PROPOSED SINGLE-FAMILY DWELLING

31 Newton Rd,
Amesbury, Massachusetts

APPLICANT:

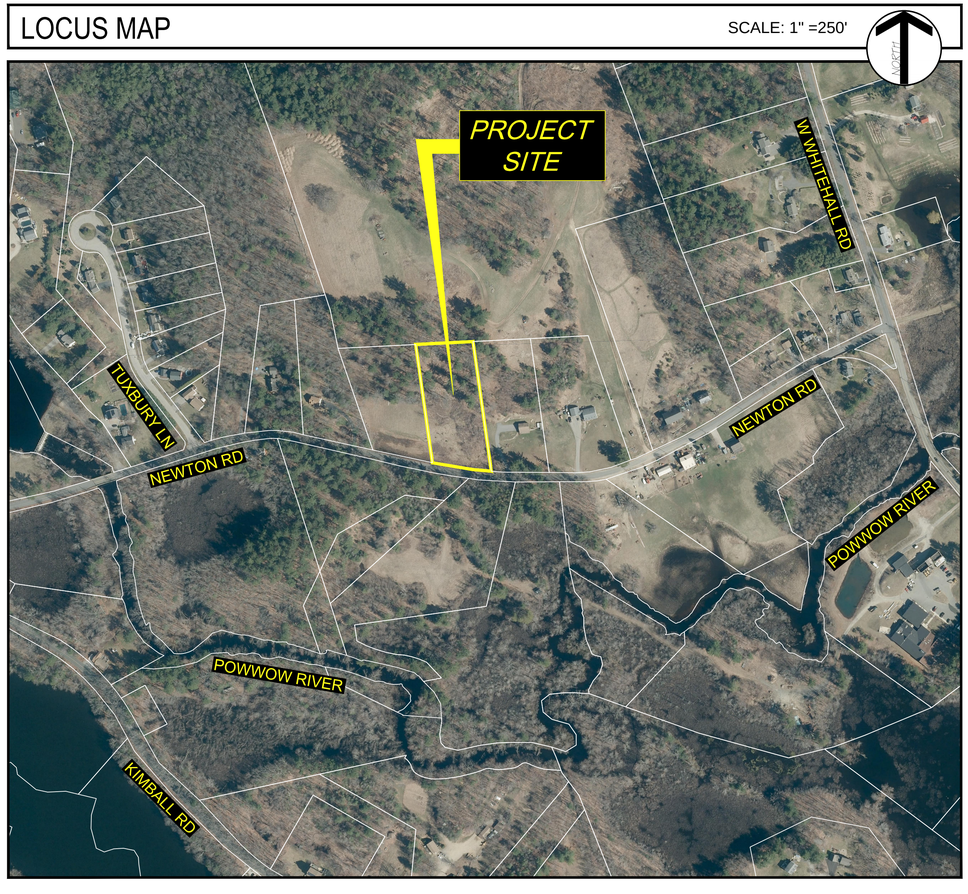
AC LAND LLC
15 LINCOLN STREET, SUITE 325,
WAKEFIELD, MA 01880

OWNER:

STELLMACH FAMILY
REVOCABLE TRUST OF 2017

LOCUS MAP

SCALE: 1" =250'



DRAWING INDEX

SHEET NO.	SHEET TITLE
C-001	TITLE SHEET
C-101	SITE LAYOUT AND UTILITIES PLAN
C-201	SITE DETAILS - 1
C-202	SITE DETAILS - 2
C-203	SITE DETAILS - 3
C-301	WETLAND REPLICATION PLAN
- -	EXISTING CONDITIONS PLAN (BY OTHERS)

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

COMMONWEALTH OF MASSACHUSETTS
HAZEM N. DANI
CIVIL
No. 55343
REGISTERED PROFESSIONAL ENGINEER

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

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

Drawing No:

C-001

File: V:\DH_DATA\OFFICES\VMA78\CIVIL\HD\AMESBURY\31 NEWTON ROAD\CAD\SHEETFILES\C-001 TITLE SHEET.DWG
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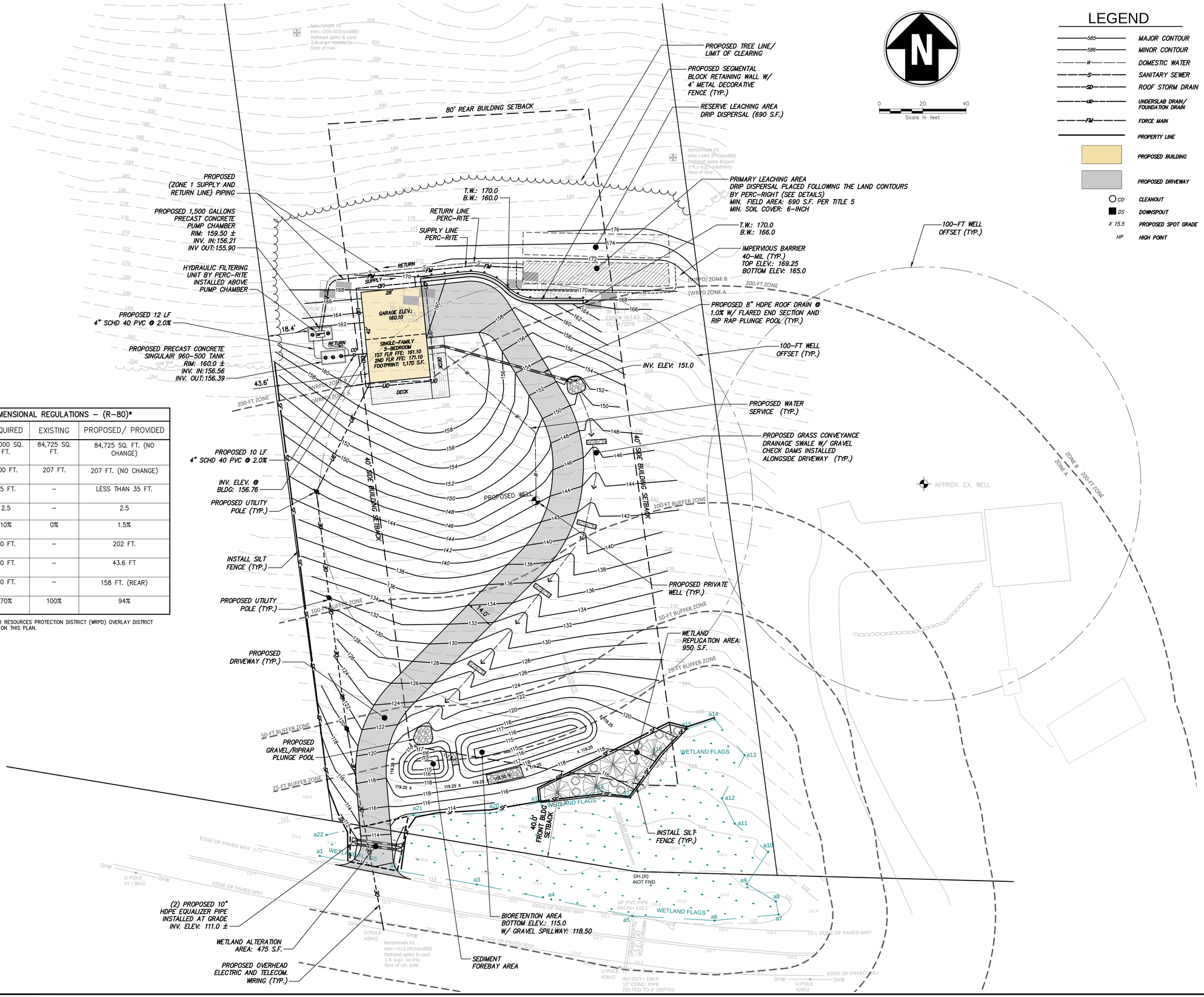
ZONING AND DIMENSIONAL REGULATIONS – (R-80)*			
STANDARD	REQUIRED	EXISTING	PROPOSED/ PROVIDED
MINIMUM LOT AREA (SQ. FT.)	80,000 SQ. FT.	84,725 SQ. FT.	84,725 SQ. FT. (NO CHANGE)
MINIMUM LOT FRONTAGE (FT.)	200 FT.	207 FT.	207 FT. (NO CHANGE)
MAXIMUM BUILDING HEIGHT (FT.)	35 FT.	–	LESS THAN 35 FT.
MAXIMUM NUMBER OF STORIES	2.5	–	2.5
MAXIMUM BUILDING AREA (%)	10%	0%	1.5%
MINIMUM FRONT YARD (FT.)	40 FT.	–	202 FT.
MINIMUM SIDE YARD (FT.)	40 FT.	–	43.6 FT
MINIMUM SIDE YARD AND REAR YARD (FT.)	80 FT.	–	158 FT. (REAR)
MINIMUM OPEN SPACE	70%	100%	94%

