

City of Aurora, IL

Network, Video, Access Control & Camera Implementation for Fire Station 4 New Building

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Submitted To:

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This Proposal is valid until 04/30/2025

1. INTRODUCTION

Scientel Solutions LLC (Scientel) is pleased to present this proposal to the City of Aurora, IL (Aurora) for a comprehensive Network, Video, and Access Control implementation for Aurora's new Fire Station 4 Building. This proposal includes the equipment and services to implement and integrate the FS4 / EMA Building into the existing Aurora network as well as provide comprehensive video security and access controls for the building.

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2. NETWORKING SCOPE OF WORK

Scientel will provide the following Networking services for City of Aurora:

Network Design: Scientel has designed the network to incorporate switches & APs.

Table 1: below provides the proposed AP model and quantity breakdown by the floor.

Floor	AP Quantities by Model	
	431G	432G
First Floor A and B	8	0
First Floor C	5	1
Second Floor	2	0
Carport	0	1
Total	15	2

Please refer to **Appendix A: WiFi Design** for more detail on the proposed WiFi Coverages

Table 2: below provides the proposed Switch counts and quantity breakdown by location.

Location:	FS-448E-FPOE	FS-1048E
Designated IDF/MDF/Cabinet	6	1

Project Kickoff:

- Scientel will provide a Project Manager to oversee the project entirely, including scheduling project kickoff, ordering of equipment, scheduling of technicians, and arranging the installation process
- Document IP Plan for network Implementation
- Determine Equipment location and any power requirements
- Determine facility access requirements and Work Hours
- Develop Acceptance Testing Plan for all phases of each implementation to determine success/fail criteria
- **Deliverable:**
 - Detailed Design Review Document encompassing above items

Procurement: Networking Equipment

Equipment Description	Qty
FortiSwitch 1048E (FS-1048E) with 1 Year FortiCare	1
FortiSwitch 448E (FS-448-FPOE) (Access Switches for Data, Access Control, Video) with 1 Year FortiCare	6
FortiAP (FAP-431G) with 1 Year FortiCare	15
FortiAP (FAP-432G) with 1 Year FortiCare	2

Staging/Installation/Closeout:

- Scientel will receive, inspect, catalog, and stage all new networking hardware/equipment at our headquarters in Aurora.
- We will unbox, label and preconfigure all networking equipment prior to installation.
- Scientel will install the Fortinet Switches into the Aurora provided cabinets in the designated rooms per the technology drawings.
- Scientel will install and test all of the APs at the designated install locations.
- Scientel will connect / configure all APs/FortiSwitches to the designated FortiGate Firewall.
- Scientel will provide Aurora with a closeout package which will include:
 - Installation photos & testing results
 - Documentation with equipment information such as serial #'s, IP Addresses, login credentials, and warranty information.

Networking Specific Assumptions:

- IP Scheme to be provided by City of Aurora for all network components.
- Scientel has not included any racks in this proposal.
- No SFPs have been included in this proposal.
- Conduit and Cable runs are provided by the GC.

Management & Support:

- Network devices to be managed and supported under the ongoing network managed services agreement.

3. VIDEO SECURITY & VMS SCOPE OF WORK

Scientel will provide a comprehensive video security and a new directory/archiver at Aurora Fire Station No. 4 (1200 E Indian Trail Road, Aurora, IL 60505) that will be federated into Aurora's existing WDC federation system. This design includes all servers, licensing, and commissioning of cameras. These servers accommodate projected future expansion provided by Aurora. We have included 13 Enterprise camera licenses. This system has been designed to incorporate up to 60 days of video retention based on 50% motion and 20% overhead at 15FPS. Scientel will provide the following Video services for City of Aurora:

- **Video FOV Design:** Please refer to **Appendix B**
- **Procurement (Camera Equipment & VMS Equipment/Software):**

Equipment Description - Cameras	Qty
AXIS P3738-PL	2
AXIS T91H61 Wall Mount	4
AXIS T91A64 Corner Bracket	2
AXIS T94N01D Pendant Kit	1
Lens M12 6 mm F2.0, 4pcs	2
AXIS T91G61 Wall Mount	2
AXIS Q6100-E 60 Hz	2
AXIS Q6135-LE 60 Hz	2
AXIS P4705-PLVE	2
AXIS T91E61 Wall Mount	2
AXIS T94N02D Pendant Kit	1
AXIS P3265-LVE 9 mm	4
AXIS P3265-LV	2
SV-2040ER12-144T-12-410 Streamvault™ 2040E Series - 2U 12-Bay Appliance	1
SV-2040E-R6S-D480-436 **New Product Launch** Streamvault™ 2040E Series	1
SV-CFG-SRVRAID5 Streamvault™ Configure Archive Drives as RAID 5.	1
SV-CFG-SRV-5.11 Streamvault™ Configure with Security Center 5.11.x	2
GSC-5.11 Security Center Version 5.11	1
GSC-BASE-E Genetec Security Center (GSC) Base Enterprise Package.	1
GSC-OM-E-1C 1 Enterprise Camera Connection	13
ADV-CAM-E-1Y Genetec Advantage for 1 Omnicast Enterprise	8
GSC-1SCFED 1 Federated Security Center 4.0 (or higher) Directory Connection	1

- **Staging/Installation/Closeout:**
 - Scientel will receive, inspect, catalog, and stage all new hardware/equipment at our headquarters in Aurora.
 - Scientel will install, aim, and focus all new cameras at the designated mounting locations per the Technology Package Drawings.
 - Scientel will provision, program, and test the video server and confirm camera licensing is applied.
 - Scientel will program, and test equipment to ensure desired functionality / field of views are achieved in the Genetec VMS with City of Aurora IT.
 - Scientel will provide Aurora with a closeout package which will include:
 - Installation photos and Testing results
 - Documentation with equipment information such as serial #'s, IP Addresses, login credentials, and warranty information.
- **Maintenance & Support:** Video cameras to be maintained supported under the ongoing video maintenance and support agreement.

Assumptions / Exclusions Specific to Video & VMS Scope of Work:

- All work will be performed during normal business hours, Mon-Fri , 7AM-5PM.
- Scope of work allows for coordinated scheduled deployment and site access, any interruptions to project schedule may be subject to change order.
- Customer is responsible for any license or permit fees required by local ordinance.
- All rough-ins, conduits, cabling and data drops provided by General Contractor.
- Tentative project schedule pending equipment lead times.
- No server racks have been included in this quote.
- Overtime (non-business hours), union labor, patching and painting is not included in this quote.

4. ACCESS CONTROL SCOPE OF WORK

Scientel will provide a turnkey solution for an access control system at Aurora Fire Station No. 4 (1200 E Indian Trail Road Aurora IL 60505). This new access control system will connect back to System ID: GSC-200529-414789. Scientel has included all the required equipment, software, licensing, and commissioning in this scope of work. Scientel will work with an electrical contractor to install the required enclosures, panel, readers, and power supply. Scientel will perform the following scope of services:

Access Control Design: please refer to **Appendix C**

Procurement (Access Control Equipment & Software):

Qty	Ref #	Description
10	SY-MR52-S3	Mercury MR52 2-reader interface module Series 3 (8 inputs, 6 relays, PCB only, 2 reader licenses included)
2	SY-LP1502	Mercury MP1502 Intelligent Controller (2 Doors, up to 4 Readers with OSDP) - 2 reader licenses included
1	SY-DV16RD-E8M2	LifeSafety Power - Genetec enclosure - 12V & 24VDC 400W 110V 60HZ 16 Reader 8 Mercury E8M2 Standard
1	SY-DV8RD-E4M	LifeSafety Power - Genetec enclosure - 12V & 24VDC 150W 110V 60HZ 8 Reader 4 Mercury and Cloudlink E4M Standard - Requires double stacking (2) Mercury boards with hinged standoffs full reader count with Cloudlink
7	20KNKS-00-000000	SIGNO 20K, BLK/SLVR, PIG, CRD PFL STD, MA DY, FMT:ASP10022, WIEG, 32-B MSB ,EACH, 4-B MSG, NOPAR, LEN:13, FC:0, EM:32-B, LED:RED, FLSH:GRN, BZR, KBD:RED, BZR, VIS:ON, SRF:ON, IPM:OFF, VEL:OFF, TAP
9	40KNKS-00-000000	SIGNO 40K, BLK/SLVR, PIG, CRD PFL STD, MA RDY,FMT:ASP10022, WIEG, 32-B MSB, EACH, 4-B MSG, NOPAR, LEN:13, FC:0, EM:32-B, LED:RED, FLSH:GRN, BZR, KBD:RED, BZR, VIS:ON, SRF:ON, IPM:OFF, VEL:OFF, TAP
5	40NKS-00-000000	SIGNO 40, BLK/SLVR, PIG, CRD PFL STD, MA RDY, FMT:ASP10022, WIEG, 32-B MSB, EM:32B, LED:RED, FLSH:GRN, BZR, SRF:ON, IPM:OFF, VEL:OFF, TAP
2	LR-3000-0-0	Radio Frequency Identification Reader, Extra Long-Range, 25' Reading Distance, 902 to 928 Megahertz, 15 VDC, ABS Plastic, White (Vehicle and Person Tags)
2	LR-MB-0-0	Mounting Bracket for LR Readers
2	PS-123.3A-0-0	Power Supply for AWID UHF Long Range Reader (PS-123.3A-0-0)
1	LR-TEK-0-0	LR Technical Installation Kit for Long Range Readers
50	PT-UHF-0-0	Portable Tag for Vehicle used with LR Readers
46	GI-6644	END OF LINE RESISTOR PACK, FLYING LEADS, (2) 1KOHM (10 PACK)
1	SY-CLOUDLINK-G2	SY-CLOUDLINK-G2 Synergis Cloud Link with 4GB of RAM 16GB Flash, second generation, installed with Synergis™ access control firmware, four RS-485 ports, PoE.
24	ADV-RDR-E-5Y	Genetec™ Advantage for 1 Synergis™ Enterprise Reader – 5 Yr (prorated)

Scope of Work – Access Control

- Install 22 readers and connect to rexes, strikes, and door contacts built into lockset.
- Provide and install all required access control cabling for new access control system.
- Terminate wiring at the panel and assist in testing once programming is complete.

Assumptions specific to Access Control

- All work will be performed during normal business hours Mon-Fri between 7AM-5PM.
- Scope of work allows for coordinated scheduled deployment and site access, any interruptions to project schedule may be subject to change order.
- Customer is responsible for any license or permit fees required by local ordinance.
- Any other networking configuration not defined in this proposal is out of scope.
- Assumes all locking hardware provided by the GC will include door position switches and request to exit sensors.

5. PRICING

1. Networking Pricing Breakdown:

Description	Qty	Unit Price	Ext. Price
IT Network Detailed Design, Project Management & Site Walks	1	\$7,000.00	\$7,000.00
AP Installation	17	\$1,300.00	\$22,100.00
Switch Installation	7	\$1,500.00	\$10,500.00
APs/Switches Misc Mounting & SFPs	Lot	\$3,334.00	\$3,334.00
AP Hardware and Extended Warranty	17	\$3,100.00	***Incl in Mgd Service Adjustment
Switch Hardware and Extended Warranty	7	\$6,350.00	***Incl in Mgd Service Adjustment

2. Video Security Pricing Breakdown:

Description	Qty	Unit Price	Ext. Price
Video Security Detailed Design, Project Management & Site Walks	1	\$4,100.00	\$4,100.00
CCTV Installation (Bucket Truck)	13	\$1,500.00	\$19,500.00
Camera Equipment & Materials	13	\$2,652.00	\$34,476.00

3. Video Server/Licensing & Access Control Equipment & Pricing Breakdown:

Description	Qty	Unit Price	Ext. Price
Access Control Equipment - Includes AC Eq (Readers, Server, SW)	24	\$2,928.00	\$70,272.00
Access Control Installation - Includes Misc. Materials/Cabling	24	\$5,851.00	\$140,424.00
VMS Server, Configuration & Installation	Lot	\$57,031.00	\$57,031.00
VMS Camera Licenses	Lot	\$16,385.00	\$16,385.00

Pricing Summary:

Item / Description	Price
WiFi and Network Deployments (***)	\$42,934.00
Video Security / Situational Awareness System	\$58,076.00
Access Controls and VMS Solution	\$284,112.00
Grand Total	\$385,122.00

***Managed Service Adjustments (Hardware not included in Item 1. Price above)

Total Devices added as part of this project:

WiFi Access Points: 17

Network Switches: 7

Total new Devices: 24

This offer is made in accordance with the following contract currently in effect between Scientel Solutions and the City of Aurora

Item 1: Networking Upgrades is proposed under City of Aurora **Resolutions R21-136**, passed June 2021

*****Camera Maintenance & Support Adjustments (Not included in Item 2. Price above)**

With the addition of 8 new cameras, the ongoing yearly maintenance & support applicable to the existing contract, will be as follows:

13 cameras x \$500/camera/year = \$6,500

This offer is made in accordance with the following contract currently in effect between Scientel Solutions and the City of Aurora.

Item 2: Situational Awareness is proposed under City of Aurora **Resolution R21-135**, passed June 2021

6. TERMS, CONDITIONS, & ACCEPTANCE

Scientel Solutions LLC will accept a written Purchase Order (P.O.) for this work.

Scientel will provide an invoice to the City for services rendered and the City shall approve and thereafter pay any undisputed portions thereof in accordance with the Illinois Local Government Prompt Payment Act (50 ILCS 505/1 et. seq). Approved, but unpaid invoiced amounts shall accrue interest in the manner and to the extent authorized by the Act.

This quote is valid for 30 days. If the above quote and terms are accepted by the quote recipient, please indicate as requested below. The completed document may be returned to Scientel with the necessary P.O. via email at Salesorder@scientelsolutions.com

Signature: _____

Date: ____/____/____

Name (Print): _____

Title: _____

APPENDIX A: WIFI DESIGN

First Floor Section A and B

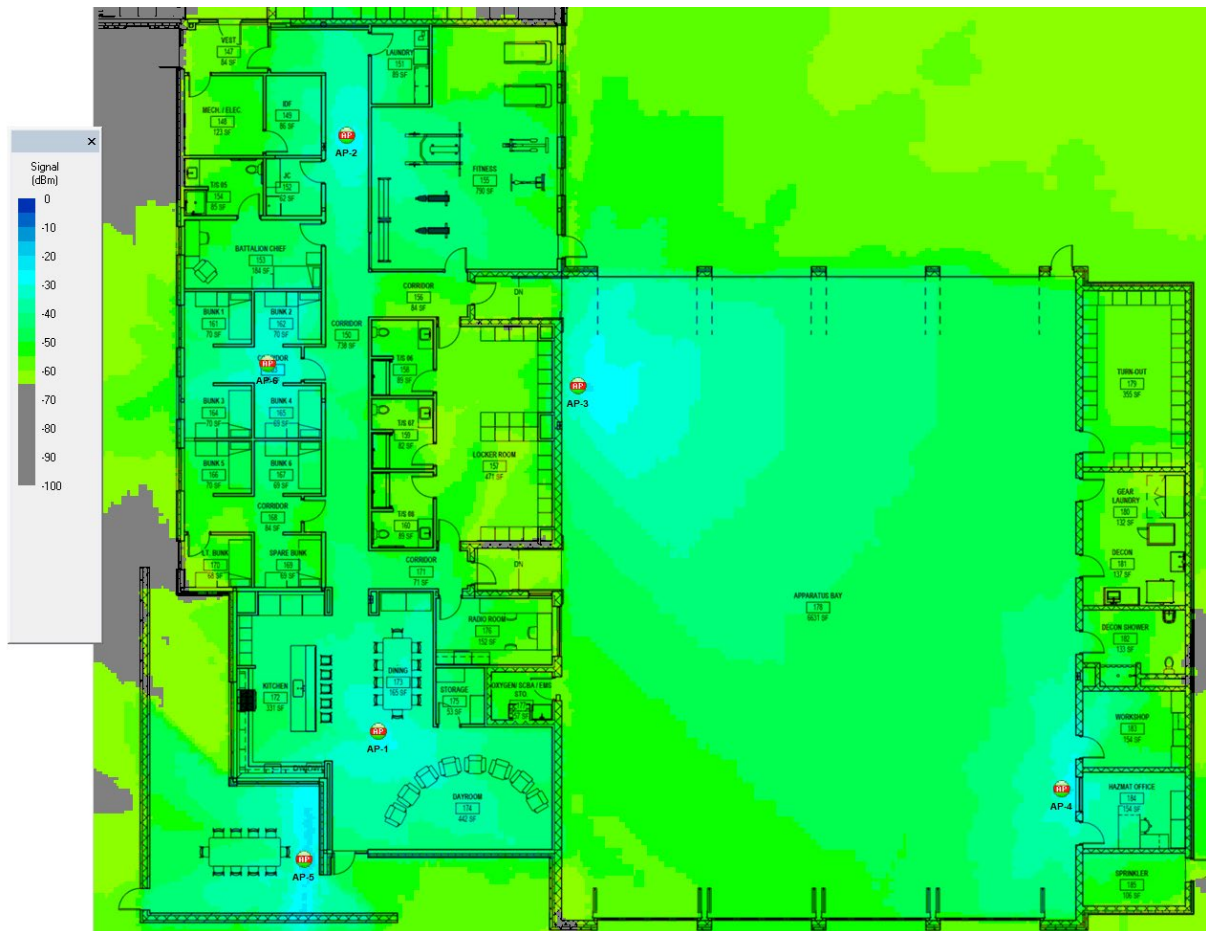
Picture 1 shows the predicted coverage for the main floor using Fortinet Wi-Fi APs. As a rule of thumb, regions with signal strengths below -65 dBm provide insufficient/no coverage. A total of 8 APs will be required to provide coverage in this section of the building.



Picture 1

First Floor Section C

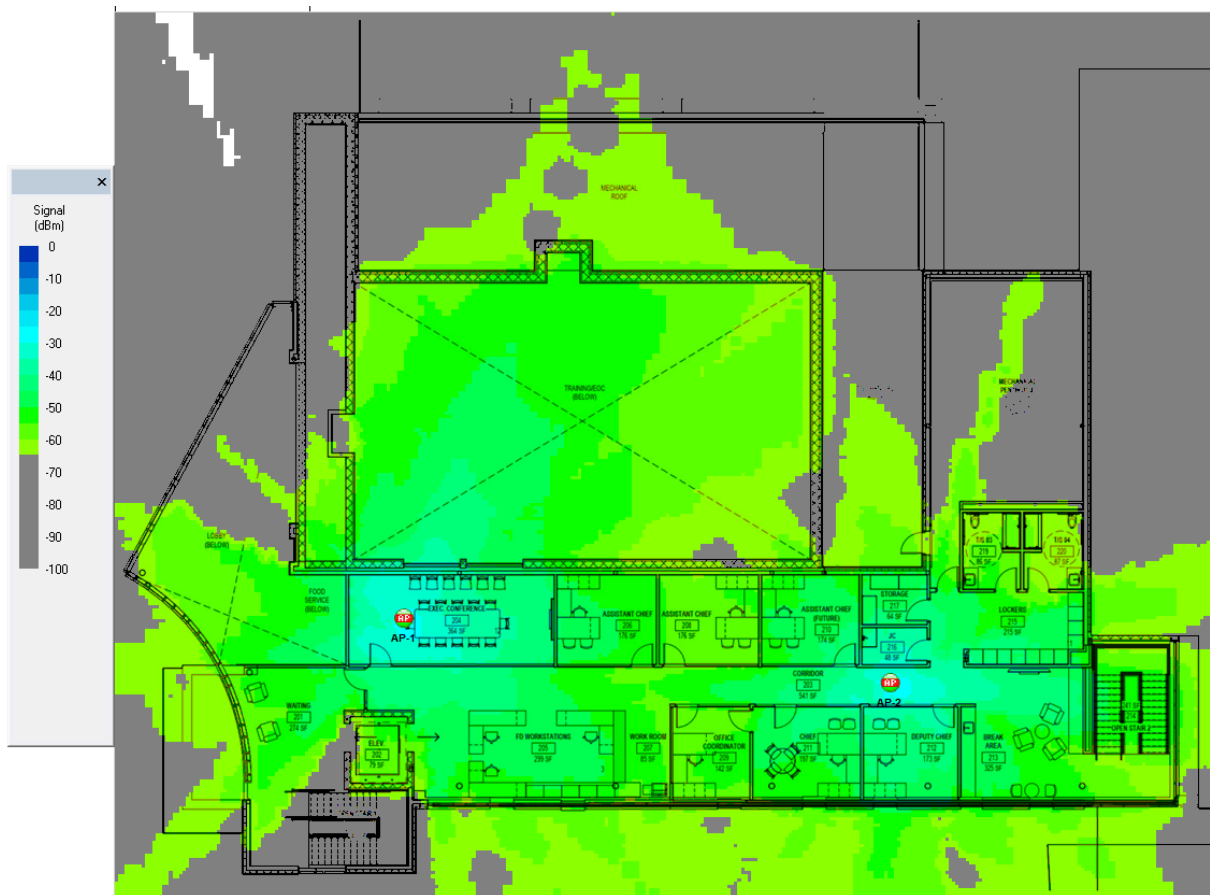
Picture 2 shows the predicted coverage for the main floor using Fortinet Wi-Fi APs. As a rule of thumb, regions with signal strengths below -65 dBm provide insufficient/no coverage. A total of 6 APs will be required to provide coverage in this section of the building. One AP, namely AP-5 will be installed on the outer wall to provide coverage to the outside sitting area.



Picture 2

Second Floor

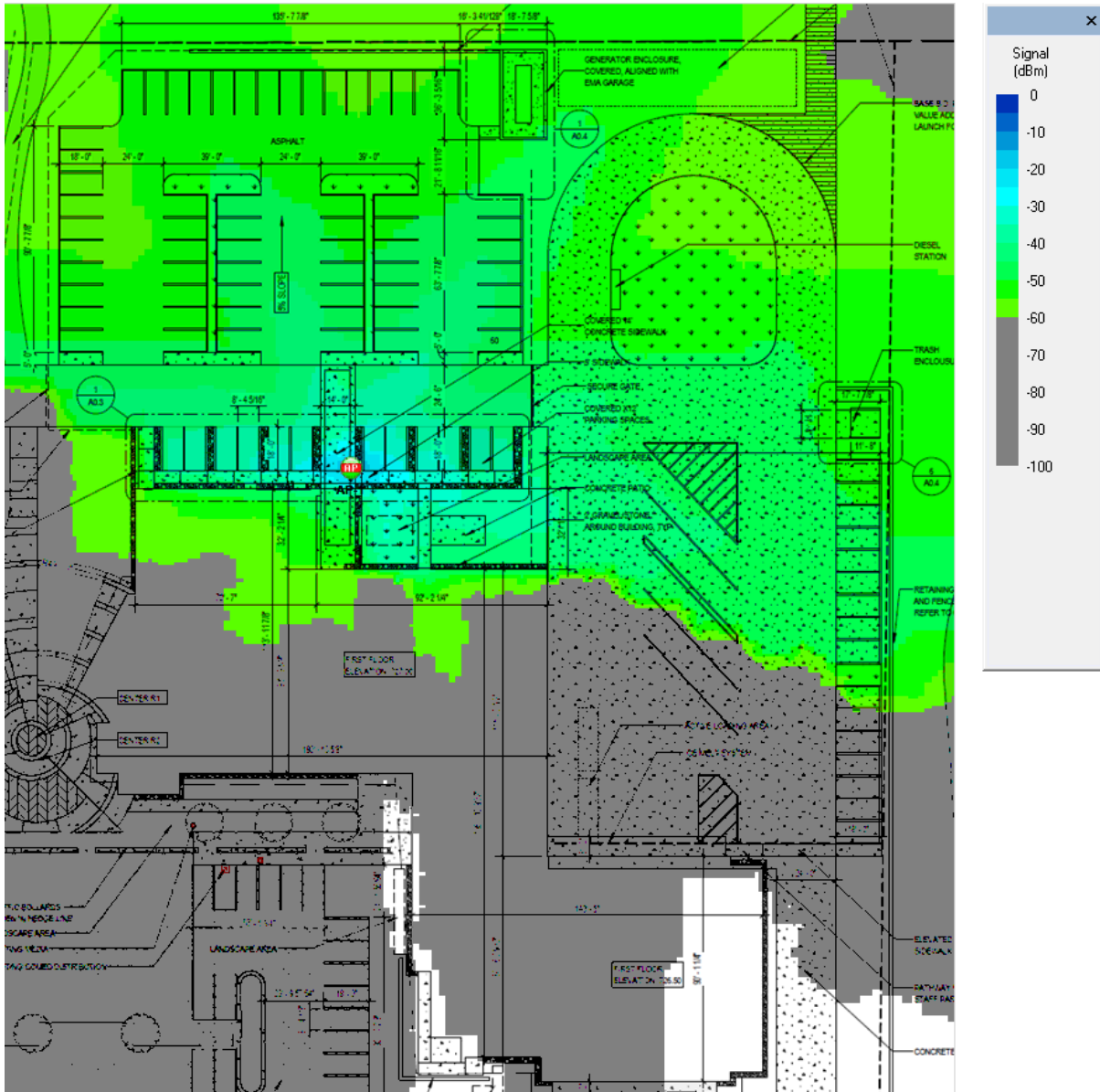
Picture 3 shows the predicted coverage for the main floor using Fortinet Wi-Fi APs. As a rule of thumb, regions with signal strengths below -65 dBm provide insufficient/no coverage. A total of 2 APs will be required to provide coverage on this floor.



Picture 3

Outdoor Carport Coverage

Picture 4 shows the predicted outdoor coverage in the Carport area. There is only a single AP needed to provide the required coverage. This outdoor rated AP will be mounted on the exterior wall/column.



Picture 4

APPENDIX B: VIDEO FOV DESIGN

First Floor FOV Designs:





2nd Floor FOV Design:

