

2024

Art & Architecture

# Portfolio



*Meaghan Fitzgerald*

01

## Pueblo County Library Branches Renovations & Additions

Professional Project | HBM Architects

02

## Elementary School Renovations & Additions

Professional Project | TRIAD Architects

03

## Minerva Park Elementary School

Professional Project | TRIAD Architects

04

## High School Renovations & Additions

Professional Project | TRIAD Architects

05

## Capital Improvements

Professional Project | TRIAD Architects

06

## Residential Buildings

Professional Project | Brandt Architecture & Memmer Homes

07

## Terrace Farms at the Terrace Plaza Hotel

Academic Project | Miami University

08

## Jewelry

Personal Project

# Pueblo County Library Branches Renovations & Additions

## Lucero Branch Library

Location: Pueblo, CO  
Year: 2021 - 2024  
Size: 10,000 SF  
Type: Institutional

*Shown below*

## Barkman Branch Library

Location: Pueblo, CO  
Year: 2022 - 2023  
Size: 10,000 SF  
Type: Institutional

*Shown on the next page*





*Meaghan Fitzgerald*

# Elementary School Renovations & Additions

Location: Westerville, OH

Year: 2019 - 2022

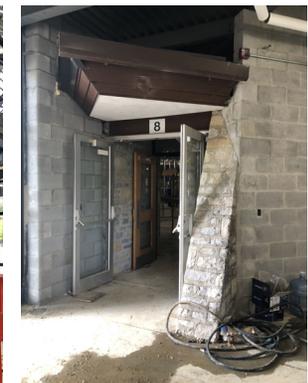
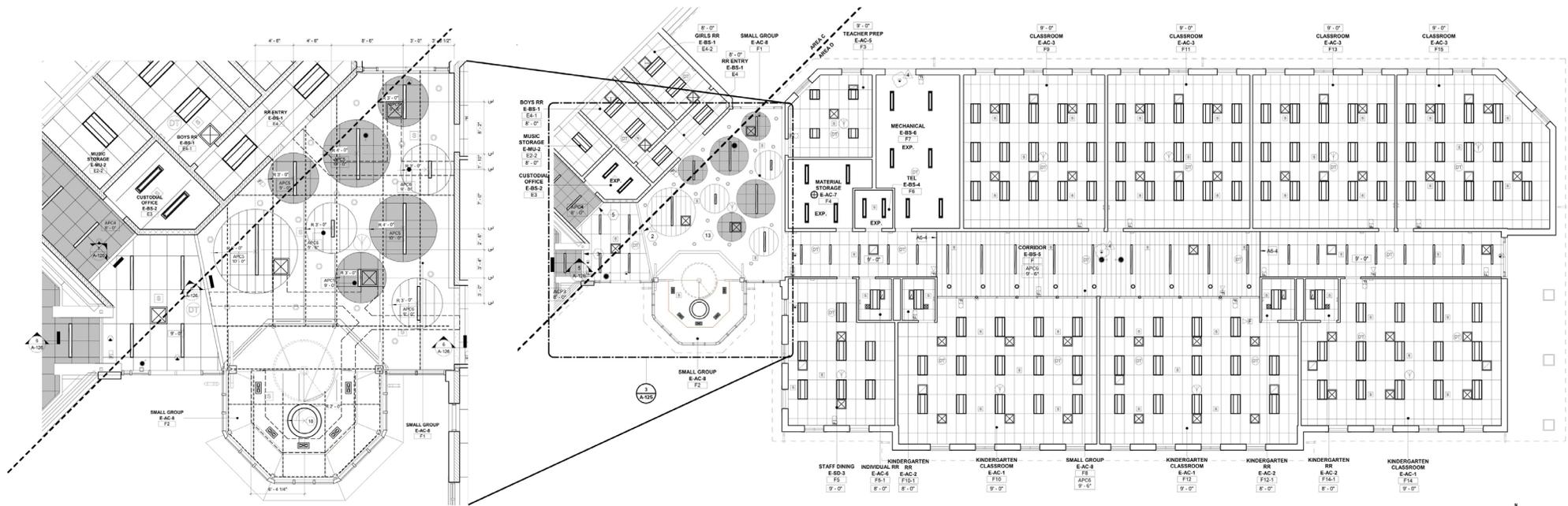
Size: 53,400 SF

Type: Educational

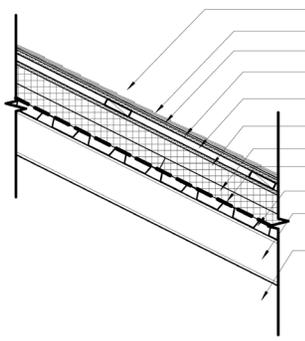


Gained experience from the activities listed below:

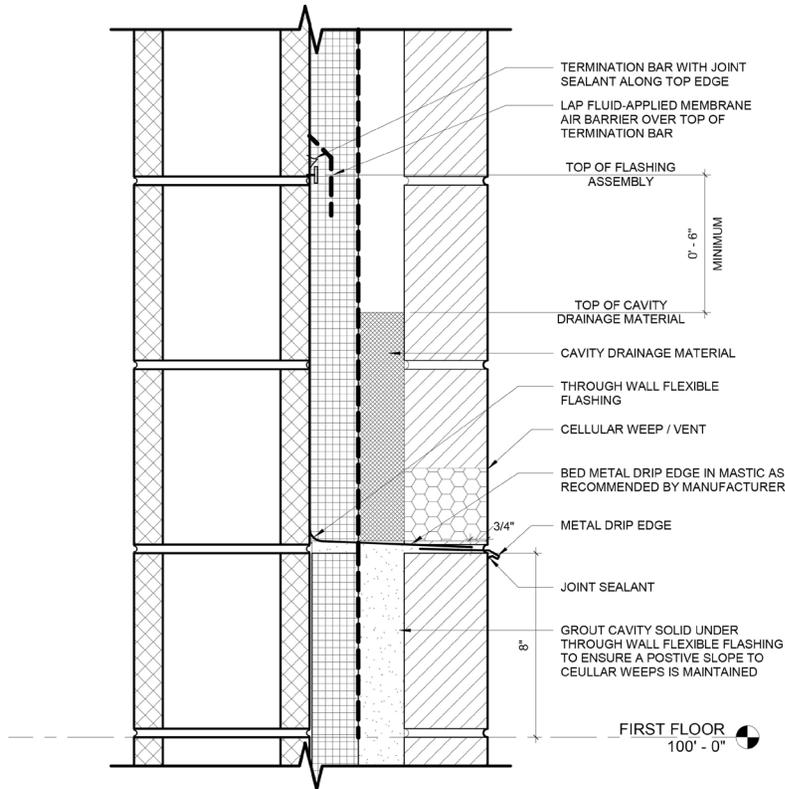
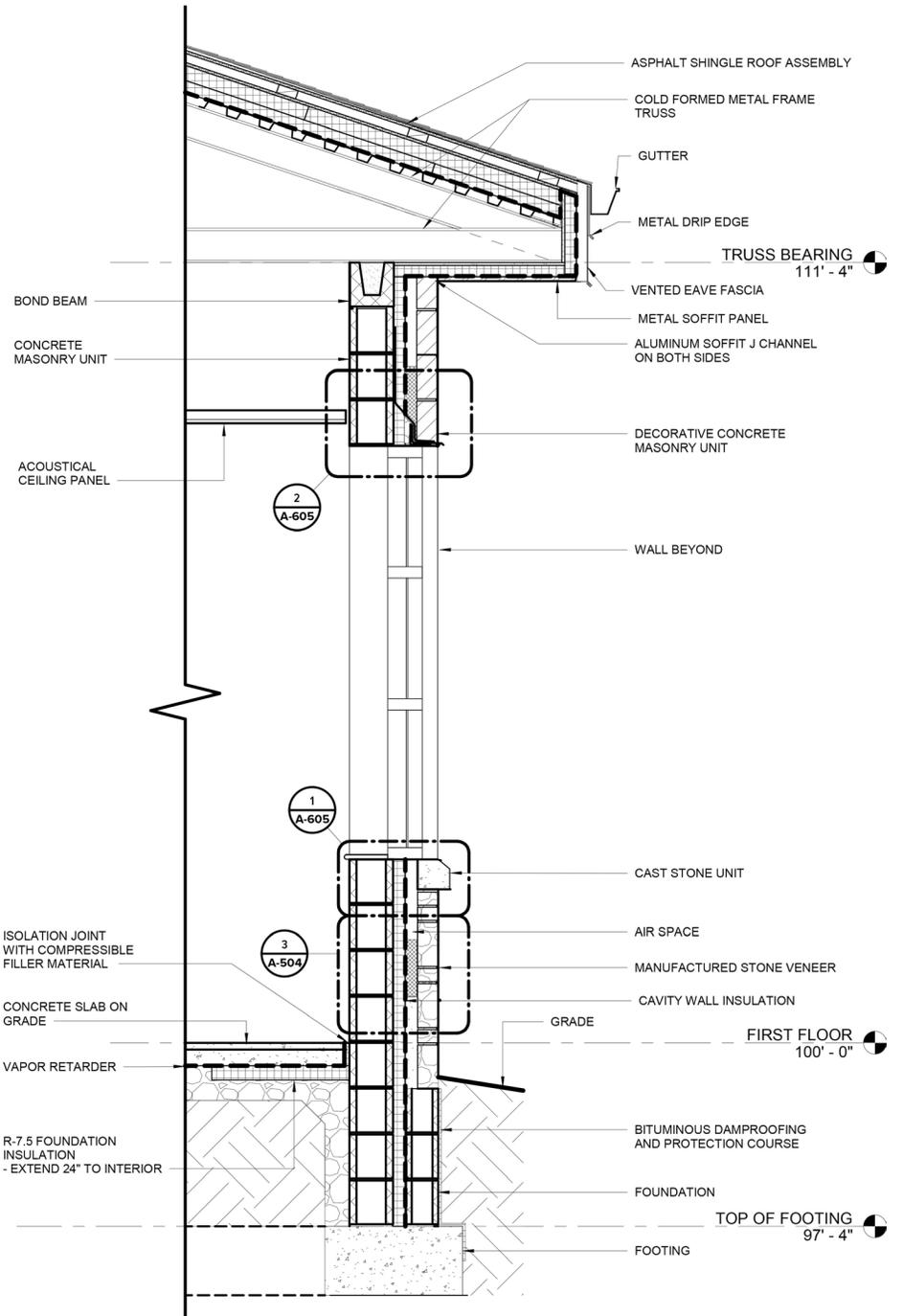
- Prepared final procurement and contract documents
- Assisted in procedures for documenting project decisions
- Participated in per-construction, and regular progress meetings with the team
- Coordinated design intent with consultants
- Managed information exchange from design development through construction documents
- Conducted post bid interview with contractors
- Selected some materials, finishes and systems based on technical properties and aesthetic requirements



### ASPHALT SINGLE ROOF ASSEMBLY

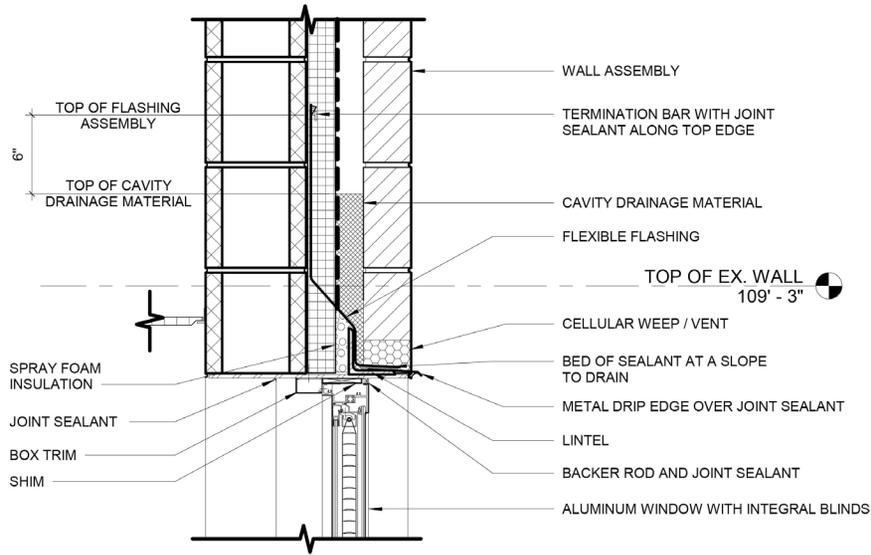


LAYER	R-VALUE
EXTERIOR AIR FILM	0.17
ASPHALT SHINGLES	0.44
UNDERLAYMENT	
1/2" SHEATHING	0.63
1 1/2" AIR SPACE	1.00
2 1/2" NAIL BASE INSULATION	12.0
2" RIGID INSULATION	10.0
AIR BARRIER	
1 1/2" METAL DECK	0.00
6" COLD FORMED METAL FRAME TRUSS	0.93
INTERIOR AIR FILM	0.68
<b>TOTAL R-VALUE</b>	<b>25.85</b>
<b>U-VALUE (1/R)</b>	<b>0.038</b>
ASHRAE STANDARD 90.1-2010	R-20 C.I. (INSULATION ABOVE DECK)

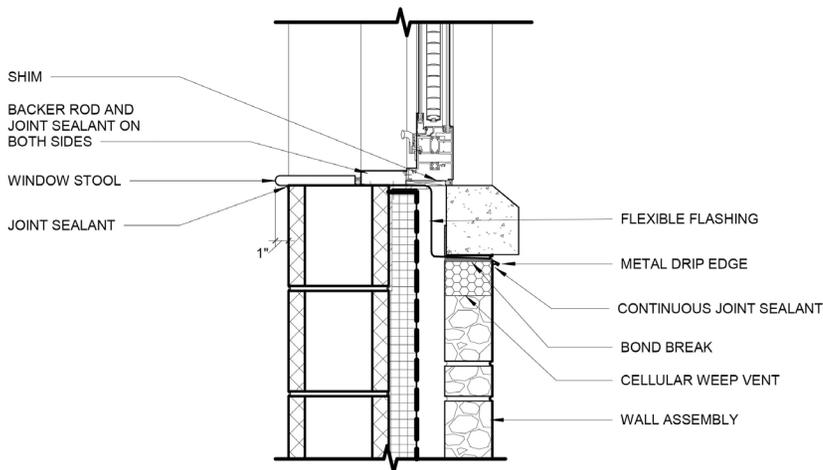


3 TYPICAL THROUGH WALL FLASHING  
3" = 1'-0"

3 WALL SECTION  
3/4" = 1'-0"



② WINDOW HEAD  
1 1/2" = 1'-0"



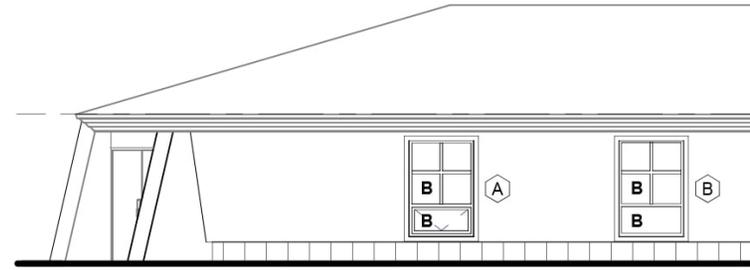
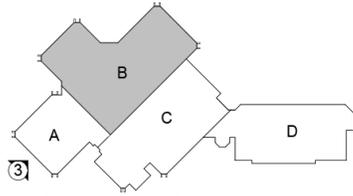
① WINDOW SILL  
1 1/2" = 1'-0"

### DECORATIVE CMU ON CFMF WALL ASSEMBLY

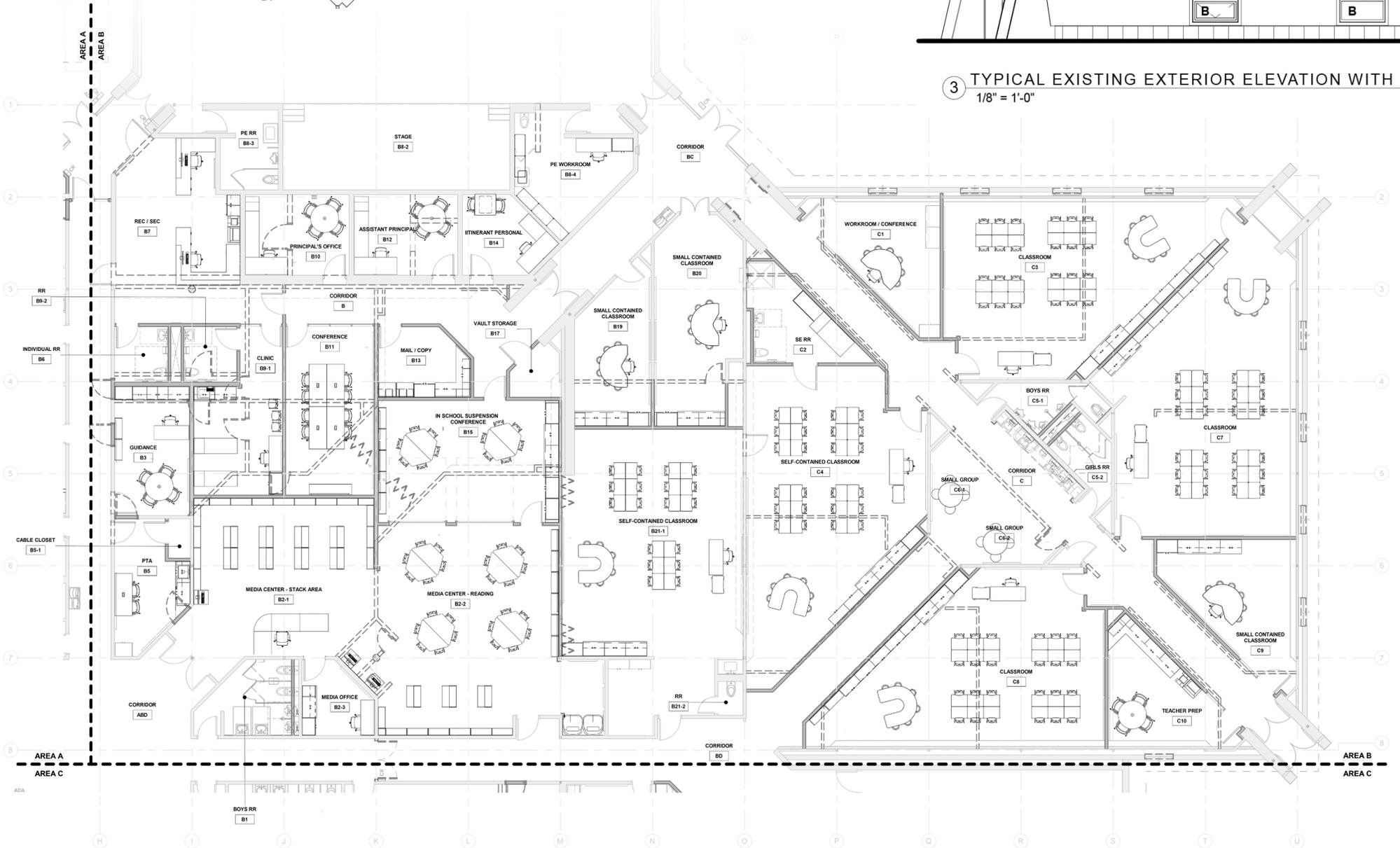
LAYER	R-VALUE
INTERIOR AIR FILM	0.68
5/8" GYPSUM BOARD	0.56
6" COLD FORMED METAL FRAME	0.96
3" OPEN CELL SPRAY FOAM	11.1
5/8" WALL SHEATHING	0.56
2 1/2" CAVITY WALL INSULATION (WITH INTEGRATED AIR AND WATER BARRIER)	12.0
2" AIR SPACE	1.00
4" DECORATIVE CONCRETE MASONRY UNIT	0.80
EXTERIOR AIR FILM	0.17
<b>TOTAL R-VALUE</b>	<b>27.83</b>
<b>U-VALUE (1/R)</b>	<b>0.036</b>
<b>ASHRAE STANDARD 90.1-2010</b>	<b>R-13 + R-7.5 C.I. (STEEL FRAMED WALLS)</b>

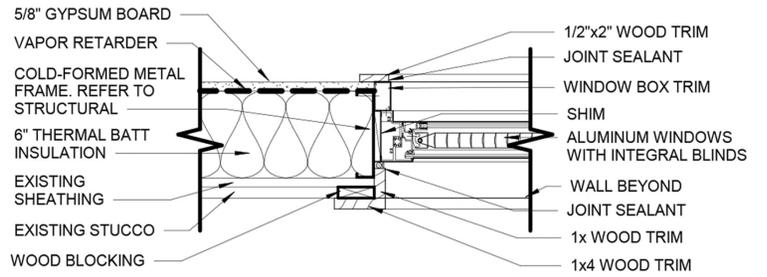
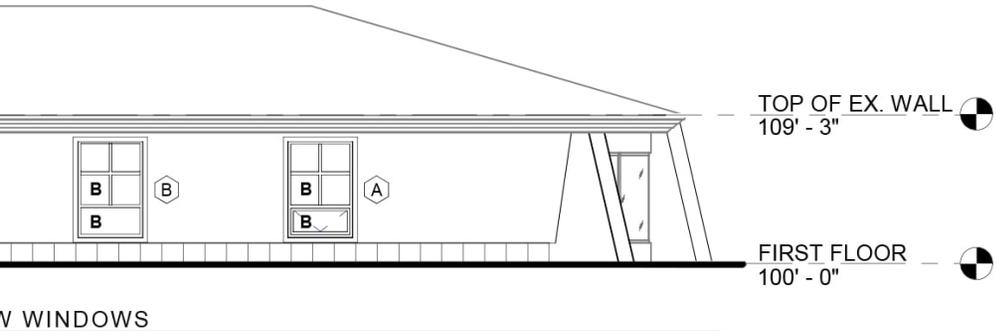
### DECORATIVE CMU ON CMU WALL ASSEMBLY

LAYER	R-VALUE
INTERIOR AIR FILM	0.68
8" CONCRETE MASONRY UNIT	1.11
2 1/8" CAVITY WALL INSULATION (WITH INTERGRATED AIR AND WATER BARRIER)	12.0
2" AIR SPACE	1.00
4" DECORATIVE CONCRETE MASONRY UNIT	0.80
EXTERIOR AIR FILM	0.17
<b>TOTAL R-VALUE</b>	<b>15.76</b>
<b>U-VALUE (1/R)</b>	<b>0.065</b>
<b>ASHRAE STANDARD 90.1-2010</b>	<b>R-11.4 C.I. (MASS WALLS)</b>

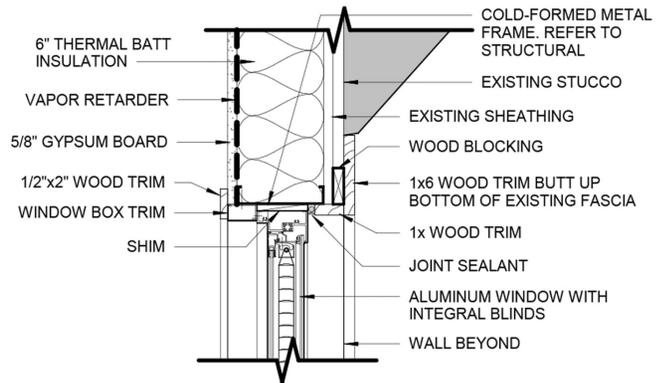
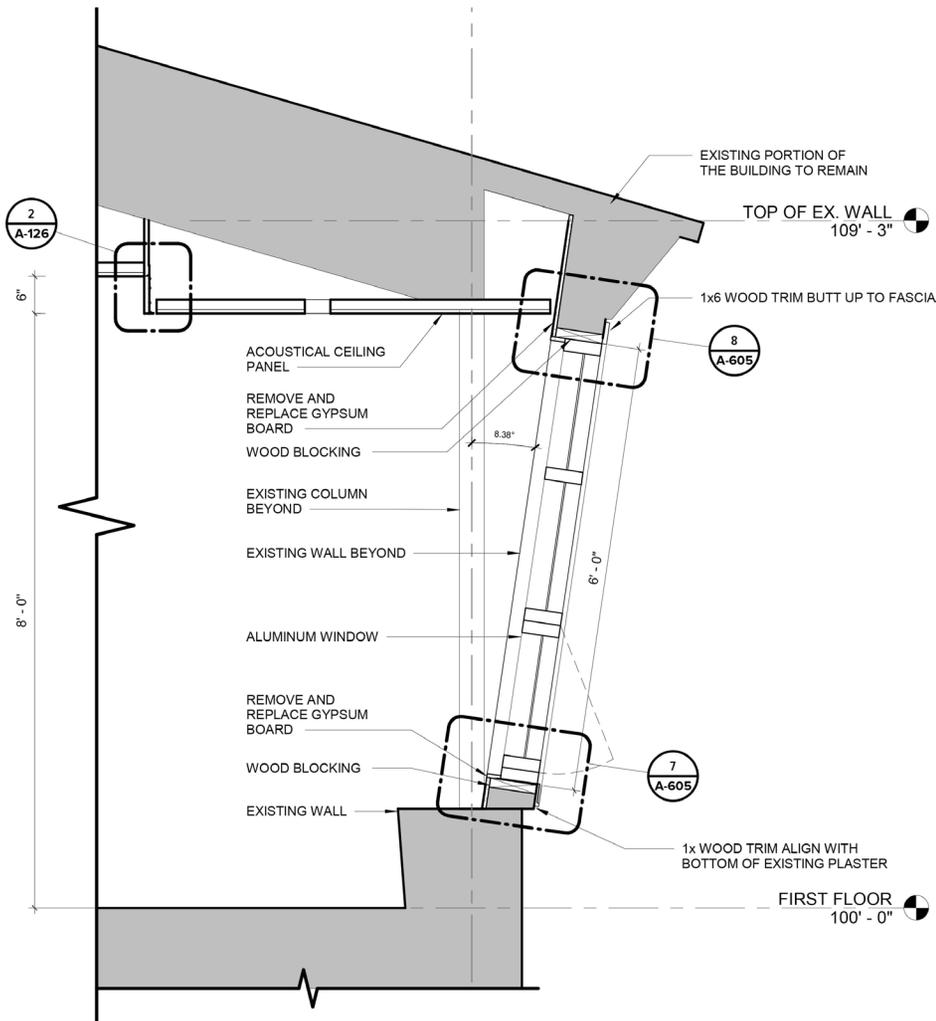


