

BREWSTER, MASSACHUSETTS

STONY BROOK GRIST MILL HEADRACE POND

RETAINING WALL AND FISHWAY

REHABILITATION

830 Stony Brook Road & 0 Stony Brook Road

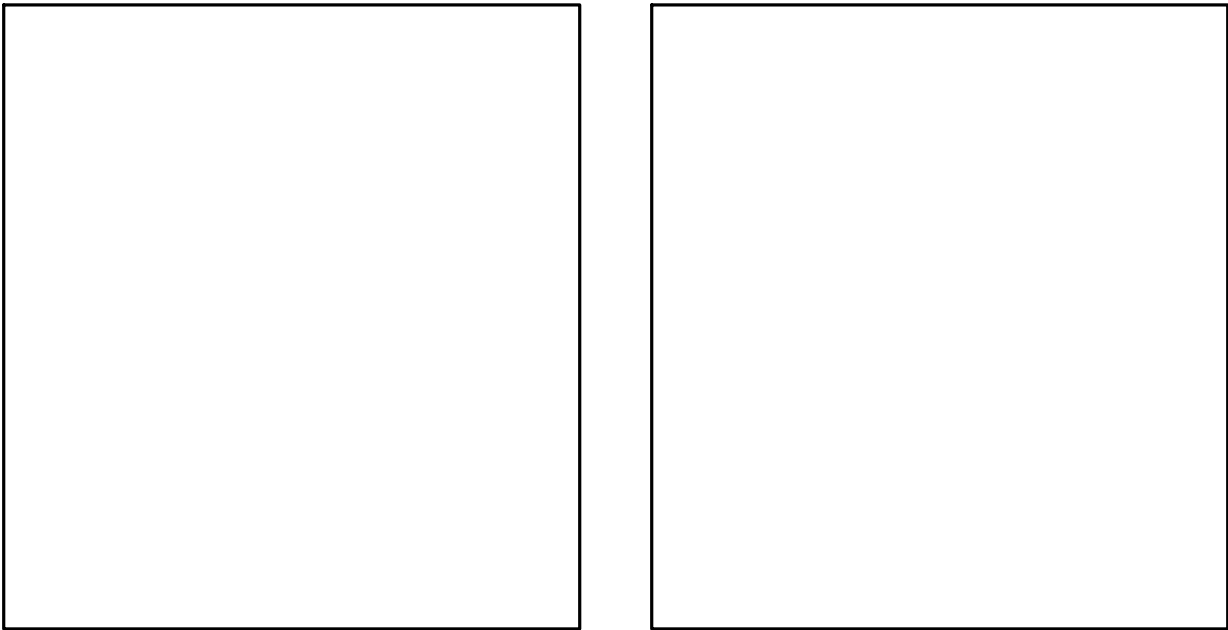
FEBRUARY 2024

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LOCATION MAP
SCALE: 1"=2000'

PREPARED BY:
Tighe&Bond



PREPARED FOR:
TOWN OF BREWSTER

NATURAL RESOURCES DEPARTMENT
CHRIS MILLER, DIRECTOR

CAPE COD CONSERVATION DISTRICT
RICHARD DEVERGILIO, PROJECT MANAGER

90% DESIGN
NOT FOR CONSTRUCTION

COMPLETE SET 13 SHEETS

Last Saved: 1/31/2024
Plotted On: Feb 16, 2024 - 1:13:59pm By: MLepek
Title & Layout: Stony Brook Grist Mill Wall 001 Autocad Sheets B5078-001 G-002.dwg

GENERAL NOTES

1. LIGHT LINES AND TEXT INDICATE EXISTING CONDITIONS.
BOLD LINES AND TEXT INDICATE PROPOSED WORK.
2. THIS PLAN WAS PREPARED FROM AN ACTUAL ON THE GROUND FIELD SURVEY CONDUCTED BY WSP SELLS IN NOVEMBER OF 2011 (WSP PROJECT 113146) AND REVISED AND EXPANDED UPON IN JULY OF 2020.
3. THE HORIZONTAL DATUM SHOWN HEREON IS REFERENCED TO THE NORTH AMERICAN DATUM OF 1983, MASSACHUSETTS STATE PLANE MAINLAND COORDINATE SYSTEM AND WAS ESTABLISHED UTILIZING RTK GPS SURVEY TECHNIQUES REFERENCING THE MACORS GPS NETWORK.
3. THE VERTICAL DATUM SHOWN HEREON REFERENCES THE NORTH AMERICAN VERTICAL DATUM OF 1988, ESTABLISHED ON SITE UTILIZING RTK GPS SURVEY TECHNIQUES REFERENCING THE MACORS GPS NETWORK.
4. PROPERTY LINES SHOWN ARE APPROXIMATE ONLY AND ARE NOT THE RESULT OF A COMPLETE BOUNDARY SURVEY. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF THE HIGHWAY LAYOUT PLANS OR A TITLE REPORT.
5. THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING DIGSAFE. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICES OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.
6. ROUTINE VEGETATION MANAGEMENT WITHIN THE CHANNEL, HEADWALLS, ACCESS PATHWAYS, AND VEGETATED FRINGE WILL BE COMPLETED IN ACCORDANCE WITH MASSDEP POLICY 22-1, THE NEGATIVE DETERMINATION OF APPLICABILITY AND ASSOCIATED CONDITIONS ISSUED BY THE BREWSTER CONSERVATION COMMISSION ON FEBRUARY 10, 2021, AND THE STREAM CHANNEL MAINTENANCE FOR DIADROMOUS FISH PASSAFE MAP PREPARED BY BREWSTER DEPARTMENT OF NATURAL RESOURCES (JANUARY 2021).

EROSION AND SEDIMENTATION CONTROL NOTES:

- E1. TEMPORARY SEDIMENT AND EROSION CONTROL BY THE CONTRACTOR SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIFICATIONS LISTED BELOW.
- E2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTING ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES NECESSARY TO EXECUTE AND COMPLETE THE WORK OF THE CONTRACT, IN COMPLIANCE WITH THE TERMS AND CONDITIONS CONTAINED IN THE CONTRACT AND PROJECT PERMITS. CONTROLS SHOWN ON THE CONTRACT DRAWINGS AND MENTIONED IN THE TECHNICAL SPECIFICATIONS SHALL BE CONSIDERED MINIMUM REQUIREMENTS. THE CONTRACTOR SHALL EMPLOY WHATEVER SUPPLEMENTARY MEASURES NECESSARY TO PROTECT WETLANDS, WATERS, FISH PASSAGE, AND ADJACENT AREAS FROM DISTURBANCE OR DISCHARGE OF SEDIMENTS.
- E3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SEDIMENT AND EROSION CONTROLS TO MEET THE CONDITIONS OF ALL APPLICABLE PERMITS AND REGULATIONS. SUCH CONTROLS SHALL BE INSTALLED WHEREVER THE POTENTIAL EXISTS FOR THE DISTURBANCE OF LAND OR THE TRANSPORT OF SEDIMENT.
- E4. EROSION AND SEDIMENTATION CONTROLS SHALL CONSIST OF COMPOST TUBES OR EQUIVALENT PER DETAIL PROVIDED ON SHEET C-301.
- E5. COMPOST TUBES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING ACTIVITIES. LOCATION OF COMPOST TUBES TO BE ADJUSTED UPON COMPLETION OF CLEARING AND GRUBBING BUT PRIOR TO COMMENCEMENT OF GRADING ACTIVITIES.
- E6. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE MAINTAINED IN GOOD CONDITION AND PROPER WORKING ORDER. NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
- E7. ALL EROSION AND SEDIMENTATION CONTROLS SHALL BE PROPERLY DISPOSED OFF-SITE UPON COMPLETION OF WORK, SITE STABILIZATION AND/OR UPON AUTHORIZATION FROM THE OWNER.

BEST MANAGEMENT PRACTICES

INSPECTION AND MAINTENANCE

- SEDIMENT AND EROSION CONTROLS AND BEST MANAGEMENT PRACTICES (BMPS) SHALL BE INSTALLED PRIOR TO COMMENCING CONSTRUCTION AT THE SITE. NO WORK WHICH SHALL DISTURB THE SITE OR CREATE THE POTENTIAL FOR SEDIMENT RELEASE SHALL COMMENCE UNTIL THE SEDIMENT AND EROSION CONTROLS HAVE BEEN INSPECTED AND APPROVED BY THE OWNER, ENGINEER, AND REGULATORY AGENCIES. ALL CONTROLS AND BMPS SHALL BE SUBJECT TO INSPECTION BY THE OWNER, HIS REPRESENTATIVE, AND REGULATORY AGENCIES AT ANYTIME THEREAFTER.
- PERIODIC INSPECTION, MAINTENANCE, AND CLEANING OF TEMPORARY EROSION OF SEDIMENT CONTROL MEASURES AND BMPS SHALL BE REQUIRED. ALL CONTROLS AND BMPS SHALL BE INSPECTED EVERY 7 DAYS AND WITHIN 24 HOURS OF RAINFALL EVENTS OF 0.5 INCHES OR GREATER. ROUTINE INSPECTION AND MAINTENANCE WILL REDUCE THE CHANCE OF POLLUTING STORMWATER BY FINDING AND CORRECTING PROBLEMS BEFORE THE NEXT RAIN EVENT. THE FOCUS OF THE INSPECTION WILL BE TO DETERMINE:

1) WHETHER OR NOT THE MEASURE WAS INSTALLED / PERFORMED CORRECTLY;

2) WHETHER OR NOT THERE HAS BEEN ANY DAMAGE TO THE MEASURE SINCE IT WAS INSTALLED OR PERFORMED; AND

3) WHAT SHOULD BE DONE TO CORRECT ANY PROBLEMS WITH THE MEASURE. EACH MEASURE IS TO BE OBSERVED TO DETERMINE IF IT IS STILL EFFECTIVE. IN SOME CASES, SPECIFIC MEASUREMENTS MAY BE TAKEN TO DETERMINE IF MAINTENANCE OF THE MEASURES IS REQUIRED.

SITE MANAGER

- PRIOR TO CONSTRUCTION, A SITE MANAGER WILL BE DESIGNATED BY THE CONTRACTOR TO BE RESPONSIBLE FOR INSTALLATION, MONITORING, INSPECTION, AND CORRECTION OF EROSION AND SEDIMENT CONTROL MEASURES.

CONSTRUCTION SITE ENTRANCE

- TO REDUCE THE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE ONTO OTHER AREAS OF THE PROPERTY AND/OR PUBLIC ROADS, AS WELL AS THE PRODUCTION OF AIRBORNE DUST, A STABILIZED CONSTRUCTION ENTRANCE IS TO BE ESTABLISHED AND AT ANY ADDITIONAL AUTHORIZED PERMANENT CONSTRUCTION STAGING AREA. THE ENTRANCE IS TO CONSIST OF A 6-INCH THICK PAD OF CRUSHED STONE UNDERLAIN WITH FILTER FABRIC OR A BITUMINOUS CONCRETE APRON.

SITE CLEARING

- DURING SITE CLEARING, EXISTING VEGETATION WITHIN THE OVERALL LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARED AND REMOVED, EXCEPT AS OTHERWISE DIRECTED. PRIOR TO ANY SITE CLEARING ACTIVITIES, SEDIMENT CONTROL BARRIERS OR SAFETY FENCING, SHALL BE PLACED ALONG THE OUTER LIMIT OF DISTURBANCE. CLEARING IS TO BE LIMITED TO THOSE AREAS OF PROPOSED WORK. DISTURBED AREAS ARE TO BE KEPT TO A MINIMUM. NO TREE WITH A BREAST HEIGHT DIAMETER OF GREATER THAN 6 INCHES SHALL BE CLEARED FROM AREAS OUTSIDE THE LIMITS OF CLEARING AND GRUBBING WITHOUT PRIOR APPROVAL FROM THE OWNER.

