

PROPOSED SINGLE-FAMILY DWELLING

31 Newton Rd,
Amesbury, Massachusetts

APPLICANT:

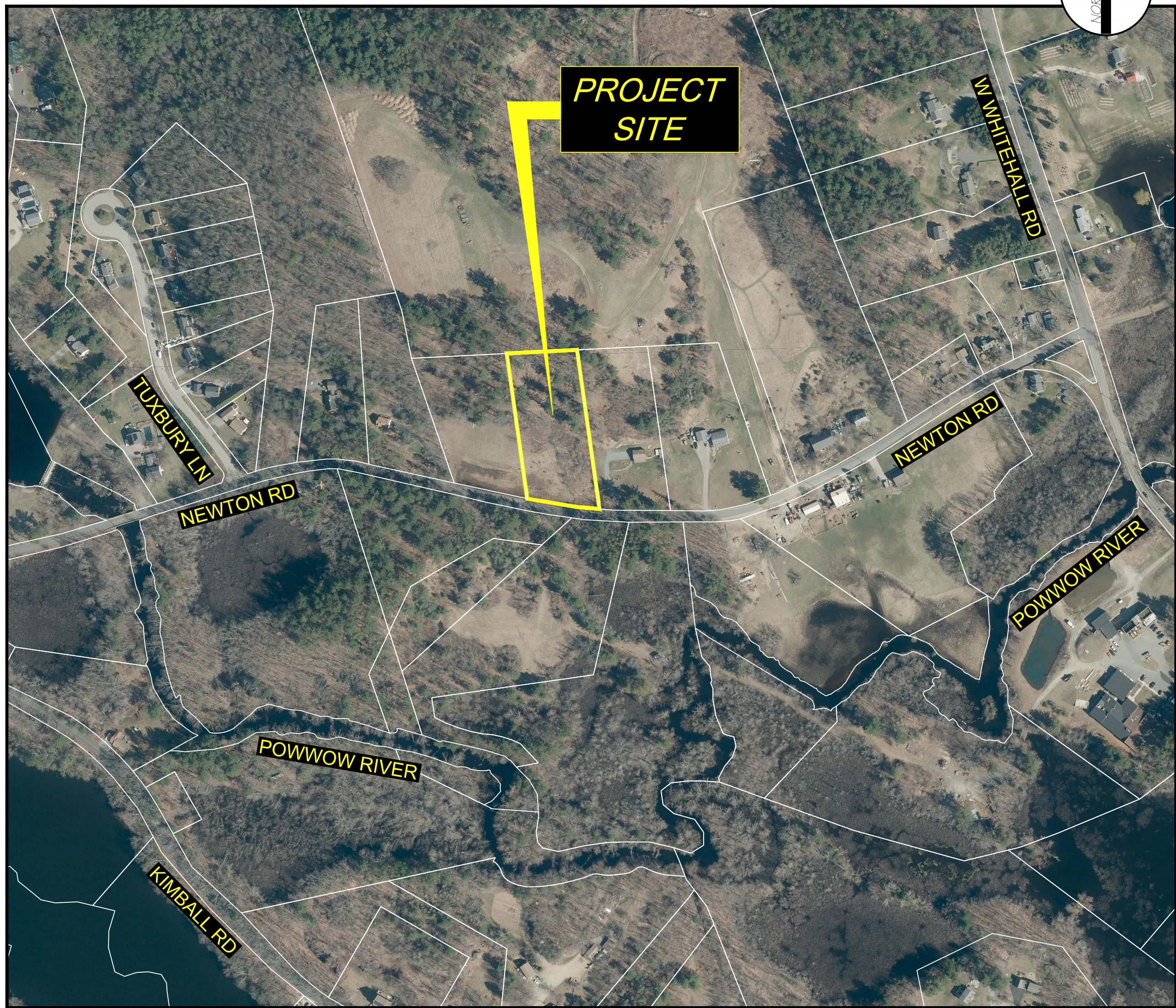
AC LAND LLC
15 LINCOLN STREET, SUITE 325,
WAKEFIELD, MA 01880

OWNER:

STELLMACH FAMILY
REVOCABLE TRUST OF 2017

LOCUS MAP

SCALE: 1" =250'



DRAWING INDEX

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C-800	STOPPING SIGHT DISTANCE PLAN
- -	EXISTING CONDITIONS PLAN (BY OTHERS)

HD Design

161 W. High Street,
Avon, MA 02322
Cell: (508) 840-1045
Email: hazem.dani87@gmail.com



[Signature]

No.	Submittal / Revision	App'd.	By	Date
0	NOTICE OF INTENT FILING	HD	HD	7/15/2024
1	Planning Board Special Permit App.	HD	HD	08/09/2024
2	Planning Board Response to Comments	HD	HD	01/15/2025

PREPARED FOR:

AC LAND LLC



AC Land LLC
AC Homes LLC

15 LINCOLN STREET,
SUITE 325,
WAKEFIELD, MA 01880

SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

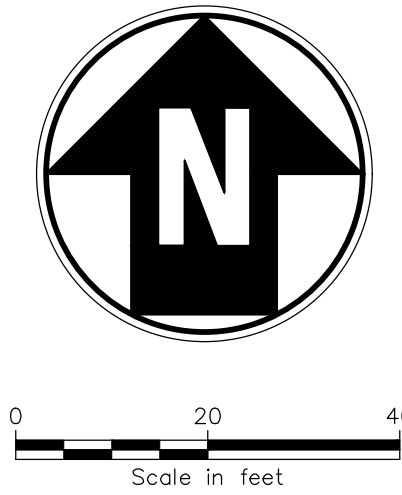
31 NEWTON ROAD,
AMESBURY, MA

TITLE SHEET

Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No: 13023	Scale: AS SHOWN

Drawing No:

C-001



PERC TESTS RESULT			
PERFORMED BY HAZEM DANI, WITNESSED BY DEP, NORWELL BOH AGENT			
LOCATION #	DATE	DEPTH	PERC RATE
TP-2	9/7/2024	36"-54"	14 MIN/INCH
TP-4	9/7/2024	24"-42"	14 MIN/INCH

SOIL TEST DATA:			
DATE: 09/07/2024			
PERFORMED BY HAZEM DANI, SE#13902			
TP-1	EL=181.0±	TP-4	EL=182.0±
0-10" Ap (10YR 3/2)		0-10" Ap (10YR 3/2)	
Bw (10YR 6/4)		Bw (10YR 6/4)	
DEPTH: 10"-24"		DEPTH: 9"-24"	
SANDY LOAM		SANDY LOAM	
MASSIVE, FRIABLE		MASSIVE, FRIABLE	
C1 (10YR 5/4)		C1 (10YR 5/4)	
DEPTH: 24"-120"		DEPTH: 24"-112"	
G. SANDY LOAM		G. SANDY LOAM	
REDOX: 72"		REDOX: 64"	
MANY (7.5YR ¾ & 2.5Y ½)		MANY (7.5YR ¾ & 2.5Y ½)	
MASSIVE, FRIABLE		MASSIVE, FRIABLE	
E.S.H.G.W.	EL=175.0±	E.S.H.G.W.	EL=176.67±
C2 (2.5Y 6/3)		C2 (2.5Y 6/3)	
DEPTH: 120"-132"		DEPTH: 112"-120"	
G. SANDY LOAM		G. SANDY LOAM	
MASSIVE, FRIABLE		MASSIVE, FRIABLE	
TP-2	EL=173.0±	TP-5	EL=116.50±
0-12" Ap (10YR 3/2)		0-6" Ap (10YR 3/2)	
Bw (10YR 6/4)		Bw (10YR 6/4)	
DEPTH: 12"-36"		DEPTH: 6"-20"	
SANDY LOAM		G. SANDY LOAM	
MASSIVE, FRIABLE		MASSIVE, FRIABLE	
C (10YR 5/4)		C (10YR 5/4)	
DEPTH: 36"-120"		DEPTH: 20"-120"	
G. SANDY LOAM		G. SANDY LOAM	
REDOX: 74"		REDOX: MANY (7.5YR ¾ & 2.5Y ½) @ 42"	
MANY (7.5YR ¾ & 2.5Y ½)		MASSIVE, FRIABLE	
MASSIVE, FRIABLE			
E.S.H.G.W.	EL=166.83±	E.S.H.G.W.	EL=113.0±
TP-3	EL=173.0±	TP-6	EL=138.0±
0-14" Ap (10YR 3/2)		0-14" Ap (10YR 3/2)	
Bw (10YR 6/4)		Bw (10YR 6/4)	
DEPTH: 14"-30"		DEPTH: 14"-30"	
SANDY LOAM		SANDY LOAM	
MASSIVE, FRIABLE		MASSIVE, FRIABLE	
C (10YR 5/4)		C (10YR 5/4)	
DEPTH: 30"-120"		DEPTH: 30"-120"	
G. SANDY LOAM		G. SANDY LOAM	
REDOX: 61"		REDOX: 72"	
MANY (7.5YR ¾ & 2.5Y ½) @		MANY (7.5YR ¾ & 2.5Y ½) @	
MASSIVE, FRIABLE		MASSIVE, FRIABLE	
E.S.H.G.W.	EL=167.92±	E.S.H.G.W.	EL=132.0±



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PREPARED FOR:
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 **AC Land LLC**
AC Homes LLC

15 LINCOLN STREET,
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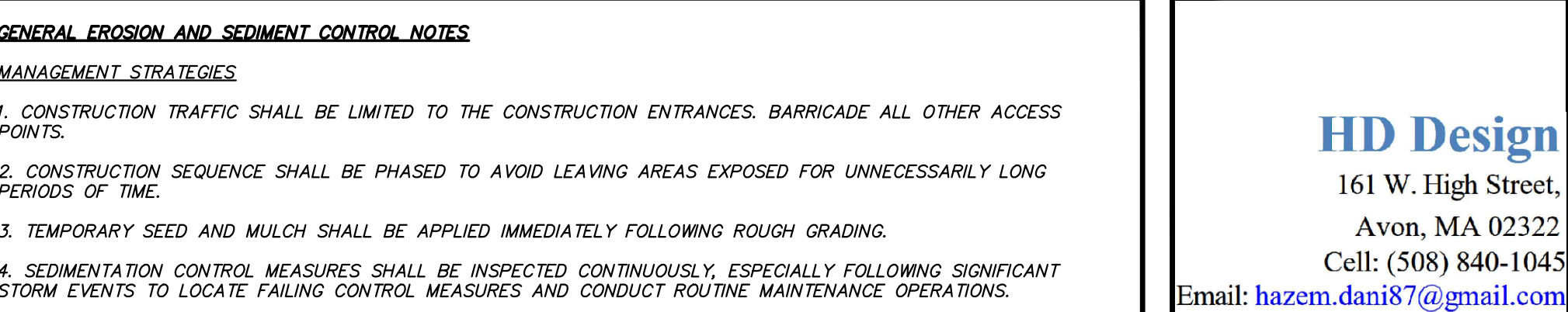
SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

31 NEWTON ROAD,
AMESBURY, MA

SITE LAYOUT
AND UTILITIES
PLAN

Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No: 13023	Scale: 1" = 20'

Drawing No:
C-002



THE RETENTION BASIN (STORMWATER MANAGEMENT AREAS) SHALL BE CONSTRUCTED AND STABILIZED PRIOR TO ANY FURTHER GRADING OR CLEARING ON ANY PORTION OF THE SITE, EXCEPT AS NECESSARY TO REACH THIS AREA. BASINS SHALL HAVE ALL SEDIMENT REMOVED ON A ROUTINE BASIS.

VEGETATIVE CONTROL PRACTICES

1. TOPSOIL W/ SILT FENCE PROTECTION: TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE DISTURBED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE APPROVED BY THE OWNER AND ENGINEER.

2. TEMPORARY SEEDING: THE TEMPORARY SEDIMENT BASINS, TOPSOIL STOCKPILE AND ROUGH GRADED AREAS SHALL BE RIGIDLY MAINTAINED WITH VEGETATION. SEED CRACKS SHALL BE SHOWN THAT ARE 20' LONG AND 1/8" DEEP.

1. ACCESS AND STAGING:

- CONSTRUCT A STABILIZED CONSTRUCTION ENTRANCE WITH A GEOTEXTILE BASE AND CRUSHED STONE TO MINIMIZE SOIL TRACKING ONTO PUBLIC ROADS.
- ESTABLISH DESIGNATED MATERIAL STORAGE AND STAGING AREAS, ENSURING THEY ARE ON FLAT, STABLE GROUND AWAY FROM DRAINAGE PATHS.

2. INSTALL PERIMETER CONTROLS:

- INSTALL SILT FENCES, STRAW WATTLES, AND OTHER SEDIMENT BARRIERS DOWNSLOPE OF DISTURBED AREAS.
- PROTECT CATCH BASINS WITH SEDIMENT FILTERS OR INLET PROTECTION.

		No.	Submital / Revision	App'd By	Date
	• CLEAR VEGETATION ONLY WITHIN DESIGNATED AREAS TO MINIMIZE DISTURBANCE.	0	NOTICE OF INTENT FILING	HD HD	7/15/2024
	• IMMEDIATELY STABILIZE DISTURBED AREAS WITH TEMPORARY EROSION CONTROLS (E.G., STRAW OR MULCH).	1	Planning Board Special Permit App.	HD HD	08/09/2024
4. TEMPORARY STORMWATER MANAGEMENT:		2	Planning Board Response To Comments	HD HD	01/15/2025
• CONSTRUCT TEMPORARY SEDIMENT TRAPS, BASINS, OR DIVERSION SWALES TO MANAGE RUNOFF DURING CONSTRUCTION.					
B. GRADING AND EXCAVATION					
1. ROUGH GRADING:					
• BEGIN ROUGH GRADING TO SHAPE THE SITE WHILE MINIMIZING EXPOSED SOIL.					
• REMOVE ALL ROCKS AND DEBRIS LARGER AND 3" IN DIAMETER FROM AREAS TO BE TEMPORARILY SEED.					

BLANKETS) TO ANY EXPOSED SURF THAT WILL REMAIN INACTIVE FOR MORE THAN 14 DAYS.

