Initial Application Date:_____ **Application #** _____

CU# _____

COUNTY OF HARNETT RESIDENTIAL LAND USE APPLICATION

Central Permitting 420 McKinney Pkwy, Lillington, NC 27546 Phone: (910) 893-7525 ext:1 Fax: (910) 893-2793 www.harnett.org/permits

A RECORDED SURVEY MAP, RECORDED DEED (OR OFFER TO PURCHASE) & SITE PLAN ARE REQUIRED WHEN SUBMITTING A LAND USE APPLICATION

LANDOWNER: James Garner Mailing Address: 5005 NC 55 W

City: Angier State: NC Zip: 27501 Contact No: 919-639-4307 Email: _____

APPLICANT*: John Roberts Mailing Address: 1302 Roberts Rd

City: Newport State: NC Zip: 28570 Contact No: 252-725-1320 Email: john.roberts@groundtruthsoil.com

*Please fill out applicant information if different than landowner

ADDRESS: same as landowner **PIN:** 0682-57-3759.000

Zoning:_____ **Flood:**_____ **Watershed:**_____ **Deed Book / Page:** _____

Setbacks – Front:_____ **Back:**_____ **Side:**_____ **Corner:**_____

PROPOSED USE:

❑ SFD: (Size 35 x 51) # Bedrooms: 3 # Baths: 2 Basement(w/wo bath): w Garage: y Deck:____ Crawl Space: x Slab:____ Monolithic Slab:____

TOTAL HTD SQ FT 2202 GARAGE SQ FT 1080 (Is the bonus room finished? (___) yes (___) no w/ a closet? (___) yes (___) no (if yes add in with # bedrooms)

❑ Modular: (Size _____x_____) # Bedrooms____ # Baths____ Basement (w/wo bath)____ Garage:____ Site Built Deck:____ On Frame____ Off Frame____

TOTAL HTD SQ FT_____ (Is the second floor finished? (___) yes (___) no Any other site built additions? (___) yes (___) no

❑ Manufactured Home: ____SW ____DW ____TW (Size_____x_____) # Bedrooms: ____ Garage:____(site built?____) Deck:____(site built?____)

❑ Duplex: (Size _____x_____) No. Buildings:_____ No. Bedrooms Per Unit:_____ TOTAL HTD SQ FT_____

❑ Home Occupation: # Rooms:_____ Use:_____ Hours of Operation:_____ #Employees:_____

❑ Addition/Accessory/Other: (Size _____x_____) Use:_____ Closets in addition? (___) yes (___) no

TOTAL HTD SQ FT_____ GARAGE_____

Water Supply: x County x Existing Well _____ New Well *(# of dwellings using well* _____*)* ***Must have operable water before final**
(Need to Complete New Well Application at the same time as New Tank)

Sewage Supply: _____ New Septic Tank ____ Expansion x Relocation____Existing Septic Tank ____ County Sewer
(Complete Environmental Health Checklist on other side of application if Septic)

Does owner of this tract of land, own land that contains a manufactured home within five hundred feet (500') of tract listed above? (___) yes (x) no

Does the property contain any easements whether underground or overhead (___) yes (x) no

Structures (existing or proposed): Single family dwellings: existing Manufactured Homes:_____ Other (specify): shed

If permits are granted I agree to conform to all ordinances and laws of the State of North Carolina regulating such work and the specifications of plans submitted. I hereby state that foregoing statements are accurate and correct to the best of my knowledge. Permit subject to revocation if false information is provided.

John C Roberts 9-23-21

Signature of Owner or Owner's Agent **Date**

*****It is the owner/applicants responsibility to provide the county with any applicable information about the subject property, including but not limited to: boundary information, house location, underground or overhead easements, etc. The county or its employees are not responsible for any incorrect or missing information that is contained within these applications.*****

This application expires 6 months from the initial date if permits have not been issued*

APPLICATION CONTINUES ON BACK

****This application expires 6 months from the initial date if permits have not been issued****

This application to be filled out when applying for a septic system inspection.

