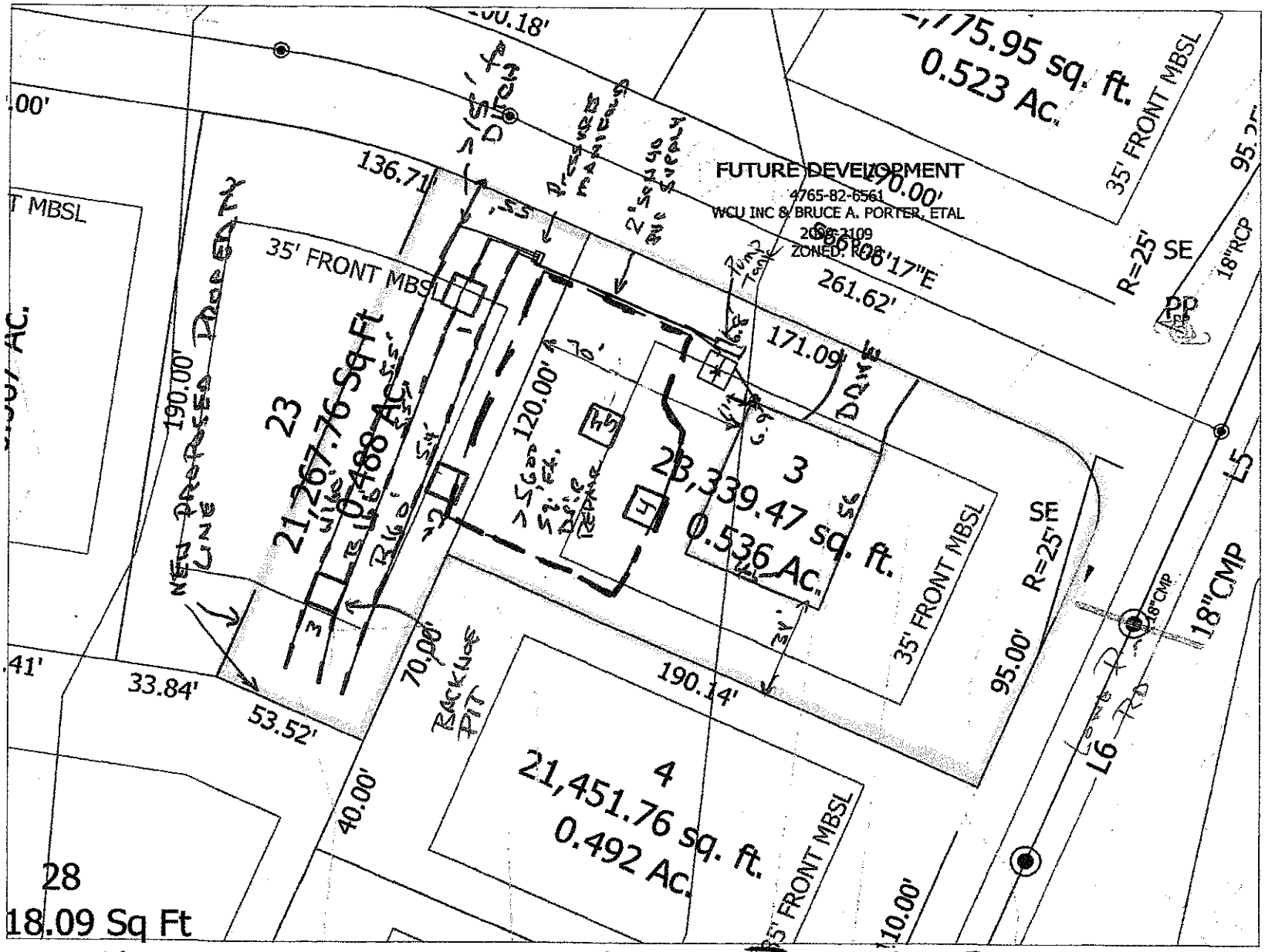
4-24



STEVE HART LOT 3 LONE PINE MEADOW
SEPTIC SKETCH 7-8-15 1"=50'

* SITE PLAN MUST ACCOMPANY REVISED SOIL CONSULTANTS WRITTEN REPORT DATED 7-8-15

* BASE MAP FROM G.V. GRANT.

