

Environmental Services - Water Quality  
Onsite Wastewater Scan Data Entry Form

PERMIT #: 0029101

PIN #: 1822826521

OP DATE: 07/16/2004

SYSTEM USE:

- House
- Mobile Home
- Business
- Other

SEWAGE TYPE:

- Domestic
- Industrial

PUMP/SIPHON?:

- Yes
- No

PRESSURE MANIFOLD:

- Yes
- No

SYSTEM TYPE:

- I
- II
- III
- IV
- V
- VI
- Other

SUB TYPE:

- A
- B
- C
- D
- E
- F
- G

NBR BEDROOMS:

- 1
- 2
- 3
- 4
- 5
- 6
- Other

MAINT. SCHEDULE:

- Yes
- No

CERT. OPERATOR

- Yes
- No

GT ST PT

- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

SIZE

- 750
- 900
- 1,000
- 1,200
- 1,500
- 1,800
- 2,100
- 2,500
- 3,000
- 4,000
- 5,000
- 8,000
- 10,000
- Other
- None/NA GT or PT

DRAINFIELD SIZE(SQ. FT.)

01260

DRAIN TYPE:

- Stone
- EZ Flow
- Infiltrator
- Biodiffuser
- Cultec
- Drip
- Hancor
- Large Dia. Pipe
- Multi-Pipe
- Other

MAX DEPTH (IN.):

- 12 in. or less
- 18 in. or less
- 24 in. or less
- 26 in. or less
- 28 in. or less
- 30 in. or less
- 32 in. or less
- 36 in. or less
- Other

STONE DEPTH (IN.):

- 8 in. or less
- 12 in. or less
- 18 in. or less
- 24 in. or less
- Other

TRENCHES:

- Individual
- Bed

TRENCH WIDTH (IN.):

- 12 in. or less
- 18 in.
- 24 in.
- 36 in.
- 6 ft. or less
- 9 ft. or less
- Other

**WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES WELL AND SEWAGE SITE LOCATION PERMIT**  
 NO PERMIT(S) FOR CONSTRUCTION, LOCATION OR RELOCATION ACTIVITY SHALL BE ISSUED  
 UNTIL AN AUTHORIZATION FOR WASTEWATER SYSTEM CONSTRUCTION HAS BEEN ISSUED  
**\*PERMIT VOID IF NOT IN COMPLIANCE WITH ZONING REGULATIONS AND/ OR IF SITE IS ALTERED OR INTENDED USE CHANGED\***

PERMIT#: **D029101** STATUS: **A** APP. DATE: **01/05/2004** BLDG. PERMIT#: **0041844**  
 PIN: **1822.04 82 8698 000** TAX MAP: **0182 0048** RECORDED: **Y** ORIG. PERMIT#: \_\_\_\_\_  
 TOWNSHIP: **14 NEW LIGHT** JURISDICTION: **WC** ZONING: **40W**  
 APPLICANT: **HUNTLEY DESIGN BUILD**  
**2430 MEDWAY DR**  
**RALEIGH, NC 27608**  
**(919) 838 - 9589**  
 USE: **HD USE: 101 ONE-FAMILY HOUSE**  
 EXIST USE: \_\_\_\_\_  
 DISPOSAL: **BEDROOMS: 4 BASEMENT: N #EMPLOYEES: 0**  
 SITE: **ADDRESS: 1916 PLEASANT FOREST WAY**  
**SUBDIVISION: GALLOWAY LOT: 22 ACRES: 1.31**  
 DIRECTION: **US1N TO HWY 98 RIGHT OFF CAMP KANATA RD SUB IS**  
**2MI ON R**

