

OAK PARK FIRE DEPARTMENT – FIRE STATION 2 ANALYSIS

VILLAGE OF OAK PARK, ILLINOIS



CORDOGAN CLARK & ASSOCIATES



NATHAN MELOTTE
Managing Director
Cordogan Clark

“Integrated Planning, Design & Construction” = Better Continuity, Cost of Service Efficiencies, Better Design & Budget Management + Focus on Client Service

**We Have a Full Team
of Professionals in:**

Aurora

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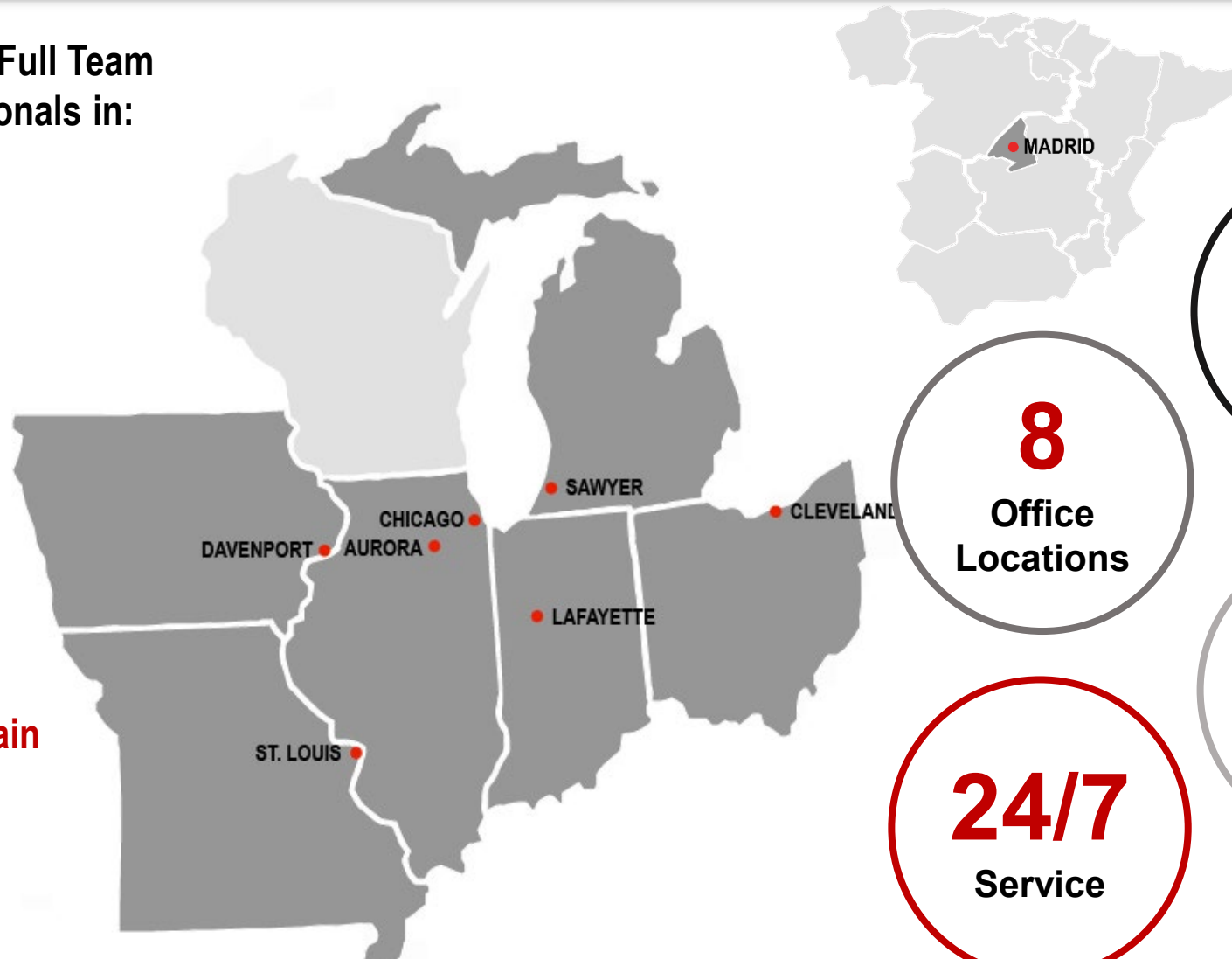
Davenport

Lafayette

Sawyer

St. Louis

Madrid, Spain



95%
Repeat
Clients

8
Office
Locations

130+
Employees

24/7
Service



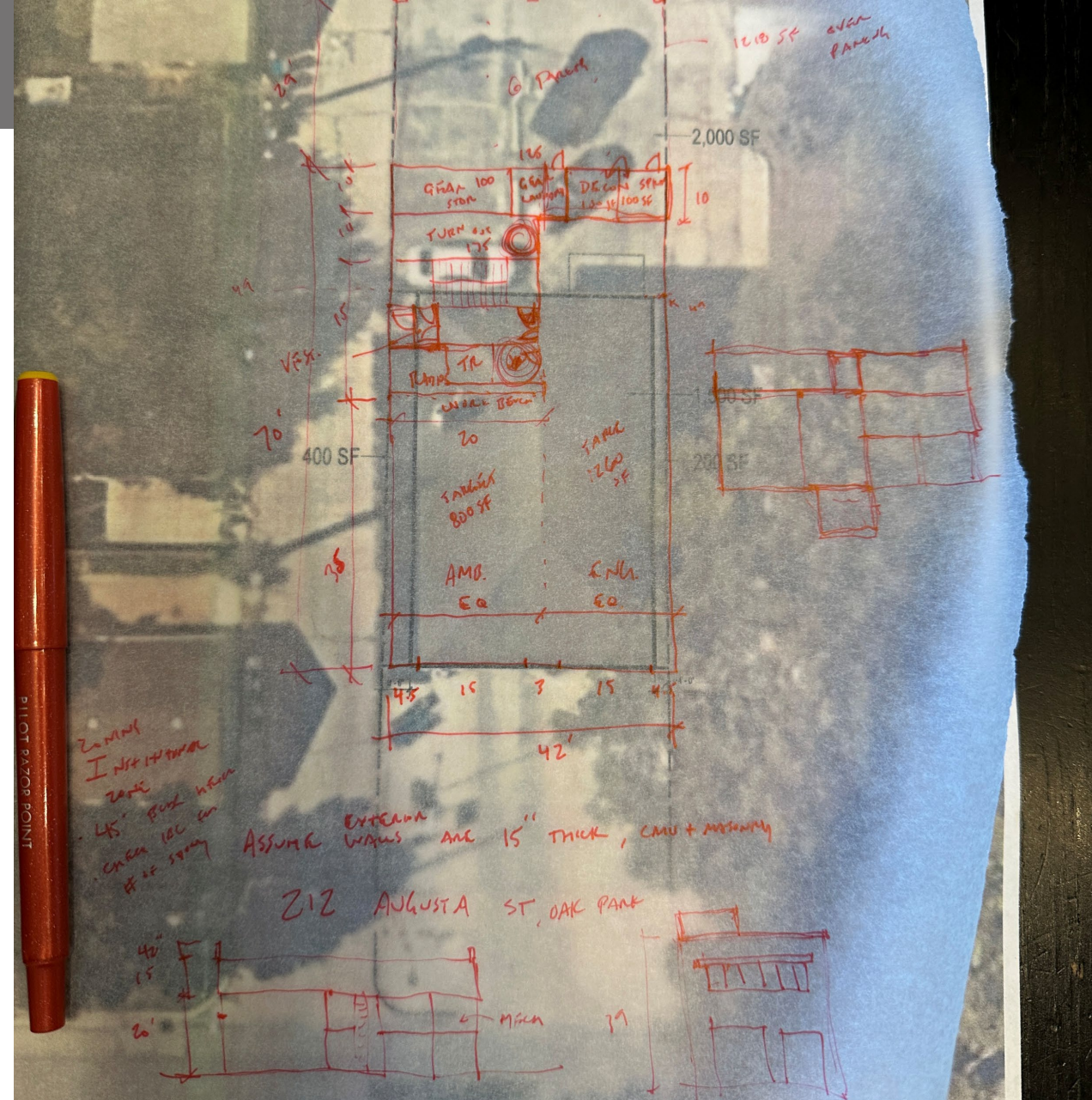
AGENDA:

- Purpose and Process
- Existing Conditions
- Space Needs Analysis
- Design Solution Options
- Q & A



PURPOSE

- Document existing conditions for records.
- Identify constraints and challenges of existing space.
- Provide multiple solution options
- Support the Village of Oak Park in their decision making process.



ASSESSMENT PROCESS

SITE VISITS

**QUESTIONNAIRE
& INTERVIEWS**

**NEEDS/WANTS
MATRIX**

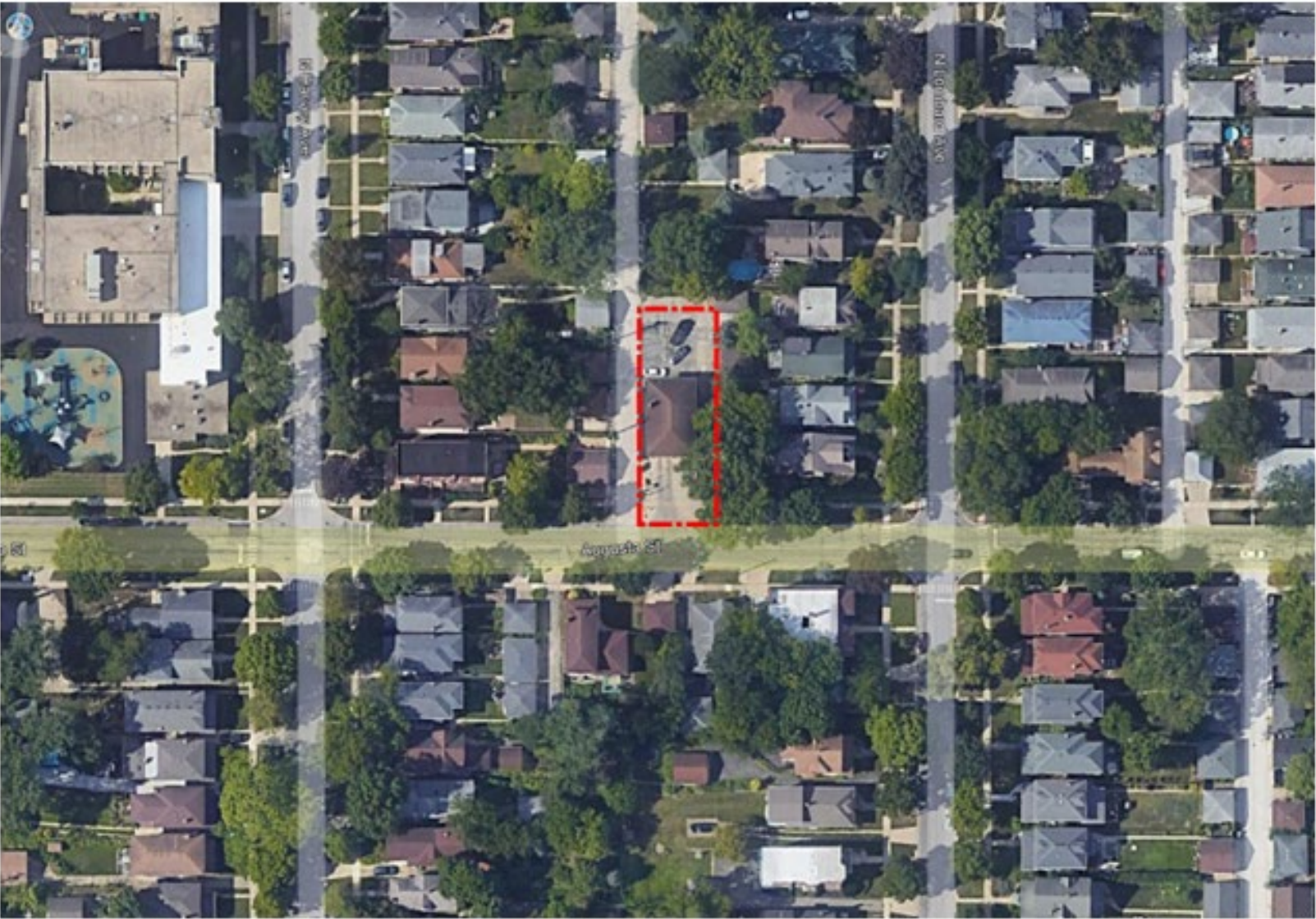
**PRIORITIZATION
REVIEW**

**CONCEPT
DEVELOPMENT**

**CONCEPT
TESTS &
REVISIONS**

FINAL REPORT

EXISTING CONDITIONS - SITE



Fire Station No. 2 – 212 Augusta Street, Oak Park, Illinois



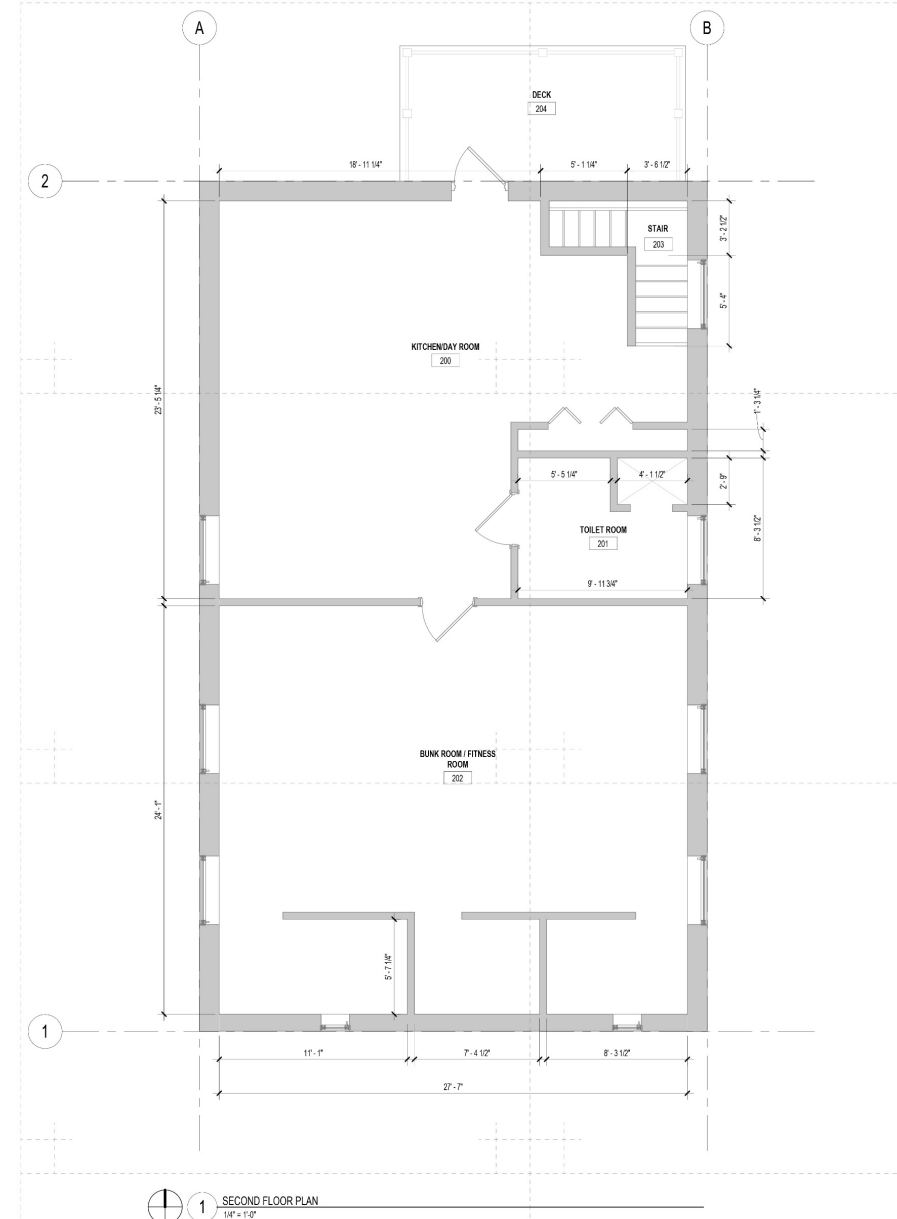
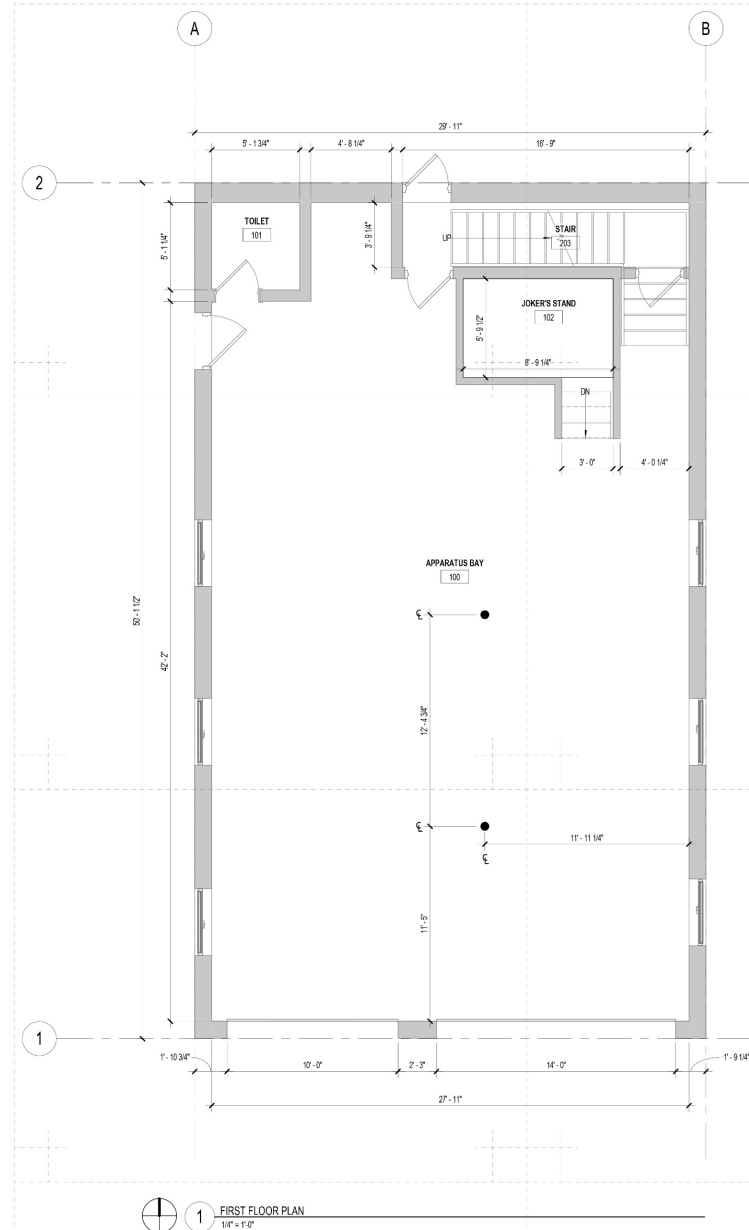
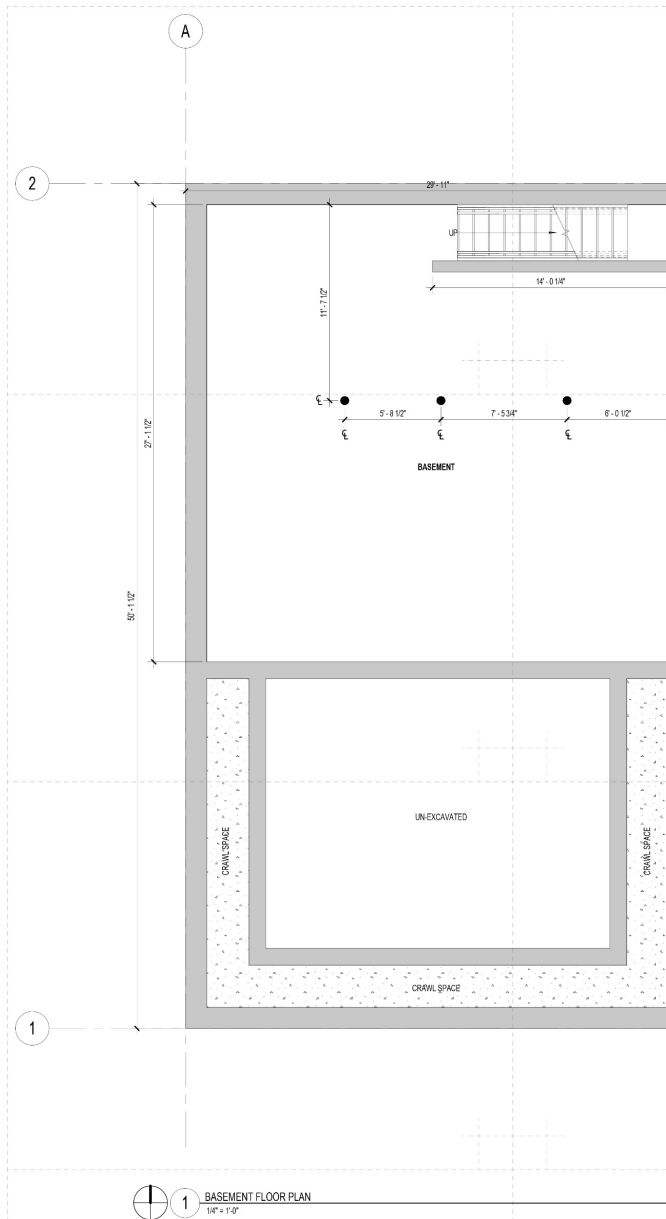
Front



Back



EXISTING FLOOR PLAN – 2 story with half basement; Approximately 3,500 SF



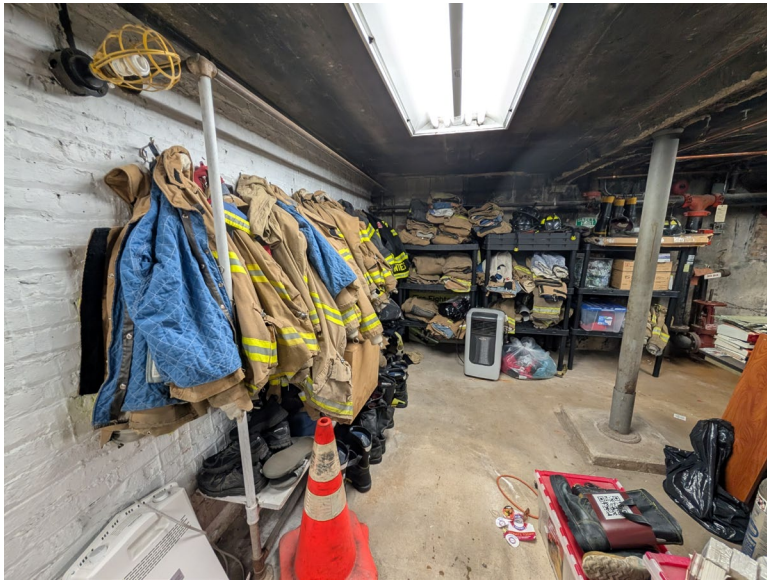
EXISTING CONDITIONS - BASEMENT



LOW CLEARANCES / POOR EQUIPMENT ACCESS



INSUFFICIENT WORK AREA / STRUCTURAL CONSTRAINTS



INADEQUATE GEAR STORAGE & ACCESS

EXISTING CONDITIONS – 1ST FLOOR APP BAY



INSUFFICIENT CLEARANCES AROUND ENGINE / NO ROOM FOR ADDITIONAL VEHICLES



OFFICE OPEN TO APP BAY FLOOR



FITNESS AREA INSIDE APP BAY

EXISTING CONDITIONS – 2ND FLOOR LIVING SPACE



UNDERSIZED KITCHEN/DAY ROOM SPACE



INEFFICIENT BUNK ARRANGEMENT



INSUFFICIENT TOILET FACILITIES

KEY CRITERIA FOR PLANNING

- Addition of an Advance Life Support Ambulance Crew at the Station (Community)
- Overall Station Safety Improvements (Staff)
- Recruitment and Retainage Enhancements (Fire Department)

SPACE NEEDS MATRIX EXAMPLE

Item	Room/ Area/ Space	SF	SF	SF	SF	Notes
		Existing Space	Need to Have (Existing Site)*	Need to Have (New Site)	Nice to Have (New Site)	
0	PUBLIC ENTRY					
0.01	Public Entry Vestibule	-	64	64	100	
	SUBTOTAL:	-	64	64	100	
1	LIVING SPACE					
1.01	Open Bunk Room	638	-	-	-	Currently: 3 existing bed alcoves and large vestibule
1.02	Individual Bunk Rooms	-	480	480	740	Need to have: 6. Nice to have: 9 (including 1 larger bunk room with desk for Officer)
1.03	Day Room	242	500	600	1,000	
1.04	Lunch room	-	150	180	300	
1.05	Kitchen	156	150	180	300	
1.06	Locker Room	20	350	350	450	9 existing lockers. Need and Nice to Have: 24 lockers in central locker room
1.07	Single User Shower/Toilet/Lav Room	66	189	189	280	Currently: 1 toilet/shower room; Need to have: 3 toilet/shower rooms. Nice to have: 4 toilet/shower rooms
1.08	Lactation room	-	-	-	54	
1.09	Fitness	336	350	400	500	
1.10	Fitness toilet	-	-	-	60	
1.11	Sauna	-	-	-	250	Nice to have: 4-person sauna room, 1 plunge pool
	Wellness & Recovery Area	-	50	75	180	
1.12	Laundry	18	50	50	50	Existing laundry located in basement
1.14	Storage (Bedding)	10	50	50	50	
1.15	Janitor	-	30	30	30	
1.16	Quiet Room (Reading/Study)	-	75	75	150	
1.17	Open Office	28				Not needed in new configurations
1.18	Radio Room/watch room	-	-	100	200	Combine with Lt. Office for existing site
1.19	Outdoor Area	226	250	250	350	Existing outdoor area split between first floor grade and second floor deck; new existing can be on roof.
1.20	Circulation, Wall/Mechanical Space	108	598	665	1,052	Existing circulation on second floor
	SUBTOTAL:	1,963	3,337	3,989	6,311	0

Item	Room/ Area/ Space	SF	SF	SF	SF	Notes
		Existing Space	Need to Have (Existing Site)*	Need to Have (New Site)	Nice to Have (New Site)	
4	STAFF SUPPORT AREAS					
4.01	Apparatus Bays	604	2,200	3,000	3,600	Need to Have: 1 Engine, 1 Ambulance. Nice to have: 3 Engine Bays (reduced bay depth @ 66')
4.02	Shop	12	35	35	150	Existing shop located in basement
4.03	Decontamination Room	-	100	100	200	
4.04	Decontamination Shower	-	-	40	80	New existing site - decon shower in bay area
4.05	Decontamination EMS	-	-	-	150	
4.06	Gear Laundry	-	125	125	200	
4.07	Gear Storage	65	100	100	150	Existing gear storage located in basement
4.08	Gear Turnout Room	-	175	175	250	Existing gear turnout located in Apparatus Bay Area
4.09	Hazmat Storage	-	20	20	20	Specialized furniture piece (Flammable Box)
4.10	IT Closet	-	-	-	-	Wall-mounted box
4.11	Janitor	28	30	30	40	Existing janitor area located on east side of first floor toilet room.
4.12	ADA Toilet	26	60	60	70	Existing toilet located on first floor.
4.14	Mechanical Room	-	250	250	600	Existing fire station does not have dedicated mechanical room; new existing site mech located on roof
4.15	Electrical Room	-	100	100	150	Existing fire station does not have dedicated electrical room
4.16	Sprinkler Room	-	100	100	150	
4.17	Circulation, Wall/Mechanical Space	358	330	827	1,162	Existing circulation in basement
	SUBTOTAL:	1,093	3,375	4,962	6,972	
5	PARKING REQUIREMENTS					
5.01	Staff Parking Spaces	8	8	12	15	
5.02	Visitor / Training Parking	-	-	-	-	
	SUBTOTAL:	8	8	12	15	TOTAL SPACES
	TOTALS:	3,348	6,951	9,221	14,537	

