APPROVED NOV 0 9 2015



MICHAEL ATHANAS & ASSOCIATES
LICENSED SOIL SCIENTIST
561 Ennis Rd.
Weddington, NC 28173
(704) 576-3887

Reference: Data Sheet for 103 Atlantic Way, The Point Lot 311
House Footprint: See attached plan
Building Setbacks: 50' front/rear, 20' side
Water Source: Community water
Number of Bedrooms: 4/480 GPD
Proposed LTAR: 0.25 GPD/FT2 (initial as per ICHD), 0.1 GPD/FT2 (repair)
Proposed System Type: PPBPS
Proposed Repair System Type: TSI Pretreatment Drip Irrigation
Distribution: Low pressure-CVB
Flow per Orifice: 0.59 GPM
Orifice Size: 3/16"
System Flow: 44.25 GPM
Dosing Volume: 270 gallons
Pump Run Time: 6.1 minutes
Elevation Head: 12.3'
Friction Head: 2.2'
Pressure Head: 2'
Total Dynamic Head: 16.5'
Supply Line Length: 55'
Septic/Pump Tank Size: 1500/1000 gallons
Proposed Trench Bottom: 36" (initial)

Line	Design Length	Panels	Actual Length	Elevation
Orange 1	40'	9	40'	1.7'
White 2	35'	8	35'	1.9'
Blue 3	25'	6	25'	2.3'
Orange 4	20'	5	21'	2.7'
White 5	17'	4	20'	3.4'
Blue 6	13'	3	17'	3.8'
White 7	20'	5	20'	12.7'
Red 8	25'	6	25'	14.2'
Pink 9	60'/65'	14/15	130'	15.8'

Initial System: 320' **Repair System:** 4800+ FT2

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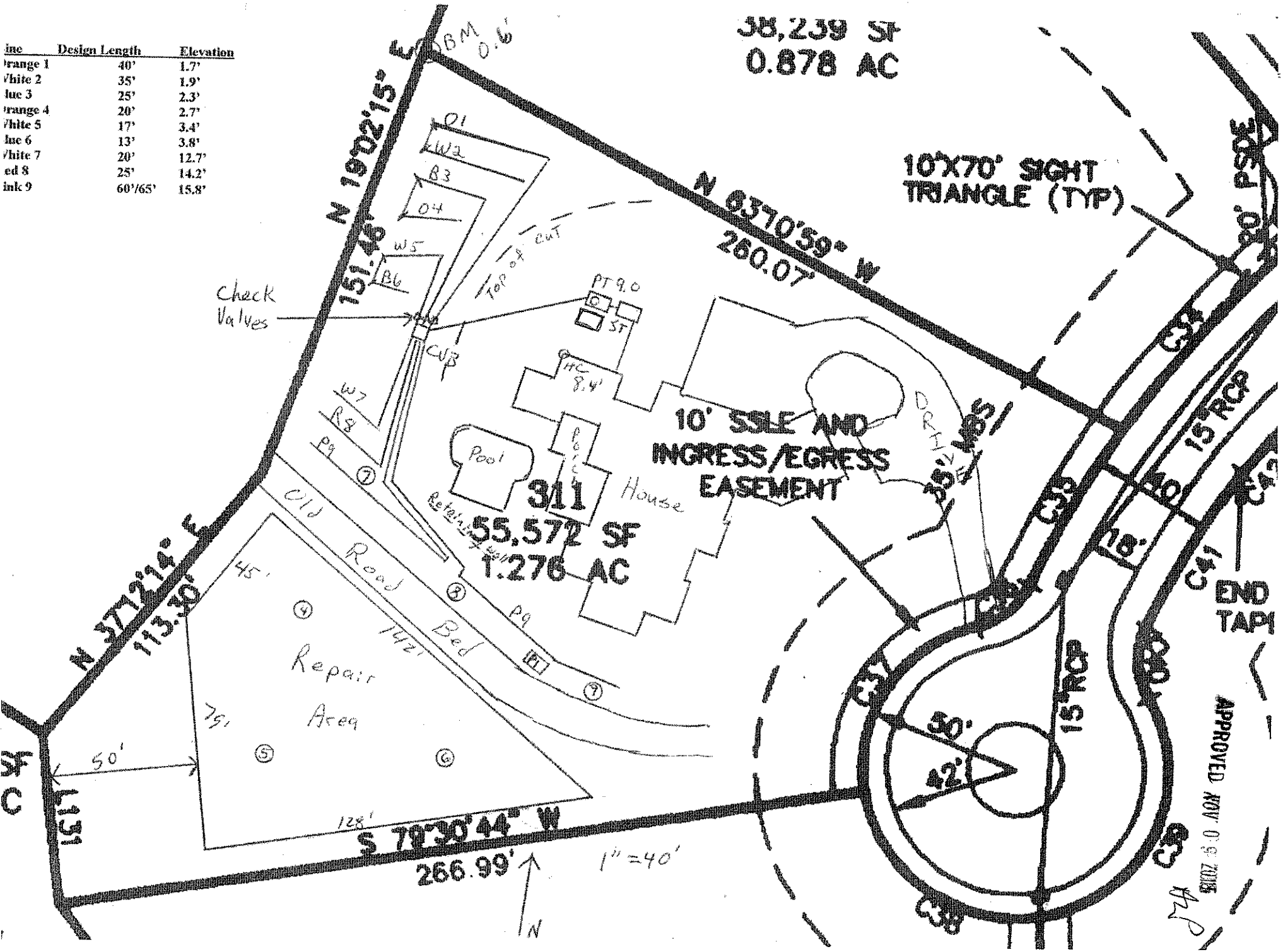
Pump Tank: 9.0' **House Corner:** 8.4' **Benchmark:** 0.6'

