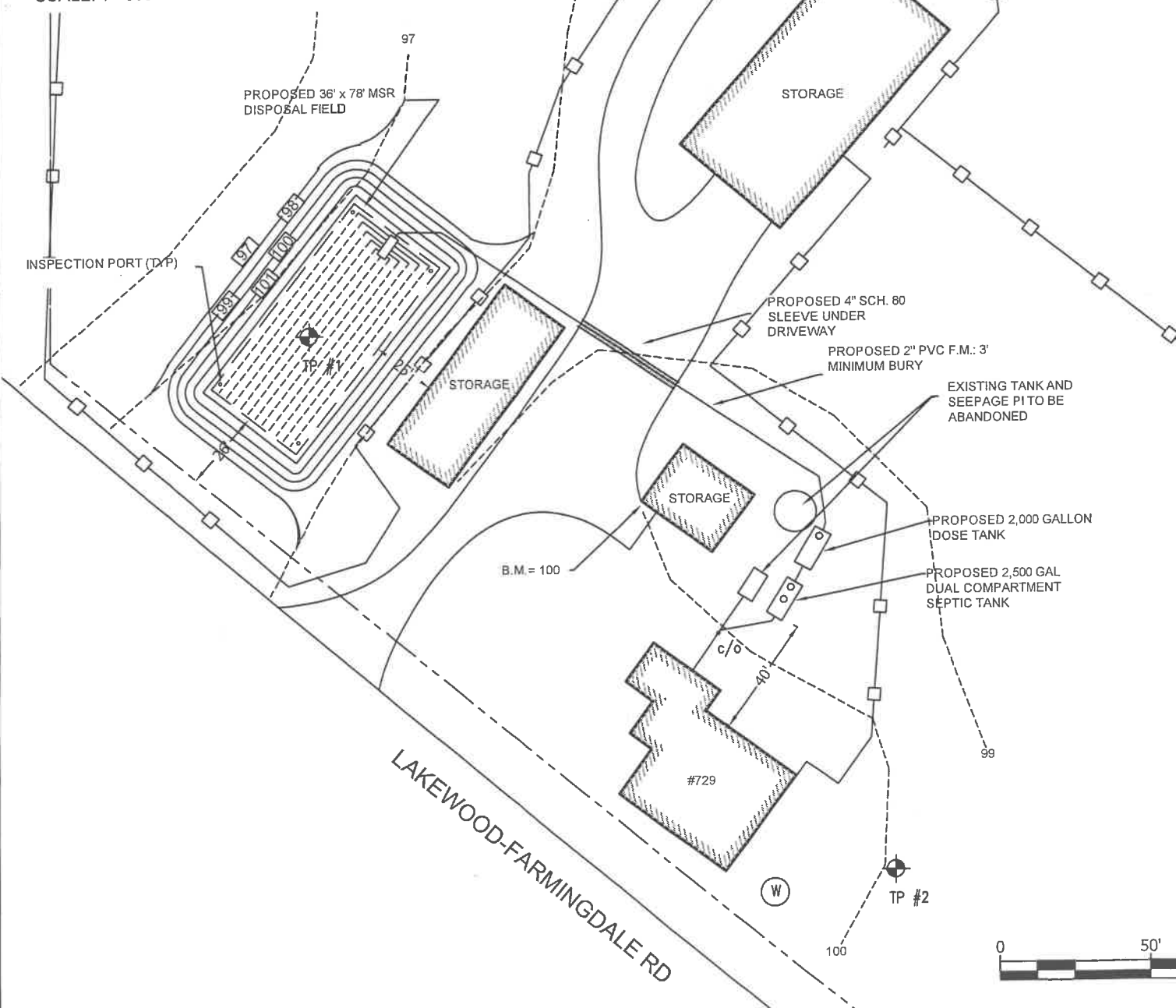


LEGEND	
	PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	SPOT ELEVATION
	PROPOSED ELEVATION
	CHAIN LINK FENCE
	POST FENCE
	TREE LINE
	WELL
	WATER LINE

SITE OVERVIEW SCALE: 1"=800'



MONMOUTH COUNTY SOIL MAP
Kkg: KLEJ LOAMY SAND



LOCATION MAP

DESIGN CRITERIA

The septic system at the subject property has failed. The property is a farm which accepts daily visitors. The structure serves as the office / visitor area. No over night accommodations. No meal preparation for visitors.

