Onslow County Health Department
234 Northwest Corridor Blvd
Jacksonville, North Carolina 28540
Phone: (910) 938-5851 Fax: (910) 989-5819

IMPROVEMENT PERMIT

(GS 130A-336)

Permit No: **EIP2016-00265**

Category: Individual Dwelling

A building permit cannot be issued with only an Improvement Permit.

Expiration: Valid without expiration

Owner: COLLINS EARL W ESTATE & OTHERS

Address: 35 COLLINS DR MIDWAY PARK 28544 **SR #:**

Subdivision: COLLINS ESTATES **Lot:** 61 & 62 **Section:**2 **Phase:**

Block: **Part:** **System:** **Unit:** **Division:** **Tract:**

Location:

System Type/Description: III System in Fill

System Classification: b. Septic system with single effluent pump or siphon

System Info: 3 - 67' x 3' CONVENTIONAL LINES IN 24" AERIAL FILL (93' x 47') WITH PUMP AND MANIFOLD FOR INITIAL. EXEMPT FROM REPAIR.

Facility/Daily design flow: **3 BEDROOM/ <360 GPD**

LTAR: .6 gpd/sq. ft. **Water Supply:** Public

(SEE ATTACHED PAGES 1 - 8 of 8 FOR ADDITIONAL PERMIT CONDITIONS)

Signed By: Andrew Lake / Andrew M. Lake, REHS Date: 08/22/2016

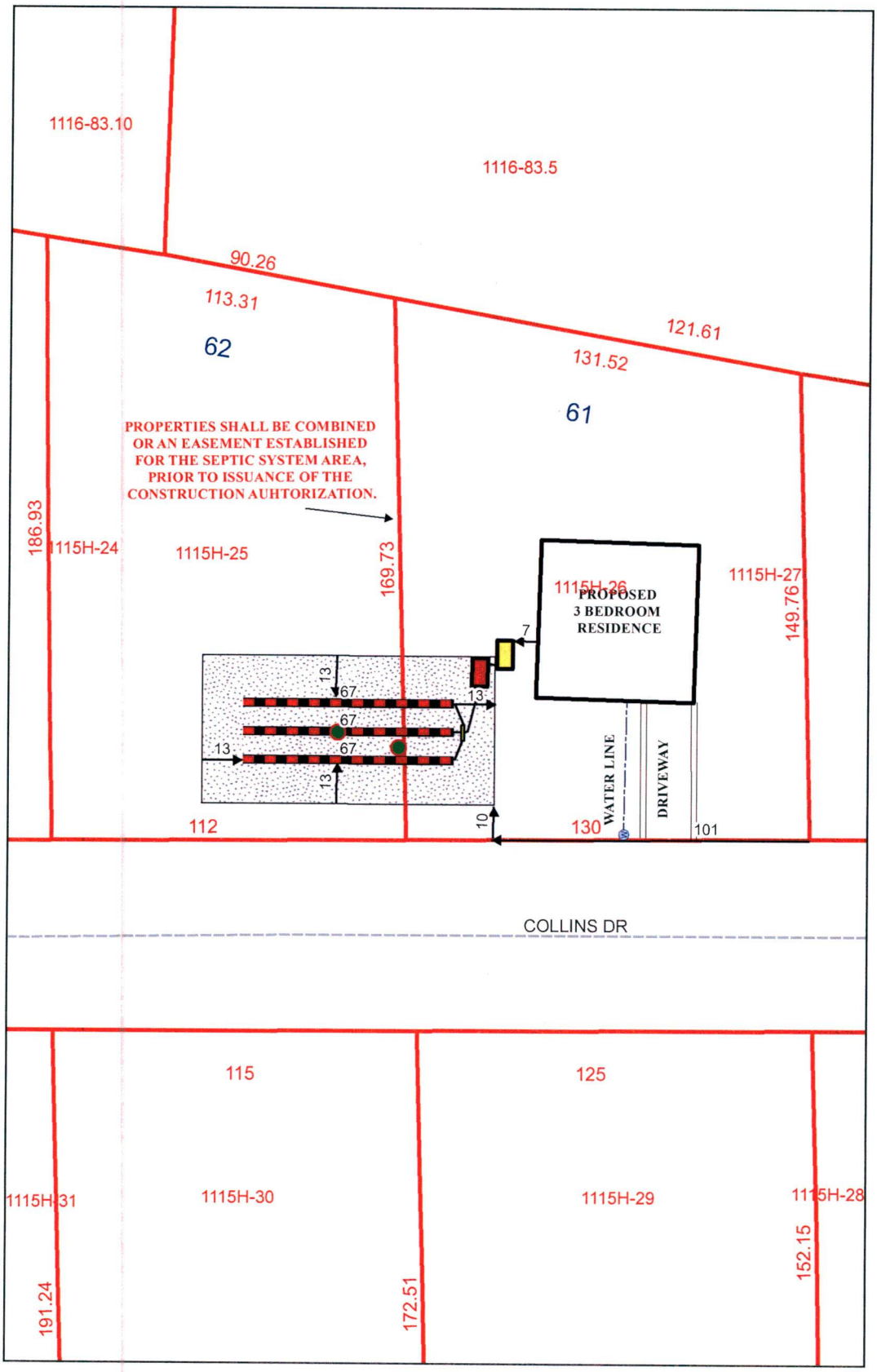
The issuance of this permit by the Onslow County Health Department in no way guarantees the issuance of other permits. The permit holder is responsible for checking with appropriate governing bodies in meeting their requirements. This permit is subject to revocation if the site plan, plat, or the intended use changes. This Improvement Permit shall not be affected by a change in ownership of the site. This permit is subject to compliance with the provisions of the Laws and Rules for Sewage Treatment and Disposal and to conditions of this permit.

