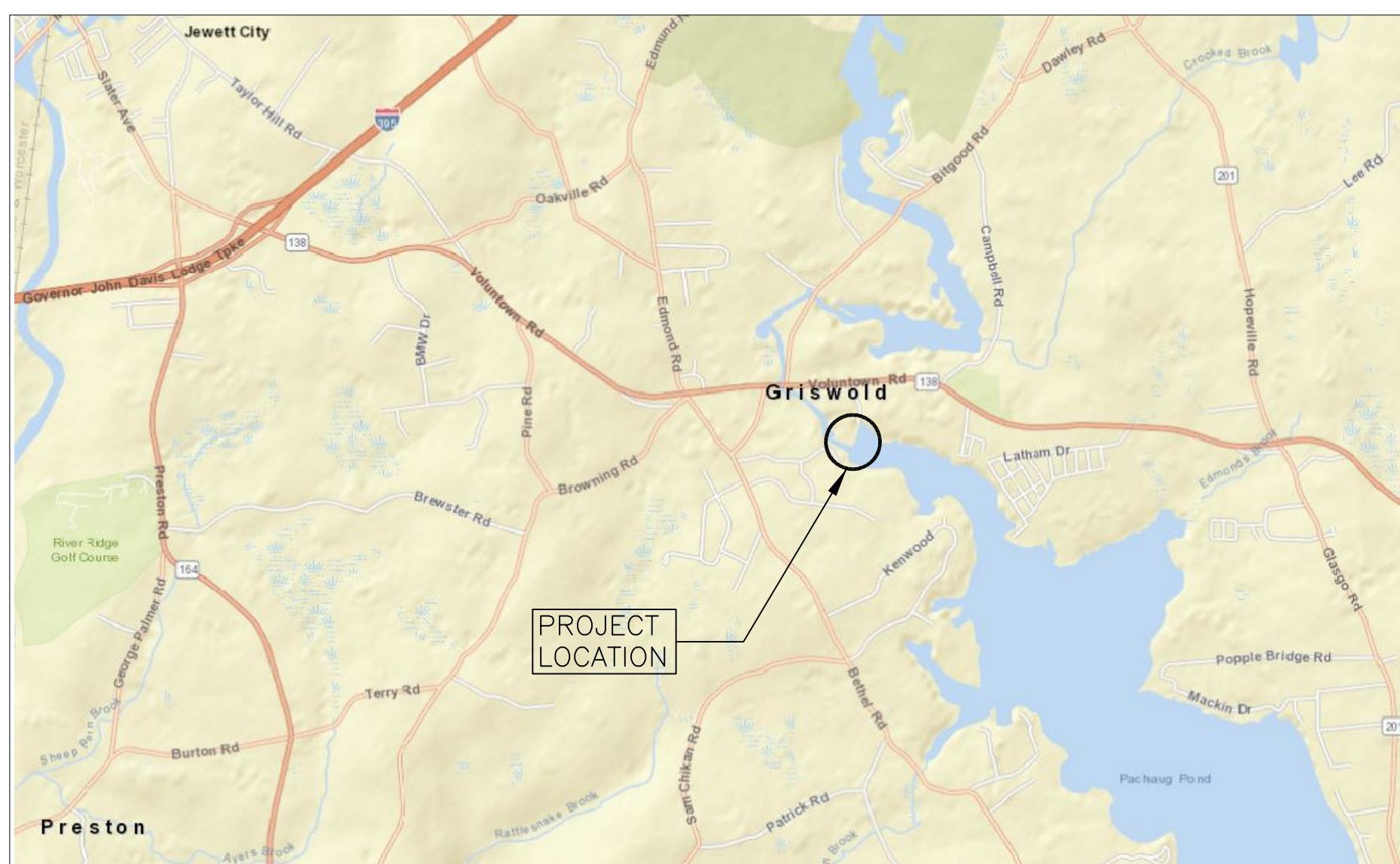
STATE OF CONNECTICUT
DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION
WATER PLANNING & MANAGEMENT DIVISION

REPAIRS TO PACHAUG POND DAM
GRISWOLD, CONNECTICUT

MARCH 2019

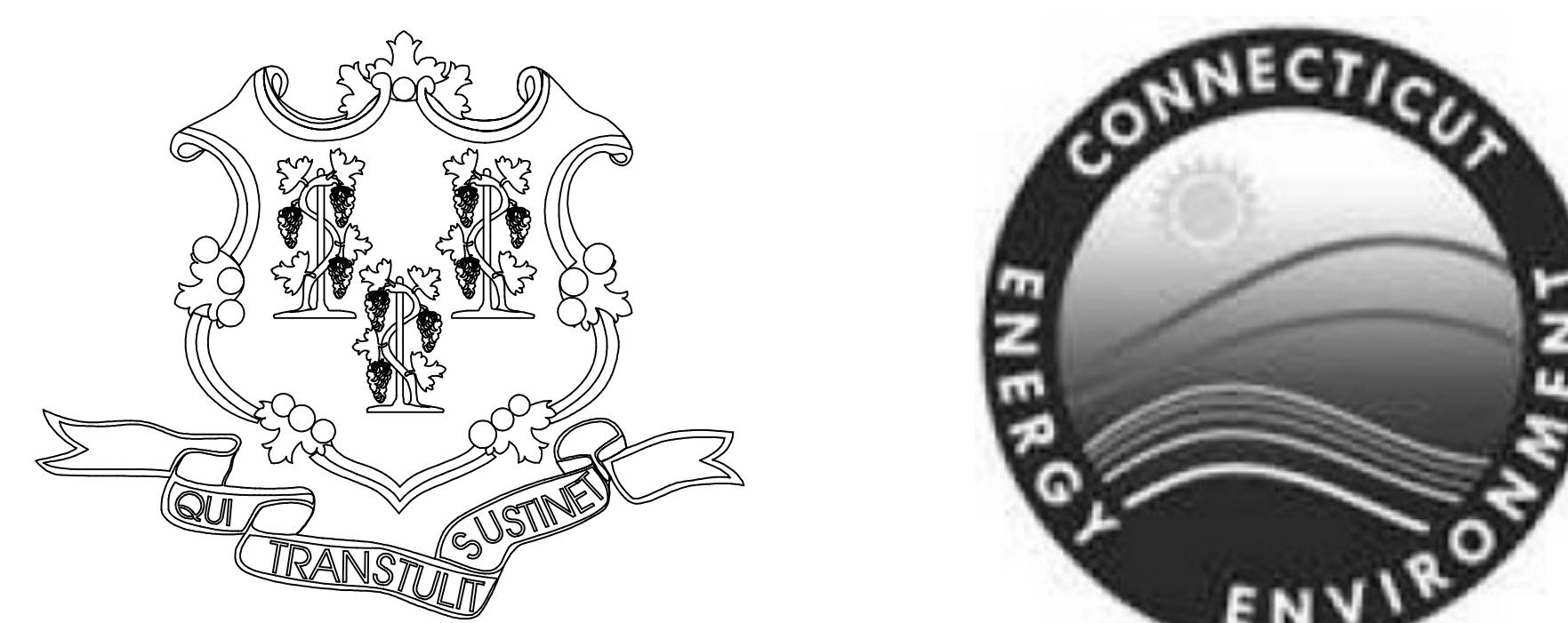
GOVERNOR:
NED LAMONT

COMMISSIONER:
KATIE S. DYKES



GRISWOLD LOCATION PLAN

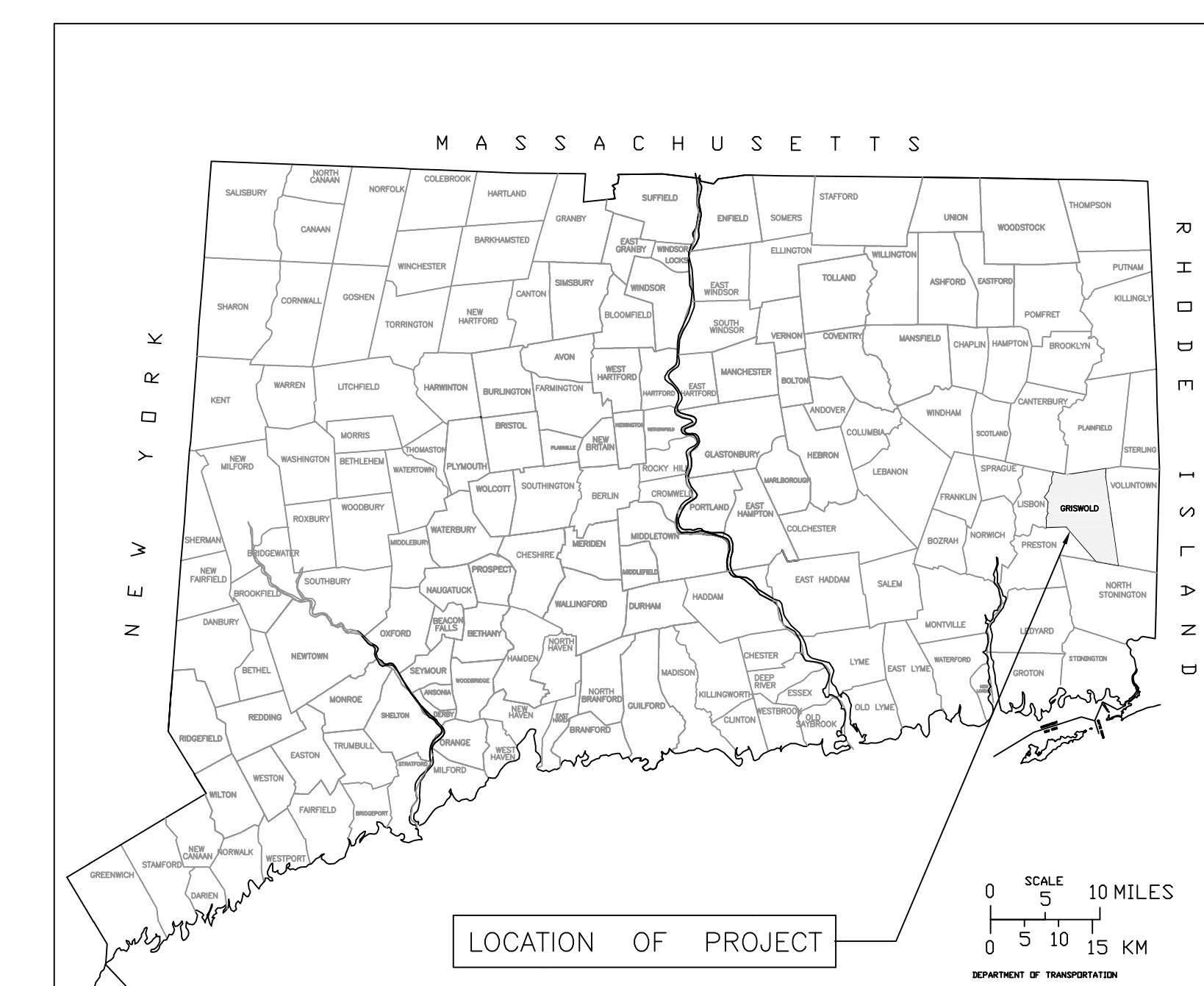
SCALE: 1" = 0.5 MILE



MACCHI ENGINEERS

44 GILLET ST
HARTFORD, CONNECTICUT 06105

(860) 549-6190
FAX: (860) 524-5088



CONNECTICUT LOCATION PLAN

EROSION CONTROL NOTES

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATER BODY AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS, AND IMMEDIATELY PROVIDE TEMPORARY AND PERMANENT POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES AND WATER BODIES, AND TO PREVENT, INSO FAR AS POSSIBLE, EROSION ON THE SITE.

CONSTRUCTION METHODS, IN GENERAL SHALL BE IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" (2002) BY THE STATE OF CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION. THE EROSION CONTROL GUIDELINES ARE OBTAINABLE FROM THE CONNECTICUT COUNCIL ON SOIL AND WATER CONSERVATION, STATE OFFICE BUILDING, HARTFORD, CONNECTICUT 06106, AND SHOULD BE USED AS A REFERENCE IN CONSTRUCTING THE EROSION AND SEDIMENT CONTROLS INDICATED ON THESE PLANS.

ALL EROSION AND SEDIMENT CONTROLS MUST BE INSPECTED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.1 INCHES OR GREATER. ANY ADDITIONAL EROSION/SEDIMENT CONTROL MEASURES DEEMED NECESSARY BY THE ENGINEER SHALL BE IMPLEMENTED BY THE CONTRACTOR. ADDITIONALLY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR, MAINTENANCE, AND REPLACEMENT OF ALL EROSION/SEDIMENT CONTROLS.

STAKED HAY BALES - HAY OR STRAW BALES EROSION CHECKS ARE TO BE INSTALLED AT THE BASE OF SLOPES INDICATED ON THE PLANS AS A MINIMUM. ADDITIONAL SED & EROSION CONTROL MAY BE REQUIRED DUE TO CONTRACTORS CONSTRUCTION MEANS & METHODS. HAY BALES SHALL ALSO BE PLACED AS DIRECTED BY THE ENGINEER. HAY BALE EROSION CHECKS SHALL BE PLACED IMMEDIATELY AFTER A CUT SLOPE HAS BEEN GRADED AND BEFORE A FILL SLOPE HAS BEEN CREATED. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDES OF EROSION CHECKS WHEN THE ACCUMULATION REACHES A MAXIMUM OF 1/2 THE HEIGHT OF THE HAYBALES, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE BUILT ON. HAY OR STRAW BALES ARE TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. EROSION CHECKS ARE TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE EROSION CHECKS ARE STABILIZED AND VEGETATION IS ESTABLISHED.

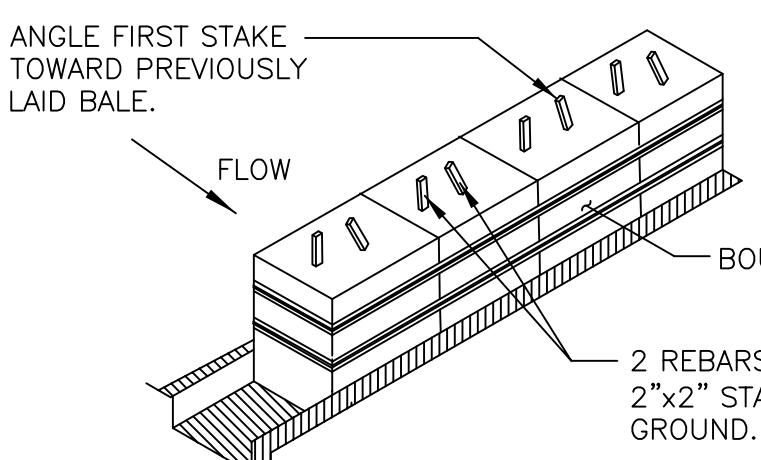
FILTER FENCE - SYNTHETIC FILTER BARRIER FENCE MAY BE USED IN PLACE OF HAY BALES SPECIFIED AT ALL LOCATIONS AS INDICATED ON THE PLANS TO INTERCEPT SILT AND SEDIMENT BEFORE IT REACHES THE DRAINAGEWAYS OR WETLANDS. IN SOME INSTANCES BOTH PROTECTIVE MEASURES MAY BE REQUIRED. DEPOSITS OF SEDIMENT AND SILT ARE TO BE PERIODICALLY REMOVED FROM THE UPSTREAM SIDES OF THE FENCE WHEN THE ACCUMULATION REACHES A MAXIMUM OF 1/2 THE HEIGHT OF THE FILTER FENCE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THIS MATERIAL IS TO BE SPREAD AND STABILIZED IN AREAS NOT SUBJECT TO EROSION, OR IN AREAS WHICH ARE NOT TO BE PAVED OR BUILT ON. THE FENCE IS TO BE REPLACED AS NECESSARY TO PROVIDE PROPER FILTERING ACTION. THE FENCE IS TO REMAIN IN PLACE AND BE MAINTAINED TO INSURE EFFICIENT SILTATION CONTROL UNTIL ALL AREAS ABOVE THE FENCE ARE STABILIZED AND VEGETATION IS ESTABLISHED.

ALL TOPSOIL STOCKPILES ARE TO HAVE EROSION CONTROLS INSTALLED AROUND THEM IMMEDIATELY AFTER THEY ARE CREATED.

IN ALL AREAS, REMOVAL OF VEGETATION, AND DISTURBANCE OF THE SOIL, IS TO BE KEPT TO A MINIMUM WHILE ALLOWING PROPER DEVELOPMENT OF THE SITE.

HAY BALE CONSTRUCTION SPECIFICATIONS:

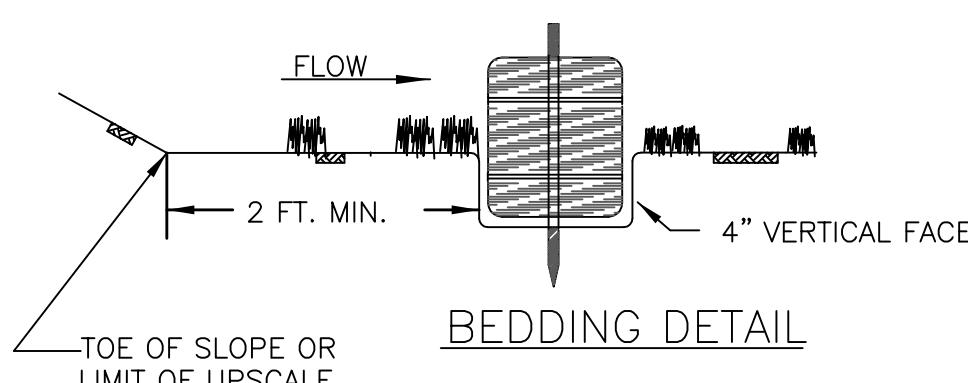
1. HAY BALES SHALL BE PLACED AROUND INSTALLED CATCH BASINS TO PREVENT SEDIMENTATION AND OTHER DEBRIS FROM ACCUMULATING ON THE GRATE OR IN THE SUMP. HAY BALES SHOULD BE KEPT CLEAN AND FREE OF DEBRIS TO FACILITATE FLOW.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR/REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
6. FINAL PLACEMENT OF CROSSING AND SEDIMENT CONTROLS SHALL BE AS DIRECTED BY THE ENGINEER.



ANCHORING DETAIL

STRAW BALE DIKE/HAY BALE DETAIL

N.T.S.



BEDDING DETAIL

N.T.S.

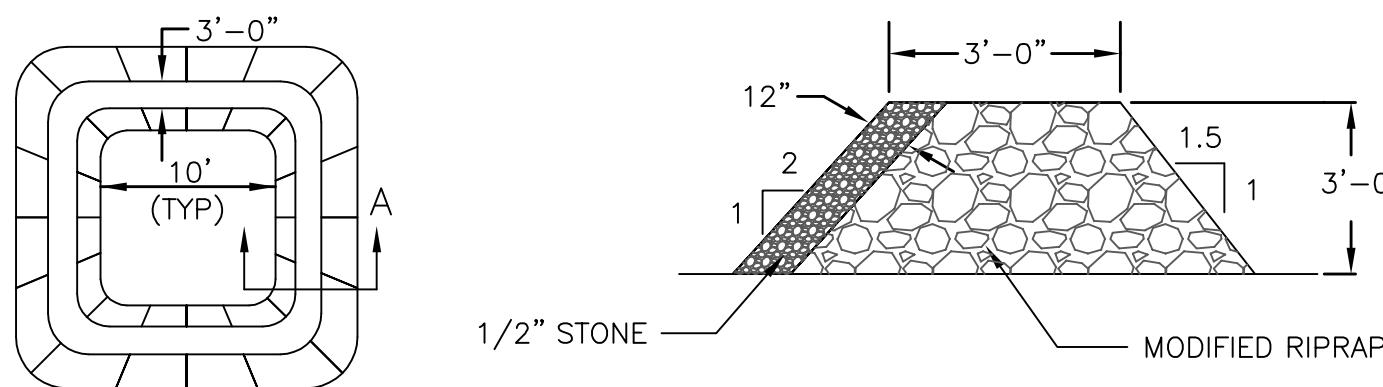
ANTI-TRACKING PAD

N.T.S.

* FOR USE IN APPLICATIONS WITH HEAVY SHEET RUNOFF AND CONCENTRATED FLOWS.

SILT FENCE (HEAVY DUTY)

NOT TO SCALE



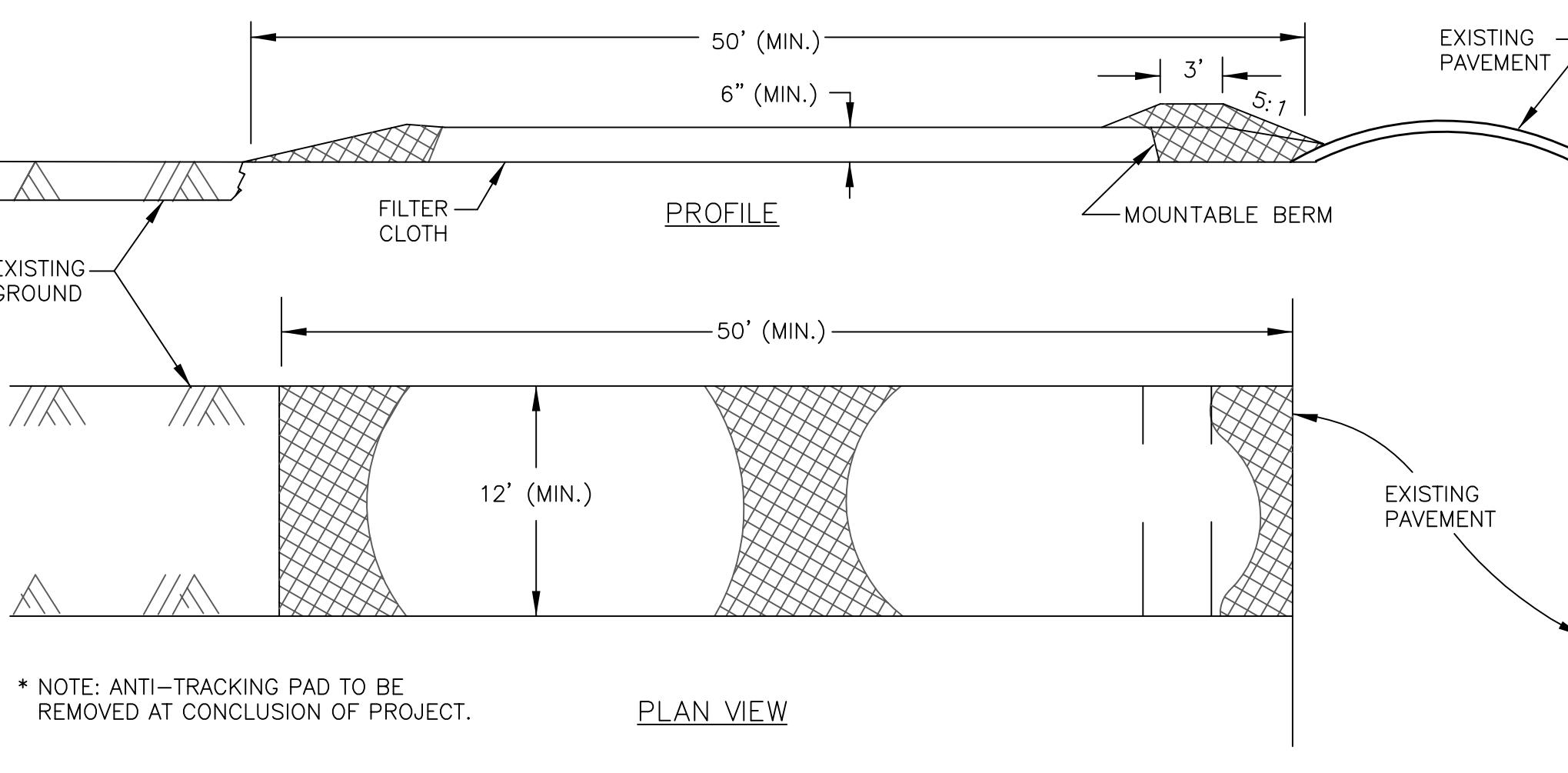
PLAN

ELEVATION

* TEMPORARY PUMP DISCHARGE PAD TO BE INSTALLED AS NEEDED
CONFIRM LOCATION w/ ENGINEER

TEMPORARY PUMP DISCHARGE PAD

NOT TO SCALE



* NOTE: ANTI-TRACKING PAD TO BE REMOVED AT CONCLUSION OF PROJECT.

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - AS REQUIRED, BUT NOT LESS THAN 50 FT (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TWELVE (12) FT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. FILTER WILL NOT BE REQUIRED ON A SINGLE FAMILY RESIDENCE LOT.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NECESSARY MAINTENANCE SHALL BE PROVIDED AFTER EACH RAINFALL.