Comments:

M A & A redesigned this system due to excessive grading that removed or encroached on the original drain field design. Part of the old road bed must be filled below P9 to get the 15' setback. M A & A performed 3 new auger borings to confirm the soils. The initial system area has been previously evaluated with pits by ICHD. Initial system is on 9' centers.

In order to reduce the number of gate valves, O1 and W2 will be fed from one valve, B3 and O4 will be fed from one valve and W5 and B6 will be fed from one valve. O1/W2, B3/O4, and W5/B6 must be installed with their trench bottoms on the same elevation. Check valves must be install on the supply lines that feed O1/W2, B3/O4, and W5/B6.

Line	Design Length	Elevation
Orange 1	40'	1.7'
White 2	35'	1.9'
Blue 3	25'	2.3'
Orange 4	20'	2.7'
White 5	17'	3.4'
Blue 6	13'	3.8'
White 7	20'	12.7'
Red 8	25'	14.2'
Pink 9	60'/65'	15.8'



SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: 4626-81-4744
DATE OF EVALUATION: 10-14-15
COUNTY: Iredell

APPROVED NOV 09 2015 AnP

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	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
P1	North	0-10	B SL Gr	Fr SS SP SExP					0.25
		10-28	RC MM ABk	Fi SP SExP					
		28-52	Rock controlled, many clay veins, flt planes between WR						
		52-56	R C WF ABk	Fi S P SExP					
P1	South Side	0-8	Fill						0.25
		8-16	B SL Gr	Fr SS SP SExP					
		16-25	R C MF ABk	Fi, S P SExP	few/com sap				
		25-41	Var Sel Sap M	Fi SS SP SExP	few YB, clay collected @ transition, forming platy				
		41-55	Var SL Sap M	Fr SS SP SExP	com clay veins				

COMMENTS: Descriptions by AZP, ICHD

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet 1 *of* 1
PROPERTY ID #: 4626814744
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

APPROVED NOV 0 9 2015 AP

OWNER: Steven Carpenter
ADDRESS: 795 Golden Rd, Tryon, NC 28782
PROPOSED FACILITY: 4 bdrm PROPOSED DESIGN FLOW (.1949): 480 GPD
LOCATION OF SITE: 103 Atlantic Way, The Point Lot 311

