LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	FIELD LENGTH (FT)	DESIGN LENGTH (FT)
1	YELLOW ✓	4.1	61	
2	PINK	4.3	106	
3	ORANGE	4.8	166	
4	BLUE	5.1	153	
5	PINK ✓	5.5	28	
6	ORANGE ✓	5.6	16	
7	RED	5.9	100	
8	ORANGE	6.3	80	
9	PINK	6.6	63	
10	RED	7.4	40	

LOT 16 BELLS CROSSING SUBDIVISION

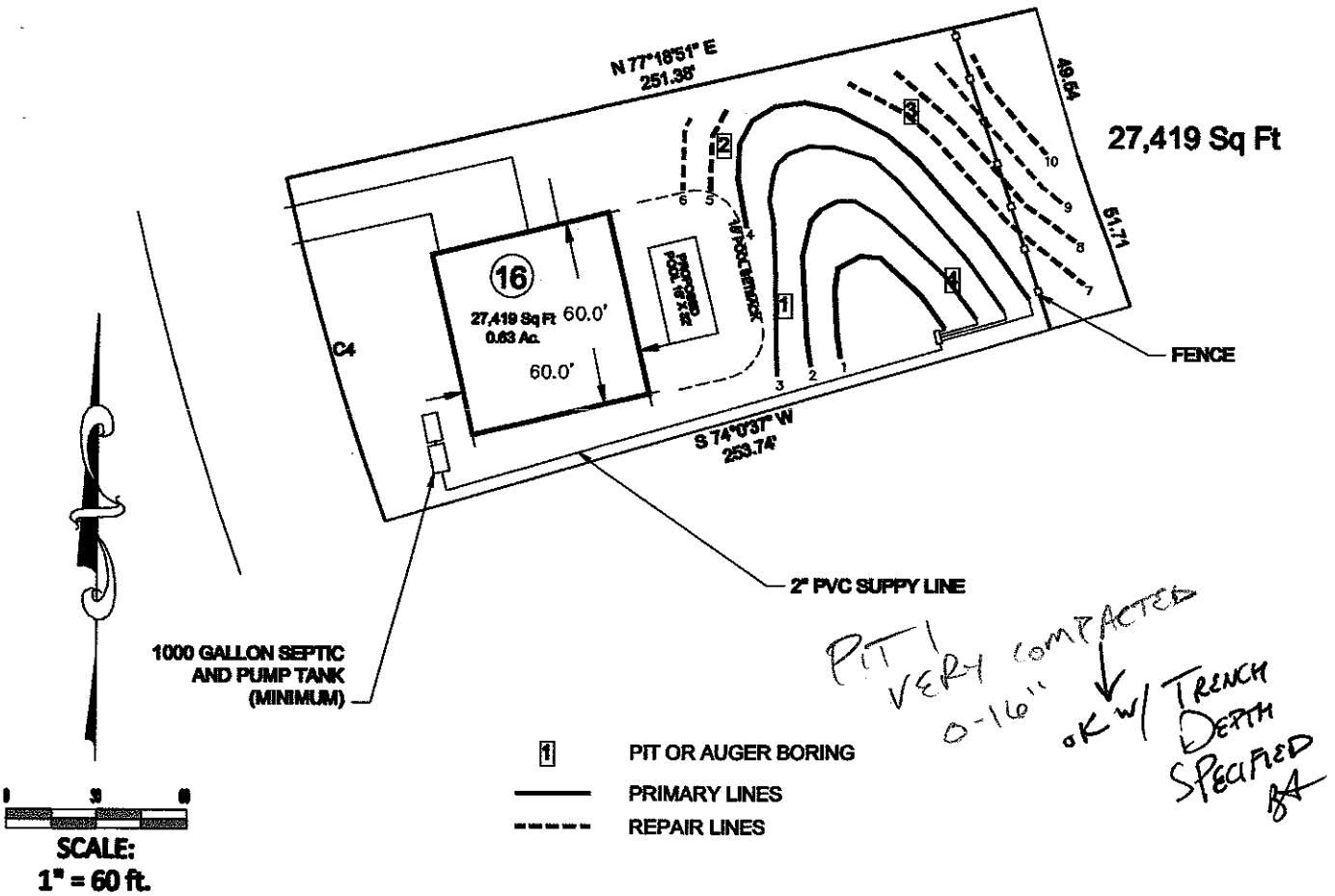
4-BEDROOM ACCEPTED STATUS PRESSURE MANIFOLD SYSTEM
LINES 1-4 TOTAL 484 LINEAR FEET
EZFLOW OR CHAMBER
LTAR 0.25
25%REDUCTION
36" TRENCH DEPTH

