April 30, 2015

Lakemist Homes
295 Lake Mist Drive
Mooresville, North Carolina 28117

Attention: Mr. Aaron Feldman

Reference: **Technical Assistance with Fast Track Septic Permitting**
Lot 17 Phase 4, Beacon Pointe Subdivision
Iredell County, North Carolina
S&ME, Inc. Project No. 4358-14-081 Phase 01

Dear Mr. Feldman:

S&ME, Inc. (S&ME) has provided technical assistance to obtain a possible four bedroom septic Improvement Permit from the Iredell County Health Department (ICHD) for the above referenced lot. The technical assistance was performed in general accordance with S&ME Proposal No. 43-1500412 dated April 20, 2015.

Attached is the Application for the Septic Improvement Permit, the Zoning Permit, and the ICHD Fast Track requirements presented to the ICHD on your behalf. The lot was originally permitted by the ICHD in 2004 for a 4 bedroom 25 Percent Reduction, Pressure Manifold System with a 36 inch maximum trench bottom. This Improvement Permit recently expired, and you are now requesting a new 4 bedroom Improvement Permit with the same house pad, same proposed well location and same primary system type. Mr. Paul Penninger with S&ME visited the lot with you on April 24, 2015 to review the proposed house pad and system location. Your surveyor located the property lines and flagged the house pad.

We are proposing a 4 bedroom Pressure Manifold, 25 Percent Reduction Primary System in the same general location and using the 0.275 gallons per day per square foot (gpd/sqft) long term acceptance rate (LTAR) that was approved in 2004. An ejector pump will be required for the basement plumbing.

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 should be at least 15 feet from the gully north of the drainfield or the gully should be properly filled with clean soil material. Minor smoothing of any minor humps and depressions in the field area may be required.

S&ME 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 and the ICHD 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. The ICHD may make any changes they deem necessary (tank locations, distribution device, etc.) to the proposed system on the Improvement Permit or the attached information /site plan. 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,

S&ME, Inc.

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

Rob Willcox, L.S.S.
Senior Project Manager / Soil Scientist

Attachments:

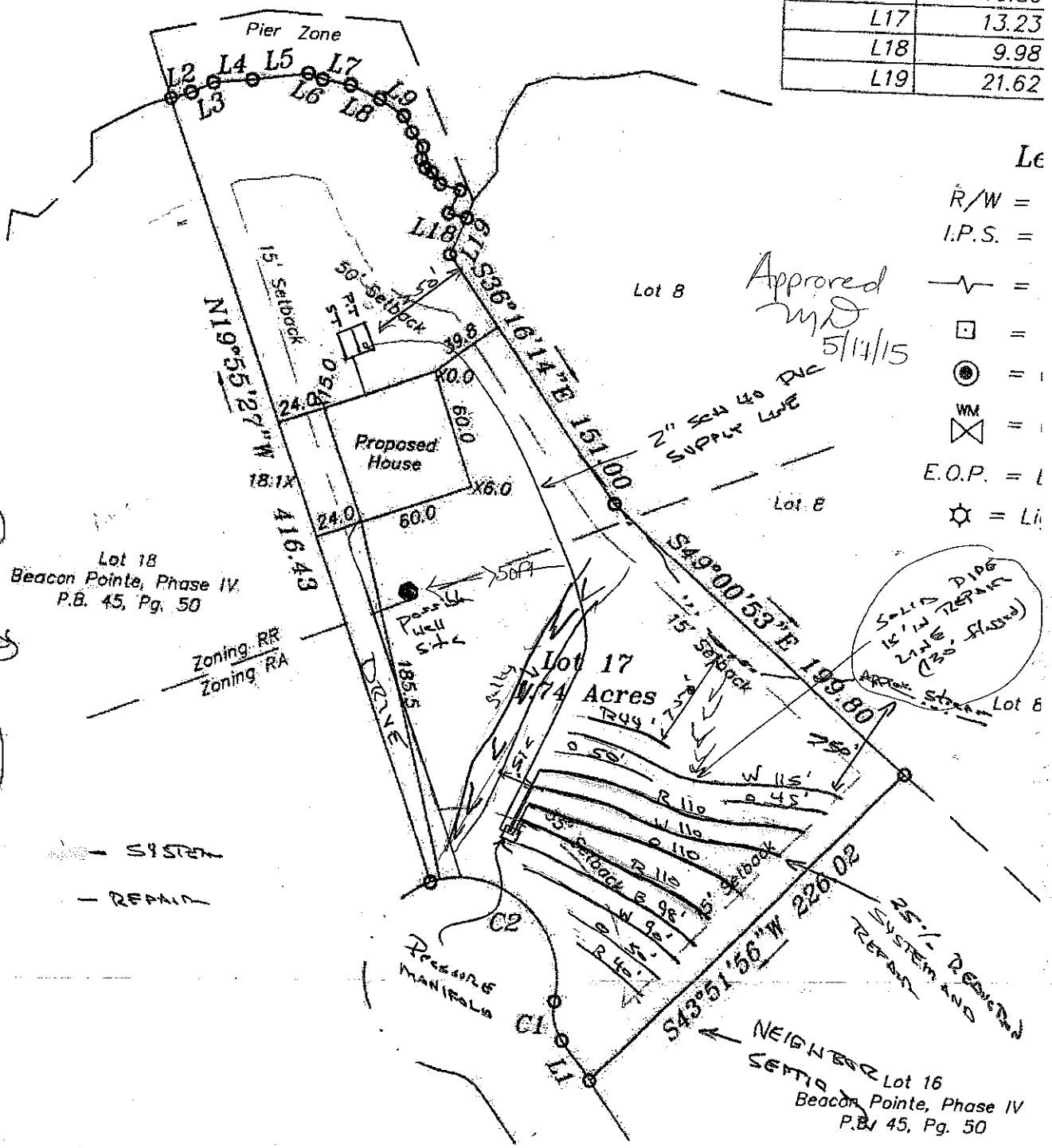
1. ICHD Improvement Permit Application and Zoning Permit
2. Site Plan and System Specifications
3. 2004 ICHD Permit