*PCNA 1922826521*

**Well System: WATER: COMMUNITY - TYPE:**

WELL LOG INFORMATION: DEPTH: \_\_\_\_\_ CASING DEPTH: \_\_\_\_\_ YIELD: \_\_\_\_\_ STATIC LEVEL: \_\_\_\_\_  
 WELL CONTRACTOR: \_\_\_\_\_ REG.# \_\_\_\_\_ PUMP CONTRACTOR: \_\_\_\_\_ REG.# \_\_\_\_\_  
 Construction Compliance GROUT APPROVED  DATE \_\_\_\_\_ EHS \_\_\_\_\_  
 WELLHEAD APPROVED  DATE \_\_\_\_\_ EHS \_\_\_\_\_  
 SYSTEM FINALIZED  DATE \_\_\_\_\_ EHS \_\_\_\_\_

COMMENTS: **COMMUNITY WATER.**

**Operation Permit**

DESIGN FLOW: **36.14 gal./min.** ACTUAL FLOW: \_\_\_\_\_ INNOVATIVE LETTER: **R**

INSTALLED BY: *DUNCAN TRUSTADT* INSTALLATION APPROVED BY: *Alan C. Shuman/Ren PS*  
 PROPRIETARY SYSTEM: **E E-Z LAY PIPE** FILTER NO: \_\_\_\_\_

OPERATIONS PERMIT ISSUED?  OP DATE: *07/16/04* BY: *Alan C. Shuman/Ren PS*

This permit is based in part on information provided by the homeowner 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 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.

**As Built Information:**

Date: *1/16/04* Benchmark: *S.I.* Rod reading: *4' 10 1/2"* Distance to Structure: *18'*  
 ST: *1200* gals ID#: *D B 34* D.O.M.: *6-10-04* Elev.: *4' 10 1/2"* Distance to Well: \_\_\_\_\_  
 PT: *1200* gals ID#: *D B 463* D.O.M.: *5-15-04* Elev.: \_\_\_\_\_  
 D-box/FD/EM elev.: \_\_\_\_\_ Supply Line: *200* ft. Pump/Control Panel: \_\_\_\_\_

60'	Line 1: <u><i>6' 6 1/4"</i></u>	_____	_____	Date: <u><i>7/16/04</i></u>
70'	Line 2: <u><i>7' 1 1/4"</i></u>	_____	_____	Date: _____
65'	Line 3: <u><i>5' 9"</i></u>	_____	_____	Date: _____
65'	Line 4: <u><i>6' 9 1/4"</i></u>	_____	_____	Date: _____
40'	Line 5: <u><i>7' 3 1/4"</i></u>	_____	_____	Date: _____

Distance to P/L: \_\_\_\_\_ Notes: *Tanks checked by Eric Gorden. Asked Duke about drain lines.*

*HAD TO MOVE LASER. 9" of TOWER. Supply lines checked / 98% system done*

30' LEVEL: *9'*

*Pump final  
system final.*

*10.26*

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PERMIT#: D029101 STATUS: A APP. DATE: 01/05/2004 BLDG. PERMIT#: 0041844  
PIN: 1822.04 82 8698 000 TAX MAP: 0182 0048 RECORDED: Y ORIG. PERMIT#:  
TOWNSHIP: 14 NEW LIGHT JURISDICTION: WC ZONING: 40W  
APPLICANT: HUNTLEY DESIGN BUILD  
2430 MEDWAY DR  
RALEIGH, NC 27608  
(919) 838-9589  
USE: HD USE: 101 ONE-FAMILY HOUSE  
EXIST USE:  
DISPOSAL: BEDROOMS: 4 BASEMENT: N #EMPLOYEES: 0 FOUND DRAIN: N  
SITE: ADDRESS: 1916 PLEASANT FOREST WAY  
SUBDIVISION: GALLOWAY LOT: 22 ACRES: 1.31  
DIRECTION: US1N TO HWY 98 RIGHT OFF CAMP KANATA RD SUB IS  
2MI ON R

**IMPROVEMENT PERMIT**

TANK SIZE: 1200 gal. PUMP Tank: 1200 gal. SQ FT: 1260 INNOVATIVE MAX DEPTH LINE: 20 in.  
WASTEWATER: INDIVIDUAL SEWAGE: DOMESTIC TYPE SYSTEM: III G PUMP: Y P/M: Y  
DAILY FLOW: 480 gal/day DESIGN FEE REQ?: Y PAID?: Y WATER: COMMUNITY

COMMENTS: PERMIT REQUIRES USE OF PRESSURE MANIFOLD DOSING UNEQUAL LENGTH LINES OF INNOVATIVE DRAINFIELD PRODUCT WITH ITS 25% REDUCTION ALREADY CALCULATED INTO THE DESIGN. THE REPAIR SYSTEM HAS THE SAME REQUIREMENTS, EXCEPT WILL REQUIRE THE USE OF 2 MANIFOLDS. SEE CA COMMENTS FOR FURTHER DETAILS.

