

# HAL OWEN & ASSOCIATES, INC.

SOIL & ENVIRONMENTAL SCIENTISTS

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11 October 2005

Mr. Oliver Tolksdorf  
Harnett County Environmental Health  
307 West Cornelius Harnett Blvd.  
Lillington, NC 27546

Reference: Septic System Design Layout  
Lot 23/24 Combination, Ballard Woods Subdivision

Dear Mr. Tolksdorf,

A site meeting was conducted with yourself, Dr. David McCloy, the regional Soil Scientist and I for the above referenced property on August 4, 2005. The site is located at the terminal end of subdivision road Mackenzie Court in Ballard Woods Subdivision off the southern side of Ballard Road (SR 1437), Hector's Creek Township, Harnett County, North Carolina. The purpose of the investigation was to determine the ability of this lot to support a subsurface sewage waste disposal system and 100 % repair area for a typical three-bedroom home. It is my understanding that public water supplies will be utilized for this lot. A foundation drain will be possible. A gravity driven septic system serially distributed to 600 linear feet of 8" inside large diameter pipe is proposed for the initial septic system and a low-pressure pipe distribution system utilizing 480 linear feet is the proposed design for the repair septic system. Both systems are proposed with ultra-shallow trench bottom depths of 12 inches below ground surface on the downhill side of the trench.

Attached is the septic system layout and supporting information for this lot. I trust that this report provides all the information that you require at this time. If you have any questions or need additional information, please contact me at your convenience.

Sincerely,



Laura J. Fortner  
Licensed Soil Scientist

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PROPERTY ID: \_\_\_\_\_  
PROPERTY RECORDED: \_\_\_\_\_  
COUNTY: Harnett

**SOIL/SITE EVALUATION  
FOR  
ON-SITE WASTEWATER SYSTEM**

APPLICANT: Mr. Beau Harrison OWNER:  AGENT:  PHONE: (919) 422-3318  
ADDRESS: Oak City Homes DATE EVALUATED: 4 August 2005  
P.O. Box 6127 PROPOSED FACILITY: 3 bedroom residential  
Raleigh, NC 27628 PROPERTY SIZE: Lot 23/24 (49,626sqft)

LOCATION OF SITE: terminal end of Mackenzie Court  
WATER SUPPLY: On-Site Well  Comm. Well  Public  Other \_\_\_\_\_ EVALUATION METHOD: Auger Boring  Pit

**PROFILE 1**

HORIZON	DEPTH (IN)	MATRIX	MOTTLES	MOTTLE ABUNDANCE/ SIZE / CONTRAST	.1941			CONSISTENCE	
					(a)(1) TEXTURE	(a)(2) STRUCTURE	(a)(3) MINEROLOGY	MOIST	WET
A	0-2				SL	1 GR	NEXP	VFR	NS/NP
E	2-6				SL	1 GR	NEXP	VFR	NS/NP
Bt	6-36				CL	2 SBK	SEXP	FI	SS/SP
.1940 LANDSCAPE POS./ SLOPE%			29% Linear		PROFILE LTAR		0.3 gpd/sqft		
.1942 WETNESS CONDITION					SYSTEM TYPE		Ultra-shallow conventional		
.1943/.1956 SAPROLITE									
.1944 RESTRICTIVE HORIZON									
.1948 PROFILE CLASSIFICATION					Provisionally Suitable for modified or alternative systems				
COMMENTS:									

**PROFILE 2**

HORIZON	DEPTH (IN)	MATRIX	MOTTLES	MOTTLE ABUNDANCE/ SIZE/ CONTRAST	.1941			CONSISTENCE	
					(a)(1) TEXTURE	(a)(2) STRUCTURE	(a)(3) MINEROLOGY	MOIST	WET
A	0-2				SL	1 GR	NEXP	FR	NS/NP
Bt	2-27				CL	2 SBK	SEXP	FR	SS/SP
C	27+				L	MA	NEXP	FR	SS/NP
.1940 LANDSCAPE POS./ SLOPE%			Linear 25%		PROFILE LTAR		0.35 gpd/sqft		
.1942 WETNESS CONDITION					SYSTEM TYPE		Ultra-shallow LDP		
.1943/.1956 SAPROLITE			27"						
.1944 RESTRICTIVE HORIZON									
.1948 PROFILE CLASSIFICATION					Provisionally Suitable for modified or alternative systems				
COMMENTS:									

