August 15, 2013

ATTENTION ALL REQUEST FOR BID (RFB) HOLDERS

RFB NO. 313072- ADDENDUM NO. 4

ALLIANT ENERGY CENTER PAVILIONS

BIDS DUE: THURSDAY, AUGUST 22, 2013, 2:00 PM. DUE DATE AND TIME ARE NOT CHANGED BY THIS ADDENDUM.

This Addendum is issued to modify, explain or clarify the original Request for Bid (RFB) and is hereby made a part of the RFB. Please attach this Addendum to the RFB. **Bidders must acknowledge all Addenda on the Bid Form**.

PLEASE MAKE THE FOLLOWING CHANGES:

1. **Addendum 2**
   - **A.** Pre-bid Walk-through Meeting Notes, Page 1, Item 2.d.4): delete this line. Refer to the Instructions to Bidders for requirements related to this topic.

2. **Instructions To Bidders**
   - A. Replace entire Instructions To Bidders with the attached.

3. **Bid Form**
   - A. Replace entire Bid Form with the attached.

4. **Section 01 00 00 - Basic Requirements**
   - A. Paragraph 1.5-C Following Paragraph C, Modify the "Schedule of Unit Prices" Sub-paragraph 8.a as follows: Replace the text "removal of unsuitable foundation material" with "removal of unsuitable soil material"
   - B. Paragraph 1.37-A, Replace entire paragraph with the following: "Contractor-produced Drawings and Specifications shall remain property of Contractor whether Project for which they are made is executed or not. At completion of the project, General Contractor will submit marked-up as-built prints to the A/E who shall, based on these marked-up as-built prints, revise the original documents, including the electronic files, showing changes in the work made during the construction process to produce a set of Record Documents."

5. **Section 01 50 00 - Temporary Facilities And Controls**
   - A. Part 1, Paragraph 1.13-B replace "per-construction" with "pre-construction"

6. **Section 02 41 16 - Structure Demolition**
   - A. Part 3, Paragraph 3.6-C, Replace list item 2 with the following text: "WD-1 and Brick as salvaged by Owner."

7. **Section 03 30 00 – Cast in Place Concrete**
   A. Page 2, Paragraph 1.3- sub-paragraph B, Change to read: "Concrete Testing Service: Shall be performed by the Owner."
   B. Page 2, Paragraph 1.3- sub-paragraph C, Change to read: "Materials and installed work may require testing and retesting, as directed by Architect, at anytime during progress of work. Allow free access to material stockpiles and facilities. Tests, not specifically indicated to be done at Owner's expense, including retesting of rejected materials and installed work, shall be done at Contractor's expense."
   C. Page 7, Paragraph 2.4- sub-paragraph C, Delete entire paragraph C.
   D. Page 20, Item 3.14, change Paragraph A to read: "The Owner will employee a testing laboratory to perform tests and submit test results and will pay the cost of testing. Contractor shall coordinate the work and time schedule of testing with Owner's testing agency."
   E. Page 7, Delete Item 2.4, C in its intierity as related to "Slab-on-Grade Poly Fiber Reinforecment System."

8. **Section 05 30 00 - Metal Decking**
   A. Replace entire section with the attached.

9. **Section 05 50 00 – Metal Fabrications**
   A. Replace entire section with the attached.

10. **Section 05 53 13 – Bar Grating**
    A. Add this specification section to project manual.

11. **Section 06 20 00 – Interior Finish Carpentry**
    B. Paragraph 1.2-B, Add list item 5. as follows: Section 08 70 00 for Barn Door Hardware.
    C. Paragraph 2.3- Delete entire paragraph.

12. **Section 07 42 00 – Metal Wall Panels**
    A. Paragraph 2.2.C, Replace text with the following:
       1. Metal Panel 1 Color: Centria, "Silver Metallic."
       2. Metal Panels 2 and 3 Color: Varco Pruden Custom Metallic color to match Architect's sample.
    B. Paragraph 2.5.B, Delete the text: ", and not less than 22 gage (0.0299 inches) for exterior panels"

13. **Section 07 72 00 Roof Accessories**
    A. Paragraph 2.3.A.1.a, Replace text with the following:
       "a. Size: 48 inches x 48 inches"
    B. Paragraph 2.3.A, Add list item 13 as follows:
       "13. Extension Pole: Provide manufacturer's built in extension pole to extend above opening upon opening of hatch door."

14. **Section 07 95 00 - Expansion Control**
    B. Add this specification section to project manual.

15. **Section 08 33 013– Coiling Counter Doors**
    A. Replace entire section with the attached.

16. Section 08 41 13– Aluminum-Framed Entrances And Storefronts

A. Paragraph 2.7-B Replace paragraph with the following:

"B. The following hardware items are part of this section:

1. Rim Exit Device (ED1): Von Duprin #RXEL98NL-OP with Rockwood #BF157 Pull and standard strike for aluminum framing. See Section 08 70 00 for lock cylinder. Finish- US26D.
2. Closer (C12): Parallel Arm Closer with stop, LCN #4110-CUSH. Finish- Silver powder coat on metal, silver plastic covers.
3. Push/Pull Handles (PP5): 1 inch diameter bent bar full door width horizontal push and 1 inch diameter 3 1/2 x 10 inch long offset pull, identical to Rockwood BF15747. Finish- US26D.
4. Door Weatherstripping (W2): Provide manufacturer's standard entrance door weather stripping and door bottom weather sweep."

17. Section 09 29 00 - Gypsum Board

A. Paragraph 2.1-A, Add list item 6. as follows:

"6. Shaft Wall Liner Panels, square edge, ASTM C-36."

B. Paragraph 2.2 Add sub-paragraph H. as follows:

"H. Shaftwall Metal Studs: C-H or E studs formed from electro galvanized steel with matching J-runners."

18. Section 09 30 00 - Tiling

A. Paragraph 2.1-A.2 Add list items a-d as follows:

"a. Endicott Tile LLC.
b. Quarry Tile Co.
c. Summitville Tiles, Inc.
d. United States Ceramic Tile Company."

19. Section 09 65 00 - Resilient Flooring

A. Paragraph 2.2-B.1 Delete (this) list item 1 and re-number list item 2 to item 1.

20. Section 09 91 00 - Painting

A. Paragraph 2.1-A Delete the text "A schedule of selected colors will be supplied to the Contractor." and Replace with the text "Refer to Schedules in the drawings for colors."

21. Section 10 28 00 - Toilet Accessories

A. Paragraph 2.3-F Modify text as follows "Paper Towel Dispenser (PTD): **O.F.O.I**."

22. Section 14 24 00 - Hydraulic Elevators

Paragraph 2.7-B.2 Delete (this) list item 2 and re-number subsequent list items 2 through 9.

23. Section 21 05 10 – Fire Protection

A. Page 6,7, Item M Automatic Sprinklers:
Revise to as follows:

1. Office: Chrome plated, fully concealed, flush pendant equal to Victaulic Model V2736.

2. Equipment, Livestock area and Storage Rooms (Unfinished Areas): Upright with cast brass finish equal to Victaulic Model V2402.
3. Pre-function with unfinished or open ceilings. Pendant with chrome finished equal to Victualic Model V2706.

24. Section 22 42 00 - Plumbing Fixtures

A. TRENCH DRAIN (TD-1): Aco Drain S300K system, Polymer concrete, 12" internal width with slotted ductile iron grate (loading rating Class E) ASTM 536-84, **galvanized steel or rust resistant structure Frame** , and all accessories for a complete system of length indicated on Drawings. Minimum built-in base slop 0f 0.6% to drain connections.

25. Section 23 09 93 - Automatic Control Sequences

A. Paragraph 3.3.C.4: A call for heating from Room 117 shall prompt the discharge temperature to be reset gradually up to a maximum discharge temperature of 80° F (adj). **At 70° F SA temperature the VAV terminals shall be commanded to minimum position.**

B. **Paragraph 3.6: Replace entire paragraph with the following:**

A. System consists of five ventilation supply fans, approximately 104,000 cfm each, one 80,000 cfm direct fired make-up air unit and four radiant systems with multiple burner units per system.

1. The BAS shall monitor space temperature sensors (7) to stage supply fans, make-up air unit and GRV/GRH radiant heaters according to the sequences below and one outside air temperature sensor located in the mezzanine fan outside air intake.
2. The BAS shall monitor runtime on each unit. The supply fans shall be enabled in order from the unit with the shortest runtime to longest. The fan runtimes shall be capable of being reset by the owner.

B. Unoccupied Mode

1. During unoccupied periods, as determined by the owner input schedule or unit overrides, the supply fans and make-up air unit shall remain off and all supply and relief isolation dampers shall be closed. The radiant heating system zones shall be controlled to their unoccupied mode heating setpoint, 60° F (adj.)

C. The BAS shall be programmed for two occupied operational modes for selection and scheduling by the owner.

1. Livestock Event:
2. MAU-2 minimum CFM = 80,000 cfm.
3. Non-Livestock Event (intended for trade shows, expos, events with human occupants only)
4. MAU-2 minimum CFM = 30,000 cfm, supply fans are locked out.

D. Occupied Mode

1. Heating Mode (average zone temperature below 68° F):
2. First Stage: Each temperature zone (as indicated on the plans) shall stage its respective GRH burner units to maintain a heating setpoint of 68° F. MAU-2 shall be on with fan at its minimum CFM. MAU-2 heater shall modulate to maintain 65° F discharge air temperature.
3. Second Stage: MAU-2 discharge air temperature setpoint shall modulate up to 80°.

4. When average zone temperature is between heating and cooling setpoints, radiant heaters and MAU-2 burner shall be locked out. MAU-2 fan shall be at minimum CFM.
5. Cooling Mode (average zone temperature above 75° F)
6. Modulate MAU-2 fan VFD up to maximum CFM. When MAU-2 is at maximum flow, one supply fan shall start and MAU-2 shall be commanded off.
7. As the average space temperature rises, the BAS shall start additional supply fans to maintain a cooling setpoint of 75° F or outside air temperature + 2° F (whichever is greater, adjustable). Supply fans shall be staged on one at a time until 3 (adj) fans are running, after which point all 5 fans shall be staged on. Note: Avoid intermediate number of fans to prohibit fabric duct fluttering.
8. If all 5 fans are staged on and space temperature remains above cooling setpoint, MAU-2 fan shall be enabled at 100% speed.

E. Building Pressure Control
1. The BAS shall monitor a building differential pressure sensor (refer to plans for location) to prevent over-pressurization.
2. During occupied modes, the BAS shall command all relief louver isolation dampers open. These louvers are sized for relief at cool weather airflows only. The full system airflow relies on the manual overhead doors being open to allow adequate relief openings.
3. The BAS shall override the supply fan control sequences to limit the number of operating fans to maintain the building differential pressure to less than 0.15 inches W.C. (adj.). An alarm shall be generated in the BAS if the pressure control override is engaged.

F. Supply Fan Staggered Start (overload protection)
1. The BAS shall prevent supply fans from starting simultaneously. Fans shall be delayed a minimum of 15 seconds after the previous fan.

G. Make-Up Air Unit Filter Monitoring:
1. Provide differential pressure sensor across the unit filter bank. Provide alarm through BAS if differential pressure exceeds 0.5" W.C. (adj). Provide unit mounted magnahelic differential pressure gauge in parallel with sensor.

C. **Paragraph 3.7.D.2:** The BAS shall override the supply fan control sequences to limit the number of operating fans to maintain the building differential pressure to less than ~~0.25~~ **0.15** inches W.C. (adj.). An alarm shall be generated in the BAS if the pressure control override is engaged.

26. Section 23 31 16 - Fabric Air Distribution Ductwork

A. **Paragraph 1.4:** Replace paragraph with the following
a. Product shall be classified by Underwriter's Laboratories under AJIJ "Distribution Device, Air". It shall also be classified by Underwriter's Laboratories in accordance with ICC Evaluation Service AC167 and UL Subject 2518. It shall meet the latest revision NFPA 90A requirement, generating flame spread and smoke developed index less than 25/50 respectively when evaluated in accordance to UL723
b. Design & Quality Control

1. Manufacturer must have documented design support information including duct sizing, vent and orifice location, vent and orifice sizing, length, and suspension. Parameters for design, including maximum air temperature, velocity, pressure and fabric permeability, shall be considered and documented.
2. Provide an Engineering Guarantee of performance showing the throw area and velocity that will be delivered.

B. **Paragraph 1.5 Warranty**
   a. Manufacturer must provide a ~~5~~ **10** year product warranty for products supplied.
   b. Manufacturer must provide a site visit after all systems are installed and balanced to verify velocity performance of the fabric duct system. This test must be done using NEBB calibrated equipment to collect airflow readings throughout the facility. Airflow shall be within +/-10 feet per minute velocity of design requirement. Minimum grid at 10' centers. This information must then be provided to the owner for verification of system performance.

C. **Paragraph 2.1.A** Air diffusers shall be constructed of a coated woven fire retardant fabric complying with the following physical characteristics:
   a. Fabric Construction: 100% Polyethylene / **Polyester**
   b. Coating: Non-air permeable coating
   ~~c. Weight: 6.75 oz. /yd2~~
   d. Color: Custom color to be selected by architect.
   e. Air Permeability: 0 cfm/ft2 per ASTM D737, Frazier
   f. Temperature Range: 0 degrees F to 180 degrees F
   ~~g. Product must be tested in accordance with the 25/50 flame spread / smoke developed requirements of NFPA 90-A and are also classified in accordance with ICC Evaluation Service ESR 2646~~

27. Section 26 00 00 – Electrical General Provisions

A. Page 1 & 2, revise as follows:

1.4

A. Demolition of all existing equipment, light fixtures , conduit, etc. in all buildings and on the site for the new work is a part of the work for this project. Contractor shall visit the site and thoroughly examine all existing conditions of site and all buildings, structures, and other miscellaneous electrical equipment on the site of the new construction for this project. This demolition work shall include the removal of existing light fixtures (type F1) that are being reused for this project. Remove fixtures, carefully repair and clean as required and store in a dry, protected location until they are ready for reinstallation. Note, some fixtures may be supplied directly from the Owner to supplement the quantities of fixtures required to complete layout. Turn over to Owner any fixtures that are not needed for this project.

Provide all required work necessary for the removal of existing electric services including removal of all existing unused components. Contact MG&E and coordinate the removal of all existing electric services that are presently on site that will not be reused.

28. Section 27 13 00 – Communications Backbone Cabling

A. 1.2 A 3: Revise 50/125 to read 62.5/125

B. 2.5 A 1: Revise 50/125 to read 62.5/125

C. 2.5 B 1: Revise to read "Jacket Color: Orange for 62.5/125-micrometer cable

D. 2.7 C 2: Revise to read “Quick-connect simplex and duplex, type connectors. Insertion loss not more than 0.75 dB. Multimode equipment shall utilize **Type ST** connectors and Singlemode equipment shall utilize **Type LC** connectors unless otherwise noted.”

E. Clarification: Angle Polished connectors are not required for AV Singlemode fiber connections, standard flat polished is acceptable.

29. Section 31 20 00 - Earthmoving

A. Paragraph 3.18-A, Replace text with the following: "Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections."

30. Section 32 12 16 - Asphalt Paving

A. Paragraph 3.12-A, Replace text with the following: "Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections."

31. Section 32 13 13 - Concrete Paving

A. Paragraph 1.6-A, Replace text with the following: "Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment. Manufacturer to design concrete mixes."

B. Paragraph 1.6-C, Replace text with the following: "Concrete Testing Service: Owner to engage a qualified testing agency to perform material evaluation tests."

C. Paragraph 3.8-A, Replace text with the following: "Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections."

D. Paragraph 3.8-C, Replace text with the following: "Test results shall be reported in writing to Owner, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests."

1. Sheet S001

A. Replace Sheet S001 with revised Sheet S001, issued with this Addendum.

2. Sheet S201A

A. Replace Sheet S201A with revised Sheet S201A, issued with this Addendum.

3. Sheet S201B

Replace Sheet S201B with revised Sheet S201B, issued with this Addendum.

4. Sheet S201C

A. Replace Sheet S201C with revised Sheet S201C, issued with this Addendum.

5. Sheet S201D

A. Replace Sheet S201D with revised Sheet S201D, issued with this Addendum.

6. Sheet S201E

A. Replace Sheet S201E with revised Sheet S201E, issued with this Addendum.

7. Sheet S201F

A. Replace Sheet S201F with revised Sheet S201F, issued with this Addendum.

8. Sheet S202A

A. Replace Sheet S202A with revised Sheet S202A, issued with this Addendum.

9. Sheet S203A

A. Replace Sheet S203A with revised Sheet S203A, issued with this Addendum.

10. Sheet S211B

A. Replace Sheet S211B with revised Sheet S211B, issued with this Addendum.

11. Sheet S211C

A. Replace Sheet S211C with revised Sheet S211C, issued with this Addendum.

12. Sheet S800

A. Replace Sheet S800 with revised Sheet S800, issued with this Addendum.

13. Sheet S900

A. Replace Sheet S900 with revised Sheet S900, issued with this Addendum.

14. Sheet LS01 & LS02

A. General Notes: Add note # 2, " PER IFC SECTION 906.1, EXCEPTION; "PORTABLE FIRE EXTINGUISER TO BE PROVIDED WITHIN 30' OF COMMERCIAL COOKING EQUIPMENT", LOCATE IN CONCESSIONS 143". PROVIDE PORTABLE FIRE EXTINGUISHER WITHIN AREA "E" NEAR WELDING EQUIPMENT. PORTABLE FIRE EXTINGUISHERS FOR REMAINDER OF BUILDING TO BE O.F.O.I. BASED UPON THE REQUIREMENTS OF THE IFC (INTERNATIONAL FIRE CODE) AND THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT.

15. Sheet A001

A. Replace Sheet A001 with revised Sheet A001, issued with this Addendum.
B. Schedule of Interior Finishes, Revise CMU-1 Color and Number to be Moonbeam, 214B.
C. Schedule of Interior Finishes, Revise CMU-2 Color and Number to be Dusk, 243A.

16. Sheet A002

A. Revise Sheet A002 Revise DOOR/FRAME/HARDWARE SCHEDULE as follows:

DOORS					**FRAMES**			**RATING**	**REMARKS**
DOOR NO.	DOOR TYPE	DOOR MAT'L	DOOR FINISH	GLASS TYPE	FRAME TYPE	FRAME MAT'L	FRAME FINISH	FIRE RATING	
109								1 HR	
117b, c, d, e				G2					
117h	4	ALU	ANO	G4	CW-1	ALU	ANO		9
123a				G4					
123b, c									13
131a, ax, b, c, cx, d				G2					
140c, d				G4					
141a				G4					
141b, c				G4					
146									13
203, 208				-					

B. Door and Frame Remarks: add Note #13: Sliding Door (Always Unlocked from Toilet Room Side.

17. Sheet A003 – Glazing Types and Schedule

A. 1/A001: Revise Drawing Tag to 1/A003
   a. Revise Head Detail Tag to 9/A004
   b. Revise Jamb Detail Tag to 10/A004
   c. Revise Sill Detail Tag to 11/A004
   d. Add Glazing Type G2 to elevation

B. 2/A001: Revise Drawing Tag to 2/A003. Revise Title to EXTERIOR ALUMINUM FRAME TYPES.
   a. SF-2: Revise Glazing Type on the Eight (8), 3'-0" high transom lights above the doors and borrowed lights from G2 to G5.

C. 3/A001: Revise Drawing Tage to 3/A003. Revise Title to EXTERIOR ALUMINUM FRAME TYPES.
   a. CW-1: Add STOREFRONT SYSTEM to title
   b. CW-2: Add STOREFRONT SYSTEM to title
   c. CW-3: Add STOREFRONT SYSTEM to title
   d. CW-4: Add STOREFRONT SYSTEM to title
   e. CW-6: Add CURTAIN WALL SYSTEM to title
   f. CW-7: Add CURTAIN WALL SYSTEM to title
      i. Revise Glazing Type on the lowest Twelve (12), 2'-7" & 5'-4" high, lights to type G4.
      ii. Delete 5'-0" dimensions string at the top of the elevation
   g. CW-8: Add CURTAIN WALL SYSTEM to title
   h. CW-9: Add CURTAIN WALL SYSTEM to title

i. Revise Glazing Type on the lowest Four (4), 2'-7" & 5'-4" high, lights from to type G4.
ii. Revise Vertical Dimension (6'-0") to (5'-4") and Dimension (3'-0") to (3'-8") to align horizontally with CW-7.

18. Sheet A201

A. 1/A201 First Floor Reference Plan: Add dimension between column lines 22 & 23 to read, "63'-4"".

19. Sheet A201A – First Floor Plan Area A

A. General Notes: add General Note #13: Provide manual solar shades at all windows in offices 103 & 105. See schedule of interior finishes for additional information.
B. 1/A201A, Doors 100a, 100g, 102a to receive Door Operators. Include six (6) manual switches to be located by the architect. One switch to be located on 3"x6" Tube Steel, exterior of Door 100a.
C. 1/A201A, all corner guards shown are CG-1. Add 8 more CG-1 corner guards at locations to be determined by Architect on this floor plan.
D. 1/A201A, at Stair A, 101A, north and west walls are to be furred with partition type A02 over masonry walls shown.
E. 1/A201A, at Lobby 102, south wall is to be furred with partition type A01 over the masonry wall M08 shown.
F. 1/A201A, at Lobby 102, north wall is to be furred with partition type A02 over masonry wall shown.
G. 1/A201A, Elevator Machine room 109 is a 1 hour rated enclosure. North and south wall to be partition type B10 – Following UL Design No. U419 (without insulation) for joint locations and fastener schedule. East and west walls to be partition type M18 – following manufacturers or masonry association description for 1 hr assembly. Ceiling to be 1 hour rated horizontal shaft wall system, partition Type B12 (new) per revised Sheet A001.
H. 1/A201A, at Janitor Closet 110, west wall is to be partition type C50.
I. 1/A201A, at Storage 112, west wall is to be partition type C50.
J. 1/A201A, at Mechanical Room 115, west wall is to be partition type C50 (not M01)
K. 1/A201A, at IT Room 115B, west and south walls are to be partition type B50.
L. 2/A201A, Plan specific note #8 shown at south wall of Vestibule 100 is intended for the opposite side of this wall (north wall of Pre-Function Space 117.
M. 2/A201A, at Stair B, 101B, section cut 1/A512 is to be deleted.
N. 2/A201A, at Pre-Function 117, section cut 4/A506 is cut approximately 4' north of location shown through M01 wall (not through overhead door).

20. Sheet A201B

A. Plan Specific Notes: Revise Plan Specific Note # 1 to read, "2" GALVANIZED PIPE RAIL ATTACHED ENTIRE LENGTH OF WALL @ 5'-0" O.C. – LIVESTOCK TIE".
B. Add the abbreviation "SIM" to Detail Tag 1/A507 @ Elec. Room 129, Similar represents the typical wall section without Concrete Curb and CMU Masonry Veneer Wall. Metal Liner Panel and 1 ½" board insulation to extend down to floor.
C. Detail Tag 3/A507 SIM. @ Door 120b, Similar represents the typical wall section without the louver and replaced with storefront (SF-4).
D. Detail Tag 3A/A507 SIM. @ Door 120d, Similar represents the typical wall section @ overhead door assembly only, the wall construction above the overhead door would be 1/A508.

21. Sheet A201C

A. 1/A201C, First Floor Plan – Area C, Add Room Label "PAVILION BUILDING 2, ROOM NUMBER 131.
B. Detail Tag 3/A507 @ Door 131c, Should be moved to cut through door assembly.
C. Detail Tag 3A/A507 SIM. @ Door 140e, 142b, 131f, similar represents the typical wall section @ overhead door assembly only, the wall construction above the overhead door would be 1/A508.
D. Detail Tag 1/A507 SIM. @ Elec. Room 132A, Similar represents the typical wall section without Concrete Curb and CMU Masonry Veneer Wall and Metal Liner Panel.
E. Clarification to General Note # 12: Alternate# 1: All above slab work including but not limited to; plumbing fixtures, CMU wall assemblies, light gage metal ceiling assemblies, interior finishes, specialties, mechanical and electrical equipment to be considered part of Add Alternate #1. Under slab work including foundation and plumbing rough work to the perimeter of Toilet Room 134-136, to be installed as part of base building construction with future plumbing sanitary work tying into existing branch piping via slab rework be part of Add Alternate #1.
F. Plan Specific Notes: Revise Plan Specific Note # 1 to read, "2" GALVANIZED PIPE RAIL ATTACHED ENTIRE LENGTH OF WALL @ 5'-0" O.C. – LIVESTOCK TIE".

22. Sheet A201D

A. Detail Tag 6/A211B SIM., to be revised to 6/A211B MIR.
B. Detail Tag 3A/A507 SIM. @ Door 131f, Similar represents the typical wall section @ overhead door assembly only, the wall construction above the overhead door would be 1/A508.
C. Detail Tag 3/A507 SIM. @ Door 131b, Similar represents the typical wall section without the louver and replaced with storefront (SF-4).
D. Detail Tag 1/ A508 SIM. represents typical wall section for Pavilion Building 1 Area B. Pavilion 1 is a heated building. Wall sections for Pavilion Building 2 Area C & D called out will be 1/A508 SIM. Similar represents wall section without Concrete Curb, CMU Masonry Veneer Wall, Air/ Vapor Barrier and 1 ½" Board Insulation. Interior face of exposed exterior concrete wall for rubbed finish.
E. Plan Specific Notes: Revise Plan Specific Note # 1 to read, "2" GALVANIZED PIPE RAIL ATTACHED ENTIRE LENGTH OF WALL @ 5'-0" O.C. – LIVESTOCK TIE".
F. Delete Detail Tag P/211B at restrooms.

23. Sheet A201E

A. 1/A201E, add Specific Plan Note #8 to bollards at both jambs of all overhead doors.
B. 1/A201E, east wall of Room 155 and the east wall of Room 160 are to be partition type C50.
C. 1/A201E, west wall of Room 158 is to be partition type B05 including where partition is furred around column.
D. Floor Plan Specific Notes: change Note 6 to read: "Free-standing vehicle lift Owner-furnished Owner –installed".
E. 5/A201E, revise the note that is below the description of Alternate #5 to read: "Notes:
    1. As part of Alternate #5, do not omit the concrete slab-on-grade and do not omit any plumbing, HVAC, and electrical work that is below the floor.
    2. As part of Alternate bid #5, provide three HVAC louvers in the exterior walls in locations and sizes shown on Sheet M201E.

3. As part of Alternate Bid #5, omit the rigid foam insulation on the interior face of concrete walls above grade and omit the metal liner panel on the interior side of exterior walls."

24. Sheet A201F

Replace Sheet A201F with revised Sheet A201F, issued with this Addendum.

25. Sheet A202A

A. Add note on north end of Building " REFER TO ROOF PLAN 1/A203A"
B. Change section cut ?/A5?? at North-West corner of ELEV 206 to 2/A512.
C. Add ONE HOUR designation (_____ __ _____) to all four walls of ELEV 206.
D. Add Plan Note 10 to shaft located East of ELEV 206.
E. Add the following to Plan Note 10, " TEMPORARY COVER TO BE 'KOCK OUT' CONCRETE COVER. FINISHED SAME AS ADJACENT FLOORING. "
F. Revise Partition Type B04 at shaft located East of ELEV 206 to B12 SIM.
G. Change section cut ?/A??? through ELEV 206 to 4/A511.
H. Revise section cut 4/A512 through Stair A and Stair C to 1/A512. Revise graphics to have section lookin South.
I. Add Six (6) corner guards CG-1 to locations to be selected by the architect.
J. Add note in Roof Access/Storage 202A " STEEL, ROOF ACCESS LADDER WITH CAGE ".
K. Revise section cut 4/A506 along Col. 1A, just north of Col. KK to cut through wall. This section cut does not go through the opening.
L. Revise Door 201 at Stari B 201 to 201b.
M. Add ONE HOUR designation (_____ __ _____) to West, North, and East walls of Stair B 201B.
N. 2/A201A, at Stair B, 101B, section cut 2/A512 to be deleted. This section not included.
O. Add section cut 3/A511 designation going North/South through Stair B 201B.

26. Sheet A202B

A. Plan - Specific Notes: Revise note # 3 to read, "OPEN PLENUM (WALKABLE)".

27. Sheet A202C

A. Plan - Specific Notes: Revise note # 2 to read, "PROVIDE ROOF LADDER W/ CAGE ATTACHED TO PEMB GIRTS SYSTEM & 4'-0" x 4'-0" ROOF ACCESS HATCH TO WALKABLE PLENUM – SEE SPECIFICATION".
B. Plan - Specific Notes: Revise note # 3 to read, "OPEN PLENUM (WALKABLE)".

28. Sheet A202D

A. Plan - Specific Notes: Revise note # 2 to read, "PROVIDE ROOF LADDER W/ CAGE ATTACHED TO PEMB GIRTS SYSTEM & 4'-0" x 4'-0" ROOF ACCESS HATCH TO WALKABLE PLENUM – SEE SPECIFICATION".
B. Plan - Specific Notes: Revise note # 3 to read, "OPEN PLENUM (WALKABLE)".

29. Sheet A203

A. Roof Reference Plan: Add the abbreviation "TYP" to instances of Key Note # 8 shown on plan.

30. Sheet A203A

A. Remove Detail Tags 2/A806 along Col. Lines. AA and 2A.

B. Add sixteen (16) Walk Way pads to ROOF PLAN – AREA A SOUTH. To be located by the architect.
C. Add Key Note #1 at Detail Tag 3/A805 along Col. A1, South of Col. BB.

31. Sheet A211A

A. 1/A211A – Enlarged Floor Plan – Toilet Rooms: Revise tag "PTD" to be "PTD & WR".
B. 1/A211A – Room 110: Provide mop holder and FRP panels at both walls behind mop sink to a height of 5'-0" AFF.
C. 1/A211A – Partition type M01 shown on west wall of Storage 112 and Janitor 110 to be changed to partition type C50.
D. 1/A211A – All corner guards shown on this plan to be CG-1. Provide 4 additional CG-1 corner guards over and above those shown at locations to be determined by Architect.

32. Sheet A211B

A. 1-2/A211B – Enlarged Plan: Add General Note, "REFER TO STRUCTURAL DRAWINGS FOR CAST IN PLACE CONCRETE CORNER GUARDS".
B. 5/A211B – Enlarged Plan: Provide grab bars and outward swing toilet compartment door at standand sized end of row water closet compartment,Women's Toilet 126
C. 5/A211B – Enlarged Plan: Revise note to read, "PTD & WR".
D. 5/A211B – Room 125: Provide mop holder and FRP panels at both walls behind mop sink to a height of 5'-0" AFF.
E. 5/A211B – Room 121 and 122: provide "PTD & WR" in both rooms.
F. 6/A211B – Enlarged Plan: Revise note to read, "PTD & WR".
G. 6/A211B – Enlarged Plan: Provide grab bars and outward swing toilet compartment door at standard sized end of row water closet compartment,Women's Toilet 136
H. 6/A211B – Room 134: Accessory labeled TPD is to be "PTD & WR". TPD to be called out next to toilet.
I. 6/A211B – Room 135: Provide mop holder and FRP panels at both walls behind mop sink to a height of 5'-0" AFF.
J. 7/A211B – Enlarged Plan: Revise note to read, "PTD & WR".

33. Sheet A211C

A. Plan – Specific Notes: Revise note # 2 to read, "24" DEEP DEPRESSED CONCRETE SLAB W/ 6" H X 6"W CURB EDGE TO ACCOMMODATE FLOOR DRAIN REFER TO STRUCTURAL DRAWINGS".
B. Plan – Specific Notes: Revise note # 8 to read, "PROVIDE ROOF LADDER W/ CAGE ATTACHED TO PEMB GIRTS SYSTEM & 4'-0" x 4'-0" ROOF ACCESS HATCH TO WALKABLE PLENUM – SEE SPECIFICATION".
C. 1/A211B – Enlarged Plan: Revise tag to read, "1/A211C – ENLARGED PLAN".
D. 2/A211B – Enlarged Plan: Revise tag to read, "2/A211C – ENLARGED PLAN".
E. 1/A211C – Enlarged Plan: Wall Section Tag 4/A508, Should be added south of storefront assembly. This location matches the section that is drawn.
F. 1/A211C – Enlarged Plan: Revise the Wall Section Tag 4/A508 that is currently shown to read, "4/A508 SIM.". Similar represents the wall assembly drawin in the section without the soffit assembly.
G. 2/A211C – Enlarged Plan: Key Note #8, Should be moved to the southeast corner of wall demising Mechanical Room 142 and Concessions 143.
H. Concessions Equipment Schedule: Revise note #4 to read, "EXHAUST FAN BY HVAC CONTRACTOR. FINAL CONNECTION COORDINATION BY HVAC CONTRACTOR & FOOD SERVICE VENDOR".

I. Concessions Equipment Schedule: Revise equipment note #71 to read, "COORDINATE POWER REQUIREMENTS AND LOCATION WITH FOOD SERVICE VENDOR. PROVIDE COUNTERTOP GROMMET AS REQUIRED".

34. Sheet A401

A. 1/A401 – East Elevation: Revise Wall Section Tag 5/A504 to read, "4/A505"
B. 2/A401- West Elevation: Revise Wall Section Tag 3/A507 SIM. to read, "3A/A507 SIM.", Similar represents the typical wall section @ overhead door assembly only, the wall construction above the overhead door would be 1/A508.
C. 2/A401- West Elevation: Revise Wall Section Tag 3A/A507 SIM. to read, "3/A507 SIM.", Similar represents the typical wall section without the louver and replaced with storefront (SF-4).
D. 3/A401- North Elevation: Revise Wall Section Tag 3A/A507 to read, "3/A507".
E. 3/A401- North Elevation: Revise Wall Section Tag 3/A507 to read, "3A/A507".

35. Sheet A402

A. 2/A402, West Elevation: revise the note pertaining to downspouts to read "Four 4-inch x 6-inch sheet metal downspouts discharging with elbow to grade".
B. 3/A402- North Elevation: Wall Section Tag 3/A507, Should be moved to cut through door assembly.
C. 3/A402- North Elevation: Wall Section Tag 3A/A507, Should be moved to cut through Overhead Door assembly.
D. 3/A402- North Elevation: Wall Section Tag 1/A507, Should be moved to cut through Typical Wall Assembly.
E. 4/A402- North Elevation: Wall Section Tag 1/A507 to read, 3A/A507.
F. 4/A402- North Elevation: Wall Section Tag 3A/A507 to read, 3/A507.
G. 4/A402- North Elevation: Wall Section Tag 3/A507 to read, 1/A507.

36. Sheet A403

1/A403, West Elevation: revise the note pertaining to downspouts to read "Four 4-inch x 6-inch sheet metal downspouts connected to underground drain pipe".

37. Sheet A411B

A. Remove glazing designations from all Doors. Reference Door Schedule A002 for glazing types for all doors.
B. Elevation 1/A411B, Add Glazing Type G4 to borrowed light (SF-5). Add note, "Frame to be Hollow Metal, Painted"
C. Elevation 2/A411B, Add Glazing Type G4 to four (4) lights of (SF-4). Add note, "Frame to be Hollow Metal, Painted"
D. Elevation 4/A411B, Add Glazing Type G4 to five openings in SF-6. Add note, "Frame to be Hollow Metal, Painted"
E. Elevation 4/A411B, Add Glazing Type G4 to SF-SW1. Add note, "Frame to be Aluminum, Anodized"

38. Sheet A205

A. Wall Section 2, & 3, revise Detail Tag 12/A805 to 15/A805.

B. Wall Section 1, 2, 3, & 4, add insulation to fill voids in Canopy. Insulation shall be unface fiberglass batt insulation

39. Sheet A505

A. Wall Section 2, & 3, revise Detail Tag 12/A805 to 15/A805.
B. Wall Section 4, revise Detail Tag 2/A805 to 14/A805.
C. Wall Section 1, 2, & 3, add insulation to fill voids in Canopy. Insulation shall be unfaced fiberglass batt insulation extending from the wall cavity insulation at Col. 2A, left (South) to the structural 'C' channel along Col. 4A.
D. Wall Section 4, add insulation to fill voids in Canopy. Insulation shall be unfaced fiberglass batt insulation extending from the structural 'C' channel along Col. 3A left (South) to structural 'C' channel along outer edge of the canopy.

40. Sheet A506

A. Replace Sheet A506 with revised Sheet A506, issued with this Addendum

41. Sheet A507

A. Details 1, 3,3A/A507 represents typical wall sections for Pavilion Building 1 Area B. Pavilion 1 is a heated building. Wall sections for Pavilion Building 2 Area C & D called out 1, 3,3A/ A507 SIM. Similar represents wall section without Concrete Curb, CMU Masonry Veneer Wall, Metal Liner Panel, Air/ Vapor Barrier and 1 ½" Board Insulation. Interior face of exposed exterior concrete wall to have a rubbed finish.
B. Detail 2/A507 Wall Section, Revise detail note to read, "STRUCTURAL STEEL TUBE FRAME, PAINTED".
C. Detail 3/A507 Wall Section, Revise detail note to read, "CMU WALL BEYOND – BUILDING 1 ONLY".
D. Detail 3A/A507 Wall Section, Revise detail note to read, "CMU WALL BEYOND – BUILDING 1 ONLY".

42. Sheet A508

A. Detail 1/A508 represents typical wall section for Pavilion Building 1 Area B. Pavilion 1 is a heated building. Wall sections for Pavilion Building 2 Area C & D called out 1/ A508 SIM. Similar represents wall section without Concrete Curb, CMU Masonry Veneer Wall, Air/ Vapor Barrier and 1 ½" Board Insulation. Interior face of exposed exterior concrete wall for rubbed finish.
B. Detail 1/A508, Wall Section, Revise detail note to read, "2" GALVANIZED PIPE RAIL ATTACHED ENTIRE LENGTH OF WALL @ 5'-0" O.C. – LIVESTOCK TIE"
C. Detail 2/A508 Wall Section, Revise detail note to read, "STRUCTURAL STEEL TUBE FRAME (PAINTED) ANCHOR TO PEMB STRUCTURE BEYOND".
D. Detail 2/A508 Wall Section, Add detail note, "PAINT ALL EXPOSED GWB SURFACES".

43. Sheet A509

A. 1/A509, at the note calling out sheet metal cover over the insulation at the top of the concrete wall, add "24-ga. prefinished…" to the note.
B. 2/A509, at the drawing and note regarding the discharge of the downspout, revise to show the downspout discharging onto the concrete with an elbow at grade.
C. 2/A509, at the note calling out the concrete apron, change note to read: "Concrete apron – see site drawings"
D. 3/A509, change detail reference on the rake from 9/A807 to 12/A807.
E. 6/A509, add a 4-inch high plastic laminate backslpash on the back edge of the countertop.

44. Sheet A510

A. First Floor Plan – Stair A 1/A510,

a. Add One Hour designation at all walls surrounding ELEV 106 and ELEV MACHINE 109.
b. Remove P-Type designation M18 at dashed lines noting stair landing above.
c. Delete 14 ~2"x2" square boxes floating alone at the top, right, and bottom edges of enlarged plan. These were a mis-print.
d. Delete five (5) solid dots at various locations. These were a mis-print.

B. Second Floor Plan – Stair A 2/A510,
a. Add One Hour designation at all walls surrounding ELEV 206 and on the South and East walls of the adjacent mechanical chase.
b. Add partition type tag B10 to South and East walls of the mechanical chase immediately East of Elevator 206.
c. Revise P-Type M08 at North-East corner of Stair A 201 to B50.
d. Add P-Type tag B50 to South-West corner of Stair A 201, tagging entire south wall and unhatched portion of the west wall.

C. Second Floor Plan Stair A 3/A510, Revise Title to " SECTION – STAIR A AND ELEVATOR"

D. Section – Stair A and Elevator, add note " 2" x 4" x 1" SWAGED ALUMINUM BAR GRATE GUARD RAIL " along each run of stairs.

45. Sheet A703

A. Detail 1-12/A703, Revise note to read, "PTD & WR".

46. Sheet A704

A. Elevation 1/A704,
a. Add Glazing Type G3 to Five (5) upper lights of SF-7
b. Add Glazing Type G4 to lower three (3) lights of SF-7
c. Add note "Frame to be Hollow Metal, painted"

B. Elevation 2/A704, Add Glazing Type G4 to SF-SW1. Add note, "Frame to be Aluminum, Anodized"

47. Sheet A705

A. Elevation 1/A705 and Elevation 2/A705, add note " 2" x 4" x 1" SWAGED ALUMINUM BAR GRATE GURAD RAIL " at OHD-6, four (4) locations.

48. Sheet A802

Detail 6/A802 – Plan Detail: Revise note to read, "CAST IN PLACE CONC. METAL CORNER GUARD, REFER TO STRUCTURAL DRAWINGS".

49. Sheet A807

A. Detail 3/A807, Section Detail, Revise detail note to read, "STRUCTURAL STEEL COLUMN FOR PAINT"

B. Detail 7/A807, Section Detail, Revise detail note to read, "2 X 4 TREATED WOOD BLOCKING"

C. Detail 8/A807, Section Detail, Revise detail note to read, " ONE LAYER 5/8" TYPE X GWB - SEALANT BOTHS SIDES AT STOREFRONT "

D. Detail 9/A807, Section Detail, Add detail note "SHT MTL. FLASHING @ EXTERIOR CONCRETE SILL "and Revise detail note to read, " CERAMIC TILE (CT-9) – SEALANT BOTHS SIDES AT STOREFRONT"

E. Detail 10/A807, Section Detail, Add detail note, " ONE LAYER 5/8" TYPE X GWB - SEALANT BOTHS SIDES AT STOREFRONT "

F. Detail 11/A807, Section Detail, Add detail note, “SEALANT BOTHS SIDES”, and Revise detail note to read, “2 X 4 TREATED WOOD BLOCKING”.

50. Sheet A901

A. Detail 6/A901, Ceiling Detail, Add detail note “BRACING AS REQUIRED”.
B. Detail 7/A901, Ceiling Detail, Add detail note “BRACING AS REQUIRED”.
C. Detail 8/A901,
D. Detail 9/A901,
E. Detail 14/ A901, Revised title to read, “SLIDING DOOR DETAIL”
F. Detail 15/ A901,
G. Detail 16/A901,
H. Detail 18/A901,
I. Detail 19/A901,
J. Detail 23/A901, Tile Detail, Revise detail note to read “STANDARD FRP PANEL W/ ALUMINUM BASE TRIM (FRP-1), REFER TO INTERIOR FINISH SCHEDULE FOR LOCATIONS”.

51. Sheet A902

A. Section/elevation 1/A902, Revise Note “ RECLAIM BRICK. REFER TO SECTION 02 41 16 - STRUCTURE DEMOLITION ”
B. Detail at Counter 7/A902, Revise top of Reclaimed 2x10’s to be 33 ½” AFF
C. 15, 17, 20, 23/A902, Add note “2” X 4” X 1” SWAGED ALUMINUM BAR GRATE GUARD RAIL “
D. 18, 19, 21, 22, 23/A902, Add “ GENERAL NOTE: PAINT ALL EXPOSED STEEL IN STAIRS A, B, & C. COLOR PT-1. AUMINUM BAR MILL FINISH.“

52. Sheet P201E-W

A. Clarify General note # 4
4.) Alternate# 5: All above slab sanitary work shall be removed from scope of work. All under slab work shall still be installed and stubbed up through slab.

53. Sheet FP201A

A. Sprinkler piping in Pre-function open ceiling area shall run FP mains tight to structure. Branch piping and mains to be coordinated with lights and ACP panels as shown on A301A. Heads shall be downward pendant type located at the same elevation as the bottom of the ACP panels. Provide pendant chrome heads.
B. Revised Fire Protection Notes: LIGHT HAZARD GROUP 1

54. Sheet FP202A

A. Sprinkler piping in Pre-function open ceiling area shall run FP mains tight to structure. Branch piping and mains to be coordinated with lights and ACP panels as shown on A301A. Heads shall be downward pendant type located at the same elevation as the bottom of the ACP panels. Provide pendant chrome heads

55. Sheet FP201B

A. Revised Fire Protection Notes: LIGHT HAZARD GROUP 1.

56. Sheet FP201C

A. Revised Fire Protection Notes: LIGHT HAZARD GROUP 1.

57. Sheet FP201D

A. Revised Fire Protection Notes: LIGHT HAZARD GROUP 1.

58. Sheet M201B

A. Revise relief louver isolation damper note: 36"x68" RELIEF LOUVER BY OTHERS. PROVIDE **LOW VOLTAGE** MOTOR OPERATED **INSULATED** ISOLATION DAMPERS, FULL SIZE OF OPENING, TYP. 10. **MOUNT DAMPERS IN 12 GA SHEETMETAL SLEEVE.**

59. Sheet M201D

A. Revise detail note at rooms 149, 149A and 150. Refer to expanded plan ~~2~~ **7**/M301.

60. Sheet M201E

A. Add note to 1/M201E: **DEDUCT ALTERNATE #5: OMIT ALL HVAC WORK IN THIS AREA.**

61. Sheet M202B

A. Revise Supply Fan/ Silencer Arrangement Note: CONTRACTOR SHALL SUBMIT AN ENTIRE FAN, TRANSITION, AND SILENCER ARRANGEMENT (SIL-1&2) THAT MEETS THE FOLLOWING PERFORMANCE CRITERIA:
   - FAN: INLINE VANE-AXIAL OR MIXED FLOW, 104,000 CFM, MAX 49.8 OPERATING BHP @ ASSEMBLY TSP, 50 HP 460V/3PH MOTOR
   - **EXTERNAL STATIC PRESSURE (ESP): FAN SHALL BE CAPABLE OF OPERATING AT THE DESIGN AIRFLOW WHILE PROVIDING 0.82" W.C TO THE SUPPLY PLENUM.**
   - **TOTAL STATIC PRESSURE (TSP): FAN MANUFACTURER ESTIMATES FOR SYSTEM EFFECT PRESSURE DROP OF SILENCERS AND FITTINGS REQUIRED TO MEET SOUND PERFORMANCE MUST BE ADDED TO THE ESP TO ARRIVE AT THE REQUIRED OPERATING STATIC PRESSURE.**
   - LENGTH OF ASSEMBLY SHALL NOT EXCEED DIMENSIONS INDICATED.
   - SILENCERS SHALL BE SELECTED IN COMBINATION WITH THE PROPOSED FAN DISHARGE SOUND POWER TO MEET THE ASSEMBLY INLET AND OUTLET SOUND POWER LEVELS SCHEDULED.

B. Revise Fan Assembly Sound Power Level Schedule:
   a. Line 3: Unit: ~~MUA-1~~ **MUA-2.**

62. Sheet M301

A. 9/M301 Typical Pavilion Mechanical Section – South:
   a. Revise inline supply fan equipment support note: **CONTINUOUS EQUIPMENT RAILTS @ 7'-0" O.C. BY OTHERS. SEE STRUCTURAL DRAWINGS. PROVIDE STRUCTURAL MEMBERS BETWEEN RAILS TO SUPPORT EQUIPMENT AND DUCTWORK.**

63. Sheet M402

A. 8/M402: Include MAU-2 discharge air temperature sensor located in ductwork downstream of unit.

B. 10/M402

a. Revise location of RTU economizer relief openings to match RTU construction. Relief openings are located upstream of the return damper.
b. Show the return air CO2 sensor as described in the control sequences (23 09 93), located near the duct smoke detector within the common return duct upstream of fresh air duct connections.

64. Sheet M501

A. Diffuser, Register and Grille Schedule
   a. Revise Mark SG-3, SG-1 is the correct mark name, as specified in 23 37 13.
B. Fan Schedule
   a. Add remark #11: ELECTRONIC "SOFT START" MOTORS STARTERS PROVIDED BY E.C.
   b. SF-1-5 and SF-6-19: Delete remark #1 and add remark #11 referring to electronic soft starters by E.C.
C. VAV Unit W/ Elec. Heat Schedule:
   a. Revise VAV-1 min cfm to 80.
   b. Revise VAV-2 min cfm to 80.
   c. Revise VAV-4 min cfm to 270.

65. Sheet E001

A. Electrical Symbol Schedule, Add following to symbol for "CORD REEL WITH 4-DUPLEX 120 VOLT RECEPTACLES. See Specifications 26-27-26, page 3, paragraph 2.4(A)
B. Light Fixture Schedule, Add the following note to Fixture type F1: "See Specifications 26-00-00, page 1, Paragraph 1.4 (revised version included in this addendum).

66. Sheet E002

A. See revised sheet E002 that is issued with this addendum.

67. Sheet EL201A

A. Room 117, Pre-Function Space, type D1, F3 and P2B fixtures designated as emergency EM fixtures shall also be designated as NL night lignt fixtures.
B. Room 117. Provide a low voltage switch station at the north entry to the room to control lights connected to relays 1,2,3 & 4.
C. Room 117,Pre Function Space , Provide a low voltage switch station located on wall common with Stair 101B at north east corner to control fixtures (types P1,P2B, P2C,T1, T1B, T1C) south of column line MM.

68. Sheet EL201B

A. Room 129, Electric Room, add 1, Self Contained Emergency Battery unit in the center of the north wall. Connect to nearest available normal lighting circuit.

69. Sheet EL201C

A. Room 132, Electric Room, add 1, Self Contained Emergency Battery unit in the center of the north wall. Connect to nearest available normal lighting circuit.
B. Room 132A, Add 1 Self Contained Emergency Battery Unit on east wall. Connect to nearest available normal lighting circuit.

70. Sheet EL201D

A. Room 149, Electric Room, add 1, Self Contained Emergency Battery unit in the center of the north wall. Connect to nearest available normal lighting circuit.

71. Sheet EP201A

A. Room 115, Mechanical Room, feeder shown connected to panel HA1 is not correct. Feeder is actually connected to Switchboard A&B as shown on One Line Diagram on Sheet E601.
B. Add circuit 40 from Panel LA1 to every other receptacle in Office 103.
C. Add circuit 42 from Panel LA1 to (1) receptacle in Office 105.
D. Replace Receptacle on column line KK in Rm 117 with (1) 30Amp, 3ph twist-lock receptacle circuit from panel LA1 (67,69,71).

72. Sheet EP201B

A. General Note; All exterior receptacles shall be WP and GFI.
B. Add (1) 120V, 20A, 1PH connection in the middle of the North Wall for Mech. Controls for low voltage dampers. Coordinate exact location with Mechanical Contractor.
C. Add (1) 120V, 20A, 1PH connection in the middle of the South Wall for Mech. Controls for low voltage dampers. Coordinate exact location with Mechanical Contractor.

73. Sheet EP201C

A. PLAN-SPECIFIC NOTES, note 7, G.E. should be G.C. (for general contractor).
B. Note 13, add to note "See detail 9/E401".
C. General Note; All exterior receptacles shall be WP and GFI.

74. Sheet EP201D

A. General Note; All exterior receptacles shall be WP and GFI.

75. Sheet EP201E

A. General Note; All exterior receptacles shall be WP and GFI.

76. Sheet ES201A

A. Room 115B, Add fire alarm 15 cd strobe, smoke detector and heat detector.

77. Sheet ES201B

A. Room 129, Add manual fire alarm station at exterior door.

78. Sheet ES201C

A. Room 132A, Add smoke detector, heat detector and manual fire alarm station at exterior door.
B. Room 133, Add smoke and heat detector.

79. Sheet ES201D

A. Room 149, Add smoke detector, heat detector and manual fire alarm at exterior door.
B. Room 150, Add smoke and heat detector.
C. Room 144, Add smoke detector and heat detector.
D. Room 145, Add heat detector.

80. Sheet EL202A

A. Timer switch outside door to room 203 must be WP.

81. Sheet EP202A

A. Mechanical Area north of room 203, receptacles must be WP and GFI. Fire alarm signal must be WP.

82. Sheet EP202B

A. All fire alarm equipment must be weather proof.

83. Sheet EP202C

A. All fire alarm equipment must be weather proof.

84. Sheet EP202D

A. All fire alarm equipment must be weather proof.

85. Sheet E301

B. Replace Sheet E301 with revised Sheet E301, issued with this Addendum.

86. Sheet E401

A. Detail 6/E401, the exact location of the fire alarm speaker strobe must be verified on site so that it is visible from the floor as required by the fire department.

87. Sheet E402

A. Revise IT riser as shown in clouded areas including, but not limited to, the following
   1. Changed fiber pair counts.
   2. Clarified and revised work in Coliseum Fishbowl including the addition of a wall mounted rack for fiber and CAT6 patch panels and further instructions for termination of existing fiber.
   3. Revised routing and counts of CAT6 cabling for AV usage.
   4. Addition of new patch panels in Admin Building and IT closet for AV CAT6 cabling.
   5. Added notation to field verify site digital signage and marquee routing and provide temporary and permanent reconnection of these items.
   6. Addition of new patch panels in Admin Building and IT closet for AV CAT6 cabling.
   7. Revisions to notes as clouded
   8. Additional notes as clouded.

88. Sheet E501

A. Panelboard LA1B shall have 400 amp bus and no main breaker.
B. Panelboard LB2B shall have 400 amp bus and no main breaker.
C. Panelboard LB3B shall have 400 amp bus and no main breaker.
D. Panelboard LB4B shall have 400 amp bus and no main breaker.

89. Sheet E502

A. Panelboard LB5B shall have 400 amp bus and no main breaker.
B. Panelboard LC2B shall have 400 amp bus and no main breaker.
C. Panelboard LC3B shall have 400 amp bus and no main breaker.
D. Panelboard LC3C shall have 400 amp bus and no main breaker.
E. Panelboard LC4B shall have 400 amp bus and no main breaker.

90. Sheet E503

A. Panelboard LC5B shall have 400 amp bus and no main breaker.

B. Panelboard LD2B shall have 400 amp bus and no main breaker.
C. Panelboard LD3B shall have 400 amp bus and no main breaker.
D. Panelboard LD4B shall have 400 amp bus and no main breaker.
E. Panelboard LD5B shall have 400 amp bus and no main breaker.

91. Sheet E504

A. Panelboard LC6B shall have 600 amp bus and no main breaker.

92. Sheet E505

A. Motor Schedule, Starters for motors SF-20, SF-21, SF-22 shall be furnished by MC (mechanical contractor) installed by EC.
B. Motor Schedule, Disconnects for EF-4, EF-5, and EF-6 shall be furnished by MC, installed by EC.

93. Sheet E506

A. Delete Panelboard schedules LEM-B, LEM-C and LEM-D.

94. Sheet E601

A. Replace with revised sheet E601 attached with this addendum.

If any additional information about this Addendum is needed, please call J. Eric Urtes, AIA at 608/266-4798 urtes.eric@countyofdane.com.

Sincerely,
J. Eric Urtes, AIA
Project Manager

Enclosures:
00 01 01 Instructions To Bidders
00 01 03 Bid Form
05 30 00 Metal Decking
05 50 00 Metal Fabrications
05 53 13 Bar Gratings
07 95 00 Expansion Control
08 33 13 Coiling Counter Doors
Sheet S001, 30”x42” size dated 08-15-2013
Sheet S201A, 30”x42” size dated 08-15-2013
Sheet S201B, 30”x42” size dated 08-15-2013
Sheet S201C, 30”x42” size dated 08-15-2013
Sheet S201D, 30”x42” size dated 08-15-2013
Sheet S201E, 30”x42” size dated 08-15-2013
Sheet S201F, 30”x42” size dated 08-15-2013
Sheet S202A, 30”x42” size dated 08-15-2013
Sheet S203A, 30”x42” size dated 08-15-2013
Sheet S211B, 30”x42” size dated 08-15-2013
Sheet S211C, 30”x42” size dated 08-15-2013
Sheet S800, 30”x42” size dated 08-15-2013
Sheet S900, 30”x42” size dated 08-15-2013
Sheet A001, 30”x42” drawing dated 08-15-13
Sheet A201F, 30”x42” drawing dated 08-15-13
Sheet A506, 30”x42” drawing dated 08-15-13

Sheet E002, 30”x42” drawing dated 08-15-13
Sheet E301, 30”x42” drawing dated 08-15-13
Sheet E402, 30”x42” drawing dated 08-15-13
Sheet E601, 30”x42” drawing dated 08-15-13

The following drawings were developed by the food service consultant/vendor, Centerplate, and are enclosed for reference only.
FS1-1, Equipment Schedule, 24”x36” drawing dated 07-16-13
FS2, Electrical Rough-Ins Plan, 24”x36” drawing dated 07-16-13
FS3, Plumbing Rough-Ins Plan, 24”x36” drawing dated 07-16-13

INSTRUCTIONS TO BIDDERS

TABLE OF CONTENTS

1. GENERAL

A. Before submitting Bid, bidder shall thoroughly examine all Construction Documents. Successful Bidder shall be required to provide all the Work that is shown on Drawings, set forth in Specifications, or reasonably implied as necessary to complete Contract for this project.

B. Bidder shall visit site to become acquainted with adjacent areas, means of approach to site, conditions of actual site and facilities for delivering, storing, placing, and handling of materials and equipment.

C. Pre-bid meeting is scheduled on August 1, 2013 at 1:00 PM at 1919 Alliant Energy Center Way, in the main conference room. Attendance by all bidders is optional, however bidders and subcontractors are strongly encouraged to attend. Notes from pre-bid walk-through are attached to Addendum 2.

D. Failure to visit site or failure to examine any and all Construction Documents will in no way relieve successful Bidder from necessity of furnishing any necessary materials or equipment, or performing any work, that may be required to complete the Work in accordance with

Drawings and Specifications. Neglect of above requirements will not be accepted as reason for delay in the Work or additional compensation.

2. DRAWINGS AND SPECIFICATIONS

A. Drawings and Specifications that form part of this Contract, as stated in Article 1 of General Conditions of Contact, are enumerated in Document Index of these Construction Documents.

B. Request for Bids package (Construction Documents) may be downloaded from the Dane County Public Works, Highway & Transportation Department website at www.countyofdane.com/pwbids.

3. INTERPRETATION

A. No verbal explanation or instructions will be given in regard to meaning of Drawings or Specifications before Bid Due Date. Bidders shall bring inadequacies, omissions or conflicts to County or Architect / Engineer's attention at least ten (10) days before Bid Due Date. Prompt clarification will be available to all bidders by Addendum.

B. Failure to request clarification or interpretation of Drawings and Specifications will not relieve successful Bidder of responsibility. Signing of Contract will be considered as implicitly denoting that Contractor has thorough understanding of scope of the Work and comprehension of Construction Documents.

C. County or Architect / Engineer will not be responsible for verbal instructions.

D. All requests for information and inquiries about the meaning of Drawings and Specifications, and request for product approval, shall be submitted in writing. Bidders may submit via email to all the following addresses simultaneously: volkening@strang-inc.com; rgilbertsen@strang-inc.com; Urtes.Eric@countyofdane.com. Bidders may sumbit via facsimile to the following telephone number: 608-276-9204, attention Dale Volkening.

4. QUALIFICATIONS OF BIDDER (CONTRACTOR AND SUBCONTRACTOR)

A. Before award of Contract can be approved, County shall be satisfied that Bidder involved meets following requirements:

1. Has completed at least one (1) project of at least fifty percent (50%) of size or value of Division of work being bid and type of work completed is similar to that being bid. If greater magnitude of experience is deemed necessary, other than size or value of work, such requirements will be described in appropriate section of Specifications.

2. Maintains permanent place of business.

3. Can be bonded for terms of proposed Contract.

4. Has record of satisfactorily completing past projects and supplies list of five (5) most recent, similar projects, with architect or engineer's and County's names, addresses and telephone numbers for each project. Submit to Public Works Project Engineer within twenty-four (24) hours after Bid Opening. Criteria which will be considered in determining satisfactory completion of projects by bidder will include:
   a) Completed contracts in accordance with drawings and specifications.

b) Diligently pursued execution of work and completed contracts according to established time schedule unless County grants extensions.
c) Fulfilled guarantee requirements of Construction Documents.
d) Is not presently on ineligible list maintained by County's Department of Administration for noncompliance with equal employment opportunities and affirmative action requirements.
e) Authorized to conduct business in Wisconsin. By submitting Bid, bidder warrants that it has: complied with all necessary requirements to do business in State of Wisconsin; that persons executing contract on its behalf are authorized to do so; and, if corporation, that name and address of bidder's registered agent are as set forth in Contract. Bidder shall notify County immediately, in writing, of any change in its registered agent, their address, and bidder's legal status. For partnership, term "registered agent" shall mean general partner.

B. County's Public Works Project Engineer will make such investigations as are deemed necessary to determine ability of bidder to perform the Work, and bidder shall furnish to County's Public Works Project Engineer or designee all such information and data for this purpose as County's Public Works Project Engineer may request. County reserves right to reject Bid if evidence submitted by, or investigation of, bidder fails to satisfy County that bidder is responsible and qualified to carry out obligations of Contract and to complete the Work contemplated therein.

5. BID GUARANTEE

A. Bank certified check, cashier's check or Bid Bond, payable to County in amount not less than five percent (5%) of maximum bid, shall accompany each Bid as guarantee that if Bid is accepted, Bidder will execute and return proposed Contract and Performance and Payment Bonds within ten (10) days after being notified of acceptance of Bid. Company issuing bonds must be licensed to do business in Wisconsin.

B. Any bid, which is not accompanied by bid guarantee, will be considered "No Bid" and will not be read at Bid Due Date.

C. If successful Bidder so delivers Contract, Certificate of Insurance, and Performance and Payment Bonds, check will be returned to Bidder. In case Bidder fails to deliver such Contract, insurance, and bond, amount of bid guarantee will be forfeited to County as liquidated damages.

D. All checks tendered as bid guarantee, except those of three lowest qualified, responsible bidders, will be returned to their makers within three (3) days after Bid Due Date. All such retained checks will be returned immediately upon signing of Contract and Performance and Payment Bonds by successful Bidder.

6. WITHDRAWAL OF BIDS

A. Bids may be withdrawn by written request received from bidder or authorized representative thereof prior to time fixed for Bid Due Date, without prejudice to right of bidder to file new Bid. Withdrawn Bids will be returned unopened. Negligence on part of bidder in preparing their Bid confers no right for withdrawal of Bid after it has been opened.

B. No Bid may be withdrawn for period of sixty (60) days after Bid Due Date.

C. If Bid contains error, omission or mistake, bidder may limit liability to amount of bidder's guarantee by giving written Notice of Intent not to execute Contract to County within seventy-two (72) hours of Bid Due Date.

7. CONTRACT FORM

A. Sample copy of contract that successful Bidder will be required to enter into is included in these Construction Documents and bidders are required to familiarize themselves with all conditions contained therein.

8. CONTRACT INTERESTS BY COUNTY PUBLIC OFFICIALS

A. In accordance with Wisconsin Statute 946.13, county official may not bid for or enter into any contract involving receipts or disbursements of more than $15,000.00 in a year, in which they have private pecuniary interest, direct or indirect if at same time they are authorized to take official action with respect to making of this Contract. Any contract entered into in violation of this Statute is void and County incurs no liability thereon. This subsection does not affect application and enforcement of Wisconsin Statute 946.13 by state prosecutors in criminal courts of this state.

9. EMERGING SMALL BUSINESS PROVISIONS

A. **Emerging Small Business Definition.** For purposes of this provision, ESB is defined as:
   1. Independent business concern that has been in business minimum of one year;
   2. Business located in State of Wisconsin;
   3. Business comprised of less than 25 employees;
   4. Business must not have gross sales in excess of three million dollars ($3,000,000.00) over past three years; and
   5. Business does not have history of failing to complete projects.

B. **Emerging Small Business (ESB) Involvement.** Bidder shall make good faith effort to award minimum of ten percent (10%) of the Work to ESBs. Bidder shall submit report to Dane County Contract Compliance Officer within ten (10) days after Bid Due Date demonstrating such efforts. Good faith efforts means significant contact with ESBs for purposes of soliciting bids from them. Failure to make or demonstrate good faith efforts will be grounds for disqualification.

