METHOD STUDIO INC.

BID ADDENDUM NO. 1

Date: November 5, 2020

PROJECT: **BYU Idaho Engineering Technology Center (ETC)**
Rexburg, ID

ARCHITECT: **Method Studio, Inc**.
160 West 2nd South, Ste. 201
Rexburg, Idaho 83440
p.208-701-0068

OWNER: **BYU Idaho**
BYU Idaho Project #: 12005

ARCHITECT'S
PROJECT NO.: 20.0220

TO ALL BIDDERS:
This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents dated October 27, 2020. Receipt of this Addendum must be acknowledged to Headwaters Construction and by Headwaters Construction.

Questions / Comments:

1. BYUI Review (item #1) - Sheet AE101 - There is a random call out that says "IS THIS PIPE EXISTING TO REMAIN". Is this a note that can be removed?

   Response: Yes

2. BYUI Review (item #2) - Sheet AE101 - I believe there was a lift in bay 17 drawn in before. Can you remind me why we don't have one there now.

   Response: This was a mistake. This has been added back in.

3. BYUI Review (Design comment) – AF601 finish schedule and spec both have PNT-01 for gypsum board surfaces listed as Satin or eggshell. These should be medium luster or semi-gloss.

   Response: Comment has been noted as medium luster finish.

4. BYUI Review (item #12) – Sheet EG000 (Special systems note #2) – Please make minimum size data conduit 1". This affects several network locations and a couple of sheets.

   Response: Comment has been noted.

5. BYUI Review (item #13) – Sheet EG000 (Keynote #4)– Add to the current note: "Demo all existing multi-mode fiber and copper backbone within building back to closest communication vault."

   Response: Comment has been noted.

6. BYUI Review (item #14) – Sheet EE101a (Room 141)– Are there any network needs in this mechanical room?

   Response: There is none that we have been aware of.

7. BYUI Review (item #15) – Sheet EE101b (Room 111) – On the south side of the room there are 3 cubicles in a line, each with their own network conduit. This can be a single conduit in the middle cubicle, 4D-4.

   Response: Comment has been noted.

8. BYUI Review (item #16) – Sheet EE101b (Room 114)– Is there going to be any AV on the wall, requiring network?

   Response: It was our understanding that the only work in this room was to replace the existing Data due to relocation of the IT room. If additional equipment or drops are needed, please advise.

9. BYUI Review (item #17) – Sheet EE101b (3-EE101b) – Reduce the number of network racks from 3 to 2 Increase the size of the vertical network managers to 10" width Move the following circuits to the back side of the rack rather than the from side: IT-10,12, IT-14,16 Make IT-10,12, IT-14,16 L6-20R outlets instead of L6-30R outlets.

    Response: Comment has been noted.

10. BYUI Review (item #18)– Sheet EE101b (3-EE101b) – Is the access control panel going to go into the data room? If so, it needs a network cable drop.

    Response: Data outlet will be added to the IT room.

11. BYUI Review (item #19)– Sheet EE603 (Detail #1) – Who is pulling the fiber from the fire alarm panel to the campus fiber feed? Is this called out anywhere?

    Response: We will have the contractor pull new fiber as part of this project it will be indicated on sheet EF101.

12. BYUI Review (item #20) – Sheet EE101b (136 Student Collaboration) – Remove WAP 3D-4 that is on north end of the room just to the east of office 109.

    Response: Comment has been noted.

13. BYUI Review (item #21) – Sheet EE101b (111 Open Office) – Remove WAP 3D-4 that is on north end of the room just to the east of office 109.

    Response: Comment has been noted.

14. BYUI Review (item #22) – Sheet EE101b (103 Corridor) – Remove WAP 3D-4 just outside office 105.

    Response: Comment has been noted.

15. BYUI Review (item #23) – Sheet EE101b (102 Reception) – Remove WAP 3D-4 in 102 Reception.

    Response: Comment has been noted.

16. BYUI Review (item #24) – Sheet EE101b (118 Corridor) – Remove WAP 3D-4 into office 124.

    Response: Comment has been noted.

17. Contractor RFI 01 – (Lewis Corporation email via Headwaters – 11/5/20) – I was not able to find any indication in the contract documents what is to be done with the walk-in cooler refrigeration equipment. The system will need to have the refrigerant recovered and disposed of per EPA. Please confirm if the school is looking at doing this work and keeping the Freon and equipment or if the demo is part of the demo work. Should the owner want this demo to be included in the contract we will provide a line item pricing for this work.

    Response: All refrigeration equipment including freon will need to be removed and disposed of as part of the contract. The school does not have a desire to do the removal or keep the freon and equipment. Please see section 024119 of the specifications for clarification on removal process. A keynote has been added to sheet AD101 for clarification.

18. Contractor RFI 01 – (Nu-Vu glass email via Headwaters – 11/5/20) – Specifications 084113-1.2-I calls for a system U-factor of 0.34. This is not obtainable. Please see attached U-Value Info.

    Response: The U-factor and SHGC have been revised in spec section to comply with maximum per IECC. Modifications to specifications within the Project Manual (issued: 27 October 2020):

    1.2 For Specification Section 084113 “ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS”, Paragraph 1.2 “PERFORMACE REQUIREMENTS”,

    I. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of up to **0.36** Btu/sq. ft. x h x deg F as determined according to NFRC 100.

    1. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of up to **0.40** as determined according to NFRC 200.

DRAWINGS & SPECIFICATIONS:

Architectural:

1. Specifications related to Table of Contents have been added. They include the following:
    a. 042200 Concrete Unit Masonry
    b. 061053 Miscellaneous Rough Carpentry
    c. 061600 Sheathing
    d. 062023 Interior Finish Carpentry
    e. 064116 Plastic-Laminate-Clad Architectural Cabinets
    f. 066400 Plastic Paneling
    g. 092216 Non-Structural Metal Framing
    h. 123616 - Metal Countertops
    i. 123661.19 - Solid Surfacing Countertops
2. Sheet AD101 – Added keynote for the removal of freezer equipment
3. Sheet AE101 – Updated per Q&A above.
4. Sheet AE101 – Updated slab on grade in Rooms 141 and 142 to match grading elevation per civil. Civil will be provided in future addendum.
5. Sheet AE111 – Updated slab on grade in Rooms 141 and 142 to match grading elevation per civil. Civil will be provided in future addendum.
6. Sheet AE121 - Updated slab on grade in Rooms 141 and 142 to match grading elevation per civil. Civil will be provided in future addendum.
7. Sheet AE411 – Added text to stair section B1 to provide wall type PS3c as infill in a triangle shape and refers to new structural detail of this area.
8. Sheet AE521 – Skylight details revised to include structural bracing.
9. Sheet AE521 – Added separate post on each side for mezzanine gate.
10. Sheet AF601 – Revision to PNT-1 comments.
11. Sheet AF601 – Revision to toilet and urinal partition finishes.

Structural:

1. Refer to attached Structural Documents.

Mechanical:

1. None

Electrical:

1. Refer to attached electrical Documents.

END OF ADDENDUM ONE

QUESTION 18 ATTACHMENT

1. Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane shall not exceed L/175 of the glass edge length for each individual glazing lite (4.1 m) or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
2. Deflection Parallel to Glazing Plane: Limited to L/360 of clear span or 1/8 inch, whichever is smaller (1.5 mm).

E. Structural-Test Performance: Provide aluminum-framed systems tested according to ASTM E 330 as follows:

1. When tested at 150 percent of positive and negative wind-load design pressures, systems, including anchorage, do not evidence material failures, structural distress, and permanent deformation of main framing members exceeding 0.2 percent of span.
2. Test Durations: 10 seconds.

F. Air Infiltration: Provide aluminum-framed systems with maximum air leakage through fixed glazing and framing areas of 0.06 cfm/sq. ft. of fixed wall area when tested according to ASTM E 283 at a minimum static-air-pressure difference of 6.24 lbf/sq. ft.

G. Water Penetration under Static Pressure: Provide aluminum-framed systems that do not evidence water penetration through fixed glazing and framing areas when tested according to ASTM E 331 at a minimum static-air-pressure difference of 20 percent of positive wind-load design pressure, but not less than 6.24 lbf/sq. ft.

H. Energy Performance: Glazed aluminum curtain wall shall have certified and labeled energy performance ratings in accordance with NFRC.

I. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of up to 0.34 Btu/sq. ft. x h x deg Fas determined according to NFRC 100.

1. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of up to 0.29 as determined according to NFRC 200.
2. Air Infiltration: Maximum air leakage through fixed glazing and framing areas of .06 cfm/sq. ft. of fixed wall area as determined according to ASTM E 283 at a minimum static-air-pressure differential of6.24 lbf/sq. ft

1.3 ACTION SUBMITTALS

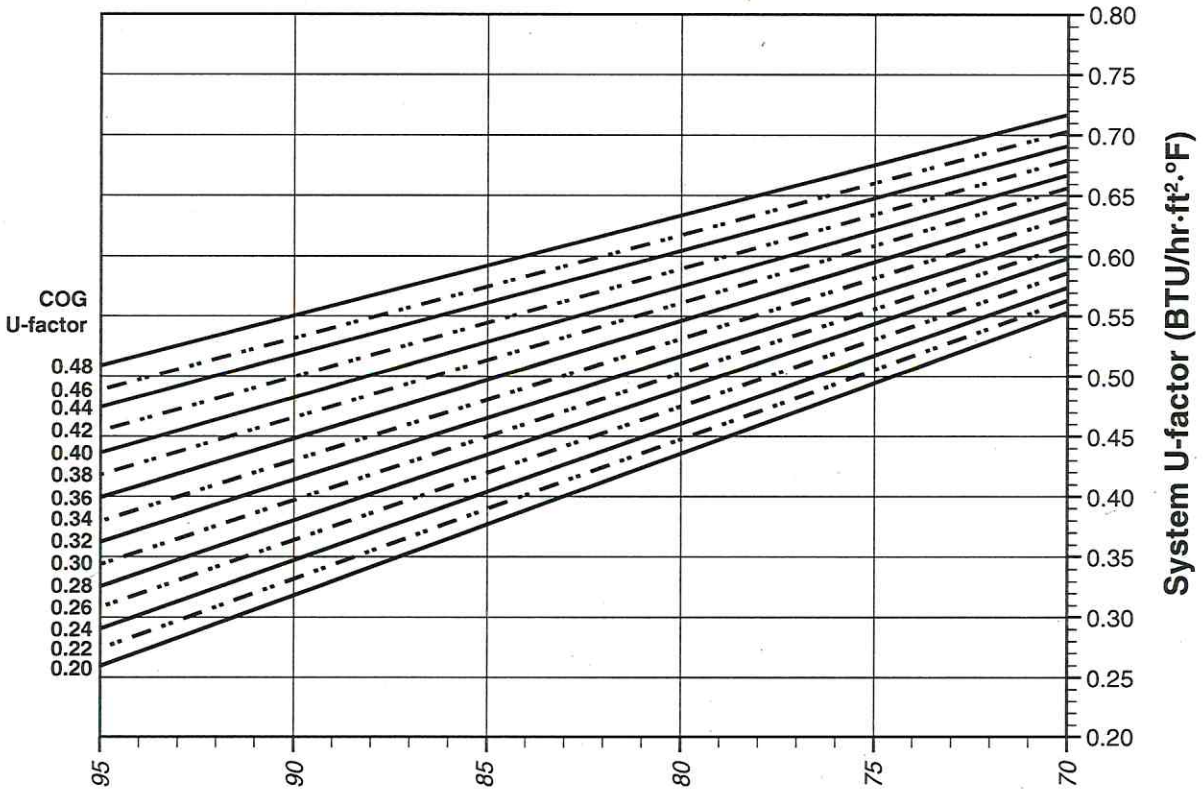
A. Product Data: For each type of product indicated.

B. Shop Drawings: For aluminum-framed systems. Include plans, elevations,

QUESTION 18 ATTACHMENT

TRIFAB® VG 451T (FRONT – Thermal)

System U-factor vs Percent of Glass Area



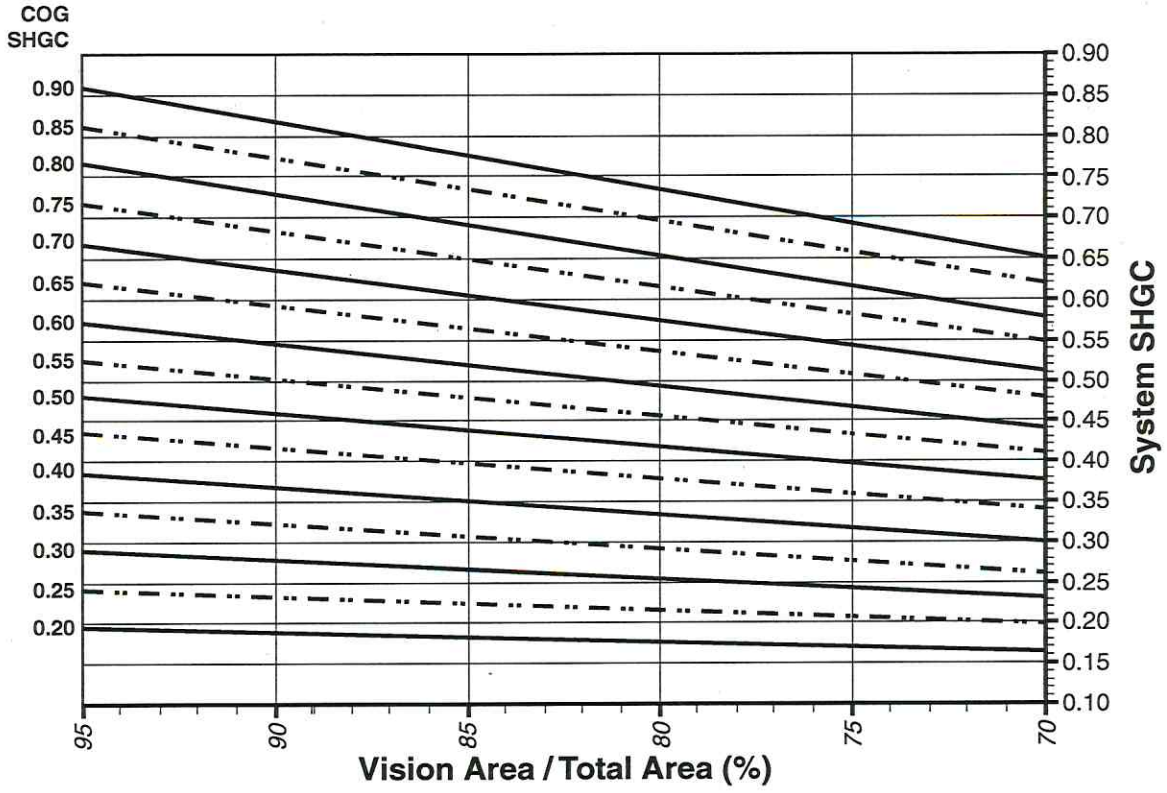
Notes for System U-Factor, SHGC and VT charts:

For glass values that are not listed, linear interpolation is permitted.

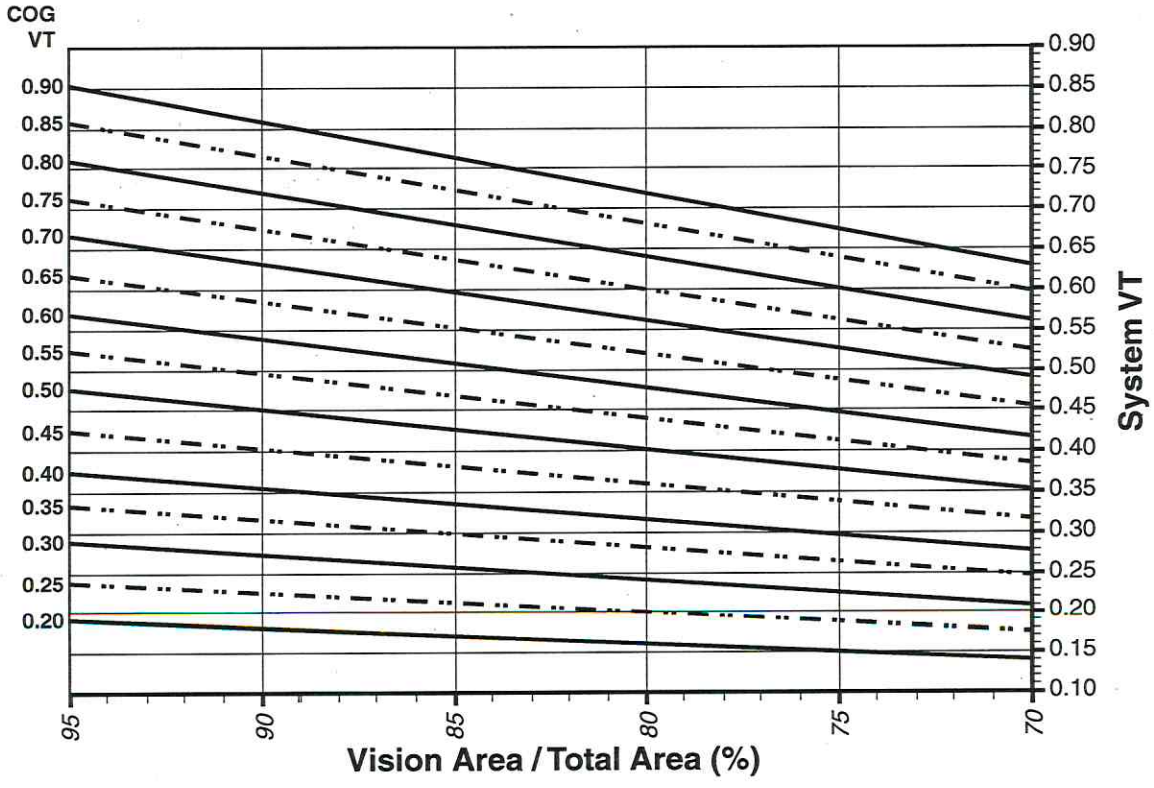
Glass properties are based on center of glass values and are obtained from your glass supplier.

TRIFAB® VG 451T (FRONT – Thermal)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Additional specifications issued 5 November 2020

Division 04 - Masonry

042200 Concrete Unit Masonry

Division 06 - Wood, Plastics, and Composites

061053 Miscellaneous Rough Carpentry

061600 Sheathing

062023 Interior Finish Carpentry

064116 Plastic-Laminate-Clad Architectural Cabinets

066400 Plastic Paneling

Division 09 - Finishes

092216 Non-Structural Metal Framing

Division 12 – Furnishings

123616 - Metal Countertops

123661.19 - Solid Surfacing Countertops

SECTION 04 2200 - CONCRETE 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. Decorative concrete masonry units.
3. Mortar and grout.
4. Steel reinforcing bars.
5. Masonry-joint reinforcement.
6. Embedded flashing.
7. Miscellaneous masonry accessories.
8. Masonry-cell fill.

B. Related Requirements:

1. Section 03 3000 "Cast-in-Place Concrete" for dovetail slots for masonry anchors.
2. Section 07 1900 "Water Repellents" for water repellents applied to unit masonry assemblies.
3. Section 07 6200 "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.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For the following:

1. Masonry Units: Show sizes, profiles, coursing, and locations of special shapes.
2. Reinforcing Steel: Detail bending, lap lengths, and placement of unit masonry reinforcing bars. Comply with ACI 315. Show elevations of reinforced walls.
3. Fabricated Flashing: Detail corner units, end-dam units, and other special applications.

C. Samples for Initial Selection:

1. Decorative CMUs.
2. Colored mortar.
3. Weep holes/vents.

D. Samples for Verification: For each type and color of the following:

1. Exposed CMUs.
2. Decorative CMUs.
3. Pigmented mortar. Make Samples using same sand and mortar ingredients to be used on Project.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

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

1. Masonry units.

a. Include material test reports substantiating compliance with requirements.
b. For masonry units used in structural masonry, include data and calculations establishing average net-area compressive strength of units.

2. Integral water repellant used in CMUs.
3. Cementitious materials. Include name of manufacturer, brand name, and type.
4. Mortar admixtures.
5. Preblended, dry mortar mixes. Include description of type and proportions of ingredients.
6. Grout mixes. Include description of type and proportions of ingredients.
7. Reinforcing bars.
8. Anchors, ties, and metal accessories.

C. 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 according to ASTM C 109/C 109M for compressive strength, ASTM C 1506 for water retention, and ASTM C 91/C 91M for air content.
2. Include test reports, according to ASTM C 1019, for grout mixes required to comply with compressive strength requirement.

D. 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 according to TMS 602/ACI 530.1/ASCE 6.

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

1.7 QUALITY ASSURANCE

A. Testing Agency Qualifications: Qualified according to ASTM C 1093 for testing indicated.

B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.

1. Build mockups foreach type of exposed unit masonry construction in sizes approximately 60 inches long by 48 inches high by full thickness, including face and backup wythes and accessories.

    a. Include a sealant-filled joint at least 16 inches long in each mockup.
    b. Include lower corner of window opening at upper corner of exterior wall mockup. Make opening approximately 12 inches wide by 16 inches high.
    c. Include through-wall flashing installed for a 24-inch length in corner of exterior wall mockup approximately 16 inches down from top of mockup, with a 12-inch length of flashing left exposed to view (omit masonry above half of flashing).

2. Protect accepted mockups from the elements with weather-resistant membrane.
3. 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.

    a. Approval of mockups is also for other material and construction qualities specifically approved by Architect in writing.
    b. 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 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.

1.9 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 down both sides of walls, and hold cover securely 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/ACI 530.1/ASCE 6.

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/ACI 530.1/ASCE 6.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations for Masonry Units: Obtain exposed masonry units of a uniform texture and color, or a uniform blend within the ranges accepted for these characteristics, from single source from single manufacturer for each product required.

B. Source Limitations for Mortar Materials: Obtain mortar ingredients of a uniform quality, including color for exposed masonry, from single manufacturer for each cementitious component and from single source or producer for each aggregate.

2.2 PERFORMANCE REQUIREMENTS

A. Provide structural 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) according to TMS 602/ACI 530.1/ASCE 6 or determine net-area compressive strength of masonry by testing masonry prisms according to ASTM C 1314.

2.3 UNIT MASONRY, GENERAL

A. Masonry Standard: Comply with TMS 602/ACI 530.1/ASCE 6 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 and will be within 20 feet (6 m) vertically and horizontally of a walking surface.

C. Fire-Resistance Ratings: Comply with requirements for fire-resistance-rated assembly designs indicated.

1. Where fire-resistance-rated construction is indicated, units shall be listed and labeled by a qualified testing agency acceptable to authorities having jurisdiction.

2.4 CONCRETE MASONRY UNITS

A. 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 square-edged units for outside corners unless otherwise indicated.

B. Integral Water Repellent: Provide units made with integral water repellent for exposed units and where indicated**.**

1. Integral Water Repellent: Liquid polymeric, integral water-repellent admixture that does not reduce flexural bond strength. Units made with integral water repellent, when tested according to ASTM E 514/E 514M as a wall assembly made with mortar containing integral water-repellent manufacturer's mortar additive, with test period extended to 24 hours, shall show no visible water or leaks on the back of test specimen.

C. CMUs: ASTM C 90.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2800 psi
2. Density Classification: Lightweight.
3. Size (Width): Manufactured to dimensions 3/8 inch less-than-nominal dimensions.
4. Exposed Faces: Provide color and texture matching the range represented by Architect's sample.
5. Faces To Receive Plaster: Where units are indicated to receive a direct application of plaster, provide textured-face units made with gap-graded aggregates.

D. Decorative CMUs: ASTM C 90.

1. Unit Compressive Strength: Provide units with minimum average net-area compressive strength of 2800 psi
2. Density Classification: Lightweight.
3. Size (Width): Manufactured to dimensions specified in "CMUs" Paragraph.
4. Pattern and Texture:

    a. Standard pattern, ground-face finish. Match Architect's samples.
    b. Standard pattern, split-face finish. Match Architect's samples.
    c. Standard pattern, split-ribbed finish. Match Architect's samples.
    d. Scored vertically so units laid in running bond appear as square units laid in stacked bond, standard finish. Match Architect's samples.
    e. Triple scored vertically so units laid in running bond appear as vertical units laid in stacked bond (soldier courses), standard finish. Match Architect's samples.

5. Colors: Match Architect's sample**s**.
6. Special Aggregate: Provide units made with aggregate matching aggregate in Architect's sample.
7. Masonry unit cells to be fully grouted where indicated on partition schedule or shown in drawings

2.5 MASONRY LINTELS

A. General: Provide one of the following:

B. Masonry Lintels: 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. Temporarily support built-in-place lintels until cured.

2.6 MORTAR AND GROUT MATERIALS

A. Regional Materials: Aggregate for mortar and grout, cement, and lime shall be extracted, harvested, or recovered, as well as manufactured, within 500 miles (800 km) of Project site.

B. Portland Cement: ASTM C 150/C 150M, 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 shall not be more than 0.1 percent when tested according to ASTM C 114.

C. Hydrated Lime: ASTM C 207, Type S.

D. Portland Cement-Lime Mix: Packaged blend of portland cement and hydrated lime containing no other ingredients.

E. Masonry Cement: ASTM C 91/C 91M.

F. Mortar Cement: ASTM C 1329/C 1329M.

G. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes and complying with ASTM C 979/C 979M. Use only pigments with a record of satisfactory performance in masonry mortar.

H. Colored Cement Products: Packaged blend made from portland cement and hydrated lime masonry cement or mortar cement and mortar pigments, all complying with specified requirements, and containing no other ingredients.

1. Formulate blend as required to produce color indicated or, if not indicated, as selected from manufacturer's standard colors.

2. Pigments shall not exceed 10 percent of portland cement by weight.
3. Pigments shall not exceed 5 percent of masonry cement or mortar cement by weight.

I. Aggregate for Mortar: ASTM C 144.

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 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.

J. Aggregate for Grout: ASTM C 404.

K. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C494/C494M, Type C, and recommended by manufacturer for use in masonry mortar of composition indicated.

L. Water-Repellent Admixture: Liquid water-repellent mortar admixture intended for use with CMUs containing integral water repellent from same manufacturer.

M. Water: Potable.

2.7 REINFORCEMENT

A. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M, 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 steel wire, hot-dip galvanized after fabrication. Provide units designed for number of bars indicated.

C. Masonry-Joint Reinforcement, General: Ladder type complying with ASTM A951/A951M.

1. Interior Walls: Mill-galvanized carbon steel.
2. Exterior Walls: Hot-dip galvanized carbon steel.
3. Wire Size for Side Rods: 0.148-inch diameter.
4. Wire Size for Cross Rods: 0.148-inch diameter.
5. Spacing of Cross Rods: Not more than 16 inches o.c.
6. Provide in lengths of not less than 10 feet.

2.8 TIES AND ANCHORS

A. General: Ties and anchors shall extend at least 1-1/2 inches into masonry but with at least a 5/8-inch 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.
   3. Steel Plates, Shapes, and Bars: ASTM A 36/A 36M.

C. Adjustable Anchors for Connecting to Structural Steel Framing: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall as indicated in the General Structural Notes.

D. Adjustable Anchors for Connecting to Concrete: Provide anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall as indicated in the General Structural Notes.

E. Metal Flashing: Provide metal flashing complying with SMACNA's "Architectural Sheet Metal Manual" and as follows:

   1. Stainless Steel: ASTM A 240/A 240M or ASTM A 666, Type 304, 0.016 inch (0.40 mm) thick.
   2. Fabricate continuous flashings in sections 96 inches long minimum, but not exceeding 12 feet . Provide splice plates at joints of formed, smooth metal flashing.
   3. Fabricate through-wall metal flashing embedded in masonry from stainless steel, with ribs at 3-inch intervals along length of flashing to provide an integral mortar bond.
   4. Fabricate through-wall flashing with snaplock receiver on exterior face where indicated to receive counterflashing.
   5. Fabricate through-wall flashing with drip edge unless otherwise indicated. Fabricate by extending flashing 1/2 inch (13 mm) out from wall, with outer edge bent down 30 degrees and hemmed.
   6. Fabricate metal drip edges for ribbed metal flashing from plain metal flashing of same metal as ribbed flashing and extending at least 3 inches into wall with hemmed inner edge to receive ribbed flashing and form a hooked seam. Form hem on upper surface of metal so that completed seam sheds water.
   7. Fabricate metal drip edges 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.
   8. Fabricate metal sealant stops from stainless steel. Extend at least 3 inches into wall and out to exterior face of wall. At exterior face of wall, bend metal back on itself for 3/4 inch and down into joint 1/4 inch to form a stop for retaining sealant backer rod.
   9. Fabricate metal expansion-joint strips from stainless steel to shapes indicated.
   10. Solder metal items at corners.

F. Flexible Flashing: Use one of the following unless otherwise indicated:

1. Rubberized-Asphalt Flashing: Composite flashing product consisting of a pliable, adhesive rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than [0.040 inch .
   a. Accessories: Provide preformed corners, end dams, other special shapes, and seaming materials produced by flashing manufacturer.

2. Butyl Rubber Flashing: Composite, self-adhesive, flashing product consisting of a pliable, butyl rubber compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.040 inch .
   a. Accessories: Provide preformed corners, end dams, other special shapes, and seaming materials produced by flashing manufacturer.

3. Elastomeric Thermoplastic Flashing: Composite flashing product consisting of a polyester-reinforced ethylene interpolymer alloy.
   a. Monolithic Sheet: Elastomeric thermoplastic flashing, 0.040 inch thick.
   b. Self-Adhesive Sheet: Elastomeric thermoplastic flashing, 0.025 inch thick, with a 0.015-inch- thick coating of adhesive.
   c. Self-Adhesive Sheet with Drip Edge: Elastomeric thermoplastic flashing, 0.025 inch thick, with a 0.015-inch- thick coating of rubberized-asphalt adhesive. Where flashing extends to face of masonry, rubberized-asphalt coating is held back approximately 1-1/2 inches from edge.

      1) Color: per architect.

   d. Accessories: Provide preformed corners, end dams, other special shapes, and seaming materials produced by flashing manufacturer.

4. EPDM Flashing: Sheet flashing product made from ethylene-propylene-diene terpolymer, complying with ASTM D 4637/D 4637M, 0.040 inch (1.02 mm) thick.

G. Application: Unless otherwise indicated, use the following:

1. Where flashing is indicated to receive counterflashing, use metal flashing.
2. Where flashing is indicated to be turned down at or beyond the wall face, use metal flashing.
3. Where flashing is partly exposed and is indicated to terminate at the wall face, use metal flashing with a drip edge.
4. Where flashing is fully concealed, use metal flashing or flexible flashing.

H. Single-Wythe CMU Flashing System: System of CMU cell flashing pans and interlocking CMU web covers made from UV-resistant, high-density polyethylene. Cell flashing pans have integral weep spouts designed to be built into mortar bed joints and that extend into the cell to prevent clogging with mortar.

I. Solder and Sealants for Sheet Metal Flashings: As specified in Section 076200 "Sheet Metal Flashing and Trim."

1. Solder for Stainless Steel: ASTM B 32, Grade Sn60, with acid flux of type recommended by stainless-steel sheet manufacturer.
2. Elastomeric Sealant: ASTM C 920, chemically curing urethane sealant; of type, grade, class, and use classifications required to seal joints in sheet metal flashing and remain watertight.

J. 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.

2.9 MISCELLANEOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded filler strips complying with ASTM D 1056, Grade 2A1; compressible up to 35 percent; of width and thickness indicated; formulated from neoprene or urethane or.

B. Preformed Control-Joint Gaskets: Made from styrene-butadiene-rubber compound, complying with ASTM D 2000, Designation M2AA-805and designed to fit standard sash block and to maintain lateral stability in masonry wall; size and configuration as indicated.

C. Bond-Breaker Strips: Asphalt-saturated felt complying with ASTM D 226/D 226M, Type I (No. 15 asphalt felt).

2.10 MASONRY-CELL FILL

A. Loose-Fill Insulation: Perlite complying with ASTM C549, Type II (surface treated for water repellency and limited moisture absorption) or Type IV (surface treated for water repellency and to limit dust generation).

B. Lightweight-Aggregate Fill: ASTM C331/C331M.

2.11 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. Use portland cement-lime, masonry cement or mortar cement mortar unless otherwise indicated.
3. For reinforced masonry, use portland cement-lime, masonry cement or mortar cement mortar.

4. 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 C 270, Proportion or Property 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 S.
2. For reinforced masonry, use Type S.
3. For mortar parge coats, use Type S or Type N.

D. Pigmented Mortar: Use colored cement product or select and proportion pigments with other ingredients to produce color required. Do not add pigments to colored cement products.

1. Pigments shall not exceed 10 percent of portland cement by weight.
2. Pigments shall not exceed 5 percent of masonry cement or mortar cement by weight.
3. Mix to match Architect's sample.
4. Application: Use pigmented mortar for exposed mortar joints with the following units:

    a. Decorative CMUs.

E. Colored-Aggregate Mortar: Produce required mortar color by using colored aggregates and natural color or white cement as necessary to produce required mortar color.

1. Mix to match Architect's sample.
2. Application: Use colored-aggregate mortar for exposed mortar joints with the following units:

    a. Decorative CMUs.
    b. Pre-faced CMUs.
    c. Cast-stone trim units.

F. Grout for Unit Masonry: Comply with ASTM C 476.

1. Proportion grout in accordance with ASTM C 476, Table 1 or paragraph 4.2.2 for specified 28-day compressive strength indicated, but not less than 2000 psi (14 MPa).
2. Provide grout with a slump of 8 to 11 inches (200 to 280 mm) as measured according to ASTM C 143/C 143M.

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 would impair mortar bond.

B. Before installation, examine rough-in and built-in construction for piping systems to verify actual locations of piping.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION, GENERAL

A. Build chases and recesses to accommodate items specified in this and other Sections.

B. Leave openings for equipment to be installed before completing masonry. After installing equipment, complete masonry to match construction immediately adjacent to opening.

C. 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.

D. All exterior walls to receive an air barrier need to be paint ready and clean and free of defects and debris to allow a uniform air barrier installation with minimal product application.

E. The following apply to all masonry walls surrounding acoustically critical space types:

1. All masonry walls shall be constructed from slab to slab (allowing for the head sealing detail) unless otherwise agree by the Architect and Acoustic Consultant.
2. Lateral support at the head of any vibration isolated masonry wall, if required, shall be by continuous steel angle with a resilient pad to avoid rigid contact between the wall and the lateral support construction - wall mount type AB by Mason Industries or equal approved by the Acoustic Consultant.
3. All joints between blocks, vertical and horizontal, shall be grout filled to the full depth of the CMU. There shall be no cavities or holes in the mortar.

4. All joints between CMU and other constructions shall be dense packed with fiberglass to the full depth of the wall and fully sealed with a sealant bonding to the block and the other construction.
5. Where CMU walls abut a profiled metal decking, the CMU wall should seal to a minimum 16 ga steel plate affixed to the deck, with the profile void above the plate in-filled with fiberglass and acoustically sealed on both sides with a fire barrier putty, with a minimum density of 40 psf, such as 3M Moldable Putty or approved equal.
6. Where builders work holes are to be created, the masonry contractor shall either build in the service sleeve or alternatively ensure that the opening is finished no greater than 2-inch from the service penetration. The contractor shall allow for concrete lintels above the penetrations, where required, to ensure the CMU wall extends full height to the slab.

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 or minus 1/4 inch .
2. For location of elements in plan, do not vary from that indicated by more than plus or minus 1/2 inch .
3. For location of elements in elevation, do not vary from that indicated by more than plus or minus 1/4 inch in a story height or 1/2 inch 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 feet , or 1/2-inch 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 feet , 1/4 inch in 20 feet , or 1/2-inch maximum.
3. For vertical lines and surfaces do not vary from plumb by more than 1/4 inch in 10 feet , 3/8 inch in 20 feet , or 1/2-inch 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 feet , 1/4 inch in 20 feet , or 1/2-inch maximum.
5. For lines and surfaces, do not vary from straight by more than 1/4 inch in 10 feet , 3/8 inch in 20 feet , or 1/2-inch maximum.
6. For vertical alignment of exposed head joints, do not vary from plumb by more than 1/4 inch in 10 feet , or 1/2-inch maximum.
7. For faces of adjacent exposed masonry units, do not vary from flush alignment by more than 1/16 inch .

C. Joints:

1. For bed joints, do not vary from thickness indicated by more than plus or minus 1/8 inch, with a maximum thickness limited to 1/2 inch.
2. For exposed bed joints, do not vary from bed-joint thickness of adjacent courses by more than 1/8 inch.
3. For head and collar joints, do not vary from thickness indicated by more than plus 3/8 inch or minus 1/4 inch.
4. For exposed head joints, do not vary from thickness indicated by more than plus or minus 1/8 inch.
5. The grout joint is a finished grout joint that needs to be square or 90 degrees with the floor.

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 running bond; do not use units with less-than-nominal 4-inch horizontal face dimensions at corners or jambs.

C. 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.

D. Built-in Work: As construction progresses, build in items specified in this and other Sections. Fill in solidly with masonry around built-in items.

E. Fill space between steel frames and masonry solidly with mortar unless otherwise indicated.

F. 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.

G. Fill cores in hollow CMUs with grout 24 inches under bearing plates, beams, lintels, posts, and similar items unless otherwise indicated.

3.5 MORTAR BEDDING AND JOINTING

A. Lay hollow CMUs 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.

B. Lay solid CMUs 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. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than joint thickness unless otherwise indicated.

D. Cut joints flush for masonry walls to receive plaster or other direct-applied finishes (other than paint) unless otherwise indicated.

E. Cut joints flush where indicated to receive waterproofing unless otherwise indicated.

3.6 MASONRY-JOINT REINFORCEMENT

A. General: Install entire length of longitudinal side rods in mortar with a minimum cover of 5/8 inch on exterior side of walls, 1/2 inch elsewhere. Lap reinforcement a minimum of 6 inches.

1. Space reinforcement not more than 16 inches o.c.
2. Space reinforcement not more than 8 inches o.c. in foundation walls and parapet walls.
3. Provide reinforcement not more than 8 inches above and below wall openings and extending 12 inches beyond openings in addition to continuous reinforcement.

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.

3.7 ANCHORING MASONRY TO STRUCTURAL STEEL AND CONCRETE

A. Anchor masonry to structural steel and concrete, where masonry abuts or faces structural steel or concrete, to comply with the following:

1. Keep open space free of mortar and other rigid materials.
2. Anchor masonry with anchors embedded in masonry joints and attached to structure.
3. Space anchors as indicated.

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.

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.

3.9 LINTELS

A. Provide masonry lintels where shown and where openings of more than 12 inches for brick-size units and 24 inches for block-size units are shown without structural steel or other supporting lintels.

B. Provide minimum bearing of 8 inches at each jamb unless otherwise indicated.

3.10 FLASHING

A. General: Install embedded flashing at ledges and other obstructions to downward flow of water in wall 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 lintels, extend flashing a minimum of 6 inches into masonry at each end. At heads and sills, extend flashing 6 inches at ends and turn up not less than 2 inches to form end dams.
3. Interlock end joints of ribbed sheet metal flashing by overlapping ribs not less than 1-1/2 inches (38 mm) or as recommended by flashing manufacturer, and seal lap with elastomeric sealant complying with requirements in Section 079200 "Joint Sealants" for application indicated.

4. Install metal drip edges with ribbed sheet metal flashing by interlocking hemmed edges to form hooked seam. Seal seam with elastomeric sealant complying with requirements in Section 079200 "Joint Sealants" for application indicated.
5. Install metal drip edges beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal drip edge.
6. Install metal flashing termination beneath flexible flashing at exterior face of wall. Stop flexible flashing 1/2 inch back from outside face of wall and adhere flexible flashing to top of metal flashing termination.
7. Cut flexible flashing off flush with face of wall after masonry wall construction is completed.

C. Install single-wythe CMU flashing system in bed joints of CMU walls where indicated to comply with manufacturer's written instructions. Install CMU cell pans with upturned edges located below face shells and webs of CMUs above and with weep spouts aligned with face of wall. Install CMU web covers so that they cover upturned edges of CMU cell pans at CMU webs and extend from face shell to face shell.

D. Install reglets and nailers for flashing and other related construction where they are shown to be built into masonry.

3.11 REINFORCED UNIT MASONRY INSTALLATION

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 other loads that may be placed on them during construction.

B. Placing Reinforcement: Comply with requirements in TMS 602/ACI 530.1/ASCE 6.

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/ACI 530.1/ASCE 6 for cleanouts and for grout placement, including minimum grout space and maximum pour height.
2. Limit height of vertical grout pours to not more than indicated in the General Structural Notes.

3.12 FIELD QUALITY CONTROL

A. Testing and Inspecting: Owner will engage special inspectors to perform tests and inspections and prepare reports. 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 shall be done at Contractor's expense.

B. Inspections:

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. of wall area or portion thereof.

E. Concrete Masonry Unit Test (if used): For each type of unit provided, according to ASTM C 140 for compressive strength.

F. Mortar Aggregate Ratio Test (Proportion Specification): For each mix provided, according to ASTM C 780.

G. Mortar Test (Property Specification): For each mix provided, according to ASTM C 780. Test mortar for mortar air content and compressive strength.

H. Grout Test (Compressive Strength): For each mix provided, according to ASTM C 1019.

I. Prism Test (if used): For each type of construction provided, according to ASTM C 1314 at 7 days and at 28 days.

3.13 PARGING

A. Parge exterior faces of below-grade masonry walls, where indicated, in two uniform coats to a total thickness of 3/4 inch . Dampen wall before applying first coat and scarify first coat to ensure full bond to subsequent coat.

B. Use a steel-trowel finish to produce a smooth, flat, dense surface with a maximum surface variation of 1/8 inch per foot . Form a wash at top of parging and a cove at bottom.

C. Damp-cure parging for at least 24 hours and protect parging until cured.

3.14 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 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 non-masonry 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.

3.15 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 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 31 2000 "Earth Moving."
3. Do not dispose of masonry waste as fill within 18 inches of finished grade.

C. Masonry Waste Recycling: Return broken CMUs not used as fill to manufacturer for recycling.

D. Excess Masonry Waste: Remove excess clean masonry waste that cannot be used as fill, as described above or recycled, and other masonry waste, and legally dispose of off Owner's property.

END OF SECTION 04 2200

SECTION 06 1053 - MISCELLANEOUS ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Equipment bases and support curbs.
2. Wood blocking, cants, and nailers.
3. Wood furring and grounds.
4. Wood sleepers.
5. Plywood backing panels.

B. Related sections:

1. Divsion 01

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

1.3 INFORMATIONAL SUBMITTALS

A. Evaluation Reports: For the following, from ICC-ES:

1. Preservative-treated wood.
2. Fire-retardant-treated wood.
3. Power-driven fasteners.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece.
3. Provide dressed lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content of Lumber: 15 percent for 2-inch nominal thickness or less, 19 percent for more than 2-inch nominal thickness unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED MATERIALS

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

D. Application: Treat items indicated on Drawings, and the following:

1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
2. Wood sills, sleepers, blocking, furring, and similar concealed members in contact with masonry or concrete.
3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.
4. Wood framing members that are less than 18 inches above the ground in crawl spaces or unexcavated areas.
5. Wood floor plates that are installed over concrete slabs-on-grade.

2.3 FIRE-RETARDANT-TREATED MATERIALS

A. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.

1. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.
2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when tested according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.
3. Design Value Adjustment Factors: Treated lumber shall be tested according ASTM D 5664, and design value adjustment factors shall be calculated according to ASTM D 6841. For enclosed roof framing, framing in attic spaces, and where high temperature fire-retardant treatment is indicated, provide material with adjustment factors of not less than 0.85 modulus of elasticity and 0.75 for extreme fiber in bending for Project's climatological zone.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Kiln-dry plywood after treatment to a maximum moisture content of 15 percent.

C. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction.

D. Application: Treat items indicated on Drawings, and the following:

1. Concealed blocking.
2. Wood cants, nailers, curbs, equipment support bases, blocking, and similar members in connection with roofing.
3. Plywood backing panels.

2.4 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Equipment bases and support curbs.
4. Cants.
5. Furring.
6. Grounds.
7. Utility shelving.

B. For utility shelving, provide lumber with 15 percent maximum moisture content of eastern white pine, Idaho white, lodgepole, ponderosa, or sugar pine; Premium or No. 2 Common (Sterling) grade; NeLMA, NLGA, WCLIB, or WWPA.

2.5 PLYWOOD BACKING PANELS

A. Equipment Backing Panels: DOC PS 1, Exterior, C-C Plugged, fire-retardant treated, in thickness indicated or, if not indicated, not less than 1/2-inch nominal thickness.

2.6 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. Where carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A 153/A 153M.

B. Power-Driven Fasteners: NES NER-272.

C. Screws for Fastening to Metal Framing: ASTM C 1002, length as recommended by screw manufacturer for material being fastened.

2.7 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Self-adhesive butyl rubber or rubberized-asphalt compound, bonded to a high-density polyethylene film, aluminum foil, or spunbonded polyolefin to produce an overall thickness of not less than 0.025 inch .

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Set carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit carpentry to other construction; scribe and cope as needed for accurate fit.

B. Where wood-preservative-treated lumber is installed adjacent to metal decking, install continuous flexible flashing separator between wood and metal decking.

C. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

D. Install plywood backing panels by fastening to studs; coordinate locations with utilities requiring backing panels. Install fire-retardant treated plywood backing panels with classification marking of testing agency exposed to view.

E. Do not splice structural members between supports unless otherwise indicated.

F. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

G. Securely attach carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. NES NER-272 for power-driven fasteners.
2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
3. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.

3.2 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 06 1053

SECTION 06 1600 - SHEATHING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wall sheathing.
2. Parapet sheathing.
3. Sheathing joint and penetration treatment.

1.2 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For assemblies with fire-resistance ratings, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119 by a testing and inspecting agency acceptable to authorities having jurisdiction.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory."

2.2 WALL SHEATHING

A. Plywood Sheathing: Either DOC PS 1 or DOC PS 2, Exposure 1

1. Span Rating: Not less than 32/16.
2. Nominal Thickness: Not less than 15/32 inch.

B. Oriented-Strand-Board Sheathing: DOC PS 2, Exposure 1

1. Span Rating: Not less than 32/16.
2. Nominal Thickness: Not less than 15/32 inch.
3. Edge and End Configuration: Square.

C. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M.

1. Type and Thickness: Type X, 5/8 inch thick.

D. Cementitious Backer Units: ASTM C 1325, Type A.

2.3 Parapet Sheathing

A. Glass-Mat Gypsum Wall Sheathing: ASTM C 1177/1177M.

1. Type and Thickness: Type X, 5/8 inch thick.

2.4 FASTENERS

A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacturer.

B. Nails, Brads, and Staples: ASTM F1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

D. Screws for Fastening Sheathing to Wood Framing: ASTM C1002.

E. Screws for Fastening Wood Structural Panels to Cold-Formed Metal Framing: ASTM C954, except with wafer heads and reamer wings, length as recommended by screw manufacturer for material being fastened.

F. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing to be attached.

1. For steel framing less than 0.0329 inch thick, use screws that comply with ASTM C1002.
2. For steel framing from 0.033 to 0.112 inch thick, use screws that comply with ASTM C954.

2.5 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

A. Sealant for Glass-Mat Gypsum Sheathing: Elastomeric, medium-modulus, neutral-curing silicone joint sealant compatible with joint substrates formed by gypsum sheathing and other materials, recommended by sheathing manufacturer for application indicated and complying with requirements for elastomeric sealants specified in Section 079200 "Joint Sealants."

1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch, of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

2.6 MISCELLANEOUS MATERIALS

A. Adhesives for Field Gluing Panels to Framing: Formulation complying with APA AFG-01 ASTM D 3498 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.

B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.

C. Securely attach to substrate by fastening as indicated, complying with the following:

1. NES NER-272 for power-driven fasteners.
2. Table 2304.9.1, "Fastening Schedule," in ICC's "International Building Code."

D. Coordinate wall sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.

E. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.

3.2 SHEATHING INSTALLATION

A. Wood Structural Panels: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.

B. Fastening Methods: Refer to drawings.

1. Screw to cold-formed metal framing, unless noted otherwise.
2. Space panels 1/8 inch apart at edges and ends.

C. Gypsum Sheathing: Comply with GA-253 and with manufacturer's written instructions.

1. Fasten gypsum sheathing to cold-formed metal framing with screws.
2. Install boards with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
3. Install boards with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.

3.3 CEMENTITIOUS BACKER UNIT INSTALLATION

A. Install panels and treat joints according to ANSI A108.11 and manufacturer's written instructions for type of application indicated.

END OF SECTION 06 1600

SECTION 062023 - INTERIOR FINISH CARPENTRY

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. Interior trim
2. Plastic-laminated interior plywood paneling.

B. Related Requirements:
1. Section 061053 "Miscellaneous Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.
2. Section 099123 "Interior Painting" for priming and back priming of interior finish carpentry.

1.3 DEFINITIONS

A. MDF: Medium-density fiberboard.

B. MDO: Plywood with a medium-density overlay on the face.

C. PVC: Polyvinyl chloride.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of process and factory-fabricated product. Indicate component materials, dimensions, profiles, textures, and colors and include construction and application details.

1. Include data for wood-preservative treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. Include chemical-treatment manufacturer's written instructions for finishing treated material.

2. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced before shipment to Project site to levels specified.

B. Samples: For each exposed product and for each color and texture specified.

C. Samples for Initial Selection: For each type of product involving selection of colors, profiles, or textures.

D. Samples for Verification:

1. For each species and cut of lumber and panel products with nonfactory-applied finish, with half of exposed surface finished; 50 sq. in. (300 sq. cm) for lumber and 8 by 10 inches (200 by 250 mm) for panels.
2. For foam-plastic moldings, with half of exposed surface finished; 50 sq. in. (300 sq. cm).
3. For each finish system and color of lumber and panel products with factory-applied finish, 50 sq. in. (300 sq. cm) for lumber and 8 by 10 inches (200 by 250 mm) for panels.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation.

1. Protect materials from weather by covering with waterproof sheeting, securely anchored.
2. Provide for air circulation around stacks and under coverings.

B. Deliver interior finish carpentry materials only when environmental conditions comply with requirements specified for installation areas. If interior finish carpentry materials must be stored in other than installation areas, store only where environmental conditions comply with requirements specified for installation areas.

1.6 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install interior finish carpentry materials until building is enclosed and weatherproof, wet-work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

B. Do not install finish carpentry materials that are wet, moisture damaged, or mold damaged.

1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.

2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with applicable rules of any rules-writing agency certified by the American Lumber Standard Committee's (ALSC) Board of Review. Grade lumber by an agency certified by the ALSC's Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber, mark grade stamp on end or back of each piece, or omit grade stamp and provide certificates of grade compliance issued by grading agency.

2.2 INTERIOR TRIM

A. Hardwood Moldings for Transparent Finish (Stain or Clear Finish):

1. Species: Match existing as approved by Architect.
2. Maximum Moisture Content: 9 percent.
3. Finger Jointing: Not allowed.
4. Matching: Selected for compatible grain and color.
5. Base Pattern: BYI-Idaho Standard base.
6. Finish: Match existing stain and finish.

2.3 PANELING

A. Plywood Paneling:
1. Softwood Plywood: DOC PS 1 or PS 2
2. Construction: Veneer core.
3. Plywood Thickness: As indicated in drawings.
4. Panel Size: As indicated in drawings.
5. Glue Bond: Type II (interior).

B. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by quality standard.

1. Horizontal Surfaces: Grade HGS.
2. Vertical Surfaces: Grade HGS.
3. Edges: Grade HGS.
4. Pattern Direction: As approved by Architect.

C. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:
   1. Match Architect's sample.

2.4 MISCELLANEOUS MATERIALS

A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.

B. Paneling Adhesive: Comply with paneling manufacturer's written instructions for adhesives.

C. Multipurpose Construction Adhesive: Formulation, complying with ASTM D3498, that is recommended for indicated use by adhesive manufacturer.

2.5 FABRICATION

A. Back out or kerf backs of the following members, except those with ends exposed in finished work:

   1. Interior standing and running trim, except shoe and crown molds.

B. Ease edges of lumber less than 1 inch (25 mm) in nominal thickness to 1/16-inch (1.5-mm) radius and edges of lumber 1 inch (25 mm) or more in nominal thickness to 1/8-inch (3-mm) radius.

PART 3 - EXECUTION

3.1 EXAMINATION

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

B. Examine finish carpentry materials before installation. Reject materials that are wet, moisture damaged, and mold damaged.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

B. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours.

3.3 INSTALLATION, GENERAL

A. Do not use materials that are unsound; warped; improperly treated or finished; inadequately seasoned; too small to fabricate with proper jointing arrangements; or with defective surfaces, sizes, or patterns.

B. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials.

1. Use concealed shims where necessary for alignment.
2. Scribe and cut interior finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
3. Where face fastening is unavoidable, countersink fasteners, fill surface flush, and sand unless otherwise indicated.
4. Install to tolerance of 1/8 inch in 96 inches (3 mm in 2438 mm) for level and plumb. Install adjoining interior finish carpentry with 1/32-inch (0.8-mm) maximum offset for flush installation and 1/16-inch (1.5-mm) maximum offset for reveal installation.
5. Coordinate interior finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate interior finish carpentry.

3.4 INSTALLATION OF STANDING AND RUNNING TRIM

A. Install trim with minimum number of joints as is practical, using full-length pieces from maximum lengths of lumber available.

1. Do not use pieces less than 24 inches (610 mm) long, except where necessary.
2. Stagger joints in adjacent and related standing and running trim.
3. Cope at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint.
4. Use scarf joints for end-to-end joints.
5. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.
6. Match color and grain pattern of trim for transparent finish (stain or clear finish) across joints.
7. Install trim after gypsum-board joint finishing operations are completed.
8. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting.
9. Fasten to prevent movement or warping.
10. Countersink fastener heads on exposed carpentry work and fill holes.

3.5 INSTALLATION OF PANELING

A. Plywood Paneling: Select and arrange panels on each wall to minimize noticeable variations in grain character and color between adjacent panels.

1. Leave 1/4-inch (6-mm) gap to be covered with trim at top, bottom, and openings.
2. Install with uniform tight joints between panels.
3. Attach panels to supports with manufacturer's recommended panel adhesive and fasteners.
4. Space fasteners and adhesive as recommended by panel manufacturer.
5. Conceal fasteners to greatest practical extent.
6. Nailing: Space fasteners 4 inches (100 mm) o.c. at panel perimeter and 8 inches (200 mm) o.c. at intermediate supports unless otherwise noted.
7. Install in full lengths without end joints.
8. Fasten paneling with trim screws, set below face and filled.

3.6 ADJUSTING

A. Replace interior finish carpentry that is damaged or does not comply with requirements.

1. Interior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing.

B. Adjust joinery for uniform appearance.

3.7 CLEANING

A. Clean interior finish carpentry on exposed and semiexposed surfaces.

B. Restore damaged or soiled areas and touch up factory-applied finishes if any.

3.8 PROTECTION

A. Protect installed products from damage from weather and other causes during construction.

B. Remove and replace finish carpentry materials that are wet, moisture damaged, and mold damaged.

1. Indications that materials are wet or moisture damaged include, but are not limited to, discoloration, sagging, or irregular shape.
2. Indications that materials are mold damaged include, but are not limited to, fuzzy or splotchy surface contamination and discoloration.

END OF SECTION 062023

SECTION 06 4116 - PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

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. Plastic-laminate-faced architectural cabinets.
2. Cabinet hardware and accessories.
3. Wood furring, blocking, shims, and hanging strips for installing plastic-laminate-faced architectural cabinets that are not concealed within other construction.

B. Related Requirements:

1. Section 06 1053 "Miscellaneous Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing cabinets that are concealed within other construction before cabinet installation.
2. Section 12 3616 “Metal Countertops”
3. Section 12 3661.16 “Quartz Countertops”
4. Section 12 3661.19 "Solid Surface Countertops"

1.3 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to support loads imposed by installed and fully loaded cabinets.

B. Hardware Coordination: Distribute copies of approved hardware schedule specified in finish schedule to fabricator of architectural cabinets; coordinate Shop Drawings and fabrication with hardware requirements.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include data for fire-retardant treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.

B. Shop Drawings: For plastic-laminate-faced architectural cabinets.

1. Include plans, elevations, sections, and attachment details.
2. Show large-scale details.
3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
4. Show locations and sizes of cutouts and holes for items installed in plastic-laminate architectural cabinets.
5. Comply with AWS custom grade and as indicated on drawings

C. Samples: For each exposed product and for each color and texture specified, in manufacturer's or fabricator's standard size.

D. Samples for Initial Selection: For each type of exposed finish.

E. Samples for Verification: For the following:

1. Plastic Laminates: 8 by 10 inches, for each type, color, pattern, and surface finish required.

a. Provide one sample applied to core material with specified edge material applied to one edge.

2. Thermoset Decorative Panels: 8 by 10 inches, for each color, pattern, and surface finish.

a. Provide edge banding on one edge.

3. Corner Pieces:

a. Cabinet-front frame joints between stiles and rails and at exposed end pieces, 18 inches high by 18 inches wide by 6 inches deep.
b. Miter joints for standing trim.

4. Exposed Cabinet Hardware and Accessories: One full-size unit for each type and finish.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer and fabricator.

B. Product Certificates: For the following:

1. Composite wood products.
2. Thermoset decorative panels.
3. High-pressure decorative laminate.
4. Adhesives.

C. Quality Standard Compliance: AWI Quality Certification Program.

D. Evaluation Reports: For fire-retardant-treated materials, from ICC-ES.

1.7 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.

1. Shop Certification: AWI's Quality Certification Program accredited participant.

B. Installer Qualifications: AWI's Quality Certification Program accredited participant.

C. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.

1. Build mockups of typical architectural cabinets as shown on Drawings.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver cabinets until painting and similar finish operations that might damage architectural cabinets have been completed in installation areas. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.

B. Environmental Limitations: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F and relative humidity between 25 and 55 percent during the remainder of the construction period.

C. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

1. Locate concealed framing, blocking, and reinforcements that support cabinets by field measurements before being enclosed/concealed by construction, and indicate measurements on Shop Drawings.

D. Established Dimensions: Where cabinets are indicated to fit to other construction, establish dimensions for areas where cabinets are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 ARCHITECTURAL CABINET FABRICATORS

A. Fabricators: Subject to compliance with requirements, available fabricators offering products that may be incorporated into the Work include, but are not limited to, the following:

1. Subcontractor to be approved by the Owner.

2.2 PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS

A. Quality Standard: Unless otherwise indicated, comply with the "Architectural Woodwork Standards" for grades of cabinets indicated for construction, finishes, installation, and other requirements.

1. Provide inspections of fabrication and installation indicating that woodwork complies with requirements of grades specified.
2. The Contract Documents may contain requirements that are more stringent than the referenced quality standard. Comply with requirements of Contract Documents in addition to those of the referenced quality standard.

B. Grade: Premium.

C. Type of Construction: Frameless.

D. Door and Drawer-Front Style: Flush overlay.

1. Reveal Dimension: As indicated.

E. High-Pressure Decorative Laminate: NEMA LD 3, grades as indicated or if not indicated, as required by quality standard.

1. Products: Subject to compliance with requirements, provide one of the following:

    a. Abet Laminati Inc.
    b. Formica Corporation.
    c. Lamin-Art, Inc.
    d. Pionite; a Panolam Industries International, Inc. brand.
    e. Wilsonart LLC
    f. Arborite.

F. Laminate Cladding for Exposed Surfaces:

1. Horizontal Surfaces: Grade HGS.
2. Post-formed Surfaces: Grade HGP.
3. Vertical Surfaces: Grade HGS.
4. Edges: Grade HGS PVC edge banding, 0.12 inch thick, matching laminate in color, pattern, and finish.
5. Pattern Direction: Vertically for drawer fronts, doors, and fixed panels and as indicated.

G. Materials for Semi-exposed Surfaces:

1. Surfaces Other Than Drawer Bodies: High-pressure decorative laminate, NEMA LD 3, Grade VGS.

    a. Edges of Plastic-Laminate Shelves: PVC edge banding, 0.12 inch thick, matching laminate in color, pattern, and finish.
    b. Edges of Thermoset Decorative Panel Shelves: PVC or polyester edge banding.
    c. For semi-exposed backs of panels with exposed plastic-laminate surfaces, provide surface of high-pressure decorative laminate, NEMA LD 3, Grade VGS.

2. Drawer Sides and Backs: Thermally fused laminate panels with PVC banding.
3. Drawer Bottoms: Thermally fused laminate panels.

H. Concealed Backs of Panels with Exposed Plastic-Laminate Surfaces: High-pressure decorative laminate, NEMA LD 3, Grade BKL.

I. Drawer Construction: Fabricate with exposed fronts fastened to subfront with mounting screws from interior of body.

1. Join subfronts, backs, and sides with glued rabbeted joints supplemented by mechanical fasteners or glued dovetail joints.

J. Colors, Patterns, and Finishes: Provide materials and products that result in colors and textures of exposed laminate surfaces complying with the following requirements:

1. Match Architect's sample, see finish schedule

2.3 WOOD MATERIALS

A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.

1. Wood Moisture Content: 4 to 9 percent.

B. Composite Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.

1. Medium-Density Fiberboard (MDF): ANSI A208.2, Grade 130.
2. Particleboard: ANSI A208.1, Grade M-2.
3. Softwood Plywood: DOC PS 1, medium-density overlay.
4. Thermoset Decorative Panels: Particleboard or MDF finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.

2.4 CABINET HARDWARE AND ACCESSORIES

A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets except for items specified in Section 08 7111 "Door Hardware (Descriptive Specification)."

1. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated on Drawings or comparable product by one of the following:

a. Accuride International.
b. Blum, Julius & Co., Inc.
c. CompX International, Inc.
d. Knape & Vogt Manufacturing Company.

B. Frameless Concealed Hinges (European Type): BHMA A156.9, B01602, 170 degrees of opening.

C. Back-mounted Pulls: ANSI/BHMA A156.9, B02011

D. Catches: Magnetic catches, BHMA A156.9, B03141and Push-in magnetic catches, BHMA A156.9, B03131.

E. Shelf Rests: BHMA A156.9, B04013; metal.

F. Drawer Slides: BHMA A156.9.

1. Grade 1 Side mounted and extending under bottom edge of drawer].

a. Type: Full extension.

b. Material: Zinc-plated steel with polymer rollers.

2. Grade 1HD-100 and Grade 1HD-200: Side mounted; full-overtravel-extension type; zinc-plated-steel ball-bearing slides.
3. For drawers not more than 3 inches high and not more than 24 inches wide, provide Grade 1.
4. For drawers more than 3 inches high, but not more than 6 inches high and not more than 24 inches wide, provide Grade 1HD-100.
5. For drawers more than 6 inches high or more than 24 inches wide, provide Grade 1 HD-200.
6. For computer keyboard shelves, provide slides as indicated.

G. Door Locks: BHMA A156.11, E07121.

H. Drawer Locks: BHMA A156.11, E07041.

I. Door and Drawer Silencers: BHMA A156.16, L03011.

J. Sliding Glass Door Track System: Knape & Vogt Roll Ezy Bearing Track System with Sliding Glass Door Lock System.

1. Finish: From manufacturer's full selection as approved by the Architect.

K. Tempered Float Glass for Sliding Cabinet Doors: ASTM C1048, Kind FT, Condition A, Type I, Class 1 (clear), Quality-Q3, 6 mm thick unless otherwise indicated.

1. Unframed Glass Doors: Seam exposed edges seamed before tempering.

L. Tempered Float Glass for Cabinet Shelves: ASTM C1048, Kind FT, Condition A, Type I, Class 1 (clear), Quality-Q3; with exposed edges seamed before tempering, 3/8-inch thick.

M. Grommets for Cable Passage: 2-inch OD, molded-plastic grommets, and match plastic caps with slot for wire passage.

N. Exposed Hardware Finishes: For exposed hardware, provide finish that complies with BHMA A156.18 for BHMA finish number indicated.

1. Satin Chromium Plated: ANSI/BHMA 626 for brass or bronze base; ANSI/BHMA 652 for steel base.

2.5 MISCELLANEOUS MATERIALS

A. Furring, Blocking, Shims, and Hanging Strips: Softwood lumber or fire-retardant-treated softwood lumber, kiln-dried to less than 15 percent moisture content.

B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrous-metal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

C. Adhesives: Use adhesives that meet the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

D. Adhesive for Bonding Edges: Hot-melt adhesive or adhesive specified above for faces.

2.6 FABRICATION

A. Fabricate architectural cabinets to dimensions, profiles, and details indicated.

B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.

1. Notify Architect seven days in advance of the dates and times architectural cabinet fabrication will be complete.
2. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements before disassembling for shipment.

C. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

PART 3 - EXECUTION

3.1 PREPARATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

3.2 INSTALLATION

A. Grade: Install cabinets to comply with quality standard grade of item to be installed.

B. Assemble cabinets and complete fabrication at Project site to extent that it was not completed in the shop.

C. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with wafer-head cabinet installation screws.

D. Install cabinets level, plumb, and true in line to a tolerance of 1/8 inch in 96 inches using concealed shims.

1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
3. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch penetration into wood framing, blocking, or hanging strips.

3.3 ADJUSTING AND CLEANING

A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.

B. Clean, lubricate, and adjust hardware.

C. Clean cabinets on exposed and semi-exposed surfaces.

END OF SECTION 06 4116

SECTION 066400 - PLASTIC PANELING

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. Plastic sheet paneling.

B. Related Requirements:

1. Section 061053 "Miscellaneous Rough Carpentry" for wood furring for installing plastic paneling.
2. Section 102600 "Wall and Door Protection" for corner guards installed over plastic paneling.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Samples: For plastic paneling and trim accessories, in manufacturer's standard sizes.

1.4 QUALITY ASSURANCE

A. Conform to building code requirements for interior finish for smoke and flame spread requirements as tested in accordance with:
1. ASTM E 84 (Method of test for surface burning characteristics of building Materials)
a. Wall Required Rating – Class A.

B. Sanitary Standards: System components and finishes to comply with:
1. United States Department of Agriculture (USDA) requirements for food preparation facilities, incidental contact.
2. Food and Drug Administration (FDA) 1999 Food Code 6-101.11.
3. Canadian Food Inspection Agency (CFIA) requirements.

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install plastic paneling until spaces are enclosed and weathertight and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

B. During installation and for not less than 48 hours before, maintain an ambient temperature and relative humidity within limits required by type of adhesive used and recommendation of adhesive manufacturer.
   1. Provide ventilation to disperse fumes during application of adhesive as recommended by the adhesive manufacturer.

1.6 WARRANTY

A. Furnish one-year guarantee against defects in material and workmanship.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain plastic paneling and trim accessories from single manufacturer.
   1. Basis of Design: Marlite; 202 Harger Street, Dover, OH 44622. 800-377-1221 FAX (330) 343-4668 Email: info@marlite.com www.marlite.com.
   2. Equivalent as approved by Architect.

2.2 PLASTIC SHEET PANELING

A. Glass-Fiber-Reinforced Plastic Paneling: Gelcoat-finished, glass-fiber-reinforced plastic panels complying with ASTM D5319.
   1. Surface-Burning Characteristics: As follows when tested by a qualified testing agency according to ASTM E84. Identify products with appropriate markings of applicable testing agency.
      a. Flame-Spread Index: 25 or less.
      b. Smoke-Developed Index: 450 or less.
   2. Nominal Thickness: Not less than 0.09 inch.
   3. Surface Finish: As indicated in drawings.
   4. Color: As indicated in drawings.

2.3 ACCESSORIES

A. Trim Accessories: Manufacturer's standard two-piece, snap-on vinyl extrusions designed to retain and cover edges of panels. Provide division bars, inside corners, and caps as needed to conceal edges.

1. Color: Match panels.

B. Exposed Fasteners: Nylon drive rivets recommended by panel manufacturer.

C. Concealed Mounting Splines: Continuous, H-shaped aluminum extrusions designed to fit into grooves routed in edges of factory-laminated panels and to be fastened to substrate.

D. Adhesive: As recommended by plastic paneling manufacturer.

E. Sealant: Mildew-resistant, single-component, neutral-curing silicone sealant recommended by plastic paneling manufacturer and complying with requirements in Section 079200 "Joint Sealants."

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, 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. Remove wallpaper, vinyl wall covering, loose or soluble paint, and other materials that might interfere with adhesive bond.

B. Prepare substrate by sanding high spots and filling low spots as needed to provide flat, even surface for panel installation.

C. Clean substrates of substances that could impair adhesive bond, including oil, grease, dirt, and dust.

D. Condition panels by unpacking and placing in installation space before installation according to manufacturer's written recommendations.

E. Lay out paneling before installing. Locate panel joints where indicated and/or to provide equal panels at ends of walls not less than half the width of full panels.

1. Mark plumb lines on substrate for accurate installation.
2. Locate trim accessories and panel joints to allow clearance at panel edges according to manufacturer's written instructions.

3.3 INSTALLATION

A. Install plastic paneling according to manufacturer's written instructions.

B. Install panels in a full spread of adhesive.

C. Install factory-laminated panels using concealed mounting splines in panel joints.

D. Fill grooves in trim accessories with sealant before installing panels, and bed inside corner trim in a bead of sealant.

E. Maintain uniform space between panels and wall fixtures. Fill space with sealant.

F. Remove excess sealant and smears as paneling is installed. Clean with solvent recommended by sealant manufacturer and then wipe with clean dry cloths until no residue remains.

END OF SECTION 066400

SECTION 092216 - NON-STRUCTURAL METAL FRAMING

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. Non-load-bearing steel framing systems for interior partitions.
2. Suspension systems for interior ceilings and soffits.
3. Grid suspension systems for gypsum board ceilings.

B. Related Requirements:

1. Section 054000 "Cold-Formed Metal Framing" for exterior and interior load-bearing and exterior non-load-bearing wall studs; floor joists; and roof rafters and ceiling joists.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1.4 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of code-compliance certification for studs and tracks.

B. Evaluation Reports: For embossed, high-strength steel studs and tracks firestop tracks post-installed anchors and power-actuated fasteners, from ICC-ES or other qualified testing agency acceptable to authorities having jurisdiction.

1.5 QUALITY ASSURANCE

A. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the

Certified Steel Stud Association the Steel Framing Industry Association or the Steel Stud Manufacturers Association.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated, according to ASTM E119 by an independent testing agency.

B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated on Drawings, according to ASTM E90 and classified according to ASTM E413 by an independent testing agency.

C. Horizontal Deflection: For composite wall assemblies, limited to 1/240 of the wall height based on horizontal loading of 5 lbf/sq. ft. (480 Pa).

2.2 FRAMING SYSTEMS

A. Framing Members, General: Comply with ASTM C754 for conditions indicated.

1. Steel Sheet Components: Comply with ASTM C645 requirements for steel unless otherwise indicated.
2. Protective Coating: ASTM A653/A653M, G40 (Z120), hot-dip galvanized unless otherwise indicated.

B. Studs and Tracks: ASTM C645. Use either conventional steel studs and tracks or embossed, high-strength steel studs and tracks.

1. Steel Studs and Tracks:
   a. Minimum Base-Steel Thickness: 0.0269 inch and as required by performance requirements for horizontal deflection.
   b. Depth: As indicated on Drawings.

2. Embossed, High Strength Steel Studs and Tracks: Roll-formed and embossed with surface deformations to stiffen the framing members so that they are structurally comparable to conventional ASTM C645 steel studs and tracks.
   a. Minimum Base-Steel Thickness: 0.0190 inch as required by horizontal deflection performance requirements.
   b. Depth: As indicated on Drawings.

C. Slip-Type Head Joints: Where indicated or required, provide one of the following:

1. Clip System: Clips designed for use in head-of-wall deflection conditions that provide a positive attachment of studs to tracks while allowing 2-inch (51-mm) minimum vertical movement.

2. Single Long-Leg Track System: ASTM C645 top track with 2-inch- (51-mm-) deep flanges in thickness not less than indicated for studs, installed with studs friction fit into top track and with continuous bridging located within 12 inches (305 mm) of the top of studs to provide lateral bracing.
3. Double-Track System: ASTM C645 top outer tracks, inside track with 2-inch- (51-mm-) deep flanges in thickness not less than indicated for studs and fastened to studs, and outer track sized to friction-fit over inner track.
4. Deflection Track: Steel sheet top track manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.

D. Firestop Tracks: Top track manufactured to allow partition heads to expand and contract with movement of structure while maintaining continuity of fire-resistance-rated assembly indicated; in thickness not less than indicated for studs and in width to accommodate depth of studs.

E. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.
1. Minimum Base-Steel Thickness: 0.0269 inch.

F. Cold-Rolled Channel Bridging: Steel, 0.0538-inch (1.367-mm) minimum base-steel thickness, with minimum 1/2-inch- (13-mm-) wide flanges.
1. Minimum Depth: 1-1/2 inches (38 mm).
2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches (38 by 38 mm), 0.068-inch- (1.72-mm-) thick, galvanized steel.

G. Hat-Shaped, Rigid Furring Channels: ASTM C645.
1. Minimum Base-Steel Thickness: 0.0296 inch (0.752 mm).
2. Depth: As indicated on Drawings.

H. Resilient Furring Channels: 1/2-inch- (13-mm-) deep, steel sheet members designed to reduce sound transmission.
1. Configuration: Asymmetrical or hat shaped.

I. Cold-Rolled Furring Channels: 0.053-inch (1.34-mm) uncoated-steel thickness, with minimum 1/2-inch- (13-mm-) wide flanges.

1. Depth: 3/4 inch or as indicated on Drawings.
2. Furring Brackets: Adjustable, corrugated-edge-type steel sheet with minimum uncoated-steel thickness of 0.0329 inch (0.8 mm).
3. Tie Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper, 0.062-inch- (1.59-mm-) diameter wire, or double strand of 0.048-inch- (1.21-mm-) diameter wire.

J. Z-Shaped Furring: With slotted or nonslotted web, face flange of 1-1/4 inches (32 mm), wall attachment flange of 7/8 inch (22 mm), minimum uncoated-steel thickness of 0.0179 inch (0.455 mm), and depth required to fit thickness indicated.

2.3 SUSPENSION SYSTEMS

A. Tie Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper, 0.062-inch- (1.59-mm-) diameter wire, or double strand of 0.048-inch- (1.21-mm-) diameter wire.

B. Hanger Attachments to Concrete:

1. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 AC193 AC58 or AC308 as appropriate for the substrate with prior authorization by Architect.

   a. Uses: Securing hangers to structure.
   b. Type: Torque-controlled, expansion anchor torque-controlled, adhesive anchor or adhesive anchor.
   c. Material for Interior Locations: Carbon-steel components zinc-plated to comply with ASTM B633 or ASTM F1941 (ASTM F1941M), Class Fe/Zn 5, unless otherwise indicated.
   d. Material for Exterior or Interior Locations and Where Stainless Steel Is Indicated: Alloy Group 1 (A1) stainless-steel bolts, ASTM F593 (ASTM F738M), and nuts, ASTM F594 (ASTM F836M).

2. Power-Actuated Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70 with prior authorization by Architect.

C. Wire Hangers: ASTM A641/A641M, Class 1 zinc coating, soft temper, 0.16 inch (4.12 mm) in diameter.

D. Flat Hangers: Steel sheet, 1 by 3/16 inch (25 by 5 mm) by length indicated.

E. Carrying Channels (Main Runners): Cold-rolled, commercial-steel sheet with a base-steel thickness of 0.0538 inch (1.367 mm) and minimum 1/2-inch- (13-mm-) wide flanges.

1. Depth: 2-1/2 inches (64 mm).

F. Furring Channels (Furring Members):

1. Cold-Rolled Channels: 0.0538-inch (1.367-mm) uncoated-steel thickness, with minimum 1/2-inch- (13-mm-) wide flanges, 3/4 inch (19 mm) deep.

2. Hat-Shaped, Rigid Furring Channels: ASTM C645, 7/8 inch (22 mm) deep.

   a. Minimum Base-Steel Thickness: 0.0329 inch (0.836 mm).

2.4 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.

1. Fasteners for Steel Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

B. Isolation Strip at Exterior Walls: Provide the following:

1. Asphalt-Saturated Organic Felt: ASTM D226/D226M, Type I (No. 15 asphalt felt), nonperforated.
2. Foam Gasket: Adhesive-backed, closed-cell vinyl foam strips that allow fastener penetration without foam displacement, 1/8 inch (3.2 mm) thick, in width to suit steel stud size.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength.

1. Furnish concrete inserts and other devices indicated to other trades for installation in advance of time needed for coordination and construction.

B. Coordination with Sprayed Fire-Resistive Materials:

1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling tracks to surfaces indicated to receive sprayed fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches (610 mm) o.c.
2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of non-load-bearing steel framing. Do not reduce thickness of fire-resistive materials below that are required for fire-resistance ratings indicated. Protect adjacent fire-resistive materials from damage.

3.3 INSTALLATION, GENERAL

A. Installation Standard: ASTM C754.

1. Gypsum Plaster Assemblies: Also comply with requirements in ASTM C841 that apply to framing installation.
2. Portland Cement Plaster Assemblies: Also comply with requirements in ASTM C1063 that apply to framing installation.
3. Gypsum Veneer Plaster Assemblies: Also comply with requirements in ASTM C844 that apply to framing installation.
4. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.

B. Install framing and accessories plumb, square, and true to line, with connections securely fastened.

C. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

D. Install bracing at terminations in assemblies.

E. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.4 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

1. Single-Layer Application: As required by horizontal deflection performance requirements and minimum of 16 inches (406 mm) o.c. unless otherwise indicated.
2. Multilayer Application: As required by horizontal deflection performance requirements and minimum of 16 inches (406 mm) o.c. unless otherwise indicated.
3. Tile Backing Panels: As required by horizontal deflection performance requirements and minimum of 16 inches (406 mm) o.c. unless otherwise indicated.

B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

C. Install studs so flanges within framing system point in same direction.

D. Install tracks at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts that penetrate partitions above ceiling.

1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install track section (for cripple studs) at head and secure to jamb studs.

    a. Install two studs at each jamb unless otherwise indicated.
    b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch (13-mm) clearance from jamb stud to allow for installation of control joint in finished assembly.
    c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.

3. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.

    a. Firestop Track: Where indicated or required, install to maintain continuity of fire-resistance-rated assembly indicated.

5. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.
6. Curved Partitions:

    a. Bend track to uniform curve and locate straight lengths so they are tangent to arcs.
    b. Begin and end each arc with a stud, and space intermediate studs equally along arcs. On straight lengths of no fewer than two studs at ends of arcs, place studs 6 inches (150 mm) o.c.

E. Direct Furring:

1. Screw to framing.
2. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches (610 mm) o.c.

F. Z-Shaped Furring Members:

1. Erect insulation, specified in Section 072100 "Thermal Insulation," vertically and hold in place with Z-shaped furring members spaced 24 inches (610 mm) o.c. unless noted or required otherwise.
2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches (610 mm) o.c.

3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel. At interior corners, space second member no more than 12 inches (305 mm) from corner and cut insulation to fit.

G. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch (3 mm) from the plane formed by faces of adjacent framing.

3.5 INSTALLING CEILING SUSPENSION SYSTEMS

A. Install suspension system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

1. Hangers: 48 inches (1219 mm) o.c. unless required or noted otherwise.
2. Carrying Channels (Main Runners): 48 inches (1219 mm) o.c. unless required or noted otherwise.
3. Furring Channels (Furring Members): 16 inches (406 mm) o.c. unless required or noted otherwise.

B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.

C. Suspend hangers from building structure as follows:

1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.

   a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.

2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.

   a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced and required installation standards.

3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
4. Flat Hangers: Secure to structure, including intermediate framing members, by attaching to inserts, eye screws, or other devices and fasteners that are secure

and appropriate for structure and hanger, and in a manner that will not cause hangers to deteriorate or otherwise fail.

5. Do not attach hangers to steel roof deck unless authorized by Architect.
6. Where applicable, do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.
7. Where applicable, do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
8. Do not connect or suspend steel framing from ducts, pipes, or conduit.

D. Fire-Resistance-Rated Assemblies: Wire tie furring channels to supports.

E. Seismic Bracing: Sway-brace suspension systems with hangers used for support.

F. Installation Tolerances: Install suspension systems that are level to within 1/8 inch in 12 feet (3 mm in 3.6 m) measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

END OF SECTION 092216

SECTION 123616 - METAL COUNTERTOPS

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. Stainless-steel countertops.

1.3 COORDINATION

A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to support loads imposed by installed and fully loaded wall-mounted shelves.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For metal fabrications.

1. Include plans, sections, details, and attachments to other work. Detail fabrication and installation, including field joints.
2. For countertops, show locations and sizes of cutouts and holes for items installed in metal countertops.
3. For wall-mounted shelves, indicate requirements for blocking or reinforcements in supporting construction.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver products only after casework and supports on which they will be installed has been completed in installation areas.

B. Keep finished surfaces of products covered with polyethylene film or other protective covering during handling and installation.

1.6 FIELD CONDITIONS

A. Field Measurements: Where products are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

B. Established Dimensions: Where products are indicated to fit to other construction, establish dimensions for areas where products are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

PART 2 - PRODUCTS

2.1 STAINLESS-STEEL FABRICATIONS

A. Countertops: Fabricate from 0.062-inch- (1.59-mm-) thick, stainless-steel sheet. Provide smooth, clean exposed tops and edges in uniform plane, free of defects. Provide front and end overhang of 1 inch (25 mm) over the base cabinets..

1. Joints: Fabricate countertops without field-made joints.
2. Weld shop-made joints.
3. Sound deaden the undersurface with heavy-build mastic coating.
4. Extend the top down to provide a 1-inch- (25-mm-) thick edge with a 1/2-inch (12.7-mm) return flange.
5. Form the backsplash coved to and integral with top surface, with a 1/2-inch- (12.7-mm-) thick top edge and 1/2-inch (12.7-mm) return flange.
6. Provide raised (marine) edge around perimeter of tops containing sinks; pitch tops containing sinks two ways to provide drainage without channeling or grooving.

2.2 MATERIALS

A. Stainless-Steel Sheet: ASTM A240/A240M, Type 304.

B. Sealant for Countertops: Manufacturer's standard sealant that complies with applicable requirements in Section 079200 "Joint Sealants" and the following:

1. Mildew-Resistant Joint Sealant: Mildew resistant, single component, nonsag, neutral curing, silicone.
2. Color: Clear.

2.3 STAINLESS-STEEL FINISH

A. Grind and polish surfaces to produce uniform, directional satin finish matching No. 4 finish, with no evidence of welds and free of cross scratches. Run grain with long dimension of each piece. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces clean.

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 products.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install metal countertops level, plumb, and true; shim as required, using concealed shims.

B. Field Jointing: Where possible, make field jointing in the same manner as shop jointing; use fasteners recommended by manufacturer. Prepare edges to be joined in shop so Project-site processing of top and edge surfaces is not required. Locate field joints where shown on Shop Drawings.

C. Secure countertops to cabinets with Z- or L-type fasteners or equivalent; use two or more fasteners at each front, end, and back.

D. Abut top and edge surfaces in one true plane, with internal supports placed to prevent deflection.

E. Seal junctures of countertops, splashes, and walls with sealant for countertops.

3.3 CLEANING AND PROTECTION

A. Repair or remove and replace defective work as directed on completion of installation.

B. Clean finished surfaces. Remove and replace damaged products or touch up and refinish damaged areas to match original factory finish, as approved by Architect.

C. Protection: Provide 6-mil (0.15-mm) plastic or other suitable water-resistant covering over countertop surfaces. Tape to underside of countertop at a minimum of 48 inches (1220 mm) o.c. Remove protection at Substantial Completion.

END OF SECTION 123616

SECTION 12 3661.19 - SOLID SURFACING COUNTERTOPS AND WINDOWSILLS

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. Solid surface material countertops.
2. Solid surface material backsplashes.
3. Solid surface material end splashes.

1.3 ACTION SUBMITTALS

A. Product Data: For countertop materials.

B. Shop Drawings: For countertops. Show materials, finishes, edge and backsplash profiles, methods of joining, and cutouts for plumbing fixtures.

1. Show locations and details of joints.
2. Show direction of directional pattern, if any.

C. Samples for Selection: For each type of material exposed to view.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For fabricator.

1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For solid surface material countertops to include in maintenance manuals. Include Product Data for care products used or recommended by Installer and names, addresses, and telephone numbers of local sources for products.

1.6 QUALITY ASSURANCE

A. Fabricator Qualifications: Shop that employs skilled workers who custom-fabricate countertops similar to that required for this Project, and whose products have a record of successful in-service performance.

B. Installer Qualifications: Fabricator of countertops.

C. Mockups: Build mockups to demonstrate aesthetic effects and to set quality standards for fabrication and execution.

1. Build mockup of typical countertop as shown on Drawings.
2. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.7 FIELD CONDITIONS

A. Field Measurements: Verify dimensions of countertops by field measurements after base cabinets are installed but before countertop fabrication is complete.

1.8 COORDINATION

A. Coordinate locations of utilities that will penetrate countertops or backsplashes.

PART 2 - PRODUCTS

2.1 SOLID SURFACE COUNTERTOP MATERIALS

A. Solid Surface Material: Homogeneous-filled plastic resin complying with ICPA SS-1.

1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

a. Basis of Design: Corian
b. Equivalent as approved by Architect.

2. Type: Provide Standard type or Veneer type made from material complying with requirements for Standard type, as indicated unless Special Purpose type is indicated.
3. Colors and Patterns: As selected by Architect from manufacturer's full range.

B. Particleboard: ANSI A208.1, Grade M-2-Exterior Glue.

C. Plywood: Exterior softwood plywood complying with DOC PS 1, Grade C-C Plugged, touch sanded.

2.2 COUNTERTOP FABRICATION

A. Fabricate countertops according to solid surface material manufacturer's written instructions and to the AWI/AWMAC/WI's "Architectural Woodwork Standards."

1. Grade: Premium.

B. Configuration:

1. Front: Straight, slightly eased at top.
2. Backsplash: Straight, slightly eased at corner.
3. End Splash: Matching backsplash.

C. Countertops: 1/2-inch- (12.7-mm-) thick, solid surface material with front edge built up with same material.

D. Backsplashes: 3/4-inch- (19-mm-) thick, solid surface material.

E. Fabricate tops with shop-applied edges and backsplashes unless otherwise indicated. Comply with solid surface material manufacturer's written instructions for adhesives, sealers, fabrication, and finishing.

F. Joints: Fabricate countertops in sections for joining in field, with joints at locations indicated.

1. Joint Locations: Not within 18 inches (450 mm) of a sink or cooktop and not where a countertop section less than 36 inches (900 mm) long would result, unless unavoidable.
2. Splined Joints: Accurately cut kerfs in edges at joints for insertion of metal splines to maintain alignment of surfaces at joints where indicated. Make width of cuts slightly more than thickness of splines to provide snug fit. Provide at least three splines in each joint.

G. Cutouts and Holes:

1. Undercounter Plumbing Fixtures: Make cutouts for fixtures in shop using template or pattern furnished by fixture manufacturer. Form cutouts to smooth, even curves.

a. Provide vertical edges, slightly eased at juncture of cutout edges with top and bottom surfaces of countertop and projecting 3/16 inch (5 mm) into fixture opening.

2. Counter-Mounted Plumbing Fixtures: Prepare countertops in shop for field cutting openings for counter-mounted fixtures. Mark tops for cutouts and drill holes at corners of cutout locations. Make corner holes of largest radius practical.
3. Fittings: Drill countertops in shop for plumbing fittings, undercounter soap dispensers, and similar items.

2.3 INSTALLATION MATERIALS

A. Adhesive: Product recommended by solid surface material manufacturer.

B. Sealant for Countertops: Comply with applicable requirements in Section 07 9200 "Joint Sealants."

C. Surface mounted counter brackets: L-shaped bracket fabricated from aluminum T sections designed for supporting 24 inch deep counters or work surfaces; Model No. EH-1818 as manufactured by Rangine Corporation, 330 Reservoir Street, Needham, Massachusetts 02494; 800-826-6006; www.rakks.com.
1. Material: Fabricate components from extruded aluminum sections complying with ASTM B221, 6063-T5 alloy and temper.
2. Factory applied finishes: Exposed aluminum surfaces shall be free of scratches and other serious blemishes and be factory finished with electrostatically applied, color selected by Architect, powder paint coating complying with AAMA 605.2.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates to receive solid surface material countertops and conditions under which countertops will be installed, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of countertops.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install countertops level to a tolerance of 1/8 inch in 8 feet (3 mm in 2.4 m), 1/4 inch (6 mm) maximum. Do not exceed 1/64-inch (0.4-mm) difference between planes of adjacent units.

B. Fasten subtops to cabinets by screwing through subtops into cornerblocks of base cabinets. Shim as needed to align subtops in a level plane.

C. Secure countertops to subtops with adhesive according to solid surface material manufacturer's written instructions. Align adjacent surfaces and, using adhesive in

color to match countertop, form seams to comply with manufacturer's written instructions. Carefully dress joints smooth, remove surface scratches, and clean entire surface.

D. Bond joints with adhesive and draw tight as countertops are set. Mask areas of countertops adjacent to joints to prevent adhesive smears.

1. Install metal splines in kerfs in countertop edges at joints[where indicated]. Fill kerfs with adhesive before inserting splines and remove excess immediately after adjoining units are drawn into position.
2. Clamp units to temporary bracing, supports, or each other to ensure that countertops are properly aligned and joints are of specified width.

E. Install backsplashes and end splashes by adhering to wall and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears.

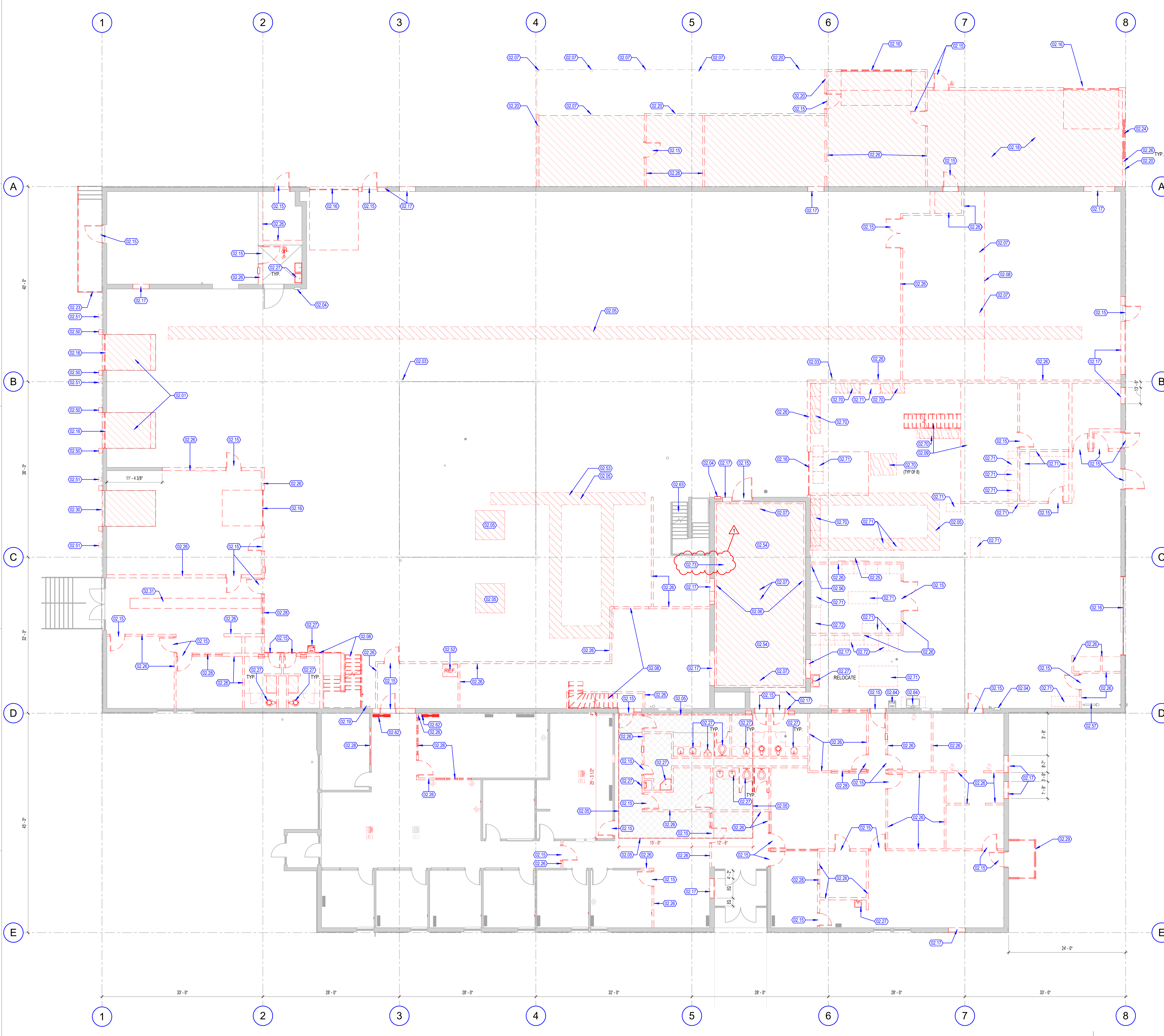
F. Install aprons to backing and countertops with adhesive. Mask areas of countertops and splashes adjacent to joints to prevent adhesive smears. Fasten by screwing through backing. Predrill holes for screws as recommended by manufacturer.

G. Complete cutouts not finished in shop. Mask areas of countertops adjacent to cutouts to prevent damage while cutting. Make cutouts to accurately fit items to be installed, and at right angles to finished surfaces unless beveling is required for clearance. Ease edges slightly to prevent snipping.

1. Seal edges of cutouts in particleboard subtops by saturating with varnish.

H. Apply sealant to gaps at walls; comply with Section 07 9200 "Joint Sealants."

END OF SECTION 12 3661.19



A1 Level 01 Demolition Plan
1/8" = 1'-0"

north

GENERAL NOTES

1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, MATERIALS, FINISHES, AND DIMENSIONS BEFORE AND AFTER DEMOLITION AND CONTACT THE ARCHITECT WITH ANY UNFORESEEN CONDITIONS OR DISCREPANCIES
2. GENERAL CONTRACTOR SHALL PROTECT EXISTING STRUCTURE/ASSEMBLIES/EQUIPMENT AS REQUIRED FROM DEMOLITION WORK. REPAIR, PATCH AND/OR REPLACE EXISTING CONSTRUCTED ITEMS AND EQUIPMENT THAT ARE TO REMAIN AS REQUIRED FOR NEW CONSTRUCTION. NEW FINISHES TO MATCH EXISTING ADJACENT FINISHES
3. GENERAL CONTRACTOR SHALL PATCH AND REPAIR TO MATCH EXISTING FINISHES AT WALLS, FLOORS, CEILINGS/SOFFITS, ETC... AS REQUIRED IN ARES NOT SPECIFICALLY CALLED OUT IN THE DRAWINGS BUT ARE IMPACTED BY CONSTRUCTION
4. GENERAL CONTRACTOR TO PATCH/REPAIR ALL AREAS RESULTING FROM DEMOLITION AND PREPARE SUCH SURFACES TO RECEIVE SCHEDULED FINISHES
5. CAP ALL PLUMBING IN FLOORS AND WALLS TO BE DEMOLISHED. CAPS TO BE BELOW FLOOR SLAB OR INSIDE WALLS TO REMAIN. REMOVE ALL WIRING AND DEVICES IN FLOORS AND WALLS TO BE REMOVED. RE-ROUTE LINES AS REQUIRED
6. REFER TO MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION COORDINATION
7. GENERAL CONTRACTOR TO PREVENT WATER BUILD-UP AND/OR DAMAGE FOUNDATIONS ON THE CONSTRUCTION SITE OR ADJACENT AREAS
8. GENERAL CONTRACTOR TO KEEP AN ACTIVE PEDESTRIAN PATHWAY TO AND AT EGRESS ROUTES FREE OF OBSTRUCTIONS AT ALL TIMES. GENERAL CONTRACTOR TO PROVIDE PROTECTION TO PEDESTRIANS BEFORE DEMOLITION (IBC 3303)
9. GENERAL CONTRACTOR TO MAINTAIN EXITS, EXISTING STRUCTURAL ELEMENTS, APPLIED FIREPROOFING PROTECTION DEVICES, AND SANITARY SAFEGUARDS AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION
10. REFER TO SITE DEMOLITION PLAN FOR LOCATION OF LIMIT OF DISTURBANCE
11. OWNER WILL HAVE ALL EQUIPMENT, FURNISHINGS AND SHELVING REMOVED BEFORE CONSTRUCTION. COORDINATE EXISTING EQUIPMENT LOCATION IN NEW LAYOUT WITH FLOOR PLANS AND OWNER
12. GENERAL CONTRACTOR TO PROTECT IN-FLOOR DUCTING AND UTILITIES TO REMAIN AT ALL AREAS WHERE THE FLOOR SLAB IS INDICATED TO BE REMOVED
13. AT ALL AREAS WHERE FLOOR TILE IS TO BE REMOVED, GENERAL CONTRACTOR TO REMOVE ADDITIONAL SETTING MATERIAL AS REQUIRED TO ENSURE NEW FLOOR FINISH TRANSITIONS WILL BE LEVEL
14. PRESERVE AND PROTECT ALL EXISTING MECHANICAL CONTROL LINES DURING ALL PHASES OF DEMOLITION AND NEW CONSTRUCTION.
15. SALVAGE ALL DOORS THAT WORTH RE-USING (VERIFY W/ OWNER) AND RE-USE WITHIN PROJECT WHERE POSSIBLE / FIT PROJECT PARAMETERS
16. SALVAGE ALL EXISTING FIRE EXTINGUISHER CABINETS (IF RE-USABLE). COORDINATE W/ NEW LOCATIONS, RE: CODE FLOOR PLANS
17. TUNNEL LOCATIONS IN TUNNEL PLAN ON SHEET AE100
18. EXISTING OPENINGS THAT WILL REQUIRE INFILL HAVE EXISTING ANGLE IRON TO SUPPORT THAT OPENING. LEAVE ANGLE IRON IN PLACE, UNLESS OTHERWISE NOTED IN STRUCTURAL DRAWINGS

KEYED NOTES

02.01 REMOVE LOADING DOCK EQUIPMENT - ANGLE IRON AND FLANGE WELDED TO ANGLE IRON TO REMAIN. PREPARE VOID FOR CONCRETE INFILL, RE: STRUCTURAL
02.03 EXISTING ROOF DRAIN PIPE TO REMAIN
02.04 EXISTING FIRE EXTINGUISHER CABINET TO REMAIN
02.05 SAW CUT EXISITNG CONCRETE FLOOR FOR NEW TRENCH FLOOR DRAIN, NEW SLAB, NEW UTILITIES OR NEW FOOTINGS. COORD. W/ FLOOR PLAN/STRUCTURAL.
02.06 REMOVE INTERIOR INSULATION AND PANELING AT WALLS AND CEILING
02.07 REMOVE EXISTING COLUMN
02.08 REMOVE STAIRS & MEZZANINE STRUCTURES
02.09 REMOVE MEZZANINE WALLS, FLOOR, CEILING AND STAIRS, TYP.
02.15 REMOVE EXISTING DOOR
02.16 REMOVE EXISTING OVERHEAD DOOR
02.17 CUT NEW ROUGH OPENINGS FOR EITHER NEW OVERHEAD DOOR, MAN DOOR, WINDOW AND/OR WALL OPENING. COORD. W/ FLOOR PLAN AND STRUCTURAL - SALVAGE ALL CMU POSSIBLE TO LATER BE USED FOR INFILL
02.18 FLOOR ELEVATION IN THIS ROOM TO BE LOWERED TO 100'-0". SO THAT IT WILL MATCH MAIN BUILDING - REMOVE CONCRETE AND PAVING TO PREPARE FOR NEW CONCRETE SLAB ON GRADE
02.19 STEAM AND MAIN ELECTRICAL CONDUIT TO REMAIN, RE: MECH & ELEC - SALVAGE EXISTING UNISTRUTS AND RE-USE ON NEW WING WALL FOR SUPPORT. SEE FLOOR PLANS
02.20 REMOVE EXISTING ROOF AND STRUCTURE
02.23 REMOVE EXISTING GAURDRAIL, PATCH AND REPAIR CONCRETE.
02.24 REMOVE EXISTING WINDOW
02.25 SALVAGE AND RELOCATE EXISTING PROJECTOR. RE: FLOOR PLAN
02.26 REMOVE AND DISPOSE OF EXISTING WALL
02.27 REMOVE EXISTING PLUMBING FIXTURES, TOILET ACCESSORIES, PARTITION WALLS, COUNTERS, ETC.- COORDINATE DISPOSAL OR REUSE AND RELOCATION WITH OWNER
02.28 REMOVE AND DISPOSE OF EXISTING WINDOW SYSTEM
02.29 REMOVE AND DISPOSE OF EXISTING VESTIBULE AND STRUCTURE. PATCH AND REPAIR WALLS, SIDEWALK, ETC. AS NEEDED.
02.30 EXISTING OVERHEAD DOOR TO REMAIN.
02.31 REMOVE EXISTING CABINETRY, COUNTERS, ETC.
02.50 REMOVE WEATHER SEAL, BUMPER GUARD AND ADJUSTABLE CLOSURE AROUND LOADING DOCK DOOR
02.51 REMOVE MANIFOLD AND GLYCOL SYSTEM PIPES W/ COVERS TO HEATED PAD. PATCH AND REPAIR EXISTING EXTERIOR WALL WHERE HOLE IS CREATED FROM REMOVING PIPE
02.52 SALVAGE REFRIGERATOR TO OWNER FOR RE-USE
02.53 PROVIDE CUT UNDER NEW CMU AND STEEL COLUMN LOCATIONS THAT SUPPORT MEZZANINE
02.54 REMOVE TOP, EXISTING REFRIGERATOR CONCRETE SLAB AND FOAM GLASS LAYER DIRECTLY UNDERNEATH. LEAVE BOTTOM, CONCRETE SLAB ON GRADE
02.56 PIPE TO REMAIN AND BE PROTECTED DURING DEMOLITION AND CONSTRUCTION
02.57 FIRE RISER EQUIPMENT WILL BE UPDATED PER DELEGATED DESIGN
02.62 REMOVE EXISTING FLOOR REGISTER(S)
02.63 EXISTING STAIRS TO REMAIN
02.64 EXISTING PLUMBING EQUIPMENT TO REMAIN
02.70 SALVAGE EXISTING CABINETS AND COUNTERTOP TO OWNER FOR RE-USE. SEE FLOOR PLANS AND ELEVATIONS FOR NEW LOCATIONS.
02.71 SALVAGE EXISTING CABINETS AND SHELVING AND RETURN TO OWNER FOR RE-USE.
02.72 REMOVE AND DISPOSE OF EXISTING COUNTERTOPS. SALVAGE EXISTING CABINETS AND RETURN TO OWNER FOR RE-USE. SEE FLOOR PLANS AND ELEVATIONS FOR NEW LOCATIONS.
02.73 REMOVE AND DISPOSE OF ALL FREEZER EQUIPMENT, INCLUDING FREON.

DEMOLITION LEGEND

DEMOLISH EXISTING WALLS, SEE KEYNOTES
DEMOLISH EXISTING, SEE KEYNOTES
EXISTING TO REMAIN
EXISTING WALLS TO REMAIN
DEMOLISH EXISTING ROOF / FLOOR / CEILING, SEE KEYNOTES

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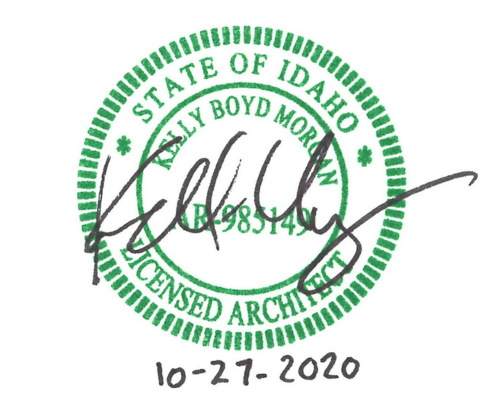

project:

BYUI Engineering Technology Center (ETC)

525 South Center Street
Rexburg, ID 83440

project#: 20.0220
byu idaho project#: 12005
date: october 27, 2020

revisions :

1	Addendum #1	11/5/2020

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Demolition Plan - Level 1

sheet:

AD101

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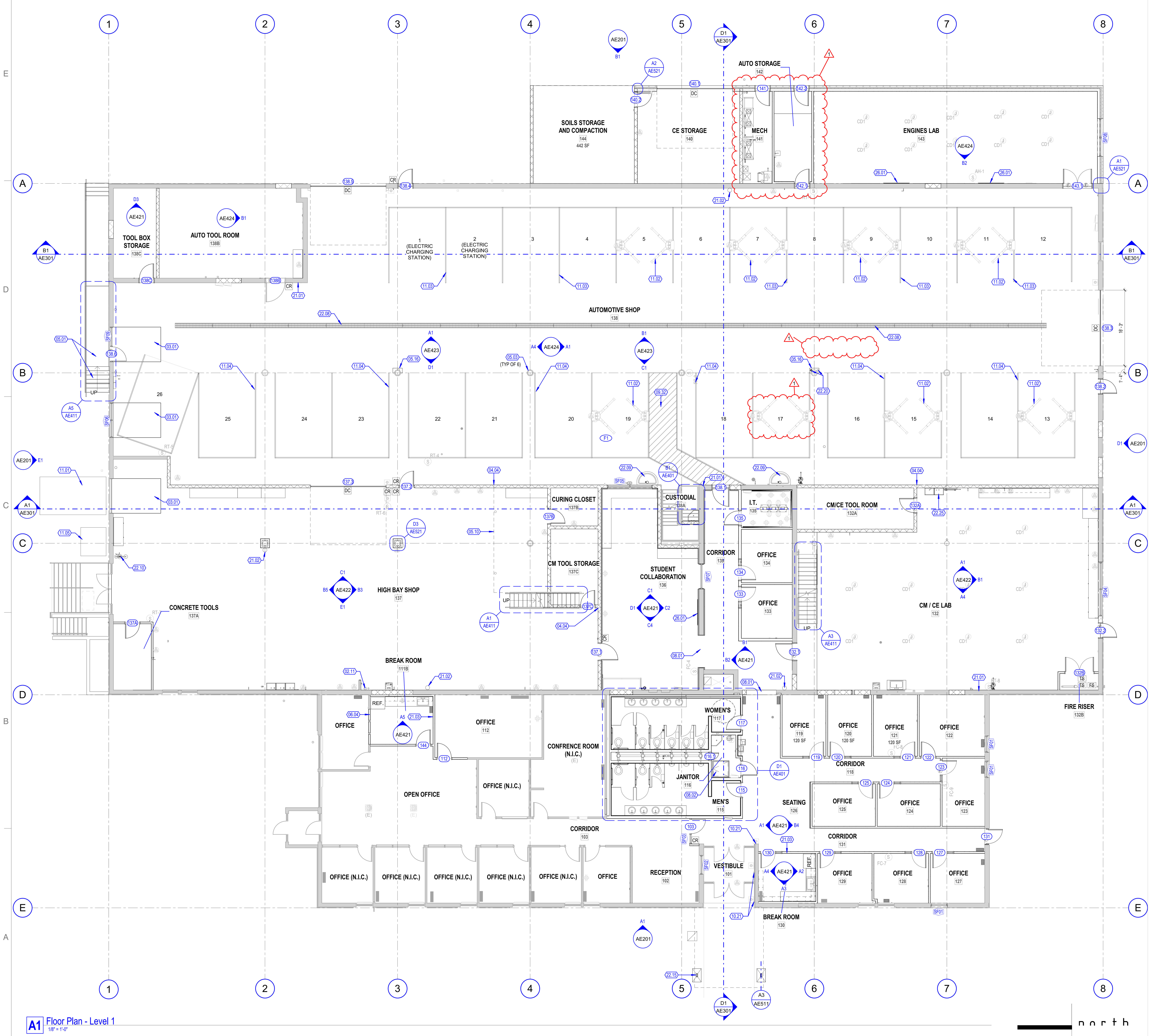

A1 Floor Plan - Level 1
1/8" = 1'-0"

GENERAL NOTES - FLOOR PLAN

1 GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS, OR CONFLICTS IN THE DRAWINGS BEFORE BEGINNING WORK
2 DO NOT SCALE DRAWINGS
3 ALL EXPOSED INTERIOR COLUMNS TO BE PAINTED
4 ALL EXPOSED EXTERIOR STEEL TO BE GALVANIZED UNLESS NOTED OTHERWISE
5 SEE SHEET GI003 FOR TYPICAL MOUNTING HEIGHTS. PROVIDE SOLID BLOCKING IN WALLS FOR ALL WALL-MOUNTED ITEMS WHETHER BLOCKING IS DEPICTED IN DRAWINGS OR NOT.
6 COORDINATE ALL EQUIPMENT AND ACCESSORIES, INCLUDING ITEMS THAT ARE OFOI, WITH OWNER
7 SEE SHEET SERIES AE500 FOR WALL AND ASSEMBLY TYPES
8 SEE SHEET SERIES AE600 FOR DOOR & WINDOW TYPES
9 ALL EXPOSED INTERIOR COLUMNS TO BE PAINTED WITH INTUMESCENT PAINT
10 SEE WALL SECTION SHEET SERIES AE310 FOR WALL TYPES AT SPECIFIED LOCATION
11 SEE ELEVATIONS AND FINISH SCHEDULES FOR SURFACE TREATMENTS AT WALLS
12 SEE ELEVATIONS, SECTIONS, AND DETAILS FOR ADDITIONAL WALL CONSTRUCTION INFORMATION
13 ALL DEMOLITION TO BE COORDINATED WITH PHASING PLAN SHEET GI103

KEYED NOTES

02.11	EXISTING STEAM LINE TO REMAIN
03.01	BACKFILL EXISTING LOADING BAY RECESSES AND TOP WITH CONCRETE
04.04	CMU CONTROL JOINT
05.01	NEW LANDING, STAIRS AND GUARDRAIL AND RAILING (POWDER COATED - COLOR TO BE SELECTED BY OWNER AND ARCHITECT.)
05.03	COLUMN WRAP PROTECTION - SENTRY CONCRETE WRAP CW0244-48
05.10	NEW MEZZANINE ABOVE
05.16	STEEL DOWNSPOUT PROTECTOR, RE: E1/AE521
06.04	INFILL WALLS WITH FRAMING AND GYP BD. FINISH TO MATCH EXISTING, TYP.
08.01	NEW OPENING IN EXISTING WALL
08.02	36" x 36" TUNNEL / FLOOR ACCESS HATCH W/ DETENTION LOCK
09.32	PAINTED, STRIPED WALKING PATH
10.21	ADA ACTUATOR
11.01	DUMPSTER LOCATION
11.02	AUTOMOTIVE LIFT, RE: INTERIOR FURNISHINGS AND EQUIPMENT PLANS AND SCHEDULES
11.03	12' X 16' STALL WITH 2" PAINTED STRIPING
11.04	12' X 18' STALL WITH 2" PAINTED STRIPING
11.05	CONCRETE WASH OUT. RE: INTERIOR FURNISHINGS AND EQUIPMENT PLANS AND SCHEDULES
21.01	EXISTING FIRE EXTINGUISHER CABINET
21.02	NEW, SURFACE-MOUNTED FIRE EXTINGUISHER
21.03	NEW SEMI-RECESSED EXTINGUISHER CABINET
22.08	FLOOR DRAIN, RE PLUMBING
22.09	HAND WASH SINK, RE: PLUMBING
22.10	EMERGENCY EYEWASH STATION, RE: PLUMBING
22.15	LAMBS TONGUE DRAIN / SECONDARY DRAINAGE, RE: PLUMBING
22.20	EXISTING ROOF DRAIN LINE
22.25	SALVAGED, RELOCATED SINK, RE: PLUMBING
26.01	TELEVISION MONITOR. OWNER FURNISHED OWNER INSTALLED.

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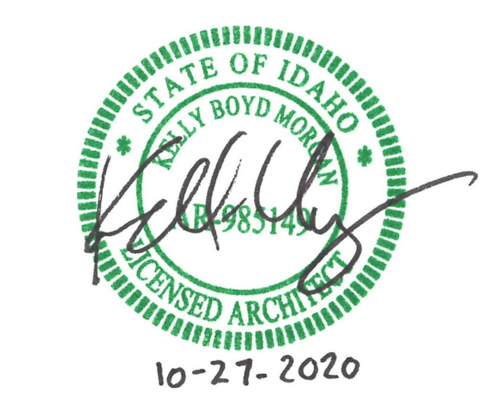

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Floor Plan - Level 1

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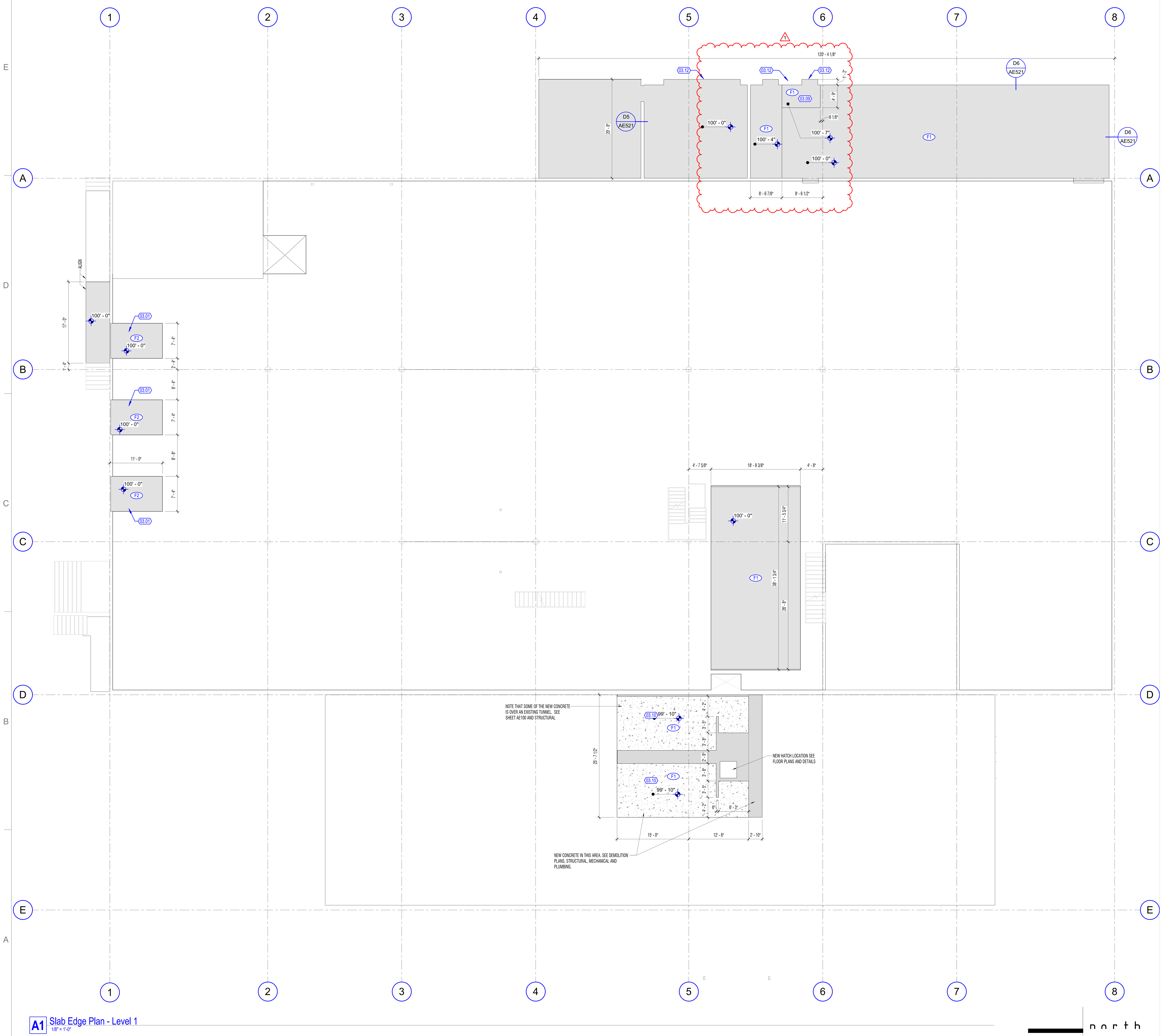

A1 Slab Edge Plan - Level 1
1/8" = 1'-0"

GENERAL NOTES - SLAB EDGE

1 COORDINATE SLAB EDGE PLANS WITH STRUCTURAL DRAWINGS
2 COORDINATE SLAB EDGE PLANS WITH MECHANICAL DRAWINGS FOR HOUSEKEEPING PADS, SIZE, AND EXACT LOCATION
3 COORDINATE SLAB EDGE PLANS WITH WALL TYPES FOR ACOUSTIC ISOLATION TREATMENTS
4 SLAB EDGE SHOWS MAIN AREAS OF CONCRETE SLAB ON GRADE, IT DOES NOT SHOW ALL LOCATIONS FOR PATCH AND REPAIR - COORDINATE THESE WITH MECHAINCAL, ELECTRICAL, PLUMBING AND STRUCTURAL DRAWINGS

KEYED NOTES

03.01 BACKFILL EXISTING LOADING BAY RECESSES AND TOP WITH CONCRETE
03.09 CONCRETE STEP. VERIFY HEIGHT WITH FUTURE SURVEY AND CIVIL DRAWINGS. RE: STRUCTURAL
03.10 RECESSED SLAB AREA, RE: STRUCTURAL
03.12 SLAB TO ROLL OVER CONCRETE AT DOORS.

FLOOR LEGEND

NEW FLOOR, SEE FLOOR TAG FOR TYPE
SEE SHEET AE501 FOR FLOOR ASSEMBLIES

NEW FLOOR, RECESS 2" FOR TILE TO SLOPE TO DRAINS
SEE STRUCTURAL FOR CLARIFICATION

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1 Addendum #1 11/5/2020

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Slab Edge Plan

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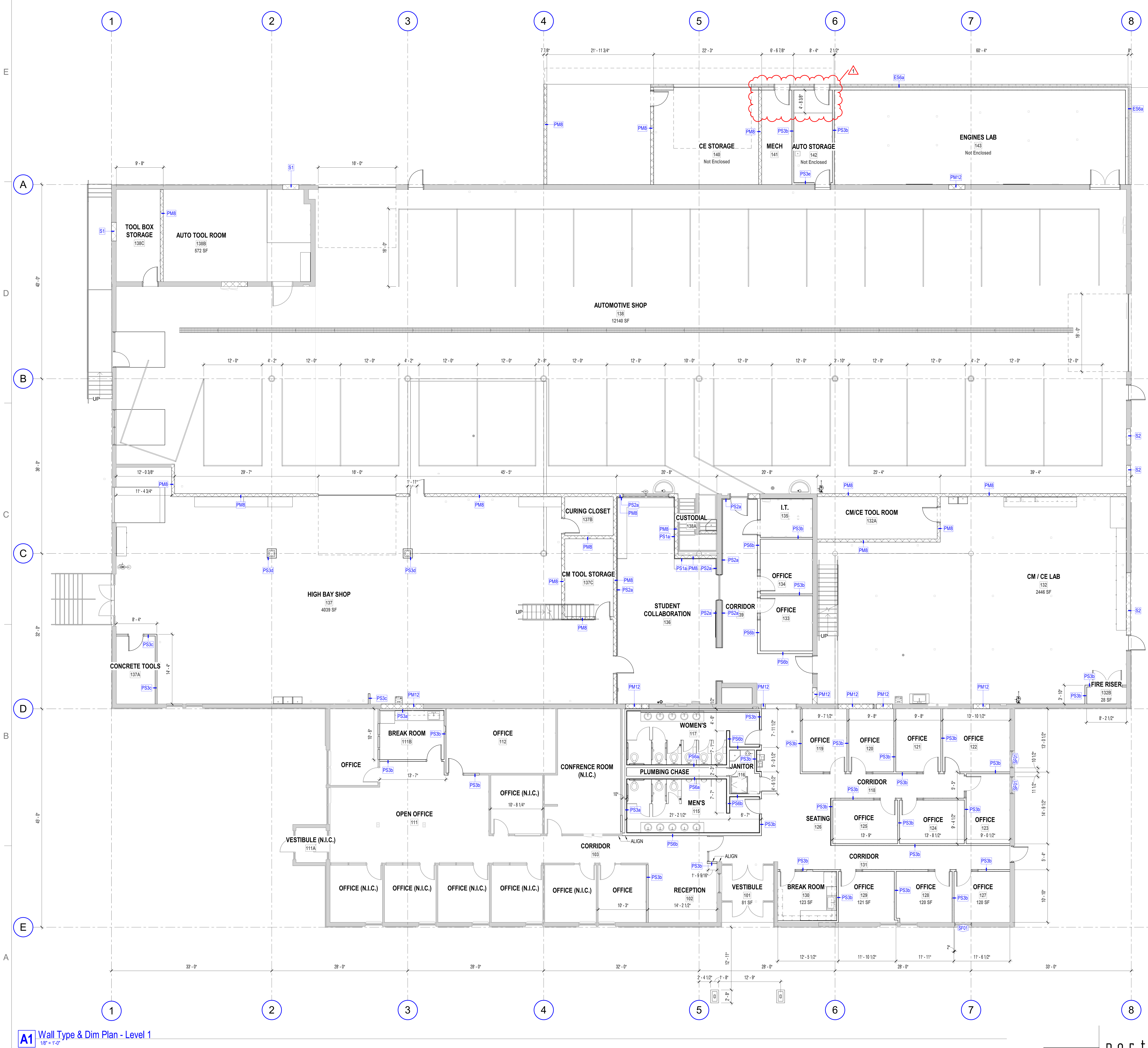

A1 Wall Type & Dim Plan - Level 1
1/8" = 1'-0"

GENERAL NOTES - DIM PLANS

1. GENERAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND SHALL REPORT TO THE ARCHITECT ANY UNKNOWN CONDITIONS, ERRORS, OR CONFLICTS IN THE DRAWINGS BEFORE BEGINNING WORK
2. DO NOT SCALE DRAWINGS
3. ALL EXPOSED INTERIOR COLUMNS TO BE PAINTED WITH INTUMESCENT PAINT
4. ALL EXTERIOR STEEL TO BE GALVANIZED UNLESS NOTED OTHERWISE
5. SEE SHEET SERIES AE600 FOR DOOR AND WINDOW TYPES
6. SEE SHEET SERIES AE500 FOR WALL AND ASSEMBLY TYPES
7. WALL TYPES ARE TAGGED FOR LENGTH OF ENTIRE WALL RUN, UNLESS NOTED OTHERWISE
8. ALL DIMENSIONS ARE TO THE FACE OF METAL/WOOD STUD FRAMED WALLS OR TO THE FACE OF CONCRETE/MASONRY WALLS AS SHOWN, UNLESS NOTED OTHERWISE
9. DOOR OPENINGS IN FRAME CONSTRUCTION WITH NO SPECIFIED DIMENSION ARE EITHER CENTERED IN THE LENGTH OF WALL RUN OR (IF DRAWN NEAR CORNER) LOCATED 4" FROM THE FACE OF ADJACENT STUD. ASSUME CENTERED IN FACE OF JAMB UNLESS NOTED OTHERWISE
10. ALIGN CENTERLINE OF ALL STRUCTURAL ELEMENTS ON RESPECTIVE GRID(S), UNLESS NOTED/DIMENSIONED OTHERWISE

NOTE - CMU WALLS WILL RUN TO DECK. GYP BOARD WALLS WILL RUN TO BOTTOM OF STRUCTURE IN THE WEST WING. WHERE GYP BOARD WALLS ARE IN SHOP SPACES, PROBABLY WILL BE CAPPED OFF WITH A CEILING AT APPROXIMATLEY 10 FEET.

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LICENSED ARCHITECT
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Wall Type and Dim Plan - Level 1

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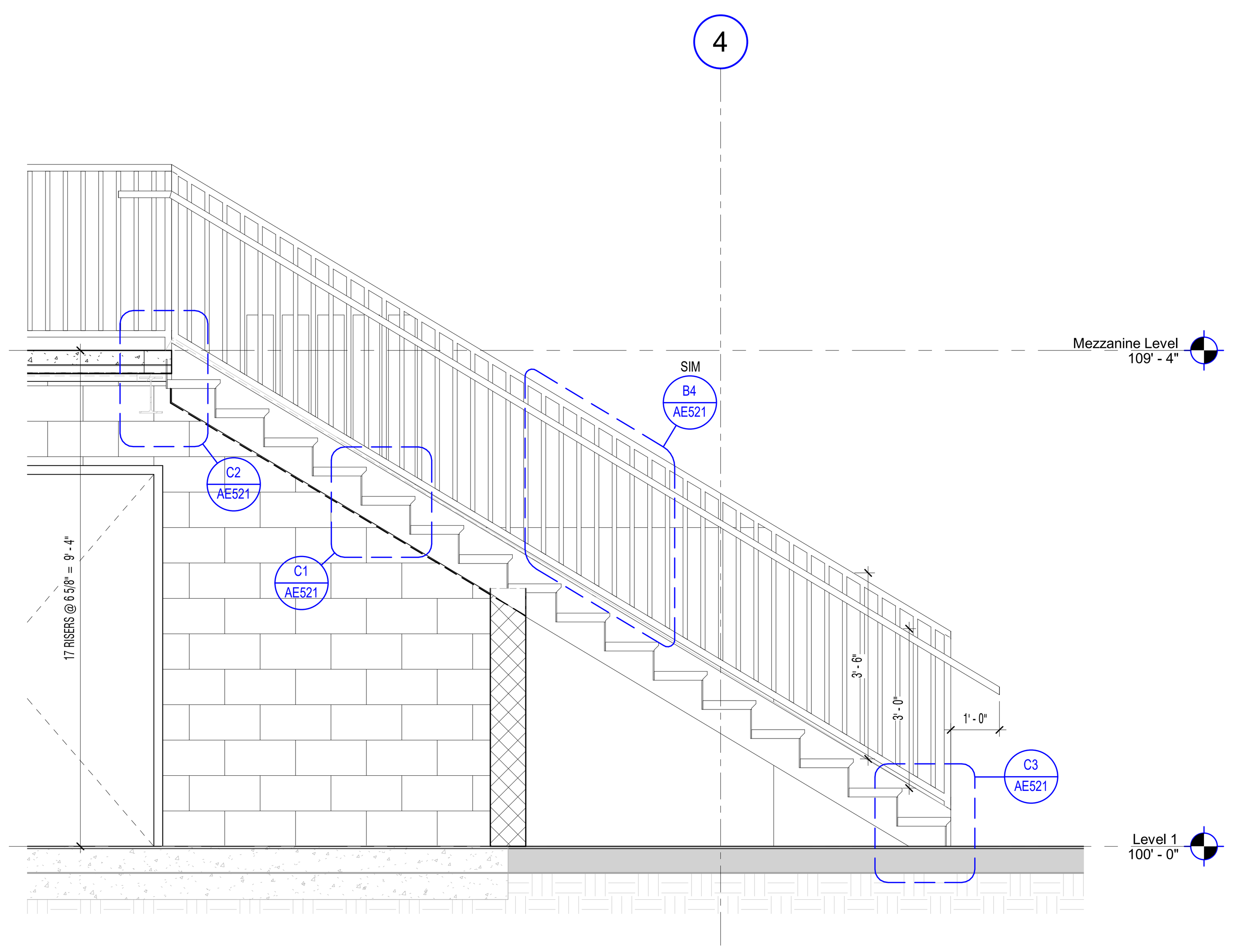
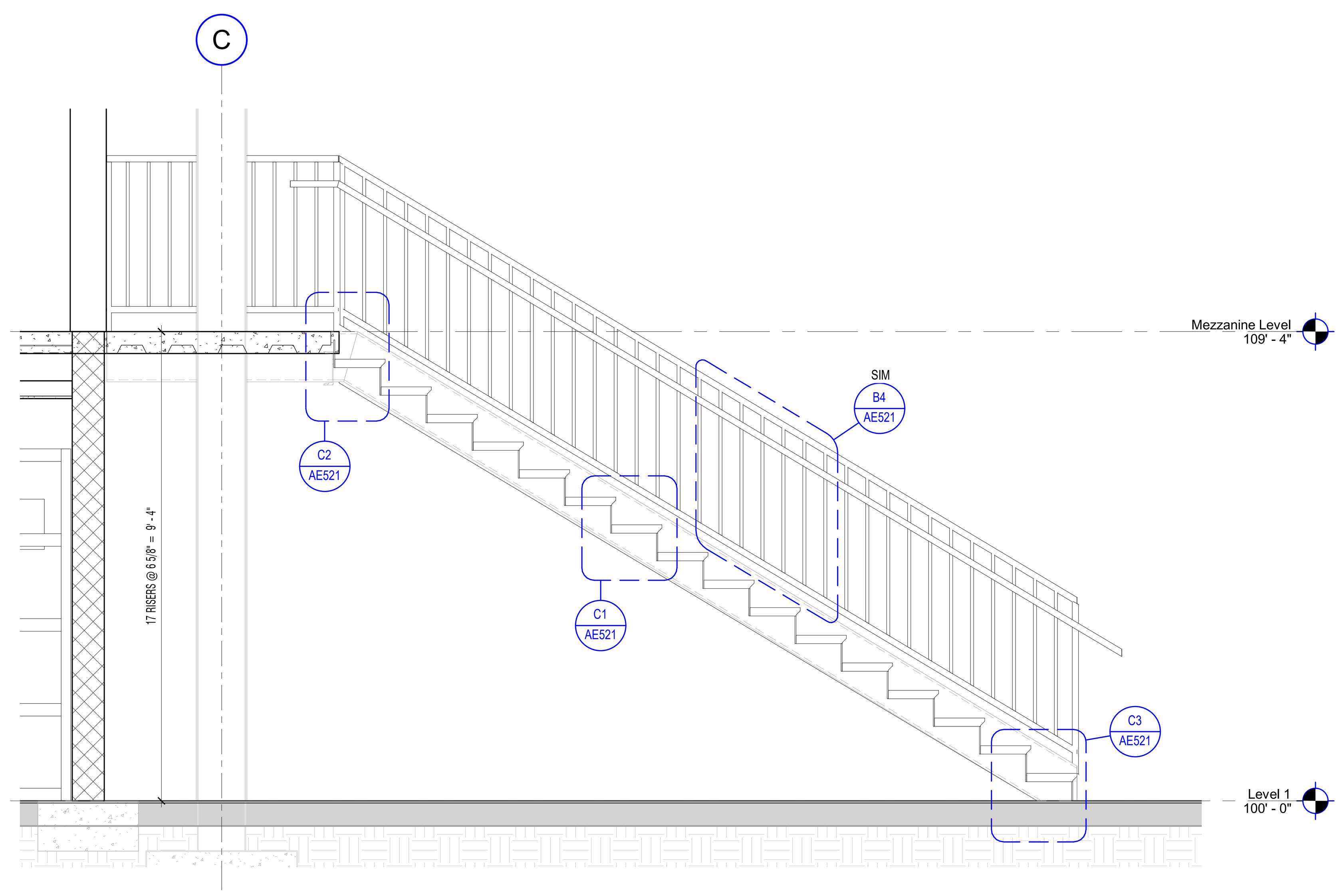
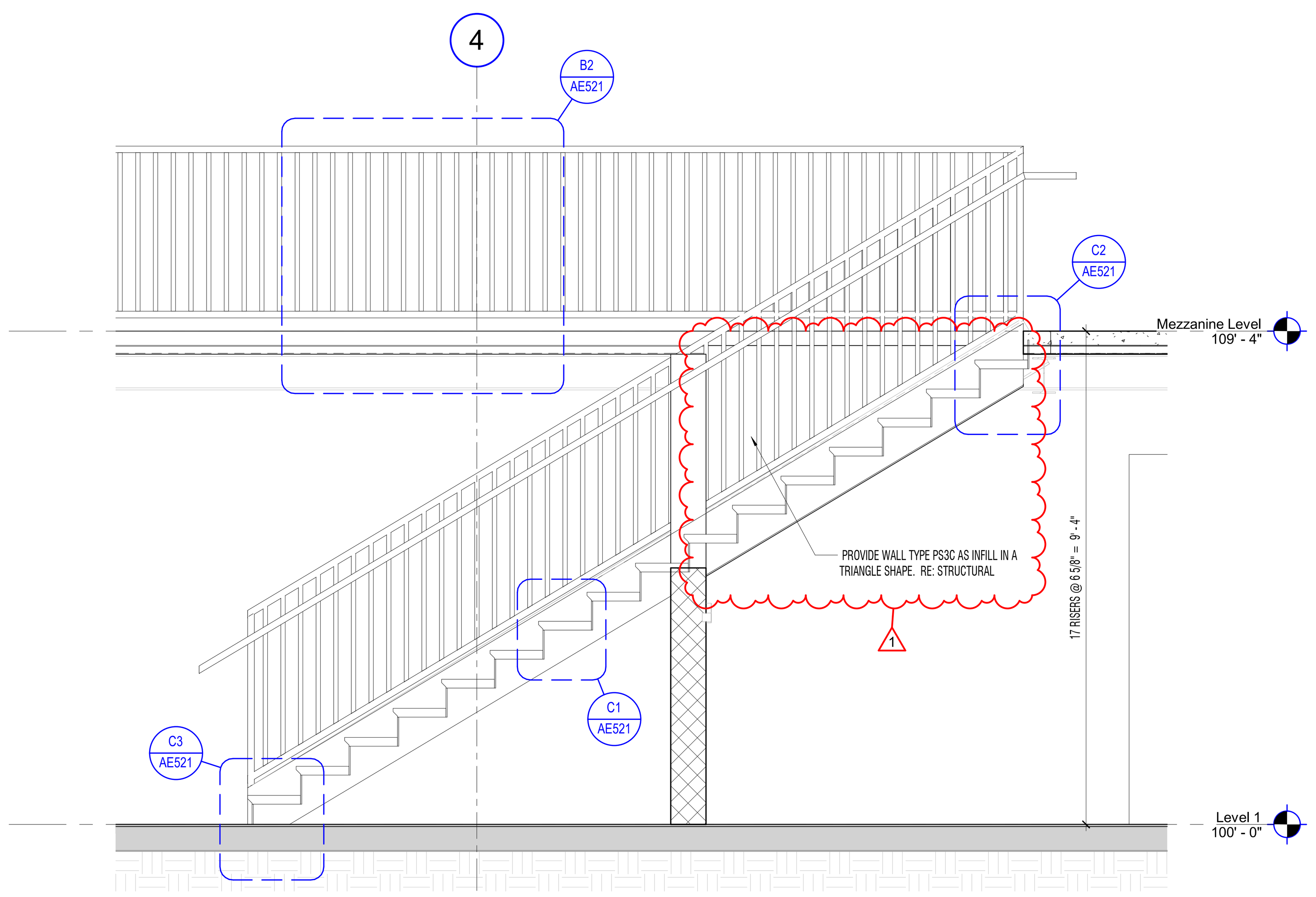


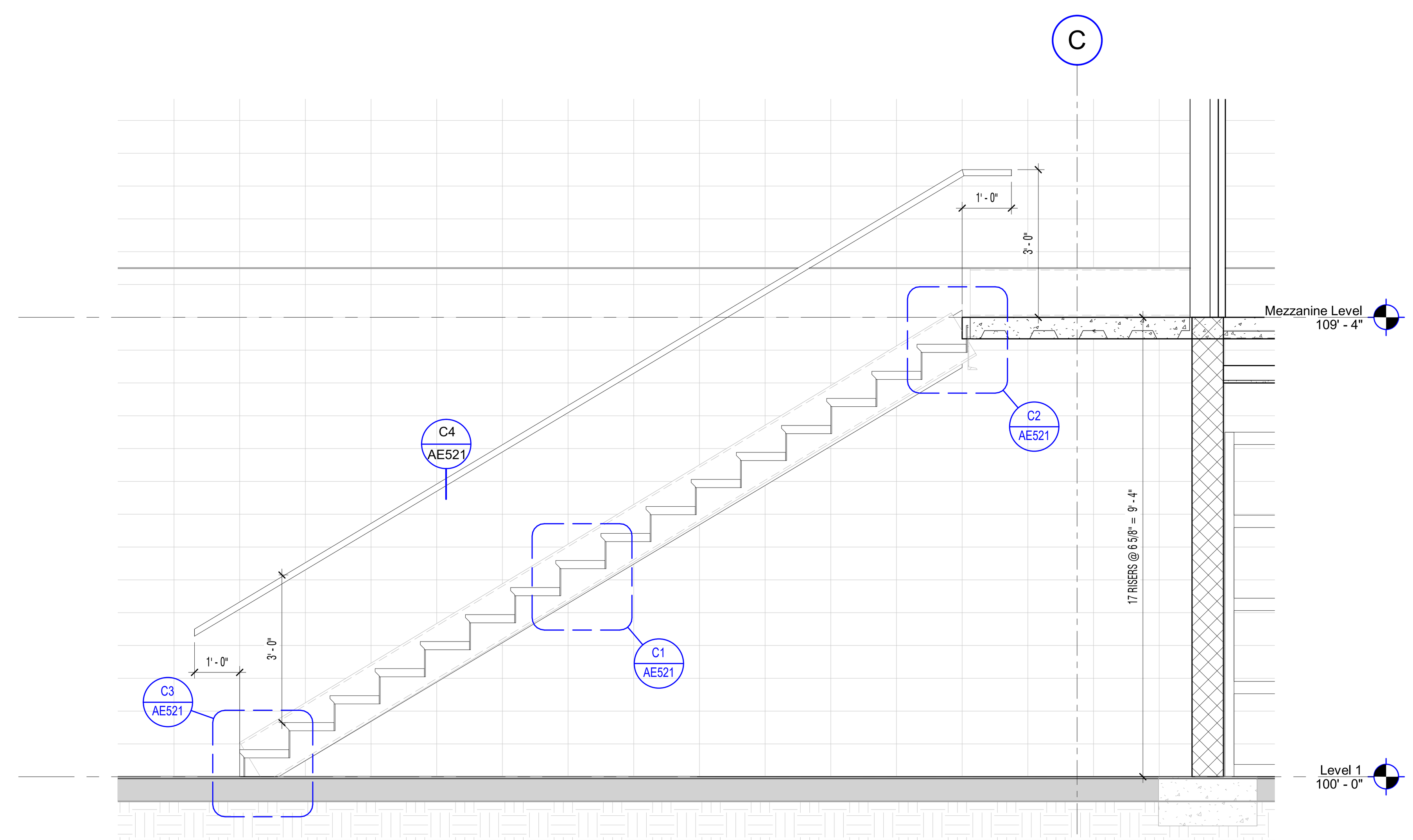
D1 High Bay Mezzanine Stair Section B
1/2" = 1'-0"



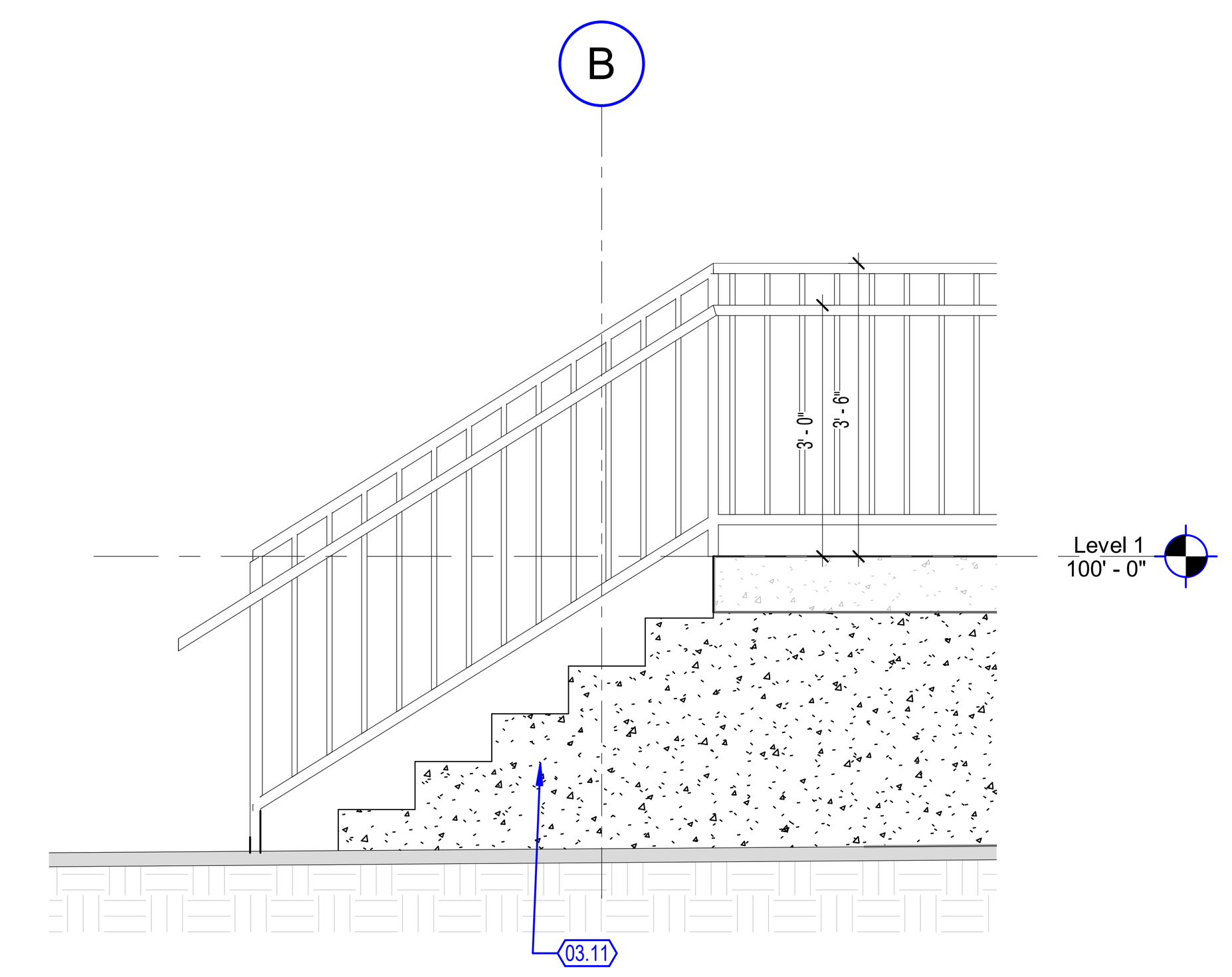
D3 CM/CE Lab Stair Section B
1/2" = 1'-0"



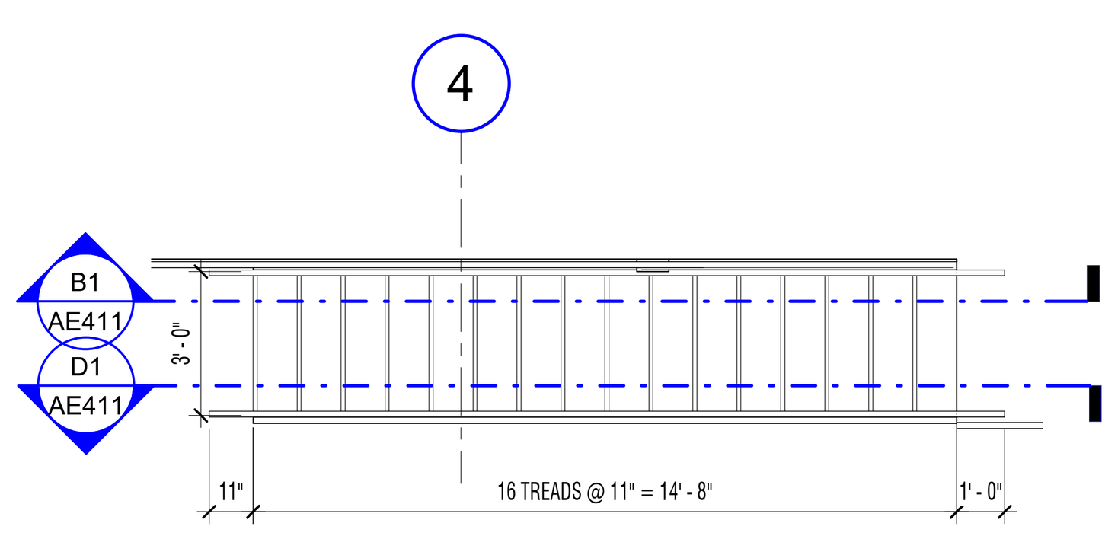
B1 High Bay Mezzanine Stair Section A
1/2" = 1'-0"



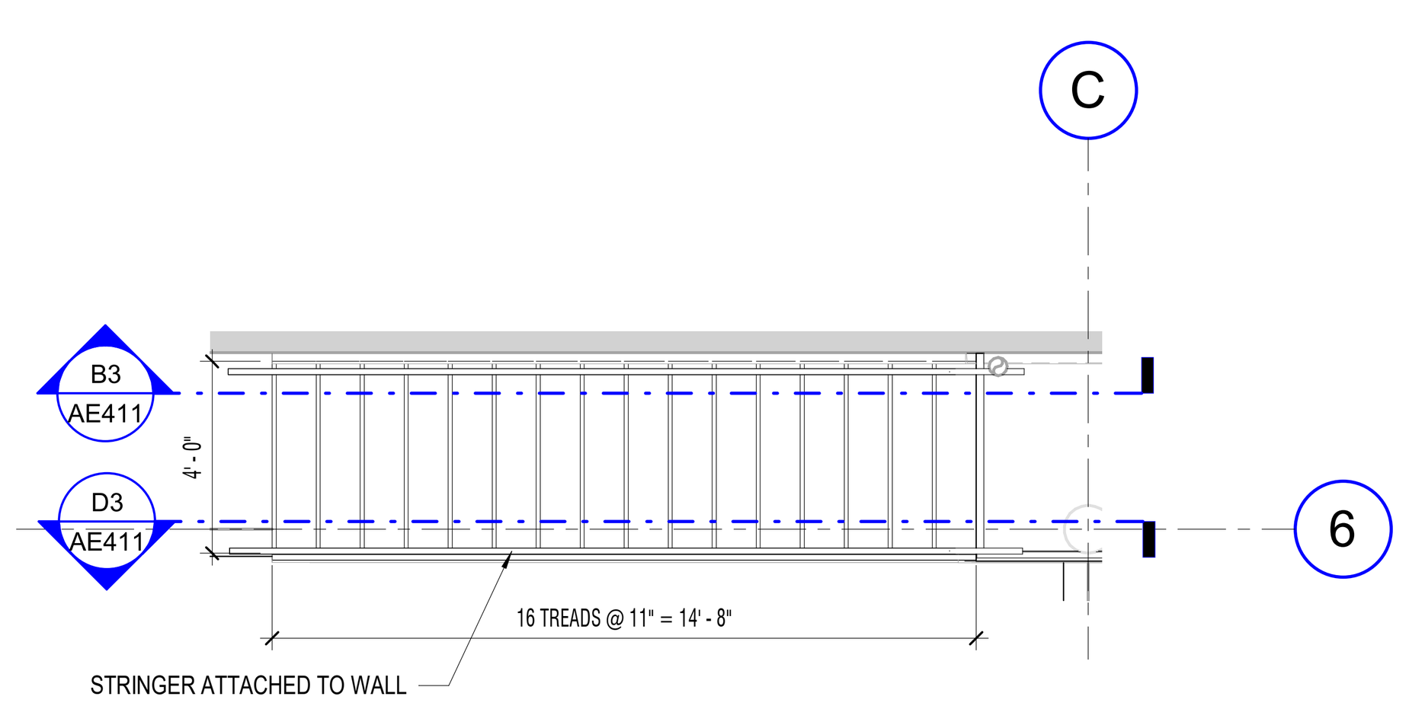
B3 CM/CE Lab Stair Section A
1/2" = 1'-0"



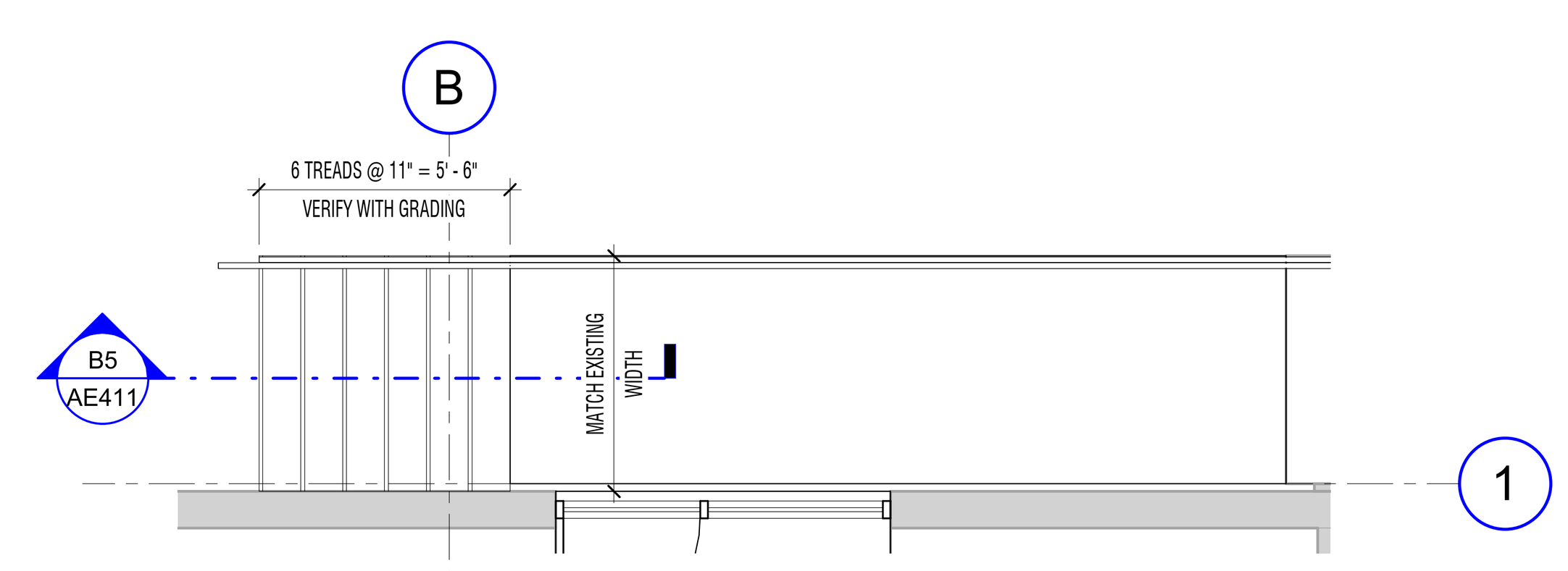
B5 North Entry Stair Section
1/2" = 1'-0"



A1 High Bay Mezzanine Stair
1/4" = 1'-0"



A3 CM/CE Lab Stair
1/4" = 1'-0"



A5 North Entry Stair
1/4" = 1'-0"

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Stair Plans & Sections

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AE411

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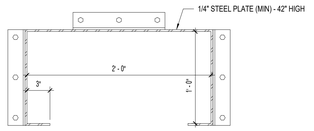
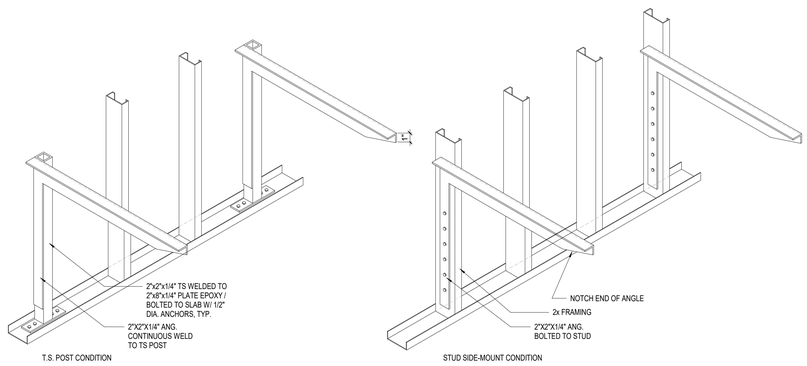
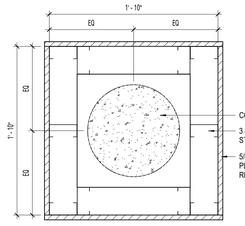


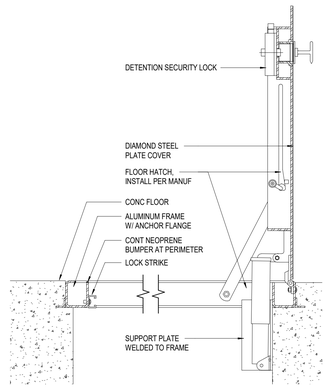
E1 Steel Downspout Protector
1 1/2" = 1'-0"



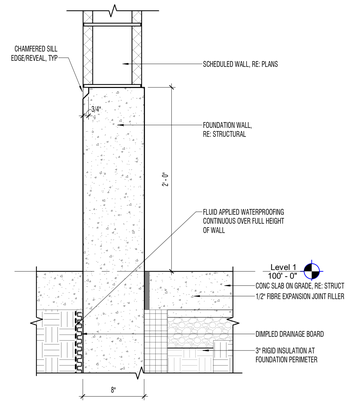
D1 Hidden Support Bracket
1" = 1'-0"



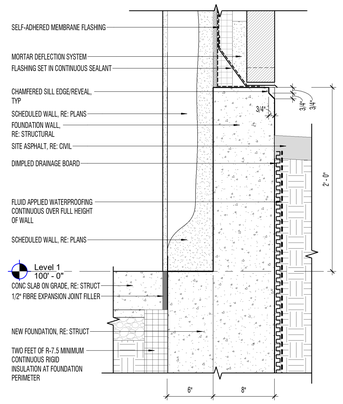
D3 Typical Column Wrap / Framing
1 1/2" = 1'-0"



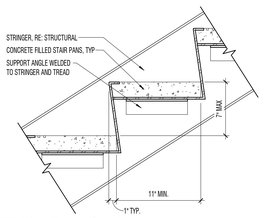
D4 Floor Access Hatch
1 1/2" = 1'-0"



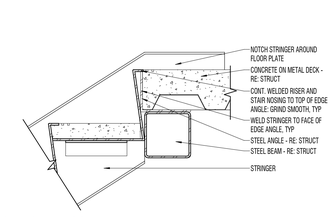
D5 Slab Edge at Exterior Storage
1 1/2" = 1'-0"



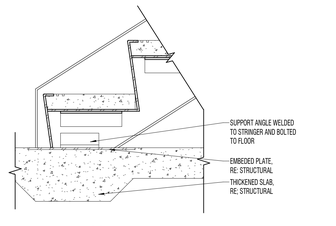
D6 Slab Edge at Engines Lab
1 1/2" = 1'-0"



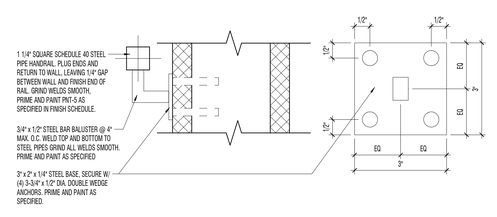
C1 Stair Tread Detail
1 1/2" = 1'-0"



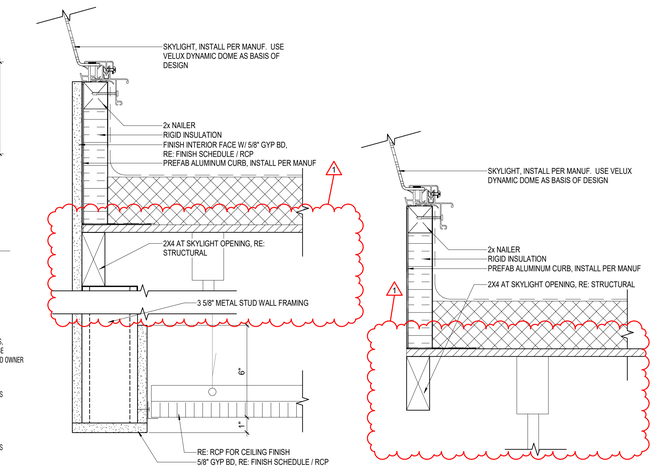
C2 Top of Stair Detail
1 1/2" = 1'-0"



C3 Bottom of Stair Detail
1 1/2" = 1'-0"

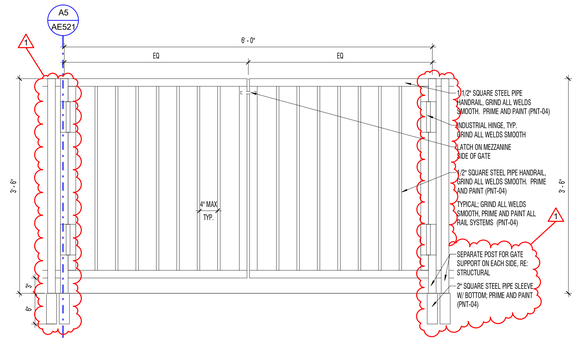


C4 Handrail to Wall Detail
3" = 1'-0"

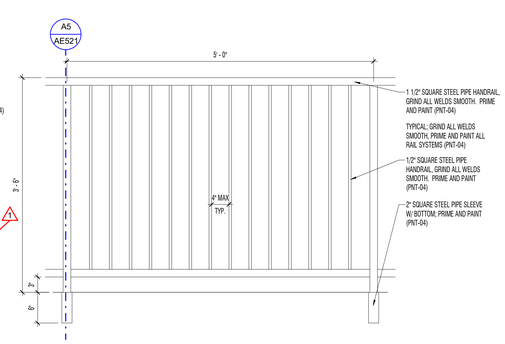


B5 Skylight Detail - Seating Area
3" = 1'-0"

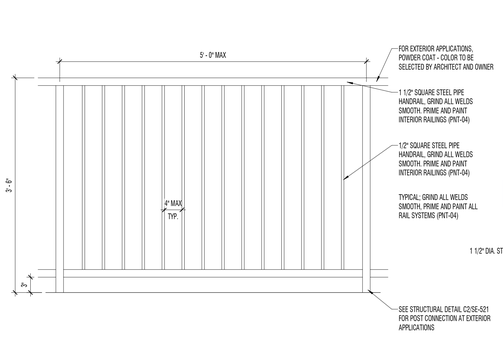
B6 Skylight Detail - Shop
3" = 1'-0"



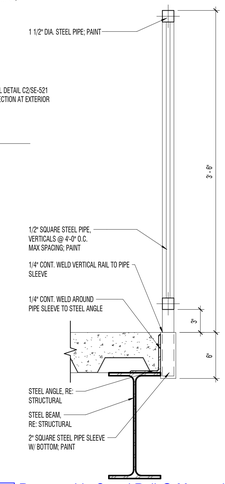
B1 Mezzanine Guardrail Gate
1" = 1'-0"



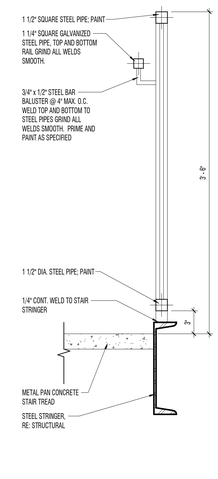
B2 Mezzanine Guardrail
1" = 1'-0"



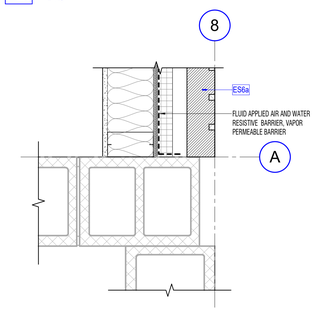
B4 Guardrail
1" = 1'-0"



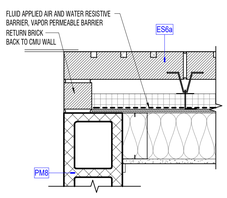
A5 Removeable Guard Rail @ Mezzanine
1 1/2" = 1'-0"



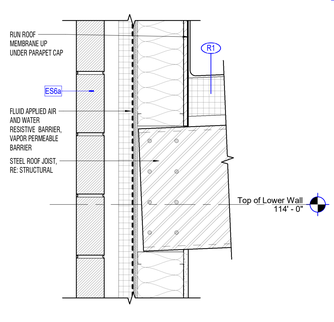
A6 Stair Handrail Section
1 1/2" = 1'-0"



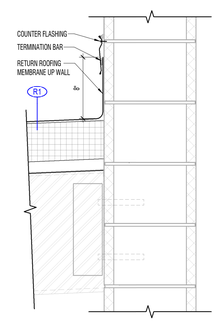
A1 Plan Detail
1 1/2" = 1'-0"



A2 Plan Detail
1 1/2" = 1'-0"



A3 Roof Connection - Lower
1 1/2" = 1'-0"



A4 Roof Connection - Upper
1 1/2" = 1'-0"

method studio
360 west aspen avenue
salt lake city, utah 84101
801 532 4422

project:

BYUI Engineering Technology Center (ETC)

525 South Center Street
Rexburg, ID 83440

project#: 20.0220
byuidaho project#: 12005
date: october 27, 2020

revisions :

1	Addendum #1	11/5/2020

title:

General Construction Details

sheet:

AE521

100% construction documents

FINISH SCHEDULE

SCHEDULED MATERIALS AND FINISHES SHALL BE USED FOR BASIS OF DESIGN U.N.O.

CODE	PRODUCT TYPE	MANUFACTURER	STYLE	COLOR	SPECIFICATION	FINISH NOTES/ REMARKS
DIVISION 03 - CONCRETE						
PS-01	POLISHED SEALED CONCRETE				UP TO 3200 GRIT HIGH GLOSS POLISHED FINISH, SILICATE HARDENER/SEALER AND PENETRATING SEALER; SEE SPECIFICATION FOR ADDITIONAL INFORMATION. GENERAL CONCRETE FINISH. SEE FINISH PLAN FOR LOCATIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.	
SC-01	SEALED CONCRETE				SEE FINISH PLAN FOR LOCATIONS. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.	
DIVISION 05 - METALS						
MP-01	HOT ROLLED STEEL	-	16 GAUGE STEEL	CLEAR COAT	SEE INTERIOR ELEVATIOS FOR LOCATION	
MP-02	STEEL ANGLE IRON	-	3X3X1/8	CLEAR COAT	SEE INTERIOR ELEVATIOS FOR LOCATION	
MP-03	HOT ROLLED STEEL	-	3X1/8	CLEAR COAT	SEE INTERIOR ELEVATIOS FOR LOCATION	
DIVISION 06 - WOODS, PLASTICS & COMPOSITES						
FRP-01	FIBERGLASS REINFORCED PANEL	MARLITE	STANDARD FRP - SMOOTH	S 100G WHITE	@ JANOTOR & CUSTODIAL, SEE INTERIOR ELEVATIONS FOR LOCATION	
PL-01	PLASTIC LAMINATE	NEVAMAR	HPL	GLISTENING TRAILS - WH1000	SEE INTERIOR ELEVATIONS FOR LOCATION	
PL-02	PLASTIC LAMINATE	WILSONART	78 FINEGRAIN FINISH WITH AEON	MONTANA WALNUT	@ BREAKROOM & AUTO TOOL ROOM, SEE INTERIOR ELEVATIONS FOR LOCATIONS	
PL-03	PLASTIC LAMINATE	WILSONART	38 FINE VELVET TEXTURE FINISH	PEARL SOAPSTONE	@ AUTO TOOL ROOM, SEE INTERIOR ELEVATIONS FOR LOCATIONS	
DIVISION 09 - BASE & TRANSITIONS						
CB-01	CARPET WALL BASE	INTERFACE	4" FREQUENCY II	REPENTED 9422	SEE INTERIOR ELEVATIONS AND FINISH PLANS FOR LOCATIONS	
FW-01	FELT WALLCOVERING	FILZFELT	RIBSY 24X6X5/8	175 GRAPHITE	@ STUDENT COLLABORATION RE: ELEVATIONS FOR DIMENSIONS AND LOCATION. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.	TO BE PRECUT PLANKS.
RB-01	RUBBER WALL BASE	JOHNSONITE	4" TOE	63 BURNT UMBER B	SEE INTERIOR ELEVATIONS AND FINISH PLANS FOR LOCATIONS	
RB-02	RUBBER WALL BASE	JOHNSONITE	4" TOELESS	TA1 TANNERY WB	SEE INTERIOR ELEVATIONS AND FINISH PLANS FOR LOCATIONS	
RB-03	RUBBER WALL BASE	JOHNSONITE	4" TOELESS	76 CINNAMON	SEE INTERIOR ELEVATIONS AND FINISH PLANS FOR LOCATIONS	
WB-01	WOOD WALL BASE	BYU-IDAHO STANDARD	4"	TO MATCH EXISTING	SEE INTERIOR ELEVATIONS AND FINISH PLANS FOR LOCATIONS	WOOD STAINED TO MATCH EXISTING
DIVISION 09 - CEILINGS						
ACP-01	ACOUSTICAL CEILING PANEL	USG	HALCYON LOGIX ACOUSTICAL PANELS, 2X2	WHITE	SEE REFLECTED CEILING PLANS FOR LOCATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	SQUARE EDGE. 0.95 NRC RATING.
ACP-03	SPECIALTY CEILING	ARMSTRONG	TECTUM DIRECT-ATTACH CEILING, 2x8, NO DESIGN	TO MATCH DECK PAINT	SEE REFLECTED CEILING PLANS FOR LOCATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	
ACP-04	SPECIALTY CEILING	ARMSTRONG	TECTUM DIRECT-ATTACH CEILING, 2x4, NO DESIGN	TO MATCH DECK PAINT	SEE REFLECTED CEILING PLANS FOR LOCATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	
DIVISION 09 - FLOORS						
CPT-01	CARPET TILE	INTERFACE	FREQUENCY II, 19X19	REPENTED 9422	@ COORIDORS, LOBBY, RECEPTIONS, SEE FINISH FLOOR PLANS FOR LOCATIONS. INSTALL PER MANUFACTURER RECOMMENDATION	FIELD CARPET
CPT-02	CARPET TILE	INTERFACE	STEP REPEAT SR699, 19x19	IRON	@ STUDENT COLLABORATION, SEE FINISH PLANS FOR LOCATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	ACCENT CARPET
CPT-03	CARPET TILE	INTERFACE	ON LINE 138700AKOO, 9x39	PEPPER 103788	@ SEATING, SEE FINISH PLANS FOR LOCATIONS. INSTALL PER MANUFACTURERS RECOMMENDATIONS.	ACCENT CARPET
EP-01	EPOXY FLOORING	BYU-IDAHO STANDARD	TBD	TO MATCH EXISTING	SEE FINISH PLANS FOR LOCATIONS. INSTALL PER MANUFACTURER RECOMMENDATIONS.	
LVT-01	LUXURY VINYL TILE	DALTILE	BELLANT, 36x36	BL32 CONCRETE GREY	@ BREAKROOMS, SEE FINISH FLOOR PLANS FOR LOCATIONS. INSTALL PER MANUFACTURER RECOMMENDATION	
DIVISION 09 - PAINT & WALLCOVERING						
PNT-01	FIELD WALL PAINT	SHERWIN WILLIAMS	-	SHELL WHITE (BYU-IDAHO CUSTOM COLOR)	FIELD PAINT SEE FINISH PLANS AND INTERIOR ELEVATIONS FOR LOCAITONS.	1 MEDIUM LUSTER FINISH
PNT-02	CEILING PAINT	SHERWIN WILLIAMS	-	SHELL WHITE (BYU-IDAHO CUSTOM COLOR)	RE: REFLECTED CEILING PLANS FOR LOCATIONS.	MATTE FINISH
PNT-03	CEILING PAINT	SHERWIN WILLIAMS	-	IRON ORE	@ STUDENT COLLABORATION EXPOSED CEILING AND WALL, SEATING AREA WALL RE: INTERIOR ELEVAITONS AND REFLECTED CEILING PLANS.	MATTE FINISH
PNT-04	DOOR JAMB PAINT	SHERWIN WILLIAMS	-	IRON ORE	@ DOOR, STAIRS, JAMBS, RAILS RE: DOOR SCHEDULE AND FLOOR PLANS	SEMI-GLOSS FINISH
PNT-05	2 PART EPOXY WALL PAINT	SHERWIN WILLIAMS	PRO INDUSTRIAL HIGH PERFORMANCE EPOXY	SHELL WHITE (BYU-IDAHO CUSTOM COLOR)	@ CONCRETE CURING ROOM RE: INTERIOR ELEVAITONS AND REFLECTED CEILING PLANS.	SEMI-GLOSS FINISH
PNT-06	EPOXY WALL PAINT	CLOVERDALE	-	RENAISSANCE	@ SHOPS, RE: INTERIOR ELEVAITONS AND REFLECTED CEILING PLANS.	SEMI-GLOSS FINISH
DIVISION 09 - TILE						
TL-01	FLOOR TILE	DALTILE	VERTUO 12X24	MAESTRO VR10	@ RESTROOMS, SEE FINISH PLANS FOR LOCATIONS. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS, 1/8" GROUT JOINT, GROUT TO BE SELECTED BY ARCHITECT FROM FULL COLOR RANGE	
TL-02	WALL TILE	DALTILE	COLOR WHEEL LINEAR 2X8	MATTE ARCTIC WHITE 0790	@ RESTROOMS, SEE INTERIOR ELEVATIONS FOR LOCATIONS. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS, 1/8" GROUT JOINT, GROUT TO BE SELECTED BY ARCHITECT FROM FULL COLOR RANGE	
TL-03	WALL TILE	CROSSVILLE	RETRO ACTIVE 2.0 AND PATTERNS 6x24	ROYAL NAVY PATTERN	@ RESTROOMS, DRINING FOUNTAIN, SEE INTERIOR ELEVATIONS FOR LOCAITONS. INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS, 1/8" GROUT JOINT, GROUT TO BE SELECTED BY ARCHITECT FROM FULL COLOR RANGE	
DIVISION 10 - SPECIALTIES						
CG-01	CORNER GUARD	KOROGARD	GS15, 1-1/2"	STAINLESS STEEL	@ ALL EXPOSED FINISH CORNERS IN HIGH TRAFFIC AREAS, QTY 4. MOUNT AT 5" AFF. INSTALL PER MANUFACTURERS RECOMMENDATIONS. SEE FINISH PLANS FOR LOCATION & QTY.	
FC-01	FIRE CABINET	JL ACADEMY	SEMI-RECESSED	ALUMINUM	SEE INTERIOR ELEVATIONS FOR LOCATIONS, INSTALL PER MANUFACTURERS RECOMMENDATIONS.	
MB-01	GLASS MARKER BOARD	CLARUS	FLOAT 4X8	C100 PURE WHITE	@ STUDENT COLLABORATION, SEE INTERIOR ELEVATIONS FOR LOCATION. INSTALL PER MANUFACTURER RECOMMENDATIONS.	
MB-02	MARKER BOARD	BYU-IDAHO STANDARD	4X6	-	@ STUDENT COLLABORATION, SEE INTERIOR ELEVATIONS FOR LOCATION. INSTALL PER MANUFACTURER RECOMMENDATIONS.	OWNER PROVIDED, OWNER INSTALLED
DIVISION 12 - FURNISHINGS						
FB-01	UPHOLSTERY	DESIGNTEX	BILLIARD CLOTH 3549-804	PEWTER	@ STUDENT COLLABORATION, SEE INTERIOR ELEVATIONS AND CASEWORK DETAILS FOR LOCATIONS.	
FB-02	UPHOLSTERY	MOMENTUM	SILICA	ARCHITECT TO SELECT FROM FULL RANGE OF COLORS	@ STUDENT COLLABORATION, SEE INTERIOR ELEVATIONS AND CASEWORK DETAILS FOR LOCATIONS.	
QTZ-01	QUARTZ COUNTERTOP	PENTAL QUARTZ 3CM	BC217P	SPARKLING GRAY	@ BREAKROOMS, STUDENT COLLAB, RESTROOMS, SEE INTERIOR ELEVATIONS FOR LOCATIONS. INSTALL PER MANUFACTURER RECOMMENDATIONS.	
RS-01	MANUAL ROLLER SHADE	MECHO 5 EXTENDED BRACKET	EQUINOX BLACKOUT	GRAPHITE 0117	@ SOUTH AND WEST WINDOWS, SEE RCP'S FOR LOCATION & QUANTITY. SEE SPECIFICATIONS FOR MORE INFORMATION.	0% OPEN
SS-01	SOLID SURFACE	CORIAN SOLID SURFACE	3CM	WHITE JASMINE	@ WINDOW SILLS, SEE WINDOW DETAILS FOR LOCATION	
ST-01	STAINLESS STEEL COUNTERTOP	-	14 GAUGE	-	@ SHOP COUNTERTOPS, SEE INTERIOR ELEVATIOS FOR LOCATION	SATIN FINISH

GENERAL NOTES

A. ALL MATERIALS LISTED MUST BE APPROVED BY SUBMITTAL PROCESS TO THE ARCHITECT

B. CONTRACTOR TO PREPARE 3' X 3' ON-SITE PAINT MOCK-UP FOR COLOR APPROVAL BY ARCHITECT PRIOR TO COMMENCING PAINTING WORK

C. UNLESS NOTED OTHERWISE, TILE INSTALLER IS TO FOLLOW TNCA & ANSI STANDARDS; ALL APPROPRIATE TRIM PIECES TO BE INCLUDED WITH TILE

D. NO SUBSTITUTIONS OR OMISSIONS PERMITTED WITHOUT PRIOR WRITTEN APPROVAL FROM ARCHITECT

E. ARCHITECT TO SELECT FROM FULL RANGE OF COLORS AND FINISHES OFFERED BY MANUFACTURERS, INCLUDING CUSTOM

F. USE CRACK ISOLATION MEMBRANCE UNDERA ALL TILE INSTALLATIONS

ACCESSORY SCHEDULE

SCEDULED MATERIALS AND FINISHES SHALL BE USED FOR BASIS OF DESIGN U.N.O.

CODE	PRODUCT TYPE	MANUFACTURER	MAKE/MODEL	FINISH	PROVIDED/INSTALLED BY	COMMENTS
10.01	MIRROR	-	POLISHED EDGE	24"X42" FRAMELESS	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	USE MIRROR ADHESIVE, DIRECT GLUE TO WALL, NO HARDWARE. SEE ELEVATIONS FOR MOUNTING HEIGHTS.
10.02	URINAL PARTITION	SCRANTON PRODUCTS	HINY HIDERS, WALL MOUNTED	GREY, ORANGE PEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.03	SOAP DISPENSER - WALL MOUNTED	WAXIE	1250ML CLEAN TOUCH MANUAL FOAM DISPENSER #386317	CHROME/BLACK	OWNER PROVIDED/OWNER INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.05	PAPER TOWEL DISPENSER	BOBRICK	SURFAC-MOUNTED PAPER TOWEL DISPENSER / B-262	SATIN STAINLESS STEEL	OWNER PROVIDED/OWNER INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.06	TOILET PARTITION	SCRANTON PRODUCTS	HINY HIDERS	GREY, ORANGE PEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.07	BABY CHANGING STATION	BOBRICK / KOALA	HORIZONTAL RECESS MOUNTED #KB110-SSRE	STAINLESS STEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.08	TOILET SEAT COVER DISPENSER	BOBRICK	B-221 - SURFACE MOUNTED	SATIN STAINLESS STEEL	OWNER PROVIDED/OWNER INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.09	18" GRAB BAR	BOBRICK	B-68616	SATIN STAINLESS STEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.10	36" GRAB BAR	BOBRICK	B-68616	SATIN STAINLESS STEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.11	42" GRAB BAR	BOBRICK	B-5806	SATIN STAINLESS STEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.12	SANITARY NAPKIN DISPENSER	BOBRICK	B37063C / TRIMLINE SERIES RECESSED	STAINLESS STEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.13	SANITARY NAPKIN DISPOSAL	BOBRICK	B-35139 SURFACE-MOUNTED	STAINLESS STEEL	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.15	TOILET TISSUE DISPENSER	BOBRICK	B-274	SATIN STAINLESS STEEL	OWNER PROVIDED/OWNER INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.16	BULLETIN BOARD DISPLAY	FORBO	BULLITEN BOARD 90"X48"	POTATOE SKIN 2182	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.17	COAT HOOK	RICHELIEU	4" SINGLE METAL COAT HOOK / RH1163011195	BRUSHED NICKLE	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.18	WHEEL DISPLAY HOOK	PRESTIGE WHEEL	MWDH-100	BLACK	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
10.19	SPEED BRACE	FASTCAP	SPEED BRACE	WHITE 8X12	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
11.06	TELEVISION MONITOR	-	-	72" SCREEN	OWNER PROVIDED/OWNER INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS
11.06	COLUMN WRAP PROTECTION	CROWN	351096-040 ROUND YELLOW	12"	CONTRACTOR PROVIDED/CONTRACTOR INSTALLED	INSTALL PER MANUFACTURER'S RECOMMENDATIONS

TRANSITION SCHEDULE

CODE	LOCATION	MANUFACTURER	PRODUCT NAME/NUMBER	COLOR/FINISH	SPECIFICATION
TS-01	CARPET TO CONCRETE	JOHNSONITE	SLIM LINE TRANSITION	63 BURNT UMBER B	HEIGHT TO MATCH MATERIAL THICKNESS. INSTALL PER MANUFACTURERS INSTRUCTIONS | SUB-CONTRACTOR TO CONFIRM SIZE. SEE DETAIL A1/AE572.
TS-02	TILE TO CARPET	SCHLUTER	RENO-U	SATIN ANODIZED ALUMINUM	HEIGHT TO MATCH MATERIAL THICKNESS. INSTALL PER MANUFACTURERS INSTRUCTIONS | SUB-CONTRACTOR TO CONFIRM SIZE. SEE DETAIL A2/AE572.
TS-03	TILE EDGE, TILE CORNER	SCHLUTER	JOLLY	SATIN ANODIZED ALUMINUM	HEIGHT TO MATCH MATERIAL THICKNESS. INSTALL PER MANUFACTURERS INSTRUCTIONS | SUB-CONTRACTOR TO CONFIRM SIZE. SEE DETAILS A4/AE572, A6/AE572, & B1/AE572.
TS-04	COVE BASE	SCHLUTER	DILEX-HKS	SATIN ANODIZED ALUMINUM	HEIGHT TO MATCH MATERIAL THICKNESS. INSTALL PER MANUFACTURERS INSTRUCTIONS | SUB-CONTRACTOR TO CONFIRM SIZE. SEE DETAIL A3/AE572.

APPLIANCE SCHEDULE

CODE	PRODUCT	SIZE	PROVIDED BY/INSTALLED BY	COMMENTS
11.07	REFRIGERATOR	36WX72HX30D	OWNER PROVIDED/OWNER INSTALLED	@ BREAKROOMS, SEE INTERIOR ELEVATIONS FOR LOCATIONS.
11.10	MICROWAVE	24WX14HX19D	OWNER PROVIDED/OWNER INSTALLED	@ BREAKROOMS, SEE INTIERIOR ELEVATIONS FOR LOCATIONS.

method studio

360 west aspen avenue
salt lake city, utah 84101
801 532 4422

STATE OF IDAHO — KELLY BOYD MORGAN — AR-985149 — LICENSED ARCHITECT
10-27-2020

project:

BYUI Engineering Technology Center (ETC)

525 South Center Street
Rexburg, ID 83440

project#: 20.0220
byu idaho project#: 12005
date: october 27, 2020

revisions :

1 Addendum #1 11/5/2020

title:

Finish, Accessory, Appliance, & Transition Schedule

sheet:

AF601

100% construction documents

TBSE inc
STRUCTURAL ENGINEERS
233 North 1250 West #201 P. 801.298.8795
Centerville, Utah 84014 F. 801.298.1132

November 5, 2020

BYUI Engineering Technology Center (ETC) Addendum #1

SE-101

1. Steps in the slab were added between grids 5 and 6 at east side of building. Detail E2/SE501 was cut at locations.
2. Flat Slab Elevation added next to note #8 on plan
3. Note 15 was added to be able to adjust footing to the existing footing elevation. The intent is not to require any new rock blasting.
4. Note #8 had a typo. The new slab in the engine room should be 6" thick over 4" of gravel.

SE-111

1. Added note 11 to sheet. Applied note to intersection of existing to new wall at approximately grid 1.4 & B.5.
2. Cut detail C5/SE-521 next to mezzanine stairs.

SE-121

1. Added note 2 to sheet. Applied note to intersection of existing to new wall at approximately grid 1.4 & B.5.
2. Cut detail D1/SE-521 at new skylights.

SE-501

1. Added detail E2. Details shows how to change slab elevation.

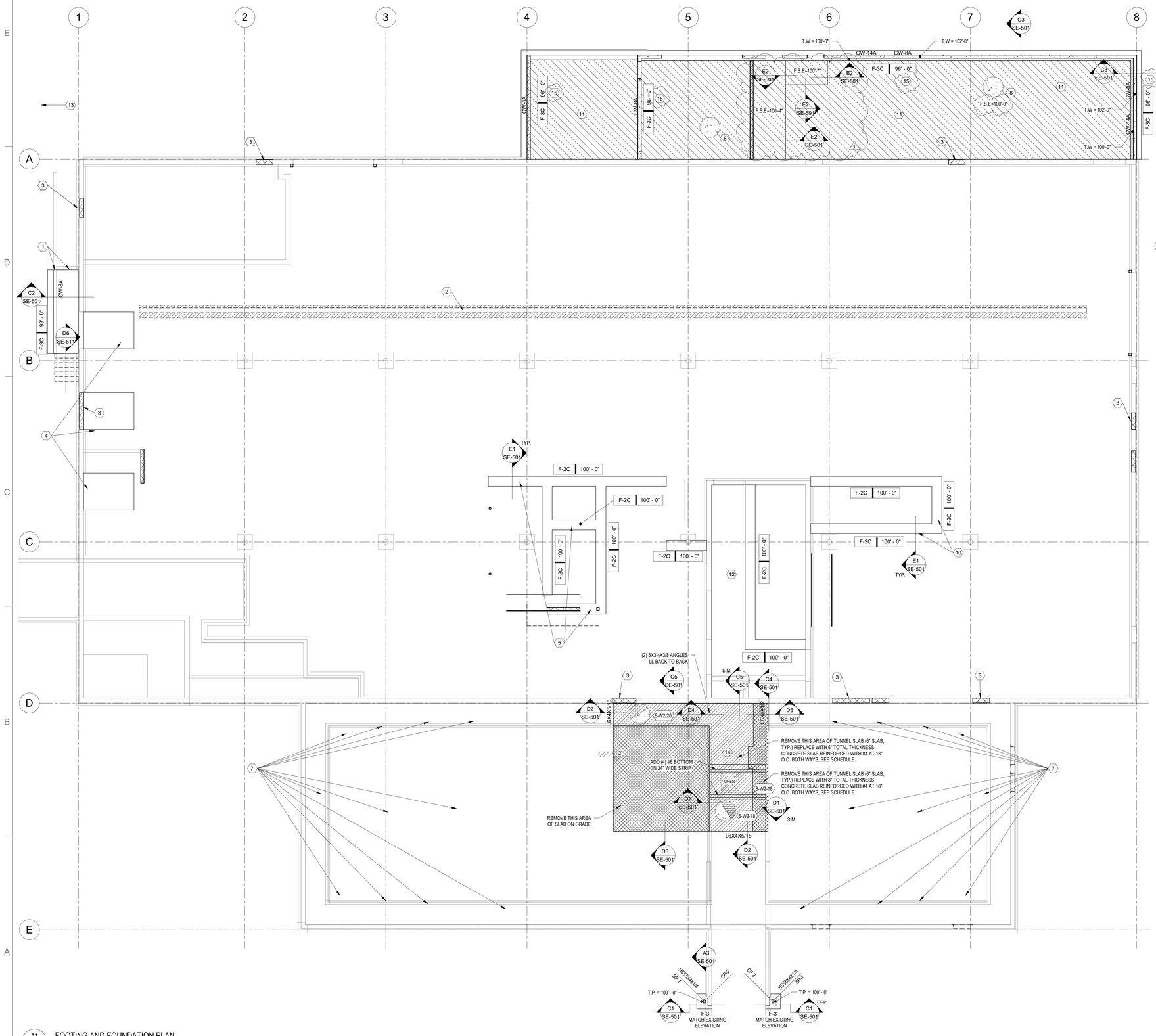
SE-521

1. Modified detail A4 to show square tube guard rail posts. Note added a separate post for gate.
2. Added detail C5. Detail shows how to install stud wall framing next to stairs and guard rail was modified to be square tubes.
3. Added detail D1. Details shows how to frame support for skylights between existing joists.

Thanks,

Donald Lee Barfuss

Donald Lee Barfuss



A1 SE-101 FOOTING AND FOUNDATION PLAN

1/8" = 1'-0"

KEYED SHEET NOTES

- INDICATES NOTES ARE KEYED ON PLAN.
- 1 DRILL AND EPOXY TO EXISTING. 5" MINIMUM EMBEDMENT.
- 2 DEMOLISH SLAB TO INSTALL NEW FRENCH DRAIN, SEE SHEET M301 FOR PIPE RUNNING PARALLEL TO FRENCH DRAIN. REPAIR AS REQ'D.
- 3 INFILL MASONRY WALL, SEE DETAIL A1/SE-511
- 4 INFILL DOCK LEVELER WITH 6" REINFORCED CONCRETE WALLS AND SLAB WITH #4 AT 18"O.C. EACH WAY. FILL WITH GRAVEL.
- 5 DEMOLISH SLAB TO INSTALL NEW FOUNDATION FOR MEZANINE. REPLACE AS REQ'D.
- 6 NOT USED.
- 7 MODIFY FLOOR VENTS, COORDINATE WITH MECHANICAL FILL EXISTNIG VENT OPENINGS WITH 1/4" PLATE THAT EXTENDS 3" PAST OPENING AND SCREW INTO CONCRETE WITH 1/4"Ø SIMPSON CONCRETE SCREWS AT 4" O.C. CUT NEW OPENINGS WITH DRILLED HOLES AT CORNERS AND CUTTING BETWEEN HOLES. DO NOT OVERCUT CORNERS.
- 8 PROVIDE NEW 6" CONCRETE SLAB ON 4" FREE DRAINING GRAVEL. REINFORCE WITH #4 AT 18"O.C. EACH WAY, CENTER OF SLAB.
- 10 NEW MW-8A REINFORCED MASONRY WALL ON 12"X2' FOOTING.
- 11 LOWER SLAB TO BE SAME ELEVATION AS MAIN BUILDING. NEW 6" SLAB ON GRADE.
- 12. FREEZER SLAB: REMOVE EXISTING TOP SLAB AND FOAM. FILL WITH GRAVEL AS REQUIRED. PROVIDE 5" SLAB ON GRADE REINFORCED WITH #4 AT 24"O.C. EACH WAY IN CENTER OF SLAB.
- 13. FOR NEW GUARDRAIL AT RETAINING WALL, SEE DETAIL D4/SE-521.
- 14. ALL STEEL ANGLES AND PLATES ETC. IN THE TUNNEL AREA SHALL BE GALV. AFTER FABRICATION.
- 15. TOP OF FOUNDATION CALLOUTS ARE APPROX. MATCH EXISTING FOUNDATION TO AVOID ROCK BLASTING.

GENERAL SHEET NOTES

- INDICATES NOTES ARE KEYED ON PLAN.
1. SEE ARCHITECTURAL DRAWINGS FOR SLOPES AND RECESSES IN FLOOR SLABS
2. FOR CONCRETE WALL REINFORCING, SEE CONCRETE WALL SCHEDULE ON SHEET SE-002.
3. FOR CONCRETE PIER/COLUMN REINFORCING, SEE CONCRETE PIER SCHEDULE ON SHEET SE-002.
4. FOR CORNER, INTERSECTION, AND END BARS IN CONCRETE WALLS SEE DETAILS A1 AND A2/SE-501.
5. FOR CONTROL JOINTS IN SLABS ON GRADE SEE DETAIL B4/SE-501.

LEGEND

- INDICATES CONCRETE SLAB ON GRADE, SEE PLAN NOTES.
- F-?? ??'-??" INDICATES CONCRETE FOOTING TYPE AND TOP OF FOOTING ELEVATION.
- INDICATES CONCRETE FOOTING & FOUNDATION WALL, SEE SCHEDULES FOR SIZE AND REINFORCING.
- CW-?? INDICATES CONCRETE WALL, SEE SCHEDULE.
- CW-?? INDICATES RECESS IN CONCRETE FOUNDATION WALL
- INDICATES RECESSED SLAB, SEE ARCH.
- INDICATES DIFFERENT SLAB THICKNESS
- INDICATES ISOLATION JOINT IN SLAB ON GRADE. SEE DETAIL
- ?" INDICATES CHANGE IN SLAB ELEVATION AND DEPTH FROM F.S.E.
- S S INDICATES STEP IN WALL
- CP-? INDICATES CONCRETE PIER (CP), SEE SCHEDULES
- MW-?? INDICATES MASONRY WALL, SEE SCHEDULE.
- MW-?? INDICATES NON-BEARING MASONRY WALL.
- MB-?? INDICATES MASONRY BEAM, SEE SCHEDULE.
- M?-? INDICATESMASONRY PIER (MP) OR COLUMN (MC), SEE SCHEDULES
- HSS?? BP-? W??X?? BP-? INDICATES STEEL HSS (HSS) OR STEEL WIDE FLANGE (W). COLUMN AND BASE PLATE, SEE SCHEDULES
- HSS?? CF INDICATES CONCRETE FILLED STEEL COLUMN, FILL WITH 4000psi SELF CONSOLIDATING CONCRETE.
- INDICATES CONCRETE ON METAL DECK

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project:

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project #:
byu idaho project # : 12006
date: Oct. 27, 2020

revisions :
1 Addendum 1 11/5/2020

title:

FOUNDATION PLAN

sheet:

SE-101

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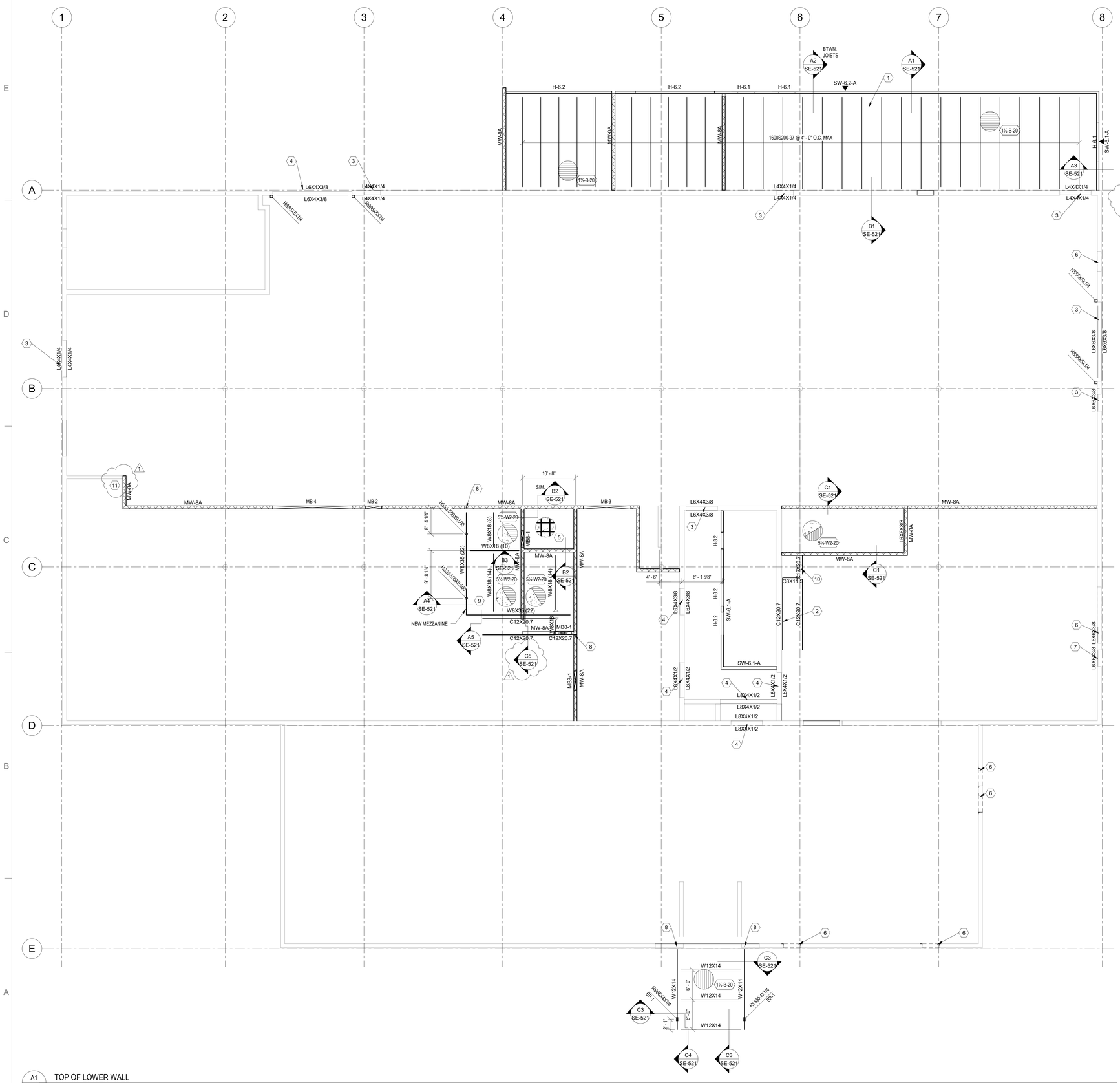

A1 SE-111 TOP OF LOWER WALL

1/8" = 1'-0"

KEYED SHEET NOTES

- INDICATES NOTES ARE KEYED ON PLAN..
1. ROOF SHEATHING/DECK...
2. BOLT STAIR STRINGER TO WALL WITH 3/4" BOLTS @ 24"O.C. IN GROUTED CELLS (2 MINIMUM PER LEG).
3. NEW DOOR OPENING IN MASONRY, SEE DETAIL C6/SE-511.
4. NEW LARGE DOOR OPENING IN MASONRY, SEE DETAIL C6/SE-511, AND C3/SE-511 AND C5/SE-511 FOR LARGE GARAGE DOOR OPENINGS.
5. 5½" SUSPENDED CONCRETE SLAB OVER CURING ROOM. REINFORCE WITH #5 @ 12"O.C. EACH WAY.
6. NEW WINDOW OPENING IN MASONRY, SEE DETAIL B6/SE-511.
7. NEW DOOR OPENING IN MASONRY, SEE DETAIL A6/SE-511
8. SEE STEEL TO MASONRY CHANNEL CONNECTION SCHEDULE ON SHEET SE-003.
9. SEE STEEL TO STEEL CONNECTION SCHEDULE ON SHEET SE-002.
10. SLEEVE LANDING CONSTRUCITON AROUND EXISTING COLUMN. ALIGN DECK SIDE SEAM AT COLUMN.
11. CUT WALL AT BLOCK JOINT, DRILL AND EPOXY 6" MIN. EMBED. MATCH SIZE AND SPACING OF NEW MASONRY WALL.

GENERAL SHEET NOTES

- INDICATES NOTES ARE KEYED ON PLAN.
1. ALL NEW MASONRY WALLS TO BE MW-8A, U.N.O.

LEGEND

- INDICATES RECESSED SLAB, SEE ARCH.
- INDICATES DIFFERENT SLAB THICKNESS
- 7" — INDICATES CHANGE IN SLAB ELEVATION AND DEPTH FROM F.S.E.
- CW-?? — INDICATES CONCRETE WALL, SEE SCHEDULE.
- CB-?? — INDICATES CONCRETE BEAM, SEE SCHEDULE.
- MW-?? — INDICATES MASONRY WALL, SEE SCHEDULE.
- MW-?? — INDICATES NON-BEARING MASONRY WALL.
- MB-?? — INDICATES MASONRY BEAM, SEE SCHEDULE.
- MP-? — INDICATESMASONRY PIER (MP) OR COLUMN (MC), SEE SCHEDULES
- ??-?? — INDICATES STEEL ROOF DECK SPAN DIRECTION AND TYPE, SEE SCHEDULES
- INDICATES BAR GRATING SPAN DIRECTION, SEE PLAN NOTES.
- OPEN — INDICATES OPENING IN DECK, SEE DETAIL ____.
- HSS?? BP-? W?X?? BP-? — INDICATES STEEL HSS (HSS) OR STEEL WIDE FLANGE (W). COLUMN AND BASE PLATE, SEE SCHEDULES
- HSS?? CF — INDICATES CONCRETE FILLED STEEL COLUMN, FILL WITH 4000psi SELF CONSOLIDATING CONCRETE.
- INDICATES CONCRETE ON METAL DECK

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byu idaho project # : 12006
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LOW ROOF FRAMING PLAN

sheet:

SE-111

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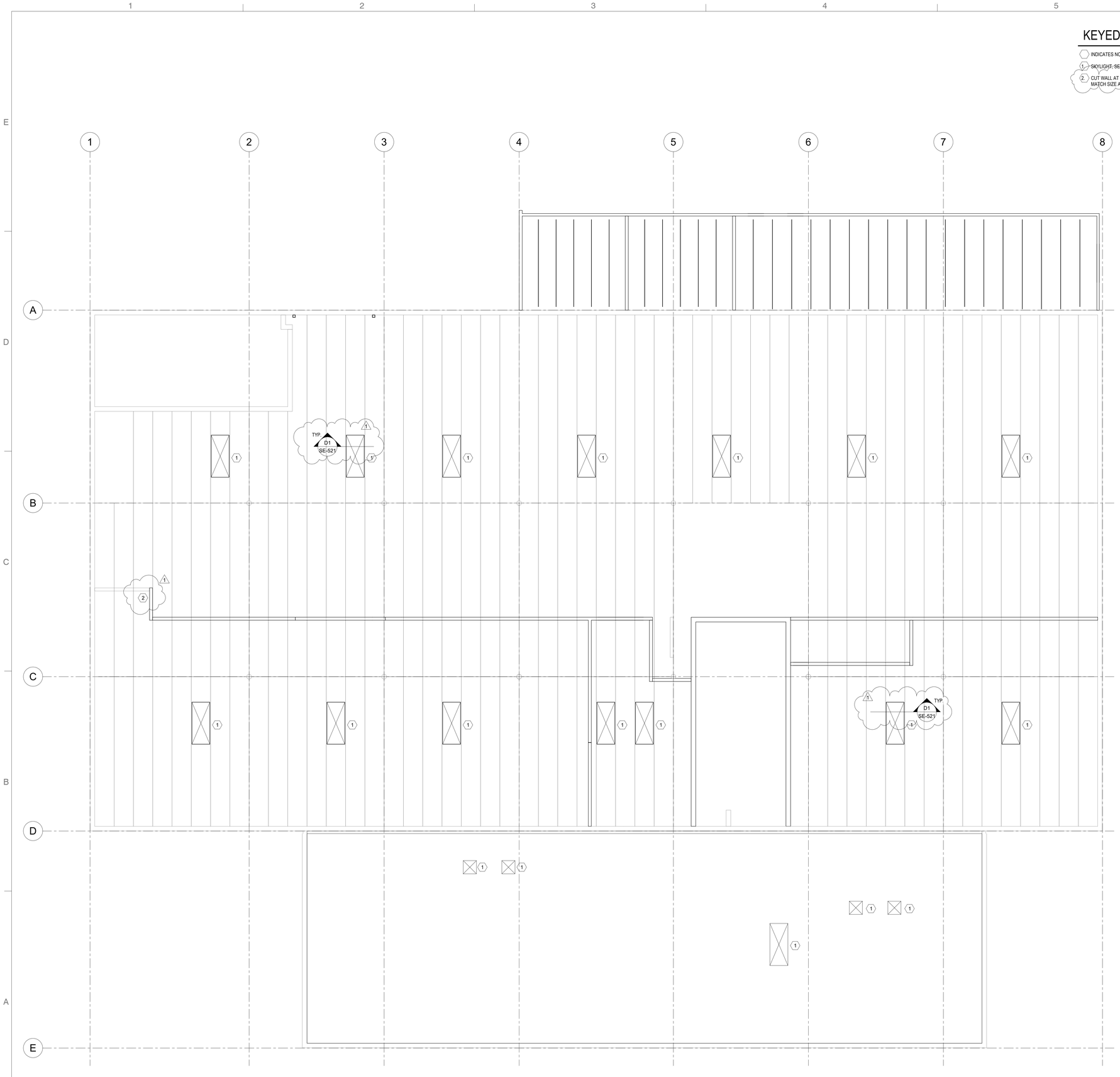
KEYED SHEET NOTES

INDICATES NOTES ARE KEYED ON PLAN.

1. SKYLIGHT, SEE ARCH.
2. CUT WALL AT BLOCK JOINT, DRILL AND EPOXY 6" MIN. EMBED. MATCH SIZE AND SPACING OF NEW MASONRY WALL.



A1 SE-121 HIGH ROOF FRAMING PLAN

1/8" = 1'-0"

LEGEND

CW-??	INDICATES CONCRETE WALL, SEE SCHEDULE.
CB-??	INDICATES CONCRETE BEAM, SEE SCHEDULE.
MW-??	INDICATES MASONRY WALL, SEE SCHEDULE.
MB-??	INDICATES MASONRY BEAM, SEE SCHEDULE.
??-??	INDICATES STEEL ROOF DECK SPAN DIRECTION AND TYPE, SEE SCHEDULES
	INDICATES BAR GRATING SPAN DIRECTION, SEE PLAN NOTES.
??-??-??	INDICATES CONCRETE ON METAL DECK SPAN DIRECTION AND TYPE, SEE SCHEDULES.
OPEN	INDICATES OPENING IN DECK, SEE DETAIL _____.
MCE-?	INDICATES MASONRY CHANNEL EMBED PLATE, SEE MASONRY SCHEDULES.
MBC-?	INDICATES MASONRY BEARING PLATE, SEE MASONRY SCHEDULES.
CCE-?	INDICATES CONCRETE CHANNEL EMBED PLATE, SEE CONCRETE SCHEDULES.
CBP-?	INDICATES CONCRETE BEARING PLATE, SEE CONCRETE SCHEDULES.
W-D-E	INDICATES BEAM WEB OPENING WIDTH-DEPTH-ELEVATION.
HSS?? BP-? WTX?? BP-?	INDICATES STEEL HSS (HSS) OR STEEL WIDE FLANGE (W). COLUMN AND BASE PLATE, SEE SCHEDULES
HSS?? CF	INDICATES CONCRETE FILLED STEEL COLUMN. FILL WITH 4000psi SELF CONSOLIDATING CONCRETE.

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byu idaho project # : 12006
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HIGH ROOF FRAMING PLAN

sheet:

SE-121

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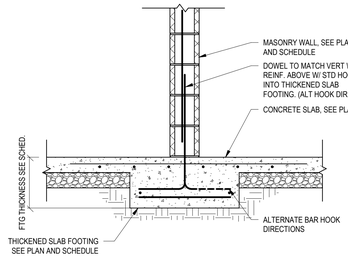
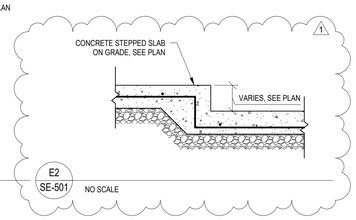


E1 SE-501 NO SCALE



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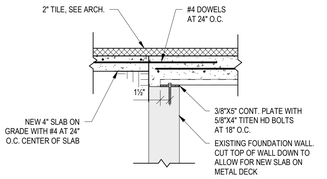

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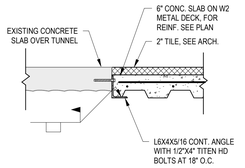

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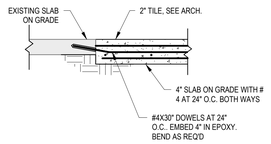

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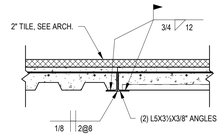

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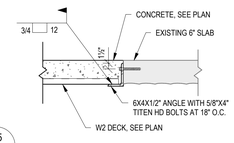

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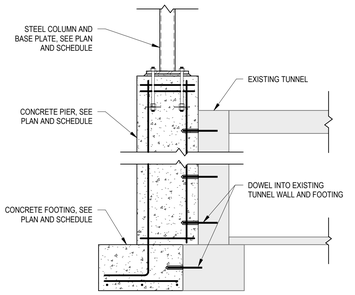
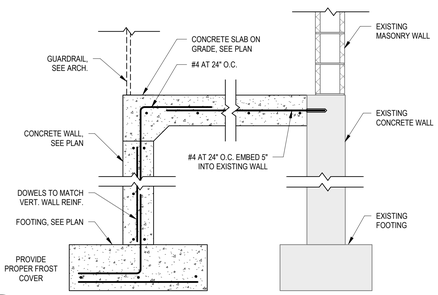


C1 SE-501 NO SCALE



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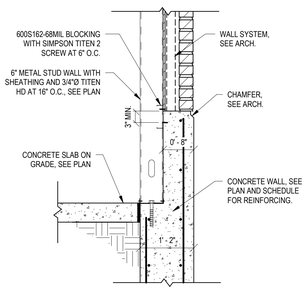

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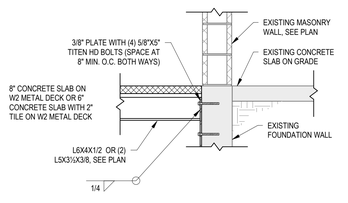

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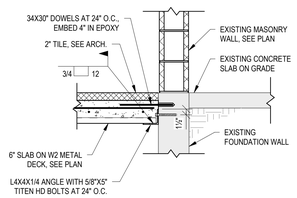

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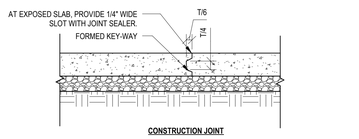
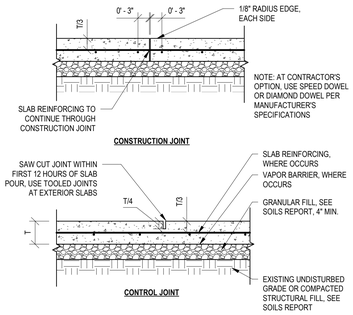


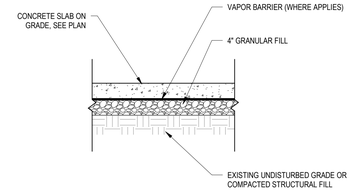
B1 SE-501 TYPICAL CONCRETE SLAB ON GRADE JOINTS

NO SCALE



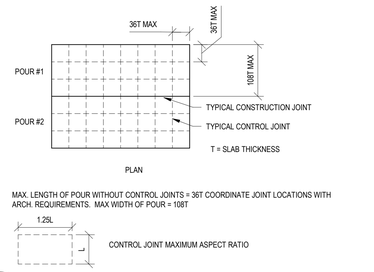
B2 SE-501 TYPICAL REINFORCED SLAB ON GRADE JOINTS

NO SCALE



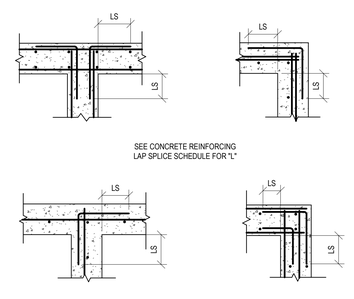
B3 SE-501 TYPICAL CONCRETE SLAB ON GRADE PROFILE

NO SCALE



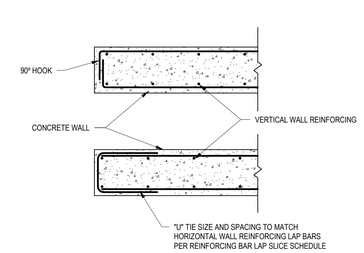
B4 SE-501 TYPICAL SLAB ON GRADE CONTROL JOINT LAYOUT

NO SCALE



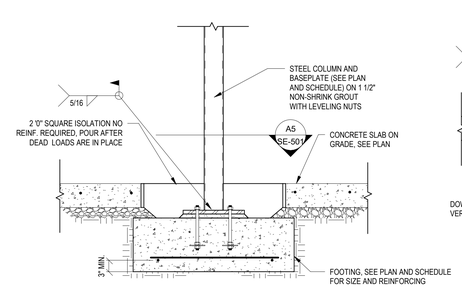
A1 SE-501 TYPICAL WALL INTERSECTION REINFORCING

NO SCALE



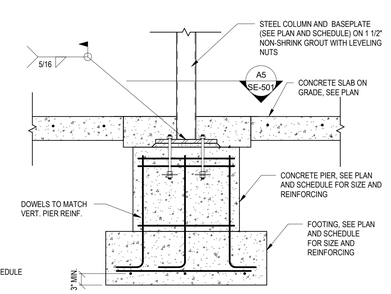
A2 SE-501 TYPICAL WALL END REINFORCING

NO SCALE



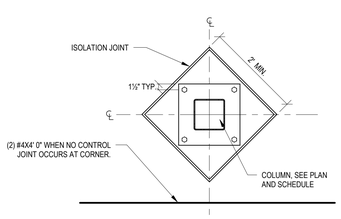
A3 SE-501 TYPICAL TUBE COLUMN CONNECTION TO FOOTING/PIER

NO SCALE



A4 SE-501 TYPICAL TUBE COLUMN BLOCKOUT

NO SCALE



A5 SE-501 TYPICAL TUBE COLUMN BLOCKOUT

NO SCALE

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FOUNDATION DETAILS

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SE-501

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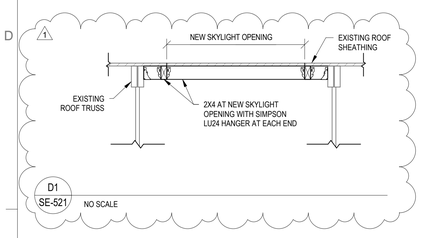
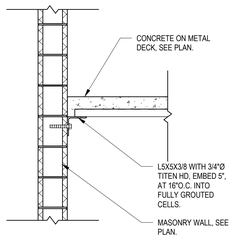
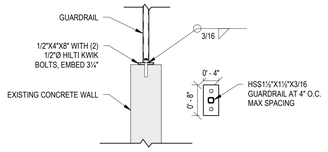


D1 SE-521 NO SCALE



C1 SE-521 3/4" = 1'-0"



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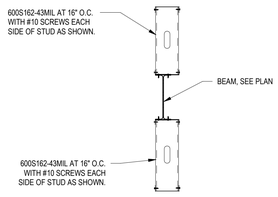

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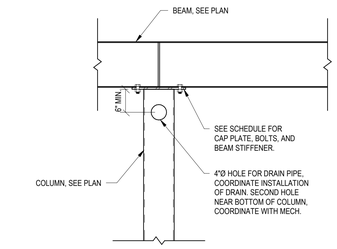
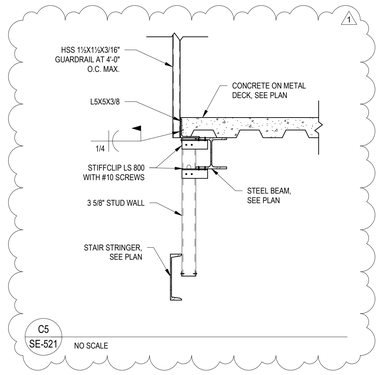
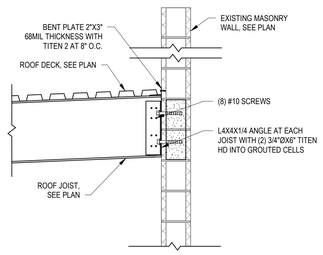


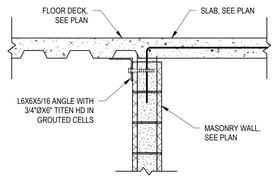
C4 SE-521 NO SCALE



C5 SE-521 NO SCALE



B1 SE-521 NO SCALE



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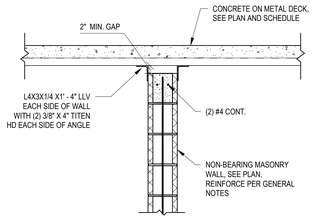
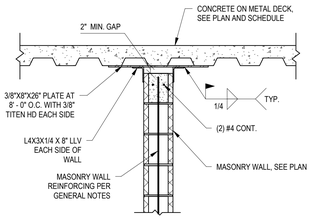
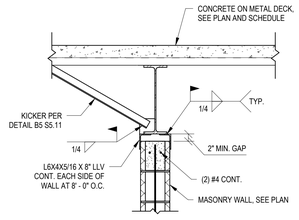


DECK PERPINDICULAR TO WALL

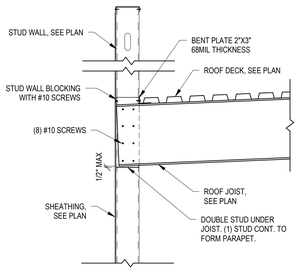
B3 SE-521 NO SCALE



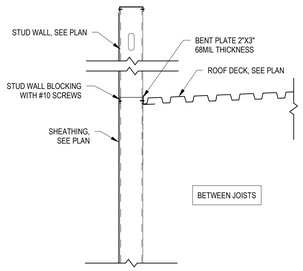
DECK PARALLEL TO WALL



WALL BELOW STEEL BEAM



A1 SE-521 NO SCALE



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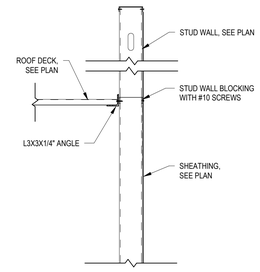
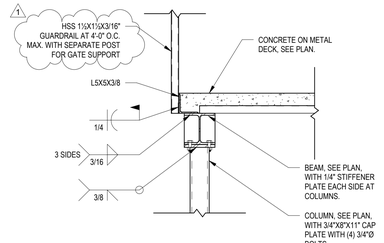
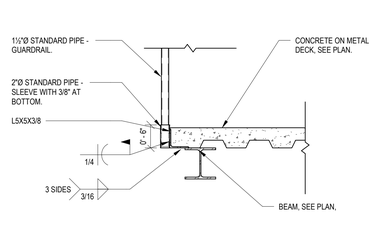


A3 SE-521 NO SCALE



A4 SE-521 3/4" = 1'-0"



A5 SE-521 3/4" = 1'-0"

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PROFESSIONAL ENGINEER LICENSED 15762 11/05/2020 STATE OF UTAH DONALD L. BARTLESS

project:

BYUI Engineering Technology Center (ETC)

525 South Center Street
Rexburg, ID 83440

project #:
byu idaho project # : 12006
date: Oct. 27, 2020

revisions :

1	Addendum 1	11/5/2020

title:

FRAMING DETAILS

sheet:

SE-521

100% Construction Documents

ELECTRICAL ADDENDUM

November 6, 2020

Method Studio
160 W. 2nd Street, Suite 201
Rexburg, ID 83440

RE: BYU-I Engineering Technology Center

General:

1. The minimum size raceway for all data/communications system cabling shall be 1".
2. The Clock system head equipment is located in Level 0 – Electrical room.
3. Electrical Contractor shall demo all existing multi-mode fiber and copper backbone within building back to closest communications vault.

Specifications:

Section 26 6210 Data Cabling System

1. All vertical network managers shall be 10" in width.

Sheets EE101a and EE101b:

1. All '2D-3' data outlets shall be changed to '2D-4'.
2. Some WAP have been removed and relocated, see revised drawings.
3. Open Office 111
    a. Reduced qty of data outlets at cubicle location, see revised drawing.
4. IT Room 135
    a. Reduce racks from 3 to 2.
    b. change (2) L6-30R to L6-20R, see revised drawing.
    c. Add data drop for Access Control Panel, see revised drawing.

Sheets EF101:

1. Provide fiber from FACP to IT room, see revised drawing.

END OF ELECTRICAL ADDENDUM

SHOP EQUIPMENT SCHEDULE

ID	DESCRIPTION	VOLTS	PH.	HP	AMPS	PANEL	CIRCUIT	FEEDER	CONNECTION TYPE	MTG HEIGHT	NOTES
A-8	TRANMISSION JACK	120 V	1	N/A	12 A			3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
A-11	PARTS WASHER	208 V	3	N/A	40 A	AB	79,81,83	1"C.,3#6+1#6G	DISC. - 60A/3P	VERIFY	1,2,4
A-14	2-POST HOIST	208 V	1	2	12 A			3/4"C.,2#12+1#12G	DIRECT	VERIFY	1,2
A-A1	AIR COMPRESSOR #1	208 V	3	7.5	23 A	AB	68,70,72	1"C.,3#6+1#6G	DISC. - 60A/3P	VERIFY	1,2,4
A-A2	AIR COMPRESSOR #2	208 V	3	10	32 A	AB	74,76,78	1"C.,3#6+1#6G	DISC. - 60A/3P	VERIFY	1,2,4
AT-6	PHAROS PRINTING STATION	120 V	1	N/A	5 A	AA	17	3/4"C.,2#12+1#12G	(2) RECPT. NEMA 5-20R	42" AFF	1,2
CC-1	CURING TANK	120 V	1	N/A	5 A	AA	31	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	VERIFY	1,2
CS-4	SOIL ASPHALT OVENS	120 V	1	N/A	10 A	D		3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
CS-10	SLEEVE CLEANER	120 V	1	N/A	10 A	D	15	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	AC	1,2
CS-14	SMALL SOIL MIXER	120 V	1	N/A	10 A	D	21	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
CS-15	LARGE SOIL MIXER	120 V	1	N/A	10 A	D		3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
CS-17	ASPHALT GYRATORY COMPACTOR	208 V	1	N/A	12 A	D	39,41	3/4"C.,2#12+1#12G	RECPT. NEMA L6-20R	42" AFF	1,2
CS-18	INSTRON TESTING MACHINE	120 V	1	N/A	12 A	D	35	3/4"C.,2#10+1#10G	RECPT. NEMA L6-20R	42" AFF	1,2
CS-22	VACUUM PUMP	120 V	1	N/A	10 A	D	18	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	18" AFF	1,2
CS-24	PRO-LOADER AND TRIAXIAL CELL	120 V	1	N/A	10 A	D	17	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	AC	1,2
CS-27	SULFER CAPPING COMPOUND MELTING POT	120 V	1	N/A	10 A	H	18	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	AC	1,2
HB-4	TABLE SAW	208 V	1	N/A	20 A	H	36,38	3/4"C.,2#10+1#10G	30A/250V RECEPTACLE	42" AFF	1,2
HB-5	BAND SAW	120 V	1	N/A	14 A	H	12	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
HB-6	JOINTER	208 V	1	N/A	8 A	H	32,34	3/4"C.,2#12+1#12G	20A/250V RECEPTACLE	42" AFF	1,2
HB-7	HORIZONTAL BELT SANDER	208 V	3	N/A	12 A	H	31,33,35	3/4"C.,3#12+1#12G	RECPT. NEMA L6-20R	42" AFF	1,2
HB-8	DISC/VERTICAL BELT SANDER	208 V	3	N/A	12 A	H	37,39,41	3/4"C.,3#12+1#12G	RECPT. NEMA L6-20R	42" AFF	1,2
HB-9	DRILL PRESS	120 V	1	N/A	8 A	H	10	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
HB-10	PANEL SAW	120 V	1	N/A	10 A	H	8	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
HB-12	METAL ABRASIVE CHOP SAW	120 V	1	N/A	12 A	H	22	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
HB-14	TILE SAW	120 V	1	N/A	10 A	H	20	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
HB-15	TABLE SAW DUST COLLECTOR	120 V	1	N/A	12 A	H	16	3/4"C.,2#12+1#12G	DIRECT	VERIFY	1,2
HB-18	MASONRY SAW	208 V	1	N/A	12 A	H	40,42	3/4"C.,2#12+1#12G	RECPT. NEMA L6-20R	42" AFF	1,2
HB-19	CONCRETE COMPRESSION TESTER	120 V	1	N/A	10 A	H	24	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2
ST-4	CONCRETE MIXER	120 V	1	N/A	10 A	H	14	3/4"C.,2#12+1#12G	RECPT. NEMA 5-20R (GFCI)	42" AFF	1,2

EQUIPMENT SCHEDULE NOTES:

1. COORDINATE CONNECTION REQUIREMENTS WITH EQUIPMENT PRIOR TO ROUGH-IN.
2. FIELD VERIFY CONNECTION AND ROUGH-IN LOCATION WITH OWNER/EQUIPMENT SUPPLIER.
3. MOUNT RECEPTACLE AT 42"AFF.
4. E.C. SHALL PROVIDE LOCAL DISCONNECT SWITCH FOR EQUIPMENT; SIZE AND TYPE AS INDICATED. IF FUSED DISCONNECT IS SPECIFIED FOR EQUIPMENT, FUSE PER EQUIPMENT NAMEPLATE RATING.

CORD-DROP SCHEDULE

ID	DESCRIPTION	NOTES
CD1	CORD DROP WITH (2) GFCI DUPLEX RECEPTACLES	REFER TO CORD DROP DETAIL ON DETAIL SHEET

CORD-REEL SCHEDULE

ID	DESCRIPTION	MFG.	PART #	NOTES
CR1	20A, 120V 45FT RETRACTABLE CORD-REEL W/(2) 20A RECPT. & GFCI MODULE	HUBBELL-WIRING	HBL45123GF220M1	PROVIDE REQUIRED MTG HARDWARE
CR2	45FT RETRACTABLE DROP-LIGHT WITH RECEPTACLE	HUBBELL-WIRING	HBLC40163FL	PROVIDE REQUIRED MTG HARDWARE
CR3	50A, 240V HEAVY-DUTY CORD REEL W/WELDER RECEPT.	K-H INDUSTRIES	RTMH4L-WW-K6K	E.C. TO PROVIDE AND INSTALL 50A RECPT. FOR WELDER

MECHANICAL - EXHAUST FAN SCHEDULE

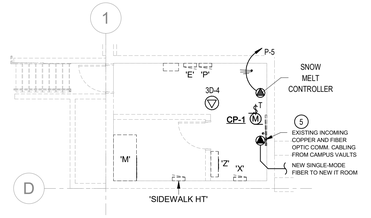
ID	#	VOLTS	PH.	HP	WATTS	PANEL	CIRCUIT	FEEDER	CONTROL	DISCONNECT TYPE	DISCONNECT SIZE	NOTES
EF	1	120 V	1		87 W	B	15	3/4"C.,2#12+1#12G	WALL TIMER SWITCH	N/A	0 A	
EF	2	120 V	1	1/4		W	18	3/4"C.,2#12+1#12G	POWER-LINK TIME-CLOCK	3R	30 A	3
EF	3	120 V	1	1/4		C	20	3/4"C.,2#12+1#12G	WALL SWITCH	3R	30 A	3
EF	4	208 V	3	3		AB	53,55,57	3/4"C.,3#12+1#12G	VFD/SWITCH	FUSED/3R	30 A	2,6
EF	5	208 V	3	3		AA	62,64,66	3/4"C.,3#12+1#12G	VFD/SWITCH	FUSED/3R	30 A	2,6
EF	6	208 V	3	2		AA	68,70,72	3/4"C.,3#12+1#12G	VFD/SWITCH	FUSED/3R	30 A	2,6
EF	7	208 V	3	2		AB	54,56,58	3/4"C.,3#12+1#12G	VFD/SWITCH	FUSED/3R	30 A	2,6
EF	8	120 V	1	1/4		C	22	3/4"C.,2#12+1#12G	SWITCH ON HOOD	3R	30 A	3
EF	9	120 V	1	1/4		D	28	3/4"C.,2#12+1#12G	WALL SWITCH	3R	30 A	3
EF	10	120 V	1	1/4		AB	36	3/4"C.,2#12+1#12G	WALL SWITCH	3R	30 A	3

MECHANICAL - HUMIDIFIER SCHEDULE

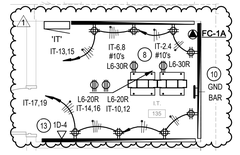
ID	#	VOLTS	PH.	KW	PANEL	CIRCUIT	FEEDER	DISCONNECT SIZE	DISCONNECT TYPE	NOTES
H	1	208 V	3	10 kW	C	32,34,36	1"C.,2#8+1#8G	30 A	FUSED/3R	2

MECHANICAL SCHEDULE NOTES:

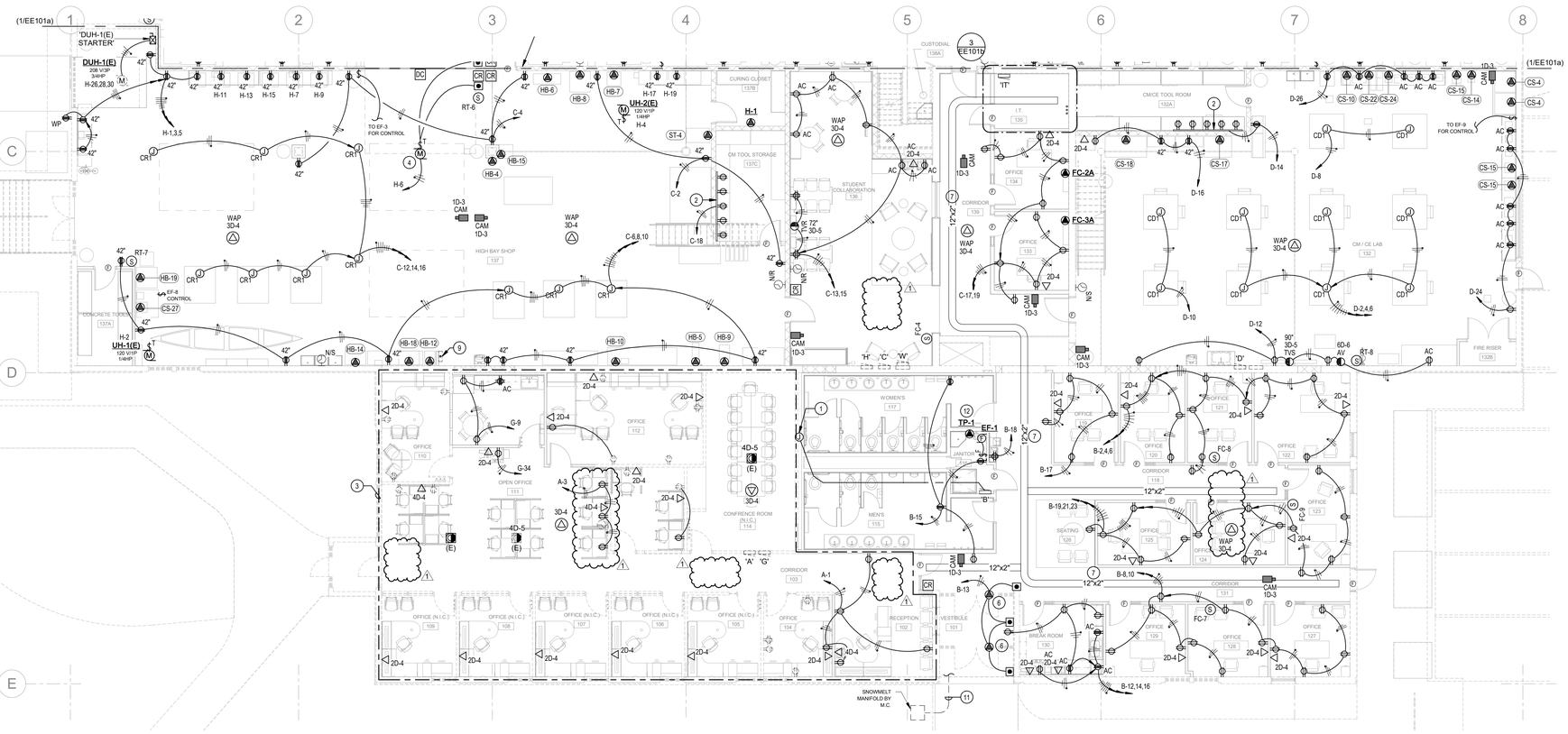
1. CIRCUIT FAN WITH ROOM LTG CIRCUIT AND CONTROL WITH ROOM LIGHTING.
2. E.C. SHALL PROVIDE LOCAL DISCONNECT SWITCH FOR EQUIPMENT; SIZE AND TYPE AS INDICATED IN SCHEDULE. IF FUSED DISCONNECT IS SPECIFIED FOR EQUIPMENT, FUSE PER EQUIPMENT NAMEPLATE RATING.
3. E.C. SHALL PROVIDE LOCAL DISCONNECT RATED, THERMAL-OVERLOAD SWITCH FOR EQUIPMENT; SWITCH RATING SHALL NOT BE LESS THEN CIRCUIT BREAKER SUPPLYING EQUIPMENT.
4. EQUIPMENT IS FACTORY SUPPLYED WITH DISCONNECT AND CONVIENENCE OUTLET; E.C. SHALL PROVIDE ALL NECESSARY CONNECTIONS.
5. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT; COORDINATE EXACT NUMBER OF CONDUCTORS BETWEEN UNITS WITH M.C. PRIOR TO ROUGH-IN.
6. EQUIPMENT PROVIDED WITH VFD; VFD BY M.C. AND CONNECTED AND INSTALLED BY E.C. COORDINATE WITH M.C PRIOR TO ROUGH-IN.
7. E.C. SHALL PROVIDE COMBINATION STARTER/DISCONNECT SWITCH FOR EQUIPMENT; SIZE AND TYPE AS INDICATED IN SCHEDULE. PROVIDE WITH CONTROL XFMR (2) SETS OF NO/NC CONTACTS, CONTROLS WITH M.C. PRIOR TO ROUGH-IN. FUSE DISCONNECT PER EQUIPMENT NAMEPLATE RATING.
8. PROVIDE AND INSTALL NEW 30A/2P BREAKER IN EXISTING SQ. D NQ PANELBOARD.



2 Level 0 - Power/Data Plan
SCALE: 1/8" = 1'-0"



3 Enlarged Plan - IT Room
SCALE: 1/4" = 1'-0"

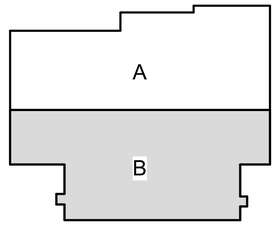


1 Level 1 - Power/Data Plan - Area 'B'
SCALE: 1/8" = 1'-0"

0" 8" 16"

NORTH

FLOOR KEY PLAN



GENERAL NOTES:

A. REFER TO SYMBOL SCHEDULE SHEET FOR PROJECT GENERAL NOTES AND GENERAL NOTES ASSOCIATED WITH THE INSTALLATION OF EACH SYSTEM, INCLUDING BUT NOT LIMITED TO; LIGHTING, POWER, FIRE ALARM, SPECIAL SYSTEMS, ETC.

KEY NOTES:

1 EXISTING PANEL 'B' TO BE REMOVED AND REPLACES WITH J-BOX; DISCONNECT AND MAINTAIN EXISTING FEEDER. PROVIDE AND INSTALL NEW FLUSH MOUNTED J-BOX WITH FLUSH MOUNTED COVER TO SPLICE AND EXTEND EXISTING FEEDER TO NEW PANEL 'B' LOCATION. J-BOX SHALL BE INSTALLED IN EXISTING WALL FACING INTO EXISTING CONF. ROOM. EXTEND NEW FEEDER TO NEW PANEL AS INDICATED.

2 PROVIDE AND INSTALL 10FT OF PLUG MOLD ABOVE FIRST SHELF. (2) HUBBELL #PT205115 MOUNTED END TO END. PROVIDE ALL COMPONENTS FOR A COMPLETE INSTALLATION. SPACE RECEPTACLES 8" ON CENTER.

3 E.C. SHALL PROVIDE AND INSTALL NEW POWER AND DATA IN PURCHASING AREA AT LOCATIONS SHOWN; PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING WALLS AND ROUTING ABOVE EXISTING ACCESSIBLE CEILING SPACE OR TUNNEL SPACES AS NEEDED. FIELD VERIFY ROUTING OF ALL NEW DATA CABLING AND POWER.

4 CONNECTION TO OVERHEAD DOOR MOTOR, COORDINATE CONNECTION WITH EQUIPMENT PRIOR TO ROUGH-IN. PROVIDE CONDUIT AND CONDUCTORS TO PUSH-BUTTON STATION PER MANUFACTURERS REQUIREMENTS.

5 E.C. SHALL SPLICE AND EXTEND EXISTING 48-STRAND SINGLE-MODE FIBER OPTIC CABLE AND EXTEND TO NEW IT ROOM AND TERMINATE IN RACK PER BYU-I STANDARDS. FIBER OPTIC CABLE SHALL BE INSTALLED IN INNER-DUCT AND ROUTED TO NEW IT ROOM AS REQUIRED. CABLE SHALL BE INSTALLED IN CONDUIT IF ROUTED THROUGH EXPOSED AREAS. FIELD VERIFY ROUTING. DEMO ALL EXISTING MULTI-MODE FIBER AND COPPER BACKBONE WITHIN BUILDING BACK TO CLOSEST COMMUNICATIONS VAULT.

6 CONNECTION TO AUTOMATIC ADA DOORS; FIELD VERIFY CONNECTION LOCATION AND REQUIREMENTS WITH EQUIPMENT INSTALLERS. PROVIDE ALL REQUIRED ROUGH-IN AND CONNECTIONS TO PUSH-BUTTONS.

7 PROVIDE AND INSTALL NEW WIRE CABLE TRAY SYSTEM; PROVIDE AND INSTALL ALL REQUIRED MOUNTING HARDWARE AND ACCESSORIES FOR A COMPLETE INSTALLATION. REFER TO DETAILS FOR ADDITIONAL INFORMATION.

8 PROVIDE AND INSTALL (4) 30A/240V TWIST-LOCK RECEPT. AS INDICATED; FIELD VERIFY MOUNTING LOCATION WITH BYU-I IT DEPT. PRIOR TO ROUGH-IN.

9 EXISTING PULLBOX AND ASSOCIATED FEEDER FOR EXISITNG PANEL TO REMAIN ACTIVE. FIELD LOCATE AND PROTECT DURING CONSTRUCTION. CONTRACTOR SHALL DISCONNECTE EXISTING MOUNTING AND SUPPORT FOR REMOVAL OF STAIRCASE AND RESUPPORT FROM NEW WING WALL.

10 PROVIDE AND INSTALL GROUND BAR(S) AS PER BYU-I CABLE STANDARD. PROVIDE AND INSTALL (1) 1"C WITH 1#6 GND TO BLDG GROUND SYSTEM LOCATED NEXT TO PANEL 'M', FIELD VERIFY LOCATION.

11 E.C. SHALL PROVIDE AND INSTALL 1"C FROM SNOWMELT MANIFOLD BOX TO SNOW MELT CONTROL PANEL LOCATED IN LEVEL 0 ELEC. ROOM. ROUTE CONDUIT THRU EXISTING TUNNEL WITH PIPING; COORDINATE WITH M.C. PROVIDE CONDUCTORS AS DIRECTED BY M.C. SEE MECH. DRAWINGS M302.

12 PROVIDE 120V POWER TO TRAP-PRIMER FROM NEAREST RECEPTACLE CIRCUIT, COORDINATE EXACT LOCATION WITH M.C PRIOR TO ROUGH-IN. SEE P301 FOR DETAIL.

13 PROVIDE DATA CONNECTION FOR ACCESS CONTROL PANEL; FIELD VEIRY MTG LOCATION WITH OWNER PRIOR TO ROUGH-IN.

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PROFESSIONAL ENGINEER REGISTERED 13053 10/27/20 STATE OF IDAHO SHAWN A. MEADOR

project:

BYUI Engineering Technology Center (ETC)

525 South Center Street
Rexburg, ID 83440

project #: 20.0220
byu idaho project #: 12006
date: oct. 27, 2020

revisions :

1 Addendum #1 11/06/20

title:

Level 1 - Power/Data Plan - Area 'B'

sheet:

EE101b

100% construction documents

P.E. JOB #2060
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GENERAL NOTES:

A. REFER TO SYMBOL SCHEDULE SHEET FOR PROJECT GENERAL NOTES AND GENERAL NOTES ASSOCIATED WITH THE INSTALLATION OF EACH SYSTEM, INCLUDING BUT NOT LIMITED TO; LIGHTING, POWER, FIRE ALARM, SPECIAL SYSTEMS, ETC.

KEY NOTES: (#)

1 PROVIDE MONITORING OF FLOW AND TAMPER SWITCHES; VERIFY EXACT NUMBER OF SWITCHES WITH FIRE SPRINKLER CONTRACTOR.

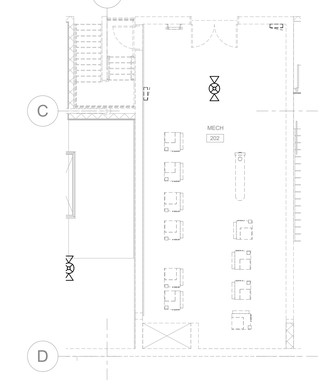
2 INSTALL FIRE BELL AND HORN/STROBE ABOVE FIRE DEPT. CONNECTION; FIELD LOCATION. COORDINATE LOCATION WITH FIRE SPRINKLER CONTRACTOR PRIOR TO ROUGH-IN.

3 E.C. SHALL PROVIDE AND INSTALL 4-STRAND SINGLE-MODE FIBER FROM 'FACP' TO NEW IT ROOM AND PROVIDE ALL REQUIRED TERMINATIONS. INSTALL FIBER IN INNER-DUCT AND CONDUIT. FIELD COORDINATE ROUTING, UTILIZED EXISTING TUNNEL WHERE POSSIBLE.

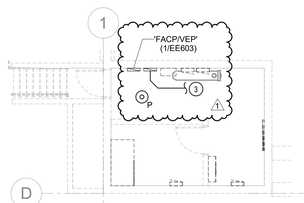
1 Level 1 - Fire Alarm Plan
SCALE: 1/8" = 1'-0"

0" 8" 16'

NORTH



2 Level 2 Fire Alarm Plan
SCALE: 1/8" = 1'-0"



0 Level 0 - Fire Alarm Plan
SCALE: 1/8" = 1'-0"

FIRE ALARM SYMBOL SCHEDULE

NOTE: ALL SYMBOLS MAY NOT BE USED

SYMBOL	DESCRIPTION
FACP/VEP	FIRE ALARM CONTROL & VOICE EVAC. PANEL (WALL MOUNTED, TOP AT 6'-0" AFF)
NAC	NOTIFICATION DEVICE EXTENDER PANEL. PROVIDE QTY AS REQUIRED BASED ON DEVICE VOLTAGE DROP CALC'S PER NFPA 72 REQUIREMENTS. (WALL MOUNTED, TOP AT 5'-0" AFF)
RA	REMOTE ANNUCIATOR PANEL (FLUSH MOUNTED IN WALL AT 5'-0" AFF)
F	MANUAL PULL STATION (MOUNTING HEIGHT PER ADA & NFPA 72)
H	MAGNETIC DOOR HOLD OPEN
CM	ADDRESSABLE CONTROL/RELAY MODULE
MM	ADDRESSABLE MONITORING MODULE
FS	FIRE ALARM FLOW SWITCH
TS	FIRE ALARM TAMPER SWITCH
P / D / H / M	ADDRESSABLE DETECTOR WITH BASE
	DETECTOR SUBSCRIPTS P PHOTOCELECTRIC SMOKE DETECTOR D DUCT SMOKE DETECTOR ID IN-DUCT SMOKE DETECTOR H HEAT DETECTOR M MULTI-STATION SMOKE DETECTOR (120V W/BATTERY BACKUP)
SD	FIRE/SMOKE DAMPER; COORDINATE LOCATIONS WITH MECH. DRAWINGS
	EXTERIOR 120V FIRE BELL. INSTALL NEXT TO FDC.
	WALL MOUNTED FIRE ALARM SPEAKER ONLY
	WALL MOUNTED FIRE ALARM STROBE ONLY (CANDELA RATING AS REQUIRED)
	CEILING MOUNTED FIRE ALARM STROBE ONLY (CANDELA RATING AS REQUIRED)
	WALL MOUNTED FIRE ALARM SPEAKER STROBE (CANDELA RATING AS REQUIRED)
	CEILING MOUNTED FIRE ALARM SPEAKER STROBE (CANDELA RATING AS REQUIRED)
	CEILING MOUNTED FIRE ALARM SPEAKER ONLY

GENERAL FIRE ALARM SYSTEM NOTES

A. DO NOT INSTALL MORE THAN (10) NOTIFICATION APPLIANCES ON ANY SINGLE CLASS "A" SIGNAL CIRCUIT. DO NOT EXCEED 400 FT. OF NO. 14 WIRE IN THE TOTAL LOOP.
B. NFPA ALLOWS NOTIFICATION APPLIANCES TO BE MOUNTED AT A HEIGHT RANGE BETWEEN 80" TO 96" ABOVE FINISH FLOOR. THE PREFERRED HEIGHT IS 80". IF THIS CONFLICTS WITH OTHER TRADES OR ROOM FURNISHINGS, LOCATE AS CLOSE TO 80" AS POSSIBLE, NOT EXCEEDING 96". ALL NOTIFICATION APPLIANCES IN A COMMON ROOM OR LINE OF SIGHT SHALL BE LOCATED AT A COMMON HEIGHT.
C. MOUNT PULL STATIONS AT 46-48" A.F.F. TO THE OPERATING HANDLE TO MEET ADA REQUIREMENTS.
D. DO NOT CONNECT THE FIRE ALARM SYSTEM TO ANY DEVICE WHICH HAS A POWER HELD CONTACTS.(FLOW, TAMPER, HOOD SYSTEM, DUCT DETECTOR, ETC. FALSE ALARM WILL OCCUR.
E. ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL CONDUCTOR QUANTITIES PER FIRE ALARM SYSTEM SUPPLIER, AND AS PER NFPA AND NEC REQUIREMENTS.
F. DO NOT INSTALL ANY SMOKE OR HEAT DETECTORS WITHIN 3 FEET OF ANY AIR DIFFUSER.
G. DO NOT EXCEED 2500 FEET ON ANY ADDRESSABLE DEVICE RUN. DO NOT EXCEED 120 DEVICES ON ANY ONE ADDRESSABLE DEVICE RUN.
H. ALL AIR HANDLING EQUIPMENT 2000 CFM OR MORE MUST BE SHUT DOWN UPON FIRE ALARM AS PER LIFE SAFETY CODES.
I. ALL CLASS "B" INITIATING CIRCUITS WITH ADDRESSABLE DEVICES NEED EOLR. (END OF LINE RESISTORS).
J. IN CORRIDORS, NOTIFICATION APPLIANCES MUST BE LOCATED WITHIN 15' FROM ENDS OF CORRIDORS AND A MAXIMUM OF 100' SPACING
K. NOTIFICATION APPLIANCES TO BE SYNCHRONIZED TO PROVIDE A 3-3-3 TEMPORAL PATTERN.
L. ALL WIRING AND CONDUIT ROUTING TO BE AS DESCRIBED ON SUPPLIED SHOP DRAWINGS. FIRE ALARM PLAN IS SHOWN FOR GENERAL LOCATION AND LAYOUT ONLY.
M. THE FIRE ALARM SYSTEM TO BE IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND ADA REQUIREMENTS.
N. ELECT. CONTR. TO CONNECT SPRINKLER SYSTEM TAMPER SWITCHES AND FLOW VALVES TO FIRE ALARM SYSTEM AS REQUIRED. SEE FIRE SPRINKLER SYSTEM DRAWINGS FOR EXACT LOCATIONS AND QUANTITIES.

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project #: 20.0220
byu idaho project #: 12006
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title:

Level 1 - Fire Alarm Plan

sheet:

EF101

100% construction documents