4-BEDROOM LPP FED PANEL BLOCK REPAIR
LINES 5-10 TOTAL 325 LINEAR FEET
LTAR 0.25
50% REDUCTION
TRENCH DEPTH 44"

FOR GENERAL USE NOT A SURVEY
PRELIMINARY NOT FOR CONSTRUCTION

SOIL PROFILES AND ANALYSIS PROVIDED BY CENTRAL CAROLINA SOIL CONSULTING PLLC

NOTE:
TRENCHES TO BE INSTALLED AT DEPTHS SHOW TO AVOID SURFACE COMPACTION.



Bateman Civil Survey Company
Engineers • Surveyors • Planners

MeritageHomes

LOT 16
BELLS CROSSING SUBDIVISION
MOORESVILLE, NC
IREDELL COUNTY

DATE: 09/19/13 DRAWN BY MB CHECKED BY: TMB

DENR/DEH

ON-SITE WASTEWATER SECTION

Sheet 1 of 1
PROPERTY ID #: 4649-04-1815
COUNTY: Iredell

SOIL/SITE EVALUATION
for ON-SITE WASTEWATER SYSTEM

OWNER: Meritage Homes APPLICATION DATE 9-25-14
ADDRESS: 11605 N Community Rd Suite 250 Charlotte NC 28277 DATE EVALUATED: 10-21-14
PROPOSED FACILITY: 4 Brm PROPOSED DESIGN FLOW (.1949): 480 gpd PROPERTY SIZE: 0.63
LOCATION OF SITE: 112 N. San Agustin Dr, Lot 16 Bells Crossing PROPERTY RECORDED: Yes
WATER SUPPLY: ☐ Private ☑ Public ☐ Well ☐ Spring ☐ Other Community
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
P1	NS/LSS 3-5%	0-3	gravel			55"	–	–	PS .275-.25
		3-17	Compacted	Severely					
		17-28	RC MFABK/MABK	F, S, P SEXP	few sap				
		28-55	R CL WFSBK	Fr SS SP SEXP	few sap				
P2	LSS/NS 3-5%	0-8	Compacted			55"	–	–	PS .275-.3
		8-18	RC MFABK	F, S, P SEXP	few sap				
		18-31	YR C WFSBK/ABK	Fr SS SP SEXP	com/many sap				
		31-55	YR CL WFSBK	Fr SS SP SEXP	com/many sap				
P3	LSS 6%	0-7	gravel			55"	–	–	PS .275-.25
		7-11	Compacted	SCL					
		11-17	Compacted	Severely					
		17-34	RC SABK	F, S P SEXP					
		34-55	R CL WFSBK	Fr SS SP SEXP					
P4	NS/LSS 5%	0-9	B SCL GR	Fr SS SP SEXP		46"	–	–	PS .3
		9-40	RC MFSBK	Fr SS SP SEXP					
		40-46	RC WFABK/SBK	Fr SS SP SEXP	Com sap				

DESCRIPTION	INITIAL SYSTEM	REPAIR SYSTEM
Available Space (.1945)	PS	PS
System Type(s)	LP PP BPS	LP PP BPS
Site LTAR	0.25	0.25