LIST OF DRAWINGS

TITLE	SHT. NO.
GENERAL NOTES & DETAILS	1
SITE PREP & PHASING PLAN	2
SITE DEMOLITION PLAN	3
PROPOSED SITE PLAN	4
DRAWDOWN CHAMBER PLANS	5
DRAWDOWN CHAMBER SECTIONS	6
INLET & OUTLET STRUCTURES	7
SPILLWAY & CONCRETE DETAILS	8
TRAINING WALLS	9
OVERTOPPING PROTECTION DETAILS	10
MISCELLANEOUS DETAILS	11
WALL REPAIR DETAILS	12
DAM CROSS SECTIONS - 1	13
DAM CROSS SECTIONS - 2	14
BOARDWALK PLAN	15
BOARDWALK DETAILS	16
BOAT RAMP LAYOUT & PANEL DETAILS	17
BOAT RAMP GUIDEWAY & SECTIONS	18
BORING LOGS	19
BESECK LAKE STOP LOG RETROFIT (ADD ALTERNATE)	20

ABBREVIATIONS AND LEGEND

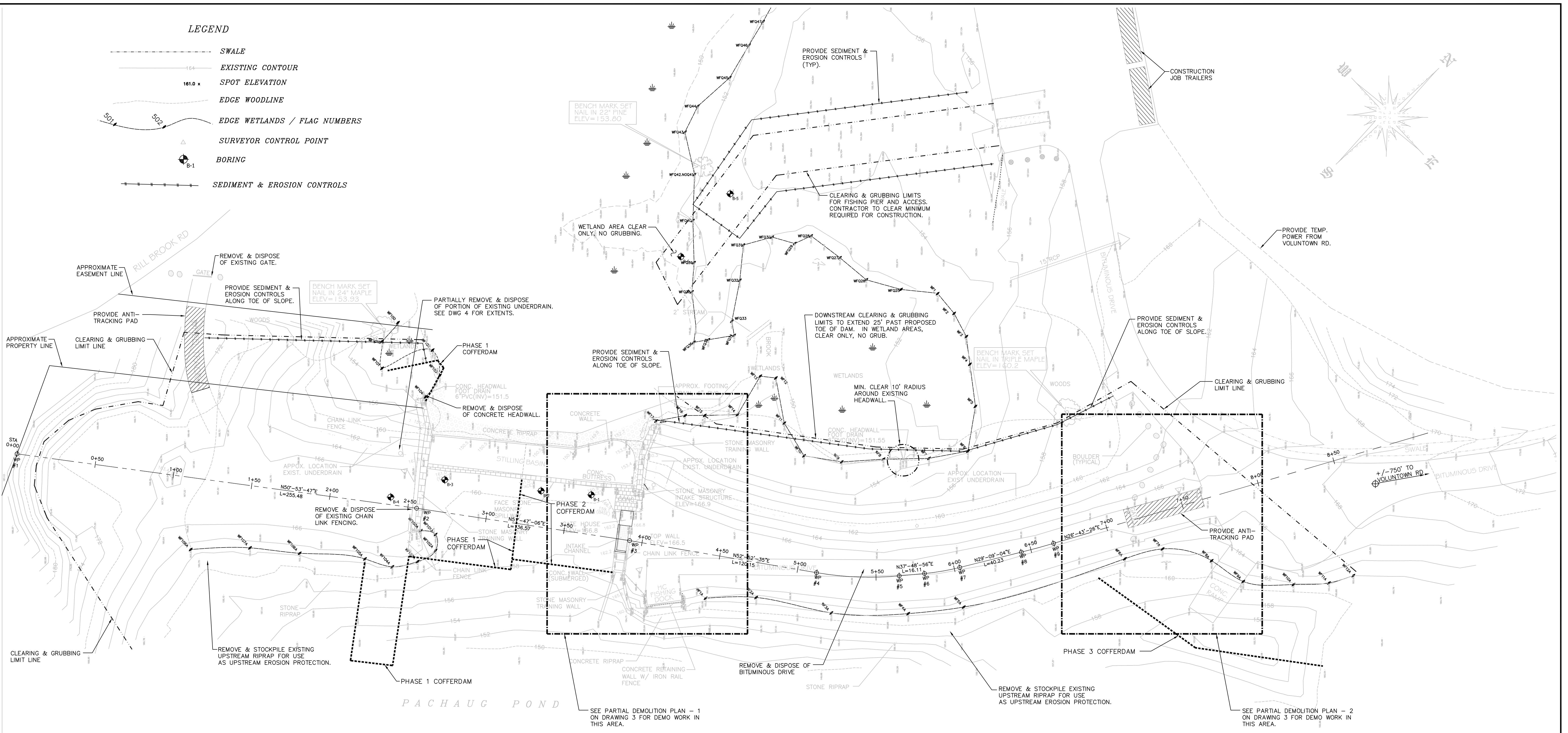
B.F.	= BOTTOM OF FOOTING ELEVATION
BL	= BASE LINE
CL	= CENTER LINE
C.J.	= CONSTRUCTION JOINT
D.H.S.	= DRILL HOLE SET
EL.	= ELEVATION
E.F.	= REINFORCING STEEL, EACH FACE
E.W.	= REINFORCING STEEL, EACH WAY
EXP. JT.	= EXPANSION JOINT
I.B.S.	= IRON BAR SET
INV.	= PIPE INVERT ELEVATION
PL	= PROPERTY LINE
T2A-T2B	= ACOE WETLAND DELINEATION TRANSECTS
T&B	= TOP AND BOTTOM
T.W.	= TOP OF WALL
TYP.	= TYPICAL INFORMATION
WF-30	= WETLAND FLAG & NUMBER
X 103.1	= EXISTING SPOT ELEVATIONS
105	= EXISTING CONTOUR ELEVATIONS
105	= NEW CONTOUR ELEVATIONS
B10	= BORING NO. AND HOLE LOCATION
	= TEMP. SILT FENCE OR HAY BALES
	= LIMITS OF WETLAND

GENERAL NOTES AND DETAILS			STATE OF CONNECTICUT		
REVISIONS			DEPT. OF ENERGY & ENVIR. PROTECTION		
Mark	Date	Description	WATER PLANNING & MANAGEMENT DIVISION		
Macchi Engineers	44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190	Date 3-1-19 Scale As Noted Drawn by JFB Approved JFB Drawing No DEEP Dam Inventory # 5805	44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190	Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT	
					1



LEGEND

- SWALE**
- EXISTING CONTOUR**
- SPOT ELEVATION**
- EDGE WOODLINE**
- EDGE WETLANDS / FLAG NUMBERS**
- SURVEYOR CONTROL POINT**
- BORING**
- SEDIMENT & EROSION CONTROLS**



SITE PREP PLAN

SCALE: 1" = 30'-0"

SEQUENCE OF CONSTRUCTION

- MOBILIZATION & SITE PREP**
 - Establish sedimentation and erosion control measures as shown on the plans.
 - Complete clearing as required.
 - Prepare and submit water handling plan for approval. Complete temporary water control measures.
 - Inspect and maintain E&S measures throughout the duration of the project.
- PHASE 1**
 - Provide cofferdam for Phase 1 work where shown on drawing.
 - Utilize existing low level structure and east half of spillway for water control.
 - Complete repairs to west half of spillway.
- PHASE 2**
 - Provide cofferdam for Phase 2 work where shown on drawing.
 - Utilize new low level structure and west half of spillway for water control.
 - Complete repairs to east half of spillway.
- PHASE 3**
 - Provide cofferdam for Phase 3 work where shown on drawing.
 - Utilize new low level drawdown and spillway for water control.
 - Complete new boat ramp and dry hydrant work.
- MISCELLANEOUS**
 - Contractor to submit construction schedule phasing all other work items as necessary.
 - Refer to specifications for maximum water drawdown limits during construction.

GENERAL NOTES:

- Deliniate all areas of construction on the ground with stakes. Deliniate all areas of clearing and flag any trees to remain. Coordinate with engineer.
- Install all temporary erosion control measures prior to any clearing. This includes anti-tracking pads, silt fence, haybales and any other erosion control measures required by the engineer.
- Complete clearing as required.
- Inspect erosion controls periodically and after every rainfall event. Replace and augment as needed or as directed.
- All disturbed areas within the project limits and outside the pond/wetlands limits shall receive topsoil and be seeded unless otherwise noted on the plans.
- If pumps are necessary, contractor to install erosion controls, pump discharge pads, etc., prior to pumping. Erosion controls shall be inspected by the engineer and approved.
- Refer to specifications for storage of materials during non working hours and protection of construction site when storms are anticipated.
- All temporary erosion and sediment control measures shall remain until turf has been established. Contractor shall be responsible for removal of all build up of sediment as required and removal of erosion controls after turf has been established.

WORKING POINT SUMMARY				
W.P.	STATION	N.COORD.	E.COORD.	DESCRIPTION
1	0+00	799,762.54	299,676.66	START POINT
2	2+55.48	799,923.68	299,874.92	FACE OF WALL
3	3+92.05	800,008.16	299,982.22	FACE OF WALL
4	5+12.20	800,080.67	300,078.02	P.C. CURVE #1
5	5+64.77	800,117.52	300,115.31	P.T. CURVE #1
6	5+80.88	800,130.24	300,125.19	P.C. CURVE #2
7	6+03.56	800,149.14	300,137.69	P.C. CURVE #2
8	6+43.79	800,184.27	300,157.29	P.C. CURVE #3
9	6+64.97	800,202.99	300,167.21	P.C. CURVE #3

CURVE SUMMARY			
	CURVE #1	CURVE #2	CURVE #3
R =	200.0'	150.0'	500.0'
L =	52.57'	22.68'	21.18'
△ =	15.06'	8.66'	2.43'
T =	26.43'	11.36'	10.60'

SITE PREP AND PHASING PLAN

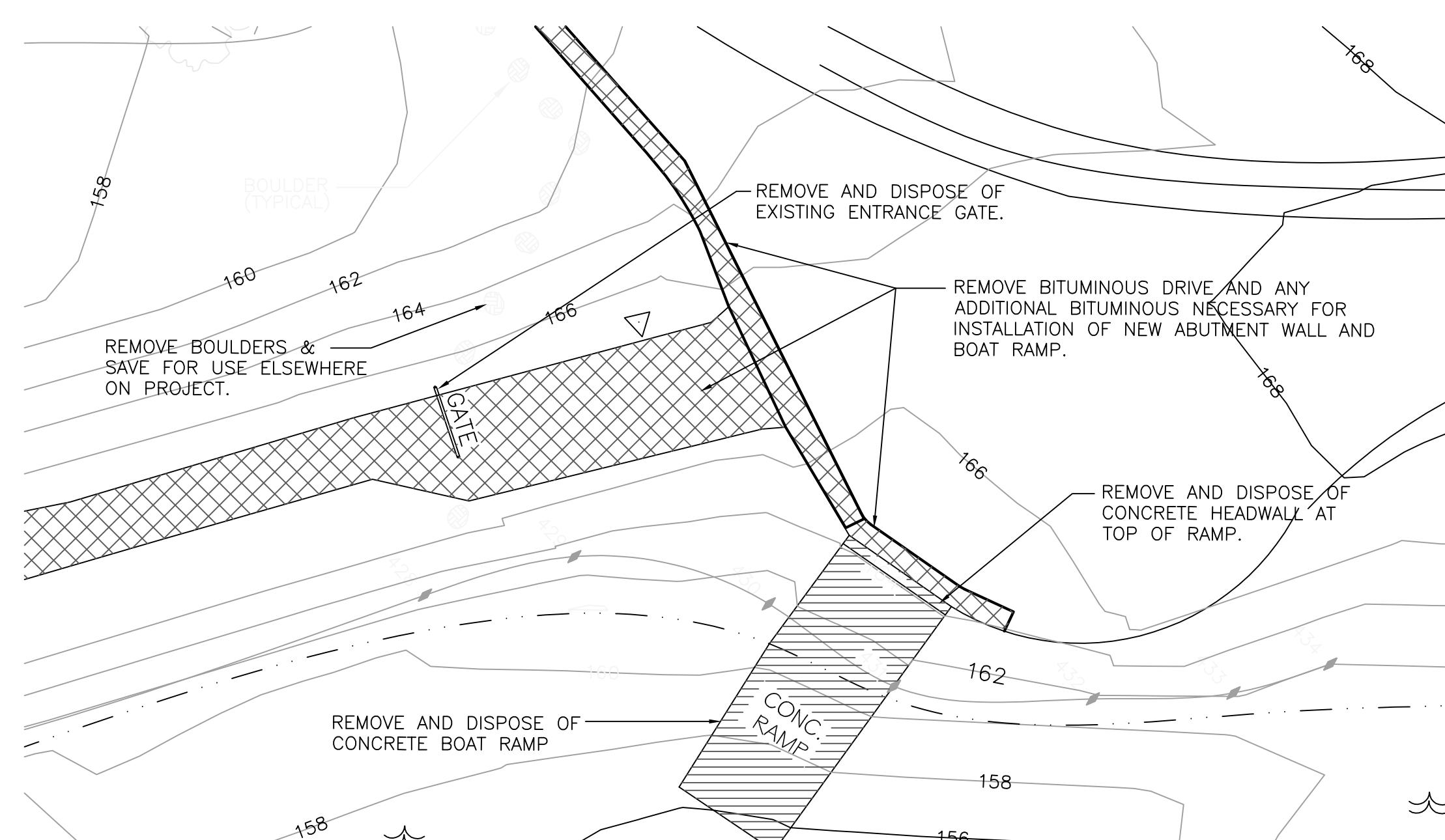
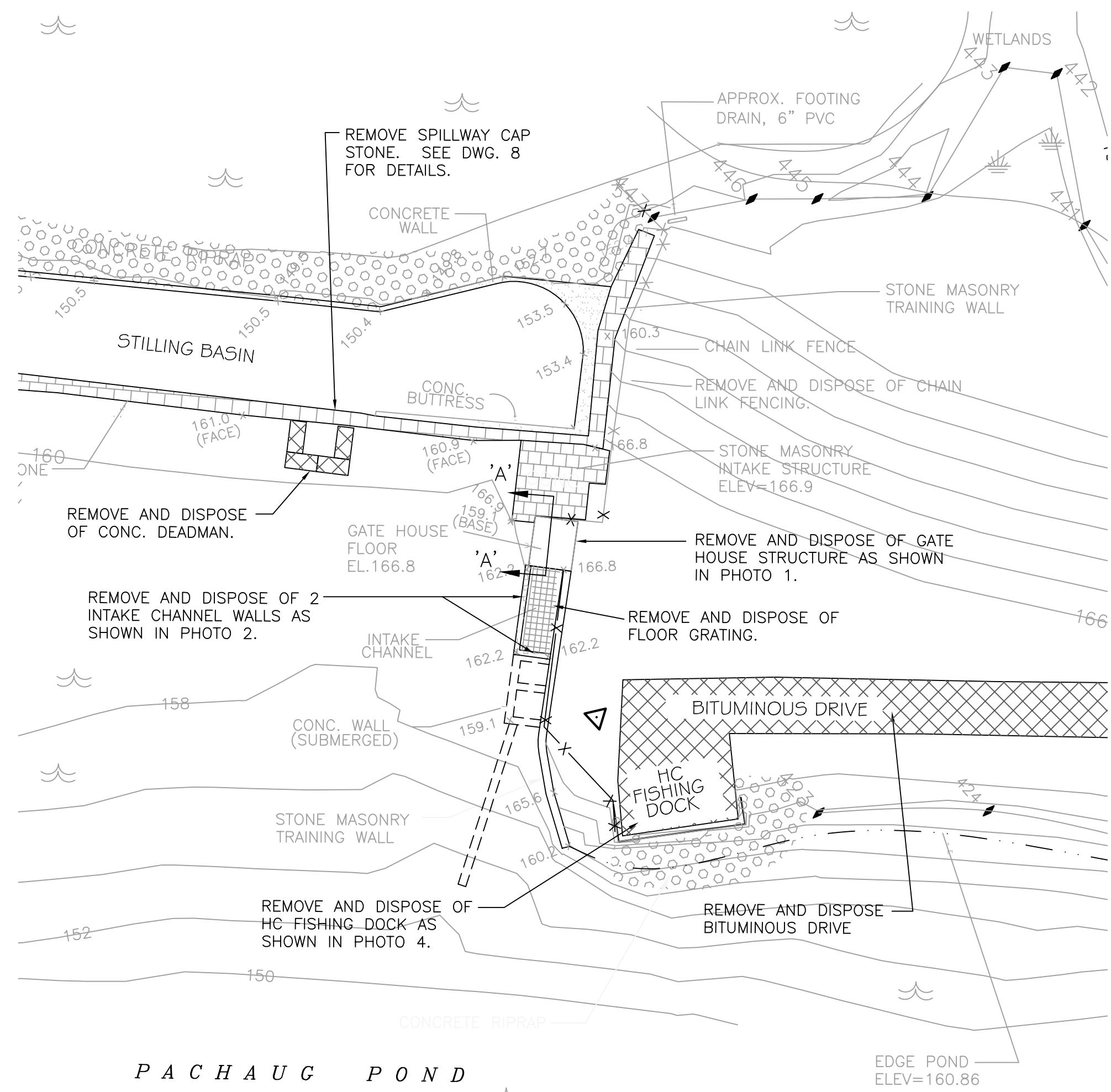
REVISIONS

Mark Date Description



STATE OF CONNECTICUT
DEPT. OF ENERGY & ENVIR. PROTECTION
WATER PLANNING & MANAGEMENT DIVISION

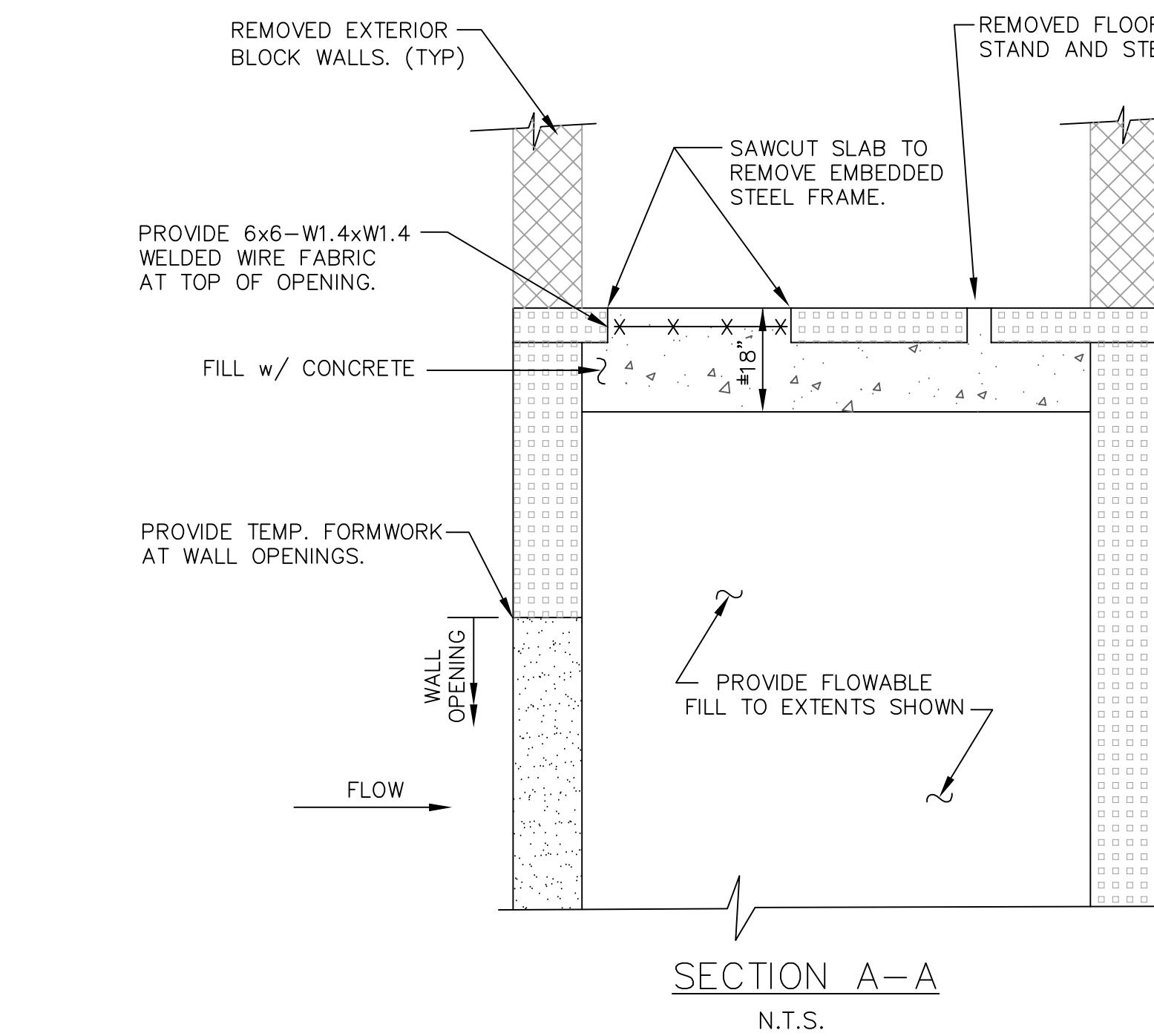
Macchi Engineers
44 Gillett Street
Hartford, Connecticut 06105
(860) 549-6190
Scale 1"=30'-0"
Drawn By JFB
Approved JFB
Drawing No 2
DEEP Dam Inventory # 5805



REMOVE AND DISPOSE OF ALL ELEMENTS OF GATE HOUSE ABOVE CONCRETE FRAMED SLAB.



REMOVE AND DISPOSE OF UPPER PORTION OF CONCRETE WALLS. (TYP OF 2)



REMOVE AND DISPOSE OF METAL RAILS.