3 TYPICAL EXISTING EXTERIOR ELEVATION WITH NEW  
1/8" = 1'-0"

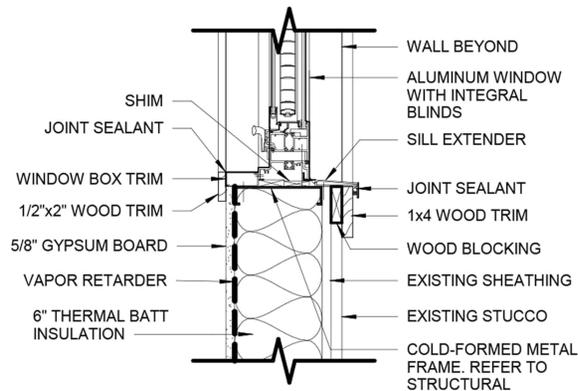




9 TYP. EXISTING WINDOW JAMB DETAIL  
1 1/2" = 1'-0"



8 TYP. EXISTING WINDOW HEAD DETAIL  
1 1/2" = 1'-0"



7 TYP. EXISTING WINDOW SILL DETAIL  
1 1/2" = 1'-0"

# Minerva Park Elementary School

Location: Columbus, OH  
Year: 2019 - 2021  
Size: 68,000 SF  
Type: Educational





*Meaghan Fitzgerald*

**CODE DATA**

**302 USE AND OCCUPANCY CLASSIFICATION:**  
EDUCATIONAL - GROUP F

**423 STORM SHELTERS:**  
KCC 502.11(1) IF 200 H.B.21 (MINIMUM REQUIREMENT OF STORM SHELTER IN ANY PUBLIC OR PRIVATE BUILDING BEING FUNDED PRIOR TO SEPTEMBER 15, 2019)

**504 BUILDING HEIGHT (TABLE 504.3):**  
ALLOWABLE: 75 FT  
ACTUAL: 75 FT

**504 BUILDING STORIES (TABLE 504.4):**  
ALLOWABLE: 3 STORIES  
ACTUAL: 3

**505 MEZZANINES:**  
505.2 MEZZANINES SHALL NOT CONTRIBUTE TO BUILDING AREA OR NUMBER OF STORIES. THE AREA OF THE MEZZANINE SHALL BE INCLUDED IN DETERMINING THE FIRE AREA.  
505.3 MINIMUM CEILING HEIGHT ABOVE AND BELOW: 7'-0"

**506 MEZZANINE AREA LIMITATION:** 10% MAXIMUM AREA OF ROOM LOCATED

**506 BUILDING AREA (TABLE 506.2):**  
AS NOTED ON FIRST FLOOR AREA PLAN  
ALLOWABLE BUILDING AREA: 58,000 SQ FT

**509 CONSTRUCTION CLASSIFICATION:** TYPE II B  
FIRE RESISTANCE RATED CONSTRUCTION (TABLE 601)

**602 CONSTRUCTION CLASSIFICATION:** TYPE II B  
FIRE RESISTANCE RATED CONSTRUCTION (TABLE 601)  
PRIMARY STRUCTURAL FRAME: 0 HOUR  
BEARING WALLS - EXTERIOR: 0 HOUR  
BEARING WALLS - INTERIOR: 0 HOUR  
NON-BEARING WALLS - EXTERIOR: 0 HOUR  
NON-BEARING WALLS - INTERIOR: 0 HOUR  
FLOOR & SECONDARY MEMBERS: 0 HOUR  
ROOF & SECONDARY MEMBERS: 0 HOUR

**603 COMBUSTIBLE MATERIAL IN TYPES I AND II CONSTRUCTION:**  
ALLOWED IN ACCORDANCE WITH 603.1 THROUGH 603.3

**706 EXTERIOR WALLS:**  
706.2 PROJECTIONS TO BE OF NON-COMBUSTIBLE CONSTRUCTION  
706.3 EXCEPTION 1: UNLIMITED UNPROTECTED OPENINGS

**707 FIRE BARRIERS:**  
707.3.4 EXIT PASSAGEWAY (1024.3): N/A  
707.3.5 HORIZONTAL EXIT: N/A  
707.3.7 INCIDENTAL USES: N/A  
707.3.8 EXCEPTION 2: SUPPORTING CONSTRUCTION: 0 HOUR

**708 FIRE PARTITIONS:**  
CORRIDOR WALLS (TABLE 1020.1): 0 HOUR

**714 PENETRATIONS:**  
FIRE RESISTANCE RATED WALL OPENINGS / PENETRATIONS SHALL HAVE DAMPERS OR COMPLY WITH 714.2 THROUGH 714.3.3  
714.4 HORIZONTAL ASSEMBLIES  
ALL PENETRATIONS THROUGH THE FLOOR SHALL BE SEALED TO PREVENT THE PASSAGE OF SMOKE AND HOT GASES PER ASTM E19 OR UL 182

**903 AUTOMATIC SPRINKLER SYSTEM:**  
903.1.3 AUTOMATIC SPRINKLER SYSTEM REQUIRED  
903.1.1 NFPA 13 INSTALLATION REQUIRED

**906 PORTABLE FIRE EXTINGUISHERS:**  
MINIMUM RATED SINGLE EXTINGUISHER: 2-A  
MAXIMUM TRAVEL DISTANCE TO EXTINGUISHER: 75 FT  
MAXIMUM FLOOR AREA FOR EXTINGUISHER: 11,250 SF

**907 FIRE ALARM AND DETECTION SYSTEMS:**  
907.2.3 FIRE ALARM WITH EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM IN ACCORDANCE WITH 907.5.2.2 AND 907.5  
907.5.2.2 EMERGENCY VOICE/ALARM COMMUNICATION IN ACCORDANCE WITH NFPA 72

**916.1 EMERGENCY RESPONDER RADIO COVERAGE** IN ACCORDANCE WITH SECTION 510 OF THE FIRE CODE

**1003 GENERAL MEANS OF EGRESS:**  
1003.2 MINIMUM CEILING HEIGHT: 7'-0"  
1003.3 PROTRUDING OBJECTS  
HEADROOM: 80" MIN  
DOOR CLOSERS AND STOPS: 78"  
PROTRUDING OBJECTS BELOW 80": 27" MAXIMUM HIGH BARRIER  
HORIZONTAL PROJECTIONS: 4"  
1003.4 HANDRAIL PROTRUDING: 4" & 10" MAXIMUM. PROTRUDING OBJECTS SHALL NOT REDUCE MINIMUM CLEAR WIDTH.  
1003.5 ELEVATION CHANGE: RAMPS, FLOOR MATERIALS, AND HANDRAILS IN ACCORDANCE WITH 1003.5

**1004 OCCUPANT LOAD:**  
AS NOTED ON LIFE SAFETY PLANS & SIGNAGE PLANS  
1004.1 CUMULATIVE OCCUPANT LOAD  
1004.2 POSTING OF OCCUPANT LOAD ASSEMBLY OCCUPANCY

**1005 MEANS OF EGRESS SIZING:**  
STAIRWAYS: 0.37 OCCUPANT  
3" x 7" STAIR CALCULATED AT 38" = 1 OCCUPANT  
EGRESS COMPONENTS: 0.15 / OCCUPANT  
3" x 7" DOOR CALCULATED AT 37" = 213 OCCUPANTS

**1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS:**  
AS NOTED ON LIFE SAFETY PLANS  
TABLE 1006.1.1 COMMON PATH OF EGRESS TRAVEL: E: 75 FT  
TABLE 1006.1.1 OCCUPANT LOAD: NUMBER OF EXITS REQUIRED  
1: 50  
501-1000: 3

**1007 EXIT AND EXIT ACCESS DOORWAY CONFIGURATION:**  
SEPARATION DISTANCE: 10' MAXIMUM DIAGONAL OF SPACE SERVED

**1009 ACCESSIBLE MEANS OF EGRESS:**  
EACH ACCESSIBLE PORTION OF THE SPACE SERVED BY NOT LESS THAN TWO ACCESSIBLE MEANS OF EGRESS.  
EXIT ACCESS STAIRWAY: 1019.3 CONDITION 1  
AREAS OF REFUGE: NOT REQUIRED PER 1009.3 EXCEPTION #5

**1010 DOORS, GATES AND TURNSTILES:**  
1010.1 MINIMUM CLEAR WIDTH: 32"  
DOORS SERVING GROUP A SPACES WITH 50 OR MORE OCCUPANTS TO HAVE PANIC HARDWARE

**1011 STAIRWAYS AND HANDRAILS:**  
WIDTH: 44" MINIMUM  
RISER: 90" MINIMUM  
RISERS: 4" MINIMUM, 7" MAXIMUM  
TREADS: 11" MINIMUM  
HANDRAILS: 34" MINIMUM, 38" MAXIMUM

**1013 EXIT SIGNS:**  
EXCEPTION 1: EXIT SIGNS ARE NOT REQUIRED IN ROOMS OR AREAS THAT REQUIRE ONLY ONE EXIT OR EXIT ACCESS

**1014 HANDRAILS:**  
1014.2 HEIGHT: NOT LESS THAN 34" AND NOT MORE THAN 38"

**1015 GUARDS:**  
42" MINIMUM

**1017 EXIT ACCESS TRAVEL DISTANCE:**  
TABLE 1017.1: 6' - 200' MAXIMUM

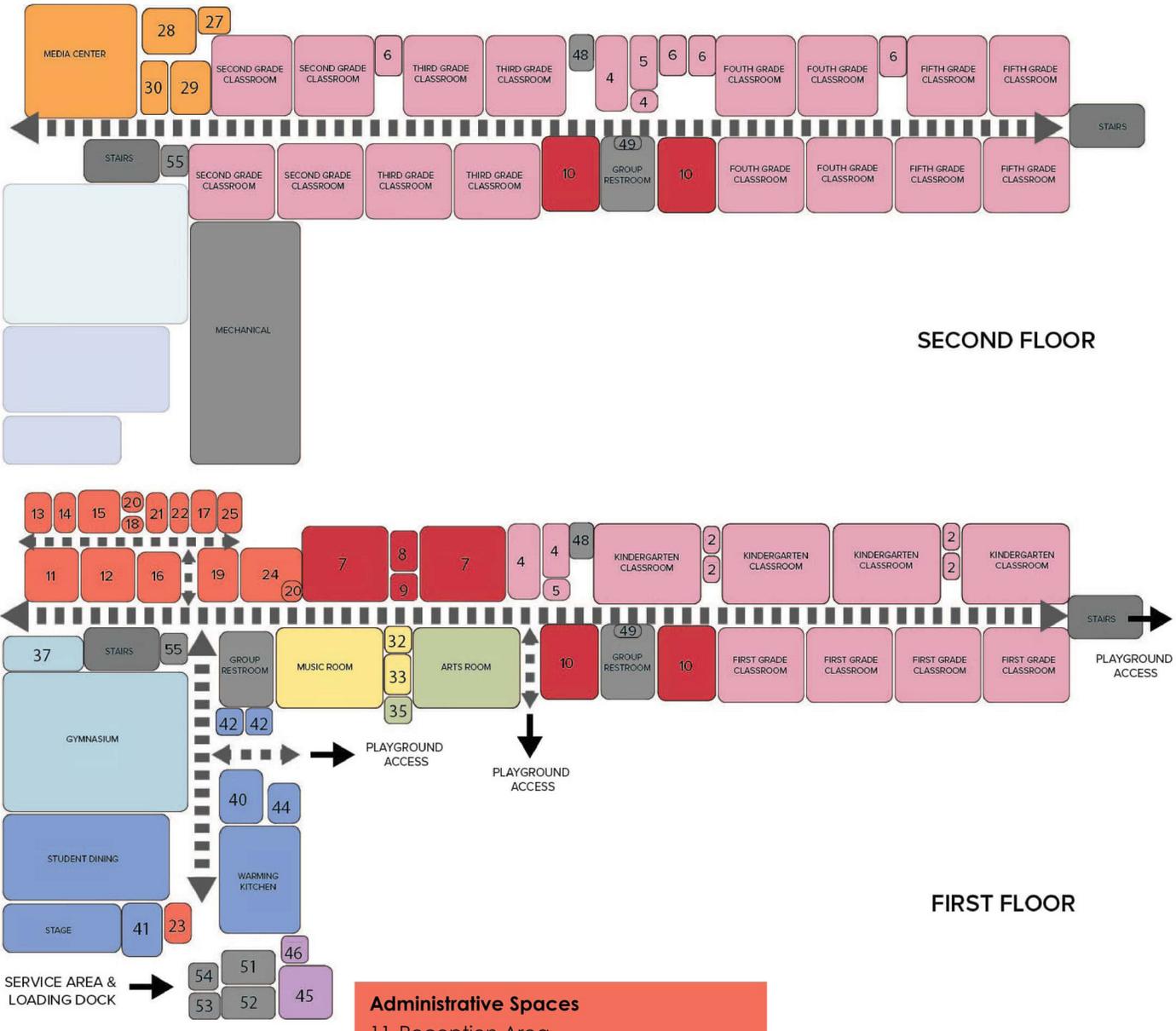
**1019.3 EXIT ACCESS STAIRWAY IN OCCUPANCIES OTHER THAN I-2 AND I-3:**  
CONDITION 1 MET: EXIT ACCESS STAIRWAY SERVES ONLY TWO STORIES  
EXIT ACCESS STAIRWAYS NOT REQUIRED TO BE ENCLOSED WITH A SHMFT ENCLOSURE

