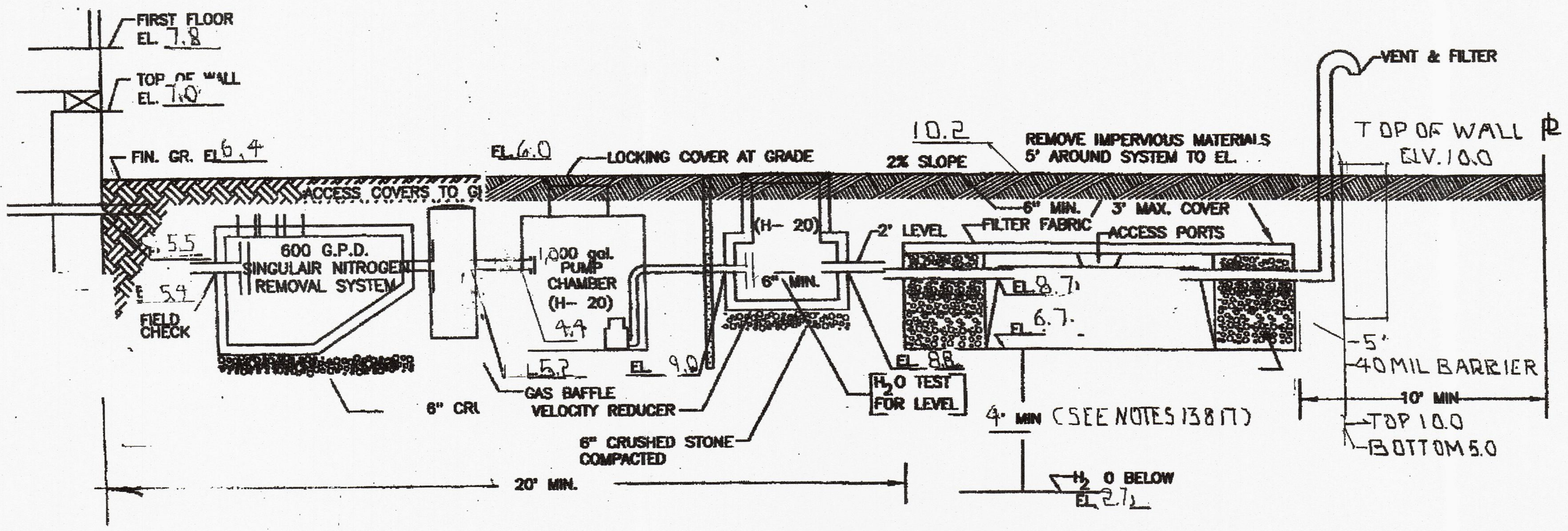


PROFILE OF DISPOSAL SYSTEM

NOTES:

1. Disposal System to be constructed in strict accordance with Comm. of Mass. Environmental Code Title V.

2. This plan is for sole purpose of construction of a septic system.

3. Contractor to call Dig-Safe at least 72 hours prior to beginning of excavation.

4. Install a Singulair model 960-600 GPD nitrogen removal system.

5. Use a new (H-20) 1,000 gal. MONO Pump chamber with Myers pump, see note 14. Use an H-20 Dist. Box. Water proof both chambers.

6. Contractor to field check invert of outlet at foundation.

7. Bench mark is top of foundation, elev. 7.0 (N.G.V.D. 1929).

8. APN: 37.4-25-0 for the Town of Bourne.

9. Locus is served by town water.

10. The plan view is based on site plan by, Gary S. Labrie, RLS, William Warwick, & Assoc.,North Falmouth.

11. The installer to notify engineer and Agent when starting over-dig excavation to show 4 feet of good materials below the clay.

12. High ground water is based on high tide elevation @ 9:00 on 9/26/22.

13. Use 3-5'x8'x2' P.C.L.C(H-20) with 4' of double washed 3/4" to 1 1/2" stone all around the chambers with filter fabric on top. The approval letter allows a 1' reduction to groundwater.

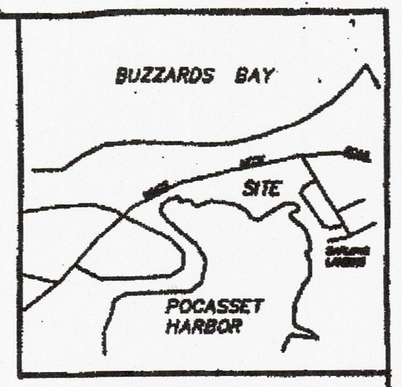
14. Top of retaining wall, elev. 10.0; install a 40 mil vinyl barrier, top elev. 10, bottom elev. 5.0

15. Install a Myers model ME3,1/3 HP cast iron effluent pump with chain to grade to service pump. Set OFF float @ 6", ON float @ 18" and ALARM float @ 26".