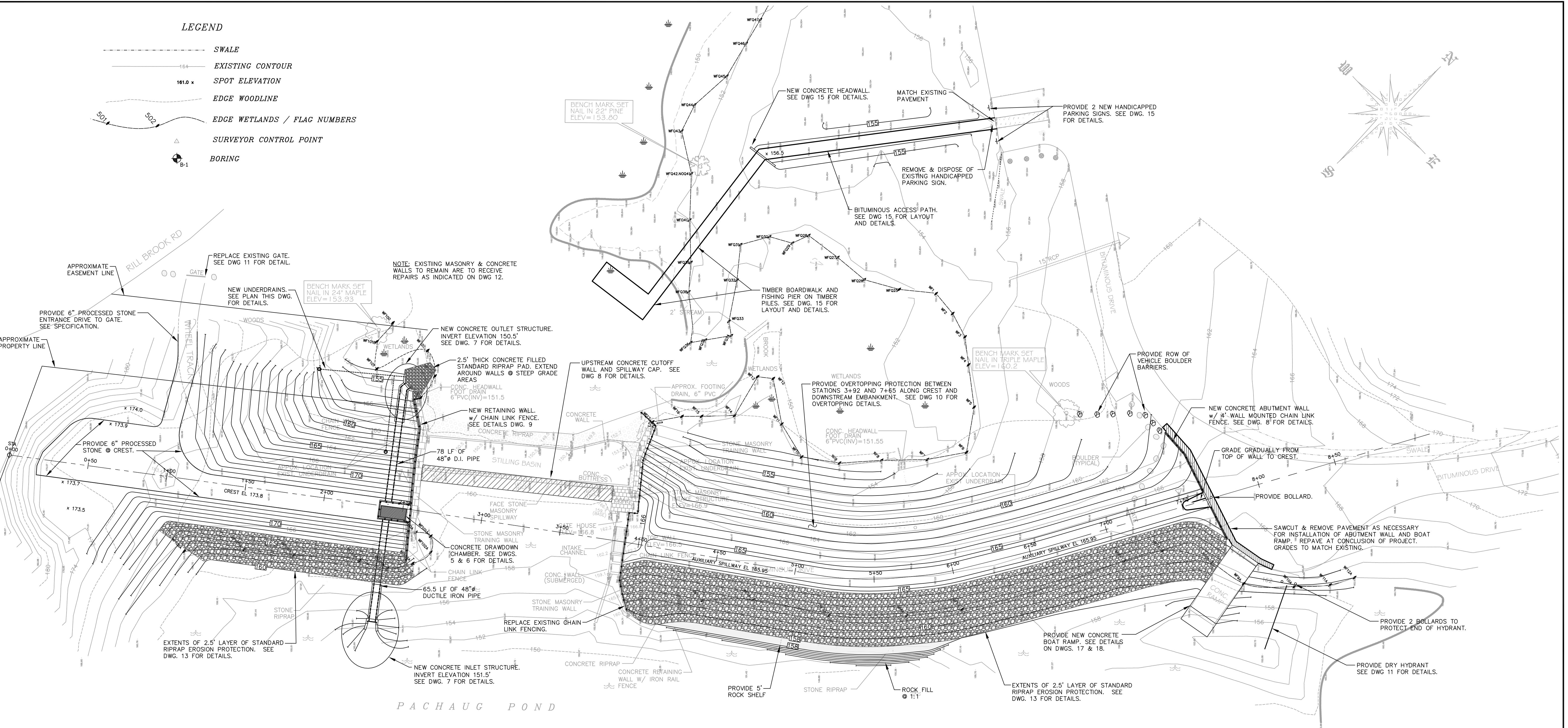


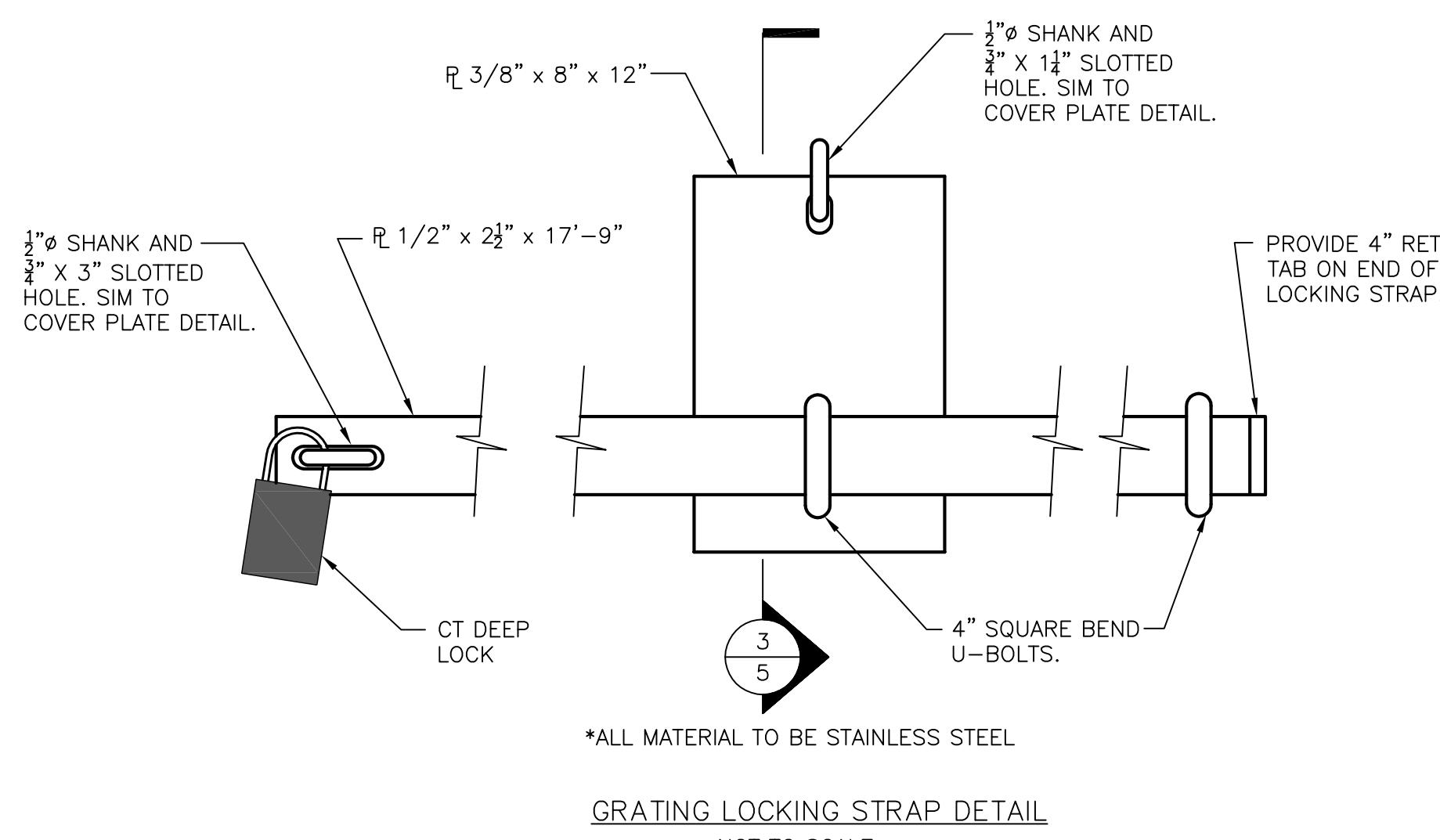
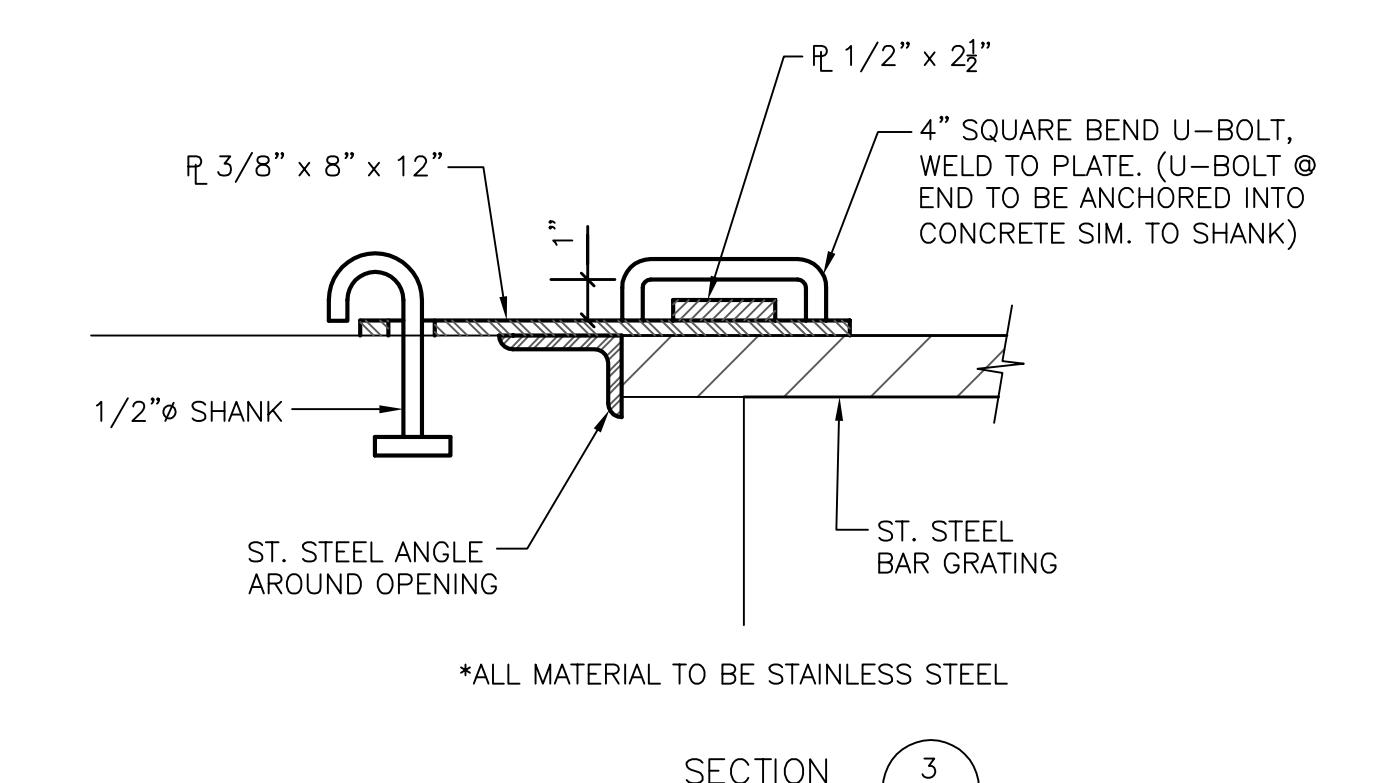
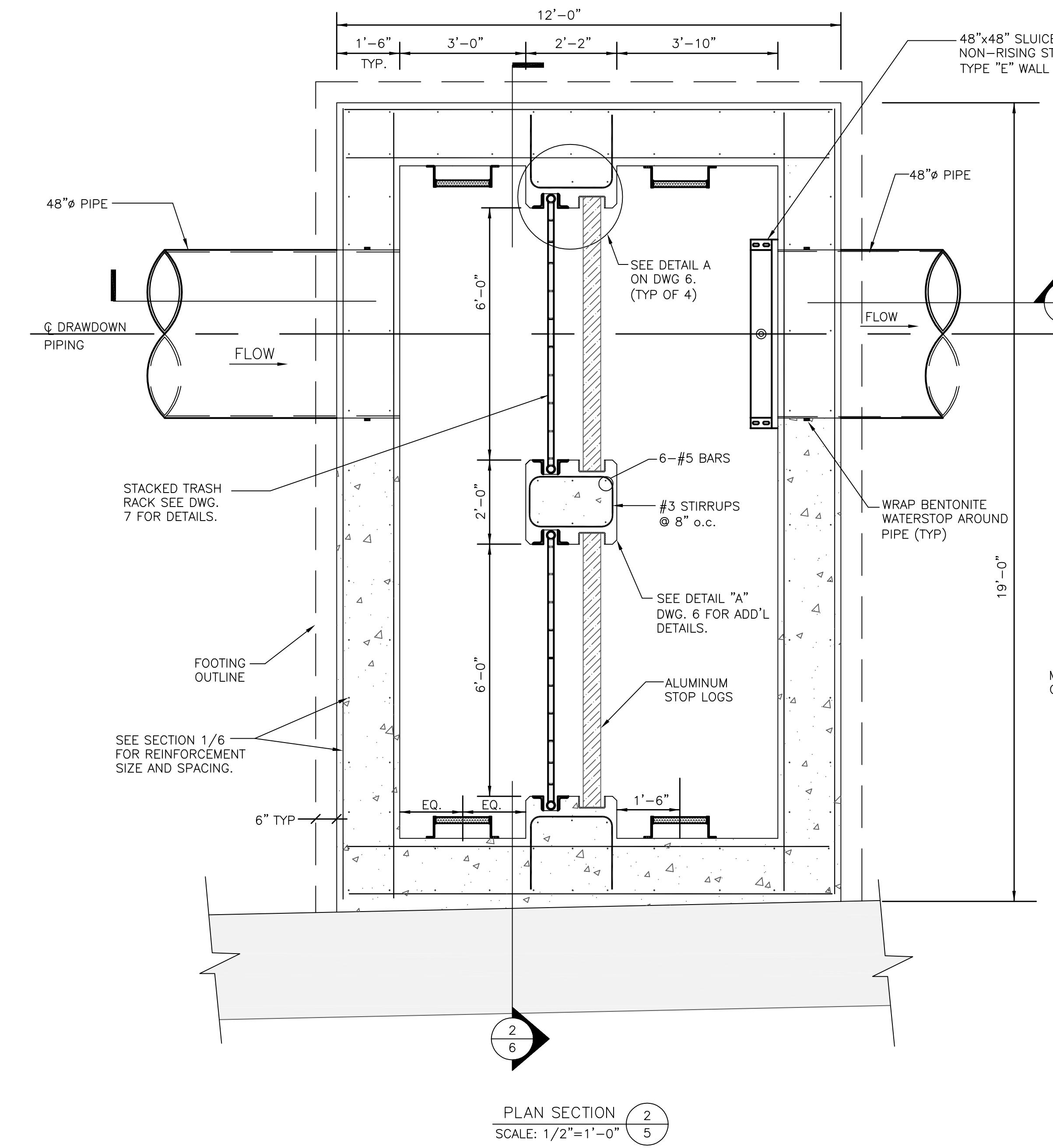
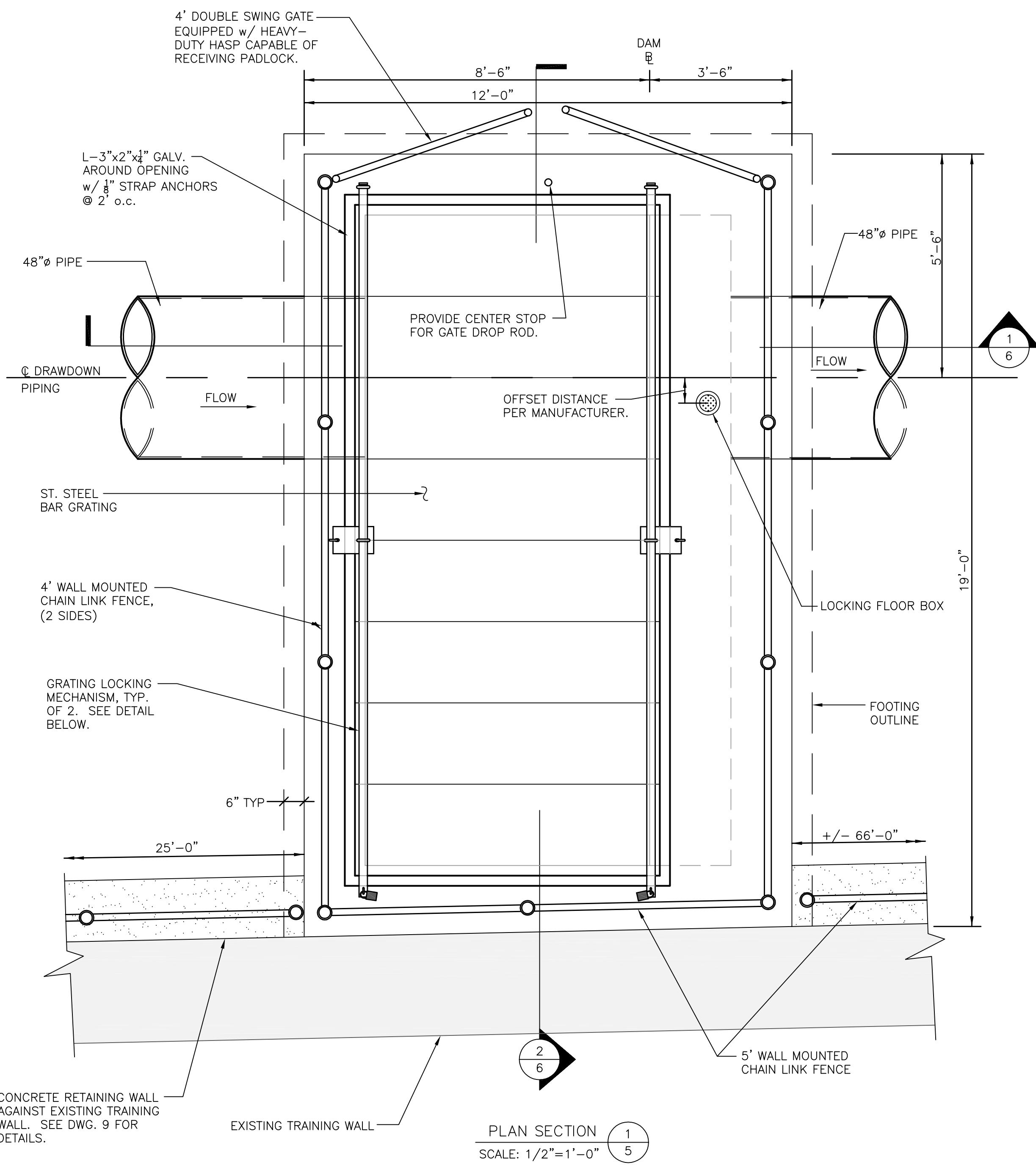
REMOVE AND DISPOSE OF ALL CONCRETE PORTIONS OF PLATFORM, INCLUDING CONCRETE SPLASHED RIPRAP.

SITE DEMOLITION PLAN			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description	Project:	Drawn By	Approved
			Macchi Engineers 44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190 No. 17241 PROFESSIONAL ENGINEERS LICENSED SIGNAL ENGINES	Date 3-1-19 Scale As Noted Drawn By JFB Approved JFB Drawing No 3	DEEP Dam Inventory # 5805

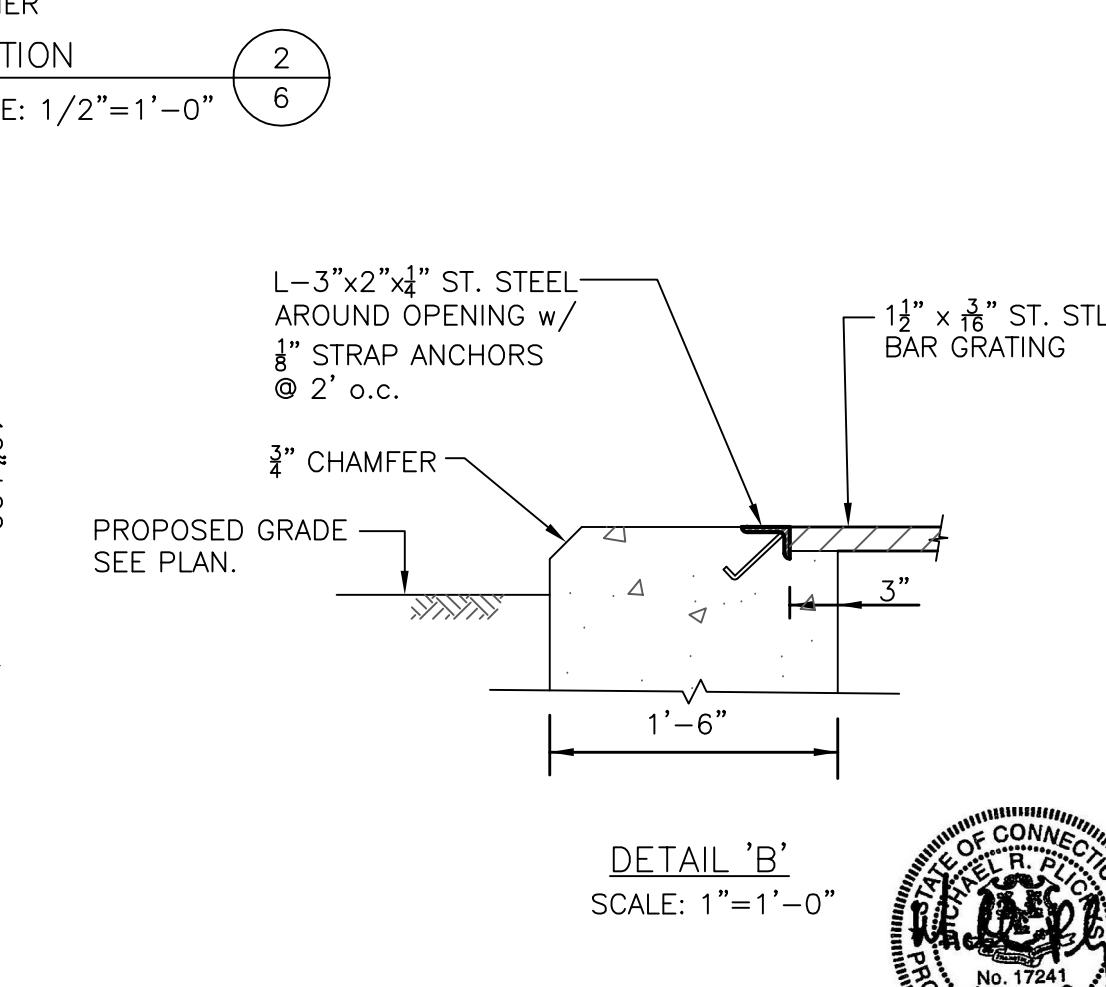
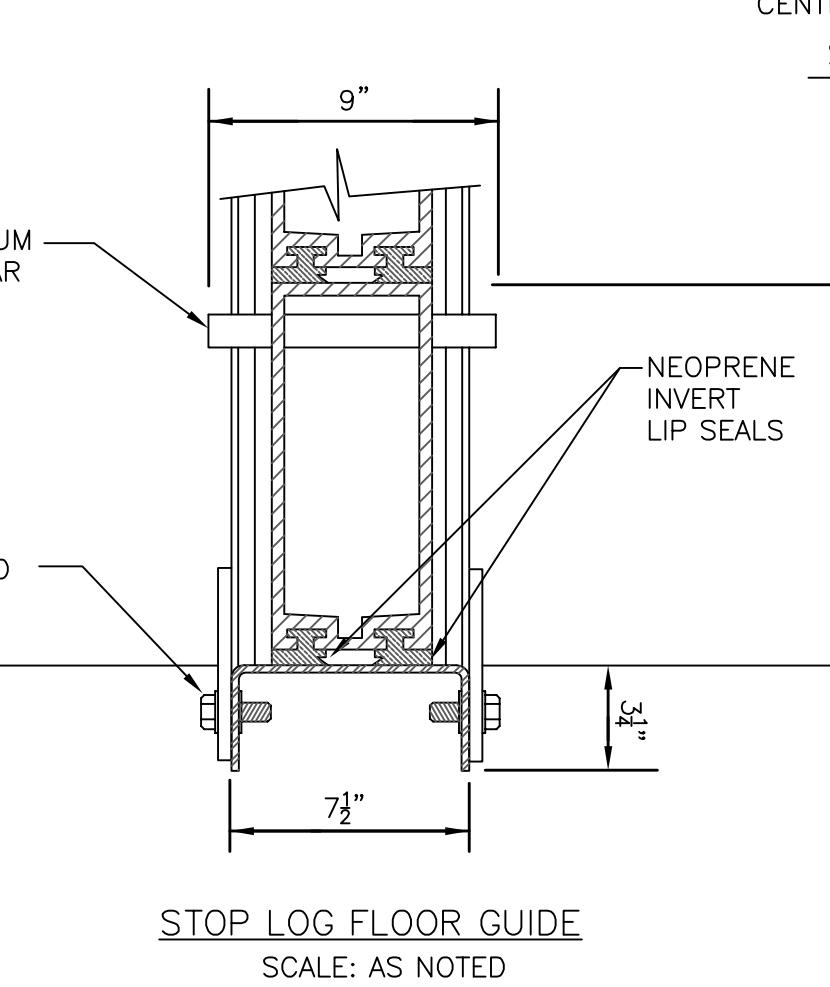
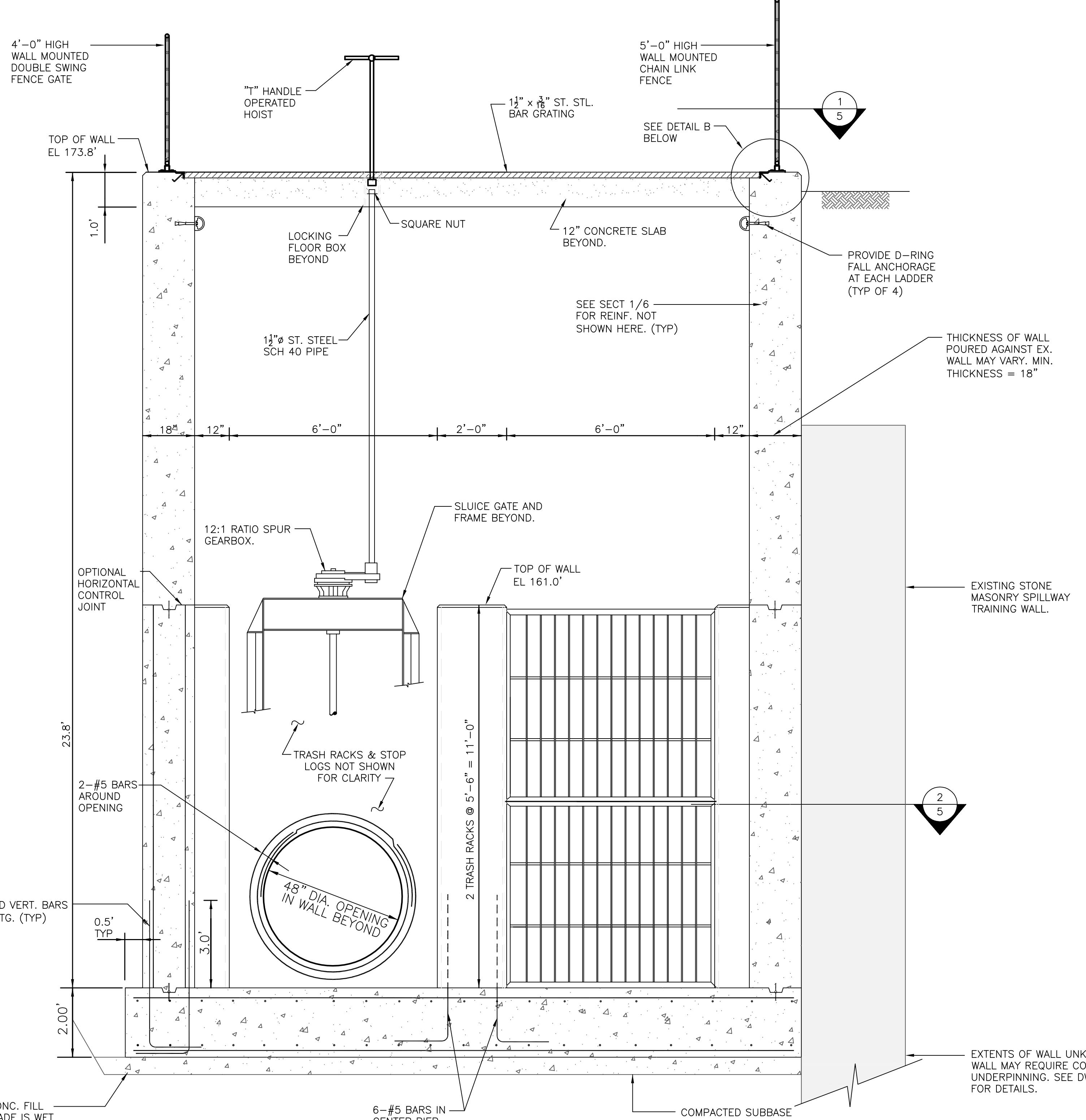
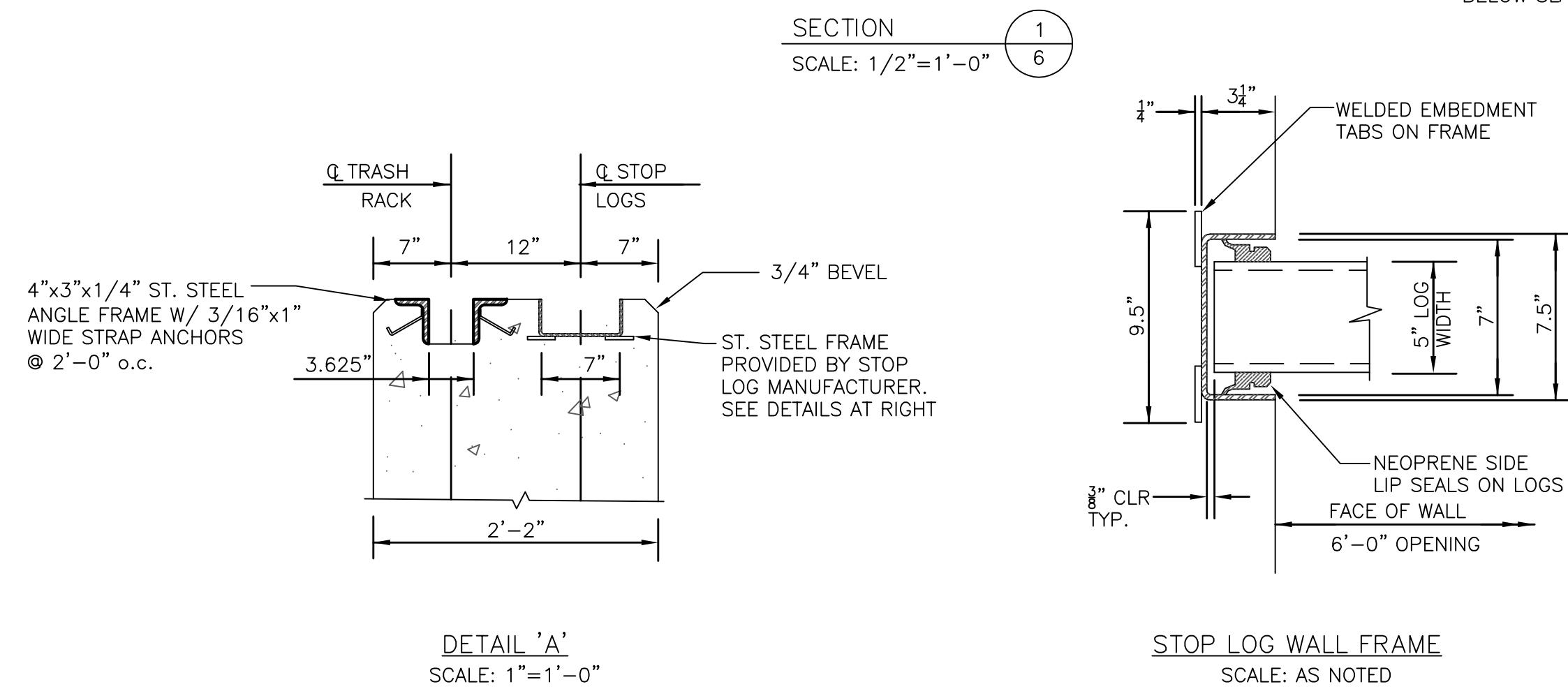
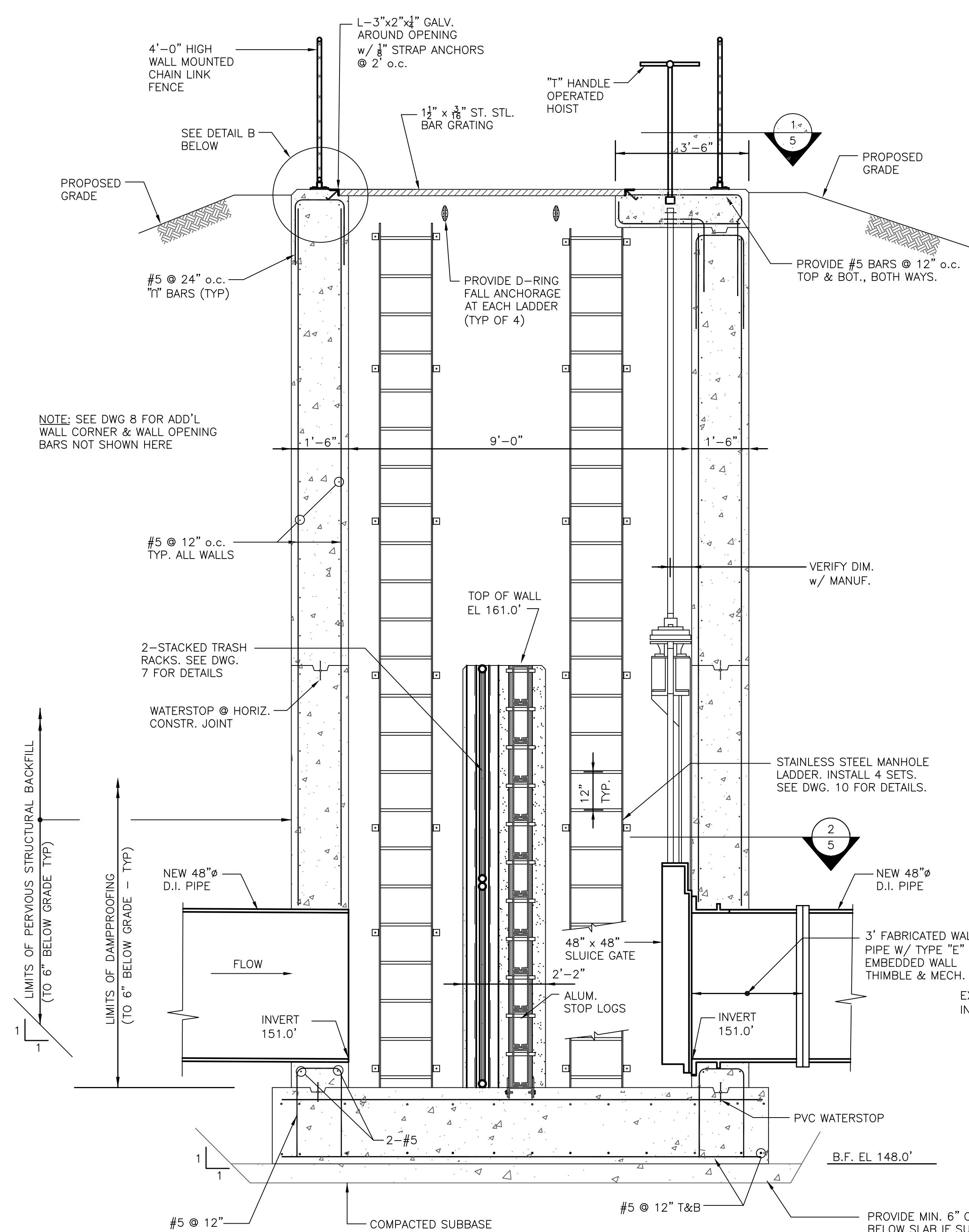
LEGEND