* THE SITE IS LOCATED IN THE WATER RESOURCES PROTECTION DISTRICT (WRPD) OVERLAY DISTRICT ZONE A AND ZONE BE AS INDICATED ON THIS PLAN.



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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

SITE LAYOUT AND UTILITIES PLAN

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

Drawing No:

C-101

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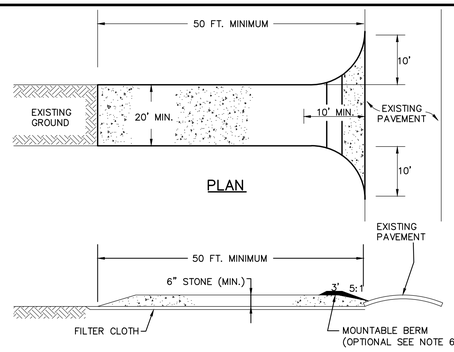


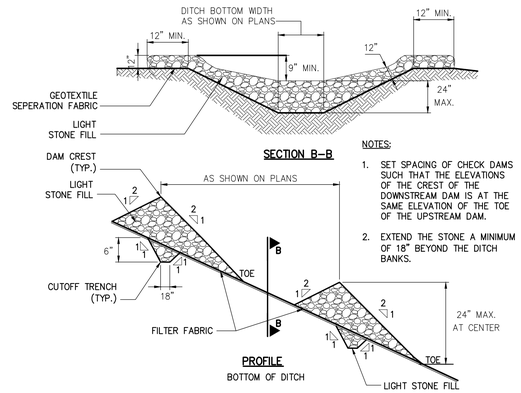
SECTION

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE: USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH: RECOMMEND GREATER THAN OR EQUAL TO 50 FEET WHERE SOILS ARE SANDS AND GRAVELS AND 100 FEET IN SILTS AND CLAYS.
3. THICKNESS: NOT LESS THAN SIX (6) INCHES.
4. WIDTH: FIFTEEN (15) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OF EGRESS OCCURS.
5. FILTER CLOTH: SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. 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.
7. 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 ON GOING BASIS.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED.

1 STABILIZED CONSTRUCTION ENTRANCE

SCALE: NO SCALE

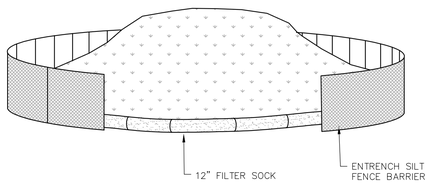


NOTES:

1. SET SPACING OF CHECK DAMS SUCH THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
2. EXTEND THE STONE A MINIMUM OF 18" BEYOND THE DITCH BANKS.

5 STONE CHECK DAM DETAIL

SCALE: NO SCALE

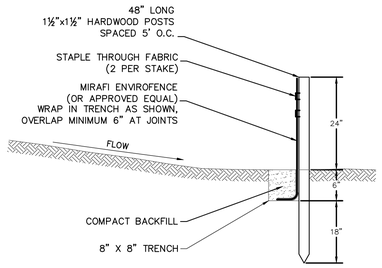


INSTALLATION NOTES:

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

2 SOIL STOCKPILE

SCALE: NO SCALE

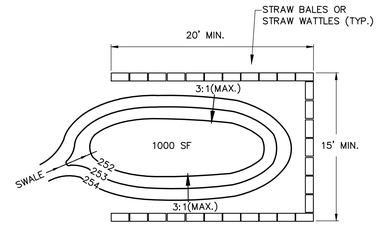


NOTES:

1. THE FENCING SHALL BE INSPECTED AFTER EVERY RAINFALL EVENT TO ENSURE ITS PROPER FUNCTIONING. IF THE FENCING IS DAMAGED IT SHALL BE REPAIRED IMMEDIATELY.
2. 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

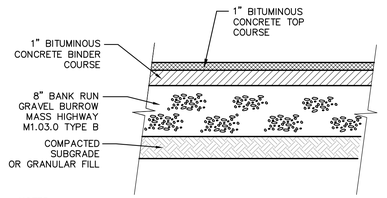
SCALE: NO SCALE



1. SEDIMENT BASINS AND TRAPS SHALL BE SIZED IN ACCORDANCE WITH EPA NPDES GUIDELINES.
2. 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.
3. 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.
4. 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

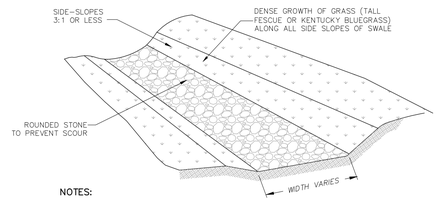


NOTES:

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

4 BITUMINOUS PAVEMENT SECTION

SCALE: NO SCALE

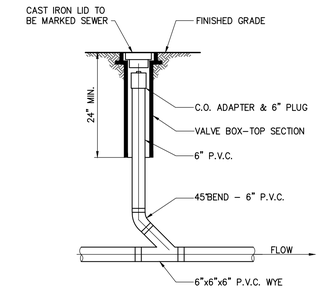


NOTES:

1. INSTALL ROUNDED BOTTOM STONE TO GIVE A NATURAL STREAM APPEARANCE.
2. JUTE NETTING WILL BE REQUIRED TO PREVENT EROSION OF GRASSED SIDE SLOPES.

