



Emergency Responder Radio System Coverage Report Test Results

Date Prepared:	May 5, 2023
Test File:	NWH A100_20230504_130608
Test Location:	Northwest Harnett Elementary School 736 Rollins Road Fuquay-Varina NC 27526
Technician:	Chris Jordan
FCC#:	987654321

Building: Northwest Harnett Elementary School
Result: Fail

Test Report Summary

Channel/ Ch Group	Freq (MHz)	Technology	Band	Result	Area Points passed (%)	Critical Points passed (%)
Northwest Harnett: 4, 3, 2, 1	774.55625 773.81250 853.37500 852.61250	P25	Fuquay-Varina	Fail	25/112 (22%)	2/5 (40%)

Test Details

Number of Zones Tested:	6	Result Calculation:	By area per Zone
Number of Areas Tested:	112	Area Pass Criteria:	95%
Number of Critical Points Tested:	5	Critical Points Pass Criteria:	99%
		Apply Adjacent Area Rule:	No

Equipment Configuration

Vendor	Application	Device	Calibration Expires	Antenna info
PCTEL	SeeHawk Touch rel 3.2.0.2	SeeGull IBflex Device rel 3.9.5.0 SN: 082103071	3-29-2025	

Threshold Settings

Measurement	DL Area Point	UL Area Point	DL Critical Point	UL Critical Point	Use for grading
P25 Power (RSSI)	-95.0 dBm	-95.0 dBm	-95.0 dBm	-95.0 dBm	Yes
P25 S/N (SINR)	20.0 dB	20.0 dB	22.0 dB	22.0 dB	No
P25 FBER	2.0 %	2.0 %	1.5 %	1.5 %	No
DAQ	3.0				Yes

Floors Result

Floor Plan	Northwest Harnett
NWH Area 100	Fail
NWH A200	Fail
NWH A300	Fail
NWH A400	Fail
NWH A500	Fail
NWH A600 2nd floor	Fail

Floor: NWH Area 100
Group: Northwest Harnett Channels: 4, 3, 2, 1
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
774.55625	P25	Fuquay-Varina	0.00	0.00	-	CC			4/18 (22%)	0/0 (0%)
773.81250					1	CC	C4FM	1F2		
853.37500						CC				
852.61250						CC				



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	726.26	27.56	26.35	Black	



Floor: NWH Area 100
Group: Northwest Harnett Channels: 4, 3, 2, 1

Reference Point Report

Reference Point	Power (dBm)	DL S/N (dB)	DL FBER (%)	Selected	Comment
1	-80.85	26.53	2.25		
2	-81.07	24.95	1.10		
3	-78.23	25.62	0.72		

Area Report

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	Result	DL Loss (dB)	Comment
1	1	-97.62	11.25	4.50	Fail		
1	2	-116.00	7.43	16.66	Fail		
1	3	-94.62	19.22	9.05	Pass		
1	4	-107.71	0.00	31.25	Fail		
1	5	-94.73	13.62	6.75	Pass		
1	6	-90.43	6.80		Pass		
1	7	-99.28			Fail		
1	8	-101.31	5.85		Fail		
1	9	-108.68			Fail		
1	10	-107.34	4.32		Fail		
1	11	-105.89	7.49	15.10	Fail		
1	12	-94.73	15.81	6.18	Pass		
1	13	-101.78	4.51		Fail		
1	14	-117.60			Fail		
1	15	-114.33	3.41	27.08	Fail		
1	16	NT	NT	NT	NT		
1	17	NT	NT	NT	NT		
1	18	-109.13			Fail		
1	19	-108.16			Fail		
1	20	-102.40	9.21	9.00	Fail		

Floor: NWH A200
Group: Northwest Harnett Channels: 4, 3, 2, 1
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
774.55625	P25	Fuquay-Varina	0.00	0.00	-	CC			3/19 (15%)	0/1 (0%)
773.81250					CC					
853.37500				1	CC	C4FM	1F2			
852.61250					CC					



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	995.83	31.02	32.11	Black	

Floor: NWH A200
Group: Northwest Harnett Channels: 4, 3, 2, 1

Reference Point Report

Reference Point	Power (dBm)	DL S/N (dB)	DL FBER (%)	Selected	Comment
1	-88.93	19.28	4.20		
2	-80.22	20.00	0.54		