- SWALE
- EXISTING CONTOUR
- SPOT ELEVATION
- EDGE WOODLINE
- EDGE WETLANDS / FLAG NUMBERS
- SURVEYOR CONTROL POINT
- BORING

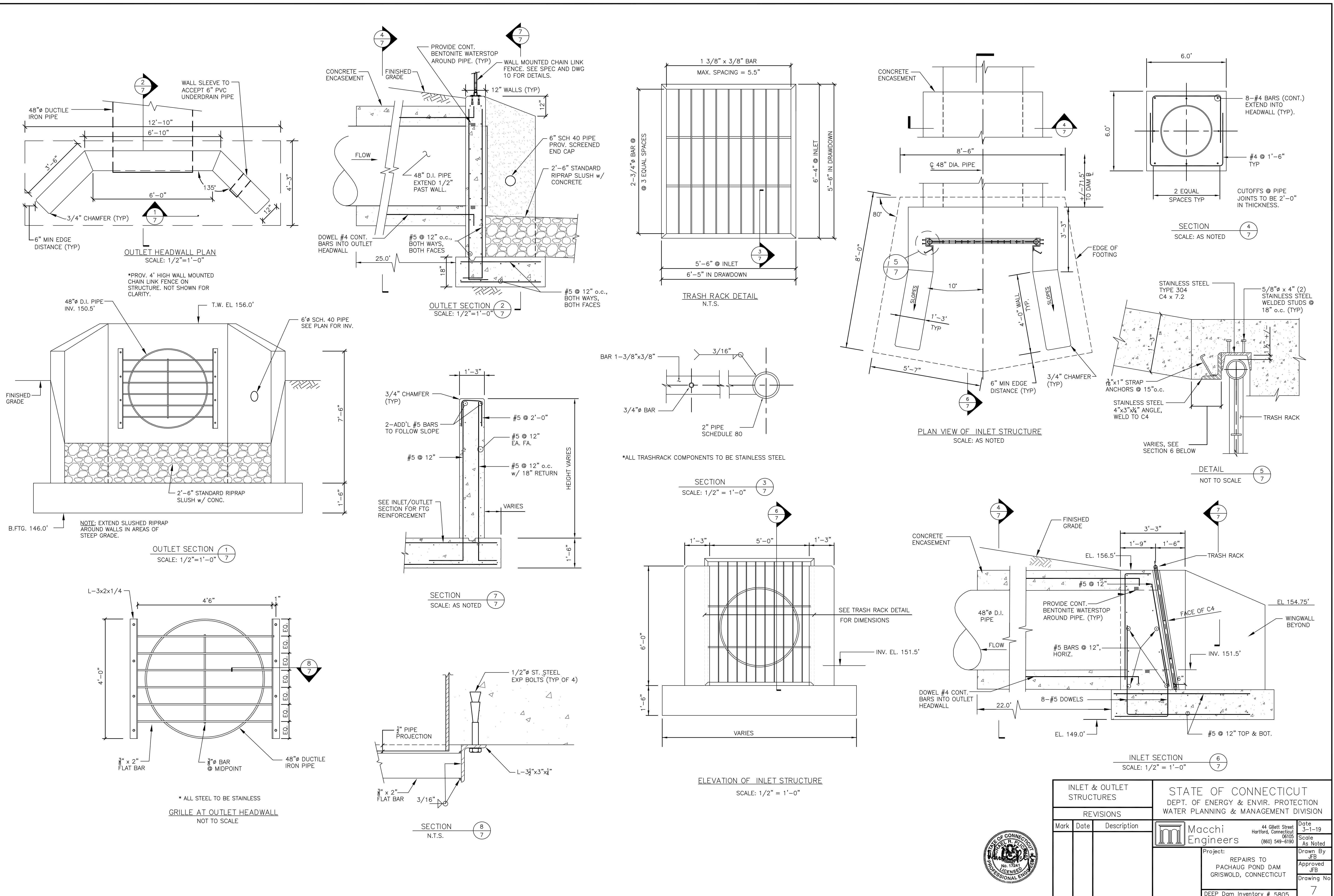


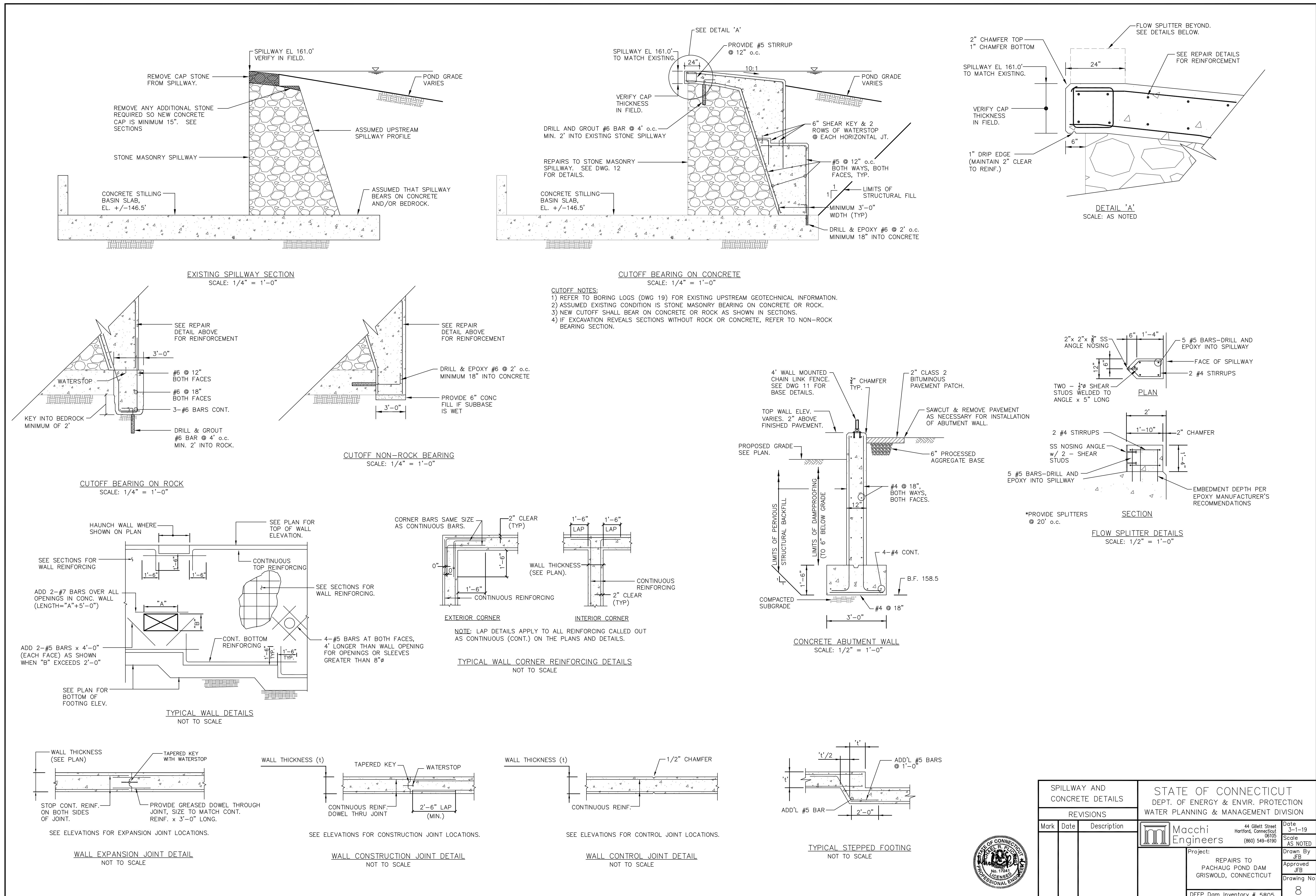


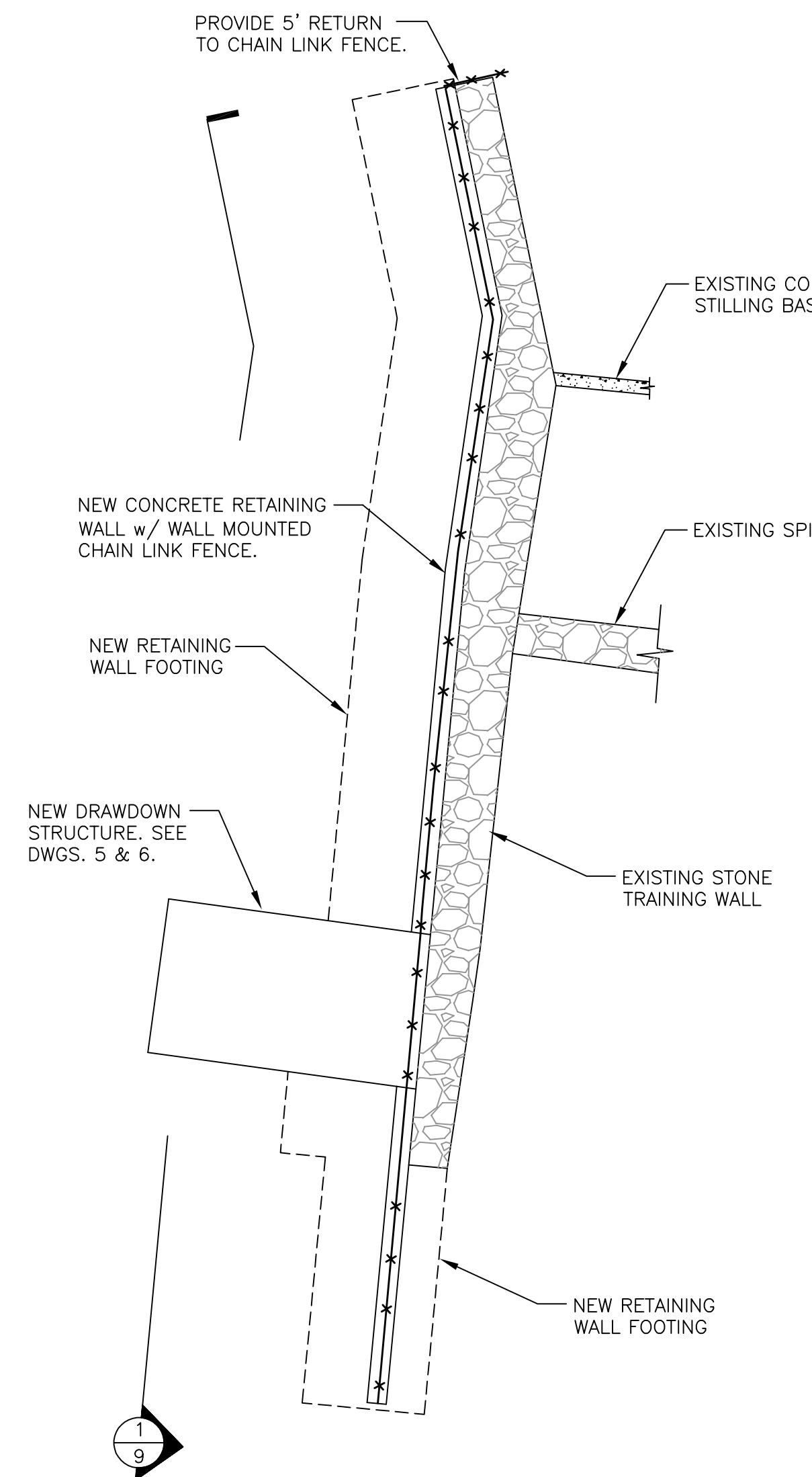
DRAWDOWN CHAMBER PLANS			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description	 Macchi Engineers	44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190	Date 3-1-19
			Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT		Drawn By JFB
					Approved JFB
					Drawing No 5
			DEEP Dam Inventory # 5805		



DRAWDOWN CHAMBER SECTIONS			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description	 Macchi Engineers	44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190	Date 3-1-19
				Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT	Scale As Noted
					Drawn By JFB
					Approved JFB
					Drawing No 6
				DEEP Dam Inventory # 5805	



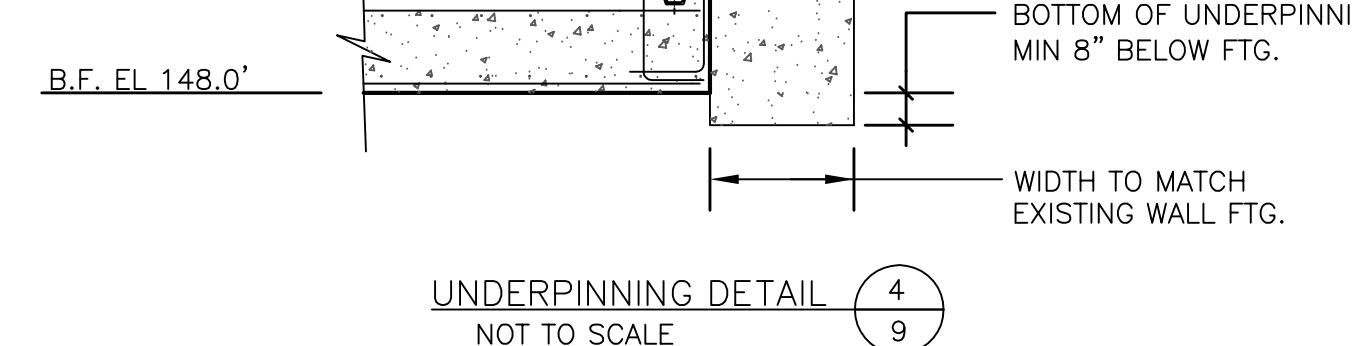




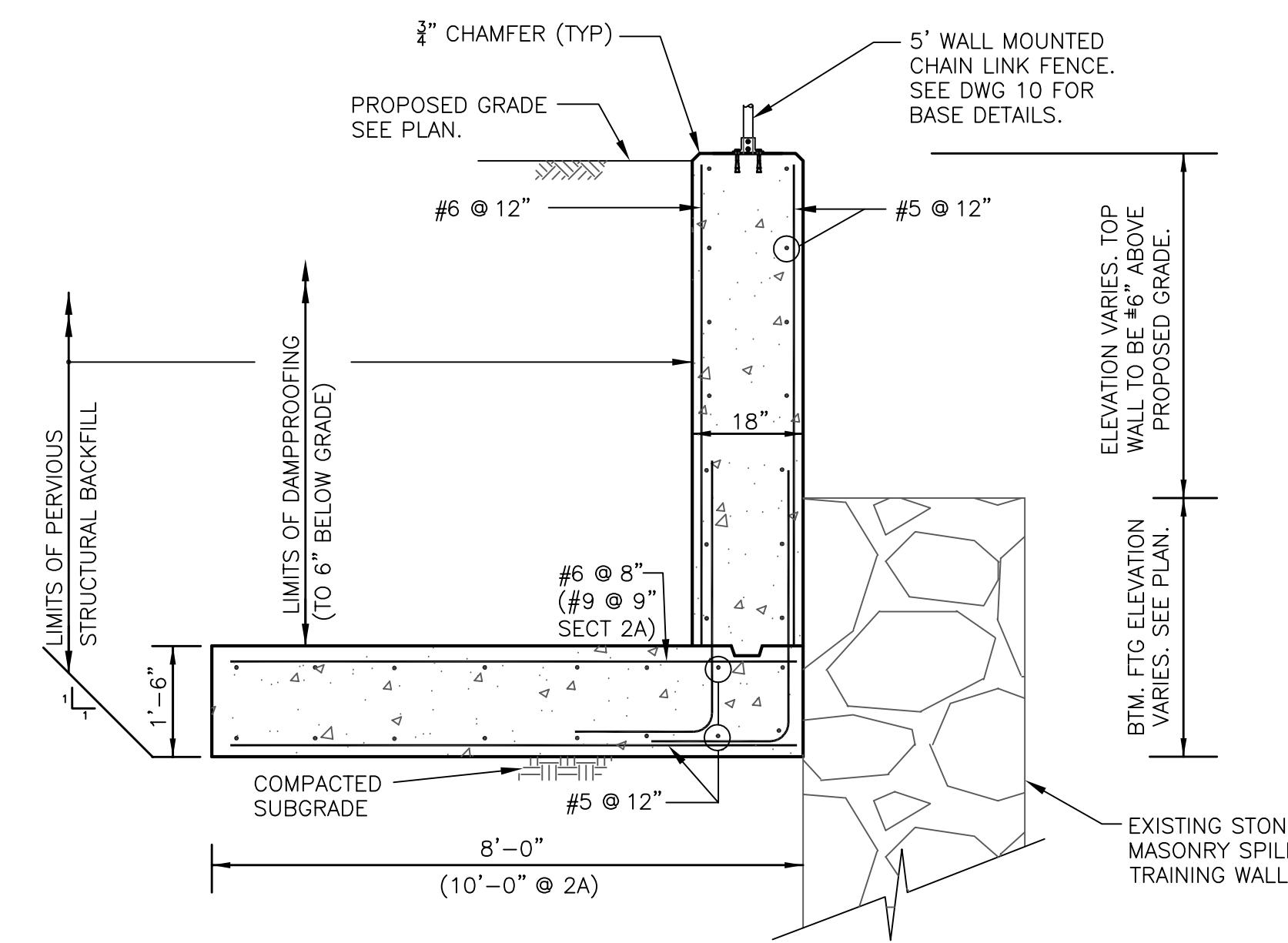
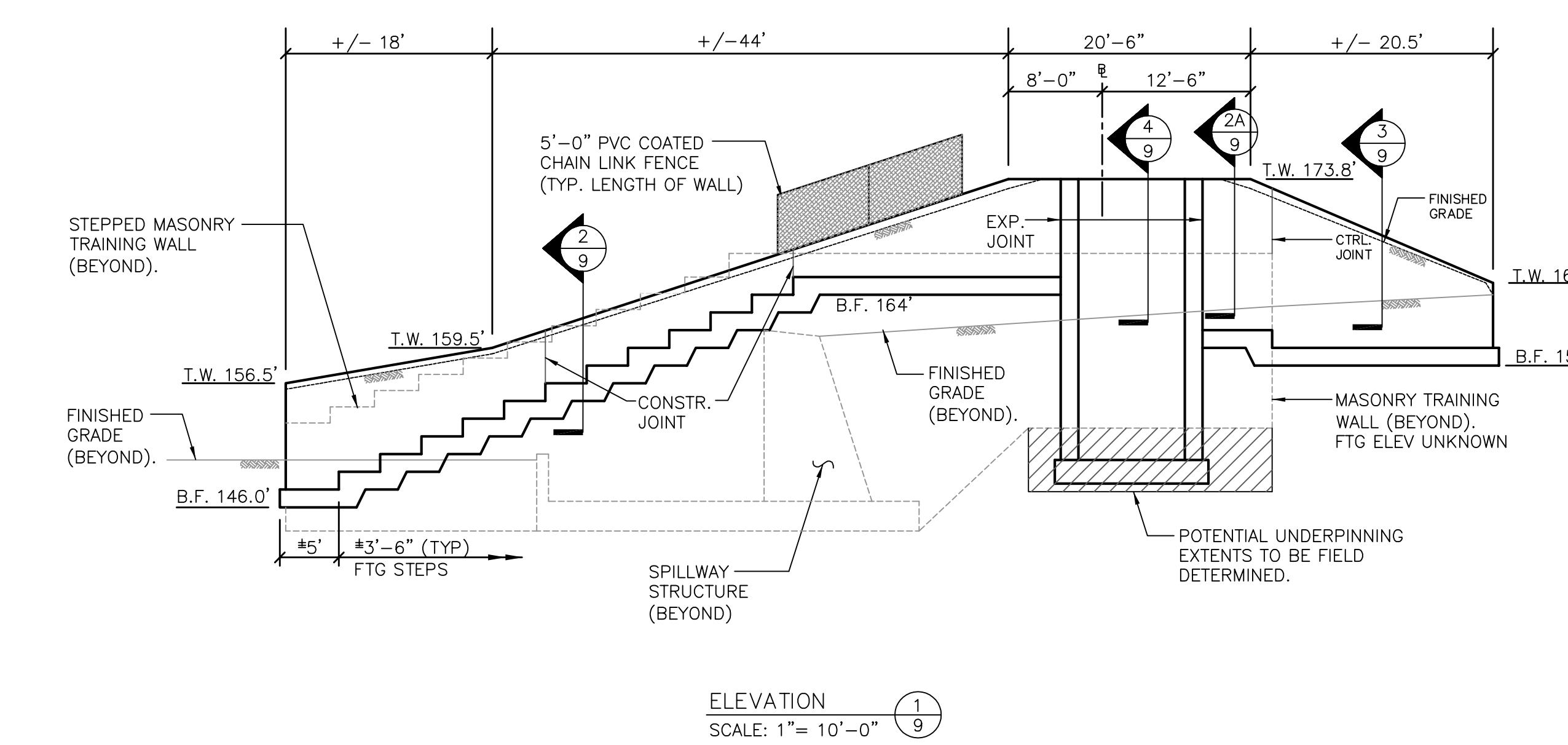
WEST TRAINING WALL PLAN
SCALE: 1" = 10'-0"

UNDERPINNING NOTES:

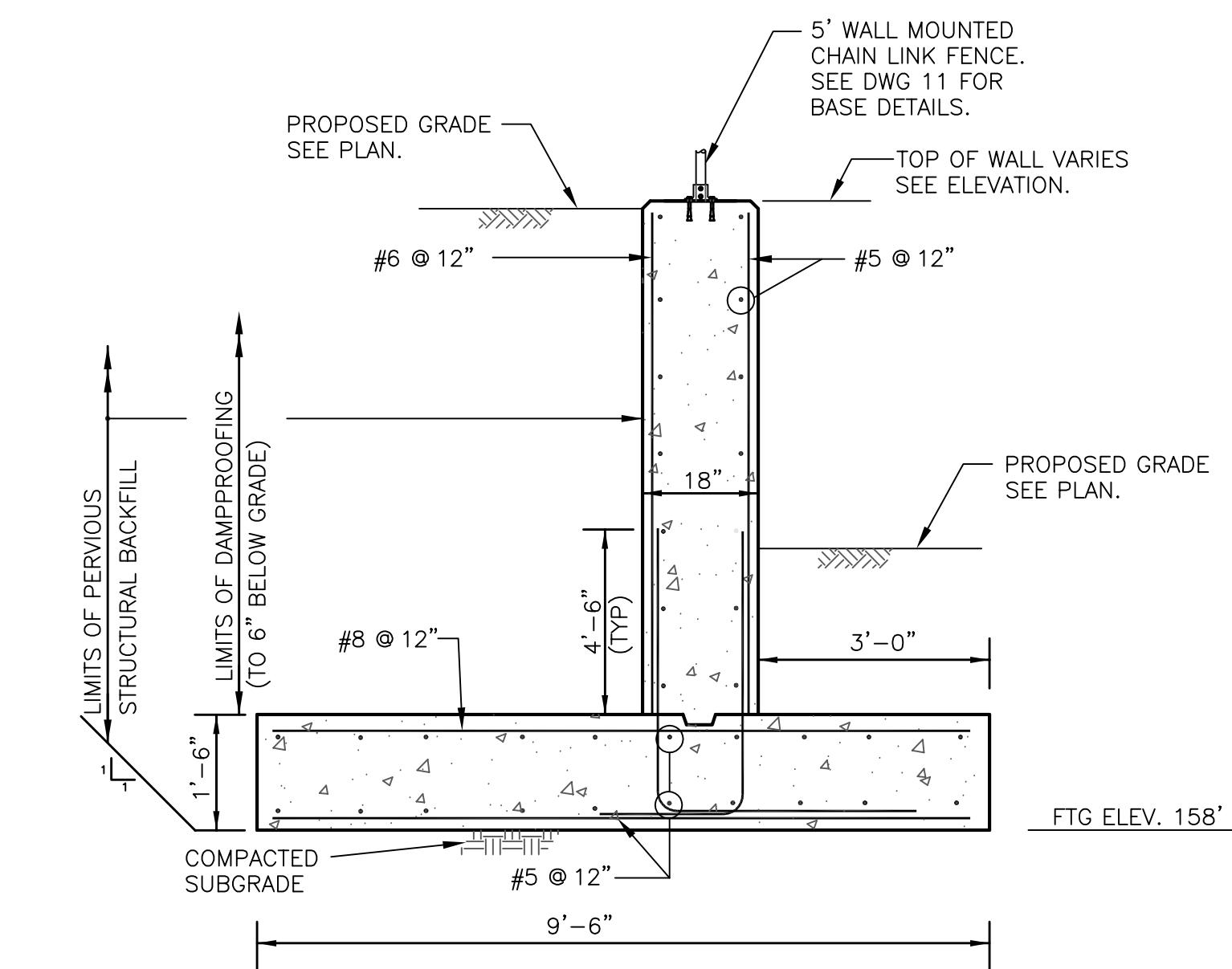
- 1) EXPOSE EXISTING MASONRY WALL FTG. FOR INSPECTION BEFORE PROCEEDING W/ EXCAVATION.
- 2) DO NOT OVER EXCAVATE.
- 3) POUR/EXCAVATE IN DRY CONDITIONS.
- 4) DO NOT EXCAVATE IF RAIN IS ANTICIPATED.
- 5) EXCAVATE 4' WIDE SECTIONS MAXIMUM. ALTERNATE EXCAVATIONS.
- 6) CONTRACTOR TO SUBMIT PROPOSED UNDERPINNING PROCEDURE FOR REVIEW.



