

EAST VIEW DRIVE FIRE DEPARTMENT

- ARC 476 FINAL PRESENTATION MAY 13TH 2020
- ANTELO ARTEAGA CHRISTIAN
- AGENDA
 - CENTRAL CONCEPT
 - DECISION MAKING PROCESS
 - SUSTAINABILITY DESIGN
 - PLANS / SECTIONS / ELEVATIONS
 - DIAGRAMS



DEFINING A CENTRAL CONCEPT

- My main achievement for this project is to design a fire house that combines the utility and administration aspect. My goal is to make the use of a firehouse not only a place for emergency response but also a place of comfort where firemen can enjoy living. This, and the inclusion of community as a place where learning seminars can be conducted as well as a public running track.

DECISION MAKING PROCESS

- My decision-making process was to take into consideration the shape of the site.
- By separating the spaces, I realized that the apparatus bay had to be very orthogonal as I am connecting the boulevard to the avenue and the functions are inside this bay. With this mind, I was left with the curved spaces to be for administration, public and the firemen's private spaces.
- I separated the administration and public rooms in the first floor and the firemen's private spaces between the second and third floor.

DECISION MAKING PROCESS

- By following town codes, I used the limit of square footage making me create several floors in order to fit all the needed functions.
- I added rhythm-like curved staircase design separating each floor into a smaller scale version but reusing the load bearing walls for structural simplicity.

SUSTAINABILITY

- After learning sustainable design from our WBDG online assignments I added the following:
- **LIGHT SHELVES:**I implemented a stack of light shelves allowing light deflecting the heat into the building specially the apparatus bay in warmer seasons. Not only does it control the inside temperature but also provides privacy into the bay and the second and third floor areas. In the meeting room I added only one to have a clear view of the outside.
- **ORIENTATION:** I located the apparatus bay in the south. Not only does the bays face the emergency path connecting both streets but it is my biggest function to heat and cool depending on the season.
- **RECHARGE POND:** A recharge pond would be used for the sprinkler system. The pond is a collection from the roofs of the building including and the run off. Also, I included a running track as that surrounds the pond.

ROOM #	ROOM NAME	SF
1	APARATUS BAY	4625.5
2	DISPATCH ROOM	131
3	LOCKER ROOM	725
4	DECON LAUNDRY	157
5	DECON SHOWER	38.6
6	JANITOR	36.6
7	GEN STORAGE	77
8	OXYGAN TANK STORAGE	160
9	BLS STORAGE	160
10	ALS STORAGE	148.5
11	MECHANICAL/ELECTRICAL ROOM	311.7
12	JANITOR	42.7
13	KITCHEN	497.8
14	MENS ROOM	181
15	WOMENS ROOM	181
16	FILE STORAGE	150
17	CONFERENCE ROOM	151
18	LOBBY	362.5
19	BOARD OFFICE	159
20	SECRETARYS OFFICE	151
21	CHIEFS OFFICE	142
22	MEETING ROOM	1150.1
23	ELEVATOR	48.5
24	STAIRS	120
25	PRIVATE HALLWAY NORTH	268.3
26	PRIVATE HALLWAY SOUTH	210.3
27	PUBLIC HALLWAY	812.7
28	MEZZANINES	1621.4
29	READY ROOM	1463.2
30	TRAINING ROOM	446.5
31	FITNESS ROOM	459.4
32	KITCHENETTE	666
33	BATHROOM	246.6
34	SECOND FLOOR BALCONY	1257.5
35	TV ROOM	1495
36	COMPUTER ROOM	194.6
37	DOUBLE BUNK	205.9
38	DOUBLE BUNK	205.9
39	DOUBLE BUNK	205.9
40	DOUBLE BUNK	205.9
41	BATHROOM	181
42	THIRD FLOOR BACLONY	518

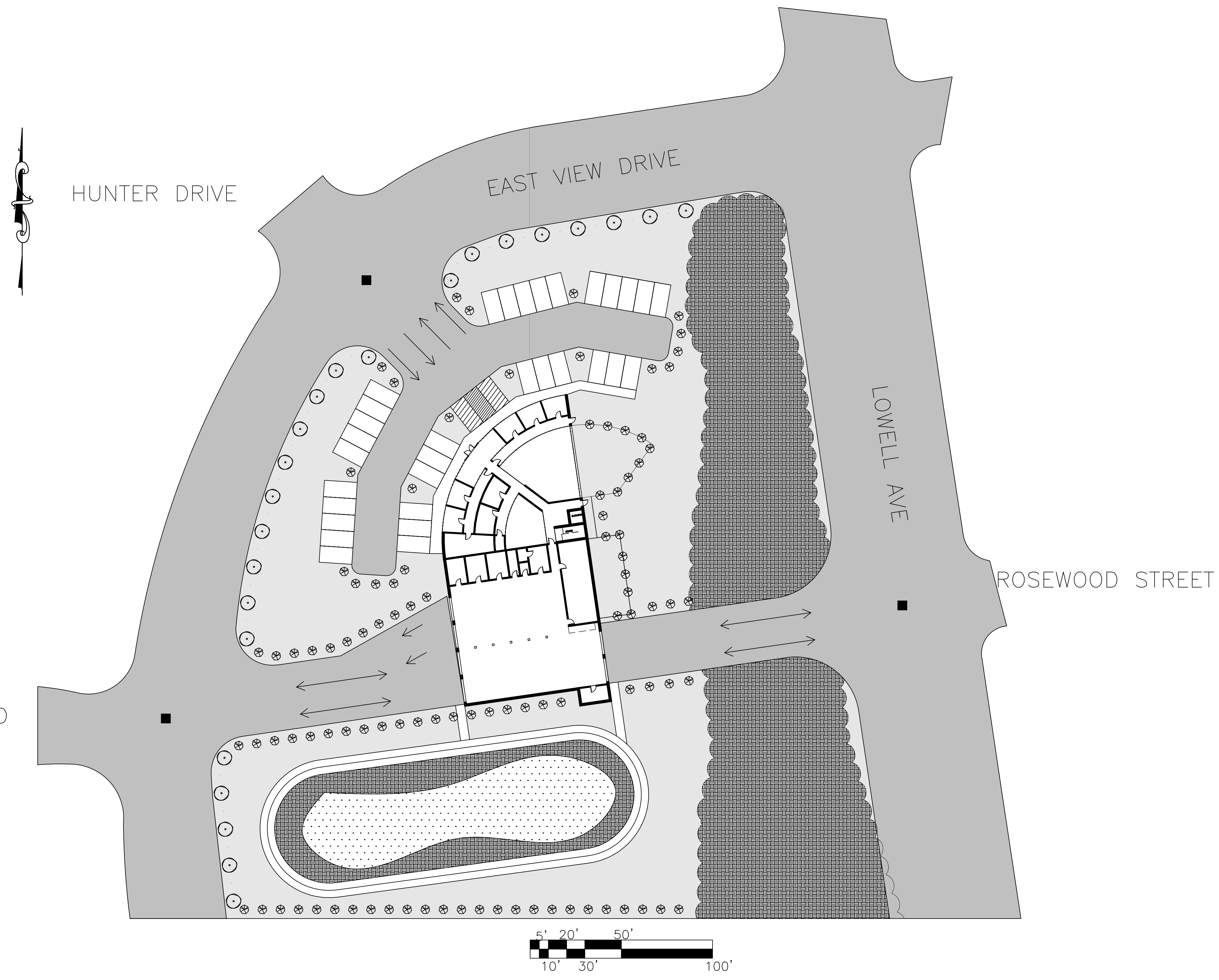
FIRE HOUSE
FINAL
PROJECT

GEN. NOTES

G-101

GEN. NOTES

- RUNNING TRACK POND SERVES AS A RECHARGE BASE FOR SPRINKLER SYSTEM.
- STOP LIGHTS ARE ADDED IN EVERY EXIT FOR EMERGENCY TRAFFIC CONTROL.
- THE EMERGENCY RESPOND PATH CONNECTS LOWELL AVE AND SUNBURST BOULEVARD.



PRODUCED BY AN AUTODESK STUDENT VERSION

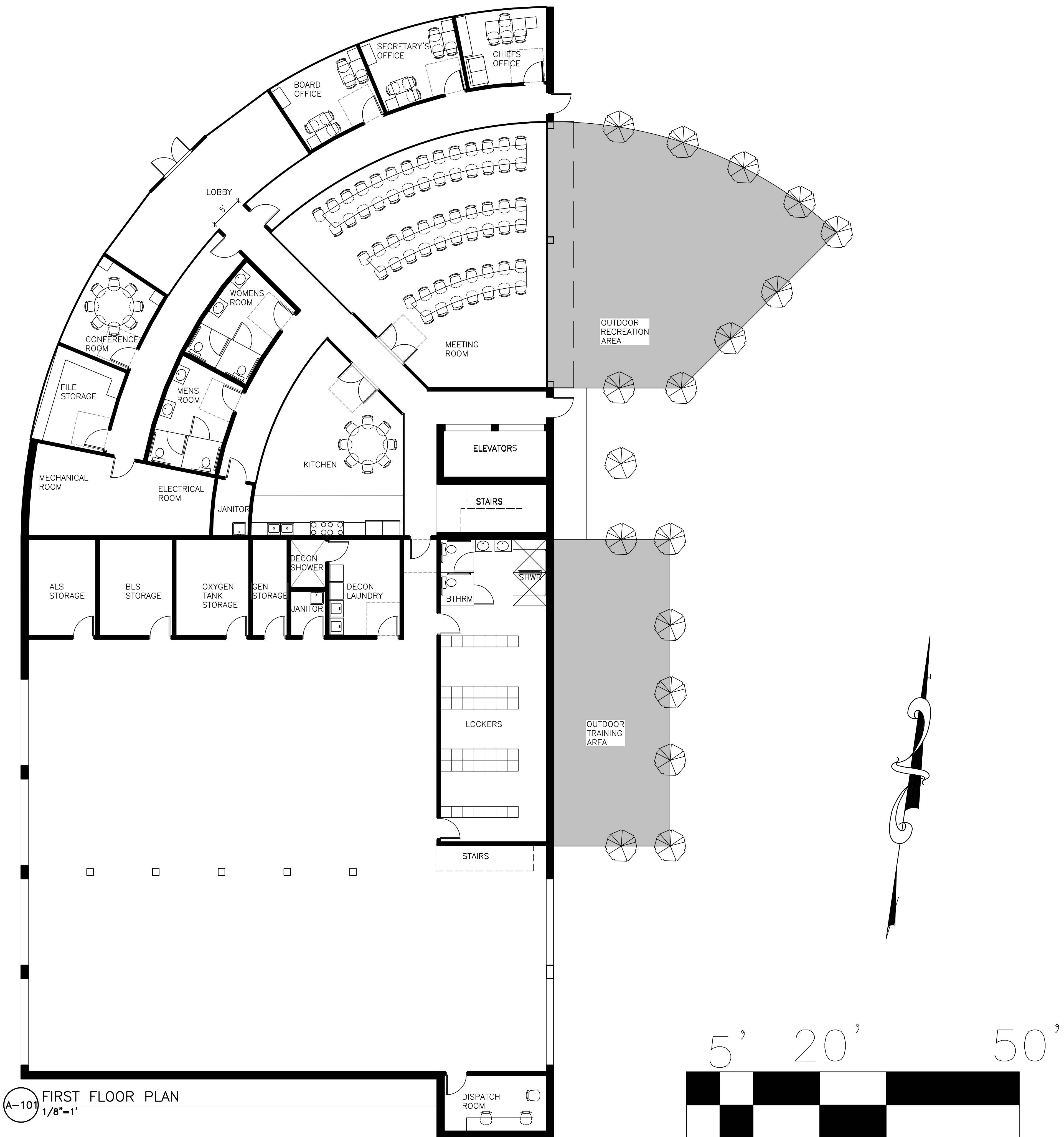
PRODUCED BY AN AUTODESK STUDENT VERSION

FIRE HOUSE
FINAL
PROJECT

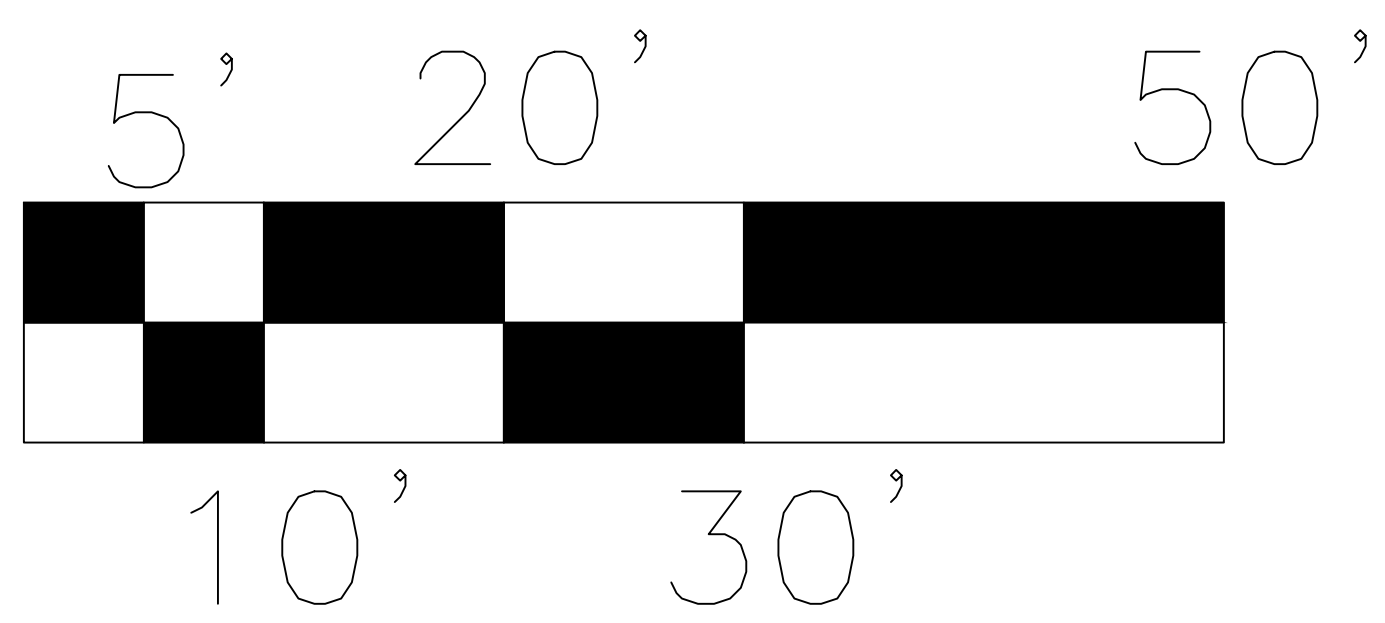
SCALE: 1/32" = 1'

SITE PLAN

S-101

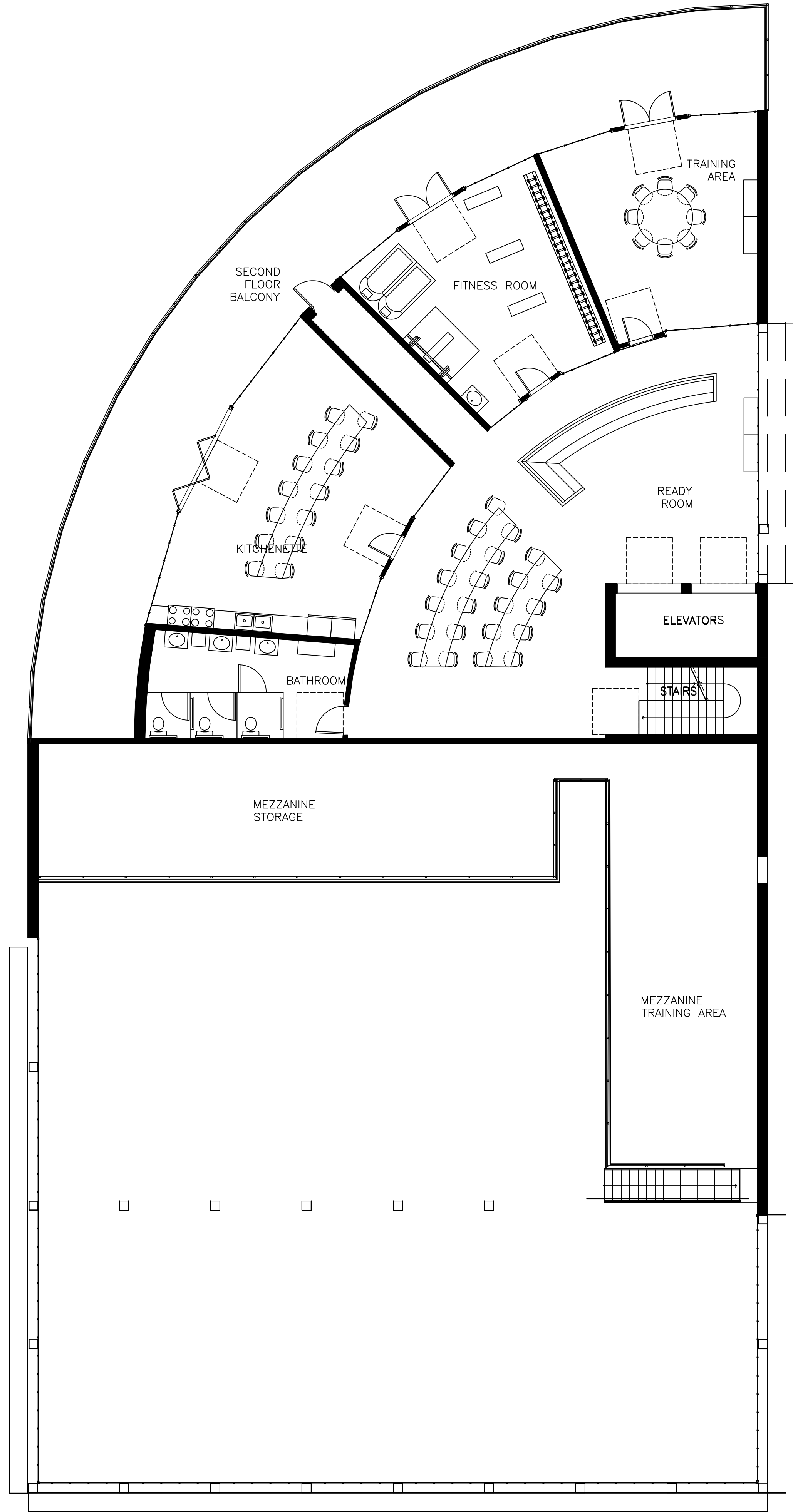


A-101 FIRST FLOOR PLAN
1/8"=1'

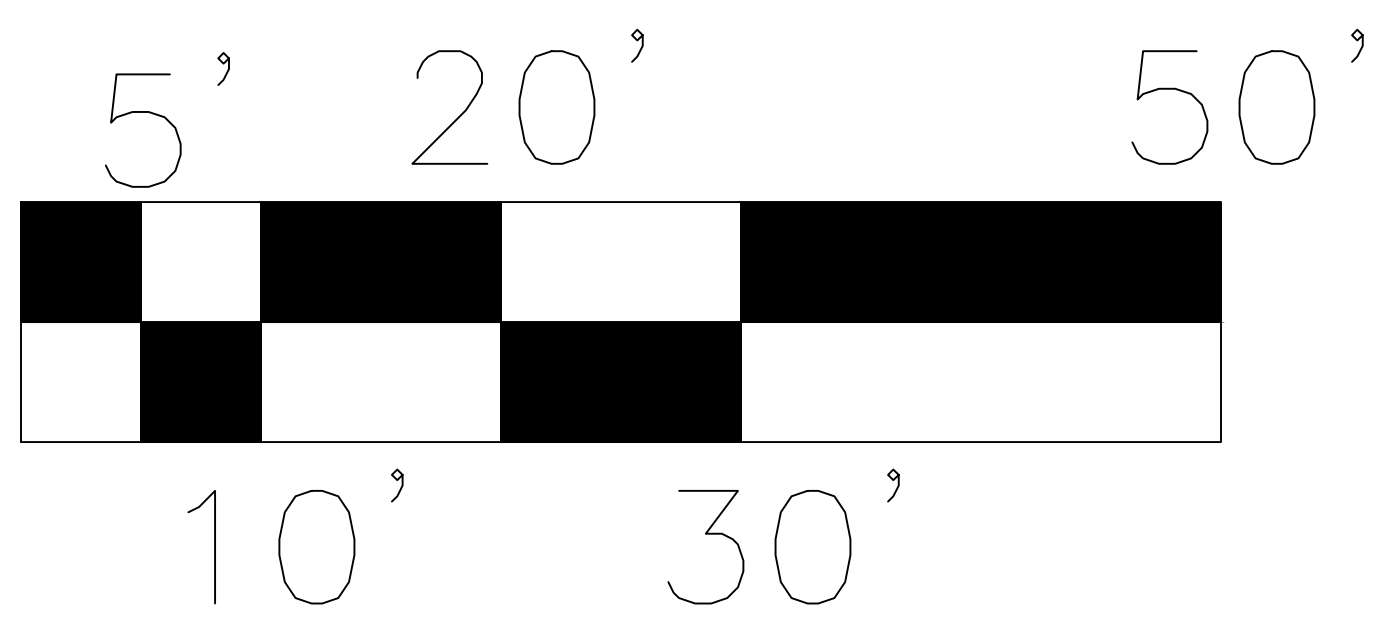
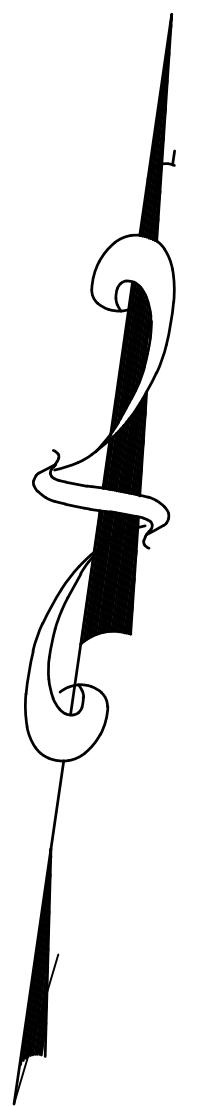


GEN. NOTES
 -LATTER TRUCKS HAVE DOUBLE ACCESS.
 -OTHER VEHICLES ARE TO BE BACKED UP INTO THE TWO OTHER BAYS.
 -MEZZANINES IS PLACED IS ON TOP OF THE LOCKER ROOM AND STORAGE ROOMS.
 -OUTSIDE TRAINING AREA IS FOR ESCAPE DRILLS FROM MEZZANINE.