County Health Department Application for Improvement Permit and/or Authorization to Construct

IF THE INFORMATION IN THIS APPLICATION IS FALSIFIED, CHANGED, OR THE SITE IS ALTERED, THEN THE IMPROVEMENT PERMIT OR AUTHORIZATION TO CONSTRUCT SHALL BECOME INVALID. The permit is valid for either 60 months or without expiration depending upon documentation submitted. (Complete site plan = 60 months; Complete plat = without expiration)

☐ ***Environmental Health New Septic System***

- **All property irons must be made visible.** Place "pink property flags" on each corner iron of lot. All property lines must be clearly flagged approximately every 50 feet between corners.
- Place "orange house corner flags" at each corner of the proposed structure. Also flag driveways, garages, decks, out buildings, swimming pools, etc. Place flags per site plan developed at/for Central Permitting.
- Place orange Environmental Health card in location that is easily viewed from road to assist in locating property.
- If property is thickly wooded, Environmental Health requires that you clean out the **undergrowth** to allow the soil evaluation to be performed. Inspectors should be able to walk freely around site. ***Do not grade property***.
- ***All lots to be addressed within 10 business days after confirmation. $25.00 return trip fee may be incurred for failure to uncover outlet lid, mark house corners and property lines, etc. once lot confirmed ready.***

☐ ***Environmental Health Existing Tank Inspections***

- Follow above instructions for placing flags and card on property.
- Prepare for inspection by removing soil over **outlet end** of tank as diagram indicates, and lift lid straight up (*if possible*) and then **put lid back in place**. (Unless inspection is for a septic tank in a mobile home park)
- **DO NOT LEAVE LIDS OFF OF SEPTIC TANK**

"MORE INFORMATION MAY BE REQUIRED TO COMPLETE ANY INSPECTION"

SEPTIC

If applying for authorization to construct please indicate desired system type(s): can be ranked in order of preference, must choose one.

{ 2} Accepted {__} Innovative { 1} Conventional {__} Any

{__} Alternative {__} Other _____

The applicant shall notify the local health department upon submittal of this application if any of the following apply to the property in question. If the answer is "yes", applicant **MUST ATTACH SUPPORTING DOCUMENTATION**:

{__}YES { x} NO Does the site contain any Jurisdictional Wetlands?

{__}YES { x} NO Do you plan to have an irrigation system now or in the future?

{__}YES { x} NO Does or will the building contain any drains? Please explain._____

{ x}YES {___} NO Are there any existing wells, springs, waterlines or Wastewater Systems on this property?

{__}YES { x} NO Is any wastewater going to be generated on the site other than domestic sewage?

{__}YES { x} NO Is the site subject to approval by any other Public Agency?

{__}YES { x} NO Are there any Easements or Right of Ways on this property?

{ x}YES {__} NO Does the site contain any existing water, cable, phone or underground electric lines?

If yes please call No Cuts at 800-632-4949 to locate the lines. This is a free service.

I Have Read This Application And Certify That The Information Provided Herein Is True, Complete And Correct. Authorized County And State Officials Are Granted Right Of Entry To Conduct Necessary Inspections To Determine Compliance With Applicable Laws And Rules. I Understand That I Am Solely Responsible For The Proper Identification And Labeling Of All Property Lines And Corners And Making The Site Accessible So That A Complete Site Evaluation Can Be Performed.

R-5705A Parcel 034

The North Carolina Administrative Code requires **applications for septic permits** to be signed by the owner of the property to be evaluated or by the owner's legal representative. Applications submitted by an owner's legal representative must include this completed and signed document. **Please note that the person named the legal representative on this document must make the application. The signature of the person named the legal representative on this document must also appear at the bottom of this document.**

I, James T. Garner, hereby authorize
(property owner's full name)

Ground Truth Soil Consulting (John Roberts, President) to serve as my legal
(legal representative's full name)

representative for submitting an application for an evaluation by the Harnett County Health Department of property owned by me for the purpose of obtaining a permit to install, repair or expand an on-site wastewater system. I understand that submittal of the application for evaluation also authorizes the Harnett County Health Department to perform said evaluation on my property.

