

PLEASE NOTE THE FOLLOWING ADDITIONAL REQUIREMENTS:

- (1) *IA Technology Acknowledgement Form* is required for any proposed DEP-approved *IA* system;
- (2) *Conservation Commission approval of the septic design required prior to BOH review;*
- (3) *A copy of the Trench Permit shall be submitted to the BOH prior to installation.*

BOARD OF HEALTH
SHERBORN, MASSACHUSETTS

APPLICATION NO. _____

Title V only

APPLICATION FOR DISPOSAL WORKS CONSTRUCTION PERMIT

Application Fee: \$750.00 Variance Fee: _____ Transfer Fee: _____
Received _____ Date _____ On Plan Submission
Received \$750.00 Date 10/24/23 Additional fee for Re-submittal of Plan

Application is hereby made for a permit to: (1) *Locate and Construct* (); (2) *Alter* (); (3) *Transfer* ();
(4) *Repair* () an individual sewage disposal system; (5) *Revise a Previously Approved Plan* (); OR
(6) *Other* _____ as shown on the plans annexed here at:

Address of Property: Street # Greenwood Street (a.k.a 0 Washington St) Lot # Lot 2

Name of Owner: Mary Buntin, Trustee AB Realty Trust Tel # (978) 774-3085
Owner's address: 7 Saint Joseph St, Hyannis, MA 02601
Owner's email: mbuntin@me.com

Name of Applicant: Bob Murchison Tel # (617) 308-1961
Applicant's address: 177 Lake Street, Sherborn, MA 01770
Applicant's email: bob.murchison@me.com

Type of Building: Single Family Residence No. of Bedrooms: 04

If other than dwelling, estimated flow: _____

Accompanied by plan dated: 10/18/23 Revised: _____

The undersigned acknowledges that he shall, before commencing construction or use of the system that is the subject matter of this application, secure any and all other permits which may be required by the laws of the Town of Sherborn and the Commonwealth of Massachusetts, including, wherever applicable, a building permit, any variances or special permits from the ZBA, any Planning Board approvals, Negative Determination or Order of Conditions from the Conservation Commission, as well as approval from the Board of Health upon completion. It is also acknowledged that the system shall be installed by a person or firm having a permit to install such systems in the Town of Sherborn.

SIGNATURE OF PROPERTY OWNER: *Mary Buntin* DATE: *10/24/23*

REVIEW NOTES:



Board of Health

TOWN HALL • 19 WASHINGTON ST. • SHERBORN, MASSACHUSETTS 01770
508-651-7852 • FAX 508-651-7868

N/A

Innovative/Alternative (I/A) Technology ACKNOWLEDGEMENT FORM

This form, signed by both the property owner and the design engineer, is required as part of any new or replacement subsurface sewage disposal system application using any DEP approved I/A Technology (i.e. Geoflow Drip, FAST, Infiltrator trenches, etc.). The use of this form is intended to ensure that the owner is fully aware of all requirements of the I/A technology system designed for the property.

➤ **Operation and Maintenance Agreement / Effluent Testing**

- The owner shall have in place, for the life of the system, a maintenance contract with a Certified Wastewater Operator specifically licensed in Massachusetts.
- Plans for operation and maintenance, monitoring, and testing shall be submitted to the Board of Health (and in some cases to MassDEP) for approval prior to start-up of the system.
- The owner is aware of the required inspection, testing, and maintenance of the system which shall be performed in accordance with the technology approval issued by the MassDEP, and that testing results shall be submitted to the Board of Health.

➤ **Deed Recording**

- Prior to installation of the system, the system owner shall record in the appropriate Registry of Deeds a Notice disclosing both the existence of the alternative septic system on the property and the Department of Environmental Protection's approval of the system. Within 30 days of recording such Notice, the system owner shall submit a certified Registry copy of the Notice bearing the book and page/instrument number and/or document number to the local approving authority (Board of Health) and the Department of Environmental Protection.

➤ **Department of Environmental Protection Approval**

- The owner has been provided with a copy of the MassDEP's approval letter for the I/A Technology for the system.
- The owner is aware that I/A systems require a higher level of maintenance and may be more expensive to maintain than a conventional system.

(1) I certify that I have discussed all requirements of the proposed I/A technology with the property owner(s).

Signature

Date

10/24/23

Design Engineer

(2) I certify that I have been informed of all requirements of the I/A technology system proposed for my property.

Signature(s)

Property Owner(s)

Date

10/24/23

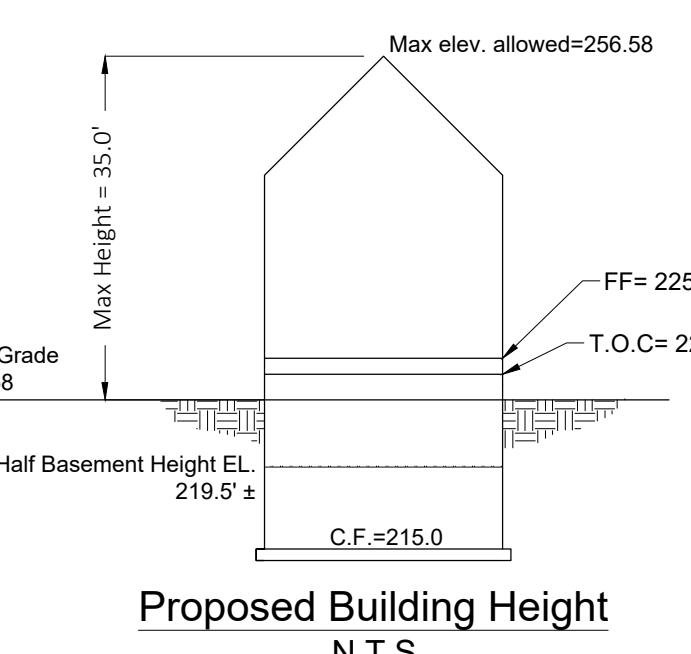


Table 2. Zoning Compliance Summary (Sherborn Residential B District)			
Item	RB	Proposed	Waiver Required (Yes, No)
Minimum Lot Area	2 acres	0.92 acres	Yes
Minimum Frontage	200 feet	200 feet	No
Minimum Lot Width	200 feet	195.68 feet	Yes
Minimum Lot Depth	n/a	n/a	n/a
Minimum Front Setback	60 feet	76.61 feet	No
Minimum Side Setback	40 feet	41.99 feet	No
Minimum Rear Setback	30 feet	85.1 feet	No
Maximum Height (stories)	2.5 stories	2.5 stories	No
Maximum Height (feet)	35	<35	No
Maximum Lot Coverage	n/a	n/a	n/a

General Notes

- Record owner is AB Realty Trust. See Middlesex County Registry of Deeds Book 25396, Page 417 and Sherborn Assessor's Map 7, Lot 49 for records.
- The Zoning district for the parcel is RB.
- The lot is shown in a FEMA Federal Hazard Zone "X" (unshaded), area of minimal flood hazard and outside the 0.2% annual chance floodplain. FIRM 25017C0632E, Effective 06/04/2010.
- This plan is only for the purpose of comprehensive permitting (ZBA, BOH, Conservation, Building Department)
- The Wetland Delineation was conducted by Creative Land & Water Engineering, LLC. on February 24 and on March 3, 4, 8, and 14 of 2022.
- The Horizontal Datum was based on NAD 83.
- Existing site details are based on the plan titled "Plan of Land" by Samiotes Consultants, INC., revised January 11, 2023.
- This plan is referenced vertically to the North American Vertical Datum of 1988 by RTK GPS observations taken on March 11, 14 & 15 of 2022 by Samiotes Consultants, INC.
- This plan is the result of an instrument survey performed on March 11, 14 & 15 of 2022 by Samiotes Consultants, INC.
- This plan is not intended to represent an on-the-ground topographic survey. Contours shown have been generated from GIS data and are for conceptual purposes only.
- This plan is not intended to represent a boundary survey. Property lines and easements shown are approximate.
- Owners of abutting properties are according to current assessor's records.