Critical Point Report

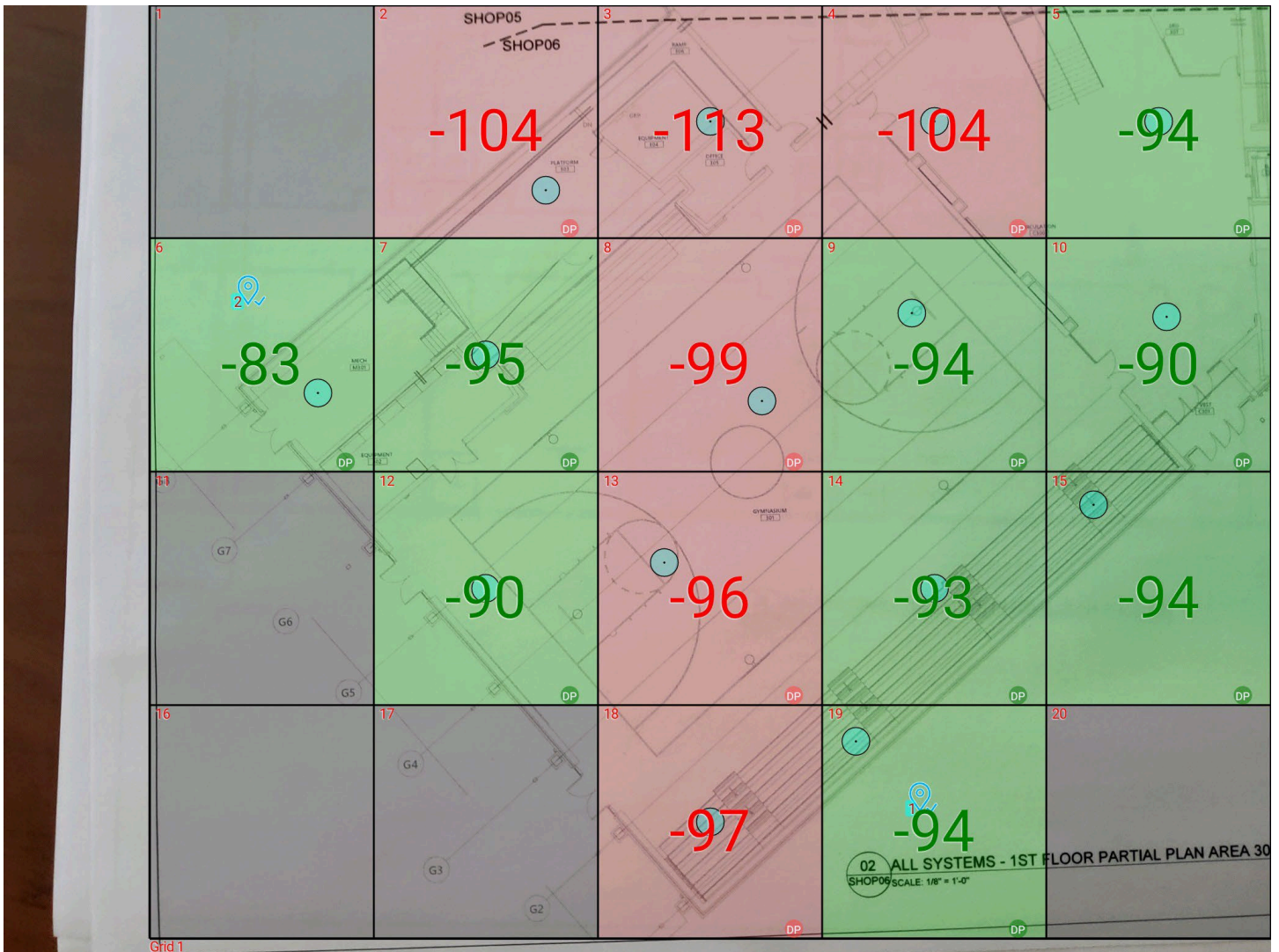
Critical Point	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	DL DAQ	UL Power (dBm)	UL S/N (dB)	UL FBER (%)	UL DAQ	Result	DL Loss (dB)	Comment
1	-114.53	4.24							Fail		