C. **Emerging Small Business Report.** Emerging Small Business Enterprise Report is to be submitted by Bidder in separate envelope marked "Emerging Small Business Report". This report is due by 2:00 p.m. following specified ten (10) days after Bid Due Date. Bidder who fails to submit Emerging Small Business Report shall be deemed not responsive.

D. **ESB Goal.** Goal of this project is ten percent (10%) ESB participation. ESB utilizations are shown as percentage of total Bid. If Bidder meets or exceeds specified goal, Bidder is only required to submit Form A - Certification, and Form B - Involvement. Goal shall be met if Bidder qualifies as ESB.

E. **Report Contents.** Following award of Contract, Bidder shall submit copies of executed contracts for all Emerging Small Businesses. Emerging Small Business Report shall consist of these:

1. Form A - Certification;

2. Form B - Involvement;

3. Form C - Contacts;

4. Form D - Certification Statement (if appropriate); and

5. Supportive documentation (i.e., copies of correspondence, telephone logs, copies of advertisements).

F. **ESB Listing.** Bidders will solicit bids from ESB listing provided by Dane County.

G. **ESB Certification.** All contractors, subcontractors and suppliers seeking ESB certification must complete and submit Emerging Small Business Certification Application to Dane County Contract Compliance Program.

H. **Certification Statement.** If ESB firm has not been certified by County as ESB prior to submittal of this Bid, ESB Report cannot be used to fulfill ESB goal for this project unless firm provides "Form D - Certification Statement". Certification statement must be completed and signed by ESB firm.

I. **Questions.** Questions concerning Emerging Small Business provisions shall be directed to:
Dane County Contract Compliance Officer
City-County Building, Room 421
210 Martin Luther King, Jr. Blvd.
Madison, WI 53703
608/266-5623

J. **Substituting ESBs.** In event of any significant changes in subcontract arrangements or if need arises to substitute ESBs, Bidder shall report such proposed changes to Contract Compliance Officer to making any official changes and request authorization to substitute ESB firm. Bidder further agrees to make every possible effort to replace ESB firm with another qualified ESB firm.

K. **Good Faith Efforts.** Good faith efforts can be demonstrated by meeting all of these obligations:

1. Selecting portions of the Work to be performed by ESBs in order to increase likelihood of meeting ESB goal including, where appropriate, breaking down Contract into smaller units to facilitate ESB participation.

2. Advertising in general circulation, trade associations and women / minority focus media concerning subcontracting opportunities.

3. Providing written notices to reasonable number of specific ESBs that their interest in Contract was being solicited in sufficient time to allow ESBs to participate effectively.

4. Following up on initial solicitations of interest by contacting ESBs within five (5) working days prior to Bid Due Date to determine with certainty whether ESB were interested, to allow ESBs to prepare bids.

5. Providing interested ESB with adequate information about Drawings, Specifications and requirements of Contract.

6. Using services of available minority, women and small business organizations and other organizations that provide assistance in recruitment of MBEs / WBEs / ESBs.

7. Negotiating in good faith with interested ESBs, not rejecting ESBs as unqualified without sound reason based on thorough investigation of their capabilities.

8. Submitting required project reports and accompanying documents to County's Contract Compliance Officer within ten (10) days after Bid Due Date.

L. **Appeals Disqualification of Bid.** Bidder who is disqualified may appeal to Public Works & Transportation Committee and Equal Opportunity Commission.

10. METHOD OF AWARD - RESERVATIONS

A. Following will be basis of award of Contract, providing cost does not exceed amount of funds then estimated by County as available to finance Contract(s):
   1. Lowest dollar amount submitted by qualified responsible bidder on Base Bid for all work comprising project, combined with such additive County accepted alternates.

   2. County reserves right to reject all bids or any bid, to waive any informality in any bid, and to accept any bid that will best serve interests of County.

   3. Unit Prices and Informational Bids will not be considered in establishing low bidder.

11. SECURITY FOR PERFORMANCE AND PAYMENTS

A. Simultaneous with delivery of signed Contract, Bidder shall be required to furnish Performance and Payment Bonds as specified in Article 29 of General Conditions of Contract, "Contract Security". Surety Company shall be licensed to do business in Wisconsin. Performance and Payment Bonds must be dated same date or subsequent to date of Contract. Performance and Payment Bonds must emulate information in Sample Performance and Payment Bonds in Construction Documents.

B. Provide certified copy of power of attorney from Surety Company showing that agent who signs Bond has power of attorney to sign for Surety Company. Secretary or Assistant Secretary of company must sign this certification, not attorney-in-fact. Certification must bear same or later date as Bond. Power of Attorney must emulate model power of attorney information detailed in Sample Performance and Payment Bonds.

C. If Bidder is partnership or joint venture, State certified list, providing names of individuals constituting partnership or joint venture must be furnished. Contract itself may be signed by one partner of partnership, or one partner of each firm comprising joint venture, but Performance and Payment Bonds must be signed by all partners.

D. If Bidder is a corporation, it is necessary that current certified copy of resolution or other official act of directors of corporation be submitted showing that person who signs Contract is authorized to sign contracts for corporation. It is also necessary that corporate seal be affixed to resolution, contract, and performance and payment bonds. If your corporation has no seal, it is required that above documents include statement or notation to effect that corporation has no seal.

12. TAXES

A. Bidder shall include in Bid, all Sales, Consumer, Use and other similar taxes required by law.

B. In accordance with Wisconsin Statute 71.80(16)(a),successful nonresident bidder, whether incorporated or not, and not otherwise regularly engaged in business in this state, shall file surety bond with State of Wisconsin Department of Revenue payable to Department of Revenue, to guarantee payment of income taxes, required unemployment compensation contributions, sales and use taxes and income taxes withheld from wages of employees, together with any penalties and interest thereon. Amount of bond shall be three percent (3%) of Contract or subcontract price on all contracts of $50,000 or more.

13. SUBMISSION OF BIDS

A. All Bids shall be submitted on standard Bid Form bound herein and only Bids that are made on this Bid Form will be considered. Entire Bid Form and other supporting documents, if any, shall be removed or copied from Construction Documents, filled out, and submitted in manner specified hereinafter. Submit completed Bid Bond with Bid as well.

B. No bids for any subdivision or any sub-classification of this Work, except as indicated, will be accepted. Any conditional Bid, amendment to Bid Form or appended item thereto, or inclusion of any correspondence, written or printed matter, or details of any nature other than that specifically called for, which would alter any essential provision of Construction Documents, or require consideration of unsolicited material or data in determining award of Contract, will disqualify Bid. Telecommunication alterations to Bid will not be accepted.

C. Bidders must submit single Bid for all the Work.

D. Bid amounts shall be inserted in words and in figures in spaces provided on Bid Form; in case of conflict, written word amounts will govern.

E. Addenda issued after Bid Letting shall become part of Construction Documents. Bidders shall acknowledge receipt of such addenda in appropriate space provided on Bid Form. Bid may be rejected if receipt of any particular addendum applicable to award of Contract has not been acknowledged on Bid Form.

F. Bids shall be signed, placed in envelope, sealed and delivered before time of closing to place designated in Invitation to Bid, and identified with project name, bid number, location, category of work being bid upon, Bid Due Date, name and address of bidder.

G. Bidder shall be responsible for sealed Bid being delivered to place designated for Bid Due Date on or before date and time specified. Bids received after time of closing will be rejected and returned to bidder unopened.

H. Bid will be considered invalid and will be rejected if bidder has not signed it.

I. Faxed Bids will not be accepted.

J. Bidder’s organization shall submit completed with Bid, Fair Labor Practices Certification form, included in these Construction Documents.

14. SUBCONTRACTOR LISTING

A. Bidders shall be required to submit list of major subcontractors for General Construction, Plumbing, HVAC, and Electrical work proposed for this project to include committed prices for each subcontractor. List shall be placed in separate sealed envelope that must be clearly identified as "Major Subcontractor List", for named project and name of Bidder submitting it. County must receive envelope no later than date by which successful Bidder is required to submit his or her signed Contract, as established in Construction Documents.

15. ALTERNATE BIDS

A. Bidder shall carefully read requests for Alternate Bids, and thoroughly examine Drawings and Specifications to determine extent various changes and conditions will affect Bid.

B. Space is provided in Bid Form for requested Alternate Bids. Failure to submit bid for any requested Alternate Bids may result in rejection of entire Bid.

C. Bidder shall state amount to be added / subtracted to Base Bid for providing alternates, including all incidentals, omissions, additions, and adjustments as may be necessary or required by such changes. If there is no difference in price, Bidder shall state, "No Change".

D. Descriptions of requested Alternate Bids are as set forth in Construction Documents.

16. INFORMATIONAL BIDS

A. Bidder shall state amount that is included in Base Bid for all equipment, materials and labor required to complete the Work described. Informational bids are amounts requested for accounting purposes and for allocation of funds only. It is not intended to omit any of the Work described or related items from this project.

B. Description of requested Informational Bids, if any, is as set forth in Construction Documents.

17. UNIT PRICES

A. Provide unit prices where requested on Bid Form. Unit prices will include all costs for materials, labor, insurance, taxes, overhead and profit necessary to perform specified work. Estimated quantities are approximate only. Payment will be based upon actual quantities placed, provided or installed. Failure to provide requested unit prices may result in rejection of entire Bid.

B. County reserves right to accept or reject any unit prices as given in Bid.

C. Bidder shall refer to Bid Form and applicable specification section to determine basis of unit measure and detailed information related to each unit price item requested.

18. COMMENCEMENT AND COMPLETION

A. Successful Bidder shall commence work when schedule and weather permit, but no later than stated in Bid Form. Contractor shall pursue the Work regularly and continuously at reasonable rate to insure completion of the Work within time stated in Bid.

B. Should it be found impossible to complete the Work on or before time specified for completion, written request may be submitted for extension of time setting forth reasons believed to justify granting of such request.

19. WORK BY COUNTY

A. Not Applicable.

20. ALLOWANCE FOR ACTIVE NETWORK EQUIPMENT

A. A Lump Sum Allowance for a portion of the Information Technology scope will be included in the Base Bid. The Construction Document scope will include fiber and copper backbone cabling, patch panels and support and pathway systems. The Allowance will be used for active network equipment, including switches, wireless access points, and cat 6 horizontal cabling to support access points.

21. ADDITIONAL INFORMATION ON ALTERNATES, UNIT PRICES, INFORMATIONAL BIDS FOR ITEMS LISTED ON BID FORM

The following is the list for alternate bid, unit pricing, and informational bids included in the project & listed on the Bid Form. Some Alternates on the list are keyed to the associated areas on the Drawings (Area E, & Area F are examples) and should be referred to for determination of the scope of the work. This list will be included in the front end of the specifications and the same identification should be used on the documents to call out the scope of the work.

<u>Alternate Bid items:</u>

Alternate #1: Add price for providing interior build-out of Family Toilet 134, Janitor 135, Women's Toilet 136, and Men's Toilet 137. This alternate incudes all above slab work including but not limited to; plumbing fixtures, CMU wall assemblies, light gage metal ceiling assemblies, interior finishes, specialties, mechanical and electrical equipment. Refer to the drawings for further clarifications.

Alternate #2: Add Alternate – Interior build-out option for Mezzanine level In Areas A & B (as indicated in the drawings).

Alternate #3: Add Alternate – Area F (as indicated in the drawings).

Alternate #4: Deduct Alternate – Day-lighting sensors and control system (as indicated in the drawings).

Alternate #5: Deduct Alternate –Interior build-out for Area E (as indicated in the drawings). Floor slab and underfloor systems to be included in the scope of the work.

Alternate #6: Price for Siemans HVAC control system as described in Specification Section 23 09 23 Direct Digital Control (DDC) Systems in lieu of the specified manufacturer and system.

Alternate #7: Price for Honeywell HVAC control system as described in Specification Section 23 09 23 Direct Digital Control (DDC) Systems in lieu of the specified manufacturer and system.

<u>Unit Pricing items:</u>

Unit Price #1: Add Alternate – Removal of Unsuitable Soil and Replacement with Engineered Fill

Unit Price #2: Deduct Alternate – Deletion of Individual Integral PEMB Skylight Units

Informational Bid items:

Informational Bid #1: Concession area grease interceptors
Informational Bid #2: Concession area grease hood make-up air system
Informational Bid #3: 8" PVC drain leader details.

22. FOCUS ON ENERGY & STATE/FEDERAL ENERGY INCENTIVES

A. Successful Bidder shall be required to work with County to pursue financial incentives available from, but not limited to, the Focus on Energy program. Contractor shall work with their suppliers to determine advantageous material that meet the specifications that will qualify for Focus on Energy rebates. Contractor will supply the County with lists of materials for submission by the County to the Focus on Energy program.

B. Other additional State and Federal incentive programs may be pursued by the County. The Contractor shall be responsible for providing lists of materials used on the project (with details of energy efficiency) that the County may need to complete grant applications.

23. COUNTY DIRECT PURCHASE MATERIALS & EQUIPMENT

A. The County will use its tax-exempt status to purchase materials that will become part of this construction project. In preparing your bid, include all labor, materials and tax in your Bid totals. If the County elects to exercise its tax exempt status to purchase materials and equipment, the contract (when issued) will deduct the cost of materials selected for direct purchase and the related sales tax from your bid total.

B. Products excluded from purchase by County include products manufactured or fabricated by Contractor, products which Contractor would be the vendor, products which would be furnished and installed by the same entity.

C. Do not include miscellaneous material such as, but not limited to: mortar, sealants, anchors, connectors, glue, accessories, etc. Items such as these are to be furnished and purchased by the installing contractors as required for their respective work.

D. For materials where the quantities are not easily identifiable from the Construction Documents, such as, but not limited to, concrete and piping, the Contractor will be responsible for quantities and costs exceeding the quantity and cost stated on the purchase order.

E. The Contractor shall provide all services necessary to facilitate the purchase of these materials and equipment including, but not limited to, preparation of proposed purchase orders, recommendations of suppliers and vendors, receipt, unloading, storage, and protection of materials and equipment. All purchases by the County shall be used for the sole benefit of the County.

F. The County shall cause all materials and equipment purchased directly to be delivered to the Contractor who shall accept delivery as the County's agent and promptly notify the Architect / Engineer thereof. When the materials and/or equipment are delivered to the jobsite, the Contractor shall promptly inspect them and bring to the attention of the County and Architect / Engineer any defects therein. The Contractor shall assist in contacting the Supplier in an effort to correct and adjust any defect.

G. The Contractor shall have the same responsibilities for installation of materials and equipment provided by the County as he would have if purchased by the Contractor. The Contractor shall be responsible for any damage to such materials and equipment after delivery and installation and prior to turning the project over to the County. The Contractor is responsible for obtaining product warranties with regard to those materials and equipment purchased by the County.

24. LIQUIDATED DAMAGES

A. Should the contractor fail to complete the work within the time agreed upon in the contract or within such extra time as may be allowed by written extensions approved by Dane County, contractor shall pay to Dane County liquidated damages in the amount of Two Hundred and Thirty Five Thousand Dollars ($235,000) beyond said agreed upon completion date listed on the Bid Form. The entire project from demolition to occupancy permit (of Pavilion Areas B+C+D and the First Floor Lobby, Restrooms, and Concession Areas of the Pre-Function Building) must occur between October 6, 2013 and April 1, 2014 to allow the Alliant Energy Center to honor contracted events.

B. Liquidated damages established hereunder shall be considered and treated not as a penalty but as fixed, agreed, and liquidated damages due Dane County from the contractor by reason of inconvenience to the public, added cost of engineering and supervision, maintenance of detours and other items that have caused an expenditure of public funds resulting from the contractor's failure to complete the work within the time specified in the contract.

C. Permitting the contractor to continue on the job and to finish the work or any part of it after the time fixed for its completion, or after the date to which the time for completion may have been extended, shall not result in a waiver of any of Dane County's rights under the contract.

FORM A

DANE COUNTY
EMERGING SMALL BUSINESS REPORT - CERTIFICATION

In accordance with General Conditions of Contract, submit this Emerging Small Business Report within ten (10) days after Bid Due Date.

PROJECT NAME: _____

_____

BID NO.: _____ BID DUE DATE: _____

BIDDER INFORMATION

COMPANY NAME: _____

ADDRESS: _____

_____

TELEPHONE NO.: _____

CONTACT PERSON: _____

FORM B

DANE COUNTY
EMERGING SMALL BUSINESS REPORT - INVOLVEMENT

(Copy this Form as necessary to provide complete information)

COMPANY NAME: ____________________

PROJECT NAME: ____________________ BID NO.: ____________________

ESB NAME: ____________________ CONTACT PERSON: ____________________

ADDRESS: ____________________ PHONE NO.: ____________________

CITY: ____________________ STATE: __________ ZIP: __________

Indicate percentage of financial commitment to this ESB: ____________ % Amount: $ ____________

ESB NAME: ____________________ CONTACT PERSON: ____________________

ADDRESS: ____________________ PHONE NO.: ____________________

CITY: ____________________ STATE: __________ ZIP: __________

Indicate percentage of financial commitment to this ESB: ____________ % Amount: $ ____________

ESB NAME: ____________________ CONTACT PERSON: ____________________

ADDRESS: ____________________ PHONE NO.: ____________________

CITY: ____________________ STATE: __________ ZIP: __________

Indicate percentage of financial commitment to this ESB: ____________ % Amount: $ ____________

FORM C

DANE COUNTY
EMERGING SMALL BUSINESS REPORT - CONTACTS

(Copy this Form as necessary to provide complete information)

COMPANY NAME: _____

PROJECT NAME: _____ BID NO.: _____

	ESB FIRM NAME CONTACTED	DATE	PERSON CONTACTED	DID ESB BID?	DID YOU ACCEPT BID?	REASON FOR REJECTION
1)						
2)						
3)						
4)						
5)						
6)						
7)						

FORM D

DANE COUNTY
EMERGING SMALL BUSINESS REPORT - CERTIFICATION STATEMENT

I, _____ , _____ of
Name Title

_____ certify to best of my knowledge and
Company

belief that this business meets Emerging Small Business definition as indicated in Article 9 and that information contained in this Emerging Small Business Report is true and correct.

_____ _____
Bidder's Signature Date

(Page Intentionally Left Blank)

Name of Bidding Firm: _____

BID FORM

BID NO. 313072
PROJECT: ALLIANT ENERGY CENTER PAVILIONS
ALLIANT ENERGY CENTER

TO: DANE COUNTY DEPARTMENT OF PUBLIC WORKS, HIGHWAY & TRANSPORTATION PROJECT ENGINEER
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

BASE BID - LUMP SUM:
Construction of the new Alliant Energy Center Pavilions to include demolition of barn structures, site development, and building of two Pavilion buildings. Pavilion 1 will include a 2-story Pre-function conventional structure, while the remainder of the facility will feature pre-engineered metal frame construction. Pavilion 1 will be a heated facility. Pavilion 2 will be an un-heated structure and have a pre-engineered metal frame. There will be a shed roofed metal frame building on one end of Pavilion 2 that will serve as a maintenance facility. The entire project from demolition to occupancy permit (of Pavilion Areas B+C+D and the First Floor Lobby, Restrooms, and Concession Areas of the Pre-Function Building) must occur between October 6, 2013 and April 1, 2014 to allow the Alliant Energy Center to honor contracted events (see Article 24. Liquidated Damages in the Instructions to Bidders).

The undersigned agrees to add the allowance (for additional Information Technology beyond Work included in the Construction Documents), alternate(s), unit prices, informational bid portions of the Work as described, for the following addition(s) to or subtraction(s) from the Base Bid, as stipulated below on the Bid Form and to provide a Lump Sum Allowance for Information Technology in the Base Bid.

The undersigned, having examined the site where the Work is to be executed and having become familiar with local conditions affecting the cost of the Work and having carefully examined the Drawings and Specifications, all other Construction Documents and Addenda thereto prepared by Dane County Department of Public Works, Highway & Transportation hereby agrees to provide all expertise labor, materials, equipment and services necessary for the complete and satisfactory execution of the entire Work, as specified in the Construction Documents, for the Base Bid stipulated sum of:

_____ and _____ /100 Dollars
Written Price

$ _____
Numeric Price

LUMP SUM ALLOWANCE FOR ADDITIONAL INFORMATION TECHNOLOGY (IT)
Provide a lump sum allowance to be included in the Base Bid of One Hundred and Fifty Thousand Dollars ($150,000.00) . The allowance will be used for active IT network equipment in addition to the fiber and copper backbone cabling, patch panels and support and pathway systems which are included in the Construction Documents.

Include Lump Sum Allowance in Base Bid for Active IT Network Equipment:

One Hundred and Fifty Thousand and 00 /100 Dollars
Written Price

$150,000.00
Numeric Price

ALTERNATE BID 1: INTERIOR BUILD-OUT OF TOILETS - LUMP SUM:
Add price for providing interior build-out of Family Toilet 134, Janitor 135, Women's Toilet 136, and Men's Toilet 137. This alternate incudes all above slab work including but not limited to; plumbing fixtures, CMU wall assemblies, light gage metal ceiling assemblies, interior finishes, specialties, mechanical and electrical equipment. Refer to the drawings for further clarifications.

_____ and _____ /100 Dollars
Written Price

$ _____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 2: INTERIOR BUILD-OUT OF MEZZANINE LEVEL - LUMP SUM:
Add price for providing interior build-out option for Mezzanine level in Areas A & B of Pavilion #1 (as indicated in the drawings).

_____ and _____ /100 Dollars
Written Price

$ _____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 3: AREA F - LUMP SUM:
Add price for providing construction of the storage building on the west side of Pavilion # 2 (as indicated in the drawings).

_____ and _____ /100 Dollars
Written Price

$ _____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 4: DAY-LIGHTING SENSORS - LUMP SUM:
Deduct price for deleting all Work associated with the day-lighting sensors and control system (as indicated in the specification and drawings).

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 5: INTERIOR BUILDOUT FOR AREA E - LUMP SUM:
Deduct price for deleting all Work associated with the interior build-out the maintenance shop building on the west side of Pavilion # 2 (as indicated in the drawings). Floor slab and under floor systems are to remain in the overall the scope of Work and are not to be included in the deleted price.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 6: HVAC CONTROL – SIEMANS - LUMP SUM:
Price for Siemans HVAC control system as described in Specification Section 23 09 23 Direct Digital Control (DDC) Systems in lieu of the specified manufacturer and system.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

ALTERNATE BID 7: HVAC CONTROL – HONEYWELL - LUMP SUM:
Price for Honeywell HVAC control system as described in Specification Section 23 09 23 Direct Digital Control (DDC) Systems in lieu of the specified manufacturer and system.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

UNIT PRICING: REMOVAL OF SOIL -
Add price for the removal of unsuitable soil and engineered fill material where soil testing agency has determined existing conditions are insufficient for the purposes of the project (refer to Section 31 20 00 Earthmoving).

Unsuitable Soil Removal & Replacement with Engineered Fill:

- 500 cu. yds or less: @ $_____/cu. yd.
- 500 cu. yds or greater: @ $_____/cu. yd.

UNIT PRICING: INTEGRAL PEMB SKYLIGHT UNITS -
Provide Price for deletion of individual integral PEMB Skylight Units.

DELETE Integral PEMB Skylight Unit:

- Price per each unit Total: $_____

Numeric Price (Deduct)

_____ and _____ /100 Dollars
Written Price

INFORMATIONAL BID 1: GREASE INTERCEPTORS - LUMP SUM:
Bid for providing grease interceptors to the concession area in Pavilion # 1.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

INFORMATIONAL BID 2: GREASE HOOD MAKE-UP AIR SYSTEM - LUMP SUM:
Bid for providing a grease hood makeup-air system in the concession area of Pavilion # 1.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

INFORMATIONAL BID 3: DRAIN LEADER DETAILS MODIFICATION - LUMP SUM:
In lieu of the 8" PVC drain leader run inside the structural steel tubes as shown on wall section 2/A507, provide a informational bid identifying the savings the owner could expect if the drain leader were allowed to be a heavy duty 8" open face sheet metal down spout run alongside the steel tube (not within it) and terminating into a site drain at the base. The internal sheet metal pan gutter would remain as defined in the wall section.

_____ and _____ /100 Dollars
Written Price

$_____
Numeric Price (circle: Add or Deduct)

ACKNOWLEDGEMENT OF ADDENDUM:

Receipt of the following addenda and inclusion of their provisions in this Bid is hereby acknowledged:

Addendum No(s). _____ through _____

Dated _____

TIMETABLE / COMPLETION DATES:

Dane County Department of Public Works, Highway & Transportation must have the entire project from demolition to occupancy permit (of Pavilion Areas B+C+D and the First Floor Lobby, Restrooms, and Concession Areas of the Pre-Function Building) completed between October 6, 2013 and April 1, 2014 to allow the Alliant Energy Center to honor contracted events. Assuming this Work can be started by October 6, 2013, what dates can you commence and complete this job?

Commencement Date: _____ Completion Date: _____
(substantial for Midwest Horse Fair)

Completion Date: _____
(final completion of Pavilions project)

CERTIFICATION OF STATEMENTS:

I hereby certify that all statements herein are made on behalf of:

_____

(Name of Corporation, Partnership or Person submitting Bid)

Select one of the following:
1. A corporation organized and existing under the laws of the State of _____, or

2. A partnership consisting of _____, or

3. A person conducting business as _____;

Of the City, Village, or Town of _____ of the State of _____.

I have examined and carefully prepared this Bid from the associated Construction Documents and have checked the same in detail before submitting this Bid; that I have full authority to make such statements and submit this Bid in (its) (their) (my) behalf; and that the said statements are true and correct. In signing this Bid, we also certify that we have not, either directly or indirectly, entered into any agreement or participated in any collusion or otherwise taken any action in restraint of free competition; that no attempt has been made to induce any other person or firm to submit or not to submit a Bid; that this Bid has been independently arrived at without collusion with any other bidder, competitor, or potential competitor; that this Bid has not been knowingly disclosed prior to the Bids Due Date to another bidder or competitor; that the above statement is accurate under penalty of perjury.

The undersigned further agrees to honor the Base Bid and the Alternate Bid(s) for 60 days from date of Award of Contract.

SIGNATURE: _____

(Bid is invalid without signature)

Print Name: _____ Date: _____

Title: _____

Address: _____

Telephone No.: _____ Fax No.: _____

Email Address: _____

Contact Person: _____

THIS PAGE IS FOR BIDDERS' REFERENCE AND NEED NOT BE SUBMITTED WITH BID FORM.

BID CHECK LIST:
These items **must** be included with Bid:
☐ Bid Form ☐ Bid Bond ☐ Fair Labor Practices Certification

BIDDERS SHOULD BE AWARE OF THE FOLLOWING:

DANE COUNTY VENDOR REGISTRATION PROGRAM

Any person bidding on any County contract must be registered with the Dane County Purchasing Division & pay an annual registration fee. A contract will not be awarded to an unregistered vendor. Obtain a *Vendor Registration Form* by calling 608/266-4131 or complete a new form or renewal online at:
www.danepurchasing.com/registration

DANE COUNTY BEST VALUE CONTRACTING PRE-QUALIFICATION

Contractors must be pre-qualified as a Best Value Contractor with the Dane County Public Works Engineering Division before the award of contract. Obtain a *Best Value Contracting Application* by calling 608/266-4018 or complete one online at:
www.countyofdane.com/pwht/BVC_Application.aspx

EQUAL BENEFITS REQUIREMENT

By submitting a Bid, the contractor acknowledges that a condition of this contract is to provide equal benefits as required by Dane County Code of Ordinances Chapter 25.016. Contractor shall provide equal benefits as required by that Ordinance to all required employees during the term of the contract. Equal Benefits Compliance Payment Certification shall be submitted with final pay request. For more information:
www.danepurchasing.com/partner_benefit.aspx

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SECTION 05 30 00 - METAL DECKING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Applicable provisions of Division 1 shall govern work under this Section.

1.2 DESCRIPTION OF WORK:

A. The extent of metal decking is shown on the drawings, including basic layout and type of deck units required.

1.3 QUALITY ASSURANCE:

A. Codes and Standards: Comply with provisions of the following codes and standards, except as otherwise shown or specified:

1. AISI "Specification for the Design of Cold-Formed Steel Structural Members".
2. AWS "Structural Welding Code".
3. SDI "Design Manual for Floor Decks and Roof Decks".

B. Qualification of Field Welding: Qualify welding processes and welding operators in accordance with AWS "Standard Qualification Procedure".

1.4 PERFORMANCE REQUIREMENTS:

A. Uplift Loading: Install and anchor roof deck units to resist gross uplift loading of 45 pounds per square feet at eave overhang and 30 pounds per square feet for other roof areas.

1.5 SUBMITTALS:

A. Product Data: Submit manufacturer's specifications and installation instructions for each type of decking and accessories. Include manufacturer's certification as may be required to show compliance with these specifications.

B. Shop Drawings: Submit detailed drawings showing layout and types of deck panels, anchorage details, and conditions requiring closure panels, supplementary framing, sump pans, cant strips, cut openings, special jointing or other accessories.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Steel for Painted Metal Deck Units: ASTM A 611, Grade C.

B. Acoustical Roof Deck: Fabricate panels, without top-flange stiffening grooves, to comply with "SDI Specifications and Commentary for Steel Roof Deck," in SDI Publication No. 31, and with the following:

1. Prime-Painted Steel Sheet: ASTM A 1008/A 1008M, Structural Steel (SS), Grade 33 minimum, shop primed with manufacturer's standard baked-on, rust-inhibitive primer.

   a. Color: Gray top surface with white underside.

2. Deck Profile: Type WR, wide rib.
3. Profile Depth: As indicated.
4. Design Uncoated-Steel Thickness: As indicated.
5. Span Condition: As indicated.
6. Side Laps: Overlapped or interlocking seam at Contractor's option.
7. Acoustical Perforations: Deck units with manufacturer's standard perforated vertical webs.
8. Sound-Absorbing Insulation: Manufacturer's standard premolded roll or strip of glass or mineral fiber. Profile to fill deck flutes level to top plan of deck.
9. Acoustical Performance: NRC 0.65, tested according to ASTM C 423.

C. Miscellaneous Steel Shapes: ASTM A 36.

D. Sheet Metal Accessories: ASTM A 526, commercial quality, galvanized.

E. Paint: Manufacturer's baked-on, rust-inhibitive paint, for application to metal surfaces which have been chemically cleaned and phosphate chemical treated.

F. Flexible Closure Strips: Manufacturer's standard vulcanized, closed-cell, synthetic rubber.

G. Powder-actuated Fasteners: Fasteners, appropriately sized for substrate thickness, equal to Hilti, for installation with the DX 750 system.

2.2 FABRICATION:

A. General: Form deck units in lengths to span 3 or more supports, with flush, telescoped or nested 2 inch laps at ends and interlocking or nested side laps, unless otherwise indicated.

B. Roof Deck Units: Provide deck configurations complying with SDI "Roof Deck Specifications", of metal thickness, depth and width as shown.

C. Metal Cover Plates: Fabricate metal cover plates for end-abutting floor deck units of not less than same thickness as decking. Form to match contour of deck units and approximately 6 inches wide.

D. Metal Closure Strips: Fabricate metal closure strips, for cell raceways and openings between decking and other construction, of not less than 0.045 inch min. (18 gage) sheet steel. Form to provide tight-fitting closures at open ends of cells or flutes and sides of decking.

E. Roof Sump Pans: Fabricate from single piece of 0.071 inch minimum (14 gage) galvanized sheet steel with level bottoms and sloping sides to direct water flow to drain, unless otherwise shown. Provide sump pans of adequate size to receive roof drains and with bearing flanges not less than 3 inches wide. Recess pans not less than 1-1/2 inches below roof deck surface, unless otherwise shown or required by deck configuration. Holes for drains will be cut in the field.

F. Cant Strips: Fabricate cant strips of 0.028 inch minimum (22 gage) galvanized sheet steel. Bend to form a 45 degree cant not less than 5 inches wide, with top and bottom flanges not less than 2 inches wide, unless otherwise shown.

PART 3 - EXECUTION

3.1 INSPECTION:

A. Installer must examine areas and conditions under which metal decking is to be installed and notify Contractor in writing of conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

3.2 INSTALLATION:

A. General:

1. Install deck units and accessories in accordance with manufacturer's recommendations and final shop drawings, and as specified herein.
2. Place deck units on supporting steel framework and adjust to final position with ends accurately aligned and bearing on supporting members before being permanently fastened. Do not stretch or contract side lap interlocks.
3. Place deck units flat and square, secured to adjacent framing without warp or excessive deflection.
4. Do not place deck units on concrete supporting structure until concrete has cured and is dry.
5. Coordinate and cooperate with structural steel erector in locating decking bundles to prevent overloading of structural members.

B. Fastening Deck Units:

1. Fasten roof deck units to steel supporting members by not less than 5/8 inch diameter fusion welds or elongated welds of equal strength, spaced not more than 6 inches on center at end laps and at 12” at intermediate supports. See drawings for closer spacing where required for lateral force resistance.
2. Roof deck may be attached using Powder-actuated fasteners at similar spacings to those noted in 3 above.
3. Comply with AWS requirements and procedures for manual shielded metal arc welding, appearance and quality of welds, and methods used in correcting welding work. Use welding washers where recommended by deck manufacturer.
4. Lock side laps of adjacent deck units between supports, at intervals not exceeding 36 inches on center. Keep the interiors of cells that will be used as raceways free of welds having sharp points or edges.

5. Cutting and Fitting: Cut and neatly fit deck units and accessories around other work projecting through or adjacent to the decking, as shown.
6. Reinforcement at Openings: Provide additional metal reinforcement and closure pieces as required for strength, continuity of decking and support of other work shown.

C. Joint Covers: Provide metal joint covers at abutting ends and changes in direction of floor deck units, except where taped joints are required.

D. Roof Sump Pans: Place over openings provided in roof decking and weld to top decking surface. Space welds not more than 12 inches on center with at least one weld at each corner. Cut opening in roof sump bottom to accommodate drain size indicated.

E. Cant Strips: Weld to top surface of roof decking, and secure to wood nailers with galvanized nails, and to steel framing with welds or galvanized self-tapping screws. Space fasteners or welds at 12 inches on center. Lap end joints not less than 3 inches, and secure with galvanized sheet metal screws.

F. Closure Strips:

1. Provide metal closure strips at open uncovered ends and edges of roof decking, and in voids between decking and other construction. Weld into position to provide a complete decking installation.
2. Provide flexible closure strips instead of metal closures, at Contractor's option, wherever their use will ensure complete closure. Install with adhesive in accordance with manufacturer's instructions.

G. Touch Up Painting:

1. After decking installation, wire brush, clean and paint scarred areas, welds and rust spots on top and bottom surfaces of decking units and supporting steel members.
2. Touch up painted surfaces with same type of shop paint used on adjacent surfaces.
3. In areas where shop painted surfaces are to be exposed, apply touch up paint to blend into adjacent surfaces.

END SECTION 05 30 00

SECTION 05 50 00 - METAL FABRICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS:

A. Applicable provisions of Division 1 shall govern work under this Section.

1.2 DESCRIPTION OF WORK:

A. This section includes the following:

1. Loose bearing and leveling plates.
2. Loose steel lintels.
3. Miscellaneous framing and supports.
4. Pipe Bollards
5. Steel Bar Grating
6. Bar-stock Ladders
7. Pre-fabricated Caged Ladders
8. Support for ceiling hung toilet compartments
9. Metal Stairs
10. Nosings For Concrete-filled Metal Pan Stairs
11. Shelf Angles
12. Nosings For Concrete-filled Metal Pan Stairs
13. Miscellaneous metal building system components
14. Steel angles for casting into concrete.

B. Related Sections:

1. Structural steel is specified in another section within Division 5.
2. Additional non-ferrous Bar Gratings are specified in another section within Division 5.
3. Finish painting of steel fabrications in a Division 9 Section.

1.3 QUALITY ASSURANCE:

A. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication, where possible. Do not delay job progress; allow for trimming and fitting where taking field measurements before fabrication might delay work.

B. Shop Assembly: Preassemble items in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Clearly mark units for reassembly and coordinated installation.

1.4 SUBMITTALS:

A. Shop Drawings:

1. Submit shop drawings for fabrication and erection of miscellaneous metal fabrications. Include plans, elevations and details of sections and connections. Show anchorage and accessory items. Provide templates for anchor and bolt installation by others.
2. Where materials or fabrications are indicated to comply with certain requirements for design loadings include structural computations, material properties and other information needed for structural analysis.

PART 2 - PRODUCTS

2.1 MATERIALS:

A. Metals:

1. Metal Surfaces, General: For fabrication of miscellaneous metal work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness.
2. Steel Plates, Shapes and Bars: ASTM A 36.
3. Structural Steel Sheet: Hot rolled, ASTM A 570 or cold rolled ASTM A 611, Class 1; of grade required for design loading.
4. Galvanized Structural Steel Sheet: ASTM A 653/A, of grade required for design loading.
5. Steel Pipe: ASTM A 53; Type and grade (if applicable) as selected by fabricator and as required for design loading; black finish unless galvanizing is indicated; standard weight (schedule 40), unless otherwise indicated.
6. Brackets, Flanges and Anchors' Cast or formed metal of the same type material and finish as supported rails, unless otherwise indicated.

B. Grout:

1. Nonshrink Nonmetallic Grout: Premixed, factory packaged, nonstaining, noncorrosive, nongaseous grout complying with CE CRD-C588. Provide grout specifically recommended by manufacturer for interior and exterior applications of type specified in this section.

C. Fasteners: (As Required)

1. General: Provide zinc coated fasteners for exterior use or where built into exterior walls. Selected fasteners for the type, grade and class required.
2. Bolts and Nuts: Regular hexagon head type, ASTM A 307, Grade A.
3. Lag Bolts: Square head type, FS FF-B-561.
4. Machine Screws: Cadmium plated steel, FS FF-S-92.
5. Wood Screws: Flat head carbon steel, FS FF-S-111.
6. Plain Washers: Round, carbon steel, FS FF-W-92.
7. Masonry Anchorage Devices: Expansion shields, FS FF-S-325.
8. Toggle Bolts: Tumble-wing type, FS FF-B-588, type, class and style as required.
9. Lock Washers: Helical spring type carbon steel, FS FF-W-84.

D. Primer Paint:

1. Shop Primer for Ferrous Metal: Fast-curing, lead and chromate-free, universal modified-alkyd primer complying with performance requirements in FS TT-P-664; selected for good resistance to normal atmospheric corrosion, compatibility with finish paint systems indicated, and capability to provide a sound foundation for field-applied topcoats despite prolonged exposure.
2. Do not apply primer to galvanized surfaces.
2. Galvanizing Repair Paint: High-zinc-dust-content paint for regalvanizing welds in galvanized steel, complying with SSPC-Paint 20.
3. Bituminous Paint: Cold-applied asphalt mastic complying with SSPC-Paint 12, except containing no asbestos fibers; or cold-applied asphalt emulsion complying with ASTM D 1187.

2.2 FABRICATION, GENERAL:

A. Workmanship:

1. Use materials of size and thickness shown or, if not shown, of required size and thickness to produce strength and durability in finished product. Work to dimensions shown or accepted on shop drawings, using proven details of fabrication and support. Use type of materials shown or specified for various components of work.
2. Form exposed work true to line and level with accurate angles and surfaces and straight sharp edges. Ease exposed edges to a radius of approximately 1/32 inch unless otherwise shown. Form bent metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
3. Weld corners and seams continuously, complying with AWS recommendations. At exposed connections, grind exposed welds smooth and flush to match and blend with adjoining surfaces.
4. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of type shown or, if not shown, Phillips flat-head (countersunk) screws or bolts.
5. Provide for anchorage of type shown, coordinated with supporting structure. Fabricate and space anchoring devices to provide adequate support for intended use.
6. Cut, reinforce, drill and tap miscellaneous work as indicated to receive finish hardware and similar items.

B. Galvanizing:

1. Provide a zinc coating for those items shown or specified to be galvanized, as follows:

    a. ASTM A 153 for galvanizing iron and steel hardware.
    b. ASTM A 123 for galvanizing both fabricated and unfabricated iron and steel products made of uncoated rolled, pressed and forged shapes, plates, bars and strip 22 gage, 0.0299 inch thick, or thicker.

2. Fabricate joints which will be exposed to weather in a manner to exclude water or provide weep holes where water may accumulate.

C. Shop Painting:

1. Shop paint miscellaneous metal work, except members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded and galvanized surfaces, unless otherwise specified.
2. Remove scale, rust and other deleterious materials before applying shop coat. Clean off heavy rust and loose mills scale in accordance with SSPC Sp-2 "Hand Tool Cleaning," or SSPC SP-3 "Power Tool Cleaning," or SSPC SP-7 "Brush-Off Blast Cleaning."
3. Remove oil, grease and similar contaminants in accordance with SSC SP-1 "Solvent Cleaning."
4. Immediately after surface preparation, brush or spray on primer in accordance with manufacturer's instructions and at a rate to provide uniform dry film thickness of 2.0 mils for each coat. Use painting methods which will result in full coverage of joints, corners, edges and exposed surfaces.
5. Apply one shop coat to fabricated metal items, except apply 2 coats of paint to surfaces inaccessible after assembly or erection. Change color of second coat to distinguish it from the first.

2.3 MISCELLANEOUS METAL FABRICATIONS:

A. Pipe Bollards:

1. Fabricate pipe bollards from Schedule 80 galvanized steel pipe. Size as indicated on drawings. Grout solid with concrete.

B. Rough Hardware:

1. Furnish bent or otherwise custom bolts, plates, anchors, hangers, dowels and other miscellaneous steel and iron shapes as required for framing and supporting woodwork and for anchoring or securing woodwork to concrete or other structures. Straight bolts and other stock rough hardware items are specified in Division 6 sections.
2. Manufacturer or fabricate items of sizes, shapes and dimensions required. Furnish malleable iron washers for heads and nuts which bear on wood structural connections; elsewhere, furnish steel washers.

C. Bar-stock Ladders:

1. Fabricate ladders for the locations shown, with dimensions, spacings, details and anchorages as indicated. Comply with the requirements of ANSI A14.3, except as otherwise indicated.

    a. Unless otherwise shown, provide 1/2 inch x 2-1/2 inches continuous structural steel flat bar side rails with eased edges, space 18 inches apart.
    b. Provide 3/4 inch diameter solid structural steel bar rungs, spaced 12 inches on center.

2. Fit rungs in centerline of side rails, plug weld and grind smooth on outer rail faces.
3. Support each ladder at top and bottom and at intermediate points spaced not more than 5 feet-0 inches on center. Use welded or bolted steel brackets, designed for adequate support and anchorage and to hold the ladder clear of the wall surface with a minimum of 7 inches clearance from wall to centerline of rungs. Extend rails 42 inches above top rung and return rails to wall or structure unless other secure handholds are provided. If the adjacent structure does not extend above the top rung, gooseneck the extended rails back to the structure to provide secure ladder access.
4. Provide nonslip surface on the top of each rung, either by coating the rung with aluminum oxide granules set in epoxy resin adhesive or by using a type of manufactured rung which is filled with aluminum oxide grout.
5. Provide all necessary brackets and fittings for installation.
6. Prime steel ladders, including rungs, brackets, and fasteners, with primer as specified elsewhere in this section.

D. Pre-fabricated Caged Ladders:

1. Provide steel pre-fabricated caged ladders in accordance with OSHA standards Provide all brackets and fittings for complete installation.
2. Acceptable manufacturers:

    a. Cubic Designs, New Berlin, WI
    b. Bustin Industrial Products, East Stroudsburg, PA
    c. Karnel, Inc., Clarks Summit, PA
    d. Architect pre-approved equal.

3. Provide lockable security closure panel spanning rungs for a minimum of 8 feet above bottom of ladder.
4. Submit a complete set of shop drawings to address the specific requirements of each location in the Project.
5. Prime steel ships' ladders, including treads, railings, brackets, and fasteners, with primer as specified elsewhere in this section.

E. Loose Bearing and Leveling Plates:

1. Provide loose bearing and leveling plates for steel items bearing on masonry or concrete construction, made flat, free from warps or twists and of required thickness and bearing area. Drill plates to receive anchor bolts and for grouting as required. Galvanized after fabrication.
2. Weld Plates for Roof Joists: Provide 7 inches x 1/4 inch x 0 feet-7 inch weld plates with on 3/4 inch x 5 inches headed stud.

F. Loose Steel Lintels:

1. Provide loose structural steel lintels for openings and recesses in masonry walls and partitions as shown. Weld adjoining members together to form a single unit

where indicated. Provide not less than 8 inches bearing at each side of openings, unless otherwise shown.

2. Galvanized loose steel lintels to be installed in exterior walls.
3. Provide loose steel lintels over exterior and interior openings including openings for mechanical work such as louvers, heating units, ventilators, sheet metal ducts, grilles, unless otherwise indicated. Bear 8 inches unless otherwise indicated. Provide all angles, lintels as required for all built-in items and openings.
4. Provide lintels as follows unless otherwise indicated:

Wall Thickness	Span to 4 Feet	Span 4 to 7 Feet
4"	(1) 3-1/2"x3-1/2"x5/16"	(1) 3-1/2"x3-1/2"x5/16
6"	(1) WT4 x 6.5	(1) WT4 x 6.5
8"	(2) 3-1/2"x3-1/2"x5/16"	(2) 4"x3-1/2"x5/16"
12"	(3) 3-1/2"x3-1/2"x5/16"	(3) 4"x3-1/2"x5/16"

G. Miscellaneous Framing and Supports:

1. Provide miscellaneous steel framing and supports which are not a part of structural steel framework, as required to complete work.
2. Fabricate miscellaneous units to sizes, shapes and profiles shown or, if not shown, of required dimensions to receive adjacent work to be retained by framing. Except as otherwise shown, fabricate from structural steel shapes and plates and steel bars, of welded construction using mitered joints for field connection. Cut, drill and tap units to receive hardware and similar items.
3. Equip units with integrally welded anchors for casting into concrete or building into masonry. Furnish inserts if units must be installed after concrete is placed.

    a. Except as otherwise shown, space anchors 24 inches on center and provide minimum anchor units 1-1/4 inches x 1/4 inch x 8 inches steel straps.

4. Galvanize miscellaneous frames and supports where indicated.

H. Miscellaneous Steel Trim:

1. Provide shapes and sizes for profiles shown. Except as otherwise noted, fabricate units from structural steel shapes and plates and steel bars, with continuously welded joints and smooth exposed edges. Use concealed field splices wherever possible. Provide cutouts, fittings and anchorages as required for coordination of assembly and installation with other work.

2. Galvanize miscellaneous steel trim where indicated.

I. Steel Pipe Railings and Handrails:

1. Fabricate railings of 1-1/4 inches nominal diameter standard steel pipe (1.660 O.D.). Space posts not more than 6 feet-0 inches on center unless otherwise indicated.

2. Interconnect railing and handrail members by butt-welding or welding with internal connectors, at fabricator's option, except as otherwise indicated.

    a. At tee and cross intersections provide coped joints.
    b. At bends interconnect pipe by means of prefabricated elbow fittings or flush radius bends, as applicable, or radiuses indicated.
    c. At elbow bends provide mitered joints.
    d. Form bends by use of prefabricated elbow fittings and radius bends or by bending pipe, at fabricator's option.

3. Form simple and compound curves by bending pipe in jigs to produce uniform curvature for each repetitive configuration required; maintain cylindrical cross-section of pipe throughout entire bend without buckling, twisting or otherwise deforming exposed surfaces of pipe.
4. Provide wall returns at ends of wall mounted handrails, except where otherwise indicated.
5. Close exposed ends of pipe by welding 3/16 inch thick steel plate in place or by use of prefabricated fittings.
6. Toe Boards: Where indicated, provide toe boards at railings around openings and at the edge of open-sided floors and platforms. Fabricate to the dimension and details shown, or if not shown, use a 4 inches high x 1/8 inch plate welded to and centered between each railing post.
7. Brackets, Flanges, Fittings and Anchors: Provide wall brackets, end closures, flanges, miscellaneous fittings and anchors for interconnection of pipe and attachment of railings and handrails to other work. Furnish inserts and other anchorage devices for connection railings and handrails to concrete or masonry work.

    a. For railing posts set in concrete provide sleeves of galvanized steel pipe not less than 6 inches long and with an inside diameter not less than 1/2 inch greater than the outside diameter of pipe. Provide steel plate closure welded to bottom of sleeve and of width and length not less than 1 inch greater than outside diameter of sleeve.
    b. Provide friction fit, removable covers designed to keep sleeves clean and hold top edge of sleeve 1/2 inch below finished surface of concrete.

8. Galvanize exterior steel railing and interior steel railings where shown, including pipe, fittings, brackets, fasteners and other ferrous components. Provide black steel pipe for interior railings not indicated otherwise.

J. Steel Grating:

1. Provide steel bar gratings using bars of type, material, sizes, spacing and construction indicated, or if not indicated, to support design loadings indicated. Comply with applicable requirements of NAAMM "Metal Bar Grating Manual." Work to dimensions shown or accepted on shop drawings, using proven details of fabrication or support.

    a. Type: Pressure - locked
    b. Loading for horizontal traffic.

c. Traffic Surface: Plain
d. Steel Finish: Hot-dip galvanized after fabrication

2. Provide removable grating sections with end-banding bars for each panel, 4 saddle clip anchors designed to fit over 2 bearing bars and 4 stud bolts with washer and nuts, unless otherwise indicated.
3. Notch gratings for penetrations as indicated. Layout units to allow grating removal without disturbing items penetrating grating.
4. Provide banding for openings in grating separated by more than 4 bearing bars, of same material and size as bearing bars, unless otherwise indicated.
5. Notching of bearing bars as supports to maintain elevations will not be permitted.
6. Weld stud bolts to receive saddle clip anchors to supporting steel members.

K. Steel Framed Stairs:

1. General: Construct stairs to conform to sizes and arrangements shown; join pieces together by welding unless otherwise indicated. Provide complete stair assemblies including metal framing, hangers, columns, railings, newels, balusters, struts, clips, brackets, bearing plates and other components for the support of stairs and platforms and as required to anchor and contain the stairs on the supporting structure.

2. Stair Framing:

a. Fabricate stringers of structural steel channels or plates or a combination thereof, as shown. Provide closures for exposed ends of stringers. Construct platforms of structural steel channel header and miscellaneous framing members as shown. Bolt or weld headers to stringers and newels and framing members to stringers and headers; fabricate and join so that bolts, if used, do not appear on finish surfaces.
b. Where masonry walls support steel stairs, provide temporary supporting struts designed for erection of steel stair components before installation of masonry.

3. Metal Pan Risers, Subtreads, and Subplatforms: Shape metal pans for risers and subtreads to conform to configuration shown. Provide thickness of structural steel sheet for metal pans indicated but not less than that required to support total design for loading. Fabricate pans for concrete fill without voids to completely contain concrete without leakage.

a. Form metal pans of hot rolled or cold rolled carbon steel sheet, unless otherwise indicated.
b. Attach risers and subtreads to stringers by means of brackets made of steel angles or bars. Weld brackets to strings and attach metal pans to brackets by welding, riveting or bolting.
c. Provide subplatforms of configuration and construction indicated, or if not indicated, of same metal as risers and subtreads, and in thicknesses required to support design loading. Attach subplatform to platform framing members with welds.

4. Floor Grating Treads and Platforms: Provide patterns, spacing and bar sizes indicated complying with NAAMM "Metal Bar Grating Manual."

    a. Finish: Shop prime paint and finish paint.

5. Fabricate grating treads with steel plate nosing on one edge and with steel angle or steel plate carrier at each end for string connections. Secure treads to stringers with bolts.
6. Fabricate closed risers where indicated with formed steel plate. Secure to adjacent nosing of upper tread and back face of lower tread.
7. Fabricate grating platforms, with nosing matching that on grating treads, at all landings. Secure grating to platform frame with welds or hold down clips.
8. Stair Railings and Handrails: Comply with applicable requirements specified elsewhere in this section for steel pipe railings and handrails, and as follows:

    a. Fabricate newels of steel tubing and provide newel caps of gray iron castings, as shown.
    b. Railings may be bent at corners, rail returns and wall returns, instead of using prefabricated fittings.
    c. Connect railing posts to stair framing by direct welding, except as otherwise indicated.

L. Nosings For Concrete-filled Metal Pan Stairs:

1. Basis-of Specification manufacturer and product:

    a. Manufacturer: Wooster Products, 1000 Spruce Street, P.O. Box 6005, Wooster, OH. 44691; 1-800-321-4936.
    b. Model: No. 231BF.

2. Subject to compliance with requirements provide listed product or Architect pre-approved equal.

M. Miscellaneous metal building system components:

1. Basis-of Specification manufacturer for sub-framing:

    a. Manufacturer: McElroy Metals.

        1) CEE girts, Gauge and size as indicated.
        2) ZEE girts, Gauge and size as indicated.

2. Basis-of Specification manufacturer for deck:

    a. Manufacturer: Newcor Corp.

        1) Type B deck, 1 1/2".
        2) Gauge: As Indicated on drawings.

3. Subject to compliance with requirements, provide specified product or Architect pre-approved equal.

N. Steel Angles for Casting into Concrete:

1. Provide shapes and sizes for profiles shown. Except as otherwise noted, fabricate units from structural steel shapes and plates and steel bars, with continuously welded joints and smooth exposed edges. Use concealed field splices wherever possible. Provide cutouts, fittings and anchorages as required for coordination of assembly and installation with other work.
2. Weld nelson studs to inside corner of angle as detailed.
3. Galvanize angles after studs are welded to angle.

PART 3 - EXECUTION

3.1 PREPARATION:

A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions and directions for installation of anchorages, such as concrete inserts, sleeves, anchor bolts and miscellaneous items having integral anchors, which are to be embedded in concrete or masonry construction. Coordinate delivery of such items to project site.

3.2 INSTALLATION:

A. General:

1. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing miscellaneous metal fabrications to in-place construction; including, threaded fasteners for concrete and masonry inserts, toggle bolts, through-bolts, lag bolts, wood screws and other connectors as required.
2. Cutting, Fitting and Placement: Perform cutting, drilling and fitting required for installation of miscellaneous metal fabrications. Set work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and levels. Provide temporary bracing for anchors in formwork for items which are to be built into concrete, masonry or similar construction.
3. Fit exposed connections accurately together to form tight hairline joints. Weld connections which are not to be left as exposed joints, but cannot be shop welded because of shipping size limitations. Grind exposed joints smooth and touch up shop paint coat. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication and are intended for bolted or screwed field connections.
4. Field Welding: Comply with AWS Code for procedures of manual shielded metal arc welding, appearance and quality of welds made and methods used in correcting welding work.

B. Setting Loose Plates:

1. Clean concrete and masonry bearing surfaces of any bond reducing materials and roughen to improve bond surfaces. Clean bottom surface of bearing plates.
2. Set loose leveling and bearing plates on wedges or other adjustable devices. After the bearing members have been positioned and plumbed, tighten the anchor bolts. Do not remove wedges or shims; but if protruding, cut off flush with the edge of the bearing plate before packing with grout. Use metallic nonshrink grout in concealed locations where not exposed to moisture; use nonmetallic nonshrink grout in exposed locations, unless otherwise indicated.
3. Pack grout solidly between bearing surfaces and plates to ensure that no voids remain.

C. Setting Loose Lintels:

4. Place lintels with bearing distance at each end as shown; if not shown provide minimum bearing of 8 inches at each end. In hollow core c.m.u. walls, grout solid the core or cores directly under the lintel bearing areas for a depth of at least one course or tooth in a solid unit.

D. Steel Pipe Railings and Handrails:

1. Adjust railings prior to anchoring to ensure matching alignment at abutting joints. Space posts at spacing indicated, or if not indicated, as required by design loadings. Plumb post in each direction. Secure posts and railing ends to building construction as follows.

    a. Anchor posts in concrete by core drilling holes not less than 5 inches deep and 3/4-inch greater than outside diameter of post. Clean holes of all loose material, insert posts and fill annular space between post and concrete with nonshrink, nonmetallic grout, mixed and placed to comply with grout manufacturer's directions.
    b. Leave anchorage joint exposed; wipe off excess grout and leave 1/8 inch build-up, sloped away from post. For installation exposed on exterior or to flow of water, seal grout to comply with grout manufacturer's directions.
    c. Anchor posts to steel with steel oval flanges, angle type or floor type as required by conditions, welded to posts and bolted to steel supporting members.
    d. Anchor rail ends into concrete and masonry with steel round flanges welded to rail ends and anchored into wall construction with lead expansion shields and bolts.
    e. Anchor rail ends to steel with oval or round flanges welded to rail ends and bolted to structural steel members, unless otherwise indicated.
    f. Provide removable railing sections as indicated. Furnish slip-fit metal socket or sleeve for casting concrete. Accurately locate sleeves to match post spacing.

2. Secure handrails to wall with wall brackets and end fittings. Provide bracket with not less than 1-1/2 inches clearance from inside face of handrail and finished wall surface. Locate brackets as indicated or, if not indicated, at spacing

required for design loading. Secure wall brackets and wall return fittings to building construction as follows:

a. Use type of bracket with predrilled hole for exposed bolt anchorage.
b. For concrete and solid masonry anchorage, use drilled-in expansion shield and either concealed hanger bolt or exposed lag bolt, as applicable.
c. For hollow masonry anchorage, use toggle bolts having square heads.
d. For stud partitions use lag bolts set into wood backing between studs. Coordinate with stud installation for accurate location of backing members.

E. Bollards:

1. Cast bollards into concrete pier footing as indicated.
2. Provide a wash at the base of the bollard in the concrete base.
3. Fill bollards solidly with concrete, mounding top surface.

3.3 ADJUST AND CLEAN:

A. Touch Up Painting: Immediately after erection, clean field welds, bolted connections and abraded areas of shop paint and paint exposed areas with same material as used for shop painting. Apply by brush or spray to provide a minimum dry film thickness of 2.0 mils.

B. For Galvanized Surfaces: Clean field welds, bolted connections and abraded areas and apply 2 coats of galvanized repair paint, according to ASTM A 780.

END SECTION 05 50 00

SECTION 05 53 13 - BAR GRATINGS

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 metal bar gratings and metal supports for gratings.

B. Related Requirements:

1. Section 05 12 00 "Structural Steel Framing" for structural-steel framing system components.
2. Section 05 55 00 "Metal Fabrications" for grating treads and landings of steel-framed stairs.

1.3 COORDINATION

A. Coordinate installation of anchorages for gratings and supports. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.

1.4 ACTION SUBMITTALS

A. Product Data: For the following:

1. Clips and anchorage devices for gratings.
2. Paint products.

B. Shop Drawings: Include plans, sections, details, and attachments to other work.

1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."

1.6 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with gratings by field measurements before fabrication.

PART 2 - **PRODUCTS**

2.1 MANUFACTURERS

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

1. Alfab, Inc.
2. American Stair, Inc.
3. Lapeyre Stair Inc.
4. Mc Nichols Co.

2.2 PERFORMANCE REQUIREMENTS

A. Structural Performance: Gratings shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Limit deflection to L/360 or 1/4 inch, whichever is less.

2.3 METAL BAR GRATINGS

A. Metal Bar Grating Standards: Comply with NAAMM MBG 531, "Metal Bar Grating Manual."

B. Pressure-Locked, Rectangular-Bar Aluminum Grating [MBG-<#>]: Fabricated by [pressing rectangular flush-top crossbars into slotted bearing bars] [or] [swaging crossbars between bearing bars].

1. Bearing Bar Spacing: [**7/16 or 1/2 inch**] [**11/16 inch**] [**15/16 inch**] [**1-3/16 inches**] <Insert dimension(s)> o.c.
2. Bearing Bar Depth: [**1 inch**] [**1-1/4 inches**] [**1-1/2 inches**] [**1-3/4 inches**] [**2 inches**] [**2-1/4 inches**] [**2-1/2 inches**] [As required to comply with structural performance requirements].
3. Bearing Bar Thickness: [**1/8 inch**] [**3/16 inch**] [**1/4 inch**] [As required to comply with structural performance requirements].
4. Crossbar Spacing: [**2 inches**] [**4 inches**] o.c.
5. Grating Mark P-7-4 (1 x 1/8) ALUMINUM: 1-by-1/8-inch bearing bars at 7/16 inch o.c., and crossbars at 4 inches o.c.
6. Grating Mark P-11-4 (1 x 3/16) ALUMINUM: 1-by-3/16-inch bearing bars at 11/16 inch o.c., and crossbars at 4 inches o.c.
7. Grating Mark P-15-4 (1-1/2 x 3/16) ALUMINUM: 1-1/2-by-3/16-inch bearing bars at 15/16 inch o.c., and crossbars at 4 inches o.c.
8. Grating Mark P-19-4 (2 x 3/16) ALUMINUM: 2-by-3/16-inch bearing bars at 1-3/16 inches o.c., and crossbars at 4 inches o.c.
9. Grating Mark: As indicated.
10. Traffic Surface: [Plain] [Applied abrasive finish consisting of aluminum-oxide aggregate in an epoxy-resin adhesive] [As indicated].
11. Aluminum Finish: [Mill finish] [Class I, clear, anodized finish].

2.4 ALUMINUM

A. General: Provide alloy and temper recommended by aluminum producer for type of use indicated, with not less than the strength and durability properties of alloy, and temper designated below for each aluminum form required.

B. Extruded Bars and Shapes: ASTM B 221, alloys as follows:

1. 6061-T6 or 6063-T6, for bearing bars of gratings and shapes.
2. 6061-T1, for grating crossbars.

C. Aluminum Sheet: ASTM B 209, Alloy 5052-H32.

2.5 FASTENERS

A. General: Unless otherwise indicated, provide Type 304 stainless-steel fasteners for exterior use and zinc-plated fasteners with coating complying with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, at exterior walls. Select fasteners for type, grade, and class required.

1. Provide stainless-steel fasteners for fastening aluminum.

B. Stainless-Steel Bolts and Nuts: Regular hexagon-head annealed stainless-steel bolts, nuts, and, where indicated, flat washers; ASTM F 593 for bolts and ASTM F 594 for nuts, Alloy Group 1.

C. Post-Installed Anchors: Torque-controlled expansion or chemical anchors capable of sustaining, without failure, a load equal to six times the load imposed when installed in unit masonry and four times the load imposed when installed in concrete, as determined by testing according to ASTM E 488/E 488M, conducted by a qualified independent testing agency.

1. Material for Interior Locations: Carbon-steel components zinc plated to comply with ASTM B 633 or ASTM F 1941, Class Fe/Zn 5, unless otherwise indicated.
2. Material for Exterior Locations and Where Stainless Steel Is Indicated: Alloy Group 1 stainless-steel bolts, ASTM F 593, and nuts, ASTM F 594.

2.6 MISCELLANEOUS MATERIALS

A. Bituminous Paint: Cold-applied asphalt emulsion complying with

B. ASTM D 1187/D 1187M.

2.7 FABRICATION

A. Shop Assembly: Fabricate grating sections in shop to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations. Use connections that maintain structural value of joined pieces. Clearly mark units for reassembly and coordinated installation.

B. Cut, drill, and punch material cleanly and accurately. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated. Remove sharp or rough areas on exposed surfaces.

C. Form from materials of size, thickness, and shapes indicated, but not less than that needed to support indicated loads.

D. Fit exposed connections accurately together to form hairline joints.

E. Welding: Comply with AWS recommendations and the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.

F. Provide for anchorage of type indicated; coordinate with supporting structure. Fabricate and space the anchoring devices to secure gratings, frames, and supports rigidly in place and to support indicated loads.

G. Fabricate cutouts in grating sections for penetrations indicated. Arrange cutouts to permit grating removal without disturbing items penetrating gratings.

1. Edge-band openings in grating that interrupt four or more bearing bars with bars of same size and material as bearing bars.

H. Do not notch bearing bars at supports to maintain elevation.

2.8 GRATING FRAMES AND SUPPORTS

A. Fabricate from metal shapes, plates, and bars of welded construction to sizes, shapes, and profiles indicated and as necessary to receive gratings. Miter and weld connections for perimeter angle frames. Cut, drill, and tap units to receive hardware and similar items.

