OFFICE

LUXURY RETAIL

BRIDGET RILEY
"BREATHE"

ELEVATION CONCEPT DIAGRAM

PROJECT LOCATION: Manhattan, New York
BUILDING PROGRAM: Mixed-Use (Retail + Office)

ROOF +95'

LEVEL 4 +50'
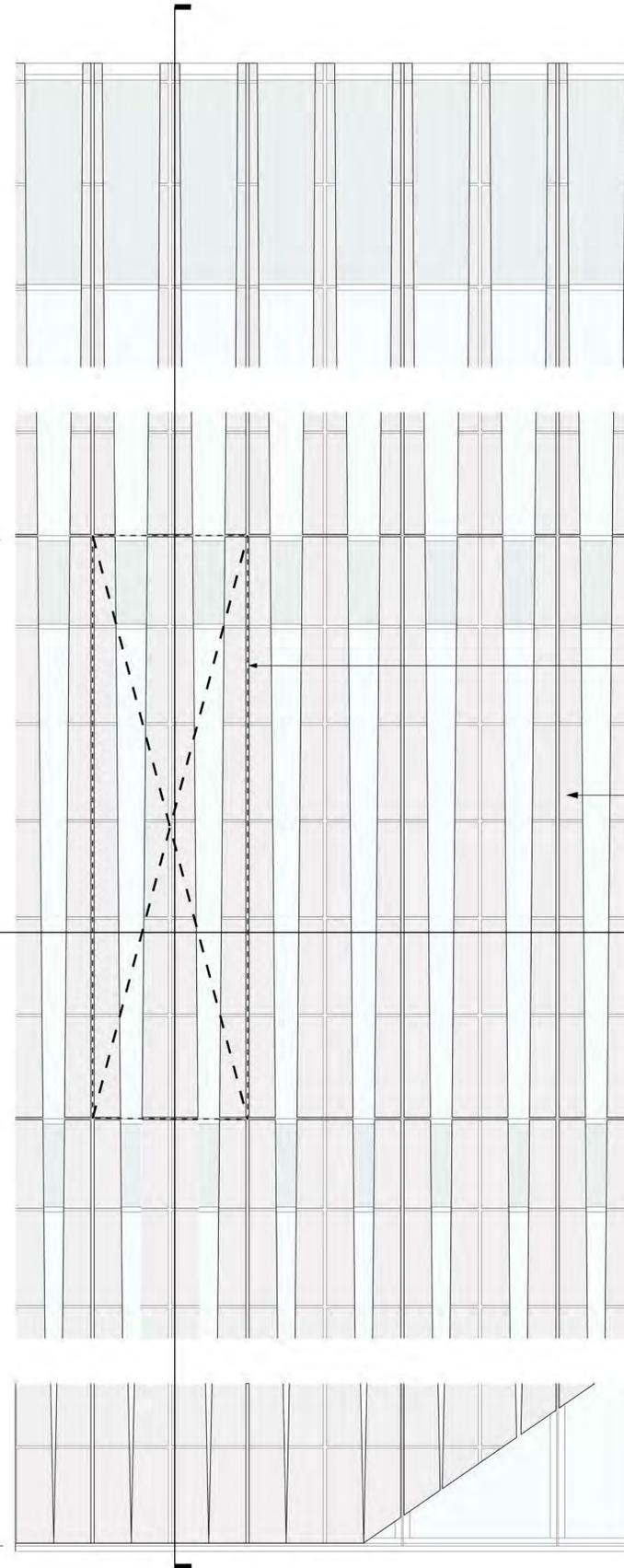
TYPICAL UNIT

UHPC SCREEN WALL

LEVEL 3 +35'

15'-0"

GRDE LEVEL +0'

④

⑤

⑥

⑦

1 ROADMAP SYSTEM - ELEVATION
1/2" =1'-0"

8

4'-0"
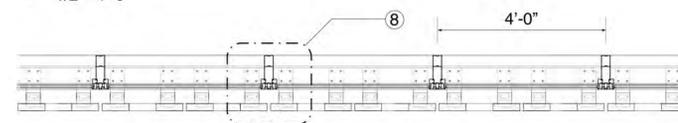
2 ROADMAP SYSTEM - TYPICAL PLAN
1/2" =1'-0"
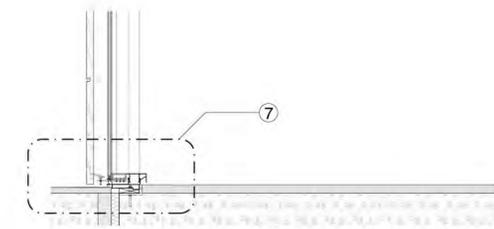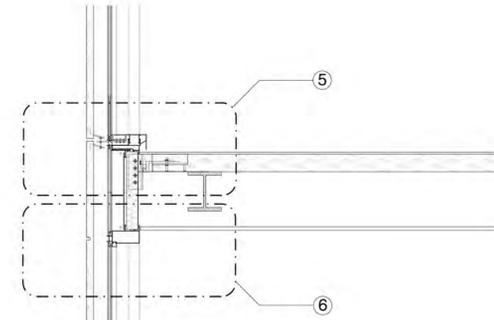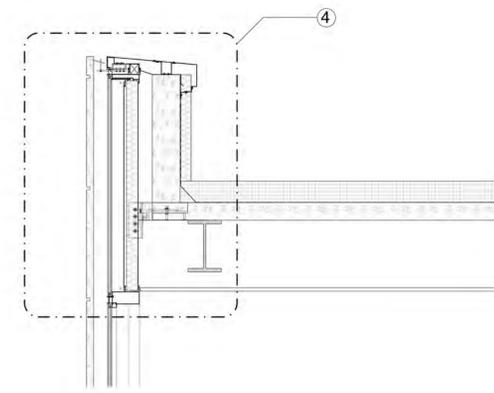
3 ROADMAP SYSTEM - TYPICAL WALL SECTION
1/2" =1'-0"

9 $\frac{1}{4}$"

$\frac{3}{4}$"

2" 4"
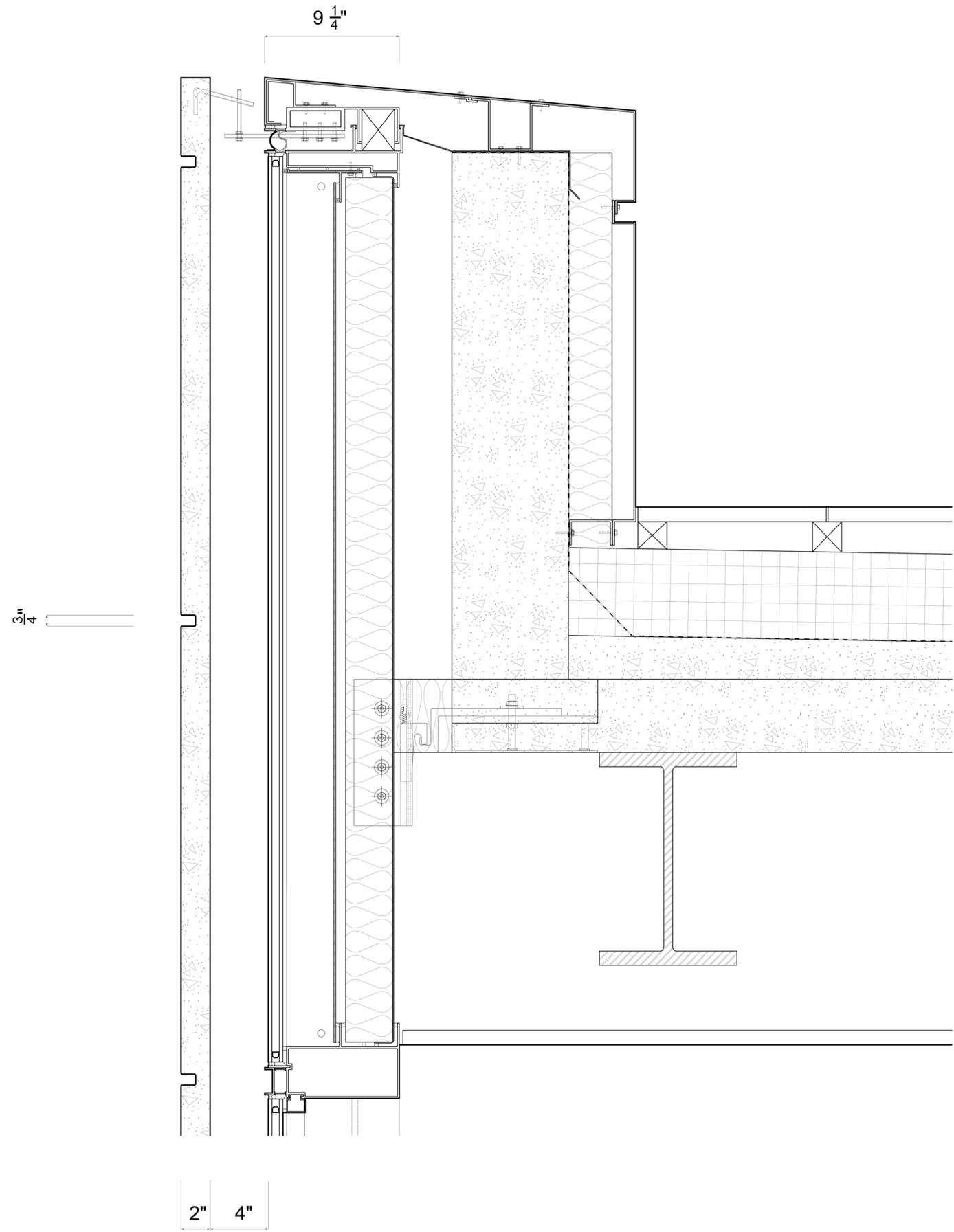
4 SECTION DETAIL AT PARAPET
3" =1'-0"

2" 4" 9 1/4"

3"/4

4 1/2"

2" 4" 4 $\frac{1}{2}$" 3 $\frac{1}{4}$"

1" 3 $\frac{1}{2}$" $\frac{3}{4}$"

1" 9 $\frac{1}{4}$"
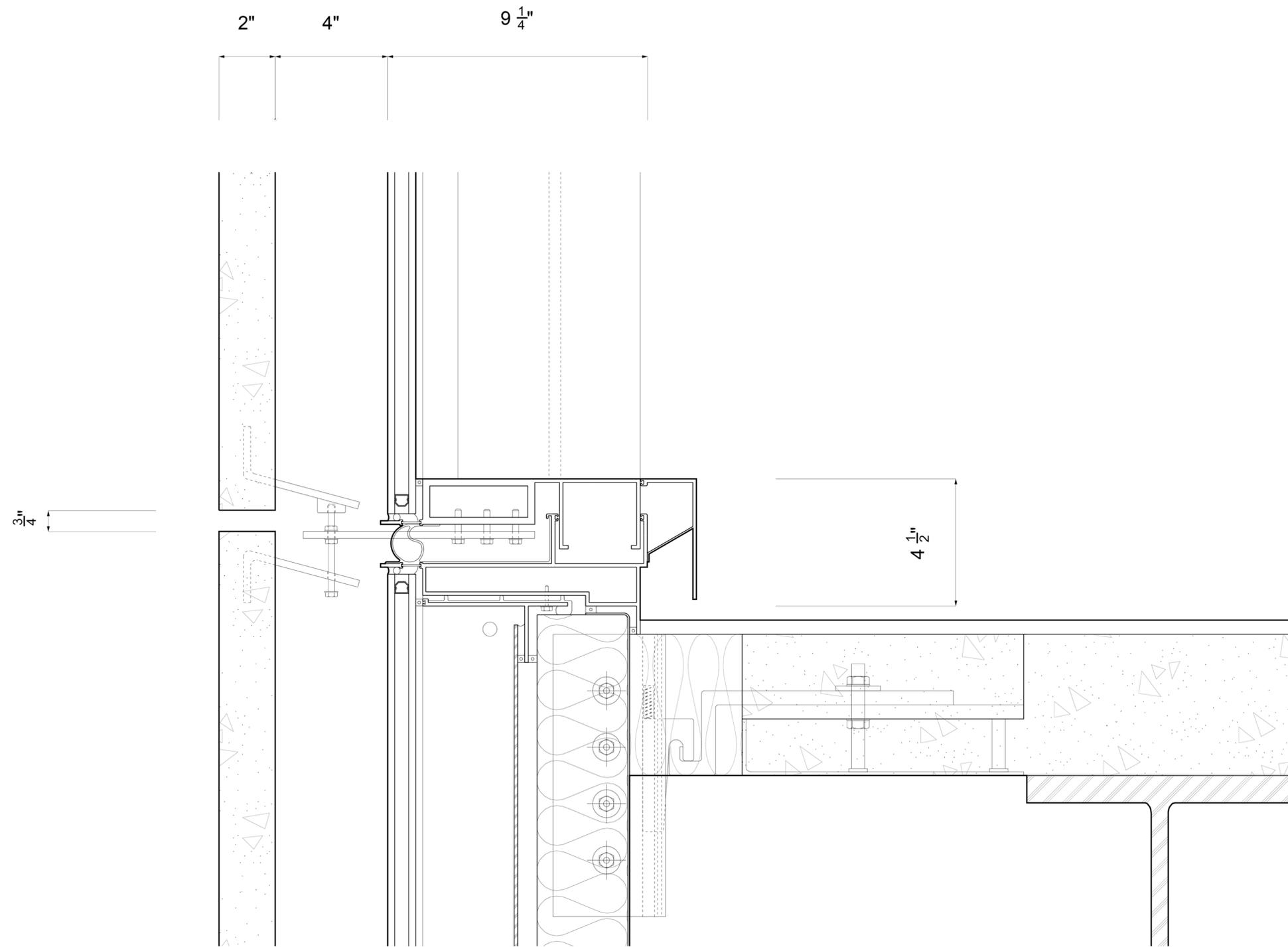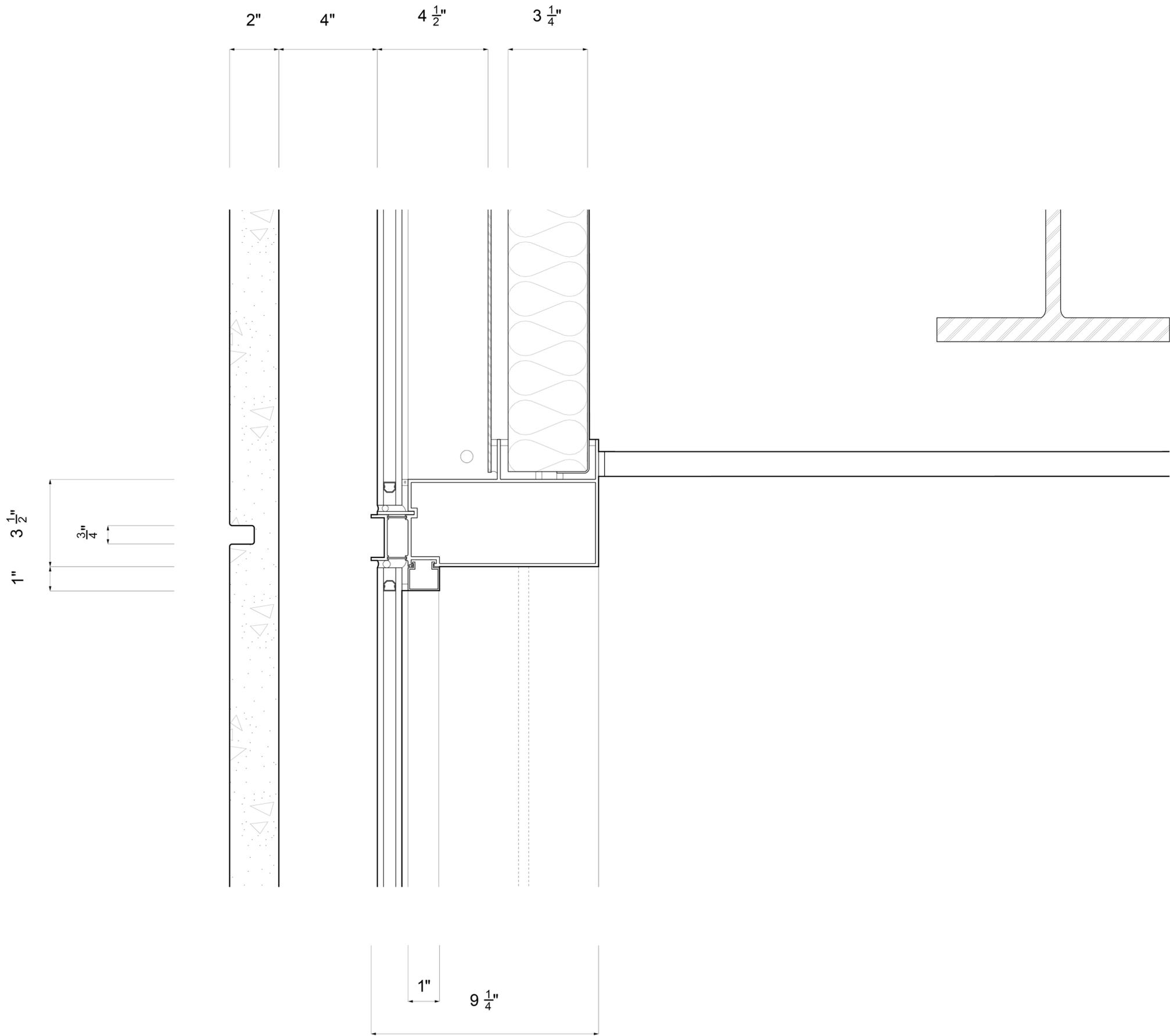
6 SECTION DETAIL AT DROP CEILING
6" =1'-0"

2" 4" 9 1/4"

4 1/2"

4 1/2"
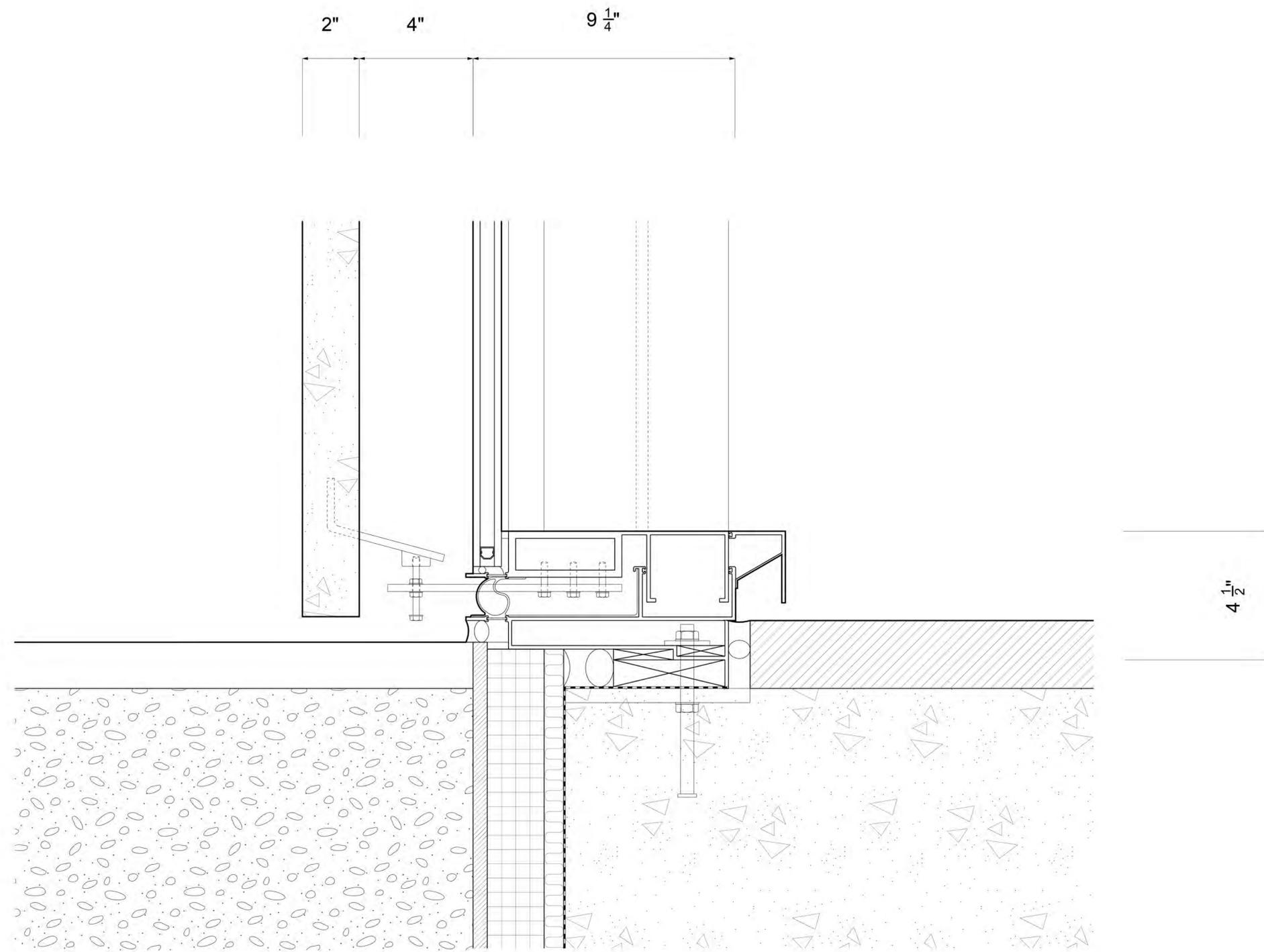
⑦ SECTION DETAIL AT GRADE
6" =1'-0"

1"   2 $\frac{1}{2}$"   1"

9 $\frac{1}{4}$"

4"

2"

7"   7"

3"   4"

9 $\frac{1}{4}$"

4 $\frac{1}{2}$"
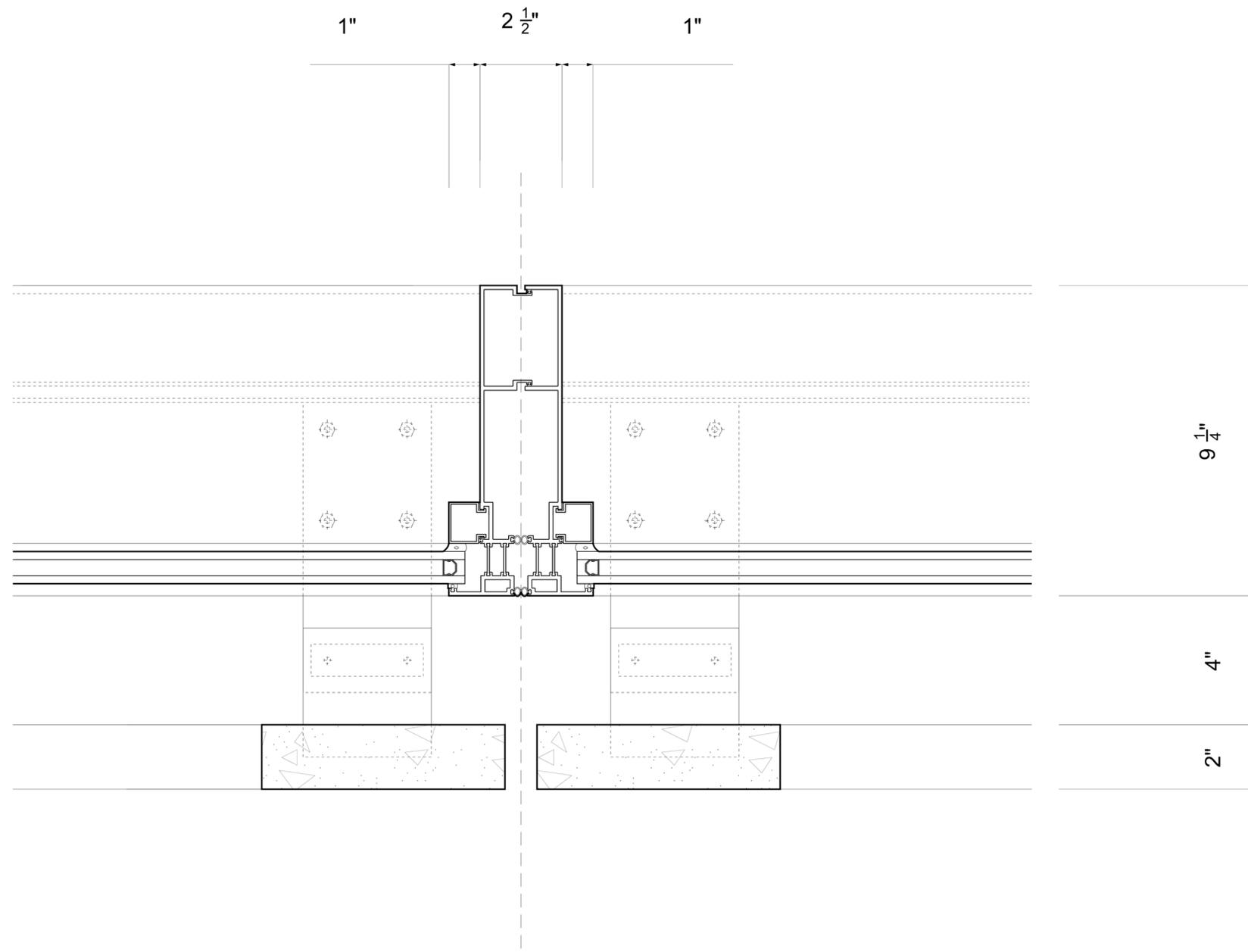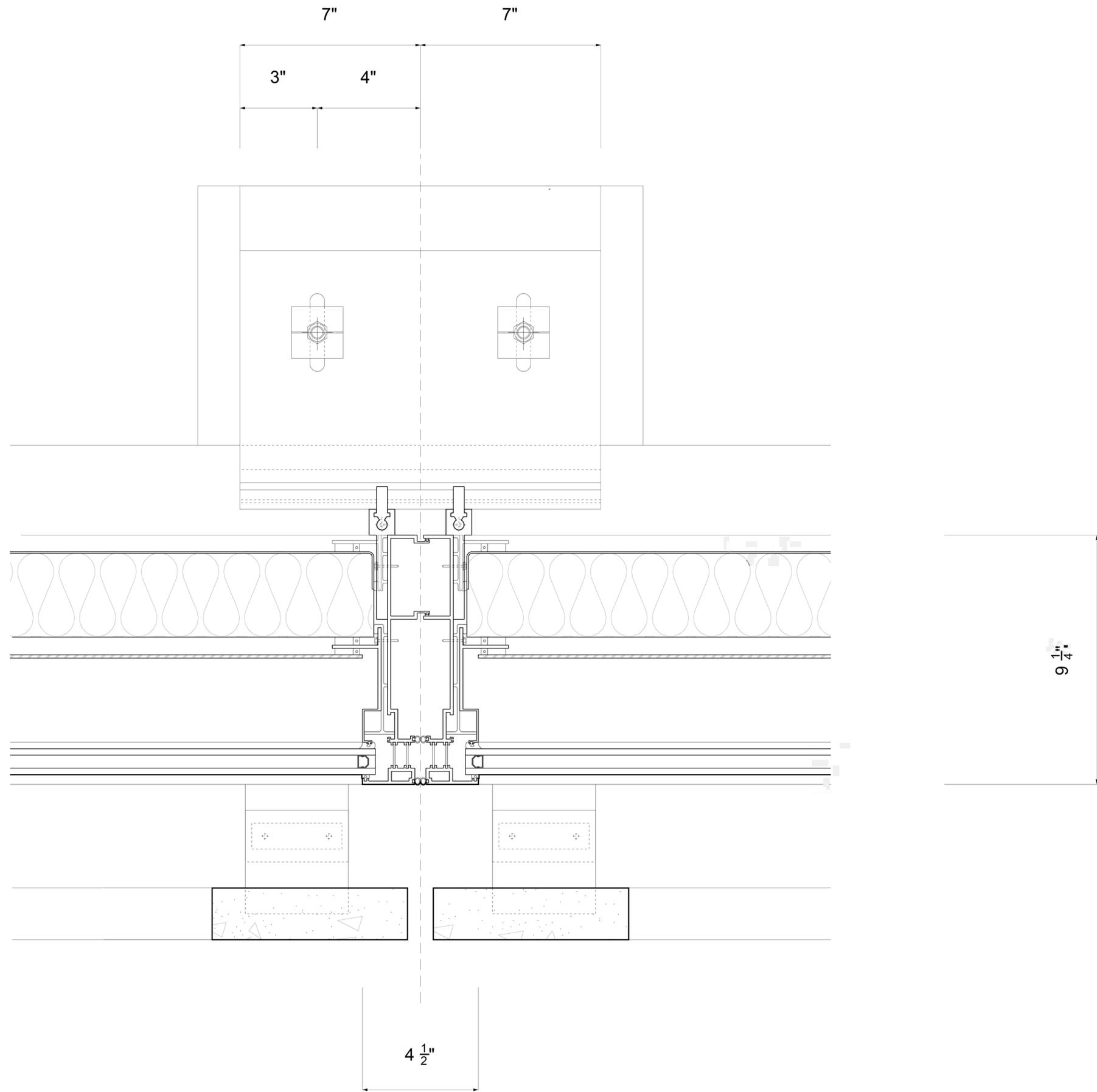
9 PLAN DETAIL AT SPANDRAL
   6" =1'-0"

15'-0"

15'-0"

10 TYPICAL WALL SECTION PERSPECTIVE
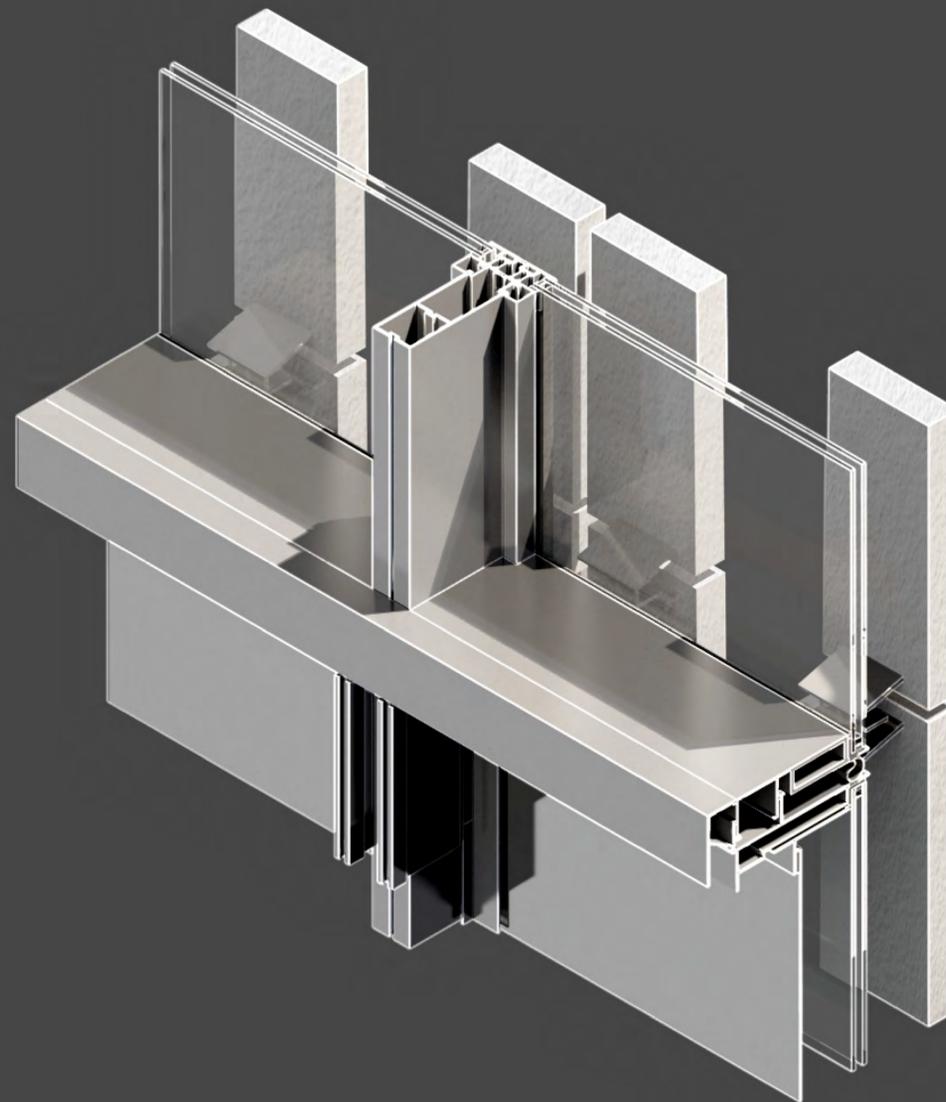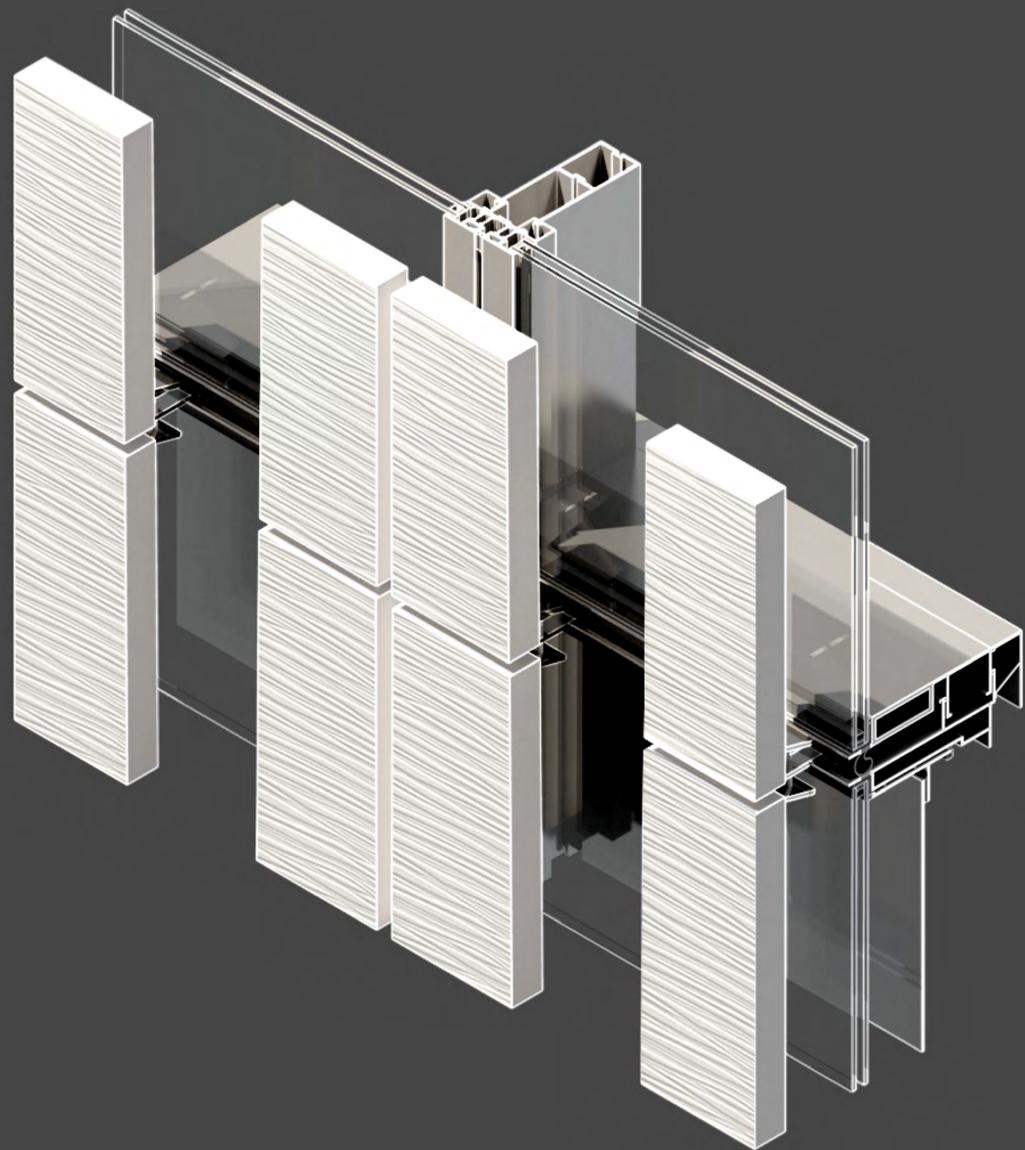
11 FOUR WAY JOINT AXON

PROJECT AND CURTAIN WALL DESIGN DESCRIPTION:

The curtain wall design for this mixed-used building (retail + office) in Manhattan, New York takes a double-screen system. The outside screen wall is inspired by Bridget Riley's painting Breathe. The material for exterior screen wall is textured Ultra High Performance Concrete (UHPC) panels. Behind the UHPC screen wall is the IGU curtain wall system. The UHPC screen wall aims to duplicate the geometrical expression of the painting and underscore the verticality of the facade. The change of width in the UHPC panels provides intimacy for luxury retail at bottom and transparency for office space towards the top. The typical module dimension for IGU is 4'x15', with edge pieces of 2'x15'. The UHPC panel modules are following the width of IGU of each floor, spanning from floor to floor height of 15'. There is a minimum 4" cavity for structural attachment of the exterior screen wall through the design of stack joints. As for maintenance, the UHPC screen wall can be directly maintained from the exterior. The IGU units takes the approach of a mullion with a removable glazing stop design to allow glass replacement and maintenance from the interior.

WORK INCLUDED:

The Main contractor/Sub-contractor shall design, engineer, test, fabricate, deliver and guarantee all construction necessary to provide curtain wall for the complete airtight and watertight enclosures of the building from grade level to the uppermost elevation point. The work of shall include, but is not limited to the following components of work:

1. Aluminum and Glass Curtain Wall systems:

Curtain wall, typical and non-typical, with various glazing materials, vision and spandrels configurations as shown on drawings. Curtain wall system shall be unitized in story height panels, with aluminum unit frame construction with structural glazing. Stack joints occur at floor line for all floors. All aluminum shall be finished with high performance coating. System incorporates 1/8" minimum thickness of aluminum extrusion. Interlocking mullion profile incorporates removable parts for glass maintenance

a. At the elevation, floors 1-5: unitized curtain wall with clear insulating vision glass, and clear monolithic spandrel glass with painted metal shadow box panel. Stack joint at floor lines. Stack joints incorporates metal plate attachment for screen wall structure. Aluminum color gray.

b. At the elevation, floor 5- roof: unitized curtain wall with clear insulating vision glass, and clear monolithic spandrel glass with painted metal shadow box panel. Stack joint at top of the parapet line. Stack joints incorporates steel plate attachment for screen wall structure. Aluminum color gray. At the roof, system included aluminum cladding and coping over the parapet, with gasket closure and roofing membrane.

2. UHPC screen wall system:

Unitized ultra high performance concrete panel with horizontal raised textures as shown on drawings. UHPC system shall be unitized in floor height panels and width coordinated with glass curtain wall system of typical units and non-typical units at the edge. Panel break line at stack joint lines. System is anchored to steel plate structure at stack joint lines of all floors. UHPC shall be troweled finish. UHPC color white.