EROSION CONTROL BARRIERS

- COMPOST TUBES ARE TO BE PLACED TO TRAP SEDIMENT TRANSPORTED BY RUNOFF BEFORE IT REACHES THE DRAINAGE FEATURES, WATERBODIES, OR WETLANDS, IN ADDITION TO AREAS WHERE HIGH RUNOFF VELOCITIES OR HIGH SEDIMENT LOADS ARE EXPECTED. THE COMPOST TUBES ARE TO BE REPLACED AS DETERMINED BY PERIODIC FIELD INSPECTIONS.

DUST CONTROL

- STANDARD DUST CONTROL MEASURES, INCLUDING SPRAYING AND MISTING SHALL BE USED AS NECESSARY. CALCIUM CHLORIDE SHALL NOT BE ALLOWED ON THIS PROJECT.

STAGING AREAS

- THE CONTRACTOR SHALL COORDINATE LAYDOWN STAGING AREAS IN WHICH TO STORE EQUIPMENT AND MATERIALS WITH THE OWNER.
- STAGING AREAS SHALL BE SURROUNDED WITH MULCH LOG EROSION BARRIERS ON THE DOWN HILL SIDE.
- DURING AND AFTER CONSTRUCTION, ALL PAVED ROAD AND DRIVEWAY SURFACES ARE TO BE SCRAPPED AND BROOMED FREE OF EXCAVATED MATERIALS ON A DAILY BASIS, UNLESS APPROVED BY THE OWNER.

STOCKPILED MATERIALS

- STOCKPILES OF SOIL CREATED DURING CONSTRUCTION ACTIVITIES ARE TO BE SURROUNDED WITH EROSION CONTROLS WHERE POSSIBLE. OTHER ALTERNATIVES UTILIZED MAY INCLUDE GRAVEL FILTER BERMS OR SIMILAR MEASURES LAID AROUND THE PERIMETER OF THE STOCKPILE. STOCKPILES OF ERODIBLE MATERIAL SHALL BE COVERED PRIOR TO INCLEMENT WEATHER WITH A MINIMUM OF 20 MIL POLYETHYLENE SHEETING.

EQUIPMENT FUELING

- EQUIPMENT FUELING AND OTHER ACTIVITIES INVOLVING PETROLEUM, OIL, OR OTHER POTENTIALLY HAZARDOUS SUBSTANCES ARE TO BE PERFORMED AT PRE-APPROVED, DESIGNATED AREAS WITH APPROPRIATE SPILL PREVENTION AND CONTROL MEASURES. PORTABLE SECONDARY CONTAINMENT IS TO BE USED, AND SORBENT MATERIALS ARE TO BE PLACED AROUND THE PERIMETER OF THE FUELING AREA. FUELING WITHIN THE STATUTORY BUFFER ZONE (100 FEET FROM WETLANDS OR BANK) SHALL NOT BE ALLOWED.

CONSTRUCTION DEWATERING

- CONSTRUCTION DEWATERING SHALL BE REQUIRED DURING PORTIONS OF CONSTRUCTION WHICH REQUIRE EXCAVATION OR OTHER ACTIVITIES WHERE GROUNDWATER MAY INTERFERE WITH THE WORK. CONSTRUCTION DEWATERING DISCHARGE TO A SURFACE WATER BODY SHALL BE PRE-TREATED FOR SEDIMENT REMOVAL BY PASSING THROUGH AN APPROPRIATELY SIZED FILTER BAGS OR FRACTIONATION / SEDIMENTATION TANK PRIOR TO DISCHARGE, AS NECESSARY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING DEWATERING TECHNIQUES AND MAINTAINING DEWATERING PROCEDURES THROUGHOUT THE DURATION OF THE PROJECT.

OUTLET PROTECTION

- APPROPRIATE OUTLET PROTECTION, CONSISTING OF STONE CHANNEL LINING, A LEVEL SPREADER, OR OTHER SUCH MEASURE SHALL BE PROVIDED AT THE OUTLET OF ANY DEWATERING CONDUIT OR STORMWATER CULVERT OR CHANNEL OUTFALL TO REDUCE VELOCITIES AND ENHANCE SEDIMENTATION PRIOR TO DISCHARGE.

LIMITS OF WORK

- THE CONTRACTOR SHALL LINE THE UPGRADIENT BOUNDARY OF WORK AREAS WITH ORANGE SAFETY FENCING PLACED AT THE LIMITS OF WORK BEFORE THE START OF SITE CLEARING ACTIVITIES.

TEMPORARY STABILIZATION

- WHEN NECESSARY, TEMPORARY SLOPE PROTECTION SHALL BE PROVIDED BY INSTALLING SEDIMENT TRAP BARRIERS AT THE TOE OF FILLS OR CUT SLOPES. IF ADDITIONAL STABILIZATION IS NEEDED, THEN THE CONTRACTOR SHALL INSTALL MULCH LOGS, MATTING, SUCH AS STRAW, JUTE, WOOD FIBER, OR BIO OR PHOTO-DEGRADABLE MESH AT NO ADDITIONAL COST TO THE OWNER.
- IN THE EVENT THAT DISTURBED AREAS AT THE SITE ARE TO BE LEFT UN-WORKED FOR MORE THAN TWO WEEKS, THE AREAS SHALL BE MULCHED WITH STRAW AT A RATE OF 100 LBS. PER 1,000 S.F. TO HELP CONTROL EROSION. TWO INCHES OF WOOD CHIP MULCH MAY ALSO BE USED AS TEMPORARY COVER AT NO ADDITIONAL COST TO THE OWNER.
- IN THE EVENT THAT DISTURBED AREAS AT THE SITE ARE TO BE LEFT UN-WORKED FOR MORE THAN ONE MONTH, THE AREAS SHALL BE TOPSOILED AND SEEDED AS PER THE SPECIFICATIONS AND AT NO ADDITIONAL COST TO THE OWNER.
- LEAVE THE SURFACE OF ALL EXCAVATIONS AND FILLS IN A FIRM AND STABLE CONDITION AT THE END OF EACH DAY. ROLL OR OTHERWISE TREAT THE SURFACE AS NEEDED.

SITE RESTORATION

- STABILIZATION OF DISTURBED AREAS OR NEW SOIL FILLS SHALL BE IMPLEMENTED WITHIN 14 DAYS AFTER GRADING OR CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. APPROPRIATE VEGETATIVE SOIL STABILIZATION IS TO BE USED TO MINIMIZE EROSION. TEMPORARY AND PERMANENT VEGETATIVE COVER IS TO BE ESTABLISHED IN ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, USING HYDRO-SEEDING, BROADCASTING, OR OTHER APPROVED TECHNIQUES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATION OF PREVIOUSLY VEGETATED UPLAND AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. RESTORATION OF UPLAND AREAS SHALL CONSIST OF REPLACEMENT OF TOPSOIL OR PLACEMENT OF IMPORTED LOAM AS NEEDED SUCH THAT A MINIMUM OF 6 INCHES OF SUITABLE MATERIAL IS PRESENT AND APPROPRIATELY, LIMED, FERTILIZED, GRADED, AND SCARIFIED.

DISTURBED UPLAND AREAS SEEDED WITH THE MASS SLOPE SEED MIX IN AREAS SPECIFIED BY THE BREWSTER CONSERVATION COMMISSION.

WHERE NOT OTHERWISE SPECIFIED, DISTURBED UPLAND AREAS WITHIN THE 100' WETLAND BUFFER AND WETLANDS SHALL THEN BE SEEDED WITH AN APPROVED SEED MIX AT A RATE OF 1 POUND OF LIVE SEED PER 1,000 S.F. SEEDING RATE SHALL BE DOUBLED FOR DORMANT SEEDING. SEED MIX FOR AREAS WITHIN THE 100' WETLAND BUFFER AND WETLANDS SHALL BE AS FOLLOWS OR AS APPROVED BY THE ENGINEER:

THE NEW ENGLAND EROSION CONTROL MIX FOR WETLANDS, DETENTION BASINS AND MOIST SITES:

COMMON NAME	BOTANICAL NAME	FEDERAL WETLAND STATUS
RIVERBANK WILD RYE	Elymus virginicus	FACW
LITTLE BLUESTEM	Schizachyrium scoparium	FACU
BIG BLUESTEM	Andropogon gerardii	FAC
SWITCH GRASS	Panicum virgatum	FAC
CREEPING RED FESCUE	Festuca rubra	FACU
NEW YORK IRONWEED	Vernonia noveboracensis	FACW
UPLAND BENTGRASS	Agrostis perennans	FACU
BEGGAR TICKS	Bidens frondosa	FACW
SPOTTED JOE PYE WEED	Eupatorium maculatum	OBL
BONESET	Eupatorium perfoliatum	FACW
SOFT RUSH	Juncus effusus	OBL
NEW ENGLAND ASTER	Aster novae-angliae	FACW
WOOL GRASS	Scirpus cyperinus	FACW

THE NEW ENGLAND CONSERVATION/WILDLIFE MIX FOR UPLAND BUFFER AREAS:

COMMON NAME	BOTANICAL NAME	FEDERAL WETLAND STATUS
VIRGINIA WILD RYE	Elymus virginicus	FACW
LITTLE BLUESTEM	Schizachyrium scoparium	FACU
BIG BLUESTEM	Andropogon gerardii	FAC
SWITCH GRASS	Panicum virgatum	FAC
CREEPING RED FESCUE	Festuca rubra	FACU
INDIAN GRASS	Sorghastrum nutans	UPL
PARTRIDGE PEA	Chamaecrista fasciculata	FACU
SHOWY TICK TREFOIL	Desmodium canadense	FAC
BUTTERFLY MILKWEED	Asclepias tuberosa	NI
BEGGAR TICKS	Bidens frondosa	FACW
PURPLE JOE PYE WEED	Eupatorium purpureum	FAC
BLACK EYED SUSAN	Rudebeckia hirta	FACU
HEATH (OR HAIRY) ASTER	Aster pilosus	UPL
EARLY GOLDENROD	Solidago juncea	NI

- RESTORED AREAS SHALL BE ROLLED AND THEN APPROPRIATELY MULCHED WITH STRAW, WOOD CHIPS OR OTHER APPROVED WEED-FREE MATERIAL. BIO OR PHOTO-DEGRADABLE EROSION CONTROL FABRIC IS ALSO ACCEPTABLE FOR POST-RESTORATION STABILIZATION. ON FLAT SURFACES AND ON SLOPES OF 3:1 OR FLATTER, MULCH OR EROSION CONTROL MATTING SHALL TO BE USED AFTER PERMANENT SEEDING TO PROTECT SOIL FROM THE IMPACT OF FALLING RAIN AND TO INCREASE THE CAPACITY OF THE SOIL TO ABSORB WATER. FOR SLOPES STEEPER THAN 3:1, EROSION CONTROL MATTING SHALL BE USED.
- FINAL STABILIZATION SHALL BE CONSIDERED COMPLETE WHEN ALL SOIL-DISTURBING ACTIVITIES HAVE BEEN COMPLETED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY PERCENT HAS BEEN ESTABLISHED OR EQUIVALENT STABILIZATION MEASURES (SUCH AS THE USE OF MULCHES OR EROSION CONTROL MATTING) HAVE BEEN EMPLOYED ON ALL UNPAVED AREAS AND AREAS NOT COVERED BY PERMANENT STRUCTURES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL VEGETATED SURFACES, INCLUDING WATERING, FERTILIZING, AND RE-SEEDING UNTIL WELL ESTABLISHED CONDITIONS ARE MET AND UNTIL THE END OF THE CONTRACTUAL MAINTENANCE PERIOD.