CONCEPTUAL DESIGN OPTIONS

- OPTION 1: New 2-Story Building w/ Basement, 10,000 SF, on Existing Site (42'x155')
- OPTION 2: New 2-Story Building w/ Basement, 10,000 SF, on Small Reference Site (100'x125')
- OPTION 3: New 2-Story Building, 11,020 SF, on Medium Reference Site (172'x100')

- Other Options Were Developed But Were Dismissed During the Review/Test Process
 - Option 1a: New 2-story building, 8,300 SF, on existing site (42'x155')
 - Option 4: New 1-story building, 12,000 SF, on large reference site (290'x125')
 - Option 5: New 2-story building, 14,500 SF, on medium reference site (172'x100')

DESIGN OPTIONS: Option 01

PROPERTY LINE

DATA

SITE AREA: ~6,500 SF (EXISTING)

BUILDING AREA: 10,000 SF (4 LEVELS)

PARKING: 6 STANDARD SPACES

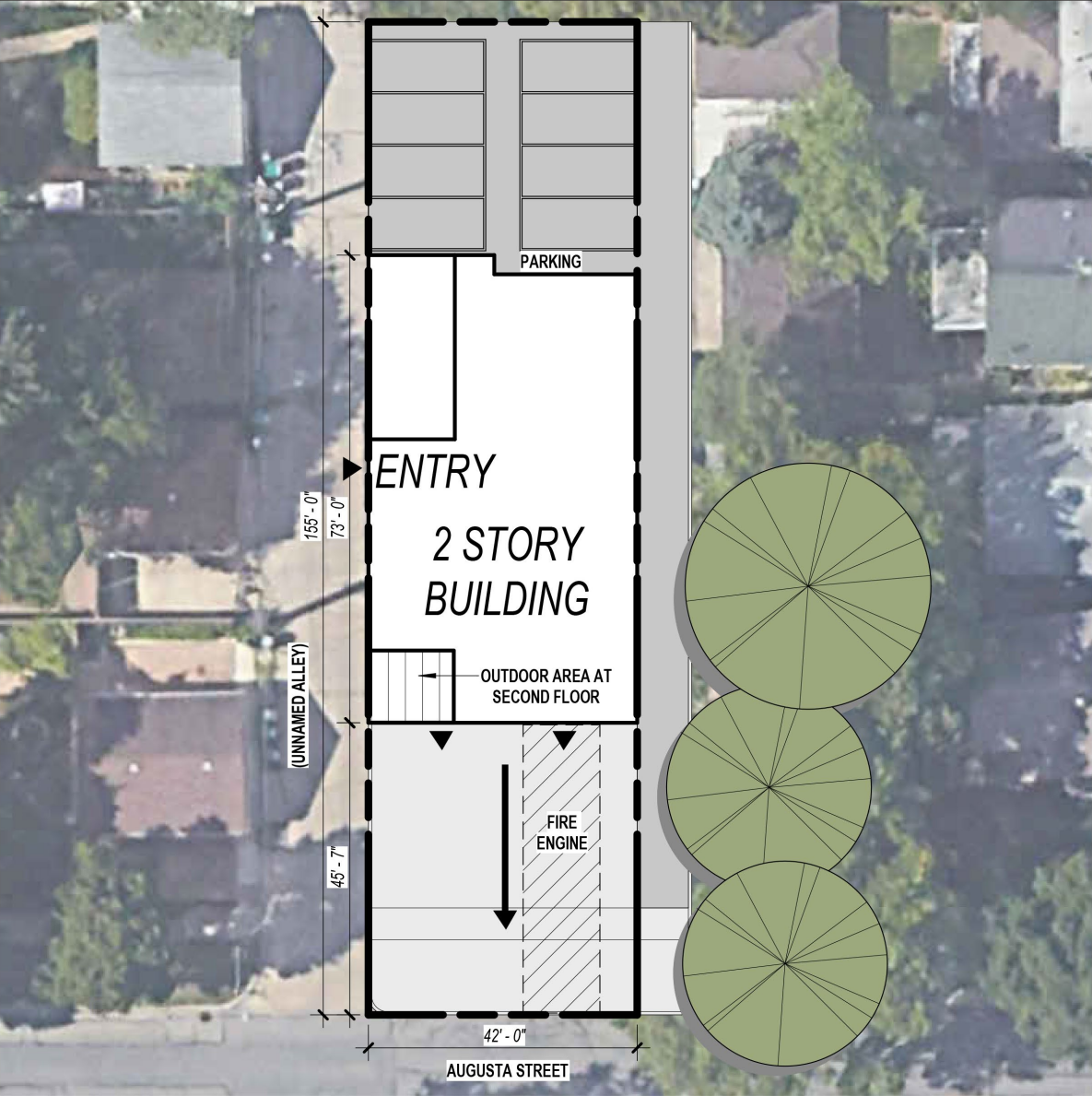
PULL-IN APP BAY

EXISTING SITE PROJECT AREA

0'

10'-8"

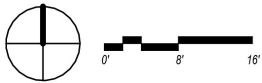
21'-4"



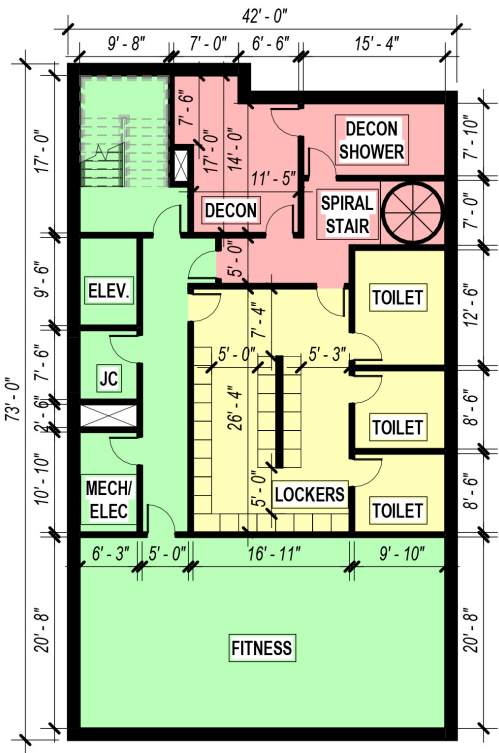
- Benefits:
- Existing site has utility service.
 - No disruption or changes to the community.
 - Improved adjacencies and safety compliance.
 - Mezzanine space in app bay.
 - Basement will provide space for additional programming.
- Challenges:
- Small site constraints
 - Construction work will require temporary FD relocation
 - Will require deeper excavation and foundation supports.
 - Only allows for pull-in/pull-out app bay for vehicles.
- Total Cost Budget Estimate: ~\$10.1M