IP ISSUED? Y DATE: 02/27/2004 BY: (SFM) *Ed Duff* PHONE#: 856-5706

**AUTHORIZATION FOR WASTEWATER/WATER SYSTEM CONSTRUCTION  
VOID SIXTY (60) MONTHS FROM DATE OF ISSUANCE  
AUTHORIZATION CONDITIONS:**

Contractors shall install system on contours, see attached site plan for wastewater system design and well location. No underground utilities, water lines or sprinkler systems may be located in the original system or repair areas. A septic tank filter with a riser 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 an Operation Permit issued. **OTHER CONDITIONS:**

REFER & ADHERE TO ATTACHED APPROVED PLANS, SPECIFICATIONS & ALL REGULATORY SETBACKS. IF SYSTEM FLAGGING IS MISSING, BUILDER MUST HAVE DESIGNER REFLAG SYSTEM BEFORE CONTRACTOR STARTS THE INSTALLATION. SYSTEM & REPAIR AREAS MUST BE PROTECTED FROM GRADING & TRAFFIC BY "FENCING". A SIMPLEX CONTROL PANEL WITH 2 BREAKERS FOR THE SEPARATE POWER SUPPLIES, ELAPSED TIME METER & CYCLE COUNTER ARE REQUIRED. SEE THE CA SITE PLAN ALONG WITH THE APPROVED PLANS FOR FURTHER DETAILS. SUPPLY LINE MUST BE SLEEVED IN SMOOTH WALL CORRUGATED D.O.T. APPROVED PIPE WHEN IT CROSSES BUFFER. SLEEVING MUST BE BURIED >36" DEEP. CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION MEETING BEFORE STARTING ANY WORK! NO FOUNDATION DRAINS CAN BE USED!

TANK SIZE: 1200 gal. PUMP TANK: 1200 gal. SQ FT: 1260 INNOVATIVE MAX DEPTH LINE: 20 in.  
MAINT: N OPER: N L/O: P TRENCH#: 6 LENGTH: 420 ft. WIDTH: 36 in. DESIGNER: S&EC, PA  
# SUBFIELDS: 1 DESIGN HEAD PRESSURE: 2 DESIGN FLOW: 36.14 gal/min DOSE VOLUME: 200 gal.

