**Bureau of Environmental Health**

8930 Stanford Boulevard, Columbia, MD 21045

Main: 410-313-2640 | Fax: 410-313-2648

TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.orgFacebook: www.facebook.com/hocohealth

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 11-14-22**ONSITE SEWAGE DISPOSAL SYSTEM**P 572688APPROVAL DATE: 2/17/23 ^{SP}**PERMIT: CONSTRUCTION**

A _____

PROPERTY ADDRESS: 10509 Pudding LaneSUBDIVISION: Kings ForestLOT: 34

TAX ID: _____

CONTRACTOR: Fogles Septic Clean Inc.EMAIL: kim@foglesinc.comCONTRACTOR ADDRESS: 580 Obrecht Rd, Sykesville, MD 21154PHONE: 410-495-5670CONTRACTOR CERTIFIED FOR BAT INSTALLATION: ☒ MDE

MDE



MANUFACTURER: _____

PROPERTY OWNER: Toll Mid AtlanticEMAIL: Sriley1@tollbrothers.comOWNER ADDRESS: 250 Gilbraltar RoadPHONE: 410-872-9105BAT UNIT MODEL: NorwecoPUMP SIZE: EP-50PUMP TANK CAPACITY: 2000

OPERATION & MAINTENANCE AGREEMENT

DATE SIGNED: _____

DATE RECORDED: 7/27/2023DISTRIBUTION SYSTEM: ☐ GRAVITY

GRAVITY

☒ PRESSURE DOSEDBEDROOMS: 6APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED:	<u>157.50'</u>	INLET DEPTH:	<u>3</u>
	TRENCH WIDTH:	<u>3'</u>	MAXIMUM BOTTOM DEPTH:	<u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES:	<u>10'</u>	EFFECTIVE AREA BEGINNING DEPTH:	<u>5</u>
	LOCATION: PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.			
NOTES:	LPD System. Must sign O&M agreement prior to septic permit release.			

ISSUED BY: Dana BernardISSUE DATE: 11/29/22EXPIRATION DATE: 11/14/22

NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION

NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING

NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.

NOTE: WATERTIGHT SEPTIC TANKS REQUIRED

NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRADIENT FROM ANY WATER WELL

NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS

NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM



ELECTRICAL PERMIT ISSUED

E

22004937

NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.

NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE
SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE

See separate sheet
for As built

1/26/2023 → P/A test OK.
Pressure test good.
Digital head readings
as follows:
T1 = 33" T2 = 32" T3 = 33"
-KMS / SP
* Need 4" protective caps on lateral turn-ups

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH 3 INLET 3 BOTTOM 7
NUMBER OF TRENCHES 3
TOTAL LENGTH 160
ABSORPTION AREA _____
DISTRIBUTION BOX LEVEL _____
DISTRIBUTION BOX BAFFLE _____
DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL yes
MANUFACTURER Norweco
CAPACITY 1725 GAL
SEAM LOC top
TANK LID DEPTH 3'
BAFFLES _____
BAFFLE FILTER _____
MANHOLE LOC BAT unit w/ 4 manholes
6" PORT LOC _____
WATERTIGHT TEST _____
SLOTTED _____
DATE ON LID _____

PUMP/SEPTIC TANK LEVEL yes

MANUFACTURER Babylon
CAPACITY 2000 GAL
SEAM LOC top
TANK LID DEPTH 3'
BAFFLES _____
BAFFLE FILTER _____
MANHOLE LOC Front + back
6" PORT LOC _____
WATERTIGHT TEST _____
SLOTTED _____
DATE ON LID _____

PRE-CONSTRUCTION:

12/06/2022 Confirmed contents of 3x53' trenches. (P)

INSTALLATION: 12/8/22 - On site for inspection and contractor had started the work, it appeared the tank was in the ground but we didn't have the file for as built, OSDS plan, reinspect for all septic components (SP/RE)

12/9/22 - On site for inspection. Tank was backfilled. Both tanks would have 3' of fill. Manure tank was backfilled. Stone + Gravel was set! Stone was 1/2" bit dusty. Trenches 53' per plan. Contractor stated Joseph said it was OK to backfill, but no tank specs found. (RE/SP)

2/19/23 - Saw 4" caps on lateral. (SP)

FINAL INSPECTOR

Shepsura Puse

DATE OF APPROVAL

2/19/23



BACK RIVER PRE-CAST, LLC
PO BOX 329
GLYNDON, MD 21071
PH# 410-833-3394

NORWECO CERTIFICATION

PROPERTY OWNER: TOLL MID-ATLANTIC	INSTALLATION COMPANY: FOGLES SEPTIC
ADDRESS: 10509 PUDDING LANE	CERTIFIED INSTALLER: JAMIE DEEVERS
CITY, ZIPCODE & COUNTY: ELLICOTT CITY, 21042, HOWARD	PERMIT#
SIZE OF SYSTEM INSTALLED:	DATE INSTALLED: 12-08-22
750 GPD CONCRETE	START-UP DATE: 01-26-23
NUMBER OF BEDROOMS:	DATE OF FINAL INSPECTION:
TYPE OF INSTALLATION: NEW	DATE OF ELECTRICAL INSPECTION:
ELECTRICAL WIRING PER ELECTRICAL INSTRUCTIONS: YES	TANK LEVEL: YES
HT. OF CONTROL PANEL ABOVE FINAL GRADE: 39"	BURIAL DEPTH OF TANK: 30"
SYSTEM WIRED ON A 15-AMP DEDICATED CIRCUIT WITH STD. BREAKER: YES	RISERS 4" - 6" ABOVE GRADE: YES
LENGTH(S) OF UF WIRE PAST LAST AERATION RISER(S): 30"	VENTED LID(S) ON AERATION CHAMBER(S): YES
FEMALE PLUG(S) WIRED TO UF WIRE: YES	ANY GROUND SETTLING AROUND TANK:
CONDUIT(S) ENTERING AERATION RISER MADE WITH A WATERTIGHT CONNECTION: YES	NO
ISTHE INSIDE OF THE CONDUIT ENTERING THE CONTROL PANEL(S) AND AERATION RISER(S) SEALED WITH DUCT SEAL: YES	

ON 2ND PAGE MAKE A ROUGH SKETCH OF THE HOUSE ,WHERE THE SYSTEM IS LOCATED, WHERE THE CONTROL PANEL IS LOCATED , WHERE THE FRONT OF THE IS AND DIRECTIONS TO THE PROPERTY.

DIRECTIONS CAN START A FEW STREETS AWAY

EXAMPLE: RT. X LEFT ONTO XX STREET RIGHT ONTO PRIVATE DRIVEWAY 5TH HOUSE OF THE LEFT.

I certify that the Norweco Singulair TNT Wastewater Treatment System was installed according to the manufacture's specifications.

