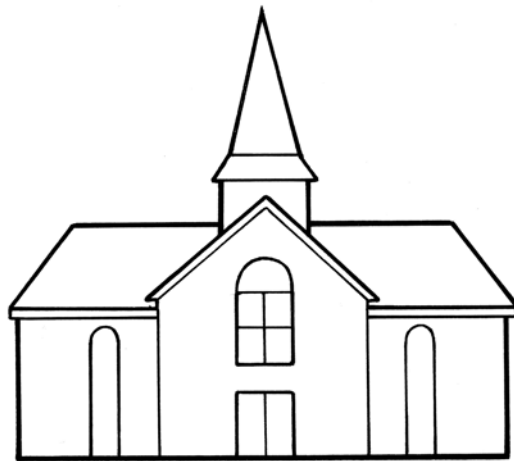# Student Ward - Mario Capecchi Dr AP Placement Report


Completed by: **Jon Loutensock**
Completion date: 09/03/2025

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. Interior wall material is predominately stud and drywall with a few walls made of hollow block (cinderblock). Without measured attenuation and AP signal deviation measurements, the actual signal propagation will vary. The AP placement was made based on optimizing 5 GHz signals for primary signal strength. Secondary coverage was not a requirement. The C9172I access point is represented in this prediction.

Student Ward - Mario Capecchi Drive - Floor Plan

Survey routes and Access Points for Student Ward - Mario Capecchi Drive - Floor Plan
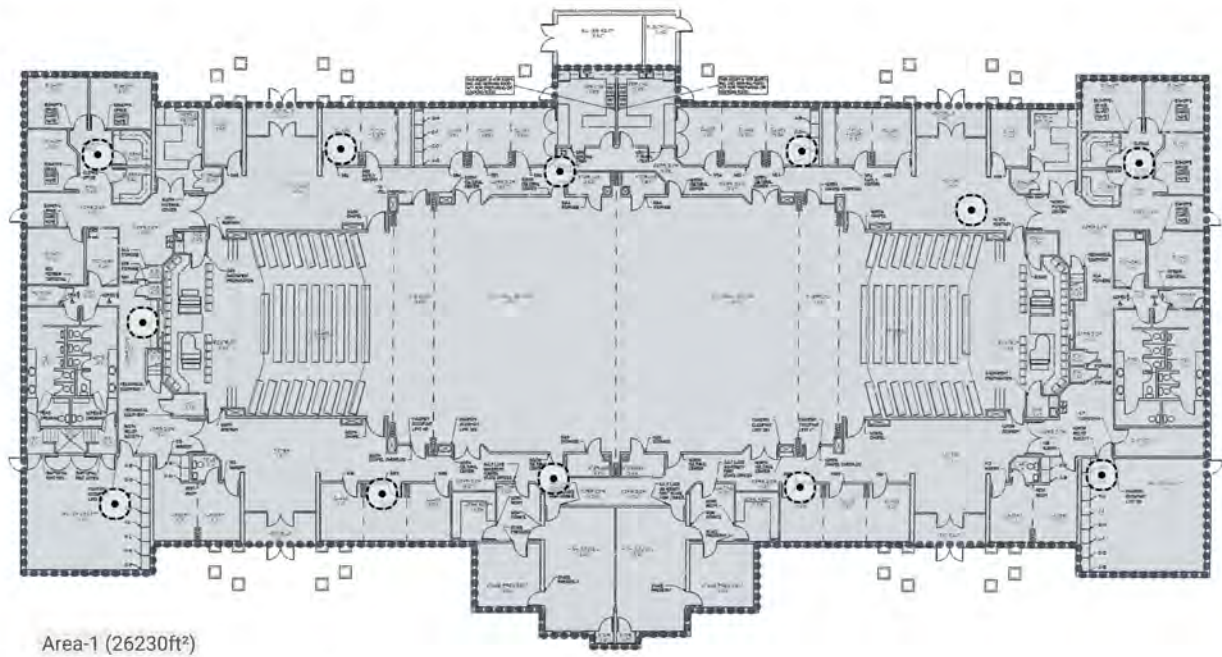
Area-1 (26230ft²)

View as / Project Offset:	Mobile Device

Area-1 (26,230 ft²)

Coverage Requirement: **Ekahau Best Practices**		
2.4 GHz	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 %**
5 GHz	Signal Strength Min	**-75.0 dBm**
	Secondary Signal Strength Min	**-67.0 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	**-67.0 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 Student Ward - Mario Capecchi Drive - Floor 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.