FIRE HOUSE
 FINAL
 PROJECT
 SCALE: 1/8"=1'
 FIRST FLOOR
 A-101



A-102 SECOND FLOOR PLAN
1/8"=1'



PRODUCED BY AN AUTODESK STUDENT VERSION

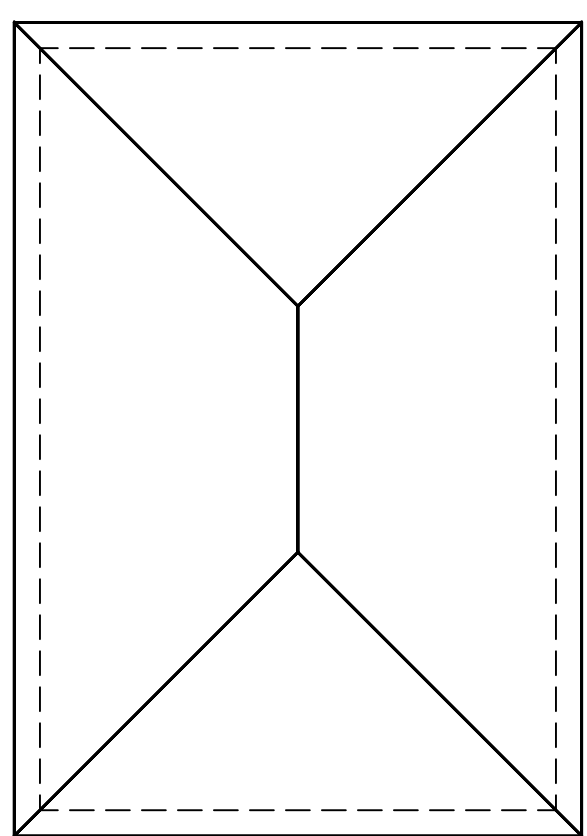
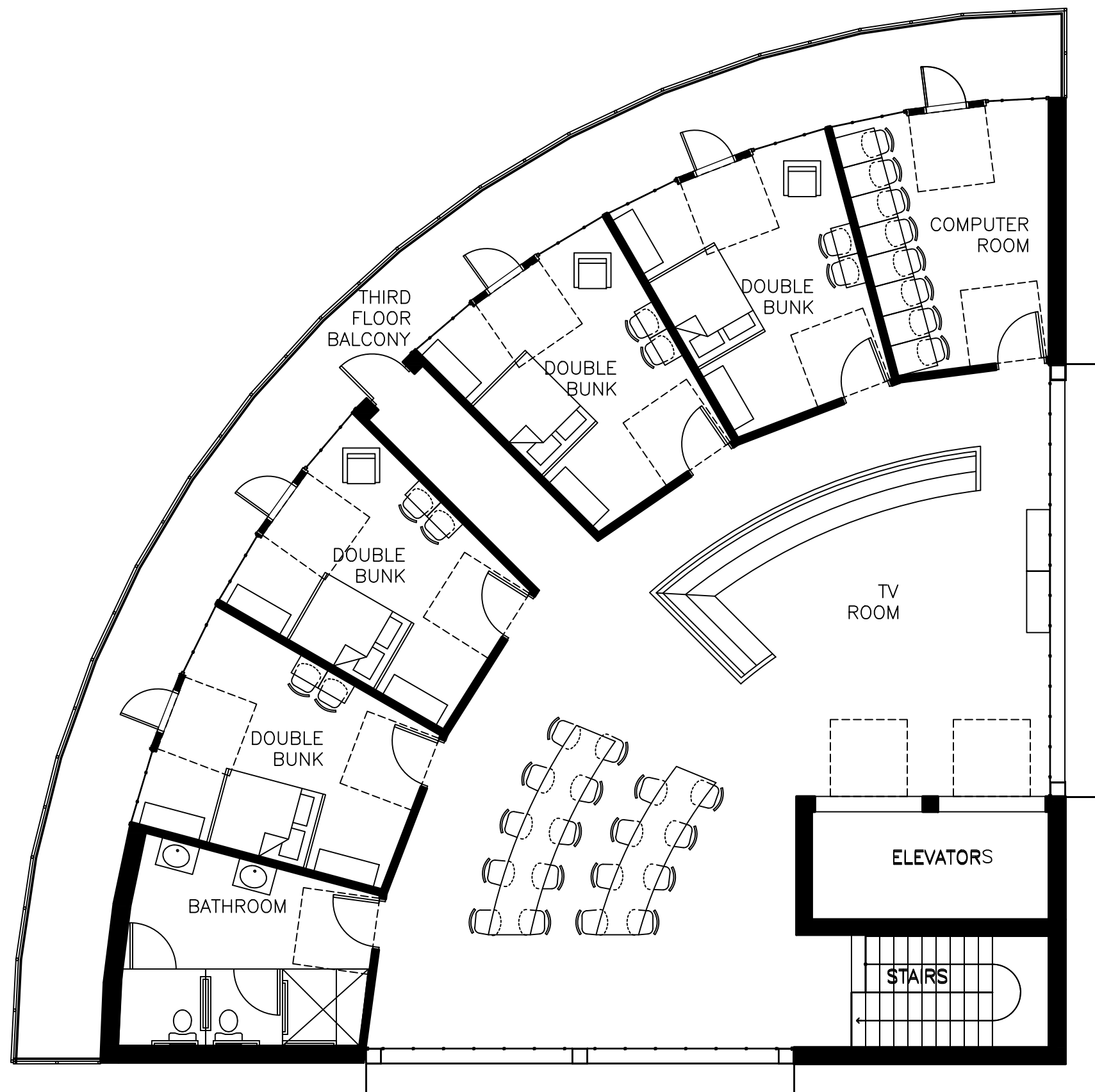
PRODUCED BY AN AUTODESK STUDENT VERSION

FIRE HOUSE
FINAL
PROJECT

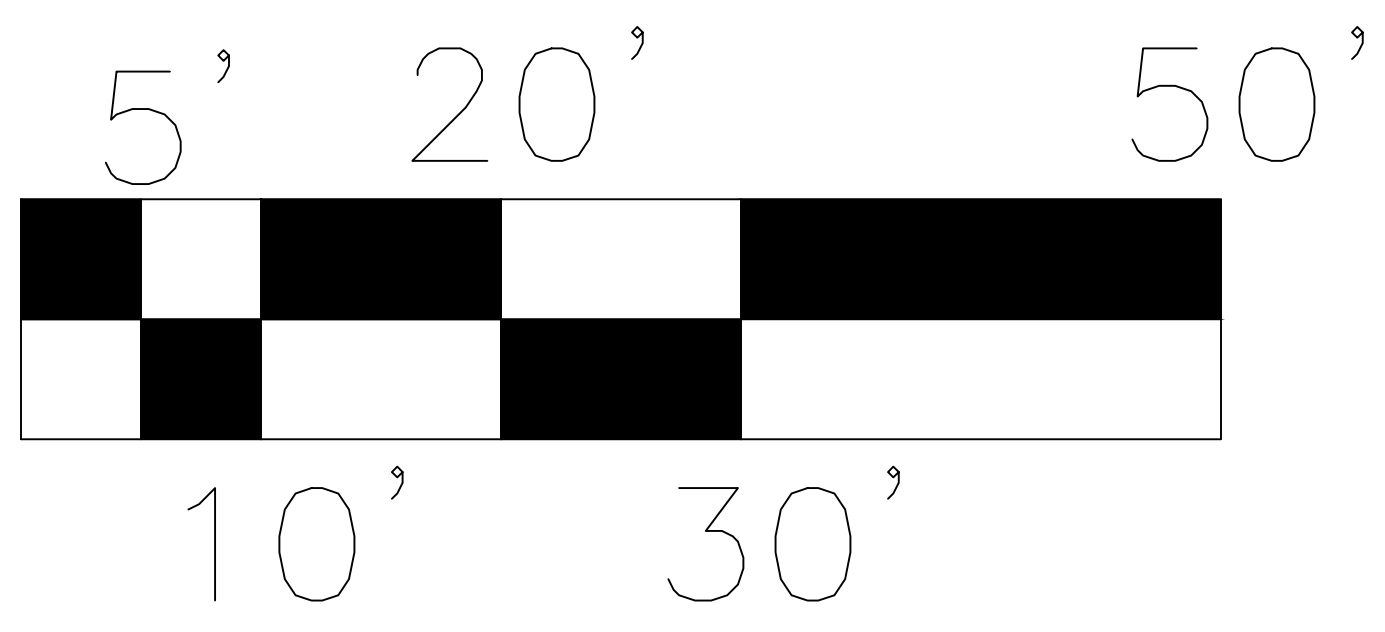
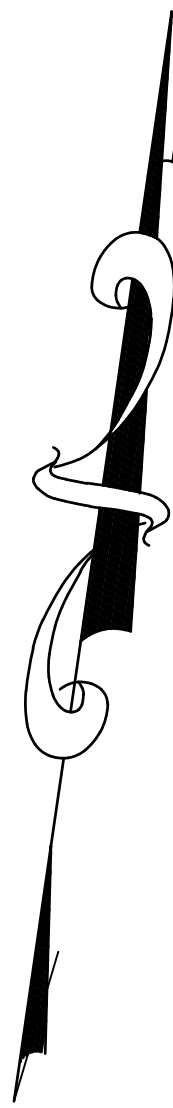
SCALE: 1/8" = 1'

SECOND FLOOR

A-102



A-103 THIRD FLOOR PLAN
1/8"=1'