Property Owner's Address: 5005 NC Highway 55 West
Angier, NC 27501

Property Owner's Phone: 919.639.4307

Parcel Identification Number (PIN): 040682012403 / 040682012703

Parcel Size: 2.960 ac. Parcel Location: 5005 NC Highway 55 West
Angier, NC 27501

Signature: James T Garner Date: 4/6/2021
(property owner's full name)

Signature: John C Roberts Date: 9-23-21
(legal representative's full name)

Residential Subsurface Wastewater Treatment and Disposal System Proposal

Property:
5005 NC 55 W
Angier, NC
PIN: 0682-57-3759.000
Harnett County, NC
Ground Truth Job # 21-148

Prepared For:

The Right of Way Group, LLC
225 Green Street, Suite 910
Fayetteville, NC 28301

Prepared By:

Ground Truth Soil Consulting, PLLC
1302 Roberts Road
Newport, NC 28570
(252) 725-1320

September 23, 2021

John C. Roberts

INTRODUCTION & SITE DESCRIPTION

A Soil & Site Evaluation was performed for NCDOT Parcel 035 located at 5005 NC 55 W, Angier, NC (PIN: 0682-57-3759.000). Ground Truth Soil Consulting, PLLC (Ground Truth) was retained to prepare a proposal for an on-site wastewater treatment and disposal system that would allow for the relocation of a subsurface septic system for an existing 3-bedroom home (360 GPD). The lot was evaluated in accordance with North Carolina statutes for waste disposal ("Laws and Rules for Sewage Treatment and Disposal Systems", amended December 6, 2018").

The NCDOT project R5705A is proposed to impact the existing septic drainfield. A relocation permit is requested to relocate the septic drainfield.

The field survey was conducted in August and September 2021 by John C. Roberts, LSS. Soil borings were advanced via a hand auger and evaluated under moist conditions using procedures listed in the *Field book for Describing and Sampling Soils, Version 3.0*. Soil color was determined using a Munsell Soil Color Chart. Observations of the landscape as well as soil properties (depth, texture, structure, soil wetness, restrictive horizons, etc.) were recorded. It was determined sufficient amount of Suitable Group I soils are available within the project area for installation of a Pump to a gravel system for a 3-bedroom home. Suitable soils also exists to support a Pump to gravel repair septic system.

LOCATION

The lot is located at 5005 NC 55 W ANGIER, NC 27501.

PLANS AND SPECIFICATIONS

A. Septic Tank

1. The septic tank shall be State approved (Section .1953 of 15A NCAC 18A), watertight, structurally sound, and 1,000 gallons in capacity (at minimum).
2. The septic tank shall be fitted with an approved effluent filter.
3. It is the responsibility of the septic contractor to thoroughly inspect the septic tank prior to accepting delivery to assure that the tanks have had time to properly cure and are free of cracks or other structural deficiencies.

B. Pump Tank

1. The pump tank shall be State approved, of one-piece construction, watertight, structurally sound and 1,000 gallons in capacity (at minimum). Again, it is the responsibility of the septic tank contractor to thoroughly inspect each pump tank prior to accepting delivery.
2. All pipe penetrations into the tank shall be booted (i.e., C-293 boot with a stainless-steel strap).
3. The pump tank shall have access risers that extend, at a minimum, 6 inches above finished grade and must have less than 36 inches of fill over its top once finished grade has been established (a reinforced concrete tank will be required if finished soil cover is 36 inches or greater in depth).
4. Floats, pump and control circuits, and the control panel shall meet the requirementsof Rule .1952(c). Panel and control equipment shall include lightning protection, be protected from

unauthorized access, and always remain accessible to the systemoperator.

5. The pump and alarm controls shall be provided with manual circuit disconnects within a watertight, corrosion resistant, Nema 4x rated control panel. The control panel must be securely mounted outside, adjacent to the pump tank riser and at a minimum of 18 inches above finished grade. Pump and float control wiring shouldbe long enough to reach from the tank to the control panel without splicing, routed through wire conduit, and sealed at the openings within the pump tank as well as the control panel enclosure. It is paramount that the conduit is properly sealed to prevent the escape of flammable gases from the pump tank. Furthermore, there must be two electrical circuits for the pump tank controls: one for the pump and one for the alarm controls.

6. Float switch tie downs must be made of a corrosion resistant material (per OWPS,all metal in the tanks shall be stainless steel). Floats should be mounted on a separate "float tree" rather than the pump supply line (see pump tank detail).

7. The pump removal system will be via a pump tether made of nylon rope or its equivalent. The tether material should be resistant to mildew and rot.