**PROFILE 3**

HORIZON	DEPTH (IN)	MATRIX	MOTTLES	MOTTLE ABUNDANCE/ SIZE/ CONTRAST	(a)(1) TEXTURE	.1941 (a)(2) STRUCTURE	(a)(3) MINEROLOGY	CONSISTENCE	
								MOIST	WET
A	0-4				SL	1 GR	NEXP	FR	NS/NP
E	4-10				SL	1 GR	NEXP	FR	NS/NP
Bt	10-36				CL	2 SBK	SEXP	FR	SS/SP
C	36+				SL/L	MA	NEXP	FR	SS/NP
.1940 LANDSCAPE POS./ SLOPE%			Linear 18%		PROFILE LTAR		0.3 gpd/sqft		
.1942 WETNESS CONDITION					SYSTEM TYPE		Ultra-shallow conventional		
.1943/.1956 SAPROLITE			36"						
.1944 RESTRICTIVE HORIZON									
.1948 PROFILE CLASSIFICATION			Provisionally Suitable						
COMMENTS:									

**PROFILE 4**

HORIZON	DEPTH (IN)	MATRIX	MOTTLES	MOTTLE ABUNDANCE/ SIZE/ CONTRAST	(a)(1) TEXTURE	.1941 (a)(2) STRUCTURE	(a)(3) MINEROLOGY	CONSISTENCE	
								MOIST	WET
A	0-8				SL	1 GR	NEXP	FR	NS/NP
Bt	8-28				CL/C	2 SBK	SEXP	FR	SS/SP
C	28+				SL	MA	NEXP	FR	SS/NP
.1940 LANDSCAPE POS./ SLOPE%			Linear 18%		PROFILE LTAR		0.15 gpd/sqft		
.1942 WETNESS CONDITION					SYSTEM TYPE		Low Pressure Pipe		
.1943/.1956 SAPROLITE			27"						
.1944 RESTRICTIVE HORIZON									
.1948 PROFILE CLASSIFICATION			Provisionally Suitable for modified or alternative systems						
COMMENTS:									

EVALUATED BY: Laura J. Fortner (LSS)

# Lot 23/24, Ballard Woods Subdivision

## On-Site Wastewater Design Specifications

Bedrooms: 3 (360 gpd)