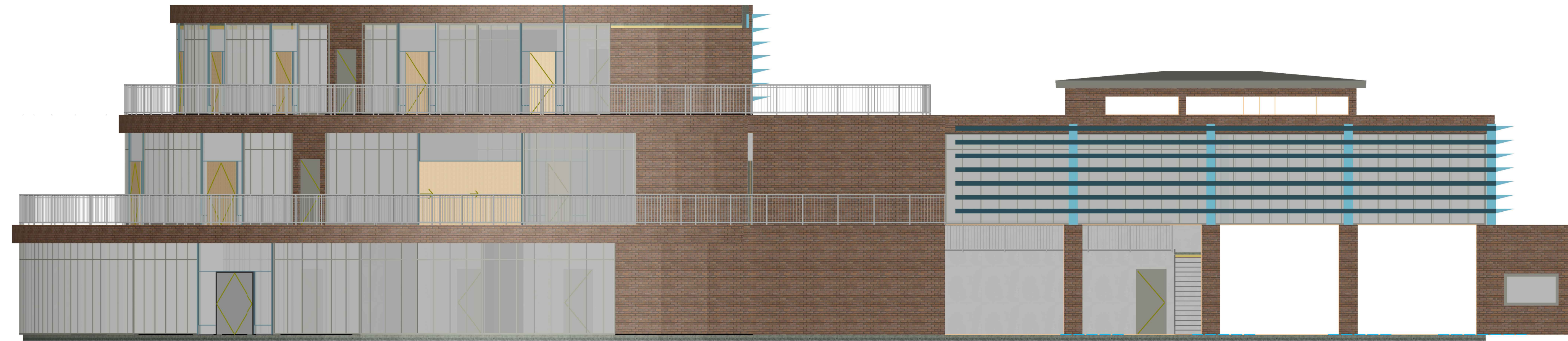
GEN. NOTES
 -SMALL ROOF ON TOP OF APPARATUS BAY ALLOWS HOT AIR FLOW CIRCULATION.
 -HORIZONTAL PANELS ARE USED FOR PRIVACY AND SUN DEFLECTION.

FIRE HOUSE
 FINAL
 PROJECT

SCALE: 1/8"=1'

THIRD FLOOR

A-103



PRODUCED BY AN AUTODESK STUDENT VERSION

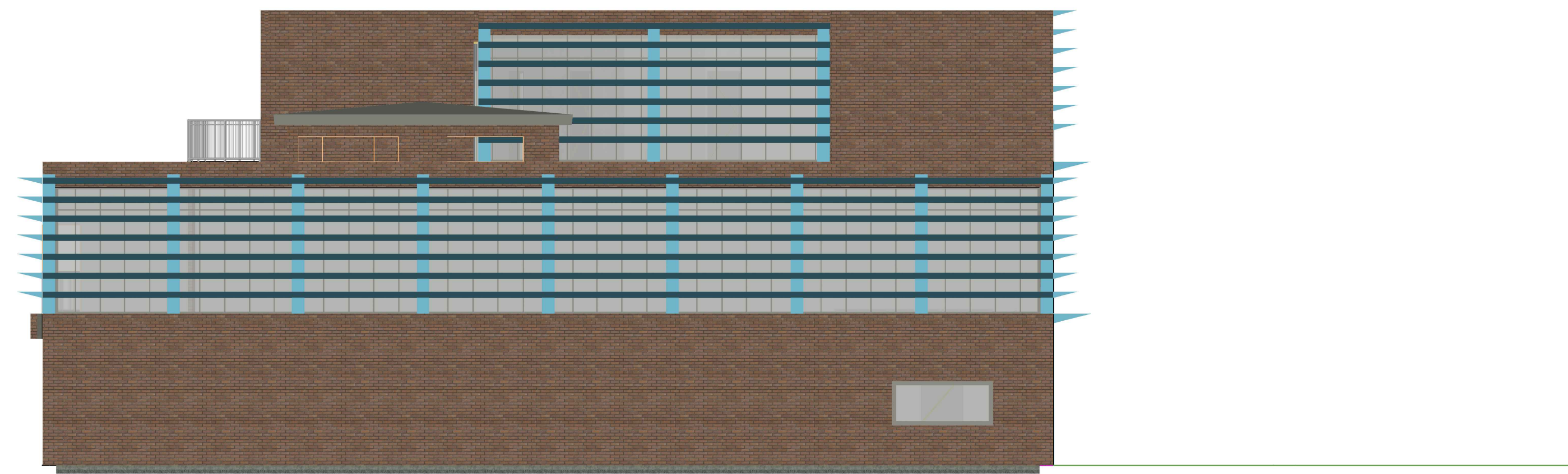
PRODUCED BY AN AUTODESK STUDENT VERSION

FIRE HOUSE
FINAL
PROJECT

SCALE: 1/8" = 1'

WEST ELEV.

A-104

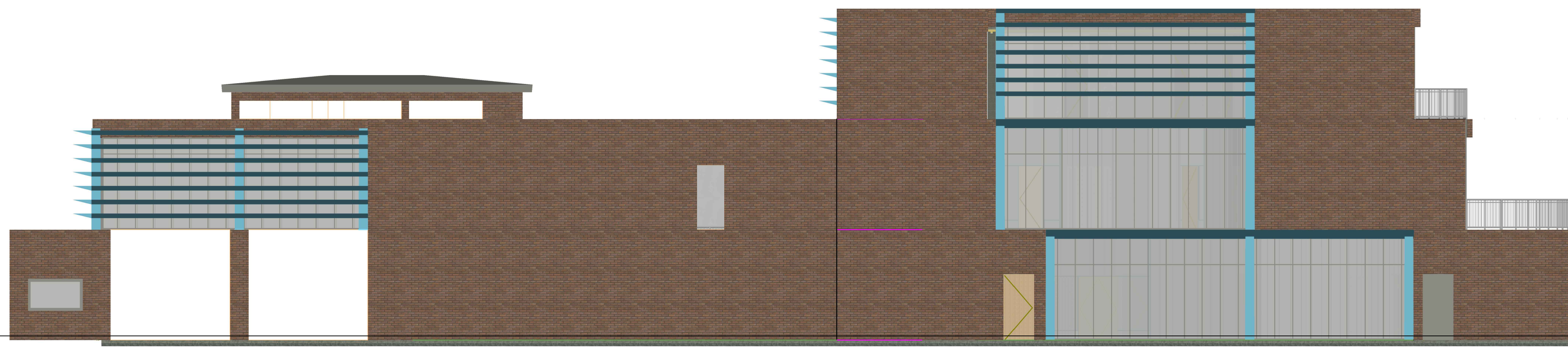


FIRE HOUSE
FINAL
PROJECT

SCALE: 1/8" = 1'

SOUTH ELEV.

A-105



PRODUCED BY AN AUTODESK STUDENT VERSION

PRODUCED BY AN AUTODESK STUDENT VERSION

FIRE HOUSE
 FINAL
 PROJECT

SCALE: 1/8" = 1'

EAST ELEV.

A-106

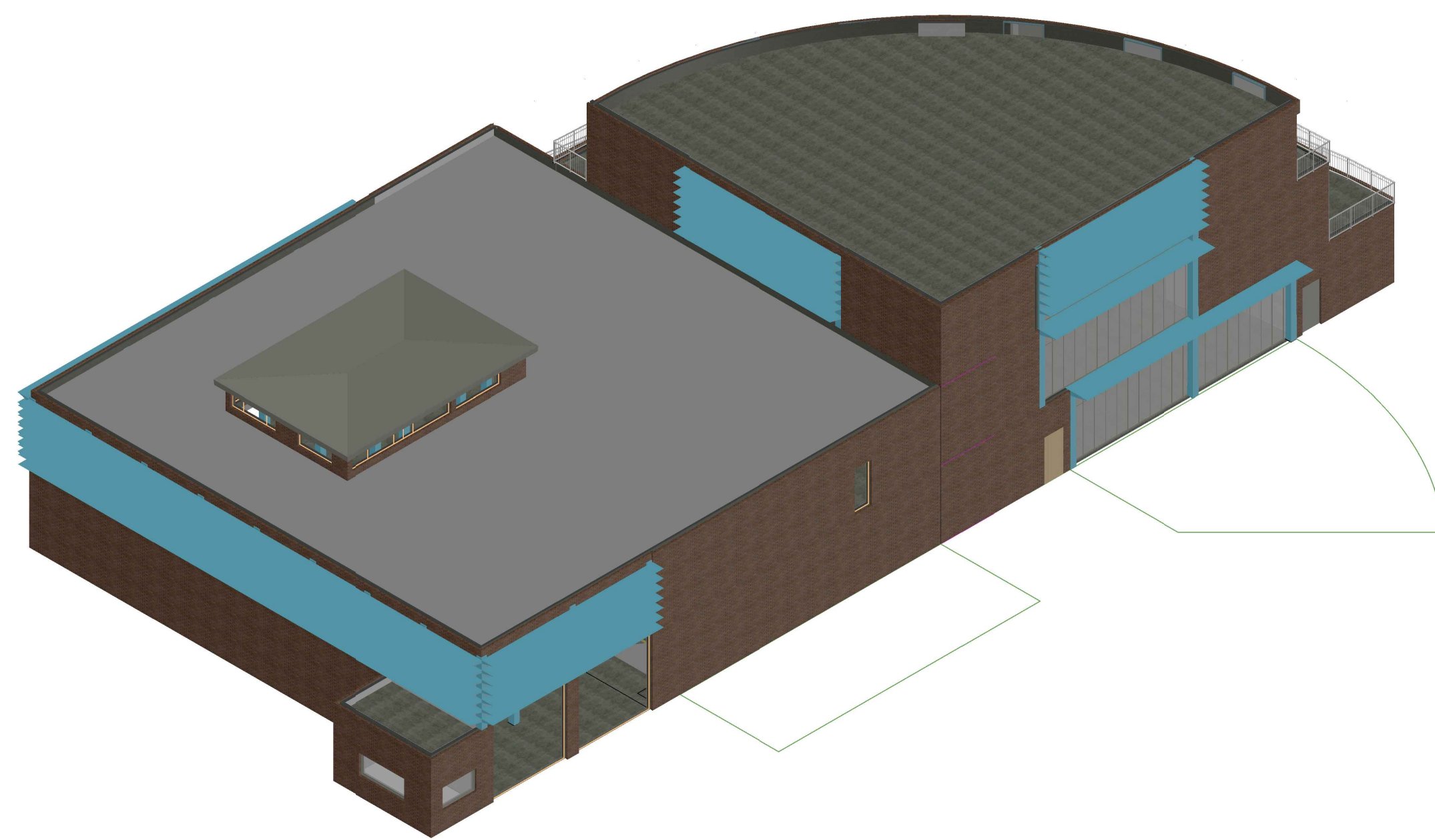
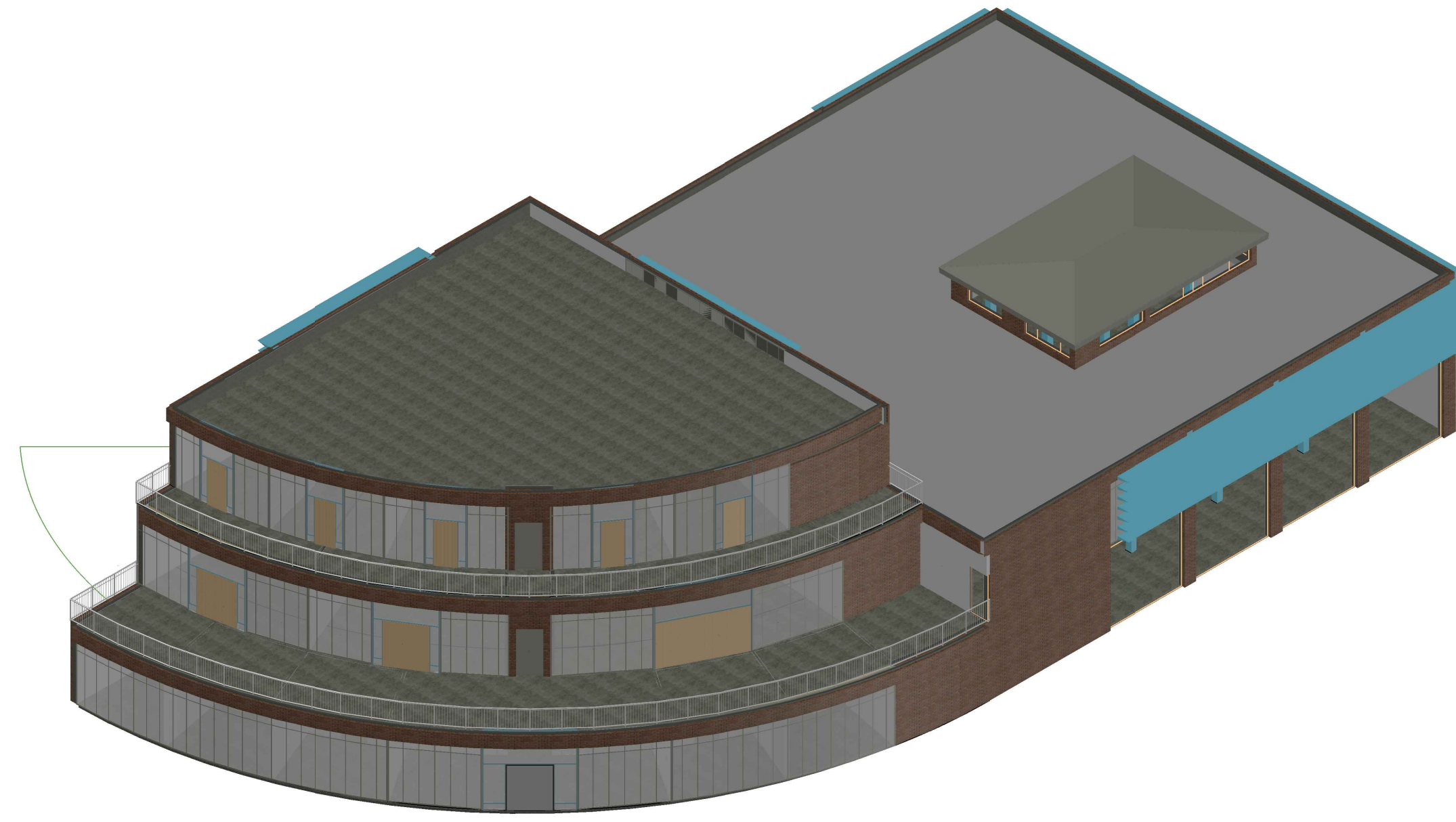