OTHER FACTORS (.1946): None
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Adrian P & Richard F.
OTHER(S) PRESENT: None

COMMENTS:

LINE SCHEDULE

LINE NUMBER	COLOR	FIELD ELEVATION	FIELD LENGTH (FT)	DESIGN LENGTH (FT)
1	ORANGE	2.7	35	35
2	RED	2.9	76	76
3	YELLOW	3.0	115	113
4	PINK	3.1	70	70
5	BLUE	3.3	110	110
6	ORANGE	3.6	36	36
7	YELLOW	3.8	27	27
8	PINK	3.8	24	24
9	WHITE	4.0	39	39
10	PINK	4.4	85	85
11	ORANGE	4.9	42	42
12	BLUE	5.5	15	15

LOT 16 BELLS CROSSING SUBDIVISION

4-BEDROOM ACCEPTED STATUS PRESSURE MANIFOLD SYSTEM
LINES 1-5 TOTAL 406 LINEAR FEET
EZFLOW OR CHAMBER
LTAR 0.3
25%REDUCTION
24" TRENCH DEPTH

4-BEDROOM LPP FED PANEL BLOCK REPAIR
LINES 6-12 TOTAL 268 LINEAR FEET
LTAR 0.3
50% REDUCTION

FOR GENERAL USE NOT A SURVEY
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SOIL PROFILES AND ANALYSIS PROVIDED BY CENTRAL CAROLINA SOIL CONSULTING PLLC

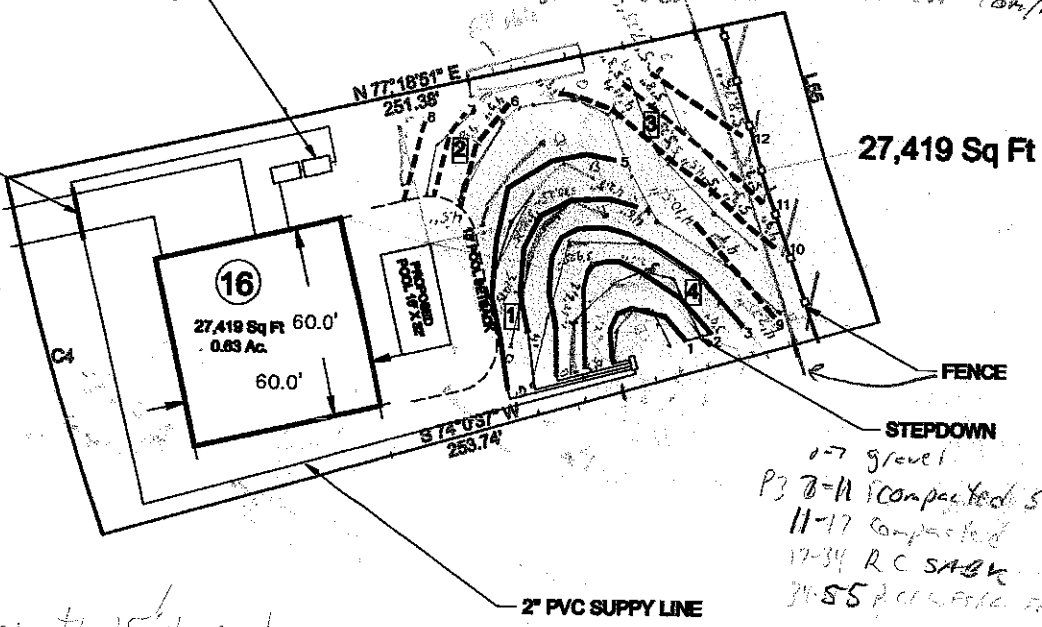
P1 0-3 gravel
3-11 Compacted .25
17-28 RC MFABK/MABK Fr SP, SSP few YR
28-55 R CL WFSBK Fr SS SP SSP

W-39'
B-72'
G-114'
O-148'
O-66'
B-54'
W-34'
G-17'
W-65'
G-41'