Copy: ICHD

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(IN FEET)
1 inch = ~~100~~ 50 ft.

L10	9.19
L11	9.19
L12	6.28
L13	4.66
L14	4.06
L15	7.32
L16	10.86
L17	13.23
L18	9.98
L19	21.62



LAKEMIST HOMES
Lot 17 BEACON PL. PH. 4 (WOLF)
SEPTIC SITE PLAN - APRIL 27, 2015
SIME PROJECT 4358-14-081 PL01

Beacon Pointe Phase 4 Lot 17 Fast Track System Information

Lakemist Homes - April 30, 2015

Number of Bedrooms	**4**
Basement or Crawl	**Basement**
Design Flow (gpd)	**480**
Primary System LTAR (gpd/ft2)	**0.275 (LTAR in 2004 ICHD IP)**
Primary System Type	**Pressure Manifold 25% Reduction**
No. Lines	4 @ 110 ft.
Total Linear Feet	440
Trench Width	3' min.
Trench Spacing	9 min.
Pump Required	Yes
Distribution Device	Pressure Manifold
Maintenance Agreement Required	No
Length and Diameter of Supply Pipe	~320' of 2" SCH 40 PVC
Flow Rate through the system	22 gpm
Elevation head	*Approx. 40'
Pressure head	2.0'
Friction head	Approx. 5'
20% Contingency	10'
Total Head	57'
Pump Requirements	22 gpm @ 57' of head*
Maximum Dosing Volume	240 gal - 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. 10.9 min. long run time
Check Valve	Yes
Siphon Break hole	No
Repair System	**25 % Reduction**
Total Linear Feet	532' shown *(440' Required)*
Repair Loading Rate	0.275

Beacon Pointe Phase 4 Lot 17 Fast Track System Information

Lakemist Homes - April 30, 2015

Table 1: Summary of Primary Drainfield Lines

Line No.	Use	Line Color	System Type	Line Length (Ft.)	Rod Reading (Ft.)
1	System	red	PM 25%	110	4.3 (approx. 812')
2	System	orange	PM 25%	110	6.8
3	System	white	PM 25%	110	9.5
4	System	red	PM 25%	110	12.2