Matthew Geckle

January 26,2022

Signature of BRP Representative

Vice-President

Date

Clerk of the Circuit Court

Howard County

9250 Judicial Way
Ellicott City, MD 21043
410-313-2111

LR - Agreement Recording Fee
1x 20.00 20.00

Name: collins
Ref: 57

LR - Agreement Surcharge
1x 40.00 40.00

LR - Agreement Recording Fee
1x 20.00 20.00

Name: williams
Ref: 58

LR - Agreement Surcharge
1x 40.00 40.00

LR - Agreement Recording Fee
1x 20.00 20.00

Name: nuodin
Ref: 59

LR - Agreement Surcharge
1x 40.00 40.00

SubTotal: 180.00

Total: 180.00

CRD-Credit 180.00

Credit Card Confirmation : 031826

07/27/2022 11:50

CC13-KS

#16456278/1246/4

Thank you for visiting us today~



HOWARD COUNTY HEALTH DEPARTMENT

72688

P5

DATE

11 / 14 / 22

Received
From

Fugles Septic Clean, Inc.

PHONE #

410-795-5670

For

New Septic

10509 Rumors Lane

☐ CASH

☒ CHECK

NO.

77787

Three thousand + nine hundred dollars - 00/100

Dollars

\$

396.00

Received By

V. DeKurey

Toll Brothers

Kingsley Woods
Lot 34

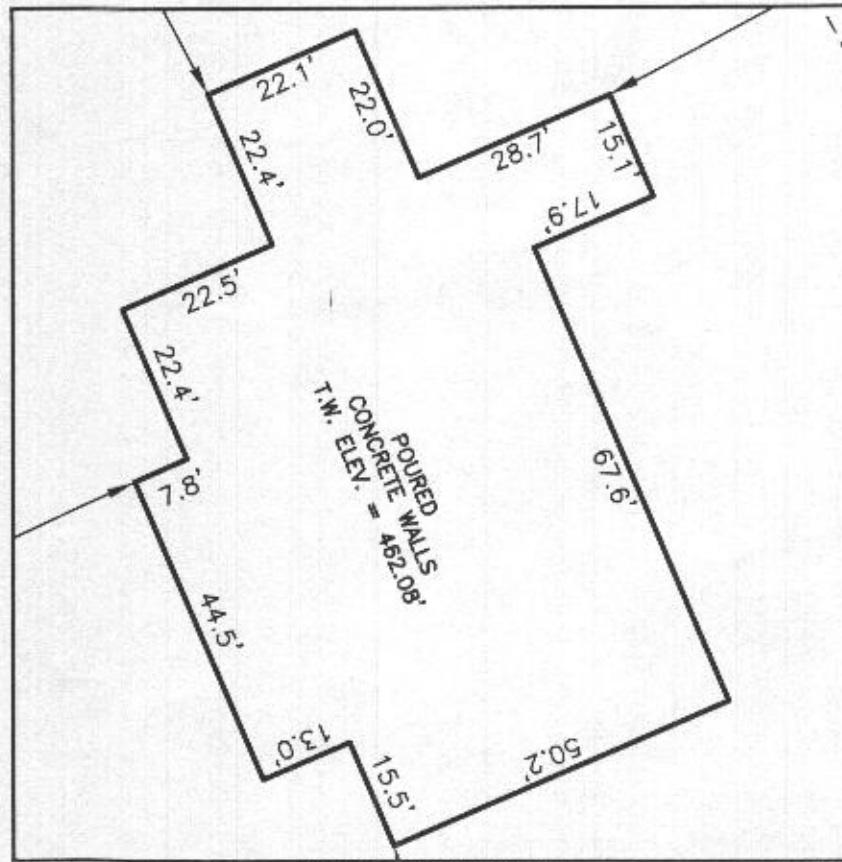
10509 Pudding Ln

HC #396

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/8/23.

LEGEND:

- BRL BUILDING RESTRICTION LINE
WELL LOCATION
T.W. TOP OF WALL
SEWAGE DISPOSAL AREA
WELL BOX AREA



HOUSE ENLARGEMENT
NOT TO SCALE

ADDRESS: 10509 PUDDING LANE
ELLICOTT CITY, MD 21042

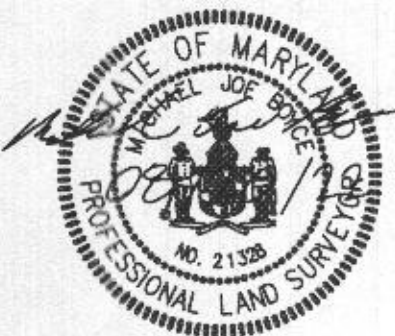
WELL NUMBER: HO-18-0162

PERMIT No.: B22001586

BUILDING SETBACKS (B.R.L.'s) SHOWN HEREON PER SITE DEVELOPEMENT PLAN
SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ±0.1' FOOT.

SURVEYOR'S CERTIFICATE

THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHT-OF-WAYS, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED.
THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.



SIGNATURE: MICHAEL JOE BOYCE
MD. LIC NO. 21328
DATE: 8/20/22

WALLCHECK
LOT 34
KINGS FOREST
LIBER 11372, FOLIO 431
PLAT NO. 25767
ELECTION DISTRICT No. 4
HOWARD COUNTY, MARYLAND

ESE CONSULTANTS

ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.

6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046

T: 410-872-9105

DATE: 08/20/2022
CHK'D: M.J.B.

SCALE: 1" = 40'
JOB NO: 3502

FILE: WC LOT 34
DRAWN: V.X.P.