CA ISSUED? Y DATE: 03/12/2004 BY: (ETD) *Ed Duff* PHONE#: 856-7436

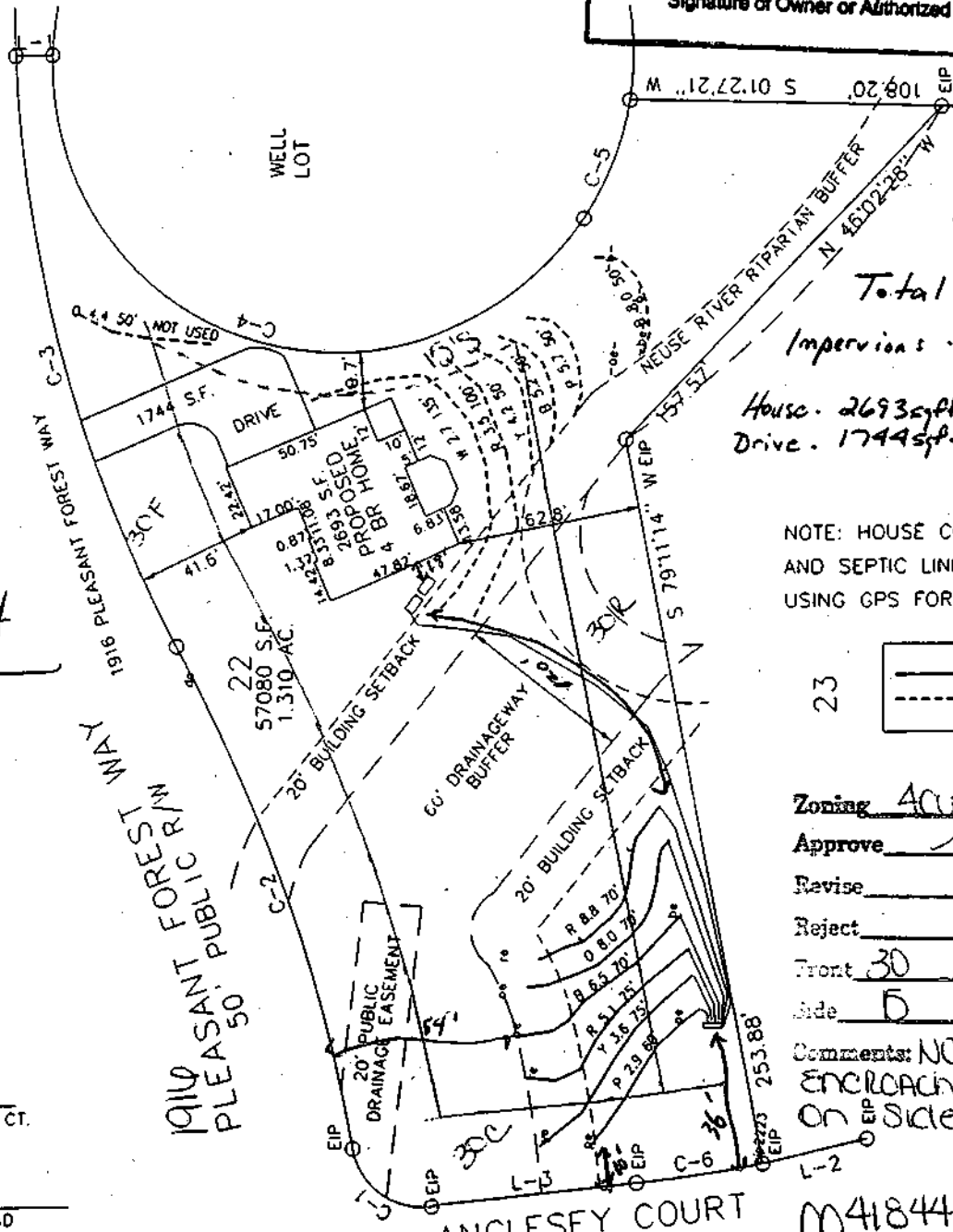
NORTH BOM 2002 PG 1634 WCR

I certify that the location of planned or existing structure(s) are accurately shown. I understand failure to locate structures in accordance with this plot plan may require the relocation of structure(s) regardless degree of completion. I hereby grant permission to Municipal/County Representatives the right of entry to make evaluations or inspections upon this property.

*Will H. Co*  
Signature of Owner or Authorized Agent

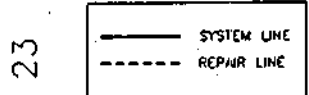
TOWNSHIP: NEW LIGHT ZONE: R  
LOT 22 KANATA ROAD  
AS RECORDED IN B.O.M. 2002 PG. 1634

*As Bui H*



Total - 57080 SF  
Impervious - 4437 SF  
OR  
House - 2693 sqft 7.8%  
Drive - 1744 sqft.

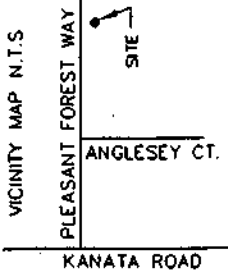
NOTE: HOUSE CORNERS, DRIVE AND SEPTIC LINES WERE LOCATED USING GPS FOR ACCURACY.



Zoning Acw1 By SIC  
Approve  Date 15.03  
Revise \_\_\_\_\_ Use 101  
Reject \_\_\_\_\_ MBL  
Front 30 Rear 30  
Side 0 Corner \_\_\_\_\_

Comments: NO ENCROACHMENT ON SIDE SETBACK  
1" = 60'

0041844  
D29101



Pin: 1822 0482 8198

PROJECT NO. B327 S-1	SCALE 1" = 60'	SHEET TITLE: SEPTIC SYSTEM LAYOUT
PROJECT MGR. RP	FIELD WORK MC	PROJECT NAME: HUNTLEY DESIGN BUILDERS - GALLOWAY LOT 22 - WAKE COUNTY, NORTH CAROLINA DECEMBER 2003
DRAWN BY MC		
FILE \\SEC\SECFILES\B327\LAYOUI.DWG		



**Soil & Environmental Consultants, PA**  
11010 Raven Ridge Road • Raleigh, North Carolina 27614 • Phone: (919) 846-5900 • Fax: (919) 846-9467  
www.SendHC.com



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Attached is a proposed design for a Pressure Manifold Septic System for a 4 bedroom house, located at 1916 Pleasant Forest Way, Galloway Subdivision Lot 22, Wake Co., NC

<u>Contents:</u>	<u>Page</u>
Information for the Installer -----	1
Design Specifications-----	2 - 5
Site Plan-----	6 - 7
Septic Tank Diagram-----	8
Pump Tank Diagram -----	9
Pressure Manifold Diagram-----	10
Control Panel Specifications-----	11 - 14
Pump Specifications-----	15 - 16
Nitrification Trench Detail -----	17
<input type="checkbox"/> APPROVED Repair Site Plan -----	18
<input checked="" type="checkbox"/> APPROVED AS NOTED	
<input type="checkbox"/> DISAPPROVED	
Repair Tap Sheet-----	19

Review of this document has been made only for conformance with the design concept of the project and approval or approval as noted shall not relieve the designer and/or contractor from responsibility for any errors therein or for furnishing the materials, and equipment of proper dimension, size, quantity, quality and all performance characteristics to meet the requirements and intent of the contract documents.

WAKE COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES

Date 3/12/04 By [Signature]

Charlotte Office:  
236 LePhillip Court, Suite C  
Concord, NC 28025  
Phone: (704) 720-9405

Greensboro Office:  
3817-E Lawndale Drive  
Greensboro, NC 27455  
Phone: (336) 540-8234

Hickory Office:  
622 Coon Mountain Lane  
Taylorsville, NC 28681  
Phone: (828) 635-5820

**PRESSURE MANIFOLD SYSTEM  
FOR WASTEWATER TREATMENT**

**Client's name:** HUNTLEY DESIGN BUILDERS **Phone** 427-6042  
**Mailing address:** 2430 MEDWAY DRIVE  
 RALEIGH, NC 27608  
**System location:** LOT 22 GALLOWAY S/D  
**County:** Wake  
**Source of Wastewater Flow:** 4 BEDROOM HOUSE  
**Estimated Daily Wastewater Production:** 480 gpd  
**System Flow:** 36.14 gpm ✓

**DESIGN PARAMETERS** ✓

**Drainfield size:** 420 feet **Loading rate:** EZFLOW 0.3 gpd/sq ft  
**Depth of gravel in trench:** n/a **Gravel size:** n/a  
**Trench depth:** 18" (EZFLOW)  
**Trench width:** 36" ✓  
**Septic tank size:** 1200 gal ✓ **Pump tank size:** 1200 gal  
**Supply line length:** appr. 180ft ✓ **Pump tank dimensions:** 48" lq. depth  
**Supply line diameter:** 2"sch40pvc 9' length  
**Supply line volume:** ~31.32 gal ✓ 5' width  
**Dosing volume:** ~200 gal (@73%) ✓ **Drawdown:** ~9.5" (1200 gal tank) ✓  
**Supply manifold:** 4"sch80pvc ✓ **Drawdown based on 21gal per inch**  
**Supply manifold length:** 4.0 min.ft  
**Supply manifold volume:** n/a  
**Recommended float controls:** SJE Pumpmaster (or County approved)  
**Elev. head:** ~ 8 ✓  
**Pressure head:** 2 ft ✓  
**Threaded union:** in tank **Friction head:** ~5.5 ✓  
**(TDH) Total dynamic head:** ~18.0' (w/15% fittings)ft  
**Gate valves:** 1 in pump tank, 1 @ pres.manifold

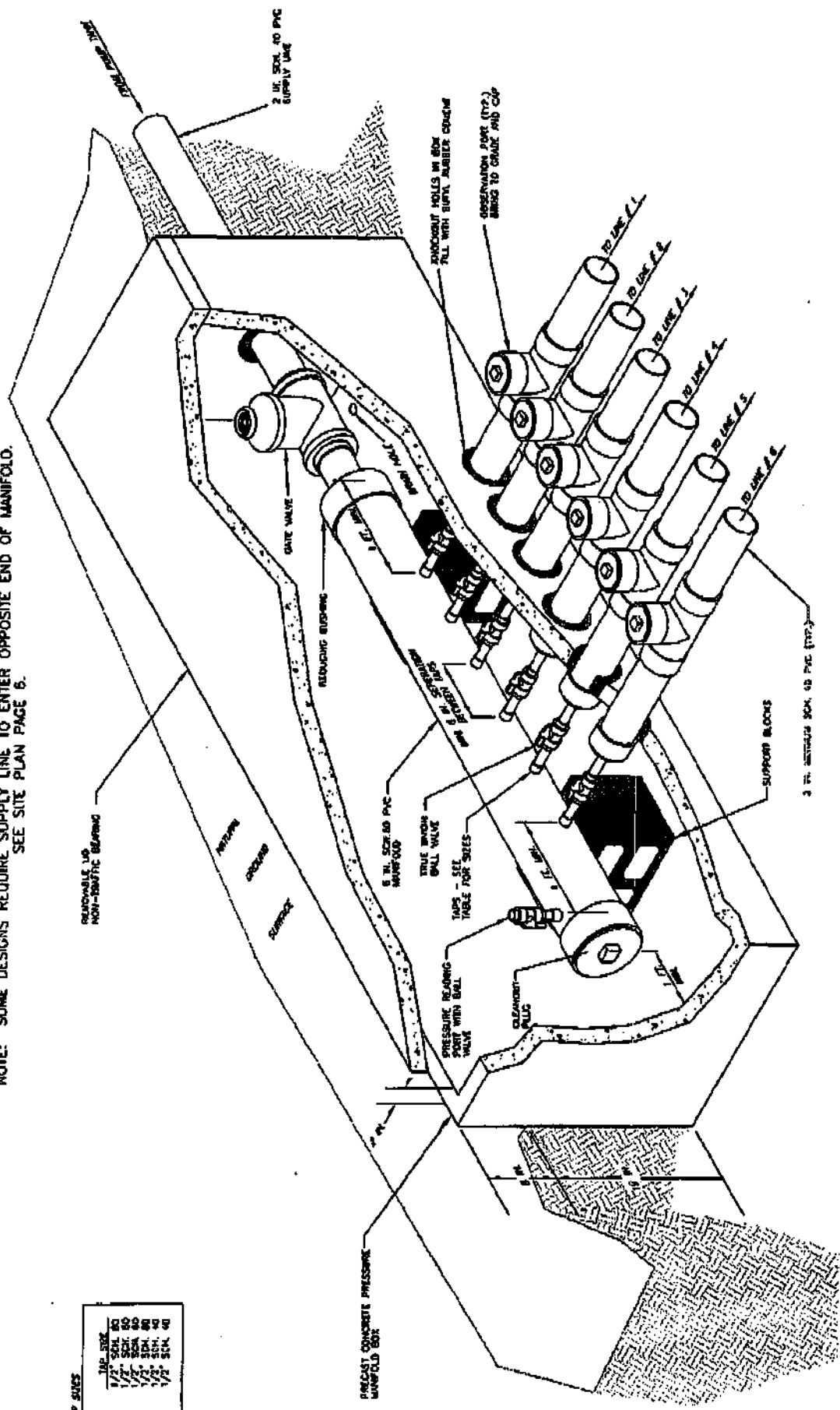
**Check valves:** in pump tank  
**Anti-siphon hole:** in pump tank  
**Recommended high water alarm:** SJE-Rhombus NEMA4X panel&floats, or County aprv.

