

Performance Arts Campus

Rindge and Latin School

Client: Rindge and Latin School

Project: Performance Arts Campus

Location: 883 Main St, Cambridge, MA

883

Date: 12-09-24

Designer: Jacob Barbarossa, M.Arch

JACOB BARBAROSSA ARCHITECTS

Concept: Form in the spirit of art

Design Statement:

Throughout history, art has been a broad and elusive concept defined by its unique ability to evoke our emotions. While art is created every day, it is seldom crafted purely for the sake of art itself. This concept of “form in the spirit of art” addresses the challenges that artists face in creating something extraordinary for the public to enjoy and connect with.

The Ringe and Latin Performance Arts Campus prioritizes the needs of these creators, blending the necessary requirements with the grace and fluidity found in the movements of a delicate ballet. By integrating diverse art forms into a unified space, the design provides a safe and inspiring environment for artists to learn, refine and thrive in their respective craft. Honoring the true spirit of art.

“Art for art’s sake is a philosophy of the well-fed.”

- Frank Lloyd Wright

Site Location

883 Main St, Cambridge,
Massachusetts, USA

42°21'49"N 71°05'57"W

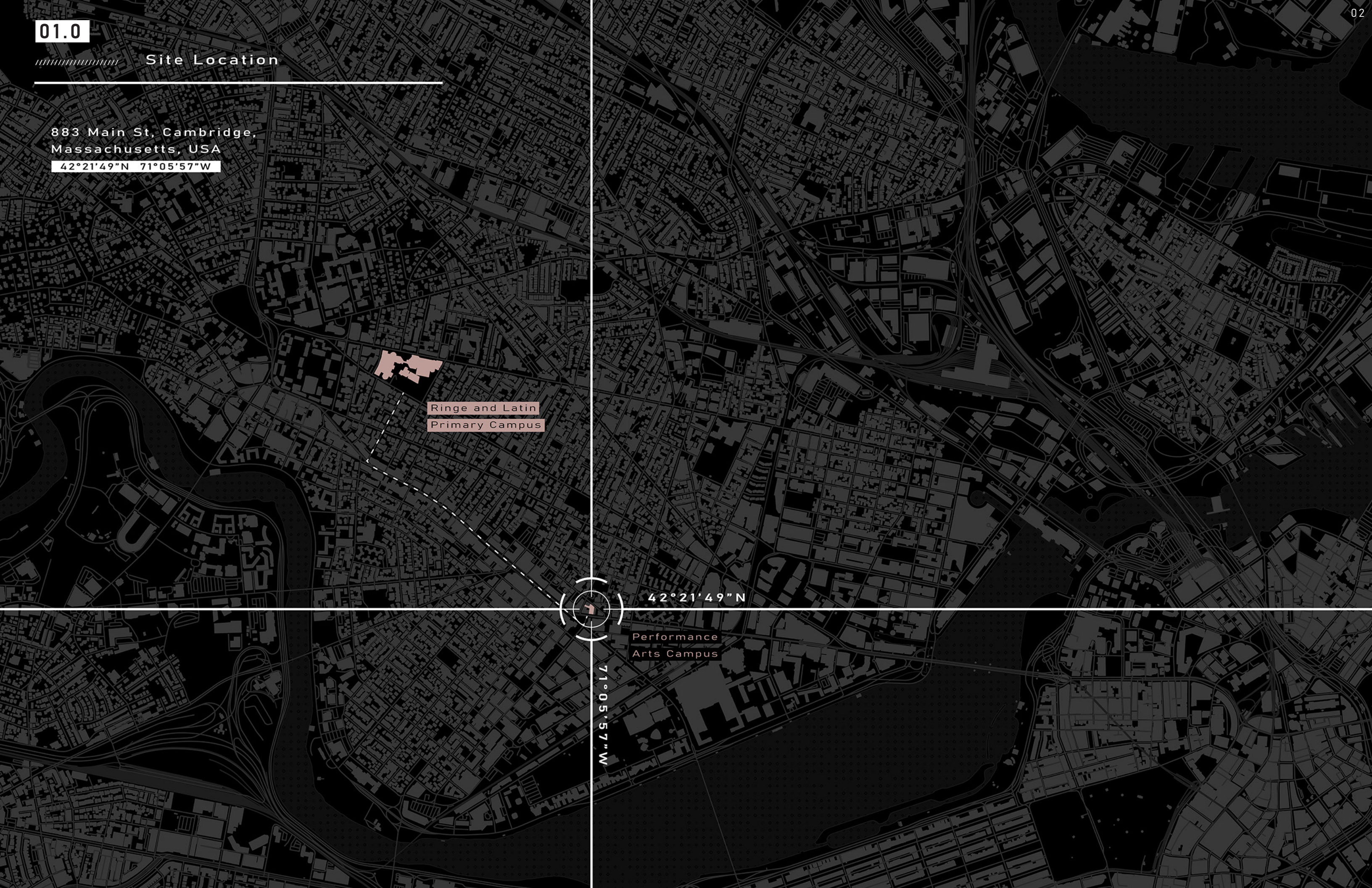
Ringe and Latin
Primary Campus



42°21'49"N

Performance
Arts Campus

71°05'57"W



Site Visit Analysis

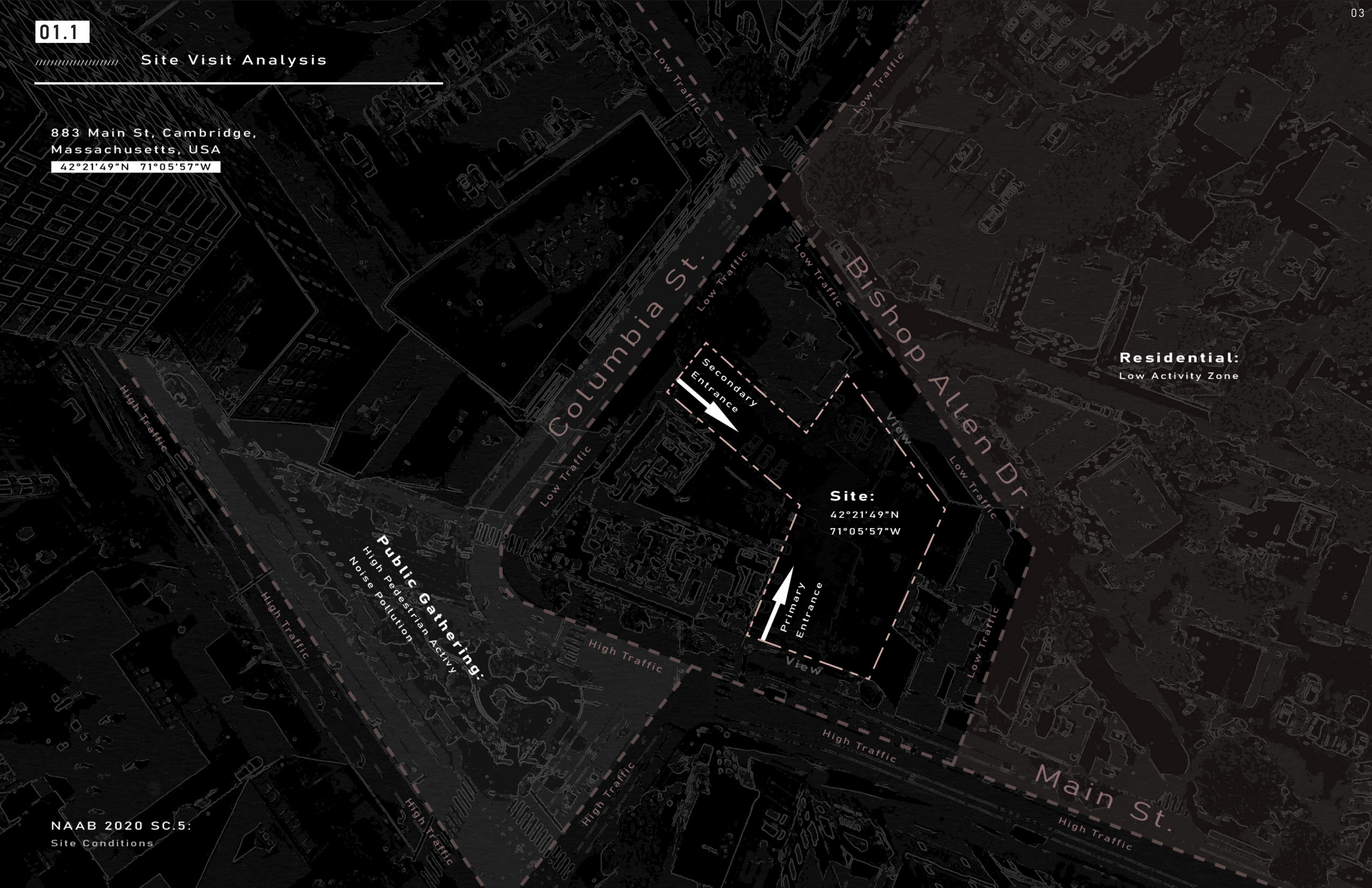
883 Main St, Cambridge,
Massachusetts, USA

