9-28-06
QL OK

To: Iredell County Environmental Health Department

From: Paul G. Penninger, LSS
Kathleen Saunders, LSSIT

RE: Chesapeake Pointe Subdivision - Chesapeake Pointe, LLC - Lot 83 Fast Track

Date: August 31, 2006

Attached is the Fast Track information required to place Lot 83 Chesapeake Pointe on your developer work list to review the septic system layouts. Please call when you are ready to review the lot and we will meet you on the site.

The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist the Iredell County Environmental Health Department (ICHD) with the site evaluation. The ICHD has to approve each lot and only the ICHD can issue these permits. The system should be installed according to the ICHD permits, policies, and NC rules. If the ICHD wishes to change tank locations, distribution devices, etc., this can be shown on the Improvement Permit.

All information and specifications were prepared in conjunction with the Fast Track Program for Iredell County and are for the sole use of Chesapeake Pointe, LLC in acquiring permits under the Fast Track Program. All soil work has been approved by David Hinson of the Iredell County Health Department. It is ultimately the Iredell County Health Department's responsibility to verify all specifications before permitting and/or septic system installation.

Lot 83 Chesapeake Pointe Fast Track Septic System Information

Number of Bedrooms	4
Basement or Crawl	**Crawl Space**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	4 (See Table)
Total Linear Feet	270
Trench Width	2' min.
Trench Spacing	8' min.
Pump Required	Yes
Distribution Device	Gate Valve Box w/ LPP Distribution
Maintenance Agreement Required	Yes
Length and Diameter of Supply Pipe	155' of 2" SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	30.5 gpm
Elevation head	Approx. 14'
Pressure head	3.0'
Friction head	2.5'
20% Contingency	3.9'
Total Head	23.4'
Pump Requirements	30.5 gpm @ 23.4' of head; use Goulds WE05H pump or equivelent with compatible electrical
Maximum Dosing Volume	219.6 gal -2.2 doses/day @ design flow*
Volume of water pumped per dose	Calculated to specific tank by measure or dealer engineering specifications (1 cubic ft. of water equals 7.48 gal.)
Pump Run per dose	approx. 7.2 min.
Check Valve	Yes
Siphon Break hole	No
Repair System	**LP PPBPS (0.25 LTAR)**
Total Linear Feet	474

***Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occurs, reduce floats by 25 gallons and reset until no overflow is observed.**

Table 1: Summary of Primary and Repair Nitrification Line Specifications

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading Elev. (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	Repair	Orange	LPPPBPS	37	2.9				
2	Repair	Pink	LPPPBPS	97					
3	Repair	Red	LPPPBPS	125					
4	Repair	Orange	LPPPBPS	130					
5	Repair	Pink	LPPPBPS	85					
6	System	Red	LPPPBPS	60 endfed		13	13	1 per panel	5/32"
7	System	Orange	LPPPBPS	70 endfed		16	16	1 per panel	5/32"
8	System	Pink	LPPPBPS	70 endfed		16	16	1 per panel	5/32"
9	System	Red	LPPPBPS	70 endfed	5.8	16	16	1 per panel	5/32"
						Total: 61	Total: 61 (1 in each panel turned up)		
				Total System: 270'					
				Total Repair: 474'					

Tank	Red	1000 gal (2 compartment)	2.8
Pump Tank	Red	1000 gal.	2.8
House	Blue		3.8