Addendum No. 3

DATE: March 7, 2016

Joliet Junior College
1215 Houbolt Road
Joliet, IL 60431

TO: Prospective Respondents
SUBJECT: Addendum No. 3
PROJECT NAME: Renaissance Center Interior Renovations
JJC PROJECT NO.: B16008

This Addendum forms a part of the Bidding and Contract Documents and modifies the original bidding document as posted on the JJC website. ***Acknowledge receipt of this addendum as instructed on the last page.*** FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

ADDENDA TO THE PROJECT MANUAL:

1. Section 01 21 00 – ALLOWANCES
   - A. **REVISE** paragraph 3.3 – A to increase the allowance amount to $210,000.00. A revised bid form is issued as part of this addendum.

2. Section 01 25 00 – SUBSTITUTION PROCEDURES
   - A. **REVISE** paragraph 1.4 – A – 3 to read "…Architect will notify Contractor of acceptance or rejection of proposed substitution…"

3. Section 01 26 00 – CONTRACT MODIFICATION PROCEDURES
   - A. **REVISE** paragraph 1.3 – A to read "Architect will issue supplemental instructions…"
   - B. **REVISE** paragraph 1.4 – A to read "Owner-Initiated Proposal Requests: Architect will issue a detailed description of proposed changes…"
   - C. **REVISE** paragraph 1.4 – A - 1 to read "Work Change Proposal Requests issued by Architect are not instructions either…"
   - D. **REVISE** paragraph 1.4 – B and 1.6 – A to replace "Construction Manager" with "Architect"
   - E. **REVISE** paragraph 1.7 – A - 1 to eliminate "or Construction Manager".

4. Section 01 33 00 – SUBMITTAL PROCEDURES
   - A. **REPLACE** section in its entirety

5. Section 01 60 00 – PRODUCT REQUIREMENTS
   - A. **REVISE** paragraph 1.4 – A – 2 to eliminate "through Construction Manager"

6. Section 01 73 00 – EXECUTION
   A. **DELETE** all mentions of "Construction Manager" from this section.

7. Section 01 77 00 – CLOSEOUT PROCEDURES
   A. **REPLACE** all mentions of "Construction Manager" with "Architect" in paragraphs 1.6 – B – 4, 1.6 – B – 4 – a, and 1.7- A - 1 .
   B. **DELETE** all mentions of "Construction Manager" in paragraphs 1.6 – D, 1.7 – B, 1.8 – A – 3 – c and 1.8- A – 4 - a .

8. Section 01 78 39 – PROJECT RECORD DOCUMENTS
   A. **DELETE** all mentions of "Construction Manager" from this section.

9. Section 54 00 00 – COLD-FORMED FRAMING
   A. **REVISE** paragraph 2.2 – B – 1 to read "Design Loads: Per building code."

10. Section 06 20 23 – INTERIOR FINISH CARPENTRY
   A. **REPLACE** section in its entirety

11. Section 06 41 16 – PLASTIC-LAMINATE-FACED ARCHITECTURAL CABINETS
   A. **REVISE** paragraph 2.3 – E to change the pull at the bar to "Richelieu; Contemporary Metal Recessed Pull, finish – brushed oil rubbed bronze"
   B. **ADD** paragraph 2.3 – P to read "Pushbutton Lock at Bar Sliding Cabinet Doors: Richelieu; Pushbutton Lock BP140401140"
   C. **ADD** paragraph 2.3 – Q to read "Sliding Door Hardware at Bar Sliding Cabinet Doors: Richelieu; Self Adjusting Trolley System for Med. Cabinet Slide 89101933"

12. Section 08 14 33 – STILE AND RAIL WOOD DOORS
   A. **ADD** paragraph 1.2 – B – 2 to read "Section 06 20 23 "Interior Finish Carpentry" for door, sidelite, and transom frames"
   B. **REVISE** paragraph 2.2 – A – 4 to read "Wood Species and Cut for Transparent Finish: Red Oak, rift cut stiles and rails, rift cut panels."
   C. **DELETE** paragraph 2.2 – A – 6 - b .
   D. **DELETE** paragraph 2.2 – A – 8 .

13. Section 08 41 13 – ALUMINUM FRAMED ENTRANCES AND STOREFRONTS
   A. **REVISE** paragraph 2.1 – B – 1 – b to read "Finish: Clear anodic finish or high-performance organic finish. Refer to drawings for locations of each finish."

14. Section 08 71 00 – DOOR HARDWARE
   A. **REVISE** HARDWARE SET #01 to read as noted below:

FOR USE ON DOOR #(S):
1119.2

EACH TO HAVE:

QTY		*DESCRIPTION*	*CATALOG NUMBER*	*FINISH*	*MFR*
1	*EA*	*CONT. HINGE*	*112HD*	*628*	*IVE*
1	*EA*	*PANIC HARDWARE*	*99-L-NL-06*	*626*	*VON*
1	*EA*	*RIM CYLINDER*	*20-057*	*626*	*SCH*
1	*EA*	*ELECTRIC STRIKE*	*6111 FSE*	*630*	*VON*
1	*EA*	*SURF. AUTO OPERATOR*	*4642 WMS*	*689*	*LCN*

1	*EA*	*ACTUATOR, JAMB MOUNT*	*8310-818T*	*630*	*LCN*
1	*EA*	*FLUSH MOUNT BOX*	*8310-819F*	*689*	*LCN*
1	*EA*	*ACTUATOR, WALL MOUNT*	*8310-853T*	*630*	*LCN*
1	*EA*	*SURFACE MOUNT BOX*	*8310-867S*	*689*	*LCN*
1	*EA*	*WALL STOP*	*WS406/407CVX*	*630*	*IVE*
1	*EA*	*DOOR SWEEP*	*39A*	*A*	*ZER*
1	*EA*	*THRESHOLD*	*566A-MSLA-10*	*A*	*ZER*
			CARD READER BY OTHERS		

**WEATHER SEALS BY ALUMINUM DOOR MANUFACTURER.*
**CARD ACCESS SYSTEM, READER, WIRING AND CONNECTIONS BY SECURITY PROVIDER.*
**CARD READER WILL RELEASE ELECTRIC STRIKE, ALLOWING ACTUATION OF AUTO OPERATOR.*

B. **REVISE** HARDWARE SET #02 to read as noted below:

FOR USE ON DOOR #(S):
1125.2

EACH TO HAVE:

QTY		*DESCRIPTION*	*CATALOG NUMBER*	*FINISH*	*MFR*
1	*EA*	*CONT. HINGE*	*112HD*	*628*	*IVE*
1	*EA*	*PANIC HARDWARE*	*99-L-NL-06*	*626*	*VON*
1	*EA*	*RIM CYLINDER*	*20-057*	*626*	*SCH*
1	*EA*	*ELECTRIC STRIKE*	*6111 FSE*	*630*	*VON*
1	*EA*	*OH STOP*	*100S*	*630*	*GLY*
1	*EA*	*SURF. AUTO OPERATOR*	*4642 WMS*	*689*	*LCN*
2	*EA*	*ACTUATOR, JAMB MOUNT*	*8310-818T*	*630*	*LCN*
1	*EA*	*FLUSH MOUNT BOX*	*8310-819F*	*689*	*LCN*
1	*EA*	*SURFACE MOUNT BOX*	*8310-867S*	*689*	*LCN*
1	*EA*	*DOOR SWEEP*	*39A*	*A*	*ZER*
1	*EA*	*THRESHOLD*	*566A-MSLA-10*	*A*	*ZER*
			CARD READER BY OTHERS		

**WEATHER SEALS BY ALUMINUM DOOR MANUFACTURER.*
**CARD ACCESS SYSTEM, READER, WIRING AND CONNECTIONS BY SECURITY PROVIDER.*
**CARD READER WILL RELEASE ELECTRIC STRIKE, ALLOWING ACTUATION OF AUTO OPERATOR.*

C. **REVISE** HARDWARE SET #04 to read as noted below:

FOR USE ON DOOR #(S):
1125.1

EACH TO HAVE:

QTY		*DESCRIPTION*	*CATALOG NUMBER*	*FINISH*	*MFR*
1	*EA*	*CONT. HINGE*	*112HD*	*628*	*IVE*
1	*EA*	*DUMMY PUSH BAR*	*350-L-DT-06*	*626*	*VON*
1	*EA*	*OH STOP*	*100S*	*630*	*GLY*
1	*EA*	*SURF. AUTO OPERATOR*	*4642 WMS*	*689*	*LCN*
2	*EA*	*ACTUATOR, JAMB MOUNT*	*8310-818T*	*630*	*LCN*

**WEATHER SEALS BY ALUMINUM DOOR MANUFACTURER.*

D. **REVISE** HARDWARE SET #20 to read as noted below:

FOR USE ON DOOR #(S):

1023

EACH TO HAVE:

QTY		*DESCRIPTION*	*CATALOG NUMBER*	*FINISH*	*MFR*
1	*EA*	*STOREROOM LOCK*	*ND80TD RHO*	*626*	*SCH*
1	*EA*	*ELECTRIC STRIKE*	*6211 FSE*	*630*	*VON*
1	*EA*	*SURFACE CLOSER*	*4040XP*	*689*	*LCN*
1	*EA*	*KICK PLATE*	*8400 10" X 2" LDW B-CS*	*630*	*IVE*
1	*EA*	*FLOOR STOP*	*FS438*	*626*	*IVE*
			BALANCE OF HARDWARE BY DOOR MANUFACTURER		
			CARD READER BY OTHERS		

**CARD ACCESS SYSTEM, READER, WIRING AND CONNECTIONS BY SECURITY PROVIDER.*
**ACOUSTICAL DOOR ASSEMBLY.*

E. **REVISE** HARDWARE SET #06:
   1) Eliminate kick plate.

F. **REVISE** HARDWARE SET #07:
   1) Eliminate kick plate.

G. **REVISE** HARDWARE SET #10:
   1) To eliminate door 1034.

H. **REVISE** HARDWARE SET #13:
   1) Eliminate kick plate.

I. **REVISE** HARDWARE SET #14:
   1) Eliminate kick plate.
   2) To include door 1036

J. **REVISE** HARDWARE SET #15:
   1) To eliminate door 1033.

K. **REVISE** HARDWARE SET #18:
   1) Eliminate kick plate

L. **REVISE** HARDWARE SET #19:
   1) To eliminate doors 1032 and 2018.1.

M. **REVISE** HARDWARE SET #24:
   1) To eliminate doors 2111 and 2112.

N. **REVISE** HARDWARE SET #08:
   1) To include door 1032, 1033, 1034, and 2018.1
   2) To read as noted below:

FOR USE ON DOOR #(S):

1031 *1032* *1033*
1034 *2018.1*

EACH TO HAVE:

QTY		*DESCRIPTION*	*CATALOG NUMBER*	*FINISH*	*MFR*
3	*EA*	*HINGE*	*5BB1 4.5 X 4.5*	*652*	*IVE*
1	*EA*	*STOREROOM LOCK*	*ND80TD RHO*	*626*	*SCH*
1	*EA*	*ELECTRIC STRIKE*	*6211 FSE*	*630*	*VON*
1	*EA*	*OH STOP*	*90S*	*630*	*GLY*
1	*EA*	*SURFACE CLOSER*	*4040XP*	*689*	*LCN*
3	*EA*	*SILENCER*	*SR64*	*GRY*	*IVE*
			CARD READER BY OTHERS		

**CARD ACCESS SYSTEM, READER, WIRING AND CONNECTIONS BY SECURITY PROVIDER.*

O. **ADD** HARDWARE SET #26 to read as noted below

FOR USE ON DOOR #(S):
2111 2112

EACH TO HAVE:

QTY		*DESCRIPTION*	*CATALOG NUMBER*	*FINISH*	*MFR*
3	*EA*	*HW HINGE*	*5BB1HW 4.5 X 4.5*	*652*	*IVE*
1	*EA*	*CLASSROOM DEADBOLT*	*B663T*	*626*	*SCH*
1	*EA*	*PUSH PLATE*	*8200 4" X 16"*	*630*	*IVE*
1	*EA*	*PULL PLATE*	*8303 10" 4" X 16"*	*630*	*IVE*
1	*EA*	*SURFACE CLOSER*	*4040XP*	*689*	*LCN*
1	*EA*	*MOP PLATE*	*8400 4" X 1" LDW B-CS*	*630*	*IVE*
1	*EA*	*WALL STOP*	*WS406/407CVX*	*630*	*IVE*
3	*EA*	*SILENCER*	*SR64*	*GRY*	*IVE*

15. Section 08 80 00 – GLAZING
    A. **REVISE** paragraph 2.10 – A – 6 - a to read "Basis-of-Design for Performance: PPG Industries; Solarban 60"
    B. **ADD** paragraph 2.10 – A – 8 to read "Color to match existing building exterior glazing"

16. Section 09 24 00 – PORTLAND CEMENT PLASTERING
    A. **ADD** section in its entirety

17. Section 09 24 23 – PORTLAND CEMENT STUCCO
    A. **REVISE** paragraph 1.3– A – 1 to have the deflection required by L/600.
    B. **ADD** paragraph 1.6 – F to read "Mockup – Build mockup to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for materials and execution. Build mockup for typical exterior wall approximately 36" long by 36" high by full thickness. Approval of mockup is not approval for deviations from the Contract Documents contained in the mockup unless such deviations are specifically approved by the Architect in writing. Approved mockups may become part of the completed Work if undisturbed at time of substantial completion. "
    C. **ADD** paragraph 2.12 – A – 1 to read "Match finish of existing stucco surface"

18. Section 09 26 13 – GYPSUM VENEER PLASTERING
    A. **REPLACE** section in its entirety

19. Section 09 91 23 – INTERIOR PAINTING
    A. **ADD** paragraph 1.8 – Quality Requirements to read:
    "A. Mock Up - Provide paint mock up for review and approval by the architect and owner prior to installation of the following (each area should be large enough to illustrate all accent paint colors contained therein – 2' min to illustrate accent colors, 6'x6' min to illustrate general wall and ceiling colors): **Flex Space** 1029 – Fireplace, Wainscot, General Wall and Soffit Paint/Chair Rail/Window Trim/Rosette. **Atrium**

1035 – Column capitol accent colors, Ceiling & Window Trim colors against general wall color. **Corridor 1123** – Ceiling paint colors, door trim against general wall color. **Flex Space** – Ceiling paint colors."

20. Section 10 11 00 – VISUAL DISPLAY SURFACES
    A. **REVISE** paragraph 2.1 – B to read "Polyester Fabric: Nondirectional weave, 100 percent polyester: weighing not less than 15 oz./sq. yd.; with surface burning characteristics indicated."
    B. **REVISE** paragraph 2.3 – B to read "Fabric Faced Tackboard: Fabric factory laminated to ½ inch-thick fiberboard backing"
    C. **REVISE** paragraph 2.8 – A to read "Visual Display Board (MB-XxX, where X and X are the height and length in feet): Factory assembled."
    D. **REVISE** paragraph 2.8 – B to read "Tackboard (TB-XxX, where X and X are the height and length in feet): Factory assembled."
    E. **REVISE** paragraph 2.8 – B - 1 to read "Tack surface: Fabric-faced tackboard assembly."

21. Section 10 21 13 – TOILET COMPARTMENTS
    A. **REVISE** paragraph 2.2 – B to read "Toilet Enclosure Style: Overhead Braced"
    B. **ADD** paragraph 2.3 – C to read "Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish."
    C. **REVISE** paragraph 2.4 – A to read "Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism."
    D. **ADD** paragraph 3.1 – A - 2 to read "Stirrup Brackets: Secure panels to walls and to pilasters with no fewer than three brackets attached at midpoint and near top and bottom of panel. Locate wall brackets so holes for wall anchors occur in masonry or tile joints. Align brackets at pilasters with brackets at walls."
    E. **REVISE** paragraph 3.1 – B to read "Overhead-Braced Units: Secure pilasters to floor and level, plumb and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than 2 fasteners. Hang doors to align tops of doors with tops of panels and adjust so tops of doors are parallel with overhead brace when doors are in closed position."

22. Section 10 22 38 – OPERABLE PANEL PARTITIONS
    A. **DELETE** paragraph 2.2 – A – 1 – a.

23. Section 11 40 00 – FOOD SERVICE EQUIPMENT
    A. **ADD** the section in its entirety.

24. Section 12 24 13 – ROLLER WINDOW SHADES
    A. **REVISE** paragraph 2.3 – B - 2 to read "Product: Phifer Shearweave, Style SW2400"
    B. **REVISE** paragraph 2.3 – B - 7 to read "Color: Oyster / Pearl Gray."

25. Specification section 23 09 00. **Insert** the following as section 2.15.

CONTROL DAMPERS

A. Rectangular Control Dampers - Standard Construction:

1. Shall be licensed to bear the AMCA Certified Rating Seal.

2. Test leakage and pressure drop per AMCA 500.

3. Frame: Hat-shaped channel, minimum 12 gauge extruded aluminum, and minimum 4" deep. Caulk or weld seams to prevent leakage.

4. Blades: Minimum 12 gauge extruded aluminum airfoil design, minimum 6"150 mm wide, and overlapping blades and blade seals (overlapping blade seals only is unacceptable).

5. Shaft: Non-cylindrical, solid aluminum shaft with opening in blade to match profile of shaft. Shaft shall be securely fastened to the blade and of sufficient length to mount direct-coupled actuator. Damper manufacturer shall provide drive pin extensions and outboard bearing support brackets as required.

6. Bearings: Acetal (Delrin/Celcon) inner bearing fixed to an aluminum shaft, rotating within a polycarbonate outer bearing inserted in the frame. Provide thrust bearings for vertical damper applications.

7. Blade Seals: Extruded silicone gaskets secured in an integral slot within the blade.

8. Side Seals: Stainless steel compression type or extruded silicone gasket secured in an integral slot within the frame.

9. Linkage: Shall be concealed in the frame, constructed of aluminum or corrosion-resistant zinc plated steel, and securely fastened to shaft. Blades linked for opposed operation, unless noted otherwise on the drawings. Blades shall close evenly. Use one direct-coupled actuator per damper section. Jack-shafting is not acceptable.

10. Size Limits: 48" maximum horizontal blade length, 24 square foot2.2 m^2 maximum area per damper. Total cross-sectional area of dampers in ducts shall be at least as large as the duct without the use of blank-off sections.

11. Maximum Leakage: 9 cfm at 1" w.c. pressure differential for a 24" damper.

12. Maximum Pressure Drop for Opposed Blade Damper: 0.15" for 8,000 cfm through a 24"x24" damper.

26. Specification section 23 37 00. **Insert** the following as section 2.3.

ROOF HOODS

1) Hoods shall be constructed of all-welded aluminum.

2) Curb cap shall be of 14 gauge formed aluminum with mitered corners continuously heliarc-welded. Hood shall be of the same material and cross-broken for added strength. Underside of hood shall be coated with insulating mastics.

3) Hoods shall be furnished with aluminum bird screen.

4) Hood and throat shall be reinforced with extruded aluminum angle and have a minimum snow load rating of 30 lbs. per square foot.

5) Size, cfm, finish and pressure drop for hoods shall be as scheduled on the drawings.

6) Inlet area shall be minimum 150% of throat area for intake hoods. Outlet area shall be minimum 125% of throat area for exhaust hoods and relief vents.

7) Hoods shall be furnished with 12" high curb (above top of roof) and be of the size and type as shown on the drawings.

8) Hood shall be furnished with motorized damper unless otherwise noted on the drawings.

9) Acceptable Manufacturers: Ammerman, Carnes, Cook, Greenheck, ILG, Jenco Fan, Penn, Twin City Fan & Blower.

27. Specification section 23 74 11. **Add** the following as section 2.6.

GAS FIRED COIL (DUCT MOUNTED)

1) Gas Burner: 18 gauge stainless steel tubular heat exchanger, forced draft type burner with adjustable combustion air supply, pressure regulator, gas valves, manual shutoff, intermittent spark or glow coil ignition, flame sensing device, and automatic 100 percent shutoff pilot. Electronic modulating gas valve based on external analog input with minimum 4:1 turndown.

2) Gas Burner Safety Controls: Energize ignition, limit time for establishment of flame, prevent opening of gas valve until pilot flame is proven, stop gas flow on ignition failure, energize blower motor, and after airflow proven and slight delay, allow gas valve to open.

3) High Limit Control: Temperature sensor with fixed stop at maximum permissible setting, de-energize burner on excessive bonnet temperature and energize burner when temperature drops to lower safe value.

4) 20 gauge aluminized steel cabinet with 1" thick insulation.

28. Specification section 23 74 11. **Insert** the following as section 2.9B.

A. Provide 120V-1Ph convenience outlet on rooftop unit.

29. Specification section 23 74 13. **Add** specification section 23 74 13 - Centrifugal Fans

30. Specification Section 26 23 29: **Add** this section to project.

31. Specification Section 26 27 26: **Add** the following to Section 2.3

    1) **[REC-TAMP]**: NEMA 5-20R Tamper Resistant Duplex Receptacle:

        1. 125 volt, 20 amp, 3-wire grounding type with impact resistant thermoplastic face.

        2. Approved Manufacturers: Hubbell BR20TR, Leviton TBR20, Pass & Seymour TR5362, Cooper TRBR20.

    2) **[REC-TAMP-QUAD]**: NEMA 5-20R Double Duplex Tamper Resistant Receptacle:

        1. Consists of two duplex tamper resistant receptacles, double gang box, plaster ring and faceplate.

        2. Approved Manufacturers: Refer to Tamper Resistant Receptacle above.

32. Specification Section 28 31 00:

    A. **Add** the following to Section 2.3

        1) **[FA-DSD]:** Duct Smoke Detectors:

            1. Duct-type smoke detectors shall use the same analog photoelectric sensor technology, with the same features specified for standard smoke detectors, except with additional features as specified below.

            2. Provide sampling tubes and mounting hardware to match the duct to which it is attached. Where the detector housing is larger than the duct height, the Contractor shall fabricate a mounting bracket for the detector and attach according to the fire alarm manufacturer's recommendations.

            3. A "W" subscript on the Drawings denotes a weatherproof device is required.

                a. Weatherproof device shall be a conventional device with a unique monitor module. All detectors associated with a single HVAC unit's supply may be served by a single monitor module and all detectors associated with a single HVAC unit's return ductwork may be served by a single monitor module. Monitor modules shall be located on the interior of the building near the location of remote indicators noted on the Drawings.

                b. Detector shall have an operating temperature range of -4° - 158 ° F and humidity range of 0 - 95% non-condensing.

                c. Enclosure shall be NEMA 4 UL listed for outdoor applications.

                d. Acceptable Manufacturers: System Sensor D4120W or equivalent.

    B. **Add** the following to Section 2.6

1) **[FA-DH]**: Door Hold Open Device:

1. Integral with door hardware. Furnished and installed by General Contractor. Fire alarm control and power connections by EC.

C.

33. Specification Section 26 09 33: **Insert** the following as Section 2.3

A. EMERGENCY TRANSFER DEVICE

1) **[SW-GTD]** Emergency Transfer Device - 20 amp circuit rated

1. Provide a UL 924 emergency transfer device where shown on the Drawings for circuits as having operation from normal and emergency sources.

2. The device shall switch the circuit input power between a switched normal lighting circuit and an emergency lighting circuit. An unswitched portion of the normal lighting circuit shall be connected to the device for monitoring. Upon loss of voltage, the device shall switch to the emergency circuit.

3. Device shall be rated for 20 amps and suitable for use on 120-277 volts.

4. Device shall have a NEMA 1 enclosure and be field installed as shown on the Drawings.

5. Acceptable Manufacturers: Bodine GTD20A or approved equal

2) Emergency Transfer Device - Luminaire rated

1. All luminaires noted on the Luminaire Schedule to have an Emergency Transfer Device (GTD) shall be provided with a UL 924 emergency transfer device.

2. The device shall switch the luminaire input power between a switched normal lighting circuit and an emergency lighting circuit. An unswitched portion of the normal lighting circuit shall be connected to the device for monitoring. Upon loss of voltage, the device shall switch to the emergency circuit.

3. Device shall be rated for the ampacity of the luminaire and suitable for use on 120-277 volts.

4. Device shall be factory or field installed integral to the luminaire. If space is not available within the luminaire, the device shall be field installed in an accessible location above the ceiling per manufacturer's requirements.

5. Acceptable Manufacturer: Bodine GTD or approved equal

ADDENDA TO THE DRAWINGS:

1. **Architectural Drawings**

A. **A7.01, A8.01, A8.02, A9.03, A9.04, A9.51, A10.10, A11.11**: **REPLACE** sheets in their entirety with those attached.

B. Sheets AD1.11, AD1.21, AD2.11, AD2.21, AD4.01:
   1) **REVISE** keyed note M6 to read "REMOVE ALL EXISTING KITCHEN CASEWORK AND COUNTERTOPS. OWNER TO REMOVE AND DISCONNECT STOVES AND OVENS. GC TO DISCONNECT UTILITIES AT HOODS AND RETURN EQUIPMENT TO OWNER."
   2) **REVISE** keyed note M13 to read "GC TO DISCONNECT UTILITIES AT WALK-IN FREEZERS AND COOLERS , DISASSEMBLE, AND RETURN EQUIPMENT TO OWNER."
   3) **ADD** General Note 17 to read "The piano in the atrium and the portable cooler and freezer in the second floor bakery will remain in the Renaissance Center during the construction period. Contractor is to protect the items and relocate as required to complete the work."

C. Sheet AD2.11:
   1) **ADD** keyed note C10 to read "REMOVE PROJECTOR, MOUNT, AND MOTORIZED SCREEN. RETURN TO OWNER."
   2) **REVISE** per sketch **AD211-01**

D. Sheet AD2.21:
   1) **ADD** keyed note C11 to read "REMOVE WALL MOUNTED PROJECTION SCREEN. RETURN TO OWNER."
   2) **REVISE** per sketch **AD221-02**

E. Sheet AD0.01:
   1) **REVISE** general note 2. – A. to read "CONCRETE STRUCTURAL SYSTEM. THE SYSTEM MAY BE POST-TENSIONED, CONVENTIONALLY REINFORCED OR PRECAST ELEMENTS. CONTRACTOR IS RESPONSIBLE FOR REMOVING ANY OF THESE SYSTEMS."
   2) **ADD** general note 5. to read "CONTRACTOR IS RESPONSIBLE FOR THE SAFE REMOVAL OF BULDING STRUCTURAL SYSTEM."

F. Sheet A1.11: **REVISE** per attached sketch **A111-01**

G. Sheet A1.21: **REVISE** per attached sketch **A121-01**

H. Sheet A2.21:
   1) **REVISE** per attached sketch **A221-01**
   2) **REVISE** ceiling type 5 to read "ACOUSTICAL PLASTER CEILING SYSTEM ON METAL STUD FRAMING"
   3) **REVISE** ceiling type 6 to read "PLASTER CEILING SYSTEM ON METAL STUD FRAMING"

I. Sheet A4.01: **REVISE** per attached sketch **A401-01**

J. Sheet A6.01 and A7.01: **REVISE** keynote that reads "3 HR FIRE RATED DOOR – N.I.C." TO READ "3 HR FIRE RATED DOOR" in all locations it exists on these sheets

K. Sheet A6.02: **REVISE** per attached sketch **A602-01**

L. Sheet A7.51: **REVISE** per attached sketches **A751-01 and A751-02**
M. Sheet A7.52: **REVISE** per attached sketches **A752-01**
N. Sheet A9.01: **REVISE** per attached sketches **A901-01 and A901-02**
O. Sheet A10.01: **REVISE** per attached sketch **A1001-01**

2. **Structural Drawings**

A. Drawing S1.10: **Add** details 5 Thickened slab at Floor Sink and 6 Trench Drain Detail.

B. Drawing S1.11: **Add** note about floor sink and trench drain coordination to Plan.

C. Drawing S1.12: **Add** note about new RTU and CU locations to plan. **Add** note to Detail 3 about grouting below lintel bearing.

3. **Mechanical Drawings**

A. Drawing MD1.10/MD1.20: **Add** general note. "CONTRACTOR SHALL DISCONNECT ALL KITCHEN EQUIPMENT, (HOODS, OVENS, ETC.) AND TURN OVER TO OWNER. OWNER WILL REMOVE EQUIPMENT FROM SITE."

B. Drawing M1.10: **Modify** return ductwork from RTU-4 to transition from 22x20 from floor above. **Remove** exhaust ductwork from Ice Carving lab 1023. **Modify** diffusers in Ice Carving Lab 1028 to CD-3**. Add** wall switch for RTU-3 mode**.** Refer to M1.10 for additional information.

C. Drawing M1.20: **Modify** return ductwork from RTU-4 to transition to 22x20. **Modify** ductwork from RTU-3 to run in ceiling space of Bridal Room 2018. **Add** MODs as shown on the drawings. **Remove** exhaust ductwork from Ice Carving lab 1023. **Add** RF-1 for RTU-3 return ductwork Refer to M1.20 for additional information.

D. Drawing M1.30: **Modify** location of RTU-3 and associated ductwork. Ductwork shall run in ceiling space of Bridal Room 2018. **Modify** ductwork from RTU-4 as required to access RTU-3 and associated equipment**. Remove** EF-2 on roof. Refer to M1.30 for additional information.

E. Drawing M2.30: **Add** HC-1 and associated gas piping. **Modify** location of RTU-3 and CU-2. Refer to M2.30 for additional information.

F. Drawing M3.01: **Add** Fan support detail as 8/M3.01. Refer to M3.01 for additional information.

G. Drawing M4.00: **Modify** RTU-3 Control Diagram. Refer to M4.00 for additional information.

H. Drawing M5.00: **Add** RF-1 to *Roof Fan* Schedule. **Remove** EF-2 from *Fan* Schedule. **Add** HC-1 to *Coil Schedule.* **Modify** RTU-3 in *Rooftop Unit Schedule.* **Add** CD-3 to *Grilles, Registers & Diffusers Schedule.* **Add** *Motor Operated Damper Schedule*. **Add** RH-1 to *Relief Hood Schedule*. Refer to M5.00 for additional information.

4. **Plumbing Drawings**

A. Drawing PD1.10/PD1.20: **Add** general note. "CONTRACTOR SHALL DISCONNECT ALL KITCHEN EQUIPMENT, (SINKS, ETC.) AND TURN OVER TO OWNER. OWNER WILL REMOVE EQUIPMENT FROM SITE."

B. Drawing P1.00: **Move** two northern floor sinks south of existing tunnel. **Remove** northwest trench drain and associated vent piping. **Modify** northeast trench drain to be 3' long and installed south of tunnel. **Cap** existing sanitary piping in tunnel. **Remove** sanitary piping from DF-2. Refer to P1.00 for additional information

C. Drawing P1.10: **Move** two northern floor sinks south of existing tunnel. **Remove** northwest trench drain and associated vent piping. **Modify** northeast trench drain to be 3' long and installed south of tunnel. **Remove** DF-2. **Modify** piping within Men's 1122 as required to serve new DF-1 on second floor. Refer to P1.10 for additional information

D. Drawing P1.20: **Add** DF-1 to second floor Men's 2111. Tie vent piping into existing riser. Refer for P1.20 for additional Information.

E. Drawing P2.00: **Modify** cw and sanitary piping within Men's 1122 as required to serve new DF-1 on second floor. Refer to P2.00 for additional information

5. **Fire Protection Drawings**

A. Drawing FP1.20 **Add** note and picture to show structure above ballroom ceiling. Refer to FP1.20 for additional information.

6. **Electrical Drawings**

A. Drawing E0.00:
   a. **Revise** Electrical Symbol list.

B. Drawing ED1.00:
   a. **Add** keynote #1 to Existing Panel 'B-4'.

C. Drawing ED1.10:
   a. **Revise** panel note in Coat Room to read: "EXISTING '1-6' PANEL TO BE REMOVED. EXISTING BOX AND FEEDER CONDUIT TO REMAIN." **Revise** attached keynote to #2.
   b. **Revise** General Sheet Note to read: "REMOVE ALL EXISITNG SURFACE MOUNTED CONDUIT, RACHEWAY, AND BOXES IN ATRIUM, ATRIUM CORRIDORS, AND BAR AREAS. PATCH AND REPAIR REMAINING SURFACES TO MATCH SURROUNDING CONDITIONS. EXISTING ITEMS SHOWN FOR REFERENCE. FIELD VERIFY CONDITIONS."
   c. **Revise** keynote #1 to read: "EXTEND CIRCUITS SERVING EXISTING TO REMAIN LOADS (20A/3P #25-27-29) TO NEW PANEL 'R1L1'. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION."

d. **Revise** keynote #2 to read: "EXTEND CIRCUITS SERVING EXISTING TO REMAIN LOADS TO NEW PANEL 'R1L3'. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION."

D. Drawing ED1.20:
   a. **Revise** General Sheet Note to read: "REMOVE ALL EXISITNG SURFACE MOUNTED CONDUIT, RACHEWAY, AND BOXES IN ATRIUM, ATRIUM CORRIDORS, AND BAR AREAS. PATCH AND REPAIR REMAINING SURFACES TO MATCH SURROUNDING CONDITIONS. EXISTING ITEMS SHOWN FOR REFERENCE. FIELD VERIFY CONDITIONS."

E. Drawing ED4.00:
   a. **Revise** 'DP-2'-14 description to read: "EXISTING RTU-3 TO BE REMOVED"
   b. **Revise** 'DP-1'-5 description to read: "EXISTING PANEL 'B-1A/B-1B' TO BE REMOVED"

F. Drawing E1.00:
   a. **Revise** circuit all F3 fixtures tagged with 'NL' to LSC1L1-20.

G. Drawing E1.10:
   a. **Revise** daylighting zone note in Classroom 1030.
   b. **Add** keynotes #7 and #8 to sheet.
   c. **Revise** location of F10 luminaire to center over exterior door. **Add** circuit and keynote #8 to luminaire.
   d. **Add** keynote #7 to vacancy switch in Storage 1033.
   e. **Add** EX2 double face exit sign in Corridor 1116.
   f. **Modify** one (1) single pole switch in Campus Police 1024 to a single pole 3-way switch.
   g. **Modify** circuit of F13 luminaires in Corridor 1116.
   h. **Revise** F6 luminaires to F6A in Flex Space 1037. **Revise** F13 luminaires in entrance coves to F13A. **Revise** location of wall control stations.
   i. **Revise** Sequence of Operation in Custodial Office 1038.

H. Drawing E1.20:
   a. **Revise** Sequence of Operation tag in Bridal Room 2018 to {LS2}.
   b. **Revise** Sequence of Operation tag for Atrium lighting to {LS15}.

I. Drawing E2.00:
   a. **Add** convenience receptacles in basement.
   b. **Add** manual starter to CP-1.

J. Drawing E2.10
   a. **Add** keynotes #13, #14, and #15 to sheet.
   b. **Add** quad receptacle in Flex Space 1029.
   c. **Add** keynote #13 to Panel 'R1L3'.
   d. **Add** keynote #14 to quad receptacles in atrium.
   e. **Add** two (2) quad receptacles in IT 1118. **Add** keynote 15 to devices.
   f. **Revise** circuiting in Ice Carving Lab 1023. **Add** electrical connection for heat tape and freezer receptacles. **Revise** freezer coil circuits.
   g. **Revise** circuit for electrical connection for heat tape in Cold Storage 1040. **Revise** freezer coil circuit.
   h. **Revise** duplex receptacle to quad in Flex Space 1037 and **revise** circuit.

i. **Add** electrical connections for Access Control in Flex Space 1037, Flex Space 1029, and Classroom 1030.

K. Drawing E2.20:
   a. **Add** electrical connection for RF-1 and **add** VFD-3 in Storage 2019.
   b. **Add** electrical connection for Access Control in Ballroom. **Add** keynote #6.
   c. **Add** GFCI receptacle for DF-1 in Bar 2110.

L. Drawing E2.30:
   a. **Remove** electrical connection for EF-2.
   b. **Add** keynote #4 to sheet.
   c. **Add** electrical connection for HC-1. **Add** keynote #4.
   d. **Revise** locations connections for RTU-3 and CU-2 to match Mechanical locations. **Add** keynote #4 to both connections.
   e. **Revise** circuit for receptacle in penthouse.

M. Drawing E4.00:
   a. **Revise** two (2) circuit breakers in 'DP-R0H1' serving two (2) WH-1 to 30A/3P. **Revise** both feeders to 4#10 & 1#10 in ¾" C.
   b. **Revise** 50A/3P Spare to 15A/3P circuit breaker to serve RF-1. Feeder shall be 3#12 and 1#12 GND in ¾" C. **Add** VFD-3 to circuit.
   c. **Add** space for one (1) 100A/3P and one (1) 400A/3P circuit breakers in "DP-R0H1".
   d. **Add** space for two (2) 200A/3P circuit breakers in 'DP-R0L1'.
   e. **Revise** circuit 'DP-R0L1'-11 serving Panel 'R1L1' to 225A/3P circuit breaker. **Revise** feeder to 4#4/0 and 1#4 GND in 2" C.

N. Drawing E6.10:
   a. **Revise** multiple panel schedules.

O. Drawing E6.11:
   a. **Revise** EQR0L1 panel schedule.

7. **Technology Drawings**

A. Drawing T1.00:
   a. **Revised** Telecom cable pathways and associated Keynotes.

B. Drawing T1.10:
   b. **Add** Information Outlets in room 1029.
   c. Remove Card Reader from Door 1037.

C. Drawing T1.20
   a. **Add** Location of existing City Center second floor Telecom Room.

D. Drawing T2.00
   a. **Revise** HC-1 Equipment Room pathways.
   b. **Add** HC-2 Equipment Room Layout.
   c. **Revise** HC-1 Equipment Rack elevation.

CLARIFICATIONS:

1. **This project is a general contractor bid. There is no construction manager.**
2. **This project is not seeking LEED certification.**

OWNER ITEMS:

1. **The general contractor is to make available up to (4) four laborers and a rental moving truck during the week of May 16th to move JJC identified kitchen and furniture items from the Renaissance Center to the main campus on Houbolt Rd. During the week of December 12th (exact time frame may be adjusted) the general contractor is to make available up to (6) six laborers to assist JJC moving bins and furniture from the existing hotel into the new high rise building. The general contractor may be required to provide moving dollies or other associated moving equipment. Any costs associated for this manpower, moving truck, or moving equipment needs will be charged against the allowance.**

2. **During May 16th and 17th, contractor to disconnect all kitchen exhaust hoods. JJC is placing these exhaust hoods on auction, and will be picked-up by the successful auction bidders during May 18th – 20th.**

3. **The piano in the atrium and the portable cooler and freezer in the second floor bakery will remain in the Renaissance Center during the construction period. Contractor is to protect these items and move them around as necessary to complete their work during the course of construction.**

4. **The attached schedule reflects the schedule that was handed out in the prebid meeting and replaces the schedule included within the original bid docs.**

5. **JJC will work with awarded contractor for placement of dumpsters in the parking lot area.**

QUESTIONS SUBMITTED:

1. There is P8 which is listed on the wall finish legend on sheet A11.11 and A11.21 but I cannot locate on the elevations and floor schedule where they are going to use this – it is a specialty paint made my MDC – Liquid pearl. In our paint section there is a finish for concrete floors listed SC – H&C Wet Look but again I do not see any rooms that will be receiving any concrete sealer. Can you please get a clarification on these questions?
   The P-8 is an accent paint at the rosettes at windows in classroom 1030 and Flex Space 1029. There is an enlarged detail of the rosette on 15/A9.52. There are no sealed concrete floors on the project.

2. There is no spec for Acoustical Plaster in Atrium 1035.
   The spec is provided as part of this addendum under section 09 26 13.

3. In spec. section 27 11 00 page 5, section 2.8A States 1'ft Patch cords 100%, Based on drawing T2.00 Equipment Rack Elevation shows wire minders below each patch panel, do we need different length patch cords other than 1'ft? Doesn't seem like 1'ft patch cords will work, should we figure 50% 3' & 50% 5' instead of all 1'ft?
   1' Patch Cords are correct. Refer to revised rack layout.

4. Is the 12 Strand SM Fiber to IT closet 2701 Existing or is this new fiber? This is based on drawing T2.00 connectivity Riser Diagram? If new are we just to figure 300'ft and is this standard fiber or underground type?
   New riser cable. As indicated assume 300'. Contractor to verify prior to installation. Refer to Specification Section 27 13 00 for additional information.

5. What is required for fiber patch cords? The specs do not mention them, would 3 – 1 meter LC to LC and 3 – 2 meter LC to LC work for this?
   Owner provided.

6. In section 27 11 00 Page 3 section 2.4 C, says all ports occupied by jacks, the drawings indicate 48 Port Patch Panel DP48688TGY on drawing T5.00 Technology Material, which is correct? Unloaded Patch Panel with Jacks, or Loaded Patch Panel?
   Provide DP48688TGY as indicated on T5.00.

7. Please confirm if the bid is due at 9 or 9:30 on March 15. The Instructions to Bidders has both times listed.
   Bids will be due in Campus Center building room A3100 at the Joliet Junior College main campus by 9:00am.

8. Please confirm that the food service work is part of our bid. Addendum #2 issued plans for this work. We could not locate specifications. Will specifications be issued for the food service work?
   The specs are provided as part of this addendum

9. Please confirm that the general contractor shall have free use of existing electric, gas, and water and the JJC/others will pay use charges for electric, gas, electric, and water.
   Correct

10. Please confirm that the owner shall pay for all applicable permit fees. If not, who has jurisdiction for permits for this project? Will they waive permit fees?
    There will be no permits issued. Contractor to work with state plumbing inspector and fire marshal. City of Joliet will not be performing inspections.

11. Please confirm the owner shall pay for all applicable utility company facility charges/connection fees.
    Correct

12. Who is responsible to pay for any guard/watchman service for this project?
    Should the contractor desire to have a 'watchman', this cost would be included as part of their bid. JJC does have a campus security officer on site, but will not be responsible for theft or damage.

13. Please clarify the extent of the painting required in the ballroom. What, if any, painting is required at the existing ceiling areas in the ballroom?
    Include 200 sf of plaster patching and repair and 500 sf of painting in the bid to cover the scope in the ballroom. This will cover the keynote 4 scope on A2.21.

14. Please clarify routing of sprinkler piping in the ballroom. Please provide a section detail through the existing ceiling and roof structure at the ballroom.
    The sprinkler piping for the ballroom will need to go from above ceiling in the adjacent Bar 2110 and be routed in the existing wall to get above ceiling in the ballroom. The ballroom ceiling is suspended and supported on wood trusses. Any installer will need to work in the ballroom ceiling supported on the trusses. Refer to revised fire protection sheet FP1.20 for more information and photos of existing structure.

15. Regarding ceiling type 5: there is no spec for the acoustical plaster or any cuts showing the construction of the system. Is there framing, and drywall behind the system? What system do they want?
    The spec is provided as part of this addendum under section 09 26 13. The ceiling system is on metal framing.

16. On sheets A6.01 and A7.01, the 3-hr fire doors leading to the City Center are noted to be not in contract, yet they are on our door schedule to be provided under this contract. Please clarify.
    These doors are in contract. All notes referencing the '3HR RATED FIRE DOOR' should eliminate the "N.I.C." from the note.

17. The operable partitions in rooms 1036 and 1030 are shown to be removed in the demolition drawings, but there is no specification for new partitions, nor floor or ceiling prep. Please clarify.
    New operable partitions are specified under spec section 102238. Ceiling details are shown where the new tracks are to be located. Floor prep will be as required by the manufacturer.

18. If Alt. 1 is not accepted, will the entrances between col. 8 and 9 still be modified as shown?
    Under base bid, the interior vestibule storefront and door(1119.1) should be provided as well as all the scope in the vestibule (the vestibule ceiling, flooring, and walls, etc). The exterior entrance and storefront (door 1119.2 and storefront shown in detail 12/A10.10) will not be provided under base bid. The existing doors that are held open between the hotel and the Renaissance Center will remain under base bid.

19. Will there be lead abatement required under the GC contract when encountered in paint, caulk, etc.?
    Refer to specification section 024119 SELECTIVE STRUCTURE DEMOLITION and specifically paragraph 1.9 – E which addresses lead.

20. Current kitchen is to going to be turned into bridal storage area? Is this correct?

Bridal Room 2018 and Storage 2019 are two different rooms. The existing space that these rooms occupy is an existing kitchen.

21. Dumbwaiter to be taken out and replaced with Elevator and stairs leading down from kitchen will be removed in lieu of elevator. Is this correct?
    Dumbwaiter and stair are to be removed. The space the dumbwaiter occupied will be re-used as shaft space for new ductwork. The stair between the second floor and first floor kitchens will be removed and that area will make up part of the new elevator shaft. Part of the elevator shaft will also require new demo at the second floor framing including removing portions of an existing steel beam. Refer to structural drawings.

22. When you enter Joliet Junior College (red canopy) front entrance building office125 everything will be demolished all the way up to the doors leading into the building where the ball room area is located - right of receptionist area. Is this correct?
    The entire hotel will be demolished under alternate bid #1 including the office space off of the lobby at the first floor entrance.

23. Room 505 located the hotel is where the communications area is currently located with space owned/leased to AT&T. Is this correct? ***Yes*** The equipment wracks -servers in this room will need to be relocated to new area. My assumption is eventually relocated at the new facility when complete. ***Yes refer to 3/T2.00*** Will AT&T continue to be the enterprise service provider in the new location? ***Yes***

24. Section 1.4 DIVISION OF WORK BETWEEN ELECTRICAL AND COMMUNICATIONS CONTRACTORS - Can they be one in the same? We are bidding on electrical work, however, we have extensive experience implementing systems such as DAS and Small Cells therefore communication work is part of our core business. We build head end rooms that include installing and running conduit, racks, cable trays, pull boxes, transformers, raceway etc.
    Yes, contractor may bid both, refer to specifications for qualifications.

25. Just for further clarification there are three dimensions to this the overall project - demolish existing hotel, renovate current renaissance building and build new building to replace what was demolished. Is this correct?
    Not exactly. The project is to renovate the Renaissance Center building and to demolish the existing hotel (under alternate bid #1). There is no 'new building to replace what was demolished.' Refer to civil drawings and specs for how the demolished hotel site is to be handled.

26. Sheet C4.0 indicates that we are to provide granular fill at the location of the hotel. What is the thickness and type of granular fill required?
    Provide fill in accordance with the requirements in spec section 321123. The depth of the fill should be 12".

27. Please provide a concrete specification.
    Concrete specifications are listed on sheet S0.00

28. Sheet AD0.01 Hotel General Notes #2 indicates that the foundations are to be "turned in". Please clarify. Are we supposed to remove the foundations in their entirety or partial removal? Or are we to leave them in place.
Remove foundation walls down to 18" below the low point of the existing grade around the hotel building. The remaining foundation walls and footings can remain

29. How many original copies of the bid are we to provide?
One original copy of the bid is sufficient

End of Addendum #3

Attachments:

1. BID FORM

2. PROJECT SCHEDULE

3. SPECIFICATION SECTIONS: 013300, 062023, 092400, 092613, 114000, 233416, 262923

4. DRAWINGS:
   A. Architectural: A7.01, A8.01, A8.02, A9.03, A9.04, A9.51, A10.10, A11.11
   B. Structural: S1.10, S1.11, S1.12
   C. Mechanical: M1.10, M1.20, M1.30, M2.30, M3.01, M4.00, M5.00
   D. Plumbing: P1.00, P1.10, P1.20, P2.00
   E. Fire Protection: FP1.20
   F. Electrical: E0.00, E1.10, E2.00, E2.10, E2.20, E2.30, E6.10, E6.11
   G. Technology: T1.00, T1.10, T1.20, T2.00

5. SKETCHES:
   A. Architectural: A111-01, A121-01, A221-01, A401-01, A602-01, A751-01, A751-02, A901-01, A901-02, A1001-01, AD211-01, AD221-01

DATE: March 7, 2016

TO:	Prospective Respondents
SUBJECT:	Addendum No. 3
PROJECT NAME:	Renaissance Center Interior Renovations
JJC PROJECT NO.:	B16008

This Addendum forms a part of the Bidding and Contract Documents and modifies the original bidding document as posted on the JJC website. ***Acknowledge receipt of this addendum as instructed on the last page.*** FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

Issued by:

Janice Reedus
Director of Business & Auxiliary Services
Joliet Junior College
815.280.6643

I acknowledge receipt of Addendum #3

_____
Company Name

_____
Printed Name

_____
Title

_____
Signature

EXECUTE AND ATTACH TO PROPOSAL FORM

JOLIET JUNIOR COLLEGE – REQUEST FOR BID

DRAWINGS ARE AVAILABLE ON THE FOLLOWING WEBSITE:
WWW.JJC.EDU/INFO/PURCHASING

BID FORM

To: Joliet Junior College
1215 Houbolt Road
Joliet, IL 60431-8938

Project: _____

Date: _____

Submitted by:

_____
(Full Name)

_____
(Address)

_____
(City, State, Zip)

_____
(Phone) (Fax) (Email)

PART 1 OFFER

Having examined the site and having familiarized itself with the conditions affecting the cost of the work associated with the _____, and with the bidding documents, Bidder herby proposes to perform everything required and to furnish all labor, materials, necessary tools, expendable equipment and transportation services necessary to complete in a workmanlike manner the subdivision of work stated above in accordance with the bidding documents for the following sums:

Total Base Bid with Allowance:

_____

Dollars($_____)
Write amount in both alpha and numeric, in case of discrepancy the lesser amount shown will govern.

Alternate Bid #1 - Phase 3 (Hotel Demo, Site Work, Exterior Improvements):

_____

Dollars($_____)
Write amount in both alpha and numeric, in case of discrepancy the lesser amount shown will govern.

We have included herewith, the Security Deposit as required by the Instructions to Bidders.

Base Bid Breakdown:

Insurance:	$
Bonding:	$
General Conditions:	$
Demolition:	$
Carpentry:	$
Painting:	$
Flooring:	$
Glazing:	$
Finishes:	$
Mechanical:	$
Delta BAS:	$
Electrical:	$
Plumbing:	$
Fire Protection:	$
Other_____:	$
Other_____:	$
Other_____:	$
Other_____:	$
Other_____:	$
Other_____:	$
Allowance:	$ 210,000.00
OH&P:	
Total Base Bid:	$

Unit Pricing:
Provide unit pricing for one square foot, installed, ½" thick, cementitious underlayment.

ITEM	DESCRIPTION	UNIT PRICE
1	Unit Pricing Per Sq. Ft. at Existing Pavers	$_____/sq. ft.
2	Unit Pricing Per Sq. Ft. at Wood Surface	$_____/sq. ft.
3	Unit Pricing Per Sq. Ft. at Concrete Surface	$_____/sq. ft.

PART 2 ACCEPTANCE

This offer shall be open to acceptance and is irrevocable for thirty (30) days from the Bid closing date.

If the bid is accepted by the Owner within the time period stated above, we will:

A. Execute the Agreement within ten (10) days of receipt of Notice of Award.

B. Furnish the required bonds within ten (10) days of receipt of Notice of Award in the form described in the Instruction to Bidders.

C. Furnish the required Certificate of Insurance within ten (10) days of receipt of Notice of Award in the form and amounts described in the

Instruction to Bidders.

D. Commence work as established by the written Notice to Proceed.

If this Bid is accepted within the time stated, and we fail to commence the Work or we fail to provide the required Bonds(s), the Security Deposit shall be forfeited as damages to the Owner by reason of our failures.

In the event our Bid is not accepted within the time stated above, the required security deposit shall be returned to the undersigned, in accordance with the provisions of the Instructions to Bidders; unless a mutually satisfactory arrangement is made for its retention and validity for an extended period of time.

PART 3 CONTRACT TIME

If the Bid is accepted, we will:

A. Complete the work in manner consistent to meet the requirements of the schedule (_____) consecutive calendar days from the date established as the Date of Commencement in the Notice to Proceed.

B. Contractor has examined the Schedule included in these documents and takes no exception, or records the following exceptions:

_____

_____

_____

PART 4 CONTRACTOR'S FEES FOR CHANGES IN THE WORK

Lump Sum of Time and Materials Changes: We the undersigned bidder agree that the following percentages for overhead and profit shall be added to job costs for the net amount of work added to or deleted from the contract by written lump sum or time and material change orders recommended by the Engineer and approved by the Owner:

Add to net extra for job costs for additional work performed by:

Our own forces 12%
Our subcontractor 5% (including assigned subcontractors)

Note: Insurance, bond, and taxes are considered as job cost items and are not included in the percentages listed above.

PART 5 ADDENDA

The following Addenda have been received. The modifications to the Bid

Documents noted therein have been considered and all costs thereto are included in the Bid Sum.

Addendum # _____ Dated _____

Addendum # _____ Dated _____

Addendum # _____ Dated _____

PART 6 SUBCONTRACTORS

A. The following work will be performed (or provided) by the Subcontractors we have indicated below:

	Name of Subcontractor	Work Performed
1.	_____	_____
2.	_____	_____
3.	_____	_____
4.	_____	_____

B. We understand, and hereby agree, that we are obligated to use the indicated subcontractors, unless prior written permission to change has been obtained from the Owner.

PART 7 RELATED WORK EXPERIENCE

List a minimum of three jobs of similar type and scope performed in the last five years:

1. Client: _____

   Building: _____

   Phone: _____

   Contact Name: _____

   Dollar Amount: _____

2. Client: _____

   Building: _____

Phone:_____

Contact Name:_____

Dollar Amount:_____

3. Client:_____

Building:_____

Phone:_____

Contact Name:_____

Dollar Amount:_____

PART 8 BID FORM ADDITION

Apprenticeship and Training Certification

In accordance with the Illinois Procurement Code, the Bidder certifies that the work to be performed by it and/or its subcontractors shall, at the time of such bid opening and at the time of the performance of work pursuant to the terms of this Contract, shall have participated in the approved apprenticeship and training programs as provided for above. The bidder shall list, in the space below, the official name of the program sponsor holding the certificate of registration or all types of work or crafts in which the bidder is a participant and that will be performed by the bidder and its sub-contractor's employees. Work that will be sub-contracted shall be indicated to be subcontracted work as provided for herein. **Failure to list required information may result in disqualification of bid.**

_____

_____

_____

_____

_____

_____

_____

_____

PART 9 CONTRACTOR EVALUATION

Upon completion of the project, a Construction Contractor Performance Evaluation form will be completed by the A/E and the JJC Project Coordinator. The contractor will be evaluated in the following categories:

- Professionally Administered and Supervised Work
- Business Practices
- Overall Performance
- Workmanship
- Timeliness
- Project Management

PART 10 BID FORM SIGNATURES(S)

The Corporate Seal of:

_____

(Bidder – please print the full name of your Proprietorship, Partnership, or Corporation)

Was hereunto affixed in the presence of:

_____ _____

(Authorized signing officer) (Title)

(Seal)

_____ _____

(Authorized signing officer) (Title)

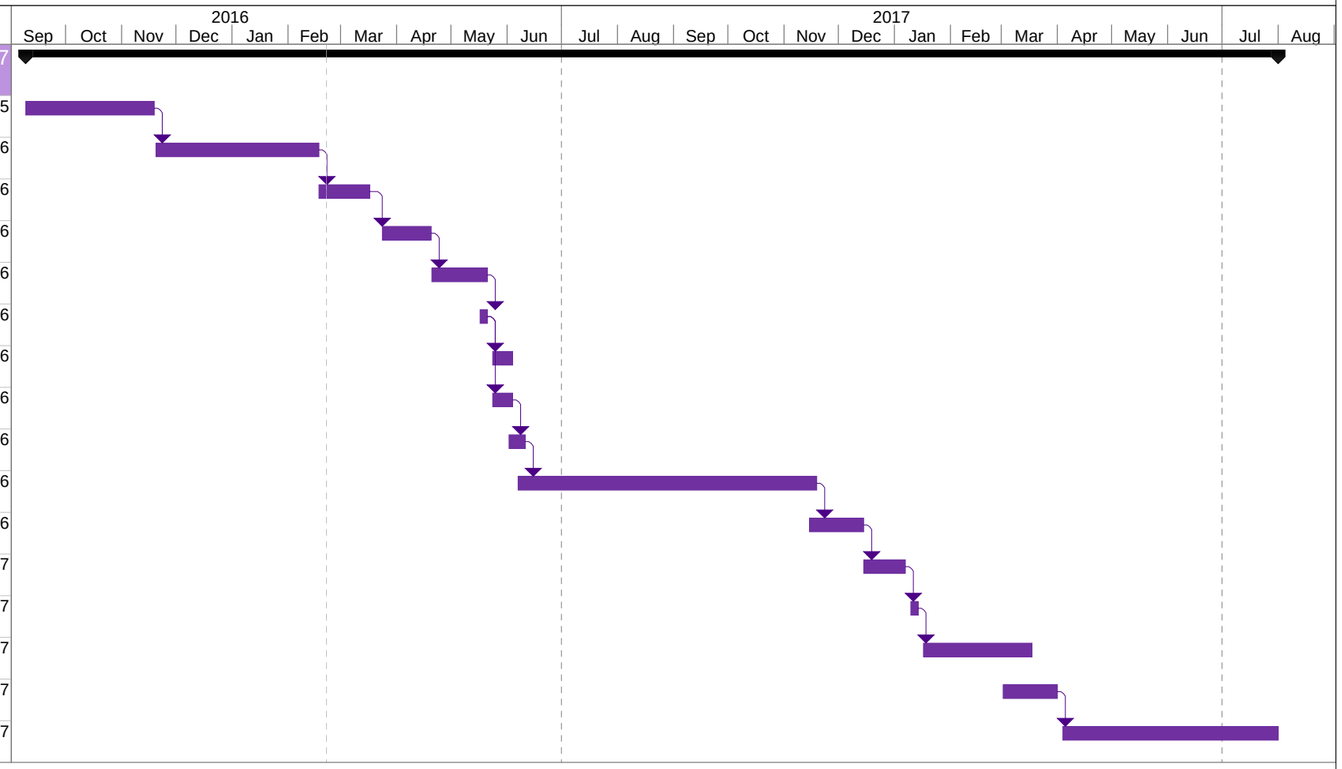
If the bid is a joint venture or partnership, add additional forms of execution for each member of the joint venture in the appropriate form or forms as above.

END OF SECTION

JOLIET JUNIOR COLLEGE
1901

Construction and Facility Planning
Renaissance Center Renovation - Construction Schedule
Mon 2/22/16

ID	Task Name	Duration	Start	Finish
1	JJC - Renaissance Center Remodeling Project - Construction Schedule	489.94 days	Wed 9/9/15	Mon 7/31/17
2	Design Development	51 days	Tue 9/8/15	Wed 11/18/15
3	Construction Documents	60 days	Thu 11/19/15	Wed 2/17/16
4	Bidding	20 days	Wed 2/17/16	Wed 3/16/16
5	JJC Review / Award	19 days	Wed 3/23/16	Tue 4/19/16
6	Contracts / Submittals/Procurement	22.81 days	Wed 4/20/16	Fri 5/20/16
7	JJC Decommisioning	4 days	Mon 5/16/16	Fri 5/20/16
8	Renaissance Center - Abatement Phase 1	9 days	Mon 5/23/16	Fri 6/3/16
9	Install Conduit in High Rise for Renaissance Center	9 days	Mon 5/23/16	Fri 6/3/16
10	Installation of Ice Carving/Cold Storage Refrigeration Curb/Piping at High Rise	7 days	Wed 6/1/16	Fri 6/10/16
11	Renaissance Center - Construction - Phase 1 (Interior Renovation)	119 days	Mon 6/6/16	Fri 11/18/16
12	FFE / AV Installation	22 days	Mon 11/14/16	Wed 12/14/16
13	JJC Move In	17 days	Wed 12/14/16	Fri 1/6/17
14	Renaissance Center - Abatement Phase 2 (Restrooms/Elevator Room/Lobby)	4 days	Mon 1/9/17	Fri 1/13/17
15	Renaissance Center - Construction - Phase 2 (Restrooms)	44 days	Mon 1/16/17	Fri 3/17/17
16	Hotel Abatement	22 days	Wed 3/1/17	Fri 3/31/17
17	Construction - Phase 3 (Hotel Demolition and Exterior Improvements)	85 days	Mon 4/3/17	Mon 7/31/17



Project: Renaissance Center Remodel
Date: Mon 2/22/16

Task	Rolled Up Progress	Inactive Milestone	Manual Summary	Progress
Milestone	Split	Inactive Summary	Start-only	Deadline
Summary	External Tasks	Manual Task	Finish-only	
Rolled Up Task	Project Summary	Duration-only	External Tasks	
Rolled Up Milestone	Group By Summary	Manual Summary Rollup	External Milestone	

SECTION 01 33 00 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.

B. Related Requirements:

1. Section 01 78 23 "Operation and Maintenance Data" for submitting operation and maintenance manuals.
2. Section 01 78 39 "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
3. Section 01 79 00 "Demonstration and Training" for submitting video recordings of demonstration of equipment and training of Owner's personnel.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information and physical samples that require Architect's responsive action. Action submittals are those submittals indicated in individual Specification Sections as "action submittals."

B. Informational Submittals: Written and graphic information and physical samples that do not require Architect's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as "informational submittals."

C. File Transfer Protocol (FTP): Communications protocol that enables transfer of files to and from another computer over a network and that serves as the basis for standard Internet protocols. An FTP site is a portion of a network located outside of network firewalls within which internal and external users are able to access files.

D. Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

A. Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time

required for making corrections or revisions to submittals noted by Architect and additional time for handling and reviewing submittals required by those corrections.

1. Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
2. Initial Submittal: Submit concurrently with startup construction schedule. Include submittals required during the first 60 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
3. Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.

    a. Submit revised submittal schedule to reflect changes in current status and timing for submittals.

4. Format: Arrange the following information in a tabular format:

    a. Scheduled date for first submittal.
    b. Specification Section number and title.
    c. Submittal category: Action; informational.
    d. Name of subcontractor.
    e. Description of the Work covered.
    f. Scheduled date for Architect's final release or approval.
    g. Scheduled date of fabrication.
    h. Scheduled dates for purchasing.
    i. Scheduled dates for installation.
    j. Activity or event number.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A. Architect's Digital Data Files: Electronic digital data files of the Contract Drawings will be provided by Architect for Contractor's use in preparing submittals.

1. Architect will furnish Contractor one set of digital data drawing files of the Contract Drawings for use in preparing Shop Drawings and Project record drawings.

    a. Architect makes no representations as to the accuracy or completeness of digital data drawing files as they relate to the Contract Drawings.
    b. Digital Drawing Software Program: The Contract Drawings are available in Autodesk Revit 2014.
    c. Contractor shall execute a data licensing agreement in the form of Agreement form acceptable to Owner and Architect.
    d. .
    e. The following digital data files will by furnished for each appropriate discipline:

        1) Floor plans.
        2) Reflected ceiling plans.

B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
3. Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
4. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

    a. Architect reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

C. Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect'sreceipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

1. Initial Review: Allow 15 days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architectwill advise Contractor when a submittal being processed must be delayed for coordination.
2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
3. Resubmittal Review: Allow 15 days for review of each resubmittal.
4. Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow 21 days for initial review of each submittal.

    a. Architectural Precast Panels will require an extended review period, sa multiple trades must coordinate type, location, and quantity of embedded junction boxes; and size and routing of embedded conduit.

5. Concurrent Consultant Review: Where the Contract Documents indicate that submittals may be transmitted simultaneously to Architect and to Architect's consultants, allow 15 days for review of each submittal.

D. Electronic Submittals: Identify and incorporate information in each electronic submittal file as follows:

1. Assemble complete submittal package into a single indexed file incorporating submittal requirements of a single Specification Section and transmittal form with links enabling navigation to each item.
2. Name file with submittal number or other unique identifier, including revision identifier.

    a. File name shall use project identifier and Specification Section number followed by a decimal point and then a sequential number (e.g., LNHS-061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., LNHS-061000.01.A).

3. Provide means for insertion to permanently record Contractor's review and approval markings and action taken by Architect.

4. Transmittal Form for Electronic Submittals: Use software-generated form from electronic project management software electronic form acceptable to Owner, containing the following information:

    a. Project name.
    b. Date.
    c. Name and address of Architect.
    d. Name of Contractor.
    e. Name of firm or entity that prepared submittal.
    f. Names of subcontractor, manufacturer, and supplier.
    g. Category and type of submittal.
    h. Submittal purpose and description.
    i. Specification Section number and title.
    j. Specification paragraph number or drawing designation and generic name for each of multiple items.
    k. Drawing number and detail references, as appropriate.
    l. Location(s) where product is to be installed, as appropriate.
    m. Related physical samples submitted directly.
    n. Indication of full or partial submittal.
    o. Transmittal number[, numbered consecutively].
    p. Submittal and transmittal distribution record.
    q. Other necessary identification.
    r. Remarks.

E. Options: Identify options requiring selection by Architect.

F. Deviations and Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Architect on previous submittals, and deviations from requirements in the Contract Documents, including minor variations and limitations. Include same identification information as related submittal.

G. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.

1. Note date and content of previous submittal.
2. Note date and content of revision in label or title block and clearly indicate extent of revision.
3. Resubmit submittals until they are marked with approval notation from Architect's action stamp.

H. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

I. Use for Construction: Retain complete copies of submittals on Project site. Use only final action submittals that are marked with approval notation from Architect's action stamp.

PART 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A. General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

1. Post electronic submittals as PDF electronic files directly to Project Web site specifically established for Project.

a. Architect will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.

2. Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

a. Provide a notarized statement on original paper copy certificates and certifications where indicated.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

a. Manufacturer's catalog cuts.
b. Manufacturer's product specifications.
c. Standard color charts.
d. Statement of compliance with specified referenced standards.
e. Testing by recognized testing agency.
f. Application of testing agency labels and seals.
g. Notation of coordination requirements.
h. Availability and delivery time information.

4. For equipment, include the following in addition to the above, as applicable:

a. Wiring diagrams showing factory-installed wiring.
b. Printed performance curves.
c. Operational range diagrams.
d. Clearances required to other construction, if not indicated on accompanying Shop Drawings.

5. Submit Product Data before or concurrent with Samples.
6. Submit Product Data in the following format:

a. PDF electronic file.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:

a. Identification of products.
b. Schedules.
c. Compliance with specified standards.
d. Notation of coordination requirements.
e. Notation of dimensions established by field measurement.
f. Relationship and attachment to adjoining construction clearly indicated.
g. Seal and signature of professional engineer if specified.

2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches, but no larger than 30 by 42 inches.
3. Submit Shop Drawings in the following format:

a. PDF electronic file.

4. BIM File Incorporation: Develop and incorporate Shop Drawing files into Building Information Model established for Project.

a. Prepare Shop Drawings in the following format: Same digital data software program, version, and operating system as the original Drawings.

D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.

1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
2. Identification: Attach label on unexposed side of Samples that includes the following:

a. Generic description of Sample.
b. Product name and name of manufacturer.
c. Sample source.
d. Number and title of applicable Specification Section.
e. Specification paragraph number and generic name of each item.

3. For projects where electronic submittals are required, provide corresponding electronic submittal of Sample transmittal, digital image file illustrating Sample characteristics, and identification information for record.
4. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

a. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

5. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.

   a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.

6. Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.

   a. Number of Samples: Submit at least three sets of Samples. Architect will retain two Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a project record sample.

      1) Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
      2) If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three sets of paired units that show approximate limits of variations.

E. Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product indicated in the Contract Documents or assigned by Contractor if none is indicated.
2. Manufacturer and product name, and model number if applicable.
3. Number and name of room or space.
4. Location within room or space.
5. Submit product schedule in the following format:

   a. PDF electronic file.

F. Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Section 01 77 00 "Closeout Procedures."

G. Maintenance Data: Comply with requirements specified in Section 01 78 23 "Operation and Maintenance Data."

H. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of architects and owners, and other information specified.

I. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on AWS forms. Include names of firms and personnel certified.

J. Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.

K. Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.

L. Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.

M. Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.

N. Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.

O. Product Test Reports: Submit written reports indicating that current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

P. Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

1. Name of evaluation organization.
2. Date of evaluation.
3. Time period when report is in effect.
4. Product and manufacturers' names.
5. Description of product.
6. Test procedures and results.
7. Limitations of use.

Q. Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

R. Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

S. Field Test Reports: Submit written reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

T. Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

2.2 DELEGATED-DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.

B. Delegated-Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF electronic file paper copies of certificate, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

C. BIM File Incorporation: Incorporate delegated-design drawing and data files into Building Information Model established for Project.

1. Prepare delegated-design drawings in the following format: Same digital data software program, version, and operating system as the original Drawings.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.

B. Project Closeout and Maintenance Material Submittals: See requirements in Section 01 77 00 "Closeout Procedures."

C. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of

reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 ARCHITECT'S ACTION

A. Action Submittals: Architect will review each submittal, make marks to indicate corrections or revisions required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.

B. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.

C. Partial submittals prepared for a portion of the Work will be reviewed when use of partial submittals has received prior approval from Architect.

D. Incomplete submittals are unacceptable, will be considered nonresponsive, and will be returned for resubmittal without review.

E. Submittals not required by the Contract Documents may be returned by the Architect without action.

END OF SECTION 01 33 00

SECTION 06 20 23 - INTERIOR FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Interior trim, including non-fire-rated interior door and sidelight frames.
2. Interior board paneling.

B. Related Requirements:

1. Section 06 10 53 " Miscellaneous Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.
2. Section 09 91 23 "Interior Painting" for priming and backpriming of interior finish carpentry.

1.3 ACTION SUBMITTALS

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

1. Include data for wood-preservative treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained. Include chemical-treatment manufacturer's written instructions for finishing treated material.
2. Include data for fire-retardant treatment from chemical-treatment manufacturer and certification by treating plant that treated materials comply with requirements.
3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced before shipment to Project site to levels specified.
4. Include copies of warranties from chemical-treatment manufacturers for each type of treatment.

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

C. Samples for Verification:

1. For each species and cut of lumber and panel products with non-factory-applied finish, with 1/2 of exposed surface finished, 50 sq. in. for lumber and 8 by 10

inches for panels.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Stack lumber, plywood, and other panels flat with spacers between each bundle to provide air circulation. Protect materials from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

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

1.5 FIELD CONDITIONS

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

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

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

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

A. Lumber: DOC PS 20 and the following grading rules:

1. NeLMA: Northeastern Lumber Manufacturers' Association, "Standard Grading Rules for Northeastern Lumber."
2. NHLA: National Hardwood Lumber Association, "Rules for the Measurement and Inspection of Hardwood & Cypress."
3. NLGA: National Lumber Grades Authority, "Standard Grading Rules for Canadian Lumber."
4. SPIB: The Southern Pine Inspection Bureau, "Standard Grading Rules for Southern Pine Lumber."
5. WCLIB: West Coast Lumber Inspection Bureau, Standard No. 17, "Grading Rules for West Coast Lumber."
6. WWPA: Western Wood Products Association, "Western Lumber Grading Rules."

B. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.

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

C. Softwood Plywood: DOC PS 1.

D. Hardboard: AHA A135.4.

2.2 INTERIOR TRIM

A. Hardwood Lumber Trim for Transparent Finish (Stain or Clear Finish): For use at wood door frames.

1. Species and Grade: Red oak (rift cut); Clear; NHLA.
2. Maximum Moisture Content: 10 percent.
3. Finger Jointing: Not allowed.
4. Gluing for Width: Not allowed, unless joint will be concealed.
5. Veneered Material: Not allowed.
6. Face Surface: Surfaced (smooth).
7. Matching: Selected for compatible grain and color.

B. Moldings for Opaque Finish (Painted Finish):

1. Hardwood Moldings: WMMPA HWM 2, P-grade.

a. Species: Aspen, basswood, cottonwood, gum, magnolia, soft maple, tupelo, or yellow poplar.
b. Maximum Moisture Content: 9 percent.

2. Optional Material: Primed MDF.
3. Finger Jointing: Allowed.
4. Profiles: As indicated on Drawings.

C. Solid Wood at Bar: Plain-sliced red oak.

2.3 PANELING

A. Hardwood Veneer Plywood Paneling at Bar: hardwood plywood panels complying with HPVA HP-1.

1. Face Veneer Species and Cut: Plain-sliced red oak.
2. Veneer Matching: Selected for similar color and grain.
3. Backing Veneer Species: Same species as face veneer where exposed to view, otherwise any hardwood compatible with face species.
4. Construction: Veneer core.
5. Glue Bond: Type II (interior).
6. Finish: Stained to match Architect's samples.

2.4 MISCELLANEOUS MATERIALS

A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of

type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.

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

C. Multipurpose Construction Adhesive: Formulation complying with ASTM D 3498 that is recommended for indicated use by adhesive manufacturer.

2.5 FABRICATION

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

1. Interior standing and running trim except shoe and crown molds.
2. Wood-board paneling.

B. Ease edges of lumber less than 1 inch in nominal thickness to 1/16-inch radius and edges of lumber 1 inch or more in nominal thickness to 1/8-inch radius.

PART 3 - EXECUTION

3.1 EXAMINATION

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

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

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

3.2 PREPARATION

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

B. Before installing interior finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours unless longer conditioning is recommended by manufacturer.

3.3 INSTALLATION, GENERAL

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

B. Install interior finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.

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

3.4 STANDING AND RUNNING TRIM INSTALLATION

A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than 24 inches long, except where necessary. Stagger joints in adjacent and related standing and running trim. Miter at returns, miter at outside corners, and cope at inside corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints where necessary for alignment.

1. Match color and grain pattern of trim for transparent finish (stain or clear finish) across joints.
2. Install trim after gypsum-board joint finishing operations are completed.
3. Install without splitting; drill pilot holes before fastening where necessary to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

3.5 PANELING INSTALLATION

A. Hardboard Paneling: Install according to manufacturer's written recommendations. Leave 1/4-inch gap to be covered with trim at top, bottom, and openings. Butt adjacent panels with moderate contact. Use fasteners with prefinished heads matching paneling color.

1. Wood Stud or Furring Substrate: Install with 1-inch annular-ring shank hardboard nails.
2. Plaster or Gypsum-Board Substrate: Install with 1-5/8-inch annular-ring shank hardboard nails.
3. Nailing: Space nails 4 inches o.c. at panel perimeter and 8 inches o.c. at intermediate supports unless otherwise required by manufacturer.

3.6 ADJUSTING

A. Replace interior finish carpentry that is damaged or does not comply with requirements. Interior finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

3.7 CLEANING

A. Clean interior finish carpentry on exposed and semiexposed surfaces. Restore damaged or soiled areas and touch up factory-applied finishes, if any.

3.8 PROTECTION

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

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

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

END OF SECTION 06 20 23

SECTION 09 24 00 - PORTLAND CEMENT PLASTERING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Interior portland cement plasterwork on metal lath.

B. Related Sections:

1. Section 09 22 16 "Non-Structural Metal Framing" for non-structural framing and suspension systems that support lath and portland cement plaster.
2. Section 09 26 13 "Gypsum Veneer Plastering" for acoustic gypsum-based veneer plaster applied on gypsum base for veneer plaster, unit masonry, and monolithic concrete.

1.3 ACTION SUBMITTALS

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

B. Shop Drawings: Show locations and installation of control and expansion joints including plans, elevations, sections, details of components, and attachments to other work.

C. Samples for Initial Selection: For each type of factory-prepared finish coat indicated.

D. Samples for Verification: For each type of factory-prepared, colored, and textured finish coat indicated; 12 by 12 inches, and prepared on rigid backing.

1.4 QUALITY ASSURANCE

A. Sound-Transmission Characteristics: Where indicated, provide portland cement plaster assemblies identical to those of assemblies tested for STC ratings per ASTM E 90 and classified according to ASTM E 413 by a qualified testing agency.

B. Mockups: Before plastering, install mockups of at least 100 sq. ft. in surface area to demonstrate aesthetic effects and set quality standards for materials and execution.

1. Install mockups for each type of finish indicated.
2. For interior plasterwork, simulate finished lighting conditions for review of mockups.
3. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

1.6 PROJECT CONDITIONS

A. Comply with ASTM C 926 requirements.

B. Interior Plasterwork: Maintain room temperatures at greater than 40 deg F for at least 48 hours before plaster application, and continuously during and after application.

1. Avoid conditions that result in plaster drying out during curing period. Distribute heat evenly; prevent concentrated or uneven heat on plaster.
2. Ventilate building spaces as required to remove water in excess of that required for hydrating plaster in a manner that prevents drafts of air from contacting surfaces during plaster application and until plaster is dry.

PART 2 - PRODUCTS

2.1 METAL LATH

A. Expanded-Metal Lath: ASTM C 847 with ASTM A 653/A 653M, G60, hot-dip galvanized zinc coating.

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. Clark Western Building Systems.
b. Dietrich Metal Framing; a Worthington Industries company.
c. MarinoWARE.

2. Diamond-Mesh Lath: Self-furring, 2.5 lb/sq. yd..

2.2 ACCESSORIES

A. General: Comply with ASTM C 1063 and coordinate depth of trim and accessories with thicknesses and number of plaster coats required.

B. Plastic Accessories: Fabricated from high-impact PVC.

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. Dietrich Metal Framing; a Worthington Industries company.
b. Plastic Components, Inc.

c. Vinyl Corp.

2. Cornerbeads: With perforated flanges.

a. Small nose cornerbead; use unless otherwise indicated.
b. Bull nose cornerbead, radius 3/4 inch minimum; use at locations indicated on Drawings.

3. Casing Beads: With perforated flanges in depth required to suit plaster bases indicated and flange length required to suit applications indicated.

a. Square-edge style; use unless otherwise indicated.
b. Bull-nose style, radius 3/4 inch minimum; use at locations indicated on Drawings.

4. Control Joints: One-piece-type, folded pair of unperforated screeds in M-shaped configuration; with perforated flanges and removable protective tape on plaster face of control joint.

2.3 MISCELLANEOUS MATERIALS

A. Water for Mixing: Potable and free of substances capable of affecting plaster set or of damaging plaster, lath, or accessories.

B. Fiber for Base Coat: Alkaline-resistant glass or polypropylene fibers, 1/2 inch long, free of contaminants, manufactured for use in portland cement plaster.

C. Bonding Compound: ASTM C 932.

D. Steel Drill Screws: For metal-to-metal fastening, ASTM C 1002 or ASTM C 954, as required by thickness of metal being fastened; with pan head that is suitable for application; in lengths required to achieve penetration through joined materials of no fewer than three exposed threads.

E. Fasteners for Attaching Metal Lath to Substrates: Complying with ASTM C 1063.

F. Wire: ASTM A 641/A 641M, Class 1 zinc coating, soft temper, not less than 0.0475-inch diameter, unless otherwise indicated.

G. Sound Attenuation Blankets: ASTM C 665, Type I (blankets without membrane facing) produced by combining thermosetting resins with mineral fibers manufactured from glass, slag wool, or rock wool.

1. Fire-Resistance-Rated Assemblies: Comply with mineral-fiber requirements of assembly.

H. Acoustical Sealant: As specified in Section 07 92 00 "Joint Sealants."

2.4 PLASTER MATERIALS

A. Portland Cement: ASTM C 150, Type I.

B. Lime: ASTM C 206, Type S; or ASTM C 207, Type S.

C. Sand Aggregate: ASTM C 897.

D. Perlite Aggregate: ASTM C 35.

E. Acrylic-Based Finish Coatings: Factory-mixed acrylic-emulsion coating systems, formulated with colorfast mineral pigments and fine aggregates; for use over portland cement plaster base coats. Include manufacturer's recommended primers and sealing topcoats for acrylic-based finishes.

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

a. Dryvit Systems, Inc.; Dryvit TAFS.
b. Parex, Inc., a brand of ParexLaHabra, Inc.; e-lastic.
c. Senergy, BASF Wall Systems, Inc.; Senerflex.
d. Sto Corp.; Powerwall Finish.
e. SonoWall, BASF Wall Systems, Inc.; StuccoTex Finish.

2. Color: Match Architect's sample.
3. Texture: Match surface of adjacent existing plaster finish.

2.5 PLASTER MIXES

A. General: Comply with ASTM C 926 for applications indicated.

1. Fiber Content: Add fiber to base-coat mixes after ingredients have mixed at least two minutes. Comply with fiber manufacturer's written instructions for fiber quantities in mixes, but do not exceed 1 lb of fiber/cu. yd. of cementitious materials.

B. Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork as follows:

1. Portland Cement Mixes:

a. Scratch Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 2-1/2 to 4 parts aggregate per part of cementitious material.
b. Brown Coat: For cementitious material, mix 1 part portland cement and 3/4 to 1-1/2 parts lime. Use 3 to 5 parts aggregate per part of cementitious material, but not less than volume of aggregate used in scratch coat.

C. Factory-Prepared Finish-Coat Mixes: For acrylic-based finish coatings, comply with manufacturer's written instructions.

PART 3 - EXECUTION

3.1 EXAMINATION

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

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

3.2 PREPARATION

A. Protect adjacent work from soiling, spattering, moisture deterioration, and other harmful effects caused by plastering.

B. Prepare solid substrates for plaster that are smooth or that do not have the suction capability required to bond with plaster according to ASTM C 926.

3.3 INSTALLATION, GENERAL

A. Fire-Resistance-Rated Assemblies: Install components according to requirements for design designations from listing organization and publication indicated on Drawings.

B. Sound Attenuation Blankets: Where required, install blankets before installing lath unless blankets are readily installed after lath has been installed on one side.

C. Acoustical Sealant: Where required, seal joints between edges of plasterwork and abutting construction with acoustical sealant.

3.4 INSTALLING METAL LATH

A. Expanded-Metal Lath: Install according to ASTM C 1063.

1. Partition Framing and Vertical Furring: Install flat diamond-mesh lath.
2. Flat-Ceiling and Horizontal Framing: Install flat diamond-mesh lath.
3. Curved-Ceiling Framing: Install flat diamond-mesh lath.
4. On Solid Surfaces, Not Otherwise Furred: Install self-furring, diamond-mesh lath.

3.5 INSTALLING ACCESSORIES

A. Install according to ASTM C 1063 and at locations indicated on Drawings.

B. Reinforcement for External Corners:

1. Install lath-type, external-corner reinforcement at exterior locations.
2. Install cornerbead at interior locations.

C. Control Joints: Install control joints in specific locations approved by Architect for visual effect as follows:

1. As required to delineate plasterwork into areas (panels) of the following maximum sizes:

   a. Vertical Surfaces: 144 sq. ft..
   b. Horizontal and other Nonvertical Surfaces: 100 sq. ft..

2. At distances between control joints of not greater than 18 feet o.c.
3. As required to delineate plasterwork into areas (panels) with length-to-width ratios of not greater than 2-1/2:1.
4. Where control joints occur in surface of construction directly behind plaster.
5. Where plasterwork areas change dimensions, to delineate rectangular-shaped areas (panels) and to relieve the stress that occurs at the corner formed by the dimension change.

3.6 PLASTER APPLICATION

A. General: Comply with ASTM C 926.

1. Do not deviate more than plus or minus 1/4 inch in 10 feet from a true plane in finished plaster surfaces, as measured by a 10-foot straightedge placed on surface.
2. Finish plaster flush with metal frames and other built-in metal items or accessories that act as a plaster ground unless otherwise indicated. Where casing bead does not terminate plaster at metal frame, cut base coat free from metal frame before plaster sets and groove finish coat at junctures with metal.
3. Provide plaster surfaces that are ready to receive field-applied finishes indicated.

B. Bonding Compound: Apply on unit masonry and concrete plaster bases.

C. Walls; Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork, on masonry , and on concrete; 3/4-inch thickness.

1. Portland cement mixes.

D. Ceilings; Base-Coat Mixes for Use over Metal Lath: Scratch and brown coats for three-coat plasterwork; 1/2 inch thick.

1. Portland cement mixes.

E. Acrylic-Based Finish Coatings: Apply coating system, including primers, finish coats, and sealing topcoats, according to manufacturer's written instructions.

F. Concealed Interior Plasterwork:

1. Where plaster application will be concealed behind built-in cabinets, similar furnishings, and equipment, apply finish coat.
2. Where plaster application will be concealed above suspended ceilings and in similar locations, finish coat may be omitted.
3. Where plaster application will be used as a base for adhesive application of tile and similar finishes, omit finish coat.

3.7 PLASTER REPAIRS

A. Repair or replace work to eliminate cracks, dents, blisters, buckles, crazing and check cracking, dry outs, efflorescence, sweat outs, and similar defects and where bond to substrate has failed.

3.8 PROTECTION

A. Remove temporary protection and enclosure of other work. Promptly remove plaster from door frames, windows, and other surfaces not indicated to be plastered. Repair floors, walls, and other surfaces stained, marred, or otherwise damaged during plastering.

END OF SECTION 09 24 00

09 26 13 - GYPSUM VENEER PLASTERING

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 acoustical gypsum veneer plaster system.

B. Related Requirements:

1. Section 09 22 16 "Non-Structural Metal Framing" for non-load-bearing steel framing.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

C. Shop Drawings:

1. Show locations, fabrication, and installation of control joints, reveals, and trim; include plans, elevations, sections, details of components, and attachments to other work.

D. Samples: For the following products:

1. Trim Accessories: Full-size Sample in 10-inch length for each trim accessory.
2. Textured Finishes: Manufacturer's standard size for each textured finish and on rigid backing.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials in original packages, containers, and bundles bearing brand name and identification of manufacturer or supplier.

B. Store materials inside under cover and keep them dry and protected against damage from weather, direct sunlight, surface contamination, corrosion, construction traffic, and other causes.

C. Stack panels flat on leveled supports off floor or slab to prevent sagging.

1.5 FIELD CONDITIONS

A. Environmental Limitations: Comply with ASTM C 843 requirements or gypsum veneer plaster manufacturer's written recommendations, whichever are more stringent.

B. Room Temperatures: Maintain not less than 55 deg F or more than 80 deg F for seven days before application of gypsum base and gypsum veneer plaster, continuously during application, and after application until veneer plaster is dry.

C. Avoid conditions that result in gypsum veneer plaster drying too rapidly.

1. Distribute heat evenly; prevent concentrated or uneven heat on veneer plaster.
2. Maintain relative humidity levels, for prevailing ambient temperature, that produce normal drying conditions.
3. Ventilate building spaces in a manner that prevents drafts of air from contacting surfaces during veneer plaster application until it is dry.

D. Do not install panels that are wet, moisture damaged, or mold damaged.

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

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain gypsum veneer plaster products, including gypsum base for veneer plaster, joint reinforcing tape, and embedding material, from single manufacturer.

2.2 GYPSUM VENEER PLASTER

A. Acoustical Plaster Finish: Provide 1/2-inch total thickness over substrate.

1. Basis-of-Design Product: Subject to compliance with requirements, provide USG Corporation; Acoustical Plaster Finish, or comparable product by one of the following:

a. Georgia-Pacific Gypsum LLC, Subsidiary of Georgia Pacific.
b. National Gypsum Company.

2.3 PANEL PRODUCTS

C. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.

D. Gypsum Base for Veneer Plaster: As recommended by gypsum veneer plaster manufacturer for applications indicated.

1. Thickness: 1/2 inch.

2.4 AUXILIARY TRIM ACCESSORIES

A. Standard Trim: ASTM C 1047, provided or approved by manufacturer for use in gypsum veneer plaster applications indicated.

1. Material: Plastic .
2. Shapes:

a. Cornerbead.
b. LC-Bead: J-shaped; exposed long flange receives veneer plaster.
c. Control joints.

2.5 JOINT REINFORCING MATERIALS

A. General: Comply with joint strength requirements in ASTM C 587 and with gypsum veneer plaster manufacturer's written recommendations for each application indicated.

B. Joint Tape:

1. Gypsum Base for Veneer Plaster: As recommended by gypsum veneer plaster manufacturer for applications indicated.

C. Embedding Material for Joint Tape:

1. Gypsum Base for Veneer Plaster: As recommended by gypsum veneer plaster manufacturer for use with joint-tape material and gypsum veneer plaster applications indicated.

2.6 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced product standards and manufacturer's written recommendations.

B. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.

1. Use screws complying with ASTM C 954 for fastening panels to steel members from 0.033 to 0.112 inch thick.

C. Acoustical Joint Sealant: Manufacturer's standard nonsag, paintable, nonstaining latex sealant complying with ASTM C 843. Product effectively reduces airborne sound transmission through perimeter joints and openings in building construction, as demonstrated by testing representative assemblies according to ASTM E 90.

PART 3 - EXECUTION

3.1 EXAMINATION

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

Work.

B. Examine panels before installation. Reject panels that are wet, moisture damaged, or mold damaged.

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

3.2 INSTALLING PANELS, GENERAL

A. Gypsum Base for Veneer Plaster: Apply according to ASTM C 844 unless manufacturer's written recommendations are more stringent.

1. Do not allow gypsum base to degrade from exposure to sunlight, as evidenced by fading of paper facing.
2. Erection Tolerance: No more than 1/16-inch offsets between planes of gypsum base panels, and 1/8 inch in 8 feet noncumulative, for level, plumb, warp, and bow.

B. Install ceiling panels across framing to minimize the number of abutting end joints and to avoid abutting end joints in the central area of each ceiling. Stagger abutting end joints of adjacent panels not less than one framing member.

C. Install panels with face side out. Butt panels together for a light contact at edges and ends with not more than 1/16 inch of open space between panels. Do not force into place.

D. Locate edge and end joints over supports, except in ceiling applications where intermediate supports or back-blocking is provided behind end joints. Do not place tapered edges against cut edges or ends. Stagger vertical joints on opposite sides of partitions. Do not locate joints, other than control joints, at corners of framed openings.

E. Attach panels to steel studs so leading edge or end of each panel is attached to open (unsupported) edges of stud flanges first.

F. Attach panels to framing provided at openings and cutouts.

G. Form control joints with space between edges of adjoining panels.

H. Cover both sides of partition framing with panels in concealed spaces, including above ceilings, except in internally braced chases.

1. Unless concealed application is indicated or required for sound, fire, air, or smoke ratings, coverage may be accomplished with scraps of not less than 8 sq. ft. in area.
2. Fit panels around ducts, pipes, and conduits.
3. Where partitions intersect open concrete coffers, concrete joists, and other structural members projecting below underside of floor/roof slabs and decks, cut panels to fit profile formed by coffers, joists, and other structural members; allow 1/4- to 3/8-inch- wide joints; seal joints with acoustical sealant.

I. STC-Rated Assemblies: Seal construction at perimeters, behind control joints, and at openings and penetrations with a continuous bead of acoustical sealant. Install acoustical sealant at both faces of partitions at perimeters and through penetrations. Comply with ASTM C 919 and with manufacturer's written recommendations for locating edge trim and

closing off sound-flanking paths around or through assemblies, including sealing partitions above acoustical ceilings.

