NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES

ROY COOPER • Governor
KODY H. KINSLEY • Secretary
MARK BENTON • Deputy Secretary for Health
SUSAN KANSAGRA • Assistant Secretary for Public Health
Division of Public Health

Application for Services

This application, in conjunction with the common form established in G.S. 130A-335(a3) and (a5), is optional for local health departments to be used for applications submitted in accordance with G.S. 130A-335(a2), (a3), and (a5).
[hereinafter, G.S. 130A-335(a3) and (a5) permits referred to as (a2) Improvement Permit and (a2) Construction Authorization]

Applying for:
☑ (a2) Improvement Permit ☑ (a2) Construction Authorization ☐ (a2) Repair/Construction Authorization

Please check one of the following:
☑ New Construction ☐ Expansion ☐ System Relocation ☐ Change of Use ☐ Repair
☑ 5 Year Expiration Requested (site plan provided)
☐ Non-Expiring Permit Requested (plat provided, as defined in G.S. 130A-334(7a)

Lot 26

Property Owner Name: Clayton Properties Group
Property Owner Mailing Address: 2521 Schieffelin Rd., Suite 116, Apex, NC 27502
Property Owner Phone Number: 919-548-9381
Property Owner Email Address: MBURBANO2MUNGO.COM

Applicant Name: Same
Applicant Mailing Address: _____
Applicant Phone Number: _____
Applicant Email Address: _____

Does the property include, or is subject to, any of the following:

☐ Yes	☑ No	Previously identified jurisdictional wetlands
☐ Yes	☑ No	Existing or proposed easements, rights-of-way, encroachments, or other areas subject to legal restrictions
☐ Yes	☑ No	Approval by other public agencies

A site plan or plat is required, **OR** the site sketch submitted from the LSS/AOWE, must include the following:
(A) existing and proposed facilities, structures, appurtenances, and wastewater systems
(B) proposed wastewater system showing setbacks to property line(s) or other fixed reference point(s)
(C) existing and proposed vehicular traffic areas
(D) existing and proposed water supplies, wells, springs, and water lines; and
(E) surface water, drainage features, and all existing and proposed artificial drainage, as applicable.

Requesting DHHS review: ☐ Yes ☑ No

I understand that the documentation and fees, as required in G.S. 130A-335(a2), (a3), (a5), and (a6), attached to this application are to be used to issue an Improvement Permit and/or Construction Authorization pursuant to G.S. 130A-335(a2),(a3), and (a5). I understand that authorized county and state officials are granted right of entry to the property indicated on this application to conduct necessary inspections to determine compliance with applicable laws and rules. I understand that if the information in the application for an Improvements Permit and/or Construction Authorization is falsified, changed, or the site is altered, then the Improvement Permit and Construction Authorization shall become invalid.

Applicant Signature: _____ Date: _____

Owner's Signature: _____ Date: _____

Permit/File #: _____

NC DEPARTMENT OF
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Division of Public Health

Submittal Includes: ■ **(a2) Improvement Permit** ■ **(a2) Construction Authorization** ☐ **Fee $**_____

IMPROVEMENT PERMIT FOR G.S. 130A-335(a2)

County: Harnett

PIN/Lot Identifier: 0681-44-2646.000

Issued To: Clayton Properties Group, 2521 Schieffelin Rd., Suite 116, Apex, NC 27502

Property Location: 112 Sagamore Ave., Angier, NC 27501

Subdivision (if applicable) Cambridge Reserve Lot #: 26 Block: _____ Section: _____

LSS Report Provided: Yes ■ No ☐

If yes, name and license number of LSS: Michael D. Eaker, 1030

New ■ Expansion ☐ System Relocation ☐ Change of Use ☐

Facility Type: Single Family Dwelling

Number of bedrooms: 4 Number of Occupants: 8 or less Other: _____

Design Wastewater Strength: ■ Domestic ☐ High Strength ☐ Industrial Process Wastewater

Proposed Design Daily Flow: 480 GPD Proposed LTAR (Initial): 0.3 gpd/ft2 Proposed LTAR (Repair): 0.3 gpd/ft2

Proposed Wastewater System Type*: Pump to Accepted (25% reduction) (Initial) Pump Required: ■ Yes ☐ No ☐ May be required

Proposed Wastewater System Type*: Pump to Accepted (25% reduction) (Repair) Pump Required: ■ Yes ☐ No ☐ May be required

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Effluent Standard: ■ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Saprolite System (Initial): ☐ Yes ■ No Saprolite System (Repair): ☐ Yes ■ No

Fill System (Initial): ☐ Yes ■ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Fill System (Repair): ☐ Yes ■ No If yes, specify: ☐ New ☐ Existing (when adding more than 6 inches of fill to system area provide a fill plan)

Usable Depth to LC (Initial)[x]: >48" Usable Depth to LC (Repair)[x]: >48" ***[x] Limiting Condition***

Max. Trench Depth (Initial)[‡]: 24" Max. Trench Depth (Repair)[‡]: 24" ***[‡] Measured on the downhill side of the trench***

Artificial Drainage Required: ☐ Yes ■ No If yes, please specify details: _____

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ■ Municipal Supply ☐ Spring ☐ Other: _____

Drainfield location meets requirements of Rule .0508: Yes ■ No ☐ Drainfield location meets requirements of Rule .0601: Yes ■ No ☐

Permit valid for: ■ Five years [site plan submitted pursuant to GS 130A-334(13a)] ☐ No expiration [plat submitted pursuant to GS 130A-334(7a)]

Permit conditions:

Install as per detail sheet and map. Do not disturb, compact, rut or cut any soil within the septic drainfield area.

Ensure 6 inches approved fill cover is maintained over system after installation

LICENSED SOIL SCIENTIST MICHAEL D. EAKER STATE OF NORTH CAROLINA 1030

NC ONSITE WASTEWATER Certification Number 10013E EVALUATOR

Licensed Soil Scientist Print Name: Michael D. Eaker

Licensed Soil Scientist Signature: _____ Date: 03/04/2025

The LSS evaluation is being submitted pursuant to and meets the requirements of G.S. 130A-335(a2).

*See attached site sketch

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a3) states the following:

When an applicant for an Improvement Permit submits to a local health department an Improvement Permit application, the permit fee charged by the local health department, the common form developed by the Department, and a soil evaluation pursuant to subsection (a2) of this section, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Improvement Permit includes all of the required components. If the local health department determines that the Improvement Permit is incomplete, the local health department shall notify the applicant of the components needed to complete the Improvement Permit. The applicant may submit additional information to the local health department to cure the deficiencies in the Improvement Permit. The local health department shall make a final determination as to whether the Improvement Permit is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The Department shall develop a common form for use as the Improvement Permit.