C. Pipes and Fittings

1. All discharge piping, connectors and supply lines should be made of SCH 40 PVC.
2. All joints must be properly "welded" utilizing the appropriate PVC cement for each application.
3. The supply line will be approximately 270 feet long from the septic tank to the d-box.

D. Distribution Method

1. Drainlines will be fed via pump to d-box.
2. The supply line conveys effluent from the pump to the d-box.
3. The supply line will be sleeved in ductile iron or equivalent when installed underneath driveway for a distance of 10-ft either side of driveway.

E. Drainfield Installation-Initial

1. The drainfield has been previously laid out on-site utilizing metal stemmed flags. The property owner/builder should mark this area and isolate it as much as possible from construction traffic.
2. Under no circumstances shall any construction take place within the drainfield area while the soil is in a wet condition.
3. The specified system is a pump system. Gravel drainlines or equivalent will be utilized. Drainlines shall be installed no deeper than 20 inches.
4. The drainfield consists of three (3) lateral trenches to be constructed 3-foot wide by 50 feet in length. Total drainline length is 150 feet.
5. The maximum trench depth for this system shall be 20 inches.
6. The laterals are to be installed keeping the individual trench bottoms level from beginning to end.
7. The trenches should be left open for the final inspection by the HCEH.

F. Final Landscaping

1. Final cover over the drainfield shall be at least 6 inches deep. If additional cover is needed, Group II (sandy loam) or Group III (sandy clay loam) soil shall be utilized.
2. The drainfield shall be shaped to shed rainwater and be free from low spots.

3. The drainfield area should be planted with grass as soon as possible to prevent erosion. The soil should be limed (if necessary) and fertilized prior to planting. After applying grass seed, the area should be heavily mulched with straw or other suitable material.

G. Utility Conflicts

1. The builder and property owner must take special care in planning for water, power, gas, telephone and cable lines. These utilities shall be kept clear of all parts of the septic system and its proposed repair area. Improper planning for underground utilities can negatively impact the installation and, in some cases, cause irreparable damage and permit revocation. If there are any questions regarding preferred routes, contact the HCEH as soon as possible.
2. Lawn irrigation should not be placed over the drainfield area.

MAINTENANCE

H. In General

1. The owner must maintain the drainfield area through periodic mowing. The drainfield must not be allowed to become overgrown.
2. The septic tank should be pumped every 4 years or when the solids within the septic tank reach an elevation that is equivalent to 25 percent of the volume of the tank. In some situations, the tanks may need to be pumped more frequently. If using a garbage disposal, it is recommended that the homeowner has the septic and pump tanks cleaned out annually.
3. When it becomes necessary to clean the effluent filter, the filter should be removed and the accumulated debris washed back into the septic tank – not onto the lawn.
4. Any damp areas, leakages or malfunctions in the drainfield area should be addressed immediately.
5. Divert gutter downspouts and surface water runoff away from the septic tanks and septic drainfield.