ZONE DESIGN LEGEND

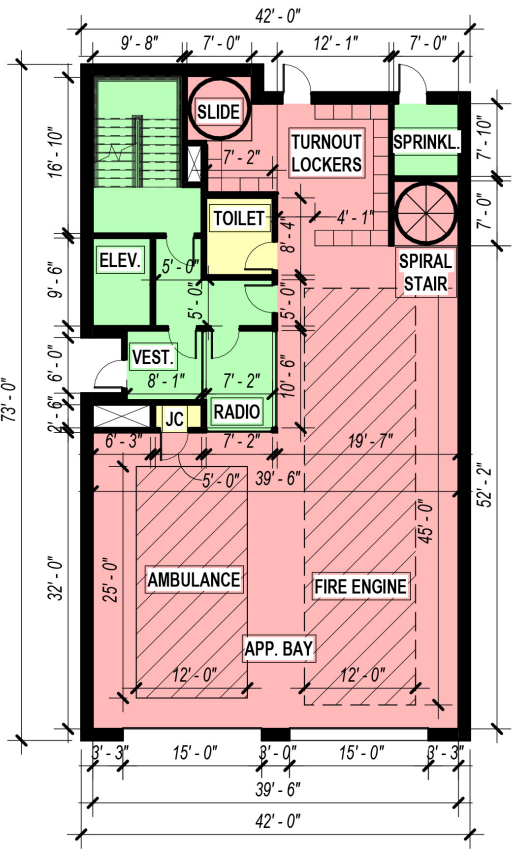
- RED ZONE: HAZARDOUS CONTAMINATION AREA
- YELLOW ZONE: INTERMEDIATE HAZARD AREA (CLEAN UP)
- GREEN ZONE: ISOLATED FROM HAZARDOUS CONDITIONS AS MUCH AS POSSIBLE



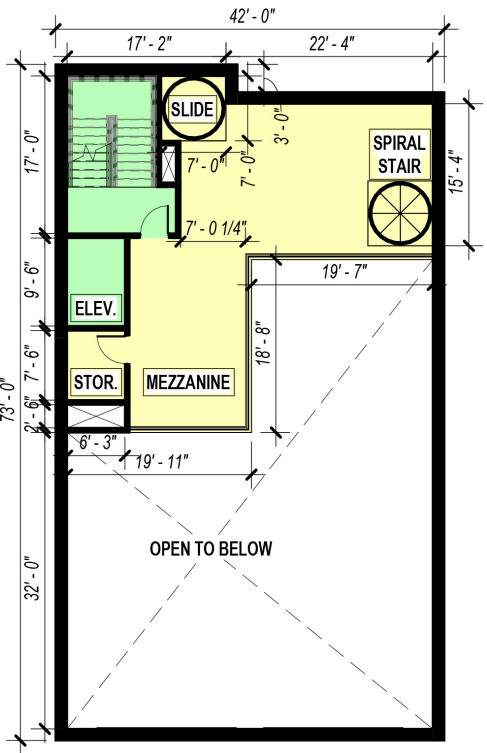
OPTION 01



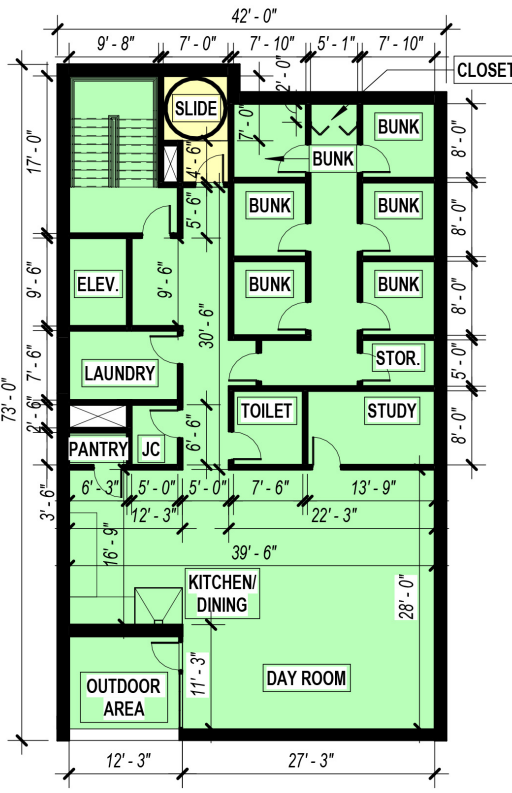
LOWER LEVEL FLOOR PLAN



FIRST FLOOR PLAN



MEZZANINE PLAN



SECOND FLOOR PLAN

DESIGN OPTIONS: Option 02

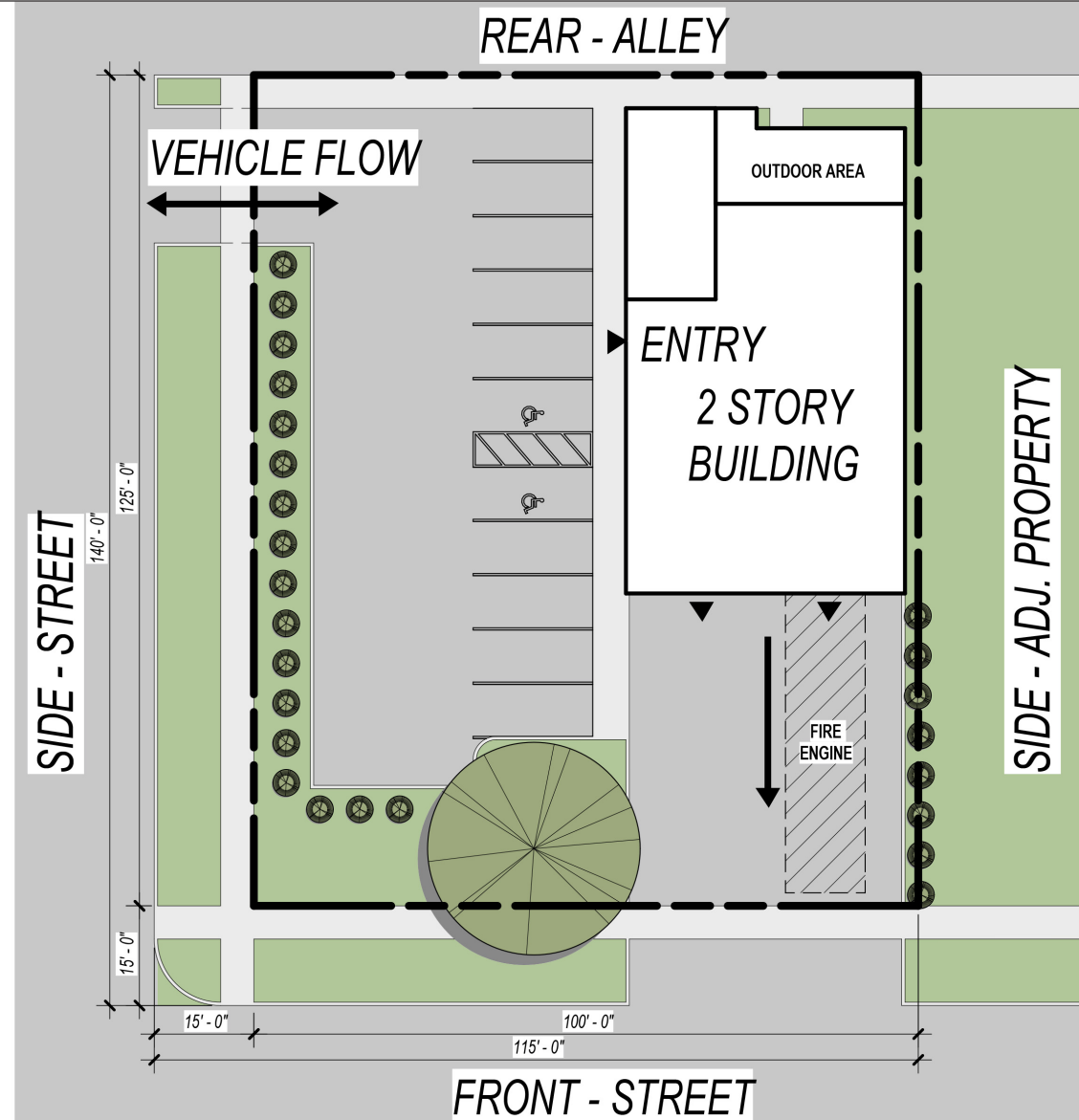
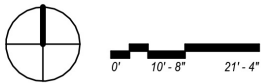
PROPERTY LINE

