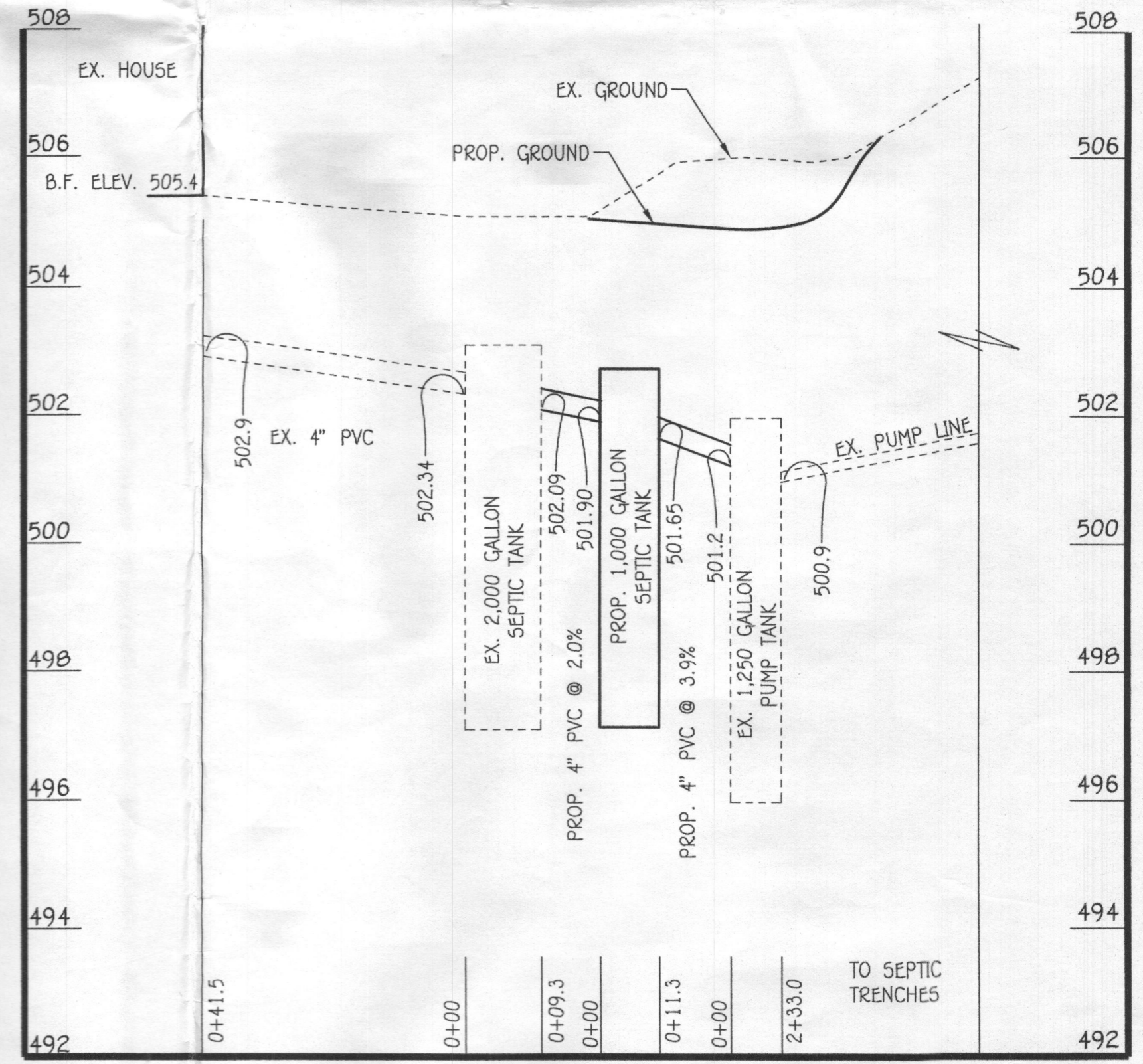


EXISTING SYSTEM "A"	
HOUSE	INV. AT BARN 502.9
SEPTIC TANK	EX. GRADE 505.1
	FIN. GRADE 540.9
	INV. IN 502.1
	INV. OUT 501.6
PUMP PIT	EX. GRADE 505.3
	FIN. GRADE 505.3
	INV. IN 501.7
	INV. OUT ---
DISTRIBUTION BOX	EX. GRADE 540.9
	FIN. GRADE 540.9
	INV. IN ---
	INV. OUT ---
GRAVITY SEWER SERVICE TO BASEMENT LEVEL WILL BE PROVIDED	
DIST. BOX & TRENCH INVERTS, NUMBER & LENGTH OF TRENCHES, TO BE DETERMINED BY BUREAU OF ENVIRONMENTAL HEALTH	

NOTES:

- TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY SHANABERGER & LANE IN MARCH, 2010.
- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. FOR LOTS CREATED PRIOR TO MARCH 1972, IT PROVIDES AT LEAST ENOUGH AREA TO ACCOMMODATE AN INITIAL AND 2 REPLACEMENT SEPTIC SYSTEMS AS REQUIRED BY THE HOWARD COUNTY HEALTH DEPT. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA.
- #2 ● DESIGNATES SUCCESSFUL PERC TEST LOCATION
 - DESIGNATES FAILED PERC TEST LOCATION
 - ⊙ DESIGNATES EXISTING WELL LOCATION
 - ▭ DESIGNATES EXISTING BUILDING LOCATION
 - ▨ DESIGNATES FOREST CONSERVATION EASEMENT
 - DESIGNATES FIELD-RUN CONTOURS
 - - - DESIGNATES CONTOURS DERIVED FROM HOWARD COUNTY TOPO MAP
 - - - DESIGNATES SOIL TYPE BOUNDARY
 - ~ ~ ~ DESIGNATES WOODS/LINE/TREES
- ALL VISIBLE EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN.
- SOIL TYPES:
 - (Wha) --- WILTSHIRE SILT LOAM 0-3% SLOPES
 - (GbC) --- GLADSTONE LOAM 8-15% SLOPES
 - (MaD) --- MANOR LOAM 15-25% SLOPES
- BEARINGS AND DISTANCES SHOWN HEREON ARE FROM RECORDED PLAT NUMBER 11117.
- ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP AND LOT AREA REQUIREMENTS BY THE MD STATE DEPARTMENT OF THE ENVIRONMENT.
- AREAS WITHIN DEFINED SEPTIC AREAS THAT ARE WOODED ARE NOT TO BE CONFUSED WITH WOODED AREAS THAT ARE PROTECTED FOR FOREST CONSERVATION THAT ARE DESIGNATED ADJACENT TO THE DEFINED SEPTIC AREAS. REPLACEMENT OF SEPTIC DRAINFIELD LINES REQUIRES DISRUPTION AND DISTURBANCE AND LIKELY WILL RESULT IN DAMAGE OR DESTRUCTION OF TREES AND OTHER VEGETATION WITHIN THE BOUNDARIES OF THE SEPTIC AREA.
- A TOTAL OF 9 BEDROOMS ARE PROPOSED IN THE EXISTING BARN.
- THE PURPOSE OF THIS PLAN IS TO INSTALL A 1,000 GALLON SEPTIC TANK IN SERIES BETWEEN THE 2,000 GALLON SEPTIC TANK AND THE PUMP TANK.
- CONTRACTOR TO TEST PIT EXISTING SEPTIC LINE BEFORE INSTALLATION.
- EXISTING TANK DIMENSIONS, DEPTHS AND INVERT ELEVATIONS BASED ON EXCAVATION AND RELATIONSHIP TO EXISTING GRADE.

Approved Septic System Plan
 Howard County Health Department
 Signature: *Paul Gerard Cavanaugh* Date: 9/29/2003



SEWER PROFILE
 SCALE: HORIZ. : 1" = 20'
 VERT. : 1" = 2'



"PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/24."
 Signature: *Paul Gerard Cavanaugh* Date: 9/29/2003

DAILY STABILIZATION NOTE:
 CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY. STABILIZATION SHALL BE AS FOLLOWS:
 1. FOR AREAS TO BE PAVED, THAT APPLICATION OF STONE BASE.
 2. FOR AREAS TO BE VEGETATIVELY STABILIZED:
 A. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOO FOR ALL STEEP SLOPES, CHANNELS OR SWALES.
 B. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.
 ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWN SLOPE SIDE.

- ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- THE WELL HO-94-1546 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
- THE ENGINEER IS REGISTERED WITH MDE TO PROVIDE ON-SITE WASTEWATER SERVICES IN MARYLAND. CONTRACTOR TO TEST PIT EX. SEPTIC LINE BEFORE INSTALLATION.

OWNER/DEVELOPER
 MA HONG TAO
 LI XIAO HONG
 4260 MAISEL FARM LANE
 ELLICOTT CITY, MARYLAND 21042

PROPERTY OF HONG TAO MA
 SEPTIC INSTALLATION PLAN
 4260 MAISEL FARM LANE
 ELLICOTT CITY, MARYLAND 21042
 PLAT #11117 TITLE DEED: 9067/33
 ZONED: R-1
 TAX MAP: 22 GRID: 22 PARCEL: 535
 FIFTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND
 DATE: SEPTEMBER, 2023
 SHEET 1 OF 2

NOTES:

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● DESIGNATES FAILED PERC TEST LOCATION
● W DESIGNATES EXISTING WELL LOCATION
[Rectangle] DESIGNATES EXISTING BUILDING LOCATION
[Hatched Area] DESIGNATES FOREST CONSERVATION EASEMENT
- DESIGNATES FIELD-RUN CONTOURS
DESIGNATES CONTOURS DERIVED FROM HOWARD COUNTY TOPO MAP
DESIGNATES SOIL TYPE BOUNDARY
DESIGNATES WOODS LINE/TREES
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EXISTING SYSTEM "A"

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	FIN. GRADE	505.1
	INV. IN	502.1
	INV. OUT	501.8
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	INV. IN	540.9

GRAVITY SEWER SERVICE TO BASEMENT LEVEL WILL BE PROVIDED

DIST. BOX & TRENCH INVERTS, NUMBER & LENGTH OF TRENCHES, TO BE DETERMINED BY BUREAU OF ENVIRONMENTAL HEALTH

Item # 1000 Gallon Top Seam - 2CP
100_T-2CP

DESIGN NOTES:

- Design per performance test per ASTM C1227
- Top surface area 46.25 ft²
- 1" @ 28 days; concrete = 6,000 PSI Min.

Installation:

- Tank to be set on 5" min. sand bed or pea gravel
- Tank to be backfilled uniformly on all sides in lifts less than 24" and mechanically compacted
- Excavated material may be used for backfill, provided large stones are removed
- Excavation should be dewatered and tank filled with water prior to being put in service for installation with water table less than 2' below grade
- Meets C1844-06 for resilient connectors
- Inlet and Outlet identified above pipe
- Delivered complete with internal piping
- 4" Maximum bury depth

ALLOWABLE BURY (Based on Water Table)

WATER TABLE	ALLOWABLE BURY
0' - 0"	2' - 0"
1' - 0"	3' - 0"
2' - 0"	3' - 0"
3' - 0"	4' - 0"
DRY	4' - 0"

Digging Specs

Invert	Dimensions	Net Capacity	Net Weight									
Inlet	Outlet	Length	Width	Height	Inlet	Outlet	Total	Lid	Tank	Total		
56" below inlet	56"	53"	111"	60"	68"	68"	687 gal	323 gal	1010 gal	2620 lbs	9380 lbs	12000 lbs

VALLEY PRECAST, Inc.
Buena Vista, Colorado
Phone: 719-395-6764
Fax: 719-395-3727
Website: www.valleyprecast.com
Email: frontdesk@valleyprecast.com

