Design Specifications for Lot 23 Rock Ridge Point, Iredell, North Carolina

APPROVED SEP 3 0 2015

Daily Design Flow	480	gals
Number of Bedrooms	4	bedrooms
Basement or Crawspace	Craw Space	
Dellinger Septic Tank Size	1500	gals, Effluent Poly Lock PL68 Filter or equal.
Dellinger Pump Tank Size	1500	gals
Sim/Tech Effluent Filter on Pump Tank	Yes	Connection inside pump tank vault and on supply line.
Primary System Loading Rate (LTAR)	0.30	gpd/ft^2 LTAR including Soils Evaluations were determined by Iredell County. Soils Evaluations and LTAR were not Conducted by Septic Environmental Solutions, Inc.
Number of Lines	2	Total LP PPBPS, See Scaled Dwg.
Primary System	270	ft.
Trench Width	2	ft
Trench Spacing	8	ft
Trench Maximum Depth	36	inches
Pump required	Yes	
Distribution Device	Yes	Gate Valve Box with LPP Panel Distribution
Maintenance Agreement Required	Yes	Contracted by Septic Environmental Solutions, Inc.
Length and Diameter of Supply Line	95	2" SCH 40 PVC 1 1/4" SCH 40 PVC
Number of T&J Panels	61	Total panels for primary system
Flow Rate through System	31	gpm-- use 5/32" holes with 3ft head
Elevation Head	6	ft.
Pressure Head	3	ft.
Friction Head	1.54	ft.
20% Contingency	2	ft.
Total Head	12.6	ft.
Pump Requirements	31	gpm. with 13-ft of Head; Use Goulds WE03L Pump or Equivelent with Compatible Electrical
Dosing Volume	220	gallon 2.2 does/day@design flow*
Pump run time per dose, approximate	7.1	min
Check Valve	Yes	
Siphon Break Hole	Yes	
Repair System Loading Rate	0.30	gpd/ft2
Repair System	Yes	LP PPBPS, See attached dwg.
Total foot of Repair	270	ft

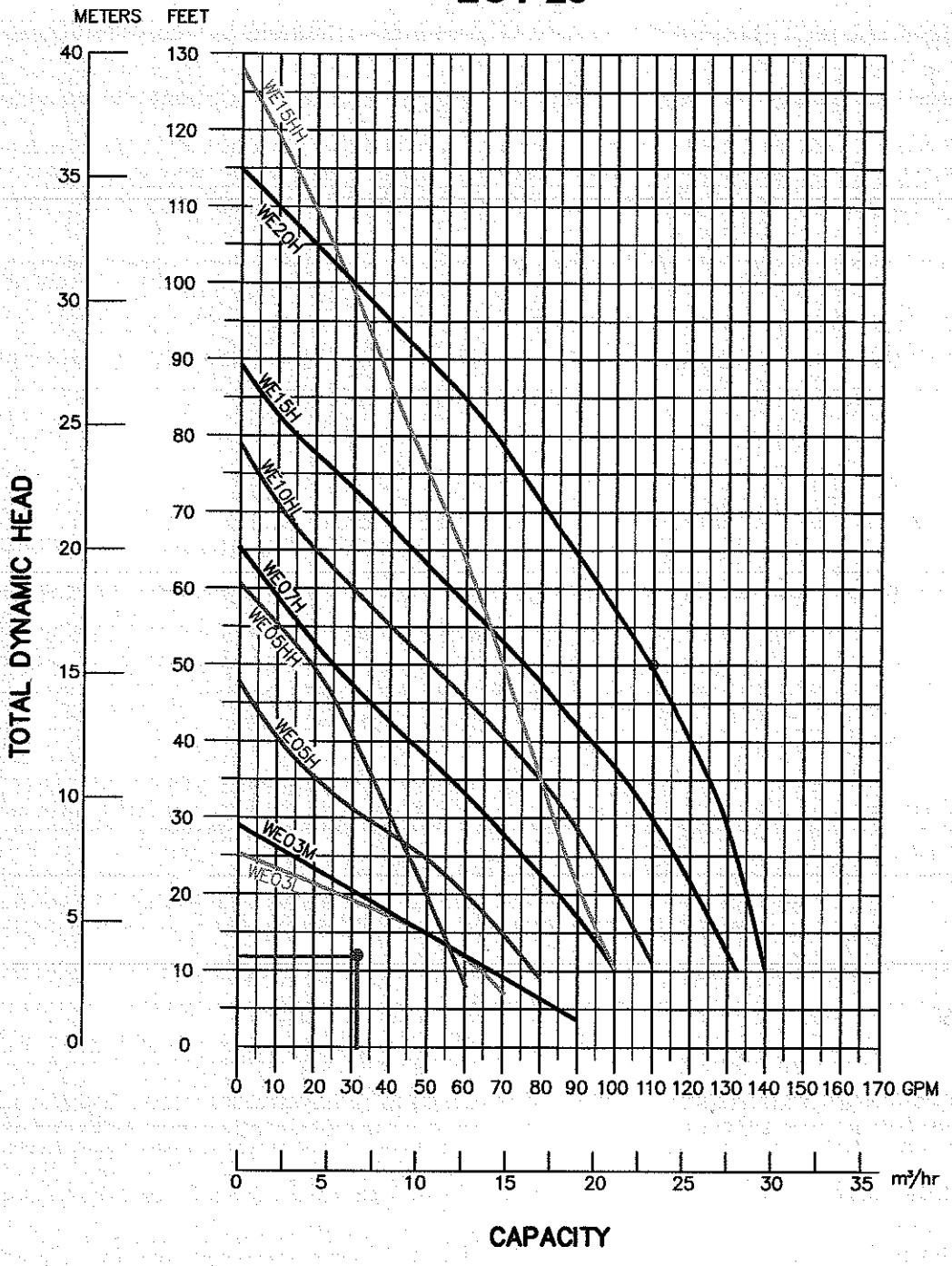
Before placement of cap block, one panel on each line near the center of the field should be observed filling to make certain that it does not overflow top chamber into air chambers of panel. If overflow occures, reduce floats by 25 gallons and reset until no overflow is observed.

LPPPPBPS Design Worksheet (Primary System)					File #/Name:	Rock Ridge
System Requirements					Tax #:	4636233131.023
Number of bedrooms	4				Lot	23
Craw Space/Basement	Craw Space					
Daily Design Flow	480	gpd			Address:	Iredell County
LTAR	0.300	gpd/ft.^2			Consultant:	Septic Environmental Solutions Inc.
Linear footage	533.33	ft. (Conventional)			Phone:	704-502-5588, Fax 704-684-1469
Linear footage	266.67	ft. (50% Reduction)				
Trench Maximum Depth	36	inches				
Laterals	Length (ft)	# Panels	Calculated			
Line # 1	140	32	32			
Line # 2	130	29	29			
Line # 3		0	0			
Line # 4		0	0			
Line # 5		0	0			
Line # 6		0	0			
Line # 7		0	0			
Line # 8		0	0			
Line # 9		0	0			
Line # 10		0	0			
Line # 11		0	0			
Line # 12		0	0			
Totals	270	61	61			
	*Lines longer than 70 ft. must be center-fed to comply with sewage rules.					
Absorption Area						
Length (ft)	Width (ft)	Spacing	Area (ft^2)			
270	2	8	3000+			
System Pressure Head	3	ft.	Value selected by system designer (must be between 2-5 ft.)			
Orifice Diameter	5/32	in.	Size selected by system designer (1/8 in. minimum)			
Flow Rate per Orifice/Panel	0.5	gpm	Determined from orifice flow design table (use table from Flow Rate tab)			
Total System Flow Rate	31	gpm	Total number of panels required multiplied by the orifice flow rate			
System Dose Volume	220	gal.	Total number of panels required multiplied by 3.6 gal./panel			
Doses Per Day	2.2	cycles	Number of dose cycles per day based on daily design flow. Daily design flow divided by system dose volume.			
Pump Run Time	7.10	min.	System dose volume divided by the total system flow rate			
Pump Tank Volume / Inch	29	gal./in.	1,000 gal. Pump tank, volume is approximately 21 gallons per inch. 1,500 gal. pump tank, volume is approximately			
			29 gallons per inch. Contractor is responsible in verifying tank gallons per inch.			
Pump Tank Drawdown	7.59	in.	System Dose Volume divided by gallons per inch for the designed tank size.			
Supply Line Length	95.00	ft				
Elevation head+pump height	6.00	ft.				
Friction Head	1.54	ft.				
20% Contingency	2.11	ft.				
Total Head	12.6					
Comments:						
1. Install system using 2 ft. wide trenches.						
2. Install drainlines on 8 ft. centers (to be specified by the designer) and must be level and on contour.						
3. System design requires effluent pump for distribution.				Yes		
4. Requires repair septic system.		Yes		Cells with blue shading require user input.		
5. Maintenance Agreement Required		Yes		Cells with yellow shading are automatically calculated.		

