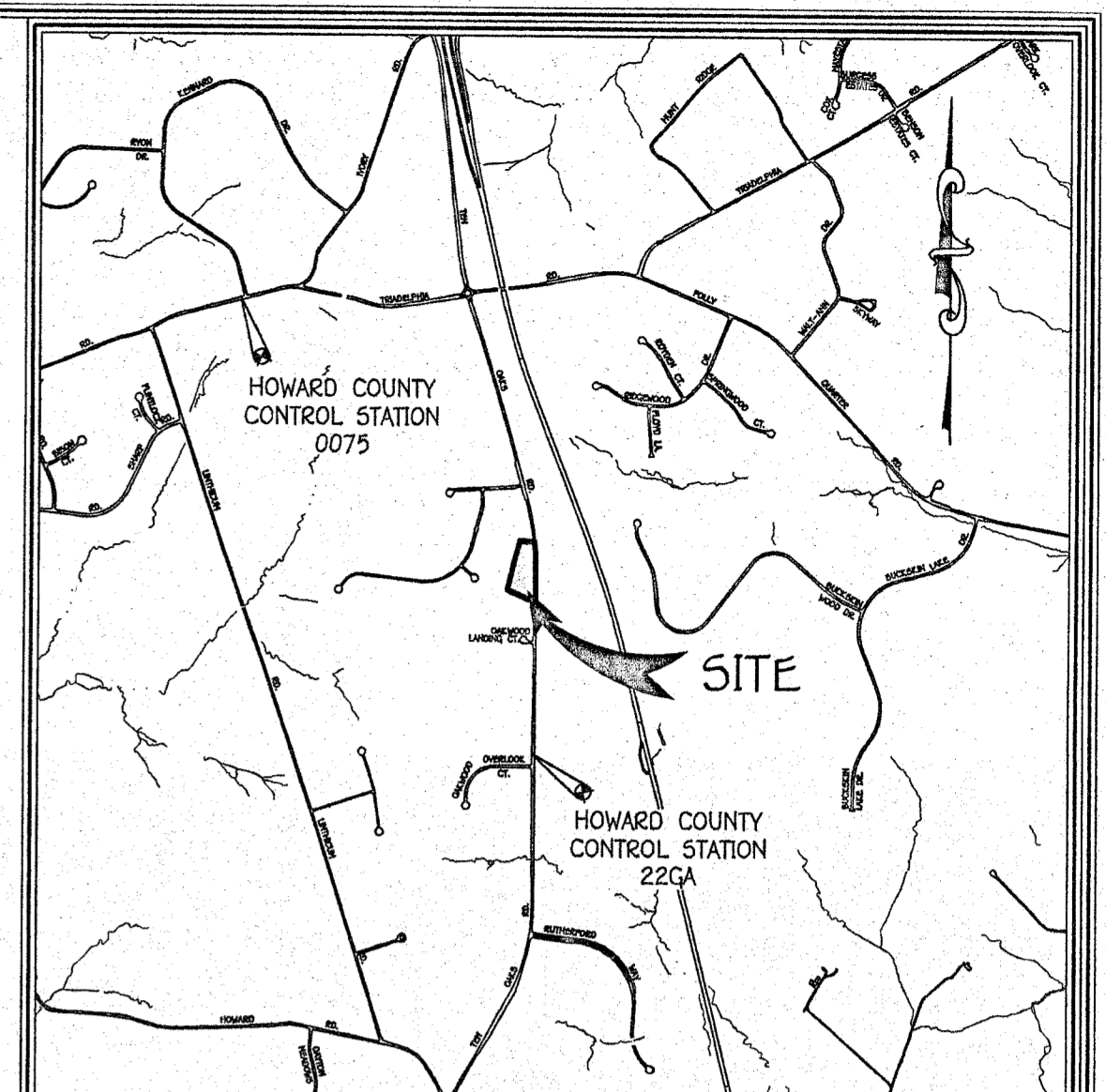


LEGEND	
SYMBOL	DESCRIPTION
---	EXISTING CONTOUR 2' INTERVAL
---	EXISTING CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 10' INTERVAL
---	PROPOSED CONTOUR 2' INTERVAL
X 148.5	SPOT ELEVATION
---	EXISTING STORM DRAIN
---	PROPOSED STORM DRAIN PIPE
---	EXISTING CABLE LINE
---	EXISTING GAS LINE
---	EXISTING OVERHEAD WIRE
---	PROPOSED PAVING/PATH
---	LIMIT OF DISTURBANCE
---	SUPER SILT FENCE
---	SILT FENCE
---	DIVERSION FENCE
---	EXISTING TREE LINE
---	SOIL LINES AND TYPES
---	BIO RETENTION FACILITY (F-6) OR (M-6) AS NOTED
---	PROPOSED ROOF LEADER
---	DENOTES EXISTING TREES TO REMAIN
---	CRITICAL ROOT ZONE
---	STABILIZED CONSTRUCTION ENTRANCE

INITIAL SYSTEM
SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM +150 GPD = 1050 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+12x3) = 0.50
TRENCH LENGTH = 875 SF x 0.50 / 3 = 145 FEET
3 TRENCHES AT 49'
TRENCH SPACING = 20+W = ((2x3) + 3) = 9' USE 10'

1ST REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM +150 GPD = 1050 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+12x3) = 0.50
TRENCH LENGTH = 875 SF x 0.50 / 3 = 145 FEET
3 TRENCHES AT 49'
TRENCH SPACING = 20+W = ((2x3) + 3) = 9' USE 10'

2ND REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA - INITIAL SYSTEM
6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM +150 GPD = 1050 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+12x3) = 0.50
TRENCH LENGTH = 875 SF x 0.50 / 3 = 145 FEET
3 TRENCHES AT 49'
TRENCH SPACING = 20+W = ((2x3) + 3) = 9' USE 10'