42°21'49"N 71°05'57"W

Residential:
Low Activity Zone

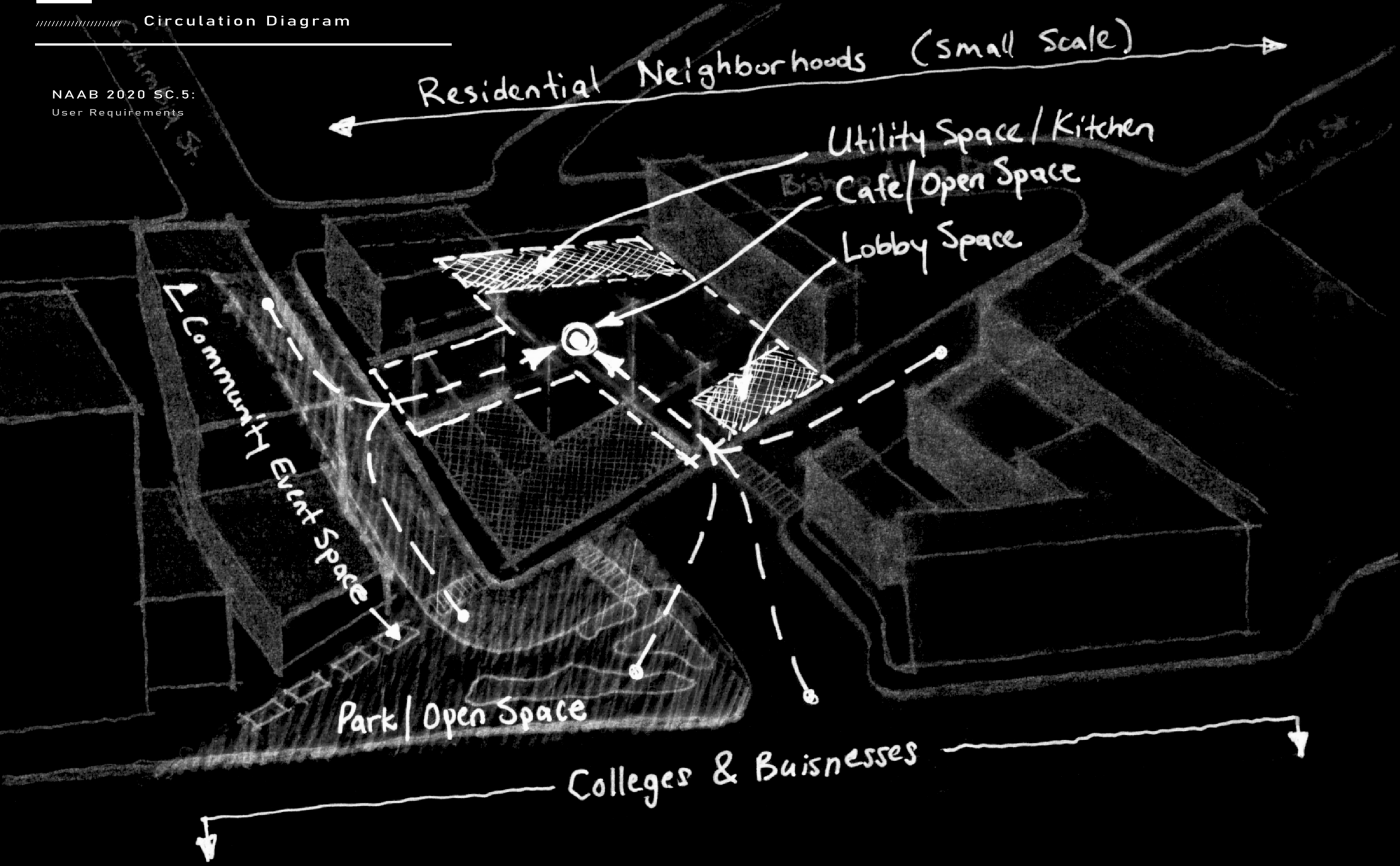
Site:
42°21'49"N
71°05'57"W

Public Gathering:
High Pedestrian Activity
Noise Pollution



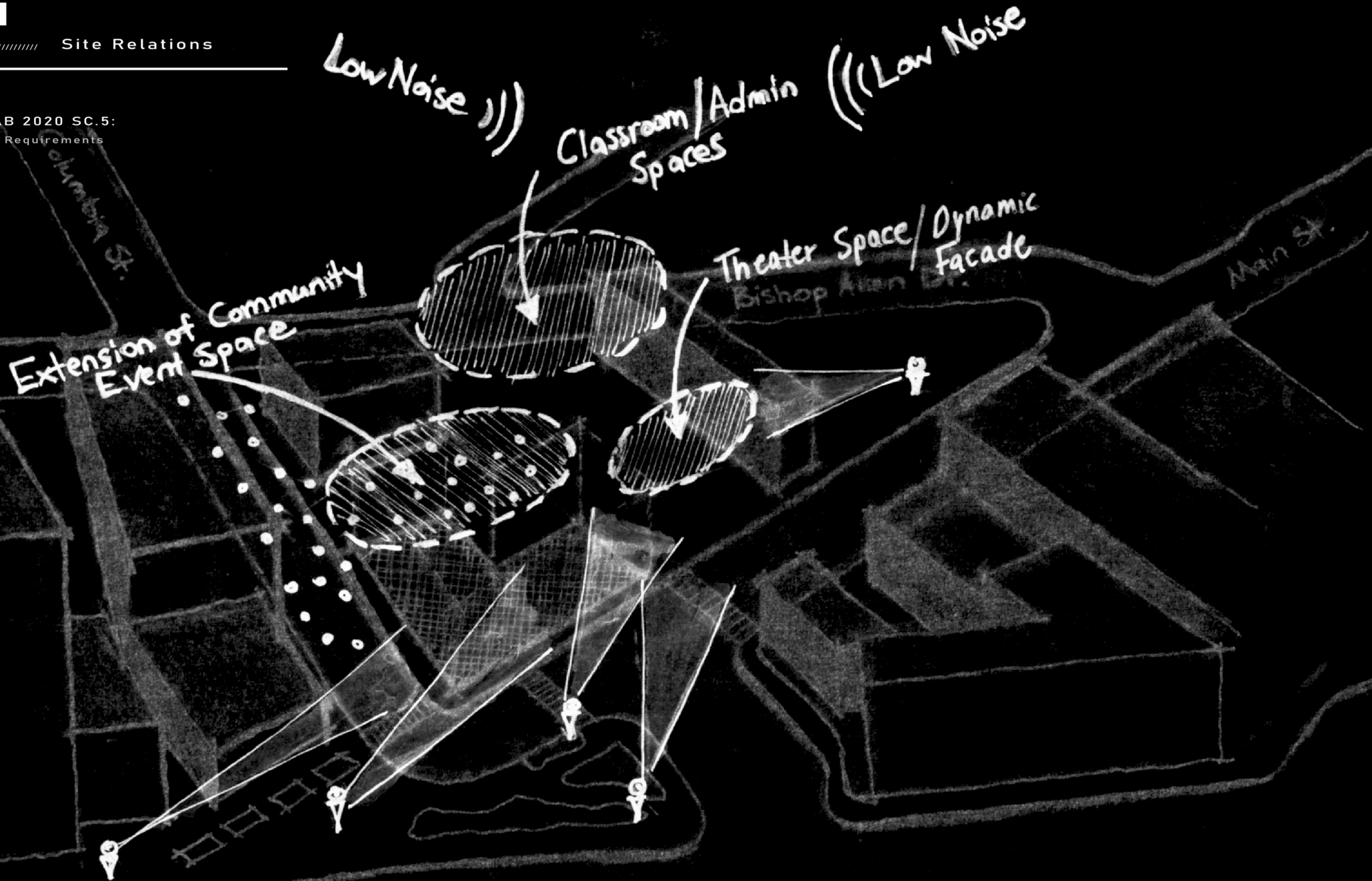
//// Circulation Diagram

NAAB 2020 SC.5:
User Requirements



Site Relations

NAAB 2020 SC.5:
User Requirements



Concept Theory Diagram

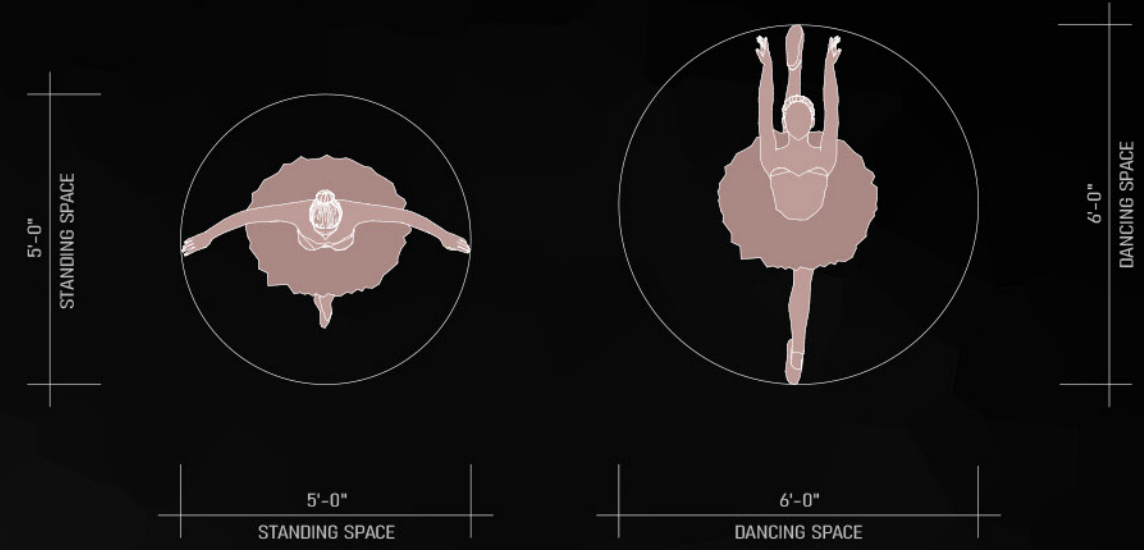
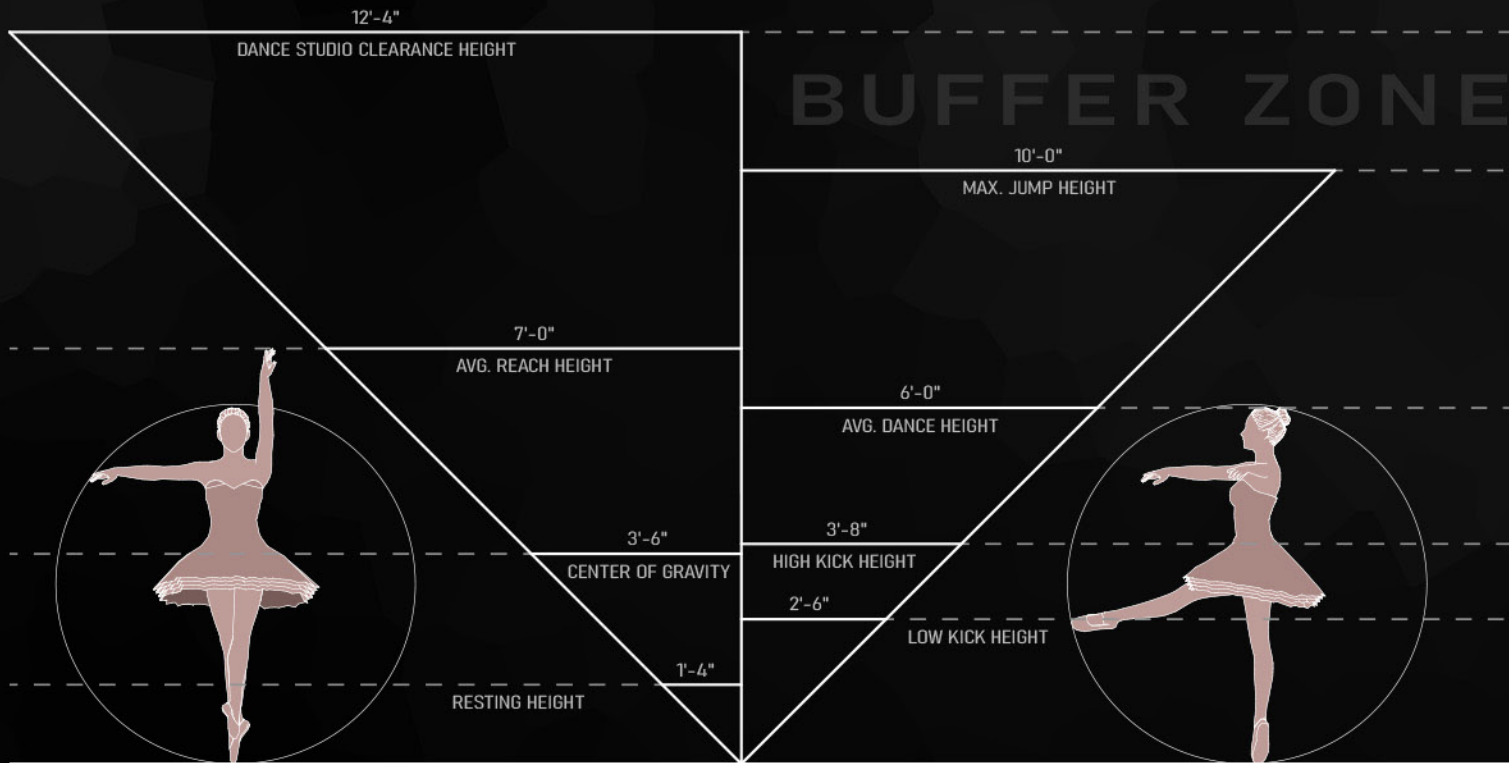
NAAB 2020 SC.5:
User Requirements

Concept Theory

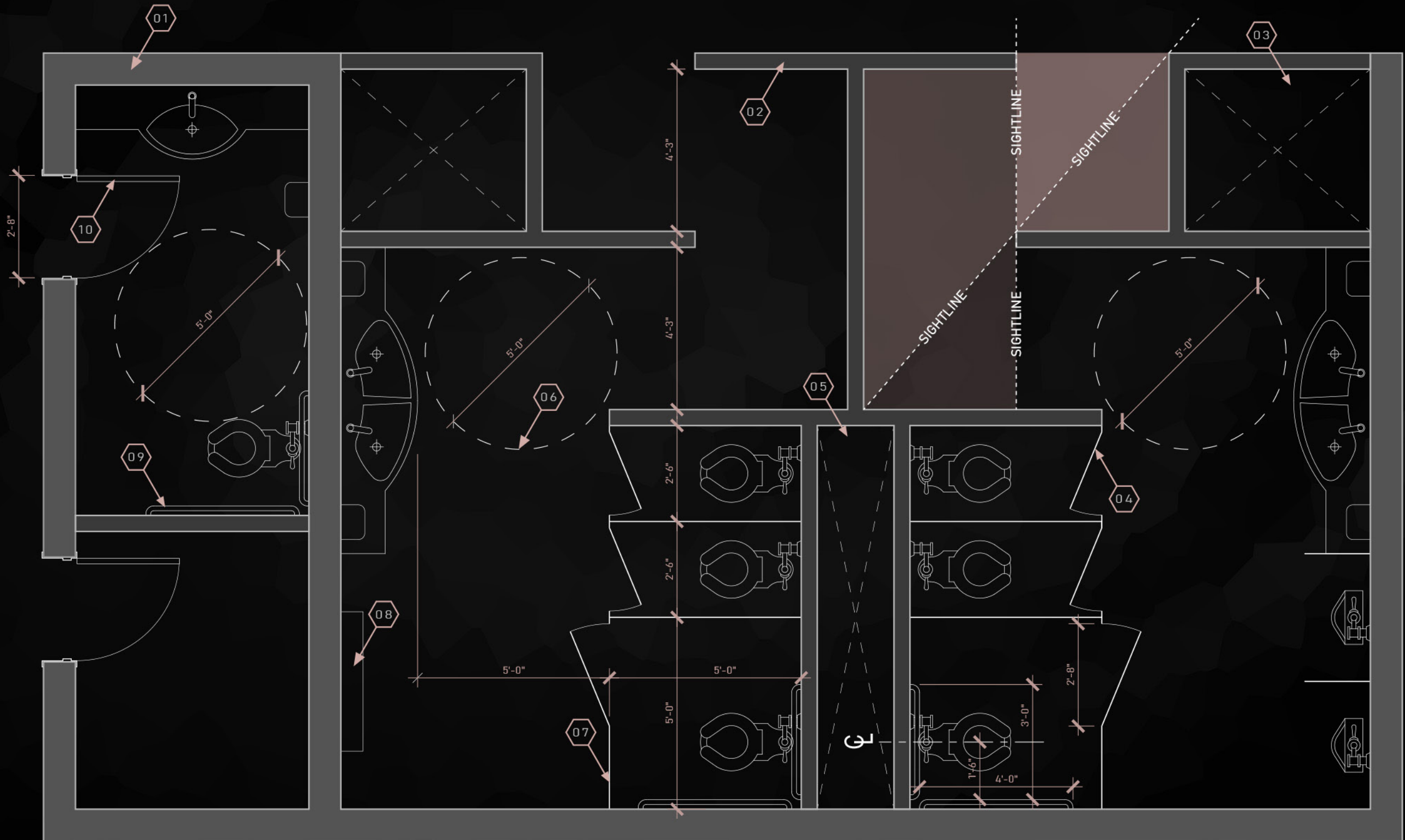
Using ideology founded by celebrated architect Le Corbusier and pairing it with the golden ratio principles of Euclid of Alexandria and Fibonacci, the design of Ringe and Latin's performance arts campus embodies the very essence of art itself. These timeless proportions allowed for each room to be meticulously crafted in order to meet the specific demands required by the artist within. These proportions shaped the campus's design and resulted in a structure that embodies the spirit and precision of an artist at work.

Dance Studio

Proportional disposition between performer and structure



- 01 PLUMBED WALLS
- 02 INSUL. PARTITIONS
- 03 MECH. CHASE
- 04 STD. STALL
- 05 PLUMBING CHASE
- 06 5'-0" MIN. DIA.
- 07 ADA MIN. STALL
- 08 FEM. HYGIENE
- 09 ADA HANDRAILS
- 10 2'-8" MIN. DOOR



Schematic Diagramming

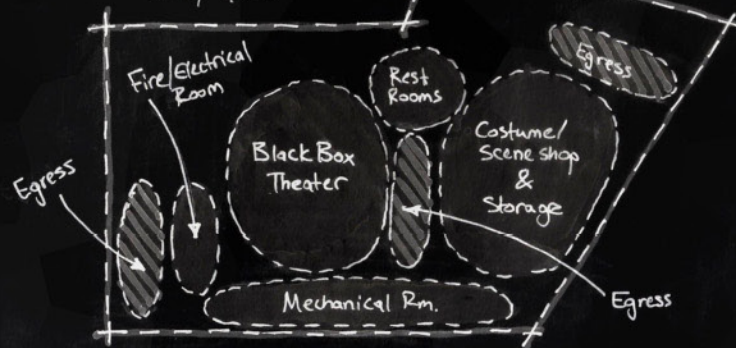
NAAB 2020 SC.5: User Requirements

* Costume / Scene Shop

- No windows necessary
- Sound Proofed
- No aesthetic need
- Durable space

* Black Box Theater

- Underground Vibe
- No windows
- Full lighting Control
- Full sound control
- Easily Accessible from Lobby Space.



Basement Floor Plan

* Music Room

- Peaceful
- Visible/Views
- Sound control
- Ambient Light

* Lobby

- Accessible from Main St.
- Natural light
- Open / Grand
- Inviting

* Kitchen

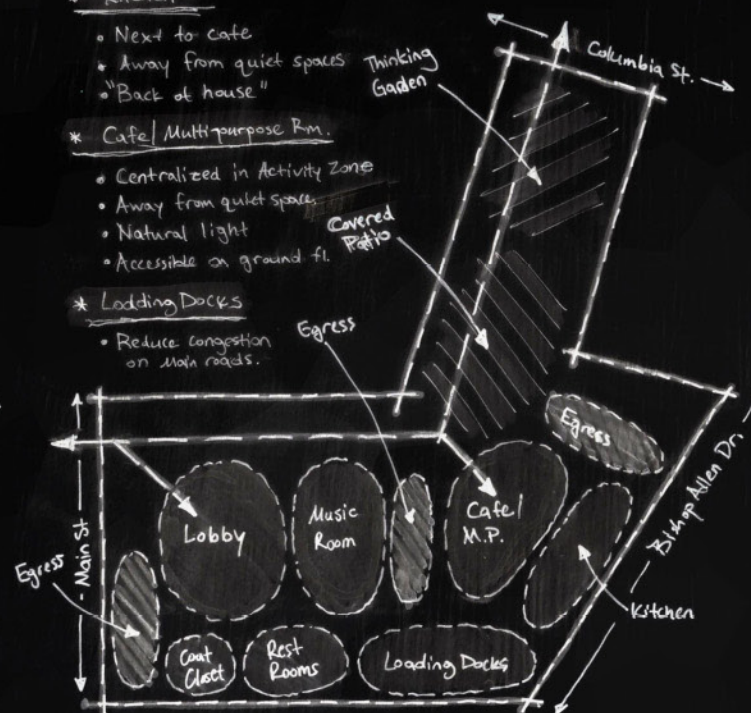
- Next to cafe
- Away from quiet spaces
- "Back of house"

* Cafe / Multi-purpose Rm.

- Centralized in Activity Zone
- Away from quiet spaces
- Natural light
- Accessible on ground fl.

* Loading Docks

- Reduce congestion on main roads.



First Floor Plan

* Small Auditorium

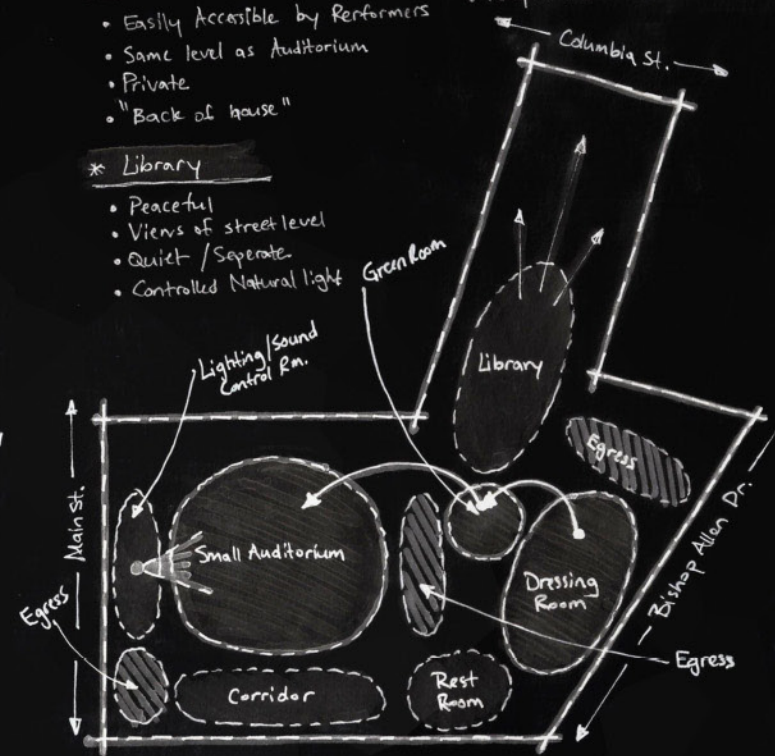
- Quiet
- Full lighting Control
- Full sound Control
- Quickly Accessible by Public
- Peaceful
- Grand

* Dressing Rooms

- Easily Accessible by Performers
- Same level as Auditorium
- Private
- "Back of house"

* Library

- Peaceful
- Views of street level
- Quiet / Separate
- Controlled Natural light



Second Floor Plans

* Green Room

- Quiet
- Separate from Public spaces
- Close proximity to dressing Rms and Auditorium

* Lighting / Sound Control Rm.

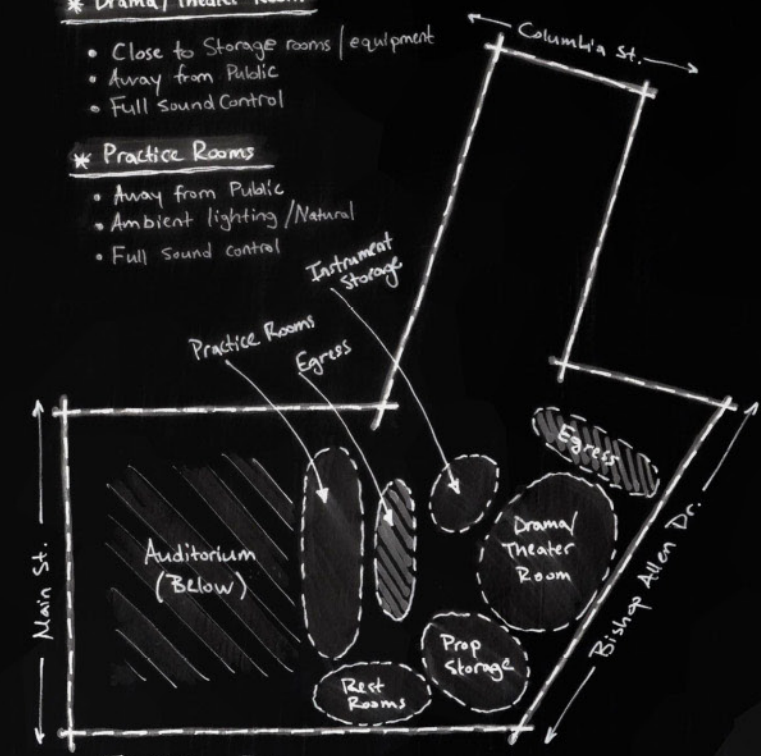
- Adjoining Auditorium
- Full Sound/Lighting Control
- Temperature Controlled