1. Unless otherwise indicated, fabricate from same basic metal as gratings.
2. Equip units indicated to be cast into concrete or built into masonry with integrally welded anchors. Unless otherwise indicated, space anchors 24 inches o.c. and provide minimum anchor units in the form of steel straps 1-1/4 inches wide by 1/4 inch thick by 8 inches long.

2.9 ALUMINUM FINISHES

A. Mill finish where indicated.

B. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I where indicated.

PART 3 - <u>EXECUTION</u>

3.1 INSTALLATION, GENERAL

A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing gratings to in-place construction. Include threaded fasteners for concrete and masonry inserts, through-bolts, lag bolts, and other connectors.

B. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required for installing gratings. Set units accurately in location, alignment, and elevation; measured from established lines and levels and free of rack.

C. Provide temporary bracing or anchors in formwork for items that are to be built into concrete or masonry.

D. Fit exposed connections accurately together to form hairline joints.

1. Weld connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations. Do not weld, cut, or abrade the surfaces of exterior units that have been hot-dip galvanized after fabrication and are for bolted or screwed field connections.

E. Attach toeplates to gratings by welding at locations indicated.

F. Field Welding: Comply with AWS recommendations and the following:

1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
2. Obtain fusion without undercut or overlap.

G. Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

3.2 INSTALLING METAL BAR GRATINGS

A. General: Install gratings to comply with recommendations of referenced metal bar grating standards that apply to grating types and bar sizes indicated, including installation clearances and standard anchoring details.

B. Attach removable units to supporting members with type and size of clips and fasteners indicated or, if not indicated, as recommended by grating manufacturer for type of installation conditions shown.

C. Attach nonremovable units to supporting members by welding where both materials are same; otherwise, fasten by bolting as indicated above.

END SECTION 05 53 13

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SECTION 07 95 00 - EXPANSION CONTROL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Applicable provisions of Division 1 shall govern work of this Section.

1.2 SUMMARY

A. Types of joints for which architectural joint systems are specified include the following:

1. Exterior wall and roof joints.
2. Interior floor, walln and ceiling joints.

B. Related Sections include the following:

1. Division 3 Section "Cast-in-Place Concrete" for block-outs and cast-in anchorage and frames for architectural joint systems in concrete floors, parking decks, and walls.
2. Division 7 Section "Sheet Metal Flashing and Trim" for sheet metal roof and wall joint systems.
3. Division 7 Section "Joint Sealants" for elastomeric sealants and preformed compressed-foam sealants without metal frames.

1.3 DEFINITIONS

A. Architectural Joint System: Any filler or cover used to span, fill, cover, or seal a joint, except expanding foam seals and poured or foamed in-place sealants.

C. Cyclic Movement: Periodic change between widest and narrowest joint widths in an automatically mechanically controlled system.

D. Fire Barriers: Any material or material combination, when fire tested after cycling, designated to resist passage of flame and hot gases through a movement joint.

E. Maximum Joint Width: Widest linear gap a joint system tolerates and performs its designed function without damaging its functional capabilities.

F. Minimum Joint Width: Narrowest linear gap a joint system tolerates and performs its designed function without damaging its functional capabilities.

G. Movement Capability: Value obtained from the difference between widest and narrowest widths of a joint opening typically expressed in numerical values or a percentage of nominal value of joint width.

I. Nominal Joint Width: Width of linear gap indicated as representing the conditions existing when architectural joint systems will be installed or, if no nominal joint width is indicated, a width equal to the sum of maximum and minimum joint widths divided by two.

1.4 PERFORMANCE REQUIREMENTS

A. General: Provide factory-fabricated architectural joint systems capable of withstanding the types of loads and of accommodating the kinds of movement, and the other functions for which they are designed including those specified below, without failure. Types of failure include those listed in Appendix X3 of ASTM E 1399.

1. Pedestrian Traffic Joints: Support pedestrian traffic across joint.
2. Exterior Joints: Maintain continuity of weather enclosure.
3. Other Joints: Where indicated, provide joint systems that prevent penetration of water, moisture, and other substances deleterious to building components or content.
4. Joints in Surfaces with Architectural Finishes: Serve as finished architectural joint closures.

1.5 SUBMITTALS

A. Product Data: Include manufacturer's product specifications, construction details, material and finish descriptions, and dimensions of individual components and seals.

B. Shop Drawings: For each joint system specified, provide the following:

1. Placement Drawings: Include line diagrams showing entire route of each joint system, plans, elevations, sections, details, joints, splices, locations of joints and splices, and attachments to other Work. Where joint systems change planes, provide Isometric Drawings depicting how components interconnect to achieve continuity of joint covers and fillers.

C. Samples for Verification: Full-size units 6 inches long of each type of joint system indicated; in sets for each finish, color, texture, and pattern specified, showing the full range of variations expected in these characteristics.

D. Product Test Reports: From a qualified testing agency indicating architectural joint systems comply with requirements, based on comprehensive testing of current products.

F. Research/Evaluation Reports: Evidence of architectural joint system's compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.

1.6 QUALITY ASSURANCE

A. Source Limitations: Obtain architectural joint systems through one source from a single manufacturer. Coordinate compatibility with adjoining joint systems specified in other Sections.

B. Product Options: Drawings indicate size, profiles, and dimensional requirements of architectural joint systems and are based on the specific systems indicated. Other manufacturers' systems complying with requirements may be considered. Refer to Division 1 Section "Product Requirements."

1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis-of-Design Products: The design for each architectural joint system specified in Part 2 "Architectural Joint Systems" Article below is based on the products named. Subject to compliance with requirements, provide either the named products or comparable products by one of the other manufacturers listed.

2.2 MATERIALS

A. Aluminum: ASTM B 221 (ASTM B 221M), alloy 6063-T5 for extrusions; ASTM B 209 (ASTM B 209M), alloy 6061-T6 for sheet and plate.

1. Apply manufacturer's standard protective coating on aluminum surfaces to be placed in contact with cementitious materials.

B. Preformed Seals: Single or multicellular extruded elastomeric seals designed with or without continuous, longitudinal, internal baffles. Formed to be installed in frames or with anchored flanges, in color indicated or, if not indicated, as selected by Architect from manufacturer's standard colors.

C. Strip Seals: Elastomeric membrane or tubular extrusions with a continuous longitudinal internal baffle system throughout complying with ASTM E 1783; used with compatible frames, flanges, and molded-rubber anchor blocks.

D. Compression Seals: Preformed, elastomeric extrusions having internal baffle system complying with ASTM E 1612 in sizes and profiles indicated or as recommended by manufacturer.

E. Accessories: Manufacturer's standard anchors, clips, fasteners, set screws, spacers, flexible moisture barrier and filler materials, drain tubes, lubricants, adhesives, and other

accessories compatible with material in contact, as indicated or required for complete installations.

2.3 ARCHITECTURAL JOINT SYSTEMS

A. General: Provide joint systems of design, basic profile, materials, and operation indicated. Provide units with the capability to accommodate joint widths indicated and variations in adjacent surfaces.

1. Furnish units in longest practicable lengths to minimize number of end joints. Provide hairline mitered corners where joint changes directions or abuts other materials.
2. Include closure materials and transition pieces, tee-joints, corners, curbs, cross-connections, and other accessories as required to provide continuous joint systems.
3. Frames for Strip Seals: Designed with semiclosed cavity that provides a mechanical lock for seals of type indicated.
4. Public Arena Seals: Non-slip seals designed for installation on treads and risers and to lie flat with adjacent surfaces, and complying with ADA guidelines for public areas.

B. Products: Provide products as indicated on the drawings for each individual condition based on Construction Specialties, Inc. products "SRJ and SRJW" series of joint and cover systems.

C. Other manufacturers having products which are acceptable for the Work are as follows:

1. Balco, Inc.
2. InPro Corporation (IPC).
3. MM Systems Corporation.
4. Nystrom, Inc.
5. Other Architect pre-approved equal.

2.4 FINISHES, GENERAL

A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

2.5 ALUMINUM FINISHES

A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

B. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 607.1.

PART 3 - EXECUTION

3.1 PREPARATION

A. Prepare substrates according to architectural joint system manufacturer's written instructions.

B. Coordinate and furnish anchorages, Placement Drawings, and instructions for installing joint systems to be embedded in or anchored to concrete or to have recesses formed into edges of concrete slab for later placement and grouting-in of frames.

C. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary to secure joint systems to in-place construction, including threaded fasteners with drilled-in expansion shields for masonry and concrete where anchoring members are not embedded in concrete. Provide fasteners of metal, type, and size to suit type of construction indicated and to provide for secure attachment of joint systems.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for handling and installing architectural joint assemblies and materials, unless more stringent requirements are indicated.

B. Coordinate installation of architectural joint assembly materials and associated work so complete assemblies comply with assembly performance requirements.

C. Terminate exposed ends of exterior architectural joint assemblies with factory-fabricated termination devices to maintain waterproof system.

D. Install factory-fabricated transitions between building expansion-joint cover assemblies and roof expansion-joint assemblies, specified in Division 7 Section "Roof Expansion Assemblies," to provide continuous, uninterrupted, watertight construction.

E. Cutting, Fitting, and Placement: Perform cutting, drilling, and fitting required to install joint systems.

1. Install joint cover assemblies in true alignment and proper relationship to joints and adjoining finished surfaces measured from established lines and levels.
2. Allow adequate free movement for thermal expansion and contraction of metal to avoid buckling.
3. Set covers in horizontal surfaces at elevations that place exposed surfaces flush with adjoining finishes.
4. Locate wall ceiling covers in continuous contact with adjacent surfaces.
5. Securely attach in place with required accessories.
6. Locate anchors at interval recommended by manufacturer, but not less than 3 inches from each end and not more than 24 inches o.c.

F. Continuity: Maintain continuity of joint systems with a minimum number of end joints and align metal members. Cut and fit ends to produce joints that will accommodate thermal expansion and contraction of metal to avoid buckling of frames. Adhere flexible filler materials, if any, to frames with adhesive or pressure-sensitive tape as recommended by manufacturer.

G. Extruded Preformed Seals: Install seals to comply with manufacturer's written instructions and with minimum number of end joints.

1. For straight sections, provide preformed seals in continuous lengths.
2. Vulcanize or heat-weld field splice joints in preformed seal material to provide watertight joints using procedures recommended by manufacturer.
3. Apply adhesive, epoxy, or lubricant adhesive approved by manufacturer to both frame interfaces before installing preformed seals.
4. Seal transitions according to manufacturer's written instructions.
5. Install foam seals with adhesive recommended by manufacturer and heat seal all splices.

H. Joint Systems with Seals: Seal end joints within continuous runs and joints at transitions according to manufacturer's written instructions to provide a watertight installation.

3.3 CLEANING AND PROTECTION

A. Do not remove protective covering until finish work in adjacent areas is complete. When protective covering is removed, clean exposed metal surfaces to comply with manufacturer's written instructions.

END OF SECTION 07 95 00

SECTION 08 33 13 - COILING COUNTER DOORS

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. Counter doors.

B. Related Requirements:

1. Section 05 50 00 "Metal Fabrications" for miscellaneous steel supports.
2. Section 08 33 23 "Overhead Coiling Doors."
3. Section 09 91 00 "Interior Painting" for finish painting of factory-primed doors.

1.3 ACTION SUBMITTALS

A. Product Data: For each type and size of coiling counter door and accessory.

1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
2. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.

B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.

1. Include plans, elevations, sections, and mounting details.
2. Include details of equipment assemblies, and indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.

C. Samples for Initial Selection: Manufacturer's finish charts showing full range of colors and textures available for units with factory-applied finishes.

1. Include similar Samples of accessories involving color selection.

D. Samples for Verification: For each type of exposed finish on the following components, in manufacturer's standard sizes:

1. Curtain slats.
2. Bottom bar.
3. Guides.
4. Brackets.
5. Hood.
6. Locking device.
7. Include similar Samples of accessories involving color selection.

1.4 CLOSEOUT SUBMITTALS

A. Maintenance Data: For coiling counter doors to include in maintenance manuals.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.

PART 2 - PRODUCTS

2.1 MANUFACTURERS, GENERAL

A. Source Limitations: Obtain coiling counter doors from single source from single manufacturer.

1. Obtain operators and controls from coiling counter door manufacturer.

2.2 COUNTER DOOR ASSEMBLY

A. Counter Door: Coiling counter door formed with curtain of interlocking metal slats.

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. ACME Rolling Doors.
b. Alpine Overhead Doors, Inc.
c. Alumatec Pacific Products.
d. Amarr Garage Doors.
e. C.H.I. Overhead Doors.
f. City-Gates.
g. Clopay Building Products.
h. Cookson Company.
i. Cornell Iron Works, Inc.
j. Lawrence Roll-Up Doors, Inc.
k. McKeon Rolling Steel Door Company, Inc.
l. Metro Door.

m. Overhead Door Corporation.
n. QMI Security Solutions.
o. Raynor.
p. Wayne-Dalton Corp.

B. Operation Cycles: Door components and operators capable of operating for not less than 10,000. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.

1. Include tamperproof cycle counter.

C. Door Curtain Material: Aluminum.

D. Door Curtain Slats: Flat profile slats of 1-1/2-inch center-to-center height.

E. Bottom Bar: Manufacturer's standard continuous channel or tubular shape, fabricated aluminum extrusion and finished to match door.

F. Curtain Jamb Guides: Aluminum with exposed finish matching curtain slats. Provide continuous integral wear strips to prevent metal-to-metal contact and to minimize operational noise.

G. Hood: Aluminum.

1. Shape: Round.
2. Mounting: Face of wall.

H. Integral Frame, Hood, and Fascia: Galvanized steel.

1. Mounting: Face of wall.

I. Sill Configuration: No sill.

J. Locking Devices: Equip door with locking device assembly.

1. Locking Device Assembly: Single-jamb side locking bars, operable from inside with thumb turn outside with cylinder.

K. Manual Door Operator: Manufacturer's standard crank operator.

1. Provide operator with manufacturer's standard removable operating arm.

L. Door Finish:

1. Aluminum Finish: Mill.
2. Interior Curtain-Slat Facing: Match finish of exterior curtain-slat face.

2.3 DOOR CURTAIN MATERIALS AND CONSTRUCTION

A. Door Curtains: Fabricate coiling counter-door curtain of interlocking metal slats in a continuous length for width of door without splices. Unless otherwise indicated, provide

slats of thickness and mechanical properties recommended by door manufacturer for performance, size, and type of door indicated, and as follows:

1. Aluminum Door Curtain Slats: ASTM B 209 sheet or ASTM B 221 extrusions, alloy and temper standard with manufacturer for type of use and finish indicated; thickness of 0.050 inch; and as required.
2. Metal Interior Curtain-Slat Facing: Match metal of exterior curtain-slat face.

B. Curtain Jamb Guides: Manufacturer's standard angles or channels and angles of same material and finish as curtain slats unless otherwise indicated, with sufficient depth and strength to retain curtain, to allow curtain to operate smoothly, and to withstand loading. Slot bolt holes for guide adjustment. Provide removable stops on guides to prevent overtravel of curtain.

2.4 HOODS

A. General: Form sheet metal hood to entirely enclose coiled curtain and operating mechanism at opening head. Contour to fit end brackets to which hood is attached. Roll and reinforce top and bottom edges for stiffness. Form closed ends for surface-mounted hoods and fascia for any portion of between-jamb mounting that projects beyond wall face. Equip hood with intermediate support brackets as required to prevent sagging.

1. Aluminum: 0.040-inch- thick aluminum sheet complying with ASTM B 209, of alloy and temper recommended by manufacturer and finisher for type of use and finish indicated.

2.5 LOCKING DEVICES

A. Locking Device Assembly: Fabricate with cylinder lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bars to engage through slots in tracks.

1. Lock Cylinders: Cylinders Specified and provided in Section 08 70 00 "Door Hardware".

2.6 MANUAL DOOR OPERATORS

A. General: Equip door with manual door operator by door manufacturer.

B. Crank Operator: Consisting of crank and crank gearbox, steel crank drive shaft, and gear-reduction unit, of type indicated. Size gears to require not more than 25-lbf force to turn crank. Fabricate gearbox to be oil tight and to completely enclose operating mechanism. Provide manufacturer's standard crank-locking device.

2.7 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM/NOMMA's "Metal Finishes Manual for Architectural and Metal Products (AMP 500-06)" for recommendations for applying and designating finishes.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.8 ALUMINUM FINISHES

A. Mill Finish: Manufacturer's standard.

B. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates areas and conditions, with Installer present, for compliance with requirements for substrate construction and other conditions affecting performance of the Work.

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

3.2 INSTALLATION

A. Install coiling counter doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.

B. Install coiling counter doors, hoods, controls, and operators at the mounting locations indicated for each door.

3.3 STARTUP SERVICE

A. Engage a factory-authorized service representative to perform startup service.

1. Perform installation and startup checks according to manufacturer's written instructions.
2. Test and adjust controls and safety devices. Replace damaged and malfunctioning controls and equipment.

3.4 ADJUSTING

A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.

B. Lubricate bearings and sliding parts as recommended by manufacturer.

C. Adjust seals to provide tight fit around entire perimeter.

3.5 MAINTENANCE SERVICE

A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of coiling-door Installer.

3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain coiling counter doors.

END OF SECTION 08 33 13

STRUCTURAL GENERAL NOTES & STRUCTURAL STANDARD ABBREVIATIONS

1) THESE NOTES SUPPLEMENT THE SPECIFICATIONS. PROJECT SPECIFICATIONS CONTAIN ADDITIONAL INFORMATION AND CLARIFICATIONS. IN CASE OF CONFLICT BETWEEN PROJECT SPECIFICATIONS AND THESE NOTES, THESE NOTES SHALL GOVERN.

2) GOVERNING BUILDING CODE: 2009 IBC AS AMENDED BY THE STATE OF WISCONSIN.

3) BUILDING OCCUPANCY CATEGORY — — — — — — — — — — III

4) DESIGN LOADS

ROOF
- LIVE LOAD (MINIMUM) — — — — — — 20 PSF
- SUPERIMPOSED DEAD LOAD (PER MTL BLDG MFR)

SNOW LOADS
- GROUND SNOW (P_g) — — — — — — 30 PSF
- IMPORTANCE FACTOR (I_s) — — — — — — 1.1
- EXPOSURE FACTOR (C_e) — — — — — — 1.0
- THERMAL FACTOR (C_t) FOR BUILDING 1 & PREFUNCTION — — — — 1.0
- THERMAL FACTOR (C_t) FOR BUILDING 2 — — — — 1.2
- BASE ROOF SNOW LOAD FOR BUILDING 1 & PREFUNCTION — — — 23.1 PSF
- BASE ROOF SNOW LOAD FOR BUILDING 2 — — — 27.7 PSF

WIND LOADS
- BASIC WIND SPEED — — — — — — 90 MPH
- IMPORTANCE FACTOR (I_w) — — — — — — 1.15
- EXPOSURE CATEGORY — — — — — — C
- METHOD 1 DESIGN WIND PRESSURE FOR MWFRS (P_s) INTERIOR ZONE — — 14.6 PSF
- METHOD 1 DESIGN WIND PRESSURE FOR MWFRS (P_s) END ZONE — — 21.9 PSF

SEISMIC LOADS
- SITE CLASS — — — — — — C
- SHORT PERIOD SPECTRAL RESPONSE COEFFICIENT (S_{DS}) — — — 0.092
- LONG PERIOD SPECTRAL RESPONSE COEFFICIENT (S_{D1}) — — — 0.052
- SEISMIC IMPORTANCE FACTOR (I) — — — — — — 1.25
- SEISMIC DESIGN CATEGORY — — — — — — A

5) FOUNDATIONS AND EARTHWORK

REFERENCE PROJECT SOILS REPORT PREPARED BY CGC, INC #C13078, 4/15/13 FOR GENERAL INFORMATION, SPECIFIC RECOMMENDATIONS AND REQUIREMENTS PERTAINING TO THE SITE. ALL ACTIVITIES CONCERNING PREPARATION AND VERIFICATION OF BEARING SOILS FOR SLAB-ON-GRADE AND FOOTINGS SHALL BE SUPERVISED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER

SOIL DESIGN INFORMATION
- ALLOWABLE SOIL BEARING PRESSURE — — — — 3,000 PSF
- SOIL UNIT WEIGHT — — — — 100 PCF
- MODULUS OF SUBGRADE REACTION — — — — 75 PCI
- COEFFICIENT OF FRICTION (SOIL/CONCRETE) — — — — 0.40

REMOVE EXISTING SURFICIAL TOP SOIL AND VEGETATION FROM WITHIN THE BUILDING AREA AND A MINIMUM TEN FEET BEYOND. EXCAVATE MATERIAL TO PROPOSED SLAB-ON-GRADE SUBGRADE. PROOFROLL WITH A HEAVY RUBBER TIRED VEHICLE. SOILS WHICH HEAVE, PUMP, OR DO NOT READILY COMPACT SHALL BE EXCAVATED AND REPLACED WITH ENGINEERED FILL.

SUBGRADE PREPARATION FOR FOOTINGS SHALL CONSIST OF EXCAVATION TO REQUIRED ALLOWABLE BEARING CAPACITY SOILS AT OR NEAR DESIGN FOOTING ELEVATIONS. WHERE UNSUITABLE SOIL IS ENCOUNTERED AT NOMINAL FOOTING DEPTH SEE OVER EXCAVATION DETAIL.

ALL COMPACTION REQUIREMENTS REFER TO % OF MAXIMUM DRY DENSITY PER ASTM-D1557 MODIFIED PROCTOR. GRANULAR STRUCTURAL FILL SHALL BE PLACED IN NO MORE THAN 8" LAYERS COMPACTED TO 95%. ALTERNATIVELY, FILL MAY CONSIST OF APPROVED COHESIVE SOILS PLACED IN NO MORE THAN 8" LAYERS COMPACTED TO 95%. MOISTURE CONDITION FILL MATERIAL AS REQUIRED TO OBTAIN PROPER COMPACTION. COHESIVE SOILS OR GRANULAR SOILS WITH A SIGNIFICANT PERCENT OF COHESIVE FINES SHALL BE CONDITIONED TO WITHIN 3% OF OPTIMUM MOISTURE CONTENT AT COMPACTION.

6) CONCRETE

MINIMUM 28 DAY COMPRESSIVE STRENGTH (F'c)
- FOOTINGS — — — — 3,000 PSI
- PIERS, WALLS — — — — 3,000 PSI
- SLAB-ON-GRADE (INTERIOR) — — — — 3,500 PSI
- SLAB-ON-GRADE (EXTERIOR) — — — — 4,500 PSI
- TOPPING ON PRECAST PLANK — — — — 4,000 PSI

COVER ON MILD STEEL REINFORCEMENT (UNLESS NOTED OTHERWISE)
- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH — — — 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER
  - #5 BARS AND SMALLER — — — — 1 1/2"
  - #6 BARS AND LARGER — — — — 2"
- CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND — — —

CONCRETE REINFORCEMENT YIELD STRENGTH (FY) 1"
- ALL DEFORMED MILD STEEL — — — — 60,000 PSI
- WELDED WIRE FABRIC — — — — 65,000 PSI

DESIGN OF CONCRETE BASED ON THE 2008 EDITION OF THE ACI 318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE 4

7) STRUCTURAL STEEL

SHAPE AND YIELD STRENGTH (Fy)
- WF AND WT (A992, Fu=65 KSI) — — — — 50 KSI
- HSS (A500, GRADE B, Fu=50 KSI) — — — — 46 KSI
- ANGLES, CHANNELS, PLATES (A36, Fu=58 KSI) — — — — 36 KSI

CONNECTORS
- ANCHOR RODS — — — — F1554 WITH S1 SUPPLEMENT, GRADE 36
- HIGH STRENGTH BOLTS — — — — 3/4" OR 7/8" A325/F1852
- WELDING ELECTRODES — — — — E70

DESIGN OF STRUCTURAL STEEL BASED ON THE THIRTEENTH EDITION OF THE AISC MANUAL OF STEEL CONSTRUCTION 4

ALL STEEL TO STEEL FRAMING SHALL USE STANDARD FRAMED CONNECTIONS - DOUBLE CLIP ANGLES WELDED TO BEAM AND BOLTED TO GIRDER OR COLUMN - UNLESS NOTED OTHERWISE. CONNECTIONS SHALL BE SYMMETRICAL ABOUT BEAM WEB. SINGLE PLATE SHEAR TABS MAY BE USED IN PLACE OF STANDARD FRAMED CONNECTIONS IF AND ONLY IF ONE OF THE FOLLOWING CONDITIONS IS MET:
- CONNECTION IS SPECIFICALLY DETAILED AS A SINGLE PLATE SHEAR TAB, OR
- CONNECTION OF BEAM TO ONE SIDE OF A GIRDER IS MATCHED BY SIMILAR CONNECTIONS AT SIMILAR SPACING ON THE OPPOSITE SIDE OF THE SAME GIRDER

DESIGN ALL CONNECTIONS FOR LOADS GIVEN, OR AS FOLLOWS:
- NON-COMPOSITE BEAMS:
  - CONNECTION SHALL SUPPORT 55% OF THE TOTAL UNIFORM LOAD CAPACITY FOR THE GIVEN MEMBER, SPAN AND GRADE OF STEEL.

8) GENERAL

PROPRIETARY EQUIPMENT DIMENSIONAL REQUIREMENTS SHALL BE VERIFIED WITH MANUFACTURER PRIOR TO FABRICATION AND ERECTION OF SUPPORTING STRUCTURE.

VERIFY OPENINGS THROUGH FLOOR AND WALLS WITH ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL REQUIREMENTS. CHANGES IN SIZE, LOCATION OR NUMBER OF OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS SHALL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE STRUCTURAL ENGINEER. NOT ALL OPENINGS ARE SHOWN ON THE STRUCTURAL DRAWINGS.

ABBREVIATIONS

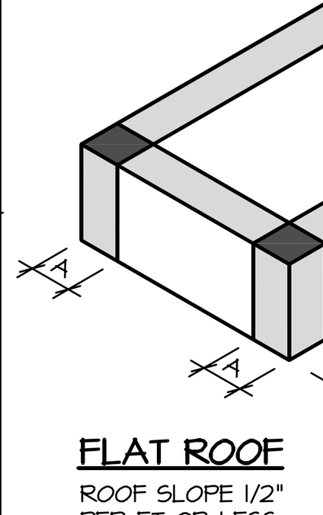
ADTL — ADDITIONAL
ADTL — ADDITIONAL
ADJ — ADJACENT
AGG — AGGREGATE
ABC — AGGREGATE BASE COURSE
ATWA — ALL THE WAY AROUND
ALT — ALTERNATE
AB — ANCHOR BOLT
APPROX — APPROXIMATELY
ARCH — ARCHITECT(URAL)
BM — BEAM
BRG — BEARING
BFF — BELOW FINISH FLOOR
BTWN — BETWEEN
BIT — BITUMINOUS
B — BOTTOM
BC — BOTTOM CHORD
BOC — BOTTOM OF CONCRETE
BOF — BOTTOM OF FOOTING
BOS — BOTTOM OF STEEL
BLDG — BUILDING
CANT — CANTILEVER
CIP — CAST-IN-PLACE
CI — CAST IRON
CB — CATCH BASIN
CL — CENTERLINE
CLG — CEILING
CLR — CLEAR
COL — COLUMN
CS — COLUMN STRIP
CSB — COLUMN STRIP BOTTOM BARS
CST — COLUMN STRIP TOP BARS
CONC — CONCRETE
CMU — CONCRETE MASONRY UNIT
CONN — CONNECTION
CONST — CONSTRUCTION
CONT — CONTINUOUS
CONTR — CONTRACTOR
CJ — CONTROL/CONSTRUCTION JOINT
COORD — COORDINATE
DL — DEAD LOAD
DEMO — DEMOLITION
DEP — DEPRESSION
D — DEPTH
DTL — DETAIL
DIAG — DIAGONAL
DIA — DIAMETER
DIM — DIMENSION
DWL — DOWEL
DBA — DOWEL BAR ANCHORS
DN — DOWN
DWG — DRAWING
EA — EACH
EF — EACH FACE
EW — EACH WAY
EOD — EDGE OF DECK
EOS — EDGE OF SLAB
ES — EDGE STRIP
ELEC — ELECTRICAL
EL — ELEVATION
ELEV — ELEVATOR
ENG — ENGINEER
EQ — EQUAL
EQUIP — EQUIPMENT
EXTG — EXISTING
EXP — EXPANSION
EJ — EXPANSION JOINT
EXT — EXTERIOR
EFOW — EXTERIOR FACE OF WALL
FO — FACE OF
FF — FAR FACE
FV — FIELD VERIFY
FIN — FINISH
FE — FIRE EXTINGUISHER
FLG — FLANGE
FLR — FLOOR
FD — FLOOR DRAIN
FTG — FOOTING
FDN — FOUNDATION
FUT — FUTURE
GA — GAUGE
GALV — GALVANIZED
GC — GENERAL CONTRACTOR
GLB — GLUED-LAMINATED BEAM
GR — GRADE (ING)
HWS — HEADED WELDED STUD
HVAC — HEATING, VENTILATING AND AIR CONDITIONING
HT — HEIGHT
HP — HIGH POINT
HM — HOLLOW METAL
HSS — HOLLOW STRUCTURAL SECTION
HK — HOOK
HORIZ — HORIZONTAL
INFO — INFORMATION
ID — INSIDE DIAMETER
IF — INSIDE FACE
INSUL — INSULATION
INT — INTERIOR
JT — JOINT
JST — JOIST
JBE — JOIST BEARING ELEVATION
K — KIP (1000 LB)
KSI — KIPS PER SQUARE INCH
KO — KNOCKOUT
LVL — LAMINATED VENEER LUMBER
LWT — LIGHT WEIGHT
LL — LIVE LOAD
LOC — LOCATION
LLV — LONG LEG VERTICAL
LLBB — LONG LEGS BACK-TO-BACK
LLH — LONG LEG HORIZONTAL
LW — LONG WAY
LP — LOW POINT
MFR — MANUFACTURER
MAS — MASONRY
MBW — MASONRY BEARING WALL
MO — MASONRY OPENING
MSW — MASONRY SHEAR WALL
MATL — MATERIAL
MAX — MAXIMUM
MECH — MECHANICAL
MTL — METAL
MS — MIDDLE STRIP
MSB — MIDDLE STRIP BOTTOM BARS
MST — MIDDLE STRIP TOP BARS
MIN — MINIMUM
MISC — MISCELLANEOUS
MC — MOMENT CONNECTION
NF — NEAR FACE
NOM — NOMINAL
NWT — NORMAL WEIGHT
NA — NOT APPLICABLE
NIC — NOT IN CONTRACT
NTS — NOT TO SCALE
OC — ON CENTER
OPNG — OPENING
OPP — OPPOSITE
OD — OUTSIDE DIAMETER
OF — OUTSIDE FACE
OSL — OUTSTANDING LEG
O/O — OUT-TO-OUT
OH — OVERHEAD
PERIM — PERIMETER
PL — PLATE
PLBG — PLUMBING
PT — POINT
P/T — POST-TENSIONED
LB — POUND
PCF — POUNDS PER CUBIC FOOT
PCI — POUNDS PER CUBIC INCH
PLF — POUNDS PER LINEAR FOOT
PSF — POUNDS PER SQUARE FOOT
PSI — POUNDS PER SQUARE INCH
PC — PRECAST/PRESTRESSED
PREFAB — PREFABRICATED
PROJ — PROJECTION
R — RADIUS
REF — REFERENCE
REINF — REINFORCE (D) (MENT)
REM — REMAINDER
REQ — REQUIRED
RW — RETAINING WALL
REV — REVISION
RD — ROOF DRAIN
RTU — ROOF TOP UNIT
SCH — SCHEDULE
SECT — SECTION
SC — SHEAR CONNECTOR
SHT — SHEET
SLBB — SHORT LEGS BACK-TO-BACK
SW — SHORT WAY
SH/S — SHOULDER STUDS
SIM — SIMILAR
SOG — SLAB-ON-GRADE
SL — SNOW LOAD
SP — SPACE (ING)
L — SPAN
SPEC — SPECIFICATIONS
SQ — SQUARE
SS — STAINLESS STEEL
STD — STANDARD
STL — STEEL
STRUCT — STRUCTURE (AL)
SYM — SYMMETRICAL
TEMP — TEMPORARY
TENCTRL — TENSION CONTROL
THK — THICK (ENED) (NESS)
T — TOP
TC — TOP CHORD
TOC — TOP OF CONCRETE
TOF — TOP OF FOOTING
TL — TOP OF LEDGE
TP — TOP OF PIER
TOS — TOP OF STEEL
TW — TOP OF WALL
TYP — TYPICAL
UNO — UNLESS NOTED OTHERWISE
VR — VAPOR RETARDER
VIF — VERIFY IN FIELD
VERT — VERTICAL
WT — WEIGHT
WWF — WELDED WIRE FABRIC
W — WIDTH/WIDE
WL — WIND LOAD
W/ — WITH
W/O — WITHOUT
WD — WOOD
WSBW — WOOD STUD BEARING WALL
WP — WORK (ING) POINT

WIND PRESSURE ON COMPONENTS AND CLADDING (C&C)

ZONE	EFFECTIVE AREA OF COMP OR CLADDING SF)	WIND PRESSURE (PSF) POSITIVE (INWARD)	NEGATIVE (OUTWARD) GABLE/HIP	NEGATIVE (OUTWARD) FLAT
1	10 OR LESS	10.1	N/A	25.0
1	50	8.7	N/A	23.5
1	100 OR GREATER	8.1	N/A	22.5
2	10 OR LESS	10.1	N/A	41.8
2	50	8.7	N/A	31.5
2	100 OR GREATER	8.1	N/A	27.1
3	10 OR LESS	10.1	N/A	63.1
3	50	8.7	N/A	37.9
3	100 OR GREATER	8.1	N/A	25.9
			ZONE 2	ZONE 3
OVERHANG		-	29.0	37.0

ZONE	EFFECTIVE AREA OF COMP OR CLADDING SF)	WIND PRESSURE (PSF) POSITIVE (INWARD)	NEGATIVE (OUTWARD)
4	10 OR LESS	25.0	27.1
4	50	22.3	24.5
4	100 OR GREATER	21.2	23.3
5	10 OR LESS	25.0	33.4
5	50	22.3	28.3
5	100 OR GREATER	21.2	25.9

NOTES:
1) BASED ON SIMPLIFIED PROVISIONS FOR ENCLOSED REGULAR-SHAPED BUILDINGS WITH MEAN ROOF HEIGHT LESS THAN OR EQUAL TO 60 FEET (ASCE 7-05, FIGURES 6-2 & 6-3) ASSUMING K_{ZT} = 1.0 AND USING CRITERIA LISTED IN STRUCTURAL GENERAL NOTES.
2) FOR EFFECTIVE MEMBER AREAS NOT SPECIFICALLY LISTED, INTERPOLATE OR USE LARGEST VALUE OF WIND PRESSURE/SUCTION NOTED. DO NOT USE 1/3 STRESS INCREASE FOR MEMBER DESIGN WITH VALUES NOTED IN THIS TABLE.
3) ☐ = ZONE 1 (ROOF) OR ZONE 4 (WALL) ■ = ZONE 3 (ROOF) ☐ = ZONE 2 (ROOF) OR ZONE 5 (WALL) LENGTH NOTED "A" = 12 FEET



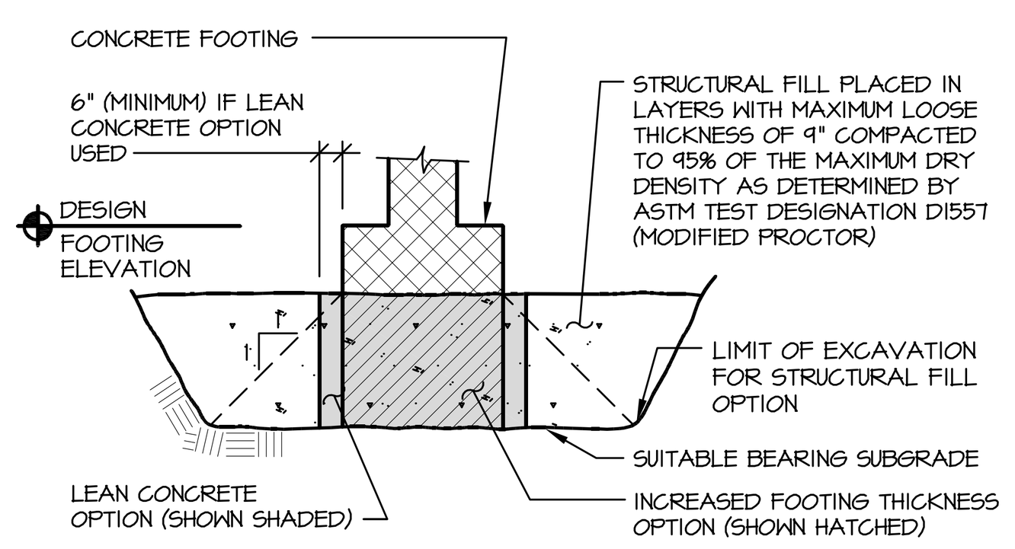
FLAT ROOF
ROOF SLOPE 1/2" PER FT OR LESS

4

STRANG

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN

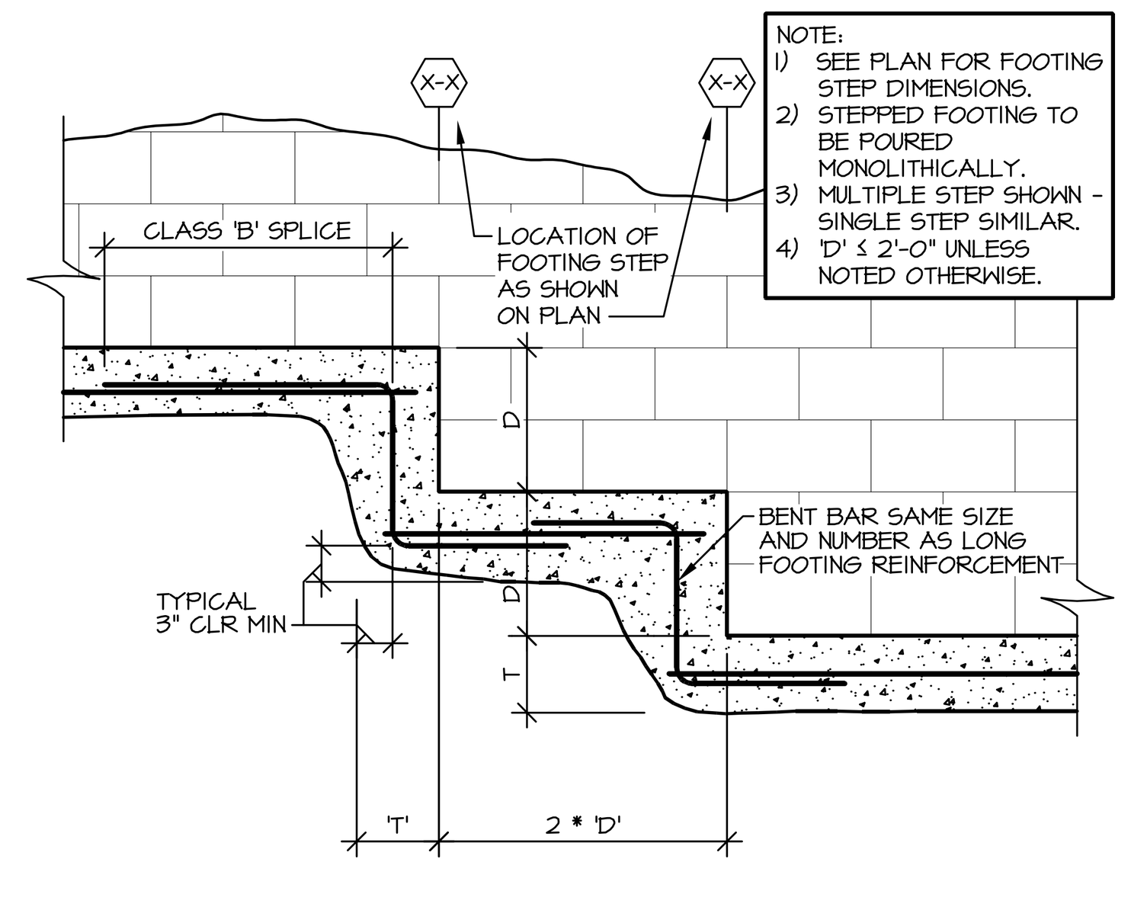
STRANG INC.
6411 MINERAL POINT ROAD
MADISON, WI 53705-4395
T/ 608 276 9200
F/ 608 276 9204



NOTE: CONTRACTOR MAY ELIMINATE STRUCTURAL FILL BY:
1) LOWERING FOOTING ELEVATION (1'-0" MAX) SO THAT FOOTING RESTS DIRECTLY ON SUITABLE BEARING SUBGRADE, OR
2) BY PROVIDING LEAN CONCRETE (f'c = 1,500 PSI) UNDER THE FOOTING TO SUITABLE BEARING SUBGRADE AS SHOWN SHADED ABOVE, OR
3) BY INCREASING FOOTING THICKNESS TO REACH SUITABLE BEARING SUBGRADE AS SHOWN HATCHED ABOVE

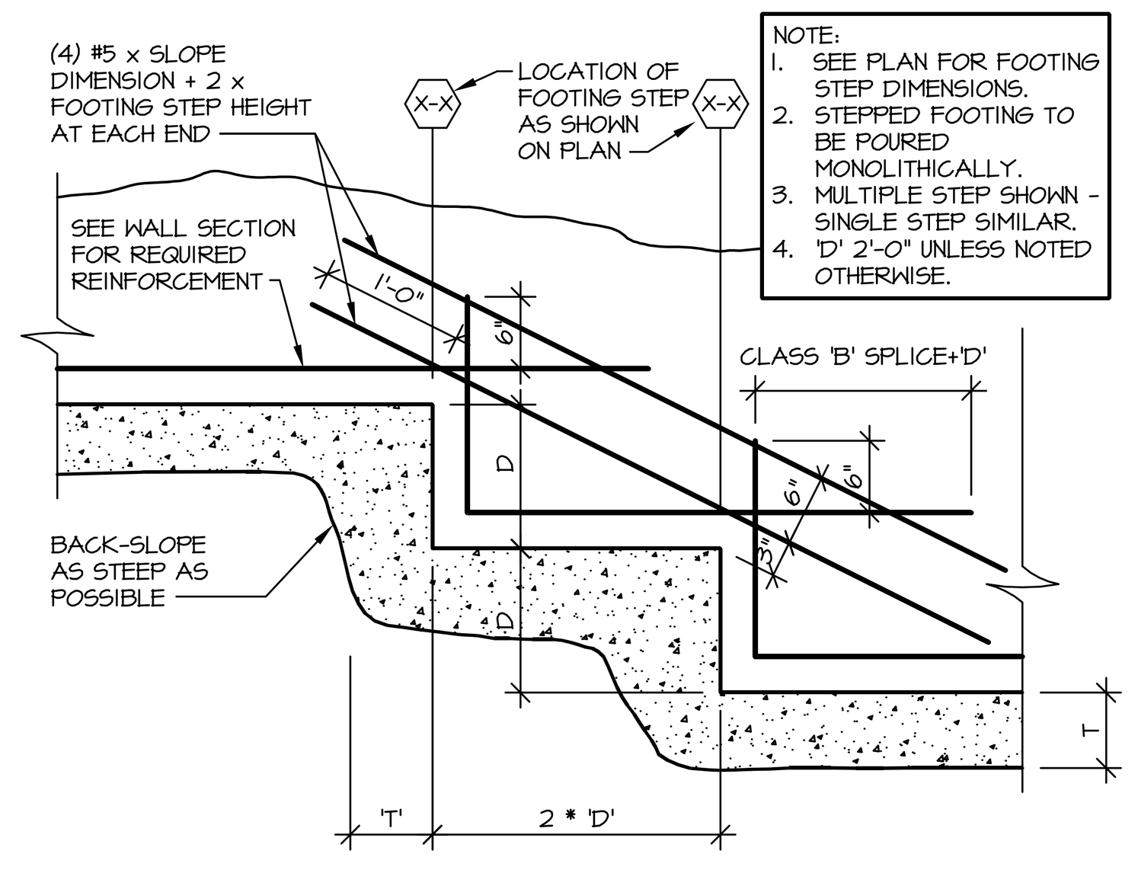
THIS DETAIL APPLIES ONLY AT THOSE LOCATIONS WHERE GEOTECHNICAL ENGINEER DEEMS SOILS AT DESIGN FOOTING ELEVATIONS INADEQUATE FOR FOOTING SUPPORT OR WHERE SPECIFICALLY REFERENCED ON DRAWINGS.

1/S001 OVER-EXCAVATION DETAIL
SCALE: NONE



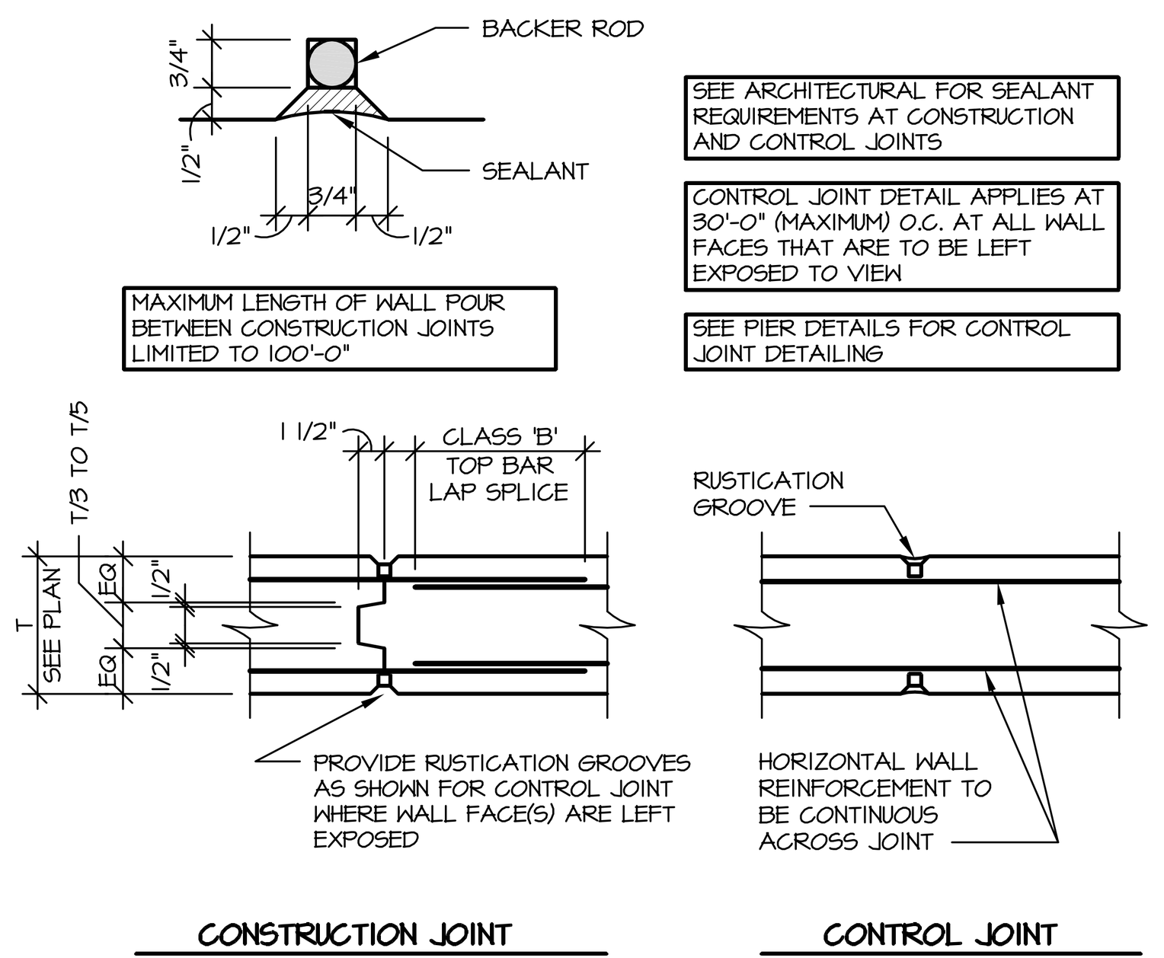
NOTE:
1) SEE PLAN FOR FOOTING STEP DIMENSIONS.
2) STEPPED FOOTING TO BE POURED MONOLITHICALLY.
3) MULTIPLE STEP SHOWN - SINGLE STEP SIMILAR.
4) 'D' ≤ 2'-0" UNLESS NOTED OTHERWISE.

2/S001 FOOTING STEP
SCALE: 3/4" = 1'-0"



NOTE:
1. SEE PLAN FOR FOOTING STEP DIMENSIONS.
2. STEPPED FOOTING TO BE POURED MONOLITHICALLY.
3. MULTIPLE STEP SHOWN - SINGLE STEP SIMILAR.
4. 'D' 2'-0" UNLESS NOTED OTHERWISE.

3/S001 FOOTING STEP
SCALE: 3/4" = 1'-0"



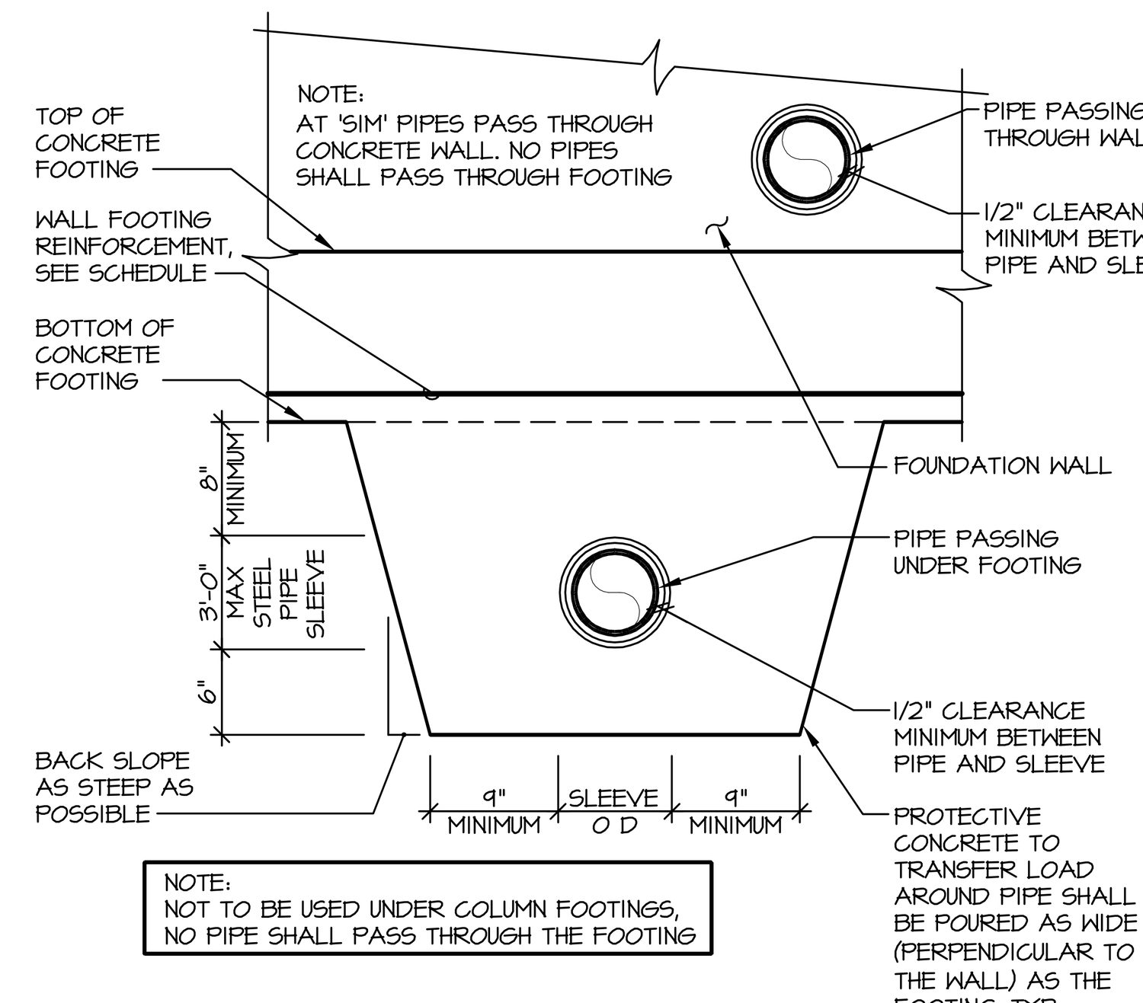
MAXIMUM LENGTH OF WALL POUR BETWEEN CONSTRUCTION JOINTS LIMITED TO 100'-0"

SEE ARCHITECTURAL FOR SEALANT REQUIREMENTS AT CONSTRUCTION AND CONTROL JOINTS

CONTROL JOINT DETAIL APPLIES AT 30'-0" (MAXIMUM) O.C. AT ALL WALL FACES THAT ARE TO BE LEFT EXPOSED TO VIEW

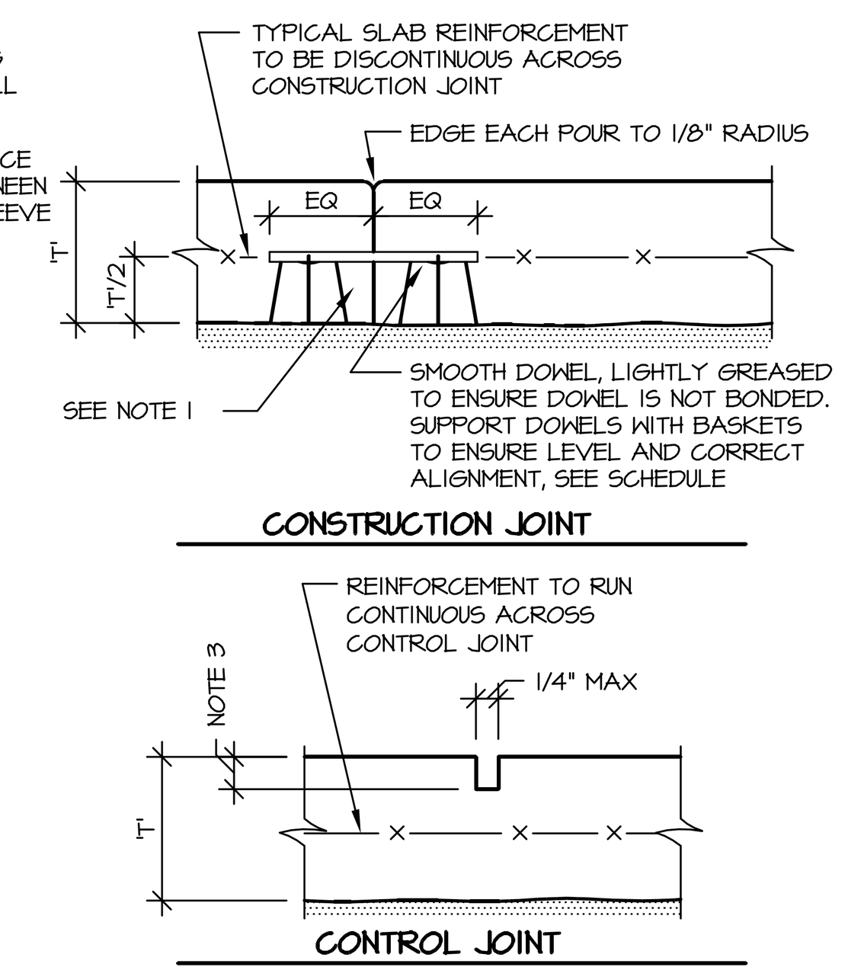
SEE PIER DETAILS FOR CONTROL JOINT DETAILING

4/S001 TYPICAL CONCRETE WALL JOINTS
SCALE: NONE



NOTE:
NOT TO BE USED UNDER COLUMN FOOTINGS, NO PIPE SHALL PASS THROUGH THE FOOTING

5/S001 PIPE PASSING UNDER WALL FOOTING
SCALE: NONE



GENERAL NOTES
1) SLAB-ON-GRADE CONSTRUCTION SHOULD CONFORM WITH THE RECOMMENDATIONS AND REQUIREMENTS SET FORTH IN THE LATEST RELEASE OF ACI 302 GUIDE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION.
2) SEE THE PLANS FOR THE SLAB THICKNESS (T) AND REINFORCEMENT.
3) THE SLAB REINFORCEMENT, IF OTHER THAN WWF, SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
4) REFER TO THE GENERAL NOTES, THE SPECIFICATIONS, AND THE DRAWINGS FOR SUB-FLOOR DRAINAGE SYSTEM, SUBGRADE PREPARATION, AND/OR MUD SLAB AND VAPOR RETARDER REQUIREMENTS.
5) THE SUBGRADE SHALL BE FREE OF STANDING WATER AT THE TIME OF CONCRETE PLACEMENT.

CONSTRUCTION JOINT NOTES
1) BREAK THE BOND BETWEEN NEW AND PREVIOUSLY PLACED SLABS BY SPRAYING OR BY PAINTING THE EXPOSED SIDE OF THE JOINT WITH A CURING COMPOUND, ASPHALTIC EMULSION, OR FORM OIL.

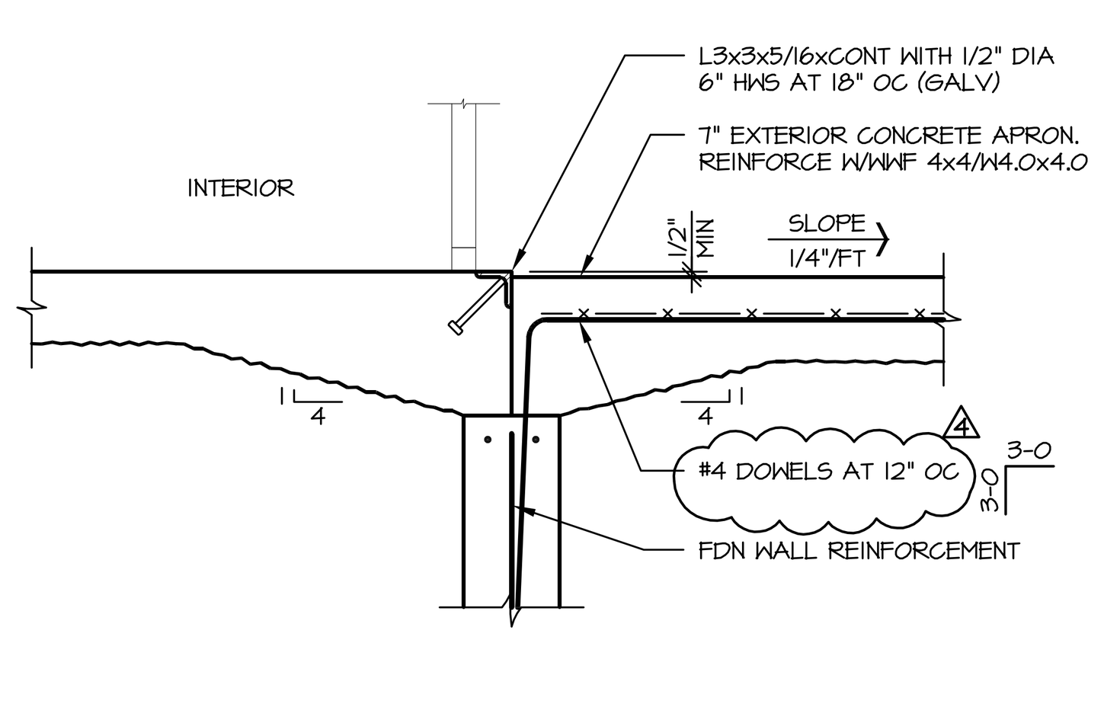
JOINT SPACING NOTES
1) UNLESS SHOWN OTHERWISE ON THE DRAWINGS, PROVIDE CONTROL AND/OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMNS SUCH THAT THE JOINT SPACING DOES NOT EXCEED 36 * (SLAB THICKNESS) UNLESS SHOWN OTHERWISE. THE RESULTING PANELS SHOULD BE APPROXIMATELY SQUARE.

CONTROL JOINT NOTES
1) FOR SAW CUT CONTROL JOINTS, MAKE SAW CUT AS SOON AS THE SLAB IS ABLE TO SUPPORT THE WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO THE FINISHED SURFACE OF THE SLAB, BUT WITHIN 24 HOURS.
2) SEE SPECIFICATIONS REGARDING EPOXY RESIN OR ELASTOMERIC SEALANT REQUIREMENTS TO FILL CONTROL JOINTS.
3) DEPTH OF SAWCUT SHOULD BE 1 1/4" IF PRODUCED USING EARLY ENTRY DRY-CUT PROCESS AND T/4 (1" MINIMUM) IF PRODUCED USING THE CONVENTIONAL WET-CUT PROCESS.

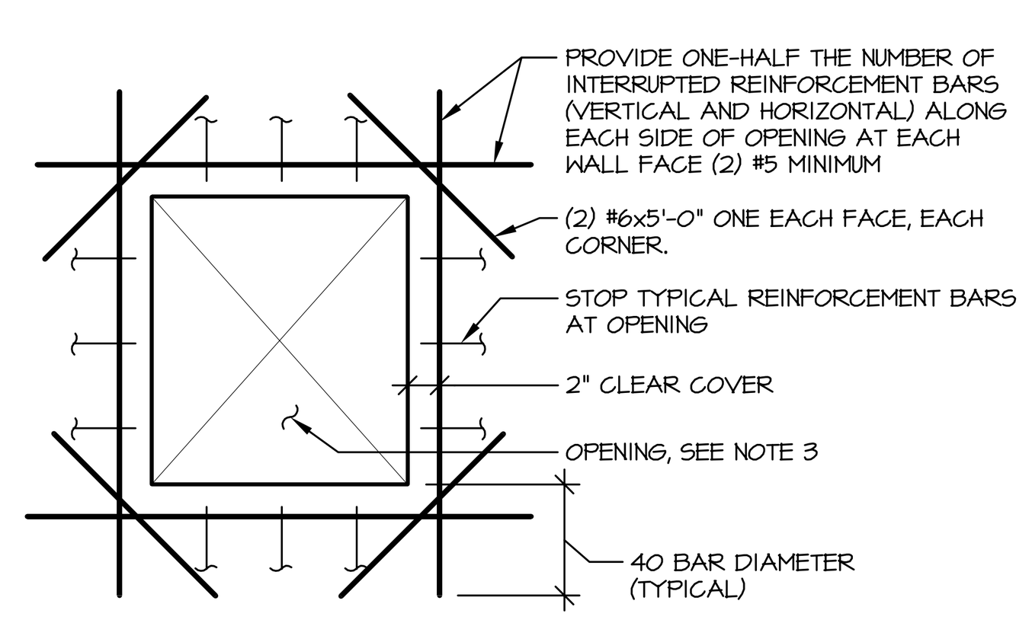
FORMED CONTROL JOINT OPTION NOTES
1) FORM CONTROL JOINTS BY INSERTING A PREMOLDED STRIP INTO THE FRESH CONCRETE UNTIL THE TOP SURFACE OF THE STRIP IS FLUSH WITH THE TOP SURFACE OF THE SLAB.
2) TOOL THE SLAB EDGES ROUND ON EACH SIDE OF THE INSERT, 1/8" MAXIMUM RADIUS.
3) AFTER THE CONCRETE HAS CURED, REMOVE THE INSERTS AND CLEAN THE GROOVE OF LOOSE DEBRIS.