DATA
SITE AREA: 14,000 SF (~0.3 ACRES)
BUILDING AREA: 10,000 SF (4 LEVELS)
PARKING: 9 STANDARD SPACES
2 ADA SPACES

PULL-IN APP BAY

EASEMENTS:
FRONT- 15'-0"
SIDE - 15'-0"
REAR - 25'-0"

>1/2 BLOCK PROJECT AREA



Benefits:

- Larger site allows for more on-site parking.
- New site will not require relocation of FD for construction.
- Improved adjacencies and safety compliance.
- Mezzanine space in app bay.
- Basement will provide space for additional programming.

Challenges:

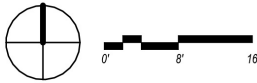
- Locating an appropriate site within community.
- Concerns of local residences at new location.
- 2-story building less efficient than 1-story
- Will require deeper excavation and foundation supports.
- Only allows for pull-in/pull-out app bay for vehicles.

Total Cost Budget Estimate: ~\$10.6M

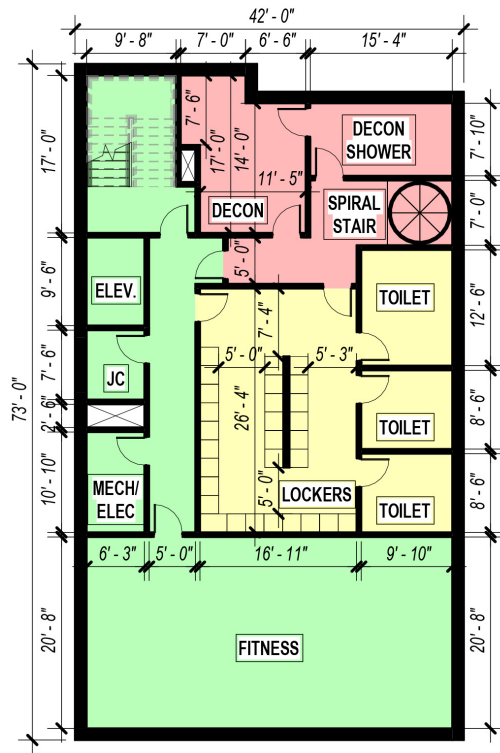


ZONE DESIGN LEGEND

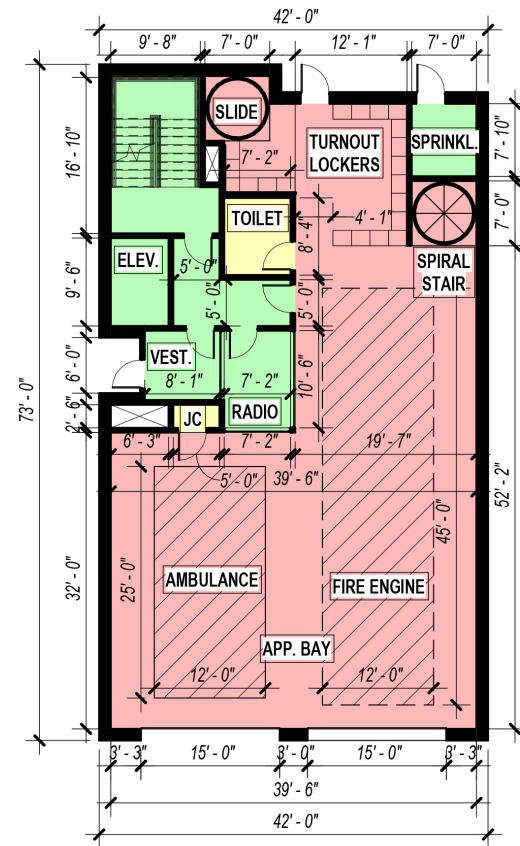
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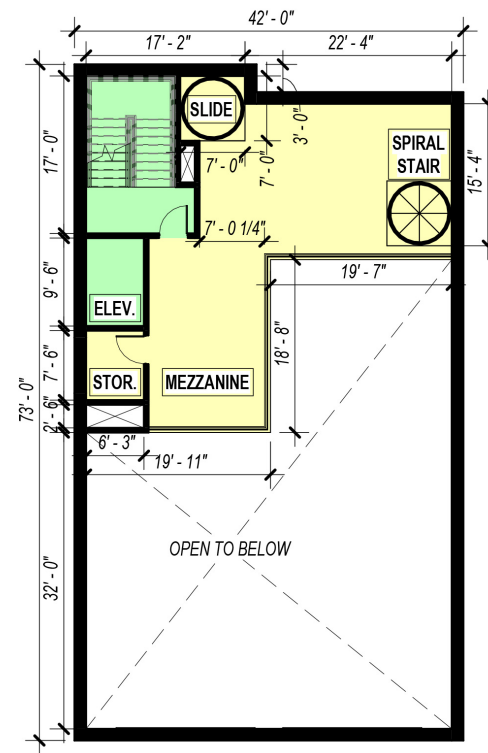
OPTION 02