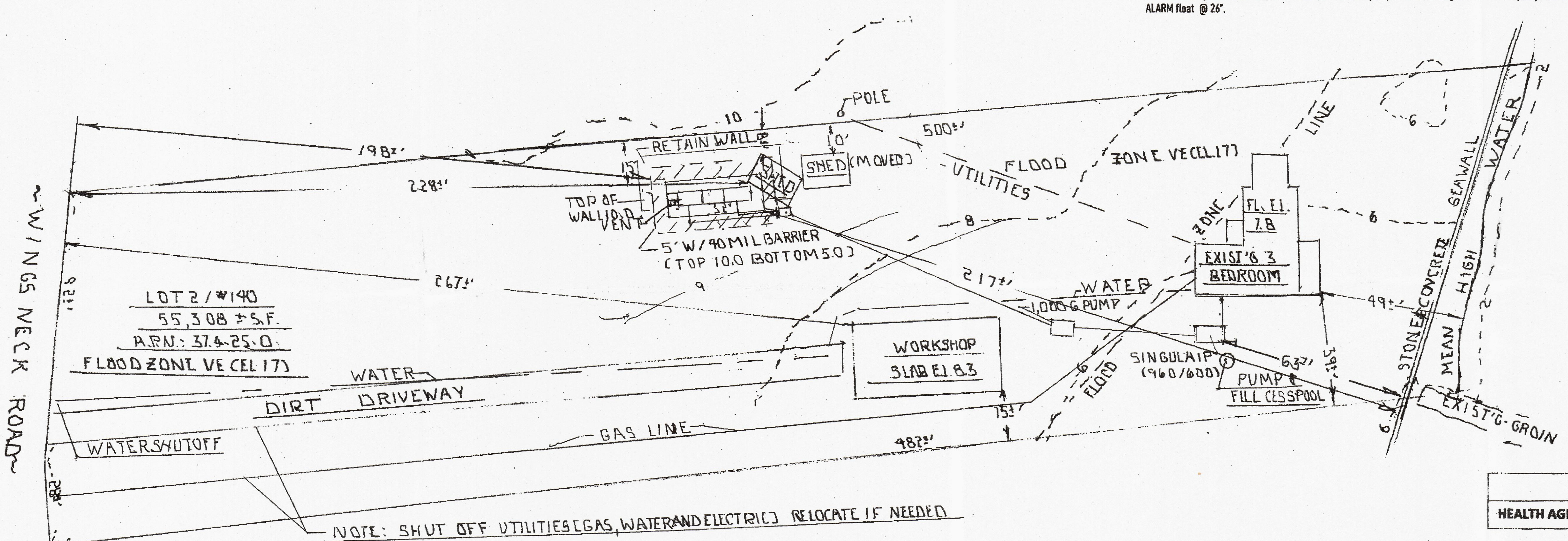
16. See Buoyancy and Pump calculations on sheet 2.

17. Grade, loam and seed all disturbed areas.

18. Variance of 1' from 5' to 4' to groundwater allowed by MADEP approval letter.



LOCUS MAP



SITE PLAN

SCALE: 1" = 30'

