Harnett County Department of Public Health

PERMIT # SFD2504-0014

Operation Permit

☒ New Installation ☒ Septic Tank ☒ Nitrification Line ☐ Repair ☐ Expansion

PROPERTY LOCATION: 253 Knoll Way

Name: (owner) Smith Douglas Homes SUBDIVISION Briarwood Bluff LOT # 14

System Installer: A+R

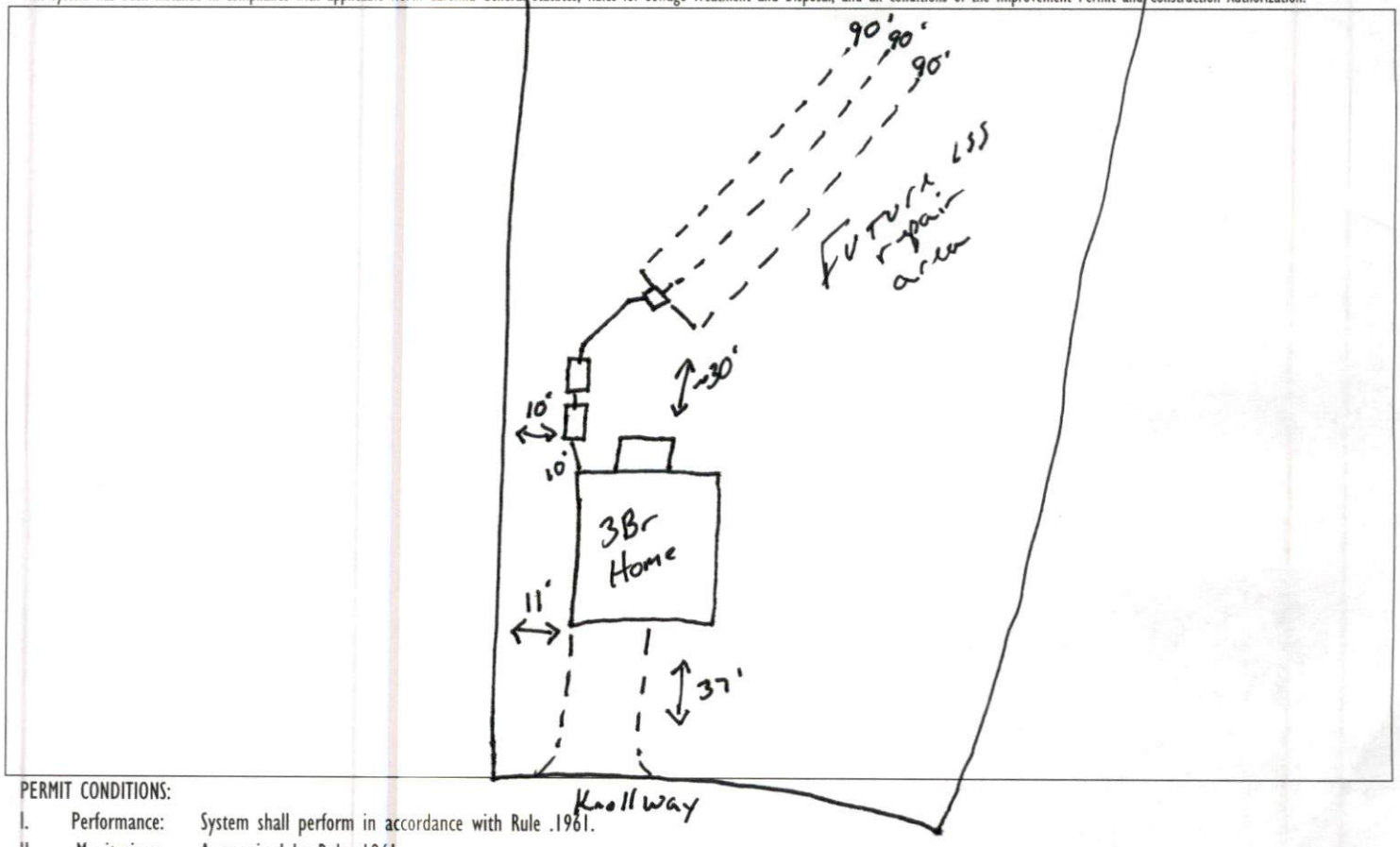
Basement with plumbing: ☐ Garage ☒ Number of Bedrooms 3 (6people)

Type of Water Supply: ☐ Community ☒ Public ☐ Well Distance from well _____ feet

System Type: Type III B Types V and VI Systems expire in 5 years.

