

ELEVATION DATUM
 DATUM: NAVD 1988

ASSESSORS REFERENCE:

PARCEL ID: R07-1-0
RECORD OWNER: DECA CORP
DEED 124811, BK 83424, PG 27



LIMITED PROFESSIONAL RESPONSIBILITY

THE UNDERSIGNED PROFESSIONAL ENGINEER TAKES RESPONSIBILITY ONLY FOR THE CIVIL ENGINEERING DESIGN SHOWN HEREON (SITE LAYOUT, GRADING, DRAINAGE, AND UTILITIES). THE PROPERTY BOUNDARY INFORMATION IS FOR REFERENCE ONLY, DERIVED FROM SOURCE(S) NOTED HEREIN AND IS NOT THE RESULT OF AN INDEPENDENT BOUNDARY SURVEY. NO REPRESENTATION OR WARRANTY IS MADE REGARDING PROPERTY LINES, EASEMENTS, OR OWNERSHIP LIMITS. THIS PLAN DOES NOT CONSTITUTE A BOUNDARY SURVEY.

DRAWING ISSUED FOR:

☐ CONCEPT ☐ CONSTRUCTION
☒ PERMIT ☐ CONSTRUCTION
 RECORD

THIS DRAWING MAY NOT SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, AND MAY NOT IDENTIFY ALL CONSTRUCTION WORK ITEMS/AREAS OF CONTRACTOR JURISDICTION.

1	4/23/25	DJG	EAC	SWM PLAN & SCENIC RD PERMIT
NO.	DATE	BY	APP.	REVISION DESCRIPTION

GOLDSMITH, PREST & RINGWALL, INC.

39 MAIN STREET, SUITE 301. AYER, MA 01432
CIVIL ENGINEERING • LAND SURVEYING • LAND PLANNING
VOICE: 978.772.1590 FAX: 978.772.1591
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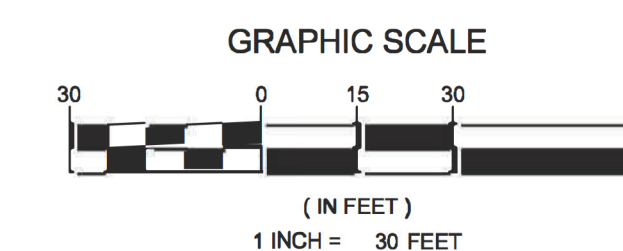
RESIDENTIAL DEVELOPMENT
NEW CONSTRUCTION

EROSION AND SEDIMENT CONTROL PLAN

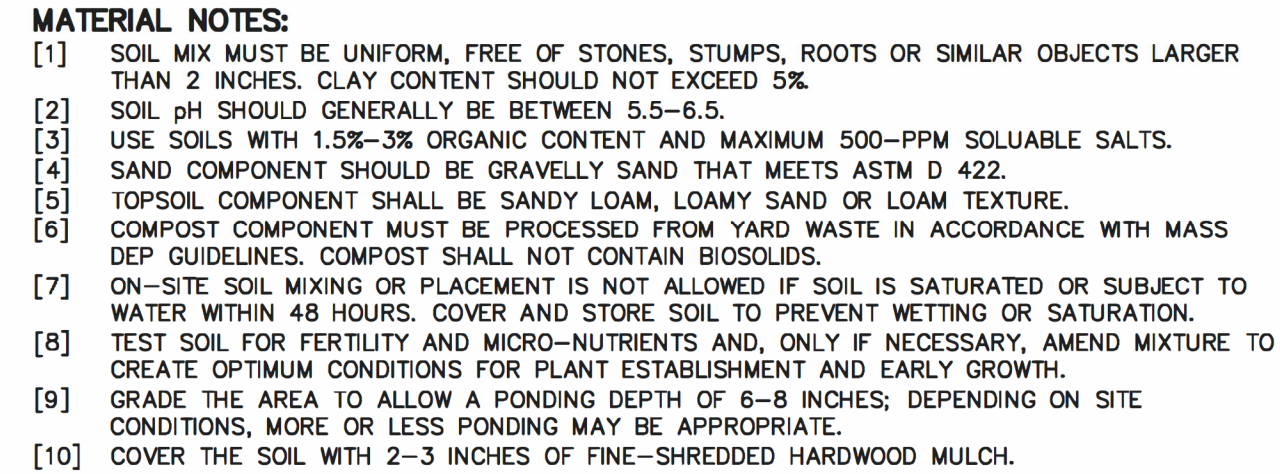
LOTS 1 & 2
(MAP R07, PARCEL 1-0)
HARWOOD AVENUE
LITTLETON, MA

PREPARED FOR:
DECA CORP
2 STARWOOD CROSSING
ANDOVER, MA 01810

DES. BY: DJG	DATE: APRIL 2025	JOB 241121	1 OF 3
CHK. BY: EAC			



1. THE CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES PRIOR TO STARTING WORK.
2. THE CONTRACTOR SHALL SUPPLY ALL PLANT MATERIALS IN QUANTITIES SUFFICIENT TO COMPLETE THE PLANTING SHOWN ON ALL DRAWINGS. PLANT COUNTS ARE FOR CONVENIENCE ONLY. CONTRACTOR SHALL USE SUFFICIENT PLANT MATERIALS TO FULFILL DESIGN INTENT, BUT IN NO CASE SHALL CONTRACTOR USE FEWER PLANTS THAN LISTED.
3. ALL MATERIAL SHALL CONFORM TO THE GUIDELINES ESTABLISHED BY THE "AMERICAN STANDARD FOR NURSERY STOCK", PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
4. ALL PLANTS SHALL BEAR THE SAME RELATIONSHIP TO FINISHED GRADE AS ORIGINAL GRADE BEFORE DIGGING. PLANTS TO BE TRANSPLANTED SHALL BE DUG CAREFULLY, WITH ADEQUATE ROOTBALLS AND PRUNED ACCORDING TO ANA STANDARD PRACTICE.
5. ALL PLANTS SHALL BE BALLED IN BURLAP OR CONTAINERIZED, UNLESS SPECIFIED OTHERWISE. ALL TREES AND SHRUBS SHALL BE BALLED IN BURLAP. NO ROOT BOUND CONTAINER GROWN STOCK WILL BE ACCEPTED. ALL PLASTIC ROOT WRAPPING AND METAL WIRE BASKETS SHALL BE CAREFULLY REMOVED AT THE TIME OF PLANTINGS, EXCEPT THAT WIRE THAT IS DIRECTLY UNDER THE ROOTBALLS.
6. NO UN-APPROVED SUBSTITUTIONS WILL BE ACCEPTED. ALL TREES SHALL HAVE A SINGLE LEADER UNLESS SPECIFIED OTHERWISE.
7. SET PLANTS PLUMB. AFTER CONDUCTING SOIL TESTS WITHIN PLANTING AREAS, THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANTING SOIL AMENDMENTS FOR BACKFILLING AT ALL PLANTS, IF NECESSARY. SUBMIT WRITTEN CONTENT ANALYSIS TO OWNER/REP. FOR APPROVAL.
8. FLOOD PLANTS THOROUGHLY ONE IMMEDIATELY AFTER PLANTING AND TWICE DURING THE FIRST TWENTY-FOUR HOUR PERIOD AFTER PLANTING. THE CONTRACTOR SHALL MAINTAIN THE PLANTS FOR A MINIMUM OF 60 DAYS FOLLOWING THE INSTALLATION, OR LONGER IF CONTRACTED BY THE OWNER. BEFORE THE END OF THE 60 DAY PERIOD, THE CONTRACTOR SHALL PROVIDE A WRITTEN MAINTENANCE OUTLINE TO THE OWNERS AND THE CONTRACTOR SHALL BE AVAILABLE TO ANSWER QUESTIONS OR CONCERNS AT THAT TIME.
9. MULCH: CONTRACTOR SHALL PLACE 2" TO 3" OF FINE SHREDDED, AGED 2 YEARS, DARK BROWN PINE BARK MULCH THROUGHOUT THE BED AREAS. SUBMIT SAMPLE OF MULCH FOR APPROVAL.
10. ALL EVERGREEN PLANTS SHALL BE SPRAYED WITH AN ANTI-DESICCANT THE FIRST WEEK OF NOVEMBER FOR THE FIRST WINTER FOLLOWING PLANTING.
11. THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A MINIMUM OF ONE YEAR FROM FINAL ACCEPTANCE BY OWNER/REP. THE CONTRACTOR SHALL REPLACE ANY DEAD MATERIALS AT THEIR OWN EXPENSE.
12. PLANT SPECIES AS INDICATED IN THE PLANT LIST ARE SUGGESTIONS ONLY. FINAL SELECTION OF SPECIES SHALL OCCUR AT THE TIME OF PLANT PURCHASE, DEPENDING ON AVAILABILITY, PLANT SIZE AND QUANTITY SHALL NOT CHANGE WITHOUT APPROVAL OF OWNER'S REPRESENTATIVE.



RAIN GARDEN PLANT LIST

NO.	KEY	<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>SIZE</u>
4	AG	ANDROPOGON GERARDII	BIG BLUESTEM	12" H (#2 POT)
4	PV	PANICUM VIRGATUM	SWITCH GRASS	12" H (#2 POT)
3	CA	CORNUS AMOMUM	SILKY DOGWOOD	18" H (#3 POT)
3	CS	CLETHRA ALNIFOLIA	SWEET PEPPERBUSH	18" H (#3 POT)



04/23/2025

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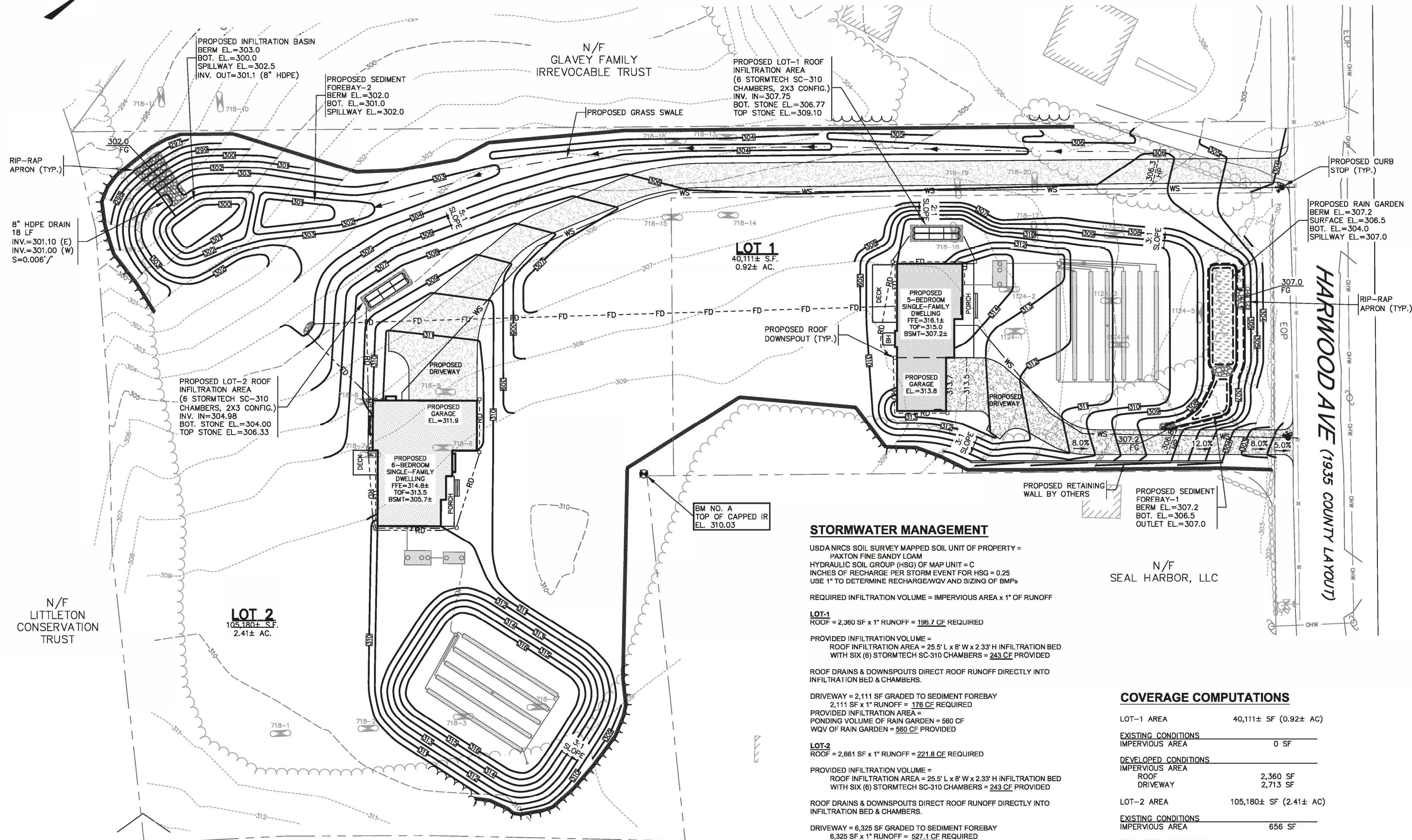
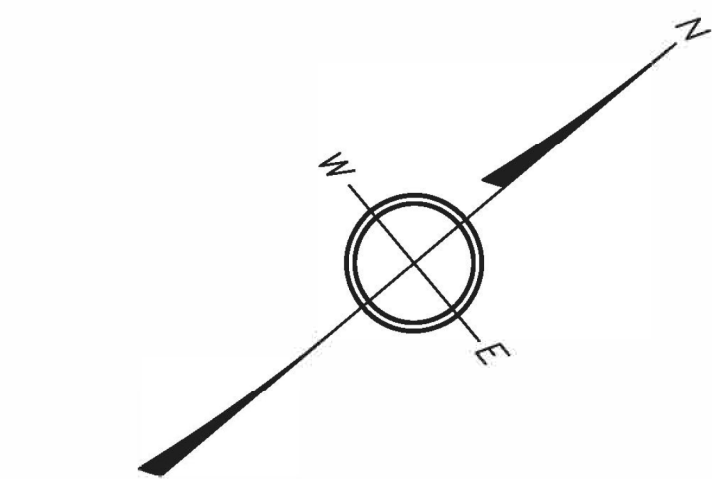
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STORMWATER MANAGEMENT PLAN

PREPARED FOR:
DECA CORP
2 STARWOOD CROSSING
ANDOVER, MA 01810

DES. BY: DJG	DATE: APRIL 2025	JOB 241121	2 OF 3
CHK. BY: EAC			

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USDA NRCS SOIL SURVEY MAPPED SOIL UNIT OF PROPERTY =
PAXTON FINE SANDY LOAM
HYDRAULIC SOIL GROUP (HSG) OF MAP UNIT = C
INCHES OF RECHARGE PER STORM EVENT FOR HSG = 0.25
USE 1" TO DETERMINE RECHARGE/WQV AND SIZING OF BMPs

REQUIRED INFILTRATION VOLUME = IMPERVIOUS AREA x 1" OF RUNOFF

LOT-1
ROOF = 2,360 SF x 1" RUNOFF = 196.7 CF REQUIRED

PROVIDED INFILTRATION VOLUME =
 ROOF INFILTRATION AREA = 25.5' L x 8' W x 2.33' H INFILTRATION BED
 WITH SIX (6) STORMTECH SC-310 CHAMBERS = 243 CF PROVIDED

ROOF DRAINS & DOWNSPOUTS DIRECT ROOF RUNOFF DIRECTLY INTO INFILTRATION BED & CHAMBERS.

DRIVEWAY = 2,111 SF GRADED TO SEDIMENT FOREBAY
2,111 SF x 1" RUNOFF = 176 CF REQUIRED

PROVIDED INFILTRATION AREA =
PONDING VOLUME OF RAIN GARDEN = 560 CF
WQV OF RAIN GARDEN = 560 CF PROVIDED

LOT-2
ROOF = 2,661 SF x 1" RUNOFF = 221.8 CF REQUIRED

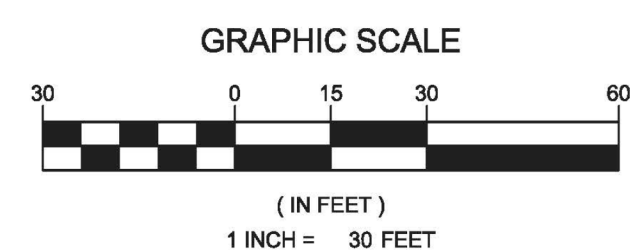
PROVIDED INFILTRATION VOLUME =
ROOF INFILTRATION AREA = 25.5' L x 8' W x 2.33' H INFILTRATION BED
WITH SIX (6) STORMTECH SC-310 CHAMBERS = 243 CF PROVIDED

ROOF DRAINS & DOWNSPOUTS DIRECT ROOF RUNOFF DIRECTLY INTO INFILTRATION BED & CHAMBERS.

DRIVEWAY = 6,325 SF GRADED TO SEDIMENT FOREBAY
 0.005 CF = 41 PUNOFFS = 523.4 CF REQUIRED

6,325 SF x 1" RUNOFF = 527.1 CF REQUIRED
 PROVIDED INFILTRATION AREA =
 VOLUME OF INFILTRATION BASIN BELOW FIRST OUTLET = 626 CF
 WQV OF INFILTRATION BASIN = 626 CF PROVIDED

LOT-1 AREA	40,111± SF (0.92± AC)
<u>EXISTING CONDITIONS</u>	
IMPERVIOUS AREA	0 SF
<u>DEVELOPED CONDITIONS</u>	
IMPERVIOUS AREA	
ROOF	2,360 SF
DRIVEWAY	2,713 SF
LOT-2 AREA	105,180± SF (2.41± AC)
<u>EXISTING CONDITIONS</u>	
IMPERVIOUS AREA	656 SF
<u>DEVELOPED CONDITIONS</u>	
IMPERVIOUS AREA	
ROOF	2,661 SF
DRIVEWAY	7,008 SF



1. THE CONTRACTOR SHALL FURNISH, INSTALL, TEST, AND COMPLETE ALL WORK AS SPECIFIED IN THE CONTRACT DOCUMENTS TO THE SATISFACTION OF THE OWNER AND ENGINEER.
2. THE TERM "INSTALL" INCLUDES FURNISHING, INSTALLING, AND PLACING COMPONENTS INTO OPERATION.
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, AND JOB SITE SAFETY, INCLUDING COMPLIANCE WITH ALL APPLICABLE SAFETY REGULATIONS AND LAWS IN EFFECT AT THE TIME OF CONSTRUCTION. THESE PLANS DO NOT PROVIDE DETAILED CONSTRUCTION INSTRUCTIONS.
4. THE CONTRACTOR SHALL ACCEPT THE SITE "AS IS" AND VERIFY ALL SITE CONDITIONS BEFORE COMMENCING WORK. THE CONTRACTOR SHALL INSPECT THE SITE, CORRELATE EXISTING CONDITIONS WITH THE DRAWINGS, AND RESOLVE ANY POTENTIAL CONFLICTS WITH THE OWNER AND ENGINEER BEFORE PROCEEDING. NOTIFY THE ENGINEER IMMEDIATELY OF ANY UNFORESEEN CONDITIONS OR DISCREPANCIES BETWEEN THE PLANS AND FIELD CONDITIONS.
5. COORDINATE WITH THE ENGINEER AND ARCHITECT AS NECESSARY. NOTIFY THE ENGINEER AT THE START OF CONSTRUCTION TO SCHEDULE REQUIRED INSPECTIONS.
6. CONSTRUCTION LAYOUT OF BUILDINGS AND SITE IMPROVEMENTS SHALL BE PERFORMED BY A LICENSED PROFESSIONAL LAND SURVEYOR.
7. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES, UTILITIES, PAVEMENT, AND OTHER SITE FEATURES THAT ARE TO REMAIN. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, RESTORING THE AFFECTED ELEMENTS TO ORIGINAL OR BETTER CONDITION, IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS.
8. THE LIMIT OF WORK IS SHOWN ON THE PLANS BY SAWCUT LINES. EROSION CONTROL, BARRIERS, LIMIT OF CLEARING, AND/OR LIMIT OF WORK LINES. ANY AREAS DISTURBED OUTSIDE THE LIMIT OF WORK SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
9. NO DEBRIS, HAZARDOUS MATERIALS, NON-BIODEGRADABLE FILL, OR STUMPS SHALL BE BURIED ON-SITE OR LEFT WITHIN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL MAINTAIN A CLEAN WORK AREA AND RESTORE DISTURBED AREAS AS REQUIRED.
10. MAINTAIN RECORD DRAWINGS THROUGHOUT CONSTRUCTION. SUBMIT FINAL AS-BUILT DRAWINGS, INCLUDING UNDERGROUND UTILITIES, TO THE OWNER UPON PROJECT COMPLETION. THE OWNER AND CONTRACTOR ARE RESPONSIBLE FOR PROCURING ALL CERTIFICATIONS REQUIRED FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
11. ALL WORK SHALL MEET OR EXCEED THE PROJECT SPECIFICATIONS. ALTERNATIVE METHODS OR MATERIALS MUST BE APPROVED IN ADVANCE BY THE OWNER, ENGINEER, AND APPLICABLE REGULATORY AGENCIES. ALL MATERIALS SHALL BE NEW AND IN GOOD CONDITION UNLESS OTHERWISE SPECIFIED.
12. THE CONTRACTOR IS LIABLE FOR ALL COSTS, FINES, PENALTIES, AND DAMAGES RESULTING FROM DEVIATIONS FROM THE PLANS WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE ENGINEER.
13. FOR CLARITY, SOME EXISTING FEATURES SUCH AS UTILITIES, PROPERTY BOUNDARIES, AND EASEMENTS MAY NOT BE SHOWN ON ALL DRAWINGS. REFER TO THE FULL SET OF REFERENCED DRAWINGS AND DOCUMENTS FOR ADDITIONAL INFORMATION.

"PLAN OF LAND IN LITTLETON MASSACHUSETTS," PREPARED FOR GLAVY FAMILY (IRREVOCABLE TRUST BY DILLIS & ROY, CIVIL DESIGN GROUP, DATED JAN. 15, 2024, RECORDED AT THE MIDDLESEX REGISTRY OF DEEDS SOUTHERN DISTRICT ON OCTOBER 30, 2024, BOOK 2024, PAGE 621.

2. EXISTING CONDITION INFORMATION BASED ON AN ON-THE-GROUND TOPOGRAPHIC* PERFORMED BY GOLDSMITH, PREST & RINGWALD, INC. DATED JULY 2018 TO APRIL 2019.

3. EXISTING BASE INFORMATION, INCLUDING PROPERTY LINES, STRUCTURES, UTILITIES, AND TOPOGRAPHY, IS TAKEN FROM "PLAN OF LAND IN LITTLETON, MASSACHUSETTS," PREPARED FOR GLAVY FAMILY (IRREVOCABLE TRUST BY DILLIS & ROY, CIVIL DESIGN GROUP, DATED JAN. 15, 2024, RECORDED AT MIDDLESEX REGISTRY OF DEEDS SOUTHERN DISTRICT ON OCTOBER 30, 2024, BOOK 2024, PAGE 621.

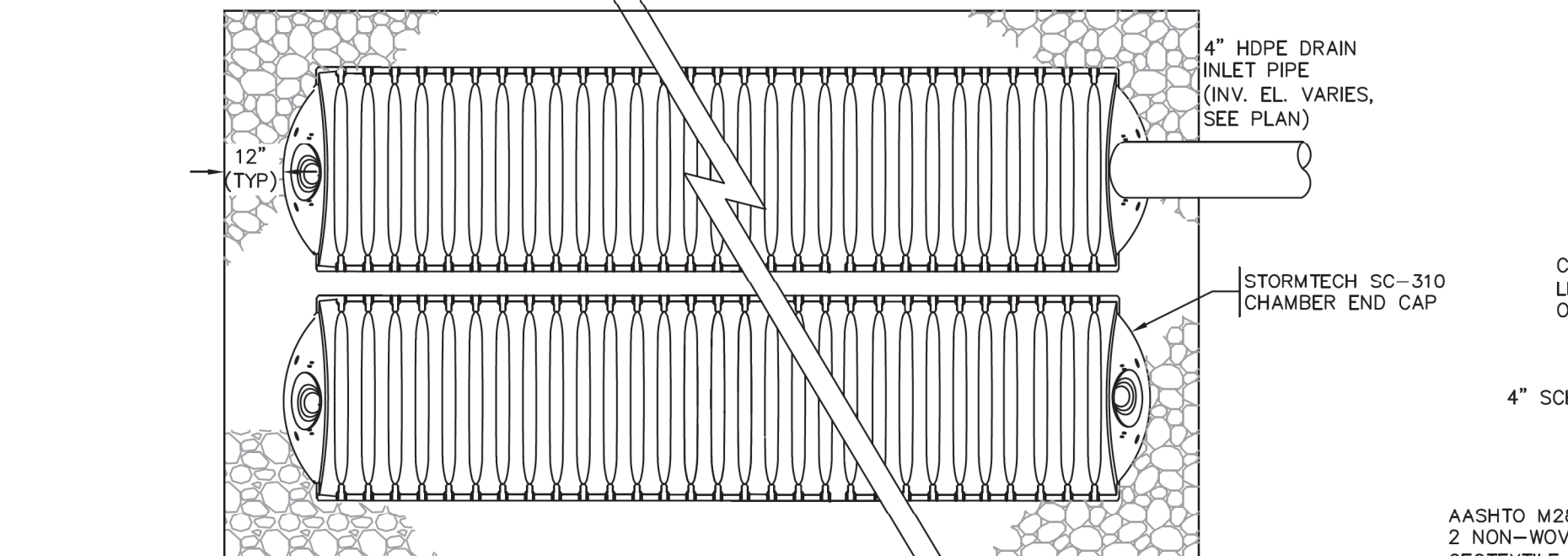
4. ELEVATIONS SHOWN ARE BASED ON THE NAVD 1985 DATUM.

1. LOCATIONS OF UNDERGROUND UTILITIES, OBSTRUCTIONS, AND SYSTEMS SHOWN ARE APPROXIMATE AND MAY NOT REPRESENT ALL FIELD CONDITIONS. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES, WHETHER DEPICTED OR NOT. CONTACT "DIG SAFE" AT 1-888-DIG-SAFE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION.
2. THE CONTRACTOR SHALL MAKE ALL NECESSARY NOTIFICATIONS, OBTAIN ALL REQUIRED PERMITS (INCLUDING TRENCH PERMITS IN ACCORDANCE WITH 901 CMR 14.00), PAY ALL ASSOCIATED FEES, AND POST BONDS AS REQUIRED.
3. THE CONTRACTOR SHALL BE AWARE OF AND COMPLY WITH ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO THE COMMENCEMENT OF ANY WORK.
4. ALL WORK OUTSIDE OF THE BUILDING THAT IS WITHIN 10 FEET OF THE INSIDE FACE OF THE BUILDING FOUNDATION SHALL CONFORM TO THE UNIFORM STATE PLUMBING CODE OF MASSACHUSETTS (248 CMR 2.00).
5. WETLANDS SHALL REMAIN UNDISTURBED; NO ENCROACHMENT PERMITTED.

1. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), AND EPA CONSTRUCTION GENERAL PERMIT (CGP) REQUIREMENTS.
2. THE SWPPP SHALL BE AVAILABLE ON-SITE AT ALL TIMES AND UPDATED AS NEEDED TO REFLECT CHANGES IN SITE CONDITIONS OR OPERATIONS.
3. PREVENT SOIL AND MATERIALS FROM ENTERING WETLANDS, STREAMS, AND OTHER PROTECTED RESOURCE AREAS.
4. PROTECT ABUTTING PROPERTIES FROM CONSTRUCTION-RELATED EROSION AND SEDIMENTATION AT ALL TIMES. WORK ON ABUTTING PROPERTIES REQUIRES WRITTEN AUTHORIZATION FROM THE OWNER PRIOR TO ANY LAND DISTURBANCE.
5. INSTALL SEDIMENT CONTROL BARRIERS AT THE EDGE OF PROPOSED WORK, AS SHOWN ON THE DRAWINGS, PRIOR TO ANY EARTH-DISTURBING ACTIVITY.
6. DEVISE A WORK SCHEDULE TO LIMIT THE DRAINAGE AREA TRIBUTARY TO DISTURBED ZONES TO MINIMIZE RUNOFF AND EROSION POTENTIAL.
7. MAINTAIN ALL SEDIMENT AND EROSION CONTROL MEASURES THROUGHOUT CONSTRUCTION TO ENSURE CONTINUED FUNCTIONALITY.
8. THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE MINIMUM REQUIREMENTS. IMPLEMENT ADDITIONAL MEASURES AS NEEDED OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE. MAINTAIN SPARE MATERIALS ON-SITE FOR IMMEDIATE DEPLOYMENT, REPAIR, OR EXPANSION OF CONTROLS.
9. INSPECT AND MAINTAIN EROSION AND SEDIMENT CONTROLS AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY RAINFALL EVENT OF 0.25 INCHES OR GREATER, ENSURING THAT CHANNELS, DITCHES, AND PIPES REMAIN CLEAR AND UNBLOCKED. REPAIR OR REPLACE DAMAGED CONTROLS IMMEDIATELY.
10. MAINTAIN CONSTRUCTION ACCESS POINTS TO PREVENT SEDIMENT TRACKING ON PUBLIC WAYS. SWEEP ANY TRACED SEDIMENT FROM PUBLIC WAYS DAILY.
11. LOCATE ALL STOCKPILES WITHIN THE LIMIT OF WORK, STABILIZE OR PROTECT STOCKPILES WITH SEDIMENT BARRIERS AND COVER IF LEFT INACTIVE FOR MORE THAN 14 DAYS.
12. DISPOSE OF DEBRIS GENERATED DURING SITE PREPARATION OFF-SITE IN ACCORDANCE WITH LEGAL REQUIREMENTS.
13. PROVIDE CRIBBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.
14. PROTECT ALL SITE ELEMENTS DESIGNATED TO REMAIN FOR THE DURATION OF CONSTRUCTION.
15. STRIP TOPSOIL WITH THE LIMIT OF WORK TO ITS FULL DEPTH, STOCKPILE SEPARATELY FOR REUSE, AND DISPOSE OF EXCESS TOPSOIL ON-SITE AS DIRECTED BY THE OWNER.
16. MAINTAIN CRITICAL VEGETATION AREAS—including TEMPORARY PERMANENT DITCHES, CHANNELS, EMBANKMENTS, AND ANY DENUDED SURFACES EXPOSED FOR MORE THAN ONE MONTH—WITH STRAW APRILS UNIFORMLY AND THICK ENOUGH TO FULLY COVER THE SOIL.
17. STABILIZE CRITICAL VEGETATION AREAS BY SEEDING WITH ANNUAL RYEGRASS AT A RATE OF 40 LBS/ACRE.
18. CONTROL SOD BY SPRINKLING OR OTHER APPROVED METHODS, AS NECESSARY OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
19. INSTALL FILTER BASINS IN EXISTING CATCH BASINS BEFORE CONSTRUCTION BEGINS, AND IN NEW CATCH BASINS PRIOR TO PERMANENT PAVEMENT PLACEMENT.
20. INSTALL STRAW BALE CHECK DAMS EVERY 200 FEET BETWEEN DRAINAGE SWALES AND DITCHES, AND AT THE UPSTREAM ENDS OF DRAINAGE INLETS.
21. NO EQUIPMENT, FUELS, LUBRICANTS, OR OTHER MATERIALS SHALL BE STORED WITHIN 100 FEET OF BORDERING VEGETATED WETLANDS (BWW), BANKS, OR SURFACE WATERS UNLESS OTHERWISE APPROVED. EQUIPMENT SHALL BE INSPECTED DAILY FOR LEAKS AND MUST BE REPAIRED IMMEDIATELY.
22. SEDIMENTATION BASINS SHALL BE USED THROUGHOUT THE SITE TO TRAP RUNOFF. DIVERSION BERMS SHALL BE USED TO DIRECT UNTREATED STORMWATER TO SEDIMENTATION BASINS. SEDIMENTATION BASINS AND DIVERSION BERMS SHALL BE ADDED, REMOVED, AND ADJUSTED AS THE SITE EVOLVES THROUGHOUT CONSTRUCTION.
23. EROSION AND SEDIMENT CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE STABILIZED.

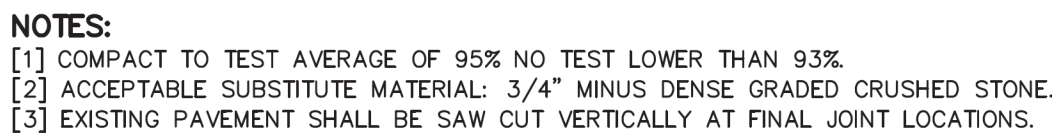
1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, GRADES, AND SITE CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY CONFLICTS, DISCREPANCIES, OR AMBIGUITIES SHALL BE REPORTED IN WRITING TO THE ENGINEER BEFORE BEGINNING WORK. NO ADDITIONAL COMPENSATION WILL BE PAID FOR WORK REQUIRED DUE TO UNREPORTED DISCREPANCIES.
2. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, AND DETAILS OF ALL DOORS, RAMPS, SIDEWALKS, AND BUILDING-RELATED WALLS.
3. WHERE NEW WORK ABUTS EXISTING CURB OR PAVEMENT, SAWCUT THE EXISTING SURFACES TO PROVIDE A CLEAN EDGE. BLEND NEW WORK SMOOTHLY INTO EXISTING LINES AND GRADES AND ENSURE POSITIVE DRAINAGE IS MAINTAINED.
4. SCHEDULE WORK TO ENSURE FINISHED SUBGRADES DRAIN PROPERLY WITHOUT PONDING. PROVIDE TEMPORARY DRAINAGE TO PREVENT STANDING WATER.
5. SPOT GRADES ARE PROVIDED IN CRITICAL AREAS FOR GUIDANCE. CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND NOTIFY THE ENGINEER IMMEDIATELY IF DISCREPANCIES ARE FOUND. MAINTAIN A MINIMUM PITCH OF 1/8" PER FOOT ON PAVED SURFACES UNLESS OTHERWISE NOTED.
6. GRADING ADJACENT TO BUILDING FOUNDATIONS SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM THE STRUCTURE. LOW POINTS AND AREAS OF POTENTIAL PONDING SHALL NOT BE LOCATED ADJACENT TO FOUNDATIONS OR BASEMENT WALLS.
11. ALL IMPORTED FILL SHALL BE ENVIRONMENTALLY CLEAN AND GEOTECHNICALLY SUITABLE FOR ITS INTENDED USE. FILL SHALL BE FREE OF HAZARDOUS MATERIALS, INCLUDING BUT NOT LIMITED TO: HAZARDOUS WASTES, HEAVY METALS, AND OTHER REGULATED CONTAMINANTS AS DEFINED BY LOCAL, STATE, OR FEDERAL ENVIRONMENTAL STANDARDS. IF SHALL NOT CONTAIN CONSTRUCTION OR DEMOLITION DEBRIS, ORGANIC MATTER, FROZEN MATERIAL, OR OTHER UNSUITABLE SOLIDS. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION VERIFYING THE SOURCE, COMPOSITION, AND SUITABILITY OF ALL FILL MATERIALS. THE OWNER, ENGINEER, AND ENGINEER-RENDERED THE RIGHT TO REJECT ANY MATERIAL DEEMED UNSUITABLE.
12. ALL SLOPES WITH A GRADE OF 2:1 (HORIZONTAL TO VERTICAL) OR STEEPER SHALL INCLUDE APPROPRIATE STABILIZATION MEASURES TO PREVENT EROSION AND ENSURE SOIL STABILITY. STABILIZATION METHODS MAY INCLUDE, BUT ARE NOT LIMITED TO: GEOTEXTILE FABRIC, EROSION CONTROL, BLANKETS, REINFORCED TURF MATS, OR ENGINEERED GEOTILES. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION VERIFYING THE SOURCE, COMPOSITION, AND SUITABILITY OF ALL STABILIZATION MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL SUBMIT MATERIAL SPECIFICATIONS AND INSTALLATION DETAILS FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT.
13. UNLESS OTHERWISE NOTED, ALL UTILITIES SHALL BE INSTALLED UNDERGROUND.
14. CONTRACTOR SHALL COORDINATE WITH UTILITY PROVIDERS FOR ALL WORK TO GAS, ELECTRIC, TELEPHONE, AND OTHER PRIMARY UTILITIES.
15. ALL DRAINAGE PIPE SHALL BE SMOOTH-WALLED CORRUGATED POLYETHYLENE PIPE (ADS N-12 OR APPROVED EQUIV.) RATED FOR 500 LB/INCH AND SHALL HAVE SLIT-TIGHT JOINTS. UNLESS OTHERWISE NOTED.
16. PRIOR TO WORK ACCEPTANCE CONTRACTOR SHALL CLEAN THE STORMWATER MANAGEMENT SYSTEM. THIS INCLUDES: REMOVAL OF ALL SEDIMENT; CONSTRUCTION DEBRIS, CONSTRUCTION MATERIALS, AND FORMWORK FLUSHING OF ALL PIPES. COMPLETION OF OPERATION AND MAINTENANCE ACTIVITIES IN THE PROJECT'S SWPPP. NO DEBRIS SHALL BE FLUSHED INTO DRAINAGE, WATERWAYS, OR RECEIVING STORMWATER.
17. FOR SEWAGE DISPOSAL, SYSTEM DETAILS SHALL BE "SURFBRACE SEWAGE DISPOSAL, SYSTEM- NEW CONSTRUCTION, LOT 1 MAR 07, PARCEL C, HARWOOD AVENUE, LITTLETON, CO" PREPARED FOR DECA CORP BY THIS OFFICE, DATED MARCH 2005 AND "SURFBRACE SEWAGE DISPOSAL SYSTEM- NEW CONSTRUCTION, LOT 2 (MAR 07, PARCEL C, 101), HARWOOD AVENUE, LITTLETON, MA" PREPARED FOR DECA CORP BY THIS OFFICE, DATED APRIL 2005.
18. WATER SERVICES SHALL BE TYPE K COPPER OR PE PIPE AS REQUIRED BY THE LOCAL WATER DEPARTMENT MAINTAIN A MINIMUM COVER OF FIVE (5) FEET FOR WATER LINES UNLESS OTHERWISE APPROVED BY THE ENGINEER AND WATER AUTHORITY.
19. ALL ON-SITE SPECTRA SHALL HAVE A COMPRESSIVE STRENGTH OF 4,500 PSI WITH 5%-7% AIR ENTRAINMENT UNLESS OTHERWISE NOTED.

1. LOAM AND SEED ALL DISTURBED AREAS UNLESS OTHERWISE NOTED ON THE DRAWINGS. STABILIZATION MEASURES SHALL BE INSTALLED AS SOON AS PRACTICABLE, BUT NO LATER THAN SEVEN (7) CALENDAR DAYS AFTER CONSTRUCTION ACTIVITY HAS COMPLETED.
2. FURNISH ADDITIONAL TOPSOIL AS NEEDED. TOPSOIL SHALL BE FERTILE, FRAGILE, AND FREE OF WEED SEEDS, SUBSOIL, STONES, LIMBS, ROOTS, STICKS, AND OTHER FOREIGN MATTER. DO NOT APPLY TOPSOIL WHEN IT IS MUDDY OR EXCESSIVELY WET.
3. SPREAD TOPSOIL TO A MINIMUM DEPTH OF SIX (6) INCHES ON STRIPPED VEGETATED AREAS, INCLUDING SLOPE STABILIZATION, LAWN AREAS, AND PLANTING BEDS. AFTER EARTH FILLS HAVE PROPERLY SETTLED AND THE SUBGRADE HAS BEEN APPROVED BY THE OWNER, THE SETTLED TOPSOIL SHALL BE PROVIDED TO THE FINISHED GRADES AS INDICATED ON THE PROPOSED SCHEDULE. THE SUBGRADE, TO A DEPTH OF TWO (2) INCHES, SHALL BE PLACED TOPSOIL.
4. REMOVE ROCKS AND DEBRIS FROM THE SOIL SURFACE AND GRADE TO AN EVEN SURFACE.
5. SOW PLANTING SEED DURING APPROPRIATE SEASONAL CONDITIONS TO ENSURE GOOD SEED SURVIVAL, OR AS ADVISED BY THE OWNER. PROVIDE SUFFICIENT HOSE AND SPRINKLER HEADS FOR ADEQUATE WATERING TO MAINTAIN A MOIST BED AT ALL TIMES.
6. RESEED ANY AREAS THAT DO NOT ESTABLISH GRASS OR VEGETATION WITHIN 10 DAYS. REPEAT THIS PROCESS UNTIL VEGETATION IS FULLY ESTABLISHED OVER THE ENTIRE AREA.

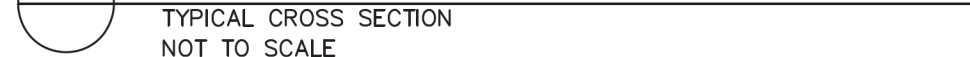


- [1] GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES. COMPACT IN 6" LIFTS TO MINIMUM 95% STANDARD PROCTOR DENSITY.
- [2] SEE STORMTECH CHAMBER INSTALLATION GUIDE FOR MANUFACTURERS SPECIFICATIONS AND MATERIAL SPECIFICATIONS.
- [3] CONFIGURATION SHOWN MAY NOT BE ACCURATE, SEE SITE PLAN FOR EACH SPECIFIC AREA.
- [4] ALL CHAMBERS MAY NOT BE SHOWN, SEE SITE PLAN FOR NUMBER AND CONFIGURATION.

NOT TO SCALE

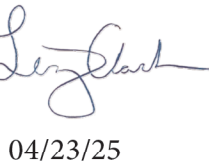


TYPICAL CROSS SECTION
NOT TO SCALE



EL	ELEVATION
INV	INVERT
SF	SQUARE FEET
AC	ACRES
FT	FEET
R	RADIUS
DIA	DIAMETER
BIT	BITUMINOUS
CONC	CONCRETE
L	LENGTH
S	SLOPE
HDC	HIGH DENSITY POLYETHYLENE
PVPE	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
N/F	NOW OR FORMERLY
VP	VERNAL POOL
WF	WETLAND FLAG
TO	TOP OF WALL
SW	BOTTOM OF WALL
FG	FINISH GRADE
BSMT	BASEMENT
FF	FINISH FLOOR

-----100-----	ELEVATION CONTOUR	-----100-----	100.0
X100.0	SPOT GRADE	-----	FG
=====	PROPERTY LINE	=====	
=====	WETLAND DELINEATION	=====	
=====	WETLAND BUFFER ZONE	=====	
=====	TREE LINE / EDGE OF VEGETATION	=====	
=====	EDGE OF PAVEMENT	=====	
=====	CAPE COD BERM CURBING	=====	
=====	GRANITE CURBING	=====	
=====	GRAVEL/DIRT ROAD	=====	
=====	STOCKADE FENCE	=====	
=====	STONE WALL	=====	
=====	WATER MAIN	=====	W
=====	WATER SERVICE	=====	WS
=====	FIRE SERVICE	=====	FS
=====	WATER GATE VALVE	=====	WV
=====	CURB STOP	=====	CS
=====	FIRE HYDRANT	=====	HS
=====	FORCE MAIN	=====	FM
=====	GRAVITY SEWER LINE	=====	SS
=====	SEWER MANHOLE	=====	SMH
=====	GAS LINE	=====	GS
=====	GAS SERVICE	=====	GS
=====	GAS VALVE	=====	
=====	BURIED POWER LINE	=====	E
=====	OVERHEAD POWER LINE	=====	OHW
=====	UTILITY POLE	=====	U
=====	GUY WIRE	=====	G
=====	ELECTRIC BOX	=====	E
=====	STORM DRAIN	=====	SD
=====	UNDERDRAIN	=====	UD
=====	DRAIN	=====	D
=====	FOUNDATION DRAIN	=====	FD
=====	CATCH BASIN	=====	CB
=====	DRAIN MANHOLE	=====	DMH
=====	STRAW WATLES	=====	
=====	DEEP SOIL ABSORPTION HOLE	=====	
=====	SITE LUMINAIRE(S)	=====	
=====	SIGN	=====	
=====	STONE RUNOFF DIRECTION	=====	
=====	STONE BOUND	=====	
=====	DRILL HOLE	=====	
=====	IRON ROD	=====	



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☐ CONCEPT ☐ CONSTRUCTION
☒ PERMIT ☐ CONSTRUCTION RECORD

THIS DRAWING MAY NOT SHOW CONSTRUCTION DETAILS AND SPECIFICATIONS FOR ALL PROPOSED IMPROVEMENTS, AND MAY NOT IDENTIFY ALL CONSTRUCTION WORK ITEMS/AREAS OF CONTRACTOR JURISDICTION.

1	4/23/25	DJG	EAC	SWM PLAN & SCENIC RD PERMIT
NO.	DATE	BY	APP.	REVISION DESCRIPTION

Engineering Solutions for Land & Structures

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SITE DETAILS

LOTS 1 & 2
(MAP R07, PARCEL 1-0)
HARWOOD AVENUE
LITTLETON, MA

PREPARED FOR:
DECA CORP
2 STARWOOD CROSSING
ANDOVER, MA 01810

DES. BY: DJG	DATE: APRIL 2025	JOB 241121	3 OF 3
CHK. BY: EAC			