**1020.2 CORRIDORS:**  
WIDTH: 44" MINIMUM UNLESS REQUIRED BY OCCUPANT LOAD  
GROUP E WITH OCCUPANT LOAD > 100 + 12"  
DEAD END: 50 FEET PER 1020.2 EXCEPTION 2

**1029 COMMON PATH OF EGRESS TRAVEL:** SHALL NOT EXCEED 30 FT  
EXCEPTION 1: AREAS SERVING LESS THAN 50 OCCUPANTS. THE COMMON PATH OF EGRESS TRAVEL SHALL NOT EXCEED 75 FT.

**1105 ACCESSIBLE ENTRANCES:**  
PUBLIC ENTRANCES: FULLY ACCESSIBLE: 60% REQUIRED, 100% PROVIDED.

**2902 MINIMUM PLUMBING FACILITIES:** (TABLE 2902.1)



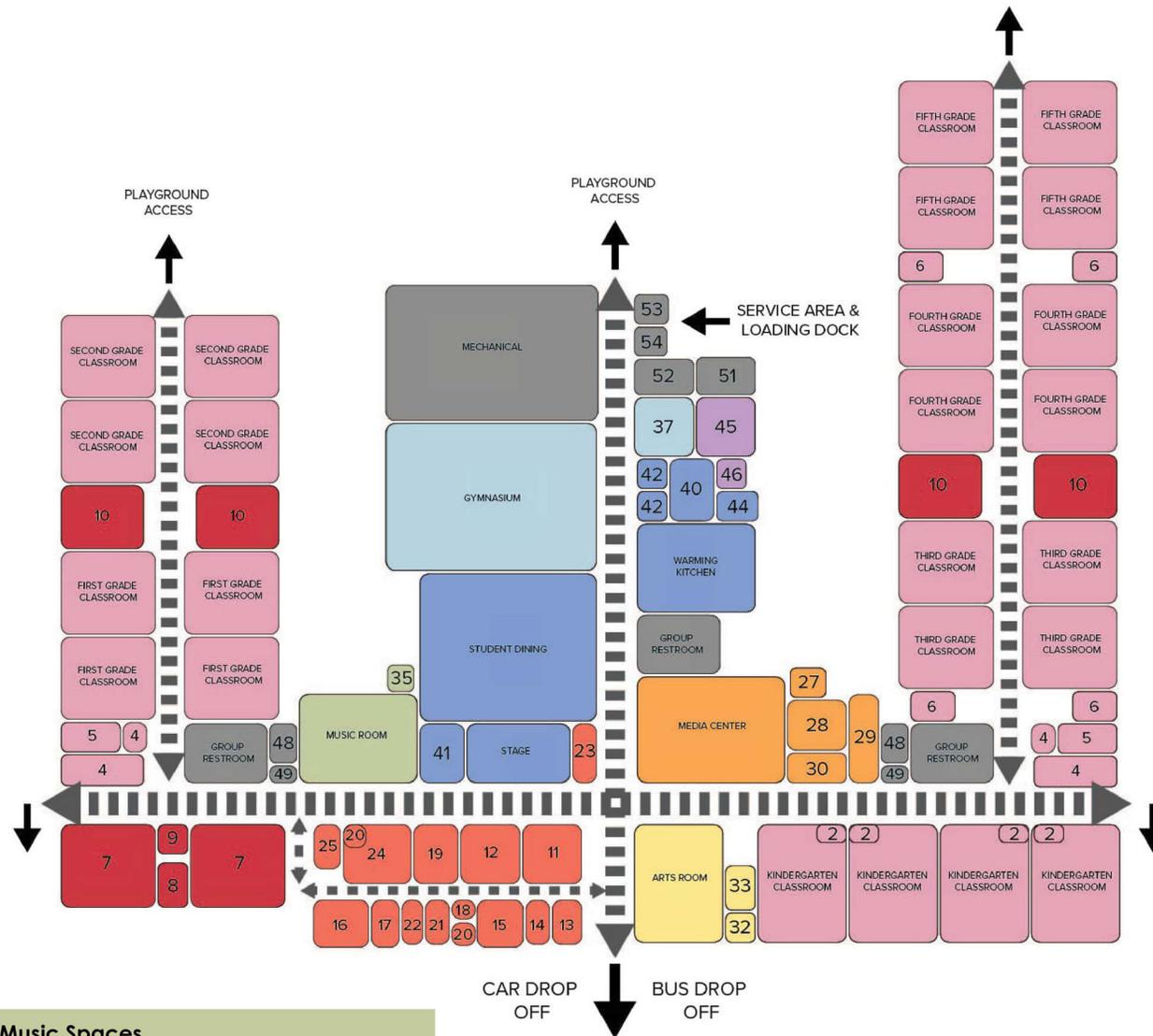
- Academic Core Spaces**
1. Kindergarten Classroom
  2. Kindergarten Individual Restroom
  3. Elementary Classrooms
  4. Teacher Prep / Workroom / Restroom
  5. Instructional Material Storage
  6. Small Group Room

- Special Education Spaces**
7. Self-Contained Classroom
  8. Workroom / Conference
  9. Restroom / Shower
  10. Small Self-Contained Classroom

- Administrative Spaces**
11. Reception Area
  12. Secretarial Area
  13. Principal Office
  14. Assistant Principal Office
  15. Conference Room
  16. Mail / Work / Copy Room
  17. Administrative Storage
  18. Vault / Records Storage

19. In-School Suspension Office
20. Restroom
21. Guidance Counselor's Office
22. Guidance Records / Storage
23. Parent / Volunteer Room (PTA)
24. Health Clinic
25. Itinerant Personal Office

*Meaghan Fitzgerald*



**Media Center Spaces**

- 26. Reading Room / Circulation
- 27. Media Specialist Office
- 28. Workroom / Storage
- 29. Main Control / Equipment Room
- 30. Conference Room

**Visual Arts Spaces**

- 31. Art Room
- 32. Kiln / Ceramic Storage
- 33. Art Material Storage

**Music Spaces**

- 34. Music Room
- 35. Music Storage

**Physical Education Spaces**

- 36. Gymnasium
- 37. Workroom / Storage

**Custodial Spaces**

- 45. Workroom
- 46. Custodial Office

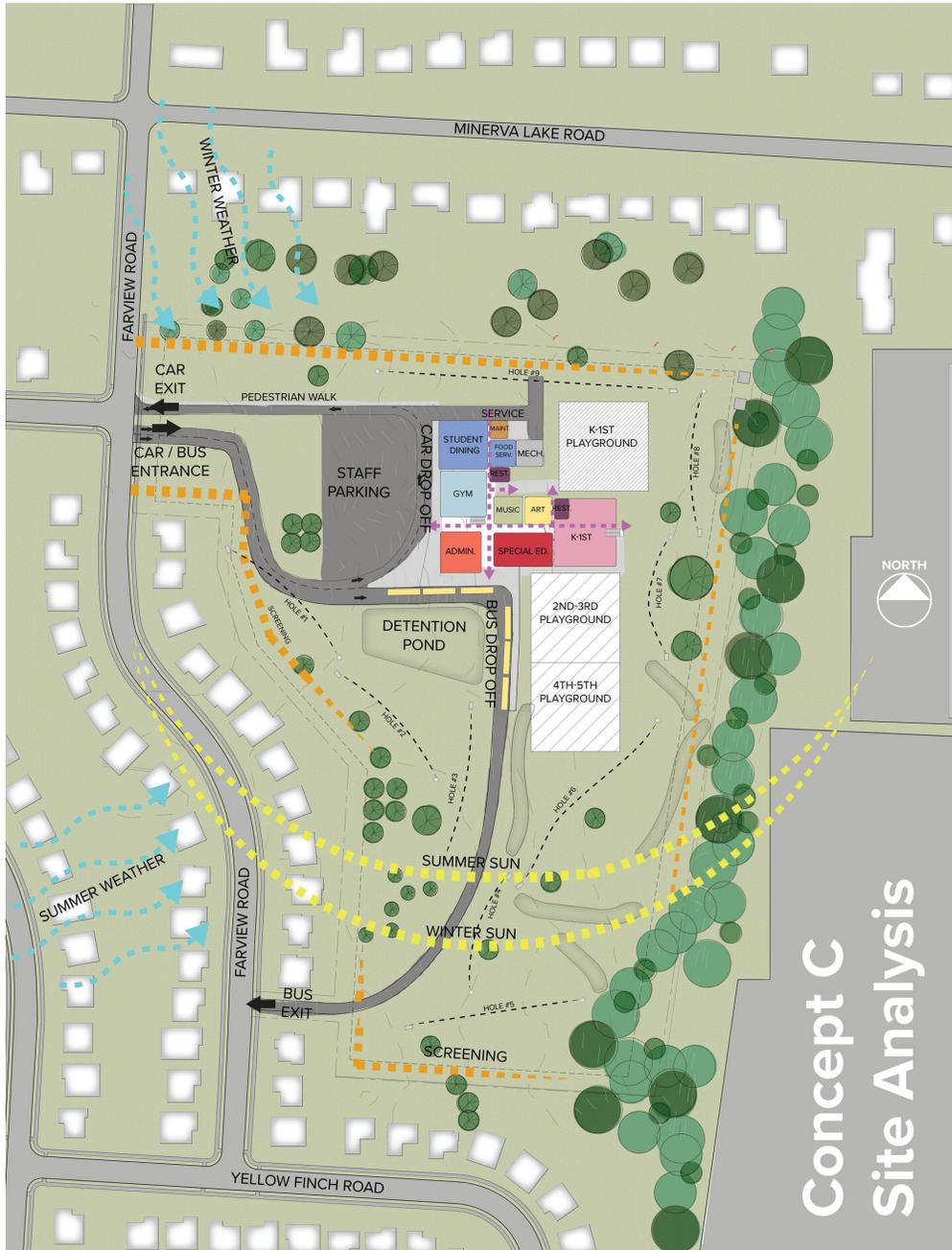
**Student Dining / Kitchen Spaces**

- 38. Student Dining
- 39. Stage
- 40. Staff Dining
- 41. Table Storage
- 42. Family Restrooms
- 43. Warming Kitchen
- 44. Restroom / Locker Room