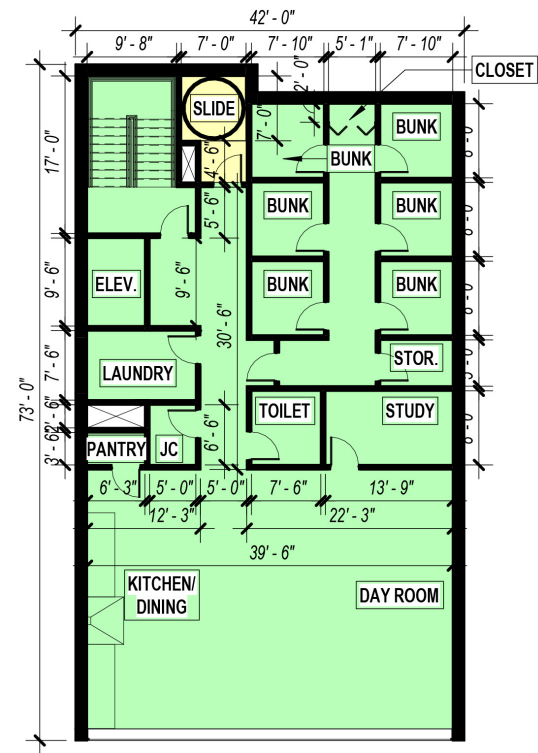
LOWER LEVEL FLOOR PLAN



FIRST FLOOR PLAN



MEZZANINE PLAN



SECOND FLOOR PLAN

DESIGN OPTIONS: Option 03

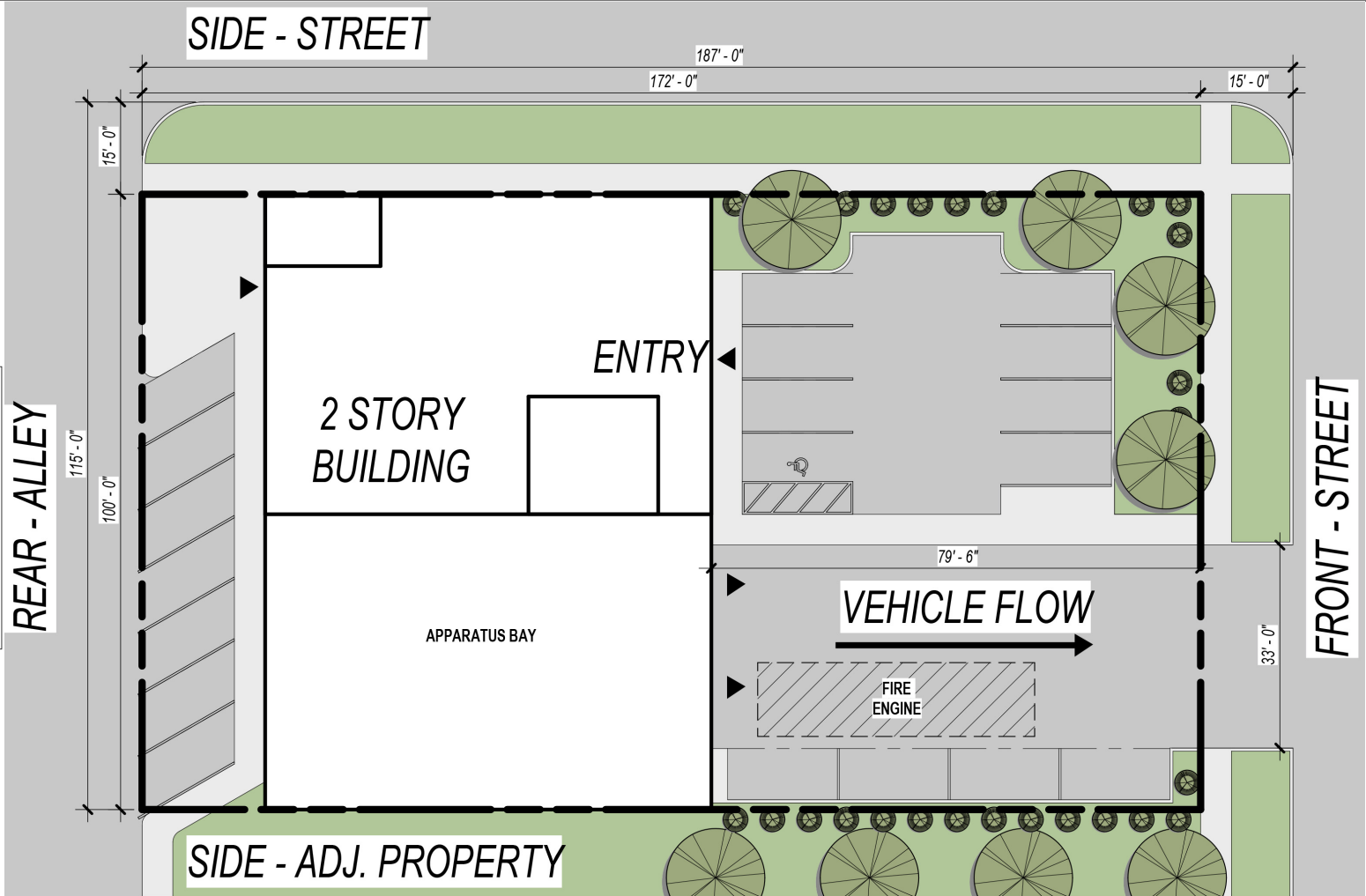
PROPERTY LINE

DATA
SITE AREA: 17,200 SF (~0.4 ACRES)
BUILDING AREA: 11,020 SF (2 LEVELS)
PARKING: 18 STANDARD SPACES
1 ADA SPACE

PULL-IN APP BAY

EASEMENTS:
FRONT- 15'-0"
SIDE - 15'-0"
REAR - 25'-0"

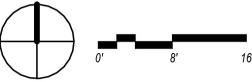
1/2 BLOCK PROJECT AREA



- Benefits:**
- Larger site allows for more on-site parking.
 - New site will not require relocation of FD for construction.
 - Improved adjacencies and safety compliance.
- Challenges:**
- Locating an appropriate site within community.
 - Concerns of local residences at new location.
 - 2-story building less efficient than 1-story
 - Only allows for pull-in/pull-out app bay for vehicles.
- Total Cost Budget Estimate: ~\$12.7M

ZONE DESIGN LEGEND

- RED ZONE: HAZARDOUS CONTAMINATION AREA
- YELLOW ZONE: INTERMEDIATE HAZARD AREA (CLEAN UP)
- GREEN ZONE: ISOLATED FROM HAZARDOUS CONDITIONS AS MUCH AS POSSIBLE



OPTION 03



DESIGN OPTION SUMMARY

OPTION 01

2-Story w/ Basement
10,000 SF on Existing Site (42'x155')

Benefits:

Existing site has utility service.
No disruption or changes to the community.
Improved adjacencies and safety compliance.
Mezzanine space in app bay.
Basement will provide space for additional programming.

Challenges:

Small site constraints
Construction work will require temporary FD relocation
Will require deeper excavation and foundation supports.
Only allows for pull-in/pull-out app bay for vehicles.

Total Cost Budget Estimate: ~\$10.1M

OPTION 02

2-Story w/ Basement
10,000 SF on New Small Site (100'x125')

Benefits:

Larger site allows for more on-site parking.
New site will not require relocation of FD for construction.
Improved adjacencies and safety compliance.
Mezzanine space in app bay.
Basement will provide space for additional programming.

Challenges:

Locating an appropriate site within community.
Concerns of local residences at new location.
2-story building less efficient than 1-story
Will require deeper excavation and foundation supports.
Only allows for pull-in/pull-out app bay for vehicles.

Total Cost Budget Estimate: ~\$10.6M

OPTION 03

2-Story
11,020 SF on New Medium Site (172'x100')

Benefits:

Larger site allows for more on-site parking.
New site will not require relocation of FD for construction.
Improved adjacencies and safety compliance.

Challenges:

Locating an appropriate site within community.
Concerns of local residences at new location.
2-story building less efficient than 1-story
Only allows for pull-in/pull-out app bay for vehicles.

Total Cost Budget Estimate: ~\$12.7M

Q & A