30 15 0 30 60 90

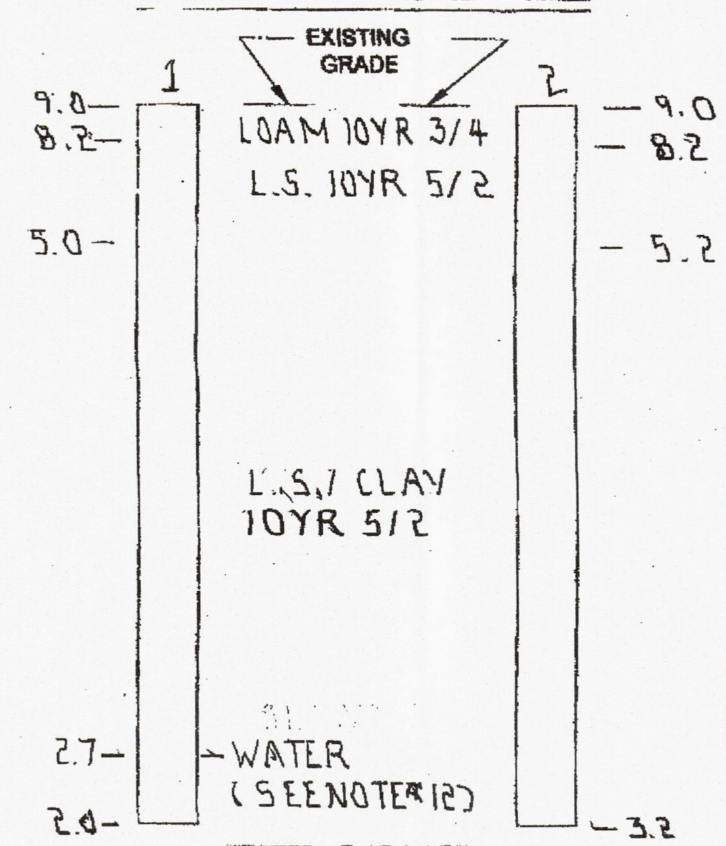
LEGEND

--24--	PROPOSED CONTOUR
—10—	EXISTING CONTOUR
———	DRIVEWAY
"C" / "B"	FIRM ZONE

DESIGN

SINGLE FAMILY DWELLING W/ 4 BEDROOMS
NO GARBAGE DISPOSAL
DAILY FLOW = 110 X 4 = 440 G.P.D.
SEPTIC TANK (VOL. REQ'D.
USE A NORWECO SINGULAR SESI MODEL 960
- NITROGEN REMOVAL SYSTEM (600 GPD)
LEACHING AREA (S.A.S.)
USE 3-5'X8'X2' P.C. L.C + 4' OF DOUBLE WASHED 3/4"-1 1/2" STONE ALL AROUND.
EFFECTIVE DEPTH = 2.0'
2(64 + 26) 0.74 = 133
32 X 13 X 0.74 = 308
TOTAL CAPACITY = 441 GALS.

TEST PIT & PERC. TEST



TESTED: 9/26/22
KAITLYN SHEA

RECEIVED
FEB 23 2023
Bourne Health Department
24 Perry Avenue
Buzzards Bay MA 02532

HEALTH AGENT APPROVAL	DATE:

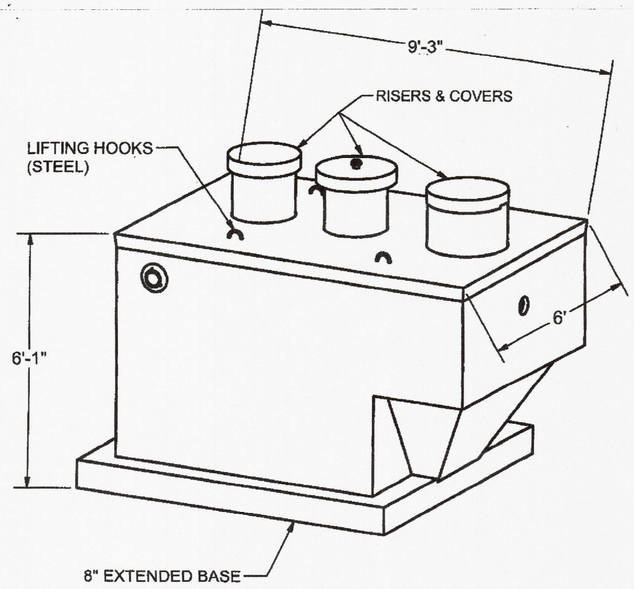
COMMONWEALTH OF MASSACHUSETTS
HARRY EARL LANTERY JR
CIVIL No. 26575
REGISTERED PROFESSIONAL ENGINEER

SEWAGE SYSTEM DESIGN

FOR:
PETER OHANIAN TRS.
25 NORTH SHORE RD.
WINDHAM NH 03087
ON:
140 WINGS NECK RD.
POCASSET, MA.
A.P.N.- 37.4-25-0

H. EARL LANTERY P.E.
CONSULTING ENGINEER
SANDWICH, MA 02563

DATE: 1/24/23 DWG: 12423



SINGULAIR BIO-KINETIC MONO TANK W/EXTENDED BASE

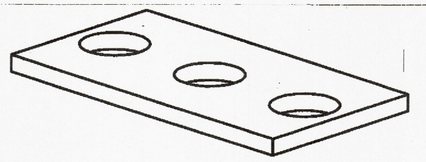
500 G.P.D.

H10

FOR PROCESS INFO PLEASE CONTACT:

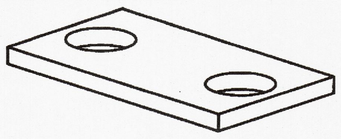
DISTRIBUTOR
SES WASTEWATER norweco
Norton,Ma 02766
(888) 999-1389
www.seswastewater.com

