

DATUM: NAVD 1988



3.M. NO.1

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

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■ 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.

2	6/24/25	DJG	EAC	PEER REVIEW COMMENTS
1	4/23/25	DJG	EAC	SWM PLAN & SCENIC RD PERMIT
NO.	DATE	BY	APP.	REVISION DESCRIPTION

# GPR

Engineering Solutions  
for Land & Structures

39 MAIN STREET, SUITE 301. AYER, MA 01432  
CIVIL ENGINEERING • LAND SURVEYING • LAND PLANNING  
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[www.gpr-inc.com](http://www.gpr-inc.com)

EROSION AND SEDIMENT  
CONTROL PLAN

06/30/25  
Lery Clark

DES. BY: DJG
CHK. BY: EAC

DATE:	APRIL 2025
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JOB 241121

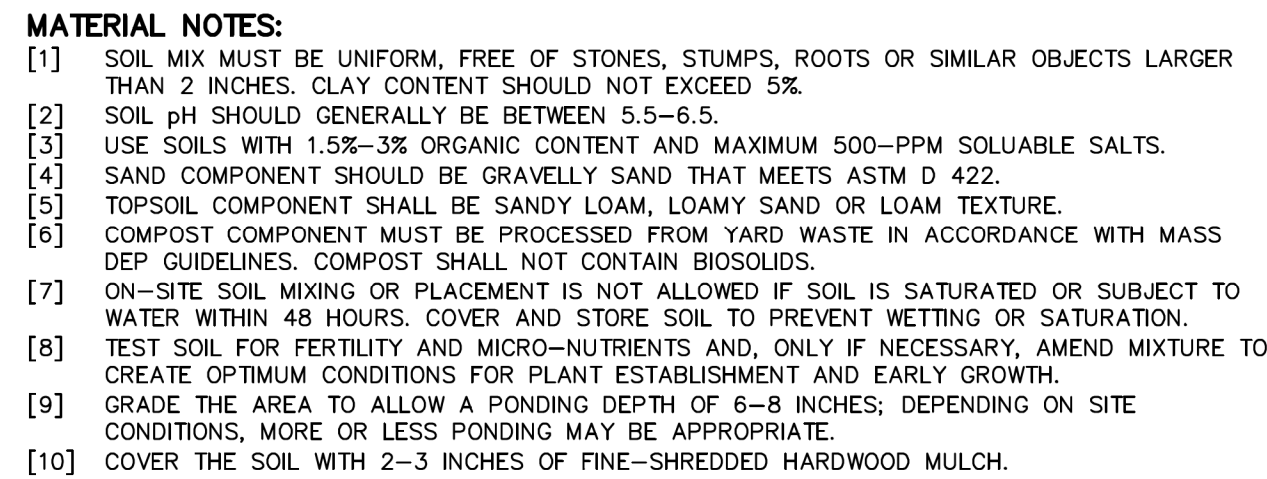
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EL	ELEVATION
INV	INVERT
SF	SQUARE FEET
AC	ACRES
FT	FEET
R	RADIUS
DIA	DIAMETER
BIT	BITUMINOUS
CONC	CONCRETE
L	LENGTH
S	SIZE
HDPE	HIGH DENSITY POLYETHYLENE
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
N/F	NOW OR FORMERLY
VP	VERNAL POOL
WF	WETLAND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

EXISTING		PROPOSED	
	ELEVATION CONTOUR		
	SPOT GRADE		
	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		
	WATER SERVICE		
	FIRE SERVICE		
	WATER GATE VALVE		
	CURB STOP		
	FIRE HYDRANT		
	FORCE MAIN		
	GRAVITY SEWER LINE		
	SEWER MANHOLE		
	GAS LINE		
	GAS SERVICE		
	GAS VALVE		
	BURIED POWER LINE		
	OVERHEAD POWER LINE		
	UTILITY POLE		
	GUY WIRE		
	ELECTRIC BOX		
	STORM DRAIN		
	UNDERDRAIN		
	DRAIN		
	FOUNDATION DRAIN		
	CATCH BASIN		
	DRAIN MANHOLE		
	STRAW WATTLIES		
	DEEP SOIL OBSERVATION HOLE		
	SITE LUMINAIRE(S)		
	SIGN		
	SURFACE RUNOFF DIRECTION		
	STONE BOUND		
	DRILL HOLE		
	IRON ROD		

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 ONCE 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)



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☐ CONCEPT      ☐ CONSTRUCTION  
☒ PERMIT          ☐ CONSTRUCTION RECORD

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# STORMWATER MANAGEMENT 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	2 OF 3
CHK. BY: EAC			

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/MQV 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 B  
 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 B

WITH SIX (6) STORMTECH SC-310 CHAMBERS = 243 CF PROVIDED

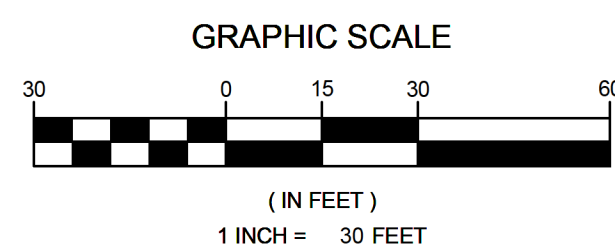
ROOF DRAINS & DOWNSPOUTS DIRECT ROOF RUNOFF DIRECTLY INTO

DRIVEWAY = 6.325 SE GRADED TO SEDIMENT FOREBAY

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 PRODUING 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.

1. PLAN OF LAND IN LOTTITION MASSACHUSETTS: "PREPARED FOR GLAVEY FAMILY / REVOCABLE TRUST BY DILLIS & ROY CIVIL DESIGN GROUP, DATED JULY 25, 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: PERFORMANCE BY GOLDSMITH, PREST & RINGWALD, INC. DATED JULY 10 2019 TO APRIL 2019.

3. EXISTING BASE INFORMATION, INCLUDING PROPERTY LINES, STRUCTURES, UTILITIES, AND TOPOGRAPHY, IS TAKEN FROM "PLAN OF LAND IN LOTTITION, MASSACHUSETTS" "PREPARED FOR GLAVEY FAMILY / REVOCABLE TRUST BY DILLIS & ROY CIVIL DESIGN GROUP, DATED JULY 25, 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 1983 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 520 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 ADJACENT PROPERTIES FROM CONSTRUCTION-RELATED EROSION AND SEDIMENTATION AT ALL TIMES. WORK ON PROTECTED 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 ACTIVITIES.
6. DEVISE A WORK SEQUENCE 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 OF ANY MAJOR EVENT OF 0.25 INCHES OR GREATER. ENSURE THAT CHANNELS, DITCHES, AND PIPES REMAIN CLEAR AND MEASURES REMAIN INTACT. REPAIR OR REPLACE DAMAGED CONTROLS IMMEDIATELY.
10. MAINTAIN CONSTRUCTION ACCESS POINTS TO PREVENT SEDIMENT TRACKING ONTO PUBLIC WAYS. SWEEP ANY TRACKED 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 GENERATOR DURING SITE PREPARATION OFF-SITE IN ACCORDANCE WITH LEGAL REQUIREMENTS.
13. PROVIDE CROSBING 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 ON-SITE TO 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. MULCH CRITICAL VEGETATION AREAS—including TEMPORARY/PERMANENT DITCHES, CHANNELS, EMBANKMENTS, AND ANY DENuded SURFACES EXPOSED FOR MORE THAN ONE MONTH—with STRAW MULCH UNIFORMLY AND THICK ENOUGH TO FULLY COVER THE SOIL.
17. STABILIZE CRITICAL VEGETATION AREAS BY SEEDING WITH ANNUAL RYEGRASS AT A RATE OF 1.0 LBS/ACRE.
18. CONTROL DUST BY SPRINKLING OR OTHER APPROVED METHODS, AS NECESSARY OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.
19. INSTALL FILTER BARS 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 WITHIN 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 OR SWAMP BANKS OR SURFACE WATERS UNLESS OTHERWISE APPROVED. EQUIPMENT SHALL BE INSPECTED DAILY FOR LEAKS. ANY LEAKS MUST BE REPAIRED IMMEDIATELY.
22. SEDIMENTATION BASINS SHALL BE USED THROUGHOUT THE SITE TO TREAT 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 CONTROLS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE STABILIZED.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, GRADES, AND SITE CONDITIONS PRIOR TO UNCOVERING ANY CONDUITS, UTILITY LINES, OR EXISTING STRUCTURES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE BEGINNING WORK. NO ADDITIONAL COMPENSATION WILL BE PAID FOR REWORK REQUIRED DUE TO UNEXPECTED DISCREPANCIES.

2. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS, DIMENSIONS, AND DETAILS OF 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 AVOID FINISHED SUBGRADE DRAINAGE BEING COVERED WITHOUT PROTECTIVE MEASURES. PROVIDE TEMPORARY DRAINAGE TO PREVENT EROSION. EROSION CONTROL AND PAVING ARE REQUIRED.

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 PETROLEUM PRODUCTS, HEAVY METALS, AND OTHER REGULATED CONTAMINANTS AS DEFINED BY LOCAL, STATE, OR FEDERAL ENVIRONMENTAL STANDARDS. IT SHALL NOT CONTAIN CONSTRUCTION OR DEMOLITION DEBRIS, ORGANIC MATTER, FROZEN MATERIAL, OR OTHER UNSUITABLE SOILS. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION VERIFYING THE SOURCE, COMPOSITION, AND SUITABILITY OF ALL IMPORTED MATERIAL. THE OWNER AND ENGINEER RESERVE 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 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, AS SPECIFIED. 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 PRIVATE UTILITIES.

15. ALL DRAINAGE PIPE SHALL BE SMOOTH-WALLED CORRUGATED POLYETHYLENE PIPE (ADS N-12 OR APPROVED EQUIV.) RATED FOR H-20 LOADING AND SHALL HAVE SILT-TIGHT JOINTS, UNLESS OTHERWISE NOTED.

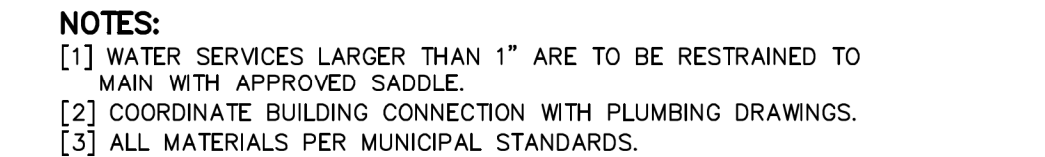
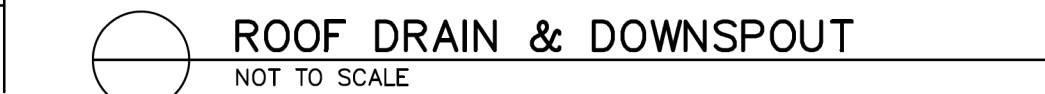
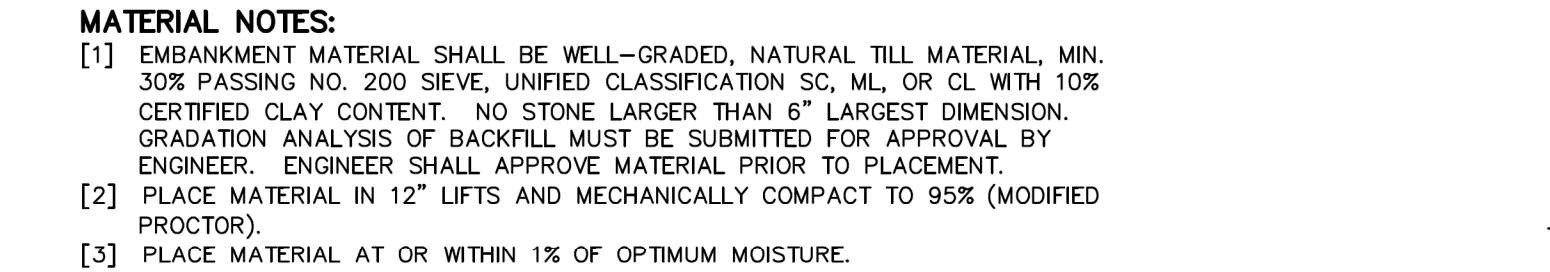
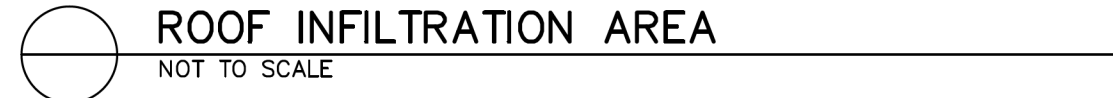
16. PRIOR TO OWNER ACCEPTANCE CONTRACTOR SHALL CLEAN THE STORMWATER MANAGEMENT STRUCTURE. THIS INCLUDES REMOVAL OF ALL SEDIMENT, CONSTRUCTION DEBRIS, CONCRETE/MORTAR DROPPINGS, AND FORMWORK FLUSHING OF ALL PIPES COMPLETION OF OPERATION AND MAINTENANCE ACTIVITIES IN THE PROJECT'S SWPPP. NO DEBRIS SHALL BE FLUSHED INTO METADANS, WATERWAYS, OR EXISTING STRUCTURES.

17. FOR SURFACE DISPOSAL, SYSTEM DETAILS SEE: "SURFACEFACE DISPOSAL DISPOSAL, SYSTEM- NEW CONSTRUCTION, LOT 1 (MAY 07, PARCEL 1, 10), HARWOOD AVENUE, LITTLETON, MA" PREPARED FOR DECA CORP BY THIS OFFICE, DATED MARCH 2025 AND "SURFACEFACE DISPOSAL SYSTEM- NEW CONSTRUCTION, LOT 2 (MAY 07, PARCEL 1, 10), HARWOOD AVENUE, LITTLETON, MA" PREPARED FOR DECA CORP BY THIS OFFICE, DATED APRIL 2025.

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. ON SITE CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4,500 PSI WITH 5%-7% AIR ENTRAINMENT UNLESS OTHERWISE NOTED.

1. LOAM AND SEED ALL DISRUPTED 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 CEASED.
2. FURNISH ADDITIONAL TOPSOIL AS NEEDED. TOPSOIL SHALL BE FERTILE, FRABLE, AND FREE OF WEED SEEDS, SUBSOIL, STONES, LUMPS, 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 FINAL FILLS HAVE PROPERLY SETTLED AND THE SUBGRADE HAS BEEN ACCEPTED BY THE OWNER, THE SETTLED TOPSOIL SHALL BE PROVIDED TO THE FINISHED GRADINGS AS INDICATED ON THE DRAWINGS. SCARIFY THE SUBGRADE TO A DEPTH OF TWO (2) INCHES BEFORE PLACING 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 APPROVED BY THE OWNER. PROVIDE SUFFICIENT HOSE AND SPRINKLER HEADS FOR ADEQUATE WATERING TO MAINTAIN A MOIST SEED 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.



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.

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.

2	6/24/25	DJG	EAC	PEER REVIEW COMMENTS
1	4/23/25	DJG	EAC	SWM PLAN & SCENIC RD PERMIT
NO.	DATE	BY	APP.	REVISION DESCRIPTION

**GPR** Engineering Solutions  
for Land & Structures

**GOLDSMITH, PREST & RINGWALL, INC.**

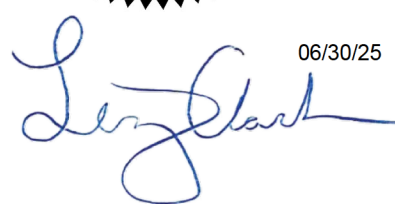
39 MAIN STREET, SUITE 301. AYER, MA 01432

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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			