TOWN OF ASHFIELD, MASSACHUSETTS

ASHFIELD LAKE DAM REPAIR PROJECT

DECEMBER 2021

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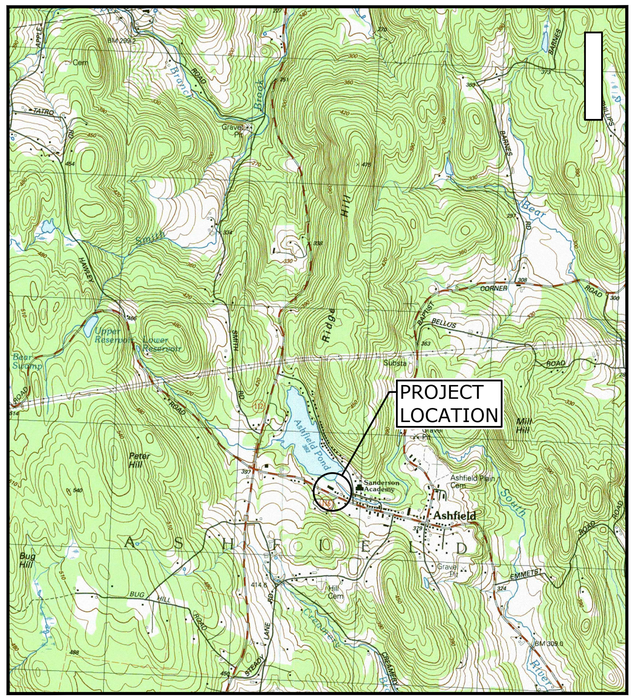

LOCATION MAP
SCALE: 1" = 2000'

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PREPARED FOR:
TOWN OF ASHFIELD

BOARD OF SELECTMEN
STEVEN GOUGEON- CHAIR
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TODD OLANYK

HIGHWAY DEPARTMENT
TOM POISSANT- SUPERINTENDENT

COMPLETE SET 11 SHEETS

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Tighe & Bond: J:\A\A0699\014 - Dam Repair Design Update\Drawings, Figures\AutoCAD\Sheet\Combined Project\A0699-014 Cover.dwg

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, AND ADJACENT AREAS FROM DISTURBANCE OR DISCHARGE OF SEDIMENTS, AT NO ADDITIONAL COST TO THE OWNER.

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 WATTLES WITH 100% BIODEGRADABLE NETTING INSTALLED PER DETAILS PROVIDED ON SHEET C-108.

E5. COMPOST WATTLES SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CLEARING AND GRUBBING ACTIVITIES. LOCATION OF COMPOST WATTLES 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 AUTHORIZATION FROM THE OWNER.

E8. COFFERDAMS SHALL BE INSTALLED IN PHASES AS INDICATED ON THE CONTRACT DRAWINGS. ALL COFFERDAMS SHALL CONSIST OF NON-ERODIBLE MATERIAL.

BEST MANAGEMENT PRACTICES

INSPECTION AND MAINTENANCE
- SEDIMENT AND EROSION CONTROLS AND 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 BEST MANAGEMENT PRACTICES (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 AT THE SITE 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. FOLLOWING CONSTRUCTION REMOVE THE SITE ENTRANCE AND RESTORE THE AREA TO PRE-PROJECT CONDITIONS.

SITE CLEARING
- DURING SITE CLEARING, EXISTING VEGETATION WITHIN THE OVERALL LIMITS OF CLEARING AND GRUBBING SHALL BE CLEARED AND REMOVED, EXCEPT AS OTHERWISE DIRECTED. THIS INCLUDES ALL VEGETATION ON THE DAM EMBANKMENT AND WITHIN 20 FEET OF THE DAM EMBANKMENT. PRIOR TO ANY SITE CLEARING ACTIVITIES, SEDIMENT CONTROL BARRIERS 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 CLEARING OF AREAS OUTSIDE THE LIMITS OF CLEARING AND GRUBBING SHALL OCCUR WITHOUT PRIOR APPROVAL FROM THE OWNER.

EROSION CONTROL BARRIERS
- COMPOST WATTLE BARRIERS 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 WATTLES 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 COMPOST WATTLE EROSION BARRIERS ON THE DOWN HILL SIDE.
- DURING AND AFTER CONSTRUCTION, ALL PAVED ROAD AND DRIVEWAY SURFACES ARE TO BE SCRAPED 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 COMPOST WATTLES WHERE POSSIBLE. OTHER ALTERNATIVES UTILIZED MAY INCLUDE GRAVEL FILTER BERMS OR SIMILAR MEASURES LAID AROUND THE PERIMETER OF THE STOCKPILE. STOCKPILES OF ERODIBLE MATERIAL ARE TO 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 SOCK 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 RIPRAP 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.

SURFACE WATER CONTROL
- FLOW THROUGH THE SPILLWAY OR OUTLET STRUCTURE SHALL BE MAINTAINED AT ALL TIMES. DRAW DOWN OF THE IMPOUNDMENT TO UP TO 2 FEET BELOW THE SPILLWAY WEIR SHALL BE ALLOWED.

TURBIDITY MONITORING AND CONTROL
- TURBIDITY SHALL BE MONITORED BY THE CONTRACTOR. A TURBIDITY CURTAIN SHALL BE INSTALLED IF TURBIDITY LEVELS ARE UNACCEPTABLE AS JUDGED BY THE OWNER, ENGINEER, OR REGULATORY AGENCY.

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.
- 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.
- 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 APPROVED APPLICATION 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.

  WHERE NOT OTHERWISE SPECIFIED, DISTURBED UPLAND AREAS WITHIN THE 100' WETLAND BUFFER ZONE 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 ZONE SHALL BE AS FOLLOWS OR AS APPROVED BY THE ENGINEER:

  THE NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES:

COMMON NAME	BOTANICAL NAME
CREEPING RED FESCUE	*Festuca rubra*
CANADA WILD RYE	*Elymus canadensis*
ANNUAL RYEGRASS	*Lolium multiflorum*
PERENNIAL RYEGRASS	*Lolium perenne*
BLUE GRAMA	*Boutelova gracilis*
LITTLE BLUESTEM	*Schizachyrium scoparium*
INDIAN GRASS	*Sorghastrum nutans*
ROUGH BENTGRASS/TICKLEGRASS	*Agrostis scabia*
UPLAND BENTGRASS	*Agrostis perennans*

- RESTORED AREAS SHALL BE ROLLED AND THEN APPROPRIATELY MULCHED WITH HAY, 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 STEEPER SLOPES, 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 ESTABLISHMENT CONDITIONS ARE MET AND UNTIL THE END OF THE CONTRACTUAL MAINTENANCE PERIOD.

LEGEND

IPF IRON PIPE FOUND	PROPERTY LINE
IRF IRON ROD FOUND	EASEMENT LINE
DECIDUOUS TREE	WETLAND RESOURCE AREA BOUNDARY/TOP OF BANK
CONIFER TREE	BORDERING VEGETATED WETLANDS
FDC FIRE DEPARTMENT CONNECTION	TREELINE
FIRE HYDRANT	CHAIN LINK FENCE
BOLLARD	EXISTING GAS
SEWER MANHOLE	25-FOOT BUFFER ZONE
MONITORING WELL	50-FOOT BUFFER ZONE
DRAIN MANHOLE	100-FOOT BUFFER ZONE
CATCH BASIN	200-FOOT RIVERFRONT AREA
DOUBLE CATCH BASIN	INTERMEDIATE CONTOUR
CULVERT	INDEX CONTOUR
UTILITY POLE	DRAIN LINE
UTILITY POLE WITH TRANSFORMER	OVERHEAD WIRES
GUY WIRE	PROPOSED CONTOUR
B-1 BORING	EROSION CONTROL BARRIER
C5 WETLAND FLAG	COFFER DAM
WETLANDS	LIMIT OF WORK
	LIMIT OF CLEARING
	PROPOSED TIMBER RAILING
	PRIMARY LOW-PRESSURE GROUT HOLE
	SECONDARY LOW-PRESSURE GROUT HOLE
	WETLAND RESTORATION
	LOAM & SEED
	GEOCELL REINFORCED DRIVE
	COMPACTED DENSE GRADED CRUSHED STONE
	MODIFIED ROCKFILL
	TYPE 1 RIPRAP
	TYPE 2 RIPRAP

ABBREVIATIONS

ACO	ALKALINE COPPER QUATERNARY
BDL	BOLT OVER MAIN OUTLET
BOMO	BOLT OVER MAIN OUTLET
BMP	BEST MANAGEMENT PRACTICE
BRG	BRIDGE
CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
DMH	DRAIN MANHOLE
EL/ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
FDC	FIRE DEPARTMENT CONNECTION
HDPE	HIGH DENSITTY POLYETHYLENE
INV	INVERT
MIN	MINIMUM
RCP	REINFORCED CONCRETE PIPE
SMH	SEWER MANHOLE
SRW	STONE RETAINING WALL
TBM	TEMPORARY BENCHMARK
TOH	TOP OF HOOD
TYP	TYPICAL

