

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WASTEWATER PERMIT

NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION AUTHORIZATION HAS BEEN ISSUED

PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/OR IF SITE IS ALTERED OR INTENDED USE CHANGED

OPERATIONS PERMIT

PERMIT # WRP-092753-2022

APPLICATION DATE: 11/08/2022

BLDG. PERMIT#: RBPR-105575-2023

PIN: 0891122582

RECORDED: Yes

TOWNSHIP: 02 - Bartons Creek

JURISDICTION: Wake County

ZONING: R-40W

APPLICANT: Brinley, Chad, CATRAM LLC
Chad Brinley
3611 CESSNA

BUSINESS PHONE: (919) 771-1997

HOME PHONE:

MOBILE PHONE:

HD USE: 101A CONVENTIONAL ONE-FAMILY HOUSE

EXISTING USE: 0019 Subdivision Improvement Permitting

SITE ADDRESS: 1424 LAKE ADVENTURE CT

SUBDIVISION: OVERLOOK AT MT. VERNON PH 3

LOT: 7

ACRES: 1.20

DIRECTIONS: 100' Water Supply Watershed Buffer

Systems defined as either type III-b, III-g with a pump, IV, V or VI, in accordance with the North Carolina administrative code 15A NCAC 18a .1961, table V as adopted by reference in the "Regulations Governing Wastewater Treatment Dispersal Systems in Wake County", requires Wake County Environmental Services to conduct periodic inspections of the system type pursuant to 15A NCAC 18a. 1961 (j). Fees for these inspections will be charged as per the approved Fee Schedule. In addition, all systems are to be operated and maintained as specified in 15A NCAC 18A .1961. This permit is based in part on information provided by the homeowner and/or his/her representative in the application submitted for this permit. The Environmental Health Specialist is not responsible for false or misleading information contained in the application. The environmental health specialist is also not responsible for concealed conditions on the property or for statements in this report that may have resulted from false or misleading statements provided to him/her in the application. Neither Wake County nor the Environmental Health Specialist warrants that the septic tank system will continue to function satisfactorily in the future or that the water supply will remain potable.

OPERATION PERMIT VALID FOR: No Expiration

INSTALLED BY: BRANTLEY, CORY - 1036 - IV

PROPRIETARY SYSTEM: EZ1203HG - EZFlow EZ 1203H Geo **PRETREATMENT SYSTEM:**

SYSTEM TYPE INSTALLED: III B

OPERATION PERMIT: **STATUS:** Issued

ISSUED BY: Noah Greenway

ISSUED DATE: 01/24/2024

SEPTIC TANK: David Brantley & Sons - STB-323 - 1250 gallons

DATE OF MANUFACTURE: 08/13/2023

FILTER: GAG SIM/TECH - STF-110

GREASE TRAP:

DATE OF MANUFACTURE:

FILTER:

DOSING PUMP TANK: Brantley - PT-2124 - 1312 gal - 21.5 gal/in

DATE OF MANUFACTURE: 11/15/2023

FILTER:

CC1: 999,807

ETM1: 102

CC2:

ETM2:

RECIRCULATION TANK:

DATE OF MANUFACTURE:

CC1:

ETM1:

CC2:

ETM2:

SEPTIC TANK ELEVATION: 7.70

GREASE TRAP ELEVATION:

DOSING PUMP TANK ELEVATION: 7.40

RECIRCULATION TANK ELEVATION:

DISTRIBUTION DEVICE ELEVATION: 3

INSTALLED TRENCH DEPTH	INSTALLED AGGREGATE DEPTH	INSTALLED TRENCH LENGTH	INSTALLED TRENCH BOTTOM ELEVATION
26	12	100	5.9
26	12	100	5.9
26	12	100	6.2
26	12	100	6.5

ACTUAL PRESSURE HEAD: 2

ACTUAL FLOW RATE: 26

ACTUAL DOSE VOLUME: 172

SPECIFIC OPERATION REQUIREMENTS:

-System designed for a 4 bedroom residence, having 480 gals/day

-Site serviced by community well water

-Future repair is a IIIB type system with a max trench depth of 36" and a 0.30 LTAR