Check required design flow on square footage plus usage basis.

Square footage: 4,310 S.F. x 0.125 GAL/SF/Day = 539 GPD

Usage: Staff: 10 employees x 10 GPD/employee = 150 GPD
Visitors: 100/day x 10 GPD/visitor = 1,000 GPD
1,150 GPD

1,150 GPD > 539 GPD: Use 1,150 GPD
Also apply a 50% F.O.S.: 1,150 GPD x 1.5 = 1,725 GPD

Field size required w/K-4 fill:
1,725 GPD x 1.61 = 2,777 SF

Field size proposed: 36' x 78' = 2,808 SF

Septic tank required:
1,125 + .75Q: 1,125 + .75(1,725) = 2,419 GAL

Proposed 2,500 gallon dual-compartment septic tank. Tank to have 6" diameter, NSF approved effluent filter and locking covers to grade.

Soil suitability = I

SOIL DATA

Weather: 35° Cloudy
Date of logs: February 11, 2025
Witness: Deana Purrelli, MCBH

T.P. #1 ELEV. 97.5		FROM TO		FROM TO		K	Rating	DESCRIPTION
IN.	IN.	ELEV	ELEV	ELEV	ELEV			
0	15	97.50	96.25					Topsoil
15	38	96.25	94.33					Crs Sandy Loam, SG, Loose, 30% Gravel, 10YR 6/2
38	64	94.33	92.17					F SG Sand, Loose, 10% Gravel, 10YR 7/1
64	96	92.17	89.50					Silt Loam, SAB, Fri, 10YR 8/2
96	127	89.50	86.92			K-4		VF SG Sand, Loose, 10YR 7/1

Mottle: 36": ELEV 94.5 No seepage
SHWT ELEV 94.5

T.P. #2 ELEV. 100.0		FROM TO		FROM TO		DESCRIPTION
IN.	IN.	ELEV	ELEV	ELEV	ELEV	
0	14	100.00	98.83			Topsoil
14	39	98.83	96.75			Crs Sandy Loam, SG, Loose, 30% Gravel, 10YR 6/2
39	75	96.75	93.75			F SG Sand, Loose, 10% Gravel, 10YR 7/1
75	96	93.75	92.00			Silt Loam, SAB, Fri, 10YR 8/2
96	130	92.00	89.17			VF SG Sand, Loose, 10YR 7/1

Mottle: 42": No seepage

OWNER/APPLICANT

CHAIM DAHARI
605 CROSS STREET
LAKEWOOD, NJ 08701

DESIGNED BY: WCL	DRAWN BY: EF	APPROVED BY: WCL
 WILLIAM C. LONGO, P.E. N.J. PROFESSIONAL ENGINEER NO. 35284		

LORTECH INC
CONSTRUCTION ENGINEERING
182 South Street, Freehold, NJ 07728
NJ Cert. of Authorization No. 24GA28076800
Phone: (732)-863-1403 Fax: (732)-863-1405