The review for completeness of this Improvement Permit was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

This Improvement Permit is issued pursuant to G.S. 130A-335 (a2) and (a3) using the signed and sealed LSS/LG evaluation(s) attached here. The issuance of this permit in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. *This permit is subject to revocation if the site plan, plat, or the intended use changes.* The Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of 15A NCAC 18E and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to evaluations, submittals, or actions from a licensed soil scientist or licensed geologist pursuant to GS 130A-335(a2).

Improvement Permit Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Improvement Permit

LHD USE ONLY: This IP resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a3) for issuance of the Improvement Permit:

_____

_____

_____

I, _____ hereby attest that the information required to be included with this re-submittal
Licensed Soil Scientist (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Improvement Permit meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Licensed Soil Scientist *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Improvement Permit

The review for completeness of this Improvement Permit re-submittal was conducted in accordance with G.S. 130A-335(a3). This Improvement Permit is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the LSS and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

CONSTRUCTION AUTHORIZATION FOR G.S. 130A-335(a2)

County: Harnett **Pre-Construction Conference Required:** Yes ☐ No ☐

PIN/Lot Identifier: 0681-44-2646.000 - Cambridge Reserve, Lot 26

Issued To: Clayton Properties Group, 2521 Schieffelin Rd., Suite 116, Apex, NC 27502

Property Location: 112 Sagamore Ave., Angier, NC 27501

AOWE/PE Plans/Evaluations Provided: Yes ■ No ☐ If yes, name and license number of AOWE/PE: Michael D. Eaker 10013E

Facility Type: Single Family Dwelling

Number of bedrooms: 4 Number of Occupants: 6 or less Other: _____

■ New ☐ Expansion ☐ Repair ☐ System Relocation ☐ Change of Use

Basement? ☐ Yes ■ No Basement Fixtures? ☐ Yes ☐ No

Crawl Space? ■ Yes ☐ No Slab Foundation? ■ Yes ☐ No

Type of Wastewater System* Pump to Accepted (25% reduction) (Initial) Pump to Accepted (25% reduction) (Repair)

**Please include system classification for proposed wastewater system types in accordance with Rule .1301 Table XXXII*

Design Daily Flow: 480 GPD Wastewater Strength: ■ Domestic ☐ High Strength ☐ Industrial Process WW

Session Law 2014-120 Section 53, Engineering Design Utilizing Low-flow Fixtures and Low-flow Technologies? ☐ Yes ☐ No
(if yes, please provide engineering documentation)

Effluent Standard: ■ DSE ☐ HSE ☐ NSF/ANSI 40 ☐ TS-I ☐ TS-II ☐ RCW

Type of Water Supply: ☐ Private well ☐ Public well ☐ Shared well ■ Municipal Supply ☐ Spring ☐ Other: _____

Installation Requirements/Conditions

Septic Tank Size: 1000 gallons Total Trench/Bed Length: 435 feet Trench/Bed Spacing: 9 feet on center

Trench/Bed Width: 36 inches LTAR: 0.3 gpd/ft² Usable Depth to LC (Initial)[x]: >48" *[x]Limiting condition*

Soil Cover: 6+ inches Slope Corrected Maximum Trench/Bed Depth[‡]: 24 inches *[‡] Measured on the downhill side of the trench*

Pump Tank Size (if applicable): 1000 gallons Requires more than 1 pump? ☐ Yes ■ No

Pump Requirements: 20.01 ft. TDH vs. 42.98 GPM Grease Trap Size (if applicable): _____ gallons

Distribution Method: ☐ Serial ☐ D-Box or Parallel ■ Pressure Manifold(s) ☐ LPP ☐ Other: _____

Artificial Drainage Required: Yes ☐ No ■ If yes, please specify details: _____

Legal Agreements *(If the answer is "Yes" to any type of legal agreements, please attach a copy of the agreement.)*

Multi-party Agreement Required [.0204(g)]: ☐ Yes ■ No Declaration of Restrictive Covenants: ☐ Yes ■ No

Easement, Right-of-Way, or Encroachment Agreement Required [.0301(b)]: ☐ Yes ■ No

Management Entity Required: ☐ Yes ■ No Minimum O&M Requirements: _____

Permit conditions:

Install as per detail sheet and map. Do not disturb, compact, rut or cut any soil within the septic drainfield area.

Ensure 6 inches approved fill cover is maintained over system after installation.

NC ONSITE WASTEWATER EVALUATOR Certification Number 10013E

The requirements of 15A NCAC 18E are incorporated by reference into this permit and shall be met. Systems shall be installed in accordance with the attached site sketch. *This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes.* The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of 15A NCAC 18E, or 15A NCAC 18A .1900, as applicable, and to the conditions of this permit.

AOWE/PE Print Name: Michael D. Eaker

AOWE/PE Signature: _____ Date: 03/04/2025

This AOWE/PE submittal is pursuant to and meets the requirements of G.S. 130A-335(a2) and (a5).

See attached site sketch

NC DEPARTMENT OF
HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

This Section for Local Health Department Use Only

Initial submittal received: _____ by _____
Date *Initials*

G.S. 130A-335(a5) states the following:

When an applicant for a Construction Authorization, or an Improvement Permit and Construction Authorization together, submits a Construction Authorization, or an Improvement Permit and Construction Authorization application together, the permit fee charged by the local health department, the common form developed by the Department, and any necessary signed and sealed plans or evaluations conducted by a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator, the local health department shall, within five business days of receiving the application, conduct a completeness review of the submittal. A determination of completeness means that the Construction Authorization or Improvement Permit and Construction Authorization includes all of the required components. If the local health department determines that the Construction Authorization or Improvement Permit and Construction Authorization is incomplete, the local health department shall notify the applicant of the components needed to complete the Construction Authorization or Improvement Permit and Construction Authorization. The applicant may submit additional information to the local health department to cure the deficiencies in the Construction Authorization or Improvement Permit and Construction Authorization. The local health department shall make a final determination as to whether the Construction Authorization or Improvement Permit and Construction Authorization is complete within five business days after the local health department receives the additional information from the applicant. If the local health department fails to act within any period set out in this subsection, the applicant may treat the failure to act as a determination of completeness. The applicant may apply for the building permit for the project upon the decision of completeness of the Construction Authorization or Improvement Permit and Construction Authorization by the local health department or if the local health department fails to act within five business days. The Authorized On-Site Wastewater Evaluator or licensed engineer submitting the evaluation pursuant to this subsection may request that the local health department revoke or suspend the Construction Authorization or Improvement Permit and Construction Authorization for cause. Upon written request of the Authorized On-Site Wastewater Evaluator or licensed engineer, the local health department shall suspend or revoke the Construction Authorization or Improvement Permit and Construction Authorization pursuant to G.S. 130A-23. The Department shall develop a common form for use as the Construction Authorization.