APPLICATION DATE
DATE EVALUATED:
PROPERTY SIZE: 1.276 AC
PROPERTY RECORDED: 5/7/1999

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
7	LS 15%	0-4	Br CL WSBK	FR SS SP	N/A	48"	Few SAP	N/A	PS 0.3
		4-28	R C SBK	FR SS SP					
		28-48	R CL WSBK	FR SS SP					
8	LS 7%	0-6	Br CL WSBK	FR SS SP	N/A	40"	F-C SAP PS	N/A	PS 0.3
		6-28	R C SBK	FR SS SP					
		28-40	R CL WSBK	FR SS SP					
		40-60	SL SAP M	FR SS SP					
9	LS 7%	0-12	Br CL WSBK	FR SS SP	N/A	44"	F-C SAP PS	N/A	PS 0.3
		12-32	R C SBK	FR SS SP					
		32-44	R CL WSBK	FR SS SP					
		44-48	SL SAP M	FR SS SP					
P 1	LS 7%	0-10	Br SCL WSBK	FR SS SP	N/A	43"	F-C SAP PS	N/A	PS 0.3 See ICHD Soil Notes AP
		10-28	R C SBK	FR SS SP					
		28-43	R CL WSBK	FR SS SP					
		43-60	SL SAP M	FR SS SP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	810 FT2	4800+ FT2
System Type(s)	PPBPS	PT DRIP
Site LTAR	0.3	0.1

OTHER FACTORS (.1946):
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: M A & A
OTHER(S) PRESENT:

COMMENTS:

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

PROPERTY ID #: Lot 311;Section 3; The Point
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Jennifer Bost _____ APPLICATION DATE _____
ADDRESS: 103 Atlantic Way, Mooresville, NC 28117 _____ DATE EVALUATED: 01/22/2015
PROPOSED FACILITY: 4-Bedroom Residence PROPOSED DESIGN FLOW (.1949): 480 GPD PROPERTY SIZE: 1.28 Acres
LOCATION OF SITE Lot 311;Section 3; The Point; Atlantic Way 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)		OTHER PROFILE FACTORS				PROFILE CLASS & LTAR
			.1941 STRUCTURE/ TEXTURE	.1941 CONSISTENCE/ MINERALOGY	.1942 SOIL WETNESS/ COLOR	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	
AB 1	L 5-6%	0"-32"	R C SBK	SS SP FR SEXP		48"	Few to common saporlite inclusions.	None	.3
		32"-48"	R CL WSBK	SS SP FR SEXP					
AB 2	L 5-6%	0"-13"	RBr SCL WSBK	SS SP FR SEXP		48"	Few to common saporlite inclusions.	None	.3
		13"-19"	YBr SCL WSBK	SS SP FR SEXP					
		19"-39"	R C SBK	SS SP FR SEXP					
		39"-48"	R CL WSBK	SS SP FR SEXP					
AB 3	L 5-6%	0"-10"	Br SL GR	NS NP VFR NEXP	Few to common YBrs 10"-36" Chroma 2 @ 36"	36"		None	.1 Drip Repair
		10"-36"	Br SCL WSBK	SS SP FR SEXP					
AB 4	L 5-6%	0"-40"	Br SL GR	NS NP VFR NEXP		43"		None	.1 Drip Repair
		40"-43"	Br SCL WSBK	SS SP FR SEXP					

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	810 FT2	5391 FT2
System Type(s)	PPBPS	TS I Drip
Site LTAR	.3	.1

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: Michael Athanas and Associates
OTHER(S) PRESENT: _____

COMMENTS: _____

APPROVED FEB 02 2015 AC

SOIL/SITE EVALUATION

(Continuation Sheet)

DEPARTMENT OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

PROPERTY ID #: Lot 311;Section 3; The Point
COUNTY: Iredell

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	.1943 SOIL DEPTH	.1956 SAPRO CLASS	.1944 RESTR HORIZ	PROFILE CLASS & LTAR
AB #5	L 5-6%	0"-4"	Fill			36"	Few to common saporlite inclusions.	None	.1 Drip
		4"-12"	Br SCL WSBK	SS SP FR SEXP					
		12"-36"	YBr L WSBK	SS SP FR SEXP					
		36"+	SL Saporlite Massive	NS NP VFR NEXP					
B 1	L SS 10-15%	0-4	B SCL Gr	Fr SS SP SExP	2.5Y 6/3 @ 20" Chr 2 >24"	34"	—	—	PS .1 Drip
		4-12	PY SL Gr	Fr SS SP SExP					
		12-34	YB SC MWPSBk	Fr SS SP SExP					
B 2	C SS 10-15%	0-4	B SCL Gr	Fr SS SP SExP	2.5Y 6/3 @ 24" Chr 2 >34"	38"	—	—	PS .1 Drip
		4-23	YB SL Gr	Fr SS SP SExP					
		23-33	YB SCL Gr/MWPSBk	Fr SS SP SExP					
		33-38	YB SL MWPSBk	Fr SS SP SExP					

COMMENTS:

APPROVED FEB 02 2015

ACP