-No cutting, grading, alterations, or utilities in septic area

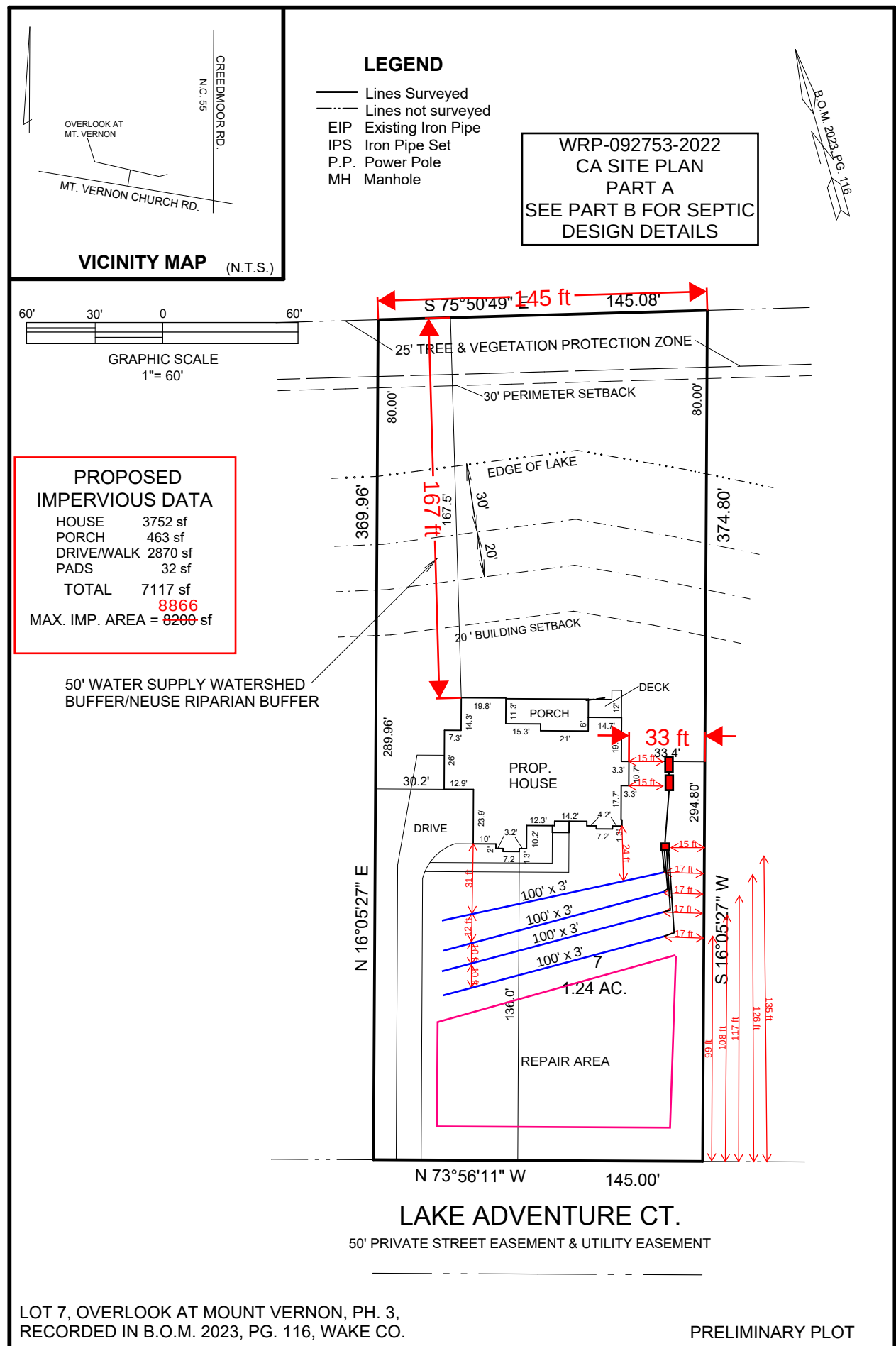
-Maintain all required setbacks

IP revised on 7/18/23 to include approved site plan and consultant design with house box. Initial and repair area switched based off consultant design.

ISSUED BY:



DATE: 01/24/2024



I, David W. Barrier, certify that this plat was drawn under my supervision from an actual survey made under my supervision; that the boundaries not surveyed are clearly indicated and any encroachments are shown.

DAVID W. BARRIER
Licensed Surveyor
421 S. Harrison Ave.
Cary, N.C. 27511
(919) 469-2834

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INTENDED USE CHANGED***

CONSTRUCTION AUTHORIZATION PERMIT**PERMIT # WRP-092753-2022****APPLICATION DATE:** 11/08/2022**BLDG. PERMIT#:** RBPR-105575-2023**PIN:** 0891122582**RECORDED:** Yes**TOWNSHIP:** 02 - Bartons Creek**JURISDICTION:** Wake County**ZONING:** R-40W

APPLICANT: Brinley, Chad, CATRAM LLC
3611 CESSNA
Garner, NC 27529

BUSINESS PHONE: (919) 771-1997**HOME PHONE:****MOBILE PHONE:****HD USE:** 101A CONVENTIONAL ONE-FAMILY HOUSE**EXISTING USE:** 0019 Subdivision Improvement Permitting**SITE ADDRESS:** 1424 LAKE ADVENTURE CT**SUBDIVISION:** OVERLOOK AT MT. VERNON PH 3 **LOT:** 7**ACRES:** 1.20**DIRECTIONS:** 100' Water Supply Watershed Buffer

Contractors shall install system on contour. See attached SITE PLAN for wastewater system design and well location. No underground utilities, water lines or sprinklers systems may be located in the original system, or permit areas. A septic tank filter with two risers for access is required. The wastewater system shall not be covered or placed into use until inspected by the Wake County Department of Environmental Services and Operations Permit issued. An Accepted Status System may be used in place of conventional system, if it can be placed in the permitted/authorized trench footprint (except reduction in line length and/or number as allowed for in approval) and the installation in accordance with the accepted system approval, without unauthorized product alteration. If permit required use of an Accepted Status System, substitution with another accepted status system may be made, as long as no changes are necessary in the location of each nitrifications line (including any increase in line length), trench depth or effluent distribution method. If changes are necessary, prior approval by this office is required before system installation. Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

CONSTRUCTION AUTHORIZATION PERMIT VALID FOR: Five Years**CONSTRUCTION AUTHORIZATION PERMIT: CA STATUS:** Issued**BY:** Caroline Suggs**DATE:** 07/18/2023**CA VALID FOR:** Five Years**DESIGN FLOW:** 480 GALLONS**BASEMENT:** No**BASEMENT FIXTURES:** No**SEPTIC TANK:** 1200 GALLONS**SEPTIC TANK FILTER:** Yes**DOSING PUMP TANK:** 1200 GALLONS**DOSING PUMP TANK FILTER:****GREASE TRAP:****GREASE TRAP FILTER:****RECIRCULATION PUMP TANK:****RECIRCULATION PUMP TANK FILTER:** No**PROPOSED SYSTEM:** 0.25 - 25% Reduction (Innovative or Accepted)**EXISTING SYSTEM:** No**DRAINFIELD SQ. FT:** 1,200**AGGREGATE DEPTH:** 12**MAX. TRENCH DEPTH:** 26 INCHES**DISTRIBUTION DEVICE:** PM - Pressure Manifold**TRENCH #:** 4**TRENCH LENGTH:** 100 FEET**TRENCH WIDTH:** 36 INCHES**TOTAL TRENCH LENGTH:** 400 FEET**CENTER SPACING:** 9 FEET**MINIMUM SOIL COVER:** 6 INCHES**PRETREATMENT:****APPROVAL #:**

SUBFIELDS #:
PUMP TDH: 10.55 FEET

PUMP DESIGN FLOW: 28.44
ZONE VALVE: No

ASDMS REQUIRED: No
P.E. SIGN OFF/ASBUILT REQUIRED: No

LINE OF CREDIT REQUIRED: No

OPERATOR REQUIRED: No

TRIPARTY AGREEMENT REQUIRED: No

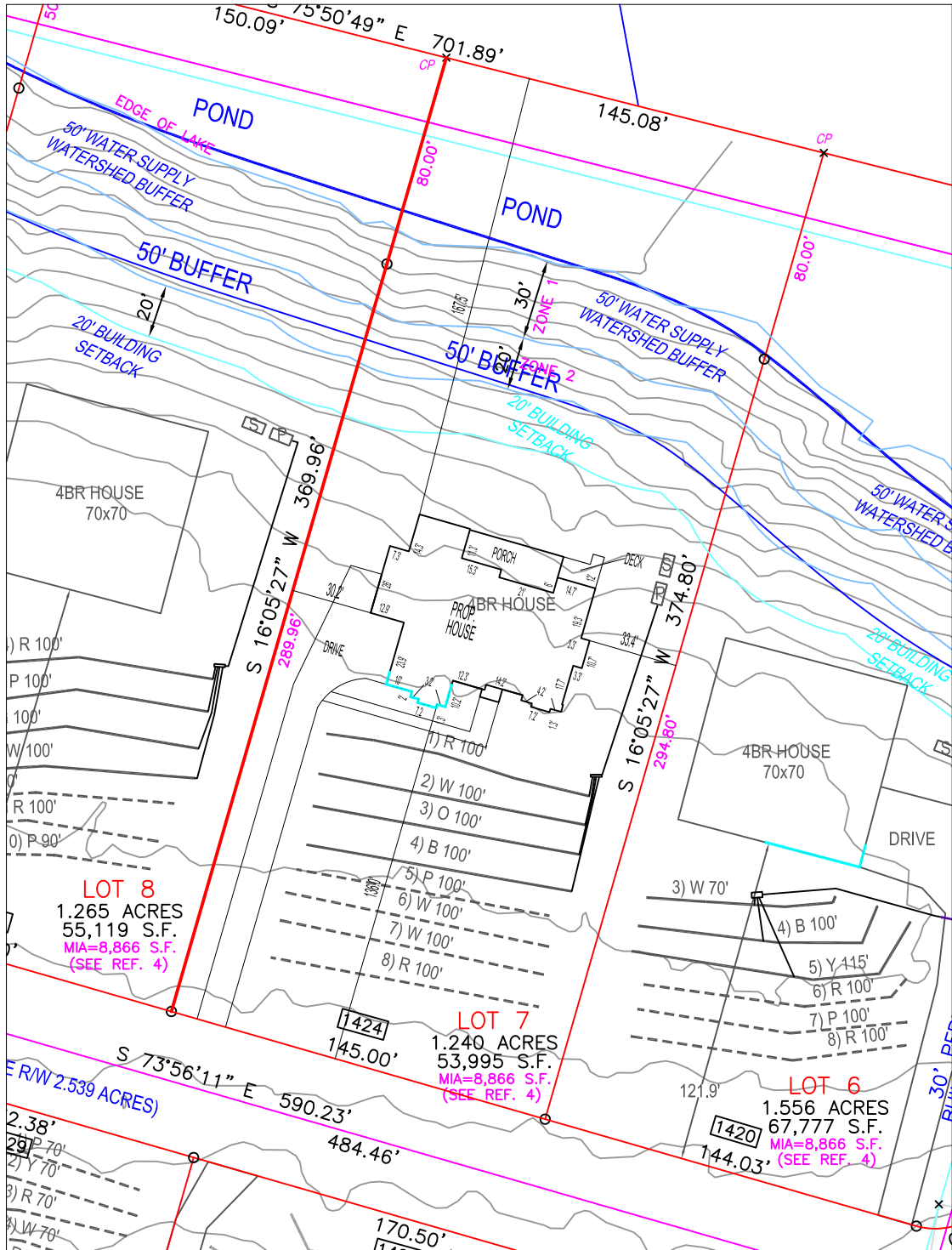
SPECIFIC CONSTRUCTION AUTHORIZATION REQUIREMENTS:

- System designed for a 4 bedroom residence, having 480 gallons per day
- Future repair is a IIIB type system with a 36" max trench depth and a 0.30 LTAR
- Site serviced by community well water
- Any deviation from accepted design must be approved by the designing consultant and Wake County ES prior to system installation
- If drain line flags removed contact your consultant to reflag
- Maintain all required setbacks.
- All property lines must be fully marked at time of installation or re-inspection is required
- Please contact Caroline Suggs at 919-796-9637 with any questions prior to or during installation

Issued By:

Caroline Suggs, RTHS

Date: 07/18/2023



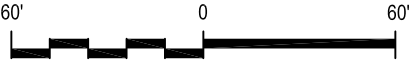
WRP-092753-2022
CA SITE PLAN
PART B

LEGEND

	SYSTEM LINE
	REPAIR LINE
	NO FOUNDATION DRAINS
	SEPTIC TANK
	PUMP TANK

- NOTES:
- 1) SITE DATA TO INCLUDE PROPERTY BOUNDARIES, STRUCTURE LOCATION, UTILITIES, ROADS, AND OTHER SITE FEATURES WERE PROVIDED BY BNK SURVEYING AND ARE SHOWN TO DISPLAY GENERAL SITE CONDITIONS.
 - 2) ALL SEPTIC SYSTEM COMPONENTS TO INCLUDE TANKS, PUMPS, MANIFOLDS, AND SYSTEM AND REPAIR LINES HAVE BEEN GPS LOCATED BY SOIL SERVICES, PLLC. ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS ARE APPROXIMATE AND AS SUCH NO SPECIFIC ACCURACY EITHER VERTICAL OR HORIZONTAL IS IMPLIED.
 - 3) PROPERTY AND EASEMENT BOUNDARIES SHOWN ON THIS SITE SKETCH ARE APPROXIMATE AND ARE NOT INTENDED FOR LOCATING PROPERTY OR IDENTIFYING PROPERTY OR EASEMENT CORNERS. THIS IS NOT A SURVEY.

GRAPHIC SCALE
1" = 60'



Project No.: 1582-1	Project Manager: SM	Field Work: SM	Scale: 1"=60'	Sheet No.: 1 of 1
SEPTIC SYSTEM SITE PLAN				
OVERLOOK PH 3 - LOT 7				
WAKE CO., NC				
BRINLEY'S GRADING				

SOIL SERVICES, PLLC

PO BOX 91115, RALEIGH, NC 27675

OFFICE: (919) 745-1928 FAX: (919) 251-9053

WWW.SOILSERVICES.US

PART C

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES

4 TAP PRESSURE MANI-TEE DESIGN

Name: Future Homes P.I.N. #: 1424 Lake Adventure Ct Permit #: WRP-092753-2022

Address: 1424 LAKE ADVENTURE CT Subdiv: Overlook Ph 3 Lot#: 7

of BDR: 4 Daily Flow: 480 gal/day L.T.A.R.: 0.30 gal/day/sq.ft

Septic Tank: 1200 gals Pump Tank: 1200 gals Sq. Foot: 1200 Aggregate Depth: accepted

Number of Taps: 4 Length of Trenches: 400 ft(See Tap Chart for Details)

Depth of Trenches: 26 in Manifold Length: 42 in

Manifold Diameter: 2in sch 40pvc Mani-Tee Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: 65 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 2.55 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft Elevation Head: 6 ft

Total Head: 10.55 ft Pump to Deliver: 28.44 gals/min at 10.55 ft head

Dosing Volume: 172 gals,

Drawdown: 172 gals divided by 20 gals/in = 8.6 inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

TAP CHART

Bench Mark	<u>1</u>	is = 100.00	set at	<u>pump tank</u>			Design Head:	<u>2</u>	
Pump tank elev.	<u>1</u>		100.00	Pump elev.	95.00		Manifold elev.	97.60	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	red	4.4	96.60	100	1/2in SCH 40	7.11	120.00	300	0.400
2	white	4.1	96.90	100	1/2in SCH 40	7.11	120.00	300	0.400
3	orange	4.4	96.60	100	1/2in SCH 40	7.11	120.00	300	0.400
4	blue	4.5	96.50	100	1/2in SCH 40	7.11	120.00	300	0.400
		total	feet =	400	gal/min =	28.44		LTAR =	0.30
% of Dose Vol.	<u>66</u>			Des. Flow	480			(ltar + 5%)	0.32
Dose Volume	172			Pump Run=	16.88			(ltar W/ INOV)	0.40
Dose Pump Time	6.03			Tank Gal/IN	20			(ltar + 5%)	0.42
Drawdown in Inches	8.6			Elev. Head	6				
Supply Line Length	65								
Comments:									

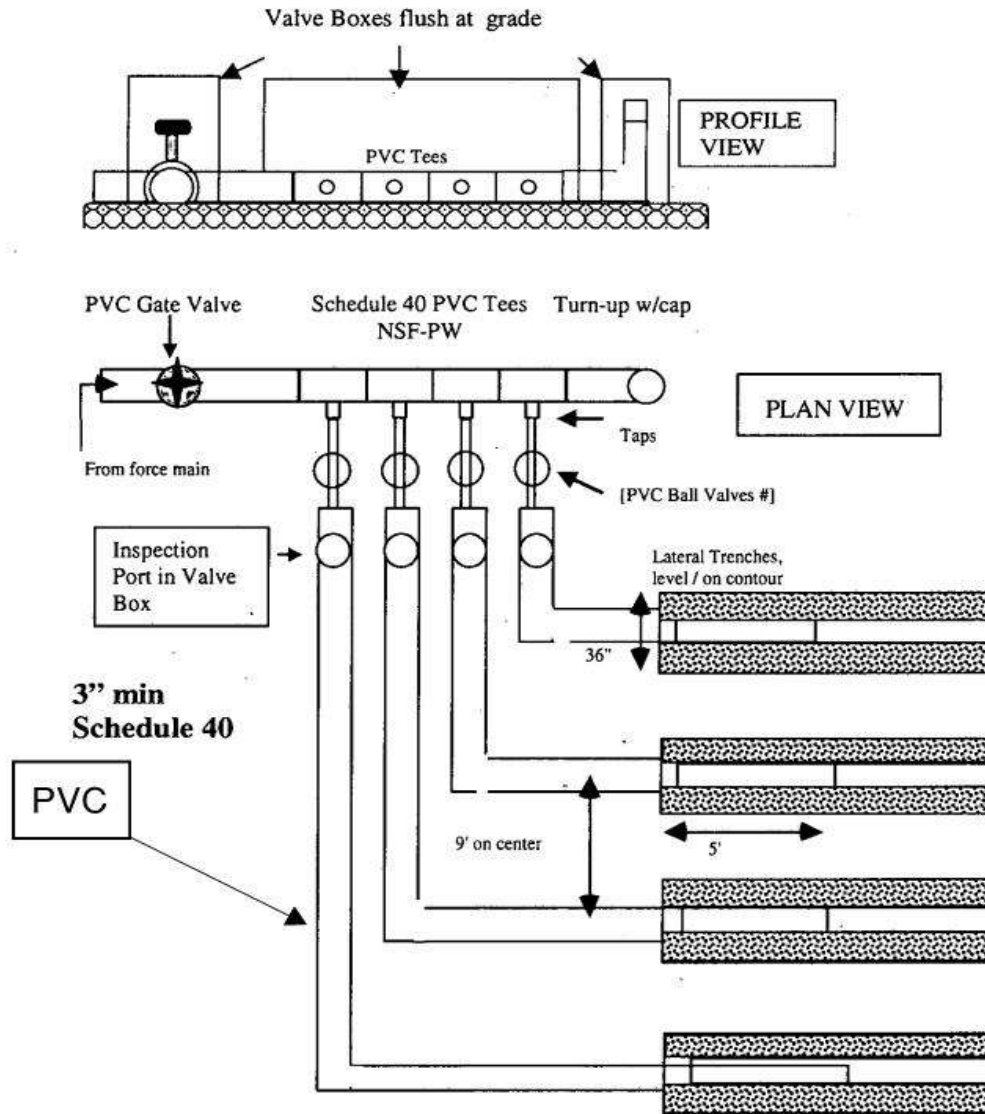
Hydraulic Profile

Manifold Elevation 97.60 65
Pump tank elev. 100.00 2
Pump elev. 95.00 0

PART D

	Line 1	Line 2	Line 3	Line 4
Taps	1/2in SCH 40	1/2in SCH 40	1/2in SCH 40	1/2in SCH 40
Flow	7.11	7.11	7.11	7.11

