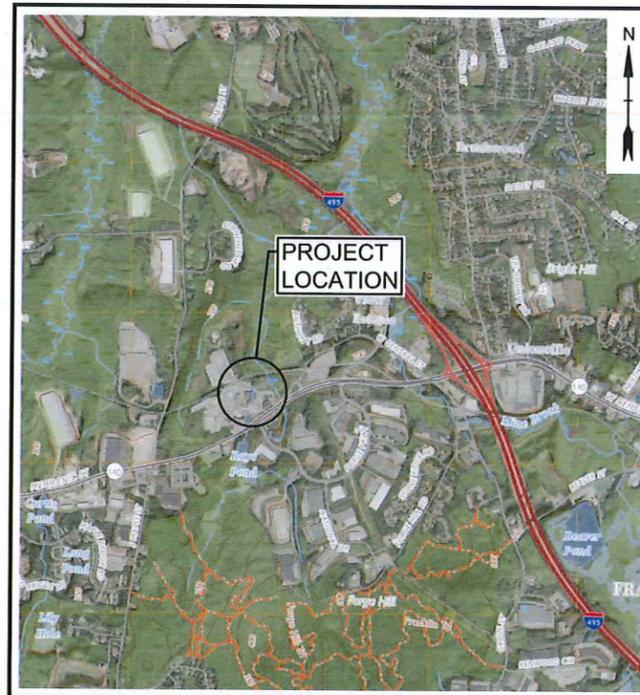


FRANKLIN, MA GARELICK FARMS FLOODING RESILIENCY IMPROVEMENTS

PERMIT DRAWINGS SEPTEMBER 2025 REVISED OCTOBER 2025 REVISED DECEMBER 2025 REVISED JANUARY 2026

DRAWING NO.	DRAWING TITLE
G-001	COVER SHEET
G-002	LEGEND, ABBREVIATIONS & GENERAL NOTES
G-003	GENERAL NOTES
C-101	EXISTING CONDITIONS PLAN
C-102	SITE PREPARATION PLAN
C-201	DRAINAGE IMPROVEMENT PLAN
C-501	DETAILS - 1
C-502	DETAILS - 2
C-503	DETAILS - 3



SITE LOCATION MAP
SCALE: 1" = 2000'

PREPARED BY:

Tighe & Bond



JEAN CHRISTY, PE



TAYLOR LABBE, PE

PREPARED FOR:

**DANDREO BROTHERS
GENERAL CONTRACTORS
AND GARELICK FARMS**

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CONSTRUCTION PURPOSES.

COMPLETE SET 9 SHEETS

LEGEND

DESCRIPTION	EXISTING	PROPOSED
PROPERTY LINE	---	---
LIMIT OF WORK	---	---
INTERMEDIATE CONTOURS	---	---
INDEX CONTOURS	---	---
SPOT GRADE	25 x 141.2'	25 + 32.0
MAGNITUDE & DIRECTION OF SLOPE	← 0.0%	← 0.0%
STORM DRAIN	SD	SD
STORM UNDERDRAIN	---	---
GRAVITY SANITARY SEWER	SS	SS
SANITARY SEWER FORCE MAIN	---	---
WATER SERVICE	W	W
FIRE SERVICE	---	---
UNDERGROUND ELECTRIC	E	E
PRIMARY ELECTRIC SERVICE	OE	OE
OVERHEAD UTILITY (UNSPECIFIED)	OHW	OHW
CURB	---	---
EDGE OF PAVEMENT	---	---
FENCE - CHAIN LINK	---	---
STORM DRAIN STRUCTURES	MANHOLE (D) CATCH BASIN (CB)	MANHOLE (D) CATCH BASIN (CB)
SANITARY SEWER STRUCTURES	MANHOLE (S) TANK (T)	MANHOLE (S) TANK (T)
WATER SERVICE STRUCTURES	HYDRANT (H) MANHOLE (W) VALVE (V)	HYDRANT (H) MANHOLE (W) VALVE (V)
GAS SERVICE STRUCTURES	MANHOLE (G) VALVE (V)	MANHOLE (G) VALVE (V)
ELECTRIC SERVICE STRUCTURES	UTILITY CO. POLE # (P) MANHOLE (E) LIGHT (L)	UTILITY CO. POLE # (P) MANHOLE (E) LIGHT (L)
TELECOMMUNICATIONS MANHOLE	(T)	(T)
TREELINE	---	---
TREE	EVERGREEN (EG) DECIDUOUS (DC) STUMP (S)	EVERGREEN (EG) DECIDUOUS (DC)
POTENTIAL SNOW STORAGE LOCATION	---	---
NHESP PRIORITY HABITAT OF RARE SPECIES	---	---

LEGEND

DEMOLITION / GEOTECHNICAL	---
EROSION & SEDIMENT CONTROL	---
ITEM TO BE DEMOLISHED	---
CLEAR AND GRUB VEGETATION	---
TEST PIT	---

LEGEND

RESOURCE AREAS	---
VEGETATED WETLAND LIMIT	---
TOP OF BANK	---
100-FOOT WETLAND BUFFER	---
50-FOOT WETLAND BUFFER	---
25-FOOT NO-DISTURB BUFFER	---
200' RIVERFRONT AREA	---
BORDERING LANDS SUBJECT TO FLOODING	---
WETLAND FLAG	---

ABBREVIATIONS

BIT	BITUMINOUS
BLDG	BUILDING
BC	BOTTOM OF CURB
CB	CATCH BASIN
CF	CUBIC FOOT
CI	CAST IRON
CLDI	CEMENT LINED DUCTILE IRON PIPE
CONC	CONCRETE
CY	CUBIC YARD
D	DEPTH
DI	DUCTILE IRON PIPE
DIA	DIAMETER
DMH	DRAIN MANHOLE
EFF	EFFECTIVE
EG	EXISTING GRADE
EL/ELEV	ELEVATION
EOP	EDGE OF PAVEMENT
EXIST	EXISTING
FFE	FINISHED FLOOR ELEVATION
FG	FINISH GRADE
GAL	GALLON
GPD	GALLONS PER DAY
HDPE	HIGH DENSITY POLYETHYLENE
HMA	HOT MIX ASPHALT
IN	INCHES
INV	INVERT
L	LENGTH
LF	LINEAR FEET
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MJ	MECHANICAL JOINT
MPT	MALE PIPE THREAD
NTS	NOT TO SCALE
N/A	NOT APPLICABLE
N/F	NOW OR FORMERLY
OC	ON CENTER
OH	OVERHEAD
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYLCHLORIDE
PVMT	PAVEMENT
R	RADIUS
RCP	REINFORCED CONCRETE
RD	REMOVE AND DISPOSE
R&D	ROOF DRAIN
REV	REVISION
R&R	REMOVE AND RESET
S	SLOPE
SCH	SCHEDULE
SF	SQUARE FOOT
SMH	SEWER MANHOLE
STA	STATION
TC	TOP OF CURB
TP	TEST PIT
TW	TOP OF WALL
TYP	TYPICAL
UP	UTILITY POLE
W	WIDTH
WV	WATER VALVE

BASE PLAN NOTES

- THE EXISTING CONDITIONS INFORMATION SHOWN ON THE DRAWINGS IS BASED ON THE FOLLOWING:
 - ORIGINAL SITE PLAN WAS PROVIDED BY GARELICK FARMS DATED SEPTEMBER 8, 2006.
 - EXISTING TOPOGRAPHY WAS PROVIDED BY TIGHE & BOND VIA DRONE SURVEY ON JUNE 4, 2024.
 - PARTIAL SURVEY OF THE EXISTING DRAINAGE INFRASTRUCTURE WAS PERFORMED BY WSP IN MAY 2024.
 - THE RESOURCE AREA BOUNDARIES DEPICTED ON THE DRAWINGS WERE DELINEATED BY TIGHE & BOND, INC. ON MAY 1, 2025.
 - THE UTILITY INFORMATION SHOWN WAS LOCATED BY GROUND-PENETRATING RADAR PERFORMED BY UNDERGROUND SURVEYING, LLC. IN JUNE 2025.
 - EXISTING DRAINAGE INFRASTRUCTURE WITHIN WEST CENTRAL STREET WAS TAKEN FROM THE DESIGN PLAN SET TITLED "ROUTE 140 RELOCATION & I-495 INTERCHANGE I7 IMPROVEMENTS" PREPARED BY VHB AND MASSDOT DATED MARCH 20, 2002.
- THE ACCURACY AND COMPLETENESS OF SUBSURFACE INFORMATION (E.G., EXISTING UTILITIES) SHOWN ON THESE DRAWINGS IS NOT GUARANTEED AND SOME SUBSURFACE INFORMATION MAY NOT BE SHOWN. DETERMINE THE LOCATIONS AND ELEVATIONS OF ALL SUBSURFACE FEATURES WHICH MAY AFFECT CONSTRUCTION OPERATIONS BY TEST PIT OR OTHER METHODS, AS NECESSARY TO PREVENT DAMAGE TO UTILITIES AND OTHER SUBSURFACE FEATURES, AND/OR INTERRUPTIONS IN UTILITY SERVICE. PROVIDE DATA COLLECTED THROUGH THESE INVESTIGATIONS TO THE ENGINEER PRIOR TO CONSTRUCTING THE PROPOSED IMPROVEMENTS.
- SUB-SURFACE EXPLORATIONS ARE ANTICIPATED TO BE PERFORMED BY GEOLOGIC EARTH EXPLORATION, INC IN JULY 2025. TEST BORING LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE AND TESTING INFORMATION IS NOT GUARANTEED IN ANY WAY TO REPRESENT EXISTING CONDITIONS.
- THE DRAWINGS ARE BASED ON THE FOLLOWING DATUMS: HORIZONTAL-NAD83; VERTICAL-NAVD88
- THE EXISTING CONDITIONS SHOWN ARE APPROXIMATE. FIELD VERIFY EXISTING CONDITIONS.
- THE PROPERTY LINES SHOWN ON THE DRAWINGS ARE APPROXIMATE AND ARE NOT BASED ON DEED OR PLAN RESEARCH.