7 GRASS SWALE WITH STONE BOTTOM DETAIL

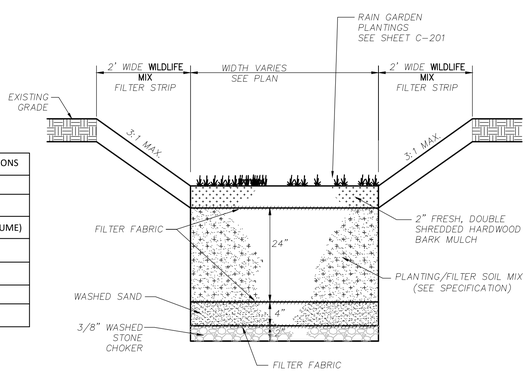
SCALE: NO SCALE



8 CLEAN OUT DETAIL

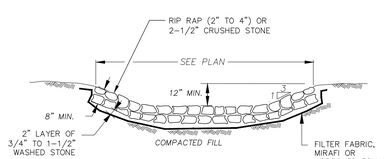
SCALE: NO SCALE

PLANTING/FILTER SOIL MIX SPECIFICATIONS	
PARAMETER	VALUE
pH RANGE	5.2 TO 7.00
ORGANIC MATTER	3.0 TO 4.0% (BY VOLUME)
PHOSPHORUS	P-INDEX 10-30
SOLUBLE SALTS	≤500 PPM
FINES (SILT & CLAY)	8 TO 12%
MASON SAND	85 TO 88%



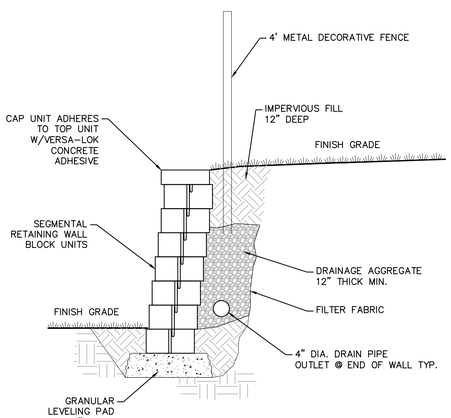
9 BIORETENTION DETAIL

SCALE: NO SCALE



10 STONE PLUNGE POOL

SCALE: NO SCALE



NOTES:

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 PROVING A MA STAMPED DRAWINGS AND CALCULATIONS IF REQUIRED BY THE CITY AT NO ADDITIONAL COST TO THE OWNER.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVALS PRIOR TO INSTALLATION.

12 TYPICAL SECTION RESIDENTIAL RETAINING WALL

SCALE: NO SCALE

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COMMONWEALTH OF MASSACHUSETTS — HAZEM N. DANI — CIVIL — No. 55343 — REGISTERED PROFESSIONAL ENGINEER

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AC Homes LLC

15 LINCOLN STREET,
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WAKEFIELD, MA 01880

SITE PLANS 5-BEDROOM SINGLE-FAMILY DWELLING

31 NEWTON ROAD,
AMESBURY, MA

SITE DETAILS - 1

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

Drawing No:

C-201

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SOIL ABSORPTION SYSTEM SIZING INFORMATION:

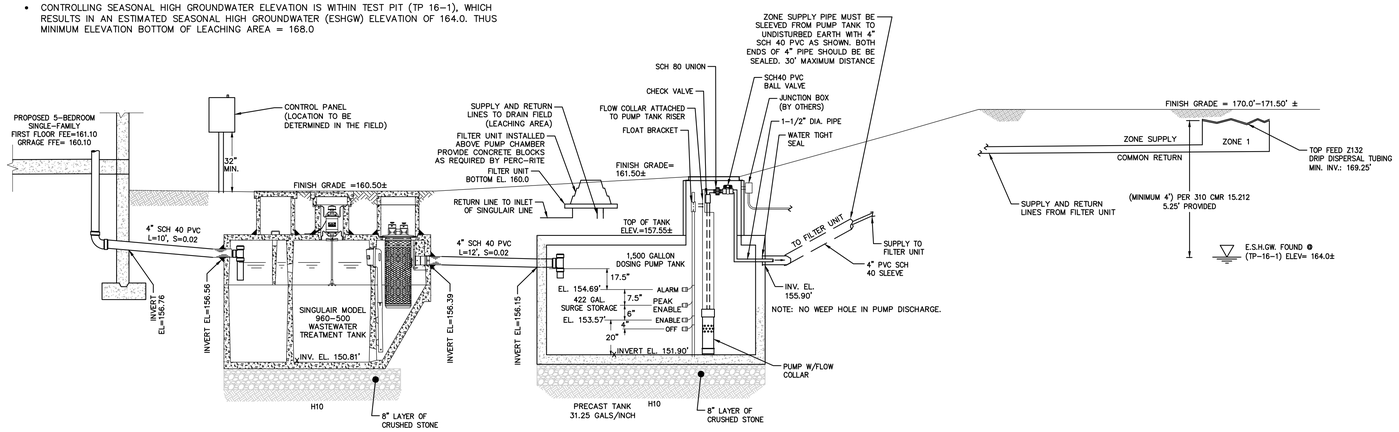
- FOR A SINGLE-FAMILY WITH 5 BEDROOMS, THE DAILY DESIGN FLOW= (110 GALLON PER DAY/ BEDROOM) X 5 BEDROOMS = 550 GPD, BASED ON TITLE 5 (310CMR 15.203).
- SOIL PERCOLATION RATE USED FOR DESIGN= (25 MINUTE/INCH) OBTAINED IN THE FIELD AT TEST PIT (TP 16-1) COMPLETED BY CAMMETT ENGINEERING.
- PER 310CMR, SECTION 15.242 & 15.243, LOADING RATE FOR SANDY LOAM CLASS II (25 MIN/INCH) SOILS IS =0.44 GPD/SF FOR PRESSURE DOSING SYSTEM WHEN DRIP DISPERSAL SYSTEM WITH A SECONDARY TREATMENT UNIT AND REDUCTION IN LEACHING AREAS IS PROPOSED, THE GRAVITY EFFLUENT LOADING RATE SHALL BE USED. LADING RATE TO BE USED: 0.40 GPD/SF.
- THE USE OF LEACHING BED IN ACCORDANCE WITH 310CMR 15.252 WAS SELECTED
- REQUIRED BED AREA = $\left(\frac{550\ GPD}{0.40\ GPD/SF}\right)$ = 1,375 SF
- FOR LEACHING AREA USE PERC-RITE DRIP DISPERSAL BY AMERICAN MANUFACTURING CO ,INC. MASSDEP CERTIFIED FOR GENERAL USE FOR GENERAL USE NOVEMBER 23, 2016.
- FOR TREATMENT UNIT USE SYSTEM WITH A SINGULAIR 960-500 BY NORWECO, INC. MASSDEP CERTIFIED FOR GENERAL USE FOR GENERAL USE FEBRUARY 26, 2013.
- THE USE TREATMENT UNIT ALLOWS FOR THE REDUCTION OF the size of the SAS BY 50%. THEREFORE THE REQUIRED BED AREA = 1,375 SF X 50% = 690 S.F.
- REQUIRED DRIP DISPERSAL TUBING LENGTH = 690 S.F.--> USE 10 FT X 69 FT LEACHING AREA FOR DRIP DISPERSAL TUBING BY PERC-RITE.
- CONTROLLING SEASONAL HIGH GROUNDWATER ELEVATION IS WITHIN TEST PIT (TP 16-1), WHICH RESULTS IN AN ESTIMATED SEASONAL HIGH GROUNDWATER (ESHGW) ELEVATION OF 164.0. THUS MINIMUM ELEVATION BOTTOM OF LEACHING AREA = 168.0
- USE TOP FEED Z124 ZONE DETAIL BY PERC-RITE.
- LENGTH OF TUBING RUN = 69 FT < 100 FT PER TITLE 5 O.K.
- NUMBER OF LATERAL RUNS = 8 RUNS @ 1.25 FT SPACING = 10 FT IN WIDTH.
- TOTAL LENGTH OF TUBING = 8 RUNS X 69 FT = 552 FT > 400 FT (MINIMUM LENGTH RECOMMENDED BY PERC-RITE) O.K.

