

November 6, 2025

Reading Conservation Commission  
16 Lowell Street  
Reading, MA 01867

Re: Response to Conservation Commission Review Comments for NOI  
24 Dustin Road, Reading, MA 01867  
Parcel ID: Map: 26, Parcel: 164

Dear Reading Conservation Commission,

Goddard Consulting LLC, (Goddard) is pleased to submit these revised project materials on behalf of the Applicant, Shawn McSheffrey, for the property known as 24 Dustin Rd (Map 26, Parcel 164), located in Reading, MA. The applicant has previously filed a Notice of Intent, proposing the teardown of the existing home on-site and the construction of a new single-family home and amenities, partially within the 100-Foot Buffer Zone to delineated Bordering Vegetated Wetlands. The revised materials are being submitted to provide responses and improvements to the project as a result of the ongoing review with the Reading Conservation Commission.

Goddard attended the October 8<sup>th</sup>, 2025, meeting of the Reading Conservation Commission alongside the project engineer, Engineering Solutions Group, to discuss the proposed tear down and rebuild with the Commission. During the course of the meeting, the Reading Conservation Commission provided the team with a list of comments to consider as improvements to the project. Goddard has provided responses to each comment at this time to ensure compliance with all remaining items, and a revised site plan set is included with the submittal demonstrating compliance with all comments. The project team has adopted each item suggested by the Reading Conservation Commission, as seen below.

**Table 1: 24 Dustin Road, Reading - Notice of Intent Comment Responses**

Project Comments Discussed with the Reading Conservation Commission (Summarized by Project Team)	Goddard Consulting Responses Issued 11/6/2025
<p>1. Portions of the project site contain previous fill, including degraded materials such as cinder blocks, leaf litter, and lawn clippings. Consider the removal of unfavorable materials as part of the site improvements.</p>	<p>Goddard and the project team acknowledge the existence of previous dumping, associated with the prior ownership of the lot. As can be seen on the attached site plans, an old fill pile exists within the vicinity of flags A3 to A6. It is the opinion of Goddard that the fill itself is not a concern, as native vegetation grows throughout. However, old debris, cinder blocks, lawn clippings, and leaf dumping exists throughout the area. The project's proposed site plans have been modified to include a note to remove these materials as part of additional site improvements associated with the project.</p>
<p>2. The commission noted that glossy buckthorn shrubs exist sporadically around the wetland and buffer edges. Consider the removal of glossy buckthorn as part of the site improvements.</p>	<p>Goddard and the project team acknowledge the existence of glossy buckthorn sporadically throughout the wetland and buffer edges. Goddard notes that glossy buckthorn is one of the easier invasives to remove from properties, as it has weak root systems allowing the plant material to be hand pulled and bagged before the plant goes to seed. The project's proposed site plans have been modified to include a note to remove identified buckthorn as part of additional site improvements associated with the project.</p>

<p>3. The commission requested the use of mulch socks as erosion controls instead of straw wattles.</p>	<p>The project engineer, Engineering Solutions Group, has revised the site plan details to incorporate mulch socks instead of straw wattles. The erosion control locations remain the same.</p>
<p>4. The commission requested a stockpile area be added to the plans.</p>	<p>The project engineer, Engineering Solutions Group, has revised the site plans to display a stockpile area. The stockpile area has been located within the area of the driveway to site the stockpile outside of the Buffer Zone, and to place materials within an area to be developed so as to avoid additional impacts associated with the storing of materials.</p>
<p>5. The commission requested that subsurface stormwater management be added to account for the increase in impervious surface coverage generated by the new house.</p>	<p>The project engineer, Engineering Solutions Group, has revised the design of the project to include subsurface stormwater management. The project now proposes subsurface Stormtech SC-160 Chambers to the southeast of the house to handle roof runoff, as well as a rain garden in the northeast portion of the site adjacent to the proposed driveway.</p> <p>A test pit was conducted in the location of the proposed Stormtech chambers, confirming well-draining, fine sandy loam soils, and an estimated seasonal high groundwater table at 190.27'. The system has been sized to handle 1" of runoff for all impervious surface increases generated by the project. Drainage calculations have been added to the site plans to display that the storage volume designed exceeds the 1" storm as required by the Town of Reading. At the request of the commission, an O&amp;M plan has additionally been submitted to ensure the long term maintenance of the system.</p>
<p>6. The commission requested conservation signage to be installed both along the 25-foot local no disturb zone, or the limit of the restoration areas where applicable.</p>	<p>The project team has revised the plans to include the requested conservation signage in the locations discussed with the Conservation Commission at the 10/8/25 meeting. The plan proposes three signs to be added, located at the limit of the restoration areas upgradient of flags A14, A11, and at the 25-Foot No Disturb Zone above flag A3.</p>
<p>7. Increase the vegetated buffer above the wet lawn area (flags A11 – A14) by about five feet to create a buffer to the restored wetland area.</p>	<p>The project team has revised the plans to increase the vegetated buffer above the restored wetland area. The site plans have been revised to locate the limits of the restoration area an additional five feet upgradient from the original location along the wetland line. Additionally, conservation signage has been located at the edges of the restoration area to protect the area in perpetuity.</p>
<p>8. Increase the plantings within the restored wetland area to include both mitigation for the required tree removal as well as shrub plantings to create a more natural system.</p>	<p>The project team has revised the plans to include additional plantings within the restored wetland area (located below flags A8 to A14). As seen on the revised plans, prepared by Engineering Solutions Group, the area is to be revegetated with 2 red maples, 2 swamp white oaks, and 4 sweet pepperbush shrubs. The trees are</p>

	intended to replace the trees within the yard requiring removal, and the sweet pepperbush shrubs have been increased to provide a shrub layer that mimics a natural area. It is anticipated that the herbaceous layer will revegetate swiftly, as the area consists of wetland herbaceous vegetation at present that is unable to take hold due to consistent mowing. The ceasing of mowing and replanting of the area is intended to restore all three vegetative layers.
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As outlined in the table above, the following documents are attached to this supplemental submittal:

- *Civil Plan Set, 24 Dustin Road*, Engineering Solutions Group, 11/06/2025
- *Stormwater Operation & Maintenance Plan*, Engineering Solutions Group

As of this supplemental submittal, dated 11/6/2025, it is Goddard's opinion that all remaining comments under discussion with the Reading Conservation Commission have been adequately addressed and all necessary materials have been submitted. The project team has worked to incorporate each suggestion or request from the Commission with the intent to demonstrate full compliance with all local regulations. The project has been revised to include a stormwater management system, increased mitigation, improved erosion controls, and conservation signage to protect the integrity of the restoration areas long-term. With the attached narrative and revised site plan sheet, Goddard Consulting believes that the proposed project, as clarified, will not have any adverse impact on the interests identified in M.G.L c. 131 section 40, or under the local wetland ordinance, and will now result in a greater improvement over existing conditions beyond the original submittal. Goddard respectfully requests that the Reading Conservation Commission issue an Order of Conditions for the proposed work.