Total System: 440' (436' required)

Tank		1000 gal (2 compartment)	*Elev. (ft)
Pump Tank		1000 gal.	780.0
House		Left Rear Corner	788.0

Manifold Information	
Tap Size (In.)	1/2
Tap Material	SCH 80 PVC
No. Taps	4
Barrel Size (In.)	4
Barrel Material	SCH 80 PVC
Flow (gpm)/Tap	5.5

NOTES:

***Elevations from GIS topo map must be verified by installer after site grading and before installation.**

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

Sheet 1 of 2
PROPERTY ID #: 4639221967
COUNTY: Iredell

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

OWNER: LAKEMIST HOMES
ADDRESS: WOLF HILL
PROPOSED FACILITY: 4 LOT
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: RIDGEVIEW DR
APPLICATION DATE 4-30
DATE EVALUATED 4-24
PROPERTY SIZE:
PROPERTY RECORDED: 2004
WATER SUPPLY: Private Public (Well) Spring Other
EVALUATION METHOD: (Auger Boring) (Pit) Cut
TYPE OF WASTEWATER: (Sewage) Industrial Process Mixed

Approved MS 5/11/15

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZON DEPTH (IN.)	SOIL MORPHOLOGY (.1941) STRUCTURE/ TEXTURE	SOIL MORPHOLOGY (.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%	0-24	WSBK SCL	FR SS/SP	BR				PC .3
		24-48	MSBK C	F SLE	RED FM	SHR	SAP		
						(48+)			
2	L	0-8	WSBK SCL	FR SS/SP	BR				PC .3
		8-36	MSBK C	FI SLP	RED	FM	SAP	WATER	
		36-49	WSBK CL/CL	FR SS/SP	RED	FM	SAP		
						(48+)			
3	L N/A -22%	0-6	WSBK SCL	FR SS/SP	BR				PC .3
		6-38	MSBK C	FI SLP	RED	DUG	SAP	SOIL	
				48" SOIL 1-12" UP	ON	GRADE	-36",		
					AT	BOTTOM	2-4		
4	N -20%	0-8	WSBK SCL	FR SS/SP	BR				PC .3
		8-28	MSBK C	FR SLP	RED				
		28-48	SCL-CL	M-WSBK	RED	FM GRAVEL	SAP		

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PC	PC
System Type(s)	2-3	2-3
Site LTAR	.275	.275

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948):
EVALUATED BY: PSP
OTHER(S) PRESENT: must be approved by KHD

COMMENTS:

SOIL/SITE EVALUATION

(Continuation Sheet-Complete all field in full)

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

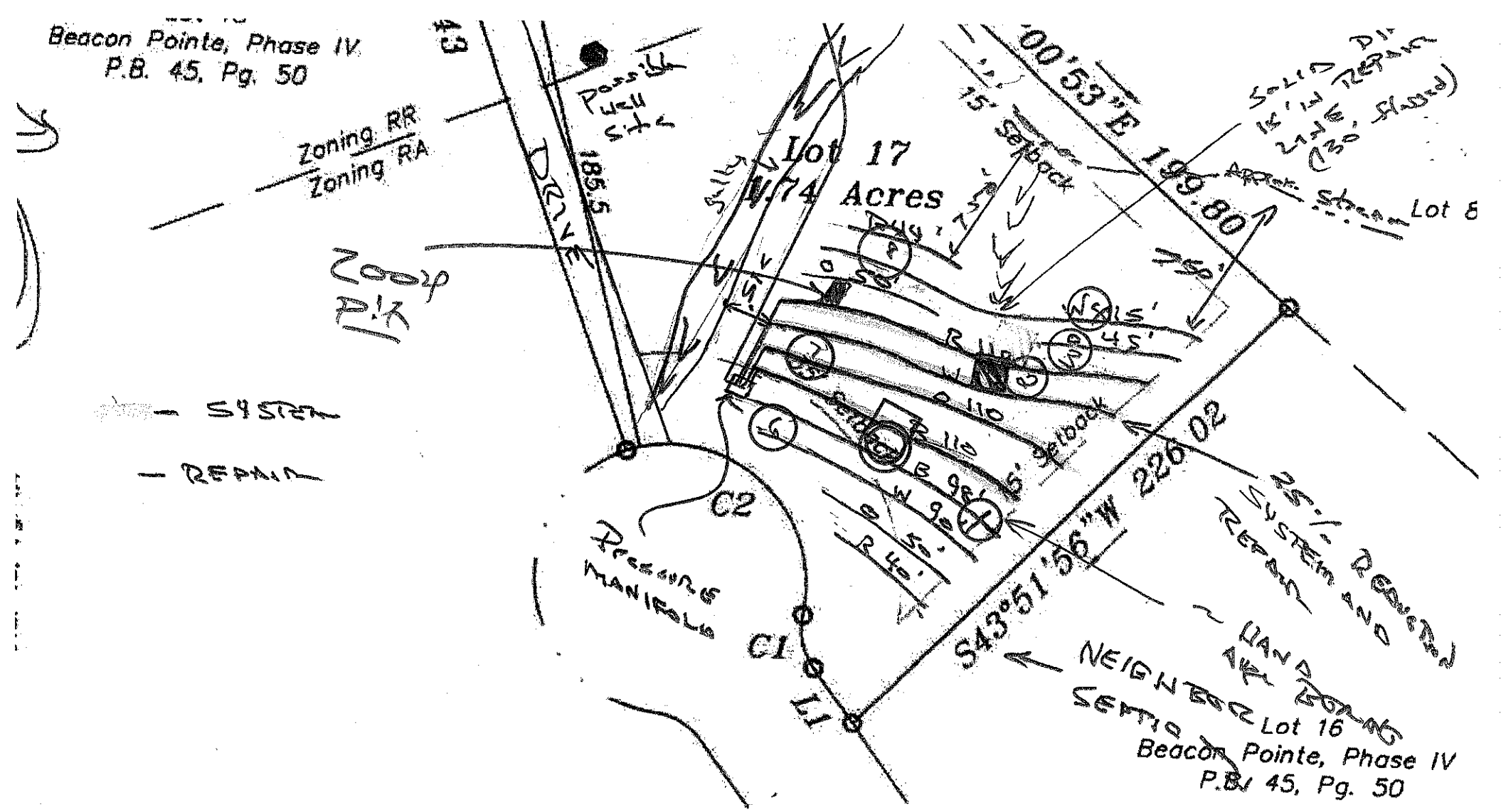
Reduced Pr. Lot 17 Pg 4

PROPERTY ID #:
DATE OF EVALUATION: 4-24
COUNTY:

Approved MO 5/11/15

PROFILE #	.1940 LANDSCAPE POSITION/ SLOPE %	HORIZ ON 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
5	L (15-20)	0-11	gr-wsbk sl	fr ss/sp	br				
		11-32	msbk c	fr=fi-fr ss/sp	red	5 sse :J			PS .3
		32-48	vwsbk/mass sl-l sap		w/ J 50	33	PS		
			Add. path Evc. to 60"						
6	L ~15	0-12	wsbk sol	fr sp/sp	br				
		12-23	wsbk c-sc	fi sp	red mott	f sap :J			PS .27v
		23-49	vwsbk sol	fr ss/sp	y-lt br	C sse :J 2on-sap 30"		w/ lt brown	
						49			
7	L/N ~20	0-12	wsbk sl-sl	fr ss/sp	br				
		12-28	msbk c	fi sp	red f	y-lt br			
		28-38	wsbk sol	fr ss/st	red mott	C sp :J			PS .3
		38-49	mass sl	fr ss/sp	nc	path = 30' away	PS		
8	L/N ~20	0-8	wsbk sol	fr ss/sp	br				
		8-48	msbk/wk csc	fi sp	red f	y-lt br			PS .27v
						48			

COMMENTS: See Pg. 1 notes



LAKEMIST HOMES

Lot 17 BEACON PT. PH. 4

SEPTIC SITE PLAN - APRIL 27, 2015

SITE PROJECT 4358-14-081 PL01