SEPTIC SYSTEM GENERAL NOTES

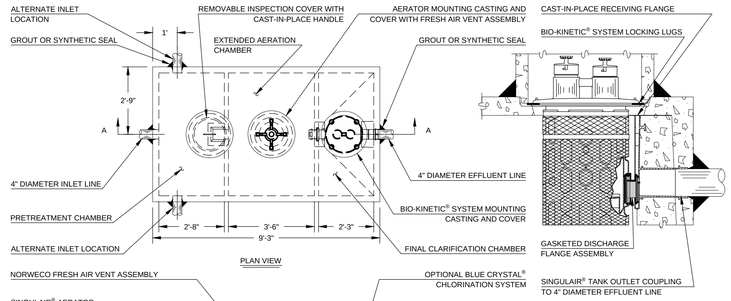
- ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE BURIED PER 310CMR 15.221.
- FILL MATERIALS SHALL MERT TITLE 5 SAND SPEC.
- REFER TO EQUIPMENT LIST PROVIDED BY MANUFACTURERS (PERC-RITE) FOR A COMPLETE LIST OF REQUIRED EQUIPMENT AND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

REQUIRED INSPECTIONS:
THE CONTRACTOR SHALL COORDINATE WITH THE DESIGN ENGINEER/ CITY 48-HOURS IN ADVANCE FOR THE FOLLOWING REQUIRED INSPECTIONS:

1. BOTTOM OF BED INSPECTION, VERIFICATION OF SOIL MATERIAL AND GROUNDWATER AND REMOVAL OF UNSUITABLE MATERIAL IF ANY.
2. INSPECTION OF TITLE-5 PERC SAND USED FOR FILL.
3. INSPECTION(S) OF LEACHING AREAS, SEPTIC TANK, PUPM CHAMBER AND OTHER SEPTIC COMPONENTS PRIOR TO BACKFILL.
4. FINAL GRADING AND STABILIZATION INSPECTION.



1 SANITARY SYSTEM PROFILE
SCALE: NO SCALE



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR 15.00, DEP TITLE 5 REGS, FOR ALTERNATE SEPTIC SYSTEMS
3. ALL REINFORCEMENT PER ASTM C1227-93.
4. TONGUE & GROOVE JOINT SEALED WITH BUTYL RESIN.

TOTAL SYSTEM CAPACITY: 1,300 GALLONS
RATED CAPACITY: 500-600 GALLONS PER DAY

2 SINGULAIR MODEL 960-500 WASTEWATER TREATMENT TANK
SCALE: NO SCALE

SOIL LOG

DATE OF TESTS 10/24/2016
PRESENT AT TESTS R. BLANCHETTE, E. FREDETTE
PERCOLATION RATE 25 MIN./INCH

TP 16-1 DATE: 10-24-16 EL 165.5 ±

0"-15"	Ap	SL	10YR 3/3
15"-32"	Bw	SL	10YR 5/6
32"-60"	C1	FLS	2.5Y 4/4
60"-96"	C2	LS	2.5Y 6/4

E.S.H.W.T. @ 32"

P 16-1 PERC RATE: 25 MIN/IN @42"

TP 16-2 DATE: 10-24-16 EL 166.5 ±

0"-12"	Ap	SL	10YR 3/3
12"-30"	Bw	SL	10YR 5/6
30"-48"	C1	FLS	2.5Y 4/4
48"-84"	C2	LS	2.5Y 6/4

E.S.H.W.T. @ 30"

TP 16-3 DATE: 10-24-16 EL 165.0 ±

0"-9"	Ap	SL	10YR 3/3
9"-26"	Bw	SL	10YR 5/6
26"-40"	C1	FLS	2.5Y 4/4
40"-96"	C2	LS	2.5Y 6/4

E.S.H.W.T. @ 40"

TP 16-4 DATE: 10-24-16 EL 163.0 ±

0"-9"	Ap	SL	10YR 3/3
9"-24"	Bw	SL	10YR 5/6
24"-39"	C1	FLS	2.5Y 4/4
39"-96"	C2	LS	2.5Y 6/4

E.S.H.W.T. @ 39"

P 16-4 PERC RATE: 21 MIN/IN @42"

TP 16-5 DATE: 10-24-16 EL 196.2 ±

0"-8"	Ap	SL	10YR 3/3
8"-26"	Bw	SL	10YR 5/6
26"-42"	C1	FLS	2.5Y 4/4
42"-80"	C2	LS	2.5Y 6/4

E.S.H.W.T. @ 42"

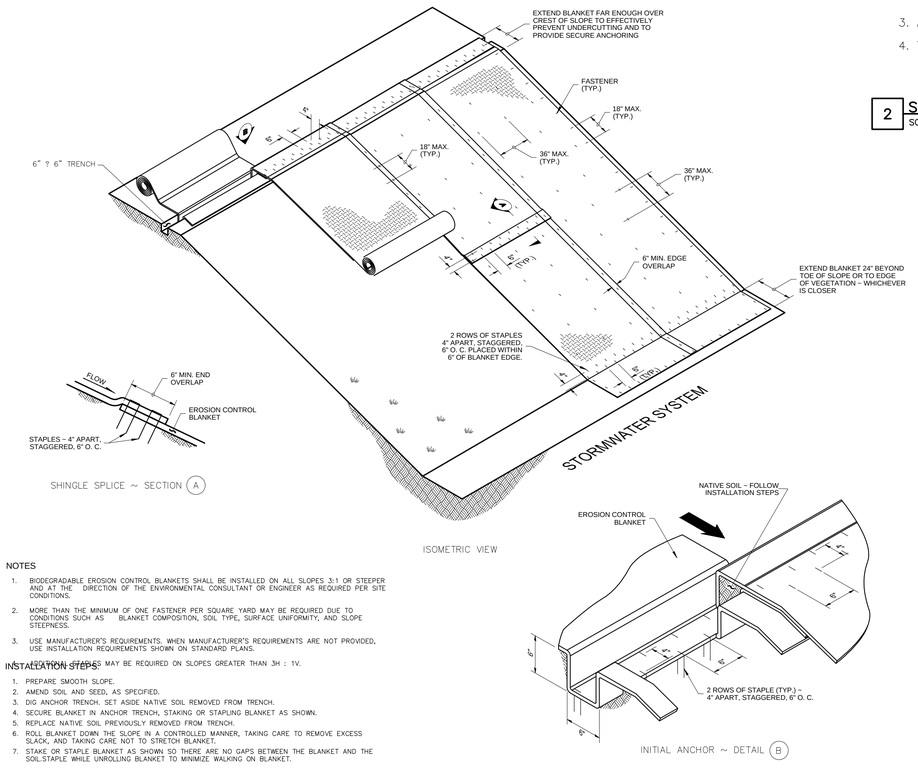
TP 16-6 DATE: 10-24-16 EL 196.0 ±

0"-12"	Ap	SL	10YR 3/3
12"-32"	Bw	SL	10YR 5/6
32"-42"	C1	FLS	2.5Y 4/4
42"-84"	C2	LS	2.5Y 6/4

E.S.H.W.T. @ 42"

Commett Engineering certifies that all tests were completed by licensed individuals approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis were performed consistent with the required training, expertise, and experience described in 310 CMR 15.017. Commett Engineering further certifies that the results of soil evaluations, as indicated above from soil evaluation forms, are accurate and in accordance with 310 CMR 15.100 through 15.107.

3 APPROVED TEST PITS
SCALE: NO SCALE



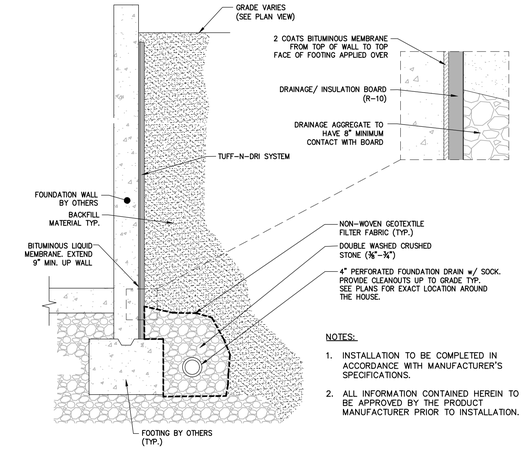
NOTES

1. 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.
2. MORE THAN 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.
3. USE MANUFACTURER'S REQUIREMENTS. WHEN MANUFACTURER'S REQUIREMENTS ARE NOT PROVIDED, USE INSTALLATION REQUIREMENTS SHOWN ON STANDARD PLANS.
4. ADDITIONAL STAPLES MAY BE REQUIRED ON SLOPES GREATER THAN 3H : 1V.

INSTALLATION STEPS:

1. PREPARE SMOOTH SLOPE.
2. AMEND SOIL AND SEED, AS SPECIFIED.
3. DIG ANCHOR TRENCH. SET ASIDE NATIVE SOIL REMOVED FROM TRENCH.
4. SECURE BLANKET IN ANCHOR TRENCH, STAKING OR STAPLING BLANKET AS SHOWN.
5. REPLACE NATIVE SOIL PREVIOUSLY REMOVED FROM TRENCH.
6. ROLL BLANKET DOWN THE SLOPE IN A CONTROLLED MANNER, TAKING CARE TO REMOVE EXCESS SLACK, AND TAKING CARE NOT TO STRETCH BLANKET.
7. 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.

4 BIODEGRADABLE EROSION CONTROL BLANKET FOR SLOPES 3:1 OR STEEPER
SCALE: NO SCALE



NOTES:

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.

5 FOUNDATION DRAIN SYSTEM DETAIL
SCALE: NO SCALE

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

COMMONWEALTH OF MASSACHUSETTS
HAZEM N. DANI
CIVIL
No. 55343
REGISTERED PROFESSIONAL ENGINEER

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

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

SITE DETAILS - 2

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

Drawing No:
C-202

File: V:\On_DATA\OFFICES\NMA78\CIVIL\HD\AMESBURY\31 NEWTON ROAD\CAD\SHEETFILES\C-201 DETAILS.DWG
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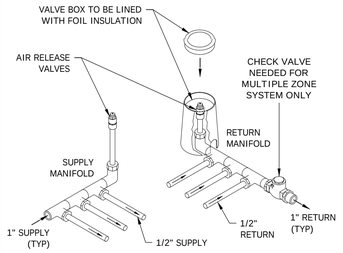
GENERAL CONSTRUCTION NOTES:

1. The system shall not be installed in wet or frozen soils.
2. Do not park, drive large equipment, or store materials on the dispersal area. No activity should occur on the dispersal area other than the minimum required to install the system.
3. All installation and construction techniques shall conform to the state and local codes pertaining to on-site wastewater systems and the permit for the site.
4. If site conditions are determined to require the installation of the system to deviate from the design plans, all work shall stop immediately and the designer and inspector shall be notified. Any ongoing work shall be the sole responsibility of the contractor.
5. Drip tubing may be installed with a vibratory plow, a static plow, a narrow trencher (< 6" wide), by hand trenching, or by scarifying the surface and bedding the drip tubing in clean sand meeting the requirements for fill material in the state code. For sand fill systems, cover consisting of 2" of the same sand and then topsoil meeting the approved depth requirement shall be provided.
6. All drip tubing is to be installed parallel to the contour.
7. Air release valves shall be placed below the ground surface in an insulated valve box but at an elevation above the highest drip line in that particular zone.
8. Vegetative cover must be replaced for installations where it is removed or buried during installation.
9. All cutting of rigid pvc pipe, flexible pvc, and drip tubing of size 2" or smaller shall be accomplished with pipe cutters. No sawing is allowed.
10. All rigid PVC pipe, flexible PVC pipe and drip tubing shall have the ends covered with duct tape after cutting to prevent construction debris from entering the pipe.
11. Prior to gluing, all joints shall be inspected for and cleared of any debris. All joints shall be cleaned and primed with pvc primer prior to being glued.
12. All PVC pipe and fittings shall be sch 40.
13. Whenever possible, all force mains shall be tested for leaks prior to being back- filled by pressurizing the system and observing for leakage.
14. The hydraulic unit shall be placed on top of the septic/treatment tank, pump chamber, or on a bed of 4" - 6" thick 3/4" gravel in a location within 30' of the pump.
15. If standing water is a problem in the vicinity of the hydraulic unit, a screened drain to daylight is required.
16. Electrician to provide separate circuits for the pump and controls/alarm, or as required by state and local codes.
17. All conduit entering the control panel shall be sealed at both ends to prevent condensation or gases inside the panel.

COLD CLIMATE NOTES:

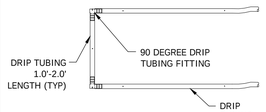
1. All attempts should be made to place the hydraulic unit in a location with an open southern exposure for warming purposes.
2. All pipes entering and leaving the hydraulic unit shall elbow vertically down 90 degrees to a depth below the frost line prior to extending away from the unit horizontally.
3. The supply and return lines shall be installed below the frost line. When this is not possible, rigid foam insulation (min 1" thick) shall be placed over those pipes that are above the frost line.
4. The vertical sections of pipe that travel through the frost zone and connect the supply and return lines to the manifolds shall be insulated sch 40 pvc pipe. Insulation shall consist of foam pipe wrap insulation and 1" rigid foam insulation strips made into a box. (see insulation detail)
5. Foil wrap insulation shall be placed over the supply/return manifolds and loop connectors so that at least 1' of insulation extends each direction beyond the fittings. (see insulation detail)
6. Air release valve enclosures shall be insulated with bagged Styrofoam peanuts, foil wrap insulation, and rigid foam insulation inside the lid. (see insulation detail)
7. All loops connecting drip runs shall be slightly elevated (minimum 1" - 2") so that they drain into the drip tubing after the pump shuts off. It is the contractor's responsibility to ensure that these loops stay elevated during and after the loops are backfilled.
8. Dense vegetative cover is to be established over the supply trench, return trench, manifolds, and drip tubing prior to the first exposure to freezing temperatures. If vegetation cannot be established then the entire drip dispersal field is to be covered with a thick layer (minimum 6") of mulch, straw/hay, or frost blanket until such turf cover is established.
9. Vegetation height over the drip dispersal area should be a minimum of 4" - 6" throughout the winter months.