P2 0-8 Compacted
8-18 R C MFABK Fr SP SSP few YR
18-31 YR C MFSBK/ABK Fr SP SSP few YR
31-55 YR CL WFSBK Fr SS SP SSP

1250 GALLON SEPTIC AND PUMP TANK (MINIMUM)

6" DUCTILE IRON PIPE SLEEVE UNDER DIVEWAY



P3 0-11 Compacted Sol .25
11-17 Compacted .25
17-34 R C SMBK Fr SP SSP
34-55 R CL WFSBK Fr SS SP SSP

Line 5 exactly 15' to pool from center of line

P4 0-9 R Sol Fr SP SSP Comp .3
9-40 R C MFSBK Fr SP SSP
40-65 R C MFSBK/SBK Fr SS SP SSP Comp

1 PIT OR AUGER BORING
PRIMARY LINES
REPAIR LINES

0 30 60

SCALE:
1" = 60 ft.

Bateman Civil Survey Company
Engineers • Surveyors • Planners
350 N. Main Street, Holly Springs, NC 27540 Ph: 919.577.1080 Fax: 919.577.1081
www.batemancivilsurvey.com info@batemancivilsurvey.com
NCBELS Firm No. C-0910

Meritage Homes

LOT 16
BELLS CROSSING SUBDIVISION
MOORESVILLE, NC
IREDELL COUNTY

DATE: 09/19/13 DRAWN BY MB CHECKED BY: TMB

Bells Crossing S/D Lot 16

Layout/Design Specifications

Facility Type:	Single Family Home	
# of Bedrooms:	4	
Daily Flow:	480	**gal/day**
L.T.A.R.:	0.25	**gal/day/sq.ft**
Trench Depth:	36	**in**
Trench Width:	36	**in**
Stone Depth:	chamber	**in**
Manifold Length:	42	**in**
Manifold Diameter:	4	**in sch 80pvc**
Supply Line Length:	176	**ft**
Supply Line Diameter:	2	**in sch 40pvc**
Supply Line Volume:	30.62	**gallons**
Friction Loss + Fitting Loss:	14.24	**ft(supply line length + 70' for fittings in pump tank)**
Design Head:	2	**ft**
Elevation Head:	10.90	**ft**
Total Head:	27.14	**ft**
Dose Volume:	283.49	**gals** Doswg 90%
% of Pipe Vol.	.90	
Drawdown:	14.06	**in @ 20.16 gal/in**
Pump Run Time:	5.01	**minutes**
Control Panel:	SJE Rhombus Model112 control panel (or approved equivalent)	
Pump:	Zoeller M161 Flow-Mate (or approved equivalent)	
Septic Tank Effluent Filter:	Zoeller 170-0144 residential effluent filter (or approved equivalent)	
Septic Tank:	1000	**gallon**
Pump Tank:	1000	**gallon**

Bells Crossing S/D Lot 16
SYSTEM TAP CHART

	Bench Mark:	0	= 100.00	**Manifold elev:**	96.90				
	Pump tank elevation:	91.40		**Pump elev:**	86.00				
line	**color**	**rod read**	**elevation**	**length**	**hole size**	**flow/tap**	**gal/day**	**trench area**	**LINE LTAR**
1	Yellow	4.10	95.90	61	1/2in SCH 40	7.11	60.29	183	0.329
2	Pink	4.30	95.70	106	3/4in SCH 40	12.5	105.99	318	0.333
3	Orange	4.80	95.20	166	1in SCH 40	20.2	171.28	498	0.344
4	Blue	5.10	94.90	153	1in SCH 80	16.8	142.45	459	0.310
	P-TANK	8.60	91.40						
		total	**feet =**	**486**	**gal/min =**	**56.61**		**LTAR =**	**0.250**
				Des. Flow	480			**(ltar + 5%)**	0.26
				24 Hour Pump Run=	8.48			**(ltar W/ INO**	0.33
								(ltar + 5%)	0.35

Comments: