

NOTE: ALL SYSTEM COMPONENTS ARE TO BE MARKED

SEWER CLEANOUT RING & - COVER (LEBARON 4" PVC TREADED -FOUNDRY, INC. OR EQUAL) FINISH GRADE 4" PVC FEMALE PERFORATED ADAPTOR (SLIP SOCKET SCH. 40 PVC xFEMALE THREAD) LEACHING LINE $\frac{3}{4}$ "-1 $\frac{1}{2}$ " DOUBLE WASHED STONE

TREE REMOVAL SUMMARY

TREE DIAMETER:

*TREE REMOVAL NOTE:

TREES TO BE REMOVED

CORRESPONDING LETTER

DRAWN IN THE CENTER

DENOTED BY A

OAK

PINE

PINE

PINE PINE

PINE

OAK

OAK

PINE

OAK

PINE

PINE

TREE LABEL:

INSPECTION PORT DETAIL

NOT TO SCALE

SCHEDULE OF CROSS-TIES:					
COMPONENT	Α	В	С		
SEPTIC TANK	32.5'	11.4'	_		
D-BOX	_	41.4'	31.5'		
INSP. PORT/M.H.	_	53.8'	32.2'		

ADJACENT WATTLES WOODEN STAKE TO BE PLACED SHALL TIGHTLY AT EITHER END OF THE WATTLE BUTT TOGETHER AND AT MAX. SPACING OF 4' .O.C FILL HIEGHT=3"± UNDISTURBED SUBGRADE INBED WATTLE 3"± INTO EXISTING -GROUND SURFACE NOTE: WATTLE SHALL BE 12" DIAMETER

STRAW WATTLE DETAIL

NOT TO SCALE

GENERAL NOTES:

- 1. TOPOGRAPHIC INFORMATION IS THE RESULT OF AN ON-THE-GROUND SURVEY PERFORMED BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC. ELEVATIONS REFER TO ASSUMED DATUM (SEE BENCH MARK LOCATED ON PLOT PLAN).
- PROPERTY LINE INFORMATION TAKEN FROM RECORDED PLAN ON FILE WITH THE S. MIDDLESEX REGISTRY OF DEEDS.
- PLAN BOOK: <u>U-5</u> PLAN: <u>17</u>
- PERCOLATION TESTS PERFORMED IN ACCORDANCE WITH 310 CMR (TITLE 5) REGULATIONS 15.104 AND 15.105. ANY DEVIATIONS FROM THE DESIGN PLAN MUST BE APPROVED IN WRITING BY DUCHARME & DILLIS CIVIL DESIGN GROUP, INC.
- NO PERMANENT STRUCTURES MAY BE CONSTRUCTED OVER THE RESERVE LEACHING AREA.
- 6. THE BOARD OF HEALTH REQUIRES INSPECTION OF ALL CONSTRUCTION BY THE DESIGN ENGINEER OR BY AN AGENT OF THE BOARD OF HEALTH, AND THAT SUCH A PERSON CERTIFIES IN WRITING THAT ALL WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE TERMS OF
- THE PERMIT AND THE APPROVED PLANS.

 7. FOR PROPER PERFORMANCE, A SEPTIC TANK SHOULD BE INSPECTED AT LEAST ONCE EVERY YEAR AND WHEN THE TOTAL DEPTH OF SCUM AND SOLIDS EXCEEDS ONE THIRD OF LIQUID DEPTH OF THE TANK, THE TANK SHOULD BE PUMPED.
- THIS DESIGN DOES NOT ACCOMMODATE A GARBAGE DISPOSAL.
- 9. CONSTRUCTION WITHIN 100 FEET OF A WETLAND RESOURCE AREA AS DEFINED IN THE MASSACHUSETTS WETLAND PROTECTION ACT AND REGULATIONS (310 CMR 10.00) SHALL NOT BE PERFORMED UNTIL AN ORDER OF CONDITIONS OR NEGATIVE DETERMINATION OF APPLICABILITY
- HAS BEEN OBTAINED FROM THE LOCAL CONSERVATION COMMISSION. 10. EXISTING UTILITES SHOWN ON THIS PLAN WERE COMPILED FROM FIELD MEASUREMENT AND RECORD PLANS. THE UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY AND SHOULD NOT BE ASSUMED TO BE CORRECT NOR SHOULD IT BE ASSUMED THAT THE UTILITIES SHOWN
- ARE THE ONLY UTILITES LOCATED ON OR NEAR THE SITE. THE CONTRACTOR SHALL CALL DIG SAFE 1-888-DIG-SAFE PRIOR TO CONSTRUCTION IN ACCORDANCE WITH STATE LAWS. 11. FOR PROPOSED PLANTING LOCATIONS AND DESCRIPTIONS, PLEASE REFER TO THE LANDSCAPE PLAN ENTITLED "PROPOSED PLANTING PLAN",