J. Fastener Spacing: Comply with ASTM C 844, manufacturer's written recommendations, and fire-resistance-rating requirements.

1. Space screws a maximum of 12 inches o.c. along framing members for wall or ceiling application.

3.3 INSTALLING PANELS

A. Install panels for veneer plaster in locations indicated on Drawings.

B. Single-Layer Application:

1. On ceilings, apply gypsum base panels before wall panels, to the greatest extent possible and at right angles to framing unless otherwise indicated.

C. Fasteners: Drive fasteners flush with gypsum base surface. Do not overdrive fasteners or cause surface depressions.

D. Single-Layer Fastening Methods: Apply gypsum base panels to supports with steel drill screws.

3.4 INSTALLING AUXILIARY TRIM ACCESSORIES

A. General: Install trim with back flanges intended for fasteners, and attach to framing with same fasteners used for panels. Otherwise, attach trim according to manufacturer's written instructions.

B. Control Joints: Install at locations indicated on Drawings.

C. Trim: Install in the following locations:

1. Cornerbead: Use at outside corners.
2. LC-Bead: Use at exposed panel edges.

3.5 INSTALLING JOINT REINFORCEMENT

A. Gypsum Base: Reinforce interior angles and flat joints with joint tape and embedding material to comply with ASTM C 843 and with gypsum veneer plaster manufacturer's written recommendations.

3.6 GYPSUM VENEER PLASTERING

A. Gypsum Veneer Plaster Mixing: Mechanically mix gypsum veneer plaster materials to comply with ASTM C 843 and with gypsum veneer plaster manufacturer's written recommendations.

B. Gypsum Veneer Plaster Application: Comply with ASTM C 843 and with veneer plaster manufacturer's written recommendations.

C. Concealed Surfaces: Do not omit gypsum veneer plaster behind cabinets, furniture, furnishings, and similar removable items. Omit veneer plaster in the following areas where it will be concealed from view in the completed Work unless otherwise indicated or required to maintain fire-resistance and STC ratings:

1. Above suspended ceilings.

3.7 PROTECTION

A. Protect installed gypsum veneer plaster from damage from weather, condensation, construction, and other causes during remainder of the construction period.

B. Remove and replace gypsum veneer plaster and gypsum base panels that are wet, moisture damaged, or mold damaged.

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

END OF SECTION 09 26 13

GENERAL REQUIREMENTS

RELATED DOCUMENTS

The general provisions of the Contract, including instructions to bidders, General Conditions, Supplementary Conditions, General Requirements, apply to the work specified in this section.

1. DESCRIPTION

The fabrication requirements attached are a governing part of this specification and shall be consulted for all matters pertaining to the work. When references are made to FSEC, the same shall be construed to designate the Food Service Equipment Contractor.

The FSEC is to provide all items, articles, materials, transportation, operations, and methods listed, mentioned, or scheduled on the drawings and specifications, including all labor, materials, equipment, and incidentals necessary and as required for their completion.

2. QUALITY ASSURANCE

Brands and Names

The manufacturer's catalog designations used in the following specifications are intended to illustrate and represent the standards which will be required by the Owner. Bidders are to list, by item number, manufacturer's name and quantities on itemized proposal form attached to the specifications for approval by the Owner. When not attached, the FSEC shall make up his own itemized list and submit same attached with his bid. NOTE! Base Bid must be on fixtures specified for fair comparison of all bids.

Substitutions

Substitutions by any bidder wishing to supply alternate equipment other than that specified may submit a separate itemized proposal on similar articles of other manufacturers of the same standard performance, capacity, size, durability and appearance but must accompany their alternate proposal with complete descriptive literature of the item quoted.

Owner and Architect reserve the right to accept or reject such proposed substitutions. Bidders recommending such substitutions are cautioned to examine the mechanical plans that may have already been approved and conditions at the building site to determine if such substitutions require changes in mechanical connections already planned or installed.

If the proposed substitutions require such changes, the Bidder shall include the cost of same in his bid and call it to the attention of the Architect and Owner by including a descriptive notation in his bid.

Discrepancies

Where model numbers, quantities, sizes or gauges of material differ on plans and specifications, it shall be understood that the FSEC shall figure the larger quantities, longest size and heavier gauge unless advised otherwise in writing.

Where an accessory or piece of equipment is shown on elevation or plan, it shall be deemed part of the Food Service Contract, even if it is not listed in the Item Specifications.

Where an item is listed in Item Specifications and not shown on plan or elevations, the item shall be deemed part of the Food Service Equipment Contract.

Measurements

All dimensions given on bidding documents are approximate and are as accurate as can be determined at the time. The Equipment Contractor shall check all measurements at the building prior to fabrication of equipment and shall bring any deviation from the dimensions shown or required by building conditions to the Consultant's attention. All equipment must conform to the finished building conditions. Where obstructions occur, equipment must be neatly scribed fitting to and around same resulting in a sanitary fixture.

Prior to fabrication, the Consultant or the Owner reserves the right to require the Contractor to make reasonable modifications in the routing of the work and relocation of the equipment. This specifically refers to conditions where interference occurs or where materials cannot be installed because of structural or mechanical conditions encountered. The Contractor will receive no additional compensation for such work.

Ordinances

Work and materials shall be in full accord with the latest rules of U.S. Public Health Service, National Board of Fire Underwriters, O.S.H.A., local and state ordinances, State Accident Commissions Safety Ordinances, regulations of the Bureau of Fire Services and with prevailing ordinances.

Ordinances including building codes, gas codes, steam codes, and other codes applying to this contract shall be followed.

All applicable items shall conform to latest Standards Revisions established by the National Sanitation Foundations, (N.S.F.), Ann Arbor, Michigan.

Electric operated and/or heated equipment, fabricated or otherwise shall conform to the latest standards of National Electric Manufacturer's Association, Underwriters Laboratories, Inc., National Electric Code or local standards such as to be acceptable to authorities having jurisdiction.

Standard steam heated equipment shall be manufactured in accordance with A.S.M.E. code requirements and carry the A.S.M.E. stamp.

Burners for gas heated equipment shall be equipped with automatic lighters. Oven burners and other concealed burners shall have automatic safety pilots and conform to A.G.A. standards. All gas equipment is to be furnished with appliance pressure regulators.

The drawings and specifications shall govern whenever they require longer sizes or higher standards than are required by the ordinances.

The Ordinances shall govern whenever drawings and specifications require something which will violate the ordinances.

No extra change will be paid for furnishing items required by local and state ordinances not specified or shown on drawings. Rulings and interpretations of the enforcing agencies shall be considered as part of the ordinances.

Should any change in the drawings and specifications be required to conform to the above, the Architect shall be notified when bid is submitted.

After entering into contract, all necessary work shall be done to meet above laws, ordinances, Bureau of Fire Services requirements, etc., without additional expense to the Owner.

Samples

Samples of all hardware, locks, feet, brackets, and other materials that may be requested shall be submitted for approval before use.

Scheduling of Work

The work shall be scheduled so there will be no interference with work of other trades and so that it will cause no delay. A time schedule will be worked out for the entire building and this work shall keep pace with the set schedule, working nights, Sundays and holidays, if necessary, to complete the work within the time limit.

3. SUBMITTALS

All submittals to be reviewed, stamped and dated by FSEC prior to sending them to the Contractor, Architect and Consultant. Submittals not bearing the FSEC's stamp will be rejected.

FSEC shall submit required number of drawings, brochures and portfolios of all equipment, apparatus, materials, etc., which are applicable to this contract together with detailed specifications. Each piece of equipment, apparatus, and accessory to be checked by the FSEC to insure compliance with requirements of Architect's drawings and specifications and also brochures or any other item of information to be clearly marked for identification with respect to their application and installation locations. This specification page shall appear on every shop drawing.

Approval and/or review of shop drawings, details, and equipment by the Consultant is for design and concept only and does not relieve the FSEC of responsibility for compliance with design drawings, details and specifications, verification of all dimensions of equipment and building conditions and reasonable adjustments due to deviations.

While the Architect's drawings and specifications propose to be complete in all respects as to layout, type of equipment and materials, they are not intended to serve as detailed sleeve or insert drawings, and preparation of such drawings, required or necessary for this purpose, or to set equipment accurately, are to be the responsibility of the FSEC.

FSEC shall submit drawings of all custom fabricated equipment within thirty (30) days after notification of contract award. Drawings to be accurately laid out and correlated with other contractors work and latest architectural final construction plans. Equipment elevation shop drawings must be on 3/4" scale (3/4" = 1' 0").

Drawings to show detailed construction for each piece of equipment. Before submitting detail drawings for review, they must be checked by the FSEC with the specifications and shall show exactly how item will be fabricated. Construction of equipment shall not deviate from approved shop drawings without written approval from the Architect and/or Food Service Consultant.

FSEC shall submit rough in drawings for approval at a scale of 1/4" = 1' 0", locating accurately all utility connections for each item of equipment requiring the same. Rough in plan to be drawn up using final architectural building drawings. NOTE! All rough in connections to conform with normal acceptable standards. Rough in requirements for present or future food service equipment shall be included on all drawings.

FSEC 1/4" scale rough in drawings are to be dimensioned from ends of finished walls. Shop drawings with dimensions from centerline of columns will not be accepted, unless approval has been given by Architect, Consultant or the General Contractor.

Drawings showing all dimensions of bases or platforms and depressions to be submitted on a scale of l/4" = 1' 0".

Rough in connection notes are not to be listed under numbered rough in schedule, except for general purpose outlets or where drawing space is limited.

Equipment rough in plans are to be furnished complete with layout plan and item schedule similar to food service consultants drawings. Plumbing, electrical, ventilation & depression plan, and base detail when required.

Plumbing and electrical plans are to be on separate sheets when drawings are prepared at 1/4" scale. NOTE! Food Service Consultants documents are not to be traced.

Manufacturers to strictly adhere to approved and reviewed drawings, except where field conditions require changes and in that event the Architect must be notified in writing.

Manufacturing of any equipment fitting between walls or between columns and walls to be withheld until actual field dimensions are set and approved by the General Contractor. All other items which do not require field dimensions are to be manufactured upon receipt of reviewed shop drawings.

Upon completion of contract, the contractor is to deliver to the Owner two (2) complete sets of final working drawings and two (2) portfolios of purchased equipment bound in a binder.
A time schedule will be worked out for the entire building and this work shall keep pace with set schedule, working nights, Sundays, and holidays, if necessary, to complete the work within the time limit.

4. JOB CONDITIONS

Job Meetings

It shall be the responsibility of the FSEC to have a qualified representative at all monthly or special job meetings to help the Architect and other contractors on the job to correlate work or answer questions so that the job can progress without any obstructions.

Examination of Premises

FSEC to check the Architectural Contract Plans and visit the premises at a suitable time to determine maximum size of equipment he can safely get into the building in one piece. Field joints to be held to a minimum. Should door openings not be large enough, FSEC shall provide field joints in equipment as required and re weld inside of building.

Utilities Services

Rough in cold water, hot water, waste and vent piping, duct work and electrical wiring to be installed by Plumbing and Electrical Trades. Such items are to be brought away from surface of floors, walls and/or ceilings by these Trades and capped prior to installation of food service equipment.

5. GUARANTEE

FSEC is to furnish one (1) year written guarantee for equipment starting from date of acceptance by the Owner or the Owner's duly authorized representative. Guarantee to be in accordance with Architect's General Conditions.

Refrigeration Self-contained

All self-contained refrigeration compressors for milk coolers, ice cream cabinets, cold food counters, reach in refrigerators or freezers, etc., shall be furnished with a five (5) year compressor warranty and one (1) year refrigeration service starting from date of final acceptance.

6. PRODUCTS

Fabrication Requirements – See following page for details

All food service equipment is to be constructed in strict compliance with the latest standards of the National Sanitation Foundation and to meet all requirements of the local and State Health Regulations. All equipment to bear the N.S.F. seal of approval.

Welding

The words "weld", "welded", or "welding" as used in the item specifications, mean a metal joint continuously welded then all exposed parts ground smooth and polished to match adjoining surfaces.

All welding to be done in a thorough manner with welding rod of same composition as sheets or parts welded. Welds to be strong, ductile with excess metal and discoloration ground off and joint finished smooth to match adjoining surfaces.

Welds to be free of imperfections such as pits, runs, splatters, cracks, warping or discoloration. All welded joints to be homogeneous with parent metal itself. All fabricated equipment items where metal to metal butt joints occur to be joined and properly welded then ground and polished smooth.

Grinding, Polishing and Finishing

All exposed welded joints to be ground flush with adjoining material and neatly finished to harmonies therewith.

Whenever material has been depressed or sunken in by welding operations, such depressions shall be suitably hammered and peened flush with adjoining surfaces to then be polished and/or buffed to match adjoining surfaces to a degree consistent with good workmanship. Care shall be exercised in all grinding operations to avoid excessive heating of metal and metal discoloration. Abrasive wheels and belts used in grinding to be iron free and not having been used on carbon steel. In all cases, the grain or rough finish to be removed by successively finer polishing operations to be consistent with reasonable care and good workmanship. Final polishing operations to be uniform and smooth.

Where break band occurs, free of open texture or orange peel appearance, all such marks shall be removed by grinding, polishing and finishing. Wherever sheared edges occur, they shall be free from burrs, projections and fins to obviate all danger from cutting or laceration when hand is drawn over such sheared edges.

Where miters or bullnosed corner, they will be neatly ground to uniform condition and in no case will overlapping materials be acceptable.

Equipment quality finish consistent with high grade of manufacturing practiced in industry. All exposed surfaces to be commercial mill finishes known as #4 satin finish for corrosion resistant steel. All exposed edges to be furnished with a #7 mirror finish, unless otherwise noted in item specifications.

All cabinets, doors and shelves where exposed to be interpreted as meaning inside surface exposed to view when swinging door or sliding doors are opened. Unless otherwise specified, underside of shelves need not be satin finish.

Doors Hinged

To be full height of door opening. Each door shall not be over 30" wide for high cabinets and 24" wide for low cabinets. Doors to be double pan construction flush type and braced and thoroughly sound deadened made of 18 ga. st. st. Inner and outer pans to be sealed with 3/4" long tack welds spaces approximately 6" apart. Balance of the space to be completely sealed between tack welds with silver solder or N.S.F. approved hard solder (Silicone not approved).

All welds ground and polished smooth. All bracings to be on proper centers to fit door size.

Doors to be mounted on heavy semi concealed nickel bronze olive knuckle hinges fastened to inside ledge of door and cabinet so that only pin will be exposed to heavy st. st. piano hinges. Provide each door with Component Hardware #M22-2420.

Doors Sliding

Make same as specified for hinged doors, except they shall operate on Component Hardware #B58-5513 and #B58-5523 nylon tire wheels running on one (1) piece drawn aluminum overhead Component Hardware #B57 tracks. Bottom shall be guided by st. st. Component Hardware #B56-1096 guide pins at center of door openings. Provide locks where called for in item specifications. Provide flush type polished handles. (Heated cabinets with sliding doors to use Component Hardware #B58-5511 and #B58-5523 st. st. ball bearing wheels).

"High" type fixtures to be fitted with two (2) sets of doors in height, each set opening into half height of fixture.

"Low" type fixtures to be fitted with (1) set of full height doors. No door length to exceed 36".

Sinks

All sinks to be made of 14 ga. st. st. unless otherwise specified. All corners shall be coved at least 5/8" radius, with all corners and joints welded, ground and polished smooth to a #4 satin finish. Sinks, unless otherwise specified, shall not be less than 14" deep. The use of solder or separate filler pieces to obtain coved corners will not be acceptable. All sink bottoms are to be integrally pitched to insure complete drainage of sink to waste opening. Edges at table height to have exposed edges formed to match adjoining table. Edges adjacent to table to be welded to table with all welds ground and polished smooth.

Unless otherwise specified, all sinks to be provided with backsplash 12" high x 2 1/2" wide to allow for pipe space in rear. Flange over at ends, with top edge turned back 2 1/2" at 45 degree angle and down l". Provide openings for combination swinging type water faucet for each compartment.

In sinks of two (2) or more compartments, furnish between each sink compartment a 3/4" wide full height portion integrally welded to sinks at front, back and bottom maintaining smooth 5/8" radius coved corners as described in preceding paragraph.

Front of multiple compartment sinks shall consist of st. st. apron same gauge as sinks having length same as overall length of sink bowls and same depth as bowls. This apron shall be "L" shaped and welded to or part of the top rim.

Design of apron front to be such that sinks shall have an appearance of a continuous one (1) piece front face of all overlapping joints and open spaces between sink compartments.

Each compartment to be furnished with Component Hardware rotary handle type drain, connected rear overflow, 6" tailpiece and faucet of make and model number as called for in Item Specifications. Also each sink to be furnished with 14 ga. st. st. waste handle bracket welded to underside of sink.

Tables & Tops Height

All working tops to be 34" high from floor, unless otherwise stated under specific item.

Metal Tops

Unless otherwise specified in Item Specifications, metal tops to be 14 ga. st. st. reinforced and braced on underside by framework consisting of 1 1/2" x 1 1/2" x 3/16" angles and 1" x 3" x 3/16" channels, galvanized where concealed and st. st. where exposed.

Framework angles to run full length and width and with angle crossbrace on not over 2' 6" centers. Channel reinforcing to run full length of tops down center of top. All tops with sinks shall be integrally pitched towards same.

All joints of framework to be welded with weld re-metalized. Tops to be bolted to framework in a concealed manner with st. st. bolts similar to AN-COR-LOX cup nuts. All metal tops to appear as one piece with all field and shop joints reinforced and welded, ground smooth, and polished, also to be made of largest piece obtainable.

No short pieces of metal will be acceptable. St. st. tops to have a #4 satin finish and all tops of this metal to be full l/2" cove at re entrant corners, also where turned up in rear or in front, such as dishtables. Solder filled corners will not be acceptable.

Metal edges to be made as described below and/or shown on detail drawings. Top to have all edges turned down 1 3/4" then back 1/2" at a 70 degree angle all around with all corners welded, ground, and polished smooth with no cracks or openings showing. All exterior corners to be well rounded bullnosed in 1 1/4" radius.

Dishtables & Pot Washing Tables

All free edges to be turned up 2 3/4" then rolled to 1 5/8" x 180 degrees and furnished with apron edge front, as per Edge Detail Sheet. All exposed and exterior corners to be coved at 5/8" radius with all joints welded, ground, and polished smooth.

Where tables abut a wall or other tall equipment, extend back and/or ends up 12" then back 2 1/2" at 45 degrees and down l" parallel to wall. Provide with end filler pieces and all welded surfaces ground and polished smooth.

The underside of Dish and Pot Washing tables to be reinforced with 1 1/2" x 1 1/2" x 3/16" st. st. angles and l" x 3" st. st. channels. Angles to run full length of tops at both front and rear of tops with crossbrace front to back on 2' 6" centers. Channel bracing to run down center, full length of tops. Tops shall be integrally pitched to dishwasher and sinks.

Fastening Tops to Washers and Other Equipment

Where tops are shown adjacent to dish or glass washer, etc., ends are to be turned down 1 1/2" into fixture and bolted tightly to it with approved gaskets between body and turned down edges. Backsplashes to have edge against fixture turned out 1 1/2" and tightly fitted to it. Free edges to be

neatly fitted to fixture corners to prevent water from dripping on floor. All tops to have integral pitch to drain towards dishwasher.

Dish & Pot Table Drainage

During installation of dish tables and dishwasher, FSEC shall water test all counter tops to make sure of proper pitch before final plumbing and electrical connections are made. All water on counter tops shall drain with no standing puddles allowed. Should the FSEC fail to pitch tables properly, he shall be responsible for disconnecting plumbing and electrical connections and re adjust tables to insure proper pitch. FSEC shall also be responsible for re connecting all service lines after tables have been re aligned.

Pipe Stands

All equipment requiring pipe legs or stands to be provided with sufficient supports to carry superimposed load of 100 lbs. per sq. ft. Top to be fabricated of 16 ga. st. st. Tubing to be Component Hardware #A46-5288 complete leg assembly Model Number 2236HB, 1 5/8" O.D., with st. st. hex head bullet shaped feet as previously specified. All pipe stands to be braced with crossrails, Component Hardware #A46-4288, 1 5/8" st. st. pipe welded to legs approximately 10" above floor or braced by lower shelf as specified hereinafter. Provide Component Hardware #A18-0206 st. st. gussets as previously specified, welded to framework on underside of top.

In place of gussets, st. st. legs may be welded to st. st. channels 5" long which shall fit into channel crossbracing. Flange of both channels to be machine bolted together. Holes for bolts to be slotted for adjustment. Provide legs on not over 5' 0" centers and additional if required or requested.

All pipe legs or vertical members to be set back from table top on ends and on front and back sufficient distance to offset any interference with workers, columns, walls or other items. Where tops are welded to sinks, omit pipe legs supporting top at sink location.

Shelves Under Tables

Under tops which are mounted on pipe legs or stands, shelves under table to be fabricated of 16 ga. st. st. with all edges flanged down 1 1/2" or as otherwise noted in the Item Specifications. Shelves to fit tightly around contour of legs and welded from underside. Shelves to be made up from long lengths with all joints welded, ground, and polished smooth.

Short lengths will not be permitted. Reinforced, as required, to support load of 50 lbs. per sq. ft. All sharp edges, burrs, and corners to be ground smooth and removed and then be slightly rounded. All shelves in cabinet bases are to be angle reinforced.

Cabinet Bases

Exterior cabinet bases to be constructed of 18 ga. st. st. with front face, exposed ends, rear, and corners integrally exposed with all welds ground and polished smooth to form a one piece construction appearance.

St. st. exterior to be mounted over a 1 1/2" x 1 1/2" x l/8" all welded galvanized iron angle frame. Where st. st. exterior meets angle framework at drawer, door or shelf openings, exterior shall be turned in 1 1/2" over angle framework inside of openings. All drawers and doors to be flush with cabinet face.

All cabinet base bottoms to be enclosed with 18 ga. galvanized iron panels. Interior shelves of cabinet base to be constructed of 16 ga. st. st. and be reinforced with 1 1/2" x 1 1/2" x 1/8" angles. Rear and ends of shelves to be turned up 2" with all interior corners coved to 5/8" radius.

Drawers

Drawer front to be 3/4" thick double pan construction with 16 ga. st. st. telescoping rear panels. Joints to be sealed same as specified for double pan hinged doors. Drawer front fitted with recessed st. st. grip handle, Component Hardware #CAGP63-1012. Drawer to be furnished with 18 ga. galvanized iron bottom with openings in front to accommodate drawer. Provide with cylinder type lock when specified under Item Specifications or shown on elevation details.

Opening in front to have edges turned in to fit drawer front which will be flush when drawer is closed. Bottom of enclosure to be open with edges turned in l" on all sides.

All corners on enclosure to be continuously welded, then polished and ground smooth. Exposed rivets or screws will not be acceptable. Component Hardware #S81-2020 Drawer insert to consist of removable die stamped 18 ga. st. st. pan approximately 20" square x 5" deep. Top edges of drawer insert to be flanged out on all sides, not less than l/2" for resting on drawer extension glides. All sharp edges and burrs to be removed from drawer flange.

Housing supports to be made of 12 ga. st. st. formed into angles welded to underside of metal tops or screwed to underside of wood tops and to extend full width of top with rear enclosure, where exposed. All welded items to be ground and polished smooth. Screws for wood tops to be st. st. countersunk. Drawer housings to slide on 14 ga. st. st. telescoping channels with st. st. rollers, Component Hardware #S52 series extension roller slides.

Drawers

This mechanism must be designed so that drawer will not tilt when fully opened. Provide with stop mechanism to prevent pulling the housing from slides but with suitable extension so it may be removed for cleaning.

Tier of Drawers

To be two (2) or three (3) in number of same size as specified for above and entirely enclosed with 18 ga. st. st. same as specified under cabinet bases with openings for drawers with all joints flush welded, grounded, and polished smooth.

Single drawers under table tops to be one inch (1") back of edge of fixture. All draws shall have front flush with cabinet body.

Fasteners

Exposed screw or bolt heads will not be permitted on fixtures. Rivets, if specified, shall be countersunk flush. Rivets to be same material as they join. Butt joints made by riveting straps under seams and then filling with solder or caulking will not be permitted or accepted.

Name Plates

All buy out equipment shall be furnished with a permanently affixed metal name plate listing manufacturer's name, model number, voltage, cycle, phase, horsepower, etc., in an easily readable location. Dealers, installers, fabricators or service agencies name plate stickers shall not be fastened to any item without the approval of the Architect or Consultant.

7. MATERIALS AND WORKMANSHIP

Unless otherwise specified, all material shall be new and of best quality, perfect, and without flaws and shall be delivered upon completion in an undamaged condition.

Stainless Steel

Shall be type 304 having a standard analysis of 18% chrome and 8% nickel. St. st. to be as manufactured by Republic Steel Company, "Endure", Allegheny Metal Company, Crucible Steel Company, "Rezistal" or approved equal. Gauge to be specified under Item Specifications and furnished with #4 satin finish, unless otherwise specified.

Galvanized Iron

Shall be American Rolling Mills "Armco", Republic Steel, Inland Steel, "Tocan" or approved equal.

Pipe legs shall be Standard-Keil #2235HB, 16 ga. st. st. (0.65" thick), tubing furnished with st. st. adjustable foot and Standard-Keil #481 58 with enclosed gusset welded to underside of table top reinforcing channel.

Tubing to be seamless drawn, ground, and polished smooth to a #4 satin finish. Bottom of legs to be swedged for close fit to adjustable foot. Where space permits furnish 1 1/4" dia. st. st. crossrails welded to leg uprights. All welds shall have radius corners and be ground and polished smooth to a #4 satin finish.

Handles, Hinges & Door Fasteners

All hardware and other fittings used in connection with the equipment to be cast nickel bronze or st. st. Handles to be welded or bolted to the equipment in a concealed manner. Bolts to be st. st. and hinges to be recessed in door with st. st. Component Hardware #M75-l002 lift-off, N.S.F. approved hinge. Hinges to be fastened in place with st. st. recessed rivets or welded in place with weld ground and polished smooth.

Sliding doors to be depressed type and furnished with Component Hardware Model #P62-1010 handles. Hinges to be olive knuckle, semi concealed type of nickel bronze or st. st. piano type as described under the specific item.

Painting and Coating

All metal that is not st. st. is to be painted with two (2) coats of an approved rust proof paint such as Rustoleum or other approved equal of highest quality gray enamel.

Electric Receptacles

All 120V-1 phase duplex receptacles in cabinet bases to be Pass & Seymour Model #6307 and receptacles over 120 volt shall be Hubbel receptacles sized as per the rough in drawings.

All receptacles are to be grounded type being both dust and moisture proof. Furnish outlets with st. st. face plates and neoprene mats. In cabinet bases, all receptacles are to be mounted in Chase #R-1 all coved corners st. st. recessed type enclosure mounted to cabinet base. Component Hardware #R73 - 1210 receptacles shall be pre wired by FSEC to junction box in bottom of base cabinet left ready for final connection by Electrical Trades. All wiring between receptacles and junction box to be run in rigid conduit.

All counter top receptacles to be Component Hardware #R58 chrome plated type as specified in Item Specifications. Counter top receptacles to be pre wired to junction box in rigid conduit same as previously specified. All wiring to be in strict compliance with latest standards of the National Sanitation Foundation and Board of Health Requirements.

Quietness of operation of all food service equipment is a requirement and the FSEC shall be required to remove or repair any equipment producing objectionable noises.

Shop Drawing Review

All submittals to be reviewed, stamped and dated by FSEC prior to sending them to the Contractor, Architect and Consultant. Submittals not bearing the FSEC's stamp will be rejected.

By reviewing and submitting shop drawings and samples, the FSEC thereby represents that he has verified all construction criteria, materials, catalog numbers and similar data and that he has checked and coordinated each shop drawing and sample with the requirements of the work and of the contract documents.

If shop drawings and/or samples are submitted without proper identification and in the Consultant's opinion it is evident that they have not been properly reviewed by the FSEC or if shop drawings are submitted in an unprofessional manner, they will be returned to the FSEC for identification and/or review and re submission. In such an event, it will be held that the FSEC has not complied with the above requirements for reviewing and identifying shop drawings and samples. The FSEC shall bear the risk of all delays in work or in work of any other trade, the same as if no shop drawing or samples had been submitted. The above requirements will be strictly enforced.

The Consultant will review and process only two (2) submissions of each shop drawing and/or sample. Shop drawings and samples returned because the FSEC has not complied with the above requirements shall be counted as the first submission. If more than two (2) submissions are required, the FSEC shall

pay the Consultant's cost for reviewing and processing the third and subsequent submissions. (Which will be so identified by the Consultant when returned to the FSEC)

The Consultant's cost shall be computed at two and one half (2 1/2) times payroll plus reproduction and mailing expense.

Buy out Booklets

By submitting prepared Buy out Booklets, the FSEC thereby represents that he has determined and verified voltage and phase requirements and that he has checked and coordinated each item with shop drawings and contract documents.

Each item in the Buy out booklet shall have a typed title page, complete with descriptive details and included accessories.

TITLE PAGE TO BE AS PER THE FOLLOWING PAGE.

8. EXECUTION

Inspections

The Owner, Architect, and/or their duly authorized representative shall have free access to the contractor's shop or shops during the construction of this equipment for the purpose of making inspections to see that the plans and specifications and detailed
drawings are being adhered to carefully.

Contractor shall correct any errors found during the inspections, to the extent within the scope of the plans, specifications and detailed drawings.

Upon being notified of job completion, it shall be the responsibility of the Food Service Consultant to inspect the job site and prepare an itemized Punch List.

If items are found not to be complete per approved drawings, General Requirements and the Consultant's Item Specifications, upon receiving the Punch List, the FSEC shall correct all items on the list within thirty (30) days.

It shall be the responsibility of the Plumbing and Electrical Trades to check all rough in connections installed by their personnel to make sure that they agree with the dimensioned

FSEC shall verify with the Electrical Trades the voltage and phase required for each piece of equipment that is to be supplied. Should the FSEC fail to verify the voltage characteristics it shall be his responsibility for changing the equipment on the job site to fit the voltage on the site.

When deemed necessary by the Architect or the Consultant, the FSEC shall meet on the job site with the Electrical and Plumbing Trades to determine the best way of offsetting rough in connections that interfere with beams, foundations or other possible field obstructions.

The FSEC shall check all base sizes, after installation by the Architectural Trades, to make sure that they will fit his equipment. Should base be installed incorrectly, the FSEC shall advise the Architectural Trades in writing at once to have base corrected as required.

The FSEC shall check all walls where equipment abuts or fits between, after installation by the Architectural Trades, to make sure that the equipment will fit correctly.

9. PREPARATION

All gas equipment is to be furnished with appliance pressure regulators. Electrical requirements shall be in accordance with rough in plan and verified on the job site.

Should the electrical requirements and the item specifications not agree with the rough in plan or electrical requirements on the job site, it shall be the responsibility of the FSEC to send a written report to the Architect and Consultant advising them of the discrepancy. Should the FSEC fail to verify voltages on the job site, it shall be his full responsibility to make all necessary changes on his equipment at no cost to the Owner.

All measurements shall be verified at the building site and full responsibility for their correctness must be assumed by the Contractor.

No extra charge or compensation will be allowed on account of difference between actual dimensions and the measurements indicated on the drawings. All or any differences which may be found shall be submitted to the Architect for consideration before proceeding with the work.

10. INSTALLATION

Food Service Equipment

FSEC shall be responsible for assembly and erection of all equipment included herein and in required location as shown on drawings, leaving same with outlets for other contractors to make final steam, plumbing, electrical and ventilation connections.

FSEC is to provide a competent foreman to supervise the erection and placing of equipment and to advise other Trades in regards to connections at time of installation. Where applicable, he shall deliver to other Trades all plumbing, steam fittings, and electrical parts included with his equipment for their proper installation.

FSEC to have qualified personnel on job site while the Plumbing, Electrical, and H.V.A.C. Trades are making final connections between rough in and equipment. Where necessary, FSEC is to move equipment to allow these Trades to make final connections.

Should the FSEC fail to assist the other Trades and final location of equipment is incorrect, it shall be the responsibility of the FSEC to move the equipment to correct location and assume the cost of disconnecting and reconnecting the service connections.

FSEC is responsible for cutting all holes thru tops, backsplashes, shelves and cabinets so the other Trades can make final connections to outlets in fixtures from his rough in.

Should these Trades fail to check rough in before slab is poured, they shall assume all responsibility for making necessary changes and paying all the costs involved. Should the dimensioned rough in drawings be incorrect, it shall be the responsibility of the FSEC to assume costs involved for revising all connections involved in the dimensioned error.

FSEC shall verify with the Electrical Trades the voltage and phase required for each piece of equipment that is to be supplied. Should the FSEC fail to verify the voltage characteristics it shall be his responsibility for changing the equipment on the job site to fit the voltage on the site.

When deemed necessary by the Architect or the Consultant, the FSEC shall meet on the job site with the Electrical and Plumbing Trades to determine the best way of offsetting rough in connections that interfere with beams, foundations or other possible field obstructions.

Rough in Inspections

It shall be the responsibility of the Plumbing and Electrical Trades to check all rough in connections installed by their personnel to make sure that they agree with the dimensioned rough in drawings as prepared by the FSEC.

Should these Trades fail to check rough in before slab is poured, they shall assume all responsibility for making necessary changes and paying all the costs involved. Should the dimensioned rough in drawings be incorrect, it shall be the responsibility of the FSEC to assume costs involved for revising all connections involved in the dimensioned error.

FSEC to have qualified personnel on job site while the Plumbing, Electrical, and H.V.A.C. Trades are making final connections between rough in and equipment. Where necessary, FSEC is to move equipment to allow these Trades to make final connections. Should the FSEC fail to assist the other Trades and final location of equipment is incorrect, it shall be the responsibility of the FSEC to move the equipment to correct location and assume the cost of disconnecting and reconnecting the service connections.

FSEC is responsible for cutting all holes thru tops, backsplashes, shelves and cabinets so the other Trades can make final connections to outlets in fixtures from his rough in.

Should specified equipment arrive at the job site with incorrect finish, model number, damaged, etc. A replacement item must be ordered immediately. Should the project schedule require the incorrect unit for opening operation, existing unit is to be left in operation until replacement is available, at no cost to the owner. It shall be the responsibility of the FSEC to assume all costs for re stocking, re selling, etc., of the incorrect items that have been used by the Owner.

All holes or openings must be cut in a workmanlike manner, with all edges ground and polished smooth and free of sharp edges. Opening in rear of base cabinet must not be larger than l" bigger than pipe extending thru cabinet. Oversize cutouts with rough edges will not be approved.

All faucets and waste assemblies to be furnished by the FSEC and to be turned over to the Plumbing Trades for their installation. NOTE! Faucets and waste assemblies to be tagged properly to insure proper installation of these items on the correct fixtures.

Ventilating Trades

This Trade will furnish all ductwork to openings on top hoods, furnished by the FSEC.

Electrical and Plumbing Trades

These Trades shall furnish all final electrical and plumbing connections between fixtures and rough in outlets in walls or floors.

Internal connections on booster heater and disposer to be furnished by the Plumbing and Electrical Trades and proper installation of these above named items. FSEC shall also include detailed drawings showing proper location of all accessories. General Building Contractor shall furnish all masonry platforms, tile bases and floor depressions.

Trimming & Sealing Equipment

Space between units to walls, ceilings, and floors and adjoining units not portable and with enclosed bodies, shall be completely sealed against entrance of food particles or vermin by means of st. st. trim strips, welding or commercial joint material suitable to the nature of the equipment. Sealer when not exposed to extreme heat shall be silicone construction sealant in the appropriate color. Ends of hollow sections to be closed. Enclosed fixtures without legs mounted on masonry bases or floor shall be sealed watertight to base of floor.

All equipment setting on masonry bases will be constructed to overhang to provide toe spaces, however, metal framework and/or housings are to be turned under a sufficient distance to overlap masonry base and eliminate openings at these points. Bases to be sealed with Dow Corning sealant #786 or approved G.E. sealant.

Caulking at all backsplash areas in pot washing, dishwashing and preparation sinks and counters shall not have any recessed or convex areas which will allow for debris and water to sit on caulk.

Upright penetrations in backsplash and counter tops to have gap sealed with silicone.

11. ADJUST & CLEAN

FSEC shall adjust and lubricate all moving parts for smooth quiet operation. The FSEC shall touch up scratches, marred or abraded surfaces to restore equipment to the original condition.

The FSEC shall also remove all crating and packing material from the job site and shall also remove fingerprints and leave equipment and adjacent equipment or surfaces clean.

The FSEC shall be responsible for missing items unless he can produce signed receipts from the Owner's personnel that the items were received and an accounted for. Owner cannot be responsible for items that were dropped off at the job site and were not signed for by the Owner's personnel or representatives.

l2. DEMONSTRATION

The FSEC shall arrange a demonstration date with the Owner and at the same time check out all loose items with the Food Service Manager. Copy of signed receipts shall be mailed to E. F. WHITNEY, INC., showing all loose items, such as st. st. pans, mixer attachments, etc.

13. GUARANTEE

All items furnished by the Food Service Equipment Contractor as part of this Contract, shall be guaranteed against defects in workmanship and material for a period of one (l) year.

Manufacturers of standard items of equipment as supplied under this Contract are to provide a one (l) year warranty on parts and labor.

In addition, connected pieces of equipment requiring calibration are to be so calibrated by a qualified person as part of this Contract.

Commencement date for warranty purposes is as follows:

a. Connected equipment: - When equipment is started up for intended use."

b. Non-connected equipment: - At date of Owner acceptance."

14. PROTECTION OF EQUIPMENT

Fabricated fixtures such as custom st. st. & plastic laminate items are to have fiberboard or plywood taped to tops and exposed body panels. Protective covering is to be left in place until all trades are completed.

Manufactured equipment is to have fiberboard or plywood tape as required per equipment shape and installation access requirements.

Prohibited use of equipment; tool and material storage area, workbench, scaffold, stacking area, etc.

15. APPROVED CUSTOM ST. ST. FABRICATORS

The following is a list of fabricators who have demonstrated the ability to provide quality equipment.

Florida Stainless
Oviedo, FL

American Stainless Steel Corp

Englewood, CO.

PRS
Warren, MI

Great Lakes Stainless
Traverse City, MI

American Foodservice
Savannah, TN

MCM Fixture Co.
Hazel Park, MI

Midwest Stainless Fabricating Co.
Livonia, MI

Nationwide Fabrication, Inc.
Northglenn, CO

Stainless Fixtures Inc.
Pomona, CA

Use of a food service equipment fabricator other than those listed must be specifically approved in writing by the consultant prior to submission of food service equipment bids on this project.

ITEM #1 WALK IN ICE/TEMPERING FREEZER/COOLER

QTY: One (1)

MFG: Kolpak Custom

CONST:

Walk-In Freezer provided under this portion of the specifications shall be prefabricated of modular design and construction. They shall be constructed to allow convenient and accurate field assembly.

See plan for sizing and configuration. Panel sizing to fit openings with not more than 2" clearance to surrounding walls. Interiors to have finished clear height of 8' – 4.25".

Panel Construction - All panels shall consist of interior and exterior metal surfaces precision formed to exact dimensions with double 90° edges to enhance overall panel rigidity. The finished metal surfaces shall be fitted with a teardrop profile gasket and placed in precision tooled fixtures where they are injected with *Foamed-in-Place* urethane insulation. Curing of the insulating core shall take place at a controlled temperature within the foaming fixture to provide permanent adhesion to the metal surfaces, allowing for uniform foam expansion and to maximize finished panel strength. Panel edges shall have a molded urethane tongue and groove profile of insulation factor equal to material to accurately align panels during installation and to assure an airtight seal. No structural wood, steel, straps, high density urethane or other non-insulating materials shall be used in panel construction.
Finished panels must be UL classified building units.

Finished panels will be 4" thick and will be provided in 11 ½", 23", 34 ½" and 46" widths to conform to project drawings. Corner panels shall be one piece 90° angled construction and shall measure 12" x 12" or 12" x 6 ¼" where required. For units with multiple compartments, specially designed "tee" panels shall be provided to form partition wall to outside wall junctures. "Tee" panels shall measure 23" x 12" or 23" x 6 ¼" where required. All panels shall be interchangeable with like panels or standard door frame sections for fast and easy assembly.

Floor Construction and Finish - NSF 1/8" diamond aluminum treadplate with NSF Coved corners per manufacturers standards. Panels to be set in 4" deep recessed depression.

Floors to be 3.75" thick. Panel transition between walls and floors to be coved to meet NSF and Health Department Approval. Provide threshold between walk in and kitchen area, threshold to be secured to the floor, edges to be sealed with clear silicone.

Panels shall be fabricated in a similar manner to other panels in the walk-in with panel edges to have foamed-in-place tongue and groove with Posi-Loc locking assemblies foamed-in-place at time of fabrication All edges and corners to be coved in accordance with NSF Standard 7 and completely foamed-in-place.

Door Construction **-** Entrance doors are constructed similar to other panels and shall be flush mount, magnetic in-fitting type. Door sections shall be constructed to conform to Underwriters Laboratories Standards for electrical safety and shall bear all appropriate U.L. listing labels. The perimeter of the door and frame shall be built of a fiberglass reinforced plastic (FRP) pultrusions weighing not less than 11 ounces per lineal foot. All pultrusions shall be non-conductive, non-corrosive, rust proof and listed by the National Sanitation Foundation. Door jamb shall house a door frame heater circuit and a magnet attracting stainless steel trim strip. Door frame shall be equipped with flexible bellows type vinyl door gasket with magnetic core and flexible EPDM (ethylene propylene diene monomer) door sweep. Standard door frame sections 46", 57 ½" or 69" wide shall be equipped with a vapor proof light fixture and globe pre-wired to a pushbutton type light switch with pilot light and a 2 1/2" diameter dial-type thermometer. An aluminum braided heater wire with integral circuit closure providing activation while

refrigerated room is within operating temperature and a 16 gauge stainless steel threshold plate shall also be included in all door frames.

Door hardware shall be die cast zinc with brushed satin finish. Doors shall be mounted with two (2) heavy duty cam lift hinges. Pull handle assembly shall incorporate a keyed cylinder deadbolt style lock, provision for Using Agency supplied padlock and an inside safety release to prevent personnel entrapment. Positive door closing and sealing shall be assisted by a hydraulic closer device.

Per code, provide clear vinyl strip curtains at door openings.

ACCESSORIES:

View-Through Window: To provide vision in the walk-in room, a 14" x 14" triple-pane window shall be used with a heated frame as standard. For freezer applications or humid conditions, heated glass shall be used. Window shall be neatly trimmed and designed for replacement in the field.

Monitoring System: fully programmable featuring audio/visual temperature alarm with digital thermometer, high & low set points, 115V output, energy saving door frame heater wire, vapor proof light & switch with pilot light.

Cylinder Lock: A cylinder locking device shall be installed on reach-in doors as required. It shall consist of a cylinder lock and locking cam with a non-conductive housing.

Thru-Ceiling Electrical: A thru-ceiling electrical assembly shall be supplied at the entrance door to allow the door electrical components to be pre-wired through to the exterior ceiling. It shall consist of a flexible cord with plug on the door section and receptacle installed in the ceiling panel.

Kickplate: Provide 1/8" aluminum diamond kickplate on interior and exterior of all entrance doors. Kickplate to be 36" high x width of door.

Provide 48" long LED ceiling mounted light fixtures in each compartment and one (1) LED vapor proof fixture above each door. Exposed conduit on interior ceiling is not permitted. FSEC to be responsible for installation of light fixtures. Loose box of fixtures turned over to ET is not acceptable.

FSEC to mount lights and leave ready for interwiring and final connections to switch(s) and building power supply by EC..

NOTE! Per code, The light intensity shall be at least 110 lux (10 foot candles) at a distance of 75 cm (30 inches) above the floor, in walk-in refrigeration units, dry food storage areas and in other areas during periods of cleaning. Manufacturer to provide fixture quantities to meet these requirements.

Wall Protectors: To prevent damage to Walk-Ins in heavy traffic areas, the following bumper rail shall be supplied on the exposed walls:

A 1-1/2" wide extruded aluminum rail with vinyl insert. Field mounted with unexposed with sheet metal screws/supplied with end caps.

Closure Panels: Furnish removable closure panels to enclose the area between the building and the walk-in ceilings. Panels to be fabricated of same material as walk-in exterior.

Trim Strips: Furnish trim strips between walk-in and building walls where shown. Constructed and finished of same material as exterior of walk-in.

Corner Guard: Provide 16 gauge stainless steel corner guards 6" x 6" x 60" high on exposed exterior corner of walk-in.

Base Cove: FSEC to provide base cove, where specified, to seal walk-in to building floor and facilitate easy cleaning.

One (1) Lot exterior wall bumpers where exposed
One (1) Lot of LED lights at doorway
One (1) Lot of LED Tube Light Fixtures on ceiling
One (1) Flex Strip Curtain
One (1) Heated Pressure Relief Vent Model 1825
Three (3) Vision Windows 14" x 14"
One (1) Lot of Reinforced wall panels at Hose Reel Locations

DETAILS:

Finishes - The interior and exterior finish on panel surfaces is to be manufactured from a combination of the following premium grade materials. The gauge or thickness of the metal material listed is rated prior to embossing.

- Interior walls shall be .032. Stucco Aluminum
- Interior ceilings shall be .032. Stucco Aluminum
- Exposed Exterior walls shall be .032. Stucco Aluminum
- Exterior ceiling shall be .032. Stucco Aluminum
- Unexposed top of box and bottom of floor to be 26 Ga. Acrylume
- Exposed Exterior Front shall be 032. Stucco Aluminum

Insulation - Insulation shall be 4" thick high pressure impingement mixed (HPIM) foamed-in-place urethane, minimum 2.4 lb. per cubic foot density, fully heat cured and bonded to metal finishes. The insulation shall be manufactured using an HFC 245fa expanding agent. The thermal conductivity ("K" factor) shall not exceed 0.133 BTU/Hour/Square Foot/Degree Fahrenheit/Inch of Thickness across the entire width of the panel. Overall coefficient of heat transfer ("U" factor) shall not exceed .033 and the resistance to heat penetration ("R" factor) shall not be less than 30. The insulation shall have a 97% closed cell structure to prevent absorption of liquids. The finished panel (not just the core material) shall be listed by Underwriters Laboratories as a Class 1 (UL-723) building unit and demonstrate a flame spread rating of 20 or less. The core material smoke developed Underwriters Laboratory rating shall be no greater than 300 as documented by and in accordance with ASTM Standards.

Panel Assembly - Assembly of walk-in shall be accomplished by the use of cam-action locking mechanisms precisely positioned along the outside tongue or groove edges of each panel to exactly correspond with a matching mechanism in the adjacent panel. Cam lock spacing on vertical joints shall not exceed 46" and at junction of vertical and horizontal joints by 23". Cam locks shall be foamed-in-place and anchored securely in the panel by steel "wings" integral to the lock housing. Cam locks shall be operated through access ports by the use of a hex wrench, thereby, pulling the panels together and establishing an airtight seal. All access ports shall be located on the walk-in interior to facilitate assembly when close to building structures and shall be covered by vinyl snap-in caps after final assembly. Complete step-by-step assembly instructions and erection drawings shall be supplied by the walk-in manufacturer and installing contractor must be factory authorized!

System shall have an integrated, push button light switch with on/off indicator light. System shall comply with January 1, 2009 federal energy requirements by incorporating an automatic lighting shut-off. System shall actively monitor and control door heater assembly for proper operation and lower energy consumption by having programmable initiation temperature, termination temperature and percentage of operation time adjustability.

System to have 115V output for connection to external alarms, dialers, etc. that run on standard 115V input. Where specified, the system shall be supplied with a dry contact kit for connection to equipment that requires dry contacts.

Warranty - Insulated panel products are to be warranted for a period of ten (10) years after date of substantial completion to the original user should the panels be installed properly and be used under normal service conditions. Installing contractor is to closely adhere to manufacturer's recommendations and guidelines for installation so as to ensure a quality operating product. All accessories and components shall have a one year warranty.

ELECT:

As indicated on rough-in plans.

Submit shop drawing for review and approval. NOTE! Walk in construction to match units being furnished for adjacent JJC City Center project which are currently be fabricated.

ITEM #2 ST. ST. PORTABLE WORK TABLE

Four (4) Custom fabricated unit, size 36" long x 24" wide x 34" high.

TOP Fabricated of 14 gauge stainless steel with type "A" edges on all sides. Top to have bullnosed corners, polished finish and reinforcing under per General Requirements.

LEGS Top to be mounted on 1-5/8" diameter, 16 gauge stainless steel tubular legs furnished with integrally welded 1-1/4" diameter, stainless steel crossrails running between leg uprights in both directions. Top of leg furnished with stainless steel gussets, welded to channel top reinforcing.

CASTERS Each leg to be furnished with heavy duty casters with wheel locks and N.S.F. approval. Caster to be 5" diameter with black solid neoprene tired wheels.

SHELF UNDER: Under top, furnish 16 gauge stainless steel removable shelf with all outside edges rolled over 90 degrees to match contour of crossrail.

Submit shop drawing for review and approval

ITEM #3 EXISTING ICE BLOCK MAKER & LIFT

One (1) Lot provided by Using Agency. "NIC"

ITEM #4 SCISSOR LIFT TABLE

One (1) RELIUS SOLUTIONS Mechanical Mobile Scissor Lift Table with Capacity of 1100 Pounds. (C & H Item #5703000) (http://www.chdist.com/product/relius-solutions-mechanical-mobile-scissor-lift-table-1100-lb-capacity-321688.aspx?var=196907) ()

ITEM #5 SECURED SHELVING

Two (2) METRO model SEC55DCQ super erecta 48" long x 24" chrome wire security shelving units furnished per manufacturers standards. Units to be provided with two (2) interior wire shelves, heavy duty casters, two with brakes. Locks to be provided by operator.

ITEM #6 ST. ST. FLOOR TROUGHS

Six (6) Custom fabricated st. st. floor troughs sized per plan. General construction to be similar to BSI, Inc., Model #FWT-760. Unit to be furnished per manufacturers standards. Include the following standard and optional accessories:

One (1) 14 ga., brushed st. st. finish
One (1) Lot anti slip fiberglass grating

Unit to be turned over to Plumbing Trade for installation and piping. Submit shop drawing for review and approval.

ITEM #7 HOSE REEL

Four (4) T&S model #B-1439 or FISHER # or Krowne #24-502 open hose reel unit with trigger water gun. Unit to be turned over to pluming trades for installation and piping. See elevation for details.

ITEM #8 STORAGE SHELVING

QTY: Four (4)

MFG & MODEL: InterMetro Industries Corp model #Super Brite Super Erecta or Eagle model #Eaglebright or ISS model #Plating Plus Shelving.

CONST: All carbon steel construction. Shelves to have 10 ga. mat wires spaced 21/32" apart. Mat wires to be supported by 6 ga. support wire. Support wire spacing specific to shelf size. Shelf width greater than 18" include one to two 7 ga. snake wire supports running the length of the shelf. Shelf frame to be made up of 7 ga. snake wire with two 6 ga. snake support wire. A round 1 1/2" steel collar is welded at each corner. All contact points are to be welded.

Posts are to be provided as 1" O.D. Round tubes notched every 1" of the post. A polypropylene post cap will be installed on the top of each post. The bottom of the post to be furnished with heavy duty casters, two with locks.

Finish will be Super Brite, a zinc based chromate bath.

DETAILS: Each shelving to be furnished five (5) tiers high with four (4) 84" high posts. Shelving size and quantity to be sized per plan.

ITEM #9 ST. ST. FLOOR DRAIN/FIBERGLASS GRATE

Six (6) ADVANCE TABCO model #FDR1212 floor drain assemblies furnished per manufacturers standards with fiberglass grates. Units to be turned over to plumbing trade for installation.

ITEM #10 NOT USED

ITEM #11 NOT USED

ITEM #12 SINGLE HOSE BIB

One (1) T & S model #B-0717 (Chicago, Fisher) single hose bib assembly. FSEC to turn unit over to Plumbing contractor for installation.

ITEM #13 ST. ST. TABLE W/ SINK

One (1) Custom Fabricated unit 5' - 6" long x 30" wide x 34" high to working surface.

TOP

Fabricated of 14 ga. st. st. with front and exposed end furnished with type "A" edges. Working surface to have integral pitch towards sink with top of rim parallel with floor. Top reinforcing and finish furnished in accordance with General Requirements and Standard Edge Detail.

BACKSPLASH

Rear and sides where shown on plan, against walls or equipment to be furnished with 12" high integral backsplash. Top to be turned back at 45 degree angle with 1" return down parallel to wall. Furnish 14 gauge stainless steel "Z" clips to hold backsplash tight to wall in neat and workmanlike manner. Provide clear silicone sealant to wall and equipment per Board of Health requirements. See Edge Detail type "G" for construction requirements.

SINK

In top, furnish single compartment integrally welded sink 21" x 26" x 12" deep. Bottom of sink compartment to be pitched and furnished with die stamped opening to accommodate waste flange. Sink to be all coved cornered and fabricated per General Requirements.

SINK TRIM: One (1) T&S B-0230-LN Faucet Body w/ 060X 8" Swing Spout (1) T&S B-0199-01 Aerator One (1) T&S B-3950-01 (2" IPS) Twist Handle Drain w/removable Flat Strainer, Connected Rear Overflow Assembly (FISHER, CHICAGO FAUCET). Twist Handle to Be Furnished with 14 Ga. St. St. Bracket Welded to Underside of Sink as Shown on Elevation. All Sink Trim to Be Tagged & Turned over to Plumber for Installation.

Sink trim to be furnished with identification tags and signed over to the PTs for their internal and final connections to rough-in locations.

SHELF UNDER

Under top, per plan or elevation, furnish 16 gauge stainless steel removable shelves. Shelves to be rolled over crossrails in front and sides. Rear to be turned up 3" against walls or side equipment. Shelves to be all coved cornered fabricated at not less than 5/8" radius.

SHELF OVER

Over top as shown on plan furnish single deck 16 ga. st. st. shelf with 1" rolled rim and 2" turn up against wall. Shelf to be mounted on 1-1/4" dia., st. st. cantilever uprights extending up thru backsplash. Hole in backsplash to be cut out to fit upright with not more than 1/16" clearance, then caulked with clear silicone sealant.

Submit shop drawing for review and approval.

ITEM #14 PORTABLE FREEZER SHELVING

QTY: One (1) Set arranged per plan

MFG/MODEL: InterMetro Industries Corp Super Erecta Metroseal3 or Eagle #Eagleguard or ISS #GreyBond Shelving

CONST: Shelves to have # 10 gauge mat wires spaced 21/32" on centers with #6 gauge cross braces a maximum of 8" on centers and running perpendicular to crosswires. Additional center cross bracing is augmented with 1/4" snake wire support on shelves with depth 21" and greater. Side construction to consist of 1/4" diameter top and bottom support wires with 7 gauge snake wire welded between the top and bottom support wires. The top and bottom support wires are to be welded to round 1 1/4" i.d. collar to form corner. All contact points are to be welded.

Posts are to be provided as 1" O.D. round tubes grooved at 1 " increments and numbered at 2" increments. Posts are double-grooved every 8" for easy identification. A round plastic post cap will be installed on the top of each post. A slip sleeve will be provided for each collar to stay at selected position on the post.

ACCESSORIES:

One (1) Set of 5" dia., swivel casters to be provided with each section of shelving.

DETAILS:

Shelving to be furnished four (4) tiers high with One (1) set of posts per unit. Post sized to allow mobile units to be rolled in and out of 75" doors while on 5" casters. FSEC to coordinate shelving length with walk in interior to insure proper fit.

ITEM #15 NOT USED

ITEM #16 WALK IN REFRIGERATOR/FREEZER

QTY: One (1)

MFG: Kolpak Custom

CONST:

Walk-In Refrigerator/Freezer provided under this portion of the specifications shall be prefabricated of modular design and construction. They shall be constructed to allow convenient and accurate field assembly.

See plan for sizing and configuration. Panel sizing to fit openings with not more than 2" clearance to surrounding walls. Interiors to have finished clear height of 8' – 4.25".

Panel Construction - All panels shall consist of interior and exterior metal surfaces precision formed to exact dimensions with double 90° edges to enhance overall panel rigidity. The finished metal surfaces shall be fitted with a teardrop profile gasket and placed in precision tooled fixtures where they are injected with *Foamed-in-Place* urethane insulation. Curing of the insulating core shall take place at a controlled temperature within the foaming fixture to provide permanent adhesion to the metal surfaces, allowing for uniform foam expansion and to maximize finished panel strength. Panel edges shall have a molded urethane tongue and groove profile of insulation factor equal to material to accurately align panels during installation and to assure an airtight seal. No structural wood, steel, straps, high density urethane or other non-insulating materials shall be used in panel construction.
Finished panels must be UL classified building units.

Finished panels will be 4" thick and will be provided in 11 ½", 23", 34 ½" and 46" widths to conform to project drawings. Corner panels shall be one piece 90° angled construction and shall measure 12" x 12" or 12" x 6 ¼" where required. For units with multiple compartments, specially designed "tee" panels shall be provided to form partition wall to outside wall junctures. "Tee" panels shall measure 23" x 12" or 23" x 6 ¼" where required. All panels shall be interchangeable with like panels or standard door frame sections for fast and easy assembly.

Floor Construction and Finish - NSF 1/8" diamond aluminum treadplate with NSF Coved corners per manufacturers standards. Panels to be set in 4" deep recessed depression.

Floors to be 3.75" thick. Panel transition between walls and floors to be coved to meet NSF and Health Department Approval. Provide threshold between walk in and kitchen area, threshold to be secured to the floor, edges to be sealed with clear silicone.

Panels shall be fabricated in a similar manner to other panels in the walk-in with panel edges to have foamed-in-place tongue and groove with Posi-Loc locking assemblies foamed-in-place at time of fabrication All edges and corners to be coved in accordance with NSF Standard 7 and completely foamed-in-place.

Door Construction **-** Entrance doors are constructed similar to other panels and shall be flush mount, magnetic in-fitting type. Door sections shall be constructed to conform to Underwriters Laboratories Standards for electrical safety and shall bear all appropriate U.L. listing labels. The perimeter of the door and frame shall be built of a fiberglass reinforced plastic (FRP) pultrusions weighing not less than 11 ounces per lineal foot. All pultrusions shall be non-conductive, non-corrosive, rust proof and listed by the National Sanitation Foundation. Door jamb shall house a door frame heater circuit and a magnet attracting stainless steel trim strip. Door frame shall be equipped with flexible bellows type vinyl door gasket with magnetic core and flexible EPDM (ethylene propylene diene monomer) door sweep. Standard door frame sections 46", 57 ½" or 69" wide shall be equipped with a vapor proof light fixture and globe pre-wired to a pushbutton type light switch with pilot light and a 2 1/2" diameter dial-type thermometer. An aluminum braided heater wire with integral circuit closure providing activation while refrigerated room is within operating temperature and a 16 gauge stainless steel threshold plate shall also be included in all door frames.

Door hardware shall be die cast zinc with brushed satin finish. Doors shall be mounted with two (2) heavy duty cam lift hinges. Pull handle assembly shall incorporate a keyed cylinder deadbolt style lock, provision for Using Agency supplied padlock and an inside safety release to prevent personnel entrapment. Positive door closing and sealing shall be assisted by a hydraulic closer device.

Per code, provide clear vinyl strip curtains at door openings.

ACCESSORIES:

View-Through Window: To provide vision in the walk-in room, a 14" x 14" triple-pane window shall be used with a heated frame as standard. For freezer applications or humid conditions, heated glass shall be used. Window shall be neatly trimmed and designed for replacement in the field.

Monitoring System: fully programmable featuring audio/visual temperature alarm with digital thermometer, high & low set points, 115V output, energy saving door frame heater wire, vapor proof light & switch with pilot light.

Cylinder Lock: A cylinder locking device shall be installed on reach-in doors as required. It shall consist of a cylinder lock and locking cam with a non-conductive housing.

Thru-Ceiling Electrical: A thru-ceiling electrical assembly shall be supplied at the entrance door to allow the door electrical components to be pre-wired through to the exterior ceiling. It shall consist of a flexible cord with plug on the door section and receptacle installed in the ceiling panel.

Kickplate: Provide 1/8" aluminum diamond kickplate on interior and exterior of all entrance doors. Kickplate to be 36" high x width of door.

Provide 48" long LED ceiling mounted light fixtures in each compartment and one (1) LED vapor proof fixture above each door. Exposed conduit on interior ceiling is not permitted. FSEC to be responsible for installation of light fixtures. Loose box of fixtures turned over to ET is not acceptable.

FSEC to mount lights and leave ready for interwiring and final connections to switch(s) and building power supply by EC..

NOTE! Per code, The light intensity shall be at least 110 lux (10 foot candles) at a distance of 75 cm (30 inches) above the floor, in walk-in refrigeration units, dry food storage areas and in other areas during periods of cleaning. Manufacturer to provide fixture quantities to meet these requirements.

Wall Protectors: To prevent damage to Walk-Ins in heavy traffic areas, the following bumper rail shall be supplied on the exposed walls:

A 1-1/2" wide extruded aluminum rail with vinyl insert. Field mounted with unexposed with sheet metal screws/supplied with end caps.

Closure Panels: Furnish removable closure panels to enclose the area between the building and the walk-in ceilings. Panels to be fabricated of same material as walk-in exterior.

Trim Strips: Furnish trim strips between walk-in and building walls where shown. Constructed and finished of same material as exterior of walk-in.

Corner Guard: Provide 16 gauge stainless steel corner guards 6" x 6" x 60" high on exposed exterior corner of walk-in.

Base Cove: FSEC to provide base cove, where specified, to seal walk-in to building floor and facilitate easy cleaning.

One (1) Lot exterior wall bumpers where exposed
One (1) Lot of LED lights at doorway
One (1) Lot of LED Tube Light Fixtures on ceiling
One (1) Flex Strip Curtain
One (1) Heated Pressure Relief Vent Model 1825
Two (2) Vision Windows 14" x 14"

DETAILS:

Finishes - The interior and exterior finish on panel surfaces is to be manufactured from a combination of the following premium grade materials. The gauge or thickness of the metal material listed is rated prior to embossing.

- Interior walls shall be .032. Stucco Aluminum
- Interior ceilings shall be .032. Stucco Aluminum
- Exposed Exterior walls shall be .032. Stucco Aluminum
- Exterior ceiling shall be .032. Stucco Aluminum
- Unexposed top of box and bottom of floor to be 26 Ga. Acrylume
- Exposed Exterior Front shall be 032. Stucco Aluminum

Insulation - Insulation shall be 4" thick high pressure impingement mixed (HPIM) foamed-in-place urethane, minimum 2.4 lb. per cubic foot density, fully heat cured and bonded to metal finishes. The insulation shall be manufactured using an HFC 245fa expanding agent. The thermal conductivity ("K" factor) shall not exceed 0.133 BTU/Hour/Square Foot/Degree Fahrenheit/Inch of Thickness across the entire width of the panel. Overall coefficient of heat transfer ("U" factor) shall not exceed .033 and the resistance to heat penetration ("R" factor) shall not be less than 30. The insulation shall have a 97% closed cell structure to prevent absorption of liquids. The finished panel (not just the core material) shall be listed by Underwriters Laboratories as a Class 1 (UL-723) building unit and demonstrate a flame spread rating of 20 or less. The core material smoke developed Underwriters Laboratory rating shall be no greater than 300 as documented by and in accordance with ASTM Standards.

Panel Assembly - Assembly of walk-in shall be accomplished by the use of cam-action locking mechanisms precisely positioned along the outside tongue or groove edges of each panel to exactly correspond with a matching mechanism in the adjacent panel. Cam lock spacing on vertical joints shall not exceed 46" and at junction of vertical and horizontal joints by 23". Cam locks shall be foamed-in-place and anchored securely in the panel by steel "wings" integral to the lock housing. Cam locks shall be operated through access ports by the use of a hex wrench, thereby, pulling the panels together and establishing an airtight seal. All access ports shall be located on the walk-in interior to facilitate assembly when close to building structures and shall be covered by vinyl snap-in caps after final assembly. Complete step-by-step assembly instructions and erection drawings shall be supplied by the walk-in manufacturer and installing contractor must be factory authorized!

System shall have an integrated, push button light switch with on/off indicator light. System shall comply with IECC 2012 federal energy requirements by incorporating an automatic lighting shut-off. System shall actively monitor and control door heater assembly for proper operation and lower energy consumption by having programmable initiation temperature, termination temperature and percentage of operation time adjustability.

System to have 115V output for connection to external alarms, dialers, etc. that run on standard 115V input. Where specified, the system shall be supplied with a dry contact kit for connection to equipment that requires dry contacts.

Warranty - Insulated panel products are to be warranted for a period of ten (10) years after date of substantial completion to the original user should the panels be installed properly and be used under normal service conditions. Installing contractor is to closely adhere to manufacturer's recommendations and guidelines for installation so as to ensure a quality operating product. All accessories and components shall have a one year warranty.

Submit shop drawing for review and approval. NOTE! Walk in construction to match units being furnished for adjacent JJC City Center project which are currently be fabricated.

ITEM #17 NOT USED

ITEM #18 WALK IN REFRIGERATOR SHELVING

QTY: One (1) Set arranged per plan

MFG/MODEL: InterMetro Industries Corp Super Erecta Metroseal3 or Eagle #Eagleguard or ISS #GreyBond Shelving

CONST: Shelves to have # 10 gauge mat wires spaced 21/32" on centers with #6 gauge cross braces a maximum of 8" on centers and running perpendicular to crosswires. Additional center cross bracing is augmented with 1/4" snake wire support on shelves with depth 21" and greater. Side construction to consist of 1/4" diameter top and bottom support wires with 7 gauge snake wire welded between the top and bottom support wires. The top and bottom support wires are to be welded to round 1 1/4" i.d. collar to form corner. All contact points are to be welded.

Posts are to be provided as 1" O.D. round tubes grooved at 1 " increments and numbered at 2" increments. Posts are double-grooved every 8" for easy identification. A round plastic post cap will be installed on the top of each post. A slip sleeve will be provided for each collar to stay at selected position on the post.

ACCESSORIES:

One (1) Set of 5" dia., swivel casters to be provided with each section of shelving.

DETAILS:

Shelving to be furnished four (4) tiers high with One (1) set of posts per unit. Post sized to allow mobile units to be rolled in and out of 75" doors while on 5" casters. FSEC to coordinate shelving length with walk in interior to insure proper fit.

ITEM #19 WALK IN FREEZER SHELVING

QTY: One (1) Set arranged per plan

MFG/MODEL: InterMetro Industries Corp Super Erecta Metroseal3 or Eagle #Eagleguard or ISS #GreyBond Shelving

CONST: Shelves to have # 10 gauge mat wires spaced 21/32" on centers with #6 gauge cross braces a maximum of 8" on centers and running perpendicular to crosswires. Additional center cross bracing is augmented with 1/4" snake wire support on shelves with depth 21" and greater. Side construction to consist of 1/4" diameter top and bottom support wires with 7 gauge snake wire welded between the top and bottom support wires. The top and bottom support wires are to be welded to round 1 1/4" i.d. collar to form corner. All contact points are to be welded.

Posts are to be provided as 1" O.D. round tubes grooved at 1 " increments and numbered at 2" increments. Posts are double-grooved every 8" for easy identification. A round plastic post cap will be installed on the top of each post. A slip sleeve will be provided for each collar to stay at selected position on the post.

ACCESSORIES:

One (1) Set of 5" dia., swivel casters to be provided with each section of shelving.

DETAILS:

Shelving to be furnished four (4) tiers high with One (1) set of posts per unit. Post sized to allow mobile units to be rolled in and out of 75" doors while on 5" casters. FSEC to coordinate shelving length with walk in interior to insure proper fit.

ITEM #20 DRY STORAGE SHELVING

QTY: (1) One lot arranged per plan.

MFG & MODEL: InterMetro Industries Corp model #Super Brite Super Erecta or Eagle model #Eaglebright or ISS model #Plating Plus Shelving.

CONST: All carbon steel construction. Shelves to have 10 ga. mat wires spaced 21/32" apart. Mat wires to be supported by 6 ga. support wire. Support wire spacing specific to shelf size. Shelf width greater than 18" include one to two 7 ga. snake wire supports running the length of the shelf. Shelf frame to be made up of 7 ga. snake wire with two 6 ga. snake support wire. A round 1 1/2" steel collar is welded at each corner. All contact points are to be welded.

Posts are to be provided as 1" O.D. Round tubes notched every 1" of the post. A polypropylene post cap will be installed on the top of each post. The bottom of the post to have F04-004 hex head leveler and C03-002 post insert for the purpose of leveling the shelving.

Finish will be Super Brite, a zinc based chromate bath.

DETAILS: Each shelving to be furnished five (5) tiers high with four (4) 86" high posts. Shelving size and quantity to be sized per plan. Shared uprights will not be accepted.

ITEM #21 ROOF MOUNTED REFRIGERATION RACK

One (1) COLDZONE "parallel-pak" outdoor air-cooled remote refrigeration package, with control panel, 208 volts, 3 phase, 60 hz. Furnished and installed by FSEC.

Refrigeration system shall be housed in a weather protected enclosure. The frame, enclosure, and panels shall be fabricated of galvanized steel. Entire frame shall be pre-assembled, welded, cleaned, and painted with a prime coat of zinc chromate then finished with a coat of baked enamel epoxy based paint.

The condenser shall be removable, with rifled tube slotted finned and shall be designed for 20 FTD. Condenser fan motors shall be mounted on the top of the enclosure. FSEC to verify location of rack installation on Ren Cen Building Roof. FSEC to review all piping runs, etc., with their refrigeration contractor at time of bidding to insure a proper quote.

Parallel-rack air-cooled refrigeration system

Parallel compressor unit shall employ three parallel-piped scroll compressors, a control panel, oversized condenser and receiver all mounted on one common structural steel frame. The control panel shall contain all the necessary controls for food service fixtures. Compressors motors shall be factory wired. The interconnected motor compressors shall act as one condensing unit with 30 percent extra capacity. Control is obtained by cycling individual compressors using a CPC E-2 solid state facility management system to the three parallel piped refrigeration compressors with one set of cut-in / cut-out suction pressure settings, fan sequencing, time delays, time schedules, and operational memory

Each unit shall be equipped with a replaceable core liquid line filter- drier, moisture indicator and hand valve mounted between the receiver outlet valve and the liquid manifold. There shall also be a replaceable core-suction line filter mounted between each compressor and the main suction header.

Fixture thermostat and liquid line solenoid valve combinations shall be employed for accurate temperature and humidity control.

All condensing units shall be new and factory assembled to operate with the refrigerant specified in the refrigeration engineering summary sheet. R-404a refrigerant shall be used on medium and low temperature units.

Oil equalization system

Each unit shall be equipped with an oil separator in conjunction with an oil equalization system to assure a proper amount of oil to each compressor whether running or cycled off for continuous proper lubrication.

Each oil equalization system shall be equipped with oil separator, oil reservoir, oil return filter/drier automatic oil level regulators for each compressor and interconnecting tubing per schematic diagram. The oil level control system shall incorporate isolation valves to facilitate serviceability and minimize system contamination.

Pre-piping

All refrigerant lines shall be extended to one side of the package in a neat and orderly manner. Suction line for all temperature units must be insulated with Armaflex (minimum 3/4" thick).

All tubing shall be securely supported and anchored with clamps.

Ends of lines shall be capped against contamination after the unit is complete. These capped ends are to be opened only at final connection of the package to fixtures.

Control panel

The package shall have factory mounted and pre-wired control panel complete with interlocked main-fused disconnect, compressor circuit breakers, contactors and wired for single-point power connection. E-2 management system shall be used to control refrigeration system operation, sequencing the compressors and fans, time delay, operational memory, the E-2 management system will be able to be monitored through pc stations.(interconnection to maintenance department network by others)

Electrical contractor shall provide and install main power lines to panel and provide wire harness wiring for control and defrost heater between and the defrost clock and the refrigeration fixtures, all in accordance with the wiring diagram and local codes.

Distribution manifold

Provide a factory manufactured manifold for liquid and suction distribution to be located inside the facility at the direction of the facilities maintenance department. Manifold assembly shall be prewired for single electrical connection for power and interconnection from the cpc-2 controller on the rack for thermostic control, defrost, and compressor isolation. Solenoid valves shall be provided for liquid refrigerant as well as isolation valves.

Evaporator coils

Evaporator coils shall be direct expansion type fabricated of copper tubes with aluminum fins. All evaporator coils shall be provided with solenoid valve, thermostatic expansion valve, and thermostat. Piped and wired to a junction box. Each evaporator shall be equipped with ball valves. Each ball valve shall be equipped with shrader valve for access.

Evaporator shall be equipped with energy saving "EC" motors.

Evaporative coil shall be defrosted by electric defrost as scheduled through the R-2 controller.

Submit shop drawing for review and approval. FSEC to be responsible for 100% operation system after final plumbing and electrical connection have been made by respective trades.

Submit shop drawing for review and approval.

ITEM #22 FIELD ERECTION LABOR

FSEC shall deliver, unload, uncrate, and install all items herein specified ready for final plumbing, electrical and ventilation connections furnished by respective trades as outlined in the General Requirements.

All equipment shall be cleaned and polished before demonstrating equipment to the Owner. All crating and packing material to be removed from job site.

FSEC shall arrange demonstration date with Owner and at the same time check out all loose items with the Food Service Manager.

FSEC shall be responsible for missing items unless he can produce signed receipts from Owner's personnel that the items were received and accounted for. Owner cannot be responsible for items delivered to the job site that were dropped off without being signed for by Owner's personnel or representatives.

Rough-in plans to be submitted at a scale of 1/4" = 1'-0". When existing equipment is re used at new locations, it shall be the FSEC'S responsibility to show necessary rough-in requirements for these items. (See General Requirements for complete details relating to submission of shop drawings). Two (2) Buyout Books to be sent to EFW for review and approval. Additional copies for use in field etc., to be made up as required after being check by EFW.

Two (2) complete sets of all final shop drawings, instructions, and parts lists are to be turned over to the Owner secured in a binder. This booklet shall include the telephone number and address of the service company for each piece of equipment.

NOTE! FSEC shall pay all sales, consumer, use and other similar taxes for the work or portions thereof provided by the Contractor which are legally enacted at the time bids are received, whether or not yet effective.

Final payment cannot be recommended until all of the above items have been completed to our satisfaction.

SECTION 23 34 16 - CENTRIFUGAL FANS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. In-line Centrifugal Fans.

1.2 QUALITY ASSURANCE

A. Performance Ratings: Bear the AMCA Certified Rating Seal - Air Performance.

B. Fabrication: Conform to AMCA 99.

1.3 REFERENCES

A. AMCA 99 - Standards Handbook.

B. AMCA 210 - Laboratory Methods of Testing Fans for Rating Purposes.

C. AMCA 300 - Test Code for Sound Rating Air Moving Devices.

D. AMCA 301 - Method of Calculating Fan Sound Ratings from Laboratory Test Data.

E. ANSI/AFBMA 9 - Load Ratings and Fatigue Life for Ball Bearings.

F. ANSI/AFBMA 11 - Load Ratings and Fatigue Life for Roller Bearings.

G. SMACNA - HVAC Duct Construction Standards, 1995 Edition.

1.4 SUBMITTALS

A. Submit shop drawings per Section 23 05 00. Include all centrifugal fans and accessories. Provide fan curves with specified operating point clearly plotted. Submit sound power levels for both fan inlet and outlet at rated capacity. Submit motor ratings and electrical characteristics, plus motor and electrical accessories.

B. Submit operation and maintenance data. Include instructions for lubrication, motor and drive replacement, and spare parts list.

1.5 EXTRA STOCK

A. Provide one extra belt set for each fan unit.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Protect motors, shafts, and bearings from weather and construction dust.

PART 2 - PRODUCTS

2.1 IN-LINE CENTRIFUGAL FAN

A. Galvanized steel construction with stainless steel or cadmium plated fasteners and galvanized steel belt guard.

B. Backward inclined, non-overloading, all aluminum wheel and hub. Dynamically and statically balanced.

C. Cast iron, adjustable pitch sheaves. V-belt drive sized for 1.5 of maximum horsepower. Operating point near center of adjustment range.

D. Screw adjustment belt tightener.

E. Regreasable bearings rated for 40,000 hour B-10 life at specified operating point. Extend lubrication lines outside of housing.

F. Steel mounting brackets suitable for any mounting position.

G. Motor per the drawings and Section 23 05 13. Minimum 1/3 HP motors for all fans.

H. Factory installed and wired disconnect switch.

I. Acceptable Manufacturers: Jenco Fan, Carnes, Cook, Penn or Greenheck.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General Installation Requirements:

1. Do not operate fans for any purpose until ductwork is clean, filters are in place, bearings lubricated, and fan has been test run under observation.

2. Install flexible connections between fan and ductwork. Install metal bands of connectors parallel with minimum 1" flex between ductwork and fan while running.

END OF SECTION 23 34 16

SECTION 26 29 21 - VARIABLE FREQUENCY DRIVES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Variable frequency drives **[VFD-#]**

1.2 REFERENCES

A. ANSI/UL Standard 508

B. ANSI/NEMA ICS 6 - Enclosures for Industrial Controls and Systems

C. IEEE Standard 519-1992 - Guide for Harmonic Control and Reactive Compensation of Static Power Converters

D. FCC Rules and Regulations, Part 15, Subpart J - Radio Frequency Interference

1.3 SUBMITTALS

A. Submit product data. Include front and side views of enclosures with overall dimensions and weights shown; conduit entrance locations and requirements; and nameplate legends. Provide catalog sheets showing voltage, controller size, ratings and size of switching and overcurrent protective devices, short circuit ratings, dimensions, and enclosure details.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Store in a clean, dry space. Maintain factory wrapping or provide an additional heavy canvas or heavy plastic cover to protect units from dirt, water, construction debris, and traffic.

B. Handle in accordance with manufacturer's written instructions. Lift only with lugs provided for the purpose. Handle carefully to avoid damage.

1.5 OPERATION AND MAINTENANCE DATA

A. Maintenance Data: Include spare parts data listing, source and current prices of replacement parts and supplies, and recommended maintenance procedures and intervals.

B. Operation Data: Include instructions for starting and operating controllers, and describe operating limits that may result in hazardous or unsafe conditions.

PART 2 - PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Danfoss VLT Series

2.2 RATINGS

A. **[VFD-3]**

1. Input Voltage: 460V.

2. Motor Nameplate (Drive Output) Voltage: 460V, 3-phase.

3. Horsepower Rating: 3 HP.

B. General:

1. Displacement Power Factor: Between 1.0 and 0.95, lagging, over entire range of operating speed and load.

2. Operating Ambient: 0°C to 40°C.

3. Minimum Relative Humidity Range: 5% to 90% (non-condensing).

4. Minimum Elevation without Derating: 3300 feet.

5. Minimum Efficiency at Full Load: 96 percent.

6. Overload Capability: 1.1 times the base load current for 60 seconds; 2.0 times the base load current for 3 seconds.

7. Starting Torque: 100 percent of rated torque or as indicated.

8. Speed Regulation: Plus or minus 1 percent with no motor derating.

2.3 DESIGN

A. Converts 60 Hertz input power at voltage specified to a variable AC frequency and voltage for controlling the speed of AC squirrel cage motors. The controller shall be suitable for use with standard NEMA B squirrel cage 1.15 service factor induction motors without requiring any modifications to the motor or the drive.

B. Controller shall have sufficient capacity to provide speed control of the motors shown or noted throughout the specified environmental operating conditions.

C. Controller shall have the functional components listed below:

1. Door interlocked input circuit breaker.
2. Input rectifier section to supply fixed DC bus voltage.
3. Smoothing reactor for DC bus.
4. DC bus capacitors.
5. Control transformer.
6. Separate terminal blocks for power and control wiring.
7. Terminal block for operator controls.
8. Sine weighted PWM generating inverter section.

D. Pulse Width Modulated (PWM) Variable Frequency Drives:

1. Converter shall be of a diode bridge design with a sine-weighted PWM inverter section.

2. Main semi-conductors in the inverter section of controller shall be IGBT transistors capable of a carrier switching frequency of up to 8 kHz. If derating of the inverter is necessary to run at 8kHz, then the unit's derated currents must equal or exceed the motor full load currents listed in NEC Table 430-150.

3. All controllers supplied with semi-conductors capable of switching at less than 8,000 Hertz shall be supplied with a motor acoustic noise reduction filter.

4. Pulse width modulated (PWM) drives shall be supplied with drive input line reactors with a minimum impedance of 3%. Reactors shall be installed to filter entire drive input circuit.

5. Pulse width modulated (PWM) drives shall be supplied with drive input harmonic filter to reduce the total harmonic distortion to less than the IEEE519-1992 limits at the utility service entrance.

6. Drives that are located beyond the manufacturer's recommended maximum distance from the motor shall be provided with dV/dt (long lead) filters.

E. All drives shall have built-in diagnostic capability with status and fault indicators mounted on enclosure door. Complete operating instructions for diagnostics shall be mounted inside of the enclosure door.

F. Drive shall restart after power loss and under-voltage fault. The minimum number of restart attempts required shall be three, field adjustable.

G. The drive shall allow unlimited switching of the output without damage to the drive or motor.

2.4 PRODUCT FEATURES

A. Display: Provide integral digital display to indicate all protection faults and drive status (including overcurrent, overvoltage, undervoltage, ground fault, overtemperature, phase loss, input power ON, output voltage, output frequency, and output current.

B. Protection:

1. Input transient protection by means of surge suppressors.

2. Snubber networks to protect against malfunctions due to system transients,

3. Under- and overvoltage trips; inverter overtemperature, overload, and overcurrent trips.

4. Motor thermal overload relay(s) adjustable and capable of NEMA Class 10 motor protection and sized per motor nameplate data. When multiple motors are connected to the VFD output, each motor shall have a manual starter with properly sized overload protection.

5. Notch filter to prevent operation of the controller-motor-load combination at a natural frequency of the combination.

6. Instantaneous line-to-line and line-to-ground overcurrent trips on input and output.

7. Loss-of-phase protection.

8. Reverse-phase protection.

9. Short-circuit protection by integral circuit breaker.

10. Motor overtemperature fault.

C. Acceleration Rate Adjustment: 0.5 - 30 seconds.

D. Deceleration Rate Adjustment: 1 - 30 seconds.

E. Minimum Adjustment Range for the Lower Output Frequency shall be: 0 to 40 Hertz.

F. Minimum Adjustment Range for the Upper Output Frequency Range shall be: 40 to 90 Hertz.

G. Minimum Volts/Hertz Range: 3.7 to 8.6 volts/Hertz.

H. Provide MANUAL-OFF-AUTOMATIC selector switch and manual analog speed control mounted on the front of the enclosure.

I. Safety Interlocks: Provide terminals for remote contact to inhibit starting under both manual and automatic mode.

J. Control Interlocks: Provide terminals for remote contact to allow starting in automatic mode.

K. Provide adjustable skip frequencies on the drive output (minimum of three ranges).

L. Automatic Reset/Restart: Attempts three restarts after controller fault or on return of power after an interruption, and before shutting down for manual reset or fault correction. Bidirectional autospeed search shall be capable of starting into rotating loads spinning in either direction and returning motor to set speed in proper direction, without damage to controller, motor, or load.

M. Power-Interruption Protection: After a power interruption, it prevents the motor from re-energizing until the motor has stopped.

N. Torque Boost: Automatically varies starting and continuous torque to at least 1.5 times the minimum torque to ensure high-starting torque and increased torque at slow speeds.

O. Motor Temperature Compensation at Slow Speeds: Adjustable current fall-back based on output frequency for temperature protection of self-cooled, fan-ventilated motors at slow speeds.

P. Status Lights: Door-mounted LED indicators shall indicate the following conditions:

1. Power on.
2. Run.
3. Overvoltage.
4. Line fault.
5. Overcurrent.
6. External fault.

Q. Panel-Mounted Operator Station: Start-stop and auto-manual selector switches with manual speed control potentiometer and elapsed time meter.

R. Indicating Devices: Meters or digital readout devices and selector switch, mounted flush in controller door and connected to indicate the following controller parameters:

1. Output frequency (Hz).
2. Motor speed (rpm).
3. Motor status (running, stop, fault).
4. Motor current (amperes).
5. Motor torque (percent).
6. Fault or alarming status (code).
7. PID feedback signal (percent).
8. DC-link voltage (VDC).

9. Set-point frequency (Hz).
10. Motor output voltage (V).

S. Control Signal Interface:

1. Electric Input Signal Interface: A minimum of 2 analog inputs (0 to 10 V or 0/4-20 mA) and 6 programmable digital inputs.

2. Remote Signal Inputs: Capability to accept any of the following speed-setting input signals from the BMS or other control systems:

a. 0 to 10-V dc.
b. 0-20 or 4-20 mA.
c. Potentiometer using up/down digital inputs.
d. Fixed frequencies using digital inputs.
e. RS485.
f. Keypad display for local hand operation.

3. Output Signal Interface:

a. A minimum of 1 analog output signal (0/4-20 mA), which can be programmed to any of the following:

1) Output frequency (Hz).
2) Output current (load).
3) DC-link voltage (VDC).
4) Motor torque (percent).
5) Motor speed (rpm).
6) Set-point frequency (Hz).

4. Remote Indication Interface: A minimum of 2 dry circuit relay outputs (120-V ac, 1A) for remote indication of the following:

a. Motor running.
b. Set-point speed reached.
c. Fault and warning indication (overtemperature or overcurrent).
d. PID high- or low-speed limits reached.

T. Communications: Provide a communications card to interface VFD with Facility Management Control System (FMCS). Coordinate interface requirements with the FMCS provided under Section 23 09 00. Interface shall allow all parameter settings of VFD to be programmed via FMCS control and displayed on FMCS operator workstation. Provide capability for VFD to retain these settings within the nonvolatile memory.

U. Control:

1. With the "Manual-Off-Auto" switch in the "Manual" position and, if applicable, the "Drive-Bypass" in the "Drive" position, the drive shall be controlled by the manual speed potentiometer on the drive door.

2. With the "Manual-Off-Auto" switch in the "Auto" position and, if applicable, the "Drive-Bypass" in the "Drive" position, the drive shall be controlled by the input signal from an external source.

3. If applicable, with the "Drive-Bypass" in the "Bypass" position, regardless the position of the "Manual-Off-Auto" switch, the motor shall be connected across the lines and shall be run at full speed.

4. With the "Manual-Off-Auto" switch in the "Off" position, if applicable, the drive run circuit shall be open and the VFD shall not operate.

5. If applicable, signal from the fire alarm control panel shall shut down VFD and bypass.

6. All disconnect switches between VFD and motor(s) shall include an auxiliary contact interlock wired to the VFD fault trip input to shut down the drive upon opening of the disconnect main contacts.

2.5 ACCESSORIES

A. Devices shall be factory installed in controller enclosure, unless otherwise indicated.

B. Control Relays: Auxiliary and adjustable time-delay relays.

C. Standard Displays:

1. Output frequency (Hz).
2. Set-point frequency (Hz).
3. Motor current (amperes).
4. DC-link voltage (VDC).
5. Motor torque (percent).
6. Motor speed (rpm).
7. Motor output voltage (V).

D. Historical Logging Information and Displays:

1. Real-time clock with current time and date.
2. Running log of total power versus time.
3. Total run time.
4. Fault log, maintaining last four faults with time and date stamp for each.

E. Fabrication:

1. Enclosure: NEMA 250, Type 1.
2. Finish: Manufacturer's standard enamel.

PART 3 - EXECUTION

3.1 FACTORY TESTING

A. The VFD manufacturer shall provide certification that heat test has been completed.

B. The Electrical Contractor shall have a factory service engineer present for the start-up, field calibration, and check-out of each VFD installed. Factory service engineer shall be required to return to the site for recalibration or set-up should unit not function as specified during system commissioning. All costs shall be a part of This Contract. Provide tag with date and signature of factory service Engineer on inside cover of each drive.

3.2 INSTALLATION

A. Install variable frequency drive equipment in accordance with the manufacturer's instructions.

B. Floor mount VFD on prefabricated or field fabricated supports with controls no higher than 6'-6" and no lower than 3'-0" AFF.

C. Provide engraved phenolic nameplates under the provisions of Section 26 05 53.

D. Connections: All conduit connections to the VFD shall be by flexible conduit.

E. Input, output, and control wiring shall each be run in separate conduits.

F. All interlocking required by the drive manufacturer shall be the responsibility of the Electrical Contractor.

3.3 STARTUP AND COMMISSIONING

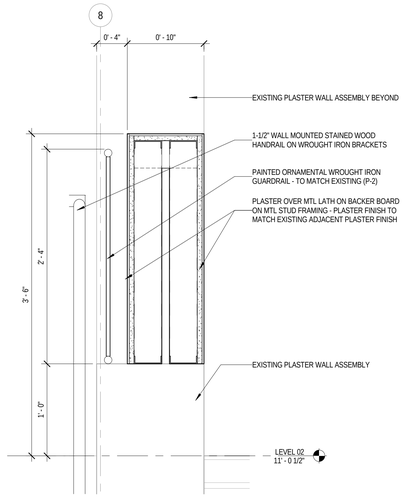
A. Verify all settings, parameters, and adjustments with other contractors prior to startup. Make all adjustments and setting to coordinate with controls and equipment.

B. Accelerate the motor to full speed and verify operation. Decelerate the motor to a stop and verify operation. Slowly operate the motor over the speed range and check for resonance.

C. Make all adjustments and settings to coordinate with controls and equipment prior to Substantial Completion. Verify that drive is set for auto restart after power loss and undervoltage fault.

D. Document settings in the Operations and Maintenance manual.

END OF SECTION 26 29 23



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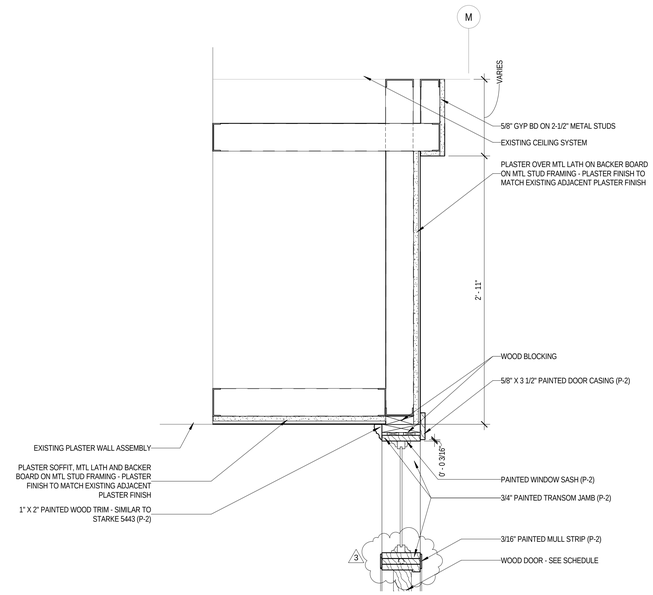

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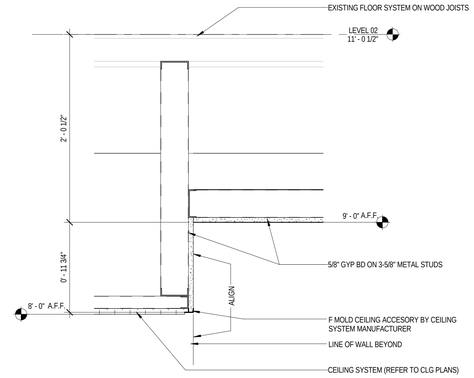

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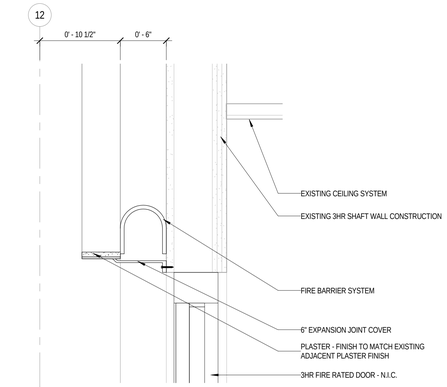

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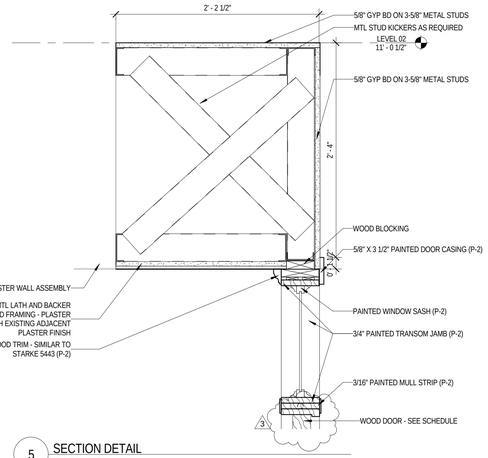

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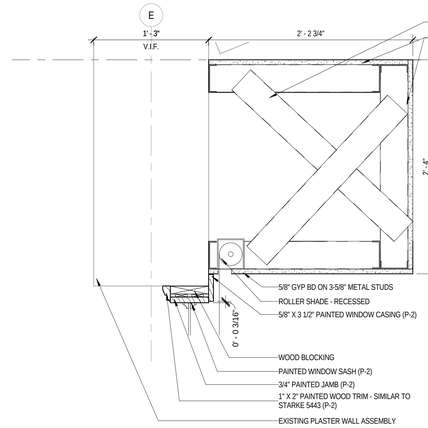

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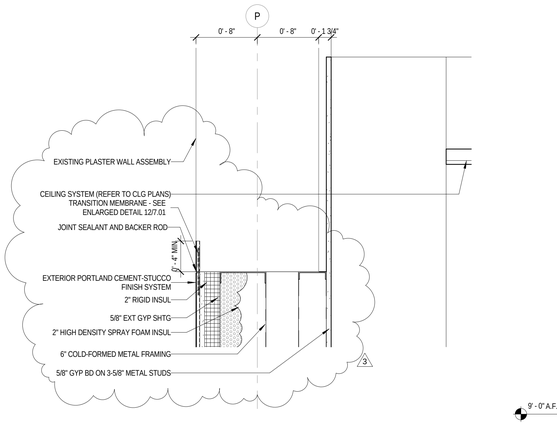

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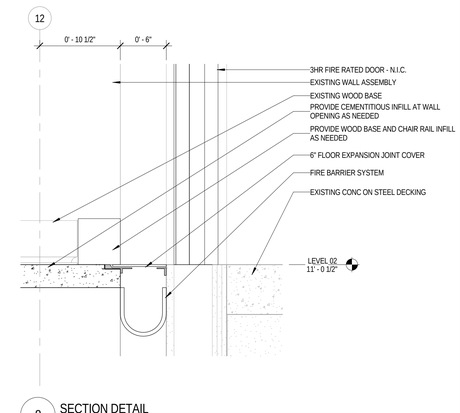

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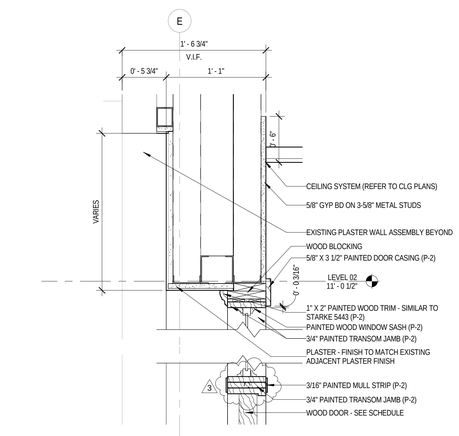

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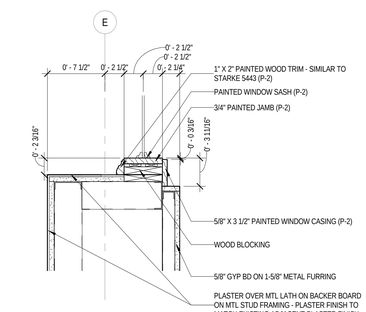

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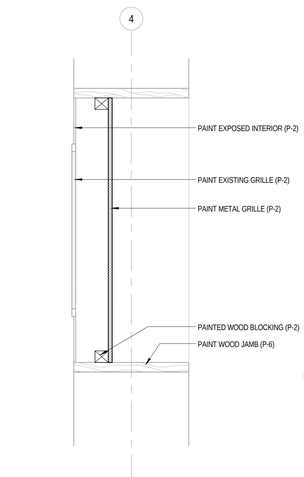

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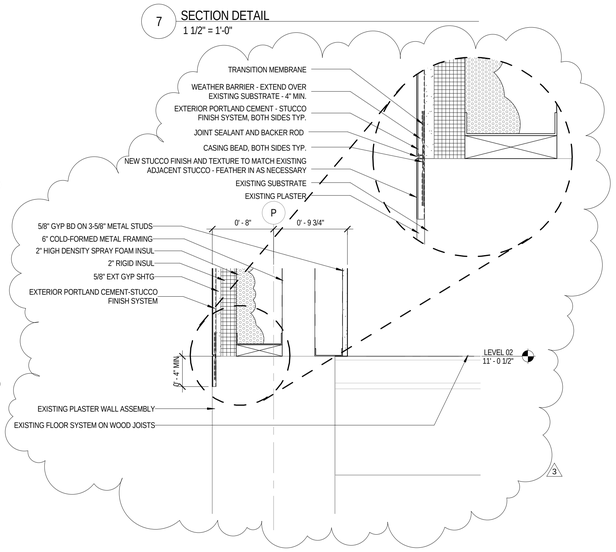

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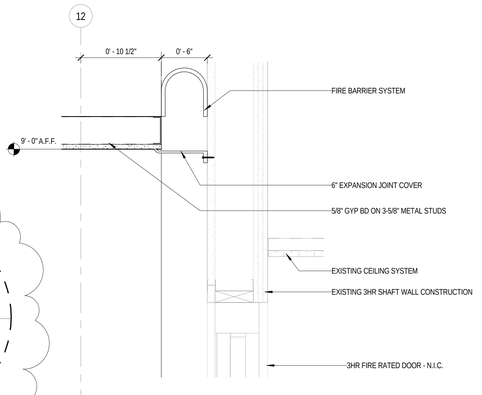

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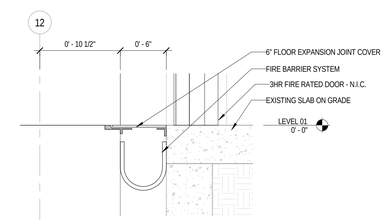

14 SECTION DETAIL
1 1/2" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

CIVIL ENGINEERS
RUETTIGER, TONELLI & ASSOCIATES
129 CAPISTA DRIVE
SHOREWOOD, IL 60404
T: 815.744.6600

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
3	Addendum 3	03.07.16

SHEET TITLE:
SECTION DETAILS

SHEET NUMBER:
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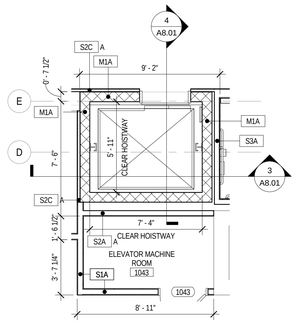
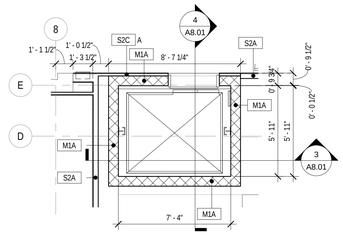
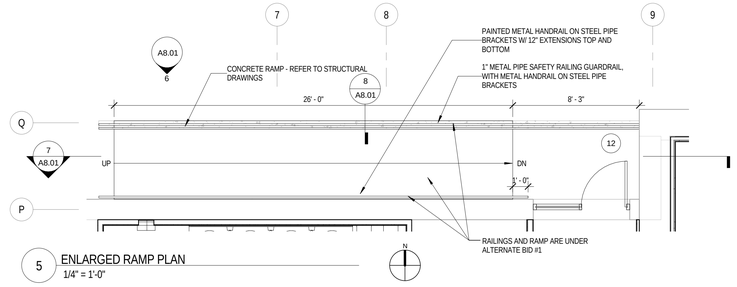


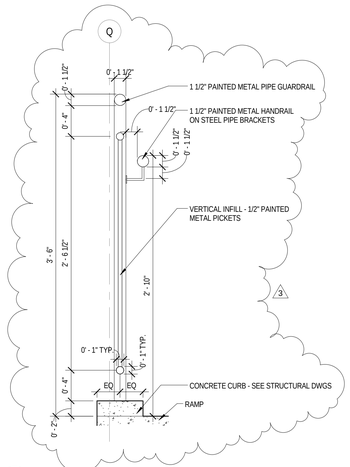
1 ENLARGED ELEVATOR PLAN - LEVEL 01
1/4" = 1'-0"



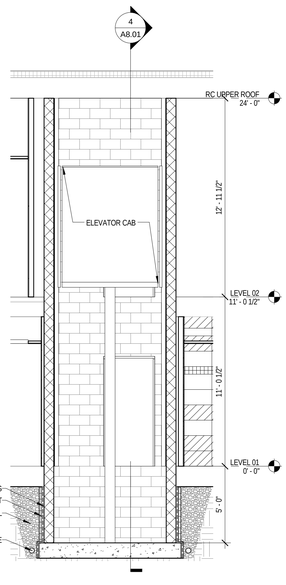
2 ENLARGED ELEVATOR PLAN - LEVEL 02
1/4" = 1'-0"



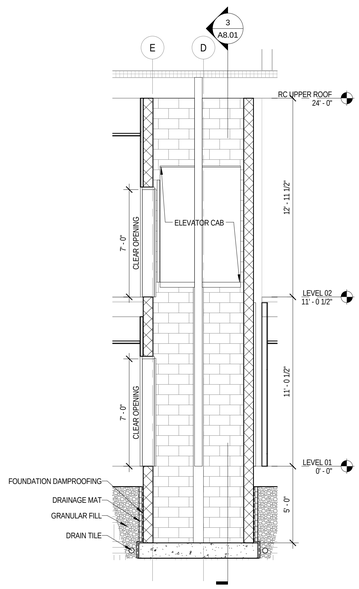
5 ENLARGED RAMP PLAN
1/4" = 1'-0"



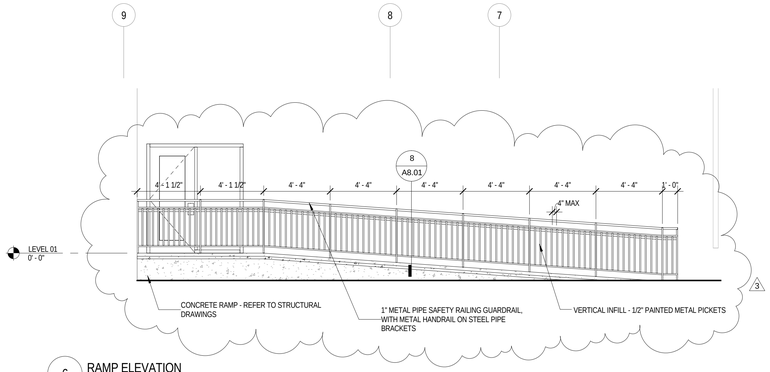
8 SECTION DETAIL - PIPE GUARDRAIL
1 1/2" = 1'-0"



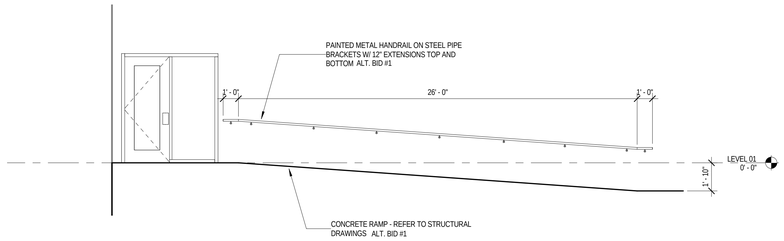
3 ELEVATOR SECTION - EAST/WEST
1/4" = 1'-0"



4 ELEVATOR SECTION - NORTH/SOUTH
1/4" = 1'-0"



6 RAMP ELEVATION
1/4" = 1'-0"



7 RAMP SECTION
1/4" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

CIVIL ENGINEERS
RUETTIGER, TONELLI & ASSOCIATES
129 CAPISTA DRIVE
SHOREWOOD, IL 60404
T: 815.744.6600

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

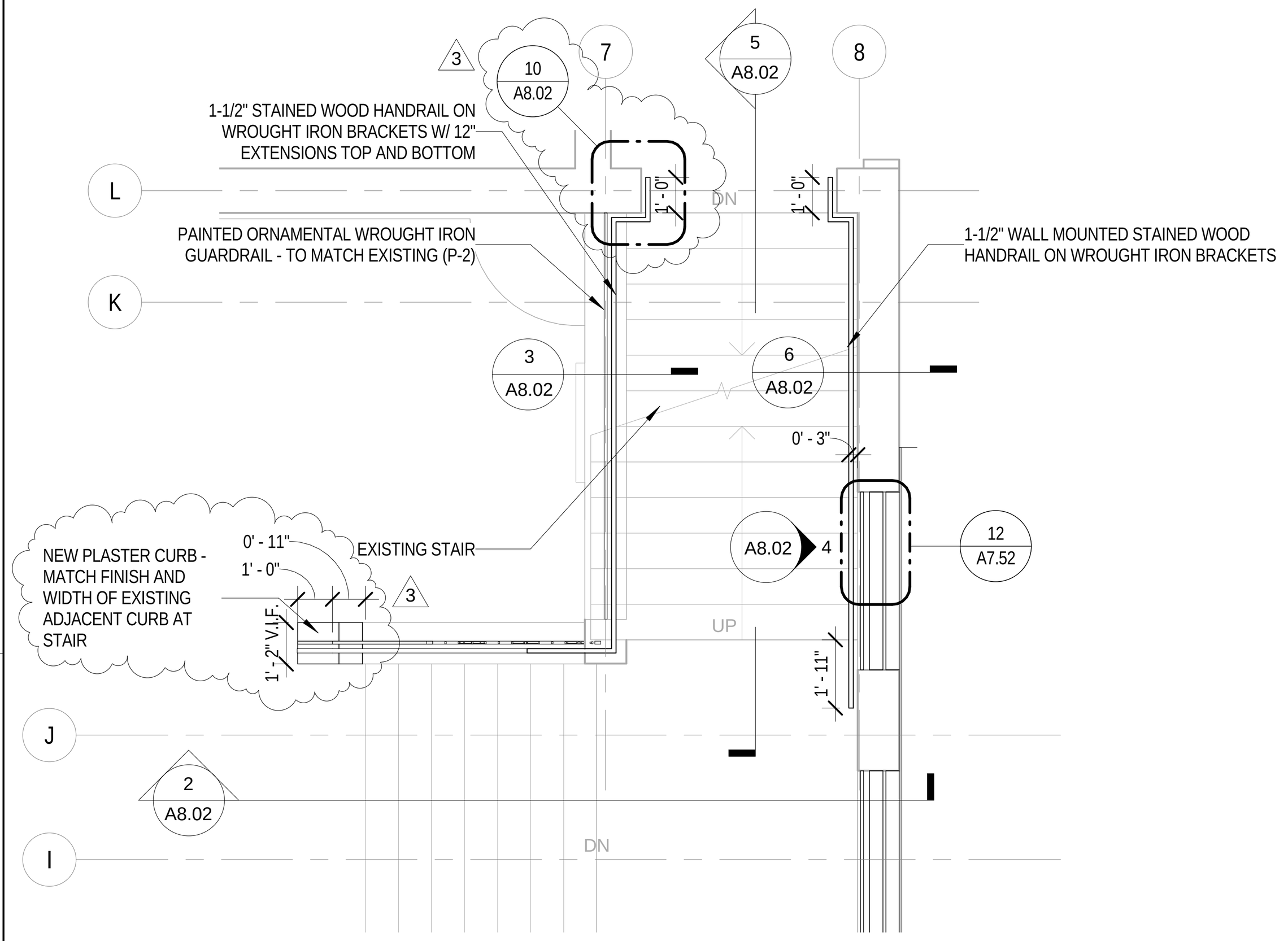
SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
3	Addendum 3	03.07.16

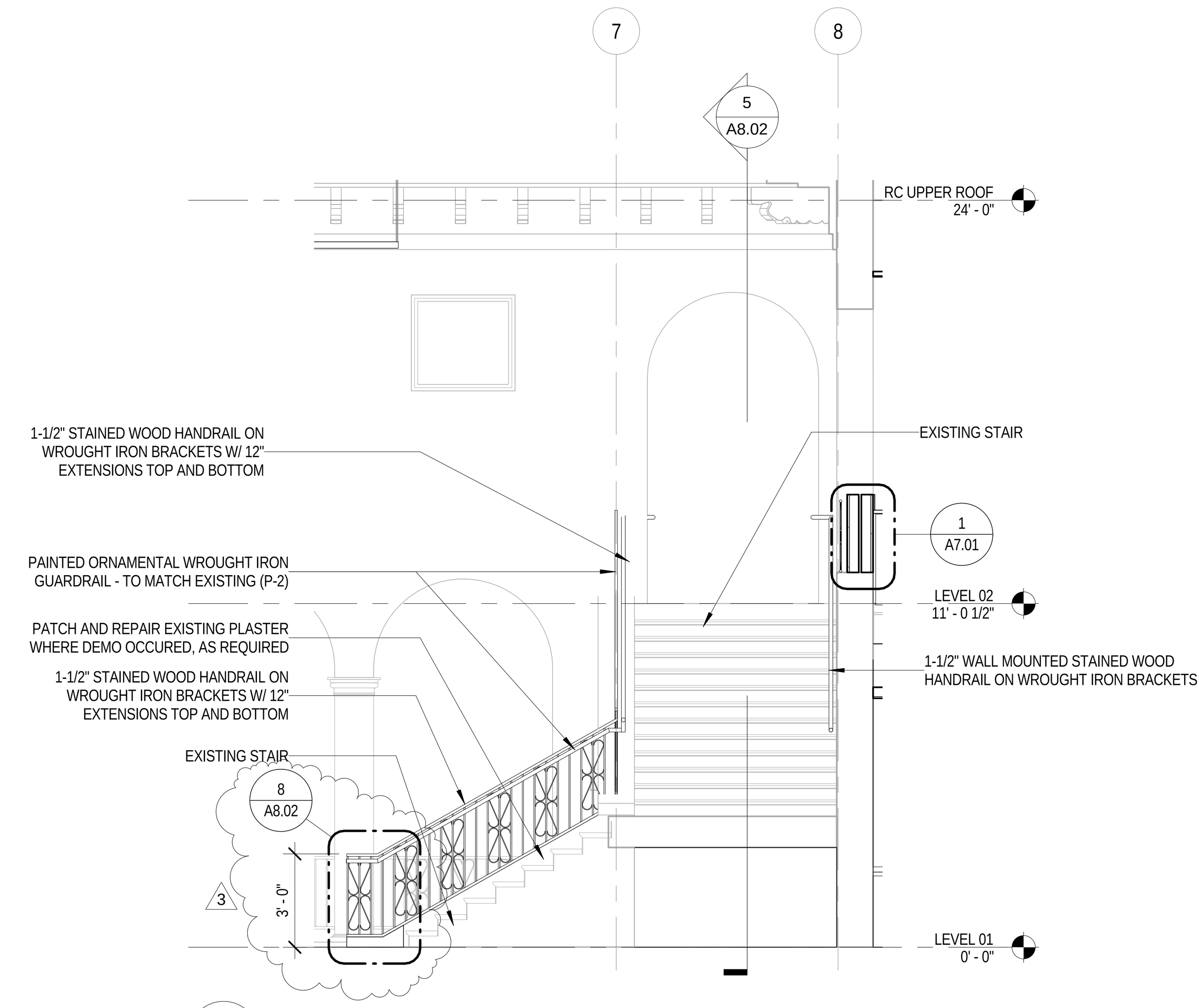
SHEET TITLE:
ENLARGED ELEVATOR AND RAMP PLANS, SECTIONS, AND DETAILS

SHEET NUMBER:
A8.01

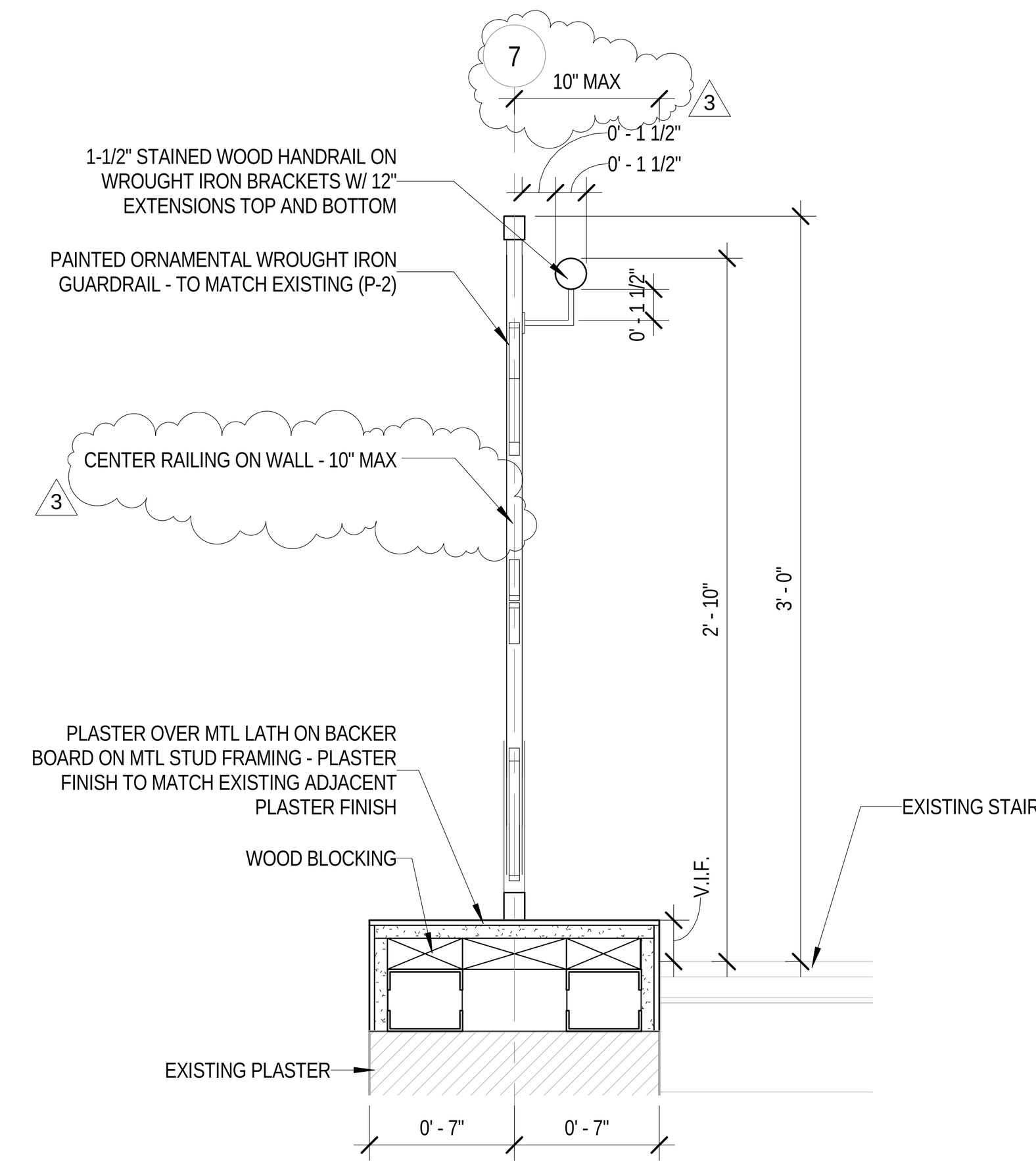
3/2/2016 4:10:13 PM



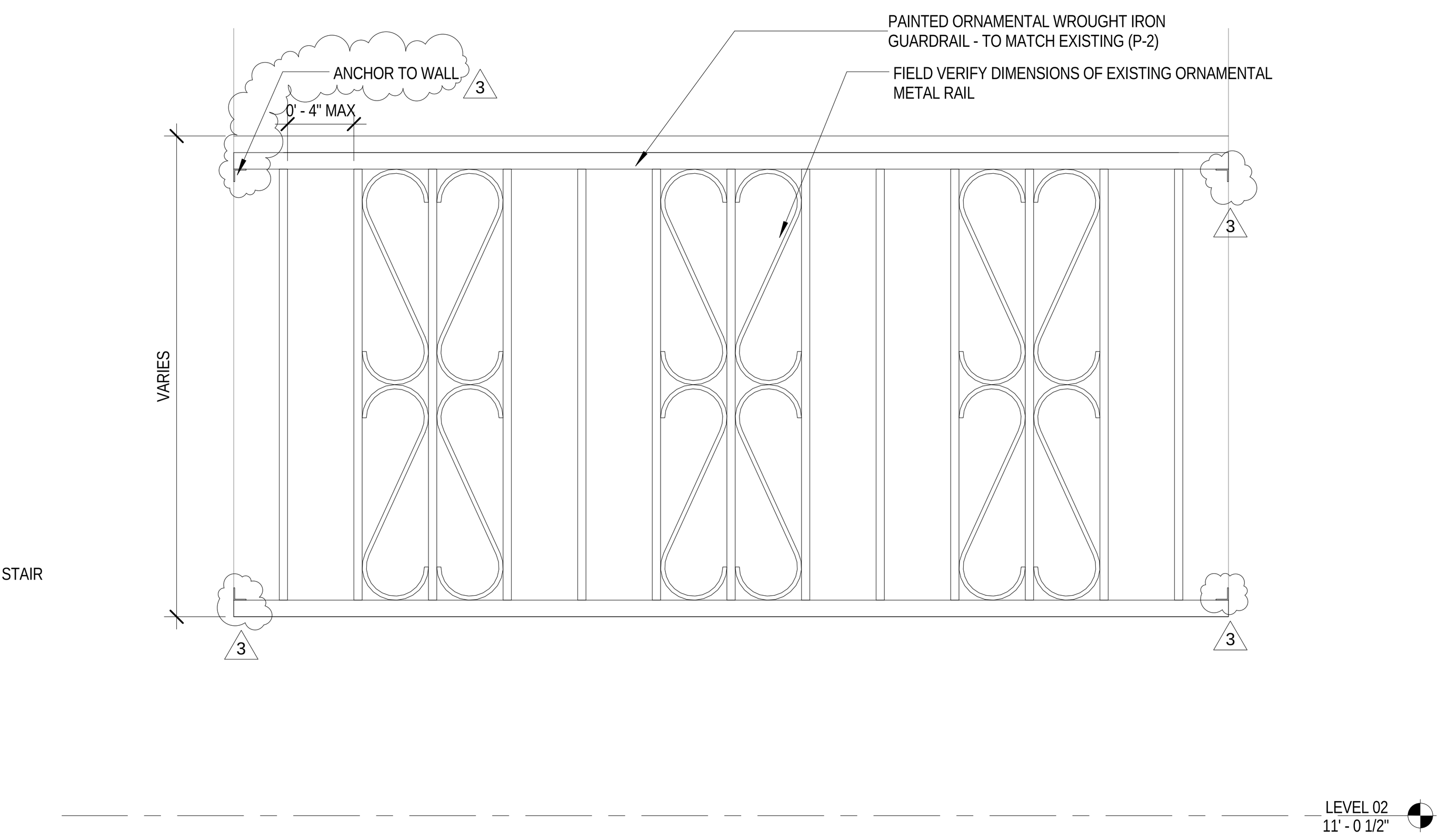
1 ENLARGED STAIR PLAN - ATRIUM STAIR LEVEL 02
1/4" = 1'-0"



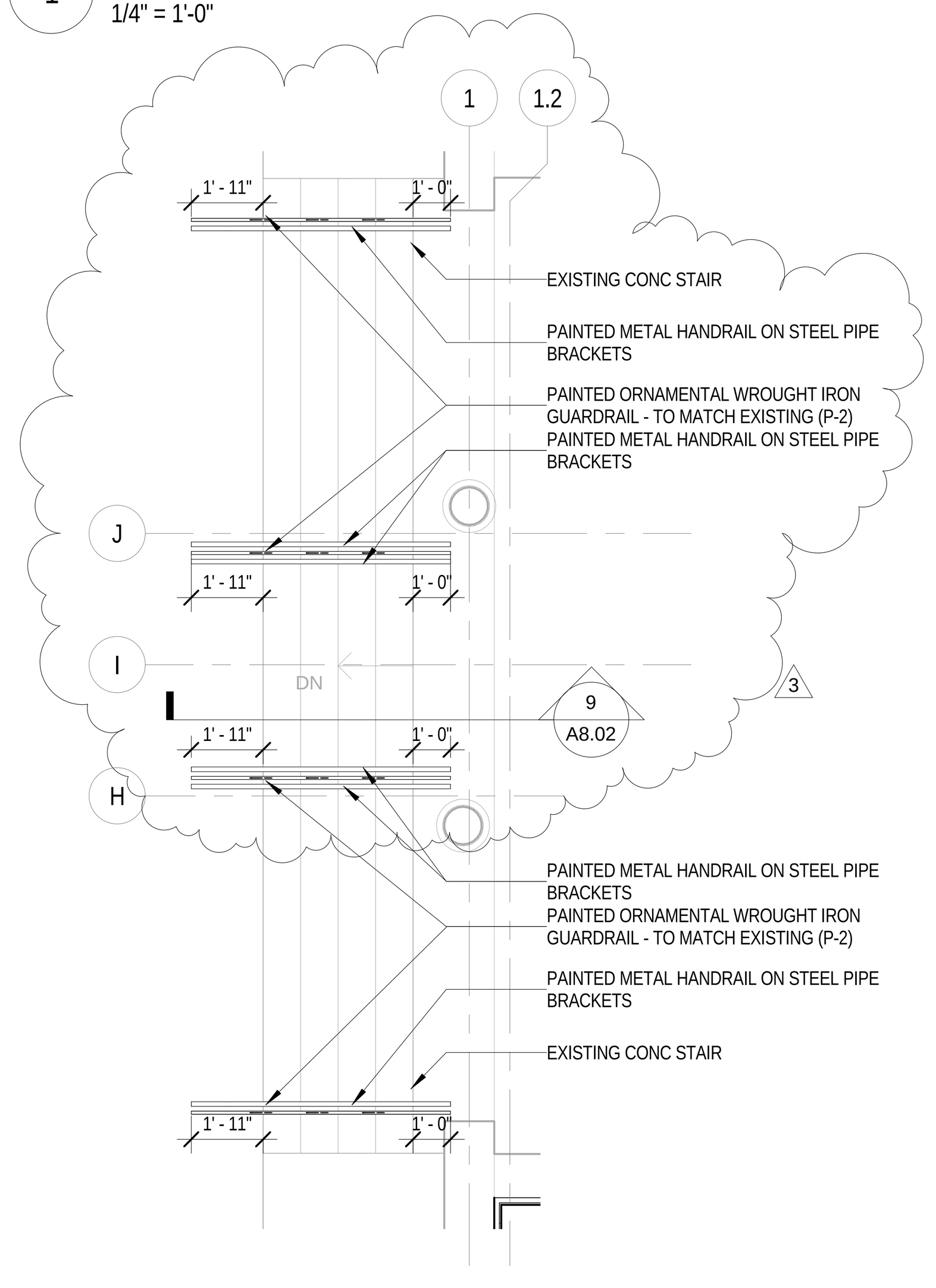
2 STAIR SECTION - ATRIUM EAST/WEST
1/4" = 1'-0"



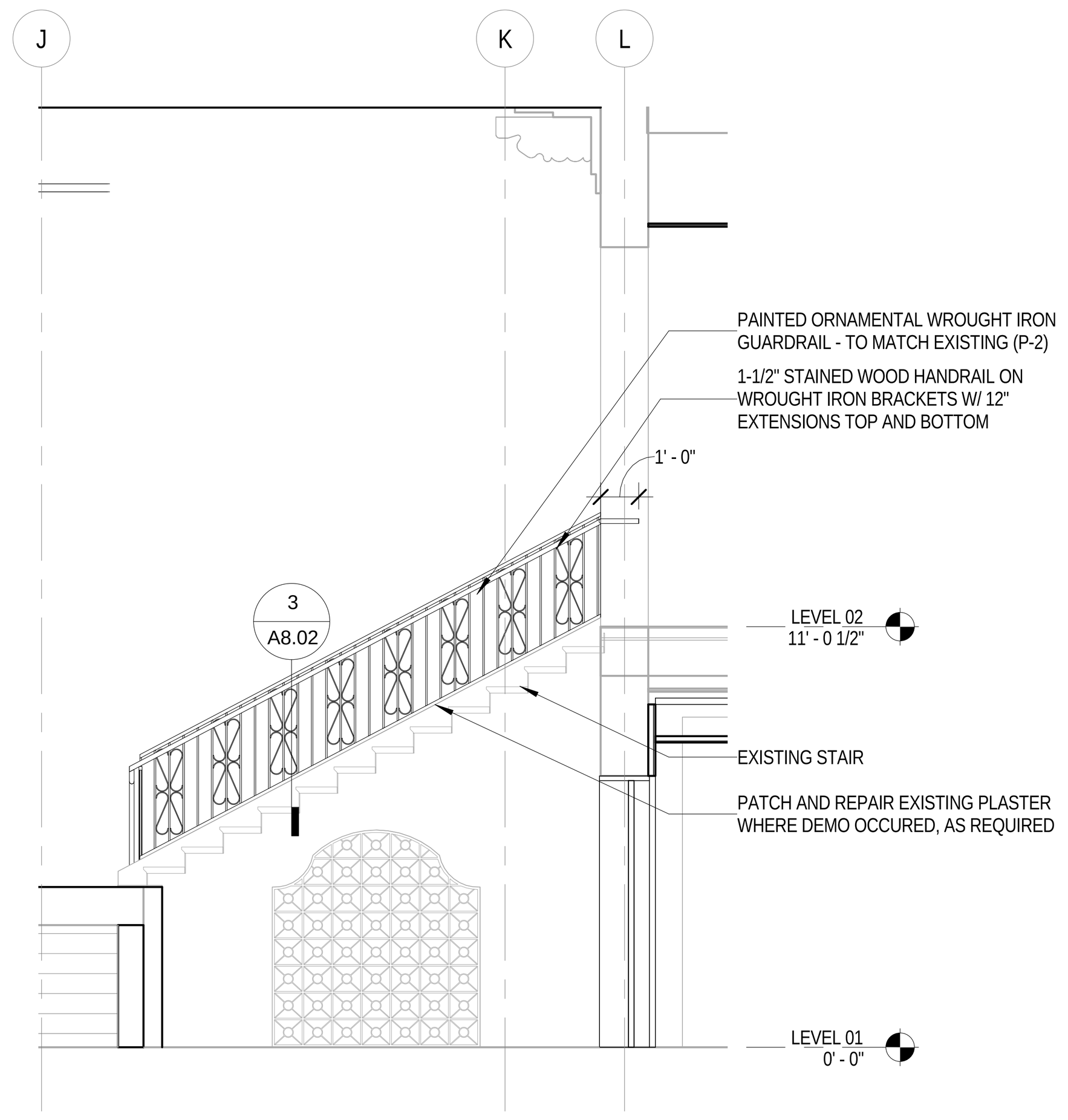
3 SECTION DETAIL - ORNAMENTAL HANDRAIL
1 1/2" = 1'-0"



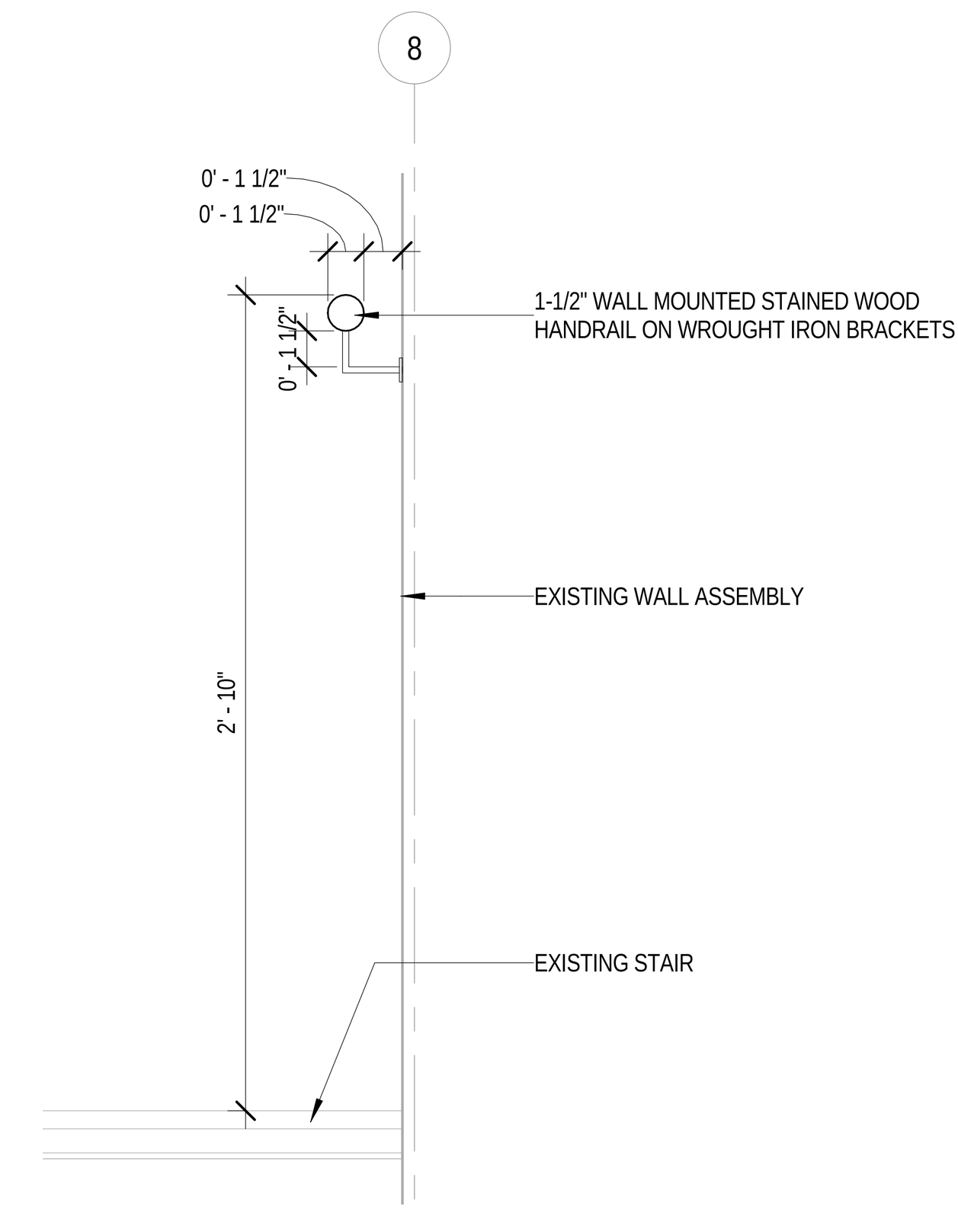
4 ORNAMENTAL RAILING - TYP. ELEVATION
1 1/2" = 1'-0"



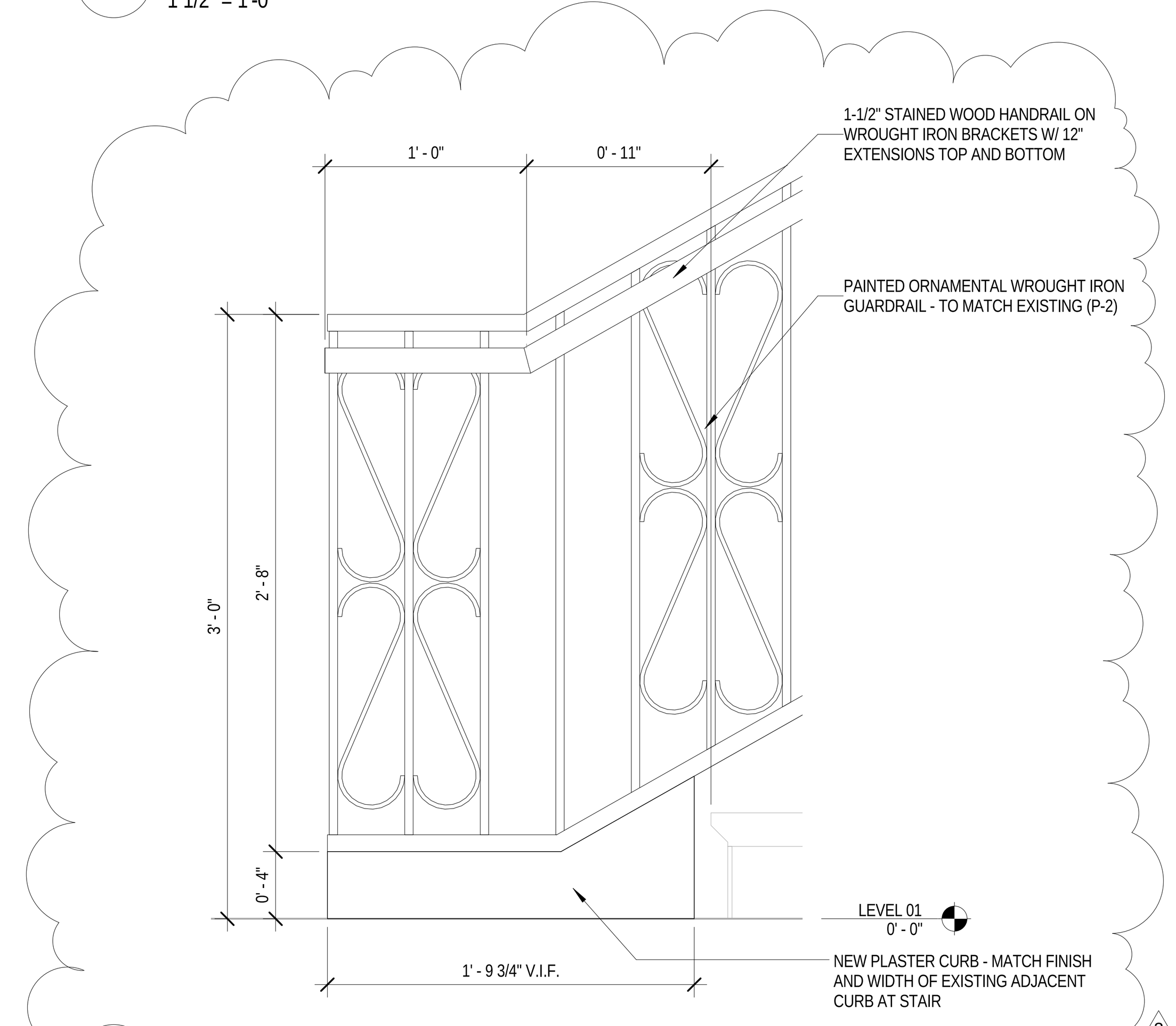
7 ENLARGED STAIR PLAN - ENTRY STAIR
1/4" = 1'-0"



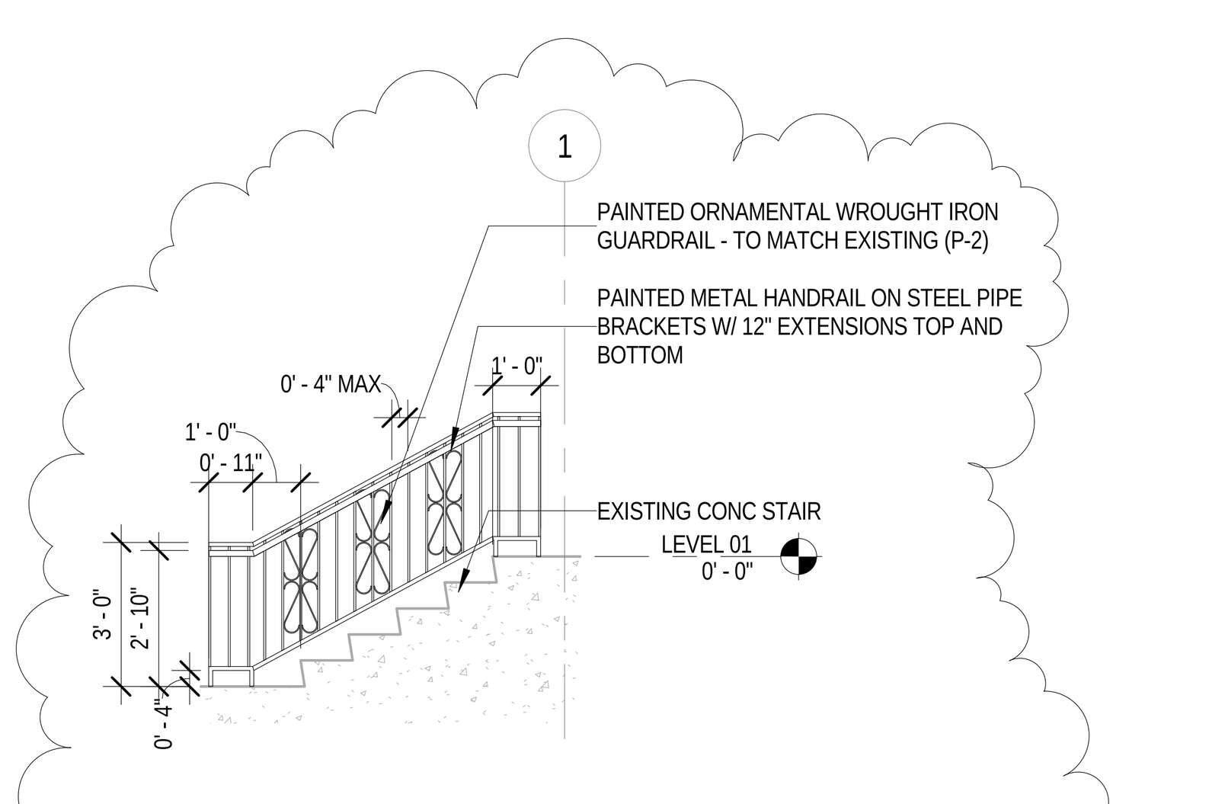
5 STAIR SECTION - ATRIUM NORTH/SOUTH
1/4" = 1'-0"



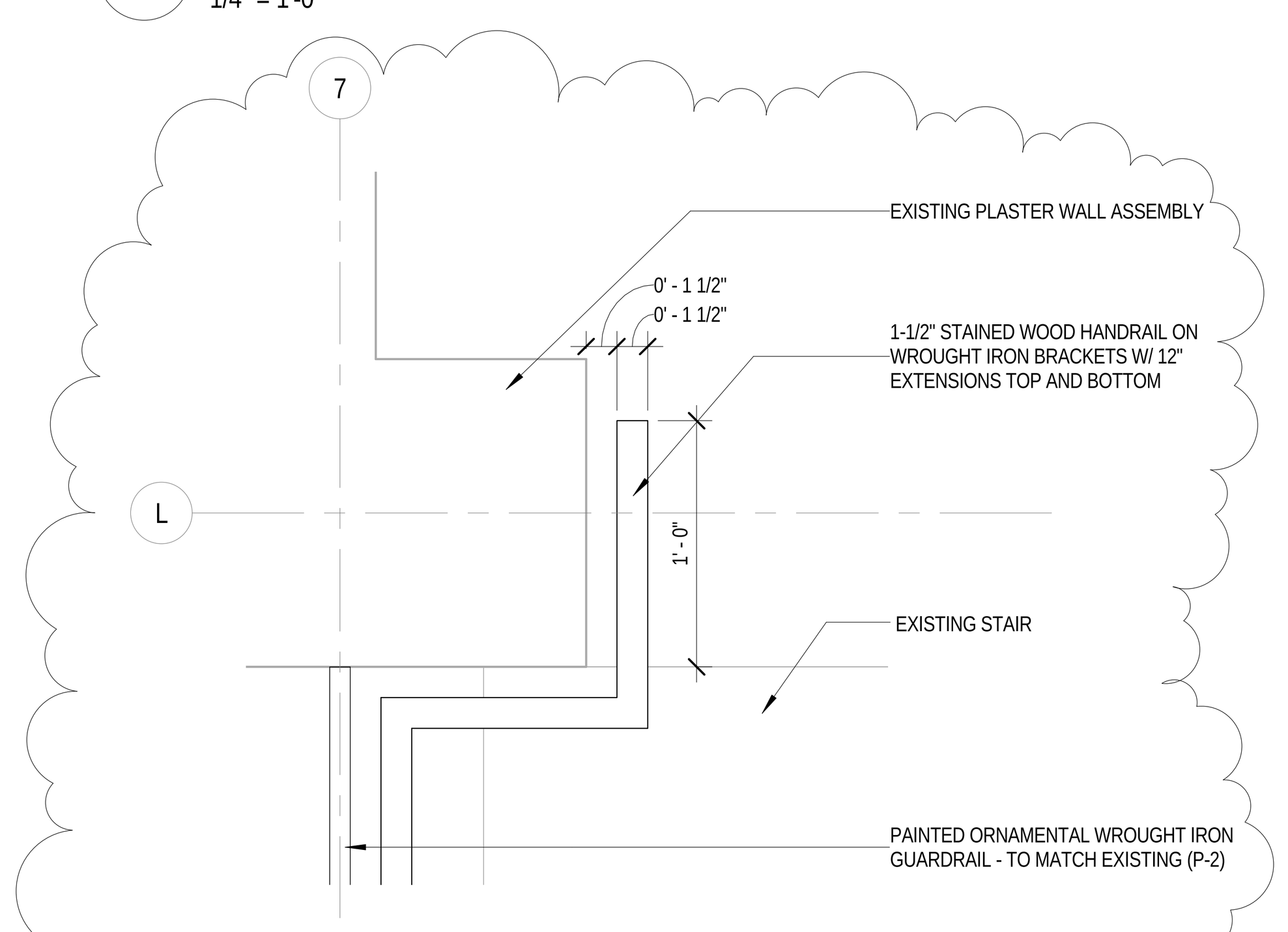
6 SECTION DETAIL - WALL MOUNTED HANDRAIL
1 1/2" = 1'-0"



8 STAIR DETAIL - HANDRAIL
1 1/2" = 1'-0"



9 STAIR SECTION - ENTRY STAIR
1/4" = 1'-0"



10 PLAN DETAIL - HANDRAIL EXTENSION
1 1/2" = 1'-0"

dkA

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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RUETTIGER, TONELLI & ASSOCIATES
129 RIDGE ROAD DRIVE
SHOREWOOD, IL 60404
T: 815.744.6600

JOLIET JUNIOR COLLEGE
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JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

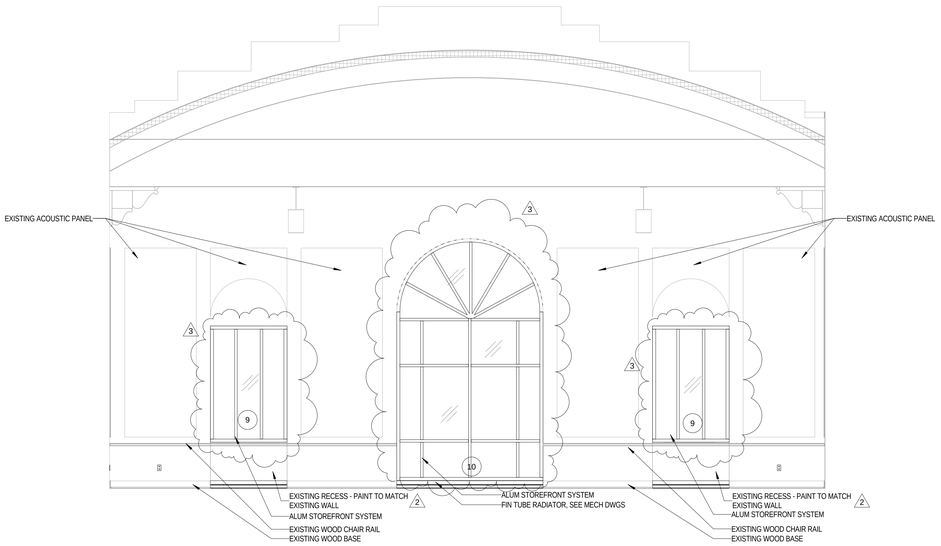
SHEET STATUS:

NO:	DESCRIPTION:	DATE:
3	Addendum 3	03.07.16

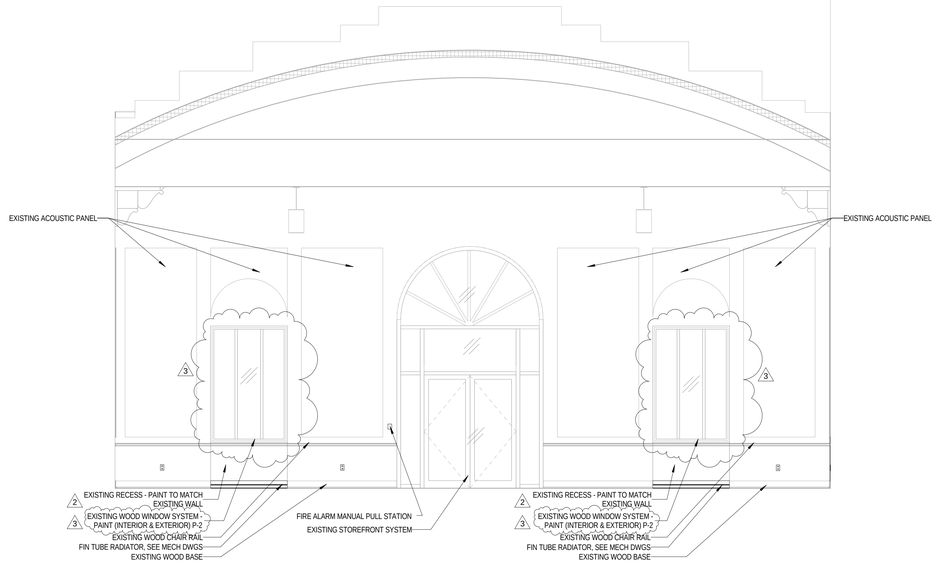
SHEET TITLE:
ENLARGED STAIR PLANS, SECTIONS, AND DETAILS

SHEET NUMBER:
A8.02

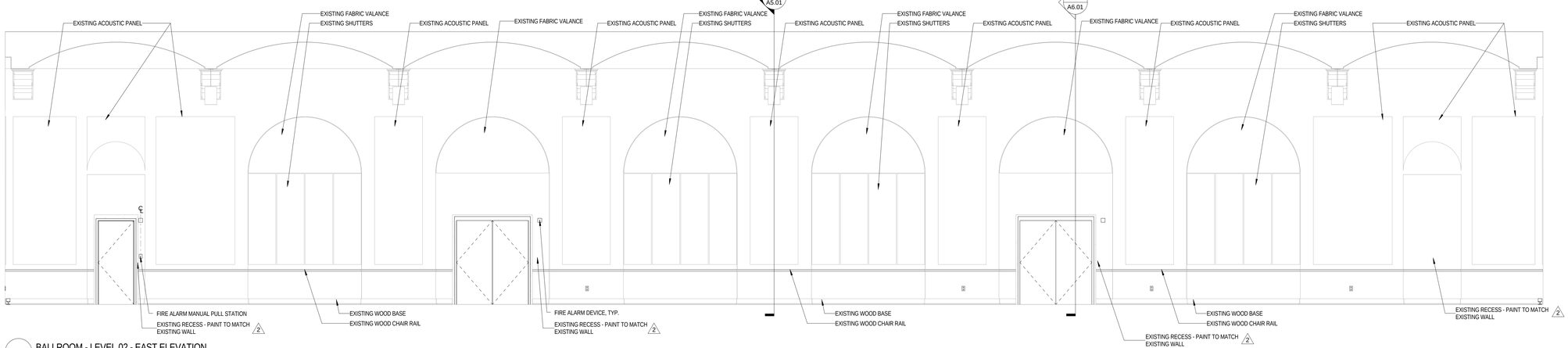
3/3/2016 10:38:43 AM



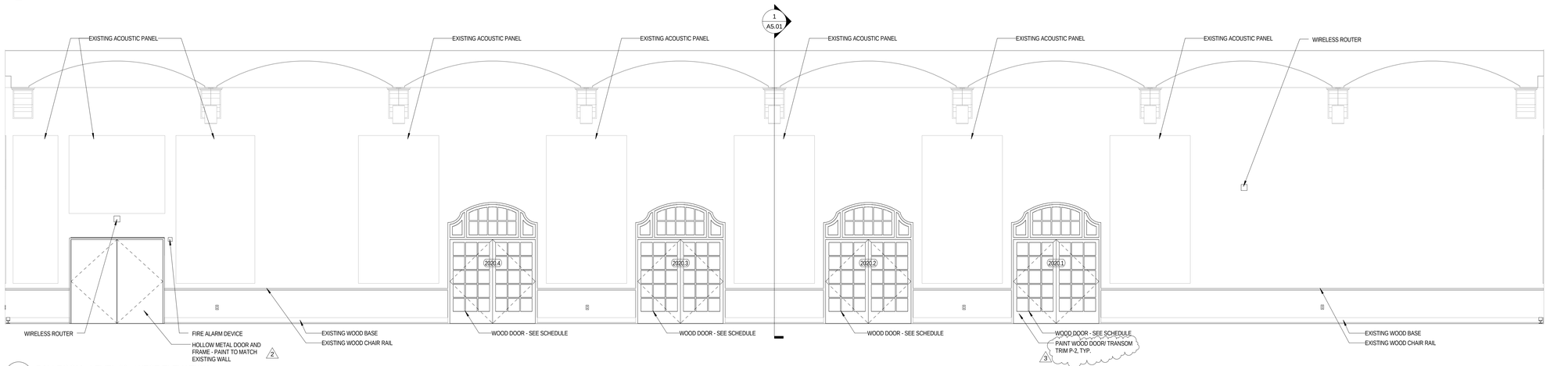
1 BALLROOM - LEVEL 02 - NORTH ELEVATION
1/4" = 1'-0"



2 BALLROOM - LEVEL 02 - SOUTH ELEVATION
1/4" = 1'-0"



3 BALLROOM - LEVEL 02 - EAST ELEVATION
1/4" = 1'-0"



4 BALLROOM - LEVEL 02 - WEST ELEVATION
1/4" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
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FOOD SERVICE DESIGN CONSULTANTS
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129 CAPISTA DRIVE
SHOREWOOD, IL 60404
T: 815.744.6600

JOLIET JUNIOR COLLEGE
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214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

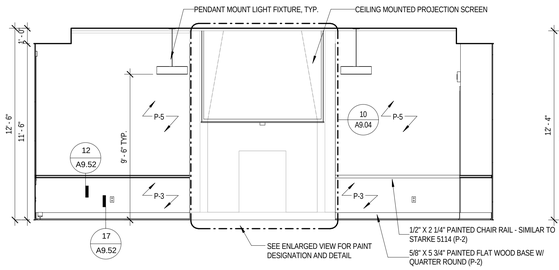
SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
2	Addendum 2	02.26.16
3	Addendum 3	03.07.16

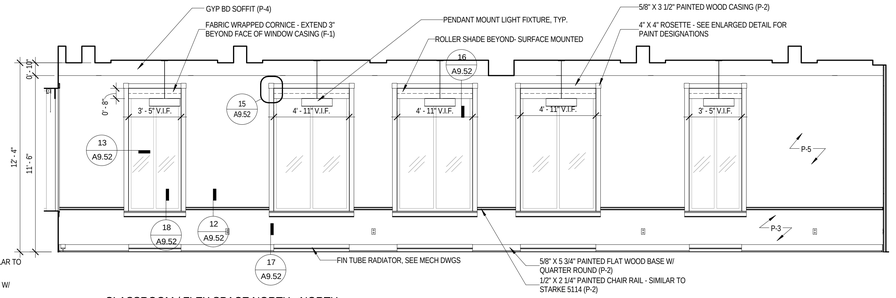
SHEET TITLE:
INTERIOR ELEVATIONS

SHEET NUMBER:
A9.03

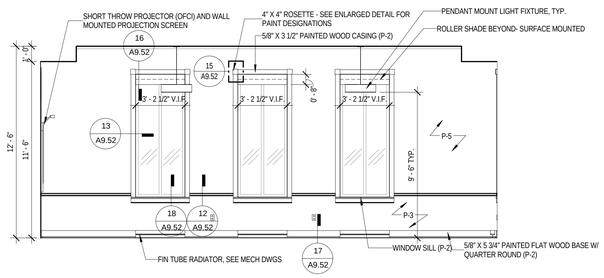
3/2/2016 4:29:43 PM



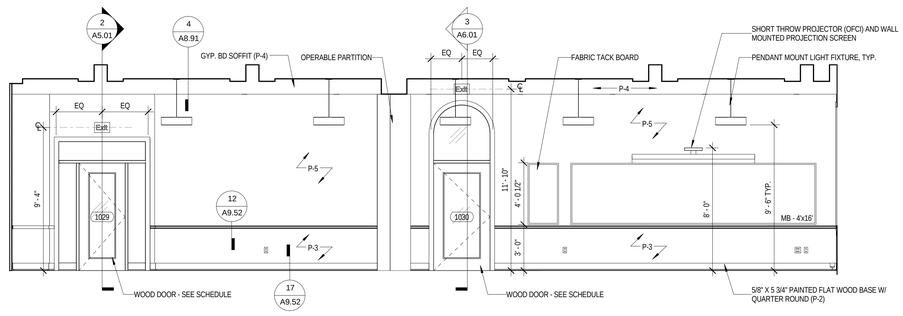
1 FLEX SPACE NORTH - EAST ELEVATION
1/4" = 1'-0"



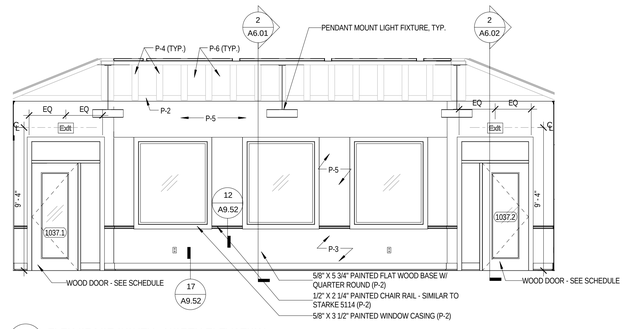
2 CLASSROOM / FLEX SPACE NORTH - NORTH ELEVATION
1/4" = 1'-0"



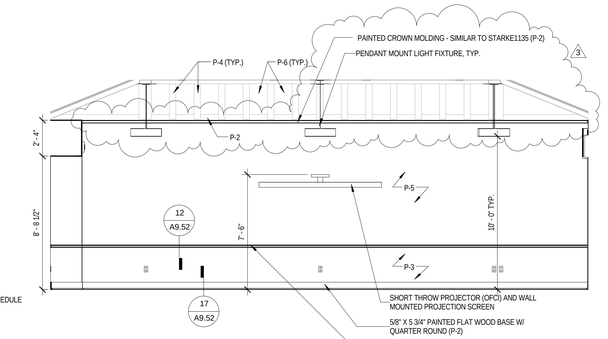
3 CLASSROOM NORTH - WEST ELEVATION
1/4" = 1'-0"



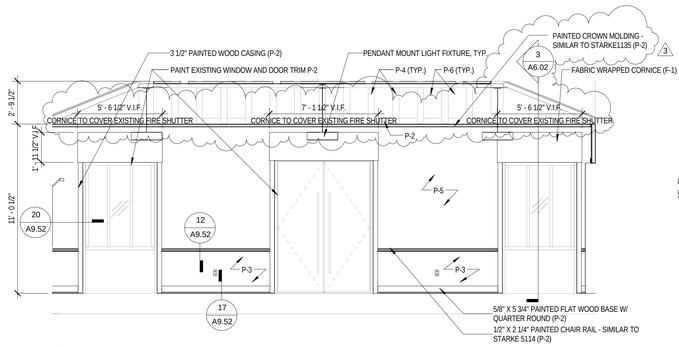
4 CLASSROOM / FLEX SPACE NORTH - SOUTH ELEVATION
1/4" = 1'-0"



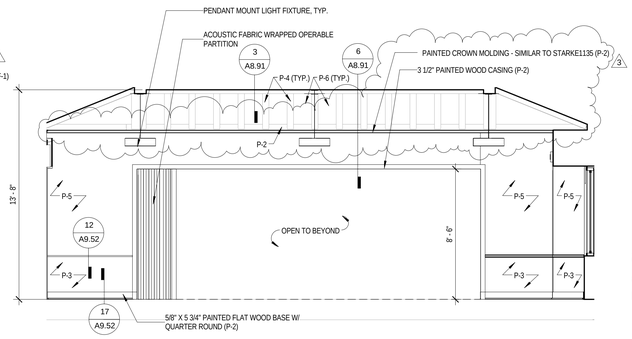
5 FLEX SPACE SOUTH - NORTH ELEVATION
1/4" = 1'-0"



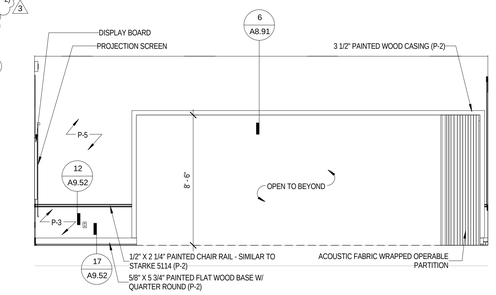
6 FLEX SPACE SOUTH - EAST ELEVATION
1/4" = 1'-0"



7 FLEX SPACE SOUTH - SOUTH ELEVATION
1/4" = 1'-0"

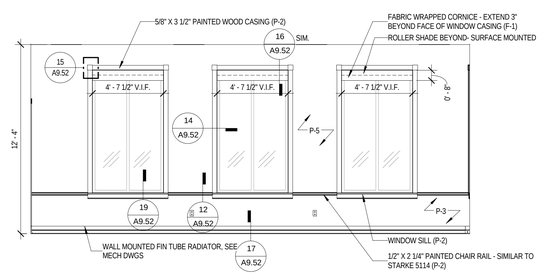


8 FLEX SPACE SOUTH - WEST ELEVATION
1/4" = 1'-0"

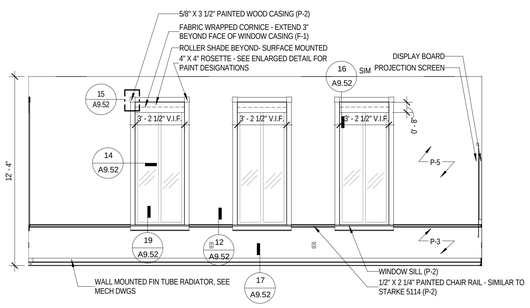


9 CLASSROOM SOUTH - EAST ELEVATION
1/4" = 1'-0"

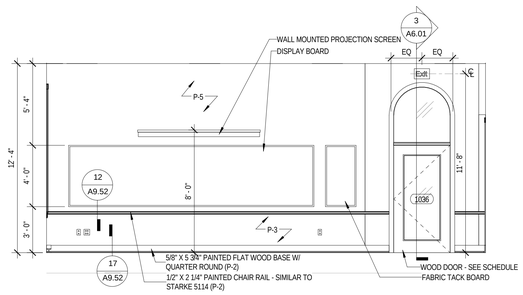
10 FIREPLACE PAINT DESIGNATIONS
N.T.S.



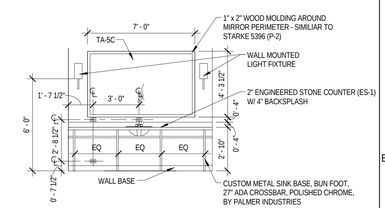
11 CLASSROOM SOUTH - SOUTH ELEVATION
1/4" = 1'-0"



12 CLASSROOM SOUTH - WEST ELEVATION
1/4" = 1'-0"



13 CLASSROOM SOUTH - NORTH ELEVATION
1/4" = 1'-0"



14 BRIDAL ROOM - EAST ELEVATION
1/4" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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129 CAPISTA DRIVE
SHOREWOOD, IL 60404
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SHEET STATUS: 02/18/2016
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NO:	DESCRIPTION:	DATE:
3	Addendum 3	03.07.16

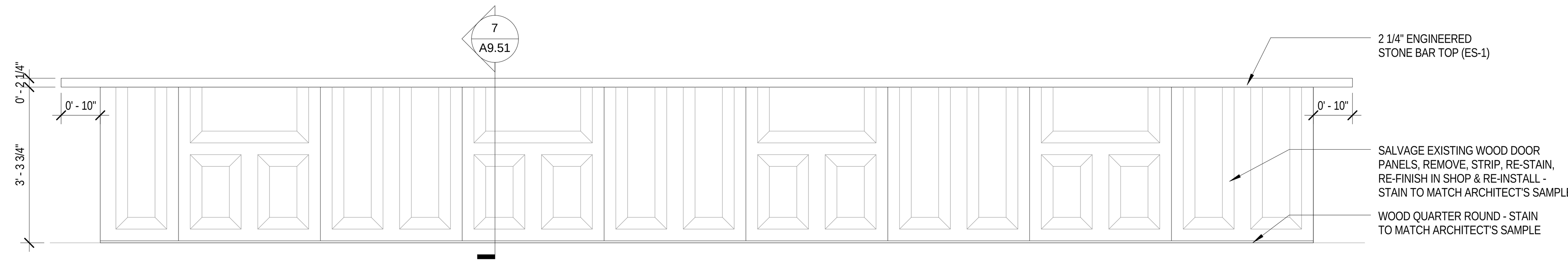
SHEET TITLE:
INTERIOR ELEVATIONS

SHEET NUMBER:
A9.04

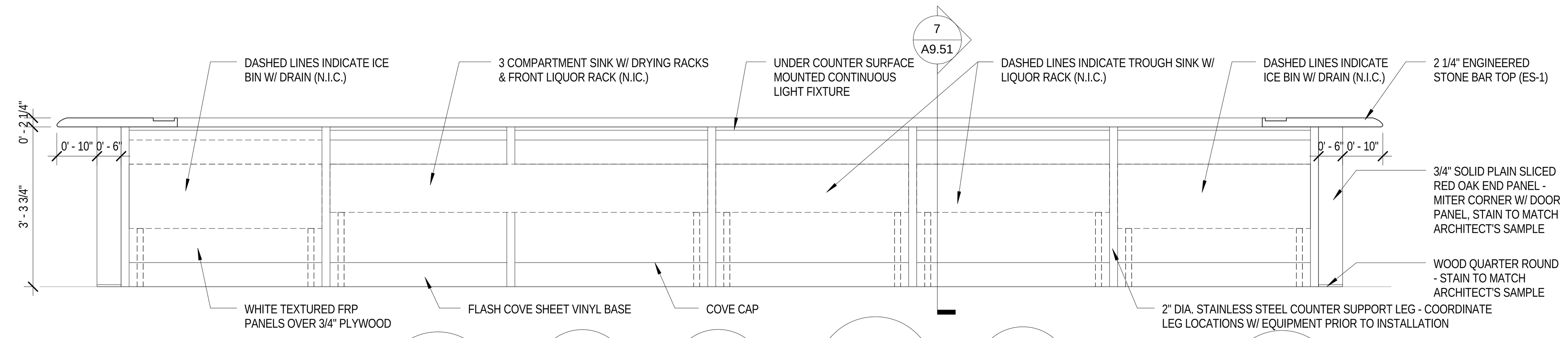
3/3/2016 4:08:30 PM

MILLWORK FINISH TYPES:

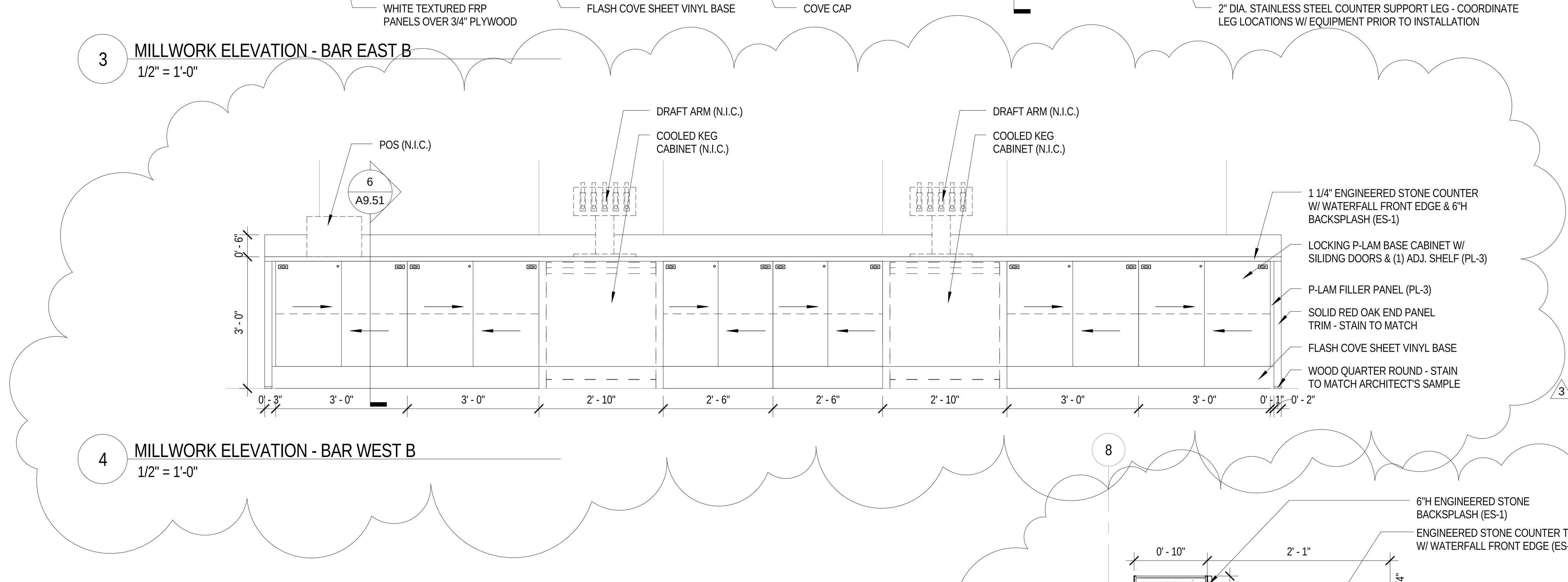
TYPE	DESCRIPTION	MANUFACTURER	NAME/#/COLOR
ES-1	BAR ENGINEERED STONE	SILESTONE	NIGHT MIST
PL-1	COUNTER TOP PLASTIC LAMINATE	NEVAMAR	STUDIO GREY S6037T TEXTURED
PL-2	WOOD GRAIN PLASTIC LAMINATE	WILSONART	TAN ECHO 7941K-18
PL-3	BLACK PLASTIC LAMINATE	FORMICA	BLACK 909-58
SS-1	JJC STANDARD TOILET ROOM SOLID SURFACE	WILSONART	BEIGE TEMPEST
SS-2	2ND FLOOR TOILET ROOM SOLID SUFACE	WILSONART	LINEN WHITE



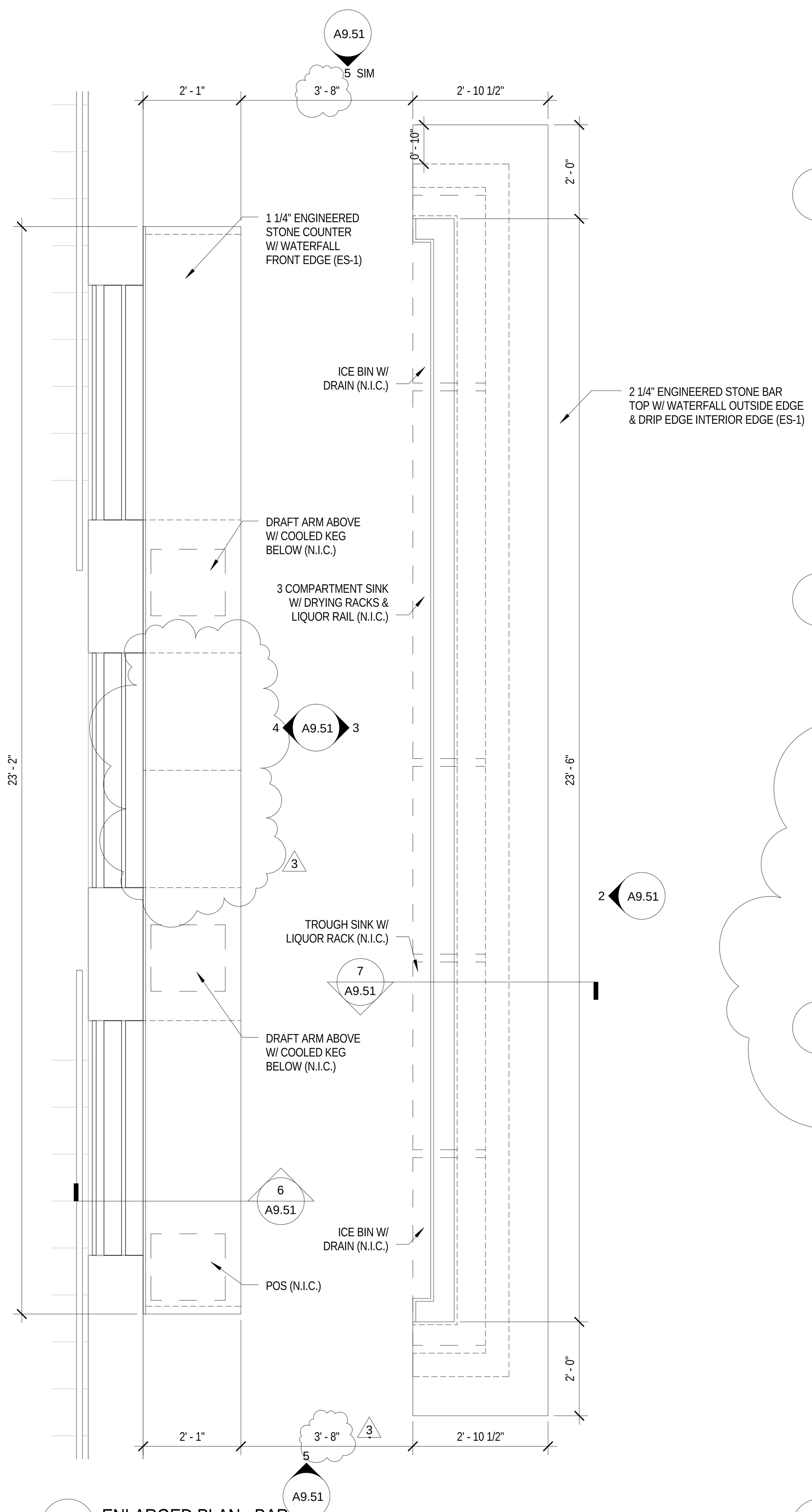
2 MILLWORK ELEVATION - BAR WEST A
1/2" = 1'-0"



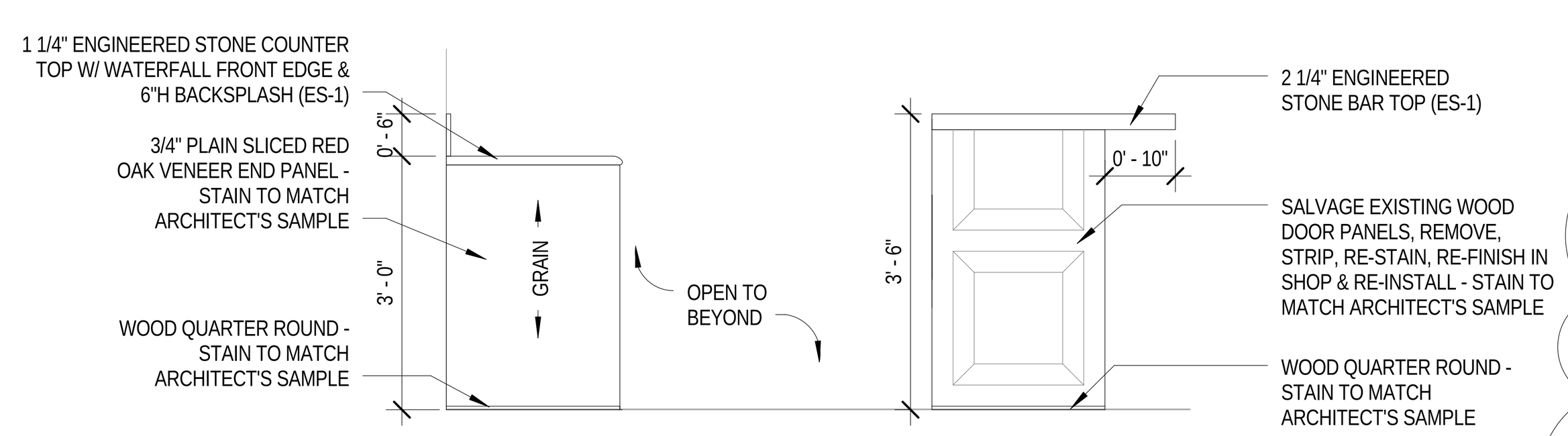
3 MILLWORK ELEVATION - BAR EAST B
1/2" = 1'-0"



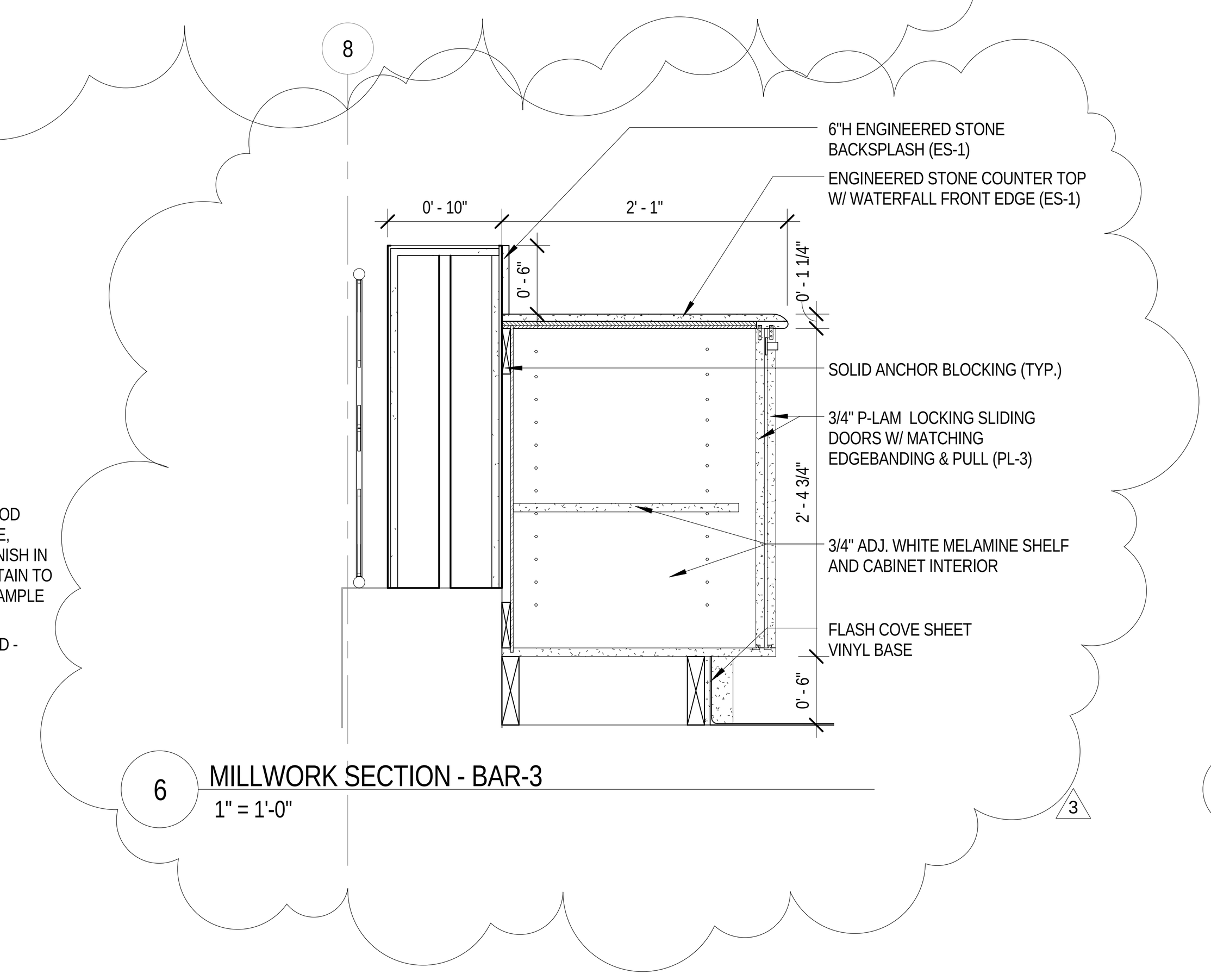
4 MILLWORK ELEVATION - BAR WEST B
1/2" = 1'-0"



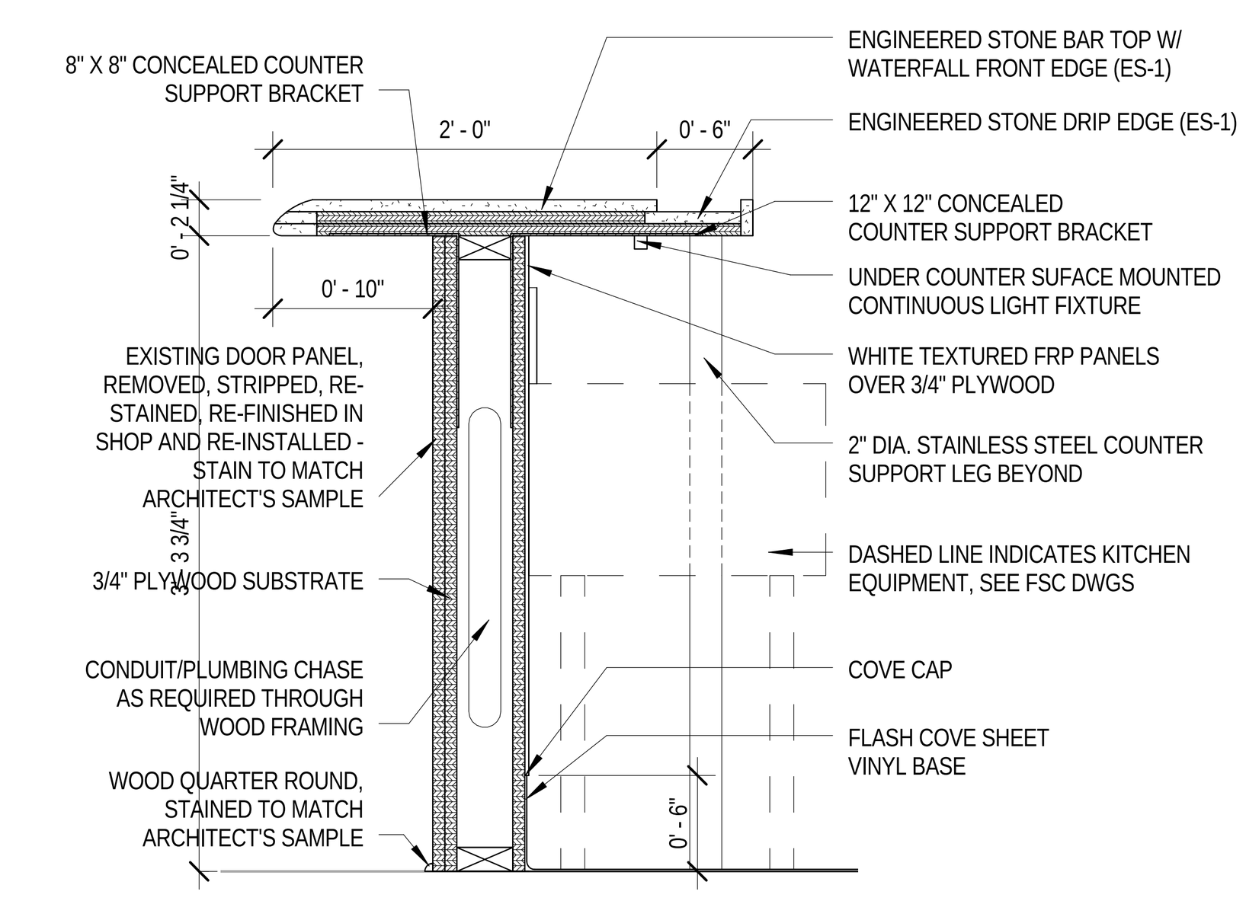
1 ENLARGED PLAN - BAR
1/2" = 1'-0"