* Drama/Theater Room

- Close to Storage rooms / equipment
- Away from Public
- Full Sound Control

* Practice Rooms

- Away from Public
- Ambient lighting / Natural
- Full Sound control



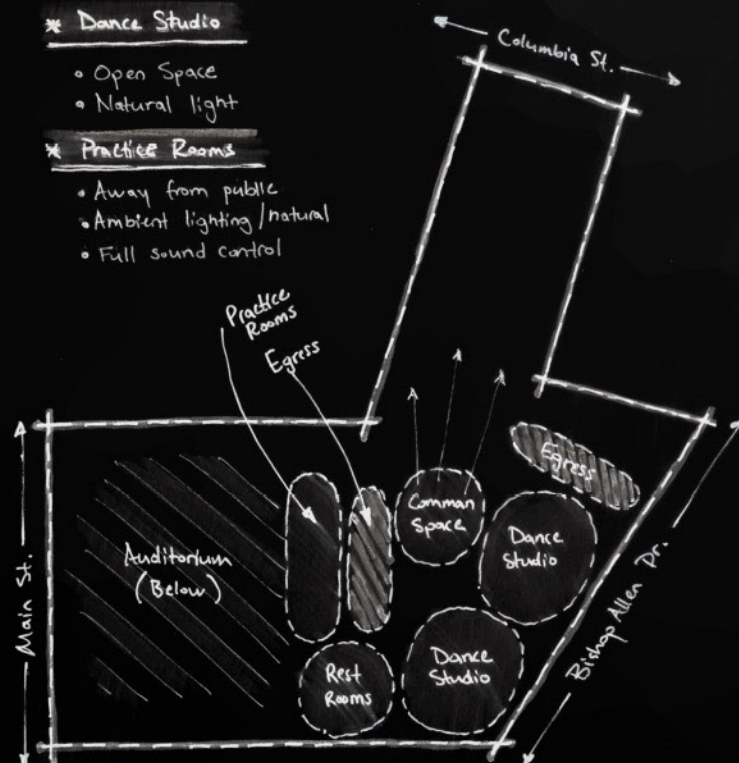
Third Floor Plan

* Dance Studio

- Open Space
- Natural light

* Practice Rooms

- Away from public
- Ambient lighting / natural
- Full sound control



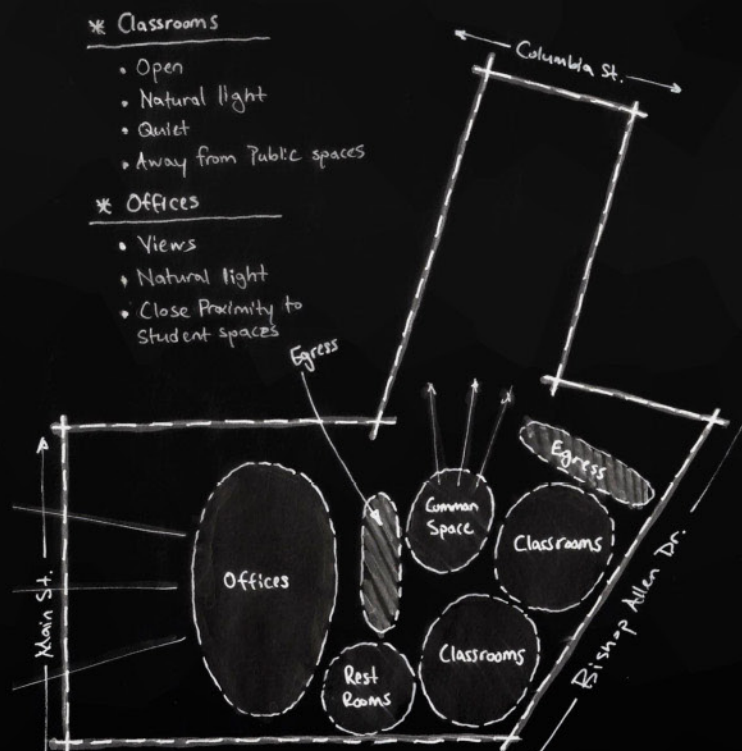
Fourth Floor Plan

* Classrooms

- Open
- Natural light
- Quiet
- Away from Public spaces

* Offices

- Views
- Natural light
- Close Proximity to Student spaces



Fifth Floor Plan

* Computer Lab

- Natural light
- Away from public spaces
- Temperature Control

* Classrooms

- Open
- Natural light
- Quiet
- Away from Public Spaces



Sixth Floor Plan

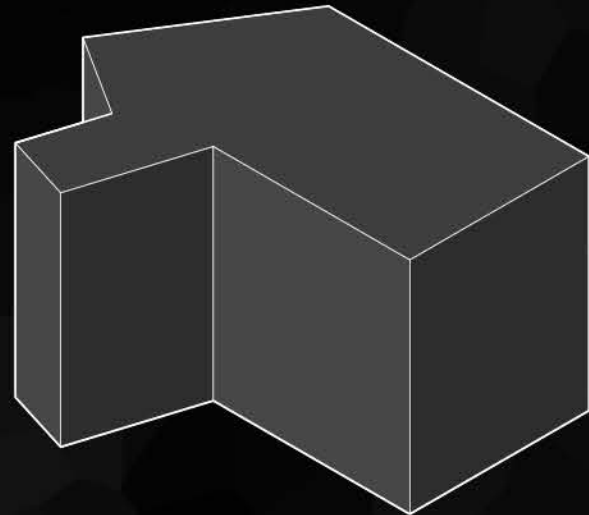
* Conference Room

- Quiet
- Away from Public Spaces
- Private

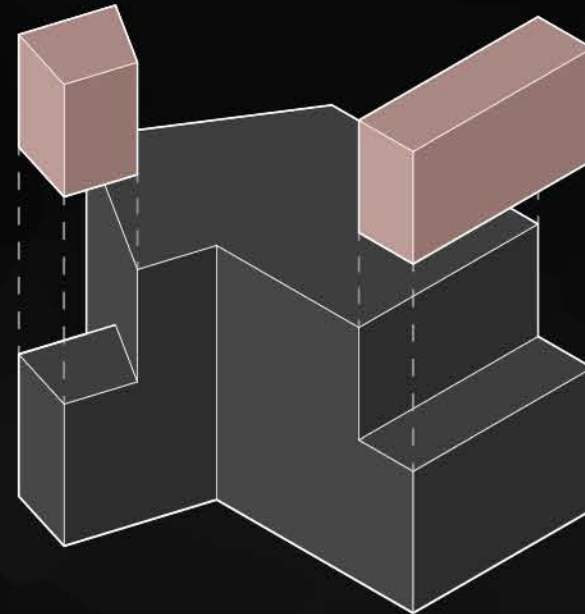
* Staff Lounge

- Open
- Noise Controlled
- Views
- Natural light

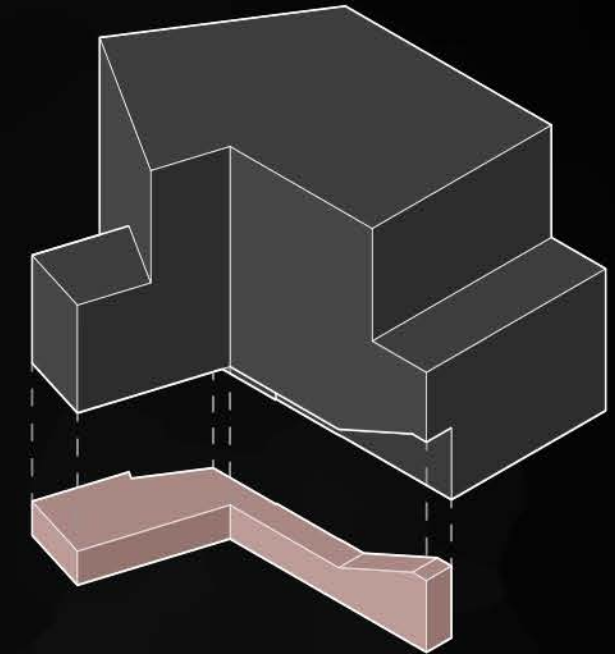
NAAB 2020 SC.5:
User Requirements



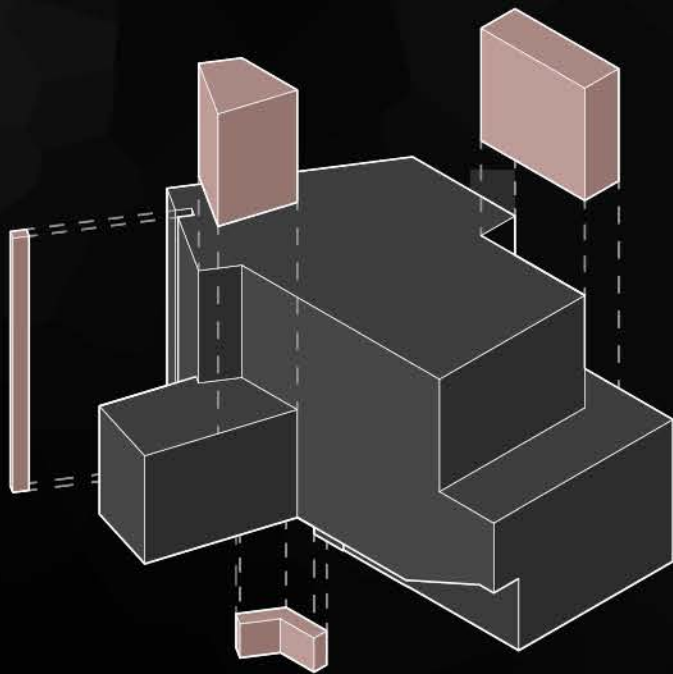
Allowable Blocking
Massing set within site parameters
and local zoning ordinances



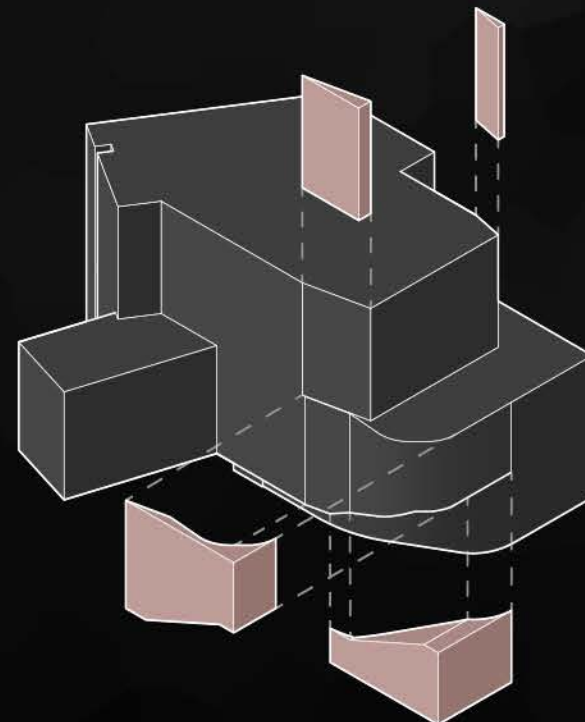
Contextual Courtesy
Respecting abutting building heights,
reducing the structures intimidation
at street level



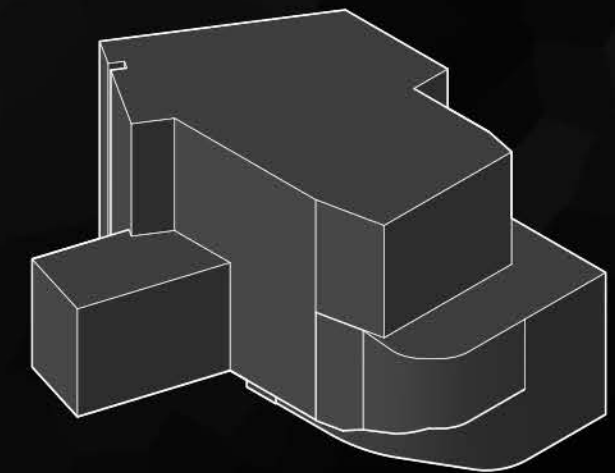
Community Circulation
Creating a pathway from Main St.
to Columbia Dr.



Form Reduction
Removing all unnecessary spaces
to create unique forms within



Functional Spaces
Adding flowing curves to increase
pedestrian absorption

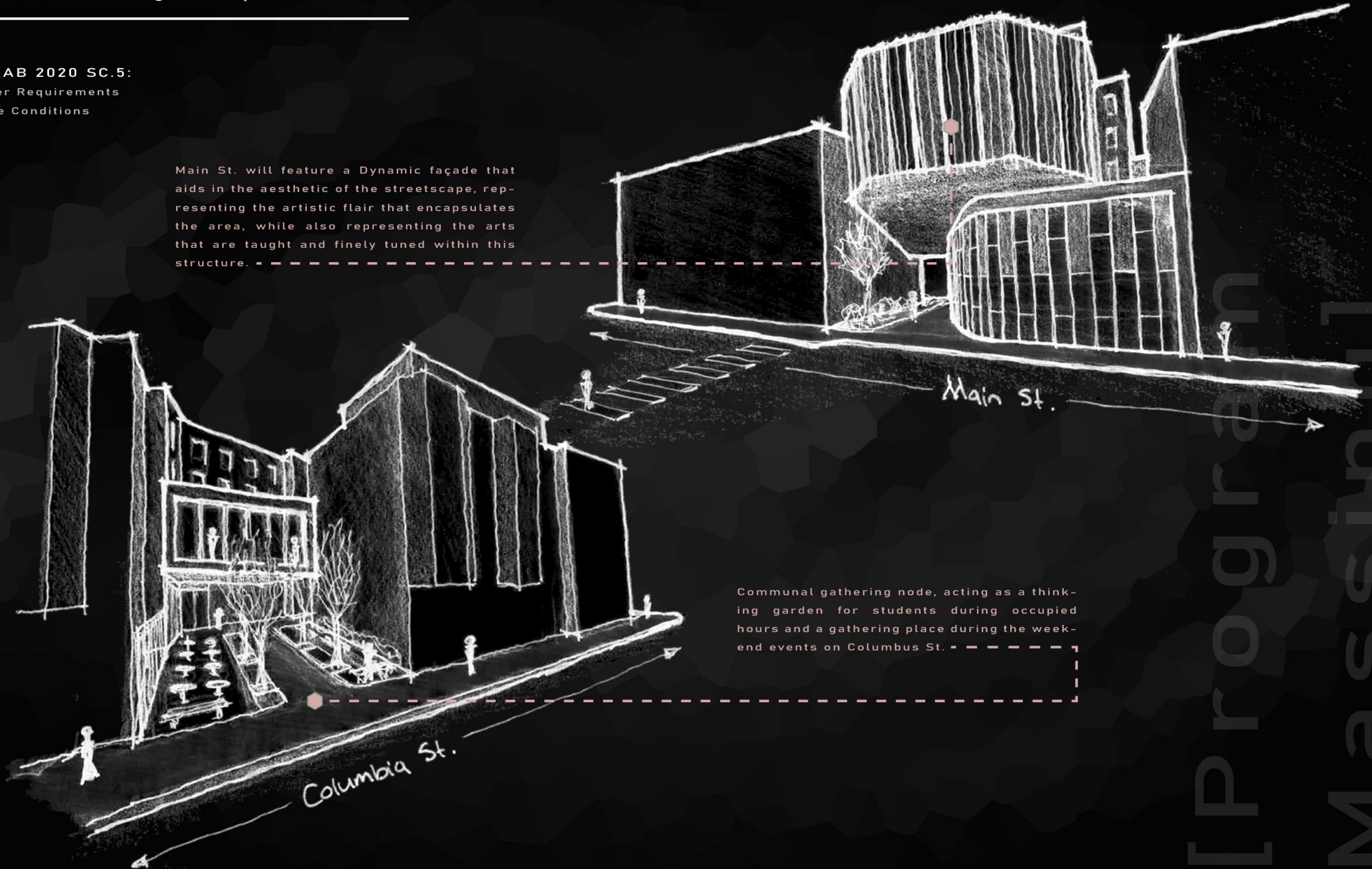


Finished Form
A form created with the community
at the forefront of the design

////////// Massing Concept

NAAB 2020 SC.5:
User Requirements
Site Conditions

Main St. will feature a Dynamic façade that aids in the aesthetic of the streetscape, representing the artistic flair that encapsulates the area, while also representing the arts that are taught and finely tuned within this structure.

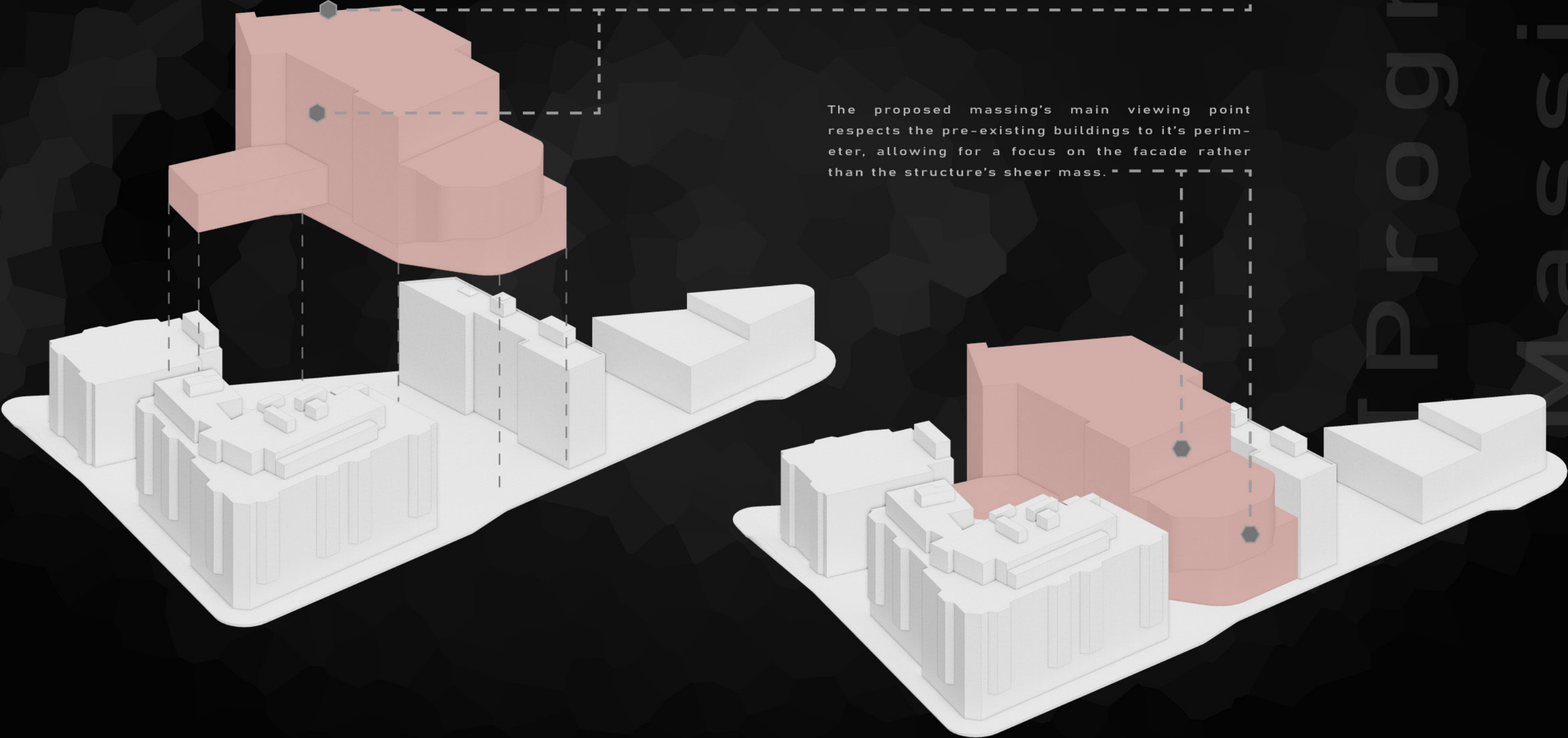


Communal gathering node, acting as a thinking garden for students during occupied hours and a gathering place during the weekend events on Columbus St.

//// Axonometric Context

NAAB 2020 SC.5:
User Requirements

- Proposed Structure
- Exist. Conditions



The overall form of the proposed massing allows for views both into the site and out. The large wall facing Columbus St. will act as a display for local artists to engage with.