UNDERPINNING DETAIL
NOT TO SCALE



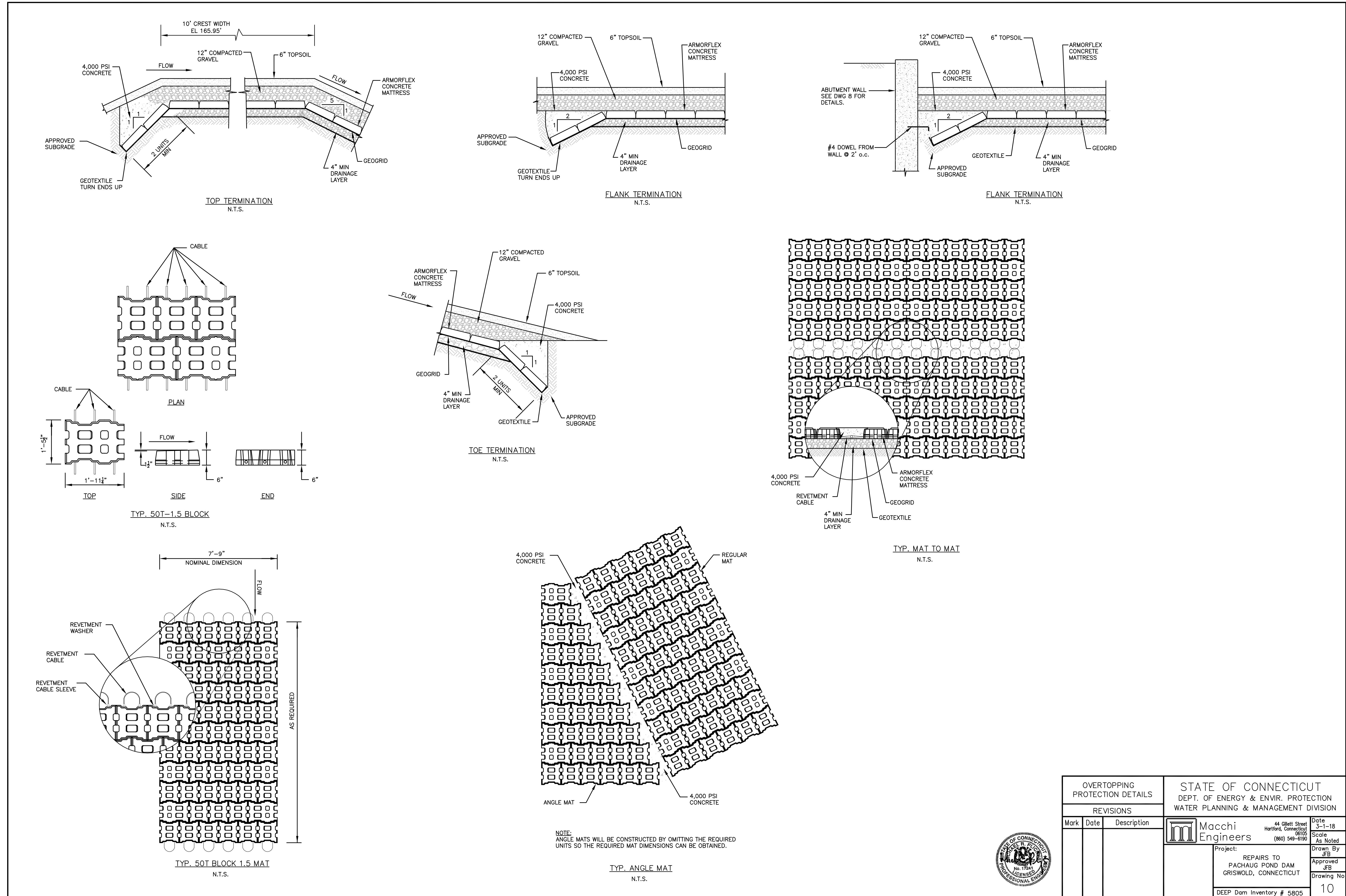
RETAINING WALL AGAINST EXISTING MASONRY WALL
SCALE: 1/2" = 1'-0"



TYPICAL RETAINING WALL
SCALE: 1/2" = 1'-0"

TRAINING WALLS			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description			
Macchi Engineers	3-01-19		44 Gillett Street Hartford, Connecticut 06105 (860) 546-6190	Date 3-01-19	
			Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT	Drawn By JFB	
				Approved JFB	
				Drawing No Drawing No	
			DEEP Dam Inventory # 5805		9





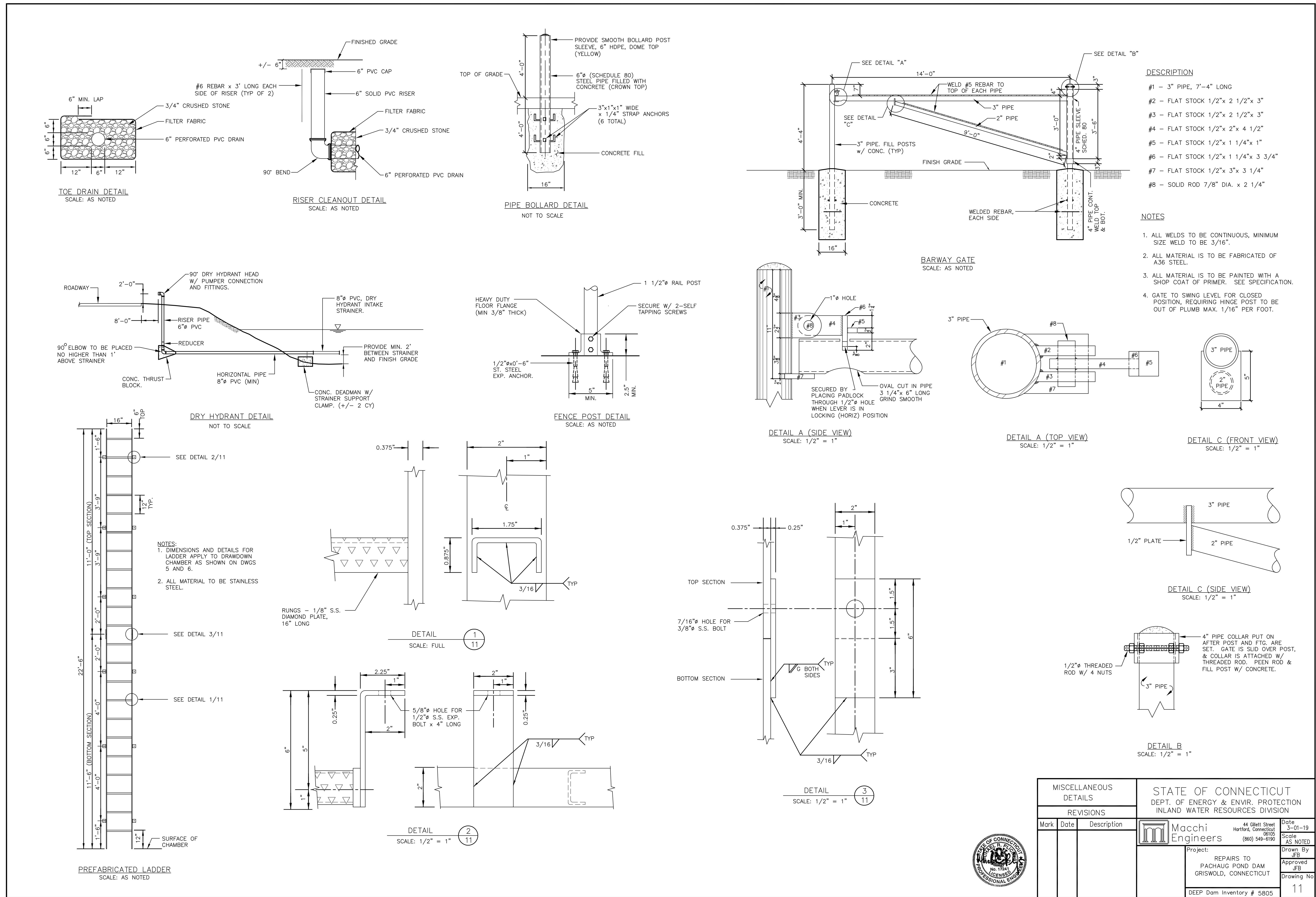




PHOTO 1

N.T.S.



PHOTO 2

N.T.S.

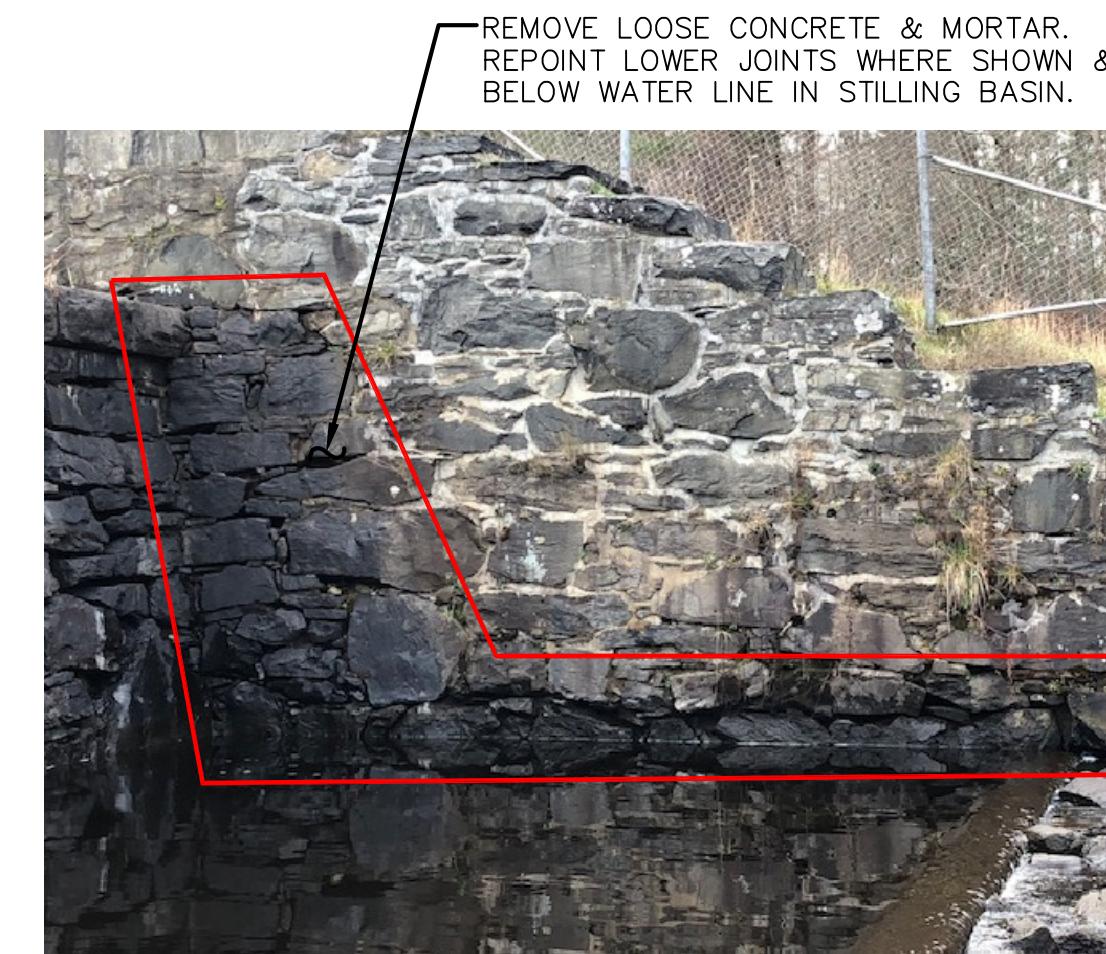
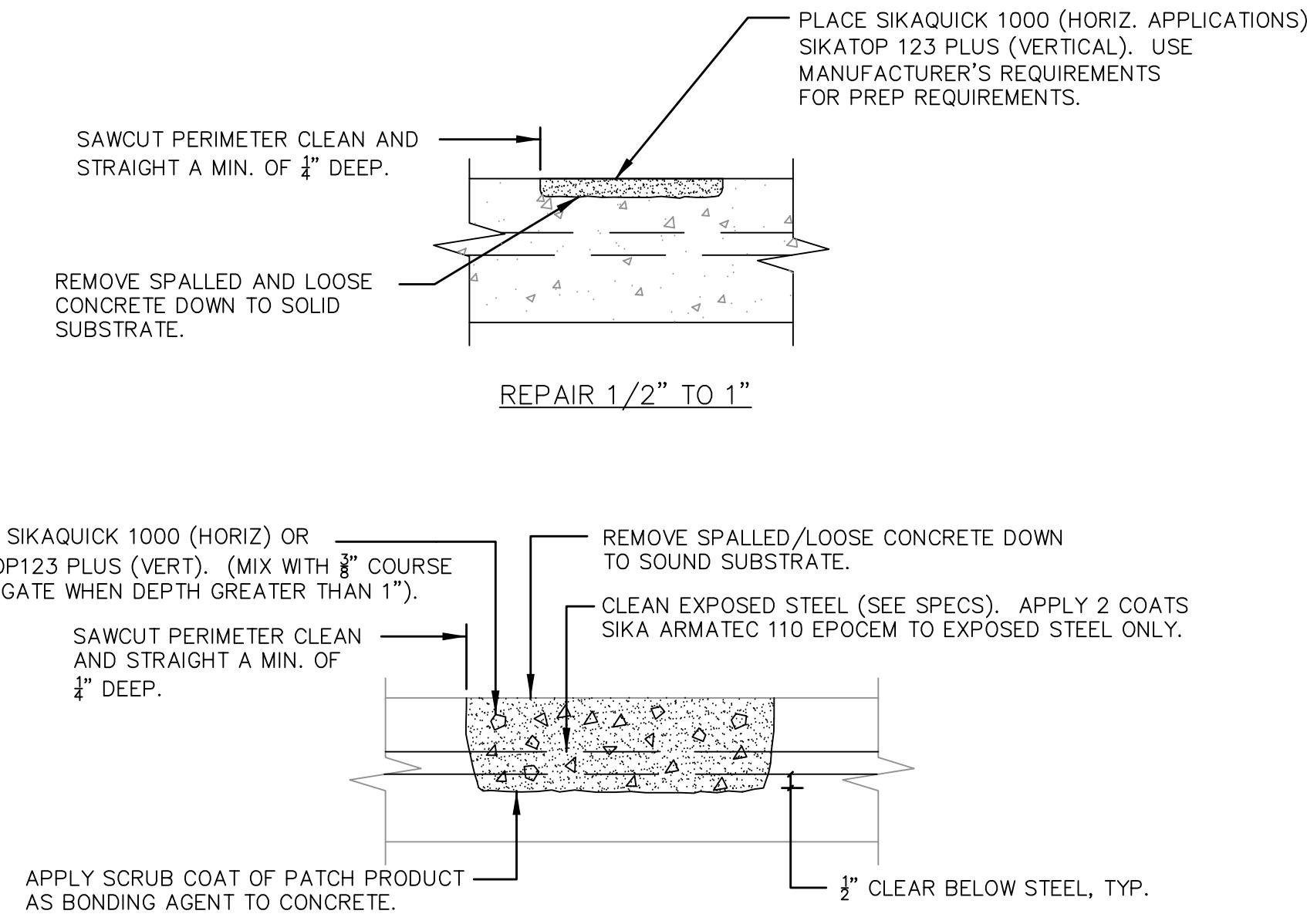


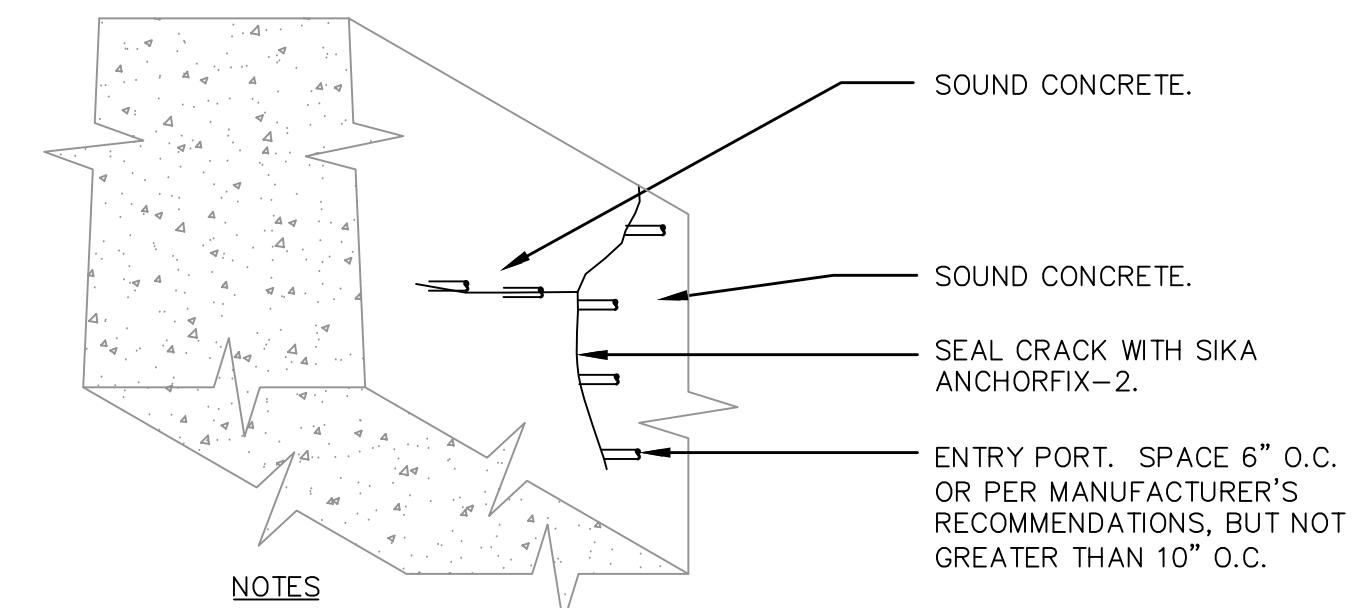
PHOTO 3

N.T.S.



TYPICAL CONCRETE SPALL REPAIRS

SCALE: NONE



TYPICAL WALL CRACK REPAIR

SCALE: NONE

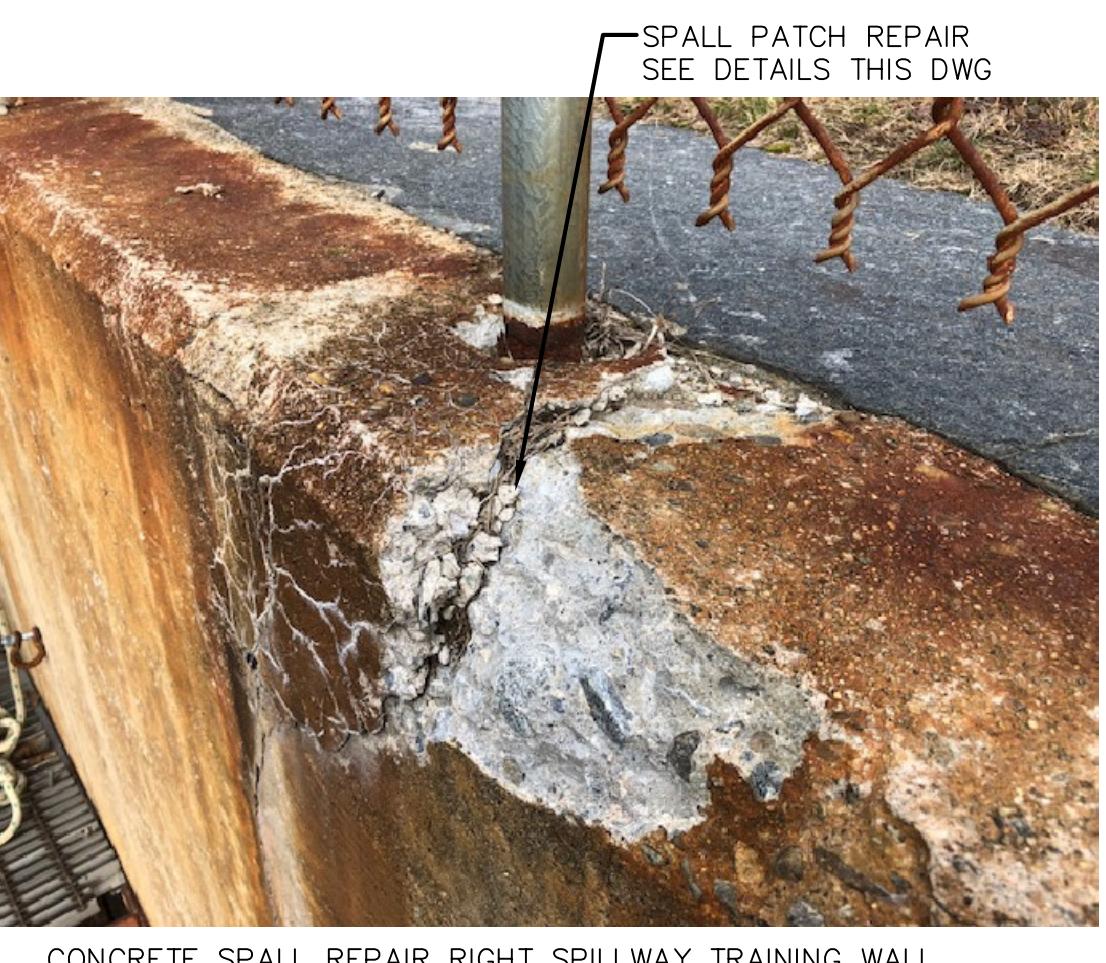


PHOTO 4

N.T.S.



PHOTO 5

N.T.S.