Owner: Collins Estate
Address: Lot #61 & #62
Location: Jacksonville, NC

PLOT PLAN

1 inch = 50 feet

Addendum to permit # EIP2016-00265



Additional Permit Conditions:

1. Do not park or drive on any part of system or repair area.
2. Nitrification trench aggregate shall be covered with straw, untreated paper or other approved materials prior to final cover/backfilling.
3. Do not install system under wet conditions.
4. Adhere to minimum set back requirements as stated in Rule .1950 and .1951 of NC Laws and Rules for Sewage Treatment and Disposal System (Article 11, G.S. Chapter 130A) unless otherwise indicated on this permit.
5. Rock used in soil absorption systems shall be clean, washed gravel or crushed stone and graded or sized in accordance with size numbers 3, 4, 5, 57, or 6 of ASTM D-448 (standard sizes of coarse aggregate) whichis hereby adopted by reference in accordance with G.S. 150 B-14 (c). Documentation of aggregate size shall be available upon request.
6. All pump tanks shall be tested for water tightness. Septic tanks may be subject to a water tightness test.
7. The septic tank is designed to receive sewage or wastewater under gravity flow. However, if a system subject to the N.C. Plumbing Code is used to pump raw sewage to the septic tank, the sewage shall be reduced to gravity/non-turbulent flow by approved means at the inlet of the septic tank.
8. An accepted wastewater system may also be installed in accordance with the accepted wastewater system approval. (Maximum LTAR of 1.0 gpd/ft2)
9. Run lines parallel to contour. System components represent approximate contours only. The contractor must flag the system prior to beginning the installation to insure that proper grade is maintained.
10. A recorded plat or deed and corresponding map shall be submitted to the Environmental Health Section of the Onslow County Health Department PRIOR TO the issuance of the Construction Authorization.
11. An APPROVED stormwater plan shall be submitted to the Environmental Health Section of the Onslow County Health Department PRIOR to issuance of a Construction Authorization.
12. FOR DWELLING UNIT WASTEWATER SYSTEMS ONLY – This wastewater system is designed only for the number of bedrooms shown as bedrooms or sleeping rooms on the building/floor plan approved by Onslow County Code Enforcement. No other room or space may be relabeled as a bedroom, used as a bedroom, or converted into a bedroom without prior approval from Onslow County Environmental Health.