PUDDING LANE

LOT 35

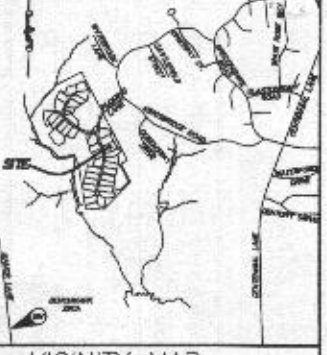
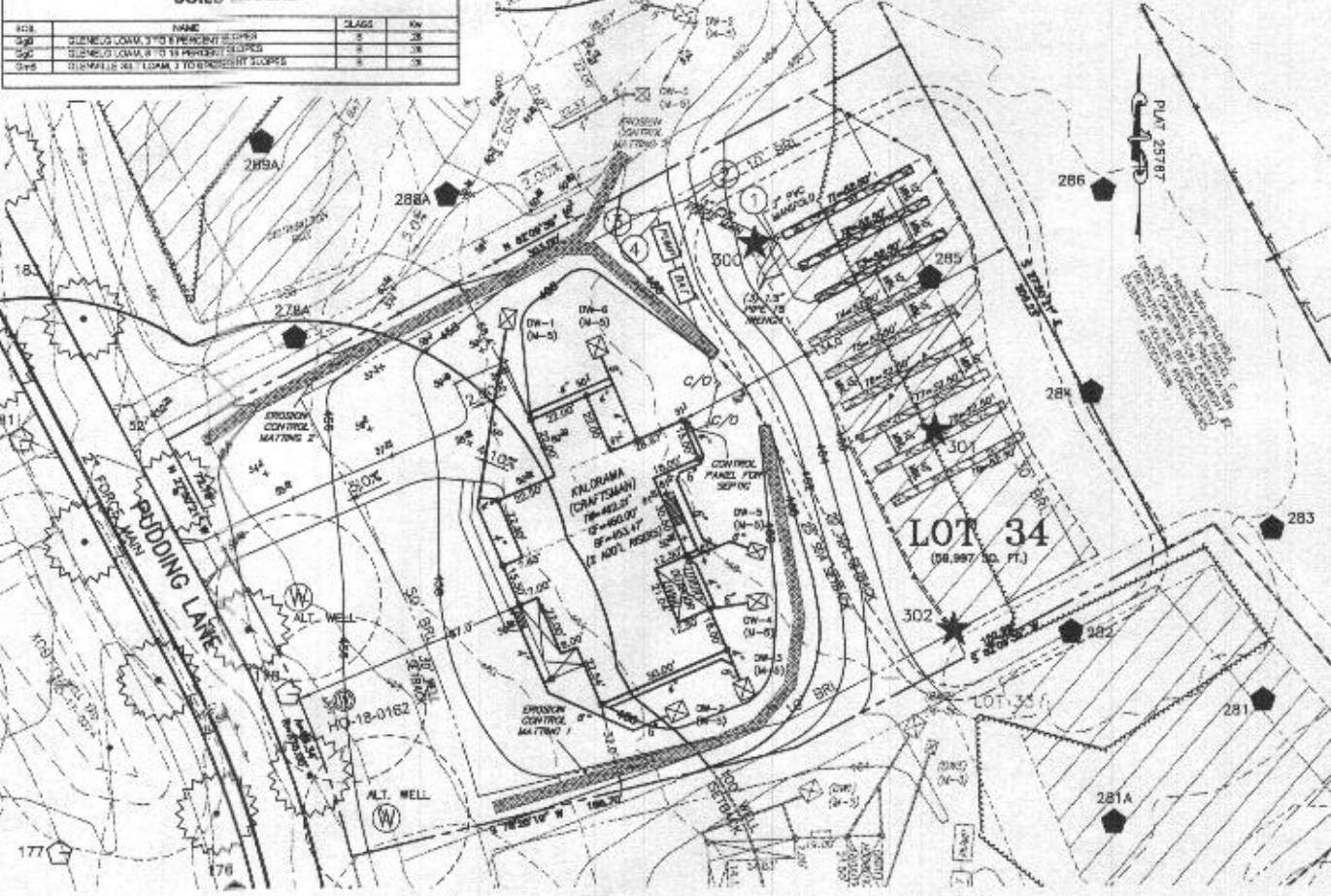
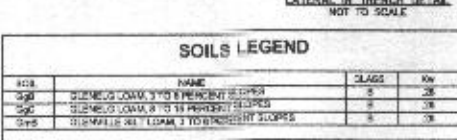
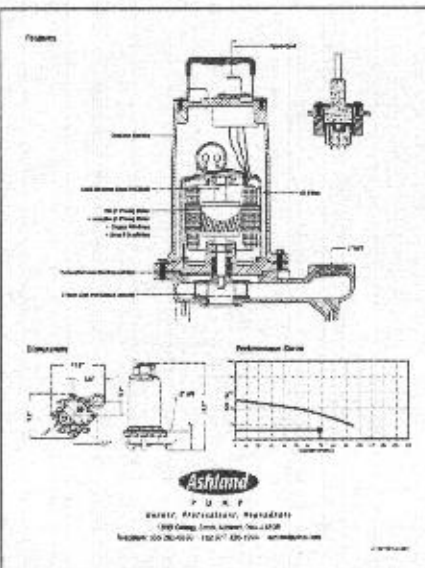
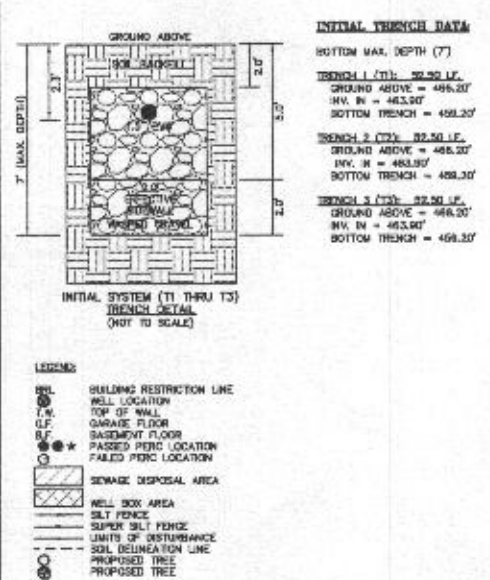
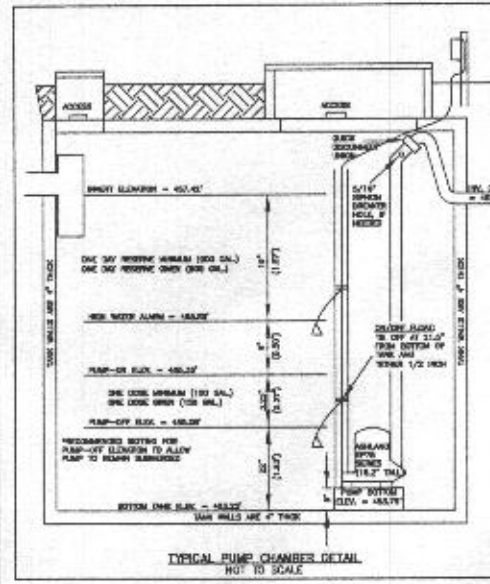
LOT 34
(59,997 SQ. FT.)

