ICRO

Penninger Soil Consulting
595 JM Penninger Road
Lexington, NC 27292
Ph: 704-996-6330 Email: pgpenninger@gmail.com

June 17, 2015

Ryan and Shelley Thomas
309 Almora Loop
Mooresville, North Carolina 28117

Reference: **Technical Assistance with Fast Track Septic Permitting**
309 Whippoorwill Road
CL&T Lot 40 Section 10 - 0.060 Acres
Iredell County, North Carolina
Project No. 15-102

Dear Mr. and Ms. Thomas:

Penninger Soil Consulting has provided technical assistance to obtain a possible four bedroom septic Improvement Permit from the Iredell County Health Department (ICHD) for the referenced lot. The technical assistance was performed in general accordance with our written proposal dated May 30, 2015.

The site had a former mobile home and has an existing 3-bedroom bed septic drainfield that was installed in 1976. The lot also has an existing well. The lot was recorded on May 9, 1977 and is grandfathered to use a 5-foot property line setback for the septic system.

We understand that you have the lot under contract and want to construct a new 4-bedroom home on the lot. Based on a site meeting with you, your builder, and your realtor on June 11, 2015 we understand you want to permit a new drainfield for your proposed house and used the existing drainfield as part of the repair area.

Mr. Paul Penninger visited the lot on June 2, 2015 to flag the proposed system and place five hand auger borings on the site. The property corners, lake setback, and proposed house were flagged by your surveyor. Your surveyor also located the proposed septic drainfield lines and the existing bed system as shown on the attached site plan. We are proposing a four bedroom Low Pressure Distribution T&J Panel System for the proposed house. There is a 100 Percent Repair Area available on the lot. Three bedrooms of repair are available with the existing bed system, one bedroom of T&J Panel repair is shown on the site plan (67 feet), and one bedroom of repair is available in the lake buffer with TS-II pretreatment and the use drip tubing.

The existing well on the lot will need to be abandoned and a new well permitted and drilled at the approximate location shown on the attached site plan. These applications are attached. The existing septic tank should be pumped and abandoned per the ICHD policies.

Once the septic area is permitted, it should be fenced off for protection during home construction. Access to the lot should only be by the proposed drive. There shall not be cuts of 2 feet or greater within 15 feet of any part of the permitted septic system. The drainfield must be 15 feet from the sideslope basement wall and 25 feet upslope of any basement foundation drain. Smooth any minor surface irregularities at the drainfield prior to system installation. The ICHD may make any changes deemed necessary such as changing tank locations, distribution device location/type, etc. on the Improvement Permit or the attached site plan.

The attached information is not an Improvement Permit or Authorization to Construct, and is only to assist you with the Fast Track site evaluation. The attached plan is not intended to be a Professional Engineer plan. The ICHD must approve each lot and only the ICHD can issue these permits. The ICHD should verify all soils and system specifications, required setbacks, and whether a professional engineer plan is required before permitting and/or septic system installation. Soil evaluations and system layouts are done based on interpretations of the rules governing wastewater treatment and disposal systems and are not guarantees for site approval or future septic system performance.

If you have any questions or require additional information please contact us at your convenience.

Sincerely,

Penninger Soil Consulting

Paul G. Penninger, L.S.S.
Soil Scientist

Attachments:

1. ICHD Improvement Permit Application and Zoning Permit
2. Site Plan and System Specifications
3. 1976 ICHD Permits and Record Plat

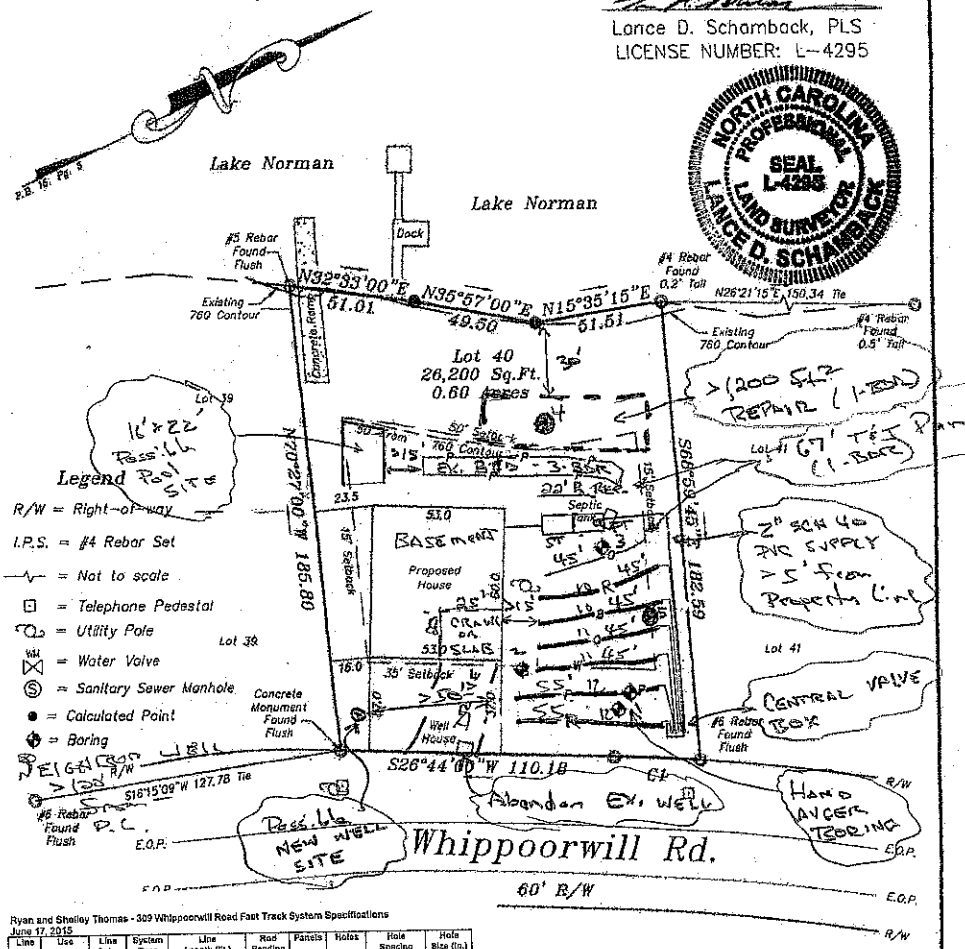
C:\Users\Paul G. Penninger\Documents\2015 Projects\15-102 Ryan and Shelley Thomas - 309 Whippoorwill Road\15-102 Ryan Thomas, 309 Whippoorwill Fast Track Summary Letter.doc