Septic Notes

1. This plan is only for a new, 4-bedroom, single family house septic construction and grading purposes.
2. This plan and specifications are intended to be explanatory of the work to be done for review, approval, and field construction. Should any omissions, errors, or discrepancies appear, they shall be subject to correction and interpretation by the design engineer to define and fulfill the intent of the plans according to applicable regulations and engineering principles.
3. To verify that the plans being utilized for construction are current, call 774-454-0266.
4. All erosion control shall be installed according to the plan prior to construction.
5. Prior to execution of construction contract or commencement of construction, all B.O.H. permits and relevant Town Permits must be obtained. This plan must be approved by, and a disposal works construction permit issued by the Sherborn board of health.
6. All materials and workmanship shall be in compliance with title 5 of the state sanitary code.
7. An installer certification is required for the installation of the septic system.
8. NO GARBAGE GRINDER IS ALLOWED FOR THIS DESIGN. PROOF OF DEED RESTRICTION IS REQUIRED BY THE BOARD OF HEALTH PRIOR TO THE RELEASE OF THE APPROVED PLAN.
9. The septic tank shall be inspected annually and pumped as needed and records retained.
10. Prior to construction, property lines and proposed structures shall be field staked by a Professional Land Surveyor.
11. Locations of all existing utilities shown in the drawings are only approximate and there may be existing liens other than those shown on the plan hereon.
12. It shall be the responsibility of the contractor to contact all utility companies for field locations of existing underground pipes, conduits, tanks, structures, etc. Contact DIGSAFE at 1-888-344-7233 or 811.
13. If conditions encountered during construction vary substantially from those shown on this plan, notify CLAWE before proceeding with construction.
14. Upon completion of excavation for the leaching facility the board of health and design engineer shall be notified for inspection.
15. All components are not to be backfilled or concealed without inspection by Board of Health and permission obtained by Board of Health.
16. After construction, this system will be inspected by the B.O.H. and by the design engineer. After verification of the construction, the engineer will certify that the system is constructed in significant compliance with the design plan and the terms of the permit prior to the final approval of the B.O.H.
17. The as-built survey and sieve analysis for the imported fill material shall be provided to the Sherborn Board of Health prior to inspection.
18. It is the Contractor's responsibility to notify the design engineer and board of health for all required inspections at least 72 hours in advance.
19. All loam, subsoil and other unsuitable material below the invert elevation of the leaching facility must be removed within 5 feet of the leaching area and replaced with material having a percolation rate of 2 minutes per inch or less in accordance with 310 CMR 15.255 (3).
20. Limits of excavation of the soil absorption system may be made by mechanical means to assure that the soil at the bottom of the excavation area is not compacted or smeared.
21. Prior to placement of the fill, the bottom surface of the excavation shall be dry and scarified. The fill be stockpiled at the edge of foundation and pushed or cast inward over excavated area. The fill shall not be placed during rain or snow storms. Dewatering is required if fill is to be placed below groundwater.
22. A sieve analysis is to be completed on the "in place" imported fill and shall meet the specifications in accordance with 310 CMR 15.255 (3).
23. The septic tank shall be two compartments with gas baffle and outlet filter sized in accordance with the design flow.
24. Where retaining wall is required, it should be constructed to ASTM standards and 310 CMR 15.255(2).
25. The leaching area and septic tank shall be located to meet all the applied setbacks and groundwater separation in the State Environmental Code 310 CMR15.211.
26. All disturbed areas shall be stabilized with loam and seed.
27. All construction shall follow the design plan, 310 CMR 15.00.
28. The septic tank shall be maintained in accordance with 310 CMR 15.351.
29. Fill material for leaching field fill shall be in compliance with 310 CMR 15.255 (3).
30. Leaching fields and septic system components are not designed to stand construction equipment loading. The contractor and owner shall be responsible for preventing vehicle or heavy loading over the septic system.
31. All system components shall be marked with magnetic tape for future location per 310 CMR 15.221:
 - a) four sides of the SAS and top of the distribution laterals;
 - b) envelope of the septic tank, pumping chamber, and the D-box;
 - c) any other I/A components.

ADDITIONAL NOTES

1. Based on our record review at Sherborn Board of Health and field investigation, there are no existing wells located within 200-ft of the proposed septic leaching field unless otherwise noted on the plan.
2. The proposed unit will serve a 4-bedroom single family house.
3. The proposed onsite well serving the proposed residential house meet the required setback 100 ft from SAS and 50 ft from septic tank and other setback requirements per 310 CMR15.211 as shown on the plan.
4. The proposed septic soil absorption system (leaching field) for the project is not located within or impacted by any easements, wetlands, vernal pools or flood zones per State Environmental code 310 CMR 15.000 as shown on the plan.
5. The project is located within a nitrogen sensitive area. The parcel is 0.92 AC (40000 Sq.ft) and will accommodate the 4-bedroom design (440 gallons per day), which meets State Environmental code 310 CMR 15.000 of 440 gallons per day per acre.
6. There are no bordering vegetated wetlands located within 100' of the proposed SAS as shown on the plan.
7. There are no wetlands bordering surface water supply or tributaries within 200' of the SAS unless otherwise shown on the plan.
8. There is no surface, foundation drain or other forms of open, surface or subsurface drains located within 100 ft of the leaching field for the project that intercept high groundwater table, nor any other forms of drains (open, surface, subsurface) intercept high groundwater.
9. There is no surface water located within 150' of the SAS unless otherwise noted.
10. There are no surface water supplies located within 400' of the proposed SAS unless otherwise shown.
11. There are no Inland banks located within 150' of the proposed SAS.

Well note: Based on our record review at Sherborn Board of Health and field investigation, there are no existing septic leaching fields located within 150-ft upgradient or downgradient of the proposed drinking water well unless otherwise noted.



Creative Land & Water Engineering, LLC

Environmental Scientists and Engineers

O. Box 584 - Southborough - MA - 01772
774-454-0266 www.claweng.com

1480-0107WJBL

Vol 2 Septic and Well Plan

Greenwood Street Homes

on St (Map 7, Lot 49) - Sherborn, MA

Client:

Robert Murchison

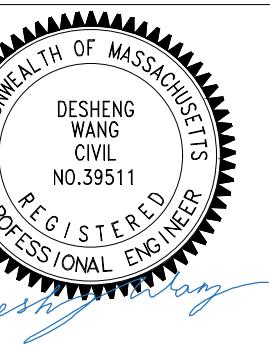
FA Date: 10/18/23 Sheet No: 2 of 11

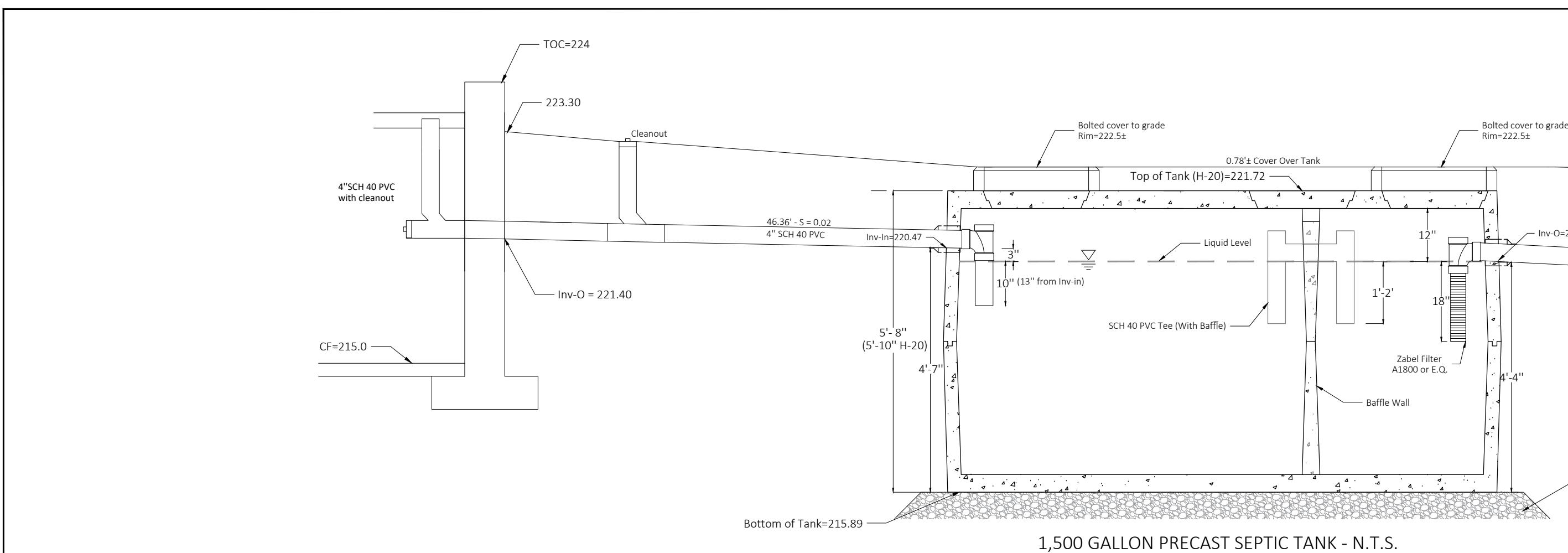
DSW Scale: Indicated

DESHENG
WANG
CIVIL

NO.39511

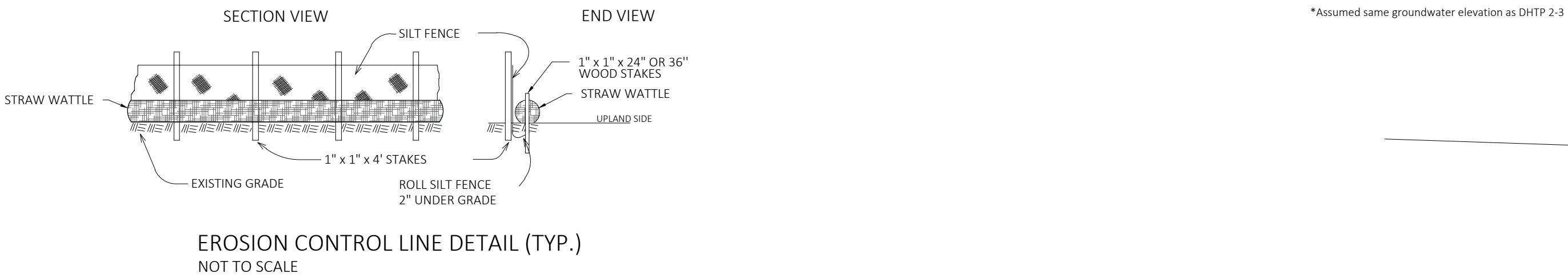
PROFESSIONAL ENGINEERING



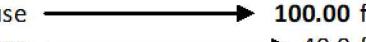
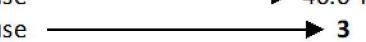
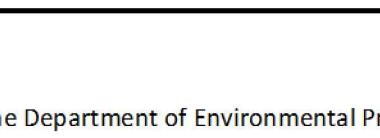


