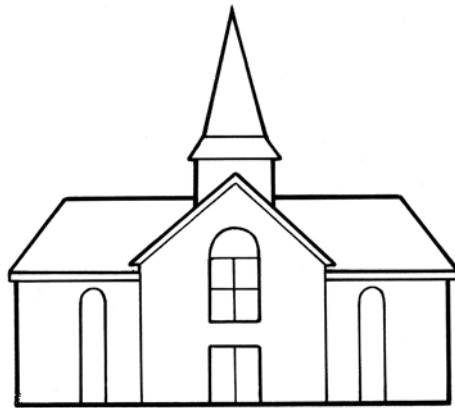


# Fairmont Stake Center AP Placement Report v4



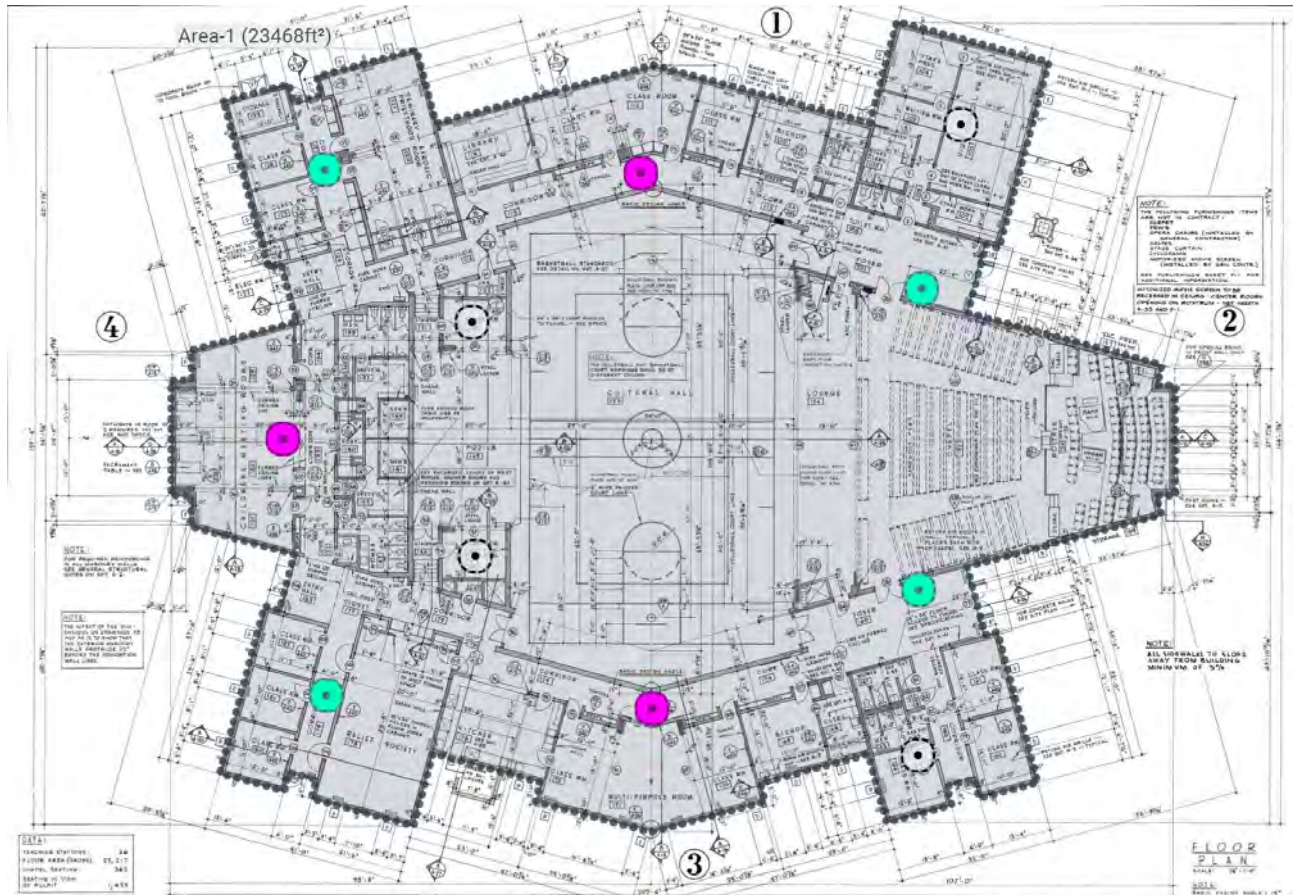
Completed by: Jon Loutensock  
Completion date: 09/22/2025

## Fairmont Stake Center AP Placement Report v4

Project description
<p>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.</p> <p>Interior wall material was set as wood stud and drywall.</p> <p>The AP placement was made based on optimizing 5 GHz signals for primary signal strength. Secondary coverage was not a requirement.</p> <p>The C9172I access point is represented in this prediction.</p> <p>v.4 – Adjusted access point placement due to new/updated information/requirements. Moved access points outside the cultural hall and chapel.</p>

## Fairmont Stake Center - Standard Plan

### Survey routes and Access Points for Fairmont Stake Center - Standard Plan



View as / Project Offset:

Mobile Device

### Area-1 (23,468 ft²)

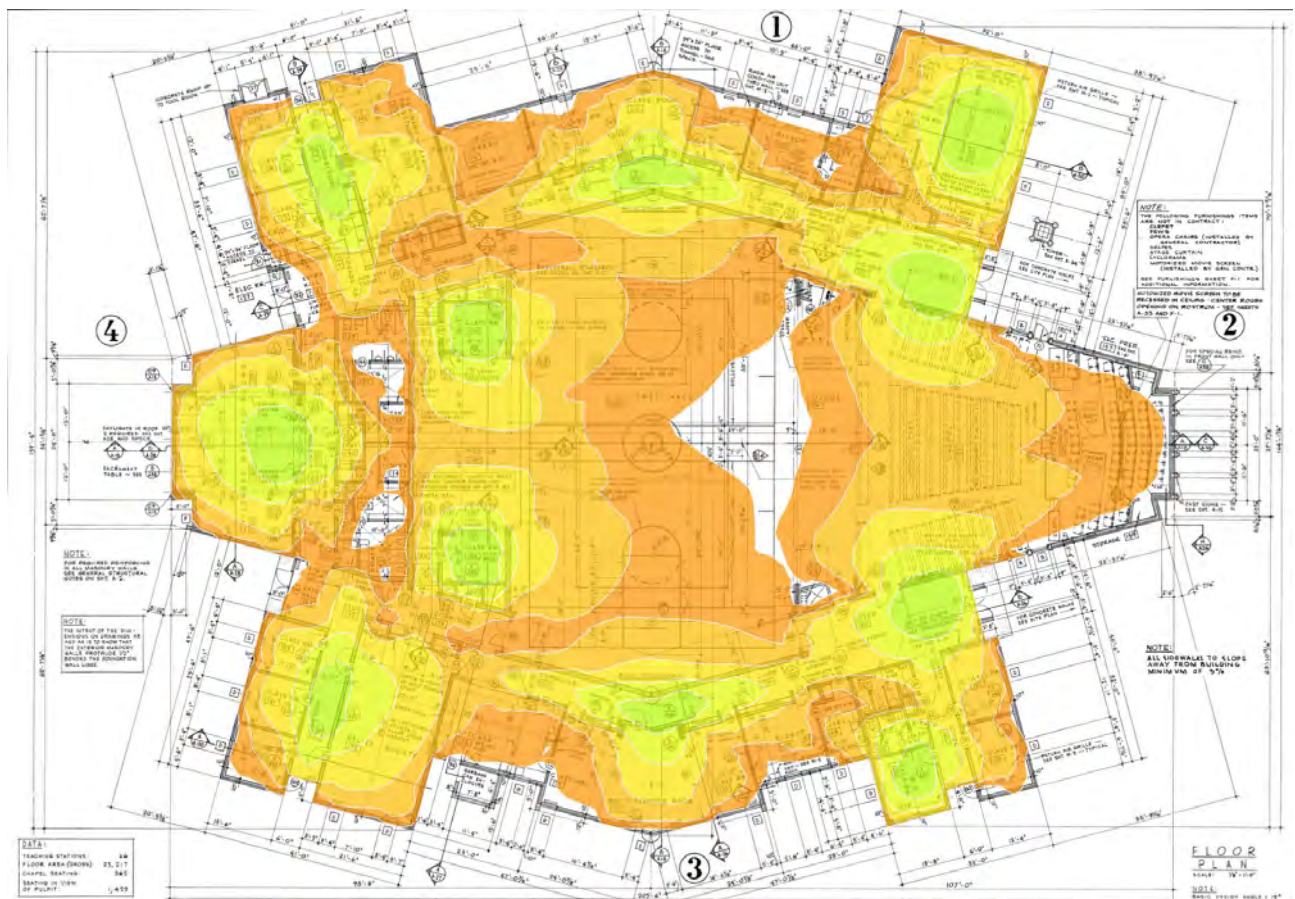
Coverage Requirement: Ekahau Best Practices		
2.4 GHz	Signal Strength Min	-75.0 dBm
	Secondary Signal Strength Min	-75.0 dBm
	Signal-to-Noise Ratio Min	20.0 dB
	Data Rate Min	24 Mbps
	Channel Interference Max	2 at min. -85.0 dBm
	Round Trip Time (RTT) Max	200 ms
	Packet Loss Max	0.0 %

## Fairmont Stake Center AP Placement Report v4

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

## Signal Strength for Fairmont Stake Center - Standard Plan on 2.4 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.



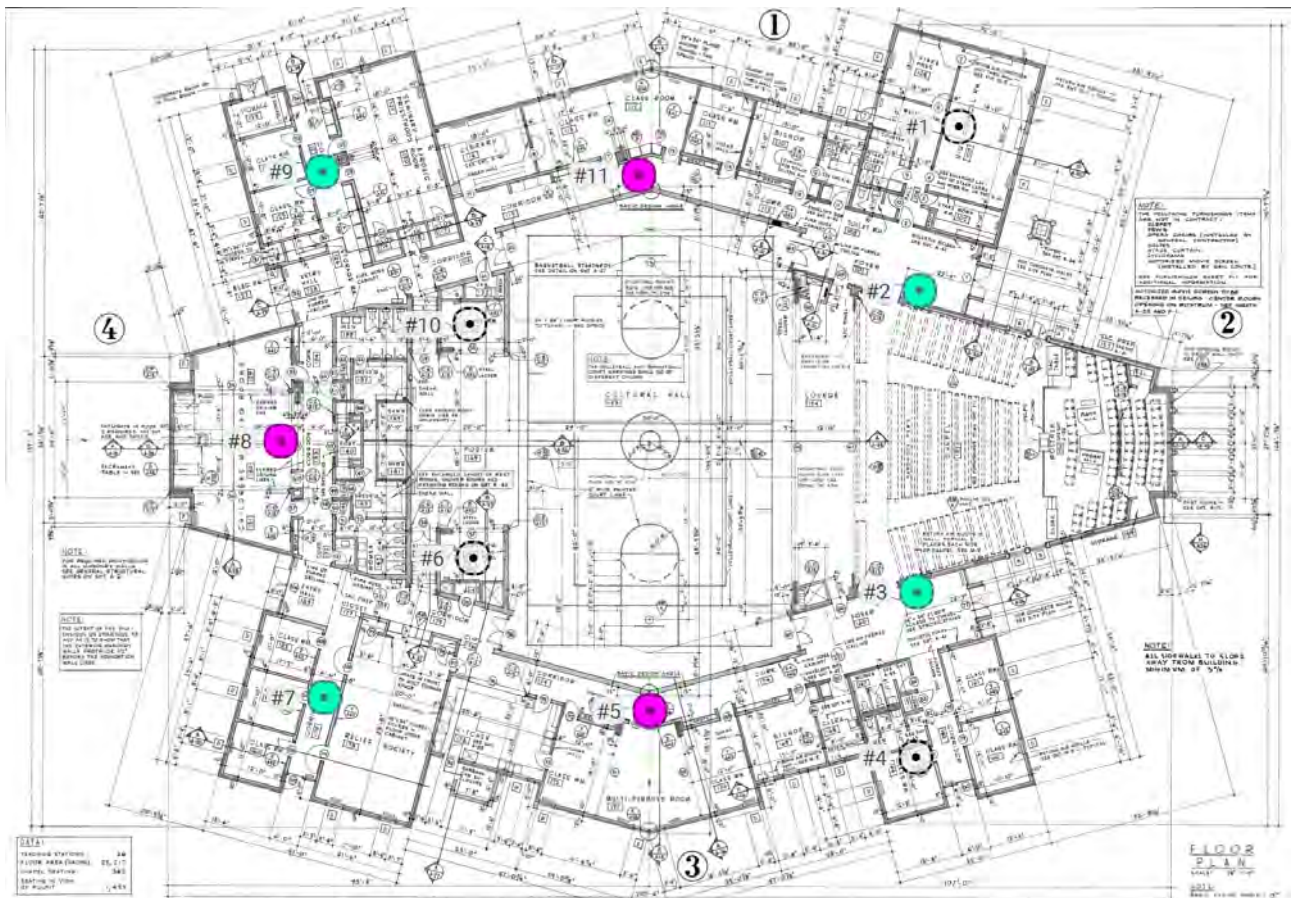








## Access Points on Fairmont Stake Center - Standard Plan



## Access Points on Fairmont Stake Center - Standard Plan

### Simulated Access Points on Fairmont Stake Center - Standard Plan

AP #	Access Point			
1	Simulated AP-001		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE



# Fairmont Stake Center AP Placement Report v4

2	Simulated AP-002		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
3	Simulated AP-003		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
4	Simulated AP-004		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
5	Simulated AP-005		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
6	Simulated AP-006		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
7	Simulated AP-007		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz

# Fairmont Stake Center AP Placement Report v4

	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1 @80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
8	Simulated AP-008		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1 @80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
9	Simulated AP-009		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1 @80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
10	Simulated AP-010		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1 @80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE
11	Simulated AP-011		Cisco Meraki CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco Meraki CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco Meraki CW9172I 5GHz
	Wi-Fi 7	1 @80 (6 GHz)	14.0 dBm	Cisco Meraki CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco Meraki CW9172I BLE