SYSTEM DESIGN

# BEDROOMS/ GPD:	3 Bedroom/ <360 GPD
SYSTEM TYPE:	IIIb - Conventional Fill w/ Pump
% REDUCTION:	N/A
LTAR:	.6
SQ. FT.	600
LINEAR FEET	200
# OF LINES:	3
LENGTH EACH LINE:	67'
TRENCH BOTTOM:	16" Above Original
TRENCH WIDTH:	3 FEET
FEET ON CENTER(LINES)	9 FEET
REPAIR AREA:	Exempt from Repair

WARNING:THIS IS NOT A SURVEY!

This map is prepared for the inventory of real property found within this jurisdiction, and is compiled from recorded deeds, plats, and other public records and data. Users of this map are hereby notified that the aforementioned public primary information sources should be consulted for verification of the information contained on this map. The County and mapping company assume no legal responsibility for the information contained on this map.

Owner: COLLINS ESTATES
Address: LOT #61 : #62
Location: OFF ROCKY RUN ROAD

FILL SYSTEM DETAIL SHEET

I. Specifications

A. Site

1) Wastewater flow 360 gpd
2) Soil texture group II
3) LTAR 0.6 gpd/sq. ft.

B. Trenches

1) Trench Bottom 600 sq. ft.
2) Trench Width 3 ft.
3) Trench Length 200
4) Number of Trenches 3
5) Length of Each Trench 67

C. Fill

1) Length of Fill 93 ft.
2) Width of Fill 47 ft.
3) Total Fill Area 4,371 sq. ft.
4) Depth of Sand 18 in.
5) Depth of Cover 6" in.

*[The outside edge of any trench shall be at least 5 feet from the top of the side slope of the fill.]

II. Site Preparation

A. Place flags at the 4 corners of the fill area as designated on page 1 of 8 of the Improvement Permit. Failure to place fill in the permitted area may result in the fill having to be moved or the permit revoked.

B. Do not work when the site is wet. Working on soil when wet can destroy soil structure.

C. Remove all above ground vegetation and root mat from area to be filled without removing topsoil. Removal of soil can result in revocation of the permit.

D. Disk the area to be filled to a depth of 6 inches to break up root mat.

III. Placement of Fill

A. Add 3 to 4 inches of approved sand fill to area and disk again to thoroughly mix the original soil and the fill. Approved sand fill is a sand or loamy sand.

B. Add more sand fill to achieve a uniform height of 18" (see ID on diagram) in the middle of the fill area.

C. The fill shall be tapered from the top edge of the fill to the ground surface 2 feet from the boundary of the fill area. The top edge of fill is located 5 feet from the proposed trenches.

D. X Contact Health Department for inspection of fill after owner or owner's legal representative has submitted an application for a Construction Authorization.

_____ Contact Health Department for inspection of fill prior to installing nitrification trenches if Construction Authorization has already been issued.

IV. Final Landscaping of Fill System:

A. The fill must be shaped to shed surface water and shall be stabilized with grass or other suitable cover to prevent erosion.