3. EROSION CONTROL FOR SLOPES:

- INSTALL SLOPE BREAKS, TERRACING, OR FIBER ROLLS ON LONG OR STEEP SLOPES TO SLOW WATER

PREPARED FOR:

AC LAND LLC

4. ESTABLISHMENT OF VEGETATIVE COVER

- EVENLY APPLY SEED IN ACCORDANCE WITH THE SPECIES AND RATE INDICATED ABOVE BY MEANS OF A SEEDING MACHINE OR HAND-APPLIED

• APPLY MULCH IMMEDIATELY FOLLOWING SEEDING.

• VERIFY SEEDING DATES WITH ENGINEER. IF ENGINEER DETERMINE'S THAT SEED CANNOT BE APPLIED DUE TO CLIMATE, TOPSOIL SHALL NOT BE SPREAD AND MULCHING SHALL BE APPLIED TO THE EXPOSED SURFACE TO STABILIZE SOILS UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.

• PERMANENT SEEDING SHALL BE APPLIED BETWEEN APRIL 15 AND JUNE 1 AND AUGUST 15 AND SEPTEMBER 30. TEMPORARY SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS OUTSIDE THIS TIME

15 LINCOLN STREET,
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A. FOUNDATION WORK: • EXCAVATE AND POUR FOUNDATIONS, ENSURING THAT STOCKPILED SOIL IS COVERED WITH TARPS OR EROSION CONTROL BLANKETS AND KEPT AT LEAST 50 FEET FROM WATER BODIES OR DRAINAGE PATHS. • INSTALL FOUNDATION DRAINAGE SYSTEMS (E.G., PERIMETER DRAINS).	SITE PLANS
B. UTILITY INSTALLATION: • DIG TRENCHES FOR UTILITIES (E.G., WATER, SEWER, ELECTRICITY), AND BACKFILL IMMEDIATELY AFTER INSTALLATION. • STABILIZE UTILITY TRENCHES WITH TEMPORARY MULCH OR SEEDING.	5-BEDROOM
9. PERMANENT STORMWATER MANAGEMENT INSTALLATION	SINGLE-FAMILY
	DWELLING

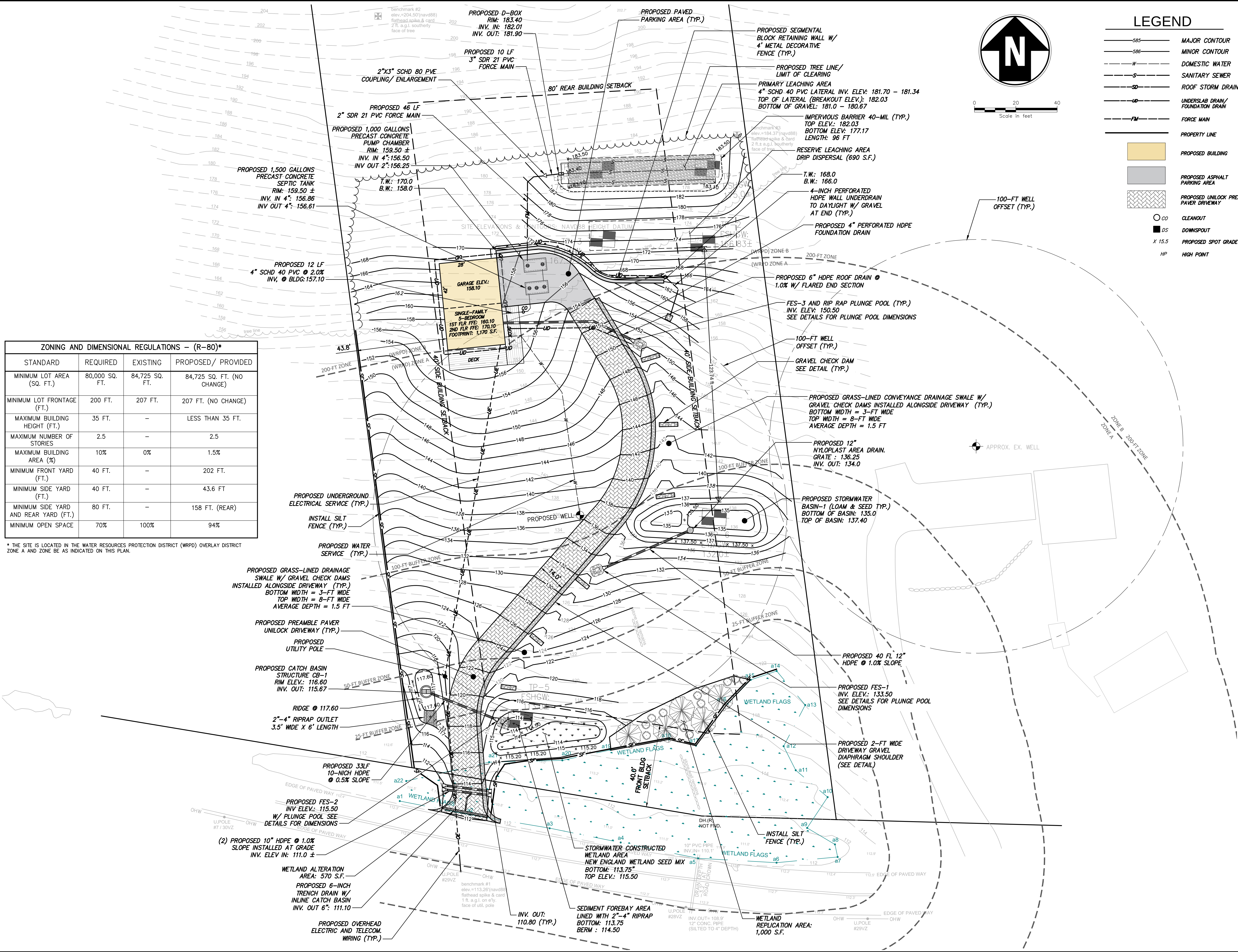
C. SWALES AND DRAINAGE SYSTEMS:

- BUILD VEGETATED SWALES OR INSTALL PERMANENT DRAINAGE DITCHES WITH APPROPRIATE ARMORING (E.G., RIPRAP/ CHECKDAMS).

11. PERMANENT VEGETATIVE COVER: • SEED OR SOD ALL DISTURBED AREAS WITH EROSION-RESISTANT GRASS SPECIES. • USE COMPOST BLANKETS OR STRAW MULCH TO PROTECT SEEDED AREAS UNTIL VEGETATION IS ESTABLISHED. 12. HARDSCAPING AND FINISHING: • INSTALL HARDSCAPED FEATURES LIKE PATIOS, SIDEWALKS, AND DRIVEWAYS. • USE PERMEABLE MATERIALS WHEN POSSIBLE TO REDUCE IMPERVIOUS SURFACES.	DEMOLITION AND SEDIMENTATION AND EROSION CONTROL PLAN
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13. REMOVAL OF TEMPORARY EROSION CONTROL UPON FINAL STABILIZATION OF DISTURBED AREAS.	Designed By: HD	Drawn By: HD	Checked By: -
	Issue Date: 07/01/2024	Project No: 13023	Scale: 1" = 20'

Drawing No:
C-003



No.	Submital / Revision	App'd. By	Date
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AC Land LLC
AC Homes LLC

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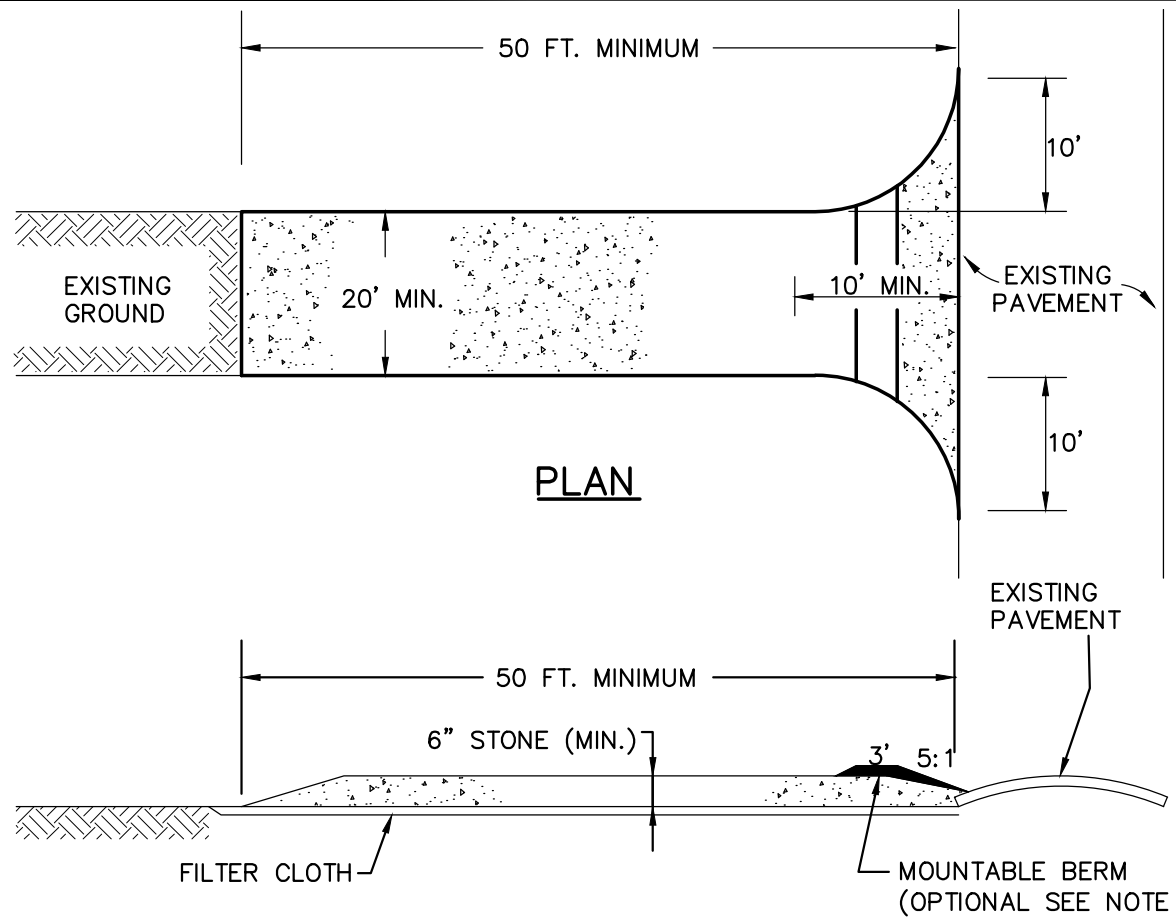
SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

31 NEWTON ROAD,
AMESBURY, MA

SITE LAYOUT
AND UTILITIES
PLAN

Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No: 13023	Scale: 1" = 20'

Drawing No:
C-101

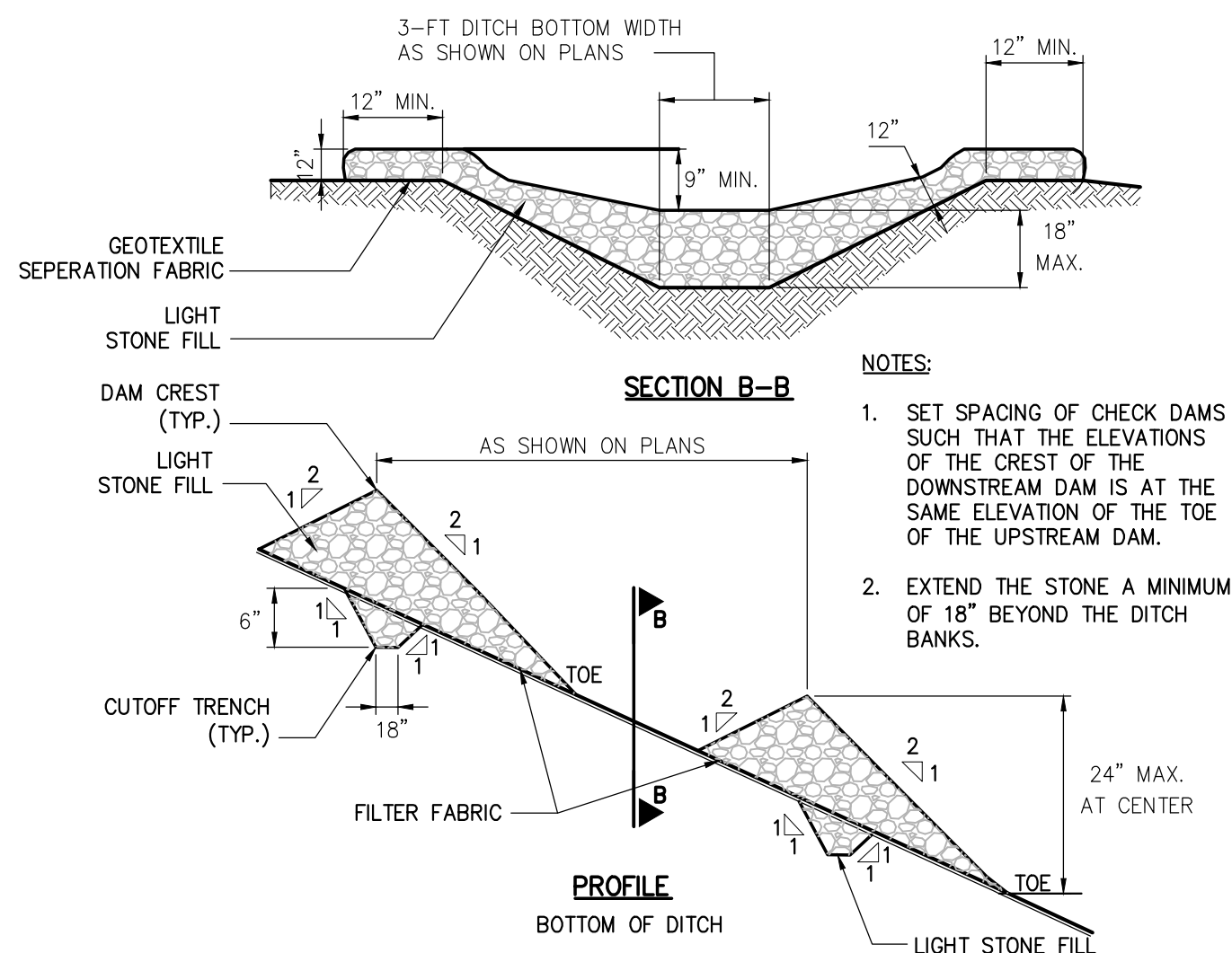


CONSTRUCTION SPECIFICATIONS:

- STONE SIZE: USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- LENGTH: RECOMMEND GREATER THAN OR EQUAL TO 50 FEET WHERE SOILS ARE SANDS AND GRAVELS AND 100 FEET IN SILTS AND CLAYS.
- THICKNESS: NOT LESS THAN SIX (6) INCHES.
- WIDTH: FIFTEEN (15) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OF EGRESS OCCURS.
- FILTER CLOTH: SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
- SURFACE WATER: ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM SHALL BE INSTALLED.
- MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY AND ON AN ONGOING BASIS.
- PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.