CONSTRUCTION NOTES:

PREPARED BY LANDSCAPE ELEMENTS, LLC DATED 12/03/2018.

- 1. FINISH GRADING SHALL BE DONE IN ACCORDANCE WITH THE PLOT PLAN. ALL DISTURBED AREAS SHALL BE COVERED WITH A MINIMUM OF
- 4" OF LOAM AND SEEDED WITH A NATIVE GRASS MIXTURE. 2. BACKFILL OVER THE SOIL ABSORPTION SYSTEM, SEPTIC TANK AND PUMP CHAMBER SHALL BE A MINIMUM OF 9 INCHES EXCLUDING TOPSOIL, PLACED IN LIFTS AND SUFFICIENTLY COMPACTED TOP PREVENT DEPRESSIONS DUE TO SETTLING. BACKFILL OVER THE SOIL ABSORPTION SYSTEM SHALL BE FREE OF STONES AND BOULDERS GREATER THAN 6 INCHES IN SIZE.
- THE BUILDING SEWER SHALL BE LAID ON A COMPACTED FIRM BASE. ALL PIPING SHALL BE MINIMUM OF SCHEDULE 40 UNLESS OTHERWISE NOTED.
- 5. ALL PIPE JOINTS AND CONNECTIONS TO SYSTEM COMPONENTS SHALL BE MECHANICALLY SOUND, WATER TIGHT AND PROTECTED AGAINST DAMAGE BY ROOTS. ALL BUILDING SEWERS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STATE PLUMBING CODE 248 CMR 2.00.
- FINAL COVER OVER THE SYSTEM SHALL BE GRADED TO REDUCE INFILTRATION OF SURFACE WATER AND MINIMIZE EROSION. FINISH GRADE
- SHALL HAVE A MINIMUM SLOPE OF 2%. EFFLUENT DISTRIBUTION LINES SHALL HAVE A SLOPE OF 0.05%.
- 9. OUTLET DISTRIBUTION LINES FROM THE D-BOX SHALL BE LEVEL FOR A MINIMUM OF TWO FEET OF THEIR LENGTH.

 10. FILL MATERIAL FOR SYSTEMS CONSTRUCTED IN FILL SHALL CONSIST OF SELECT ON-SITE OR IMPORTED SOILS THAT MEET THE MINIMUM
- REQUIREMENTS STATED IN 310 CMR 15.255(3).
- REQUIREMENTS STATED IN 310 CMR 15.250(3).

 11. WHERE FILL IS REQUIRED TO REPLACE UNSUITABLE OR IMPERMEABLE SOILS, THE EXCAVATION OF THE UNSUITABLE MATERIAL SHALL EXTEND A MINIMUM OF 5 FEET LATERALLY IN ALL DIRECTIONS BEYOND THE OUTER PERIMETER OF THE SOIL ABSORPTION SYSTEM TO THE DEPTH OF 3 INCHES INTO THE NATURALLY OCCURRING PERVIOUS MATERIAL.

 12. THE BOTTOM SURFACE OF THE EXCAVATION SHALL BE SCARIFIED AND RELATIVELY DRY. FILL SHALL NOT BE PLACED DURING RAIN OR
- SNOW STORMS. IF THE WATER TABLE ELEVATION IS ABOVE THE ELEVATION OF THE BOTTOM OF THE EXCAVATION, THE EXCAVATION SHALL
- 13. SUBSURFACE COMPONENTS OF A SYSTEM SHALL NOT BE BACKFILLED OR OTHERWISE CONCEALED FROM VIEW UNTIL A FINAL INSPECTION HAS BEEN CONDUCTED BY THE APPROVING AUTHORITY AND PERMISSION HAS BEEN GRANTED BY THE APPROVING AUTHORITY TO BACKFILL THE SYSTEM. THE DESIGNER SHALL INSPECT THE CONSTRUCTION AFTER THE INITIAL EXCAVATION, PRIOR TO BACKFILLING, AND DURING BACKFILLING. IN ADDITION, THE FINAL INSPECTION OF THE SYSTEM SHALL BE CONDUCTED BY THE APPROVING AUTHORITY, THE SYSTEM