If you have any questions, please feel free to contact Goddard Consulting LLC at (508) 393-3784.

Sincerely,

**Goddard Consulting, LLC**



**Andrew Thibault, WPIT, WSA**

*Environmental Scientist*

CC: Mass DEP – NERO – 150 Presidential Way, Woburn, MA 01801  
McSheffrey Development Group LLC, 43 Chappie Street, Boston, MA 02129



PROJECT SITE

LOCUS MAP  
SOURCE - TOWN GIS

**CIVIL PLAN SET  
24 DUSTIN ROAD  
READING, MA**

- SHEET 1 - TITLE SHEET
- SHEET 2 - EX COND
- SHEET 3 - SITE PLAN
- SHEET 4 - DETAILS
- SHEET 5 - STORMTECH DETAILS



GENERAL NOTES:

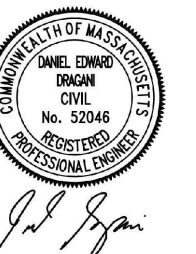
1. THIS PLAN SET IS BASED ON A SURVEY PLAN BY EDWARD J. FARRELL, P.L.S. TITLED "PLOT PLAN 24 DUSTIN ROAD, READING, MASS.," DATED AUGUST 8, 2025". THIS PLAN SHALL NOT BE USED TO ESTABLISH PROPERTY LINES UNLESS IT CONTAINS A P.L.S. STAMP.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON INFORMATION PROVIDED BY EDWARD J. FARRELL, P.L.S. THE INFORMATION DISPLAYED HERON IS CONSIDERED APPROXIMATE, NOT COMPLETE, AND THE FULL EXTEND OF UNDERGROUND UTILITIES ARE UNKNOWN. CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO THE START OF WORK.
3. CONTRACTOR SHALL COMPLY WITH ALL LOCAL COMMUNITY, LOCAL UTILITY OR OTHER GOVERNING ENTITIES REGULATIONS, STANDARDS AND PERMITS, REGARDLESS OF PUBLIC OR PRIVATE STATUS.
4. CONTRACTOR SHALL OBTAIN APPROVAL, FROM THE ENGINEER, ANY DEVIATIONS TO THIS PLAN.
5. CONTRACTOR SHALL NOTIFY DIG SAFE PRIOR TO EXCAVATION. OPEN TRENCHES SHALL NOT BE LEFT UNATTENDED AND CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS IN THIS REGARD.
6. CONTRACTOR SHALL COMPLY WITH TRENCH COLLAPSE PROTECTION IN ACCORDANCE WITH CURRENT APPLICABLE STANDARDS.
7. CONTRACTOR TO COORDINATE WITH THE TOWN FOR PERMITTING. THIS PLAN DOES NOT CONSTITUTE A PERMIT.
8. IF CONDITIONS DO NOT MATCH INFORMATION. IE LEDGE, GW ELEVATIONS, SURVEY DISCREPANCIES ETC. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
9. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE DIMENSIONS PRIOR TO CONSTRUCTION AND NOTING IF DISCREPANCIES OCCUR BETWEEN BUILDING PLANS.
10. THIS PLAN IS NOT APPROVAL TO DEMOLISH HISTORIC DWELLINGS. INQUIRE WITH BUILDING DESIGNER, BUILDING DEPARTMENT AND HISTORIC COMMISSION.
11. THIS PLAN MAY NOT SHOW UTILITIES THAT NEED TO BE TERMINATED PRIOR TO DEMOLISHING THE STRUCTURE(S) SUCH AS GAS, ELECTRIC, COMMUNICATIONS AND OTHERS. CONTRACTOR TO VERIFY ALL UTILITIES HAVE BEEN TERMINATED IN ACCORDANCE WITH EACH UTILITY OWNERS STANDARDS PRIOR TO DEMOLISHING THE STRUCTURE(S).
12. SEE ALL PLAN SHEETS FOR ADDITIONAL NOTES & LEGEND
13. THIS PLAN SET DOES NOT DESIGN RETAINING WALLS, STAIRS, RAILINGS ,FENCES, WALKWAYS, DRIVEWAYS, BUILDINGS, LANDSCAPING ETC. THIS PLAN IS INTENDED FOR STORMWATER AND THE RELOCATION OF EXISTING UTILITIES ONLY. ANY OTHER FEATURES ARE CONCEPTUAL BY OTHERS AND SHALL BE VERIFIED BY OTHERS. THIS PLAN DOES NOT GUARANTEE WATER WILL NOT ENTER A FOUNDATION AND THAT SHALL BE EVALUATED BY THE BUILDING DESIGNER OR OTHERS.
14. WALKWAYS, PATIOS AND STAIRS NOT ON SURVEY HAVE BEEN ADDED TO THE PLAN USING ORTHO PHOTO OVERLAY.

ENGINEERING SOLUTIONS GROUP LLC  
MARBLEHEAD, MA 01945  
EMAIL: SALES@ENGINEERINGSGROUP.COM

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TITLE SHEET

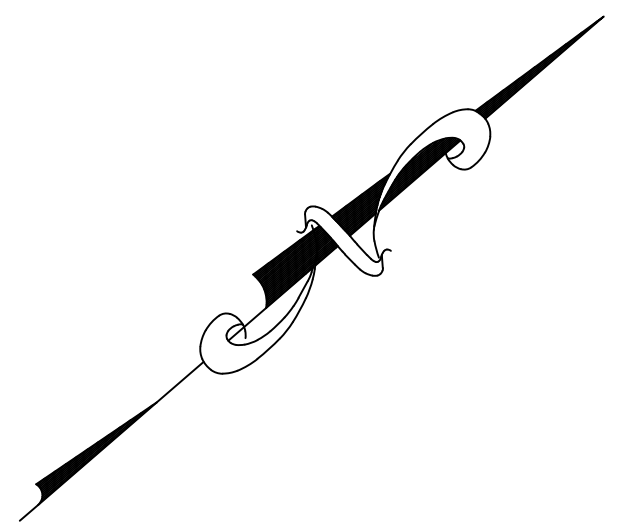
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READING, MA



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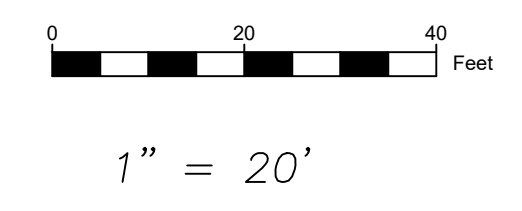
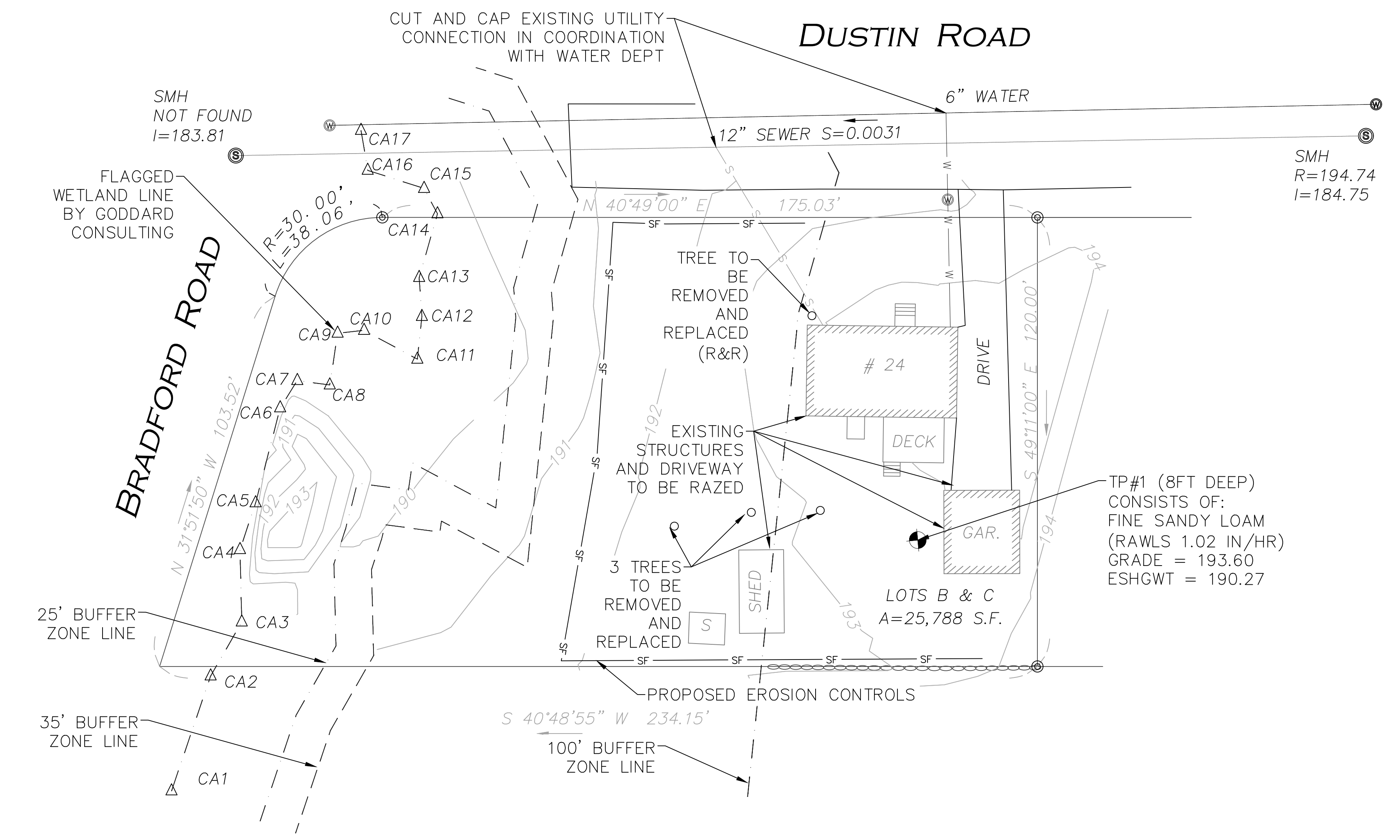
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SHEET SIZE 22X34



**GENERAL NOTES:**

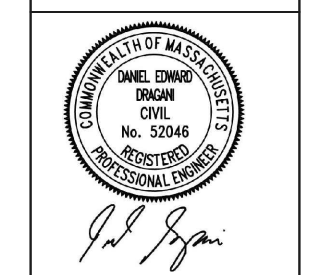
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3. CONTRACTOR TO COORDINATE WITH THE TOWN FOR PERMITTING. THIS PLAN DOES NOT CONSTITUTE A PERMIT.
4. IF CONDITIONS DO NOT MATCH INFORMATION. IE LEDGE, GW ELEVATIONS, SURVEY DISCREPANCIES ETC. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY.
5. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON INFORMATION PROVIDED BY EDWARD J. FARRELL, P.L.S. THE INFORMATION DISPLAYED HERON IS CONSIDERED APPROXIMATE, NOT COMPLETE, AND THE FULL EXTEND OF UNDERGROUND UTILITIES ARE UNKNOWN. CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO THE START OF WORK.
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READING, MA



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SHEET SIZE 22X34

**DRAINAGE CALCULATIONS:**

1" STORM MITIGATION REQUIREMENT FOR INCREASED IMPERVIOUS:  
 TOTAL INCREASED IMPERVIOUS AREA (PROPOSED CONDITIONS)= 1,938 SF  
 1" VOLUME OVER INCREASED IMPERVIOUS AREA:  
 1,938 SF X 1 INCH X (1 FT / 12 INCH) = 161.5 CF

**PROVIDED STORAGE VOLUME:  
 STRUCTURE**

STORMTECH SC-160 STORAGE = 6.8 CF/CHAMBER X 6 CHAMBERS = 41.0 CF

**SYSTEM VOLUME**

18.71 FT X 10.25 FT X 2.00 FT= 383.5 CF

**STONE STORAGE**

383.5 CF FIELD - 41.0 CF CHAMBERS = 342.5 CF STONE X 40.0% VOIDS = 137.0 CF STONE STORAGE

TOTAL STORAGE = CHAMBER STORAGE + STONE STORAGE = 178.0 CF

**DRAWDOWN CALCULATIONS:**

$TIME_{DRAWDOWN} = R_v / (K \times BOTTOM \text{ AREA})$   
 $R_v = RECHARGE \text{ VOLUME} = STORAGE \text{ VOLUME} = 178.0 \text{ CF}$   
 $K = SATURATED \text{ HYDRAULIC CONDUCTIVITY FOR "STATIC" METHOD RAWLS RATE}$   
 $BOTTOM \text{ AREA} = BOTTOM \text{ AREA OF RECHARGE STRUCTURE} = 18.71 \times 10.25 = 191.78 \text{ SF}$

$TIME_{DRAWDOWN} = 178.0 / [(1.02 \text{ IN/HR}) \times (1\text{FT}/12\text{IN}) \times 191.78 \text{ SF}] = \underline{10.9} \text{ HRS}$

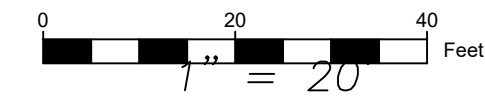
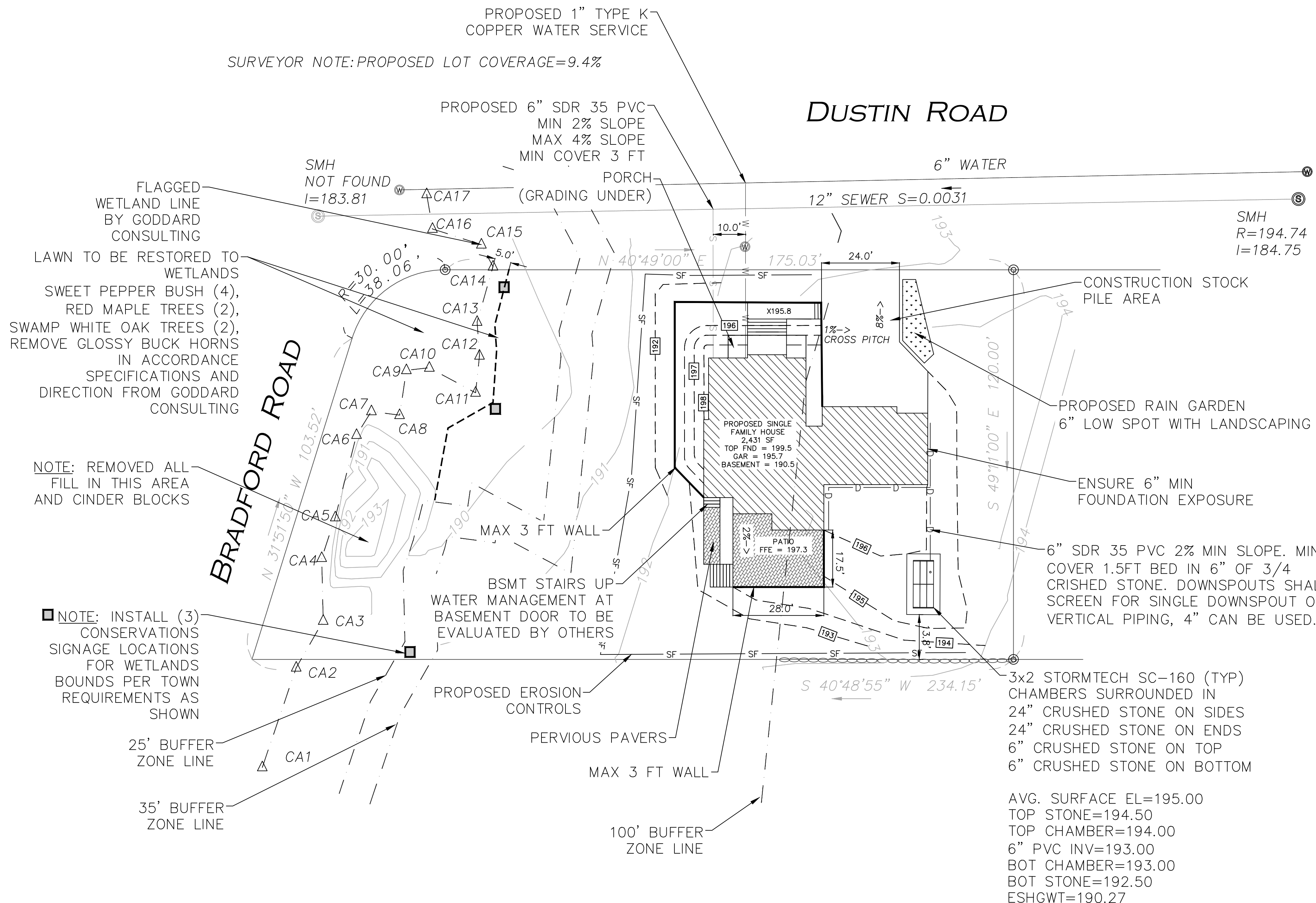
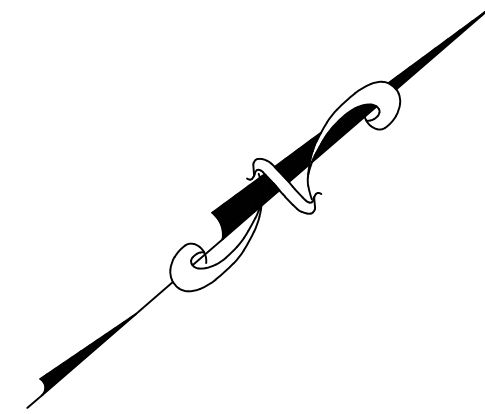
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- GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING THESE DIMENSIONS PRIOR TO CONSTRUCTION AND NOTING IF DISCREPANCIES OCCUR BETWEEN BUILDING PLANS.
- CONTRACTOR MUST CALL DRAGANI ENGINEERING GROUP LLC PRIOR TO CONSTRUCTION. DRAINAGE SYSTEM SHALL BE CALLED FOR INSPECTION PRIOR TO BACKFILL AND 48 HR ADVANCED NOTICE PROVIDED
- ALL GUTTERS DRAINING TO INFILTRATION SYSTEM SHALL HAVE DEBRIS GUARDS. ALL PIPES TO SYSTEM SHALL HAVE A MINIMUM SLOPE OF 2%.
- BED ALL SEWER PIPE IN  $\frac{3}{4}$ " CRUSHED STONE 6" AROUND.
- ALL SEWER WORK WITHIN 10 FT OF THE FOUNDATION SHALL BE DESIGNED BY THE PLUMBER IN ACCORDANCE WITH THE LOCAL AND STATE PLUMBING CODES & IN ACCORDANCE WITH LOCAL INSPECTOR/FOUNDATION DESIGNER DETAILS. 4" SCH 40 PVC AND DI SLEEVES ARE COMMONLY USED. NO PIPES SHALL BE PLACED UNDER THE FOOTING WITHOUT STEPPING THE FOOTING BELOW THE PIPE. 4X6 FERNCO TO CIVIL SCOPE.
- CONTACT ENGINEER PRIOR TO STORMWATER SYSTEM INSTALLATION. TOWN INSPECTION AND ENGINEER INSPECTION REQUIRED AT VARIOUS PHASES: SUB GRADE, STONE, SYSTEM INSTALLATION AND POST INSTALLATION AFTER DOWNSPOTS CONNECTED.
- CONTRACTOR TO CONFIRM CONSISTENCY WITH BUILDING PLAN SECTION HEIGHTS AND COORDINATE WITH BUILDING DEPARTMENT TO ENSURE CONFORMANCE PRIOR TO CONSTRUCTION AND VERIFY POST CONSTRUCTION.
- POOL, FENCING AND WALLS SHALL BE DESIGNED BY THE CONTRACTORS PROFESSIONALS AND ARE NOT DESIGNED HEREIN

**CONSTRUCTION SEQUENCE**

- RECORD ORDER OF CONDITIONS IN REG OF DEEDS
- INSTALL EROSION CONTROLS
- COMMISSION PRE-CONSTRUCTION INSPECTION
- COMPLETE DEMO OF STRUCTURES
- STAGING AREA TO BE IN PROPOSED DRIVE LOCATION
- INSTALL FOUNDATION AND CONSTRUCT DWELLING
- INSTALL STORMWATER IMPROVEMENTS, DRIVEWAY, MITIGATION PLANTINGS AND POST/ RAIL FENCE. REQUEST TOWN ENGINEERING AND DESIGN ENGINEER INSPECTION OF DRAINAGE SYSTEM BEFORE BACKFILL OF STORMWATER SYSTEM.
- REQUEST ENGINEER INSPECTION TO CONFIRM SUB CONFORMANCE
- REQUEST COMMISSION INSPECTION
- REQUEST CERT OF COMPLIANCE AND RECORD

AREA BREAKDOWN CHART		
	EXISTING (S.F.)	PROPOSED (S.F.)
DWELLING/STRUCTURES	1,775	2,431
ASPHALT DRIVEWAY & IMPERVIOUS WALKWAYS	272	1,554
PERVIOUS PAVERS	0	639
GRASS/ LAWN	23,759	21,182
TOTAL	25,806	25,806
INCREASED IMPERVIOUS AREA = 1,938 S.F.		



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SITE PLAN

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 READING, MA

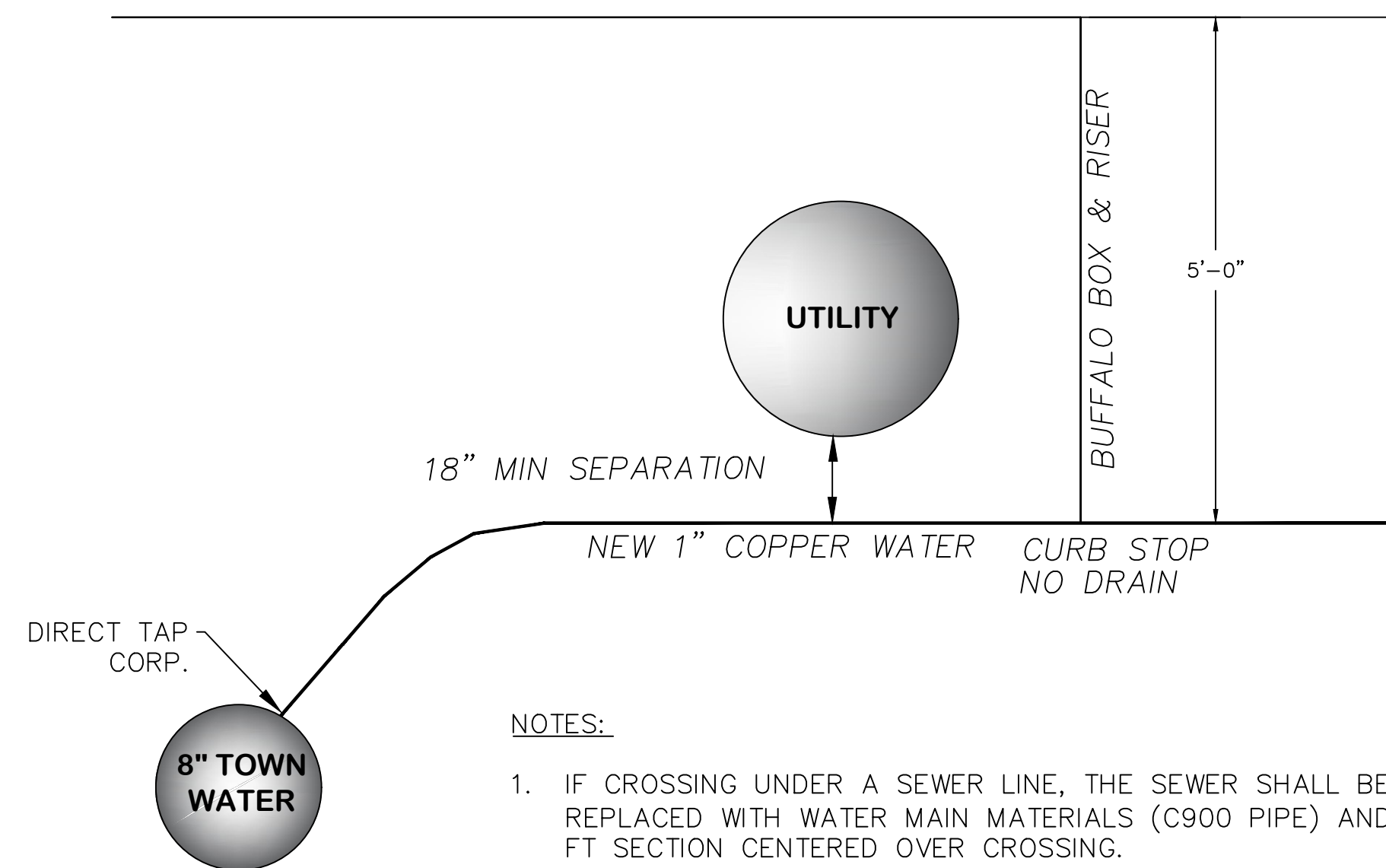


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SHEET SIZE 22X34

PIPE MIN. 1,938 SF OF PROPOSED ROOF  
 INSTALL SYSTEM 10FT MIN. FROM ALL  
 BUILDINGS AND PROPERTY LINES

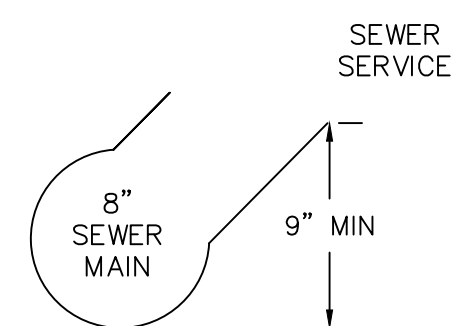


**NOTES:**

1. IF CROSSING UNDER A SEWER LINE, THE SEWER SHALL BE REPLACED WITH WATER MAIN MATERIALS (C900 PIPE) AND A 20 FT SECTION CENTERED OVER CROSSING.
2. IF OVER SHALL HAVE 1 FT CLEAR SEPARATION FROM BOTTOM OF WATER TO TOP OF SEWER OR DRAIN
3. BED IN 6" SAND ALL AROUND