ITEM# **SG500MEB**	Wt. 16,300 Lbs	7 -3.1a	Sht 1 of 2



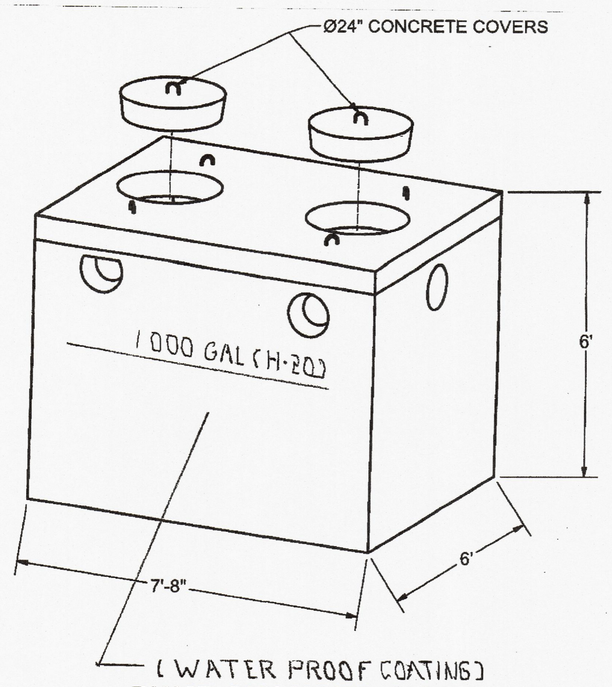
TBS15 Size	Bouyancy Slab Dim
A (Lgth)	9'-3"
B (Wdth)	6'-0"
C (Thickness)	
D (dia)	
E	
F	
G	
H	
I	

NAME: TANK BOUYANCY SLAB,1000G Size, CUSTOM		**ITEM# TS10**	
Concrete Minimum Strength: 4,000 p.s.i. at 28 days Steel Reinforcment:ASTM A615, Grade 60 Design Loading: standard units - AASHTO - H10	TOTAL 4,600 Lbs.	CH	DATE: 5-5-2020
		Ch 19 Pg 2.1	Sht2 of 2



TBS10 Size	Bouyancy Slab Dim
A (Lgth)	7'-8"
B (Wdth)	6'-0"
C (Thickness)	
D (dia)	
E	
F	
G	
I	

NAME: TANK BOUYANCY SLAB,1500g Size,CUSTOM		**ITEM# TS15**	
Concrete Minimum Strength: 4,000 p.s.i. at 28 days Steel Reinforcment:ASTM A615, Grade 60 Design Loading: standard units - AASHTO - H10	TOTAL 17,972 Lbs	CH	DATE: 5-5-2020
		Ch 19 Pg 2.2	Sht2 of 2

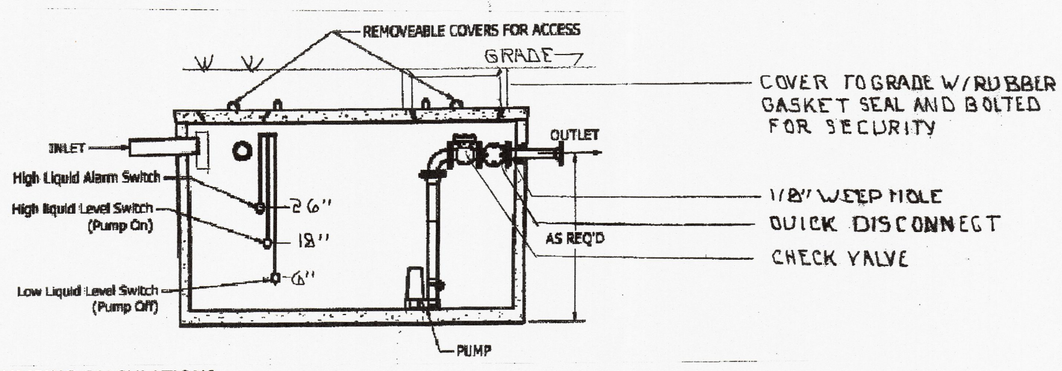


PUMP CHAMBER, MONO

H20

1,000 Gallon

ITEM# **PC102M**	Wt. 16,500 Lbs	9 -5.1



PUMPING CALCULATIONS:

Pump on: 6.66' x 5' 1x' x 7.5 gallons/cu. ft. = 249 gals. / cycle

Alarm Storage: 6.66' x 5' x 2.5 x 7.5 gallons/cu. ft. =624 gallons/24 Hr. capacity

BUOYANCY CALC'S:

water displaced by Singulair tank = 9.3' x 6' x 6' = 335 cu. ft.
335 cu. ft. x 62.4 lbs/cu. Ft. = 20,904 lbs. - 16,300 lbs. = 4,604 lbs. needed
add a 4,604 lb. Concrete (3 hole) bouyancy slab by Acme-Shorey Precast
Water displaced by pump chamber = 8' x 6' x 6' = 288 cu. ft.
288 cu. ft. x 62.4 lbs/cu. ft. = 17,972 lbs. - 16,500 lbs. = 1,472 lbs. needed
add a 1,472 lbs. concrete (2 hole) bouyancy slab by Acme-Shorey Precast

140 WINGS NECK ROAD SHEET 2