LEGEND

<div>CSBH</div> <div>■</div>	CONCRETE BOUND WITH DRILL HOLE	<div>FLOOD_ZONE_“AB”</div> <div><div><div></div><div></div><div></div></div></div>	FEMA FLOODWAY
<div>⊙</div>	DRILL HOLE FOUND	<div><div><div></div><div></div><div></div></div></div>	VEGETATED WETLANDS LIMIT
<div>SBHD</div> <div>□</div>	STONE BOUND WITH DRILL HOLE	<div><div><div></div><div></div><div></div></div></div>	50-FOOT BUFFER ZONE
<div>⊞</div>	CATCH BASIN	<div><div><div></div><div></div><div></div></div></div>	100-FOOT BUFFER ZONE
<div>◁</div>	CULVERT	<div><div><div></div><div></div><div></div></div></div>	APPROXIMATE LOT LINE
<div>⊕</div>	DRAIN MANHOLE	<div><div><div></div><div></div><div></div></div></div>	DRAIN LINE
<div>○</div>	NO LABEL MANHOLE	<div><div><div></div><div></div><div></div></div></div>	3 1/2' WOOD RAIL FENCE
<div>⊗</div>	SEWER MANHOLE	<div><div><div></div><div></div><div></div></div></div>	OTHER FENCES
<div>⊞</div>	ELECTRIC METER	<div><div><div></div><div></div><div></div></div></div>	STEEL BEAM GUARDRAIL
<div>⌵</div>	WATER GATE	<div><div><div></div><div></div><div></div></div></div>	OVERHEAD WIRES
<div>○</div>	UTILITY GUY ANCHOR	<div><div><div></div><div></div><div></div></div></div>	CENTER GRAVEL TRAIL
<div>⊕</div>	UTILITY POLE WITH LIGHT	<div><div><div></div><div></div><div></div></div></div>	BRUSH LINE
<div>⊕</div>	UTILITY POLE WITH TRANSFORMER	<div><div><div></div><div></div><div></div></div></div>	TREE LINE
<div>⊕</div>	DECIDUOUS TREE	<div><div><div></div><div></div><div></div></div></div>	INTERMEDIATE CONTOURS
<div>⊕</div>	CONIFER TREE	<div><div><div></div><div></div><div></div></div></div>	INDEX CONTOURS
<div>⊕</div>	SHRUB	<div><div><div></div><div></div><div></div></div></div>	WETLAND LINE
<div>⊕</div>	SIGN	<div><div><div></div><div></div><div></div></div></div>	STONE RETAINING WALL
<div>○</div>	POST	<div><div><div></div><div></div><div></div></div></div>	EDGE OF WATER
<div>⊕</div>	TEMP. BENCHMARK	<div><div><div></div><div></div><div></div></div></div>	PROPOSED CONTOURS
<div>⊕</div>	SPOT ELEVATION	<div><div><div></div><div></div><div></div></div></div>	PHOTO LOCATION
<div>1</div>		<div><div><div></div><div></div><div></div></div></div>	LIMIT OF WORK
<div><div><div></div><div></div><div></div></div></div>		<div><div><div></div><div></div><div></div></div></div>	SEDIMENTION AND EROSION CONTROL BARRIER
<div><div><div></div><div></div><div></div></div></div>		<div><div><div></div><div></div><div></div></div></div>	APPROX EXTENT OF WALL REPAIR
<div><div><div></div><div></div><div></div></div></div>		<div><div><div></div><div></div><div></div></div></div>	LIMITS OF AREA TO BE STRIPPED AND RESEEDED SEE SHEET C-103
<div><div><div></div><div></div><div></div></div></div>		<div><div><div></div><div></div><div></div></div></div>	APPROXIMATE EXTENT OF THE GEOSYNTHETIC CLAY LINER (GCL)

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Stony Brook
Grist Mill
Headrace Pond
Retaining Wall
and Fishway
Rehabilitation

Town of
Brewster

Brewster,
Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:		B5078-001
DATE:		2/2024
FILE:		B5078-001 G-002.dwg
DRAWN BY:		CFY
CHECKED BY:		JS, MR
APPROVED BY:		CDH

GENERAL NOTES, LEGEND,
AND ABBREVIATIONS

SCALE: NO SCALE

G-002
SHEET 2 OF 13



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Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:	B5078-001	
DATE:	2/2024	
FILE:	B5078-001 C-101 & C-102.dwg	
DRAWN BY:	CFY	
CHECKED BY:	JS, MR	
APPROVED BY:	CDH	

EXISTING
CONDITIONS PLAN - 2

SCALE: 1"=10'

C-102
SHEET 4 OF 13

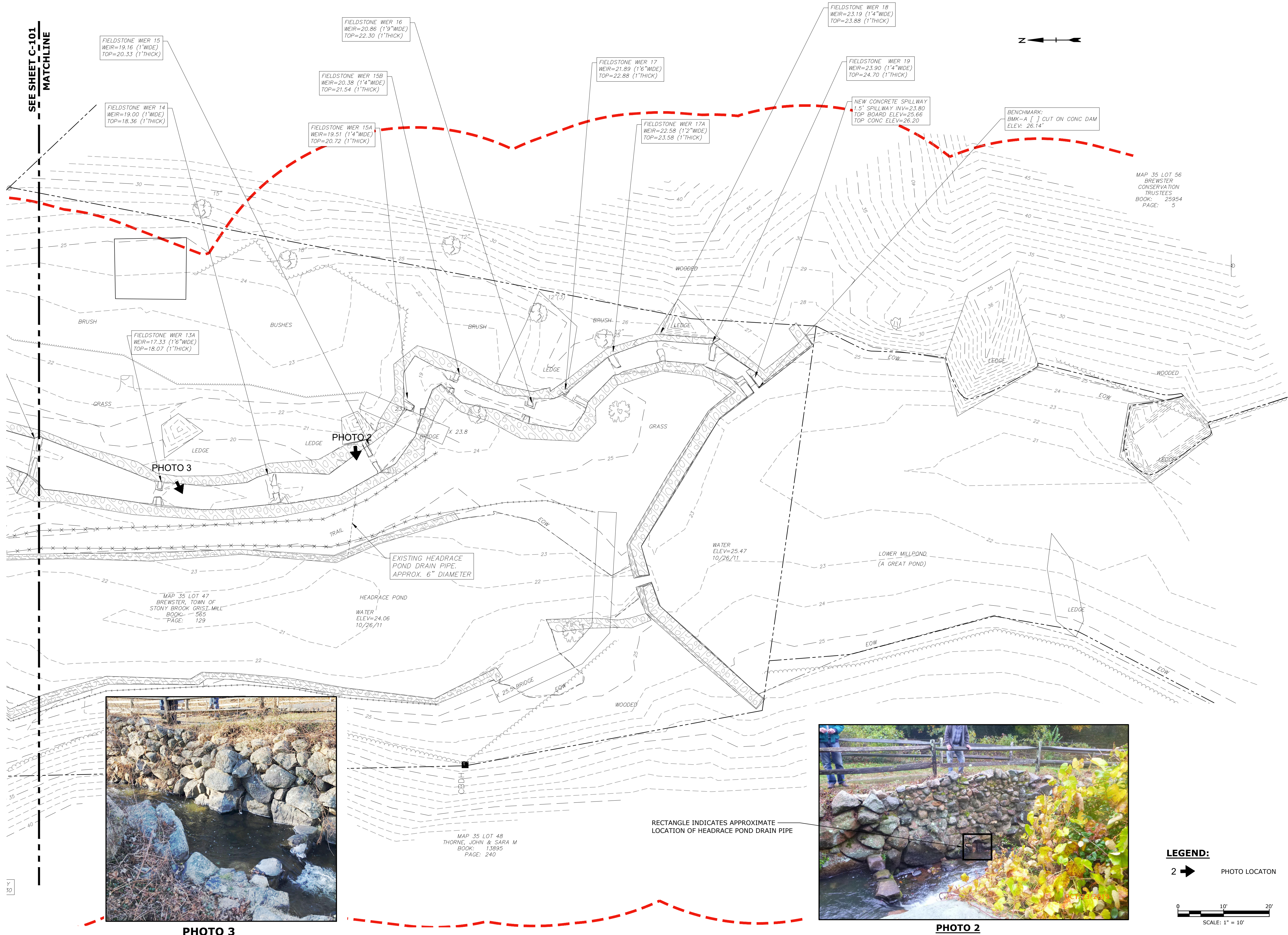
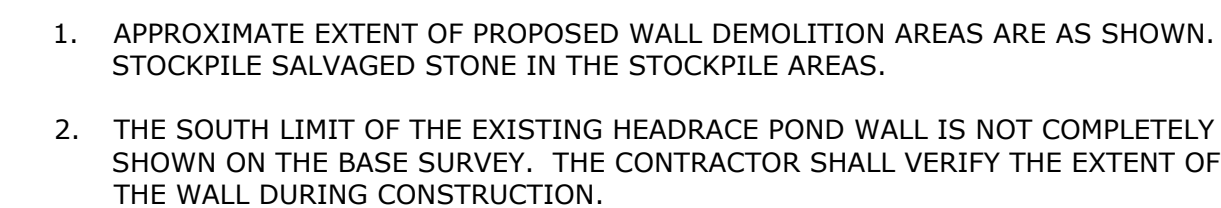