(In accordance with Table V a) Owner must contact Health Department 6 months prior to expiration for permit renewal.

This system has been installed in compliance with applicable North Carolina General Statutes, Rules for Sewage Treatment and Disposal, and all conditions of the Improvement Permit and Construction Authorization.



PERMIT CONDITIONS:

I. Performance: System shall perform in accordance with Rule .1961.

II. Monitoring: As required by Rule .1961.

III. Maintenance: As required by Rule .1961. Other: _____

Subsurface system operator required? Yes ☐ No ☒

If yes, see attached sheet for additional operation conditions, maintenance and reporting.

IV. Operation: _____

V. Other: _____

☐ Manifold D-Box ☒ _____ Pump ☒ _____ Alarm ☐ _____ H2OLine ☐ _____ PWR Line

Following are the specifications for the sewage disposal system on the above captioned property.

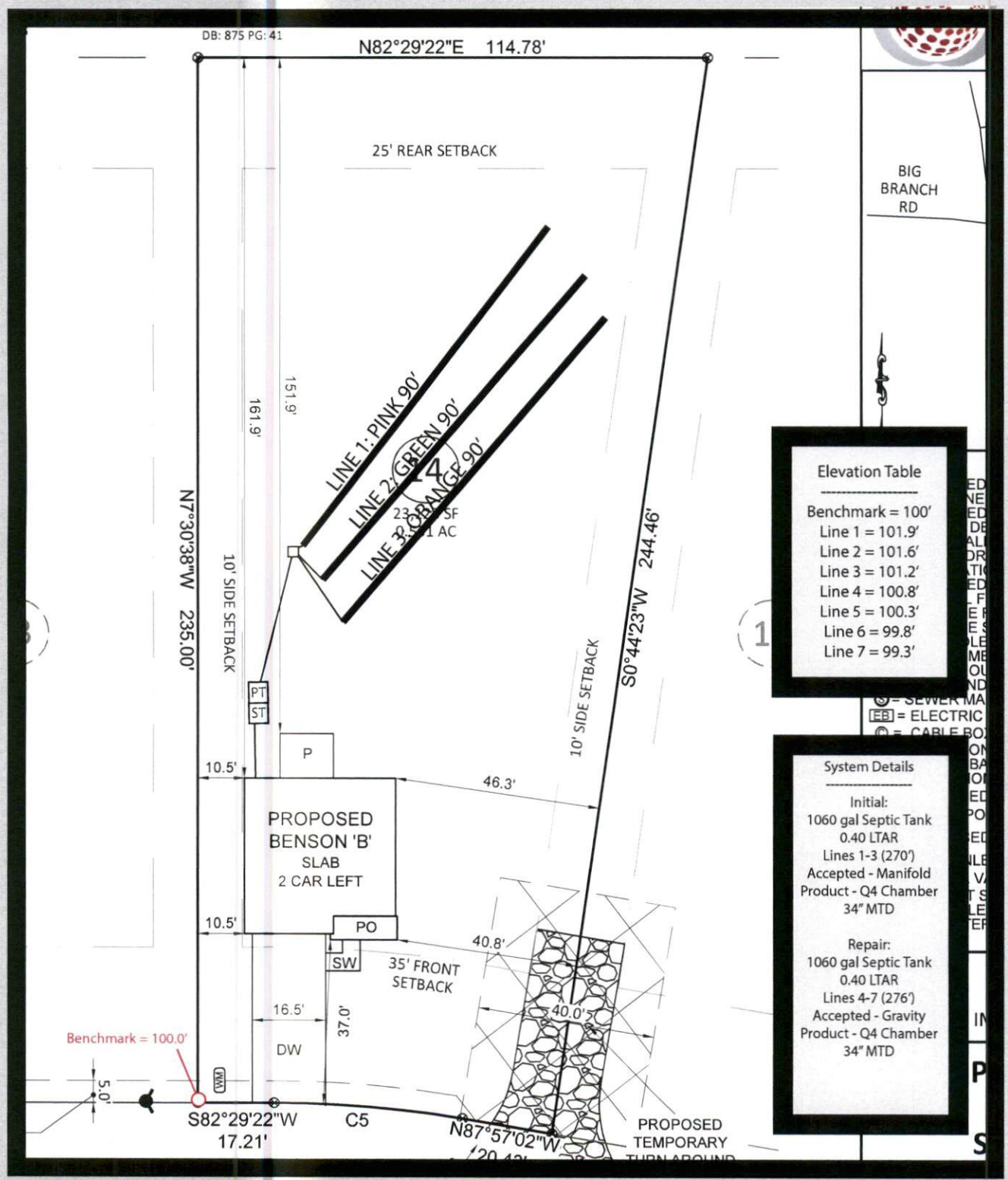
Type of system: ☐ Conventional ☒ Other 25% reduction IeQ4 Septic Tank: 1000 gallons Pump Tank: 1000 gallons

