

Stevens Meetinghouse AP Placement Report Version 2



Created By: Taylor Mertlich, CompuNet

Reviewed By: Kevin Spencer

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Project Description

The AP placement and signal strength predictions are based on assumptions made for signal propagation through interior wall materials.

Based on those assumptions there will be a greater margin of error between the prediction and what may be experienced.

The AP placement was made based on optimizing for 5 GHz signals for both primary and secondary signal strength.

The APs will be assigned a channel for both 2.4 GHz and 5 GHz based on what is detected and reported to the controller. The controller manages channel adjustments as information is reported by each AP.

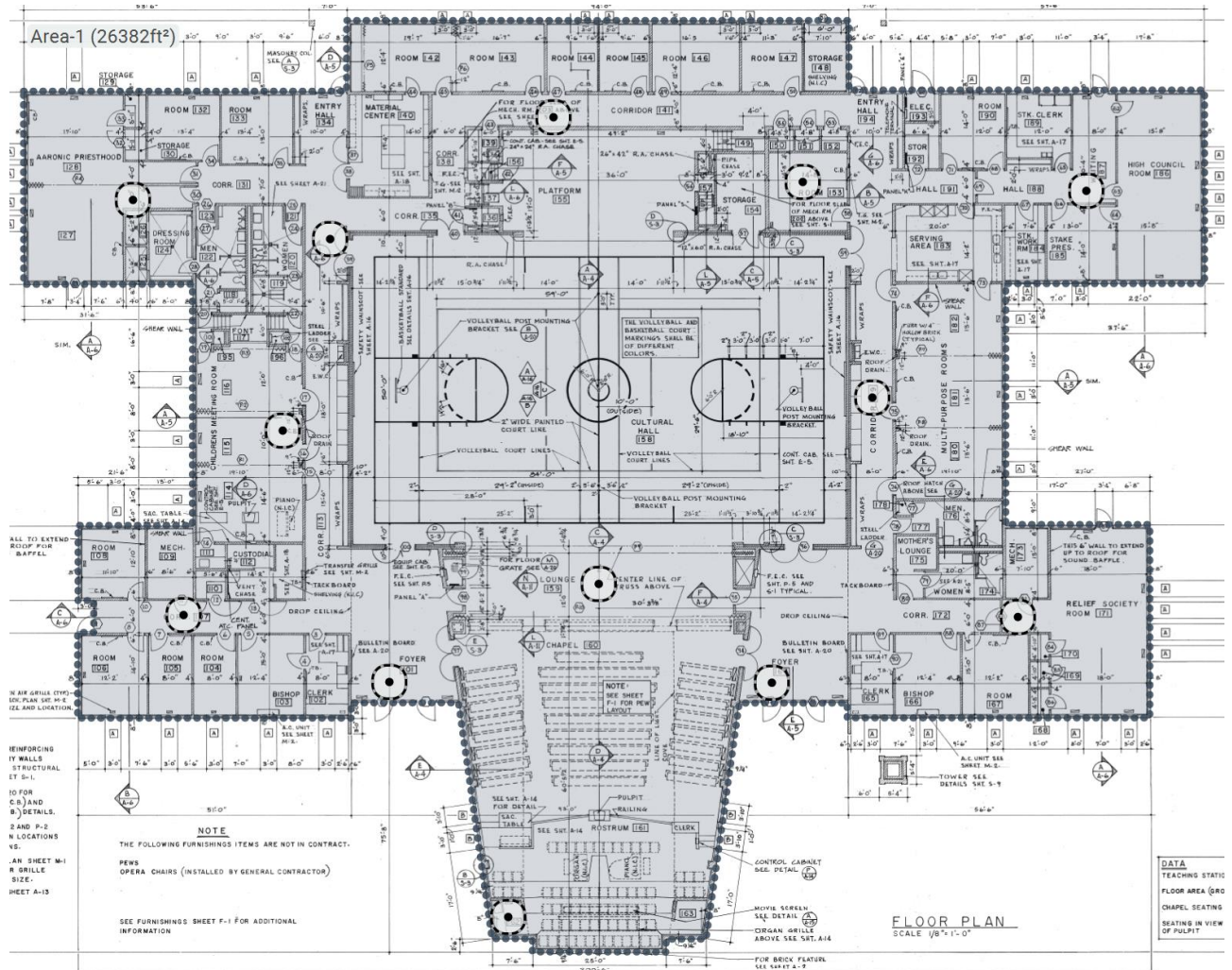
The Meraki managed CW9162 access points are represented in this prediction.

Without measured attenuation and AP signal deviation measurements, the actual signal propagation will vary.

Version 2: 1 AP removed from the plan. Several moved to cover all areas and cross cover high density places as well.

Stevens

Survey routes and Access Points for Stevens



View as / Project Offset:

Generic Laptop (-3 dB/-3 dB/-)

Area-1 (26,382 ft²)

Coverage Requirement: **Ekahau Best Practices**

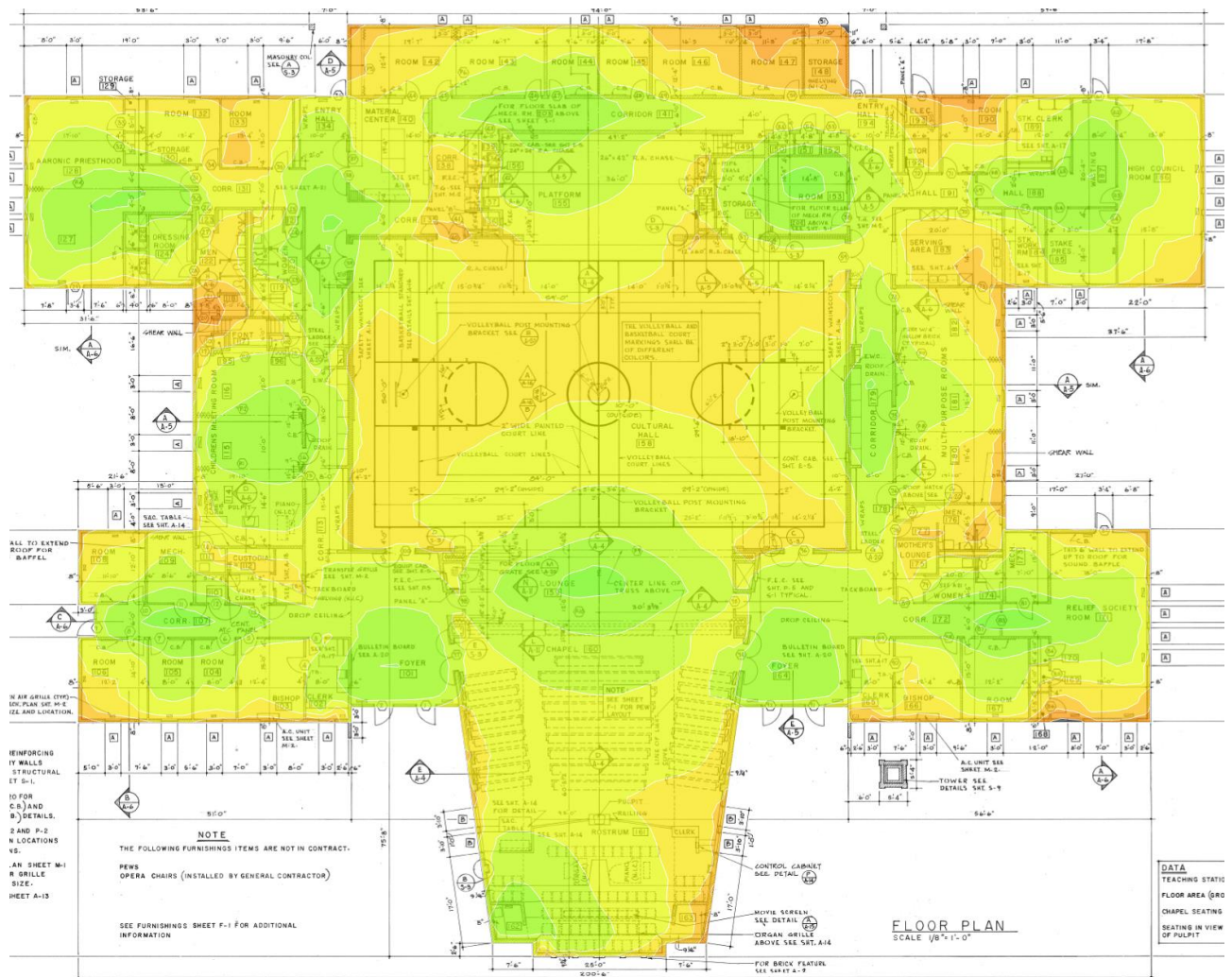
2.4 GHz	Signal Strength Min	-75.0 dBm
	Secondary Signal Strength Min	-75.0 dBm
	Signal-to-Noise Ratio Min	20.0 dB
	Data Rate Min	24 Mbps
	Channel Interference Max	2 at min. -85.0 dBm

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	Round Trip Time (RTT) Max	200 ms
	Packet Loss Max	0.0 %
5 GHz	Signal Strength Min	-75.0 dBm
	Secondary Signal Strength Min	-75.0 dBm
	Signal-to-Noise Ratio Min	25.0 dB
	Data Rate Min	24 Mbps
	Channel Interference Max	1 at min. -85.0 dBm
	Round Trip Time (RTT) Max	200 ms
	Packet Loss Max	0.0 %
6 GHz	Signal Strength Min	-75.0 dBm
	Secondary Signal Strength Min	-75.0 dBm
	Signal-to-Noise Ratio Min	25.0 dB
	Data Rate Min	24 Mbps
	Channel Interference Max	1 at min. -85.0 dBm
	Round Trip Time (RTT) Max	200 ms
	Packet Loss Max	0.0 %
Capacity Requirement	No capacity devices for this area	
Notes		

Signal Strength for Stevens on 5 GHz band

Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.



-85 dBm -75

≥ -30 dBm

Access Points on Stevens

Simulated Access Points on Stevens

AP #	Access Point			
1	Simulated AP-001		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1 @80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
2	Simulated AP-002		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1 @80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
3	Simulated AP-003		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1 @80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
4	Simulated AP-004		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1 @80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
5	Simulated AP-005		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1 @80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz

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	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
6	Simulated AP-006		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
7	Simulated AP-007		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
8	Simulated AP-008		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
9	Simulated AP-009		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
10	Simulated AP-010		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
11	Simulated AP-011		Cisco Meraki Catalyst 9162	

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	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
12	Simulated AP-012		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE
13	Simulated AP-013		Cisco Meraki Catalyst 9162	
	Wi-Fi 6	1	6 mW	Cisco Meraki Catalyst 9162 2.4GHz
	Wi-Fi 6	36	25 mW	Cisco Meraki Catalyst 9162 5GHz
	Wi-Fi 6E	1@80 (6 GHz)	25 mW	Cisco Meraki Catalyst 9162 6GHz
	Bluetooth	-	1 mW	Cisco Meraki Catalyst 9162 BLE

Measured Access Points on Stevens

None.