PHOTO 3



PHOTO 2



Stony Brook Grist Mill Headrace Pond Retaining Wall and Fishway Rehabilitation

Town of
Brewster

Brewster,
Massachusetts

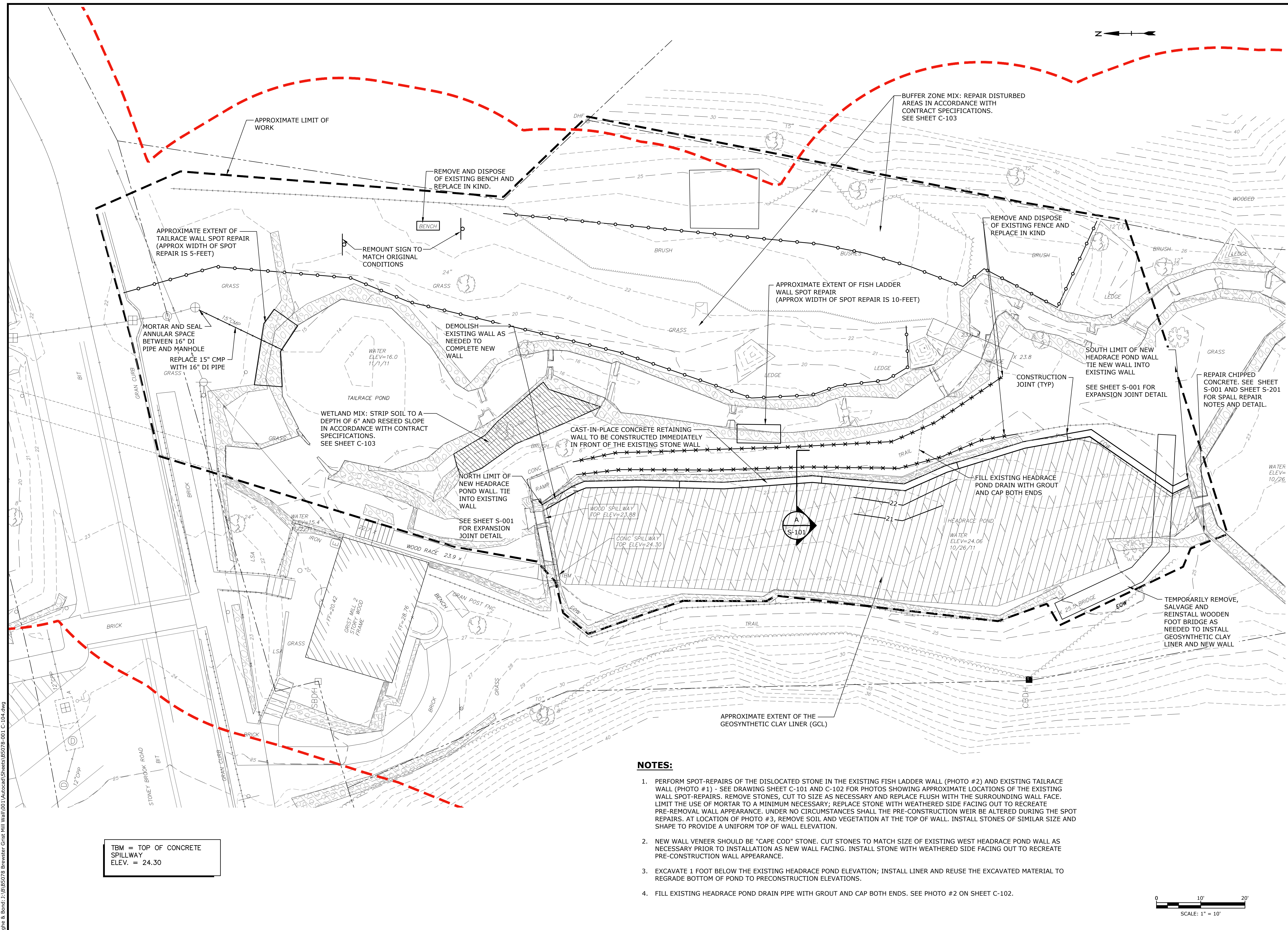
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MARK	DATE	DESCRIPTION
PROJECT NO:	B5078-001	
DATE:	2/2024	
FILE:	B5078-001 C-104.dwg	
DRAWN BY:	CFY	
CHECKED BY:	JS, MR	
APPROVED BY:	CDH	

PROPOSED
CONDITIONS PLAN - 1

SCALE: 1"=10'

C-104
SHEET 6 OF 13

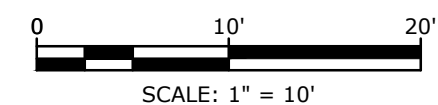


Stony Brook Grist Mill Headrace Pond Retaining Wall and Fishway Rehabilitation

Brewster,
Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:		B5078-001
DATE:		2/2024
FILE:		B5078-001 C-201.dwg
DRAWN BY:		ARG,LPT
CHECKED BY:		JS, MRJS
APPROVED BY:		CDH

SCALE: 1"=10'



Last Saved: 1/30/2024
Plotted On: Feb 16, 2024-3:20pm By: MLepek
Tighe & Bond: J:\B\B5078 Brewster Grist Mill Wall\001\Autocad\Sheets\B5078-001 C-201.dwg

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Brewster

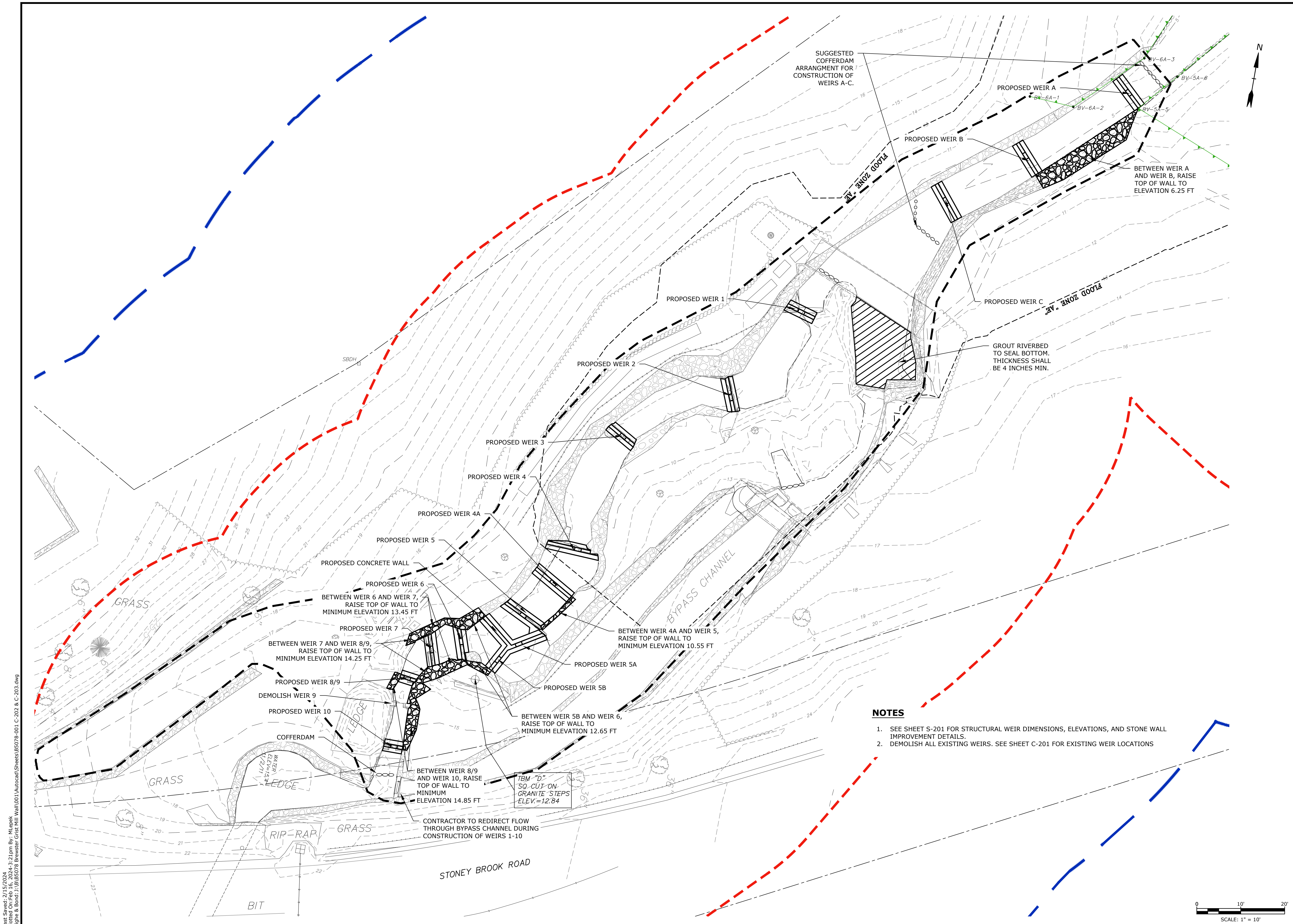
Brewster,
Massachusetts

[illegible]

PROPOSED
CONDITIONS PLAN - 2

SCALE: 1"=10'

C-202



Stony Brook Grist Mill Headrace Pond Retaining Wall and Fishway Rehabilitation

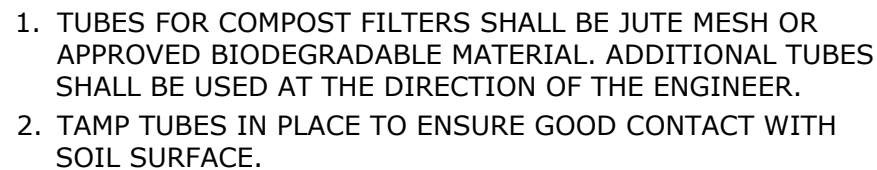
Brewster,
Massachusetts

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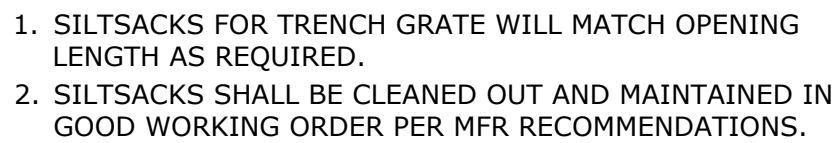
MARK	DATE	DESCRIPTION
PROJECT NO:	B5078-001	
DATE:	2/2024	
FILE:	B5078-001 C-202 & C-203.dwg	
DRAWN BY:	ARG,LPT	
CHECKED BY:	JS, MR	
APPROVED BY:	CDH	

SCALE: 1"=1'

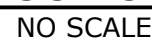
Last Saved: 2/15/2024
Plotted On: Feb 16, 2024-3:21 pm By: MLepek
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NO SCALE



NO SCALE



MARK	DATE	DESCRIPTION
PROJECT NO:	B5078-001	
DATE:	2/2024	
FILE:	B5078-001 C-301.dwg	
DRAWN BY:	CFY	
CHECKED BY:	JS, MR	
APPROVED BY:	CDH	

Last Saved: 12/21/2023 2:21pm By: MLepek
Plotted On: Feb 16, 2024 8:58am
Title & Content: Stony Brook Grist Mill Wall 001 Autocad Sheets B5078-001 S-001.dwg

GENERAL

1. STRUCTURAL WORK SHALL CONFORM TO STATE BUILDING CODE (IBC 2015), LATEST EDITION, INCLUDING MOST RECENT ADDENDA, AND CONTRACT DOCUMENTS. IN CASE OF CONFLICT, MOST STRINGENT REQUIREMENT SHALL GOVERN.
2. CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS RELATED TO THIS PROJECT.
3. THE CONTRACTOR SHALL RETAIN THE SERVICES OF AN INDEPENDENT TESTING LABORATORY FOR CONCRETE AND SOILS TESTING. ALL TESTING COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

REINFORCEMENT

1. DETAILING, FABRICATION, AND ERECTION OF REINFORCEMENT, UNLESS OTHERWISE NOTED, SHALL CONFORM TO ACI "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318)" AND ACI "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES (ACI 315)", LATEST EDITION.
2. STEEL REINFORCEMENT UNLESS OTHERWISE SHOWN SHALL CONFORM TO ASTM A615 GRADE 60 MINIMUM (YIELD STRENGTH - 60,000 PSI).
3. PROVIDE AND SCHEDULE ON SHOP DRAWINGS, ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION: MINIMUM REQUIREMENTS SHALL BE: HIGH CHAIRS, 4'-0" ON CENTER, #5 SUPPORT BAR FOR HIGH CHAIRS, SLAB BOLSTERS, 3'-6" ON CENTER, ALL WIRE CHAIRS AND BOLSTERS TO BE PLASTIC TIPPED.
4. THE CONCRETE PROTECTIVE COVERING FOR REINFORCEMENT SHALL BE 3 INCHES FOR CAST-IN-PLACE CONCRETE CAST AGAINST EARTH, OR EXPOSED TO WATER OR WEATHER AND 2 INCHES IF CAST-IN-PLACE IS NOT CAST AGAINST EARTH, OR EXPOSED TO WATER OR WEATHER, UNLESS OTHERWISE SHOWN.
5. WHERE CONTINUOUS BARS ARE CALLED FOR THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS AND LAPPED AT NECESSARY SPLICES OR HOOKED AT DISCONTINUOUS ENDS. REINFORCEMENT SHALL BE SPLICED IN ACCORDANCE WITH THE REBAR SPLICE LENGTH SCHEDULE.
6. WHERE REINFORCEMENT IS NOT SHOWN ON DRAWINGS, PROVIDE REINFORCEMENT IN ACCORDANCE WITH APPLICABLE TYPICAL DETAILS OR SIMILAR TO THAT SHOWN FOR MOST NEARLY SIMILAR SITUATIONS, AS DETERMINED BY THE ENGINEER. IN NO CASE SHALL REINFORCEMENT BE LESS THAN MINIMUM REINFORCEMENT PERMITTED BY THE APPLICABLE CODES.
7. WHERE REINFORCEMENT IS CALLED FOR IN SECTION, REINFORCEMENT IS CONSIDERED TYPICAL WHEREVER THE SECTION APPLIES.
8. REINFORCEMENT SHALL BE CONTINUOUS THROUGH ALL CONSTRUCTION JOINTS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
9. INSTALLATION OF REINFORCEMENT SHALL BE COMPLETED AT LEAST 24 HOURS PRIOR TO SCHEDULED CONCRETE PLACEMENT. NOTIFY ENGINEER OF COMPLETION AT LEAST 24 HOURS PRIOR TO SCHEDULED COMPLETION OF REINFORCEMENT PLACEMENT.
10. REINFORCEMENT SHALL BE SET BEFORE PLACING CONCRETE. SETTING ANY REINFORCEMENT INTO WET CONCRETE IS PROHIBITED.