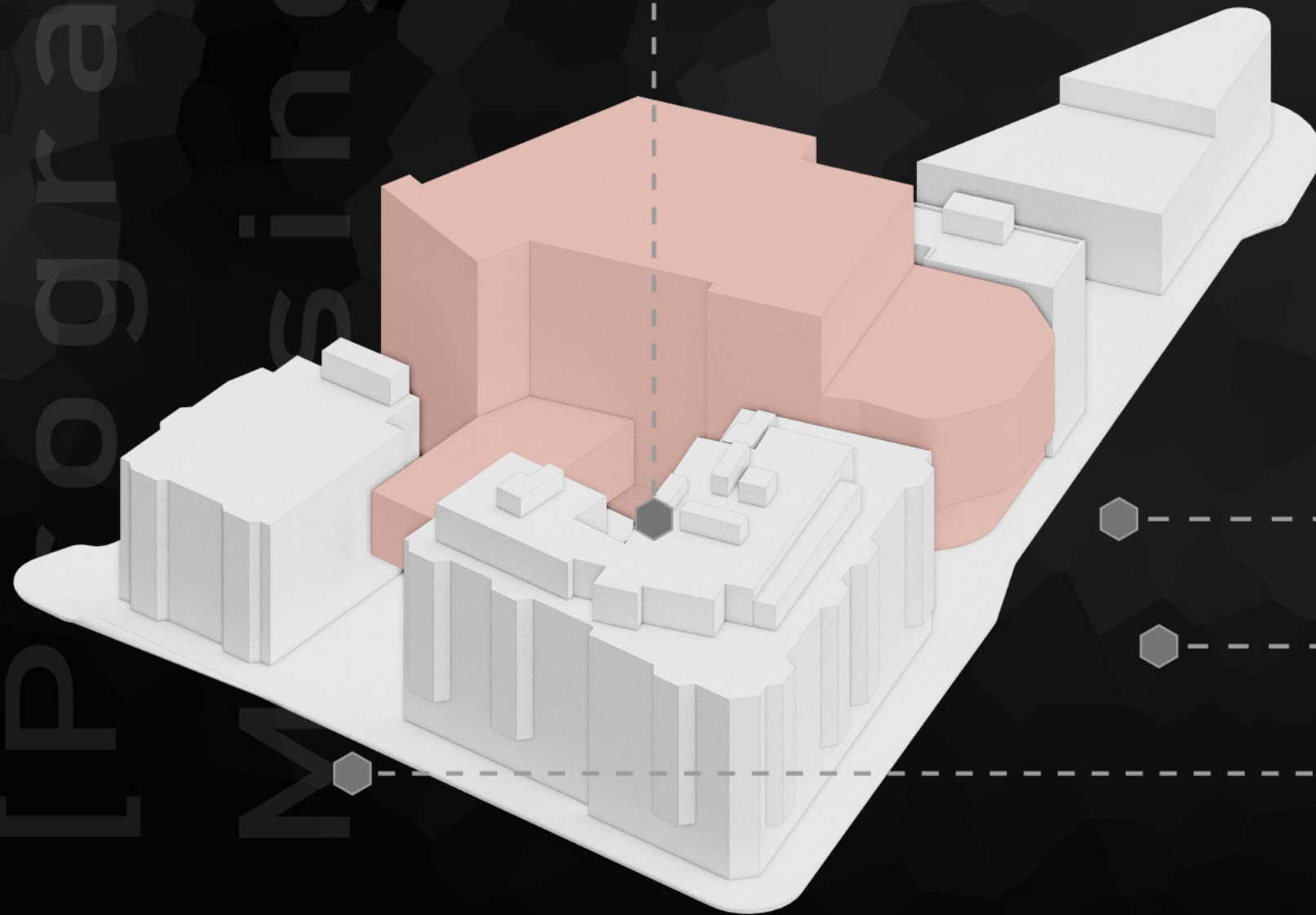
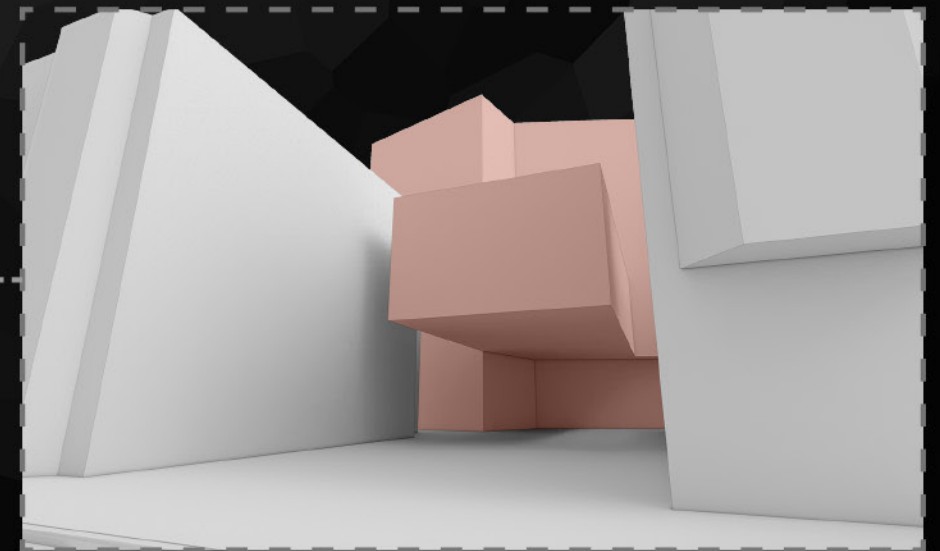
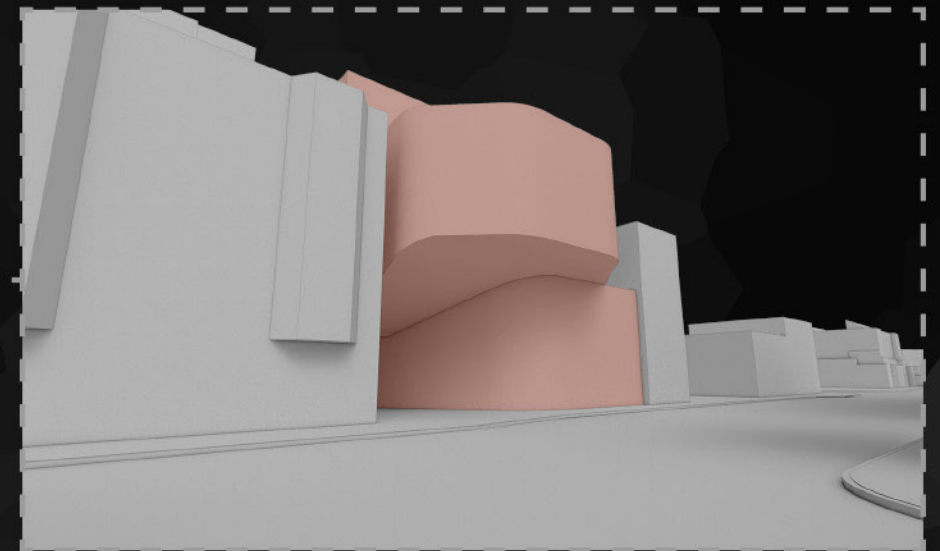
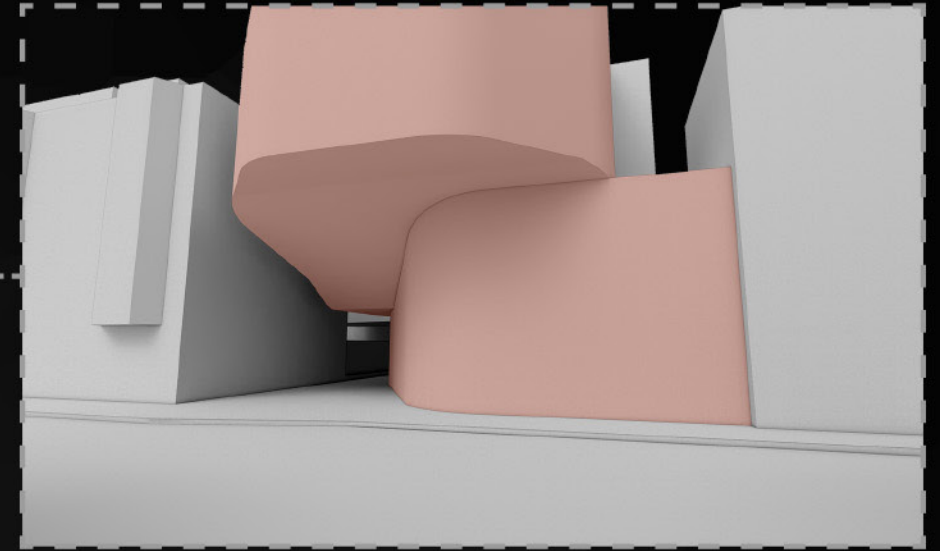
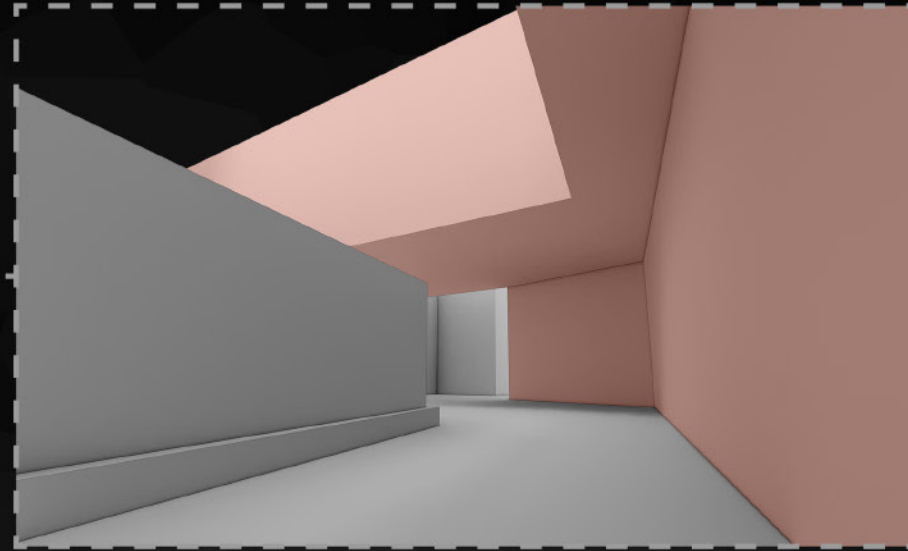
The proposed massing's main viewing point respects the pre-existing buildings to it's perimeter, allowing for a focus on the facade rather than the structure's sheer mass.

[Proposed Massing]

////////// Perspective Projections

NAAB 2020 SC.5:
User Requirements

- Proposed Structure
- Exist. Conditions



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W
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////// Sun Study

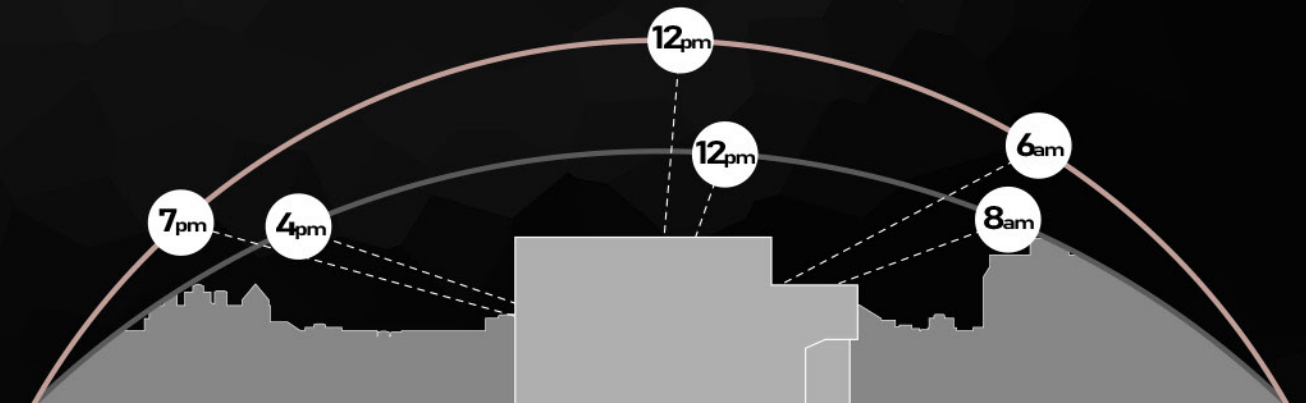
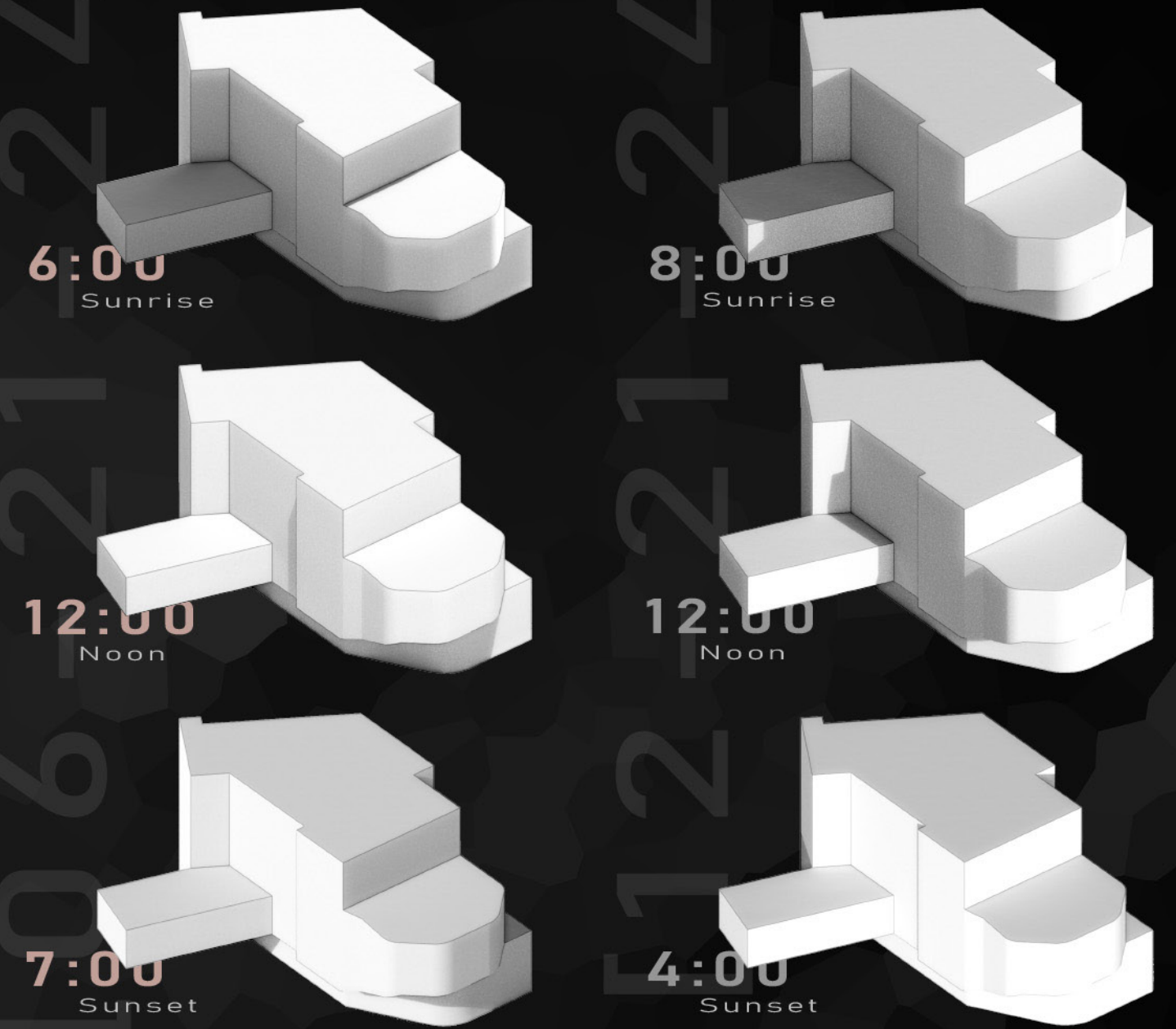
NAAB 2020 SC.5:

Consideration of measurable Environmental impacts and their Design Decisions

- Summer Sun
- Winter Sun



Cambridge, Massachusetts, USA
42°21'49"N 71°05'57"W

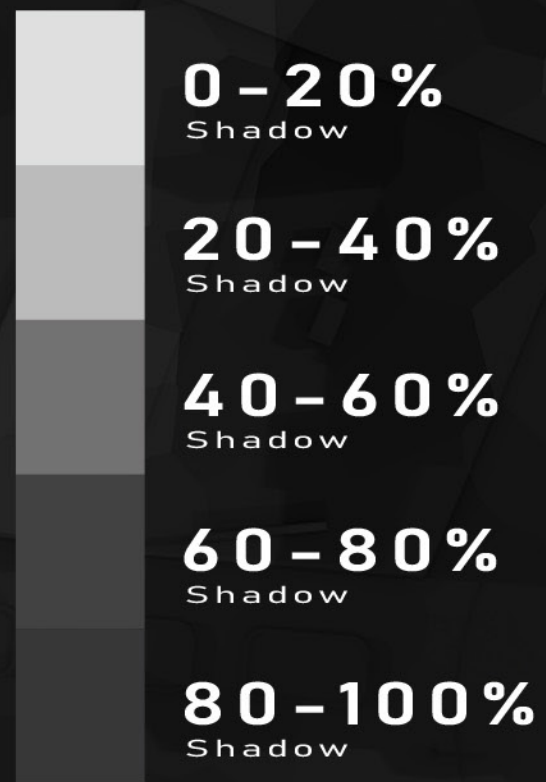


Shadow Study

NAAB 2020 SC.5:
Consideration of measurable Environmental
impacts and their Design Decisions

- Proposed Structure
- Existing Conditions

Occupied Hours Shaded



06-21-24
Cambridge, Massachusetts, USA
42°21'49"N 71°05'57"W



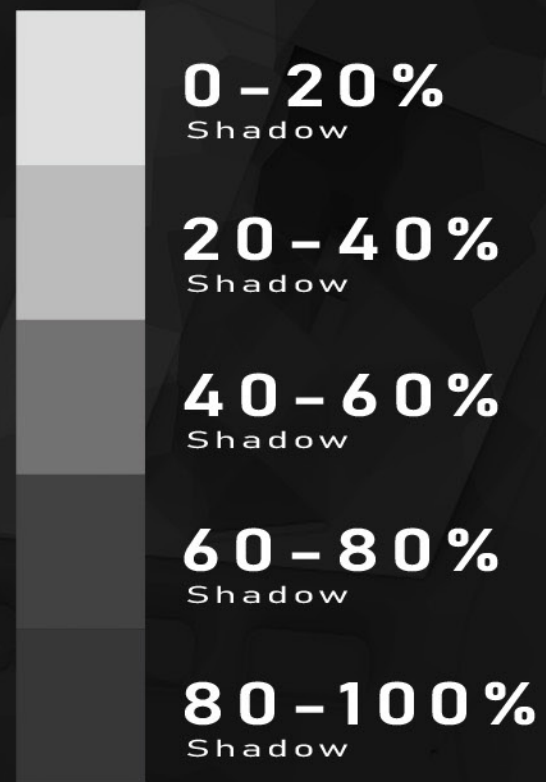
06-21-24

Shadow Study

NAAB 2020 SC.5:
Consideration of measurable Environmental
impacts and their Design Decisions