Approved Septic System Plan
Howard County Health Department

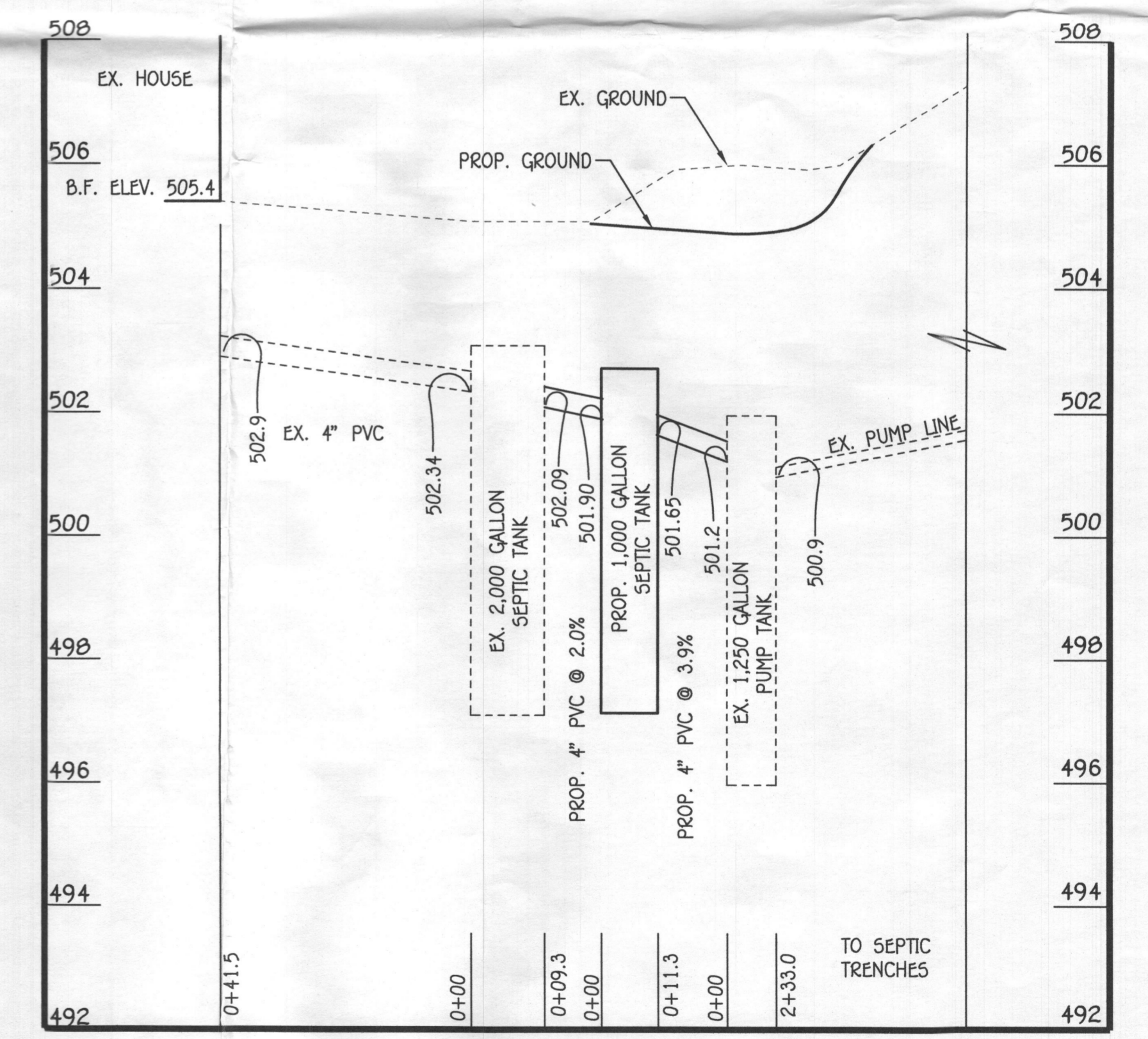
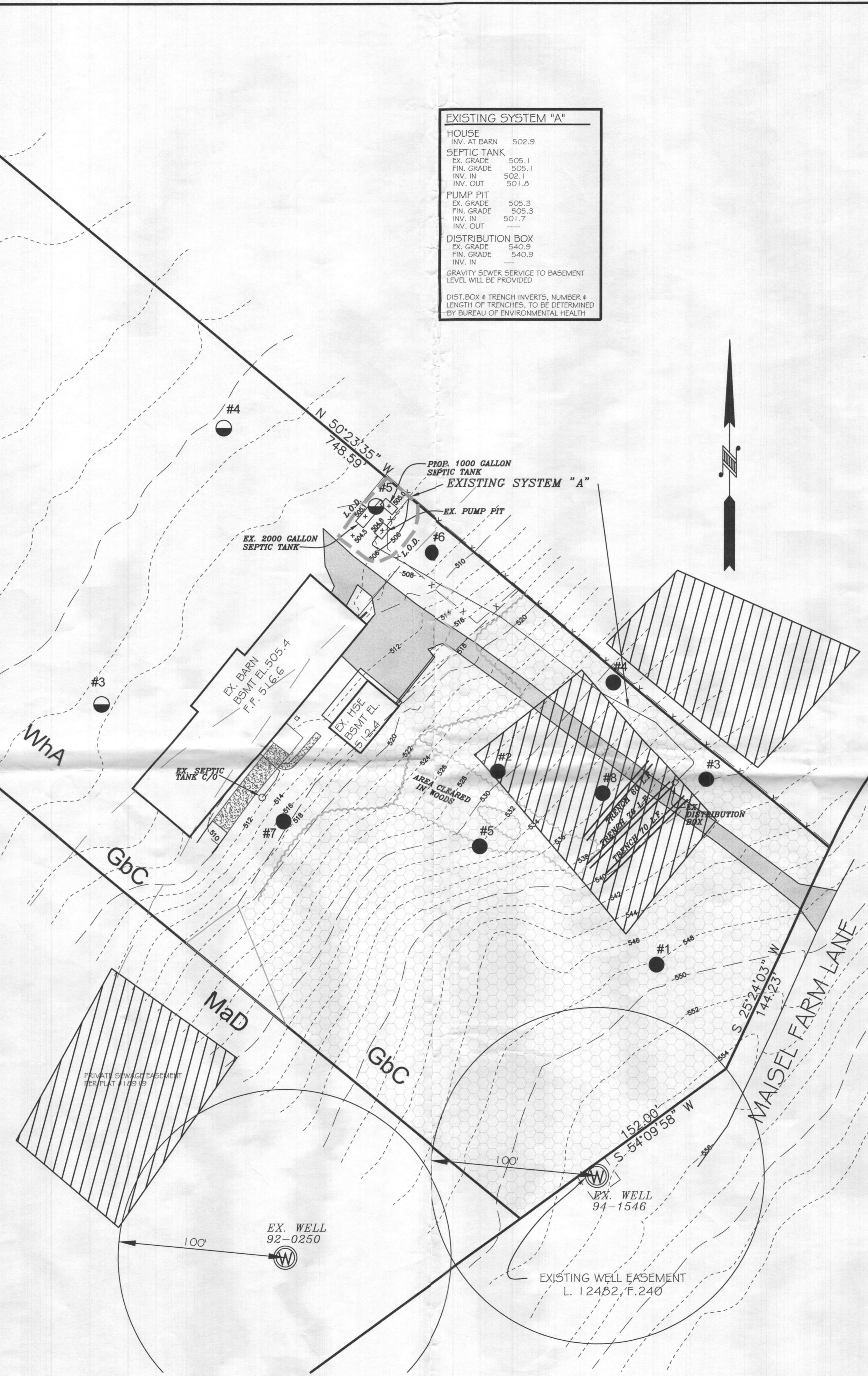
Signature: _____ Date: 9/6/13

Engineer submitted new plan sharing some information approved on this plan. See Approved on 9/29

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE: PARK - 10272 BALTIMORE NATIONAL PIKE
ELLCOTT CITY, MARYLAND 21104
(410) 461 - 2295

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 27020, EXPIRATION DATE: 01/25/24

PAUL GERARD CAVANAUGH
DATE: July 17, 2023



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PROPERTY OF HONG TAO MA

SEPTIC INSTALLATION PLAN
4260 MAISEL FARM LANE
ELLCOTT CITY, MARYLAND 21042
PLAT #11117 TITLE DEED: 9067/33

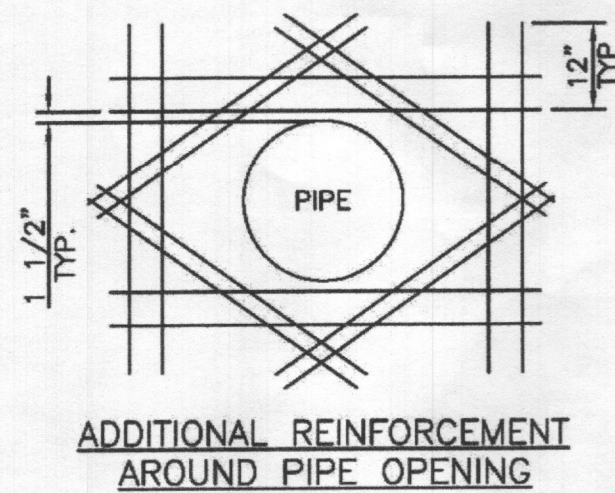
OWNER/DEVELOPER
MA HONG TAO
LI XIAO HONG
4260 MAISEL FARM LANE
ELLCOTT CITY, MARYLAND 21042

ZONED:
TAX MAP: 22 GRID: 22 PARCEL: 535
FIFTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
DATE: JULY 17, 2023
SHEET 1 OF 1

NOTES:

1. CONCRETE SHALL BE 5,000 PSI @ 28 DAYS, TYPE II CEMENT.
2. STEEL REINFORCEMENT TO ASTM A 615 GRADE 60. WELDED WIRE FABRIC TO ASTM A-185 GRADE 65. 1 1/2" CLEARANCE TYP.
3. LIFT HOLES (IF APPLICABLE) & ANNULAR SPACE BETWEEN PIPE & HOLE TO BE FILLED.
4. BUTYL RUBBER SEALANT TO BE USED IN ALL JOINTS. ALL JOINTS TO BE GROUTED INSIDE & OUT W/ NON-SHRINK GROUT.
5. STRUCTURE TO BE WATERTIGHT, WATERSTOP TO BE USED BETWEEN BASE SLAB & WALLS.
6. JOINT LOCATION, IF APPLICABLE TO BE DETERMINED BY THE MANUFACTURER, JOINTS CANNOT BE LOCATED WITHIN 6" OF ANY OPENING.
7. TRIM ALL OPENINGS OVER 10" DIAMETER W/ #5 BARS AS SHOWN BELOW.
8. ALL REBAR LAPS 32 DIAMETERS MINIMUM.
9. CONCRETE DESIGN TO BE IN CONFORMANCE WITH THE LATEST EDITION AND ADDENDA OF THE ASTM C857 AND ACI 318.
10. CONCRETE FABRICATION TO BE IN CONFORMANCE WITH THE LATEST EDITION AND ADDENDA OF THE ASTM C858.

DRAWING SCHEDULE		
SHEET NO.	DESCRIPTION	REVISIONS
		REV. NO. DATE
1	COVER SHEET	
2-3	1000 GALLON TRAFFIC RATED DETAILS	

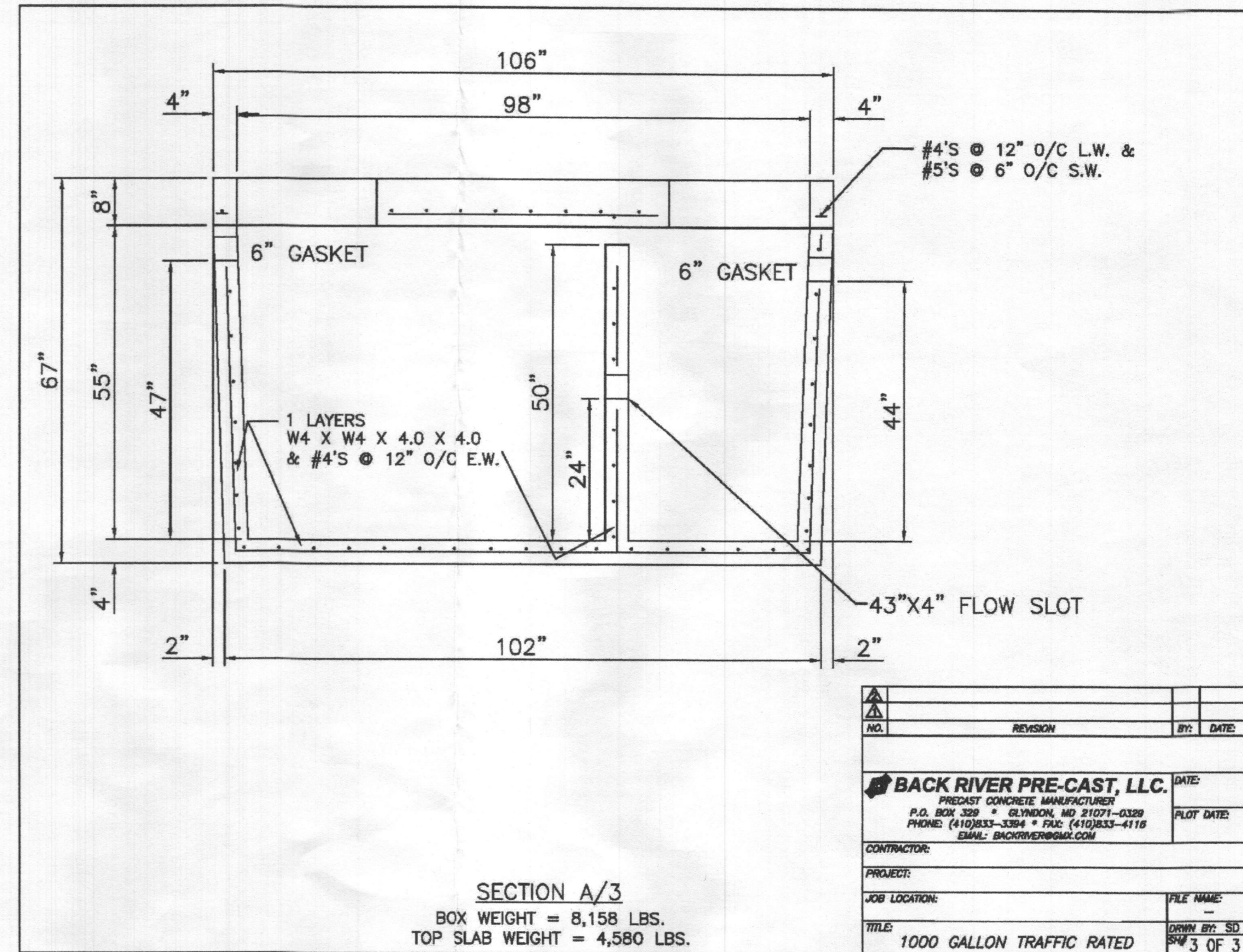
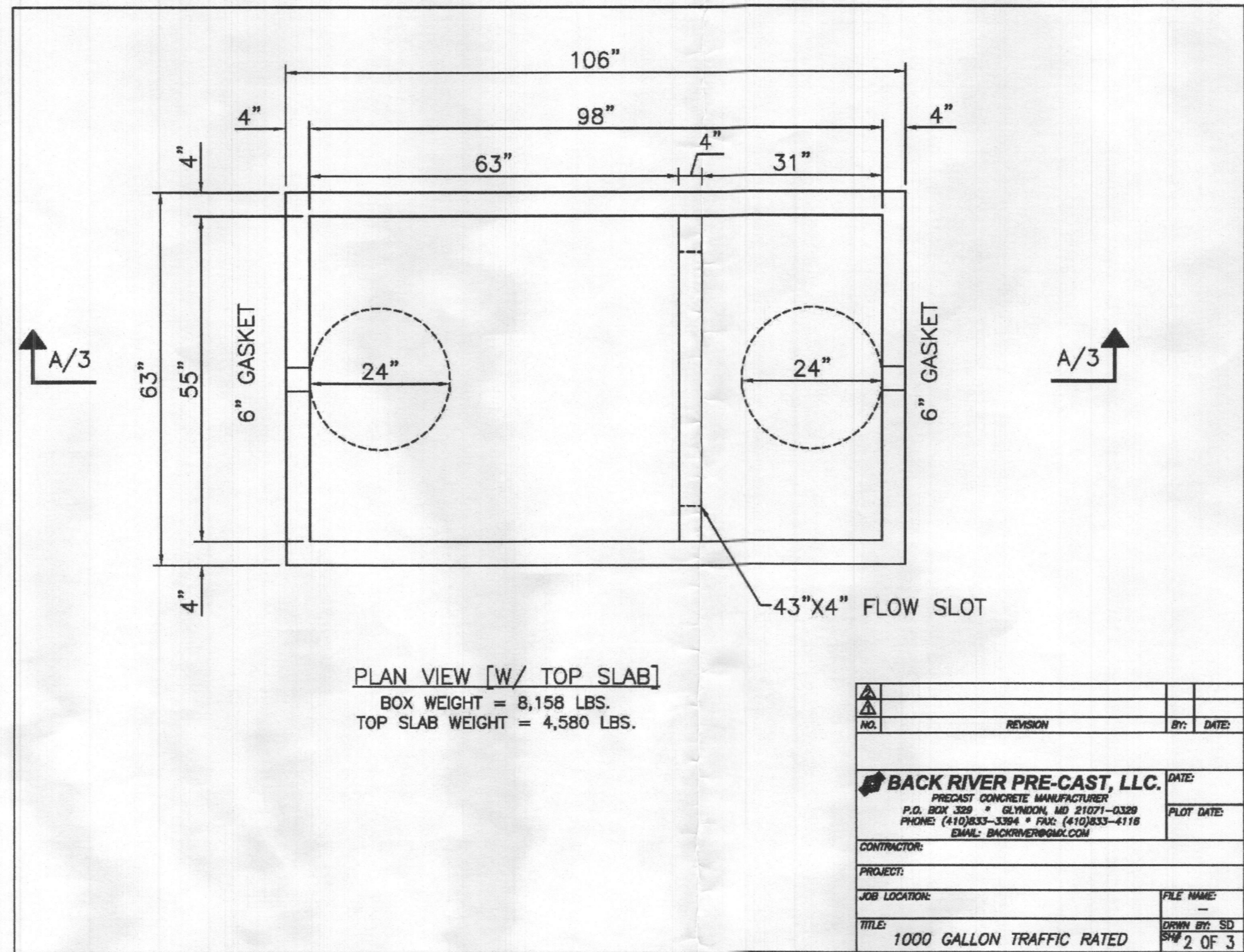