CONCRETE

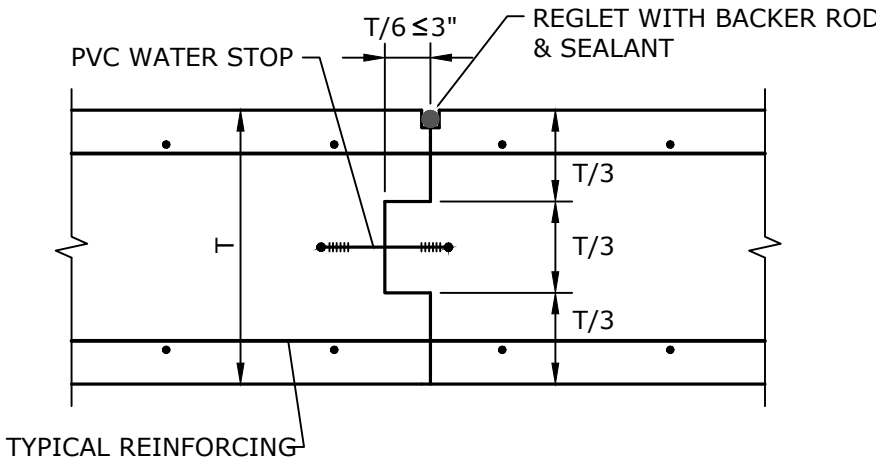
1. CONCRETE WORK SHALL CONFORM TO THE LATEST EDITIONS OF THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318), AND SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDING (ACI 301).
2. CONCRETE SHALL BE CONTROLLED CONCRETE, PROPORTIONED, MIXED, AND PLACED UNDER THE SUPERVISION OF AN APPROVED CONCRETE TESTING AGENCY OR THE ENGINEER.
3. CONCRETE SHALL BE NORMAL WEIGHT CONCRETE AND SHALL HAVE A COMPRESSIVE STRENGTH OF 4500 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED AND SHALL BE AIR ENTRAINED (SEE SPECS).
4. THE USE OF CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS IS MANDATORY. OMISSIONS, ADDITIONS OR CHANGES SHALL NOT BE MADE EXCEPT WITH THE SUBMISSION OF A WRITTEN REQUEST TOGETHER WITH DRAWINGS OF THE PROPOSED JOINT LOCATIONS FOR APPROVAL OF THE STRUCTURAL ENGINEER.
5. WHERE CONSTRUCTION JOINTS ARE NOT SHOWN, DRAWINGS SHOWING LOCATION OF CONSTRUCTION JOINTS AND CONCRETE PLACING SEQUENCE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PREPARATION OF THE REINFORCEMENT SHOP DRAWINGS.
6. CONCRETE SLABS SHALL BE CAST SO THAT THE THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
7. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS EXCEPT WHERE SHOWN OR NOTED.
8. EXPOSED EDGES OF CONCRETE ELEMENTS SHALL HAVE CHAMFERED CORNERS.

BUILDING OF STONE WALLS AND WEIR FACING

1. THIS WORK SHALL CONSIST OF REBUILDING EXISTING SECTIONS OF STONE WALL THAT ARE DEEMED UNSUITABLE, ENLARGING EXISTING STONE WALLS, AND PROVIDING FACING TO CONCRETE WEIRS.
2. THE STONE SHALL CONSIST OF THOSE IN THE PRESENT WALLS ON SITE AND NEW STONES FOR PROPOSED WORK..
3. STONES FOR FIELD STONE MASONRY SHALL CONSIST OF SOUND DURABLE BLASTED OR FIELD STONE FREE FROM SEAMS, CRACKS AND OTHER STRUCTURAL DEFECTS AND OF AN APPROVED AND SATISFACTORY QUALITY AND SHAPE
4. THE STONE SHALL HAVE STRAIGHT EDGES WITHOUT RE-ENTRANT ANGLES. THE FACES SHALL BE FLAT BUT NOT NECESSARILY RECTANGULAR IN SHAPE.
5. INDIVIDUAL STONE SHALL HAVE, WHEN SET IN THE WALL, NO FACE DIMENSION LESS THAN 8". STRETCHERS SHALL HAVE A DEPTH IN THE WALL AT LEAST 1-1/2 TIMES THE RISE, AND A LENGTH ON THE FACE AT LEAST TWICE THE RISE. HEADERS SHALL HAVE A LENGTH ON THE FACE AT LEAST EQUAL TO THE RISE. HEADERS SHALL HOLD IN THE HEART OF THE WALL THE SAME SIZE AS SHOWN ON THE FACE.
6. THE HEIGHT AND WIDTH OF THE NEW AND REBUILT STONE WALLS SHALL MATCH THE WIDTH OF THE EXISTING STONE WALLS WHERE APPLICABLE AND SHALL MATCH THAT SHOWN ON THE DRAWINGS FOR NEW WALLS.
7. THE MASONRY SHALL BE LAID IN BEDS OF MORTAR AS DESCRIBED BELOW AND THE FACE PATTERN SHALL BE OF UNIFORM APPEARANCE THROUGHOUT.
8. THE STONES SHALL BE LAID ON HORIZONTAL BEDS PARALLEL TO THE NATURAL BED OF THE STONE. VERTICAL JOINTS SHALL BE BROKEN BY AT LEAST 6".
9. THE WALL SHALL BE COMPACTLY LAID HAVING ALL INTERIOR JOINTS COMPLETELY FILLED WITH SUITABLE STONES OR SPALLS.
10. ALL MORTAR JOINTS SHALL BE RAKED.
11. MORTAR AND GROUT MATERIALS
 - 11.1. PORTLAND CEMENT: ASTM C150, TYPE I, EXCEPT TYPE III MAY BE USED FOR COLD WEATHER CONSTRUCTION.
 - 11.2. MORTAR AGGREGATE: ASTM C144, STANDARD MASONRY TYPE.
 - 11.3. HYDRATED LIME: ASTM C207, TYPE S.
 - 11.4. GROUT AGGREGATE: ASTM C404, FINE AND COARSE.
 - 11.5. WATER: CLEAN AND POTABLE.
 - 11.6. WATER REPELLENT: GRANULAR OR LIQUID TYPE. WATER REPELLENT ADMIXTURE SHALL BE HYDROCID E POWDER MANUFACTURED BY SONNEBORN, OMICRON BY MASTER BUILDERS CO., INTEGRAL WATERPELLER BY EUCLID CHEMICAL, OR APPROVED EQUAL.
 - 11.7. ADMIXTURES: THE USE OF ADMIXTURES, OTHER THAN WATER REPELLENT ADMIXTURES, IS PROHIBITED UNLESS SPECIFICALLY SUBMITTED AND APPROVED BY THE ENGINEER.
12. MORTAR MIXES
 - 12.1. MORTAR FOR ALL MASONRY: ASTM C270, TYPE S USING PROPORTION SPECIFICATION.
 - 12.2. ALL MORTAR SHALL CONTAIN WATER REPELLENT.
13. MORTAR MIXING:
 - 13.1. THOROUGHLY MIX MORTAR INGREDIENTS IN ACCORDANCE WITH ASTM C270 IN QUANTITIES NEEDED FOR IMMEDIATE USE.
 - 13.2. ACHIEVE UNIFORMLY DAMP SAND IMMEDIATELY BEFORE MIXING PROCESS.
 - 13.3. ADD MORTAR COLOR AND ADMIXTURES TO ACHIEVE UNIFORMITY OF MIX AND COLORATION.
 - 13.4. RE-TEMPER ONLY WITHIN TWO HOURS OF MIXING.
14. MORTAR COLORING:
 - 14.1. PIGMENTS FOR COLORING MORTAR SHALL BE CHEMICALLY PURE, INORGANIC OXIDES IN COMPOUNDS SUITABLY PREPARED FOR USE IN MASONRY MORTAR.
 - 14.2. PROVIDE MORTAR COLOR SELECTED BY OWNER. COLOR SHALL BE SELECTED FROM FULL RANGE OF COLORS AVAILABLE.
15. STONE SHALL BE THE FOLLOWING, AS PRODUCED BY CAPE COD STONE OF ORLEANS, MA.:
 - 15.1. STONE FACING ON SIDES OF CONCRETE WALL SHALL BE NEW ENGLAND STONY BROOK MEDIUM ROUNDS.
 - 15.2. STONE FACING ON TOP OF CONCRETE WALL SHALL BE NEW ENGLAND STONY BROOK SLAB/STEPPERS.
 - 15.3. STONE FOR STONE MASONRY TRAINING WALLS SHALL BE CAPE COD FIELDSTONE.

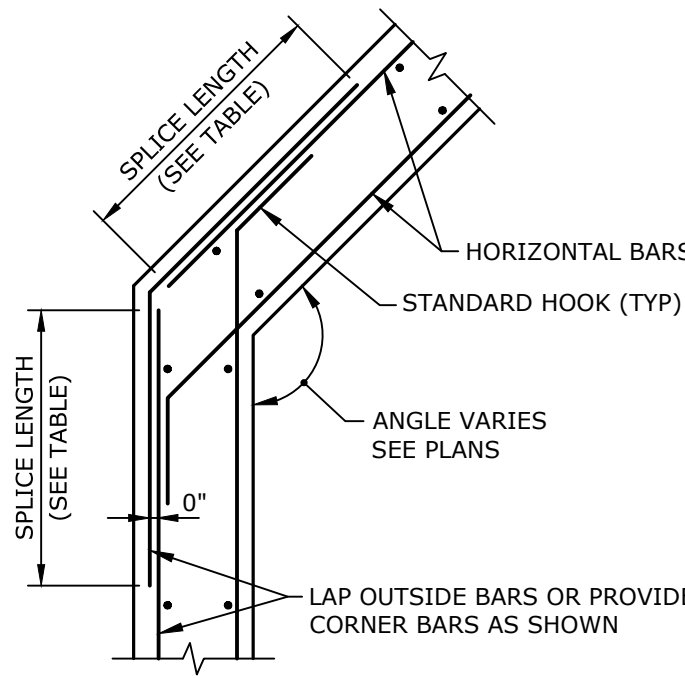
SPALL REPAIR

1. SURFACE TO BE SATURATED SURFACE DRY PRIOR TO APPLICATION OF REPAIR MORTAR..
2. SCRUB IN A BRUSH COAT OF THE REPAIR MORTAR INTO THE SUBSTRATE TO FILL ALL PORES AND VOIDS..
3. INSTALL AND MOIST CURE THE REPAIR MORTAR IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. REPAIR MORTAR SHALL BE A POLYMER-MODIFIED PORTLAND CEMENT BASED PRODUCT WITH A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 7000 PSI.
5. REPAIR MORTAR SHALL BE COMPATIBLE WITH THE PROPOSED COATING SYSTEM.
6. CONCRETE SLABS SHALL BE CAST SO THAT THE THICKNESS IS AT NO POINT LESS THAN THAT INDICATED ON THE DRAWINGS.
7. FOR REPAIRS 4" OR DEEPER, DRILL AND ADHESIVE ANCHOR #3 REINF BARS AT 18" OC EACH WAY. PROVIDE A MINIMUM OF 1 1/2" CLEAR COVER OVER BARS WITH 3 1/2" EMBEDMENT INTO SOUND CONCRETE.
8. MIX, APPLY AND CURE CEMENTITIOUS REPAIR MORTAR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.