-75 dBm   ≥ -30 dBm

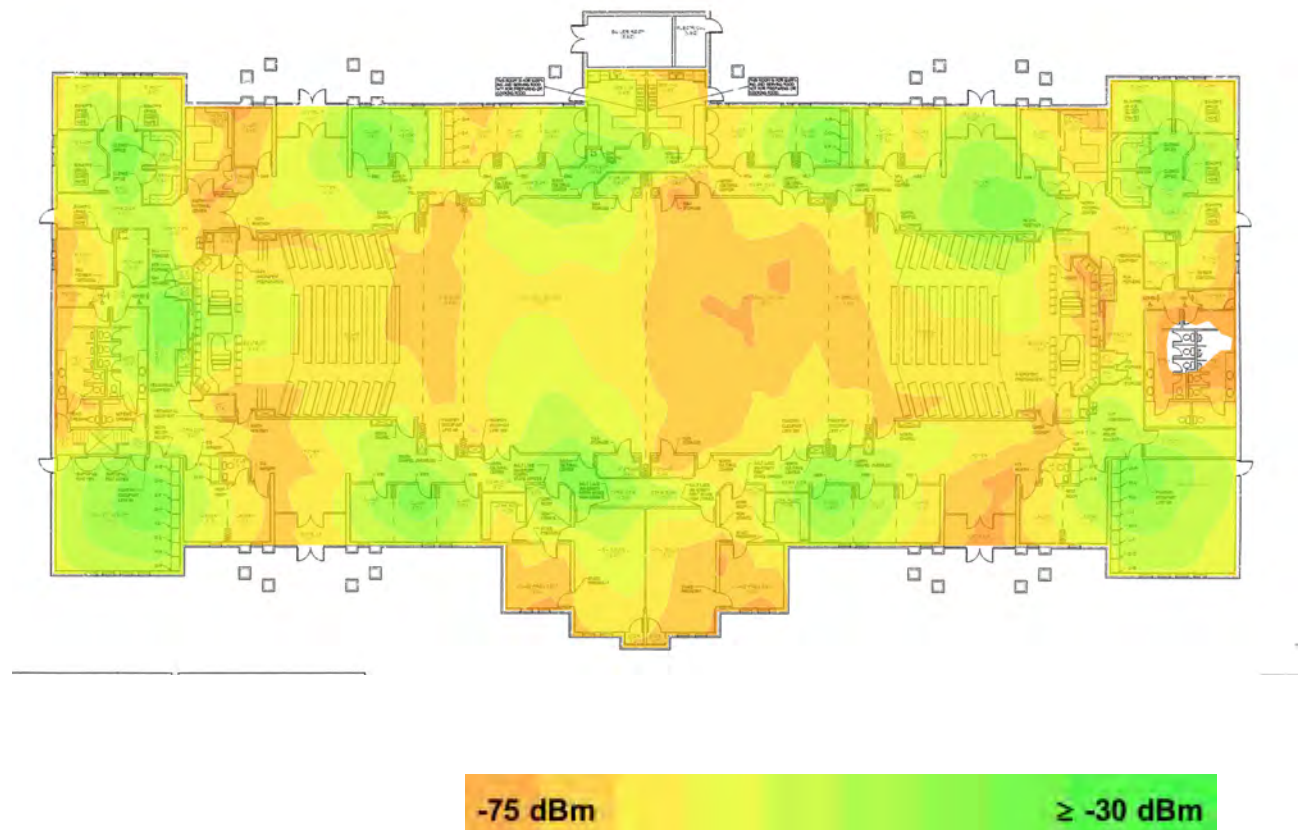**Signal Strength for Student Ward - Mario Capecchi Drive - Floor Plan on 2.4 GHz band**