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

MARK	DATE	DESCRIPTION
0	11/2021	Issued For Bidding

PROJECT NO:	A0699-014
DATE:	11/2021
FILE:	A0699-014 G-002.dwg
DRAWN BY:	CFY
CHECKED BY:	DRB,ARB
APPROVED BY:	PMV,DRB

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

SCALE: NO SCALE

G-002
SHEET 2 OF 11

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UTILITY STATEMENTS

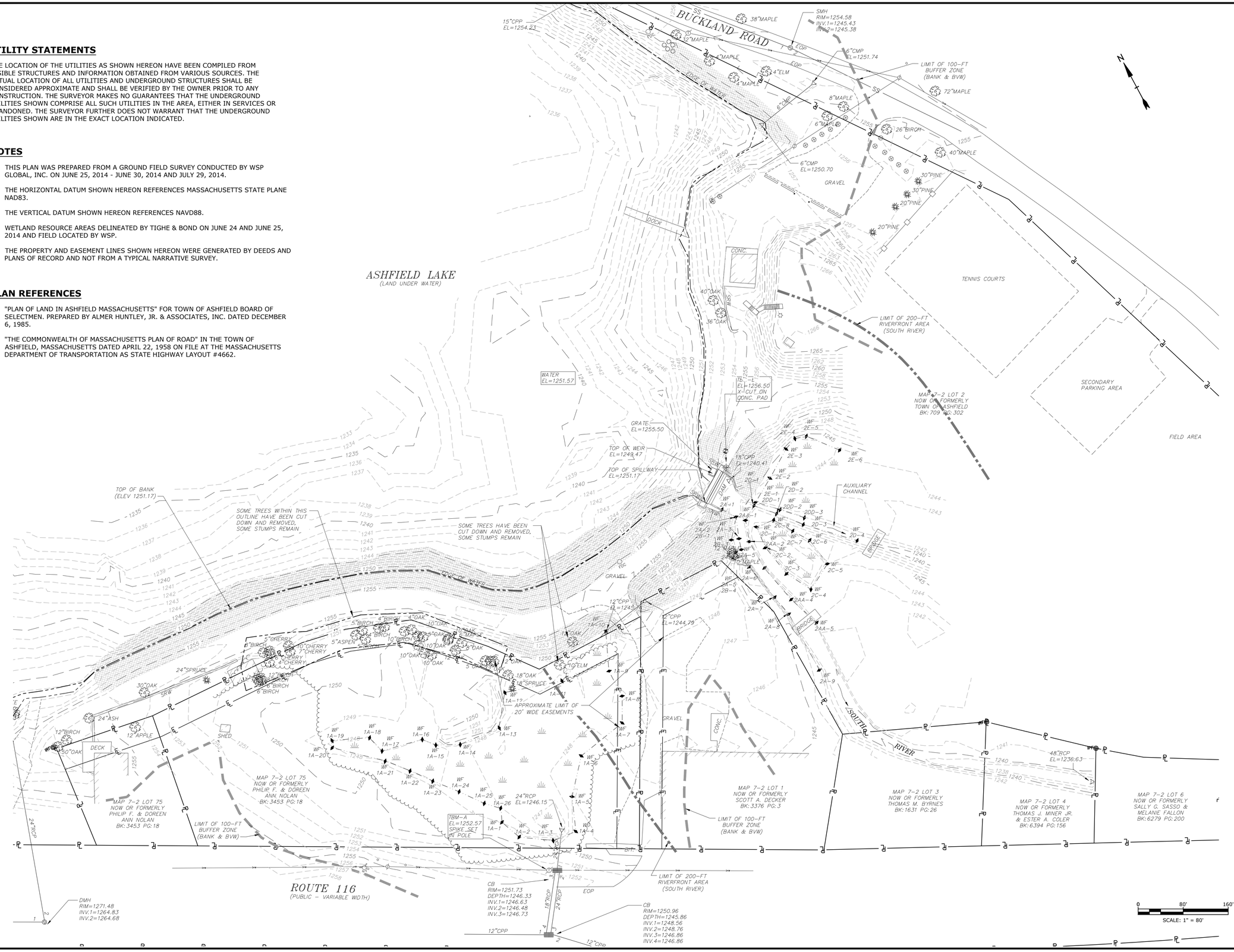
THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR 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.

NOTES

1. THIS PLAN WAS PREPARED FROM A GROUND FIELD SURVEY CONDUCTED BY WSP GLOBAL, INC. ON JUNE 25, 2014 - JUNE 30, 2014 AND JULY 29, 2014.
2. THE HORIZONTAL DATUM SHOWN HEREON REFERENCES MASSACHUSETTS STATE PLANE NAD83.
3. THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD88.
4. WETLAND RESOURCE AREAS DELINEATED BY TIGHE & BOND ON JUNE 24 AND JUNE 25, 2014 AND FIELD LOCATED BY WSP.
5. THE PROPERTY AND EASEMENT LINES SHOWN HEREON WERE GENERATED BY DEEDS AND PLANS OF RECORD AND NOT FROM A TYPICAL NARRATIVE SURVEY.

PLAN REFERENCES

1. "PLAN OF LAND IN ASHFIELD MASSACHUSETTS" FOR TOWN OF ASHFIELD BOARD OF SELECTMEN. PREPARED BY ALMER HUNTLEY, JR. & ASSOCIATES, INC. DATED DECEMBER 6, 1985.
2. "THE COMMONWEALTH OF MASSACHUSETTS PLAN OF ROAD" IN THE TOWN OF ASHFIELD, MASSACHUSETTS DATED APRIL 22, 1958 ON FILE AT THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION AS STATE HIGHWAY LAYOUT #4662.



Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

MARK	DATE	DESCRIPTION
0	11/2021	Issued For Bidding

PROJECT NO:	A0699-014
DATE:	11/2021
FILE:	A0699-014 C-101.dwg
DRAWN BY:	TMP, CFY
CHECKED BY:	DRB,ARB
APPROVED BY:	PMV,DRB

EXISTING CONDITIONS SITE PLAN

SCALE: 1" = 80'

C-101
SHEET 3 OF 11

Last Saved: 11/4/2021
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Tighe & Bond: J:\A\A0699\014 - Dam Repair Design Update\Drawings_Figures\AutoCAD\Sheet\Combined Project\A0699-014 C-101.dwg

NOTES:

1. UNSUITABLE EXCAVATED SOILS, LOGS, BRUSH, STUMPS, ROOT BALLS, AND OTHER DEBRIS SHALL BE REMOVED FROM THE SITE FOR DISPOSAL.
2. REGRADING, REPAIRING ERODED AREAS, AND BACKFILLING VOIDS SHALL CONSIST OF A MAXIMUM THICKNESS OF LOAM OF 6-INCHES. FILL REQUIRED IN EXCESS OF 6-INCHES OF LOAM SHALL BE LOW PERMEABILITY BORROW FOR LOCATIONS ON THE UPSTREAM SLOPE OF DAM CREST AND GRANULAR FILL ON THE DOWNSTREAM SLOPE AND LAWN AREAS EXCEPT WHERE OTHERWISE NOTED.
3. STRIP AND SEPARATELY STOCKPILE LOAM, RIPRAP, CRUSHED STONE, AND GRAVEL FROM AREAS WHERE EXCAVATIONS ARE TO OCCUR OR IN AREAS WHERE FILL OTHER THAN LOAM WILL BE PLACED. MATERIALS MAY BE REUSED IN THE AREAS WHERE THEY ORIGINATED. REUSED RIPRAP AND CRUSHED STONE MUST BE FREE OF SOIL, DEBRIS, VEGETATION, OR OTHER UNSUITABLE MATERIALS. TOPSOIL FROM WETLAND AREAS SHALL BE STOCKPILED SEPARATELY FROM TOPSOIL FROM UPLAND AREAS AND SHALL BE REUSED IN WETLAND AREAS.
4. INVASIVE PLANTS OBSERVED WITHIN THE LIMIT OF WORK AND ANY PLANTS GROWING WITHIN RIPRAP AND FROM STRUCTURES SHALL BE UPROOTED AND REMOVED FROM THE SITE.
5. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING WATER DEPTHS, SEDIMENT THICKNESSES, AND DESIGNING APPROPRIATE COFFERDAM SYSTEMS.
6. CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING EXISTING TREES AND COORDINATE WITH THE TOWN OF ASHFIELD PRIOR TO CUTTING LIMBS. NO EQUIPMENT SHALL BE OPERATED WITHIN THE TREE DRIPLINE AT ANY TIME.
7. CONTRACTOR SHALL MAINTAIN ACCESS FOR EMERGENCY VEHICLES AND FIRE FIGHTING EQUIPMENT. COORDINATE WITH THE TOWN OF ASHFIELD FIRE CHIEF, POLICE CHIEF, HIGHWAY DEPARTMENT AND PARKS DEPARTMENT PRIOR TO COMMENCING CONSTRUCTION.