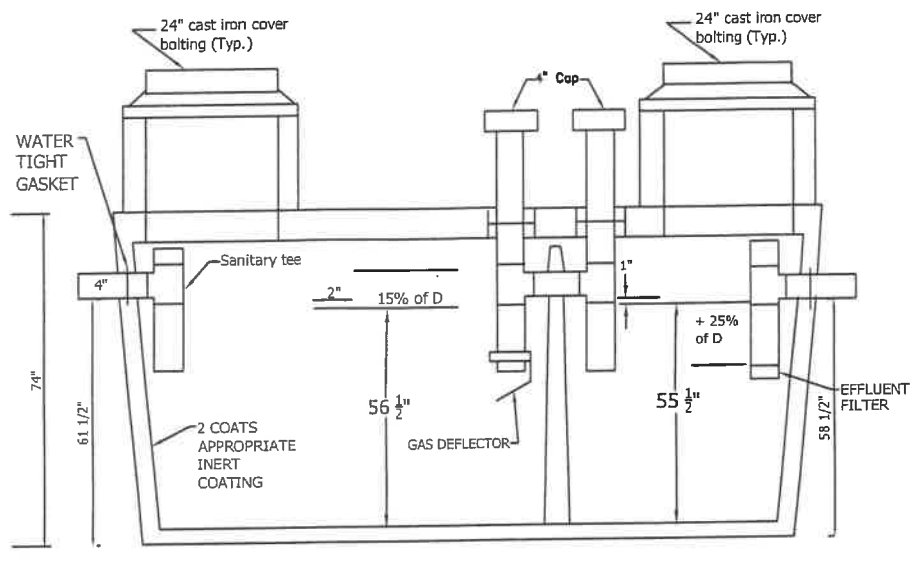
SEPTIC SYSTEM ALTERATION DESIGN

729 LAKEWOOD-FARMINGDALE RD
BLOCK 42, LOT 43
HOWELL, NJ
MONMOUTH COUNTY

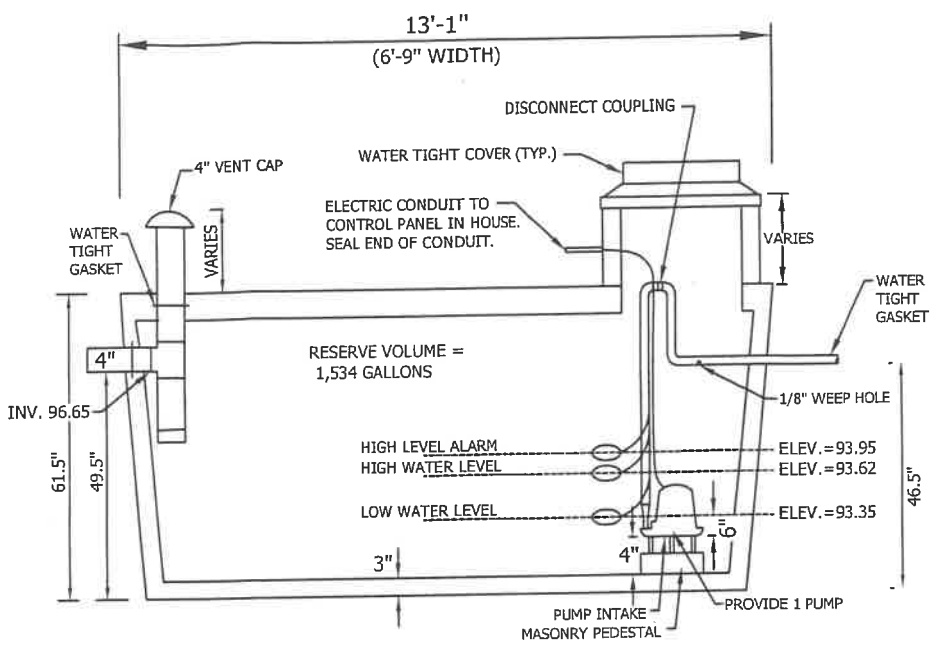
SCALE: AS-NOTED	DATE: 7/2/2025	SHEET: 1 OF 3	PROJECT #: 25-307
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GENERAL NOTES