- Proposed Structure
- Existing Conditions

Occupied Hours Shaded



12-21-24
Cambridge, Massachusetts, USA
42°21'49"N 71°05'57"W



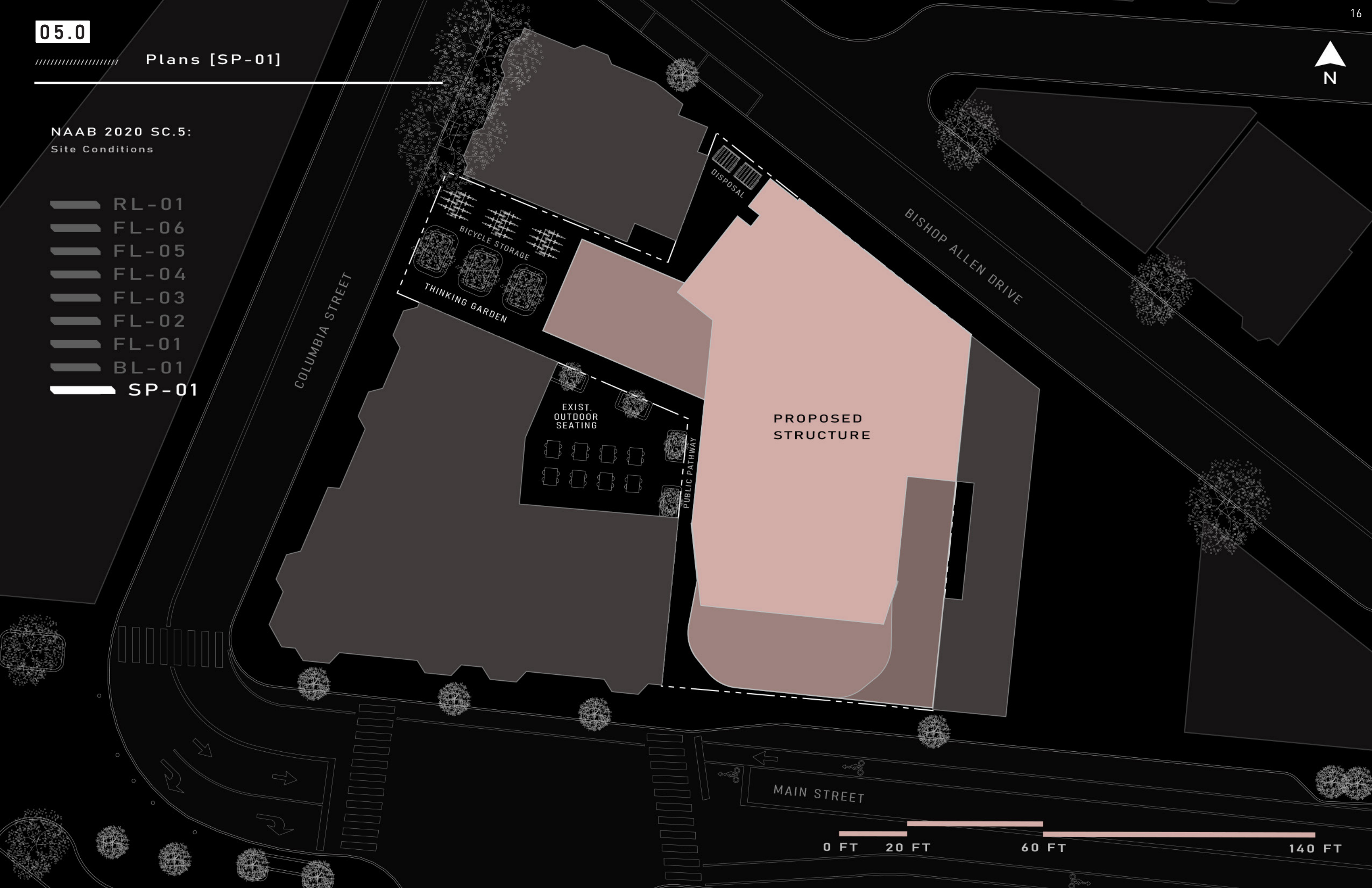
[12-21-24]

Plans [SP-01]



NAAB 2020 SC.5:
Site Conditions

-  RL-01
-  FL-06
-  FL-05
-  FL-04
-  FL-03
-  FL-02
-  FL-01
-  BL-01
-  SP-01





NAAB 2020 SC.5:
User Requirements

-  RL-01
-  FL-06
-  FL-05
-  FL-04
-  FL-03
-  FL-02
-  FL-01
-  BL-01
-  SP-01



[BL-01]

GROSS - 9,390 SF
NET - 7,810 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

- RL-01
- FL-06
- FL-05
- FL-04
- FL-03
- FL-02
- FL-01
- BL-01
- SP-01



[FL-01]

GROSS - 6,879 SF
NET - 5,961 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

-  RL-01
-  FL-06
-  FL-05
-  FL-04
-  FL-03
-  **FL-02**
-  FL-01
-  BL-01
-  SP-01



[FL-02]



GROSS - 11,020 SF
NET - 9,662 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

- RL-01
- FL-06
- FL-05
- FL-04
- FL-03
- FL-02
- FL-01
- BL-01
- SP-01



[FL-03]

GROSS - 9,976 SF
NET - 8,673 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

- RL-01
- FL-06
- FL-05
- FL-04
- FL-03
- FL-02
- FL-01
- BL-01
- SP-01



[FL-04]



GROSS - 10,000 SF
NET - 8,741 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

- RL-01
- FL-06
- FL-05**
- FL-04
- FL-03
- FL-02
- FL-01
- BL-01
- SP-01



[FL-05]



GROSS - 7,485 SF
NET - 6,440 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

- RL-01
- FL-06
- FL-05
- FL-04
- FL-03
- FL-02
- FL-01
- BL-01
- SP-01



[FL-06]

GROSS - 7,485 SF
NET - 6,648 SF

1/16" = 1'-0"



NAAB 2020 SC.5:
User Requirements

- RL-01
- FL-06
- FL-05
- FL-04
- FL-03
- FL-02
- FL-01
- BL-01
- SP-01

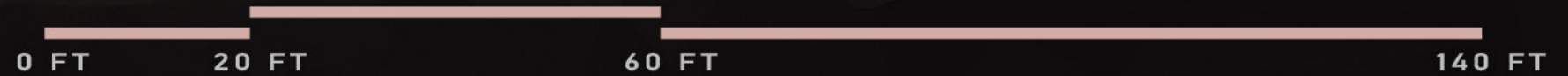
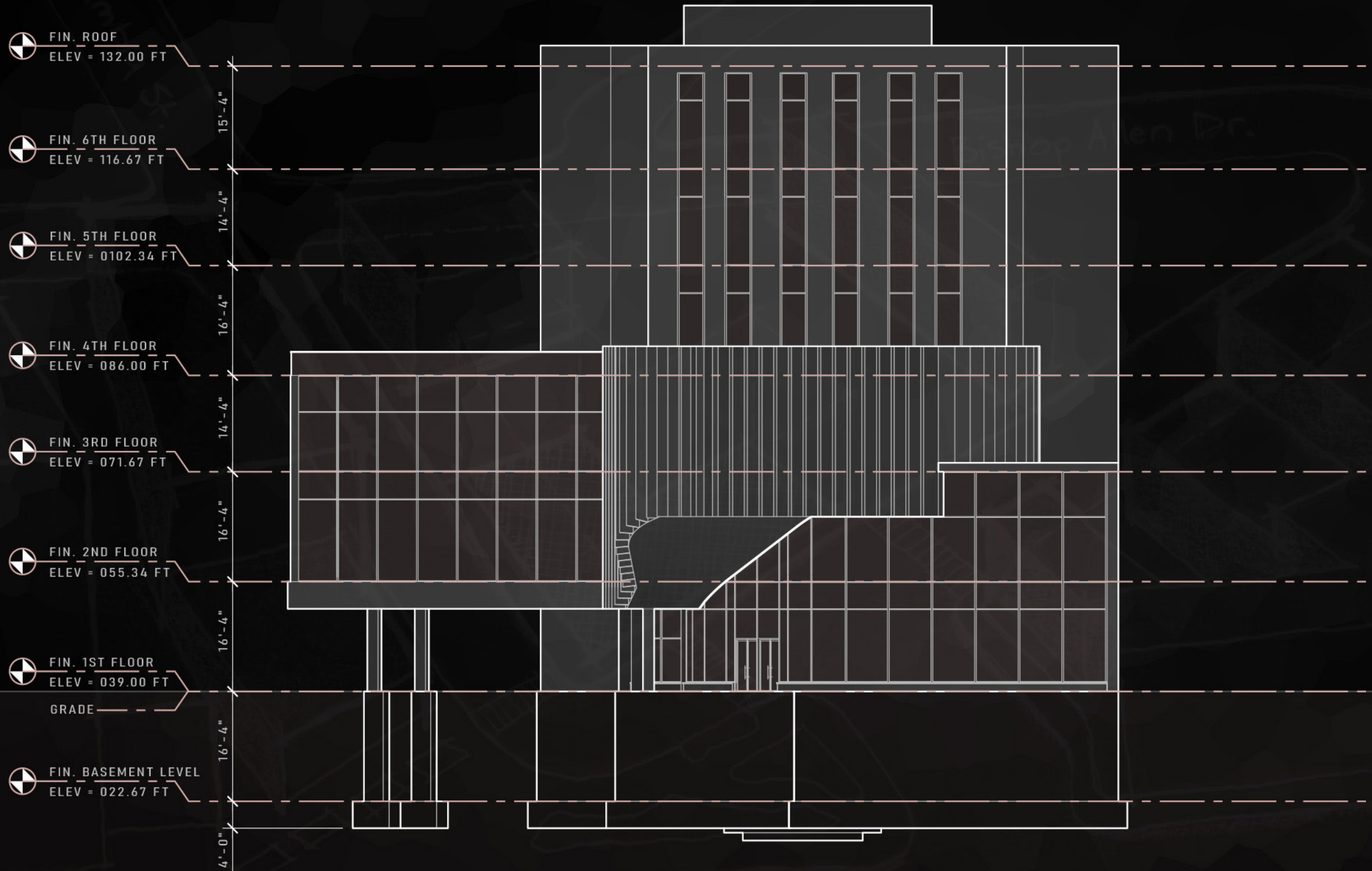


[RL-01]

1/16" = 1'-0"

////// Elevation [North]

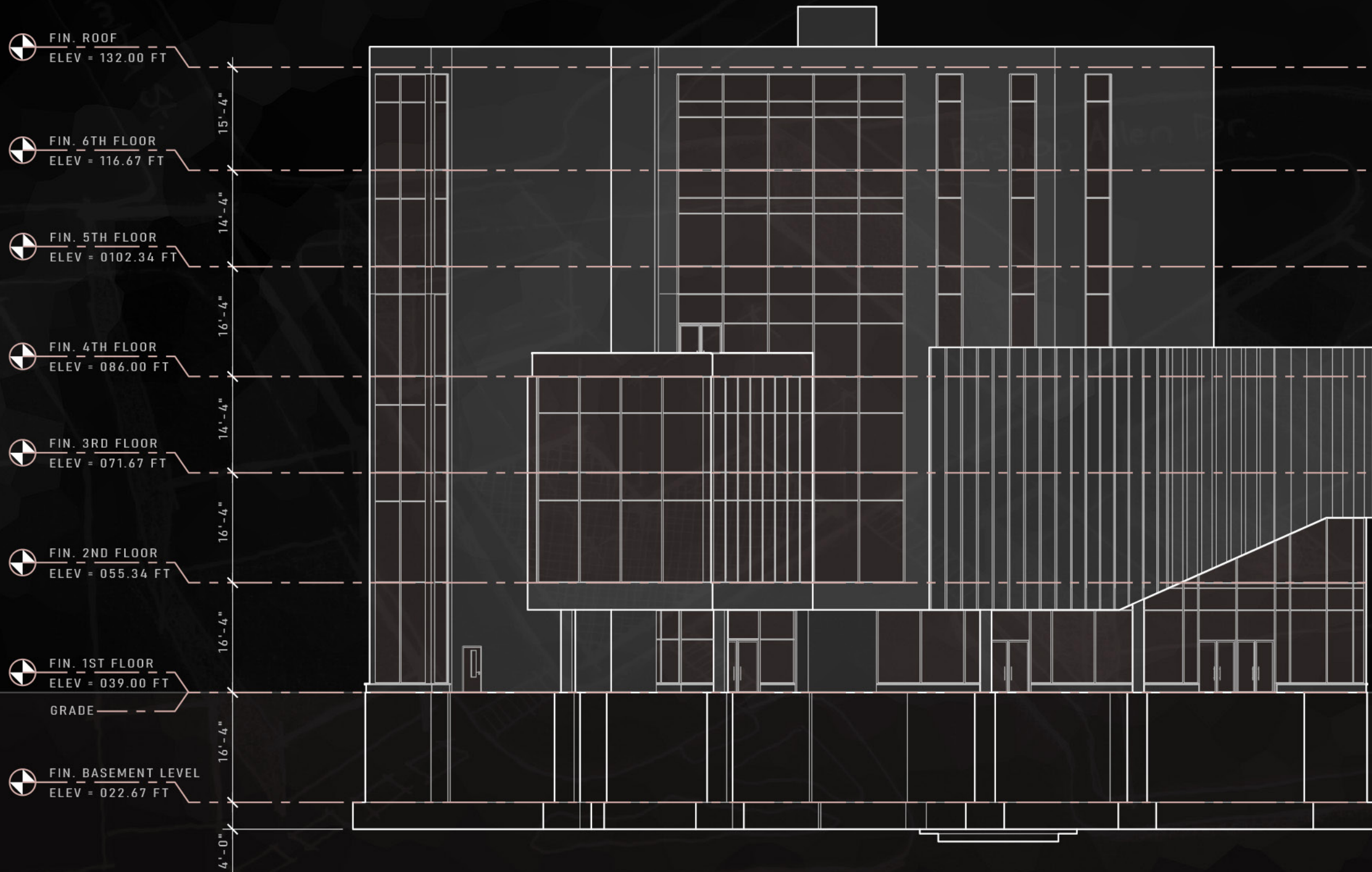
Performance Arts Campus
Ringe and Latin School



NORTH

////// Elevation [East]

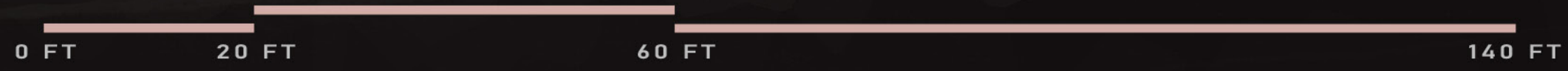
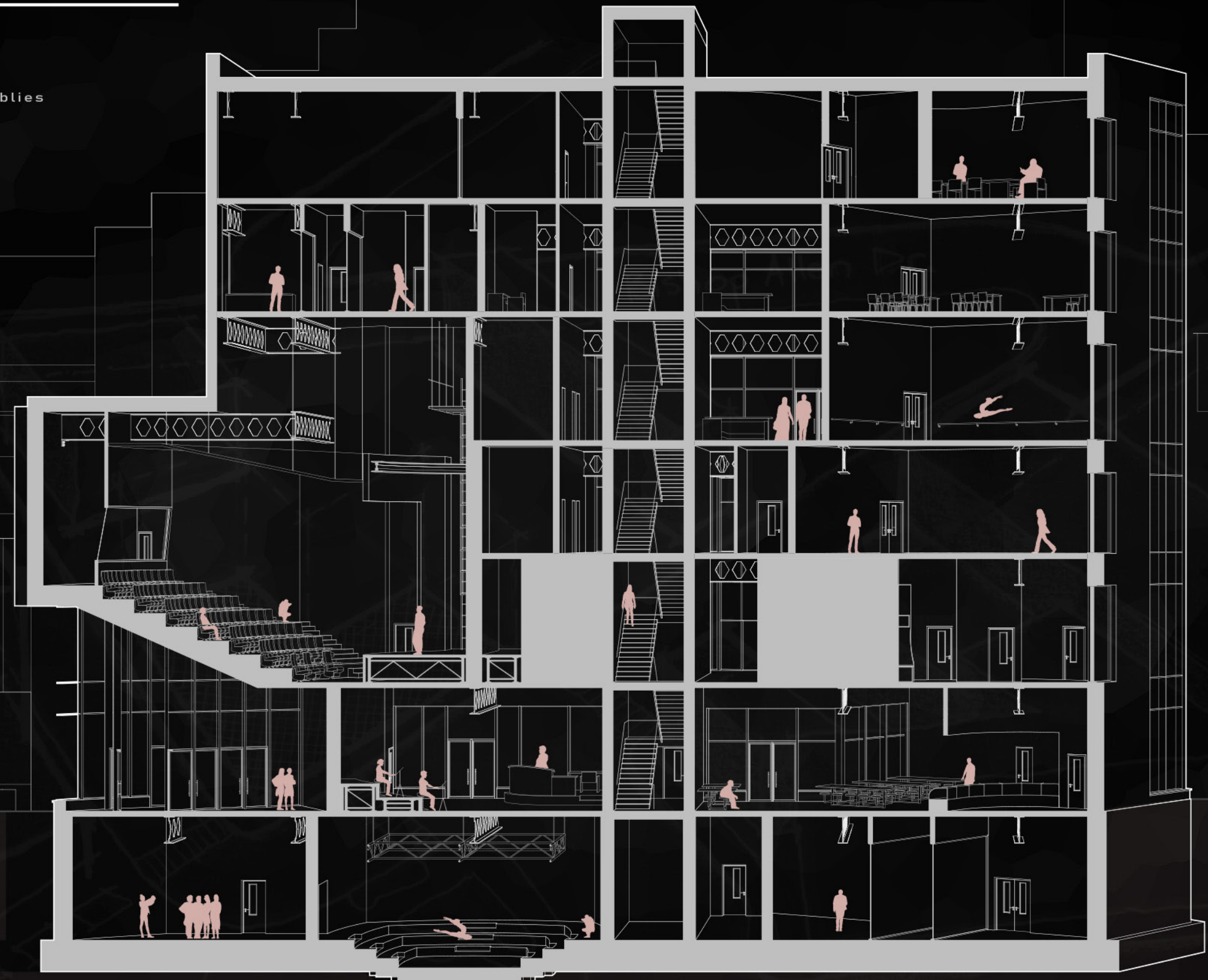
Performance Arts Campus
Ringe and Latin School



EAST

Section A-A' [Illustrative]