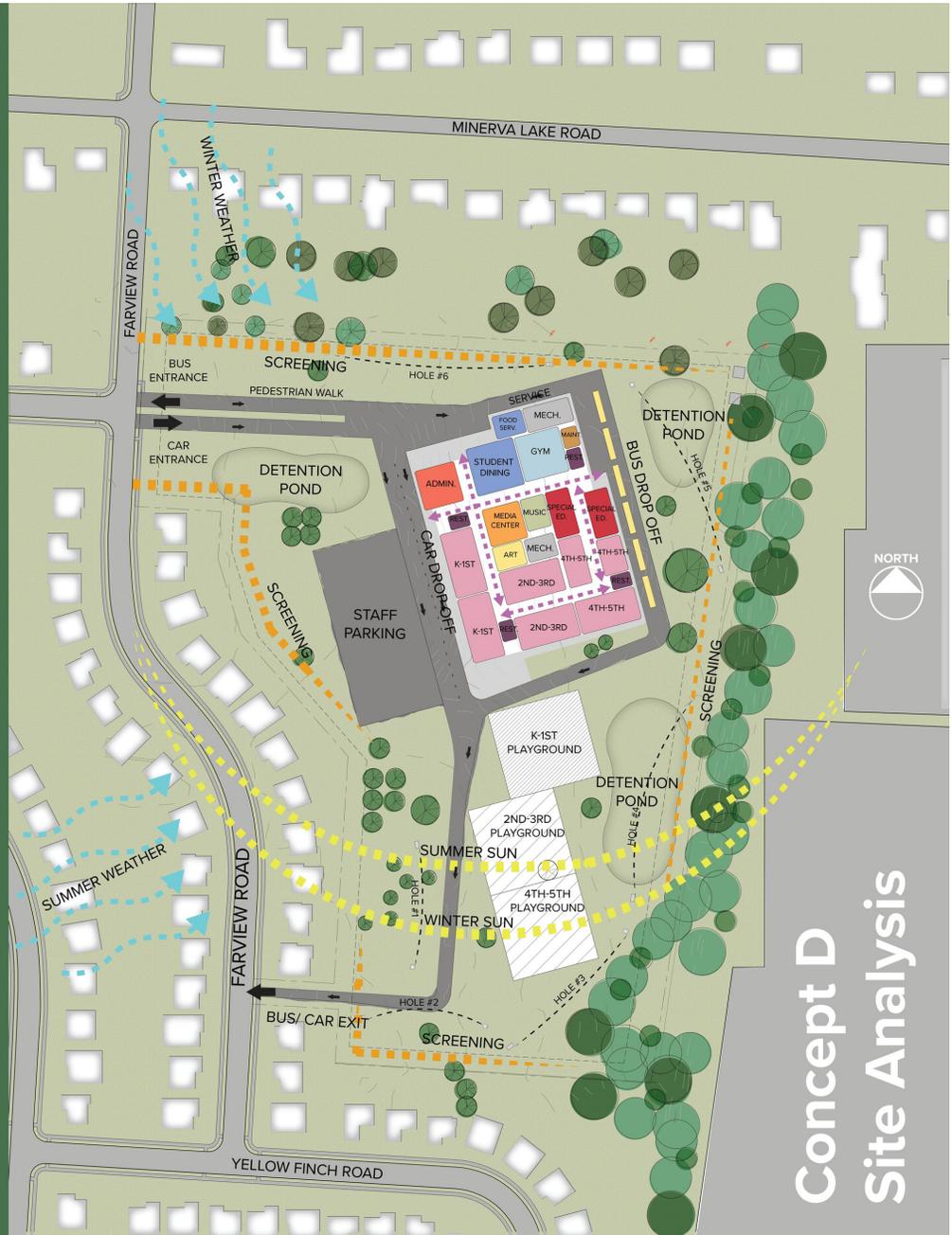
**Building Services**

- 47. Large Group Restroom
- 48. Custodial Closet
- 49. Telecommunications Room
- 50. Mechanical / Electrical Spaces
- 51. Storage Area
- 52. Central Storage Area
- 53. Loading / Receiving Area
- 54. Recycling Room
- 55. Vertical Circulation (Elevator)

*Meaghan Fitzgerald*



Concept C  
Site Analysis



Concept D  
Site Analysis



Gained experience in the activities listed below:

- Assisted in establishing project design goals
- Analyzed existing site conditions to determine impact on facility layout
- Assisted in the development of sustainability goals based on some existing environmental conditions
- Learned about the implications of evolving sustainable design strategies and technologies
- Started to develop professional / leadership skills
- Developed and sustained relationships with clients
- Prepared proposals for service including Owner-Architect and Architect-Consultant Agreements
- Coordinated design work with team members
- Documented project decisions and design ideas through all phases of project
- Assisted Owner in obtaining necessary permits and approvals



*Meaghan Fitzgerald*

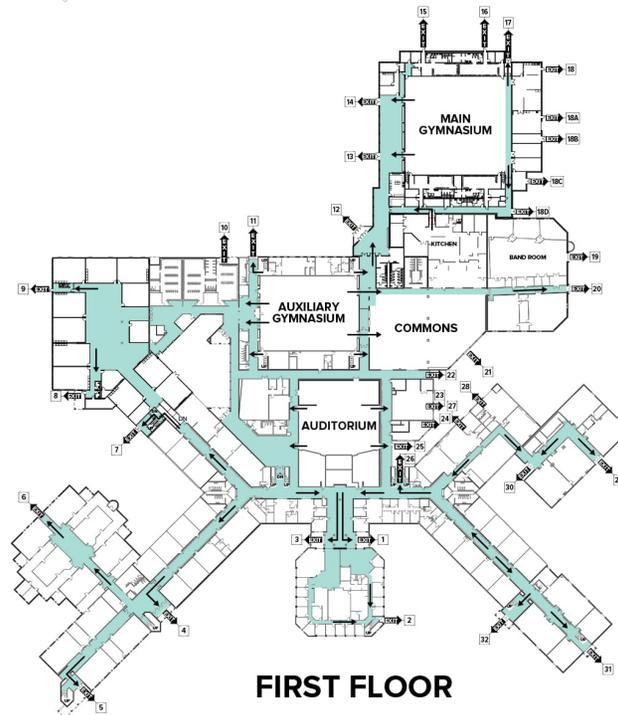
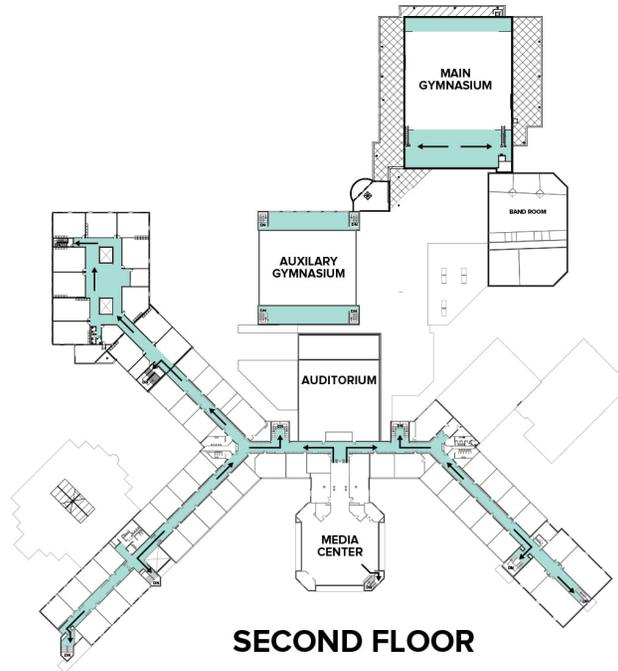
# High School Renovations & Additions

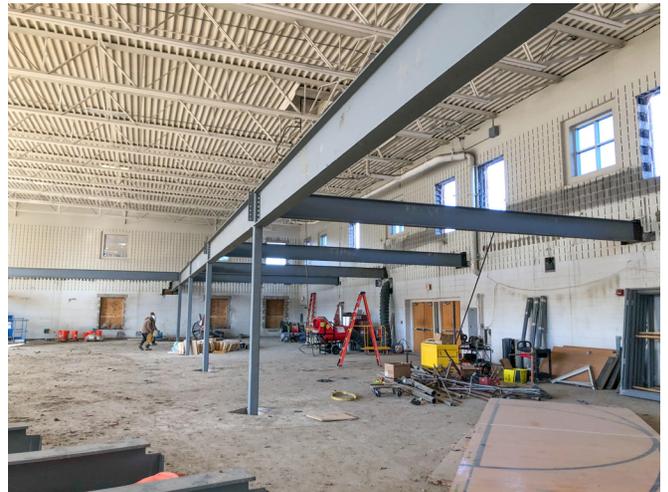
Location: Columbus, OH  
Year: 2019 - 2020  
Size: ~100,000 SF  
Type: Educational



Participated in the Construction Administration Phase of the project including the following:

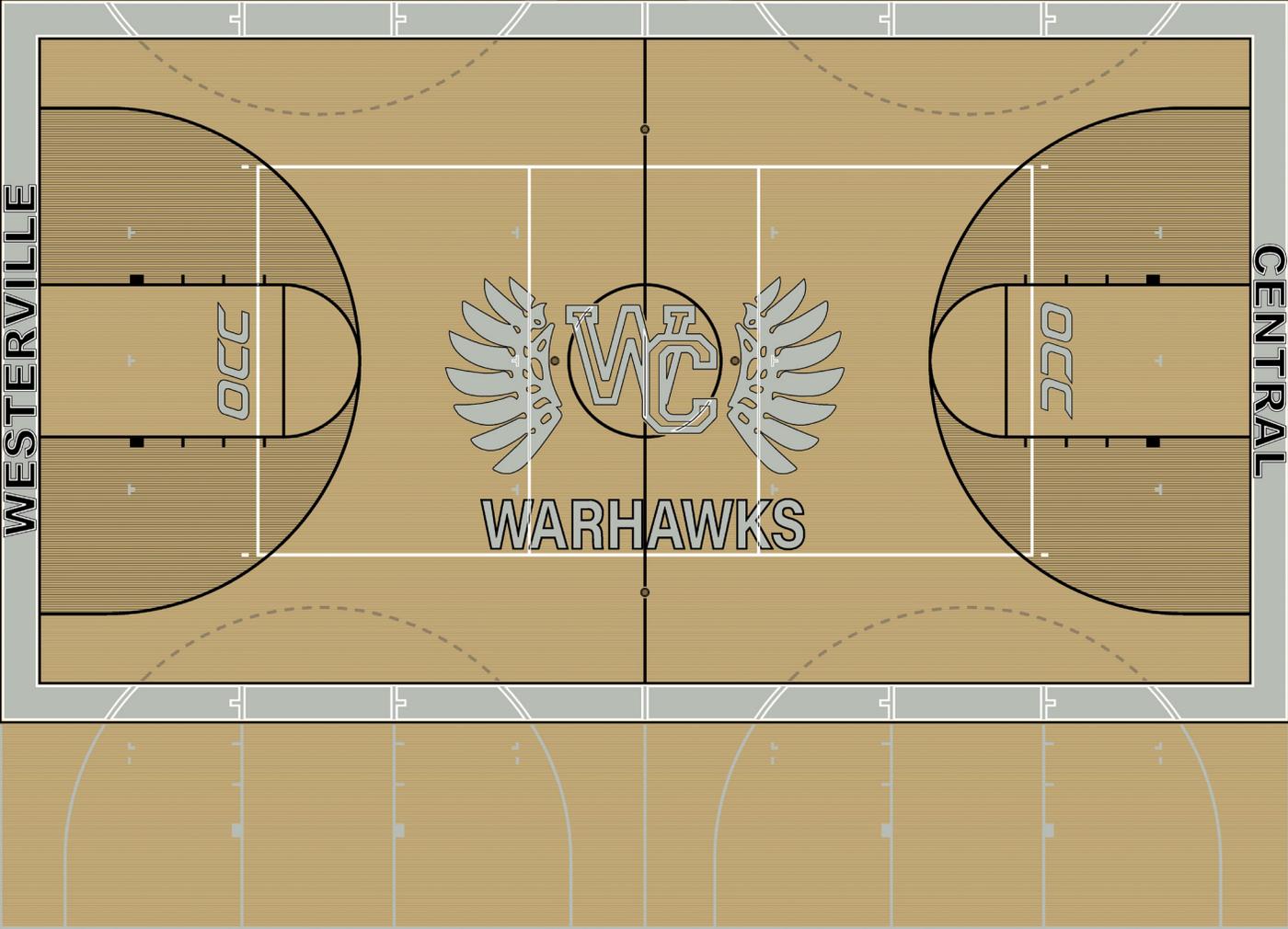
- Reviewed shop drawings and submittals for conformance with contract documents
- Followed procedures for processing documentation and responding to contractor RFIs (Request for Information)
- Assisted in Field Observation Reports after site visits
- Overviewed and processed third-party inspection documents
- Overviewed applications for payment
- Participated in close-out procedures
- Assisted in modifications to the construction contract

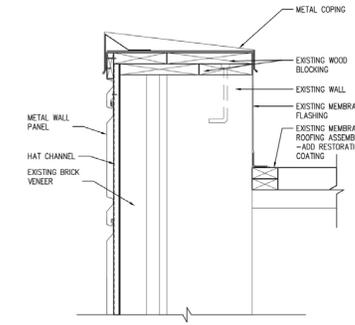




# Capital Improvements

Page 20: Gymnasium Floor Refinish  
Page 21: Roofing Restoration  
Page 22: Site Accessibility Plan