LOT 33

PLAT 25767

NON-BUILDABLE
PAPERS C
ENVIRONMENTAL
PRESERVATION

Wall Check
OK DB
11-78-22



QID	NAME	CLASS	Kv
Q90	SIEMENS LOAM 3 TO 6 PERCENT SLOPES	5	38
Q91	SIEMENS LOAM 8 TO 15 PERCENT SLOPES	5	38
Q95	SIEMENS 20 TO 1 LOAM 3 TO 6 PERCENT SLOPES	5	38

LOW PRESSURE DISTRIBUTION SYSTEM CALCULATIONS

NUMBER OF MAINFOLDS = 1 MAINFOLD TYPE = END FEED

DESIGN FLOW

PUMP UP ELEV. = 800.00 FT

MIN. OUT PUMP TANK = 497.37 FT

PUMP BOTTOM ELEV. = 451.75 FT

PUMP SELECTED = 1/2" 4P

MAINFOLD LENGTH = 3.50' TYPE=80H40

FORGMAN LENGTH = 31.00' TYPE=80C440

BENCH	TRENCH LENGTH FT/L	FEED	PIPE DIA. INCH	SPACING FT/L	HOLE DIA. INCH	HOLE FLOW GPM	SPACING FT/L	INCHES	TRENCH FLOW GPM	LATERAL INCHES FT/L	PER SPACING GPM	PER FT/L	LATERAL DIA. (IN.)	TYPE
1	92.90'	END	461.80	3	5/8"	1.83	3.70	14	32.82	30.63	0.491		1.5	80H40
2	92.90'	END	461.80	3	5/8"	1.83	3.70	14	32.82	30.63	0.491		1.5	80H40
3	92.90'	END	461.80	3	5/8"	1.83	3.70	14	32.82	30.63	0.491		1.5	80H40

MIN. SYSTEM DISCHARGE RATE = 68.48 GPM

MAINFOLD DIAMETER = 3 IN.

FORCE MAIN DIAMETER = 3 IN.

MINIMUM COVER = 180 GAL

VELOCITY = 2.37 FPS FRICTION LOSS (TABLE 4-4) = 1.08

FPS = 2.37 FPS FRICTION LOSS (TABLE 4-4) = 1.08

NOTE: IN PM, MAX. LATERAL LENGTH = 1/2" DIA. LATERAL PER SPACING

CALCULATE TOTAL DESIGN HEAD

LENGTH OF FM FROM PUMP TANK TO MAINFOLD = 31.00'

OF (45°) BENDS IN FM = 3

LENGTH OF MAINFOLD FROM TO DISCHARGE = 33.50'

OF (45°) BENDS IN MAINFOLD = 3

OF (90°) BENDS IN MAINFOLD = 0

OF COUPLERS (3" TO 1.5") = 3

TOTAL LATERAL LENGTH = 30.63'

(ORIAL 45° OF 3" PVC = 1.00 PER 100' PERCE LOSS / 100' = 0.0708 x 139.80 = 1.398')

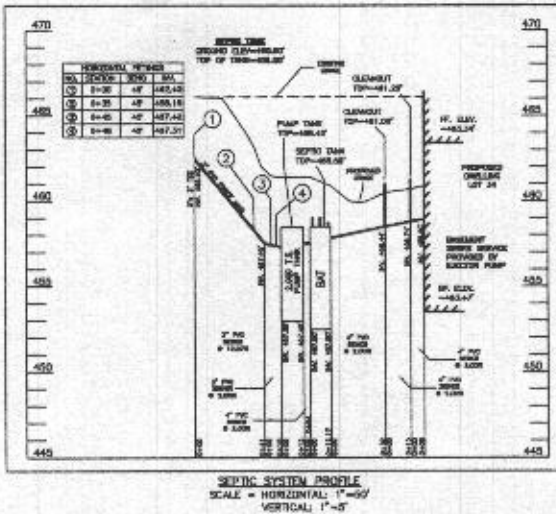
FRICTION HEAD = 5.91' (PER ABOVE CALCULATION)

OPERATING HEAD = 3.00' FT.

STATIC HEAD = 3.00' FT. (CHIMNEY POINT IN DISTRIBUTION SYSTEM - PUMP 2ND PLANT ELEVATION)

TOTAL DYNAMIC HEAD = 13.92' FT. (FRICTION HEAD + OPERATING HEAD + STATIC HEAD)

THEORETIC PUMP CAPACITY OF DELIVERING AT 13.92' HEAD ONE GPM. ADVISORY: SLIDE OF HEAD IS REQUIRED.
 (PUMP=300, 1/2" DIA. IS SUFFICIENT)



SEPTIC TRENCH SIZE CALCULATIONS			
SYSTEM INPUT INFORMATION	1ST REPLACEMENT SYSTEM	2ND REPLACEMENT SYSTEM	
APPLICATION RATE (GPD/IN)	3.0	1.2	
EFFECTIVE AREA BEGINNING DEPTH (INCH)	5	5	
BOTTOM MAXIMUM DEPTH (GIVEN)	7	5	
NUMBER OF BEDROOMS	6	5	
DESIGN FLOW (8-100 GAL./DAY/BEDROOM)	900	900	
ABSORPTION TRENCH CALCULATIONS			
DRAINFIELD AREA REQUIRED (DESIGN FLOW/APP RATE)	750	750	
EFFECTIVE SIDEWALL DEPTH "D" (DEPTH BETWEEN THE EFFECTIVE BEGINNING DEPTH OR PIPE DEPTH (WHICHEVER IS DEEPER) AND MAX. TRENCH BOTTOM)	2	2	
TRENCH WIDTH "W" (2 OR 3 FEET)	3	3	
SIDEWALL REDUCTION $=(W \times D) / (W + 2D)$	0.63	0.63	
LINEAR FEET OF TRENCH REQUIRED (DRAINFIELD AREA X SIDEWALL REDUCTION) / W	157.50	157.50	
TRENCH LAYOUT INFORMATION			
NUMBER OF TRENCHES USED	3	3	
TOTAL LINEAR FEET USED	157.50	157.50	
MINIMUM TRENCH SPACING			
USE TRENCHES WITH NO SIDEWALL GROUT, THE SPACING IS 6' FOR A 2" WIDE TRENCH AND 4' FOR A 3" WIDE TRENCH (MEASURED EDGE TO EDGE). ALL TRENCHES UTILIZING SIDEWALL REDUCTION GROUT MUST BE SPACED A MAX. OF 10' FOR EFFECTIVE SIDEWALL NOT EXCEED 3/4" IF MORE THAN 3/4" THEN SPACING FORMULA IS $(24 \times W)$ UP TO A MAX. OF 18'	10	10	

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A FULLY LICENSED PROFESSIONAL AND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21328, EXPIRATION DATE 1/3/23.

Michael E. Howe 05/28/22

MICHAEL E. HOWE DATE

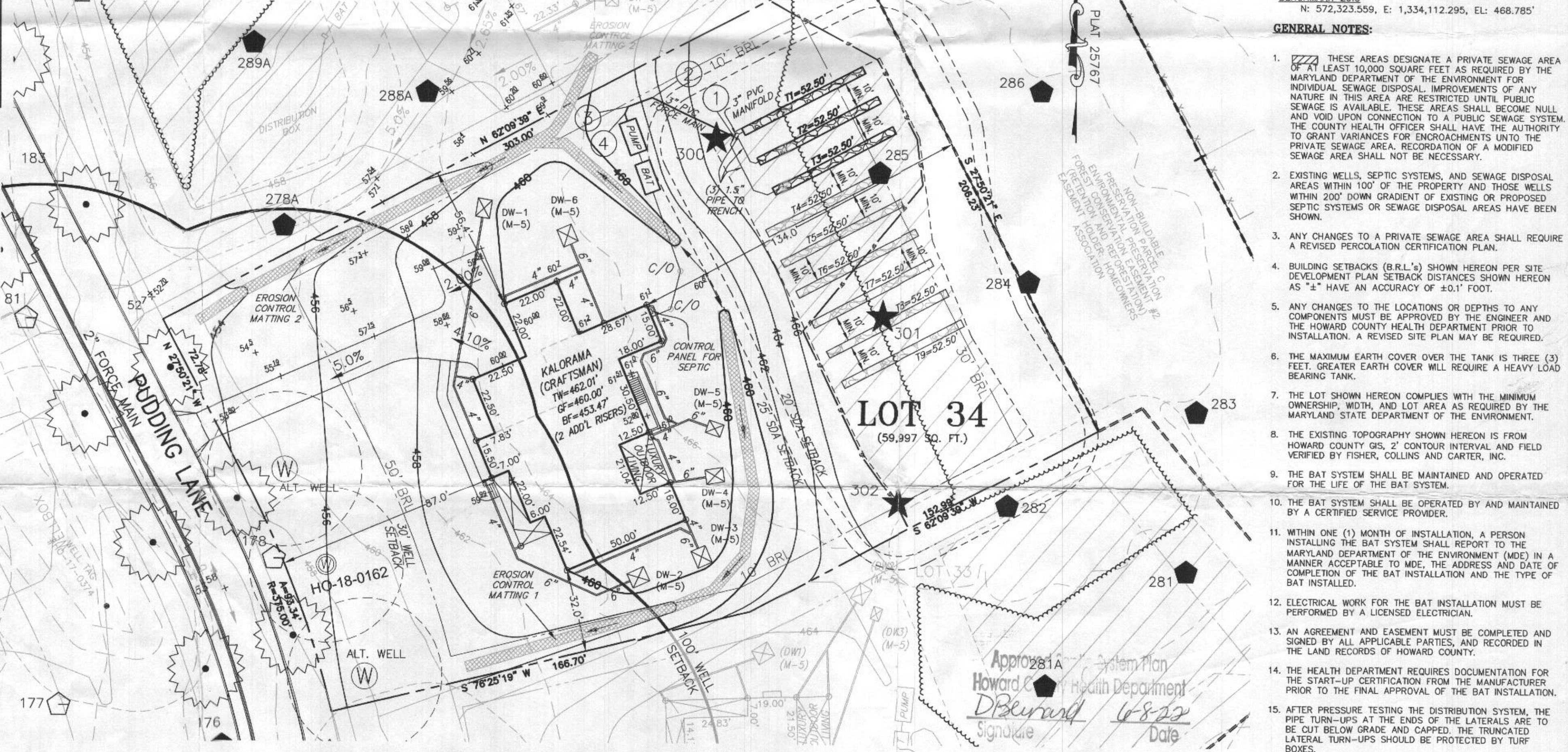
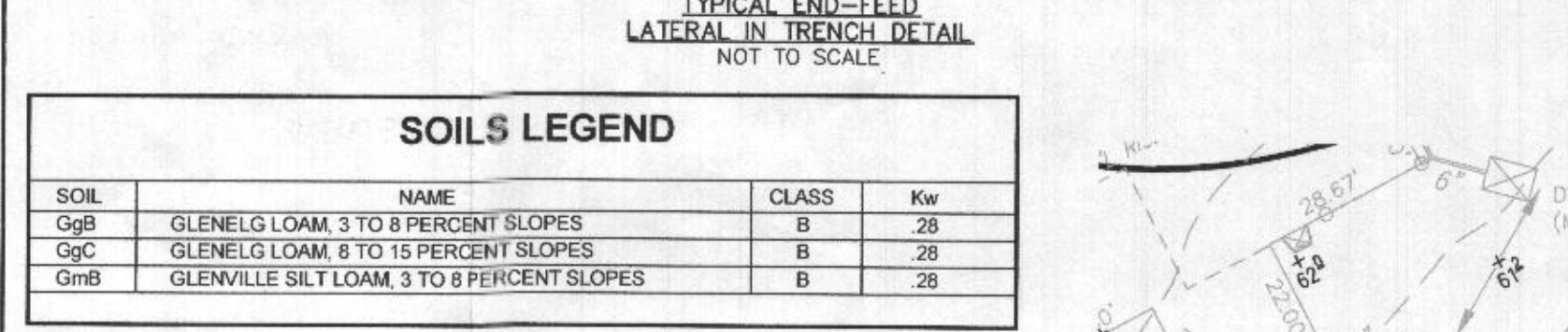
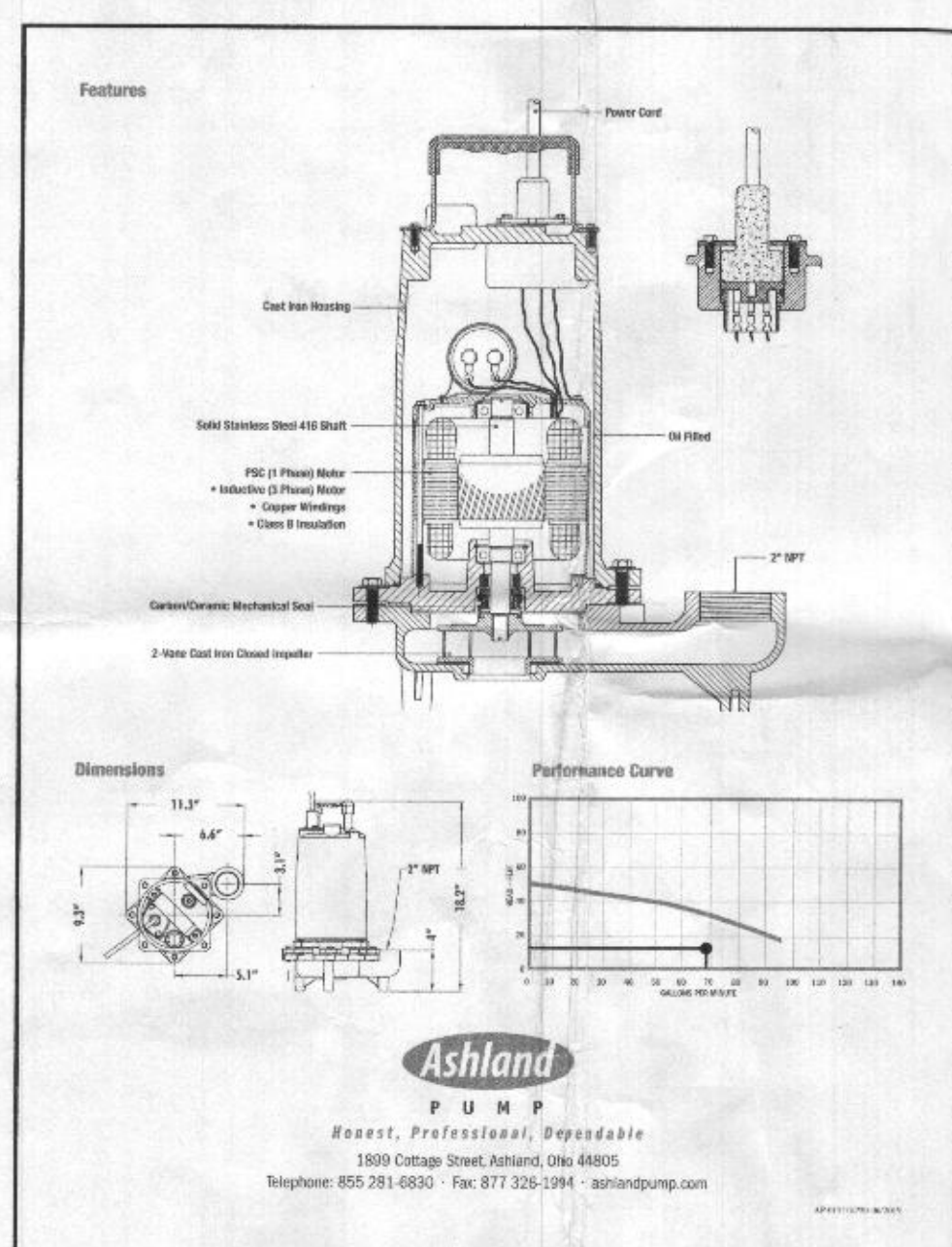
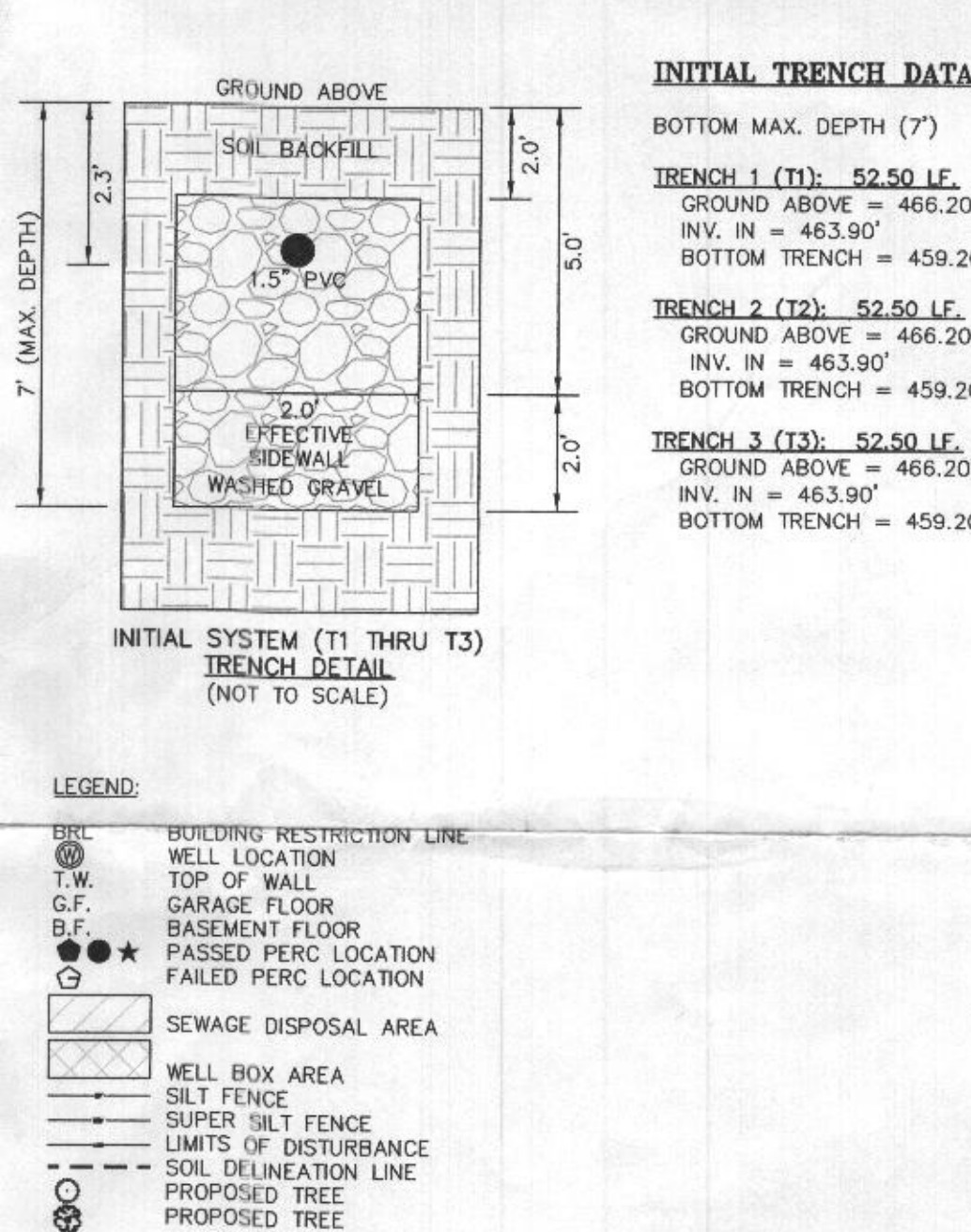
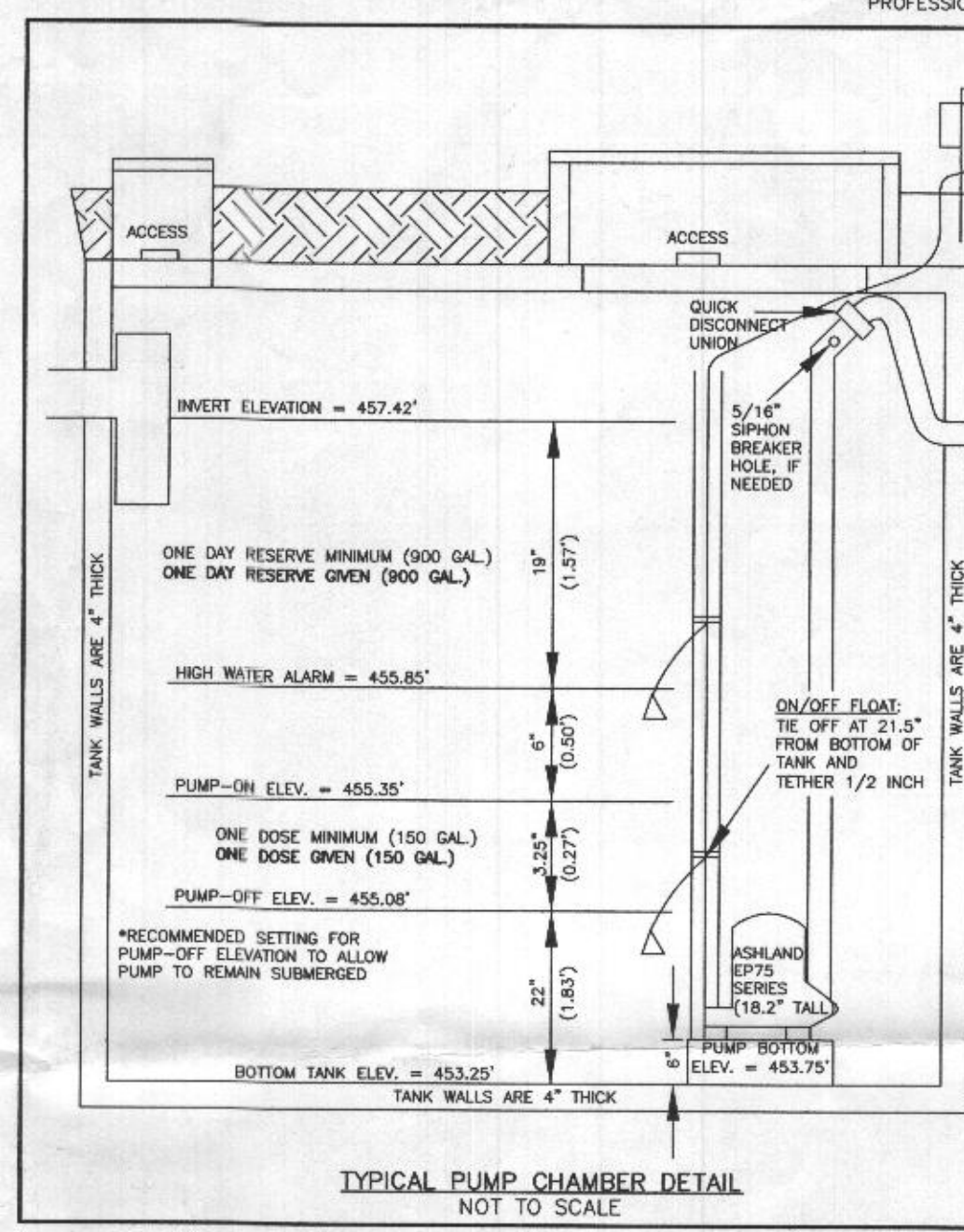
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SITE PLAN FOR RAY INSTALLATION
 LOT 34
KINGS FOREST
 LIBER 11372, FOLIO 431
 PLAT No. 25767
 TAX No. 03-603444
 2nd ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 ADDRESS: 10508 PUDDING LANE
 ELICOTT CITY, MARYLAND 21042