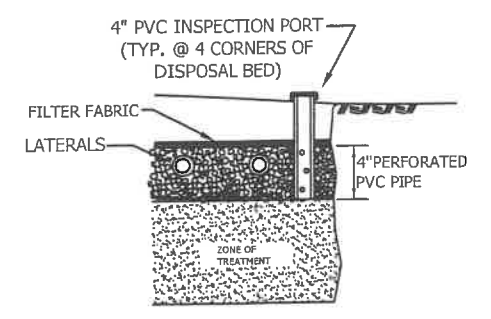
- 1. No survey available.
- 2. No landscaping trees, shrubs, etc. are to be planted, or remain within ten (10') feet of the disposal field.
- 3. When fill material is utilized within the zone of treatment, the fill shall meet the requirements of NJAC 7:9A-10.1(f)4, i.e. C-33 Concrete sand.
- 4. Compaction shall be performed per N.J.A.C. 7:9A-10.4 iii, iv, as follows:
 - iii. Fill material shall be spread and compacted in layers one foot or less in thickness.
 - iv. Compaction may be accomplished manually or mechanically, by tamping or rolling, or by driving over the filled area in a controlled pattern using tracked or rubber tired vehicles. Compaction may also be accomplished by puddling.
- 5. All material shall conform to N.J.A.C. 7:9A specifications.
- 6. A 6" diameter, NSF approved effluent filter to be installed on the 2,000 gallon septic tank. Locking covers to grade to be provided. Tanks to be vacuum tested.
- 7. Septic Stone to be 1 1/2" washed.
- 8. Existing system to be abandoned as noted.
- 9. Other than noted, no other wells are located within 100' of proposed disposal field.
- 10. All disturbed ground shall be seeded and mulched to facilitate ground cover.
- 11. The imported fill, shall be certified by a New Jersey licensed engineer INCLUDING TUBE PERMEAMETER TESTS OF IN PLACE IMPORTED FILL AND SIEVE ANALYSIS CONFIRMING THAT MATERIAL MEETS ASTM C-33 SPEC. BOTH REQUIRE A&B REPLICATES. COMPACTION MUST ALSO BE CERTIFIED BY ENGINEER. A MINIMUM OF 72 HOURS NOTICE TO THE ENGINEER IS REQUIRED. SHOULD THE INSTALLATION PROCEED WITHOUT INSPECTION BY THE ENGINEER, THE ENGINEER RESERVES THE RIGHT TO HAVE THE WORK UNCOVERED FOR PROPER INSPECTION. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE COST OF THIS WORK.
- 12. Any conditions found which are not representative of this plan shall immediately be brought to the attention of the design engineer.
- 13. The contractor shall verify any and all underground utilities prior to excavation.
- 14. No water softener backwash permitted in system.
- 15. The contractor is responsible for obtaining electrical permit.



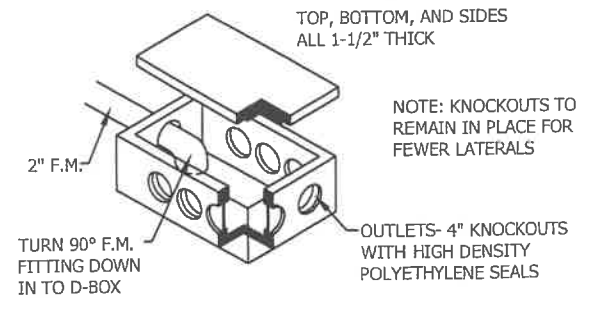
2,500 GALLON DUAL-COMP. SEPTIC TANK
N.T.S.



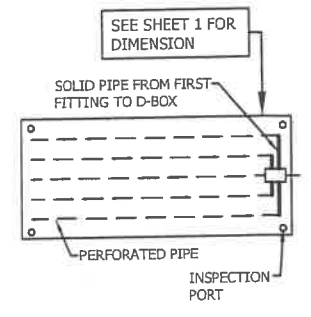
2,000 GALLON DOSE TANK
N.T.S.



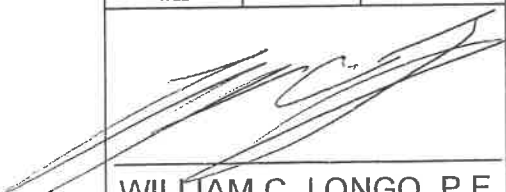
INSPECTION PORT DETAIL
N.T.S.



"D"-BOX DETAIL (11-OUTLET)
N.T.S.



LATERAL LAYOUT DETAIL
N.T.S.