SLAB THICKNESS T (IN)	DOWEL SIZE	DOWEL SPACING (OC)
5 ≤ T ≤ 6	3/4" DIA x 16"	12"

6/S001 TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SLAB-ON-GRADE
SCALE: NONE

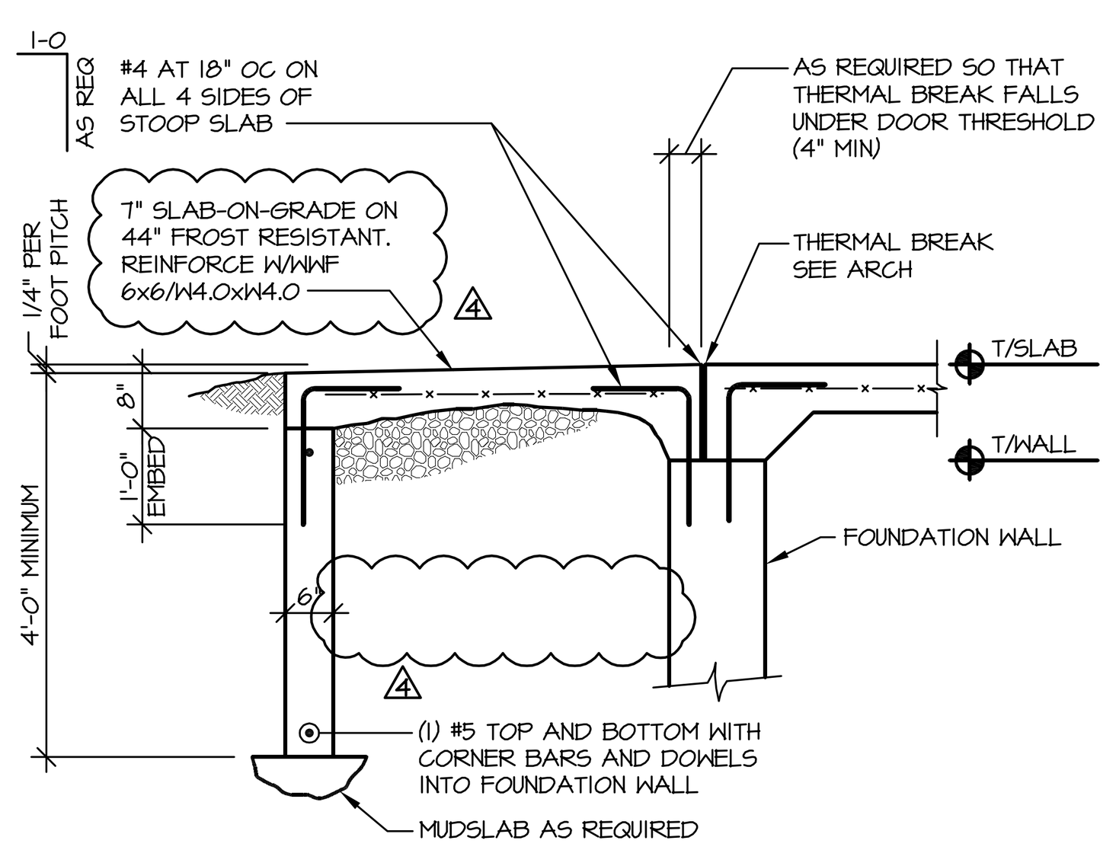


7/S001 OVERHEAD DOOR APRON
SCALE: NONE



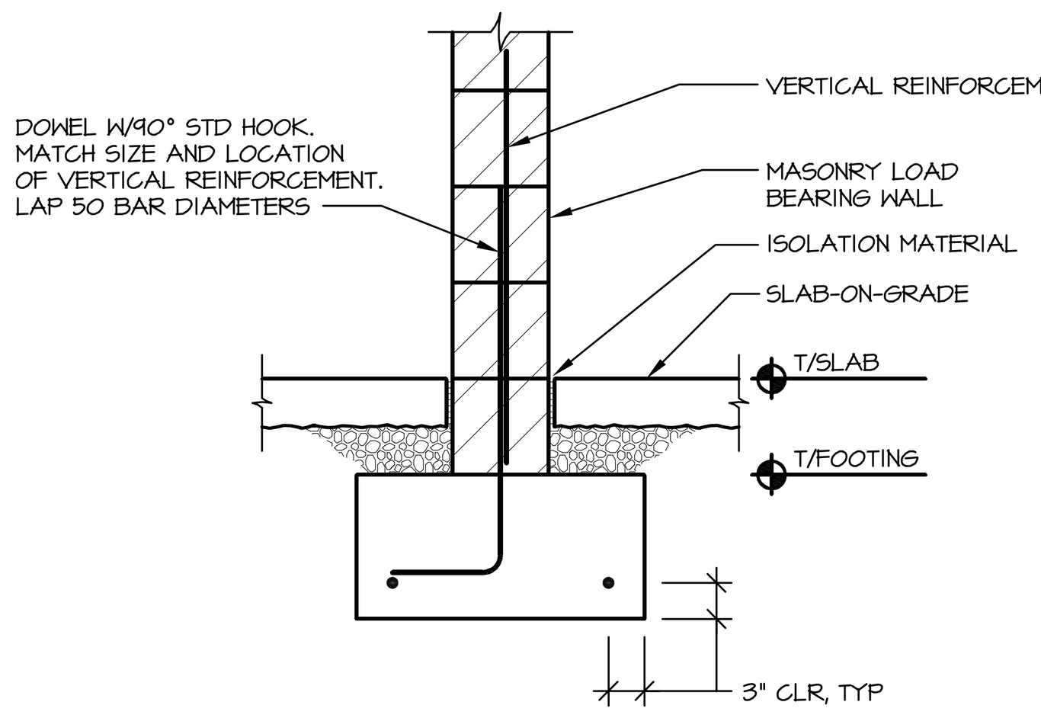
NOTE:
1) ADDED REINFORCEMENT AS SHOWN SHALL BE PROVIDED FOR ALL OPENINGS 12" DIAMETER OR 12" SQUARE AND LARGER IN SIZE.
2) SPACE ADDED BARS AS CLOSE AS PERMISSIBLE BY CODE FOR THE REQUIRED BAR SIZE.
3) VERIFY SIZE AND LOCATION OF OPENINGS WITH TRADE OR SUBCONTRACTOR WHICH REQUIRES OPENING.

8/S001 ADDED REINFORCEMENT AT OPENINGS
SCALE: NONE

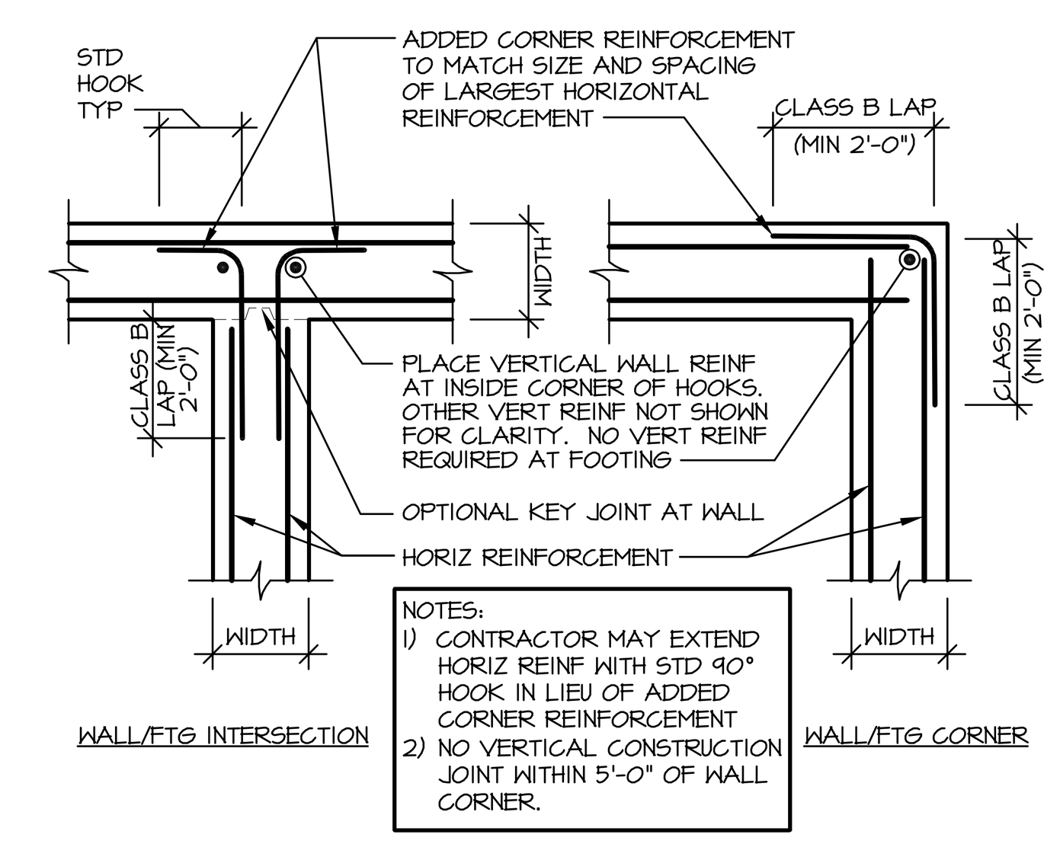


9/S001 TYPICAL STOOP
SCALE: 1/2" = 1'-0"

10/S001 TRENCH DRAIN - NOT USED 4
SCALE: 1" = 1'-0"



11/S001 FOOTING AT INTERIOR MASONRY WALLS
SCALE: 3/4" = 1'-0"



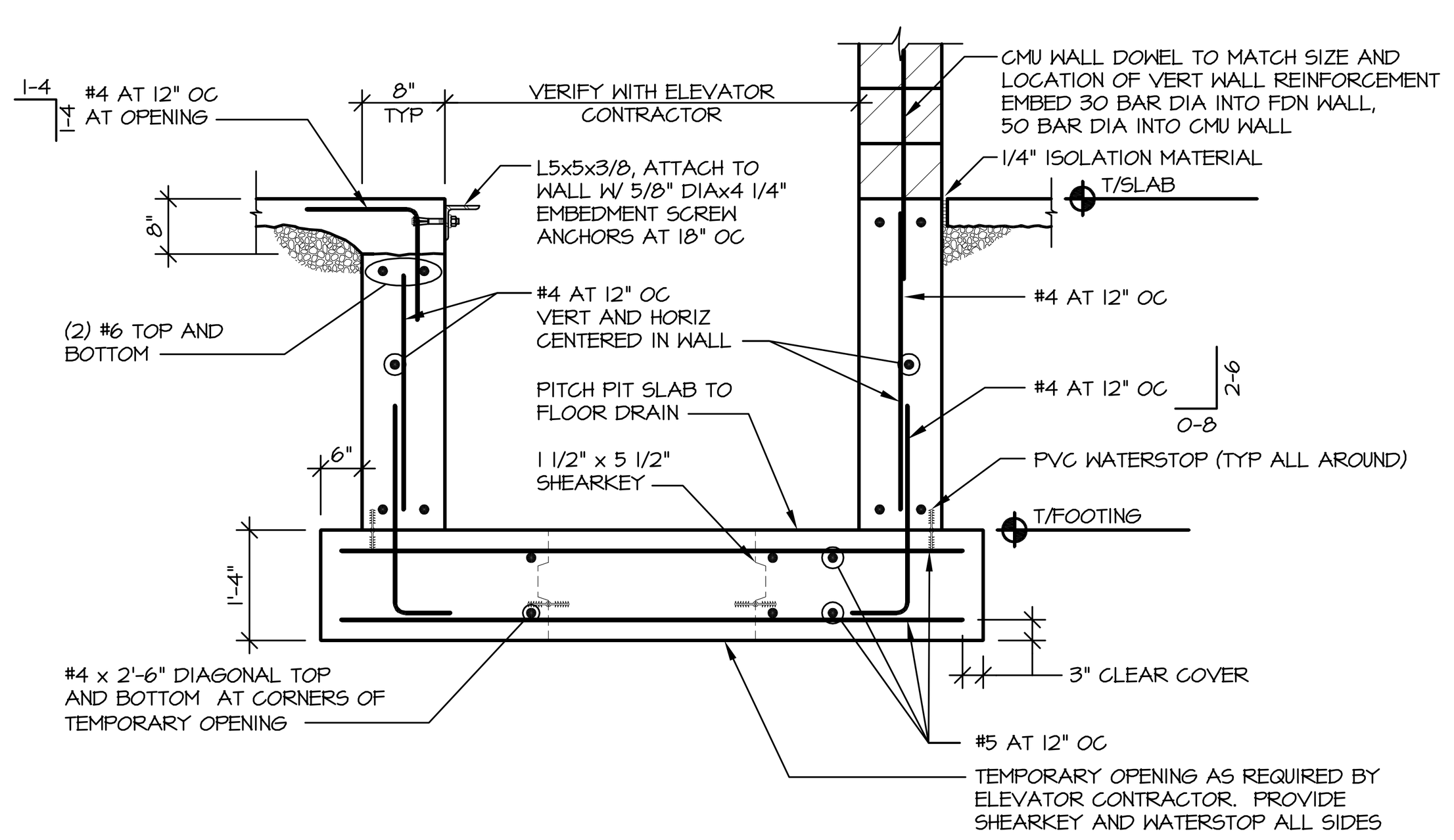
NOTES:
1) CONTRACTOR MAY EXTEND HORIZ REINF WITH STD 90° HOOK IN LIEU OF ADDED CORNER REINFORCEMENT
2) NO VERTICAL CONSTRUCTION JOINT WITHIN 5'-0" OF WALL CORNER.

12/S001 TYP WALL/FOOTING CORNER
SCALE: NONE

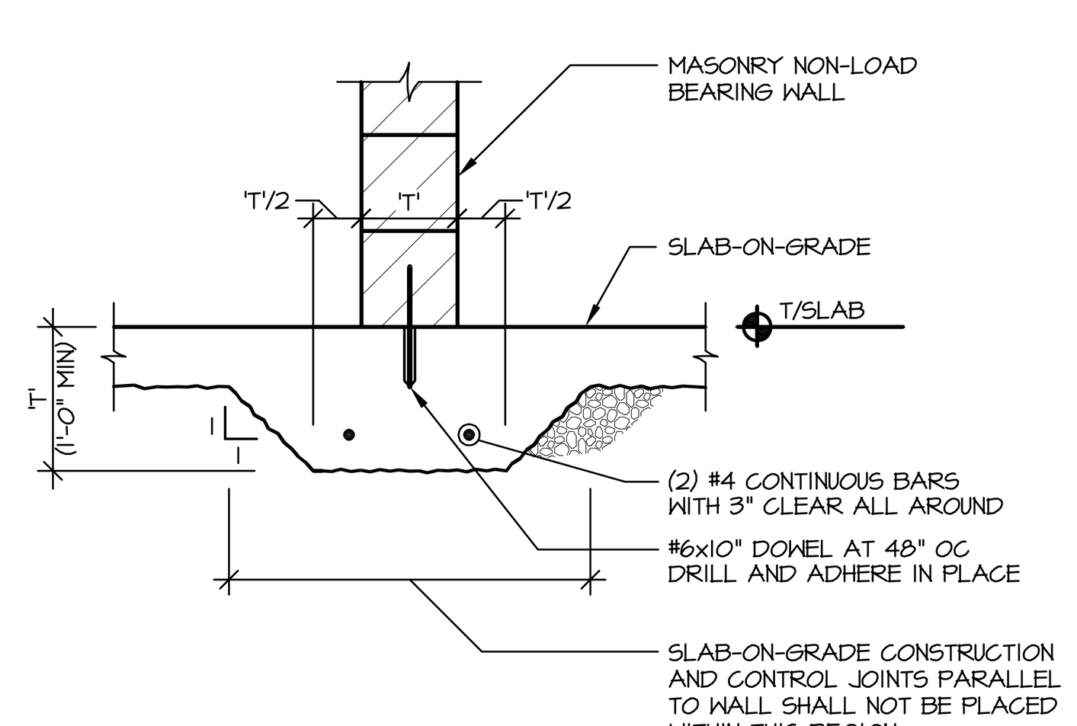
FOOTING SCHEDULE

MARK	FOOTING DIMENSIONS	FOOTING REINFORCEMENT (SEE NOTES 1 AND 2)	REMARKS
F40	4'-0"x4'-0"x12"	(4) #5 EW	
F50	5'-0"x5'-0"x13"	(5) #5 EW	
F50TB	5'-0"x5'-0"x24"	(5) #5 EW (T&B)	
F60	6'-0"x6'-0"x15"	(6) #5 EW	
F70	7'-0"x7'-0"x17"	(8) #5 EW	
F80	8'-0"x8'-0"x19"	(7) #6 EW	
F80A	8'-0"x8'-0"x32"	(8) #8 EW B, (8) #6 EW T	NOTE 3
F80B	8'-0"x8'-0"x32"	(8) #8 EW B, (8) #6 EW T	NOTE 4
F90	9'-0"x9'-0"x22"	(10) #6 EW B	
F90A	9'-0"x9'-0"x36"	(9) #9 EW B, (9) #6 EW T	NOTE 4
F100A	10'-0"x10'-0"x36"	(8) #9 EW B, (9) #6 EW T	NOTE 5
F110A	11'-0"x11'-0"x48"	(8) #9 EW B, (9) #6 EW T	NOTE 5
F1	5'-0"x13'-2"x13"	(5) #5 LW, (13) #5 SW	
F2	7'-0"x15'-2"x17"	(6) #5 LW, (14) #5 SW	
W20	2'-0"x1'-0"xCONT	NONE	
W24	2'-4"x1'-0"xCONT	NONE	
W26	2'-6"x1'-0"xCONT	NONE	
W28	2'-8"x1'-0"xCONT	NONE	
W30	3'-0"x1'-0"xCONT	NONE	

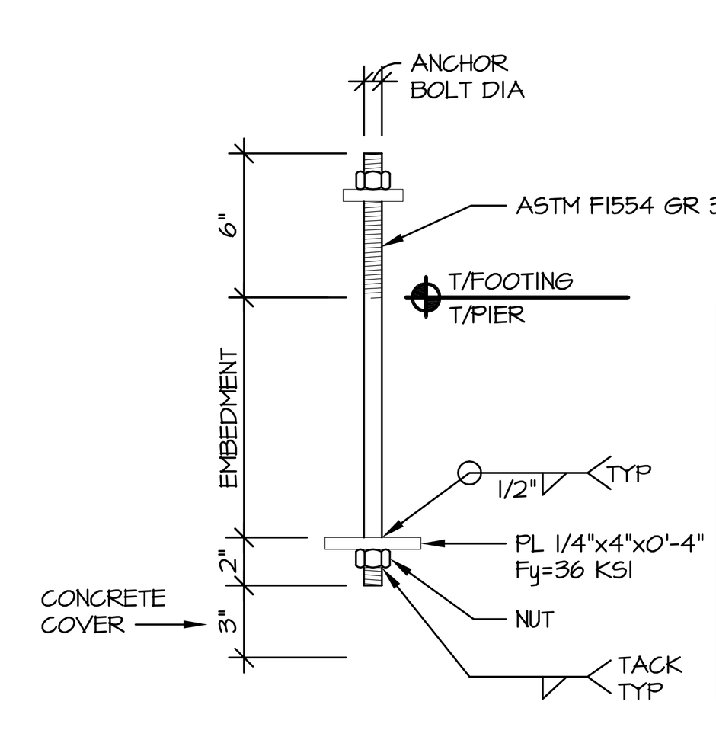
NOTES:
1) B = BOTTOM, T = TOP, LW = LONG WAY, SW = SHORT WAY, EW = EACH WAY.
2) ALL REINFORCEMENT BARS TO BE BOTTOM BARS UNLESS NOTED OTHERWISE.
3) (8) #6 UPLIFT BENT BARS EACH WAY TOP. SEE DETAIL 19/S800.
4) (3) #6 UPLIFT BENT BARS EACH WAY TOP. SEE DETAIL 19/S800.
5) (5) #6 UPLIFT BENT BARS EACH WAY TOP. SEE DETAIL 19/S800.



13/S001 CONCRETE ELEVATOR PIT
SCALE: 1/2" = 1'-0"

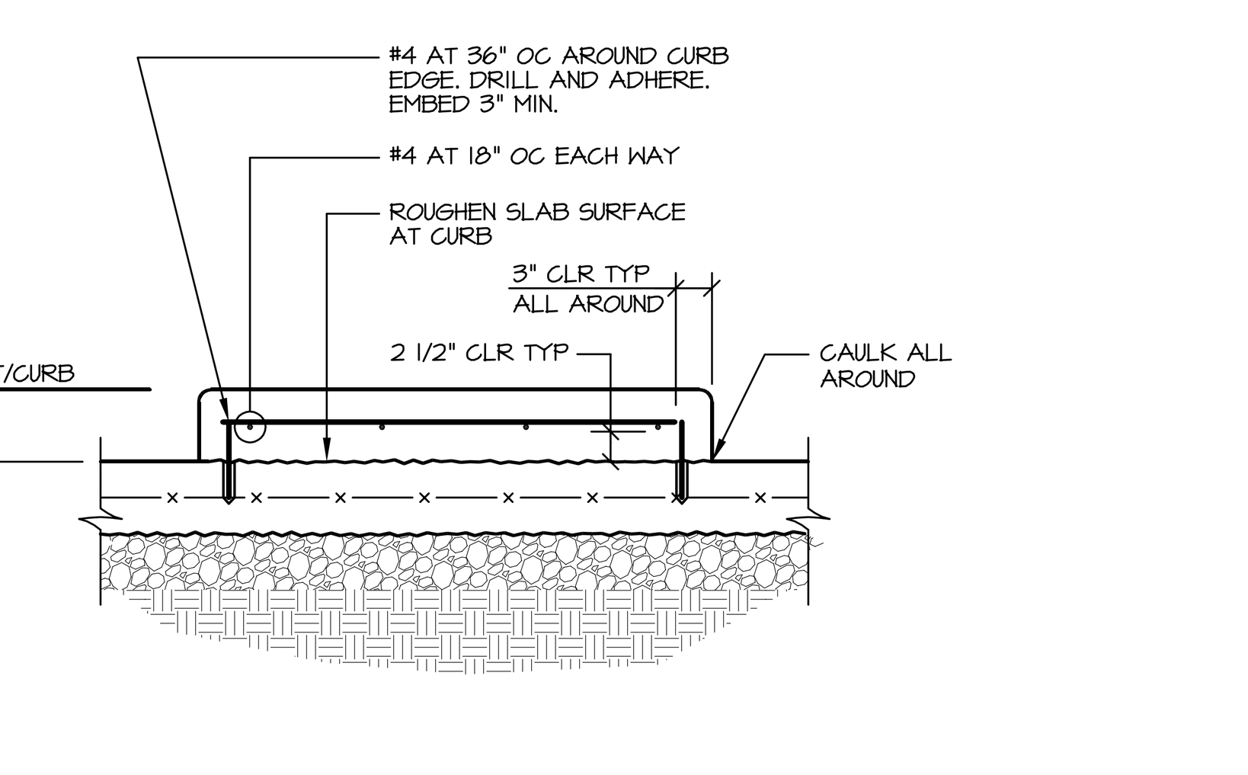


14/S800 THICKENED SLAB FOR NON-LOAD BEARING WALLS
SCALE: 3/4" = 1'-0"



MARK	DIAMETER	EMBEDMENT
AB1	3/4"	18"
AB2	3/4"	27"
AB3	3/4"	31"
AB4	1"	31"
AB5	3/4"	27"
AB6	1"	31"
AB7	1"	27"

15/S001 ANCHOR BOLT SCHEDULE
SCALE: NONE



16/S001 HOUSEKEEPING PAD
SCALE: 3/4" = 1'-0"

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PROJECT TITLE

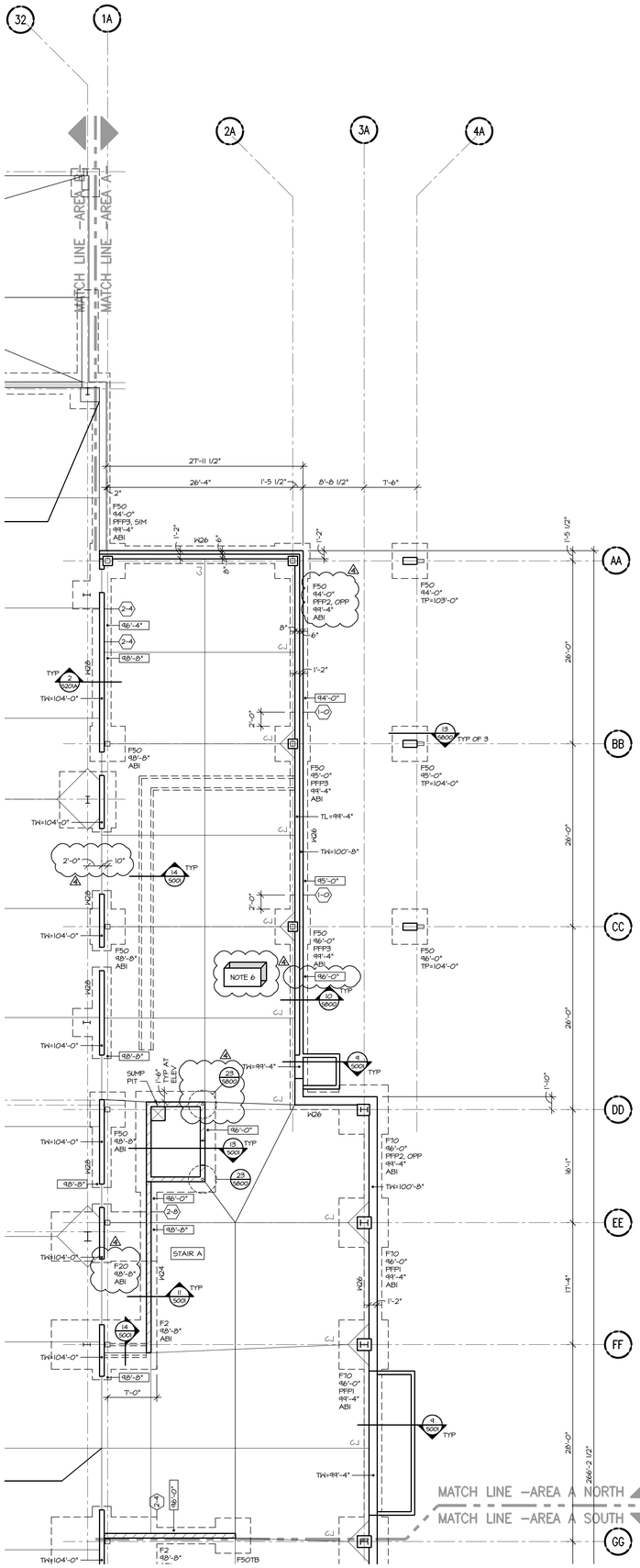
ALLIANT ENERGY CENTER PAVILIONS BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

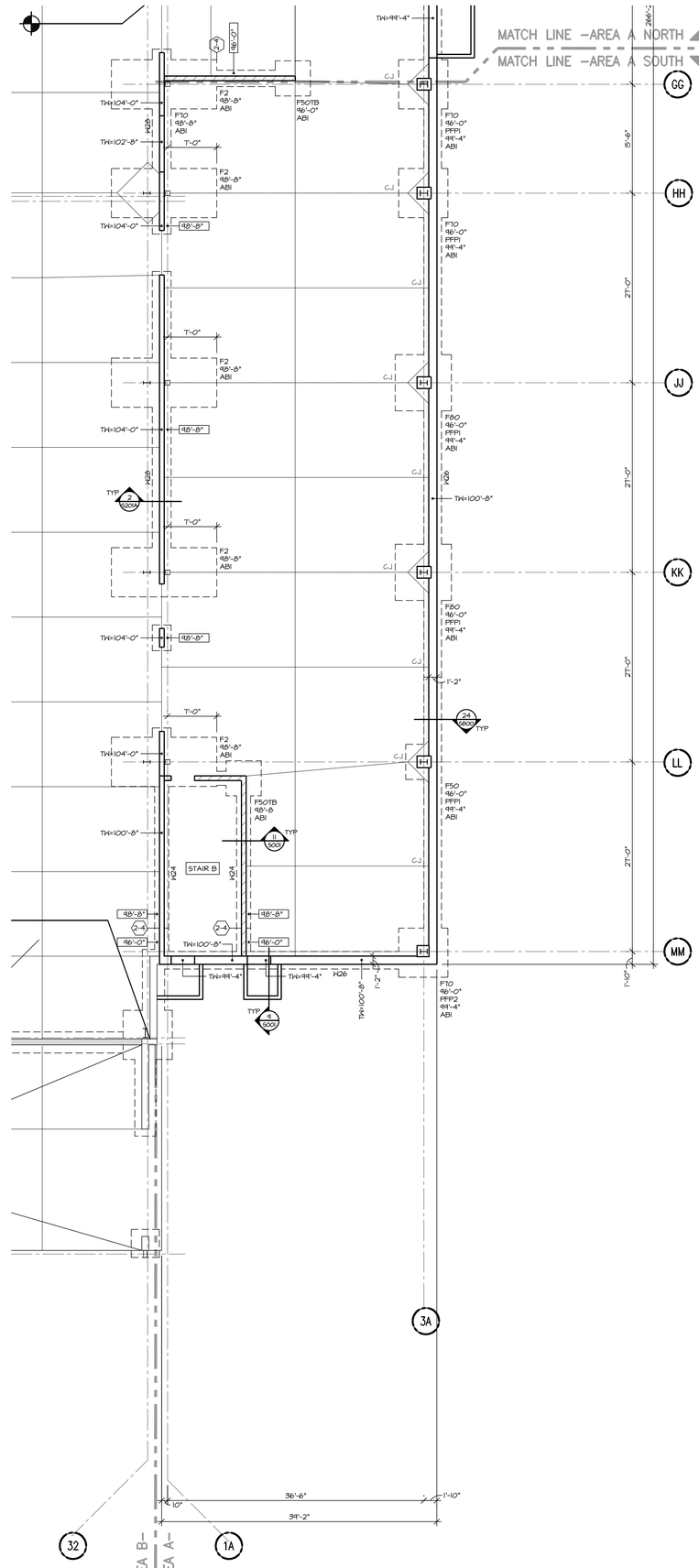
SHEET TITLE

STRUCTURAL GENERAL NOTES

SHEET NO.
S001



N 1 S201A FOUNDATION PLAN – AREA A NORTH
SCALE: 1/8"= 1'-0"



N 2 S201A FOUNDATION PLAN – AREA A SOUTH
SCALE: 1/8"= 1'-0"

FOUNDATION PLAN NOTES:

1) FINISH SLAB ELEVATION = 100'-0", TYP UNO
TOP OF FOOTING ELEVATION = VARIES, SEE PLAN

2) SLAB-ON-GRADE TO BE 6" THICK WITH WWF6x6/W4.0xW4.0 2" OFF TOP OF SLAB ON 4" CHOKER COARSE ON 10 MIL VAPOR RETARDER ON AN 8" LAYER OF FREE-DRAINING MATERIAL. SEE ARCH FOR SLAB ELEVATIONS. PROVIDE WET-CURE AT SLAB-ON-GRADE FOR EPOXY FLOOR FINISH.

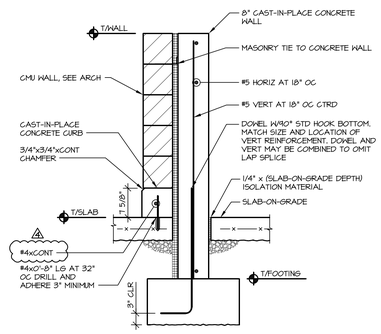
3) OVER-EXCAVATION PER DETAIL 1/S001 MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING SOIL.

4) TYPICAL DETAILS THAT APPLY TO PLAN INCLUDE;

2/S001 FOOTING STEP DETAIL
3/S001 FOOTING STEP DETAIL
4/S001 CONCRETE WALL JOINT DETAIL
5/S001 PIPE PASSING UNDER WALL FOOTING
6/S001 SLAB ON GRADE JOINT DETAIL
8/S001 CONCRETE WALL OPENING DETAIL
9/S001 STOOP DETAIL
12/S001 CORNER REINFORCEMENT DETAIL

5) SEE S800 FOR PIER DETAILS.

6) PROVIDE WET-CURE SLAB-ON-GRADE AT FLOOR SLABS RECEIVING SEALED FLOOR FINISH. SEE FINISH SCHEDULE AND PROJECT SPECIFICATION MANUAL.



2 S201A WALL SECTION
SCALE: 3/4" = 1'-0"

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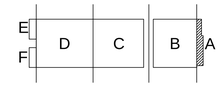
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713



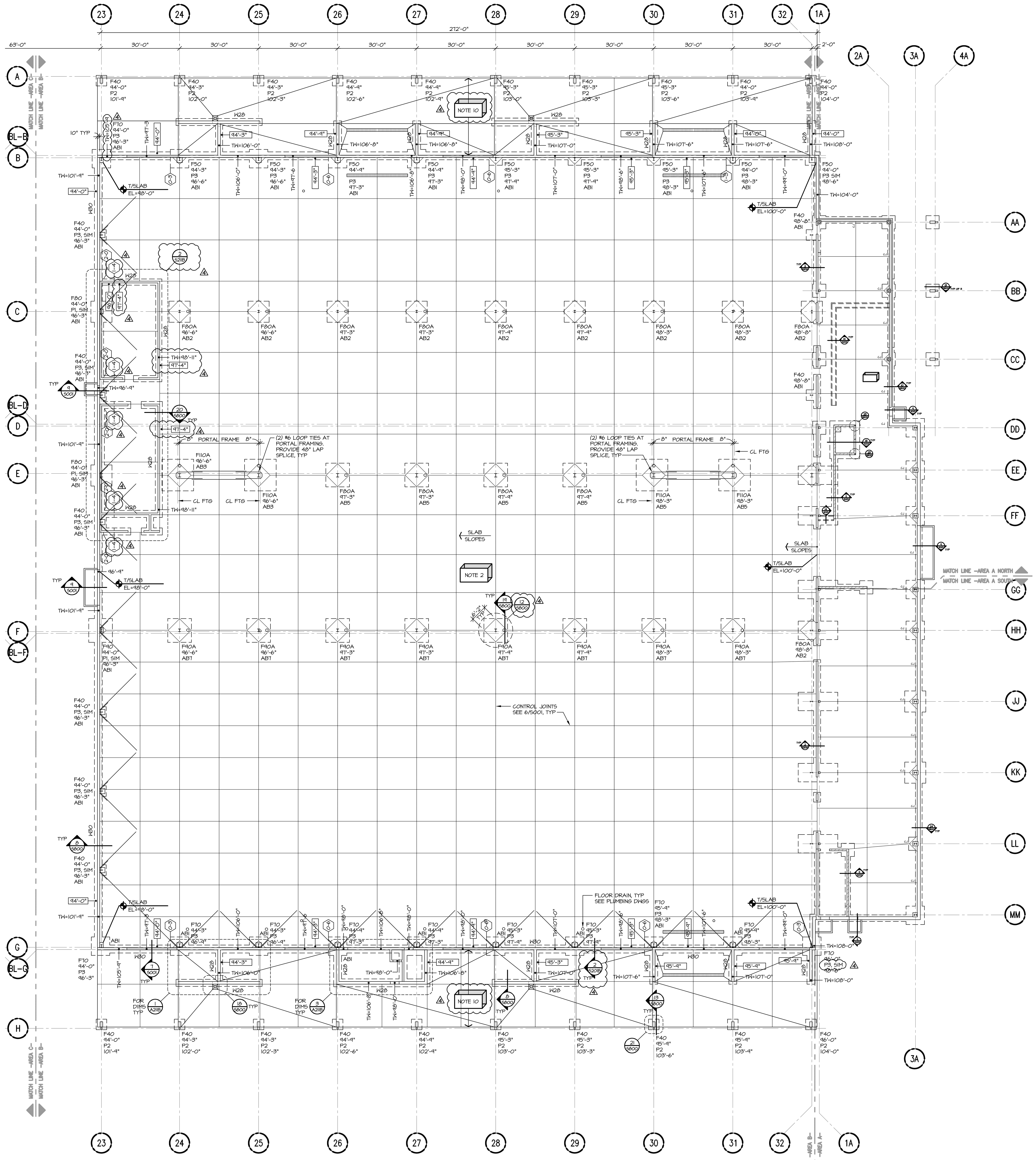
KEY PLAN

SHEET TITLE

FOUNDATION PLAN AREA A

SHEET NO.

S201A



FOUNDATION PLAN – AREA B

1/S201B SCALE: 1/16" = 1'-0"

FOUNDATION PLAN NOTES:

1) FINISH SLAB ELEVATION = SLOPES, SEE PLAN
TOP OF FOOTING ELEVATION = VARIES, SEE PLAN

2) SLAB-ON-GRADE TO BE 6" THICK WITH WWF6x6/W4.0xW4.0 2" OFF TOP OF SLAB ON 4" CHOKER COARSE ON 10 MIL VAPOR RETARDER ON AN 8" LAYER OF FREE DRAINING MATERIAL. SEE ARCH FOR SLAB ELEVATIONS.

3) OVER-EXCAVATION PER DETAIL 1/S001 MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING SOIL.

4) TYPICAL DETAILS THAT APPLY TO PLAN INCLUDE;

- 2/S001 FOOTING STEP DETAIL (MASONRY)
- 3/S001 FOOTING STEP DETAIL (CONCRETE)
- 4/S001 CONCRETE WALL JOINT DETAIL
- 5/S001 PIPE PASSING UNDER WALL FOOTING
- 6/S001 SLAB ON GRADE JOINT DETAIL
- 7/S001 OVERHEAD DOOR AT APROM
- 8/S001 CONCRETE WALL OPENING DETAIL
- 9/S001 STOOP DETAIL
- 12/S001 CORNER REINFORCEMENT DETAIL

5) TYPICAL WHERE SLAB-ON-GRADE ABUTS WALL OR COLUMN, PROVIDE 1/4" x (SOG DEPTH) ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISH SLAB ELEVATION.

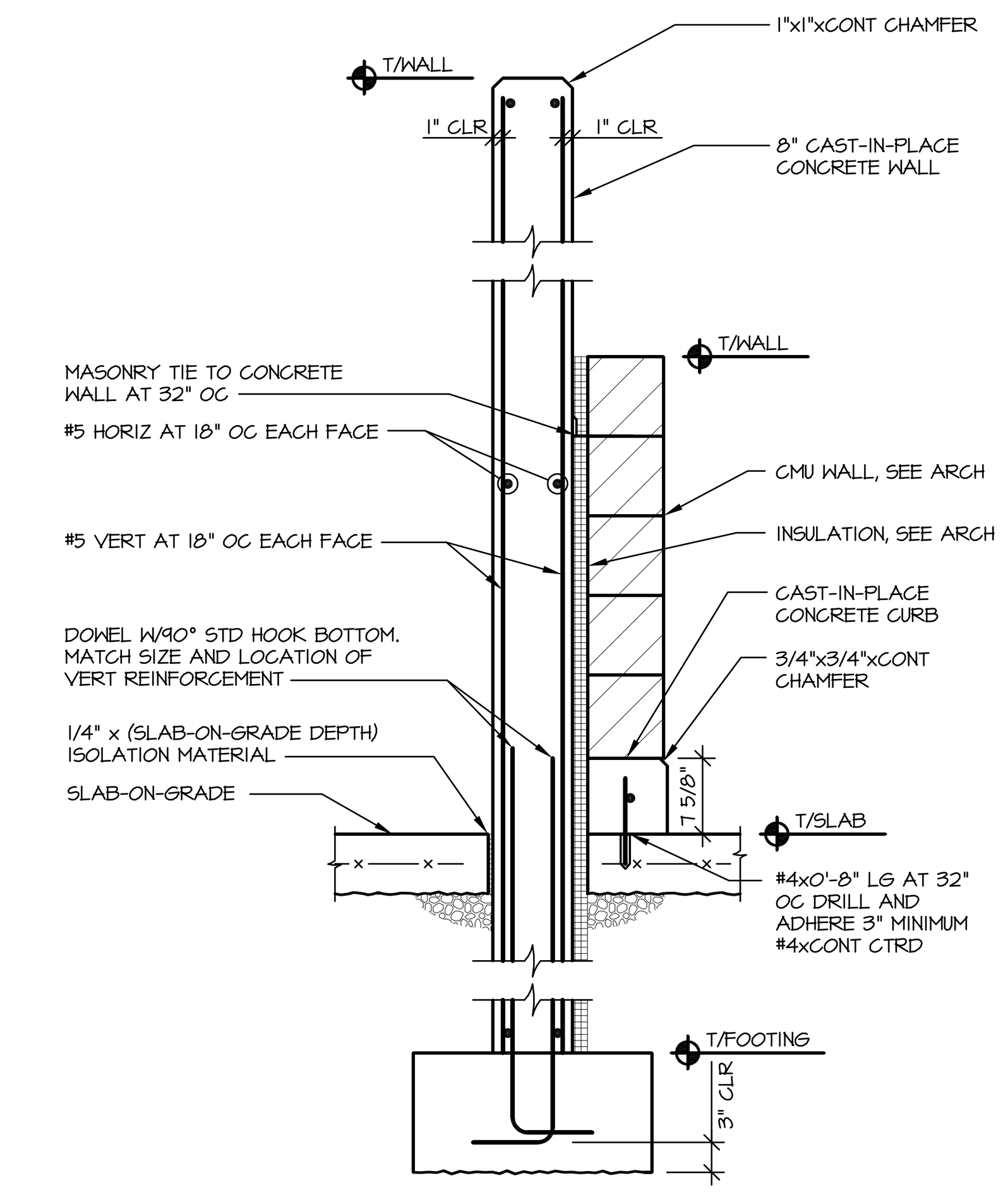
6) ALL FOUNDATION, FOOTING AND PIER SIZES TO BE VERIFIED/CONFIRMED WITH METAL BUILDING FINAL DESIGN. SIZES/ORIENTATIONS SHOWN ARE BASED ON PRELIMINARY INFORMATION ONLY.

7) SEE S800 FOR PIER DETAILS, TYPICAL.

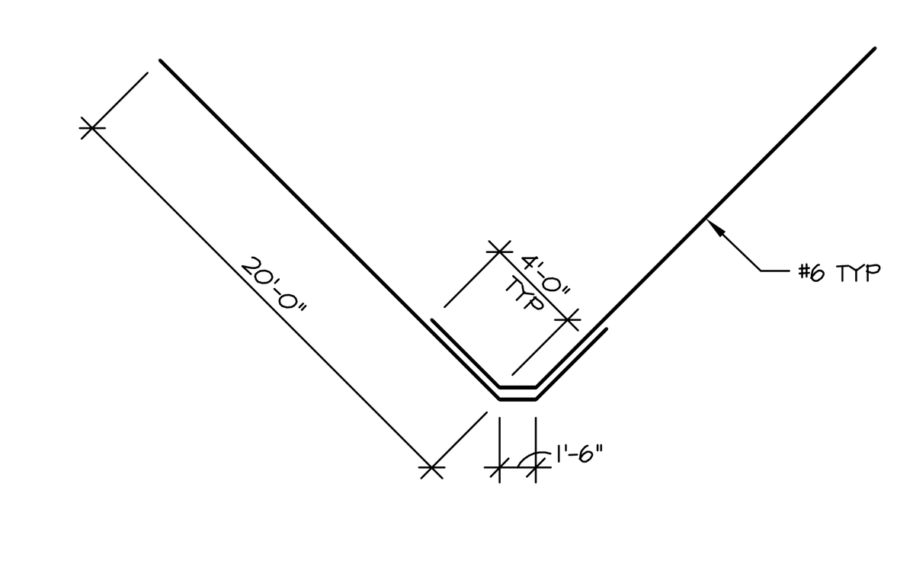
8) SEE A211B FOR WASH BAY AND STORAGE AREA DIMENSIONS.

9) PROVIDE A SMOOTH RUBBED FINISH ON CAST-IN-PLACE CONCRETE WALLS AND PIERS THAT ARE EXPOSED TO VIEW. EXTEND SMOOTH RUBBED FINISH TO 8" BELOW GRADE.

10) 6" THICK EXTERIOR CONCRETE SLAB-ON-GRADE. REINFORCE WITH WWF 6X6/W4.0xW4.0 ON 4" CHOKER COURSE. VAPOR RETARDER IS NOT REQUIRED.



2/S201B WALL SECTION
SCALE: 3/4" = 1'-0"



3/S201B PAVILION SLAB REINFORCEMENT
SCALE: NONE

STRANG

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A&O PROJECT #130172

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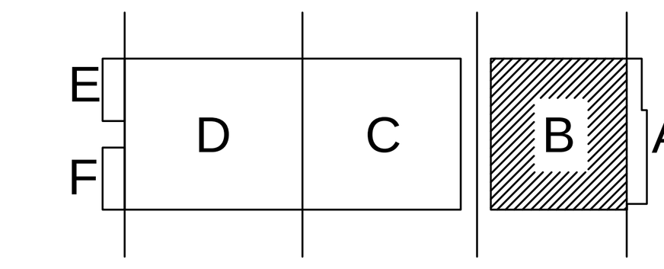
PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713



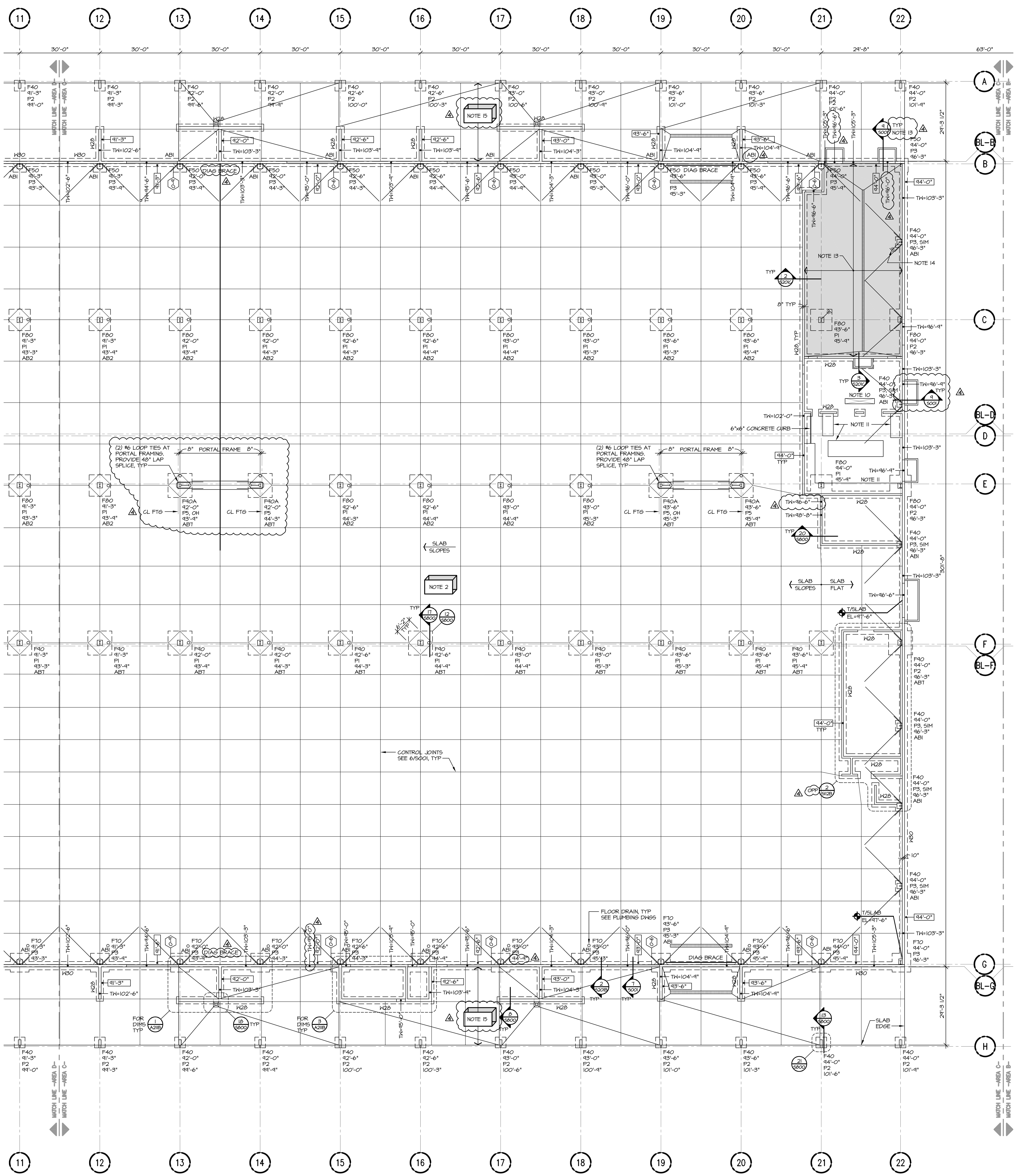
KEY PLAN

SHEET TITLE

FOUNDATION PLAN AREA B

SHEET NO.

S201B



1 S201C FOUNDATION PLAN - AREA C
SCALE: 1/16" = 1'-0"

FOUNDATION PLAN NOTES:

1) FINISH SLAB ELEVATION = SLOPES, SEE PLAN
TOP OF FOOTING ELEVATION = VARIES, SEE PLAN

2) SLAB-ON-GRADE TO BE 6" THICK WITH WWF6x6/W4.0xW4.0 2" OFF TOP OF SLAB ON 4" CHOKER COARSE ON 10 MIL VAPOR RETARDER ON AN 8" LAYER OF FREE DRAINING MATERIAL. SEE ARCH FOR SLAB ELEVATIONS.

3) OVER-EXCAVATION PER DETAIL 1/S001 MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING SOIL.

4) TYPICAL DETAILS THAT APPLY TO PLAN INCLUDE;
- 2/S001 FOOTING STEP DETAIL (MASONRY)
- 3/S001 FOOTING STEP DETAIL (CONCRETE)
- 4/S001 CONCRETE WALL JOINT DETAIL
- 5/S001 PIPE PASSING UNDER WALL FOOTING
- 6/S001 SLAB ON GRADE JOINT DETAIL
- 7/S001 OVERHEAD DOOR AT APROM
- 8/S001 CONCRETE WALL OPENING DETAIL
- 9/S001 STOOP DETAIL
- 12/S001 CORNER REINFORCEMENT DETAIL

5) TYPICAL WHERE SLAB-ON-GRADE ABUTS WALL OR COLUMN, PROVIDE 1/4" x (SOG DEPTH) ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISH SLAB ELEVATION.

6) ALL FOUNDATION, FOOTING AND PIER SIZES TO BE VERIFIED/ CONFIRMED WITH METAL BUILDING FINAL DESIGN. SIZES/ORIENTATIONS SHOWN ARE BASED ON PRELIMINARY INFORMATION ONLY.

7) SEE S800 FOR PIER DETAILS, TYPICAL.

8) SEE A211B FOR WASH BAY AND STORAGE AREA DIMENSIONS.

9) PROVIDE A SMOOTH RUBBED FINISH ON CAST-IN-PLACE CONCRETE WALLS AND PIERS THAT ARE EXPOSED TO VIEW. EXTEND SMOOTH RUBBED FINISH TO 8" BELOW GRADE.

10) 2" SLAB DEPRESSION. SEE DETAIL 2/S201D

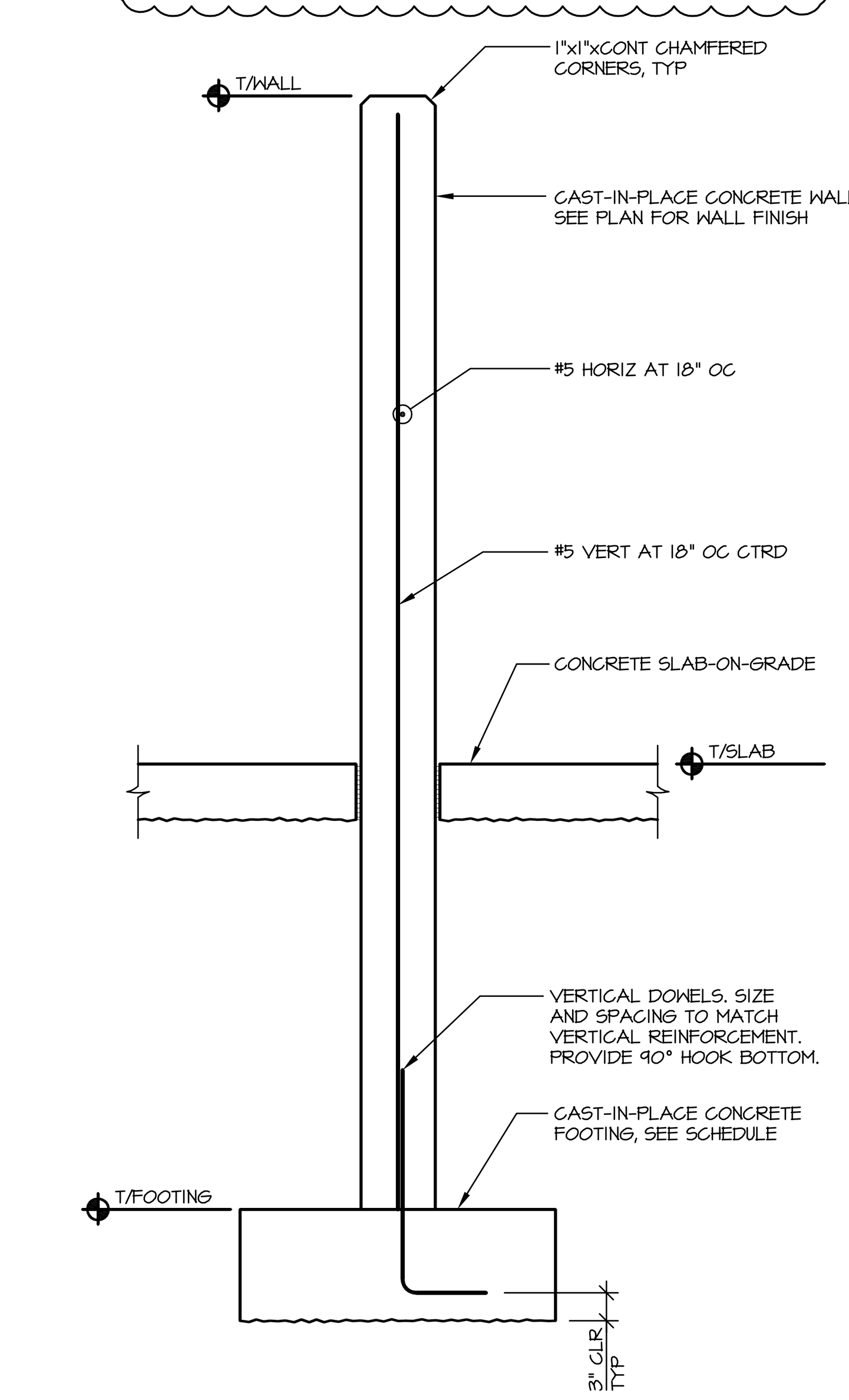
11) 6" CONCRETE HOUSEKEEPING PAD. SEE DETAIL 16/S001

12) SEE PROJECT SPECIFICATION MANUAL FOR MOCK-UP REQUIREMENTS.

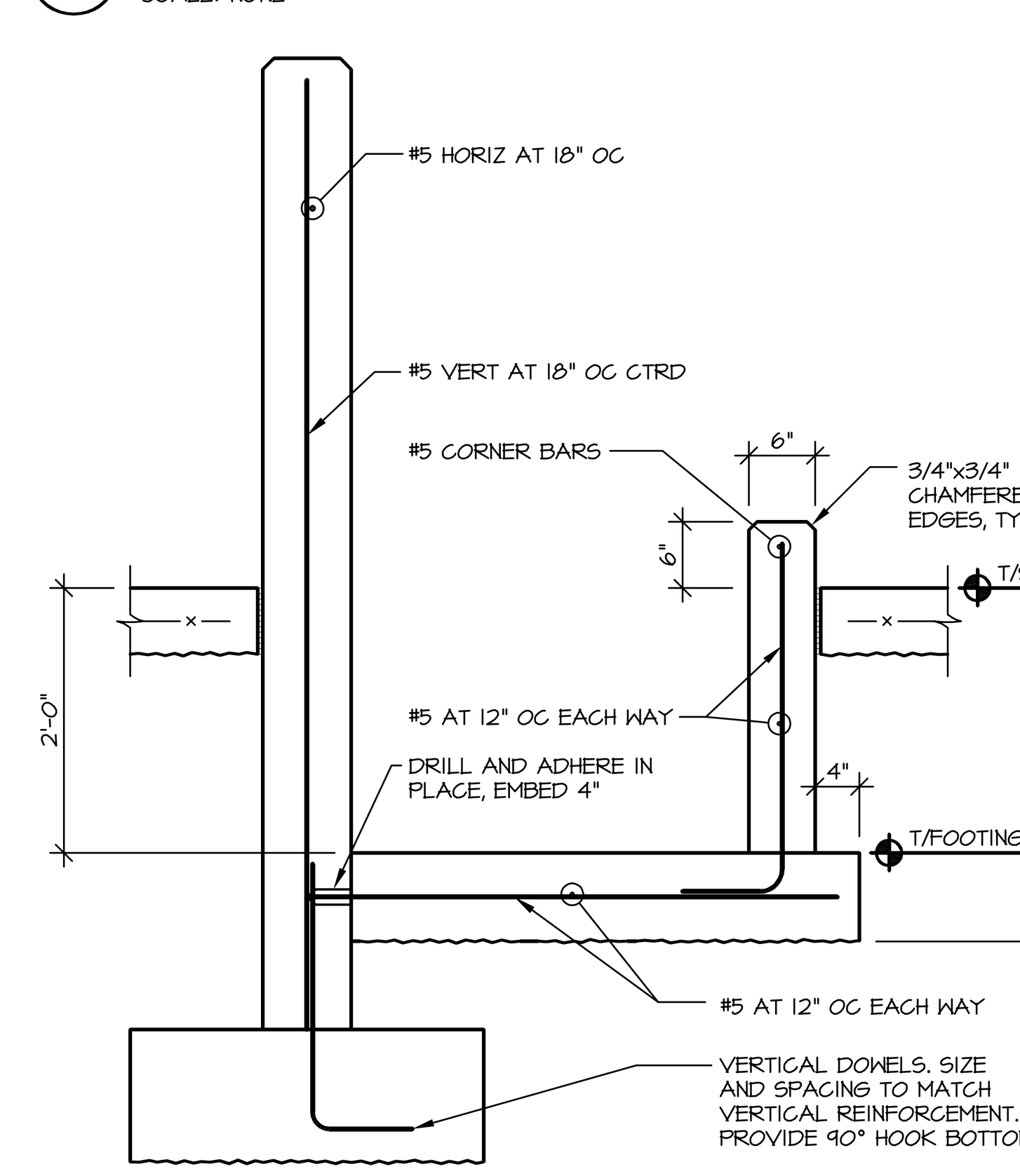
13) ELECTRICALLY GROUNDED CONCRETE SLAB-ON-GRADE. PLACE WWF REINFORCEMENT PER NOTE 2. FIELD WELD ALL WIRE OVERLAPS WITH 1/8" BEVEL WELD 1" LONG TO PROVIDE A CONTINUOUS WIRE MAT FOR GROUNDING. AT (3) ENTRANCES, PROVIDE A CONTINUOUS #5 WELDABLE REBAR AT OPENING WIDTH FIELD WELDED TO WIRE REINFORCEMENT MAT. PROVIDE #5x5'-0" LONG AND 12" LONG LEG AT 45° ANGLE AT 12" OC AT ENTRANCES. FIELD WELD TO #5 CONT AT DOOR AND WIRE MAT. PROVIDE ASTM WELDABLE BARS.

14) SEE ELECTRICAL DRAWINGS FOR GROUNDING RODS AND GROUND LUG TO THE STRUCTURAL COLUMNS, PIERS AND FOOTING REINFORCEMENT.

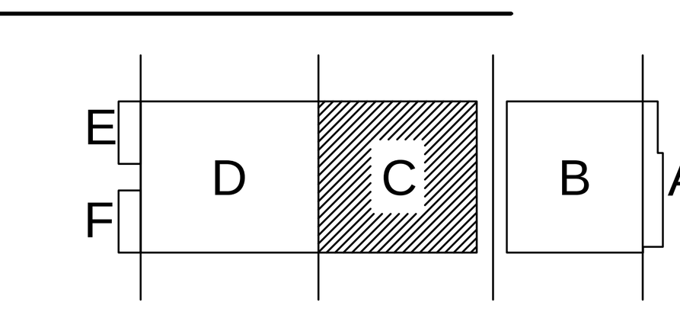
15) 6" THICK EXTERIOR CONCRETE SLAB-ON-GRADE. REINFORCE WITH WWF 6X6/W4.0xW4.0 ON 4" CHOKER COURSE. VAPOR RETARDER IS NOT REQUIRED.



2 S201C WALL SECTION AT PAVILIONS
SCALE: NONE



3 S201C PIT DETAIL
SCALE: NONE



KEY PLAN

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A&O PROJECT #130172

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PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

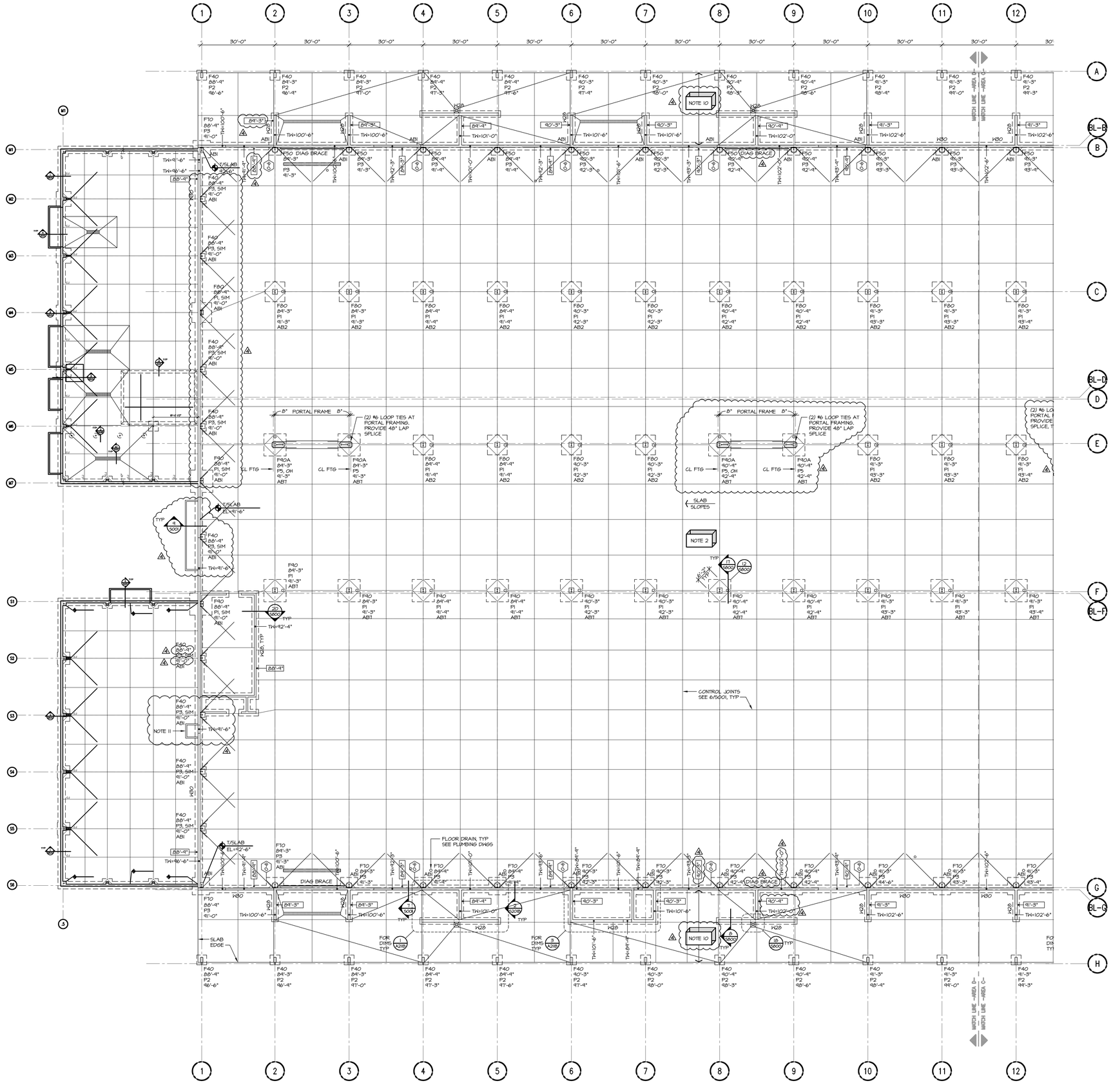
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

SHEET TITLE

FOUNDATION PLAN AREA C

SHEET NO.