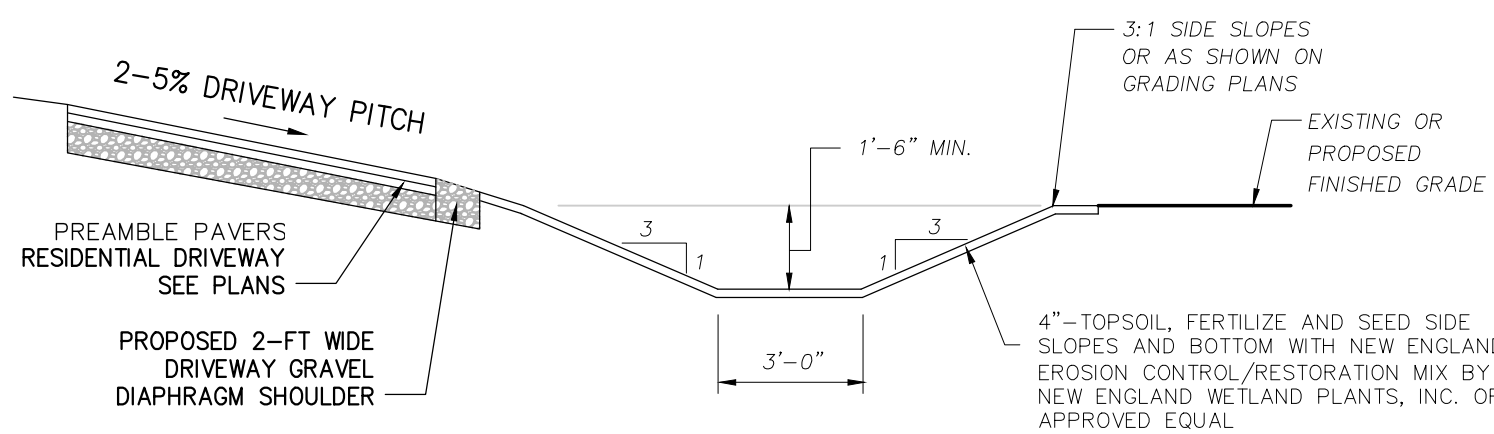
1 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NO SCALE



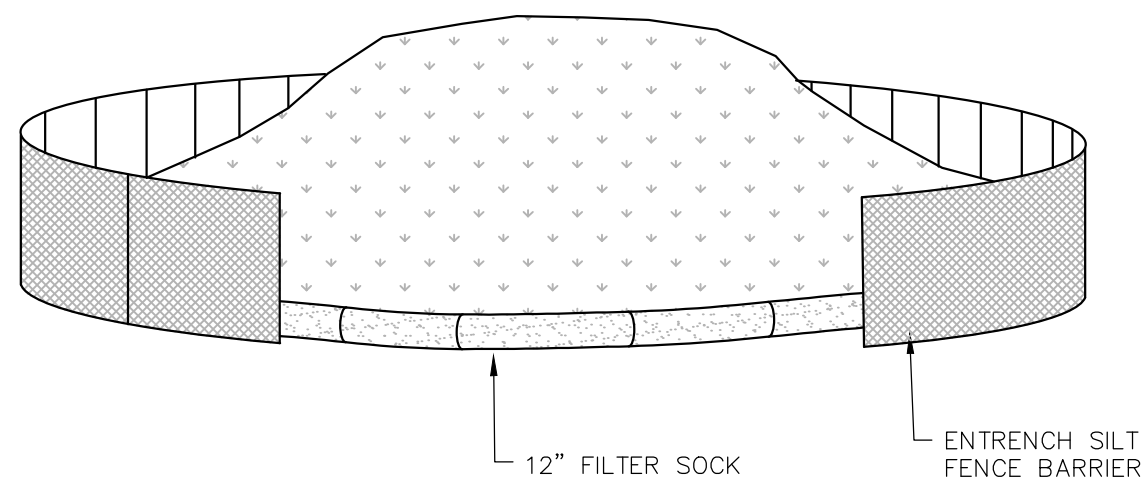
5 STONE CHECK DAM DETAIL

SCALE: NO SCALE



8 DRIVEWAY & GRASS-LINED SWALE CROSS SECTION

SCALE: NO SCALE

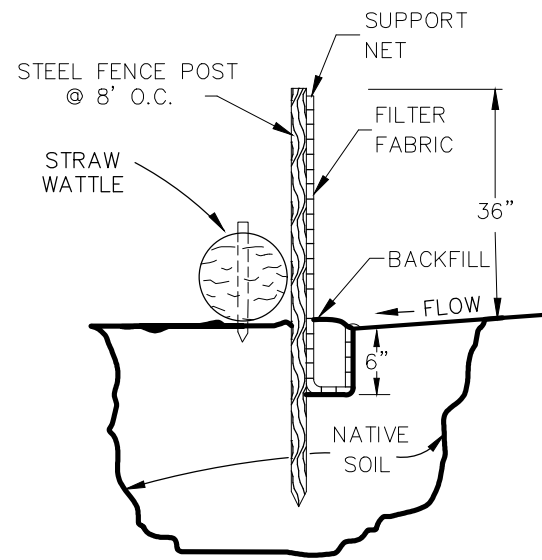


INSTALLATION NOTES:

- AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- MAXIMUM SLOPE OF STOCKPILE SHALL BE 2:1.
- UPON COMPLETION OF STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH STRAW BALES, THEN STABILIZED WITH VEGETATION, OR COVERED.
- SEE SPECIFICATIONS FOR INSTALLATION OF STRAW BALES.

2 SOIL STOCKPILE

SCALE: NO SCALE

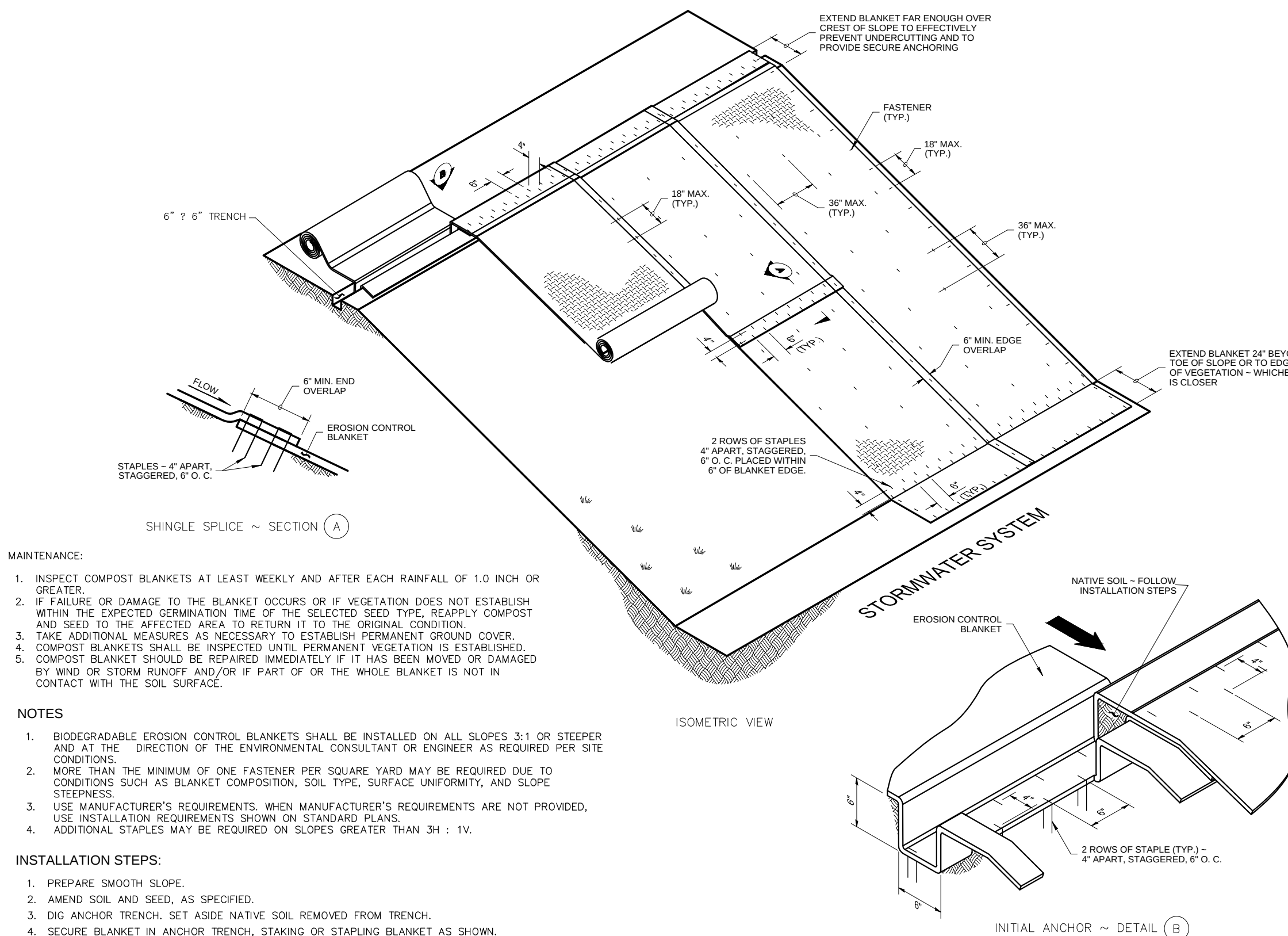


NOTES:

- THE FENCING SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT TO ENSURE ITS PROPER FUNCTIONING. IF THE FENCING IS DAMAGED IT SHALL BE REPAIRED IMMEDIATELY.
- WHEN FENCE IS NO LONGER NEEDED, THE ACCUMULATED SILT, ALL THE POSTS AND FABRIC SHALL BE REMOVED AND TRENCH BACKFILLED WITH TOPSOIL AND SEEDED.

6 SILT FENCE DETAIL

SCALE: NO SCALE



MAINTENANCE:

- INSPECT COMPOST BLANKETS AT LEAST WEEKLY AND AFTER EACH RAINFALL OF 1.0 INCH OR GREATER.
- IF FAILURE OR DAMAGE TO THE BLANKET OCCURS OR IF VEGETATION DOES NOT ESTABLISH WITHIN THE EXPECTED GERMINATION TIME OF THE SELECTED SEED TYPE, REAPPLY COMPOST AND SEED TO THE AFFECTED AREA TO RETURN IT TO THE ORIGINAL CONDITION.
- TAKE ADDITIONAL MEASURES AS NECESSARY TO ESTABLISH PERMANENT GROUND COVER.
- COMPOST BLANKETS SHALL BE INSPECTED UNTIL PERMANENT VEGETATION IS ESTABLISHED.
- COMPOST BLANKET SHOULD BE REPAIRED IMMEDIATELY IF IT HAS BEEN MOVED OR DAMAGED BY WIND OR STORM RUNOFF AND/OR IF PART OF THE WHOLE BLANKET IS NOT IN CONTACT WITH THE SOIL SURFACE.

NOTES

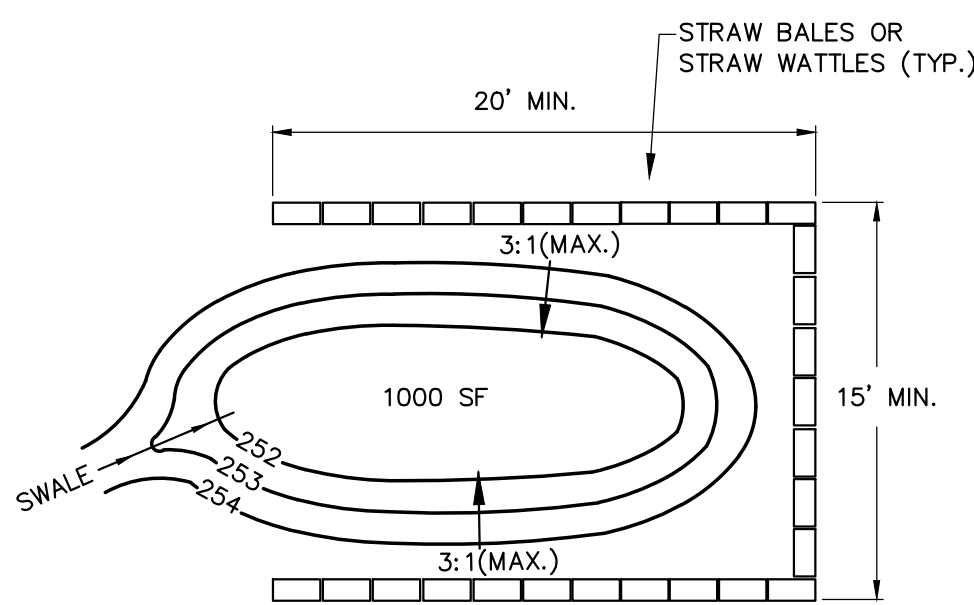
- BIODEGRADABLE EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL SLOPES 3:1 OR STEEPER AND AT THE DIRECTION OF THE ENVIRONMENTAL CONSULTANT OR ENGINEER AS REQUIRED PER SITE CONDITIONS.
- IF FAILURE OF THE MINIMUM OF ONE FASTENER PER SQUARE YARD MAY BE REQUIRED DUE TO CONDITIONS SUCH AS BLANKET COMPOSITION, SOIL TYPE, SURFACE UNIFORMITY, AND SLOPE STEEPNESS.
- USE MANUFACTURER'S REQUIREMENTS. WHEN MANUFACTURER'S REQUIREMENTS ARE NOT PROVIDED, USE INSTALLATION REQUIREMENTS SHOWN ON STANDARD PLANS.
- ADDITIONAL FASTENERS MAY BE REQUIRED ON SLOPES GREATER THAN 3H : 1V.