GENERAL NOTES

- NOTIFY DIGSAFE AT 1-888-344-7233 AND OTHER UTILITY OWNERS IN THE AREA NOT ON THE DIGSAFE LIST AT LEAST 72 HOURS PRIOR TO ANY DIGGING, TRENCHING, ROCK REMOVAL, DEMOLITION, BORING, BACKFILLING, GRADING, LANDSCAPING, OR ANY OTHER EARTH MOVING OPERATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR SUPPORT OF EXISTING UTILITIES AND REPAIR OR REPLACEMENT COSTS OF UTILITIES DAMAGED DURING CONSTRUCTION, WHETHER ABOVE OR BELOW GRADE. REPLACE DAMAGED UTILITIES IMMEDIATELY AT NO ADDITIONAL COST TO THE OWNER AND AT NO COST TO THE PROPERTY OWNER.
- NOT ALL OF THE UTILITY SERVICES TO BUILDINGS ARE SHOWN. THE CONTRACTOR SHALL ANTICIPATE THAT EACH PROPERTY HAS SERVICE CONNECTIONS FOR THE VARIOUS UTILITIES.
- BOLD TEXT AND LINES INDICATE PROPOSED WORK. LIGHT TEXT AND LINES INDICATE APPROXIMATE EXISTING CONDITIONS.
- TIGHE & BOND ASSUMES NO RESPONSIBILITY FOR ANY ISSUES, LEGAL OR OTHERWISE, RESULTING FROM CHANGES MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM TIGHE & BOND.
- EXCAVATE ADDITIONAL TEST PITS TO LOCATE EXISTING UTILITIES AS DIRECTED OR APPROVED BY THE ENGINEER.
- NOTIFY THE ENGINEER OF ANY UTILITIES IDENTIFIED DURING CONSTRUCTION THAT ARE NOT SHOWN ON THE DRAWINGS OR THAT DIFFER IN SIZE OR MATERIAL.
- THE CONTRACTOR IS RESPONSIBLE FOR SITE SAFETY; COORDINATION WITH THE OWNER, ALL SUBCONTRACTORS, AND WITH OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF WORK, THE MEANS AND METHODS OF CONSTRUCTING THE PROPOSED WORK.
- OBTAIN, PAY FOR AND COMPLY WITH PERMITS, NOTICES AND FEES NECESSARY TO COMPLETE THE WORK. ARRANGE AND PAY FOR NECESSARY INSPECTIONS AND APPROVALS FROM THE JURISDICTIONAL AUTHORITIES.
- SHORE UTILITY TRENCHES WHERE FIELD CONDITIONS DICTATE AND/OR WHERE REQUIRED BY LOCAL, STATE AND FEDERAL HEALTH AND SAFETY CODES.
- FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF FIELD CONDITIONS ARE OBSERVED THAT VARY SIGNIFICANTLY FROM THOSE SHOWN ON THE DRAWINGS, IMMEDIATELY NOTIFY THE ENGINEER IN WRITING FOR RESOLUTION OF THE CONFLICTING INFORMATION.
- PROTECT AND MAINTAIN ALL UTILITIES IN THE AREAS UNDER CONSTRUCTION DURING THE WORK. LEAVE ALL PIPES AND STRUCTURES WITHIN THE LIMITS OF THE CONTRACT IN A CLEAN AND OPERABLE CONDITION AT THE COMPLETION OF THE WORK. TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SAND AND SILT FROM DISTURBED AREAS FROM ENTERING THE DRAINAGE SYSTEM.
- NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICT, ERROR, AMBIGUITY, OR DISCREPANCY WITH THE PLANS OR BETWEEN THE PLANS AND ANY APPLICABLE LAW, REGULATION, CODE, STANDARD SPECIFICATION, OR MANUFACTURER'S INSTRUCTIONS.
- EXCAVATE WITH EQUIPMENT SELECTED TO MINIMIZE DAMAGE TO EXISTING UTILITIES OR OTHER FACILITIES. HAND EXCAVATE AS NECESSARY TO LOCATE UTILITIES AND AVOID DAMAGE.
- TAKE NECESSARY MEASURES AND PROVIDE CONTINUOUS BARRIERS OF SUFFICIENT TYPE, SIZE, AND STRENGTH TO PREVENT ACCESS TO ALL WORK AND STAGING AREAS AT THE COMPLETION OF EACH DAYS WORK.
- NO OPEN TRENCHES WILL BE ALLOWED OVER NIGHT. THE USE OF ROAD PLATES TO PROTECT THE EXCAVATION WILL BE CONSIDERED UPON REQUEST, BUT BACKFILLING IS PREFERRED.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY TRAFFIC CONTROL/SAFETY DEVICES TO ENSURE SAFE VEHICULAR AND PEDESTRIAN ACCESS THROUGH THE WORK AREA, OR FOR SAFELY IMPLEMENTING DETOURS AROUND THE WORK AREA. PERFORM TRAFFIC CONTROL IN ACCORDANCE WITH THE CONTRACTOR'S APPROVED TRAFFIC CONTROL PLAN.
- MAINTAIN EMERGENCY ACCESS TO ALL PROPERTIES WITHIN THE PROJECT AREA AT ALL TIMES DURING CONSTRUCTION.
- WHEN WORKING IN THE ROAD, PROVIDE THE OWNER AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES A DETAILED PLAN OF APPROACH INDICATING METHODS OF PROPOSED TRAFFIC ROUTING ON A DAILY BASIS. PROVIDE COORDINATION TO ENSURE COMMUNICATION AND COORDINATION BETWEEN THE OWNER, CONTRACTOR AND LOCAL FIRE/POLICE/SCHOOL AUTHORITIES THROUGHOUT THE CONSTRUCTION PERIOD.
- REMOVE AND DISPOSE OF ALL CONSTRUCTION-RELATED WASTE MATERIALS AND DEBRIS IN STRICT ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.
- THE TERM "DEMOLISH" USED ON THE DRAWINGS MEANS TO REMOVE AND DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS.
- THE TERM "ABANDON" USED ON THE DRAWINGS MEANS TO LEAVE IN PLACE AND TAKE APPROPRIATE MEASURES TO DECOMMISSION AS SPECIFIED OR NOTED ON THE DRAWINGS.
- ALL PROPOSED WORK MAY BE ADJUSTED IN THE FIELD BY THE OWNER'S PROJECT REPRESENTATIVE TO MEET EXISTING CONDITIONS.
- CONTRACTOR TO FOLLOW THE STERLING WATER DEPARTMENT RULES & REGULATIONS WHEN INSTALLING WATER SERVICE TO THE NEW BUILDING AND THE DEPARTMENT SHALL REVIEW PLANS FOR WATER SERVICE CONNECTION AS PART OF THE BUILDING PERMIT APPLICATION PROCESS.

Tighe & Bond

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Garelick Farms Flooding Resiliency Improvements

Dandreo Brothers General Contractors
Franklin, MA

MARK	DATE	DESCRIPTION
1	10/2025	CONCOM COMMENTS
PROJECT NO: G5099-0003		
DATE: SEPT 2025		
FILE: G5099-0003-G-002.dwg		
DRAWN BY: AJW		
DESIGNED BY: AJW		
CHECKED BY: JEC		
APPROVED BY: WEB		

LEGEND, ABBREVIATIONS & GENERAL NOTES

SCALE: NO SCALE

G-002

Last Saved: 10/21/2025 3:40pm By: Tlabbe Plotted On: Oct 21, 2025 3:40pm By: Tlabbe Tighe & Bond G:\G5099\Garelick Farms\0003 Flood Mitigation Design and Permitting\Drawings\AutoCAD\Sheet\G5099-0003-G-002.dwg