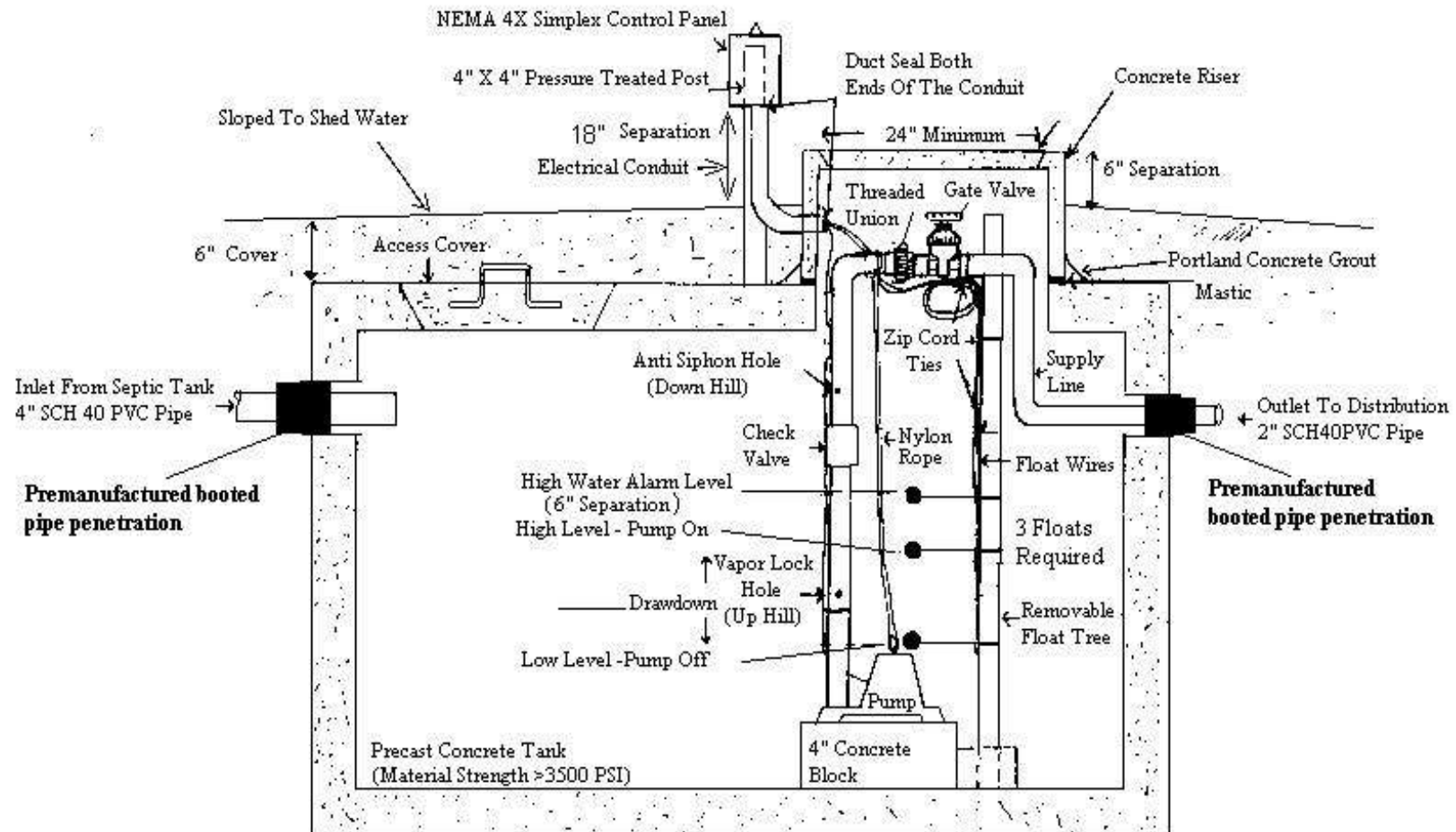
Wake County Mani-Tee Design



*** Manifold sizing may need to be altered after installer layout. The installer must layout the system prior to the pre-construction conference ***

PART E

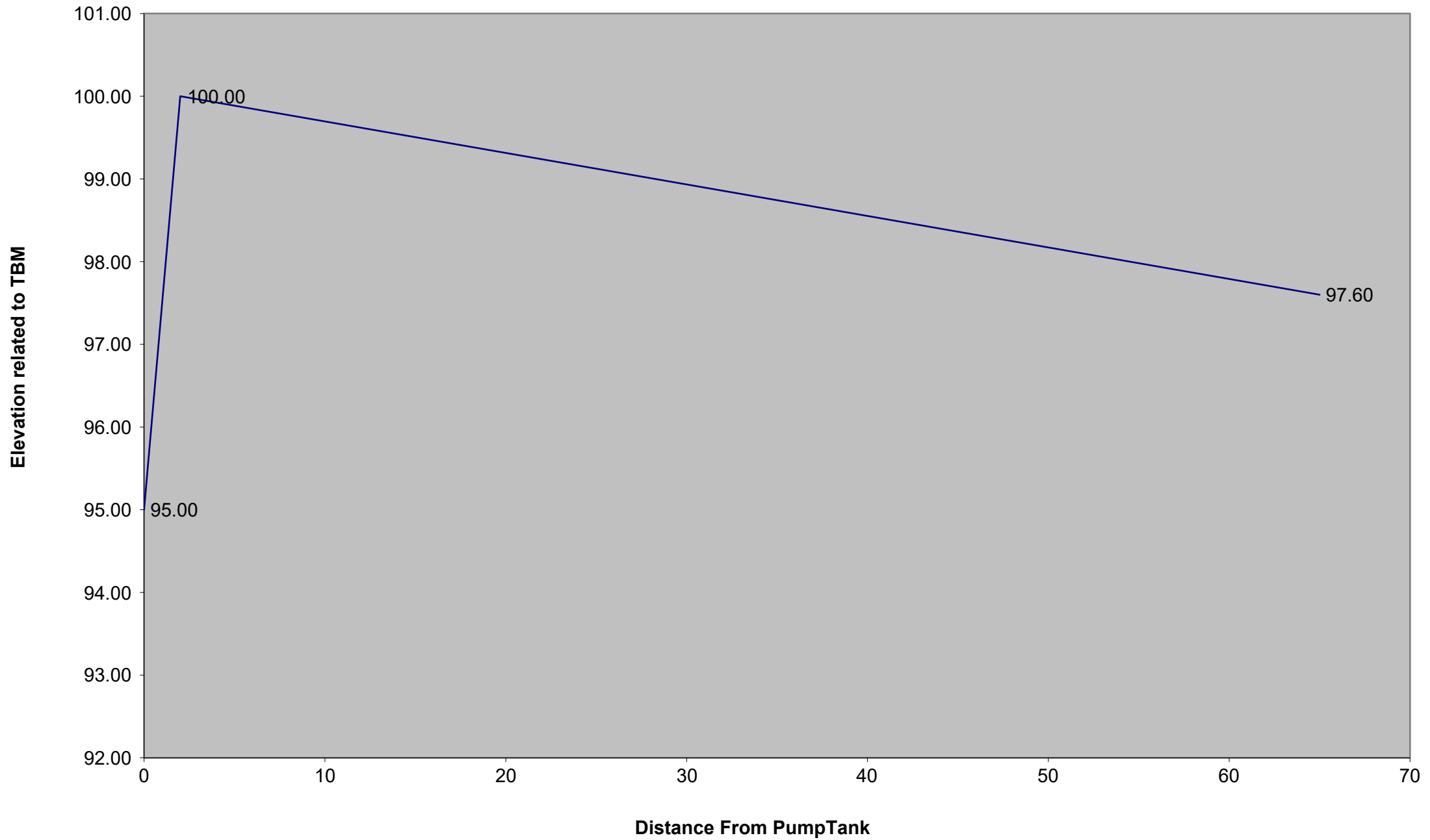
Wake County Department Of Environmental Services



GALLON PUMP TANK

1200 Gals Pump Tank

Hydraulic Profile



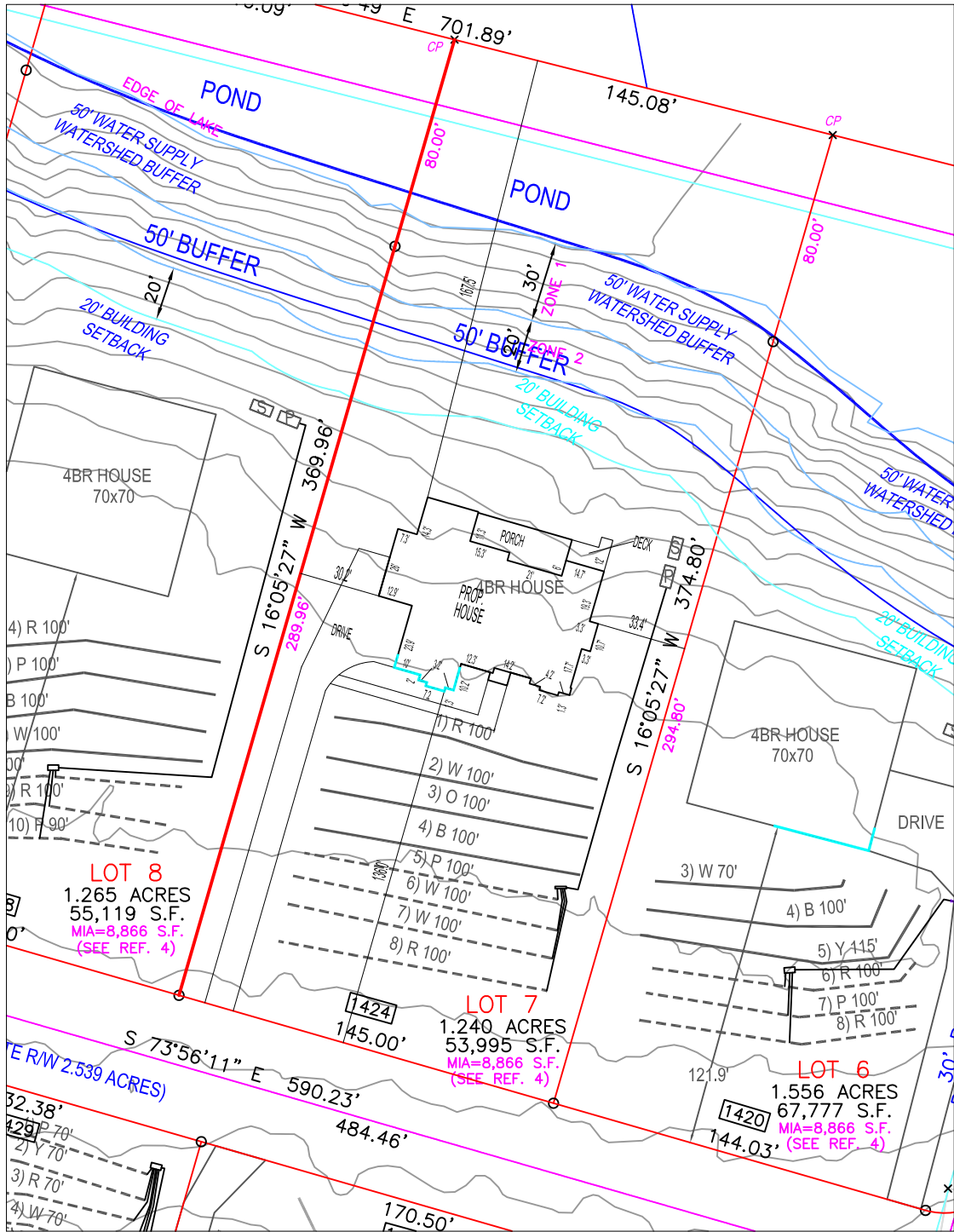
Minimum Panel Requirements

The following items will be considered the minimum for all pump systems:

1. It must be a NEMA 4X Box.
2. It must use a HOA (Hand, Off, Auto) switch to control the pump. No more use of piggyback plugs!
3. It must have a motor contactor to prevent high voltage electricity in the water at all times.
4. It must have an audible and visual alarm.
5. **All Pressure Manifold and LPP Systems must have an elapsed time meter and cycle counter installed in the panel.**
6. It must have 2 separate power supplies, wired from the fuse panel at the house.
7. All panels must have 2 circuit breakers installed in the panel to allow for disconnecting of power, so that the pump or switches maybe serviced.
8. Panels and pumps are to be wired at the time of our inspection. Power must be supplied by use of generators or from the house temporary meter, if the builder applied for it and has had all required inspections and the temporary meter has been set. **We will no longer inspect any system that has been hot wired from the temporary power pole or jumped through the house wiring without a meter being set.**

Pressure Manifolds

1. A float tree or hanging floats must be used.
2. A Simplex Control Panel with a Hand - Off - Auto switch and alarm in a NEMA - 4X box is required. See the plans or CA comments for further details on the panel.
3. 2 separate power supplies are needed. Try to look and make sure they have not used a 120V only panel with a 240V pump.
4. The taps and pipes for the taps must be of the same material! If it is a sch80 tap (usually gray plastic) then the tap, pipe and valve (the valve can be sch40pvc if there is an adequate amount of sch80 pipe used) must be constructed of sch80pvc. The same goes for sch40 taps, you cannot use sch80 pieces with the sch40.
5. The taps must go directly to the 3" pipe; no elbows can be used in the tap connections.
6. All of the tap must be the same size or larger. 3/4" pipe cannot have a 1/2" valve, but a 1/2" pipe could have a 3/4" valve, if at there is at least 6" total 1/2" pipe used.
7. Should the wrong size or material be used in the tap itself, the flow to the line can be corrected by using an adequate amount of the proper pipe material and size. The amount of pipe needed to control the flow is dependent on the size pipe/tap. If 1/2" pipe is needed, then at least 6" of total pipe is needed. A 3/4" size requires at least 9" of pipe to be used. A 1" size needs 12" of total pipe length to control the flow.



WRP-092753-2022
CA SITE PLAN
REPAIR

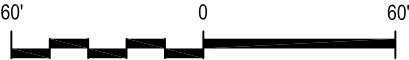
LEGEND

	SYSTEM LINE
	REPAIR LINE
	NO FOUNDATION DRAINS
	SEPTIC TANK
	PUMP TANK

NOTES:

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GRAPHIC SCALE
1" = 60'



Project No.: 1582-1

Project Manager: SM

Scale: 1"=60'

Sheet No.: 1 of 1

SEPTIC REPAIR SITE PLAN

OVERLOOK PH 3 - LOT 7

WAKE CO., NC

BRINLEY'S GRADING

SOIL SERVICES, PLLC

PO BOX 91115, RALEIGH, NC 27675

OFFICE: (919) 745-1928 FAX: (919) 251-9053

WWW.SOILSERVICES.US



Environmental Services

TEL 919 856 7400
FAX 919 856 7407

Water Quality Division
336 Fayetteville St. • P.O. Box 550 • Raleigh, NC 27602
www.wakegov.com/water/

Foundation Drain Request Form

Wastewater Permit: WRP-092753-2022 Building Permit: RBPR-105575-2023

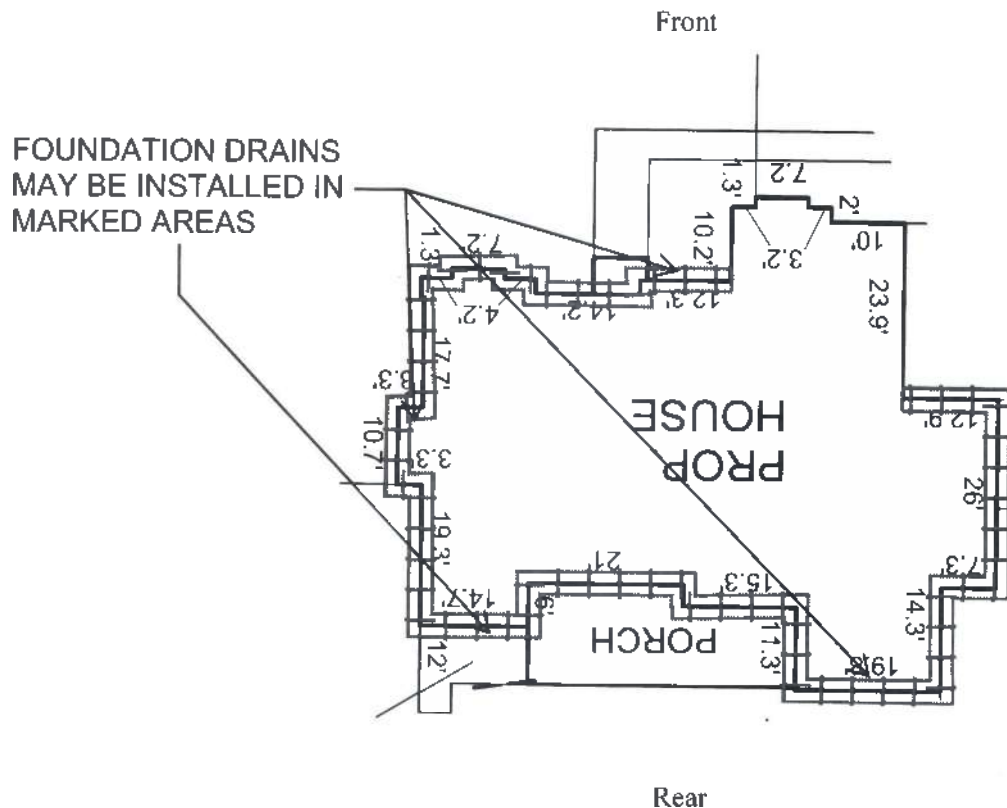
Parcel PIN: 0891122582

Project (Site) Address: 1424 LAKE ADVENTURE CT

PLEASE CIRCLE:

Foundation Drain? YES NO **PARTIAL (demonstrate below)**

If PARTIAL FOUNDATION DRAIN is circled, please demonstrate where the foundations drain will be located on the diagram below, (add decks, patios, etc. as needed)



Applicant Signature:  Date: 7.18.23

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IMPROVEMENT PERMIT

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ACRES: 1.20

DIRECTIONS: 100' Water Supply Watershed Buffer

Permit is subject to revocation if the Site Plan or Plat changes or the intended use changes.

*Maximum depth of line is calculated using the downhill side of the trench and includes slope correction.

IP VALID FOR: Five Years AS PER GS 130A-335 (f)

DESIGNED BY: Soil Services

SYSTEM LAYOUT: Private Sector

SITE CLASSIFICATION: Provisionally Suitable

IP STATUS: Issued

BY: Caroline Suggs

DATE: 07/18/2023

NUMBER OF BEDROOMS: 4

OR TOTAL NUMBER OF OCCUPANTS: 8

PERMITTED DESIGN FLOW: 480 GPD

BASEMENT: No

BASEMENT PLUMBING: No

WASTEWATER STRENGTH: Domestic

SYSTEM TYPE: III B

LTAR: 0.300

EXISTING SYSTEM UTILIZED: No

PRETREATMENT STRENGTH REQUIRED: None

EASEMENT FOR WW SYSTEM ASSOCIATED WITH PARCEL: No

MAXIMUM TRENCH DEPTH: 26 INCHES

PUMP REQUIRED: Yes

SPECIFIC SYSTEM REQUIREMENTS: -System designed for a 4 bedroom residence, having 480 gals/day

-Site serviced by community well water

-Future repair is a IIIB type system with a max trench depth of 36" and a 0.30 LTAR

-No cutting, grading, alterations, or utilities in septic area

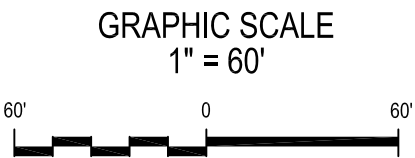
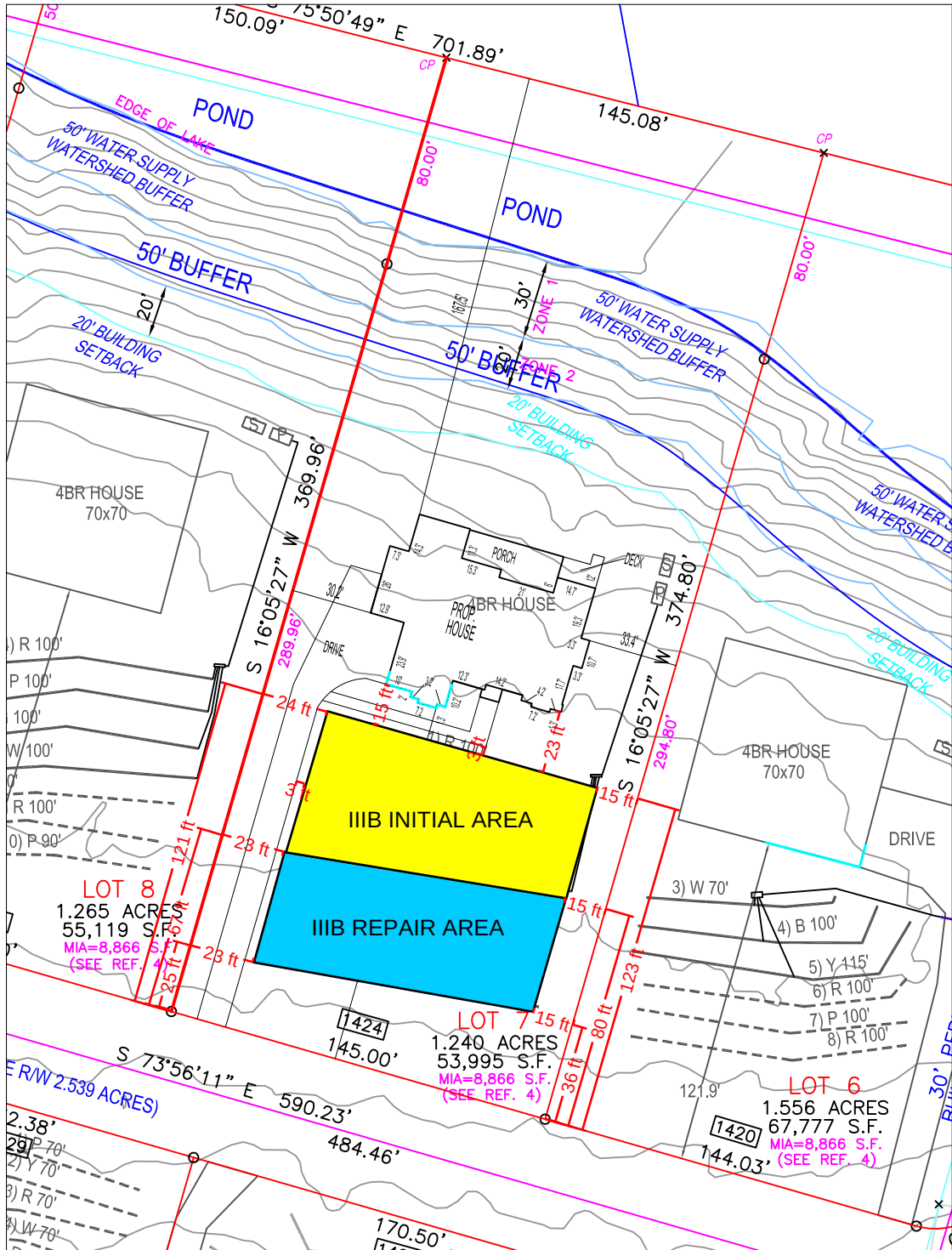
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IP revised on 7/18/23 to include approved site plan and consultant design with house box. Initial and repair area switched based off consultant design.

ISSUED BY:

Caroline Suggs, RTHS

DATE: 07/18/2023



LEGEND

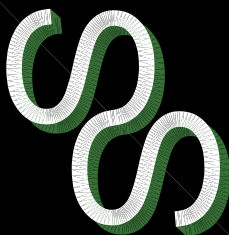
- SYSTEM LINE
- - - REPAIR LINE
- NO FOUNDATION DRAINS
- [S] SEPTIC TANK
- [P] PUMP TANK

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Sheet Title:

SEPTIC SYSTEM SITE PLAN

Project:

OVERLOOK PH 3 - LOT 7

Location:

WAKE CO., NC

Client:

BRINLEY'S GRADING

Project No.: 1582-1

Project Manager: SM

Scale: 1"=60'

Field Work: SM

Sheet No.:

1 of 1