**Recommended Pump:** Myers effluent pump, model #ME50, or county approved effluent rated pump: must be able to deliver ~18ft of head at ~37gpm total flow

**Additional Comments:** Soil Suitability was performed by the Wake County Health Department & Soil & Environmental Consultants

PRESSURE MANIFOLD DETAILS FOR LOT 22 GALLOWAY S/D

NOTE: SOME DESIGNS REQUIRE SUPPLY LINE TO ENTER OPPOSITE END OF MANIFOLD. SEE SITE PLAN PAGE 6.



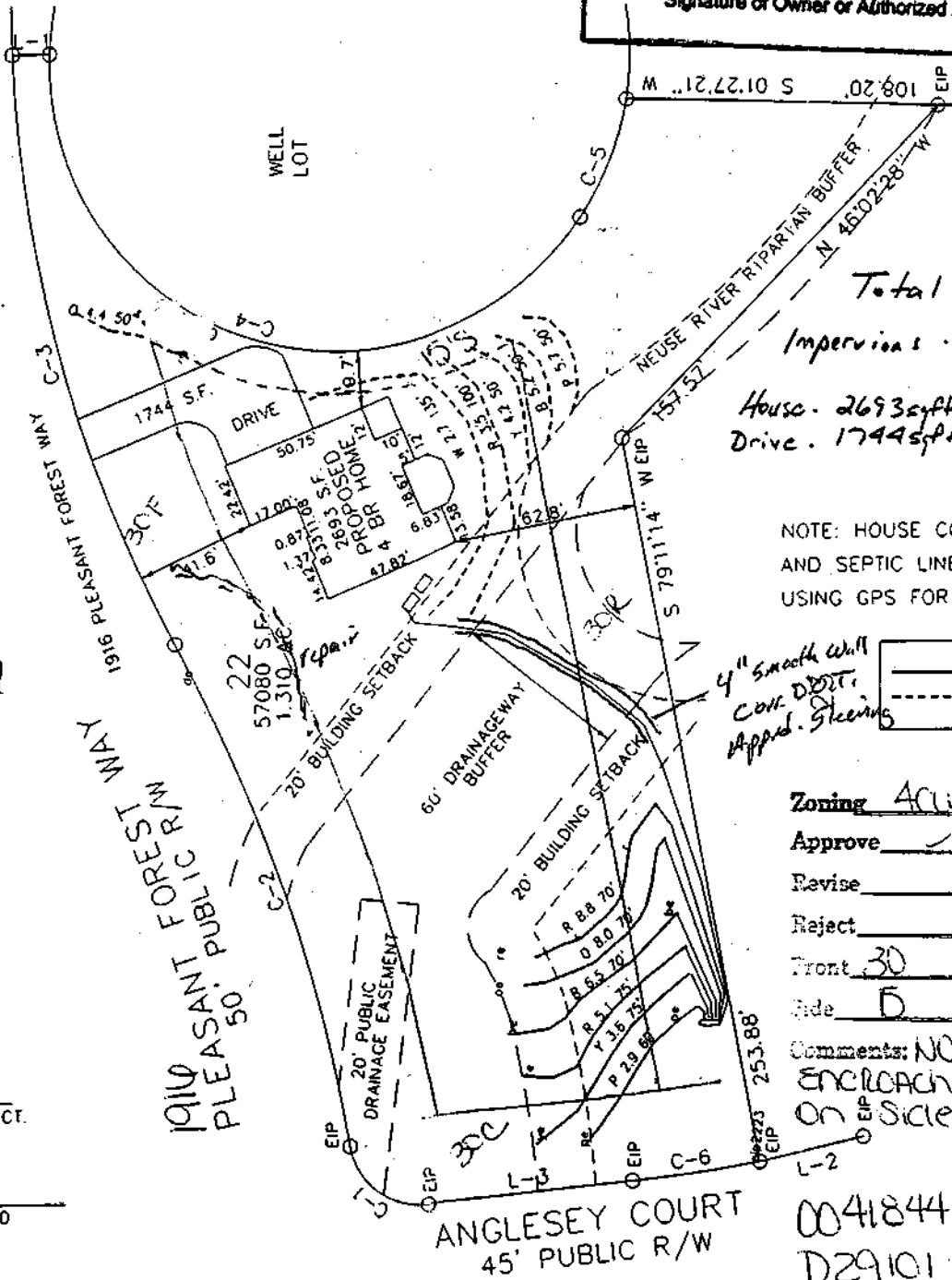
LINE No.	1/4\"/>
1	1/4\"/>
2	1/2\"/>
3	3/4\"/>
4	1\"/>
5	1 1/2\"/>
6	2\"/>