INSTALLATION STEPS:

- PREPARE SMOOTH SLOPE.
- AMEND SOIL AND SEED, AS SPECIFIED.
- DIG ANCHOR TRENCH, SET ASIDE NATIVE SOIL REMOVED FROM TRENCH.
- SECURE BLANKET IN ANCHOR TRENCH, STAKING OR STAPLING BLANKET AS SHOWN.
- REPLACE NATIVE SOIL PREVIOUSLY REMOVED FROM TRENCH.
- ROLL BLANKET DOWN THE SLOPE IN A CONTROLLED MANNER, TAKING CARE TO REMOVE EXCESS SLACK, AND TAKING CARE NOT TO STRETCH BLANKET.
- STAKE OR STAPLE BLANKET AS SHOWN SO THERE ARE NO GAPS BETWEEN THE BLANKET AND THE SOIL/STAPLE WHILE UNROLLING BLANKET TO MINIMIZE WALKING ON BLANKET.

9 BIODEGRADABLE EROSION CONTROL BLANKET FOR SLOPES 3:1 OR STEEPER

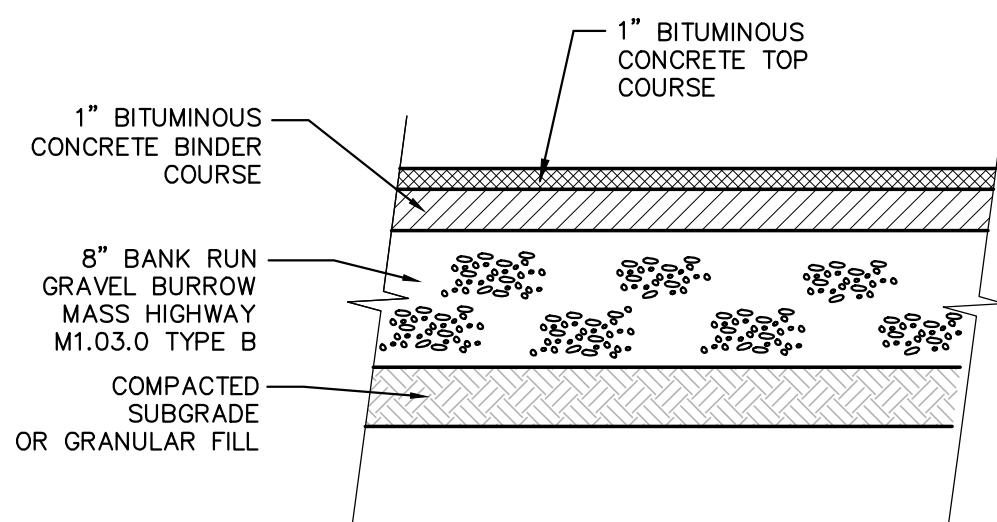
SCALE: NO SCALE



- SEDIMENT BASINS AND TRAPS SHALL BE SIZED IN ACCORDANCE WITH EPA NPDES GUIDELINES.
- SEDIMENT TRAPS ARE UTILIZED FOR DRAINAGE AREAS SMALLER THAN 5 ACRES. THE SEDIMENT TRAP SHOULD HAVE A MINIMUM VOLUME BASED ON 1/2 INCH OF STORAGE FOR EACH ACRE OF DRAINAGE AREA. THIS VOLUME EQUATES TO 1800 CUBIC FEET OF STORAGE OR 67 CUBIC YARDS FOR EACH ACRE OF DRAINAGE AREA.
- SEDIMENT BASIN ARE UTILIZED FOR DRAINAGE AREAS FROM 5 TO 100 ACRES. THE TEMPORARY SEDIMENT BASIN SHOULD HAVE A MINIMUM VOLUME OF 3,600 CUBIC FEET FOR EACH ACRE OF DRAINAGE AREA.
- LOCATION DICTATED BY SEQUENCE OF CONSTRUCTION. CONTRACTOR TO PROVIDE WHERE NECESSARY TO FILTER RUNOFF FROM CONSTRUCTION AREAS PRIOR TO DISCHARGE.

3 TEMPORARY SEDIMENT BASIN

SCALE: NO SCALE

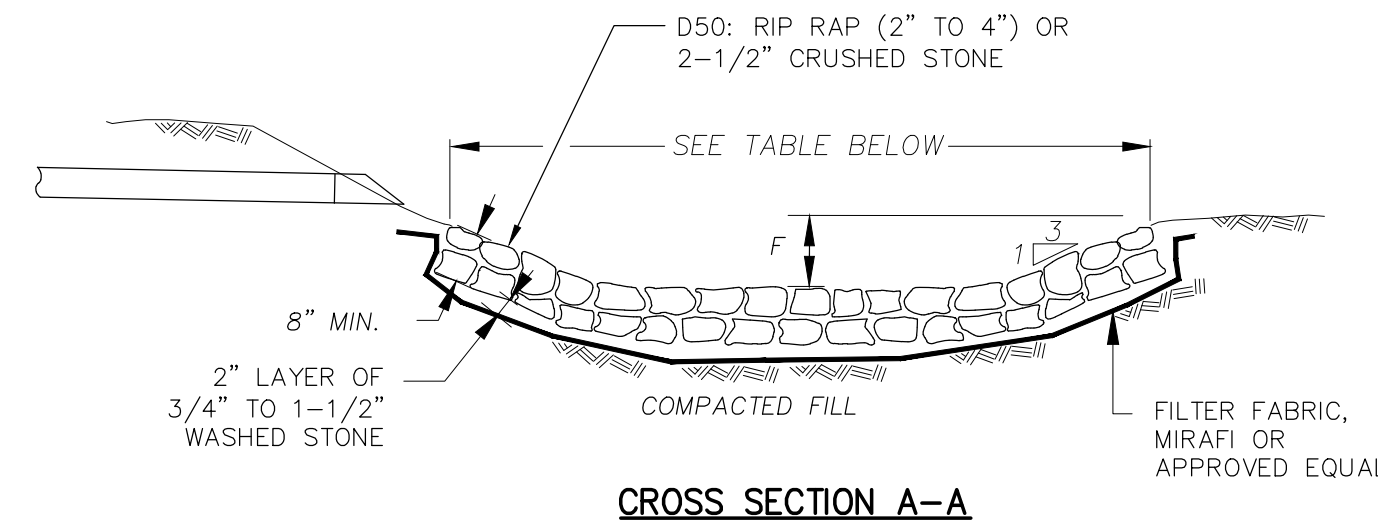
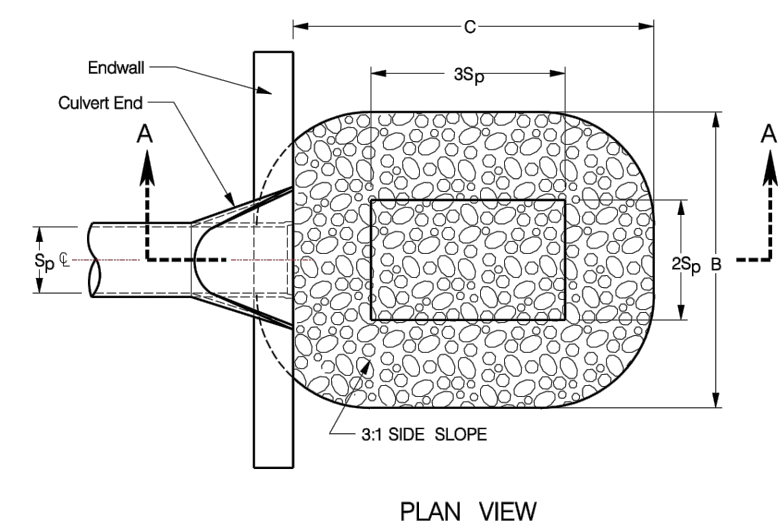


NOTES:

- COMPACTED LIFTS NOT TO EXCEED 8 INCHES BETWEEN COURSES.
- CONTRACTOR TO PROOF ROLL SUBGRADE PRIOR TO GRAVEL PLACEMENT.

4 BITUMINOUS PAVEMENT SECTION

SCALE: NO SCALE



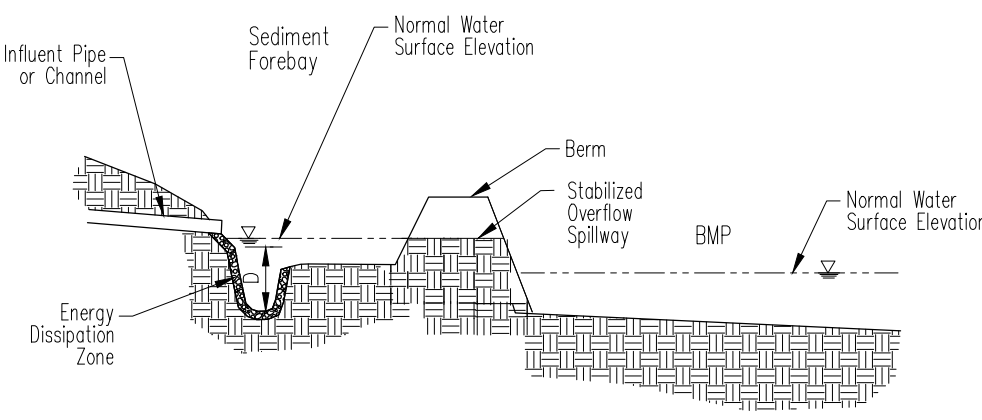
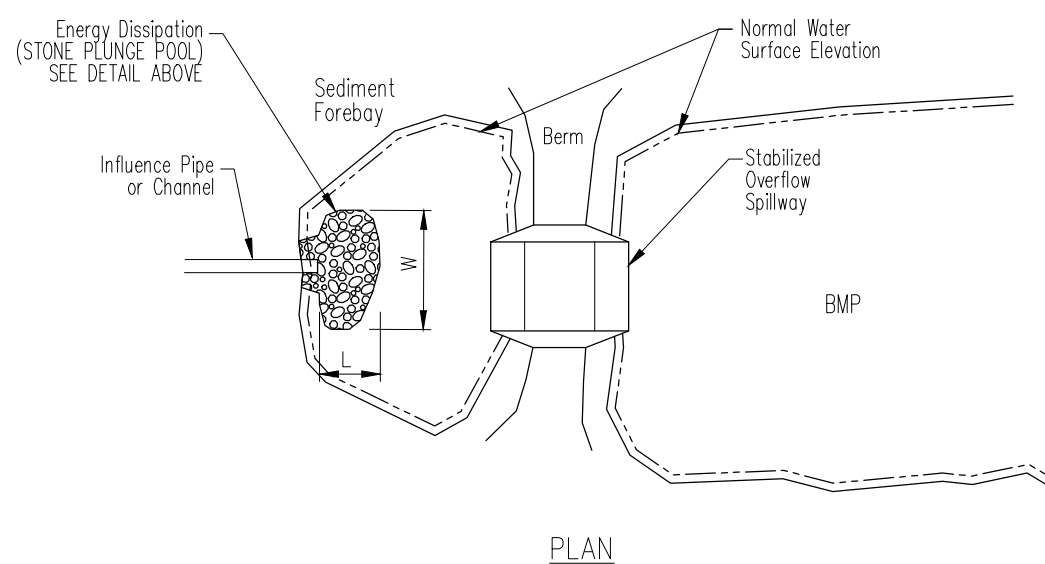
Preformed Scour Hole Calculation Results

	Q*	Do	TW*	Depression	C	3Sp	B	2Sp	d50***
	(cfs)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(ft.)	(in.)
FES-1	2.02	1.0	0.30	0.50	6.0	3.0	5.0	2.0	0.11
FES-2	3.03	0.8	0.30	0.50	5.0	2.50	4.25	1.67	0.23
FES-2	1.0	0.5	0.30	0.50	5.0	2.50	4.25	1.67	0.01

- *This is the actual 100-year flow as calculated through basin design software (HydroCAD)
**A conservative tail-water of 0.30 was utilized.
***A minimum rip-rap size of 2-4" should be utilized for FES-1 & FES-2 & FES-3

7 STONE PLUNGE POOL

SCALE: NO SCALE



L = Plunge Pool Length
W = Plunge Pool Width
D = Plunge Pool Depth

10 SEDIMENT FOREBAY DETAIL

SCALE: NO SCALE

HD Design
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 **AC Land LLC**
AC Homes LLC
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SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

31 NEWTON ROAD,
AMESBURY, MA

SITE DETAILS - 1

Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No.: 13023	Scale: NONE

Drawing No:
C-201



1. PROVIDE HEEL PROOF AND H-20 FRAME AND GRATE.
2. CHANNEL SECTIONS TO BE 24-INCH IN LENGTH.
3. INSTALL AN INLINE CATCH BASIN AT THE OUTLET.
4. PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION.



1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL INFORMATION CONTAINED HEREIN TO BE APPROVED BY THE PRODUCT MANUFACTURER PRIOR TO INSTALLATION.



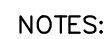
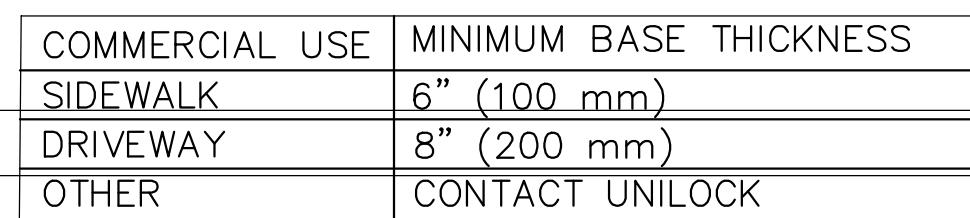
1. STANDARD PRECAST DRAIN MANHOLE BY SCITUATE PRECAST OR APPROVED EQUAL. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.