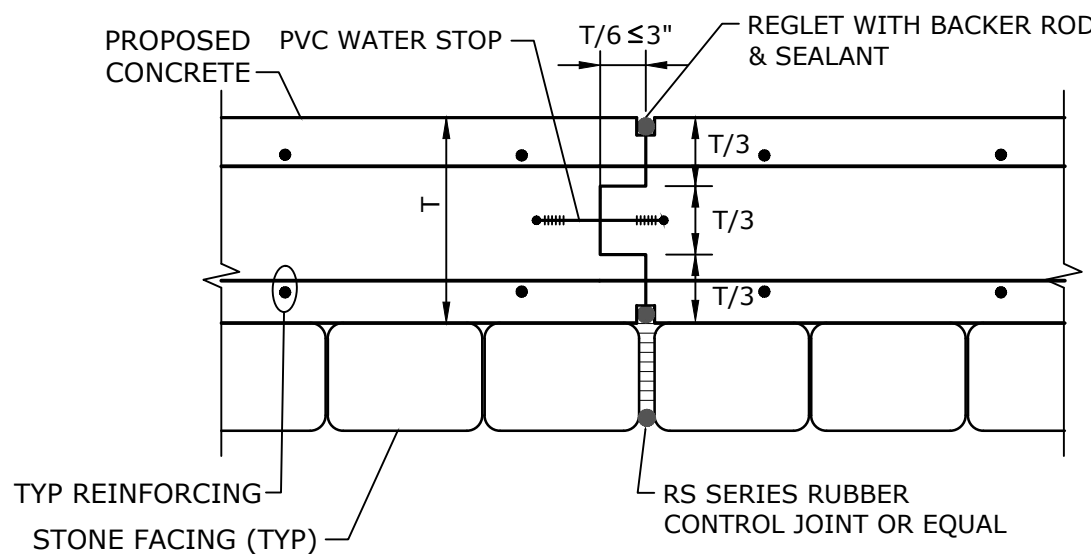
FOOTING CONSTRUCTION JOINT

DETAIL	1
NO SCALE	-



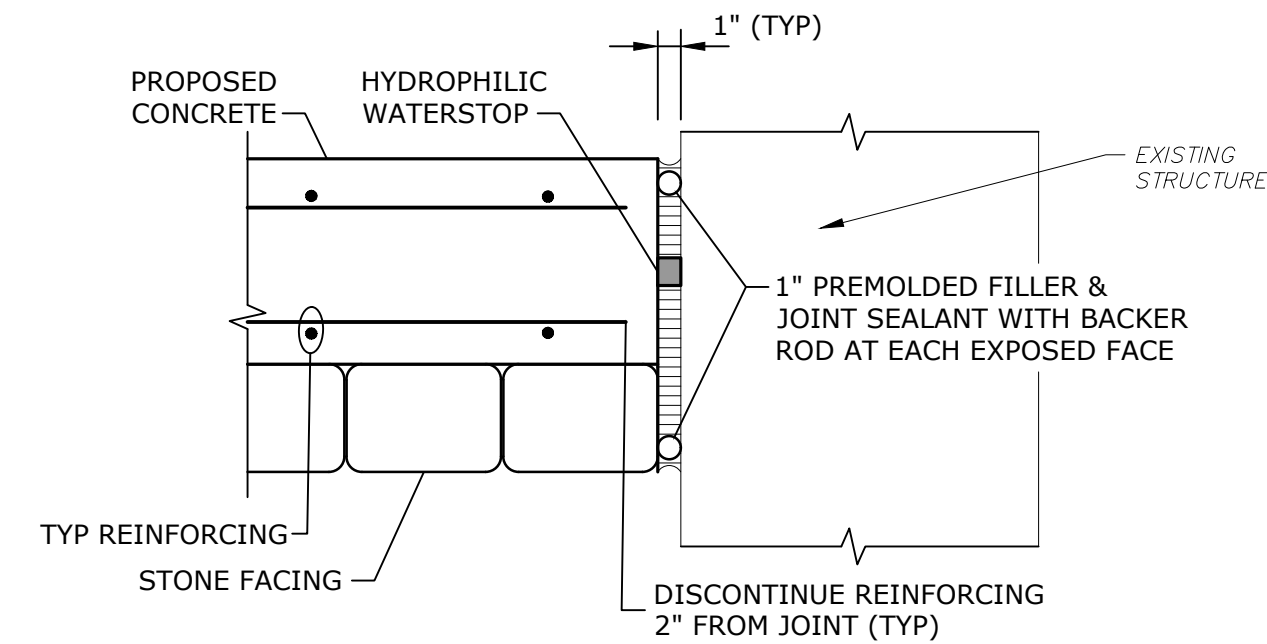
PLAN OF HORIZONTAL REINFORCING AT SKEWED CONCRETE WALLS

DETAIL	2
NO SCALE	-



CONCRETE CONSTRUCTION JOINT/MASONRY CONTROL JOINT

DETAIL	3
NO SCALE	-



CONCRETE WALL EXPANSION JOINT AT EACH END OF WALL

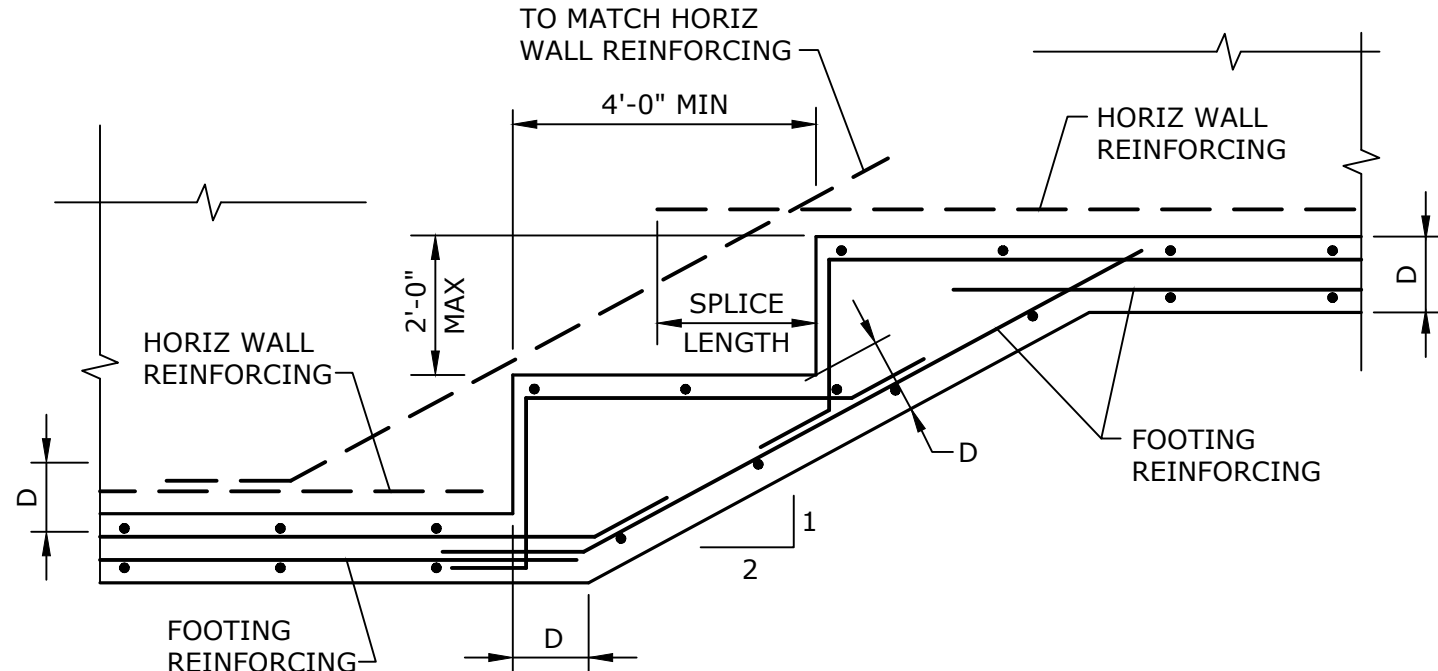
DETAIL	4
NO SCALE	-

BAR SIZE DESIGNATION		DEVELOPMENT LENGTH (INCHES)	SPLICE LENGTH (INCHES)	
ENGLISH	METRIC	Ld	CLASS B	CLASS B TOP BARS
#3	#10	14	18	23
#4	#13	18	24	31
#5	#16	23	30	38
#6	#19	27	35	46
#7	#22	40	51	67

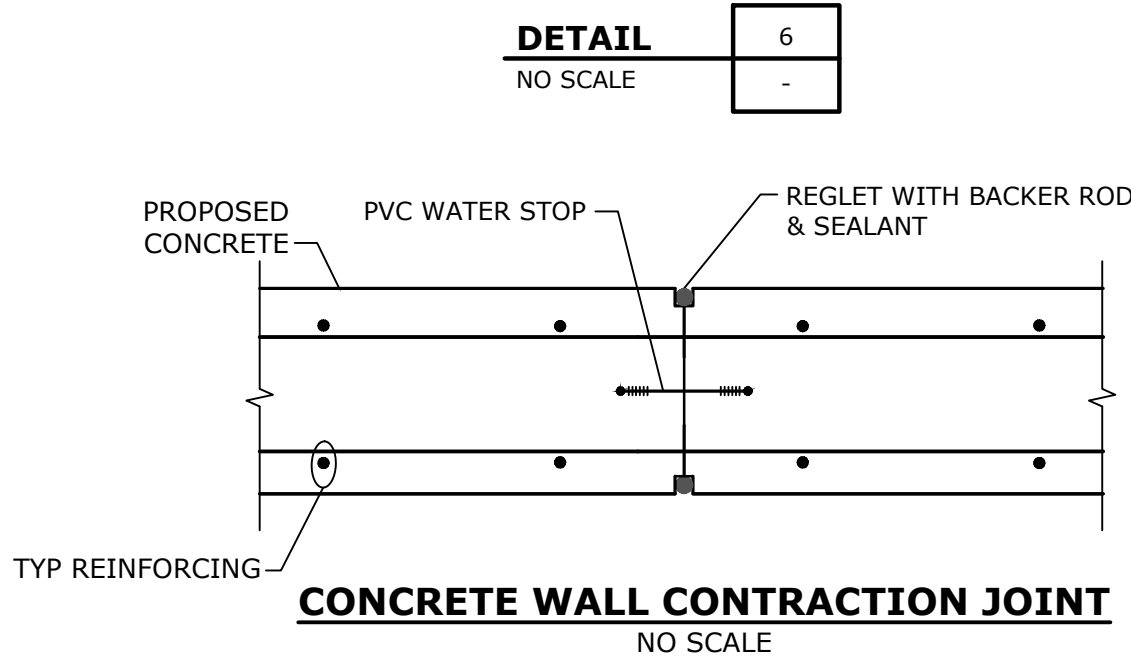
REBAR SPLICE LENGTH SCHEDULE

NOTES:

1. IF CLEAR SPACING BETWEEN THE REBARS IS LESS THAN THREE BAR DIAMETERS, OR IF COVER IS LESS THAN TWO BAR DIAMETERS, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 50%.
2. IF EPOXY COATED REBAR IS USED, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 50%.
3. IF LIGHTWEIGHT CONCRETE IS USED, INCREASE THE SPLICE LENGTH BY AN ADDITIONAL 30%.
4. THE MINIMUM REBAR SPLICE LENGTH SCHEDULE IS BASED ON F_c= 4,500 PSI AND F_y= 60,000 PSI. ADJUST FOR OTHER STRENGTHS USING ACI-318.
5. FOR HORIZONTAL REINFORCEMENT SO PLACED THAT MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW, INCREASE THE DEVELOPMENT LENGTH BY AN ADDITIONAL 30%.
6. WHEN BARS OF DIFFERENT SIZE ARE LAP SPLICED, THE SPLICE LENGTH SHALL BE THE LARGER OF EITHER THE DEVELOPMENT LENGTH OF THE LARGER BAR OR THE SPLICE LENGTH OF THE SMALLER BAR.



ELEVATION OF CONTINUOUS STEPPED WALL FOOTING



CONCRETE WALL CONTRACTION JOINT

DETAIL	5
NO SCALE	-

GENERAL SYMBOLS

- | | | |
|---------|--|--|
| SECTION | | SECTION REFERENCE LETTER DRAWING WHERE SECTION IS SHOWN OR TAKEN |
| DETAIL | | DETAIL REFERENCE NUMBER DRAWING WHERE DETAIL IS SHOWN OR TAKEN |
| | | SECTION CUT |
| | | EQUIPMENT AND STRUCTURES TO BE DEMOLISHED |
| | | PHOTOGRAPH LOCATION |

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Stony Brook Grist Mill Headrace Pond Retaining Wall and Fishway Rehabilitation

Town of Brewster

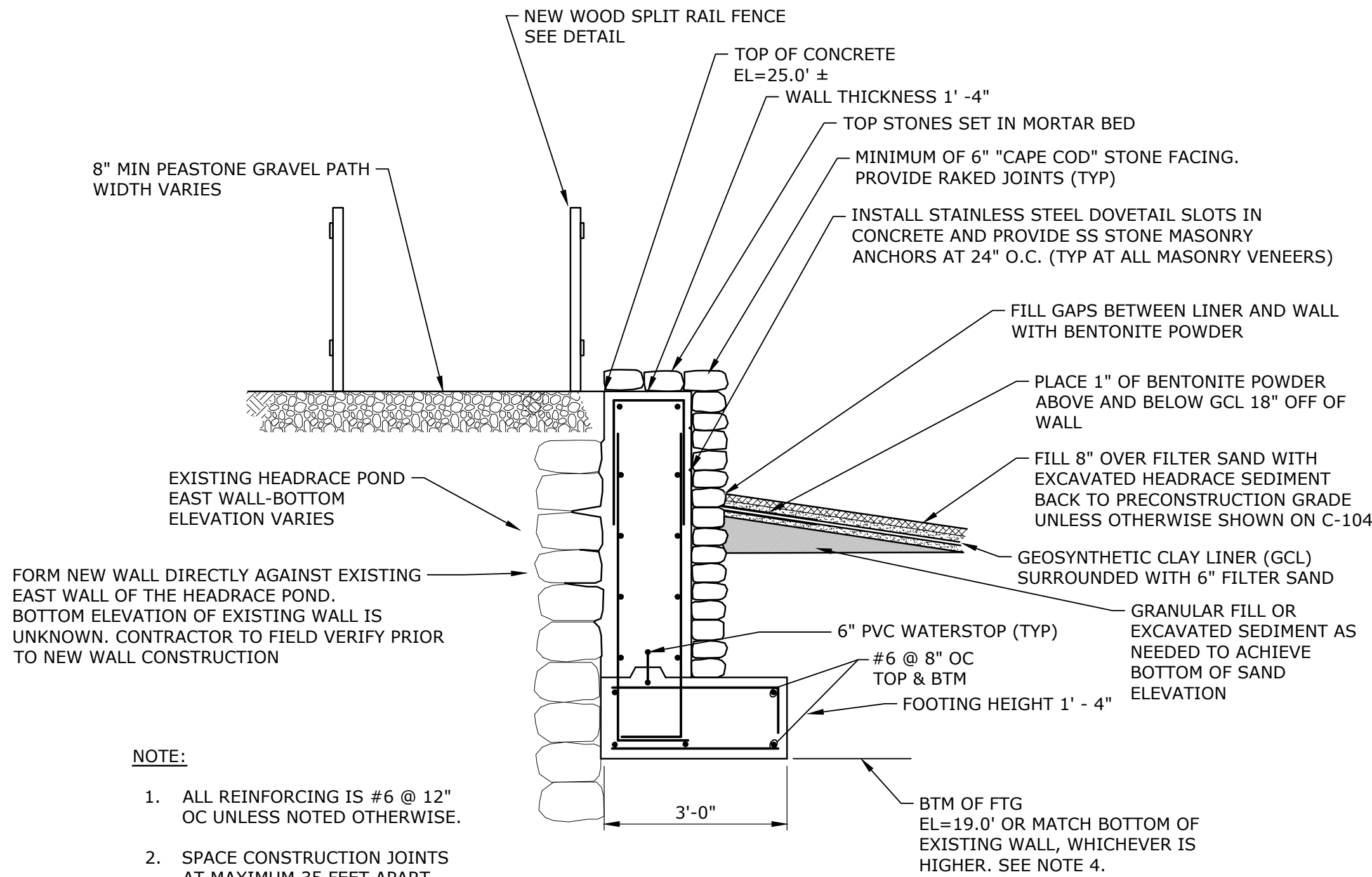
Brewster, Massachusetts

MARK	DATE	DESCRIPTION
PROJECT NO:	B5078-001	
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FILE:	B5078-001 S-001.dwg	
DRAWN BY:	CFY	
CHECKED BY:	JS	
APPROVED BY:	CDH	

STRUCTURAL NOTES AND DETAILS

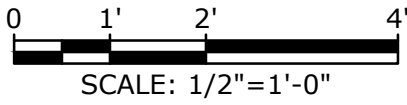
SCALE: AS SHOWN

S-001
SHEET 11 OF 13



- NOTE:
- 1. ALL REINFORCING IS #6 @ 12" OC UNLESS NOTED OTHERWISE.
 - 2. SPACE CONSTRUCTION JOINTS AT MAXIMUM 35 FEET APART.
 - 3. PLACE BENTONITE POWDER TIGHTLY BETWEEN STONE CREVICES TO PREVENT SPACES BETWEEN THE WALL AND LINER.
 - 4. CONTRACTOR TO ENSURE STABILITY OF EXISTING STONE WALL WHILE FORMING PROPOSED WALL. ENSURE THAT THE EXISTING STONE WALL IS NOT UNDERMINED. CONTRACTOR WILL PERFORM A TEST PIT AT THE BEGINNING OF WALL CONSTRUCTION TO DETERMINE BASE OF EXISTING WALL ELEVATION. CONTRACTOR WILL SUBMIT ELEVATION TO ENGINEER PRIOR TO WALL FOOTING EXCAVATION.

SECTION A
1/2"=1'-0"



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Stony Brook
Grist Mill
Headrace Pond
Retaining Wall
and Fishway
Rehabilitation

Town of
Brewster

Brewster,
Massachusetts

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RETAINING WALL SECTION
AND DETAILS

SCALE: AS SHOWN

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Stony Brook
Grist Mill
Headrace Pond
Retaining Wall
and Fishway
Rehabilitation

Town of
Brewster

Brewster,
Massachusetts

MARK	DATE	DESCRIPTION
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DRAWN BY:		CFY
CHECKED BY:		JS
APPROVED BY:		CDH

STRUCTURAL DETAILS

SCALE: AS SHOWN

S-201
SHEET 13 OF 13

WEIR	DIST FROM LEFT CHANNEL WALL	DIST FROM RIGHT CHANNEL WALL	TOE WIDTH	HEEL WIDTH	TOTAL FOOTING WIDTH	TOP OF WEIR ELEV	SILL ELEV	STREAMBED ELEV	BOTTOM OF FOOTING ELEV.	CHANNEL WALL DOWELS
ID	A	B	D1	D2	D3	T	S	C	F	-
A	3.4	3.3	1.00	1.75	3.75	6.00	4.50	3.00	2.30	-
B	2.6	3.75	1.50	2.50	5.00	6.60	5.10	3.60	2.40	-
C	3.5	4.2	1.00	1.00	3.00	7.20	5.70	4.20	3.00	REQUIRED
1	2.7	2.5	0.75	1.00	2.75	7.90	6.40	4.90	4.00	REQUIRED
2	4	2.6	0.75	1.00	2.75	8.60	7.10	5.42	4.80	REQUIRED
3	6.3	2.1	0.75	1.00	2.75	9.10	7.60	6.75	5.50	REQUIRED
4	6	1.8	1.00	1.00	3.00	9.70	8.20	7.30	6.40	-
4A	4.4	4.3	1.00	1.25	3.25	10.30	8.80	8.20	6.40	-
5	4	3.6	1.50	2.50	5.00	11.00	9.50	7.92	6.65	-
5A	SEE C-203	SEE C-203	1.00	1.00	3.00	11.60	10.10	7.92	6.65	-
5B	SEE C-203	SEE C-203	1.00	1.00	3.00	12.40	10.90	7.92	6.65	-
6	1.9	3.7	2.50	3.00	6.50	13.20	11.70	9.59	7.50	-
7	2.7	2.9	1.50	2.00	4.50	14.00	12.50	10.04	8.50	REQUIRED
8/9	0.8	1.5	2.50	3.00	6.50	14.60	13.10	10.87	9.00	-
10	1.5	1.3	0.75	1.00	2.75	15.10	13.60	12.75	11.60	REQUIRED

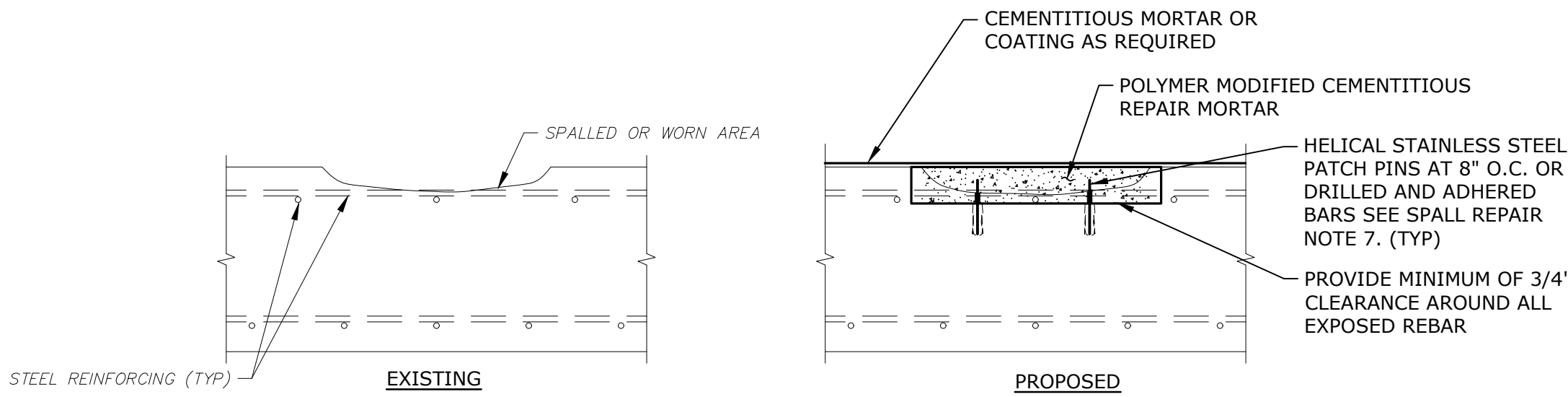
TABLE-S1

- NOTE(S):
- SEE SECTION A-A NOTES 2 & 3 FOR DOWELING INSTRUCTIONS.
 - MEASUREMENT "A" IS TO BE USED FOR CONSTRUCTION OF PROPOSED WEIRS. MEASUREMENT "B" IS INCLUDED FOR PLANNING PURPOSES ONLY.
 - ALL DIMENSIONS ARE IN FEET.
 - LEFT AND RIGHT DIRECTIONS REFERENCED ON DRAWINGS ASSUME AN ORIENTATIONS FACING IN THE DOWNSTREAM DIRECTION.