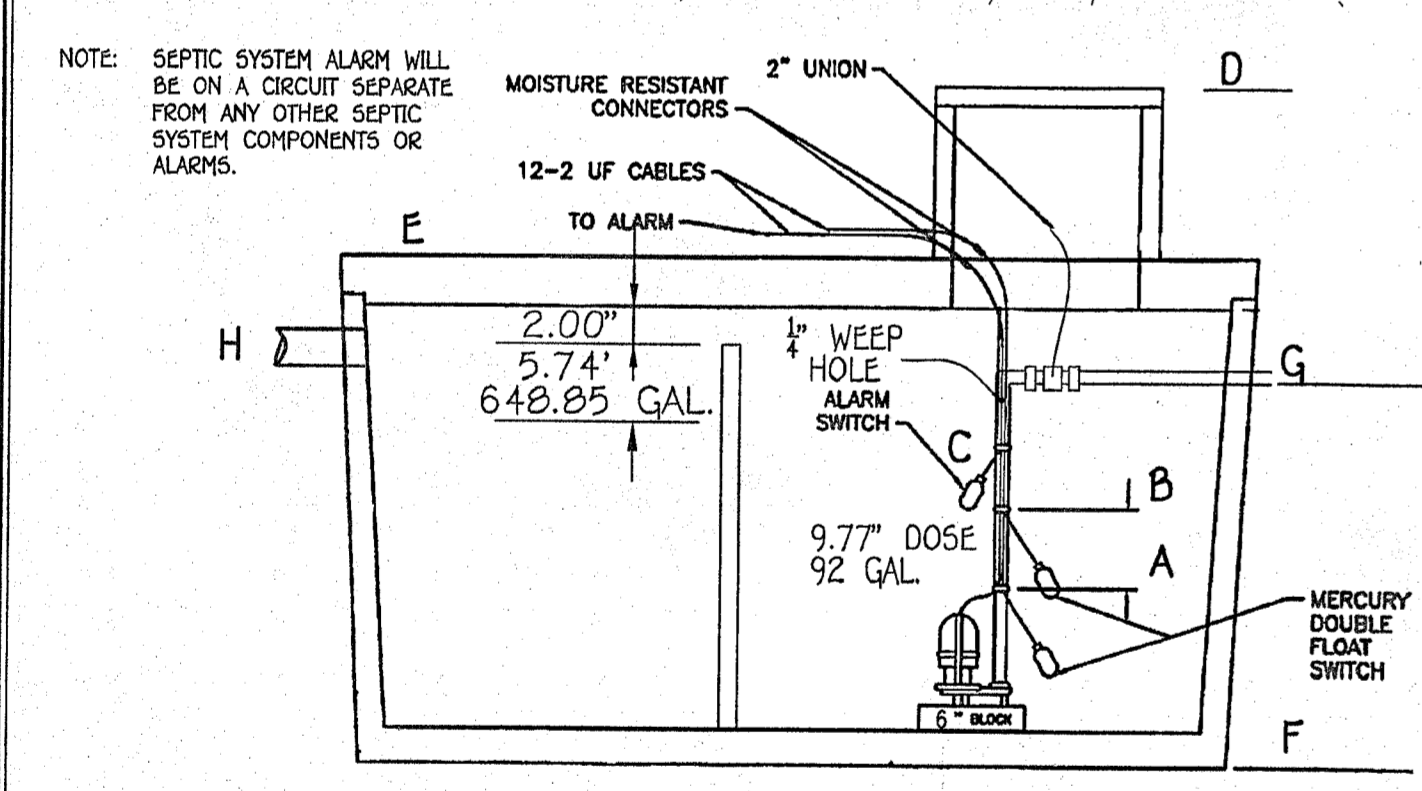
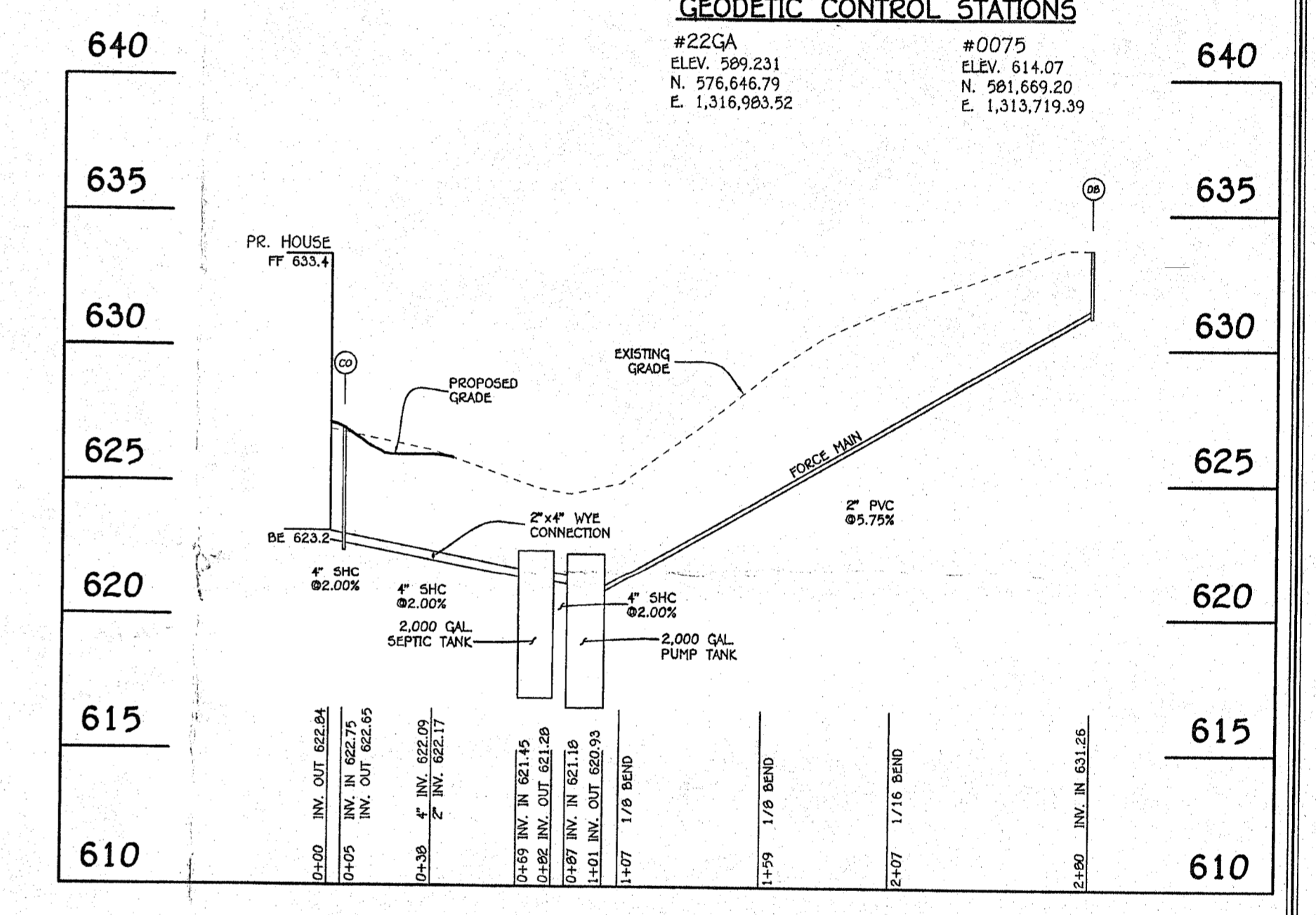


VICINITY MAP
SCALE: 1" = 2000'

GEODETIC CONTROL STATIONS

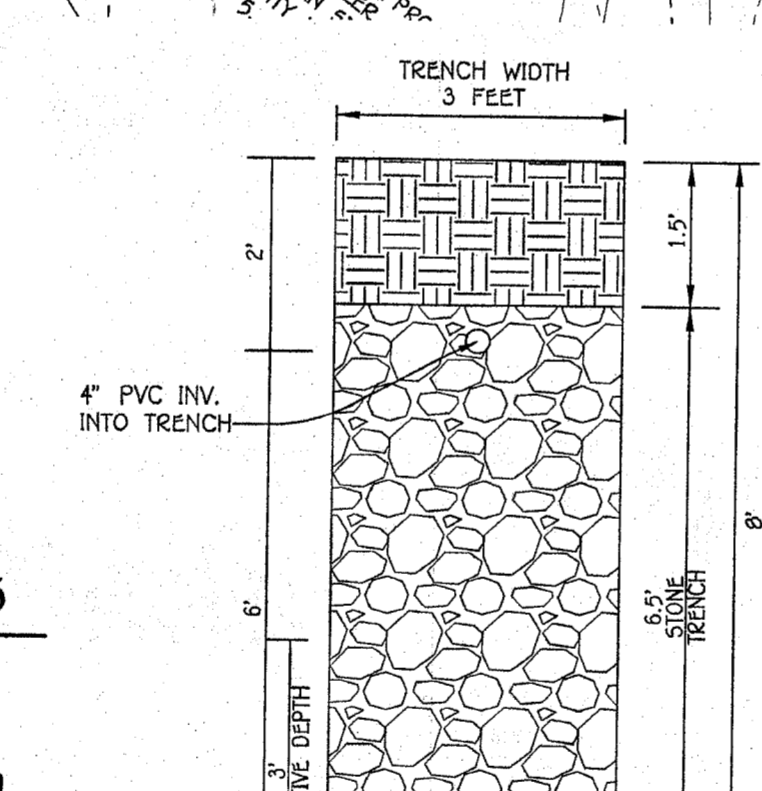
#22CA ELEV. 599.231 N. 576.846.79 E. 1,316.983.52	#0075 ELEV. 614.07 N. 581,669.20 E. 1,313,719.39
--	---

- 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.
- WELL HO-20-0275 HAS BEEN FIELD LOCATED.
- 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.



FF 621.13
INV. OUT OF HOUSE = 617.72
EX. GROUND AT PUMP TANK = 620.55
TOP OF PUMP TANK = 622.35
INV. INTO PUMP TANK = 617.22
WEIR INV. IN PUMP TANK = 621.85
INV. OUT OF PUMP TANK = 616.97
EX. GROUND AT WYE CONNECTION = 626.12
4" INV. AT WYE CONNECTION = 622.09
2" INV. AT WYE CONNECTION = 622.17

PUMP ALARMS / INFORMATION
A PUMP OFF : 614.80'
B PUMP ON : 615.61'
C HIGH WATER ALARM : 616.11'
D TOP OF ACCESS COVER : 622.35'
E TOP OF TANK : 622.35'
F BOTTOM OF TANK : 612.47'
G DISCHARGE OUT OF TANK : 616.97'
H WEIR INTO TANK : 621.85'



TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE = 633.40
INV. IN = 631.40
BOTTOM TRENCH = 625.40

TRENCH 2:
EX. GROUND ABOVE = 633.03
INV. IN = 631.03
BOTTOM TRENCH = 625.03

TRENCH 3:
EX. GROUND ABOVE = 632.76
INV. IN = 630.76
BOTTOM TRENCH = 624.76

1 UNION @ 2" SCH. 40 PVC = 180 LF
2 1/8" HB @ 4 EQUIVALENT FEET = 8 LF
1 1/16" HB @ 4 EQUIVALENT FEET = 4 LF
TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 194 LF

DYNAMIC HEAD
194 LF X 2.05 FT PER 100 LF OF 2" PIPE = 3.98 FT OF FRICTION HEAD
VERTICAL FROM PUMP OFF TO HIGHEST POINT IN PUMP CHAMBER = 2.23 FT OF HEAD
HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV. OF SYSTEM = 10.33 FT (PUMP OUT IS THE HIGHEST POINT)
TOTAL DYNAMIC HEAD = 16.56 FT

1/6 DESIGN FLOW (1050/6=175) PLUS VOLUME OF 2" PIPE (30 GALLONS)
USE 205 GALLON DOSE (175 GALLON MINIMUM)
RUN TIME = 5.54 MIN (37 GPM X 5.54 = 205 GALLON DOSE)