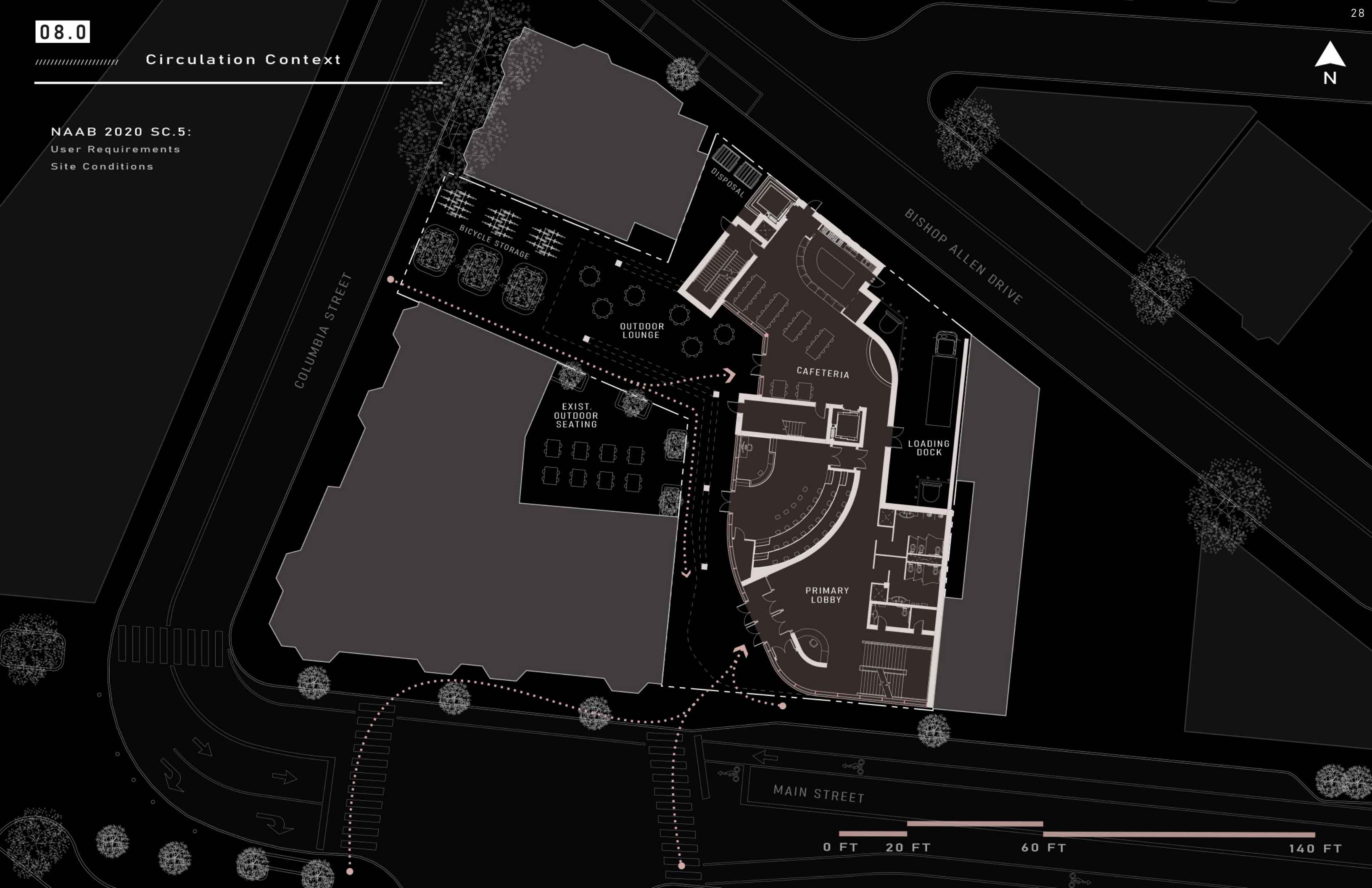
NAAB 2020 SC.6:
Building Envelope Systems and Assemblies



SECTION A-A'

Circulation Context

NAAB 2020 SC.5:
User Requirements
Site Conditions



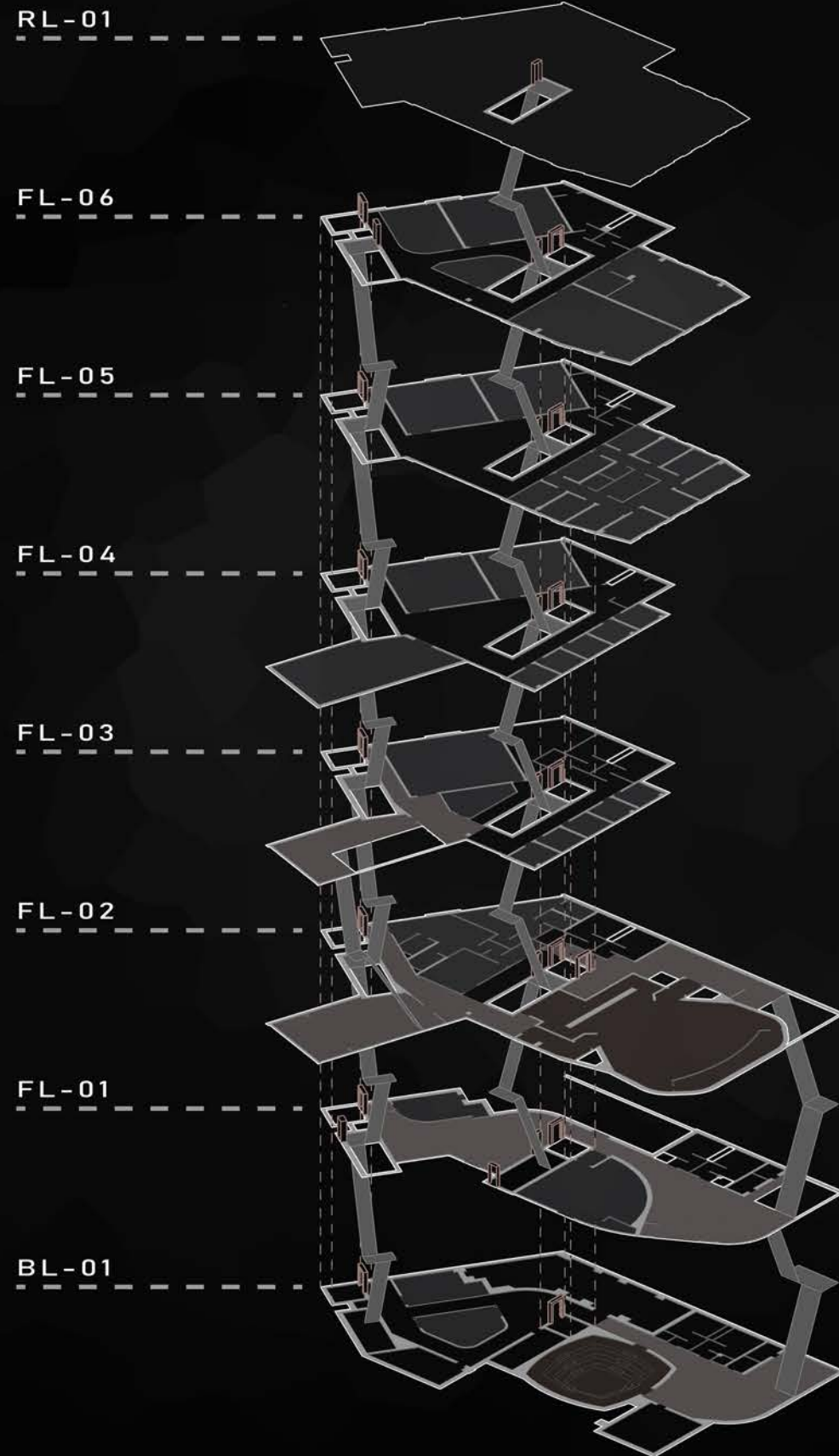
Circulation Diagram

NAAB 2020 SC.5:
User Requirements

Circulation Legend

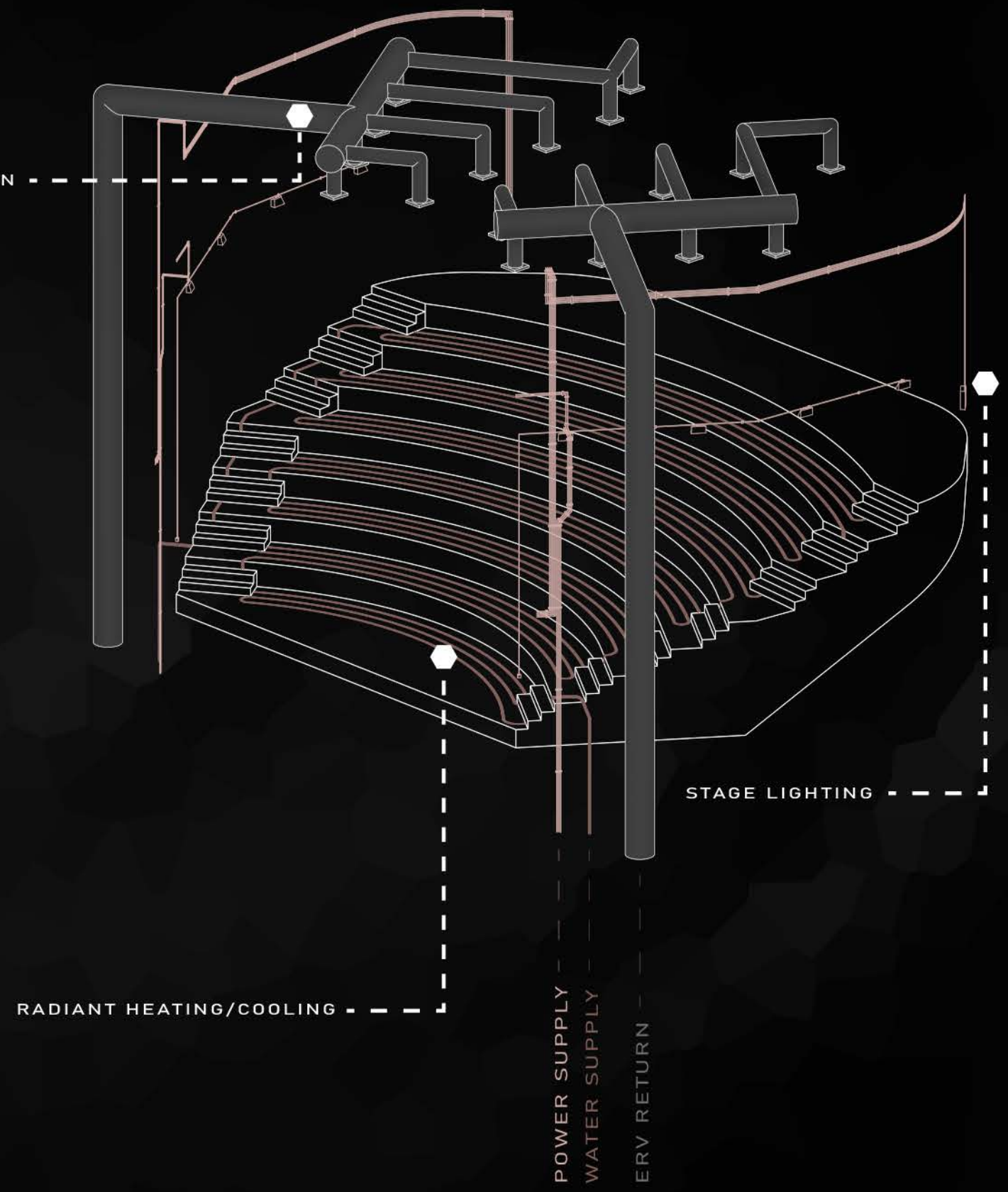
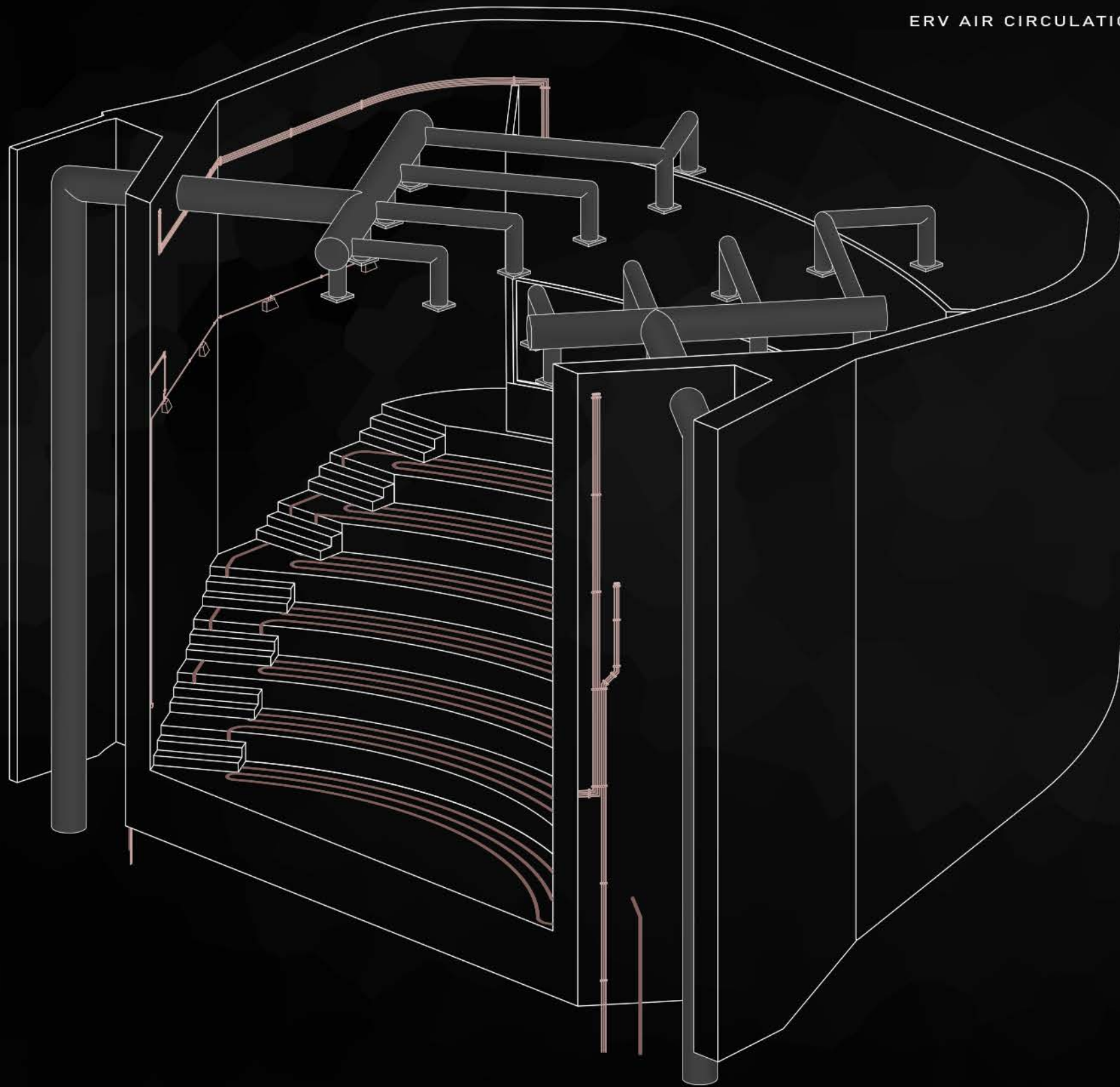
- Public Space
- Performance Space
- Student/ Staff Space
- Circulation/ Utility Space
- Elevator Core