The review for completeness of this Construction Authorization was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing: _____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date of Issuance: _____

This Construction Authorization is issued pursuant to G.S. 130A-335(a2) and (a5) using the signed and sealed plans or evaluations attached here. This Construction Authorization is subject to revocation if the site plan, plat, or the intended use changes. The Construction Authorization shall not be affected by a change in ownership of the site. This Construction Authorization is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to the conditions of this permit.

The Department, the Department's authorized agents, and the local health departments shall be discharged and released from any liabilities, duties, and responsibilities imposed by statute or in common law from any claim arising out of or attributed to plans, evaluations, preconstruction conference findings, submittals, or actions from a person licensed pursuant to Chapter 89C of the General Statutes as a licensed engineer or a person certified pursuant to Article 5 of Chapter 90A of the General Statutes as an Authorized On-Site Wastewater Evaluator in GS 130A-335(a2), (a5), and (a7). The Department, the Department's authorized agents, and the local health departments shall be responsible and bear liability for their actions and evaluations and other obligations under State law or rule, including the issuance of the operations permit pursuant to GS 130A-337.

Construction Authorization Expiration Date: _____

See attached site sketch

NC DEPARTMENT OF HEALTH AND HUMAN SERVICES
Division of Public Health

Permit/File #: _____

Re-submittal of Construction Authorization

LHD USE ONLY: This CA resubmittal received: _____ by _____
Date *Initials*

The following items are being resubmitted pursuant to G.S. 130A-335(a5) for issuance of the Construction Authorization:

_____

_____

_____

_____

I, _____ hereby attest that the information required to be included with this re-submittal
Authorized Onsite Wastewater Evaluator (Print Name)
is accurate and complete to the best of my knowledge and that the proposed Construction Authorization meets all applicable federal, State, and local laws, regulations, rules, and ordinances.

_____ _____
Signature of Authorized On-Site Wastewater Evaluator *Date*

The section below is for Local Health Department use after submittal of items noted as missing above.

LHD Follow-up Completeness Review of Construction Authorization

The review for completeness of this Construction Authorization re-submittal was conducted in accordance with G.S. 130A-335(a5). This Construction Authorization is determined to be:

☐ Incomplete (If box is checked, information in this section is required.)

The following items are missing:

_____

_____

Copies of this were sent to the AOWE/PE and the Applicant on _____
Date

State Authorized Agent: _____ Date: _____

☐ Complete

State Authorized Agent: _____ Date: _____

NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES
Division of Public Health

Permit/File #: _____

ADDENDUM TO G.S. 130A-335(a2) SUBMITTAL

County: Harnett

PIN/Lot Identifier: 0681-44-2646.000 - Cambridge Reserve, Lot 26

Issued To: Clayton Properties Group, 2521 Schieffelin Rd., Suite 116, Apex, NC 27502

Additional Improvement Permit Conditions:

See attached detail sheet

Additional Construction Authorization Conditions:

See attached detail sheet

Southeastern Soil & Environmental Associates, Inc.

P.O. Box 9321
Fayetteville, NC 28311
Phone/Fax (910) 822-4540
Email mike@southeasternsoil.com

March 4, 2025

Clayton Properties Group
2521 Schieffelin Rd.
Apex, NC 27502

Re: Soil/site evaluation for subsurface waste disposal (GS 130A-335(a2)/SL 2022-11), PIN 0681-44-2646.000, 112 Sagamore Ave., Cambridge Subdivision, Lot 26, Angier, Harnett County, North Carolina

To whom it may concern,

A soil/site evaluation has been conducted on the aforementioned property at your request. The purpose of the investigation was to determine if soils were suitable for a subsurface waste disposal system (conventional, accepted and innovative) to serve a proposed single-family residence (4-bedroom home). All ratings and determinations were made in accordance with "On Site Wastewater Rules, 15A NCAC 18E". **This LSS evaluation is being submitted to meet the requirements of GS 130A-335(a2)/SL 2022-11.**

The soil evaluation was completed on March 4, 2025. Hand auger borings were advanced under moist soil conditions. The site essentially lies on a linear slope landscape (2-3% slope). Soil borings conducted in most of this area consisted of 10 or more inches of loamy sand underlain by sandy loam, sandy clay loam, clay and/or sandy clay to 48 or more inches below the soil surface. Soil wetness and/or parent material (greater than 50%) was not observed shallower than 48 inches below the soil surface (initial system) and 48 inches (repair system). All other soil characteristics were suitable to at least 48 inches.

Based on soil borings and site conditions, the site would be designated suitable for a pump to a shallow pump to accepted subsurface waste disposal drainfield (0.30 gal/day/ft2 LTAR; initial system). There is enough suitable soil area to allow for a pump to an accepted subsurface waste disposal system repair (0.30 gal/day/ft2). A map showing the approximate location of the site and proposed septic layout accompanies this report. **[Note: No grading, rutting or other soil disturbance can occur in or near the proposed septic area. Any grading can alter the findings of this report and render the site unusable. As such, we recommend the builder protect the proposed septic areas with rope, flagging, fencing, etc.]**