S201C



N

1 S201D FOUNDATION PLAN – AREA D

SCALE: 1/16"= 1'-0"

FOUNDATION PLAN NOTES:

1) FINISH SLAB ELEVATION = SLOPES, SEE PLAN
TOP OF FOOTING ELEVATION = VARIES, SEE PLAN

2) SLAB-ON-GRADE TO BE 6" THICK WITH WWF6x6/W4.0xW4.0 2" OFF TOP OF SLAB ON 4" CHOKER COARSE ON 10 MIL VAPOR RETARDER ON AN 8" LAYER OF FREE DRAINING MATERIAL. SEE ARCH FOR SLAB ELEVATIONS.

3) OVER-EXCAVATION PER DETAIL 1/S001 MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING SOIL.

4) TYPICAL DETAILS THAT APPLY TO PLAN INCLUDE;
2/S001 FOOTING STEP DETAIL (MASONRY)
3/S001 FOOTING STEP DETAIL (CONCRETE)
4/S001 CONCRETE WALL JOINT DETAIL
5/S001 PIPE PASSING UNDER WALL FOOTING
6/S001 SLAB ON GRADE JOINT DETAIL
7/S001 OVERHEAD DOOR AT APRON
8/S001 CONCRETE WALL OPENING DETAIL
9/S001 STOOP DETAIL
12/S001 CORNER REINFORCEMENT DETAIL

5) TYPICAL WHERE SLAB-ON-GRADE ABUTS WALL OR COLUMN, PROVIDE 1/4" x (SOG DEPTH) ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISH SLAB ELEVATION.

6) ALL FOUNDATION, FOOTING AND PIER SIZES TO BE VERIFIED/ CONFIRMED WITH METAL BUILDING FINAL DESIGN. SIZES/ORIENTATIONS SHOWN ARE BASED ON PRELIMINARY INFORMATION ONLY.

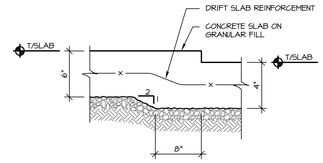
7) SEE S800 FOR PIER DETAILS, TYPICAL.

8) SEE A211B FOR WASH BAY AND STORAGE AREA DIMENSIONS.

9) PROVIDE A SMOOTH RUBBED FINISH ON CAST-IN-PLACE CONCRETE WALLS AND PIERS THAT ARE EXPOSED TO VIEW. EXTEND SMOOTH RUBBED FINISH TO 8" BELOW GRADE.

10) 6" THICK EXTERIOR CONCRETE SLAB-ON-GRADE. REINFORCE WITH WWF 6X6/W4.0xW4.0 ON 4" CHOKER COURSE. VAPOR RETARDER IS NOT REQUIRED.

11) PROVIDE STOOP PER 9/S001 AT DOOR. OMIT IF ALTERNATE #3 IS ACCEPTED.



2 S201D SLAB-ON-GRADE DEPRESSION

SCALE: NONE

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A&O PROJECT #130172

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REVISIONS	4 ADDENDUM #4 8/15/13
DRAWN	A&O
CHECKED	TJD
DATE	08-01-13
PROJECT NO.	2013027_02

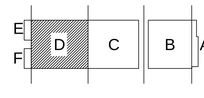
PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

SHEET TITLE

FOUNDATION PLAN AREA D

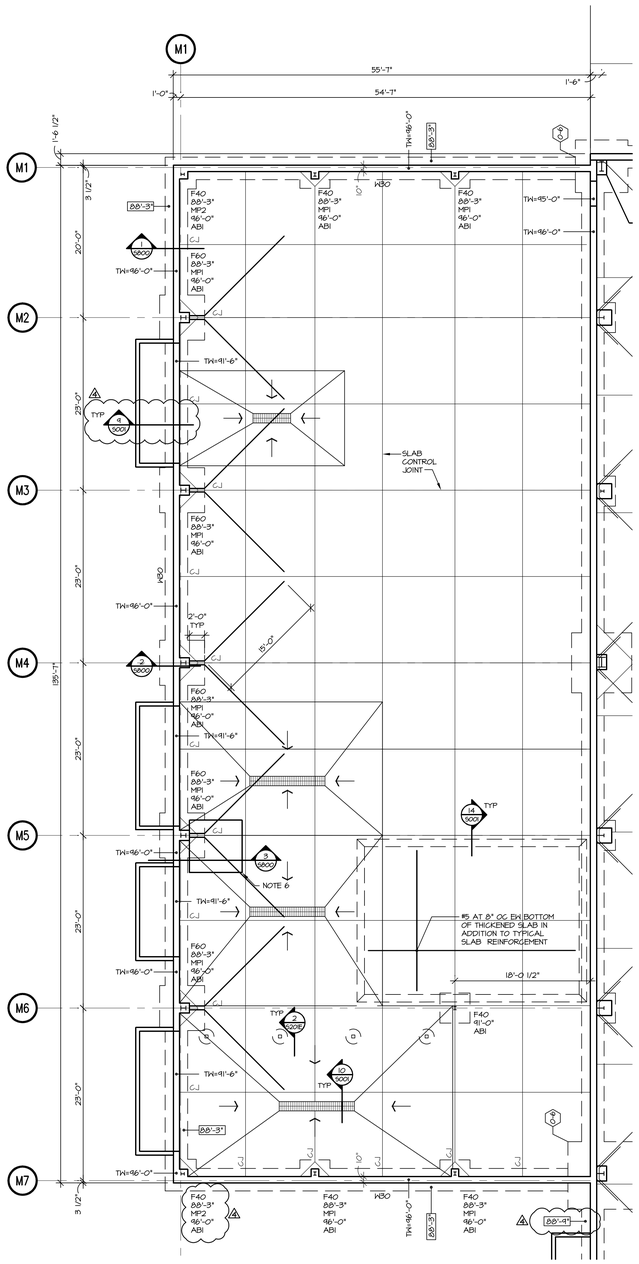


KEY PLAN

N

SHEET NO.

S201D



N

1 S201E **FOUNDATION PLAN – AREA E**

SCALE: 1/8"= 1'-0"

FOUNDATION PLAN NOTES:

1) FINISH SLAB ELEVATION = 92'-6" LOCAL DATUM UNLESS NOTED NOTED OTHERWISE. TOP OF FOOTING ELEVATION = 88'-3" UNLESS NOTED OTHERWISE.

2) SLAB-ON-GRADE TO BE 6" THICK WITH WWF6x6/W4.0xW4.0 2" OFF TOP OF SLAB ON 4" CHOKER COARSE ON 10 MIL VAPOR RETARDER ON AN 8" LAYER OF FREE-DRAINING MATERIAL. SEE ARCH FOR SLAB ELEVATIONS. PROVIDE WET-CURE AT SLAB-ON-GRADE FOR EPOXY FLOOR FINISH.

3) OVER-EXCAVATION PER DETAIL 1/S001 MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING SOIL.

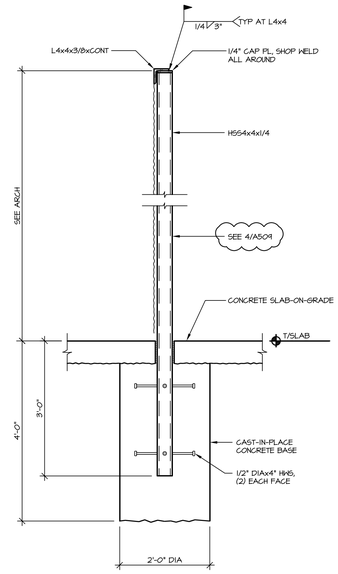
4) TYPICAL DETAILS THAT APPLY TO PLAN INCLUDE:

   2/S001 FOOTING STEP DETAIL
   3/S001 FOOTING STEP DETAIL
   4/S001 CONCRETE WALL JOINT DETAIL
   5/S001 PIPE PASSING UNDER WALL FOOTING
   6/S001 SLAB ON GRADE JOINT DETAIL
   8/S001 CONCRETE WALL OPENING DETAIL
   9/S001 STOOP DETAIL
   12/S001 CORNER REINFORCEMENT DETAIL

5) TYPICAL WHERE SLAB-ON-GRADE ABUTS WALL OR COLUMN, PROVIDE 1/4" x (SOG DEPTH) ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISH SLAB ELEVATION.

6) T'-0"xT'-0"x3'-6" JIB CRANE BASE PAD. T/PAD = 92'-6".

7) ALL FOUNDATION, FOOTING AND PIER SIZES TO BE VERIFIED/ CONFIRMED WITH METAL BUILDING FINAL DESIGN. SIZES/ORIENTATIONS SHOWN ARE BASED ON PRELIMINARY INFORMATION ONLY.



2 S201E **CURTAIN SECTION**

SCALE: NONE

STRANG

ARCHITECTURE
ENGINEERING
INTERIOR DESIGN

STRANG INC.
6411 MINERAL POINT ROAD
MADISON, WI 53705-4395

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A&O PROJECT #130172

Contractors are responsible for the means, methods, techniques, sequences and procedures of construction including, but not limited to, temporary supports, shoring, forming to support imposed loads and other similar items.

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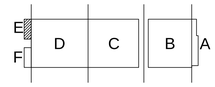
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713



SHEET TITLE

FOUNDATION PLAN AREA E

KEY PLAN

SHEET NO.

S201E

FOUNDATION PLAN NOTES:

1) FINISH SLAB ELEVATION = 93'-0" LOCAL DATUM UNLESS NOTED NOTED OTHERWISE. TOP OF FOOTING ELEVATION = 89'-3" UNLESS NOTED OTHERWISE.

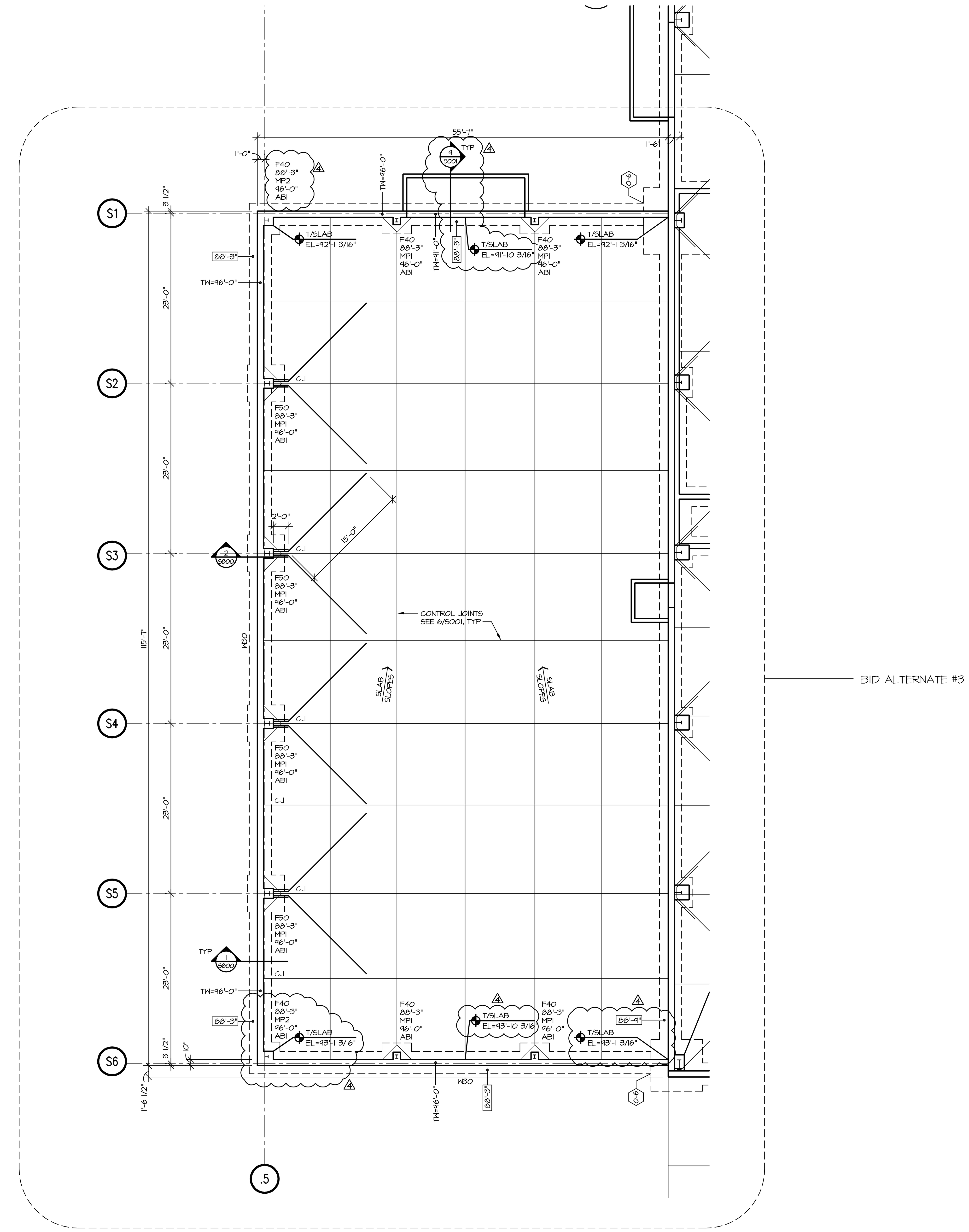
2) SLAB-ON-GRADE TO BE 6" THICK WITH WWF6x6/W4.0xW4.0 2" OFF TOP OF SLAB ON 4" CHOKER COARSE ON 10 MIL VAPOR RETARDER ON AN 8" LAYER OF OF FREE-DRAINING FILL MATERIAL. SEE ARCH FOR SLAB ELEVATIONS. (4)

3) OVER-EXCAVATION PER DETAIL 1/S001 MAY BE REQUIRED TO REMOVE EXISTING UNDOCUMENTED FILL AND UNSUITABLE BEARING SOIL.

4) TYPICAL DETAILS THAT APPLY TO PLAN INCLUDE;

   2/S001 FOOTING STEP DETAIL
   3/S001 FOOTING STEP DETAIL
   4/S001 CONCRETE WALL JOINT DETAIL
   5/S001 PIPE PASSING UNDER WALL FOOTING
   6/S001 SLAB ON GRADE JOINT DETAIL
   8/S001 CONCRETE WALL OPENING DETAIL
   9/S001 STOOP DETAIL
   12/S001 CORNER REINFORCEMENT DETAIL

5) TYPICAL WHERE SLAB-ON-GRADE ABUTS WALL OR COLUMN, PROVIDE 1/4" x (SOG DEPTH) ISOLATION FILLER STRIP. SET STRIP 1/4" BELOW FINISH SLAB ELEVATION.



1 S201F FOUNDATION PLAN – AREA F
SCALE: 1/8"= 1'-0"

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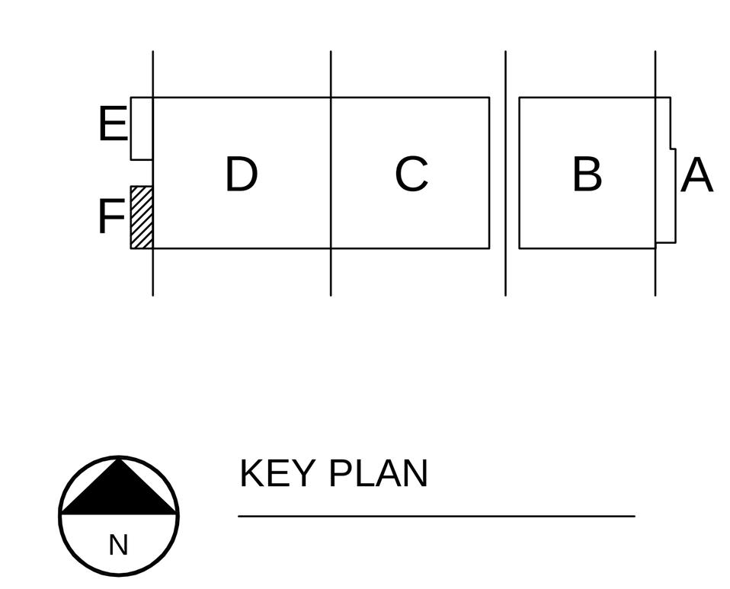
ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713



KEY PLAN

SHEET TITLE

FOUNDATION PLAN
AREA F

SHEET NO.

S201F

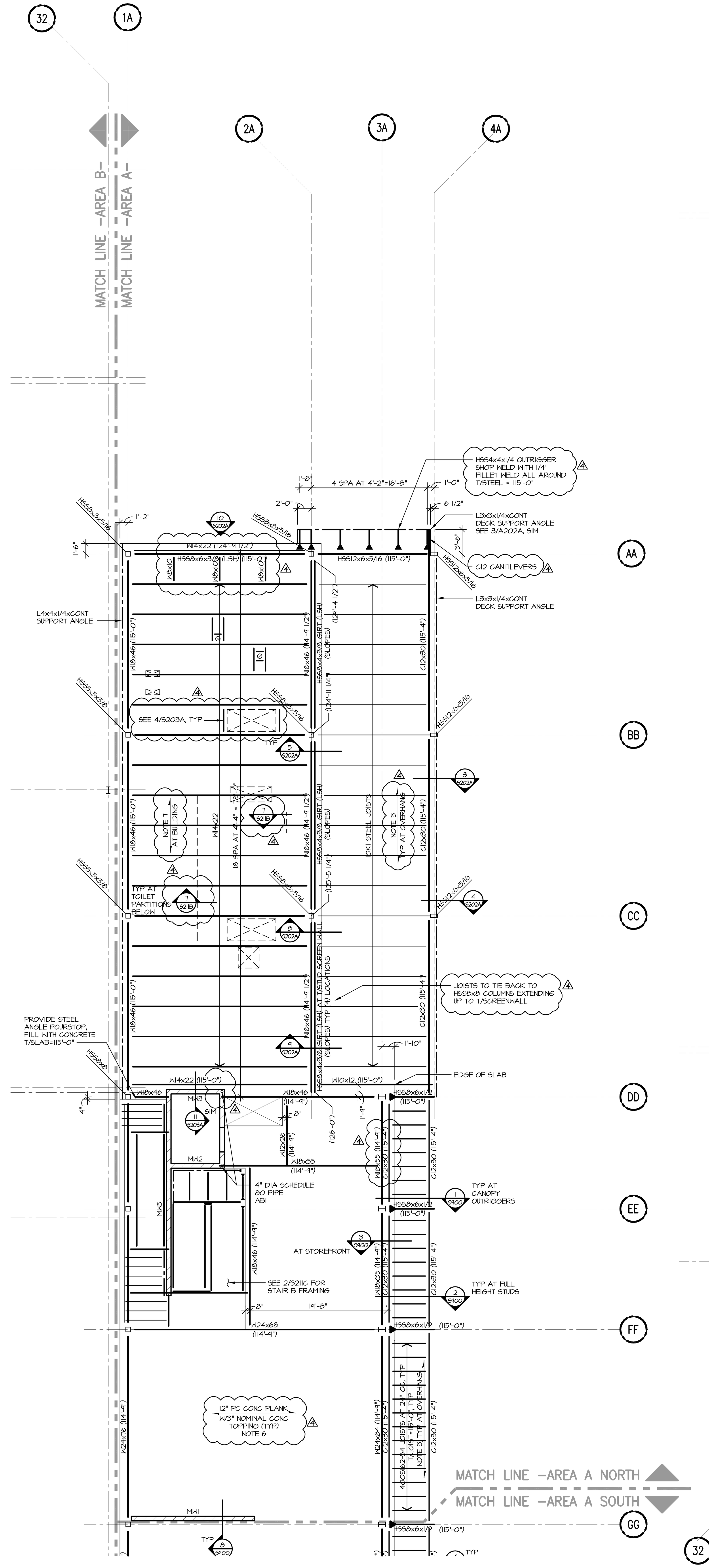
NOTES:

1) TOP OF PRECAST PLANK WITH 3" TOPPING = 116'-0"
2) METAL DECK BEARING ELEVATION = 115'-0". JOIST BEARING ELEVATION = 114'-9 1/2".
3) 1 1/2" TYPE B, 24 GA METAL ROOF DECK (PRIME PAINTED). ATTACH TO STRUCTURE WITH 36/4 WELD PATTERN AND (3) #10 SELF-DRILLING SCREWS AT SIDE LAPS.

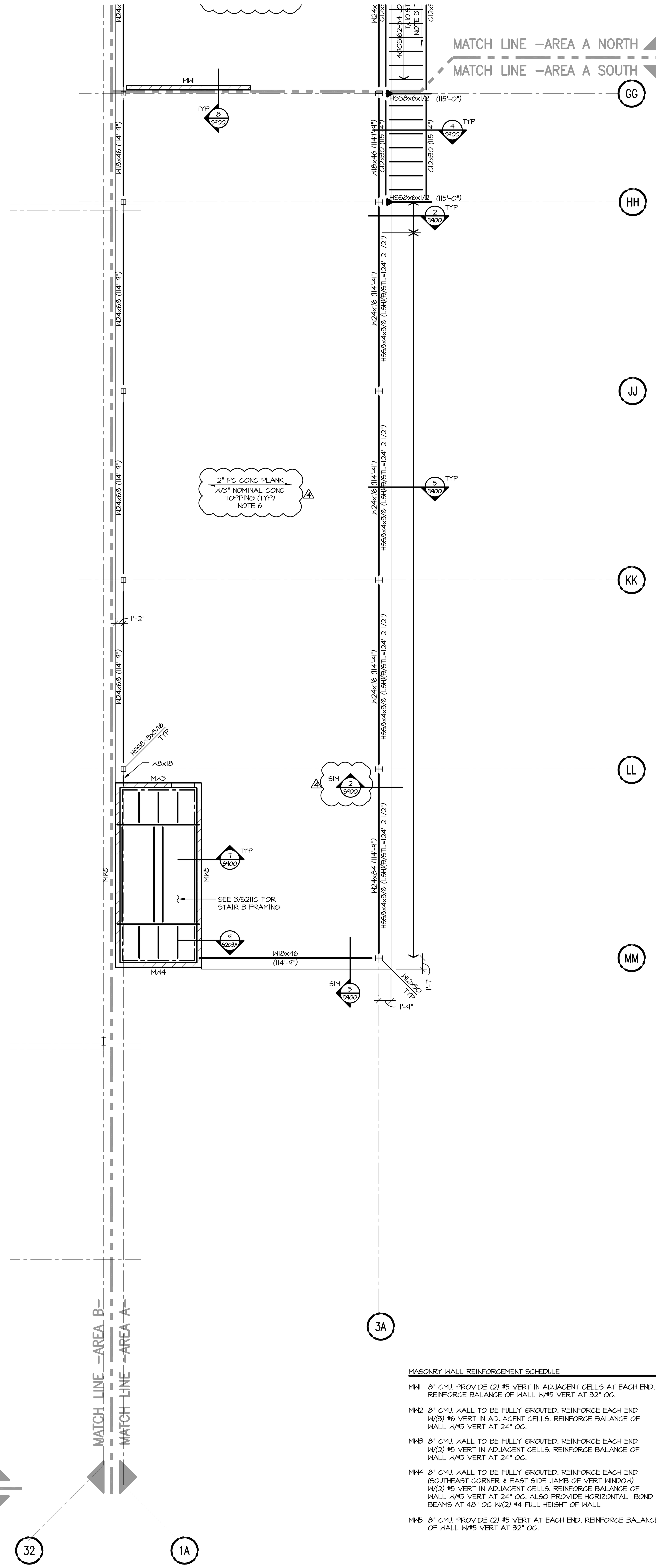
   THICK = 0.0239 IN   I P = 0.1210 IN⁴/FT   SP = 0.1200 IN³/FT
   FY = 60 KSI   I N = 0.1210 IN⁴/FT   SN = 0.1310 IN³/FT

4) PROVIDE COLD-FORMED STEEL STUD BUNDLE TO FORM HSS8x4 SUPPORT AT SCREEN WALL. SEE DETAIL 5/S202A.
5) PROVIDE DOUBLE ANGLE BOLTED CONNECTIONS, TYPICAL.
6) 100 PSF LL + 10 PSF SUPERIMPOSED DEAD LOAD.
7) 1 1/2" TYPE BA1, 24 GA METAL ROOF DECK (PRIME PAINTED). ATTACH TO STRUCTURE WITH 5/8" DIA PUDDLE WELDS WITH 36/4 WELD PATTERN AND (3) #10 SELF-DRILLING SCREWS AT SIDE LAPS.

   THICK = 0.0239 IN   I P = 0.1210 IN⁴/FT   SP = 0.1200 IN³/FT
   FY = 60 KSI   I N = 0.1210 IN⁴/FT   SN = 0.1310 IN³/FT



LOW ROOF FRAMING PLAN – AREA A NORTH
SCALE: 1/8"= 1'-0"



MEZZANINE FRAMING – AREA A SOUTH
SCALE: 1/8"= 1'-0"

MASONRY WALL REINFORCEMENT SCHEDULE

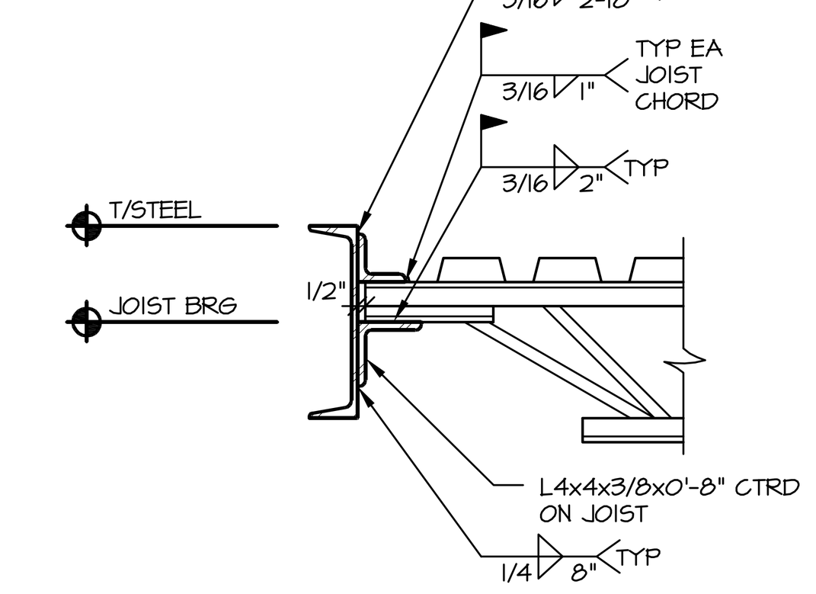
MW1 8" CMU. PROVIDE (2) #5 VERT IN ADJACENT CELLS AT EACH END. REINFORCE BALANCE OF WALL W/#5 VERT AT 32" OC.

MW2 8" CMU. WALL TO BE FULLY GROUTED. REINFORCE EACH END W/(3) #6 VERT IN ADJACENT CELLS. REINFORCE BALANCE OF WALL W/#5 VERT AT 24" OC.

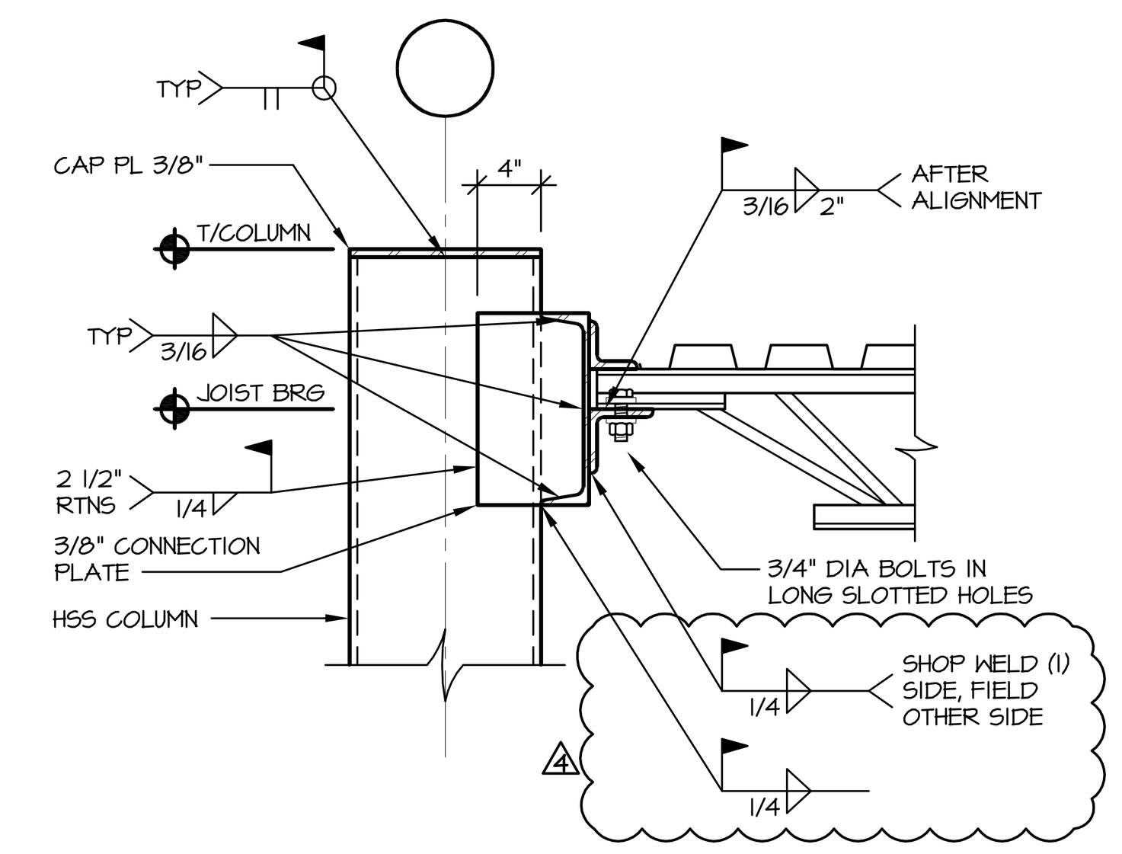
MW3 8" CMU. WALL TO BE FULLY GROUTED. REINFORCE EACH END W/(2) #5 VERT IN ADJACENT CELLS. REINFORCE BALANCE OF WALL W/#5 VERT AT 24" OC.

MW4 8" CMU. WALL TO BE FULLY GROUTED. REINFORCE EACH END (SOUTHEAST CORNER & EAST SIDE JAMB OF VERT WINDOW) W/(2) #5 VERT IN ADJACENT CELLS. REINFORCE BALANCE OF WALL W/#5 VERT AT 24" OC. ALSO PROVIDE HORIZONTAL BOND BEAMS AT 48" OC W/(2) #4 FULL HEIGHT OF WALL

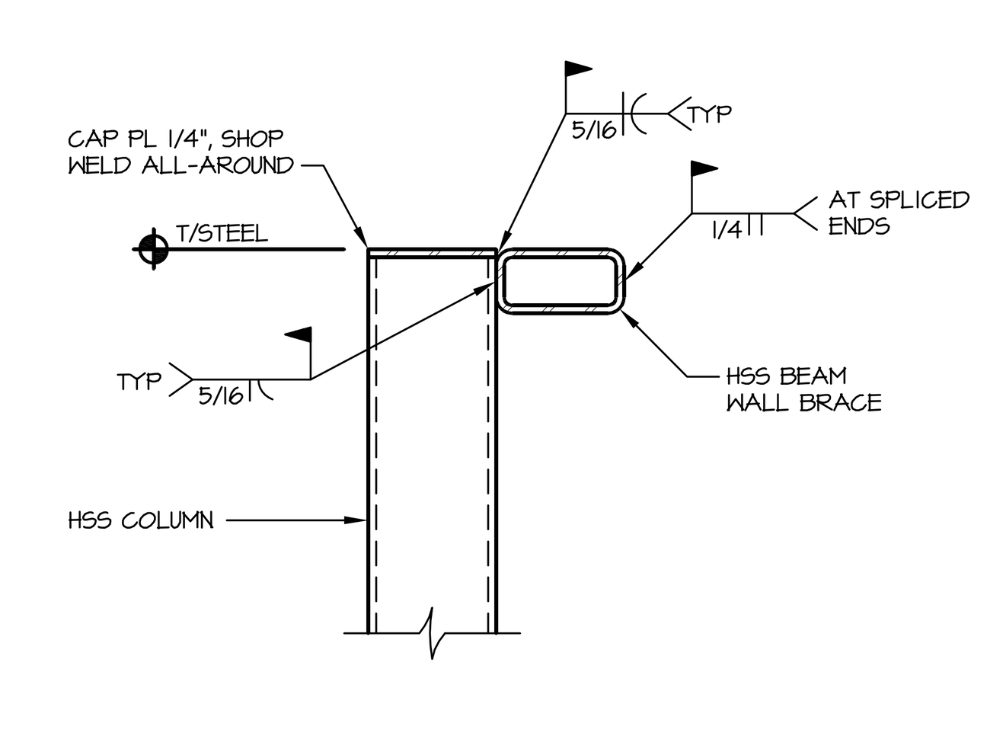
MW5 8" CMU. PROVIDE (2) #5 VERT AT EACH END. REINFORCE BALANCE OF WALL W/#5 VERT AT 32" OC.



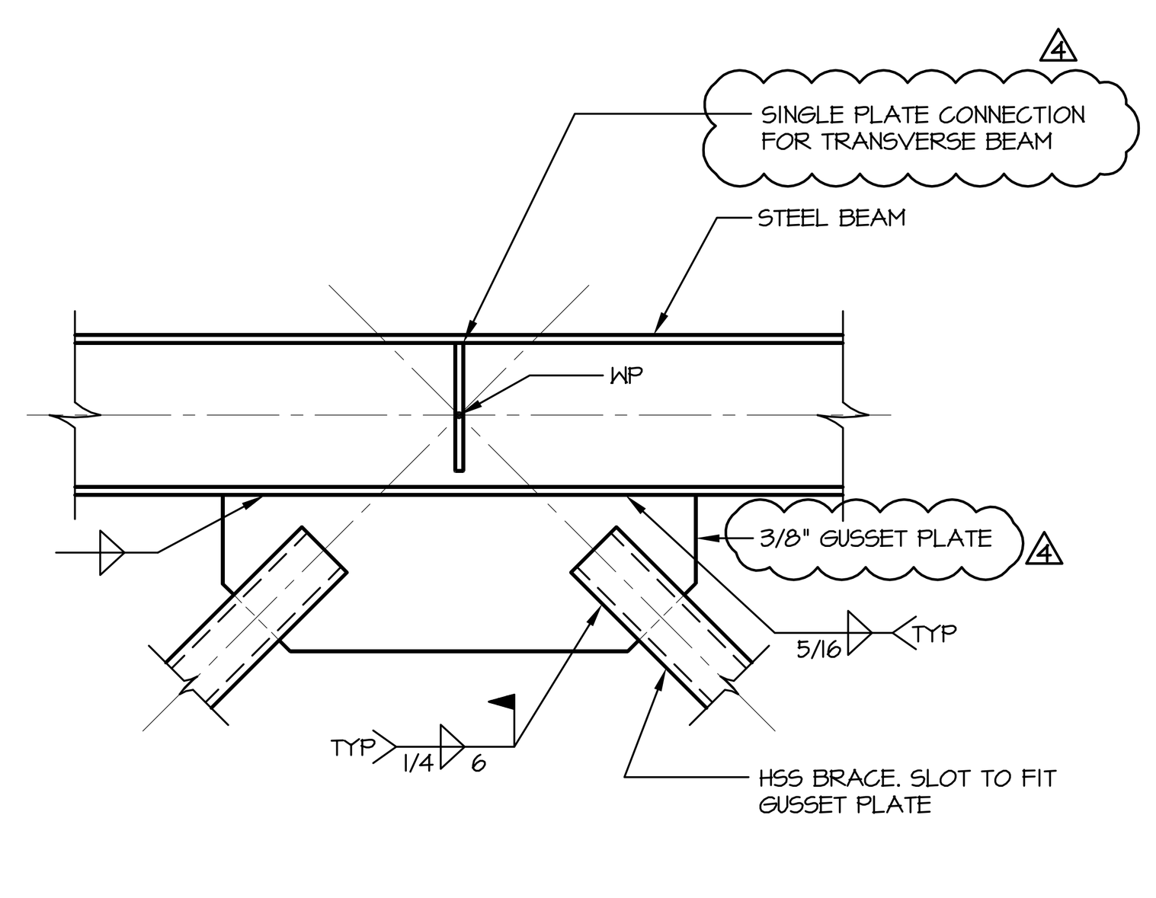
3/S202A JOIST BEARING
SCALE: NONE



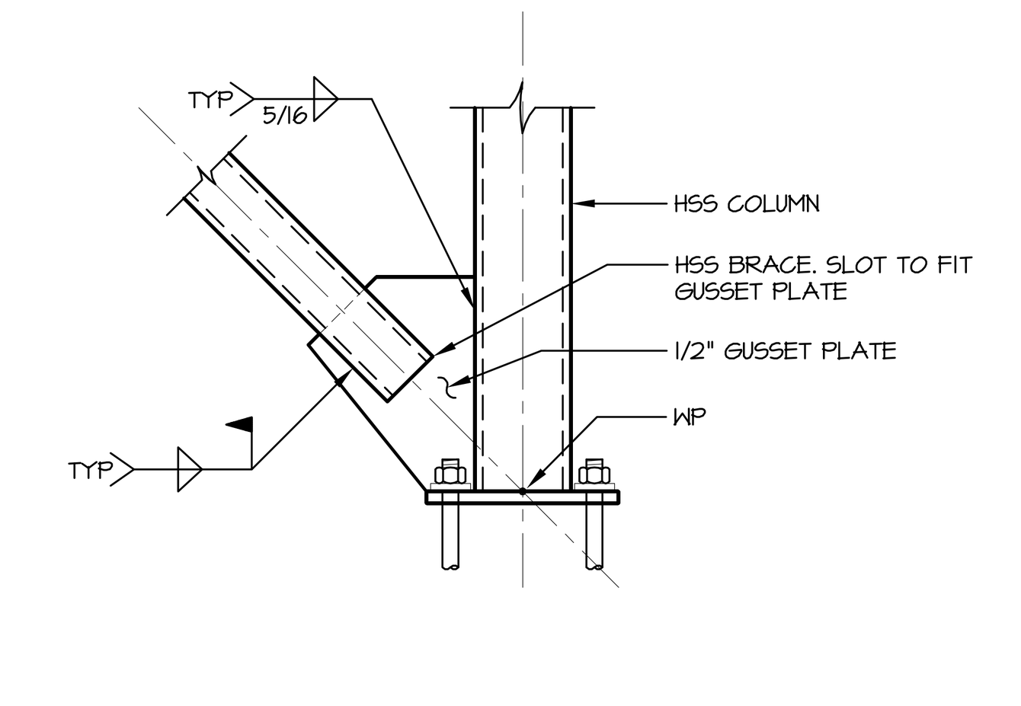
4/S202A JOIST BEARING
SCALE: NONE



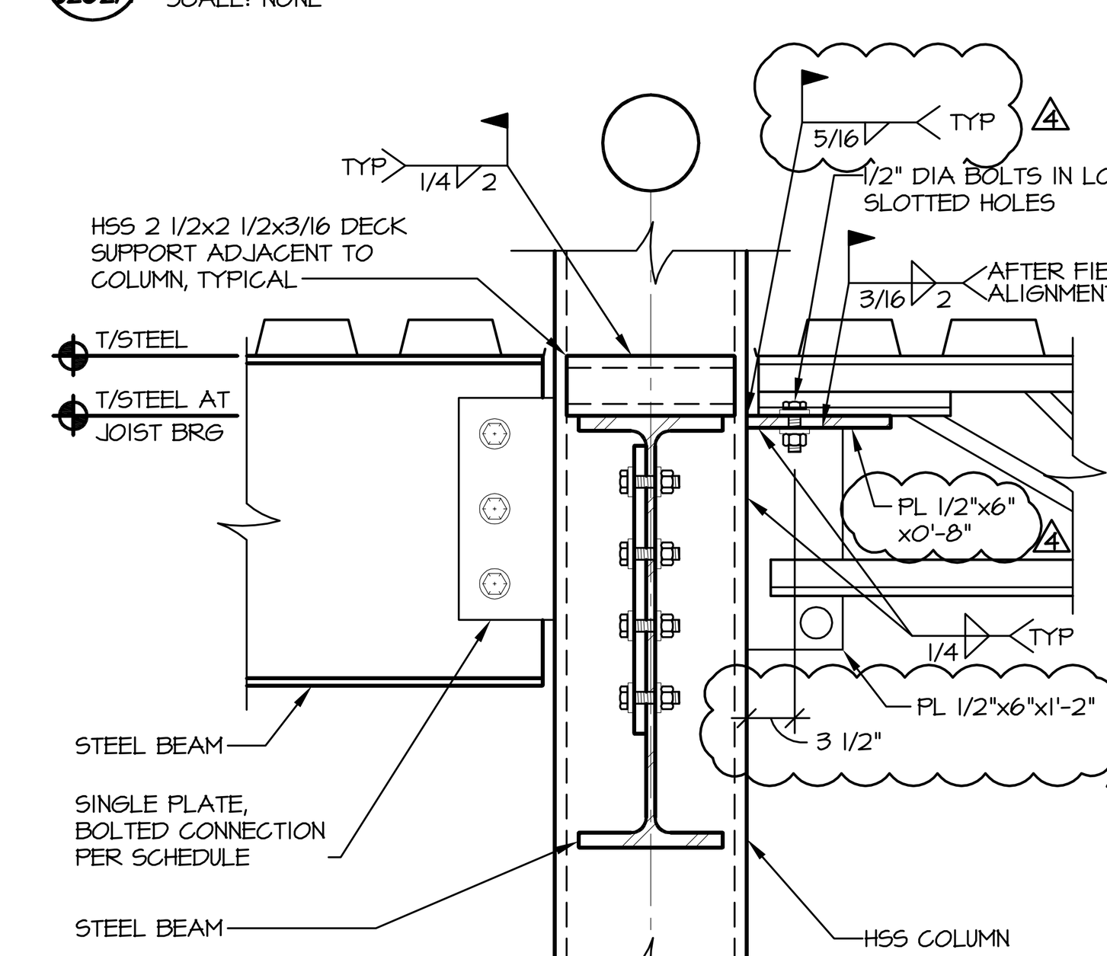
5/S202A SCREEN WALL FRAMING
SCALE: NONE



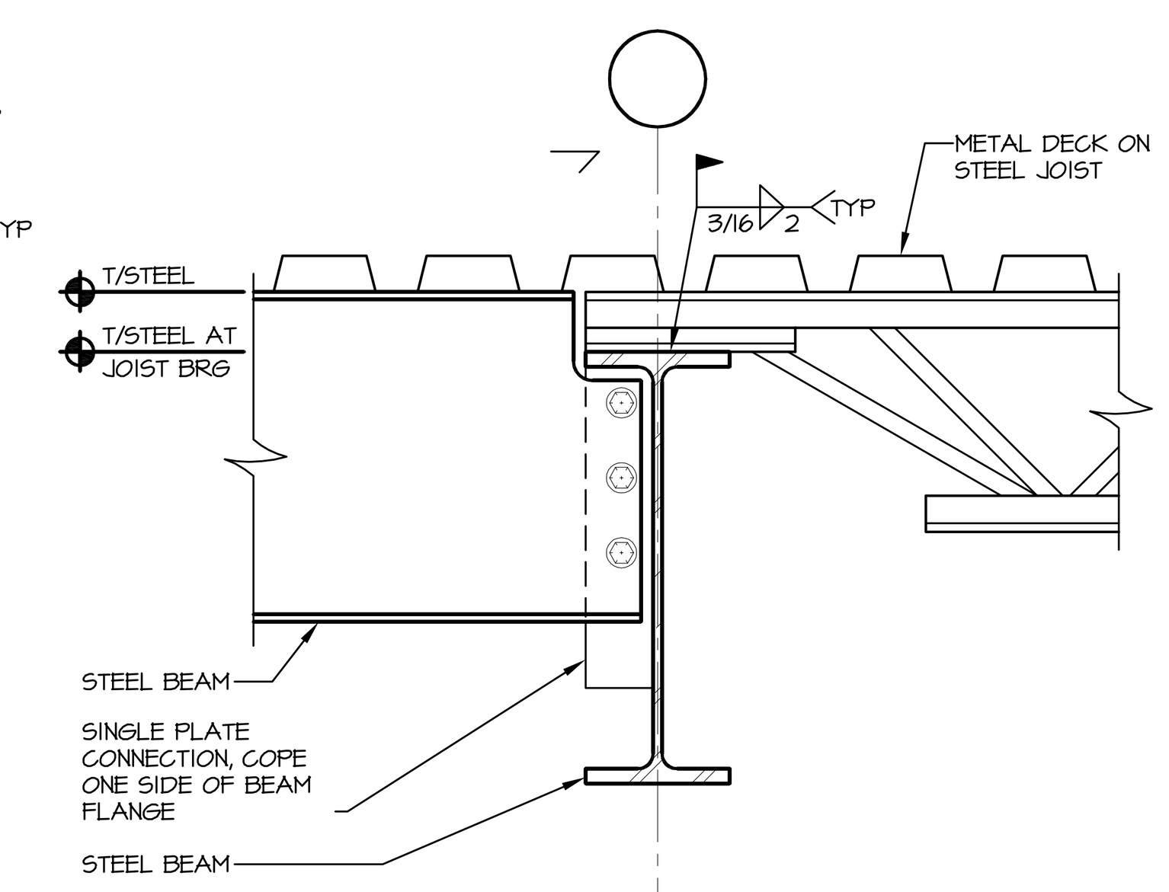
6/S202A HSS BRACE CONNECTION
SCALE: NONE



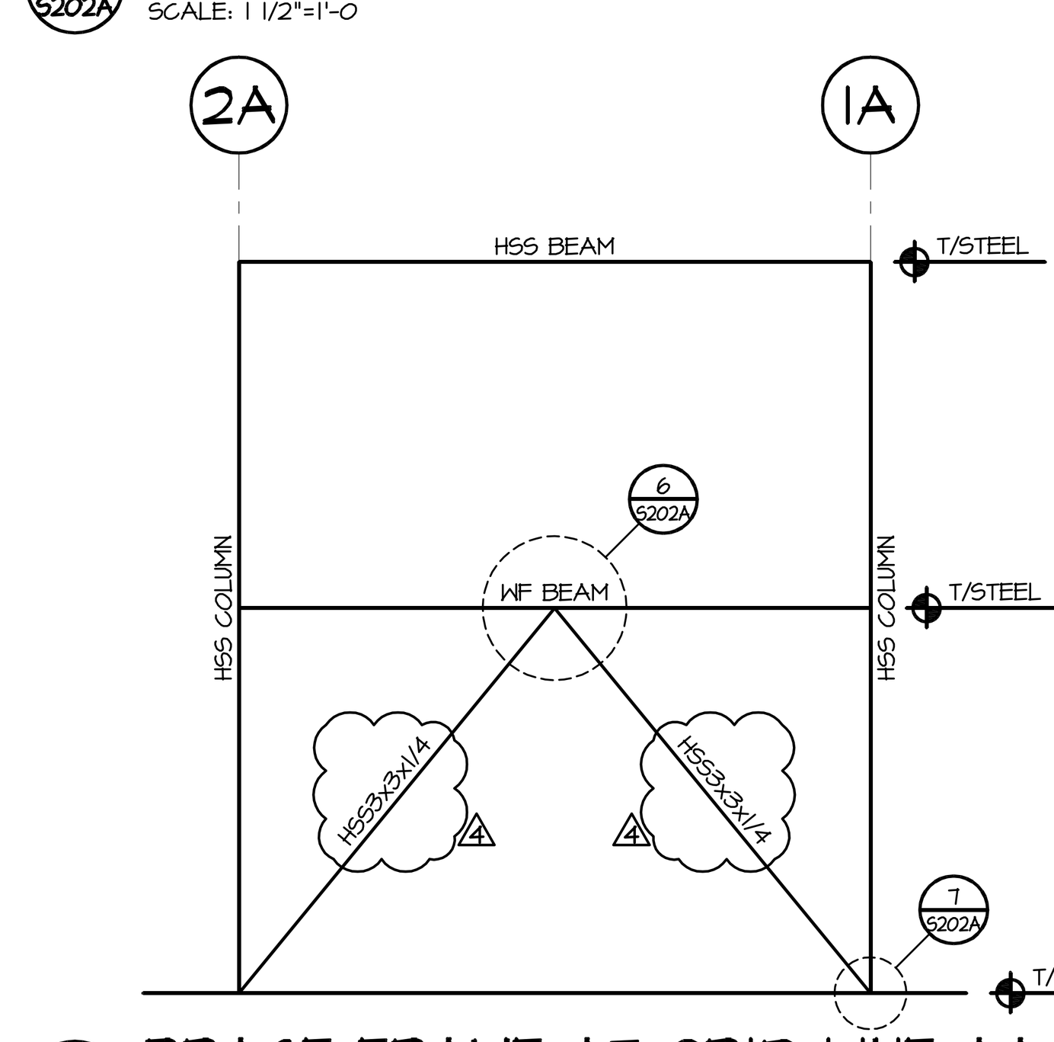
7/S202A HSS BRACE BASE CONNECTION
SCALE: NONE



8/S202A FRAMING CONNECTION AT LOW ROOF
SCALE: 1 1/2"=1'-0



9/S202A FRAMING CONNECTION AT LOW ROOF
SCALE: 1 1/2"=1'-0



10/S202 BRACE FRAME AT GRID LINE AA
SCALE: NONE

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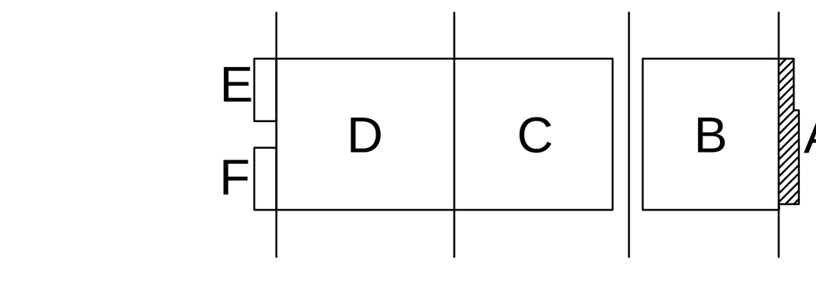
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

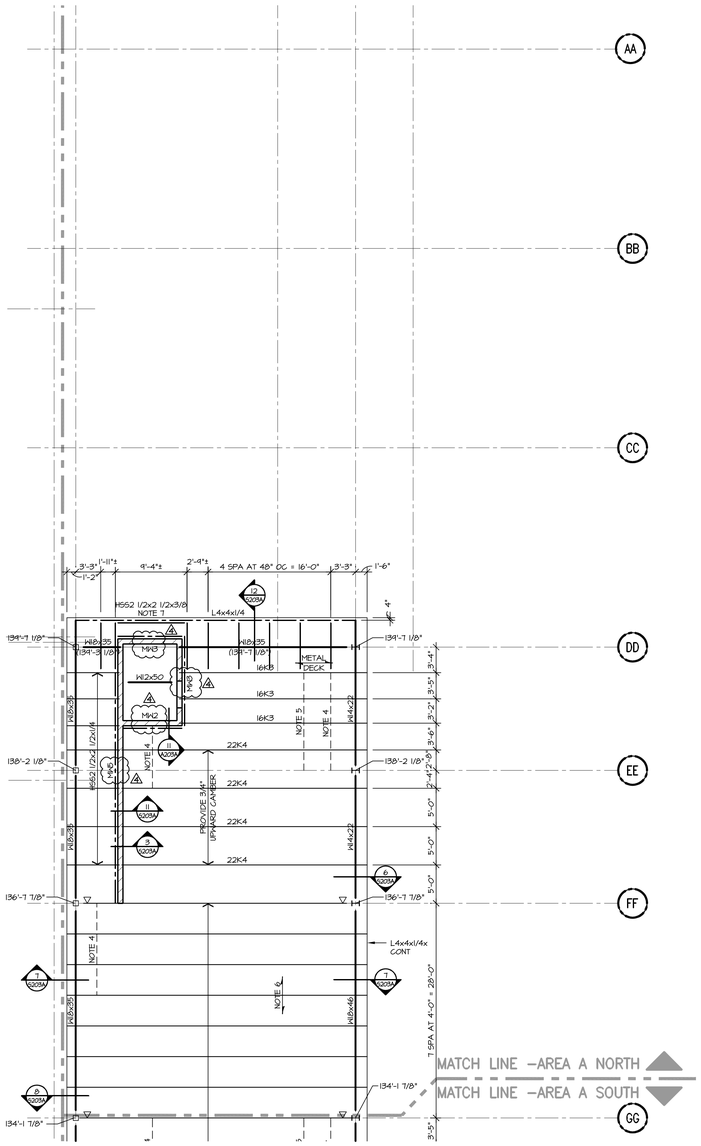


KEY PLAN

SHEET TITLE

MEZZANINE FRAMING
LOW ROOF FRAMING
AREA A

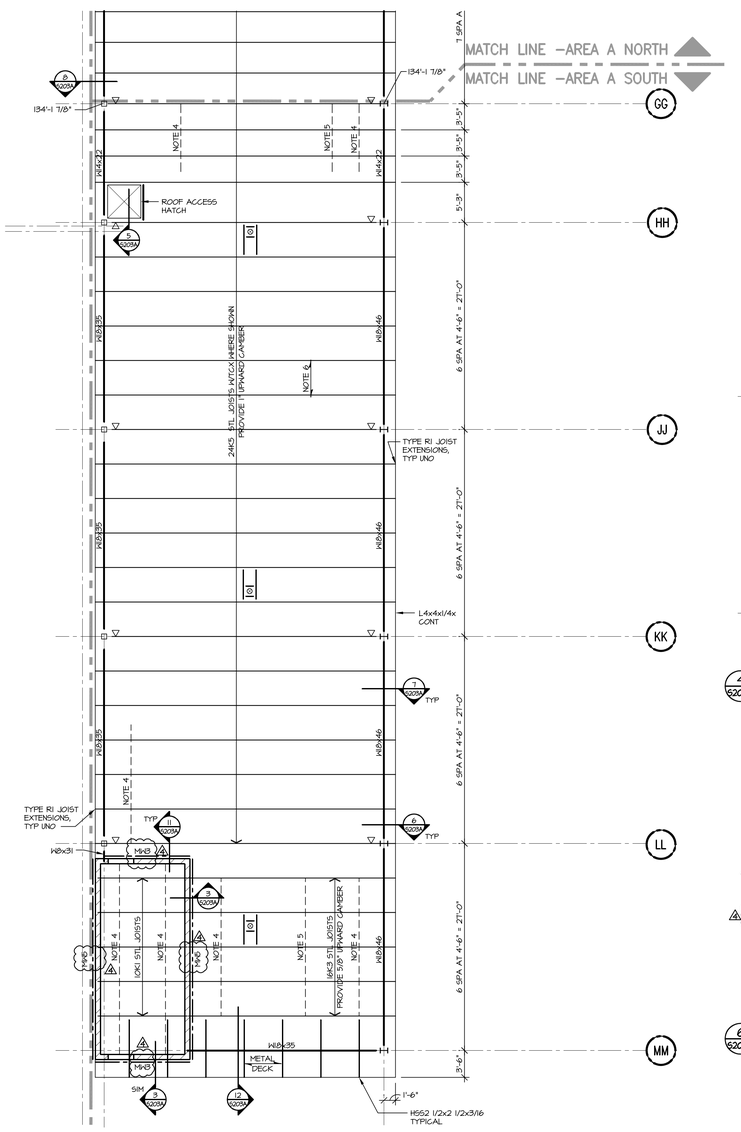
SHEET NO.
S202A



N 1 S203A

HIGH ROOF FRAMING PLAN – AREA A NORTH

SCALE: 1/8"= 1'-0"



N 2 S203A

HIGH ROOF FRAMING PLAN – AREA A SOUTH

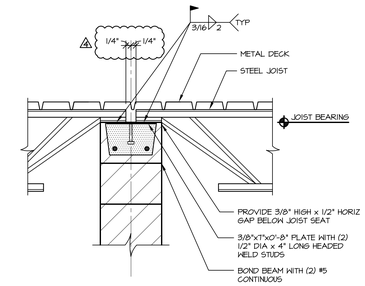
SCALE: 1/8"= 1'-0"

NOTES:

1) TOP OF STEEL = 132'-4 1/2" UNO.
2) JOIST BEARING ELEVATION = 132'-4 1/2"
3) ▽ INDICATES JOIST BOTTOM CHORD EXTENSION
4) WIND UPLIFT BRIDGING PER SJI REQUIREMENTS
5) JOIST BRIDGING PER SJI REQUIREMENTS
6) 1 1/2" TYPE BAL 24 GA METAL ROOF DECK (PRIME PAINTED). ATTACH TO STRUCTURE WITH 36/4 WELD PATTERN AND (3) #10 SELF-DRILLING SCREWS AT SIDE LAPS.

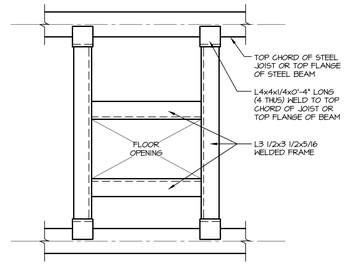
   THICK = 0.0239 IN — Ip = 0.1070 IN⁴/FT — Sp = 0.1200 IN³/FT
   Fy = 80 — In = 0.1350 IN⁴/FT — Sn = 0.1310 IN³/FT

7) FIELD HELD TO ADJACENT HSS2 1/2x2 1/2s



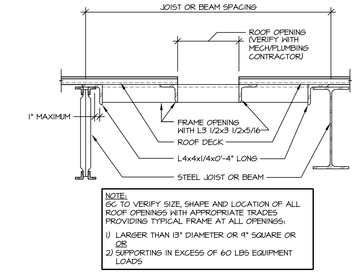
3 S203A — K-SERIES JOIST ON MASONRY WALL

SCALE: NONE



4 S203A — TYPICAL FRAMING AT FLOOR OPENINGS

SCALE: NONE

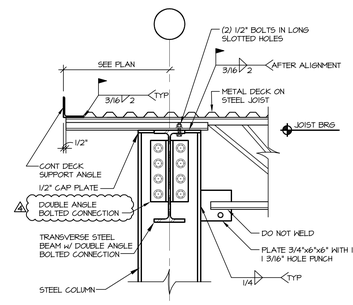


NOTE:
GC TO VERIFY SIZE, SHAPE AND LOCATION OF ALL ROOF OPENINGS WITH APPROPRIATE TRADES PROVIDING TYPICAL FRAME AT ALL OPENINGS:

1) LARGER THAN 13" DIAMETER OR 9" SQUARE OR
   OR
2) SUPPORTING IN EXCESS OF 60 LBS EQUIPMENT LOADS

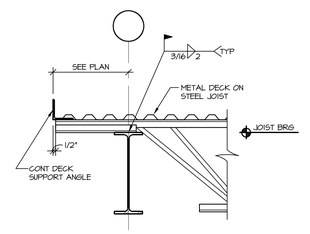
5 S203A — TYPICAL FRAMING AT ROOF OPENINGS

SCALE: NONE



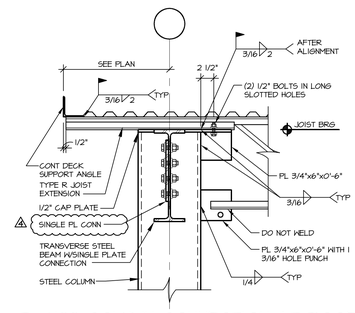
6 S203A — WF COLUMN CONNECTION AT ROOF

SCALE: NONE



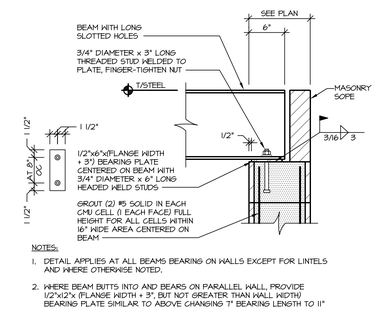
7 S203A — JOIST BEARING

SCALE: NONE



8 S203A — HSS COLUMN CONNECTION AT ROOF

SCALE: NONE

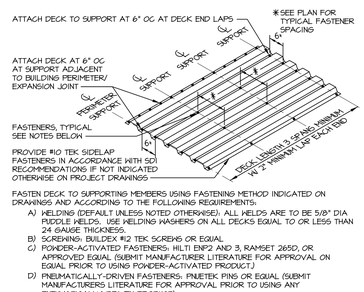


NOTES:

1. DETAIL APPLIES AT ALL BEAMS BEARING ON WALLS EXCEPT FOR LINTELS AND WHERE OTHERWISE NOTED.
2. WHERE BEAM BUTTS INTO AND BEARS ON PARALLEL WALL, PROVIDE 1/2"x12"x (FLANGE WIDTH + 3", BUT NOT GREATER THAN WALL WIDTH) BEARING PLATE SIMILAR TO ABOVE CHANGING 7" BEARING LENGTH TO 11"

9 S203A — BEAM BEARING DETAIL

SCALE: NONE

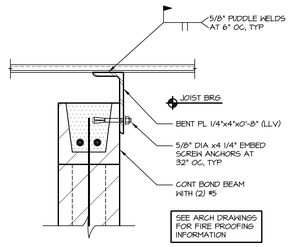


FASTEN DECK TO SUPPORTING MEMBERS USING FASTENING METHOD INDICATED ON DRAWINGS AND ACCORDING TO THE FOLLOWING REQUIREMENTS:

A) WELDING (DEFAULT UNLESS NOTED OTHERWISE). ALL WELDS ARE TO BE 5/8" DIA PUDDLE WELDS. USE WELDING WASHERS ON ALL DECKS EQUAL TO OR LESS THAN 24 GAUGE THICKNESS.
B) SCREWING: BUILDEX #12 TEK SCREWS OR EQUAL
C) POWDER-ACTIVATED FASTENERS: HILTI ENP2 AND 3, RAMSET 265D, OR APPROVED EQUAL (SUBMIT MANUFACTURER LITERATURE FOR APPROVAL ON EQUAL PRIOR TO USING POWDER-ACTIVATED PRODUCT.)
D) PNEUMATICALLY-DRIVEN FASTENERS: PNIETEK PINS OR EQUAL (SUBMIT MANUFACTURERS LITERATURE FOR APPROVAL PRIOR TO USING ANY PNEUMATICALLY-DRIVEN PRODUCT)

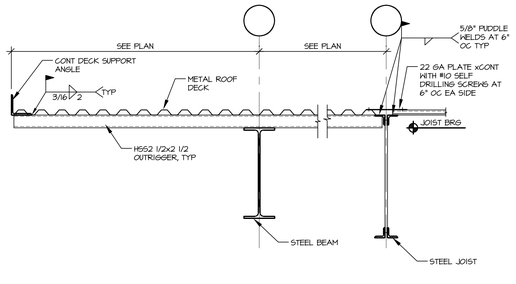
10 S203A — METAL DECK FASTENING DETAIL

SCALE: NONE



11 S203A — CMU WALL AT METAL DECK

SCALE: NONE



12 S203A — WF COLUMN CONNECTION AT ROOF

SCALE: NONE

STRANG

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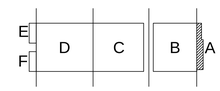
ALLIANT ENERGY CENTER PAVILIONS BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

SHEET TITLE

ROOF FRAMING PLAN AREA A



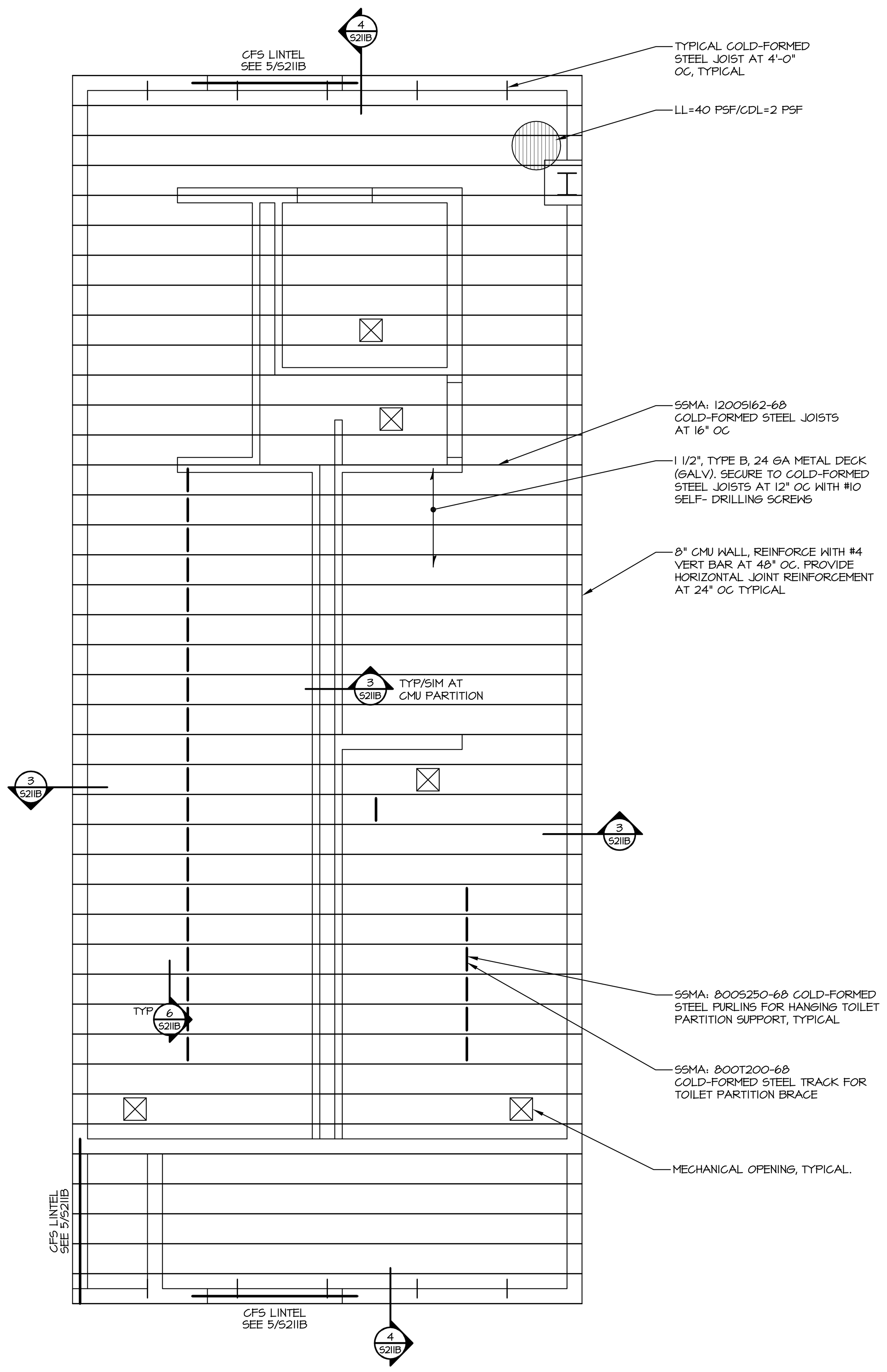
KEY PLAN

N

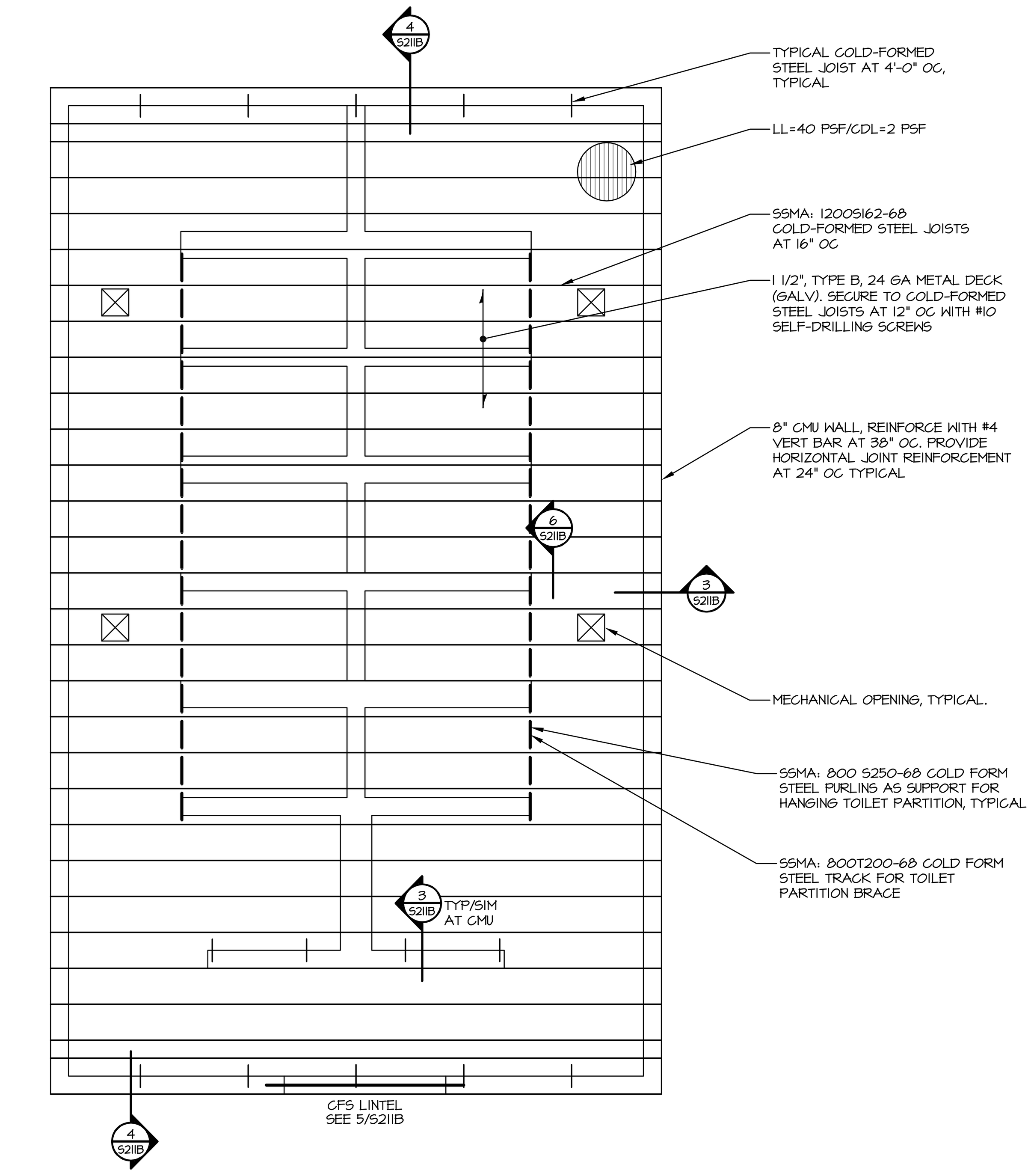
SHEET NO.

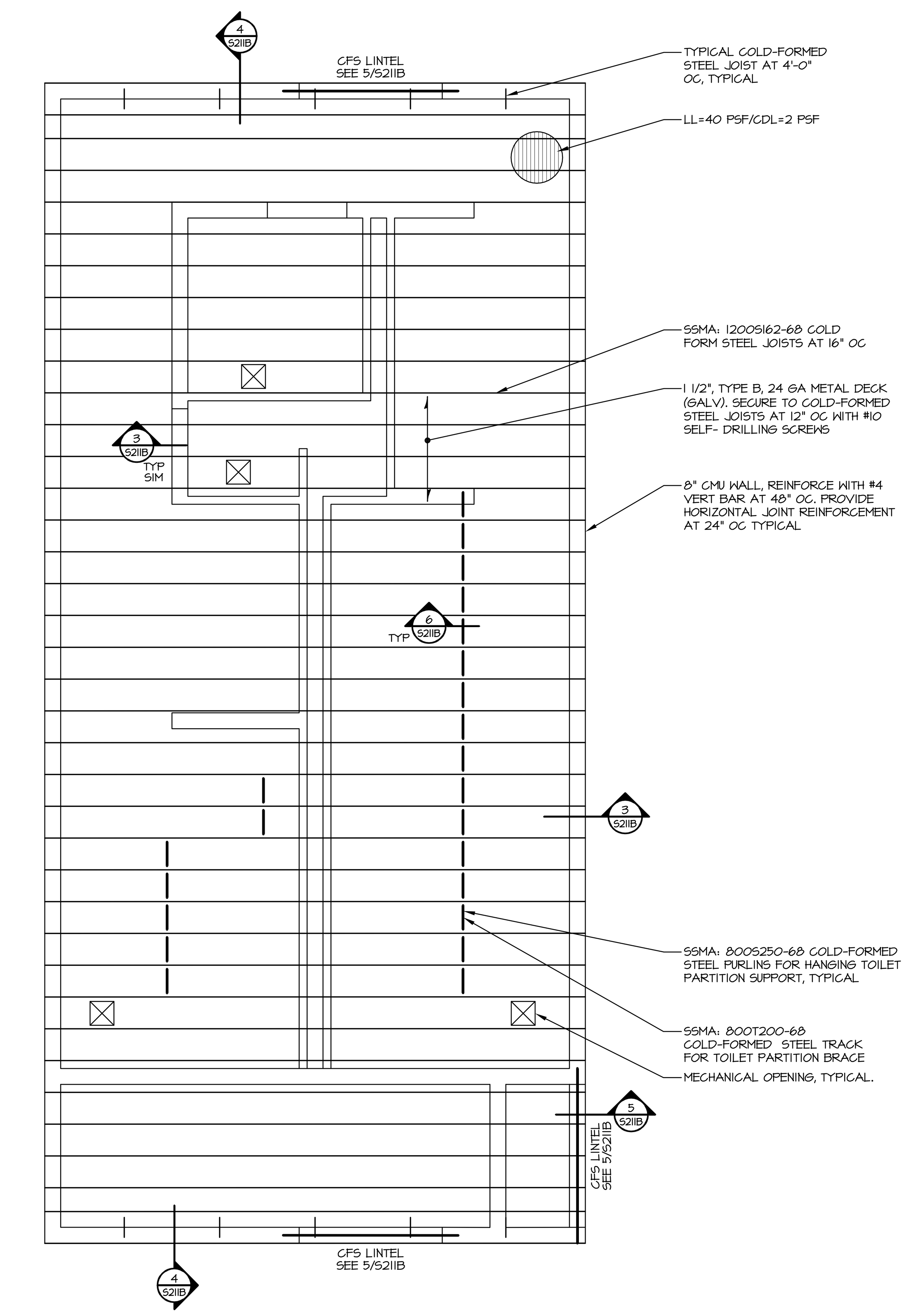
S203A

130172_S203

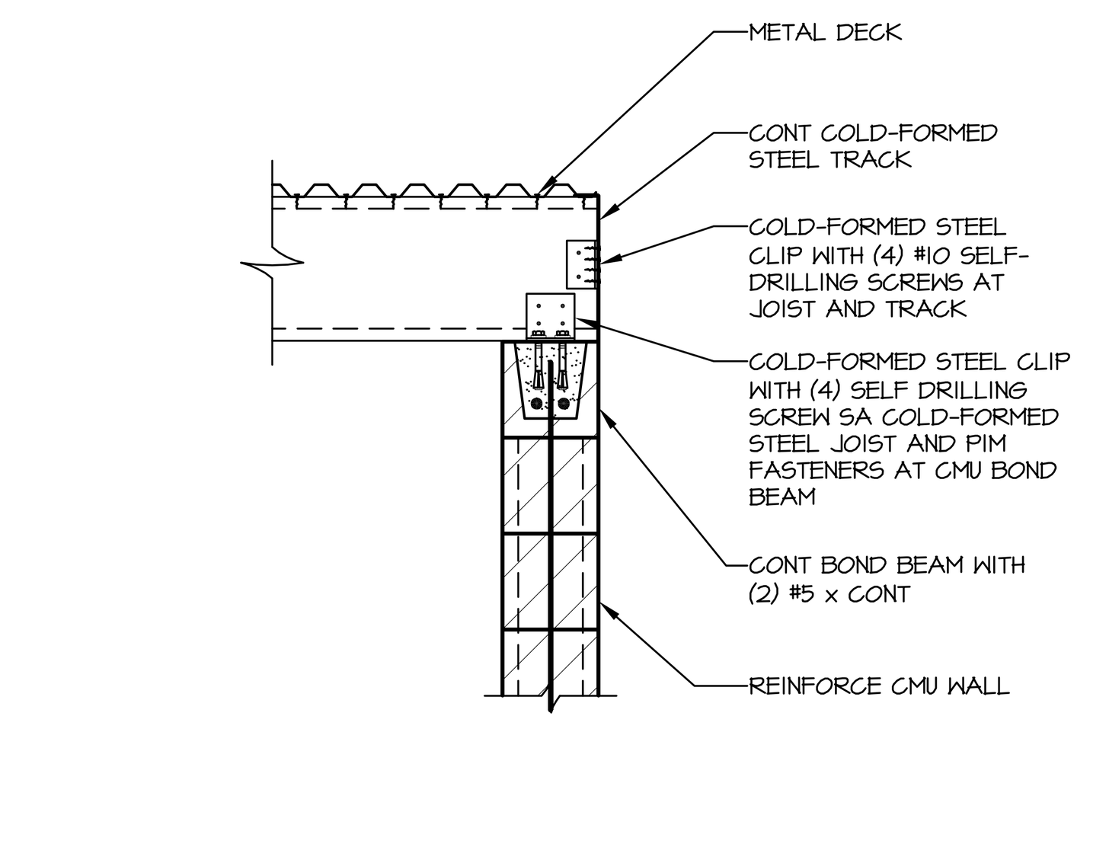


N
1 S211B CEILING FRAMING AT TOILET ROOM
SCALE: 1/4"= 1'-0"

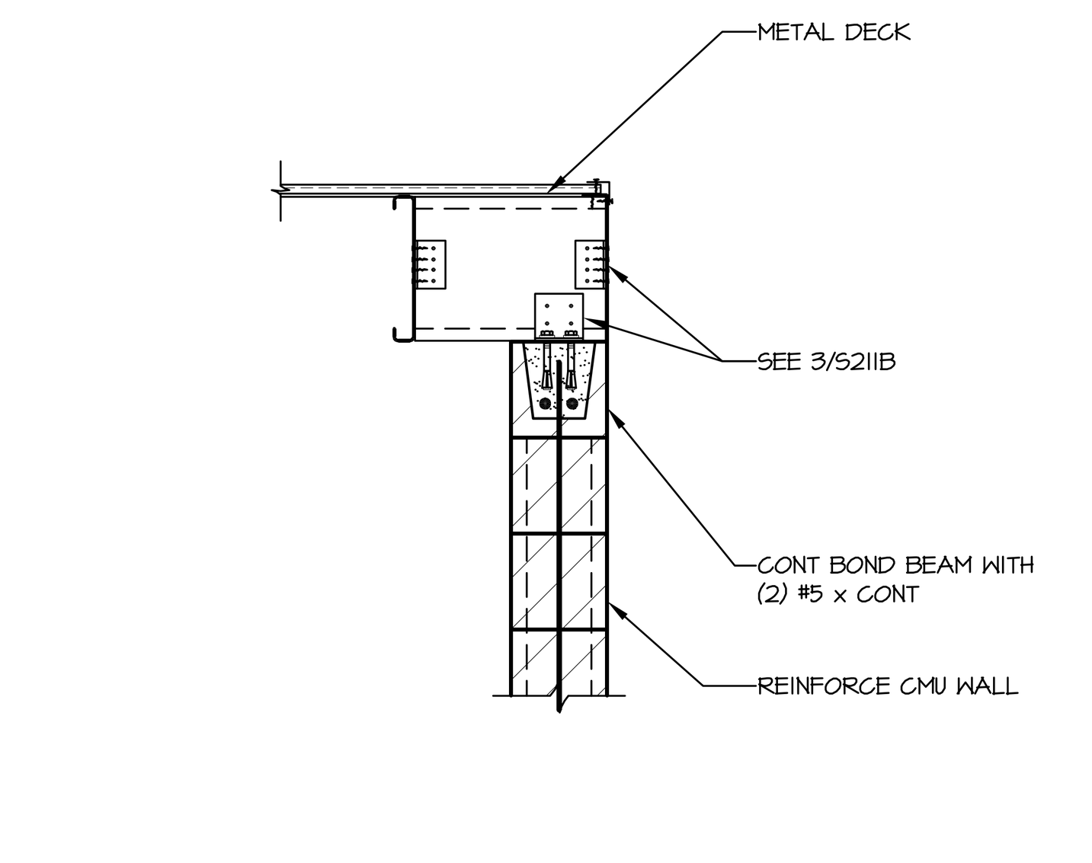




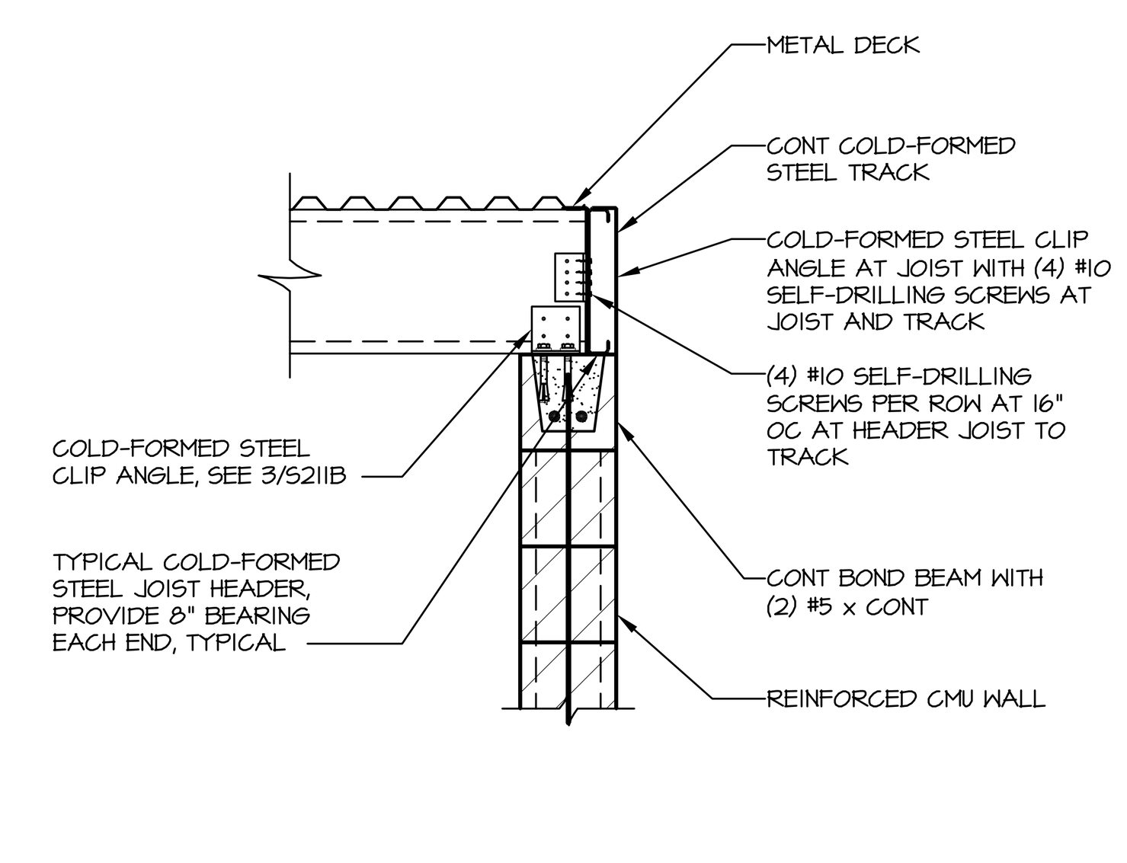
N
2 S211B CEILING FRAMING AT TOILER/SHOWER ROOMS
SCALE: 1/4"=1'-0"



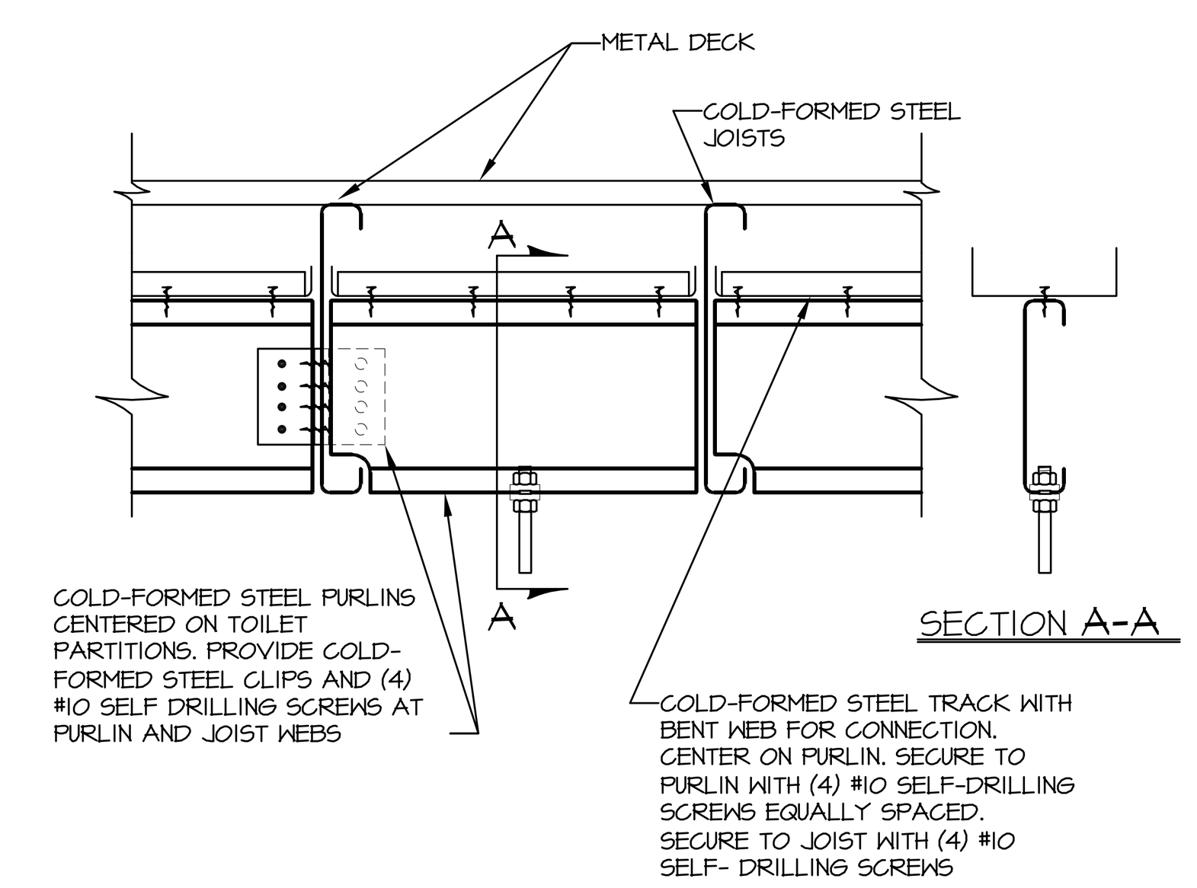
3 S211B COLD-FORMED STEEL FRAMING
SCALE: 3/4"=1'-0



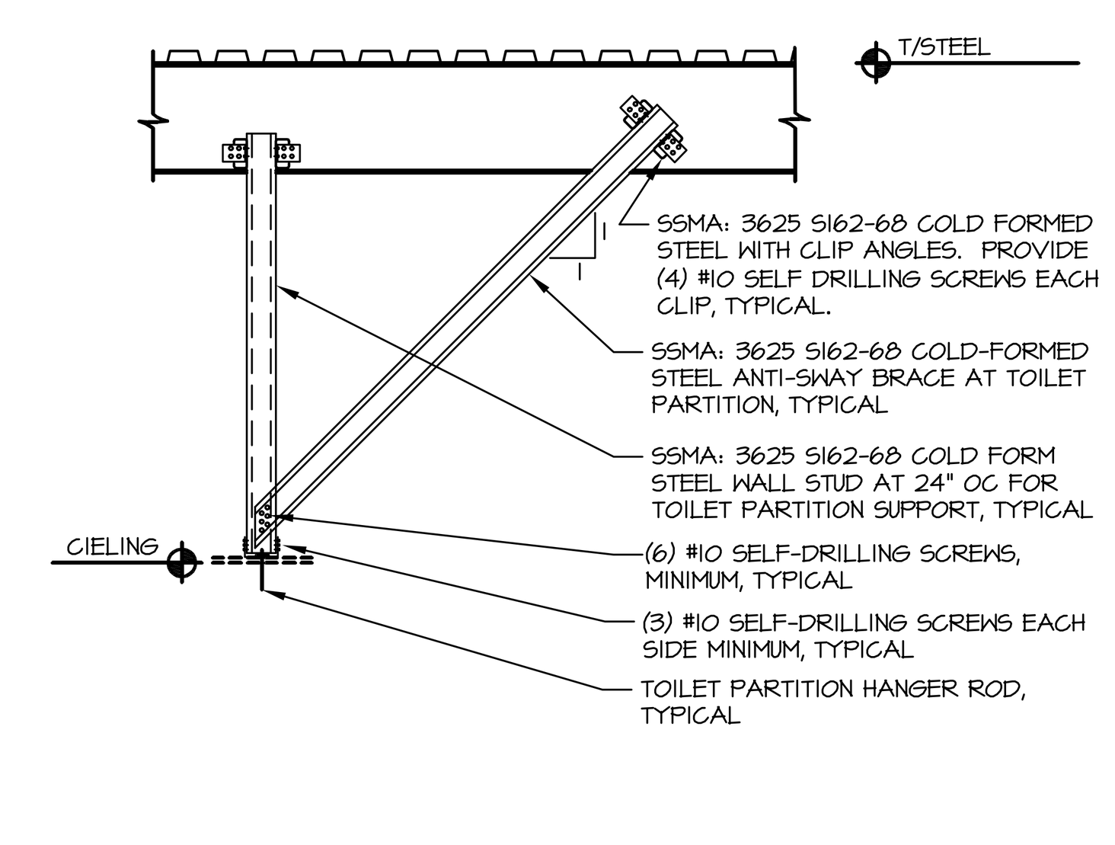
4 S211B COLD-FORMED STEEL FRAMING
SCALE: 3/4"=1'-0



5 S211B COLD-FORMED STEEL FRAMING
SCALE: 3/4"=1'-0



6 S211B COLD-FORMED STEEL AT TOILET PARTITION
SCALE: 1 1/2"=1'-0



7 S211B SECTION
SCALE: NONE

4

NOTE:
COLD-FORMED STEEL FRAMING SIZES ARE FOR BIDDING ONLY. SEE PROJECT SPECIFICATION MANUAL FOR PERFORMANCE DESIGN.

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A&O PROJECT #130172

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FILE NAME	130172_S211B.DWG
REVISIONS	4 ADDENDUM #4 8/15/13
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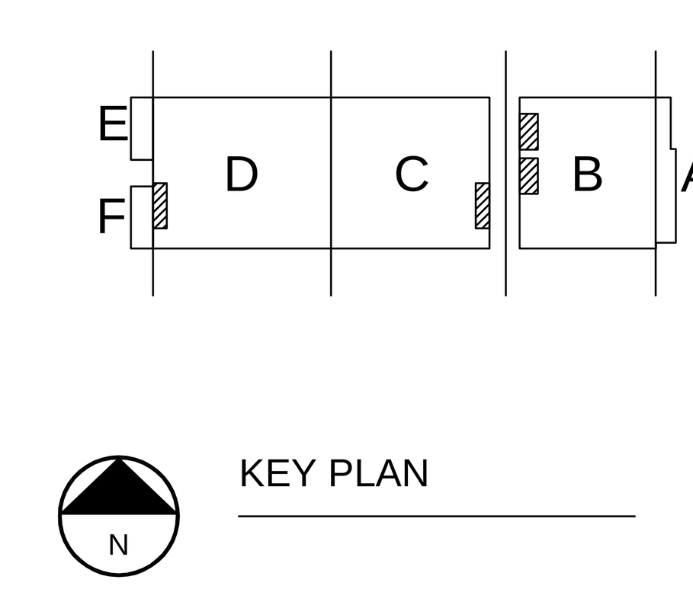
DATE	08-01-13
PROJECT NO.	2013027_02

PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713



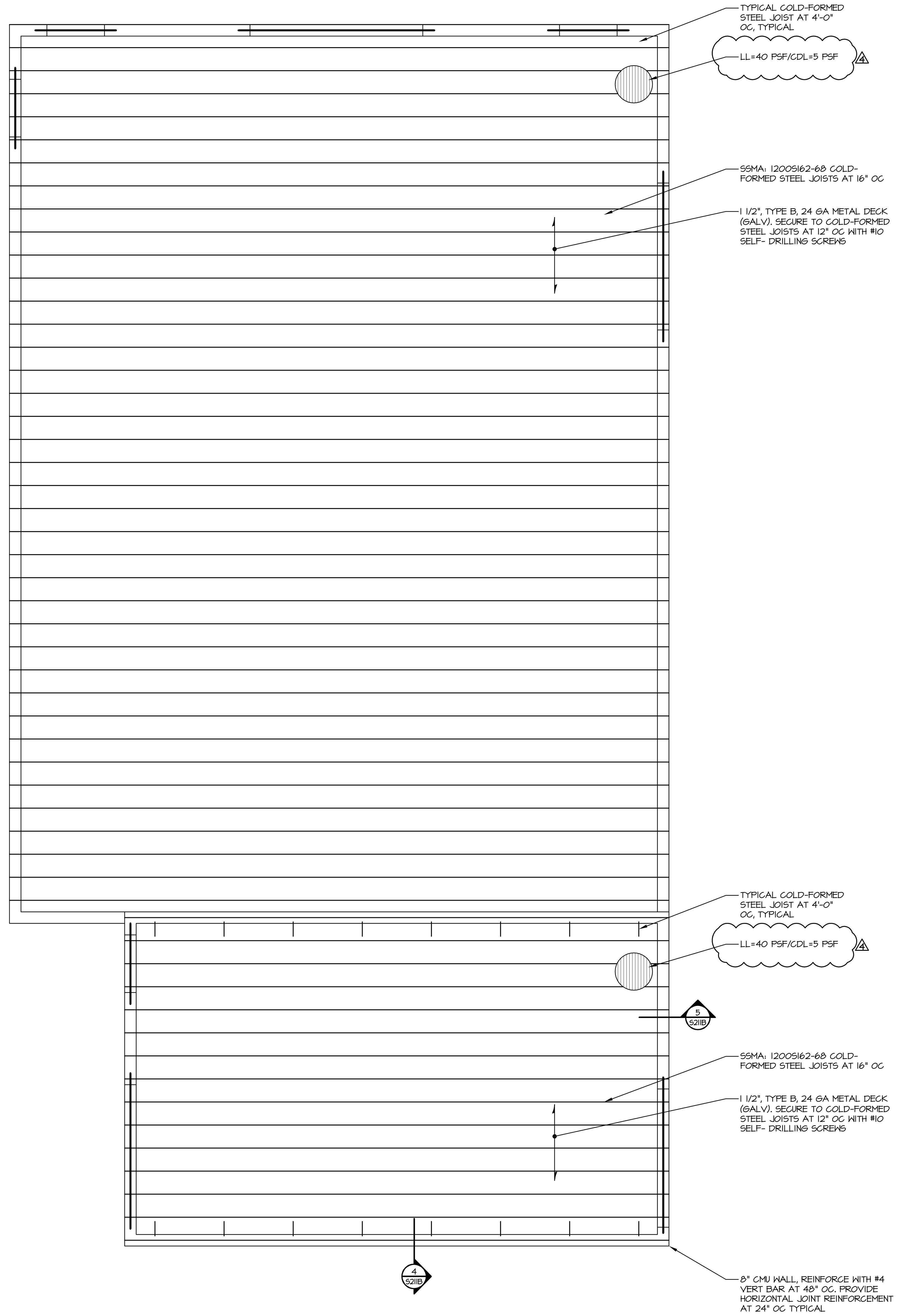
KEY PLAN

SHEET TITLE

CEILING FRAMING PLANS AT TOILET/ SHOWER ROOMS

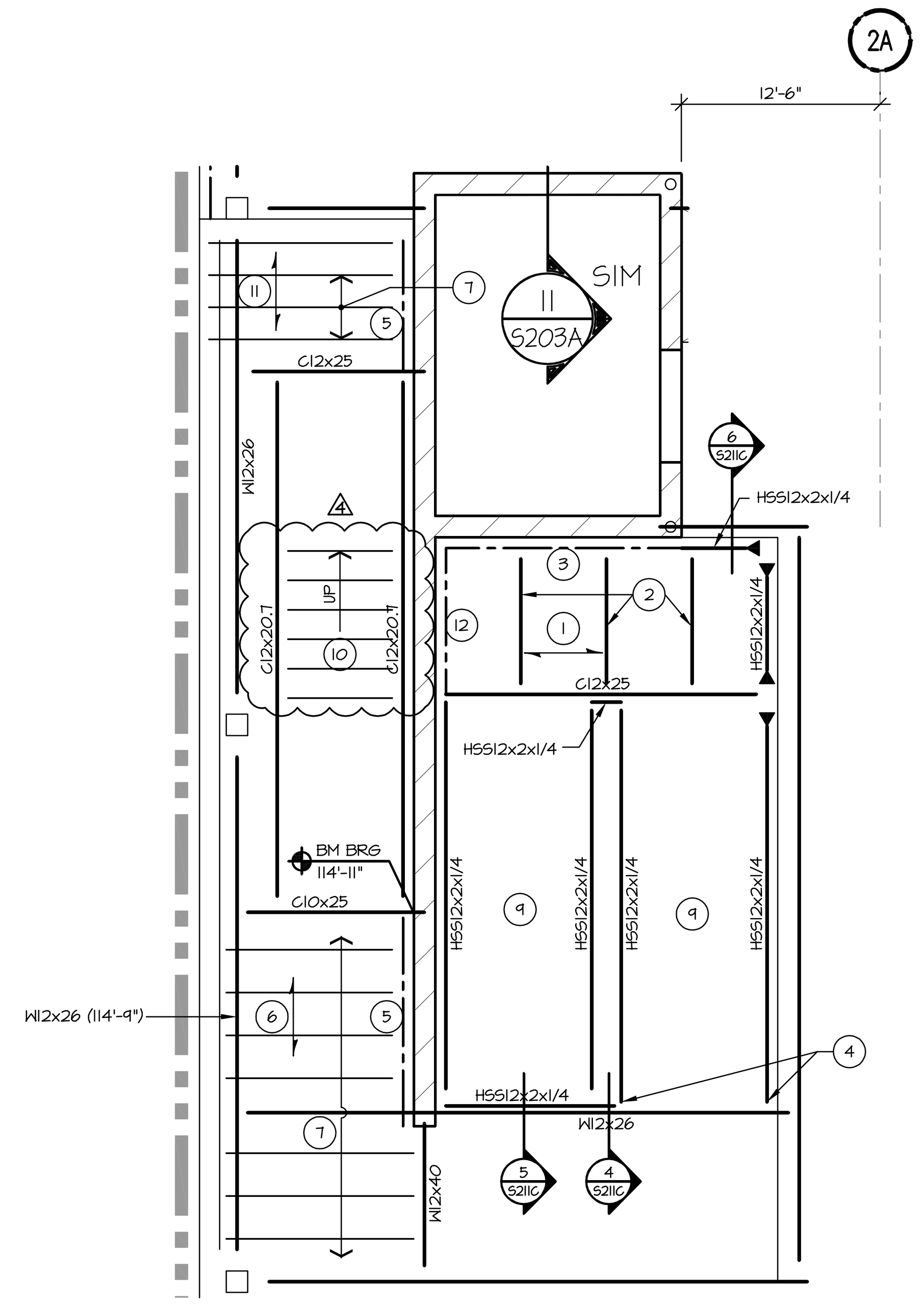
SHEET NO.

S211B



1 S211C CEILING FRAMING AT MILKHOUSE, MECHANICAL AND CONCESSIONS
SCALE: 1/4"=1'-0"

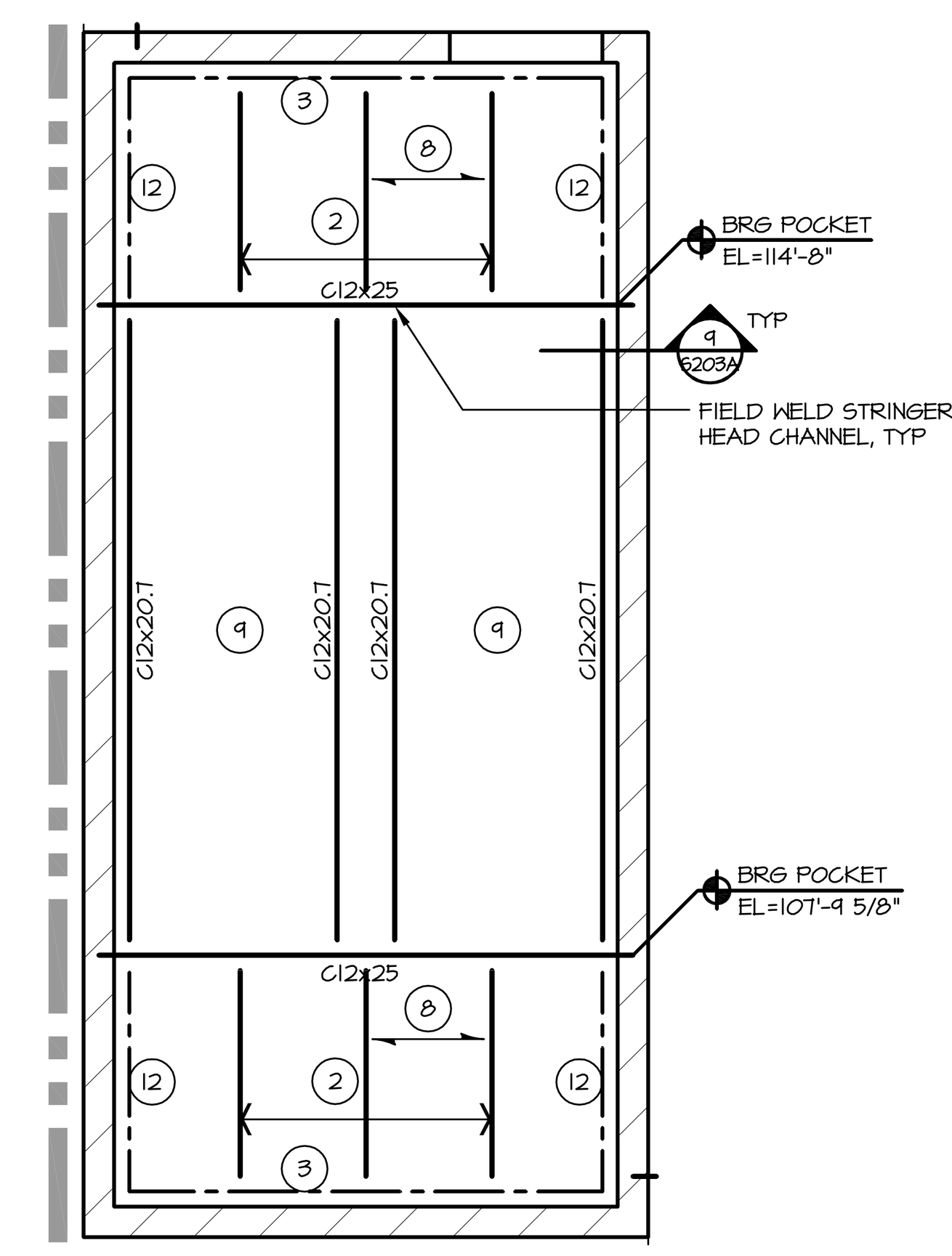
NOTE:
COLD-FORMED STEEL FRAMING SIZES ARE FOR BIDDING ONLY. SEE PROJECT SPECIFICATION MANUAL FOR PERFORMANCE DESIGN.



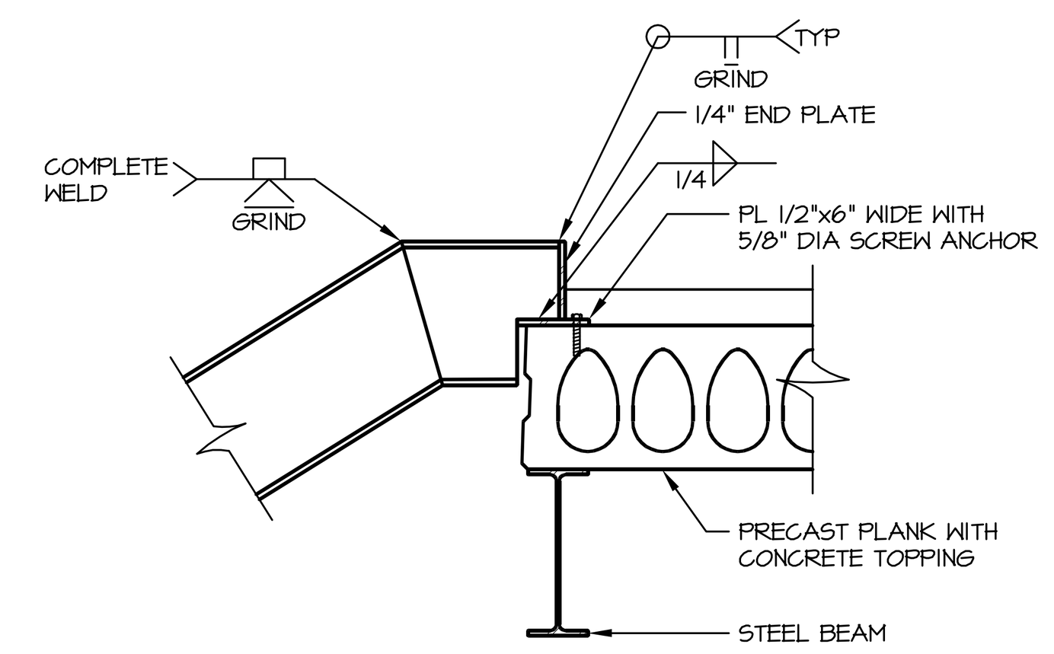
2 S211C STAIR A FRAMING PLAN
SCALE: 1/4"=1'-0"

STAIR FRAMING PLAN KEYED NOTES:

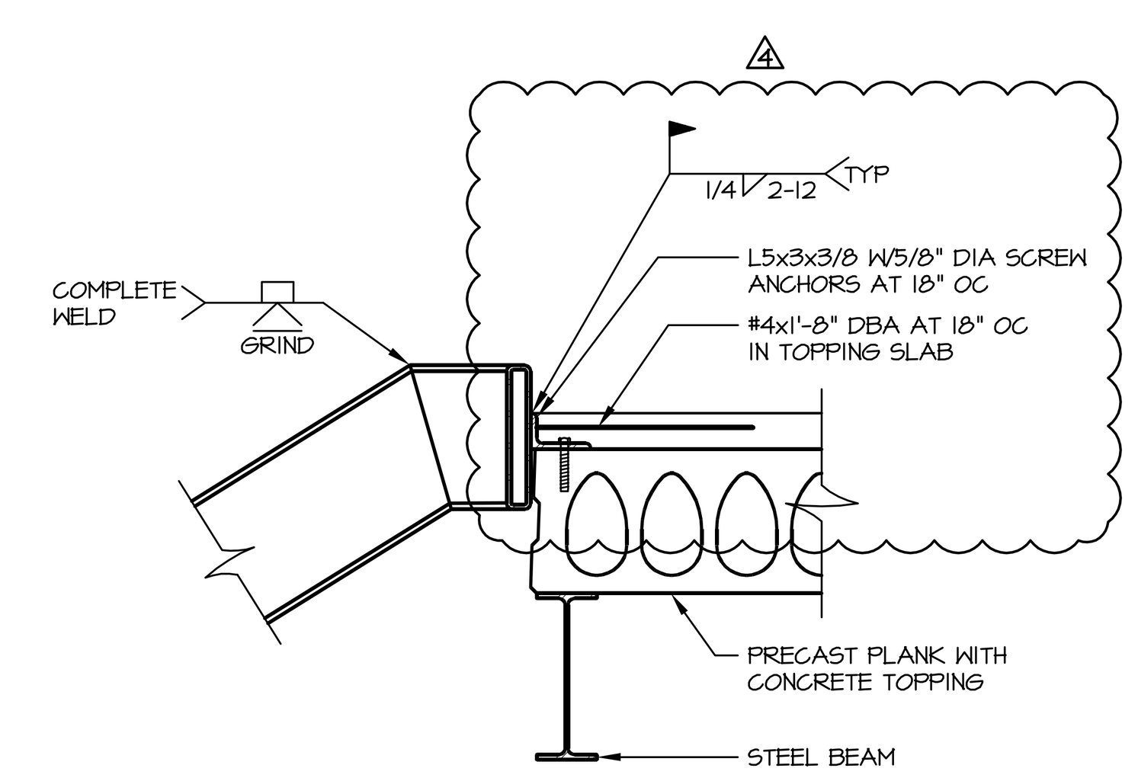
1. 4" TOTAL THICKNESS CONCRETE LANDING WITH SYNTHETIC MACRO-FIBERS ON 0.6C24 METAL DECK WELDED IN PLACE WITH 5/8" DIA PUDDLE WELDS AT 12" OC. T/LANDING = 108'-6 7/8". T/STEEL = 108'-2 7/8".
2. C6x8.2 EQUALLY SPACED. PROVIDE SINGLE PLATE CONNECTION WITH (2) 3/4" DIA BOLT.
3. L6x4x3/8 (LLV). ATTACH WITH 5/8" DIAx4 1/4" EMBEDMENT SCREW ANCHORS AT 32" OC INTO CMU WALL AND (2) AT 6" EACH SIDE OF BOLTED CONNECTION. PROVIDE CMU BOND BEAM W/(2) #5 CONT.
4. BEAR STAIR STRINGER ON PRECAST PLANK. DL=3.5K, LL=3.5K
5. L4x4x1/4 FOR COLD-FORMED JOIST SUPPORT. ATTACH TO CMU WALL WITH 5/8" DIAx4 1/4" EMBEDMENT SCREW ANCHORS AT 32" OC
6. 3" TOTAL THICKNESS CONCRETE SLAB ON 1.0C24 METAL FORM DECK (GALV). ATTACH WITH #10 SELF-DRILLING SCREWS AT 12" OC
7. PROVIDE 12" COLD-FORMED FRAMING FOR JOISTS AT 16" OC. JOISTS BEAR ON COLD-FORMED WALL AT WEST, L4x4 AT EAST.
8. 4" TOTAL THICKNESS CONCRETE SLAB WITH SYNTHETIC MACRO-FIBERS ON 1.0C24 METAL FORM DECK (GALV). ATTACH WITH 5/8" DIA PUDDLE WELDS AT 12" OC
9. PROVIDE 10 GA STEEL BENT PLATES FOR CONCRETE FILLED PAN STAIRS. SHOP WELD IN PLACE.
10. PROVIDE 1/4" STEEL PLATE WITH DIAMOND PATTERN FOR STAIR TREADS
11. PROVIDE 1/4" STEEL PLATE WITH DIAMOND PATTERN FOR LANDING.
12. L6x4x3/8 (LLV). ATTACH WITH 5/8" DIAx4 1/4" EMBEDMENT SCREW ANCHORS AT 32" OC INTO CMU WALL AT BOND BEAM.



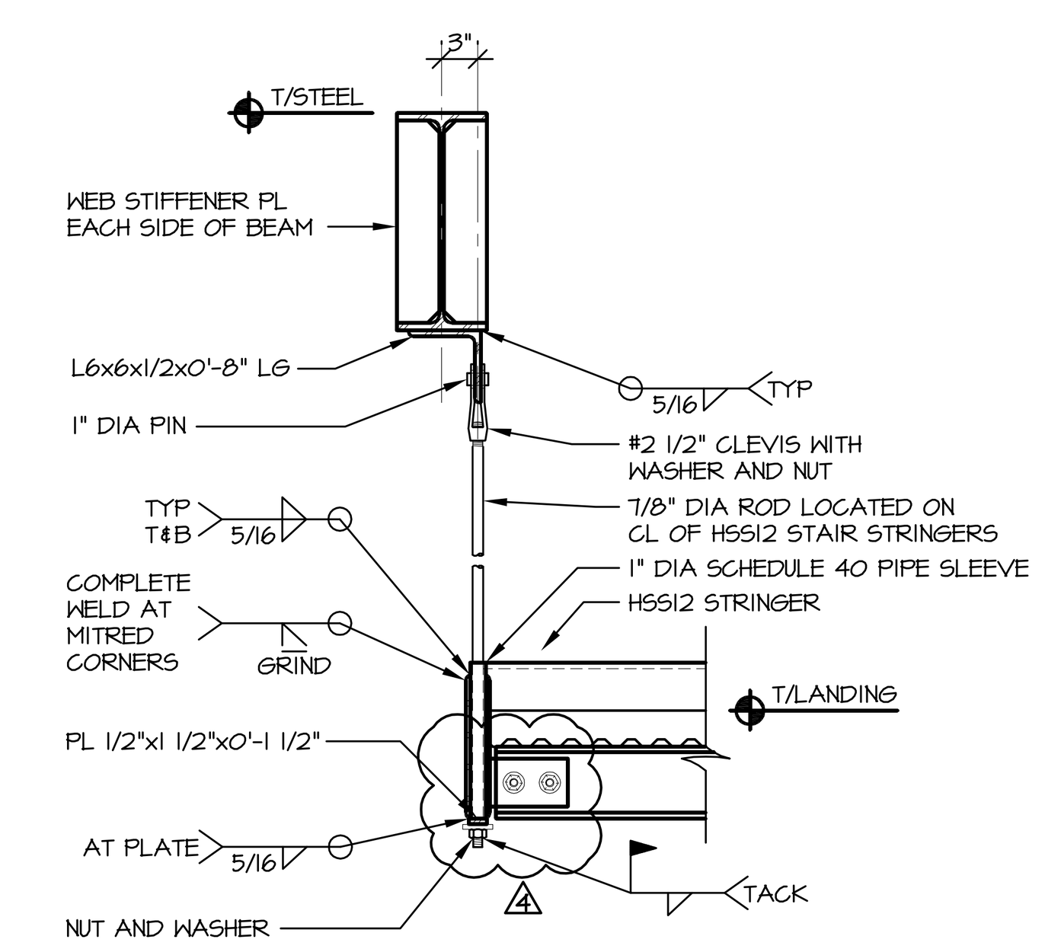
3 S211C STAIR B FRAMING PLAN
SCALE: 1/4"=1'-0"



4 S211C TYPICAL STRINGER CONNECTION
SCALE: NONE



5 S211C TYPICAL STAIR AT LANDING
SCALE: NONE



6 S211C HANGING ROD CONNECTION
SCALE: NONE

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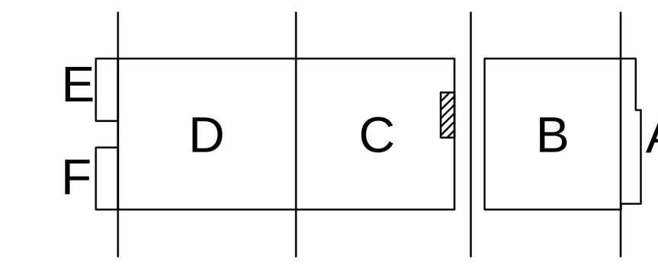
PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

SHEET TITLE

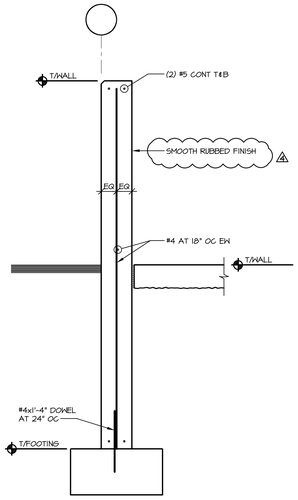
CEILING FRAMING PLANS



KEY PLAN

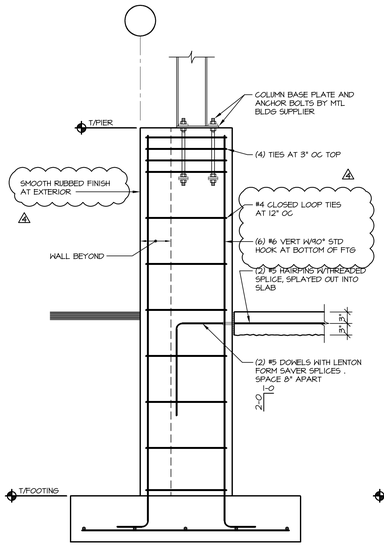
SHEET NO.

S211C



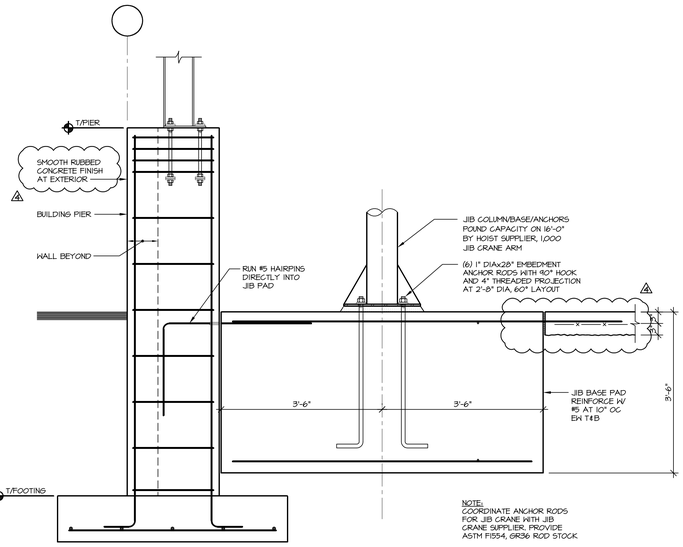
1 5800 TYPICAL FOUNDATION WALL

SCALE: NONE



2 5800 PIER ELEVATION

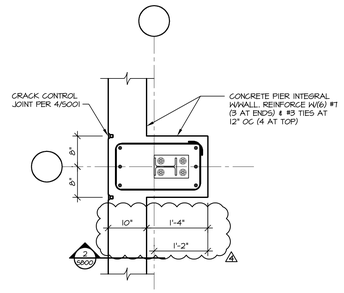
SCALE: NONE



NOTE:
COORDINATE ANCHOR RODS FOR JIB CRANE WITH JIB CRANE SUPPLIER. PROVIDE ASTM F1554, GR36 ROD STOCK.

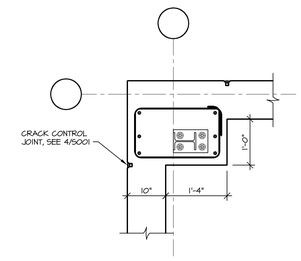
3 5800 JIB BASE SECTION

SCALE: NONE



4 5800 PIER MP1

SCALE: NONE



5 5800 PIER MP2

SCALE: NONE

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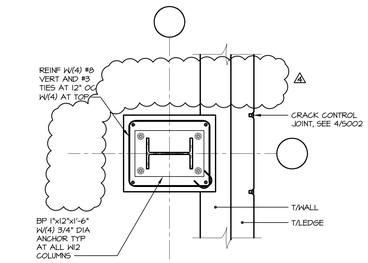

6 5800 PIER PFP1

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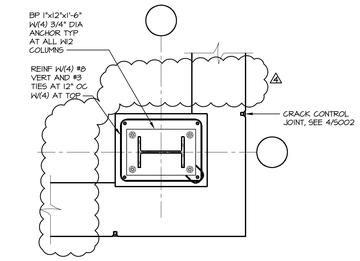

7 5800 PIER PFP2

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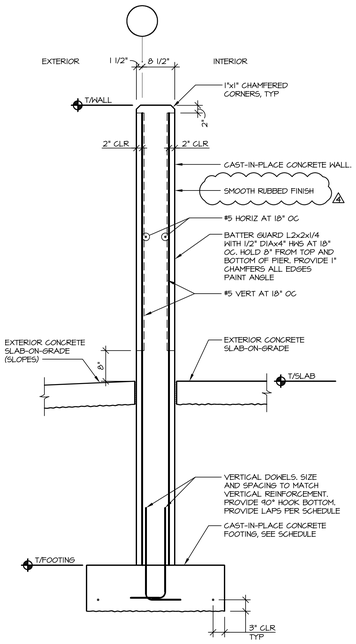
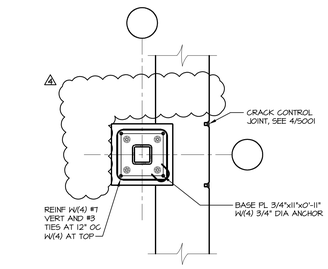


8 5800 TYPICAL FOUNDATION WALL

SCALE: NONE



9 5800 PIER PFP3

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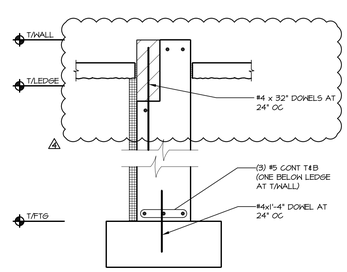
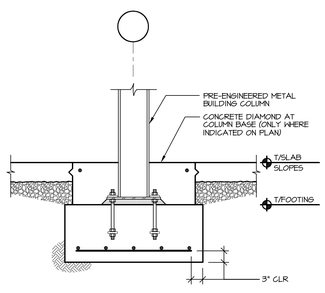


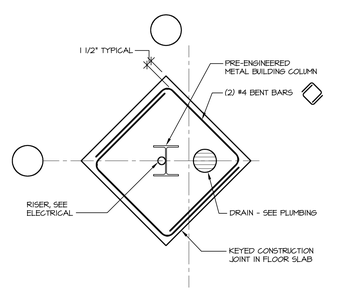
10 5800 TYP FDN WALL AT PRE-FUNCTION

SCALE: 3/4"=1'-0



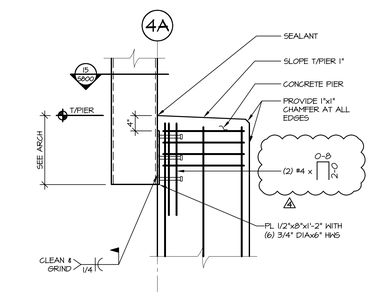
11 5800 TYP INTERIOR COLUMN FOOTING

SCALE: 3/4" = 1'-0"



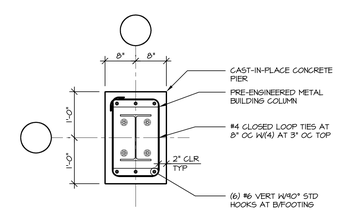
12 5800 KEYED JOINT AT COLUMN

SCALE: 3/4" = 1'-0"



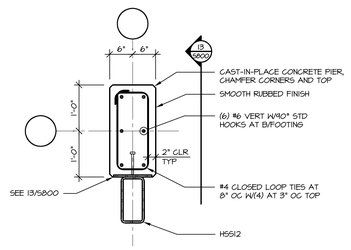
13 5800 HSS EXPOSED COLUMN AT PIER

SCALE: 3/4"=1'-0



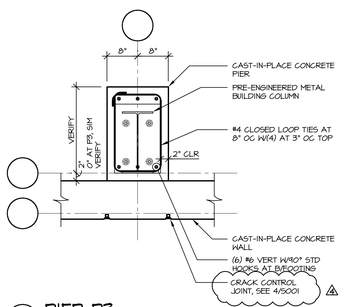
14 5800 PIER P1

SCALE: NONE



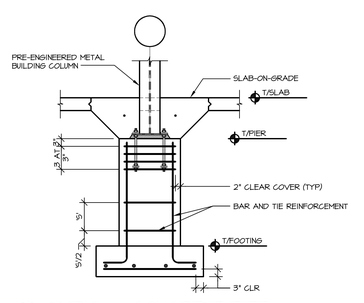
15 5800 PIER P4

SCALE: NONE



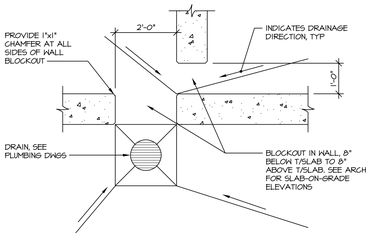
16 5800 PIER P3

SCALE: NONE



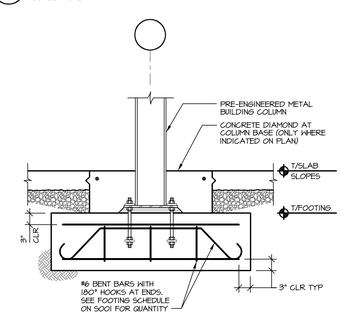
17 5800 TYPICAL CONCRETE PIER

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



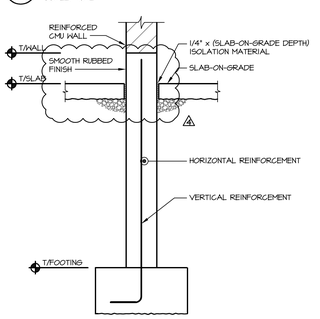
18 5800 WALL OPENINGS AT DRAIN

SCALE: 1/2"=1'-0



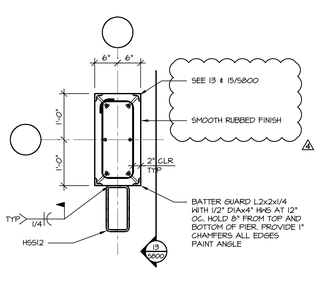
19 5800 COLUMN FOOTING WITH UPLIFT

SCALE: 3/4" = 1'-0"



20 5800 TYPICAL CONCRETE FROST WALL

SCALE: 3/4" = 1'-0"



21 5800 PIER P2

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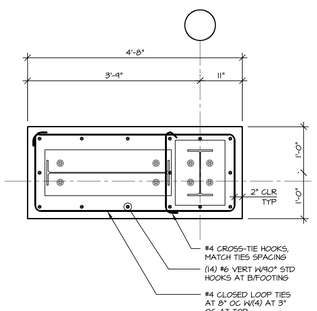
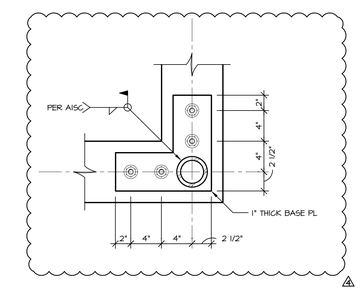


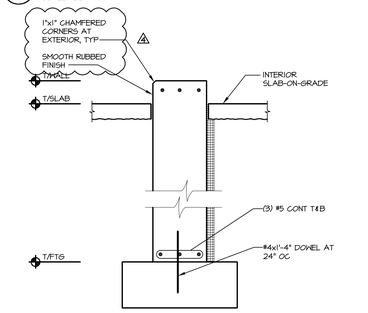
22 5800 PORTAL FRAME PIER P5

SCALE: NONE



23 5800 BASE PLATE DETAIL

SCALE: NONE



24 5800 FND WALL AT PRE-FUNCTION

SCALE: 3/4"=1'-0

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A&O PROJECT #130172

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DATE	08-01-13
PROJECT NO.	2013027_02

PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

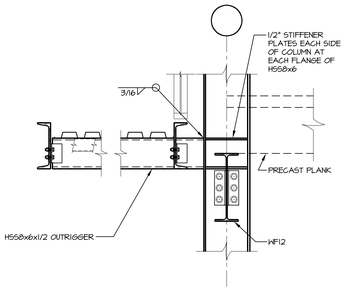
1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

SHEET TITLE

FOUNDATION DETAILS

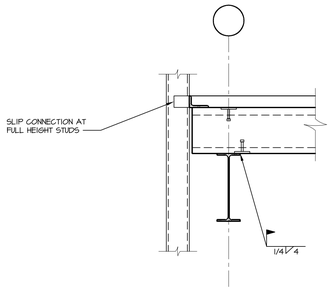
SHEET NO.