NOTES:
1. ALL RIGID AND FLEXIBLE PVC ARE TO BE LOCATED ABOVE THE DRIP LINE TO ALLOW THE PIPES TO DRAIN.
2. THE AIR RELEASE VALVES SHALL BE PLACED AT THE HIGHEST POINT ON THE SUPPLY AND RETURN LINE FOR EACH ZONE.
3. EACH ZONE TO HAVE TWO AIR RELEASE VALVES.
4. RETURN LINES TO BE CONNECTED TO A COMMON RETURN LINE.

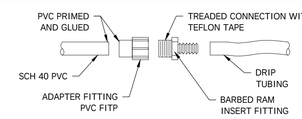


TYPICAL MANIFOLD CONNECTION
(NOT TO SCALE)

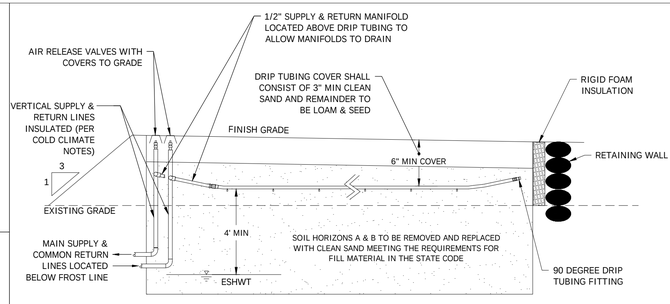
NOTE:
ALL DRIP LOOPS ARE TO BE LOCATED 2" ABOVE THE DRIP LINE TO ALLOW FOR THE LOOPS TO DRAIN.



TYPICAL DRIP LOOP CONNECTION
(NOT TO SCALE)



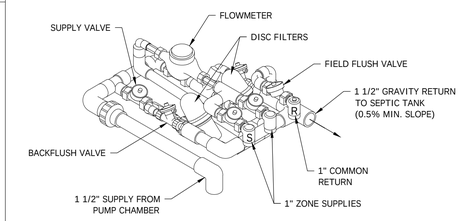
CONNECTIONING DRIP TUBING TO SCH 40 PVC PIPE



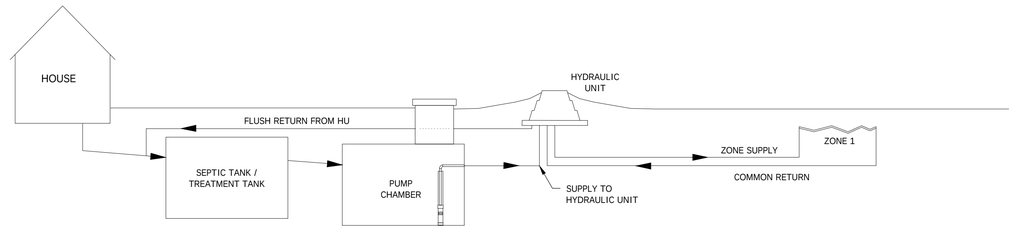
PERC-RITE FIELD (10' x 69')
(NOT TO SCALE)

Note: All Perc-Rite components shall be obtained from Oakson, Inc, Gloucester, MA., 978-282-1322

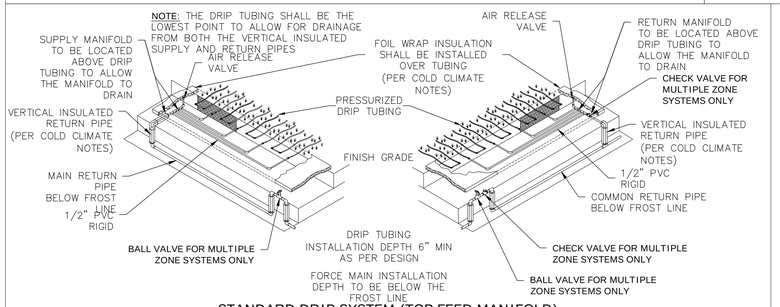
PERC-RITE DRIP TUBING Z-124



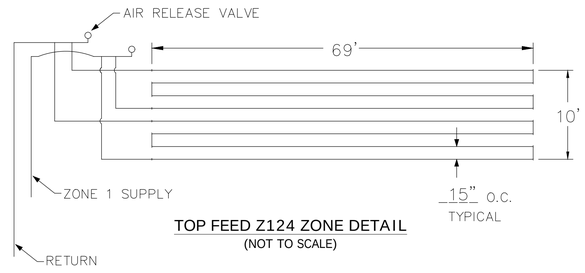
PERC-RITE HYDRAULIC UNIT (15 GPM)
(NOT TO SCALE)



TYPICAL SYSTEM HYDRAULIC PROFILE
(NOT TO SCALE)



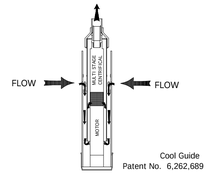
STANDARD DRIP SYSTEM (TOP FEED MANIFOLD)
(NOT TO SCALE)



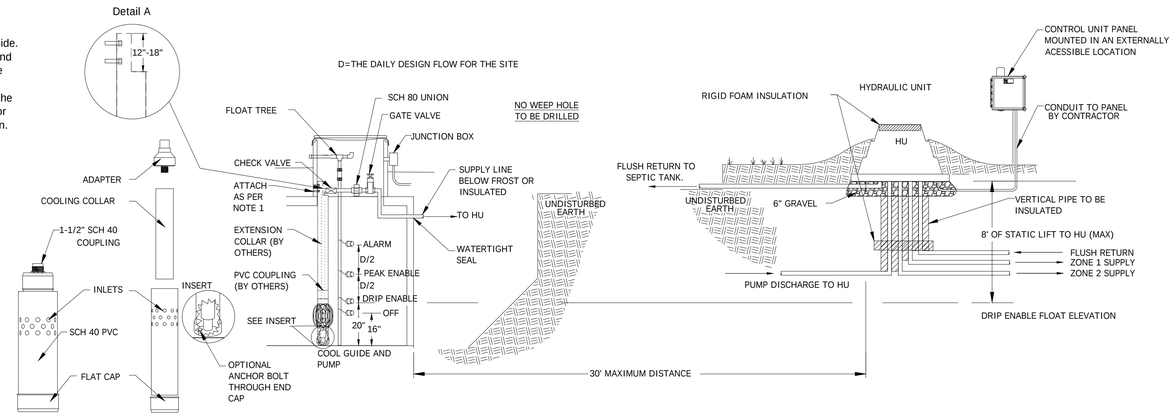
TOP FEED Z124 ZONE DETAIL
(NOT TO SCALE)

INSTALLATION INSTRUCTIONS:

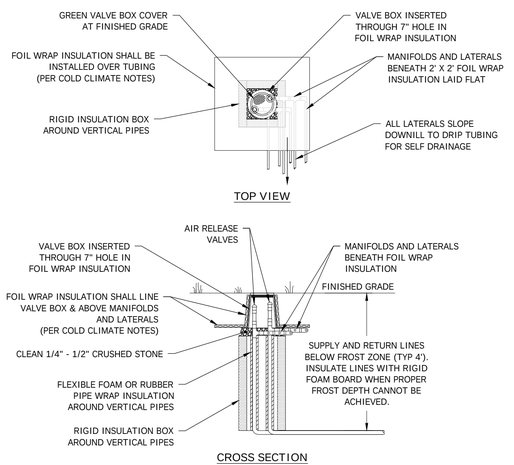
1. Measure the distance from the bottom of the tank to 6" down from the top of the riser. Cut the extension pipe (by others) to the length necessary to reach this height. Cut half of the pipe down 12" to 18" away from the top of the pipe for a pump discharge pipe and attach to riser. (see detail A)
2. Glue the extension coupling (by others) to the extension pipe and to the cool guide.
3. For reuse of existing concrete pump chambers: glue on the cool guide flat cap and place the cool guide firmly in the bottom of the tank. Attach the extension to the riser with the anchors as shown.
4. For use in new concrete pump chambers: anchor the flat cap to the bottom of the tank in the proper location to hold the cool guide and extension. The cap may or may not be glued to the device. Attach the extension with the anchors as shown.
5. Place the pipe dope on the cool guide adapter threads and thread them into the pump discharge.
6. Attach cooling collar to adapter with set screw provided.
7. Glue pipe into flow collar and with pump attached, lower into the guide tube.
8. Attach to discharge pipe, valves, and connect electrical and specified.



PERC-RITE HYDRAULIC UNIT (15 GPM)
(NOT TO SCALE)



TYPICAL PUMP TANK & HYDRAULIC UNIT DETAIL
(NOT TO SCALE)



INSULATION DETAIL
(NOT TO SCALE)

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

COMMONWEALTH OF MASSACHUSETTS
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SITE PLANS 5-BEDROOM SINGLE-FAMILY DWELLING

31 NEWTON ROAD,
AMESBURY, MA

SITE DETAILS-3

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

Drawing No:

C-203

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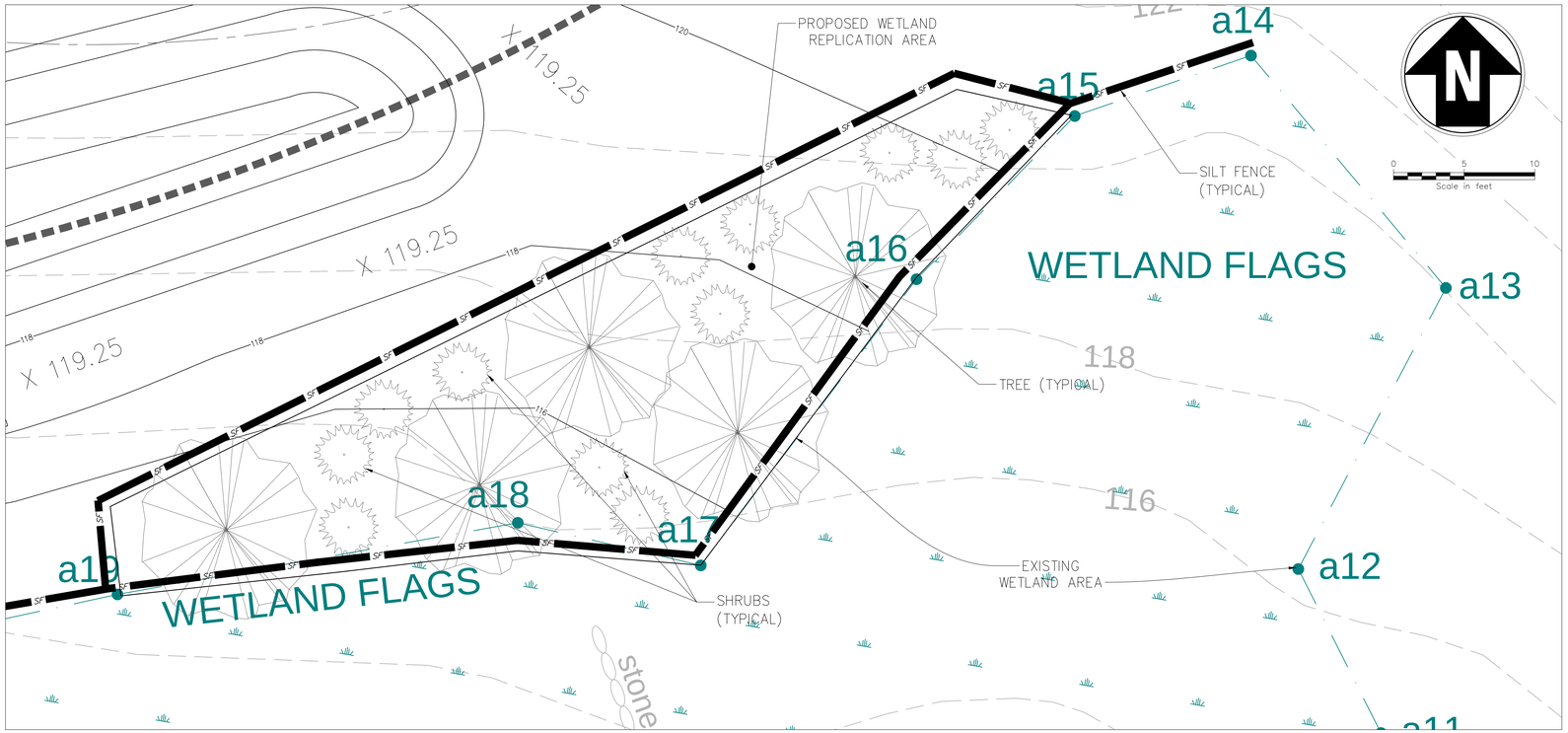


WETLAND REPLICATION AREA PLAN VIEW

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.