PROVIDE TWO BOLLARDS 2' FROM DRY HYDRANT (ONE ON EACH SIDE)
REMOVE ALL PLANTS FROM RIPRAP
CLEAR, GRUB, LOAM AND SEED ALL AREAS OF TREE AND STUMP REMOVAL (TYP)
DRAIN PIPE AND GATE VALVE BID ALTERNATE
REPLACE 6" CMP WITH 6" DI PIPE TO SAME LINE AND GRADE WITH GATE VALVE AND VALVE BOX AT SURFACE (DELETE PROPOSED FLAPPER VALVE ON 6" CMP)
PROVIDE COFFERDAM IF NEEDED
INSTALL FLAPPER VALVE ON 6" CMP (DELETE IF DRAIN PIPE AND GATE VALVE BID ALTERNATE ARE SELECTED)
REMOVE TREES, STUMPS AND ROOT BALLS (TYP)
PARAPET WALL BID ALTERNATE
CONSTRUCT CONCRETE BLOCK PARAPET WALL
SEE DETAIL 1 / C-107
LIMIT OF 100-FT BUFFER ZONE (BANK & BVW)
RETAIN 8" MAPLE
TENNIS COURTS
(NO STAGING)
LIMIT OF 200-FT RIVERFRONT AREA (SOUTH RIVER)
ACCESS ROUTE
SECONDARY PARKING AREA
MAP 7-2 LOT 2 NOW OR FORMERLY TOWN OF ASHFIELD BK: 709 PG: 302
TEMPORARY STAGING AREA
FIELD
ASHFIELD LAKE
(LAND UNDER WATER)
EASTERN LIMIT OF RAISING DAM CREST TO ELEV. 1256.8'
CONSTRUCT 5' WIDE COMPACTED DENSE GRADED CRUSHED STONE WALKING PATH
LIMIT OF WORK
PROVIDE TEMPORARY OVERFLOW COFFERDAM AROUND OUTLET INLET FOR WATER CONTROL
PROVIDE TWO BOLLARDS 2' FROM DRY HYDRANT (ONE ON EACH SIDE)
PROVIDE DENSE GRADED CRUSHED STONE SURFACE, 8" THICK, FULL WIDTH OF CREST FOR DRY HYDRANT ACCESS
SPLIT RAIL FENCE, 40' LONG ON DOWNSTREAM SIDE OF DAM ON BOTH SIDES OF SPILLWAY
SEE DETAIL 3 / C-107
SEE ENLARGEMENT OF THIS AREA ON SHEET C-104
HAND CUT INVASIVE BITTERSWEET ON WEST BANK OF SOUTH RIVER BETWEEN RIPRAP SWALE AND FOOTBRIDGE FROM WATER LINE TO PROPERTY LINE. PLANT 7 HIGHBUSH BLUEBERRY PLANTS (VACCINIUM CORYMBOSUM) AT 10 FOOT INTERVALS
SEE ENLARGEMENT OF THIS AREA ON SHEET C-103
RAISE DAM CREST TO EL. 1256.8' (MIN) MINIMUM CREST WIDTH = 12.0' SEE DETAIL 2 / C-107
TOP OF BANK (ELEV 1251.17)
STONE PATH BID ALTERNATE
CONSTRUCT 5' WIDE COMPACTED DENSE GRADED CRUSHED STONE WALKING PATH BETWEEN RAMP AND DRY HYDRANT ACCESS PATH AND DELETE PATH AND LOAM AND SEED
LIMIT OF STONE PATH BID ALTERNATE
REMOVE ALL PLANTS FROM EXISTING RIPRAP
REMOVE UNWANTED VEGETATION AND LOAM AND SEED ALONG DAM CREST (DELETE IF STONE PATH ALTERNATE IS SELECTED)
PROVIDE TEMPORARY EROSION CONTROL BARRIER ADJUST LOCATION IN FIELD AS NECESSARY
PROTECT TREES
WESTERN LIMIT OF RAISING DAM CREST TO ELEV. 1256.8'
MAINTAIN PUBLIC ACCESS TO BOAT RAMP DURING CONSTRUCTION
ON AND WITHIN 20 FEET OF DAM, CLEAR TREES, BRUSH, INVASIVE PLANTS, AND WEEDS EXCEPT AS NOTED. REMOVE STUMPS AND ROOTS, INCLUDING THOSE REMAINING FROM PAST CLEARING ACTIVITIES. BACKFILL AND COMPACT VOIDS. RESET RIPRAP WHERE RIPRAP CURRENTLY EXISTS AND LOAM AND SEED OTHER AREAS.
IN WETLAND AREAS ONLY: HAND CUT AND GRUB WOODY VEGETATION. REGRADE WITH NATIVE SOIL AND HAND SEED WITH NEW ENGLAND WETMIX OR APPROVED EQUAL (TYP. OF 2)
PITCH GRAVEL LOT TO WEST, AWAY FROM BUILDING. FURNISH AN ADDITIONAL 10 CUBIC YARDS OF DENSE GRADED CRUSHED STONE FOR THE OWNER'S USE
FILL EROSION GULLY WITH MODIFIED ROCKFILL TO MATCH ADJACENT GRADES
LIMIT OF STONE PATH BID ALTERNATE
REMOVE VEGETATION FROM MASONRY WALL. CHINK VOIDS AND RESET SHIFTED STONES
MAP 7-2 LOT 75 NOW OR FORMERLY PHILIP F. & DOREEN ANN NOLAN BK: 3453 PG: 18
LIMIT OF 100-FT BUFFER ZONE (BANK & BVW)
(PUBLIC – VARIABLE WIDTH)
MAP 7-2 LOT 1 NOW OR FORMERLY SCOTT A. DECKER BK: 3376 PG: 3
MAP 7-2 LOT 3 NOW OR FORMERLY THOMAS M. BYRNE'S BK: 1631 PG: 26
MAP 7-2 LOT 4 NOW OR FORMERLY THOMAS J. MINER JR. & ESTER A. COLER BK: 6394 PG: 156
MAP 7-2 LOT 6 NOW OR FORMERLY SALLY G. SASSO & MELANIE FALLON BK: 6279 PG: 200
LIMIT OF 200-FT RIVERFRONT AREA (SOUTH RIVER)
+1256.8
+1248.4
+1248.8
83' +/-

0 80' 160'
SCALE: 1" = 80'

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

MARK	DATE	DESCRIPTION
0	11/2021	Issued For Bidding

PROJECT NO:	A0699-014
DATE:	11/2021
FILE:	A0699-014 C-102 & C-103.dwg
DRAWN BY:	CFY
CHECKED BY:	DRB, JS
APPROVED BY:	PMV,DRB

PROPOSED CONDITIONS SITE PLAN

SCALE: 1" = 80'

C-102
SHEET 4 OF 11

Last Saved: 12/10/2021
Plotted On: Dec 10, 2021-9:37am By: DRB
Tighe & Bond: J:\VA\A0699\014 - Dam Repair Design Update\Drawings, Figures\AutoCAD\Sheet\Combined Project\A0699-014 C-102 & C-103.dwg

ASHFIELD LAKE

DAM CREST

STONE PATH BID ALTERNATE
COMPACTED DENSE GRADED CRUSHED STONE

PLACE SUPPLEMENTAL ROCKFILL TO ACHIEVE 2H:1V SLOPE OR FLATTER

LIMIT OF STONE PATH BID ALTERNATE

REMOVE TREES (TYP)

TYPE 2 RIPRAP (TYP)

REPLACE MODIFIED ROCKFILL WITH TYPE 2 RIPRAP

FLARED END
INV. OUT = 1245.0'

30" RCP CULVERT

REMOVE EXISTING 12" CULVERT

PROVDE PIPE GATE. COORDINATE LOCATION WITH OWNER. PLACE UP TO TWO 36"+ BOULDERS TO INHIBIT VEHICLE ACCESS IF DETERMINED NECESSARY BY OWNER
SEE DETAIL ON SHEET C-109.

FLARED END
INV. IN = 1245.7'

GEOCELL BID ALTERNATE
CONSTRUCT GEOCELL REINFORCED DRIVE
SEE DETAIL 1 / C-106

IN WETLAND AREAS ONLY:
HAND CUT AND GRUB WOODY VEGETATION. REGRADE WITH NATIVE SOIL AND HAND SEED WITH NEW ENGLAND WETMIX OR APPROVED EQUAL

LIMIT OF WORK

CLEAR, GRUB LOAM & SEED (TYP)

LIMIT OF CLEARING AND GRUBBING

RAISE ACCESS DRIVE WITH DENSE GRADED CRUSHED STONE TO BOTTOM OF BUILDING SIDING AND PITCH TO WEST AWAY FROM BUILDING. FURNISH AN ADDITIONAL 10 CUBIC YARDS OF DENSE GRADED CRUSHED STONE FOR THE OWNER'S USE

APPROXIMATE LIMIT OF 20' WIDE EASEMENT

LIMIT OF 200-FT RIVERFRONT AREA

LIMIT OF 100-FT BUFFER ZONE (BANK & BVW)

CONC.

12" OAK

12" MAPLE

10" MAPLE

1255 1254 1253 1252 1251 1250 1249 1248 1247 1246 1256

X 1248.4

X 1248.8

NOTES:

1. FURNISH 15 ADDITIONAL TONS OF DENSE GRADED CRUSHED STONE TO BE STOCKPILED AT A LOCATION DETERMINED BY PROPERTY OWNER.
2. COORDINATE WITH THE FIRE CHIEF PRIOR TO COMMENCING CONSTRUCTION ACTIVITIES THAT WILL RESTRICT ACCESS TO DRY HYDRANT.

N

0 20' 40'
SCALE: 1" = 20'

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

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DRAWN BY:	CFY
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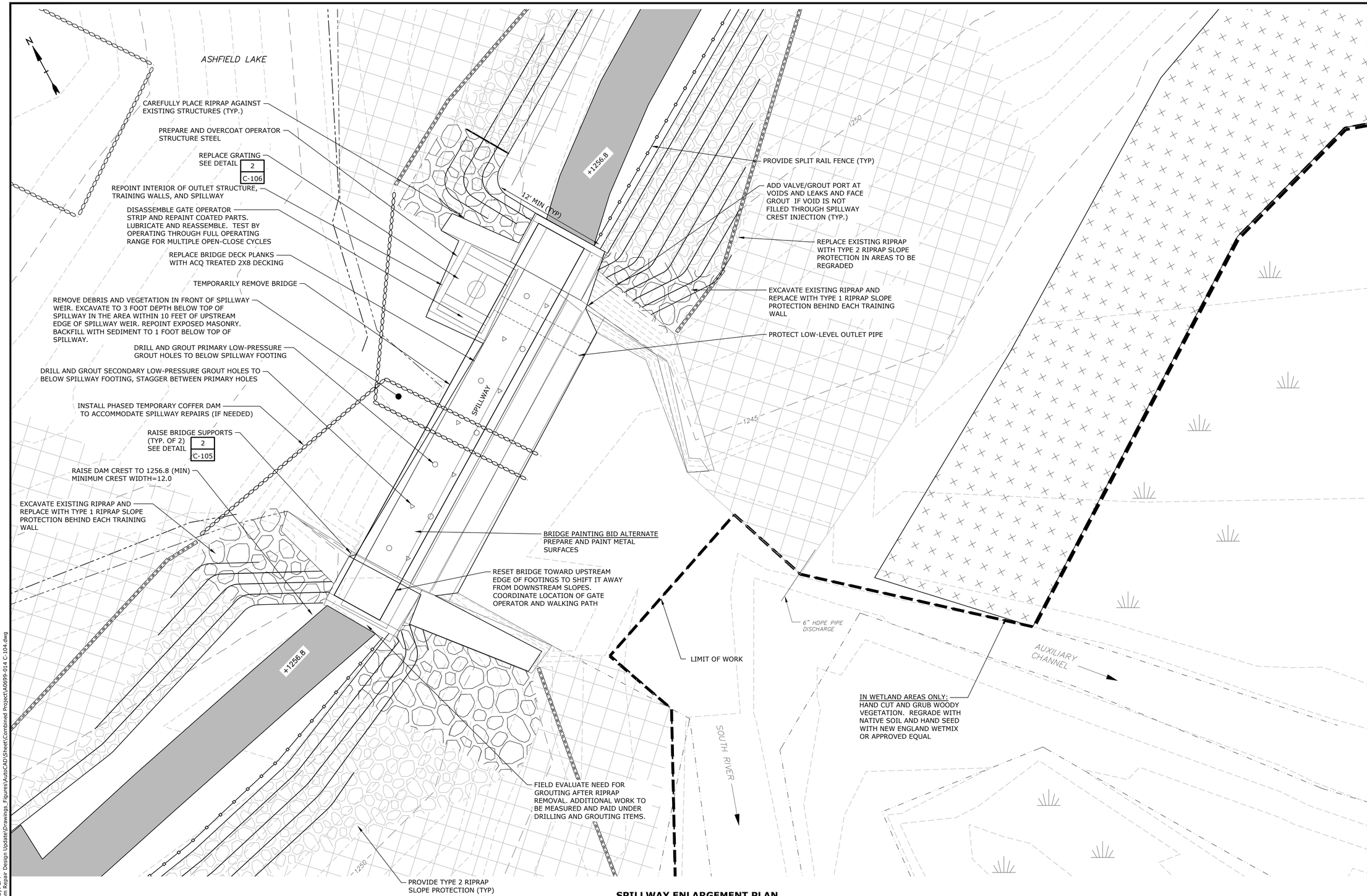
APPROVED BY:	PMV,DRB

DOWNSTREAM DRAINAGE IMPROVEMENTS

SCALE: 1" = 20'

C-103
SHEET 5 OF 11

Last Saved: 12/10/2021
Plotted: Dec 10, 2021 - 9:37am By: DRB
Tighe & Bond: J:\A\A0699\014 - Dam Repair Design Update\Drawings_Figures\AutoCAD\Sheet\Combined Project\A0699-014 C-102 & C-103.dwg



SPILLWAY ENLARGEMENT PLAN

1" = 5'

NOTES:

1. DRAW DOWN LAKE LEVEL BY UP TO 3 FEET BELOW SPILLWAY CREST TO ACCOMMODATE THE WORK. USE LOW LEVEL OUTLET, SIPHONS, PUMPING, OR A COMBINATION THEREOF AS NEEDED. DRAWDOWN RATE SHALL NOT EXCEED 3 INCHES PER DAY. MAINTAIN DOWNSTREAM FLOW DURING DRAWDOWN OF 4.4 CFS AND 0.6 CFS DURING LAKE REFILLING. COMPLY WITH TIME OF YEAR RESTRICTIONS REQUIRED BY APPLICABLE PERMITS.
2. TOWN PERSONNEL WILL BE RESPONSIBLE FOR GATE OPERATION. NO COST CLAIMS FOR DELAYS OR DAMAGE RESULTING FROM WATER LEVEL FLUCTUATIONS WILL BE CONSIDERED.
3. PHASE THE WORK TO PERFORM SLUICE GATE OPERATOR REPAIRS WHEN OPERATION OF THE GATE IS NOT NEEDED.

0 5' 10'
SCALE: 1" = 5'

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

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APPROVED BY:	PMV,DRB

SPILLWAY AND OUTLET STRUCTURE REPAIRS SITE PLAN

SCALE: AS SHOWN

C-104
SHEET 5 OF 11

Last Saved: 11/30/2021
Plotted On: Nov 30, 2021 - 10:48am By: LPT
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GENERAL

G1 Structural work shall conform to Massachusetts State Building Code, latest edition, including most recent addenda, and Contract Documents. In case of conflict, most stringent requirement shall govern.

G2 Contractor shall verify and coordinate dimensions related to this project.

G3 Contractor shall examine drawings for all trades for the verification of location and dimensions of all chases, inserts, openings, sleeves and other project requirements not shown on the structural drawings.

G4 Provide caulking at all control joints. Provide compressible filler and sealant at all expansion and isolation joints.

G5 All work on this sheet payable under Item 1.

G6 All work on this sheet applies to both bridge ends.

REINFORCEMENT

R1 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.

R2 Steel reinforcement unless otherwise shown shall conform to ASTM A615 Grade 60 minimum (yield strength - 60,000 psi).

R3 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.

R4 The concrete protective covering for reinforcement shall be as follows, unless otherwise shown:

(A) Cast-in-place concrete.

	Exposed to earth, water, or weather	Not exposed to earth, water, or weather
(a) Slab on grade	3 inches	2 inches
(b) Slab's #3 to #5 incl's	1 1/2 inches	3/4 inches

(c) Note: Maximum deviation from these requirements shall be +1/4" for sections ten (10) inches or less, and +1/2" for sections over ten (10) inches thick.

(B) In no case shall the cover be less than the bar diameter.

R5 Where continuous bars are called for they shall be run continuously around corners and lapped at necessary splices or hooked at discontinuous ends.

R6 Where reinforcement is called for in section, reinforcement is considered typical wherever the section applies.

R7 Reinforcement shall be continuous through all construction joints unless otherwise indicated on the drawings.

R8 Reinforcement shall be set before placing concrete. Setting any reinforcement into wet concrete is prohibited.

CONCRETE

C1 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).

C2 Concrete shall be controlled concrete, proportioned, mixed and placed under the supervision of an approved concrete testing agency or the Engineer.

C3 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)

C4 Abutment caps shall be cast so that the cap thickness is at no point less than that indicated on the drawings.

C5 Concrete shall be placed without horizontal construction joints except where shown or noted.

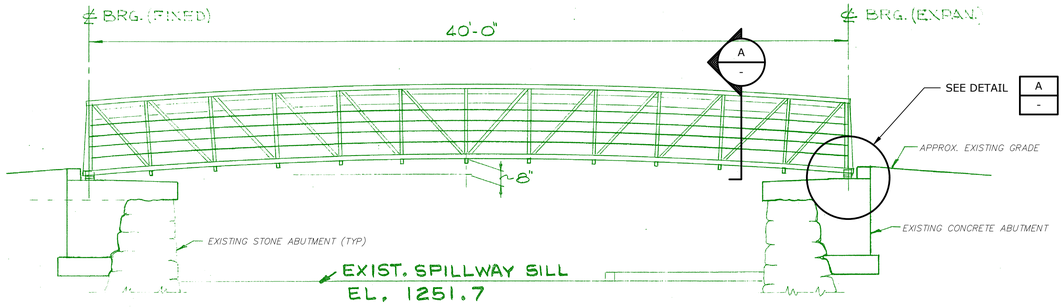
C6 Exposed edges of concrete elements shall have chamfered corners.

C7 Only critical construction joints are shown. See Specifications for required maximum spacing of construction joints.

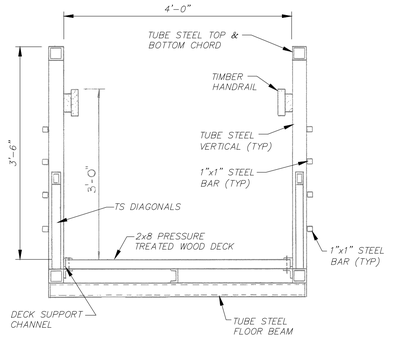
EXISTING CONDITIONS

E1 Existing conditions taken from scanned images from drawing titled "Ashfield Lake Dam Rehabilitation" dated June 1988.

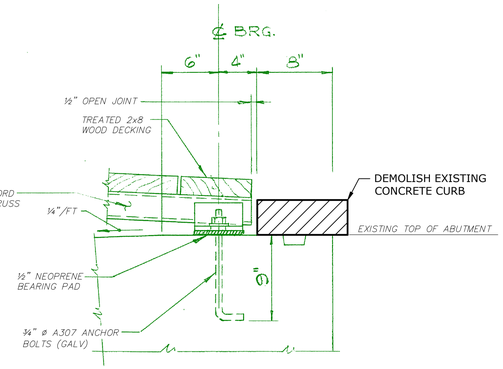
E2 Contractor to field verify existing abutment dimensions and conditions



ELEVATION VIEW-EXISTING CONDITIONS
PEDESTRIAN BRIDGE
1"=8'

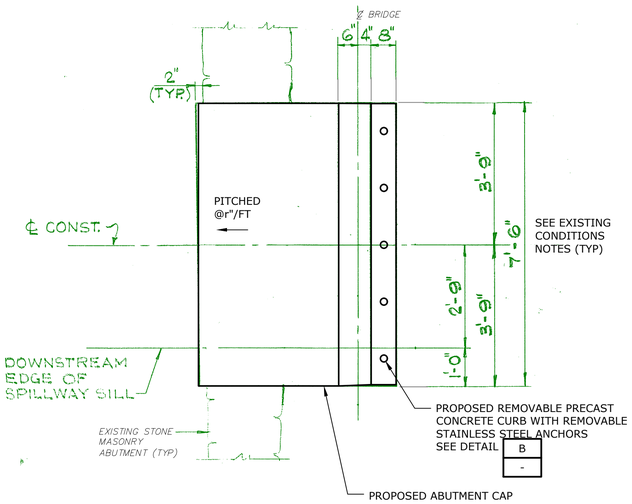


SECTION A - 3/8"=1'-0"

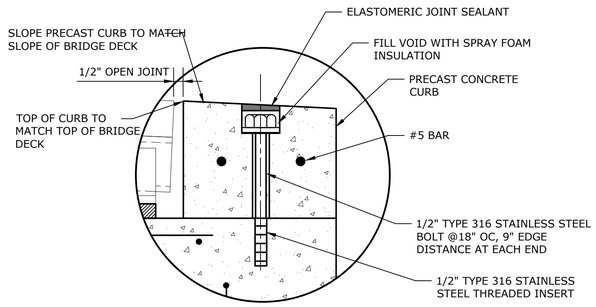


EXISTING CONDITIONS

DETAIL	A
3/4"=1'-0"	-



PLAN VIEW
BRIDGE ABUTMENT CAP
1/4"=1'-0"

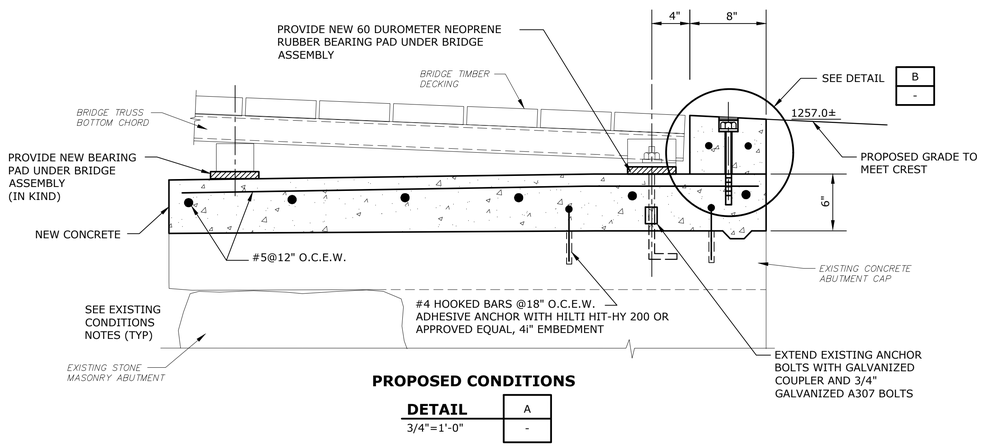


PROPOSED REMOVABLE PRECAST CONCRETE CURB

DETAIL	B
1-1/2"=1'-0"	-

ELASTOMERIC JOINT SEALANT NOTES

1. JOINT SEALANT TO BE SIKAFLEX 2C NS-TG OR APPROVED EQUAL.
2. PREPARE SURFACES AND INSTALL JOINT SEALANT IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS.



PROPOSED CONDITIONS

DETAIL	A
3/4"=1'-0"	-

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Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

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APPROVED BY:	PMV, CSF

STRUCTURAL GENERAL NOTES AND DETAILS

SCALE: AS SHOWN

C-105
SHEET 7 OF 11

Last Saved: 12/9/2021
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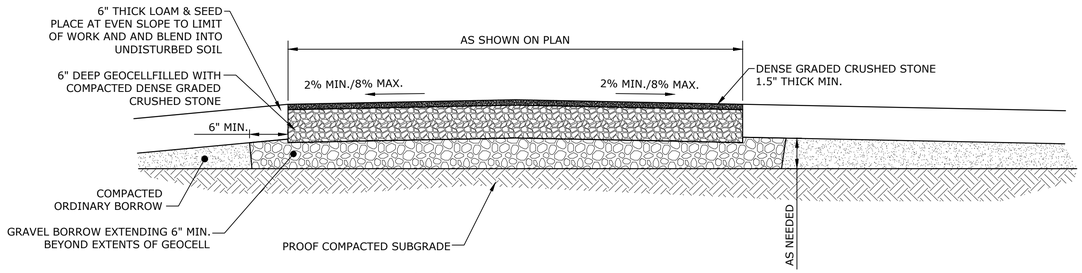
Tighe & Bond:J:\A\A0699\014 - Dam Repair Design Update\Drawings_Figures\AutoCAD\Sheet\Combined Project\tA0699-014 C-105.dwg



GEOCELL BID ALTERNATE

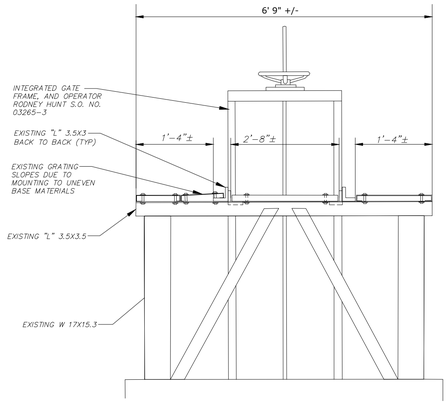
GEOCELL REINFORCED DRIVE TYPICAL EAST-WEST SECTION

NO SCALE

1
C-103

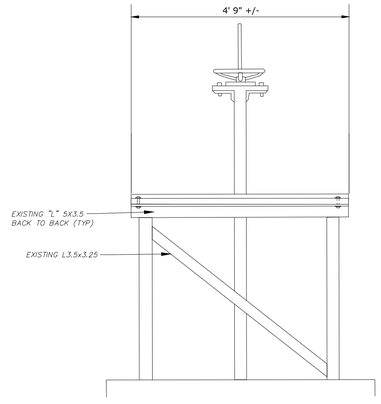
NOTES:

1. FOLLOW MANUFACTURER REQUIREMENTS FOR STAPLING, PANEL ATTACHMENTS, AND OTHER INSTALLATION REQUIREMENTS
2. PROOF COMPACT SUBGRADE PRIOR TO RAISING GRADE
3. IF BID ALTERNATE IS NOT SELECTED, ACHIEVE FINAL GRADES WITH DENSE GRADED CRUSHED STONE ONLY.