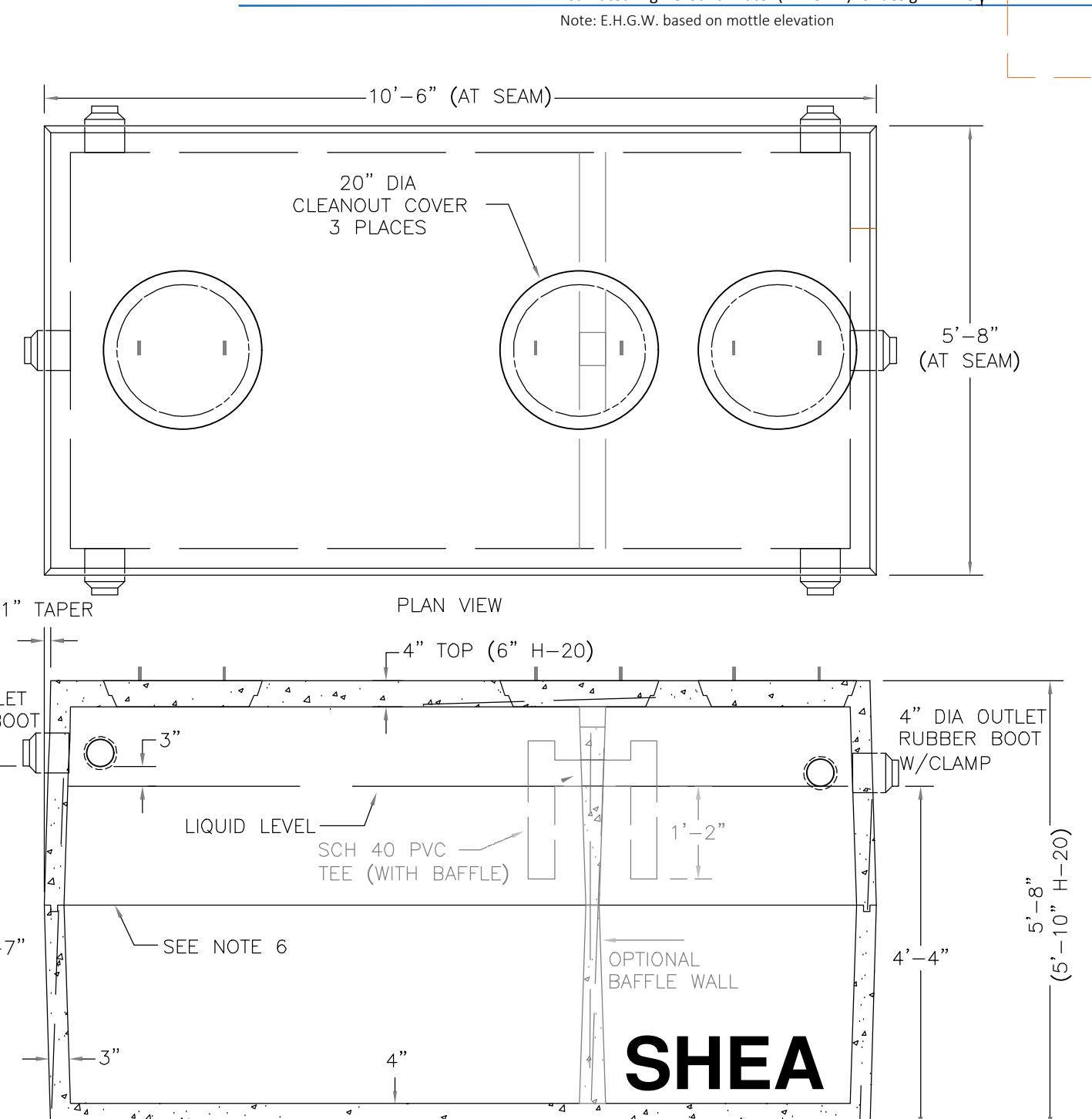
SYSTEM PROFILE

N.T.S.