INSTALLER AND THE DESIGNER PRIOR TO THE ISSUANCE OF A CERTIFICATE OF COMPLIANCE PURSUANT TO 310 CMR 15.021(3). ANY

COMPONENT OF THE SYSTEM WHICH HAS BEEN COVERED WITHOUT SUCH PERMISSION SHALL BE UNCOVERED UPON THE REQUEST OF THE

- APPROVING AUTHORITY OR THE DESIGNER. 14. ALL SYSTEM COMPONENTS SHALL BE MARKED WITH MAGNETIC MARKING TAPE OR A COMPARABLE MEANS IN ORDER TO LOCATE THEM ONCE
- 15. ALL SOIL ABSORPTION SYSTEMS SHALL HAVE A MINIMUM OF ONE (1) INSPECTION PORT CONSISTING OF A PERFORATED FOUR (4) INCH PIPE PLACED VERTICALLY DOWN INTO THE STONE TO THE NATURALLY OCCURRING SOIL OR SAND FILL BELOW THE STONE. THE PIPE SHALL BE
- CAPPED WITH A SCREW TYPE CAP AND ACCESSIBLE TO WITHIN THREE (3) INCHES OF FINISH GRADE.
- 16. EXISTING SEPTIC PUMP SHALL BE INSPECTED AND TESTED AS PART OF THE FINAL SYSTEM INSPECTION, CONTRACTOR SHALL VERIFY THE PRESENCE OF AN ALARM PANEL CONFORMING TO TITLE V REQUIREMENTS. PUMP CHAMBER AND ALARM PANEL SHALL BE UPGRADED IF NOT COMPLIANT WITH TITLE 5 OR NOT FUNCTIONING PROPERLY.

IN-SEASON GROUND WATER TESTING - (IF REQ'D)				Q'D)			F	PERCOL	ATION TEST DATA	١	
TEST SURFACE		SURFACE	DEPTH TO G.WATER		TES	TEST		TOP OF 12" OF			
PIT NO.	DATE	FLEVATION	OBSERVED GROUNDWATER	ELEVATIO			DATE		DEPTH FROM SURFACE	SURFACE ELEVATION	MINUTES PER INCH
,					PA		10/9/18	18	52 *	202.0	2 MPI
			-								
SOIL CLASSI	FICATION: H	HINCKLEY LO	OAMY SAND								
SOIL CLASSI GEOLOGICAL	MATERIAL: F	PROGLACIA	AL OUTWASH	1							
GEOLOGICAL LAND FORM:	MATERIAL: F	PROGLACIA DUTWASH	AL OUTWASH	1							
GEOLOGICAL LAND FORM: SOIL LIMITA	MATERIAL: F	PROGLACIA DUTWASH NONE	AL OUTWASH	1							
GEOLOGICAL LAND FORM: SOIL LIMITA	MATERIAL: F	PROGLACIA DUTWASH	AL OUTWASH	1							
GEOLOGICAL LAND FORM: SOIL LIMITAT GENERAL NO	MATERIAL: F	PROGLACIA DUTWASH NONE	AL OUTWASH		COLOR	MOTT		G.W.	OTHER		
GEOLOGICAL LAND FORM: SOIL LIMITAT GENERAL NO DEEP TEST	MATERIAL: F: (1) ITIONS: N DTES:) PIT: 1018–1	PROGLACIA DUTWASH NONE (AL OUTWASH PLAIN		COLOR 10YR 3/3	MOTT		G.W.	OTHER CRUMB, FRIABLE		
GEOLOGICAL LAND FORM: SOIL LIMITAT GENERAL NO DEEP TEST	MATERIAL: F () () () () () () () () () (PROGLACIA DUTWASH NONE (DEPTH 0-10"	AL OUTWASH PLAIN HOR.	TEX.							

