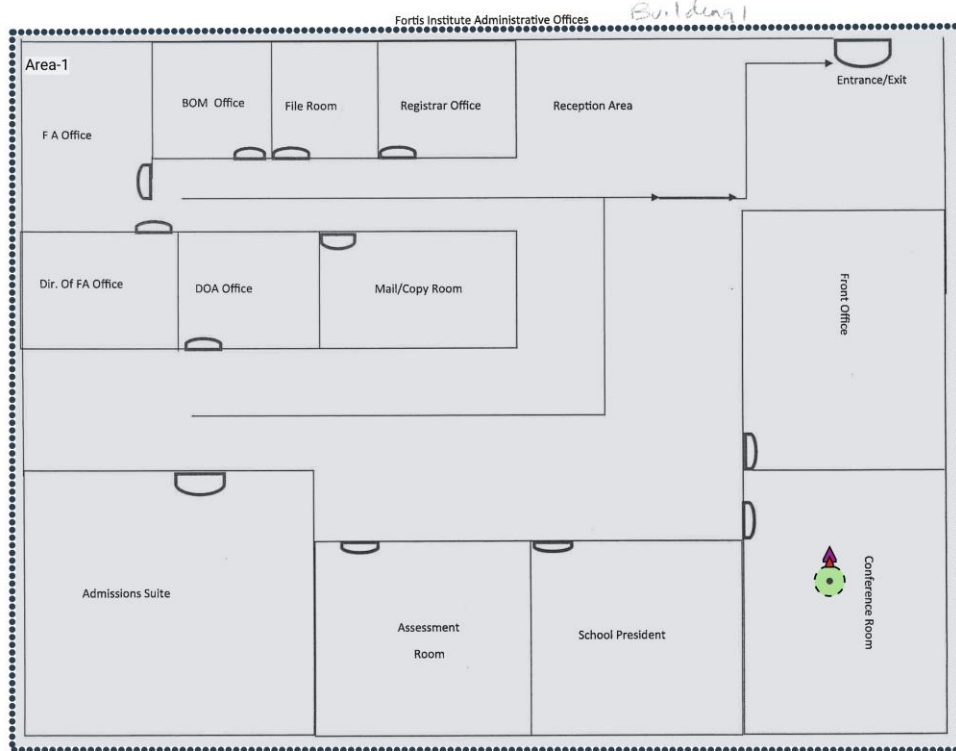


# Windstream - Education Affiliates - Fortis Institute - Scranton, PA - Site Survey



## Building #1 (Admin Area)

### Survey routes and Access Points for Building #1 (Admin Area)



### Area-1 (799 m<sup>2</sup>)

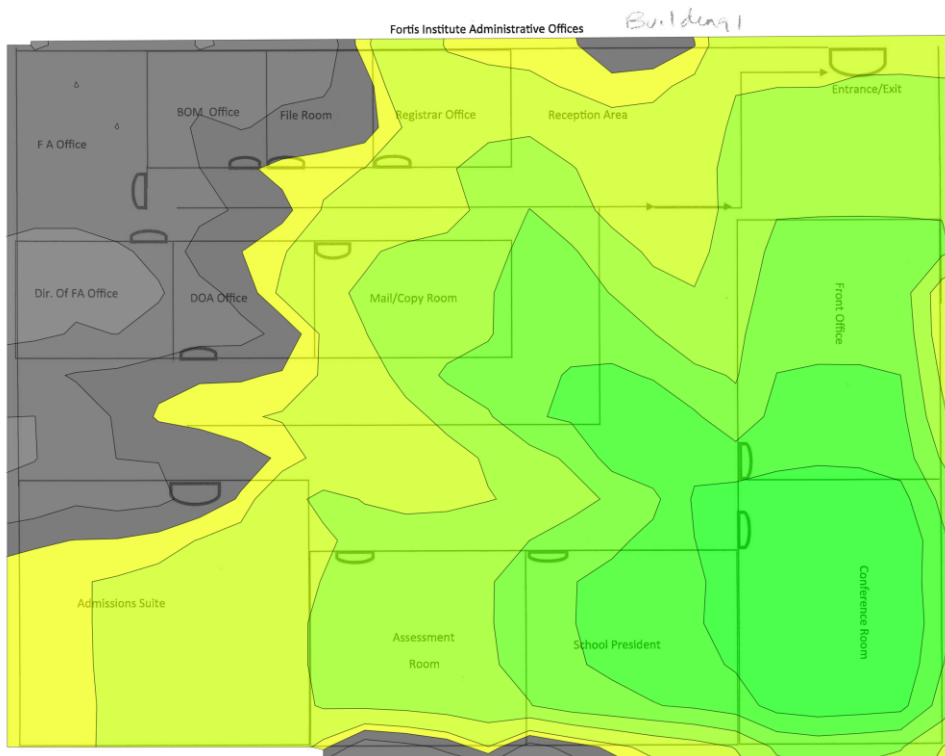
Coverage Requirement: <b>Voice + Data</b>	Signal Strength Min	<b>-67.0 dBm</b>
	Signal-to-noise Ratio Min	<b>20.0 dB</b>
	Data rate Min	<b>20 Mbps</b>
	Number of Access Points Min	<b>2 at min. -75.0 dBm</b>
	Channel Overlap Max	<b>2 at min. -85.0 dBm</b>
	Round Trip Time (RTT) Max	<b>200ms</b>
	Packet Loss Max	<b>2.0 %</b>
Capacity Requirement	No capacity devices for this area	
Notes		