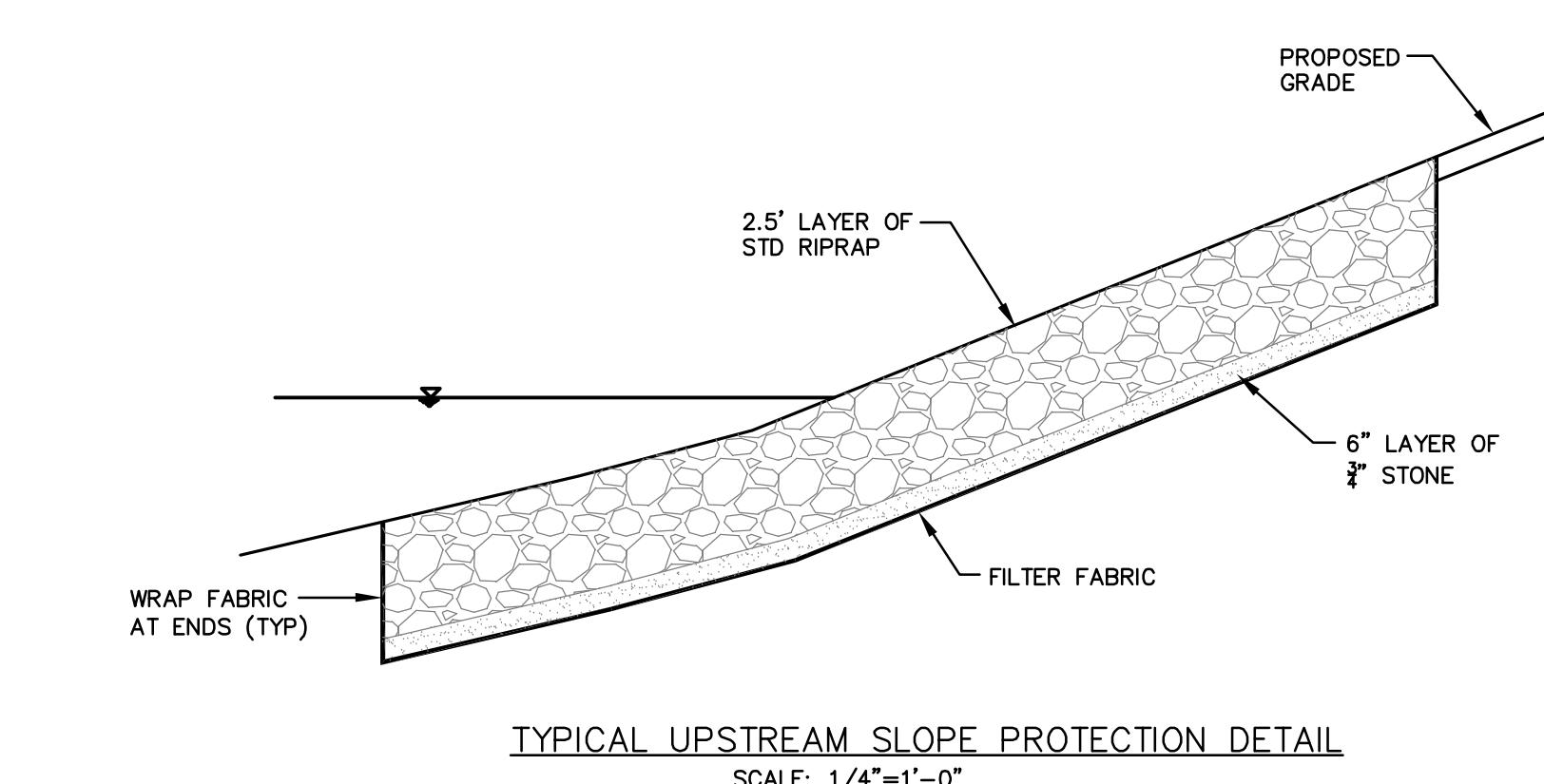
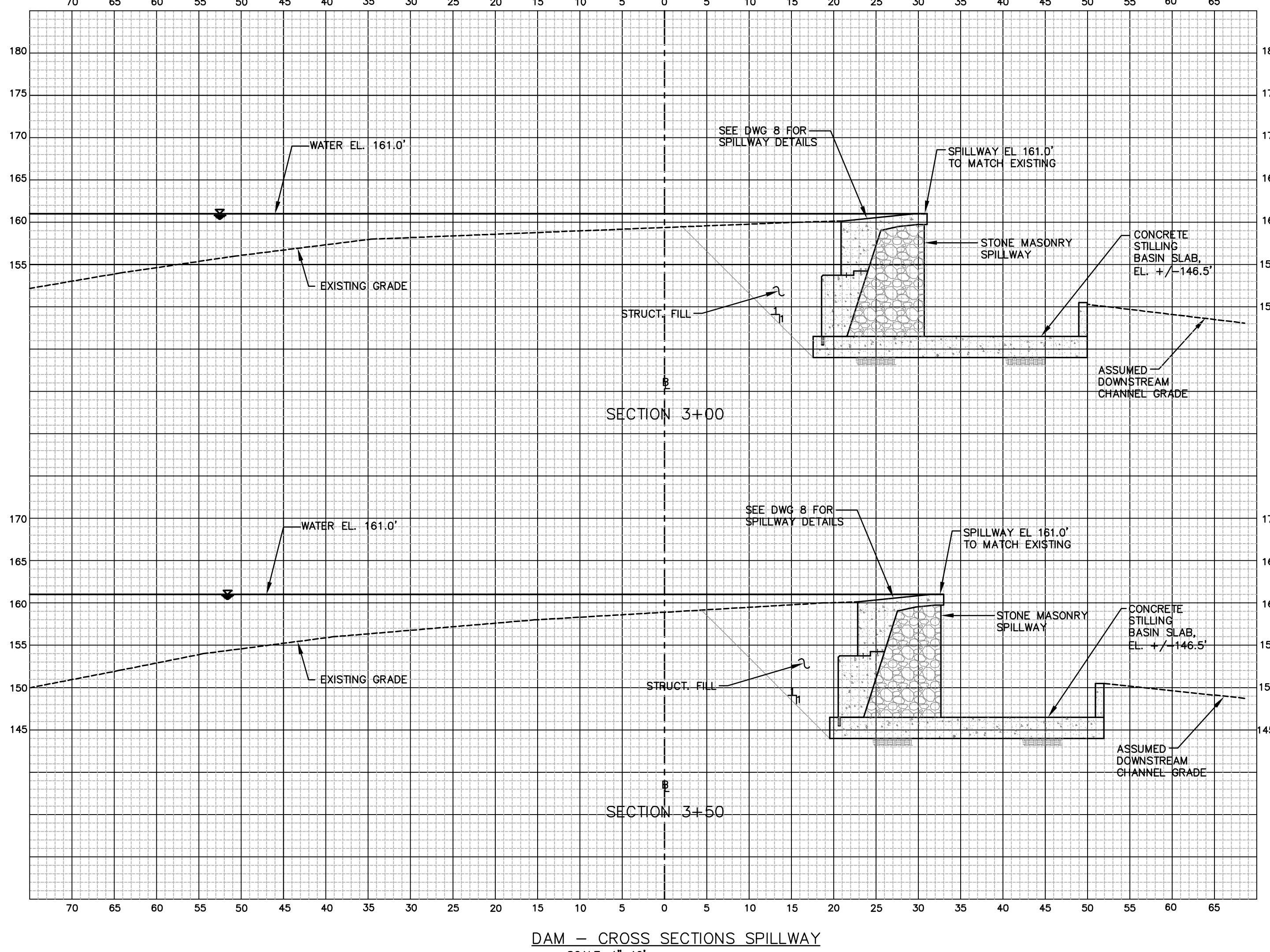
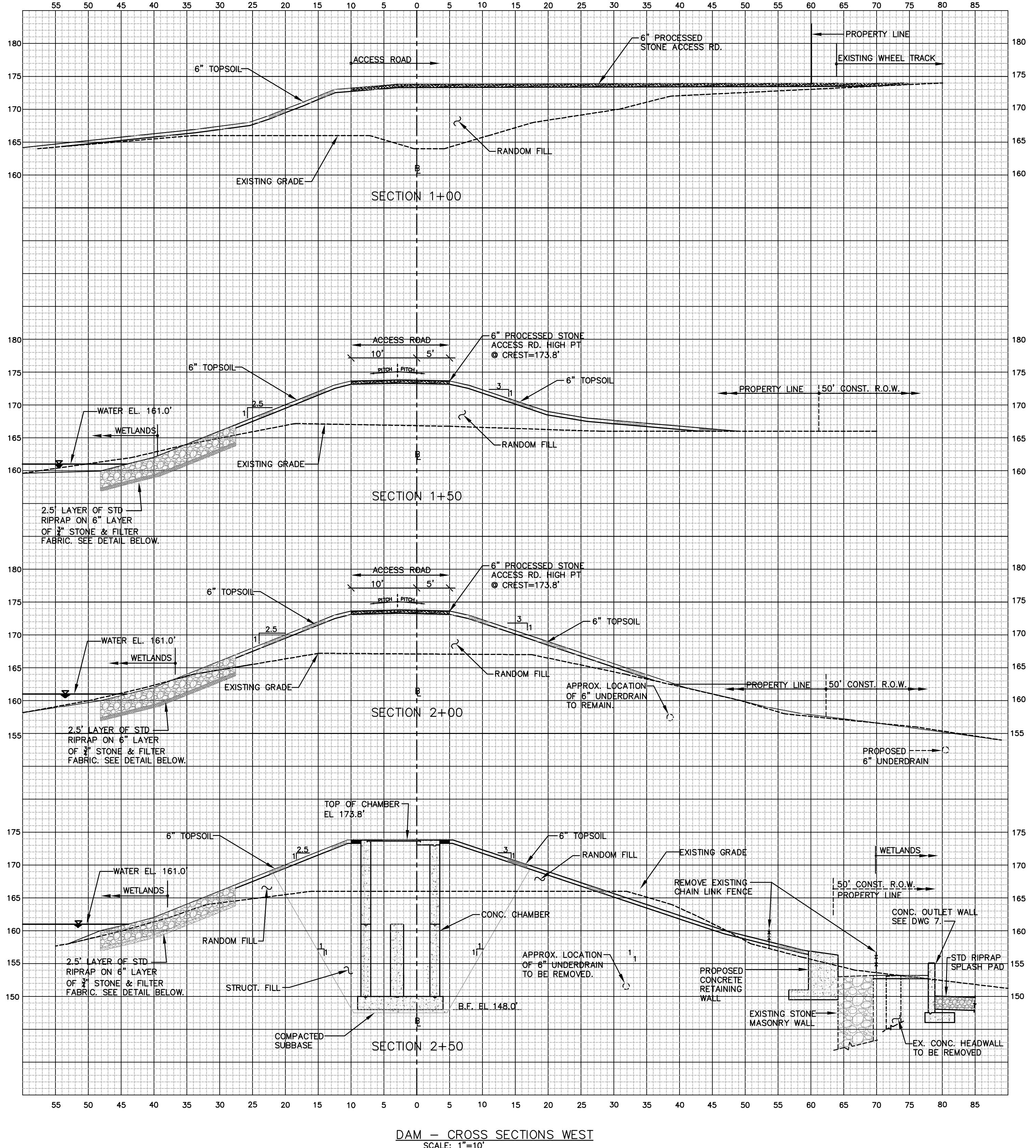


PHOTO 6

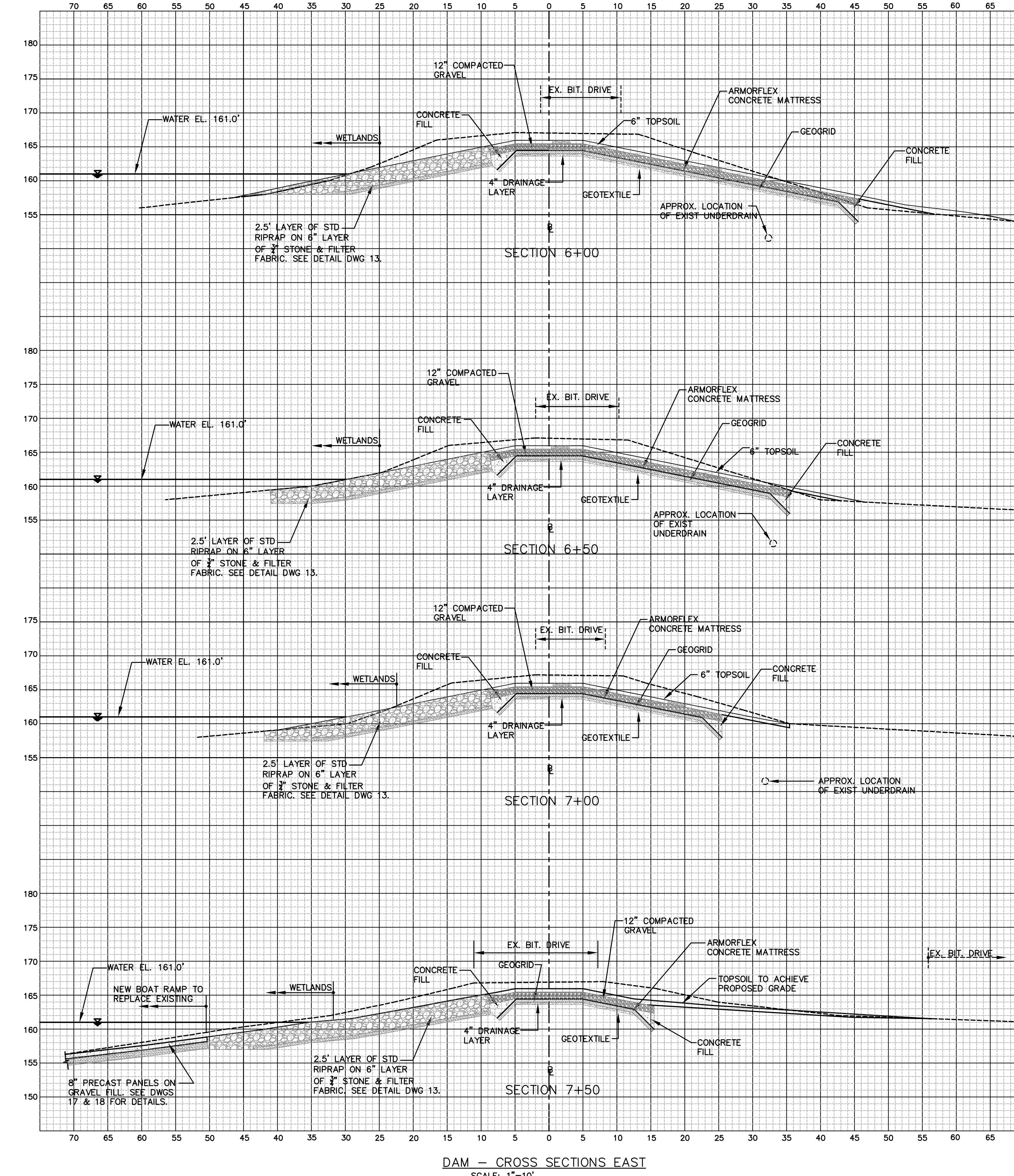
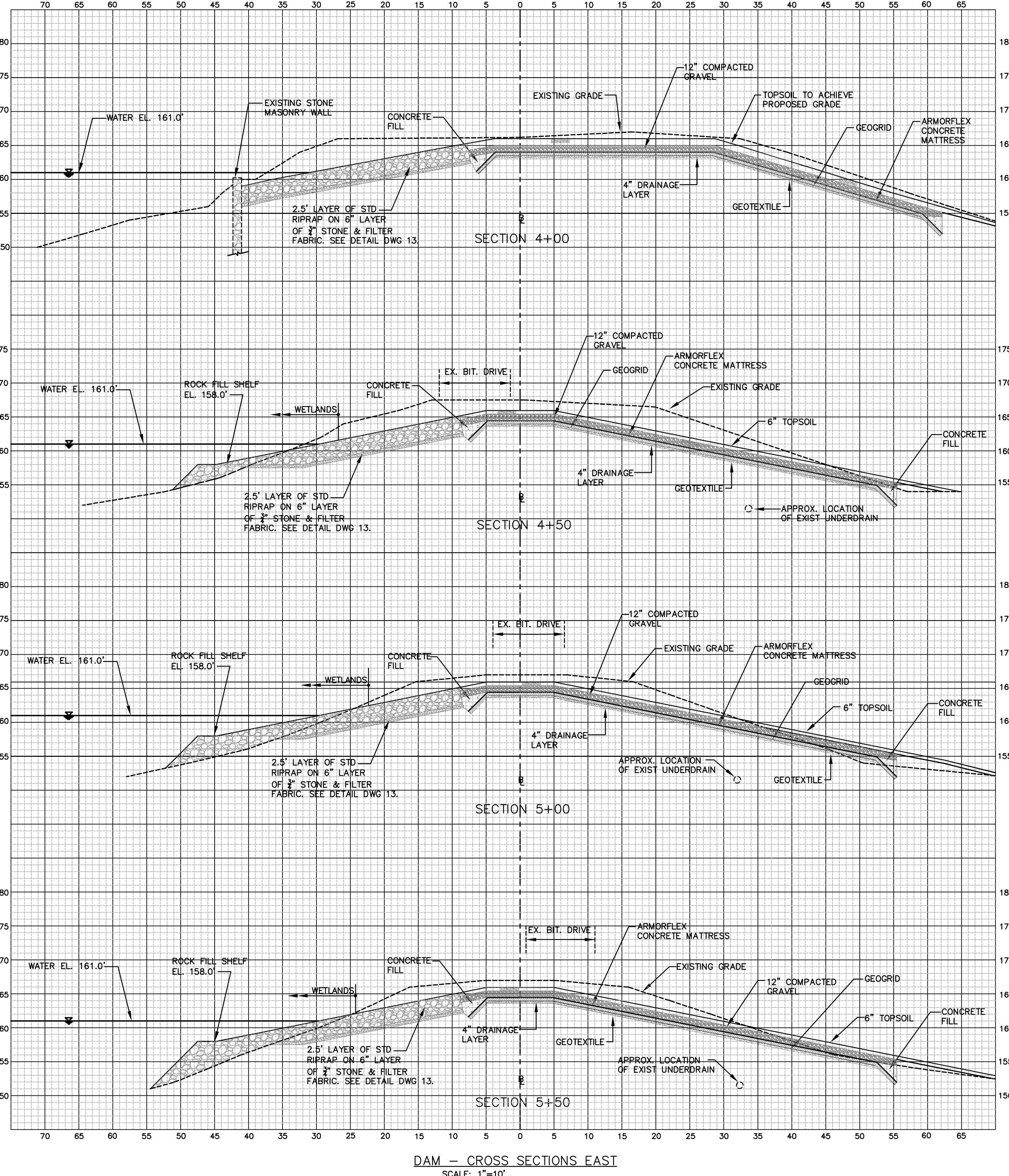
N.T.S.

WALL REPAIR DETAILS			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description			
Macchi Engineers			44 Gillett Street Hartford, Connecticut 06105 (860) 549-0190		
Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT			Drawn By JFB Approved JFB Drawing No. 12		
DEEP Dam Inventory # 5805					





DAM CROSS SECTIONS-1			STATE OF CONNECTICUT		
REVISIONS			DEPT. OF ENERGY & ENVIR. PROTECTION		
Mark	Date	Description	WATER PLANNING & MANAGEMENT DIVISION		
			Macchi Engineers	44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190	Date 3-01-19 Scale 1"=10' JB Approved Drawing No. 17241
			Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT		Drawn By JB Approved JB Drawing No. 17241
					DEEP Dam Inventory # 5805



DAM CROSS SECTIONS-2		
REVISIONS		
Mark	Date	Description
Macchi Engineers	3-01-19	Approved
JB	06/10/2019	Drawn By
JB	06/10/2019	Approved
		Drawing No

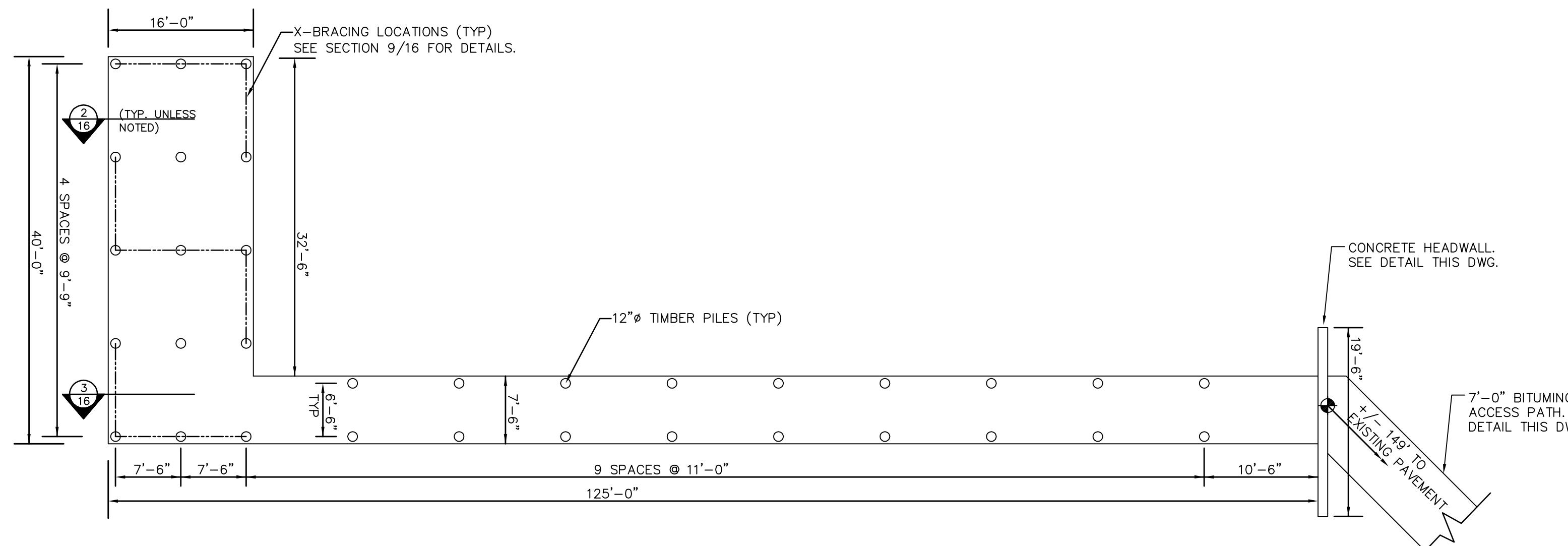
STATE OF CONNECTICUT
DEPT. OF ENERGY & ENVIR. PROTECTION
WATER PLANNING & MANAGEMENT DIVISION

44 Gillett Street
Hartford, Connecticut
06105
(860) 549-6190

Macchi Engineers
Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT

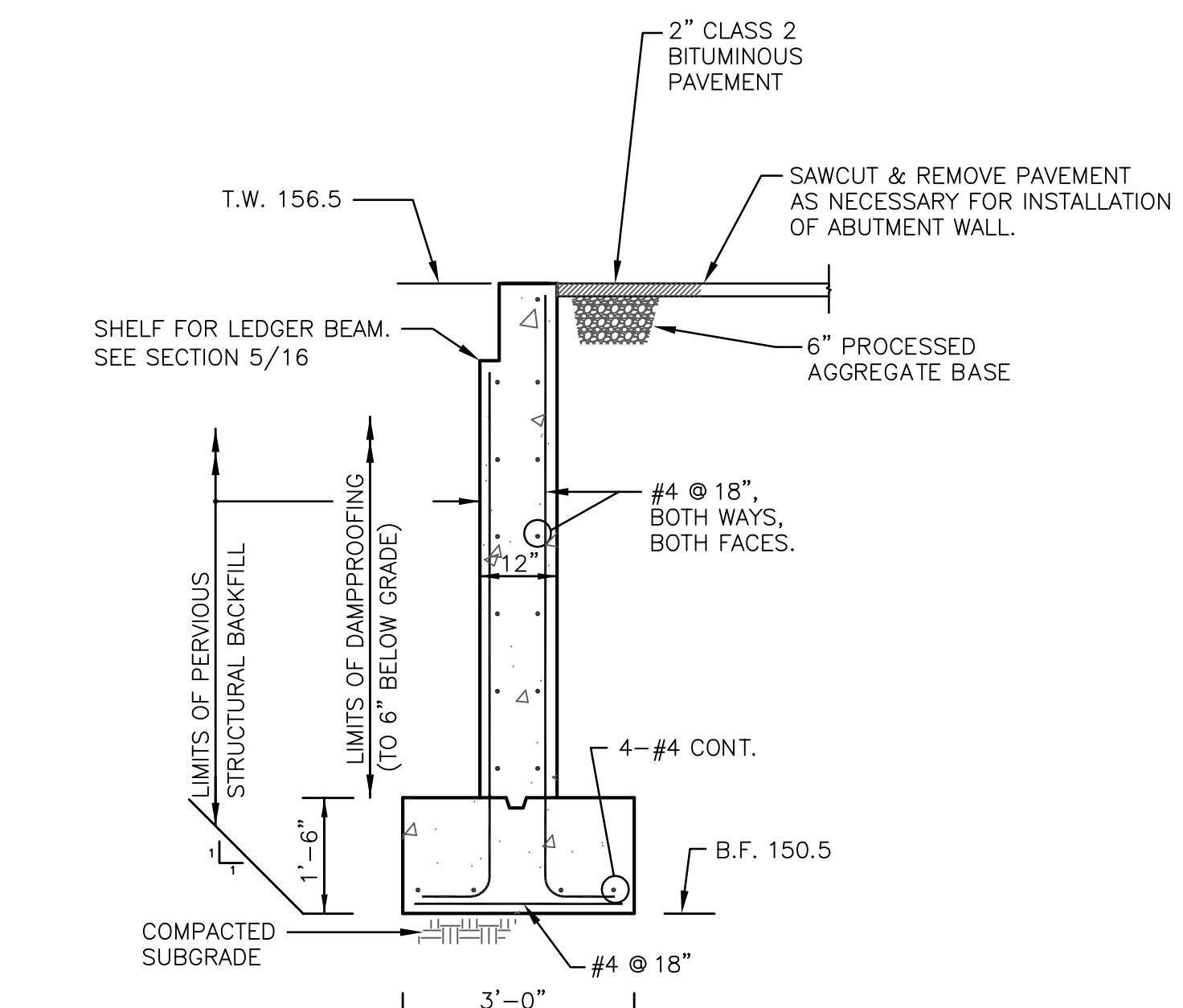
DEEP Dam Inventory # 5805

14

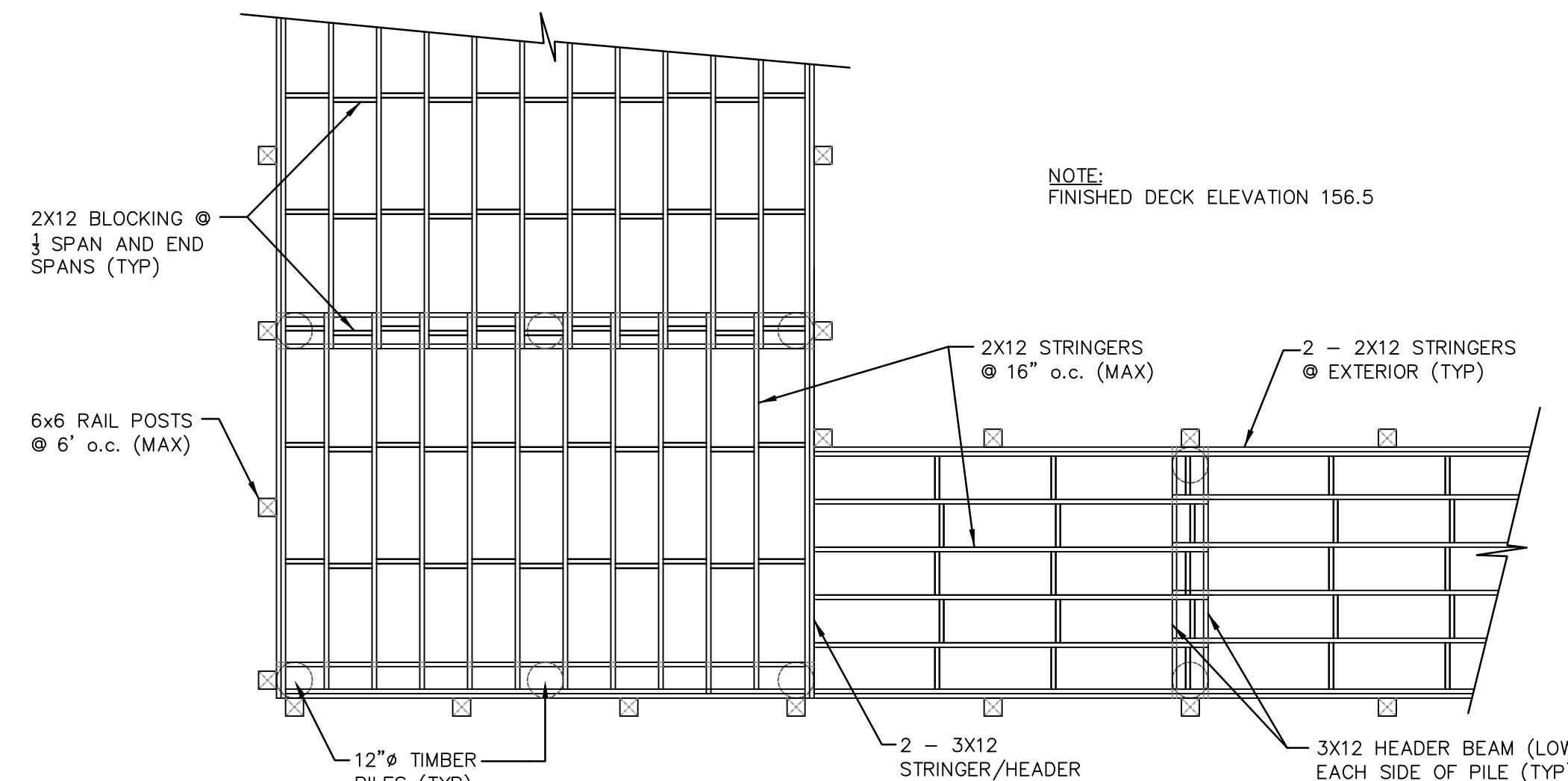
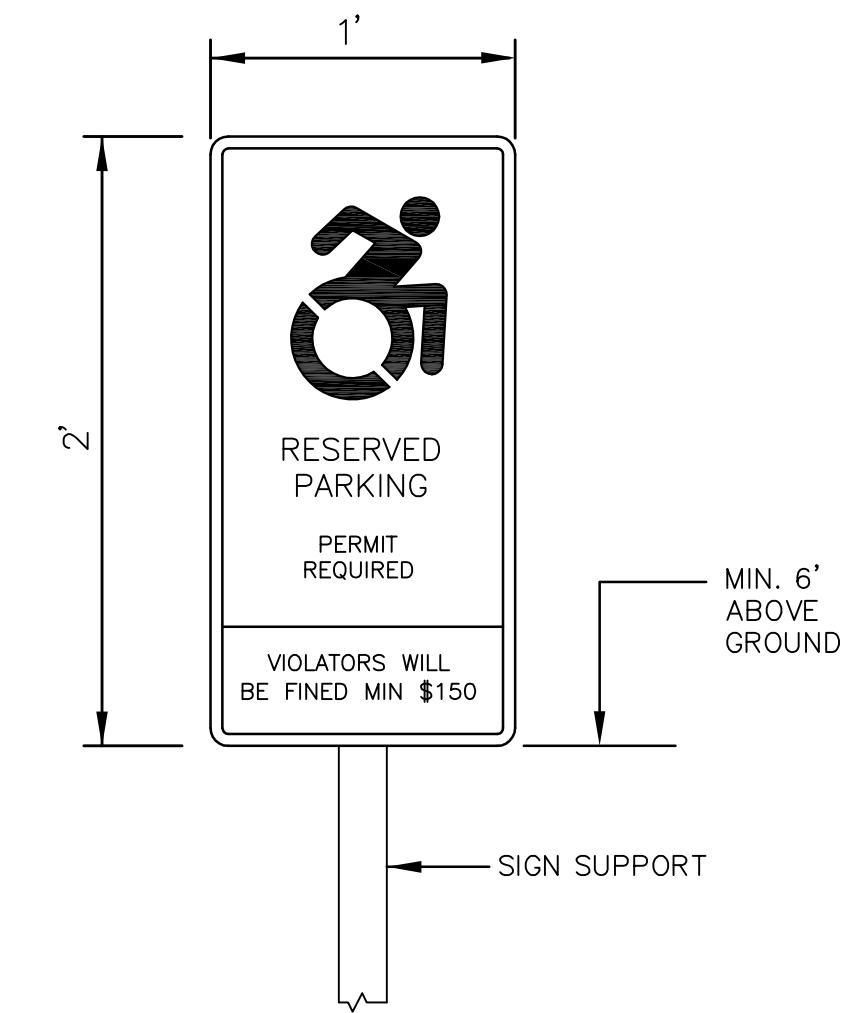