EROSION CONTROL AND RESOURCE AREA PROTECTION NOTES

1. PROVIDE ALL EROSION CONTROL MEASURES SHOWN, SPECIFIED, REQUIRED BY PERMIT, AND/OR REQUIRED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION OR IMMEDIATELY UPON REQUEST. MAINTAIN SUCH CONTROL MEASURES UNTIL FINAL SURFACE TREATMENTS ARE IN PLACE AND/OR UNTIL PERMANENT VEGETATION IS ESTABLISHED. INSPECT AFTER EACH RAINSTORM AND DURING MAJOR STORM EVENTS TO CONFIRM THAT ALL SEDIMENTATION AND EROSION CONTROL MEASURES REQUIRED ARE IN PLACE AND EFFECTIVE.
2. PRIOR TO STARTING WORK, CLEARLY STAKE WORK LIMITS. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMITS. COORDINATE WITH THE ENGINEER FOR LOCATIONS OF TEMPORARY STOCKPILING OF TOPSOIL DURING CONSTRUCTION.
3. INSTALL SILT SACKS OR OTHER APPROVED SEDIMENTATION BARRIERS IN/AT ALL CATCH BASINS IN THE PROJECT AREA.
4. COMPACT, STABILIZE, AND LOAM AND SEED SIDE SLOPES, SHOULDER AREAS AND DISTURBED VEGETATED AREAS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND AS REQUIRED BY PERMITS. GRADE SIDE SLOPES, SHOULDER AREAS AND DISTURBED VEGETATED AREAS TO A MAXIMUM SLOPE OF 3 HORIZONTAL TO 1 VERTICAL (3H:1V), WHERE POSSIBLE. PROVIDE BIODEGRADABLE EROSION CONTROL BLANKETS TO PREVENT EROSION WHERE SLOPES ARE STEEPER THAN 3H:1V.
5. SETTLE OR FILTER ALL SILT-LADEN WATER FROM DEWATERING ACTIVITIES IN A SEDIMENTATION OR FILTER BAG TO REMOVE SEDIMENTS PRIOR TO RELEASE USING A SEDIMENTATION OR FILTER BAG LOCATED DOWN-GRADIENT OF THE DEWATERED AREA.
6. REMOVE AND PROPERLY DISPOSE OF SILT TRAPPED AT BARRIERS IN UPLAND AREAS OUTSIDE BUFFER ZONES. REMOVE MATERIALS DEPOSITED IN ANY TEMPORARY SETTLING BASINS AT THE COMPLETION OF THE PROJECT. RESTORE ALL DISTURBED AREAS TO THEIR PRECONSTRUCTION CONDITION.
7. SWEEP, COLLECT, REMOVE AND DISPOSE OF ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS AT THE END OF EACH DAY.
8. LOAM AND SEED ALL DISTURBED VEGETATED AREAS TO ESTABLISH COVER AND STABILIZATION AS SOON AS POSSIBLE FOLLOWING DISTURBANCE.
9. MAINTAIN AN ADDITIONAL SUPPLY OF EROSION CONTROL MEASURES ON-SITE FOR EMERGENCY REPAIRS.
10. STORE FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS IN A SECONDARY CONTAINER AND REMOVE TO A SECURE LOCKED AND COVERED AREA DURING NON-WORK HOURS.
11. PROVIDE A SUPPLY OF ABSORBENT SPILL RESPONSE MATERIALS SUCH AS BOOMS, BLANKETS, AND OIL ABSORBENT MATERIALS AT THE CONSTRUCTION SITE AT ALL TIMES TO CLEAN UP POTENTIAL SPILLS OF HAZARDOUS MATERIALS. IMMEDIATELY REPORT SPILLS OF HAZARDOUS MATERIALS TO THE STATE ENVIRONMENTAL AGENCY AND THE MUNICIPALITY WHERE THE WORK IS OCCURRING.
12. REMOVAL OF EROSION CONTROLS SHALL NOT OCCUR UNTIL ALL DISTURBED AREAS ARE FULLY STABILIZED AND APPROVAL FOR REMOVAL HAS BEEN GRANTED BY THE ENGINEER AND CONSERVATION COMMISSION.
13. EROSION CONTROL INSPECTIONS SHALL OCCUR WEEKLY AND AFTER SIGNIFICANT RAIN EVENTS, IN ACCORDANCE WITH THE TOWN OF FRANKLIN CONSERVATION COMMISSION REGULATIONS. INSPECTIONS AND MAINTENANCE ACTIVITIES SHALL BE LOGGED AND SUBMITTED WEEKLY TO THE CONSERVATION OFFICE, NOTING THE CONDITION OF THE CONTROLS AND ANY CORRECTIVE ACTIONS TAKEN.
14. PERIMETER CONTROL SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. THEY SHALL BE REPAIRED IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THEM, AND ANY REPAIRS SHALL BE MADE IMMEDIATELY. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THEM, SEDIMENT BARRIERS SHALL BE REPLACED WITH A TEMPORARY CHECK DAM.
15. SHOULD THE FABRIC ON A BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH STORM EVENT. THEY MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATED 1/3 THE HEIGHT OF THE BARRIER.
17. AT THE CONCLUSION OF THE PROJECT, THE EROSION CONTROL BARRIERS WILL BE REMOVED AND PROPERLY DISPOSED OFF-SITE FOLLOWING THE STABILIZATION OF DISTURBED AREAS.

DRAINAGE SYSTEM IMPROVEMENTS NOTES

1. LOCATIONS OF PROPOSED STORM DRAINS AND STRUCTURES ARE APPROXIMATE AND MAY BE ADJUSTED DURING CONSTRUCTION AFTER INVESTIGATIVE WORK. FINAL STORM DRAIN LOCATIONS, AND ASSOCIATED STRUCTURES, WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. ADJUSTMENTS TO THE PROPOSED STORM DRAIN LAYOUTS AND ELEVATIONS SHALL NOT BE CONSIDERED CAUSE FOR ADDITIONAL PAYMENTS. THE CONTRACTOR SHALL NOT MAKE PROPOSED STORM DRAIN LAYOUT AND ELEVATION ADJUSTMENTS WITHOUT APPROVAL FROM THE ENGINEER.
3. MANHOLES SHALL BE 48-INCH DIAMETER, UNLESS NOTED OTHERWISE.
4. DISTANCES AND SLOPES OF PROPOSED STORM DRAINS ARE BASED ON DISTANCES FROM CENTERLINE TO CENTERLINE OF STRUCTURES.
5. UNLESS OTHERWISE NOTED, PROPOSED CATCH BASIN LATERALS SHALL BE 12-INCH DIAMETER. WHERE THE MAINLINE STORM DRAIN IS SMALLER THAN 12-INCHES IN DIAMETER, THE CATCH BASIN LATERAL SHALL MATCH THE SIZE OF THE MAINLINE STORM DRAIN. MINIMUM COVER OVER CATCH BASIN LATERALS SHALL BE 4 FEET, UNLESS SHOWN OR APPROVED OTHERWISE.
6. ACTUAL LOCATION OF PROPOSED STORM DRAIN TERMINAL MANHOLES MAY BE ADJUSTED IN THE FIELD BASED ON THE LOCATION OF STORM DRAIN SERVICE CONNECTIONS.
7. MAINTAIN OPERATION OF DRAINAGE SYSTEM DURING CONSTRUCTION. PROVIDE BYPASS PUMPING OF DRAINAGE FLOWS AND/OR TEMPORARY CONNECTIONS, AS NECESSARY.
8. MAINTAIN A MINIMUM HORIZONTAL DISTANCE OF AT LEAST 10 FEET FROM ANY EXISTING OR PROPOSED WATER MAIN. IF SITE CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, A LESSER DISTANCE WILL BE ALLOWED IF THE STORM DRAIN IS CONSTRUCTED IN A SEPARATE TRENCH WITH THE TOP OF THE STORM DRAIN AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN.
9. WHENEVER A PROPOSED STORM DRAIN MUST CROSS A WATER MAIN, CONSTRUCT THE STORM DRAIN SO THE TOP OF THE STORM DRAIN IS AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. THE STORM DRAIN JOINTS SHALL BE EQUIDISTANT AND LOCATED AS FAR AWAY AS POSSIBLE FROM THE WATER MAIN JOINTS. WHEN THE PROPOSED STORM DRAIN CANNOT MEET THE ABOVE REQUIREMENTS, ENCASE THE PROPOSED STORM DRAIN IN CONCRETE.
10. WHERE A PROPOSED UTILITY CROSSES BELOW AN EXISTING ASBESTOS CEMENT (AC) WATER MAIN, REPLACE THE AC WATER MAIN ABOVE THE CROSSING AND 10 FEET ON EACH SIDE OF THE CROSSING WITH NEW DI PIPE. HANDLE, REMOVE, TRANSPORT AND DISPOSE OF AC PIPE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SURFACE RESTORATION NOTES