PROJECT:
FAIRFAX CO HELLIPORT

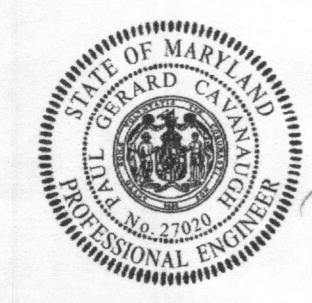
NO.	REVISION	BY	DATE

BACK RIVER PRE-CAST, LLC. DATE: _____
PRECAST CONCRETE MANUFACTURER
P.O. BOX 308 • GILKISON, MD 21021-0308
PHONE: (410)853-3284 • FAX: (410)853-4118
EMAIL: BACKRIVERPRECAST.COM

CONTRACTOR: _____
PROJECT: _____
JOB LOCATION: _____ FILE NAME: _____
TITLE: COVER SHEET SHEET NO. 01 OF 3



Approved Septic System Plan
Howard County Health Department
[Signature] 9/29/2023
Signature Date



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[Signature]
PAUL GERARD CAVANAUGH
DATE: Sept. 27, 2023

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK • 10272 BALTIMORE NATIONAL PIKE
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PROPERTY OF HONG TAO MA
SEPTIC INSTALLATION PLAN
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SHEET 2 OF 2