Area Report

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	Result	DL Loss (dB)	Comment
1	1	-96.64	8.86	17.11	Fail		
1	2	-116.00			Fail		
1	3	-110.57			Fail		
1	4	-105.18			Fail		
1	5	-100.83	9.17	12.10	Fail		
1	6	-100.27	7.68	25.00	Fail		
1	7	-99.50	7.52		Fail		
1	8	-106.73	12.08	6.76	Fail		
1	9	-97.46	17.15	1.80	Fail		
1	10	-87.96	22.00	0.00	Pass		
1	11	-81.71	16.82	3.00	Pass		
1	12	-91.48	7.71	17.11	Pass		
1	13	-107.30	5.74		Fail		
1	14	-105.46	5.46		Fail		
1	15	-101.77			Fail		
1	16	NT	NT	NT	NT		
1	17	-115.50			Fail		
1	18	-110.56	7.05		Fail		
1	19	-100.59	6.30		Fail		
1	20	-111.19			Fail		

Floor: NWH A300
Group: Northwest Harnett Channels: 4, 3, 2, 1
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
774.55625	P25	Fuquay-Varina	0.00	0.00	-	CC			9/15 (60%)	0/0 (0%)
773.81250						CC				
853.37500						CC	C4FM	1F2		
852.61250						CC				



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	3286.60	85.70	38.35	Black	



Floor: NWH A300
Group: Northwest Harnett Channels: 4, 3, 2, 1

Reference Point Report

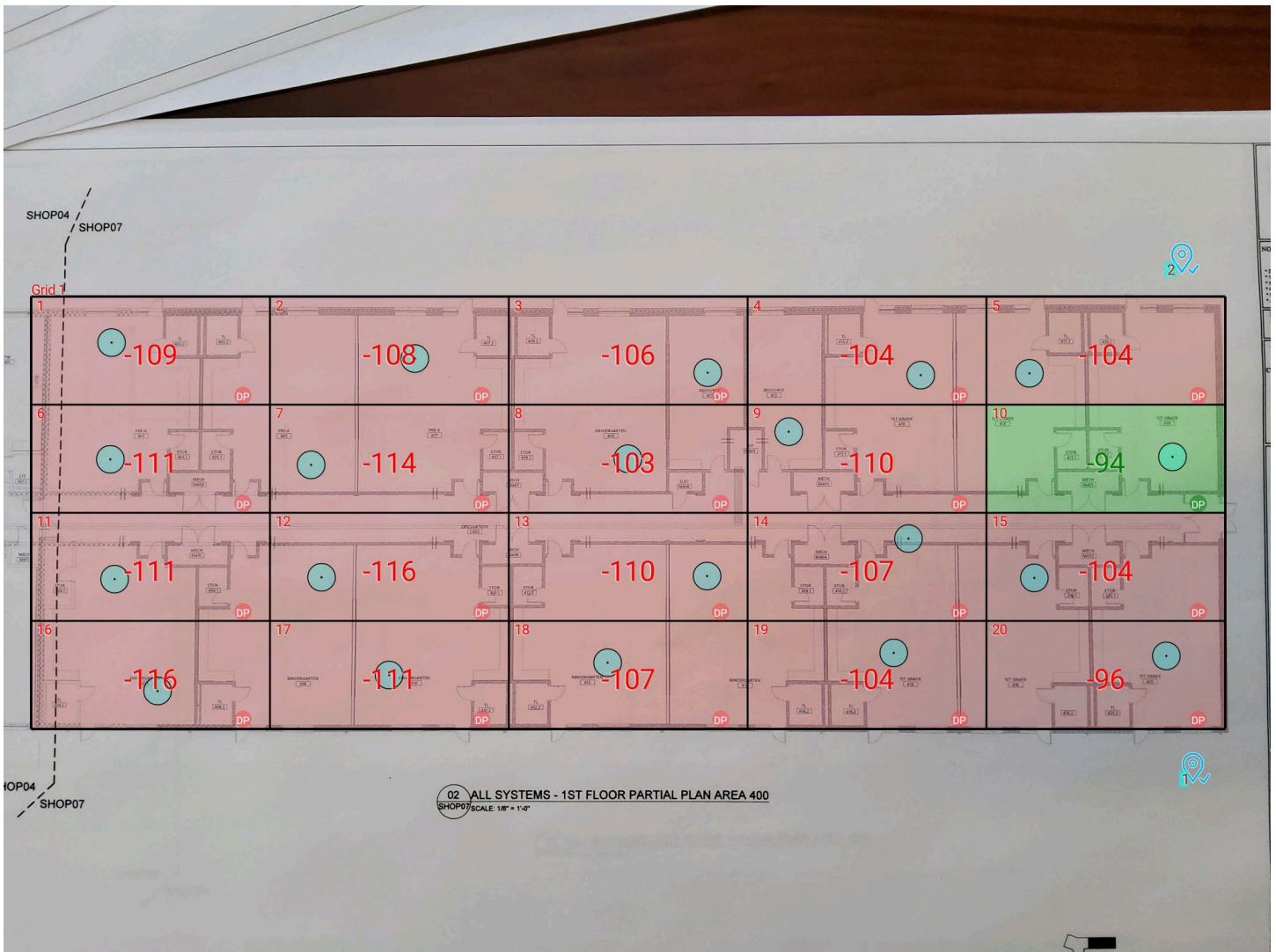
Reference Point	Power (dBm)	DL S/N (dB)	DL FBER (%)	Selected	Comment
1	-80.85	17.26	0.45		
2	-81.10	25.56	1.17		