STONE FACING AESTHETIC

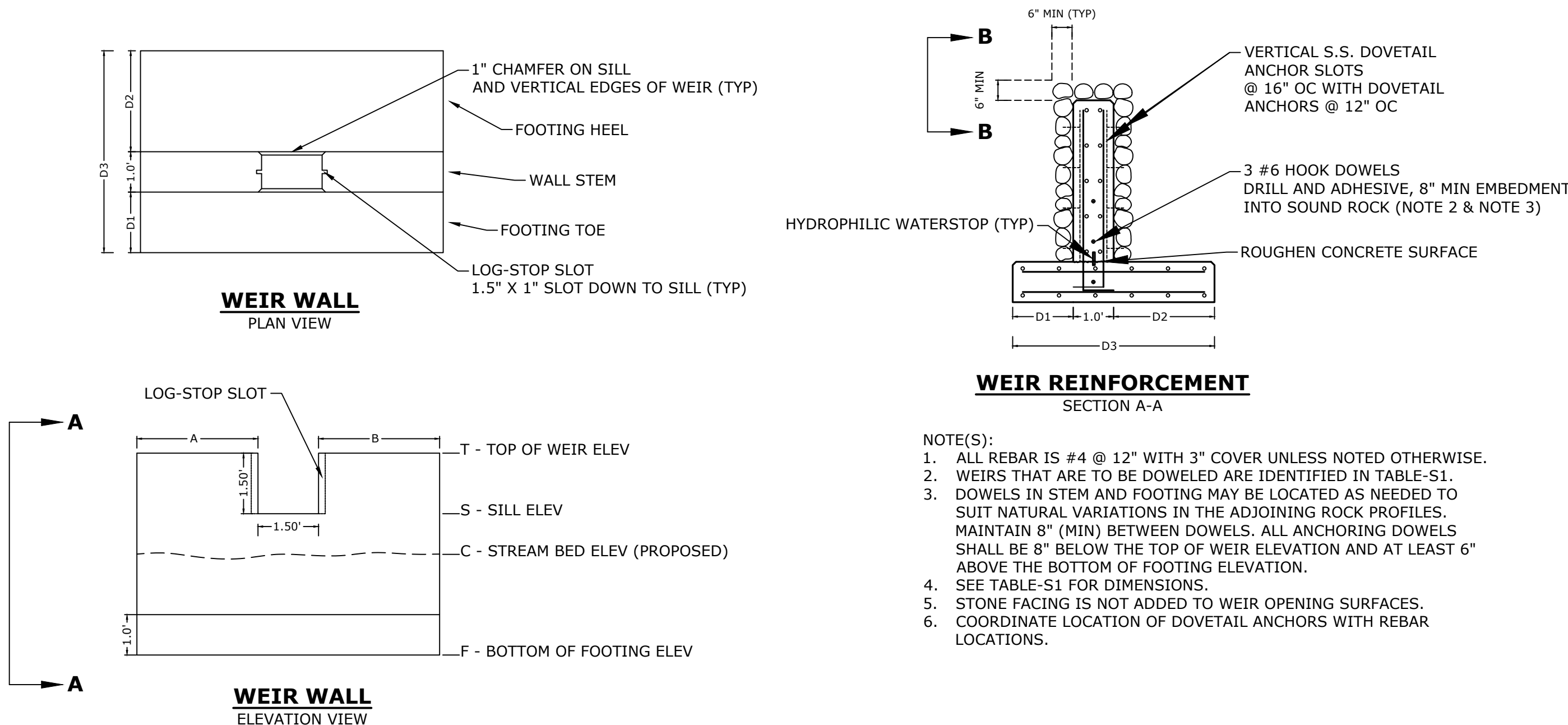
- NOTE(S):
- STONE MASONRY OF NEWLY CONSTRUCTED WEIRS IS TO MATCH THE AESTHETIC OF THE STONE FACING SHOWN IN THE ABOVE PHOTO WHICH WAS TAKEN AT THE SOUTH END OF THE LOWER MILL POND DAM.



- NOTES:
- REMOVE ALL LOOSE OR UNSOUND CONCRETE.
 - PREPARE EDGES OF REPAIR TO VERTICAL PROFILE.
 - PROVIDE MINIMUM OF 3/4" CLEARANCE AROUND ALL EXPOSED REBAR.
 - CONSULT ENGINEER IF EXPOSED REBAR HAS SECTION LOSS.
 - REPAIR AREA IN CONFORMANCE WITH SPECIFICATION SECTION 03930.

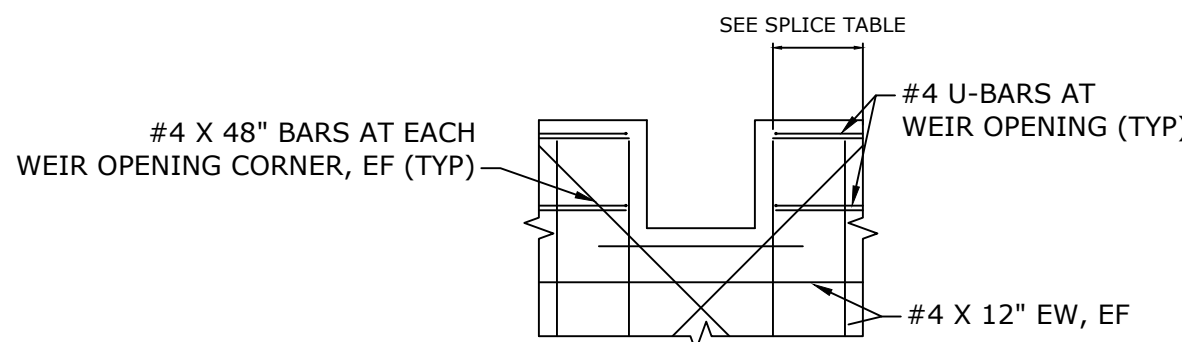
SPALL REPAIR

NO SCALE



- NOTE(S):
- ALL REBAR IS #4 @ 12" WITH 3" COVER UNLESS NOTED OTHERWISE.
 - WEIRS THAT ARE TO BE DOWELED ARE IDENTIFIED IN TABLE-S1.
 - DOWELS IN STEM AND FOOTING MAY BE LOCATED AS NEEDED TO SUIT NATURAL VARIATIONS IN THE ADJOINING ROCK PROFILES. MAINTAIN 8" (MIN) BETWEEN DOWELS. ALL ANCHORING DOWELS SHALL BE 8" BELOW THE TOP OF WEIR ELEVATION AND AT LEAST 6" ABOVE THE BOTTOM OF FOOTING ELEVATION.
 - SEE TABLE-S1 FOR DIMENSIONS.
 - STONE FACING IS NOT ADDED TO WEIR OPENING SURFACES.
 - COORDINATE LOCATION OF DOVETAIL ANCHORS WITH REBAR LOCATIONS.

- NOTE(S):
- DIMENSIONS SHOWN ARE FOR REINFORCED CONCRETE STRUCTURE ONLY. STONE FACING NOT INCLUDED.
 - SEE TABLE-S1 FOR DIMENSIONS.



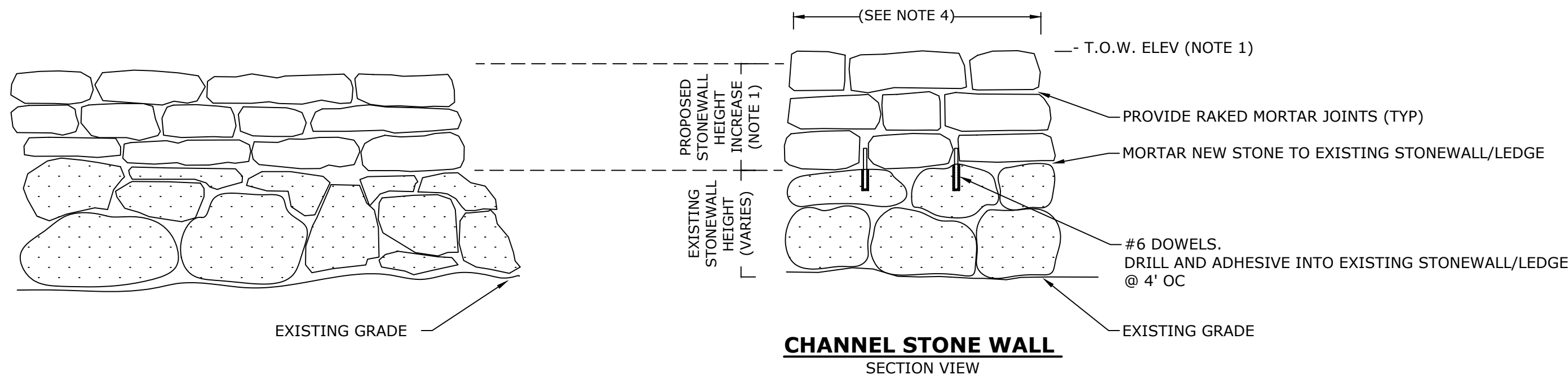
WEIR OPENING REINFORCEMENT

SECTION B-B

- NOTE(S):
- DOVETAIL ANCHOR SLOTS AND DOVETAIL ANCHORS NOT SHOWN FOR CLARITY.
 - STONE FACING NOT SHOWN FOR CLARITY.

FISHWAY WEIR DETAIL

NO SCALE



CHANNEL STONE WALL

SECTION VIEW

CHANNEL STONE WALL

ELEVATION VIEW

- NOTE(S):
- SEE SHEET C-202 FOR PROPOSED STONEWALL ELEVATIONS.
 - SEE S-001 STONE MASONRY NOTES FOR WALL CONSTRUCTION REQUIREMENTS.
 - WHERE STONES ARE PLACED ON EXISTING DRY LAID STONE MASONRY WALL, RECESS MORTAR 2 INCHES FOR APPEARANCE.
 - WIDTH VARIES, MINIMUM WIDTH OF 12 INCHES. NOT TO BE LESS THAN THE WIDTH OF THE EXISTING CHANNEL WALL.

CHANNEL STONE DETAIL

NO SCALE