FIRE HOUSE
 FINAL
 PROJECT

SCALE: 1/8" = 1'

NORTH ELEV.

A-107



FIRE HOUSE
FINAL
PROJECT

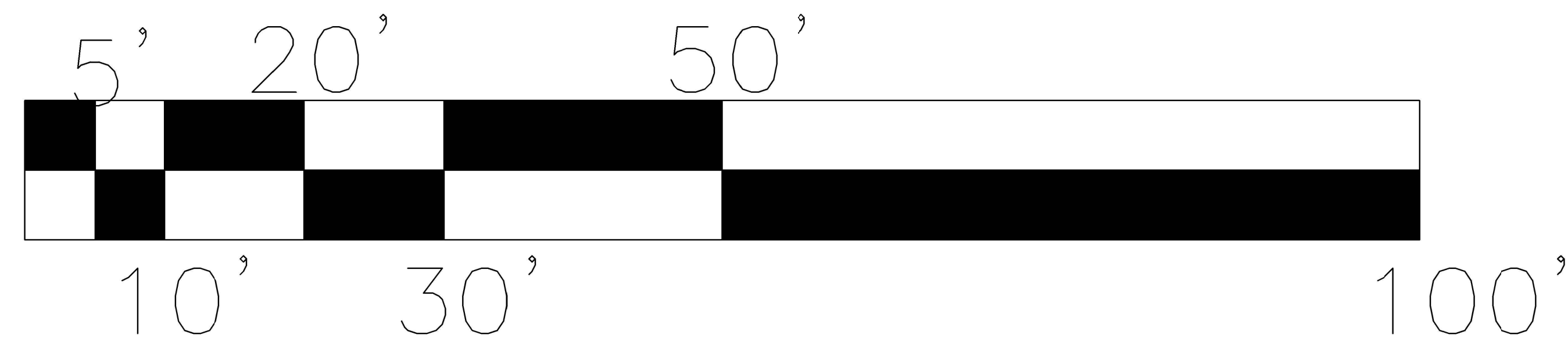
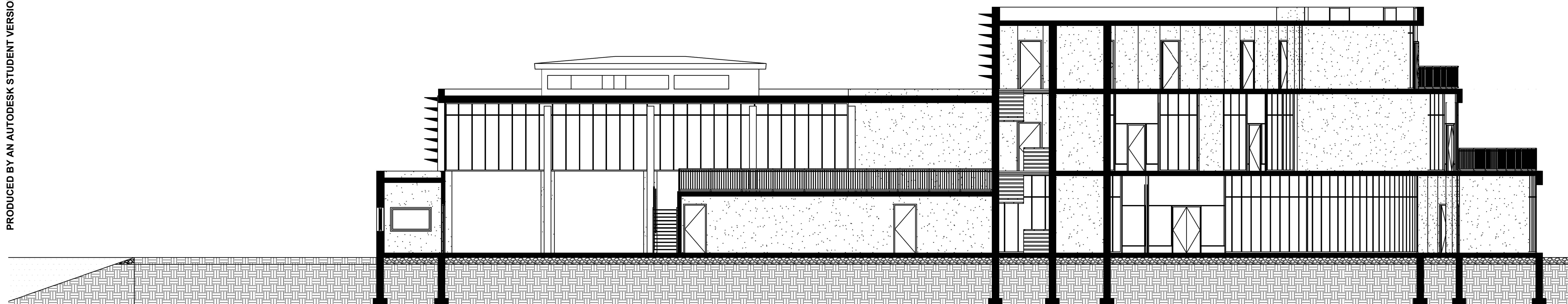
SCALE: 1/16" = 1'

ISOMETRIC

A-108

PRODUCED BY AN AUTODESK STUDENT VERSION

PRODUCED BY AN AUTODESK STUDENT VERSION



FIRE HOUSE
FINAL
PROJECT

SCALE: 1/8" = 1'

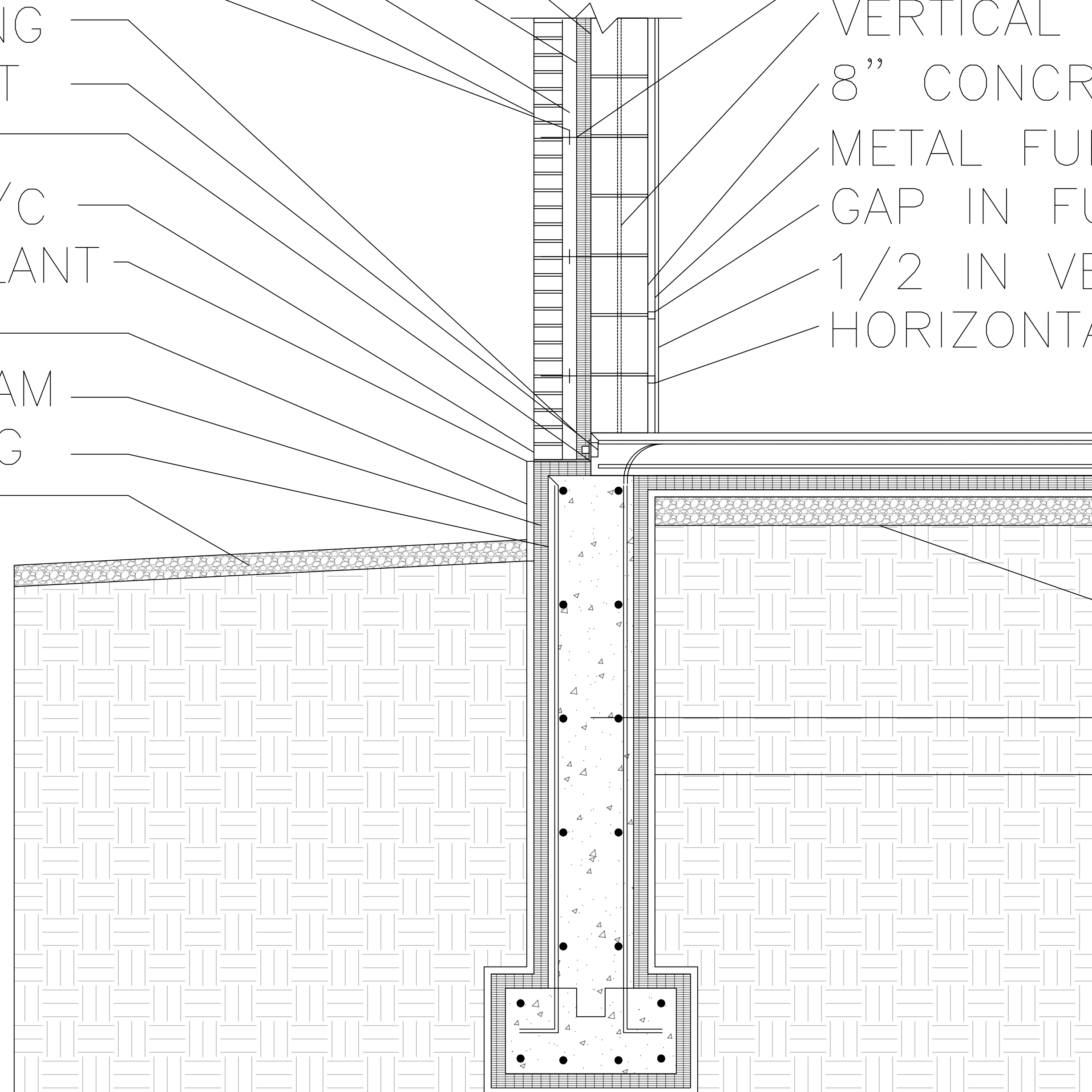
SITE SECT.