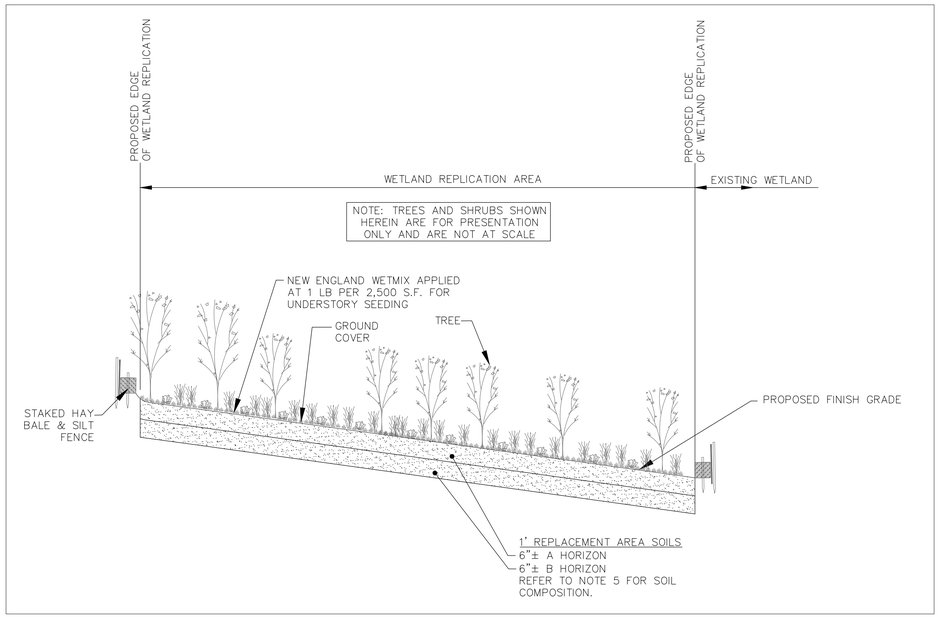
4. THE TRANSITION ZONE BETWEEN THE WETLAND REPLACEMENT AREA AND THE SURROUNDING UPLAND PLANT COMMUNITY ADJACENT TO THE WETLAND REPLACEMENT AREA SHALL BE GRADED TO CREATE A SMOOTH TRANSITIONAL SLOPE BETWEEN THE WETLAND REPLACEMENT AREA AND THE UPLAND PLANT COMMUNITY. SITE GRADES AND SLOPES SHALL BE CONSTRUCTED 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 REPLICATION 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.



WETLAND REPLICATION AREA CROSS SECTION

PROPOSED VEGETATION IN WETLAND REPLICATION AREA (1,200 S.F.)

SPECIES TYPE	COMMON NAME	LATIN NAME	STATUS	PLANTING DENISTY/ COMMENTS	PROPOSED NUMBER
TREE	RED MAPLE	ACER RUBRUM	FAC	1 TREE/ 300 S.F.	5
SHRUB	HIGHBUSH BLUEBERRY	VACCINIUM 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

HD Design
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COMMONWEALTH OF MASSACHUSETTS
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15 LINCOLN STREET,
SUITE 325,
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SITE PLANS 5-BEDROOM SINGLE-FAMILY DWELLING

31 NEWTON ROAD,
AMESBURY, MA

WETLAND REPLICATION AREA PLAN

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

Drawing No:

C-301

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RECORD LOT PLAN
BOOK 355 PLAN 90

#25.5 NEWTON RD.
PARCEL 34–1
KEVIN S. EATON
BOOK 32839 PG.579

OUTBUILDINGS – FIELD CROPS
ZONE R80

#29 NEWTON RD.
PARCEL 33–33
RONALD A. EATON
BOOK 18240 PG.82

SINGLE FAMILY
ZONE R80

#33 NEWTON RD.
PARCEL 33–31
KEVIN S. EATON
BOOK 32839 PG.583

VACANT LAND – FIELD CROPS
ZONE R80

#32 NEWTON RD.
PARCEL 33–10
CITY OF AMESBURY

#30 NEWTON RD.
PARCEL 33–15
CITY OF AMESBURY

ABUTTER
273.51'(R) LOT 1.
I.P.(R) NOT FND.
REBAR fnd. & HELD
stone wall remains
N87°07'57"E
200.55'(R) LOT 2.
200.55'Msd. BY REBARS
N87°07'57"E <<877.20'(R)>>
REBAR FND. 0.3' NORTH OF LOT CRNR.
I.P.(R) NOT FND.
N87°07'56"E
200.55'(R) LOT 3.
ABUTTER
benchmark #2
elev.=204.50'(navd88)
flathead spike & card
2 ft. a.g.l. southerly face of tree
80 FT. REAR SETBACK
PARCEL 33–32
LOT 2.
VACANT LAND
AREA 84,725 S.F.±
1.9450 ACRE
FRONTAGE 207.01'(R)
ZONED SETBACK AREA
36,356 S.F.±
SITE ELEVATIONS & CONTOURS: NAVD88 HEIGHT DATUM.
WOOD FCE. POST BY LOTLINE
benchmark #3
elev.=184.37'(navd88)
flathead spike & card
2 ft.± a.g.l. southerly face of tree
WOOD STAKE FND. 1.3' WEST OF LOTLINE
tree line
N07°06'58"W 401.97Msd. 402.01'(R) LOT 2.
40 FT. SIDE SETBACK
S07°06'58"E 438.86'(R) LOT 3.
438.86'(R) LOT 2.
WOOD STAKE FND. 2.7' EAST OF LOTLINE
WOOD FCE. POST BY LOTLINE
WOOD STAKE FND. 0.7' EAST OF LOTLINE
WOOD POST FND. 0.5' WEST OF LOTLINE
stone wall remains
40 FT. FRONT SETBACK
CONC. POST MARKER
CONC. POST MARKER
CONC. POST MARKER
WETLAND FLAGS
REBAR FND.
I.P.(R) NOT FND.
141.96'(R) LOT 2.
N80°07'36"W
<<LOT FRONTAGE 207.01'(R)>>
65.05'(R) LOT 2.
FRONTAGE
DH.(R) NOT FND.
N88°04'17"W
I.P.(R) NOT FND.
ABUTTER
202.52'(R) LOT 3.
N88°04'17"W
I.P.(R) MARKER FND. EAST OF PARCEL BY LAND OF KEVIN EATON (TIE DISTANCE 563.30'Msd.)
DH.(R) MARKER FND. WEST OF PARCEL BY LAND OF KEVIN EATON DISTANCE 209.13'(R)
209.06'Msd. DH.(R) TO I.ROD
209.13'(R) LOT 1
N80°07'39"W
ABUTTER
RIGHT OF WAY
EDGE OF PAVED WAY
NEWTON ROAD
VARIABLE WIDTH WAY
RIGHT OF WAY
EDGE OF PAVED WAY
10" PVC PIPE
INV.IN= 110.1'
DRAIN DEPTH AT ROAD CROWN
INV.OUT= 108.9'
12" CONC. PIPE
(SILTED TO 4" DEPTH)
U.POLE #7 / 30VZ
U.POLE #29VZ
U.POLE #28VZ
U.POLE #29VZ
OHW
benchmark #1
elev.=113.26'(navd88)
flathead spike & card
1 ft. a.g.l. on e'ly. face of util. pole
a1 a2 a3 a4 a5 a6 a7 a8 a9 a10 a11 a12 a13 a14 a15 a16 a17 a18 a19 a20 a21 a22

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 SURVEYOR 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.

3/26/24
DATE

PROFESSIONAL LAND SURVEYOR

COMMONWEALTH OF MASSACHUSETTS
PATRICK J. McCORMACK
No. 29715
REGISTERED PROFESSIONAL LAND SURVEYOR

SYMBOL LEGEND

● U.POLE	UTILITY POLE / PROVIDER / NUMBER
OHW	OVERHEAD WIRE SERVICES
.(R)	LOT DIMENSION BY RECORD DEED OR PLAN
.Msd.	DIMENSION AS MEASURED BY THIS SURVEY
I.ROD FND.	IRON ROD FOUND (AT LOT CORNER).
DH. FND.	DRILL HOLE FOUND
CH–LK.FCE.	CHAIN–LINK FENCE
11.4'	GROUND SPOT ELEVATION
INV.IN/OUT *.**	MEASURED PIPE INVERT (BY INFLOW / OUTFLOW)

0 20 40
PLOT SCALE 1" = 20 FT.

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