DESIGN SPECIFICS

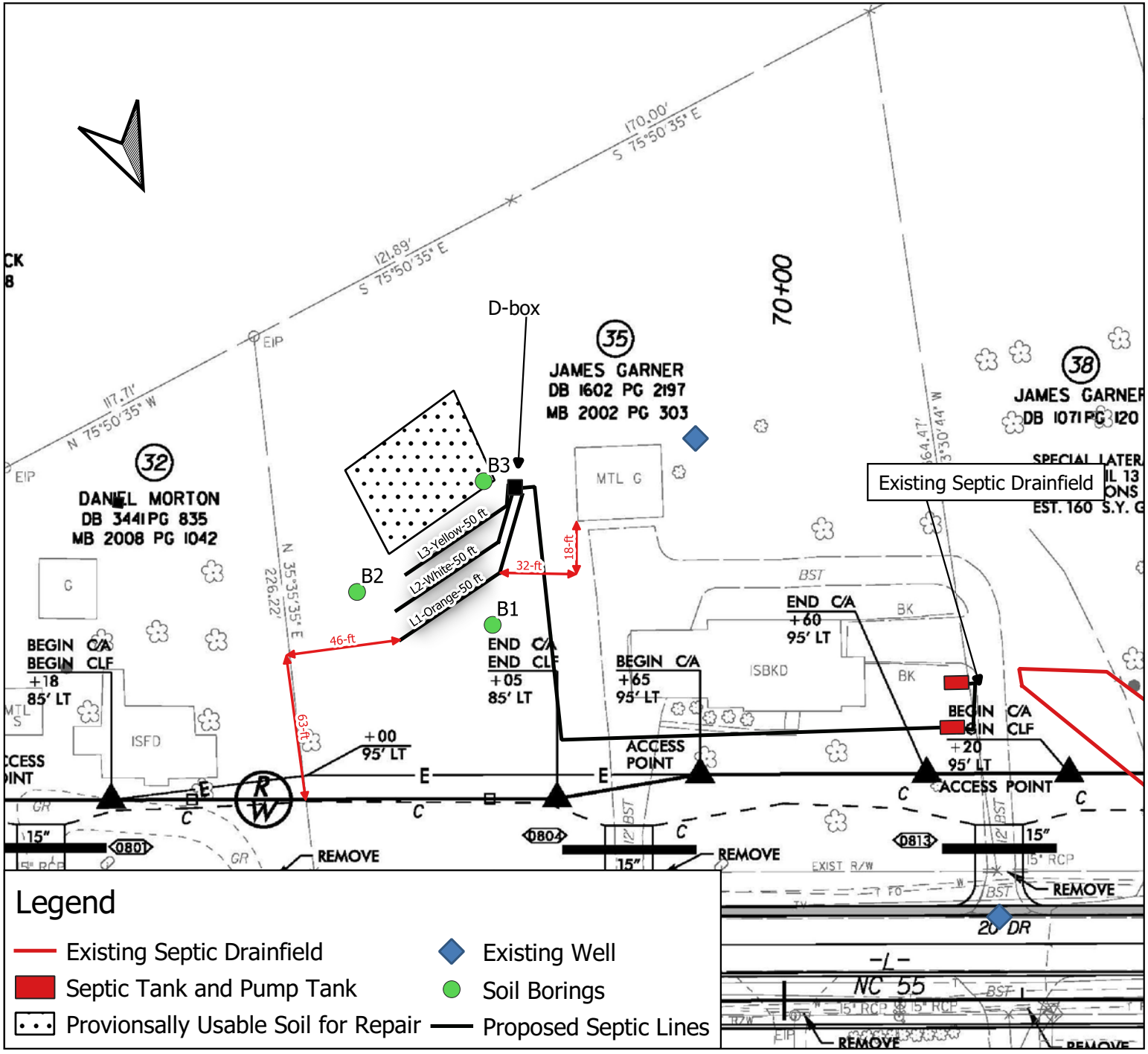
Initial System

Daily Design Flow:	360 GPD – 3-bedroom house
Septic Tank Size:	1,000 Gallons (minimum)
Pump Tank Size:	1,000 Gallons (minimum)
Effluent Loading Rate:	0.8 GPD per sq. ft.
Drainfield Type:	Gravel or Equivalent
Distribution Method:	Pump to d-box
Number of Drainlines:	(3) 3’ Wide x 50’ Long
Total Trench Length:	150 Linear Feet
Maximum Trench Depth:	20 inches
Final Cover Requirement:	6 Inches

Repair Specifics

Effluent Loading Rate:	0.8 GPD per sq. ft.
Drainfield Type:	Gravel or Equivalent
Distribution Method:	Pump to d-box
Total Trench Length:	150 Linear Feet
Maximum Trench Depth:	20 Inches
Final Cover Requirement:	6 Inches

Component	Relative Elevation
L1-Orange-50 ft	107.42
L2-White-50 ft	107.54
L3-Yellow-50 ft	107.65
Tank	100.00



Ground Truth Soil Consulting, PLLC

5005 NC 55 W
Angier, NC
PIN:
0682-57-3759.000

Soil and Site Evaluation

Harnett County

Scale:
1"= 60'

Figure
1

Date:
September
2021

GT Job
No.
21-148

LICENSED SOIL SCIENTIST
JOHN C. ROBERTS
1292
STATE OF NORTH CAROLINA

Parcel 035

Pump System Design Criteria

Mailing Address: 5005 HWY 55 Angier, NC 27501

D# : PIN: S/D: Lot#:

Site Address: 5005 HWY 55 Angier, NC 27501

Bedrooms: 3 Daily Flow: 360 gallons

Septic Tank: 1000 gallons Pump Tank: 1000 gallons

LTAR: 0.8 gpd/sqft Effective (trench) LTAR 0.8 gpd/sqft

Amt. of Drainline: 450 sqft or 150 linear ft

TRENCHES Length (ft): 150 Depth (in): 20 Stone Depth (in): 12

SUPPLY LINE Length (ft): 270 Diameter: 2" sch 40 pvc

CALCULATIONS:

minimum is Dose PRT 5 minutes if pumpir

Dose Volume (gal): 73 with Pipe Vol @ 75 Total Flow: 23 gpm

Dose Pump Run Time (min): 3.19 Daily Pump Run Time (min): 15.65

Drawdown: 73 gallons divided by 21 gal/ inch = 3.50 inches

Pump Tank Elevation(ft): 100 Pump Elevation (ft): 95

Friction Head (ft): 3.70 (supply line length + 70' for fittngs in pump tank)

Elevation Head (ft): 12.65

Total Head (ft): 16.35

Pump to Deliver: 23 gpm @ 16.35 ft head

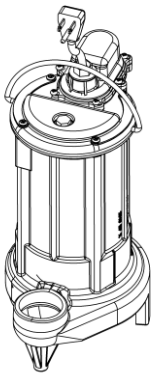
Simplex Control Panel (SJE Rhombus 112 or equal) with elapsed time meter, cycle counter, alarm, and pump on separate circuits is required. Floats to be determined by type of pump tank used.
A septic filter (Polylok PL-122 or equal) is required.

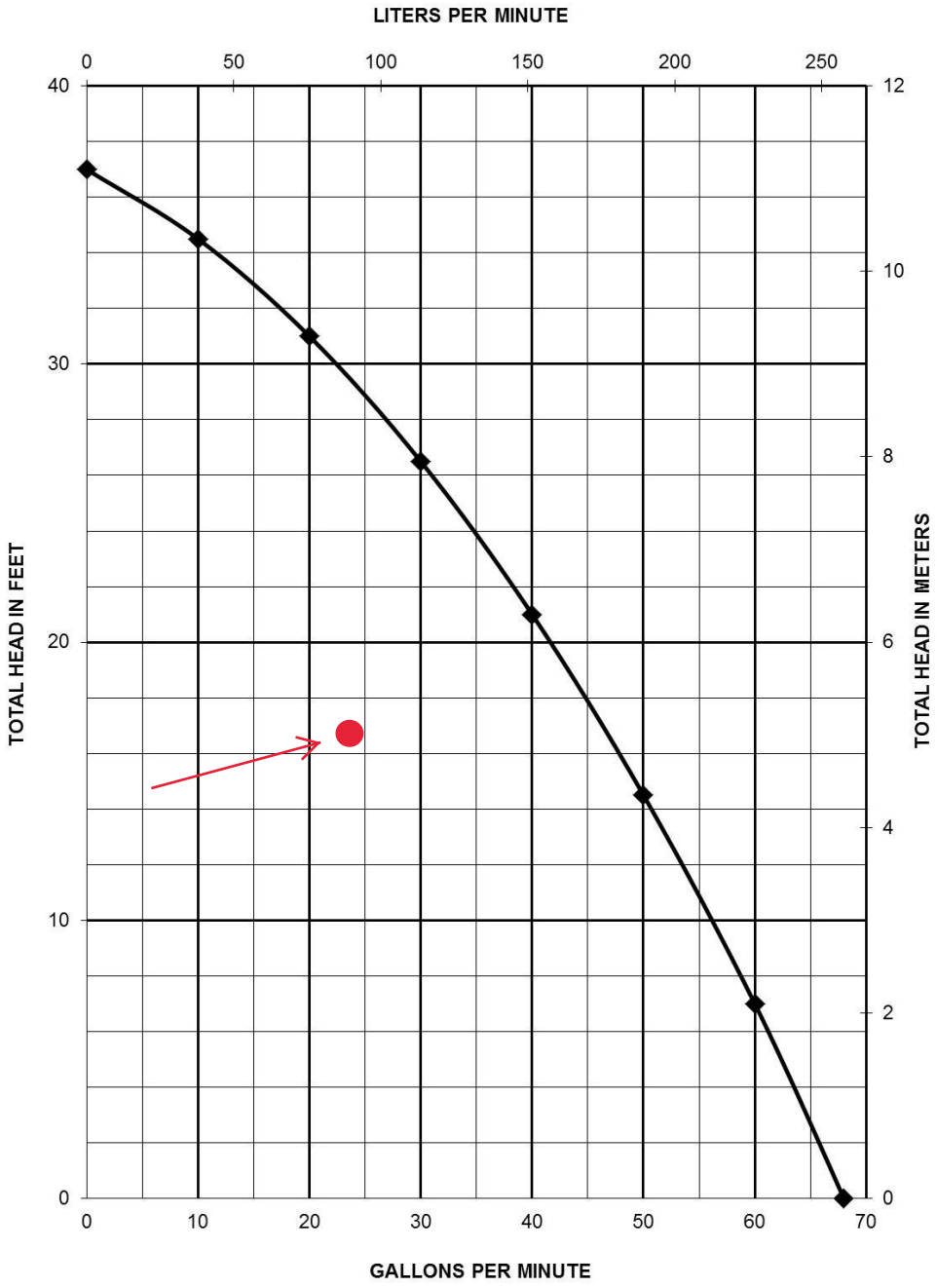
Possible Pumps Include:

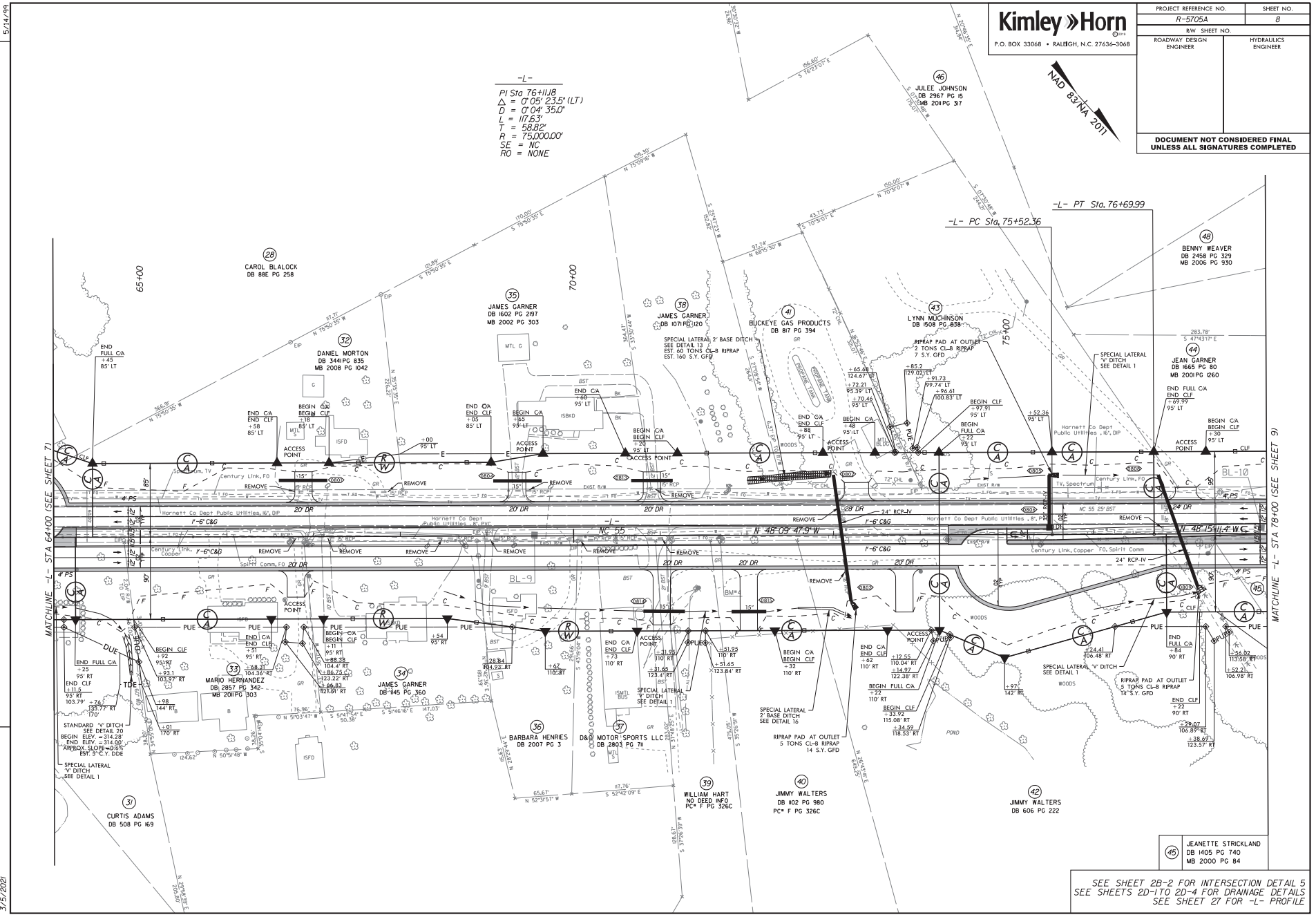
Liberty Pumps 280 Series 1/2HP or equivalent