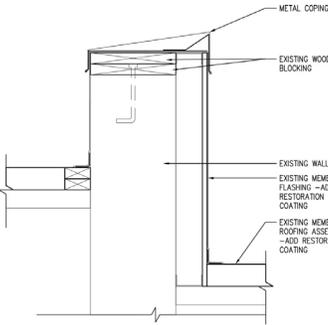




**METAL WALL PANEL DETAIL AT MEMBRANE ROOF**

1-1/2" = 1'-0"

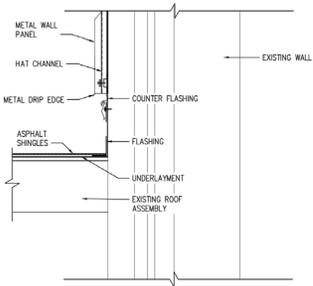
8



**TYPICAL METAL COPING DETAIL AT MEMBRANE ROOF**

1-1/2" = 1'-0"

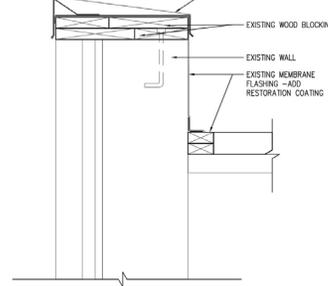
5



**METAL WALL PANEL DETAIL AT ASPHALT SHINGLE ROOF**

1-1/2" = 1'-0"

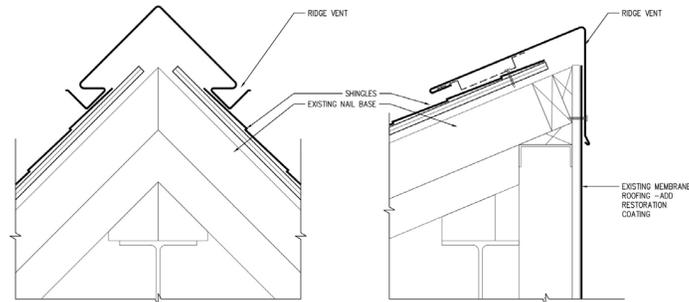
7



**TYPICAL METAL COPING DETAIL AT MEMBRANE ROOF**

1-1/2" = 1'-0"

4



**RIDGE VENT DETAIL**

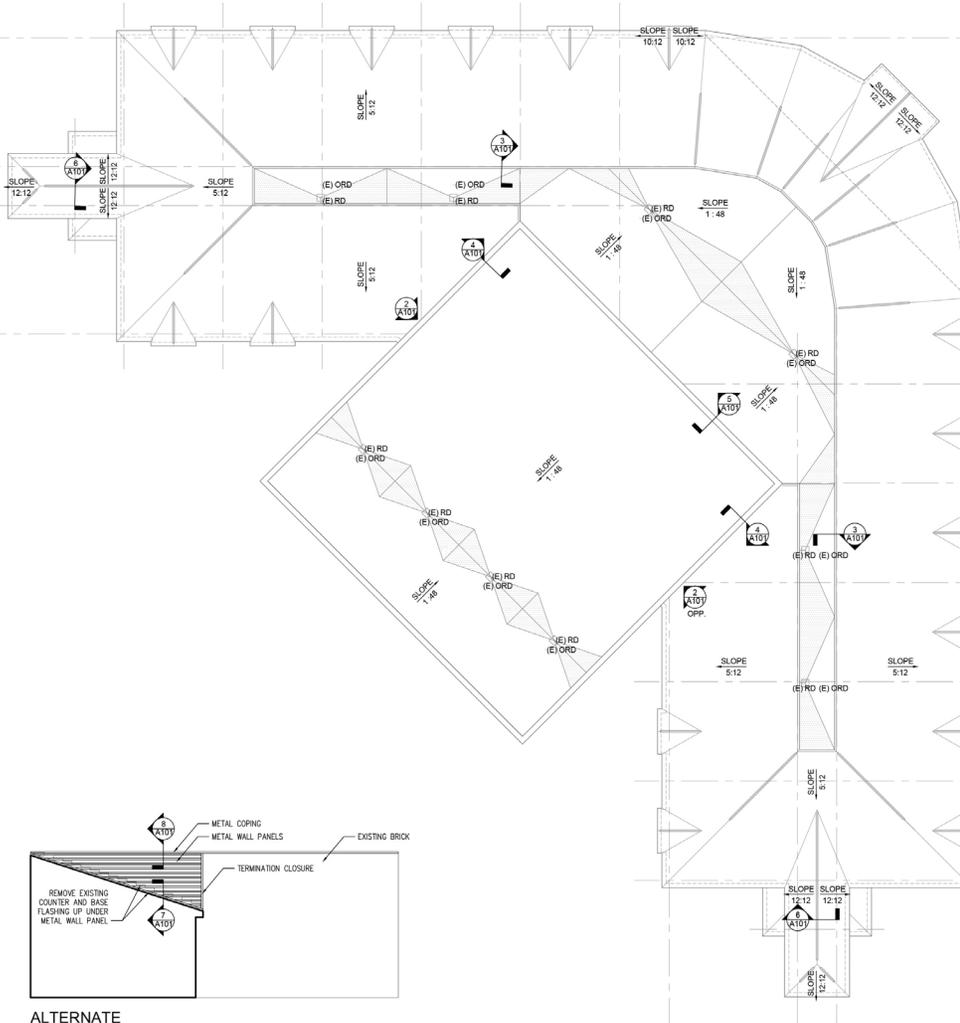
3" = 1'-0"

6

**RIDGE VENT DETAIL**

3" = 1'-0"

3



**ALTERNATE METAL PANEL ELEVATION**

1/16" = 1'-0"

2

**ROOF PLAN LEGEND**

- (E) RD EXISTING ROOF DRAIN
- (E) ORD EXISTING OVERFLOW ROOF DRAIN
- ▨ PROVIDE A MINIMUM SLOPE OF 1/8" PER FOOT, SLOPE TOWARDS ROOF DRAIN
- - - EXTERIOR FACE OF WALLS BELOW
- - - STRUCTURAL GRID

**GENERAL NOTES**

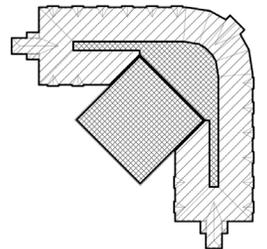
- A. ROOF PLANS INDICATE APPROXIMATE LOCATIONS OF ALL ROOF PENETRATIONS, ROOF DRAINS, AND EQUIPMENT. FIELD VERIFY ACTUAL LOCATIONS.
- B. ROOF PLAN INDICATES EXISTING ROOF SLOPES BASED ON ORIGINAL DRAWINGS. FIELD VERIFY EXISTING SLOPES WHERE REQUIRED.
- C. PROVIDE NEW DRIP EDGES AND STEP FLASHING. REUSE EXISTING COUNTER FLASHING UNLESS ALTERNATE FOR METAL PANELS IS ACCEPTED.
- D. VERIFY LOCATION, SIZE AND TYPE OF EXISTING RIDGE VENTS AND REPLACE.
- E. SEAL EXISTING GUTTER ENDCAPS, SEAMS AND DOWNSPOUT SEAMS.
- F. JET DOWNSPOUT LEADERS BELOW GRADE TO REMOVE DEBRIS.

**CODED NOTES (X)**

1. REPLACE EXISTING METAL COPING AROUND UPPER ROOF, TYP.
2. ALTERNATE: ADD METAL WALL PANELS TO FACE OF EXISTING WALL - SEE DETAILS 7 & 8.
3. RIDGE VENT - SEE DETAIL 8.
4. RIDGE VENT - SEE DETAIL 3.

**ROOF KEY PLAN & LEGEND**

- ROOF TYPE 1 - RESTORE EXISTING ROOFING MEMBRANE.
- ROOF TYPE 2 - REMOVE EXISTING SHINGLES DOWN TO EXISTING NAIL BASE SHEATHING. INSTALL ASPHALT SHINGLES OVER UNDERLAYMENT.



**RIDGE VENT DETAIL**

3" = 1'-0"

6

**RIDGE VENT DETAIL**

3" = 1'-0"

3

**ROOF PLAN**

1/16" = 1'-0"

2

1

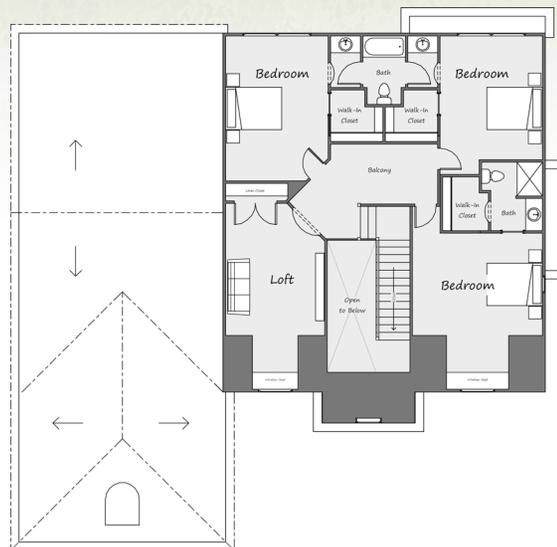
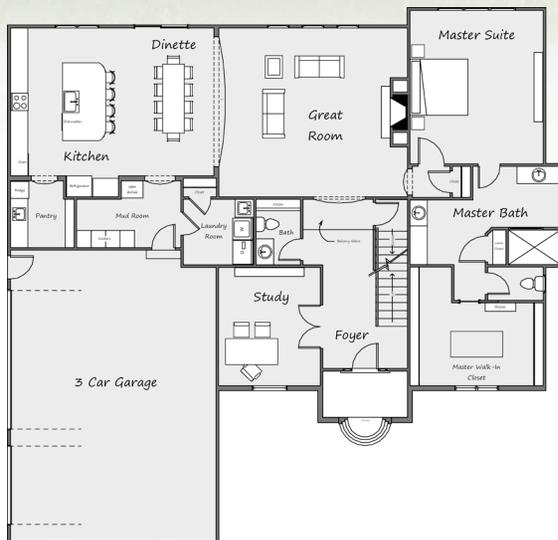




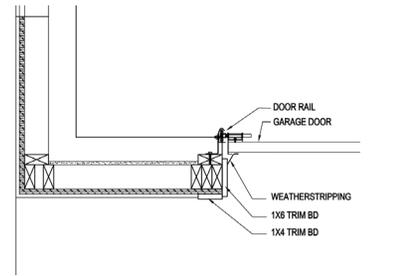
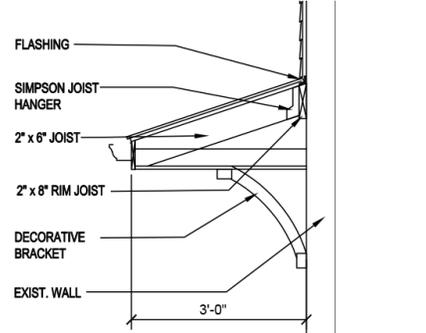
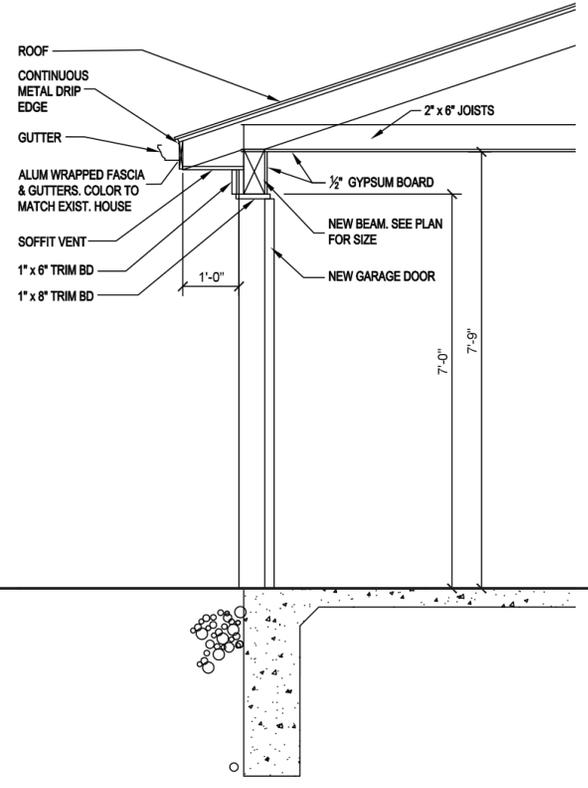
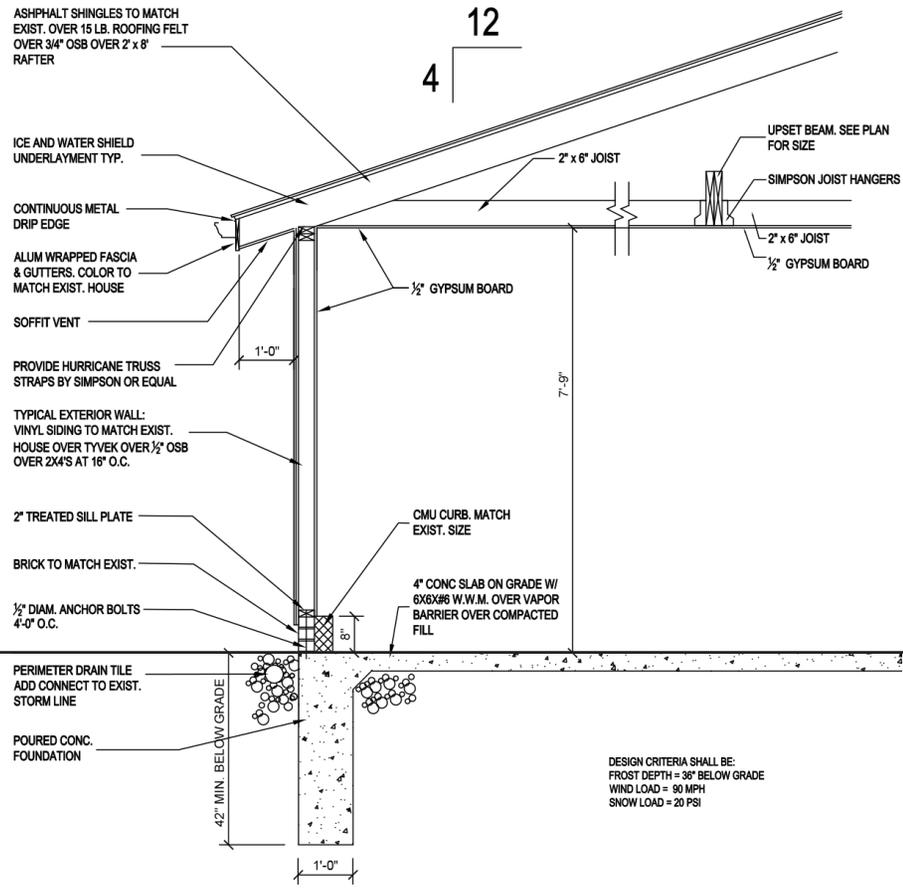


# Residential Buildings

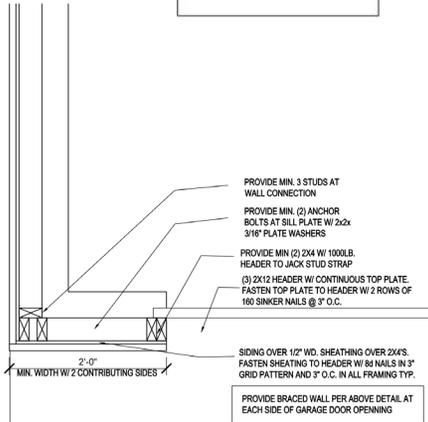
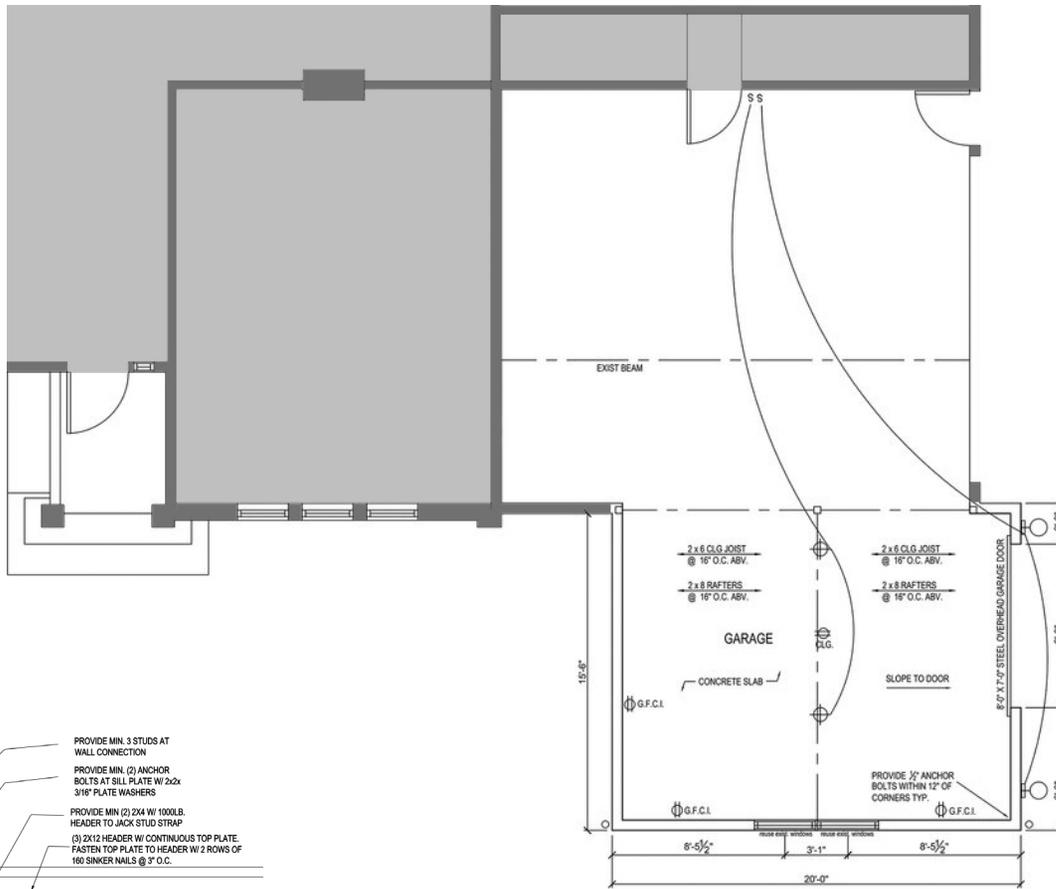
Page 23: New Build  
 Page 24 & 25: Garage Addition



*Meaghan Fitzgerald*



DESIGN CRITERIA SHALL BE:  
 FROST DEPTH = 36\"/>



*Meaghan Fitzgerald*

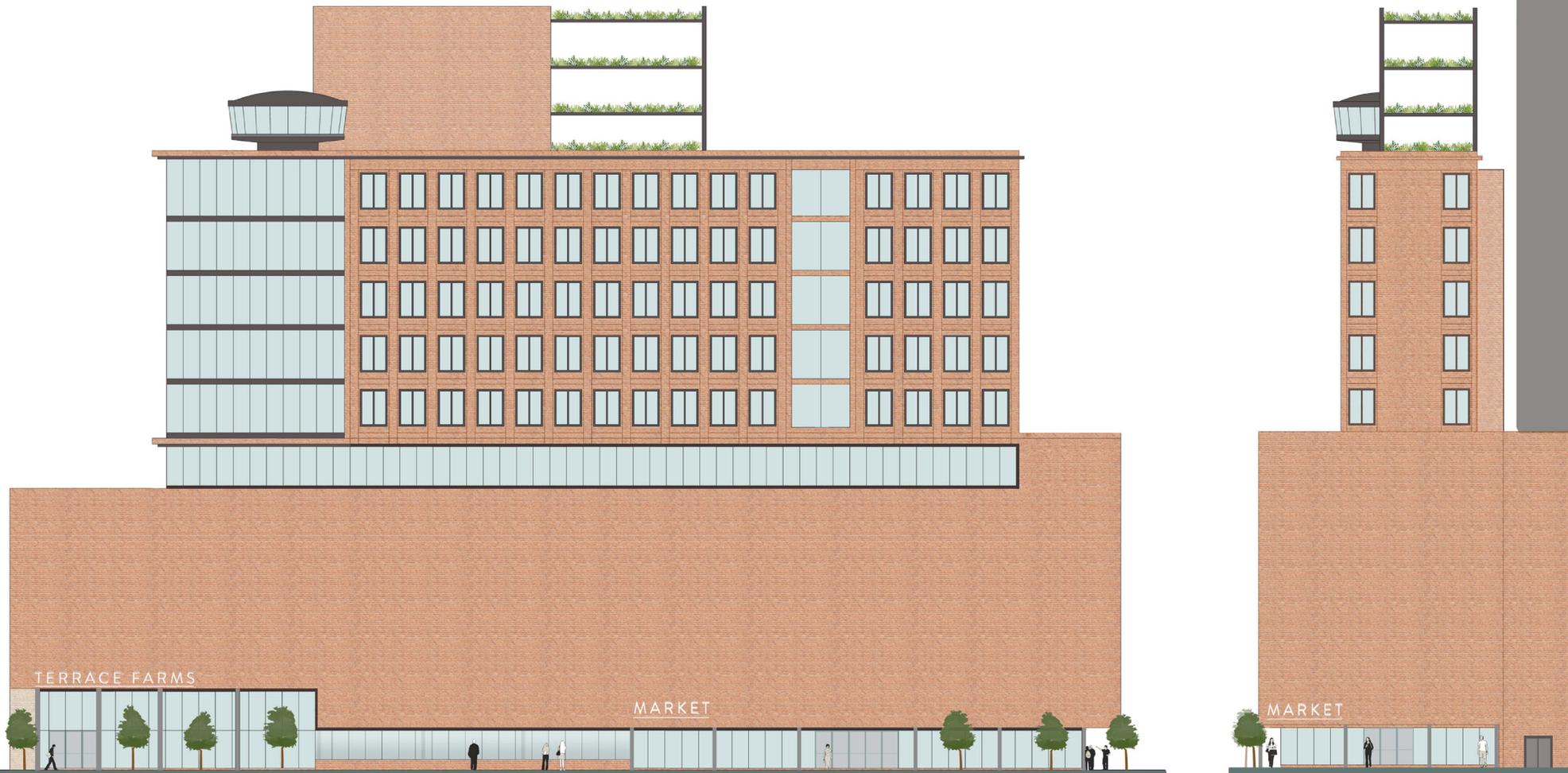
# Terrace Farms at the Terrace Plaza Hotel