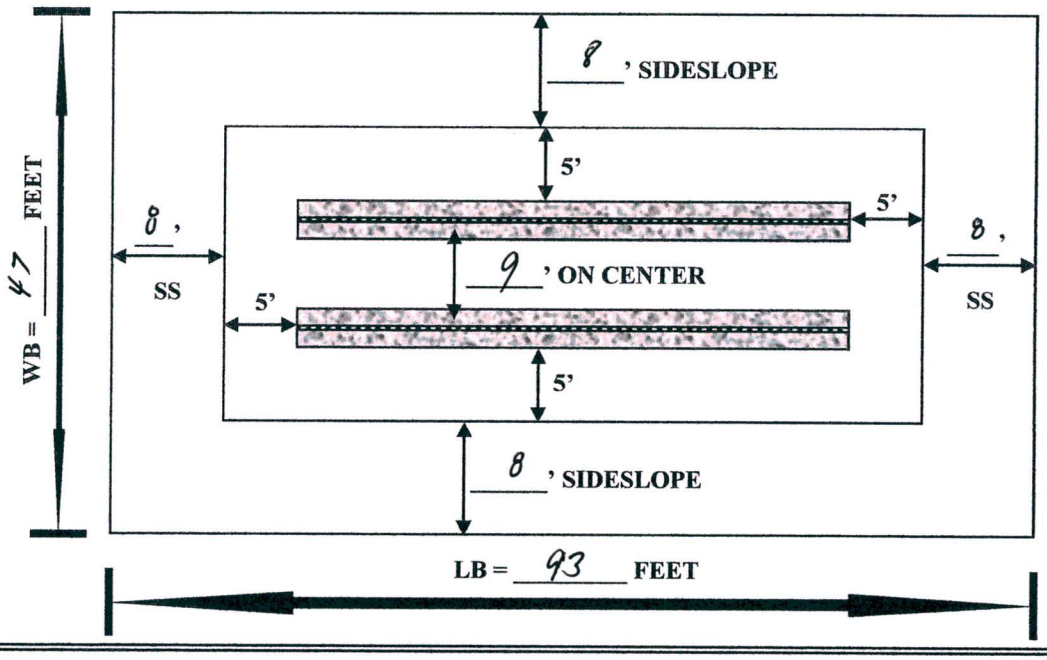
B. Vegetation must be maintained once established. Grass must be mowed.

C. Additional fill beyond what has already been specified may be necessary to cover and landscape around the septic tank.

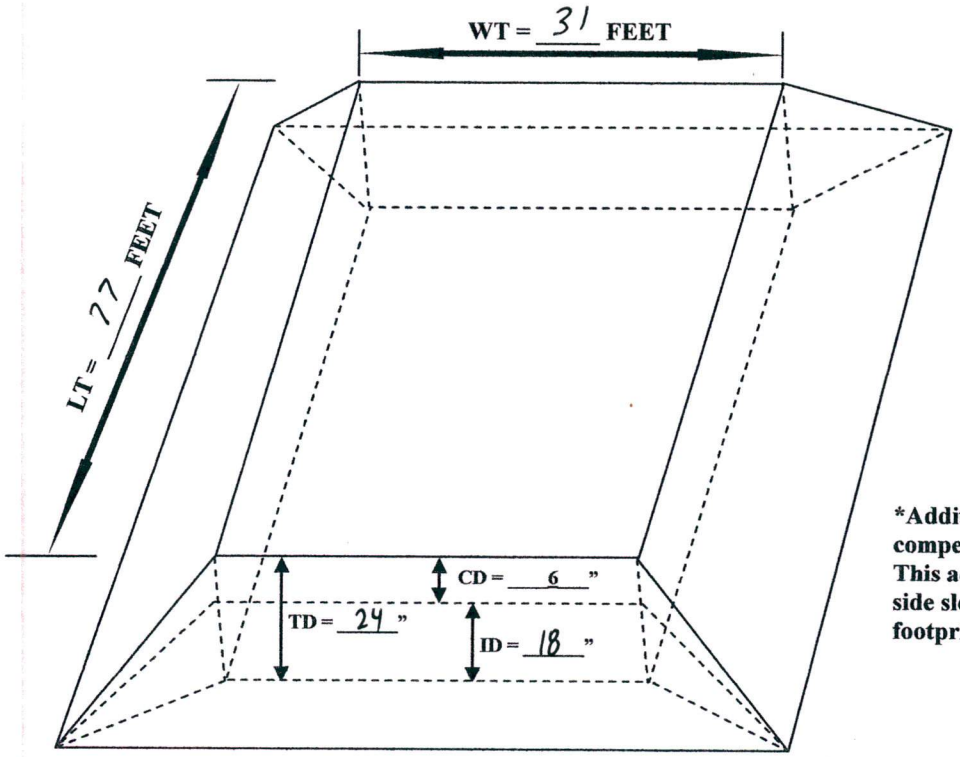
D. Call the Health Department for inspection after landscaping has been completed. The Operation Permit allowing use of the system will be issued at that time.