Call Pete For Site Visit

ICAD 1069

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

July 8, 2015

WCU, Inc.
PO Box 64
Steinhatchee, Florida 32359

Attention: Mr. Steve Hart

Reference: **Technical Assistance with Septic Permitting**
Lot 3 Lone Pine Meadows
Iredell County, North Carolina
Project No. 15-110

Dear Mr. Hart:

Penninger Soil Consulting, PLLC has provided technical assistance to obtain a possible new, 3-bedroom septic system Improvement Permit on the above referenced lot from the Iredell County Health Department (ICHD). The technical assistance was performed in general accordance with our written proposal dated July 2, 2015.

We understand that Mr. Justin Henderson with the ICHD evaluated pits on the lot on June 19, 2015. Mr. Henderson determined that overall the soils evaluated on the lot were only provisionally suitable for a drip septic system. You requested Penninger Soil Consulting, PLLC to assist with evaluating additional property behind Lot 3 for the primary septic system.

We described three pits on the approximate 10,000 sq. ft. area behind Lot 3 and two pits on Lot 3 on July 6, 2015. We flagged three proposed septic lines 160 ft. long on the area behind Lot 3 as shown on the attached site plan. We are proposing a 25 Percent Reduction (lines installed without the reduction), Pressure Manifold Distribution primary system with a 48 inch trench bottom. The repair area is proposed as a TS-I Drip system between the primary system and the proposed house on Lot 3 in the area described with 21 to 28 inches of provisionally suitable soil by Mr. Henderson.

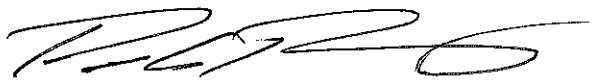
Once the septic area is permitted, it should be fenced off for protection during home construction. Access to the lot should only be by the proposed drive. There shall not be cuts of 2 feet or greater within 15 feet of any part of the permitted septic system. The primary system area should be shaped after system installation to divert stormwater away from the system. The lot should be recorded with the additional area prior to the ICHD issuing the septic Construction Authorization.

Penninger Soil Consulting, PLLC appreciates the opportunity to provide these services to you. 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 ICHD may show any changes or modifications they want to the proposed system on the ICHD Permits or attached site 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, PLLC



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

Attachments:

1. Septic Permit Application
2. Proposed Site Plan and System Information

C:\Users\Paul G. Penninger\Documents\2015 Projects\15-110 Lone Pine Subdivision\Lone Pine Lot 3 FT Summary Letter.doc

Lone Pine Meadows Subdivision Lot 3 Fast Track Information (pg 1 of 2)

WCU, Inc. - Steve Hart - Revised July 15, 2015

Number of Bedrooms	**3**
Basement or Crawl	**Crawl**
Design Flow (gpd)	**360**
Primary System LTAR (gpd/ft2)	**0.25**
Primary System Type	**25% Reduction - Install without Reduction** (can install conventional trench)
No. Lines	3 at 160 ft. (see site plan)
Total Linear Feet	480
Trench Width	3' min.
Trench Spacing	9' min.
Trench Depth	48"
Pump Required	Yes
Distribution Device	Pressure Manifold
Maintenance Agreement Required	No
Length and Diameter of Supply Pipe	~70' of 2" SCH 40 PVC
Flow Rate through the system	21.3 gpm - Paul ok change to 20gpm 3-2-16
Elevation head	*Approx. 9.5'
Pressure head	2.0' PP ok change of PH to 3'
Friction head	Approx. 1'
20% Contingency	2.5'
Total Head	*15'
Pump Requirements	21.3 gpm 20gpm @ 15' of head

***Pump to be designed by installer after final tank placement.**

Maximum Dosing Volume	180 gal - 2.0 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. 8.5 min. approx 11 min
Check Valve	Yes
Siphon Break hole	no
Repair System	**TS-I Drip**
Total Area	>5,600 sq ft shown (3,600 sq ft required)
Repair Loading Rate (gpd/ft2)	0.1

Lone Pine Meadows Subdivision Lot 3 Fast Track Information (pg 2 of 2)

WCU, Inc. - Steve Hart - Revised July 15, 2015

Table: Summary of Primary Nitrification Lines

Line No.	Use	Line Color	System Type	Line Length (Ft.)	*Rod Reading (Ft.)
1	System	red	25% Reduction	160	5.4
2	System	blue	25% Reduction	160	5.5
3	System	white	25% Reduction	160	5.5
				Total System: 480'	