## Wi-Fi Network Report

## Wi-Fi Network Report

### Signal Strength for Building #1 (Admin Area) 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.



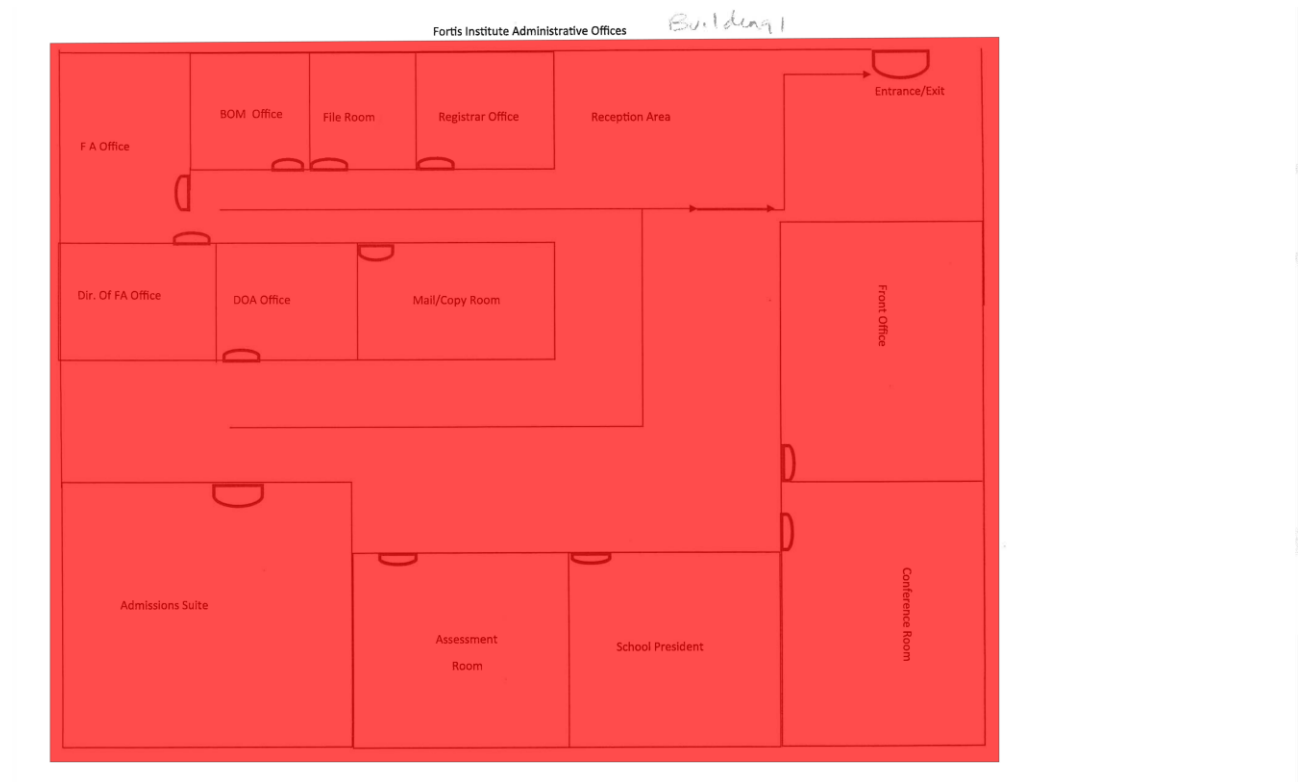
-80.0dBm

≥ -45.0dBm

## Wi-Fi Network Report

### Network Health for Building #1 (Admin Area) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.

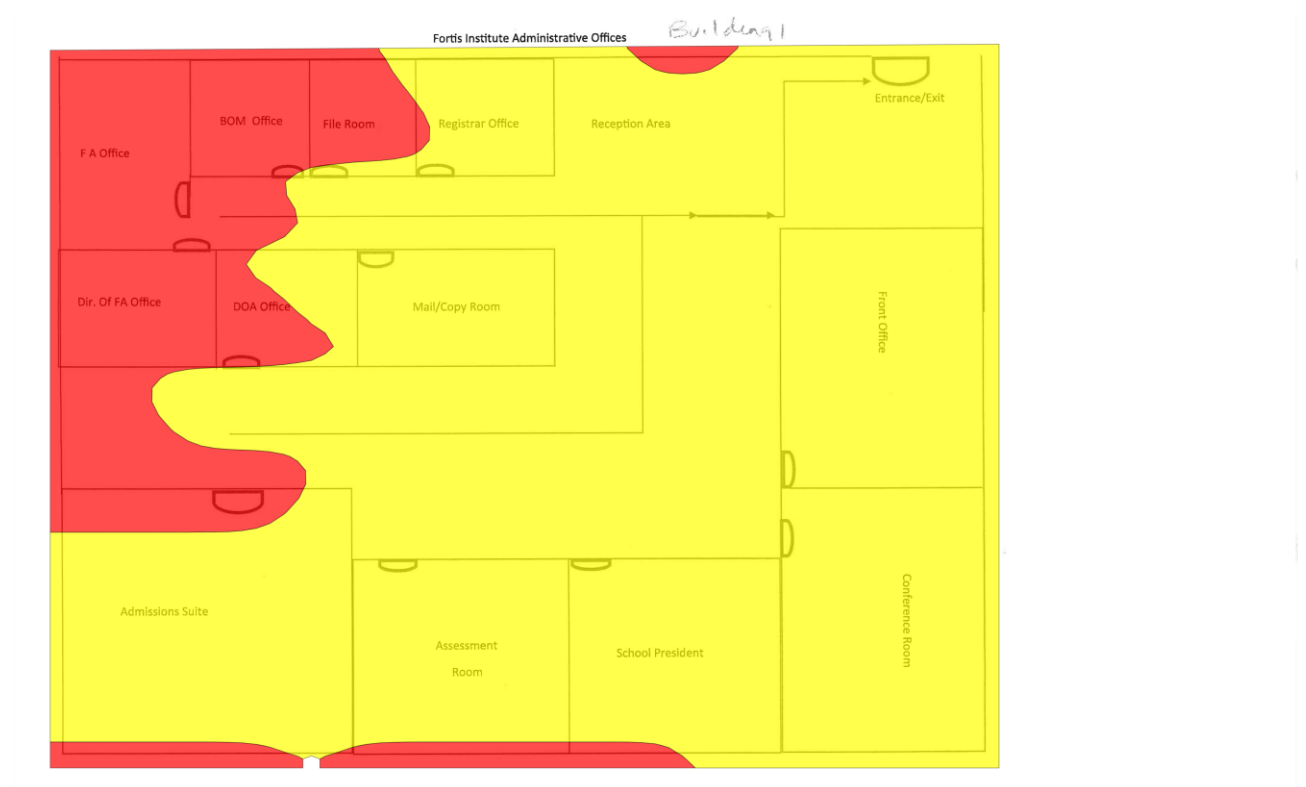


**Fail**

**Pass**

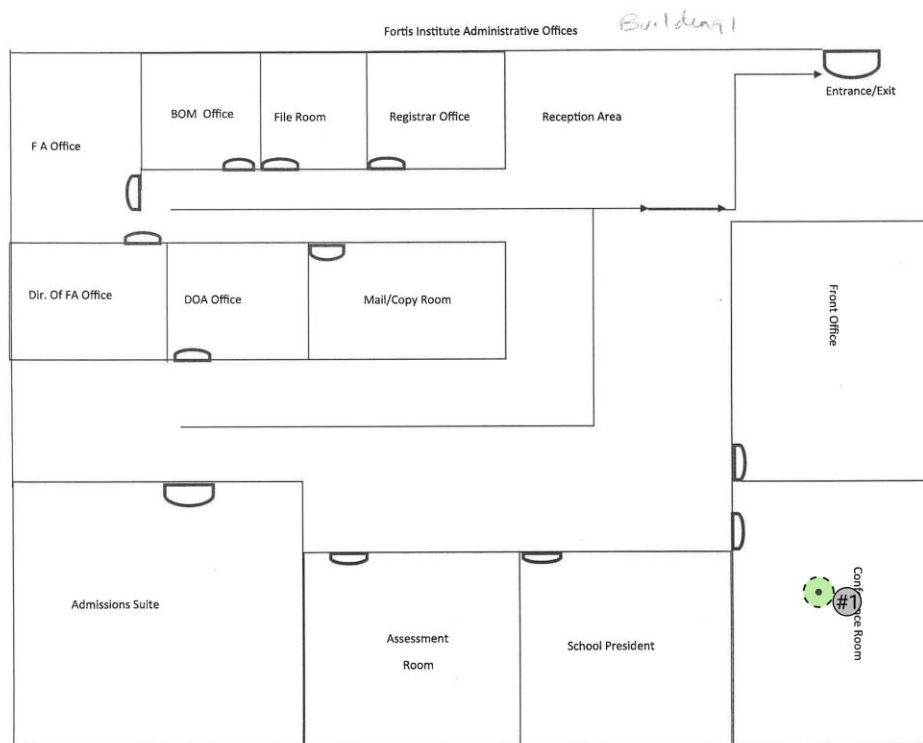
## Network Issues for Building #1 (Admin Area) on 5 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



S.Str	#APs	Data	SNR	RTT	Loss	Ch.O
-------	------	------	-----	-----	------	------

## Access Points on Building #1 (Admin Area)



## My Access Points on Building #1 (Admin Area)

### Simulated Access Points on Building #1 (Admin Area)

AP #	Access Point			
1	Meraki MR42E + MA-ANT-3-A (2)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi

### Measured Access Points on Building #1 (Admin Area)

None.



## **Other Access Points on Building #1 (Admin Area)**

### **Simulated Access Points on Building #1 (Admin Area)**

None.

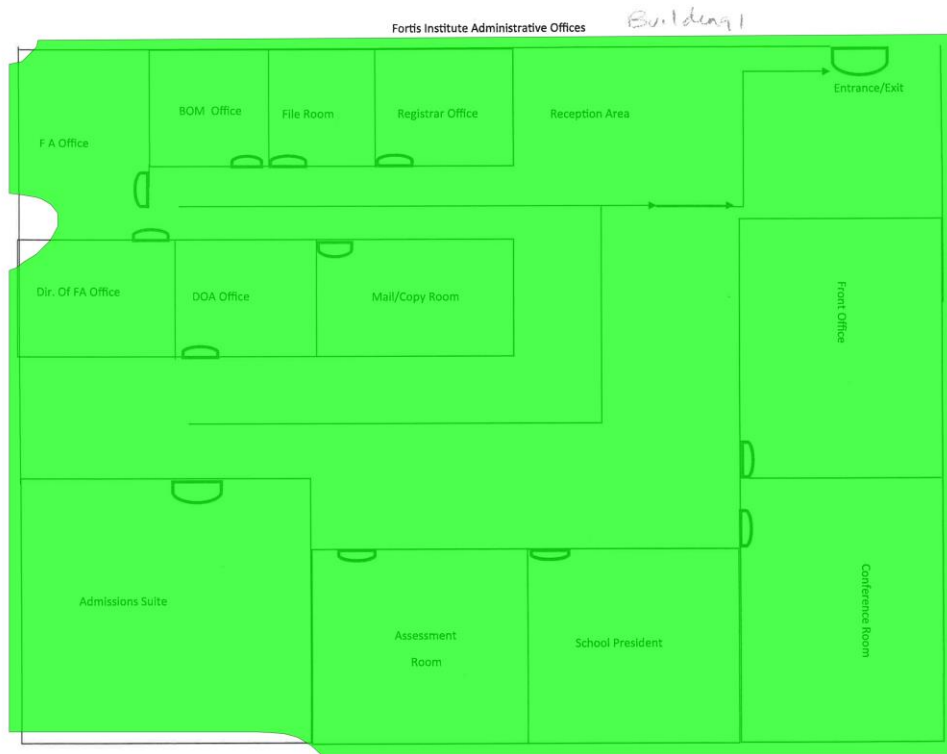
### **Measured Access Points on Building #1 (Admin Area)**

None.

## Wi-Fi Network Report

### Channel Bandwidth for Building #1 (Admin Area) on 5 GHz band

Shows the maximum channel bandwidth available in each area.



20MHz

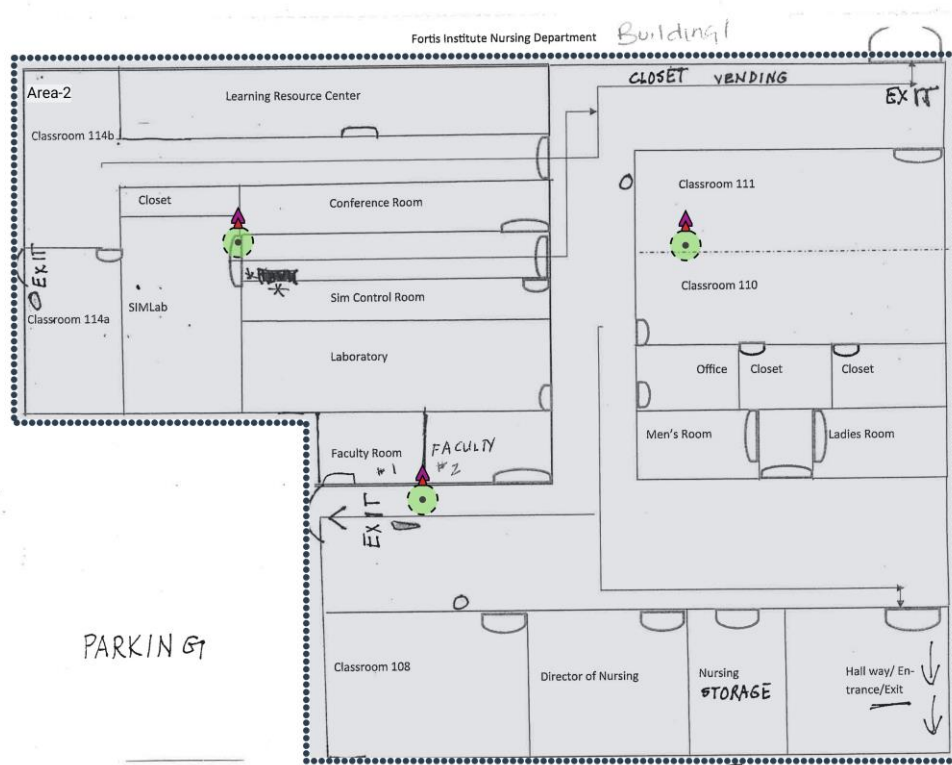
40MHz

80MHz

160MHz

## Building #1 (Student Area and Parking)

### Survey routes and Access Points for Building #1 (Student Area and Parking)



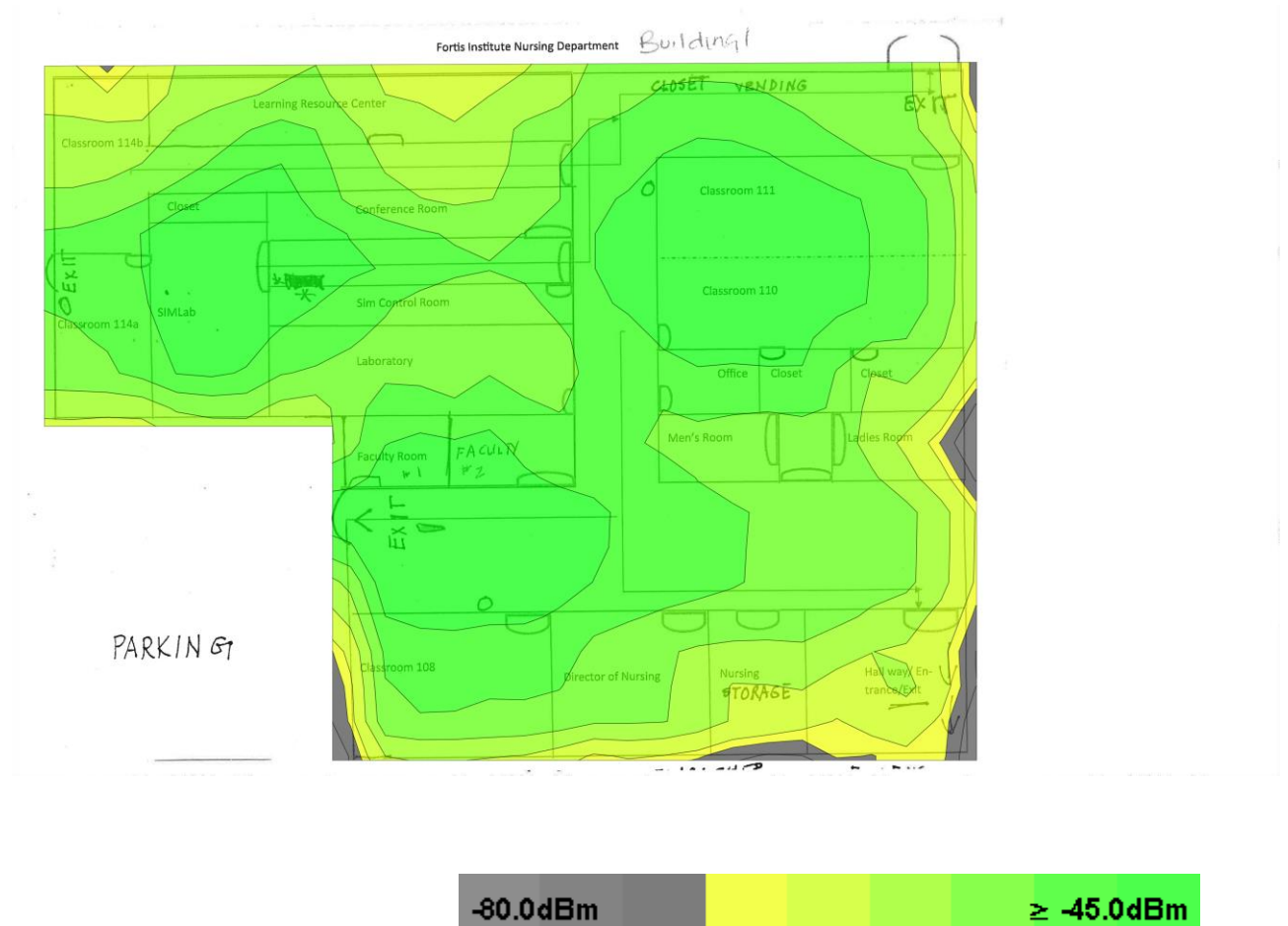
### Area-2 (909 m<sup>2</sup>)

Coverage Requirement: <b>Voice + Data</b>	Signal Strength Min	<b>-67.0 dBm</b>
	Signal-to-noise Ratio Min	<b>20.0 dB</b>
	Data rate Min	<b>20 Mbps</b>
	Number of Access Points Min	<b>2 at min. -75.0 dBm</b>
	Channel Overlap Max	<b>2 at min. -85.0 dBm</b>
	Round Trip Time (RTT) Max	<b>200ms</b>
	Packet Loss Max	<b>2.0 %</b>
Capacity Requirement	No capacity devices for this area	
Notes		



## Signal Strength for Building #1 (Student Area and Parking) on 5 GHz band

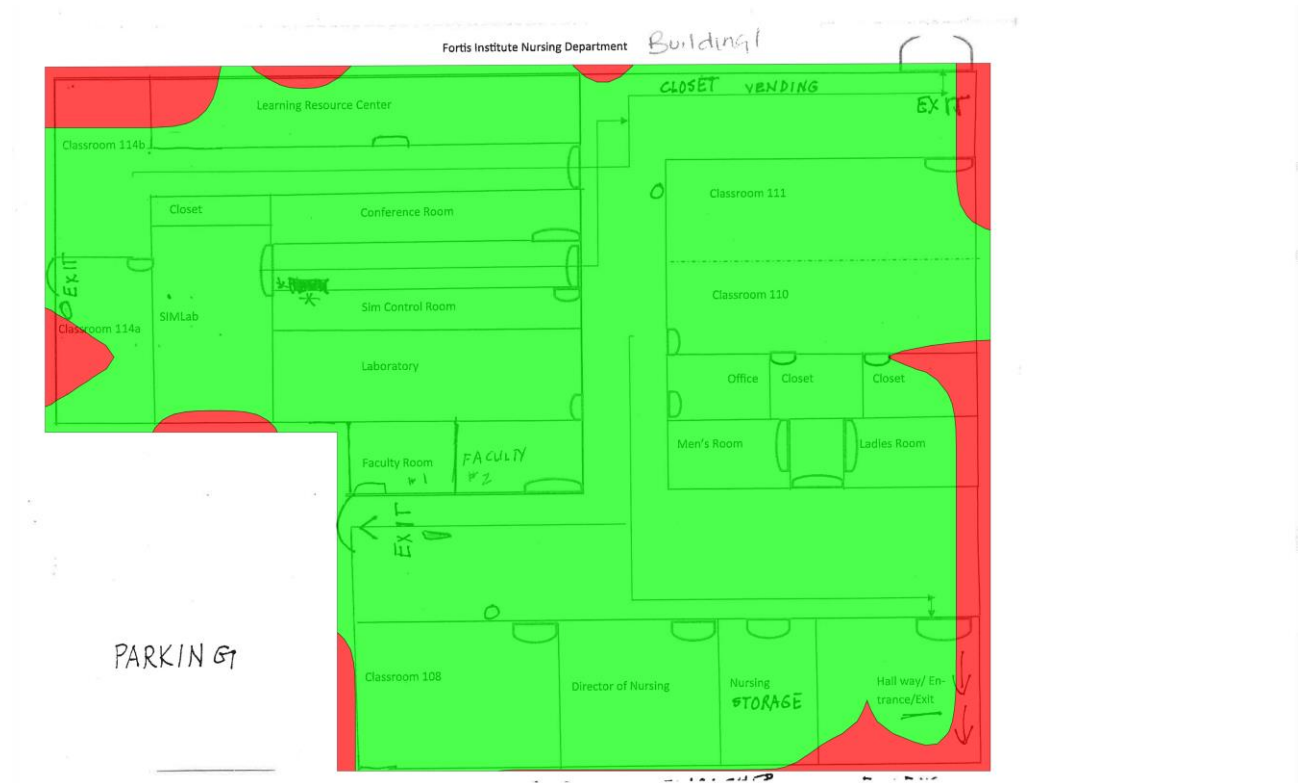
Signal Strength - sometimes called coverage - is the most basic requirement for a wireless network. As a general guideline, low signal strength means unreliable connections, and low data throughput.



## Wi-Fi Network Report

### Network Health for Building #1 (Student Area and Parking) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.

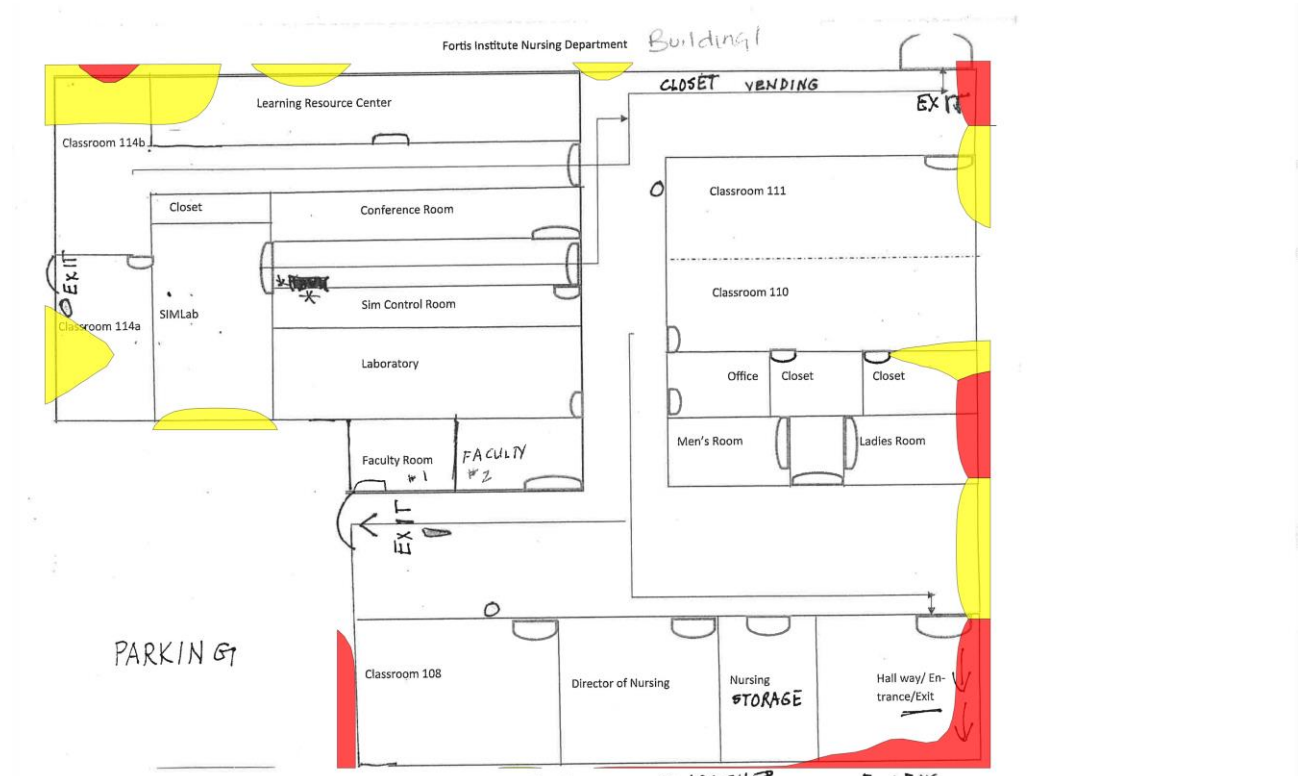


Fail

Pass

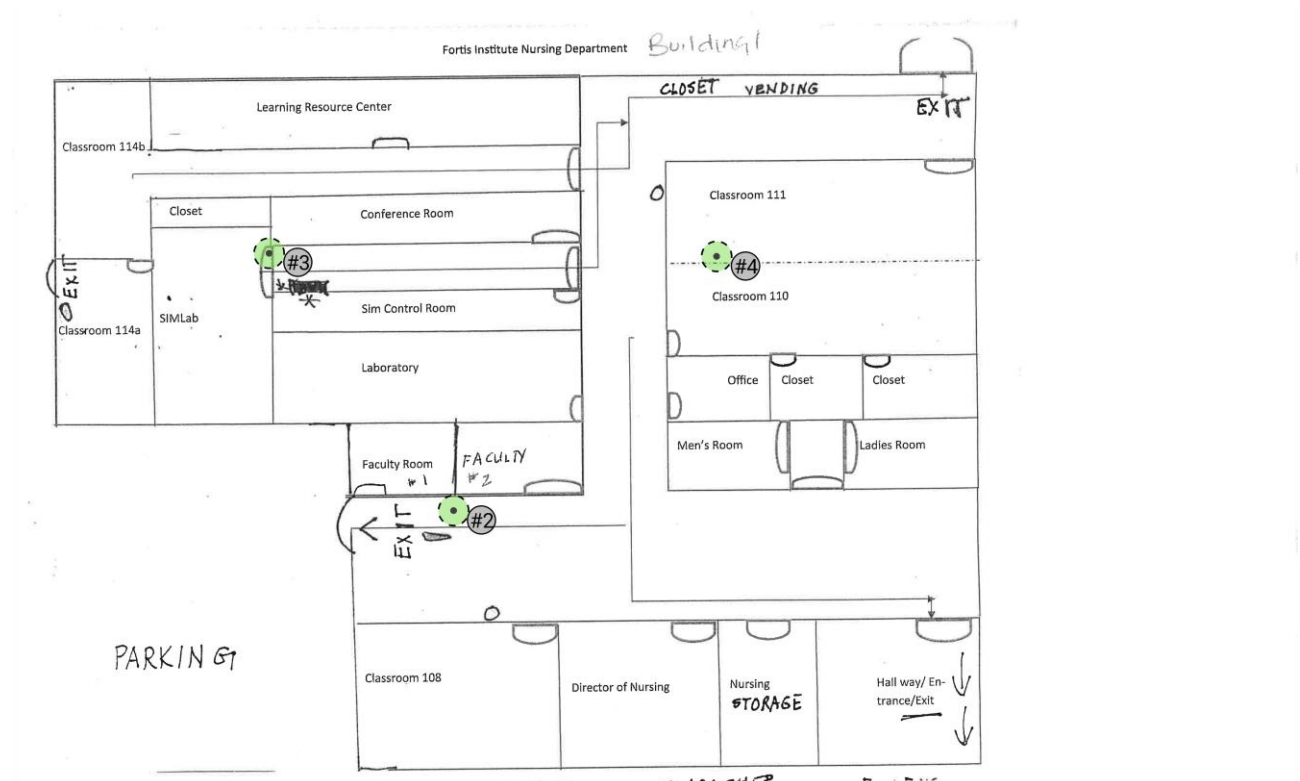
## Network Issues for Building #1 (Student Area and Parking) on 5 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



S.Str	#APs	Data	SNR	RTT	Loss	Ch.O
-------	------	------	-----	-----	------	------

## Access Points on Building #1 (Student Area and Parking)





## My Access Points on Building #1 (Student Area and Parking)

### Simulated Access Points on Building #1 (Student Area and Parking)

AP #	Access Point			
2	Meraki MR42E + MA-ANT-3-A (11)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	36	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi
3	Meraki MR42E + MA-ANT-3-A (3)			
	802.11n	11	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi
4	Meraki MR42E + MA-ANT-3-A (5)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	36	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi

### Measured Access Points on Building #1 (Student Area and Parking)

None.

## **Other Access Points on Building #1 (Student Area and Parking)**

### **Simulated Access Points on Building #1 (Student Area and Parking)**

None.

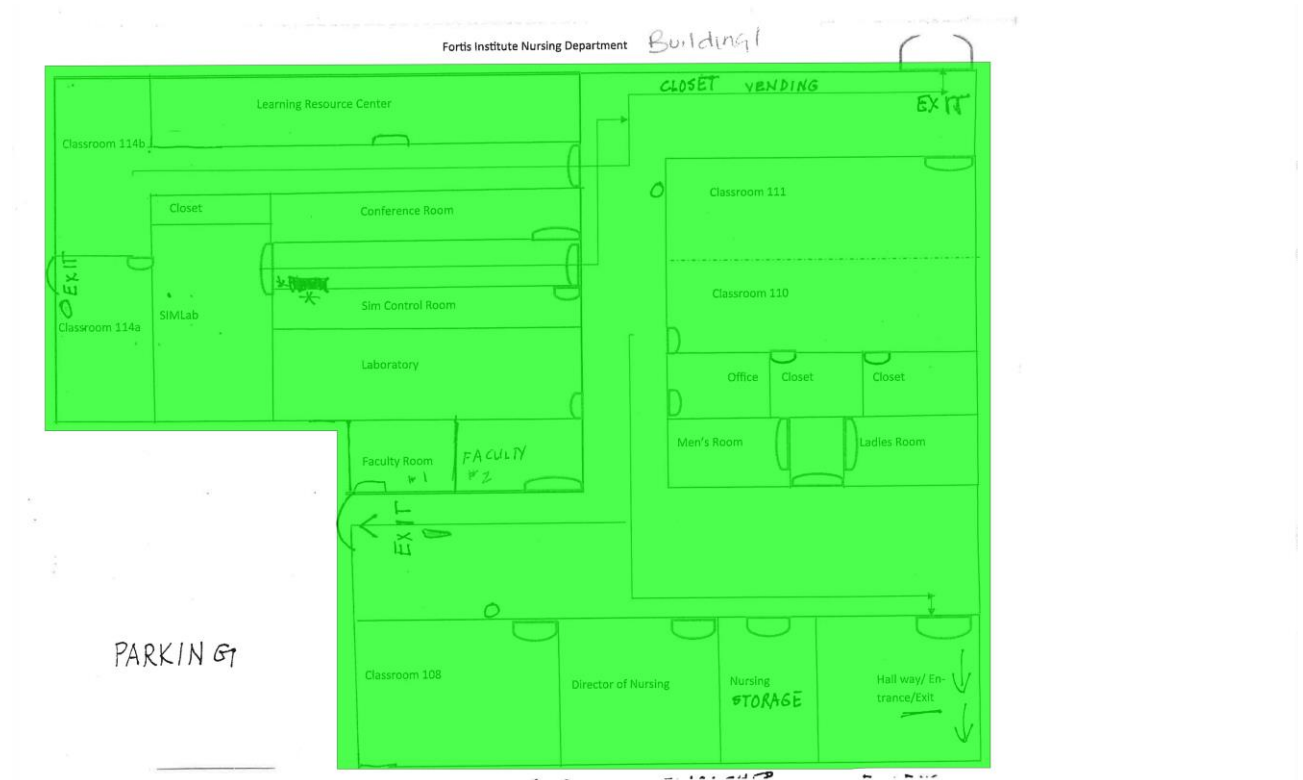
### **Measured Access Points on Building #1 (Student Area and Parking)**

None.

## Wi-Fi Network Report

### Channel Bandwidth for Building #1 (Student Area and Parking) on 5 GHz band

Shows the maximum channel bandwidth available in each area.



20MHz

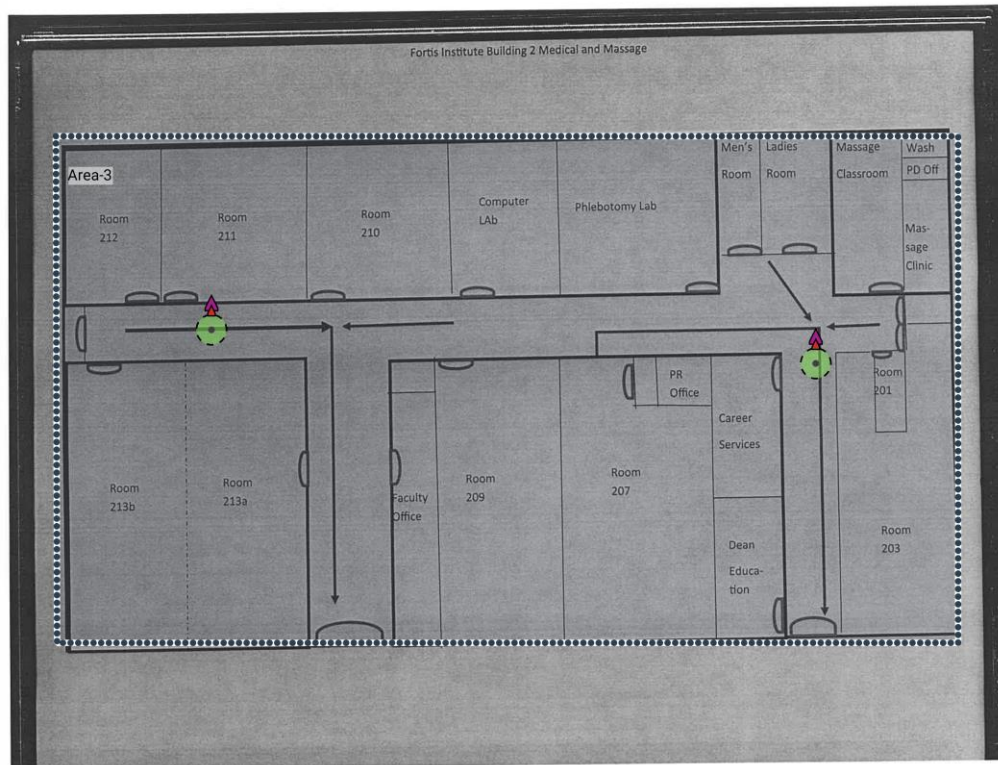
40MHz

80MHz

160MHz

## Building #2 (Medical and Massage)

### Survey routes and Access Points for Building #2 (Medical and Massage)



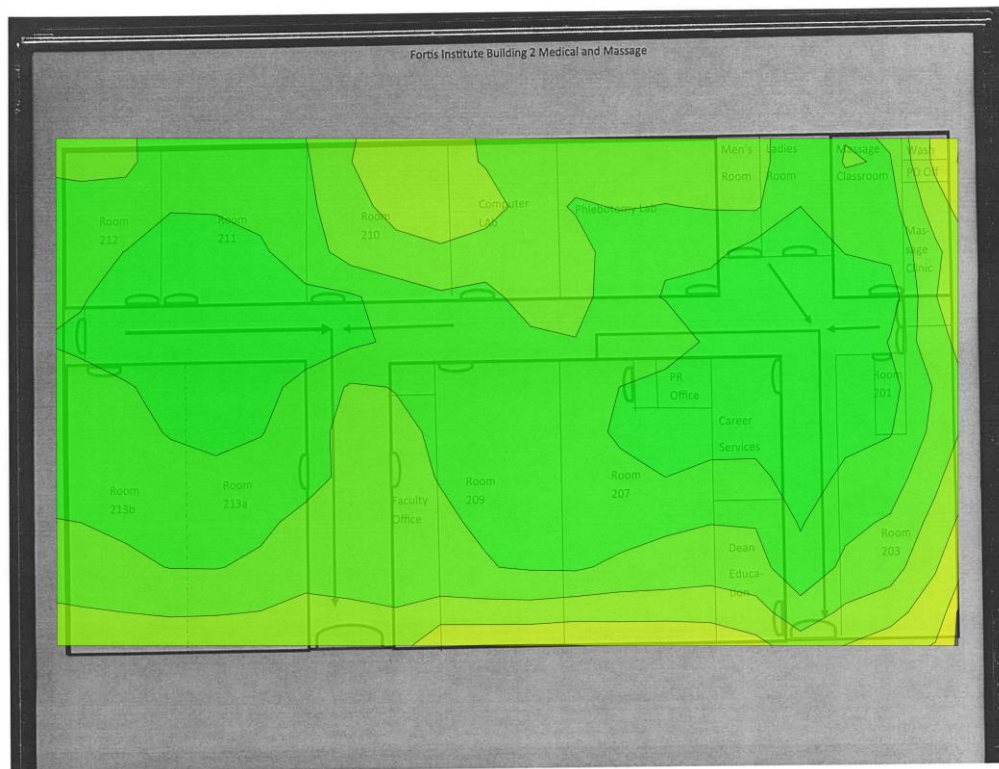
### Area-3 (449 m<sup>2</sup>)

Coverage Requirement: <b>Voice + Data</b>	Signal Strength Min	<b>-67.0 dBm</b>
	Signal-to-noise Ratio Min	<b>20.0 dB</b>
	Data rate Min	<b>20 Mbps</b>
	Number of Access Points Min	<b>2 at min. -75.0 dBm</b>
	Channel Overlap Max	<b>2 at min. -85.0 dBm</b>
	Round Trip Time (RTT) Max	<b>200ms</b>
	Packet Loss Max	<b>2.0 %</b>
Capacity Requirement	No capacity devices for this area	
Notes		



### Signal Strength for Building #2 (Medical and Massage) 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.



## Wi-Fi Network Report

### Network Health for Building #2 (Medical and Massage) on 5 GHz band

Wi-Fi is typically built for a certain purpose or several purposes, such as VoIP, web browsing, or location tracking. With Network Health, you can, with a single visualization, display whether the network meets your requirements or not.



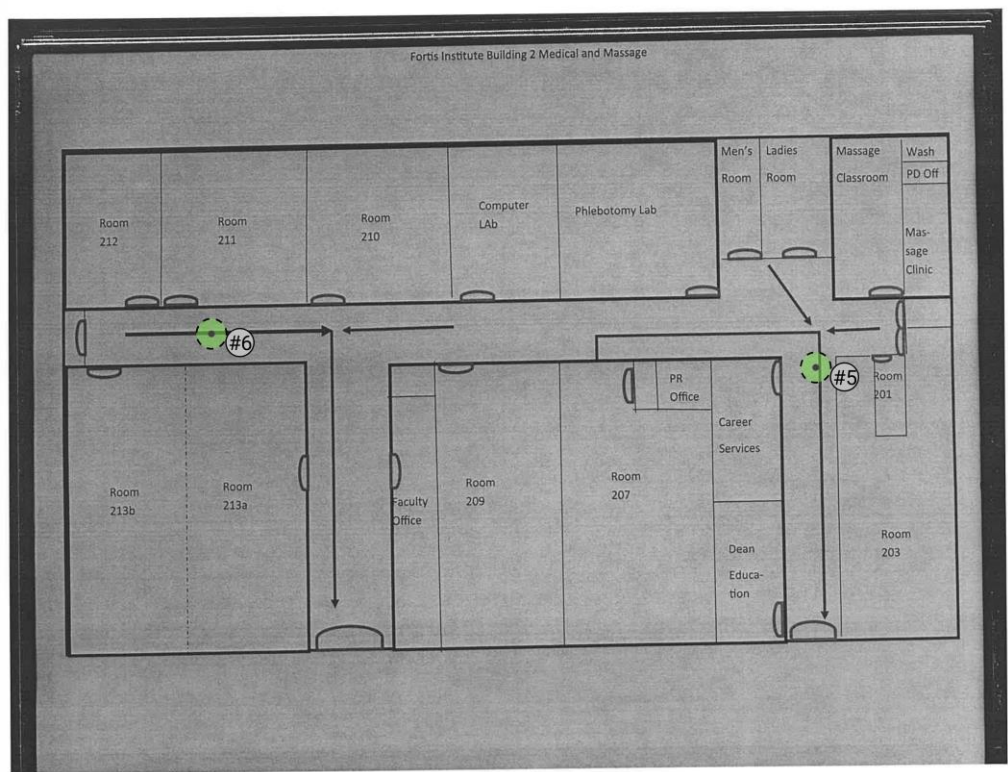
**Fail**

**Pass**





Access Points on Building #2 (Medical and Massage)



## My Access Points on Building #2 (Medical and Massage)

### Simulated Access Points on Building #2 (Medical and Massage)

AP #	Access Point			
5	Meraki MR42E + MA-ANT-3-A (6)			
	802.11n	11	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi
6	Meraki MR42E + MA-ANT-3-A (7)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	153	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi

### Measured Access Points on Building #2 (Medical and Massage)

None.

## **Other Access Points on Building #2 (Medical and Massage)**

### **Simulated Access Points on Building #2 (Medical and Massage)**

None.

### **Measured Access Points on Building #2 (Medical and Massage)**

None.

## Wi-Fi Network Report

### Channel Bandwidth for Building #2 (Medical and Massage) on 5 GHz band

Shows the maximum channel bandwidth available in each area.



20MHz

40MHz

80MHz

160MHz





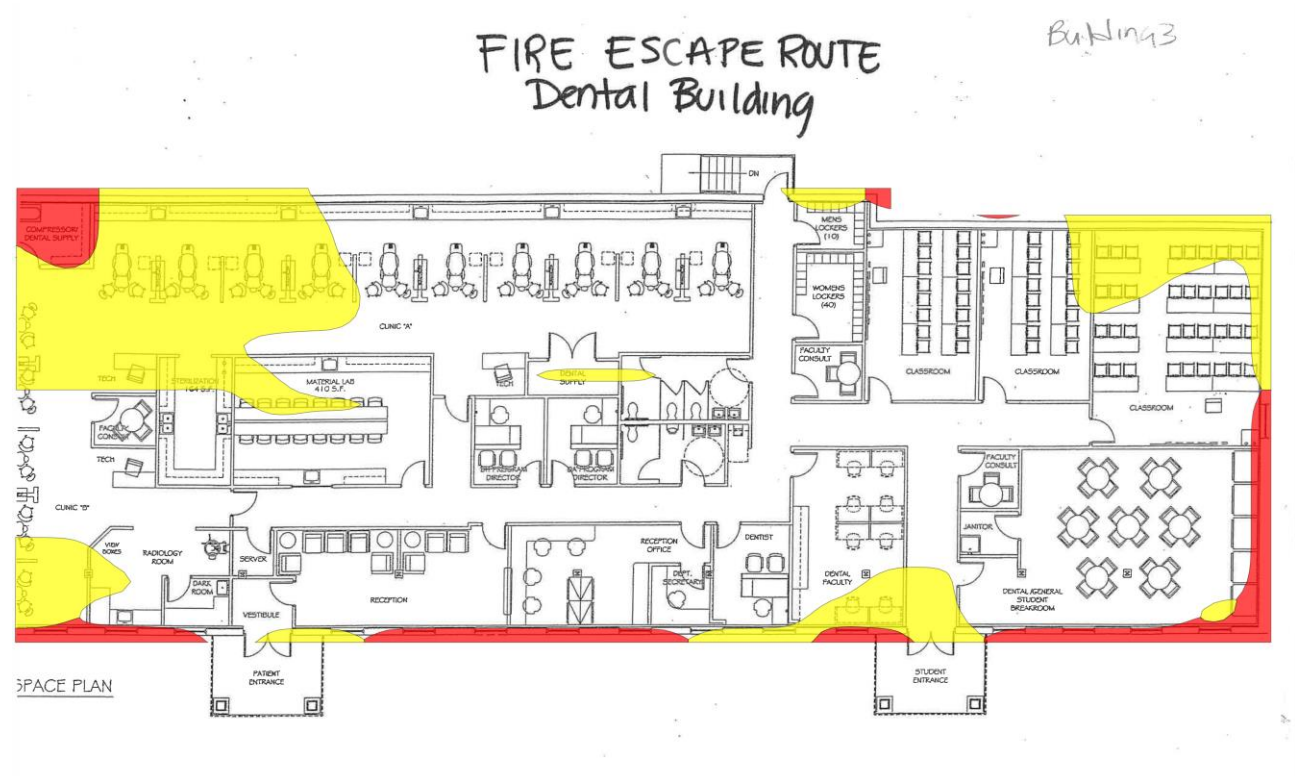






## Network Issues for Building #3 (Dental) on 5 GHz band

Network Issues complements Network Health by showing the requirement that is below the threshold level at each location. Whereas Network Health answers the question "Does it work?", Network Issues answers the question "If it doesn't work, why?".



## Access Points on Building #3 (Dental)



## My Access Points on Building #3 (Dental)

### Simulated Access Points on Building #3 (Dental)

AP #	Access Point			
7	Meraki MR42E + MA-ANT-3-A (10)			
	802.11n	1	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	161	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi
8	Meraki MR42E + MA-ANT-3-A (8)			
	802.11n	11	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	104	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi
9	Meraki MR42E + MA-ANT-3-A (9)			
	802.11n	6	6 mW	Meraki MA-ANT-3-A 2.4GHz 3.8dBi
	802.11ac	153	25 mW	Meraki MA-ANT-3-A 5GHz 5.5dBi

### Measured Access Points on Building #3 (Dental)

None.

## **Other Access Points on Building #3 (Dental)**

### **Simulated Access Points on Building #3 (Dental)**

None.

### **Measured Access Points on Building #3 (Dental)**

None.

## Channel Bandwidth for Building #3 (Dental) on 5 GHz band

Shows the maximum channel bandwidth available in each area.