FILL SYSTEM DETAIL

PLAN VIEW



CROSS SECTION VIEW



WB = WIDTH OF BOTTOM
LB = LENGTH OF BOTTOM
SS = SIDESLOPE
WT = WIDTH OF TOP
LT = LENGTH OF TOP
ID = INITIAL DEPTH
CD = COVER DEPTH
TD = TOTAL DEPTH

*Additional fill may be needed to compensate for changes in elevation. This additional fill will require larger side slopes and, therefore, a larger footprint.

Tank Water Tightness Testing Procedures

I. Leak Testing Procedures:

1. The tank shall be set and leveled. The tank hole may be backfilled to a point below the midseam of a two piece tank or to the midpoint of a one-piece tank. If site conditions do not allow the tank hole to be left open or if you choose not to leave the tank hole open, the tank shall be leak tested onsite prior to placement in tank hole.

2. The manhole riser(s) (if applicable) shall be attached to the tank according to state approved plans.

3. The tank shall be filled with water 2" above the seam where the manhole riser is connected to the top of the tank, or to a point level with the top of the tank in both manholes if riser(s) are not required. It is strongly recommended to perform the leak test prior to removing any tank block out (placing any pipes into/out of the tank). If tank block outs have been removed and pipe has been installed it will be necessary to block or plug the inlet and outlet pipe to prevent flow from these pipes. It may also be necessary to place mastic around the bevel of the inlet manhole and weight the lid down to prevent leakage.

4. After filling and allowing for the concrete to absorb water (about 24 hours) add any additional water needed to get water level back to the starting level.

5. Contact the Onslow County Health Department to conduct the test. The test will take a minimum of 24 hours and will not be conducted Friday or the day prior to a Holiday.

6. Only after the completion of a satisfactory leak test will the tank be approved for use.

II. Vacuum Testing Procedures (concrete tanks only):

1. The tank shall be set and leveled. The tank hole may be back filled to a point below the midseam of a two piece tank or to the midpoint of a one piece tank. If site conditions do not allow the tank hole to be left open or if you choose not to leave the tank hole open, the tank shall be leak tested on site prior to placement in tank hole.

2. The manhole riser(s) (if applicable) shall be attached to the tank according to state approved plans.

3. The tank shall be vacuum tested as per the following:

Inches of Mercury	Duration
5"	2 Min.

($\leq$ 10% pressure drop / $\leq$ .5 inch loss of mercury shall constitute an acceptable test)

4. Onslow County Health Department representative shall be present during vacuum testing procedure.

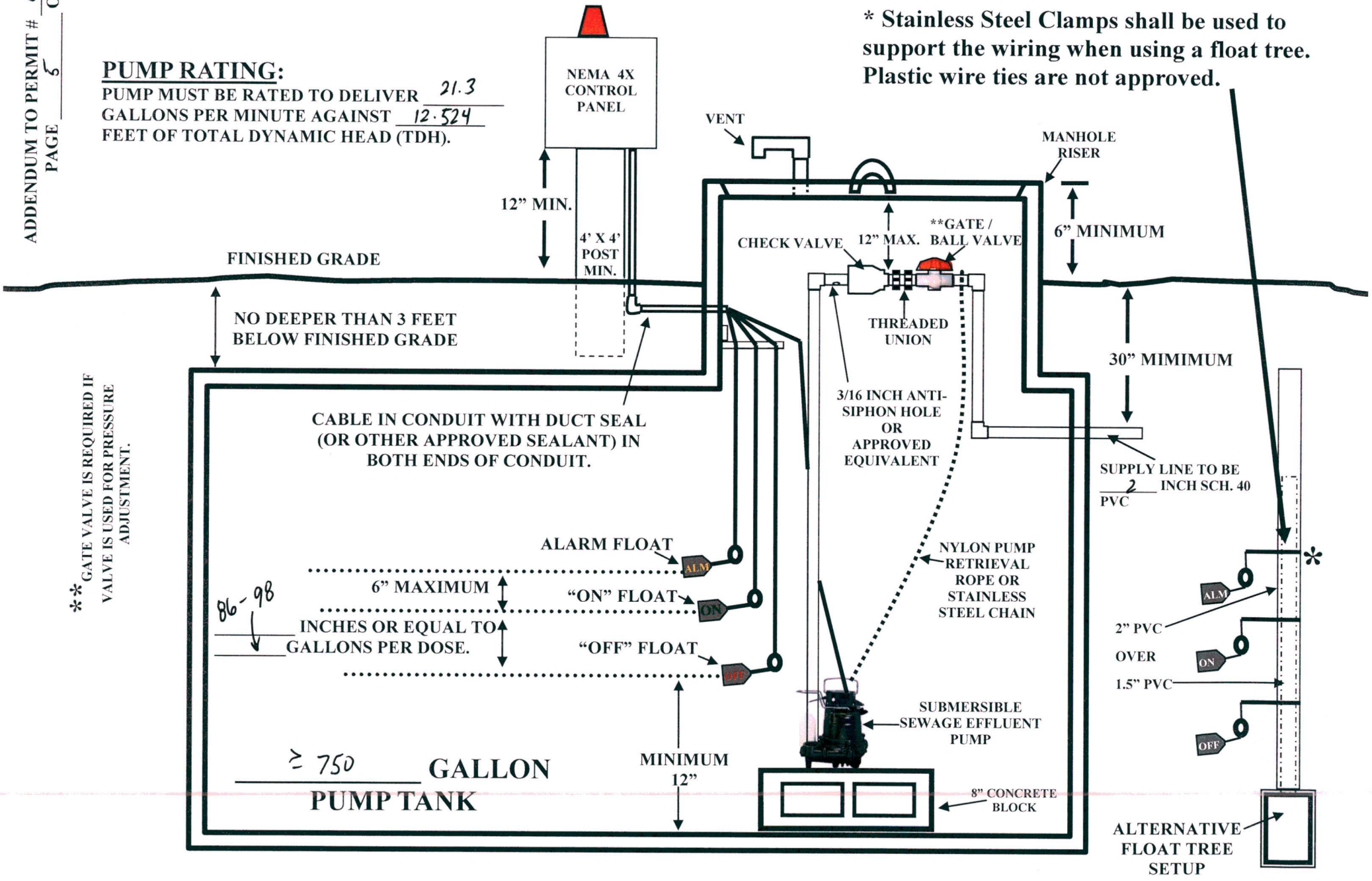
5. Only after the completion of a satisfactory vacuum test will the tank be approved for use.