Design Summary

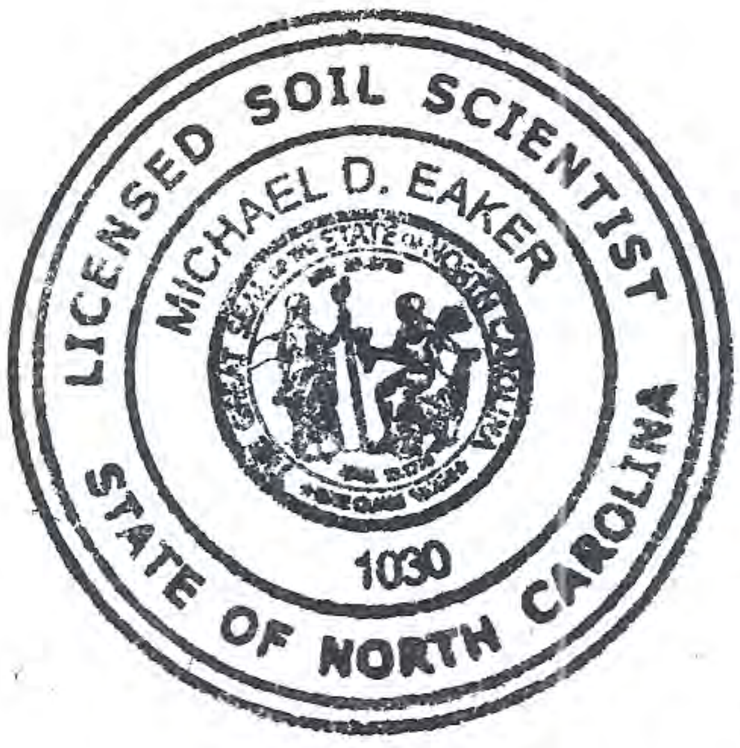
- Pump to Accepted product with **pressure manifold** (435', see septic layout)
- 480 gal/day flow rate (4BR)
- 24" maximum trench depth (initial)
- 1000-gallon septic and pump tank (certified watertight)
- Pump to produce 42.98 gal/min @ 20.01 feet TDH
- Pump dose 198 gallons (9.9-inch drawdown)
- 0.30 gpd/ft2 LTAR (initial and repair)
- No grading, rutting or filling in septic areas
- No vertical cuts (greater than 2') within 15' of septic lines/areas
- Keep tanks and drainlines 10' from property lines
- Keep supply line 5 or more feet from property lines
- **Install in dry soil conditions**
- Maintain natural contours when clearing the lots
- Direct gutter water away from septic system

During site construction, it is important not to impact and suitable or provisionally suitable soil areas with activities such as excavation or filling. Only the vegetation should be removed in the areas of the proposed septic drainfields to prevent any disturbance of naturally occurring soil. We recommend all lot clearing activity be delayed until the local health department issues a permit.

To the extent possible, we have identified the soil types that will impact the flow of wastewater on this site and have provided a professional opinion as to the best septic system layout. This report does not guarantee that the proposed septic system will properly function for any specific length of time.

Sincerely,

Mike Eaker
NC Licensed Soil Scientist # 1030
NC Authorized Wastewater Evaluator 10013E



SOUTHEASTERN SOIL & ENVIRONMENTAL ASSOC., INC.

PROPOSED SUBSURFACE WASTE DISPOSAL SYSTEM DETAIL SHEET

SUBDIVISION: Cambridge **LOT** 26

INITIAL SYSTEM: Accepted 25% Reduction **REPAIR:** Accepted 25% Reduction

DISTRIBUTION: Pressure Manifold **DISTRIBUTION** Pressure Manifold

BENCHMARK: **100.0** **LOCATION** RC 25/26

NO. BEDROOMS: 3 **LTAR** 0.30 gpd/ft2

SEPTIC TANK SIZE 1000 Gallons **PUMP TANK SIZE** N/A

	LINE	FLAG COLOR	ELEVATION	LENGTH
Initial	1	R	99.40	70
	2	P	99.10	115
	3	R	98.80	125
	4	P	98.60	125
				435 TOTAL
Repair	5	R	98.30	125
	6	P	98.20	125
	7	R	98.00	120
	8	P	97.80	120
				485 TOTAL

BY Mike Eaker **DATE** 3/4/25

TYPICAL PROFILE

Initial	0-6	LS	VFr/Gr
	8-48	SC/C	Fi/SBk
Repair	0-6	LS	VFr/Gr
	6-48	SC/C	Fi/SBk
	34+	PM	

THERE SHALL BE NO GRADING, CUTTING, LOGGING OR OTHER SOIL DISTURBANCE IN SEPTIC AREA

HEALTH DEPARTMENT USE ONLY.

DESIGNS DO NOT GURANTEE FUNCTIONALITY

NC ONSITE WASTEWATER EVALUATOR
Certification Number 10013E

PRELIMINARY PLOT PLAN FOR

MUNGO HOMES

LOT 26, CAMBRIDGE SUBDIVISION

112 SAGAMORE AVENUE

REF: P.B. 2025, PG.7

NEILL'S CREEK TOWNSHIP

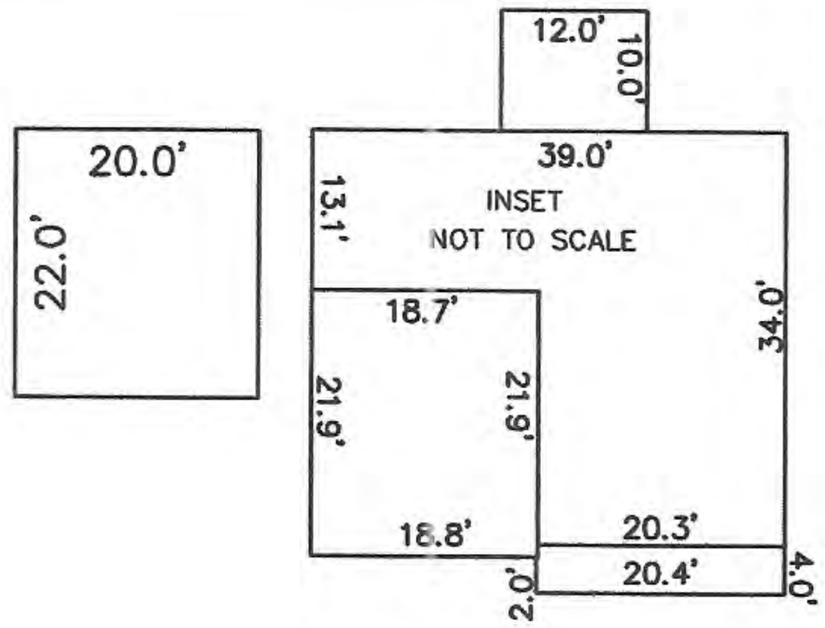
HARNETT COUNTY, NORTH CAROLINA

FEBRUARY 3, 2025

ZONED RA-30

50 25 0 50 100

SCALE 1"=50'



IMPERVIOUS SURFACE TABLE

HOUSE	1,426 S.F.
DECK	120 S.F.

RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Cambridge Lot 26

# of BDR: 4 **Daily Flow:** 480 **gal/day** **L.T.A.R.:** 0.3000 **gal/day/sq.ft**

Septic Tank: 1200 **gals** **Pump Tank:** 1200 **gals** **Sq. Foot:** 1305 **System Type:** Accepted

Number of Taps: 4 **Length of Trenches:** 435 **ft(See Tap Chart for Details)**

Depth of Trenches: 24 **in** **Manifold Length:** 42 **in**

Manifold Diameter: 4in sch 80pvc **Tap Configuration: 6 in spacing** 1 **side(s) of manifold**

Supply Line: length: 110 **ft** **Diameter:** 2 **in sch 40pvc**

Friction Loss + Fitting Loss: 7.31 **ft(supply line length + 70' for fittings in pump tank)**

Design Head: 2 **ft** **Elevation Head:** 10.70 **ft**

Total Head: 20.01 **ft** **Pump to Deliver:** 42.98 **gals/min at** 20.01 **ft head**

Dosing Volume: 198 **gals,**

Drawdown: 198 **gals divided by** 20 **gals/in =** 9.9 **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

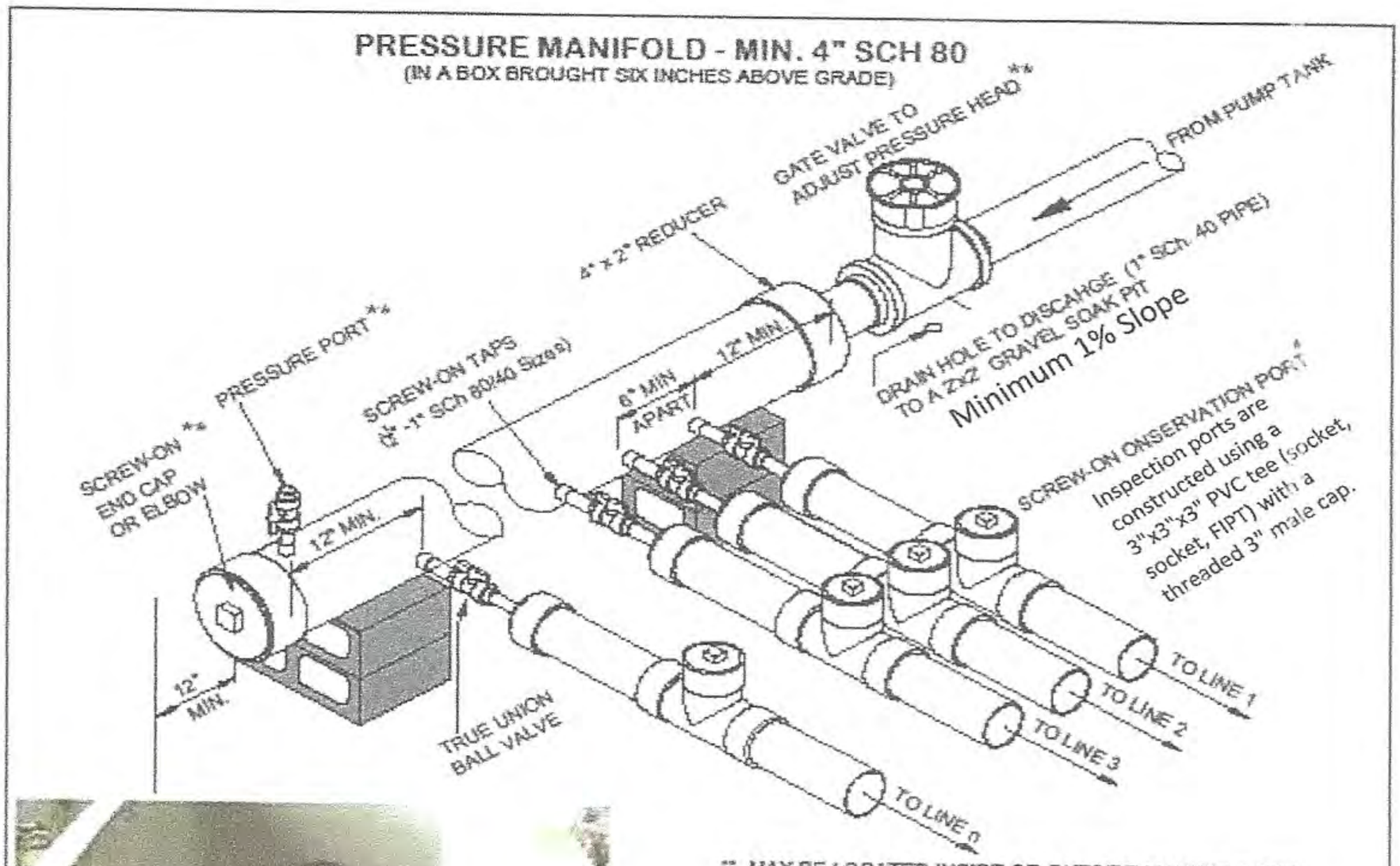
Benchmark	2.7	is = 100.00	RC 25/26			**Design Head:**	2
Pump tank elev.		8	94.70	**Pump elev.**	89.70	**Manifold elev.**	100.40

line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)	Spacing of Panels (in)
1	R	3.30	99.40	70	1/2in SCH 80	5.48	61.20	210	0.2914		
2	P	3.60	99.10	115	3/4in SCH 40	12.5	139.60	345	0.4046		
3	R	3.90	98.80	125	3/4in SCH 40	12.5	139.60	375	0.3723		
4	P	4.10	98.60	125	3/4in SCH 40	12.5	139.60	375	0.3723		
			102.70			0	0.00	0	#DIV/0!		
			102.70			0	0.00	0	#DIV/0!		
			102.70			0	0.00	0	#DIV/0!		
			102.70			0	0.00	0	#DIV/0!		
			102.70			0	0.00	0	#DIV/0!		
			102.70			0	0.00	0	#DIV/0!		
			Total Feet =	435	**gal/min =**	42.98		**LTAR =**	0.3000		
			Feet Required =	400	**Velocity =**	4.11		(ltar + 5%)	0.3150		
Total # of Panels (PPBPS)				**Des. Flow**	480			(ltar w/25% red)	0.4000		
% of Dose Vol.	70			**Pump Run=**	11.17			(ltar + 5%)	0.4200		
Dose Volume	198			**Tank Gal/IN**	20						
Dose Pump Time	4.61			**Elev. Head**	10.70						
Drawdown in Inches	9.9										

Comments:

PM Draw

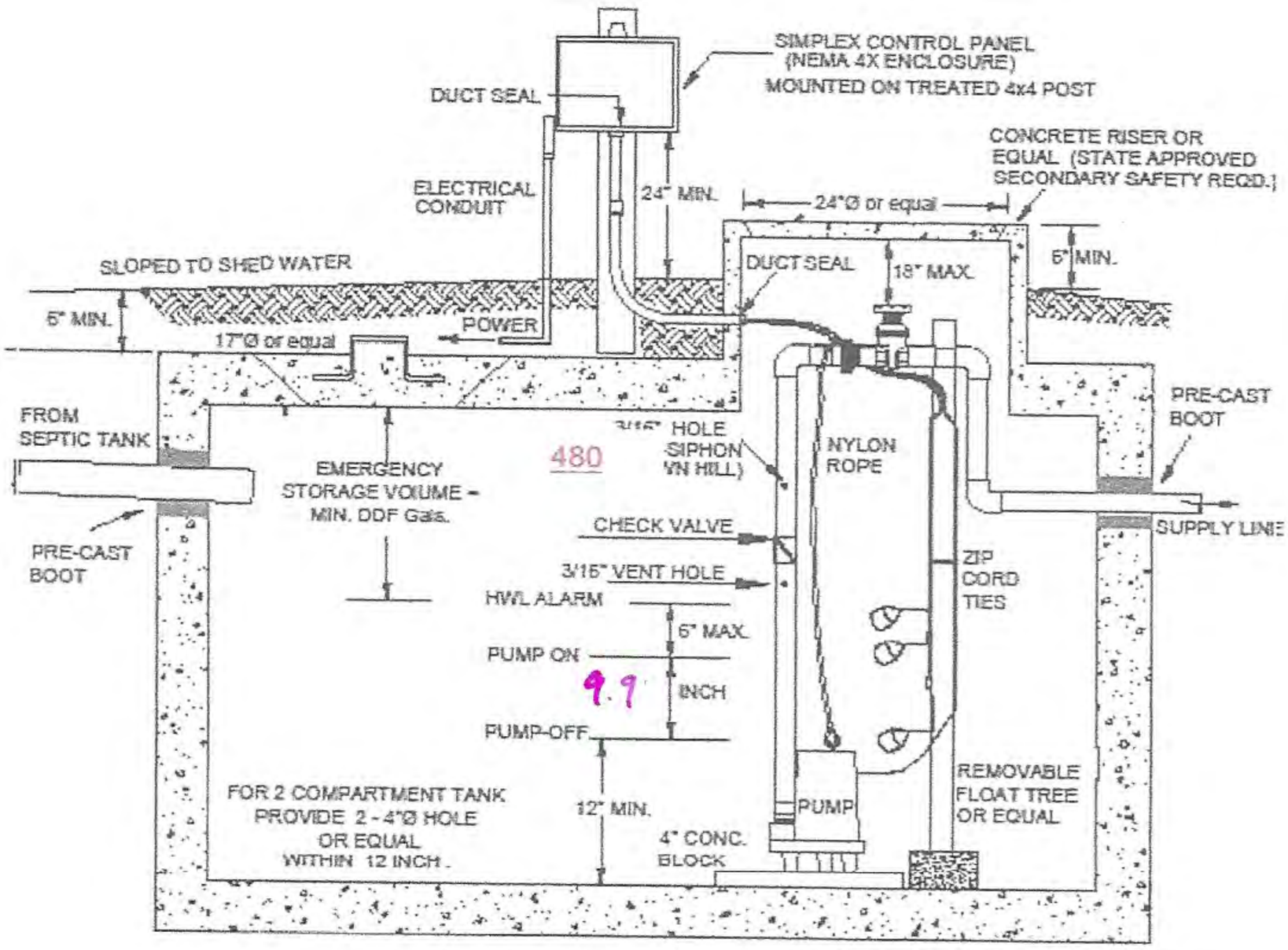
	Line 1	Line 2	Line 3	Line 4	Line 5	Line 6	Line 7	Line 8	Line 9	Line 10
Taps	1/2in SCH 80	3/4in SCH 80	3/4in SCH 80	3/4in SCH 80	3/4in SCH 80					
Flow	5.48	10.1	10.1	10.1	10.1	0	0	0	0	0



** MAY BE LOCATED INSIDE OR OUTSIDE MANIFOLD BOX WHEN LOCATED OUTSDIE VALVE BOX IS REQUIRED.

* MAY BE INISDE BOX OR IF OUTSIDE, BRING 6" ABOVE GRADE

LINE #	TAPS	LENGTH
1	1/2in SCH 80	90
2	3/4in SCH 80	90
3	3/4in SCH 80	90
4	3/4in SCH 80	90
5	3/4in SCH 80	90