I CERTIFY THAT I AM CURRENTLY APPROVED BY THE DEPARTMENT OF ENVIRONMENTAL PROTECTION PURSUANT TO 310 CMR 15.017 TO CONDUCT SOIL EVALUATIONS AND THAT THE ABOVE ANALYSIS HAS BEEN PERFORMED BY ME CONSISTENT WITH THE REQUIRED TRAINING, EXPERTISE, AND EXPERIENCE DESCRIBED IN 310 CMR 15.017. I FURTHER CERTIFY THAT THE RESULTS OF MY SOIL EVALUATION, AS INDICATED ON THE ATTACHED SOIL EVALUATION FORM,

LICENSED SOIL EVALUATOR: WILLIAM J. "JACK" MALONEY, JR (S.E.# 13704)

LOCAL VARIANCES REQUESTED:

- 1. MINIMUM DISTANCE BETWEEN WATER BODY AND SDS AREA REGULATION: "A SEPTIC SYSTEM SHALL BE NO CLOSER THAN 100 FEET TO A
- WETLAND OR WATER BODY" (61' FEET PROVIDED)

DESCRIPTION	DRAWING ENTITY
DENOTES EXISTING CONTOUR (INDEX)	400
DENOTES EXISTING CONTOUR (INTERMEDIATE)	98
DENOTES PROPOSED CONTOUR (INDEX)	100
DENOTES PROPOSED CONTOUR (INTERMEDIATE)	98
DENOTES LIMIT OF EXCAVATION OF UNSUITABLE SOILS	<u> </u>
DENOTES PROPOSED SEWER LINE	<u> </u>
DENOTES PROPOSED WATER LINE	
DENOTES PROPOSED UNDERGROUND UTILITIES	FT
DENOTES PROPOSED BUILDING ENVELOPE	
DENOTES PROPOSED CONCRETE SEPTIC TANK	ST-1
DENOTES PROPOSED CONCRETE PUMP CHAMBER	PC-1
DENOTES PROPOSED CONCRETE DISTRIBUTION BOX	DB-1
DENOTED DEPONDED OF MED OF ANOLIT	

PREPARED BY:

BUILDING FOUNDATION

BUILDING SEWER NOTES:

DUCHARME & DILLIS

EQUIVALENT RISERS WITH MEDIUM DUTY

6" OF CRUSHED STONE

MECHANICALLY COMPACTED LEVEL BASE DUAL COMPARTMENT SEPTIC TANK

CAPACITY = 1,500 GALLONS

PRECAST REINFORCED CONCRETE (H-10)

MANUFACTURER: LAMARRE PRECAST INC.

(NOT TO SCALE)

(IN ACCORDANCE WITH 310 CMR 15.223 TO

MANHOLE COVERS (ACCESSIBLE WITHIN 6" OF

COMPARTMENT #

Design Group, Inc. CIVIL ENGINEERS. LAND SURVEYORS. WETLAND CONSULTANTS

UTILIZATION OF MATERIAL SHALL BE IN ACCORDANCE WITH THE TOWN OF STOW BOARD OF HEALTH RULES AND REGULATIONS. 3. EXISTING CESSPOOL TO BE PUMPED, CRUSHED AND BACKFILLED WITH CLEAN GRANULAR MATERIAL AND/OR IN ACCORDANCE WITH THE TOWN

STEPS SHALL BE PROVIDED

4" (SCH. 40) PVC SANITARY INLET TEE ON CENTERLINE -

3" (MAX.)

OF STOW BOARD OF HEALTH RULES AND REGULATIONS.

4" DIA. SCH 40 P.V.C

1. SEWER LINE MUST BE LAID ON A FIRM COMPACTED BASE.

2. PIPE MUST BE SLOPED AT A MIN. OF 1% (2% PREFERRED)

3. PIPE MUST BE LAID ON A CONTINUOUS UNIFORM GRADIENT.

092 MAIN STREET, P.O. BOX 428 PHONE: (978) 779-6091 FAX: (978) 779-0260 BOLTON, MASSACHUSETTS 01740 www.DucharmeandDillis.com

OWNER:

15.227(6)

SANITARY OUTLET TEE WITH

(ACCESSIBLE AT FINISHED

BRETT SIGWORTH 25 HALE ROAD STOW, MASSACHUSETTS

(IN ACCORDANCE WITH 310 CMR 15.232)

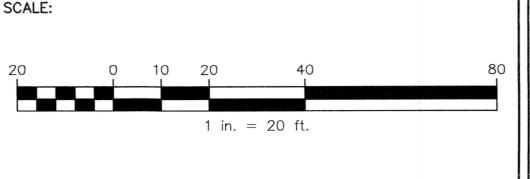
PRECAST REINFORCED CONCRETE

MANUFACTURER: LAMARRE PRECAST INC.