Subsurface Drainage Field: No. of ditches 3; exact length of each ditch 90 feet; width of ditches 3 feet; depth of ditches 30 inches

French Drain Required: _____ Linear feet

Authorized State Agent Mark Ross Date 7-2-25

Briarwood Bluff Lot 14 System Detail "As Built"



0' 30'
1 inch = 30'

Legend
Initial
Repair
Serial

AC-ONE

RESIDENTIAL PRESSURE MANIFOLD DESIGN

Permit # Briarwood Lot 14

# of BDR: 3 Daily Flow: 360 gal/day L.T.A.R.: 0.4000 gal/day/sq.ft

Septic Tank: 1000 gals Pump Tank: 1000 gals Sq. Foot: 810 System Type: Accepted

Number of Taps: 3 Length of Trenches: 270 ft(See Tap Chart for Details)

Depth of Trenches: 34 in Manifold Length: 36 in

Manifold Diameter: 4in sch 80pvc Tap Configuration: 6 in spacing 1 side(s) of manifold

Supply Line: length: 50 ft Diameter: 2 in sch 40pvc

Friction Loss + Fitting Loss: 1.33 ft(supply line length + 70' for fittings in pump tank)

Design Head: 2 ft Elevation Head: 7.40 ft

Total Head: 10.73 ft Pump to Deliver: 21.33 gals/min at 10.73 ft head

Dosing Volume: 123 gals,

Drawdown: 123 gals divided by 20 gals/in = 6.1 inches

Simplex Control Panel required; elapsed time meter and cycle counter required; Floats to be determined by type of pump tank used. A septic tank filter is required.