S800



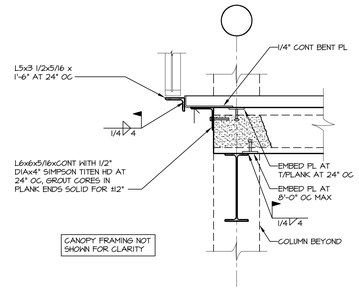
1 S400 SECTION AT CANOPY OUTRIGGER

SCALE: 3/4"=1'-0



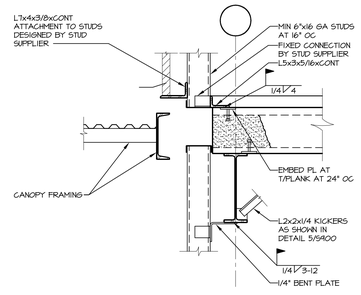
2 S400 SECTION AT FULL HEIGHT STUDS

SCALE: 3/4"=1'-0



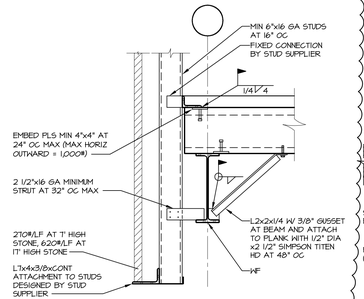
3 S400 MEZZ FLOOR EDGE AT STOREFRONT

SCALE: 3/4"=1'-0



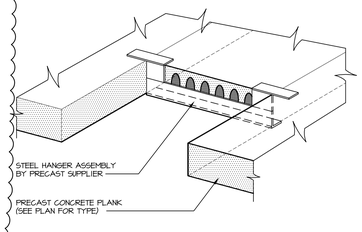
4 S400 STONE SUPPORT AT CANOPY

SCALE: 3/4"=1'-0



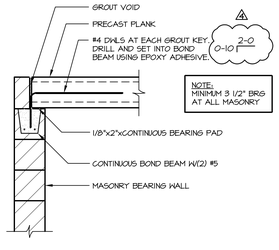
5 S400 STONE SUPPORT AT CANOPY

SCALE: 3/4"=1'-0



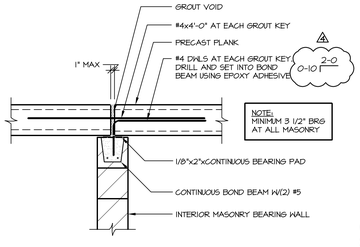
6 S400 PRECAST PLANK HANGER DETAIL

SCALE: NONE



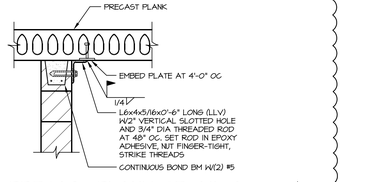
7 S400 PRECAST BEARING AT MASONRY WALL

SCALE: 3/4" = 1'-0"



8 S400 PRECAST BEARING AT INTERIOR MASONRY WALL

SCALE: 3/4" = 1'-0"



9 S400 PRECAST PLANK DETAIL AT NON-BEARING MASONRY WALL

SCALE: 3/4" = 1'-0"

MASONRY LINTEL SCHEDULE (LOAD BEARING WALLS)

LINTEL	THICKNESS	LINTEL SPAN	SECTION	REMARKS
ML1	8" CMU	0' TO 6'	8"x8" BOND BEAM W/(2) #5 BOTTOM	
ML2	8" CMU	6' TO 9'	8"x16" BOND BEAM W/(2) #5 BOTTOM ← KNOCK OUT BLOCK	
ML3	12" CMU	0' TO 6'	12"x8" BOND BEAM W/(2) #5 BOTTOM	
ML4	12" CMU	6' TO 9'	12"x16" BOND BEAM W/(2) #5 BOTTOM ← KNOCK OUT BLOCK	

NOTES:

1. PROVIDE 8" MINIMUM BEARING EACH END, TYPICAL.
2. GROUT ALL BOND BEAMS SOLID.
3. WIDTH OF BOND BEAM TO MATCH WIDTH OF WALL.
4. PROVIDE 1 1/2" BOTTOM CLEAR COVER.
5. SEE DETAIL 3/S812 FOR TYPICAL BRICK SUPPORT.
6. SEE LINTEL SCHEDULE ON SHEET S900 FOR STEEL AND CONCRETE LINTELS.
7. SEE ARCHITECTURAL DRAWINGS FOR MASONRY LINTEL LOCATIONS.

DOUBLE ANGLE CONNECTION SCHEDULE

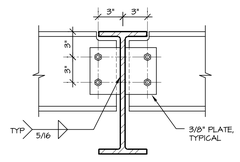
NOMINAL BEAM DEPTH, INCHES	ROWS OF BOLTS	LENGTH OF ANGLE	REMARKS	BOLT DIA
W44	12	2'-11 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W40	11	2'-8 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W36	10	1'-8 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W30-W33	8	1'-8 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W24-W27	7	1'-2 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W21	6	11 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W18	5	14 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	1"
W16	4	11 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	3/4"
W14	3	8 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	3/4"
W12	2	5 1/2"	SEE SECTION B-B FOR BACK TO BACK BEAM CONN.	3/4"
W8-W10	-	-	SINGLE PLATE CONNECTION SEE SECTION A-A	3/4"

NOTES:

1. NUMBER OF ROWS IS EQUAL TO NUMBER OF BOLTS TO ENCLOSED WEB.
2. ALL FRAMING CONNECTIONS SHALL CONFORM TO SCHEDULE UNLESS DETAILED OTHERWISE ON FRAMING PLANS.
3. WHEN BOLTED CONNECTION IS USED IN ASSOCIATION WITH ROD X-BRACES, PROVIDE (1) ADDITIONAL BOLT PER ROW FOR CONNECTIONS AT 3/4", 7/8" AND 1" DIA. RODS. SEE ROD X-BRACE DETAIL FOR ADDITIONAL BOLTS FOR LARGER DIAMETER X-BRACE RODS.
4. FOR MISALIGNED BOLT HINGES, PROVIDE FIELD WELDS. NOTIFY A/E OF LOCATIONS USING FIELD WELDED CONNECTION.

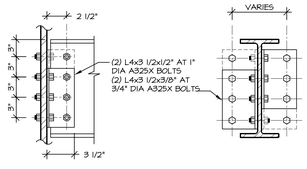
SINGLE PLATE CONNECTION SCHEDULE

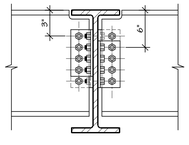
NOMINAL BEAM DEPTH, INCHES	ROWS OF BOLTS	LENGTH OF PLATE	REMARKS
8-10	2	6"	



SECTION A-A

(BEAMS 10" AND LESS)





DOUBLE ANGLE CONNECTION AT BACK TO BACK BEAMS SECTION B-B

(BEAMS 12" AND GREATER)

UNCOATED CLASS 'B' TENSION LAP SPLICE LENGTHS (INCHES) ①

BAR SIZE	COLUMNS ②			BEAMS ③						SLAB, OTHER ④					
				F'c=4 KSI		F'c=5 KSI		F'c=6 KSI		F'c=4 KSI		F'c=5 KSI		F'c=6 KSI	
CLASS	F'c= 4 KSI	F'c= 5 KSI	F'c= 6 KSI	BOT BARS	TOP BARS	BOT BARS	TOP BARS	BOT BARS	TOP BARS	BOT BARS	TOP BARS	BOT BARS	TOP BARS	BOT BARS	TOP BARS
#3	16	16	16	16	18	16	16	16	16	16	18	16	16	16	16
#4	19	17	16	19	24	17	22	16	20	19	24	17	22	16	20
#5	23	21	19	23	30	21	27	19	25	23	30	21	27	19	25
#6	28	25	23	28	36	25	33	23	30	28	36	25	33	23	30
#7	33	29	27	33	42	29	38	27	35	33	43	30	39	27	35
#8	38	35	32	39	51	35	46	32	42	44	57	39	51	36	47
#9	50	44	41	50	64	44	58	41	53	56	72	50	65	45	59
#10	88	79	72	63	82	56	73	51	67	70	92	63	82	58	75
#11	108	97	88	77	100	69	90	63	82	86	112	77	101	71	92

NOTES (d_b = BAR DIAMETER, C-C = CENTER-TO-CENTER)

① SCHEDULE BASED ON CLEAR COVER >1 d_b (BUT LESS THAN 2 d_b)

② BASED ON 3 d_b< C-C< 4 d_b FOR #10 BARS AND LARGER, 4 d_b≤C-C < 6 d_b FOR OTHERS

③ BASED ON 4 d_b≤ C-C< 6 d_b

④ BASED ON C-C ≥6 d_b

THIS SCHEDULE IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR AND IS NOT INTENDED TO COVER ALL SITUATIONS. SHOP DRAWINGS SHALL CLEARLY INDICATE ALL REQUIRED LAP LENGTHS.

LOOSE STEEL LINTEL SCHEDULE (SEE NOTE 1)

WALL THICKNESS	CLEAR MASONRY OPENING WIDTH	SECTION
ALL	AT FIRE EXTINGUISHER CABS, AND DRINKING FOUNTAINS	1/4" PL
4"	TO 5'-0"	ST 3 X 6.25 — 3/16 — 1 1/2 - 8"
4"	TO 7'-0"	PL 3/8 X 4 1/2 ON PL 3/8 X 3 1/2
4"	TO 9'-0"	PL 3/8 X 7 1/2 ON PL 3/8 X 3 1/2
6"	TO 5'-0"	(2) L 3 1/2 X 2 1/2 X 1/4 LLV
6"	TO 7'-0"	WT 4 X 10.5
6"	TO 9'-0"	WT 7 X 11
8"	TO 5'-0"	(2) L 3 1/2 X 3 1/2 X 1/4
8"	TO 7'-0"	(2) L 4 X 3 1/2 X 5/16 LLV
8"	TO 9'-0"	WT 7 X 15
10"	TO 7'-0"	W8 X 10 WITH PL 5/16 X 9 — 3/16 — 1 1/2 - 8"
10"	TO 10'-0"	W8 X 15 WITH PL 5/16 X 9
12"	TO 5'-0"	(3) L 3 1/2 X 3 1/2 X 1/4
12"	TO 7'-0"	W8 X 10 WITH PL 5/16 X 11 — 3/16 — 1 1/2 - 8"
12"	TO 10'-0"	W8 X 15 WITH PL 5/16 X 11 — 3/16 — 1 1/2 - 8"

LINTEL NOTES:

1) LINTELS CALLED OUT IN THIS SCHEDULE ARE FOR NON-LOAD BEARING MASONRY WALL AND FOR LOAD BEARING WALLS WHERE LOAD IS INTRODUCED ABOVE THE LINTEL AT A DISTANCE GREATER THAN THE LINTEL SPAN.
2) PROVIDE MINIMUM 8" BEARING AT EACH END OF LINTEL.
3) CENTER LINTELS IN WALL UNLESS NOTED OTHERWISE.
4) BOTTOM PLATES UNDER WIDE FLANGE SHAPES SHALL BE EXTENDED FULL LENGTH OF LINTEL.
5) WELD LINTEL COMPONENTS INTO SINGLE UNIT.
6) NO LINTELS REQUIRED FOR 4" AND 6" NON-LOAD BEARING MASONRY WALLS WHERE GROUTED HOLLOW METAL FRAMES HAVE A HEADSPAN OF 4'-0" OR LESS.
7) PROVIDE THESE LINTELS WHERE OTHER LINTELS ARE NOT SPECIFICALLY DETAILED.
8) GROUT BLOCK CORES SOLID MINIMUM (3) COURSES BELOW LINTEL BEARING.

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A&O PROJECT #130172

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PROJECT NO.	2013027_02

PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WISCONSIN 53713

SHEET TITLE

FRAMING DETAILS

SHEET NO.

S900

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR	WALL BASE	WALLS NORTH	WALLS EAST	WALLS SOUTH	WALLS WEST	CEILING TYPE	CEILING HEIGHT	REMARKS
FIRST FLOOR										
100	VESTBULE	MAT-1	CT-3	PT-2	PT-2	PT-2	PT-2	ACP-3	10'-2"	–
101A	STAIR A	CNC-1	RB-1	CMU-1	–	–	GWB/PT-4	–	–	1, 3
101B	STAIR B	CNC-1	–	CMU-1	CMU-1	CMU-1	CMU-1	ES	–	–
102	LOBBY	CT-1/CT-2	CT-3	GWB/QT-3	GWB/PT-2	GWB/QT-3	GWB/QT-3	ES	–	1
103	OFFICE	CNC-1	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-3	10'-2"	3
104	CORRIDOR	CT-1/CT-2	CT-3	GWB/PT-2	GWB/PT-2	–	CMU-1	ES	–	1
105	OFFICE	CNC-1	RB-1	PT-2	PT-2	PT-2	PT-2	ACP-3	10'-2"	3
106	ELEVATOR CAB	CT-1/CT-2	CT-3	PLASTIC LAMINATE	SELECTED	FROM MANUFAC.'S	FULL RANGE	OF	COLORS	–
107	STORAGE	CNC-2	RB-1	PT-6	CMU-1	CMU-1/PT-6	CMU-1/PT-6	ES	–	3, 4
108	CORRIDOR	CT-1/CT-2	CT-3	GWB/PT-2	PT-2	CMU-1/PT-2	CMU-1/PT-2	ES	–	1, 3
109	ELEV MACHINE	CNC-2	RB-1	GWB/PT-2	CMU-1	GWB/PT-2	CMU-1/PT-2	ES	9'-0"	3, 4
110	JANITOR	CNC-2	RB-1	GWB/PT-2	CMU-1	GWB/PT-2	CMU-1/PT-2	ES	–	3, 4
111	FAMILY TOILET	CT-4	CT-6	CT-7/PT-7	CMU-1/PT-7	GWB/PT-7	GWB/PT-7	GWB/PT-5	9'-0"	1, 4
112	STORAGE	CNC-2	RB-1	PT-6	CMU-1/PT-6	CMU-1/PT-6	CMU-1/PT-6	ES	–	3, 4
113	MEN'S TOILET	CT-4/CT-5	CT-6	CMU-1/PT-7	CMU-1/PT-7	GWB/PT-7	CT-7/CT-8/PT-7	GWB/PT-5	9'-0"	1, 4
114	WOMEN'S TOILET	CT-4/CT-5	CT-6	CMU-1/PT-7	CT-7/CT-8/PT-7	GWB/PT-7	CMU-1/PT-7	GWB/PT-5	9'-0"	1, 4
115	MECHANICAL ROOM	CNC-2	RB-1	PT-6	PT-6	PT-6	PT-6	ES	–	3
115B	IT	CNC-2	RB-1	PT-6	PT-6	PT-6	PT-6	ES	–	3
116	CONCESSIONS	QT-1	QT-2	FRP-2/PT-2	FRP-2/PT-2	FRP-2/PT-2	FRP-2/PT-2	ACP-4	9'-0"	–
117	PRE-FUNCTION SPACE	CNC-1	RB-1	CMU-1/PT-2	PT-2	CMU-1/PT-2	CMU-1/PT-2	ACP-1/ES	VARIES	1, 2, 3
120	PAVILION BUILDING 1	CNC-3	CNC-2	ES	ES	ES	ES	ES	–	1
121	WOMEN'S SHOWER	CNC-2	CNC	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-3/CT-7/PT-6	GWB/PT-5	7'-10"	1, 4
122	MEN'S SHOWER	CNC-2	CNC	CMU-2/CMU-3/PT-6	CMU-3/CT-7/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	GWB/PT-5	7'-10"	1, 4
123	CORRIDOR	CNC-2	CNC	CMU-2/CMU-3/PT-6	–	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	GWB/PT-5	7'-10"	4
124	FAMILY TOILET	CT-4	CT-6	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-3/CT-7/PT-7	CMU-2/CMU-3/PT-7	GWB/PT-5	7'-10"	1, 4
125	JANITOR	CNC-2	CNC	CMU-3/PT-6	CMU-3/PT-6	CMU-3/PT-6	CMU-3/PT-6	ES	–	4
126	WOMEN'S TOILET	CT-4/CT-5	CT-6	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-3/CT-7/CT-8/PT-7	GWB/PT-5	7'-10"	1, 4
127	MEN'S TOILET	CT-4/CT-5	CT-6	CMU-2/CMU-3/PT-7	CMU-3/CT-7/CT-8/PT-7	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	GWB/PT-5	7'-10"	1, 4
128	WATER ROOM	CNC-2	CNC	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	ES	–	4
129	ELEC. ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
129A	ELEC. ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
130	TEL/DATA	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
131	PAVILION BUILDING 2	CNC-3	CNC	ES	ES	ES	ES	ES	–	1
132	ELEC. ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
132A	ELEC. ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
133	TEL/DATA	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
134	FAMILY TOILET	CT-4	CT-6	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-3/CT-7/PT-7	CMU-2/CMU-3/PT-7	GWB/PT-5	7'-10"	1, 4
135	JANITOR	CNC-2	CNC	CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-3/PT-6	CMU-3/PT-6	ES	–	4
136	WOMEN'S TOILET	CT-4/CT-5	CT-6	CMU-2/CMU-3/PT-7	CMU-3/CT-7/CT-8/PT-7	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	GWB/PT-5	7'-10"	1, 4
137	MEN'S TOILET	CT-4/CT-5	CT-6	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-3/CT-7/CT-8/PT-7	GWB/PT-5	7'-10"	1, 4
138	WATER ROOM	CNC-2	CNC	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	ES	–	4
139	OFFICE	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ACP-3	7'-10"	–
140	MILK PARLOR	CNC-3	CNC	CT/FRP-1/PT-2	CT/FRP-1/PT-2	CT/FRP-1/PT-2	CT/FRP-1/PT-2	ES	–	1
141	MILK HOUSE	CNC-3	CNC	CNC-2/FRP-1	CNC-2/FRP-1	CNC-2/FRP-1	CNC-2/FRP-1	ACP-2	7'-10"	–
142	MECHANICAL ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
143	CONCESSIONS	QT-1	QT-2	FRP-2/PT-2	FRP-2/PT-2	FRP-2/PT-2	FRP-2/PT-2	ACP-2	7'-10"	–
144	FAMILY TOILET	CT-4	CT-6	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-3/CT-7/PT-7	CMU-2/CMU-3/PT-7	GWB/PT-5	7'-10"	1, 4
145	JANITOR	CNC-2	CNC	CMU-3/PT-6	CMU-3/PT-6	CMU-3/PT-6	CMU-2/CMU-3/PT-6	ES	–	4
146	WOMEN'S TOILET	CT-4/CT-5	CT-6	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	CMU-3/CT-7/CT-8/PT-7	GWB/PT-5	7'-10"	1, 4
147	MEN'S TOILET	CT-4/CT-5	CT-6	CMU-2/CMU-3/PT-7	CMU-3/CT-7/CT-8/PT-7	CMU-2/CMU-3/PT-7	CMU-2/CMU-3/PT-7	GWB/PT-5	7'-10"	1, 4
148	WATER ROOM	CNC-2	CNC	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	CMU-2/CMU-3/PT-6	ES	–	4
149	ELEC. ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
149A	ELEC. ROOM	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
150	TEL/DATA	CNC-2	CNC	PT-6	PT-6	PT-6	PT-6	ES	–	–
151	WASH BAY	PT-8	–	–	LP	LP	LP	ES	–	–
152	SECURE STORAGE	PT-8	–	LP	LP	LP	LP	ES	–	–
153	WORK AREA	PT-8	RB-1	GWB-PT-6	LP	LP	LP	ES	–	3
154	WELDING	PT-8	RB-1	LP	LP	–	GWB-PT	ES	–	3
155	TOILET	VCT	RB-1	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-5	8'-0"	3
156	BREAK ROOM	VCT	RB-1	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-5	8'-0"	3
157	OFFICE	CNC-2	RB-1	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-5	8'-0"	3
158	OFFICE	CNC-2	RB-1	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-5	8'-0"	3
159	MECHANICAL/ELECTRICAL	CNC-2	RB-1	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-5	10'-6"	3
160	OFFICE	CNC-2	RB-1	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-6	GWB/PT-5	8'-0"	3
161	WORK AREA	CNC-2	–	LP	LP	LP	LP	ES	–	–
170	STORAGE	CNC-2	–	LP	LP	LP	LP	ES	–	–
SECOND FLOOR										
201A	STAIR A	CNC-1	RB-1	GWB/PT-4	GWB/PT-4	GWB/PT-4	GWB/PT-4	GWB	10'-0"	1, 3
201B	STAIR B	CNC-1	–	CMU-1	CMU-1	CMU-1	CMU-1	ES	–	–
202	MEZZANINE	CNC-1	RB-1	GWB/PT-2	GWB/PT-2	CMU-1/GWB/PT-2	CMU-1/GWB/PT-2	ACP-1/ES	VARIES	1, 2, 3, 4
202A	ROOF ACCESS	CNC-2	RB-1	PT-2	PT-2	PT-2	PT-2	ES	–	–
203	ELEV LOBBY	CNC-1	–	CMU-1/PT-2	GWB/PT-2	CMU-1/GWB/PT-2	CMU-1/GWB/PT-2	ACP-1/ES	VARIES	1, 2, 3, 4
206	ELEV	REFER TO	ELEV.	106 FOR CAB	FINISHES	–	–	–	–	–
208	CATWALK ACCESS STAIR	ES	RB-1	PT-2	CMU-3/PT-2	PT-2	PT-2	ES	–	3 ,4
220	ROOFTOP MECHANICAL BUILDING 1	–	–	–	–	–	–	–	–	–
231	ROOFTOP MECHANICAL BUILDING 2	–	–	–	–	–	–	–	–	–

ROOM FINISH SCHEDULE REMARKS

ROOM FINISH SCHEDULE REMARKS:

1 SEE INTERIOR ELEVATIONS FOR ADDITIONAL PAINT AND FINISH LOCATION AND INFORMATION
2 SEE REFLECTED CEILING PLAN A301A FOR ADDITIONAL INFORMATION ON HEIGHTS OF ACP-1 AND ACP-2
3 PROVIDE RESILIENT BASE AT GWB WALLS THAT EXTEND TO CONCRETE FLOOR
4 EXPOSED CMU TO BE SEALED, NOT PAINTED

GENERAL NOTES

ROOM FINISH GENERAL NOTES:

1 PAVILION BUILDING 1 & 2 INTERIOR CONCRETE SLAB TO HAVE LIGHT BROOM FINISH.
2 WD-1 TO BE PROVIDED TO CONTRACTOR BY OWNER IN PIECES. OWNER TO SALVAGE AND PROVIDE BETWEEN 1780 – 2492 INDIVIDUAL BOARDS 9-1/4"W x 11'L x 1 1/2"T.
3 WD-2 IS A SOURCED RECLAIMED WOOD MATERIAL. PROVIDED BY CONTRACTOR.
– –
– –

ROOM FINISH SCHEDULE LEGEND

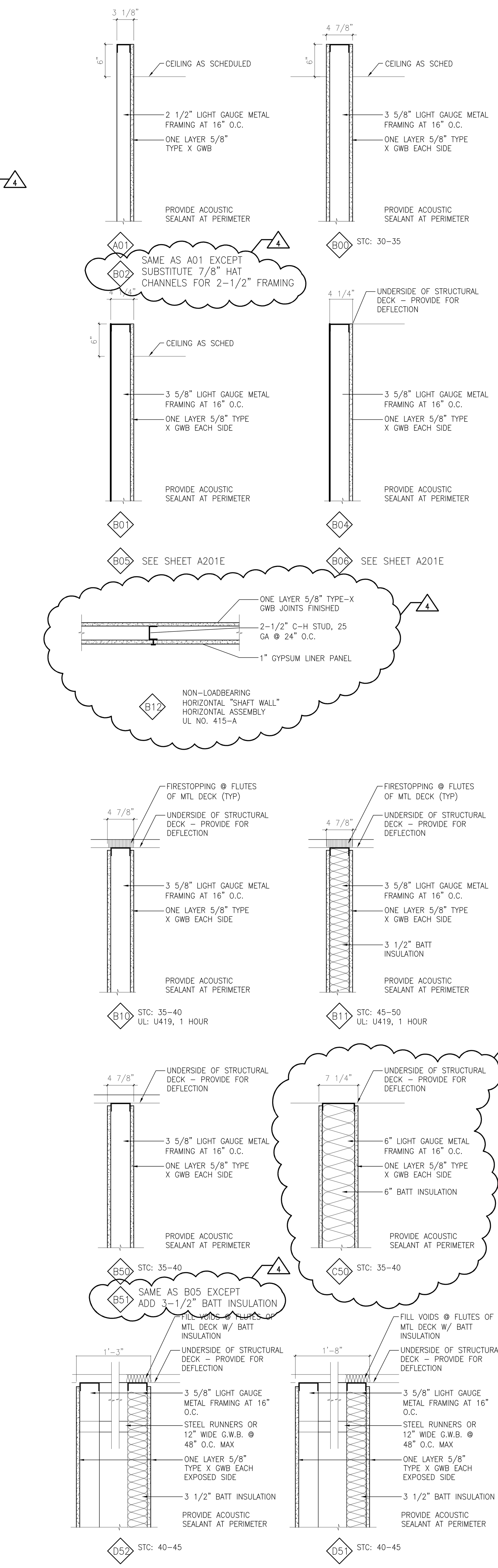
ROOM FINISH SCHEDULE LEGEND– (SOME MAY NOT BE USED)

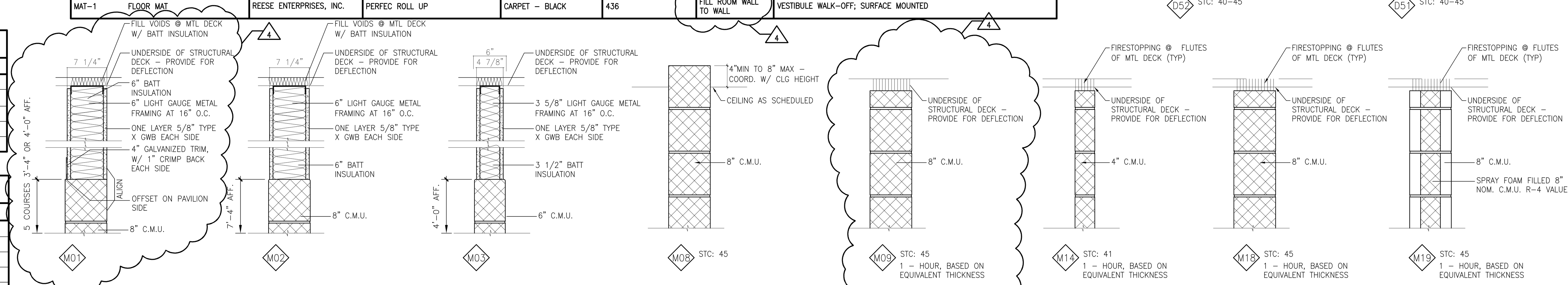
ACP	ACOUSTICAL CEILING PANEL	–	–	MAT	FLOOR MAT
CMU	CONCRETE MASONRY UNITS	FCTY	FACTORY FINISH	PT	PAINT
CNC	CONCRETE	FRP	FIBERGLASS REINFORCED PANELS	RB	RESILIENT BASE
CT	CERAMIC TILE	GWB	GYPSUM WALLBOARD	SSC	STAINLESS STEEL COUNTERTOP
E-PT	EPOXY PAINT	GRT	FLOOR GRATE	VCT	VINYL COMPOSITION TILE
ES	EXPOSED STRUCTURE	LP	METAL LINER PANEL		

SCHEDULE OF INTERIOR FINISHES

MANUFACTURERS LISTED HEREIN ARE USED TO DETERMINE THE STANDARD FINISHES AND COLORS FOR THIS PROJECT. REFER TO THE SPECIFICATION (PROJECT MANUAL) FOR ADDITIONAL EQUAL MANUFACTURERS.

SECTION NUMBER		MANUFACTURER	STYLE/MODEL	COLOR/FINISH	NUMBER	SIZE	REMARKS
02 41 16 – STRUCTURE DEMOLITION							
WD-1	RECLAIMED WOOD PLANK PANEL	OFCI	–	CLEAR SEALER (09 91 00)	–	VARIES	RECLAIMED WOOD AT WALL SCRIM AND BARN DOORS IN PAVILIONS, COUNTERTOP IN PRE-FUNCTION
BR-1	BRICK MASONRY UNIT	OFCI	–	–	–	VARIES	RECLAIMED BRICK AT PRE-FUNCTION FEATURE WALL; MATCH MORTAR COLOR
03 30 00 – CAST-IN-PLACE CONCRETE							
CNC-1	INTEGRALLY COLORED CONCRETE	SCOFIELD	CHROMIX ADMIXTURES	WESTWOOD BROWN	C-27	–	PRE-FUNCTION (INTEGRALLY COLORED CONCRETE FLOOR TROWEL FINISH)
CNC-2	CONCRETE	SEE SPEC	–	NATURAL	–	–	PAVILION (TROWEL FINISH SHOWER ROOM FLOOR)
CNC-3	CONCRETE	SEE SPEC	–	NATURAL	–	–	PAVILION (LIGHT BROOM FINISHED FLOOR)
03 35 00 – CONCRETE SEALERS							
CS-1	CONCRETE SEALER	SCOFIELD	COLORCURE CONCRETE SEALER	TO MATCH CNC-1	–	–	TO BE USED W/ CNC-1
CS-2	CONCRETE SEALER	SCOFIELD	CURESEAL W	SEMI-GLOSS	–	–	TO BE USED W/ CNC-2
CS-3	CONCRETE SEALER/HARDENER	L&M CONSTRUCTION CHEMICALS, INC.	CHEM HARD	–	–	–	TO BE USED W/ CNC-3
04 20 00 – UNIT MASONRY							
CMU-1	CONCRETE MASONRY UNIT	PREMIER BLOCK CORP.	PREMIER ULTRA 10	MOONBEAM	214B	6" & 8"x16"x8"	PRE-FUNCTION – BURNISHED CMU
CMU-2	CONCRETE MASONRY UNIT	PREMIER BLOCK CORP.	PREMIER ULTRA 10	DUSK	243A	8" x 16" x 8"	PAVILION – BURNISHED CMU
CMU-3	CONCRETE MASONRY UNIT	NORMAL WEIGHT CMU	–	EPOXY PAINTED	–	8" x 16" x 8"	PAVILION & PRE-FUNCTION – EPOXY PAINTED CMU
CMU-4	CONCRETE MASONRY UNIT	NORMAL WEIGHT CMU	–	NATURAL	–	8" x 16" x 8"	PAVILION PERIMETER
05 58 00 – FORMED METAL FABRICATIONS							
SSC-1	STAINLESS STEEL COUNTERTOP	–	–	–	–	–	CONCESSION SERVICE WINDOW COUNTERTOP
06 20 00 – INTERIOR FINISH CARPENTRY							
WD-2	RECLAIMED WOOD	TERRAMAI	WORLD MIX LUMBER	CLEAR SEALER (09 91 00)	–	2– 5/8"x2' to 6'x 1/2"	WALL SCRIM IN PAVILIONS AND PRE-FUNCTION
06 40 00 – ARCHITECTURAL WOODWORK							
PLAM-1	PLASTIC LAMINATE	ARPA	–	SIXTY VERDE	2618	–	CASEWORK AND SHELVES
PLAM-2	PLASTIC LAMINATE	PIONITE	–	ESTELLA	AG011	–	COUNTERTOP
09 30 00 – TILING							
CT-1	CERAMIC FLOOR TILE	CROSSVILLE	STRUCTURE	BASALT	AV225	12" x 24"	LOBBY FLOOR
CT-2	CERAMIC FLOOR TILE	CROSSVILLE	STRUCTURE	BASALT	AV225	6" x 24"	LOBBY FLOOR
CT-3	CERAMIC TILE BASE	CROSSVILLE	STRUCTURE – COVE BASE	BASALT	AV225	6" x 12"	LOBBY BASE TILE
CT-4	CERAMIC FLOOR TILE	CROSSVILLE	STRUCTURE	TIMBER	AV224	12" x 24"	RESTROOM FLOOR
CT-5	CERAMIC FLOOR TILE	CROSSVILLE	STRUCTURE	TIMBER	AV224	6" x 24"	RESTROOM FLOOR
CT-6	CERAMIC WALL BASE	CROSSVILLE	STRUCTURE – COVE BASE	TIMBER	AV224	6" x 12"	RESTROOM BASE TILE
CT-7	CERAMIC WALL TILE	ARCHITECTURAL TILE SOLUTIONS	CITTA – SISTEM C, DIMENSIONAL INSERT	AVORIO_C	–	4" x 12"	RESTROOM WALL TILE
CT-8	CERAMIC WALL TILE	DALTILE	MODERN DIMENSIONS	MATTE DESERT GRAY	X714(I)	4" x 8"	RESTROOM WALL TILE
CT-9	CERAMIC WALL TILE	FIANDRE ARCHITECTURAL SURFACES	ACTIVE	PIETRA SERENA	ASA4236	12" x 24"	MILK PARLOR WALL TILE
CT-10	CERAMIC WALL TILE	FIANDRE ARCHITECTURAL SURFACES	DATAUNI	UNI ICE – SOFT HONED	000	4" x 24"	MILK PARLOR WALL TILE ACCENT
CT-11	CERAMIC WALL TILE	FIANDRE ARCHITECTURAL SURFACES	DATAUNI	UNI ICE – SOFT HONED	000	4" x 8"	MILK PARLOR WALL TILE ACCENT
CT-12	CERAMIC WALL TILE	FIANDRE ARCHITECTURAL SURFACES	DATAUNI	UNI MANDARIN – SOFT HONED	060	8" x 9"	MILK PARLOR WALL TILE ACCENT
CT-13	CERAMIC WALL TILE	FIANDRE ARCHITECTURAL SURFACES	DATAUNI	UNI COBALT – SOFT HONED	150	8" x 8"	MILK PARLOR WALL TILE ACCENT
QT-1	QUARRY FLOOR TILE	SUMMITVILLE	QUARRY TILE	SUMMITVILLE RED	10	6" x 6" x 1/2"	CONCESSION FLOOR TILE; USE FURAN GROUT
QT-2	QUARRY TILE BASE	SUMMITVILLE	QUARRY TILE – COVE BASE	SUMMITVILLE RED	10	5" x 6" x 1/2"	CONCESSION BASE TILE; USE FURAN GROUT
QT-3	QUARRY TILE – DONOR WALLS	THATSMYBRICK.COM	QUARRY TILE	BUCKSKIN	–	8" x 8"	CUSTOM DONOR WALL TILE, MADE TO ORDER OFCI
G-1	GROUT	CUSTOM BUILDING PRODUCTS	–	CHARCOAL	60	–	LATEX PORTLAND CEMEMNT; TO BE USED WITH CT-1, CT-2, CT-3
G-2	GROUT	CUSTOM BUILDING PRODUCTS	–	NEW TAUPE	185	–	LATEX PORTLAND CEMENT; TO BE USED WITH CT-4, CT-5 & CT-6
G-3	GROUT	CUSTOM BUILDING PRODUCTS	–	ANTIQUE WHITE	10	–	LATEX PORTLAND CEMENT; TO BE USED WITH CT-7
G-4	GROUT	CUSTOM BUILDING PRODUCTS	–	ARCTIC ICE	301	–	LATEX PORTLAND CEMENT; TO BE USED WITH CT-8
G-5	GROUT	CUSTOM BUILDING PRODUCTS	–	LIGHT SMOKE	145	–	LATEX PORTLAND CEMENT; TO BE USED WITH QT-3
G-6	GROUT	CUSTOM BUILDING PRODUCTS	–	WINTER GRAY	335	–	EPOXY GROUT; TO BE USED WITH CT-9, CT-10, CT-11, CT-12 & CT-13
09 51 00 – ACOUSTICAL CEILINGS							
ACP-1	ACOUSTIC CEILING PANEL	TECTUM	HANGING BAFFLES	PAINTED (PT-3)	–	2" x 11 3/4" x 48"	PRE-FUNCTION SPACE AND MEZZANINE CEILINGS
ACP-2	ACOUSTIC CEILING PANEL	ARMSTRONG	CLEAN ROOM VL UNPERFORATED	WHITE	868	24" x 24" x 5/8"	CONCESSION AND MILK HOUSE CEILINGS
ACP-3	ACOUSTIC CEILING PANEL	ARMSTRONG	OPTIMA – 9/16" TEGULAR	WHITE (FINE TEXTURE)	3355	24" x 24" x 1"	PRE-FUNCTION
09 65 00 – RESILIENT FLOORING							
VCT-1	VINYL COMPOSITION TILE	MANNINGTON COMMERCIAL	–	STONE GRAY	55102	12" x 12"	VCT IN MAINTENANCE SHOP
RB-1	RESILIENT BASE	MANNINGTON COMMERCIAL	–	IRON	908	4"H	RESILIENT BASE IN MAINTENANCE SHOP AND PRE-FUNCTION
09 91 00 – PAINTING							
PT-1	PAINT	SHERWIN WILLIAMS	–	ROYCROFT PEWTER	2848	–	HOLLOW METAL DOORS & FRAMES; PRE-FUNCTION EXPOSED STRUCTURE, STAIR AND HANDRAIL
PT-2	PAINT	SHERWIN WILLIAMS	–	ACCESSIBLE BEIGE	7036	–	PRE-FUNCTION FIELD (EPOXY, SEMI-GLOSS @ CMU)
PT-3	PAINT	SHERWIN WILLIAMS	–	DOVETAIL	7018	–	PRE-FUNCTION SOFFIT & ACP-1
PT-4	PAINT	SHERWIN WILLIAMS	–	POSITIVE RED	6871	–	PRE-FUNCTION ACCENT & HOLLOW METAL DOORS/FRAMES
PT-5	PAINT	SHERWIN WILLIAMS	–	PURE WHITE	7005	–	PRE-FUNCTION ACCENT & RESTROOM CEILINGS (EPOXY, SEMI-GLOSS)
PT-6	PAINT	SHERWIN WILLIAMS	–	SOFTER TAN	6141	–	PAVILION ACCENT (EPOXY, SEMI-GLOSS @ CMU)
PT-7	PAINT	SHERWIN WILLIAMS	–	POOLHOUSE	7603	–	RESTROOM ACCENT
PT-8	PAINT	SHERWIN WILLIAMS	ARMORSEAL – HEAVY DUTY FLOOR COATING	HAZE GRAY	FLOOR-PLEX 7100 WB EPOXY	–	MAINTENANCE SHOP FLOORS
10 21 13 – TOILET PARTITIONS							
TP-1	TOILET PARTITIONS	ACCURATE PARTITIONS CORP.	CEILING HUNG, POWDER COATED STEEL	GRAY	940	–	TOILET AND SHOWER ROOM PARTITIONS
10 26 00 – WALL PROTECTION							
FRP-1	FRP WALL PANEL	MARLITE	STANDARD FRP – PEBBLED SURFACE	LIGHT GRAY	P-151	–	MILK HOUSE AND MILK PARLOR WALLS
FRP-2	FRP WALL PANEL	MARLITE	SYMMETRIX SCORED FRP W/ SANI-COAT	IVORY	C 140-G44	–	CONCESSION WALLS
CG-1	CORNER GUARD	INPRO CORPORATION	160 SERIES ALUMINUM SURFACE MOUNT	CLAM SHELL	0154	2" x 8"H	CORNER GUARDS AT PRE-FUNCTION RESTROOM ENTRANCE
12 24 00 – ROLLER WINDOW SHADES							
---	MANUAL SOLAR SHADES	SWF CONTRACT	SHEERWEAVE 2410	CHARCOAL	V2124	–	ROLLER SHADES IN OFFICES 103 & 105, INSTALL UNIDIRECTIONALLY
12 48 00 – ENTRANCE FLOOR MATS AND FRAMES							
MAT-1	FLOOR MAT	REESE ENTERPRISES, INC.	PERFEC ROLL UP	CARPET – BLACK	436	FILL ROOM WALL TO WALL	VESTIBULE WALK-OFF; SURFACE MOUNTED





1
A001
PARTITION TYPES
SCALE: N.T.S.

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PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

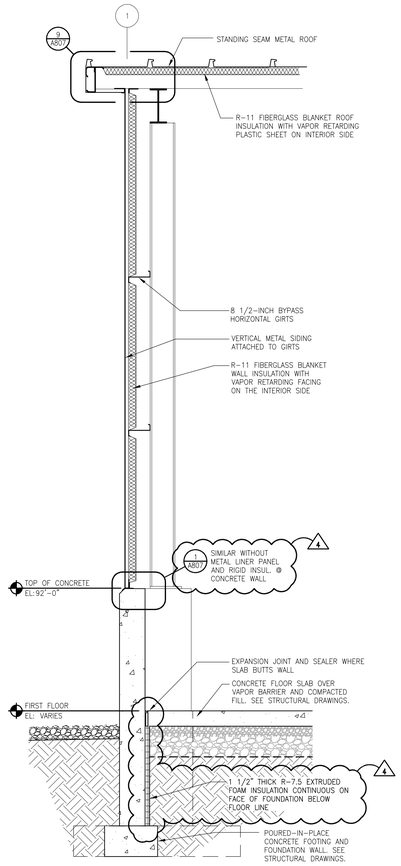
SHEET TITLE

ROOM FINISH SCHEDULE, PARTITION TYPES

SHEET NO.

A001

ALTERNATE #3



3 A201F WALL SECTION – AREA F

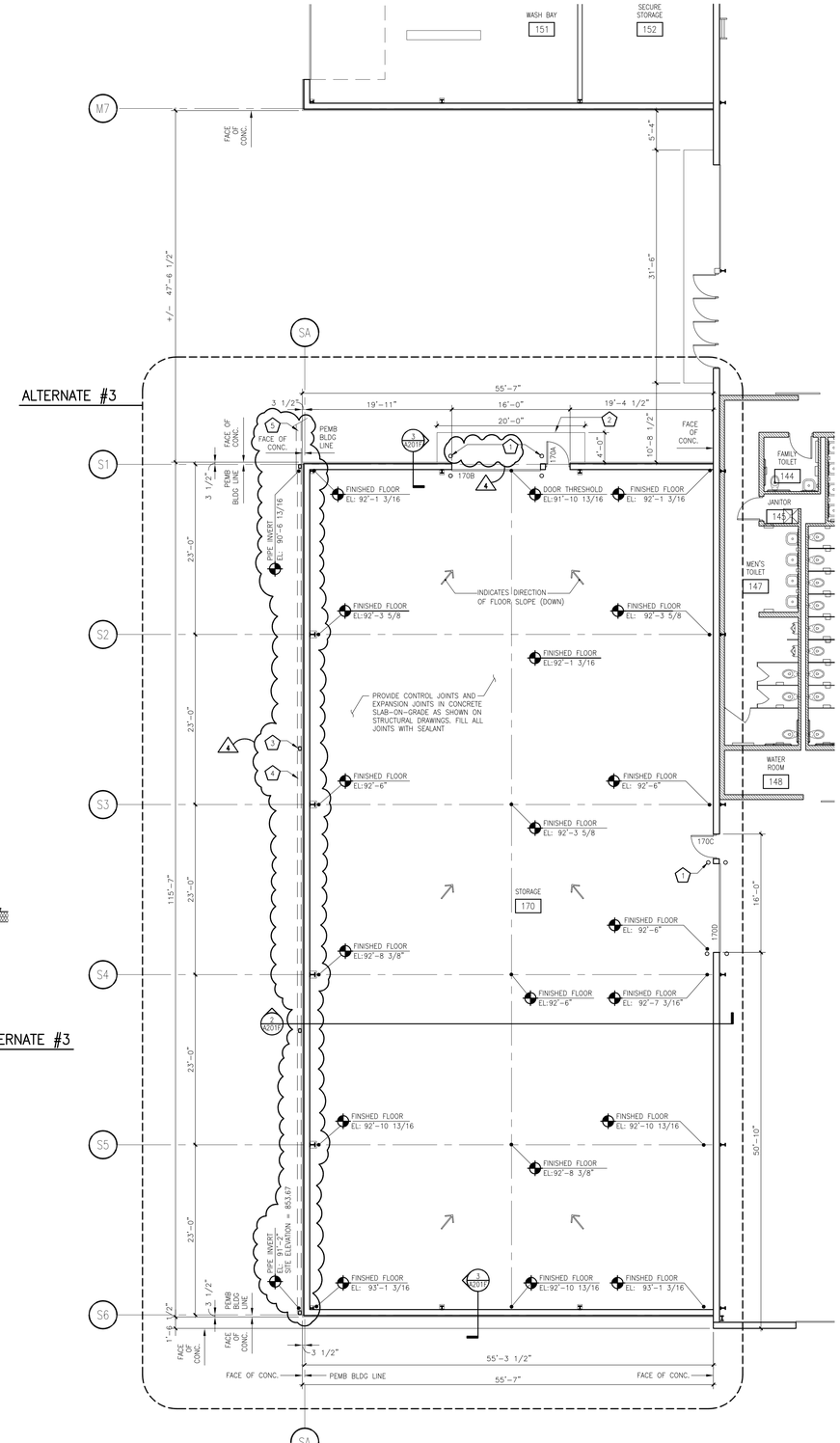
SCALE: 1/4" = 1'-0"

FLOOR PLAN GENERAL NOTES

1. DIMENSIONS ARE GIVEN TO FINISHED FACE OF GYPSUM WALLBOARD AND/OR FACE OF MASONRY AND/OR FACE OF CONCRETE.
2. ALL WALL AND PARTITION THICKNESS DIMENSIONS ARE NOMINAL DIMENSIONS. SEE PARTITION TYPE SECTIONS AND WALL SECTIONS FOR DESCRIPTION OF CONSTRUCTION.
3. ALL PARTITIONS ARE TYPE "B04" UNLESS NOTED OTHERWISE.
4. WHERE ENLARGED PARTIAL FLOOR PLANS ARE REFERENCED, THE DIMENSIONS, PARTITION TYPES, AND OTHER INFORMATION ARE SHOWN ON THE ENLARGED PLANS FOR THESE AREAS.
5. ALL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE FIRESTOPPED BY THE TRADE MAKING THE PENETRATION.
6. ALL PENETRATIONS OF NON-RATED CONSTRUCTION SHALL BE SOUNDPROOFED BY THE TRADE MAKING THE PENETRATION.
7. PROVIDE BLOCKING FOR ALL WALL-MOUNTED AND CEILING MOUNTED ACCESSORIES INCLUDING BUT NOT LIMITED TO CASEWORK AND OTHER CABINETRY, COAT RACKS, GRAB BARS AND TOILET ACCESSORIES, CHALKBOARDS AND TACKBOARDS HANDRAILS, WINDOW COVERINGS, AND FIRE EXTINGUISHERS, INCLUDING OWNER-PROVIDED ITEMS.
8. VERIFY WITH OWNER THE EXACT LOCATIONS OF OWNER-PROVIDED EQUIPMENT AND MATERIALS.

FLOOR PLAN SPECIFIC NOTES

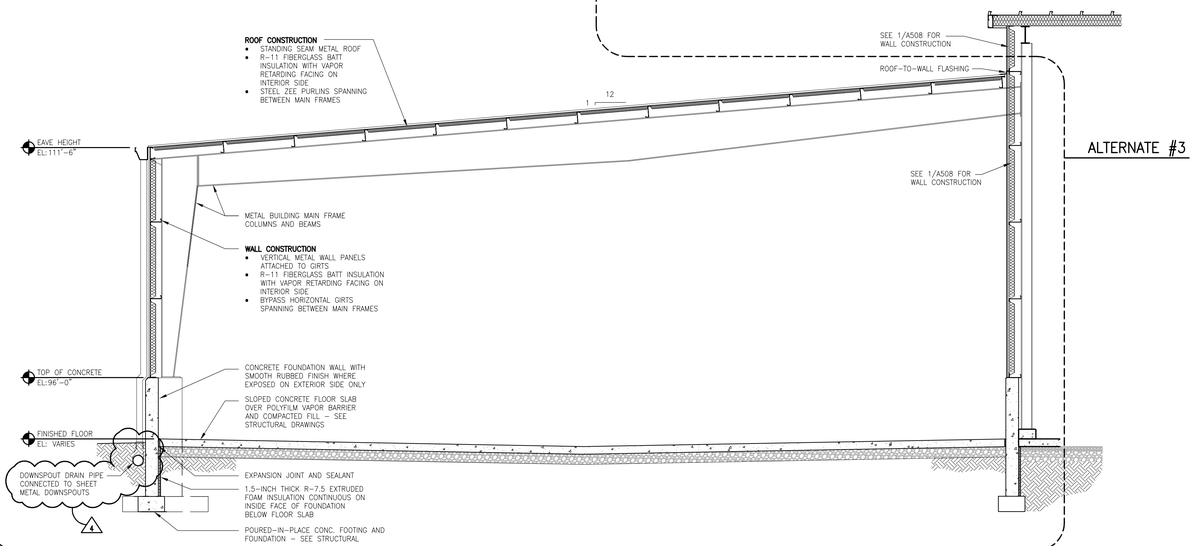
1. PROVIDE STEEL PIPE BOLLARDS ON BOTH SIDES OF BOTH JAMBS @ OVERHEAD DOOR. SEE DETAIL 8/A509
2. POURED-IN-PLACE CONCRETE APRON CONSTRUCTED OF 7-INCH THICK CONCRETE PAVEMENT WITH ONE LAYER OF 6x6-W2.0xW2.0 WELDED WIRE FABRIC
3. IN FOUR LOCATIONS, CONNECT THE 4" x 6" SHEET METAL DOWNSPOUT TO THE UNDERGROUND DRAIN PIPE AT GROUND LEVEL WITH A DOWNSPOUT ADAPTER FROM THE PIPE SUPPLIER
4. PROVIDE 6"ø HDPE UNPERFORATED UNDERGROUND DOWNSPOUT DRAIN PIPE SLOPED @ 1/16" PER FOOT
5. PROVIDE 8"ø HDPE UNPERFORATED UNDERGROUND DOWNSPOUT DRAIN PIPE SLOPED @ 1/16" PER FOOT TO THE CATCH BASIN. SEE SHEET C502.



N

1 A201F FIRST FLOOR PLAN – AREA F

SCALE: 1/8" = 1'-0"



ALTERNATE #3

2 A201F BUILDING CROSS SECTION – AREA F

SCALE: 1/4" = 1'-0"

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BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

SHEET TITLE

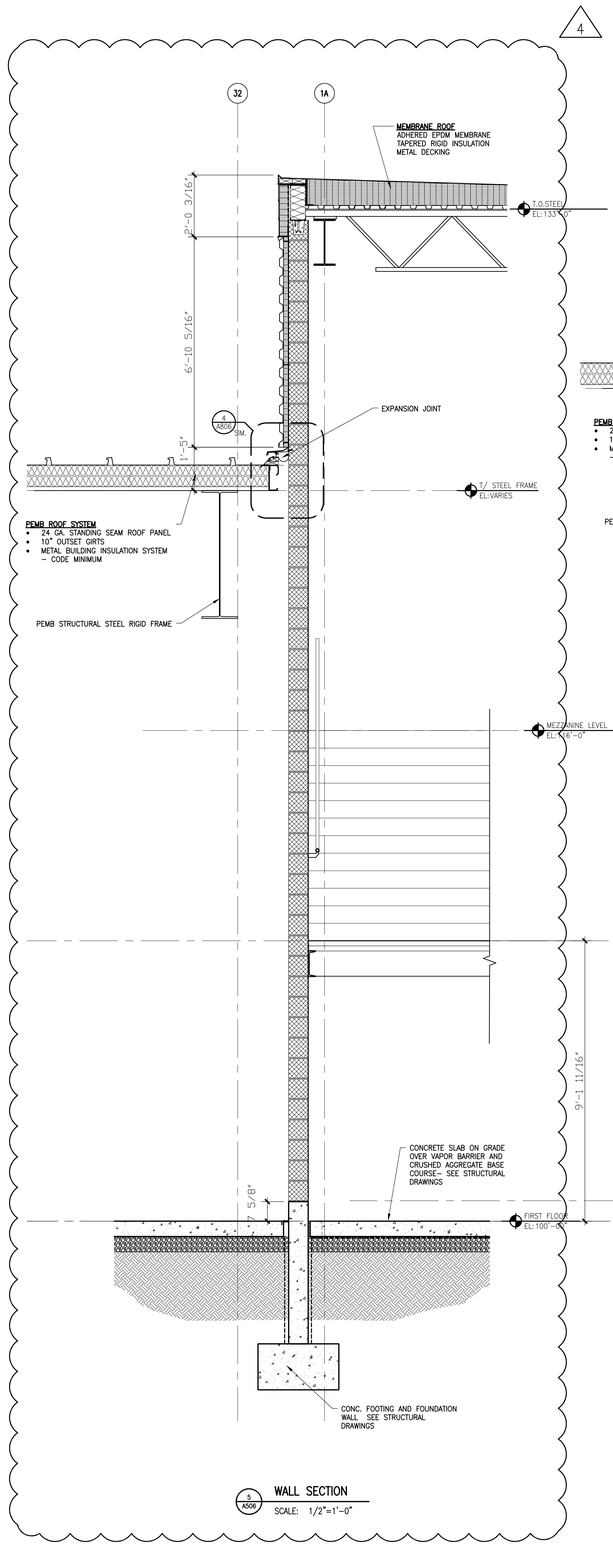
FIRST FLOOR PLAN AREA F

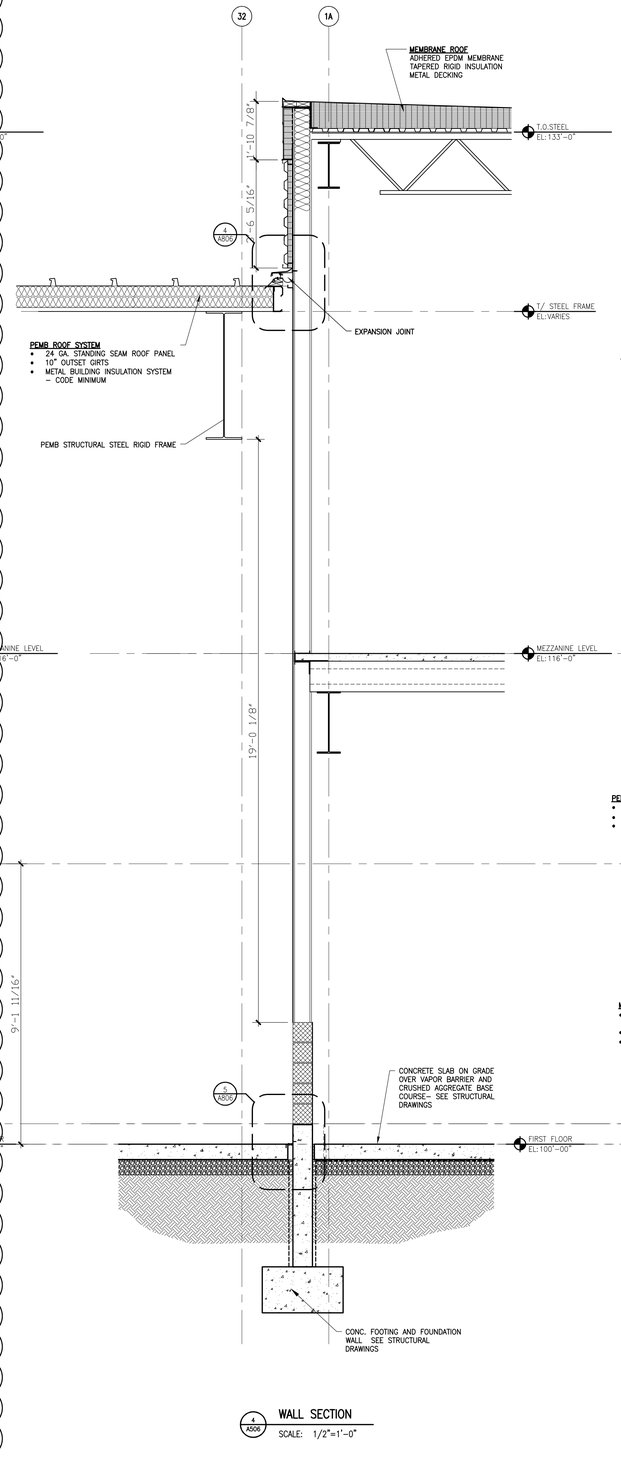
E F D C B A

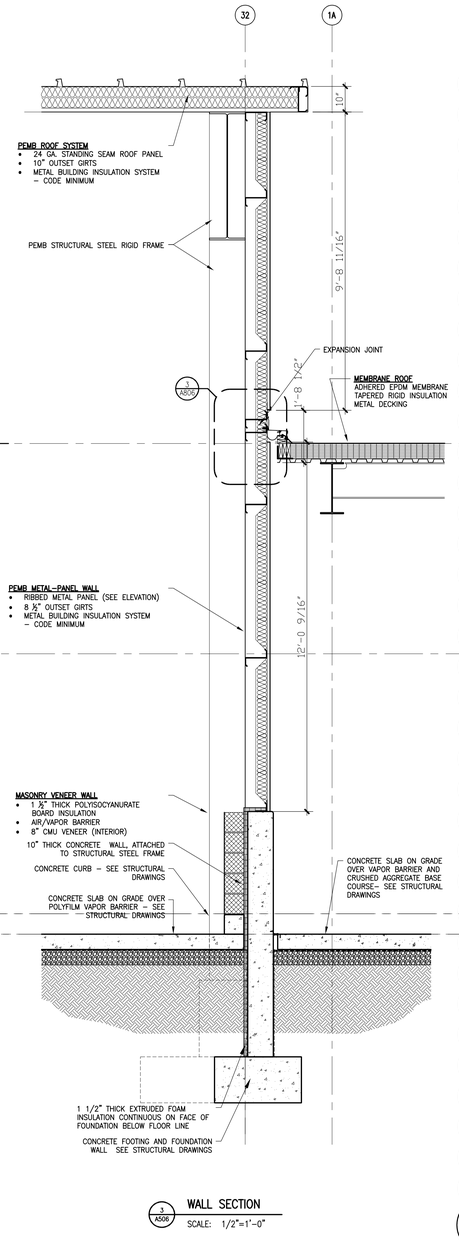
KEY PLAN

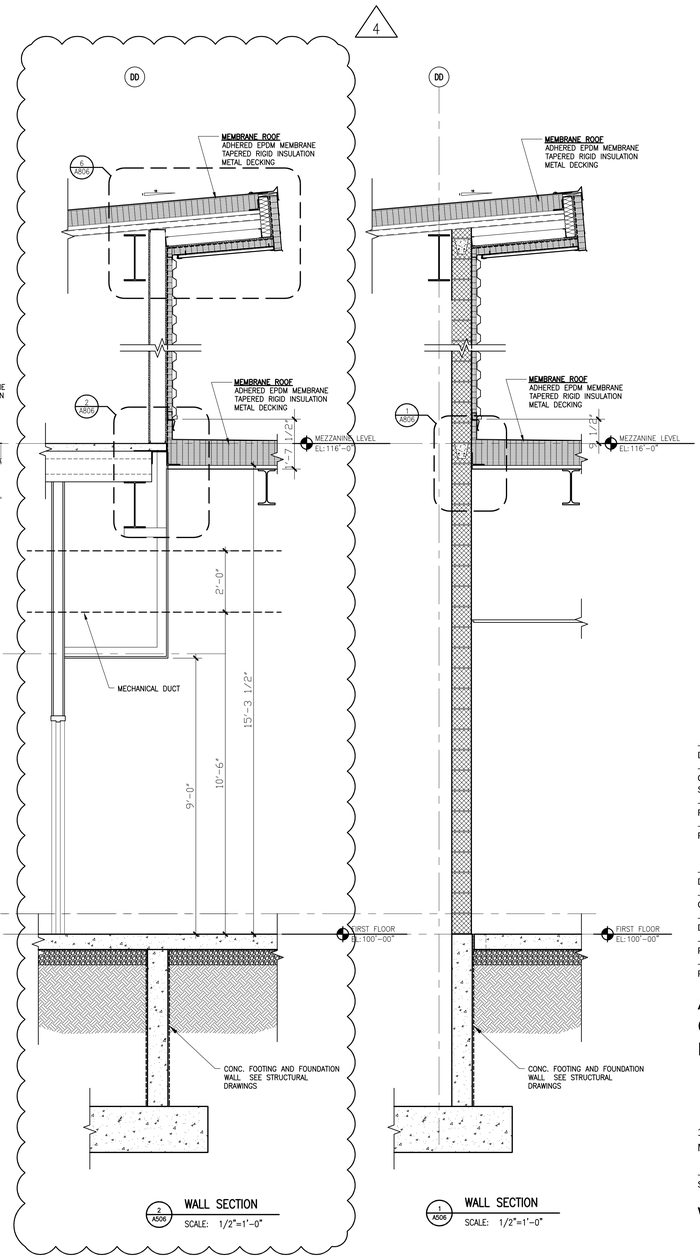
SHEET NO.