1. COMMON FILL MATERIAL TO CONSIST OF GRANULAR MATERIAL CONTAINING NO STONES LARGER THAN 6" IN GREATEST DIMENSION.
2. BACKFILL WITH CLEAN SAND TO 12" OVER PIPE FOR WATER MAINS.
3. BACKFILL WITH SELECT MATERIAL CONTAINING NO STONES LARGER THAN 3" IN GREATEST DIMENSION TO 12" OVER PIPE FOR SEWER AND DRAIN PIPES.
4. PROVIDE SCREENED GRAVEL BEDDING TO MID PIPE DIAMETER FOR SANITARY SEWERS AND WHERE GROUNDWATER IS ENCOUNTERED AS DIRECTED BY THE ENGINEER.
5. REMOVE UNSUITABLE MATERIAL BELOW GRAVEL IF ENCOUNTERED, TO SUITABLE DEPTHS AS DIRECTED BY ENGINEER AND REPLACE WITH CLEAN GRANULAR FILL.

NOT

- NOTES:
1. ALL TRENCH CONSTRUCTION TO CONFORM TO APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
 2. COMPACT FILL AND TAMP PIPE TO 93% MAX. DENSITY UNLESS OTHERWISE SPECIFIED.



1. WALLS TO COMPLY WITH ALL APPLICABLE STATE AND CODES AS REQUIRED. CONSULT WITH THE BUILDING DEPARTMENT PRIOR TO INSTALLATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A BUILDING PERMIT AND PROVIDING A MA STAMPED DRAWINGS AND CALCULATIONS IF REQUIRED BY THE CITY OR STATE CODES AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVALS PRIOR TO INSTALLATION.



Drawing No:

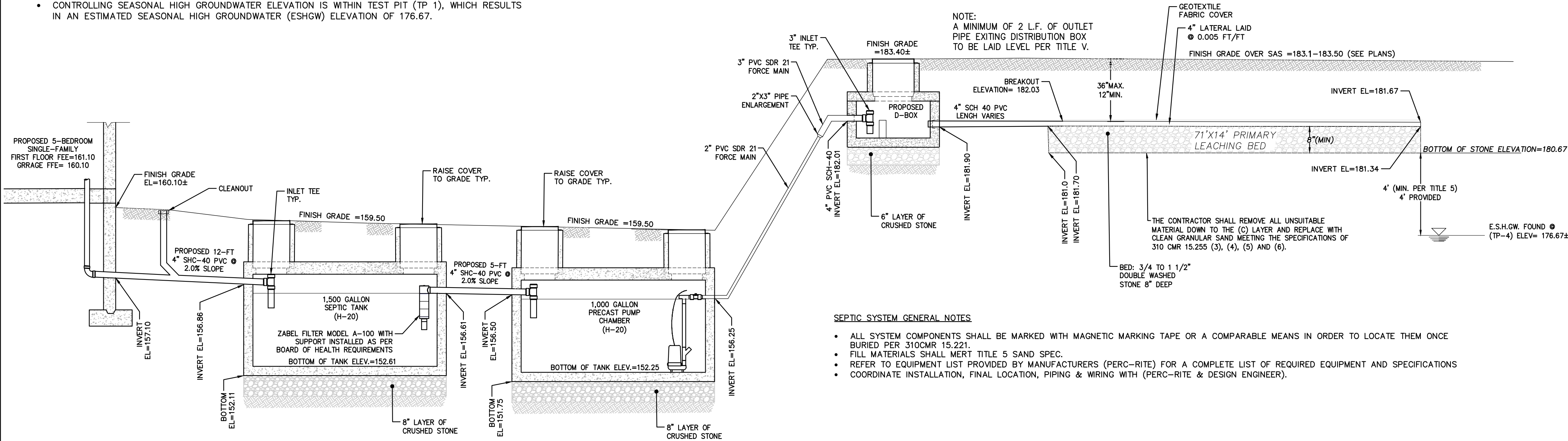
C-202

SOIL ABSORPTION SYSTEM SIZING INFORMATION:

- FOR A SINGLE-FAMILY WITH 5 BEDROOMS, THE DAILY DESIGN FLOW= (110 GALLON PER DAY/ BEDROOM) X 5 BEDROOMS = 550 GPD, BASED ON TITLE 5 (310CMR 15.203).
- SOIL PERCOLATION RATE USED FOR DESIGN= (14 MINUTE/INCH) OBTAINED IN THE FIELD AT TEST PIT (TP 2 & TP 4) BY HD DESIGN AND WITNESSED BY THE CITY OF AMESBURY 09/07/2024.
- PER 310CMR, SECTION 15.242 & 15.243, LOADING RATE FOR SANDY LOAM CLASS II (15 MIN/INCH) SOILS IS =0.56 GPD/SF FOR GRAVITY EFFLUENT LOADING RATE SHALL BE USED.
- THE USE OF LEACHING BED IN ACCORDANCE WITH 310CMR 15.252 WAS SELECTED
- REQUIRED BED AREA = $\left(\frac{550 \text{ GPD}}{0.56 \text{ GPD/SF}} \right) = 983 \text{ SF}$
- USE GRAVEL LEACHING BED WITH 4-INCH PVC LATERALS.
- LATERAL LENGTH = 71-FT
- BED WIDTH = 14-FT
- LATERAL SPACING: 5-FT BETWEEN THREE LATERALS AND 2-FT FROM END LATERAL TO END OF GRAVEL BED
- PROVIDED LEACHING BED AREA = 14 FT X 71 FT = 994 SF > 983 SF ---> O.K.
- CONTROLLING SEASONAL HIGH GROUNDWATER ELEVATION IS WITHIN TEST PIT (TP 1), WHICH RESULTS IN AN ESTIMATED SEASONAL HIGH GROUNDWATER (ESHW) ELEVATION OF 176.67.

REQUIRED INSPECTIONS:

- THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER/ CITY 48-HOURS IN ADVANCE FOR THE FOLLOWING REQUIRED INSPECTIONS:
- BOTTOM OF BED INSPECTION, VERIFICATION OF SOIL MATERIAL AND GROUNDWATER AND REMOVAL OF UNSUITABLE MATERIAL IF ANY.
 - INSPECTION OF TITLE-5 PERC SAND USED FOR FILL.
 - INSPECTION(S) OF LEACHING AREAS, SEPTIC TANK, PUPM CHAMBER AND OTHER SEPTIC COMPONENTS PRIOR TO BACKFILL.
 - FINAL GRADING AND STABILIZATION INSPECTION.



SEPTIC SYSTEM GENERAL NOTES

- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED PER 310CMR 15.221.
- FILL MATERIALS SHALL MEET TITLE 5 SAND SPEC.
- REFER TO EQUIPMENT LIST PROVIDED BY MANUFACTURERS (PERC-RITE) FOR A COMPLETE LIST OF REQUIRED EQUIPMENT AND SPECIFICATIONS
- COORDINATE INSTALLATION, FINAL LOCATION, PIPING & WIRING WITH (PERC-RITE & DESIGN ENGINEER).

1 SANITARY SYSTEM PROFILE

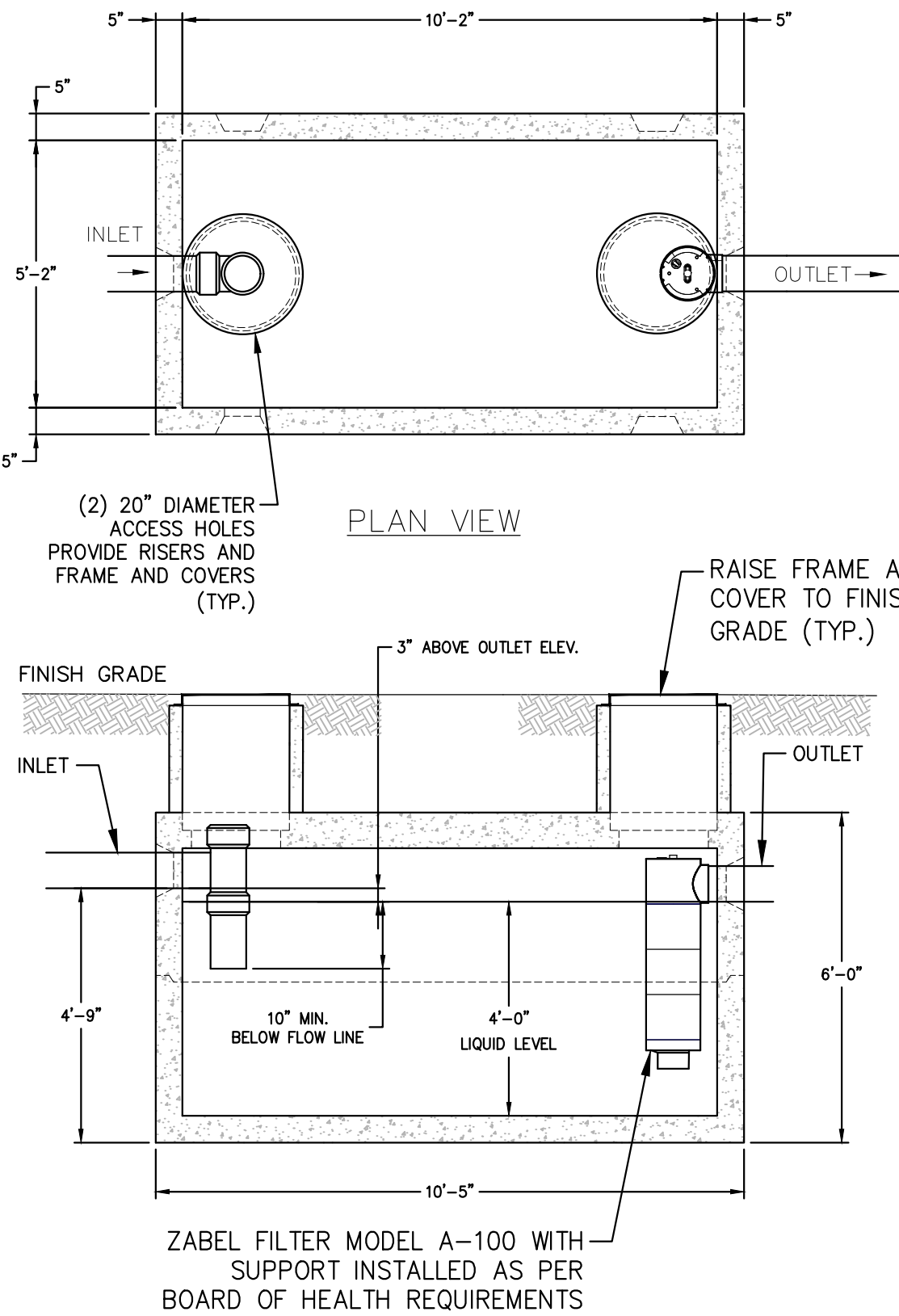
SCALE: NO SCALE

DESIGN NOTES:

- SEPTIC TANK SHALL BE TO THE DIMENSIONS AS SHOWN ON THE DETAILS AND MANUFACTURED BY SCIUTATE RAY PRECAST, OR APPROVED EQUAL.
- CONSTRUCTION JOINT TO HAVE MINIMUM 1" BUTYL SEALANT.
- PROVIDE EXTERIOR BITUMINOUS COATING IF REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING BUOYANCY CALCULATIONS BASED ON FIELD CONDITIONS AND TANKS UTILIZED. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY NECESSARY BALLAST TO ENSURE TANK STABILITY.

CONSTRUCTION OF SEPTIC TANKS NOTES (310_CMR 15.223):

- SEPTIC TANKS SHALL BE CONSTRUCTED OF SOUND AND DURABLE WATERTIGHT MATERIALS NOT SUBJECT TO EXCESSIVE CORROSION, DECAY, OR FROST DAMAGE, OR CRACKING OR BUCKLING DUE TO SETTLEMENT OR BACKFILLING. SEPTIC TANK SHALL BE PRECAST REINFORCED CONCRETE.
- TANK CONSTRUCTION MATERIALS SHALL MEET THE FOLLOWING MINIMUM SPECIFICATIONS OR AN ASTM EQUIVALENT STANDARD:
 - CONCRETE STRENGTH F'C 4,000 PSI @ 28 DAYS. DENSITY 140 PCF
 - CEMENT, PORTLAND TYPE I OR III PER ASTM C150-96
 - ADMIXTURES PER ASTM C233-95
 - REINFORCING PER ASTM A615 FOR WIRE FABRIC. GRADE 40/60 R'D OR EQUIVALENT.
 - DESIGN LOADING H-20
 - MINIMUM WALL THICKNESS: FOUR INCHES; THREE-INCH THICKNESS IS ALLOWABLE IF REINFORCED.
 - THE TANK SHALL BE WATERTIGHT.
- TANKS, COVERS, CONNECTIONS AND PIPING SHALL BE DESIGNED AND CONSTRUCTED SO AS TO WITHSTAND AN ANTICIPATED MINIMUM H-10 LOADING. ANY TANK INSTALLED IN A LOCATION WHERE THERE IS THE POTENTIAL FOR VEHICLES OR HEAVY EQUIPMENT TO PASS OVER IT SHALL BE DESIGNED TO WITHSTAND AN H-20 LOADING. (4) SEPTIC TANKS SHALL BE MANUFACTURED IN ACCORDANCE WITH A QUALITY CONTROL/QUALITY ASSURANCE PROGRAM. THE PROGRAM FOR CONCRETE TANKS SHALL BE IN CONFORMITY WITH ASTM STANDARD C 1227-96 OR AN ASTM EQUIVALENT STANDARD. CONCRETE TANKS SHALL BE EMBOSSED WITH A SEAL STATING THAT THIS ASTM STANDARD HAS BEEN MET.