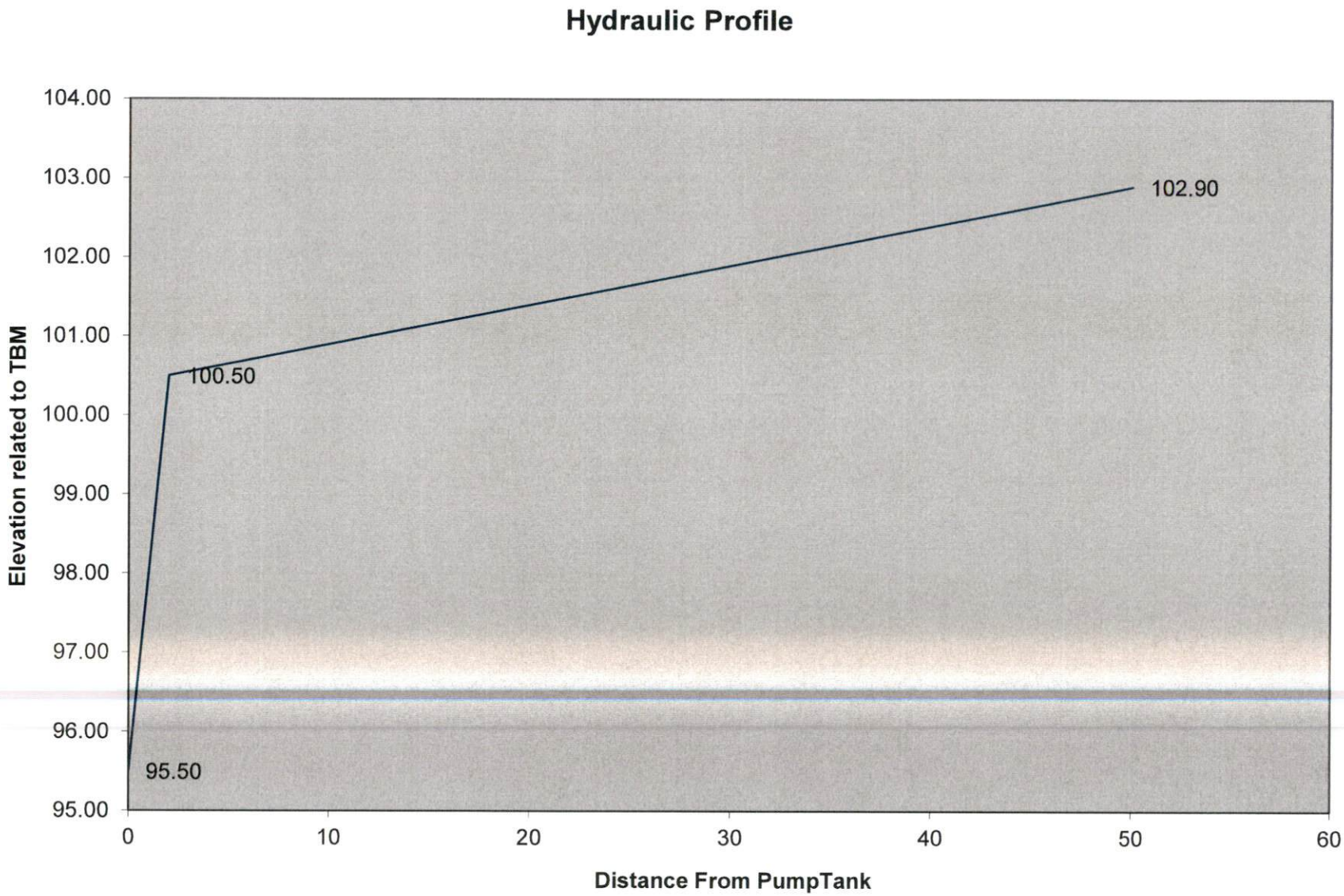
TAP CHART

Benchmark 100 is = 100.00 set at base at property corner Design Head: 2

Pump tank elev. 99.5 100.50 Pump elev. 95.50 Manifold elev. 102.90

line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	# of Panels (PPBPS)	Spacing of Panels (in)
1	Orange	98.10	101.90	90	1/2in SCH 40	7.11	120.00	270	0.4444		
2	Pink	98.40	101.60	90	1/2in SCH 40	7.11	120.00	270	0.4444		
3	Blue	98.80	101.20	90	1/2in SCH 40	7.11	120.00	270	0.4444		
			200.00			0	0.00	0	#DIV/0!		
			200.00			0	0.00	0	#DIV/0!		
			200.00			0	0.00	0	#DIV/0!		
			200.00			0	0.00	0	#DIV/0!		
			200.00			0	0.00	0	#DIV/0!		
			200.00			0	0.00	0	#DIV/0!		
			200.00			0	0.00	0	#DIV/0!		
		Total Feet =		270	gal/min =	21.33		LTAR =	0.4000		
		Feet Required =		225	Velocity =	2.04		(ltar + 5%)	0.4200		
Total # of Panels (PPBPS)				Des. Flow	360			(ltar w/25% red)	0.5333		
% of Dose Vol.		70		Pump Run=	16.88			(ltar + 5%)	0.5600		
Dose Volume		123		Tank Gal/IN	20						
Dose Pump Time		5.76		Elev. Head	7.40						
Drawdown in Inches		6.1									

Comments:


Hydraulic Profile
104.00
103.00
102.00
101.00
100.00
99.00
98.00
97.00
96.00
95.00
Elevation related to TBM
100.50
102.90
95.50
0
10
20
30
40
50
60
Distance From PumpTank