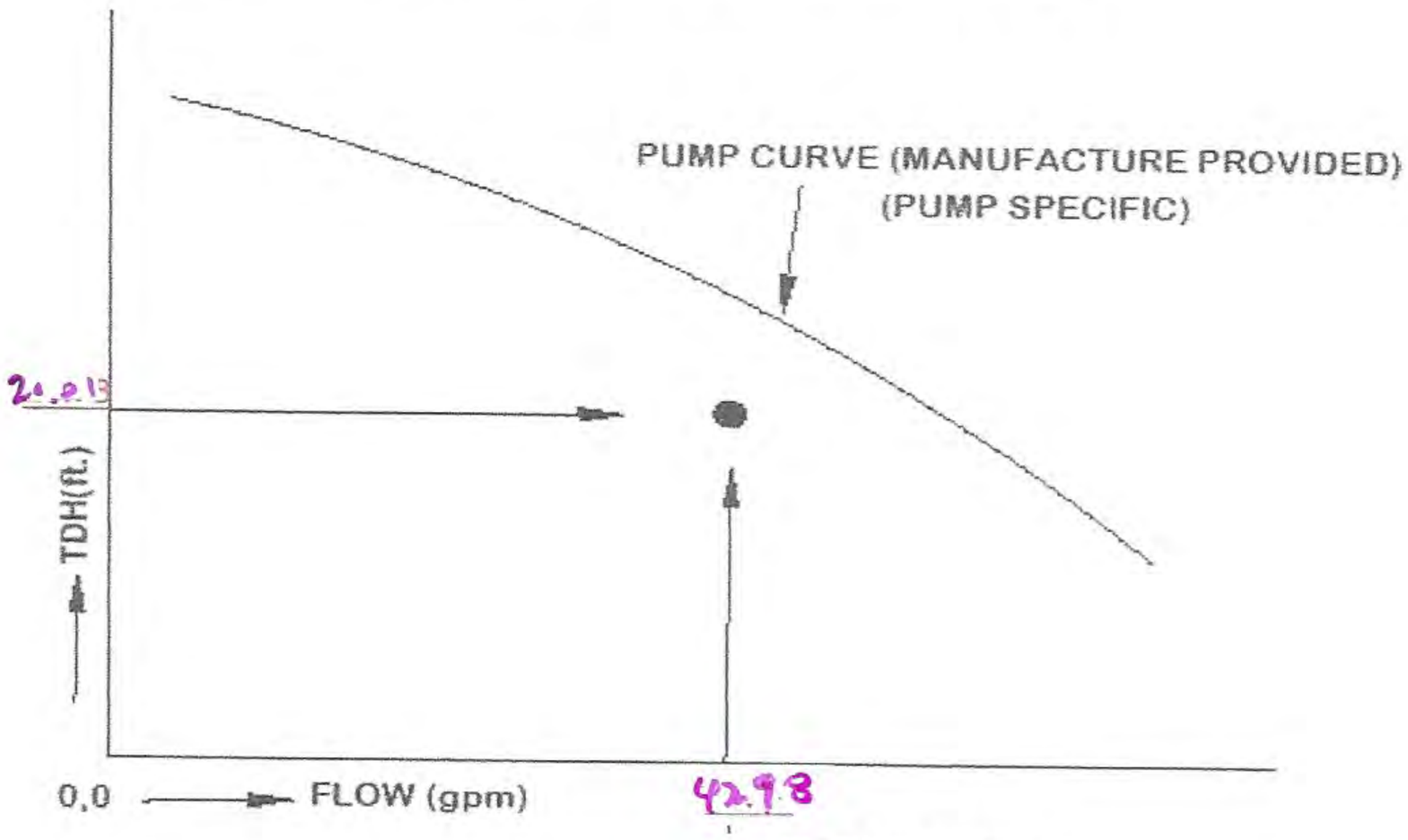


1000 GALLON (Min.)

STATE APPROVED PUMP TANK WITH A PT NUMBER
(TRAFFIC RATED TANK REQUIRED FOR > 3' BURIAL)

PUMP CURVE AND SPECIFICATIONS

Pump and Control Panel Specification Required:
Pump:
Pump to be UL or equal listed
TDH and Pumping rate calcs & curve
Dose volume
3 floats system in a float tree or bracket of non-corrosive material
Highwater alarm within 6" from "on" float
Off float at min. 12" from bottom of tank or to submerge pump
(Manufacture may certify/specify pumps suitability taller than 12" if unsubmerged)
Supply Line Profile when variation in ground profile of more than 5'
Effluent Pump should handle min. 1/2 "solids"
Gate valve, true union disconnect and connection inside tank reachable within 16" from riser top



Control Panel Specifications:
Installed within 2 ft. and
min. 18" above final grade to bottom of panel box
HOA switch provided
NEMA 4X box
Cycle counter & elapsed time meter
Alarm (audible/visible)
Separate circuits for alarm and pumps
High voltage protection
Pump Pull Rope/chain (non-corrosive)
All duct sealed, no splices or junction boxes inside tanks
3/16th inch hole between Check valve (in vertical pipe) and pump