CIRCULATION
AXONOMETRIC



MEP System Integration

Auditorium MEP Systems
Layout and Functions

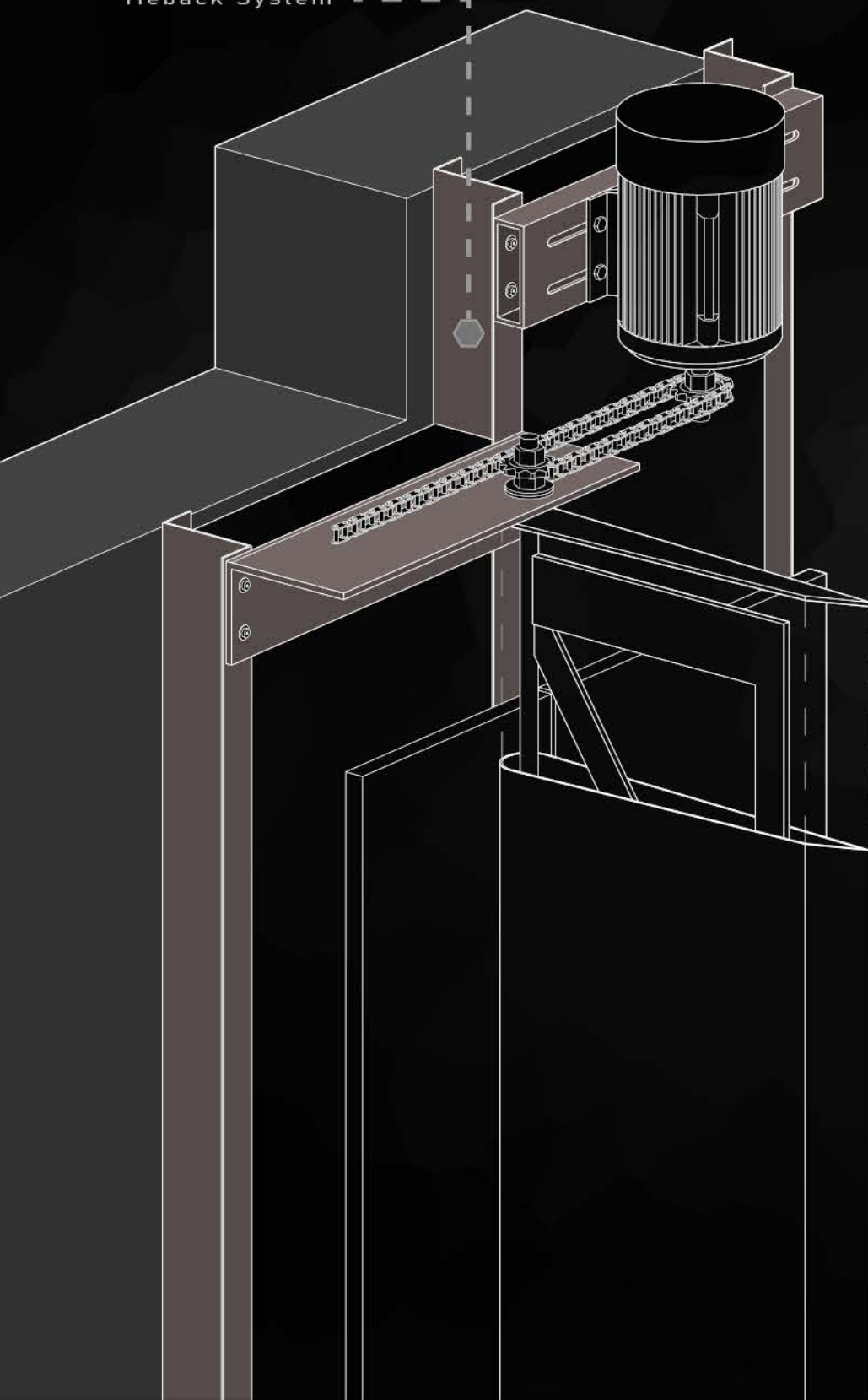


- Mechanical
- Electrical
- Plumbing

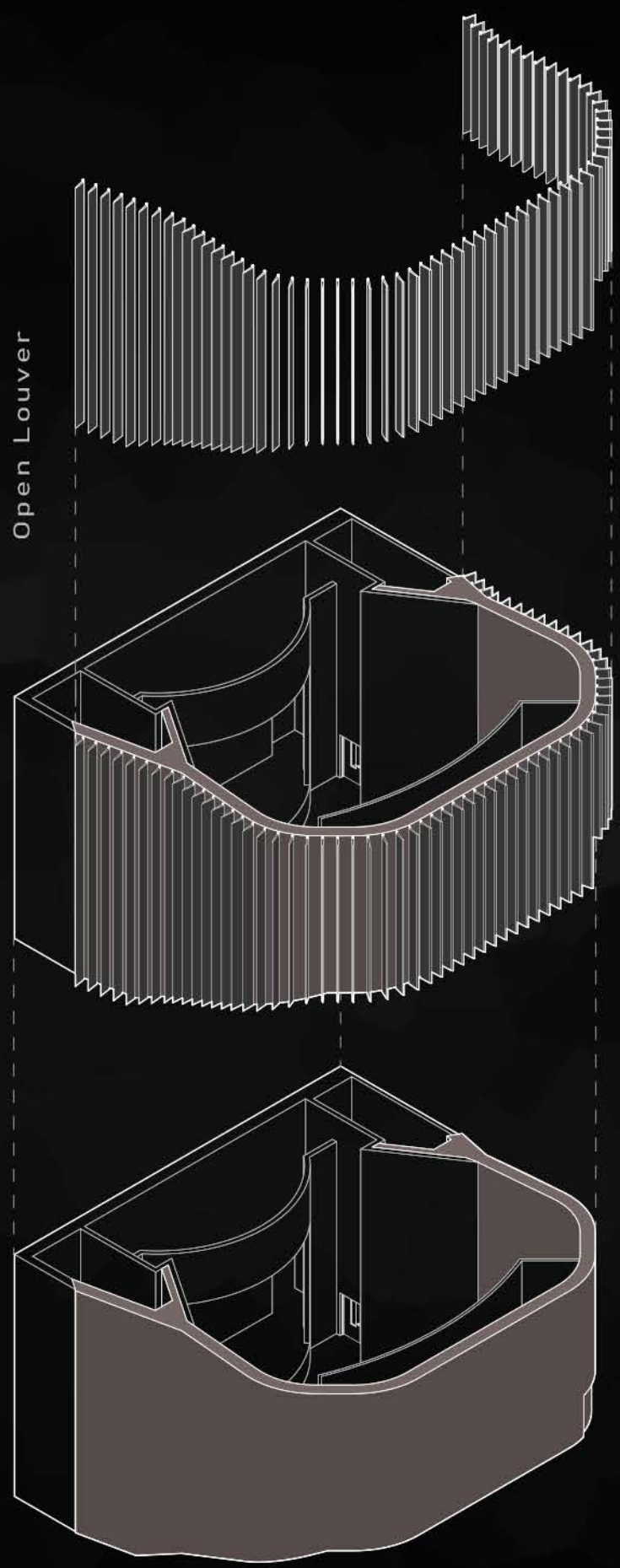
System Integration

NAAB 2020 SC.6:
Building Envelope systems and Assemblies

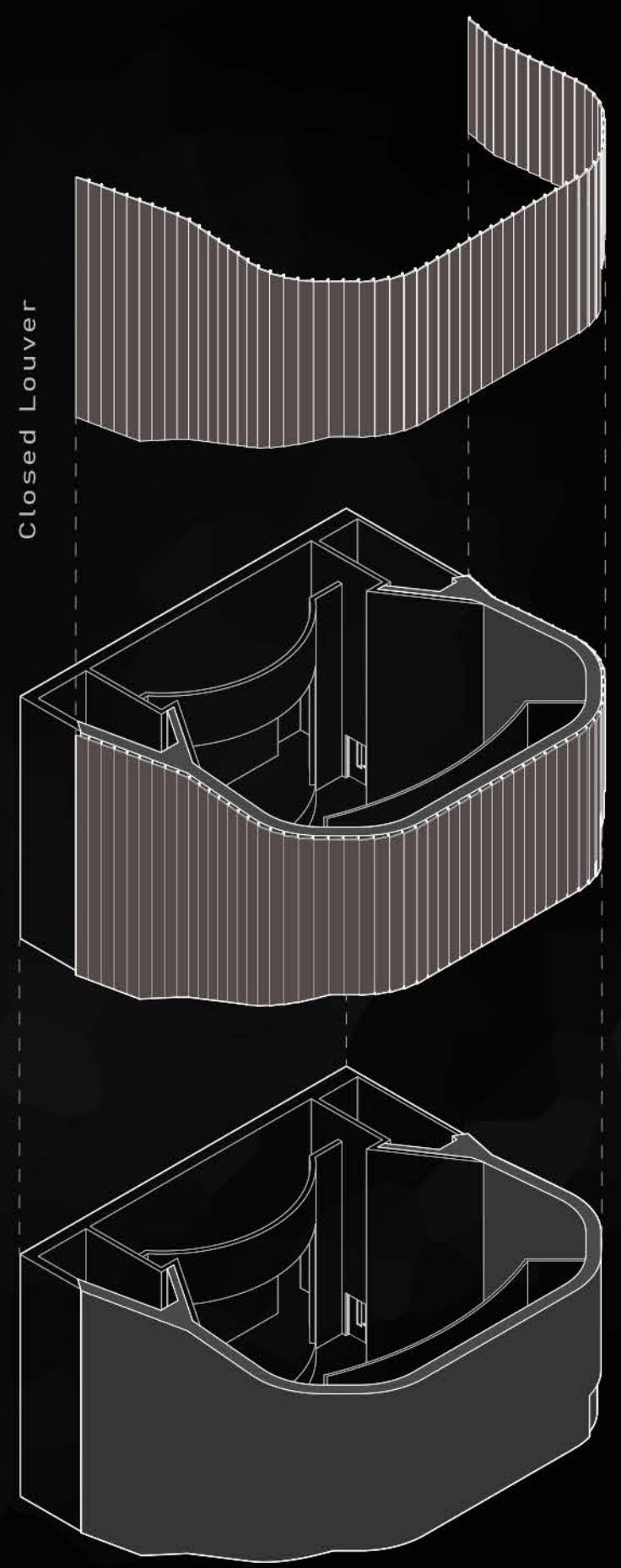
Tieback System



Open Louver



Closed Louver

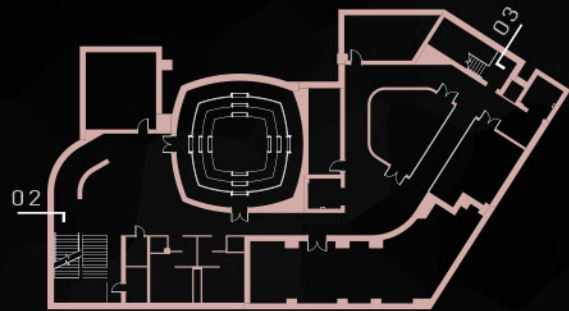


Warmed
Cooled

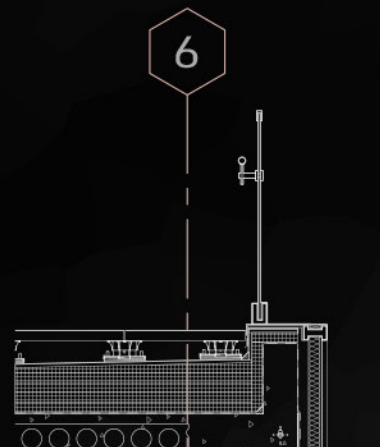
Wall Sections

NAAB 2020 SC.6:
Building Envelope systems and Assemblies

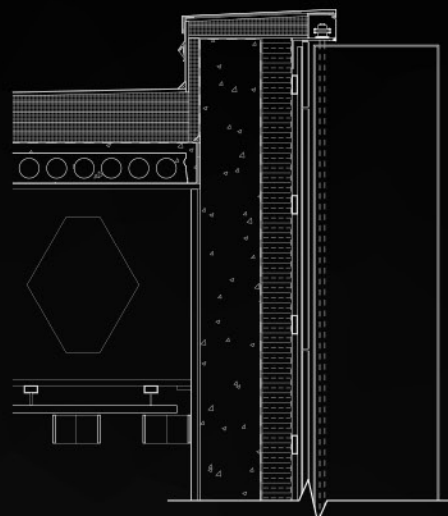
BL-01



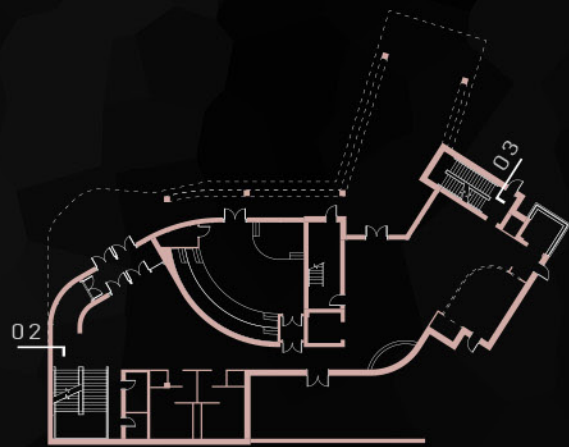
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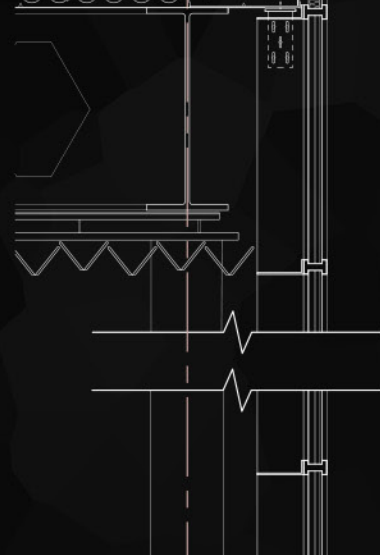
EPA - 02.0



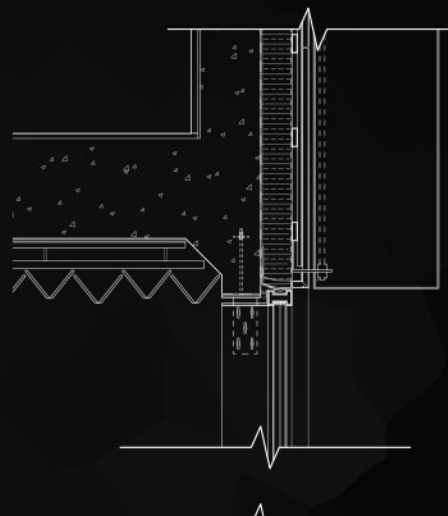
FL-01



EWA - 01.0



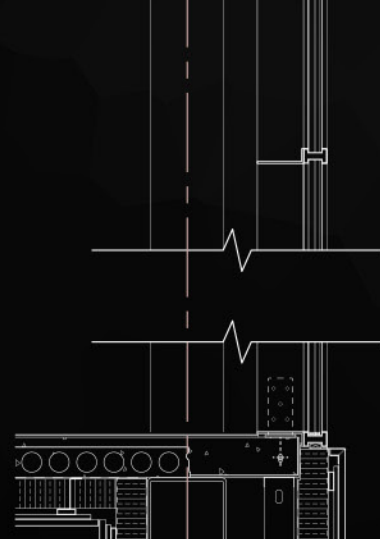
EWA - 02.0



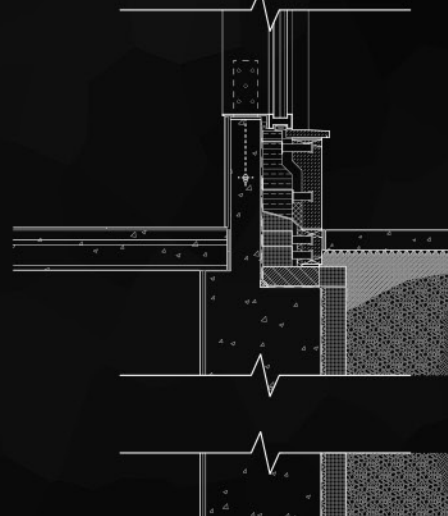
FL-02



EWA - 01.1



EWA - 02.2

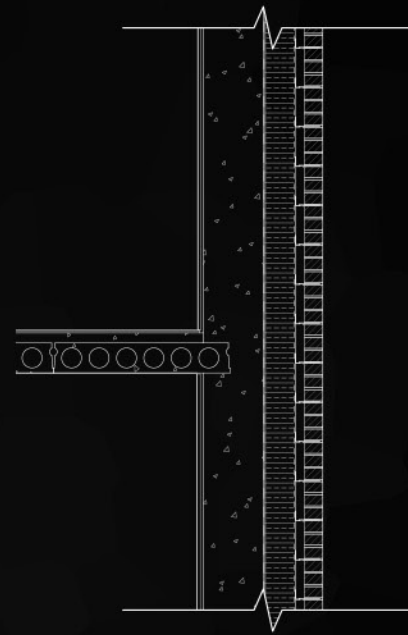


01 - LIBRARY

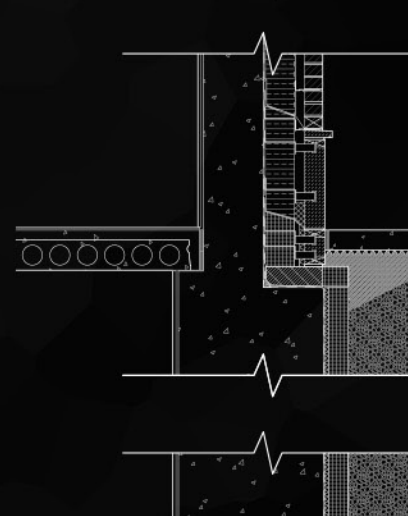
02 - LOBBY/AUDITORIUM

03 - STAIRWELL 'B'

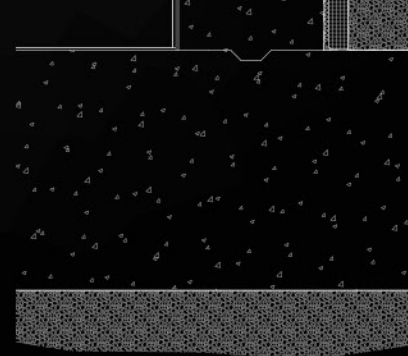
EWA - 03.0



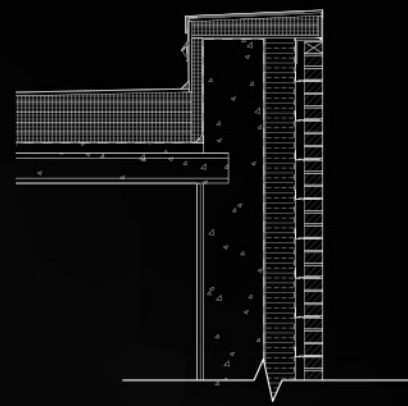
EWA - 03.1



EWA - 03.2



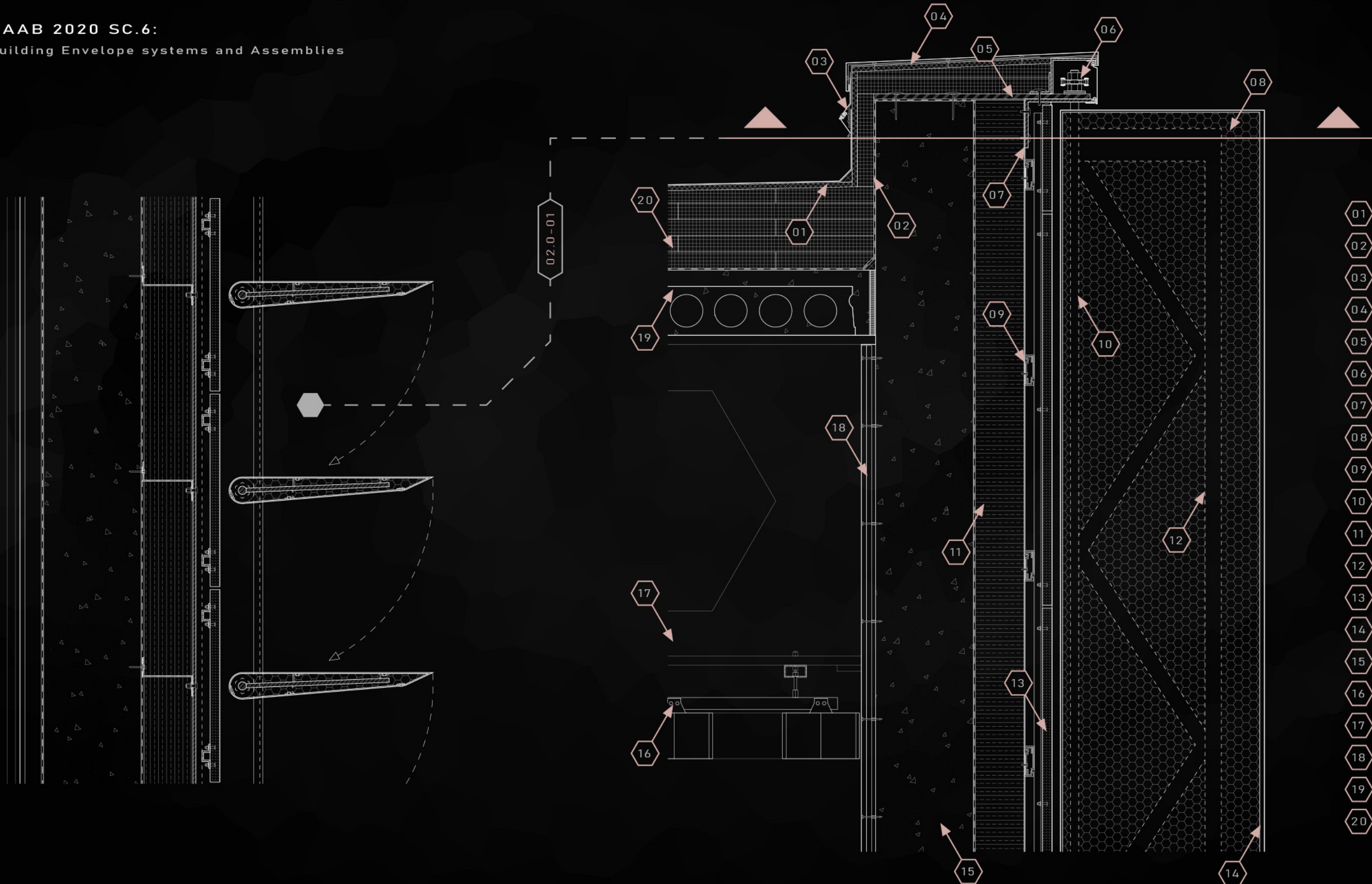
EPA - 03.0



5/16" = 1'-0"