TIMBER BOARDWALK LAYOUT PLAN

SCALE 1" = 10'-0"

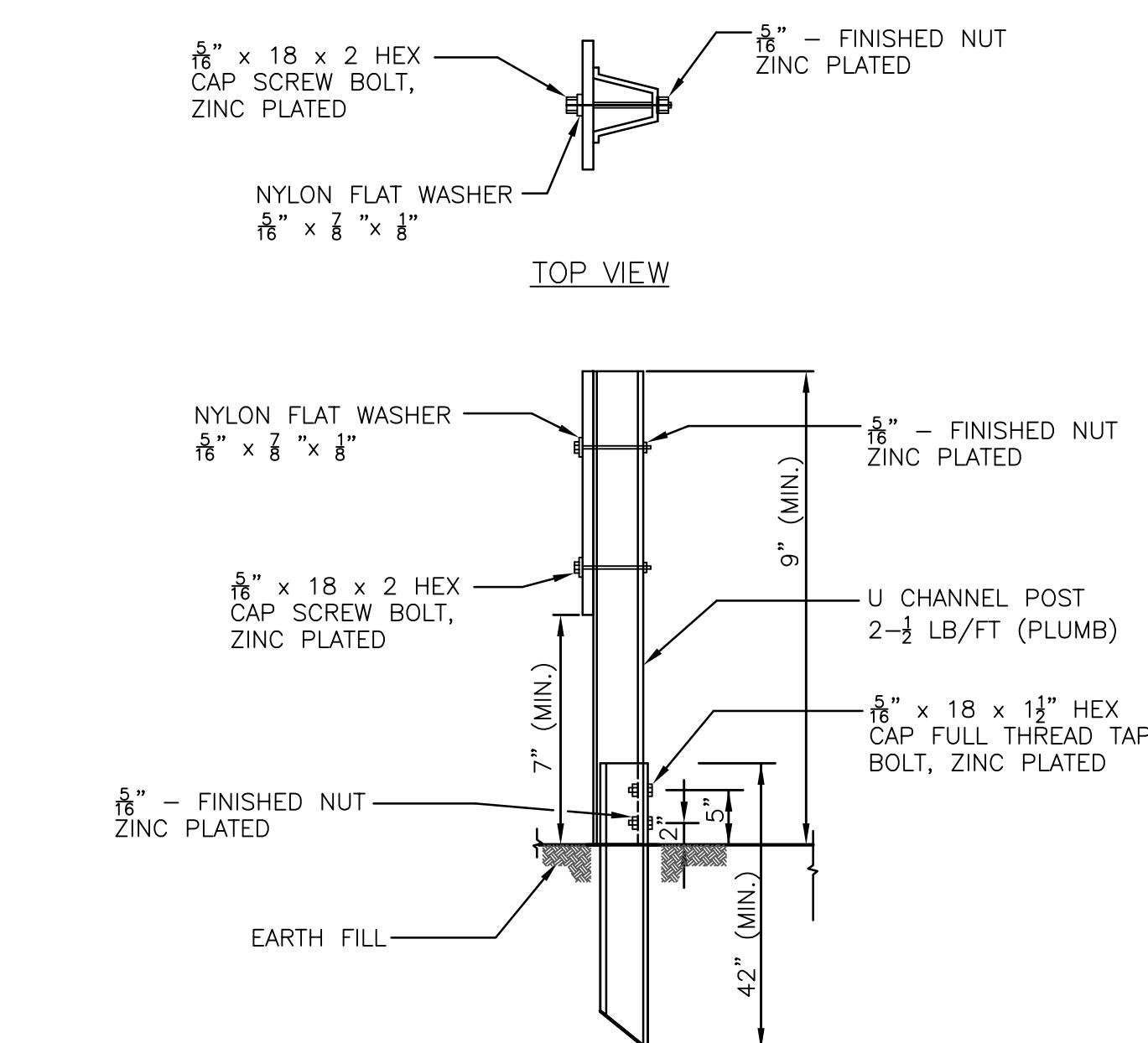


HANDICAPPED PARKING SIGN
SCALE: AS NOTED

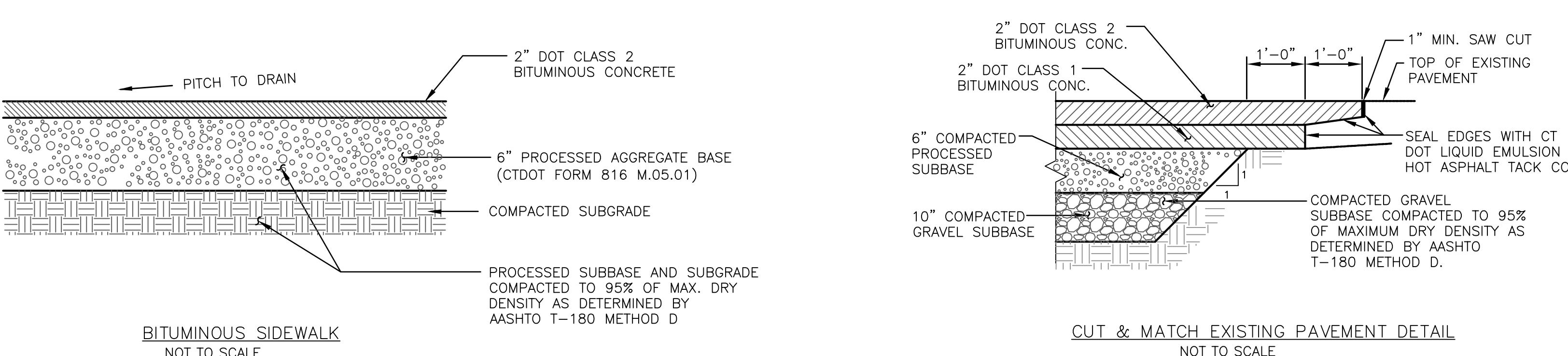


TIMBER BOARDWALK FRAMING PLAN

SCALE 1/4" = 1'-0"



BASE DETAIL

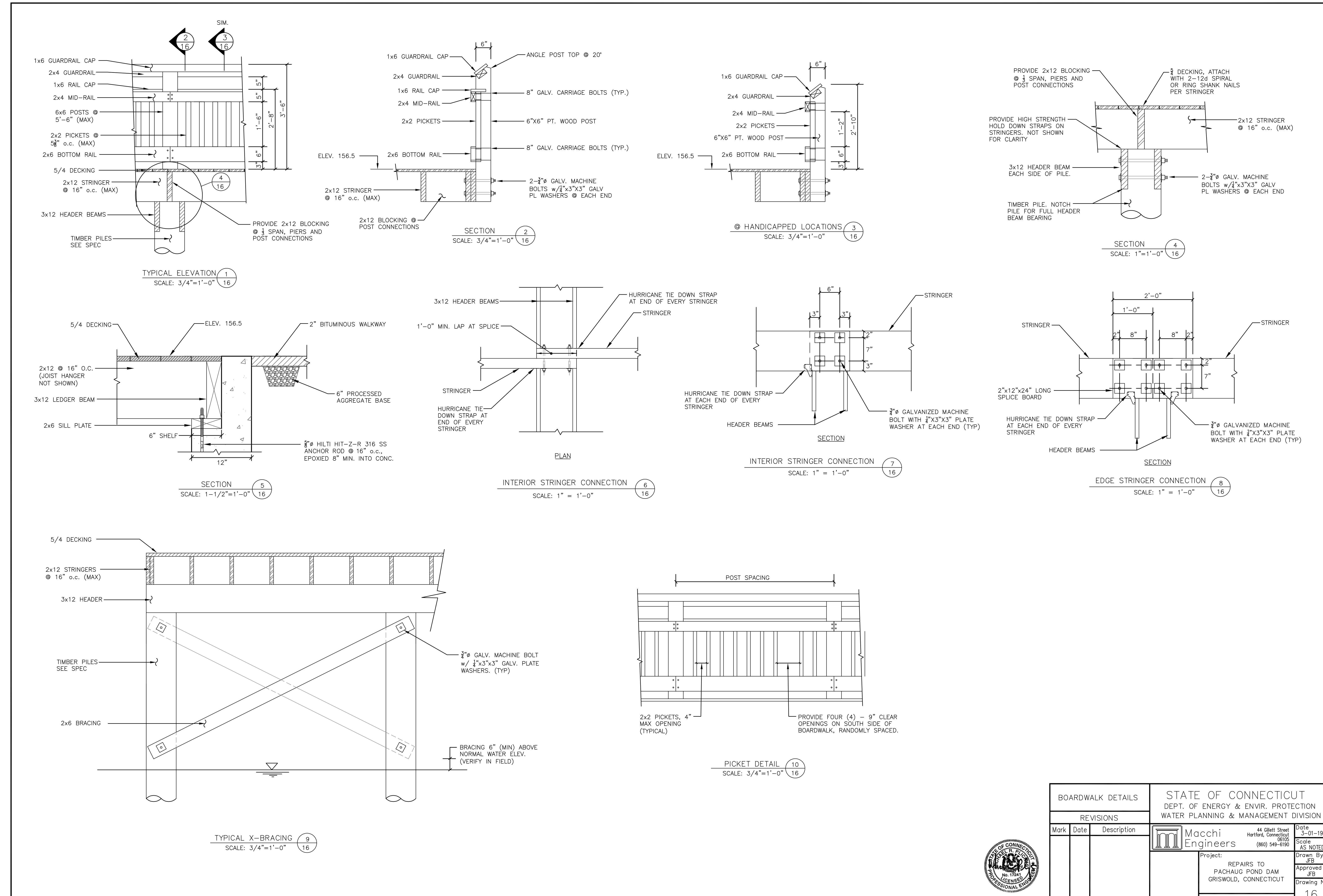


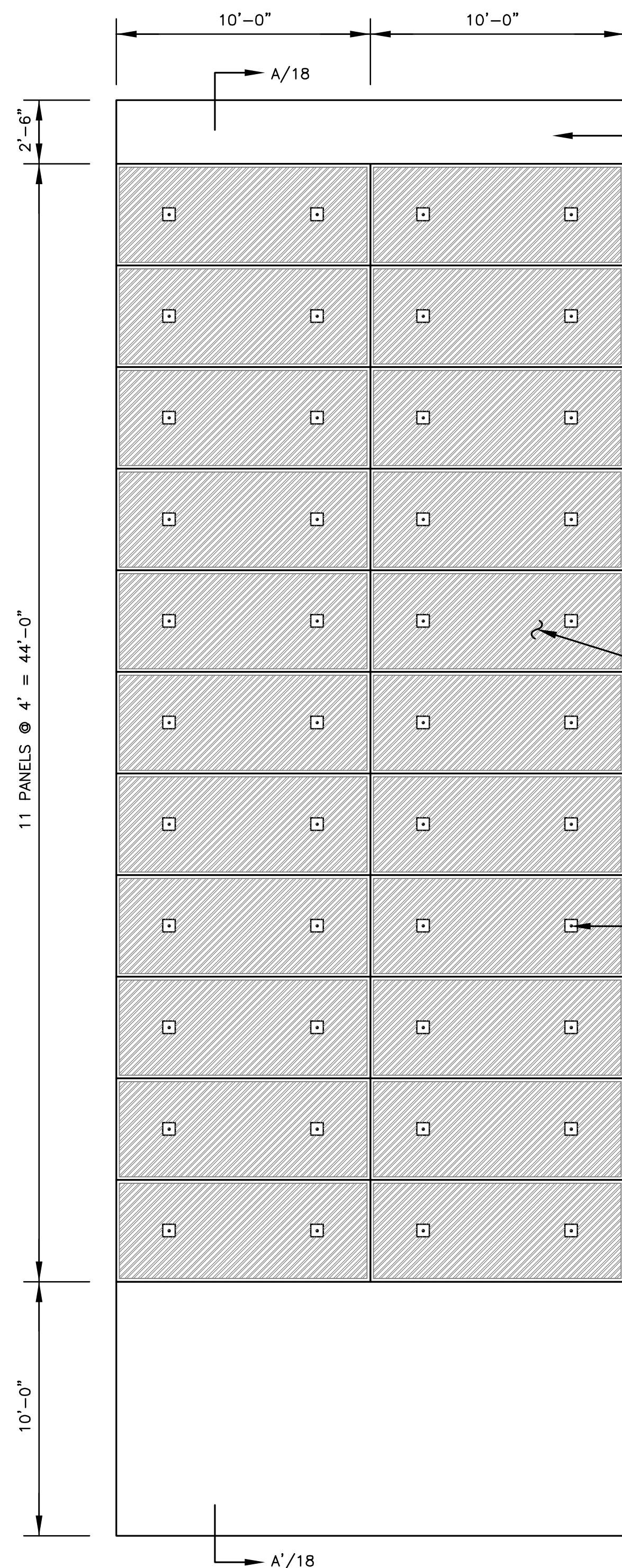
CUT & MATCH EXISTING PAVEMENT DETAIL
NOT TO SCALE

BOARDWALK PLAN			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER MANAGEMENT & PLANNING DIVISION		
REVISIONS					
Mark	Date	Description	Macchi Engineers		
			44 Gillett Street Hartford, Connecticut 06105 (860) 549-0190	Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT	Date: 3-01-19 Scale: 1"=10'-0"
			Approved JB	Drawn By JB	
			Drawing No.		

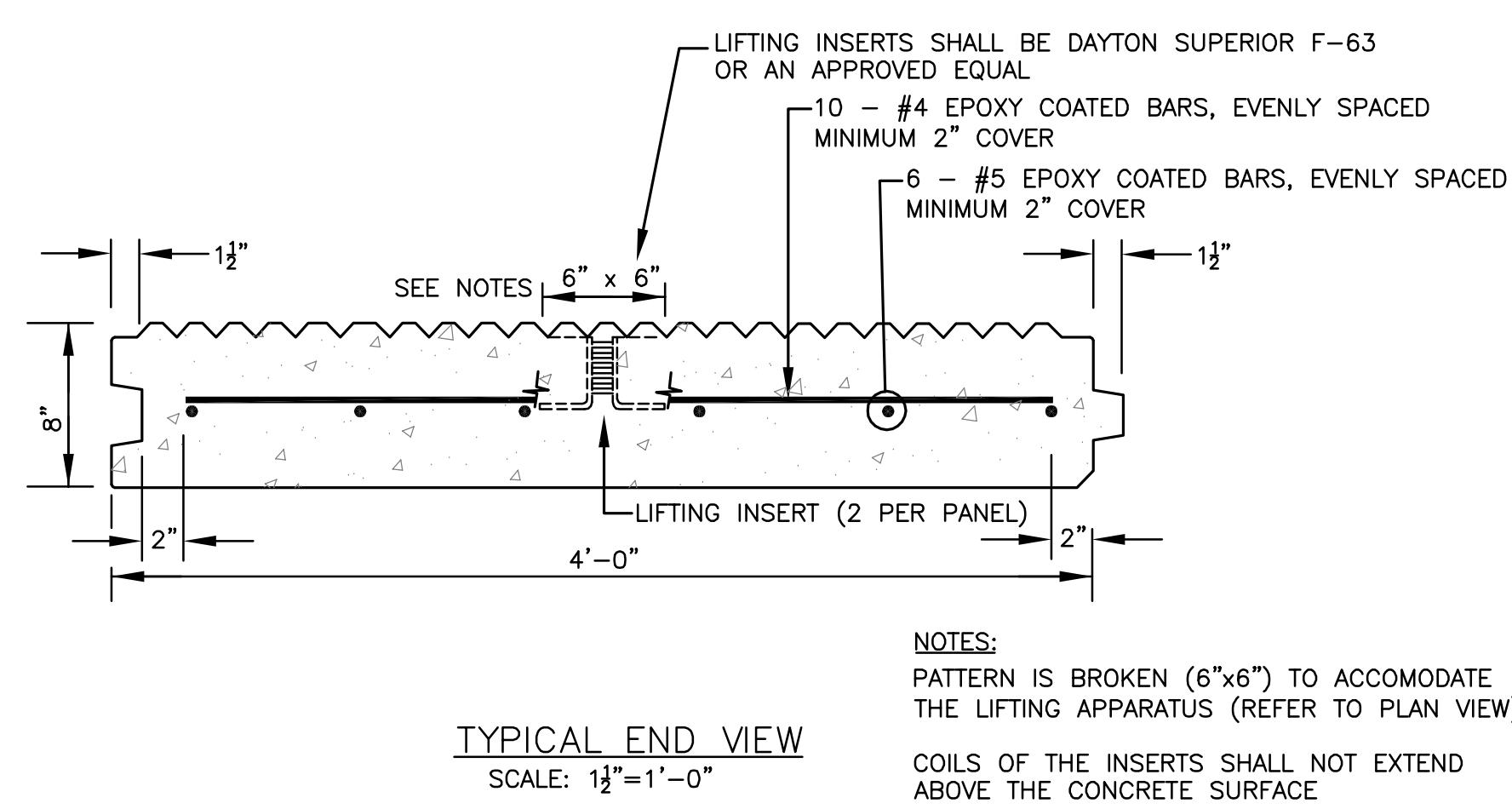
DEEP Dam Inventory # 5805

15

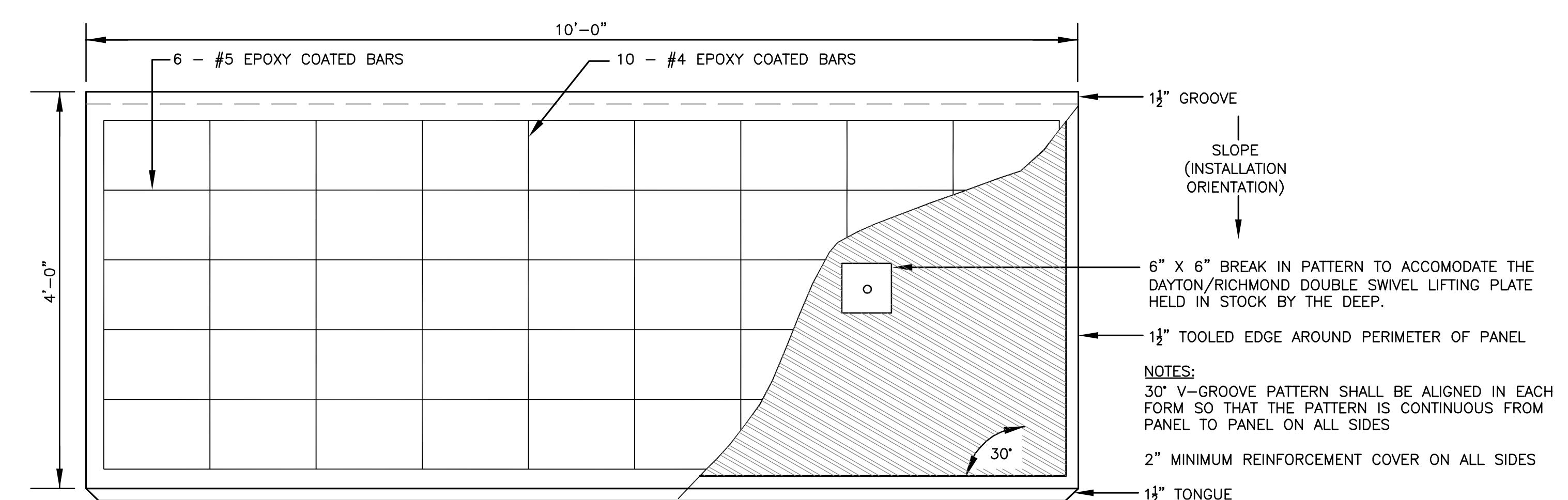




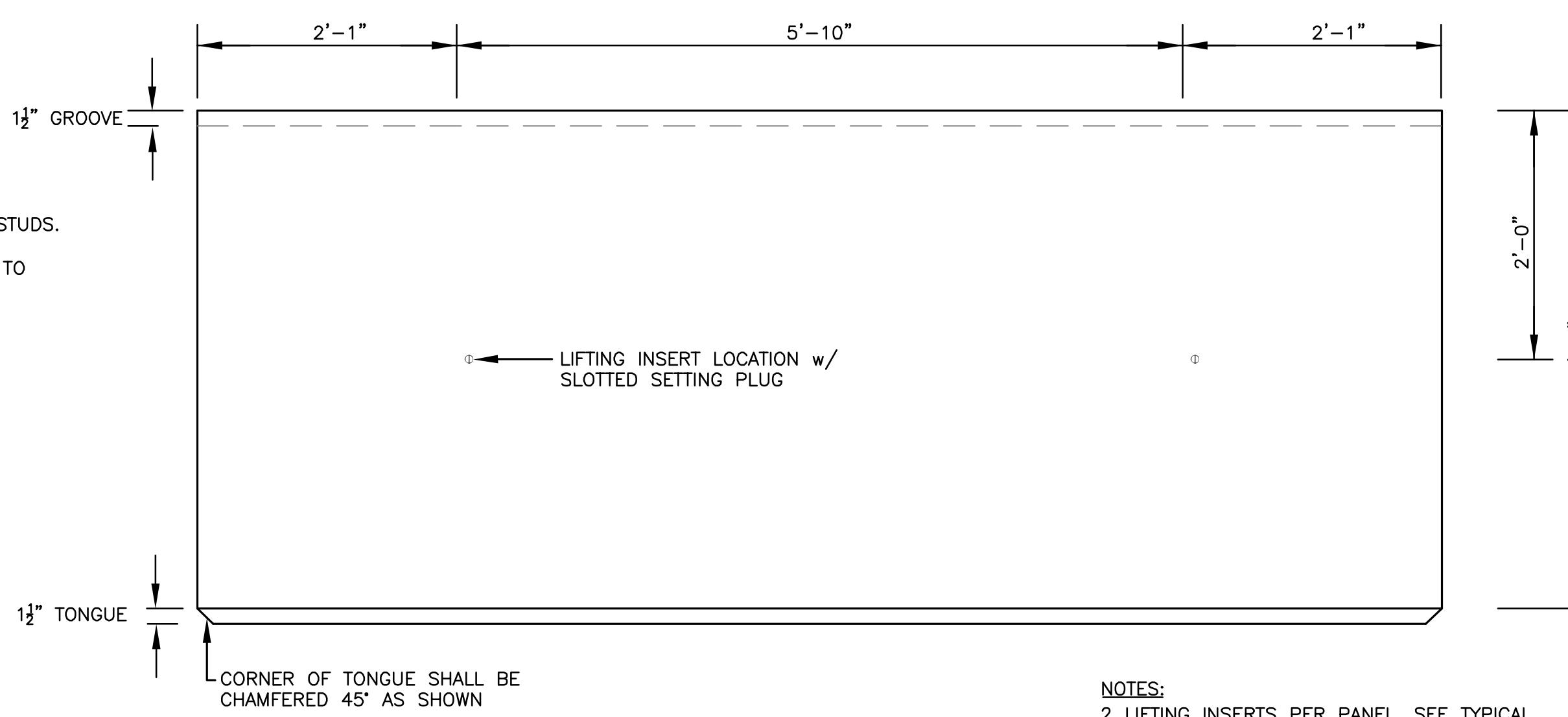
BOAT RAMP LAYOUT
SCALE: 1/4"=1'-0"