ADDENDUM TO PERMIT # ETP2016-00265
PAGE 5 OF 8

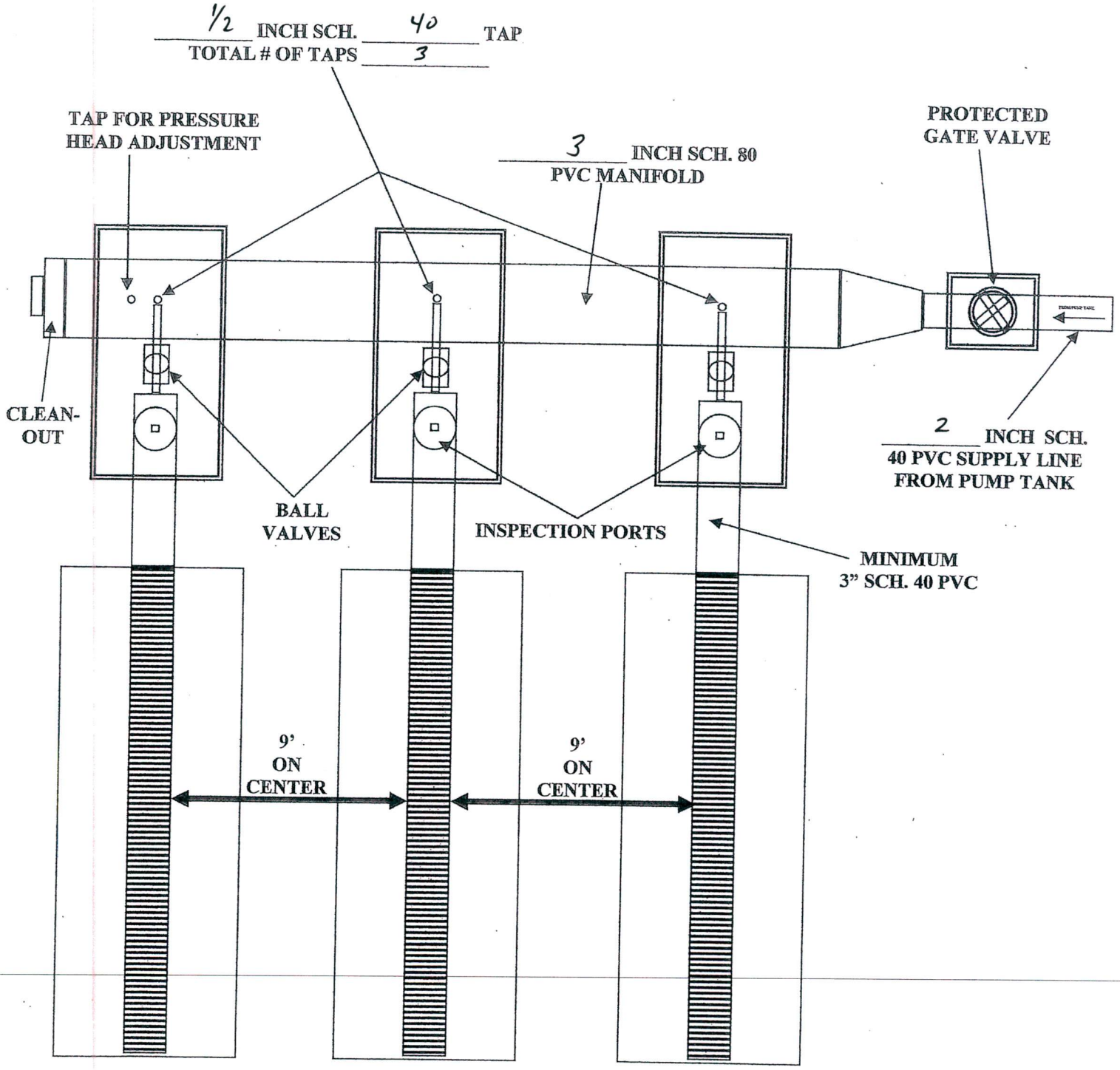
PUMP SYSTEM DETAIL SHEET

PUMP RATING:
PUMP MUST BE RATED TO DELIVER 21.3 GALLONS PER MINUTE AGAINST 12.524 FEET OF TOTAL DYNAMIC HEAD (TDH).

* Stainless Steel Clamps shall be used to support the wiring when using a float tree. Plastic wire ties are not approved.



MANIFOLD FOR LEVEL SITES



-PRESSURE HEAD TO BE SET AT 2 FEET.
-MANIFOLD SHALL BE INSTALLED LEVEL.
-CLEANOUT PLUG MAY BE ADAPTED TO ACCOMMODATE A STAND PIPE FOR PRESSURE HEAD ADJUSTMENT.

Additional Specifications

1. There shall be no splices in any electrical cable within the pump chamber.

2. Pump and alarm must be on two separate live electrical circuits which operate independently of each other.

3. If the pump manufacturer specifies that the "pump off" level be below the top of the pump, the follow the manufacturer's specifications and adjust the floats accordingly.