ESE CONSULTANTS
ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL

ESE Consultants, Inc.
8731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046
T: 410-672-9105

DATE: 05/27/2002	SCALE: 1"=50'	FILE SHF COT 34
CHW'D: JALB	JOB ACD 3382	DRAWING: R.L.K



LOW PRESSURE DISTRIBUTION SYSTEM CALCULATIONS

NUMBER OF MANIFOLDS = 1 MANIFOLD TYPE = END FEED

DESIGN FLOW = 900 GPD
 PUMP OFF ELEV. = 455.08'
 INV. OUT PUMP TANK = 457.25'
 PUMP BOTTOM ELEV. = 453.75'
 PUMP SELECTED = 1/2 HP

MANIFOLD LENGTH = 3.50' TYPE=SQ440
 FORCEMAIN LENGTH = 51.00' TYPE=SQ440

TRENCH	TRENCH LENGTH (FT.)	FEED	PIPE INV. ELEV. (FT.)	HEAD (FT.)	HOLE DIA. (IN.)	HOLE FLOW RATE (GPM)	HOLE SPACING (FT.)	#HOLES	TRENCH FLOW RATE (GPM)	LATERAL FLOW PER TRENCH (GPM)	GAL. PER LF TRENCH	LATERAL DIAM. (IN.)	TYPE
1	52.50'	END	463.90	2	5/16	1.63	3.75	14	22.82	50.63	0.451	1.5	SQ440
2	52.50'	END	463.90	2	5/16	1.63	3.75	14	22.82	50.63	0.451	1.5	SQ440
3	52.50'	END	463.90	2	5/16	1.63	3.75	14	22.82	50.63	0.451	1.5	SQ440

MIN. SYSTEM DISCHARGE RATE = 68.46 GPM
 MANIFOLD DIAMETER = 3 IN.
 FORCE MAIN DIAMETER = 3 IN.
 MINIMUM DOSE = 150 GAL.

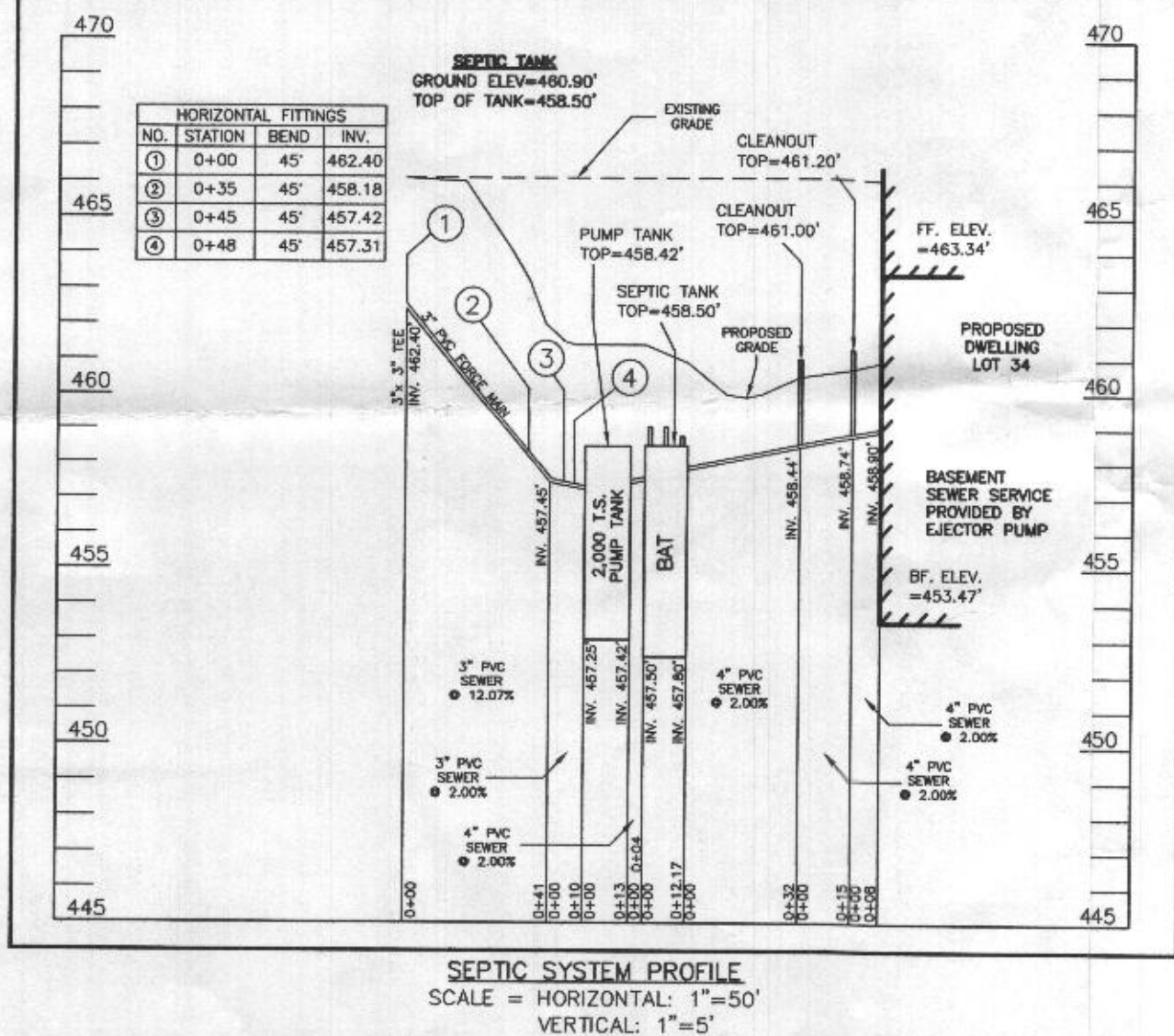
VELOCITY = 2.97 FPS FRICTION LOSS (TABLE 4.4) = 1.08
 VELOCITY = 2.97 FPS FRICTION LOSS (TABLE 4.4) = 1.08
 (VOL. IN MAIN, 5x LATERAL=101.48 GAL < 1/8 DESIGN FLOW=60/8=150 GAL.)