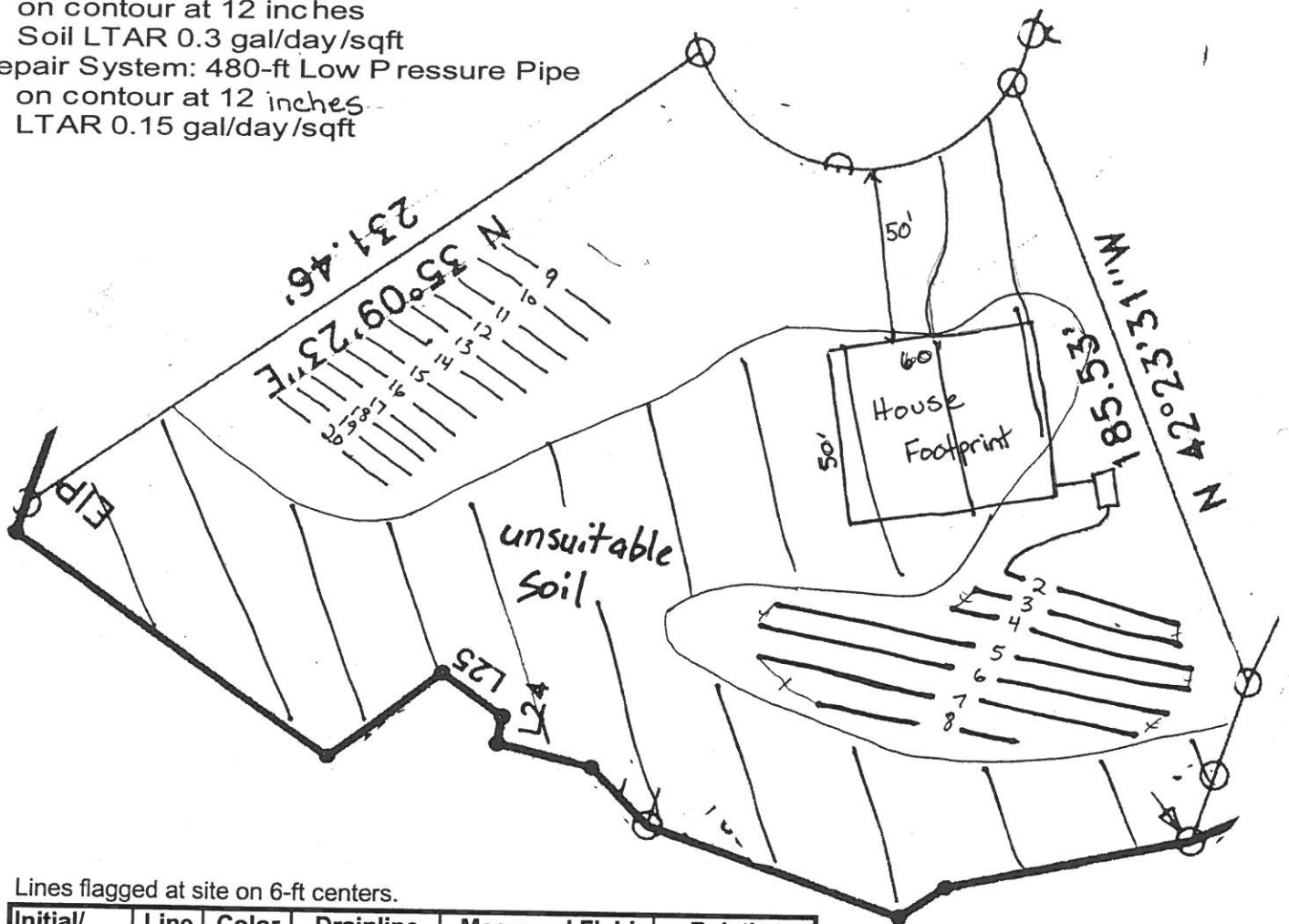
Initial System: 600-ft Large Diameter P pipe  
on contour at 12 inches

Soil LTAR 0.3 gal/day/sqft

Repair System: 480-ft Low P ressure Pipe  
on contour at 12 inches  
LTAR 0.15 gal/day/sqft

LEGEND

- ★ EIP
- Supply Line
- ⊙ Proposed Well
- ⊗ Existing Well
- Septic Tank
- Pump Tank
- D-Box
- ⋯ Pressure Manif



Lines flagged at site on 6-ft centers.

Initial/Repair	Line #	Color	Drainline Length(ft)	Measured Field Line Length (ft)	Relative Elevation (ft)
Initial	1	R	-	35	85.21
Initial	2	Y	48	48	83.40
Initial	3	B	63	63	81.31
Initial	4	W	71	71	79.48
Initial	5	R	122	126	77.85
Initial	6	Y	122	133	76.33
Initial	7	B	114	114	74.68
Initial	8	W	60	61	72.91
Repair	9	W	40	40	90.54
Repair	10	B	40	48	89.72
Repair	11	Y	40	46	88.63
Repair	12	R	40	48	87.14
Repair	13	W	40	48	86.18
Repair	14	B	40	47	84.91
Repair	15	Y	40	44	83.67
Repair	16	R	40	44	82.68
Repair	17	W	40	44	81.80
Repair	18	B	40	42	80.77
Repair	19	Y	40	42	79.62
Repair	20	R	40	40	78.60
	<b>Total:</b>		<b>1080</b>	<b>1184</b>	<b>EIP = 100</b>

Prepared By: KDB  
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