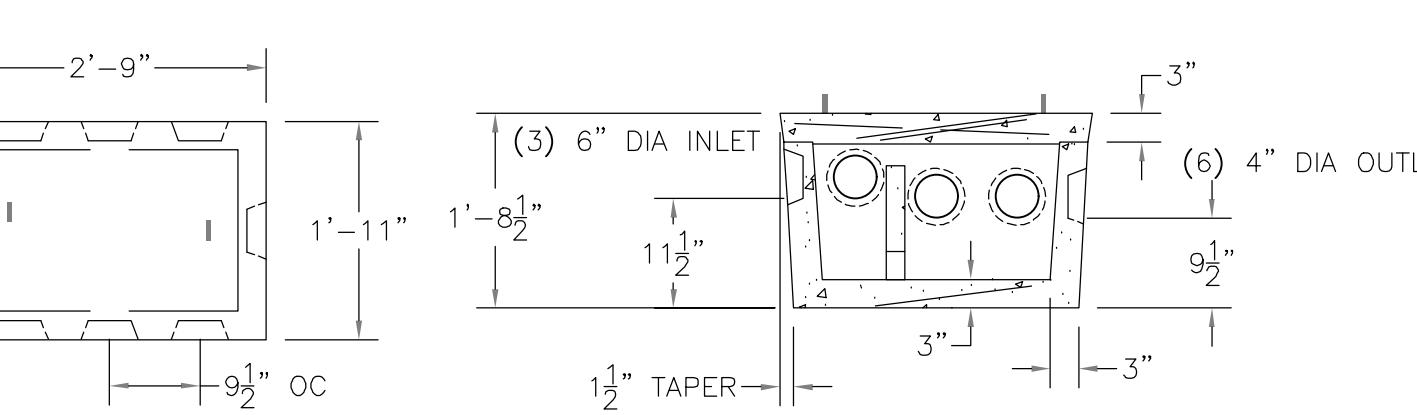


EROSION CONTROL LINE DETAIL (TYP.)

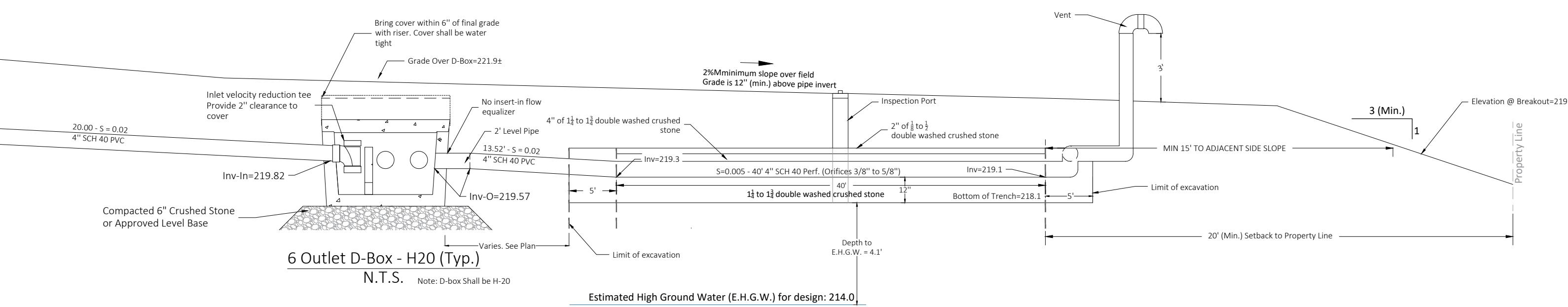
Test Pit #					
DHTP 2-1		DHTP 2-3		DHTP 2-4	
Surface Elevation (ft)	219.20	Surface Elevation (ft)	218.50	Surface Elevation (ft)	218.70
0"	-	0"	-	0"	-
4" (Elev=218.86)	(A) S.L. - 10 YR 3/2 Friable	4" (Elev.218.16)	(A) S.L. - 10 YR 3/2 Friable	4" (Elev=218.36)	(A) S.L. - 10 YR 3/2 Friable
24" (Elev=217.2)	(Bw) S.L. - L.S 10 YR 6/6 Friable Mottles 10 YR 6/8	36" (Elev=215.5)	(Bw) F.L.S. 2.5 Y 6/6 Friable Mottles 10 YR 6/8	36" (Elev=215.7)	(Bw) S.L. 2.5 Y 6/6 Friable Mottles 10 YR 6/8
120" (Elev=209.2)	(C) M.L.S 2.5 Y 6/4 Firm	90" (Elev=211.0)	S.L. - F.L.S. 2.5 Y 6/4 Friable	100" (Elev=210.36)	S.L-L.S 2.5 Y 6/4 Fri - Firm
120"+ (Elev=209.2)	Cr	90"+ (Elev=211.0)	Cr	100"+ (Elev=210.36)	
Percolation Depth (in) =	42"	-	63"	Deephole Only	
Start/End Pre-Soak =	10:03 am/10:18 am	-	12:53 pm/1:08 pm	-	-
Time at 12"	10:18 am	-	1:09 pm	-	-
Time at 11"	10:19 am	-	1:11 pm	-	-
Time at 10"	10:20 am	-	1:10 pm	-	-
Time at 9"	10:22 am	-	1:15 pm	-	-
Time at 8"	10:24 am	-	1:19 pm	-	-
Time at 7"	10:27 am	-	1:24 pm	-	-
Time at 6"	10:29 am	-	1:29 pm	-	-
Time (9"-6")	7 Min	-	14 Min	-	-
Percolation Rate (MPI.) =	3	-	5	-	-
Depth to E.H.G.W. (in) =	90	-	54	-	72
Mottles Observed at (in)	90	-	54	-	72
Weeping (in)	None	-	None	-	None
Standing Water (in)	None	-	None	-	None
Groundwater adjustement (ft)					
Adjusted depth to GW (ft):					
Est. G.W. Elev., (ft)	211.70		214.00		212.70
Facility to be Served	4 Bedroom Single family house				
Required Design					
Bedroom #:	4 x 110	gal/brm			440 GPD
Garbage Disposal Provided	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				1 GPD
Total Required Design (GPD)					440 GPD
Grease Trap: Not Required					
90-seat restaurant:	0 X 15	gal/seat			1 GPD
Grease trap volume:					1 GPD
Septic tank:					
Two-compartment					1500 GPD
ZABEL Filter A1800	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				
Total Required Design (GPD)					1500 GPD
Soil Absorption System (use 1' Deep x 3' Wide trenches)					
Design Percolation Rate	5	MPI			0.74 gal/sq ft/day
Soil Texture Classification	Use Class I Soils				
Min. center to center pipe spacing:	12 ft				use 
Trench depth:	12-24 in				use 
Trench width:	2-3 ft				use 
Min. trench length:	118.92 ft				use 
Limit of length:	100 ft				use 
Number of lines:	3				use 
Design effluent treatment capacity	444	gpd			>440 gpd OK
Soil Evaluator Certification:					
I certify that on June 8, 1995 I have passed the soil evaluator examination approved by the Department of Environmental Protection and that all soil evaluation and analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. My certificate number is SE2545.					
					