T&J Panel Summary Table	
Linear Feet	# Panels
20	5
30	7
40	9
50	11
60	14
70	16
80	18
90	21
100	23
110	25
120	17
130	30
140	32
150	34
160	37
170	39
180	41
190	43
200	46

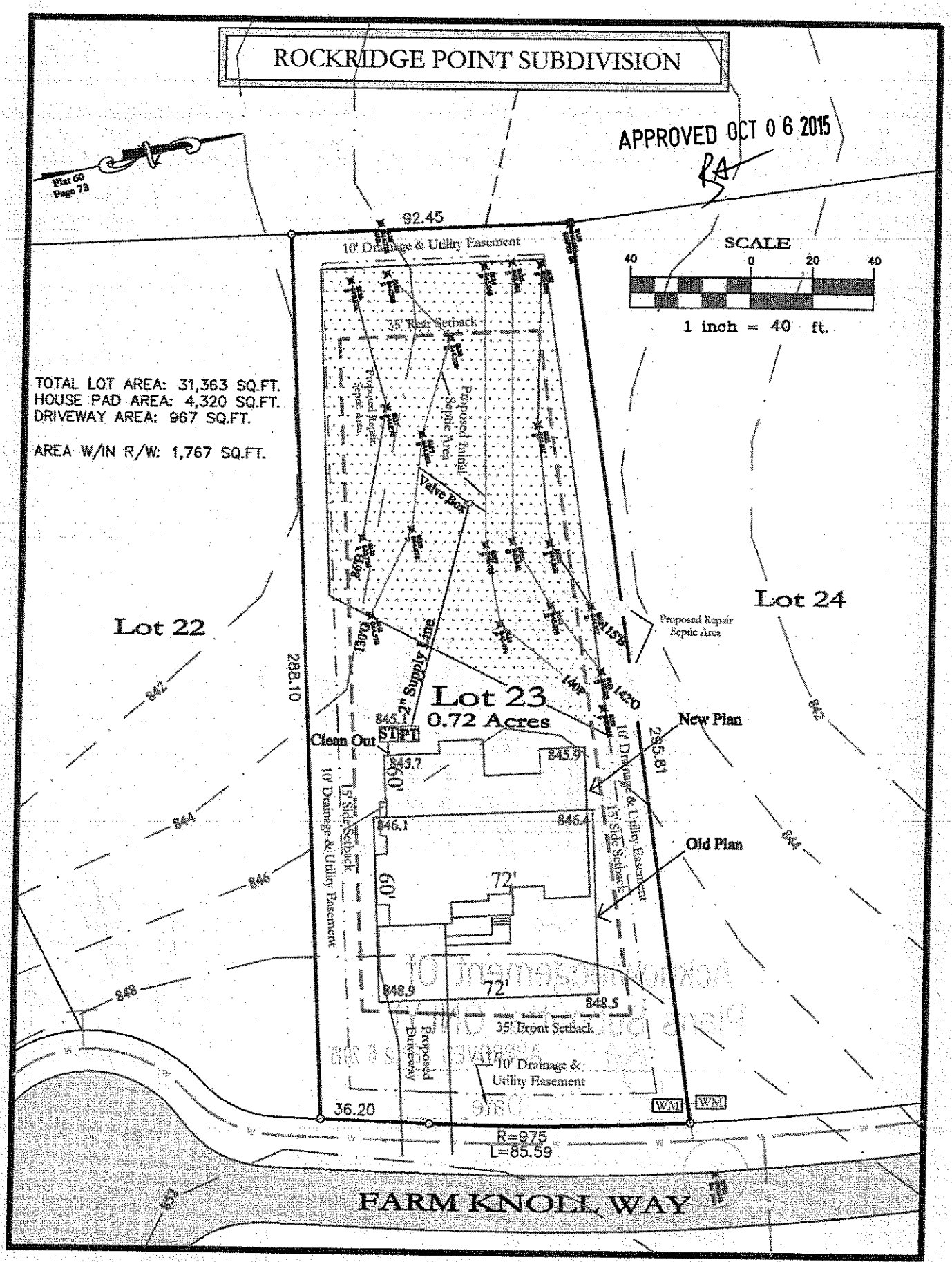
APPROVED SEP 30 2015

PUMP CURVE
LOT 23



GOULDS PUMP PERFORANCE CURVES

Submersible Effluent Pump WE Series


ROCKRIDGE POINT SUBDIVISION
APPROVED OCT 0 6 2015
RA
Plat 60
Page 73
92.45
10' Drainage & Utility Easement
SCALE
40 0 20 40
1 inch = 40 ft.
35' Rear Setback
TOTAL LOT AREA: 31,363 SQ.FT.
HOUSE PAD AREA: 4,320 SQ.FT.
DRIVEWAY AREA: 967 SQ.FT.
AREA W/IN R/W: 1,767 SQ.FT.
Proposed Repair Septic Area
Proposed Initial Septic Area
Valve Box
Lot 22
Lot 24
Proposed Repair Septic Area
130'
2" Supply Line
140'
Lot 23
0.72 Acres
288.10
285.81
845.7
ST PT
Clean Out
843.7
845.9
New Plan
10' Drainage & Utility Easement
15' Side Setback
60'
846.1
846.4
Old Plan
72'
848.9
72'
848.5
35' Front Setback
Proposed Driveway
10' Drainage & Utility Easement
36.20
WM
WM
R=975
L=85.59
FARM KNOLL WAY
842
844
846
848
850
852