**WATER SERVICE DETAIL**

(NOT TO SCALE)

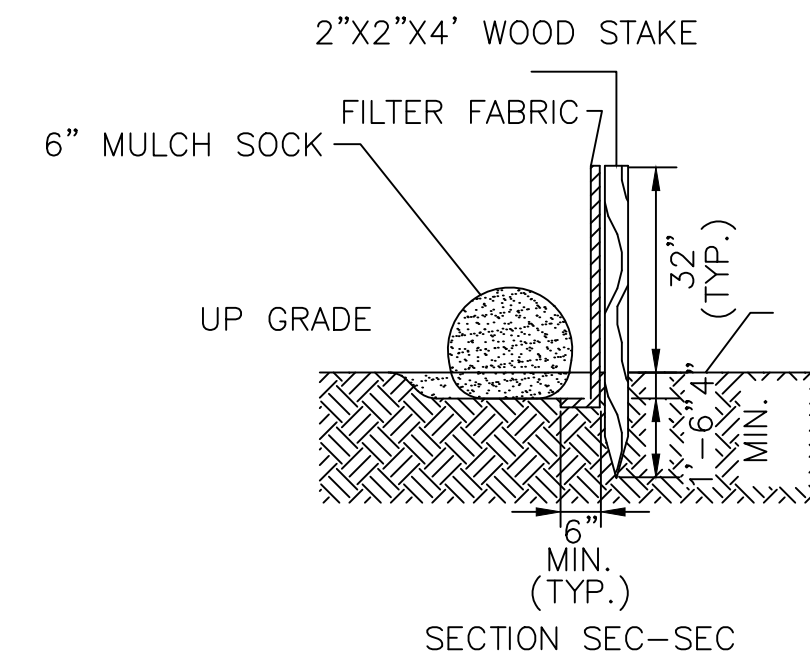
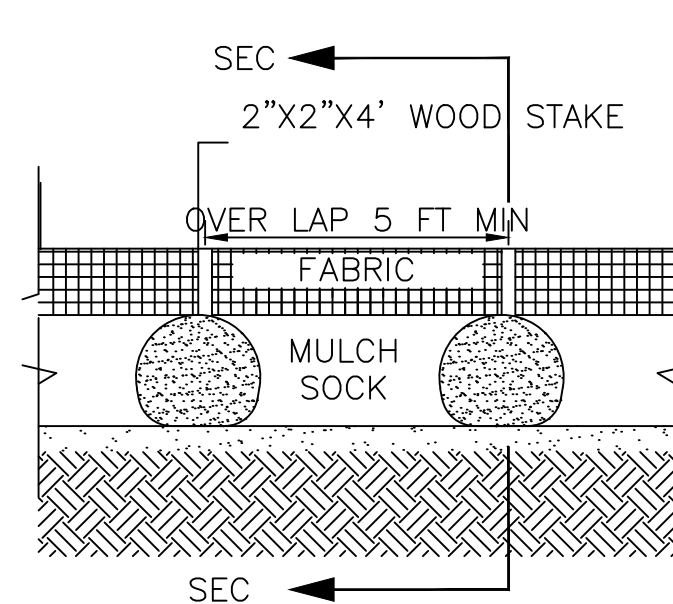


**SEWER MAIN CONNECTION**

(NOT TO SCALE)

**NOTES:**

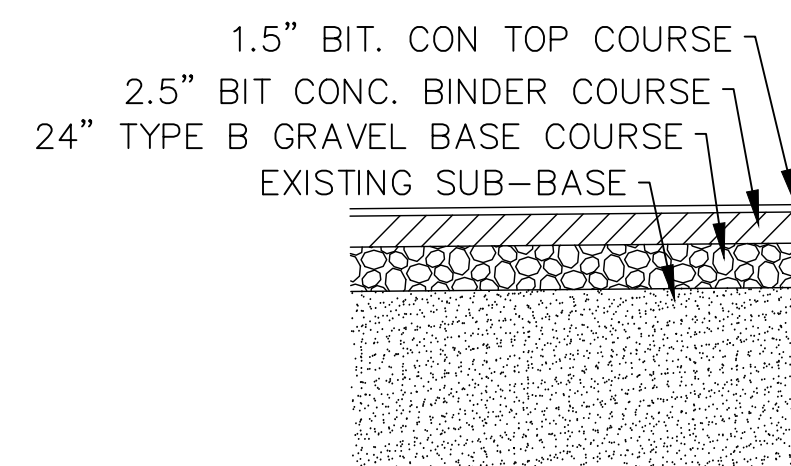
1. BED IN 3/4" CRUSHED STONE ALL AROUND



**NOTES:**

1. SILT FENCE IS OPTIONAL AND ONLY IF NEEDED TO CONTROL EROSION
2. UV RESISTANT POLYPROPYLENE SILT FENCE WITH A MINIMUM WEIGHT OF 2.5 OZ./S.Y. SHALL BE USED
3. ATTACH FABRIC TO STAKES WITH APPROVED METHOD
4. USE SILT FENCE AND COMPOST FILTER TUBES WHERE INDICATED OR AS DIRECTED BY THE ENGINEER.
5. A MINIMUM OF (2) WOOD OR METAL STAKES PER FILTER TUBE. INSTALL STAKES A MINIMUM OF 12" INTO FIRM GROUND.
6. REMOVE SILT FENCE AND FILTER TUBES AT THE DIRECTION OF THE TOWN ONLY
7. DO NOT DRIVE STAKES THROUGH SOCKS
8. INSTALL AT PROJECT PERIMETER PRIOR TO START OF WORK. ALL NEARBY CATCH BASINS SHOULD HAVE SILT SACKS INSTALLED, INSPECTED AND CLEANED