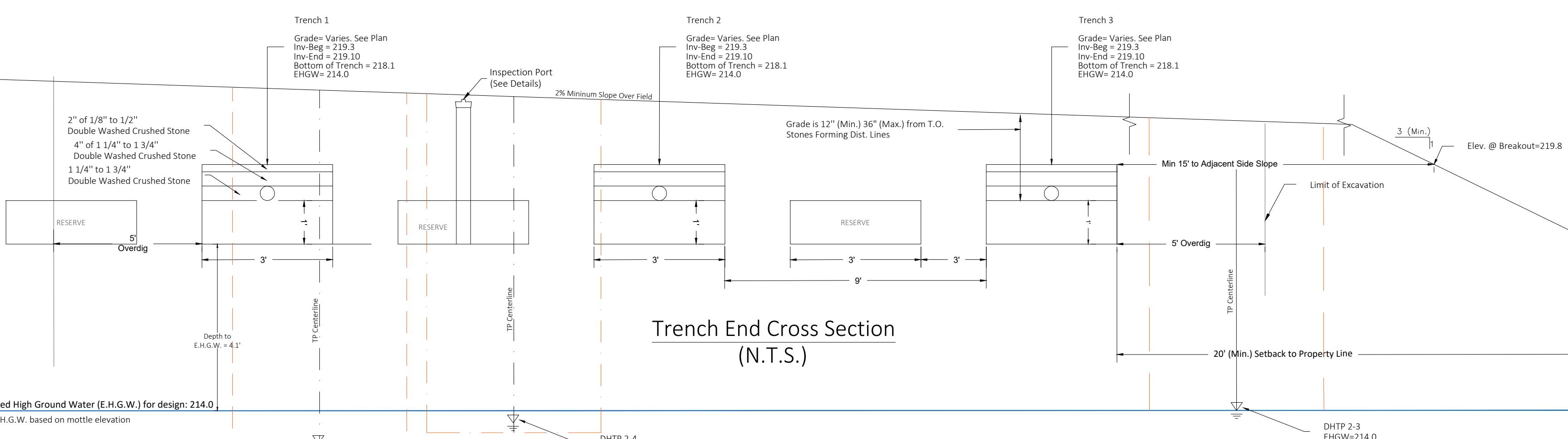
HEA CONCRETE 1,500 GALLON PRECAST SEPTIC TANK - N.T.S.