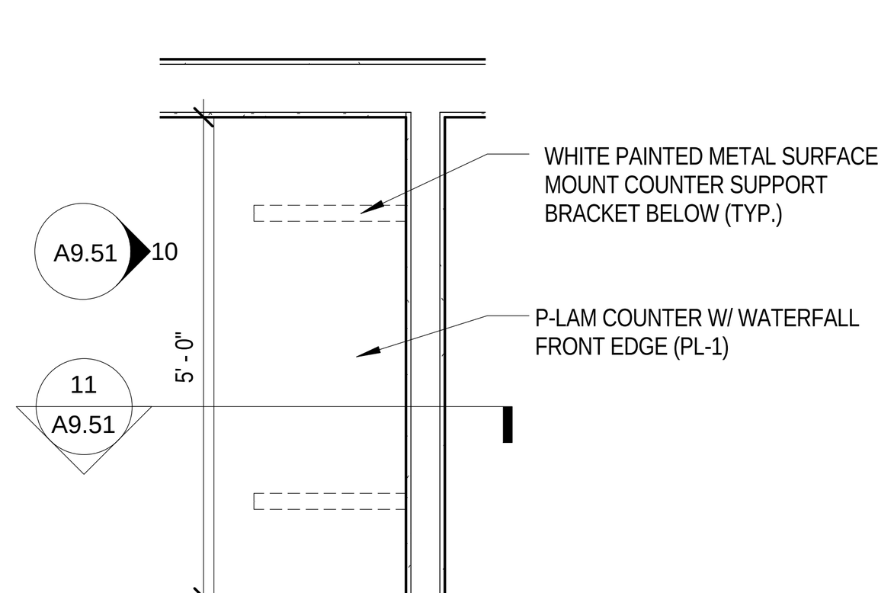
5 MILLWORK ELEVATION - BAR NORTH A
1/2" = 1'-0"



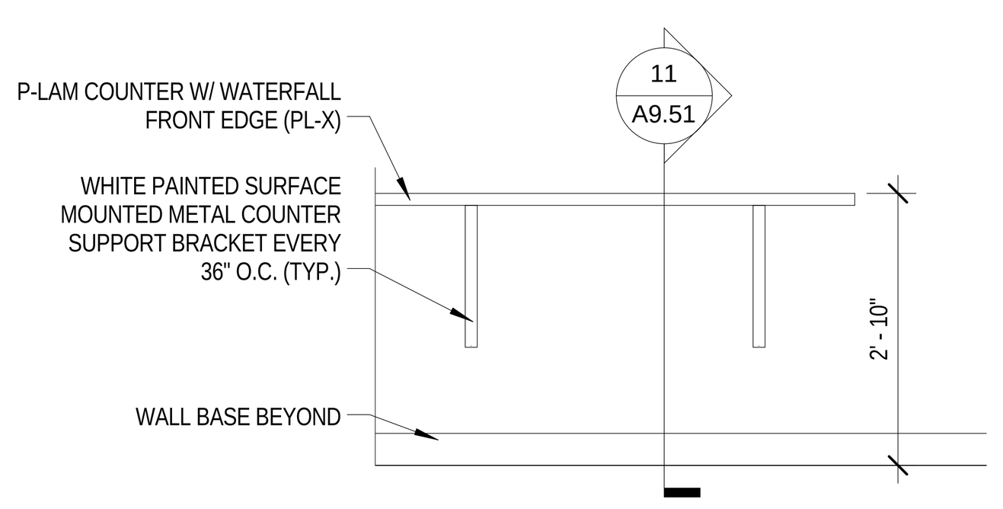
6 MILLWORK SECTION - BAR-3
1" = 1'-0"



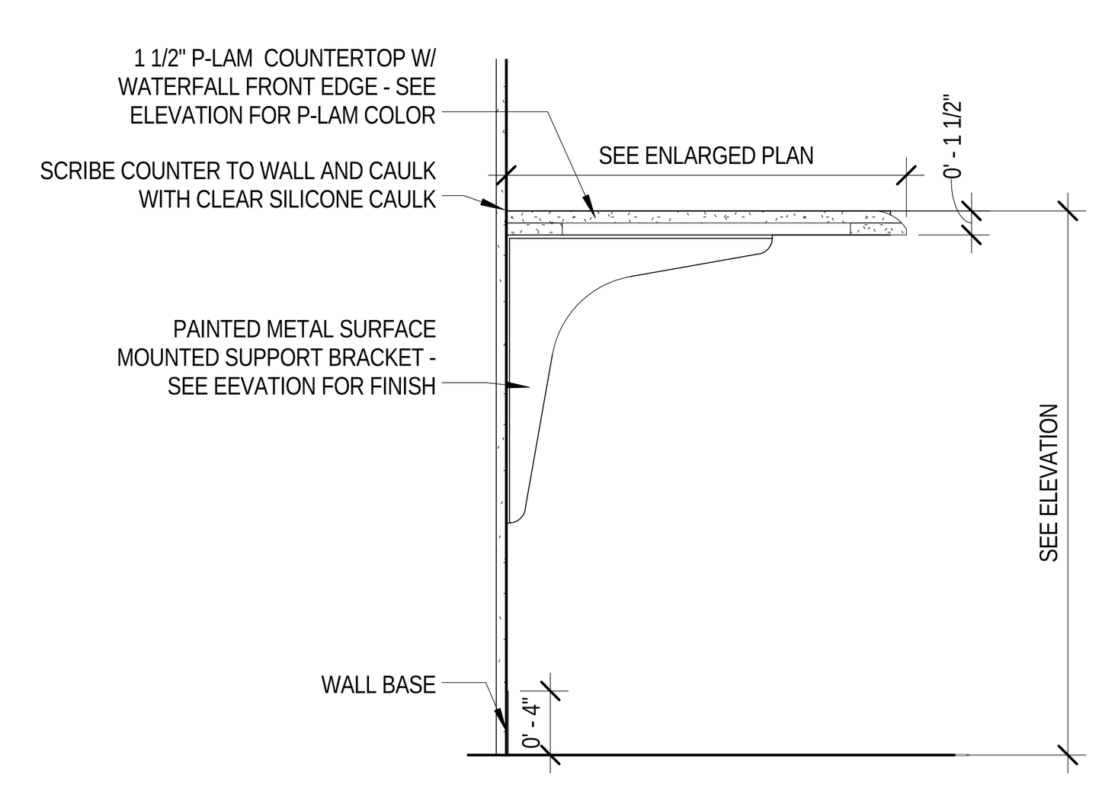
7 MILLWORK SECTION - BAR-2
1" = 1'-0"



9 ENLARGED PLAN - IT COUNTER
1/2" = 1'-0"



10 MILLWORK ELEVATION - IT EAST
1/2" = 1'-0"



11 MILLWORK SECTION - IT-1
1" = 1'-0"

ARCHITECT OF RECORD
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125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

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EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

CIVIL ENGINEERS
RUETTIGER, TONELLI & ASSOCIATES
129 CAPISTA DRIVE
SHOREWOOD, IL 60404
T: 815.744.6600

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION
214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

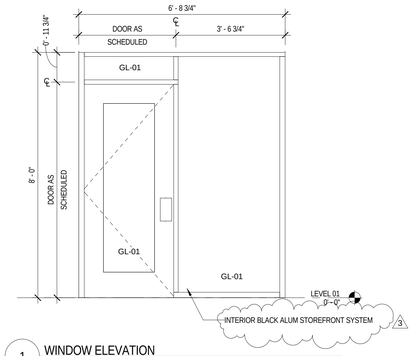
KEY PLAN:

SHEET STATUS:

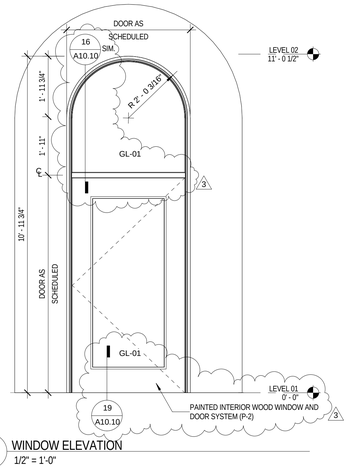
NO:	DESCRIPTION:	DATE:
3	Addendum 3	03.07.16

SHEET TITLE:
MILLWORK DETAILS

SHEET NUMBER:
A9.51



1 WINDOW ELEVATION
1/2" = 1'-0"



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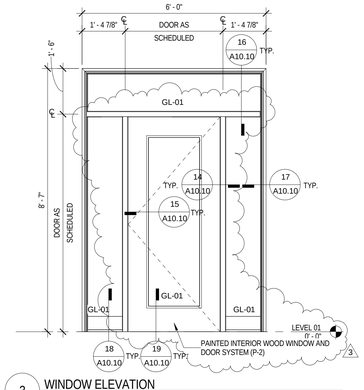

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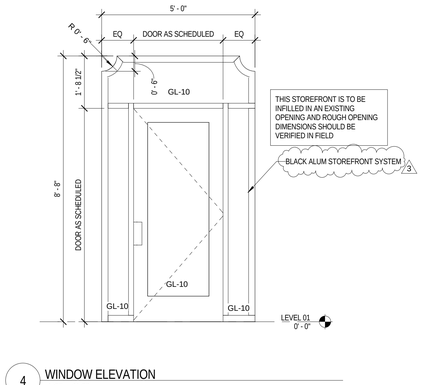

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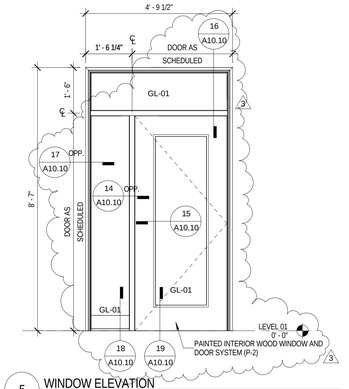

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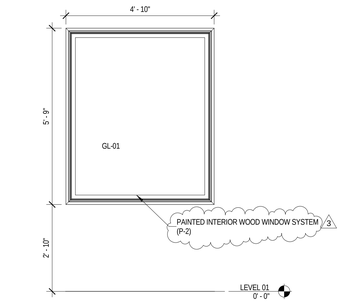

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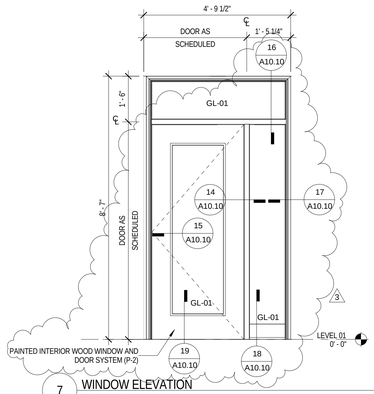

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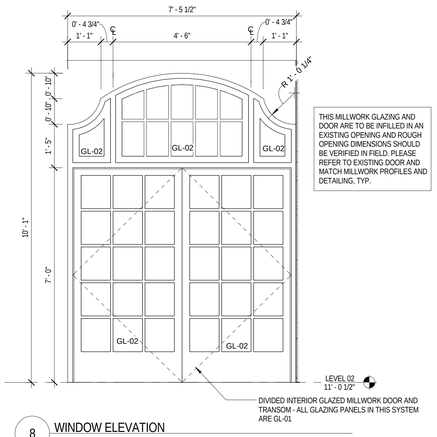

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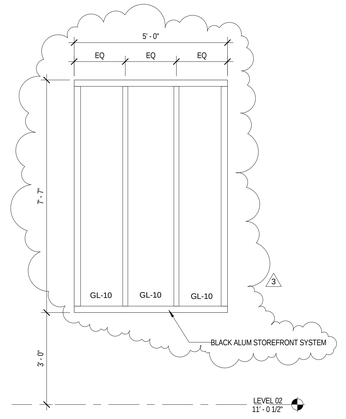
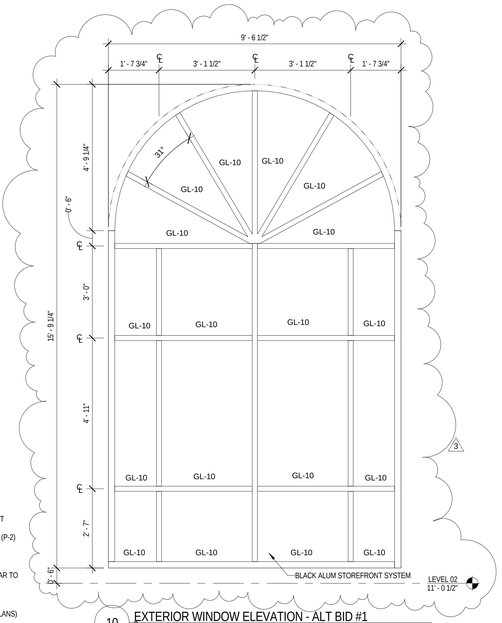
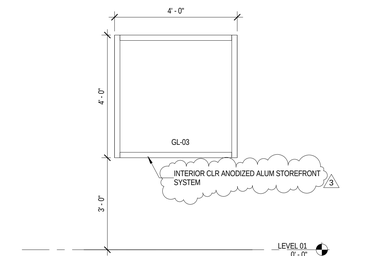


9 EXTERIOR WINDOW ELEVATION - ALT BID #1
1/2" = 1'-0"



10 EXTERIOR WINDOW ELEVATION - ALT BID #1
1/2" = 1'-0"

GLAZING SCHEDULE	
GL-01	1/4" CLEAR TEMPERED GLASS
GL-02	1/4" FROSTED TEMPERED GLASS
GL-03	1/4" ONE WAY GLASS
GL-10	1" INSULATED CLEAR TEMPERED GLASS



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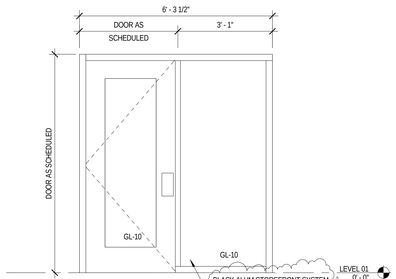

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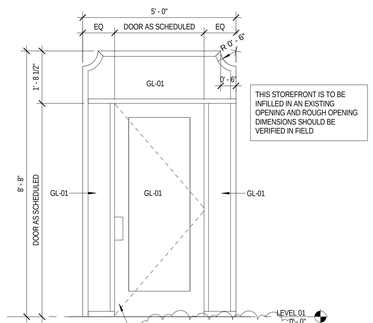

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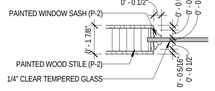
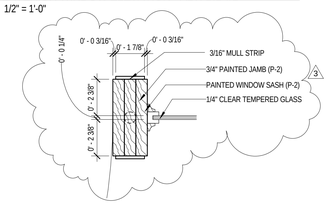
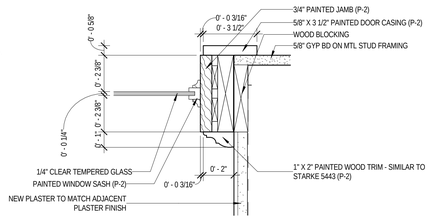


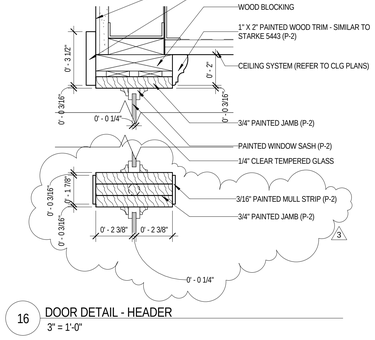
15 DOOR DETAIL - DOOR SASH
3" = 1'-0"



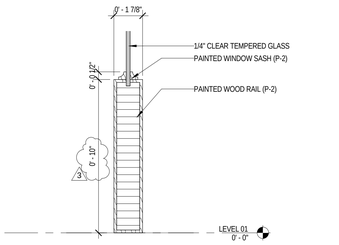
14 DOOR DETAIL - DOOR JAMB AT SIDELIGHT
3" = 1'-0"



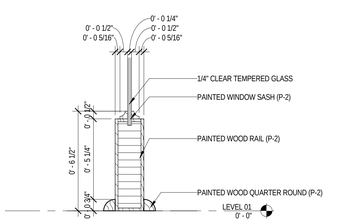
17 DOOR DETAIL - JAMB @ SIDELIGHT
3" = 1'-0"



16 DOOR DETAIL - HEADER
3" = 1'-0"



19 DOOR DETAIL - SILL @ DOOR
3" = 1'-0"



18 DOOR DETAIL - SILL @ SIDELIGHT
3" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

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BIRMINGHAM, MI 48009
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DKA PROJECT NO: 14-025

KEY PLAN:

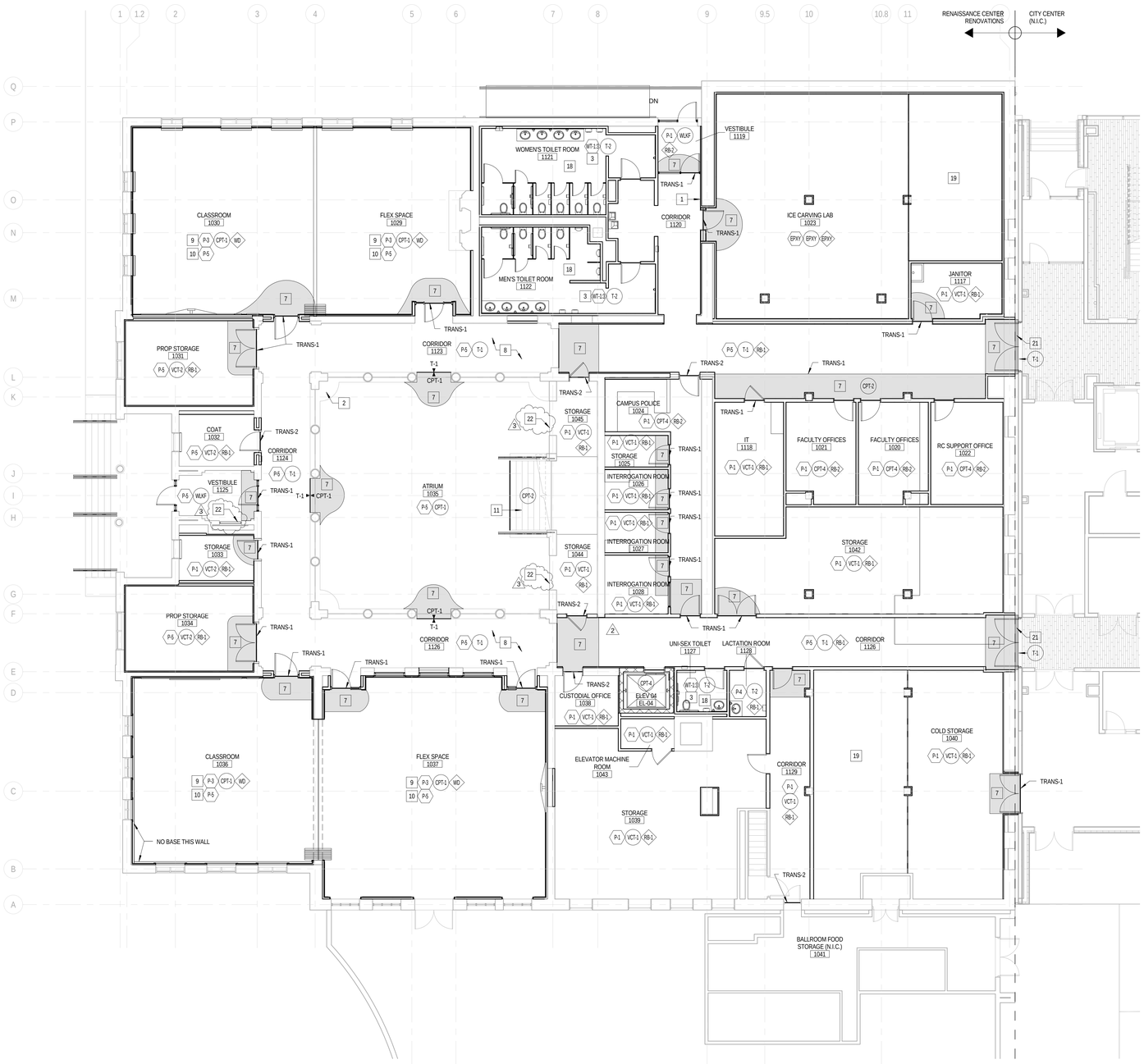
SHEET STATUS:

NO:	DESCRIPTION:	DATE:
3	Addendum 3	03.07.16

SHEET TITLE:
WINDOW ELEVATIONS

SHEET NUMBER:
A10.10

3/4/2016 2:09:11 PM



1 FINISH PLAN_LEVEL 01
1/8" = 1'-0"

ALL HYDRAULIC CEMENT UNDERLAYMENT WORK REQUIRED FOR FLOOR PREP TO ACHIEVE REQUIRED FLOOR FLATNESS AND SMOOTH FLOORING TRANSITIONS AS SPECIFIED SHALL BE PROVIDED UNDER ALLOWANCE. SEE SPECIFICATION FOR MORE DETAIL

REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL PAINTING DETAILS.

FINISH PLAN SYMBOLS LEGEND:

XX WALL FINISH TYPE | X.X WALL BASE TYPE | XXX.XX FLOOR FINISH TYPE

FINISH PLAN GENERAL NOTES:

1. PAINT ALL EXPOSED CONDUIT, DUCTWORK, PIPING, ETC. IN ALL FINISHED SPACES. REFER TO INTERIOR FINISH PLANS AND REFLECTED CEILING PLANS FOR CLARIFICATIONS.
2. PAINT ALL EXPOSED METAL ON EXTERIOR INCLUDING, BUT NOT LIMITED TO: CONDUIT, PIPING, FLASHING, MECHANICAL FLUES AND DUCTS, AND HOLLOW METAL FRAMES AND DOORS.
3. PROVIDE CEMENTITIOUS UNDERLAYMENT AS REQUIRED TO PROVIDE A SMOOTH AND LEVEL SUBSTRATE FOR NEW FLOOR FINISH.
4. ALL FINISHES ARE MONUMENTAL PER ROOM UNLESS NOTED OTHERWISE.
5. HOLLOW METAL DOORS AND FRAMES TO BE PAINTED P-9 UNLESS NOTED OTHERWISE.
6. AT ALL LOCATIONS WHERE CASEWORK IS TO BE INSTALLED, THE SUBSEQUENT BASE TYPE SPECIFIED FOR EACH ROOM SHALL BE INSTALLED OVER CASEWORK TOE KICKS UNLESS NOTED OTHERWISE. REFER TO FLOORPLANS FOR CASEWORK LOCATIONS.
7. PAINT ALL GYP. BD. CEILINGS P-6 UNLESS NOTED OTHERWISE.
8. ALL CARPET TILE TO BE INSTALLED MONOLITHIC UNLESS SPECIFIED OTHERWISE.
9. PAINT ALL WOOD DOOR AND WINDOW FRAME TRIM P-2 U.N.O.
10. PATCH AND REPAIR ALL EXISTING WALL AND TRIM AND PLASTER FINISH TO REMAIN AS REQUIRED.
11. ALL EXISTING AND NEW DECORATIVE WROUGHT IRON TO BE PAINTED P-2.
12. REFER TO DETAIL SHEETS FOR PAINTED WOOD TRIM DETAIL
13. REFER TO PAINT SPECIFICATIONS FOR PAINT MOCK UP REQUIREMENTS PRIOR TO PAINTING
14. REFER TO ELEVATIONS FOR ACCESS PANELS IN TOILET ROOMS. WHERE ACCESS PANELS ARE REQUIRED, PROVIDE SCHLUTER REMA CONCEALED ACCESS PANEL

WALL FINISH TYPES:

XX-X TYP.

TYPE	DESCRIPTION	MANUFACTURER	NAME/#/COLOR
EPXY	EPOXY WALL PAINT	SHERWIN WILLIAMS	SANIGLAZE, WHITE
P-1	JJC GENERAL PAINT	SHERWIN WILLIAMS	SW7004 SNOWBOUND
P-2	NEAR BLACK	BENJAMIN MOORE	2119-20 BLACK BERRY
P-3	DARK TAUPE	SHERWIN WILLIAMS	SW 2840 HAMMERED SILVER
P-4	LIGHT TAUPE	SHERWIN WILLIAMS	SW 7023 REQUISITE GRAY
P-5	OFF WHITE	BENJAMIN MOORE	SW 7648 BIG CHILL
P-6	BRIGHT WHITE	SHERWIN WILLIAMS	SW 7006 EXTRA WHITE
P-7	BLACK (HIGH GLOSS)	BENJAMIN MOORE	2119-10 SPACE BLACK
P-8	METALLIC PAINT	MDC WALLCOVERING	LP 1073 LIQUAPEARL
P-9	HM TRIM PAINT	BENJAMIN MOORE	1605 WINTER SOLSTICE
P-10	DARK BROWN PAINT	SHERWIN WILLIAMS	SW7026 GRIFFIN
WT-1	TOILET ROOM WALL TILE, BLUE GLASS MOSAIC	MANUF: CROSSVILLE DIST: VIRGINIA TILE	GLASSBLOX GG39, SIZE: 1X1, COLOR: AMETHYST
WT-2	TOILET ROOM WALL TILE, LIGHT TAN	MANUF: CROSSVILLE DIST: VIRGINIA TILE	COLOR BLOX, SIZE: 12X24, COLOR: SANDBOX
WT-3	TOILET ROOM WALL TILE, DARK TAN	MANUF: CROSSVILLE DIST: VIRGINIA TILE	COLOR BLOX, SIZE: 12X24, COLOR: ROASTED MARSHMALLOW
WT-4	TOILET ROOM WALL TILE, MARBLE SUBWAY	MANUF: ANATOLIA DIST: VIRGINIA TILE	ANATOLIA TILE, CALACATTA, 3X6 FIELD TILE, ANA CLCL 36M
WT-5	TOILET ROOM WALL TILE, CHAIR RAIL	MANUF: AMERICAN OLEAN DIST: MID AMERICA	LINEA, GLOSS BLACK, 2X6 CHAIR RAIL, COLOR 0049

WALL BASE TYPES:

1 TYP.

TYPE	DESCRIPTION	MANUFACTURER	NAME/#/COLOR
RB-1	4"H COVE RUBBER BASE	JOHNSONITE	BLACK 40
RB-2	4"H STRAIGHT RUBBER BASE	JOHNSONITE	BLACK 40
EPXY	6"H EPOXY COATING	6"H EPOXY COATING	TO MATCH EPXY FLOORING, FLASH COVE UP WALL 6"
SV	6"H FLASH COVE SHEET VINYL	ALTRO	WALKWAY 20, COLOR: BLACK
WD-1	5 3/4" WOOD BASE		5 3/4" X 1" FLAT WOOD BASE
WD-2	TO MATCH EXISTING WOOD BASE		

FLOORING TRANSITIONS

TYPE	DESCRIPTION	MANUFACTURER	NAME/#/COLOR
TRANS-1	ALUMINUM DIVIDER TRANSITION	SCHLUTER	JOLLY, SIZE AS REQUIRED TO TRANSITION BETWEEN ONE FLOORING TYPE TO THE NEXT, ALUMINUM FINISH
TRANS-2	ALUMINUM SLOPING TRANSITION	SCHLUTER	RENO, SIZE AS REQUIRED TO TRANSITION BETWEEN ONE FLOORING TYPE TO THE NEXT, ALUMINUM FINISH

FLOOR FINISH TYPES:

XXX-XX

TYPE	DESCRIPTION	MANUFACTURER	NAME/#/COLOR
CPT-1	CUSTOM CARPET - MEDIUM SCALE	MILLIKEN	DR: 00658384, SIZE: 1 METER, SKINNY STRIPE BACKGROUND
CPT-2	CUSTOM CARPET - SMALL SCALE	MILLIKEN	DR: 00658382, SIZE: 1 METER, SKINNY STRIPE BACKGROUND
CPT-3	CUSTOM CARPET - LARGE SCALE	MILLIKEN	DR: 00658387, SIZE: 1 METER, SKINNY STRIPE BACKGROUND
CPT-4	OFFICE CARPET TILE	INTERFACE FLOR	TECTONICS, COLOR: BINARY, BRICK INSTALLATION
DWT	DETECTABLE RUBBER WARNING TILE	JOHNSONITE	24X24 RUBBER TILE, DETECTABLE WARNING TILE TEXTURE, COLOR: 63 BURNT UMBER
EPXY	EPOXY FLOOR COATING	SHERWIN WILLIAMS	GP 3745 CR WITH 5190 NON SKID ADDITIVE, COLOR TBD
SV	SHEET VINYL	ALTRO	WALKWAY 20, COLOR BLACK VM20892
T-1	CORRIDOR TILE	MANUF: STUDIO MARMI DIST: CERAMIC TECHNICS	W001 GRAIN, SIZE 8X48, COLOR GRIGIO
T-2	1ST FL BATHROOM TILE	MANUF: CROSSVILLE DIST: VIRGINIA TILE	COLOR BLOX, SIZE: 18X18, COLOR: I SEE THE MOON
T-3	2ND FL BATHROOM TILE	MANUF: AMERICAN OLEAN DIST: MID AMERICA	1X1 UNGLAZED PORCELAIN HEX FIELD PATTERN DP6004, 96% COLOR A34, 4% COLOR A25
VCT-1	WHITE VCT	ARMSTRONG	MIGRATIONS, COLOR: ICE WHITE, 12X12, RANDOM INSTALL
VCT-2	GREY VCT	ARMSTRONG	MIGRATIONS, COLOR: GLACIER GREY, 12X12, RANDOM INSTALL
WLFK	WALKOFF CARPET TILE	INTERFACE FLOR	FLOR, COLOR: ANTHRACITE, BRICK INSTALLATION
WD	WOOD FLOOR		3/4" X 3 1/4" SOLID WHITE OAK, CLEAR FINISH

FINISH PLAN REFERENCED NOTES:

1 TYP.

1. PAINT EXISTING WALL GRILL P-2
2. PAINT CONCRETE CURB AND COLUMN BASES P-2
3. SEE ELEVATIONS FOR WALL TILE EXTENTS
4. PATCH, REPAIR, AND FINISH TO MATCH EXISTING WALL AND TRIM CONDITION TO EXTENT THAT REPAIR IS UNNOTICEABLE WHERE NEW DOORS AND WINDOWS ARE INSTALLED OR WALL/CEILING REPAIR IS MADE
5. PAINT DOOR AND TRIM P-2 BAR SIDE ONLY
6. PAINT DOOR AND TRIM TO MATCH EXISTING BALLROOM SIDE ONLY
7. PROVIDE CEMENTITIOUS UNDERLAYMENT WITHIN HATCHED AREA AT A MINIMUM TO PROVIDE SMOOTH AND LEVEL TRANSITION BETWEEN TWO ADJACENT FLOORING SURFACES
8. PROVIDE CEMENTITIOUS UNDERLAYMENT OVER EXISTING PAVERS AS REQUIRED TO PROVIDE LEVEL SUBSTRATE TO LAY NEW TILE
9. BELOW WAINSCOT - SEE ELEVATIONS
10. ABOVE WAINSCOT - SEE ELEVATIONS
11. PROVIDE JOHNSONITE SLIMLINE VINYL STAR NOSING SLN-AAA-B, COLOR 80 FAWN CB AT ALL STAIR NOSINGS
12. SEE ELEVATIONS FOR LOCATION OF WT-5
13. PAINT EXISTING BASE P-2
14. PAINT NEW BASE P-2
15. PAINT HM FRAME P-2
16. PROVIDE CEMENTITIOUS UNDERLAYMENT UNDER FULL EXTENTS OF NEW SHEET VINYL FLOORING SO THAT FINISHED FACE IS FLUSH WITH ADJACENT FINISHED FACE OF WOOD FLOOR
17. PROVIDE JOHNSONITE SUBFLOOR LEVELER LS-40-E TO BRING FACE OF CARPET FLUSH WITH ADJACENT WOOD FLOOR
18. PROVIDE METAL EDGE STRIP WHERE FLOOR MEETS WALL, ALL INSIDE TILE WALL CORNERS AND ALL OUTSIDE WALL CORNERS
19. NO FLOOR, NO BASE (BARE CONCRETE FLOOR), COOLER LOCATION
20. REFER TO DETAIL 2/A11.21 FOR PAINT DESIGNATIONS
21. DARK GREY HATCH INDICATES LOCATION OF EXPANSION JOINT COVER. INSTALL T-1 OVER EXPANSION JOINT COVER - REFER TO 14/A7.01. ALIGN TILE JOINT PATTERN WITH TILE INSTALLED IN ADJACENT CITY CENTER PROJECT.
22. PAINT GRILLE P-2.

3

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

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EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

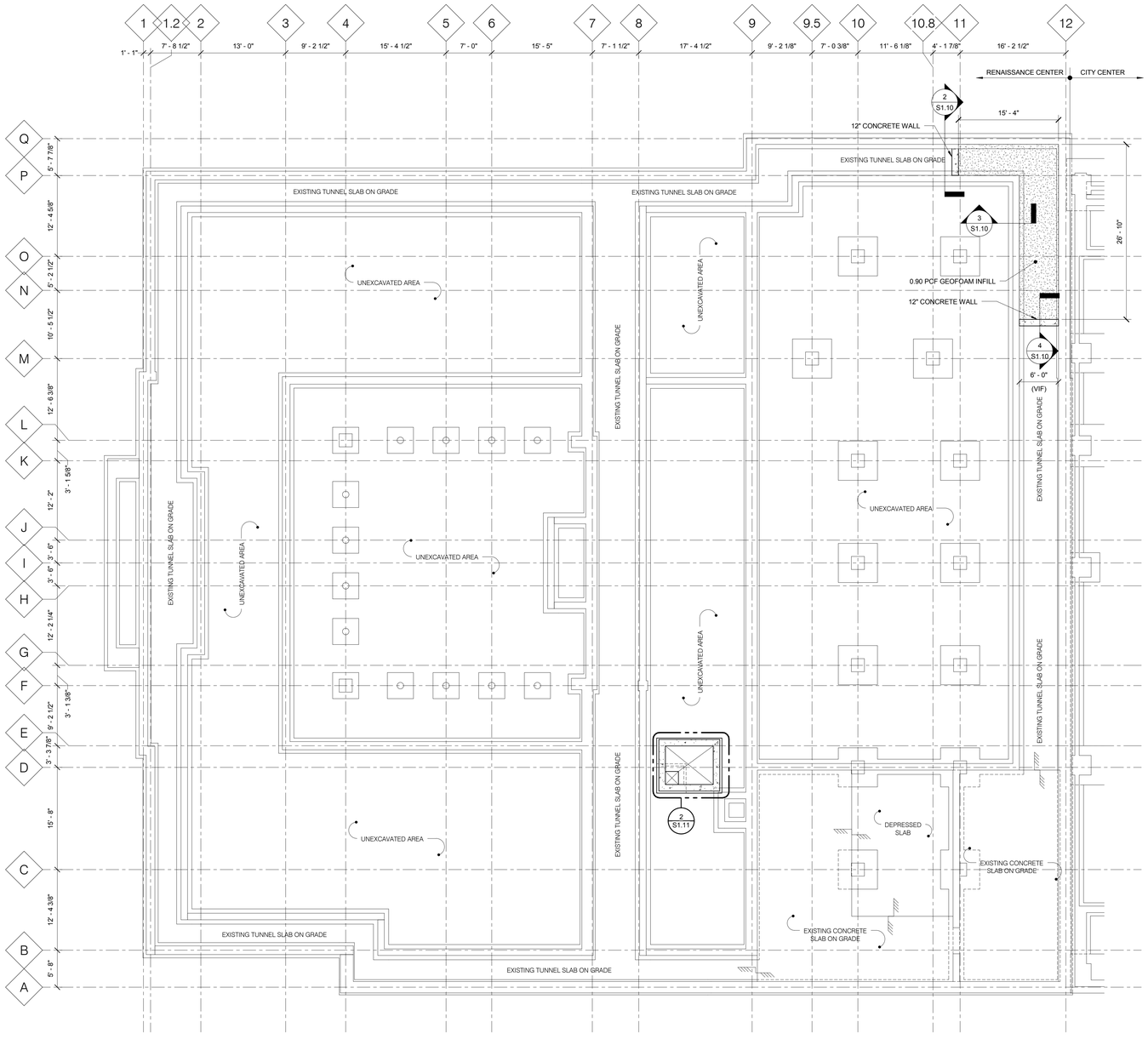
SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
2	Addendum 2	02.26.16
3	Addendum 3	03.07.16

SHEET TITLE:
LEVEL 1 - FINISH PLAN

SHEET NUMBER:
A11.11

3/2/2016 4:48:30 PM

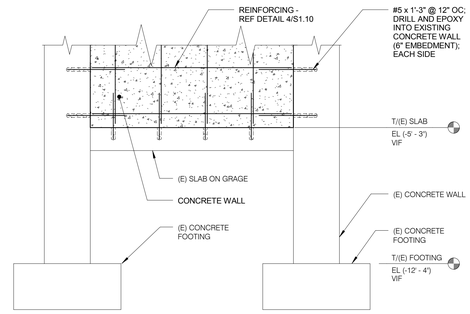


1 BASEMENT PLAN

1/8" = 1'-0"

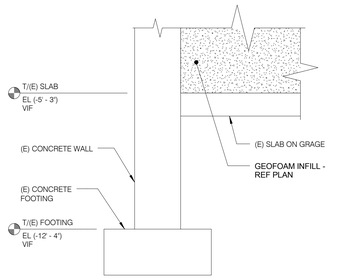
NORTH

0' 4' 8' 16' 32'



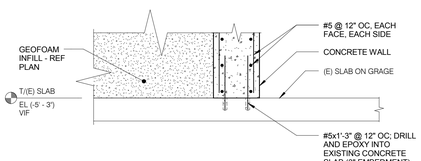
2 FOUNDATION DETAIL

3/4" = 1'-0"



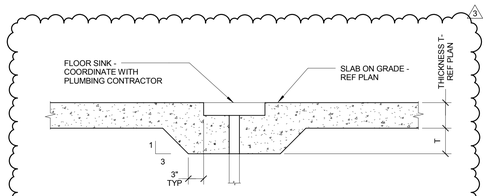
3 FOUNDATION DETAIL

3/4" = 1'-0"



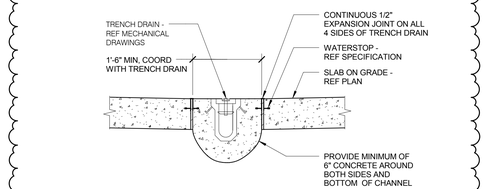
4 FOUNDATION DETAIL

3/4" = 1'-0"



5 THICKENED SLAB AT FLOOR SINK

1" = 1'-0"



6 TRENCH DRAIN DETAIL

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NO:	DESCRIPTION:	DATE:
3	ADDENDUM 3	03/07/16

SHEET TITLE:
BASEMENT PLAN

SHEET NUMBER:
S1.10

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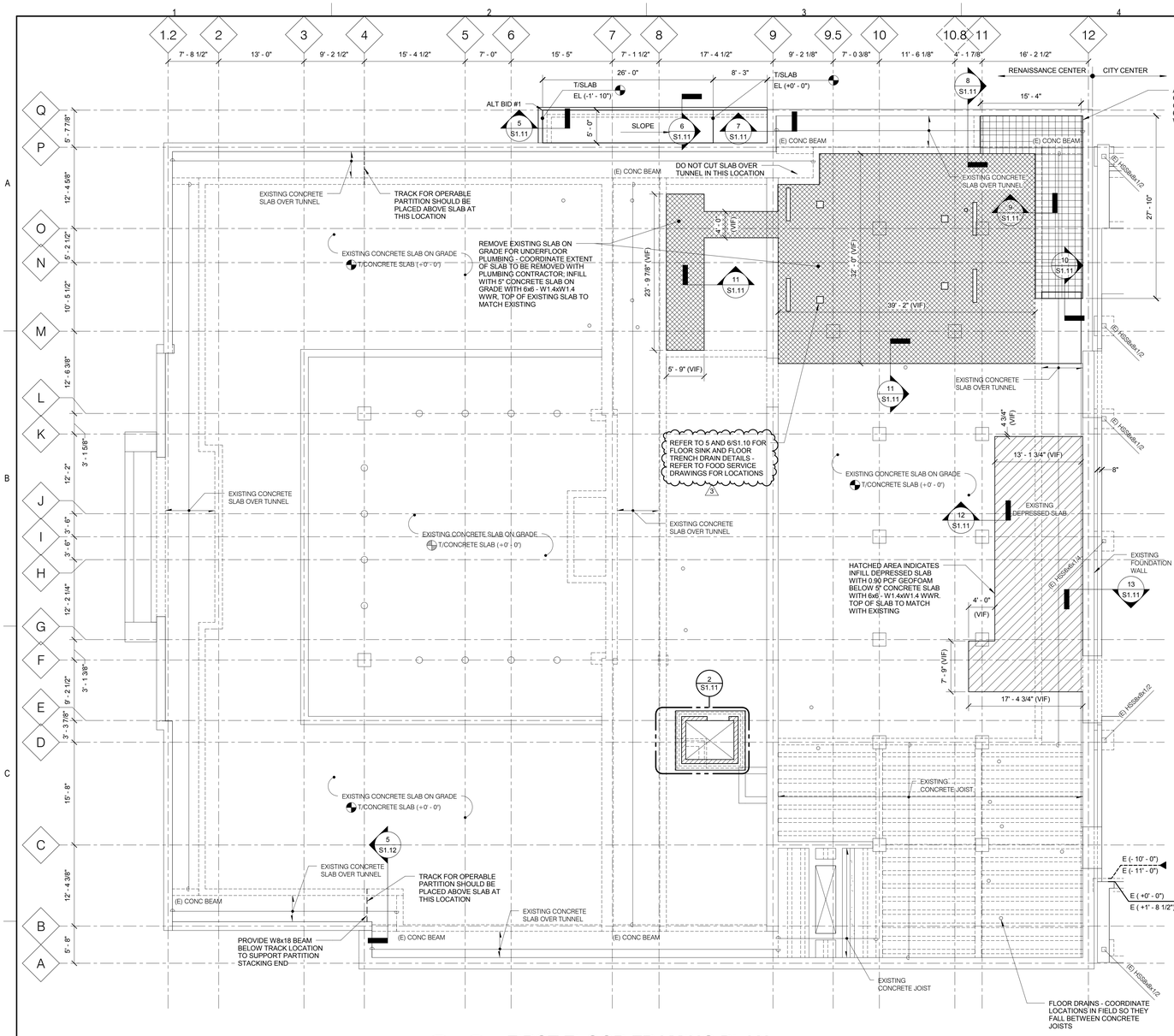
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT # 15.0765.00
Illinois Design Firm Registration #184-005973

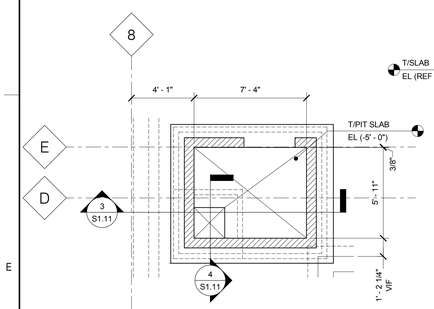
REFERENCE SCALE IN INCHES
0 1 2 3



1 FIRST FLOOR FRAMING PLAN

1/8" = 1'-0"

0' 4' 8' 16' 32'

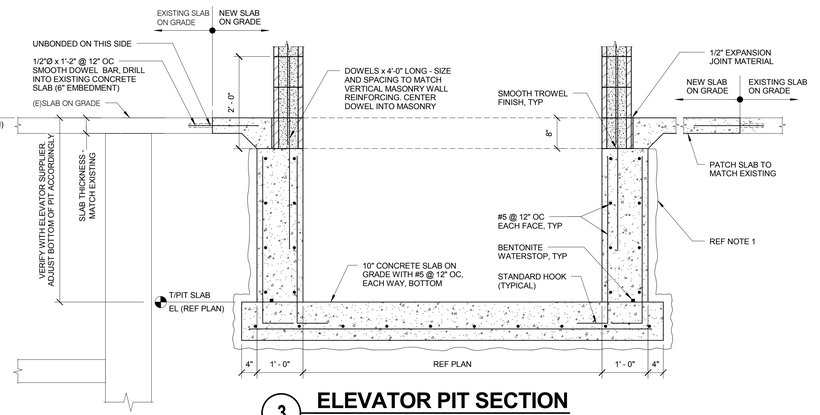


2 ELEVATOR AT FIRST FLOOR FRAMING PLAN

1/4" = 1'-0"

NOTES:

1. PROVIDE 8" MASONRY WALL WITH #5 @ 24" OC.

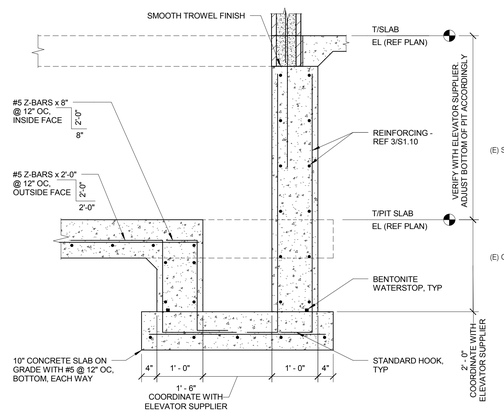


3 ELEVATOR PIT SECTION

3/4" = 1'-0"

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR PIT LADDER AND WATERPROOFING..
2. PROVIDE STANDARD HOOKS AT ENDS OF WALL FOR HORIZONTAL BARS, TYP.