**MULCH SOCK TUBES & SILT FENCE FOR EROSION CONTROL**



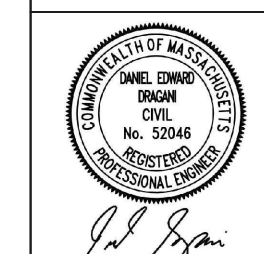
**DRIVEWAY PAVING COURSES**

(NOT TO SCALE)

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**DETAILS**

24 DUSTIN ROAD  
READING, MA



DATE: 11/06/25  
DRAWN BY: RAD  
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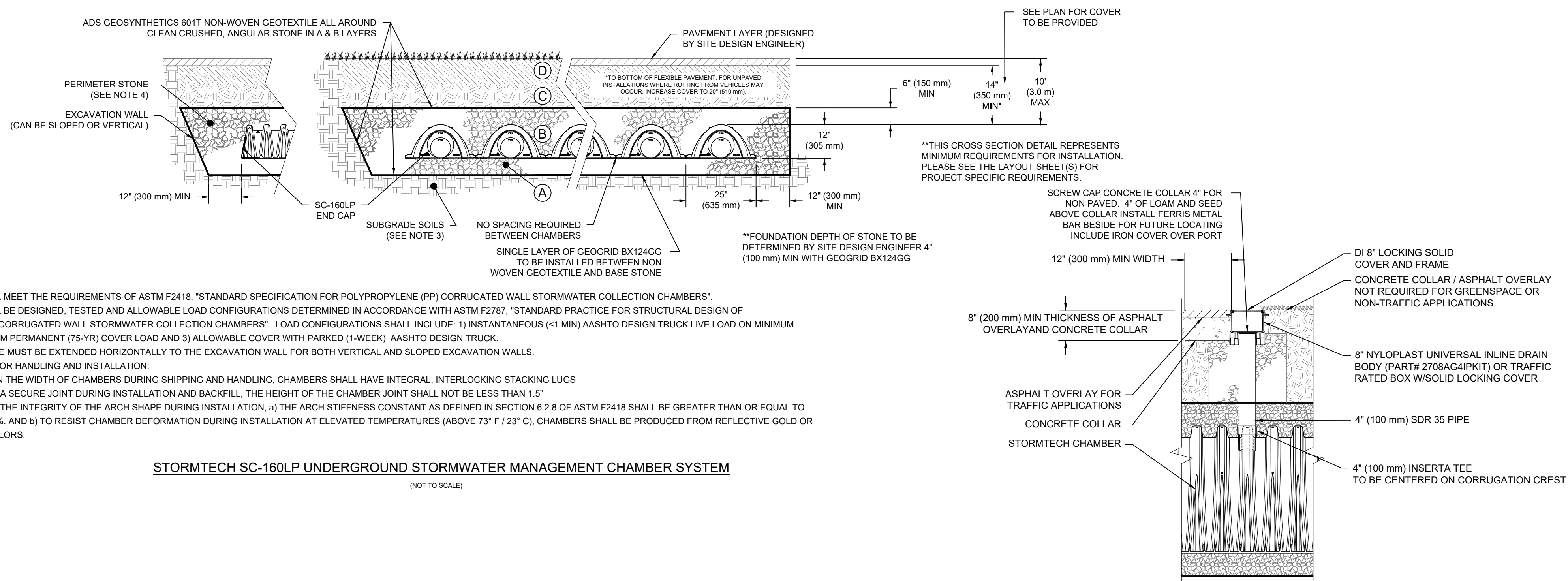
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**ACCEPTABLE FILL MATERIALS: STORMTECH SC-160LP CHAMBER SYSTEMS**

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	<b>FINAL FILL:</b> FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A
C	<b>INITIAL FILL:</b> FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 14" (355 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE.  MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145 <sup>1</sup> A-1, A-2-4, A-3  OR AASHTO M431 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10
B	<b>EMBEDMENT STONE:</b> FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE <sup>5</sup>	AASHTO M431 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57
A	<b>FOUNDATION STONE:</b> FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE OR RECYCLED CONCRETE <sup>5</sup>	AASHTO M431 <sup>1</sup> 3, 357, 4, 467, 5, 56, 57

**PLEASE NOTE:**

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
- WHERE RECYCLED CONCRETE AGGREGATE IS USED IN LAYERS 'A' OR 'B' THE MATERIAL SHOULD ALSO MEET THE ACCEPTABILITY CRITERIA OUTLINED IN TECHNICAL NOTE 6.20 "RECYCLED CONCRETE STRUCTURAL BACKFILL".



**NOTES:**

- CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2767, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- REQUIREMENTS FOR HANDLING AND INSTALLATION:
  - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS
  - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 1.5"
  - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 400 LBS/FT<sup>2</sup>. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

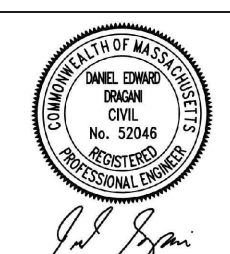
**STORMTECH SC-160LP UNDERGROUND STORMWATER MANAGEMENT CHAMBER SYSTEM**  
(NOT TO SCALE)

**SC-160LP 4" INSPECTION PORT DETAIL**  
(NOT TO SCALE)

#	DATE	REVISIONS
1		INIT
2		
3		
4		
5		
6		

**STORMTECH  
DETAILS**

24 DUSTIN ROAD  
READING, MA



DATE: 11/06/25  
DRAWN BY: RAD  
CHECKED BY: DED

SHEET  
5  
OF 5

SHEET SIZE 22X34



# ***STORMWATER OPERATION & MAINTENANCE PLAN***

**OWNER: 15 RICHMOND AVENUE LLC  
24 DUSTIN ROAD,  
READING, MA**

DRAFT - FOR 24 DUSTIN ROAD ONLY



**Owner's & Applicant's Name(s) & Responsible for Maintenance until transfer:**

***Applicant/Owner: 15 Richmond Avenue LLC***

The ongoing responsibility for O&M is the Owner, its successors and assigns. The owner, their successors and assigns are responsible for compliance with this document, the civil design plans and all state and federal applicable requirements as part of order of conditions from Reading Conservation Commission.

**Stormwater System Description:**

The drainage system consists of a subsurface infiltration system containing **Stormtech SC-160<sup>®</sup> chambers**. The proposed infiltration system will recharge roof runoff to ensure mitigation of stormwater rate and volume for 1-inch over the increased impervious area per town requirements.

**Planned Erosion and Sedimentation Control Measures**

Tubular sediment control ("silt sacks") shall consist of a 10-inch minimum diameter, compost filter tubes. Sediment control shall be around all areas of disturbance until standing grass or other surface stabilization methods shown on plan are realized. 1-in by 1-in stakes shall be installed at 8- ft maximum intervals. Ends of sediment control should overlap a minimum of six inches. Siltation fencing shall also be installed per above and detail around areas of disturbance.

**Drain Inlet Protection**

Temporary storm inlet protection, shall be placed in any existing catch basin within 200 feet downstream of the project during construction. The purpose is to prevent the inflow of sediments into the closed drainage system. The silt sacks shall remain in place until the proposed driveway is paved and a permanent vegetative cover is established, so the transport of sediment is no longer possible. The silt sacks shall be inspected and maintained on a weekly basis while in place.



### **Surface Stabilization**

The surface of all disturbed areas shall be stabilized during and after construction. Temporary measures shall be taken during construction to prevent surface erosion and siltation. Additional layers of protection may be required in the event issues arise or are expected due to site topography. No construction sediment shall be allowed to enter the infiltration system. All disturbed areas shall have the surface stabilized with a permanent vegetative cover, such as standing grass or as otherwise shown on plan. Some or all of the following measures will be utilized on this project as conditions may warrant.

- a. Temporary Seeding
- b. Temporary Mulching
- c. Permanent Seeding
- d. Placement of Sod
- e. Hydroseeding
- f. Placement of Hay
- g. Placement of Jute Netting
- h. Staked Burlap stack placement

### **Subsurface Infiltration System:**

Erosion controls may be required to be installed around the perimeter of the excavation to collect and/or divert runoff containing fines and sediments from entering the infiltration system during construction, if rain is expected. It may be required to install temporary swales, depending on the site grading and weather. The existing subgrade under the infiltration system bed area shall be treated as prescribed by the Pre-Engineered Stormtech system installation instructions and over excavation shall be completed if noted on the site plan. During construction, the Infiltration System should be inspected weekly and after every major storm event via inspection port, non-conductive rod and a flashlight. No sediment shall be found during construction or the system requires replacement. Ponding water inside the system (as visible from the inspection ports) after 72 hours of no rain indicates that the bottom of the system is clogged. If the system is found to



be clogged, the system shall be removed and reinstalled per Engineering direction and local permitting.

### **Long-Term Inspection and Maintenance Measures After Construction**

#### **Erosion Control**

Eroding or barren areas should be immediately re-vegetated on the site. Runoff shall gutter systems shall be cleaned of debris as prescribed herein.

#### **Subsurface Infiltration System:**

The subsurface infiltration system should be inspected after the first several rainfall events, followed by quarterly inspections (4 per year) for the first year and edited to twice per year if system is functioning properly. Inspection shall be via inspection port, non-conductive rod and a flashlight. The system shall also be inspected after the first major storm (Over 2 inches of rain within a 24 hour period). Water should drain from the stormtech system within 72 hours of a major storm event followed by a no rain condition and sediment shall not exceed 3 inches. In the event of excessive rain season, the system shall be given one (1) month to recover and if still not draining it should be evaluated. If the system does not drain within 72 hours after above one (1) month waiting period (if applicable) or if the system has 3 inches of sediment or more, further inspection will be required by excavating and removing the system end cap(s). Contractor performing this service shall evaluate the opportunity to clean and test the system from the open ends. If not feasible, it shall be replaced in full at the Owners expense. During invasive inspections or replacements, the contractor must follow all applicable permitting procedures, applicable federal, state and local codes, standards, permits and regulations.

The site also contains pervious pavers which are not a maintainable asset other than preventing debris from clogging the system at the surface. Pavement areas should be swept 2 times per year.



**Debris and Leaf Removal:**

Roof gutters should be inspected and cleaned of any debris and leaves 4 times per year for the first year and evaluated reduction to 2 times per year if conditions warrant. Installation of “gutter guards” or similar material is recommended in addition to the secondary screens at the base of the downspouts. Secondary screens shall be cleaned 4 times per year minimum.

**Erosion Control**

Once all areas are compacted and standing grass is had, tubular sediment erosion control shall be removed.

**Estimated Stormwater Operations & Maintenance Budget:**

\$1,750 annually increased with inflation yearly after 2025.

Invasive inspections or repairs to be quoted at time of issue

DRAFT - FOR 24 DUSTIN ROAD ONLY



**STORMWATER MANAGEMENT CONSTRUCTION PHASE**

**INSPECTION SCHEDULE AND EVALUATION CHECKLIST**

**PROJECT LOCATION:** \_\_\_\_\_

**WEATHER:** \_\_\_\_\_

<i>Inspection Date</i>	<i>Inspector</i>	<i>Area Inspected</i>	<i>Required Inspection Frequency if BMP</i>	<i>Comments</i>	<i>Recommendation</i>	<i>Follow-up Inspection Required (yes/no)</i>
		Erosion Control	<i>See above and note 2</i>			
		Infiltration System	<i>See above and note 2</i>			

- (1) Refer to the Massachusetts Stormwater Handbook, Volume Two: Stormwater Technical Handbook (Current version) for recommendations regarding frequency for inspection and maintenance of specific BMP's. The intervals above or as described in the stormwater handbook, whichever is stricter, shall be used
- (2) Inspections to be conducted by a qualified professional such as a Registered Professional Engineer - Civil.

**Limited or no use of sodium chloride salts, fertilizers or pesticides recommended. If used, use in accordance with applicable labeling & regulations only**

Stormwater Control Manager: \_\_\_\_\_



**STORMWATER MANAGEMENT AFTER CONSTRUCTION**

**INSPECTION SCHEDULE AND EVALUATION CHECKLIST**

**PROJECT LOCATION:** \_\_\_\_\_

**WEATHER:** \_\_\_\_\_

<i>Inspection Date</i>	<i>Inspector</i>	<i>Area Inspected</i>	<i>Required Inspection Frequency if BMP</i>	<i>Comments</i>	<i>Recommendation</i>	<i>Follow-up Inspection Required (yes/no)</i>
		Infiltration System	<i>See above and note 2</i>			
		Pervious Pavers	<i>See above and note 2</i>			

- (1) Refer to the Massachusetts Stormwater Handbook, Volume Two: Stormwater Technical Handbook (Current version) for recommendations regarding frequency for inspection and maintenance of specific BMP's. The intervals above or as described in the stormwater handbook, whichever is stricter, shall be used
- (2) Inspections to be conducted by a qualified professional such as a Registered Professional Engineer - Civil.

**Limited or no use of sodium chloride salts, fertilizers or pesticides recommended. If used, use in accordance with applicable labeling & regulations only**

Stormwater Control Manager: \_\_\_\_\_