Tank	white	1000 gal (2 compartment)	*Rod Reading (ft)
Pump Tank	white	1000 gal.	6.8
House		Right Rear Corner	6.9

Manifold Information	
Tap Size (In.)	1/2
Tap Material	SCH 40 PVC
No. Taps	3
Barrel Size (In.)	4
Barrel Material	SCH 80 PVC
Flow (gpm)/Tap	7.1

PP ok change to Sch 80 1/2" taps @ PH=3'

6.71gpm

NOTES:

* Elevations must be verified by installer at installation and final tank placement.

Install system per ICHD permits and policies.

Fast Track System information tables must accompany Penninger Soil Consulting written report dated July 8, 2015.

Verify tank location in relation to any foundation drain prior to installation. Verify location with the ICHD if there are any questions.

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

Soils OE 3/18

Sheet 1 of 2
PROPERTY ID #:
COUNTY:

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

OWNER: WCV, Inc - Steve Hart
ADDRESS: Lot 3 Cone Pine
PROPOSED FACILITY: 3 bdm
LOCATION OF SITE: 226 Long Tom
APPLICATION DATE
DATE EVALUATED: 7-6-15
PROPOSED DESIGN FLOW (.1949): 360
PROPERTY SIZE:
PROPERTY RECORDED:
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 Flat <2	0-9	wsbk sl	fr ss/so	br	61"	0	0	PS .25 w/ 36-48" Trench
		9-21	mfabk c	fr s/p	f 10yr 6/6 red				
		21-34	platy mabk c	fr s/p	red c 10yr 4/6				
		34-61	wsbk c/d	fr ss/so	red-f-m sap incl				
			21-34 f plty like zone above ABK peds						
2	L FLAT <2	0-6	wsbk sl	fr ss/so	br	60	0	0	PS .25 36-48" Trench
		6-35	mf pl/abk c	fr s/p	red c 10yr 6/6				
		35-60	ABK wsbk c	fr s/p	red				
			- f plty like zones above		brt ABK peds		6-25		
			- Root zone rd		wall @ 36"				
3	L FLAT <2	0-10	wsbk sl	fr ss/so	br				PS .25 36-48" Trench
		10-34	mf pl/abk	fr s/p	red - c 10yr 6/6, f 10yr 6/8				
		34-61	wsbk c/d	fr s/p	red f sap. incl				
			+ f plty like zones above		peds ABK				
4 5	Josh	0-9	wsbk sl	fr ss/so	br				-1 Drip or .25 w/ 48-60" Trench
		9-20	msbk c	fr ss/so	red				
		20-46	ABK c	fr s/p	red - c mott br				
		46-72	wsbk c-d	fr s/p	red c sap				
		+ plty like zones 20-41 LT peds ABK							

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	RSF - Conv.	TS 1 Drip
Site LTAR	.25	.1

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): RS
EVALUATED BY: PSP
OTHER(S) PRESENT: must be reviewed by local

COMMENTS:

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

Sheet 2 of 2
PROPERTY ID #:
COUNTY:

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

OWNER: STEVE HART
ADDRESS:
APPLICATION DATE
DATE EVALUATED: 7-6-15
PROPOSED FACILITY:
PROPOSED DESIGN FLOW (.1949):
PROPERTY SIZE:
LOCATION OF SITE: Lot 3
PROPERTY RECORDED:
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	SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY	OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR	OTHER PROFILE FACTORS .1943 SOIL DEPTH	OTHER PROFILE FACTORS .1956 SAPRO CLASS	OTHER PROFILE FACTORS .1944 RESTR HORIZ	PROFILE CLASS & LTAR
1	C	0-7	WSBK-scl	fr ss/sp	br				PS
	2-5	7-20	mBK C	fr ss/s	mott				-25
		20-36	ABK C	fr s/p	red C mott				>36"
		36-54	WSBK C-J	fr ss/sp	red fr c sdc	54	0	0	Pin .1
2									
3									
4									

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)		
System Type(s)		
Site LTAR		

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY:
OTHER(S) PRESENT:
SEE PG 1

COMMENTS: