

# Wireless Network Design Proposal

## IC TITO\_pon22

**Prepared for**

IC Tito

**Prepared by**

EnGenius

**Location**

**Report Date**

April 1, 2022

**Report Description**

The following report is a network layout plan generated using the EnGenius ezWiFi Planner. This tool analyzes your floor plan's dimensions and features to determine an optimized placement of access points for signal strength and range. This report can be conveniently adjusted and recreated to take ongoing plan modifications into account.

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## Executive Summary

### Overview

The ezWIFI Planner simplifies the process of mapping out your network layout. By uploading a copy of your floor plan, and using the online interface to add additional floor plan feature information, the tool intelligently generates an optimized placement plan and visualization of your access points. This layout proposal can be easily modified and re-generated to get a network plan most suited to your needs.



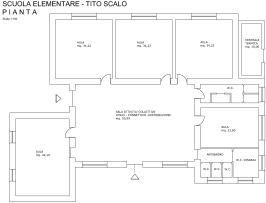
## Floor Plan Overview

Below is the summarized layout of network infrastructure and expected coverage areas for one or more floor plans. Includes original uploaded floor plan image, proposed coverage area, and number of access points required. ([Table 1](#))

Table 1: FLOOR PLAN OVERVIEW

Name	Floor Plan	Coverage Area	APs
1	Piano 0 Media 	615.0 m <sup>2</sup>	7
2	Piano 1 Media 	1532.0 m <sup>2</sup>	12
3	Tito_Elem_P0 	105.0 m <sup>2</sup>	3
4	Tito_Elem_P1 	1027.0 m <sup>2</sup>	8
5	Tito_Elem_P2 	1926.0 m <sup>2</sup>	9

Table 1 - CONTINUED

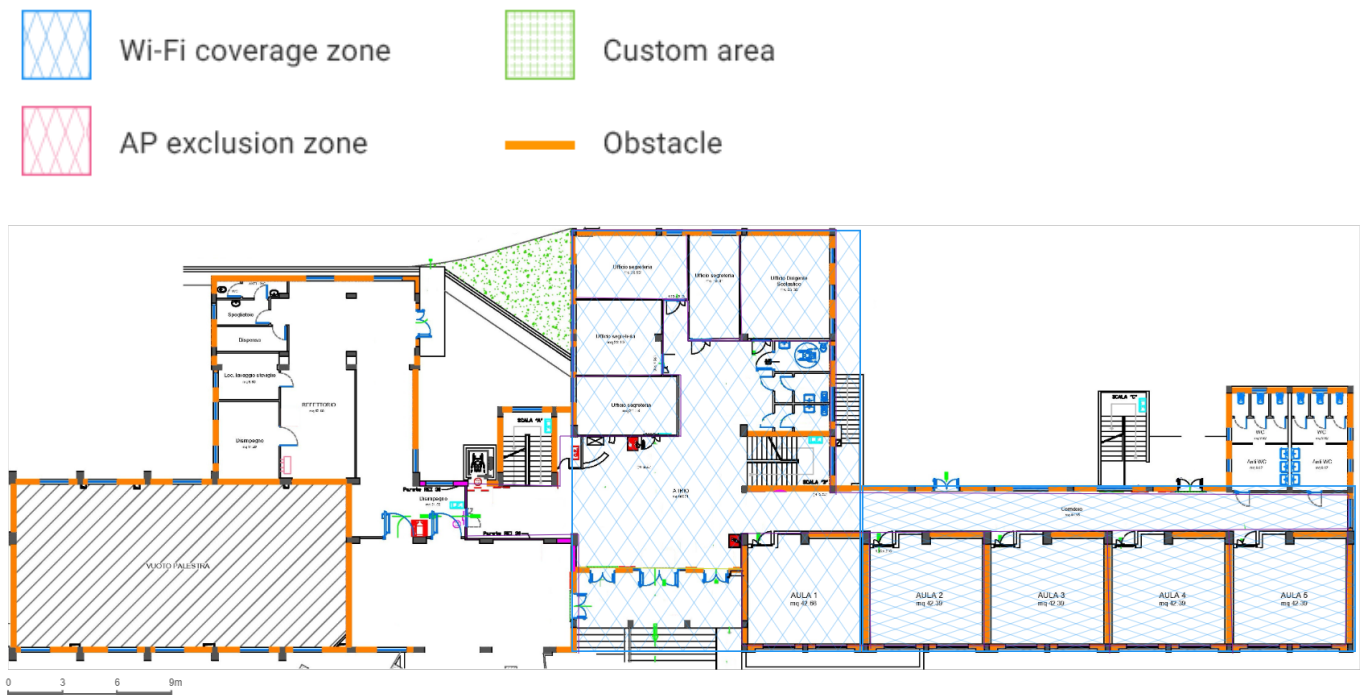
Name	Floor Plan	Coverage Area	APs
6 Tito_Scalo	 <p>SCUOLA ELEMENTARE - TITO SCALO PIANTA</p>	409.0 m <sup>2</sup>	5
<p>Total Floor Plan: 6                      Total Indoor APs: 44                      Total Outdoor APs: 0                      Total APs: 44</p>			

# Floor Plan: Piano 0 Media

## Environment Setting

Based on your floor plan's provided features, the planner has generated a network specification. Features include: (1) Required coverage areas, (2) Coverage exclusion areas, (3) Potential obstacles to coverage (based on materials such as concrete), (4) other custom areas as indicated. You must provide this information - the more specific your floor plan, the more effective and accurate your results. You can always go back and fine tune your floor plan parameters. [\(Figure 1\)](#)

Figure 1: ENVIRONMENT SETTING

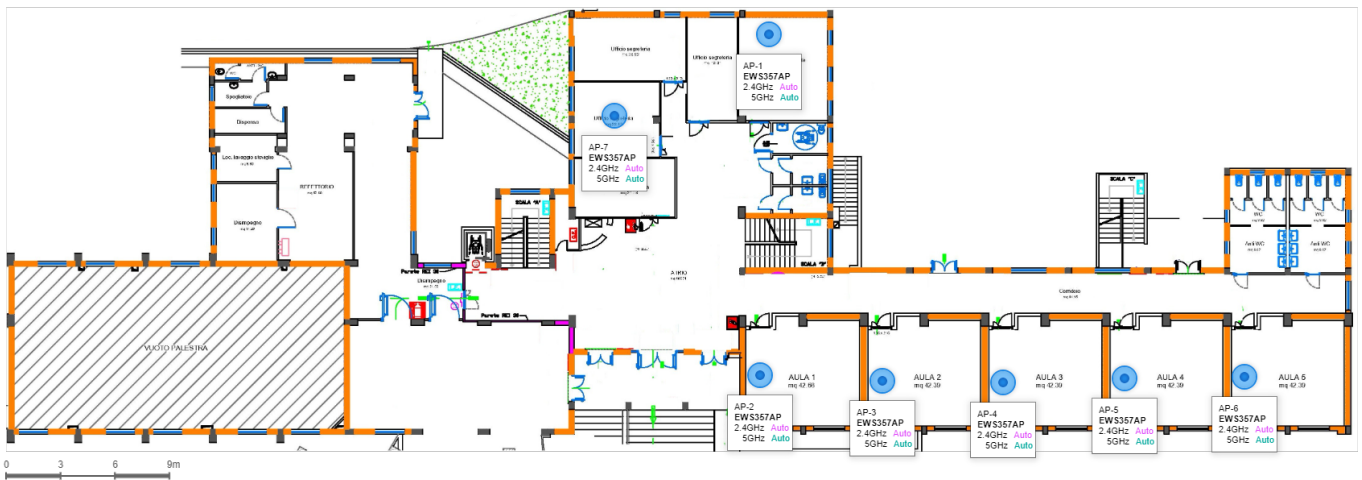


# AP Locations

The tool auto-generates a proposed location for each of your access points, based on the number of access points required. Placements are calculated to create an optimal coverage area across your floor plan. Add additional access points for better coverage. ([Figure 2](#))

Figure 2: AP LOCATIONS

Number of APs: 7



## AP List

This list contains a comprehensive list of your network plans hardware requirements. Including access point model numbers, radio band, channel information, and location of placement. ([Table 2](#))

Table 2: AP LIST

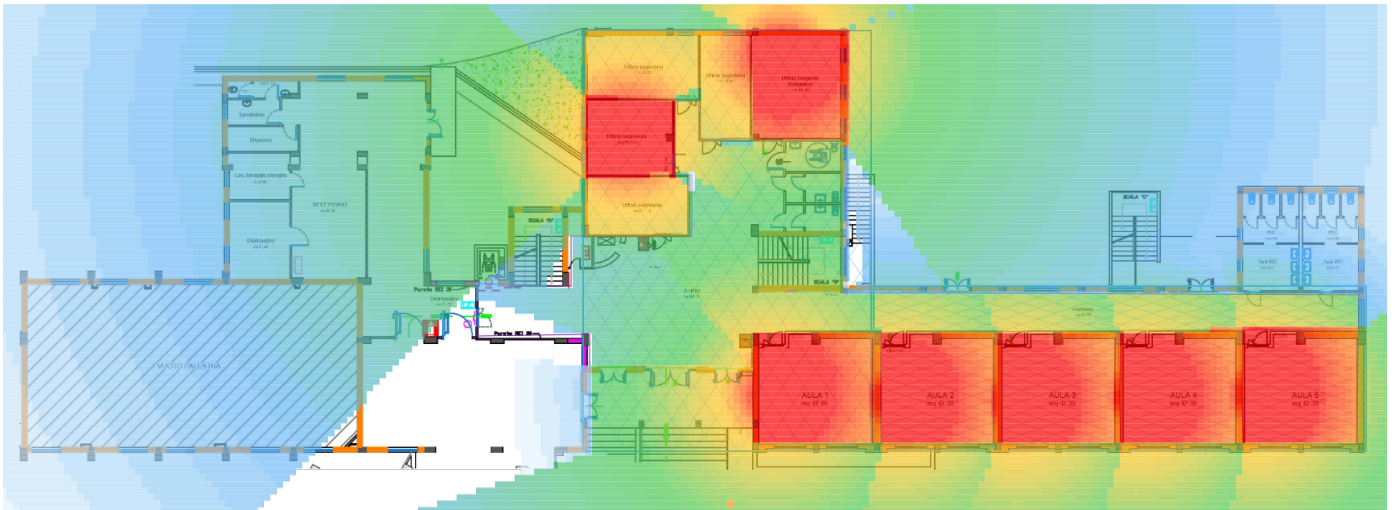
Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
1 AP-1	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
2 AP-2	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
3 AP-3	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
4 AP-4	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
5 AP-5	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
6 AP-6	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
7 AP-7	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
Total APs: 7							

## Signal Coverage

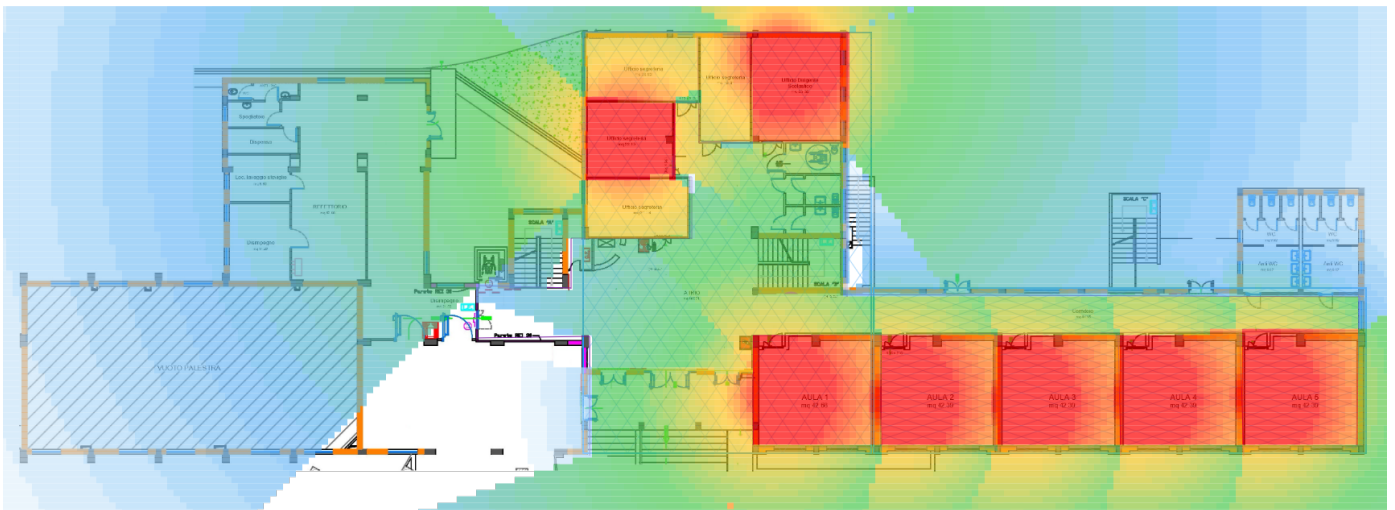
Heatmaps helps you visualize the likely signal strength and coverage areas for your floor plan, based on your project's current constraints. Access point locations can be individually changed to generate a new heatmap and visualize other suggested layout options. [\(Figure 3\)](#)

Figure 3: SIGNAL COVERAGE

2.4G



5G

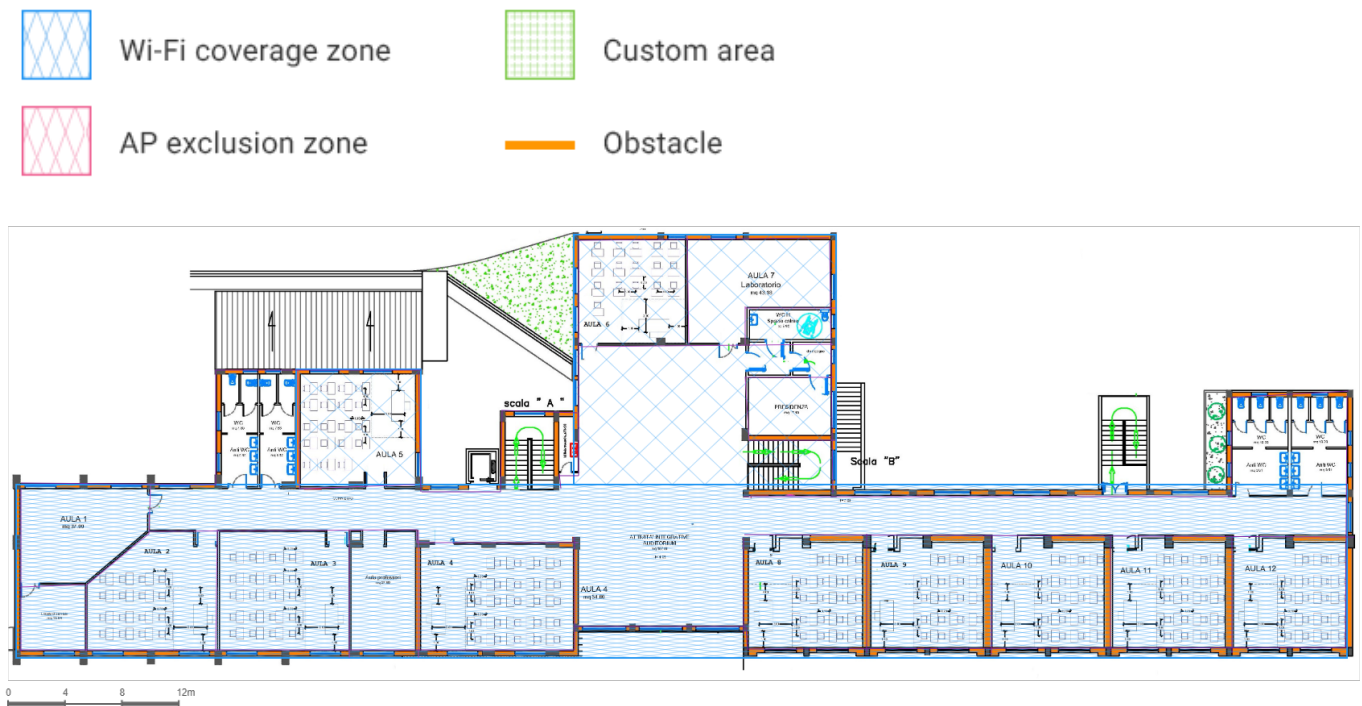


# Floor Plan: Piano 1 Media

## Environment Setting

Based on your floor plans provided features, the planner has generated a network specification. Features include: (1) Required coverage areas, (2) Coverage exclusion areas, (3) Potential obstacles to coverage (based on materials such as concrete), (4) other custom areas as indicated. You must provide this information - the more specific your floor plan, the more effective and accurate your results. You can always go back and fine tune your floor plan parameters. [\(Figure 4\)](#)

Figure 4: ENVIRONMENT SETTING



# AP Locations

The tool auto-generates a proposed location for each of your access points, based on the number of access points required. Placements are calculated to create an optimal coverage area across your floor plan. Add additional access points for better coverage. ([Figure 5](#))

Figure 5: AP LOCATIONS

Number of APs: 12





## AP List

This list contains a comprehensive list of your network plans hardware requirements. Including access point model numbers, radio band, channel information, and location of placement. ([Table 3](#))

Table 3: AP LIST

Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
1 AP-1	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
2 AP-2	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
3 AP-3	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
4 AP-4	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
5 AP-5	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
6 AP-6	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
7 AP-7	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
8 AP-8	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
9 AP-9	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
10 AP-10	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
11 AP-11	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	

Table 3 - CONTINUED

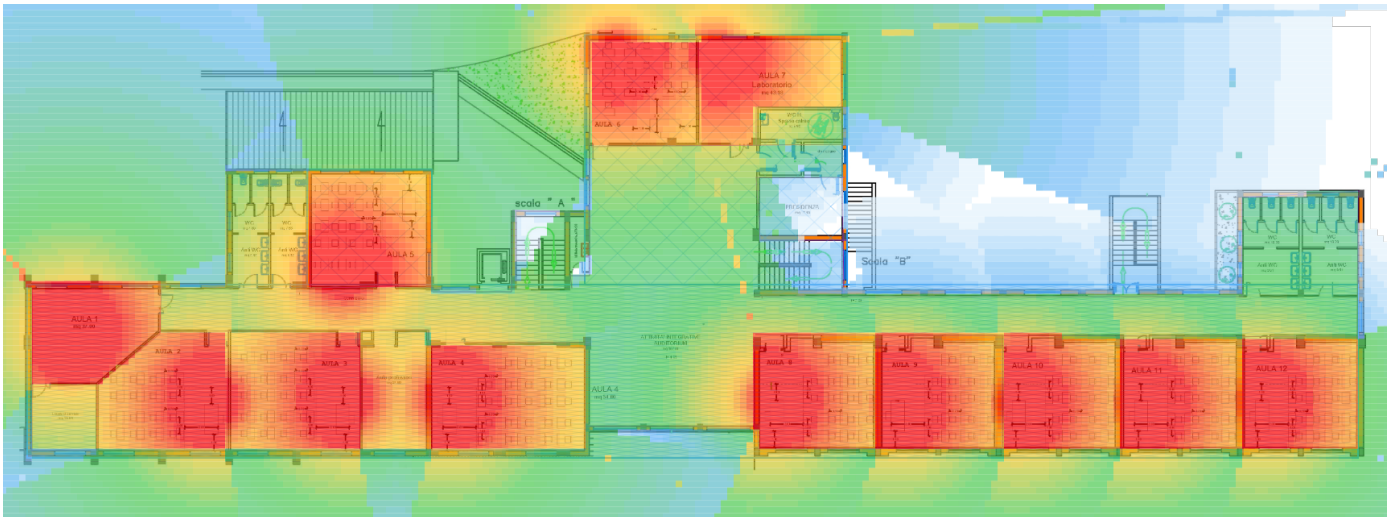
Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
12 AP-12	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
Total APs: 12							

## Signal Coverage

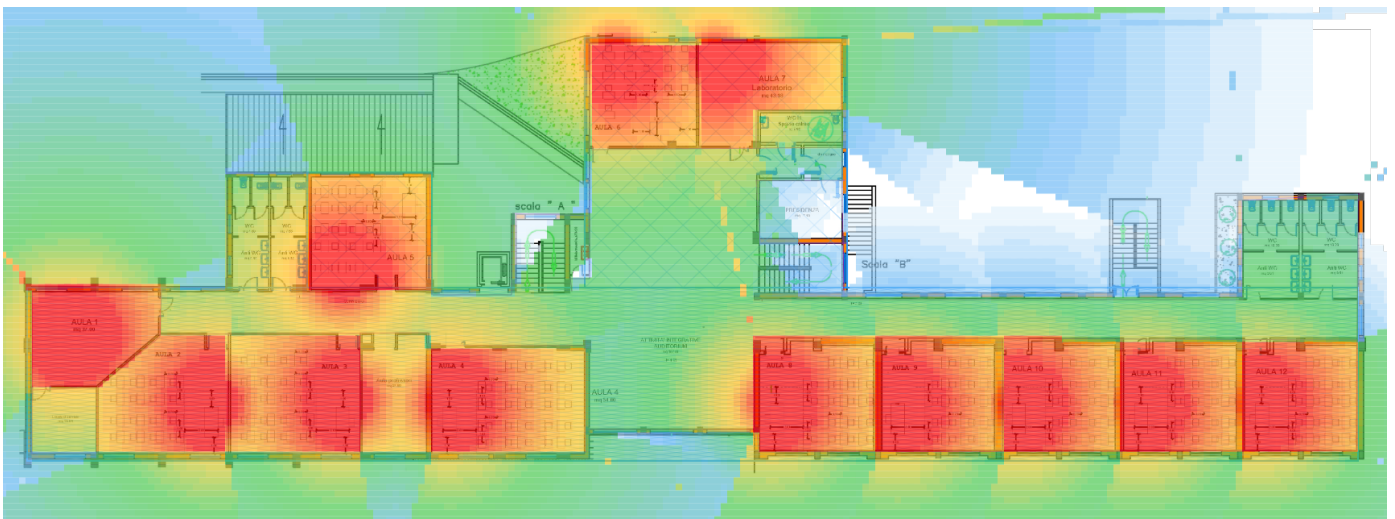
Heatmaps helps you visualize the likely signal strength and coverage areas for your floor plan, based on your project's current constraints. Access point locations can be individually changed to generate a new heatmap and visualize other suggested layout options. [\(Figure 6\)](#)

Figure 6: SIGNAL COVERAGE

2.4G



5G

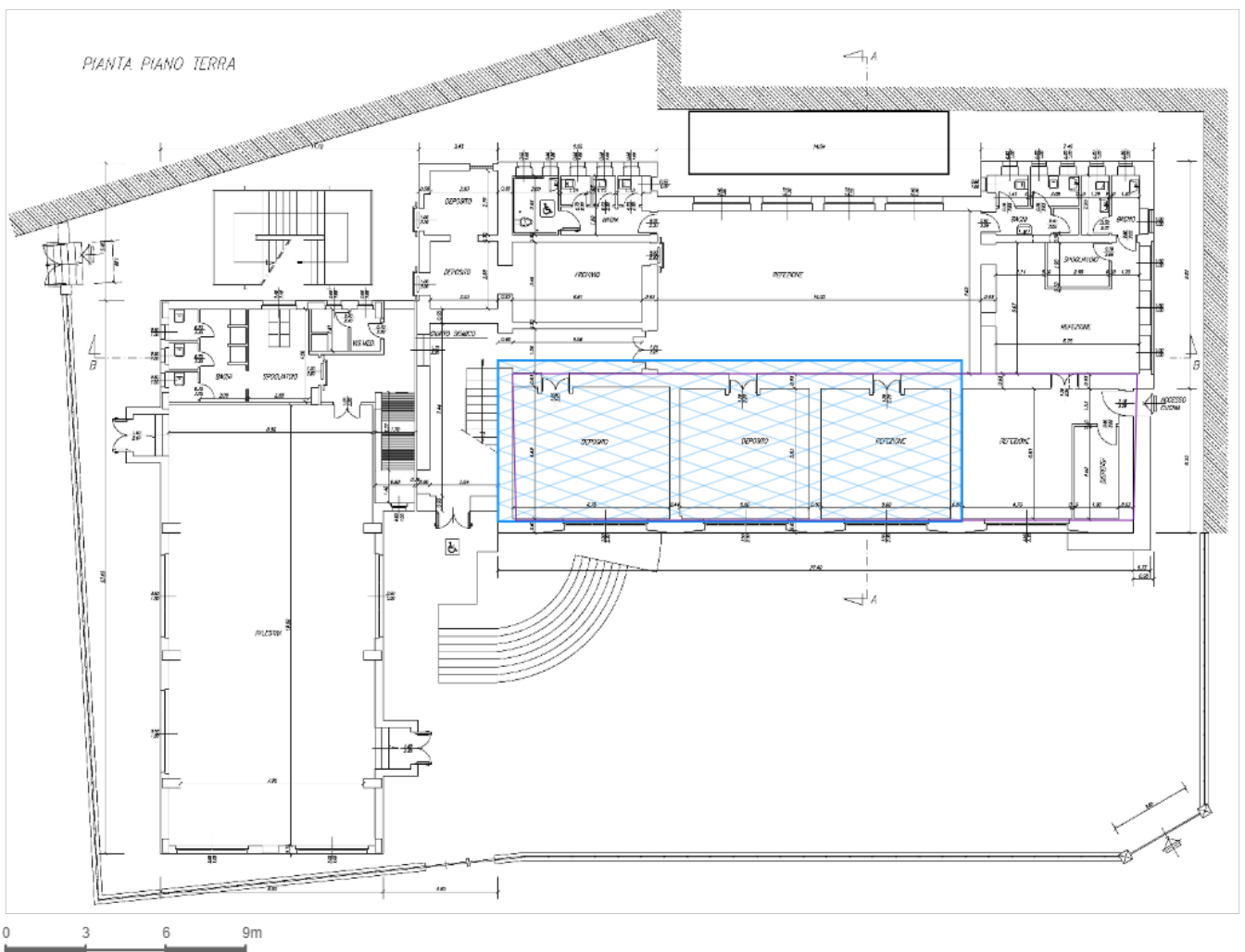
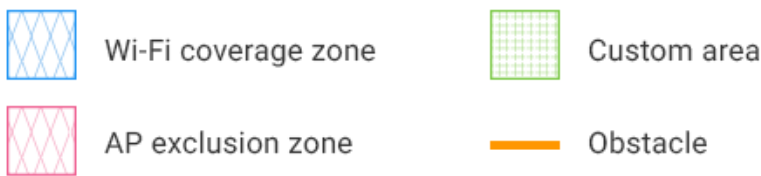


# Floor Plan: Tito\_Elem\_PO

## Environment Setting

Based on your floor plans provided features, the planner has generated a network specification. Features include: (1) Required coverage areas, (2) Coverage exclusion areas, (3) Potential obstacles to coverage (based on materials such as concrete), (4) other custom areas as indicated. You must provide this information - the more specific your floor plan, the more effective and accurate your results. You can always go back and fine tune your floor plan parameters. [\(Figure 7\)](#)

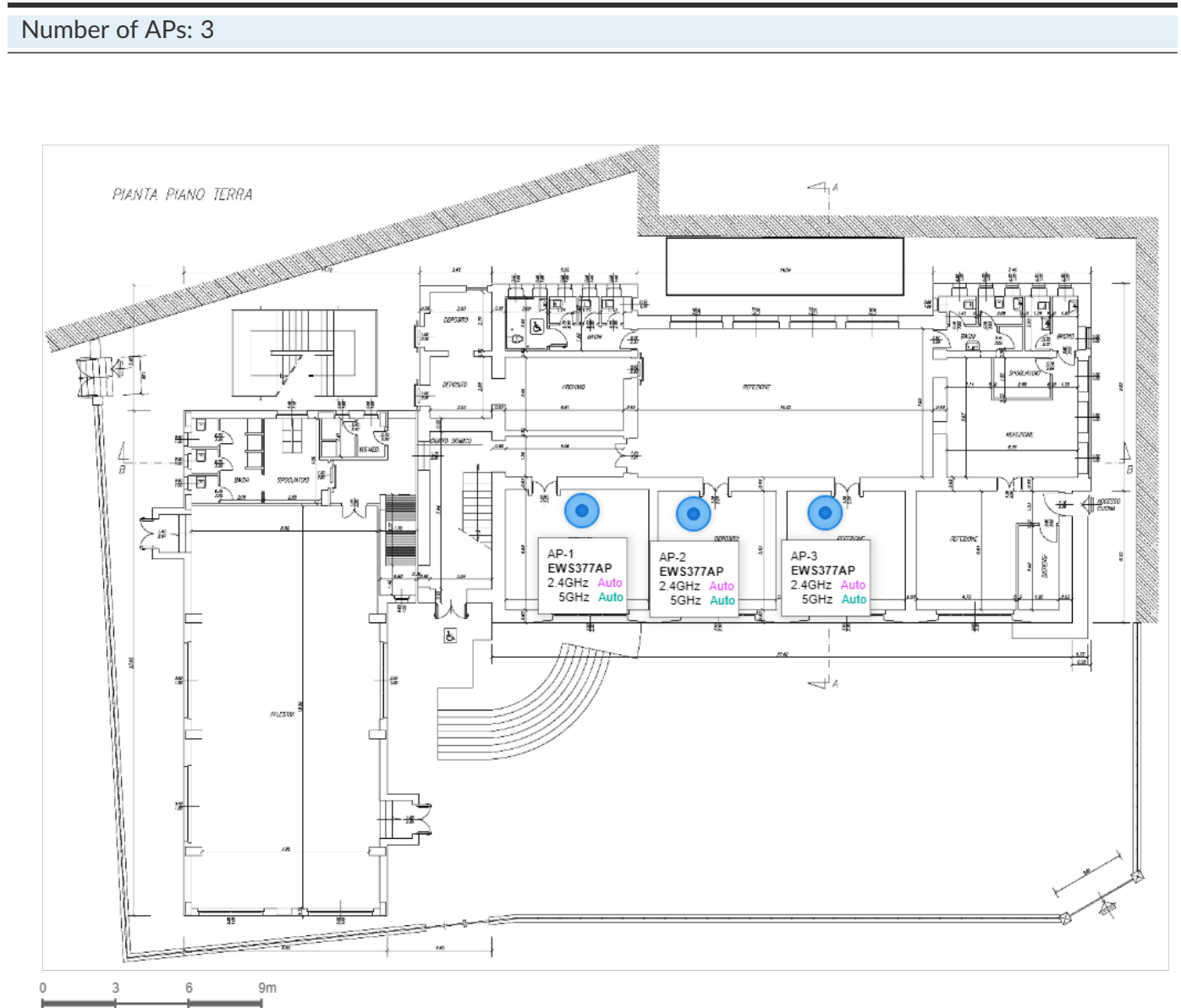
Figure 7: ENVIRONMENT SETTING



## AP Locations

The tool auto-generates a proposed location for each of your access points, based on the number of access points required. Placements are calculated to create an optimal coverage area across your floor plan. Add additional access points for better coverage. ([Figure 8](#))

Figure 8: AP LOCATIONS



## AP List

This list contains a comprehensive list of your network plans hardware requirements. Including access point model numbers, radio band, channel information, and location of placement. ([Table 4](#))

Table 4: AP LIST

Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
1 AP-1	EWS377AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
2 AP-2	EWS377AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
3 AP-3	EWS377AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
Total APs: 3							

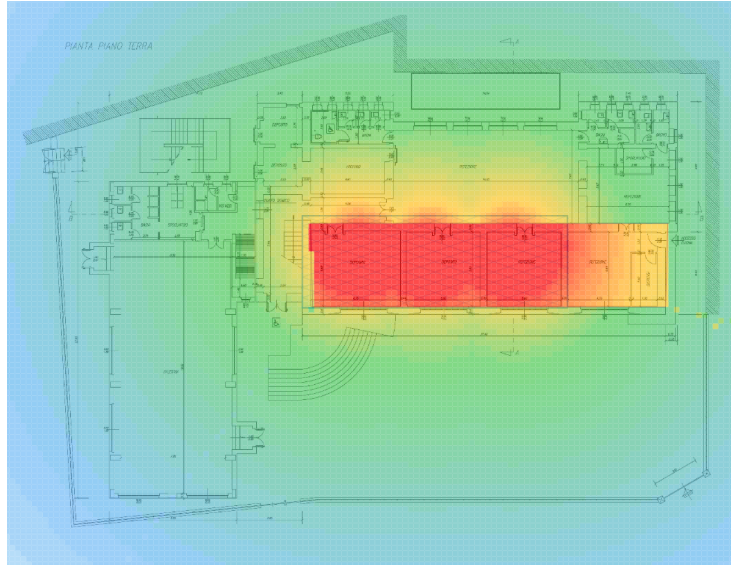
## Signal Coverage

Heatmaps help you visualize the likely signal strength and coverage areas for your floor plan, based on your project's current constraints. Access point locations can be individually changed to generate a new heatmap and visualize other suggested layout options. [\(Figure 9\)](#)

Figure 9: SIGNAL COVERAGE

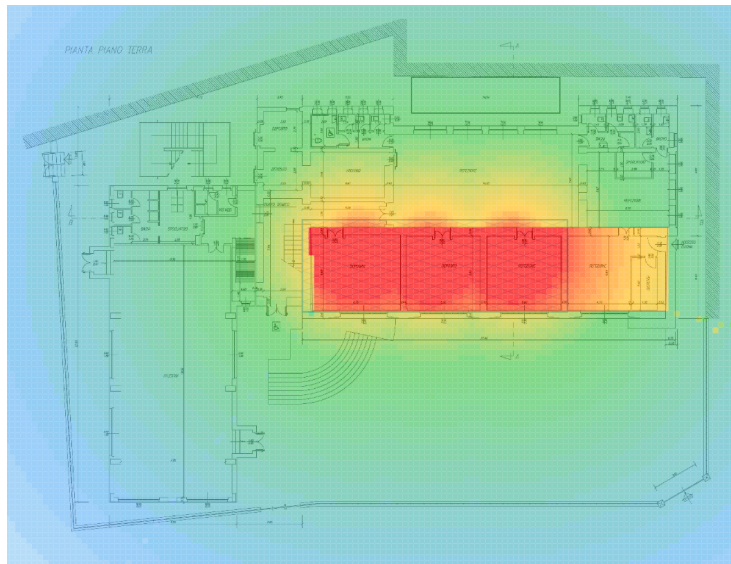
2.4G

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5G

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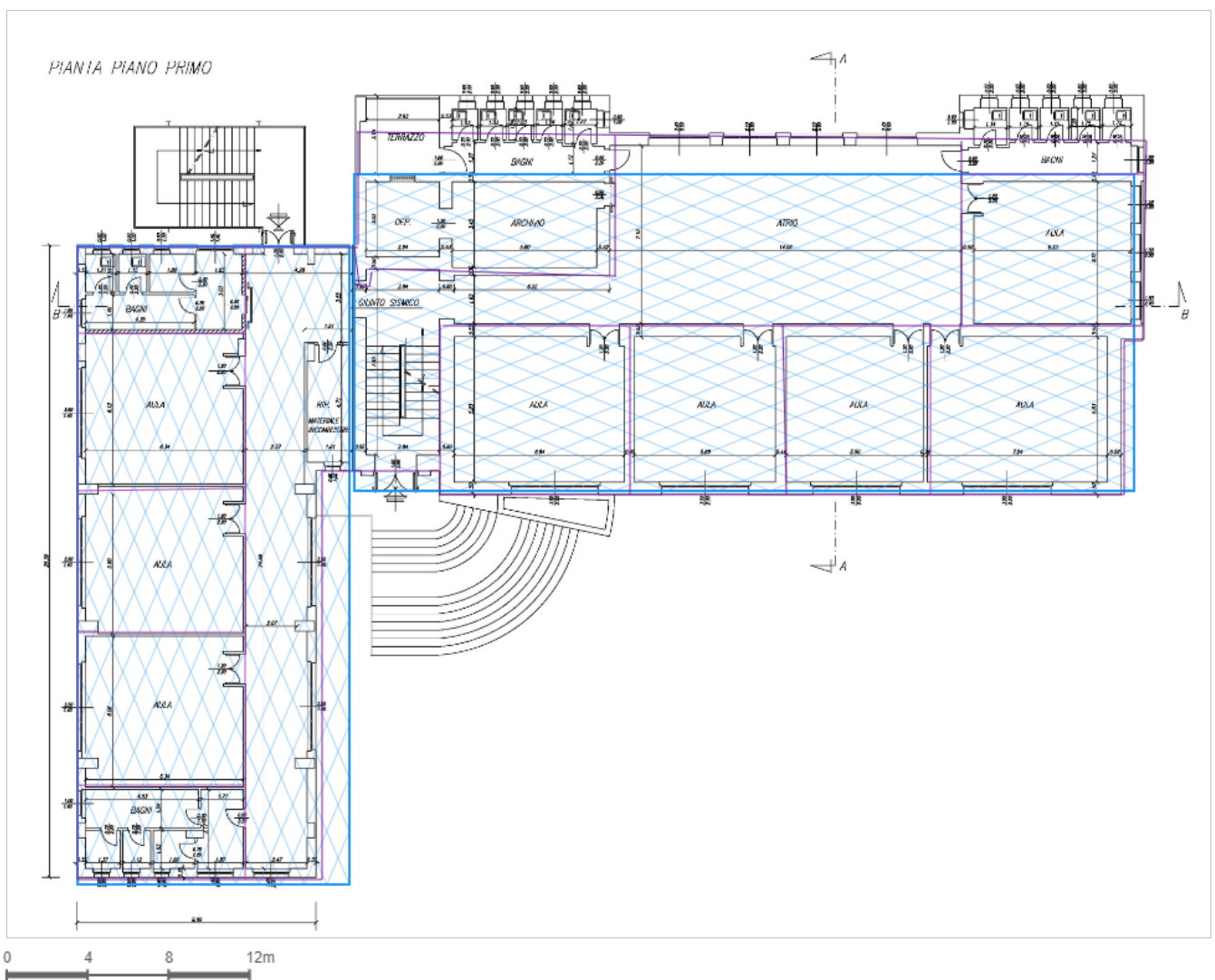
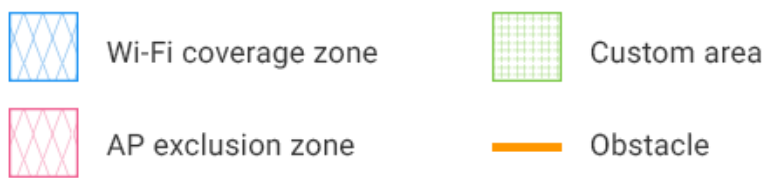


# Floor Plan: Tito\_Elem\_P1

## Environment Setting

Based on your floor plans provided features, the planner has generated a network specification. Features include: (1) Required coverage areas, (2) Coverage exclusion areas, (3) Potential obstacles to coverage (based on materials such as concrete), (4) other custom areas as indicated. You must provide this information - the more specific your floor plan, the more effective and accurate your results. You can always go back and fine tune your floor plan parameters. [\(Figure 10\)](#)

Figure 10: ENVIRONMENT SETTING

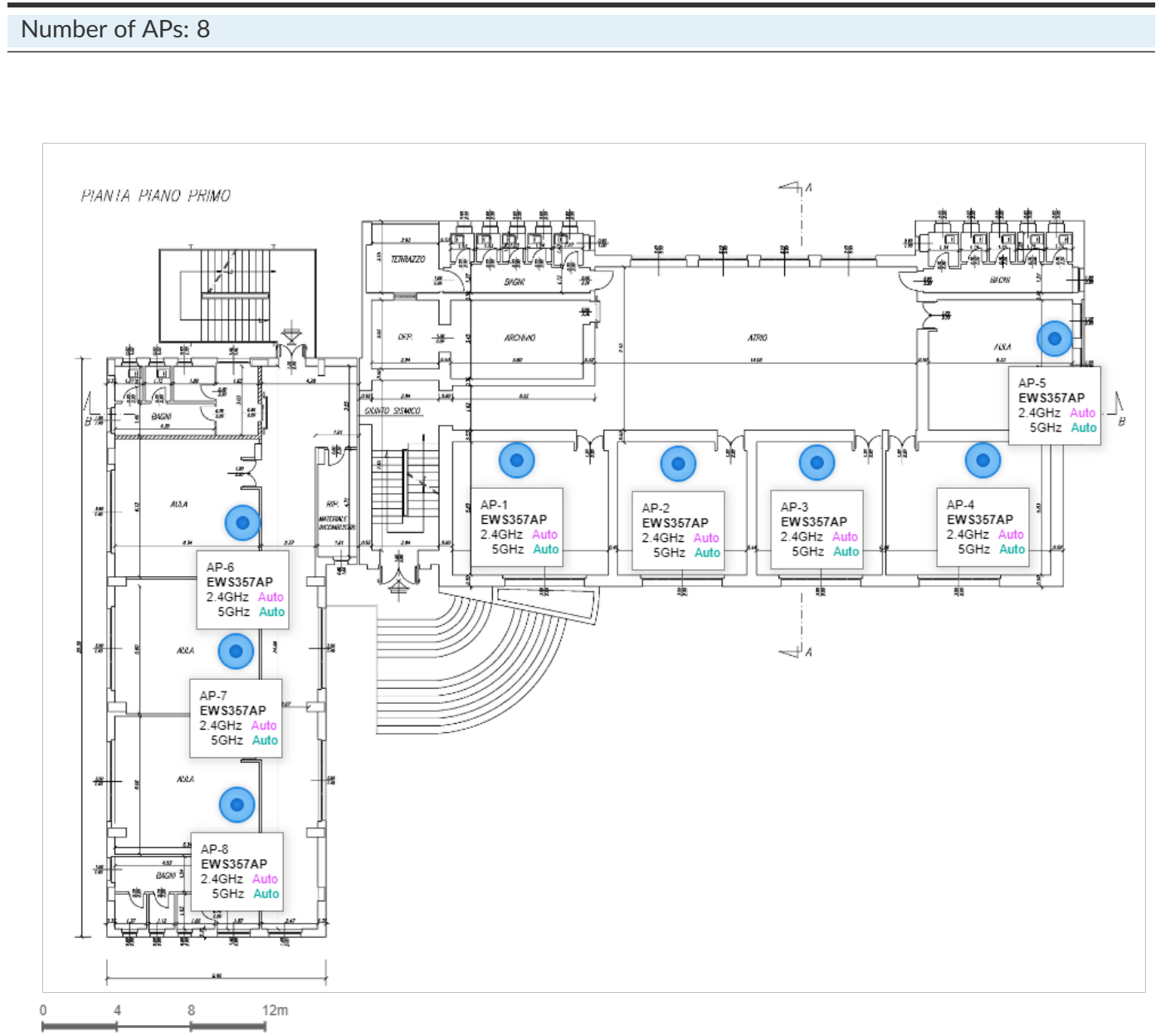




## AP Locations

The tool auto-generates a proposed location for each of your access points, based on the number of access points required. Placements are calculated to create an optimal coverage area across your floor plan. Add additional access points for better coverage. [\(Figure 11\)](#)

Figure 11: AP LOCATIONS



## AP List

This list contains a comprehensive list of your network plans hardware requirements. Including access point model numbers, radio band, channel information, and location of placement. ([Table 5](#))

Table 5: AP LIST

Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
1 AP-1	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
2 AP-2	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
3 AP-3	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
4 AP-4	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
5 AP-5	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
6 AP-6	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
7 AP-7	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
8 AP-8	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
Total APs: 8							

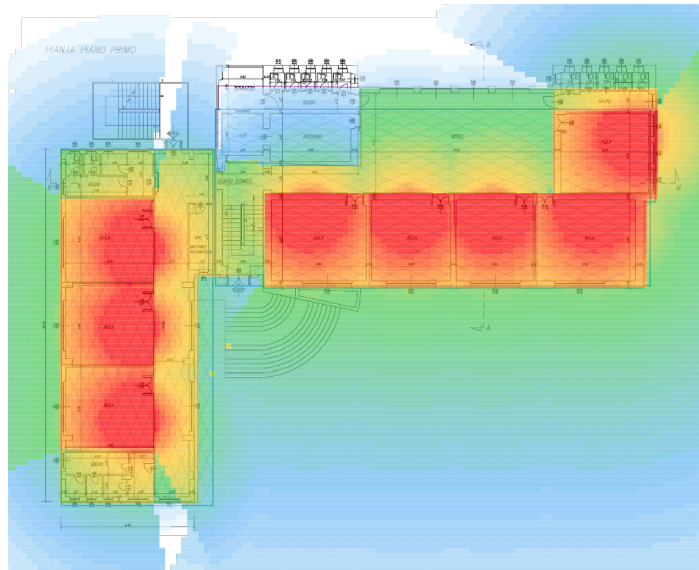
## Signal Coverage

Heatmaps help you visualize the likely signal strength and coverage areas for your floor plan, based on your project's current constraints. Access point locations can be individually changed to generate a new heatmap and visualize other suggested layout options. (Figure 12)

Figure 12: SIGNAL COVERAGE

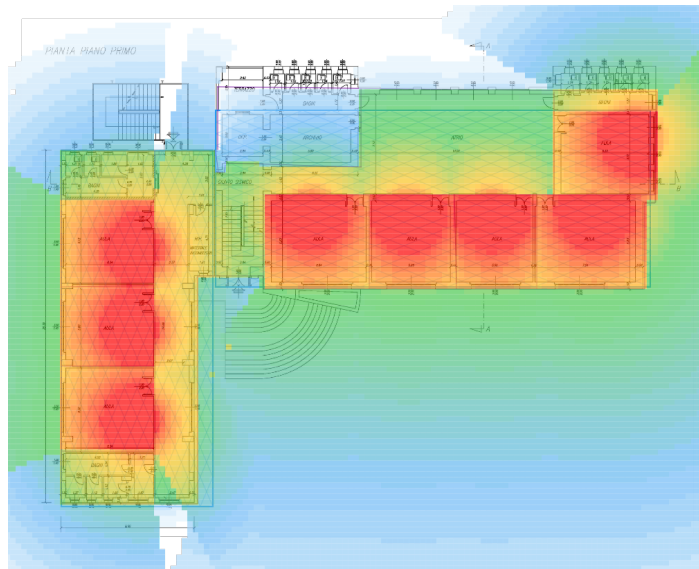
2.4G

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5G

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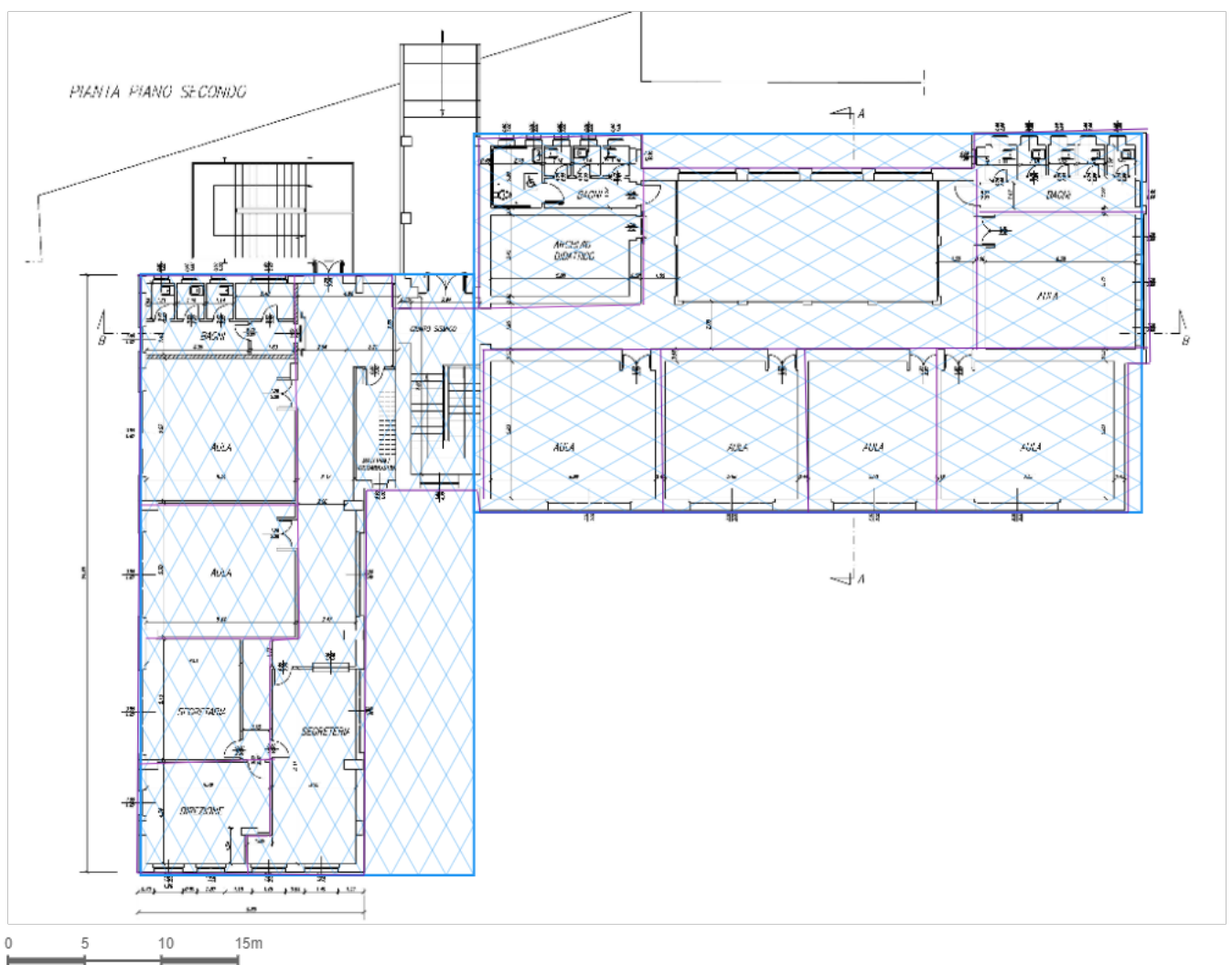
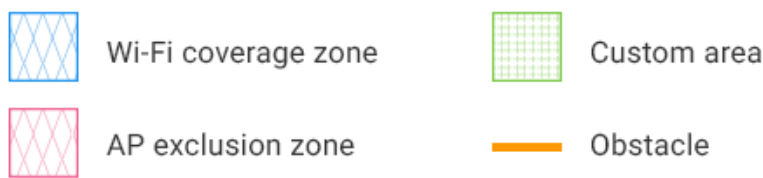


# Floor Plan: Tito\_Elem\_P2

## Environment Setting

Based on your floor plans provided features, the planner has generated a network specification. Features include: (1) Required coverage areas, (2) Coverage exclusion areas, (3) Potential obstacles to coverage (based on materials such as concrete), (4) other custom areas as indicated. You must provide this information - the more specific your floor plan, the more effective and accurate your results. You can always go back and fine tune your floor plan parameters. [\(Figure 13\)](#)

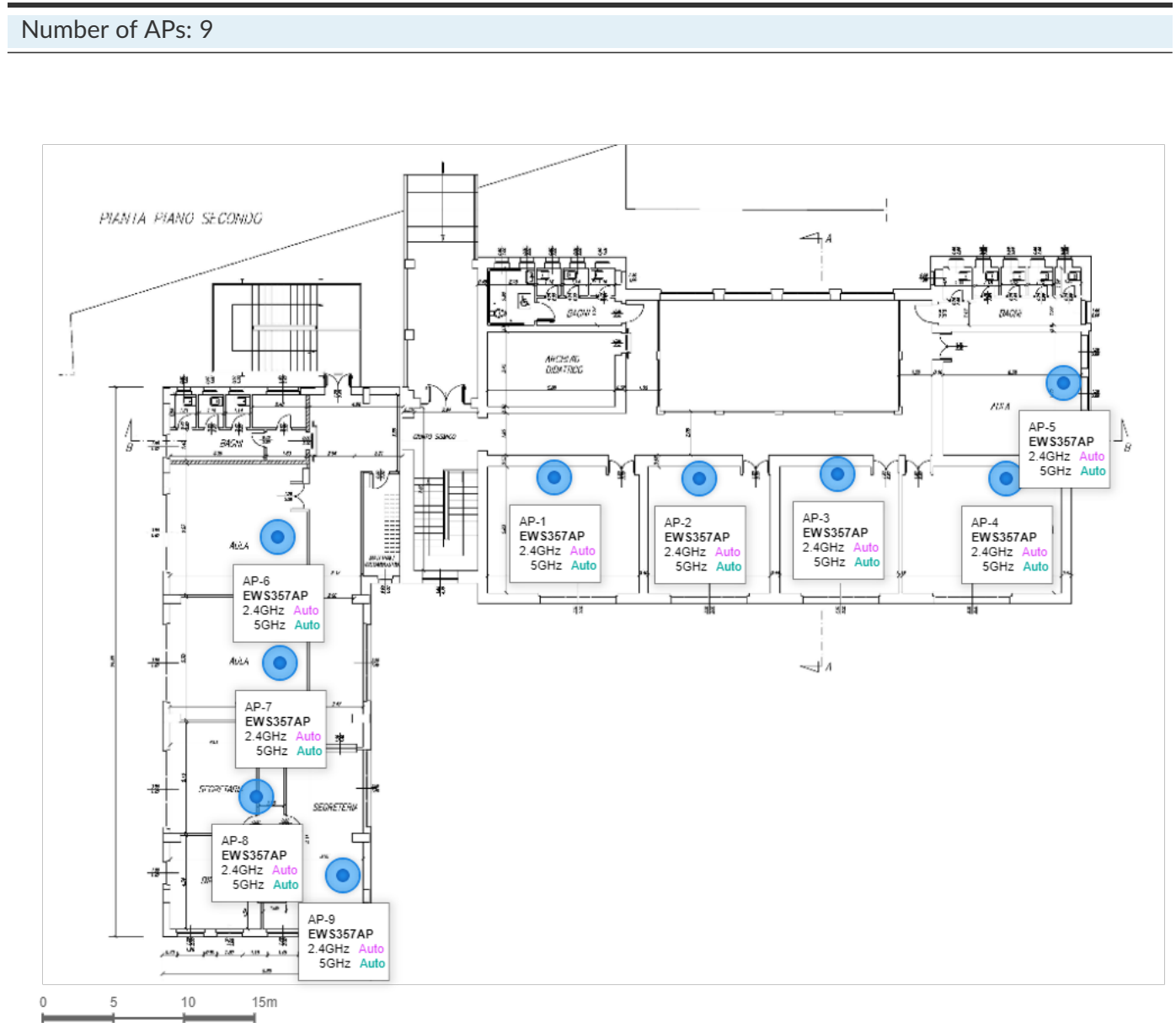
Figure 13: ENVIRONMENT SETTING



## AP Locations

The tool auto-generates a proposed location for each of your access points, based on the number of access points required. Placements are calculated to create an optimal coverage area across your floor plan. Add additional access points for better coverage. ([Figure 14](#))

Figure 14: AP LOCATIONS



## AP List

This list contains a comprehensive list of your network plans hardware requirements. Including access point model numbers, radio band, channel information, and location of placement. ([Table 6](#))

Table 6: AP LIST

Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
1 AP-1	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
2 AP-2	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
3 AP-3	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
4 AP-4	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
5 AP-5	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
6 AP-6	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
7 AP-7	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
8 AP-8	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
9 AP-9	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
Total APs: 9							

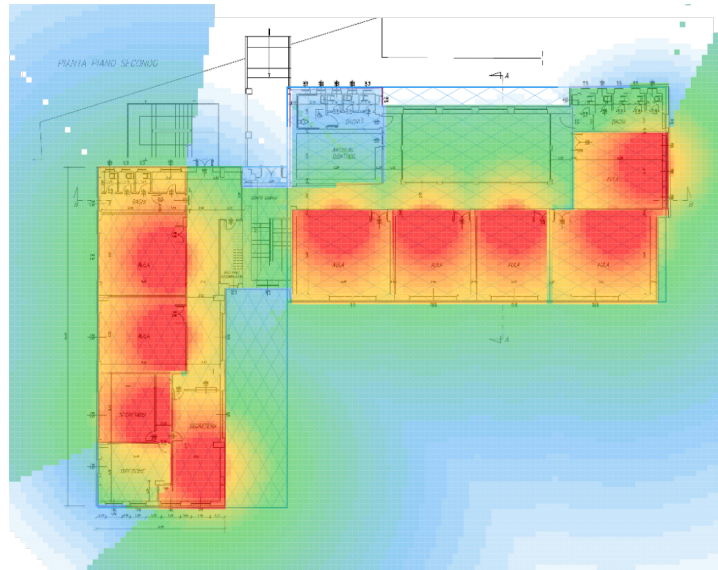
## Signal Coverage

Heatmaps helps you visualize the likely signal strength and coverage areas for your floor plan, based on your project's current constraints. Access point locations can be individually changed to generate a new heatmap and visualize other suggested layout options. [\(Figure 15\)](#)

Figure 15: SIGNAL COVERAGE

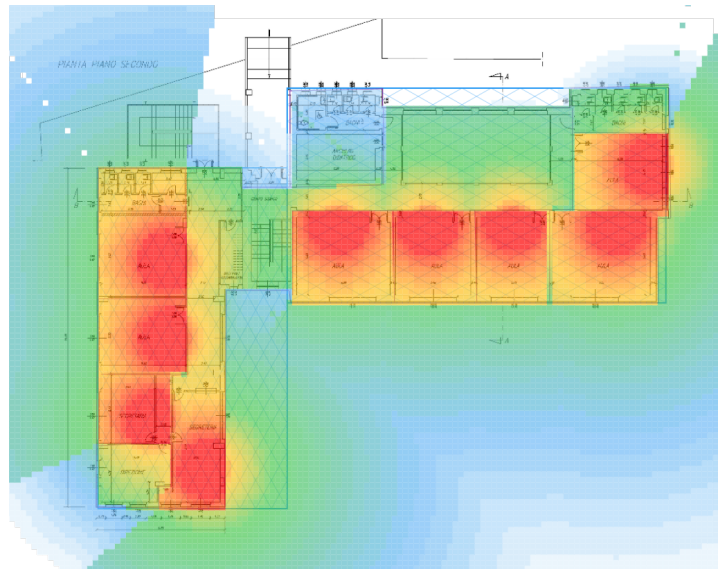
2.4G

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5G

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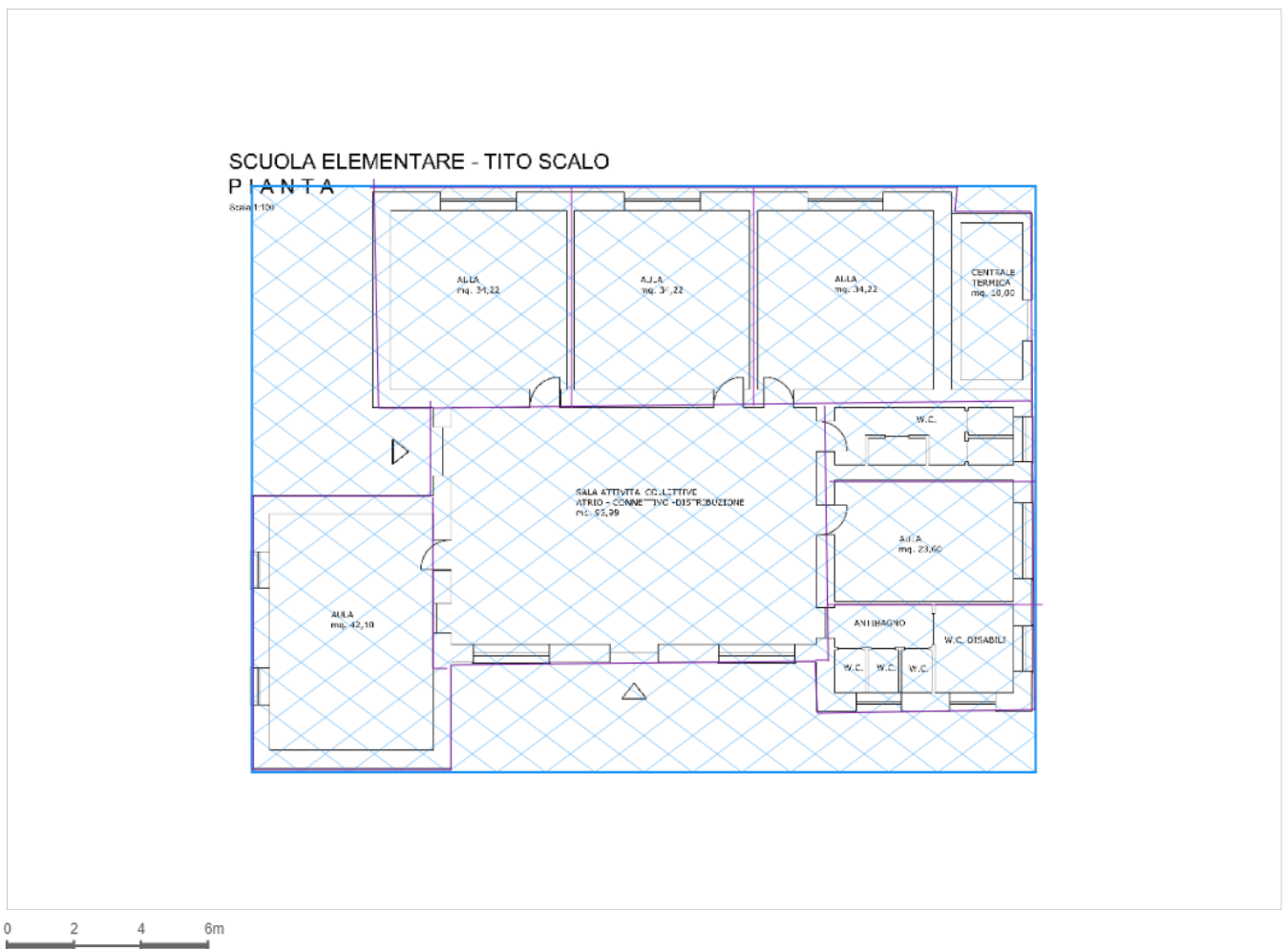
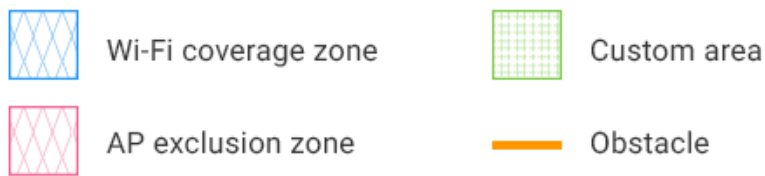


## Floor Plan: Tito\_Scalo

### Environment Setting

Based on your floor plans provided features, the planner has generated a network specification. Features include: (1) Required coverage areas, (2) Coverage exclusion areas, (3) Potential obstacles to coverage (based on materials such as concrete), (4) other custom areas as indicated. You must provide this information - the more specific your floor plan, the more effective and accurate your results. You can always go back and fine tune your floor plan parameters. [\(Figure 16\)](#)

Figure 16: ENVIRONMENT SETTING

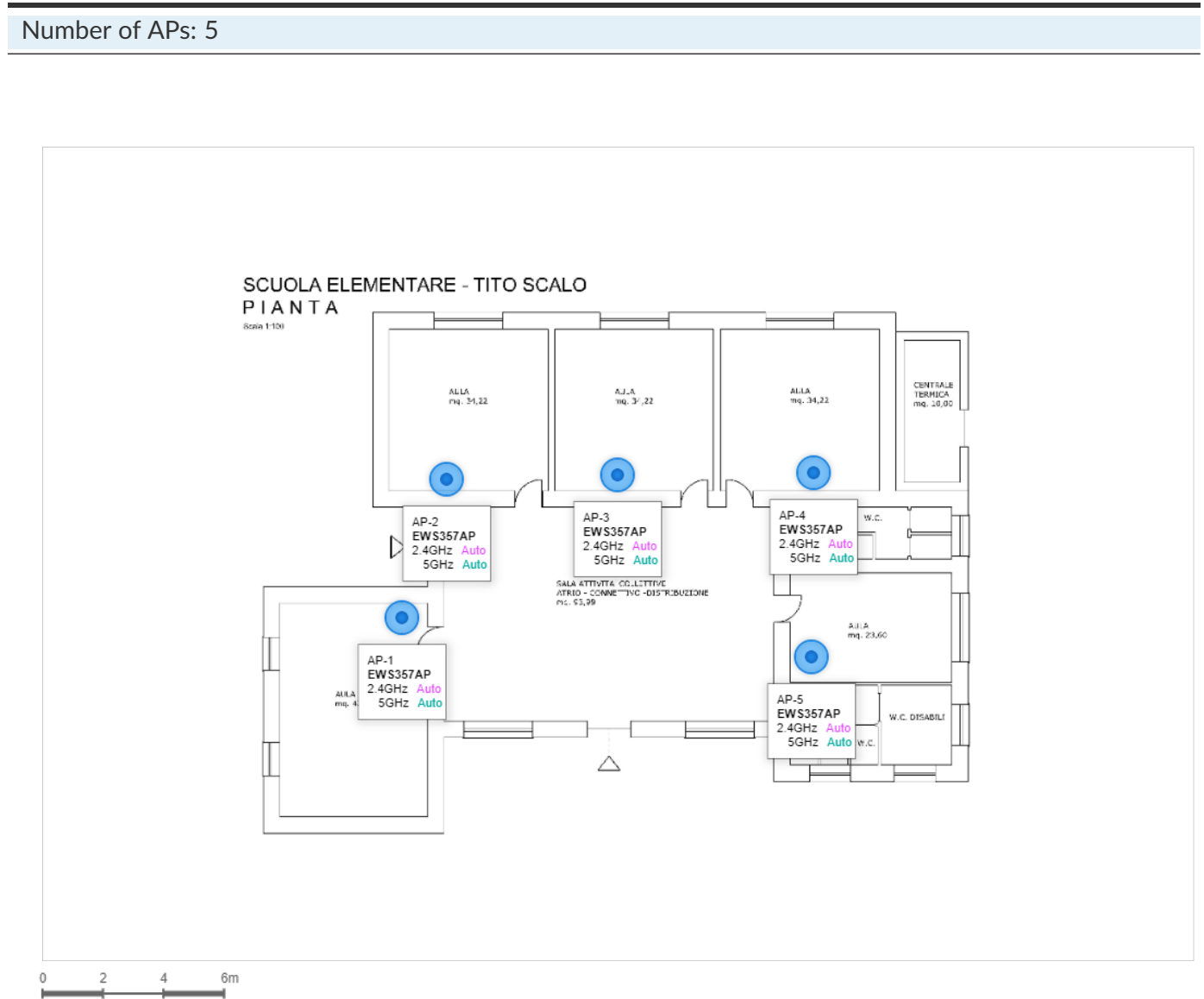




## AP Locations

The tool auto-generates a proposed location for each of your access points, based on the number of access points required. Placements are calculated to create an optimal coverage area across your floor plan. Add additional access points for better coverage. ([Figure 17](#))

Figure 17: AP LOCATIONS



## AP List

This list contains a comprehensive list of your network plans hardware requirements. Including access point model numbers, radio band, channel information, and location of placement. ([Table 7](#))

Table 7: AP LIST

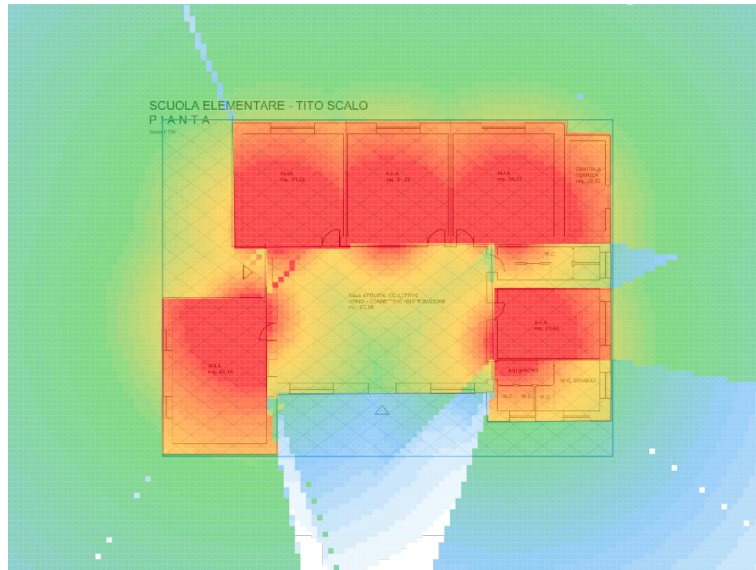
Name	Model Name	Radio Band	Mode	Channel	Channel Size	Power	Location
1 AP-1	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
2 AP-2	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
3 AP-3	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
4 AP-4	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
5 AP-5	EWS357AP	2.4G	AP	Auto	40 MHz	11.0 dBm	
		5.0G	AP	Auto	80 MHz	17.0 dBm	
Total APs: 5							

## Signal Coverage

Heatmaps helps you visualize the likely signal strength and coverage areas for your floor plan, based on your project's current constraints. Access point locations can be individually changed to generate a new heatmap and visualize other suggested layout options. [\(Figure 18\)](#)

Figure 18: SIGNAL COVERAGE

2.4G



5G