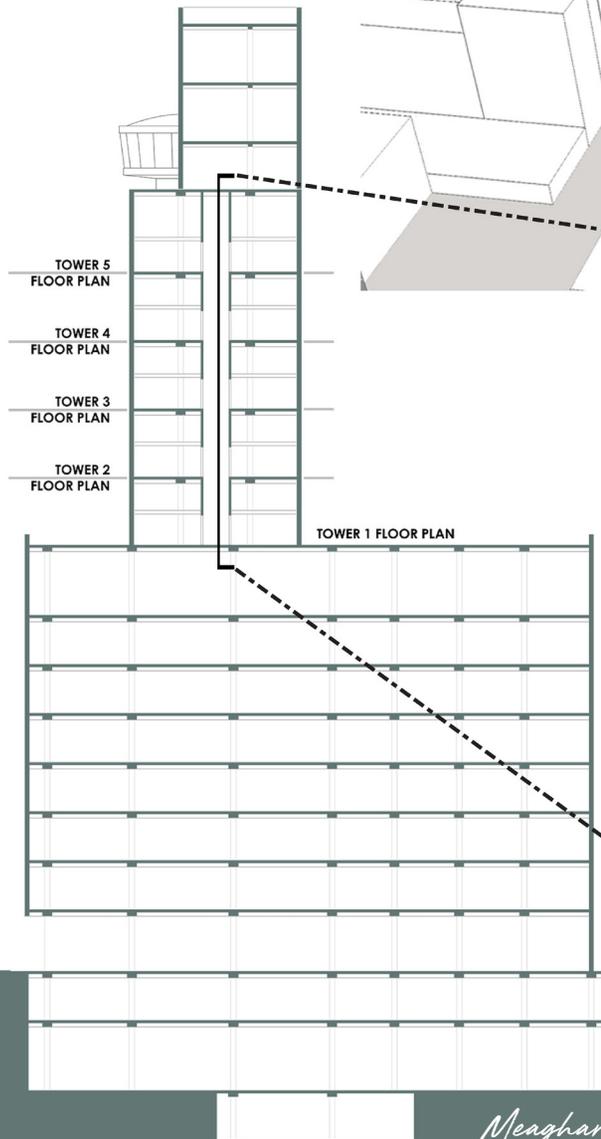
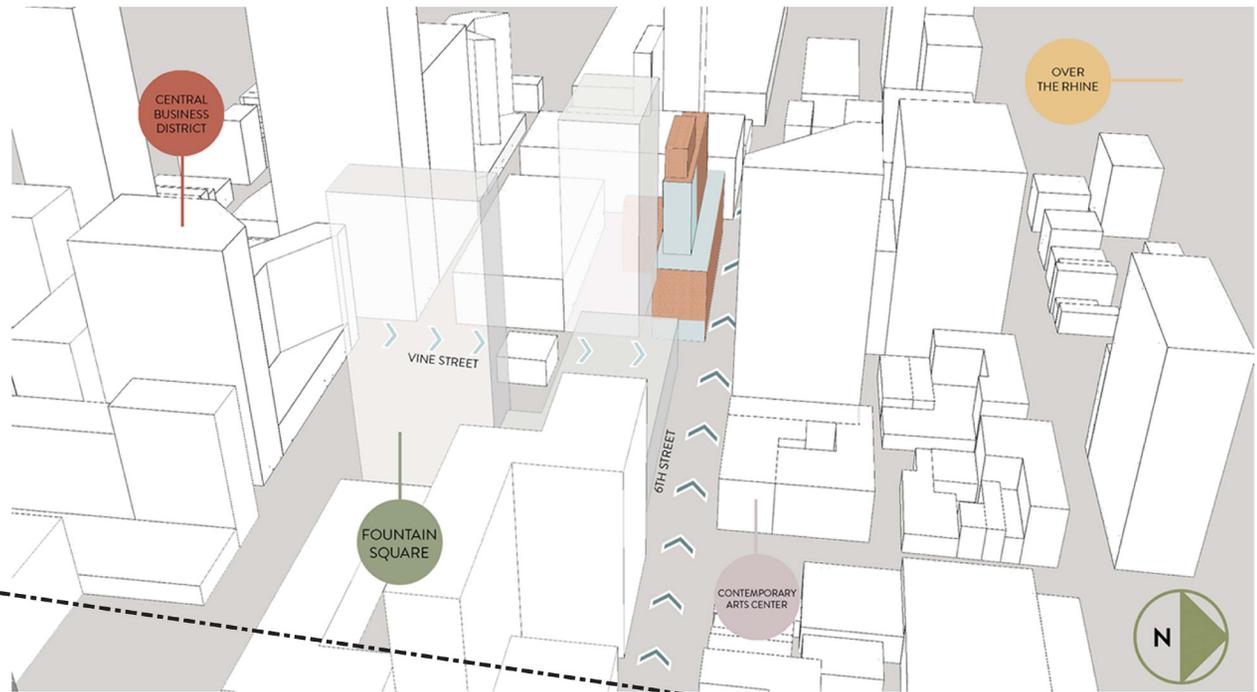
Location: Cincinnati, OH

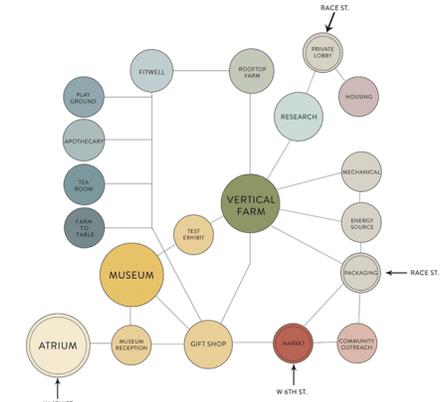
Year: 2019

Size: 600,000 SF

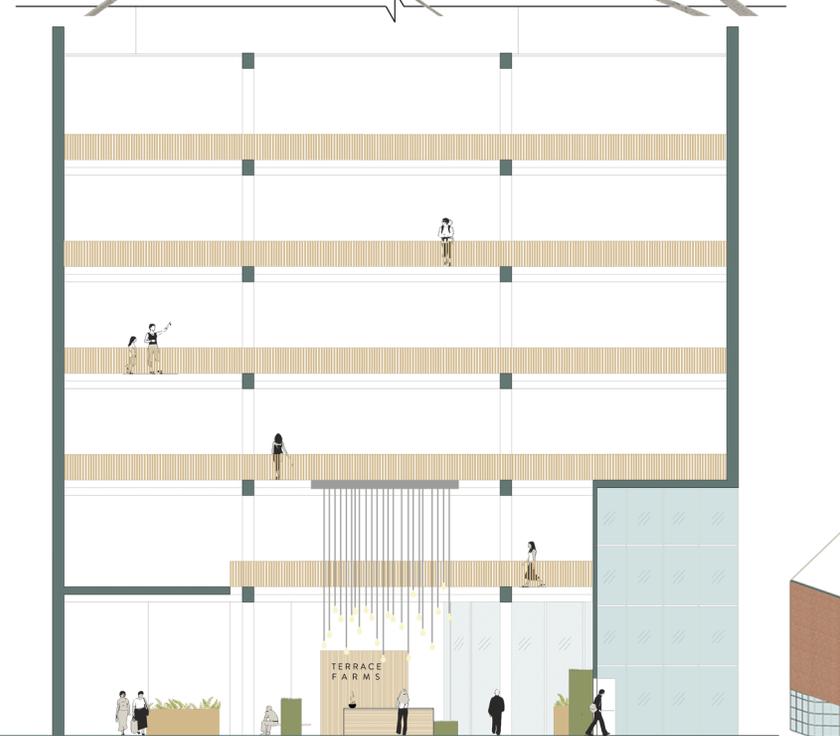
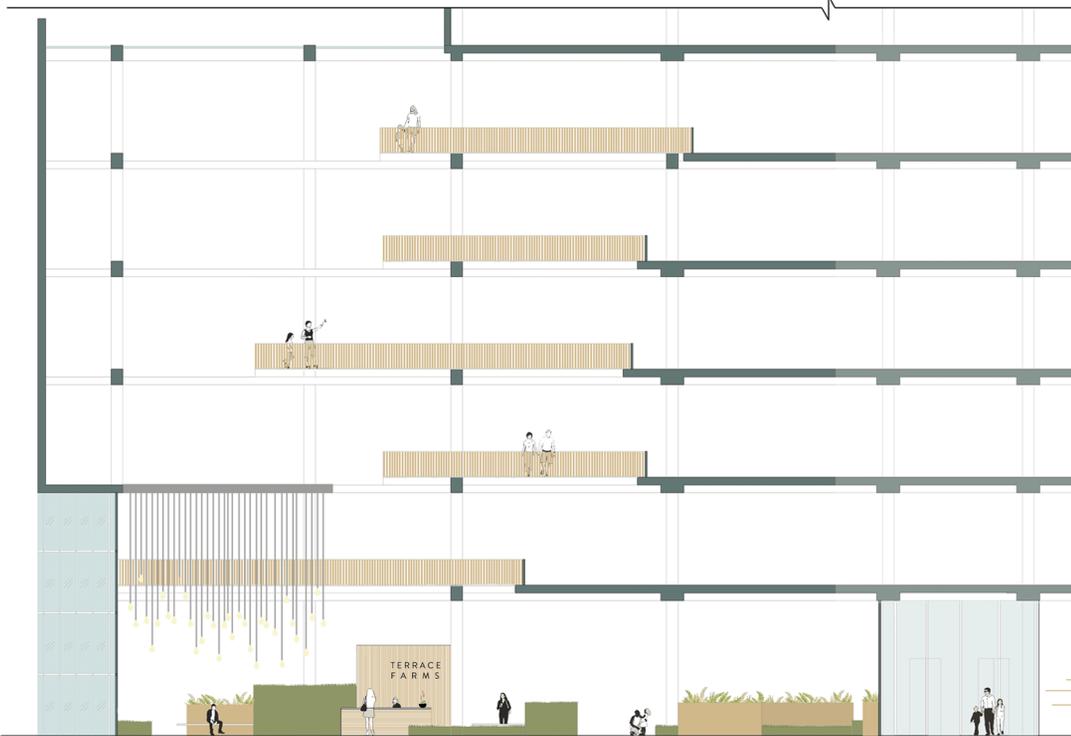
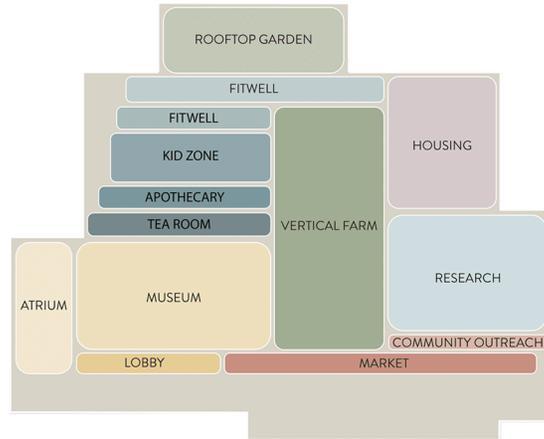
Type: Mixed Use

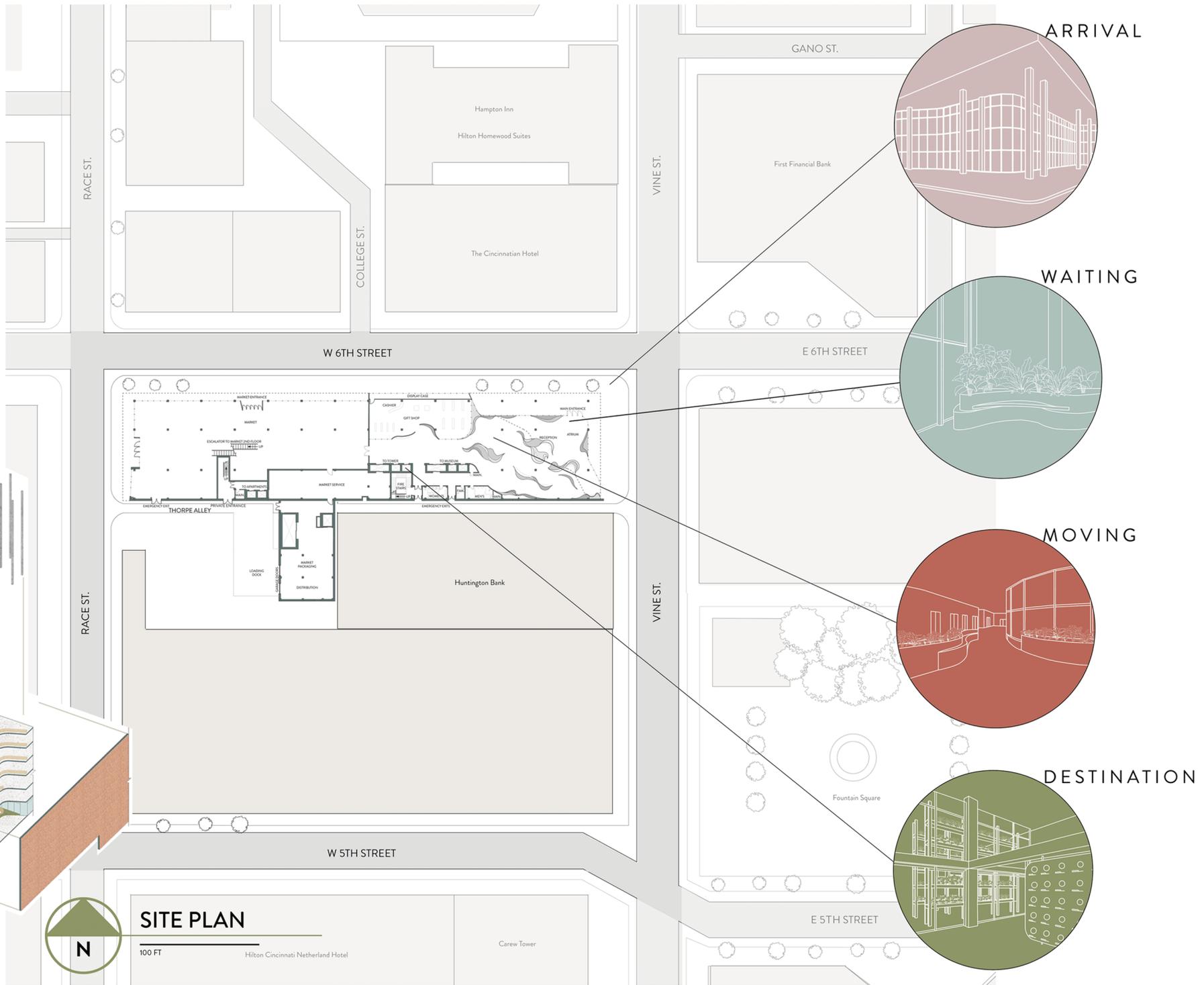






APPROACH DIAGRAM





ARRIVAL

WAITING

MOVING

DESTINATION

**SITE PLAN**

100 FT  
Hilton Cincinnati Netherland Hotel

# Jewelry

Year: 2011 - 2015





*Meaghan Fitzgerald*