Pump Specifications

280 Series 1/2 hp Submersible Effluent Pump






Kimley»Horn
P.O. BOX 33068 • RALEIGH, N.C. 27636-3068
PROJECT REFERENCE NO. R-5705A
SHEET NO. 8
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED
NAD 83/NA 2011
REVISIONS
5/14/99
3/5/2021
-L-
PI Sta 76+11.8
Δ = 0° 05' 23.5" (LT)
D = 0° 04' 35.0"
L = 117.63'
T = 58.82'
R = 75,000.00'
SE = NC
RO = NONE
-L- PT Sta. 76+69.99
-L- PC Sta. 75+52.36
MATCHLINE -L- STA 64+00 (SEE SHEET 7)
MATCHLINE -L- STA 78+00 (SEE SHEET 9)
65+00
70+00
75+00
(28) CAROL BLALOCK DB 88E PG 258
(32) DANIEL MORTON DB 3441 PG 835 MB 2008 PG 1042
(35) JAMES GARNER DB 1602 PG 2197 MB 2002 PG 303
(38) JAMES GARNER DB 1071 PG 120
(41) BUCKEYE GAS PRODUCTS DB 817 PG 394
(43) LYNN MUCHINSON DB 1508 PG 838
(46) JULEE JOHNSON DB 2967 PG 15 MB 2011 PG 317
(48) BENNY WEAVER DB 2458 PG 329 MB 2006 PG 930
(44) JEAN GARNER DB 1665 PG 80 MB 2001 PG 1260
(33) MARIO HERNANDEZ DB 2857 PG 342 MB 2011 PG 303
(34) JAMES GARNER DB 1145 PG 360
(36) BARBARA HENRIES DB 2007 PG 3
(37) D&D MOTOR SPORTS LLC DB 2803 PG 78
(39) WILLIAM HART NO DEED INFO PC* F PG 326C
(40) JIMMY WALTERS DB 1102 PG 980 PC* F PG 326C
(42) JIMMY WALTERS DB 606 PG 222
(31) CURTIS ADAMS DB 508 PG 169
(45) JEANETTE STRICKLAND DB 1405 PG 740 MB 2000 PG 84
NC 55
N 48° 09' 47.9" W
N 45° 15' 11.4" W
SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 13 EST. 60 TONS CL-B RIPRAP EST. 160 S.Y. GFD
RIPRAP PAD AT OUTLET 2 TONS CL-B RIPRAP 7 S.Y. GFD
SPECIAL LATERAL 'V' DITCH SEE DETAIL 1
RIPRAP PAD AT OUTLET 5 TONS CL-B RIPRAP 14 S.Y. GFD
SPECIAL LATERAL 2' BASE DITCH SEE DETAIL 16
STANDARD 'V' DITCH SEE DETAIL 20 BEGIN ELEV. = 314.28' END ELEV. = 314.00' APPROX SLOPE = 0.6% EST. 3 C.Y. DDE
SEE SHEET 2B-2 FOR INTERSECTION DETAIL 5
SEE SHEETS 2D-1 TO 2D-4 FOR DRAINAGE DETAILS
SEE SHEET 27 FOR -L- PROFILE