

Emergency Responder Radio System Coverage Report Test Results

Date Prepared:	Jan 12, 2022
Test File:	Fort Mill Middle School_20220112
Test Location:	Building
Technician:	Jody Elkins
FCC#:	0024078164

Building: Building
Result: Fail

Test Report Summary

Channel/ Ch Group	Freq (MHz)	Technology	Band	Result	Area Points passed (%)	Critical Points passed (%)
Control : 1	853.77500	P25	800 York County Simulcast	Fail	0/25 (0%)	0/0 (0%)

Test Details

Number of Floors Tested:	2	Result Calculation:	By area per floor
Number of Areas Tested:	27	Area Pass Criteria:	95%
Number of Critical Points Tested:	0	Critical Points Pass Criteria:	99%
		Apply Adjacent Area Rule:	Yes

Equipment Configuration

Vendor	Application	Device	Calibration Expires	Antenna info
PCTEL	SeeHawk Touch rel 3.4.0.2	SeeGull IBflex Device rel 3.6.0.0 SN: 082011037	11-24-2022	



Threshold Settings

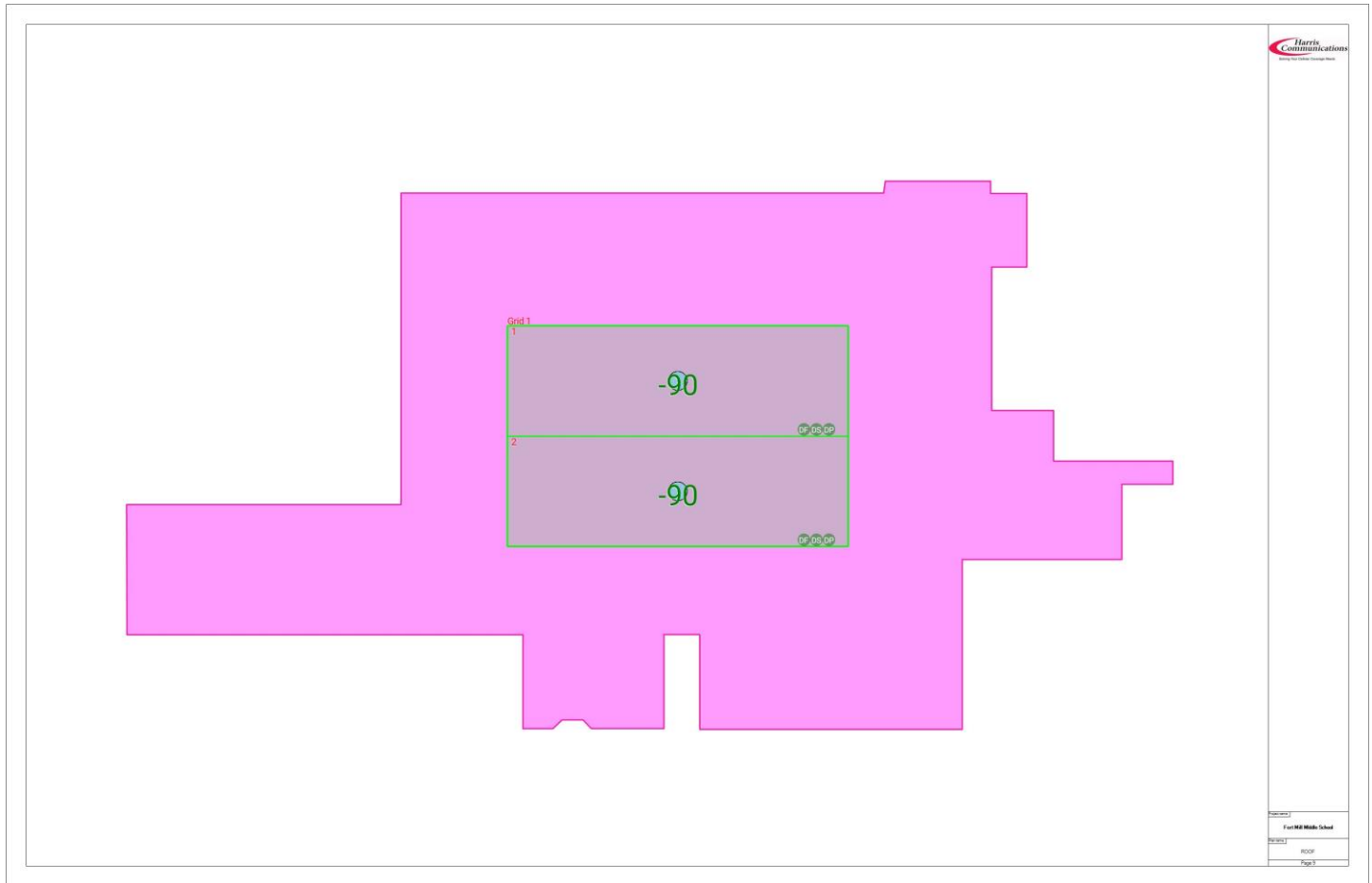
Measurement	DL Area Point	UL Area Point	DL Critical Point	UL Critical Point	Use for grading
P25 Power (RSSI)	-95.0 dBm	-95.0 dBm	-95.0 dBm	-95.0 dBm	Yes
P25 S/N (SINR)	20.0 dB	20.0 dB	22.0 dB	22.0 dB	Yes
P25 FBER	2.0 %	2.0 %	1.5 %	1.5 %	Yes
DAQ	3.0				Yes

Floors Result

Floor Plan	Control
ROOF	Pass
L1	Fail

Floor: ROOF
Group: Control Channel
Result: Pass

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
853.77500	P25	800 York County Simulcast	0.00	0.00	1	TC	CQPSK	1BA	2/2 (100%)	0/0 (0%)



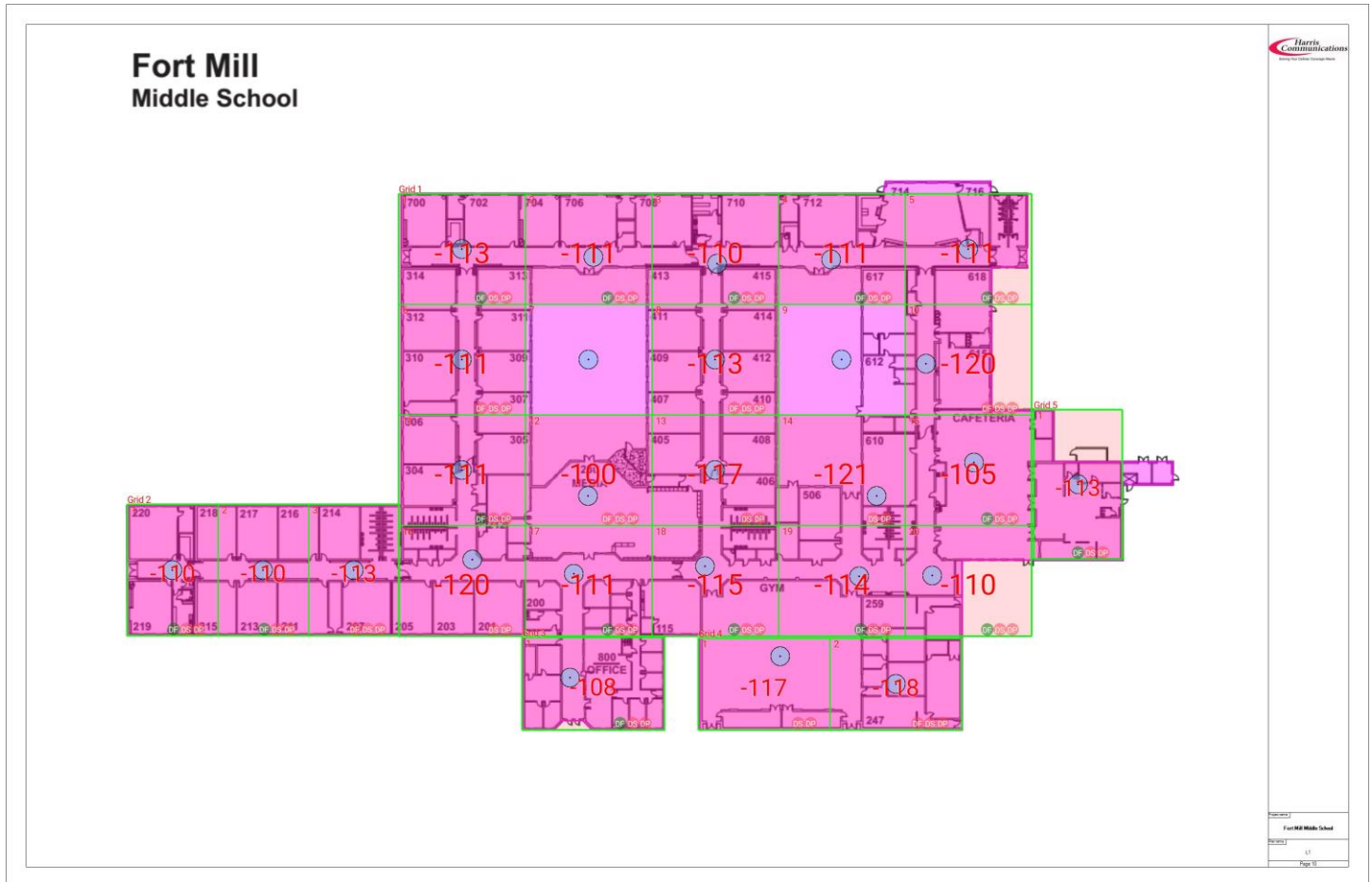
Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	2	1772.93	64.80	27.36	Black	

Area Report

Grid	Area	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	1	-89.98	33.21	0.00						Pass		
1	2	-89.45	31.96	0.00						Pass		

Floor: Level 1
Group: Control Channel
Result: Fail

Freq (MHz)	Tech	Band	Ant Gain	Cable Loss	Ph.	Type	Mod	NAC	Area Points passed (%)	Critical Points passed (%)
853.77500	P25	800 York County Simulcast	0.00	0.00	1	TC	CQPSK	1BA	0/25 (0%)	0/0 (0%)



Grid	# of Areas	Area Size (sq. ft)	Area Width (ft)	Area Height (ft)	Ignore Area Color	Comments
1	20	659.05	24.06	27.39	Black	
2	3	560.77	17.23	32.54	Black	
3	1	618.78	27.08	22.85	Black	
4	2	568.75	25.06	22.70	Black	
5	1	623.08	16.84	37.00	Black	

Floor: Level 1 Group: Control Channel

Grid	Area	DL Power (dBm)	DL S/N (dB)	DL FBER (%)	DL DAQ	UL DAQ	Result	Comment
1	1	-112.95	13.54	0.00	<3		Fail	
1	2	-110.11	16.58	0.00	<3		Fail	
1	3	-109.77	16.93	0.69	<3		Fail	
1	4	-110.22	15.78	0.00	<3		Fail	
1	5	-110.27	13.85	1.30	<3		Fail	
1	6	-110.89	12.63	2.53	<3		Fail	
1	8	-112.26	10.90	4.62	<3		Fail	
1	10	-119.89	7.97	8.33	<3		Fail	
1	11	-110.96	14.45	0.00	<3		Fail	
1	12	-99.36	9.55	4.16	<3		Fail	
1	13	-116.39	8.24		<3		Fail	
1	14	-120.56			<3		Fail	
1	15	-104.40	18.32	0.00	3		Fail	
1	16	-119.96			<3		Fail	
1	17	-110.46	12.40	0.00	<3		Fail	
1	18	-114.12	12.74	1.04	<3		Fail	
1	19	-113.84	13.29	0.00	<3		Fail	
1	20	-109.88	17.45	0.00	<3		Fail	
2	1	-109.04	16.85	0.00	<3		Fail	
2	2	-109.15	14.64	0.69	<3		Fail	
2	3	-112.85	14.47	6.25	<3		Fail	
3	1	-107.17	19.29	0.00	3		Fail	
4	1	-116.52	9.82		<3		Fail	
4	2	-117.18	10.15	4.07	<3		Fail	
5	1	-112.48	12.72	0.52	<3		Fail	

Additional Info

Code Reference: 2018 International Fire Code, Section 510, Emergency Responder Radio Coverage

510.4.1 Emergency responder communication enhancement system signal strength. The building shall be considered to have acceptable emergency responder communications enhancement system coverage when signal strength measurements in 95 percent of all areas on each floor of the building meet the signal strength requirements in Sections 510.4.1.1 through 510.4.1.3.

510.4.1.1 Minimum signal strength into the building. The minimum inbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The inbound signal level shall be sufficient to provide not less than a Delivered Audio Quality (DAQ) of 3.0 or an equivalent Signal-to-Interference Plus-Noise Ratio (SINR) applicable to the technology for either analog or digital signals.

510.4.1.2 Minimum signal strength out of the building. The minimum outbound signal strength shall be sufficient to provide usable voice communications throughout the coverage area as specified by the fire code official. The outbound signal level shall be sufficient to provide not less than a DAQ of 3.0 or an equivalent SINR applicable to the technology for either analog or digital signals.