A-109

GEN. NOTES
GENERAL APPARATUS
BAY WALL

PRODUCED BY AN AUTODESK STUDENT VERSION

FLUID APPLIED MASTIC
 AIR AND WATER BARRIER
 2" POLYSTYRENE FOAM
 2" CAVITY
 BRICK VENEER
 PLASTIC CUPS
 CONTINUOUS FLASHING
 WEDGE ANCHOR BOLT
 SHELF ANGLE
 WEEP HOLES 16" O/C
 BOND BREAKER SEALANT
 LATH AND STUCCO
 2" POLYSTYRENE FOAM
 WATERPROOF COATING
 GRADE



JOINT REINFORCEMENT
 VERTICAL REINFORCEMENT
 8" CONCRETE MASONRY
 METAL FURRING 16" O/C
 GAP IN FURRING FOR CONDUIT
 1/2 IN VENEER BASE AND PLASTER
 HORIZONTAL FURRING CHANNEL

GRAVEL
 BASEMENT WALL
 DRAINAGE PANEL

PRODUCED BY AN AUTODESK STUDENT VERSION

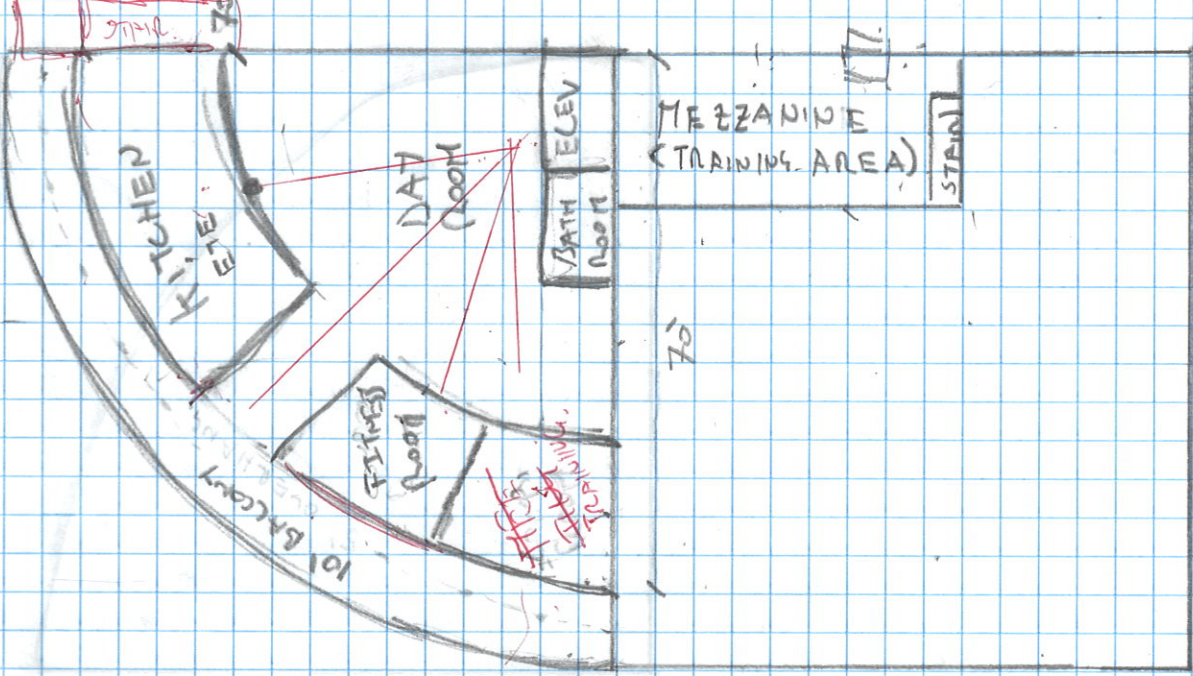
FIRE HOUSE
FINAL
PROJECT

SCALE: 1" = 1'

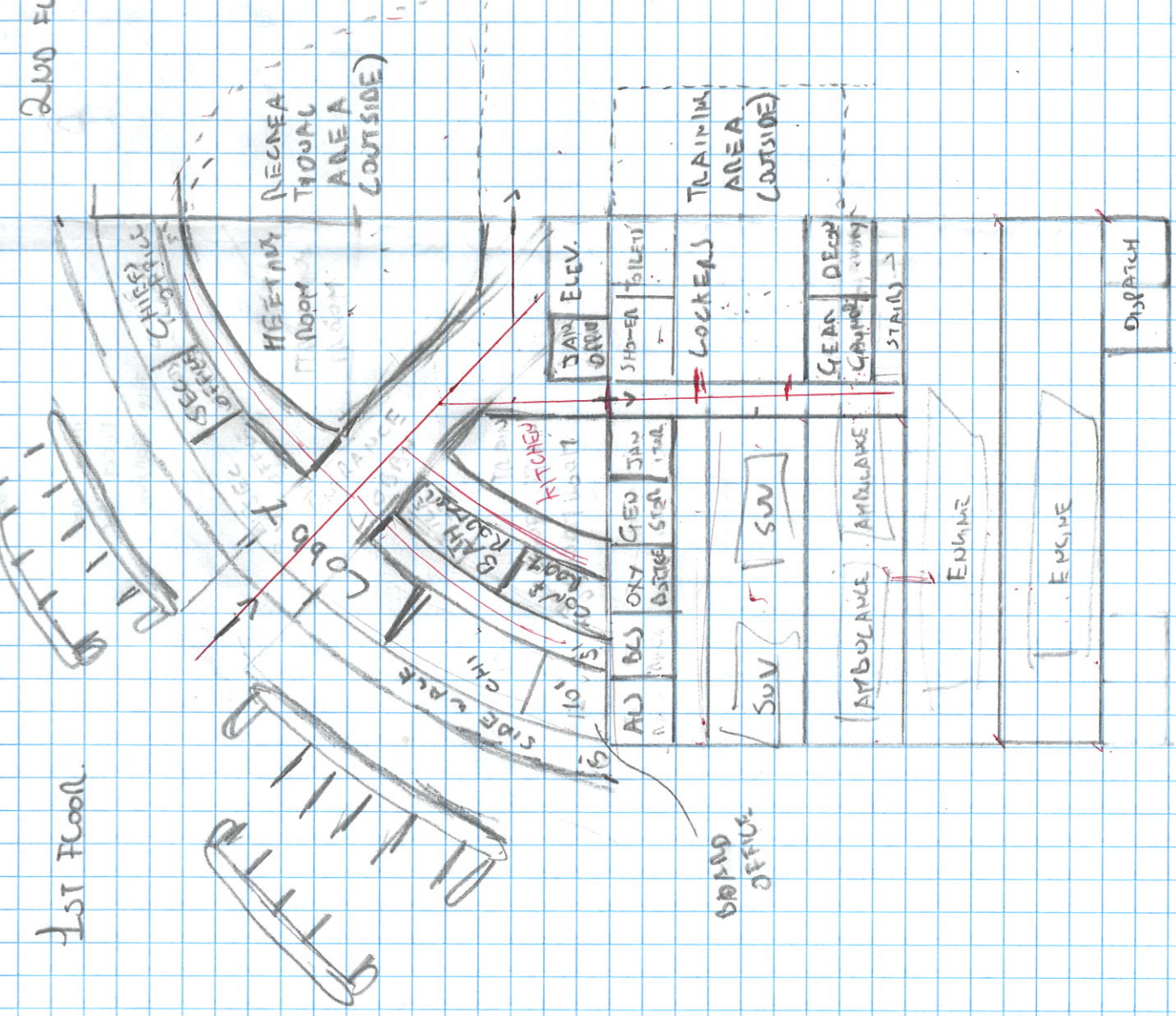
SECTION DETAIL

A-110

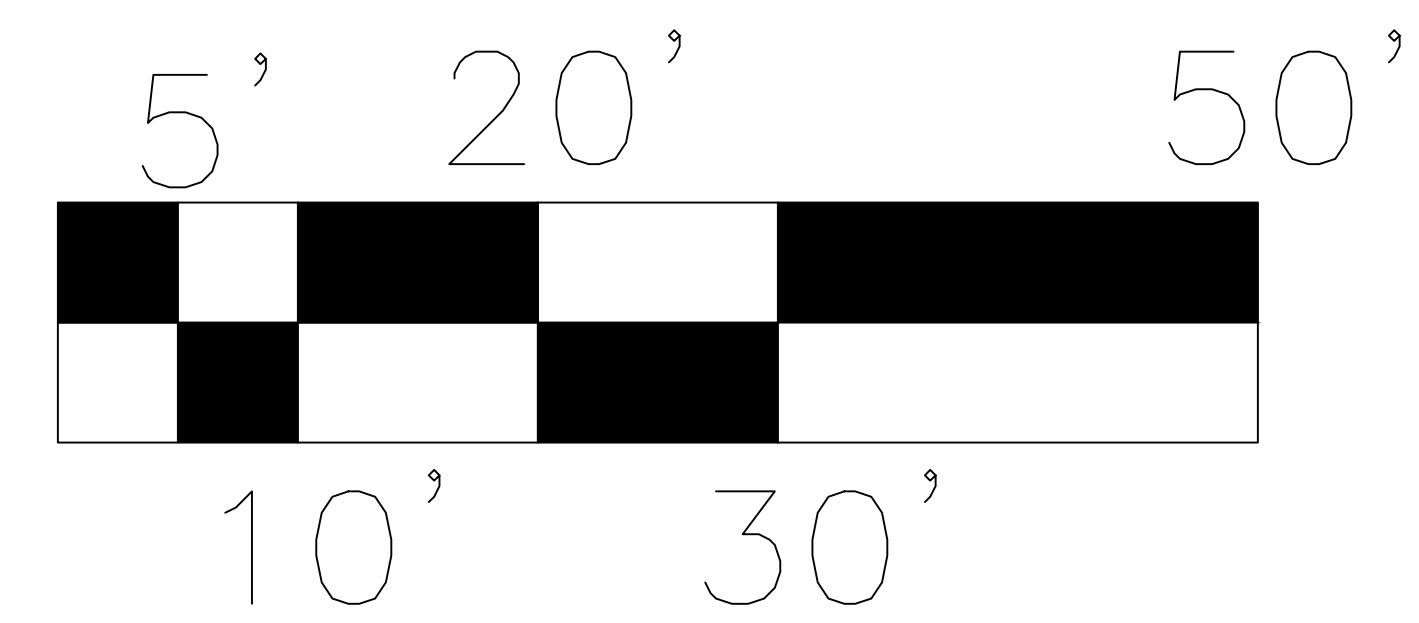
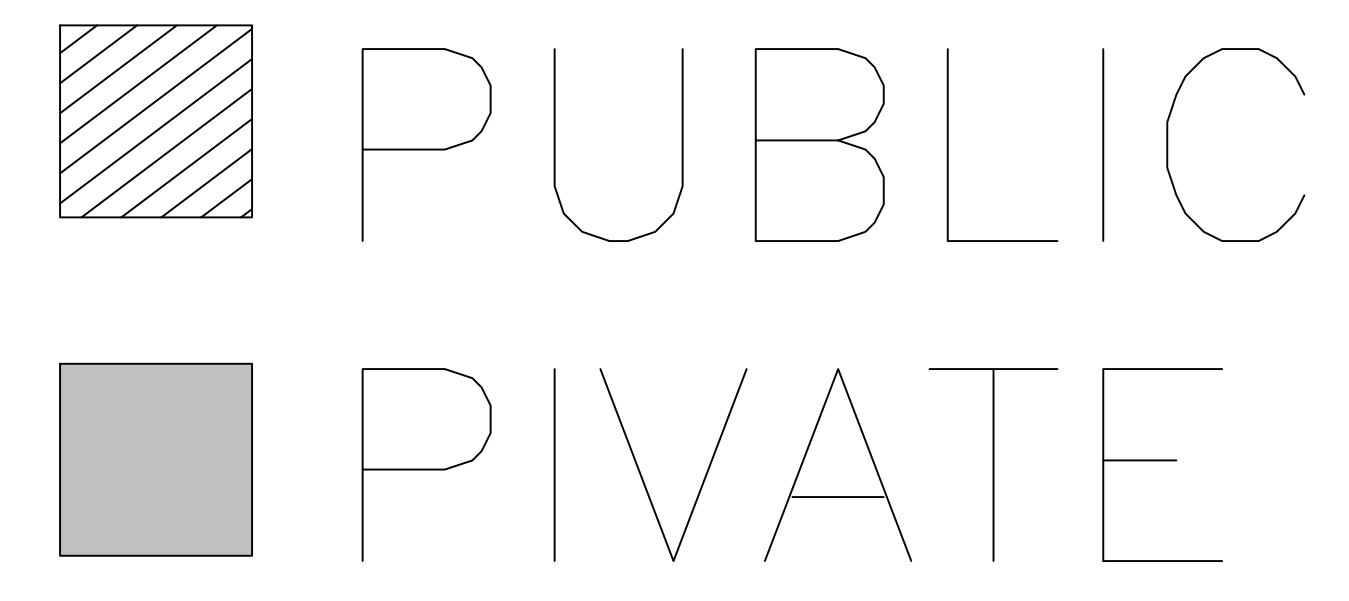
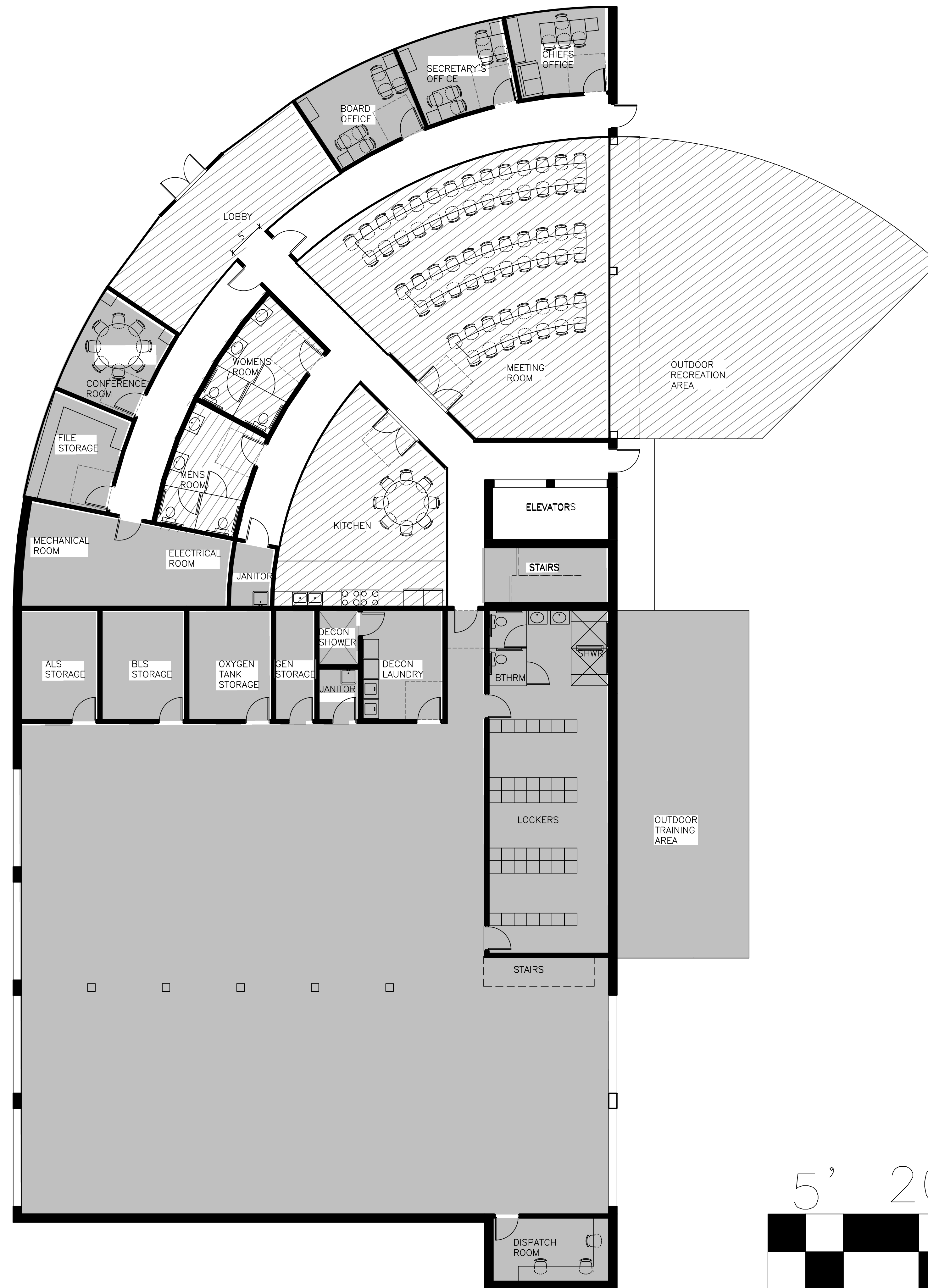
2nd Floor



1st Floor



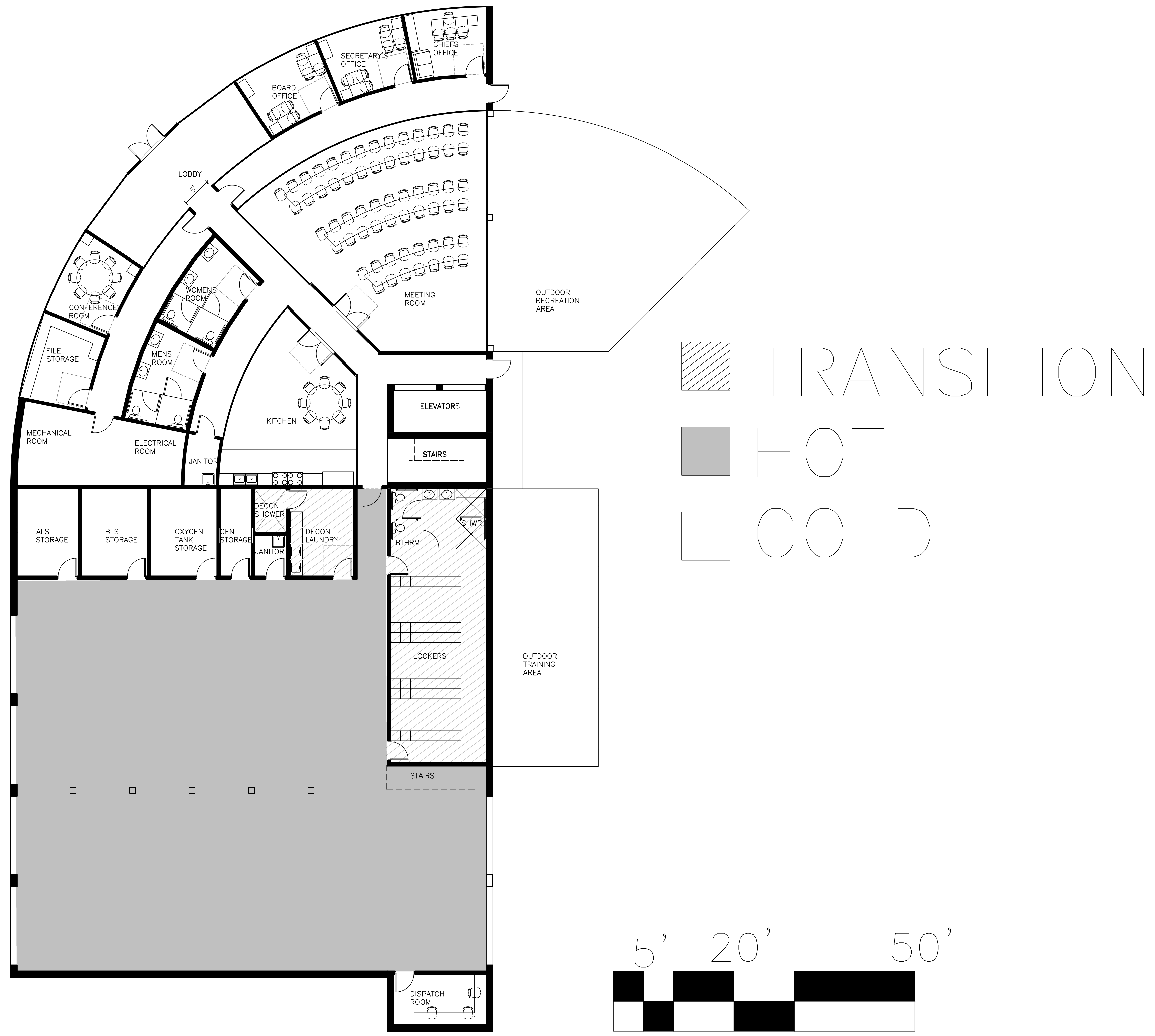
BRAD
BEFUG



FIRE HOUSE
FINAL
PROJECT

SCALE: 1/8" = 1'

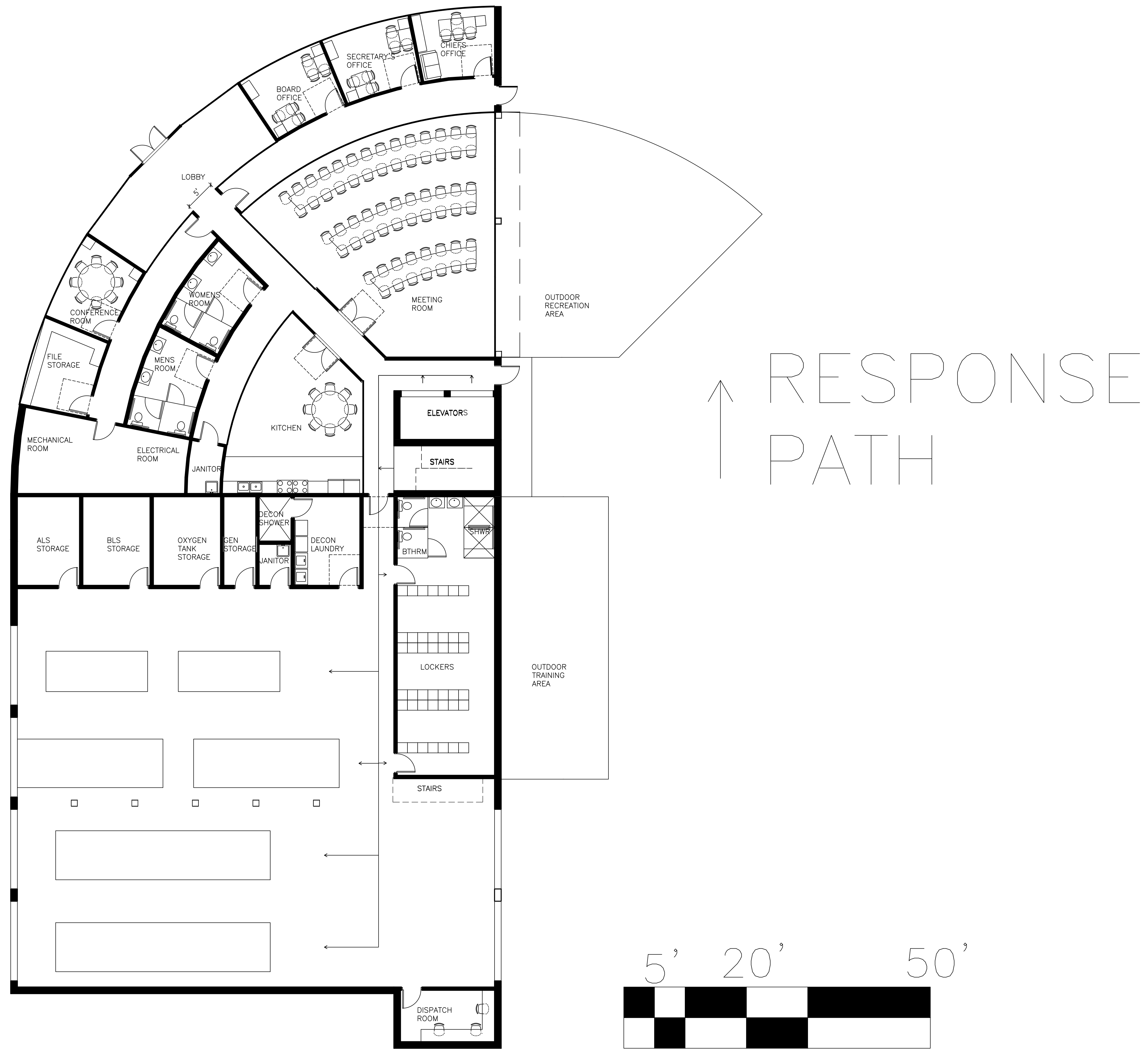
PUBLIC VS
PRIVATE



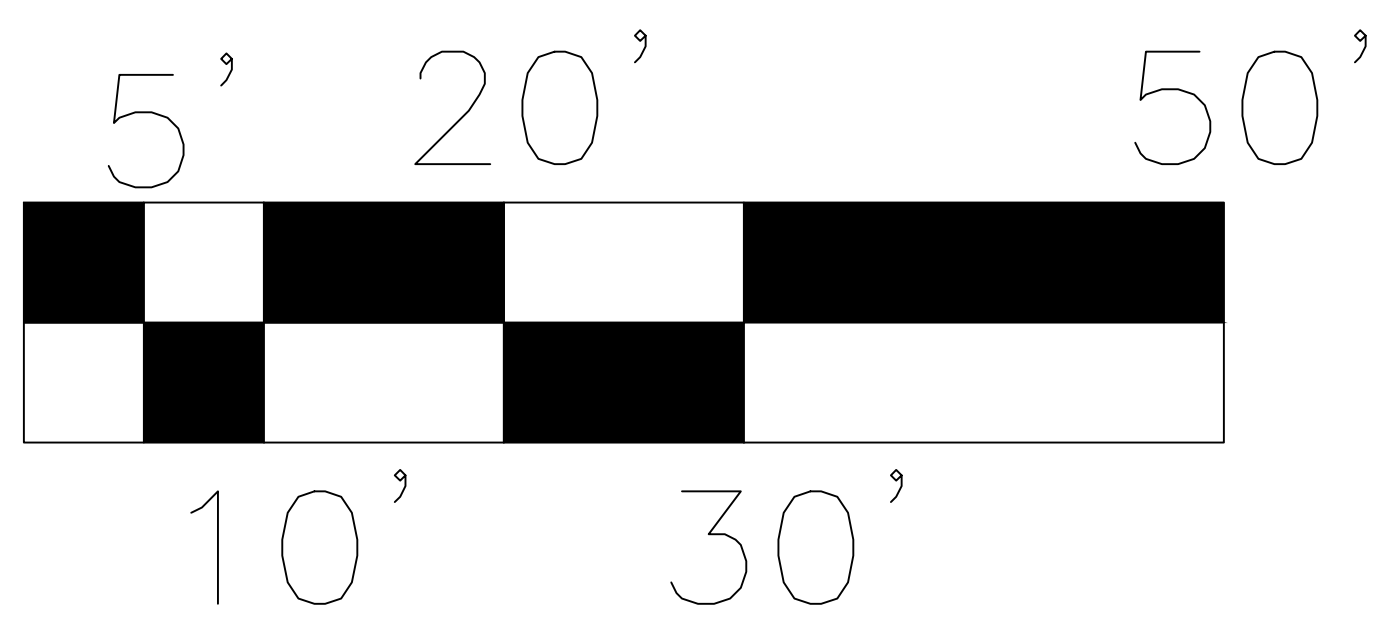
PRODUCED BY AN AUTODESK STUDENT VERSION

PRODUCED BY AN AUTODESK STUDENT VERSION

FIRE HOUSE
 FINAL
 PROJECT
 SCALE: 1/8" = 1'
 HOT / COLD
 TRANSITION



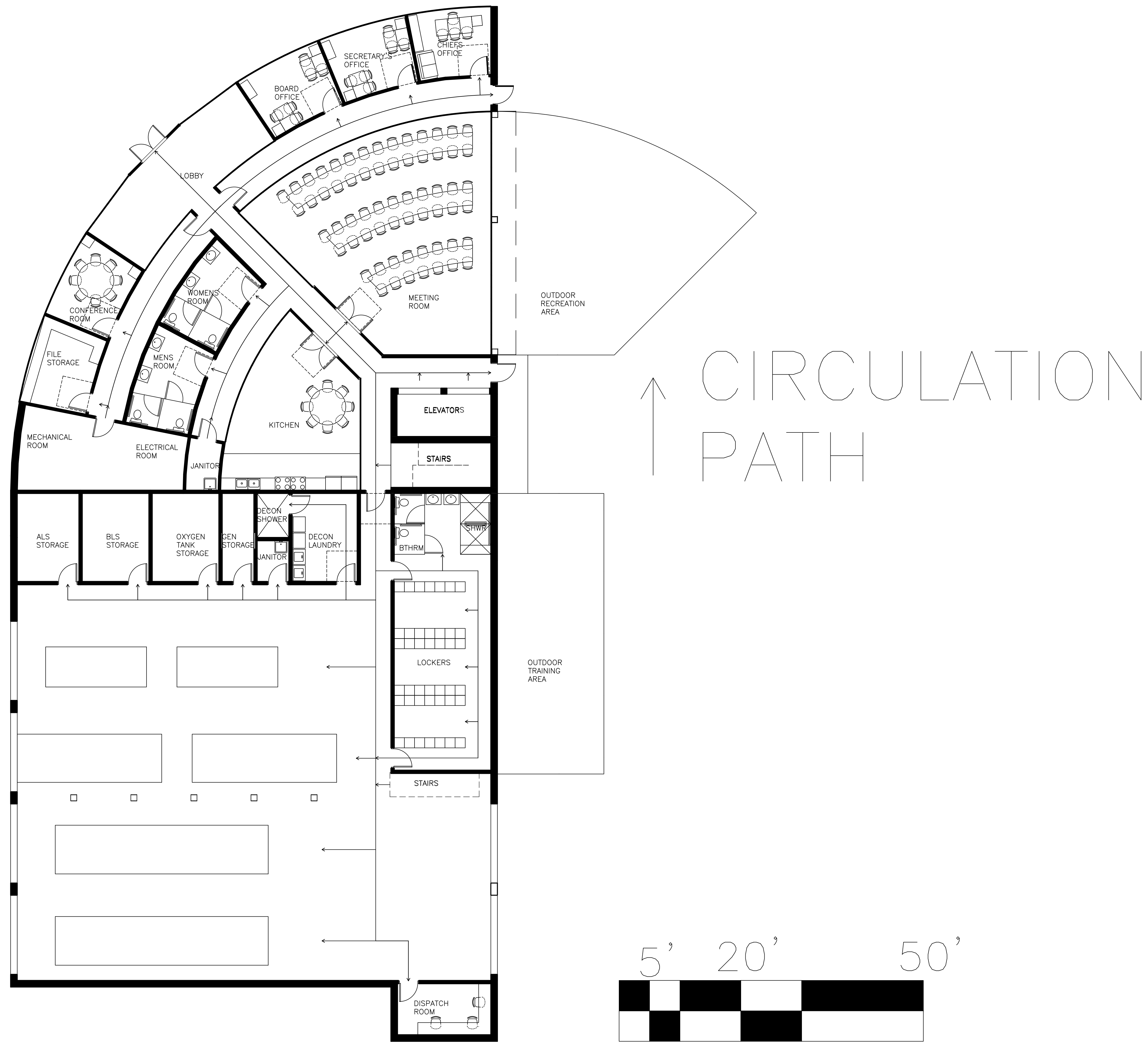
↑ RESPONSE
PATH



FIRE HOUSE
FINAL
PROJECT

SCALE: 1/8" = 1'

RESPONSE
PATH



PRODUCED BY AN AUTODESK STUDENT VERSION

PRODUCED BY AN AUTODESK STUDENT VERSION

FIRE HOUSE
 FINAL
 PROJECT
 SCALE: 1/8" = 1'
 CIRCULATION
 FIRST FLOOR