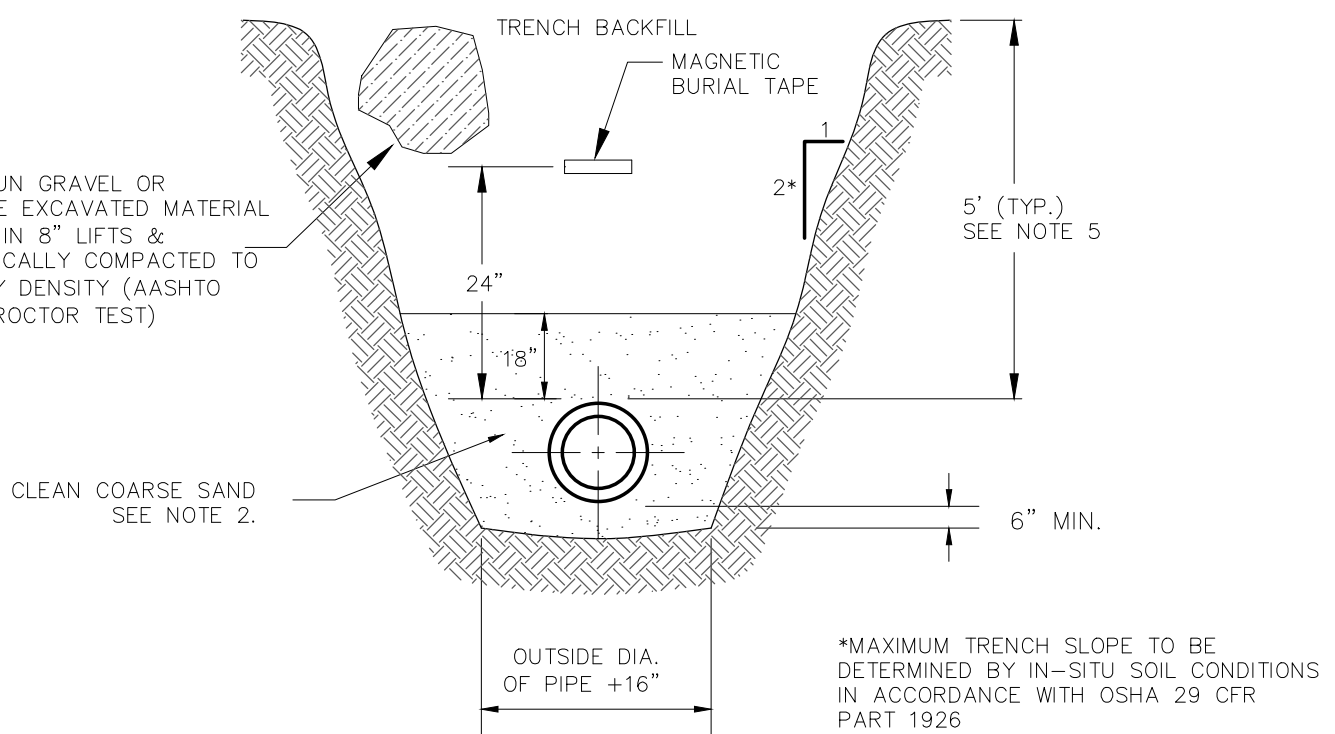
PLAN VIEW

END-SECTION

CROSS-SECTION

2 1,500 PRECAST CONCRETE SEPTIC TANK

SCALE: NO SCALE

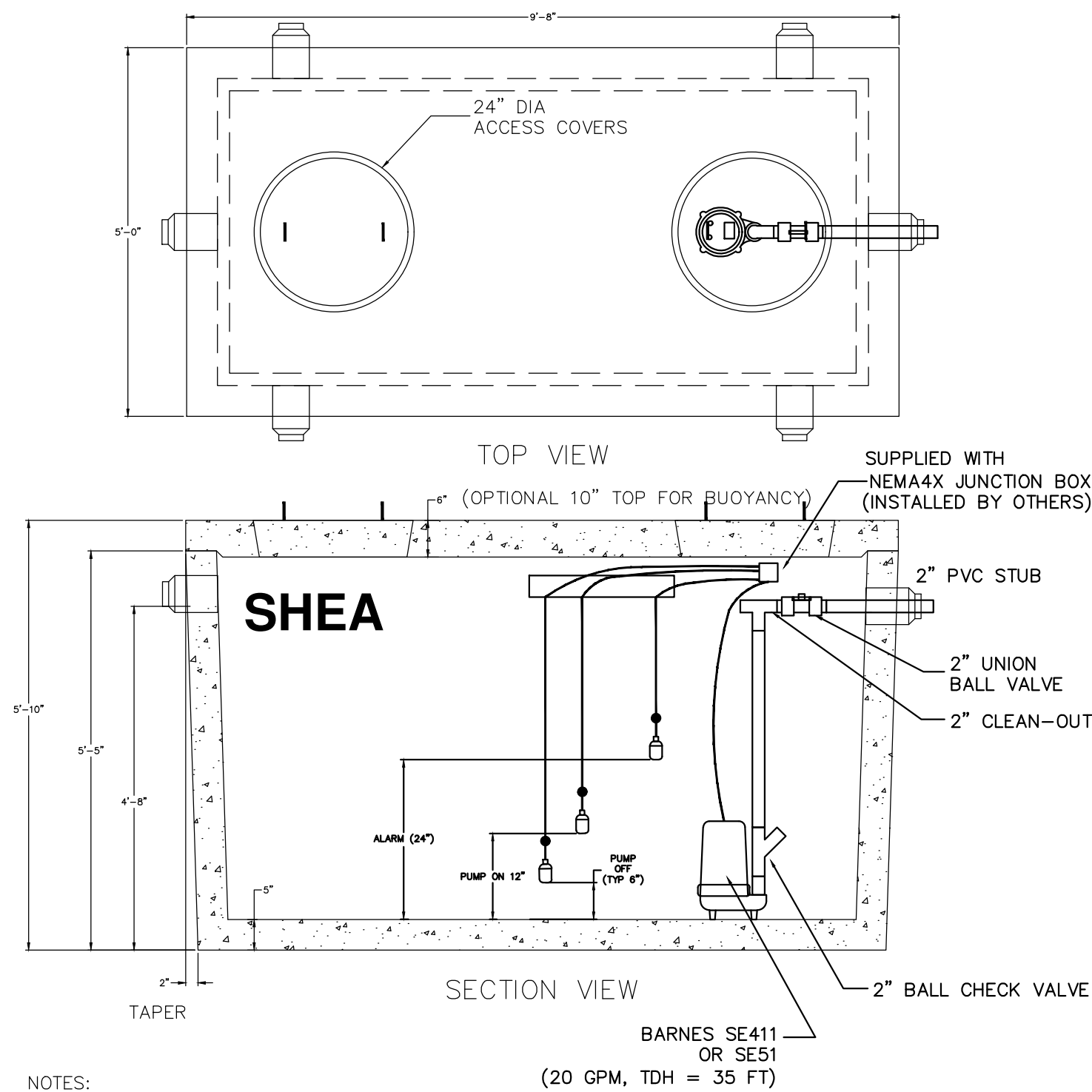


NOTES:

- NO DEBRIS, FROZEN MATERIAL, LARGE CLODS, STONES OR ORGANIC MATERIAL SHALL BE PLACED IN TRENCH BACKFILL. TRENCH BACKFILL SHALL CONSIST OF SUITABLE EXCAVATED MATERIAL OR OTHER APPROVED MATERIAL.
- CLEAN COARSE SAND PASSING 1/4" SIEVE, EFFECTIVE GRAIN SIZE SHALL BE BETWEEN 0.3 TO 0.6 MM AND THE UNIFORMITY COEFFICIENT SHALL BE 3.5 OR LESS.
- BURIAL TAPE MARKED "CAUTION BURIED SEWER BELOW" OVER SEWER MAIN, TRACER WIRE BELOW RECOMMENDED.
- CONTRACTOR TO PROVIDE AS-BUILT LOCATION OF ALL FORCE MAIN AND SEPTIC TANK EFFLUENT COMPONENTS.
- IN AREAS SUBJECT TO FROST OR <5 FT. COVER, CONTRACTOR TO PROVIDE PIPE INSULATION

4 FORCE MAIN INSTALLATION DETAIL

SCALE: NO SCALE

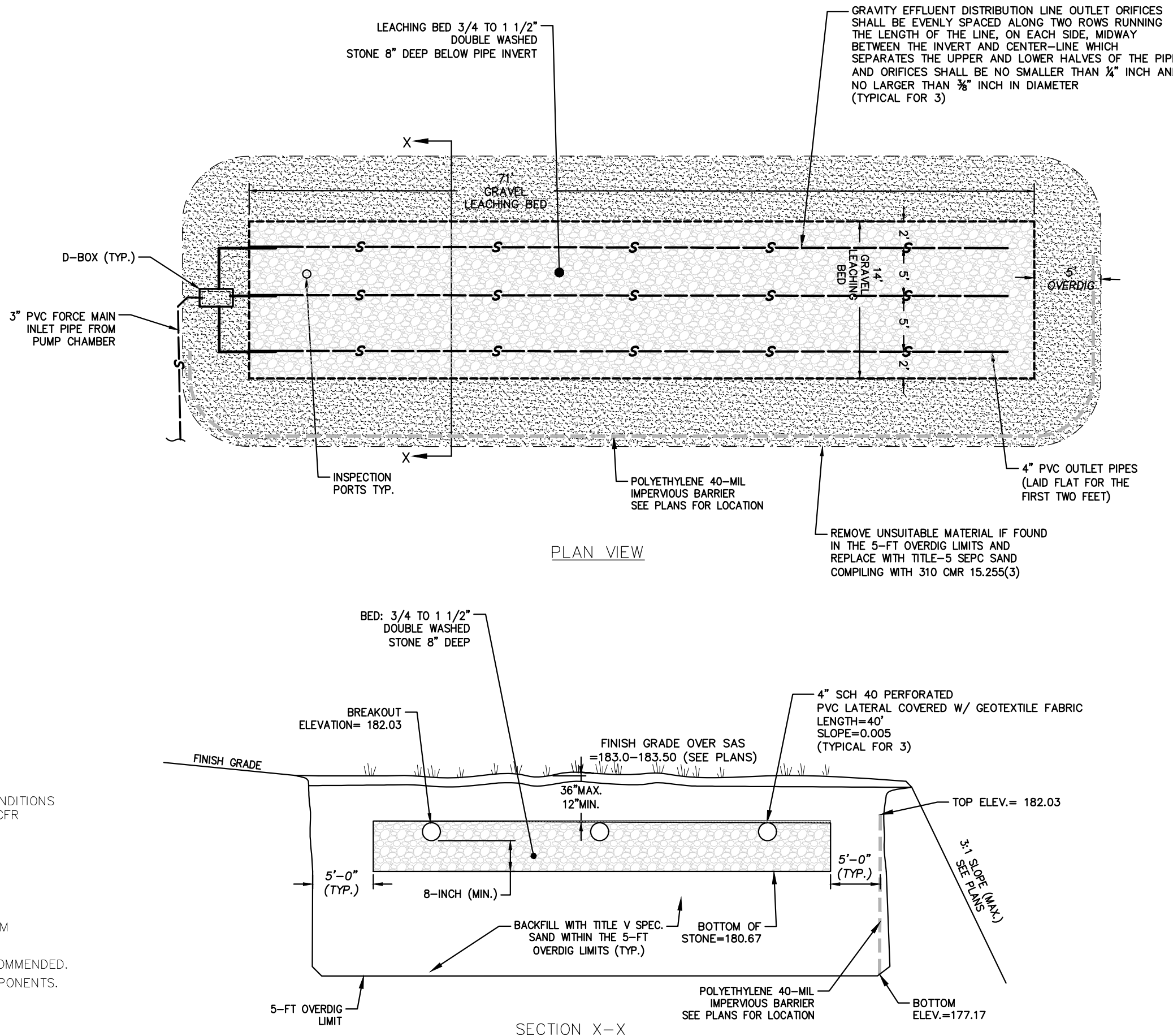


NOTES:

- CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
- CONSTRUCTION OF PUMP CHAMBER CONFORMS WITH DEP TITLE 5 REGS, 310 CMR, SECTION 15.226.
- ALL REINFORCEMENT PER ASTM C1227.
- JOINT SEALED WITH BUTYL RESIN.
- DESIGNED FOR AASHTO HS-20 LOADING, COVER 1 TO 5 FEET.
- PUMPS, FLOATS AND PIPE INSTALLED IN CHAMBER.
- PROVIDE PUMP CONTROL PANEL W/ALARM INSTALLED IN THE HOUSE.

3 1,000 PRECAST CONCRETE SIMPLEX PUMP CHAMBER

SCALE: NO SCALE



PLAN VIEW

SECTION X-X

NOTES: TITLE V SPEC. SAND SHALL REPLACE ANY UNSTABLE MATERIAL IF PRESENT WITHIN THE 5-FT OVERDIG LIMITS.