APPROVED JUN 2 3 2015

I Lance D. Schamback, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description and/or Map Book: 15, Page 5). That the boundaries not surveyed are clearly indicated as drawn from information as shown survey; that the ratio of precision as calculated is 1: 10,000+ that this plat was prepared in accordance with G.S. 89-C as amended. Witness my original signature, registration number and seal this 9 day of June, A.D. 2015.

Lance D. Schamback, PLS
LICENSE NUMBER: L-4295

NORTH CAROLINA PROFESSIONAL SEAL L-4295 LAND SURVEYOR LANCE D. SCHAMBACK



Ryan and Shelley Thomas - 309 Whippoorwill Road Fast Track System Specifications
June 17, 2015

Line No.	Use	Line Color	System Type	Line Length (FL)	Rad Reading (FL)	Panels	Holes	Hole Spacing	Hole Size (in.)
1	System	red	LPPP8PS	55	3.7	12	12	1 per panel	5/32"
2	System	pink	LPPP8PS	55	5.2	12	12	1 per panel	5/32"
3	System	white	LPPP8PS	45	6.6	10	10	1 per panel	5/32"
4	System	orange	LPPP8PS	45	7.8	10	10	1 per panel	5/32"
5	System	blue	LPPP8PS	45	9.0	10	10	1 per panel	5/32"
6	System	red	LPPP8PS	45	10.7	10	10	1 per panel	5/32"
				Total System: 282		Total: 64	Total: 64 (1 in each panel turned up)		

Tank		1000 gal (2 compartment)	
Pump Tank		1000 gal.	14.0
House	(FB)		7.8

Note: Installer and ICHD shall verify all line locations, tank locations, and elevations prior to installation. System is to be installed according to any other ICHD or T&J Panel requirements or policies. These specifications are to satisfy the ICHD Fast Track LSS checklist and are not intended to represent an Engineered System Design. On similar systems the ICHD has requested the central valve box be located on the upper drainfield line.

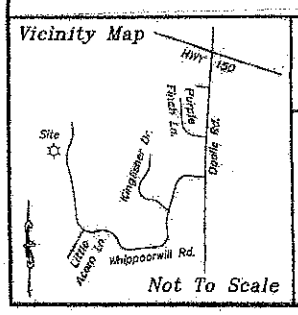
CURVE TABLE				
CURVE	LENGTH	RADIUS	BEARING	CHORD
C1	34.97	877.33	S27°31'19"W	34.97

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

Vicinity Map



Not To Scale

Boundary Survey
FOR
Ryan Thomas

PROPERTY DESCRIPTION
Lot 40, Section 10,
Crescent Land & Timber Corp.
Lake Norman
Plat Book 15, Page 5
Davidson Township, Iredell County, NC

SCALE: 1" = 50
FIELD BOOK:
FILE: 2015-121
TAX PARCEL #: 4637351871

Schamback Surveying, P.A.
Post Office Box 4143
Mooresville, NC 28117
(704) 622-9915
C-3218

NEIGHBOR'S WELL > 100' from system

262.5

175

6-15-15

RYAN & SHELLEY THOMAS FAST TRACK SITE PLAN

* SITE PLAN MUST ACCOMPANY P.S.C. WRITTEN REPORT

APPROVED JUN 23 2015

Ryan and Shelley Thomas - 309 Whippoorwill Road Fast Track System Specifications

June 17, 2015

Number of Bedrooms	4
Basement or Crawl	**Partial Basement/Slab/Crawl**
Design Flow (gpd)	480
LTAR (gpd/ft2)	0.3
Primary System Type	**LP PPBPS**
No. Lines	6 (4 at 45 ft, 2 at 55 ft)
Total Linear Feet	290 shown (267 ft required)
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	approx. 110' of 2 " SCH 40 PVC
Size of laterals	1 1/4" SCH 40 PVC
Flow Rate through the system	32 gpm
Elevation head	Approx. 19'
Pressure head	3.0'
Friction head	approx. 3'
20% Contingency	5.0'
Total Head	30'
Pump Requirements	32 gpm @ 30' of head To be verified by installer and ICHD after pump tank install
Maximum Dosing Volume	230 gallons max*
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	**3 bedroom in ex. Bed, 1 bedroom T&J Panel, one bedroom TS-II Drip**
Total Linear Feet	approx. 6ft x 80ft ex. bed, 67 ft T&J Panel, 1,200 sqft+ drip repair
Repair LTAR (gpd/sqft)	0.3 T&J Panel, 0.1 Drip

***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.**

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Ryan and Shelley Thomas - 309 Whippoorwill Road Fast Track System Specifications
June 17, 2015

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading (Ft.)	Panels	Holes	Hole Spacing	Hole Size (In.)
1	System	red	LPPPBPS	55	3.7	12	12	1 per panel	5/32"
2	System	pink	LPPPBPS	55	5.2	12	12	1 per panel	5/32"
3	System	white	LPPPBPS	45	6.6	10	10	1 per panel	5/32"
4	System	orange	LPPPBPS	45	7.8	10	10	1 per panel	5/32"
5	System	blue	LPPPBPS	45	9.0	10	10	1 per panel	5/32"
6	System	red	LPPPBPS	45	10.7	10	10	1 per panel	5/32"
						Total: 64	Total:64 (1 in each panel turned up)		
				Total System: 290'					

Tank		1000 gal (2 compartment)	
Pump Tank		1000 gal.	14.0
House	(FR)		7.6

Note: **Installer and ICHD shall verify all line locations, tank locations, and elevations prior to installation.**
System is to be installed according to any other ICHD or T&J Panel requirements or policies.
These specifications are to satisfy the ICHD Fast Track LSS checklist and are not intended to represent an Engineered System Design.
On similar systems the ICHD has requested the central valve box be located on the upper drainfield line.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH, ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Sheet 1 of 2
PROPERTY ID #:
COUNTY: Iredell

APPROVED JUN 23 2015

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM
(Complete all fields in full)

OWNER: Ryan & Shelley Thomas
ADDRESS:
APPLICATION DATE 6-15-15
DATE EVALUATED: 6-2-15
PROPOSED FACILITY: 4Bd
PROPOSED DESIGN FLOW (.1949): 450
PROPERTY SIZE: 0.68 ac
LOCATION OF SITE: 309 Whisperwind
PROPERTY RECORDED: ~77
WATER SUPPLY: Private Public (Well) Spring Other
EVALUATION METHOD: (Auger Boring) Pit Cut
TYPE OF WASTEWATER: (Sewage) Industrial Process Mixed

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	L ~10~ in ground Dry =	0-8	cl/wssbk/sl fr sl sp		red br				PS .3
		8-33	mssbk/cl	fr ss/sp	red				
		33-48	wssbk/cl	fr ss/sp	red, f sap		incl	f wpa	
					—	48	—	—	
		Hit groundwater ~ 28" 1st Lvl - Perc Down Hill							
2	L ~12	0-6	wssbk/scl	fr ss/sp	red br				PS .3
		6-30	mssbk/cl	fr sl sp	red - Dry				
		30-48	wssbk/cl	fr ss/sp	red				
					—	48"	—	—	
3	L ~16	0-5	wssblc/scl	fr ss/sp	br				PS .3
		5-36	mssblc/cl	fr sl sp	red - Dry				
		36-48	wssblc/cl	fr ss/sp	red fr sap		incl		
					—	48	—	—	
4	L ~10	0-12	wsblc/scl	wssbk	br - fr thr coat incl				PS .3
		12-48	mssbk/cl	fr sl sp	ss sp red, dry & hard				
					ss sp incl				
		Hard Lake SETBACK			- For Drive Repair				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	LPT.J	EK, RC Panel
Site LTAR	.3	DMP

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: PEP
OTHER(S) PRESENT: must be approved by ICHD

COMMENTS: .3 T.J, -1 Drip

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

APPROVED JUN 23 2015

Sheet 2 of 2

DEPARTMENT OF HEALTH AND HUMAN SERVICES
DIVISION OF PUBLIC HEALTH
ENVIRONMENTAL HEALTH SECTION
ON-SITE WATER PROTECTION BRANCH

Ryan Thomas
309 Whippoorwill

PROPERTY ID #:
DATE OF EVALUATION: 6-2-15
COUNTY:

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
	L	0-2	gr/scl	fr ss/sp	br				PS
	5-10-12%	2-36	msbk/c	fr s/p	red				.3
		36-48	mow sbk/c	fr ss/sp - s/p red fr sap'l					
					@	48	P	@	
		White quartz rock in adj hole @ 43"							

COMMENTS:

Updated February 2014