A201F









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PROJECT TITLE

ALLIANT ENERGY
CENTER PAVILIONS
BID # 313072

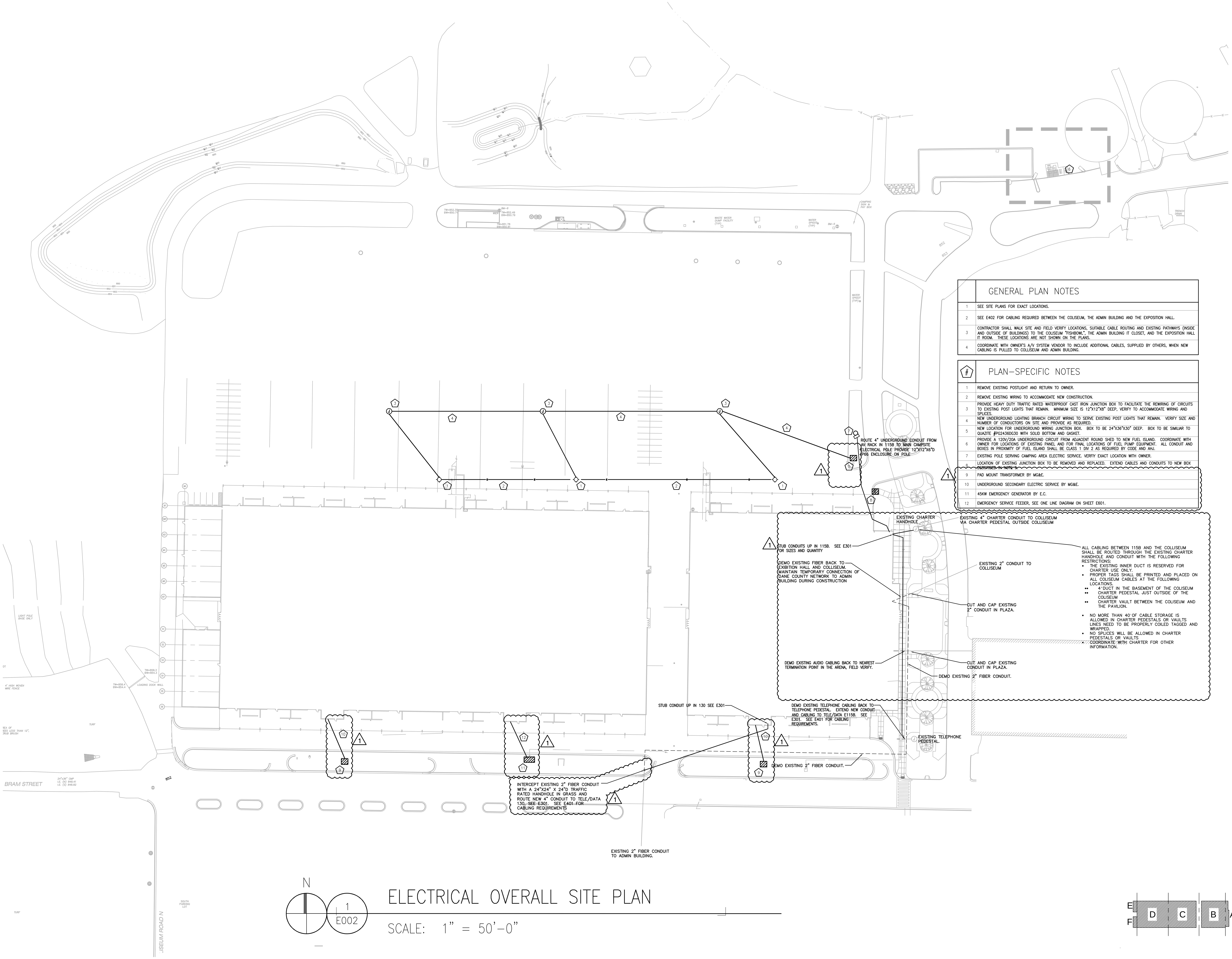
1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

SHEET TITLE

WALL SECTIONS

SHEET NO.

A506



	GENERAL PLAN NOTES
1	SEE SITE PLANS FOR EXACT LOCATIONS.
2	SEE E402 FOR CABLING REQUIRED BETWEEN THE COLISEUM, THE ADMIN BUILDING AND THE EXPOSITION HALL.
3	CONTRACTOR SHALL WALK SITE AND FIELD VERIFY LOCATIONS, SUITABLE CABLE ROUTING AND EXISTING PATHWAYS (INSIDE AND OUTSIDE OF BUILDINGS) TO THE COLISEUM "FISHBOWL", THE ADMIN BUILDING IT CLOSET, AND THE EXPOSITION HALL IT ROOM. THESE LOCATIONS ARE NOT SHOWN ON THE PLANS.
4	COORDINATE WITH OWNER'S A/V SYSTEM VENDOR TO INCLUDE ADDITIONAL CABLES, SUPPLIED BY OTHERS, WHEN NEW CABLING IS PULLED TO COLLISEUM AND ADMIN BUILDING.

#	PLAN-SPECIFIC NOTES
1	REMOVE EXISTING POSTLIGHT AND RETURN TO OWNER.
2	REMOVE EXISTING WIRING TO ACCOMMODATE NEW CONSTRUCTION.
3	PROVIDE HEAVY DUTY TRAFFIC RATED WATERPROOF CAST IRON JUNCTION BOX TO FACILITATE THE REWIRING OF CIRCUITS TO EXISTING POST LIGHTS THAT REMAIN. MINIMUM SIZE IS 12"X12"X8" DEEP, VERIFY TO ACCOMMODATE WIRING AND SPLICES.
4	NEW UNDERGROUND LIGHTING BRANCH CIRCUIT WIRING TO SERVE EXISTING POST LIGHTS THAT REMAIN. VERIFY SIZE AND NUMBER OF CONDUCTORS ON SITE AND PROVIDE AS REQUIRED.
5	NEW LOCATION FOR UNDERGROUND WIRING JUNCTION BOX. BOX TO BE 24"X36"X30" DEEP. BOX TO BE SIMILIAR TO QUAZITE #PG2436DG30 WITH SOLID BOTTOM AND GASKET.
6	PROVIDE A 120V/20A UNDERGROUND CIRCUIT FROM ADJACENT ROUND SHED TO NEW FUEL ISLAND. COORDINATE WITH OWNER FOR LOCATIONS OF EXISTING PANEL AND FOR FINAL LOCATIONS OF FUEL PUMP EQUIPMENT. ALL CONDUIT AND BOXES IN PROXIMITY OF FUEL ISLAND SHALL BE CLASS 1 DIV 2 AS REQUIRED BY CODE AND AHJ.
7	EXISTING POLE SERVING CAMPING AREA ELECTRIC SERVICE. VERFIY EXACT LOCATION WITH OWNER.
8	LOCATION OF EXISTING JUNCTION BOX TO BE REMOVED AND REPLACED. EXTEND CABLES AND CONDUITS TO NEW BOX DESCRIBED IN NOTE 5.
9	PAD MOUNT TRANSFORMER BY MG&E.
10	UNDERGROUND SECONDARY ELECTRIC SERVICE BY MG&E.
11	45KW EMERGENCY GENERATOR BY E.C.
12	EMERGENCY SERVICE FEEDER, SEE ONE LINE DIAGRAM ON SHEET E601.

1
E002

ELECTRICAL OVERALL SITE PLAN

SCALE: 1" = 50'-0"

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ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

KEY PLAN

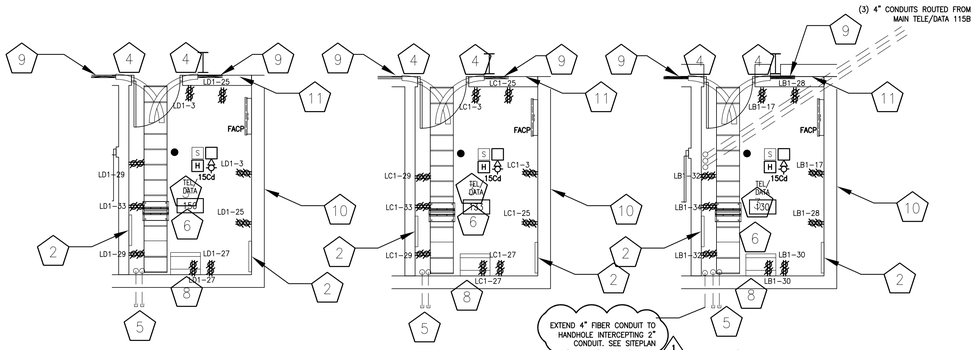
E F D C B A

SHEET TITLE

ELECTRICAL OVERALL SITE PLAN

SHEET NO.

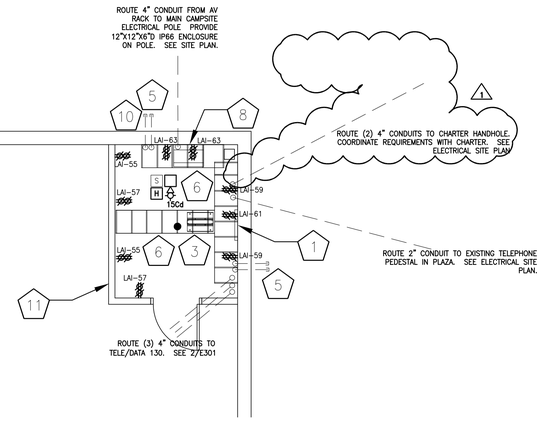
E002



4 / E301 TEL/DATA 150
SCALE: 1/4"=1'

3 / E301 TEL/DATA 133
SCALE: 1/4"=1'

2 / E301 TEL/DATA 130
SCALE: 1/4"=1'



1 / E301 TEL/DATA 115B
SCALE: 1/4"=1'

5 / E301 CONDUIT/LADDER RACK ELEVATION TEL/DATA 130, 133, 150
SCALE: 1/4"=1'

#	ENLARGED PLAN NOTES
1	24" LONG TELECOMMUNICATIONS MAIN GROUNDING BUSBAR (TMGB). SEE SPECIFICATIONS FOR REQUIREMENTS.
2	24" LONG TELECOMMUNICATIONS GROUNDING BUSBAR (TGB). SEE SPECIFICATIONS FOR REQUIREMENTS.
3	96" TALL FLOOR MOUNTED, 2-POST 19" RACK. SEE SPECIFICATIONS. PROVIDE ALL EQUIPMENT, VERTICAL AND HORIZONTAL WIRE MANAGEMENT AND ACCESSORIES REQUIRED IN SPECIFICATIONS AND AS TYPICAL FOR A COMPLETE AND FINISHED INSTALLATION TO APPLICABLE EIA/TIA STANDARDS AND INDUSTRY STANDARDS.
4	4" CONDUIT SWEEPS FROM STRUCTURAL GIRT INTO TELE/DATA ROOM. PROVIDE SUPPORT AS REQUIRED.
5	PROVIDE (2) 4" CONDUITS STUBBED 5' BEYOND FOUNDATION OR CONCRETE DRIVE AND CAPPED FOR FUTURE USE
6	18" LADDER RACK. SUPPORT PER MANUFACTURER'S REQUIREMENTS.
7	PROVIDE WATERFALLS AS NEEDED TO MAINTAIN BEND RADIUS.
8	WALL MOUNTED A/V RACK FOR MOBILE TELEVISION COMPANY. 12U, 19" RACK. HINGED BACK, HINGED LOCKABLE DOOR. STARTECH RK1219WALHM OR EQUAL. PROVIDE FIBER PATCH PANEL AS SHOWN ON E402. LOCATE RECEPTACLE SHOWN INSIDE RACK.
9	ROUTE CABLING ON STRUCTURAL GIRT AS SHOWN. EC SHALL INSPECT GIRT PRIOR TO CABLE PULLING, AND ENSURE CABLES ARE NOT PULLED OR LAID ACROSS SHARP CUTS OR EDGES. FIBER OPTIC CABLES SHALL BE ROUTED IN FIBER INNERDUCT TO PROTECT FROM CUTS OR ABBRASIONS.
10	PROVIDE WALL PASS-THROUGH ASSEMBLY IN THIS LOCATION. SEE 2/E402. LOCATE 36" AFF.
11	PROVIDE WALL PASS-THROUGH ASSEMBLY IN THIS LOCATION. SEE 2/E402. LOCATE 18" AFF.

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FILE NAME	2013027_02-E301.DWG
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DATE	08-01-13
PROJECT NO.	2013027_02

PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

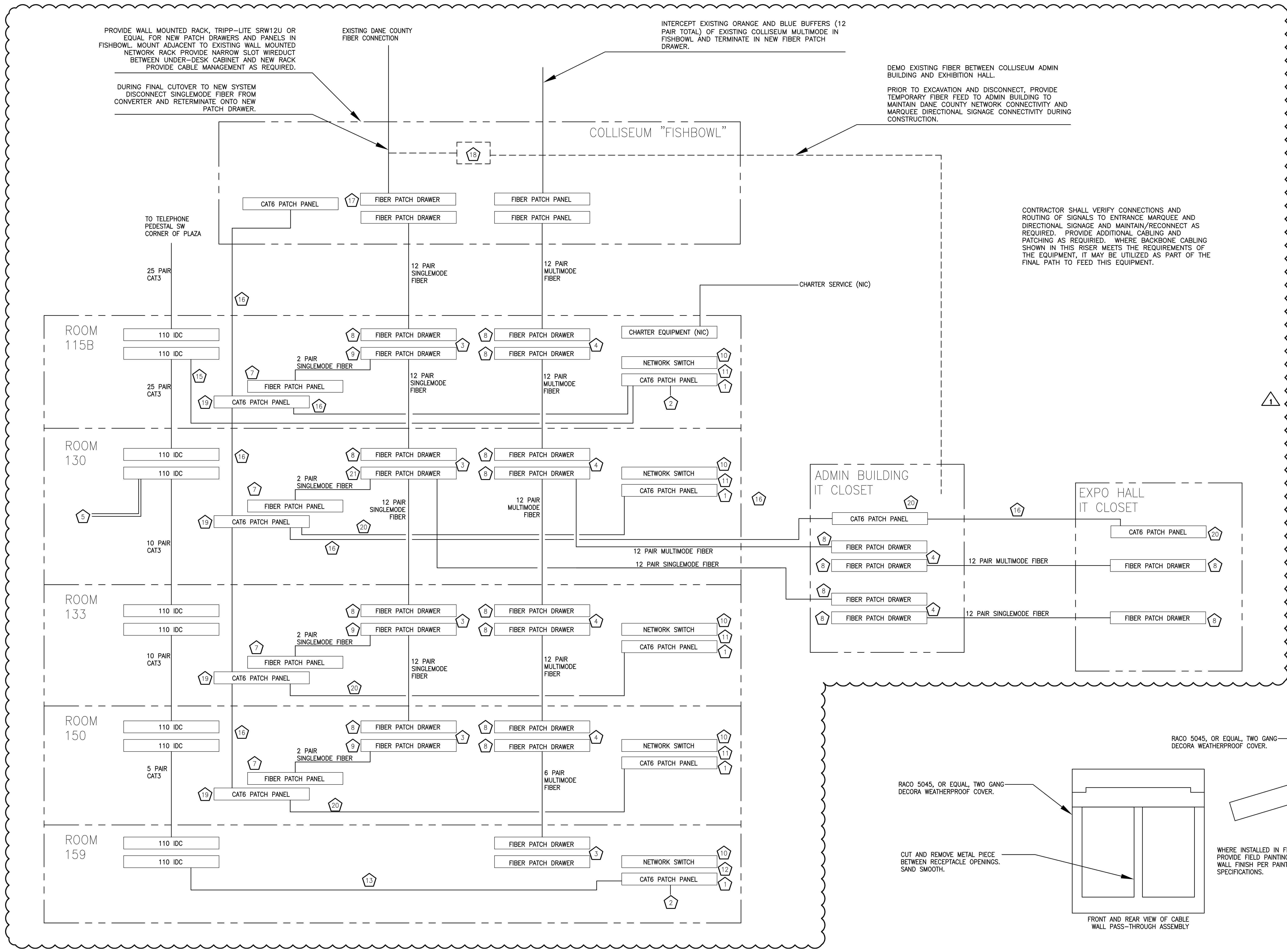
1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

SHEET TITLE

ENLARGED ELECTRICAL PLANS

SHEET NO.

E301



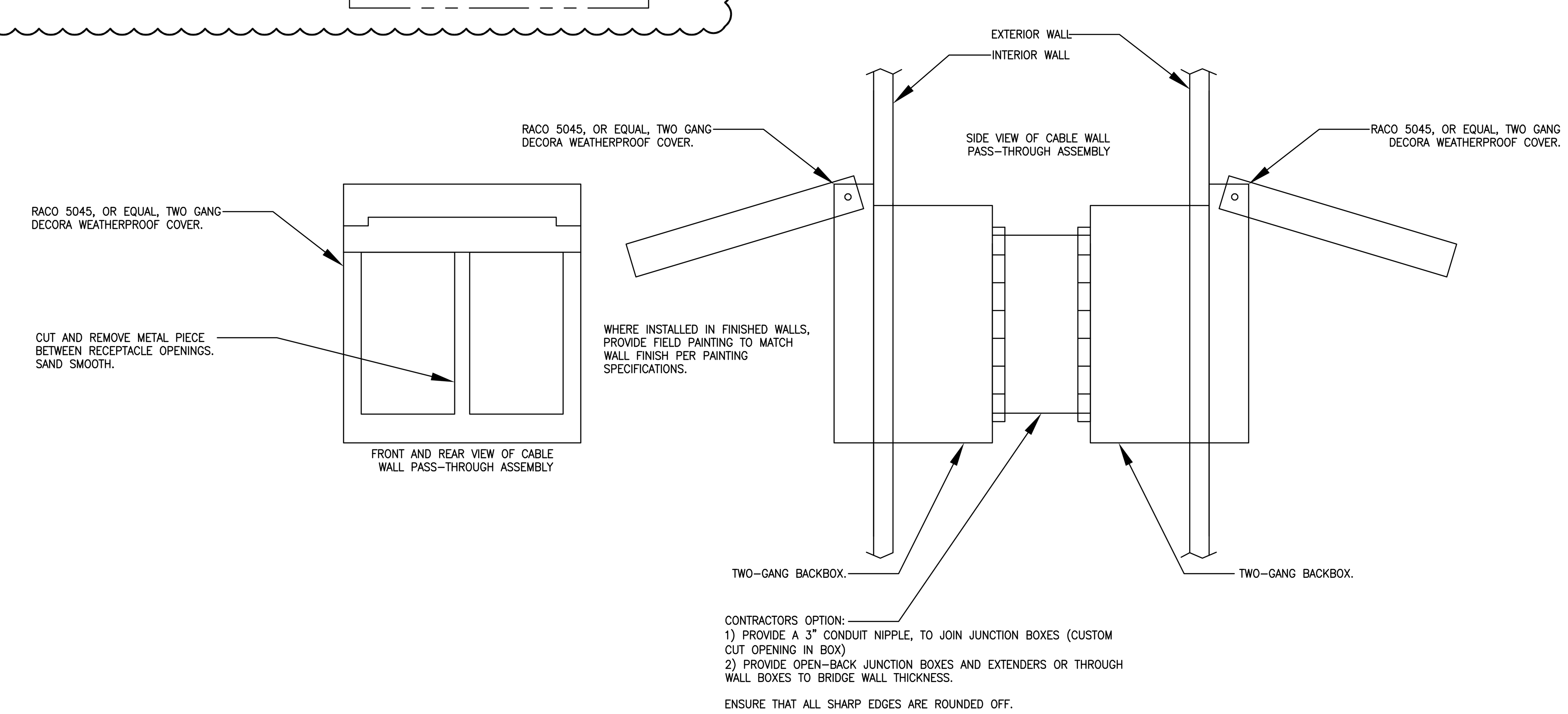
IT RISER.

1 E402

SCALE: NONE

	IT RISER–GENERAL NOTES
1	THIS DIAGRAM IS NOT INTENDED TO BE A FIELD WIRING DIAGRAM THAT INDICATES SPECIFIC WIRING AND CONNECTION REQUIREMENTS, DIAGRAM INDICATES GENERAL SYSTEM COMPONENTS AND ARRANGEMENT ONLY. COMPLETE SYSTEM INSTALLATION SHALL BE AS RECOMMENDED EIA/TIA AND ACCORDING TO SHOP DRAWINGS AND FIELD WIRING DIAGRAMS FURNISHED BY THE MANUFACTURERS
2	VERIFY ALL LOCATIONS FOR EQUIPMENT ON SITE WITH OWNER.
3	ACTIVE NETWORK EQUIPMENT, INCLUDING NETWORK SWITCHES, WIRELESS ACCESS POINTS (AND ASSOCIATED CONTROLLERS) AND CAT-6 CABLING AND CONDUIT TO WIRELESS ACCESS POINTS IS NOT IN CONTRACT. THESE ITEMS ARE INCLUDED IN AN ALLOWANCE CARRIED BY THE GENERAL CONTRACTOR.
4	ALL EQUIPMENT SHOWN SHALL BE MOUNTED IN EQUIPMENT RACKS SHOWN IN EACH ROOM. UNLESS OTHERWISE NOTED.
5	NETWORK OUTAGES SHALL BE KEPT TO A MINIMIMUM IN EXISTING BUILDINGS. ALL OUTAGES SHALL BE COORDINATED WITH THE OWNER 2 WEEKS PRIOR TO OUTAGES. ALL OUTAGE DATES ARE SUBJECT TO ALLIANT ENERGY CENTER APPROVAL BASED ON EVENTS AND OTHER FACTORS.

#	IT RISER–SPECIFIC NOTES
1	PATCH PANEL SHALL HAVE A MINIMUM OF 48 PORTS TO SUPPORT WIRELESS ACCESS POINTS AND EVENT-SPECIFIC HORIZONTAL NETWORK CABLING NOT IN CONTRACT. HARDWIRED DATA OUTLET WIRING, SHOWN ON PLANS, IS PART OF THIS QUANTITY (NOT IN ADDITION TO IT).
2	PATCH PANEL SHALL HAVE A MINIMUM OF 12 PORTS TO SUPPORT FUTURE HORIZONTAL NETWORK CABLING NOT IN CONTRACT. HARDWIRED DATA OUTLET WIRING, SHOWN ON PLANS, IS PART OF THIS QUANTITY (NOT IN ADDITION TO IT).
3	PROVIDE (3) DUPLEX FIBER PATCH CABLES
4	PROVIDE (6) DUPLEX FIBER PATCH CABLES.
5	2 PAIRS TO FIRE ALARM SYSTEM COMMUNICATOR
6	TO MAINTENANCE SHOP OFFICE PHONES
7	4 PORT MINIMUM, LOCATED IN WALL AV CABINET. PROVIDE PATCH PANELS WITH ST CONNECTORS IN WALL A/V CABINET. (ALL OTHER SINGLEMODE CONNECTIONS UTILIZE LC CONNECTORS)
8	12 PORT (DUPLEX) MINIMUM
9	16 PORT (DUPLEX) MINIMUM
10	ACTIVE NETWORK EQUIPMENT NOT IN CONTRACT
11	PROVIDE (48) CAT6 PATCH CABLES
12	PROVIDE (3) CAT6 PATCH CABLES
13	PROVIDE (3) CAT3 110 IDC TO RJ45 PATCH CABLES FOR TELEPHONE CONNECTION TO OFFICES, VIA CAT6 PATCH PANEL. UTILIZE CAT6 CABLE TO THE OUTLETS AS SHOWN ON THE PLANS
14	CAT6 CABLING TO WIRED DATA OUTLETS. SEE PLANS FOR QUANTITY AND LOCATIONS.
15	PROVIDE (4) CAT3 110 IDC TO RJ45 PATCH CABLES FOR TELEPHONE CONNECTION TO OFFICES, VIA CAT6 PATCH PANEL UTILIZE CAT6 CABLE TO THE OUTLETS AS SHOWN ON THE PLANS
16	(4) CAT6 CABLES (FOR THE USE OF THE MOBILE TELEVISION CONTRACTOR) OF A DIFFERENT COLOR THAN OTHER NETWORK CABLING TERMINATE EACH END OF CABLE ON PATCH PANELS AS SHOWN.
17	RETERMINATE EXISTING INCOMING SINGLEMODE FIBER ONTO A NEW PATCH PANEL IN NEW CABINET.
18	REMOVE EXISTING SINGLEMODE TO MULTIMODE CONVERTER ONCE CONSTRUCTION IS COMPLETE. TURN OVER TO OWNER.
19	MINIMUM 16 PORT CAT6 PATCH PANEL LOCATED IN AV RACK
20	MINIMUM 8 PORT CAT6 PATCH PANEL LOCATED IN EXISTING RACK
21	(2) CAT6 CABLES FROM NETWORK RACK TO AV RACK
22	30 PORT (DUPLEX) MINIMUM



A/V CABLE PASS THROUGH ASSEMBLY

2 E402

SCALE: NONE

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PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

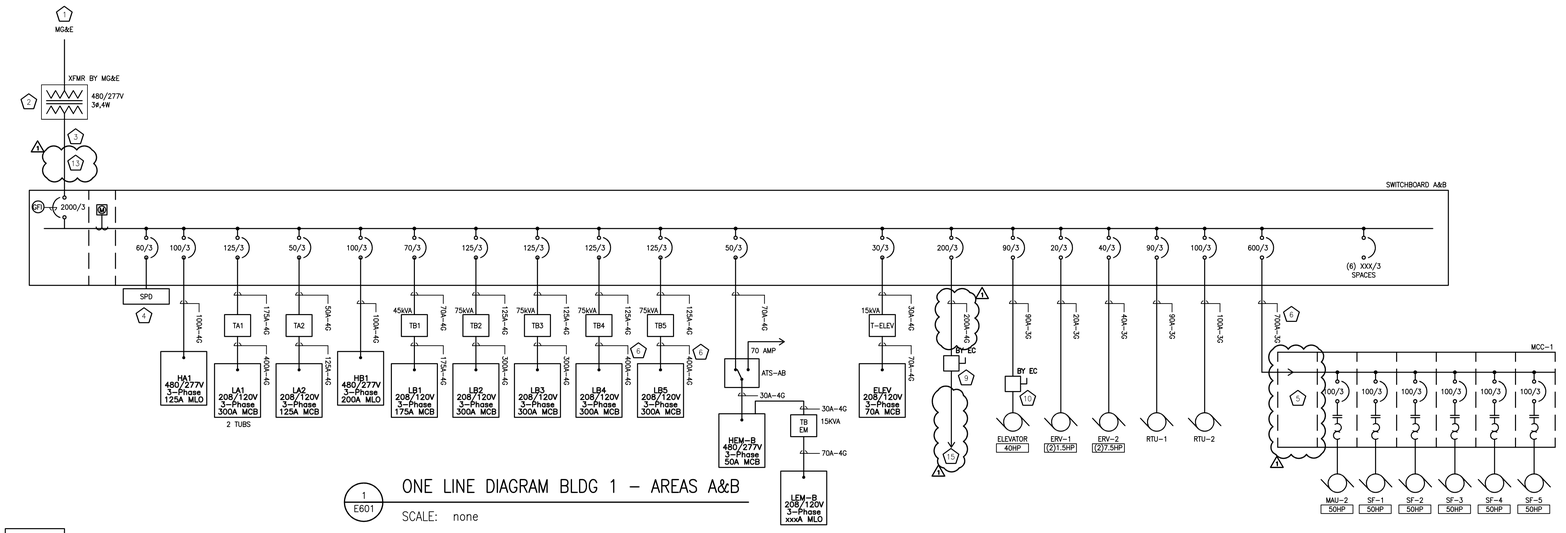
1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

SHEET TITLE

ELECTRICAL DETAILS

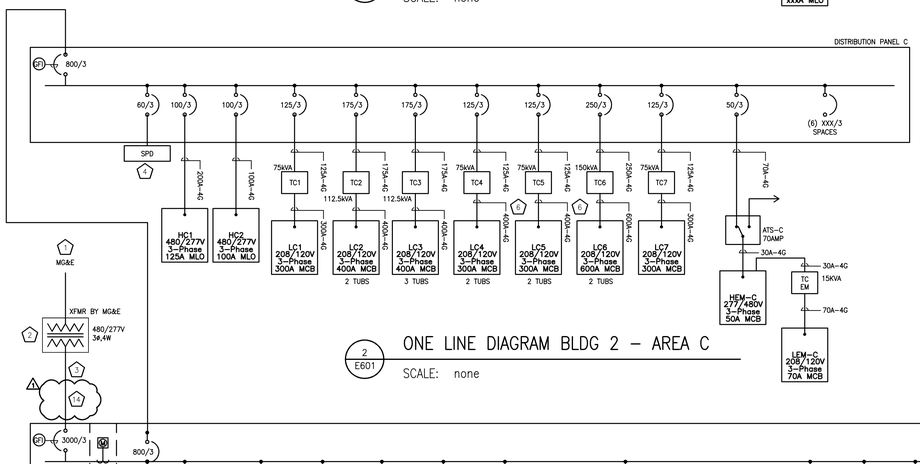
SHEET NO.

E402



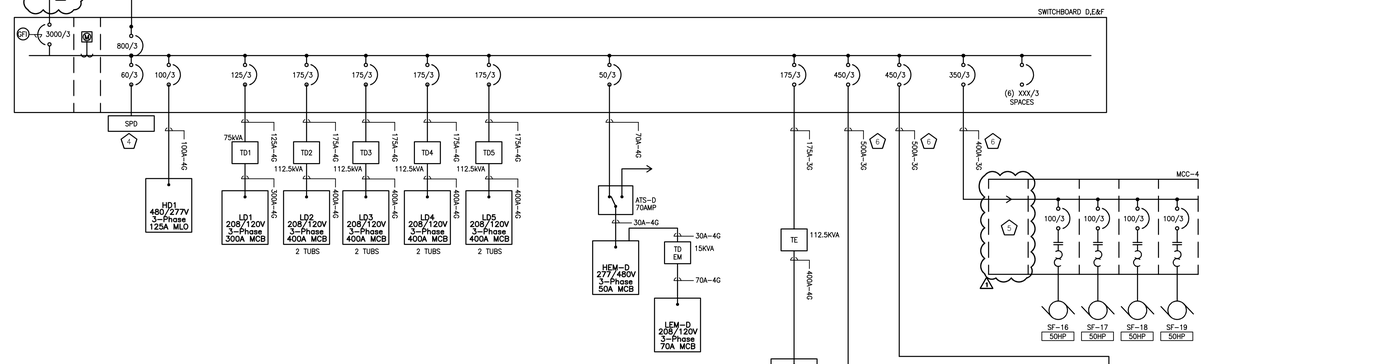
1 E601 ONE LINE DIAGRAM BLDG 1 – AREAS A&B

SCALE: none



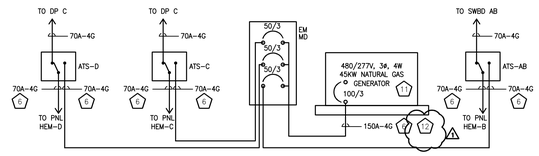
2 E601 ONE LINE DIAGRAM BLDG 2 – AREA C

SCALE: none



3 E601 ONE LINE DIAGRAM BLDG 2 – AREAS D,E&F

SCALE: none



4 E601 PARTIAL EMERGENCY ONE LINE DIAGRAM

SCALE: none

FEEDER SCHEDULE (600 V)

FEEDER AMPACITY	CONDUCTOR SIZE (kcmil)		CONDUIT SIZE	
	ø & N	GRD	3ø & GRD.	3ø & N & GRD.
20	#12	#12	3/4"	3/4"
30	#10	#10	3/4"	3/4"
40	#8	#10	3/4"	1"
50	#6	#10	1"	1"
70	#4	#8	1-1/4"	1-1/4"
80	#3	#8	1-1/4"	1-1/4"
100	#1	#8	1-1/2"	2"
110	#2	#6	1-1/4"	1-1/2"
125	#1	#6	1-1/2"	2"
150	#1/0	#6	1-1/2"	2"
175	#2/0	#6	2"	2"
200	#3/0	#6	2"	2-1/2"
225	#4/0	#4	2"	2-1/2"
250	#250	#4	2-1/2"	3"
300	#350	#4	3"	3"
350	#500	#3	3"	3-1/2"
400	(2) # 3/0	(2) # 3	(2) 2"	(2) 2-1/2"
450	(2) # 4/0	(2) # 2	(2) 2"	(2) 2-1/2"
500	(2) # 250	(2) # 2	(2) 2-1/2"	(2) 3"
600	(2) # 350	(2) # 1	(2) 3"	(2) 3"
700	(2) # 500	(2) # 1/0	(2) 3"	(2) 3-1/2"
800	(2) # 600	(2) # 1/0	(2) 3-1/2"	(2) 4"
1000	(3) # 400	(3) # 2/0	(3) 3"	(3) 3-1/2"
1200	(3) # 600	(3) # 3/0	(3) 3-1/2"	(3) 4"
1600	(4) # 600	(4) # 4/0	(4) 3-1/2"	(4) 4"
2000	(5) # 600	(5) # 250	(5) 3-1/2"	(5) 4"

GENERAL NOTES:

1. THE ABOVE FEEDER SCHEDULE IS A SCHEDULE OF TYPICAL FEEDERS AND SOME SIZES MAY NOT BE UTILIZED.
2. ALL CONDUCTOR AMPACITIES ARE BASED ON TABLE 310-16 OF THE NEC FOR COPPER CONDUCTOR TYPE THW/THWN.
3. FEEDER SIZES SHOWN ON THE RISER DIAGRAM INDICATE FEEDER AMPACITIES AND DO NOT NECESSARILY CORRESPOND TO CIRCUIT BREAKER AMPACITIES. CERTAIN FEEDERS MAY BE SIZED FOR THE DERATION FACTORS REQUIRED BY CODE AND/OR ARE OVERSIZED FOR VOLTAGE DROP.
4. WHERE MULTIPLE CONDUITS ARE INDICATED FOR A SINGLE FEEDER EACH CONDUIT SHALL CONTAIN AN A#, B#, C#, GROUND CONDUCTOR, AND NEUTRAL CONDUCTOR.

200 – 3G — FEEDER DESIGNATION

- SYSTEM DESCRIPTION
  - (3G) 3ø, 3W + GRD
  - (3G) 3ø, 4W + GRD
- CONDUCTOR AMPACITY (SEE FEEDER SCHEDULE)

PLAN – SPECIFIC NOTES

#	
1	UNDERGROUND PRIMARY ELECTRICAL SERVICE PROVIDED BY MG&E. COORDINATE INSTALLATION WITH UTILITY AND PROVIDE ALL WORK AND COORDINATION REQUIRED BY UTILITY TO INSTALL SERVICE.
2	PAD MOUNT TRANSFORMER BY MG&E.
3	UNDERGROUND SECONDARY SERVICE CONDUCTORS BY MG&E.
4	SPD MOUNTED ON SWITCHBOARD OR 4S-CLOSE AS POSSIBLE TO MAIN CIRCUIT BREAKER.
5	COMBINATION CIRCUIT BREAKER AUTOTRANSFORMER REDUCED VOLTAGE STARTERS INSTALLED IN MOTOR CONTROL CENTER. MOTOR CONTROL CENTER ENCLOSURE TO BE NEMA 3R. ADD INCOMING 20" SECTION TO ACCOMMODATE FEEDER.
6	FEEDER SIZE INCREASED TO COMPENSATE FOR VOLTAGE DROP.
7	PROVIDE A C-H POW-R-LINE 3A PANEL OR EQUAL.
8	MOUNT TRANSFORMER ON WALL ABOVE PANEL WITH STEEL CHANNEL SUPPORT RACK.
9	200AMP DISCONNECT LOCATED IN ROOM 115 TO SERVE POWER FOR CAMPING AREA.
10	PROVIDE BUSSMAN TYPE PS1T48R1KGN1BF3 POWER MODULE SWITCH.
11	GENERATOR LOCATED OUTSIDE BLDG 2 AREA C. SEE CIVIL DRAWINGS FOR EXACT LOCATION.
12	FEEDER FROM GENERATOR TO PANEL EM MD TO BE HEAVY WALL GALVANIZED STEEL CONDUIT.
13	PROVIDE (5) 4" HEAVY WALL GALVANIZED STEEL CONDUITS FROM SWITCHBOARD TO A POINT OUTSIDE BUILDING AS DIRECTED BY MG&E.
14	PROVIDE (8) 4" HEAVY WALL GALVANIZED STEEL CONDUITS FROM SWITCHBOARD TO A POINT OUTSIDE BUILDING AS DIRECTED BY MG&E.
15	FEEDER TO CAMPGROUND RISER POLE. RUN UP POLE AND PROVIDE SERVICE HEAD.

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PROJECT TITLE

ALLIANT ENERGY CENTER PAVILIONS
BID # 313072

1919 ALLIANT ENERGY CENTER WAY
MADISON, WI 53713

SHEET TITLE

ELECTRICAL ONE-LINE DIAGRAM

SHEET NO.

E601

UTILITY SCHEDULE

ITEM	QTY	DESCRIPTION	VOLTS	PHASE	FL AMPS	ECON CONN HT	HP	ECON TYPE	ELECTRICAL REMARKS	CW SIZE	CW RI HT	HW SIZE	HW RI HT	HW FLOW	INDIR WASTE CONN HT	DW SIZE	DW RI HT	GAS INPUT	GAS SIZE	GAS RI HT	PLUMBING REMARKS	EX VENT WIDTH	EX VENT DEPTH	EX VENT DIA	EX VOL	MU AIR VENT WIDTH	MU AIR VENT DEPTH	MU AIR VENT DIA	MU AIR VOL	VENTILATION REMARKS
1	1	HANDSINK W/ SOAP & TOWEL DISPENSER								1/2"	16"	1/2"	16"	5		1 1/2"	14"													
2	1	MOP SINK & SERVICE FAUCET								1/2"	36"	1/2"	36"	40		2"														
3	1	CHEMICAL SHELF																												
4	1	WALL SHELF																												
5	1	3 COMPARTMENT SINK W/FAUCET & LEVER WASTE								1/2"	16"	1/2"	16"	90	FS		14"													
6	1	SPARE NUMBER																												
7	1	SPARE NUMBER																												
8	2	REACH-IN REFRIGERATOR	120	1	5.00		1/5																							
9	4	POINT OF SALE REGISTER	120	1	10.00	24"			Requires dedicated circuit for POS system. Verify ethernet connection and requirements with POS vendor.																					
10	2	FOOD WARMERS	120	1	14.30	34"		Cord & Plug	Fixture mounted duplex outlet.																					
11	2	SODA DISPENSER	120	1	10.00	18"			Electrical connection for carbonator.	1/2"	18"				FS						CW connection for carbonator. Requires soda lines.										
12	2	WORK TABLE																												
13	1	SPARE NUMBER																												
14	1	SPARE NUMBER																												
15	1	SPARE NUMBER																												
16	1	WORK TABLE																												
17	1	FRENCH FRY WARMER	120	1	15.10	48"		Cord & Plug																						
18	2	SOLSTICE FRYER																110.0 Btu/h	3/4"	30"										
19	1	SPREADER																												
20	1	CHEF BASE W/ FREEZER DRAWERS	120	1	5.40	18"	1/5	Cord & Plug																						
21	1	GAS GRIDDLE																90.0 Btu/h	3/4"	30"										
22	1	~~REFRIGERATED MAKEUP TABLE~~	~~120~~	~~1~~	~~5.00~~	~~18"~~		~~Cord & Plug~~																						
23	1	REACH-IN FREEZER	120	1	7.10	72"	.5	Cord & Plug																						
24	2	WIRE SHELVING																												
25	1	TYPE 1 HOOD	120	1	15.00	96"		Direct	Electrical for Lights, stub down for electrical connections, verify CFM w/ manufacturer. Roof mounted equipment by mechanical division.														0' - 0"	0"	12"	1350	28"	10"	0"	0	Verify CFM with manufacturer specifications & drawings.
26	1	SPARE NUMBER																												
27	1	SPARE NUMBER																												
28	1	SPARE NUMBER																												
29	1	WIRE SHELVING																												
30	4	POINT OF SALE REGISTER	120	1	10.00	18"			Requires dedicated circuit for POS system. Verify ethernet connection and requirements with POS vendor.																					
31	2	SODA DISPENSER	120	1	10.00	18"			Electrical connection for carbonator.	1/2"	1/2"				FS						CW connection for carbonator. Requires soda lines.										
32	2	WORK TABLE																												
33	2	FOOD WARMER	120	1	14.30	34"		Cord & Plug	Fixture mounted duplex outlet required.																					
34	2	REACH-IN REFRIGERATOR	120	1	5.00		1/5																							
35	2	WORK TABLE																												
36	2	TABLE MOUNTED OVERSHELF																												
37	1	SPARE NUMBER																												
38	1	SPARE NUMBER																												
39	1	SPARE NUMBER																												
40	2	HANDSINK								1/2"	16"	1/2"	16"	5		1 1/2"	14"													
41	1	REACH-IN REFRIGERATOR	120	1	5.80	72"	.5	Cord & Plug																						
42	1	REFRIGERATED MAKEUP TABLE	120	1	6.30	18"		Cord & Plug																						
43	1	SPARE NUMBER																												
44	1	COMBI OVEN	208	1	22.50	48"		Direct	INCLUDES COMBIGUARD BWS WATER FILTRATION SYSTEM & STAND	3/4"	48"				FS						Requires filter.										
44.1	1	COMBI OVEN	208	1	22.50	48"		Direct	INCLUDES STACKING KIT	3/4"	48"				FS						Requires filter.										
44.2	1	COMBI GUARD BWS BLENDED WATER SYSTEM	120	1	15.00	72"		Cord & Plug		3/4"	48"																			
45	1	CHEF BASE W/ FREEZER DRAWERS	120	1	5.40	18"	1/5	Cord & Plug																						
46	1	GAS GRIDDLE																90.0 Btu/h	3/4"	30"										
47	1	SPREADER																												
48	2	SOLSTICE FRYER																110.0 Btu/h	3/4"	30"										
49	1	~~TYPE 1 HOOD~~	~~120~~	~~1~~	~~15.00~~	~~96"~~		~~Direct~~	~~Electrical for Lights, Stub down electrical connections. Verify CFM w/ manufacturer. Roof mounted equipment by mechanical division.~~														0' - 0"	0"	12"	1350	28"	10"	0"	0	Verify CFM with manufacturer specifications & drawings.
50	1	WORK TABLE																												
51	1	FRENCH FRY WARMER	120	1	15.10	48"		Cord & Plug																						
52	1	REACH-IN FREEZER	120	1	7.10	72"	.5	Cord & Plug																						
53	1	SPARE NUMBER																												
54	1	SPARE NUMBER																												
55	1	SPARE NUMBER																												
56	1	3 COMPARTMENT SINK W/FAUCET & LEVER WASTE								1/2"	16"	1/2"	16"	90	FS		14"													
57	1	WIRE SHELVING																												
58	1	BAG'N'BOX (BY VENDOR)	120	1	15.00	72"			-	1/2"											-									
59	1	CHEMICAL SHELF																												
60	1	MOP SINK & SERVICE FAUCET								1/2"	36"	1/2"	36"	40		2"														
61	1	ICE MACHINE	208	1	15.00	0"				1/2"	0"																			
62	1	ICE BIN																												
63	1	FILTER FOR ICE MACHINE								1/2"											.375 water inlet & .375 water outlet. Flow rate - 1.67GPM max; pressure - 30 to 125psi										

REVISIONS	DATE
REV 1 UPDATE EQUIP	07-16-13

Centerplate

CLEVENGER ASSOCIATES
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ALLIANT ENERGY CENTER

MADISON, WISCONSIN

CENTERPLATE

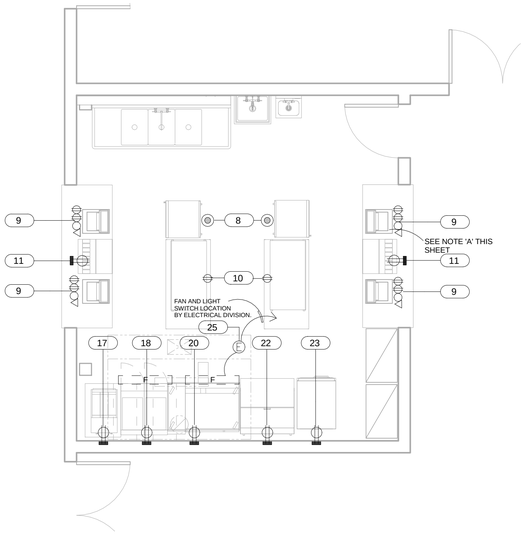
SHEET TITLE:
EQUIPMENT SCHEDULE

PROJECT NUMBER: 1074
DRAWN BY: Author
CHECKED BY: Checker
DATE: 6/18/13

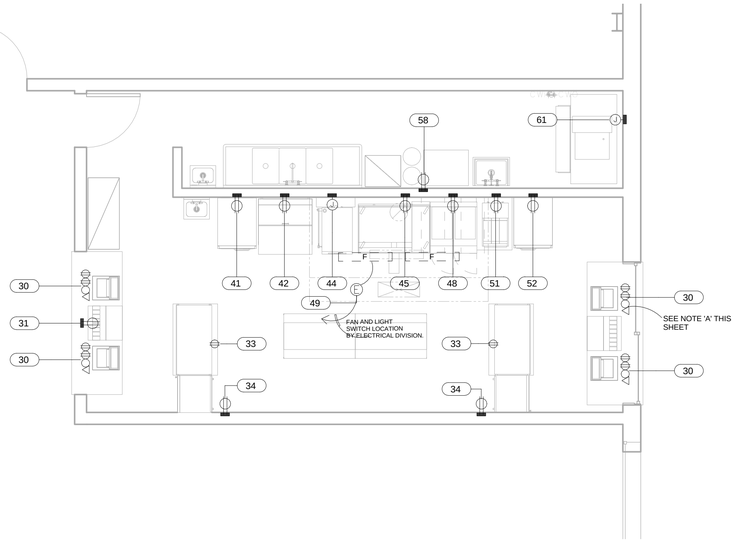
SHEET NO:

FS1.1

ELECTRICAL SCHEDULE										
ITEM	QTY	DESCRIPTION	VOLTS	PHASE	AMPS	WATTS	HP	ELEC TYPE	AFF	ELECTRICAL COMMENTS
8	2	REACH-IN REFRIGERATOR	120	1	5.0		1/5			
9	4	POINT OF SALE REGISTER	120	1	10.0				24"	Requires dedicated circuit for POS system. Verify ethernet connection and requirements with POS vendor.
10	2	FOOD WARMERS	120	1	14.3	2574		Cord & Plug	34"	Fixture mounted duplex outlet.
11	2	SODA DISPENSER	120	1	10.0				18"	Electrical connection for carbonator.
17	1	FRENCH FRY WARMER	120	1	15.1	1820		Cord & Plug	48"	
20	1	CHEF BASE W/ FREEZER DRAWERS	120	1	5.4	648	1/5	Cord & Plug	18"	
22	1	REFRIGERATED MAKEUP TABLE	120	1	5.0			Cord & Plug	18"	
23	1	REACH-IN FREEZER	120	1	7.1		.5	Cord & Plug	72"	
25	1	TYPE 1 HOOD	120	1	15.0	1800		Direct	96"	Electrical for Lights, stub down for electrical connections, verify CFM w/ manufacturer. Roof mounted equipment by mechanical division.
30	4	POINT OF SALE REGISTER	120	1	10.0				18"	Requires dedicated circuit for POS system. Verify ethernet connection and requirements with POS vendor.
31	2	SODA DISPENSER	120	1	10.0				18"	Electrical connection for carbonator.
33	2	FOOD WARMER	120	1	14.3	2574		Cord & Plug	34"	Fixture mounted duplex outlet required.
34	2	REACH-IN REFRIGERATOR	120	1	5.0		1/5			
41	1	REACH-IN REFRIGERATOR	120	1	5.8		.5	Cord & Plug	72"	
42	1	REFRIGERATED MAKEUP TABLE	120	1	6.3			Cord & Plug	18"	
44	1	COMBI OVEN	208	1	22.5			Direct	48"	INCLUDES COMBIGUARD BWS WATER FILTRATION SYSTEM & STAND
44.1	1	COMBI OVEN	208	1	22.5			Direct	48"	INCLUDES STACKING KIT
44.2	1	COMBI GUARD BWS BLENDED WATER SYSTEM	120	1	15.0			Cord & Plug	72"	
45	1	CHEF BASE W/ FREEZER DRAWERS	120	1	5.4	648	1/5	Cord & Plug	18"	
49	1	TYPE 1 HOOD	120	1	15.0	1800		Direct	96"	Electrical for Lights, Stub down electrical connections. Verify CFM w/ manufacturer. Roof mounted equipment by mechanical division.
51	1	FRENCH FRY WARMER	120	1	15.1	1820		Cord & Plug	48"	
52	1	REACH-IN FREEZER	120	1	7.1		.5	Cord & Plug	72"	
58	1	BAG'N'BOX (BY VENDOR)	120	1	15.0				72"	-
61	1	ICE MACHINE	208	1	15.0	3120			0"	



1 ELECTRICAL PLAN - 120
1/4" = 1'-0"



2 ELECTRICAL PLAN - ###
1/4" = 1'-0"

ELECTRICAL NOTES

1. ELECTRICAL PLAN SHOWS ROUGH-IN POINTS AND SCHEDULED CONNECTIONS. KITCHEN EQUIPMENT CONTRACTOR WILL PROVIDE DIMENSIONED ROUGH-IN DRAWINGS FOR CONSTRUCTION.
2. ELECTRICAL SYSTEM IS DESIGNED FOR 120/208 VOLTS, 1 & 3 PHASE, 60 HERTZ, 4 WIRE SYSTEM.
3. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL ALL JUNCTION BOXES, RECEPTACLES, COVER PLATES, PULL BOXES, CONDUIT AND WIRING EXCEPT WHERE NOTED. RECEPTACLES AND COVER PLATES SHALL BE BRUSHED STAINLESS STEEL FURNISHED BY ELECTRICAL DIVISION.
4. ALL CONDUIT RUNS INDICATED FOR REFRIGERATION, DRINK AND LIQUOR SYSTEM LINES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL DIVISION. CONDUIT SHALL HAVE 24" (600MM) MINIMUM RADIUS BENDS.
5. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL FOR FABRICATED COUNTERS AS NOTED COMPLETE WITH JUNCTION BOXES, CONDUIT, SURFACE MOUNTED ELECTRICAL BOXES, RECEPTACLES, COVER PLATES, ELECTRICAL RACEWAYS, CIRCUIT BREAKER PANEL AND WIRING. ELECTRICAL DIVISION TO MAKE FINAL CONNECTION.
6. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH AND INSTALL VAPOR PROOF VENTILATOR LIGHTS COMPLETE WITH LAMPS. INTERCONNECTING CONDUIT, WIRING WITH WALL SWITCH FURNISHED AND INSTALLED BY THE ELECTRICAL DIVISION.
7. ADDITIONAL CONVENIENCE RECEPTACLES, TELEPHONE AND INTERCOM JACKS AND TEMPERATURE MONITORING SYSTEM ETC.. SHALL BE LOCATED BY THE ELECTRICAL ENGINEER/ ARCHITECT AND AS REQUIRED BY CODE.
8. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH DISPOSER CONTROLS. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL INTERCONNECTING CONDUIT AND WIRE BETWEEN SWITCH, DISPOSER AND COMPONENTS.
9. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING BETWEEN MICRO-SWITCH AND SOLENOID FUEL SHUT OFF VALVE FURNISHED WITH FIRE SUPPRESSION SYSTEM SUPPLIED BY THE KITCHEN EQUIPMENT CONTRACTOR.
10. PRE-FABRICATED COLD STORAGE ROOMS ARE FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR COMPLETE WITH SPLICE BOXES, LIGHT FIXTURES, LAMPS, LIGHT SWITCHES AND DOOR HEATERS. ELECTRICAL DIVISION TO INSTALL SAME AND SHALL FURNISH AND INSTALL INTERCONNECTING CONDUIT, WIRING SEALOFFS, SEALANT AND MAKE FINAL CONNECTIONS.
11. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL ALL INTERCONNECTING CONDUIT AND WIRING BETWEEN KITCHEN EQUIPMENT CONTRACTOR FURNISHED LOW TEMP COLD STORAGE ROOM EVAPORATOR TERMINAL BLOCK, SWITCH, FAN DOOR SWITCH AND COMPRESSOR CONTROL PANEL.
12. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL EMPTY CONDUIT WITH JUNCTION BOXES FOR INSTALLATION OF OWNER SUPPLIED I.T. EQUIPMENT INCLUDING POS/ ELECTRONIC CASH CONTROL SYSTEM. ELECTRICAL DIVISION TO VERIFY INSTALLATION IN ACCORDANCE WITH OWNER'S REQUIREMENTS AND MANUFACTURER'S INSTRUCTIONS.
13. ELECTRICAL DIVISION SHALL FURNISH AND INSTALL DISCONNECTS FOR ALL ELECTRICAL EQUIPMENT UNDER HOOD ACTIVATED BY FIRE SUPPRESSION SYSTEM.

ELECTRICAL SYMBOLS

- DUPLEX RECT., 20-AMP, 120-VOLT, GROUND TYPE, HORIZONTAL MOUNTED
- SIMPLEX RECT., 20-AMP, 120-VOLT, GROUND TYPE, HORIZONTAL MOUNTED
- SPECIAL PURPOSE OUTLET, VOLTAGE AS INDICATED, GROUND TYPE, HORIZONTAL MOUNTED
- (J) JUNCTION BOX, HORIZONTAL MOUNTED
- (E) ELECTRICAL CONDUIT, STUB AS INDICATED FOR DIRECT CONNECTION
- FLOOR/CEILING RECEPTACLE AS INDICATED
- SWITCH
- (J) FIXTURE MOUNTED JUNCTION BOX

ELECTRICAL SYMBOLS

- FIXTURE MOUNTED RECEPTACLE
- (2) DUPLEX RECT., 120-V, EMPTY JBOX WITH CONDUIT INTERCONNECTING P.O.E. PRE-CHECK & PRINTERS, ADD PHONE LINE
- FIXTURE MOUNTED ELECTRICAL PANEL
- (L) INCANDESCENT LIGHT FIXTURE
- F FLUORESCENT LIGHT FIXTURE
- FIELD WIRING RUNS
- (F) FIRE SUPPRESSION MANUAL PULL STATION EMPTY JBOX WITH 15mm CONDUIT RUN IN WALL UP THRU CEILING TO ATTIC SPACE

NOTE

ALL WALL MOUNT ELECTRICAL RECEPTACLE AND J-BOXES ARE TO BE FLUSH MOUNTED IN WALLS WITH NO EXPOSED CONDUIT SHOWING ON SURFACE OF WALLS. ARCHITECT TO PROVIDE MINIMUM WALL FURRING IF REQUIRED.

NOTE "A"

120V, 1 PHASE, SERVICE, 10.0 AMPS, STUB AS NOTED, FOR POS/PRE-CHECK SYSTEM STATIONS. (DEDICATED CIRCUIT, ISOLATED GROUND. ADD PHONE LINE. PROVIDE EMPTY J-BOX WITH CONDUIT FOR INTERCONNECTING POS SYSTEM, PRE-CHECK AND PRINTERS) (VERIFY ALL REQUIREMENTS WITH POS SYSTEM SUPPLIER.)

REVISIONS	DATE
REV 1 UPDATE EQUIP	07-16-13

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MADISON, WISCONSIN

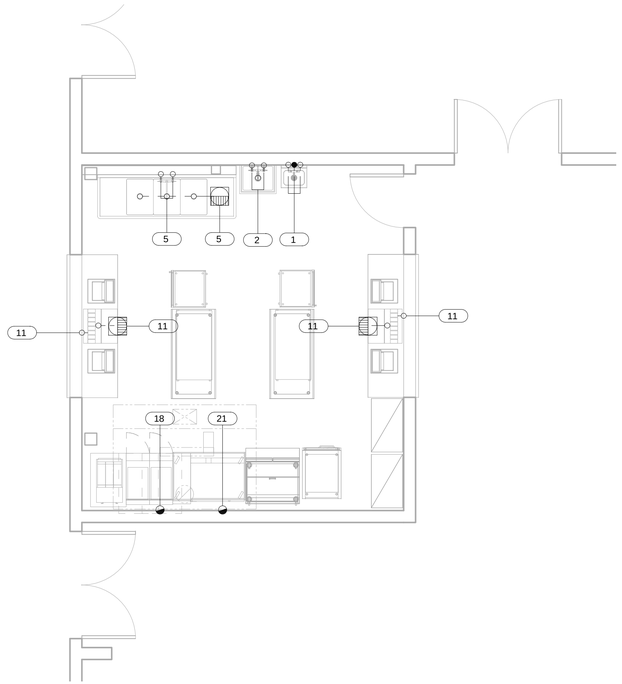
CENTERPLATE

SHEET TITLE:
ELECTRICAL ROUGH-INS PLAN

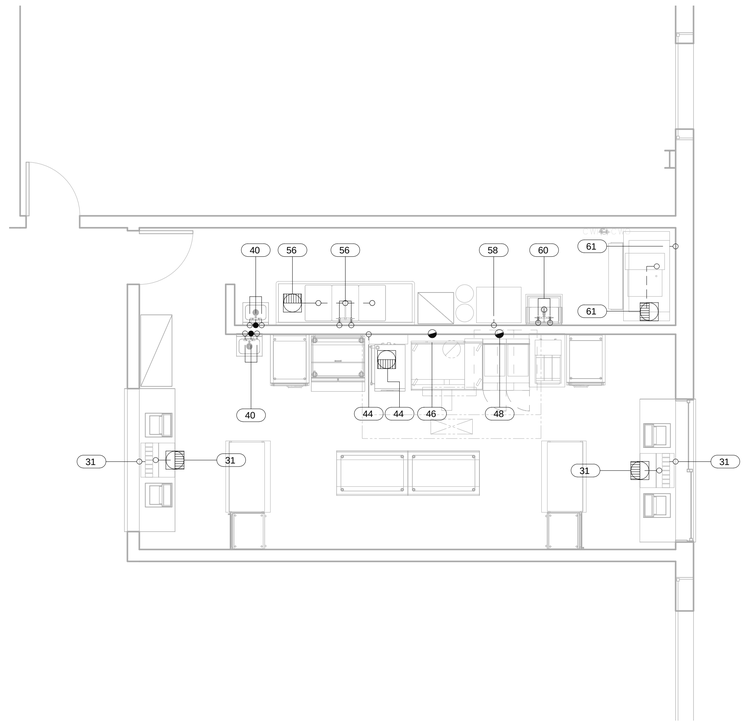
PROJECT NUMBER: 1074
DRAWN BY: Author
CHECKED BY: Checker
DATE: 6/18/13

SHEET NO:
FS2

PLUMBING SCHEDULE														
ITEM	QTY	DESCRIPTION	HW SIZE	AFF	HW GPH	CW SIZE	AFF	WST TYPE	DIA	AFF	PLUMBING COMMENTS	Gas Connection Height	Gas Size	Gas Input
1	1	HANDSINK W/ SOAP & TOWEL DISPENSER	1/2"	16"	5	1/2"	16"		1 1/2"	14"				
2	1	MOP SINK & SERVICE FAUCET	1/2"	36"	40	1/2"	36"		2"					
5	1	3 COMPARTMENT SINK W/FAUCET & LEVER WASTE	1/2"	16"	90	1/2"	16"	FS		14"				
11	2	SODA DISPENSER				1/2"	18"	FS			CW connection for carbonator. Requires soda lines.			
18	2	SOLSTICE FRYER										10 1/2"	3/4"	110.0 Btu/h
21	1	GAS GRIDDLE										30"	3/4"	90.0 Btu/h
31	2	SODA DISPENSER				1/2"	1/2"	FS			CW connection for carbonator. Requires soda lines.			
40	2	HANDSINK	1/2"	16"	5	1/2"	16"		1 1/2"	14"				
44	1	COMBI OVEN				3/4"	48"	FS			Requires filter.			
44.1	1	COMBI OVEN				3/4"	48"	FS			Requires filter.			
44.2	1	COMBI GUARD BWS BLENDED WATER SYSTEM				3/4"	48"							
46	1	GAS GRIDDLE										30"	3/4"	90.0 Btu/h
48	2	SOLSTICE FRYER										10 1/2"	3/4"	110.0 Btu/h
56	1	3 COMPARTMENT SINK W/FAUCET & LEVER WASTE	1/2"	16"	90	1/2"	16"	FS		14"				
58	1	BAG'N'BOX (BY VENDOR)				1/2"					-			
60	1	MOP SINK & SERVICE FAUCET	1/2"	36"	40	1/2"	36"		2"					
61	1	ICE MACHINE				1/2"	0"							
62	1	ICE BIN												
63	1	FILTER FOR ICE MACHINE				1/2"					.375 water inlet & .375 water outlet. Flow rate - 1.67GPM max; pressure - 30 to 125psi			



1 PLUMBING PLAN - 120
1/4" = 1'-0"



2 PLUMBING PLAN - ###
1/4" = 1'-0"

NOTE

ALL WALL MOUNT PLUMBING UTILITIES ARE TO BE FLUSH MOUNTED IN WALLS WITH NO EXPOSED PIPING SHOWING ON SURFACE OF WALLS. ARCHITECT TO PROVIDE MINIMUM WALL FURRING IF REQUIRED.

NOTE

KITCHEN EQUIPMENT CONTRACTOR TO VERIFY AND COORDINATE PROPER LOCATION AND SIZE OF GENERAL CONTRACTOR FURNISHED STRUCTURAL PENETRATIONS AND PLUMBING DIVISION FURNISHED SLEEVES THRU FLOOR.

PLUMBING NOTES

1. PLUMBING PLANS SHOW ROUGH-IN POINTS AND SCHEDULED CONNECTIONS. KITCHEN EQUIPMENT CONTRACTOR WILL PROVIDE DIMENSIONED ROUGH-IN DRAWING FOR CONSTRUCTION.
2. WATER PRESSURE IN FOOD AND BEVERAGE AREAS SHOULD BE 50 PSIG (345 KPa) MAXIMUM. WATER PRESSURE AT DISHMACHINES, BOOSTER HEATERS, GLASS AND UTENSIL WASHERS TO BE 25 PSIG (172 KPa).
3. PLUMBING DIVISION SHALL FURNISH AND INSTALL ALL NECESSARY VALVES, TRAPS, TAIL PIECES, LINE STRAINERS, WATER PRESSURE REDUCING VALVES (SINGLE AND/OR DUAL CHECK VALVES) AND VACUUM BREAKERS AND CONNECT ALL WATER, FUEL GAS, STEAM AND WASTE LINES TO FOOD SERVICE AND BEVERAGE EQUIPMENT.
4. PLUMBING CONTRACTOR TO PROVIDE GAS SERVICES AT EQUIPMENT TO MAINTAIN AN 8" (203MM) WATER COLUMN. KITCHEN EQUIPMENT CONTRACTOR TO PROVIDE GAS PRESSURE REGULATORS WITH VENT LIMITERS AS REQUIRED BY CODE AND A.G.A. FOR INSTALLATION BY PLUMBING DIVISION INLINE BETWEEN BUILDING SERVICES AND EQUIPMENT.
5. PLUMBING DIVISION TO SUPPLY GAS SHUT OFF VALVE AT EACH EQUIPMENT CONNECTION AND INSTALL WITHIN EQUIPMENT SPREADERS OR CHASES FOR EASY ACCESSIBILITY.
6. MECHANICAL ENGINEER TO SIZE GAS ROUGH-IN FOR RANGE BATTERIES; SCHEDULES SHOW LOADS ONLY FOR EACH PIECE NOT THE TOTAL, LOOP GAS SERVICES WHEN PRACTICAL.
7. PLUMBING DIVISION SHALL INSTALL AND CONNECT ALL FAUCETS FURNISHED BY KEC.
8. PLUMBING DIVISION SHALL FURNISH AND INSTALL ALL INDIRECT SINK AND VENTILATOR WASTE LINES TO FLOOR SINKS.
9. PLUMBING DIVISION TO PROVIDE ADEQUATE CLEAN-OUT FOR DRAIN LINES.
10. KITCHEN EQUIPMENT CONTRACTOR SHALL FURNISH AND INSTALL FIRE PROTECTION SYSTEM (INCLUDING FURNISHING SOLENOID SHUTOFF VERIFY LOCATION WITH KEC.
11. FLOOR SINKS SHALL BE INSTALLED FLUSH WITH FINISH FLOOR OR PER LOCAL CODE WITH GRATE COVER AS INDICATED.
12. FLOOR DRAINS INDICATED ARE FOR FOOD AND BEVERAGE AREAS ONLY. ADDITIONAL GENERAL PURPOSE AREA DRAINS SHALL BE LOCATED BY THE PLUMBING ENGINEER/ ARCHITECT.

PLUMBING SYMBOLS

- HW-HOT WATER, OR CW-COLD WATER
- WASTE, DIRECT-CONNECTED UNLESS NOTED "OPEN HUB"
- INDIRECT WASTE
- FLOOR DRAIN
- FLOOR DRAIN WITH FUNNEL
- HUB DRAIN
- DRAIN IN FLOOR RECESS, CONNECT TO GENERAL CONTR. DRAIN PAN
- FLOOR SINK WITH HALF GRATE UNLESS NOTED OTHERWISE
- FLOOR SINK WITH FUNNEL GRATE
- GAS
- GAS PRESSURE REGULATOR/BY KEC
- STEAM SUPPLY
- CONDENSATE RETURN

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PLUMBING
ROUGH-INS PLAN

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FS3