4. Contact the Onslow County Electrical inspector for release of Temporary Full Service and be sure service is available prior to contacting the Onslow County Health Department for an inspection.

5. Check valves shall be mounted horizontally and such that a siphon breaker hole can be drilled on the pump side of the valve.

6. Only those tanks specifically approved by the State of North Carolina and appropriately stamped shall be used for pump tanks. Modified septic tanks shall not be approved.

7. This permit is valid only for that shown on the attached plot plan, these specifications, and related paraphernalia approved by the Onslow County Health Department.

8. A complete and approved installation is required for this permit to continue to be valid beyond five years elapsed time from the date of issuance.

9. This permit is valid subject to all conditions so noted on this permit, the operations permit, the approved plans and specifications, and any written correspondence that may specify a condition or requirement.

10. This permit is valid only for as long as it meets all requirements of G.S. Chapter 130A Article 11 and related portions of NC Administrative Code.

11. No driving or parking shall be allowed over any portions of the system or repair area unless specifically approved elsewhere in this permit.

12. System operation, maintenance, and repairs shall be the responsibility of the land owner as named on this permit.

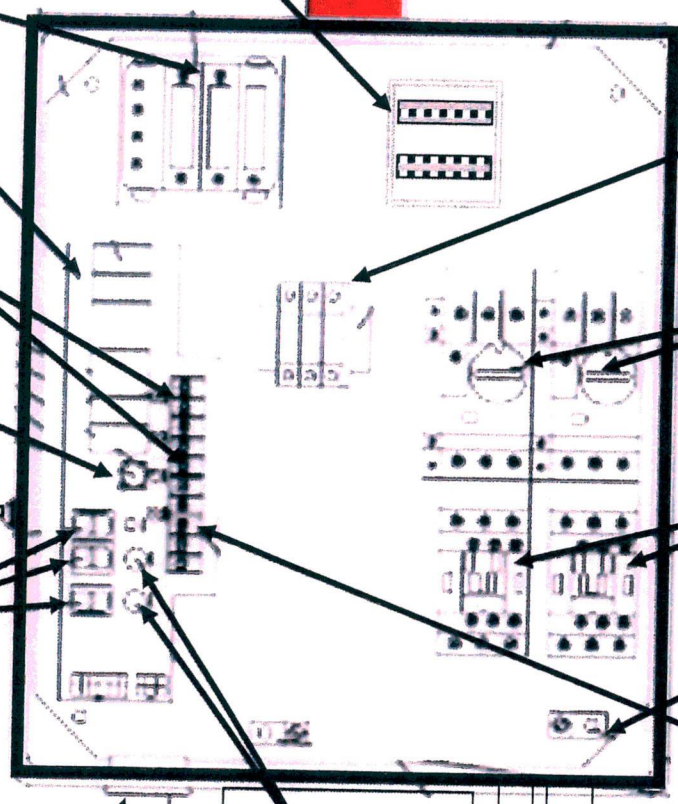
13. This permit shall not be transferred, nor shall any changes of use occur, without prior approval by the Onslow County Health Department.

14. The pump curve for the effluent pump installed shall be available during system inspection.

15. Paperwork confirming that the electrical enclosure used is NEMA 4X rated shall be available during system inspection. (Paperwork is not necessary if NEMA 4X rated is clearly marked on the enclosure.)

CONTROL PANEL DETAIL

(NOT A WIRING DIAGRAM! CONSULT AN ELECTRICIAN)



NOTES:

1) Panel must be in a NEMA 4X, watertight, corrosion resistant enclosure and located above 100-year flood.
2) Two separate circuits must be supplied from the main house electrical panel--one circuit for the pumps and pump controls and one circuit for the high-water alarm.
3) Panel must be U.L. listed and include a pump run light and hand-off-automatic (H-O-A) switch. The panel should also include an elapsed time clock and cycle counter.
4) An audible and visible high-water alarm shall be provided.