CALCULATE TOTAL DESIGN HEAD

LENGTH OF FM FROM PUMP TANK TO MANIFOLD = 51.00'
 # OF (45°) BENDS IN FM = $\frac{3}{1}$ (ADD 10' PER BEND) = 18'
 # OF (90°) BENDS IN FM = $\frac{3}{1}$ (ADD 10' PER BEND) = 10'
 LENGTH OF MANIFOLD FROM FM TO TRENCH = 33.65' (3.50' MANIFOLD + 30.15' (60' FROM MANIFOLD TO TRENCH) 3)
 # OF (45°) BENDS IN MANIFOLD = $\frac{3}{1}$ (1.575' PER BEND) = 18'
 # OF (90°) BENDS IN MANIFOLD = $\frac{3}{1}$ (ADD 10' PER BEND) = 18'
 # OF COUPLINGS (3" TO 1.5") = $\frac{3}{1}$ (ADD 3' PER COUPLING) = 3'
 TOTAL LENGTHS = 84.65' (68.46 GPM @ 3" PVC = 1.08 PER 100' PIPE); 1.08 / 100' = 0.0108 x 198.65' = 1.508'

OPERATION HEAD = 1.51' FT. (PER ABOVE CALCULATION)
 FRICTION HEAD = 2.00' FT.
 STATIC HEAD = 8.82' FT. (HIGHEST POINT IN DISTRIBUTION SYSTEM - PUMP OFF FLOAT ELEVATION)
 TOTAL DYNAMIC HEAD = 12.33' FT. (FRICTION HEAD + OPERATING HEAD + STATIC HEAD)

THEREFORE A PUMP CAPABLE OF DELIVERING AT LEAST 68.46 GPM AGAINST 12.33' OF HEAD IS REQUIRED
 EPSONI-20, 1/2 H.P. IS EFFICIENT



SEPTIC TRENCH SIZE CALCULATIONS			
SYSTEM INPUT INFORMATION	INITIAL SYSTEM	1ST REPLACEMENT SYSTEM	2ND REPLACEMENT SYSTEM
APPLICATION RATE (GIVEN)	1.2	1.2	1.2
EFFECTIVE AREA BEGINNING DEPTH (GIVEN)	5	5	6
BOTTOM MAXIMUM DEPTH (GIVEN)	7	7	8
NUMBER OF BEDROOMS	6	6	6
DESIGN FLOW (Ø 150 GAL./DAY/BEDROOM)	900	900	900
ABSORPTION TRENCH CALCULATIONS			
DRAINFIELD AREA REQUIRED (DESIGN FLOW/APP RATE)	750	750	750
EFFECTIVE SIDEWALL DEPTH "D" (DEPTH BETWEEN THE EFFECTIVE BEGINNING DEPTH OR PIPE DEPTH (WHICHEVER IS DEEPER) AND MAX. TRENCH BOTTOM	2	2	2
TRENCH WIDTH "W" (2 OR 3 FEET)	3	3	3
SIDEWALL REDUCTION $(W+2)/(W+1+2D)$	0.63	0.63	0.63
LINEAR FEET OF TRENCH REQUIRED (DRAINFIELD AREA X SIDEWALL REDUCTION)/W	157.50	157.50	157.50
TRENCH LAYOUT INFORMATION			
NUMBER OF TRENCHES USED	3	3	3
TOTAL LINEAR FEET USED	157.50	157.50	157.50
MINIMUM TRENCH SPACING	10	10	10
FOR TRENCHES WITH NO SIDEWALL CREDIT, THE SPACING IS 6' FOR A 2' WIDE TRENCH AND 9' FOR A 3' WIDE TRENCH (MEASURED EDGE TO EDGE). ALL TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT MUST BE SPACED A MIN. OF 10' FOR EFFECTIVE SIDEWALL NOT OVER 3.5'. IF MORE THAN 3.5' THEN SPACING FORMULA IS $(2D+W)$ UP TO A MAX. OF 18'.			

STATE OF MARYLAND
WILLIAM JOSEPH SMITH
05/18/2018
NO. 21328
PROFESSIONAL LAND SURVEYOR

[illegible]

SITE PLAN FOR BAT INSTALLATION
LOT 34
KINGS FOREST
LIBER 11372, FOLIO 431
PLAT No. 25767
TAX No. 03-603444
2nd ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
ADDRESS: 10509 PUDDING LANE
ELLICOTT CITY, MARYLAND 21042

<h1 style="margin: 0;">ESE CONSULTANTS</h1> <p style="margin: 0;">ENGINEERING • PLANNING • SURVEYING • ENVIRONMENTAL</p>		
<p>ESE Consultants, Inc.</p> <p>6731 Columbia Gateway Drive • Suite 120 • Columbia, MD 21046</p> <p>T: 410-872-9105</p>		
DATE: 05/27/2022 DRAWN:	SCALE: 1"=30'	FILE: BAT LOT 34

**SHEET
1
OF
1**