OR EQUIVALENT

SIZE = 5 OUTLET (UNUSED OUTLETS TO BE PLUGGED) 5

APPLICANT: BRETT SIGWORTH 25 HALE ROAD STOW, MASSACHUSETTS



COPYRIGHT DUCHARME & DILLIS CIVIL DESIGN GROUP, INC 2018

LEACHING GALLEY

. SIDES AND BOTTOM OF LEACHING FACILITY TO BE SCARIFIED.

4. GALLEY MANUFACTURER: LAMARRE PRECAST OR EQUIVALENT.

. BOTTOM OF LEACHING FACILITY MUST BE LEVEL. PIPING MUST BE SCH 40 P.V.C. WITH TIGHT JOINTS.

ENGINEER'S CERTIFICATE

SYSTEM PROFILE

NOT TO SCALE

FINAL GRADING NOTES

1. 2% SLOPE MUST BE PROVIDED OVER AND AROUND SYSTEM.

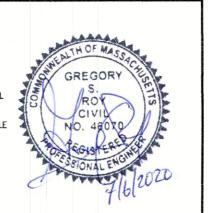
2. SURFACE DRAINAGE MUST BE AWAY FROM SYSTEM.

LEACHING GALLEY CROSS SECTION

GRADING MUST BE DONE TO PREVENT PONDING.

CERTIFY TO THE STOW BOARD OF HEALTH THAT, TO THE BEST OF MY KNOWLEDGE AND BELIEF, THE INDIVIDUAL SEWAGE DISPOSAL SYSTEM, AT THE ABOVE REFERENCED LOCATION, HAS BEEN INSTALLED WITHIN ACCEPTABLE TOLERANCES TO THE LINES AND GRADES SHOWN ON THE APPROVED PLAN AND THAT ANY CHANGES HAVE BEEN INCORPORATED INTO THE AS-BUILT PLAN SUBMITTED TO THE BOARD OF HEALTH. THE DISPOSAL SYSTEM, AS INSTALLED, COMPLIES WITH THE MASSACHUSETTS ENVIRONMENTAL CODE, TITLE 5 AND, EXCEPT WHERE VARIANCES HAVE BEEN GRANTED, WITH THESTOW BOARD OF HEALTH REGULATIONS AS THEY PERTAIN TO HORIZONTAL OCATION, PIPE SLOPES AND GRADES, AND MATERIALS OF CONSTRUCTION.

THE SEWAGE DISPOSAL SYSTEM SHOWN HEREON HAS BEEN DESIGNED/INSTALLED IN ACCORDANCE WITH 310 CMR 15.00 (TITLE 5), MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION SYSTEM APPROVALS AND/OR CERTIFICATIONS AND THE MANUFACTURERS SYSTEM DESIGN GUIDANCE. CONSTRUCTION STAKING OF S.A.S.: N/A AS-BUILT INSPECTION: 07/01/2020 FINAL FILL & GRADING INSPECTION: N/A



DATE: 12/3/18		SEW
DESIGN BY:		
031	NO.	DATE
DRAWN BY:	3.	5/14/1
00	1	

6/16/2020

7/6/2020

CHECKED BY:

'AGE DISPOSAL SYSTEM AS-BUIL 25 HALE ROAD

STOW, MASSACHUSETTS DESCRIPTION REV. PER BOH COMMENTS REV. PER BOH COMMENTS 3/23/2020

REVISED TO REMOVE PROPOSED HOUSE FEATURES

AS-BUILT INFORMATION ADDED

Lī	Γ	JOB NO. 5910	
		DRAWING NO.	
	BY	5910-SDS	
	RWP	SHEET NO.	
	RWP	1	
	RWP		
	MLW	OF 1	