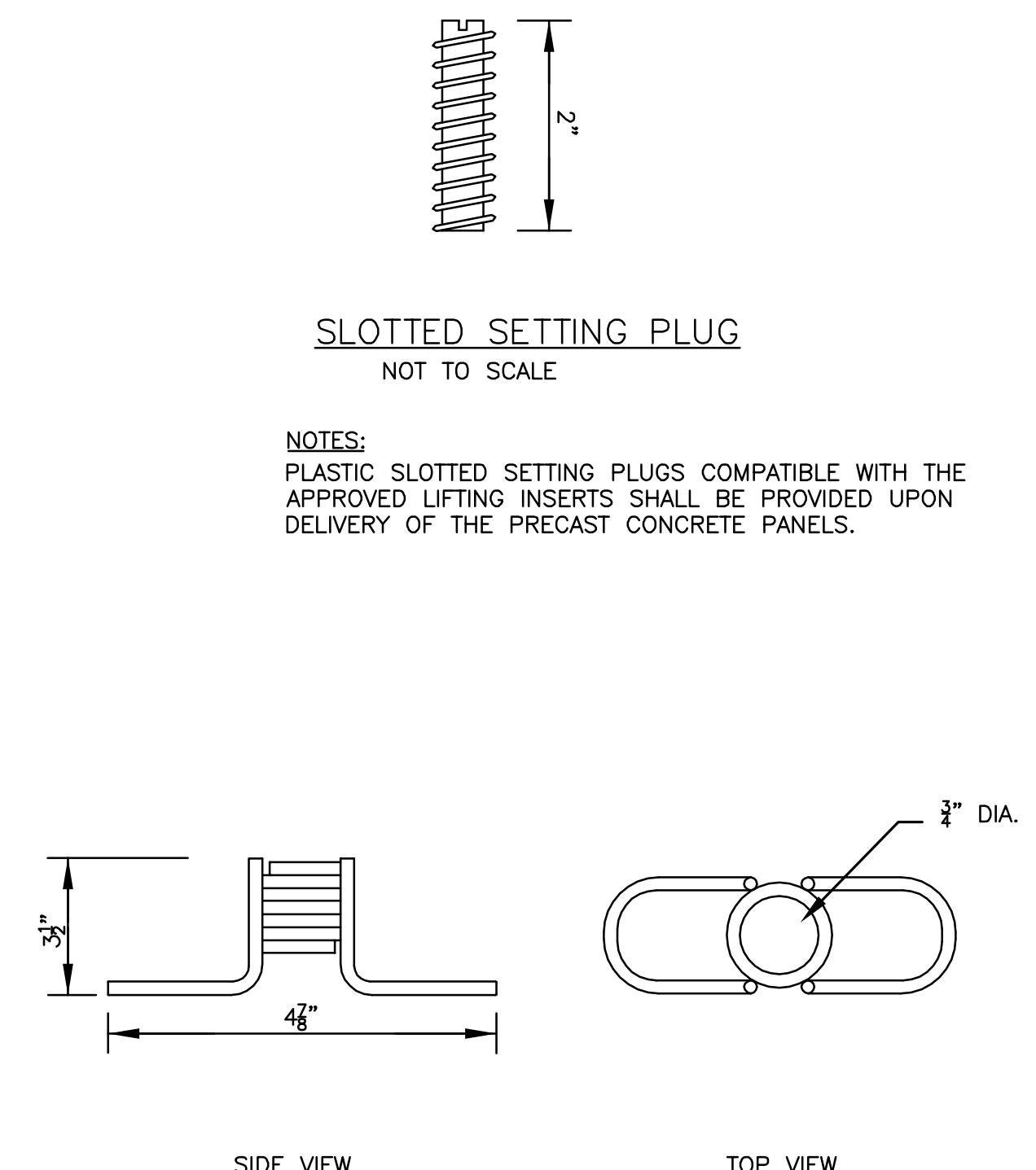
TYPICAL END VIEW
SCALE: $1\frac{1}{2}''=1'-0''$



PRECAST PANEL PLAN VIEW



LIFTING INSERT LOCATION
SCALE: 1" = 1'-0"



LOTTED SETTING PLUG
NOT TO SCALE

NOTES:
PLASTIC SLOTTED SETTING PLUGS COMPATIBLE WITH THE APPROVED LIFTING INSERTS SHALL BE PROVIDED UPON DELIVERY OF THE PRECAST CONCRETE PANELS.

W TOP

LIFTING INSERT DETAIL
NOT TO SCALE

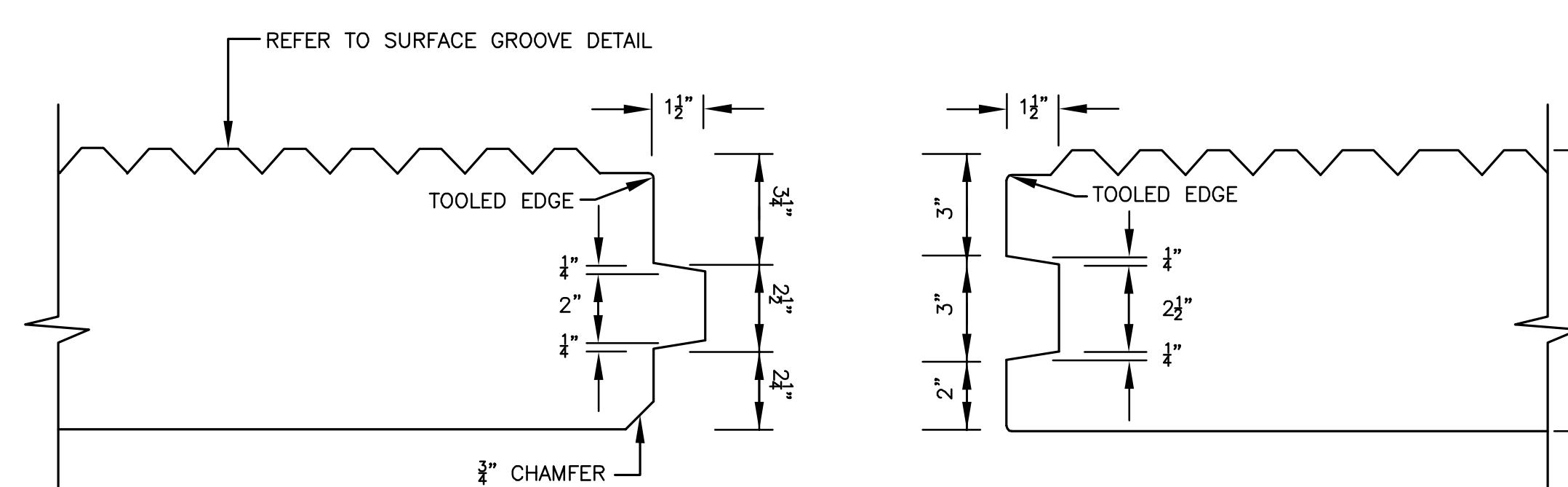
NOTES:
LIFTING INSERTS SHALL BE DAYTON SUPERIOR F-63 OR
APPROVED EQUAL.

LIFTING INSERTS SHALL BE STAINLESS STEEL COIL
LIFTING INSERTS

EACH INSERT SHALL HAVE A SAFE WORKING LOAD IN TENSION OF \geq 2000 LBS. AND HAVE A FACTOR OF SAFETY OF 4 TO 1.

THE LIFTING INSERT MUST ACCEPT $\frac{3}{4}$ " DIA. x $5\frac{1}{2}$ " LIFT LAG BOLT AND BE COMPATIBLE WITH THE DAYTON/RICHMOND

THE LIFTING INSERT MUST ACCEPT $\frac{3}{4}$ " DIA. x $5\frac{1}{2}$ " LIFT LAG BOLT AND BE COMPATIBLE WITH THE DAYTON/RICHMOND

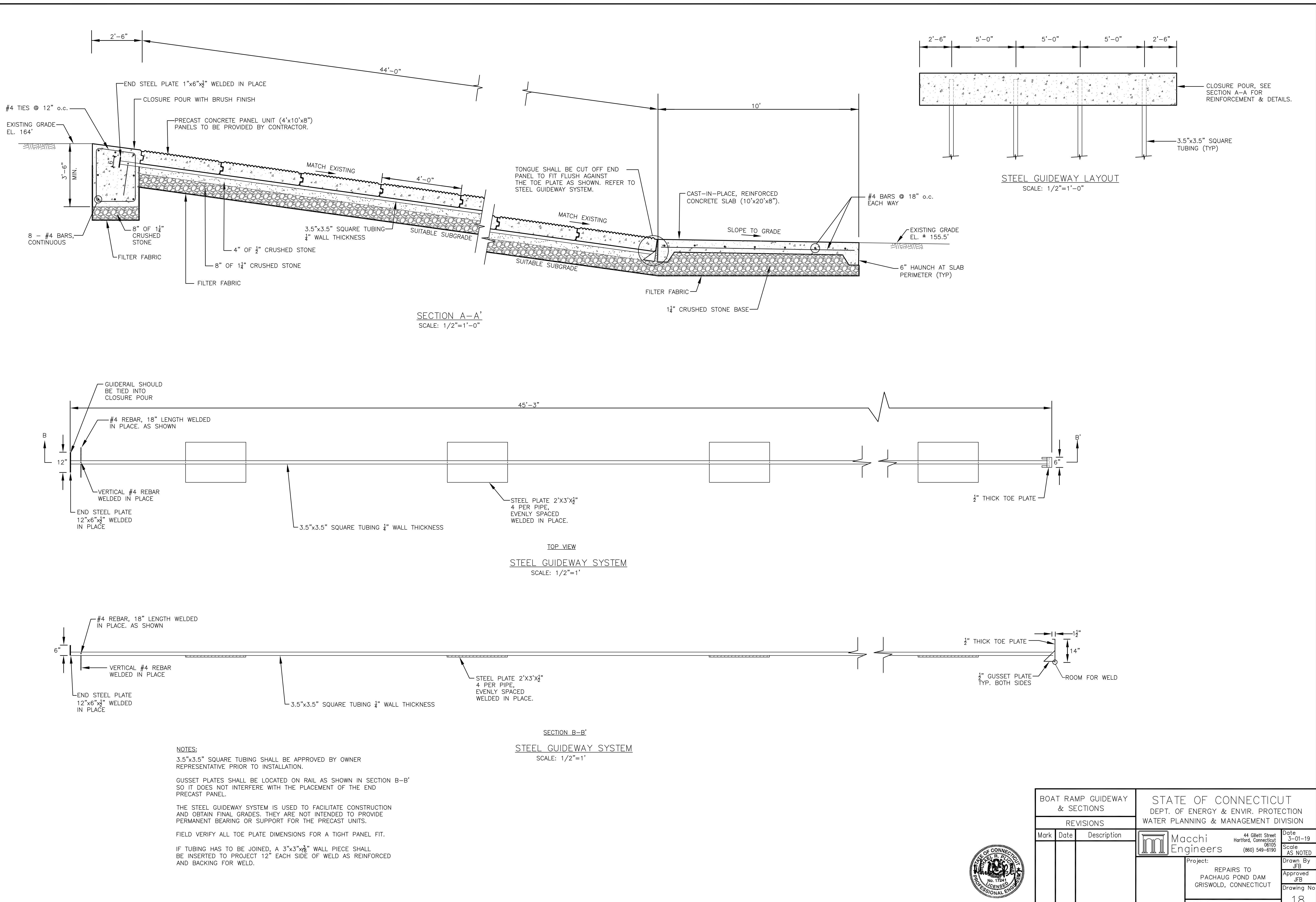


TONGUE AND GROOVE DETAIL
SCALE: 3" = 1'-0"

NOTES:

1 $\frac{1}{2}$ ' TOOLED EDGE AT ALL TOP SURFACE EDGES
TOOLED EDGES SHALL HAVE A RADIUS NO
GREATER THAN 1"

BOAT RAMP LAYOUT & PANEL DETAILS			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description	 Macchi Engineers	44 Gillett Street Hartford, Connecticut 06105 (860) 549-6190	Date 3-01-19
				Project: REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT	Drawn By JFB
					Approved JFB
					Drawing N
					17
				DEEP Dam Inventory # 5805	



FUSS & O'NEIL, INC.		BORING LOG			BORING ID: B-1						
CONSULTING ENGINEERS MANCHESTER, CT		PROJECT: PACHAUG POND DAM LOCATION: GRISWOLD, CT			SHEET 1 OF 1 PROJECT NO.:20061136.A93						
CONTRACTOR: CLARENCE WELTI ASSOCIATES, INC.											
OPERATOR: TOM											
F&O REP: DEREK NEWHALL											
DRILLING METHOD: HSA											
SAMPLING METHOD: SPLIT SPOON (2" OD)											
HAMMER WT: 149 LBS HAMMER FALL (IN.): 30											
BORING LOCATION: SEE SIGHT PLAN											
GROUND ELEVATION:											
DATE START: 10/26/16 DATE FINISH: 10/26/16											
TIME & DATE OF COMPLETION: 10/26/16 @ 1100											
Depth	Sample No.	Depth (ft)	Pen/Rec	Blows/6"	Sample Description	Strata Change	USCS Class	Remarks			
0	S-1	0'-2'	24/9	8-2-	Very loose, dark brown to gray, fine to coarse SAND, little fine GRAVEL, trace SILT.	SW					
1											
2	S-2	2'-3"	19/19	1-1- 1-60/1'	Very loose, dark gray fine GRAVEL and fine to coarse SAND, trace SILT. WET.	GW-SW	1				
3											
4											
5	S-3	5'-5"	2/2	60/2"	Very dense, dark gray coarse GRAVEL, little fine to coarse SAND, little SILT. WET.	GW	2				
6											
7	S-4	7'-8"	12/12	11-28-	Very dense, light brown to gray fine to coarse SAND and fine GRAVEL, trace SILT.	SW-GW	3				
8	S-5	8'-8"	3/3	60/3"	Very dense, light brown to gray fine to coarse SAND, some fine GRAVEL, little SILT.	SW-GW					
9											
					Auger refusal @ 9.5'		4.5				
Minor Constituent Proportions:							REMARKS: 1. Split spoon refusal at 19", Obstruction forced auger at angle. Driller moved ATV toward pond/advanced auger to 5' to straighten auger. 2. Split spoon refusal at 52", split spoon was bouncing off obstruction. 3. Change of stratum at 8', split spoon refusal at 8.3". 4. Auger refusal at 9.5', concrete slab at U/S face of spillway ~ 9.5' down. 5. Borehole started 4.5' upstream of cobbles, experienced refusal at 3.5' down. Auger walked along and sloped with refusal until end of exploration. Final borehole location was about 6.5' upstream of cobbles.				
Hammer Type: Safety Driver											
Hammer, ATV											

BORING B-1

CLARENCE WELTI ASSOC., INC.		BORING LOG			BORING ID: B-5						
P.O. BOX 397 GLASTONBURY, CTN 06033		PROJECT: PACHAUG POND DAM LOCATION: GRISWOLD, CT			SHEET 1 OF 1 PROJECT NO.:20061136.A93						
CONTRACTOR: CLARENCE WELTI ASSOCIATES, INC.											
OPERATOR: J. BREWER											
INSPECTOR: J. KRADAS											
DRILLING METHOD: HSA SIZE I.D.(IN.): 3.75											
SAMPLING METHOD: SPLIT SPOON											
SS SIZE I.D.(IN.): 1.375											
HAMMER WT: 140 LBS HAMMER FALL (IN.): 30											
BORING LOCATION: SEE SIGHT PLAN											
DATE START: 9/12/18 DATE FINISH: 9/12/18											
DATE OF COMPLETION: 9/12/18											
Depth	Sample No.	Depth (ft)	Pen/Rec	Blows/6"	Sample Description / Stratum Change	ELEV.	Remarks				
0	1	0'-2"	1-1- 2-2-	TOPSOIL	0.50						
				Br. fine SAND and SILT, trace ROOTS							
2	2.0'-4.0"	2-1- 1-11									
3	4.0'-6.0"	10-16- 21-24		Br. fine-coarse SAND, little SILT & GRAVEL	3.50						
4	10.0'-11.5"	2-4-8									
5	15.0'-16.5"	7-3-4									
6	20.0'-21.5"	11-17- 25									
7	25.0'-26.5"	11-17- 25									
8	30.0'-31.5"	7-7-9				31.5					
				Bottom of boring @ 31.5'							

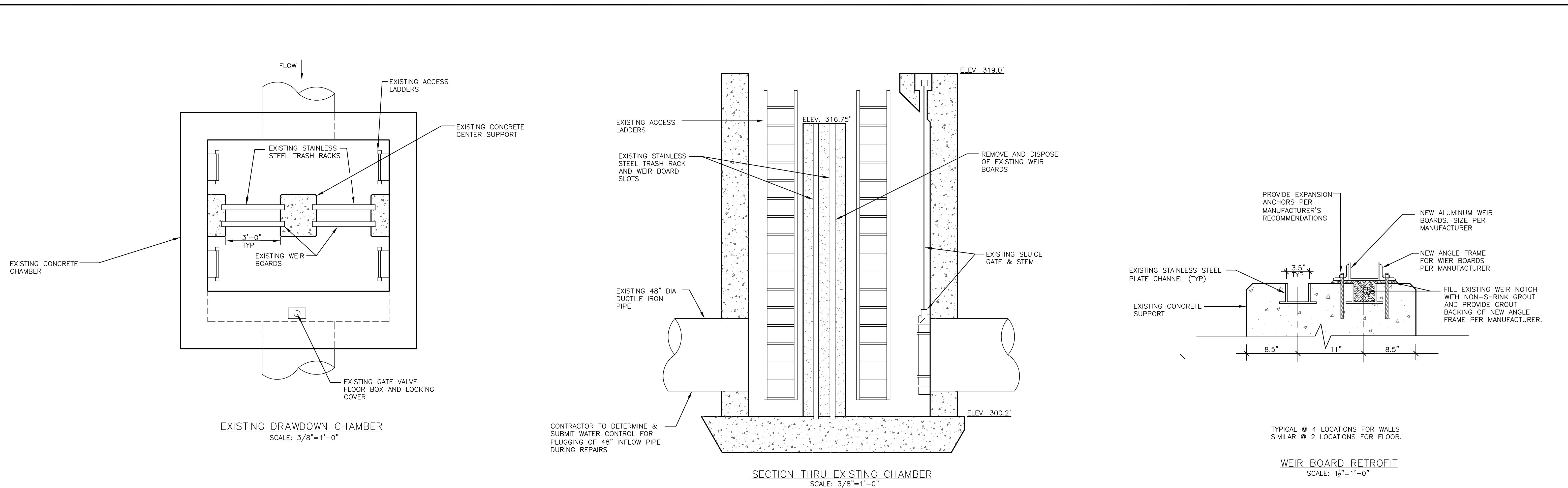
BORING B-5

FUSS & O'NEIL, INC.		BORING LOG			BORING ID: B-2						
CONSULTING ENGINEERS MANCHESTER, CT		PROJECT: PACHAUG POND DAM LOCATION: GRISWOLD, CT			SHEET 1 OF 1 PROJECT NO.:20061136.A93						
CONTRACTOR: CLARENCE WELTI ASSOCIATES, INC.											
OPERATOR: TOM											
F&O REP: DEREK NEWHALL											
DRILLING METHOD: HSA											
SAMPLING METHOD: SPLIT SPOON (2" OD)											
HAMMER WT: 149 LBS HAMMER FALL (IN.): 30											
BORING LOCATION: SEE SIGHT PLAN											
GROUND ELEVATION:											
DATE START: 10/26/16 DATE FINISH: 10/26/16											
TIME & DATE OF COMPLETION: 10/26/16 @ 1220											
Depth	Sample No.	Depth (ft)	Pen/Rec	Blows/6"	Sample Description	Strata Change	USCS Class	Remarks			
0	S-1	0'-2"	24/5	3-11-	Medium dense, dark brown to gray coarse GRAVEL, trace SILT. Wet.	GW-SW					
1											
2	S-2	2'-3"	19/19	5-10-	Medium dense, dark brown to gray coarse GRAVEL, trace SILT. Wet.	GW-SW	1				
3											
4											
5	S-3	5'-6"	12/10	7-60/6"	Very dense, gray fine to coarse SAND, some fine GRAVEL, trace SILT. WET.	SW-GW	2				
6											
7	S-4	7'-9"	24/24	13-21-	Dense, gray coarse GRAVEL, little fine to coarse SAND, trace SILT. WET.	GW	3				
8	S-5	8'-8"	3/3	60/3"	Very dense, light brown to gray fine to coarse SAND, some fine GRAVEL, little SILT.	SW-GW					
9											
					Auger refusal @ 9.5'		4.5				
Minor Constituent Proportions:							REMARKS: 1. Split spoon refusal at 19", Obstruction forced auger at angle. Driller moved ATV toward pond/advanced auger to 5' to straighten auger. 2. Split spoon refusal at 52", split spoon was bouncing off obstruction. 3. Change of stratum at 8', split spoon refusal at 8.3". 4. Auger refusal at 9.5', concrete slab at U/S face of spillway ~ 9.5' down. 5. Borehole started 4.5' upstream of cobbles, experienced refusal at 3.5' down. Auger walked along and sloped with refusal until end of exploration. Final borehole location was about 6.5' upstream of cobbles.				
Hammer Type: Safety Driver											
Hammer, ATV											

BORING B-6

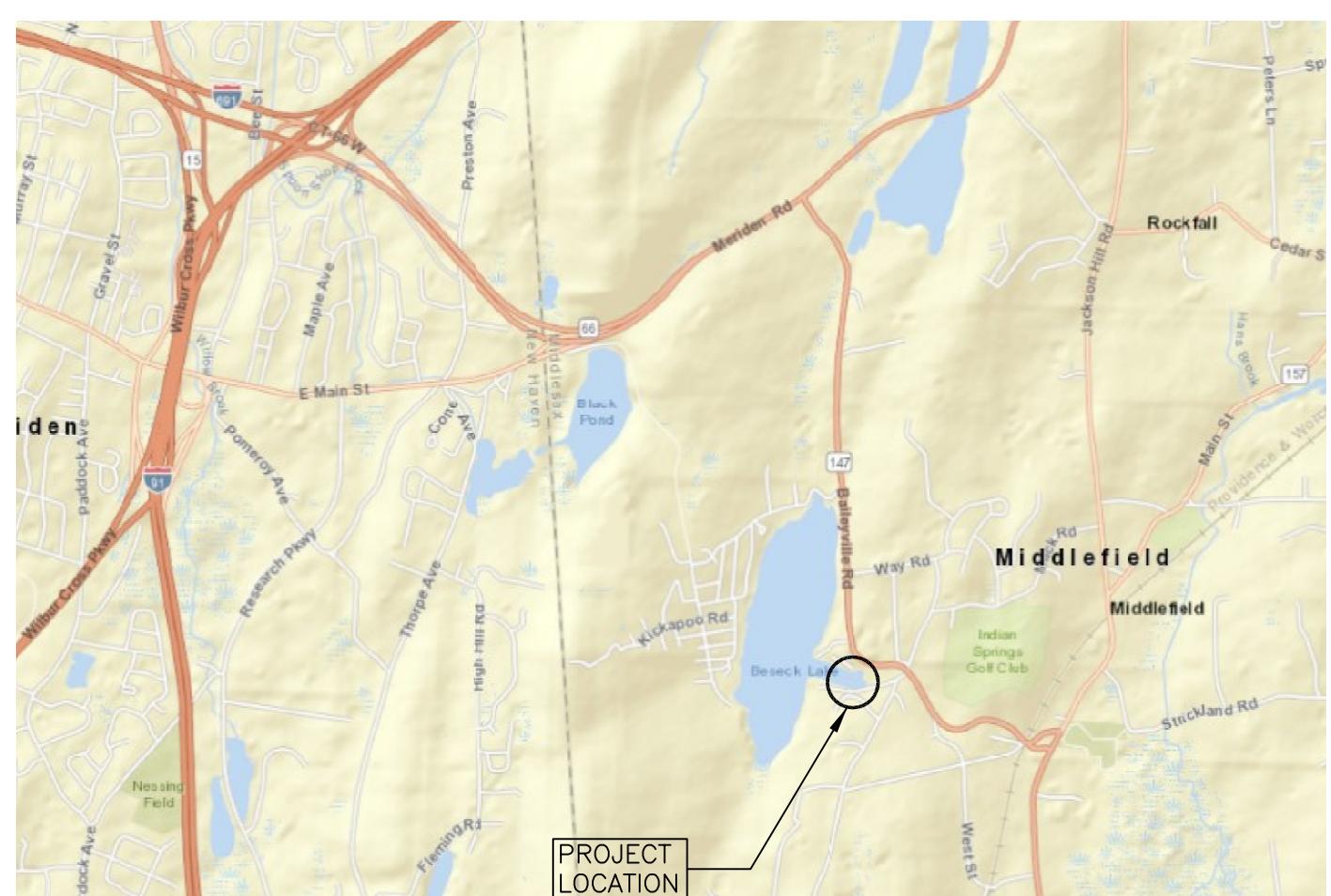
FUSS & O'NEIL, INC.		BORING LOG			BORING ID: B-3	
CONSULTING ENGINEERS MANCHESTER, CT		PROJECT: PACHAUG POND DAM LOCATION: GRISWOLD, CT			SHEET 1 OF 1 PROJECT NO.:20061136.A93	

<tbl_r cells="1" ix="3" maxcspan="7" maxrspan="1"



NOTES:

- 1) WORK CONSISTS OF REMOVAL OF OLD WOODEN WEIR BOARDS AND RETROFITTING EXISTING STRUCTURE FOR NEW ALUMINUM STYLE WEIR BOARDS.
- 2) RETROFITTING WILL OCCUR AT 2 WEIR BOARDS SLOTS EACH APPROXIMATELY 3' WIDE.
- 3) CONTRACTOR IS TO VERIFY ALL DIMENSIONS IN FIELD PRIOR TO ORDERING OF MATERIALS.
- 4) NEW WEIR BOARDS ARE TO BE INSTALLED TO SAME H HEIGHT AS EXISTING WOODEN BOARDS.
- 5) SEE "ADD ALTERNATE" SPECIFICATIONS FOR ADDITIONAL INFORMATION AND DETAILS NOT SHOWN HERE.



LOCATION PLAN
BESECK LAKE - MIDDLEFIELD
SCALE: 1" = 3,000'

ADD ALTERNATE

BESECK LAKE STOP LOG RETROFIT			STATE OF CONNECTICUT DEPT. OF ENERGY & ENVIR. PROTECTION WATER PLANNING & MANAGEMENT DIVISION		
REVISIONS					
Mark	Date	Description	Project	Drawn By	Approved By
			REPAIRS TO PACHAUG POND DAM GRISWOLD, CONNECTICUT	Macchi Engineers	JB
					JB
					Approved Drawing No
					20