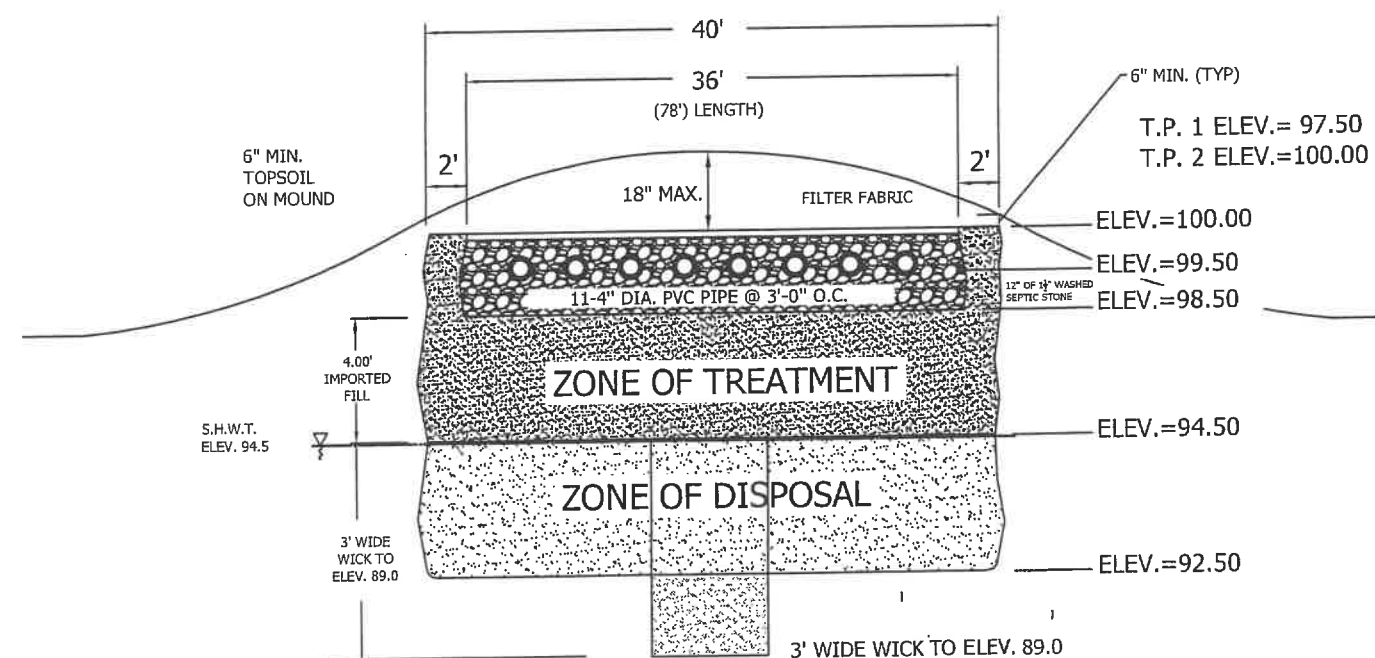
DESIGNED BY: WCL	DRAWN BY: EF	APPROVED BY: WCL
		
WILLIAM C. LONGO, P.E. N.J. PROFESSIONAL ENGINEER NO. 35284		
 CONSTRUCTION ENGINEERING 182 South Street, Freehold, NJ 07728 NJ Cert. of Authorization No. 24GA28076800 Phone: (732)-863-1403 Fax: (732)-863-1405		
SEPTIC SYSTEM CONSTRUCTION DETAILS		
729 LAKEWOOD-FARMINGDALE RD BLOCK 42, LOT 43 HOWELL, NJ MONMOUTH COUNTY		
SCALE: N.T.S.	DATE: 2/14/2025	SHEET: 2 OF 3
PROJECT #: 25-307		

Required dose volume with K-4 fill = .75V min and .25Q max
V = distribution network volume. 190' of 2" PVC = 31 gal
Therefore V = 31 gal
Min. dose/day = .75V so .75(31 gal) = 23 gal.
Q = Average daily flow = 1,150 GPD
Max. dose = .25Q so .25(1,150 GPD) = 287.5 gal
Use 150 gal. Net dose after flowback:
150 gal - 31 gal = 119 gal

FITTING TYPE		EQUIVALENT LENGTH OF STRAIGHT PIPE
Pump outlet		2.8'
Bends	7 ea. @ 8.5' =	59.5'
Union		0.5'
D-box inlet		8.5'
2" pipe		190.0'

		261.3'

Dose Tank Invert - High Level Alarm: $96.65 - 93.95 = 2.7'$
 $2.7' \times 76 \text{ SF} \times 7.48 \text{ gal/C.F.} = 1,534 \text{ gal}$
 $1,534 \text{ gal} > 1,150 \text{ GPD}$ therefore one (1) pump is adequate.



SCALE: N.T.S.	DATE: 2/14/2025	SHEET: 3 OF 3	PROJECT #: 25-307
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