H[illegible]. OWEN & ASSOCIATE[illegible] INC.
SOIL & ENVIRONMENTAL SCIENTISTS
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19 November, 2001

Harnett County Environmental Health
P.O. Box 9
Lillington, NC 27546

Attention: Mr. Joe West

Reference: Septic System Design
Starwood Subdivision – Lots 77 - 80

Dear Mr. West,

A septic system design was prepared for each of the above referenced lots to demonstrate their ability to support subsurface sewage waste disposal systems and 100 % repair areas for typical three-bedroom homes. All drainlines were flagged on contour unless otherwise stated. It is our understanding that public water supplies will be utilized for each lot.

Lot 77 has a pump to conventional drainlines for the initial system. This system was designed slightly off contour due to deep sandy soils at the front of the lot. The repair septic system was designed as a low-pressure pipe distribution system at the side and rear of the house. Due to the location of the home to the drainfield, proper setbacks were unable to be maintained along the front and right side of the home to allow for a foundation drain. However, a partial foundation drain appears possible along the left side and rear of the home, if desired.

Lot 78 has a pump to conventional drainlines for the initial system and a low-pressure pipe distribution system for the repair. The present design of the septic system will allow a partial foundation drain around the right front side (under the driveway), right side and rear of the home. If this partial foundation drain were utilized, the septic tank and pump tank would need to maintain a ten-foot setback off the back of the house.

Lot 79 has a pump to conventional drainlines for the initial and repair septic systems. A partial foundation drain appears possible around this home along the front, right side and rear starting and ending with the right edge of the garage in order to maintain the proper setbacks from the drainfield (initial or repair).

Lot 80 has a pump to conventional drainlines for the initial system. The repair system will require a low-pressure pipe distribution system preceded by pretreatment to allow for a 50% reduction in the size of the drainfield due to the limited useable soil available on the lot. A foundation drain appears possible on this lot.

Attached are the septic system layouts and supporting information for each of these lots. 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

Laura J. Fortner
Soil Scientist In Training III

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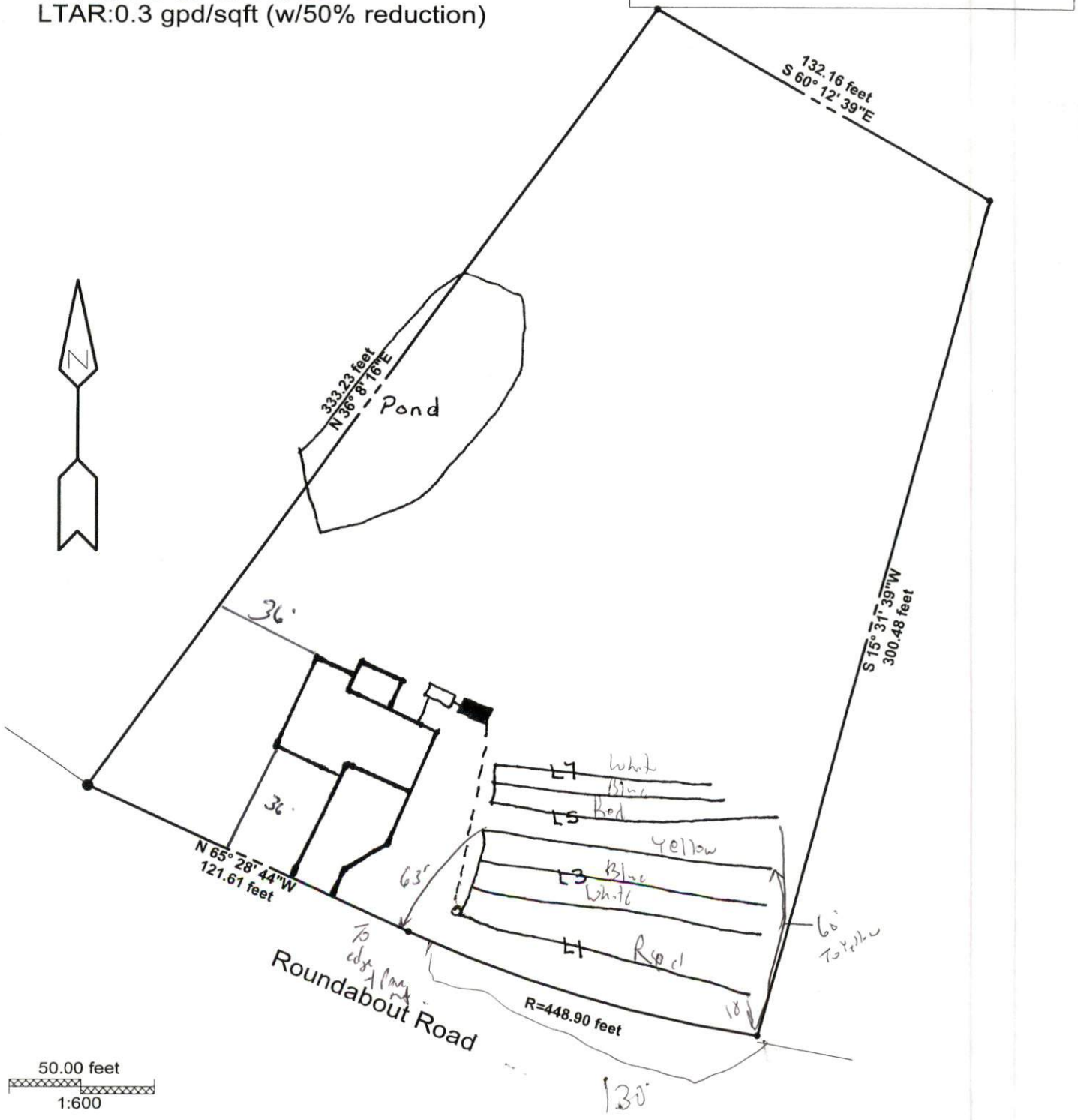
Lot 80, Starwood Su ivision

On-Site Wastewater Design Specifications

Prepared By: LJF
Hal Owen & Associates, Inc.
Soil & Environmental Scientists
P.O. Box 400, 266 Old Coats Rd.
Lillington, NC 27546-0400
Phone: (910) 893-8743

House Footprint:50 x 40 (Foundation Drain)
Bedrooms:3

Initial System:4 x 100' pump conventional
on contour at:12 inches
LTAR:0.3 gpd/sqft
Repair System:Pretreatment to 240' low-pressure pipe
on contour at: 10 inches
LTAR:0.3 gpd/sqft (w/50% reduction)



Lot 80, Starwood Subdivision

Lines 1-5 are flagged at site on 9-ft centers.
Lines 7-9 are flagged at site on 5-ft centers.

Initial/ Repair	Line #	Color	Drainline Length(ft)	Measured Field Line Length (ft)	Relative Elevation (ft)
Initial	1	R	100	116	101.19
Initial	2	W	100	115	99.94
Initial	3	B	100	113	98.97
Initial	4	Y	100	112	98.04
Repair	5	R	100	103	97.08
Repair	6	B	80	84	96.43
Repair	7	W	75	75	96.13
Pump Tank:					
		Total:	**655**	**718**	**EIP=0**