TOWNSHIP: NEW LIGHT ZONE: R  
 LOT 22 KANATA ROAD  
 AS RECORDED IN B.O.M. 2002 PG. 1634

ASite  
 Plan  
 D-29101

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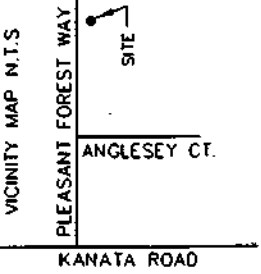
4" Smooth Wall  
 CON. DIRT.  
 Apprd. Steerings

— SYSTEM LINE  
 - - - REPAIR LINE

Zoning ACW By SJC  
 Approve  Date 15.03  
 Revise \_\_\_\_\_ Use 101  
 Reject \_\_\_\_\_ MBL  
 Front 30 Rear 30  
 Side 5 Corner \_\_\_\_\_

Comments: NO ENCROACHMENT ON SIDE SETBACK

0041844  
 D29101



Pin: 182204828698

PROJECT NO. 8327 S-1	SCALE 1" = 60'	SHEET TITLE: SEPTIC SYSTEM LAYOUT
PROJECT MGR. RD	FIELD WORK WC	PROJECT NAME: MUNLEY DESIGN BUILDERS - GALLOWAY LOT 22 - WAKE COUNTY, NORTH CAROLINA DECEMBER 2003
DRAWN BY WC		
FILE \\SEC\SECFILES\8327\LAYOUT.DWG		



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**GALLOWAY LOT 22 PRESSURE MANIFOLD  
REPAIR**

4 BEDROOM

<u>line #</u>	<u>color</u>	<u>rod read.</u>	<u>length</u>	<u>hole size</u>	<u>flow/tap</u>	<u>g.p.d.</u>	<u>trench area</u>	<u>line LTAR</u>
7	RED	3.90	70	SCH 40 1/2	7.11	73.95	210	0.352
8	WHITE	8.70	140	SCH 40 3/4	12.5	130.01	420	0.310
9	ORANGE	9.30	50	SCH 80 1/2	5.48	57.00	150	0.380
10	RED	9.50	100	SCH 80 3/4	10.1	105.05	300	0.350
11	YELLOW	10.20	50	SCH 80 1/2	5.48	57.00	150	0.380
12	BLUE	10.90	50	SCH 80 1/2	5.48	57.00	150	0.380

<b>total</b>	<b>feet =</b>	<b>460</b>	<b>gal/min =</b>	<b>46.15</b>
		<b><u>Des. Flow</u></b>	<b>480</b>	
		<b>Pump Run=</b>	<b>10.40</b>	
		<b><u>soil LTAR</u></b>	<b>0.3</b>	
		<b>(EZFLOW Itar)</b>	<b>0.4</b>	
		<b>(EZFLOW Itar +5%)</b>	<b>0.42</b>	

some lines flagged longer in the field, shorten to lengths shown here.