Area Report

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	Result	DL Loss (dB)	Comment
1	1	NT	NT	NT	NT		
1	2	-103.51	7.47		Fail		
1	3	-112.01	6.32		Fail		
1	4	-103.37	13.11	4.50	Fail		
1	5	-93.86	6.62		Pass		
1	6	-82.06	19.48	4.05	Pass		
1	7	-94.29	6.31		Pass		
1	8	-98.47	6.81	27.08	Fail		
1	9	-93.47	8.41		Pass		
1	10	-89.65	5.38		Pass		
1	11	NT	NT	NT	NT		
1	12	-89.65	18.33	4.05	Pass		
1	13	-95.62	12.54	8.55	Fail		
1	14	-92.24	8.00	18.75	Pass		
1	15	-93.83	8.37	7.20	Pass		
1	16	NT	NT	NT	NT		
1	17	NT	NT	NT	NT		
1	18	-96.89	18.10	2.16	Fail		
1	19	-93.49	10.47	8.55	Pass		
1	20	NT	NT	NT	NT		

Floor: NWH A400
Group: Northwest Harnett Channels: 4, 3, 2, 1
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
774.55625	P25	Fuquay-Varina	0.00	0.00	-	CC			1/20 (5%)	0/0 (0%)
773.81250						CC				
853.37500					1	CC	C4FM	1F2		
852.61250						CC				



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	814.77	42.46	19.19	Black	

Floor: NWH A400
Group: Northwest Harnett Channels: 4, 3, 2, 1

Reference Point Report

Reference Point	Power (dBm)	DL S/N (dB)	DL FBER (%)	Selected	Comment
1	-92.52	31.29	1.20		
2	-80.75	26.00	1.08		

Area Report

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	Result	DL Loss (dB)	Comment
1	1	-108.21	8.58	12.61	Fail		
1	2	-107.85	12.88	4.95	Fail		
1	3	-105.75			Fail		
1	4	-103.45	6.69		Fail		
1	5	-103.97	18.34	0.00	Fail		
1	6	-110.29	8.42	12.61	Fail		
1	7	-113.97	5.82		Fail		
1	8	-102.83	11.93	0.00	Fail		
1	9	-109.85	7.16	18.91	Fail		
1	10	-93.69	16.53	2.48	Pass		
1	11	-110.36			Fail		
1	12	-116.00			Fail		
1	13	-109.12	6.10		Fail		
1	14	-106.20	5.03		Fail		
1	15	-103.71	22.15	1.50	Fail		
1	16	-116.00			Fail		
1	17	-110.81	6.98		Fail		
1	18	-106.80	8.35	16.21	Fail		
1	19	-103.37	10.89	5.85	Fail		
1	20	-95.94	16.41	4.14	Fail		