5 LEACHING AREA DETAIL

SCALE: NO SCALE

HD Design

161 W. High Street,
Avon, MA 02322
Cell: (508) 840-1045
Email: [hazem.dani87@gmail.com](mailto: hazem.dani87@gmail.com)



Hazem Dani

No.	Submital / Revision	App'd	By	Date
0	NOTICE OF INTENT FILING	HD	HD	7/15/2024
1	Planning Board Special Permit App.	HD	HD	08/09/2024
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PREPARED FOR:

AC LAND LLC



15 LINCOLN STREET,
SUITE 325,
WAKEFIELD, MA 01880

SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

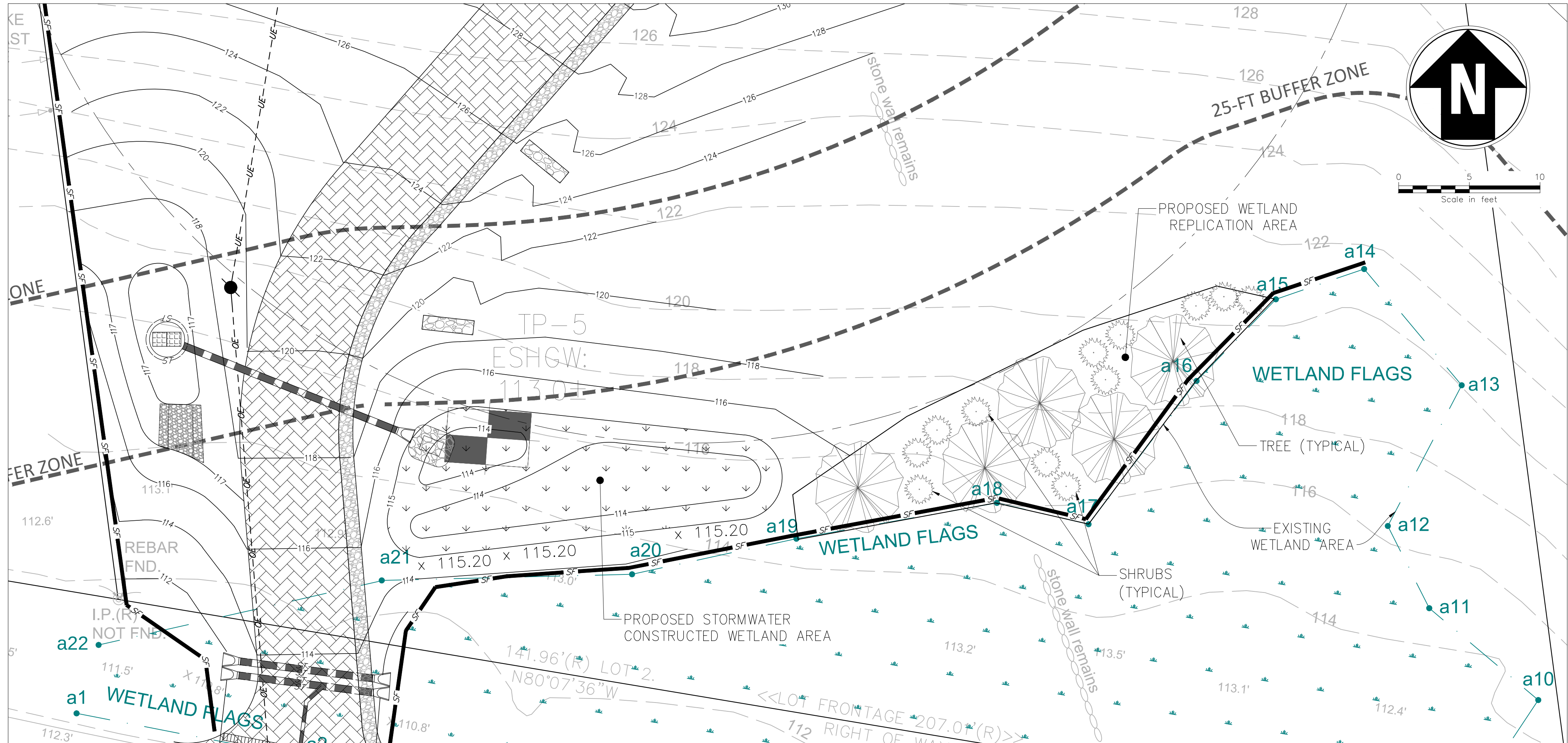
31 NEWTON ROAD,
AMESBURY, MA

SITE DETAILS-3

Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No: 13023	Scale: NONE

Drawing No:

C-203



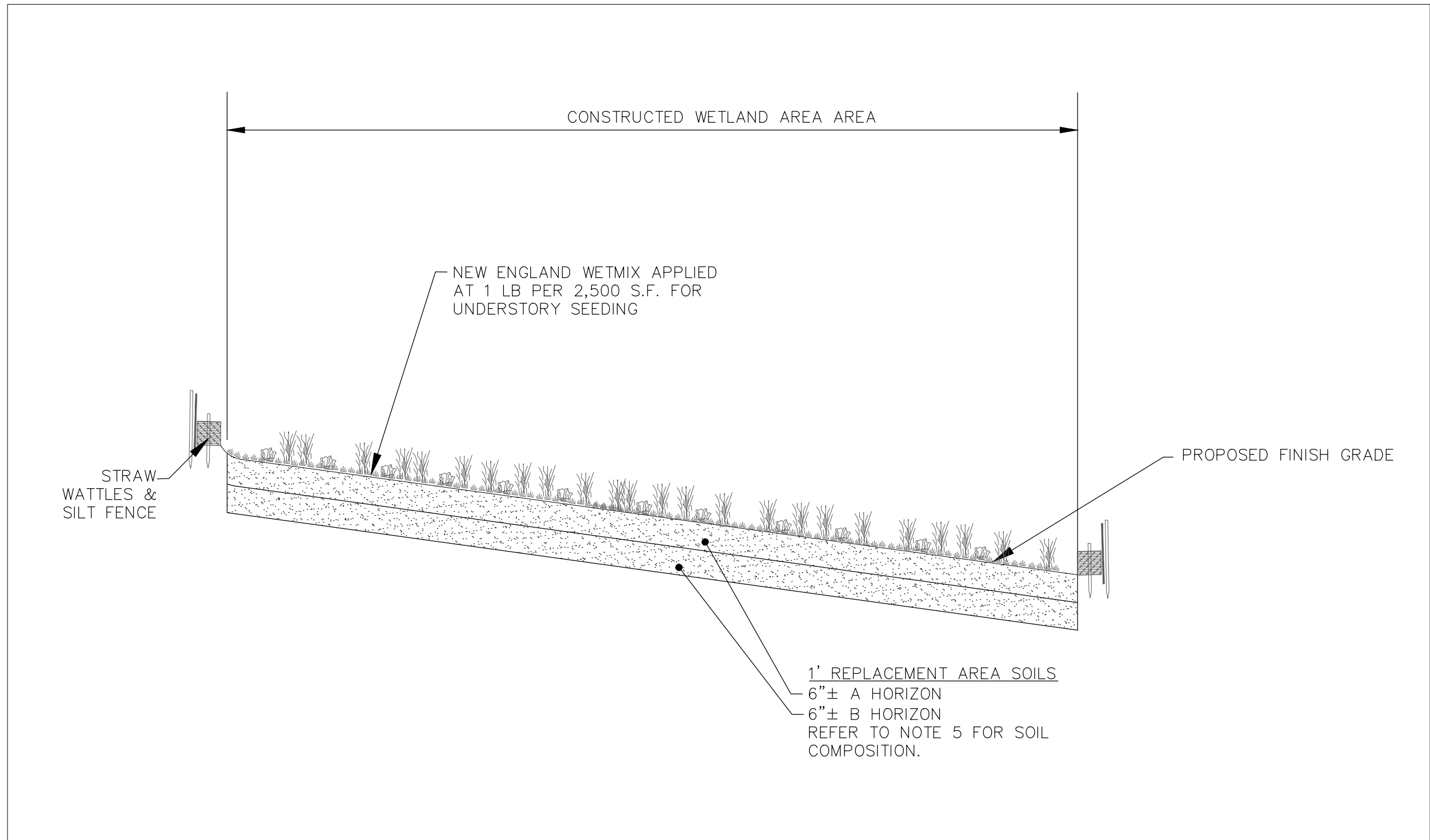
WETLAND REPLICATION AREA PLAN VIEW

WETLAND CONSTRUCTION SEQUENCING/PLANTING GUIDELINES

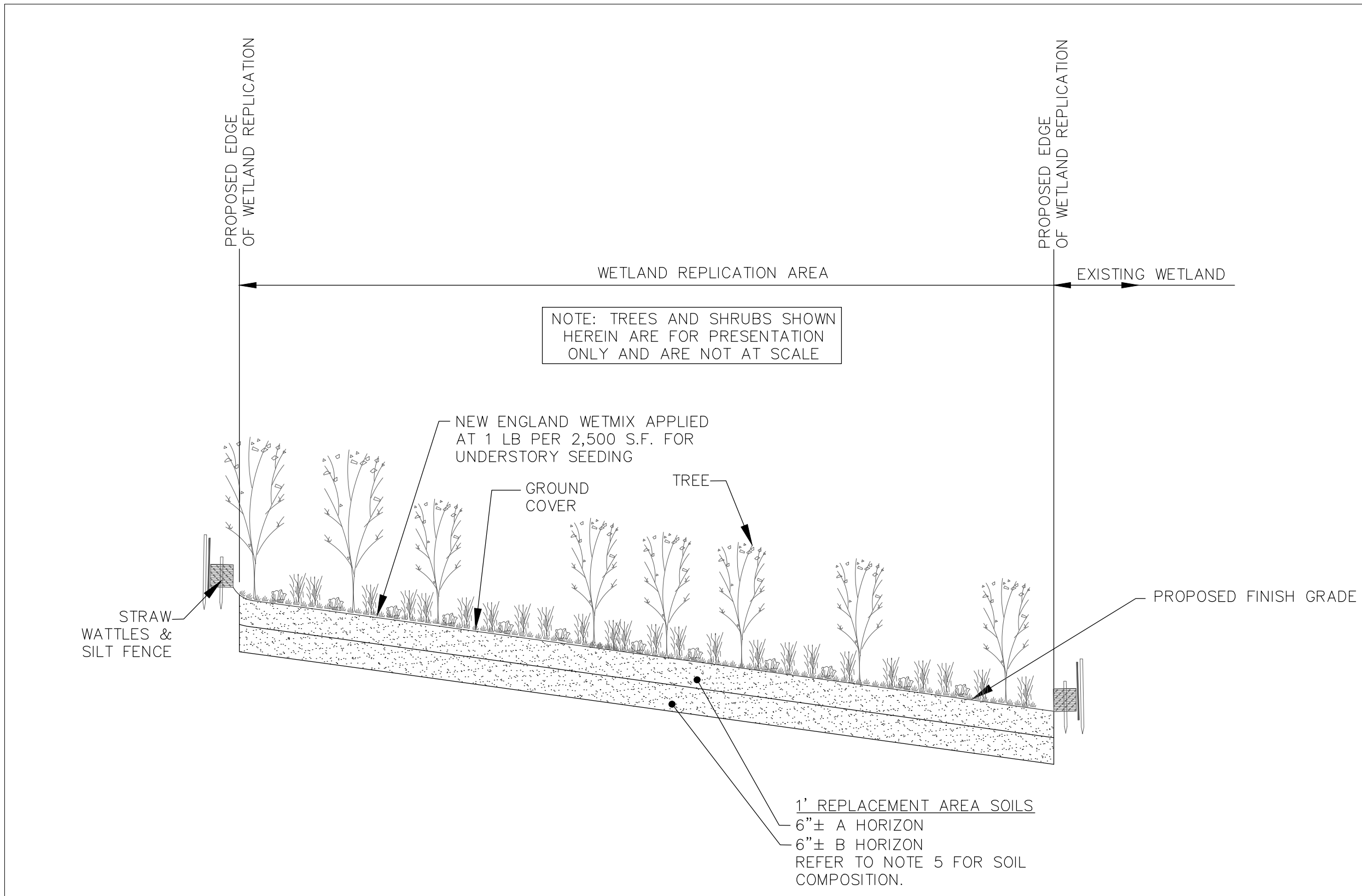
1. THE REPLACEMENT AREA SHALL MEET STRICT PERFORMANCE STANDARDS AS LISTED UNDER 310 CMR 10.55(4)(B) AND THE CITY'S WETLANDS PROTECTION BYLAW AND REGULATIONS. CONSTRUCTION OF THE WETLAND REPLACEMENT AREA SHALL BE PERFORMED IN AGREEMENT WITH THE ORDER OF CONDITIONS ISSUED BY THE CONSERVATION COMMISSION. WETLAND REPLACEMENT WORK SHALL BE SUPERVISED BY AN ENVIRONMENTAL INSPECTOR (EI) OR LANDSCAPE CONTRACTOR APPROVED BY THE CONSERVATION COMMISSION.
2. A MEETING SHALL BE SCHEDULED WITH THE EI AND CONSERVATION AGENT PRIOR TO CONSTRUCTION TO REVIEW THE CONSTRUCTION METHODOLOGY AND DESIGNATED STORAGE AREAS FOR EXCESS SOIL MATERIAL. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED AND INSPECTED PRIOR TO THE START OF WORK AND THE LIMITS OF THE WETLAND REPLACEMENT AREA SHALL BE CLEARLY MARKED WITH WOODEN STAKES. EROSION CONTROL FENCING SHALL REMAIN IN PLACE UNTIL EXPOSED SOILS ARE VEGETATED AND STABLE.
3. THE WETLAND REPLACEMENT AREAS INDICATED ON THE PLAN SHALL BE EXCAVATED TO THE INDICATED SUBGRADE (SEE WETLAND REPLACEMENT CROSS-SECTION) BEFORE THE REPLACEMENT AREA SOILS ARE PLACED. THE ENVIRONMENTAL INSPECTOR OR LANDSCAPE CONTRACTOR SHALL BE ON-SITE TO INSPECT THE WETLAND REPLACEMENT AREA DURING THE CONSTRUCTION PROCESS AND CONFIRM THE FINAL GRADES IN THE WETLAND REPLACEMENT AREA.
4. THE TRANSITION ZONE BETWEEN THE WETLAND REPLACEMENT AREA AND THE SURROUNDING UPLAND PLANT COMMUNITY ADJACENT TO THE WETLAND REPLACEMENT AREA SHALL BE GRADED TO CREATE A SMOOTH TRANSITIONAL SLOPE BETWEEN THE WETLAND REPLACEMENT AREA AND THE UPLAND PLANT COMMUNITY. SITE GRADES AND SLOPES SHALL BE CONSTRUCTED IN AGREEMENT WITH THE GRADING DETAILS SHOWN ON THE APPROVED SITE PLAN.
5. ORGANIC SOILS CONTAIN 12-18 % ORGANIC CARBON BY DRY WEIGHT DEPENDING ON CLAY CONTENT. SOILS IN THE PREPARED REPLACEMENT AREA SHALL COMPRISE A 6"± B HORIZON CONSISTING OF SANDY LOAM, AND A 6"± A HORIZON CONSISTING OF SANDY LOAM AND DECOMPOSED LEAF LITTER OR OTHER APPROVED ORGANIC MATTER, TO PROVIDE A MIN. 50% ORGANIC MATTER BY VOLUME. ANY EXISTING/IMPORTED WETLAND SOIL AND SOIL AMENDMENT MATERIAL SHALL BE INSPECTED BY THE EI FOR INVASIVE/EXOTIC SPECIES PRIOR TO TRANSLOCATION TO THE SITE. COARSE, WOODY DEBRIS/STUMPS SHALL BE ADDED THROUGHOUT THE REPLACEMENT WETLAND SURFACE AREA TO ACHIEVE COVERAGE OF 10-15%.
6. OPTIMAL PLANTING CONDITIONS OCCUR FROM APRIL 1 - MAY 15 IN THE SPRING AND SEPTEMBER 1 - OCTOBER 15 IN THE FALL. SEEDING AND PLANTING WILL OCCUR ONLY DURING THESE TIME PERIODS UNLESS APPROVED BY THE ENVIRONMENTAL COMPLIANCE MONITOR/OTHER QUALIFIED INSPECTOR. TREE AND SHRUB WOODY ROOT STOCK MATERIAL SHALL BE PLANTED IN APPROXIMATED DENSITIES/SPACING AS IDENTIFIED IN THE TABLE; SUPPLEMENTAL PLANTINGS SHALL BE OBTAINED FROM REPUTABLE LOCAL NURSERY SOURCES.
7. A WETLAND SEED MIX SUCH AS NEW ENGLAND WETMIX BY NEW ENGLAND WETLAND PLANTS, INC., AMHERST MASSACHUSETTS, OR APPROVED EQUIVALENT, SHALL BE BROADCAST THROUGHOUT THE AREA AT AN APPLICATION RATE OF 1 LB PER 2,500 SF OF AS SPECIFIED BY THE MANUFACTURER, AND IT SHALL BE MULCHED WITH 1-2" THICK LAYER OF STRAW OR OTHER SUITABLE ORGANIC EQUIVALENT AND MAINTAINED UNTIL VEGETATION HAS BEEN ESTABLISHED.
8. TWO ANNUAL INSPECTIONS SHALL BE MADE OF THE COMPLETED REPLACEMENT AREA BY THE EP, IN COMPLIANCE WITH MASSACHUSETTS INLAND WETLAND REPLACEMENT GUIDELINES, AND IN ORDER TO DETERMINE WHETHER ADDITIONAL PLANTINGS (NATURAL OR FROM A NURSERY) WILL BE NECESSARY, AS WELL AS ASSESS THE OVERALL SUCCESS OF THE REPLACEMENT PROCEDURES.