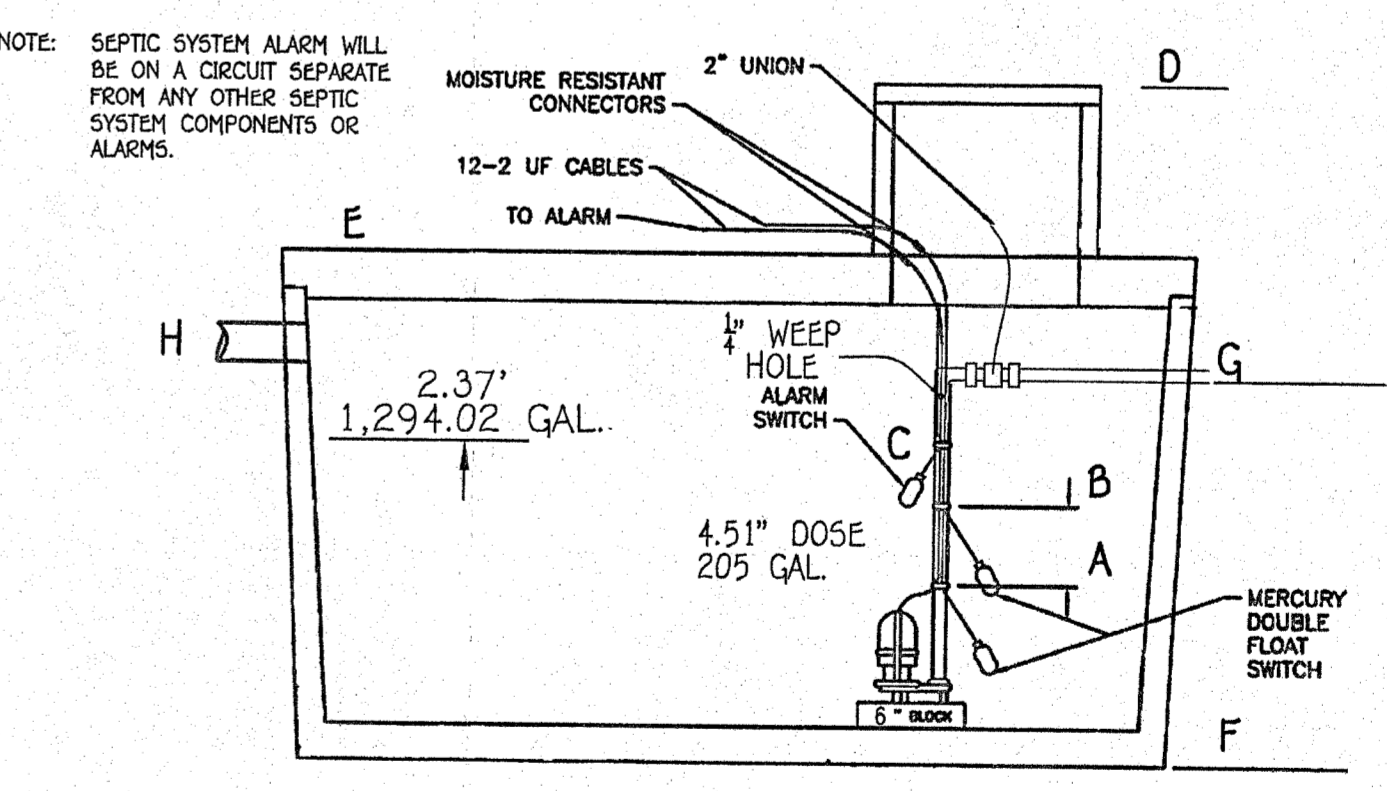
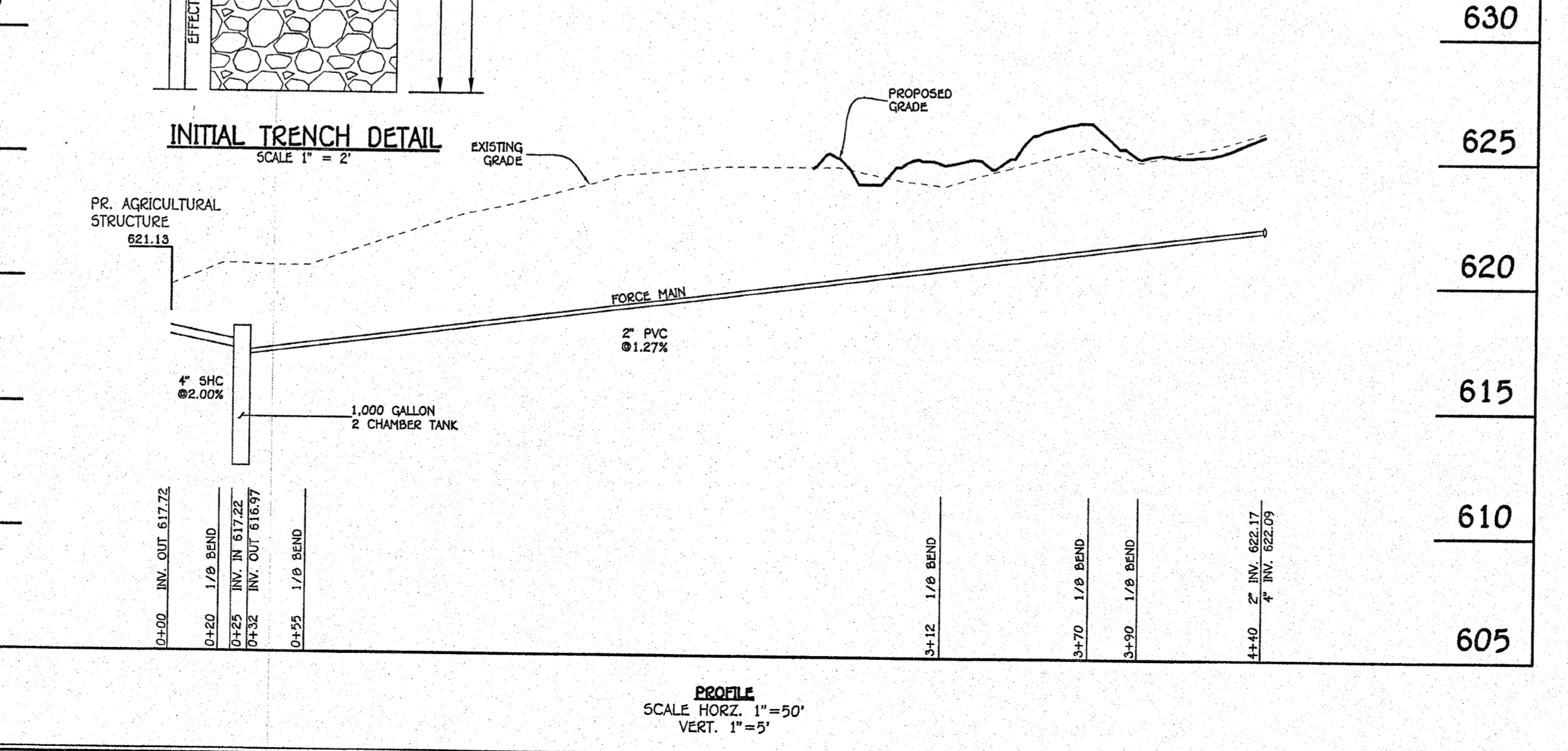
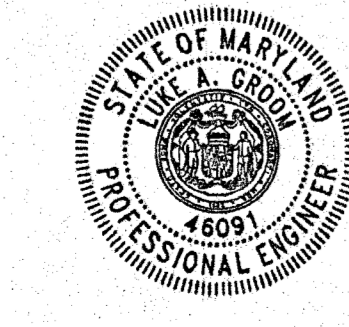
PUMP NEEDS TO HANDLE 37 GPM AT 16.56 FT OF HEAD
USE 0.3 HP (ZOELLER MODEL 151 PUMP)

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT 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. 46091, EXPIRATION DATE: 05/14/2025.

Yude Strom
Signature of Professional Engineer
DATE: 8-1-23

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SQUARE OFFICE BLDG. - 1072 BALDWIN NATIONAL PKWY.
ELICOTT CITY, MARYLAND 21042
(410) 461-2295

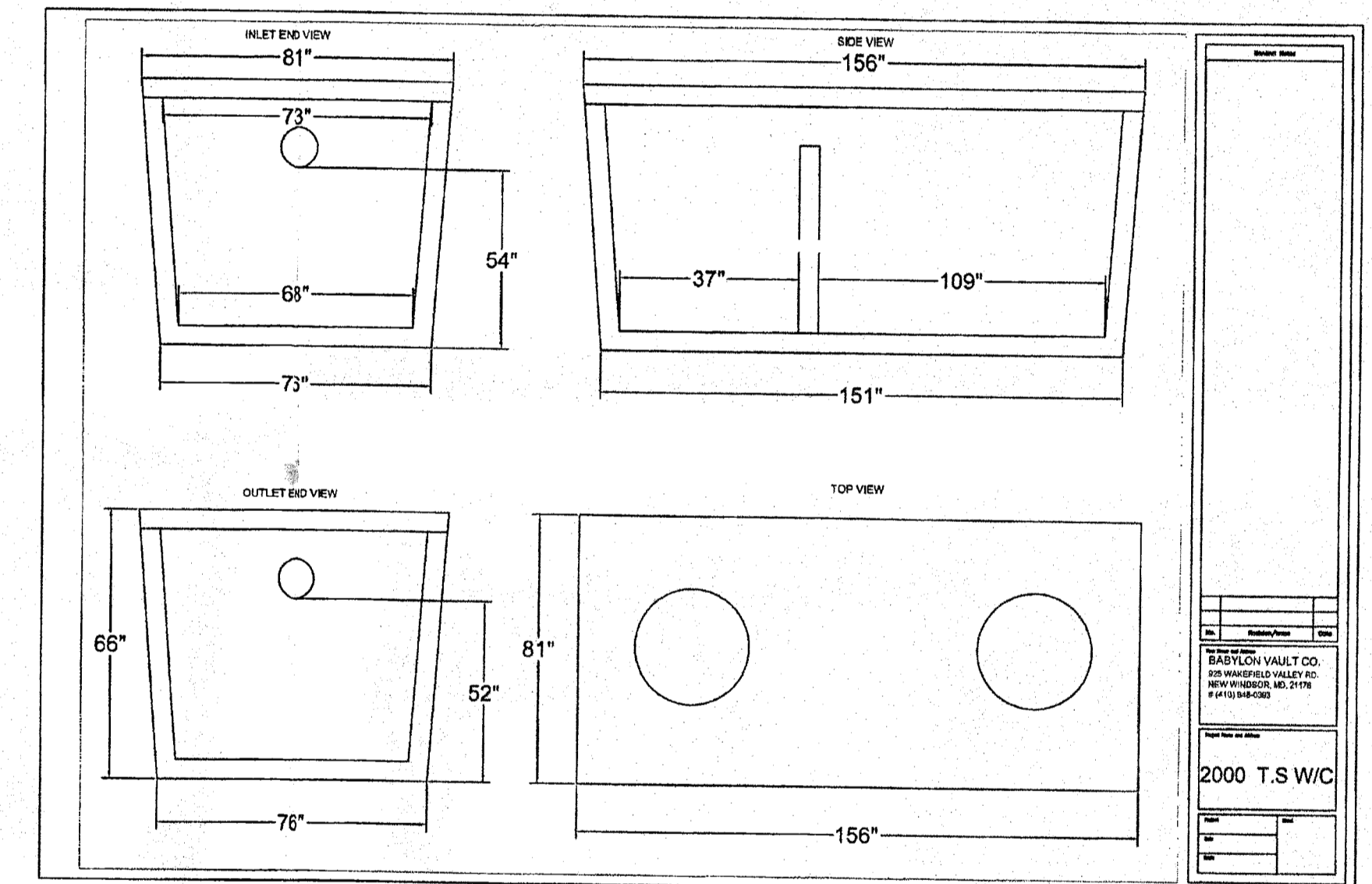
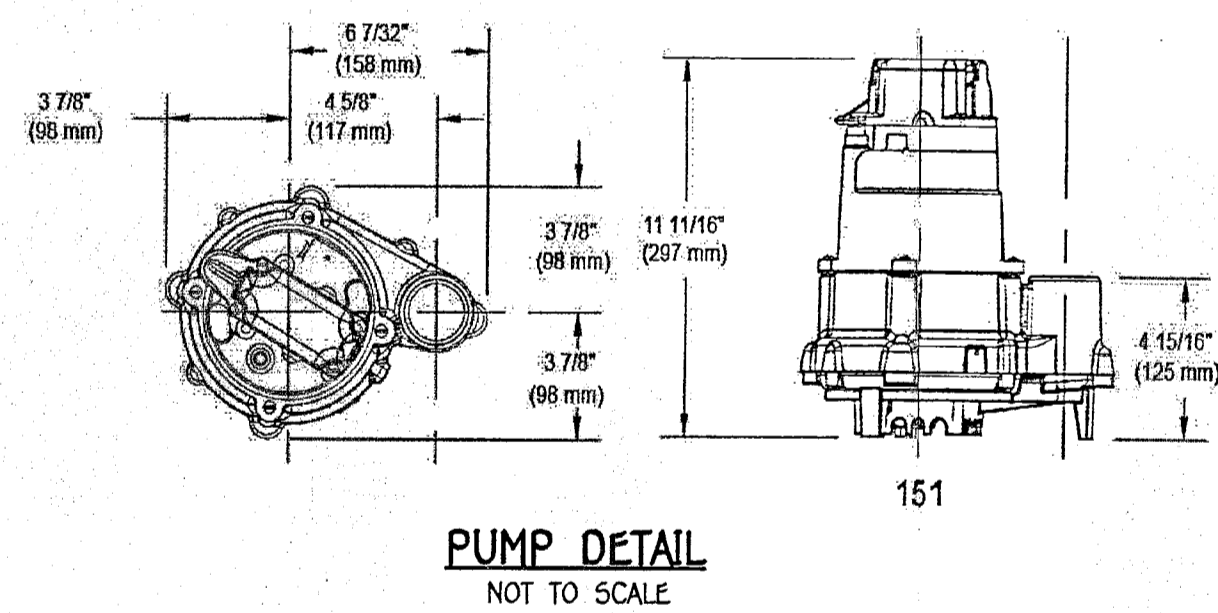
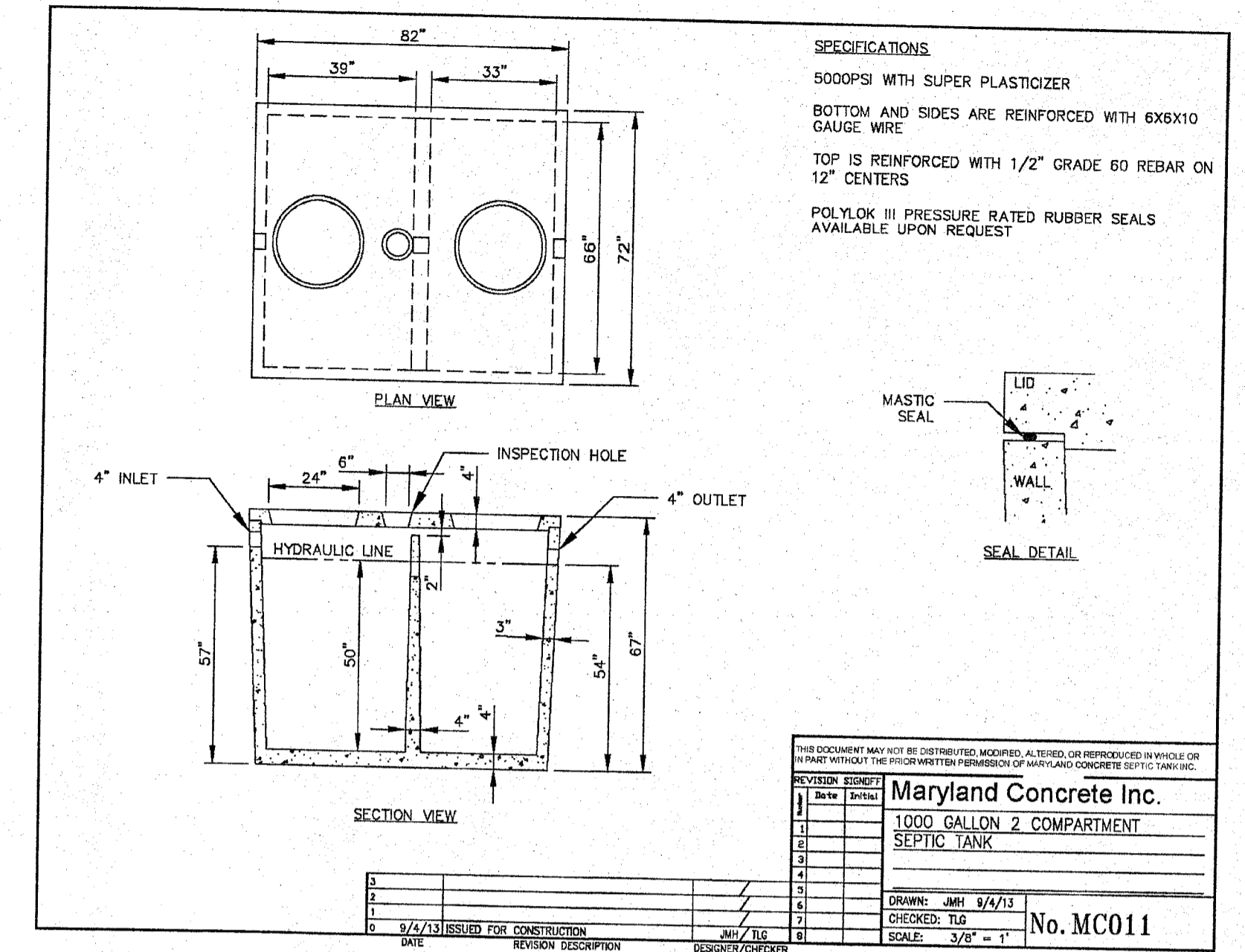
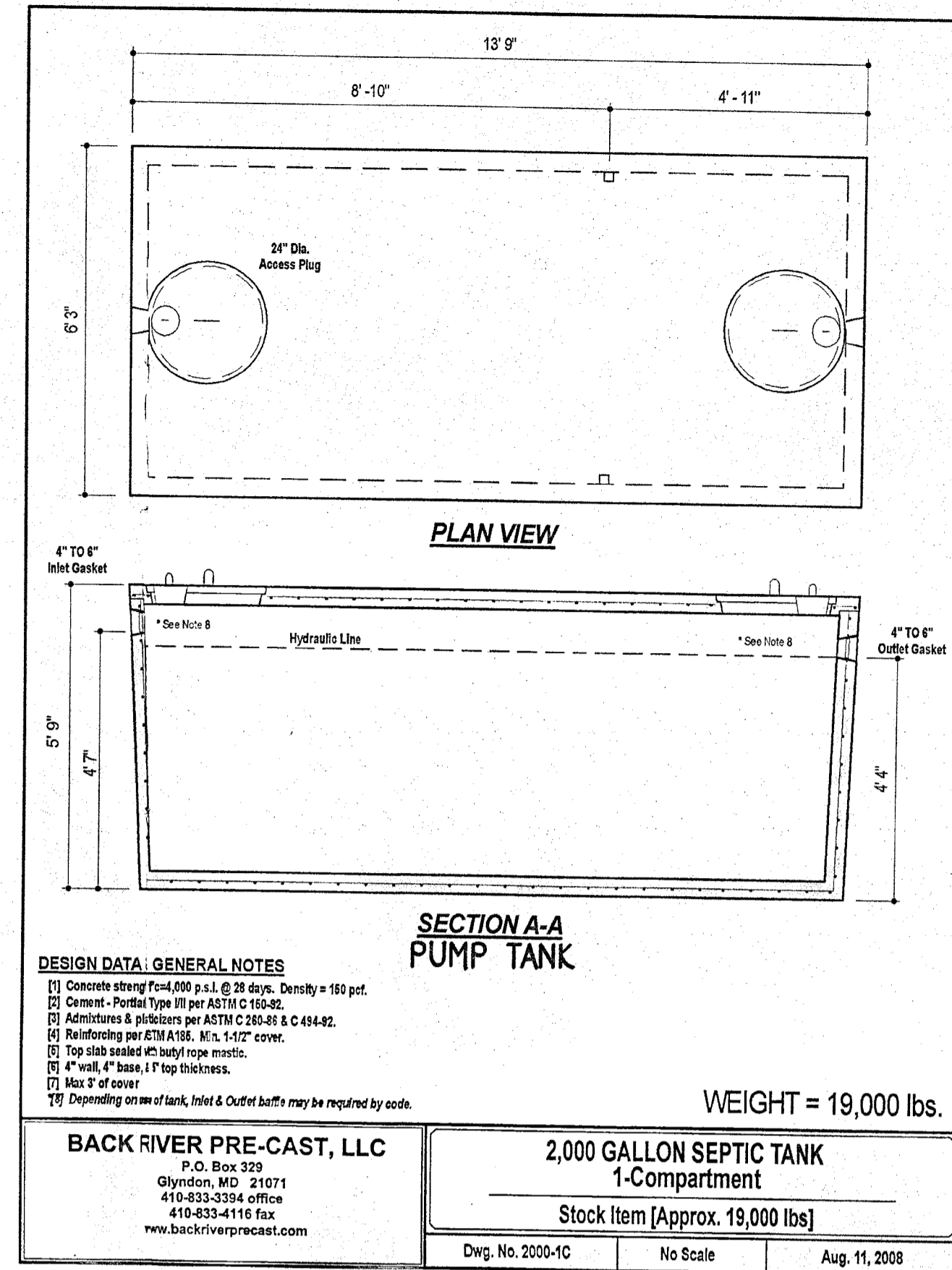
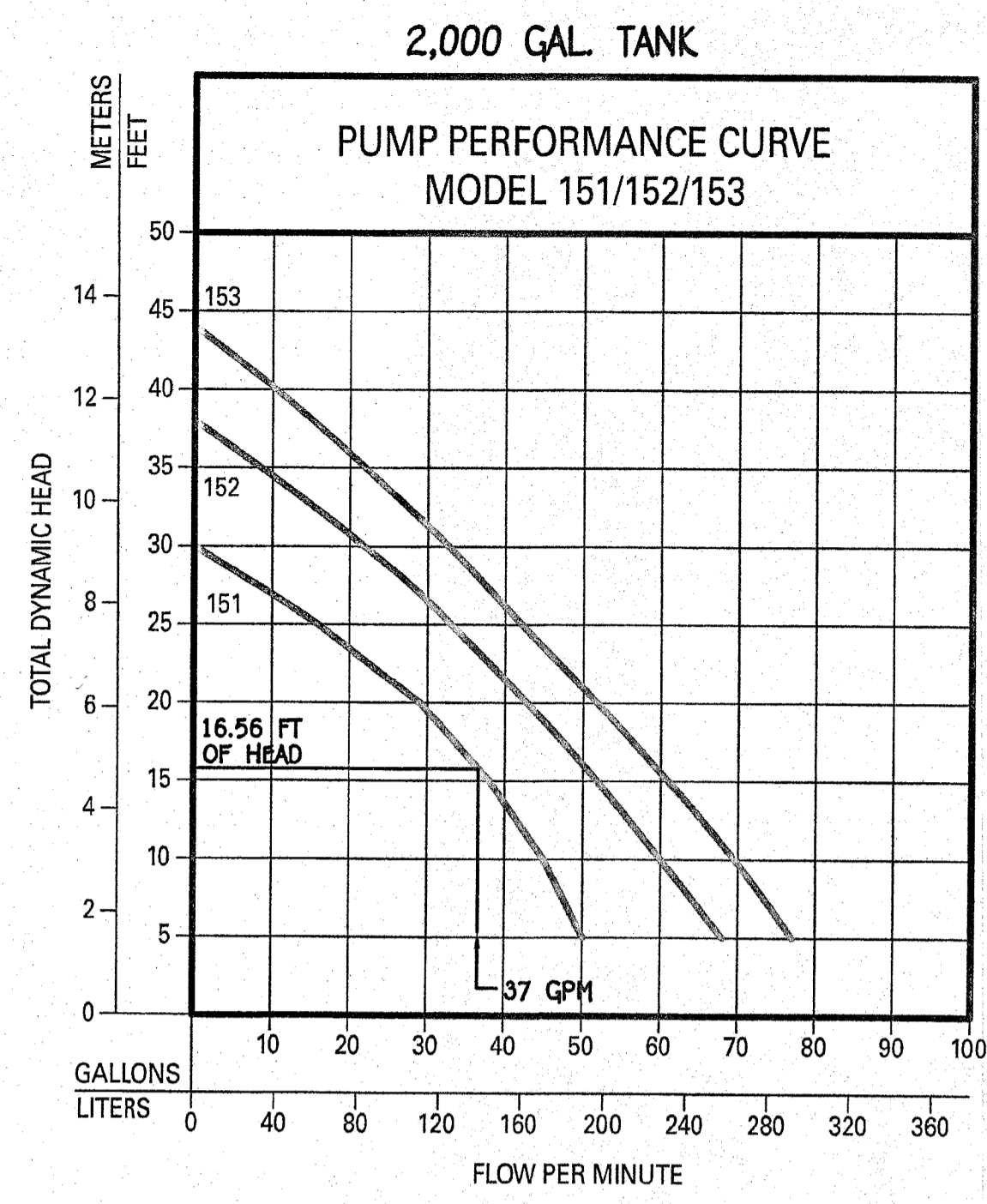
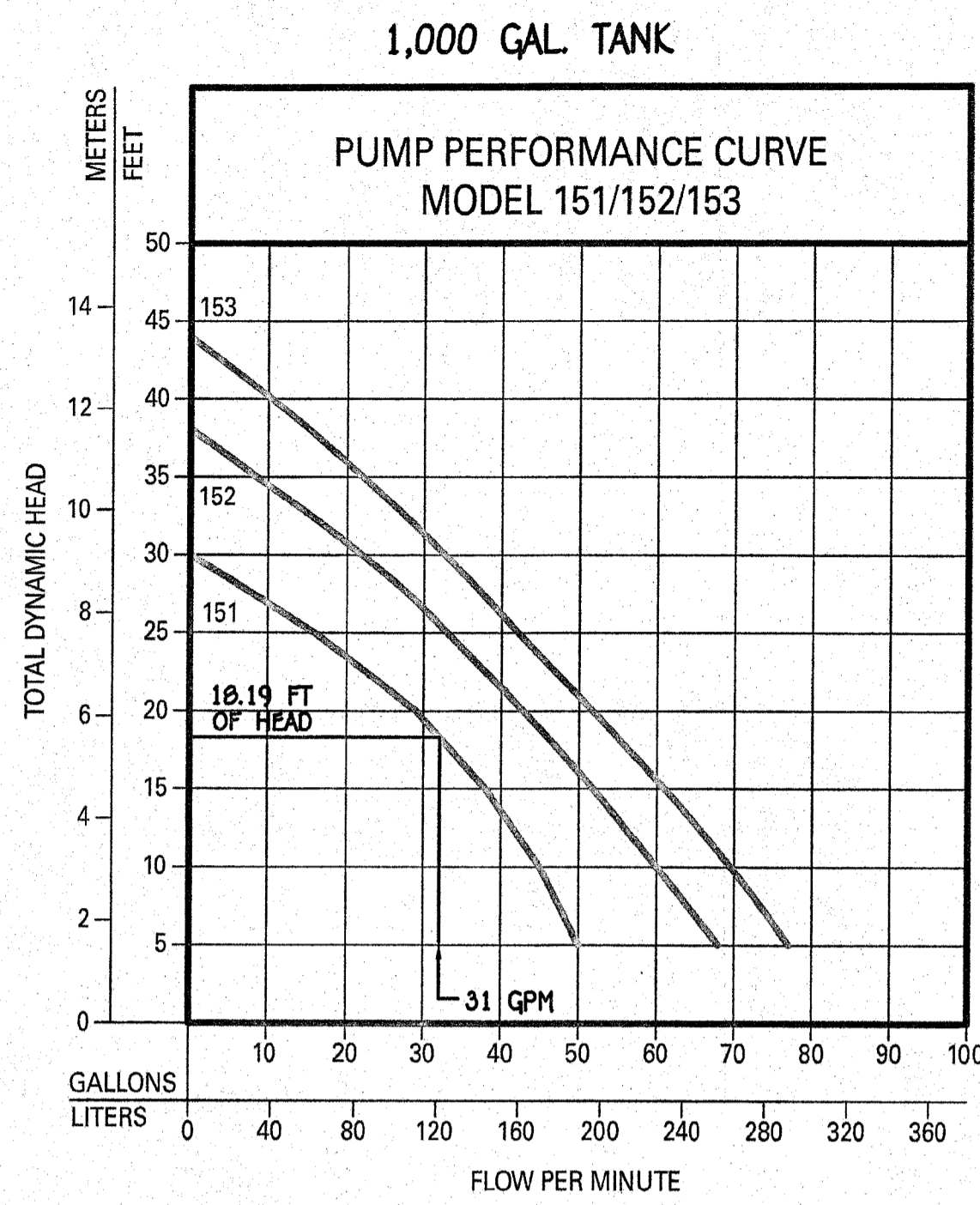


FF 633.40
BE 623.20
INV. OUT OF HOUSE = 622.84
PROP. GROUND AT CLEANOUT = 627.00
INV. INTO CLEANOUT = 622.75
EX. GROUND AT CLEANOUT = 622.65
EX. GROUND AT SEPTIC TANK = 624.80
TOP OF SEPTIC TANK = 622.45
INV. INTO SEPTIC TANK = 621.45
INV. OUT OF SEPTIC TANK = 621.28
EX. GROUND AT PUMP TANK = 624.69
TOP OF PUMP TANK = 622.35
INV. INTO PUMP TANK = 621.18
INV. OUT OF PUMP TANK = 620.93
EX. GROUND AT DISTRIBUTION BOX = 633.66
INV. INTO DISTRIBUTION BOX = 631.26
INV. OUT OF DISTRIBUTION BOX = 631.16

PUMP ALARMS / INFORMATION
A PUMP OFF : 618.66'
B PUMP ON : 619.06'
C HIGH WATER ALARM : 619.56'
D TOP OF ACCESS COVER : 622.35'
E TOP OF TANK : 622.35'
F BOTTOM OF TANK : 616.60'
G DISCHARGE OUT OF TANK : 620.93'
H INVERT INTO TANK : 621.18'

OWNERS/BUILDERS
TRUSTEES INNALEH REVOCABLE LIVING TRUST ABDALLA BASHEER TRUSTEE
10904 KATHLEEN COURT
COLUMBIA, MARYLAND 21044

SEPTIC SYSTEM INSTALLATION SITE PLAN
MAE PARSLEY PROPERTY
4196 TEN OAKS ROAD
ZONING: RS-DEO
TAX MAP No. 22 GRID No. 20 PARCEL No. 179
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN SHEET 1 OF 2



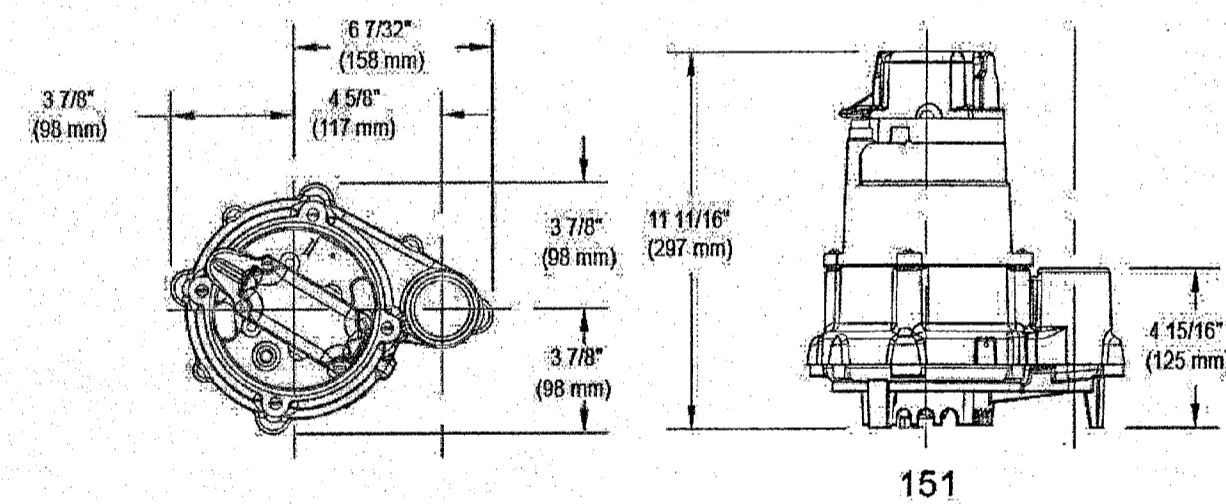
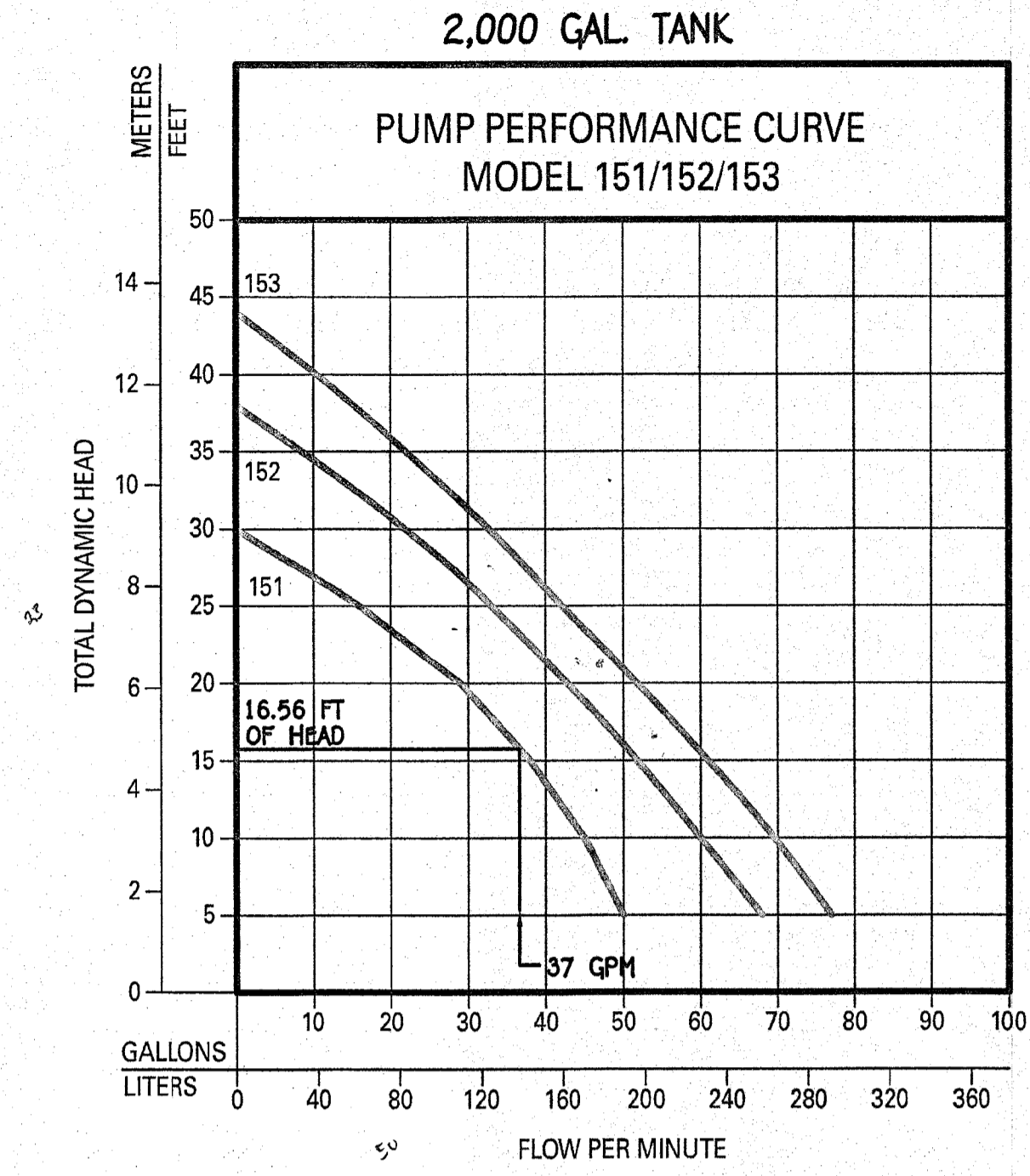
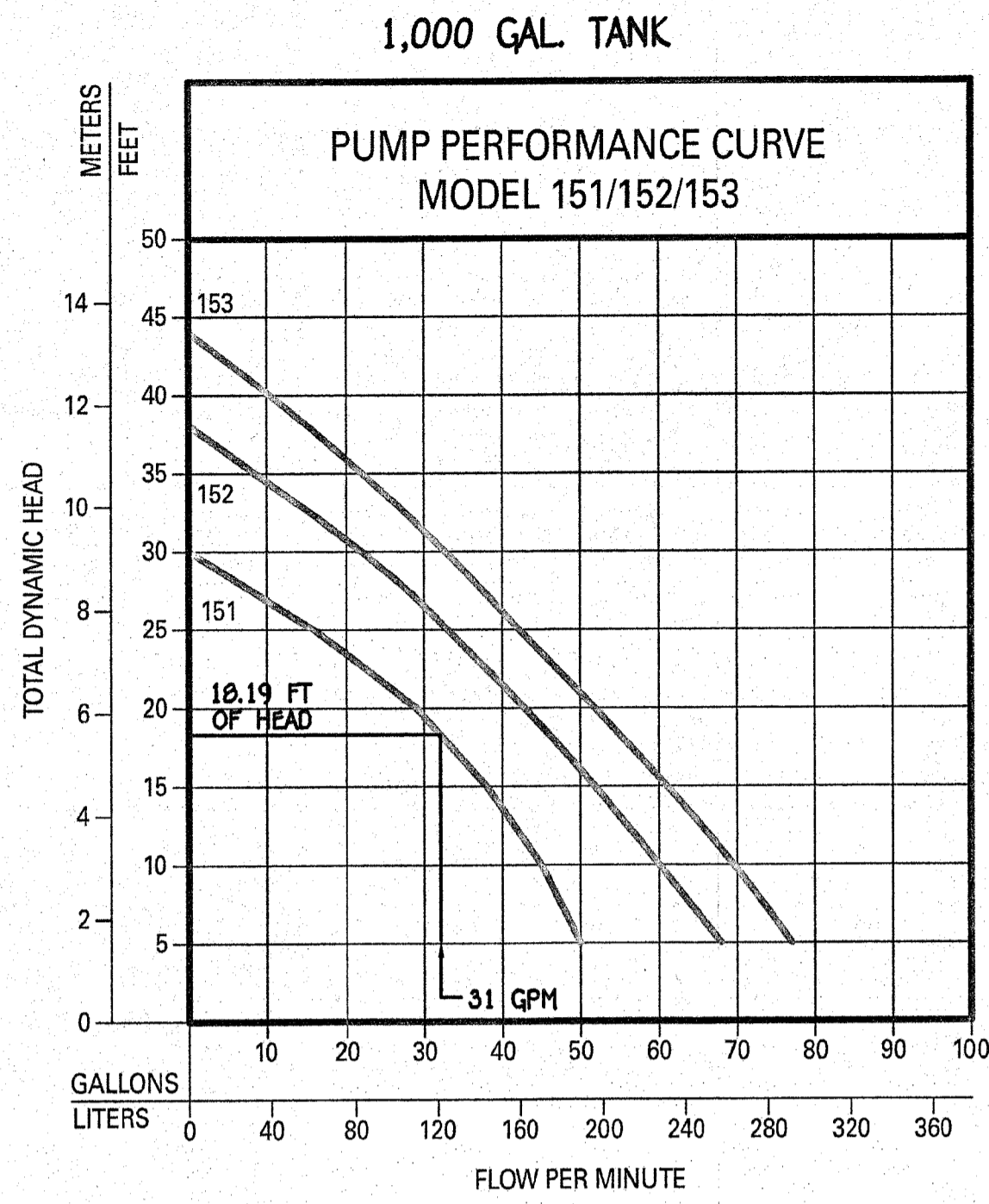
PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 45091, EXPIRATION DATE: 05/14/2025.

Luke Groon 8-1-23
 Signature of Professional Engineer DATE

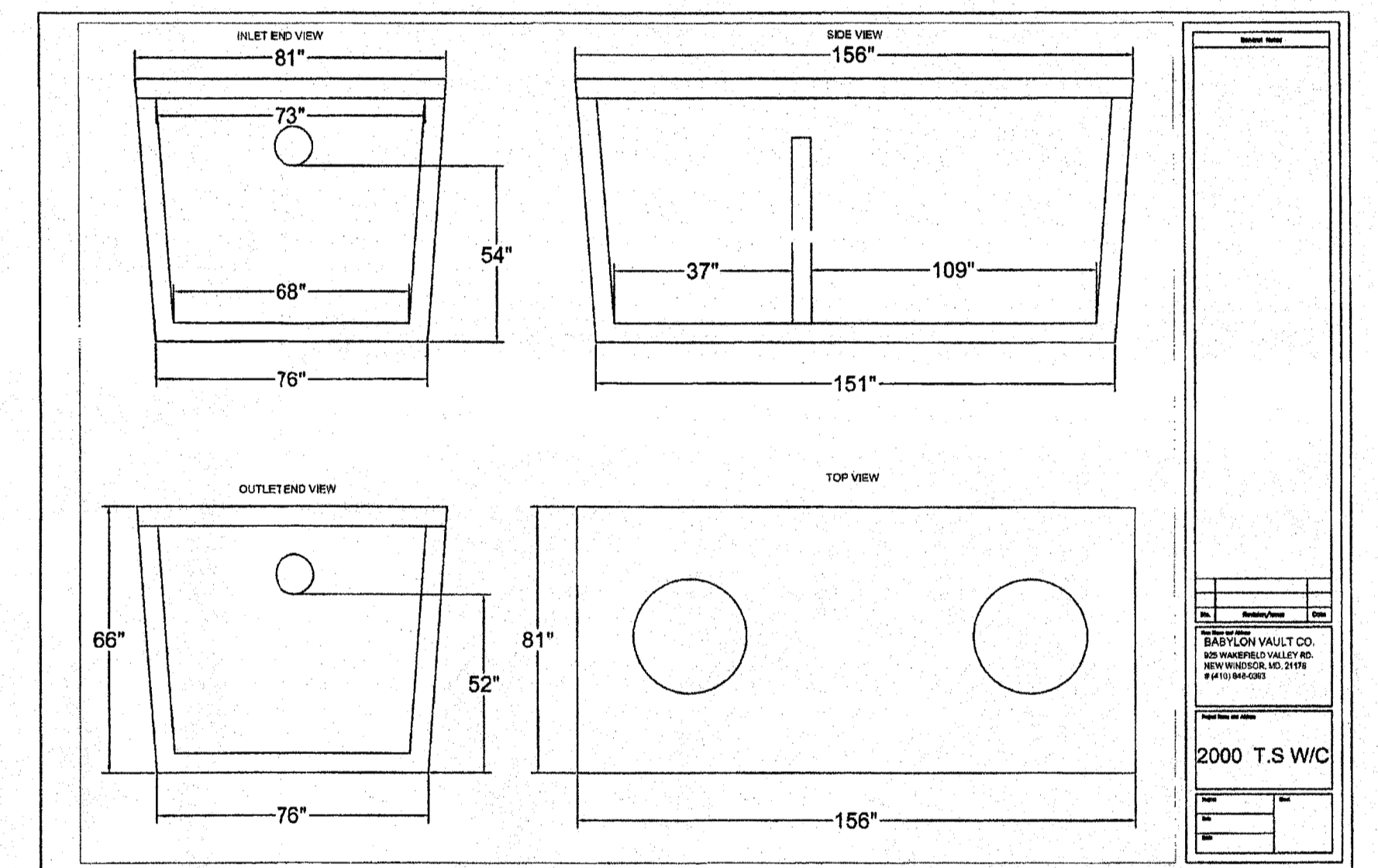
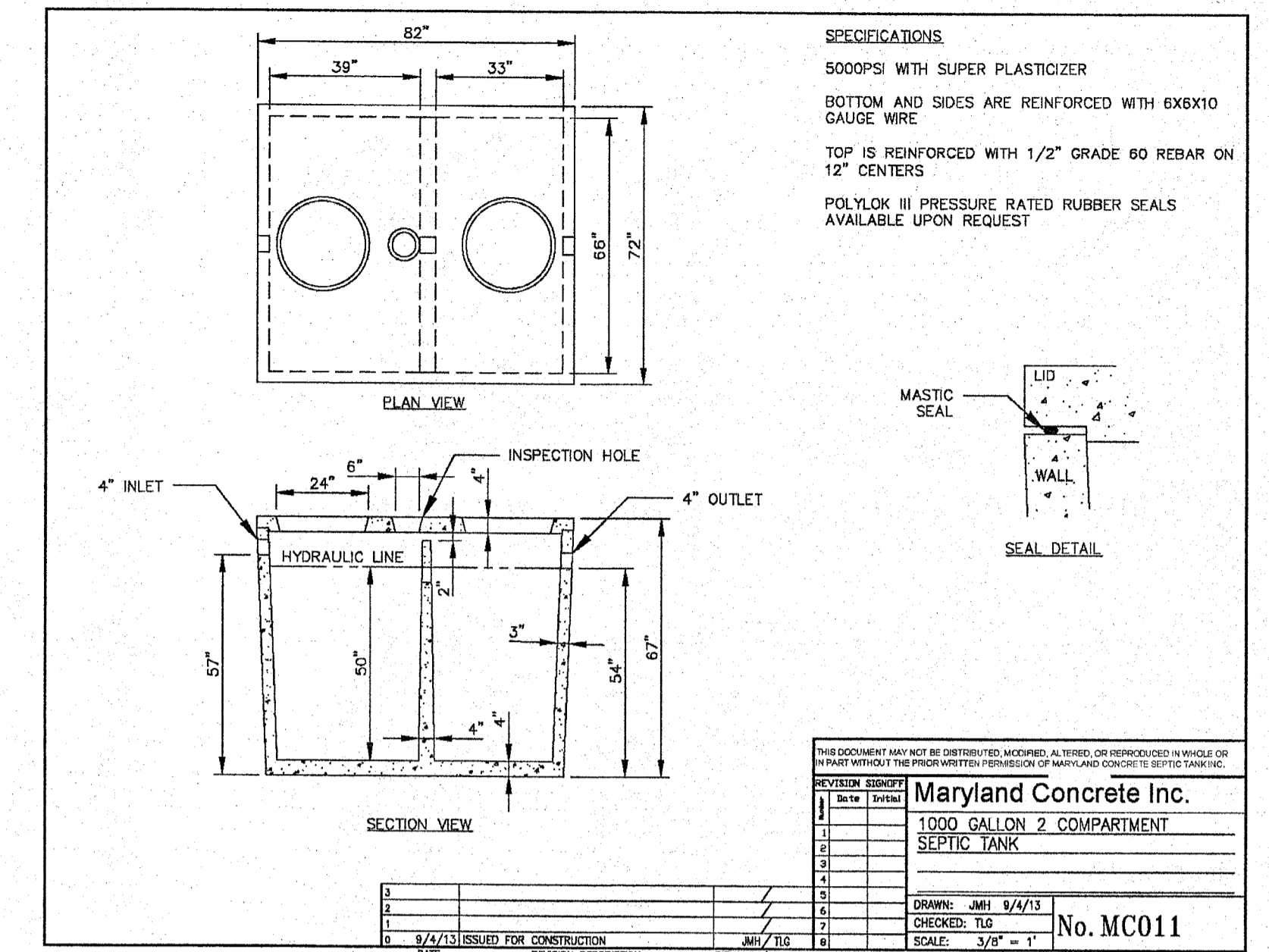
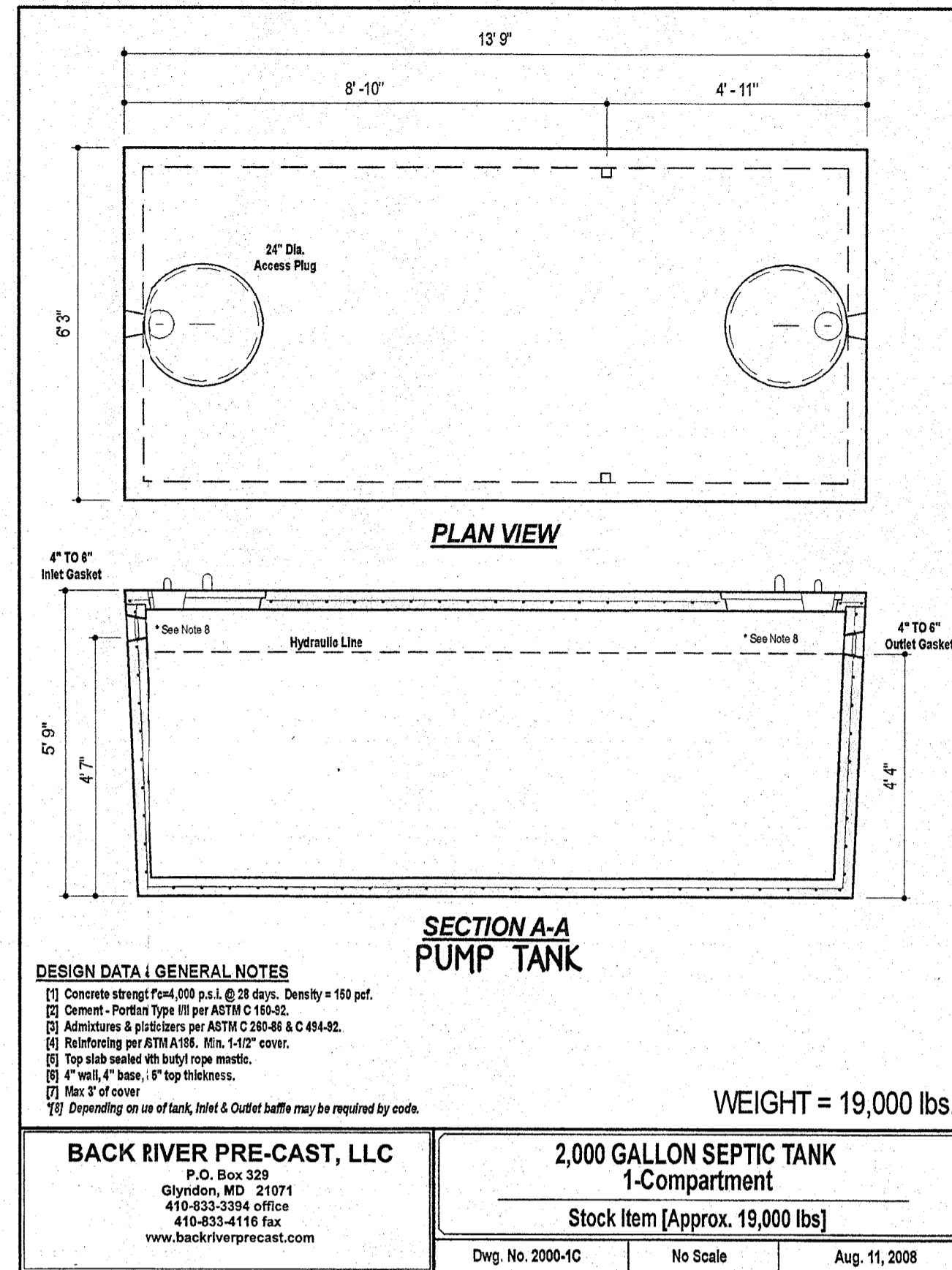
FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELICOTT CITY, MARYLAND 21042
 (410) 451-2000

OWNERS/BUILDERS
 TRUSTEES INNALELLAH REVOCABLE LIVING TRUST ABDALLA BASHEER
 TRUSTEE
 10904 KATHLEEN COURT
 COLUMBIA, MARYLAND 21044

SEPTIC SYSTEM INSTALLATION SITE PLAN
MAE PARSLEY PROPERTY
 4196 TEN OAKS ROAD
 ZONING: R2-DEO
 TAX MAP No. 22 GRID No. 20 PARCEL No. 179
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE AS SHOWN DATE: AUGUST, 2023
 SHEET 2 OF 2



PUMP DETAIL
NOT TO SCALE



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT 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. 46091, EXPIRATION DATE: 05/14/2025.



Luke Brown 8-1-23
Signature Of Professional Engineer DATE

FISHER, COLLINS & CARTER, INC.
CIVIL, ENGINEERING, CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461-3800

OWNERS/BUILDERS
TRUSTEES INNALELLAH REVOCABLE LIVING TRUST ABDALLA BASHEER TRUSTEE
10904 KATHLEEN COURT
COLUMBIA, MARYLAND 21044

**SEPTIC SYSTEM
INSTALLATION SITE PLAN
MAE PARSLEY PROPERTY**
4195 TEN OAKS ROAD
ZONING: RE-DCO
TAX MAP No. 22 GRID No. 20 PARCEL No. 179
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: AS SHOWN DATE: AUGUST, 2023
SHEET 2 OF 2