Floor: NWH A500
Group: Northwest Harnett Channels: 4, 3, 2, 1
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
774.55625	P25	Fuquay-Varina	0.00	0.00	-	CC			5/20 (25%)	1/2 (50%)
773.81250						CC				
853.37500					1	CC	C4FM	1F2		
852.61250						CC				



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	1136.33	54.16	20.98	Black	

Floor: NWH A500
Group: Northwest Harnett Channels: 4, 3, 2, 1

Reference Point Report

Reference Point	Power (dBm)	DL S/N (dB)	DL FBER (%)	Selected	Comment
1	-76.20	24.68	1.44		
2	-77.20	16.70	1.16		
3	-83.35	23.66	1.35		

Critical Point Report

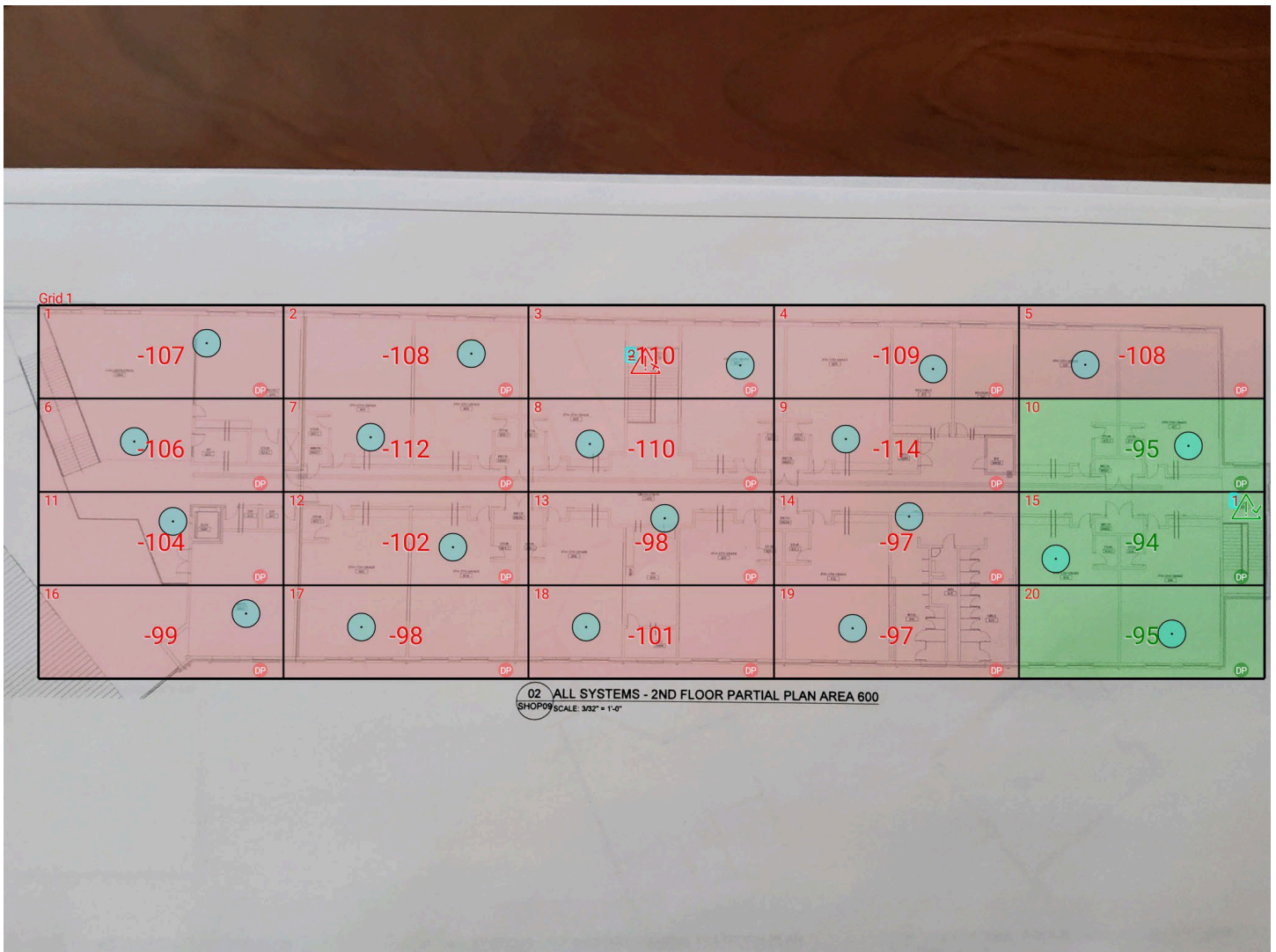
Critical Point	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	DL DAQ	UL Power (dBm)	UL S/N (dB)	UL FBER (%)	UL DAQ	Result	DL Loss (dB)	Comment
1	-91.94	7.48	13.12						Pass		
2	-107.28	10.71	6.30						Fail		