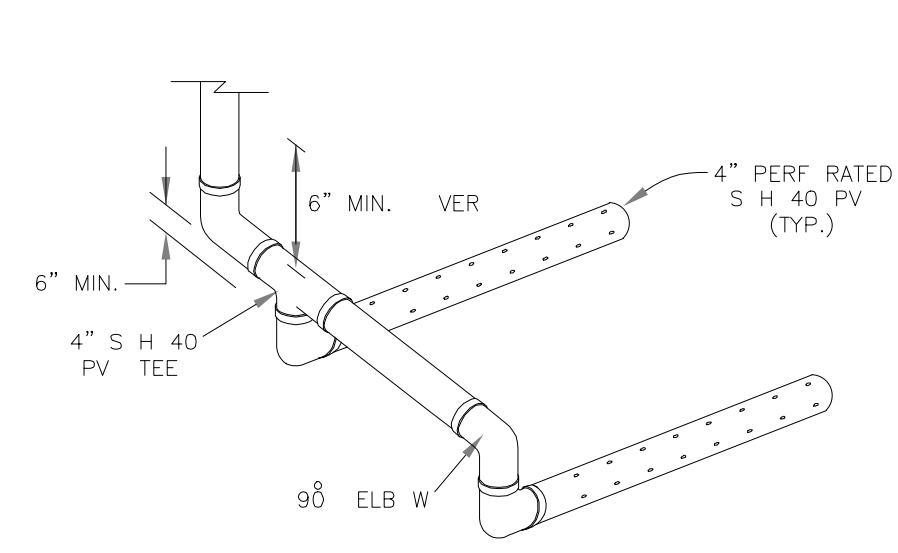
6 Outlet Distribution Box with Baffle - Typical
N.T.S. D-box shall be H-20



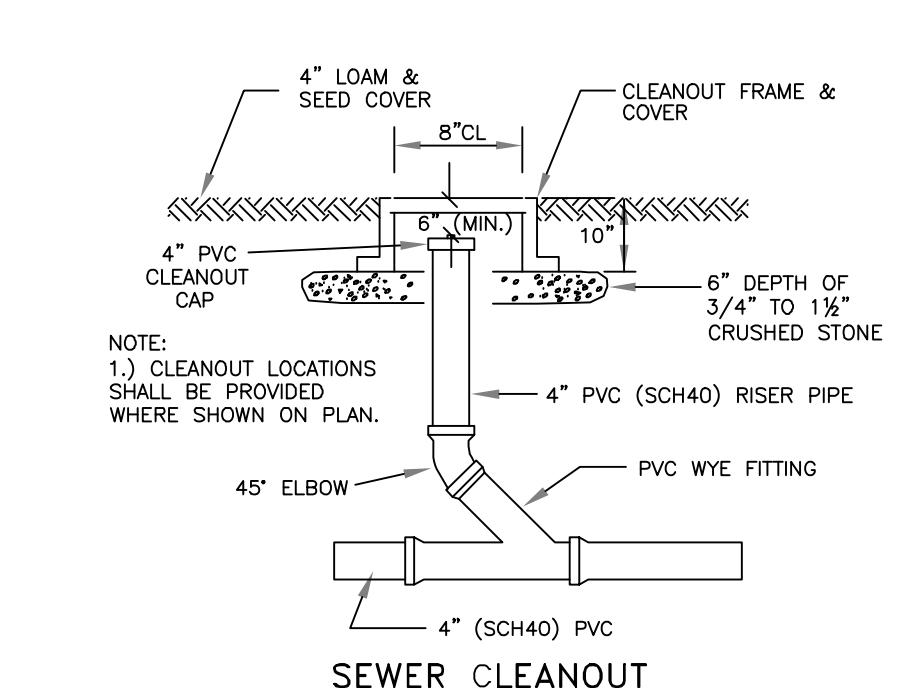
Estimated High Ground Water (E.H.G.W.) for design: 214.0



Trench End Cross Section (N.T.S.)



SAS VENTED END DETAIL



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774-454-0266 www.claweng.com

FINISHED GRADE

LAYERS OF
ISHED STONE

PROVIDE AN INSPECTION P RT, LOCATED AS SHOWN. THE INSPECTION PORT SHALL C NSIST OF SOLID 4" (SCH 40) PV WITH 16-3/8" DRILLED EVENLY SPACED HOLES IN THE LOWER 24" SECTION OF PIPE. THE PIPE SHALL BE A SINGLE PIECE WITH A THREADED CAP POSITIONED 2" BELOW FINISHED GRADE. PROVIDE 6" STRIP OF MAGNETIC WARNING TAPE OVER CAP.

4"PV (S H.40) PIPE

24"

LEACHING TRENCH

INSPECTION PORT DETAIL

\Users\clawe\OneDrive\Jobs\Sherborn\J269-19 Greenwood & Washington\Drafting