

INVITATION FOR BIDS

CCK-2563.30-7-25

CTC + AAC BP07 Core & Shell Group 2

Project# 2563.30

ADDENDUM #1

08/27/2024

**IMPORTANT: BID AND ADDENDUM MUST BE RECEIVED BY: 09/17/2024 @ 3:00 P.M. LEXINGTON, KY TIME**

Bidder must acknowledge receipt of this and any addendum as stated in the Invitation for Bids.

**ITEM #1: REVISIONS, UPDATES, & CLARIFICATIONS TO ORIGINAL BID DOCUMENTS**

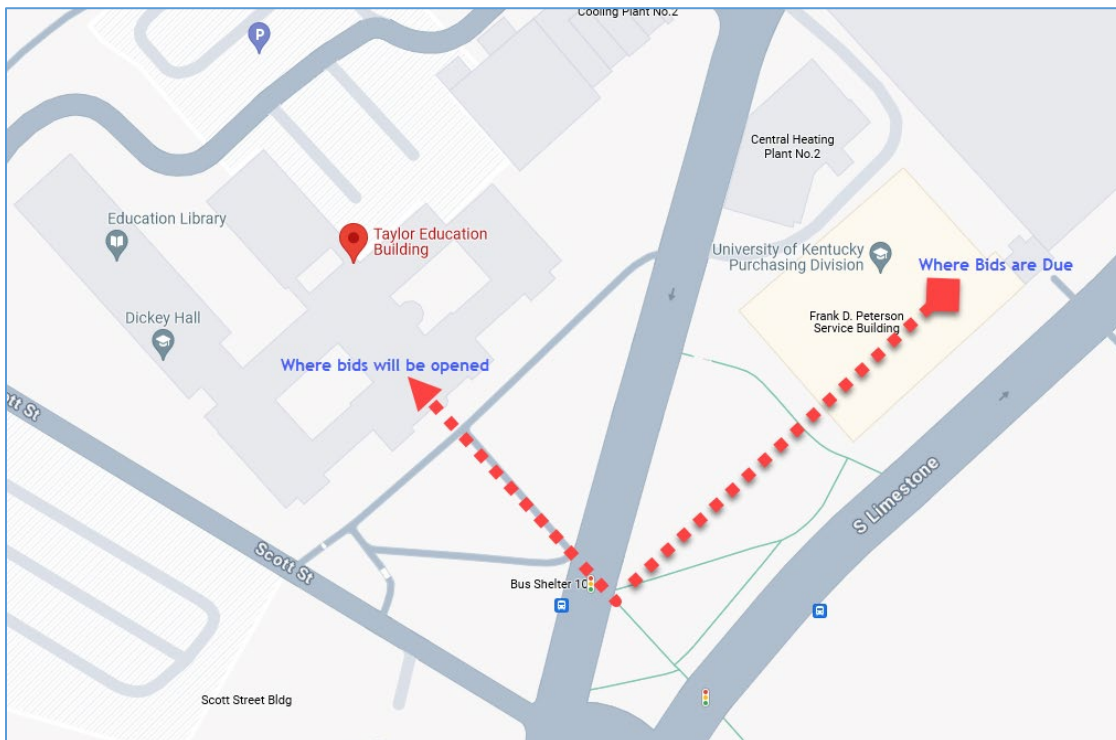
- Please refer to and incorporate into your bid, the enclosed additional information from the project team.

**ITEM #2: BIDDER NOTICES**

- **AFTER submitting the bid at the bid clerk's desk**

322 Peterson Service Building  
411 S. Limestone  
Lexington, KY, 40506

Contractors should relocate to the Taylor Education Building Auditorium across Upper street, where the bid results will be publicly read. No bids will be accepted at this location.



**OFFICIAL APPROVAL**  
**UNIVERSITY OF KENTUCKY**

*Ken Scott*

08/27/2024

**SIGNATURE**

\_\_\_\_\_  
\_\_\_\_\_  
Typed or Printed Name



## Addendum #01

|         |                                     |                    |            |
|---------|-------------------------------------|--------------------|------------|
| Client  | University of Kentucky Healthcare   | Date               | 08/26/2024 |
| Project | UK CTC BP-07 Core and Shell Group 2 | UK Project #       | 2563.0     |
|         |                                     | Champlin Project # | 514-5350   |

*This addendum provides information to clarify or adjust construction items which may affect any or all trade contractors. The original documents for the referenced project are amended as noted in this addendum and made part of said documents and shall govern the work covered by the Form of Proposal. All work to be in strict accordance with the terms, stipulations and conditions of contract documents.*

### **CLARIFICATION:**

Drawings with revision clouds have changes as described below.

### **The Following Alternate is added to the Bid:**

#### *Alternate BP7-1 Alternate Brick Size*

If alternate is accepted the following specification changes will be made:

Spec Section 042000-2.6-D.5 to be amended to:

*Size (Actual Dimensions): 3-5/8 inches (92 mm) wide by 2-1/4 inches (57 mm) high by 7-5/8 inches (194 mm) long.*

### **SUMMARY OF ATTACHMENTS**

#### **PART A - DRAWINGS:**

##### *G-001.7-2 DRAWING INDEX VOLUME 2*

- Electrical and Technology sheets added to drawing index.*

##### *A011 – MATERIAL IDENTIFICATION CODES*

- Revised south wall of STAIR C ST00C*

##### *A200 – OVERALL SHELL & CORE PLAN – LEVEL 00*

- Added material I.D. for LVR-1C*

##### *A200.B - SHELL & CORE FLOOR PLAN - LEVEL 00 - AREA B*

- Revised south wall of STAIR C ST00C. Added detail tag 4/A469.A.*

##### *A200.C - SHELL & CORE FLOOR PLAN - LEVEL 00 - AREA C*

- Added detail tag 4/A469. A.*

##### *A201 - SHELL & CORE FLOOR PLAN - LEVEL 01*

- Deleted shaft wall adjacent to southwest corner of STAIR C ST00C*

**A201.B - SHELL & CORE FLOOR PLAN - LEVEL 01 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C
2. Revise exterior wall to indicate 2 hour rating to extents indicated on the life safety drawings.

**A201.C - SHELL & CORE FLOOR PLAN - LEVEL 01 - AREA C**

1. Revise exterior wall to indicate 2 hour rating to extents indicated on the life safety drawings.

**A202 - SHELL & CORE FLOOR PLAN - LEVEL 02**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A202.B - SHELL & CORE FLOOR PLAN - LEVEL 02 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C
2. Revise exterior wall to indicate 2-hour rating to extents indicated on the life safety drawings.

**A202.C - SHELL & CORE FLOOR PLAN - LEVEL 02 - AREA C**

1. Revise exterior wall to indicate 2-hour rating to extents indicated on the life safety drawings.

**A203 - SHELL & CORE FLOOR PLAN - LEVEL 03**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C
- 2.

**A203.B - SHELL & CORE FLOOR PLAN - LEVEL 03 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A204 - SHELL & CORE FLOOR PLAN - LEVEL 04**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A204.B - SHELL & CORE FLOOR PLAN - LEVEL 04 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A205 - SHELL & CORE FLOOR PLAN - LEVEL 05**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A205.B - SHELL & CORE FLOOR PLAN - LEVEL 05 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C.

**A206 - SHELL & CORE FLOOR PLAN - LEVEL 06**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A206.B - SHELL & CORE FLOOR PLAN - LEVEL 06 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C.

**A207 - SHELL & CORE FLOOR PLAN - LEVEL 07**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A207.B - SHELL & CORE FLOOR PLAN - LEVEL 07 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A208 - SHELL & CORE FLOOR PLAN - LEVEL 08**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A208.B - SHELL & CORE FLOOR PLAN - LEVEL 08 - AREA B**

1. Deleted shaft wall adjacent to southwest corner of STAIF C ST00C

**A409 – ENLARGED EXTERIOR NORTH LINK ELEVATIONS**

1. Added exhaust fan louver to enlarged elevation 1.

**A410 – ENLARGED EXTERIOR ELEVATIONS**

1. Section 6 – added stone cap below base of curtain wall. Added detail tag 4/A469.A.

**A461 – EXTERIOR WALL AND SOFFIT TYPES**

1. Add new exterior wall assembly, BF.

**A467 – FOUNDATION DETAILS**

1. Detail 6. Revised sill to have stone cap. Revised threshold to be 0.125" aluminum and extend to interior face of furring wall.

**A469.A – FOUNDATION DETAILS**

1. Added new detail 4.

**A473.A – EXTERIOR PLAN DETAILS**

1. Revise detail 9 to coordinate with fire wall in parking garage project.

**A473.D – EXTERIOR PLAN DETAILS**

1. Revised details 7 and 8 to coordinate with fire wall in parking garage.

**A486 – EXPANSION JOINT DETAILS**

1. Miscellaneous adjustments to fire wall flashing details to coordinate with parking garage project.

**A487 – EXPANSION JOINT DETAILS**

1. Update enlarged plan detail to indicate exterior 2-hour rated wall.

**A492 – EXTERIOR WINDOW, CURTAINWALL & LOUVER TYPES**

1. Added L19 Louver.
2. Changed smoke curtain from Core & Shell to interior fit out.

**A501 – STAIR B - ENLARGED PLANS AND SECTIONS**

1. Added tags to partition walls surrounding STAIR B ST00B and EXIT PASSAGEWAY ST00B1.

**A502 – STAIR C – ENLARGED PLANS AND SECTIONS**

1. Added tags to partition walls surrounding STAIR C ST00C.

**E308.A – SHELL AND CORE POWER PLAN – PENTHOUSE LEVEL – AREA A**

1. New drawing. Already listed on drawing index.

**PART B - SPECIFICATIONS:**

**019115 – BUILDING ENCLOSURE COMMISSIONING**

1. *Revise specification with additional requirements.*

019117 – BUILDING ENCLOSURE FUNCTIONAL PERFORMANCE TESTING

1. *Revise specification with additional requirements.*

089119 – FIXED LOUVERS

1. *Revised specification.*

042000 - UNIT MASONRY

1. *Revise specification.*

074413 GLAZED ALUMINUM CURTAIN WALLS

1. *Revised specification.*

**PART C – RESPONSES TO BIDDER QUESTIONS:**

See design team responses to bidder question on CCK-2563.30-7-25 Core Shell Group 2 QR Log.

This QR log includes questions and answers from the Bid Package 7 Group 1 bid Process.

**PART D – ADDITIONAL EXHIBITS**

None

**PART E – SKETCHES**

None

**PART F – UPDATED BID FORMS**

TC04A7 – Face Brick Masonry is updated to incorporate the new Alternate.

**End of Addendum**





| DRAWING INDEX - BP-07 VOLUME 2      |                                                                    |
|-------------------------------------|--------------------------------------------------------------------|
| NUMBER                              | SHEET NAME                                                         |
| 1-GENERAL                           |                                                                    |
| G000.7-2                            | COVERSHEET - VOLUME 2                                              |
| G001.7-2                            | SHEET INDEX - VOLUME 2                                             |
| 2                                   |                                                                    |
| 11 - FIRE PROTECTION (CORE & SHELL) |                                                                    |
| F001.S                              | FIRE PROTECTION LEGEND                                             |
| F100.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 00             |
| F101.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 01             |
| F102.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 02             |
| F103.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 03             |
| F104.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 04             |
| F105.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 05             |
| F106.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 06             |
| F107.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 07             |
| F108.S                              | SHELL & CORE - OVERALL FIRE PROTECTION PLAN - LEVEL 08             |
| F200.S                              | ENLARGED FIRE PROTECTION PLAN                                      |
| F300.S                              | FIRE PROTECTION SCHEDULES AND DETAILS                              |
| 12                                  |                                                                    |
| 12 - PLUMBING (CORE & SHELL)        |                                                                    |
| P010.S                              | SHELL & CORE - PLUMBING LEGEND                                     |
| P100U.A                             | SHELL & CORE - PLUMBING PLAN - LEVEL 00 UNDERSLAB - AREA A         |
| P100U.B                             | SHELL & CORE - PLUMBING PLAN - LEVEL 00 UNDERSLAB - AREA B         |
| P100U.C                             | SHELL & CORE - PLUMBING PLAN - LEVEL 00 UNDERSLAB - AREA C         |
| P100U.D                             | SHELL & CORE - PLUMBING PLAN - LEVEL 00 UNDERSLAB - AREA D         |
| P100.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 00 - AREA A                   |
| P100.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 00 - AREA B                   |
| P100.C                              | SHELL & CORE - PLUMBING PLAN - LEVEL 00 - AREA C                   |
| P100.D                              | SHELL & CORE - PLUMBING PLAN - LEVEL 00 - AREA D                   |
| P101.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 01 - AREA A                   |
| P101.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 01 - AREA B                   |
| P101.C                              | SHELL & CORE - PLUMBING PLAN - LEVEL 01 - AREA C                   |
| P101.D                              | SHELL & CORE - PLUMBING PLAN - LEVEL 01 - AREA D                   |
| P101.E                              | SHELL & CORE - PLUMBING PLAN - LEVEL 01 - AREA E                   |
| P102.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 02 - AREA A                   |
| P102.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 02 - AREA B                   |
| P102.C                              | SHELL & CORE - PLUMBING PLAN - LEVEL 02 - AREA C                   |
| P102.D                              | SHELL & CORE - PLUMBING PLAN - LEVEL 02 - AREA D                   |
| P102.E                              | SHELL & CORE - PLUMBING PLAN - LEVEL 02 - AREA E                   |
| P103.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 03 - AREA A                   |
| P103.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 03 - AREA B                   |
| P103.C                              | SHELL & CORE - PLUMBING PLAN - LEVEL 03 - AREA C                   |
| P104.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 04 - AREA A                   |
| P104.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 04 - AREA B                   |
| P105.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 05 - AREA A                   |
| P105.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 05 - AREA B                   |
| P106.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 06 - AREA A                   |
| P106.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 06 - AREA B                   |
| P107.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 07 - AREA A                   |
| P107.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 07 - AREA B                   |
| P108.A                              | SHELL & CORE - PLUMBING PLAN - LEVEL 08 - AREA A                   |
| P108.B                              | SHELL & CORE - PLUMBING PLAN - LEVEL 08 - AREA B                   |
| P109.A                              | SHELL & CORE - PLUMBING PLAN - ROOF - AREA A                       |
| P109.B                              | SHELL & CORE - PLUMBING PLAN - ROOF - AREA B                       |
| P110.S                              | SHELL & CORE PLUMBING SITE PLAN                                    |
| P200.S                              | SHELL & CORE ENLARGED PLUMBING PLANS                               |
| P201.S                              | SHELL & CORE ENLARGED PLUMBING PLANS                               |
| P202.S                              | SHELL & CORE ENLARGED PLUMBING PLANS                               |
| P300.S                              | SHELL & CORE - PLUMBING SCHEDULES                                  |
| P400.S                              | SHELL & CORE - PLUMBING DETAILS                                    |
| P401.S                              | SHELL & CORE - PLUMBING DETAILS                                    |
| P402.S                              | SHELL & CORE - PLUMBING DETAILS                                    |
| P500.S                              | SHELL & CORE - PLUMBING RISERS                                     |
| P501.S                              | SHELL & CORE - PLUMBING RISERS                                     |
| P502.S                              | SHELL & CORE - PLUMBING RISERS                                     |
| P503.S                              | SHELL & CORE - PLUMBING RISERS                                     |
| P504.S                              | SHELL & CORE - PLUMBING RISERS                                     |
| P505.S                              | SHELL & CORE - NATURAL GAS RISER                                   |
| 48                                  |                                                                    |
| 13 - MEDICAL GAS (CORE & SHELL)     |                                                                    |
| MG100.S                             | SHELL & CORE MEDICAL GAS PLAN                                      |
| MG200.S                             | SHELL & CORE MEDICAL GAS SCHEDULES & DETAILS                       |
| 2                                   |                                                                    |
| 14 - MECHANICAL                     |                                                                    |
| M010                                | MECHANICAL LEGEND                                                  |
| M100.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 00 - AREA A                 |
| M100.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 00 - AREA B                 |
| M100.C                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 00 - AREA C                 |
| M100.D                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 00 - AREA D                 |
| M101.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 01 - AREA A                 |
| M101.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 01 - AREA B                 |
| M101.C                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 01 - AREA C                 |
| M101.D                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 01 - AREA D                 |
| M102.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 02 - AREA A                 |
| M102.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 02 - AREA B                 |
| M103.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 03 - AREA A                 |
| M103.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 03 - AREA B                 |
| M104.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 04 - AREA A                 |
| M104.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 04 - AREA B                 |
| M105.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 05 - AREA A                 |
| M105.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 05 - AREA B                 |
| M106.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 06 - AREA A                 |
| M106.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 06 - AREA B                 |
| M107.A                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 07 - AREA A                 |
| M107.B                              | SHELL & CORE - MECHANICAL PLAN - LEVEL 07 - AREA B                 |
| M108.1.A                            | SHELL & CORE - AIR DISTRIBUTION LOW DUCT PLAN - LEVEL 08 - AREA A  |
| M108.1.B                            | SHELL & CORE - AIR DISTRIBUTION LOW DUCT PLAN - LEVEL 08 - AREA B  |
| M108.2.A                            | SHELL & CORE - AIR DISTRIBUTION HIGH DUCT PLAN - LEVEL 08 - AREA A |
| M108.2.B                            | SHELL & CORE - AIR DISTRIBUTION HIGH DUCT PLAN - LEVEL 08 - AREA B |
| M108.3.A                            | SHELL & CORE - HYDRONIC PLAN - LEVEL 08 - AREA A                   |
| M108.3.B                            | SHELL & CORE - HYDRONIC PLAN - LEVEL 08 - AREA B                   |
| M109.A                              | SHELL & CORE - MECHANICAL PLAN - ROOF - AREA A                     |
| M109.B                              | SHELL & CORE - MECHANICAL PLAN - ROOF - AREA B                     |

| DRAWING INDEX - BP-07 VOLUME 2 |                                                        |
|--------------------------------|--------------------------------------------------------|
| NUMBER                         | SHEET NAME                                             |
| M200                           | SHELL & CORE - MECHANICAL ACCESS PLANS - LOWER LEVEL   |
| M201                           | SHELL & CORE - MECHANICAL ACCESS PLAN - LEVEL 08       |
| M301                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M302                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M303                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M304                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M305                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M306                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M307                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M308                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M309                           | SHELL & CORE - MECHANICAL ENLARGED PLANS               |
| M400                           | SHELL & CORE - AIR HANDLING UNIT DETAILS               |
| M401                           | SHELL & CORE - AIR HANDLING UNIT DETAILS               |
| M402                           | SHELL & CORE - AIR HANDLING UNIT DETAILS               |
| M403                           | SHELL & CORE - AIR HANDLING UNIT DETAILS               |
| M404                           | SHELL & CORE - AIR HANDLING UNIT DETAILS               |
| M405                           | SHELL & CORE - MECHANICAL DETAILS                      |
| M406                           | SHELL & CORE - MECHANICAL DETAILS                      |
| M407                           | SHELL & CORE - MECHANICAL DETAILS                      |
| M500                           | SHELL & CORE - MECHANICAL SHAFTS 3D VIEWS AND SECTIONS |
| M501                           | SHELL & CORE - MECHANICAL SHAFTS 3D VIEWS AND SECTIONS |
| M502                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M503                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M504                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M505                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M506                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M507                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M508                           | SHELL & CORE - MECHANICAL SECTIONS                     |
| M509                           | SHELL & CORE - MECHANICAL STAIRWELL SECTIONS           |
| M600                           | SHELL & CORE - MECHANICAL PIPING SCHEMATIC             |
| M601                           | SHELL & CORE - MECHANICAL PIPING SCHEMATIC             |
| M602                           | SHELL & CORE - MECHANICAL PIPING SCHEMATIC             |
| M603                           | SHELL & CORE - MECHANICAL PIPING SCHEMATIC             |
| M604                           | SHELL & CORE - MECHANICAL PIPING SCHEMATIC             |
| M700                           | SHELL & CORE - MECHANICAL SCHEDULES                    |
| M701                           | SHELL & CORE - MECHANICAL SCHEDULES                    |
| M702                           | SHELL & CORE - MECHANICAL SCHEDULES                    |
| M800                           | SHELL & CORE - MECHANICAL SITE PLAN                    |
| 67                             |                                                        |
| 15 - ELECTRICAL                |                                                        |
| E000                           | ELECTRICAL SYMBOLS AND ABBREVIATIONS                   |
| E100                           | GROUNDING PLAN                                         |
| E110                           | LIGHTNING PROTECTION SYSTEM PLAN                       |
| E200                           | OVERALL LIGHTING PLAN - LEVEL 00                       |
| E200.A                         | SHELL & CORE LIGHTING PLAN - LEVEL 00 - AREA A         |
| E200.B                         | SHELL & CORE LIGHTING PLAN - LEVEL 00 - AREA B         |
| E200.C                         | SHELL & CORE LIGHTING PLAN - LEVEL 00 - AREA C         |
| E200.D                         | SHELL & CORE LIGHTING PLAN - LEVEL 00 - AREA D         |
| E201                           | OVERALL LIGHTING PLAN - LEVEL 01                       |
| E201.A                         | SHELL & CORE LIGHTING PLAN - LEVEL 01 - AREA A         |
| E201.C                         | SHELL & CORE LIGHTING PLAN - LEVEL 01 - AREA C         |
| E202                           | OVERALL LIGHTING PLAN - LEVEL 02                       |
| E202.A                         | SHELL & CORE LIGHTING PLAN - LEVEL 02 - AREA A         |
| E208                           | OVERALL LIGHTING PLAN - LEVEL 08                       |
| E208.A                         | SHELL & CORE LIGHTING PLAN - LEVEL 08 - AREA A         |
| E208.B                         | SHELL & CORE LIGHTING PLAN - LEVEL 08 - AREA B         |
| E300                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 00             |
| E300.A                         | SHELL & CORE POWER PLAN - LEVEL 00 - AREA A            |
| E300.B                         | SHELL & CORE POWER PLAN - LEVEL 00 - AREA B            |
| E300.C                         | SHELL & CORE POWER PLAN - LEVEL 00 - AREA C            |
| E301                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 01             |
| E301.A                         | SHELL & CORE POWER PLAN - LEVEL 01 - AREA A            |
| E301.B                         | SHELL & CORE POWER PLAN - LEVEL 01 - AREA B            |
| E301.C                         | SHELL & CORE POWER PLAN - LEVEL 01 - AREA C            |
| E302                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 02             |
| E302.A                         | SHELL & CORE POWER PLAN - LEVEL 02 - AREA A            |
| E302.B                         | SHELL & CORE POWER PLAN - LEVEL 02 - AREA B            |
| E302.C                         | SHELL & CORE POWER PLAN - LEVEL 02 - AREA C            |
| E302.D                         | SHELL & CORE POWER PLAN - LEVEL 02 - AREA D            |
| E302.E                         | SHELL & CORE POWER PLAN - LEVEL 02 - AREA E            |
| E303                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 03             |
| E303.A                         | SHELL & CORE POWER PLAN - LEVEL 03 - AREA A            |
| E303.B                         | SHELL & CORE POWER PLAN - LEVEL 03 - AREA B            |
| E304                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 04             |
| E304.A                         | SHELL & CORE POWER PLAN - LEVEL 04 - AREA A            |
| E304.B                         | SHELL & CORE POWER PLAN - LEVEL 04 - AREA B            |
| E305                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 05             |
| E305.A                         | SHELL & CORE POWER PLAN - LEVEL 05 - AREA A            |
| E305.B                         | SHELL & CORE POWER PLAN - LEVEL 05 - AREA B            |
| E306                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 06             |
| E306.A                         | SHELL & CORE POWER PLAN - LEVEL 06 - AREA A            |
| E306.B                         | SHELL & CORE POWER PLAN - LEVEL 06 - AREA B            |
| E307                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 07             |
| E307.A                         | SHELL & CORE POWER PLAN - LEVEL 07 - AREA A            |
| E307.B                         | SHELL & CORE POWER PLAN - LEVEL 07 - AREA B            |
| E308                           | SHELL & CORE OVERALL POWER PLAN - LEVEL 08             |
| E308.A                         | SHELL & CORE POWER PLAN - PENTHOUSE LEVEL - AREA A     |
| E308.B                         | SHELL & CORE POWER PLAN - PENTHOUSE LEVEL - AREA B     |
| E309.A                         | SHELL & CORE POWER PLAN - ROOF - AREA A                |
| E309.B                         | SHELL & CORE POWER PLAN - ROOF - AREA B                |
| E310                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 00           |
| E310U                          | SHELL & CORE OVERALL CONDUIT PLAN - UNDERGROUND        |
| E311                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 01           |
| E312                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 02           |
| E313                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 03           |
| E314                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 04           |
| E315                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 05           |
| E316                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 06           |
| E317                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 07           |
| E318                           | SHELL & CORE OVERALL CONDUIT PLAN - LEVEL 08           |
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| E502                           | ENLARGED PLANS                                         |
| E503                           | ENLARGED PLANS                                         |
| E504                           | ENLARGED PLANS                                         |
| E505                           | ENLARGED PLANS                                         |

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|--------------------------------|------------------------------------|
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| E506                           | ENLARGED PLANS                     |
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| E508                           | ENLARGED PLANS                     |
| E509                           | ENLARGED PLANS                     |
| E510                           | ENLARGED PLANS                     |
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| E701                           | ONE-LINE DIAGRAM - NORMAL POWER    |
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| E703                           | ONE-LINE DIAGRAM - NORMAL POWER    |
| E710                           | GROUNDING RISER DIAGRAM            |
| E800                           | WALL PENETRATION DETAILS           |
| E801                           | WALL PENETRATION DETAILS           |
| E802                           | GROUNDING DETAILS                  |
| E803                           | GROUNDING DETAILS                  |
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| E900                           | SCHEDULES                          |
| EM700                          | ONE-LINE DIAGRAM - ESSENTIAL POWER |
| EM701                          | ONE-LINE DIAGRAM - ESSENTIAL POWER |
| EM702                          | ONE-LINE DIAGRAM - ESSENTIAL POWER |
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| ESP100                         | OVERALL POWER PLAN - SITE          |
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| ESP200                         | OVERALL LIGHTING PLAN - SITE       |
| ESP201                         | LIGHTING PLAN - SITE AREA 1        |
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| EU121                          | ELECTRICAL SITE UTILITY - AREA 1   |
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| 103                            |                                    |
| 17 - TECHNOLOGY                |                                    |
| T001-A                         | TECHNOLOGY SITE PLAN               |
| T-100                          | LOWER LEVEL CNS PLAN - OVERALL     |
| T-101                          | LEVEL 01 CNS PLAN - OVERALL        |
| T-102                          | LEVEL 02 CNS PLAN - OVERALL        |
| T-103                          | LEVEL 03 CNS PLAN - OVERALL        |
| T-104                          | LEVEL 04 CNS PLAN - OVERALL        |
| T-105                          | LEVEL 05 CNS PLAN - OVERALL        |
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| T-107                          | LEVEL 07 CNS PLAN - OVERALL        |
| T-108                          | LEVEL 08 CNS PLAN - OVERALL        |
| 10                             |                                    |
| TOTAL SHEETS: 244              |                                    |



**CHAMPLIN**  
ARCHITECTURE

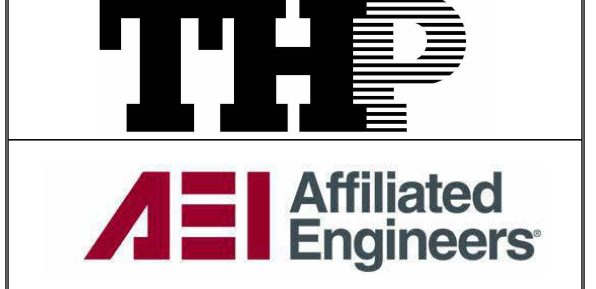
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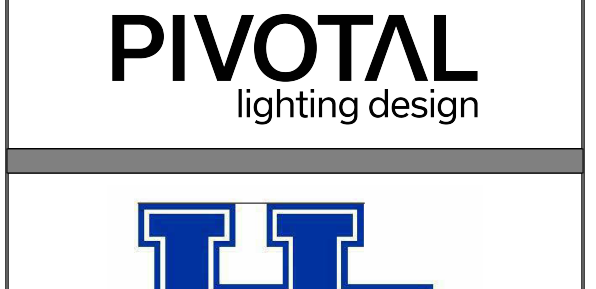
**AEI** Affiliated  
Engineers



**CMTA**



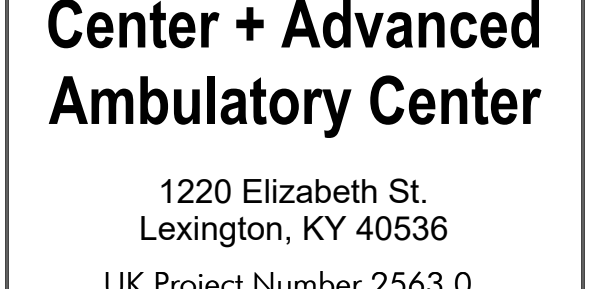
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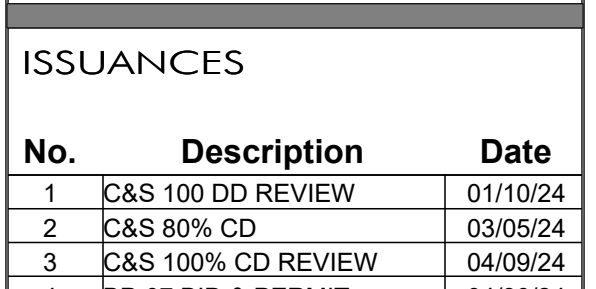
**CARMAN** LANDSCAPE ARCHITECTURE  
URBAN PLANNING  
CIVIL ENGINEERING



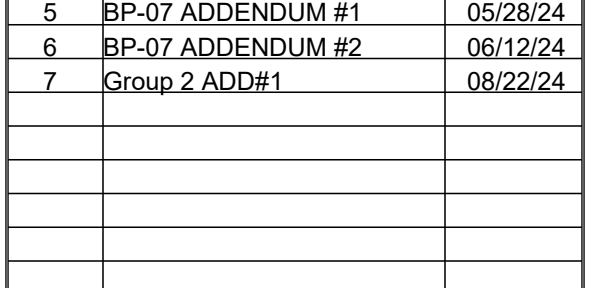
**WALSH**  
CONSULTING GROUP



**bell**  
engineering



**CDM  
Smith**



**PIVOTAL**  
lighting design



**UK**  
HEALTHCARE

**Cancer Treatment  
Center + Advanced  
Ambulatory Center**

1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100 DD REVIEW  | 01/19/24 |
| 2   | C&S 90% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | BP-07 ADDENDUM #1  | 05/28/24 |
| 6   | BP-07 ADDENDUM #2  | 06/19/24 |
| 7   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client Number

514

Project Number

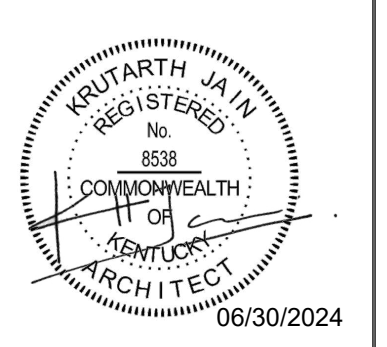
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DRAWING TITLE

SHEET INDEX -  
VOLUME 2

SHEET NO.

G001.7-2



8/21/2024 4:21:48 PM



Author 8/21/2024 8:22:59 AM Autodesk Doc/US/14-49205 - UKHC Cancer Treatment & Advance Ambulatory Center/23-UKC-SHELLCODE-5148206.rvt

| Material Identification Codes |                    |             |                                                                                                                                              |  |
|-------------------------------|--------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------|--|
| Revision                      | Spec               | Code        | Description                                                                                                                                  |  |
|                               | 072726.04          | AB          | AIR & WATER BARRIERS                                                                                                                         |  |
|                               | 072726.04          | AB-1        | Fluid-Applied Synthetic AS, Water, and Vapor Retarder Membrane                                                                               |  |
|                               | 084229.23          | ASLD        | AUTOMATIC SLIDING DOORS                                                                                                                      |  |
|                               | 084229.23          | ASLD-1      | Automatic, aluminum-framed glass doors & sidelights                                                                                          |  |
|                               | 084229.23          | ASLD-2      | Automatic, aluminum-framed glass doors & sidelights                                                                                          |  |
|                               | 083323             | CD          | COILING DOORS                                                                                                                                |  |
|                               | 083323             | CD-1        | Coiling Door, Exterior Insulated                                                                                                             |  |
|                               | 083323.10          | CD-2        | Coiling Door, Interior, Fire Rated                                                                                                           |  |
|                               | 042000             | CMU         | CONCRETE MASONRY UNITS                                                                                                                       |  |
|                               | 042000             | CMU-1       | Typical                                                                                                                                      |  |
|                               | 107300             | CNPF        | CANOPY (MANUFACTURED)                                                                                                                        |  |
|                               | 107300             | CNPF-1      | Pre-engineered extruded aluminum canopy                                                                                                      |  |
|                               | 033000             | CONC FIN    | CONCRETE FINISHES (Exposed to View)                                                                                                          |  |
|                               | 033000             | CONC FIN-1  | Formed Surface                                                                                                                               |  |
|                               | 033000             | CONC FIN-1  | As-cast finish, Surface Finish 2.0 per ACI 301-10                                                                                            |  |
|                               | 033000             | CONC FIN-2  | As-cast finish, Surface Finish 3.0 per ACI 301-10                                                                                            |  |
|                               | 033000             | CONC FIN-3  | As-cast finish, CS&A per ACI 347.3R-13                                                                                                       |  |
|                               | 084413             | CW          | CURTAINWALL                                                                                                                                  |  |
|                               | 084413             | CW-1        | Curtainwall System, Unitized, Steel-reinforced                                                                                               |  |
|                               | 084413             | CW-2        | Curtainwall System, Unitized                                                                                                                 |  |
|                               | 057100             | DEC STAIR   | DECORATIVE STAIRS                                                                                                                            |  |
|                               | 057100             | DEC STAIR-1 | Monumental stair assembly                                                                                                                    |  |
|                               | 078513.16 / 077129 | EXP JT      | EXPANSION JOINT COVER ASSEMBLIES                                                                                                             |  |
|                               | 077129             | EXP JT-1    | Exterior, Roof-to-Roof                                                                                                                       |  |
|                               | 078513.16          | EXP JT-2    | Exterior, Walk-to-Wall                                                                                                                       |  |
|                               | 077129             | EXP JT-3    | Exterior, Roof-to-Wall                                                                                                                       |  |
|                               | 042000             | FBR         | VENEERED FACEBRICK                                                                                                                           |  |
|                               | 042000             | FBR-1A      | Facebrick, Beige, Smooth                                                                                                                     |  |
|                               | 042000             | FBR-1B      | Facebrick, Beige, Textured                                                                                                                   |  |
|                               | 042000             | FBR-2       | Facebrick, Terracotta, Smooth                                                                                                                |  |
|                               | 042000             | FBR-3       | Facebrick, Dark Terracotta, Smooth                                                                                                           |  |
|                               | 042000             | FBRA        | FACE BRICK ANCHORS                                                                                                                           |  |
|                               | 042000             | FBRA-1      | Thermal 2-Seal Adjustable veneer anchor & tie (Steel Stud)                                                                                   |  |
|                               | 042000             | FBRA-2      | Thermal 2-Seal Adjustable veneer anchor & tie (CIP and CMU)                                                                                  |  |
|                               | 040524             | FBRA-3      | Adjustable Offset Shelf Angle Support System                                                                                                 |  |
|                               | 040523             | FBRA-4      | Concealed Brick Lintel Support System                                                                                                        |  |
|                               | 042000             | FLXF        | FLEXIBLE FLASHING                                                                                                                            |  |
|                               | 042000             | FLXF-1      | Flexible Stainless Steel                                                                                                                     |  |
|                               | 078100/078123      | FP          | FIRE PROTECTION                                                                                                                              |  |
|                               | 078100             | FP-1        | SFRM, normal-density                                                                                                                         |  |
|                               | 078123             | FP-2        | Intumescent Coating                                                                                                                          |  |
|                               | 078100             | FP-3        | SFRM, high-density                                                                                                                           |  |
|                               | 078443             | FRJS        | FIRESTOPPING (Joint)                                                                                                                         |  |
|                               | 078443             | FRJS-1      | See Fire Resistive Joint System Schedule in Specifications                                                                                   |  |
|                               | 070543.11          | FRP FURG    | FIBERGLAS-REINFORCED PLASTIC FURRING                                                                                                         |  |
|                               | 070543.11          | FRP FURG-1  | Composite Z-furring supports for cladding                                                                                                    |  |
|                               | 078413             | FSTOP       | FIRESTOPPING (Penetration)                                                                                                                   |  |
|                               | 078413             | FSTOP-1     | See Firestopping Schedule in Specifications                                                                                                  |  |
|                               | 088000             | GL          | GLASS, GLAZING                                                                                                                               |  |
|                               |                    |             | Insulating Glazing Units                                                                                                                     |  |
|                               | 088000             | GL-21       | Clear Insulating Glass with Low-E Coating                                                                                                    |  |
|                               | 088000             | GL-22       | Lightly Reflective Clear Insulating Glass with Low-E Coating                                                                                 |  |
|                               | 088000             | GL-23       | Insulating Glass with Low-E Coating and Birdsafe UV Coating on #1 Surface                                                                    |  |
|                               |                    |             | Spandrel Insulating Glazing Unit                                                                                                             |  |
|                               | 088000             | GL-41       | Spandrel Insulating Glass with Low-E Coating                                                                                                 |  |
|                               |                    | GL-42       | Lightly Reflective Spandrel Insulating Glass with Low-E Coating                                                                              |  |
|                               | 092900             | GYP BD      | GYPSUM BOARD                                                                                                                                 |  |
|                               | 092900             | GYP BD-1    | 5/8" fire-rated type X                                                                                                                       |  |
|                               | 092900             | GYP BD-2    | 5/8" fire-rated type X, mold-resistant & water-resistant                                                                                     |  |
|                               | 092116.23          | GYP BD-21   | 1" shaft liner                                                                                                                               |  |
|                               | 092900             | GYP BD-25   | 5/8" fire-rated type X tile backer                                                                                                           |  |
|                               | 092900             | GYP BD-36   | 5/8" impact-resistant                                                                                                                        |  |
|                               | 061600             | GYP SHTG    | GYPSUM SHEATHING (Exterior)                                                                                                                  |  |
|                               | 061600             | GYP SHTG-1  | 5/8", type X, fiberglass-faced                                                                                                               |  |
|                               | 099600             | HPC         | HIGH-PERFORMANCE COATING                                                                                                                     |  |
|                               | 099600             | HPC-1       | Protective Coatings For Steel                                                                                                                |  |
|                               |                    |             | Zinc-rich urethane base, water-based epoxy build coat, polyurethane finish, color as selected by architect to match MP-1IMP-2.               |  |
|                               | 099600             | HPC-2       | Protective Coatings For Steel                                                                                                                |  |
|                               |                    |             | Zinc-rich urethane base, water-based epoxy build coat, polyurethane finish, color as selected by architect to match FBR-1                    |  |
|                               | 099600             | HPC-3       | Protective Coatings For Steel                                                                                                                |  |
|                               |                    |             | Zinc-rich urethane base, water-based epoxy build coat, polyurethane finish, color as selected by architect to match FBR-2.                   |  |
|                               | 099600             | HPC-4       | Protective Coatings For Steel                                                                                                                |  |
|                               |                    |             | Zinc-rich urethane base, water-based epoxy build coat, polyurethane finish, color to match Sherwin Williams Yellow Traffic Coating B07YD2467 |  |
|                               | 099113             | HPC-5       | Protective Elastomeric Coatings For Concrete, color as selected by architect to match MP-1IMP-2                                              |  |
|                               | 099113             | HPC-6       | Protective Elastomeric Coatings For Concrete, color as selected by architect to match FBR-2                                                  |  |
|                               | 099113             | HPC-7       | Protective Elastomeric Coatings For Concrete, color as selected by architect to match STN-2                                                  |  |
|                               | 072100             | INSUL       | INSULATION                                                                                                                                   |  |
|                               | 072100             | INSUL-1     | 25 psi, below-grade foundations XPS                                                                                                          |  |
|                               | 072100             | INSUL-15    | Foil-faced Polystyrene                                                                                                                       |  |
|                               | 072100             | INSUL-24    | Mineral-fiber batts, unfaced                                                                                                                 |  |
|                               | 072100             | INSUL-25    | Mineral-fiber semi-rigid board                                                                                                               |  |
|                               | 072100             | INSUL-30    | Spray-applied, closed-cell expanding polyurethane foam                                                                                       |  |
|                               | 072100             | INSUL-31    | Spray-applied, open-cell expanding polyurethane foam for use at openings                                                                     |  |
|                               | 072100             | INSUL-4     | 40 psi, high-density, underlabb                                                                                                              |  |
|                               | 072100             | INSUL-40    | Unfaced fiberglass batt                                                                                                                      |  |
|                               | 111300             | LD EQ       | LOADING DOCK EQUIPMENT                                                                                                                       |  |
|                               | 111310             | LD EQ-1     | Dock leveler                                                                                                                                 |  |
|                               | 111300             | LD EQ-2     | Dock bumpers                                                                                                                                 |  |
|                               | 111300             | LD EQ-3     | Dock seals                                                                                                                                   |  |
|                               | 111300             | LD EQ-4     | Interior Use Dock Lights                                                                                                                     |  |
|                               | 111300             | LD EQ-5     | Truck restraint                                                                                                                              |  |
|                               | 1113107            | LD EQ-6     | Combination Dock Leveler / Scissors lift table                                                                                               |  |
|                               | 111300             | LD EQ-7     | Dock Door Safety Restraint                                                                                                                   |  |
|                               | 089119             | LVR         | LOUVERS                                                                                                                                      |  |
|                               | 089119             | LVR-1A      | Fixed louver (Color to match FBR-2)                                                                                                          |  |
|                               | 089119             | LVR-1B      | Fixed louver (Color to match CW-1)                                                                                                           |  |
|                               | 089119             | LVR-1C      | Fixed louver (Color to match FBR-1A)                                                                                                         |  |
|                               | 089119             | LVR-2       | Fixed louver with glazing channel and cover for integration into fully-unitized curtainwall system (Custom Color to match CW-1)              |  |
|                               | 089119             | LVR-3       | Fixed louver, 4" Depth (Color to match CW-1)                                                                                                 |  |
|                               | 042000             | MA          | MASONRY ACCESSORIES                                                                                                                          |  |
|                               | 042000             | MA-1        | Prismatic gasket                                                                                                                             |  |
|                               | 042000             | MA-2        | Compressible filler                                                                                                                          |  |
|                               | 042000             | MA-3        | Bond-breaker strips                                                                                                                          |  |
|                               | 055000             | MET FAB     | METAL FABRICATIONS                                                                                                                           |  |
|                               |                    |             | Ladders                                                                                                                                      |  |
|                               | 055000             | MET FAB-1   | Straight ladder                                                                                                                              |  |
|                               | 055000             | MET FAB-2   | Rullent, surface-mounted steel pipe                                                                                                          |  |
|                               | 055119             | MET FAB-4   | Prefabricated stair and walkway                                                                                                              |  |
|                               | 055819             | MET FAB-5   | Shop-Formed and Fabricated Aluminum Fin Tube Enclosure                                                                                       |  |
|                               | 092216             | MET FURG    | METAL FURRING (Non-Structural)                                                                                                               |  |
|                               | 092216             | MET FURG-1  | Hat channels                                                                                                                                 |  |
|                               | 092216             | MET FURG-2  | Z-furring                                                                                                                                    |  |
|                               | 092216             | MET FURG-3  | Channel bridging                                                                                                                             |  |
|                               | 092216             | MET FURG-4  | Resilient channel                                                                                                                            |  |
|                               | 092216             | MET FURG-5  | Interlocking Ceiling Panel Clips                                                                                                             |  |
|                               | 055213             | MET RAIL    | METAL RAILINGS                                                                                                                               |  |
|                               | 055213             | MET RAIL-1  | Handrail, Interior                                                                                                                           |  |
|                               | 055213             | MET RAIL-2  | Guardrail, Interior                                                                                                                          |  |
|                               | 057300             | MET RAIL-6  | Guardrail, Exterior, Stainless Steel with Cable Infill and Integral Light Fixtures                                                           |  |
|                               | 055113             | MET STAIR   | METAL STAIRS                                                                                                                                 |  |
|                               | 055113             | MET STAIR-1 | Steel pan stair                                                                                                                              |  |
|                               | 092216             | MET STUD    | METAL STUD FRAMING (Non-Structural)                                                                                                          |  |
|                               | 092216             | MET STUD-1  | Steel stud, C-shaped, galvanized                                                                                                             |  |
|                               | 092216.23          | MET STUD-2  | Steel stud wall stud, C-1 shaped, galvanized                                                                                                 |  |
|                               | 074213.23          | MP          | METAL PANELS                                                                                                                                 |  |
|                               | 074213.23          | MP-1        | Zinc-Alloy Composite Metal Rainscreen                                                                                                        |  |
|                               | 074213.23          | MP-2        | Painted Finish Aluminum Composite Metal Panel (Light Gray)                                                                                   |  |
|                               | 074213.23          | MP-3        | Painted Finish Aluminum Composite Metal Panel (Dark Gray)                                                                                    |  |
|                               | 074213.23          | MP-4        | Painted Finish Corrugated Metal Panel (Light Gray)                                                                                           |  |
|                               | 079100             | PFJB        | PREFORMED JOINT SEALS                                                                                                                        |  |
|                               | 079100             | PFJB-1      | Exterior, Walk-to-Wall and Roof-to-Roof, Below-Grade Interior                                                                                |  |
|                               | 075419             | PVC         | PVC MEMBRANE ROOFING                                                                                                                         |  |

| Material Identification Codes |               |            |                                                                            |  |
|-------------------------------|---------------|------------|----------------------------------------------------------------------------|--|
| Revision                      | Spec          | Code       | Description                                                                |  |
|                               | 075419        | PVC-1      | Thermoplastic PVC roofing system                                           |  |
|                               | 075419        | PVC-2      | Thermoplastic PVC roofing system                                           |  |
|                               | 077200        | RF ACC     | ROOF ACCESSORIES                                                           |  |
|                               | 077200        | RF ACC-1   | Prefabricated Aluminum Walkway                                             |  |
| 5                             | 077200        | RF ACC-2   | Insulated roof curb; Custom size and profile; Internally-structured        |  |
|                               | 077200        | RH         | ROOF HATCH                                                                 |  |
|                               | 077200        | RH-1       | Stair Access Hatch                                                         |  |
|                               | 077200        | RH-2       | Hotel Access Equipment Hatch                                               |  |
|                               | 084413        | SCD        | SUN CONTROL LOUVER DEVICE                                                  |  |
|                               | 084413        | SCD-1      | Exterior Sun Control Device                                                |  |
|                               | 077253        | SG         | SNOW GUARDS                                                                |  |
|                               | 077253        | SG-1       | Pad Type, Zinc                                                             |  |
|                               | 077253        | SG-2       | Pad Type, Aluminum                                                         |  |
|                               | 076200        | SLMT       | SEALANT                                                                    |  |
|                               | 076200        | SLMT-1     | See Specification for Sealant Schedule                                     |  |
|                               | 076200        | SMF        | SHEET METAL & FLASHING                                                     |  |
|                               | 077100        | SMF-1      | Cantilevered Coping, Aluminum, prefinished                                 |  |
|                               | 077100        | SMF-2      | Fascia Trim, Aluminum, prefinished, Light Gray                             |  |
|                               | 077100        | SMF-3      | Formed Sheet Metal Coping, Aluminum Sheet (MP-2)                           |  |
|                               | 077100        | SMF-4      | Fascia Trim, Zinc                                                          |  |
|                               | 077100        | SMF-5      | Formed Sheet Metal Coping, Zinc (MP-1)                                     |  |
|                               | 077100        | SMF-6      | Fascia Trim, Aluminum, prefinished, Dark Gray                              |  |
|                               | 083483        | SMKC       | SMOKE CURTAINS                                                             |  |
|                               | 083483        | SMKC-1     | Overhead Ceiling Smoke Curtain                                             |  |
|                               | 083343        | SMKC-2     | Elevator Hoistway Smoke Curtain                                            |  |
|                               | 72119         | SPF        | SPRAY POLYURETHANE FOAM INSULATION                                         |  |
|                               | 72119         | SPF-1      | Closed-cell spray foam air barrier, vapor barrier, Ignition Barrier        |  |
|                               | 074243        | SPP        | WOOD VENEER SOLID PHENOLIC PANEL                                           |  |
|                               | 074243        | SPP-1      | Phenolic Panel Rainscreen System                                           |  |
|                               | 054000        | STL FURG   | STEEL FURRING (Structural)                                                 |  |
|                               | 054000        | STL FURG-1 | Hat channel, 16 ga. min, galvanized                                        |  |
|                               | 054000        | STL FURG-2 | Z-furring, 16 ga. min, galvanized                                          |  |
|                               | 054000        | STL STUD   | STEEL STUD FRAMING (Structural)                                            |  |
|                               | 054000        | STL STUD-1 | C-shaped, 16 ga. min, galvanized G90                                       |  |
|                               | 044200        | STN        | STONE                                                                      |  |
|                               | 044200        | STN-1      | Anchored Veneer Panels; Russell Stone, Bloom Run Sandstone, finish: Honed. |  |
|                               | 044200        | STN-2      | Anchored Granite Veneer Panels                                             |  |
|                               | 044200        | STNA       | STONE ANCHORS                                                              |  |
|                               | 044200        | STNA-1     | Panel anchor                                                               |  |
|                               |               | TBM        | THERMAL BREAK MATERIALS                                                    |  |
|                               | 072160        | TBM-1      | Structural fiberglass-reinforced thermoset resin plates                    |  |
|                               | 042000        | TWF        | THROUGH-WALL FLASHING                                                      |  |
|                               | 042000        | TWF-1      | Termination bar, stainless steel                                           |  |
|                               | 042000        | TWF-2      | Drip plate, stainless steel                                                |  |
|                               | 031500        | UVB        | UNDER-SLAB VAPOR BARRIER                                                   |  |
|                               | 031500        |            |                                                                            |  |
|                               | 031500        | UVB-1      | 15 mil polyethylene sheet                                                  |  |
|                               | 061053        | WD BLKG    | WOOD BLOCKING                                                              |  |
|                               | 061053        | WD BLKG-1  | Wood Blocking, Fire-retardant Treated                                      |  |
|                               | 071326/071413 | WP         | WATERPROOFING                                                              |  |
|                               | 071326        | WP-1       | Self-adhering Modified Bituminous Sheet Membrane                           |  |
|                               | 071413        | WP-2       | Hot Fluid-applied Rubberized Asphalt                                       |  |
|                               | 042000        | WPS        | WEEP SYSTEM COMPONENTS                                                     |  |
|                               | 042000        | WPS-1      | Cellular plastic vent                                                      |  |
|                               | 042000        | WPS-2      | Cavity drainage mesh, dovetail strips                                      |  |

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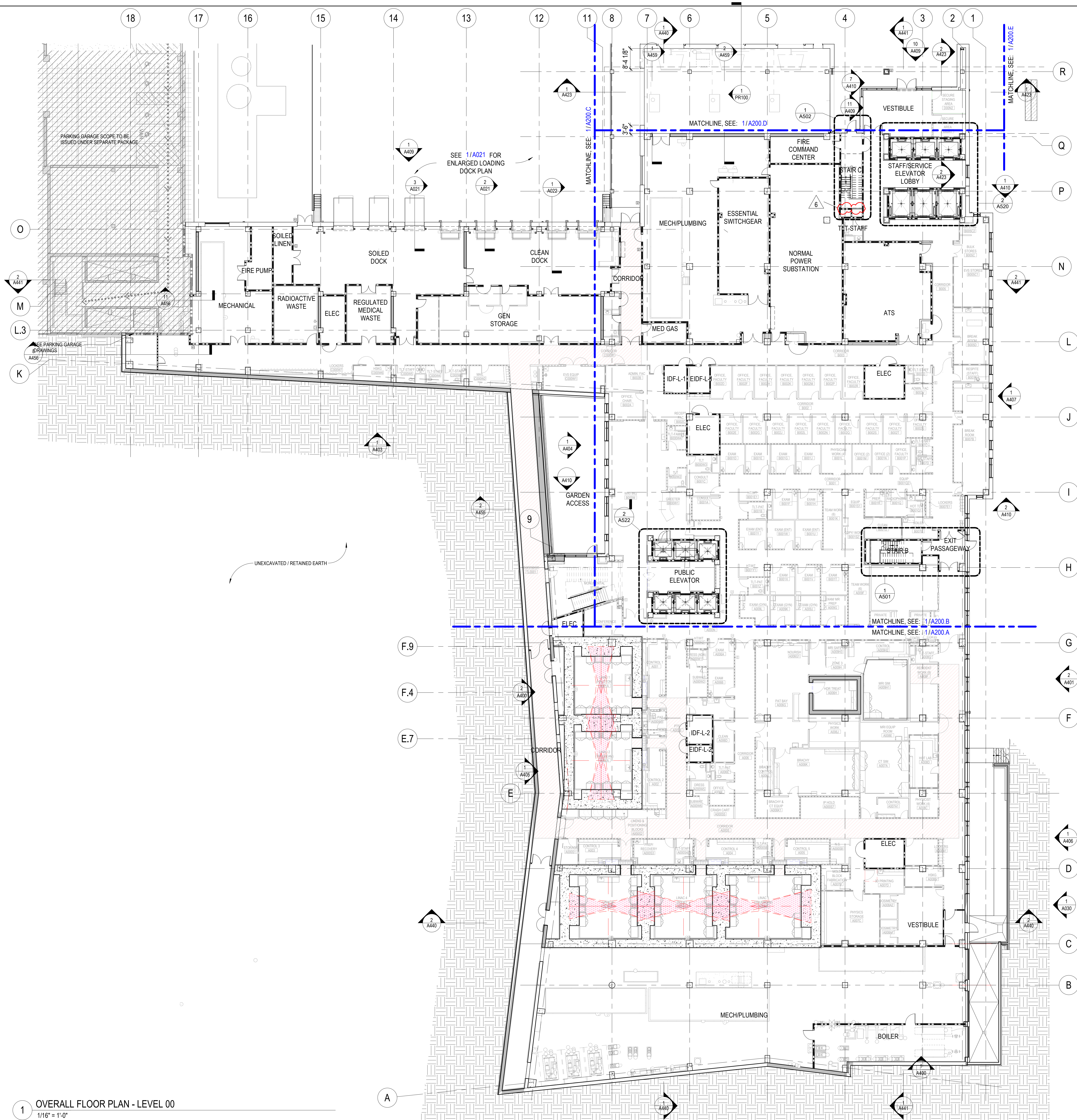
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| ISSUANCES |                    |          |
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| 5         | BP-07 ADDENDUM #1  | 05/28/24 |
| 6         | Group 2 ADD#1      | 08/22/24 |



1 OVERALL FLOOR PLAN - LEVEL 00  
1/16" = 1'-0"



GENERAL NOTES - FLOOR PLANS

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- INSTALL WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
- FLATNESS: LEVEL FLOORS TO TRUE PLANE WITHIN 1/4 INCH (6 MM) IN 10'-0" (3 M) WHEN TESTED BY TEN FOOT (3 M) STRAIGHTEDGE PLACED ANYWHERE ON FLOOR IN ANY DIRECTION.
- COORDINATE FURNITURE-RELATED ELECTRICAL LAYOUT WITH FURNITURE VENDOR.
- WHERE HANDRAILS, GRAB BARS, CABINETS, WALL-MOUNTED DOOR STOPS, OR OTHER WALL-HUNG ITEMS ARE ATTACHED TO PARTITIONS, INSTALL BACKER PLATES [OR WOOD BLOCKING] ACCURATELY POSITIONED AND FIRMLY SECURED TO METAL STUDS, WHETHER OR NOT SUCH BACKER PLATES OR BLOCKING ARE INDICATED ON DRAWINGS.
- WHERE NEW WORK ABUTS, ALIGNS OR ADJOINS EXISTING MATERIALS, MAKE SMOOTH AND EVEN TRANSITION AND ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. FINISH NEW WORK TO MATCH ADJACENT UNDISTURBED SURFACES, UNLESS NOTED OTHERWISE.
- CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL AND CEILING WHICH EXIST OR RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
- PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING. COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
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  - AT OPENINGS AND CUTOUTS, FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
  - SEAL SIDES AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

CONSTRUCTION PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

| (E) CONSTRUCTION TO REMAIN |                     |
|----------------------------|---------------------|
| TO REMAIN                  | ---                 |
| NEW CONSTRUCTION           | ---                 |
| TEMPORARY CONSTRUCTION     | ---                 |
| ASSEMBLY RATING            |                     |
| 0 ZERO HOUR                | ---                 |
| 1 ONE HOUR RATED           | ---                 |
| 2 TWO HOUR RATED           | ---                 |
| TYPE OF ASSEMBLY           |                     |
| W FIRE WALL                | S SMOKE BARRIER     |
| B FIRE BARRIER             | SP SMOKE PARTITIONS |
| E EXISTING                 |                     |

|     |                                                                          |
|-----|--------------------------------------------------------------------------|
| XXX | DOOR TAG<br>SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION      |
| XXx | INTERIOR PARTITION TAG<br>SEE PARTITION SHEET FOR ADDITIONAL INFORMATION |
| XX  | WINDOW TAG<br>SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION    |

KEYNOTES - FLOOR PLANS

| #   | DESCRIPTION                                                                                                                                             |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|
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| F2  | TRANSITION IN FLOOR CONSTRUCTION - REFER TO STRUCTURAL FRAMING PLANS AND DETAILS FOR MORE INFORMATION.                                                  |
| F4  | PAVERS ON PEDESTALS. REFER TO L-DRAWINGS.                                                                                                               |
| F5  | ROOF DRAINAGE SECONDARY OVERFLOW DISCHARGE. REFER PLUMBING FOR DETAILS.                                                                                 |
| F7  | INTERIOR EXPOSED COLUMNS TO RECEIVE AESS LEVEL 4 FINISH PER AISC WITH (HPC-9).                                                                          |
| F8  | WALL-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE.                                                                                  |
| F9  | CARD READER.                                                                                                                                            |
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| F11 | POST-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE.                                                                                  |

ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | BP-03 FOR REVIEW   | 11/29/23 |
| 2   | C&S 100 DD REVIEW  | 01/10/24 |
| 3   | C&S 80% CD         | 03/05/24 |
| 4   | C&S 100% CD REVIEW | 04/09/24 |
| 5   | BP-07 BID & PERMIT | 04/30/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

|                |         |
|----------------|---------|
| Drawn By       | Author  |
| Checked By     | Checker |
| Client Number  | 514     |
| Project Number | 6926    |

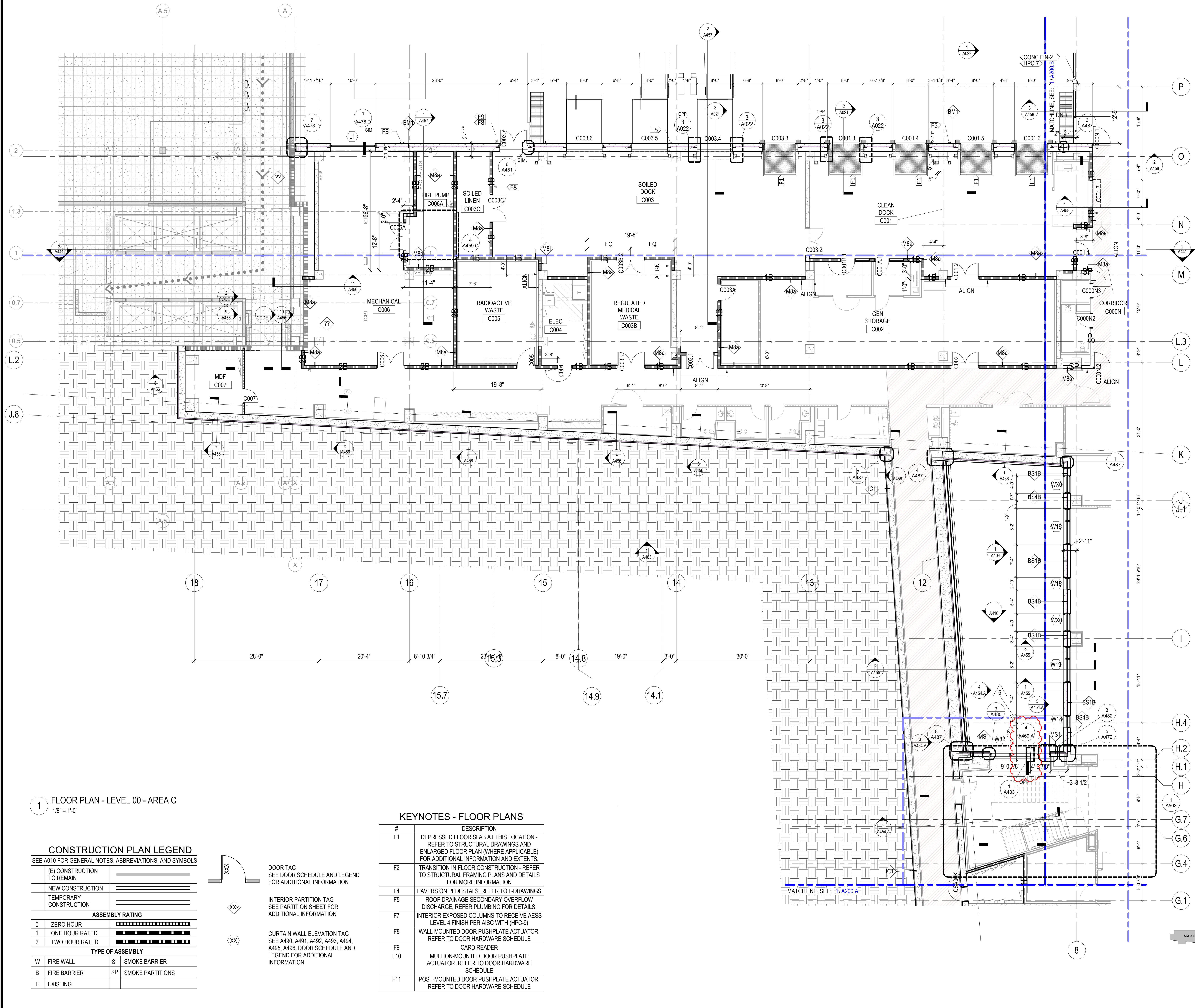
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OVERALL SHELL & CORE PLAN - LEVEL 00

SHEET NO.  
A200









| ISSUANCES |                    |          |
|-----------|--------------------|----------|
| No.       | Description        | Date     |
| 1         | C&S 100 DD REVIEW  | 01/10/24 |
| 2         | C&S 80% CD         | 03/05/24 |
| 3         | C&S 100% CD REVIEW | 04/09/24 |
| 4         | BP-07 BID & PERMIT | 04/30/24 |
| 5         | BP-07 ADDENDUM #2  | 05/10/24 |
| 6         | Group 2 ADD#1      | 08/22/24 |

|                |         |
|----------------|---------|
| Drawn By       | Author  |
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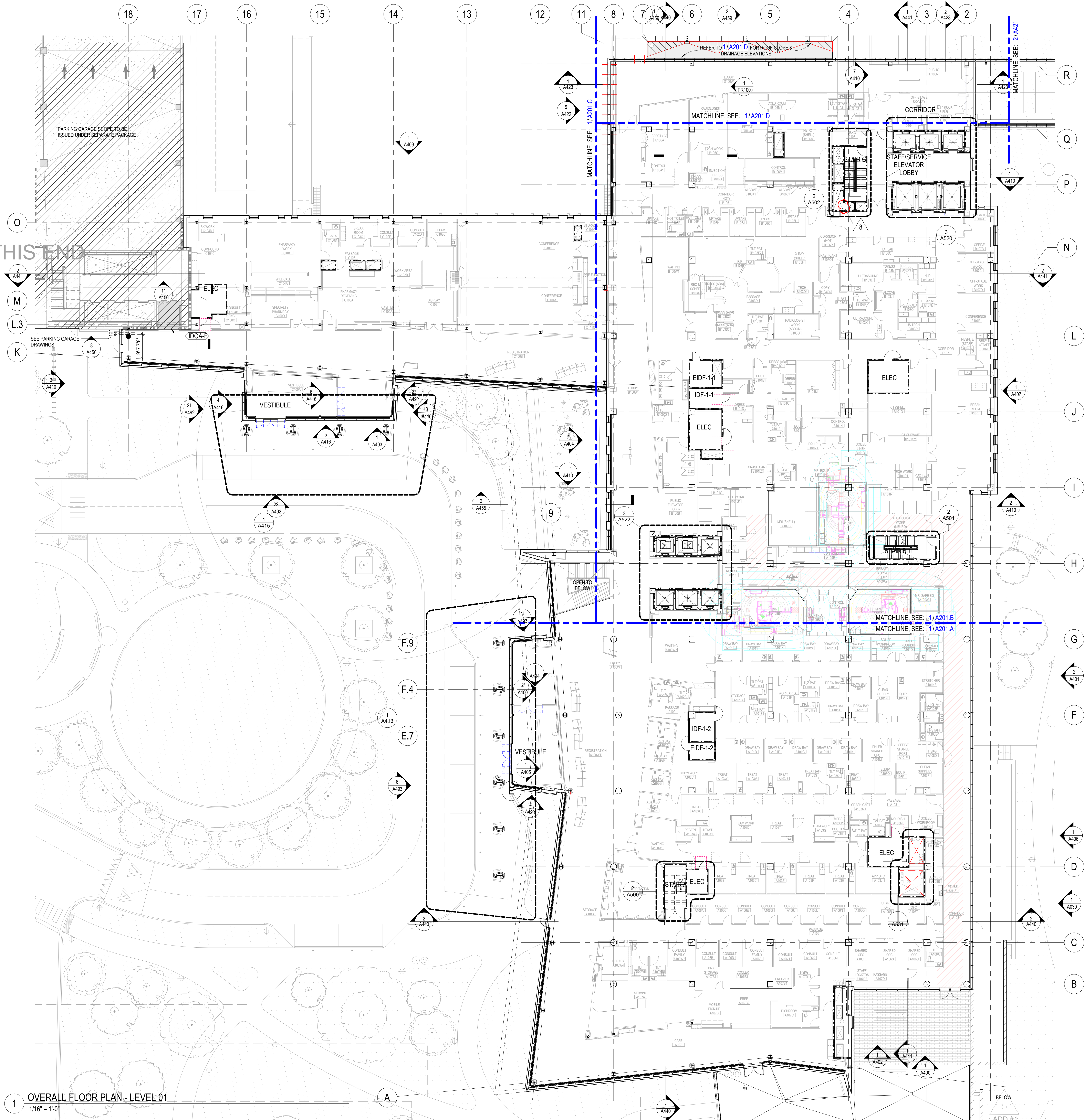
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SHELL & CORE FLOOR PLAN - LEVEL 00 - AREA C

**SHEET NO.**  
A200.C



LEVEL 1" THIS END

Author: 8/19/2024 8:48:12 AM Autodesk Docs/1442925 - UKHC Cancer Treatment & Advanced Ambulatory Center/423-UNC\_SHELLCORE\_5148262.rvt



## GENERAL NOTES - FLOOR PLANS

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## CONSTRUCTION PLAN LEGEND

SEE A4010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                            |  |
|----------------------------|--|
| (E) CONSTRUCTION TO REMAIN |  |
| NEW CONSTRUCTION           |  |
| TEMPORARY CONSTRUCTION     |  |
| ASSEMBLY RATING            |  |
| 0 ZERO HOUR                |  |
| 1 ONE HOUR RATED           |  |
| 2 TWO HOUR RATED           |  |

|                  |                     |
|------------------|---------------------|
| TYPE OF ASSEMBLY |                     |
| W FIRE WALL      | S SMOKE BARRIER     |
| B FIRE BARRIER   | SP SMOKE PARTITIONS |
| E EXISTING       |                     |

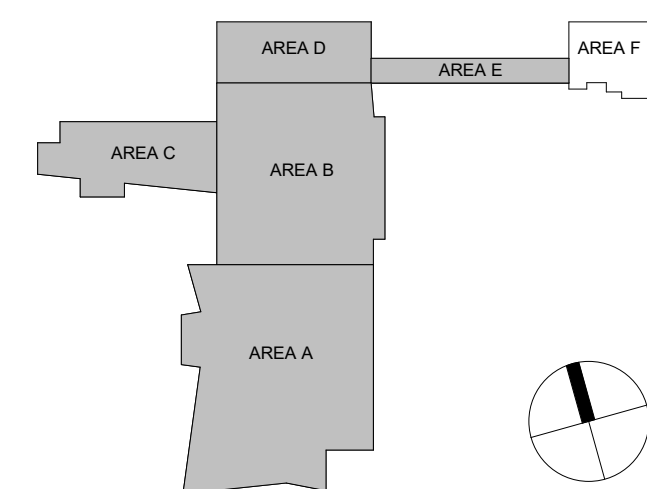
DOOR TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR ADDITIONAL INFORMATION

WINDOW TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

## KEYNOTES

# DESCRIPTION



# HGA

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Telephone 612.758.4000

# THP

AEI Affiliated Engineers

CMTA

# OLIN

CARMAN LANDSCAPE ARCHITECTURE URBAN PLANNING CIVIL ENGINEERING

WALSH CONSULTING GROUP

bell engineering

CDM Smith

PIVOTAL lighting design

UK HEALTHCARE

Cancer Treatment Center + Advanced Ambulatory Center

1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

## ISSUANCES

| No. | Description        | Date     |
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| 6   | BP-07 ADDENDUM #1  | 05/28/24 |
| 7   | BP-07 ADDENDUM #4  | 06/19/24 |
| 8   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client Number

514

Project Number

6926

DRAWING TITLE

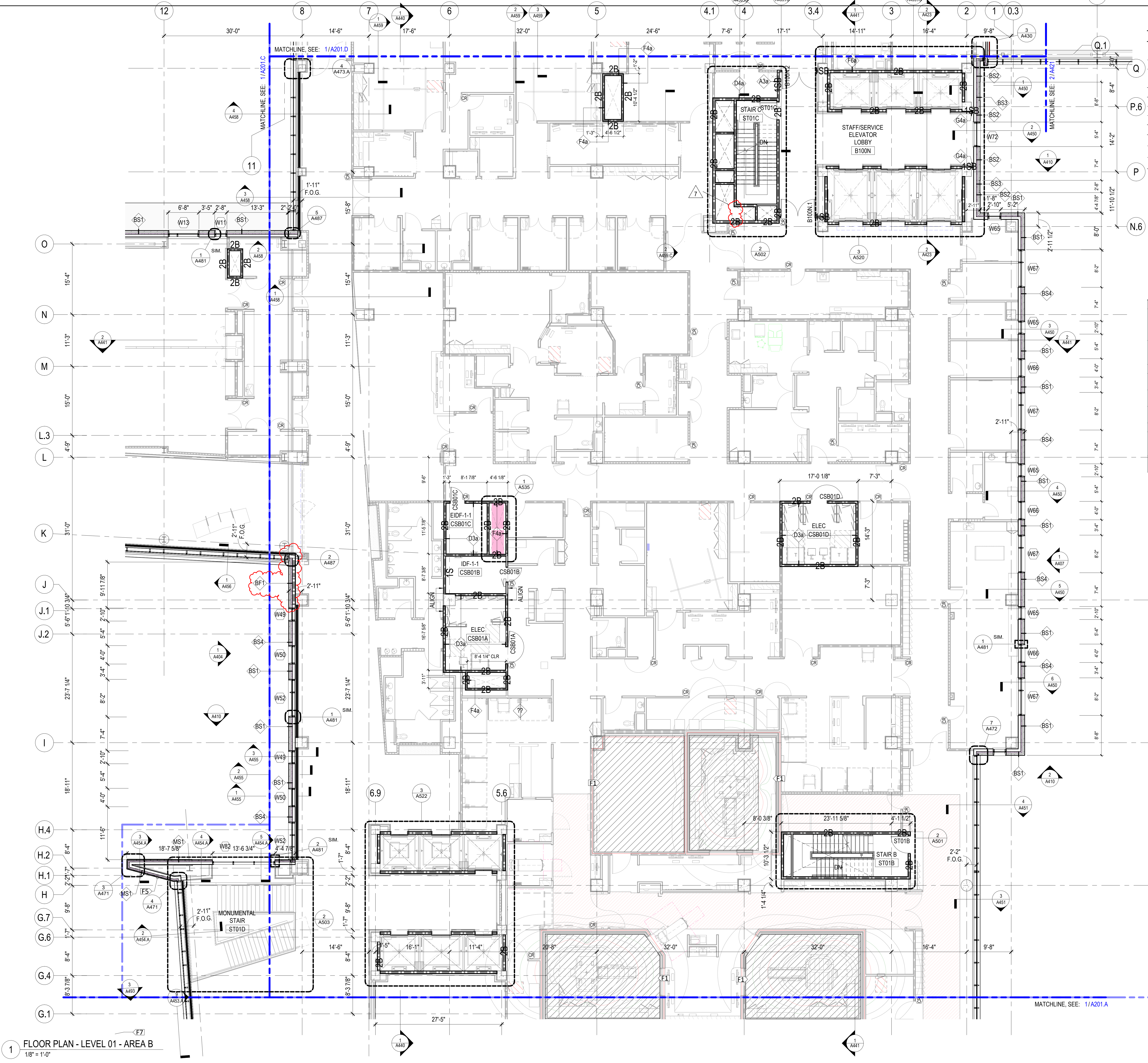
OVERALL SHELL & CORE FLOOR PLAN - LEVEL 01

SHEET NO.

A201

8/19/2024 8:48:12 AM





**CONSTRUCTION PLAN LEGEND**  
SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                            |  |
|----------------------------|--|
| (E) CONSTRUCTION TO REMAIN |  |
| NEW CONSTRUCTION           |  |
| TEMPORARY CONSTRUCTION     |  |

**ASSEMBLY RATING**

|   |                |  |
|---|----------------|--|
| 0 | ZERO HOUR      |  |
| 1 | ONE HOUR RATED |  |
| 2 | TWO HOUR RATED |  |

**TYPE OF ASSEMBLY**

|   |              |    |                  |
|---|--------------|----|------------------|
| W | FIRE WALL    | S  | SMOKE BARRIER    |
| B | FIRE BARRIER | SP | SMOKE PARTITIONS |
| E | EXISTING     |    |                  |

**KEYNOTES - FLOOR PLANS**

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**INTERIOR PARTITION TAG**  
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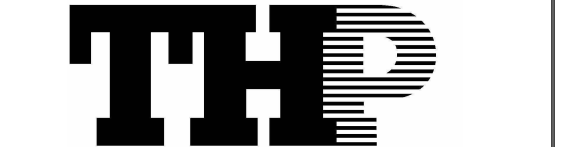
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HEALTHCARE

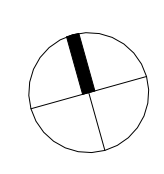
**Cancer Treatment Center + Advanced Ambulatory Center**

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UK Project Number 2563.0

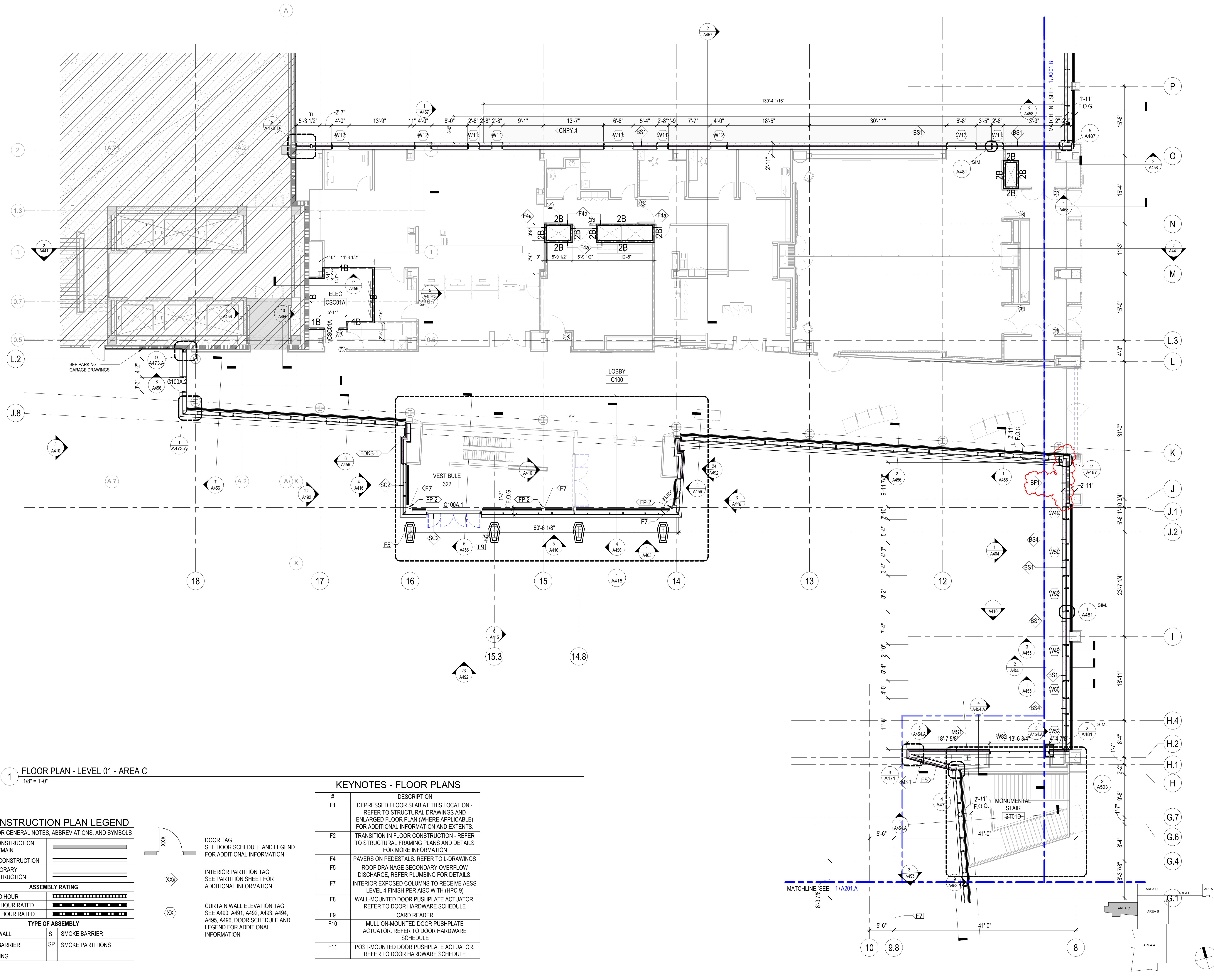
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| 1         | C&S 100 DD REVIEW  | 01/10/24 |
| 2         | C&S 90% CD         | 03/05/24 |
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| 6         | BP-07 ADDENDUM #2  | 06/12/24 |
| 7         | Group 2 ADD#1      | 08/22/24 |

**Drawn By**  
**Author**  
**Checked By**  
**Checker**  
Client Number  
514  
Project Number  
6926  
DRAWING TITLE  
SHELL & CORE FLOOR PLAN - LEVEL 01 - AREA B  
SHEET NO.  
**A201.B**









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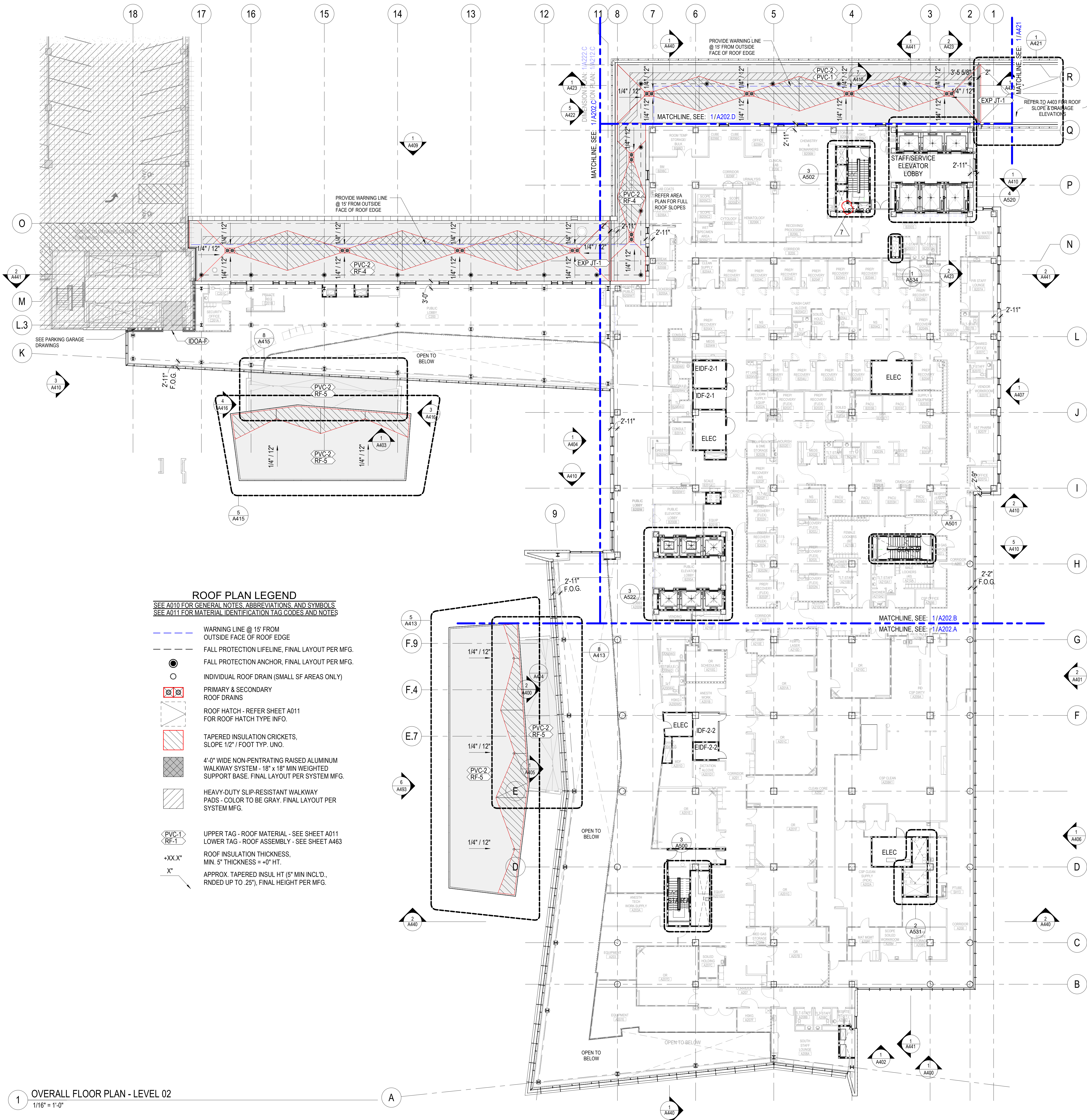
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ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
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Drawn By: [Signature]  
Author: [Signature]  
Checked By: [Signature]  
Checker: [Signature]  
Client Number: 514  
Project Number: 6926  
DRAFTING TITLE: SHELL & CORE FLOOR PLAN - LEVEL 01 - AREA C  
SHEET NO.: A201.C





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- H. WHERE NEW WORK ABUTS, ALIGNS OR ADJOINS EXISTING MATERIALS, MAKE SMOOTH AND EVEN TRANSITION AND ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. FINISH NEW WORK TO MATCH ADJACENT UNDISTURBED SURFACES, UNLESS NOTED OTHERWISE.
- I. CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL AND CEILING WHICH EXIST OR RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
- J. PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING, COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- K. PROVIDE FIRESTOPPING OF PENETRATIONS AND VOIDS THROUGH FIRE-RATED WALL, FLOOR AND PARTITION ASSEMBLIES [AND ROOF] INCLUDING EMPTY OPENINGS AND OPENINGS CONTAINING CABLES, PIPES, DUCTS, CONDUIT AND OTHER ELEMENTS.
- L. AT SOUND-RATED PARTITION WALLS, PROVIDE CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT JUNCTURE OF BOTH FACES OF RUNNERS OR PLATES WITH FLOOR AND CEILING CONSTRUCTION, AND WHEREVER GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
- AT OPENINGS AND CUTOUTS, FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
  - SEAL SIDES AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

CONSTRUCTION PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                            |  |
|----------------------------|--|
| (E) CONSTRUCTION TO REMAIN |  |
| NEW CONSTRUCTION           |  |
| TEMPORARY CONSTRUCTION     |  |

ASSEMBLY RATING

|   |                |  |
|---|----------------|--|
| 0 | ZERO HOUR      |  |
| 1 | ONE HOUR RATED |  |
| 2 | TWO HOUR RATED |  |

TYPE OF ASSEMBLY

|   |              |    |                  |
|---|--------------|----|------------------|
| W | FIRE WALL    | S  | SMOKE BARRIER    |
| B | FIRE BARRIER | SP | SMOKE PARTITIONS |
| E | EXISTING     |    |                  |

DOOR TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR ADDITIONAL INFORMATION

WINDOW TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

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**THP**  
**AEI** Affiliated Engineers

**CMTA**

**OLIN**

**CARMAN** LANDSCAPE ARCHITECTURE  
URBAN PLANNING  
CIVIL ENGINEERING

**WALSH**  
CONSULTING GROUP

**bell**  
engineering

**CDM Smith**

**PIVOTAL**  
lighting design

**UK**  
HEALTHCARE

**Cancer Treatment  
Center + Advanced  
Ambulatory Center**

1220 Elizabeth St.  
Lexington, KY 40536

UK Project Number 2563.0

ISSUANCES

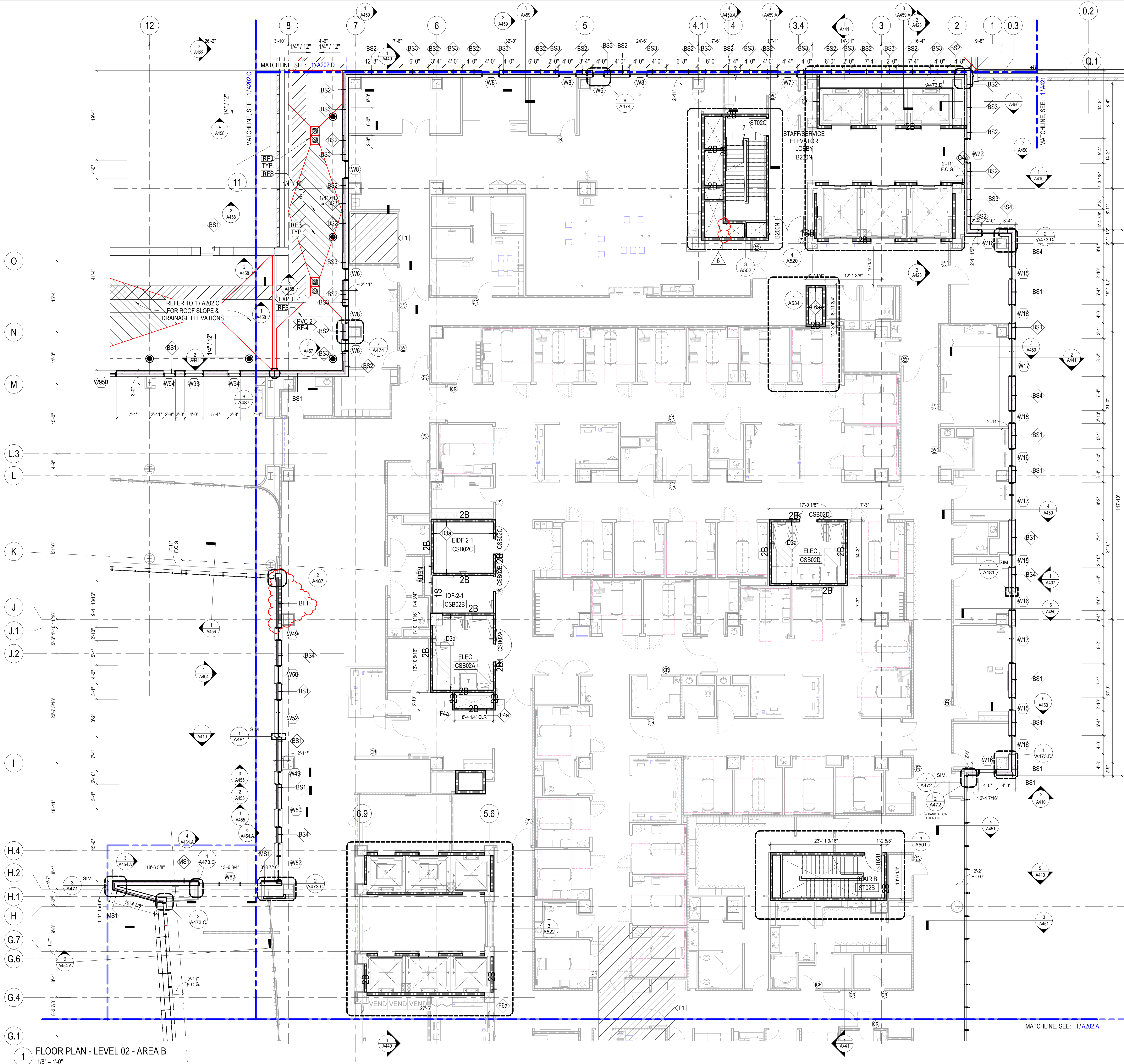
| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | BP-03 FOR REVIEW   | 11/29/23 |
| 2   | C&S 100 DD REVIEW  | 01/10/24 |
| 3   | C&S 80% CD         | 03/05/24 |
| 4   | C&S 100% CD REVIEW | 04/09/24 |
| 5   | BP-07 BID & PERMIT | 04/30/24 |
| 6   | BP-07 ADDENDUM #1  | 05/28/24 |
| 7   | Group 2 ADD#1      | 08/22/24 |

Drawn By  
Author  
Checked By  
Checker  
Client Number  
514  
Project Number  
6926

DRAWING TITLE  
**OVERALL SHELL &  
CORE FLOOR PLAN -  
LEVEL 02**

SHEET NO.  
**A202**





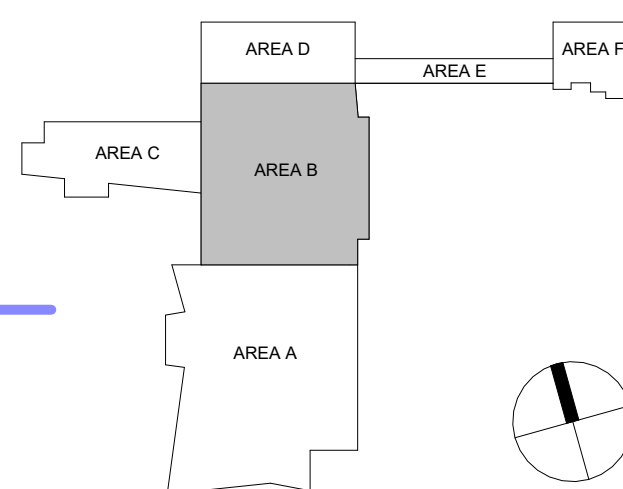
| CONSTRUCTION PLAN LEGEND                               |                     |
|--------------------------------------------------------|---------------------|
| SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS |                     |
| (E) CONSTRUCTION TO REMAIN                             |                     |
| NEW CONSTRUCTION                                       |                     |
| TEMPORARY CONSTRUCTION                                 |                     |
| ASSEMBLY RATING                                        |                     |
| 0 ZERO HOUR                                            |                     |
| 1 ONE HOUR RATED                                       |                     |
| 2 TWO HOUR RATED                                       |                     |
| TYPE OF ASSEMBLY                                       |                     |
| W FIRE WALL                                            | S SMOKE BARRIER     |
| B FIRE BARRIER                                         | SP SMOKE PARTITIONS |
| E EXISTING                                             |                     |

- DOOR TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION
- INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR ADDITIONAL INFORMATION
- WINDOW TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

| #   | DESCRIPTION                                                                                                                                             |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| F1  | DEPRESSED FLOOR SLAB AT THIS LOCATION - REFER TO STRUCTURAL DRAWINGS AND ENLARGED FLOOR PLAN (WHERE APPLICABLE) FOR ADDITIONAL INFORMATION AND EXTENTS. |
| F2  | TRANSITION IN FLOOR CONSTRUCTION - REFER TO STRUCTURAL FRAMING PLANS AND DETAILS FOR MORE INFORMATION                                                   |
| F4  | PAVERS ON PEDESTALS. REFER TO L-DRAWINGS                                                                                                                |
| F5  | ROOF DRAINAGE SECONDARY OVERFLOW DISCHARGE, REFER PLUMBING FOR DETAILS.                                                                                 |
| F7  | INTERIOR EXPOSED COLUMNS TO RECEIVE AESS LEVEL 4 FINISH PER AISC WITH (HPC-9)                                                                           |
| F8  | WALL-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                   |
| F9  | CARD READER                                                                                                                                             |
| F10 | MULLION-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                |
| F11 | POST-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                   |

| ROOF PLAN LEGEND                                                                                                 |                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS. SEE A011 FOR MATERIAL IDENTIFICATION TAG CODES AND NOTES |                                                                                                                               |
|                                                                                                                  | WARNING LINE @ 15' FROM OUTSIDE FACE OF ROOF EDGE                                                                             |
|                                                                                                                  | FALL PROTECTION LIFELINE, FINAL LAYOUT PER MFG.                                                                               |
|                                                                                                                  | INDIVIDUAL ROOF DRAIN (SMALL SF AREAS ONLY)                                                                                   |
|                                                                                                                  | PRIMARY & SECONDARY ROOF DRAINS                                                                                               |
|                                                                                                                  | ROOF HATCH - REFER SHEET A011 FOR ROOF HATCH TYPE INFO.                                                                       |
|                                                                                                                  | TAPERED INSULATION CRICKETS, SLOPE 1/2" / FOOT TYP. UNO.                                                                      |
|                                                                                                                  | 4'-0" WIDE NON-PENETRATING RAISED ALUMINUM WALKWAY SYSTEM - 18" x 18" MIN WEIGHTED SUPPORT BASE. FINAL LAYOUT PER SYSTEM MFG. |
|                                                                                                                  | HEAVY-DUTY SLIP-RESISTANT WALKWAY PADS - COLOR TO BE GRAY. FINAL LAYOUT PER SYSTEM MFG.                                       |
|                                                                                                                  | UPPER TAG - ROOF MATERIAL - SEE SHEET A011                                                                                    |
|                                                                                                                  | LOWER TAG - ROOF ASSEMBLY - SEE SHEET A011                                                                                    |
|                                                                                                                  | ROOF INSULATION THICKNESS, MIN. 5" THICKNESS = +0" HT.                                                                        |
|                                                                                                                  | APPROX. TAPERED INSUL HT (5" MIN INCL'D, RND UP TO 25"), FINAL HEIGHT PER MFG.                                                |

| KEYNOTES - ROOF PLANS |                                                                |
|-----------------------|----------------------------------------------------------------|
| VG                    | DESCRIPTION                                                    |
| RF1                   | PRIMARY AND SECONDARY ROOF DRAINS                              |
| RF2                   | ROOF DRAIN. REFER TO DETAIL                                    |
| RF3                   | TAPERED INSULATION CRICKETS (HATCHED AREAS) 1/2" FOOT          |
| RF4                   | PREFABRICATED ALUMINUM WALKWAY SYSTEM                          |
| RF5                   | PROVIDE WARNING LINE AT 15 FEET FROM OUTSIDE FACE OF ROOF EDGE |
| RF6                   | MOBILE HOIST ACCESS EQUIPMENT HATCH                            |
| RF7                   | STAIR ACCESS HATCH                                             |
| RF8                   | FLEXIBLE WALKWAY SYSTEM                                        |
| RF9                   | TAPERED INSULATION ROOF SUMP AT DRAIN                          |



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**PIVOTAL**  
lighting design

**UK HEALTHCARE**

**Cancer Treatment Center + Advanced Ambulatory Center**

1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

| ISSUANCES |                    |          |
|-----------|--------------------|----------|
| No.       | Description        | Date     |
| 1         | C&S 100 DD REVIEW  | 01/10/24 |
| 2         | C&S 90% CD         | 03/05/24 |
| 3         | C&S 100% CD REVIEW | 04/09/24 |
| 4         | BP-07 BID & PERMIT | 04/30/24 |
| 5         | BP-07 ADDENDUM #2  | 06/12/24 |
| 6         | Group 2 ADD#1      | 08/22/24 |

Drawn By: **Author**

Checked By: **Checker**

Client Number: 514

Project Number: 6926

DRAWING TITLE: SHELL & CORE FLOOR PLAN - LEVEL 02 - AREA B

SHEET NO.: **A202.B**

8/21/2024 3:04:12 PM



### KEYNOTES - FLOOR PLANS

| #   | DESCRIPTION                                                                                                                                             |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| F1  | DEPRESSED FLOOR SLAB AT THIS LOCATION - REFER TO STRUCTURAL DRAWINGS AND ENLARGED FLOOR PLAN (WHERE APPLICABLE) FOR ADDITIONAL INFORMATION AND EXTENTS. |
| F2  | TRANSITION IN FLOOR CONSTRUCTION - REFER TO STRUCTURAL FRAMING PLANS AND DETAILS FOR MORE INFORMATION                                                   |
| F4  | PAVERS ON PEDESTALS. REFER TO L-DRAWINGS                                                                                                                |
| F5  | ROOF DRAINAGE SECONDARY OVERFLOW DISCHARGE. REFER PLUMBING FOR DETAILS.                                                                                 |
| F7  | INTERIOR EXPOSED COLUMNS TO RECEIVE AESS LEVEL 4 FINISH PER AISC WITH (HPC-9)                                                                           |
| F8  | WALL-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                   |
| F9  | CARD READER                                                                                                                                             |
| F10 | MULLION-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                |
| F11 | POST-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                   |

### KEYNOTES - ROOF PLANS

| VG  | DESCRIPTION                                                    |
|-----|----------------------------------------------------------------|
| RF1 | PRIMARY AND SECONDARY ROOF DRAINS                              |
| RF2 | ROOF DRAIN, REFER TO DETAIL                                    |
| RF3 | TAPERED INSULATION CRICKETS (HATCHED AREAS) 1/2"/FOOT          |
| RF4 | PREFABRICATED ALUMINUM WALKWAY SYSTEM                          |
| RF5 | PROVIDE WARNING LINE AT 15 FEET FROM OUTSIDE FACE OF ROOF EDGE |
| RF6 | MOBILE HOIST ACCESS EQUIPMENT HATCH                            |
| RF7 | STAIR ACCESS HATCH                                             |
| RF8 | FLEXIBLE WALKWAY SYSTEM                                        |
| RF9 | TAPERED INSULATION ROOF SUMP AT DRAIN                          |

### 1 FLOOR PLAN - LEVEL 02 - AREA C

1/8" = 1'-0"

### ROOF PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS  
SEE A011 FOR MATERIAL IDENTIFICATION TAG CODES AND NOTES

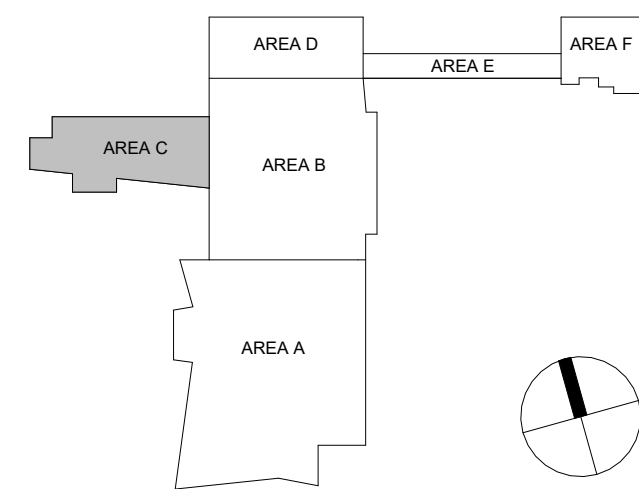
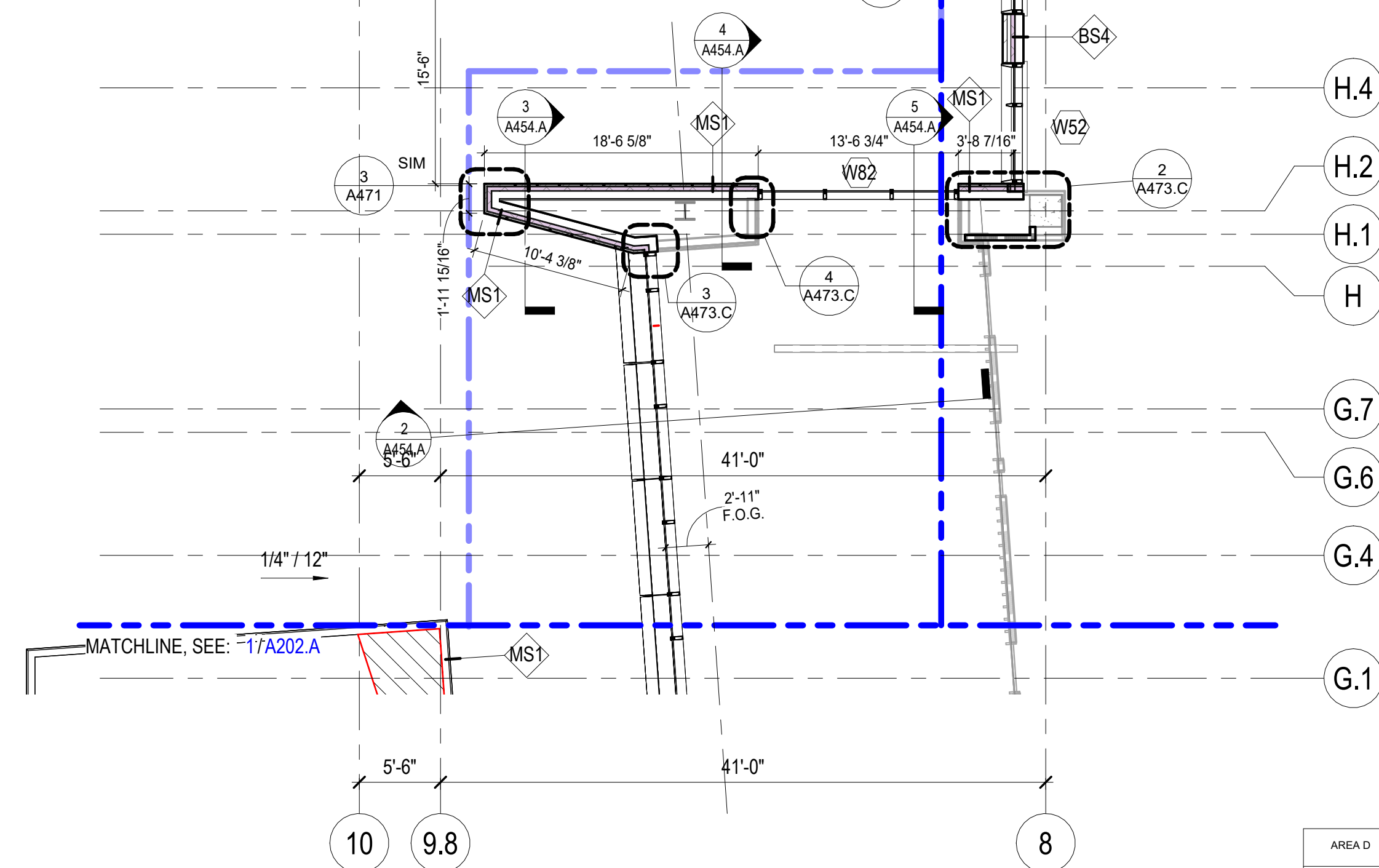
|               |                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------|
| ---           | WARNING LINE @ 15' FROM OUTSIDE FACE OF ROOF EDGE                                                                             |
| ---           | FALL PROTECTION LIFELINE, FINAL LAYOUT PER MFG.                                                                               |
| ---           | FALL PROTECTION ANCHOR, FINAL LAYOUT PER MFG.                                                                                 |
| ○             | INDIVIDUAL ROOF DRAIN (SMALL SF AREAS ONLY)                                                                                   |
| ⊗             | PRIMARY & SECONDARY ROOF DRAINS                                                                                               |
| ⊗             | ROOF HATCH - REFER SHEET A011 FOR ROOF HATCH TYPE INFO.                                                                       |
| ⊗             | TAPERED INSULATION CRICKETS, SLOPE 1/2" / FOOT TYP. UNO.                                                                      |
| ⊗             | 4'-0" WIDE NON-PENETRATING RAISED ALUMINUM WALKWAY SYSTEM - 18" x 18" MIN WEIGHTED SUPPORT BASE, FINAL LAYOUT PER SYSTEM MFG. |
| ⊗             | HEAVY-DUTY SLIP-RESISTANT WALKWAY PADS - COLOR TO BE GRAY, FINAL LAYOUT PER SYSTEM MFG.                                       |
| PVC-1<br>RF-1 | UPPER TAG - ROOF MATERIAL - SEE SHEET A011<br>LOWER TAG - ROOF ASSEMBLY - SEE SHEET A463                                      |
| +XX.X"        | ROOF INSULATION THICKNESS, MIN. 5" THICKNESS = +0" HT.                                                                        |
| X"            | APPROX. TAPERED INSUL HT (5" MIN INCL'D, RNDED UP TO .25"), FINAL HEIGHT PER MFG.                                             |

### CONSTRUCTION PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                            |                     |
|----------------------------|---------------------|
| (E) CONSTRUCTION TO REMAIN |                     |
| NEW CONSTRUCTION           |                     |
| TEMPORARY CONSTRUCTION     |                     |
| ASSEMBLY RATING            |                     |
| 0 ZERO HOUR                |                     |
| 1 ONE HOUR RATED           |                     |
| 2 TWO HOUR RATED           |                     |
| TYPE OF ASSEMBLY           |                     |
| W FIRE WALL                | S SMOKE BARRIER     |
| B FIRE BARRIER             | SP SMOKE PARTITIONS |
| E EXISTING                 |                     |

|     |                                                                                                                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------|
| XXX | DOOR TAG<br>SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION                                                             |
| XX  | INTERIOR PARTITION TAG<br>SEE PARTITION SHEET FOR ADDITIONAL INFORMATION                                                        |
| XX  | CURTAIN WALL ELEVATION TAG<br>SEE A490, A491, A492, A493, A494, A495, A496, DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION |



### ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100 DD REVIEW  | 01/10/24 |
| 2   | C&S 90% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | BP-07 ADDENDUM #2  | 06/12/24 |
| 6   | BP-07 ADDENDUM #4  | 06/19/24 |
| 7   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client

Number

514

Project

Number

6926

DRAWING TITLE

SHELL & CORE FLOOR

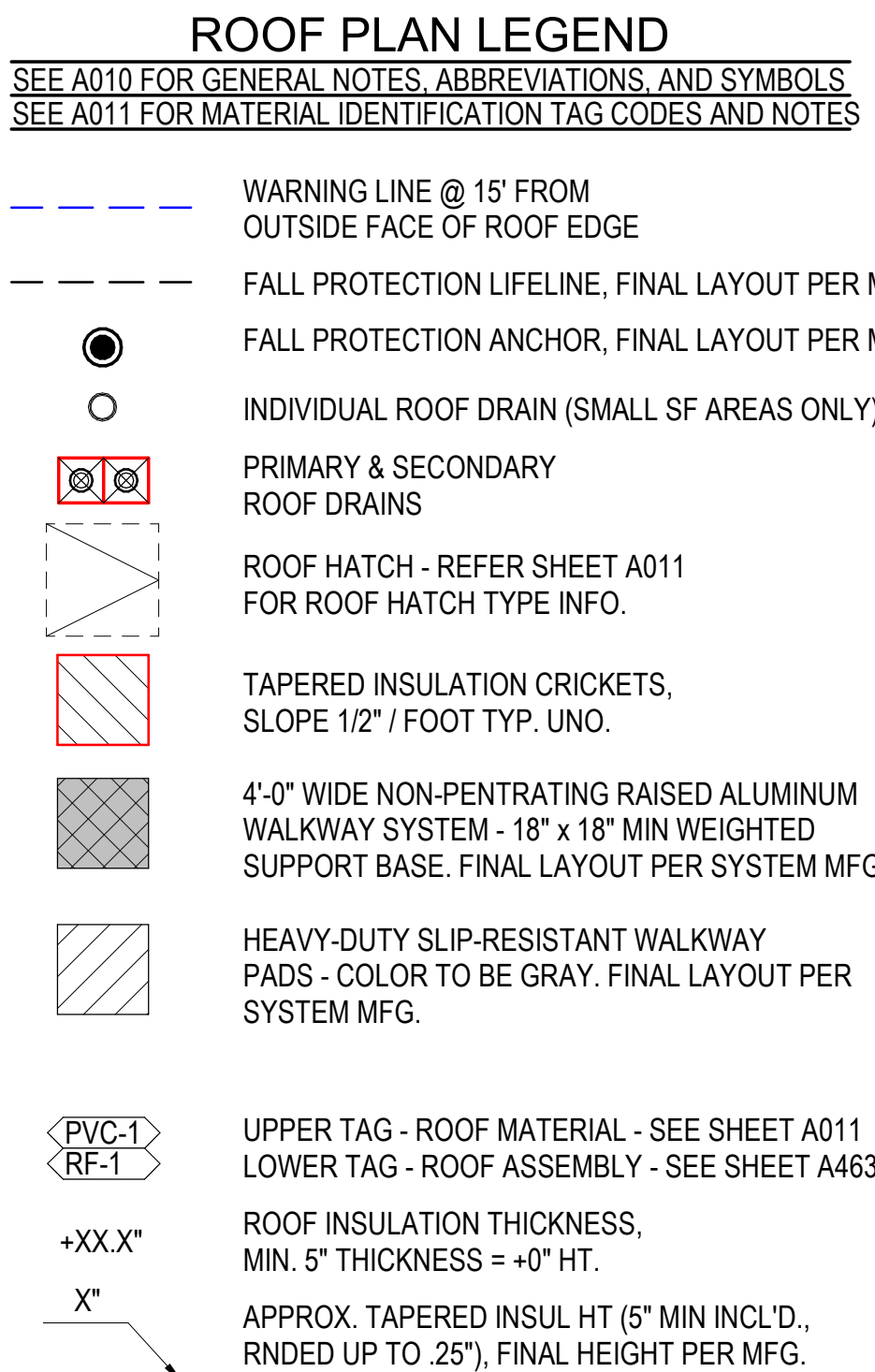
PLAN - LEVEL 02 -

AREA C

SHEET NO.

A202.C





- C. ALL INTERIOR PARTITIONS SHALL BE "A3a" UNLESS NOTED OTHERWISE.
- D. PARTITIONS, FURNITURE, EQUIPMENT, AND FIXTURES SHOWN SCREENED ARE TO BE ISSUED UNDER FUTURE INTERIOR FIT-OUT DOCUMENTATION PACKAGE(S) AND ARE SHOWN HERE FOR REFERENCE AND COORDINATION PURPOSES ONLY.
- E. PLAN DIMENSIONS ARE FROM FACE OF PARTITION TYPE AND DO NOT INCLUDE APPLIED FINISHES, UNLESS NOTED OTHERWISE. PLAN DIMENSIONS INDICATED AS "HOLD" OR "CLEAR" DIMENSIONS ARE FROM FACE OF APPLIED FINISH.
- F. INSTALL WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
- G. FLATNESS: LEVEL FLOORS TO TRUE PLANE WITHIN 1/4 INCH (6 MM) IN 10'-0" (3 M) WHEN TESTED BY TEN FOOT (3 M) STRAIGHTEDGE PLACED ANYWHERE ON FLOOR IN ANY DIRECTION.
- H. COORDINATE FURNITURE-RELATED ELECTRICAL LAYOUT WITH FURNITURE VENDOR.
- I. WHERE HANDRAILS, GRAB BARS, CABINETS, WALL-MOUNTED DOOR STOPS, OR WALL-MOUNTED HUNGERS ARE ATTACHED TO PARTITIONS, INSTALL BACKER PLATES (OR WOOD BLOCKING) ACCURATELY POSITIONED AND FIRMLY SECURED TO METAL STUDS, WHETHER OR NOT SUCH BACKER PLATES OR BLOCKING ARE INDICATED ON DRAWINGS.
- J. WHERE NEW WORK ABUTS, ALIGNS OR ADJOINS EXISTING MATERIALS, MAKE SMOOTH AND EVEN TRANSITION AND ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. FINISH NEW WORK TO MATCH ADJACENT UNDISTURBED SURFACES, UNLESS NOTED OTHERWISE.
- K. CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL AND CEILING WHICH ARE RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
- L. PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING. COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- M. PRIOR TO PRESTRESSING CONCRETE SLABS AND VOIDS THROUGH FIRE-RATED WALL, FLOOR AND PARTITION ASSEMBLIES (AND ROOF) INCLUDING EMPTY OPENINGS AND OPENINGS CONTAINING CABLES, PIPES, DUCTS, CONDUIT AND OTHER ELEMENTS.
- N. AT SOUND-RATED PARTITION WALLS, PROVIDE CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT JUNCTURE OF BOTH FACES OF RUNNERS OR PLATES WITH FLOOR AND CEILING CONSTRUCTION, AND WHEREVER GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
  - AT OPENINGS IN PARTITION WALLS, FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
  - SEAL SEALS AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

## SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                         |                            |                                                                                     |
|-------------------------|----------------------------|-------------------------------------------------------------------------------------|
|                         | (E) CONSTRUCTION TO REMAIN |  |
|                         | NEW CONSTRUCTION           |  |
|                         | TEMPORARY CONSTRUCTION     |  |
| <b>ASSEMBLY RATING</b>  |                            |                                                                                     |
| 0                       | ZERO HOUR                  |  |
| 1                       | ONE HOUR RATED             |  |
| 2                       | TWO HOUR RATED             |  |
| <b>TYPE OF ASSEMBLY</b> |                            |                                                                                     |
| W                       | FIRE WALL                  | S SMOKE BARRIER                                                                     |
| B                       | FIRE BARRIER               | SP SMOKE PARTITIONS                                                                 |
| E                       | EXISTING                   |                                                                                     |


 DOOR TAG  
 SEE DOOR SCHEDULE AND LEGEND  
 FOR ADDITIONAL INFORMATION

 INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR  
ADDITIONAL INFORMATION


 WINDOW TAG  
 SEE DOOR SCHEDULE AND LEGEND  
 FOR ADDITIONAL INFORMATION

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | BP-03 FOR REVIEW   | 11/29/23 |
| 2   | C&S 100 DD REVIEW  | 01/10/24 |
| 3   | C&S 80% CD         | 03/05/24 |
| 4   | C&S 100% CD REVIEW | 04/09/24 |
| 5   | BP-07 BID & PERMIT | 04/30/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

|            |                                                                                       |
|------------|---------------------------------------------------------------------------------------|
| Author     |  |
| Checked By |                                                                                       |
| Checker    |                                                                                       |
| Client     |                                                                                       |
| Number     |                                                                                       |

514

06/30/2024

|                |      |
|----------------|------|
| Project Number | 6926 |
|----------------|------|

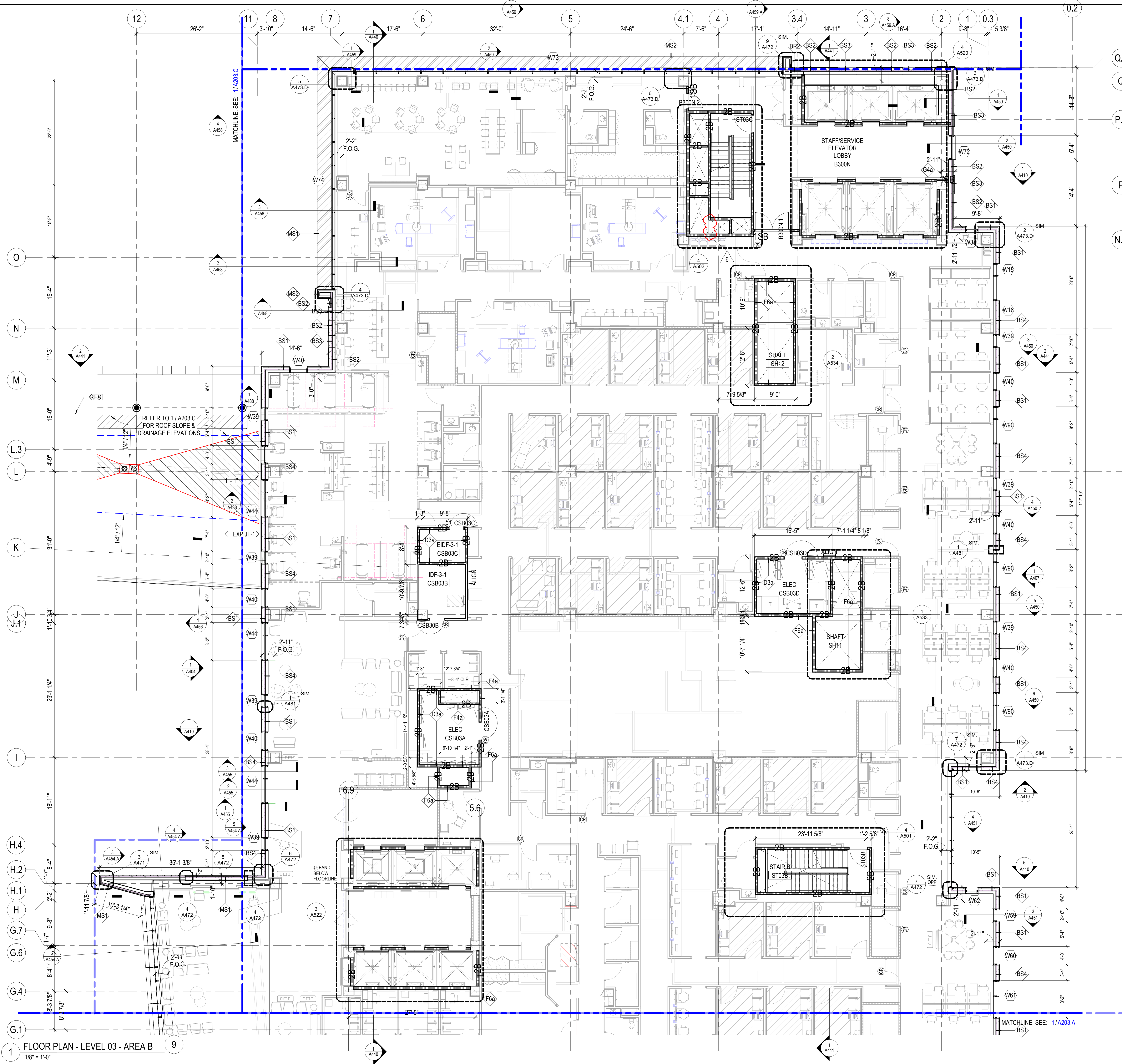
DRAWING TITLE

OVERALL SHELL &  
CORE FLOOR PLAN -  
LEVEL 03

SHEET NO.

A203





### CONSTRUCTION PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS.

|                            |                     |
|----------------------------|---------------------|
| (E) CONSTRUCTION TO REMAIN |                     |
| NEW CONSTRUCTION           |                     |
| TEMPORARY CONSTRUCTION     |                     |
| ASSEMBLY RATING            |                     |
| 0 ZERO HOUR                |                     |
| 1 ONE HOUR RATED           |                     |
| 2 TWO HOUR RATED           |                     |
| TYPE OF ASSEMBLY           |                     |
| W FIRE WALL                | S SMOKE BARRIER     |
| B FIRE BARRIER             | SP SMOKE PARTITIONS |
| E EXISTING                 |                     |

|     |                                                                             |
|-----|-----------------------------------------------------------------------------|
| XXX | DOOR TAG<br>SEE DOOR SCHEDULE AND LEGEND<br>FOR ADDITIONAL INFORMATION      |
| XXX | INTERIOR PARTITION TAG<br>SEE PARTITION SHEET FOR<br>ADDITIONAL INFORMATION |
| XX  | WINDOW TAG<br>SEE DOOR SCHEDULE AND LEGEND<br>FOR ADDITIONAL INFORMATION    |

### ROOF PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS.  
SEE A011 FOR MATERIAL IDENTIFICATION TAG CODES AND NOTES

|               |                                                                                                                                     |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------|
| ---           | WARNING LINE @ 15' FROM<br>OUTSIDE FACE OF ROOF EDGE                                                                                |
| ---           | FALL PROTECTION LIFELINE, FINAL LAYOUT PER MFG.                                                                                     |
| ●             | FALL PROTECTION ANCHOR, FINAL LAYOUT PER MFG.                                                                                       |
| ○             | INDIVIDUAL ROOF DRAIN (SMALL SF AREAS ONLY)                                                                                         |
| ⊗             | PRIMARY & SECONDARY<br>ROOF DRAINS                                                                                                  |
| ⊗             | ROOF HATCH - REFER SHEET A011<br>FOR ROOF HATCH TYPE INFO.                                                                          |
| ▨             | TAPERED INSULATION CRICKETS,<br>SLOPE 1/2" / FOOT TYP. UNO.                                                                         |
| ▨             | 4'-0" WIDE NON-PENETRATING RAISED ALUMINUM<br>WALKWAY SYSTEM - 18" x 18" MIN WEIGHTED<br>SUPPORT BASE. FINAL LAYOUT PER SYSTEM MFG. |
| ▨             | HEAVY-DUTY SLIP-RESISTANT WALKWAY<br>PADS - COLOR TO BE GRAY. FINAL LAYOUT PER<br>SYSTEM MFG.                                       |
| PVC-1<br>RF-1 | UPPER TAG - ROOF MATERIAL - SEE SHEET A011<br>LOWER TAG - ROOF ASSEMBLY - SEE SHEET A463                                            |
| +XX.X"        | ROOF INSULATION THICKNESS,<br>MIN. 5" THICKNESS = +0" HT.                                                                           |
| X"            | APPROX. TAPERED INSUL HT (5" MIN INCLD.,<br>RNDED UP TO .25"), FINAL HEIGHT PER MFG.                                                |

### KEYNOTES - FLOOR PLANS

| #   | DESCRIPTION                                                                                                                                                      |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| F1  | DEPRESSED FLOOR SLAB AT THIS LOCATION -<br>REFER TO STRUCTURAL DRAWINGS AND<br>ENLARGED FLOOR PLAN (WHERE APPLICABLE)<br>FOR ADDITIONAL INFORMATION AND EXTENTS. |
| F2  | TRANSITION IN FLOOR CONSTRUCTION - REFER<br>TO STRUCTURAL FRAMING PLANS AND DETAILS<br>FOR MORE INFORMATION                                                      |
| F4  | PAVERS ON PEDESTALS. REFER TO L-DRAWINGS                                                                                                                         |
| F5  | ROOF DRAINAGE SECONDARY OVERFLOW<br>DISCHARGE. REFER PLUMBING FOR DETAILS.                                                                                       |
| F7  | INTERIOR EXPOSED COLUMNS TO RECEIVE AESS<br>LEVEL 4 FINISH PER AISC WITH (HPC-9)                                                                                 |
| F8  | WALL-MOUNTED DOOR PUSHPLATE ACTUATOR.<br>REFER TO DOOR HARDWARE SCHEDULE                                                                                         |
| F9  | CARD READER                                                                                                                                                      |
| F10 | MULLION-MOUNTED DOOR PUSHPLATE<br>ACTUATOR. REFER TO DOOR HARDWARE<br>SCHEDULE                                                                                   |
| F11 | POST-MOUNTED DOOR PUSHPLATE ACTUATOR.<br>REFER TO DOOR HARDWARE SCHEDULE                                                                                         |

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**THP**  
**AEI** Affiliated  
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**CMTA**

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**CARMAN** LANDSCAPE ARCHITECTURE  
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lighting design

**UK**  
HEALTHCARE

**Cancer Treatment  
Center + Advanced  
Ambulatory Center**  
1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

### ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100 DD REVIEW  | 01/10/24 |
| 2   | C&S 80% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | BP-07 ADDENDUM #2  | 05/12/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

Drawn By  
Author  
Checked By  
Checker  
Client Number  
514  
Project Number  
6926

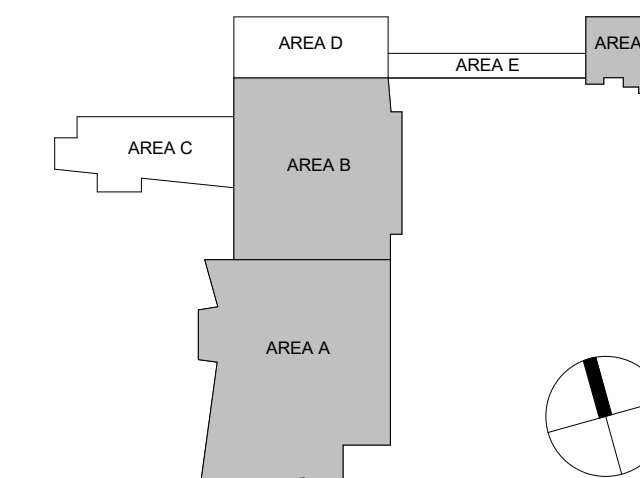
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**SHELL & CORE FLOOR  
PLAN - LEVEL 03 -  
AREA B**

SHEET NO.  
**A203.B**





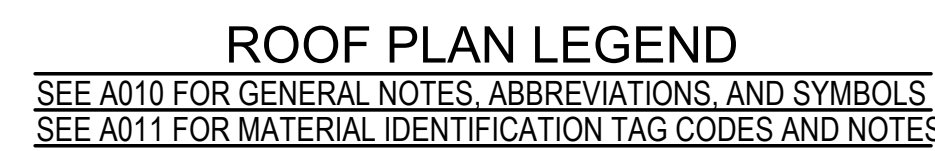
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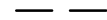
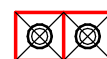
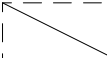
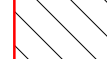










- |                                                                                     |                                                                                                                                     |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
|  | WARNING LINE @ 15' FROM<br>OUTSIDE FACE OF ROOF EDGE                                                                                |
|  | FALL PROTECTION LIFELINE, FINAL LAYOUT PER MFG.                                                                                     |
|  | FALL PROTECTION ANCHOR, FINAL LAYOUT PER MFG.                                                                                       |
|  | INDIVIDUAL ROOF DRAIN (SMALL SF AREAS ONLY)                                                                                         |
|  | PRIMARY & SECONDARY<br>ROOF DRAINS                                                                                                  |
|  | ROOF HATCH - REFER SHEET A011<br>FOR ROOF HATCH TYPE INFO.                                                                          |
|  | TAPERED INSULATION CRICKETS,<br>SLOPE 12" / FOOT TYP. UNO.                                                                          |
|  | 4'-0" WIDE NON-PENETRATING RAISED ALUMINUM<br>WALKWAY SYSTEM - 18" x 18" MIN WEIGHTED<br>SUPPORT BASE. FINAL LAYOUT PER SYSTEM MFG. |
|  | HEAVY-DUTY SLIP-RESISTANT WALKWAY<br>PADS - COLOR TO BE GRAY. FINAL LAYOUT PER<br>SYSTEM MFG.                                       |
|  | UPPER TAG - ROOF MATERIAL - SEE SHEET A011<br>LOWER TAG - ROOF ASSEMBLY - SEE SHEET A463                                            |
| +XX"X"                                                                              | ROOF INSULATION THICKNESS,<br>MIN. 5" THICKNESS = +0" TYP.                                                                          |
| X"                                                                                  | APPROX. TAPERED INSUL HAT (5" MIN INCL'D,<br>RND'D UP TO 25°), FINAL LAYOUT PER MFG.                                                |

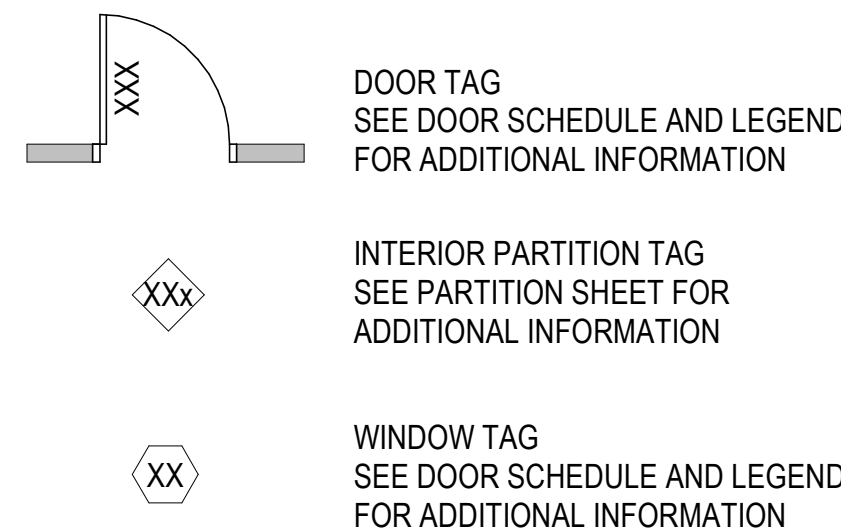


- A. ALL INTERIOR PARTITIONS SHALL BE "A3a" UNLESS NOTED OTHERWISE.
- B. PARTITIONS, FURNITURE, EQUIPMENT, AND FIXTURES SHOWN SCHEMATIC ARE TO BE ISSUED UNDER FUTURE INTERIOR FIT-OUT DOCUMENTATION PACKAGE(S) AND ARE SHOWN HERE FOR REFERENCE AND COORDINATION PURPOSES ONLY.
- C. PLAN DIMENSIONS ARE FROM FACE OF PARTITION TYPE AND DO NOT INCLUDE APPLIED FINISHES. UNLESS NOTED OTHERWISE, PLAN DIMENSIONS INDICATE "AS HOLD" OR "CLEAR" DIMENSIONS ARE FROM FACE OF APPLIED FINISH.
- D. INSTALL WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
- E. FLATNESS: LEVEL FLOORS TO TRUE PLANE WITHIN 1/4 INCH (6 MM) IN 10'-0" (3 M) WHEN TESTED BY TEN FOOT (3 M) STRAIGHTEDGE PLACED ANYWHERE ON FLOOR IN ANY DIRECTION.
- F. COORDINATE FURNITURE-RELATED ELECTRICAL LAYOUT WITH FURNITURE VENDOR.
- G. WHERE HANDSILS, GRAB BARS, CABINETS, WALL-MOUNTED DOOR STOPS, OR OTHER WALL-HUNG ITEMS ARE ATTACHED TO PARTITIONS, INSTALL BACKER PLATES (OR WOOD BLOCKING) ACCURATELY POSITIONED AND FIRMLY SECURED TO METAL STUDS, WHETHER OR NOT SUCH BACKER PLATES OR BLOCKING ARE INDICATED ON DRAWINGS.
- H. WHERE NEW WORK ABUTS, ALIGNS OR ADJOINS EXISTING MATERIALS, MAKE SMOOTH AND EVEN TRANSITION AND ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. FINISH NEW WORK TO MATCH ADJACENT UNDISTURBED SURFACES. UNLESS NOTED OTHERWISE, CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL AND CEILING WHICH EXIST OR RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
- J. PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING. COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- K. PROVIDE TEST OPENINGS AND PENETRATIONS AND VOIDS THROUGH FIRE-RATED WALL, FLOOR AND PARTITION ASSEMBLIES (AND ROOF) INCLUDING EMPTY OPENINGS AND OPENINGS CONTAINING CABLES, PIPES, DUCTS, CONDUIT AND OTHER ELEMENTS.
- L. AT SOUND-RATED PARTITION WALLS, PROVIDE CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT JUNCTURE OF BOTH FACES OF RUNNERS OR PLATES WITH FLOOR AND CEILING CONSTRUCTION, AND WHEREVER GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
  - \* AT OPENINGS AND JOINTS, FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
  - \* SEAL SIDES AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

### CONSTRUCTION PLAN LEGEND

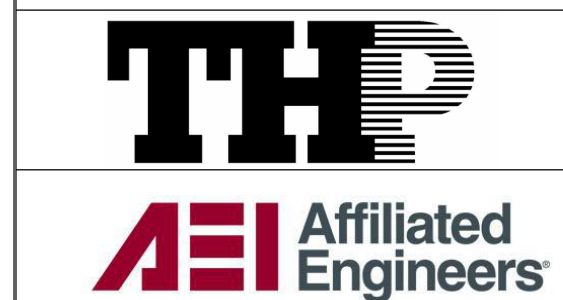
SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                         |                            |                                                                                     |
|-------------------------|----------------------------|-------------------------------------------------------------------------------------|
|                         | (E) CONSTRUCTION TO REMAIN |  |
|                         | NEW CONSTRUCTION           |  |
|                         | TEMPORARY CONSTRUCTION     |  |
| <b>ASSEMBLY RATING</b>  |                            |                                                                                     |
| 0                       | ZERO HOUR                  |  |
| 1                       | ONE HOUR RATED             |  |
| 2                       | TWO HOUR RATED             |  |
| <b>TYPE OF ASSEMBLY</b> |                            |                                                                                     |
| W                       | FIRE WALL                  | S SMOKE BARRIER                                                                     |
| B                       | FIRE BARRIER               | SP SMOKE PARTITIONS                                                                 |
| E                       | EXISTING                   |                                                                                     |



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CIVIL ENGINEERING



**PIVOTAL**  
lighting design



**Cancer Treatment  
Center + Advanced  
Ambulatory Center**

1220 Elizabeth St.  
Lexington, KY 40536  
**UK Project Number 2563.0**

ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | BP-03 FOR REVIEW   | 11/29/20 |
| 2   | C&S 100 DD REVIEW  | 01/10/21 |
| 3   | C&S 80% CD         | 03/05/21 |
| 4   | C&S 100% CD REVIEW | 04/09/21 |
| 5   | BP-07 BID & PERMIT | 04/30/21 |
| 6   | Group 2 ADD#1      | 08/22/21 |

|                       |      |
|-----------------------|------|
| <b>Drawn By</b>       |      |
| <b>Author</b>         |      |
| <b>Checked By</b>     |      |
| <b>Checker</b>        |      |
| <b>Client Number</b>  |      |
| 514                   |      |
| <b>Project Number</b> | 6926 |

**DRAWING TITLE**

OVERALL SHELL &  
CORE FLOOR PLAN -  
LEVEL 05

SHEET NO. **A205**





1 FLOOR PLAN - LEVEL 05 - AREA B  
1/8" = 1'-0"

| CONSTRUCTION PLAN LEGEND                                |                     |
|---------------------------------------------------------|---------------------|
| SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS. |                     |
| (E) CONSTRUCTION TO REMAIN                              |                     |
| NEW CONSTRUCTION                                        |                     |
| TEMPORARY CONSTRUCTION                                  |                     |
| ASSEMBLY RATING                                         |                     |
| 0 ZERO HOUR                                             |                     |
| 1 ONE HOUR RATED                                        |                     |
| 2 TWO HOUR RATED                                        |                     |
| TYPE OF ASSEMBLY                                        |                     |
| W FIRE WALL                                             | S SMOKE BARRIER     |
| B FIRE BARRIER                                          | SP SMOKE PARTITIONS |
| E EXISTING                                              |                     |

- DOOR TAG  
SEE DOOR SCHEDULE AND LEGEND  
FOR ADDITIONAL INFORMATION
- INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR  
ADDITIONAL INFORMATION
- WINDOW TAG  
SEE DOOR SCHEDULE AND LEGEND  
FOR ADDITIONAL INFORMATION

| KEYNOTES - FLOOR PLANS |                                                                                                                                                         |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| #                      | DESCRIPTION                                                                                                                                             |
| F1                     | DEPRESSED FLOOR SLAB AT THIS LOCATION - REFER TO STRUCTURAL DRAWINGS AND ENLARGED FLOOR PLAN (WHERE APPLICABLE) FOR ADDITIONAL INFORMATION AND EXTENTS. |
| F2                     | TRANSITION IN FLOOR CONSTRUCTION - REFER TO STRUCTURAL FRAMING PLANS AND DETAILS FOR MORE INFORMATION.                                                  |
| F4                     | PAVERS ON PEDESTALS. REFER TO L-DRAWINGS.                                                                                                               |
| F5                     | ROOF DRAINAGE SECONDARY OVERFLOW DISCHARGE. REFER PLUMBING FOR DETAILS.                                                                                 |
| F7                     | INTERIOR EXPOSED COLUMNS TO RECEIVE AESS LEVEL 4 FINISH PER AISC WITH (HPC-9)                                                                           |
| F8                     | WALL-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE.                                                                                  |
| F9                     | CARD READER                                                                                                                                             |
| F10                    | MULLION-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE.                                                                               |
| F11                    | POST-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE.                                                                                  |

- SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS.  
SEE A011 FOR MATERIAL IDENTIFICATION TAG CODES AND NOTES
- WARNING LINE @ 15' FROM OUTSIDE FACE OF ROOF EDGE
  - FALL PROTECTION LIFELINE, FINAL LAYOUT PER MFG.
  - FALL PROTECTION ANCHOR, FINAL LAYOUT PER MFG.
  - INDIVIDUAL ROOF DRAIN (SMALL SF AREAS ONLY)
  - PRIMARY & SECONDARY ROOF DRAINS
  - ROOF HATCH - REFER SHEET A011 FOR ROOF HATCH TYPE INFO.
  - TAPERED INSULATION CRICKETS, SLOPE 1/2" / FOOT TYP. UNO.
  - 4'-0" WIDE NON-PENETRATING RAISED ALUMINUM WALKWAY SYSTEM - 18" x 18" MIN WEIGHTED SUPPORT BASE. FINAL LAYOUT PER SYSTEM MFG.
  - HEAVY-DUTY SLIP-RESISTANT WALKWAY PADS - COLOR TO BE GRAY. FINAL LAYOUT PER SYSTEM MFG.
  - UPPER TAG - ROOF MATERIAL - SEE SHEET A011
  - LOWER TAG - ROOF ASSEMBLY - SEE SHEET A463
  - ROOF INSULATION THICKNESS, MIN. 5" THICKNESS = +0" HT.
  - APPROX. TAPERED INSUL HT (5" MIN INCL'D., RNDED UP TO .25"), FINAL HEIGHT PER MFG.

| KEYNOTES - ROOF PLANS |                                                                |
|-----------------------|----------------------------------------------------------------|
| VG                    | DESCRIPTION                                                    |
| RF1                   | PRIMARY AND SECONDARY ROOF DRAINS                              |
| RF2                   | ROOF DRAIN, REFER TO DETAIL.                                   |
| RF3                   | TAPERED INSULATION CRICKETS (HATCHED AREAS) 1/2" FOOT          |
| RF4                   | PREFABRICATED ALUMINUM WALKWAY SYSTEM                          |
| RF5                   | PROVIDE WARNING LINE AT 15 FEET FROM OUTSIDE FACE OF ROOF EDGE |
| RF6                   | MOBILE HOIST ACCESS EQUIPMENT HATCH                            |
| RF7                   | STAIR ACCESS HATCH                                             |
| RF8                   | FLEXIBLE WALKWAY SYSTEM                                        |
| RF9                   | TAPERED INSULATION ROOF SUMP AT DRAIN                          |

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**bell**  
engineering

**CDM Smith**

**PIVOTAL**  
lighting design

**UK HEALTHCARE**

**Cancer Treatment Center + Advanced Ambulatory Center**

1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

**ISSUANCES**

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100% DD REVIEW | 01/10/24 |
| 2   | C&S 80% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | BP-07 ADDENDUM #2  | 05/12/24 |
| 6   | BP-07 ADDENDUM #4  | 05/19/24 |
| 7   | Group 2 ADD#1      | 08/22/24 |

Drawn By: Author

Checked By: Checker

Client Number: 514

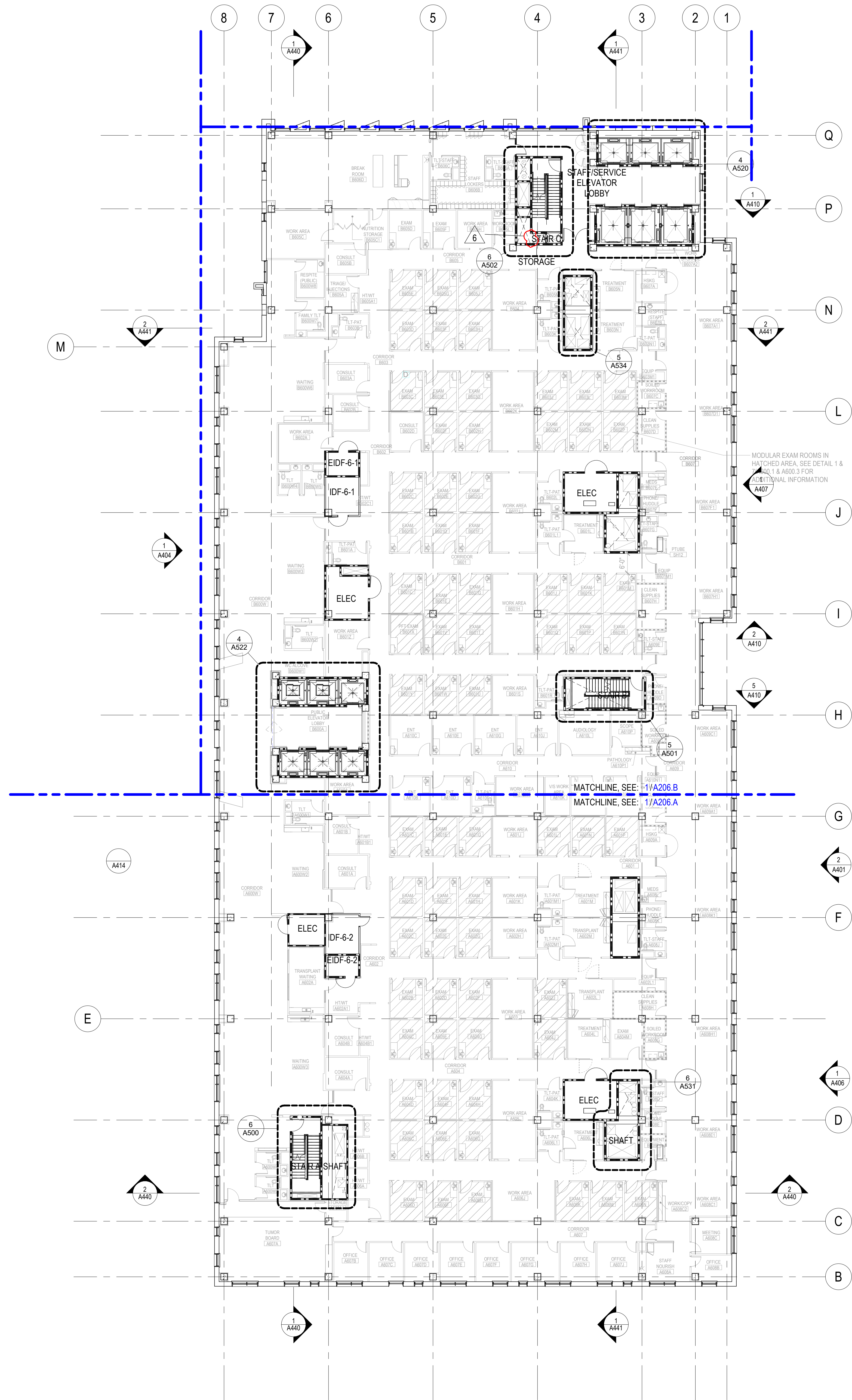
Project Number: 6926

DRAWING TITLE: SHELL & CORE FLOOR PLAN - LEVEL 05 - AREA B

SHEET NO.: A205.B

8/19/2024 8:49:44 AM





1 OVERALL FLOOR PLAN - LEVEL 06  
1/16" = 1'-0"

#### GENERAL NOTES - FLOOR PLANS

- ALL INTERIOR PARTITIONS SHALL BE "A3a" UNLESS NOTED OTHERWISE.
- PARTITIONS, FURNITURE, EQUIPMENT, AND FIXTURES SHOWN SCREENED ARE TO BE ISSUED UNDER FUTURE INTERIOR FIT-OUT DOCUMENTATION PACKAGE(S) AND ARE SHOWN HERE FOR REFERENCE AND COORDINATION PURPOSES ONLY.
- PLAN DIMENSIONS ARE FROM FACE OF PARTITION TYPE AND DO NOT INCLUDE APPLIED FINISHES, UNLESS NOTED OTHERWISE. PLAN DIMENSIONS INDICATED AS "HOLD" OR "CLEAR" DIMENSIONS ARE FROM FACE OF APPLIED FINISH.
- INSTALL WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
- FLATNESS: LEVEL FLOORS TO TRUE PLANE WITHIN 1/4 INCH (6 MM) IN 10'-0" (3 M) WHEN TESTED BY TEN FOOT (3 M) STRAIGHTEDGE PLACED ANYWHERE ON FLOOR IN ANY DIRECTION.
- COORDINATE FURNITURE-RELATED ELECTRICAL LAYOUT WITH FURNITURE VENDOR.
- WHERE HANDRAILS, GRAB BARS, CABINETS, WALL-MOUNTED DOOR STOPS, OR OTHER WALL-HUNG ITEMS ARE ATTACHED TO PARTITIONS, INSTALL BACKER PLATES [OR WOOD BLOCKING] ACCURATELY POSITIONED AND FIRMLY SECURED TO METAL STUDS, WHETHER OR NOT SUCH BACKER PLATES OR BLOCKING ARE INDICATED ON DRAWINGS.
- WHERE NEW WORK ABUTS, ALIGNS OR ADJOINS EXISTING MATERIALS, MAKE SMOOTH AND EVEN TRANSITION AND ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. FINISH NEW WORK TO MATCH ADJACENT UNDISTURBED SURFACES, UNLESS NOTED OTHERWISE.
- CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL, AND CEILING WHICH EXIST OR RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
- PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING. COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- PROVIDE FIRESTOPPING OF PENETRATIONS AND VOIDS THROUGH FIRE-RATED WALL, FLOOR AND PARTITION ASSEMBLIES (AND ROOF) INCLUDING EMPTY OPENINGS AND OPENINGS CONTAINING CABLES, PIPES, DUCTS, CONDUIT AND OTHER ELEMENTS.
- AT SOUND-RATED PARTITION WALLS, PROVIDE CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT JUNCTURE OF BOTH FACES OF RUNNERS OR PLATES WITH FLOOR AND CEILING CONSTRUCTION, AND WHEREVER GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
  - AT OPENINGS AND CUTOUTS, FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
  - SEAL SIDES AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

#### CONSTRUCTION PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                            |  |
|----------------------------|--|
| (E) CONSTRUCTION TO REMAIN |  |
| NEW CONSTRUCTION           |  |
| TEMPORARY CONSTRUCTION     |  |

#### ASSEMBLY RATING

|   |                |  |
|---|----------------|--|
| 0 | ZERO HOUR      |  |
| 1 | ONE HOUR RATED |  |
| 2 | TWO HOUR RATED |  |

#### TYPE OF ASSEMBLY

|   |              |    |                  |
|---|--------------|----|------------------|
| W | FIRE WALL    | S  | SMOKE BARRIER    |
| B | FIRE BARRIER | SP | SMOKE PARTITIONS |
| E | EXISTING     |    |                  |

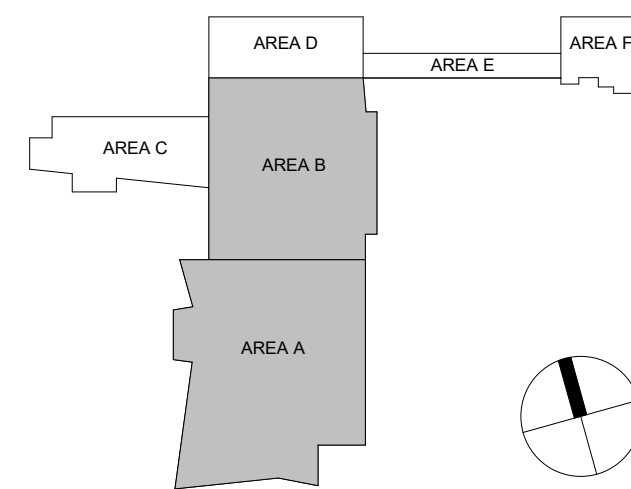
DOOR TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR ADDITIONAL INFORMATION

WINDOW TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

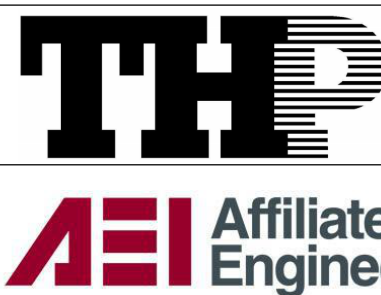
#### KEYNOTES

| # | DESCRIPTION |
|---|-------------|
|---|-------------|



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#### ISSUANCES

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| 1   | BP-03 FOR REVIEW   | 11/29/23 |
| 2   | C&S 100 DD REVIEW  | 01/10/24 |
| 3   | C&S 80% CD         | 03/05/24 |
| 4   | C&S 100% CD REVIEW | 04/09/24 |
| 5   | BP-07 BID & PERMIT | 04/30/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client Number

514

Project Number

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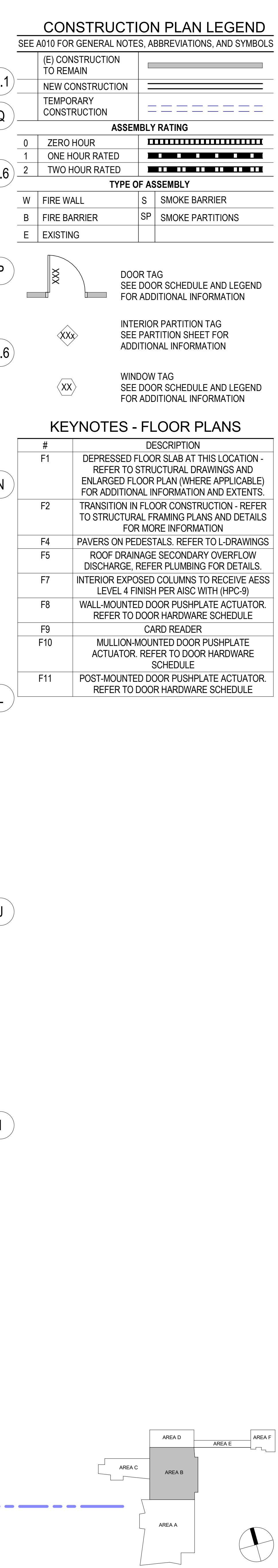
DRAWING TITLE

OVERALL SHELL &  
CORE FLOOR PLAN -  
LEVEL 06

SHEET NO.

A206

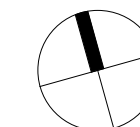


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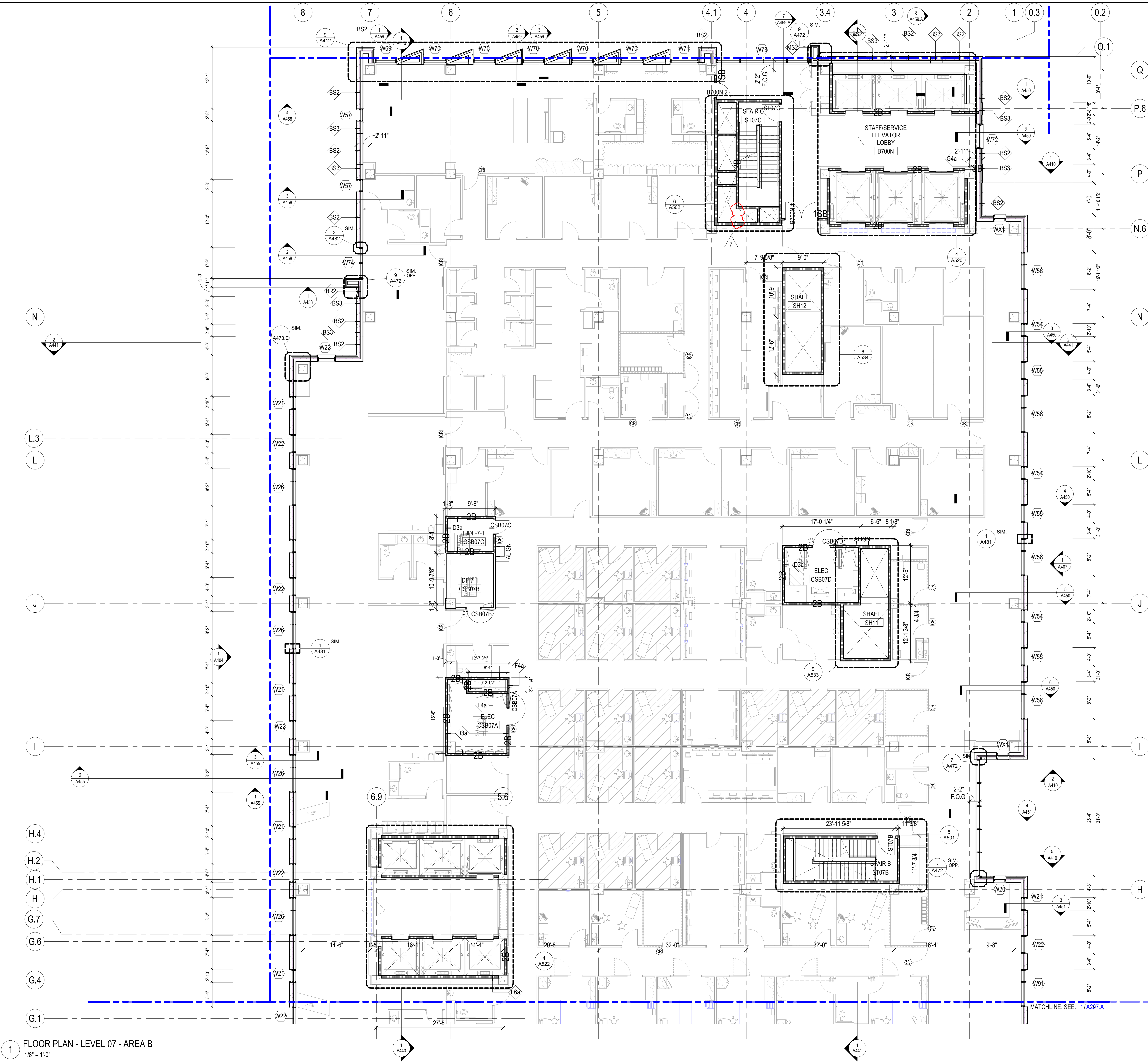




| # | DESCRIPTION |
|---|-------------|
|---|-------------|







| CONSTRUCTION PLAN LEGEND                                |                                                                                                                                                         |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS. |                                                                                                                                                         |
| (E) CONSTRUCTION TO REMAIN                              |                                                                                                                                                         |
| NEW CONSTRUCTION                                        |                                                                                                                                                         |
| TEMPORARY CONSTRUCTION                                  |                                                                                                                                                         |
| ASSEMBLY RATING                                         |                                                                                                                                                         |
| 0 ZERO HOUR                                             |                                                                                                                                                         |
| 1 ONE HOUR RATED                                        |                                                                                                                                                         |
| 2 TWO HOUR RATED                                        |                                                                                                                                                         |
| TYPE OF ASSEMBLY                                        |                                                                                                                                                         |
| W FIRE WALL                                             | S SMOKE BARRIER                                                                                                                                         |
| B FIRE BARRIER                                          | SP SMOKE PARTITIONS                                                                                                                                     |
| E EXISTING                                              |                                                                                                                                                         |
| XXX                                                     | DOOR TAG<br>SEE DOOR SCHEDULE AND LEGEND<br>FOR ADDITIONAL INFORMATION                                                                                  |
| XXX                                                     | INTERIOR PARTITION TAG<br>SEE PARTITION SHEET FOR<br>ADDITIONAL INFORMATION                                                                             |
| XX                                                      | WINDOW TAG<br>SEE DOOR SCHEDULE AND LEGEND<br>FOR ADDITIONAL INFORMATION                                                                                |
| KEYNOTES - FLOOR PLANS                                  |                                                                                                                                                         |
| #                                                       | DESCRIPTION                                                                                                                                             |
| F1                                                      | DEPRESSED FLOOR SLAB AT THIS LOCATION - REFER TO STRUCTURAL DRAWINGS AND ENLARGED FLOOR PLAN (WHERE APPLICABLE) FOR ADDITIONAL INFORMATION AND EXTENTS. |
| F2                                                      | TRANSITION IN FLOOR CONSTRUCTION - REFER TO STRUCTURAL FRAMING PLANS AND DETAILS FOR MORE INFORMATION                                                   |
| F4                                                      | PAVERS ON PEDESTALS. REFER TO L-DRAWINGS                                                                                                                |
| F5                                                      | ROOF DRAINAGE SECONDARY OVERFLOW DISCHARGE. REFER PLUMBING FOR DETAILS.                                                                                 |
| F7                                                      | INTERIOR EXPOSED COLUMNS TO RECEIVE AESS LEVEL 4 FINISH PER AISC WITH (HPC-9)                                                                           |
| F8                                                      | WALL-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                   |
| F9                                                      | CARD READER                                                                                                                                             |
| F10                                                     | MULLION-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                |
| F11                                                     | POST-MOUNTED DOOR PUSHPLATE ACTUATOR. REFER TO DOOR HARDWARE SCHEDULE                                                                                   |

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LANDSCAPE ARCHITECTURE  
URBAN PLANNING  
CIVIL ENGINEERING

**WALSH**  
CONSULTING GROUP

**bell**  
engineering

**CDM Smith**

**PIVOTAL**  
lighting design

**UK**  
HEALTHCARE

**Cancer Treatment Center + Advanced Ambulatory Center**

1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

**ISSUANCES**

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100% DD REVIEW | 01/10/24 |
| 2   | C&S 80% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | BP-07 ADDENDUM #2  | 06/12/24 |
| 6   | BP-07 ADDENDUM #4  | 06/19/24 |
| 7   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client Number 514

Project Number 6926

**DRAWING TITLE**

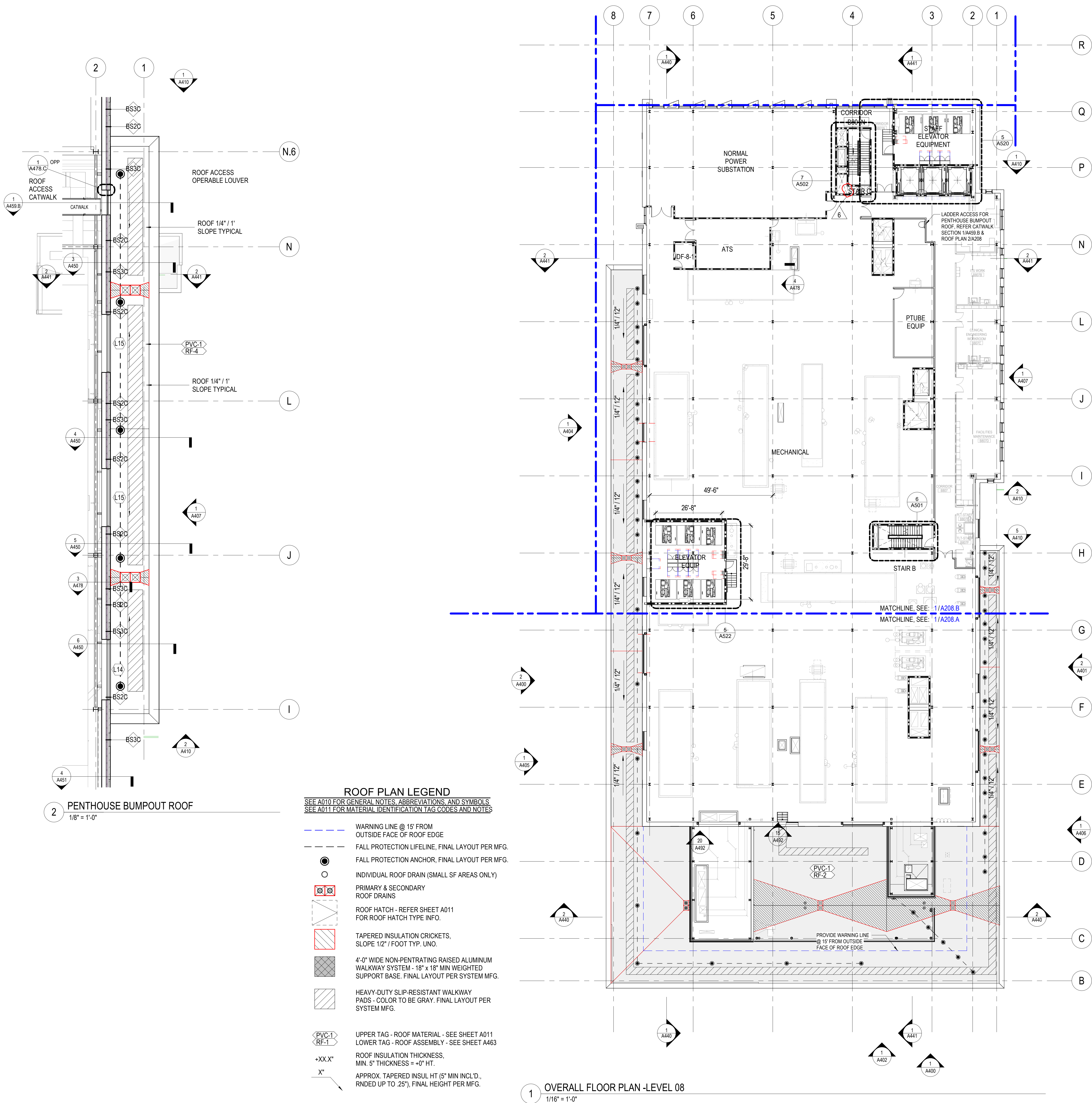
**SHELL & CORE FLOOR PLAN - LEVEL 07 - AREA B**

**SHEET NO.**

**A207.B**

8/19/2024 8:50:22 AM





### GENERAL NOTES - FLOOR PLANS

- A. ALL INTERIOR PARTITIONS SHALL BE "A3a" UNLESS NOTED OTHERWISE.
- B. PARTITIONS, FURNITURE, EQUIPMENT, AND FIXTURES SHOWN SCREENED ARE TO BE ISSUED UNDER FUTURE INTERIOR FIT-OUT DOCUMENTATION PACKAGE(S) AND ARE SHOWN HERE FOR REFERENCE AND COORDINATION PURPOSES ONLY.
- C. PLAN DIMENSIONS ARE FROM FACE OF PARTITION TYPE AND DO NOT INCLUDE APPLIED FINISHES, UNLESS NOTED OTHERWISE. PLAN DIMENSIONS INDICATED AS "HOLD" OR "CLEAR" DIMENSIONS ARE FROM FACE OF APPLIED FINISH.
- D. INSTALL WORK STRAIGHT, PLUMB, LEVEL, SQUARE, AND TRUE, IN PROPER ALIGNMENT.
- E. FLATNESS: LEVEL FLOORS TO TRUE PLANE WITHIN 1/4 INCH (6 MM) IN 10'-0" (3 M) WHEN TESTED BY TEN FOOT (3 M) STRAIGHTEDGE PLACED ANYWHERE ON FLOOR IN ANY DIRECTION.
- F. COORDINATE FURNITURE-RELATED ELECTRICAL LAYOUT WITH FURNITURE VENDOR.
- G. WHERE HANDRAILS, GRAB BARS, CABINETS, WALL-MOUNTED DOOR STOPS, OR OTHER WALL-HUNG ITEMS ARE ATTACHED TO PARTITIONS, INSTALL BACKER PLATES (OR WOOD BLOCKING) ACCURATELY POSITIONED AND FIRMLY SECURED TO METAL STUDS, WHETHER OR NOT SUCH BACKER PLATES OR BLOCKING ARE INDICATED ON DRAWINGS.
- H. WHERE NEW WORK ABUTS, ALIGNS OR ADJOINS EXISTING MATERIALS, MAKE SMOOTH AND EVEN TRANSITION AND ELIMINATE EVIDENCE OF PATCHING AND REFINISHING. FINISH NEW WORK TO MATCH ADJACENT UNDISTURBED SURFACES, UNLESS NOTED OTHERWISE.
- I. CLOSE AND PATCH HOLES AND OPENINGS IN EXISTING FLOOR, WALL AND CEILING WHICH EXIST OR RESULT FROM DEMOLITION OR ALTERATION WORK TO MATCH ADJACENT UNDISTURBED SURFACES.
- J. PRIOR TO CONCEALMENT OF FIRE RESISTIVE MATERIALS BY OTHER WORK, PATCH AND REPAIR AREAS OF REMOVED OR DAMAGED APPLIED FIREPROOFING. COMPLETE PATCHING AND REPAIR TO MAINTAIN EXISTING FIRE-RESISTANCE DESIGN IN ACCORDANCE WITH FIREPROOFING MANUFACTURER'S WRITTEN INSTRUCTIONS FOR CONDITIONS OF EXPOSURE AND INTENDED USE. COORDINATE TESTING AND INSPECTION OF ASSEMBLIES AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- K. PROVIDE FIRESTOPPING OF PENETRATIONS AND VOIDS THROUGH FIRE-RATED WALL, FLOOR AND PARTITION ASSEMBLIES (AND ROOF) INCLUDING EMPTY OPENINGS AND OPENINGS CONTAINING CABLES, PIPES, DUCTS, CONDUIT AND OTHER ELEMENTS.
- L. AT SOUND-RATED PARTITION WALLS. PROVIDE CONTINUOUS BEAD OF ACOUSTICAL SEALANT AT JUNCTURE OF BOTH FACES OF RUNNERS OR PLATES WITH FLOOR AND CEILING CONSTRUCTION, AND WHEREVER GYPSUM BOARD ABUTS DISSIMILAR MATERIALS.
- AT OPENINGS AND CUTOUTS. FILL OPEN SPACES BETWEEN GYPSUM BOARD AND FIXTURES, CABINETS, DUCTS AND OTHER FLUSH OR PENETRATING ITEMS, WITH CONTINUOUS BEAD OF SEALANT.
  - SEAL SIDES AND BACKS OF ELECTRICAL BOXES TO COMPLETELY CLOSE OFF OPENINGS AND JOINTS.

### CONSTRUCTION PLAN LEGEND

SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

|                            |                     |
|----------------------------|---------------------|
| (E) CONSTRUCTION TO REMAIN |                     |
| NEW CONSTRUCTION           |                     |
| TEMPORARY CONSTRUCTION     |                     |
| ASSEMBLY RATING            |                     |
| 0 ZERO HOUR                |                     |
| 1 ONE HOUR RATED           |                     |
| 2 TWO HOUR RATED           |                     |
| TYPE OF ASSEMBLY           |                     |
| W FIRE WALL                | S SMOKE BARRIER     |
| B FIRE BARRIER             | SP SMOKE PARTITIONS |
| E EXISTING                 |                     |

- DOOR TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION
- INTERIOR PARTITION TAG  
SEE PARTITION SHEET FOR ADDITIONAL INFORMATION
- WINDOW TAG  
SEE DOOR SCHEDULE AND LEGEND FOR ADDITIONAL INFORMATION

### ROOF PLAN LEGEND

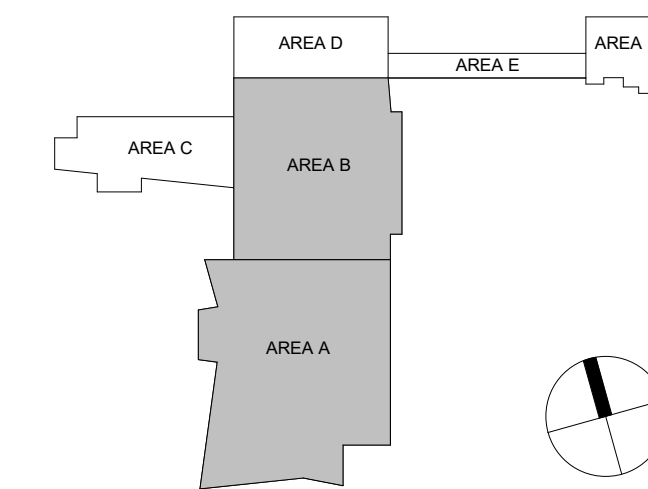
SEE A010 FOR GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS

SEE A011 FOR MATERIAL IDENTIFICATION TAG CODES AND NOTES

- WARNING LINE @ 15' FROM OUTSIDE FACE OF ROOF EDGE
- FALL PROTECTION LIFELINE, FINAL LAYOUT PER MFG.
- FALL PROTECTION ANCHOR, FINAL LAYOUT PER MFG.
- INDIVIDUAL ROOF DRAIN (SMALL SF AREAS ONLY)
- PRIMARY & SECONDARY ROOF DRAINS
- ROOF HATCH - REFER SHEET A011 FOR ROOF HATCH TYPE INFO.
- TAPERED INSULATION CRICKETS, SLOPE 1/2" / FOOT TYP. UNO.
- 4'-0" WIDE NON-PENETRATING RAISED ALUMINUM WALKWAY SYSTEM - 18" x 18" MIN WEIGHTED SUPPORT BASE. FINAL LAYOUT PER SYSTEM MFG.
- HEAVY-DUTY SLIP-RESISTANT WALKWAY PADS - COLOR TO BE GRAY. FINAL LAYOUT PER SYSTEM MFG.
- UPPER TAG - ROOF MATERIAL - SEE SHEET A011
- LOWER TAG - ROOF ASSEMBLY - SEE SHEET A463
- ROOF INSULATION THICKNESS, MIN. 5" THICKNESS = +0" HT.
- APPROX. TAPERED INSUL HT (5" MIN INCL'D, RND'D UP TO .25"), FINAL HEIGHT PER MFG.

### 1 OVERALL FLOOR PLAN -LEVEL 08

1/16" = 1'-0"



### ISSUANCES

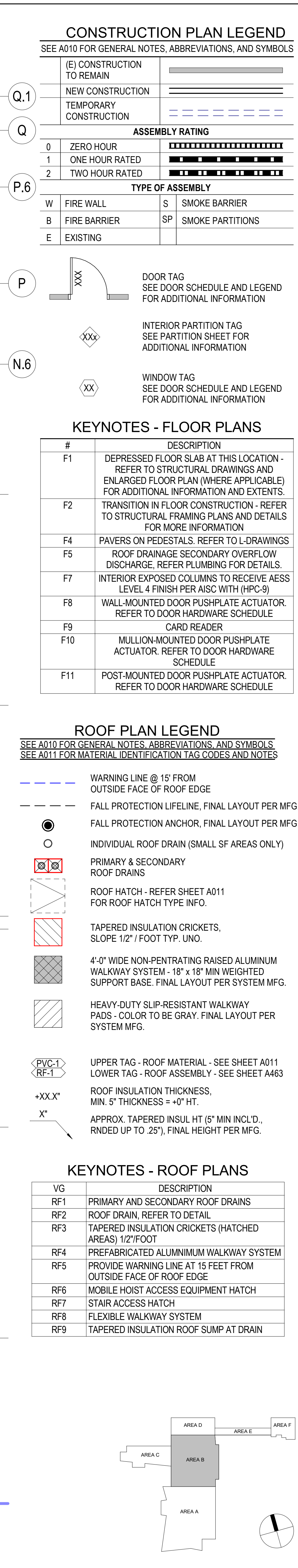
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|-----|--------------------|----------|
| 1   | BP-03 FOR REVIEW   | 11/29/23 |
| 2   | C&S 100 DD REVIEW  | 01/10/24 |
| 3   | C&S 80% CD         | 03/05/24 |
| 4   | C&S 100% CD REVIEW | 04/08/24 |
| 5   | BP-07 BID & PERMIT | 04/30/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

|                |         |
|----------------|---------|
| Drawn By       | Author  |
| Checked By     | Checker |
| Client Number  | 514     |
| Project Number | 6926    |

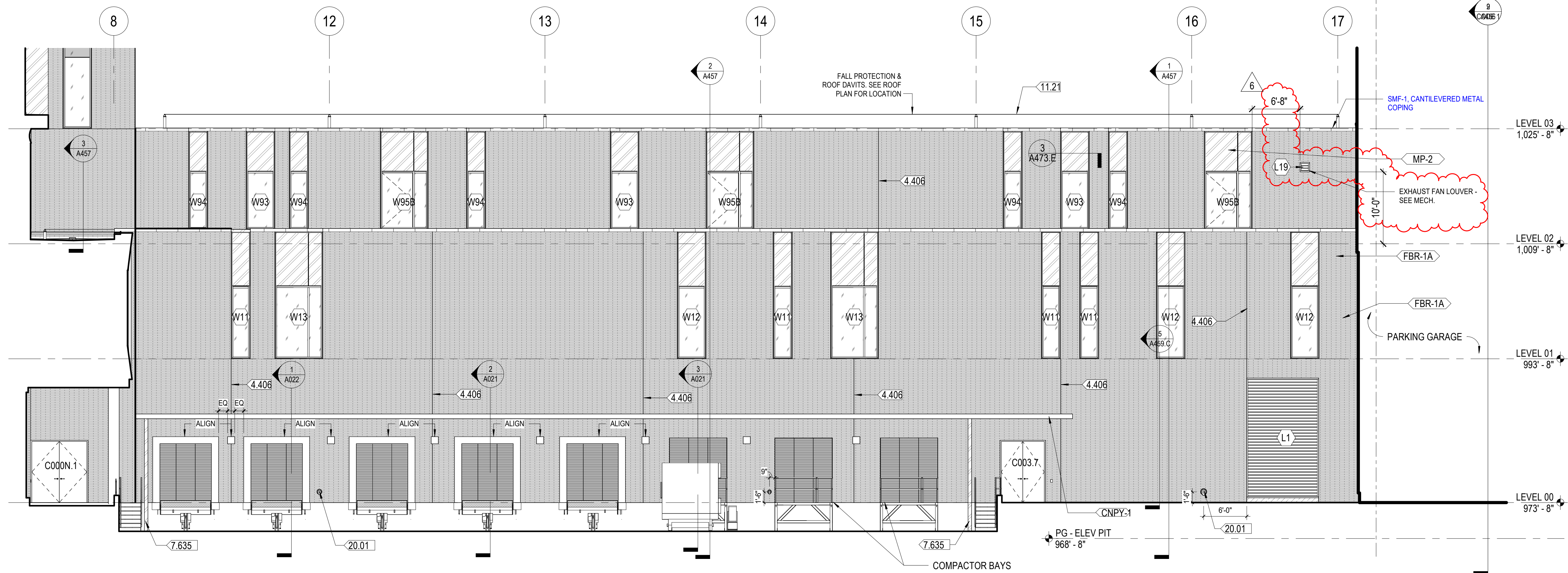
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**OVERALL SHELL &  
CORE FLOOR PLAN -  
LEVEL 08**

**SHEET NO.**  
**A208**

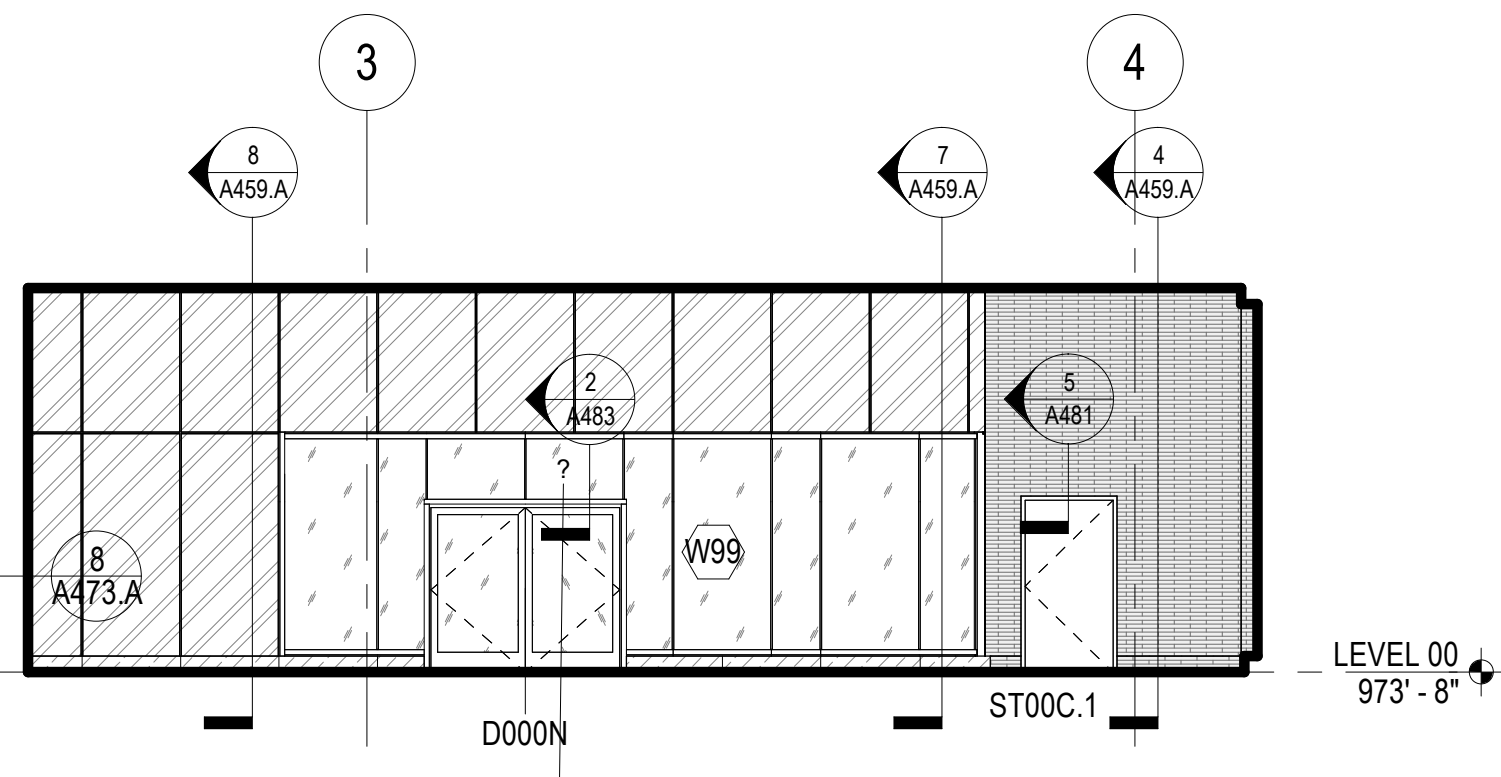


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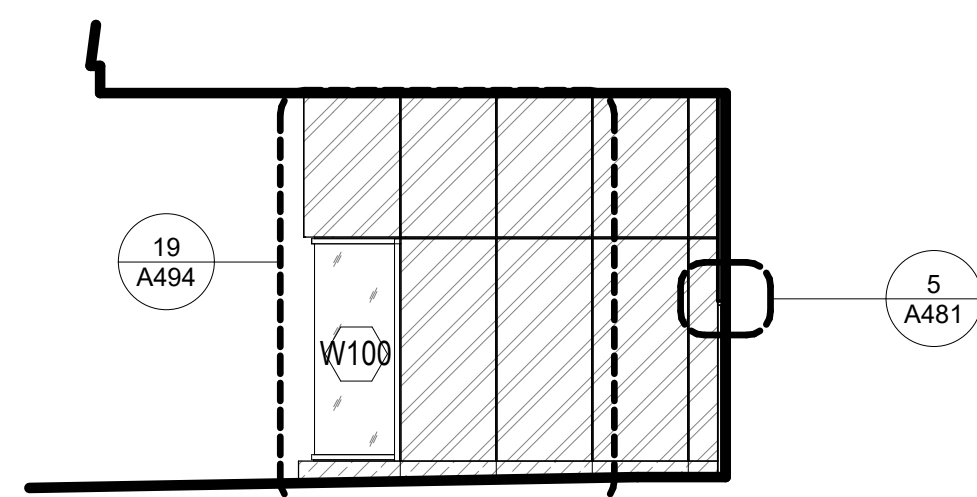




1 NORTH ENLARGED B  
1/8" = 1'-0"  
4/A022



10 AMBULANCE VESTIBULE - NORTH  
1/8" = 1'-0"  
1/A200



11 W100  
1/8" = 1'-0"  
1/A200

| EXTERIOR FINISH LEGEND                         |                                      |                                                 |
|------------------------------------------------|--------------------------------------|-------------------------------------------------|
| FBR-1A<br>FACEBRICK, BEIGE                     | FBR-1B<br>FACEBRICK, BEIGE, TEXTURED | FBR-2<br>FACEBRICK, RED                         |
| FBR-3<br>FACEBRICK, DARK RED, INSET            | GL-21<br>VISION GLASS                | GL-22<br>REFLECTIVE GLASS                       |
| GL-23<br>BIRDSAFE GLASS                        | GL-41<br>SPANDREL GLASS              | GL-42<br>REFLECTIVE SPANDREL GLASS              |
| MP-1<br>METAL PANEL, ZINC PLATED FINISH        | MP-2<br>METAL PANEL, PAINTED FINISH  | MP-3<br>METAL PANEL, PAINTED FINISH (DARK GRAY) |
| MP-4<br>CORRUGATED METAL PANEL, PAINTED FINISH | SPP-1<br>WOOD SPANER COMPOSITE PANEL | LVR-1A<br>LVR-1B<br>PREFINISHED ALUMINUM LOUVER |
| STN-1<br>LIMESTONE VENEER                      | STN-2<br>GRANITE SPOT VENEER         |                                                 |

#### GENERAL NOTES - EXTERIOR ELEVATIONS

- REFER TO OVERALL FLOOR PLANS FOR ADDITIONAL INFORMATION REGARDING EXTERIOR WALL TYPES AND MATERIALS.
- SEA LEVEL ELEVATIONS OF EXISTING FLOORS ARE BASED ON SURVEY INFORMATION AND/OR AS-BUILT DRAWINGS PROVIDED BY THE OWNER. THE SURVEY DATA MAY NOT BE COMPLETE AND THE ACTUAL EXISTING ELEVATIONS MAY VARY IN DIFFERENT PORTIONS OF THE EXISTING BUILDING. ALL INFORMATION MUST BE FIELD VERIFIED AND COORDINATED BETWEEN NEW AND EXISTING CONSTRUCTION TO PROVIDE MATCHING FLOOR ELEVATIONS WHERE REQUIRED.
- GRADE LINE SHOWN ON ELEVATIONS DOES NOT REFLECT SITE GRADING INFORMATION.
- REFER TO SHEETS A490 - A496 FOR EXTERIOR WINDOW, CURTAIN WALL, LOUVER, AND SUNSHADE ELEVATIONS

#### KEYNOTES

| #     | DESCRIPTION                                                                     |
|-------|---------------------------------------------------------------------------------|
| 4.406 | BRICK EXPANSION JOINT WITH BACKER ROD AND SEALANT AND COMPRESSIBLE JOINT FILLER |
| 7.601 | SMF-1, CANTILEVERED METAL COPING                                                |
| 7.635 | ALUMINUM DOWNSPOUT                                                              |
| 11.21 | ROOFTOP FALL PROTECTION PERMANENT HORIZONTAL LIFELINE                           |
| 20.01 | ROOF LEADER OVERFLOW NOZZLE. REFER TO P-DRAWINGS                                |

#### ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100 DD REVIEW  | 01/10/24 |
| 2   | C&S 80% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | BP-07 ADDENDUM #1  | 05/28/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client Number

514

Project Number

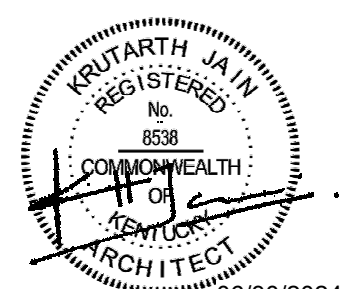
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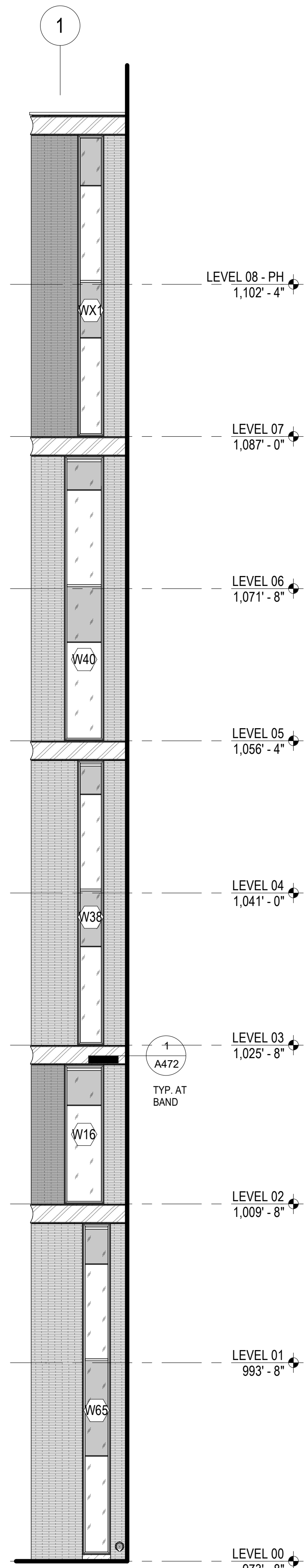
ENLARGED EXTERIOR  
NORTH LINK  
ELEVATIONS

SHEET NO.

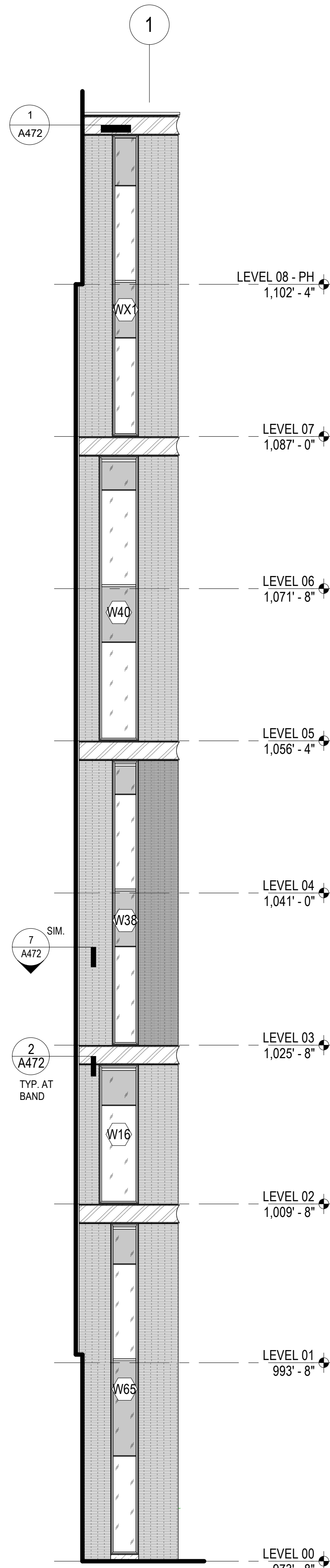
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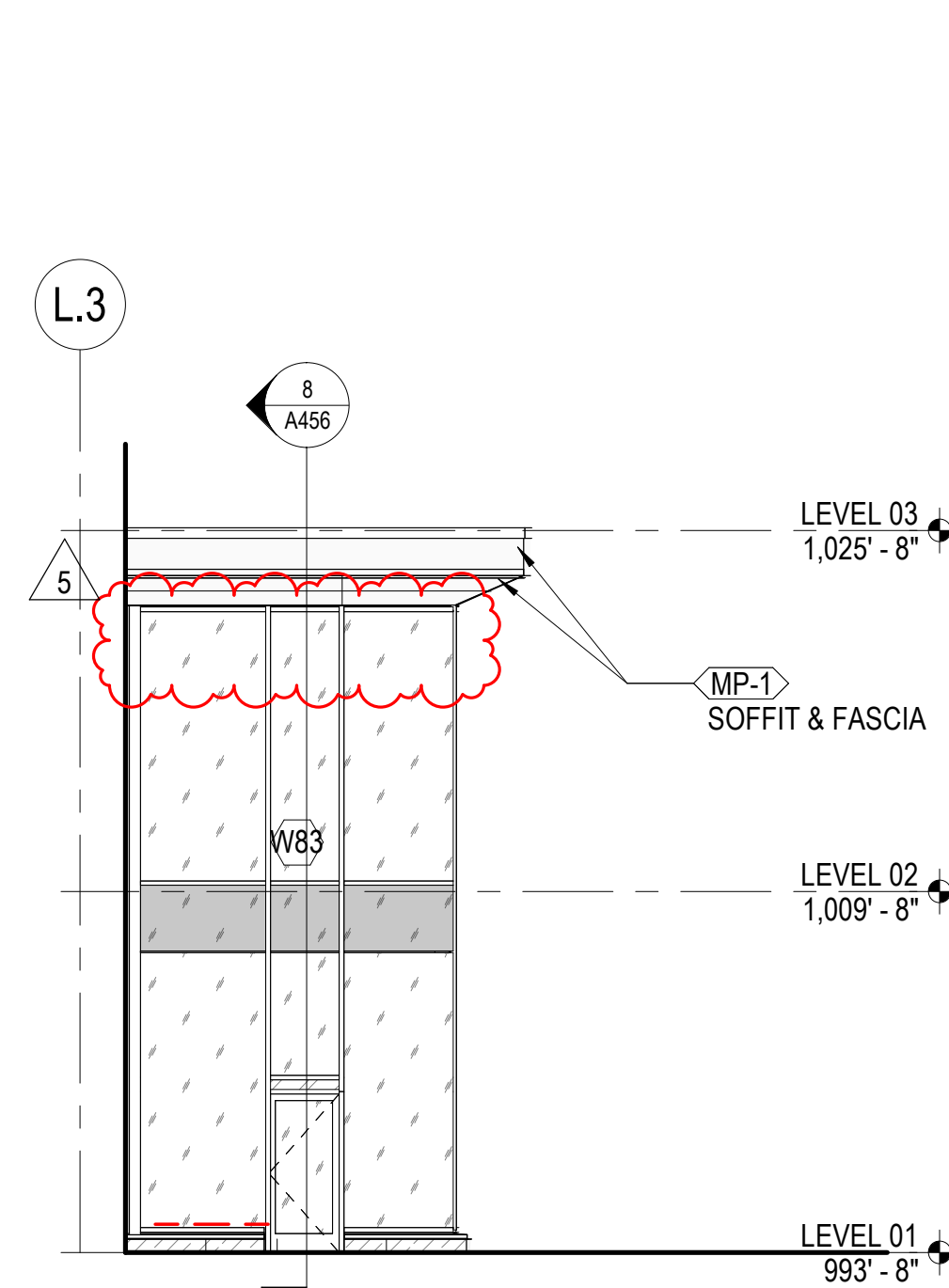




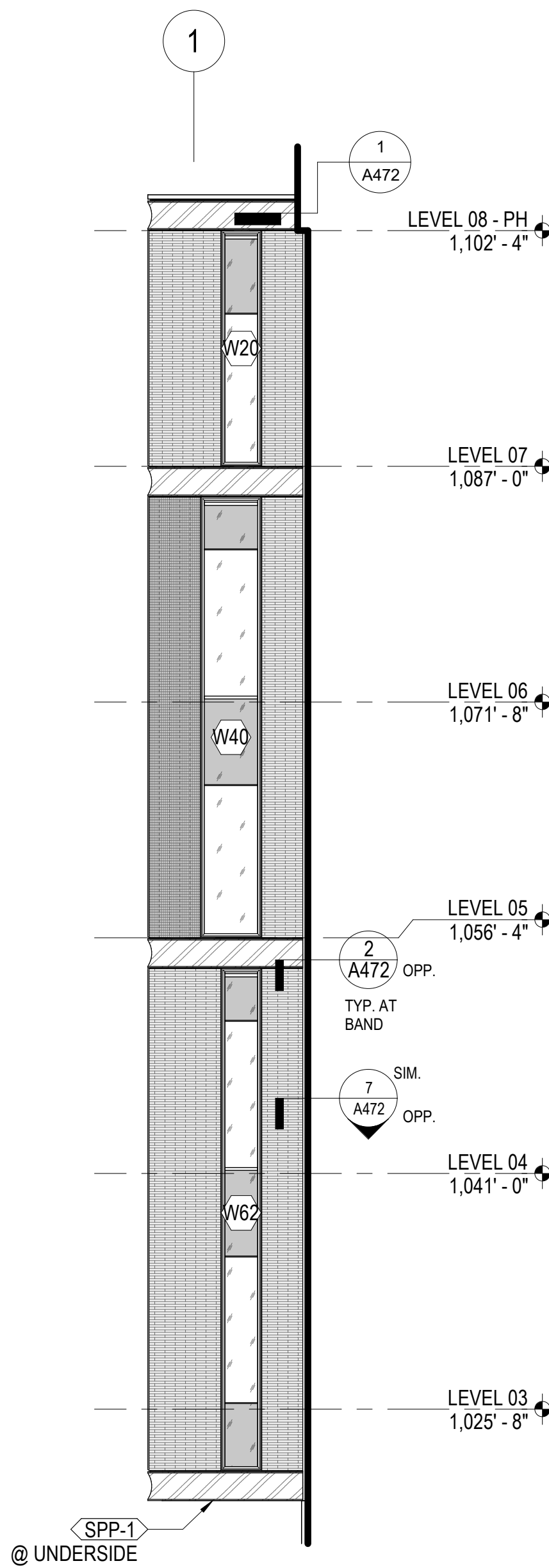
1 EAST ELEVATION BUMPOUT - NORTH  
1/8" = 1'-0"  
1/A200



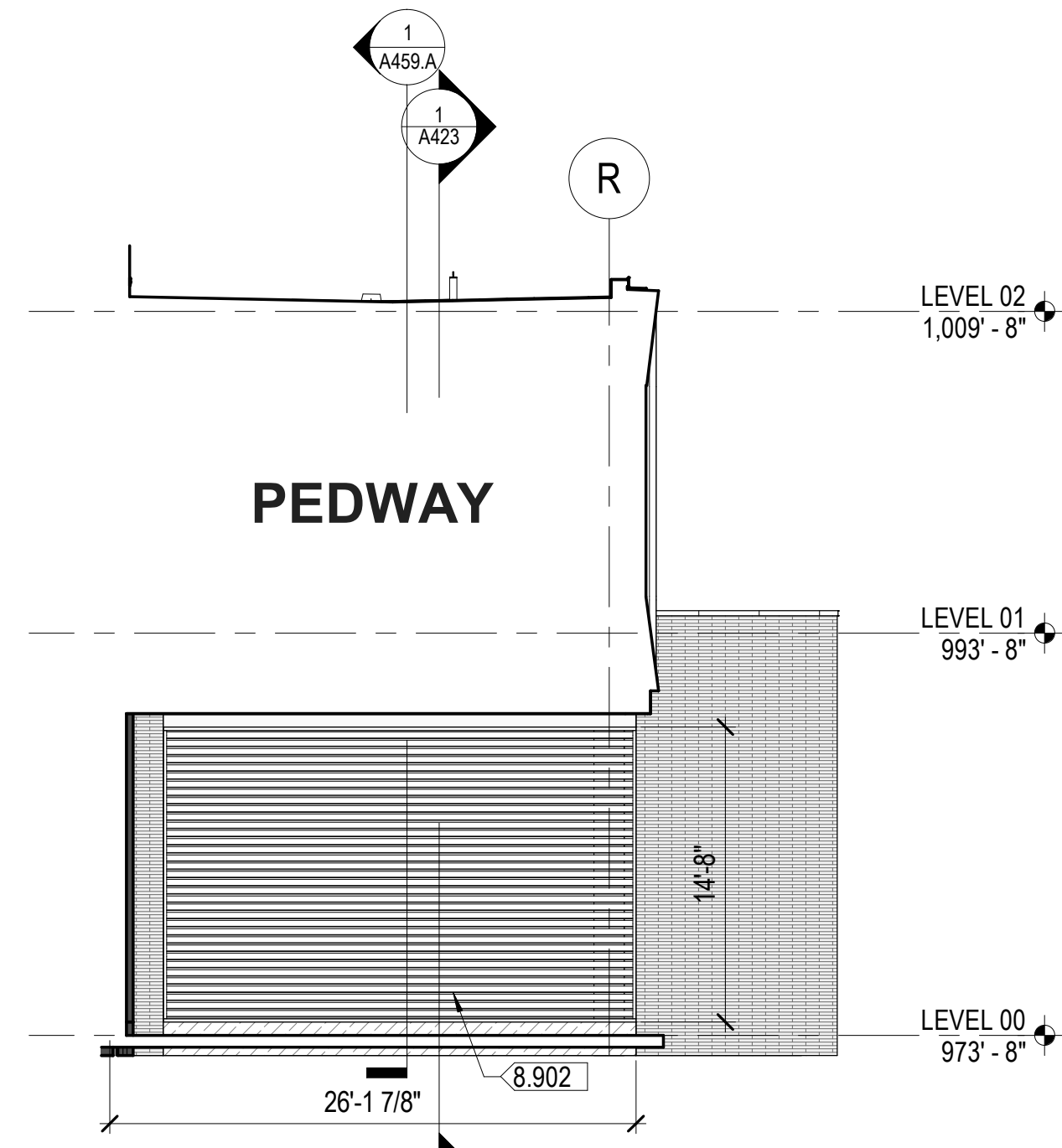
2 EAST ELEVATION BUMPOUT - SOUTH  
1/8" = 1'-0"  
1/A200



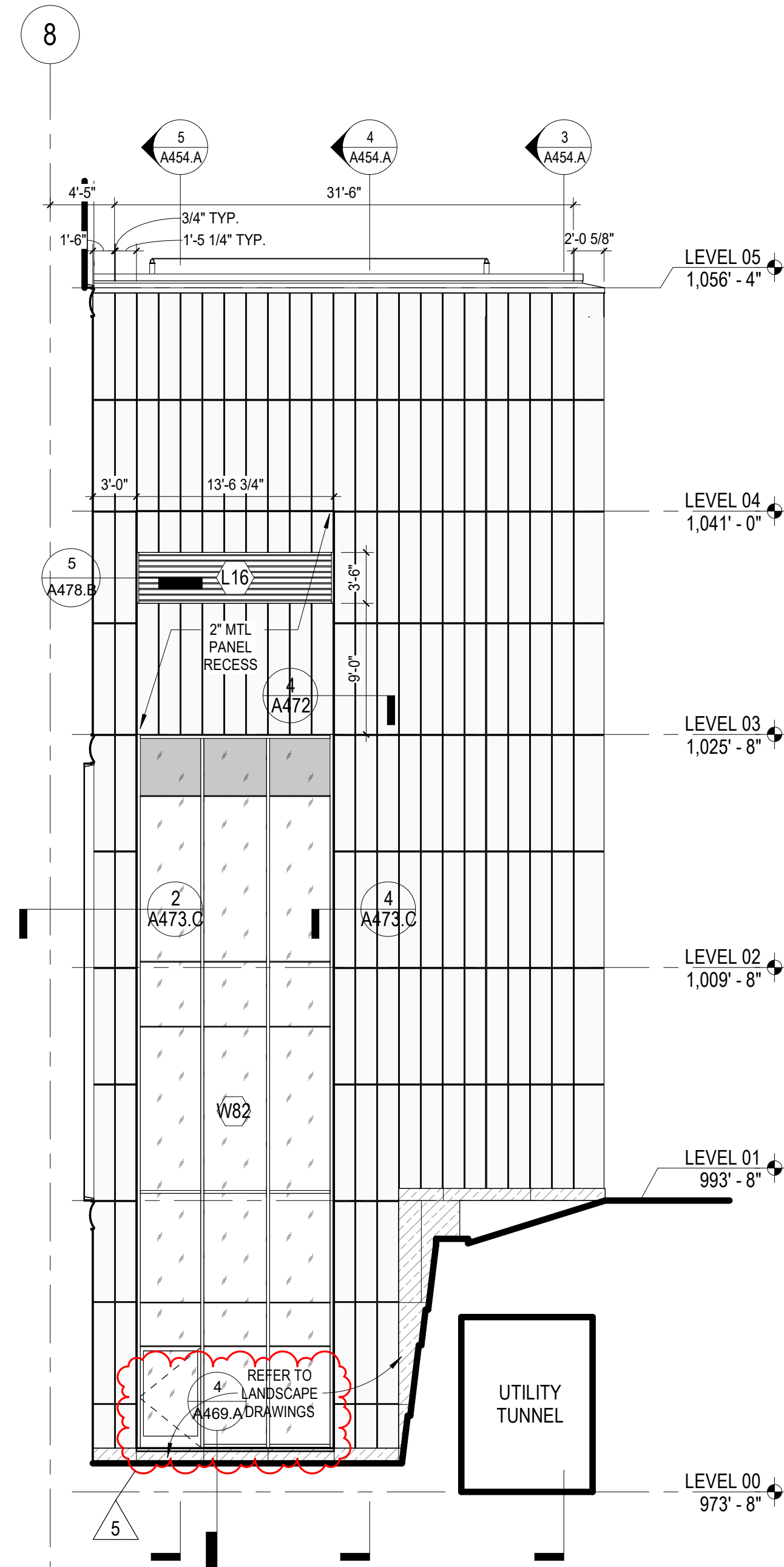
3 LINK WEST  
1/8" = 1'-0"  
1/A201



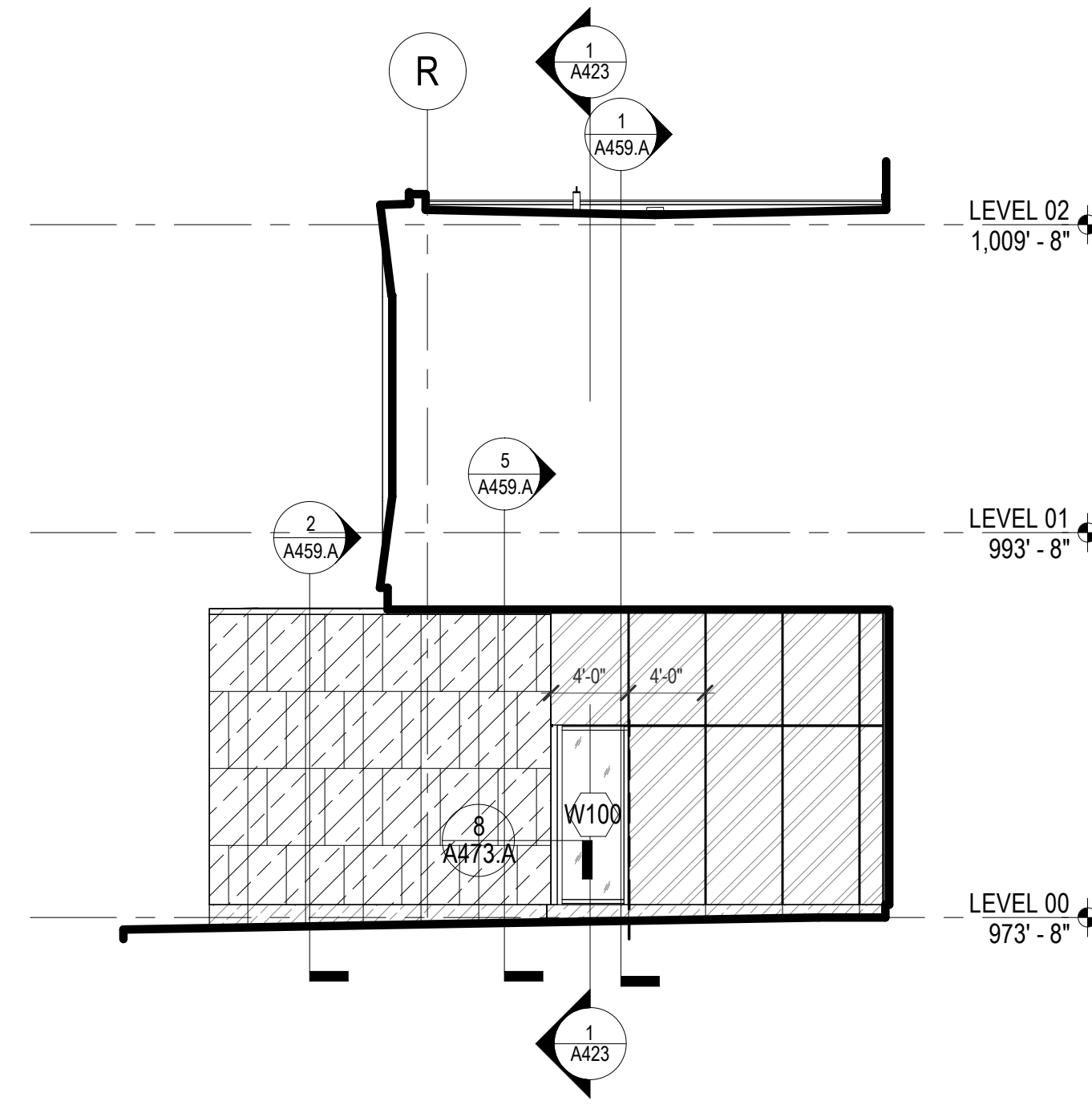
5 EAST FCD SOUTH BUMPOUT  
1/8" = 1'-0"  
1/A202



4 EAST ELEVATION BUMPOUT - NORTH  
1/8" = 1'-0"  
1/A200



6 SUNKEN GARDEN SOUTH  
1/8" = 1'-0"  
1/A200



7 NORTH ELEVATION BUMPOUT - WEST  
1/8" = 1'-0"  
1/A200

| EXTERIOR FINISH LEGEND                         |                                      |                                                          |
|------------------------------------------------|--------------------------------------|----------------------------------------------------------|
| FBR-1A<br>FACEBRICK, BEIGE                     | FBR-1B<br>FACEBRICK, BEIGE, TEXTURED | FBR-2<br>FACEBRICK, RED                                  |
| FBR-3<br>FACEBRICK, DARK RED, MIXED            | GL-21<br>VISION GLASS                | GL-22<br>REFLECTIVE GLASS                                |
| GL-23<br>BROSAFE GLASS                         | GL-41<br>SPANDREL GLASS              | GL-42<br>REFLECTIVE SPANDREL GLASS                       |
| MP-1<br>METAL PANEL, ZINC PLATED PANEL         | MP-2<br>METAL PANEL, PAINTED FINISH  | MP-3<br>METAL PANEL, PAINTED FINISH (DARK GRAY)          |
| MP-4<br>CORRUGATED METAL PANEL, PAINTED FINISH | SPP-1<br>WOOD VENEER COMPOSITE PANEL | LVR-1A<br>LVR-1B<br>LVR-3<br>PREFINISHED ALUMINUM LOUVER |
| STN-1<br>LIMESTONE VENEER                      | STN-2<br>GRANITE STONE VENEER        |                                                          |

### GENERAL NOTES - EXTERIOR ELEVATIONS

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- GRADE LINE SHOWN ON ELEVATIONS DOES NOT REFLECT SITE GRADING CONDITIONS; REFER TO CIVIL DRAWINGS FOR GRADING INFORMATION.
- REFER TO SHEETS A490 - A496 FOR EXTERIOR WINDOW, CURTAIN WALL, LOUVER, AND SUNSHADE ELEVATIONS

### KEYNOTES

| #     | DESCRIPTION                                                                                                                                                    |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8.902 | LVR-1B: EXTRUDED ALUMINUM DRAINABLE BLADE LOUVER, CONTINUOUS BLADES WITH CONCEALED VERTICAL AND HORIZONTAL SUPPORT, FOR SEAMLESS APPEARANCE. MATCH CW-1 FINISH |

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**THP**

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HEALTHCARE

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**ISSUANCES**

| No. | Description        | Date     |
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| 1   | C&S 100% DD REVIEW | 01/10/24 |
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| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | Group 2 ADD#1      | 08/22/24 |

Drawn By  
Author  
Checked By  
Checker  
Client Number 514  
Project Number 6926

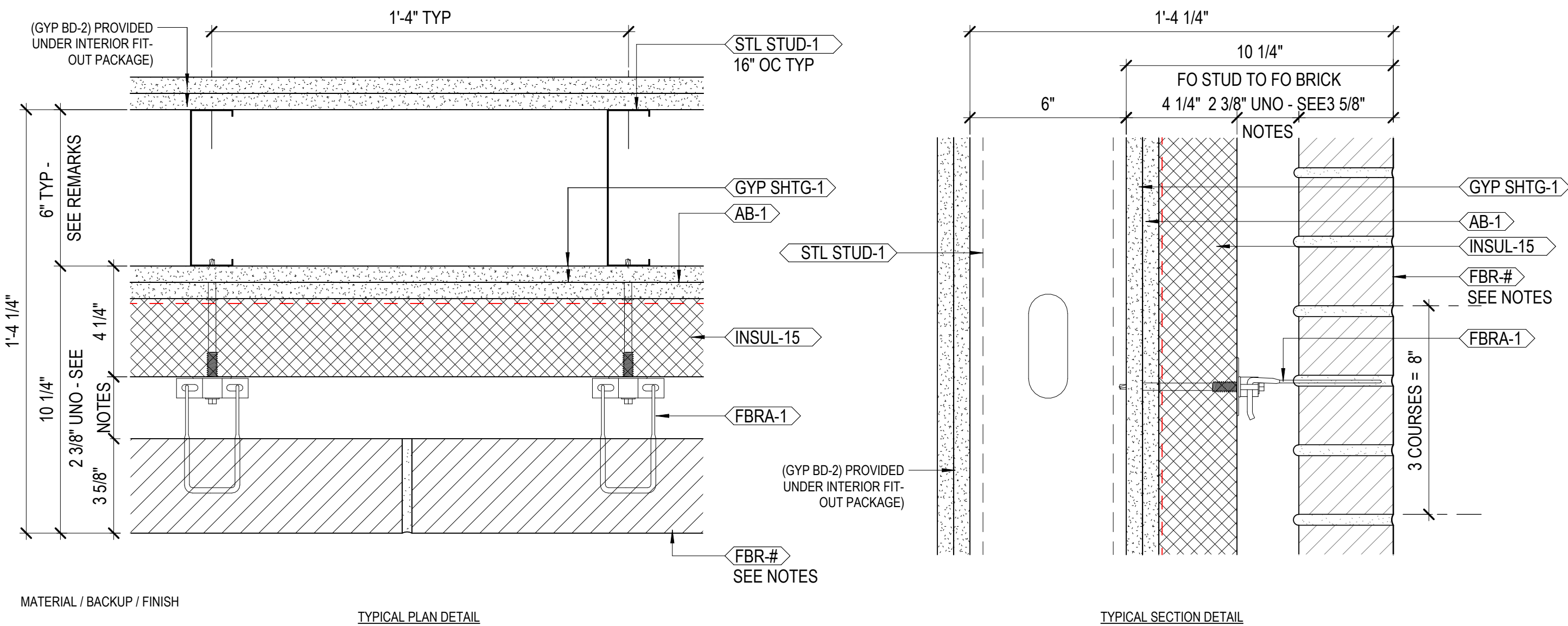
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**ENLARGED EXTERIOR ELEVATIONS**

SHEET NO.  
**A410**

8/19/2024 8:50:48 AM



8/21/2024 3:21:19 PM  
Author  
Autodesk Docs: 05/14/2023 - UKC Cancer Treatment & Advanced Ambulatory Center/AS3-LWC, SHEET CODE: 5146205-W



| R-VALUE CALCULATION               |              |  |  |
|-----------------------------------|--------------|--|--|
| INTERIOR AIR FILM                 | 0.68         |  |  |
| INTERIOR 5/8" GYPSUM BOARD        | 0.45         |  |  |
| EMPTY STUD CAVITY                 | 0.95         |  |  |
| EXTERIOR 5/8" GYPSUM BOARD        | 0.45         |  |  |
| AIR BARRIER                       | --           |  |  |
| INSULATION (R-5.7 PER INCH)       | 17.10        |  |  |
| THERMAL LOSS THRU BRICK TIES (8%) | -1.37        |  |  |
| AIR SPACE                         | --           |  |  |
| BRICK VENEER                      | 0.44         |  |  |
| EXTERIOR AIR FILM                 | 0.17         |  |  |
| <b>TOTAL</b>                      | <b>18.87</b> |  |  |

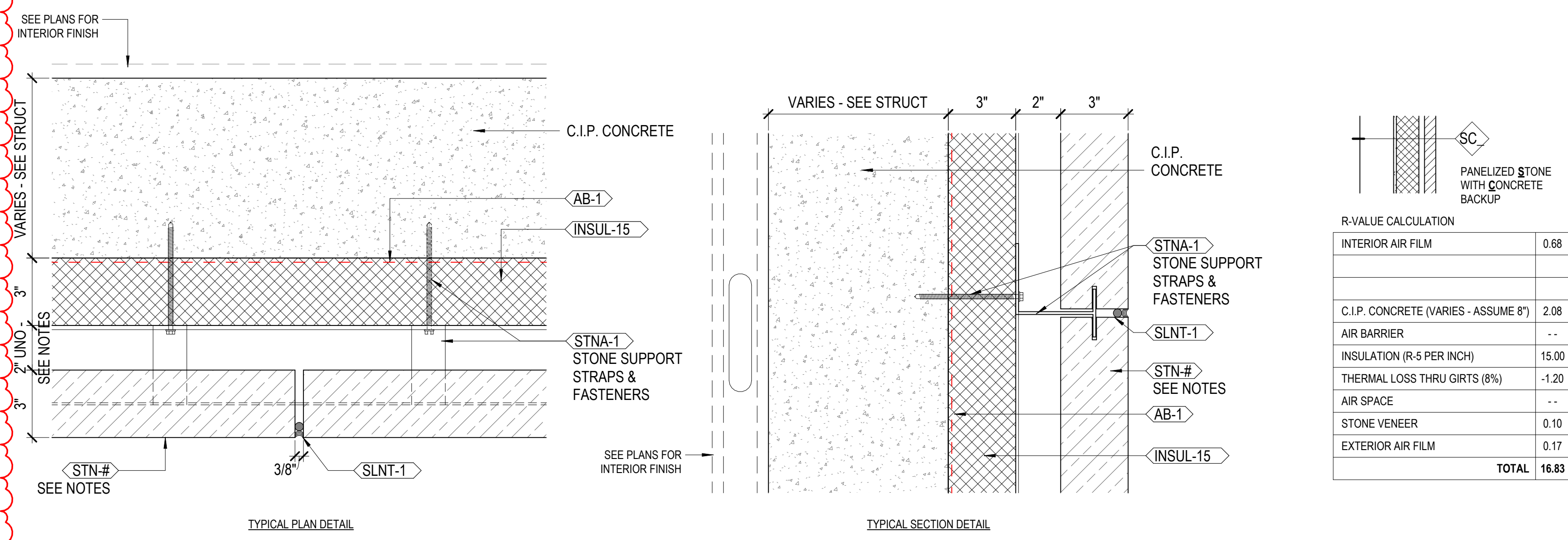
UL ASSEMBLY U349  
2-HOUR BI-DIRECTIONAL RATED

| NAME              | CODE MINIMUM R-VALUE | EFFECTIVE R-VALUE | NOTES                                                                                                          |
|-------------------|----------------------|-------------------|----------------------------------------------------------------------------------------------------------------|
| BF1 / BF1B        | R-15.6 (U-0.064)     | R-18.87 (U-0.053) | (FBR-1A) FINISH, 16 GA 8" STUD DEPTH @ BF1B LOCATIONS                                                          |
| BF2 / BF2B / BF2C | R-15.6 (U-0.064)     | R-18.87 (U-0.053) | (FBR-2) FINISH, 16 GA 8" STUD DEPTH @ BS2B LOCATIONS, 16 GA 10" STUD DEPTH @ BS2C LOCATIONS                    |
| BF3 / BF3B / BF3C | R-15.6 (U-0.064)     | R-18.87 (U-0.053) | (FBR-3) FINISH, 1 7/8" AIR CAVITY, 16 GA 8" STUD DEPTH @ BS3B LOCATIONS, 16 GA 10" STUD DEPTH @ BS3C LOCATIONS |
| BF4 / BF4B        | R-15.6 (U-0.064)     | R-18.87 (U-0.053) | (FBR-1B) FINISH, 16 GA 8" STUD DEPTH @ BS4B LOCATIONS                                                          |

- NOTES:
- STUD SIZE AND SPACING SHOWN IS MINIMUM REQUIRED AND MUST BE VERIFIED BY DESIGN OF SUPPLIER.
  - WHEN MULTIPLE LAYERS OF INSULATION ARE REQUIRED, THE EDGE JOINTS BETWEEN EACH LAYER ARE TO BE STAGGERED.
  - THERMAL CALCULATION ARE BASED ON SPECIFIED BRICK TIES. PROPOSED SUBSTITUTIONS WILL HAVE TO DEMONSTRATE COMPARABLE THERMAL PERFORMANCE.
  - INSULATION DE-RATING IS BASED ON PUBLISHED DATA FROM THE BRICK TIE MANUFACTURER.

#### 4 WALL TYPE - BF 3" = 1'-0"

#### 2 WALL TYPE - SM 3" = 1'-0"

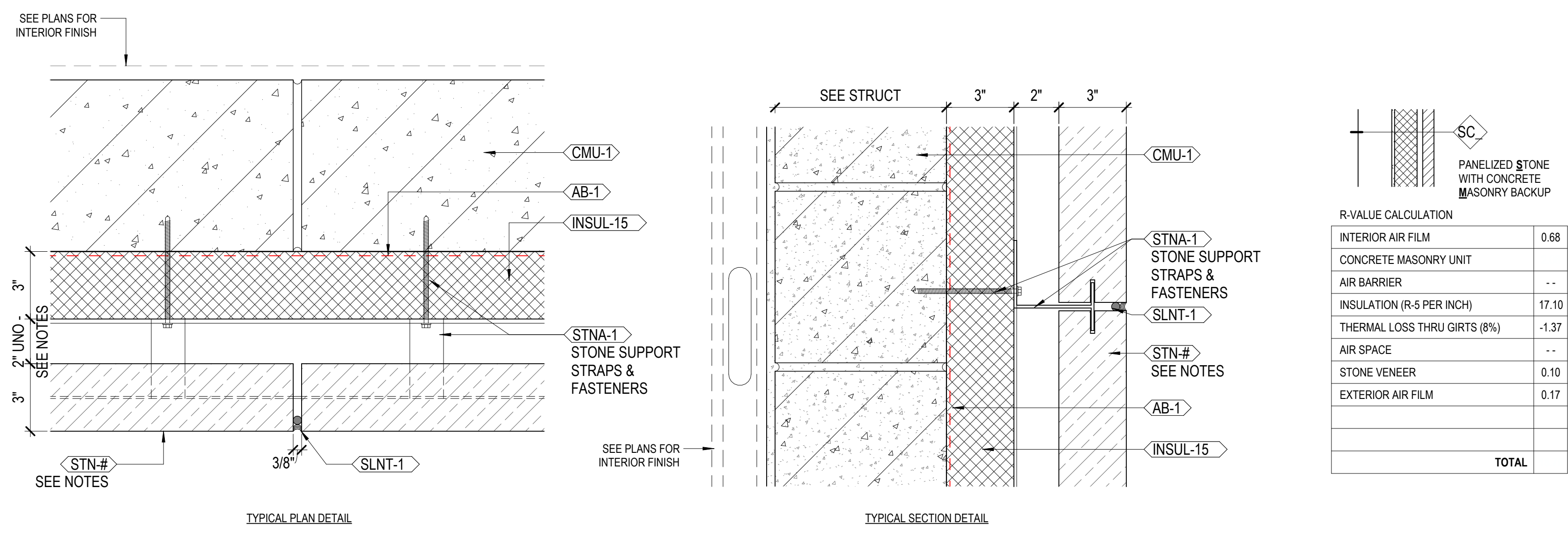


| NAME       | CODE MINIMUM R-VALUE | EFFECTIVE R-VALUE | NOTES                                          |
|------------|----------------------|-------------------|------------------------------------------------|
| SC1        | R-15.6 (U-0.064)     | R-16.83 (U-0.059) | (STN-1) FINISH; AS DRAWN ABOVE                 |
| SC2 / SC2B | R-15.6 (U-0.064)     | R-16.83 (U-0.059) | (STN-2) FINISH; 4" AIR CAVITY @ SC2B LOCATIONS |

- NOTES:
- STONE SUPPORT SYSTEM MANUFACTURER TO PROVIDE MINIMUM (FRP FURG-) SPACING AND FASTENER REQUIREMENTS.
  - WHEN MULTIPLE LAYERS OF INSULATION ARE REQUIRED, THE EDGE JOINTS BETWEEN EACH LAYER ARE TO BE STAGGERED.
  - FINAL SIZING AND SPACING OF STONE SUPPORT SYSTEM TO BE BY STONE SUPPORT SYSTEM MANUFACTURER.
  - THERMAL CALCULATION ARE BASED ON THE SPECIFIED GIRT. PROPOSED SUBSTITUTIONS WILL HAVE TO DEMONSTRATE COMPARABLE THERMAL PERFORMANCE.
  - INSULATION DE-RATING IS BASED ON PUBLISHED DATA FROM GIRT MANUFACTURER.

#### 1 WALL TYPE - SC 3" = 1'-0"

#### 3 WALL TYPE - SS 3" = 1'-0"



| NAME       | CODE MINIMUM R-VALUE | EFFECTIVE R-VALUE | NOTES                                          |
|------------|----------------------|-------------------|------------------------------------------------|
| SM2 / SM2B | R-15.6 (U-0.064)     | R-18.76 (U-0.053) | (STN-2) FINISH; 4" AIR CAVITY @ SC2B LOCATIONS |

- NOTES:
- STONE SUPPORT SYSTEM MANUFACTURER TO PROVIDE MINIMUM (FRP FURG-) SPACING AND FASTENER REQUIREMENTS.
  - WHEN MULTIPLE LAYERS OF INSULATION ARE REQUIRED, THE EDGE JOINTS BETWEEN EACH LAYER ARE TO BE STAGGERED.
  - FINAL SIZING AND SPACING OF STONE SUPPORT SYSTEM TO BE BY STONE SUPPORT SYSTEM MANUFACTURER.
  - THERMAL CALCULATION ARE BASED ON THE SPECIFIED GIRT. PROPOSED SUBSTITUTIONS WILL HAVE TO DEMONSTRATE COMPARABLE THERMAL PERFORMANCE.
  - INSULATION DE-RATING IS BASED ON PUBLISHED DATA FROM GIRT MANUFACTURER.

| NAME       | CODE MINIMUM R-VALUE | EFFECTIVE R-VALUE | NOTES                                                |
|------------|----------------------|-------------------|------------------------------------------------------|
| SS1 / SS1B | R-15.6 (U-0.064)     | R-18.53 (U-0.054) | (STN-1) FINISH; 16 GA 8" STUD DEPTH @ SS1B LOCATIONS |
| SS2 / SS2B | R-15.6 (U-0.064)     | R-18.53 (U-0.054) | (STN-1) FINISH; 16 GA 8" STUD DEPTH @ SS1B LOCATIONS |

- NOTES:
- STONE SUPPORT SYSTEM MANUFACTURER TO PROVIDE MINIMUM (FRP FURG-) SPACING AND FASTENER REQUIREMENTS.
  - WHEN MULTIPLE LAYERS OF INSULATION ARE REQUIRED, THE EDGE JOINTS BETWEEN EACH LAYER ARE TO BE STAGGERED.
  - FINAL SIZING AND SPACING OF STONE SUPPORT SYSTEM TO BE BY STONE SUPPORT SYSTEM MANUFACTURER.
  - THERMAL CALCULATION ARE BASED ON THE SPECIFIED GIRT. PROPOSED SUBSTITUTIONS WILL HAVE TO DEMONSTRATE COMPARABLE THERMAL PERFORMANCE.
  - INSULATION DE-RATING IS BASED ON PUBLISHED DATA FROM GIRT MANUFACTURER.

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1220 Elizabeth St.  
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| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100 DD REVIEW  | 01/10/24 |
| 2   | C&S 90% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | Group 2 ADD#1      | 08/22/24 |

Drawn By

Author

Checked By

Checker

Client Number 514

Project Number 6926

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KENTUCKY  
ARCHITECT  
06/30/2024

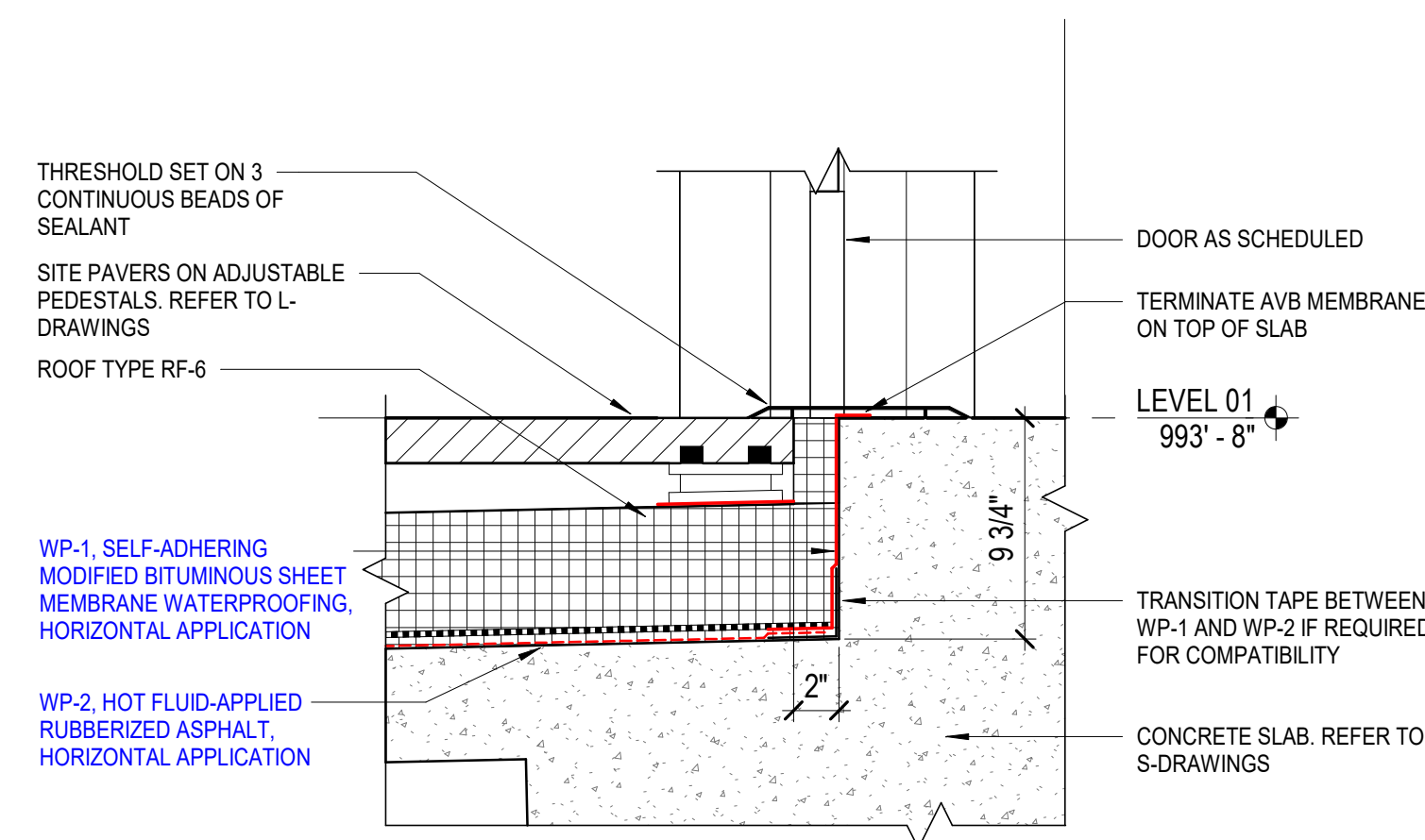
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EXTERIOR WALL AND  
SOFFIT TYPES

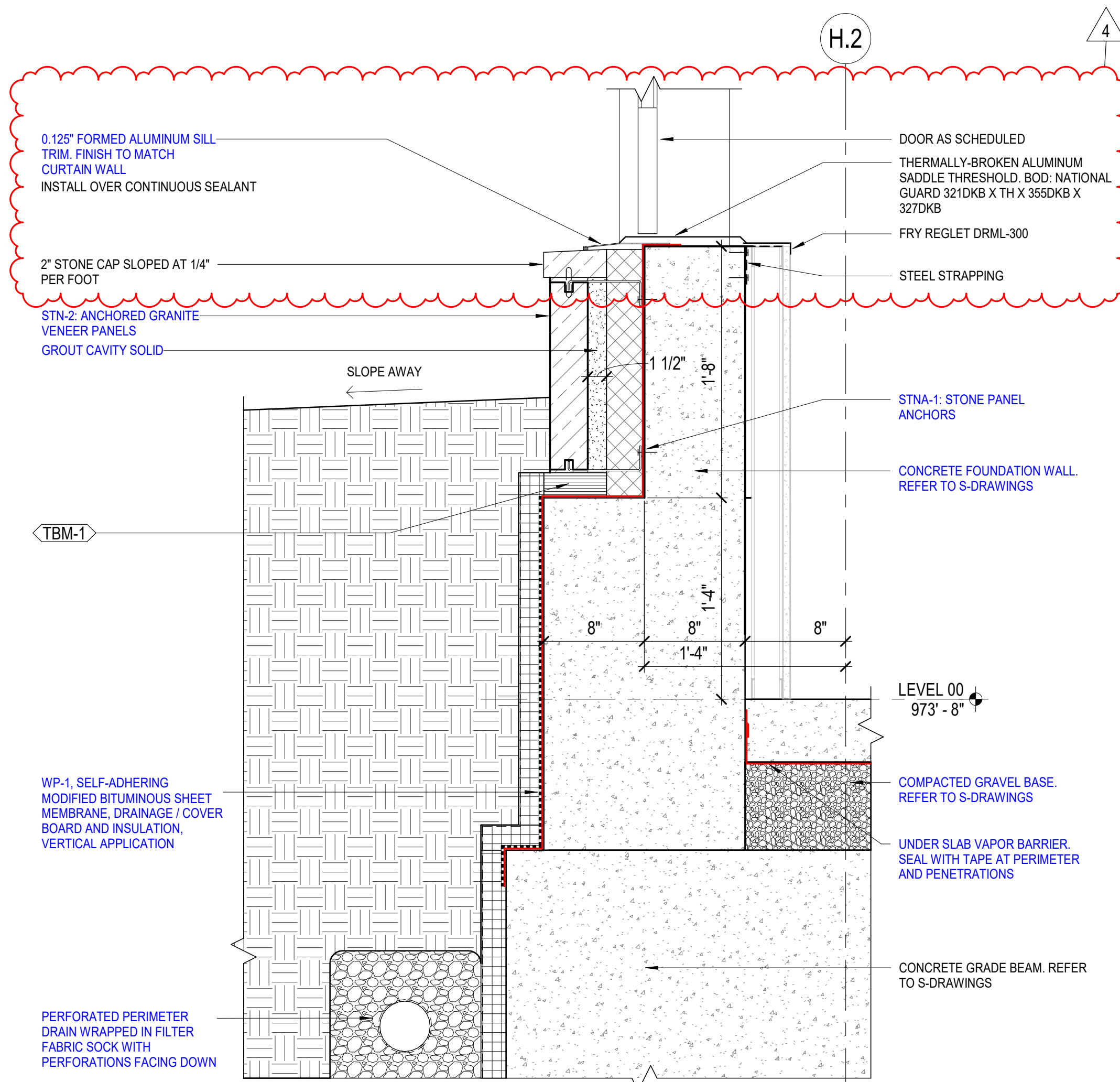
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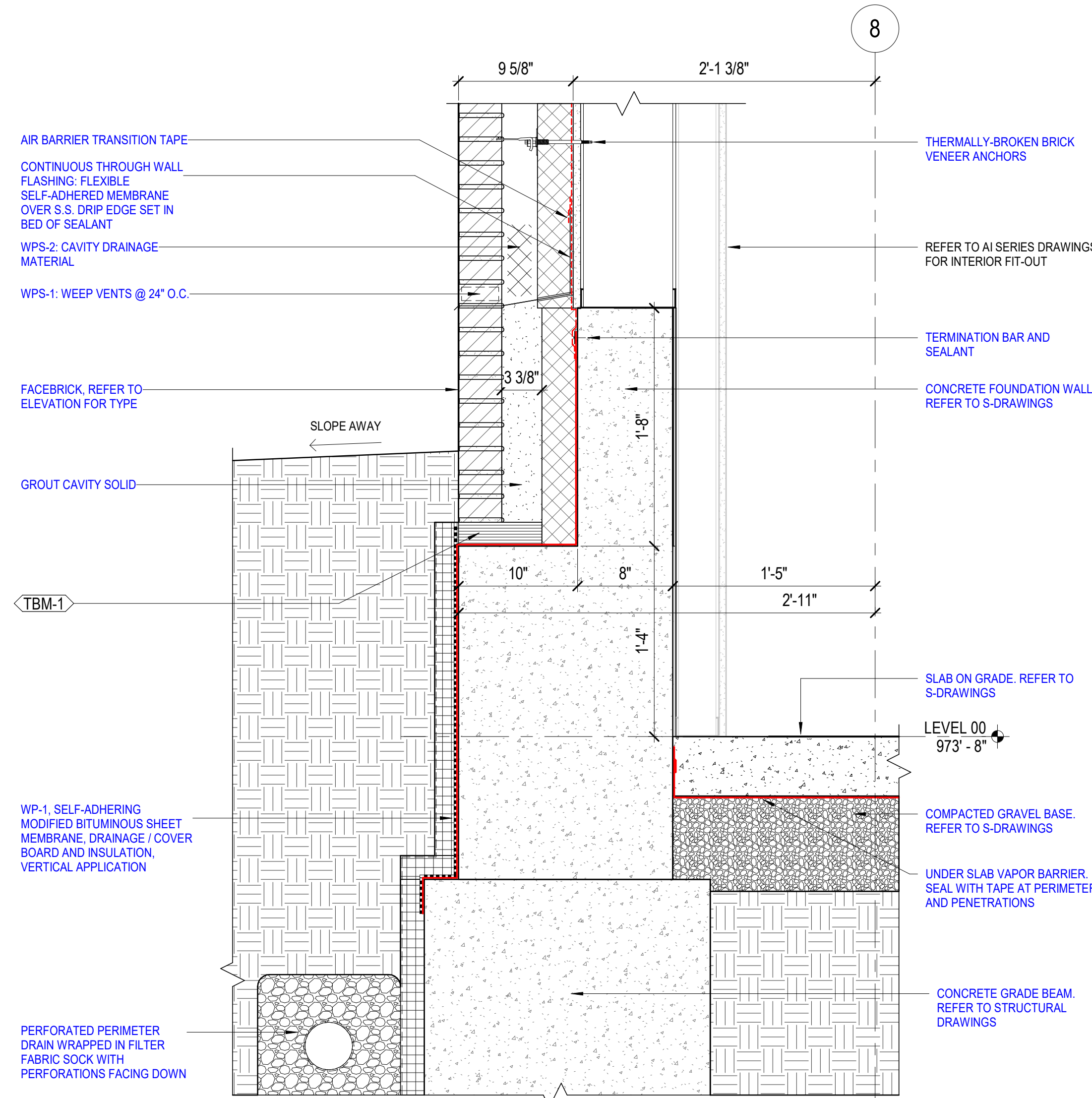




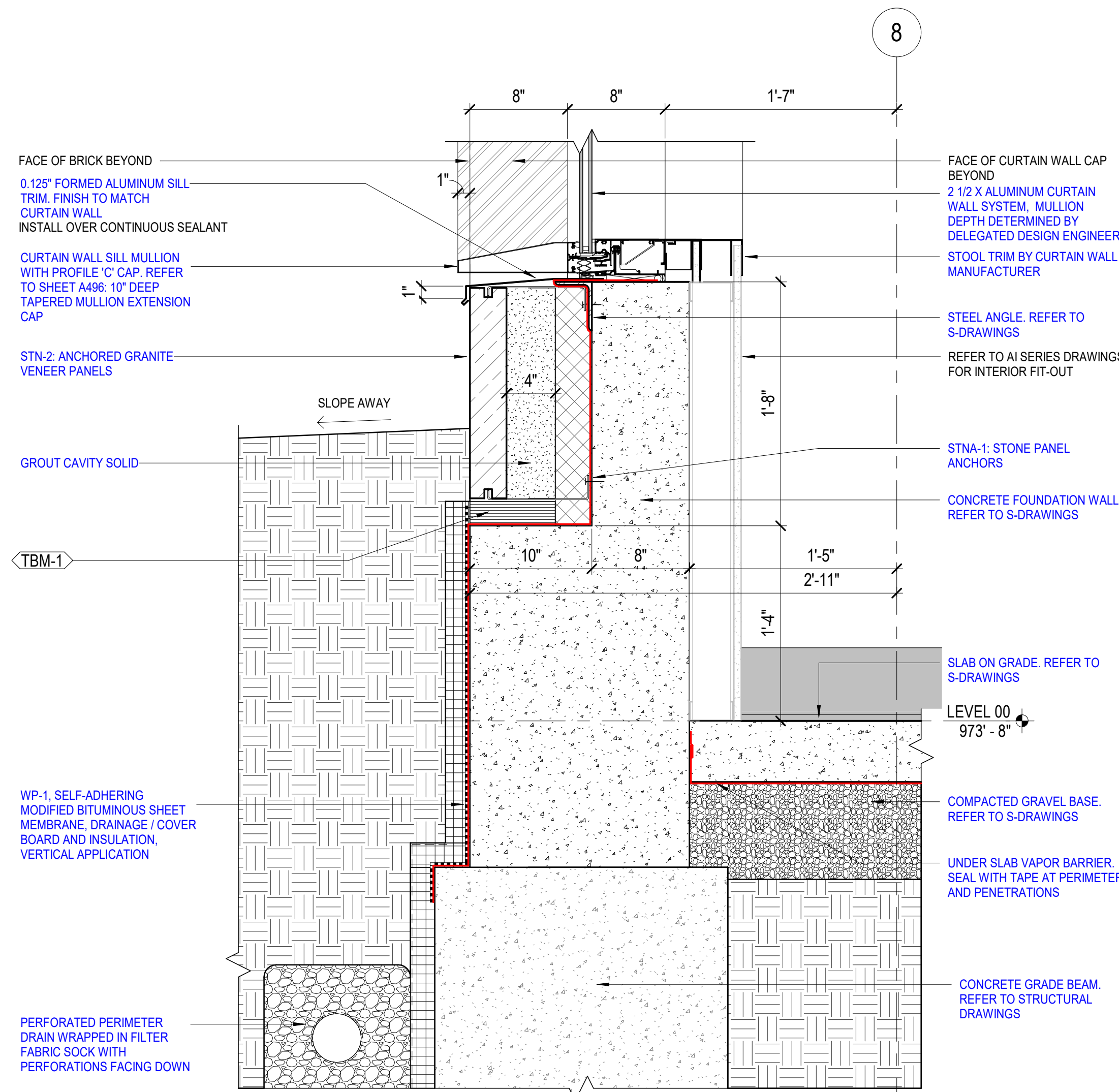
7 DETAIL - DOOR THRESHOLD 2 (SOUTH PATIO)  
1 1/2" = 1'-0"  
2/A452



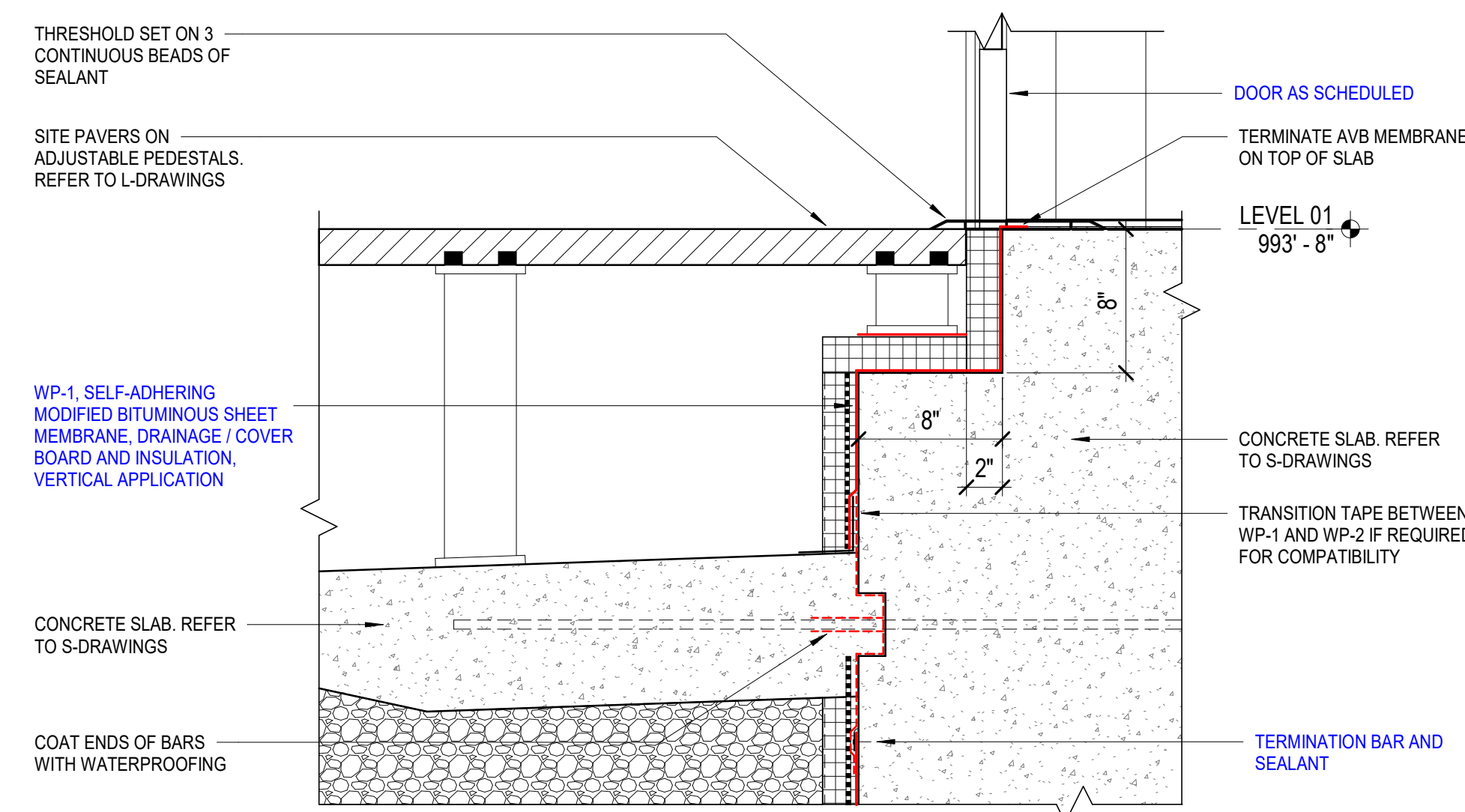
6 DETAIL - DOOR SILL AND STONE BASE (GARDEN SOUTH FACADE)  
1 1/2" = 1'-0"  
5/A454 A



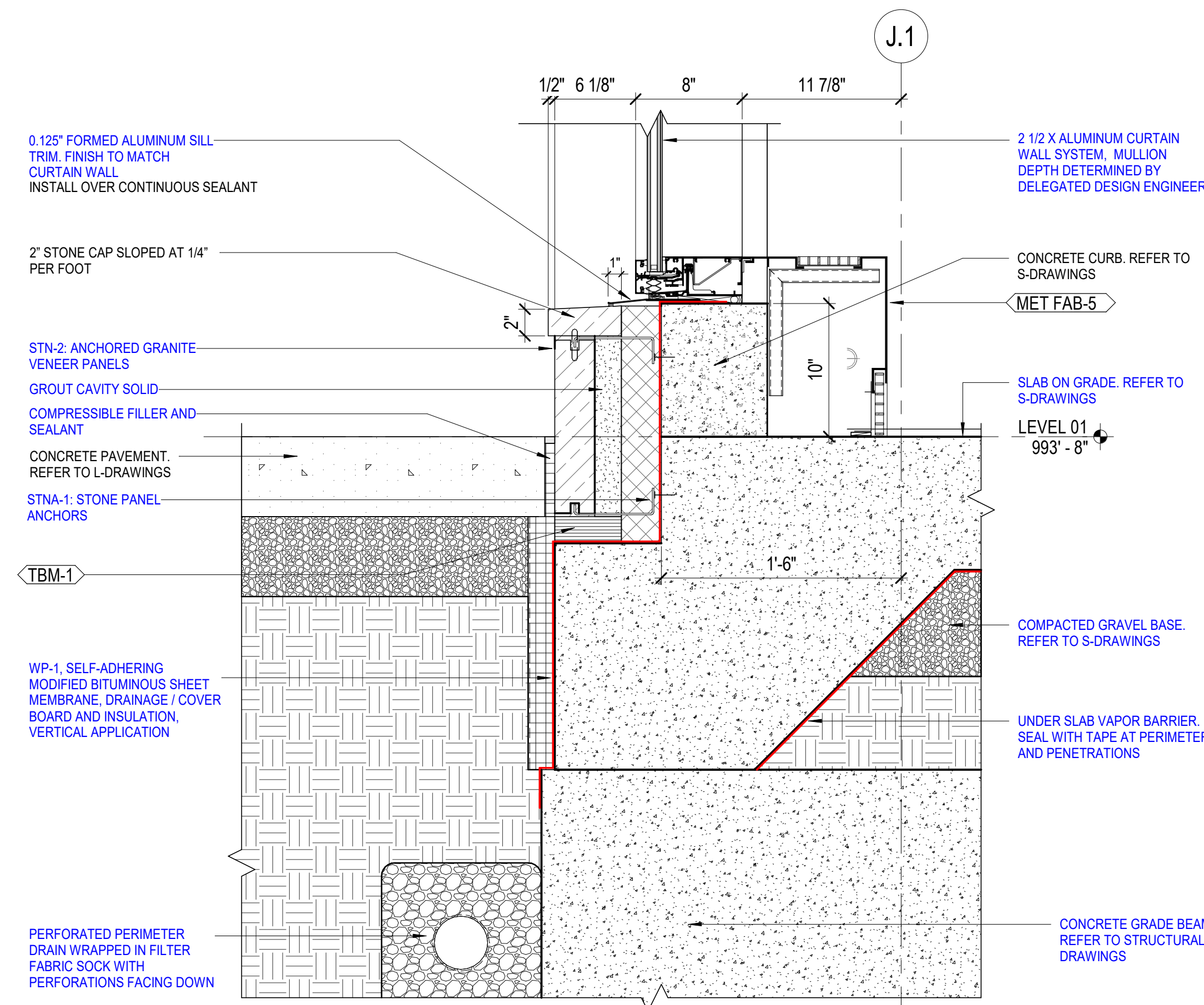
5 DETAIL - BRICK BASE (GARDEN EAST FACADE)  
1 1/2" = 1'-0"  
1/A455



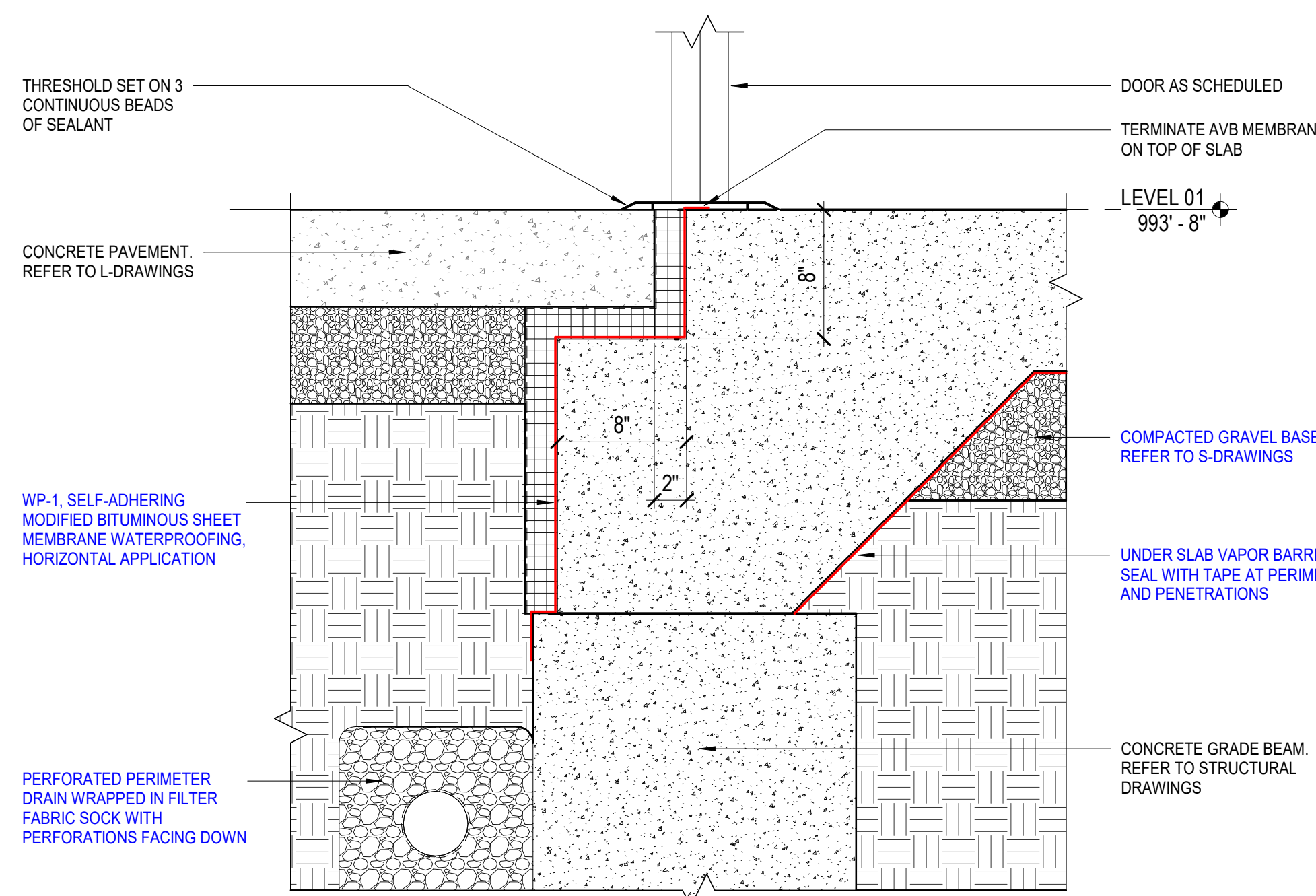
4 DETAIL - CURTAIN WALL SILL AND STONE BASE (GARDEN EAST FACADE)  
1 1/2" = 1'-0"  
2/A455



3 DETAIL - DOOR THRESHOLD (SOUTH PATIO)  
1 1/2" = 1'-0"  
1/A453 A



2 DETAIL - VESTIBULE CURTAIN WALL SILL AND STONE BASE  
1 1/2" = 1'-0"  
6/A413



1 DETAIL - VESTIBULE SLIDING DOOR THRESHOLD  
1 1/2" = 1'-0"  
3/A414

**ISSUANCES**

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 80% CD         | 03/05/24 |
| 2   | C&S 100% CD REVIEW | 04/09/24 |
| 3   | BP-07 BID & PERMIT | 04/30/24 |
| 4   | Group 2 ADD#1      | 08/22/24 |

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| Drawn By       | Author  |
| Checked By     | Checker |
| Client Number  | 514     |
| Project Number | 6926    |

**DRAWING TITLE**

FOUNDATION DETAILS

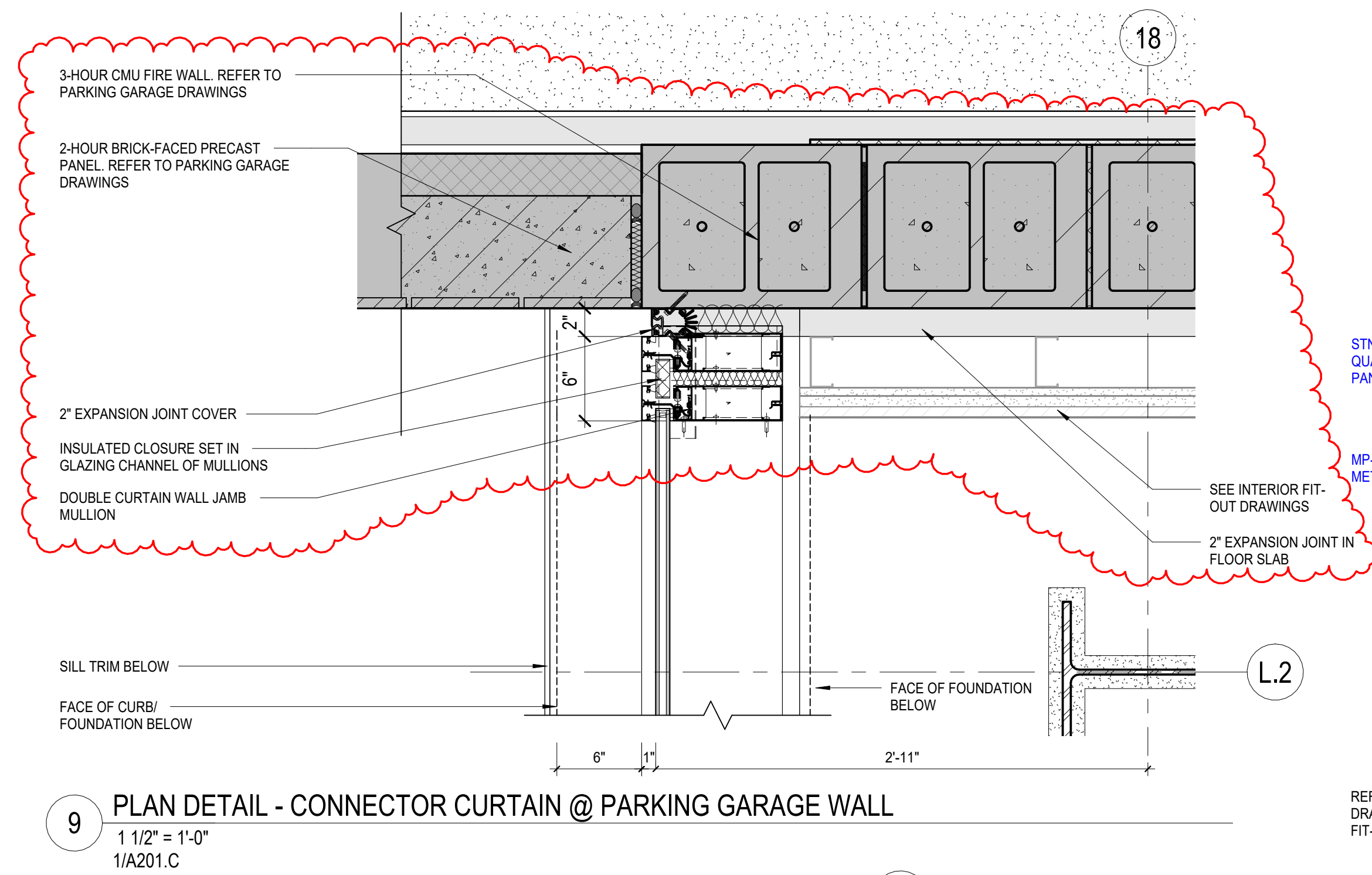
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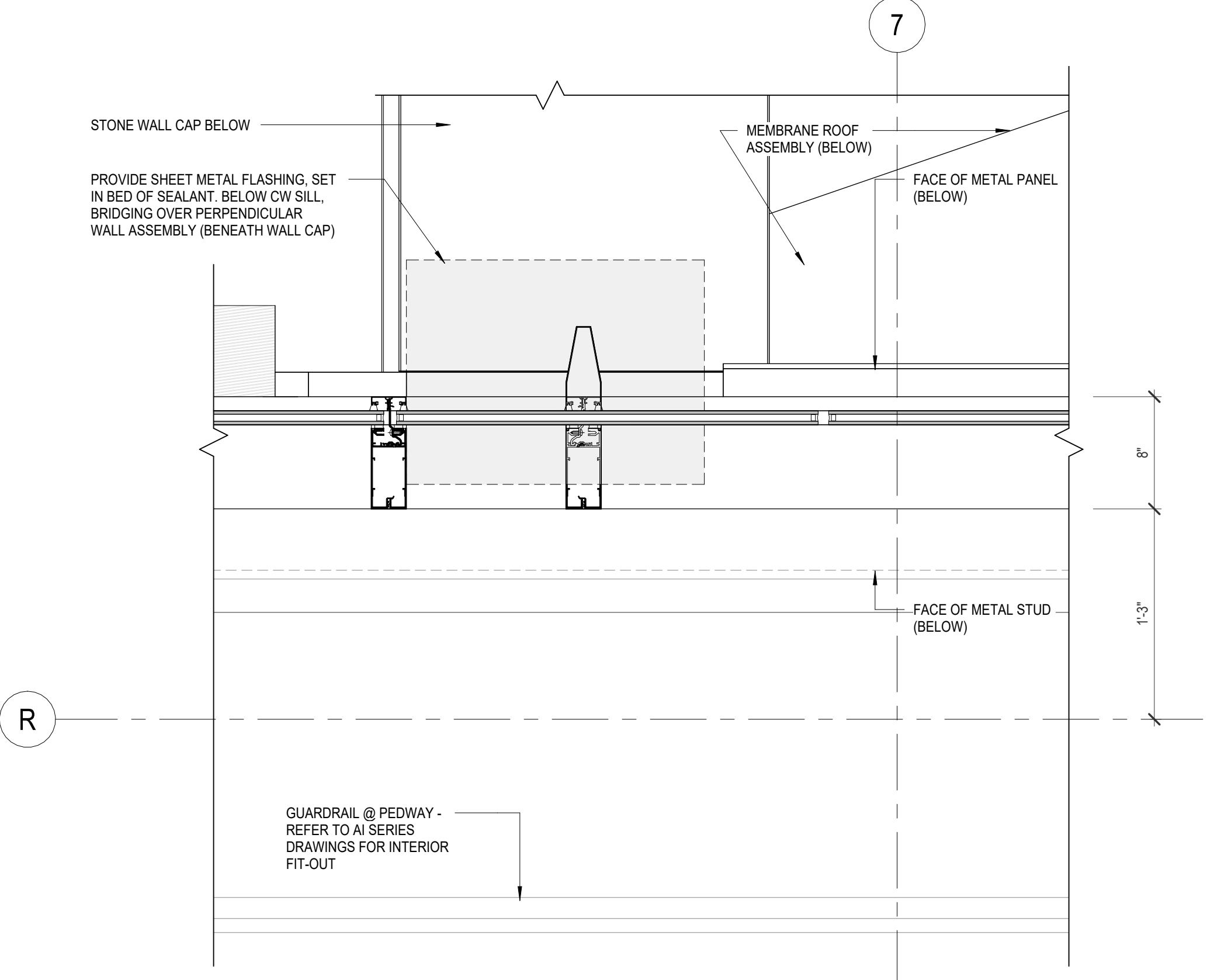




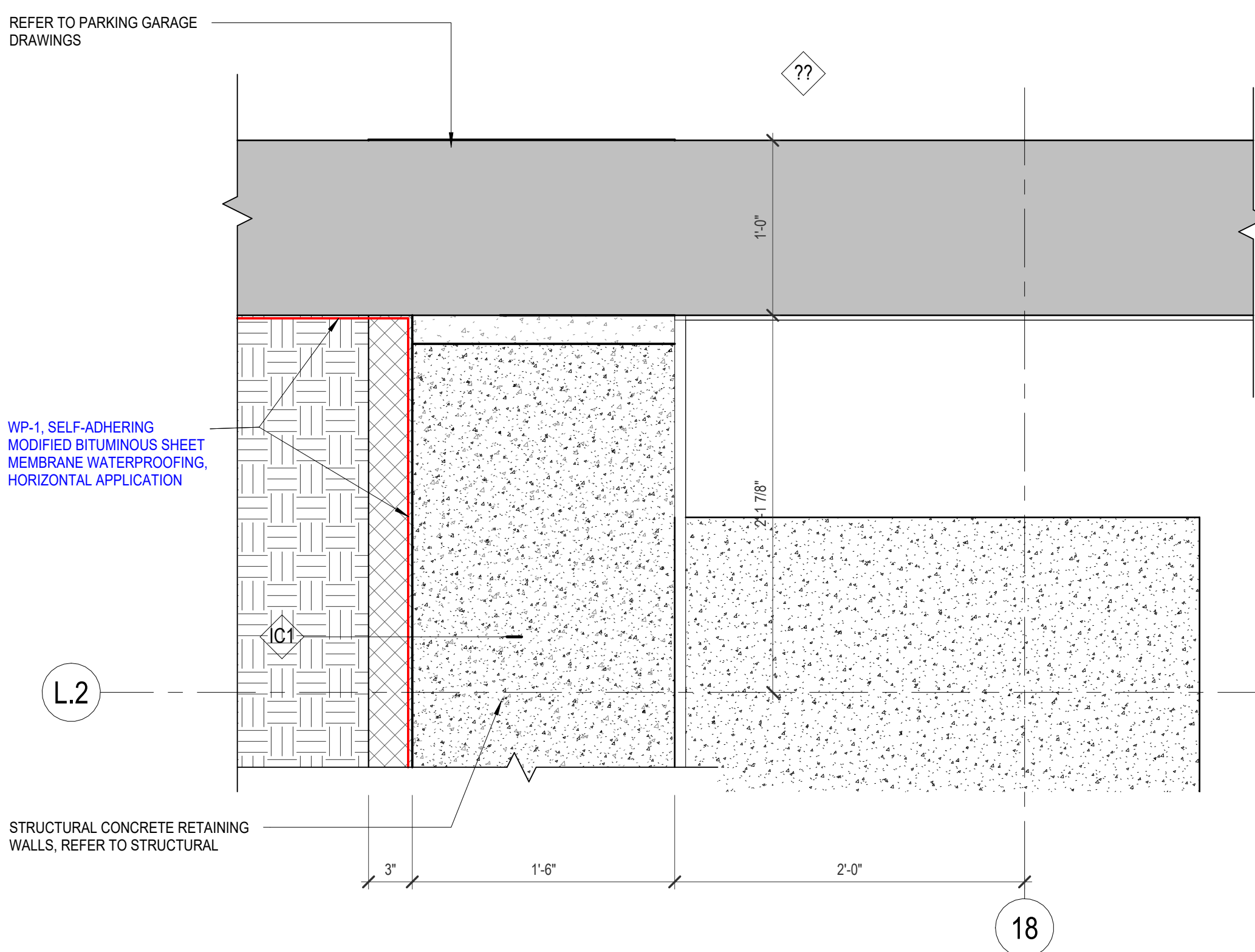
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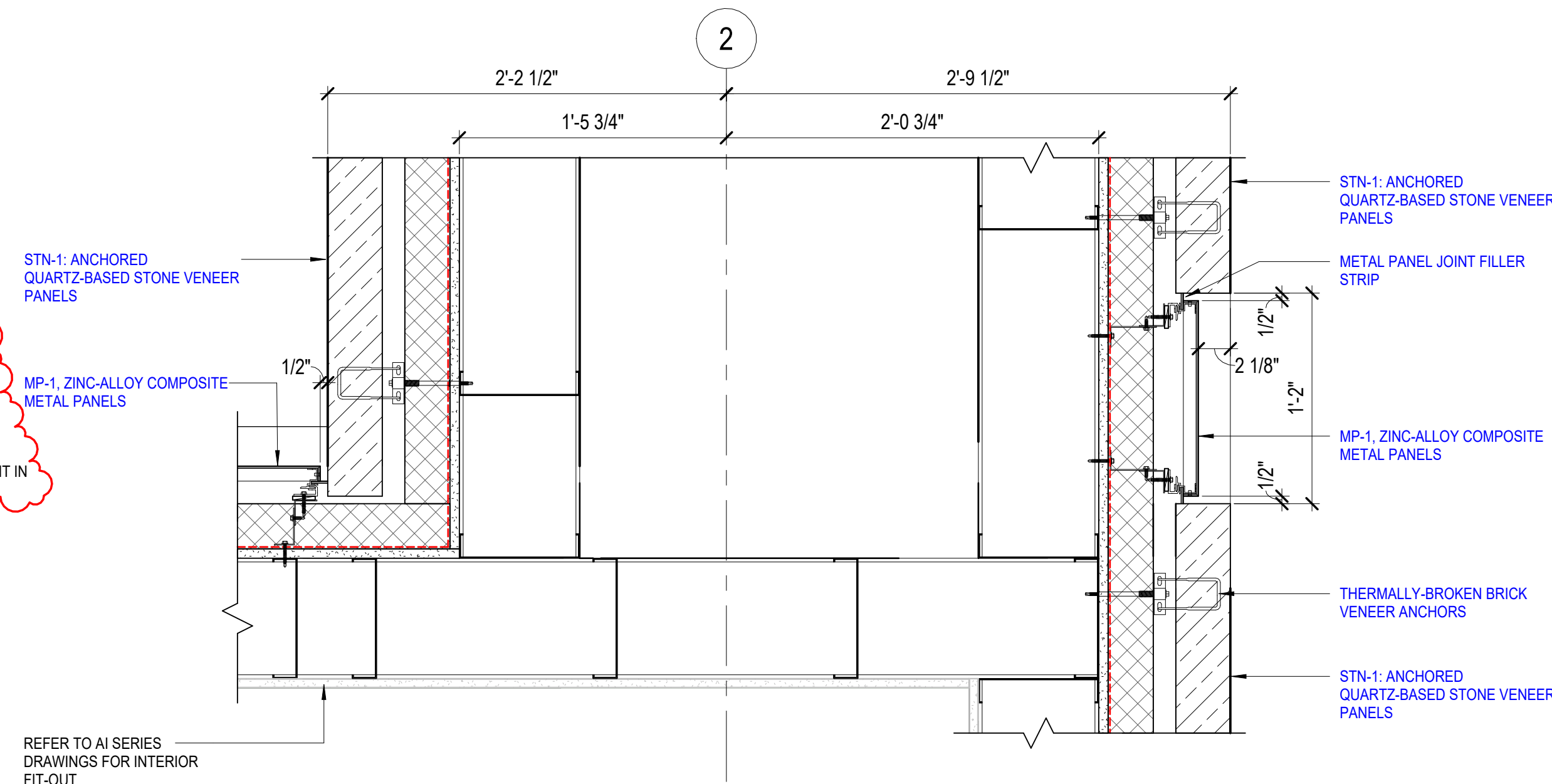
9 PLAN DETAIL - CONNECTOR CURTAIN @ PARKING GARAGE WALL  
1 1/2" = 1'-0"  
1/A201.C



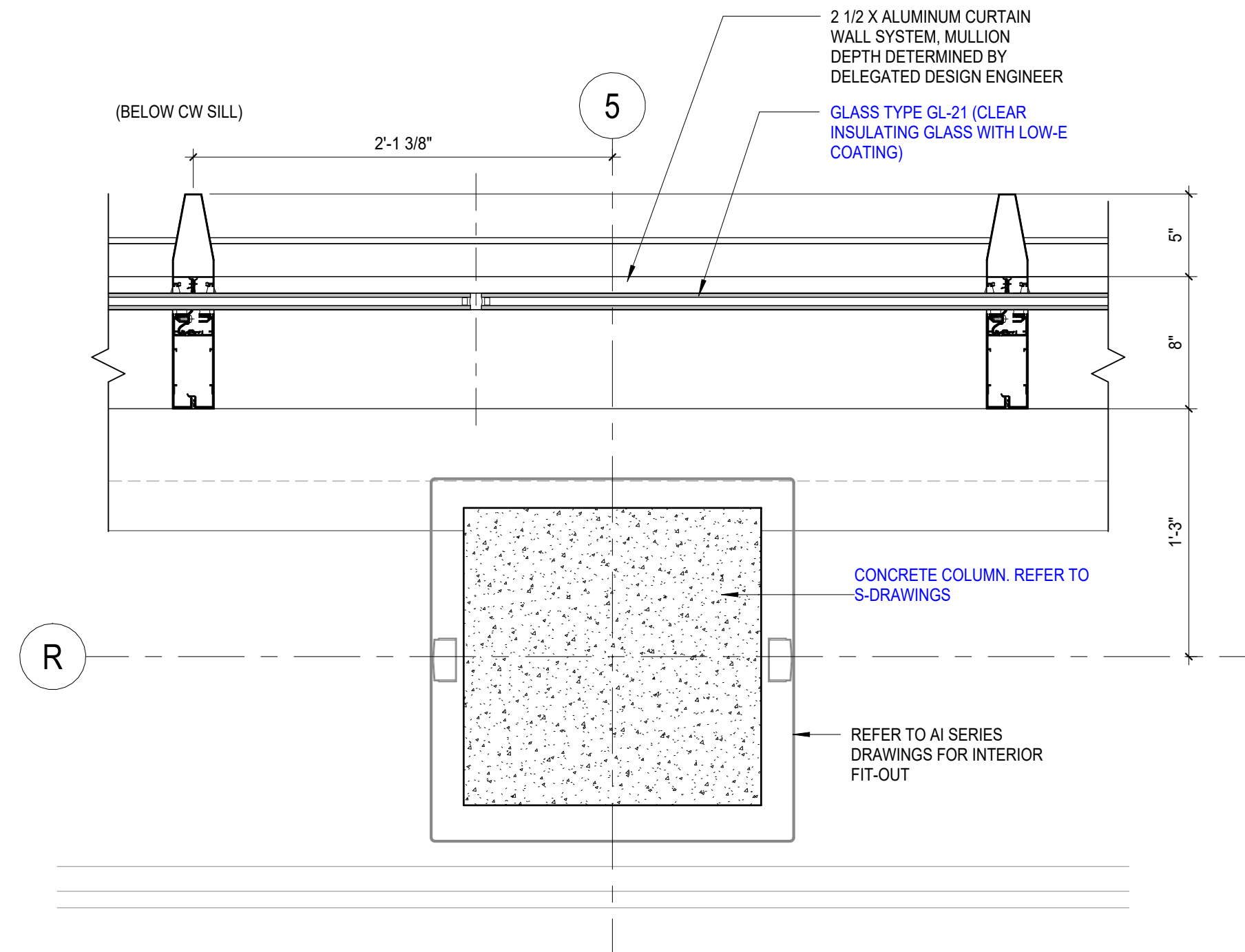
6 PLAN DETAIL - LEVEL 1 R/7  
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1/A201.D



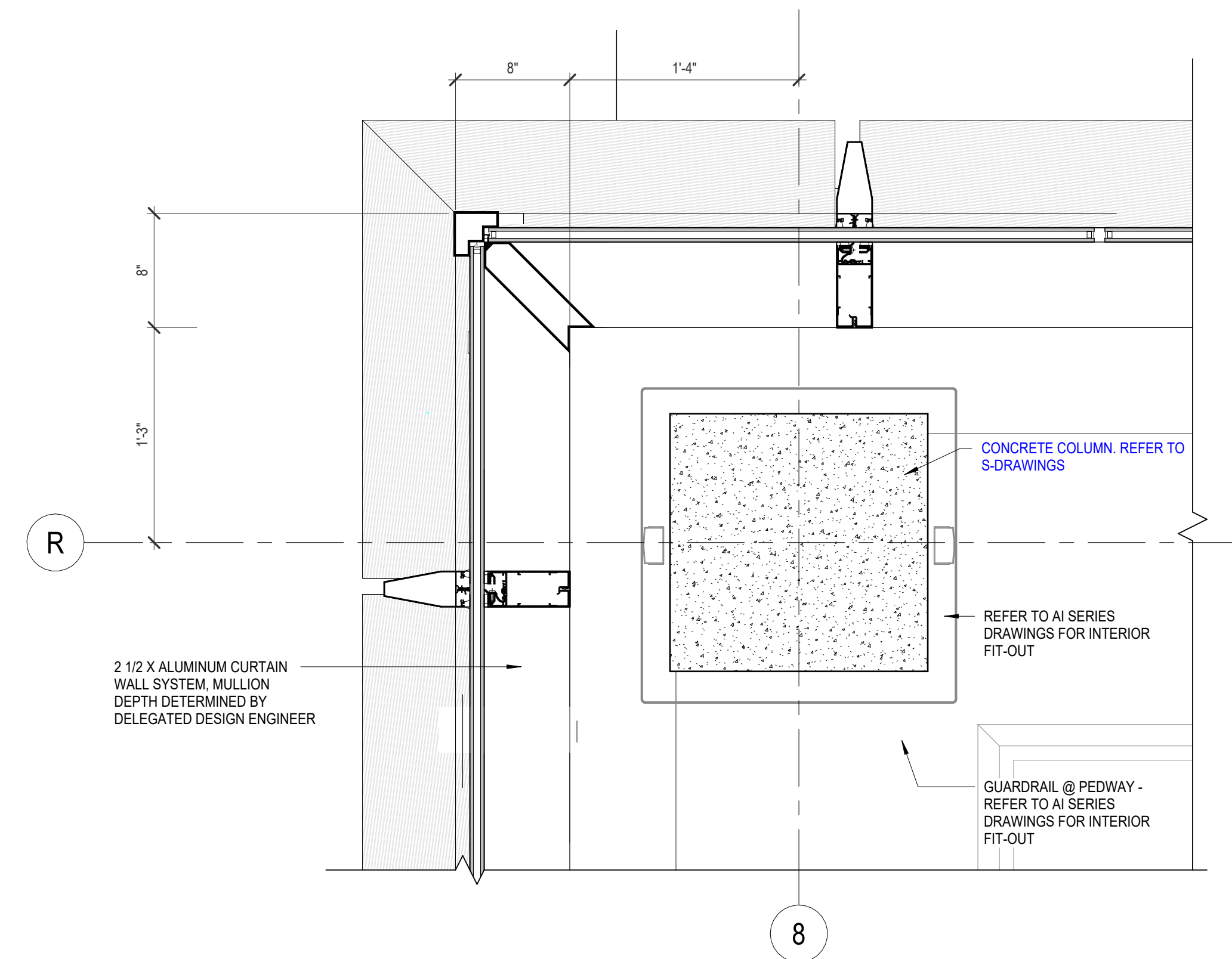
3 PLAN DETAIL - CONNECTOR CURTAIN WALL TERMINATION AT GARAGE  
1 1/2" = 1'-0"



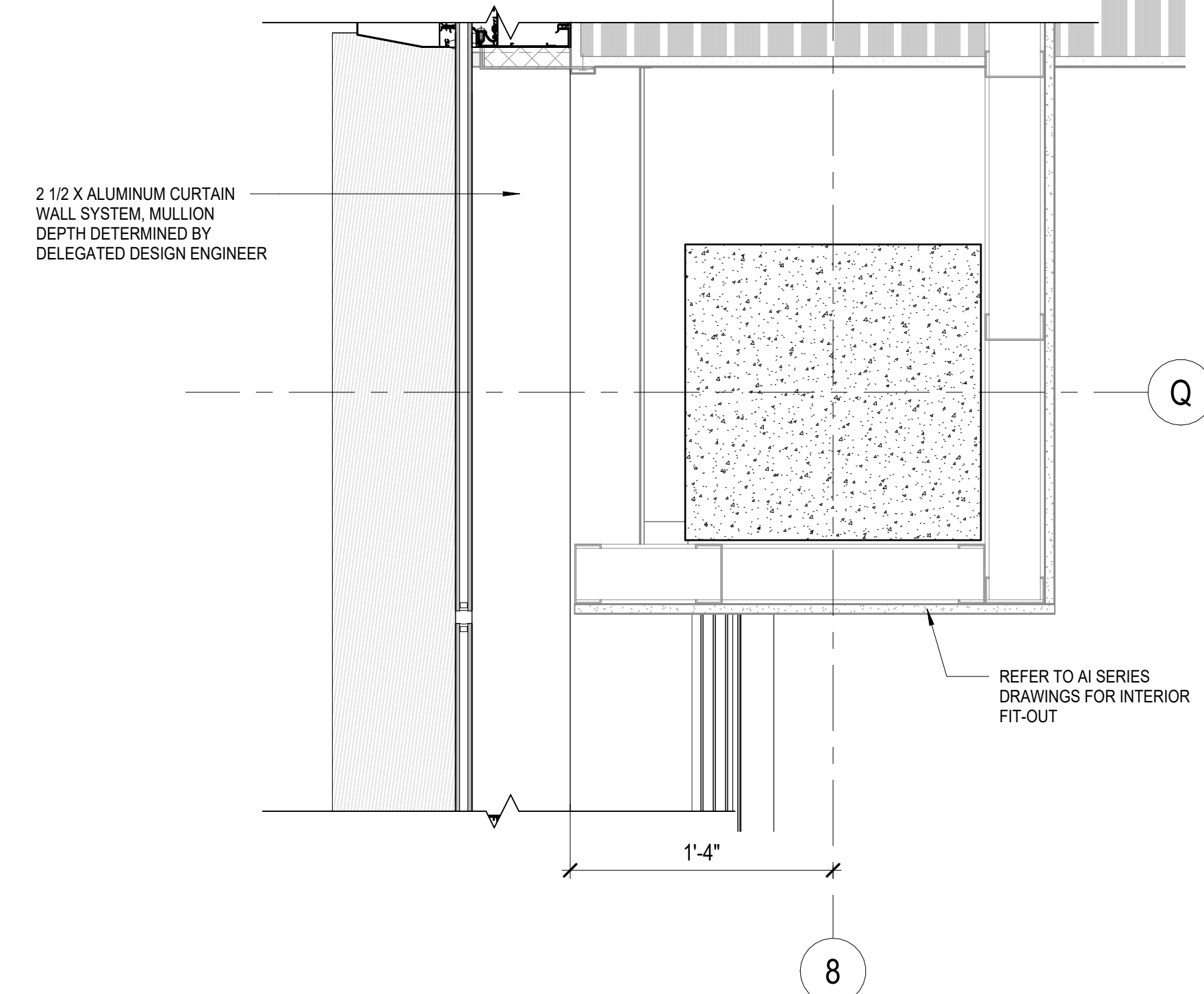
8 PLAN DETAIL - NORTHEAST WING WALL  
1 1/2" = 1'-0"  
1/A200.A



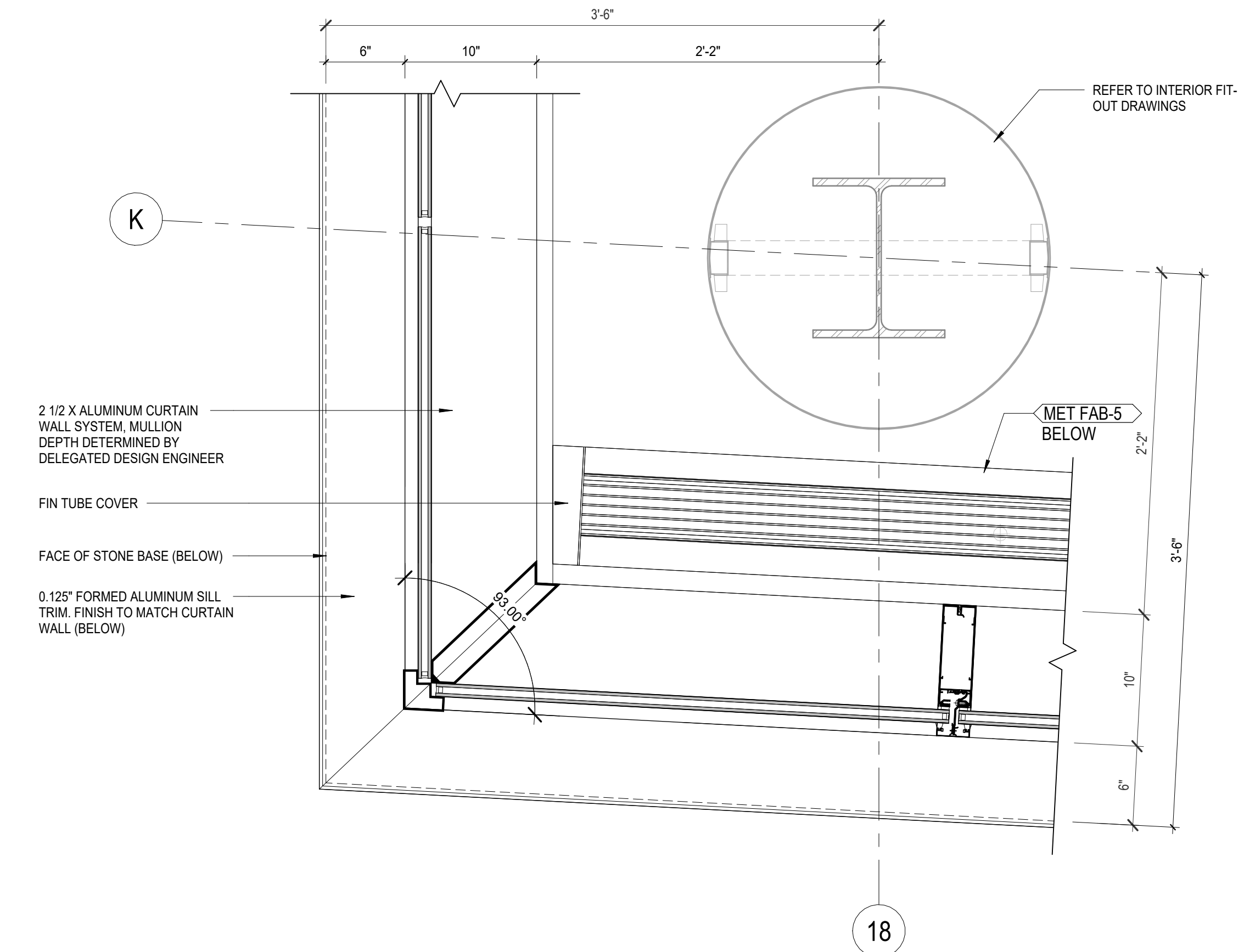
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1/A201.D



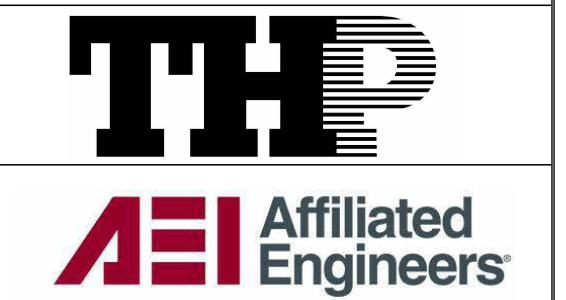
7 PLAN DETAIL - LEVEL 1 R/8  
1 1/2" = 1'-0"  
1/A201.D



4 PLAN DETAIL - LEVEL 1 Q/8  
1 1/2" = 1'-0"  
1/A201.B



1 PLAN DETAIL - CONNECTOR CURTAIN WALL CORNER  
1 1/2" = 1'-0"  
1/A201.C



**Cancer Treatment Center + Advanced Ambulatory Center**

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| 5   | Group 2 ADD#1      | 08/15/24 |

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| Checked By     | Checker |
| Client Number  | 514     |
| Project Number | 6926    |

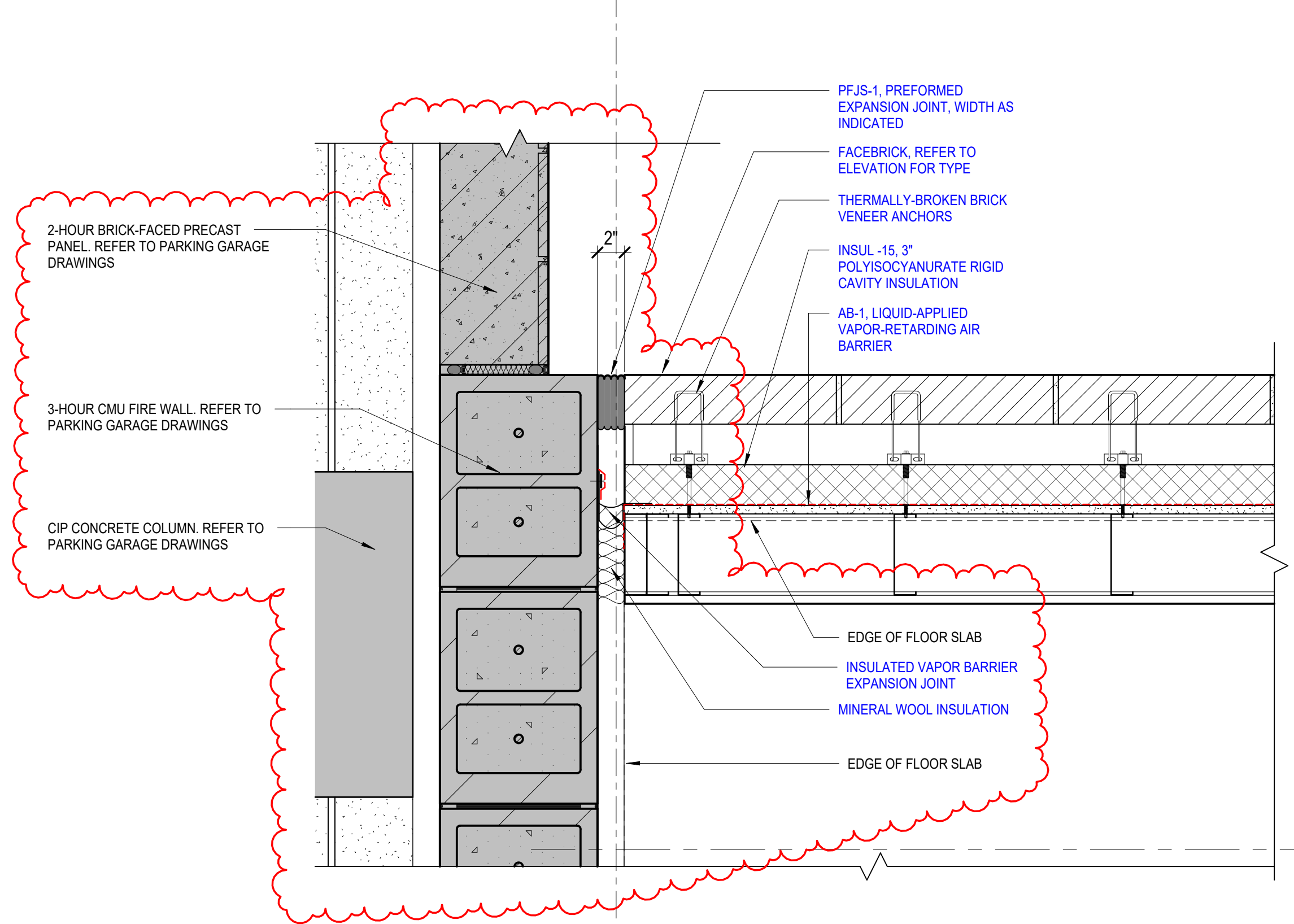
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EXTERIOR PLAN DETAILS

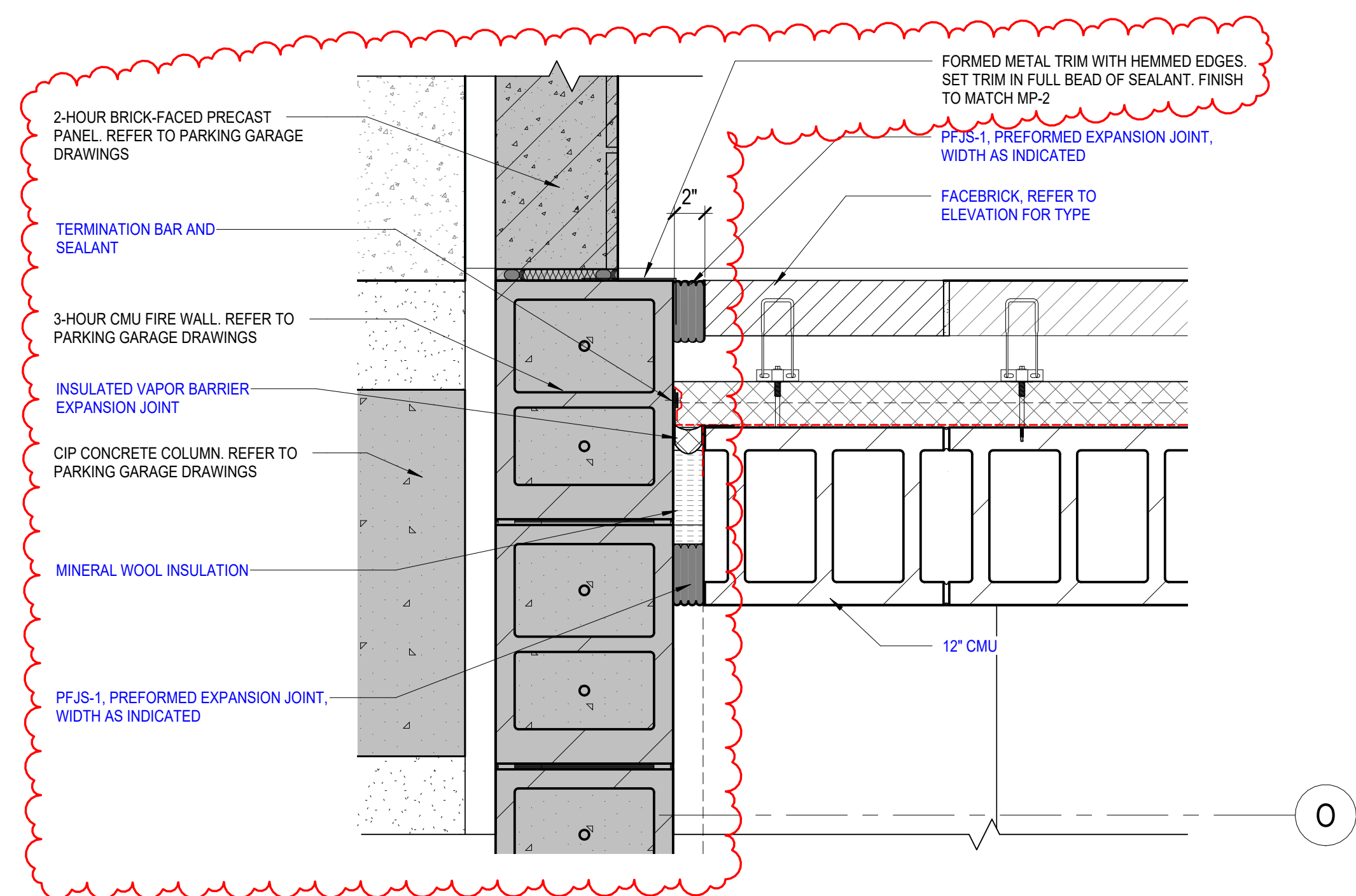
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**A473.A**

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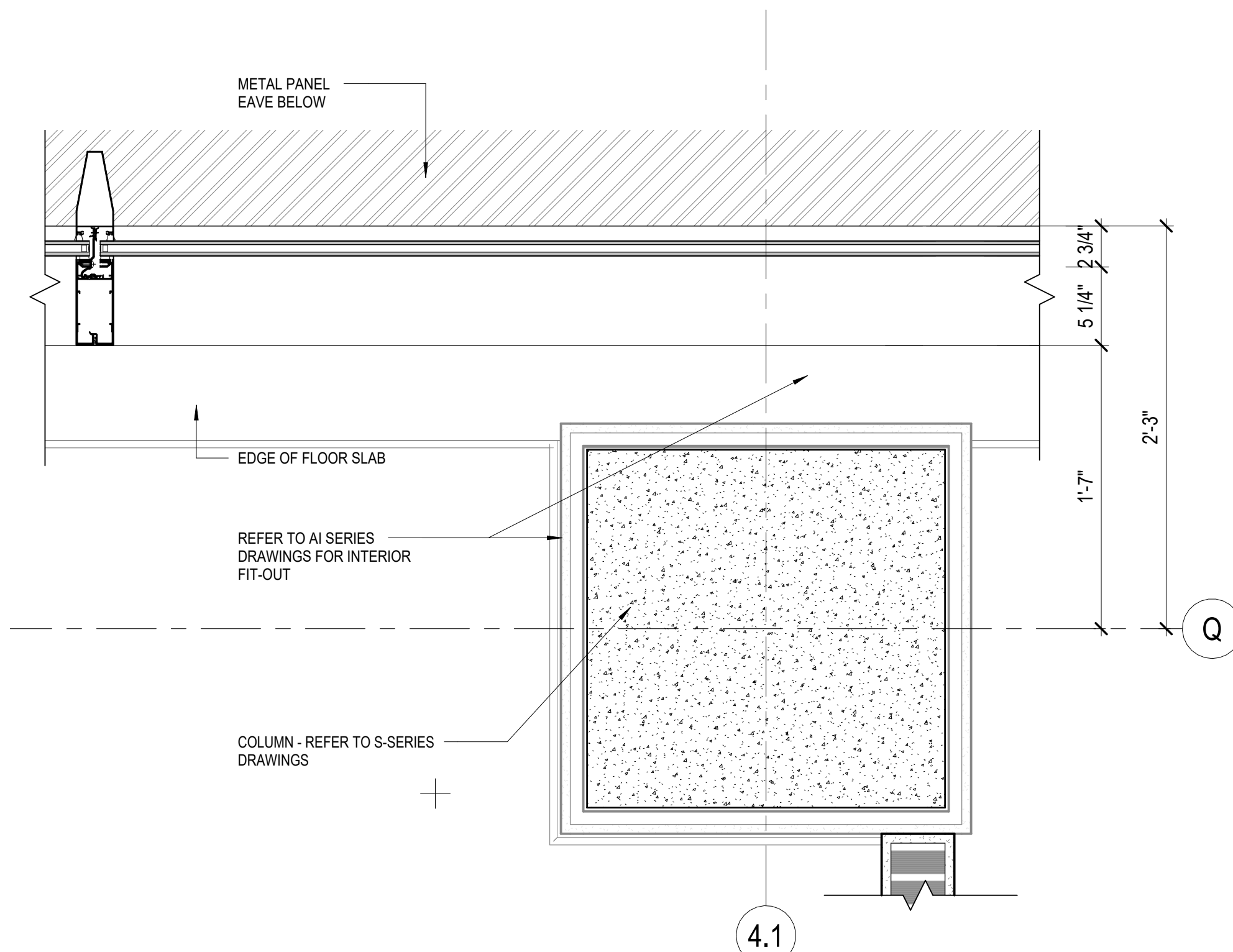




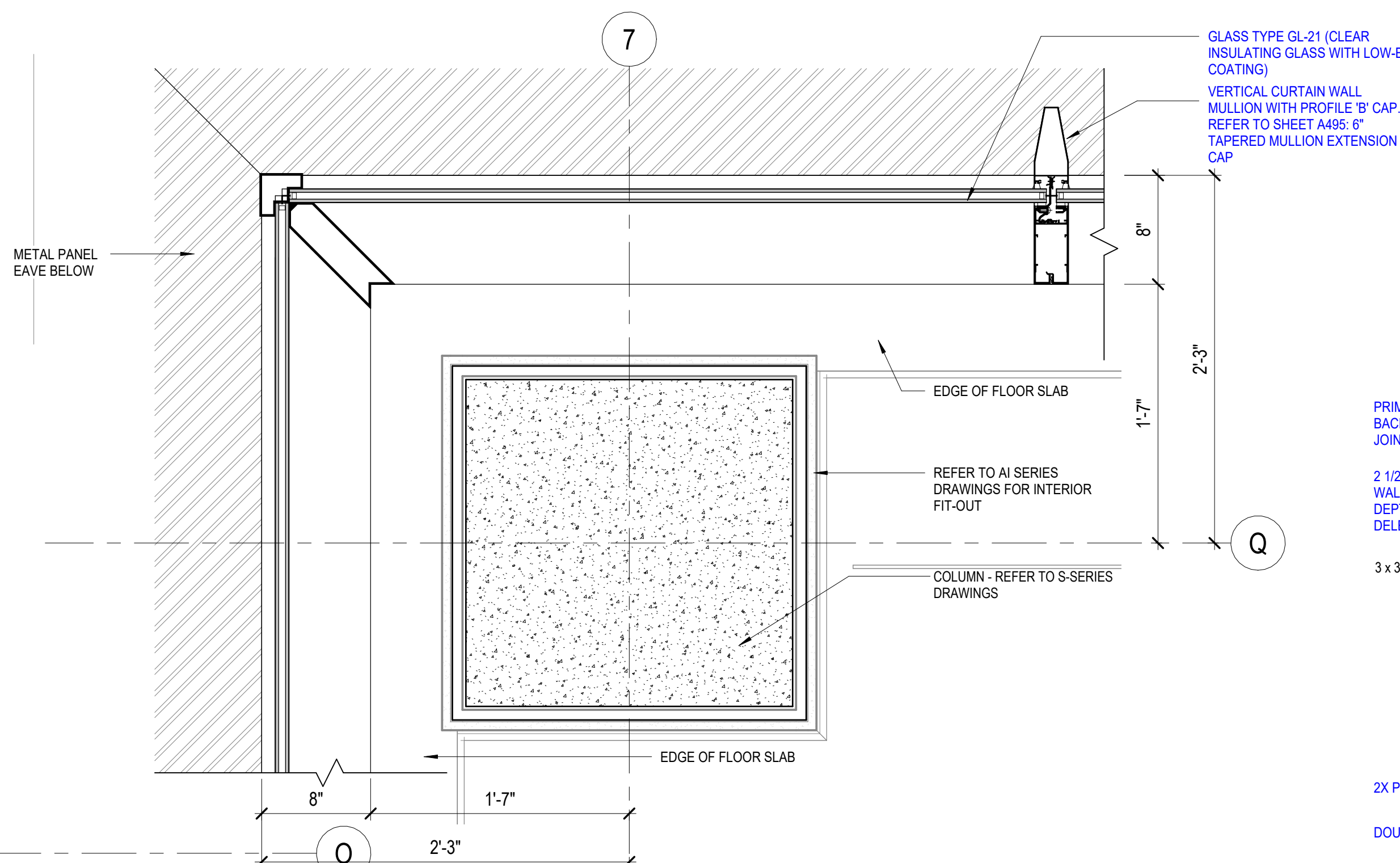
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1/A201.C



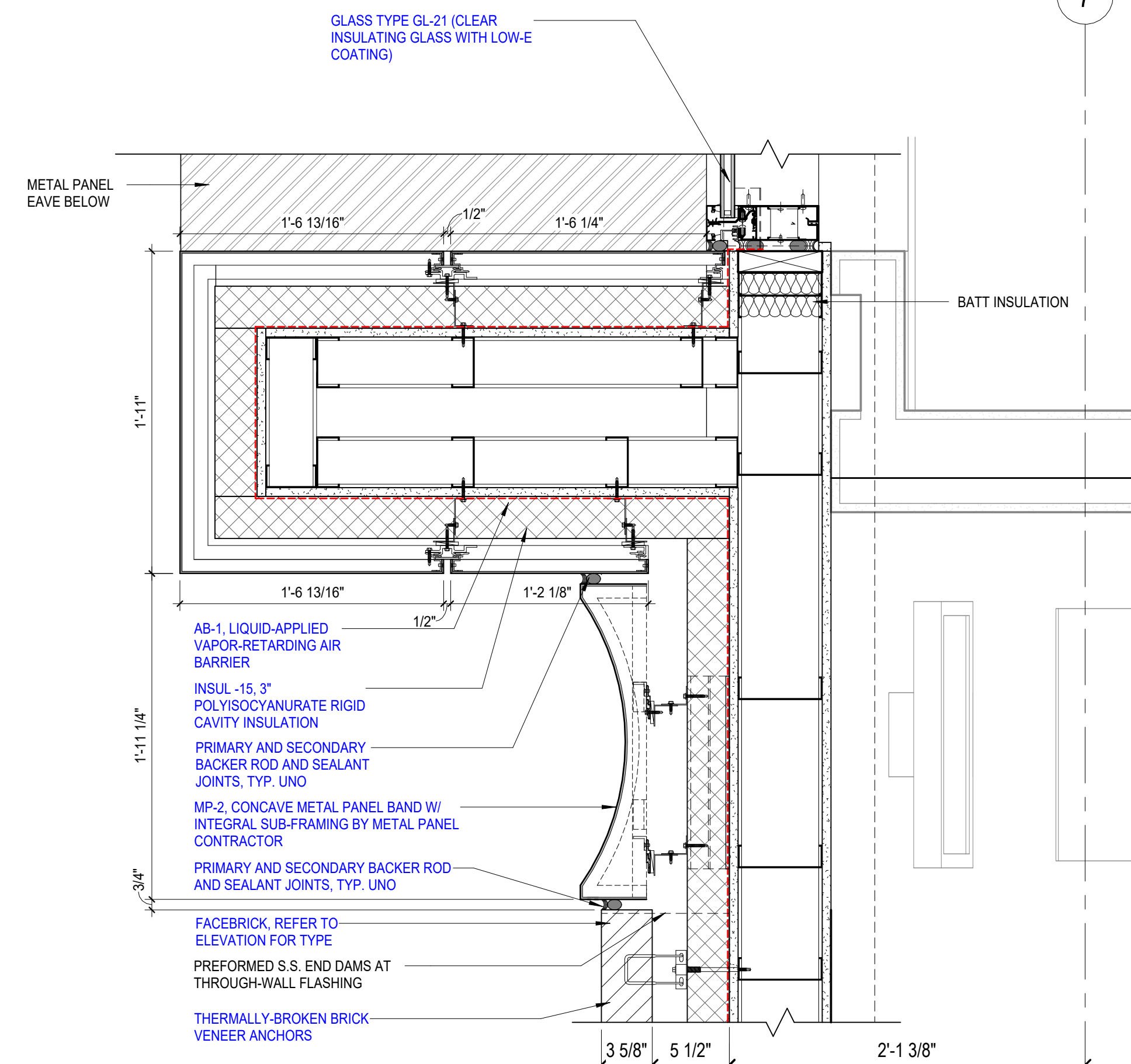
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1/A200.C



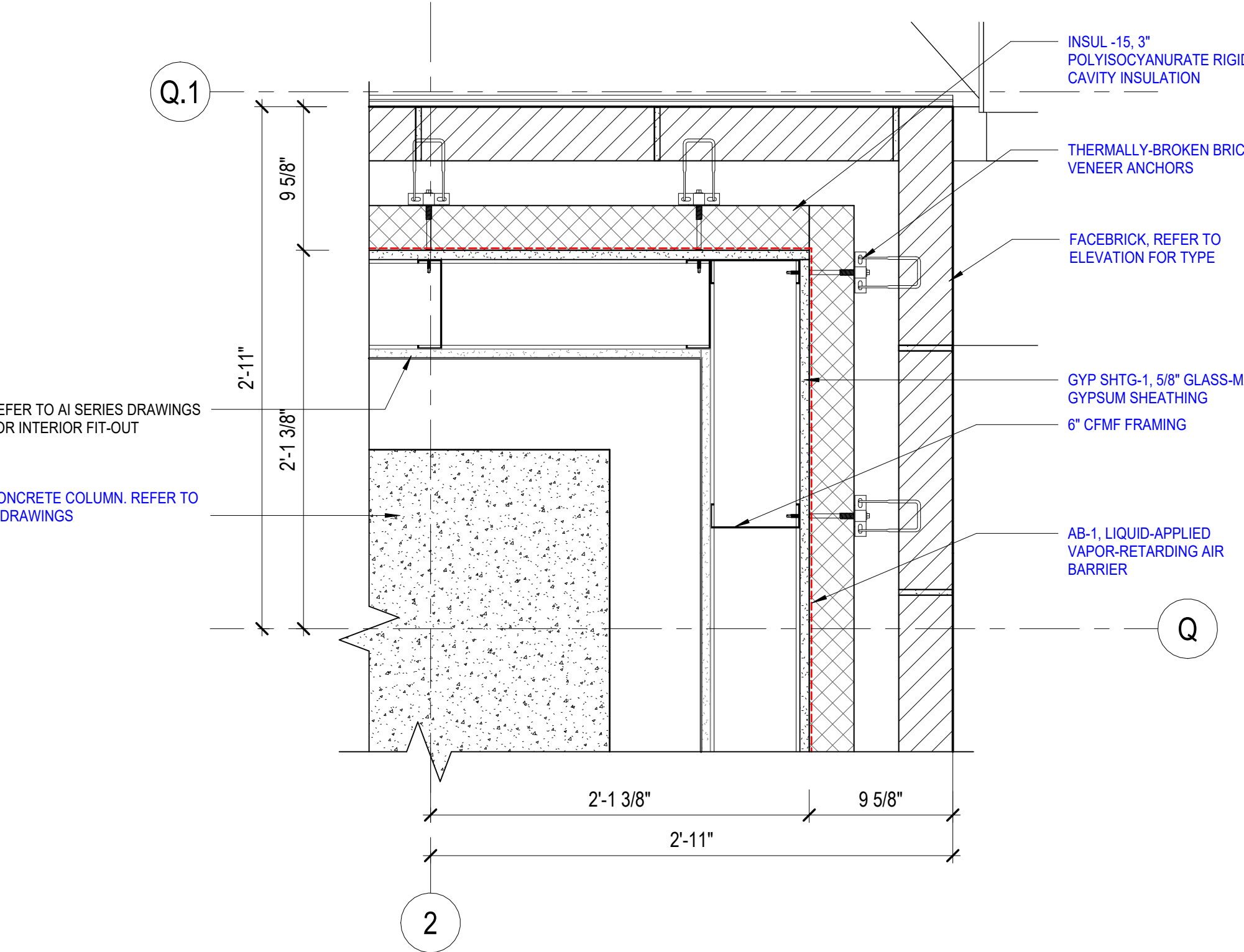
6 PLAN DETAIL - LEVEL 3 BRICK AT O/4.1  
1 1/2" = 1'-0"  
1/A203.B



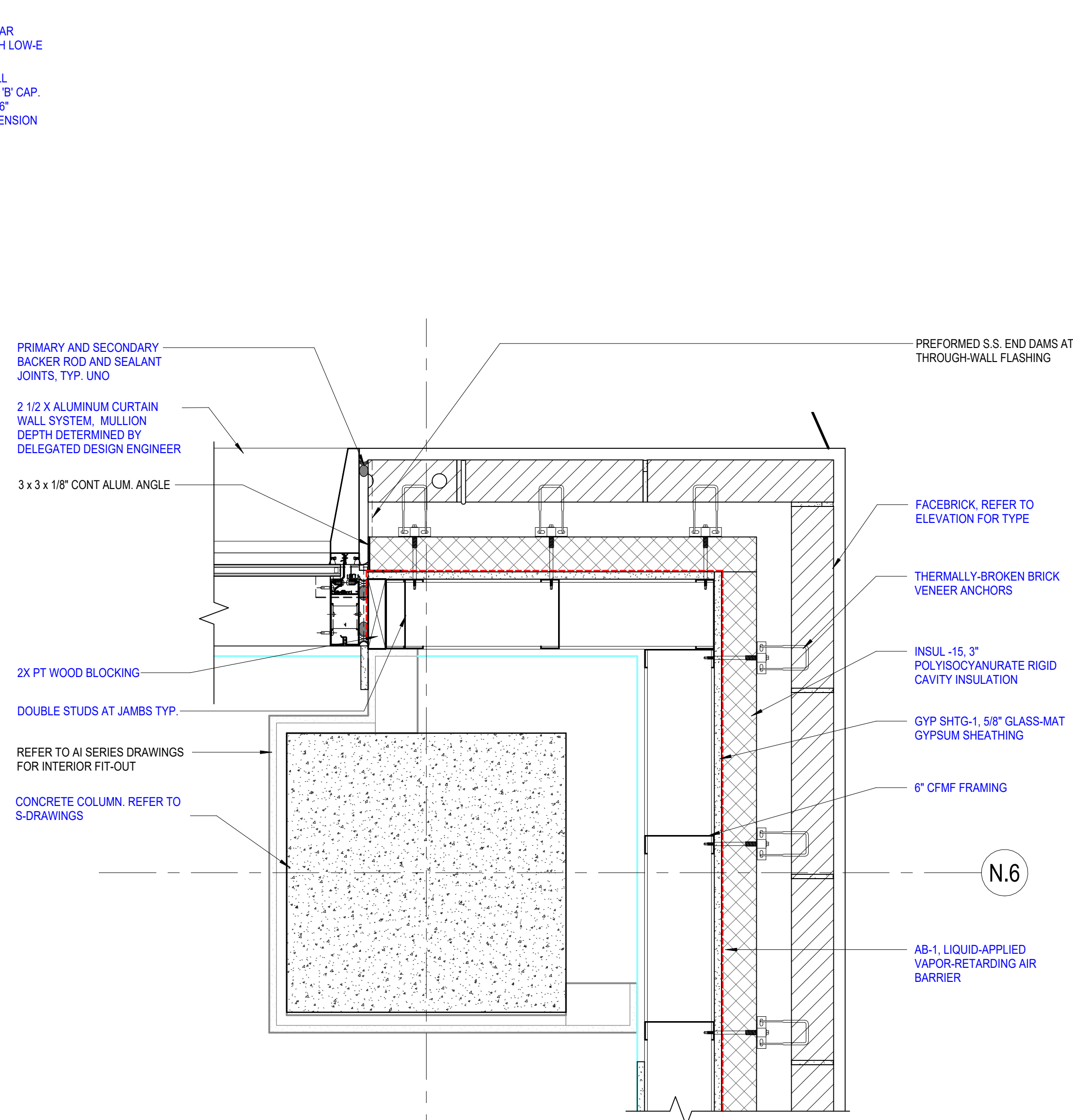
5 PLAN DETAIL - LEVEL 3 BRICK AT O/1  
1 1/2" = 1'-0"  
1/A203.B



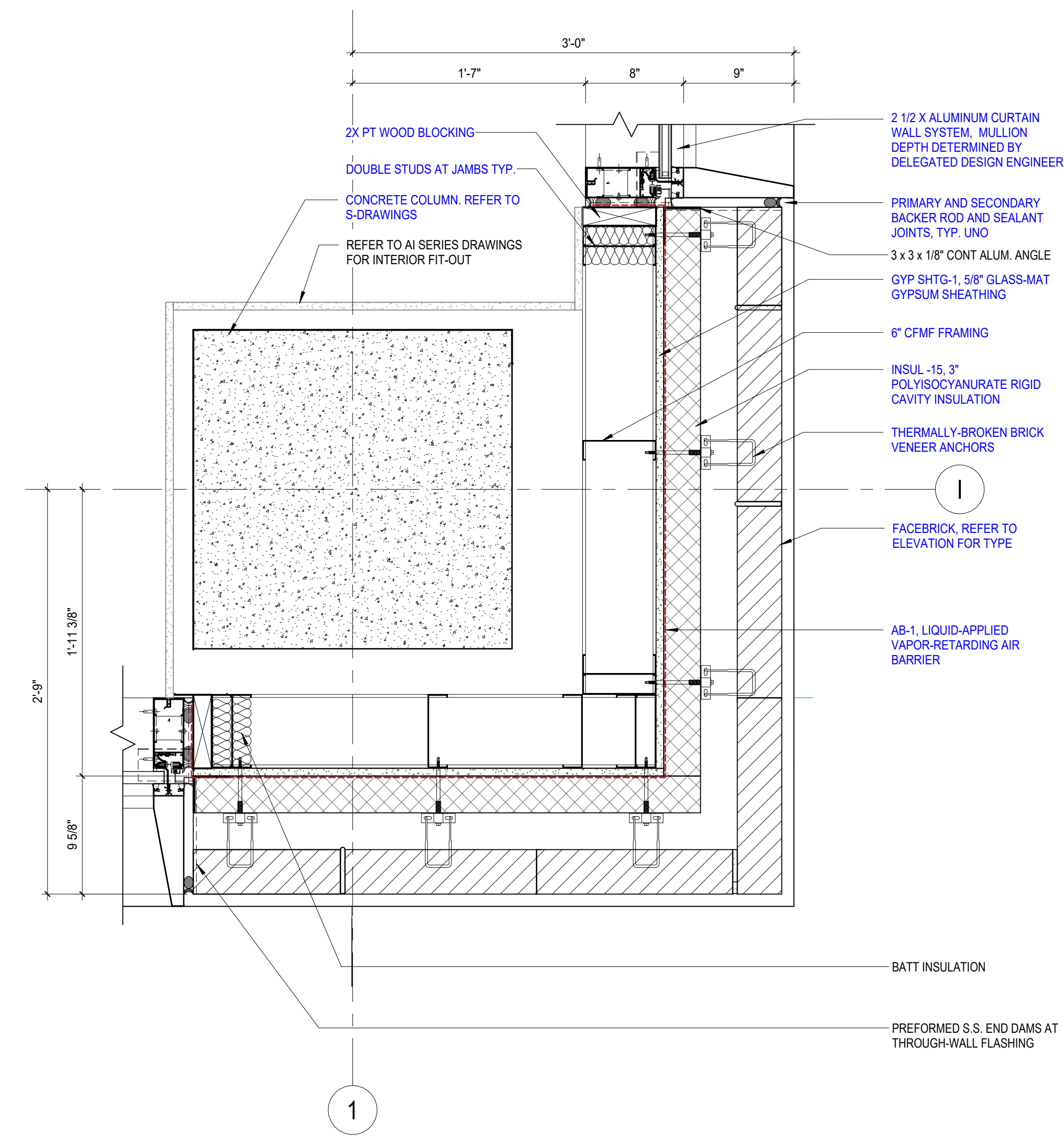
4 PLAN DETAIL - LEVEL 3 BRICK AT O/7  
1 1/2" = 1'-0"  
1/A203.B



3 ENLARGED PLAN DETAIL - BRICK CORNER LEVEL 2 AT Q/2  
1 1/2" = 1'-0"  
1/A202.B



2 ENLARGED PLAN DETAIL - BRICK CORNER LEVEL 2 AT N.6/1  
1 1/2" = 1'-0"  
1/A202.B



1 ENLARGED PLAN DETAIL - BRICK CORNER LEVEL 2 AT I/1  
1 1/2" = 1'-0"  
1/A202.B

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CIVIL ENGINEERING

**WALSH**

CONSULTING GROUP

**bell**  
engineering

**CDM Smith**

**PIVOTAL**

lighting design

**UK**  
HEALTHCARE

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| 3   | BP-07 BID & PERMIT | 04/30/24 |
| 4   | Group 2 ADD#1      | 08/15/24 |

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Client Number

514

Project Number

6926

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**EXTERIOR PLAN  
DETAILS**

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**A473.D**

8/13/2024 11:31:50 AM





# OLIN



WALSH  
CONSULTING GROUP

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**CDM**  
**Smith**

**PIVOTAL**  
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| 3   | BP-07 BID & PERMIT | 04/30/24 |
| 4   | BP-07 ADDENDUM #2  | 06/12/24 |
| 5   | BP-07 ADDENDUM #4  | 06/19/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

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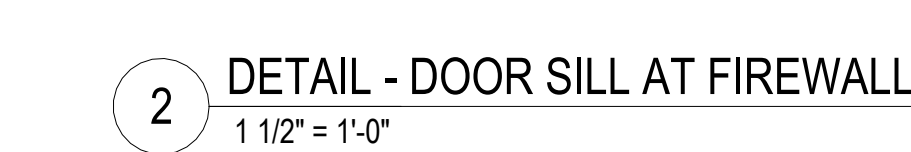
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| Author         |                                                                                       |
| Checked By     |                                                                                       |
| Checker        |                                                                                       |
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| Project Number | 6926                                                                                  |

|               |  |
|---------------|--|
|               |  |
| DRAWING TITLE |  |

## EXPANSION JOINT DETAILS

SHEET NO.

A486





ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
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| 2   | C&S 90% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | Group 2 ADD#1      | 08/22/24 |

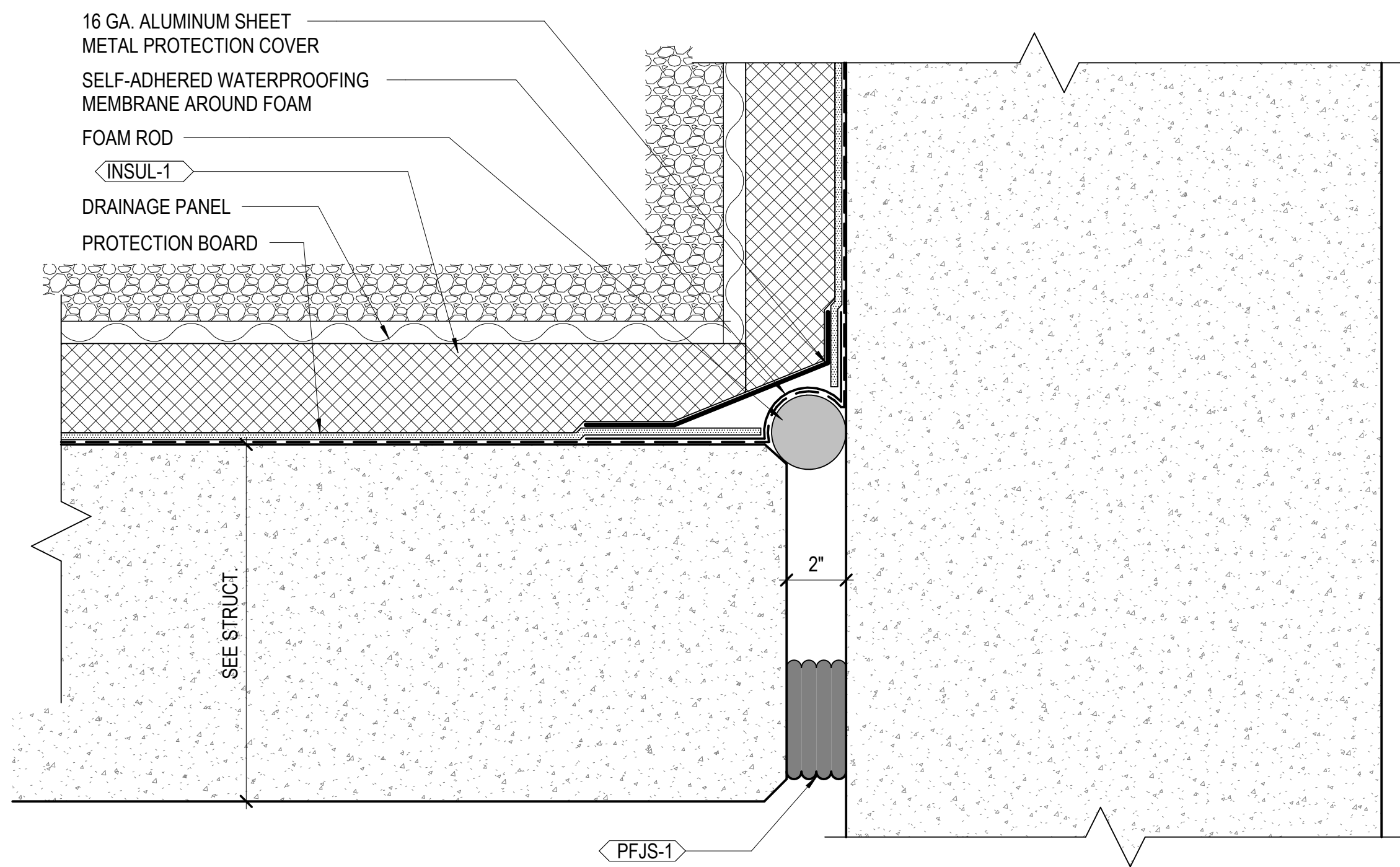
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| Checked By     | Checker |
| Client Number  | 514     |
| Project Number | 6926    |

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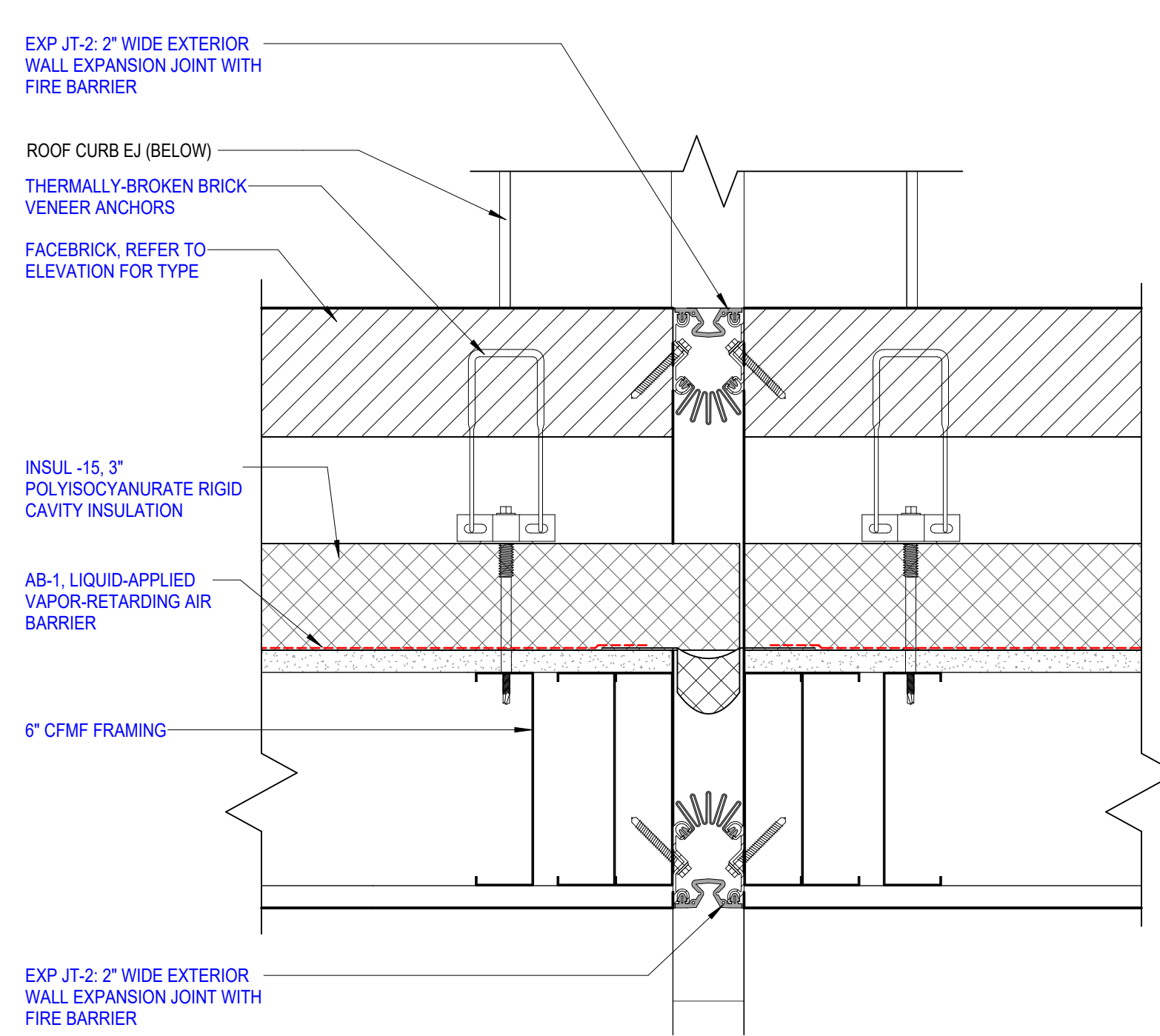
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DETAILS

SHEET NO.  
**A487**

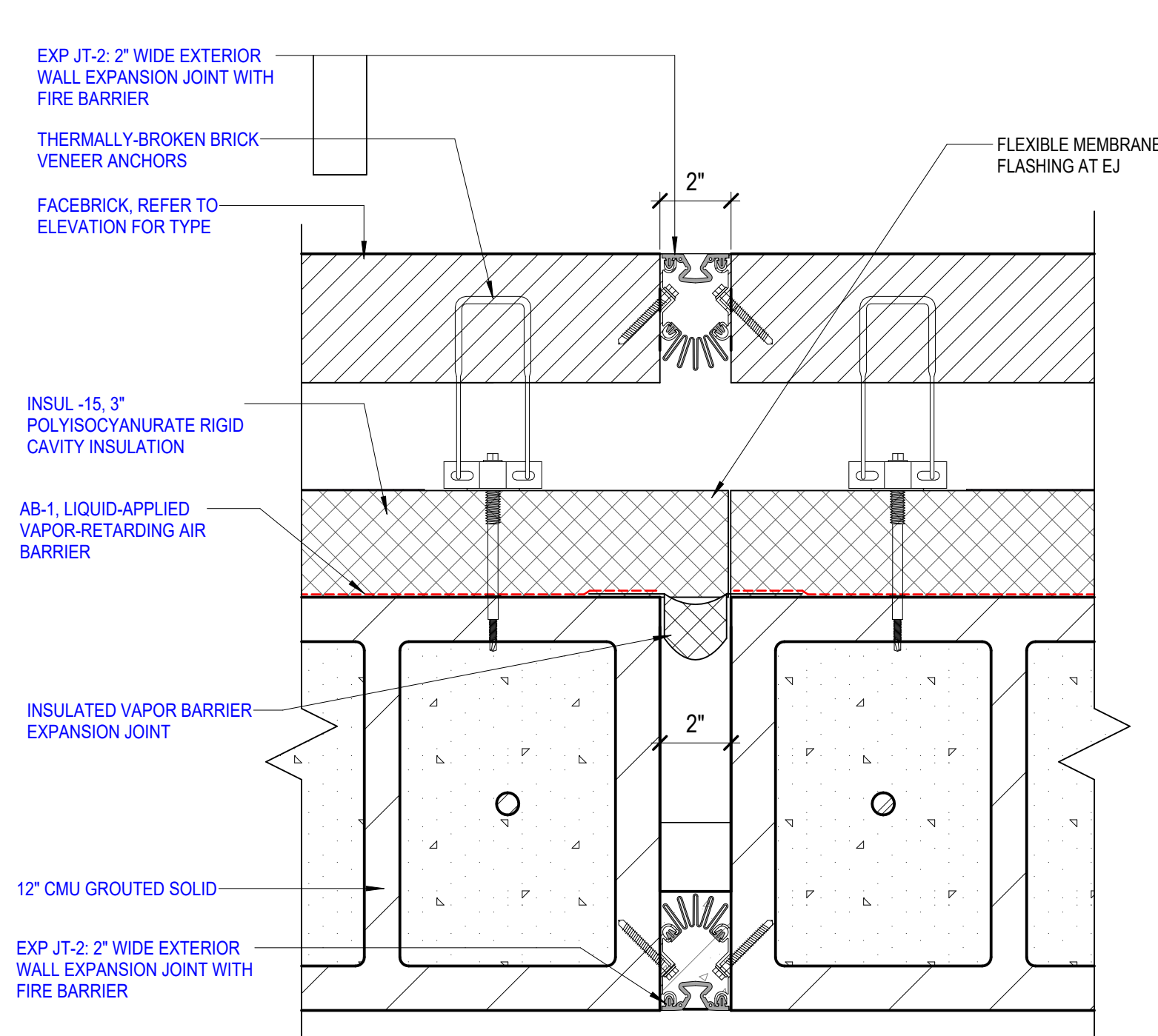
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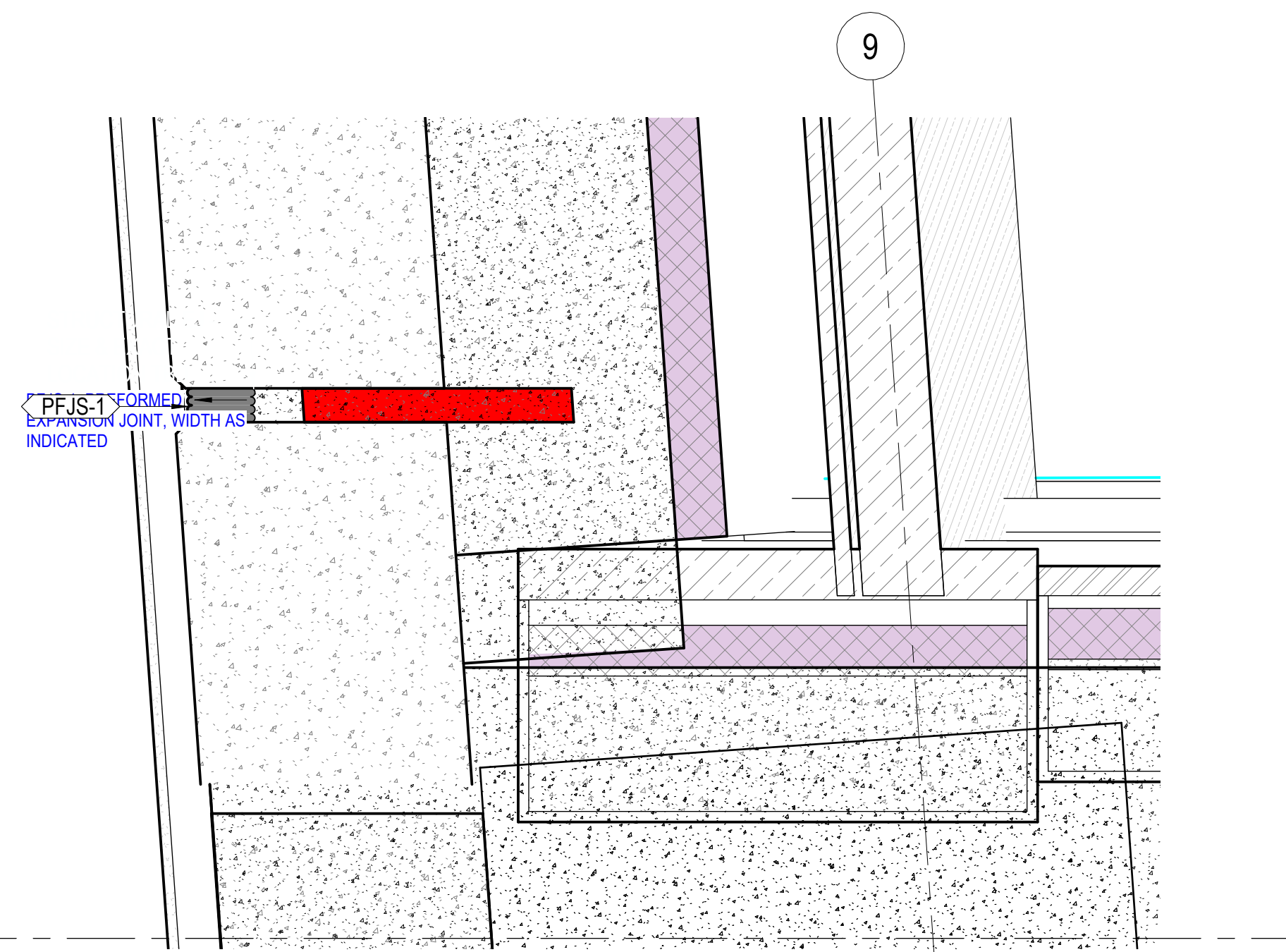
9 SECTION DETAIL - EJ @ TUNNEL LID / BUILDING FOUNDATION  
3" = 1'-0"  
2/A456



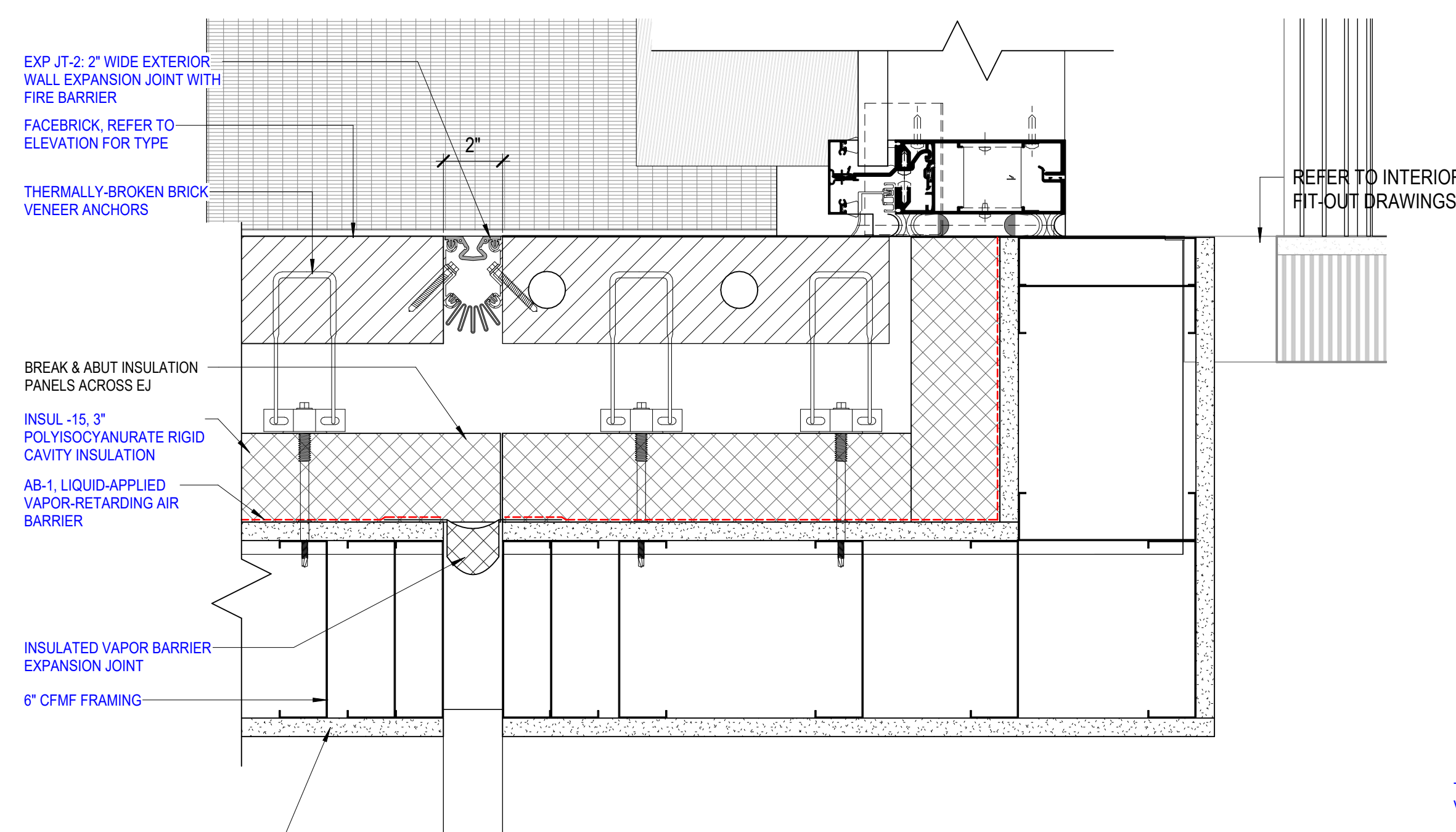
6 PLAN DETAIL - EJ @ LEVEL 02 CONNECTOR  
3" = 1'-0"  
1/A200.B



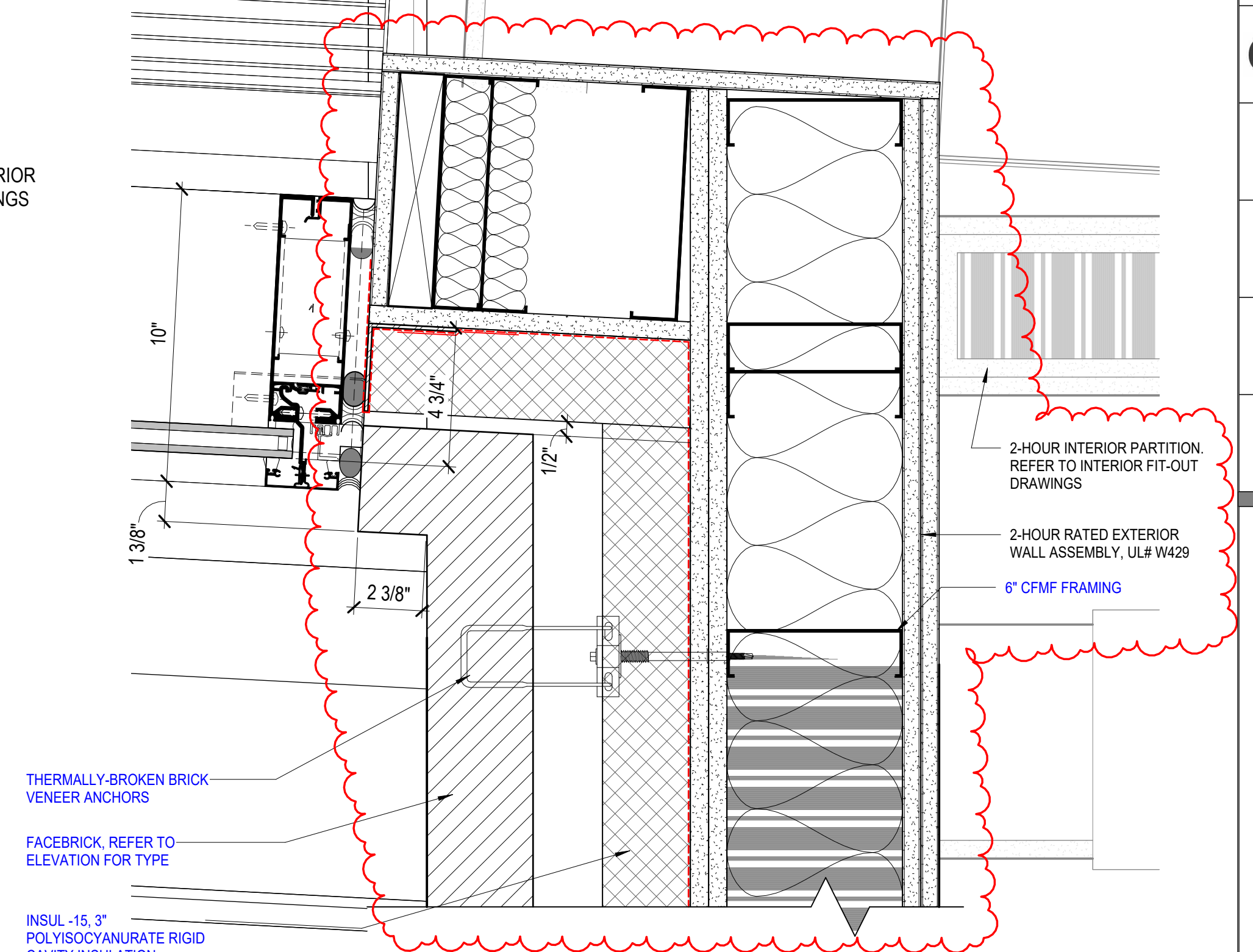
3 PLAN DETAIL - EJ @ LEVEL 00 DOCK  
3" = 1'-0"  
1/A200.B



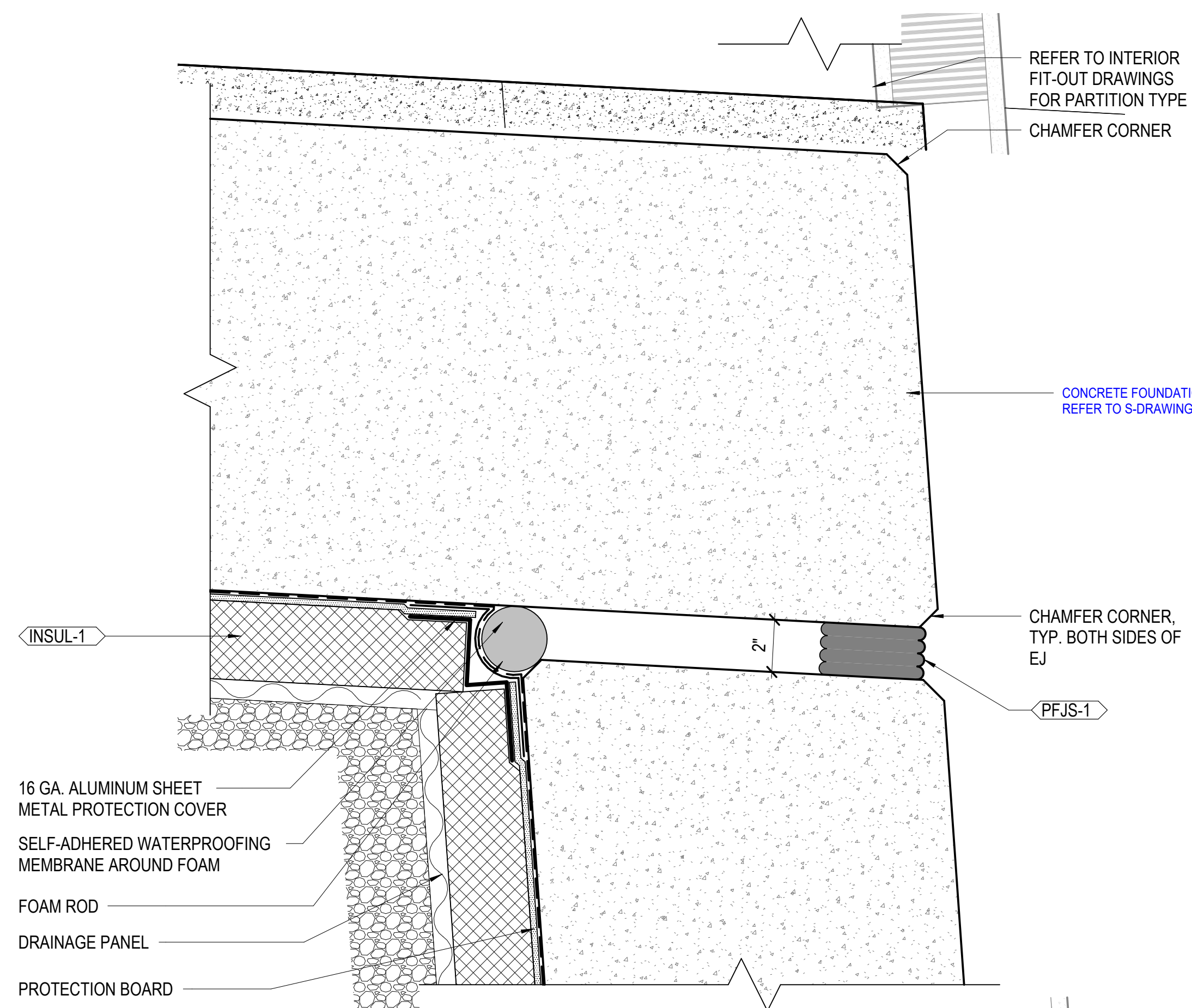
8 PLAN DETAIL - EJ @ LEVEL 00 TUNNEL (WEST)1  
1 1/2" = 1'-0"  
1/A200.B



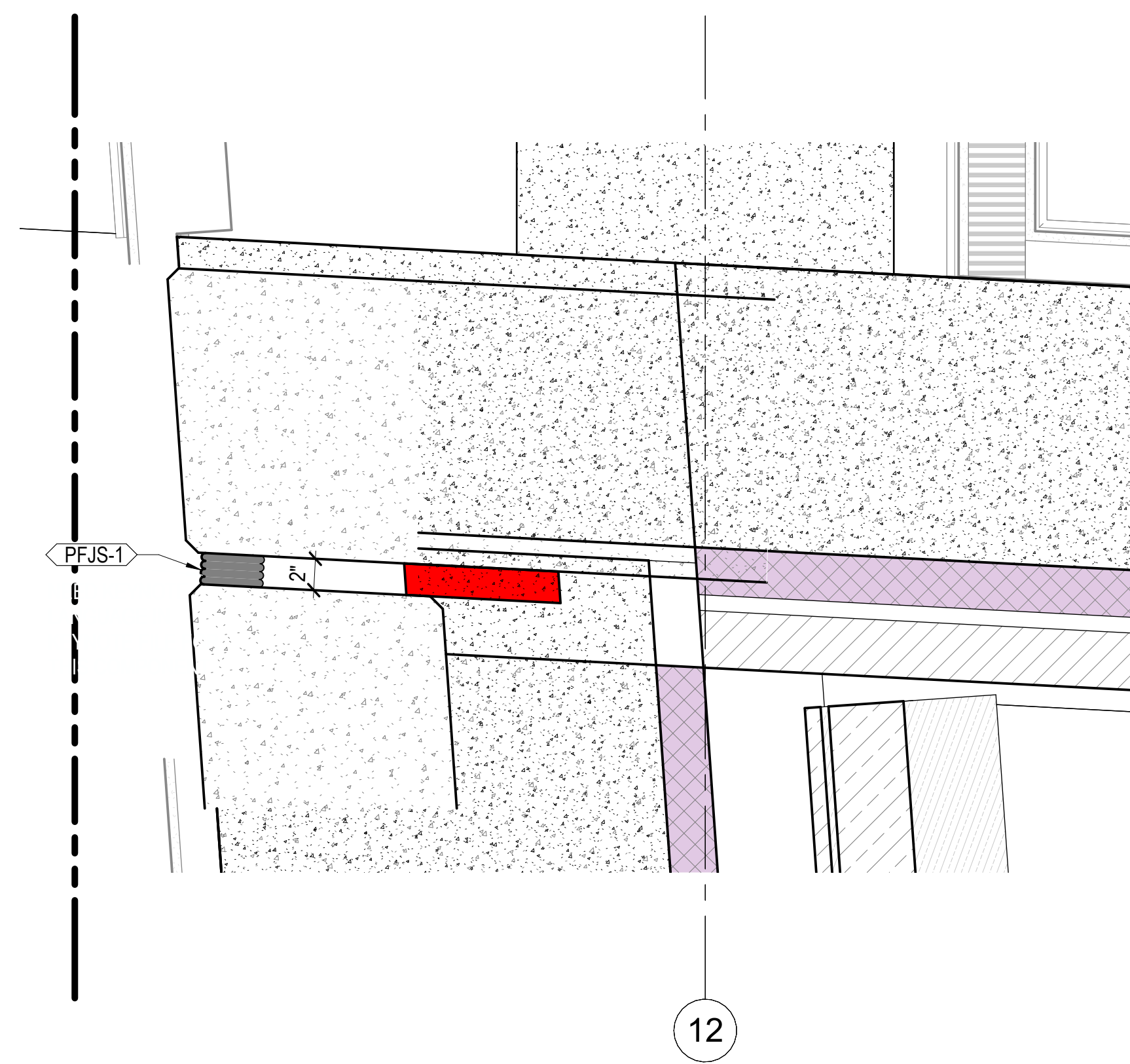
5 PLAN DETAIL - EJ @ LEVEL 01 CONNECTOR  
3" = 1'-0"  
1/A201.B



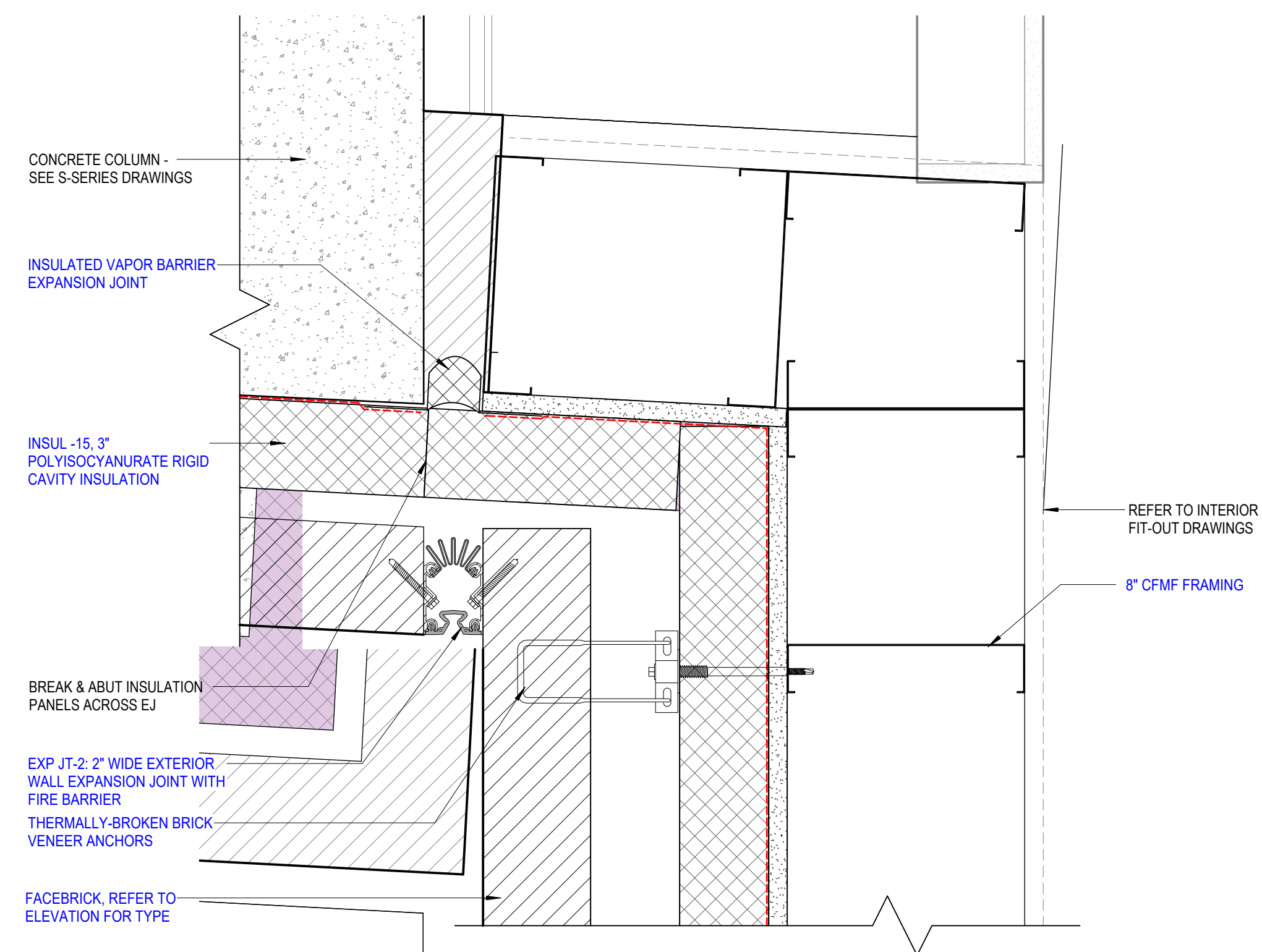
2 PLAN DETAIL - EJ @ LEVEL 01 CONNECTOR CURTAINWALL  
3" = 1'-0"  
1/A201.B



7 PLAN DETAIL - EJ @ LEVEL 00 TUNNEL (WEST)  
3" = 1'-0"  
1/A200.C

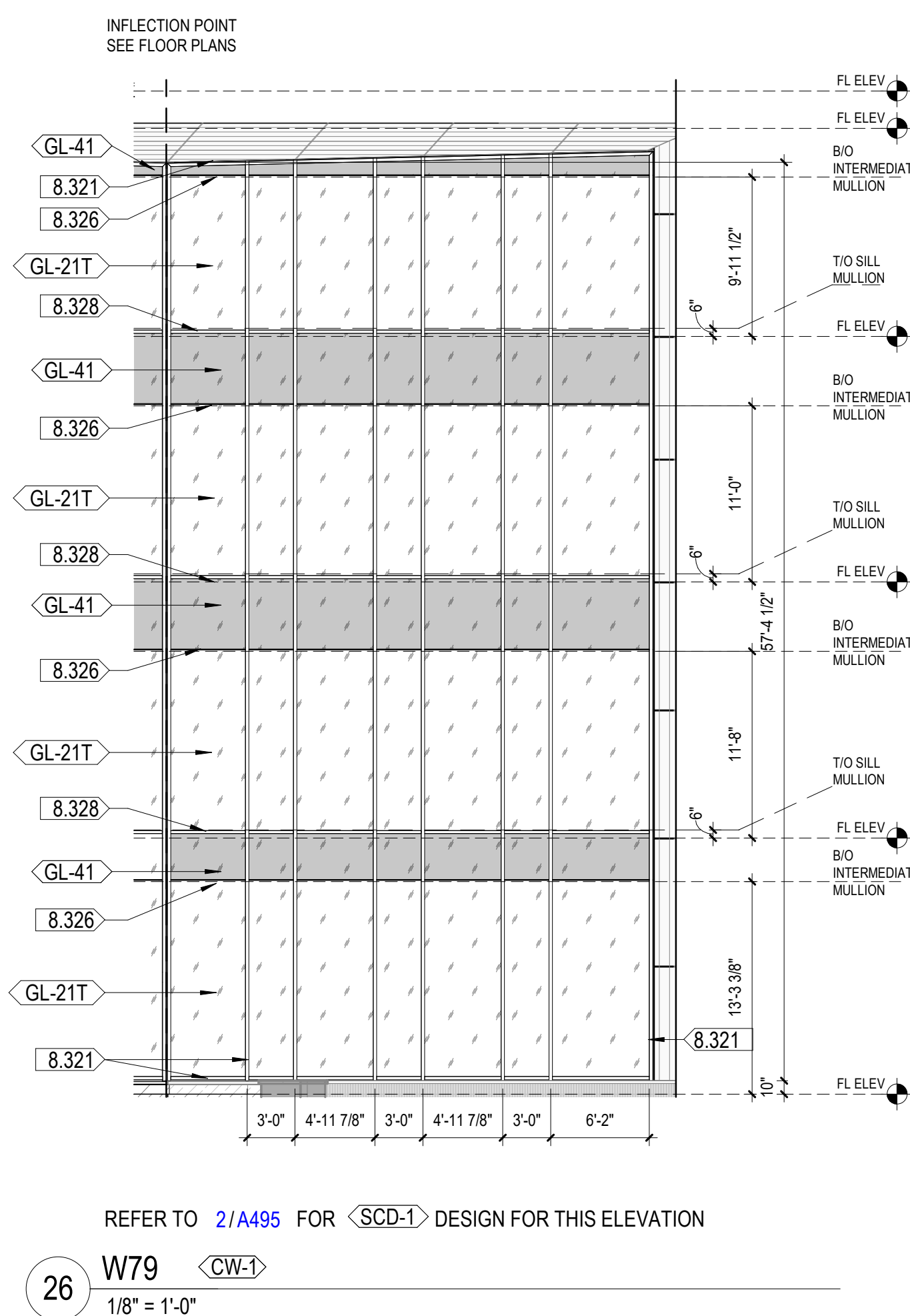
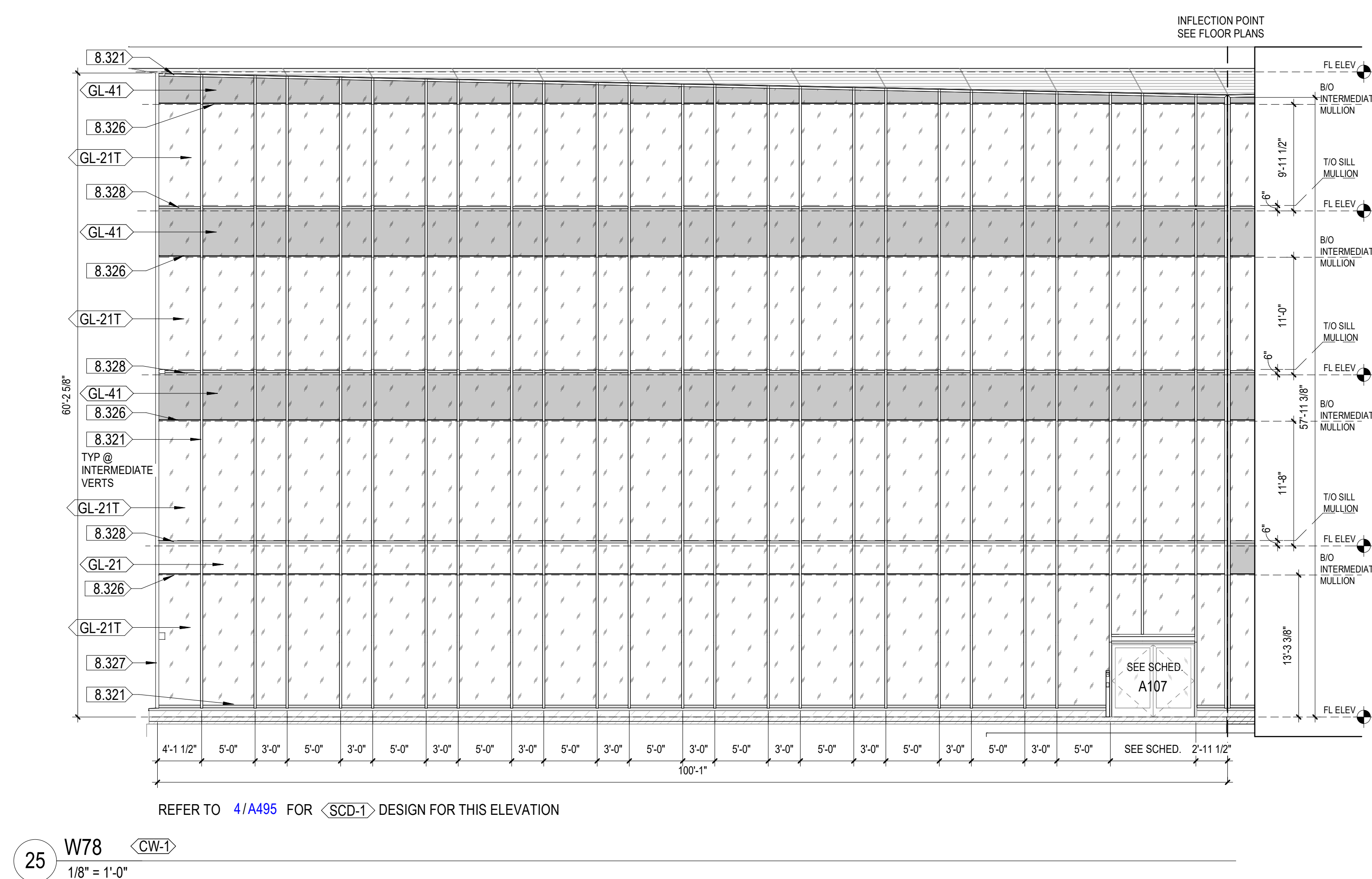
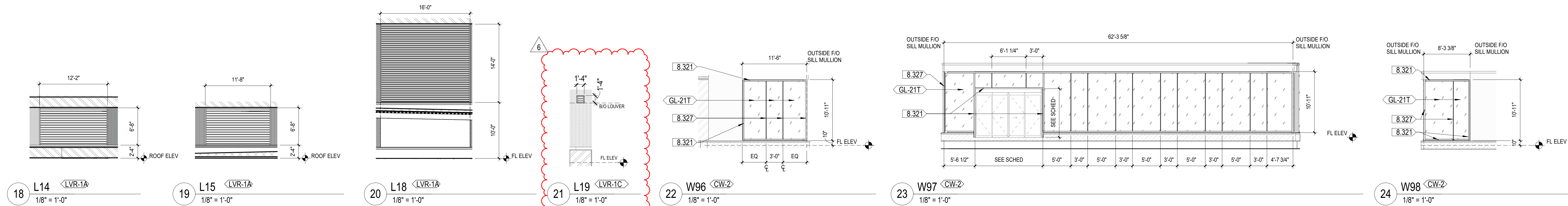
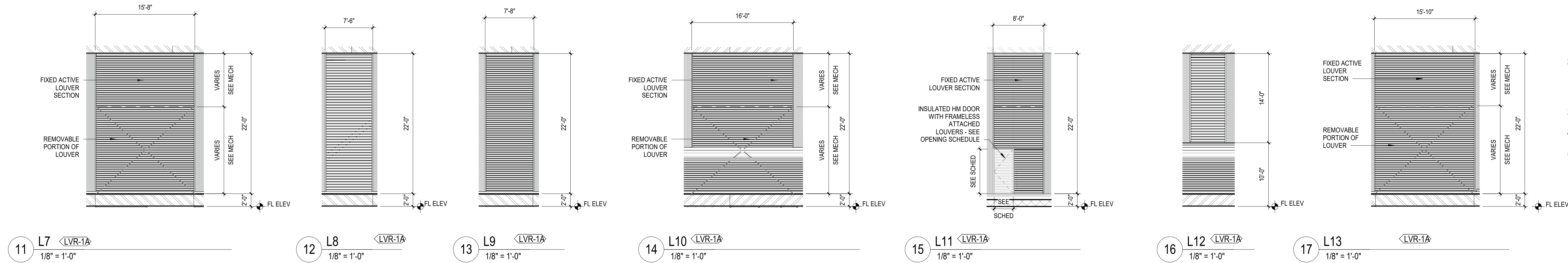
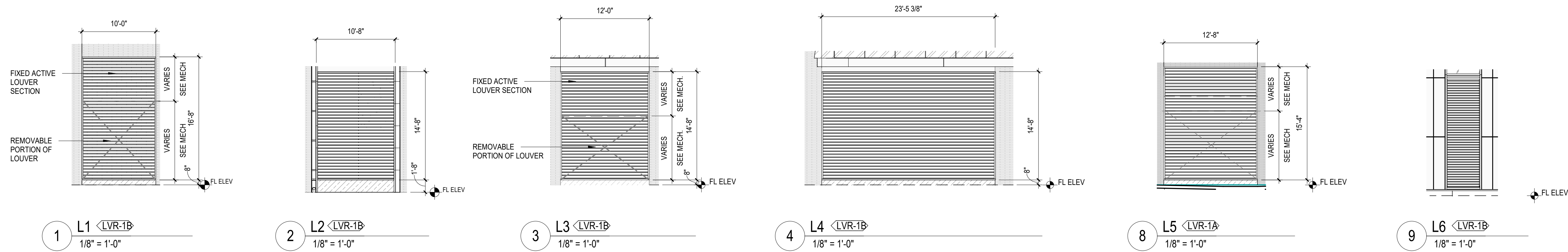


4 PLAN DETAIL - EJ @ LEVEL 00 TUNNEL (EAST)  
1 1/2" = 1'-0"  
1/A200.B



1 PLAN DETAIL - EJ @ LEVEL 00 SUNKEN GARDEN  
3" = 1'-0"  
1/A200.B

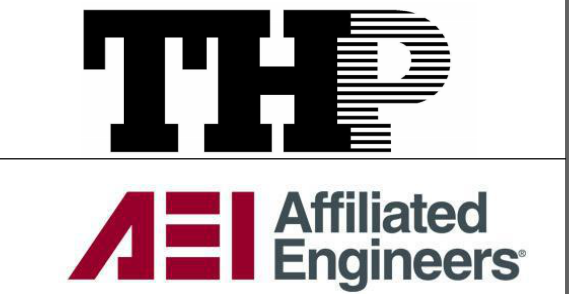




| CURTAIN WALL KEYNOTES |                                                                                        |
|-----------------------|----------------------------------------------------------------------------------------|
| KEY VALUE             | KEYNOTE TEXT                                                                           |
| 8.321                 | TYPICAL CURTAIN WALL MULLION WITH PROFILE 'A' CAP. REFER TO SHEET A495: 1" MULLION CAP |
| 8.326                 | HORIZONTAL SSG CURTAIN WALL MULLION PROFILE 'D'. REFER TO SHEET A496                   |
| 8.327                 | VERTICAL SSG CURTAIN WALL MULLION PROFILE 'D'. REFER TO SHEET A496                     |
| 8.328                 | BUTT-GLAZED HORIZONTAL MULLION PROFILE 'D'. REFER TO SHEET A496                        |

#### GENERAL NOTES - EXTERIOR WINDOWS & CURTAIN WALL

1. REFER TO DOOR SCHEDULE FOR DOOR INFORMATION.
2. DIMENSIONS SHOWN OF OPENINGS IN MASONRY ARE THE ROUGH OPENING DIMENSIONS WHICH INCLUDE A 3/4" SEALANT JOINT AT EACH JAMB & SILL. REFER TO CURTAINWALL HEAD DETAILS FOR HEAD JOINT SIZE IN SIZING GLAZING.
3. SEE ELEVATIONS FOR SURROUNDING / ADJACENT MATERIALS.
4. REFER TO SHEET A011 AND SPECIFICATIONS FOR (CW-) MULLION AND FRAMES SIZES.
5. INACTIVE PORTIONS OF LOUVERS ARE BLANK OF PANELS, TYP.



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| 5   | BP-07 ADDENDUM #1  | 05/28/24 |
| 6   | Group 2 ADD#1      | 08/22/24 |

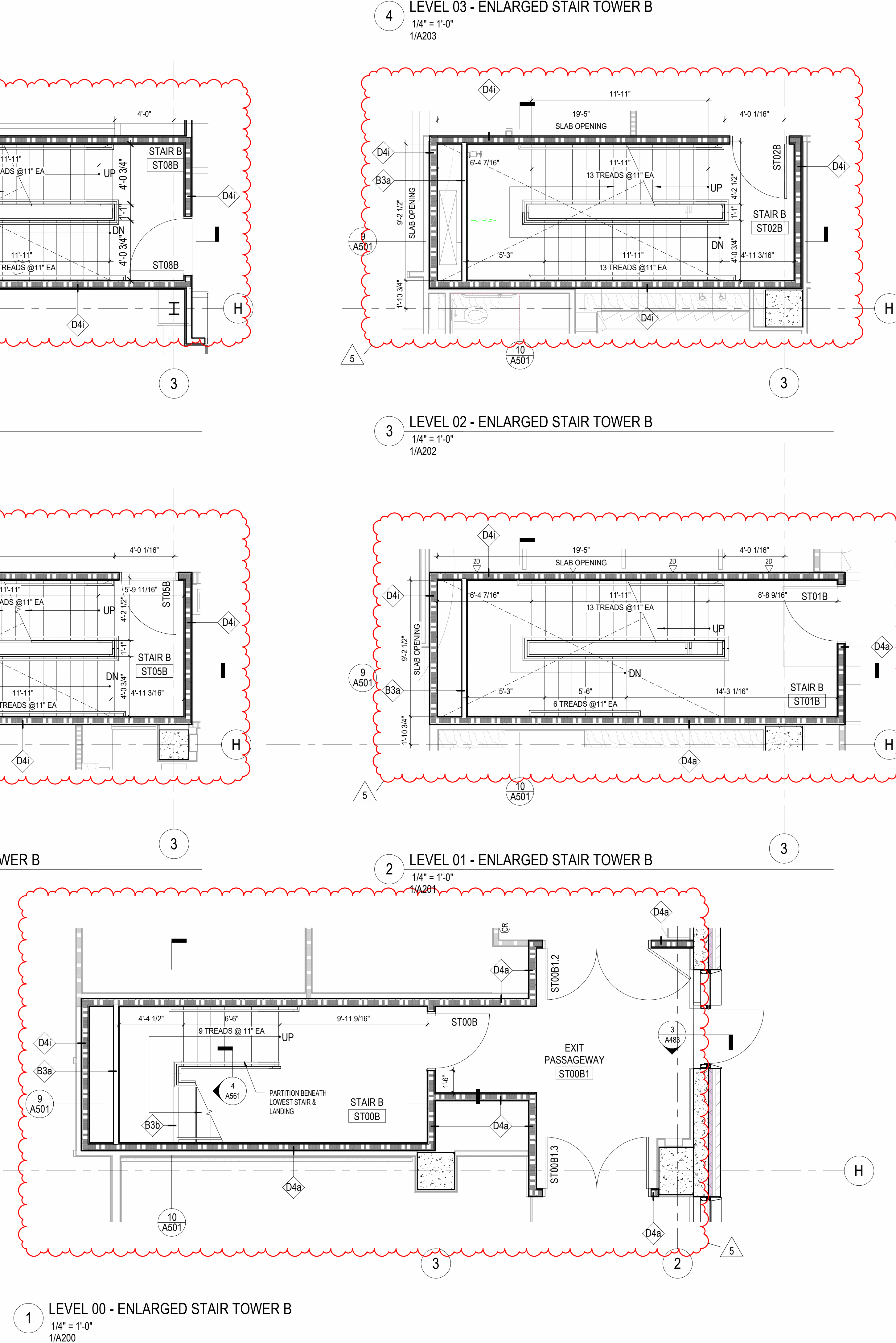
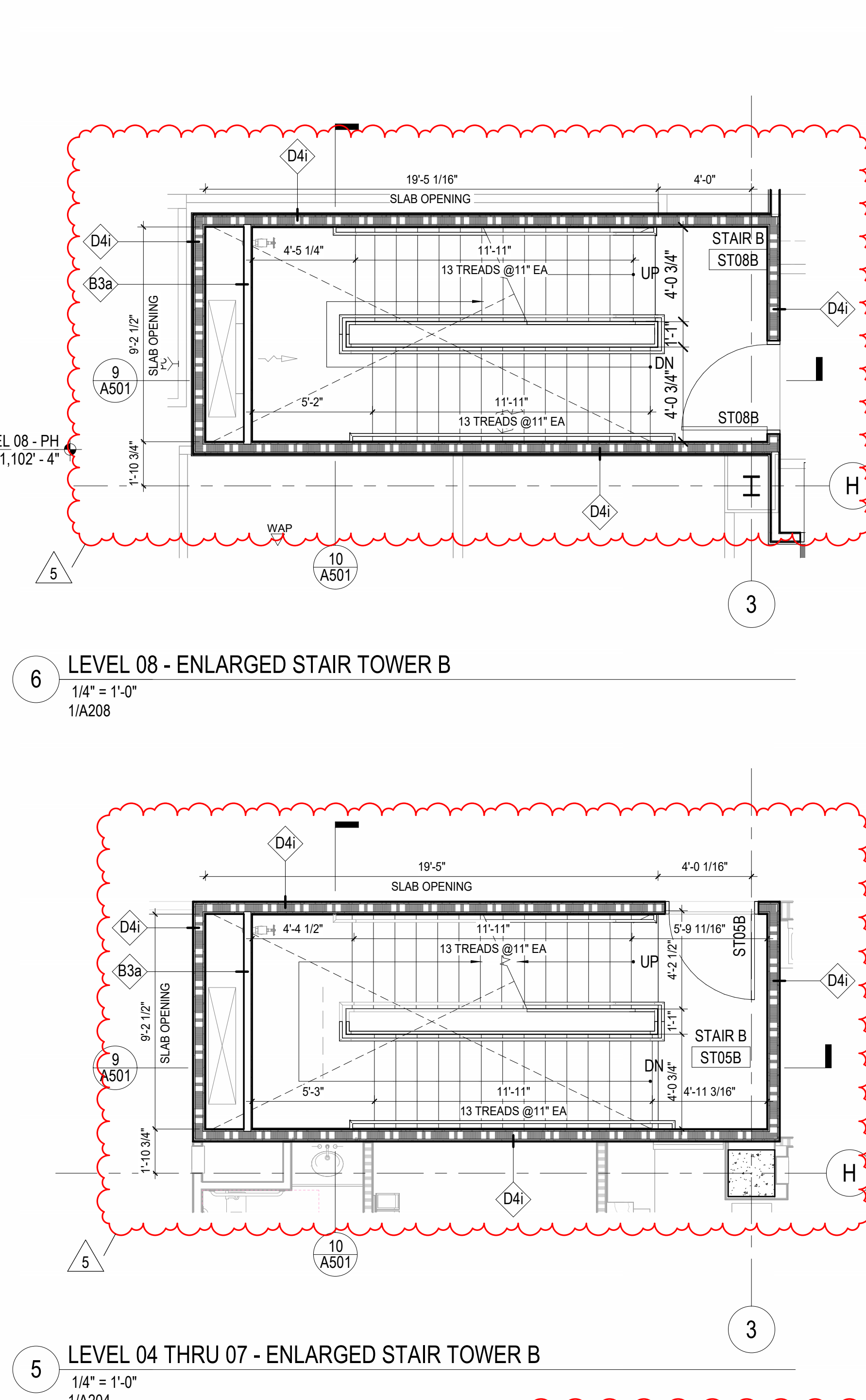
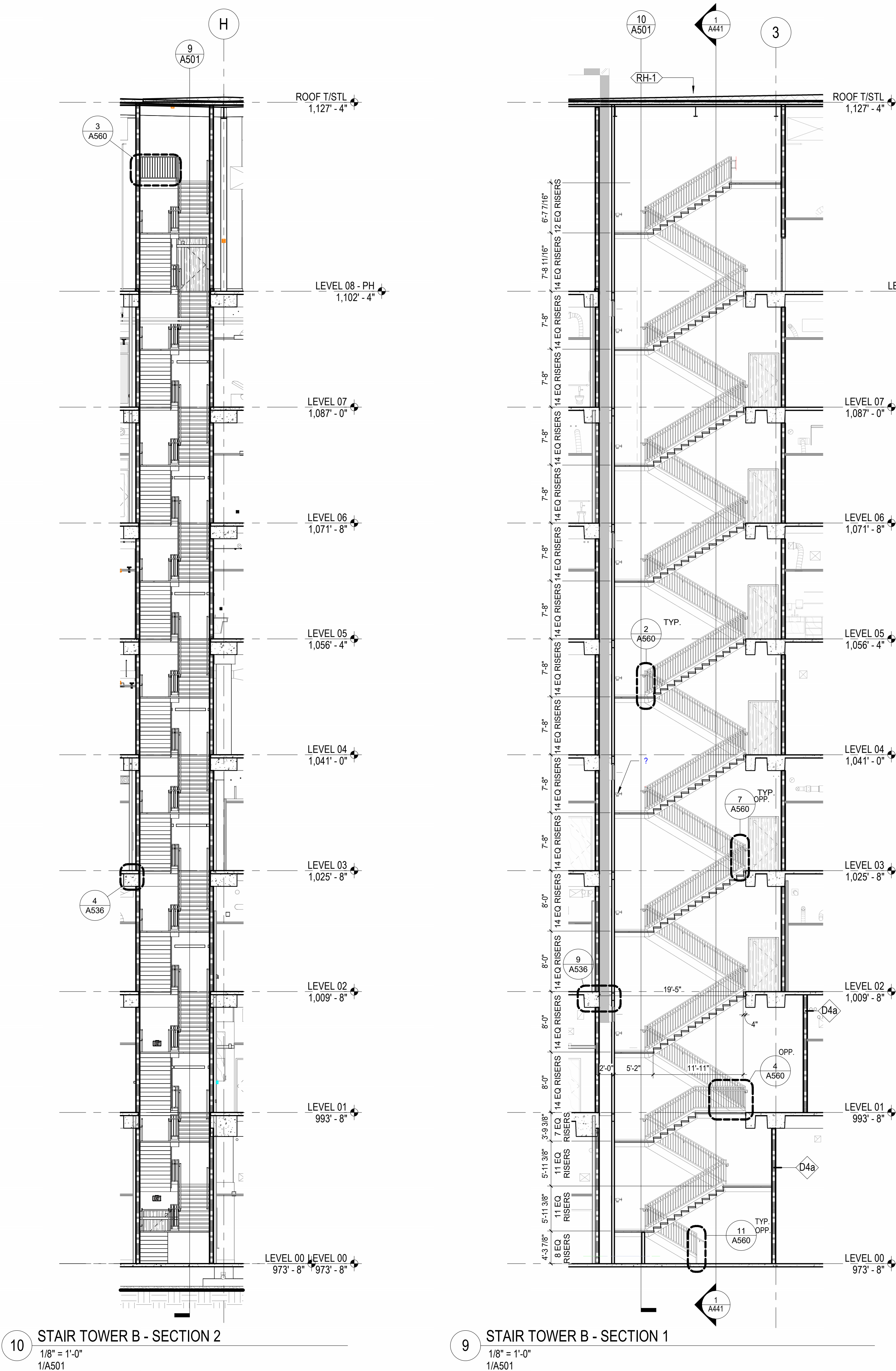
|                |         |
|----------------|---------|
| Drawn By       | Author  |
| Checked By     | Checker |
| Client Number  | 514     |
| Project Number | 6926    |

**DRAWING TITLE**  
EXTERIOR WINDOW, CURTAINWALL, & LOUVER TYPES

**SHEET NO.**  
A492



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HEALTHCARE

Cancer Treatment  
Center + Advanced  
Ambulatory Center

1220 Elizabeth St.  
Lexington, KY 40536  
UK Project Number 2563.0

ISSUANCES

| No. | Description        | Date     |
|-----|--------------------|----------|
| 1   | C&S 100% DD REVIEW | 01/10/24 |
| 2   | C&S 80% CD         | 03/05/24 |
| 3   | C&S 100% CD REVIEW | 04/09/24 |
| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | Group 2 ADD#1      | 08/22/24 |

Drawn By

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Client Number

514

Project Number

6926

DRAWING TITLE

STAIR B - ENLARGED  
PLANS AND SECTIONS

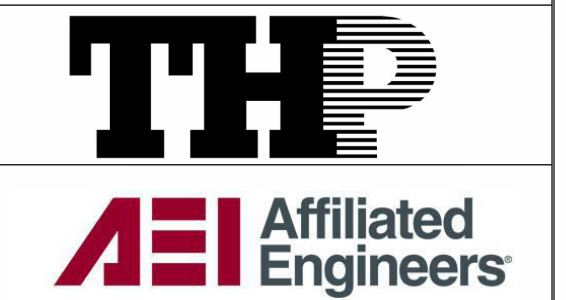
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ARCHITECT  
06/30/2024

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**UK Project Number 2563.0**

## ISSUANCES

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| 4   | BP-07 BID & PERMIT | 04/30/24 |
| 5   | Group 2 ADD#1      | 08/22/24 |

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Client  
Number

514

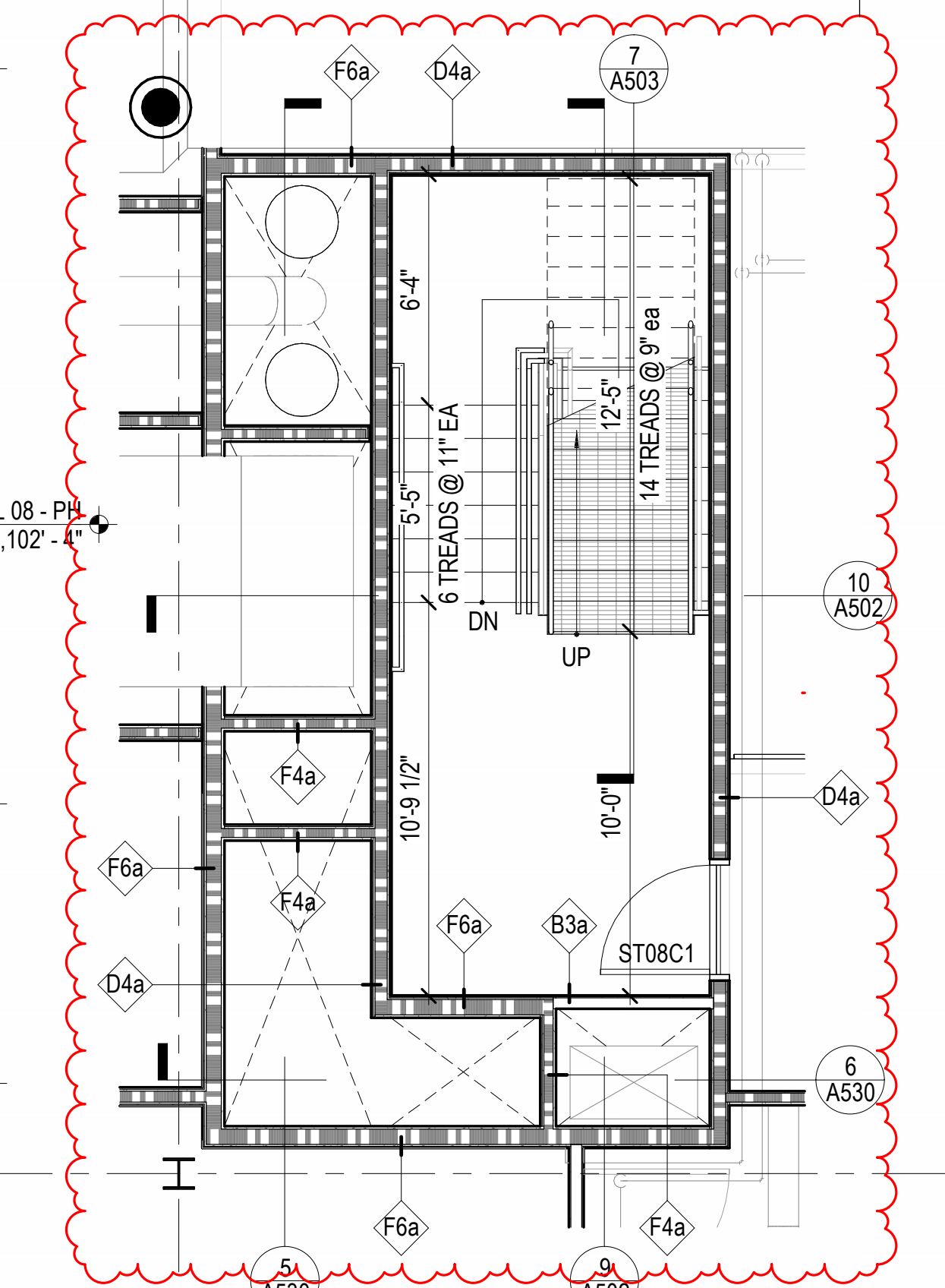
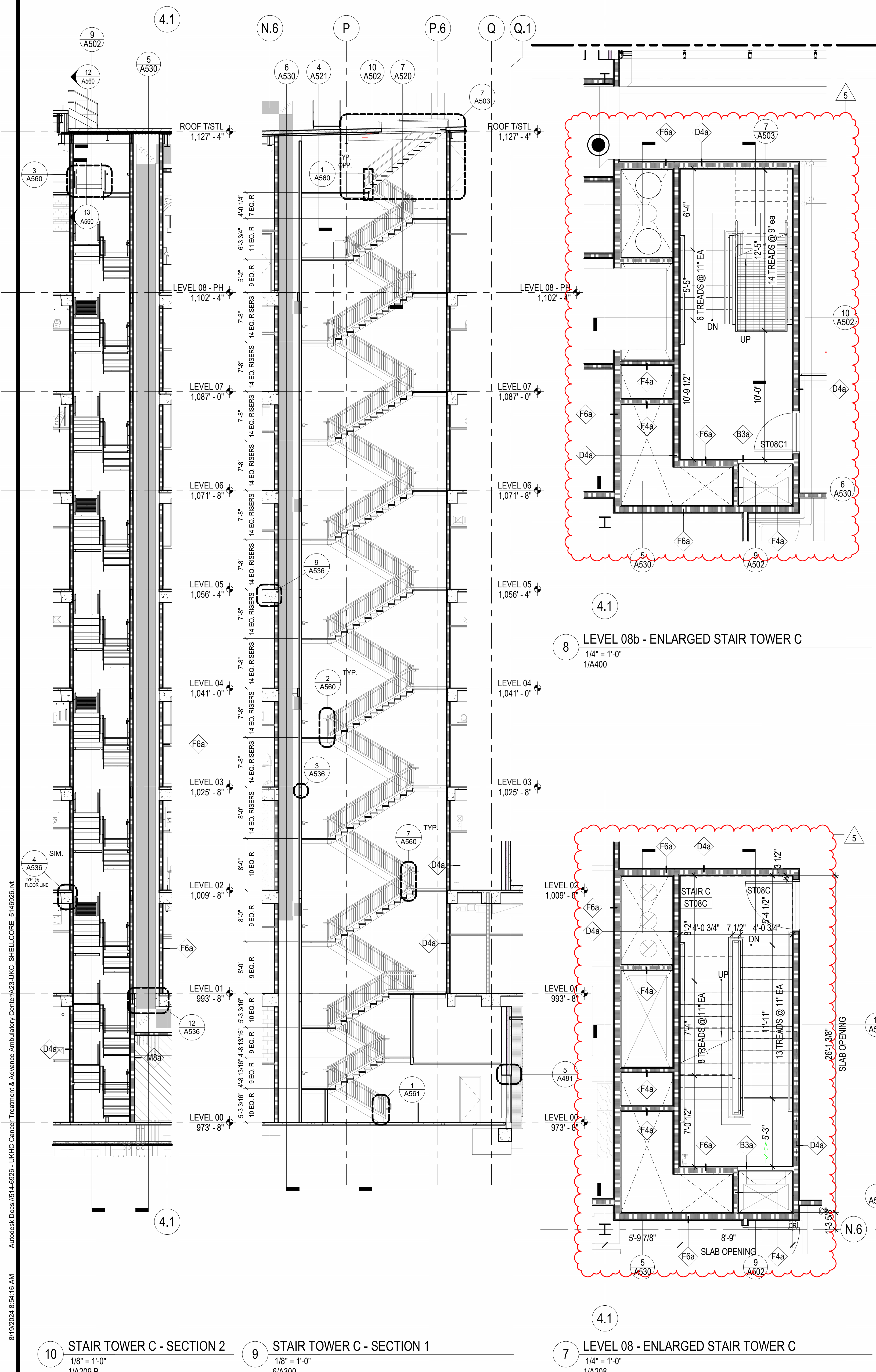
Project  
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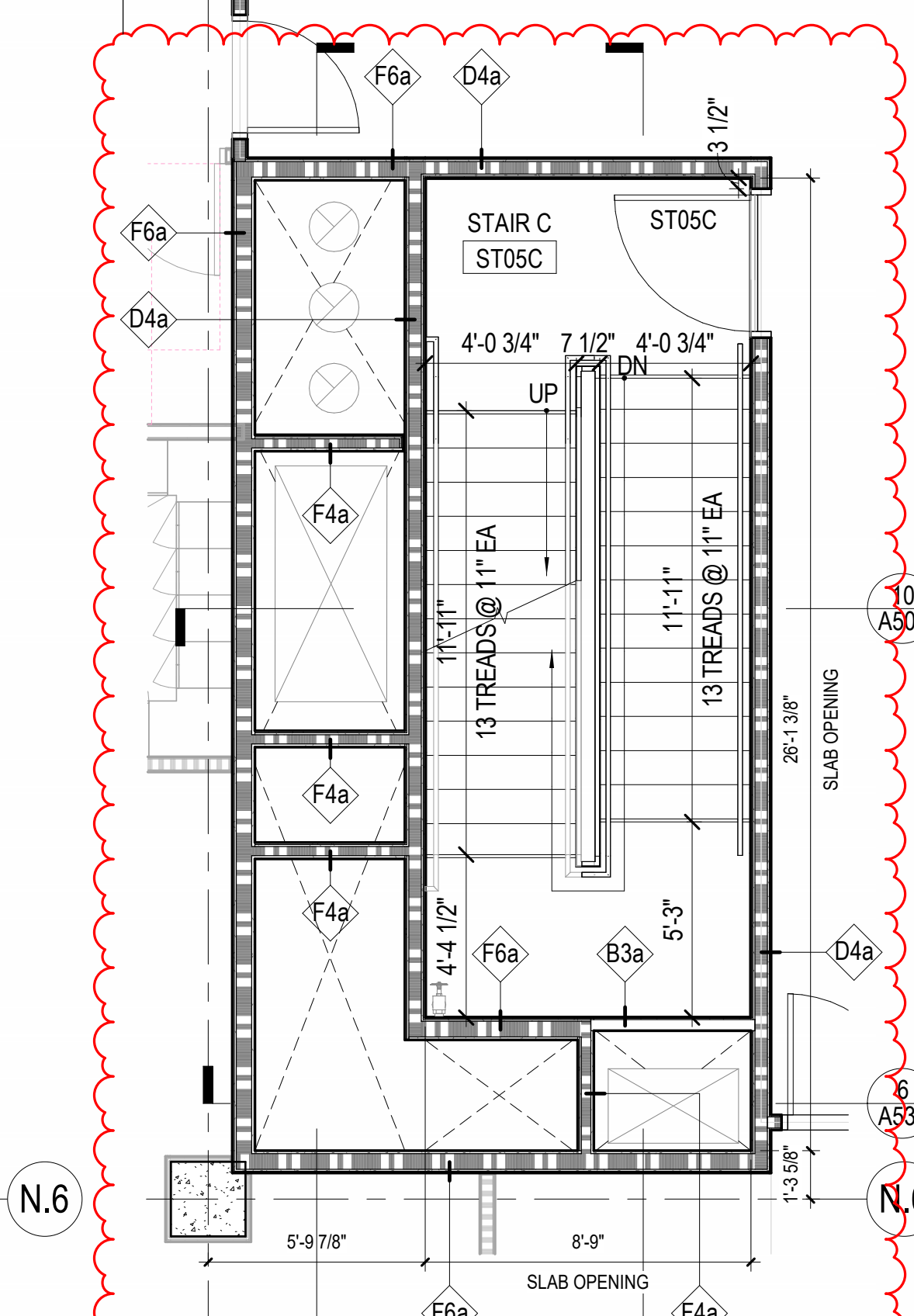
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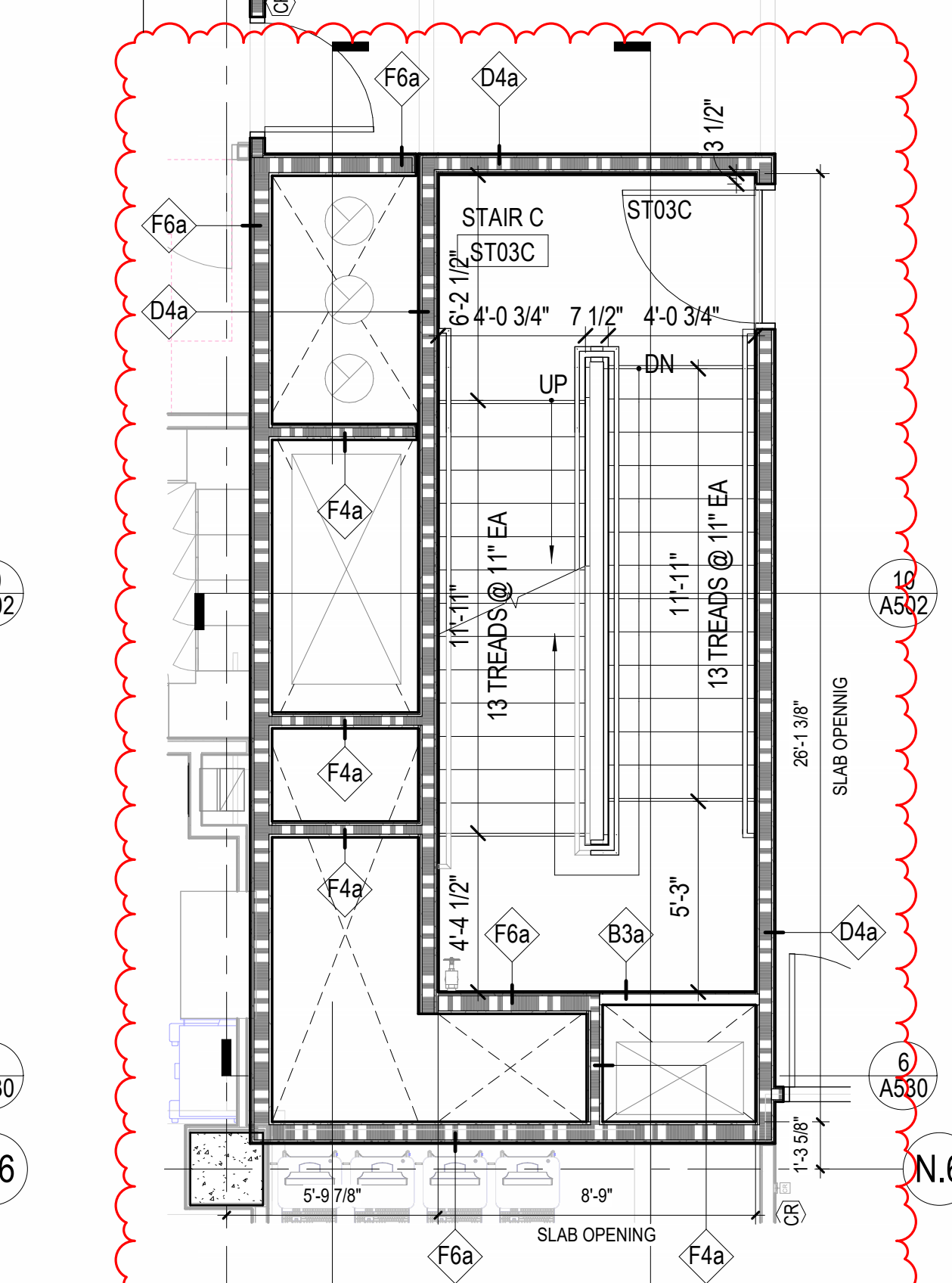
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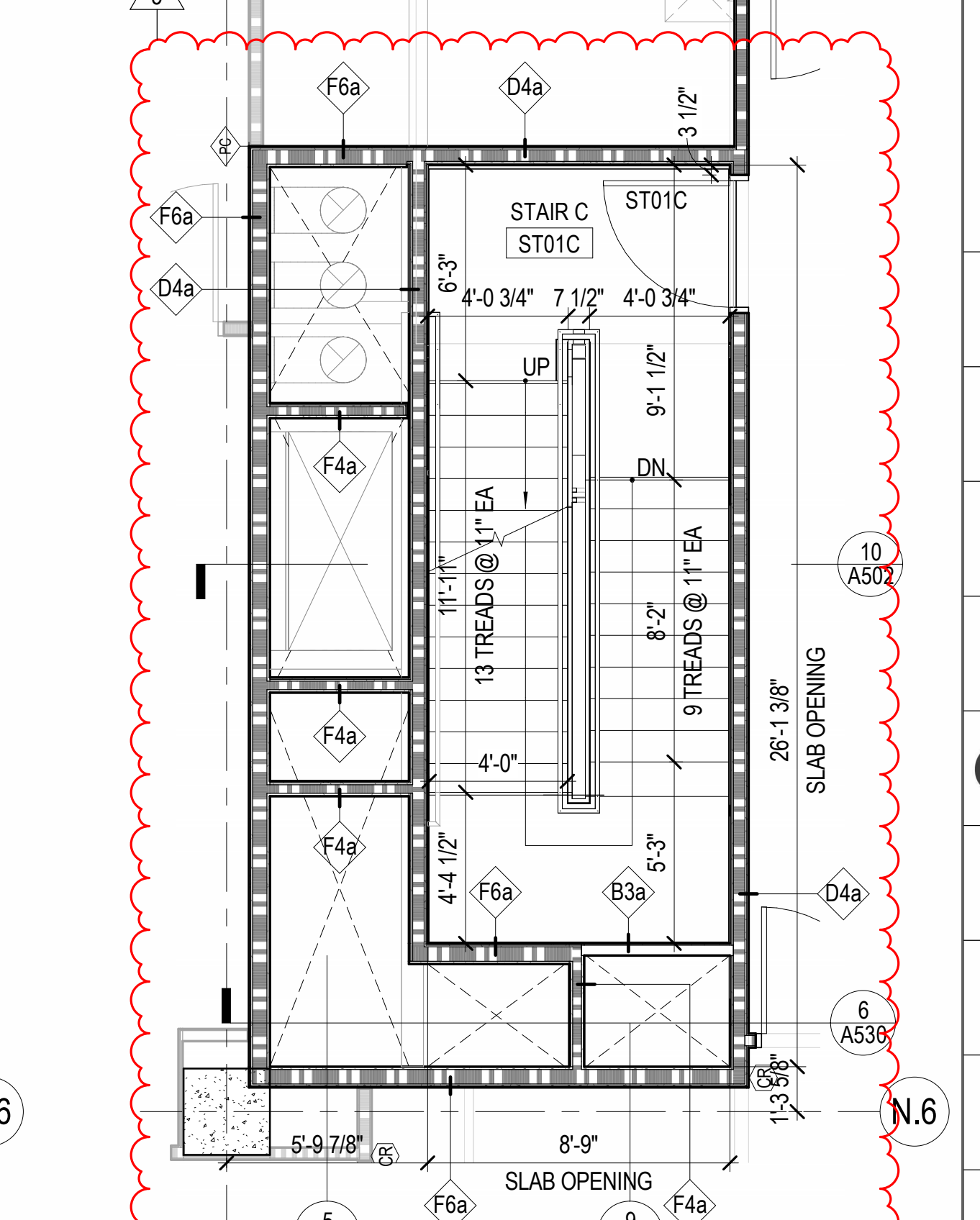
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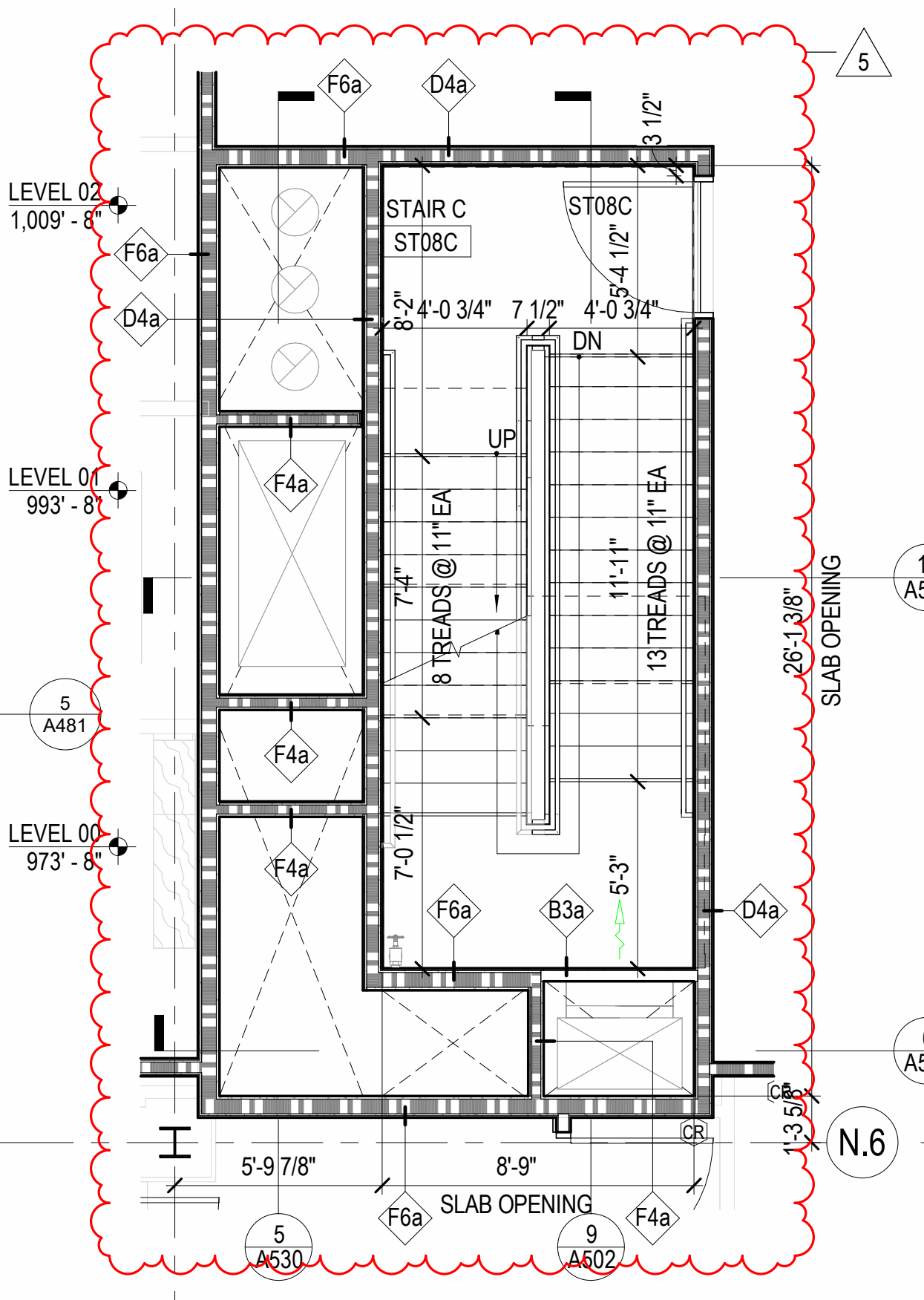
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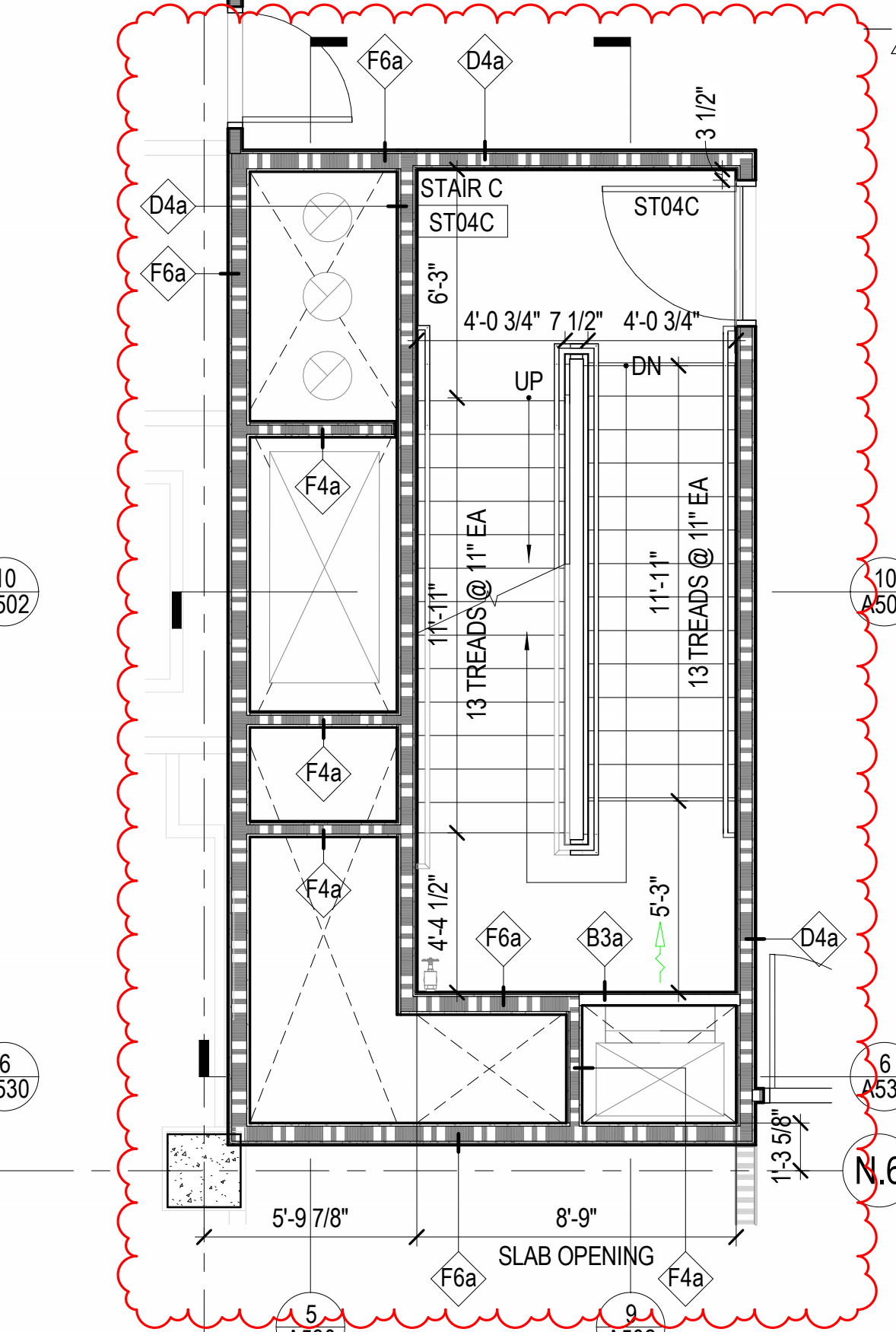
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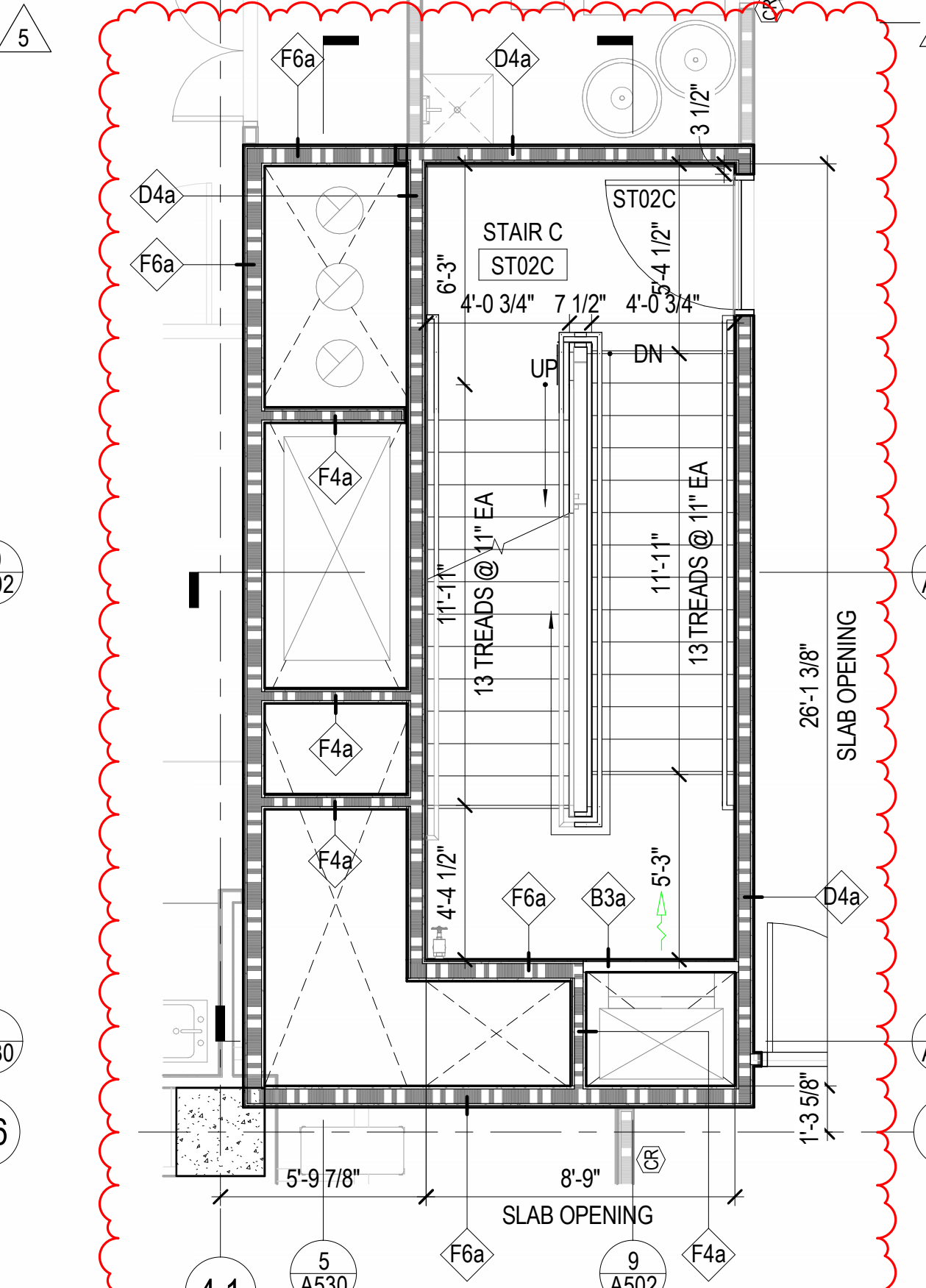
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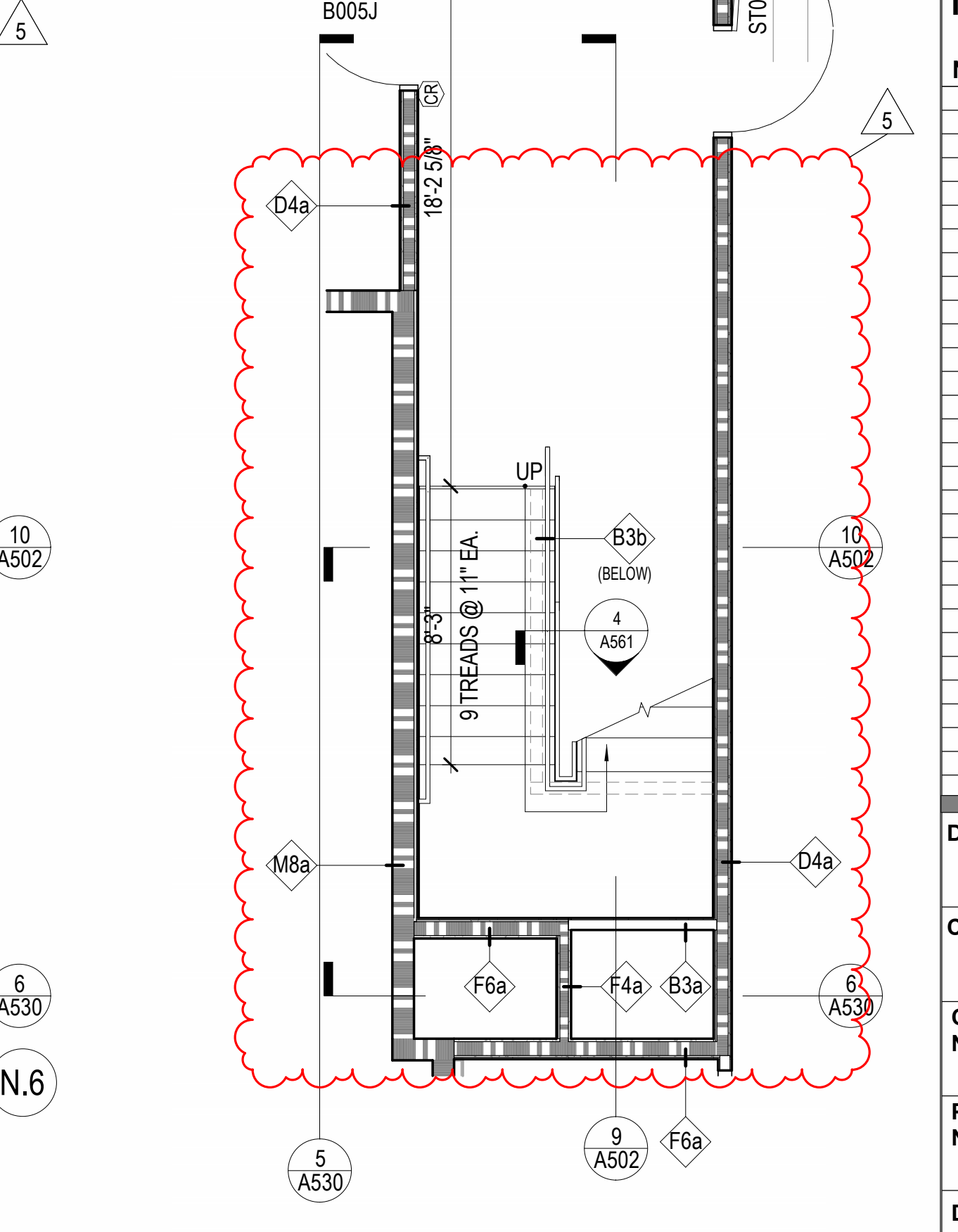
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1/1/2008



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1/16/2014

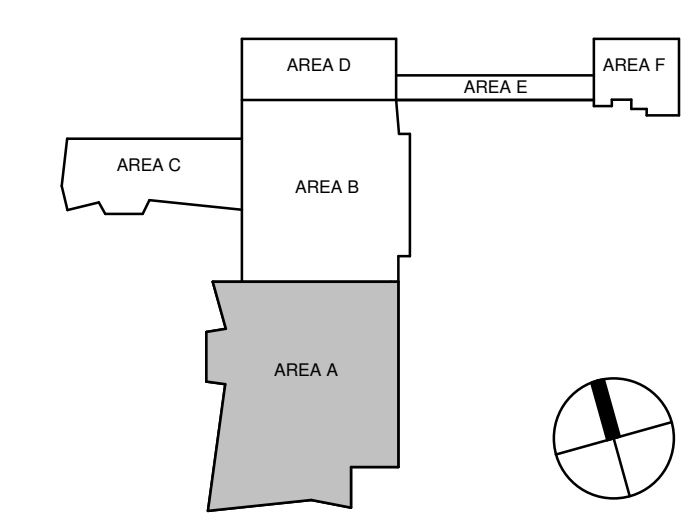
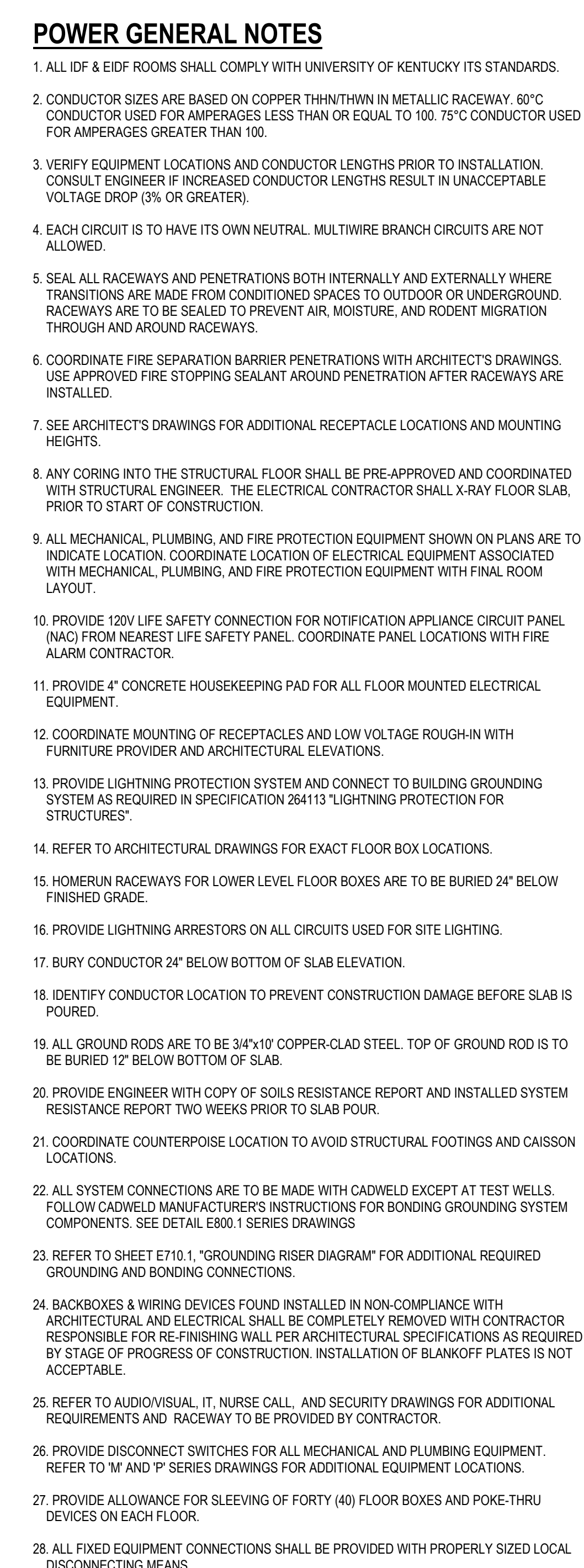


3 LEVEL 02 - ENLARGED STAIR TOWER C  
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1/16/202



1 LEVEL 00 - ENLARGED STAIR TOWER C  
1/4" = 1'-0"  
1/8" = 1'-0"





**1 SHELL & CORE POWER PLAN - PENTHOUSE LEVEL - AREA A**  
SCALE: 1/8" = 1'-0"



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lighting design



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UK Project Number 2563.0

## ISSUANCES

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| Checked By<br>SK AS |                                |

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| SR, AS                  | NOT TO BE<br>USED FOR<br>CONSTRUCTION |
| Client<br>Number<br>514 |                                       |

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|----------------|--|
| Project Number |  |
| 6926           |  |

DRAWING TITLE  
SHELL & CORE  
POWER PLAN -  
PENTHOUSE LEVEL -  
AREA A

SHEET NO. **E308.A**



## SECTION 019115 - BUILDING ENCLOSURE COMMISSIONING

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Section includes the Commissioning (Cx) requirements for Building Enclosure systems.
  - 1. The Building Enclosure Commissioning requirements are separate from, and in addition to, the Building Systems Commissioning requirements in Section 019113. The Construction Manager and Subcontractors are required to participate in each of the Commissioning processes.
  - 2. The 019115 Building Enclosure Commissioning Agent (BECxA) and 019113 Commissioning Agent (CxA) will provide separate documentation for each Commissioning process.

#### 1.2 RELATED DOCUMENTS

- A. The work under this section is subject to requirements of the Contract Documents, including the Owner's General Conditions and articles of the Construction Manager's General Conditions.
- B. This section includes the commissioning requirements for the Building Enclosure systems.
  - 1. Refer to Section 019117 for Building Enclosure Functional Performance Testing.
  - 2. The commissioning requirements for the building enclosure systems given in this section are entirely separate from, and in addition to, the Building Systems Commissioning specified in specification section 019113.
  - 3. The Construction Manager, Contractors, Sub-contractors and Suppliers are required to participate in both commissioning processes as required by sections 019113 General Commissioning Requirements and 019115 Building Enclosure Commissioning.
  - 4. The 019113 Commissioning Agent (CxA) and 019115 Building Enclosure Commissioning Agent (BECxA) will provide separate documentation for each commissioning process.
- C. Specific building enclosure commissioning requirements are given in this specification. The following specification sections are related to the commissioning work specified in this section:
  - 1. Integrated Exterior Mockups: Refer to 014339
  - 2. Building Systems Commissioning: Refer to 019113
  - 3. Building Enclosure Functional Performance Testing: Refer to 019117
  - 4. Basic Concrete Requirements: Refer to Division 03
  - 5. Basic Masonry Requirements: Refer to Division 04
  - 6. Basic Waterproofing, Roofing, Cladding, Air Barrier, Insulation Requirements: Refer to Division 07
  - 7. Basic Fenestration Systems Requirements: Refer to Division 08

**D. Reference standards to be included as part of the building enclosure commissioning process include the following:**

- 1. **National Institute of Building Sciences 'Building Enclosure Commissioning Process BECx', Guideline 3-2012.**



2. **ASTM E2813-18, 'Standard Practice for Building Enclosure Commissioning'**
3. **ASTM E2947-21a, 'Standard Guide for Building Enclosure Commissioning'**

### 1.3 GENERAL DESCRIPTION

- A. Building Enclosure Commissioning is a systematic process of validating and verifying all building enclosure systems responsible for environmental separation perform interactively according to the Owner's Project Requirements. The Building Enclosure Commissioning process is intended to achieve the following specific objectives according to the Contract Documents:
  1. Verify and document installation and performance of building enclosure materials and systems.
  2. Endeavor to provide the Owner with functional Building Enclosure systems that meet the Project Requirements.
- B. Commissioning does not take away from or reduce responsibility of system designers or installing contractors to provide a finished and fully functioning product per the contract documents.
- C. This section shall in no way diminish the responsibility of Division 03, 04, 05, 07, and 08 Contractors, Subcontractors, and Suppliers in performing all aspects of work and testing as outlined in the Contract Documents. Any requirements outlined in this section are in addition to requirements outlined in Division 03, 04, 05, 07, and 08.

### 1.4 ABBREVIATIONS

- A. The following are common abbreviations used in this Section (definitions are found further in this Section):
  1. A/E – Architect and Design Engineers
  2. BECx – Building Enclosure Commissioning
  3. BECxA – Building Enclosure Commissioning Agent
  4. BECT – Building Enclosure Commissioning Team
  5. BETA – Building Enclosure Testing Agency
  6. BECx Plan – Building Enclosure Commissioning Plan
  7. FPT – Functional Performance Test
  8. CM – Construction Manager
  9. CT – Commissioning Team
  10. CxA – Commissioning Agent for Building Systems - Refer to Section 019113
  11. O&M – Operations & Maintenance

### 1.5 DEFINITIONS

- A. Approval: Acceptance that a material or system has been properly installed and is functioning in tested modes according to the Contract Documents.
- B. Architect/Engineer (A/E): Prime consultant (architect) and sub-consultants who comprise the design team, generally the Architect of Record and any Design Sub-consultants.



- C. Basis of Design (BOD): Documentation of primary thought processes and assumptions behind design decisions made to meet design intent. Describes systems, components, conditions, and methods chosen to meet intent.
- D. Building Enclosure Commissioning Agent (BECxA): Contracted to Owner through the CxA. BECxA directs and coordinates day-to-day Building Enclosure Commissioning activities independently from CxA.
- E. Building Enclosure Commissioning Plan (BECx Plan): Overall plan developed after bidding that provides structure, schedule, and coordination planning for the Building Enclosure commissioning process.

**F. Building Enclosure Commissioning Team (BECT): See 1.7 A.**

- G. Building Enclosure Testing Agency (BETA): BETA will be represented by or contracted to the BECxA and is responsible for executing building enclosure functional performance testing under the direction of the BECxA.
- H. Building Enclosure Functional Performance Test (FPT): Test of performance of building enclosure materials and systems. Systems are tested under various simulated environmental conditions, such as air or water leakage under pressure differential. Refer to Section 019117.
- I. Commissioning (Cx) Database - A "cloud-based" process management platform provided by the CxA utilized to execute the Commissioning process.
- J. Commissioning Agent (CxA): Commissioning Agent for Building Systems; refer to Section 019113. Contracted to Owner. CxA directs and coordinates day-to-day Building Systems Commissioning activities independently from BECx activities. CxA reports directly to Owner.
- K. Commissioning Observation: Any condition identified by the BECxA that adversely affects the commissionability, operability, maintainability or functionality of a system, equipment or component. Any condition that is in conflict with the project OPR, Contract Documents, performance requirements, manufacturer requirements, and/or accepted industry standard practices of the installed systems and components. (See also – Deficiency, Master Issues Log)
- L. Commissioning Plan: Overall plan developed after bidding that provides structure, schedule and coordination planning for Commissioning process.
- M. Contract Documents: Contract documents include design and construction contracts, price agreements and procedure agreements. Contract Documents also include all final and complete drawings, specifications and all applicable contract modifications or supplements.
- N. Contractor: Contractor or Subcontractors responsible for furnishing and installation of building components and systems.
- O. Deficiency: Condition of a component, piece of equipment or system that is not in compliance with Contract Documents (that is, does not perform properly or is not complying with design intent).
- P. Functional Performance Test (FPT): Test of function and operation of components and systems. Systems are physically tested to verify various performance requirements are met (resistance to water penetration, air leakage rate, adhesive strength, etc.). Refer to 019117 Building Enclosure Functional Performance Testing and testing requirements in related specifications.



- Q. Master Issues Log (MIL): On-going list tracking commissioning observations and BECT responses and resolution.
- R. Mockup: On-building structure which includes representative portions of building enclosure systems, assemblies, and components. Mockups shall be constructed, tested, and reviewed prior to commencement of building enclosure construction. Refer to specification 014339 Integrated Exterior Mockups.
- S. Owner's Project Requirements (OPR): A written document that details the project requirements and the expectations of how the building and its systems will be used and operated. These include project goals, measurable performance criteria, cost considerations, benchmarks, success criteria, and supporting information.
- T. Specifications: Construction specifications of Contract Documents.
- U. Sub-contractor: Contractors of CM, and their Sub-contractors, who provide and install building enclosure components and systems.
- V. Warranty Period: Warranty period for entire project, including equipment components.

## 1.6 RELATED WORK

- A. Specific building enclosure commissioning requirements are given in this specification. The following specification sections are related to the commissioning work specified in this section:
  - 1. Building Systems Commissioning: Refer to 019113
  - 2. Building Enclosure Functional Performance Testing: Refer to 019117
  - 3. Basic Concrete Requirements: Refer to Division 03
  - 4. Basic Masonry Requirements: Refer to Division 04
  - 5. Basic Waterproofing, Roofing, Air Barrier, Insulation Requirements: Refer to Division 07
  - 6. Basic Fenestration Systems Requirements: Refer to Division 08

## 1.7 COORDINATION

- A. Building Enclosure Commissioning Team: Members of the Building Enclosure Commissioning Team (BECT) will consist of:
  - 1. Architect and Design Engineers (A/E)
  - 2. Building Enclosure Commissioning Agent (BECxA)
  - 3. Building Enclosure Testing Agent (BETA)
  - 4. Division 03, 04, 07, 08 Contractors who provide and install the systems to be commissioned.
  - 5. Any other Contractors or Subcontractors who provide and install the systems to be commissioned.
  - 6. Commissioning Agent (CxA)
  - 7. Construction Manager (CM)
  - 8. Owner(s) (OR)
  - 9. Representatives of the Facility User and Operation and Maintenance Personnel.
  - 10. Systems Suppliers and Vendors.
- B. Management: Owner will contract services of the CxA. The BECxA will direct and coordinate building enclosure commissioning activities and report to the CxA and OR. All members of the



Building Enclosure Commissioning Team shall cooperate to fulfill contracted responsibilities and objectives of the Contract Documents.

- C. Kick-Off Meeting: BECxA will plan, schedule and conduct a Building Enclosure Commissioning Kick-Off Meeting. Membership and responsibilities of the BECT will be clarified at this meeting. BECx Kick-Off Meeting will be conducted no later than 30 days prior to initial installation of any commissioned systems on-site. CxA will distribute meeting minutes to all parties.
- D. Scheduling: BECxA will work with the BECT to establish required commissioning activities to incorporate in preliminary commissioning schedule. The CM will integrate commissioning activities into a master construction schedule. Necessary notifications are to be made in a timely manner in order to expedite the commissioning process.
- E. Project Phasing and Project Substantial Completion:
  - 1. Phased completion of the project construction is anticipated. The commissioning processes described herein will be completed for each phase of work.
  - 2. All BECxA work with the exception of the following must be completed for each project phase prior to Owner move-in/occupancy.
    - a. The following BECx work will be completed after Owner move-in/occupancy:
      - 1) Compilation and delivery of Final Commissioning Report.
      - 2) End of Warranty Review Meeting

## PART 2 - PRODUCTS / COMMISSIONING DOCUMENTATION

### 2.1 COMMISSIONING (Cx) DATABASE

- A. The BECx process will be executed utilizing a “cloud-based” process management Cx Database provided by the CxA. Cx Database is accessed by authorized users using any device running an HTML-5 internet browser (e.g., PC, laptop, tablet, phone) or by an operating system specific (e.g., iOS) application downloaded from corresponding app store.
- B. Cx Database platform will be autonomous from any other database or web-based information platform utilized by the Construction Team throughout project construction.
- C. CxA will provide the Commissioning Team with web access to the Cx Database during the Commissioning process. The CM/Contractors will complete the scoped Commissioning tasks indicated in other Sections of this specification in the Cx Database (e.g., completion of Commissioning activities, such as providing documentation of BECx Master Issues Log deficiency item corrections).

### 2.2 BUILDING ENCLOSURE COMMISSIONING PLAN

- A. BECxA will develop overall plan for execution of the BECx Process.
- B. The BECx Plan will contain:
  - 1. Overview of the commissioning process.



2. Listing of major Commissioning milestones for coordination and inclusion in the master construction schedule.
  3. List of BECT members and roles and responsibilities.
  4. Description of management and communication for the commissioning process.
  5. Master Systems List (list of commissioned component and systems).
  6. Functional Performance Test Plan with test procedures and requirements for each commissioned system. The initial Cx Plan will not include the FPTs. Final FPTs will be developed in the Cx Database after related submittals are approved by the A/E.
  7. Operation & Maintenance Data Matrix.
  8. Warranty Matrix.
  9. Owner Training Matrix.
- C. The BECx Plan will be delivered to the BECT in electronic format (Adobe PDF file searchable from the Table of Contents).

## 2.3 MASTER ISSUES LOG (MIL)

- A. Any issues noted by BECxA are tracked in a Master Issues Log (MIL). The MIL will be developed in and accessed/tracked through the Cx Database.

## 2.4 COMMISSIONED SYSTEMS SUBMITTALS AND O&M DATA

- A. CM shall provide CxA with documentation required for Commissioning work. At minimum, documentation shall include: Requirements as described in Section 013000, O&M data, performance data, any performance test procedures, manufacturer's installation manuals, manufacturer's laboratory testing documentation, and Contractor or Owner's-contracted testing documentation related to the systems to be commissioned.

## 2.5 SITE VISIT REPORTS

- A. BECxA will conduct regular site visits to complete scoped commissioning work. BECxA will provide a report for each site visit to members of the BECT.
- B. BECxA Site Visit Report will include the following:
1. Attendees and purpose of site visit.
  2. Observations regarding commissioned systems and results of completed commissioning work.
  3. "Next Steps" section documenting BECx process status and upcoming BECx work / site visits.
  4. Current Master Issues Log (MIL).
  5. Picture Report (where applicable).

## 2.6 CM / CONTRACTOR OWNER TRAINING PLAN

- A. CM/Contractors/Vendors will provide complete Owner training in Operation and Maintenance of all commissioned systems/equipment required under contract per specifications.



- B. CM with assistance from responsible Contractors/Vendors shall develop a detailed program for Owner Training per 017000 Execution and Closeout Procedures and 017900 Demonstration and Training.

## 2.7 FUNCTIONAL PERFORMANCE TESTS (FPT)

- A. BECxA will develop the Functional Performance Testing procedures from the Contract Documents and A/E approved submittals. The Functional Performance Test Procedures will be initially described in the BECx FPT Plan and developed in the Cx Database. The Functional Performance Tests will be executed by the BETA with support from the CM/Contractors. The BECxA will witness Functional Performance Tests and document the results in the Cx Database. Reference Specification 019117 Building Enclosure Functional Performance Testing for requirements on tests performed by the BETA.
- B. Development of Test Procedures:
  - 1. The purpose of any given specific test is to verify and document compliance with stated criteria of acceptance given on test form. BECxA shall develop specific test procedures based on standard industry test methods (AAMA, ASTM, etc.). Prior to execution, BECxA shall provide a copy of test procedures to Contractors. Contractor will review tests for feasibility, safety, and warranty protection. BECxA shall submit tests to Owner, CM and A/E and other Commissioning team members for review.
  - 2. Test procedures will indicate general specimen type to be tested. Selection of actual test specimens will be selected by the BECxA and BECT on the day of testing from the available specimens identified by the Contractors as ready for testing on the Certificate of Readiness.
  - 3. Test procedure forms developed by the BECxA will include (but not be limited to) the following information:
    - a. System and equipment or component name(s)
    - b. General location or specimen type
    - c. Date
    - d. Project name
    - e. Participating parties
    - f. Specific specified parameters being verified
    - g. Test setup parameters
    - h. Test procedures
    - i. Results section to document test results and observations
    - j. Section for comments
  - 4. Specific FPT items may be added, modified or deleted in the BECx plan delivered to the CT to reflect the final construction document requirements. CM and Contractors shall review final construction documentation for applicable details and specifications related to equipment to be commissioned to fully ascertain all the FPT requirements.

## 2.8 CERTIFICATE OF READINESS FOR FUNCTIONAL PERFORMANCE TESTS (FPT)

- A. BECxA will provide a Certificate of Readiness to be signed by the CM, Contractors and Equipment Vendors/Suppliers (where appropriate) as a prerequisite for scheduling of BECx FPTs. Completed Certificate of Readiness should be received two weeks prior to anticipated testing date.



- B. The Certificate of Readiness will include the following:
  - 1. Project building area
  - 2. Area for CM to indicate FPTs to be scheduled and specimens (e.g. specific window openings) that are ready for testing.
  - 3. Sign-off for CM, Contractors and Vendors (where appropriate) indicating readiness for associated FPTs to be scheduled.
  - 4. Sign-off for CM that test accommodations required by specification 019117 are provided.
- C. The intent of this certificate is for the CM, Contractors and other installers to document ("sign-off") that the equipment/systems are installed per the contract document requirements and are ready for FPT.
- D. BECxA and BETA will not schedule tests until completed Certificates of Readiness are received. CM shall maintain free and clear access to all test areas, including exclusion and removal of interior finishes if necessary for observation of potential water leakage into concealed cavities, until testing is complete and satisfactory performance is achieved.

## 2.9 FINAL COMMISSIONING REPORT

- A. The BECx Final Commissioning Report will include:
  - 1. Executive Summary including:
    - a. List of Commissioned Equipment/Systems.
    - b. List of participants and roles.
    - c. Summary of the completed Commissioning activities.
    - d. Evaluation regarding status of issue resolution.
  - 2. Design Phase BECx Documentation.
  - 3. Master Issues Log.
  - 4. Site Visit Reports.
  - 5. BECxA executed Functional Performance Tests.
  - 6. Sections will be provided for the following information to be inserted later:
    - a. End of Warranty Meeting Minutes

## PART 3 - EXECUTION

### 3.1 COMMISSIONING OVERVIEW

- A. The following provides a brief overview of typical Building Enclosure Commissioning tasks during construction and general order in which they occur:
  - 1. BECxA develops project specific Building Enclosure Commissioning Plan in the Cx Database including Functional Performance Test procedures. Building Enclosure Commissioning Team members are provided web access to the Cx Database for review of the Cx Plan prior to BECx Kick-Off meeting.
  - 2. Commissioning during construction begins with a Kick-Off Meeting conducted by BECxA where membership of Building Enclosure Commissioning Team is established, and



responsibilities reviewed. The Building Enclosure Commissioning Plan is reviewed during this meeting.

3. BECxA schedules subsequent meetings as necessary to plan, coordinate and schedule Commissioning activities. Deficiencies and problem resolution will also be discussed at these meetings.
4. CM submits copies of submittals for all systems to be commissioned in Procore software to BECxA for review concurrently with A/E review. BECxA reviews submittals and returns review comments in Procore software.
5. BECxA revises Cx Plan if required based on final A/E approved submittals in Procore software.
6. Contractors install commissioned systems.
7. CM/Contractors develop initial outline Owner Training Program and submit to CT for review.
8. CxA makes regular site visits to observe commissioned system installations. Installations are reviewed against the design drawings and specifications, system manufacturer's requirements, and approved submittals.
9. Any issues noted by BECxA are tracked in a Master Issues Log (MIL) on the Cx Database platform. CM/Contractors correct issues noted by BECxA and update MIL in Cx Database for BECxA verification of issue corrections.
10. CM and Contractors coordinate overall schedule of systems installation and notify the BECxA when specimens ready to test by submitting completed Certificates of Readiness. CM and Contractors submit schedules to BECxA so that BETA may schedule and coordinate site visits and testing.
11. BETA completes testing as required by specification 019117 with support from CM and Contractors. BETA provides documentation of completed FPTs.
12. CxA conducts Commissioning Functional Testing Schedule Meetings with the Commissioning Team to establish a coordinated approach to the integration of the Functional Performance Testing activities within the Master Construction Schedule.
13. Items of non-compliance in material, installation or set-up will be corrected and system shall be retested at Contractor expense.
14. CM/Contractors execute Owner Training exercises per Owner Training Plan.
15. BECxA issues Final Commissioning Report.
16. CxA participates in End of Warranty Review meetings with facility maintenance staff to review systems performance. An updated Warranty Phase Issue Log shall be generated, and the Contractor shall resolve all issues determined by the CT to be subject to Warranty requirements.

### 3.2 SYSTEMS TO BE COMMISSIONED

#### A. Building Enclosure Systems to be commissioned:

1. Below Grade Waterproofing, Vapor Barriers, Air and Moisture Barriers, Exterior Cladding, Fenestration, and Roofing Systems responsible for providing the following functions:
  - a. Air control
  - b. Vapor control
  - c. Insulation/thermal protection
  - d. Waterproofing

### 3.3 RESPONSIBILITIES OF COMMISSIONING TEAM MEMBERS

#### A. Architect/Engineer (A/E)



1. Document design intent of systems. Respond to any issues developed during the commissioning process that may require clarification of design intent.
2. Develop mockup drawings as required for testing within specification section 014339 and 019117.
3. Review and incorporate Building Enclosure Commissioning specification section and Building Enclosure Functional Performance Testing specification section into the construction documents.
4. Attend BECx meetings as requested.
5. Provide construction documents electronically.
6. Review and respond to/incorporate BECx comments made during design and submittal/shop drawing reviews.
7. Assist in dispute resolution regarding building enclosure systems regarding confirmation of design intent and specification requirements.
8. Review BECx reports and respond to A/E items.

B. Building Enclosure Commissioning Agent (BECxA)

1. Facilitate cooperation of BECT in Commissioning work.
2. Develop and update BECx plan as necessary.
3. Develop the BECx and Building Enclosure FPT specification sections.
4. Review pertinent building enclosure related submittals and shop drawings. Provide submittal review comments to OR and A/E for inclusion in the submittal comments returned to the CM.
5. Conduct BECx kick-off meeting to review BECx Plan and responsibilities of each member of the BECT.
6. Participate in Contractors' pre-installation/coordination meetings for commissioned systems where specified.
7. Review initial outline Owner Training Program developed by CM/Contractors.
8. Perform construction observation visits to observe and document installation of the building enclosure materials, systems, and components, and observe representative field testing.
9. Perform and document functional performance field testing performed by BETA.
10. Witness building enclosure testing performed by others as required by the Contract Documents.
11. Issue reports documenting the BECx process and activities.
12. Maintain the BECx MIL in the Cx Database. Review and respond to Contractors' responses and documentation verifying corrective actions.
13. Attend and chair BECT meetings as required.
14. Provide the final BECx record.

C. General Contractor (CM)

1. The CM leads the commissioning process for the construction team and facilitates cooperation of Contractors in executing and completing the commissioning work. In addition to the specific CM commissioning roles and responsibilities specified herein, the CM is ultimately responsible for ensuring that the Contractor commissioning roles and responsibilities given in other Sections of this specification are executed and completed as specified.
2. Attend BECx coordination/kick-off meetings and other commissioning team meetings. The CM is responsible for all coordination items with Subcontractors.
3. Incorporate and periodically update commissioning activities into the construction schedule.
4. Notify BECT of schedule updates and onsite activities affecting BECx tasks.
5. Facilitate cooperation of Contractors in commissioning work.



6. Submit copies of initial submittals in Procore software to A/E and BECxA for review. Provide final A/E approved submittals in Procore software to BECxA for record purposes.
7. Review and respond to BECxA's submittal review comments.
8. Review BECxA Plan, Pre-Functional Checklists, and FPT procedures.
9. Attend BECxA Kick-Off Meeting and other BECT Meetings.
10. Verify building enclosure materials and assemblies are ready for functional performance testing. Submit completed FPT Certificate of Readiness to BECT and coordinate scheduling of Building Enclosure FPT with the BECxA and BETA at least two weeks prior to testing.
11. Ensure resolution of non-compliance and deficiencies in construction or test results. Provide written responses and documentation of completion from the appropriate subcontractors and record responses in the MIL. Documentation includes photographs of addressed items prior to concealment by other components.
12. Provide letters of compatibility for adjacent building enclosure materials and assemblies.
13. Provide Test Accommodations required in specification 019117 Building Enclosure Functional Performance Testing.
14. Schedule, coordinate and assist BECT in FPTs. Attend and participate in FPTs as required to insure Contractor and Vendor participation and completion of scheduled FPT activities. At a minimum, the CM should be present at start and completion of daily FPT activities to ensure Contractor/Equipment Vendor participation, coordination, and completion of Functional Testing work.
15. Facilitate all repairs and retesting of failed functional performance testing and pay for all associated costs of retesting and additional testing including costs related to testing observation and documentation by the BECxA.
16. Following failed field testing, provide a plan of repairs to be performed to the BECT for review. A/E shall approve plan of repairs prior to implementation and retesting. All repairs performed to facilitate successful testing must be approved by the A/E and performed comprehensively throughout project.
17. Verify Contractors correct deficiencies identified during Functional Performance Testing.
18. Develop, with cooperation of Sub-Contractors/Vendors, detailed Owner Training Program. Submit initial outline Owner Training Program to BECT for review within 60 days of completion of submittal process (i.e., all equipment/systems approved by A/E). Revise Owner Training Program as required based on BECxA review comments.
19. CM coordinates training sessions and executes training per Owner Training Program through Contractors.
20. Provide all warranty, operations, and maintenance documentation for all commissioned building enclosure systems, materials, and components to the BECxA in Procore software.
21. Schedule, coordinate and attend the End of Warranty Review Meetings to review system/equipment performance. Correct any deficiency issues noted during Warranty Period per the Project Warranty Process.

D. Contractors/Vendors

1. Review Commissioning Plan and building enclosure related specification sections.
2. Provide project-specific submittals/shop drawings as required by the project specifications that clearly indicate how each system is interfaced with adjacent systems. All typical and project-specific interfaces with adjacent systems must be detailed accurately.
3. Provide letters of compatibility for adjacent building enclosure materials and assemblies.
4. Attend BECxA coordination/kick-off meetings and other commissioning team meetings.
5. Prepare Owner Training Program with CM where required by specifications.
6. Address all applicable observations in the MIL.



7. Provide written responses and documentation of completion of addressed items as directed by CM to the Cx Database. Documentation includes photographs of addressed items prior to concealment by other components.
8. Attend all required building enclosure functional performance testing and assist BETA in diagnosing testing failures as requested.
9. Ensure installed work is complete, is in compliance with Contract Documents, and is ready for Functional Performance Testing. Notify CM that systems are ready for Functional Performance Testing and coordinate with CM to submit completed FPT Certificate of Readiness two weeks prior to anticipated test date.
10. Correct deficiencies identified during Functional Performance Testing.
11. Provide warranty, operations, and maintenance documentation for all commissioned building enclosure systems, materials, and components to the CM.
12. Participate in the End of Warranty Review Meetings to review system/equipment performance. Correct any deficiency issues noted during warranty period per the Project Warranty Process.

E. Building Enclosure Testing Agency (BETA)

1. Attend BECx coordination/kick-off meetings.
2. Provide technicians and equipment to complete mockup and field FPTs as required in specification 019117 Building Enclosure Functional Performance Testing.
3. Prepare and submit reports at the conclusion of each test.
4. Perform diagnostic testing, retesting, and/or additional testing due to failed tests and prepare corresponding reports.

3.4 BUILDING ENCLOSURE COMMISSIONING TEAM (BECT) MEETINGS

- A. BECx meetings will be held periodically as determined by the BECxA.
- B. Discussions held in BECx meetings shall include, but not be limited to, system/materials, mockup/field progress, scheduling, testing, documentation, deficiencies, and problem resolution.

3.5 REPORTING

- A. BECxA will regularly communicate with members of Commissioning team, keeping them apprised of Commissioning progress. The BECxA will provide periodic status reports to Owner, A/E, CM, and CxA.
- B. BECxA will provide reports for site visits to Owner and CM. Site Visit Reports will include BECx Master Issues Log documenting non-compliance and deficiency items.
- C. The BECxA shall submit non-compliance and deficiency reports Owner, A/E, CM, and CxA.
- D. The BECxA shall provide a Final BECx Report to Owner.

3.6 SUBMITTAL REVIEWS

- A. A/E or CM shall provide BECxA with documentation required for commissioning work. All building enclosure related submittals and shop drawings as required by the specifications shall be provided to the BECxA for review and comment.



- B. The BECxA shall review building enclosure related submittals and shop drawings prior to or concurrent with the A/E for conformance as it relates to BECx such that the BECxA comments can be incorporated into the returned submittal.
- C. The contractor(s) shall review and address all exterior enclosure related submittal and shop drawing review comments. Revised shop drawing details based on submittal review comments shall be clearly marked on the shop drawing resubmittal to indicate where and what changes have been made. Submittal and shop drawing review comments and responses shall be tracked by the BECxA.
- D. The BECxA review of submittals and shop drawings does not substitute for or alter the responsibility of the A/E to review submittals and/or shop drawings for compliance with the project requirements. Final approval of submittals and shop drawings rests solely with the A/E.
- E. CM shall provide the final A/E approved O&M data for all commissioned equipment/systems to the CxA in Procore software for record purposes.

### 3.7 BUILDING ENCLOSURE FUNCTIONAL PERFORMANCE TESTING

- A. Refer to Section 019117 - Building Enclosure Functional Performance Testing.

### 3.8 DOCUMENTATION, NON-CONFORMANCE AND RESOLUTION

#### A. Documentation:

- 1. The BECxA shall submit observation reports to Owner, A/E, CM, and CxA and log commissioning observations in the Master Issues Log (MIL).

#### B. Non-Conformance:

- 1. Deficiency or non-conformance issues observed during regular site visits and testing visits will be noted and reported to the CM, A/E, and Owner.
- 2. Corrections of deficiencies identified and immediately repaired by Contractors during site observations and testing may be documented by the BECxA.
- 3. Deficiencies are handled in the following manner:
  - a. When there is no dispute on deficiency and Subcontractor accepts responsibility for remedial action:
    - 1) BECxA documents deficiency and Subcontractor response and intentions. BECxA submits report and MIL to Owner, A/E, CM, and CxA. Copy is provided to Subcontractor by CM.
    - 2) Subcontractor corrects deficiency and provides written response and/or documentation on the MIL that the deficiency has been addressed.
  - b. When there is a dispute about a Deficiency Issue, regarding whether it is a deficiency or who is responsible:
    - 1) BECxA documents deficiency and Contractor's response. BECxA submits observation report and MIL to Owner, A/E, CM, and CxA. Copy is provided to Subcontractor by CM.



- 2) CM facilitates resolution of deficiency. Other parties are brought into discussions as needed. Final interpretive authority is with A/E. Final Acceptance authority is with the Owner/Owner.
- 3) CM documents resolution process.
- 4) Once interpretation and resolution has been decided, appropriate party corrects deficiency and provides written response and/or documentation on the MIL that the deficiency has been addressed.

C. Costs for BECx MIL Issue Corrections and FPT retesting:

1. Cost for Contractor to correct and retest any FPT deficiency item, if they are responsible for deficiency, will be theirs. If Contractor is not responsible, cost recovery for retesting will be negotiated with CM.
2. BECx MIL issue verifications will not be scheduled until Contractor responsible for issue correction updates issue for "Recheck" in Cx Database. If any BECx MIL issue marked for "Recheck" in the Cx Database is found to remain uncorrected by BECx on recheck, the CM will pay BECx labor and expenses for any issue reverifications at a rate of \$5000 per man-day. BECx will provide a man-hour estimate for any required issue reverifications. CM must pay Cx MIL issue reverification costs to BECx in advance for BECx to schedule Cx MIL issue reverification site visits.
3. FPTs will not be scheduled without signed Certificate of Readiness from CM and Contractors confirming that the work is "complete" and ready for testing. If any portion of the system fails to function as designed, the CM will pay BECx labor and expenses for any required FPT retesting at a rate of \$5000 per man-day. BECx will provide a man-hour estimate for any required FPT retesting. CM must pay retesting costs to BECx in advance for BECx to schedule FPT retesting site visits.

D. Costs for BETA and BECx Functional Performance Additional Testing:

1. Cost for Contractor to correct and retest any PFC or FPT deficiency item, if they are responsible for deficiency, will be theirs. If Contractor is not responsible, cost recovery for retesting will be negotiated with Contractor.
2. Additional Services for BECx to complete any Functional Performance Testing during Owner move-in or after Owner occupancy (regardless of whether the testing was attempted prior to that point or not) will be paid for by the CM at a cost of \$5000 per man-day. CM must pay testing costs to BECx in advance for BECx to schedule testing site visits during Owner move-in or after Owner occupancy.

E. Approval:

1. BECx notes each test result on test form. BECx recommends acceptance of each test to Owner. A/E and Owner provide formal approval of FPT. The Owner gives final approval, providing a signature to CM and Contractor.

### 3.9 TRAINING OF OWNER PERSONNEL

- A. CM/Contractors/Vendors will provide complete training in operation and maintenance of systems if required in the Contract Documents.
- B. CM and Contractors will be responsible for
  1. Developing Owner Training Program.



2. Scheduling of Owner Training with Owner and Contractors. Owner Training Schedule will be provided to BECxA to allow BECxA to schedule site visits to attend a sampling of the training sessions.
  3. Execution of Owner Training.
  4. Documentation of completed Owner Training.
- C. BECxA will monitor the completion of the Owner Training as follows:
1. BECxA will review Owner Training Program submitted by CM.
  2. BECxA will attending a sampling of the Owner Training sessions and review the final executed Owner Training Program documentation.
- D. General sequencing of the development of the Owner Training Program and completion of the Owner training is as follows:
1. BECxA will review the Owner training requirements (including preparation of Owner Training Program) with the CM/Contractors at the Commissioning Kick-Off meeting.
  2. CM will prepare an outline of the Owner Training Program within 60 days of completion of submittal process (i.e., all equipment/systems approved by A/E). Submit Owner Training Program outline to BECT for review.
  3. Schedule for Owner Training sessions will be reviewed and updated as required throughout the project construction by BECT at contractor progress meetings (attended by BECxA during periodic site visits). CM will submit final Owner Training Schedule to BECT 30 days prior to start of training exercises to allow CxA sufficient time to schedule site visit trips to witness a sampling of the Owner training exercises.
  4. Contractors/vendors will execute training exercises per Training Program.
  5. CM will submit a copy of the final executed Owner Training Program and Owner Training Manuals including all training documentation (sign-in sheets, handouts, training DVDs, etc.) to BECxA on completion of Owner Training exercises (BECxA copy is in addition to any copies required by other specifications for Owner use).

### 3.10 END OF WARRANTY PERIOD MEETING

- A. CT will participate in an End of Warranty Period Meeting with the Owner and O&M staff to review the facility and its performance. The End of Warranty Period meeting will be held 10-11 months into the one-year warranty period.
- B. The End of Warranty Review meeting shall address:
1. Any outstanding construction deficiencies.
  2. Any deficiencies that were noted by the operations staff during the warranty period.
  3. Any problems noted by the operations staff related to operating and maintaining the facility as originally intended.
- C. CxA will provide a written report for the Warranty Period Meeting. Report will document the process for resolution of all outstanding issues.
1. Outstanding issues noted during the Warranty Period Meeting will be assigned by the CM to the appropriate Contractor for correction.
  2. CM/Contractor will correct the issue and notify the Owner and CxA of correction.

### END OF SECTION 019115



## **SECTION 019117 - BUILDING ENCLOSURE FUNCTIONAL PERFORMANCE TESTING**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. This section includes functional performance testing requirements for the Building Enclosure systems that will be performed by the building enclosure testing agency as part of the building enclosure commissioning process.

#### **1.2 RELATED DOCUMENTS**

- A. The work under this section is subject to requirements of the Contract Documents, including the Owner's General Conditions and articles of the Construction Manager's General Conditions.
- B. Specific building enclosure testing requirements are given in this specification. The following specification sections are related to the testing work specified in this section and may include additional testing requirements beyond those included in this specification:
  - 1. Integrated Exterior Mockups: Refer to 014339
  - 2. Building Systems Commissioning: Refer to 019113
  - 3. Building Enclosure Commissioning: Refer to 019115
  - 4. Basic Concrete Requirements: Refer to Division 03
  - 5. Basic Masonry Requirements: Refer to Division 04
  - 6. Basic Waterproofing, Roofing, Cladding, Air Barrier, Insulation Requirements: Refer to Division 07
  - 7. Basic Fenestration Systems Requirements: Refer to Division 08

### **PART 2 - PRODUCTS**

#### **2.1 TESTING AGENCY**

- A. The Building Enclosure Testing Agency (BETA) will be the same entity as the building enclosure commissioning agent (BECxA) for this project and will perform the testing defined in this specification.
- B. The building enclosure Functional Performance Testing (FPT) included within this specification is performed by the BETA under the direction of the Owner and BECxA. Testing outside of this specification is not the responsibility of the BETA and is to be performed by others as required in the Contract Documents.
- C. The BETA shall be responsible for the applicable specified testing outlined herein. The Construction Manager is responsible for any costs associated with retesting and additional testing, including costs related to observation and documentation of retesting and additional testing by the BECxA.



## 2.2 TEST ACCOMMODATIONS

- A. Construction Manager shall provide the following to the BETA to accommodate testing:
1. Access to the interior and exterior sides of the enclosure assemblies, including equipment and operators as needed (i.e., lifts, swing stages, fall protection systems, and/or scaffolding with trained operators to access the interior and exterior).
  2. Water sources with standard garden hose connection within 150 feet of each test location with uninterrupted flow at a minimum pressure of 35 psi at the test specimen.
  3. Uninterrupted power sources with 120-volt, two minimum 20 amp receptacles within 200 feet of the interior of each test location.
  4. Free and clear access to observe the interior and exterior of test specimens, including concealed interior wall cavities. Interior finishes should not be installed around the test locations.

## 2.3 TEST REPORTS

- A. Test reports will be provided by the BETA after each mock-up and field functional performance test.
- B. Reports will include a description of the test method(s) and protocol used as well as all relevant testing parameters and pass/fail criteria. Any deviations from the referenced published testing standards or project documents shall be clearly identified and justification provided by the BETA.
- C. Reports will identify specific testing locations and specimens and include photographs of the test specimens before, during, and after testing.
- D. Reports will include testing results, including any relevant descriptions and photographs of testing failures. Any diagnostic tests performed in response to failures should also be documented in test reports.

## PART 3 - EXECUTION

### 3.1 MOCK-UP TESTS

- A. Mock-ups should be constructed, tested, and accepted prior to commencement of installation of building enclosure systems, assemblies, and components. Refer to project-specific mock-up requirements in Project specification **014339 INTEGRATED EXTERIOR MOCKUPS** and architectural drawings provided by the Architect/Engineer (A/E) detailing mock-up sizes and materials. Mock-ups are anticipated to be an on-site, in-situ mock-up. Components and conditions for inclusion in the mock-up include mortar, accessories, structural backup, wall flashings, windows, curtainwall, and precast as required to show complete wall system. Testing is performed on the installed fenestration systems, air barrier, and any terminations or penetrations through primary air and moisture control components, such as cladding girt fasteners and anchors.
- B. Refer to project specifications for mock-up submittal/shop drawing requirements including requirements for project-specific transition details indicating how fenestration systems, air barrier, and claddings interface with adjacent systems.



- C. Mockup testing to be performed in one round in the following order at locations directed by Architect.
1. Nozzle Water Penetration Test
    - a. Test according to AAMA 501.2-15 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls and Sloped Glazing Systems.
    - b. Test two (2) locations of mockup window systems with no evidence of water penetration.
  2. Static Quantitative Air Infiltration Test
    - a. Test according to ASTM E783-02(2018) - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors.
      - 1) Test two (2) locations of mock-up window systems at 1.5 times the performance rating of the lab tested fenestration product, but not more than 0.09 cfm/sq. ft. at a static-air-pressure differential of **6.24** lbf/sq. ft.
    - b. Test methods described in ASTM E1186-22 - Standard Practices for Air Leakage Site Detection in Building Envelopes and Air Barrier Systems may be utilized as further diagnostic testing to assist in identifying and prioritizing leak sources.**
  3. Static Uniform Water Penetration Test
    - a. Test according to ASTM E1105-15 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference, Procedure A.
      - 1) Field testing conducted at two-thirds of the laboratory water penetration resistance performance criteria of the installed fenestration system, but not less than 6.24 lbf/sq. ft.
      - 2) Test specimens must include perimeter transitions and interfaces with adjacent construction with no evidence of water penetration.
- D. The mock-up test performance criteria of “no evidence of water penetration” is defined as follows:
1. Water is contained and drained to the exterior
  2. There is no wetting of interior surfaces visible to the building occupants
  3. There is no wetting, staining, or other damage or potential damage to completed building equipment, materials, or finishes
- E. The coordination and completion of the mock-up construction is the responsibility of the Construction Manager. The CM shall permit observations of the mock-up by the Building Enclosure Commissioning Agent (BECxA) and any member of the Building Enclosure Commissioning Team throughout construction and testing as required.
- F. The CM shall notify the BECxA/BETA at least two weeks in advance of desired testing date.



- G. In the event of excessive air or observed water leakage through the test sample either during pre-testing or final testing; additional diagnostic and isolation testing should be conducted to determine the cause of failure.
- H. Following failed mock-up testing, CM to provide a plan of repairs to be performed to the BECT for review. A/E shall approve plan of repairs prior to implementation and retesting. All repairs performed to facilitate successful testing must be approved by the A/E and performed comprehensively throughout project.
- I. Retesting shall be conducted by the BETA. All costs associated with the repair and retesting shall be the responsibility of the contractor, including costs related to performance, observation, and documentation of retesting and additional testing by the BETA and BECxA.

### 3.2 FIELD TEST REQUIREMENTS

- A. Field tests will focus on interfaces and transitions of building enclosure systems, materials, and assemblies. Testing shall be performed prior to the installation of interior insulation, gypsum wall board, interior supplemental sealant joints, and finishes. Specific test locations/specimens will be further developed and identified in the Building Enclosure Commissioning Plan. Specific test locations and conditions will be selected by the A/E and BECxA to include a representative sample of the project. Construction phase field functional performance testing to be performed with general locations/conditions identified as follows:

#### 1. Nozzle Water Penetration Test

- a. Test according to AAMA 501.2-15 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls and Sloped Glazing Systems.
  - 1) Test three (3) locations of glazed aluminum curtain walls prior to ten percent (10%), thirty-five percent (35%), and seventy percent (70%) completion of the curtain wall system completion with no evidence of water penetration.
  - 2) Test three (3) locations of manufactured roof expansion joints with no evidence of water penetration.
  - 3) Test three (3) locations of preformed joint sealants with no evidence of water penetration.
  - 4) Test three (3) locations of exterior expansion joint cover assemblies with no evidence of water penetration.

#### 2. Static Quantitative Air Infiltration Test

- a. Test according to ASTM E783-02(2018) - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors.
  - 1) Test three (3) locations of glazed aluminum curtain walls prior to ten percent (10%), thirty-five percent (35%), and seventy percent (70%) completion of the curtain wall system completion.
  - 2) Test to an allowable air leakage rate of 0.09 cfm/sq. ft. (0.45 L/s per sq. m) at a static-air-pressure differential of 6.24 lbf/sq. ft. (75 Pa) per Section 084413 2.1 1.4 and **3.8** C.2.

#### 3. Static Water Penetration Test



- a. Test according to ASTM E1105-15 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference, Procedure A. Test specimens must include perimeter transitions and interfaces with adjacent construction.
  - 1) Test three (3) locations of glazed aluminum curtain walls prior to ten percent (10%), thirty-five percent (35%), and seventy percent (70%) completion of the curtain wall system completion.
  - 2) Field testing conducted at 10 lb/sq. ft., two-thirds of the 15 lb/sq. ft. laboratory water penetration resistance performance criteria of the installed curtain wall system per Section 084413 2.1 F.1 and **3.8** C.3 with no evidence of water penetration.

- B. Field functional performance testing shall be conducted to project performance requirements as set forth in the Construction Documents and below:

| Performance Test                            | Test Specimen                                                                                                                | Performance Criteria                       |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| AAMA 501.2 Water Nozzle Penetration         | Glazed aluminum curtain walls, manufactured roof expansion joints, preformed joint sealants, exterior expansion joint covers | No evidence of water penetration           |
| ASTM E783 Air infiltration                  | Glazed aluminum curtain walls                                                                                                | < 0.09 cfm/sf at 6.24 psf                  |
| ASTM E1105 Uniform Static Water Penetration | Glazed aluminum curtain walls                                                                                                | No evidence of water penetration at 10 psf |

- C. The field test performance criteria of “no evidence of water penetration” is defined as follows:

1. Water is contained and drained to the exterior
2. There is no wetting of interior surfaces visible to the building occupants
3. There is no wetting, staining, or other damage or potential damage to completed building equipment, materials, or finishes

### 3.3 TEST FAILURES

- A. All failed testing areas demonstrating deficient conditions or performance are to be repaired and retested at CM's expense. Retesting shall be conducted by the BETA. All costs associated with the repair and retesting including all access, equipment, labor, and materials, as well as costs incurred by the BETA and BECxA site visits shall be the responsibility of the contractor.
- B. In addition to re-testing, failed test will result in testing of at least one (1) additional specimen at a location selected by the BECxA at the cost of the contractor. Testing will be concluded only when satisfactory results are achieved. All failed test specimens shall be repaired and retested until passing results are achieved.
- C. Efforts will be made to expedite testing and minimize unnecessary delays, while not compromising integrity of tests. BECxA shall not overlook deficient work or loosen acceptance criteria to satisfy scheduling or cost issues unless directed to do so directly by the Owner.
- D. Where testing indicates that performance requirements are not met, the contractor shall provide a repair plan for review by the BECT. Once the plan of repairs is agreed upon, Subcontractor corrects deficiency and provides written response and/or documentation on the MIL that the deficiency has been addressed and verifies that material or assembly is ready to be retested. CM informs BECT of retesting schedule and reschedules retesting with BECxA and BETA.



Testing and resolution process is repeated until satisfactory performance is achieved. CM shall maintain free and clear access to the re-test and additional test areas, including exclusion and removal of interior finishes, until satisfactory performance is achieved.

**END OF SECTION 019117**



## SECTION 042000 - UNIT MASONRY

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

A. Section Includes:

1. Concrete masonry units.
2. Lintels.
3. Brick.
4. Mortar and grout materials.
5. Reinforcement.
6. Ties and anchors.
7. Embedded flashing.
8. Accessories.
9. Mortar and grout mixes.

B. Products Installed but not Furnished under This Section:

1. Steel lintels in unit masonry.
2. Steel shelf angles for supporting unit masonry.
3. Cavity wall insulation adhered to masonry backup.

C. Related Requirements:

1. Section 014339 "Mockups" for integrated exterior mockup requirements.
2. Section 019115 "Building Enclosure Commissioning."
3. Section 044200 "Exterior Stone Cladding" for stone trim secured with stone anchors.
4. Section 072100 "Thermal Insulation" for cavity wall insulation.
5. Section 076200 "Sheet Metal Flashing and Trim" for exposed sheet metal flashing and for furnishing manufactured reglets installed in masonry joints.

#### 1.3 DEFINITIONS

- A. CMU(s): Concrete masonry unit(s).
- B. Reinforced Masonry: Masonry containing reinforcing steel in grouted cells.

#### 1.4 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.



1. Discussion topics shall include;
  - a. Schedule.
  - b. Sequence.
  - c. Coordination of trades.
  - d. Substrate review and acceptance.
  - e. Protection
  - f. Shop drawings and submittals.
  - g. Interface condition and details.
  - h. Environmental constraints.
  - i. Mockups.
  - j. Testing requirements.
  - k. Field quality control efforts.

## 1.5 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Project specific. For the following:
  1. Masonry Units: Indicate sizes, profiles, coursing, and locations of special shapes.
  2. Reinforcing Steel: Indicate bending, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI 315R. Indicate elevations of reinforced walls.
  3. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.
  4. Coordinate with air/vapor barrier shop drawings, clearly showing flashings, penetrations, locations of control and expansion joints on all building elevations. Include integration with adjacent materials and membranes.
- C. Samples for Verification: For each type and color of the following, provide one each:
  1. Clay face brick, in the form of straps of five or more bricks.
  2. Special brick shapes.
  3. Pigmented mortar. Make Samples using same sand and mortar ingredients to be used on Project.
  4. Weep/cavity vents.
  5. Cavity drainage material.
  6. Accessories embedded in masonry.
- D. Delegated Design Submittals: For masonry anchors and ties, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
- E. Sustainable Design Submittals:
  1. Product Certificates: For regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include distance to Project and cost for each regional material.

## 1.6 INFORMATIONAL SUBMITTALS

- A. List of Materials Used in Constructing Mockups: List generic product names together with manufacturers, manufacturers' product names, model numbers, lot numbers, batch numbers,



source of supply, and other information as required to identify materials used. Include mix proportions for mortar and grout and source of aggregates.

1. Submittal is for information only. Receipt of list does not constitute approval of deviations from the Contract Documents unless such deviations are specifically brought to the attention of Architect and approved in writing.

B. Material Certificates: For each type of the following:

1. Masonry units.
  - a. Include data on material properties and test reports for absorption.
  - b. For brick, include size-variation data verifying that actual range of sizes falls within specified tolerances.
  - c. For exposed brick, include test report for efflorescence in accordance with ASTM C67/C67M.
2. Cementitious materials. Include name of manufacturer, brand name, and type.
3. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
4. Grout mixes. Include description of type and proportions of ingredients.
5. Reinforcing bars.
6. Joint reinforcement.
7. Anchors, ties, and metal accessories.

C. Qualification Statements: For testing agency.

D. Delegated design engineer qualifications.

E. Mix Designs: For each type of mortar and grout. Include description of type and proportions of ingredients.

1. Include test reports for mortar mixes required to comply with property specification. Test in accordance with ASTM C109/C109M for compressive strength, ASTM C1506 for water retention, and ASTM C91/C91M for air content.
2. Include test reports, in accordance with ASTM C1019, for grout mixes required to comply with compressive strength requirement.

F. Statement of Compressive Strength of Masonry: For each combination of masonry unit type and mortar type, provide statement of average net-area compressive strength of masonry units, mortar type, and resulting net-area compressive strength of masonry determined in accordance with TMS 602.

G. Cold-Weather and Hot-Weather Procedures: Detailed description of methods, materials, and equipment to be used to comply with requirements.

H. Manufacturer's Certificates:

1. Provide certificates from manufacturer for each product required indicating that product complies with specified product requirements and is suitable for use indicated.

## 1.7 QUALITY ASSURANCE

A. Qualifications:



1. Installers: All masonry flashing installers must complete the International Masonry Institute Flashing Upgrade training course.
2. Delegated Design Engineer: A professional engineer who is legally qualified to practice in state where Project is located and who is experienced in providing engineering services of the type indicated.
3. Testing Agency Qualifications: Qualified in accordance with ASTM C1093 for testing indicated.

## 1.8 MOCKUPS

- A. Wall Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, to set quality standards for materials and execution, and to set quality standards for installation. See Section 014339 "Mockups" for additional construction requirements for integrated exterior mockups.

1. Build mockups for each type of exposed unit masonry construction typical exterior wall in sizes approximately 96 inches (2438 mm) long by 48 inches (1219 mm) high by full thickness, including face and backup wythes and accessories.
  - a. Include a joint with sealant and joint backer (to avoid three-sided sealant adhesion) at least 16 inches (406 mm) long in each mockup.
  - b. Include lower corner of window opening at upper corner of exterior wall mockup. Make opening approximately 12 inches (305 mm) wide by 16 inches (406 mm) high.
  - c. Include through-wall flashing installed for a 24-inch (610-mm) length in corner of exterior wall mockup approximately 16 inches (406 mm) down from top of mockup, with a 12-inch (305-mm) length of flashing left exposed to view (omit masonry above half of flashing). Include end dams.
  - d. Include metal studs, sheathing, sheathing joint-and-penetration treatment, air barrier, veneer anchors, flashing, end dams, cavity drainage material, and mesh weep/vents, and any other accessory that will be used to construct the wall in exterior masonry-veneer wall mockup.
2. Clean one-half of exposed faces of mockups with masonry cleaner as indicated.
3. Protect accepted mockups from the elements with weather-resistant membrane.
4. Approval of mockups is for color, texture, and blending of masonry units; relationship of mortar and sealant colors to masonry unit colors; tooling of joints; and aesthetic qualities of workmanship and also to confirm whether the components are properly installed per the design intent and recognized industry standards to remain air and watertight.
5. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations by Change Order.
6. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
7. Refer to Section 019117 "Building Enclosure Functional Performance Testing" for mockup testing requirements.

## 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Store masonry units on elevated platforms in a dry location. If units are not stored in an enclosed location, cover tops and sides of stacks with waterproof sheeting, securely tied. If units become wet, do not install until they are dry.



- B. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.
- C. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.
- D. Deliver preblended, dry mortar mix in moisture-resistant containers. Store preblended, dry mortar mix in delivery containers on elevated platforms in a dry location or in covered weatherproof dispensing silos.
- E. Store masonry accessories, including metal items, to prevent corrosion and accumulation of dirt and oil.

#### 1.10 FIELD CONDITIONS

- A. Protection of Masonry: During construction, cover tops of walls, projections, and sills with waterproof sheeting at end of each day's work. Cover partially completed masonry when construction is not in progress.
  - 1. Extend cover a minimum of 24 inches (610 mm) down both sides of walls, and hold cover securely in place.
  - 2. Where one wythe of multiwythe masonry walls is completed in advance of other wythes, secure cover a minimum of 24 inches (610 mm) down face next to unconstructed wythe, and hold cover in place.
- B. Do not apply uniform floor or roof loads for at least 12 hours and concentrated loads for at least three days after building masonry walls or columns.
- C. Stain Prevention: Prevent grout, mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove grout, mortar, and soil that come in contact with such masonry.
  - 1. Protect base of walls from rain-splashed mud and from mortar splatter by spreading coverings on ground and over wall surface.
  - 2. Protect sills, ledges, and projections from mortar droppings.
  - 3. Protect surfaces of window and door frames, as well as similar products with painted and integral finishes, from mortar droppings.
  - 4. Turn scaffold boards near the wall on edge at the end of each day to prevent rain from splashing mortar and dirt onto completed masonry.
- D. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in TMS 602.
  - 1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F (4 deg C) and higher and will remain so until masonry has dried, but not less than seven days after completing cleaning.
- E. Hot-Weather Requirements: Comply with hot-weather construction requirements contained in TMS 602.



## PART 2 - PRODUCTS

### 2.1 SOURCE LIMITATIONS

- A. Obtain exposed masonry units cementitious mortar components and mortar aggregate from single source producer or manufacturer.
- B. For exposed masonry units and cementitious mortar components within each specified color range, obtain each color and grade from single source with resources to provide materials of consistent quality in appearance and physical properties.

### 2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer to design masonry anchors and ties.
- B. Provide unit masonry that develops indicated net-area compressive strengths at 28 days.
  - 1. Determine net-area compressive strength of masonry from average net-area compressive strengths of masonry units and mortar types (unit-strength method) in accordance with TMS 602.
  - 2. Determine net-area compressive strength of masonry by testing masonry prisms in accordance with ASTM C1314.

### 2.3 UNIT MASONRY, GENERAL

- A. Masonry Standard: Comply with TMS 602, except as modified by requirements in the Contract Documents.
- B. Defective Units: Referenced masonry unit standards may allow a certain percentage of units to contain chips, cracks, or other defects exceeding limits stated. Do not use units where such defects are exposed in the completed Work.
- C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.
  - 1. Where indicated, provide units that comply with requirements for fire-resistive ratings indicated as determined by testing according to ASTM E 119, by equivalent masonry thickness, or by other means, as acceptable to authorities having jurisdiction.

### 2.4 CONCRETE MASONRY UNITS (CMU-1)

- A. Regional Materials: Verify CMUs are manufactured within 100 miles (160 km) of Project site from aggregates and cement that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles (160 km) of Project site.
- B. Shapes: Provide shapes indicated and as follows, with exposed surfaces matching exposed faces of adjacent units unless otherwise indicated.



1. Provide special shapes for lintels, corners, jambs, sashes, movement joints, headers, bonding, and other special conditions.
2. Provide bullnose units for outside corners unless otherwise indicated.

C. CMUs: ASTM C90, normal weight unless otherwise indicated.

1. Unit Compressive Strength: As indicated on Drawings.
2. Size (Width): Manufactured to dimensions 3/8 inch (10 mm) less than nominal dimensions.

## 2.5 LINTELS

- A. Solid Concrete Masonry Lintels: ASTM C1623, matching CMUs in color, texture, and density classification; and with reinforcing bars indicated. Provide lintels with net-area compressive strength of not less than that of CMUs.
- B. Masonry Lintels: Prefabricated or built-in-place masonry lintels made from bond beam CMUs matching adjacent CMUs in color, texture, and density classification, with reinforcing bars placed as indicated and filled with coarse grout. Cure precast lintels before handling and installing. Temporarily support built-in-place lintels until cured.

## 2.6 BRICK (FBR-1A/B, FBR-2, FBR-3)

~~A. Indigenous Materials: Verify brick is manufactured within 500 miles (800 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site. If transporting materials by rail or water, multiply the distance transported by rail or water by 0.25 to determine the distance to Project site.~~

~~B. Regional Materials: Verify brick is manufactured within 100 miles (160 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles (160 km) of Project site.~~

C. General: Provide shapes indicated and as follows, with exposed surfaces matching finish and color of exposed faces of adjacent units:

1. For ends of sills and caps and for similar applications that would otherwise expose unfinished brick surfaces, provide units without cores or frogs and with exposed surfaces finished.
2. Provide special shapes for applications where stretcher units cannot accommodate special conditions, including those at corners, movement joints, bond beams, sashes, and lintels and where shapes produced by sawing would result in sawed surfaces being exposed to view, including but not limited to, 24-inch long units to be used in areas where exposed brick would be less than a quarter of length of typical brick unit. Provide special shapes as required for Adjustable Concealed Lintel System and Adjustable Brick Support System.

D. Clay Face Brick: Facing brick complying with ASTM C216, Grade SW, Type FBX.

1. Basis-of-Design Manufacturer: Subject to compliance with all specified requirements including, but not limited to, brick color, texture, and size/profile, provide Basis-of-Design as noted below, or from list of Acceptable Manufacturers;



- a. Interstate Brick.
  - b. Belden Brick Company (The).
  - c. Glen-Gery Corporation.
  - d. Summit Brick Company.
2. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 6200 psi and Maximum Saturation Coefficient of 0.78.
  3. Initial Rate of Absorption: Less than 30 g/30 sq. in. (30 g/194 sq. cm) per minute when tested in accordance with ASTM C67/C67M.
  4. Efflorescence: Provide brick that has been tested in accordance with ASTM C67/C67M and is rated "not effloresced."
  5. Size (Actual Dimensions): 3-5/8 inches (92 mm) wide by 2-1/4 inches (57 mm) high by 15-5/8 inches (397 mm) long.
  6. Application: Use where brick is exposed unless otherwise indicated.
  7. Color and Texture:
    - a. FBR-1A: Basis-of-Design: Interstate Brick: Beige; Smooth; Matte Finish; Color: Custom 2-Part blend of Artic White (67%) and Ash (33%). Mortar color: Prism Pigments; P2610 Camel.
    - b. FBR-1B: Basis-of-Design: Interstate Brick: Beige; Textured; Scratch Finish; Color: Custom 2-Part blend of Artic White (67%) and Ash (33%) to match FBR-1A. Mortar color: Prism Pigments; P2610 Camel.
    - c. FBR-2: Terracotta; Basis-of-Design: Belden Brick Company: Velour Finish; Color: Regal Blend. Mortar color: Prism Pigments; P4640 Rootbeer.
    - d. FBR-3: Dark Terracotta; Basis-of-Design: Belden Brick Company: Velour Finish; Mix of 50% Bismark Dark and 50% Regal Blend (Pre-Sorted to remove the lightest color in this range). Mortar color: Prism Pigments; P4640 Rootbeer.

## 2.7 MORTAR AND GROUT MATERIALS

- A. Regional Materials: Manufacture aggregate for mortar and grout within 100 miles (160 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles (160 km) of Project site.
- B. Portland Cement: ASTM C150/C150M, Type I or II, except Type III may be used for cold-weather construction. Provide natural color or white cement as required to produce mortar color indicated.
  1. Alkali content will not be more than 0.1 percent when tested in accordance with ASTM C114.
- C. Hydrated Lime: ASTM C207, Type S.
- D. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.
- E. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C979/C979M. Use only pigments with a record of satisfactory performance in masonry mortar.
  1. Basis-of-Design Product: Subject to compliance with requirements, provide Prism Corporation; Prism Pigments.



F. Aggregate for Mortar: ASTM C144.

1. For mortar that is exposed to view, use washed aggregate consisting of natural sand or crushed stone.
2. For joints less than 1/4 inch (6.4 mm) thick, use aggregate graded with 100 percent passing the No. 16 (1.18-mm) sieve.
3. White-Mortar Aggregates: Natural white sand or crushed white stone.
4. Colored-Mortar Aggregates: Natural sand or crushed stone of color necessary to produce required mortar color.
5. Aggregate shall contain no more than 50 parts per million of chloride ions and shall be free of organic contaminants.

G. Aggregate for Grout: ASTM C404. Aggregate shall contain no more than 50 parts per million of chloride ions and shall be free of organic contaminants.

H. Cold-Weather Admixture: Not allowed. Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494/C 494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.

I. Water: Potable.

## 2.8 REINFORCEMENT

A. Uncoated-Steel Reinforcing Bars: ASTM A615/A615M or ASTM A996/A996M, Grade 60 (Grade 420).

B. Reinforcing Bar Positioners: Wire units designed to fit into mortar bed joints spanning masonry unit cells and to hold reinforcing bars in center of cells. Units are formed from 0.148-inch (3.77-mm) steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.

1. Products: Subject to compliance with requirements, provide one of the following:
  - a. Heckmann Building Products, Inc.; No. 376 Rebar Positioner.
  - b. Hohmann & Barnard, Inc; #RB or #RB-Twin Rebar Positioner.
  - c. Wire-Bond; O-Ring or Double O-Ring Rebar Positioner.

C. Masonry-Joint Reinforcement, General: ASTM A951/A951M.

1. Interior Walls: Hot-dip galvanized carbon steel.
2. Exterior Walls: Stainless steel.
3. Wire Size for Side Rods: 0.148-inch (3.77-mm) diameter.
4. Wire Size for Cross Rods: 0.148-inch (3.77-mm) diameter.
5. Wire Size for Veneer Ties: 0.148-inch (3.77-mm) diameter.
6. Spacing of Cross Rods, Tabs, and Cross Ties: Not more than 16 inches (406 mm) o.c.
7. Provide in lengths of not less than 10 ft. (3 m), with prefabricated corner and tee units.

D. Masonry-Joint Reinforcement for Single-Wythe Masonry: Ladder or truss type with single pair of side rods.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:



- a. Hohmann & Barnard, Inc.
- b. Wire-Bond.

## 2.9 TIES AND ANCHORS

- A. General: Ties and anchors extend at least 1-1/2 inches (38 mm) into veneer but with at least a 5/8-inch (16-mm) cover on outside face.
- B. Materials: Provide ties and anchors specified in this article that are made from materials that comply with the following unless otherwise indicated:
  - 1. Stainless Steel Wire: ASTM A580/A580M, Type 304.
  - 2. Stainless Steel Sheet: ASTM A240/A240M or ASTM A666, Type 304.
- C. Partition Top Anchors: 0.105-inch- (2.66-mm-) thick metal plate with a 3/8-inch- (10-mm-) diameter metal rod 6 inches (152 mm) long welded to plate and with closed-end plastic tube fitted over rod that allows rod to move in and out of tube. Fabricate from stainless steel.
- D. Rigid Anchors: Fabricate from steel bars 1-1/2 inches (38 mm) wide by 1/4 inch (6.4 mm) thick by 24 inches (610 mm) long, with ends turned up 2 inches (51 mm) or with cross pins unless otherwise indicated.
  - 1. Corrosion Protection: Hot-dip galvanized to comply with ASTM A153/A153M.
- E. Adjustable Masonry-Veneer Anchors (FBRA-1/2):
  - 1. General: Provide anchors that allow vertical adjustment but resist a 100 lbf (445 N) load in both tension and compression perpendicular to plane of wall without deforming or developing play in excess of 1/16 inch (1.6 mm).
  - 2. Fabricate wire ties from 0.187-inch- (4.76-mm-) diameter, stainless steel wire unless otherwise indicated.
  - 3. Masonry-Veneer Anchors; Single-Barrel Screw with Double-Pintle Wingnut: Self-drilling, single-barrel screw with thermally resistant wingnut head designed to receive double-pintle wire tie. Screw has a smooth barrel the same thickness as insulation with factory-installed gasketed washer to seal at face of insulation and sheathing and a coating to reduce thermal conductivity. Use in conjunction with Thermal-Grip brick-tie washers. Use Concrete/CMU Screw where backup in Cast-in-Place Concrete or CMU.
    - a. Basis-of-Design Product: Subject to compliance with requirements, provide Heckmann Building Products, Inc.; Pos-I-Tie with ThermalClip or a comparable product by one of the following:
      - 1) Hohmann & Barnard, Inc.; 2-Seal Thermal Wing Nut Anchor.
  - 4. Stainless Steel Drill Screws for Steel Studs: ASTM C954 except manufactured with hex washer head and neoprene or EPDM washer, No. 10 (4.83 mm) diameter by length required to penetrate steel stud flange with not less than three exposed threads; either made from Type 410 stainless steel or made with a carbon-steel drill point and 300 Series stainless steel shank.



## 2.10 EMBEDDED FLASHING

- A. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:
1. Stainless Steel: ASTM A240/A240M or ASTM A666, Type 304, 0.016 inch (0.40 mm) thick.
  2. Fabricate continuous flashings in sections 96 inches (2438 mm) long minimum, but not exceeding 12 ft. (3.7 m). Provide splice plates at joints of formed, smooth metal flashing.
  3. Fabricate through-wall flashing with snaplock receiver on exterior face where indicated to receive counterflashing.
  4. Fabricate through-wall flashing with drip edge (TWF-2) unless otherwise indicated. Fabricate by extending flashing 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed.
  5. Fabricate metal drip edges (TWF-2) and end dams from stainless steel. Extend at least 3 inches (76 mm) into wall and 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed. Provide Lipped Brick Profile where indicated on Drawings.
  6. Fabricate metal expansion-joint strips and end dams from stainless steel to shapes indicated.
  7. Solder metal items at corners. Fabricate fully soldered end dams.
- B. Flexible Flashing: Use one of the following unless otherwise indicated:
1. Stainless Steel Fabric Flashing (FLXF-1): Composite, flashing product consisting of 2 mil (0.05 mm) of Type 304 stainless steel sheet, bonded to a layer of polymeric fabric with an adhesive. Flashing to be compatible with fluid applied, vapor-retarding membrane air barrier. Verify in writing from the Manufacturer.
    - a. Products: Subject to compliance with requirements, provide one of the following:
      - 1) Hohmann & Barnard, Inc; Mighty-Flash.
      - 2) York Manufacturing, Inc; Multi-Flash SS 304.
    - b. Flashing materials must be able to withstand 300° F temperature without changing the long-term performance of the flashing.
- C. Solder and Sealants for Sheet Metal Flashings:
1. Solder for Stainless Steel: ASTM B32, Grade Sn60, with acid flux of type recommended by stainless steel sheet manufacturer.
  2. Elastomeric Sealant: ASTM C920, chemically curing silicone sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and remain watertight.
- D. Adhesives, Primers, and Seam Tapes for Flashings: Flashing manufacturer's standard products or products recommended by flashing manufacturer for bonding flashing sheets to each other and to substrates. Provide products that are compatible with air barrier membrane.
- E. Termination Bars for Flexible Flashing (TWF-1): Stainless steel bars 1/8 inch by 1 inch (3.2 mm by 25 mm).



## 2.11 ACCESSORIES

- A. Compressible Filler (MA-2): Premolded filler strips complying with ASTM D1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene.
- B. Preformed Control-Joint Gaskets (MA-1): Made from styrene-butadiene-rubber compound, complying with ASTM D2000, Designation M2AA-805 or PVC, complying with ASTM D2287, Type PVC-65406 and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.
- C. Bond-Breaker Strips (MA-3): Asphalt-saturated felt complying with ASTM D226/D226M, Type I (No. 15 asphalt felt).
- D. Weep/Cavity Vents: Use the following unless otherwise indicated:
  - 1. Cellular Plastic Weep/Vent (WPS-1): One-piece, flexible extrusion made from UV-resistant polypropylene copolymer, full height and width of head joint and depth 1/8 inch (3.2 mm) less than depth of outer wythe, in color selected from manufacturer's standard.
    - a. Products: Subject to compliance with requirements, provide one of the following:
      - 1) Advanced Building Products Inc.; Mortar Maze Weep Vent.
      - 2) Heckmann Building Products, Inc.; No. 85 Cell Vent.
      - 3) Hohmann & Barnard, Inc; QV Quadro-Vent.
      - 4) Mortar Net Solutions.
      - 5) Wire-Bond; Cell Vent (#3601).
- E. Cavity Drainage Material (WPS-2): Free-draining mesh, made from polymer strands that will not degrade within the wall cavity. Cavity drainage material should completely fill the full width of the air space.
  - 1. Mortar Deflector: Strips, full depth of cavity and 10 inches (254 mm) high, with dovetail-shaped notches that prevent clogging with mortar droppings.
    - a. Basis-of-Design Product: Subject to compliance with requirements, provide Mortar Net Solutions; Mortar Net with Insect Barrier or a comparable product by one of the following:
      - 1) Advanced Building Products Inc.
      - 2) Hohmann & Barnard, Inc.
      - 3) Masonry Accessories, Inc.
      - 4) Wire-Bond.
- F. Proprietary Acidic Masonry Cleaner: The use of hydrochloric acids and cleaners containing salts that form hydrochloric acid in solution is prohibited. Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Diedrich Technologies, Inc.; a Hohmann & Barnard company.



- b. EaCo Chem, Inc.
- c. PROSOCO, Inc.

## 2.12 MORTAR AND GROUT MIXES

- A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures unless otherwise indicated.
  - 1. Do not use calcium chloride in mortar or grout.
  - 2. Limit cementitious materials in mortar to portland cement and lime.
  - 3. Add cold-weather admixture (if used) at same rate for all mortar that will be exposed to view, regardless of weather conditions, to ensure that mortar color is consistent.
- B. Preblended, Dry Mortar Mix: Furnish dry mortar ingredients in form of a preblended mix. Measure quantities by weight to ensure accurate proportions, and thoroughly blend ingredients before delivering to Project site.
- C. Mortar for Unit Masonry: Comply with ASTM C270, Proportion Specification. Provide the following types of mortar for applications stated unless another type is indicated or needed to provide required compressive strength of masonry.
  - 1. For masonry below grade or in contact with earth, use Type M.
  - 2. For reinforced masonry, use Type S.
  - 3. For exterior, above-grade, load-bearing, nonload-bearing walls, and parapet walls; for interior load-bearing walls; for interior nonload-bearing partitions; and for other applications where another type is not indicated, use Type S.
- D. Pigmented Mortar: Use colored cement product.
  - 1. Pigments do not exceed 10 percent of portland cement by weight.
  - 2. Mix to match Architect's sample.
  - 3. Application: Use pigmented mortar for exposed mortar joints as indicated.
- E. Grout for Unit Masonry: Comply with ASTM C476.
  - 1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with TMS 602 for dimensions of grout spaces and pour height.
  - 2. Proportion grout in accordance with ASTM C476, Table 1 or paragraph 4.2.1.2 for specified 28-day compressive strength indicated, but not less than 2000 psi (14 MPa).
  - 3. Provide grout with a slump of 8 to 11 inches (203 to 279 mm) as measured in accordance with ASTM C143/C143M.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.



1. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
  2. Verify that foundations are within tolerances specified.
  3. Verify that reinforcing dowels are properly placed.
  4. Verify that substrates are free of substances that impair mortar bond.
- B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping connections.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 INSTALLATION, GENERAL

- A. Thickness: Build cavity and composite walls and other masonry construction to full thickness shown. Build single-wythe walls to actual widths of masonry units, using units of widths indicated.
- B. Build chases and recesses to accommodate items specified in this and other Sections.
- C. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.
- D. Use full-size units without cutting if possible. If cutting is required to provide a continuous pattern or to fit adjoining construction, cut units with motor-driven saws; provide clean, sharp, unchipped edges. Allow units to dry before laying unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.
- E. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures. Mix units from several pallets or cubes as they are placed.
- F. Wetting of Brick: Wet brick before laying if initial rate of absorption exceeds 30 g/30 sq. in. (30 g/194 sq. cm) per minute when tested in accordance with ASTM C67/C67M. Allow units to absorb water so they are damp but not wet at time of laying.

### 3.3 TOLERANCES

- A. Dimensions and Locations of Elements:
1. For dimensions in cross section or elevation, do not vary by more than plus 1/2 inch (13 mm) or minus 1/4 inch (6.4 mm).
  2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch (13 mm).
  3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch (6.4 mm) in a story height or 1/2 inch (13 mm) total.
- B. Lines and Levels:
1. For bed joints and top surfaces of bearing walls, do not vary from level by more than 1/4 inch in 10 ft. (6.4 mm in 3 m), or 1/2-inch (13-mm) maximum.
  2. For conspicuous horizontal lines, such as lintels, sills, parapets, and reveals, do not vary from level by more than 1/8 inch in 10 ft. (3.2 mm in 3 m), 1/4 inch in 20 ft. (6.4 mm in 6 m), or 1/2-inch (13-mm) maximum.



3. For vertical lines and surfaces, do not vary from plumb by more than 1/4 inch in 10 ft. (6.4 mm in 3 m), 3/8 inch in 20 ft. (10 mm in 6 m), or 1/2-inch (13-mm) maximum.
4. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/8 inch in 10 ft. (3.2 mm in 3 m), 1/4 inch in 20 ft. (6.4 mm in 6 m), or 1/2-inch (13-mm) maximum.
5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 ft. (6.4 mm in 3 m), 3/8 inch in 20 ft. (10 mm in 6 m), or 1/2-inch (13-mm) maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 ft. (6.4 mm in 3 m), or 1/2-inch (13-mm) maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch (1.6 mm) except due to warpage of masonry units within tolerances specified for warpage of units.

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch (3.2 mm), with a maximum thickness limited to 1/2 inch (13 mm).
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch (3.2 mm).
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch (10 mm) or minus 1/4 inch (6.4 mm).
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch (3.2 mm). Do not vary from adjacent bed-joint and head-joint thicknesses by more than 1/8 inch (3.2 mm).
5. For exposed bed joints and head joints of stacked bond, do not vary from a straight line by more than 1/16 inch (1.6 mm) from one masonry unit to the next.

### 3.4 LAYING MASONRY WALLS

- A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.
- B. Bond Pattern for Exposed Masonry: Unless otherwise indicated, lay exposed masonry in bond pattern indicated on Drawings; do not use units with less-than-nominal 4-inch (102-mm) horizontal face dimensions at corners or jambs.
- C. Lay concealed masonry with all units in a wythe in running bond or bonded by lapping not less than 4 inches (102 mm). Bond and interlock each course of each wythe at corners. Do not use units with less-than-nominal 4-inch (102-mm) horizontal face dimensions at corners or jambs.
- D. Stopping and Resuming Work: Stop work by stepping back units in each course from those in course below; do not tooth. When resuming work, clean masonry surfaces that are to receive mortar, remove loose masonry units and mortar, and wet brick if required before laying fresh masonry.
- E. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.
- F. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.
- G. Where built-in items are to be embedded in cores of hollow masonry units, place a layer of metal lath, wire mesh, or plastic mesh in the joint below, and rod mortar or grout into core.



- H. Fill cores in hollow CMUs with grout 24 inches (610 mm) under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.
- I. Build nonload-bearing interior partitions full height of story to underside of solid floor or roof structure above unless otherwise indicated.
  - 1. Install compressible filler in joint between top of partition and underside of structure above.
  - 2. Anchor top of partitions as noted on contract documents providing a "soft joint".
  - 3. At fire-rated partitions, treat joint between top of partition and underside of structure above to comply with Section 078443 "Joint Firestopping."

### 3.5 MORTAR BEDDING AND JOINTING

- A. Lay CMUs and hollow brick as follows:
  - 1. Bed face shells in mortar and make head joints of depth equal to bed joints.
  - 2. Bed webs in mortar in all courses of piers, columns, and pilasters.
  - 3. Bed webs in mortar in grouted masonry, including starting course on footings.
  - 4. Fully bed entire units, including areas under cells, at starting course on footings where cells are not grouted.
  - 5. Fully bed units and fill cells with mortar at anchors and ties as needed to fully embed anchors and ties in mortar.
- B. Lay solid masonry units with completely filled bed and head joints; butter ends with sufficient mortar to fill head joints and shove into place. Do not deeply furrow bed joints or slush head joints.
- C. Set stone trim units in full bed of mortar with full vertical joints. Fill dowel, anchor, and similar holes.
  - 1. Clean soiled surfaces with fiber brush and soap powder and rinse thoroughly with clear water.
  - 2. Allow cleaned surfaces to dry before setting.
  - 3. Wet joint surfaces thoroughly before applying mortar.
  - 4. Rake out mortar joints for pointing with sealant.
- D. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.
- E. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.
- F. Cut joints flush where indicated to receive waterproofing cavity wall insulation and air barriers unless otherwise indicated.

### 3.6 ANCHORED MASONRY VENEERS

- A. Anchor masonry veneers to wall framing with masonry-veneer anchors to comply with the following requirements:



1. Fasten screw-attached anchors through sheathing to wall framing with metal fasteners of type indicated. Use two fasteners unless anchor design only uses one fastener. Anchor penetrations through the air/vapor barrier must be sealed with compatible sealant unless pre-construction mock-up testing does not dictate this requirement.
  2. Embed tie sections in masonry joints.
  3. Locate anchor sections to allow maximum vertical differential movement of ties up and down.
  4. Space anchors as indicated, but not more than 18 inches (457 mm) o.c. vertically and 24 inches (610 mm) o.c. horizontally, with not less than one anchor for each 2 sq. ft. (0.2 sq. m) of wall area. Install additional anchors within 12 inches (305 mm) of openings and at intervals, not exceeding 8 inches (203 mm), around perimeter.
- B. Provide airspace between back of masonry veneer and face of insulation. Refer to Exterior Wall Types on Drawings for airspace depth.
1. Keep airspace clean of mortar droppings and other materials during construction. Bevel beds away from airspace, to minimize mortar protrusions into airspace. Do not attempt to trowel or remove mortar fins protruding into airspace.
  2. Cavity Protection: Provide means and methods to prevent bridging of cavity with mortar. Use "clean out" board or other means to keep cavity clean of mortar and mortar droppings. Strike off back of face veneer to remove excess, extruded mortar.

### 3.7 MASONRY-JOINT REINFORCEMENT

- A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch (16 mm) on exterior side of walls, 1/2 inch (13 mm) elsewhere. Lap reinforcement a minimum of 6 inches (152 mm).
1. Space reinforcement not more than 16 inches (406 mm) o.c.
  2. Space reinforcement not more than 8 inches (203 mm) o.c. in foundation walls and parapet walls.
  3. Provide reinforcement not more than 8 inches (203 mm) above and below wall openings and extending 12 inches (305 mm) beyond openings.
- B. Interrupt joint reinforcement at control and expansion joints unless otherwise indicated.
- C. Provide continuity at wall intersections by using prefabricated T-shaped units.
- D. Provide continuity at corners by using prefabricated L-shaped units.
- E. Cut and bend reinforcing units as directed by manufacturer for continuity at corners, returns, offsets, column fireproofing, pipe enclosures, and other special conditions.

### 3.8 CONTROL AND EXPANSION JOINTS

- A. General: Install control- and expansion-joint materials in unit masonry as masonry progresses. Do not allow materials to span control and expansion joints without provision to allow for in-plane wall or partition movement. Provide a maximum control joint spacing per ACI 530/NCMA TEK-Notes. Control and expansion joints are to meet NCMA and BIA standards.
- B. Form control joints in concrete masonry using one of the following methods:



1. Fit bond-breaker strips into hollow contour in ends of CMUs on one side of control joint. Fill resultant core with grout, and rake out joints in exposed faces for application of sealant.
2. Install preformed control-joint gaskets designed to fit standard sash block.
3. Install interlocking units designed for control joints. Install bond-breaker strips at joint. Keep head joints free and clear of mortar, or rake out joint for application of sealant.
4. Install temporary foam-plastic filler in head joints, and remove filler when unit masonry is complete for application of sealant.

C. Form expansion joints in brick as follows:

1. Build in compressible joint fillers where indicated.
2. Locate expansion joints as indicated on Drawings. Space no more than 25 feet on center.

D. Provide horizontal, pressure-relieving joints by either leaving an airspace or inserting a compressible filler of width required for installing sealant and backer rod specified in Section 079200 "Joint Sealants," but not less than 3/8 inch (10 mm).

1. Locate horizontal, pressure-relieving joints beneath shelf angles supporting masonry.

### 3.9 LINTELS

- A. Install steel lintels where indicated. Provide steel hot-dipped galvanized lintels per the construction documents.
- B. Provide concrete or masonry lintels where indicated and where openings of more than 12 inches (305 mm) for brick-size units and 24 inches (610 mm) for block-size units are indicated without structural steel or other supporting lintels.
- C. Provide minimum bearing of 8 inches (203 mm) at each jamb unless otherwise indicated.

### 3.10 FLASHING AND CAVITY VENTS

- A. General: Install embedded flashing and weep vents in masonry at shelf angles, lintels, ledges, other obstructions to downward flow of water in wall, and where indicated. Install cavity vents at shelf angles, ledges, and other obstructions to upward flow of air in cavities, and where indicated.
- B. Install flashing as follows unless otherwise indicated:
  1. Prepare masonry surfaces so they are smooth and free from projections that could puncture flashing. Where flashing is within mortar joint, place through-wall flashing on sloping bed of mortar and cover with mortar. Before covering with mortar, seal penetrations in flashing with adhesive, sealant, or tape as recommended by flashing manufacturer.
  2. At masonry-veneer walls, extend flashing through veneer, across airspace behind veneer, and up face of sheathing a minimum of 6 inches above the top of the cavity drainage material; upper termination of flashing to be integrated with the AWB such that a continuous air and water control layer is provided. Fasten upper edge of flexible flashing to sheathing through termination bar. Provide a termination bead of sealant. Confirm compatibility of materials.



3. At lintels and shelf angles, extend flashing 6 inches (152 mm) minimum, to edge of next full unit at each end. At heads and sills, extend flashing 6 inches (152 mm) minimum, to edge of next full unit and turn ends up not less than 2 inches (51 mm) to form end dams.
  4. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch (13 mm) back from outside face of wall, and adhere flexible flashing to top of metal drip edge. Set drip edge in a bead of sealant.
- C. Install reglets and nailers for flashing and other related construction where they are indicated to be built into masonry.
- D. Install weep vents in exterior wythes and veneers in head joints of first course of masonry immediately above embedded flashing.
1. Use specified weep/cavity vent products to form weep holes.
  2. Space weep vents 24 inches (610 mm) o.c. unless otherwise indicated and at end dam locations.
- E. Place cavity drainage material in airspace behind veneers to comply with configuration requirements for cavity drainage material in "Accessories" Article.
- F. Install cavity vents in head joints in exterior wythes at 24 inches O.C. unless otherwise indicated. Use specified weep/cavity vent products to form cavity vents.
1. Close cavities off vertically and horizontally with blocking in manner indicated. Install through-wall flashing and weep vents above horizontal blocking.

### 3.11 REINFORCED UNIT MASONRY

- A. Temporary Formwork and Shores: Construct formwork and shores as needed to support reinforced masonry elements during construction.
1. Construct formwork to provide shape, line, and dimensions of completed masonry as indicated. Make forms sufficiently tight to prevent leakage of mortar and grout. Brace, tie, and support forms to maintain position and shape during construction and curing of reinforced masonry.
  2. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and that of other loads that may be placed on them during construction.
- B. Placing Reinforcement: Comply with requirements in TMS 602.
- C. Grouting: Do not place grout until entire height of masonry to be grouted has attained enough strength to resist grout pressure.
1. Comply with requirements in TMS 602 for cleanouts and for grout placement, including minimum grout space and maximum pour height. Consolidate grout with mechanical vibrator.
  2. Limit height of vertical grout pours to not more than 60 inches (1524 mm).



### 3.12 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections. Allow inspectors access to scaffolding and work areas as needed to perform tests and inspections. Retesting of materials that fail to comply with specified requirements will be at Contractor's expense.
- B. Inspections: Special inspections in accordance with Level 3 in TMS 402.
  - 1. Begin masonry construction only after inspectors have verified proportions of site-prepared mortar.
  - 2. Place grout only after inspectors have verified compliance of grout spaces and of grades, sizes, and locations of reinforcement.
  - 3. Place grout only after inspectors have verified proportions of site-prepared grout.
- C. Testing Prior to Construction: One set of tests.
- D. Testing Frequency: One set of tests for each 5000 sq. ft. (464 sq. m) of wall area or portion thereof.
- E. Clay Masonry Unit Test: For each type of unit provided, in accordance with ASTM C67/C67M for compressive strength.
- F. Concrete Masonry Unit Test: For each type of unit provided, in accordance with ASTM C140/C140M for compressive strength.
- G. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, in accordance with ASTM C780.
- H. Grout Test (Compressive Strength) and Slump Test: For each mix provided, in accordance with ASTM C1019.
- I. Prism Test: For each type of construction provided, in accordance with ASTM C1314 at 7 days and at 28 days.

### 3.13 REPAIRING, POINTING, AND CLEANING

- A. Remove and replace masonry units that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Install new units to match adjoining units; install in fresh mortar, pointed to eliminate evidence of replacement.
- B. Pointing: During the tooling of joints, enlarge voids and holes, except weep holes, and completely fill with mortar. Point up joints, including corners, openings, and adjacent construction, to provide a neat, uniform appearance. Prepare joints for sealant application, where indicated.
- C. In-Progress Cleaning: Clean unit masonry as work progresses by dry brushing to remove mortar fins and smears before tooling joints.
- D. Final Cleaning: After mortar is thoroughly set and cured, clean exposed masonry within 24 to 48 hours and as follows:



1. Remove large mortar particles by hand with wooden paddles and nonmetallic scrape hoes or chisels.
2. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes. Obtain Architect's approval of sample cleaning before proceeding with cleaning of masonry.
3. Protect adjacent stone and nonmasonry surfaces from contact with cleaner by covering them with liquid strippable masking agent or polyethylene film and waterproof masking tape.
4. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing surfaces thoroughly with clear water.
5. Clean concrete masonry by applicable cleaning methods indicated in NCMA TEK 8-4A.
6. Clean masonry with a masonry cleaner applied according to manufacturer's written instructions.

### 3.14 MASONRY WASTE DISPOSAL

- A. Salvageable Materials: Unless otherwise indicated, excess masonry materials are Contractor's property. At completion of unit masonry work, remove from Project site.
- B. Waste Disposal as Fill Material: Dispose of clean masonry waste, including excess or soil-contaminated sand, waste mortar, and broken masonry units, by crushing and mixing with fill material as fill is placed.
  1. Crush masonry waste to less than 4 inches (102 mm) in each dimension.
  2. Mix masonry waste with at least two parts of specified fill material for each part of masonry waste. Fill material is specified in Section 312000 "Earth Moving."
  3. Do not dispose of masonry waste as fill within 18 inches (457 mm) of finished grade.
- C. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above, and other masonry waste, and legally dispose of off Owner's property.

**END OF SECTION 042000**



## SECTION 084413 - GLAZED ALUMINUM CURTAIN WALLS

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes:

1. Glazed aluminum curtain wall systems:
  - a. Conventionally glazed.
  - b. Two-sided, structural-sealant-glazed.

B. Related Requirements:

1. Section 014339 "Mockups".
2. Section 019115 "Building Enclosure Commissioning."
3. **Section 019117 "Building Enclosure Functional Performance Testing."**
4. Section 072100 "Thermal Insulation" for insulation materials field installed with glazed aluminum curtain wall systems.
5. Section 078443 "Joint Firestopping" perimeter fire-containment systems field installed with glazed aluminum curtain walls.
6. Section 079200 "Joint Sealants" for installation of joint sealants installed with glazed aluminum curtain walls and for sealants to the extent not specified in this Section.
7. Section 084213 "Aluminum-Framed Entrances" for entrance systems installed with glazed aluminum curtain-wall systems.
8. Section 088000 "Glazing" for curtain wall glazing.
9. Section 089119 "Fixed Louvers" for louvers installed in glazed aluminum curtain wall systems.

#### 1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site. Confirm participants with Construction Manager.

1. Discussion topics shall include;
  - a. Schedule.
  - b. Sequence.
  - c. Coordination of trades.
  - d. Substrate review and acceptance.
  - e. Protection
  - f. Shop drawings and submittals.
  - g. Interface condition and details.
  - h. Environmental constraints.
  - i. Mockups.
  - j. Testing requirements.
  - k. Field quality control efforts.



### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, most current version of the manufacturer's installation instructions, dimensions of individual components and profiles, and finishes.

B. Sustainable Design Submittals:

1. Product Data: For sealants, indicating VOC content.
2. Laboratory Test Reports: For sealants, indicating compliance with requirements for low-emitting materials.
3. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
4. Environmental Product Declaration (EPD): For each product.
5. Environmental Product Declaration: For each product.
6. Health Product Declaration: For each product.
7. Sourcing of Raw Materials: Corporate sustainability report for each manufacturer.

C. Shop Drawings: For glazed aluminum curtain walls, including sunshades. Include project specific plans, elevations, sections, full-size details, and attachments to other work. Prepared by or under the supervision of a qualified professional engineer licensed in the State of Kentucky detailing fabrication and assembly of glazed aluminum curtain-wall systems.

1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
2. Include full-size isometric details of each type of vertical-to-horizontal intersection of glazed aluminum curtain walls, showing the following:
  - a. Joinery, including concealed welds.
  - b. Anchorage.
  - c. Expansion provisions.
  - d. Glazing.
  - e. Flashing and drainage.
3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers and adjacent construction.

D. Samples for Initial Selection: For units with factory-applied color finishes.

E. Samples for Verification: For each type of exposed finish required, in manufacturer's standard sizes.

F. Fabrication Sample: Of each vertical-to-horizontal intersection of assemblies, made from 12-inch (300-mm) lengths of full-size components and showing details of the following:

1. Joinery, including concealed welds.
2. Anchorage.
3. Expansion provisions.
4. Glazing.
5. Flashing and drainage.



- G. Delegated-Design Submittal: For glazed aluminum curtain walls and sunshades, including analysis data signed and sealed by the qualified professional engineer licensed in the State of Kentucky responsible for their preparation.
- H. Provide THERM: Two-Dimensional Building Heat-Transfer Modeling at thermally-broken sunshade connections and at interfaces with adjacent opaque walls, roofs or slabs. Frame temperatures shall be confirmed to be maintained above the dew point temperature during design conditions.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data:
  - 1. For Installer and field testing agency.
  - 2. For professional engineer's experience with providing delegated-design engineering services of the kind indicated, including documentation that engineer is licensed in the state in which Project is located.
- B. Energy Performance Certificates: For glazed aluminum curtain walls, accessories, and components from manufacturer.
  - 1. Basis for Certification: NFRC-certified energy performance values for each glazed aluminum curtain wall.
- C. Product Test Reports: For glazed aluminum curtain walls, for tests indicated in "Performance Requirements" section and performed by a qualified testing agency. Test reports shall be project specific and performed within the past 2 years.
- D. Quality-Control Program: Developed specifically for Project, including fabrication and installation, in accordance with recommendations in ASTM C1401. Include periodic quality-control reports.
- E. Source quality-control reports.
- F. Field quality-control reports.
- G. Sample Warranties: For special warranties.
- H. Manufacturer's Certificates:
  - 1. Certification from manufacturers that products supplied comply with local regulations controlling use of volatile organic compounds (VOCs).
  - 2. Provide certificates from manufacturer for each product required indicating that product complies with specified product requirements and is suitable for use indicated.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For glazed aluminum curtain walls to include in maintenance manuals.
- B. Maintenance Data for Structural Sealant: For structural-sealant-glazed curtain walls to include in maintenance manuals. Include ASTM C1401 recommendations for post-installation-phase quality-control program.



## 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer and that employs a qualified glazing contractor for this Project who is certified under the North American Contractor Certification Program (NACC) for Architectural Glass & Metal (AGM) contractors and that employs glazing technicians certified under the Architectural Glass and Metal Technician (AGMT) certification program.
- B. Testing Agency Qualifications: Qualified in accordance with ASTM E699 for testing indicated and accredited by IAS or ILAC Mutual Recognition Arrangement as complying with ISO/IEC 17025 and acceptable to Owner and Architect.
- C. Product Options: Information on Drawings and in Specifications establishes requirements for aesthetic effects and performance characteristics of assemblies. Aesthetic effects are indicated by dimensions, arrangements, alignment, and profiles of components and assemblies as they relate to sightlines, to one another, and to adjoining construction.
  - 1. Do not change intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If changes are proposed, submit comprehensive explanatory data to Architect for review.
- D. Structural-Sealant Glazing: Comply with ASTM C1401 for design and installation of structural-sealant-glazed curtain wall assemblies.
- E. Accessible Entrances: Comply with the U.S. Architectural & Transportation Barriers Compliance Board's "Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities (ADAAG)."

## 1.7 MOCKUPS

- A. Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation. Mockups will also be used to evaluate system installation and integration with the surrounding materials/systems.
  - 1. Build mockup of typical wall area. Size of mockup to be determined by Architect and Construction Manager. Refer to Section 014339 "Integrated Exterior Mockups" for additional requirements. Refer to Drawing A489 for scope of on-site standalone mockup.
  - 2. Testing shall be performed on mockups in accordance with requirements in "Field Quality Control" Article, in Section 019117 "Building Enclosure Functional Performance Testing".
  - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

## 1.8 WARRANTY

- A. Special Assembly Warranty: Manufacturer agrees to repair or replace components of glazed aluminum curtain wall that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:



- a. Structural failures including, but not limited to, excessive deflection.
  - b. Noise or vibration created by wind and thermal and structural movements.
  - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - d. Water penetration through fixed glazing and framing areas.
  - e. Failure of operating components.
- 2. Warranty Period: 10 years from date of Substantial Completion.
- B. Special Finish Warranty, Factory-Applied Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of baked enamel, powder coat, or organic finishes within specified warranty period.
  - 1. Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
    - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  - 2. Warranty Period: 20 years from date of Substantial Completion.
- C. Special Finish Warranty, Anodized Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of anodized finishes within specified warranty period.
  - 1. Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
    - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
    - c. Cracking, peeling, or chipping.
  - 2. Warranty Period: 10 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer licensed in the State of Kentucky, as defined in Section 014000 "Quality Requirements," to design glazed aluminum curtain walls.
- B. General Performance: Comply with performance requirements specified, as determined by testing of glazed aluminum curtain walls representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
  - 1. Glazed aluminum curtain walls shall withstand movements of supporting structure, including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
  - 2. Failure also includes the following:
    - a. Thermal stresses transferring to building structure.



- b. Glass breakage.
  - c. Noise or vibration created by wind and thermal and structural movements.
  - d. Loosening or weakening of fasteners, attachments, and other components.
  - e. Failure of operating units.
- C. Structural Loads:
  - 1. Wind Loads: As indicated on Drawings.
  - 2. Other Design Loads: As indicated on Drawings.
- D. Deflection of Framing Members Supporting Glass: At design wind load, as follows:
  - 1. Deflection Normal to Wall Plane: Limited to 1/175 of clear span for spans of up to 13 feet 6 inches (4.1 m) and to 1/240 of clear span plus 1/4 inch (6.35 mm) for spans of greater than 13 feet 6 inches (4.1 m).
  - 2. Deflection Parallel to Glazing Plane: Limited to amount not exceeding that which reduces glazing bite to less than 75 percent of design dimension and that which reduces edge clearance between framing members and glazing or other fixed components to less than 1/8 inch (3.2 mm).
    - a. Operable Units: Provide a minimum 1/16-inch (1.6-mm) clearance between framing members and operable units.
  - 3. Cantilever Deflection: Limited to 2l/175 at unsupported cantilevers.
- E. Structural: Test in accordance with ASTM E330/E330M as follows:
  - 1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
  - 2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
  - 3. Test Durations: As required by design wind velocity, but not less than 10 seconds.
- F. Water Penetration under Static Pressure: Test in accordance with ASTM E331 as follows:
  - 1. No evidence of water penetration through fixed glazing and framing areas when tested in accordance with a minimum static-air-pressure differential of 20 percent of positive wind-load design pressure, but not less than 15 lbf/sq. ft. (720 Pa).
- G. Water Penetration under Dynamic Pressure: Test in accordance with AAMA 501.1 as follows:
  - 1. No evidence of water penetration through fixed glazing and framing areas when tested at dynamic pressure equal to 20 percent of positive wind-load design pressure, but not less than 15 lbf/sq. ft. (720 Pa).
  - 2. Maximum Water Leakage: In accordance with AAMA 501.1 No uncontrolled water penetrating assemblies or water appearing on assemblies' normally exposed interior surfaces from sources other than condensation. Water leakage does not include water controlled by flashing and gutters or water that is drained to exterior.
- H. Interstory Drift: Accommodate design displacement of adjacent stories indicated.
  - 1. Design Displacement: H/500 with connections capable of not less than 1/2" between stories.



2. Test Performance: Complying with criteria for passing based on building occupancy type when tested in accordance with AAMA 501.4 at design displacement and 1.5 times the design displacement.
- I. Energy Performance: Certified and labelled by manufacturer for energy performance as follows:
1. Base thermal movement on a minimum of temperature differential: 170 degrees to -25 with nominal at 72 degrees and interior RH at 30 percent.
  2. Thermal Transmittance (U-factor):
    - a. Fixed Glazing and Framing Areas: U-factor for the system of not more than 0.38 Btu/sq. ft. x h x deg F as determined in accordance with NFRC 100.
    - b. Approximate calculated U Value of Basis-of-Design: 0.32. Refer to exterior glass types for additional information.
  3. Solar Heat Gain Coefficient (SHGC):
    - a. Fixed Glazing and Framing Areas: SHGC for the system of not more than 0.36 (South, East and West faces) and 0.48 (North face) as determined in accordance with NFRC 200.
    - b. Approximate calculated SHGC of Basis-of-Design: 0.21. Refer to exterior glass types for additional information.
  4. Air Leakage:
    - a. Fixed Glazing and Framing Areas: Air leakage for the system of not more than 0.06 cfm/sq. ft. (0.30 L/s per sq. m) at a static-air-pressure differential of 6.24 lbf/sq. ft. (300 Pa) when tested in accordance with ASTM E283.
  5. Condensation Resistance: When tested to AAMA Specification 1503, the Condensation Resistance Factor (CRF) shall not be less than: CRF glass 1-inch Double Glazed HP = 76, CRF frame = 79.
    - a. All openings (vision glazing, spandrel glazing, glazed in IMP, etc.) shall be condensation free at -25 degrees F at interior conditions of 72 degrees F and 30% RH.
  6. Maintain continuous air and vapor retarder throughout assembly located in a line even with inside line of glass and heel bead of glazing sealant.
- J. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:
1. Temperature Change: 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
  2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested in accordance with AAMA 501.5.
    - a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F (82 deg C).
    - b. Low Exterior Ambient-Air Temperature: 0 deg F (minus 18 deg C).

## K. Structural-Sealant Joints:

1. Designed to carry gravity loads of glazing.

## L. Structural Sealant: ASTM C1184. Capable of withstanding tensile and shear stresses imposed by structural-sealant-glazed curtain walls without failing adhesively or cohesively. When tested for preconstruction adhesion and compatibility, cohesive failure of sealant shall occur before adhesive failure.

1. Adhesive failure occurs when sealant pulls away from substrate cleanly, leaving no sealant material behind.
2. Cohesive failure occurs when sealant breaks or tears within itself but does not separate from each substrate, because sealant-to-substrate bond strength exceeds sealant's internal strength.

## 2.2 SOURCE LIMITATIONS

- A. Obtain all components of curtain-wall system and storefront system, including framing spandrel panels, venting windows, entrances, sun control, and accessories, from single manufacturer.

## 2.3 GLAZED ALUMINUM CURTAIN WALL SYSTEMS (CW-1 Unitized; Steel-reinforced, CW-2 Unitized)

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Kawneer Company, Inc.; Arconic Corporation; 2500 UT Unitwall System or a comparable product by one of the following:

1. EFCO Corporation; 8750XD Unitized Curtain Wall System.
2. Wausau Window and Wall Systems; Apogee Wausau Group, Inc.; 7250i-UW Unitized Curtain Wall System.
3. Fabricator's proprietary systems will be considered if they are in compliance with requirements of this specification.

- B. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.

1. Construction: Ultra-thermally broken.
2. Glazing System: Retained mechanically with gaskets on two sides and structural sealant on two sides (horizontal and corners as indicated on Drawings).
3. Glazing Plane: Front.
4. Split finish: Custom anodized finish to match Architect's sample (exterior) and custom color high-performance organic finish to match Architect's sample (interior).
5. System: Unitized system.
6. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
7. Steel Reinforcement: As required by manufacturer.
8. Double gasketed and pressure equalized internal chambers with integrated continuous gutters at each floor.
9. Both vertical and horizontal mullion profiles are two piece design to accommodate differential movement within profile section and not within glazing pocket. Complete with thermally separated snap on custom profile mullion caps.



10. Energy efficient thermal separation between exterior and interior elements to reduce thermal transmission.
11. Face dimension of profile: As indicated on Drawings.
12. Panel Size: As Indicated on Drawings.
13. Anchorage: Adjustable system at each floor slab to allow for 1-inch tolerance in all directions (lateral, vertical, and orthogonal), plus up to 10 degrees out of plumb (vertical).
14. Mullion covers as selected by architect from the curtain wall Manufacturers profiles.
  - a. Provide Custom thin-profile mullion extension cover profiles as indicated on Drawings.
  - b. Provide custom jamb extension cover profiles as indicated on the drawings.

*15. Curtain Wall (CW-1) will require some modification/customization as required to accommodate sunshade attachment, structural support and thermally-broken connections.*

*16. At Curtain Wall (CW-1) locations field fabricated (stick-built) systems are acceptable in lieu of unitized systems as long as the mullion sightlines are consistent between adjacent unitized and field-fabricated (stick built) systems and performance requirements are met.*

C. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.

D. Venting Windows:

1. Manufacturer's standard units, complying with AAMA/WDMA/CSA 101/I.S.2/A440, with self-flashing mounting fins, and as follows:
  - a. Window Type: Casement.
  - b. Minimum Performance Class: AW.
  - c. Minimum Performance Grade: 90.
  - d. Hardware: Manufacturer's standard; of aluminum, stainless steel, die-cast steel, malleable iron, or bronze; including the following:
    - 1) Cam handle keyed locking system.
    - 2) Steel or bronze operating arms.
  - e. Weather Stripping: Provide full-perimeter weather stripping for each operable sash unless otherwise indicated.
  - f. Glazing: Same as adjacent glazed aluminum curtain-wall glazing.
  - g. Finish: Match adjacent glazed aluminum curtain-wall finish.

E. Entrance Door Systems: Comply with Section 084213 "Aluminum-Framed Entrances".

## 2.4 SUN CONTROL (SCD-1)

- A. Sunshades: Assemblies consisting of manufacturer's outrigger brackets and aluminum sunshade blades, designed for attachment to curtain wall with mechanical fasteners.
1. Orientation: As indicated on Drawings.
  2. Projection from Wall: As indicated on Drawings.
  3. Outriggers: As indicated on Drawings. Cantilevered aluminum plate outriggers to be delegated design by curtain wall manufacturer. Provide concealed aluminum splines and fasteners. *Provide thermally-broken connections.*

4. Finish: Custom color. Match Architect's sample.
5. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
6. Steel Reinforcement: As required by manufacturer.

## 2.5 GLAZING

- A. Glazing: Comply with Section 088000 "Glazing."
- B. Glazing Gaskets: ASTM C509 or ASTM C864. Comply with Section 088000 "Glazing."

**C. *Flashing and sealant for perimeter of curtain wall:***

1. Basis-of-Design Product: Tremco Proglaze ETA; 6-inch wide Extruded Silicone Rubber gasket with preformed corners; installed to curtain wall using extruded aluminum curtain wall glazing raceway or Tremco TR 15265 extruded aluminum adaptor, mechanically attached at 6-inch centers with Tremco 440 taped seal.
2. Gasket extends from curtain wall framing covering gap and sealing to moisture barrier using Tremco Spectrum 1 Silicone sealant. (Perform adhesion compatibility test prior to selection of sealant.)

**3. *Color: As selected by Architect from Manufacturer's full range.***

- D. Glazing Sealants: As recommended by manufacturer. Comply with Section 088000 "Glazing."
  1. Verify sealant has a VOC content of 250 g/L or less.
- E. Structural Glazing Sealants: ASTM C1184, chemically curing silicone formulation that is compatible with system components with which it comes into contact, specifically formulated and tested for use as structural sealant and approved by structural-sealant manufacturer for use in curtain-wall assembly indicated.
  1. Color: Black.
- F. Weatherseal Sealants: ASTM C920 for Type S; Grade NS; Class 25; Uses NT, G, A, and O; chemically curing silicone formulation that is compatible with structural sealant and other system components with which it comes into contact; recommended by structural-sealant, weatherseal-sealant, and structural-sealant-glazed curtain-wall manufacturers for this use.
  1. Color: Match structural sealant.

## 2.6 MATERIALS

- A. Sheet and Plate: ASTM B209 (ASTM B209M).
- B. Extruded Bars, Rods, Profiles, and Tubes: ASTM B221 (ASTM B221M).
- C. Structural Profiles: ASTM B308/B308M.
- D. Steel Reinforcement:
  1. Structural Shapes, Plates, and Bars: ASTM A36/A36M.
  2. Cold-Rolled Sheet and Strip: ASTM A1008/A1008M.



## 3. Hot-Rolled Sheet and Strip: ASTM A1011/A1011M.

- E. Steel Reinforcement Primer: Manufacturer's standard zinc-rich, corrosion-resistant primer complying with SSPC-PS Guide No. 12.00; applied immediately after surface preparation and pretreatment. Select surface preparation methods in accordance with recommendations in SSPC-SP COM, and prepare surfaces in accordance with applicable SSPC standard.
- F. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- G. Recycled Content of Aluminum Components: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- H. Regional Materials: Manufacture products within 100 miles (160 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles (160 km) of Project site.

## 2.7 ACCESSORIES

- A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
  - 1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
  - 2. Reinforce members as required to receive fastener threads.
  - 3. Use exposed fasteners with countersunk Phillips screw heads, finished to match framing system.
- B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch (25.4 mm) that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.
  - 1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A123/A123M or ASTM A153/A153M requirements.
- C. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.
- D. Bituminous Paint: Cold-applied asphalt-mastic paint containing no asbestos, formulated for 30-mil (0.762-mm) thickness per coat.

## 2.8 FABRICATION

## A. Curtain Wall Fabricators.

## 1. Approved Fabricators:

- a. Advanced Glazing Contractors, Inc.
- b. Pioneer Cladding & Glazing Systems, Inc.

2. Other Fabricators will be considered. Fabricators shall have a minimum of seven (7) years' experience in the design, engineering, fabrication, and installation of curtain walls

of similar scale and complexity as this project and is subject to final approval by the Owner and the Architect.

- B. Form or extrude aluminum shapes before finishing.
- C. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- D. Fabricate components that, when assembled, have the following characteristics:
  - 1. Profiles that are sharp, straight, and free of defects or deformations.
  - 2. Accurately fitted joints with ends coped or mitered.
  - 3. Physical and thermal isolation of glazing from framing members.
  - 4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
  - 5. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
  - 6. Components curved to indicated radii.
- E. Fabricate components to resist water penetration as follows:
  - 1. Internal guttering system or other means to drain water passing joints, condensation occurring within framing members, and moisture migrating within glazed aluminum curtain wall to exterior.
  - 2. Pressure-equalized system or double barrier design with primary air and vapor barrier at interior side of glazed aluminum curtain wall and secondary seal weeped and vented to exterior.
- F. Factory-Assembled Frame Units:
  - 1. Rigidly secure nonmovement joints.
  - 2. Prepare surfaces that are in contact with structural sealant in accordance with sealant manufacturer's written instructions, to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.
  - 3. Seal joints watertight unless otherwise indicated.
  - 4. Install glazing to comply with requirements in Section 088000 "Glazing."
  - 5. Install structural glazing.
    - a. Set glazing into framing in accordance with sealant manufacturer and framing manufacturer's written instructions and standard practice. Use a spacer or backer as recommended by manufacturer.
    - b. Set glazing with proper orientation so that coatings face exterior or interior as specified.
    - c. Apply structural silicone sealant to completely fill cavity, in accordance with sealant manufacturers written instructions with the framing and glazing in a fully supported position.
    - d. Brace or stiffen framing and glazing in such a manner to prevent undue stresses on the glass edge seal and structural joints or movement of the glazing, until sealant is fully cured in accordance with manufacturer's recommendations.
    - e. After structural sealant has completely cured, insert backer rod between lites of glass as recommended by sealant manufacturer.
    - f. Install weatherseal sealant to completely fill cavity, in accordance with sealant manufacturer's written instructions, to produce weatherproof joints.
    - g. Clean and protect glass as indicated in Section 088000 "Glazing."



- h. Retain bracing or stiffening until erected to prevent racking of units during transportation and erection.
- G. After fabrication, clearly mark components to identify their locations in Project in accordance with Shop Drawings.

## 2.9 ALUMINUM FINISHES

- A. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
  - 1. Color: Custom color. Match Architect's sample.
- B. High-Performance Organic Finish, Two-Coat PVDF: Fluoropolymer finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in color coat.
  - 1. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  - 2. Color and Gloss: Custom color. Match Architect's sample.

## 2.10 SOURCE QUALITY CONTROL

- A. Structural Sealant: Perform quality-control procedures complying with ASTM C1401 recommendations, including, but not limited to, assembly material qualification procedures, sealant testing, and assembly fabrication reviews and checks.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

## 3.2 INSTALLATION, GENERAL

- A. Comply with manufacturer's written instructions.
- B. Do not install damaged components.
- C. Fit joints to produce hairline joints free of burrs and distortion.
- D. Rigidly secure nonmovement joints.
- E. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
- F. Where welding is required, weld components in concealed locations to minimize distortion or discoloration of finish. Protect glazing surfaces from welding.

- G. Seal joints watertight unless otherwise indicated. Overlap splice plates with continuous lines of sealant.
- H. Metal Protection:
  - 1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with primer, applying sealant or tape, or installing nonconductive spacers as recommended by manufacturer for this purpose.
  - 2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.
  - 3. Curtain wall assemblies are to be protected during post-construction cleaning.
- I. Install components to drain water passing joints, condensation occurring within framing members, and moisture migrating within glazed aluminum curtain wall to exterior.
- J. Install components plumb and true in alignment with established lines and grades.

### 3.3 INSTALLATION OF OPERABLE UNITS

- A. Install operable units level and plumb, securely anchored, and without distortion. Adjust weather-stripping contact and hardware movement to produce proper operation.

### 3.4 INSTALLATION OF GLAZING

- A. Install glazing as specified in Section 088000 "Glazing."

### 3.5 INSTALLATION OF STRUCTURAL GLAZING

- A. Prepare surfaces that will contact structural sealant in accordance with sealant manufacturer's written instructions, to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.
- B. Set glazing into framing in accordance with sealant manufacturer's and framing manufacturer's written instructions and standard practice. Use a spacer or backer as recommended by manufacturer.
- C. Set glazing with proper orientation, so that coatings face exterior or interior as specified.
- D. Hold glazing in place using temporary retainers of type and spacing recommended by manufacturer, until structural sealant joint has cured.
- E. Apply structural sealant to completely fill cavity, in accordance with sealant manufacturer's and framing manufacturer's written instructions and in compliance with local codes.
- F. Apply structural sealant at temperatures indicated by sealant manufacturer for type of sealant.
- G. Allow structural sealant to cure in accordance with manufacturer's recommendations.
- H. Clean and protect glass as indicated in Section 088000 "Glazing."



### 3.6 INSTALLATION OF WEATHERSEAL SEALANT

- A. After structural sealant has completely cured, remove temporary retainers and insert backer rod between lites of glass, as recommended by sealant manufacturer.
- B. Install weatherseal sealant to completely fill cavity, in accordance with sealant manufacturer's written instructions, to produce weatherproof joints.

### 3.7 ERECTION TOLERANCES

- A. Install glazed aluminum curtain walls to comply with the following maximum tolerances:
  - 1. Plumb: 1/8 inch in 10 feet (3.2 mm in 3 m); 1/4 inch in 40 feet (6.35 mm in 12.2 m).
  - 2. Level: 1/8 inch in 20 feet (3.2 mm in 6 m); 1/4 inch in 40 feet (6.35 mm in 12.2 m).
  - 3. Alignment:
    - a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch (12.7 mm) wide, limit offset from true alignment to 1/16 inch (1.6 mm).
    - b. Where surfaces are separated by reveal or protruding element from 1/2 to 1 inch (12.7 to 25.4 mm) wide, limit offset from true alignment to 1/8 inch (3.2 mm).
    - c. Where surfaces are separated by reveal or protruding element of 1 inch (25.4 mm) wide or more, limit offset from true alignment to 1/4 inch (6 mm).
  - 4. Location: Limit variation from plane to 1/8 inch in 12 feet (3.2 mm in 3.6 m); 1/2 inch (12.7 mm) over total length.

### 3.8 FIELD QUALITY CONTROL

- A. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Refer to Section 019117 "Building Enclosure Functional Performance Testing" for mockup tests and field tests.
- C. Test Area: Perform tests on representative areas of glazed aluminum curtain walls.
- D. Field Quality Control Testing: Perform the following test on representative areas of glazed aluminum curtain walls.
  - 1. Water Spray Test: Before installation of interior finishes has begun, areas designated by Architect shall be tested in accordance with AAMA 501.2 and shall not evidence water penetration.
    - a. Perform a minimum of three tests in areas as directed by Architect.
    - b. Perform tests in each test area as directed by Architect. Perform at least three tests each, prior to 10, 35, and 70 percent completion. Any uncontrolled water infiltration into the interior of the system that is not drained to the exterior is considered a failure.
  - 2. Air Leakage: ASTM E783 at 1.5 times the rate specified for laboratory testing in "Performance Requirements" Article but not more than 0.09 cfm/sq. ft. (0.45 L/s per sq. m) at a static air pressure differential of 1.57 lbf/sq. ft. (75 Pa).

- a. ~~Perform a minimum of three tests in areas as directed by Architect.~~
- b. ~~Perform tests in each test area as directed by Architect. Perform at least three tests each, prior to 10, 35, and 70 percent completion.~~
- 3. ~~Water Penetration: ASTM E1105 at a minimum uniform and cyclic static air pressure differential of 0.67 times the static air pressure differential specified for laboratory testing in "Performance Requirements" Article, but not less than 10 lbf/sq. ft. (480 Pa), and shall not evidence water penetration. Any uncontrolled water infiltration into the interior of the system that is not drained to the exterior is considered a failure.~~
- E. ~~Structural-Sealant Adhesion: Test structural sealant in accordance with recommendations in ASTM C1401, Destructive Test Method A, "Hand Pull Tab (Destructive)," Appendix X2.~~
  - 1. ~~Test a minimum of six areas on each building facade.~~
  - 2. ~~Repair installation areas damaged by testing.~~
- F. ~~Glazed aluminum curtain walls will be considered defective if they do not pass tests and inspections.~~
- G. ~~Aluminum framed curtain walls will be considered defective if they do not pass tests and inspections. If they do not pass tests and inspections, Contractor shall make any necessary corrections and re-test until it passes.~~
- H. ~~Prepare test and inspection reports.~~

### 3.9 CLEANING AND PROTECTION

- A. Cleaning: Contractor shall clean installed products in accordance with manufacturer's instructions prior to Owner's acceptance, and remove construction debris from project site. Legally dispose of debris.
- B. Protection: Contractor shall protect the installed product's finish surfaces from damage during construction.

**END OF SECTION 084413**



## SECTION 089119 - FIXED LOUVERS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Fixed extruded-aluminum louvers.
  - 2. Blank-off panels for louvers

#### 1.2 DEFINITIONS

- A. Louver Terminology: Definitions of terms for metal louvers contained in AMCA 501 apply to this Section unless otherwise defined in this Section or in referenced standards.
- B. Horizontal Louver: Louver with horizontal blades (i.e., the axis of the blades are horizontal).
- C. Drainable-Blade Louver: Louver with blades having gutters that collect water and drain it to channels in jambs and mullions, which carry it to bottom of unit and away from opening.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. For louvers specified to bear AMCA seal, include printed catalog pages showing specified models with appropriate AMCA Certified Ratings Seals.
- B. Sustainable Design Submittals:
  - 1. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.
  - 2. Environmental Product Declaration: For each product.
  - 3. Health Product Declaration: For each product.
  - 4. Sourcing of Raw Materials: Corporate sustainability report for each manufacturer.
- C. Shop Drawings: Project specific. For louvers and accessories. Include plans, elevations, sections, details, integration with surrounding construction and attachments to other work. Show frame profiles and blade profiles, angles, and spacing.
  - 1. Show weep paths, gaskets, flashings, sealants, and other means of preventing water intrusion.
  - 2. Show mullion profiles and locations.
- D. Samples: For each type of metal finish required.
- E. Delegated Design Submittal: For louvers indicated to comply with structural performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Product Test Reports: Based on evaluation of comprehensive tests performed in accordance with AMCA 500-L by a qualified testing agency or by manufacturer and witnessed by a qualified testing agency, for each type of louver and showing compliance with performance requirements specified.
- B. Sample Warranties: For manufacturer's special warranties.

#### 1.5 QUALITY ASSURANCE

- A. Welding Qualifications: Qualify procedures and personnel in accordance with the following:
  - 1. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."

#### 1.6 FIELD CONDITIONS

- A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

#### 1.7 WARRANTY

- A. Special Finish Warranty, Factory-Applied Finishes: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of baked enamel, powder coat, or organic finishes within specified warranty period.
  - 1. Deterioration includes, but is not limited to, the following:
    - a. Color fading more than 5 Delta E units when tested in accordance with ASTM D2244.
    - b. Chalking in excess of a No. 8 rating when tested in accordance with ASTM D4214.
    - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
  - 2. Warranty Period: 20 years from date of Substantial Completion.

### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain fixed louvers from single source from a single manufacturer where indicated to be of same type, design, or factory-applied color finish.

#### 2.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design louvers, including comprehensive engineering analysis by a qualified professional engineer, using structural performance requirements and design criteria indicated.



- B. Structural Performance: Louvers withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated without permanent deformation of louver components, noise or metal fatigue caused by louver-blade rattle or flutter, or permanent damage to fasteners and anchors. Wind pressures are considered to act normal to the face of the building.
  - 1. Wind Loads:
    - a. Determine loads based on pressures as indicated on Drawings.
- C. Louver Performance Ratings: Provide louvers complying with requirements specified, as demonstrated by testing manufacturer's stock units identical to those provided, except for length and width in accordance with AMCA 500-L.
- D. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.
  - 1. Temperature Change (Range): 120 deg F (67 deg C), ambient; 180 deg F (100 deg C), material surfaces.
- E. SMACNA Standard: Comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" for fabrication, construction details, and installation procedures.

## 2.3 FIXED EXTRUDED-ALUMINUM LOUVERS

- A. Horizontal Drainable-Blade Louver, Extruded Aluminum: (LVR-1A, LVR-1B, **LVR-1C**, LVR-2)
  - 1. Basis-of-Design Product: Subject to compliance with requirements, provide Construction Specialties, Inc.; Model A6097 or a comparable product by one of the following:
    - a. Airolite Company, LLC (The); Model K6846.
    - b. Ruskin; Air Distribution Technologies, Inc.; Johnson Controls, Inc.; Model ELF6350DMP.
  - 2. Louver Depth: 6 inches (150 mm).
  - 3. Frame and Blade Nominal Thickness: Not less than 0.080 inch (2.03 mm).
  - 4. Mullion Type: Continuous blade with concealed vertical and horizontal supports for seamless appearance.
  - 5. Louver Performance Ratings:
    - a. Free Area: Not less than 8.34 sq. ft. (0.775 sq. m) for 48-inch- (1220-mm-) wide by 48-inch- (1220-mm-) high louver.
    - b. Point of Beginning Water Penetration: Not less than 1100 fpm (5.6 m/s).
    - c. Air Performance:
      - 1) Not more than 0.10-inch wg (25-Pa) static pressure drop at 800-fpm (4.1-m/s) free-area intake velocity.
      - 2) Not more than 0.15-inch wg (37-Pa) static pressure drop at 1000-fpm (5.1-m/s) free-area exhaust velocity.
  - 6. AMCA Seal: Mark units with AMCA Certified Ratings Seal.
- B. Horizontal Drainable-Blade Louver, Extruded Aluminum (LVR-3):

1. Basis-of-Design Product: Subject to compliance with requirements, provide Construction Specialties, Inc.; Model A4097 or a comparable product by one of the following:
  - a. Airolite Company, LLC (The).
  - b. Ruskin; Air Distribution Technologies, Inc.; Johnson Controls, Inc.
2. Louver Depth: 4 inches (100 mm).
3. Frame and Blade Nominal Thickness: Not less than 0.068 inch (1.73 mm) for blades and 0.080 inch (2.03 mm) for frames.
4. Mullion Type: Continuous blade with concealed vertical and horizontal supports for seamless appearance.
5. Louver Performance Ratings:
  - a. Free Area: Not less than 8.07 sq. ft. (0.750 sq. m) for 48-inch- (1220-mm-) wide by 48-inch- (1220-mm-) high louver.
  - b. Point of Beginning Water Penetration: Not less than 1040 fpm (5.3 m/s).
  - c. Air Performance:
    - 1) Not more than 0.20-inch wg static pressure drop at 1040-fpm (5.3-m/s) free-area intake velocity.
    - 2) Not more than 0.18-inch wg static pressure drop at 1000-fpm (5.1-m/s) free-area exhaust velocity.
6. AMCA Seal: Mark units with AMCA Certified Ratings Seal.

## 2.4 LOUVER SCREENS

- A. General: Provide screen at each exterior louver.
  1. Screen Location for Fixed Louvers: Interior face.
  2. Screening Type: Bird screening.
- B. Secure screen frames to louver frames with stainless steel machine screws, spaced a maximum of 6 inches (150 mm) from each corner and at 12 inches (300 mm) o.c.
- C. Louver Screen Frames: Fabricate with mitered corners to louver sizes indicated.
  1. Metal: Same type and form of metal as indicated for louver to which screens are attached. Reinforce extruded-aluminum screen frames at corners with clips.
  2. Finish: Same finish as louver frames to which louver screens are attached.
  3. Type: Non-rewirable, U-shaped frames.
- D. Louver Screening for Aluminum Louvers:
  1. Bird Screening, Flattened, Expanded Aluminum: 5/8 by 0.055 inch (15.87 by 1.4 mm) thick.

## 2.5 BLANK-OFF PANELS

- A. Insulated Blank-Off Panels: Laminated panels consisting of an insulating core surfaced on back and front with metal sheets and attached to back of louver.



1. Thickness: 3 inches (76.2 mm).
2. Metal Facing Sheets, Aluminum: Not less than 0.032-inch (0.81-mm) nominal thickness.
3. Insulating Core: Rigid, glass-fiber-board insulation or extruded-polystyrene foam.
4. Edge Treatment: Trim perimeter edges of blank-off panels with louver manufacturer's standard extruded-aluminum-channel frames, not less than 0.080-inch (2.03-mm) nominal thickness, with corners mitered and with same finish as panels.
5. Seal perimeter joints between panel faces and louver frames with gaskets.
6. Panel Finish: Interior side: mill finish, exterior side: Kynar 500 Black.
7. Attach blank-off panels with clips or sheet metal screws.
8. Provide full blank-off panels as indicated on Drawings.

## 2.6 MATERIALS

- A. Aluminum Extrusions: ASTM B221 (ASTM B221M), Alloy 6063-T5, T-52, or T6.
- B. Aluminum Sheet: ASTM B209 (ASTM B209M), Alloy 3003 or 5005, with temper as required for forming, or as otherwise recommended by metal producer for required finish.
- C. Fasteners: Use types and sizes to suit unit installation conditions.
  1. For fastening aluminum, use stainless steel fasteners.
  2. For color-finished louvers, use fasteners with heads that match color of louvers.
- D. Postinstalled Fasteners for Concrete and Masonry: Torque-controlled expansion anchors, fabricated from stainless steel components, with allowable load or strength design capacities calculated in accordance with ICC-ES AC193 and ACI 318 greater than or equal to the design load, as determined by testing in accordance with ASTM E488/E488M conducted by a qualified testing agency.
- E. Bituminous Paint: Cold-applied asphalt emulsion complying with ASTM D1187/D1187M.
- F. Recycled Content of Aluminum Components: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.
- G. Regional Materials: Manufacture products within 100 miles (160 km) of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within 100 miles (160 km) of Project site.

## 2.7 FABRICATION

- A. Factory assemble louvers to minimize field splicing and assembly. Disassemble units as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.
- B. Maintain equal louver blade spacing, including separation between blades and frames at head and sill, to produce uniform appearance.
- C. Fabricate frames, including integral sills, to fit in openings of sizes indicated, with allowances made for fabrication and installation tolerances, adjoining material tolerances, and perimeter sealant joints.
  1. Frame Type: Channel unless otherwise indicated.

2. Louvers to be supplied with 4-inch (101.6 mm) high by full depth sill flashing formed from minimum 0.050 inch (1.27 mm) thick aluminum.
  3. Sill flashing to have welded side panels.
  4. At LVR-2, provide glazing channel receiver(s) for integration into unitized curtain wall system.
- D. Include supports, anchorages, and accessories required for complete assembly.
- E. Provide vertical mullions of type and at spacings indicated, but not more than is recommended by manufacturer, or 72 inches (1830 mm) o.c., whichever is less.
1. Fully Recessed Mullions: Where indicated, provide mullions fully recessed behind louver blades for seamless appearance. Where length of louver exceeds fabrication and handling limitations, fabricate with close-fitting blade splices designed to permit expansion and contraction.
- F. Provide subsills made of same material as louvers or extended sills for recessed louvers.
- G. Join frame members to each other and to fixed louver blades with fillet welds concealed from view, threaded fasteners, or both, as standard with louver manufacturer unless otherwise indicated or size of louver assembly makes bolted connections between frame members necessary.
- 2.8 ALUMINUM FINISHES
- A. Finish louvers after assembly.
- B. High-Performance Organic Finish, Two-Coat PVDF: Fluoropolymer mica finish complying with AAMA 2605 and containing not less than 70 percent PVDF resin by weight in color coat.
1. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions .
  2. Color and Gloss: Custom colors. Match Architect's samples. LVR-1B & LVR-2 & LVR-3 to match CW-1, LVR-1A to match FBR-2, LVR-1C to match FBR-1A.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. Examine substrates and openings, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### **3.2 PREPARATION**

- A. Coordinate setting drawings, diagrams, templates, instructions, and directions for installation of anchorages that are to be embedded in concrete or masonry construction. Coordinate delivery of such items to Project site.



### 3.3 INSTALLATION

- A. Locate and place louvers level, plumb, and at indicated alignment with adjacent work.
- B. Use concealed anchorages where possible. Provide brass or lead washers fitted to screws where required to protect metal surfaces and to make a weathertight connection.
- C. Form closely fitted joints with exposed connections accurately located and secured.
- D. Provide perimeter reveals and openings of uniform width for sealants and joint fillers, as indicated.
- E. Protect unpainted galvanized- and nonferrous-metal surfaces that are in contact with concrete, masonry, or dissimilar metals from corrosion and galvanic action by applying a heavy coating of bituminous paint or by separating surfaces with waterproof gaskets or nonmetallic flashing.
- F. Install concealed gaskets, flashings, joint fillers, and insulation as louver installation progresses, where weathertight louver joints are required. Comply with Section 079200 "Joint Sealants" for sealants applied during louver installation.

### 3.4 ADJUSTING AND CLEANING

- A. Clean exposed louver surfaces that are not protected by temporary covering, to remove fingerprints and soil during construction period. Do not let soil accumulate during construction period.
- B. Before final inspection, clean exposed surfaces with water and a mild soap or detergent not harmful to finishes. Thoroughly rinse surfaces and dry.
- C. Restore louvers damaged during installation and construction, so no evidence remains of corrective work. If results of restoration are unsuccessful, as determined by Architect, remove damaged units and replace with new units.
  - 1. Touch up minor abrasions in finishes with air-dried coating that matches color and gloss of, and is compatible with, factory-applied finish coating.

**END OF SECTION 089119**

| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                     |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                     |                                               |
| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                     |                                               |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Responder      | Response                                                                                                                                                                                                                                                                                            | Release                                       |
| 1                                       | For Bid Package Plumbing (TC 22A.7), Allowance 10 says to provide Saturdays-Full Crew-10 Days. Please clearly define this allowance. How many men for these 10 days should this Allowance be for?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Walsh          | Bid Breakdown form will be updated to reflect a labor hour value rather than a quantity of Saturdays.                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 2                                       | For Bid Package HVAC/Mechanical (TC 23A.7), Allowance 11 says to provide Saturdays-Full Crew Airside-10 Days. Please clearly define this allowance. How many men for these 10 days should this Allowance be for?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Walsh          | Bid Breakdown form will be updated to reflect a labor hour value rather than a quantity of Saturdays.                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 3                                       | For Bid Package HVAC/Mechanical (TC 23A.7), Allowance 11 says to provide Saturdays-Full Crew Wetside-10 Days. Please clearly define this allowance. How many men for these 10 days should this Allowance be for?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Walsh          | Bid Breakdown form will be updated to reflect a labor hour value rather than a quantity of Saturdays.                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 4                                       | Under Trade Category Scope Clarifications for HVAC/Mechanical (TC 23A.7) Item #77 Provide Steam Trap Monitoring System per documents. We do not see this in the documents, is this required?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Walsh, CMTA    | Intent was not to create an additional requirement. Comply with the documents.                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 5                                       | Item #80 The subcontractor is responsible for all project consumption costs related to temporary steam for the duration of the project.-This is not possible to do, please provide an allowance for this.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Walsh          | Consumption costs will be funded by listed Utility Allowance on the bid breakdown form.                                                                                                                                                                                                             | Released during Bid Package 7 Group 1 Bidding |
| 6                                       | Will the Tower Crane be utilized for setting HVAC equipment?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Walsh          | A Tower Crane Utilization Matrix to be provided with anticipated Addendum #4. Subcontractors owe their own hoisting. Priority of crane usage time listed in B.1.                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 7                                       | What bid package is the Fuel Oil Tank, Pumps and Piping fall under?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Walsh          | TC22A7 Plumbing will carry the fuel oil system. The Plumbing and HVAC Bid Breakdown forms have been updated to correct the confusion.                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 8                                       | Is the Building Automation/Temperature Controls to be include in Bid Package TC 23A.7 ?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Walsh          | Walsh: Controls are to be bid as a separate RFP in July timeframe.                                                                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 9                                       | The various bid forms show allowances to include for BIM Coordination. Will this include everything, meetings, Pipe/duct drawings, sleeve drawings, clash detection, coordination updates?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Walsh          | Stated BIM Coordination Allowance will be utilized for 3rd party BIM Coordination costs. Subcontractor shall carry cost for their own BIM coordination activities including meetings, modeling, sleeve drawings, coordination updates, clash detection, and similar BIM coordination scope of work. | Released during Bid Package 7 Group 1 Bidding |
| 10                                      | It has come to our attention that the 2500UT basis of design system is not a good fit for the project and Kawneer has suggested the 1600UT system which has been the basis of design for other buildings at UK. Please Advise if 1600 UT will be acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                              | Champlin / HGA | Walsh/Champlin/HGA: This is not being bid as part of Group 1. Design team will review and respond as part of the Group 2 bidding process which will begin in approximately the next week.                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 11                                      | 1. Detailing within the arch's indicate a desired overall system depth of 10". The captured 2500UT system has a standard depth of 7 ½". Some custom dies do exist for the system but none that would match that aesthetic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Champlin / HGA | Walsh/Champlin/HGA: This is not being bid as part of Group 1. Design team will review and respond as part of the Group 2 bidding process which will begin in approximately the next week.                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 12                                      | 2. The 2500UT system was designed primarily to address projects with high thermal requirements or that needed the aesthetic of a 4 side SSG look. Provisions for deep covers or the support of sunshades are not provided within the standard system. Customization to the chassis to accept those features typically result in an increased sightline of 3" and a reduction of the advertised high thermal values.                                                                                                                                                                                                                                                                                      | Champlin / HGA | Walsh/Champlin/HGA: This is not being bid as part of Group 1. Design team will review and respond as part of the Group 2 bidding process which will begin in approximately the next week.                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 13                                      | 3. The arch's show spans of 20' at the South and East elevations of the project. The calculated wind load based on project requirements was 41 PSF and the vertical module spacing at those 20' spans was 48". The standard 7 ½" deep 2500UT chassis, reinforced with steel, will not make those spans based on the loading requirements and the vertical mullion spacing. The maximum span for the standard system at loading would be between 15' to 16' as shown in the chart below. There are no existing dies for the system that will meet these requirements. (Wind load charts can be found in the Architectural Detail Manual for the product which is available for download from our website) | Champlin / HGA | Walsh/Champlin/HGA: This is not being bid as part of Group 1. Design team will review and respond as part of the Group 2 bidding process which will begin in approximately the next week.                                                                                                           | Released during Bid Package 7 Group 1 Bidding |



| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               |
| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                               |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Responder   | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Release                                       |
| 14                                      | 1. Advertisement for bid AB-2 (5) Project Schedule lists the time for substantial completion as 365 consecutive calendar days. During the pre-bid call it was mentioned that substantial completion for this bid package was sometime Q4 of 2026 but there was a slide showing September of 2026. In the project schedule I only see a date listed of 10/27/26 for substantial completion of the overall project. I see a BIM core & shell but I’m struggling to find specific dates as it pertains to this bid package and specifically TC26A.7 For instance TC26A.7 requires temporary electric and lighting to be designed by a PE but I don’t see dates specific to this. | Walsh       | 10/26/2027 is the current projected substantial completion date.<br>9/20/2027 is the current targeted substantial completion date.<br>Schedule will drive the substantial completion dates rather than the advertisement to bid.<br>Temporary site lighting is to be provided by others.<br>Temporary interior lighting of the floors shall follow the concrete activities in the schedule.<br>Temp lighting of floors to be provided immediately after stripping of formwork and start of reshoring.<br>'Full' temporary electrical power for construction operations to be available no later than reshores being pulled for each floor.<br>Temporary power for mechanical systems per the contract schedule. | Released during Bid Package 7 Group 1 Bidding |
| 15                                      | 2. To bid this package, we need detailed bills of materials including sizes and weights of all material that we are responsible for installing that will be furnished by others. TC26A.7 items 51-53 are weight / dimension specific. This complete BOM is also required to address item 70. Permitting required we know the values as it is based off a % of these furnished items as well.                                                                                                                                                                                                                                                                                  | Walsh / AEI | Estimated dimensions are on the drawings, with exception to the "shipping split" information, which will not be available until submittals are provided. Approximate weights are provided on the included sketch "Conceptual Electrical Equipment Weights"                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 16                                      | 3. If gear is to be furnished by others should item 74 be removed from scope since we have no remedy with the manufacturer if breakers are incorrect?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Walsh / AEI | Intent is that the panels will be shipped with final coordinated breaker sizes factory installed. Where this is not feasible or otherwise not complete, the C&S subcontractor shall correct the panels. Unit costs have been added to the Bid Breakdown form to account for possible changes. Assume that breakers to be provided by others.                                                                                                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 17                                      | Will temporary smoke detectors need to be provided during construction?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Walsh       | No. This is not a project requirement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Released during Bid Package 7 Group 1 Bidding |
| 18                                      | Note 6.J of the electrical scope relates to temp. power for the mechanical contractor and temp. conditioning of the project. Can more information be provided for this? A building of this size could require significant temp. power to achieve the proper conditioning.                                                                                                                                                                                                                                                                                                                                                                                                     | Walsh       | Subcontractor shall plan to power equipment for 18 months. See other RFIs for consumption concerns.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Released during Bid Package 7 Group 1 Bidding |
| 19                                      | Please provide clarification to note 24 in the electrical scope. I do not see any reference to communication backbone, branches or pathways on the bid drawings nor a line item on the bid form. Also, page 10 states Low Voltage rough in is excluded from this package.                                                                                                                                                                                                                                                                                                                                                                                                     | Walsh       | Sleeves only by the core and shell subcontractor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |
| 20                                      | There are multiple references to site electrical, site lighting and building lighting in scope. The bid form states that this isn’t part of this bid pack. Please clarify.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Walsh       | Bid breakdown form will be corrected. Scope is intended to be part of the Core and Shell Package.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 21                                      | 5. Note 77 in the electrical scope states the EC is responsible for project power consumption costs. Is allowance 13 in place to cover these fees? What if this allowance is exceeded?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Walsh       | Consumption will be covered by an Utility Allowance. If consumption exceeds this value, adjustments will be made accordingly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Released during Bid Package 7 Group 1 Bidding |
| 22                                      | The doors schedule has just under 200 openings listed and the hardware specs have hardware set assignments for all openings on the door schedule, but plan page A-700 has a note between the door schedule sections of exterior doors and interior doors that states “Interior doors, frames, and assemblies are to be considered interior fit-out project scope and are included here for reference purposes only.”<br>-Based on this, should we only be pricing the roughly 20-25 openings listed on the “exterior” door schedule at the top left corner, and exclude all openings on the “interior” door schedules on the rest of the page?                                | Walsh       | Doors, Frames, and Hardware will be bid as a single package with Interior Fit Out drawings in the September / October time frame.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |

| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                                                                                       |                                               |
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| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                         | Responder      | Response                                                                                                                                                                                                                                                                                                                                              | Release                                       |
| 23                                      | What trade category will this scope fall under? Division 8 Openings is listed under a few Trade Categories, but I do not see anything about doors, frames, and hardware listed under any specific trade category.                                                                                                                                                                                                                | Walsh          | Doors, Frames, and Hardware will be bid as a single package with Interior Fit Out drawings in the September / October time frame.                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 24                                      | Are any division 10 items needed in this phase of bidding and if so, what trade category will this scope fall under? Division 10 Specialties is listed under a few Trade Categories, but I do not see anything specialties listed under any specific trade category.                                                                                                                                                             | Walsh          | Div 10 will be bid as a single package with Interior Fit Out drawings in the September / October time frame.                                                                                                                                                                                                                                          | Released during Bid Package 7 Group 1 Bidding |
| 25                                      | Please explain the union requirements for this project. The concrete scope of work mentions union carpenters are required for this scope of work. Is there a PLA for the project?                                                                                                                                                                                                                                                | Walsh          | Pursuant to Trade Category Par. 5.1, union carpenters are required for the concrete scope of the project. A PLA is not anticipated at this time.                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 26                                      | PIPE, PIPE FITTINGS AND PIPE SUPPORT – 201300: Hydronic Chilled water/Process Chilled Water Piping: Can Victaulic HDPE Piping System be used as an alternative to heat fusion joints for above ground hydronic chilled water and process chilled water 2” and above? System includes Victaulic Style 905 Couplings designed for installation on plain-end HDPE piping, Style 907 Transition Coupling for use in conjunction with | CMTA           | Yes; allowance of grooved couplings will be included as a contractor's option.                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 27                                      | PIPE, PIPE FITTINGS AND PIPE SUPPORT – 201300: Hydronic Chilled Water/Process Chilled Water Piping: Can schedule 40 carbon steel/std weight piping be used as an alternative to HDPE piping for above ground hydronic chilled water and process chilled water 2” and above?                                                                                                                                                      | CMTA           | Not at this time. Refer to any updates issued in the addendum phase.                                                                                                                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 28                                      | PIPE, PIPE FITTINGS AND PIPE SUPPORT – 201300: Hydronic Hot Water Piping (Heating Water, Baseboard Heating Water) Per currently published UK Design Standards for HVAC Piping Systems, there are no restrictions on using Victaulic grooved piping in enclosed spaces. Can confirmation and context be provided whether Victaulic grooved mechanical pipe joints can be used in shafts and above drywall ceilings for hydronic   | CMTA           | Refer to the specifications for restrictions on locations of grooved mechanical piping joints.                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 29                                      | Please confirm that we can install PVC Schedule 40 under level 00 slab to all distribution equipment including the ATS Cabinets                                                                                                                                                                                                                                                                                                  | AEI            | PVC is acceptable in locations indicated by specifications and installed in compliance with specifications including, but not limited to, 260543/260533 (IE:rigid elbows, concrete encasement under structural members) (AEI)                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 30                                      | Is the bus duct part of OFCI equipment or is the contractor to provide?                                                                                                                                                                                                                                                                                                                                                          | Walsh          | No. The bus duct will not be considered an OFCI item. See attached sketch for what is to be considered OFCI.                                                                                                                                                                                                                                          | Released during Bid Package 7 Group 1 Bidding |
| 31                                      | The building is category A seismic. Does this facility require seismic bracing?                                                                                                                                                                                                                                                                                                                                                  | CMTA           | No.                                                                                                                                                                                                                                                                                                                                                   | Released during Bid Package 7 Group 1 Bidding |
| 32                                      | It states that flex drops and brackets can be used. Is that correct?                                                                                                                                                                                                                                                                                                                                                             | CMTA           | That is correct.                                                                                                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 33                                      | I cannot find the site drawings with the fire service. Will this be installed in the previous contracts?                                                                                                                                                                                                                                                                                                                         | Bell           | Walsh: No This is not installed via previous contracts.<br>CMTA: Refer sheets U210.3 and U210.4.                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 34                                      | 1. Is the building automation being bid as a part of BP-07? There are no control drawings provided.                                                                                                                                                                                                                                                                                                                              | Walsh          | Walsh: Controls are to be bid as a separate RFP in July timeframe.                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 35                                      | 2. Will the building automation contractor bid to the HVAC Trade Contractor TC 23A.7?                                                                                                                                                                                                                                                                                                                                            | Walsh          | Walsh: Controls are to be bid as a separate RFP in July timeframe.                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 36                                      | 3. In TC 23A.7 there is a specific exclusion for “Conduit for Building Automation System”. Is the Electrical contractor going to be expected to provide the conduit for the building automation system?                                                                                                                                                                                                                          | Walsh          | Walsh: Controls are to be bid as a separate RFP in July timeframe.                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 37                                      | 4. If building automation controls are being bid as a part of BP-07 please provide a controls specification specific to this project.                                                                                                                                                                                                                                                                                            | Walsh          | Walsh: Controls are to be bid as a separate RFP in July timeframe.                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 38                                      | 5. TC 23A.7 has a \$215k allowance for BIM coordination. Does the Building Automation contractor need to participate in BIM coordination? If so, can there be an allowance given for this contractor?                                                                                                                                                                                                                            | Walsh          | Yes Controls Subcontractor will participate in BIM. Requirements will be spelled out in the future Controls package. An allowance has not been established for any subcontractor's performance in BIM coordination and will not be established for the controls subcontractor. See other RFI responses for purpose of the BIM Coordination allowance. | Released during Bid Package 7 Group 1 Bidding |
| 39                                      | 6. What is the duration of BIM coordination and how often will the meetings be held?                                                                                                                                                                                                                                                                                                                                             | Walsh          |                                                                                                                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 40                                      | We are submitting AIR-SHIELD™ LSR Liquid Membrane Air/Vapor and Liquid Moisture Barrier for your consideration. Please confirm if this is an acceptable product.                                                                                                                                                                                                                                                                 | Champlin / HGA | Walsh/Champlin/HGA: This is not being bid as part of Group 1. Design team will review and respond as part of the Group 2 bidding process which will begin in approximately the next week. This is under review.                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 41                                      | Can a combination bid be submitted for Plumbing(TC 22A.7) and HVAC/Mechanical (TC 23A.7)?                                                                                                                                                                                                                                                                                                                                        | Walsh / UK     | A new form of proposal will be provided to allow for combination bidding of HVAC and Plumbing and Earthwork and Utilities. These new Form of Proposals will be included with Addendum #4 but will be a direct combination of the combined forms.                                                                                                      | Released during Bid Package 7 Group 1 Bidding |



| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |
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| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                               |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Responder   | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Release                                       |
| 42                                      | 1. Fixture type L9A says fixture to be surface mounted on roof without penetrating the membrane and directs to architectural drawings for mounting detail. I’m probably overlooking it, but I cannot find this detail. Can the specific sheet number be called out for this detail?                                                                                                                                                                                                                                                  | AEI         | AEI: A simple weighted, non-penetrating mount suitable for lightweight equipment shall be used. Detailed information on the base mount will be provided in a subsequent issuance.                                                                                                                                                                                                                                                                                                                                                                                                                 | Released during Bid Package 7 Group 1 Bidding |
| 43                                      | E201.A note 1 says to coordinate remote driver location with architect. Can either the location of remote drivers be identified, or a maximum distance be established. The location of remote drivers can greatly impact conduit and wire routing.                                                                                                                                                                                                                                                                                   | AEI         | AEI: Anticipated locations for these drivers are as follows. Precise mounting locations with these areas shall be coordinated with Architect in the field. Generally, driver distance from fixture shall not exceed 30 ft. Door ST00B1.1 – Driver located above ceiling in EXIT PASSAGEWAY ST00B1. Door A100E/F – Driver located above ceiling just inside the door in Corridor A100E. Door A100W – Driver located in tunnel TL0003 near LINAC EQ CSA00H. High on wall or overhead mounted to deck. Door A107 – Driver located in MECH/PLUMBING CSA00F. High on wall or overhead mounted to deck. | Released during Bid Package 7 Group 1 Bidding |
| 44                                      | 3. Sheet E202.A note 1 calls for a weighted roof mount base for fixture L5. Is there a spec or basis of design for this base? (Same note called out on 208.A for fixture L9A so ties back to question 1)                                                                                                                                                                                                                                                                                                                             | AEI         | AEI: Refer to response for item #42 - this fixture type shall utilize a similar mounting to Type L9A.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Released during Bid Package 7 Group 1 Bidding |
| 45                                      | Note on site lighting calls for handholes at “300’ (maximum) as required” but doesn’t elaborate on the purpose of these handholes. Can we get additional direction on this requirement?                                                                                                                                                                                                                                                                                                                                              | AEI         | Handholes installed to be utilized as a pull box. Provide as directed by documents. (AEI)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 46                                      | 5. Sheet ESP202 note 1 refers to architectural drawings for quantity and location of handrail lighting. On the related detail on sheet A020 I see met rail 6 and length but I’m struggling to find any further detail. A011 shows met rail 6 as having “integral light fixtures”                                                                                                                                                                                                                                                     | AEI         | AEI: Type L11 light fixtures shall be mounted within vertical support posts of handrail system, approximately 4'-0" on center. Handrail system detail drawings will be provided in a subsequent issuance. Also refer to written specifications for additional information.                                                                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 47                                      | 6. E500 shows a couple of battery charges and battery disconnects. Ampacity is shown but feeding panel and voltage appears to be missing.                                                                                                                                                                                                                                                                                                                                                                                            | AEI         | Revisions were made to add circuiting and revise disconnect size in Addendum #4. Refer to sheets E500 and E505 for battery charger requirements for Lower Level and Penthouse, respectively. (AEI)                                                                                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |
| 48                                      | 7. ESP100 shows a lot of signage locations and a talk-a-phone. Scope item 40 addresses the talk a phone but doesn’t indicate what panel the should be fed from. Scope item 42 addresses signage but based on the plans it appears that many of the signs are not internally lit as no power is shown to the sign. Can we confirmed that all sign locations that need power have power shown? For instance, area 1 shows a dozen or more signage locations on the overall plan but not a single one of them has power shown on ESP101 | Walsh / AEI | Circuit for Talk-a-Phone was added in Addendum #2 - refer to ESP100 (AEI). Conceptual Signage Package is provided for reference with ADD#4. This provides more information related to lit vs non lit signage on the site.                                                                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 49                                      | 8. ESP102 note 1 says to provide power to site signage but doesn’t indicate the ampacity, voltage or serving panel.                                                                                                                                                                                                                                                                                                                                                                                                                  | AEI/Walsh   | Signage design is not complete. For purposes of bidding assume 120v / 20A for the site signage power connection. The signs will be powered from the same panelboard that powers the lighting in the area of the signage. (AEI)                                                                                                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 50                                      | Panel schedules are missing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | AEI         | Panel schedules will not be provided for Core/Shell. Panelboards are being furnished by UK. Final schedules will be issued with Fit-Out package. (AEI). Design Development Drawings of the Interior Fit out will be provided in Addednum #3 for reference.                                                                                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 51                                      | What is service expectation for the temporary wifi called out in scope item 78? It seems like controlling access is probably going to be difficult so I could easily see this system become overwhelmed.                                                                                                                                                                                                                                                                                                                             | Walsh       | Service expectation is to allow support of minor IOT devices in the building and support use of tablets and phones for drawing review. Assume that hot spots will be provided on each floor in the following areas: at each stair well, at skip hoist location, at each elevator bank, and at 1 additional huddle space. The 4th floor will have a large break area that will require additional coverage to support the use of the space. Assume additional 10 WAP locations for this use.                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 52                                      | There’s several references to exhibit J but I’ve failed to find the exhibit.                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Walsh       | Walsh to provide Ex J.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Released during Bid Package 7 Group 1 Bidding |
| 53                                      | Scope for temporary allows remanufactured transformers. Is remanufactured gear acceptable for temporary as well?                                                                                                                                                                                                                                                                                                                                                                                                                     | Walsh       | This is acceptable. Subcontractor will be required to maintain the equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 54                                      | Scope specifically excludes rough-in for low voltage systems. Does any work in the technology drawings need to be included?                                                                                                                                                                                                                                                                                                                                                                                                          | Walsh       | Core and Shell subcontractor shall provide sleeves for low voltage and technology systems. No other rough in or trim is part of the core and shell scope.                                                                                                                                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 55                                      | Scope specifically excludes fire alarm. In addendum 1 a lot of fire smoke dampers were added. Do we only need to supply power to these?                                                                                                                                                                                                                                                                                                                                                                                              | Walsh / AEI | Power to these units will be carried with fit out contractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 56                                      | With the number of drawings issued as part of addendum 1 would it be possible to extend the last day for questions?                                                                                                                                                                                                                                                                                                                                                                                                                  | Walsh / UK  | Bid day will extend refer to addendum information.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |

| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |            |                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Responder  | Response                                                                                                                                                                                                                                                                                                                                                                             | Release                                       |
| 57                                      | The drawings for Trade Category 23A.7 indicate VFD’s are shown for reference only and will be provided by the Controls Contractor as part of a future bid package. Item 52. in our Trade Package description sates, provide variable frequency drives for all HVAC equipment as specified. Please confirm whose responsibility it is to provide the VFD’s.                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Walsh/CMTA | VFD's will be provided by the temperature controls contractor in an upcoming bid package.                                                                                                                                                                                                                                                                                            | Released during Bid Package 7 Group 1 Bidding |
| 58                                      | Is an underdrain system required for the building?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Geotech    | An underdrain is not specified for the entire building. Refer to foundation drains for related scope of work.                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 59                                      | Where do foundation drains tie into the storm systems?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Bell       | See Sketch for foundation drain tie in points.                                                                                                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 60                                      | Bidding contractors have brought to our attention that the Core & Shell package drawings do not designate what ceiling types are to be used where (ie. Lay-in or Drywall) and therefore they cannot confidently determine where Victaulic can or cannot be used outside of mechanical rooms. As result, we are being told this will affect bid costs dramatically if weld is to be factored in for all piping outside the mech rooms. Other factors that would be affected are labor/manpower, coordination/fabrication, and material allocation. Will ceiling type with area designations be available for bidders prior to bid? If not, can any clarification be provided as to how bidders can best determine what ceiling locations are to be considered ‘accessible’ when evaluating the hydronic hot water piping? | walsh      | Fit out Interiors DD drawings will be issued for reference. Bid Packages 1 through 5 will also be provided for reference. This large reference package will be a Separate Addendum (Addendum 3) to limit confusion from 'base' scope of work.                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 61                                      | The plans reference prior bid packages 1 & 2. Is there somewhere we can access these prior drawing packages?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | walsh      | Fit out Interiors DD drawings will be issued for reference. Bid Packages 1 through 5 will also be provided for reference. This large reference package will be a separate addendum. Subcontractors shall be responsible for coordination with the entire project.                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 62                                      | The specs mention a gate, but A400 and A405 scale a 3.5' wide gate and the opening between retaining walls is 8'wide. So, I'm asking if they want a double gate in this area and is one leaf supposed to be stationary to work with a panic bar latch or does the cable railing extend beyond the walls to allow for only a single 3.5' wide gate with self-closing hinges, card reader and a panic bar latch at this location?                                                                                                                                                                                                                                                                                                                                                                                          | Walsh      | This scope is not being bid with Group 1 bids but will be bid in the future with a specific site fencing Trade Category in Group 3. Design team will review and respond as part of the Group 3 bid.                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 63                                      | Is there a walk gate on the east side of the South Terrace? Building Elevations 2/A400 and A405 appear to show a gate in this area between the retaining walls and cable railing. If so, what type of gate hardware is required? Please advise.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Walsh      | This scope is not being bid with Group 1 bids but will be bid in the future with a specific site fencing Trade Category in Group 3. Design team will review and respond as part of the Group 3 bid.                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 64                                      | The plans note 100% wet pipe sprinkler coverage but then contradict this in the same Tagged note : (PG 3187 of PDF). Do I interpret this note we will only be running the infrastructure and<br>1) Mechanical room piping sprinklers<br>2)Specific areas noted on each plan<br>3)The pre action for the generator room.<br>If we are installing piping and heads throughout can we receive the RCP plans.                                                                                                                                                                                                                                                                                                                                                                                                                | Walsh      | Note F1 is incorrect. Intent is for a single Fire Protection Bid Package without a split of Core and Shell and Fit out. There will only be 1 Fire Protection contract issued. 100% Design Development Fit Out drawings, with Ceiling Plans, will be issued via addendum 3. All areas except as noted to be exceptions to the fully sprinklered building will have coverage provided. | Released during Bid Package 7 Group 1 Bidding |
| 65                                      | 1. Given the complexity of this project, can the bid date be extended?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Walsh      | Bid date is being extended. See addendum for details.                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |
| 66                                      | 2. Given the complexity of this project, can the last date for questions be extended?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Walsh      | Questions will be answered to questions received as time allows. UK has continued to forward questions                                                                                                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 67                                      | 3. Is the Construction Manager “Walsh” bidding the cast in place concrete scope?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Walsh      | No. Walsh will not be providing a Bid on any scopes of work.                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 68                                      | 4. Reference detail #2/S301 at the elevator mat slab thickenings for column locations. What thickness are these areas required to be?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | THP        | Footings are called out on plan drawing S200B. Drawing notes and footing schedule are on the overall plan drawing S200.                                                                                                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 69                                      | 5. Reference drawing #S604. Beam #'s B402 – B411 and beam #B431 have a zero for either the width or the depth. What are the width and depth requirements for these beams?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | THP        | Please refer to updated schedules on the drawings issued in addendum(s).                                                                                                                                                                                                                                                                                                             | Released during Bid Package 7 Group 1 Bidding |
| 70                                      | 6. Reference drawing #S200C. What are the structural detail requirements where the CMU Firewall occurs adjacent to column lines L.3 and 17?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | THP        | Foundation below CMU firewall will be shared with the garage structure and issued in a future package. Contractor to coordinate with the garage contractor.                                                                                                                                                                                                                          | Released during Bid Package 7 Group 1 Bidding |
| 71                                      | 7. Reference keynote #2/S200A, etc. What are the detail requirements for thickened slabs at the stairs? We are not finding a detail for this condition.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | THP        | Thicken slab on grade where noted below stairs the same as at masonry walls, shown on S103.                                                                                                                                                                                                                                                                                          | Released during Bid Package 7 Group 1 Bidding |
| 72                                      | 8. Reference drawing #S200C. Section #34/S303 is referenced along column line #M left of line #13. It appears this reference is in error as it is showing a concrete shearwall in the section but the location it is taken is through a CMU wall. What is the correct detail reference at this location?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | THP        | Section 34/S303 is correct and applies at line 13. The detail shows the grade beam step and tie bars required at line 13. Page 5 of 11                                                                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |



| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                               |
| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                  |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                               |
| #                                       | Question                                                                                                                                                                                                         | Responder      | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Release                                       |
| 73                                      | Can the shaft area at Stairway “C” or the EIDF room “C” be used for electrical conduits going up to the Penthouse from level 00?<br>See Drawing E300 thru E308.                                                  | HGA / Champlin | See E310U for planned location for electrical risers to L8. Also, See E300 from Addendum 4 for additional information on these shafts. The EIDF rooms are only to be utilized for Fire Alarm Risers. No power conduits, other than F/A are allowed in EIDF.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Released during Bid Package 7 Group 1 Bidding |
| 74                                      | I do not see the utility drawings that has the fire main. Do we just stub out 5 foot from building?                                                                                                              | Walsh          | Site Utility contractor to bring Fire main into building and stub up. Refer sheets U210.3 and U210.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 75                                      | Will a payment and performance bond will be required?                                                                                                                                                            | Walsh          | Project will utilize an SDI program and a payment and performance bond should NOT be included in base bids. Some Specific trade categories will have a requested unit cost for bond costs. If a firm is deemed inelligble for the SDI program, an opportunity will be provided to provide a bond ilo entry into the SDI program.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 76                                      | Is the CCK-2653.30-4-24 UK Cancer Treatment Center project really tax exempt per article 14 - Taxes, IB-12?                                                                                                      | Walsh          | The project is not Tax Exempt. Article 14 states this correctly.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 77                                      | Reference has been made to a distinction on the scope of responsibility of the Concrete subcontractor vs the Drilled Piers subcontractor. Please clarify.                                                        | Walsh          | See Sketch attached. The Concrete subcontractor shall include the '2nd lift'of concrete above the construction joint.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 78                                      | Is Plumbing contractor to furnish and install the medical gas equipment?                                                                                                                                         | Walsh          | No. Complete Medical Gas system to be provided by Fit Out subcontractor. Core and Shell Contractor to provide sleeves only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Released during Bid Package 7 Group 1 Bidding |
| 79                                      | Can Limestone be shut down to allow for setting of bridge steel.                                                                                                                                                 | Walsh          | Subcontractors shall assume all work in the Limestone Right of Way to be completed off hours with Work Hours being 7 pm to 6am inclusive of daily set up and breakdown of road closures and safety protections. All subcontractors working in the right of way should anticipate individual street permits and shut downs along with roadway protections for work in the right of way.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 80                                      | Please confirm that Metal Fab 4 is part of the Steel and misc Metals scope of work.                                                                                                                              | Walsh          | Confirmed. This is part of the Steel Trade Category as part of the 055119 Specification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 80                                      | Please provide information related to requirements of backfill of the foundation walls                                                                                                                           | THP            | <p>The foundation walls are laterally supported by the Level 01 slab and Level 00 slab on grade and grade beams.</p> <p>Before slabs are in place, backfill may be placed to about 4 feet high to install the perimeter drainage, but should not be placed higher until the Level 01 slab is in place.</p> <p>With Level 01 in place but no slab on grade, backfill may be placed to about 12 feet high and should be monitored to ensure there is no displacement of the base of the wall. Note that the service corridor “tunnel” slab on grade and top slab must be in place, since the outer west wall is not a retaining wall and relies on the main wall along Line 9 for lateral support at both top and bottom. At the garden, the battered wall is a retailing wall that supports the outer wall.</p> <p>Backfill may be placed full height when Level 01 is in place and the slab on grade is in place for at least two bays in from the wall. The slab on grade should extend from the wall to Line C, Line 6.9 by the elevators, and Line M, and be cast to the Linacc walls and south or west face of the columns. The slab on grade within the Linaccs may be cast later, since the vault walls and top will brace the main wall along Line 9.</p> <p>The retention system does not alleviate the backfill limits, since the backfill and compaction methods apply pressure to the wall.</p> <p>Backfill placement, construction, monitoring, means and methods are ultimately contractor responsibilities.</p> | Released during Bid Package 7 Group 1 Bidding |
| 81                                      | Confirm if the Bridge Steel is part of this Steel Package or to be provided by others.                                                                                                                           | Walsh          | Yes, the pedestrian bridge is in this package. Scope of work will be rewritten to more clearly deliniate scope of work on the Pedestrian Bridge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 82                                      | Please clarify requirements for the Warehouse in HVAC scope of work. Is this just for HVAC materials? What type of trucks are required to get there. Are there climate control and fire protection requirements? | Walsh          | This requirement will be removed from this trade categoy.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 83                                      | Is there any scope of work in BP7 that overlaps with BP1 Elizabeth Street or BP2 Site Utilities?                                                                                                                 | Walsh          | Storm Line H including manhole and inlets south of the Waller Annex is not to be included with BP7 .<br>5 Light fixtures along Waller are not to be included with BP7. See Sketch for the specific                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Released during Bid Package 7 Group 1 Bidding |

| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |
| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                               |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Responder | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Release                                       |
| 84                                      | Please clarify if the Steel Trade Contractor has any scope for the following Details:<br>On sheet S204B there are two sections cut (3/S401 and 10/S401) and on sheet S208A (73 & 74/S405).<br>We would be responsible for 58 & 59/S405 that is cut on sheet S203B, is this a correct assumption?                                                                                                                                                                                                                            | Walsh     | 3/S401 - Connection and anchorage to slab by Curtain Wall Subcontractor.<br>10/S401 - Thermally Broken brick support system to be furnished and installed by the Mason. Lintel component of this system to be furnished by Steel Subcontractor and Installed by Mason. Refer to Scope of Work Ex B.2 Misc Metals Item 8. All shelf angles and loose lintels to be furnished by Steel Subcontractor. Additional information on A462<br>73/S405 - Connection and anchorage to slab by CFMF Subcontractor.<br>74/S405 - Connection and anchorage to slab by CFMF Subcontractor.<br>58/S405 - Misc Metal supports for head of curtain wall by Steel Subcontractor.<br>59/S405 - Misc Metal supports for head of curtain wall by Steel Subcontractor. | Released during Bid Package 7 Group 1 Bidding |
| 85                                      | The Site light fixtures are not UK standard. Are these the right fixtures?                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Walsh     | L2 to be changed to the UK standard fixture. LED Pole Mounted Luminaire with Type II Optic Mounted on 12ft tall round aluminum pole integral photocell and occupancy sensor. Kim Lighting 1a-ARA2-54L-560-3K7-2-CLR-4-XXX-BLS-SCH-R/POLE:PR4-4R16-226-XX-SBC-BLS-XX. 3000K 70+CRI 9500 LUMENS. L2A to be equivelant based on L2 fixture change.                                                                                                                                                                                                                                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 85                                      | Is Steel Sub responsible for Break-away fire-release connections?                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Walsh     | No. This connection will be provided by Garage contractors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 86                                      | Is Steel Sub responsible for pre-manufactured canopies?                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Walsh     | No. Pre-manufactured canopies will be a separate Trade Category bid with pending Group 2.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 87                                      | Will Steel Subcontractor need to provide the backer plate for the through bolts at the premanufactured canopy cantilevered tube connector? (5/A022)                                                                                                                                                                                                                                                                                                                                                                         | Walsh     | No. This will be by the pre-manfuctured canopy subcontractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 88                                      | Will Steel Subcontractor need to provide the galvanized plate at the loading dock door jams and heads 3/A022 & 5/A022?                                                                                                                                                                                                                                                                                                                                                                                                      | Walsh     | Yes. this will be provided by the steel subcontractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 89                                      | On sheet S201A Note 1 at the mechanical shaft openings. It refers to embed requirements at perimeter of openings. How can steel subcontractor bid these without a quantity or coordination with mechanical subs.                                                                                                                                                                                                                                                                                                            | Walsh     | MEPFP subcontractors are to furnish and install their own embeds as required for their systems' connections in shafts in accordance with S103. Steel subcontractor is not to provide these. Steel subcontractor to provide all bent plate at shaft openings in the streel structural areas.                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 90                                      | A462 does not provide the size for the brick ledge angles. The information above the details are for lintels, not necessarily the brick ledge angles. These can be as big as L8x8x1/2.                                                                                                                                                                                                                                                                                                                                      | Walsh     | This response supersedes prior RFI response on this subject.<br>Brick ledge angles integrated into the FBRA-3 Adjustable Offset Shelf angle support system, as shown typically on 10/A462, will NOT be provided by the Steel Subcontractor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Released during Bid Package 7 Group 1 Bidding |
| 91                                      | Temporary power requirements for Trade Category 26A.7, one of the bullets requires us to provide temporary power to the AHU’s in the basement and penthouse. Can you identify the exact units that will need temporary power, in reviewing the mechanical schedules and the construction schedule I could not locate exactly when the power would need to be ready and for which units? The overall temporary service requirement would need to be increased if the plan is to temporary all the AHU units.                 | Walsh     | Plan on all units being activated for temp use, but supply fans only will be run. All basement units and the north half of the penthouse units will be run from 7/1/26. The south half of the penthouse will be run from 10/1/26. Maintain the temp service requirement as stated in the documents.                                                                                                                                                                                                                                                                                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 92                                      | 1. Sheet E301.C shows a note 1 in vestibule but the sheet doesn’t have a sheet specific notes.                                                                                                                                                                                                                                                                                                                                                                                                                              | AEI       | Note shall be as indicated, “PROVIDE ROUGH-IN OF TWELVE (12) 3/4” EMT CONDUITS FROM LOWER LEVEL CEILING INTO VESTIBULE ABOVE CEILING.”                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 93                                      | 2. Can we confirm the battery stations are being furnished in the generator package and or gear package?                                                                                                                                                                                                                                                                                                                                                                                                                    | Walsh     | Confirmed. Battery stations to be provided as owner furnished contractor installed equipment.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 94                                      | 3. Original drawings show Inst Air fed from panel LLLRSH1 but I could not find this equipment. Sheet E507 showed a future instrument air which was revised in addendum 4 to IAC-1 but a circuit wasn’t shown. Is this the same load?                                                                                                                                                                                                                                                                                        | AEI       | IAC-1 will be part of the fit-out package. The Instrument Air Compressor shown fed from LLLRSH1 may be removed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 95                                      | 4. Regarding the WIFI, Q&A line 51, are we putting in a wireless network or are we installing a bunch of stand-alone cellular hot spots?                                                                                                                                                                                                                                                                                                                                                                                    | Walsh     | Wireless network of Access Points rather than cellular hot spots.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |
| 96                                      | 5. Regarding the breakroom TVs, what do these need to be wired back to, i.e. where is the content coming from?                                                                                                                                                                                                                                                                                                                                                                                                              | Walsh     | Local control / content for the monitors. Monitors inL4 break room should be brought to single point of control for single computer access and presentation from within the room.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |
| 97                                      | 6. Trade Contract 26A.7 letter H. states to provide 4,000 amp 480/277V 3ph 4w switchgear, is the intent to feed this switchgear from the (2) 2,000 KVA remanufactured 12,470-480/277v transformers? Additionally, then will the (2) 2,000 amp panels one provided by this subcontractor and the other provided by another subcontractor on the project be fed from the 4,000 amp switchgear? If so what will be the location of the 2,000 amp panel provided by another subcontractor is this panel for the parking garage? | Walsh     | Provide the equipment as defined in the scope of work. Post award coordination will occur between BP1 subcontractor and BP7 contractor to provide a total temp power system. If its determined an additional piece of temporary gear is required this will be added to future Fit Out package. Subcontractors should not assume any scope for the parking garage. Anticipate equipment and feeds to be sourced from the temporary electrical yard just north of the Waller Annex building.                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |



| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                               |
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| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                              | Responder  | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Release                                       |
| 98                                      | 7. TC 26A907 bid form line 3, can these be modified to acknowledge that this contractor will not have any permitting cost related to the prepurchase equipment or can a dollar value be provided to base the permit cost for this.                                                                                                                                                                                                    | Walsh      | Permitting costs for the owner furnished equipment will be provided as a change order to subcontractors. Subcontractors to Include all permitting costs related to their scope of work and proposal.                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 99                                      | 8. TC 26A907 bid form lines 10 & 11, what drawing details this work?                                                                                                                                                                                                                                                                                                                                                                  | Walsh      | Addendum 3 included Fit out drawings showing reference to the imaging equipment and the LINAC spaces.<br><br>Each LINAC to have sleeves through wall to allow for the following conduit sizes:<br>8x 4"<br>1x 3"<br>4x 2"<br>1x 1"<br>10x .5"<br><br>Addendum 4 modified slab conditions in imaging removing requirements for through slab for those imaging spaces.                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 100                                     | 9. TC 26A907 bid form line 15, are we not to bid the scope of work shown in the 200 series of the electrical drawings?                                                                                                                                                                                                                                                                                                                | Walsh      | Line 15 was intended to be clear that interior lights for the fit out were not required. See the updated bid breakdown form. Line 15 has been updated to allow for scope referred to on the E200 sheets.                                                                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 101                                     | 10. TC 26A907 bid form line 16, is this not contrary to TC 26.A.7 items 34                                                                                                                                                                                                                                                                                                                                                            | Walsh      | This was identified and corrected in Addendum 2.                                                                                                                                                                                                                                                                                                                                                                                                                             | Released during Bid Package 7 Group 1 Bidding |
| 102                                     | 11. Plan detail notes call for electrical contractor to provide housekeeping pads. TC 26.a.7 item 53 says pads by others. Can we confirm which is correct.                                                                                                                                                                                                                                                                            | Walsh      | Pads to be provided by others.                                                                                                                                                                                                                                                                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 103                                     | 12. I can't find the stated capacity of the tower cranes. The project manual states "When the tower crane does not have the capability or capacity for a pick, Subcontractor will be responsible for hoisting." There are some large loads going into the Penthouse so we are trying to determine whether the tower crane will, A. have the capacity and B. still be available at the time the owner furnished gear shows up on site. | Walsh      | Each tower Crane is planned as :<br>Hammerhead cranes<br>245' Boom length. Approximate location per logistics plan<br>12000# capacity at 245'.<br>Minimum single line speed - 300 FPM.<br>Additionally a large construction hoist is going to be provided. the minimum size and capabilities of this hoist are as follows:<br>Enclosed Platform – 22’ Long X 12’ Wide X 11’ High.<br>Capacity – 20,000 lb rated<br>Speed – minimum 225 fpm.<br>Travel – Level 00 to Level 8. | Released during Bid Package 7 Group 1 Bidding |
| 104                                     | 13. TC 26A.7 6, F calls for a temp power allowance for modifications to the temp power but there's not an allowance included on the bid form that I can see.                                                                                                                                                                                                                                                                          | Walsh      | Bid Breakdown form is updated to now include a \$100,000 Allowance.                                                                                                                                                                                                                                                                                                                                                                                                          | Released during Bid Package 7 Group 1 Bidding |
| 105                                     | 14. Q&A addendum 5 item 91 mentions a sketch, but no sketch was included.                                                                                                                                                                                                                                                                                                                                                             | Walsh      | This will be attached with Addendum 6. Pardon the omission.                                                                                                                                                                                                                                                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 106                                     | 15. Can the bid date be extended.                                                                                                                                                                                                                                                                                                                                                                                                     | Walsh      | Bid date is extended but will not extend again. See addendum.                                                                                                                                                                                                                                                                                                                                                                                                                | Released during Bid Package 7 Group 1 Bidding |
| 107                                     | Response log #14: What is the timeline from subcontract issuance until the engineered temporary drawings would be required. We don't have an in-house PE so this is something we will need to have quoted to us and time will obviously impact                                                                                                                                                                                        | Walsh      | The engineering of this is to occur as needed to support subcontractor's efforts for procurement and install of the temporary service. As temporary work it will not be sent for permit / AHJ review.                                                                                                                                                                                                                                                                        | Released during Bid Package 7 Group 1 Bidding |
| 108                                     | Response log #18: Regarding temporary, can the specific AHUs desired be called out. There are multiple AHUs in the basement and penthouse. It wouldn't appear that the temp service will be sufficient to power them all.                                                                                                                                                                                                             | Walsh      | Previously answered. Project will adjust temp power planning based on procurement times of permanent electrical gear and services.                                                                                                                                                                                                                                                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 109                                     | Response log #30: Is there a spec for the bus duct? I didn't see one with the original specifications and I'm not seeing that it was included with the addendum 2 specifications. I would assume the breakers on the bus will need to be part of the larger selective coordination and short circuit studies, do we need to carry anything for these studies, or will it be picked up with the main gear package?                     | AEI/ Walsh | Specification 26 2500 Enclosed Bus Assemblies is provided with the documents. However, after consideration of the likely impact to short circuit study and spec required coordination of bus duct and gear manufacturer the bus duct will be included as owner furnished. This supersedes prior direction via RFI                                                                                                                                                            | Released during Bid Package 7 Group 1 Bidding |
| 110                                     | Response log #51: This question was more geared towards the level of service from the provider, i.e. gig speed fiber connection versus 5G broadband connection. Depending on availability the providers cost could vary greatly for their aid to construction, and I don't want to include an option that ends up not being sufficient for the project. Who administers the wireless throughout the project.                          | Walsh      | Walsh will administer the wifi. See other responses for other information.                                                                                                                                                                                                                                                                                                                                                                                                   | Released during Bid Package 7 Group 1 Bidding |

| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |           |                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
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| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Responder | Response                                                                                                                                                                                                                                                                                                                                                                                                             | Release                                       |
| 111                                     | Response log #55: Do we exclude power to the fire smoke dampers added in addendum 1 or to all fire smoke dampers (there were some on the original issue set). Along this same line, in TC 26A.7, specific exclusion #2 excludes all branch circuiting downstream of panelboards. There are a lot of branch circuits included in the plans. I don't think the intent here is to exclude 100% of the branch circuitry included in the drawings but need clarification. | Walsh     | Electrical subcontractor shall owe all conduit, wiring, circuitry per plans including the MEP equipment, site lighting, and fire dampers. Exclusion #2 was intended to refer to branch circuitry associated with Fit Out scope of work.                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 112                                     | Drawing E503 shows panel LLNPH2A but I can't find this panel designation on the riser                                                                                                                                                                                                                                                                                                                                                                                | AEI       | Panel LLNPH2A will is required and will be added to riser. Will require a 225A feed from LLNDH2A                                                                                                                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 113                                     | Drawing EM-700 shows panel LLEPHD1, but I didn't locate it. Should it be on drawing E300 detail 6 of room C004 (the transformer and subpanels it feeds are there)                                                                                                                                                                                                                                                                                                    | AEI       | Confirmed. Shall be located in C004.                                                                                                                                                                                                                                                                                                                                                                                 | Released during Bid Package 7 Group 1 Bidding |
| 114                                     | How many devices will be accessing the WIFI system at any given time? This will determine bandwidth requirements.                                                                                                                                                                                                                                                                                                                                                    | Walsh     | Jobsite wifi – avg 300 client connections. Network can block traffic to some sites (such as social media). Assume a 1 GB service for wifi. A number of ISPs are active adjacent to this property as it was formerly homes. As an example - metronet shows service capbaility to addresses of recently demolished homes on University Ave. Bidders should not assume UK will provide internet connection to the site. | Released during Bid Package 7 Group 1 Bidding |
| 115                                     | Will the WIFI system access be limited to certain users and devices or open for general use?                                                                                                                                                                                                                                                                                                                                                                         | Walsh     | A guest network will be established.                                                                                                                                                                                                                                                                                                                                                                                 | Released during Bid Package 7 Group 1 Bidding |
| 116                                     | Please describe the intent for WIFI coverage areas per floor. RFI reply # 51 referenced each stair well, at skip hoist location, at each elevator bank, 1 additional huddle space, and 10 AP devices for 4 <sup>th</sup> floor break area. Will WAP devices be added at these locations for all building levels?                                                                                                                                                     | Walsh     | All Levels for scope of each stair well, at skip, at each elevator bank, and a huddle space. Additional 10 devices on Level 4.                                                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 117                                     | Because WAP systems differ in technology types and signal strength; Is the intent for 1 WAP per location to cover a small radius, requiring users to be within the noted area for access? Or should each floor have blanket coverage for a broader access range?                                                                                                                                                                                                     | Walsh     | Limited Range wifi. The objective is to have zones of coverage, not blanket coverage everywhere throughout every phase of construction.                                                                                                                                                                                                                                                                              | Released during Bid Package 7 Group 1 Bidding |
| 118                                     | The RFI response #51 referenced “Service expectation is to allow support of minor IOT devices in the building and support use of tablets and phones for drawing review.” Because the site will also have security cameras and TV's, will these devices also be accessing this system?                                                                                                                                                                                | Walsh     | Most jobsite cameras run on cellular data, but in concept, TVs and other IOT devices will be on the same network/service (part of the 300 client connections).                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 119                                     | Prior to the Temporary WIFI system scheduled active date, will the service provider conduits from the entrance facility to the telephone poles be installed and usable?                                                                                                                                                                                                                                                                                              | Walsh     | ISPs are currently active directly adjacent to site and previously active on the project site with active service bein provided along Elizabeth Street corridor.                                                                                                                                                                                                                                                     | Released during Bid Package 7 Group 1 Bidding |
| 120                                     | Who is paying for Wi-Fi monthly service?                                                                                                                                                                                                                                                                                                                                                                                                                             | Walsh     | Subcontractor.                                                                                                                                                                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 121                                     | Item 24, page 6 calls for main branches/pathways for IDF closets requirements including sleeves and risers for stacked IDF rooms. Are only SLEEVES required for IDF pathways?                                                                                                                                                                                                                                                                                        | Walsh     | Provide for rough in, sleeves, and pathways, as shown on the drawings. Where drawings are silent provide sleeves connecting stacked IDF rooms.                                                                                                                                                                                                                                                                       | Released during Bid Package 7 Group 1 Bidding |
| 122                                     | Item 25, page 6. Will an exterior ground loop and/or ground rods be required for lightning protection? The drawings only call for ground loop under building slab. Please provide detail if lightning protection is to terminate to under slab ground loop.                                                                                                                                                                                                          | AEI       | Confirmed Lighting protection to be connected to counterpoise as indicated on Sheet E710                                                                                                                                                                                                                                                                                                                             | Released during Bid Package 7 Group 1 Bidding |
| 123                                     | Item 52, page 8. Please clarify scope of “commission” OFE.                                                                                                                                                                                                                                                                                                                                                                                                           | Walsh     | Commissioning in this instance is referring to startup and testing of equipment as referenced in the project specifications.                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 124                                     | Item 52, page 8. Will OFE equipment be delivered and stored onsite if received prior to setting in place? If offsite storage is required, for how many months?                                                                                                                                                                                                                                                                                                       | Walsh     | Plan for Just In Time Delivery for owner provided equipment.                                                                                                                                                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |
| 125                                     | Item 64 calls for enough fuel for a complete testing as required. Please confirm final fill up after testing is by others.                                                                                                                                                                                                                                                                                                                                           | Walsh     | Confirmed.                                                                                                                                                                                                                                                                                                                                                                                                           | Released during Bid Package 7 Group 1 Bidding |
| 126                                     | What is the projected award date?                                                                                                                                                                                                                                                                                                                                                                                                                                    | Walsh     | Following receipt of bids, scope discussions will be scheduled immediately based on the critical path of the project. Recommendations for award will flow from those to UK. Walsh would target late July for key packages based on timely meetings and approvals.                                                                                                                                                    | Released during Bid Package 7 Group 1 Bidding |
| 127                                     | We have not seen on any drawings, the lifting capacity of the Tower Crane. Can this be provided?                                                                                                                                                                                                                                                                                                                                                                     | Walsh     | See other RFI response on tower crane planned capacities.                                                                                                                                                                                                                                                                                                                                                            | Released during Bid Package 7 Group 1 Bidding |
| 128                                     | In the marked-up riser provided in addendum 2 showing owner furnished versus contractor furnished, many of the surge units were left white indicating they are to be contractor furnished. Can we get confirmation that this is the intent?                                                                                                                                                                                                                          | Walsh     | Surge Devices will be provided with the owner equipment, this was an oversite on the riser diagram.                                                                                                                                                                                                                                                                                                                  | Released during Bid Package 7 Group 1 Bidding |
| 129                                     | Are any louvers to be provided by the mechanical subcontractor                                                                                                                                                                                                                                                                                                                                                                                                       | Walsh     | All exterior facing louvers are to be provided by metal panel subcontractors. Mechanical Subcontractor is to provide all connections to louvers and all active components, where applicable.                                                                                                                                                                                                                         | Released during Bid Package 7 Group 1 Bidding |



| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
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| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Responder      | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Release                                       |
| 130                                     | There is reference in the mechanical scope of work for ongoing maintenance. Is the maintenance related to all mechanical equipment or just the mechanical equipment provided by the subcotnractor?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Walsh          | Mechanical subcontractor will maintain the owner furnished contractor installed mechanical equipment that is used during the course of construction, such as the AHUs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Released during Bid Package 7 Group 1 Bidding |
| 131                                     | It has come to our attention that the 2500UT basis of design system is not a good fit for the project and Kawneer has suggested the 1600UT system which has been the basis of design for other buildings at UK. Please Advise if 1600 UT will be acceptable                                                                                                                                                                                                                                                                                                                                                                                                                                              | Champlin / HGA | A revised curtain wall specification will be provided in Group 2 – Addendum #1. Per revised specifications, an option for (CW-1) to be constructed of a field-fabricated (stick-built) system will be provided, pending confirmation that mullion sightlines are consistent between adjacent unitized and field-fabricated systems and that performance between these systems is consistent per specified requirements. (CW-2) system shall remain fully-unitized.<br><br>The depth of the system shown in the architectural details is based upon preliminary span analysis, but final mullion depth is to be determined by the curtain wall fabricator’s engineering. Note that any adjustments to mullion depth shall be applied consistently to all (CW-1) locations.<br><br>The curtain wall system shall provide the design aesthetic as indicated in the construction documents. It is acceptable for the mullion width to be increased to 3” if required to meet the loads and/to provide support for the sun shade. Note that any revisions to mullion sitelines/width shall be applied consistently to all (CW-1) locations. Per forthcoming specification revisions in Group 2 – Addendum #1, curtainwall engineer shall provide detailed performance information and analysis for atypical curtainwall configurations such as the points of sunshade support. All such connections shall be thermally-broken per specifications.<br><br>If necessary, the curtain wall at the lobby may need to be deeper than 7 ½”. The architectural details indicate 10” based upon preliminary calculations. Confirmation of specific locations needed - curtainwall design for (CW-2) system has assumed heights limited to roughly 16'-0" (a single story) with stack joints and either lateral bracing at the slab edge - such as at the Southeast corner on levels 1 and 2 - or via a girt - such as at the primary lobby areas. |                                               |
| 132                                     | 1. Detailing within the arch’s indicate a desired overall system depth of 10”. The captured 2500UT system has a standard depth of 7 ½”. Some custom dies do exist for the system but none that would match that aesthetic.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Champlin / HGA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
| 133                                     | 2. The 2500UT system was designed primarily to address projects with high thermal requirements or that needed the aesthetic of a 4 side SSG look. Provisions for deep covers or the support of sunshades are not provided within the standard system. Customization to the chassis to accept those features typically result in an increased sightline of 3” and a reduction of the advertised high thermal values.                                                                                                                                                                                                                                                                                      | Champlin / HGA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
| 134                                     | 3. The arch’s show spans of 20’ at the South and East elevations of the project. The calculated wind load based on project requirements was 41 PSF and the vertical module spacing at those 20’ spans was 48”. The standard 7 ½” deep 2500UT chassis, reinforced with steel, will not make those spans based on the loading requirements and the vertical mullion spacing. The maximum span for the standard system at loading would be between 15’ to 16’ as shown in the chart below. There are no existing dies for the system that will meet these requirements. (Wind load charts can be found in the Architectural Detail Manual for the product which is available for download from our website) | Champlin / HGA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |
| 135                                     | We are submitting AIR-SHIELD™ LSR Liquid Membrane Air/Vapor and Liquid Moisture Barrier for your consideration. Please confirm if this is an acceptable product.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Champlin / HGA |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                               |

| Bid Package 07 - Core and Shell Group 2 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |
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| Question and Response Log               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |
| Responses As Of: 08/20/2024 @ 8:00 AM   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |         |
| #                                       | Question                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Responder      | Response                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Release |
| 136                                     | <p>Requesting to be given “ or equal” for bidding of the brick materials as follows</p> <p>DIVISION 42000, 2.6 BRICK (FBR-1AB, FBR-2, FBR-3)</p> <p>A.Qualifies as Indigenous Material</p> <p>B.Not possible for this type of brick</p> <p>C.Qualifies</p> <p>D.Qualifies- ASTM C216, grade SW, Type FBX</p> <p>D 2-6 Qualifies as follows</p> <p>        BELDEN BRICK, CANTON OHIO, MANUFACTURED SUGAR CREEK OHIO</p> <p>7a FBR-1A Beige, Smooth, Matte/Velour Finish, Color: Custom 2 part blend of Acadia (67%) and 8532 (33%)</p> <p>7b.FBR-1B Beige, Texture, Scratch Finish; Color: Custom 2-part blend of Acadia (67%) and 8532 (33%)</p> <p>7c. FBR-2; Terracotta: smooth, Matte/Velour Finish: Color: Custom 3-Part blend of 40% Indian Red F/G, 40% Royalty Red F/G, 20% 8621 F/G</p> <p>7d. FBR-3; Dark Terracotta: Matte/Velour Finish: Color; 8621 F/G</p> | Champlin / HGA | <p><b>Responses to your questions are outlined herein in Red:</b></p> <p>Requesting to be given “ or equal” for bidding of the brick materials as follows</p> <p>DIVISION 42000, 2.6 BRICK (FBR-1AB, FBR-2, FBR-3)</p> <p>A.Qualifies as Indigenous Material</p> <p>B.Not possible for this type of brick   <b>Noted. This is acceptable</b></p> <p>C.Qualifies</p> <p>D.Qualifies- ASTM C216, grade SW, Type FBX</p> <p>D 2-6 Qualifies as follows</p> <p>        BELDEN BRICK, CANTON OHIO, MANUFACTURED SUGAR CREEK OHIO</p> <p>7a FBR-1A Beige, Smooth, Matte/Velour Finish, Color: Custom 2 part blend of Acadia (67%) and 8532 (33%) <b>Proposed colors are not approved.</b></p> <p>7b.FBR-1B Beige, Texture, Scratch Finish; Color: Custom 2-part blend of Acadia (67%) and 8532 (33%) <b>Proposed colors are not approved.</b></p> <p>7c. FBR-2; Terracotta: smooth, Matte/Velour Finish: Color: Custom 3-Part blend of 40% Indian Red F/G, 40% Royalty Red F/G, 20% 8621 F/G <b>The following Belden product will be noted as acceptable for (FBR-2) in forthcoming revisions to 042000 in Group 2 – Addendum #1: VELOUR FINISH; COLOR: REGAL BLEND</b></p> <p>7d. FBR-3; Dark Terracotta: Matte/Velour Finish: Color; 8621 F/G <b>The following Belden product will be noted as acceptable for (FBR-3) in forthcoming revisions to 042000 in Group 2 – Addendum #1: VELOUR FINISH; MIX OF 50% BISMARK DARK AND 50% REGAL BLEND (PRE-SORTED TO REMOVE THE LIGHTEST COLOR IN THIS RANGE).</b></p> |         |
| 137                                     | <p>I'd like to submit for your review a substitution request for the specified Metalworks Torsion Spring panels found in section 095421 - Metal Pan Ceilings. I've attached a completed substitution request and the corresponding product documents from CertainTeed Architectural.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Champlin / HGA | <p>This RFI is not applicable to Group 2 Enclosure scope.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |         |
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004100B01

UNIVERSITY OF KENTUCKY  
CAPITAL CONSTRUCTION PROCUREMENT SECTION  
FORM OF PROPOSAL: TC 04A.7 Face Brick Exterior Masonry

Project No. 2563.30 Project Title: UK CTC AAC BP7 Core and Shell Group 2

Purchasing Officer: Ken Scott

NOTE: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

\*\*\*\*\*

This Proposal is submitted by: \_\_\_\_\_  
(NAME AND ADDRESS OF BIDDER)

Date: \_\_\_\_\_

Telephone: \_\_\_\_\_

Vendor #: \_\_\_\_\_ (FEIN)

TO: BID CLERK INVITATION TO BID: **CCK-2563.30-7-25**  
UNIVERSITY OF KENTUCKY  
CAPITAL CONSTRUCTION BID OPENING DATE: **September 17, 2024**  
PROCUREMENT  
RM. 322 SERVICE BUILDING TIME **3:00 P.M. Lexington KY Time**  
LEXINGTON, KY. 40506-0005

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

(Here insert the number and date of any Addenda issued and received. If none has been issued and received, the word NONE should be inserted.)

FP-1

Contractor Report of Prior Violations of  
Chapters 136, 139, 141, 337, 338, 341, and 342

Pursuant to KRS 45A.485, the Contractor shall, prior to the award of a Contract, reveal final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 by the Contractor that have occurred in the previous five (5) year period.

This statute also requires for the duration of the Contract established, the Contractor be in continuous compliance with the provisions of Chapters 136, 139, 141, 337, 338, 341, and 342 that apply to the Contractor's operations. The Contractor's failure to reveal a final determination of a violation of KRS Chapters 136, 139, 141, 337, 338, 341, and 342, or failure to comply with any of the above cited statutes for the duration of the Contract shall be grounds for the cancellation of the Contract, and the disqualification from eligibility for future contracts for a period of two (2) years.

The Contractor, by signing and submitting a Bid on this Invitation, agrees as required by KRS 45A.485 to submit final determinations of any violations of the provisions of KRS Chapters 136, 139, 141, 337, 338, 341, and 342 that have occurred in the previous five (5) years prior to the award of a Contract and agrees to remain in continuous compliance with the provisions of these statutes during the duration of any contract that may be established. Final determinations of any violations of these statutes, must be provided to the University by the successful Contractor prior to the award of a Contract.

LUMP SUM PROPOSAL

The Bidder agrees to furnish all labor, materials, supplies and services required to complete the Work, for the above referenced Project, for the Capital Construction Procurement Section, University of Kentucky, as described in the Specifications and Contract Documents and shown on the Drawings enumerated below and as modified by the Addenda listed above.

FOR THE LUMP SUM OF \_\_\_\_\_  
(USE WORDS)  
\_\_\_\_\_ DOLLARS AND \_\_\_\_\_ CENTS.  
(USE WORDS) (USE WORDS)  
(\$ \_\_\_\_\_)  
(USE FIGURES)

*BID ALTERNATES:*

*1. Alternate No. 1 (Alternate Brick): \_\_\_\_\_ (\$ \_\_\_\_\_)*  
*(USE WORDS) (USE FIGURES)*

**SUPERINTENDENT**

In accordance with Article 17 of the General Conditions a full-time superintendent will be required on this project. Below, please list the superintendent your firm will employ on this project. The successful Bidder will be required to furnish a resume of the superintendent's qualifications and or past projects.

\_\_\_\_\_  
List the Superintendent's Name

Subcontractor EMR: \_\_\_\_\_

FP-2



**SUBCONTRACTOR QUALIFICATIONS PER DESIGN DOCUMENTS**

Subcontractor must have a minimum of 5 years of successful experience in the type of work required and submit with his Bid evidence of qualifications required herein.

Subcontractor Years Of Experience: \_\_\_\_\_

Contractor shall have completed 3 projects of similar size and complexity within the last 5 years. Submit a list of projects and their locations. Each project listed is to have at least 70 percent of the value of the work being bid.

| Project | Date | Value | Reference | Phone |
|---------|------|-------|-----------|-------|
|         |      |       |           |       |
|         |      |       |           |       |
|         |      |       |           |       |

FORM OF PROPOSAL

AUTHENTICATION OF BID AND STATEMENT OF NON-COLLUSION AND NON-CONFLICT OF INTEREST

I hereby certify:

1. That I am the Bidder (if the Bidder is an individual), a partner in the Bidder (if the Bidder is a partnership), or an officer or employee of the bidding corporation having authority to sign on its behalf (if the Bidder is a corporation);
2. That the submitted Bid or Bids covering Capital Construction Procurement Section Invitation No. **CCK-2663.30-7-25** have been arrived at by the Bidder independently and have been submitted without collusion with, and without any agreement, understanding or planned common course of action with, any other contractor, vendor of materials, supplies, equipment or services described in the Invitation to Bid, designed to limit independent bidding or competition; as prohibited by provision KRS 45A.325;
3. That the contents of the Bid or Bids have not been communicated by the Bidder or its employees or agents to any person not an employee or agent of the Bidder or its surety on any bond furnished with the Bid or Bids and will not be communicated to any such person prior to the official opening of the Bid or Bids;
4. That the Bidder is legally entitled to enter into the contracts with the University of Kentucky and is not in violation of any prohibited conflict of interest, including those prohibited by the provisions of KRS 164.390, and 45A.330 to 45A.340 and 45A.455;
5. This offer is good for 60 calendar days from the date this Bid is opened. In submitting the above, it is expressly agreed that upon proper acceptance by the Capital Construction Procurement Section of any or all items Bid above, a contract shall thereby be created with respect to the items accepted;
6. That I have fully informed myself regarding and affirm the accuracy of all statements made in this Form of Proposal including Bid Amount.
7. Unless otherwise exempted by KRS 45.590, the Bidder intends to comply in full with all requirements of the Kentucky Civil Rights Act and to submit data required by the Kentucky Equal Employment Act upon being designated the successful contractor.
8. That the bidding contractor and all subcontractors to be employed do not and will not maintain any facilities they provide for employees in a segregated manner and they are in full compliance with provisions of 41 CFR 60-1.8 that prohibits the maintaining of segregated facilities.
9. In accordance with KRS45A.110(2), the undersigned hereby swears under penalty of perjury that he/she has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky and that the award of a contract to the bidder will not violate any provision of the campaign finance laws of the Commonwealth of Kentucky.

READ CAREFULLY - SIGN IN SPACE BELOW - FAILURE TO SIGN INVALIDATES BID

SIGNED BY \_\_\_\_\_ TITLE \_\_\_\_\_

PRINT NAME \_\_\_\_\_ FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_ AREA CODE & PHONE \_\_\_\_\_

\_\_\_\_\_ FAX \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

BIDDER'S EMAIL \_\_\_\_\_ DATE \_\_\_\_\_



**BUSINESS CLASSIFICATION**

Please complete this form which is necessary for the University of Kentucky vendor database.  
Mark only one classification. Refer to "Definitions" for assistance in determining correct classification.

- |                                         |                                                     |
|-----------------------------------------|-----------------------------------------------------|
| (01)___ Small Business                  | (06)___ Woman-Owned Large Business                  |
| (02)___ Large Business                  | (07)___ Disadvantaged Woman-Owned<br>Small Business |
| (03)___ Disadvantaged Small<br>Business | (08)___ Disadvantaged Woman-Owned<br>Large Business |
| (04)___ Disadvantaged Large<br>Business | (09)___ Other                                       |
| (05)___ Woman-Owned Small Business      |                                                     |

**DEFINITIONS**

- (01) **SMALL BUSINESS:** A business concern that is organized for profit, is independently owned and operated, is not dominant in the field of operations in which it is bidding, and meets the size standards as prescribed in the Code of Federal Regulations, Title 13, Part 121. Consult your local or district Small Business Administration (SBA) office if further clarification is needed.
- (02) **LARGE BUSINESS:** A business concern that exceeds the small business size code standards established by SBA.
- (03) **DISADVANTAGED SMALL BUSINESS:** A business concern (a) that is at least 51 percent owned by one or more socially and economically disadvantaged individuals (as defined below), or a publicly owned business, having at least 51 percent of its stock owned by one or more socially and economically disadvantaged individuals; and (b) has its management and daily business operations controlled by one or more such individuals. Socially and economically disadvantaged individuals include: Asian, Black/African American, Hispanic or Latino, Native American, Native Hawaiian/Pacific Islander, Women, Disabled, Veteran and Disabled Veteran and other minorities or individuals found to be disadvantaged by the SBA.
- (04) **DISADVANTAGED LARGE BUSINESS:** A concern that meets the definition of socially and economically disadvantaged individuals as defined above, but which is not a small business by the SBA's size standards.
- (05) **WOMAN-OWNED SMALL BUSINESS:** A small business that is at least 51 percent owned by a woman or women who also control and operate it. "Control" in this context means exercising the power to make policy decisions. "Operate" means actively involved in the day to day management.
- (06) **WOMAN-OWNED LARGE BUSINESS:** A concern that meets the definition of woman owned and operated, but which is not a small business by the SBA's standards.
- (07) **DISADVANTAGED, WOMAN-OWNED SMALL BUSINESS:** A concern that meets the definition of both (03) and (05) above.
- (08) **DISADVANTAGED, WOMAN OWNED LARGE BUSINESS:** A concern that meets the definition of both (04) and (06) above.
- (09) **OTHER:** A concern that does not meet any of the above definitions.

**004100B01**

THE FOLLOWING ITEMS ARE HEREWITH ENCLOSED AS REQUIRED BY KRS 45A.185

1. Bid Bond or Certified Check in an amount not less than five percent (5%) of total Bid.
2. List of Proposed Subcontractors and Unit Prices. (if required)
3. Authentication of Bid and Statement of Non-Collusion and Non-Conflict of Interest.
4. List of Materials and Equipment.
5. Bid Breakdown Form
6. Manpower and Billing Projections
7. Walsh Labor Rates Sheet
8. Walsh Subcontractor Qualifications

A Payment and Performance Bond shall not be included with the bid. If the bidder is not approved for participation in the SDI program, then the bidder will be required to furnish a proposal to add a 100% P&P Bond. All bonding and insurance requirements are contained in the Instruction to Bidders and/or General Conditions. Performance and Payment bonds shall be obliged per the bond forms in the Walsh Construction Sample Contract Exhibits. A 5% bid bond is required with the submission of this proposal.

Bidder shall not include cost for insurance in their bid. If the bidder is not approved for participation in the Contractor Controlled Insurance Program (CCIP), then the bidder will be required to furnish a proposal to add the full cost of insurance consistent with the project insurance limits listed in the bid documents and the Walsh Construction Sample Contract Exhibits.

#### BIDDER'S QUALIFICATIONS

The Commonwealth of Kentucky Model Procurement Code (KRS 45A.080) requires contracts to be awarded, "to the responsive and responsible bidder whose bid offers the best value" to the University of Kentucky. In order to determine if the Bidder has the experience, qualifications, resources and necessary attributes to provide the quality workmanship, materials and management required by the plans and specifications, the Bidder may be required to complete and submit the information requested on the University of Kentucky Contractor Bidder Determination of Responsibility questionnaire. Failure to provide the information requested on the questionnaire or failure to provide any additional submittals or information that may be requested to make this determination may be grounds for a declaration of non-responsibility with respect to the Bidder. A copy of the Contractor Determination of Responsibility questionnaire is available upon request to all Bidders.

#### TIME LIMIT FOR EXECUTION OF CONTRACT DOCUMENTS

It is further agreed, that in the event this Proposal is accepted by the Owner and the undersigned shall fail to execute the Contract and furnish satisfactory Payment and Performance Bond within ten (10) consecutive calendar days from the date of notification of the award of the Contract, the Owner may at his option, determine that the undersigned has abandoned the Contract and thereupon, the Proposal shall become null and void and the Bid guarantee, check or Bid bond which accompanied it shall be forfeited and become the property of the Owner as liquidated damages for each failure and no protest pursuant to such action will be made. If the Undersigned shall execute the Contract, and furnish satisfactory Payment Bond and Performance Bond, it is understood that the Bid Guarantee or Bid Bond will be returned to the undersigned by the Owner.

FP-6

**004100B01 Form of Proposal – Walsh Modified**

**Dated: 01/2022**

**Applies to: Cancer Treatment Center  
University of Kentucky**



**UNIT PRICES**

NOTE: Unit Prices shall include the furnishing of all labor, materials, supplies and services and shall include all items of cost, overhead and profit for the Contractor and any subcontractor involved, and shall be used uniformly without modifications for either additions or deductions. The Unit Prices as established shall be used to determine the equitable adjustment of the Contract Price in connection with changes, deletions or extra work performed under the Contract and the "Rules of Measurement" set forth in the General Conditions shall govern.

*All Bidders will be required to complete and submit the following Unit Prices with the bid.*

*The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.*

DESCRIPTION OF WORK

UNIT PRICE

See Bid Breakdown Form

## PRIMARY LIST OF PROPOSED SUBCONTRACTORS

All subcontractors are subject to the approval of the Capital Construction Procurement Section and Capital Project Management Division, University of Kentucky, Lexington, KY.

If certain branches of the Work are to be done by the Prime Contractor, so state.

The apparent low bidders will be required to complete and submit to the University the following information by twelve o'clock (12) noon of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

DIVISION OF WORKNAME AND ADDRESS OF SUBCONTRACTORDIVISION 01

GENERAL REQUIREMENTS

DIVISION 02

EXISTING CONDITIONS

DIVISION 03

CONCRETE

DIVISION 05

METALS

DIVISION 07

THERMAL &amp; MOISTURE PROTECTION

DIVISION 22FUEL OIL STORAGE AND  
DISTRIBUTION SYSTEMDIVISION 22

COMPRESSED AIR SYSTEM

DIVISION 22

MEDICAL GAS PIPING SYSTEMS

DIVISION 22

RO WATER TREATMENT SYSTEM

DIVISION 26

ELECTRICAL

DIVISION 27

TELECOMMUNICATIONS

DIVISION 31

EARTHWORK



**004100B01**

DIVISION 32  
EXTERIOR IMPROVEMENTS

ADD AS NEEDED

FP-9

LIST OF MATERIALS AND EQUIPMENT

Each item listed under the different phases of construction must be clearly identified so that the Owner will definitely know what the Bidder proposes to furnish.

The use of a manufacturer's or dealer's name only, or stating "as per Plans and Specifications," will not be considered as sufficient identification.

Where more than one "Make" or "Brand" is listed for any one item, the Owner has the right to select the one to be used.

The apparent low bidders will be required to complete and submit to the University the following information by twelve o'clock (12) noon of the first working day following the bid opening. The information requested in this submittal is required to assist the University in determining contractor responsibility to complete the project being bid.

The apparent low bidder is requested to attend a post bid meeting which will be scheduled at a later date.

| <u>MATERIALS AND EQUIPMENT</u> | <u>BRAND OR MANUFACTURER</u> |
|--------------------------------|------------------------------|
|                                |                              |
|                                |                              |
|                                |                              |
|                                |                              |
|                                |                              |
|                                |                              |
|                                |                              |



**004100B01**

**IDENTIFICATION OF DIVERSE BUSINESS ENTERPRISE SUBCONTRACTORS AND MATERIAL SUPPLIERS**

Diverse Business Enterprises (DBE) consist of minority, women, disabled, veteran and disabled veteran owned business firms that are at least fifty-one percent owned and operated by an individual(s) of the aforementioned categories. Also included in this category are disabled business enterprises and non-profit work centers for the blind and severely disabled.

MBE, WBE, Veterans, Disable Veterans and Disabled make up Diverse Business Enterprises, DBE.

**Participation of DBE owned Contractors and businesses.**

The University of Kentucky encourages and supports the participation Diverse Business Enterprises. Please list Subcontractors and Material Suppliers according to following Ethnic Vendor List or if they are a Woman Owned Business:

- Asian
- Black/African American
- Hispanic or Latino
- Native American Native Hawaiian/Pacific Islander
- White
- Other

1. DBE (Ethnic or Woman) Subcontractors

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2. DBE (Ethnic or Woman) Material Suppliers

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BID BREAKDOWN FORM

Company Name:  
Scope of Work : Trade Category 04A.7 - Face Brick Masonry

| Item        | Bid Quantities                                                                        | Quantity | U/M    | Unit Price | Total       |
|-------------|---------------------------------------------------------------------------------------|----------|--------|------------|-------------|
| 001         | General Requirements                                                                  |          | LS     |            |             |
| 002         | Hoisting, Work Platforms, Shoring, with engineering and maintenance                   |          | LS     |            |             |
| 003         | Shop Drawings and Engineering                                                         |          | LS     |            |             |
| 004         | Mock Up                                                                               |          | LS     |            |             |
| 005         | Facebrick 1A                                                                          |          | vsf    |            |             |
| 006         | Facebrick 1B                                                                          |          | vsf    |            |             |
| 007         | Facebrick 2                                                                           |          | vsf    |            |             |
| 008         | Facebrick 3                                                                           |          | vsf    |            |             |
| 009         | Brick Faced Retaining walls                                                           |          | vsf    |            |             |
| 010         | Stone 1                                                                               |          | vsf    |            |             |
| 011         | Stone 2                                                                               |          | ea     |            |             |
| 012         | Stone faced retaining walls                                                           |          | vsf    |            |             |
| 013         | Stone Benches                                                                         |          | ea     |            |             |
| 014         | Winter Conditions                                                                     |          | LS     |            |             |
| 015         | Shelf Angles - Steel Angles Provided by Steel Subcontractor and installed by Mason.   |          | LF     |            |             |
| 016         | Offset Shelf Angle - Steel Provided and Installed by Mason                            |          | LF     |            |             |
| 017         | Expansion Joints - Masonry to Masonry                                                 |          | LF     |            |             |
| 018         | Caulking                                                                              |          | LS     |            |             |
| 019         | Come Back work for Skip hoist patch in.                                               |          | LS     |            |             |
| 020         | Total Labor Hours - Standard Time                                                     |          | MH     |            |             |
| 021         | Total Labor Hours - Overtime                                                          |          | MH     |            |             |
| 022         | Required Tower Crane Hours Standard Time                                              |          | Hours  |            |             |
| 023         | Required Tower Crane Hours Overtime                                                   |          | Hours  |            |             |
| 024         | Provide Cost for Face Brick 1A Included in Bid                                        |          | 1/1000 |            |             |
| 025         | Provide Cost for Face Brick 1B Included in Bid                                        |          | 1/1000 |            |             |
| 026         | Provide Cost for Face Brick 2 Included in Bid                                         |          | 1/1000 |            |             |
| 027         | Provide Cost for Face Brick 3 Included in Bid                                         |          | 1/1000 |            |             |
| 028         | Provide Total Cost for Face Brick Material Included in Bid                            |          | LS     |            |             |
|             |                                                                                       |          |        |            |             |
|             | Allowances (To be included in Base Bid on Bid Form)                                   |          |        |            |             |
| Allowance 1 | Project Technology - Calculate as .15% bid value                                      | 1        | LS     |            |             |
| Allowance 2 | Utility Costs                                                                         | 1        | LS     | \$ 50,000  | \$50,000.00 |
| Allowance 3 | Overtime Allowance                                                                    | 500      | MH     |            |             |
| Allowance 4 | Peer Review Coordination Allowance                                                    | 1        | LS     | \$ 35,000  | \$35,000.00 |
| Allowance 5 | Enclosure Coordination Allowance                                                      | 1        | LS     | \$ 35,000  | \$35,000.00 |
|             |                                                                                       |          |        |            |             |
|             | TOTAL BASE BID (this total should match Base Bid Total on 004100B01 Form of Proposal) |          |        |            |             |
|             |                                                                                       |          |        |            |             |
|             | Alternates                                                                            |          |        |            |             |
|             | Alternate 1 - Alternate Brick Size                                                    |          | LS     |            |             |



|                     |                                                                    |  |               |  |  |
|---------------------|--------------------------------------------------------------------|--|---------------|--|--|
|                     |                                                                    |  |               |  |  |
|                     |                                                                    |  |               |  |  |
|                     |                                                                    |  |               |  |  |
|                     | <b>Unit Prices - To be included in the Subcontract</b>             |  |               |  |  |
| Unit Price 1        | Provide Cost for Face Brick 1A Included in Bid                     |  | 1/1000        |  |  |
| Unit Price 2        | Provide Cost for Face Brick 1B Included in Bid                     |  | 1/1000        |  |  |
| Unit Price 3        | Provide Cost for Face Brick 2 Included in Bid                      |  | 1/1000        |  |  |
| Unit Price 4        | Provide Cost for Face Brick 3 Included in Bid                      |  | 1/1000        |  |  |
| Unit Price 5        | Provide Total Cost for Face Brick Material Included in Bid         |  | LS            |  |  |
| <i>Unit Price 6</i> | <i>Provide cost for Alternate 1 (Alternate Brick Size) FBRA-1A</i> |  | <i>1/1000</i> |  |  |
| <i>Unit Price 7</i> | <i>Provide cost for Alternate 1 (Alternate Brick Size) FBRA-1B</i> |  | <i>1/1000</i> |  |  |
| <i>Unit Price 8</i> | <i>Provide cost for Alternate 1 (Alternate Brick Size) FBRA-2</i>  |  | <i>1/1000</i> |  |  |
| <i>Unit Price 9</i> | <i>Provide cost for Alternate 1 (Alternate Brick Size) FBRA-3</i>  |  | <i>1/1000</i> |  |  |
|                     |                                                                    |  |               |  |  |
|                     | <b>Labor Rates - See Labor Rate Form</b>                           |  |               |  |  |
|                     |                                                                    |  |               |  |  |
|                     | <b>Notes</b>                                                       |  |               |  |  |
|                     | <i>Items Modified in Addendum 1 are noted in Red Italics</i>       |  |               |  |  |

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**EXHIBIT B.2**  
**TRADE CATEGORY SPECIFIC SCOPE**  
**SCOPE CLARIFICATIONS, ALTERNATES, UNIT PRICES, ALLOWANCES, AND**  
**CONTRACT BREAKDOWN**

**Trade Category 04A.7 Face Brick/Exterior Masonry**  
**SEE ALSO EXHIBIT B.1 FOR BID SET SCOPE ITEMS**

Provide labor, material, equipment, and all else necessary to furnish and install complete the Face Brick/Exterior Masonry Work as required by the contract documents and as outlined below.

**1. SPECIFICATION SECTIONS:**

The following specification sections are listed as the responsibility of the Subcontractor in defining its area of work on this project:

Walsh Construction Bid Manual  
Division 00 – Procurement and Contracting Requirements  
Division 01 – General Requirements  
Division 02 – Existing Conditions (as applicable)  
Division 03 – Concrete (as applicable)  
Division 04 – Masonry  
040523 – Adjustable Concealed Lintel System  
040524 – Adjustable Brickwork Support System  
042000 – Unit Masonry  
044200 – Exterior Stone Cladding  
044310 – Site Stone Masonry  
Division 05 – Metals (as applicable)  
Division 06 – Wood, Plastics, and Composites (as applicable)  
Division 07 – Thermal and Moisture Protection  
072100 – Thermal Insulation  
076200 – Sheet Metal Flashing and Trim  
Division 08 – Openings (as applicable)  
Division 09 – Finishes (as applicable)  
Division 10 – Specialties (as applicable)  
Division 11 – Equipment (as applicable)  
Division 12 – Furnishings (as applicable)  
Division 13 – Special Construction (as applicable)  
Division 14 – Conveying Equipment (as applicable)  
Division 20 – Mechanical (as applicable)  
Division 21 – Fire Suppression (as applicable)  
Division 22 – Plumbing (as applicable)  
Division 23 – Heating, Ventilating, and Air Conditioning (as applicable)  
Division 25 – Building Automation System (as applicable)  
Division 26 – Electrical (as applicable)  
Division 27 – Telecommunications (as applicable)  
Division 28 – Electronic Safety and Security (as applicable)  
Division 31 – Earthwork (as applicable)  
Division 32 – Exterior Improvements (as applicable)



Division 33 – Utilities (as applicable)

Unless specifically indicated otherwise or excluded below, Subcontractor is responsible for the complete specification sections indicated above.

Division 01 of the Specifications are general in nature and apply to all Subcontracts. These sections are included "complete" as part of this Subcontract Agreement.

The Subcontractor is also responsible for trade specifications not specifically listed above but required by reference in the listed specifications or as required to perform the scope of work described herein, as well as the Bidding Requirements, Contracting Requirements, and the use of the Construction Documents as a whole.

**2. ADDENDUMS, BULLETINS, OR INFORMATION LETTERS:**

1. See Exhibit B.1 for Complete List of Addendums, Bulletins, or Information Letters.

**3. REQUESTS FOR INFORMATION (RFI):**

The following RFIs were issued prior to award of this Subcontract and the scope specifically referred to in the RFI or any scope that is reasonable inferable from these RFIs are included in this Subcontract Agreement:

1. See provided RFI log 's' associated with this Bid Package.

**4. SMALL BUSINESS AND DBE SUBCONTRACTOR REQUIREMENTS:**

1. No additional requirements other than those shown in Exhibit B.1 and in all other parts of the Contract.

**5. LABOR AND MANPOWER:**

1. Subcontractor to provide a minimum of two crews to expedite completion of the scope of work.

**6. UK HEALTHCARE SUSTAINABILITY and LEED REQUIREMENTS:**

1. No additional requirements other than those shown in Exhibit B.1 and in all other parts of the Contract.

**7. SCOPE CLARIFICATIONS-SCOPE SPECIFIC: FACE BRICK / EXTERIOR MASONRY:**

1. Subcontractor shall furnish and install all exterior stone cladding including, but not limited to, stone panels set with individual anchors, stone panels mechanically anchored on steel stud frames, etc. As required per Drawings and Specifications.
2. Subcontractor shall provide all submittals including, but not limited to, shop drawings, samples, and delegated design submittals as required.
3. Subcontractor shall provide all material certificates as required per Specifications.
4. Subcontractor shall provide all product requirements for brick as outlined in the Specifications. Subcontractor includes color, texture, mortar mixes, sizing, and finishes as specified.

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5. Subcontractor includes all colored masonry, mortar, caulking as required by the Contract Documents.
  6. Subcontractor shall furnish and install all accessories, reasonably inferred as necessary, for a complete stone/brick installation.
  7. Subcontractor shall incorporate all quality assurance requirements per Specifications and Drawings into this agreement.
  8. Subcontractor shall furnish and install mockups as required per Plans & Specifications and shall obtain Architect's and Construction Manager's approval prior to fabrication and construction of corresponding work.
  9. Subcontractor shall participate and assist the Commissioning Agent in the Building Enclosure Commissioning.
  10. Subcontractor includes all preconstruction testing for sealants as required per Specifications.
  11. Subcontractor includes all cold-weather and hot-weather requirements per Specifications into this agreement in accordance with the Project Schedule. Subcontractor includes all conditions to complete this scope of work during winter conditions. Coordinate all installation with the CM related including related to temperature. Any engineering for winter conditions needed beyond typical is the responsibility of this Subcontractor.
  12. Subcontractor includes multiple mobilizations to comply with project schedule.
  13. Subcontractor includes coordination with other Architectural and MEP trades for openings, penetrations, supports, etc. Coordination items include, but are not limited to: inserts embedded in concrete or masonry, flashing reglets, etc.
  14. Subcontractor shall provide a professional engineer stamp on engineered shop drawings. Subcontractor includes time for Delegated Design items and includes all required design criteria.
  15. Subcontractor shall comply with source limitations as required by the specifications.
  16. Subcontractor shall obtain stone/sand, regardless of finish, from single quarry with resources to provide materials of consistent quality in appearance and physical properties as required.
  17. Subcontractor shall furnish and install all Granite (STN-2) and miscellaneous accessories as required. Subcontractor includes basis-of-design product and finishes as specified.
  18. Subcontractor shall furnish and install all Sandstone (STN-1) and miscellaneous accessories as required. Subcontractor includes basis-of-design product and finishes as specified.
  19. Subcontractor shall furnish and install all anchors and fasteners including, but not limited to, adjustable, screw-attached veneer anchors (STNA-1) per basis-of-design product, dowels, pins, etc. as required.
  20. Subcontractor shall furnish and install stone veneer and stone caps at stone clad retaining walls and stone clad seat walls.
  21. Subcontractor shall furnish and install all stone accessories including, but not limited to, setting shims, setting buttons, concealed sheet metal flashings, cellular plastic weep/vents, sealants, etc. As required.
  22. Subcontractor incorporates all stone fabrication requirements per Specifications into this agreement.
  23. Subcontractor shall engage a qualified testing agency to perform source quality-control testing as



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required per Specifications.

24. Subcontractor's installers shall comply with all qualifications as required per Specifications.
25. Subcontractor includes coordination with framing Subcontractor for support/backup structure/framing requirements.
26. Subcontractor shall provide reveals, reglets, and openings as required to accommodate contiguous work as required.
27. Subcontractor shall provide expansion, control, and pressure-relieving joints of widths and at locations indicated as required. Subcontractor includes all preformed expansion joints and insulated vapor barrier expansion joints as required.
28. Subcontractor shall furnish and install flashing at continuous shelf angles, lintels, ledges, and similar obstructions to downward flow of water. Subcontractor includes term bar to reglet to the backup to terminate the flashings as required.
29. Subcontractor shall provide installation within all tolerances outlined within the Specifications.
30. Subcontractor shall remove and replace broken, chipped, stained, or otherwise damaged stone, defective joints, and stone cladding that does not match approved samples and mockups as required. Repairs and replacements to match approved samples and mockups.
31. Subcontractor shall final clean stone cladding at end of project.
32. Subcontractor shall furnish and install all veneered face brick and face brick anchors including, but not limited to, FBR-1A, FBR-1B, FBR-2, FBR-3, FBRA-1, FBRA-2, FBRA-3, FBRA-4 as required.
33. Subcontractor includes stainless steel through wall flashing, mortar setting beds, rigid insulation, anchors, sealant/backer rods, and parapet cap as required. Subcontractor includes end dams at through-wall flashings as required.
34. Subcontractor includes 2" stone cap with slope as required.
35. Subcontractor shall furnish and install all FBR-1A, rigid cavity insulation, thermally improved inverted shelf angles, flashings, joint sealants, backer rods, etc. At Brick BS2 Below and BS3 Above Brick Solider Bands and vice-versa as required.
36. Subcontractor shall furnish and install all FBR-1A, rigid cavity insulation, thermally broken brick veneer anchors, continuous through wall flashing and sealant, termination bars, etc. As required at Curtain Wall at Penthouse and Machine Room locations. Joint sealant and backer rod at curtain wall abutments by others.
37. Subcontractor includes panel offsets as required.
38. Subcontractor shall furnish and install concrete anchor channels for masonry support as required, prior to concrete pouring. Subcontractor includes coordination with Concrete Subcontractor for placement requirements.
39. Subcontractor shall furnish and install grouted in wall anchors for masonry support as required. Subcontractor includes coordination if necessary.
40. Subcontractor shall furnish and install all FBR-1A, rigid cavity insulation, continuous through wall flashings and sealants, weep vents, cavity drainage material, thermally broken brick veneer anchors, etc. at Curtain Wall Above and Below Brick Solider Band locations, and vice-versa. Backer rod and sealant at curtainwall abutments by others.

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41. Subcontractor shall install steel shelf angles and loose lintels supplied by the Steel Subcontractor.
  42. Subcontractor shall furnish and install all FBR-2, STN-2, and face brick at Site Retaining Wall locations as required. Subcontractor includes weep vents, cavity drainage material, continuous through wall flashings and sealants, etc. as required for a complete installation. Subcontractor includes coordination with Electrical Subcontractor for step lights layout. Subcontractor includes coordination with final grade for flashing elevations.
  43. Subcontractor shall furnish and install all FBR-2 per A474/8. Subcontractor includes thermally improved inverted shelf angles, weep vents, cavity drainage material, continuous thorough wall flashings, termination bars and sealants, and thermally broken brick veneer anchors as required for a complete installation. Backer rod and sealant at metal panel abutments by others. Subcontractor includes notching of FBR-2 for steel angle installation as required.
  44. Subcontractor includes all transitions to FBR-3 and offsets/insets as required.
  45. Subcontractor includes coordination with other trades for positioning of structure/framing for various fastening elements.
  46. Subcontractor shall furnish and install all FBRA-3 adjustable offset shelf angle support systems. Subcontractor includes drilling/anchoring to structure as required.
  47. Subcontractor shall furnish and install all FBRA-4 concealed lintel system support brackets as required. Subcontractor includes drilling/anchoring to structure as required for support.
  48. Subcontractor shall furnish and install all STN-1 and STN-2 as required. Subcontractor includes grouting solid behind first course, continuous through wall flashings, anchorage, rigid insulation, return bricks, load bearing thermal insulation blocks, stone panel anchors, grouting solid of cavity behind panels, backer rod/sealants, weep vents, split tail anchors, joint filler strips, etc. As required for a complete installation. Subcontractor includes coordination with concrete and framing Subcontractors for ledge and framing layout.
  49. Subcontractor includes all sloping of caps and stone as required.
  50. Subcontractor shall furnish and install all STN-2 at Site Retaining Wall locations as required. Subcontractor includes drilling and epoxying stainless steel dowels, mortar setting beds, backer rod and sealants as required for a complete scope of work.
  51. Subcontractor shall furnish and install all rigid insulation behind stone, stone panels, etc. as required.
  52. Subcontractor shall furnish and install continuous shelf angles at face brick locations as required.
  53. Subcontractor has responsibility, through delegated design, for providing façade supports that are compliant with the overall wall U value rating as listed in the
  54. Subcontractor shall furnish and install air barrier transition tape at top of flashings and shelf angles as required for a complete weathertight system and as required by the Contract Documents and Air barrier transition tape to be compatible with the underlying AVB provided by others.
  55. Subcontractor shall furnish and install aluminum flashing, lap joints, and provide silicone stripping tape as required at overhand/sill details. Subcontractor includes attachments of concealed lintel system to structure as required. Subcontractor includes insulation behind brick system.
  56. Subcontractor shall maintain all dimensional air cavities within system as required.
  57. Subcontractor includes cutting, grouting of cavity solid, drilling/epoxying, and doweling into top caps, etc. as required.



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58. Subcontractor shall furnish and install all weep system components including, but not limited to, WPS-1 and WPS-2 as required.
  59. Subcontractor shall provide field cut outs for openings through brick/panel as required. Subcontractor to provide block outs and openings, including any required shoring, for all penetrations through masonry work. Coordinate with other Subcontractors requiring the block outs.
  60. Subcontractor shall furnish and install continuous metal angle at curtain wall abutments behind stone panel insulation as required.
  61. Subcontractor shall repair any and all penetrations or damage to AVB/building enclosure system.
  62. Subcontractor shall furnish and install air barrier transition tape at masonry panel connections to building where shown. Subcontractor includes sealant of penetrations for a water-tight enclosure system as required.
  63. Subcontractor shall furnish and install all backer rod and sealant at adjacent construction as required for a water-tight system.
  64. Subcontractor shall provide a final clean of their work at end of construction.
  65. Subcontractor shall comply with all delivery, storage, and handling requirements as required per specifications.
  66. Subcontractor shall provide layout and control for Subcontractor's scope of work.
  67. Subcontractor shall provide water for Subcontractor's scope of work as applicable. A source of water will not be available on site.
  68. Subcontractor shall provide crane, scaffolding, mobile work platforms, hoisting, material movement equipment, and aerial lifts as required to complete Subcontractor's scope of work. Subcontractor shall provide hoisting to stage materials at work areas and to remove debris as required.
  69. Subcontractor is responsible for all road protection for crane outriggers, tracks, and other.
  70. Subcontractor is responsible for staging material at a location near the job or at a yard. There will be minimal to no on-site staging of material delivery trailers. Deliveries must be made at the pace of installation and erection.
  71. Subcontractor will provide portable generators for their activities as required prior to establishment of temporary power. Scrubbers will be required for all fueled equipment including generators.
  72. Provide temporary waterproof closures at the top of unfinished cavity walls at the end of each work day. Provide temporary protection of sills, projections, and other completed work to protect it from mortar dropping and stains.
  73. Subcontractor to provide perimeter fire safing & smoke seal between slab edge and masonry.
  74. Receive, offload, inventory, distribute, install, and grout all embedded items supplied by others, installed in masonry work, including, but not limited to anchor bolts, steel embeds, access doors, hollow metal frames.
  75. Subcontractor is responsible for installation of any door frames within their system. Door Frames will be provided by others.
  76. Subcontractor shall furnish and install all continuous through wall flashings, end dams, cavity insulations, grout stops, weeping as shown or required, top of wall safing, control joint caulking,

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flexible self-adhered membranes, stainless steel drip edges, and beds of sealant as required at masonry/face-brick locations.

77. Subcontractor shall furnish and install all 4" CMU at Penthouse Curb locations and Penthouse Louver Sill locations as required. Subcontractor includes grouting solid of cavity behind CMU, and load bearing thermal insulation block as required. Ref. 1/A478
78. Subcontractor includes all sealing, water repellants, cleaning, necessary for a complete installation per the contract documents. Include basic protection of low ground face units after cleaning and sealing.
79. Subcontractor includes provisions for illuminated building mounted branding signage at locations called out on renderings. Signage to be provided and installed by others. Conduit and anchor systems to support signage will pass through brick.
80. Subcontractor shall furnish and install JT-2: 2" wide exterior expansion joint with Fire barrier where shown expansion joint is between masonry walls.
81. Subcontractor is responsible for delegated design of the offset shelf system inclusive of and maintaining thermal performance of the brick skin per spec. This includes design, furnish and install, of the offset shelf angle or similar system.

## **8. SPECIFIC EXCLUSIONS:**

The following work is specifically excluded from this Subcontract Agreement and is not a part of this Agreement and/or will be performed by others as noted:

1. Onsite 3rd Party Material Testing & Inspections that will be performed by the Owner, all others will be by this Subcontractor.

## **9. SAFETY:**

1. **FALLING OBJECT PREVENTION** The Subcontractor/Seller is responsible for the implementation of a system of safety that will minimize the likelihood of objects being dropped and objects falling due to causes within the control of the Subcontractor/Seller. This system of safety must include daily planning for the implementation of safety strategies to minimize the likelihood of objects being dropped and objects falling due to causes within the control of the Subcontractor/Seller. Elevated work areas should be enclosed to prevent objects from falling and impacting people and property below, unless such enclosure is not feasible then the perimeter protection must address the fall of material risk posed by stored or handled tools, materials, objects, and equipment to prevent these from being dropped, kicked, knocked, or bumped through openings or gaps. Tethers or lanyards must be used where the work area is at a height and is not fully enclosed, or where tools or objects are required for use outside of the perimeter protection. A tether or lanyard must be used to separately secure each individual tool or object in use beyond edge protection or enclosures. The object must be secured prior to crossing through the edge protection or enclosures and or perimeter protection.
2. Subcontractor acknowledges that at no time will trades be stacked vertically on a single face of facade where falling objects from one crew could land on another. A horizontal offset (2H to 1V ratio) up to 50' horizontal feet shall be provided between crews working at different elevations.



3. Subcontractor shall have all temporary construction platforms and work areas engineered by a licensed Engineer. All temporary construction scaffolding and work platforms will be site specific drawings with stamped drawings. Engineer to be licensed in the Commonwealth of Kentucky. All connections back to building to be approved by Structural Engineer of Record.
4. Subcontractor shall provide all scaffolding and shoring to allow for installations of the brick facade from roof decks. This specifically applies to the metal roof decks, but may apply to concrete decks depending on subcontractor's material plan. Subcontractor shall not overload roof deck above designed loading.
5. The Subcontractor shall include all full-time traffic control and flagging as necessary for this scope of work. Should Subcontractor require a road closure, the Subcontractor shall arrange for and pay for any permits required for this road closure. This subcontractor provides any required barriers, cones, barrels, traffic control devices. A flagger shall be present at all time when the site gates are open due to the operations or deliveries for this Subcontract.

## **10. QUALITY:**

1. Subcontractor acknowledges Specification Sections 019115 and 019117 and will participate fully in Building Enclosure Commissioning processes.
2. Subcontractor shall be responsible for all costs associated with Building Enclosure Commissioning rechecks on issues in subcontractor's system(s).
3. Subcontractor shall participate in Construction Manager's Building Enclosure Quality Program
4. Subcontractor is required to protect other surfaces and materials, including the glazing system, from damage during installation and cleaning.
5. Mason is encouraged, where available, to avoid cutting of brick and utilize other brick sizes that match color and
6. Mason to ensure color lots of brick runs to match.
7. Mason to procure all brick of similar color from single manufacturer.

## **11. SCHEDULE:**

1. Subcontractor acknowledges a conceptual installation sequence of: structure complete, CFMF and sheathing installation, Fluid Applied Air Barrier, Glazing (Water Tight Enclosure), Face Brick, metal panel, then final detailing by glazer.
1. Subcontractor acknowledges a conceptual installation sequence of enclosure being installed before the final roof on lower roofs is completed.
2. PROJECT CONSTRUCTION SEQUENCE: Subcontractor understands that the structure will be completed in a North to South manner with the 2/3 of the structure north of approximately "F" line being completed before Levels 2-9 south of "F" line. In the effort to complete the north part of the structure before the south part is complete, the structure may be "stair-stepped" from South to North or may be vertically sequenced above Level 1 on each floor at approximately "F" line.

3. Subcontractor includes all come back work necessary to complete and 'repair' the façade where project has hoists and other construction equipment. Skip Hoist(s) are anticipated on all levels of the building's west façade approximately between Column Line H and J. This occurs in the 'Sunken Garden' space. Other work in this area may be delayed as a result of the hoist schedule.

## **12. COORDINATION:**

1. Subcontractor shall participate in ongoing collaborative discussions with the Construction Manager and other subcontractors to discuss and plan for site logistics, construction sequence, safety and quality procedures on site. These discussions will commence shortly after award and contracting and will extend through the completion of the project.

## **13. PAY APPLICATION PROCESS AND COST ITEMS:**

1. No additional requirements other than those shown in Exhibit B.1 and in all other parts of the Contract.

## **14. ALTERNATES, ALLOWANCES, and UNIT PRICES:**

The following items are considered to be fully loaded including but not, but are not limited to, labor, burden, insurance, transportation costs, small tools, incidentals, escalation, overhead, profit, etc. See Exhibit B.1 for further clarification.

1. This section will be populated, as applicable, with information as submitted on Bid Form.
2. Utility Cost allowance is defined as funds to pay for jobsite utility consumption through metered utilities provided by UK or Franchise utilities. Only utility connections established and provided by the CM and project will be eligible for use of Utility Cost Allowances. Subcontractor's equipment, connection costs, fuel consumption, and similar costs are to be included in their base bid and will not be compensated by this allowance.
3. Overtime Allowance is defined as additional hours to be included with the bid that will be used, at the CM's sole discretion, to accelerate the project in advance of the construction schedule. Subcontractor may not use these hours for any base scope of work or corrections of defective work.
4. Peer Review Coordination and Enclosure Coordination Allowances are to be controlled by the CM for 3<sup>rd</sup> party costs and will not be utilized for any base scope work as noted in construction documents.

## **15. HOURLY RATES:**

The following hourly rates are fully loaded rates that include, but are not limited to, labor, burden, insurance, transportation costs, small tools, incidentals, escalation, overhead, profit, etc. See Exhibit B.1 for further clarification.:

1. This section will be populated, as applicable, with information as submitted on Bid Form.





Walsh Labor Rates Sheet

Company Name: \_\_\_\_\_

Scope of Work : \_\_\_\_\_ Trade Category \_\_\_\_\_

\*Complete a Labor Rate Breakdown for each trade employed or subcontract employed

| *TRADE:                       | Journeyman    |            |             | Foreman       |            |             | Apprentice    |            |             |
|-------------------------------|---------------|------------|-------------|---------------|------------|-------------|---------------|------------|-------------|
|                               | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time |
| Base Wage (total hourly wage) |               |            |             |               |            |             |               |            |             |
| Taxes                         |               |            |             |               |            |             |               |            |             |
| Insurance                     |               |            |             |               |            |             |               |            |             |
| Fringes (total fringes)       |               |            |             |               |            |             |               |            |             |
| TOTAL HOURLY WAGE:            |               |            |             |               |            |             |               |            |             |
| *TRADE:                       | Journeyman    |            |             | Foreman       |            |             | Apprentice    |            |             |
|                               | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time |
| Base Wage (total hourly wage) |               |            |             |               |            |             |               |            |             |
| Taxes                         |               |            |             |               |            |             |               |            |             |
| Insurance                     |               |            |             |               |            |             |               |            |             |
| Fringes (total fringes)       |               |            |             |               |            |             |               |            |             |
| TOTAL HOURLY WAGE:            |               |            |             |               |            |             |               |            |             |
| *TRADE:                       | Journeyman    |            |             | Foreman       |            |             | Apprentice    |            |             |
|                               | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time |
| Base Wage (total hourly wage) |               |            |             |               |            |             |               |            |             |
| Taxes                         |               |            |             |               |            |             |               |            |             |
| Insurance                     |               |            |             |               |            |             |               |            |             |
| Fringes (total fringes)       |               |            |             |               |            |             |               |            |             |
| TOTAL HOURLY WAGE:            |               |            |             |               |            |             |               |            |             |
| *TRADE:                       | Journeyman    |            |             | Foreman       |            |             | Apprentice    |            |             |
|                               | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time |
| Base Wage (total hourly wage) |               |            |             |               |            |             |               |            |             |
| Taxes                         |               |            |             |               |            |             |               |            |             |
| Insurance                     |               |            |             |               |            |             |               |            |             |
| Fringes (total fringes)       |               |            |             |               |            |             |               |            |             |
| TOTAL HOURLY WAGE:            |               |            |             |               |            |             |               |            |             |
| *TRADE:                       | Journeyman    |            |             | Foreman       |            |             | Apprentice    |            |             |
|                               | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time | Straight Time | 1 1/2 Time | Double Time |
| Base Wage (total hourly wage) |               |            |             |               |            |             |               |            |             |
| Taxes                         |               |            |             |               |            |             |               |            |             |
| Insurance                     |               |            |             |               |            |             |               |            |             |
| Fringes (total fringes)       |               |            |             |               |            |             |               |            |             |
| TOTAL HOURLY WAGE:            |               |            |             |               |            |             |               |            |             |





Manpower and Billing Projections

Company Name:  
Scope of Work :

| Year                           | Month      | Monthly Labor Projection |             | Billing Projection<br>This will not be used to structure or limit billings<br>Projected Monthly Billing |
|--------------------------------|------------|--------------------------|-------------|---------------------------------------------------------------------------------------------------------|
|                                |            | # of Workers             | Labor Hours |                                                                                                         |
| 2024                           | August     |                          |             |                                                                                                         |
|                                | September  |                          |             |                                                                                                         |
|                                | October    |                          |             |                                                                                                         |
|                                | November   |                          |             |                                                                                                         |
|                                | December   |                          |             |                                                                                                         |
|                                | 2024 Total |                          |             |                                                                                                         |
| 2025                           | January    |                          |             |                                                                                                         |
|                                | February   |                          |             |                                                                                                         |
|                                | March      |                          |             |                                                                                                         |
|                                | April      |                          |             |                                                                                                         |
|                                | May        |                          |             |                                                                                                         |
|                                | June       |                          |             |                                                                                                         |
|                                | July       |                          |             |                                                                                                         |
|                                | August     |                          |             |                                                                                                         |
|                                | September  |                          |             |                                                                                                         |
|                                | October    |                          |             |                                                                                                         |
|                                | November   |                          |             |                                                                                                         |
|                                | December   |                          |             |                                                                                                         |
|                                | 2025 Total |                          |             |                                                                                                         |
| 2026                           | January    |                          |             |                                                                                                         |
|                                | February   |                          |             |                                                                                                         |
|                                | March      |                          |             |                                                                                                         |
|                                | April      |                          |             |                                                                                                         |
|                                | May        |                          |             |                                                                                                         |
|                                | June       |                          |             |                                                                                                         |
|                                | July       |                          |             |                                                                                                         |
|                                | August     |                          |             |                                                                                                         |
|                                | September  |                          |             |                                                                                                         |
|                                | October    |                          |             |                                                                                                         |
|                                | November   |                          |             |                                                                                                         |
|                                | December   |                          |             |                                                                                                         |
|                                | 2026 Total |                          |             |                                                                                                         |
| 2027                           | January    |                          |             |                                                                                                         |
|                                | February   |                          |             |                                                                                                         |
|                                | March      |                          |             |                                                                                                         |
|                                | April      |                          |             |                                                                                                         |
|                                | May        |                          |             |                                                                                                         |
|                                | June       |                          |             |                                                                                                         |
|                                | July       |                          |             |                                                                                                         |
|                                | August     |                          |             |                                                                                                         |
|                                | September  |                          |             |                                                                                                         |
|                                | October    |                          |             |                                                                                                         |
|                                | November   |                          |             |                                                                                                         |
|                                | December   |                          |             |                                                                                                         |
|                                | 2027 Total |                          |             |                                                                                                         |
| Project Total - match bid Form |            |                          |             |                                                                                                         |





### Subcontractor Bidder Qualifications

The University of Kentucky Cancer Treatment Center and Advanced Ambulatory Center is a large complex healthcare project that is critical to the health and wellness of the citizens of the Commonwealth of Kentucky. The size and Complexity of this project, require trade contractors, and their management staff, that are professional, safe, skilled, financially viable, and experienced in this product type. As such, Walsh Construction, the Construction Manager has established the following "Bidder Qualifications" in addition to the written specification qualifications as established by the Designers of Record.

This form is to be used to define and determines if a firm is to be a "Qualified Bidder" for the project. Walsh Construction Co II LLC reserves the right, to decline to recommend a subcontractor for contracting for the UK Cancer Treatment Center and Advanced Ambulatory Center following further review and analysis of a subcontractor's credentials and / or financial capacity.

**Company Name:**

**Scope of Work :**

|                    | Category                        | Requirement                                                                                                                                                                                                                | Subcontractor Response |
|--------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Safety And Quality | Experience Modification Rate    | Subcontractor must have a current EMR $\leq$ 1.00                                                                                                                                                                          |                        |
|                    | OSHA 300A Log                   | Subcontractor must provide most recent OSHA 300A                                                                                                                                                                           |                        |
|                    | Companywide Safety Program      | Subcontractor must submit Corporate Safety Program                                                                                                                                                                         |                        |
|                    | Companywide Quality Program     | Subcontractor must submit Corporate Quality Program                                                                                                                                                                        |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |
| Capacity           | Single Project Bonding Capacity | Subcontractor must have a single project bonding capacity of at least 1x the amount of your bid. Bonded subcontractors will be required to extend bond coverage to Change Orders. Provide single project bonding capacity. |                        |
|                    | Available Bonding Capacity      | Subcontractor must have a current available bonding capacity of at least 1x the total amount of your bid.                                                                                                                  |                        |
|                    | Aggregate Bonding Capacity      | Subcontractor must provide a project specific Surety Letter, dated within the past 6 months, with Power of Attorney attesting to subcontractor's ability to Bond the project and listing aggregate bonding capacity.       |                        |
|                    | Qualifications                  | Subcontractor must submit qualifications within 5 business after receipt of bid per the directions outlined in the "Walsh Qualifications Exhibit".                                                                         |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |
| Management Team    | Project Manager                 | Project Manager must have minimum 5 years' experience for bid amounts over \$5,000,000 and minimum 10 years' experience for bid amounts over \$10,000,000 with similar project completed in last 3 years.                  |                        |
|                    |                                 | Project Manager Name                                                                                                                                                                                                       |                        |
|                    |                                 | Years Experience                                                                                                                                                                                                           |                        |
|                    |                                 | Provide similar type project                                                                                                                                                                                               |                        |
|                    |                                 | Similar Type Project Reference                                                                                                                                                                                             |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |
|                    | Project Superintendent          | Superintendent must have minimum 5 years' experience for bid amounts over \$5,000,000 and minimum 10 years' experience for bid amounts over \$10,000,000 with similar project completed in last 3 years.                   |                        |
|                    |                                 | Superintendent Name                                                                                                                                                                                                        |                        |
|                    |                                 | Years Experience                                                                                                                                                                                                           |                        |
|                    |                                 | Provide similar type project                                                                                                                                                                                               |                        |
|                    |                                 | Similar Type Project Reference                                                                                                                                                                                             |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |
|                    | Safety Manager                  | Subcontractor must provide onsite safety management outlined in Exhibit B.1 and CCIP manual.                                                                                                                               |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |
| References         | Provide 3 Commerical References |                                                                                                                                                                                                                            |                        |
|                    |                                 | 1 - Name, Company, Contact                                                                                                                                                                                                 |                        |
|                    |                                 | 2 - Name, Company, Contact                                                                                                                                                                                                 |                        |
|                    |                                 | 3 - Name, Company, Contact                                                                                                                                                                                                 |                        |
|                    |                                 |                                                                                                                                                                                                                            |                        |









004100B01

UNIVERSITY OF KENTUCKY  
CAPITAL CONSTRUCTION PROCUREMENT SECTION  
FORM OF PROPOSAL: TC 04B.7 CMU

Project No. 2563.30 Project Title: UK CTC AAC BP7 Core and Shell Group 2

Purchasing Officer: Ken Scott

NOTE: The following Form of Proposal shall be followed exactly in submitting a proposal for this work. If this copy is lost, an additional copy will be furnished upon written request to the authority issuing Contract Documents.

\*\*\*\*\*

This Proposal is submitted by: \_\_\_\_\_  
(NAME AND ADDRESS OF BIDDER)

Date: \_\_\_\_\_

Telephone: \_\_\_\_\_

Vendor #: \_\_\_\_\_ (FEIN)

TO: BID CLERK  
UNIVERSITY OF KENTUCKY  
CAPITAL CONSTRUCTION  
PROCUREMENT  
RM. 322 SERVICE BUILDING  
LEXINGTON, KY. 40506-0005

INVITATION TO BID: CCK-2563.30-7-25

BID OPENING DATE: September 17, 2024

TIME: 3:00 P.M. Lexington, KY Time

The Bidder, in compliance with your Invitation for Bids for the above referenced Project, having carefully examined the site of the Work, the Drawings and complete Contract Documents as defined in Article I of the General Conditions, as well as the Specifications affecting the work as prepared by the Consultant, hereby proposes to furnish all labor, materials, supplies and services required to construct the Project in accordance with the Contract Documents, within the time set forth therein, and at the price stated below without qualification.

The Bidder hereby acknowledges receipt of the following Addenda:

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

ADDENDUM NO. \_\_\_\_\_ DATED \_\_\_\_\_

(Here insert the number and date of any Addenda issued and received. If none has been issued and received, the word NONE should be inserted.)

FP-1