Area Report

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	Result	DL Loss (dB)	Comment
1	1	-115.43			Fail		
1	2	-101.73	14.11	4.05	Fail		
1	3	-108.79	6.52	17.11	Fail		
1	4	-112.83	7.69		Fail		
1	5	-88.32	14.01	6.30	Pass		
1	6	-114.39	5.34		Fail		
1	7	-113.77			Fail		
1	8	-114.57	6.02		Fail		
1	9	-109.71	8.13		Fail		
1	10	-94.66	14.23	1.13	Pass		
1	11	-116.00			Fail		
1	12	-106.53			Fail		
1	13	-115.28	8.28	9.40	Fail		
1	14	-111.40			Fail		
1	15	-91.36	6.07		Pass		
1	16	-104.04	5.83		Fail		
1	17	-99.44	6.91		Fail		
1	18	-98.93			Fail		
1	19	-93.40	13.51	4.50	Pass		
1	20	-94.32	0.00	27.08	Pass		

Floor: NWH A600 2nd floor
Group: Northwest Harnett Channels: 4, 3, 2, 1
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
774.55625	P25	Fuquay-Varina	0.00	0.00	-	CC			3/20 (15%)	1/2 (50%)
773.81250						CC				
853.37500					1	CC	C4FM	1F2		
852.61250						CC				



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	1438.16	61.51	23.38	Black	

Floor: NWH A600 2nd floor
Group: Northwest Harnett Channels: 4, 3, 2, 1

Critical Point Report

Critical Point	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	DL DAQ	UL Power (dBm)	UL S/N (dB)	UL FBER (%)	UL DAQ	Result	DL Loss (dB)	Comment
1	-88.59	12.73	4.05						Pass		
2	-108.63	7.19	20.83						Fail		

Area Report

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	Result	DL Loss (dB)	Comment
1	1	-106.80	15.75	6.30	Fail		
1	2	-107.33	6.69		Fail		
1	3	-109.80	6.81		Fail		
1	4	-108.77	6.99		Fail		
1	5	-107.46	6.28		Fail		
1	6	-105.46	15.59	0.00	Fail		
1	7	-111.23	7.15	18.01	Fail		
1	8	-109.97	6.87	29.16	Fail		
1	9	-113.40	5.47		Fail		
1	10	-94.19	6.08		Pass		
1	11	-103.57	7.40		Fail		
1	12	-101.40	13.08	1.80	Fail		
1	13	-97.77			Fail		
1	14	-96.63	7.52		Fail		
1	15	-93.60	8.05	13.51	Pass		
1	16	-98.27	8.45	6.30	Fail		
1	17	-97.27			Fail		
1	18	-100.79	5.17		Fail		
1	19	-96.19			Fail		
1	20	-94.88	4.10	17.97	Pass		



Additional Info

In accordance with NCFC 510, NCS has performed an initial radio signal strength survey of the site located at 736 Rollins Road, Fuquay-Varina, NC 27526. This was in reference to the Emergency Responder Radio Coverage System or Enhancement System. The structure is 95% complete. The readings we obtained at the site are noted above. NCFC 510 requires a maximum dB loss of -95dBm for down-link and up-link in all new construction. Given the survey above the current buildings signal levels do NOT meet those require by code.

A BDA SYSTEM REQUIRED

Sincerely,

Chris Jordan, RCDD