1. ALL PAVEMENT DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. PROVIDE SITE GRADING AT ACCESSIBLE SIDEWALK RAMPS, SIDEWALKS, AND BUILDING ENTRANCES THAT IS CONSISTENT WITH THE RELEVANT ACCESS REQUIREMENTS OF THE ARCHITECTURAL BARRIERS ACT (ABA), THE AMERICANS WITH DISABILITIES ACT (ADA), AND MA ARCHITECTURAL ACCESS BOARD REQUIREMENTS (AAB). SMALL CHANGES IN GRADE OVER RELATIVELY SHORT DISTANCES (E.G. AT PARKING SPACES, ACCESSIBLE ROUTES, AND RAMPS) MIGHT NOT BE CLEARLY DEPICTED WITHIN THE CONTOUR INTERVAL SHOWN. COMPLY WITH THE CRITERIA IN THESE STANDARDS. SELECT MAXIMUM SLOPE CRITERIA ARE REPRODUCED BELOW:
 - ACCESSIBLE PARKING STALL AND PASSENGER LOADING ZONE (ANY DIRECTION) SLOPE < 2.0%
 - LONGITUDINAL SLOPE ALONG ACCESSIBLE ROUTES < 5.0%
 - CROSS SLOPE ALONG ACCESSIBLE ROUTES < 2.0%
3. PROTECT PROJECT FEATURES (E.G., WALLS, FENCES, MAIL BOXES, SIGNS, SIDEWALKS, CURBING, STAIRS, WALKWAYS, TREES, ETC.) FROM DAMAGE DURING CONSTRUCTION, INCLUDING PROVIDING TEMPORARY SUPPORTS, WHEN APPROPRIATE.
4. IF REMOVAL OF PROJECT FEATURES IS REQUIRED IN ORDER TO PERFORM THE PROPOSED WORK, REMOVE THOSE SITE FEATURES ONLY UPON APPROVAL OF ENGINEER. REPLACE ALL REMOVED PROJECT FEATURES; NEW ITEMS SHALL BE EQUAL OR BETTER IN QUALITY AND CONDITION TO THE ITEMS REMOVED.
5. EXISTING SURVEY MONUMENTS DISTURBED BY THE CONTRACTOR SHALL BE REPLACED BY A LAND SURVEYOR LICENSED IN THE STATE IN WHICH THE WORK IS PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
6. COORDINATE THE ADJUSTMENT OF EXISTING UTILITY STRUCTURES WITH EACH RESPONSIBLE UTILITY OWNER PRIOR TO RECONSTRUCTION AND/OR PAVING OPERATIONS. RAISE ALL STRUCTURES TO FINISHED GRADES PRIOR TO THE END OF THE CONSTRUCTION SEASON AND PRIOR TO FINISHED PAVING.
7. REPAIR DISTURBED PAVED SURFACES AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.
8. PLACE TEMPORARY BITUMINOUS CONCRETE PAVEMENT AT DISTURBED PORTLAND CEMENT CONCRETE SIDEWALKS AND DRIVEWAYS AT THE END OF EACH WORK WEEK, UNLESS OTHERWISE APPROVED/REQUIRED BY THE OWNER.
9. TRANSFER ALL TEMPORARY BENCHMARKS, AS NECESSARY.
10. ACCOMMODATE PEDESTRIAN TRAFFIC WHERE A SIDEWALK IS TO BE CLOSED FOR SAFETY. "SIDEWALK CLOSED HERE" SIGNS SHALL BE USED AT THE NEAREST SAFE INTERSECTION. SEE TRAFFIC CONTROL DETAILS FOR SIGN INFORMATION.
11. RESTORE ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE PAYLINE LIMITS TO ORIGINAL CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
12. REGRADE ALL UNPAVED AREAS DISTURBED BY THE WORK AS REQUIRED. REPAIR/REPLACE PAVED SURFACES DISTURBED BY THE WORK IN-KIND, UNLESS OTHERWISE NOTED. RESTORE SURFACES TO EXISTING OR PROPOSED CONDITIONS AS INDICATED ON THE DRAWINGS.
13. PROVIDE A SMOOTH, FLUSH TRANSITION BETWEEN ALL NEW AND EXISTING PAVEMENTS AND WALKING SURFACES.

CONSTRUCTION SEQUENCE

1. CONSTRUCTION SEQUENCING IS ANTICIPATED TO OCCUR AS FOLLOWS:
 - NOTIFY PERTINENT REGULATORY AGENCIES AND ABUTTERS OF THE CONSTRUCTION SCHEDULE.
 - INSTALL SEDIMENTATION AND EROSION CONTROLS / PROTECTIVE MEASURES AT WORK SITE PERIMETER.
 - SCHEDULE AND CONDUCT SITE WALKS WITH PERTINENT REGULATORY AGENCIES TO INSPECT CONSTRUCTION-PHASE BMPs.
 - SITE MOBILIZATION AND MATERIAL STAGING.
 - DEMARCATe INVASIVE SPECIES LOCATIONS AND AVOID OR REMOVE/CONTROL PRIOR TO SITE WORK.
 - VEGETATION CLEARING/REMOVAL WITHIN LIMIT OF WORK.
 - INSTALLATION OF DRAINAGE PIPING, CATCH BASINS AND OUTFALL. BACKFILL OF EXCAVATED TRENCHING. REPAVING AND STABILIZATION OF TRENCHED EXCAVATION LIMITS.
 - INSTALLATION OF HEADWALL AND TIE-IN TO NEWLY INSTALLED DRAINAGE PIPING.
 - CLEANING AND TESTING DRAINAGE PIPING.
 - PERFORM FINAL STABILIZATION, RESTORATION AND MITIGATION OF TEMPORARY IMPACT AREAS, INCLUDING INSTALLATION OF RESTORATION PLANTINGS.
 - WITH CONSERVATION COMMISSION AUTHORIZATION, REMOVE EROSION AND SEDIMENTATION CONTROLS / PROTECTIVE MEASURES AT WORK SITE PERIMETER AND ENTRANCE/EXIT LOCATIONS AND PROPERLY DISPOSE OFF-SITE.
 - DEMOBILIZE AND PERFORM FINAL SITE CLEANUP.



12-03-2025

Wayne Bates



12/03/2025

PERMIT SET

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Garelick Farms Flooding Resiliency Improvements

Dandreo Brothers General Contractors
Franklin, MA

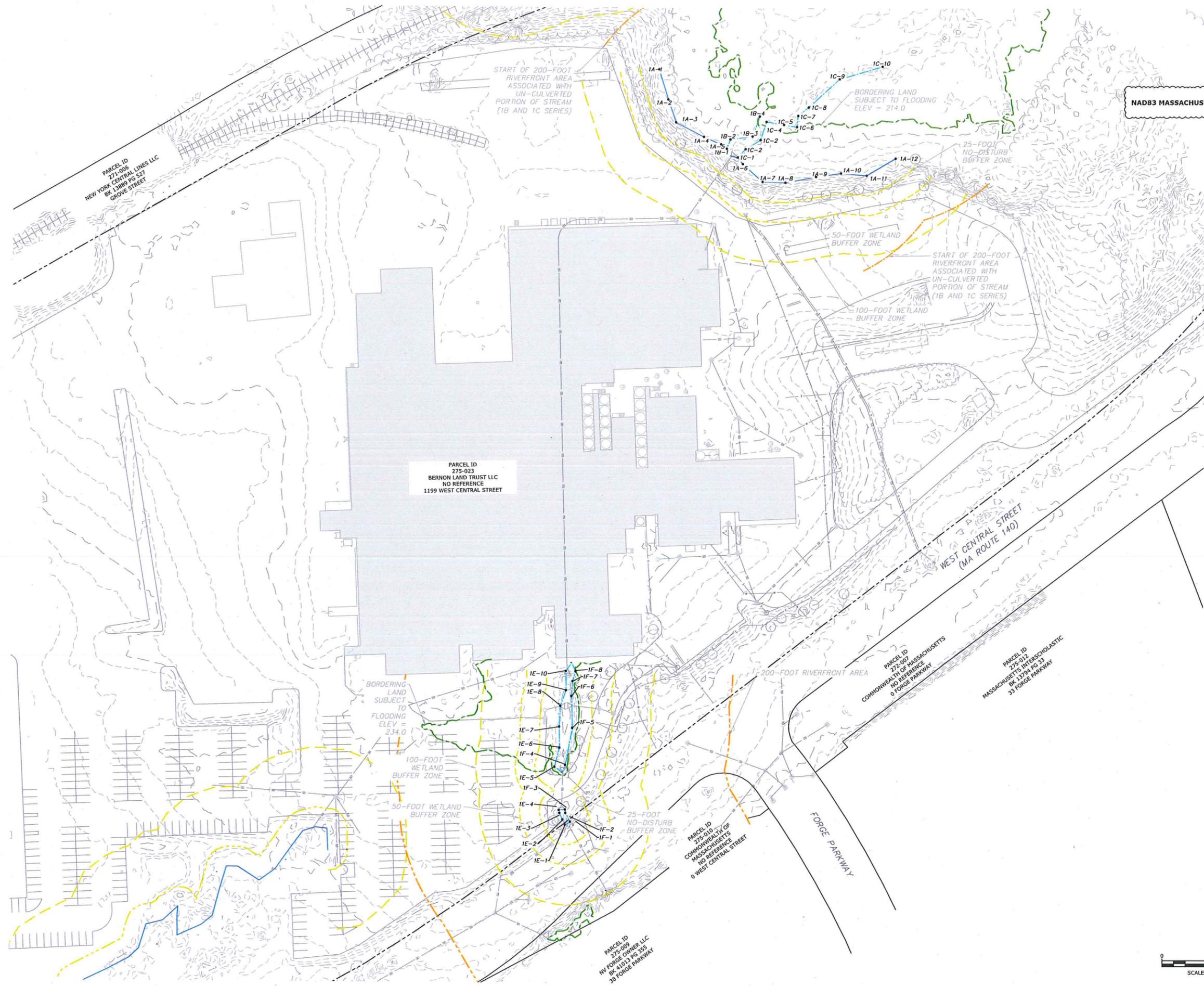
MARK	DATE	DESCRIPTION
2	12/2025	PEER REVIEW COMMENTS
PROJECT NO:	G5099-0003	
DATE:	SEPT 2025	
FILE:	G5099-0003-G-002.dwg	
DRAWN BY:	AJW	
DESIGNED BY:	AJW	
CHECKED BY:	JEC	
APPROVED BY:	WEB	

GENERAL NOTES

SCALE: NO SCALE

G-003

Last Saved: 11/26/2025 11:06:11 AM By: Tabb
 Date: 02/02/2025 11:06:11 AM
 Title: G:\Projects\Garelick Farms\0003 Flood Mitigation Design and Permitting\Drawings\AutoCAD\Sheet\G5099-0003-C-101.dwg



GRID NORTH
 NAD83 MASSACHUSETTS STATE PLANE
 MAINLAND ZONE

Tighe & Bond
 One University Avenue
 Suite 100
 Westwood, MA 02090
 (781) 708-9820



12-03-2025

Wayne E. Bates



12/03/2025

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**Garelick Farms
 Flooding Resiliency
 Improvements**

Dandreo Brothers
 General Contractors
 Franklin, MA

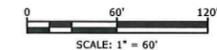
MARK	DATE	DESCRIPTION
2	12/2025	PEER REVIEW COMMENTS
1	10/2025	CONCOM COMMENTS

PROJECT NO: G5099-0003
 DATE: SEPT 2025
 FILE: G5099-0003-C-101.dwg
 DRAWN BY: AJW
 DESIGNED BY: AJW
 CHECKED BY: JEC
 APPROVED BY: JEC

OVERALL EXISTING
 CONDITIONS
 PLAN

SCALE: 1" = 100'

C-101





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Garelick Farms Flooding Resiliency Improvements

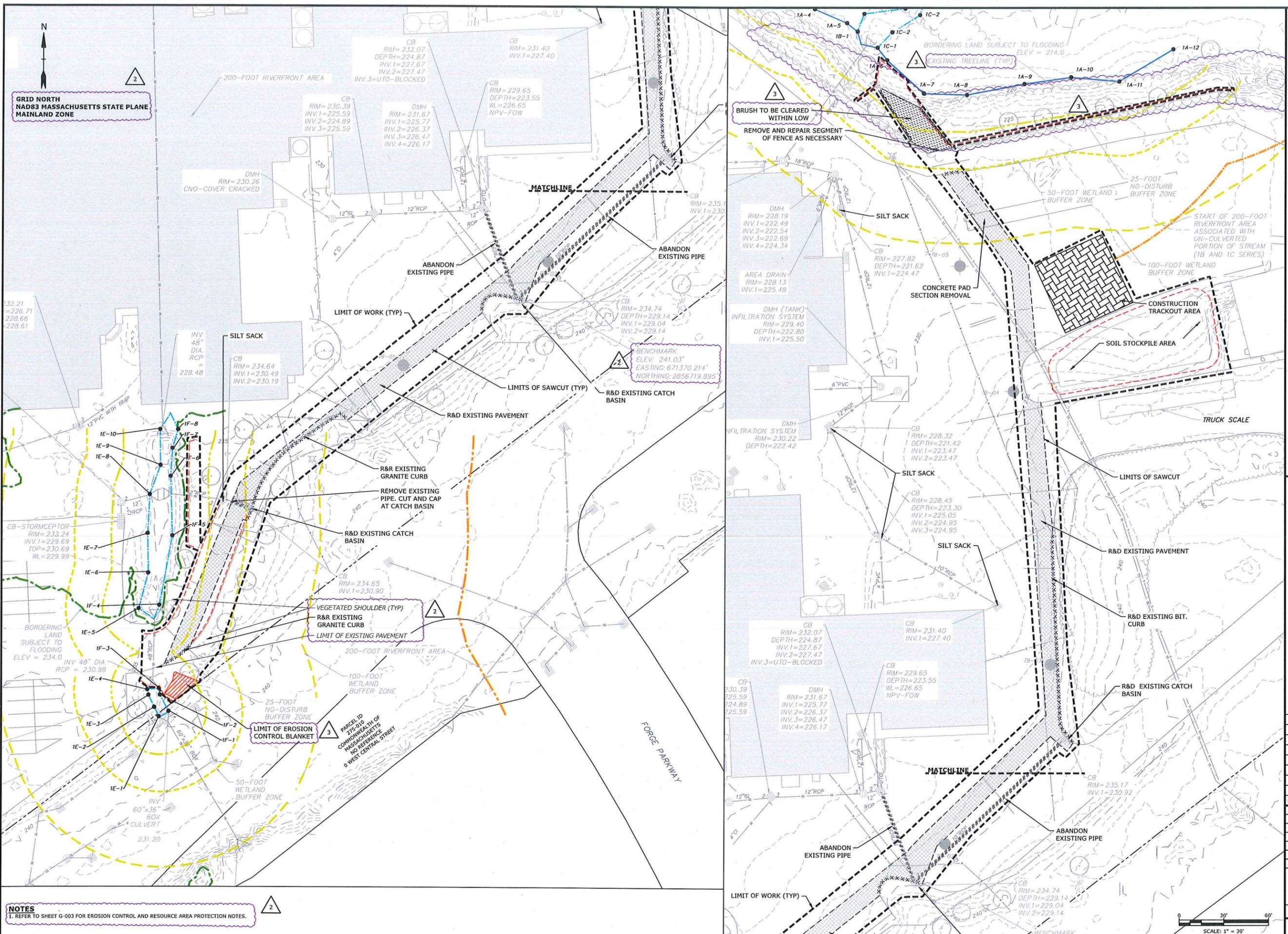
Dandreo Brothers General Contractors
Franklin, MA

MARK	DATE	DESCRIPTION
3	01/2026	PEER REVIEW 2 COMMENTS
2	12/2025	PEER REVIEW COMMENTS
1	10/2025	CONCOM COMMENTS

PROJECT NO:	G5099-0003
DATE:	SEPT 2025
FILE:	G5099-0003-C-101.dwg
DRAWN BY:	AJW
DESIGNED BY:	AJW
CHECKED BY:	JEC
APPROVED BY:	JEC

EXISTING CONDITIONS AND SITE PREPARATION PLAN

SCALE: 1" = 30'



NOTES
1. REFER TO SHEET G-003 FOR EROSION CONTROL AND RESOURCE AREA PROTECTION NOTES.

Last Saved: 12/31/2025 11:57:00 AM By: Tlabbe
 Plotted On: Dec 31, 2025 1:25:57 PM
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Garelick Farms Flooding Resiliency Improvements

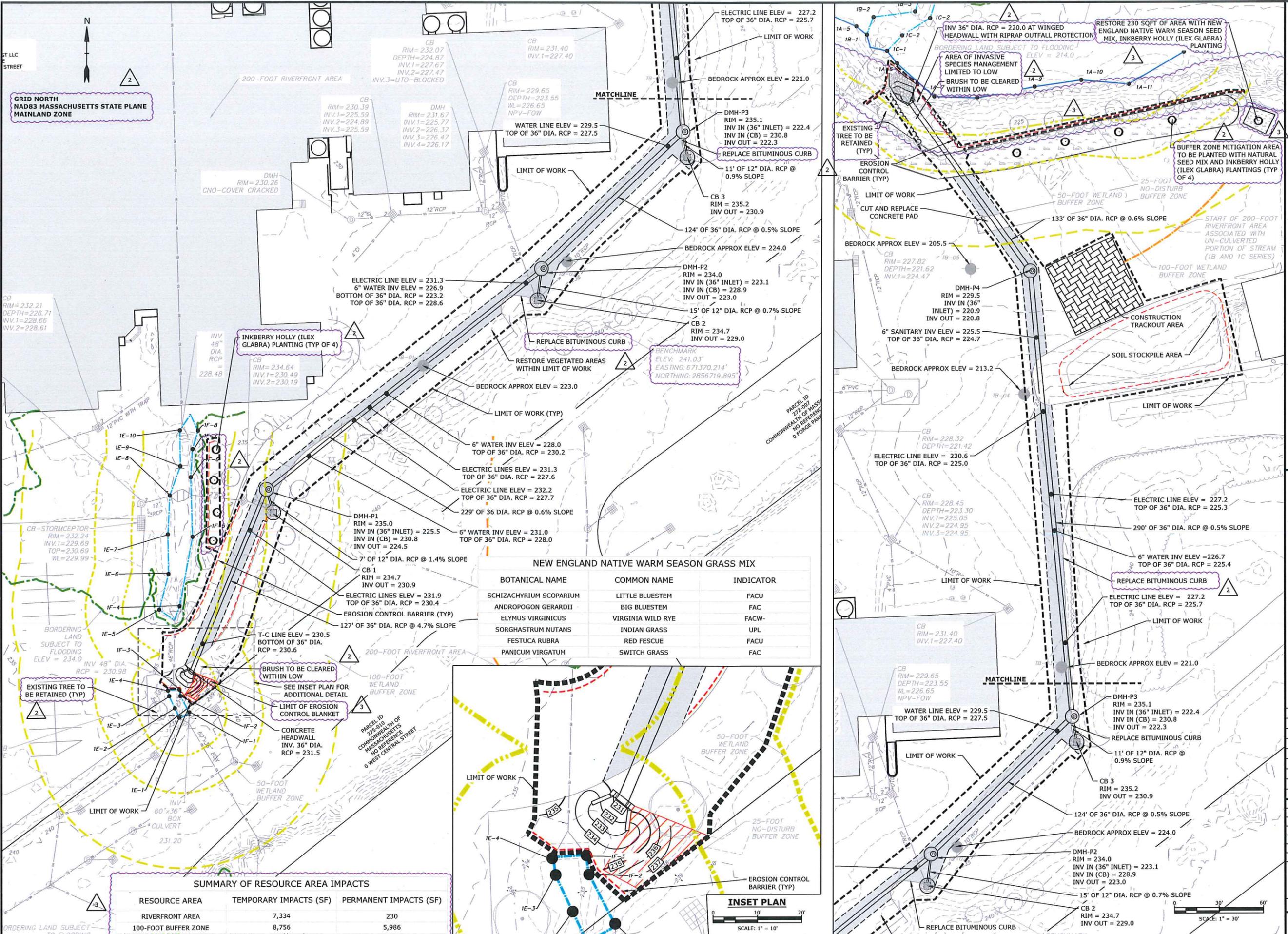
Dandreo Brothers General Contractors
Franklin, MA

MARK	DATE	DESCRIPTION
3	01/2026	PEER REVIEW 2 COMMENTS
2	12/2025	PEER REVIEW COMMENTS
1	10/2025	CONCOM COMMENTS

PROPOSED SITE PLAN

SCALE: 1" = 30'

C-201



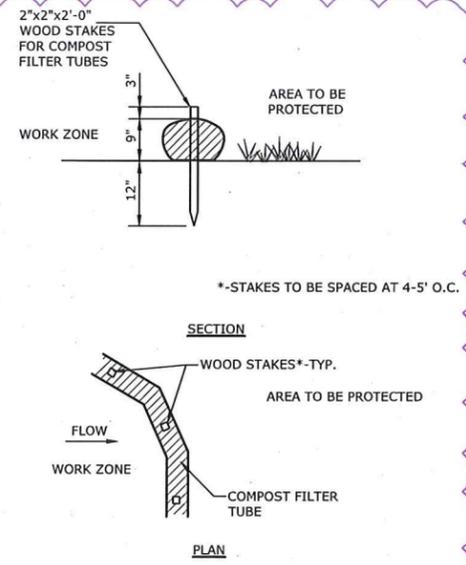
NEW ENGLAND NATIVE WARM SEASON GRASS MIX

BOTANICAL NAME	COMMON NAME	INDICATOR
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	FACU
ANDROPOGON GERARDII	BIG BLUESTEM	FAC
ELYMUS VIRGINICUS	VIRGINIA WILD RYE	FACV
SORGHASTRUM NUTANS	INDIAN GRASS	UPL
FESTUCA RUBRA	RED FESCUE	FACU
PANICUM VIRGATUM	SWITCH GRASS	FAC

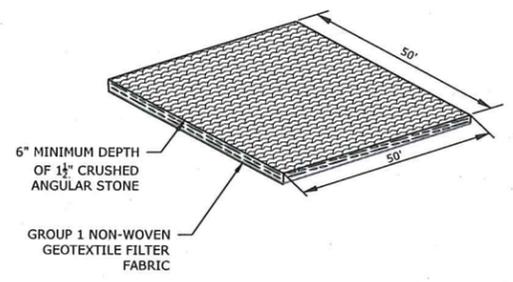
SUMMARY OF RESOURCE AREA IMPACTS

RESOURCE AREA	TEMPORARY IMPACTS (SF)	PERMANENT IMPACTS (SF)
RIVERFRONT AREA	7,334	230
100-FOOT BUFFER ZONE	8,756	5,986

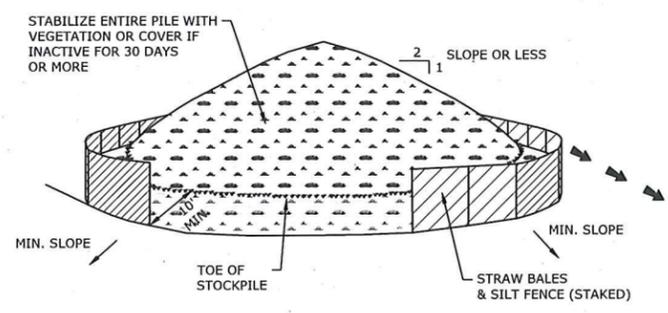
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 By: Tighe & Bond
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 Drawing: G5099-0003 Flood Mitigation Design and Permitting Drawings AutoCAD Sheet G5099-0003-C-201.dwg



EROSION CONTROL BARRIER
NO SCALE

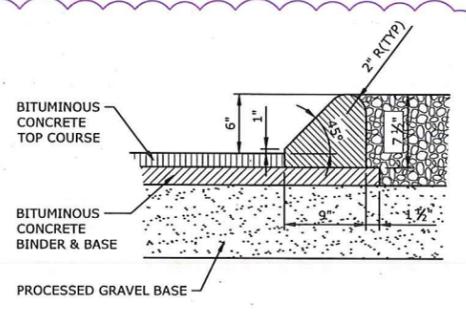


CONSTRUCTION TRACKOUT AREA
NO SCALE

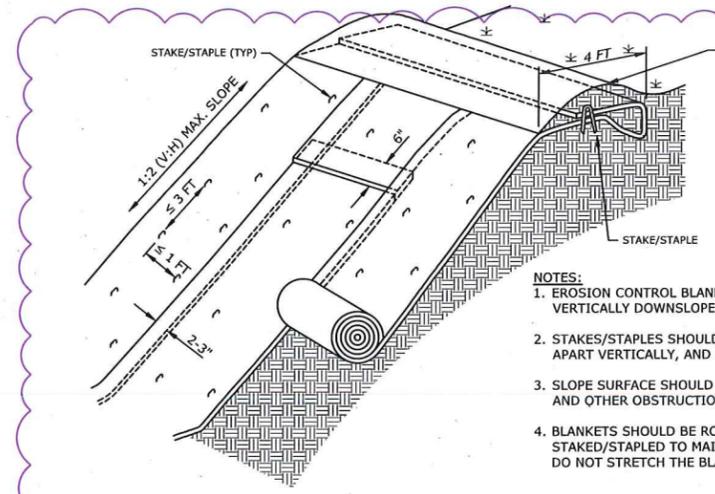


- INSTALLATION NOTES:**
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 2H:1V.
 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAW BALES, THEN STABILIZED WITH VEGETATION OR COVERED.

SOIL STOCKPILING
NO SCALE

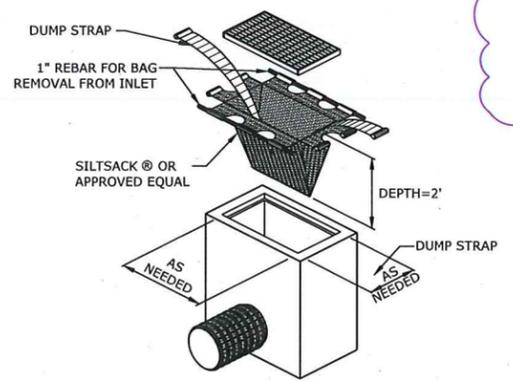


BITUMINOUS CONCRETE BERM
NO SCALE



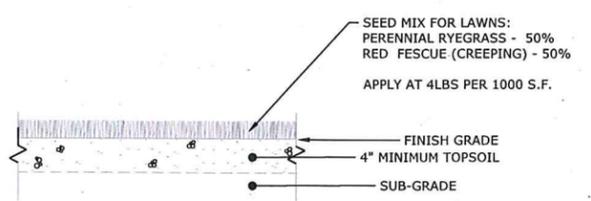
- NOTES:**
1. EROSION CONTROL BLANKET SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
 2. STAKES/STAPLES SHOULD BE PLACED NO MORE THAN 3 FT APART VERTICALLY, AND 1 FT APART HORIZONTALLY.
 3. SLOPE SURFACE SHOULD BE FREE OF STICKS, ROCKS, AND OTHER OBSTRUCTIONS.
 4. BLANKETS SHOULD BE ROLLED OUT LOOSELY AND STAKED/STAPLED TO MAINTAIN DIRECT SOIL CONTACT. DO NOT STRETCH THE BLANKETS.

EROSION CONTROL BLANKET
NO SCALE

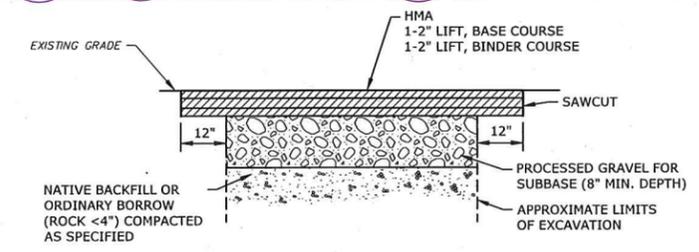


SILTSACK MANUFACTURED BY:
ACF ENVIRONMENTAL
2831 CARDWELL ROAD
RICHMOND, VIRGINIA 23237

SILTSACK®
NO SCALE



LAWN AREA
NO SCALE



- NOTES:**
1. ROAD SECTION SHOWN SHALL BE CONSIDERED TYPICAL. FIELD MODIFICATIONS TO MATCH EXISTING CONDITIONS ARE ANTICIPATED.
 2. TACK COAST SHALL BE APPLIED AT A RATE OF 0.07 GALLONS PER SQUARE YARD BETWEEN ALL PAVEMENT COURSES.

PERMANENT TRENCH REPAIR
NO SCALE



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**Garelick Farms
Flooding
Resiliency
Improvements**

Dandreo Brothers
General
Contractors
Franklin, MA

MARK	DATE	DESCRIPTION
3	01/2026	PEER REVIEW 2 COMMENTS
2	12/2025	PEER REVIEW COMMENTS

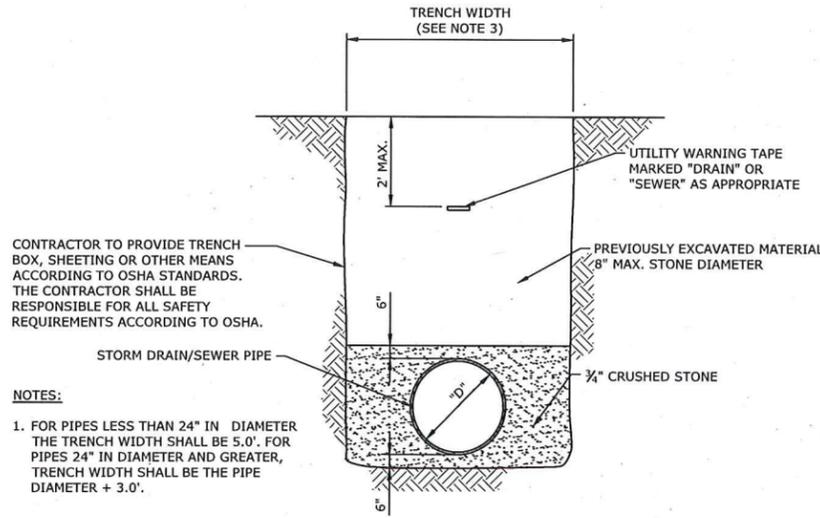
PROJECT NO: GS099-0003
DATE: SEPT 2025
FILE: GS099-0003-C-DETL.dwg
DRAWN BY: AJW
DESIGNED BY: AJW
CHECKED BY: JEC
APPROVED BY: JEC

DETAILS - 1

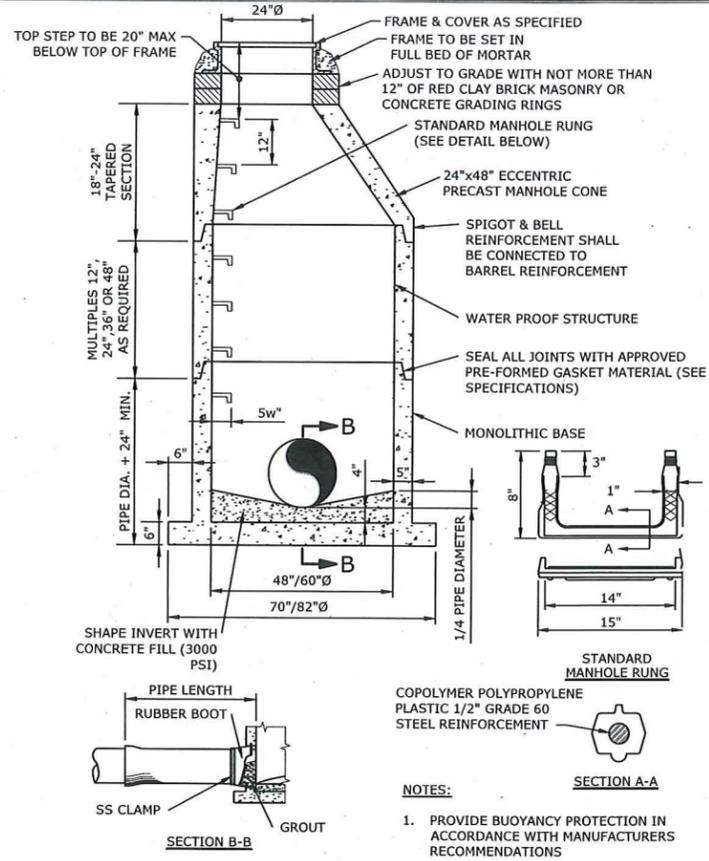
SCALE: AS SHOWN

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 Plotter: cpl:cbac 31 2025-12-28 12:58pm By: TLabbe
 Tighe & Bond: \\G:\GS099-Garelick Farms\0003 Flood Mitigation Design and Permitting\Drawings\AutoCAD\Sheet\GS099-0003-C-DETL.dwg

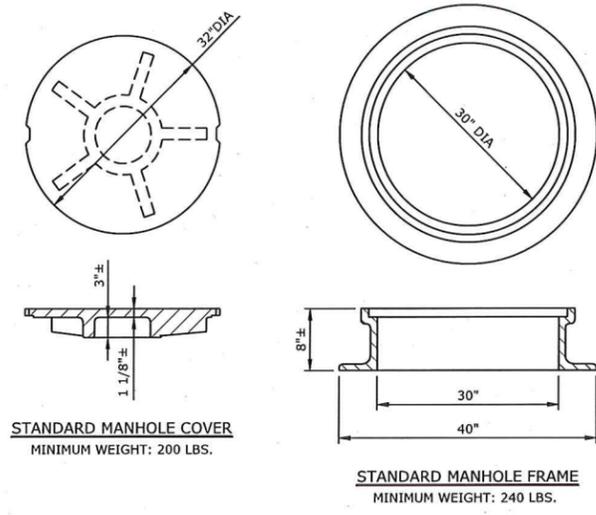
Last Saved: 9/29/2025
 Plotted On: Sep 29, 2025 12:11pm By: JKH
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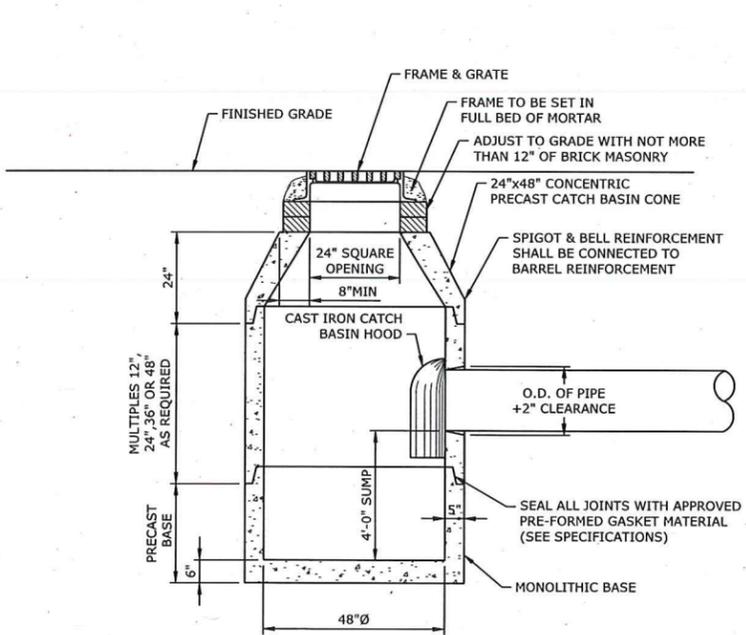
TYPICAL SEWER/DRAIN TRENCH SECTION



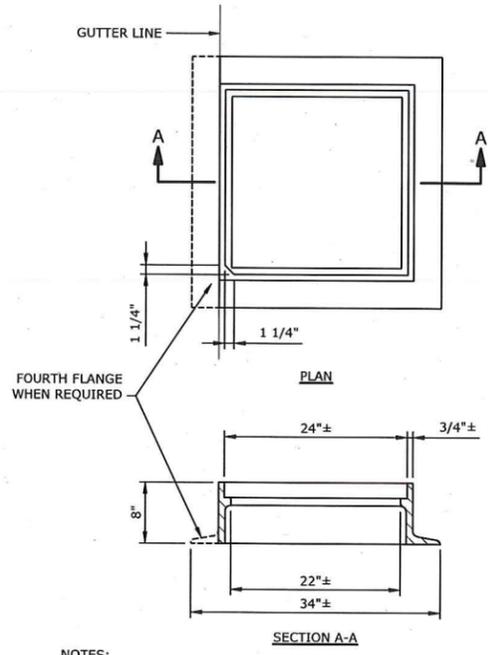
60" PRECAST DRAIN MANHOLE (DMH)



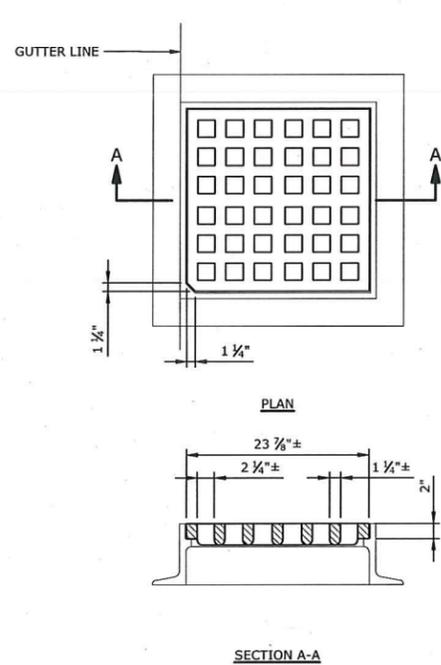
MANHOLE FRAME & COVER



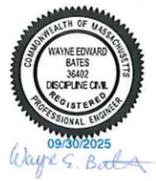
PRECAST CONCRETE CATCH BASIN



CATCH BASIN FRAME



CATCH BASIN GRATE



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Garelick Farms Flooding Resiliency Improvements