PRELIMINARY PLOT PLAN FOR

MUNGO HOMES

LOT 26, CAMBRIDGE SUBDIVISION

112 SAGAMORE AVENUE

REF: P.B. 2025, PG.7

NEILL'S CREEK TOWNSHIP

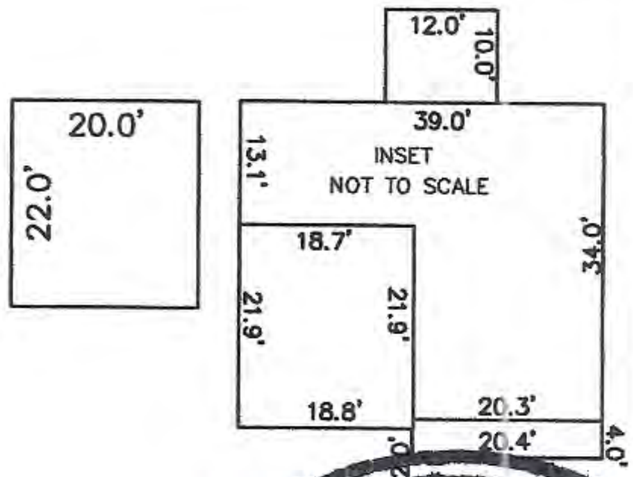
HARNETT COUNTY, NORTH CAROLINA

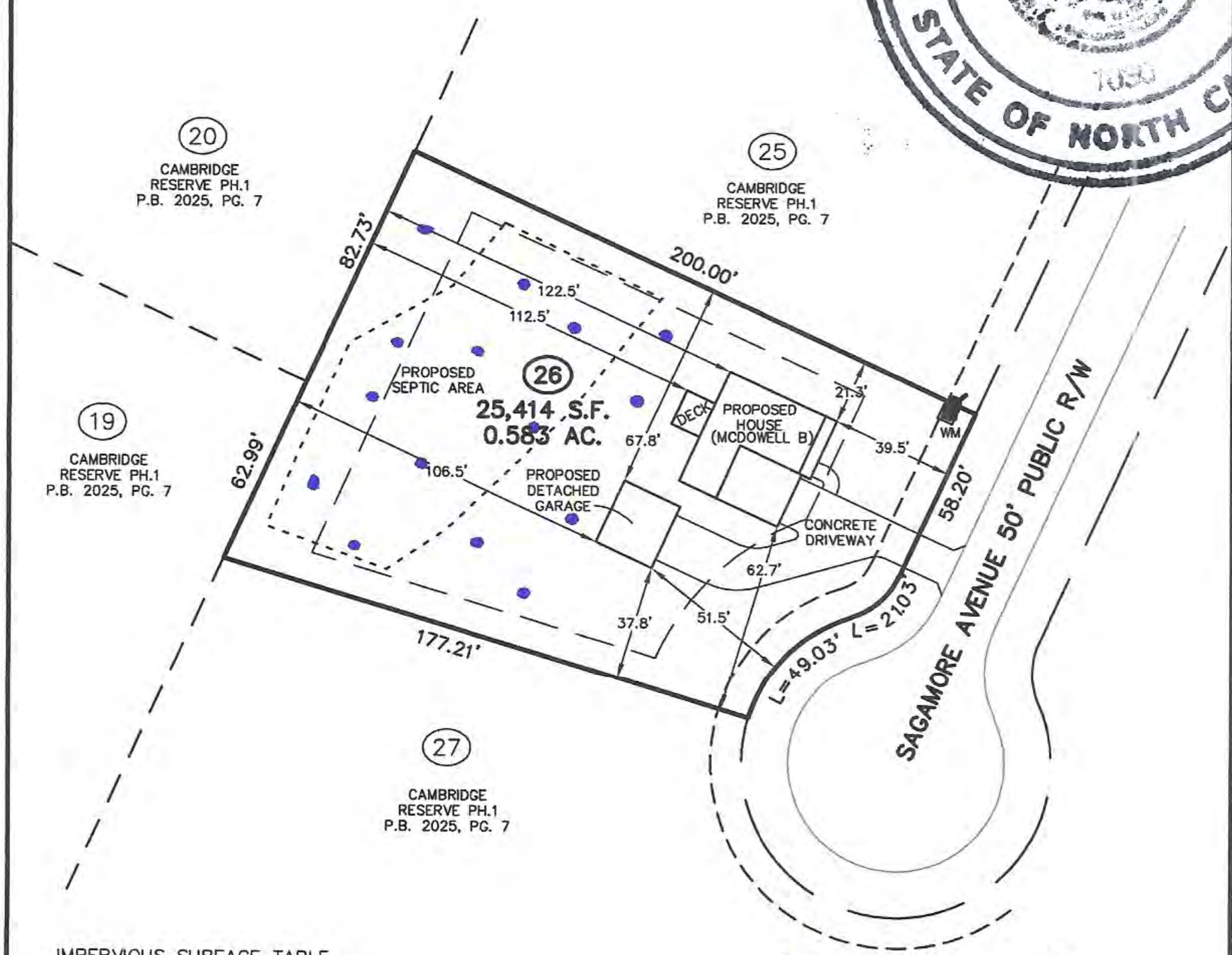
FEBRUARY 3, 2025

ZONED RA-30

50 25 0 50 100

SCALE 1"=50'



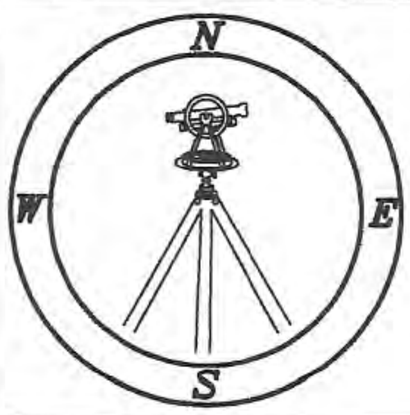


IMPERVIOUS SURFACE TABLE

HOUSE	1,426 S.F.
DECK	120 S.F.
DRIVEWAY	1,430 S.F.
SIDEWALKS	52 S.F.
DETACHED GARAGE	440 S.F.
MISC/UTILITIES	9 S.F.
TOTAL IMPERVIOUS AREA	3,477 S.F.
TOTAL LOT AREA	25,414 S.F.
PERCENTAGE OF IMPERVIOUS AREA	13.68 %

TOTAL CONCRETE & LANDSCAPE	
CONCRETE	1,671 S.F.
LANDSCAPE	23,667 S.F.

THIS SURVEYOR DOES NOT WARRANTY THE ACCURACY OF ARCHITECTURAL DIMENSIONS. THEY ARE TO BE VERIFIED BY THE CONTRACTOR.



CMP

Professional Land Surveyors
C-1525

333 S. White Street
Post Office Box 1253
Wake Forest, N.C. 27588
(919)556-3148

NOTES:
-THIS PLAN DOES NOT REFLECT AN ACTUAL SURVEY. IT IS A PRELIMINARY PLAN AND SHOULD BE USED FOR ITS INTENDED PURPOSE ONLY.
-NOT FOR RECORDATION, CONVEYANCES, OR SALES.

DEPARTMENT OF HEALTH AND HUMAN SERVICE
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

ID #: _____
COUNTY: Harnett

SOIL/SITE EVALUATION
***for* ON-SITE WASTEWATER SYSTEM**
(Complete all fields in full)

OWNER: Mungo Homes
ADDRESS: 2521 Schieffelin Rd., Apex NC 27502
PROPOSED FACILITY: SFD PROPOSED DESIGN FLOW (.1949): 480 GPD (4BR)
LOCATION OF SITE: 112 Sagamore Ave. Angier, NC (Lot 26) Cambridge
WATER SUPPLY: ☐ Private X Public Well ☐ Spring ☐ Other _____
EVALUATION METHOD: X Auger Boring ☐ Pit ☐ Cut

APPLICATION DATE
DATE EVALUATED:03/04/25
PROPERTY SIZE: 0.583 Ac
PROPERTY RECORDED

TYPE OF WASTEWATER: X Sewage ☐ Industrial Process ☐ Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
1	LS 2-3%	0-7	LS/Gr	VFr/Nexp	>48 10YR 6/4 10YR 6/8 10YR 6/8 2.5YR 4/8 mot	NA	NA	NA	Suitable 0.30
		7-26	LS/Gr	VFr/NExp					
		26-44	SCL/mm sbk	Fi/SExp					
		44-48	SCL/mass	Fi, SExp					
2	LS 2-3%	0-10	LS/Gr	VFr/Nexp	>48" 10YR 7/3 10YR 6/4 7.5YR 5/6	NA	NA	NA	Suitable 0.30
		10-22	LS/Gr	VFr/Nexp					
		22-31	SCL/mm sbk	Fi/SExp					
		31-48	SCL/mm sbk	Fi/SExp					
3	LS 2-3%	0-6	LS/Gr	VFr/Nexp	>48' 10YR 6/4 7.5YR 5/8 7.5YR 5/8 2.5YR 4/8 mot	NA	NA	NA	Suitable 0.30
		6-29	SL/wf sbk	Fr/SExp					
		29-39	SCL/mm sbk	Fi/SExp					
		39-48	SCL/wfsbk	Fi, SExp					
4	LS 2-3%	0-9	LS/SL/Gr	Fr/Nexp	>48" 10YR 7/3 10YR 6/6 7.5YR 6/8	NA	NA	NA	Suitable 0.30
		9-24	LS/Gr	VFr/Nexp					
		24-37	SCL/mm sbk	Fi/SExp					
		37-48	SCL/wf sbk	Fi/SExp					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	Yes	Yes
System Type(s)	Pump to Accepted	Pump to Accepted
Site LTAR	0.30	0.30

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): Suitable

EVALUATED BY: M. Eaker
OTHER(S) PRESENT: D. Eaker

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

PROPERTY ID #: Cambridge Lot 26
DATE OF EVALUATION: 03/04/25
COUNTY: Harnett

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
5	LS 2-3%	0-10	LS/Gr	VFr/NExp	>48" 7.5YR 5/8	NA	NA	NA	Suitable 0.30
		10-24	C/mm sbk	Fi/SExp					
		24-30	C/mm sbk	Fi/SExp	7.5YR 5/8				
		30-48	C/wf sbk	Fi/SExp	2.5YR 4/8m				
					2.5YR 4/8				
6	LS 2-3%	0-10	LS/Gr	VFr/NExp	>48" 7.5YR 5/8	NA	NA	NA	Suitable 0.3
		10-24	C/mm sbk	Fi/SExp					
		24-34	C/CL/mm sbk	Fi/SExp	7.5YR 5/8				
		34-48	C/CL/mm sbk	Fi/SExp	7.5YR 4/8				
					2.5YR 4/8m				