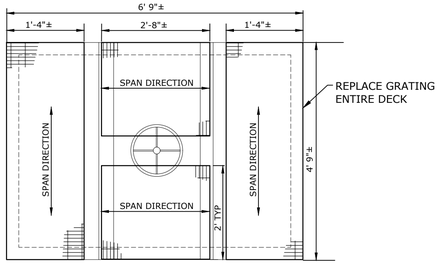
EXISTING OUTLET PLATFORM - NORTH ELEVATION

NO SCALE



EXISTING OUTLET PLATFORM - WEST ELEVATION

NO SCALE



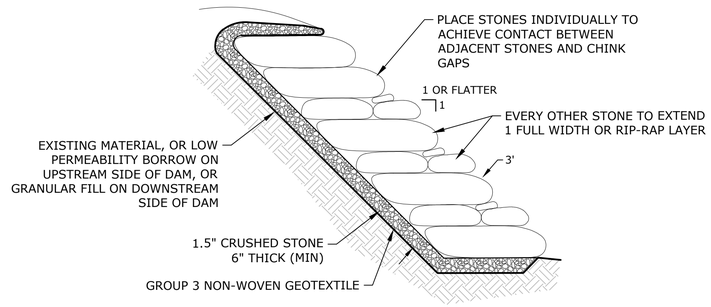
OUTLET STRUCTURE DECKING REPLACEMENT

NO SCALE

2
C-104

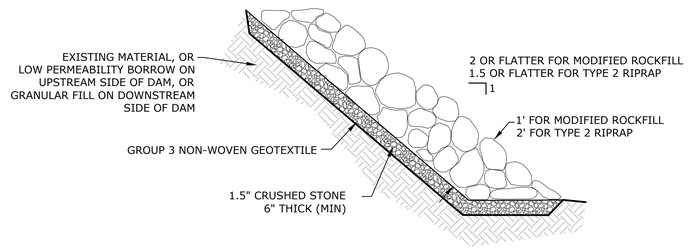
NOTES:

1. EXISTING GRATING IS 12 GAUGE HOT DIPPED GALVANIZED STEEL BOLTED TO UNDERLYING MEMBERS. THE EASTERN GRATING RUNNING FRONT TO BACK CONSISTS OF TWO PANELS, ONE OF WHICH IS DEFORMED BY ITS ATTACHMENT TO AN UNEVEN SURFACE.
2. REPLACEMENT GRATING SHALL BE 18-R-7 RIVETED SERRATED GALVANIZED STEEL, 2-INCH DEEP MIN.
3. CONTRACTOR TO VERIFY DIMENSIONS AND CONNECTIONS IN THE FIELD
4. EXISTING LOWER GRATING OVER OPENING IN OUTLET STRUCTURE TO REMAIN.



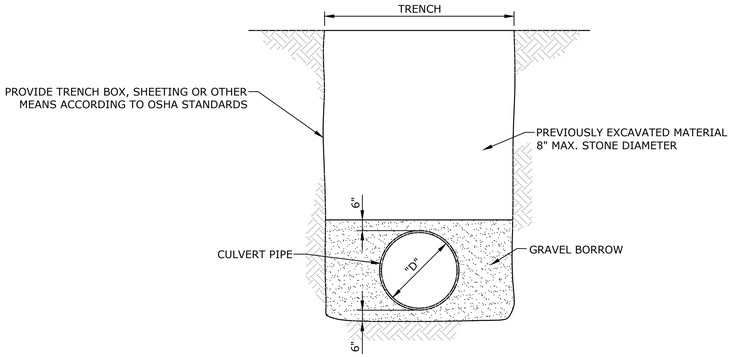
TYPE 1 RIP-RAP INSTALLATION/SLOPE PROTECTION

NO SCALE



TYPE 2 RIP-RAP AND MODIFIED ROCK FILL INSTALLATION/SLOPE PROTECTION

NO SCALE

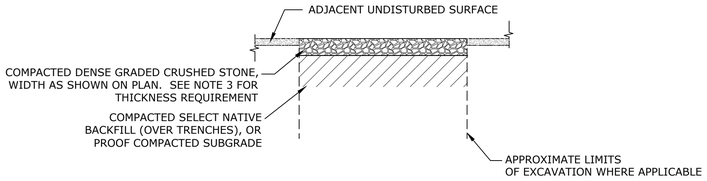


DRAIN LINE TRENCH SECTION

NO SCALE

NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY REQUIREMENTS..



DENSE GRADED CRUSHED STONE SURFACE

NO SCALE

NOTES:

1. USE IN COMPACTED DENSE GRADED CRUSHED STONE AREAS WHERE NO GEOCELL IS SPECIFIED.
2. PROOF COMPACT SUBGRADE PRIOR TO RAISING GRADE.
3. DENSE GRADED CRUSHED STONE THICKNESS SHALL BE 8 INCHES THICK (MIN.) OVER TRENCHES AND ON THE DAM CREST. IN OTHER AREAS WHERE THE MATERIAL IS SPECIFIED, THICKNESS SHALL BE AS NEEDED TO MEET REQUIRED GRADES.

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

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DETAILS

SCALE: AS SHOWN

C-106

SHEET 8 OF 11

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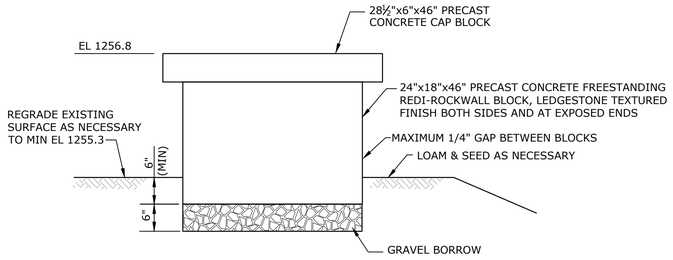
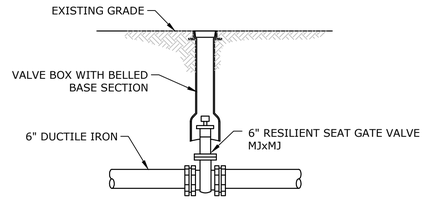


PARAPET WALL BID ALTERNATE

DIKE PARAPET WALL | 1 | C-102

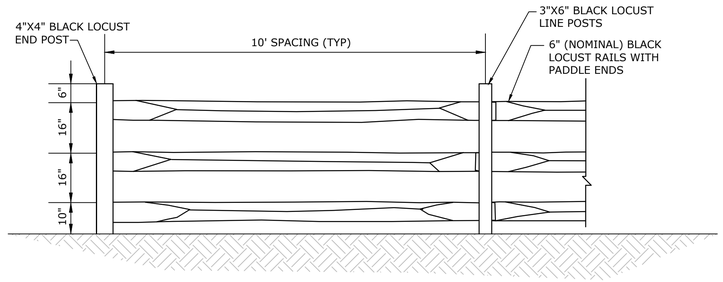
NO SCALE



DRAIN PIPE AND GATE VALVE BID ALTERNATE

VALVE INSTALLATION

NO SCALE

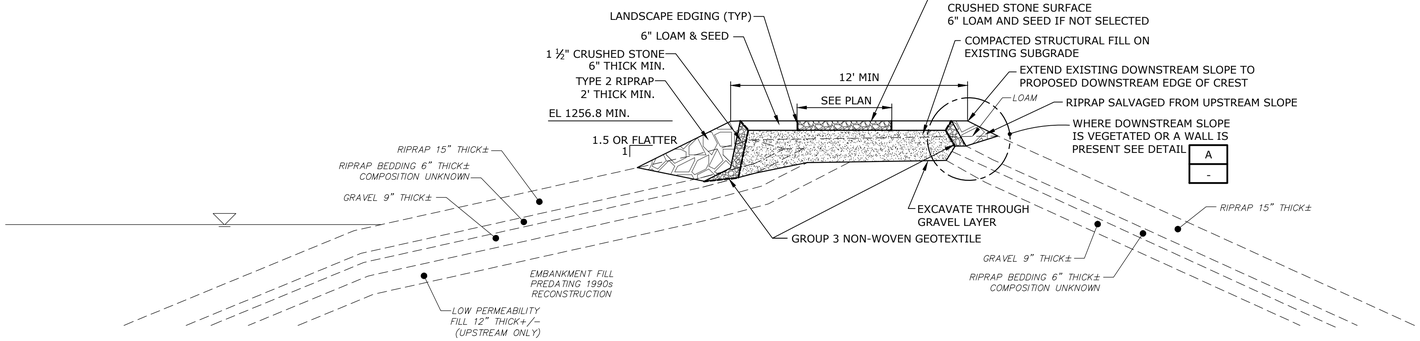


3-RAIL SPLIT RAIL FENCE- SECTION

NO SCALE

NOTES:

1. AT FENCE ENDS AT BRIDGE, EXTEND RAIL PADDLE ENDS THROUGH END POST TO MEET BRIDGE TRUSS.

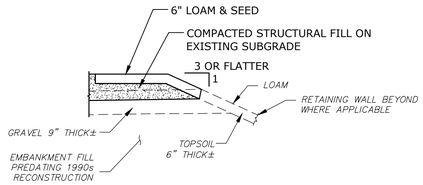


TYPICAL EMBANKMENT SECTION | 2 | C-102

NO SCALE

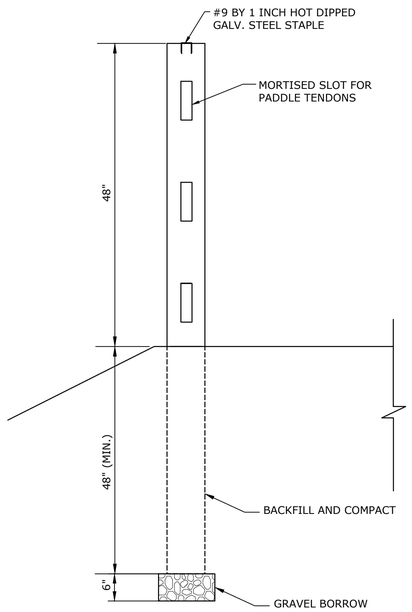
NOTES:

1. EXISTING SOIL PROFILE OBTAINED FROM A PLAN ENTITLED "ASHFIELD LAKE DAM PERMITTING SET" BY GZA GEOENVIRONMENTAL, INC. DATED 1988. ACTUAL CONDITIONS MAY VARY.
2. STRIP TOPSOIL, RIPRAP, AND RIPRAP BEDDING PRIOR TO PLACEMENT OF SUPPLEMENTAL MATERIALS.
3. EXISTING LOW PERMEABILITY SOIL DISTURBED SHALL BE REPLACED WITH NEW LOW PERMEABILITY SOIL.
4. TYPE 2 RIPRAP SHALL BE BEDDED ON EXISTING UNDISTURBED RIPRAP, UNDISTURBED RIPRAP BEDDING, OR NEW BEDDING. NEW BEDDING SHALL BE EXISTING SALVAGED BEDDING OR 1 1/2 INCH CRUSHED STONE.
5. MINOR REGRADING OR FILLING OF LOW AREAS MAY CONSIST OF UP TO 6 INCHES OF LOAM. FILL IN EXCESS OF 6 INCHES THICKNESS SHALL BE AS SHOWN.



DETAIL | A | -

NO SCALE



SPLIT RAIL FENCE- SECTION | 3 | C-102

NO SCALE

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

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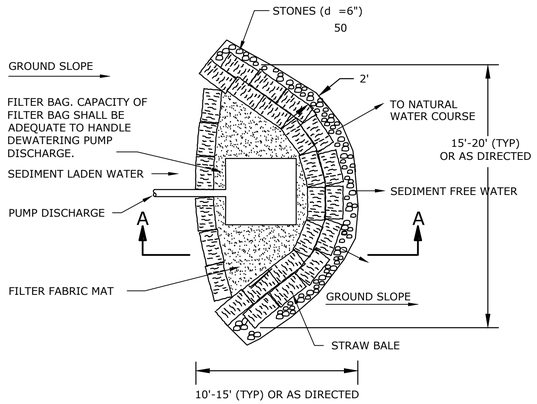
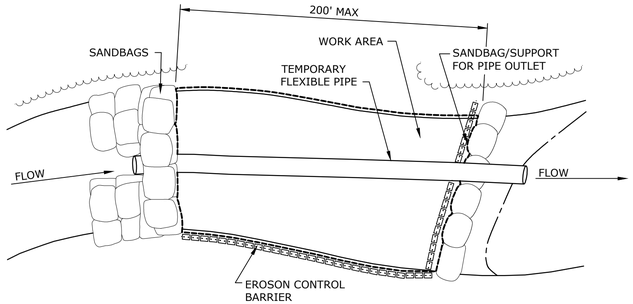
DETAILS

SCALE: AS SHOWN

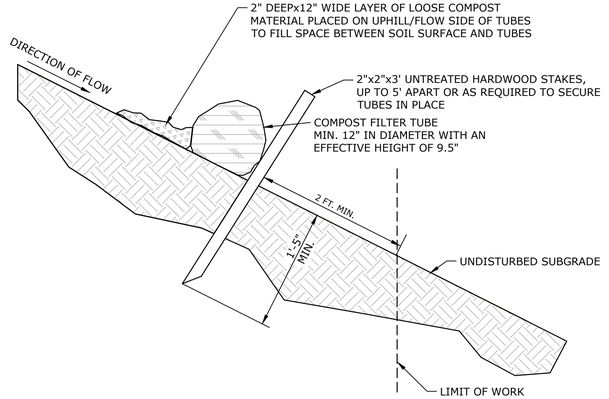
C-107

SHEET 9 OF 11





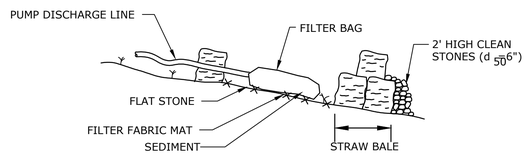
PLAN VIEW



SECTION VIEW

NOTES:

1. TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER.
2. TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES INTO EXISTING GRADE.
3. WHEN STAKING IS NOT POSSIBLE, SUCH AS WHEN TUBES MUST BE PLACED ON PAVEMENT, HEAVY CONCRETE OR CINDER BLOCKS CAN BE USED BEHIND TUBES UP TO 5' APART OR AS REQUIRED TO SECURE TUBES IN PLACE.



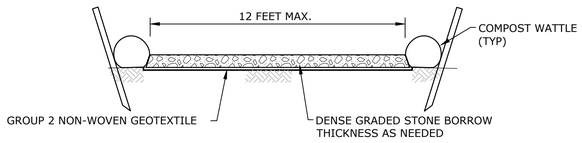
SECTION A–A

SEDIMENT TRAP

NO SCALE

NOTES:

1. LOCATION OF SEDIMENT TRAP SUBJECT TO APPROVAL OF ENGINEER.
2. SEDIMENT TRAPS SHALL BE USED FOR CONSTRUCTION DEWATERING IN ALL LOCATIONS EXCEPT FOR DEWATERING OF THE WORK AREA SURROUNDING THE LOW-LEVEL INTAKE STRUCTURE. IN THIS LOCATION, THE DEWATERING DISCHARGE SHALL BE DIRECTED TO A FRACTIONATION/SEDIMENTATION TANK.

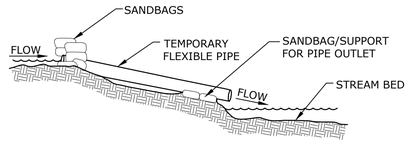


TYPICAL CROSS-SECTION TEMPORARY ACCESS ROAD

NO SCALE

NOTES:

1. USE ABOVE DETAIL IN WET OR SOFT UPLAND AREAS TO PREVENT SINKING OF EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
2. UPON COMPLETION OF THE PROJECT, REMOVE ALL MATERIAL, LOOSEN THE TOPSOIL, RESTORE PRE-PROJECT GRADES, LOAM AND SEED.
3. TOPSOIL MAY BE STRIPPED, STOCKPILED, AND REPLACED FOLLOWING CONSTRUCTION AT THE DESCRETION OF THE CONTRACTOR.
4. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED.