Dandreo Brothers General Contractors
 Franklin, MA

MARK	DATE	DESCRIPTION
PROJECT NO:	G5099-0003	
DATE:	SEPT 2025	
FILE:	G5099-0003-C-DETL.dwg	
DRAWN BY:	AJW	
DESIGNED BY:	AJW	
CHECKED BY:	JEC	
APPROVED BY:	JEC	

DETAILS - 2

SCALE: AS SHOWN

C-502



12-03-2025

Wayne S. Bates



12/03/2025

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**Garelick Farms
 Flooding
 Resiliency
 Improvements**

Dandreo
 Brothers
 General
 Contractors
 Franklin, MA

MARK	DATE	DESCRIPTION
2	12/2025	PEER REVIEW COMMENTS
PROJECT NO: G5099-0003		
DATE: SEPT 2025		
FILE: G5099-0003-C-DETL.dwg		
DRAWN BY: AJW		
DESIGNED BY: AJW		
CHECKED BY: JEC		
APPROVED BY: JEC		

DETAILS - 3

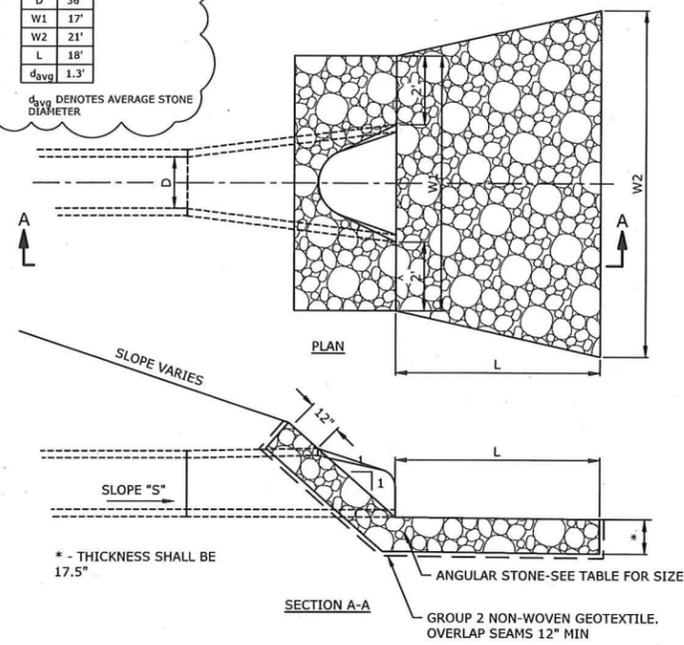
SCALE: AS SHOWN

C-503

DIMENSIONS

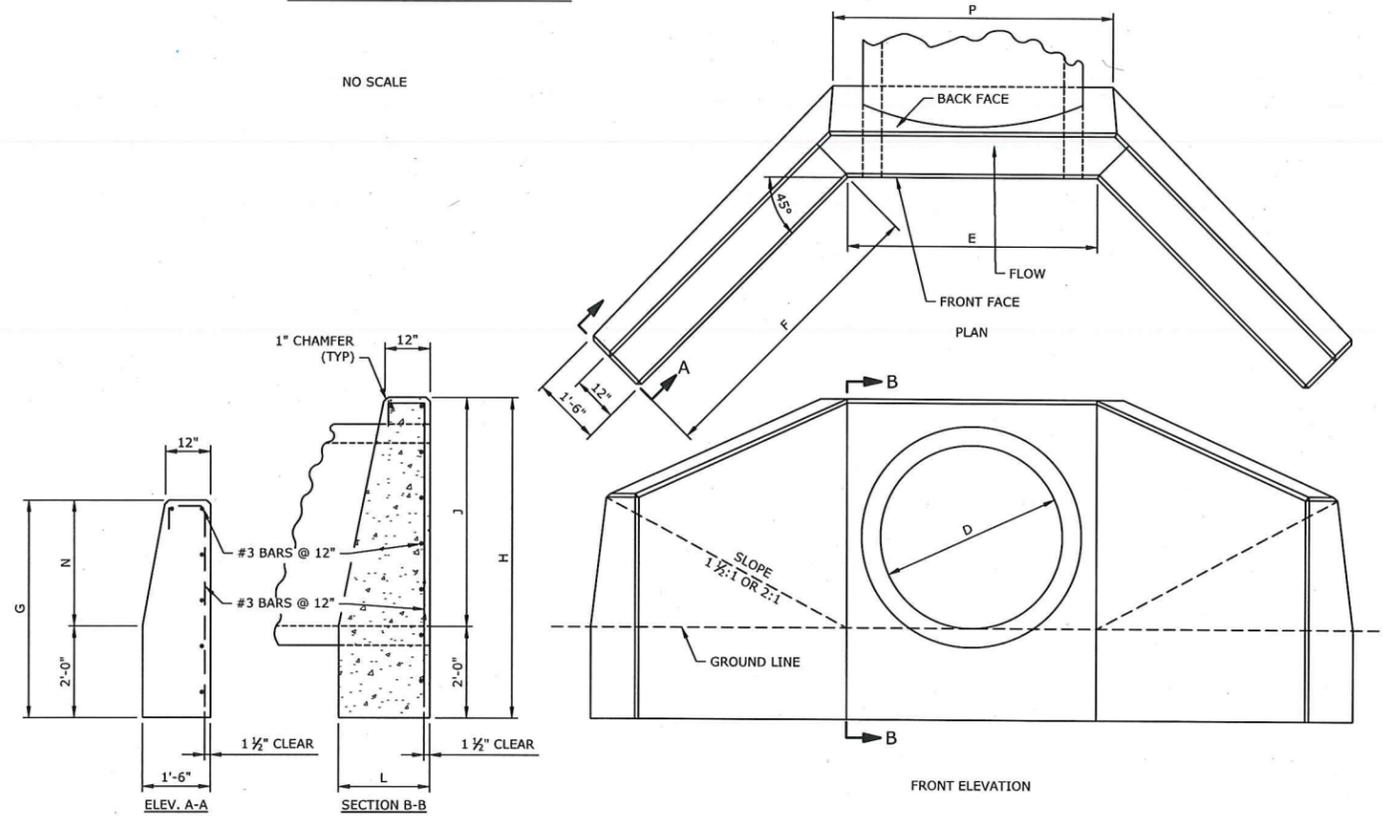
D	36"
W1	17"
W2	21"
L	18'
d _{avg}	1.3'

d_{avg} DENOTES AVERAGE STONE DIAMETER



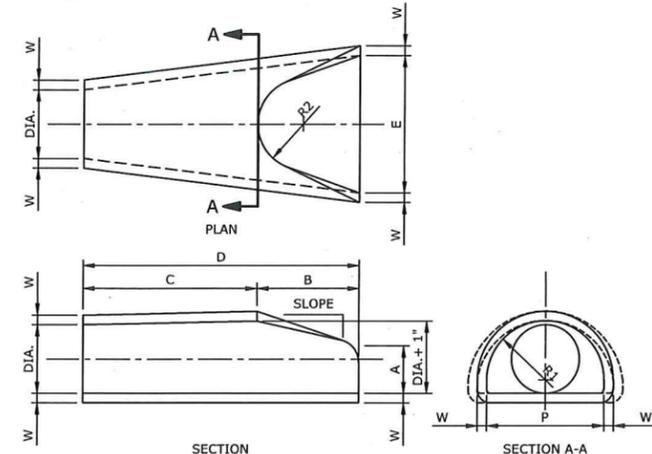
STONE OUTLET PROTECTION

NO SCALE



**CONCRETE ENDS FOR
 30" TO 84" PIPE CULVERTS**

-	DETAIL
-	SCALE:

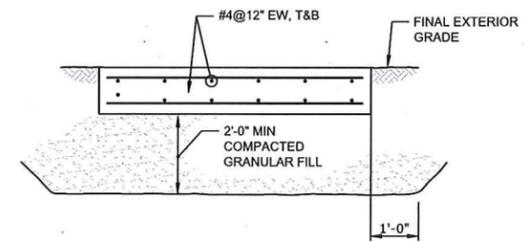


DIA	W	A	B	C	D	E	P	R1	R2	SLOPE	
36"	4"	15"	63"	35"	98"	72"	48"	24	1/2"	20"	1V:3H

- NOTES:
1. DIMENSIONS SHOWN ARE APPROXIMATE.
 2. MATERIALS SHALL CONFORM TO AASHTO M-170 CLASS III PIPE UNLESS DESIGNATED OTHERWISE.
 3. FOR ADDITIONAL DETAILS SEE MHD 206.8.0

REINFORCED CONCRETE PIPE FLARED END

NO SCALE



CONCRETE PAD	24
NO SCALE	C-102

Last Saved: 12/23/2025 12:59pm By: T.Labbe
 Plotted On: Dec 03, 2025 12:59pm
 Tighe & Bond: \\tcbond.com\data\projects\G5099 Garelick Farms\0003 Flood Mitigation Design and Permitting\Drawings\AutoCAD\Sheet\G5099-0003-C-DETL.dwg