NAAB 2020 SC.6:
Building Envelope systems and Assemblies

PLAN VIEW - PARAPET

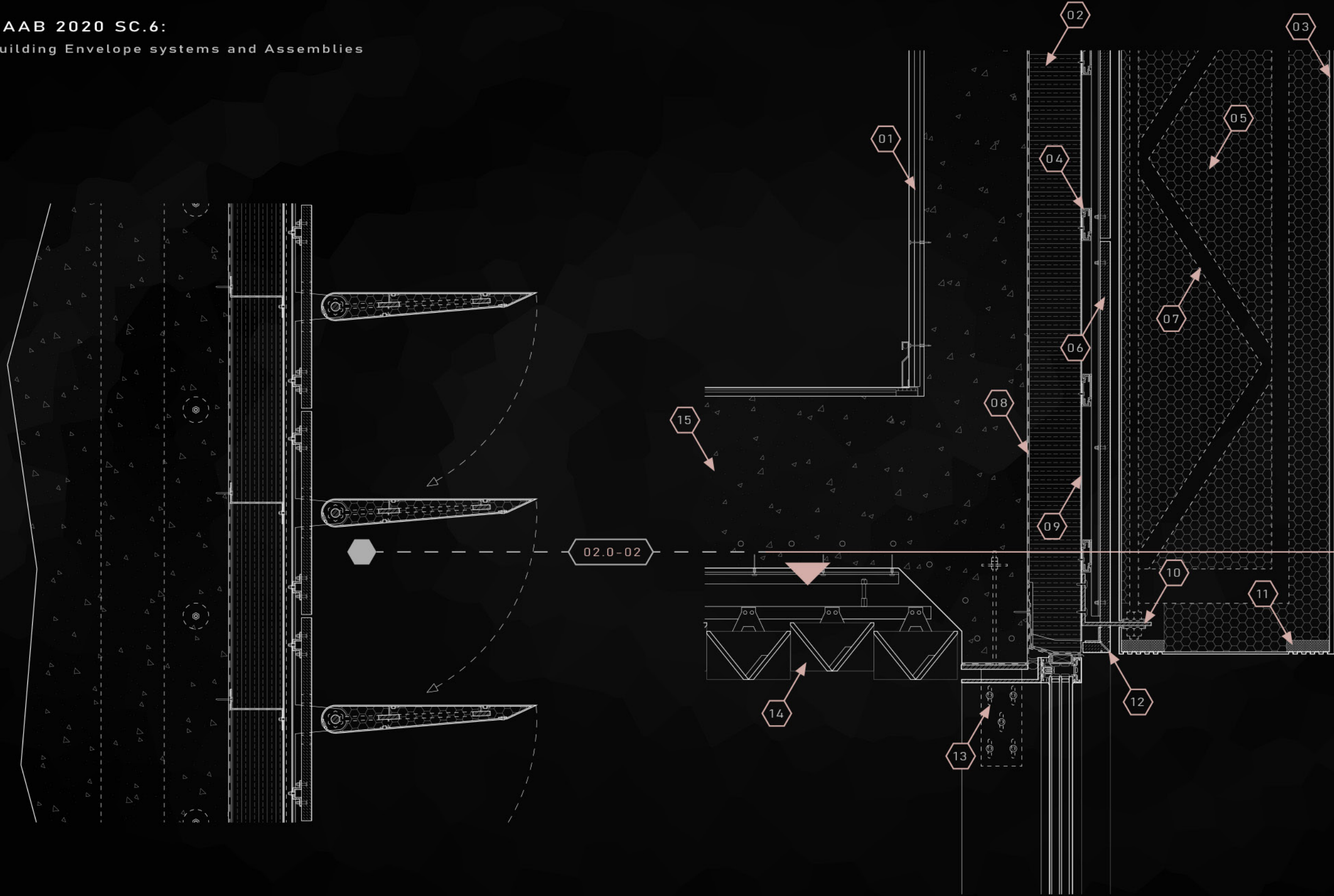


- 01 EXTERIOR GWB (5/8")
- 02 POLYETHYLENE MEMBR.
- 03 2-PC ALUM. FLASHING
- 04 TPO MEMBR.
- 05 FRP PLATE (5/8")
- 06 SPROCKET / CHAIN
- 07 FRP Z PROFILE (VERTIC.)
- 08 POLYURETHANE FOAM
- 09 2-PC CHANNEL
- 10 S.S. SPINDLE (1")
- 11 MINERAL WOOL INSUL. (6")
- 12 PREFAB. FLAT-BAR TRUSS
- 13 GRANITE PANEL SYST.
- 14 ALUMINUM SKIN (1/4")
- 15 UHPC / UHSC
- 16 ACOUSTIC BAFFLING
- 17 CASTELLATED BEAM
- 18 2-PC GWB (5/8")
- 19 H.C. PLANK W/ 2" TOPP.
- 20 XPS INSUL.

1" = 1'-0"

NAAB 2020 SC.6:
Building Envelope systems and Assemblies

PLAN VIEW - SECOND STORY TRANSITION



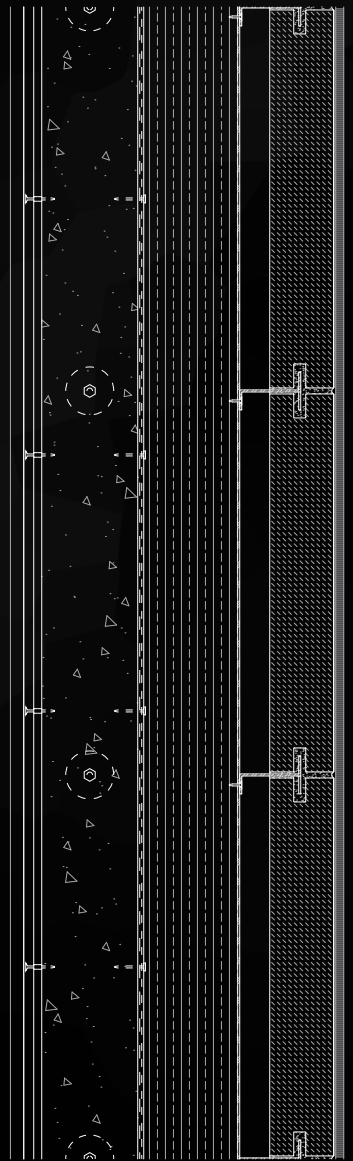
- 01 2-PC GWB (5/8")
- 02 MINERAL WOOL (6")
- 03 ALUMINUM SKIN (1/4")
- 04 2-PC CHANNEL
- 05 POLYURETHANE FOAM
- 06 GRANITE PANEL SYST.
- 07 PREFAB. FLAT-BAR TRUSS
- 08 POLYETHYLENE MEMBR.
- 09 FRP Z PROFILE (VERTIC.)
- 10 TEFLON WASHER STACK
- 11 WEEPS (40 PPI)
- 12 EPOX. MITER JOINT
- 13 SLOTTED KNIFE PLATE (1/2")
- 14 ACOUSTIC BAFFLING
- 15 UHSC (CONCRETE)

EWA - 02.1

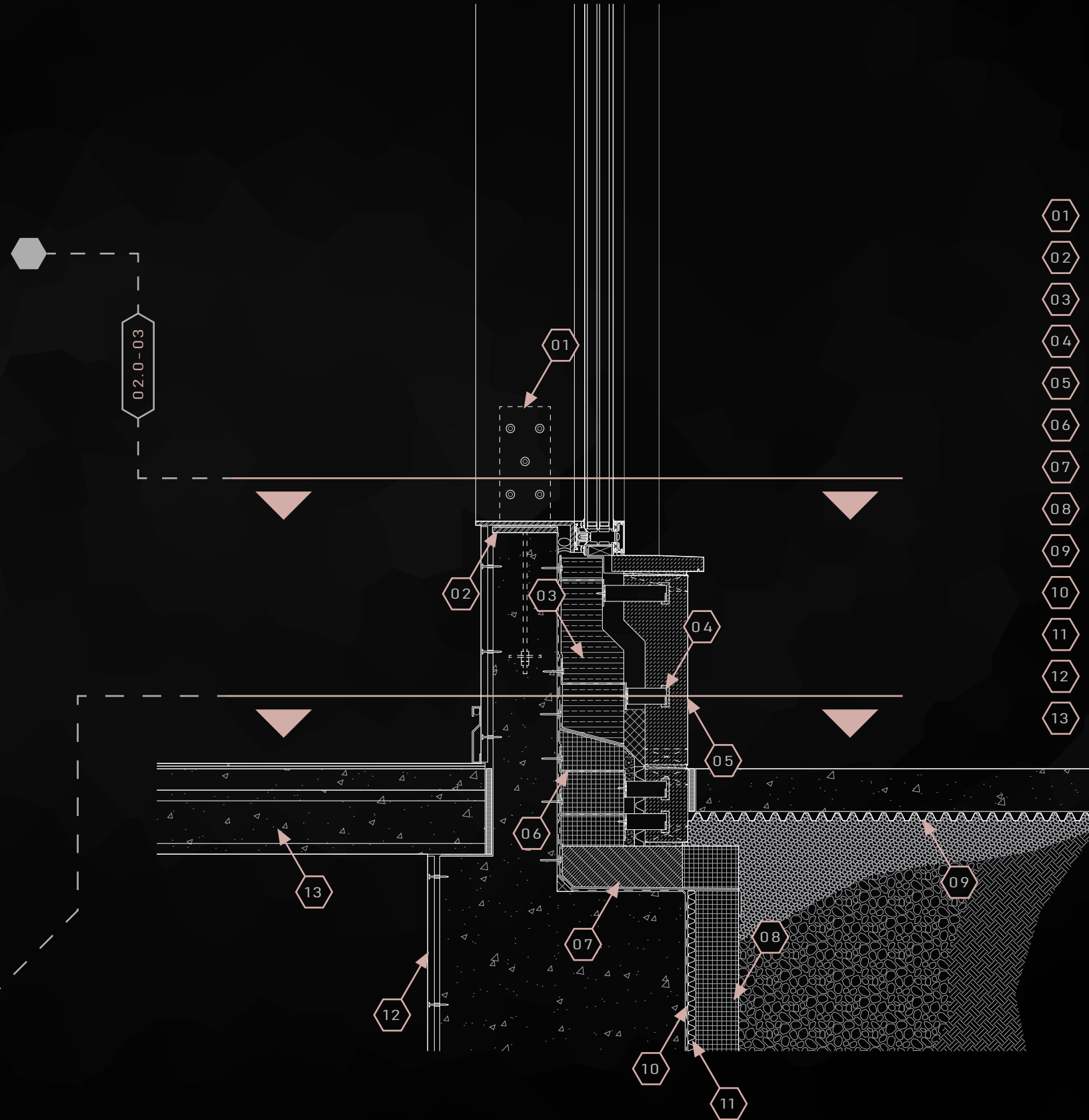
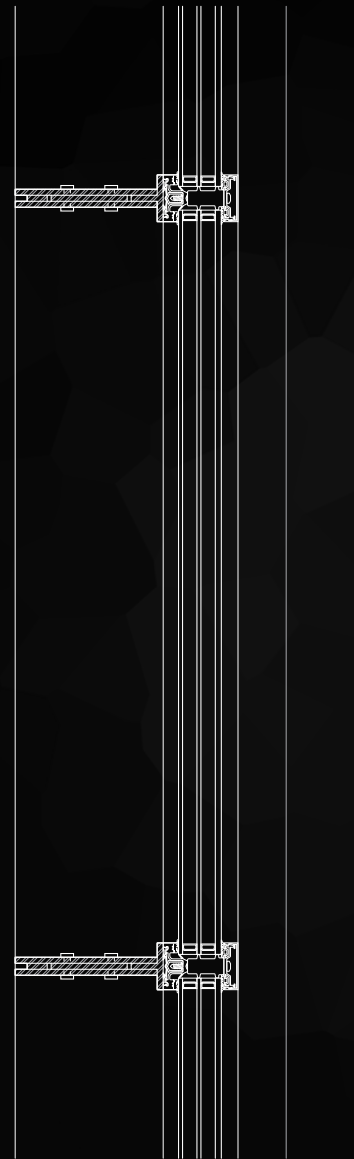
NAAB 2020 SC.6:

Building Envelope systems and Assemblies

PLAN VIEW - GRADE



PLAN VIEW - CURTAIN WALL



- 01 KNIFE PLATE (1/2")
- 02 ANCHOR PLATE (1/2")
- 03 MINERAL WOOL (4-6")
- 04 S.S. SPLIT-TAIL TIEBACK
- 05 DIM. STONE (GRANITE)
- 06 FRP Z PROFILE (HORIZ.)
- 07 FOAMGLAS INSUL.
- 08 XPS INSUL.
- 09 DRAINAGE BOARD (1")
- 10 POLYETHYLENE MEMBR.
- 11 DRAINAGE BOARD (5/8")
- 12 GWB (5/8")
- 13 H.C. PLANK W/ 2" TOPP.

1" = 1'-0"

Structural Context

NAAB 2020 SC.6: Structural Systems

Precast Hollow Core Planks

Hollow Core planks offer a wider variety of spans and thrive in unique structural conditions

Cast-in-Place Concrete

Concrete offers a wide variety of additives to be utilized for specific structural goals

Castellated Beams

Castellated beams offer larger spans and less material, while also being functional in reducing floor heights for mechanical [Intumescent Coated]

Structural Tension Rods

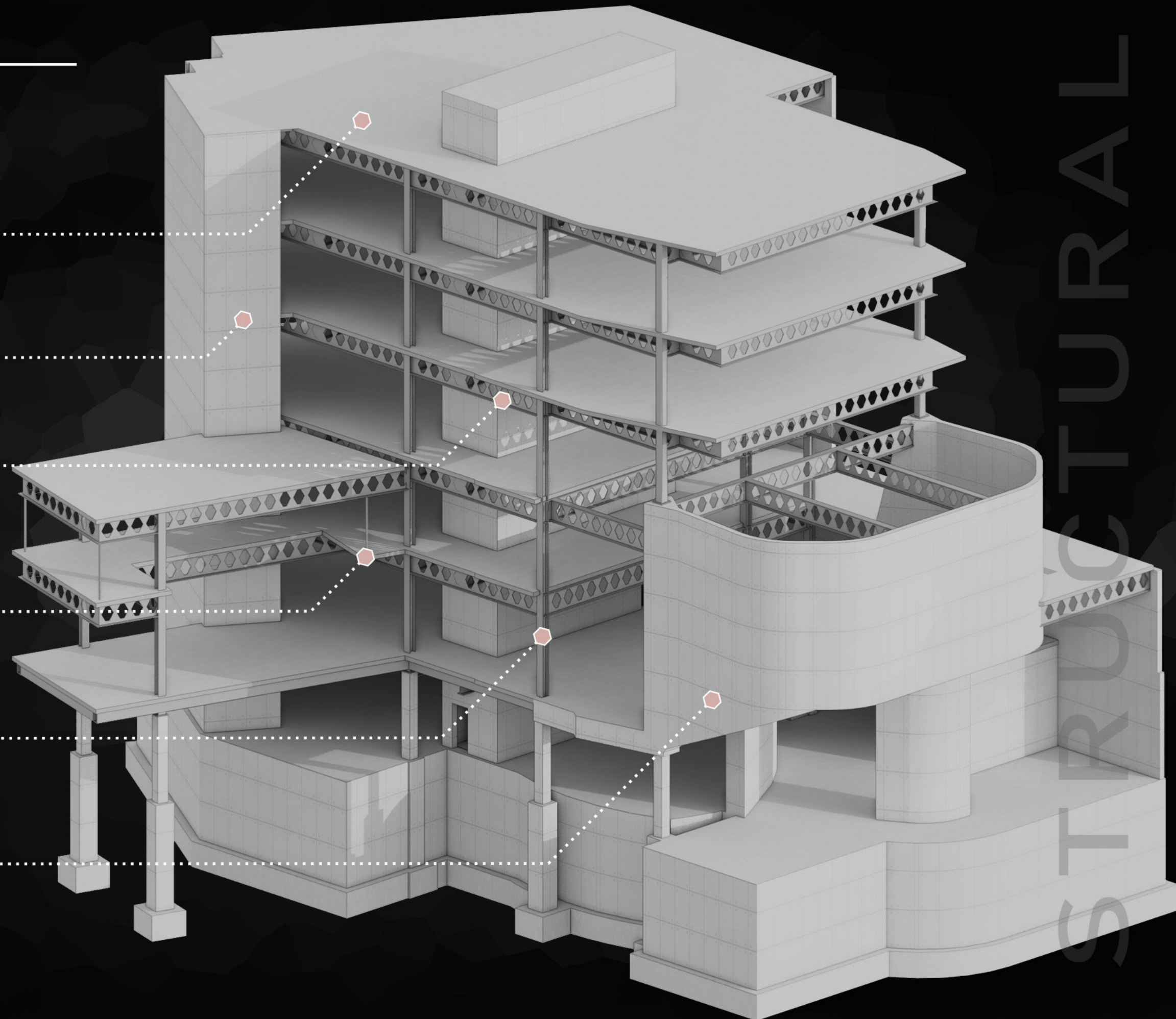
Tension rods offer a supportive system in complex cantilever conditions. [Intumescent Coated]

Structural Steel Sections

Steel sections allow for high tensile strength and a variety of sizes, creating easier building practices. [Intumescent Coated]

Ultra High Strength Concrete

UHSC is used for extreme structural conditions such as the auditorium space's unique cantilever design.



Exterior [Main St.]

NAAB 2020 SC.5:
User Requirements



Exterior [Courtyard]

NAAB 2020 SC.5:
User Requirements



Interior [Lobby]

NAAB 2020 SC.5:
User Requirements



Interior [Library]

NAAB 2020 SC.5:
User Requirements