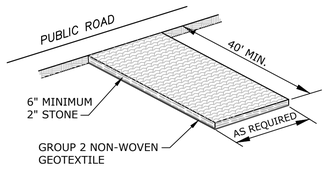


BYPASS

NO SCALE

DIVERSION FOR CULVERT REPLACEMENT

1. INSTALL TEMPORARY COFFER DAMS (SAND BAG, WATER FILLED BARRIER, PORTA-DAM, OR EQUIVALENT) TO MAINTAIN A DRY WORK AREA FOR CONSTRUCTION ACTIVITIES AND TO PREVENT SEDIMENTATION AS A RESULT OF THE PROPOSED WORK.
2. ONE COFFER DAM SHALL BE LOCATED UPSTREAM OF THE WORK AREA WITH A SECOND COFFER DAM DOWNSTREAM OF THE WORK AREA. A FLUME PIPE SHALL CONVEY FLOW BETWEEN THE COFFER DAMS.
3. SIZE AND PROVIDE A FLUME PIPE TO BE WITH ADEQUATE CAPACITY TO MAINTAIN BASE STREAM FLOW.
4. THE WORK AREA LOCATED WITHIN THE COFFER DAMS SHALL BE DEWATERED AS NEEDED TO PERFORM WORK "IN THE DRY." ANY DEWATERING ACTIVITIES SHALL BE PERFORMED USING A DISCHARGE HOSE, FILTER BAG, AND SEDIMENT TRAP.



TEMPORARY CONSTRUCTION ENTRY PAD

NO SCALE

NOTES:

1. REMOVAL OF TEMPORARY CONSTRUCTION ENTRY PAD PAYABLE UNDER BID ITEM.

PLAN VIEW - JOIN DETAIL

EROSION CONROL BARRIER COMPOST FILTER TUBE

NO SCALE

NOTES:

1. PROVIDE 3' MINIMUM OVERLAP AT ENDS OF TUBES TO JOIN IN A CONTINUOUS BARRIER AND MINIMIZE UNIMPEDED FLOW.
2. STAKE JOINING TUBES SNUGLY AGAINST EACH OTHER TO PREVENT UNFILTERED FLOW BETWEEN THEM.
3. SECURE ENDS OF TUBES WITH STAKES SPACED 18" APART THROUGH TOPS OF TUBES.

GENERAL COMPOST FILTER TUBE NOTES:

1. PROVIDE A MINIMUM TUBE DIAMETER OF 12" FOR SLOPES UP TO 50' IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER SLOPES OR STEEPER SLOPES.
2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
3. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
4. CONFIGURE TUBES AROUND EXISTING SITE FEATURES TO MINIMIZE SITE DISTURBANCE AND MAXIMIZE CAPTURE AREA OF STORMWATER RUN-OFF.
5. TUBES CAN BE PLACED DIRECTLY ON EXISTING PAVEMENT WHEN NECESSARY.
6. PLACING TUBES AGAINST THE UPHILL SIDE OF WELL-ANCHORED, STATIONARY FEATURES SUCH AS EXISTING TREES, CAN PROVIDE ADDITIONAL BRACING.
7. CURVE ENDS UPHILL TO PREVENT DIVERSION OF UNFILTERED RUN-OFF.

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

MARK	DATE	DESCRIPTION
0	11/2021	Issued For Bidding

PROJECT NO:	A0699-014
DATE:	11/2021
FILE:	A0699-014 Detls.dwg
DRAWN BY:	CFY
CHECKED BY:	DRB,ARB
APPROVED BY:	PMV,DRB

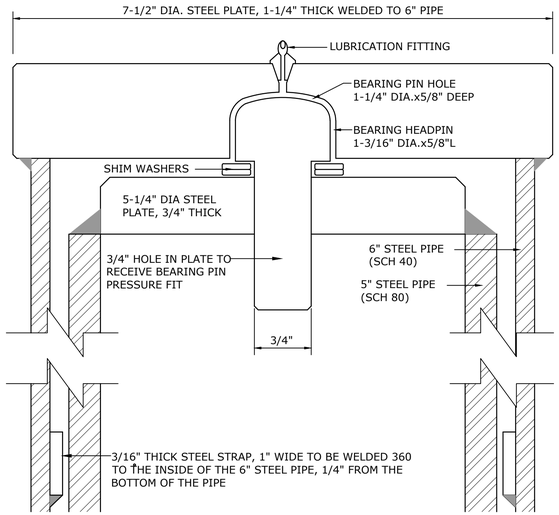
DETAILS

SCALE: AS SHOWN

C-108

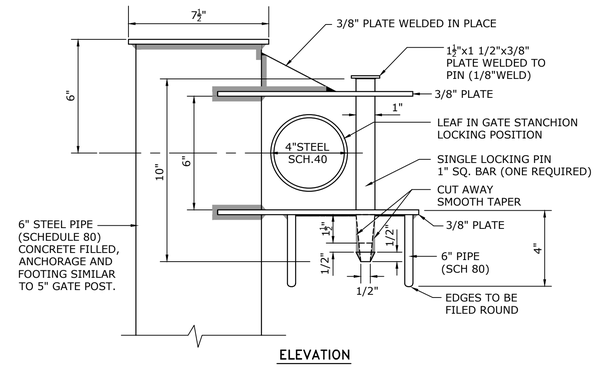
SHEET 10 OF 11

Last Saved: 10/21/2021
Plotted: Oct 21, 2021 - 2:11pm By: lpt
Tighe & Bond: J:\AV\A0699\014 - Dam Repair Design Update\Drawings, Figures\AutoCAD\Sheet\Combined Project\A0699-014 Detls.dwg

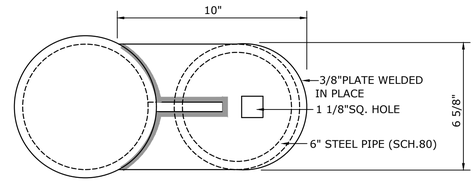


GATE POST DETAIL

DETAIL	1
NO SCALE	-



ELEVATION

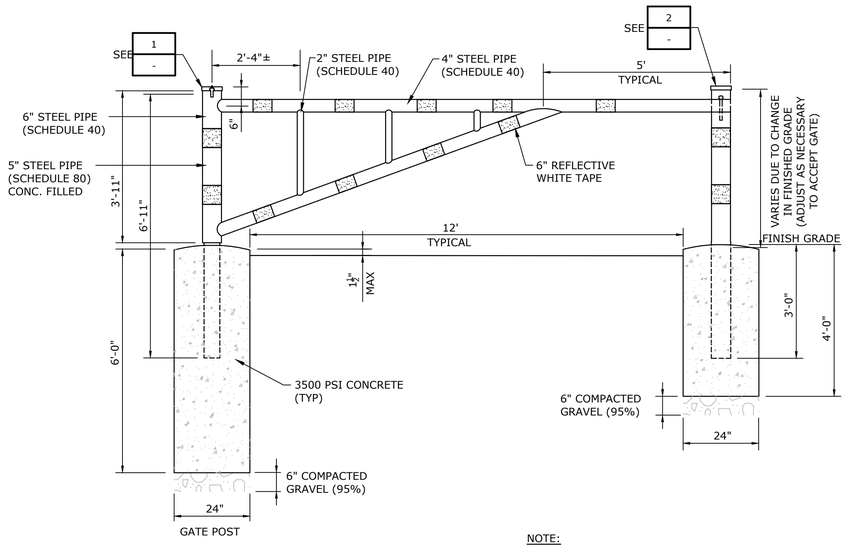


PLAN

NOTE: ALL WELDS TO BE 3/16" UNLESS NOTED OTHERWISE

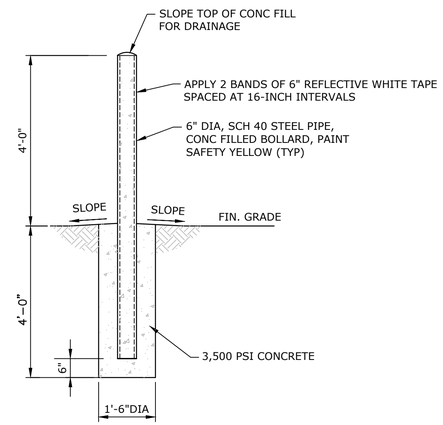
GATE STANCHION DETAIL

DETAIL	2
NO SCALE	-



NOTE:
1. ALL WELDS TO BE 3/16" UNLESS NOTED OTHERWISE
2. PAINT GATE AND STANCHION SAFETY YELLOW

PIPE GATE
NO SCALE



BOLLARD
NO SCALE

Tighe&Bond

Ashfield Lake Dam Repair

Town of Ashfield

Ashfield, Massachusetts

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CHECKED BY:	DRB,ARB
APPROVED BY:	PMV,DRB

DETAILS

SCALE: AS SHOWN

C-109
SHEET 11 OF 11