PROPOSED VEGETATION IN WETLAND REPLICATION AREA (1,000 S.F.)

SPECIES TYPE	COMMON NAME	LATIN NAME	STATUS	PLANTING DENSITY/ COMMENTS	PROPOSED NUMBER
TREE	RED MAPLE	ACER RUBRUM	FAC	1 TREE/ 300 S.F.	5
SHRUB	HIGHBUSH BLUEBERRY	VACINIUM CORYMBOSUM	FAC	1 SHRUB/ 200 S.F.	6
SHRUB	SWEET PEPPER BUSH	CLETHRA ALNIFOLIA	FAC	1 SHRUB/ 200 S.F.	6
GROUND COVER	NEW ENGLAND WETMIX	-	-	1LB/2,500 S.F.	1/2 LB



CONSTRUCTED WETLAND AREA DETAIL



WETLAND REPLICATION AREA CROSS SECTION

HD Design

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[Signature]

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PREPARED FOR:

AC LAND LLC



AC Land LLC
AC Homes LLC

15 LINCOLN STREET,
SUITE 325,
WAKEFIELD, MA 01880

SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

31 NEWTON ROAD,
AMESBURY, MA

WETLAND
REPLICATION AREA
PLAN

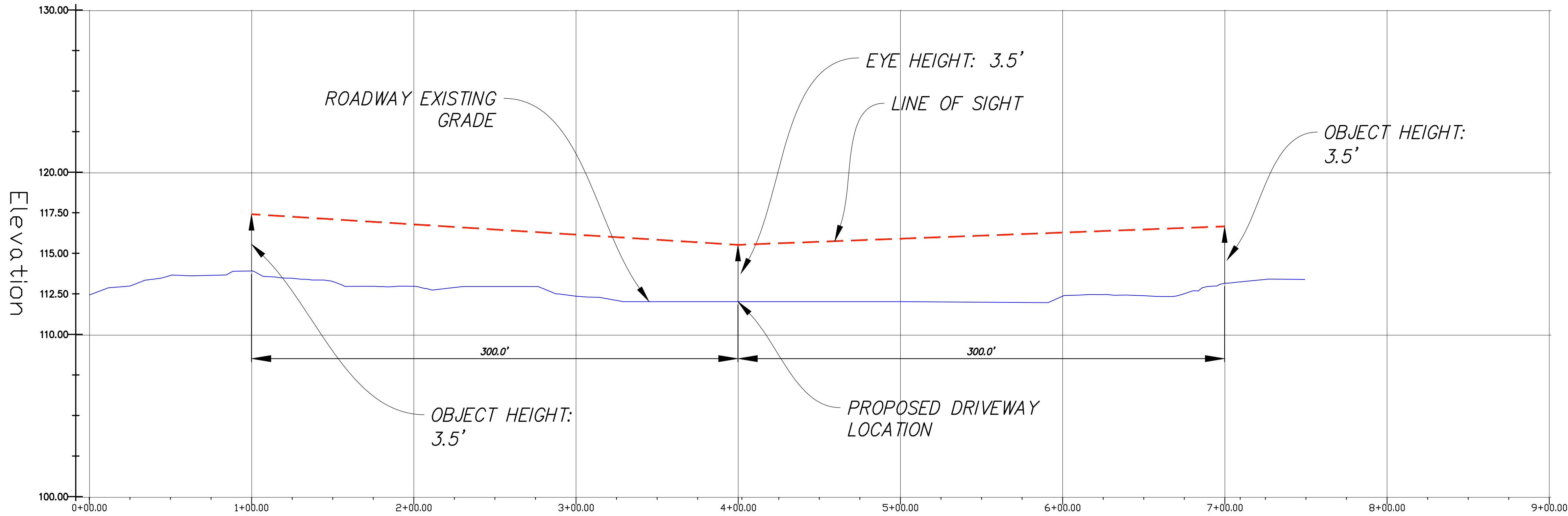
Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No: 13023	Scale: 1" = 20'

Drawing No:

C-301



STOPPING SIGHT DISTANCE - PLAN VIEW



STOPPING SIGHT DISTANCE - PROFILE

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Hazem

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PREPARED FOR:

AC LAND LLC



AC Land LLC
AC Homes LLC

15 LINCOLN STREET,
SUITE 325,
WAKEFIELD, MA 01880

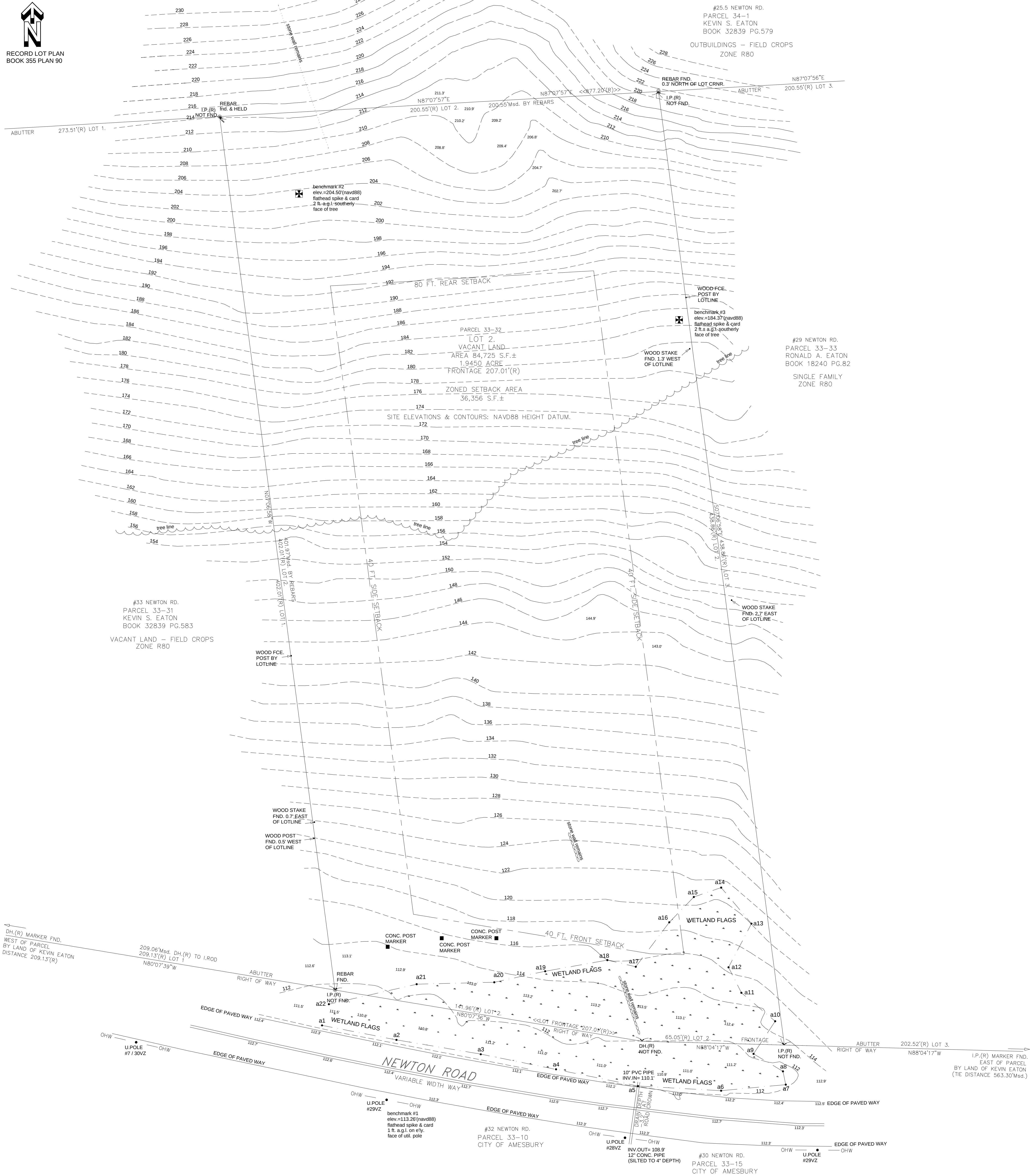
SITE PLANS
5-BEDROOM
SINGLE-FAMILY
DWELLING

31 NEWTON ROAD,
AMESBURY, MA

STOPPING
SIGHT DISTANCE

Designed By: HD	Drawn By: HD	Checked By: -
Issue Date: 07/01/2024	Project No: 13023	Scale: AS SHOWN

Drawing No:
C-800



CITY OF AMESBURY

DIMENSIONAL TABLE: ZONE R80
MIN. LOT AREA 80,000 S.F. EXISTING 84,725 S.F.
MIN. FRONTAGE 200 FT. EXISTING 207 FT.
MIN. FRONT YARD 40 FT.
MIN. SIDE YARD 40 FT.
MIN. REAR YARD 80 FT.
MIN. OPEN SPACE 70%
MAX. BUILDING AREA 10%
MAX. HEIGHT: 35 FT. 2.5 STORIES

USE: UNDEVELOPED VACANT LAND

NO EXISTING SETBACKS NOTED — BEING VACANT LAND
DISTRICT ZONE: R80

PREPARING SURVEY NOTES:
BOUNDARY LINES MARKED BY OTHER SURVEYORS.
SURVEYED WITHOUT BENEFIT OF A TITLE EXAMINATION.
SUBSURFACE UTILITY LINE SERVICES NOT LOCATED, NOR TRACED BY THIS SURVEY.
CONTACT DIGSAFE FOR ALL UTILITY INQUIRIES, AND PRIOR TO ANY SITE WORK OR EXCAVATION.
SITE ELEVATIONS & CONTOURS: NAVD88 HEIGHT DATUM.

CERTIFICATION:
THE PROPERTY SHOWN AS #31 NEWTON ROAD IS A VACANT LAND PARCEL.
ZONED LOT DIMENSIONS AND REQUIRED BUILDING SETBACKS SHOWN FOR DISTRICT R80.
TABLE OF CURRENT CITY OF AMESBURY DIMENSIONAL REQUIREMENTS NOTED BY THIS PLAN.

I CERTIFY THAT THE PROPERTY LINES SHOWN HEREON ARE THE LINES DIVIDING EXISTING OWNERSHIPS,
AND THE LINES OF STREETS AND WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS OR WAYS ALREADY
ESTABLISHED, AND THAT NO NEW LINES FOR DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN.



- SYMBOL LEGEND
- U.POLE
 - OHW
 - UTILITY POLE / PROVIDER / NUMBER
 - OVERHEAD WIRE SERVICES
 - LOT DIMENSION BY RECORD DEED OR PLAN
 - DIMENSION AS MEASURED BY THIS SURVEY
 - IRON ROD FOUND (AT LOT CORNER)
 - DRILL HOLE FOUND
 - CH-LK.FCE
 - CHAIN-LINK FENCE
 - GROUND SPOT ELEVATION
 - INV.IN/OUT
 - MEASURED PIPE INVERT (BY INFLOW / OUTFLOW)

ASSESSORS
PARCEL I.D. 33-32
TITLE REFERENCE
OWNER: STELLMACH FAMILY REVOC. TRUST
SEAN STELLMACH, HANNAH STELLMACH, TRS.
MAIL: 23 SPINDLETREE ROAD
AMESBURY, MA 01913.
RECORD DEED BOOK 35739 PG.168.
LOT 2 BY PLAN BOOK 355 PLAN NO.90 (ANR).
ESSEX COUNTY REGISTRY OF DEEDS.

PROJECT NUMBER 991

EXISTING CONDITIONS PLAN
#31 NEWTON ROAD
AMESBURY, MA 01913
SCALE 1" = 20' MARCH 26, 2024
NORDE-EAST SURVEY
27 CONGRESS STREET, #1208, SALEM, MA 01970
TEL. (978)5421920 E-MAIL: NORDE-EAST@VERIZON.NET