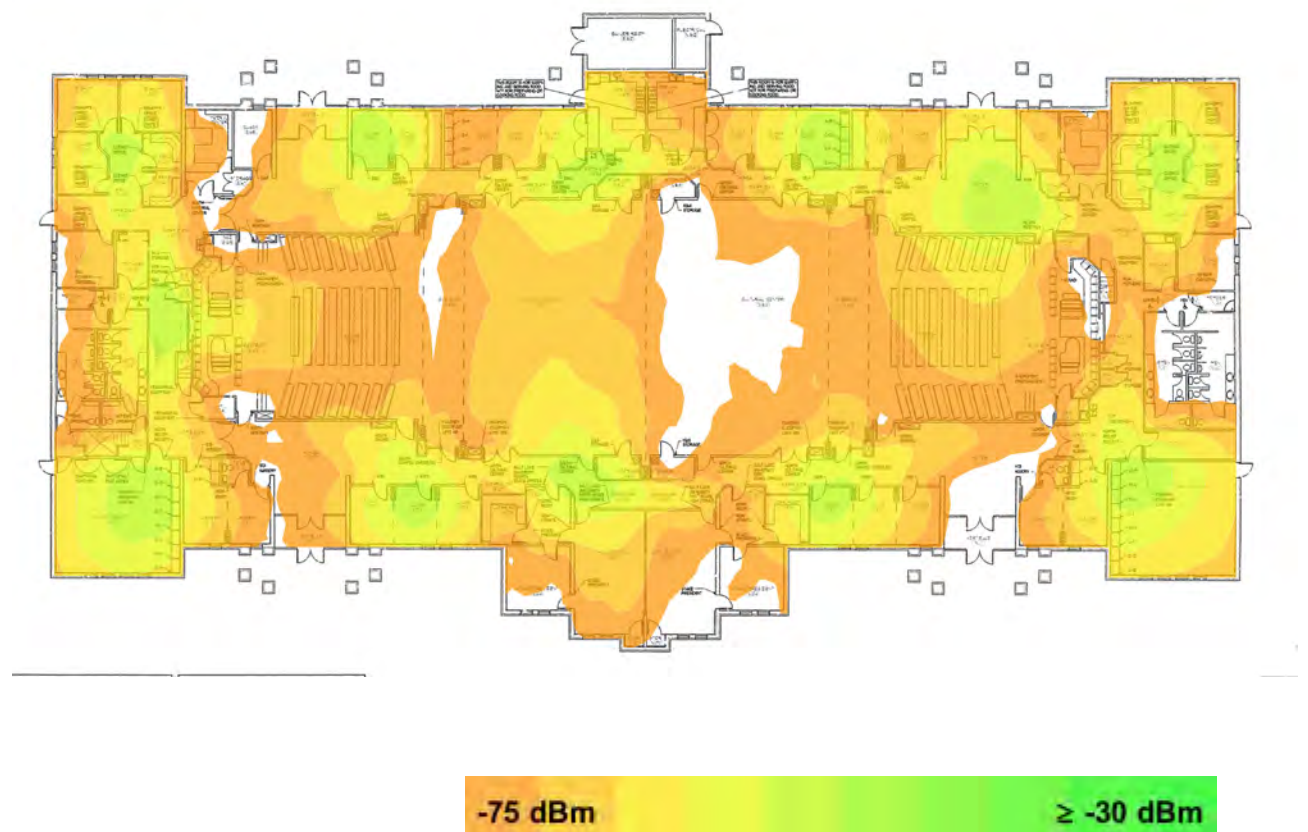
Signal Strength for Student Ward - Mario Capecchi Drive - Floor Plan on 5 GHz band

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.

-75 dBm   ≥ -30 dBm

Signal Strength for Student Ward - Mario Capecchi Drive - Floor Plan on 6 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.
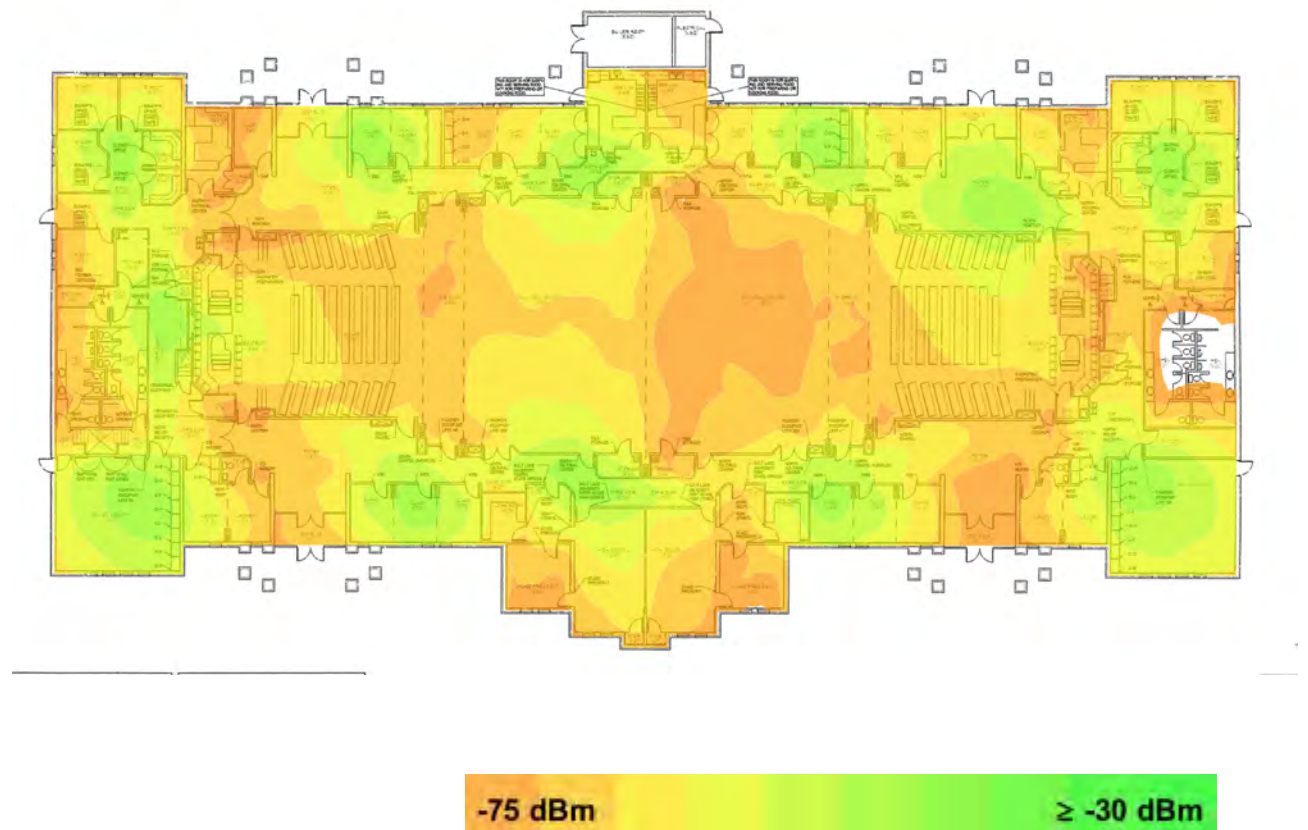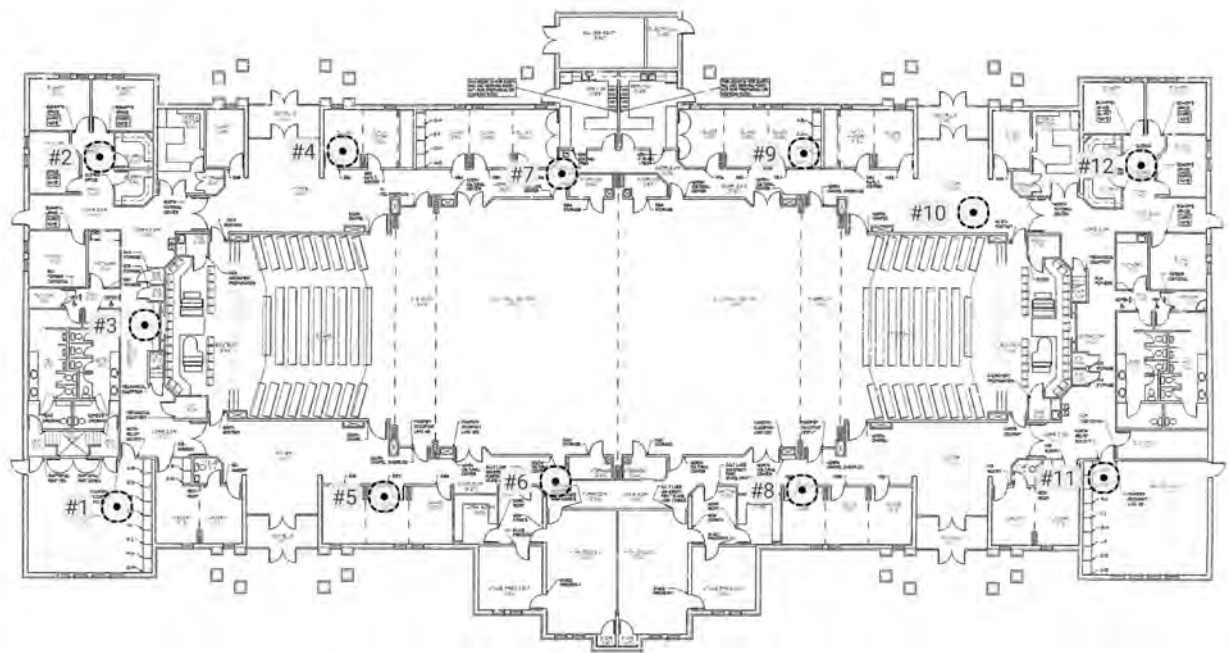

-75 dBm   ≥ -30 dBm

Signal Strength for Student Ward - Mario Capecchi Drive - Floor Plan on 6 GHz band

Access Points on Student Ward - Mario Capecchi Drive - Floor Plan

Access Points on Student Ward - Mario Capecchi Drive - Floor Plan

Simulated Access Points on Student Ward - Mario Capecchi Drive - Floor Plan

AP #	Access Point			
1	Simulated AP-001	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
2	Simulated AP-002	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
3	Simulated AP-003	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
4	Simulated AP-004	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
5	Simulated AP-005	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz

	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
6	Simulated AP-006	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
7	Simulated AP-007	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
8	Simulated AP-008	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
9	Simulated AP-009	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
10	Simulated AP-010	Cisco CW9172I		
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE

11	Simulated AP-011		Cisco CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE
12	Simulated AP-012		Cisco CW9172I	
	Wi-Fi 7	1	8.0 dBm	Cisco CW9172I 2.4GHz
	Wi-Fi 7	36	14.0 dBm	Cisco CW9172I 5GHz
	Wi-Fi 7	1@80 (6 GHz)	14.0 dBm	Cisco CW9172I 6GHz
	Bluetooth	-	0.0 dBm	Cisco CW9172I BLE

Measured Access Points on Student Ward - Mario Capecchi Drive - Floor Plan

None.