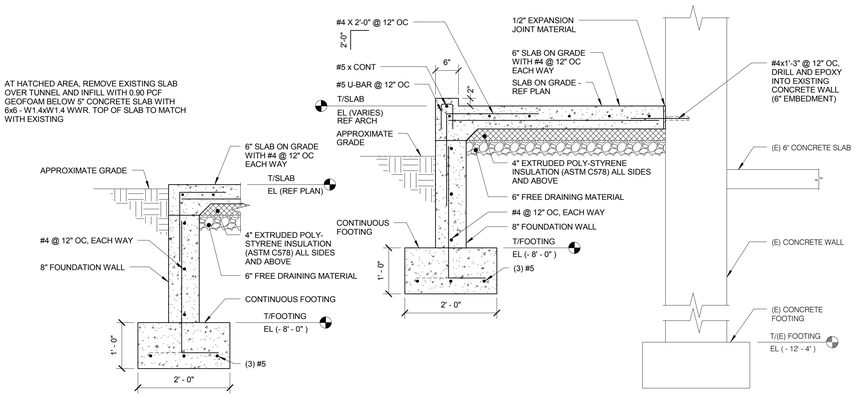


4 SUMP PIT SECTION

3/4" = 1'-0"

NOTES:

1. COORDINATE LOCATION OF SUMP WITH ELEVATOR SUPPLIER TO AVOID ELEVATOR COMPONENTS AND ACCESS AREA.

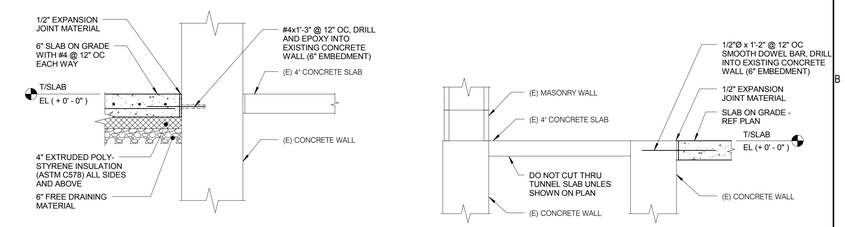


5 RAMP WALL DETAIL

3/4" = 1'-0"

6 RAMP WALL DETAIL

3/4" = 1'-0"

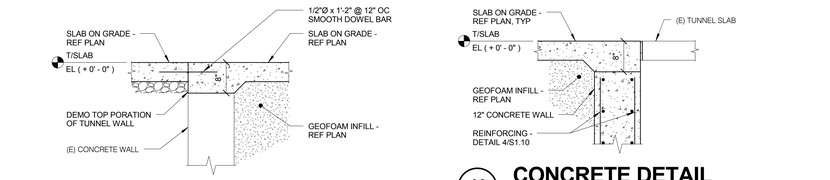


7 CONCRETE WALL DETAIL

3/4" = 1'-0"

8 EXISTING WALL DETAIL

3/4" = 1'-0"

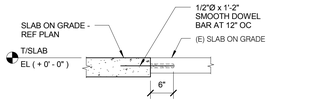


9 CONCRETE SLAB DETAIL

3/4" = 1'-0"

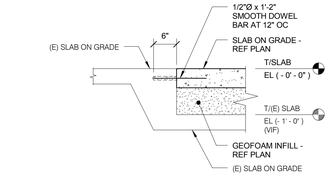
10 CONCRETE DETAIL

3/4" = 1'-0"



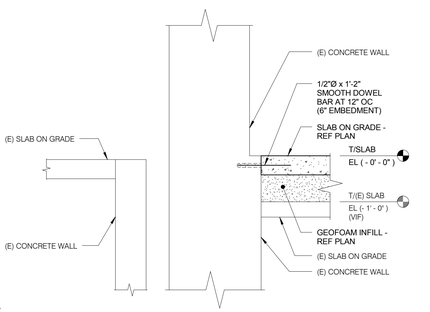
11 CONCRETE SLAB DETAIL

3/4" = 1'-0"



12 CONCRETE SLAB DETAIL

3/4" = 1'-0"



13 EXISTING WALL DETAIL

3/4" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTOWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/08/16
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
3	ADDENDUM 3	03/07/16

SHEET TITLE:
FIRST FLOOR FRAMING PLAN

SHEET NUMBER:
S1.11

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The FUTURE built SMARTER.
1100 WARRENVILLE ROAD, SUITE 400W
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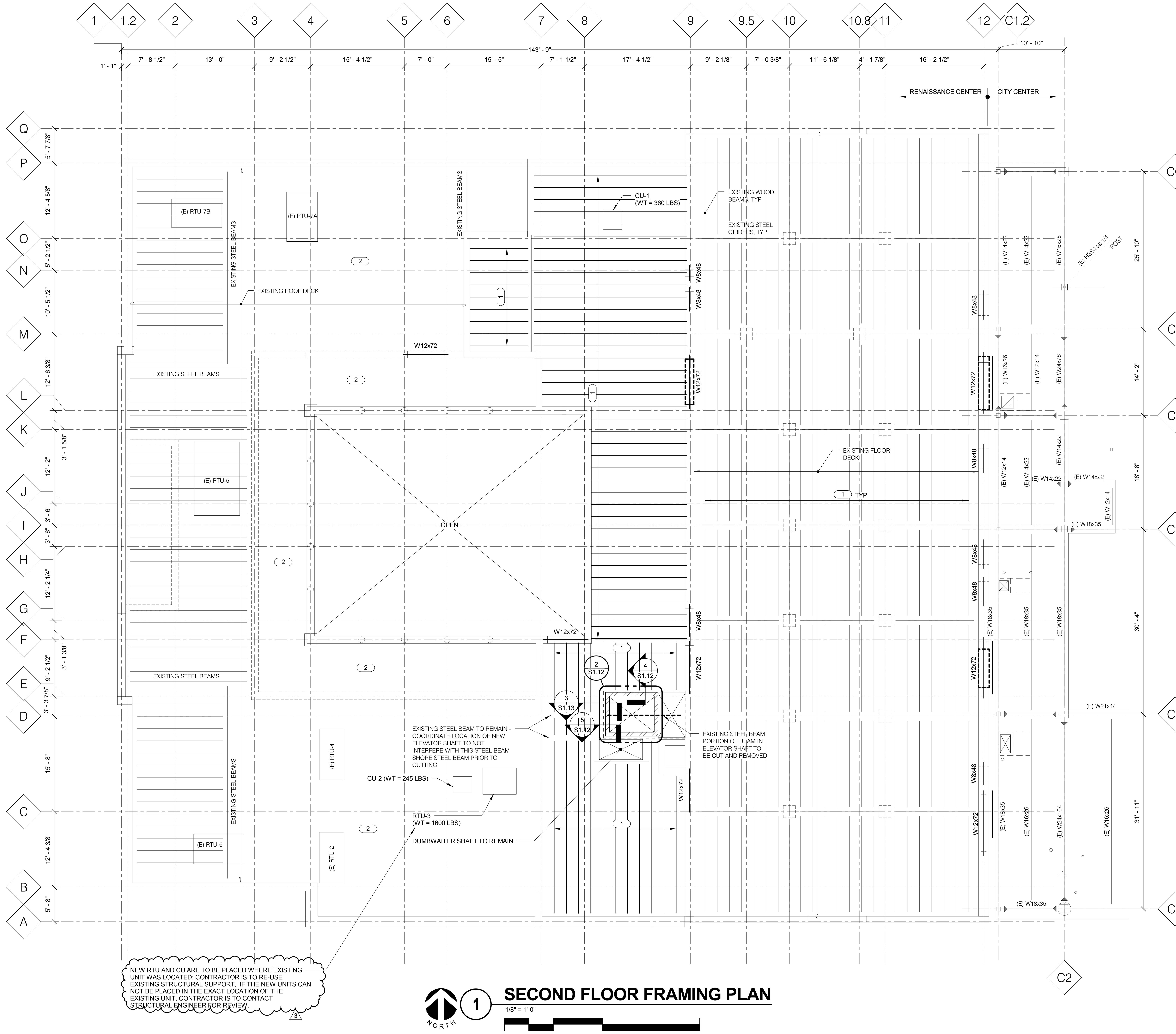


1 SECOND FLOOR FRAMING PLAN

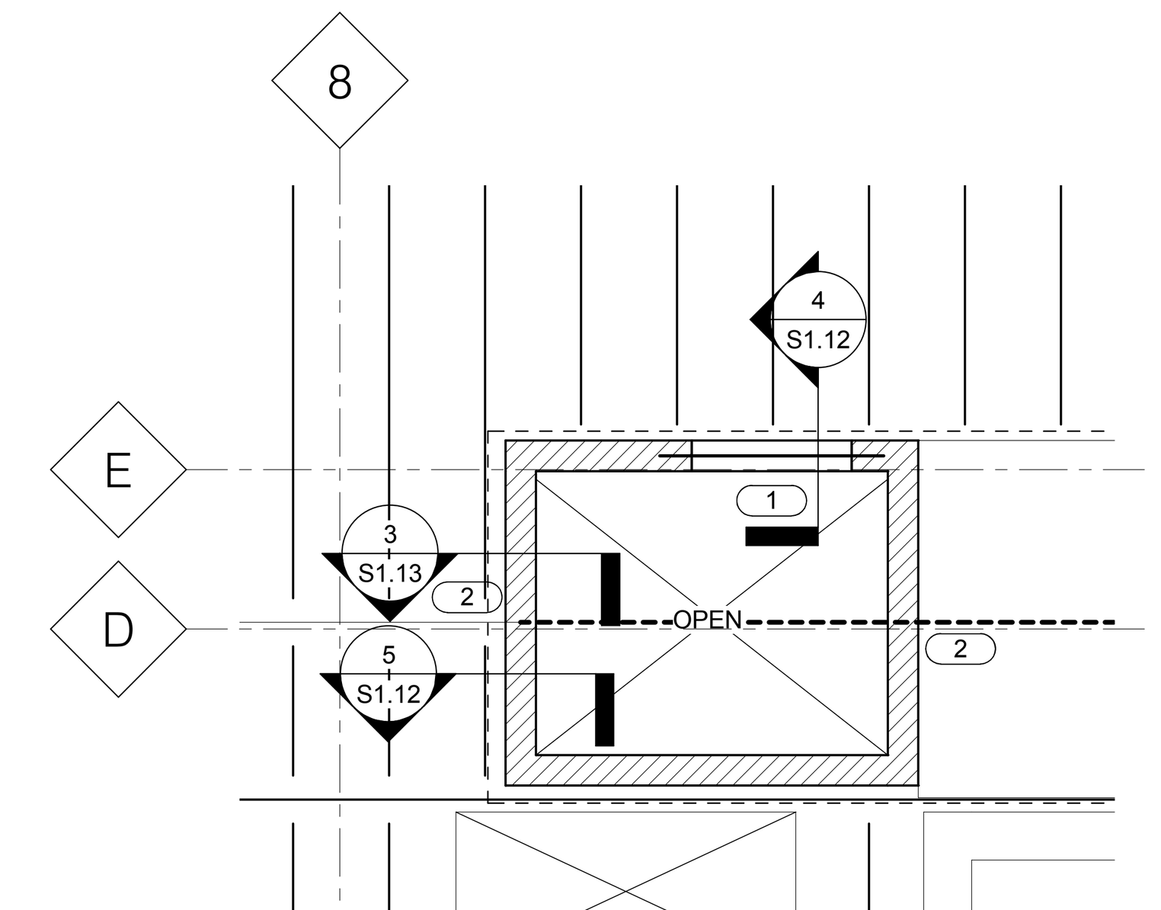
1/8" = 1'-0"

NOTES:

1. REFER TO DETAIL 3/S1.12 FOR LINTEL DETAIL FOR NEW OPENINGS IN EXISTING WALLS.

KEYNOTES:

1. EXISTING WOOD JOISTS SPACED @ 2'-0" OC.
2. EXISTING ROOF FRAMING UNKNOWN IN THIS AREA.



2 ELEVATOR SECOND FLOOR FRAMING PLAN

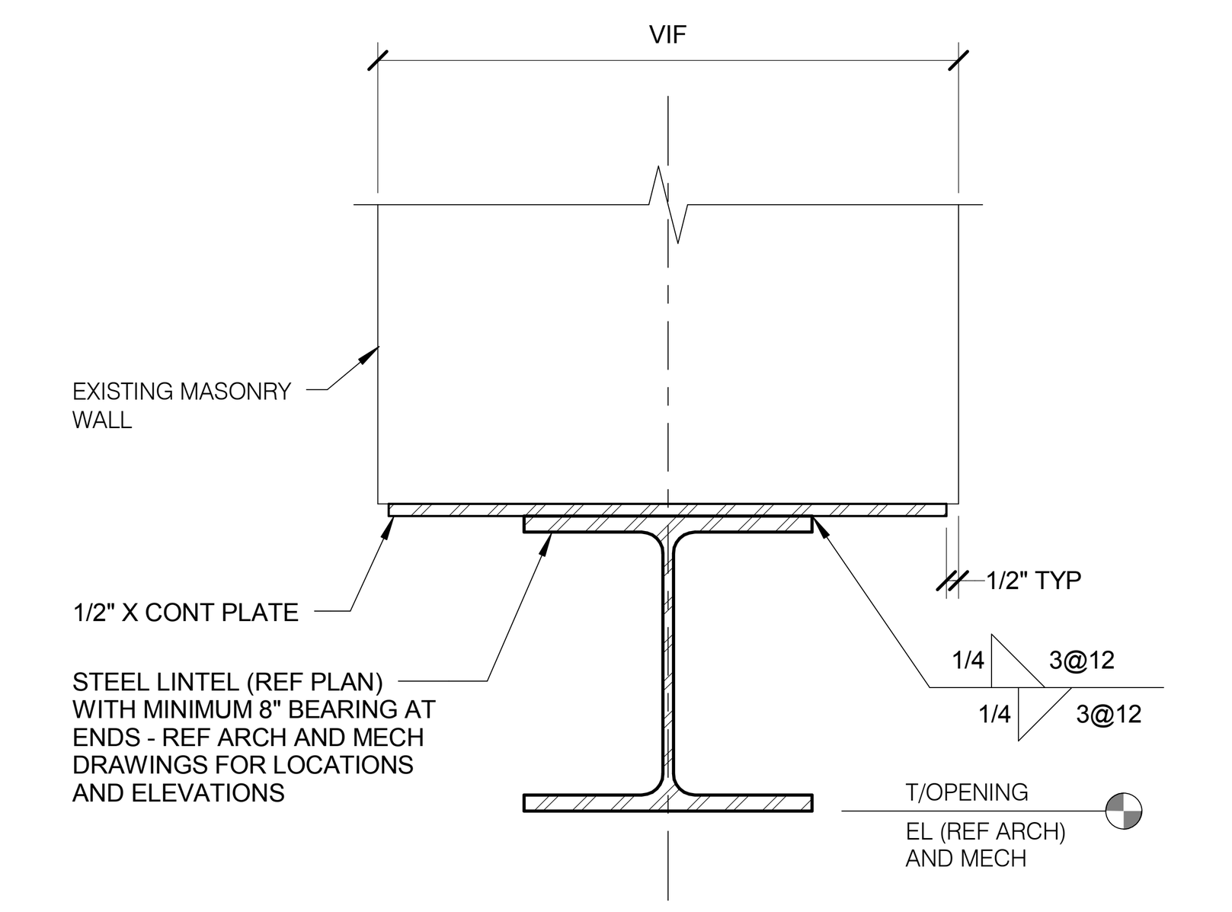
1/4" = 1'-0"

NOTES:

1. PROVIDE 8" MASONRY WALL WITH #5 @ 24" OC.
2. NEW MASONRY WALL TO PASS IN FRONT OF EXISTING SLAB CONSTRUCTION. PROVIDE SLAB SUPPORT PER DETAIL 4/S1.13, ALL SIDES. SLAB OPENING MAY BE CUT BEFORE WALLS ARE INSTALLED IF SHORING IS UTILIZED.
3. PROVIDE 8" BEARING EACH END FOR ALL BOND BEAM LINTELS.
4. PROVIDE (2) #5 FULL HEIGHT VERTICAL BARS IN CELLS ADJACENT TO OPENING EACH SIDE. REFER TO GENERAL NOTES ON S0.00 FOR HORIZONTAL REINFORCING REQUIREMENTS.

KEYNOTES:

1. 16" DEEP BOND BEAM LINTEL WITH (2) #5 BARS.
2. GROUT MASONRY SOLID AT GUIDE RAIL LOCATION.

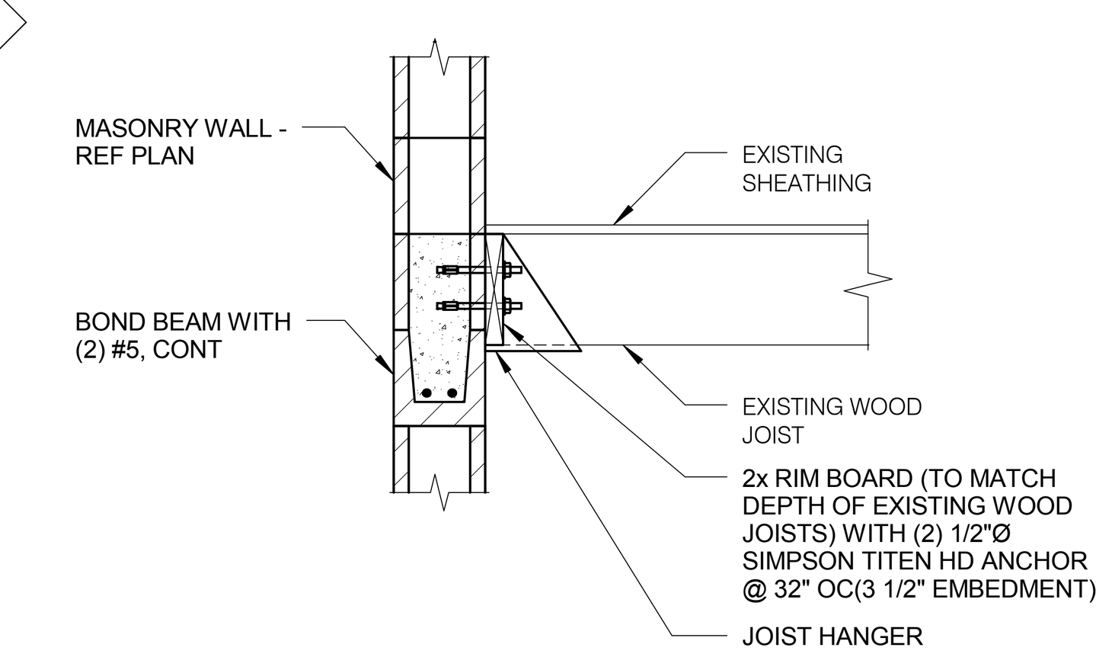


3 LINTEL DETAIL FOR NEW OPENING IN EXISTING WALL

1 1/2" = 1'-0"

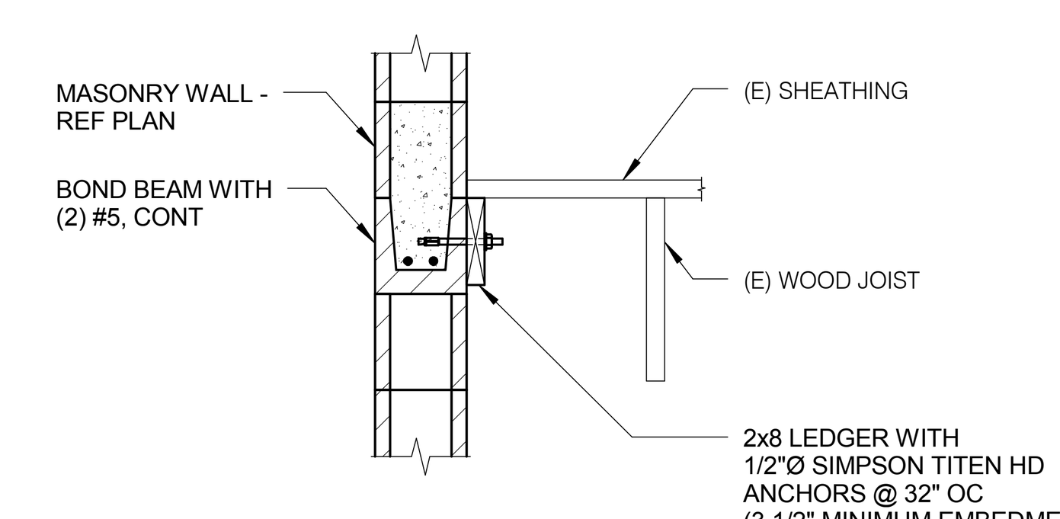
NOTES:

1. WHERE NEW LINTEL BEARS ON EXISTING MASONRY OR EXISTING CLAY TILE WALL, GROUT CELLS BELOW BEARING FOR A MINIMUM HEIGHT OF 3'-0" AND A MINIMUM WIDTH OF 16".



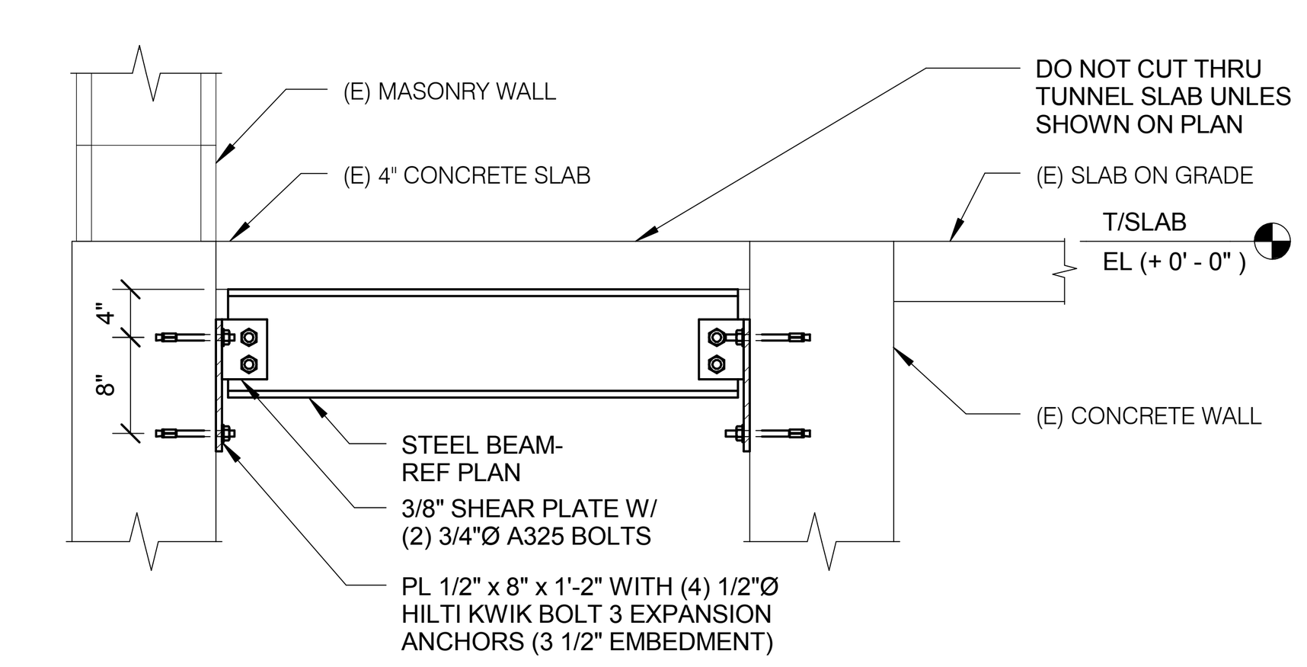
4 EXISTING JOIST SUPPORT DETAIL

3/4" = 1'-0"



5 EXISTING FLOOR SUPPORT DETAIL

3/4" = 1'-0"



6 EXISTING WALL DETAIL

3/4" = 1'-0"

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ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTOWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/08/16

ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
3	ADDENDUM 3	03/07/16

SHEET TITLE:

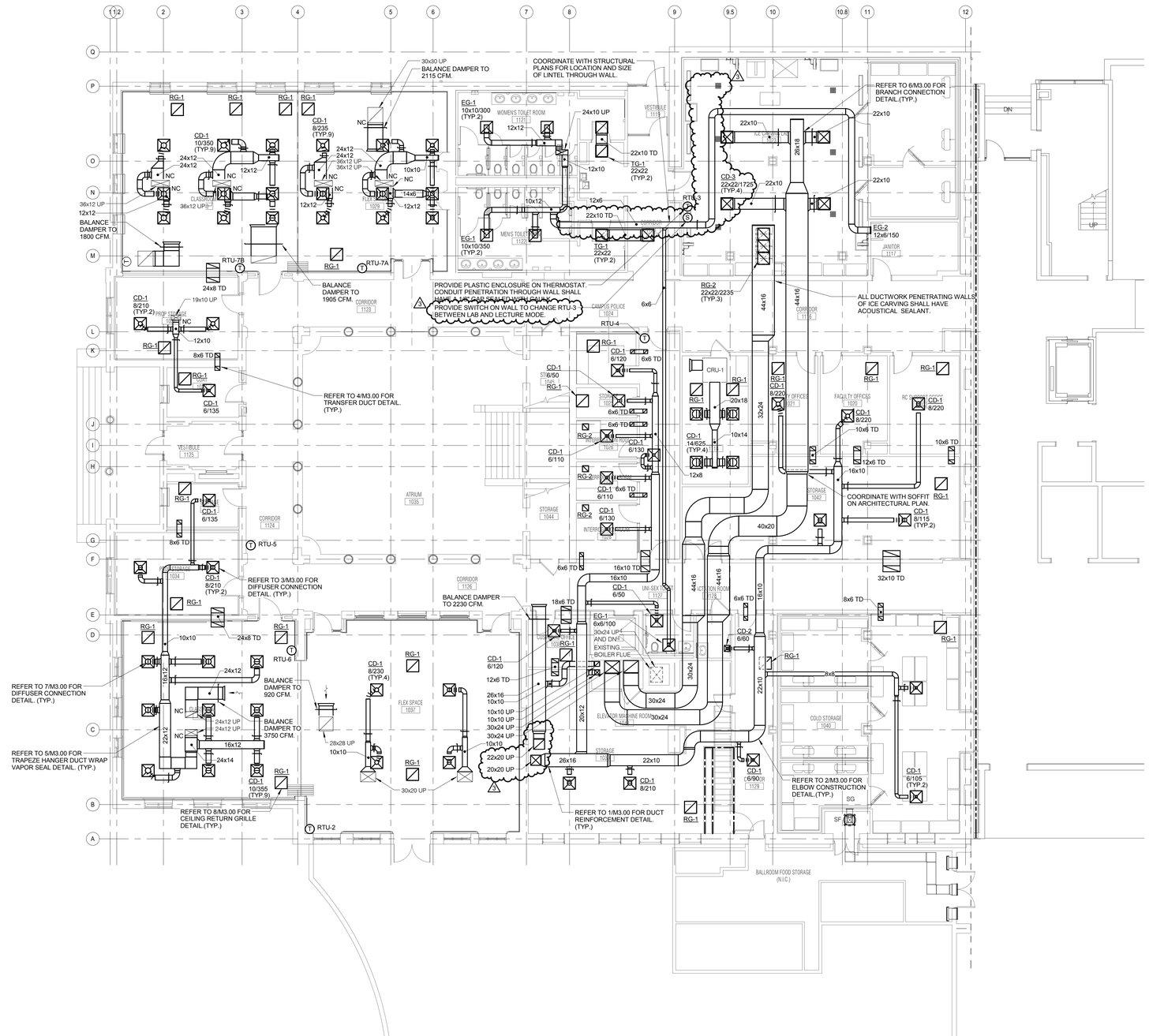
SECOND FLOOR FRAMING PLAN

SHEET NUMBER:

S1.12

GENERAL MECHANICAL NOTES

1. PROVIDE CONTINOUS ACOUSTICAL LAGGING ON ALL DUCTWORK WITHIN THE CEILING SPACE OF THE ICE CARVING LAB. LAGGING SHALL BE CONTINUOUS WITH 2" OVERLAP OF ALL SEAMS AND A 2" OVERLAP AT WALL PENETRATIONS. REFER TO SPECIFICATION SECTION 23 07 13 FOR LAGGING REQUIREMENTS.



1 FIRST FLOOR PLAN - VENTILATION

1/8" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

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JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
FIRST FLOOR PLAN - VENTILATION

SHEET NUMBER:
M1.10

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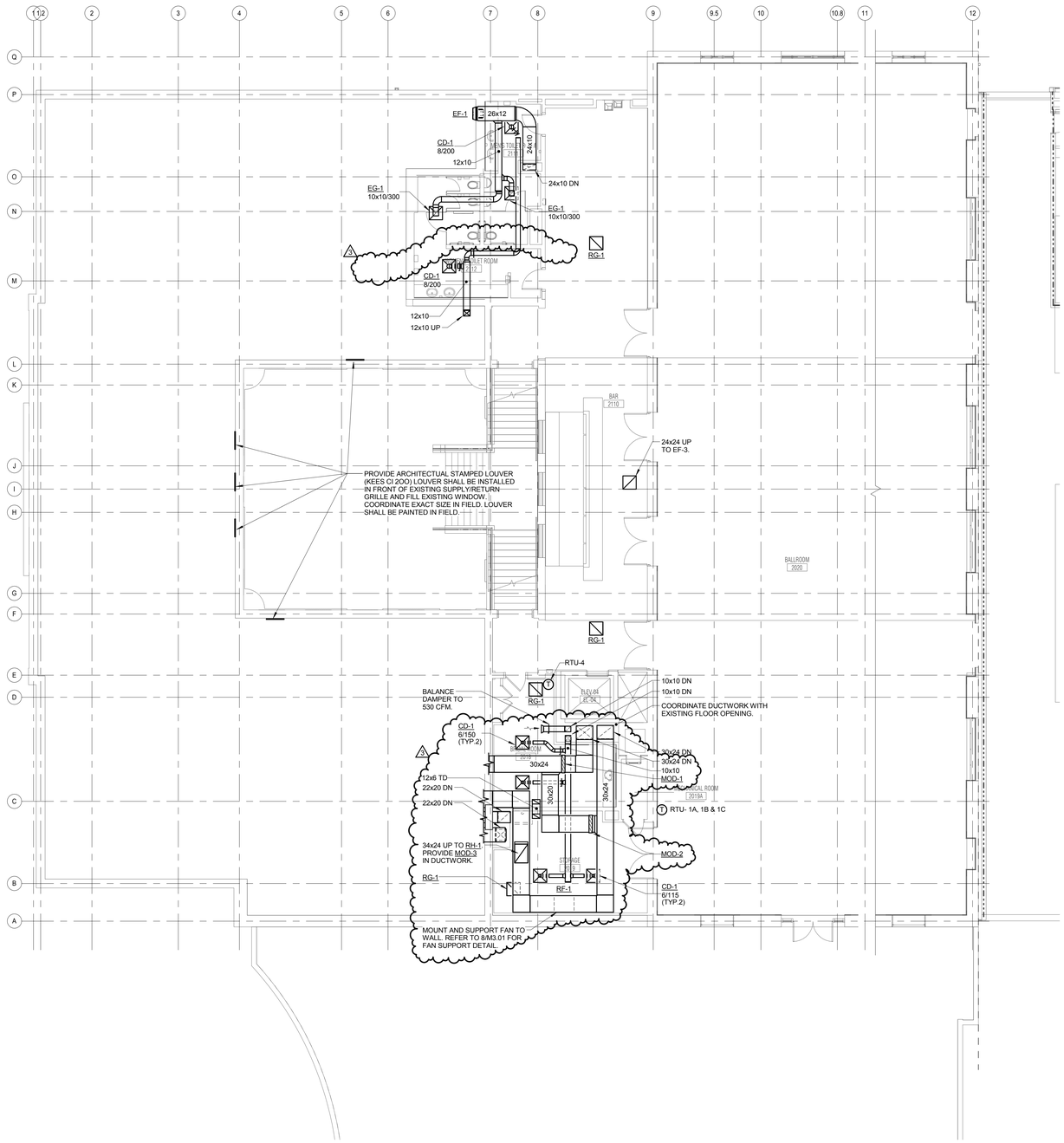
REFERENCE SCALE IN INCHES
0 1 2 3



1 SECOND FLOOR PLAN - VENTILATION

1/8" = 1'-0"

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DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

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KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

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EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
SECOND FLOOR PLAN - VENTILATION

SHEET NUMBER:
M1.20

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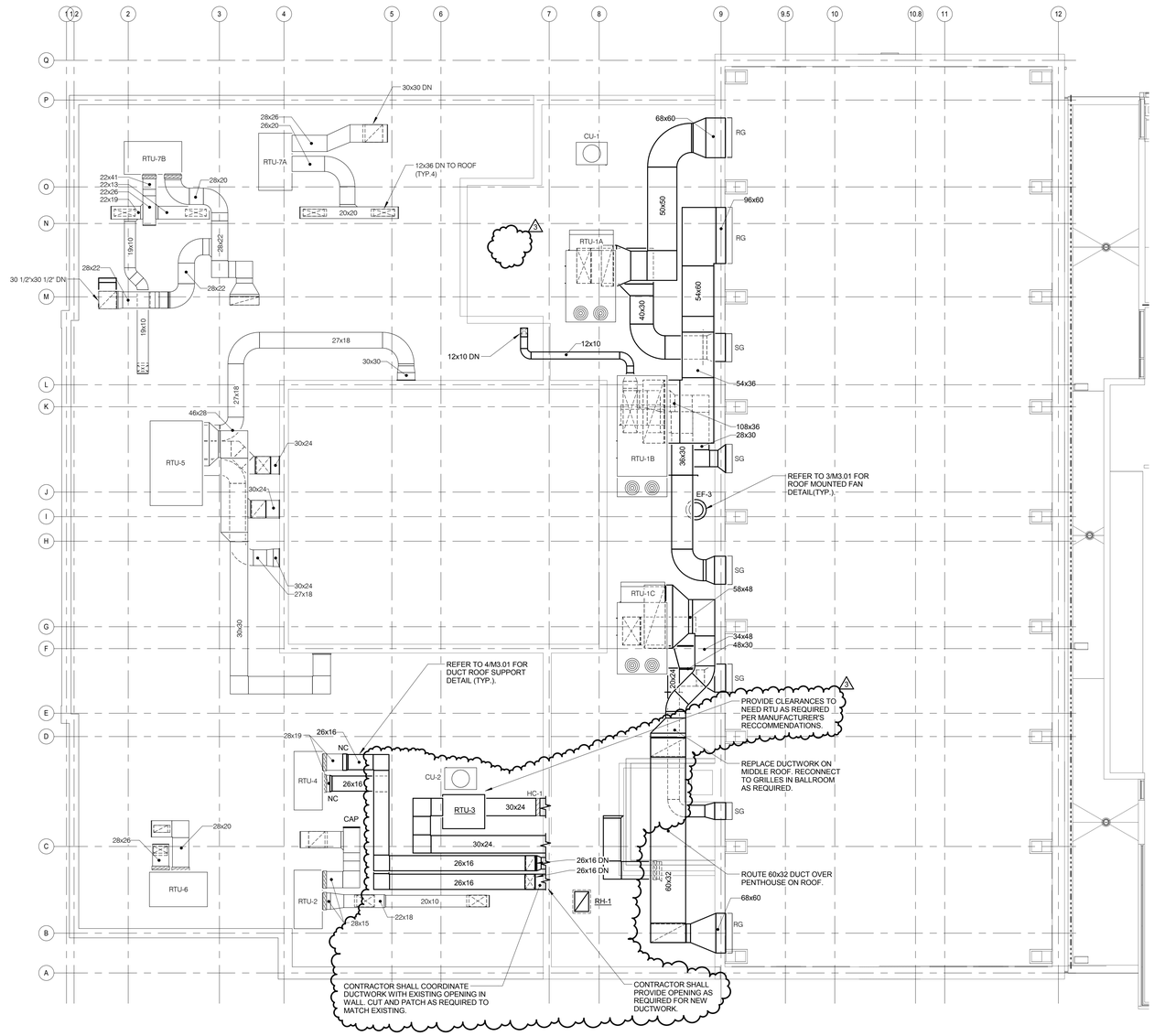

1 ROOF PLAN - VENTILATION

1/8" = 1'-0"

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DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

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KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

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DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ROOF PLAN - VENTILATION

SHEET NUMBER:
M1.30

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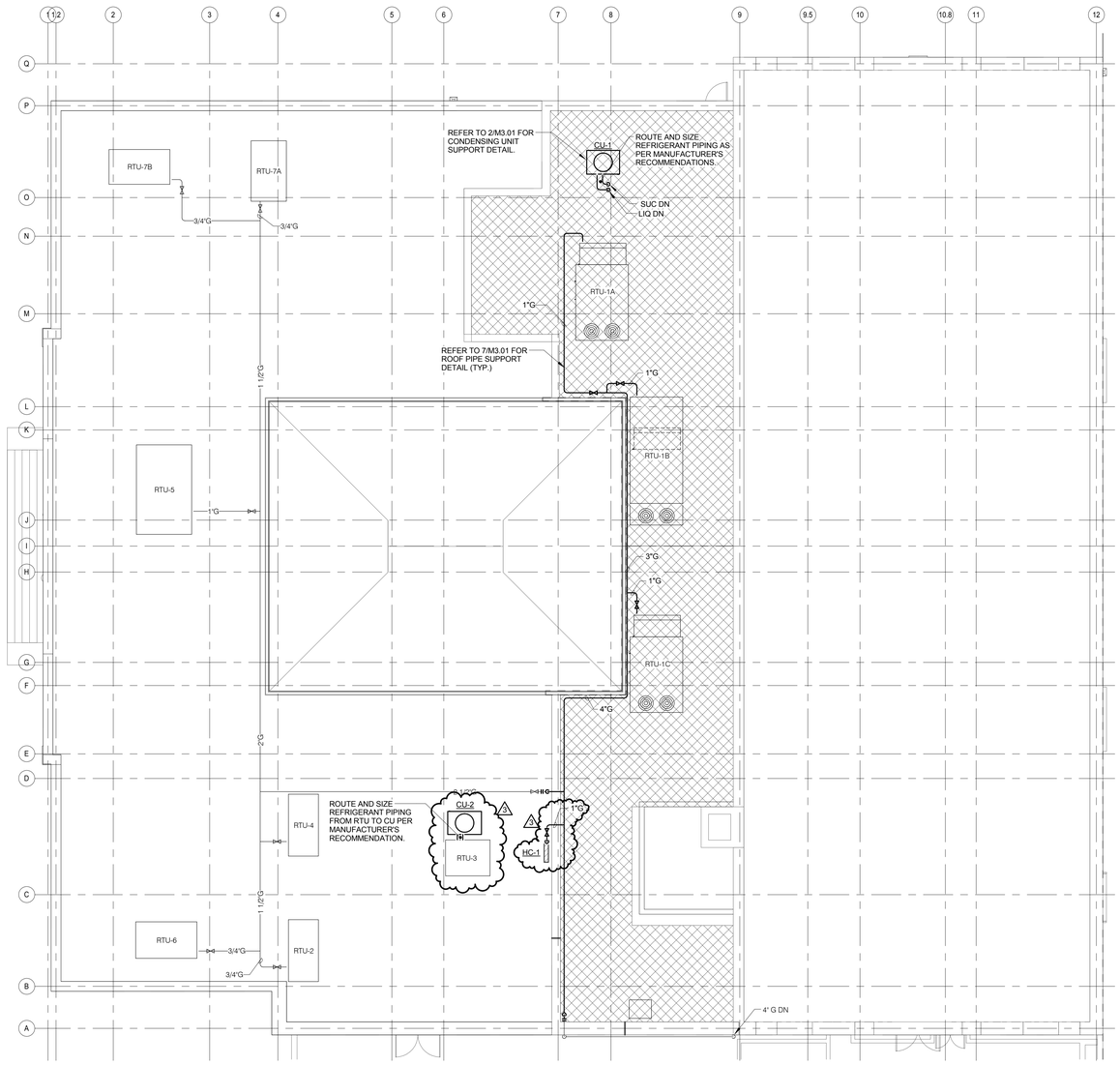

1 ROOF PLAN - HEATING

1/8" = 1'-0"

NORTH

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ROOF PLAN - HEATING

SHEET NUMBER:
M2.30

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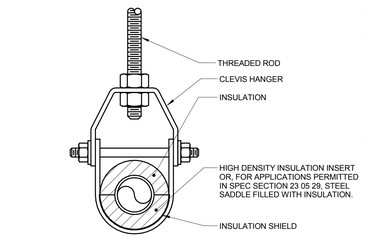
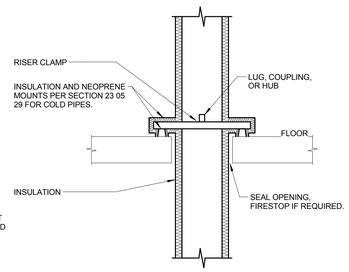
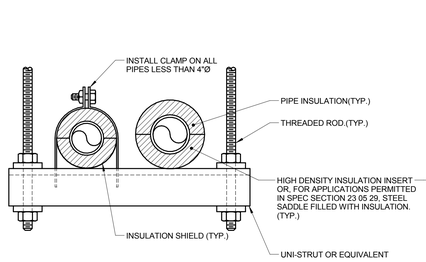
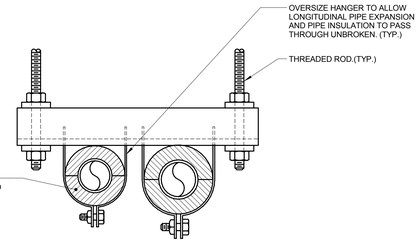






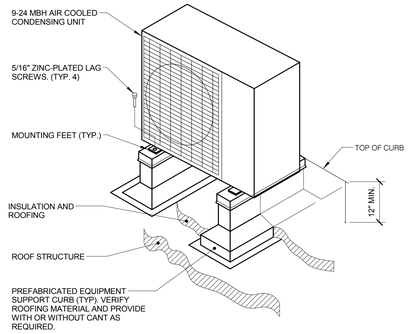


1 PIPE SUPPORT DETAIL

NO SCALE

NOTES:

1. REFER TO SPECIFICATION SECTION 23 05 29 & SECTION 23 07 19.

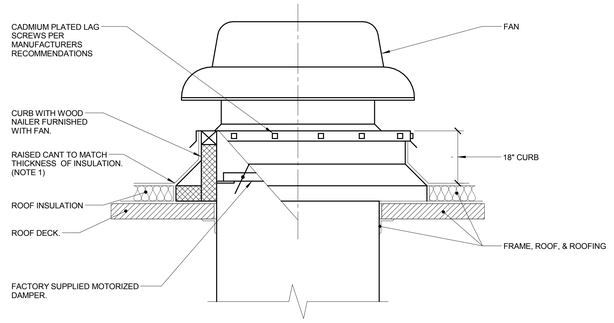


2 CONDENSING UNIT ROOF SUPPORT

NO SCALE

NOTES:

1. VERIFY DIAMETER OF ANCHOR BOLT REQUIRED TO FIT WITHIN MOUNTING FEET ANCHOR HOLES.

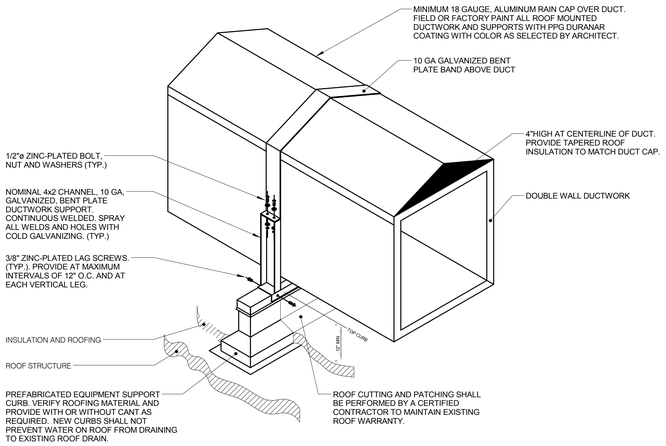


3 ROOF MOUNTED FAN

NO SCALE

NOTES:

1. ALL ROOF FLASHING SHALL BE PER ROOFING MANUFACTURERS RECOMMENDATIONS.

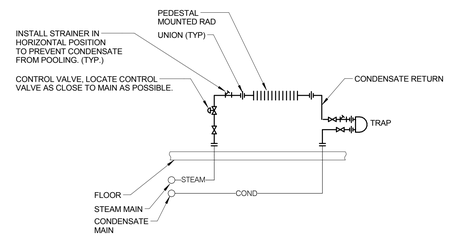


4 DUCT ROOF SUPPORT DETAIL

NO SCALE

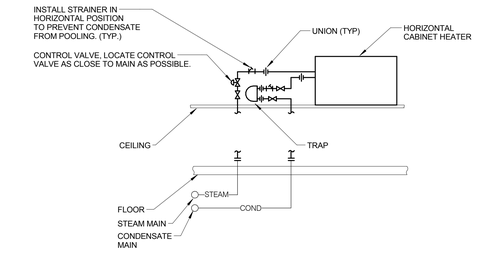
NOTES:

1. DUCT ROOF SUPPORT SHALL BE RATED FOR 30 PSF SNOW LOAD AND 20 PSF WIND LOAD.



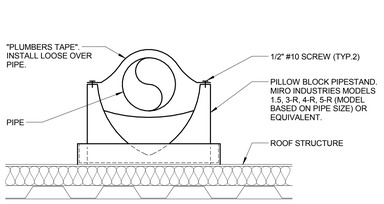
5 STEAM RAD CONNECTION DETAIL

NO SCALE



6 STEAM CABINET HEATER CONNECTION DETAIL

NO SCALE

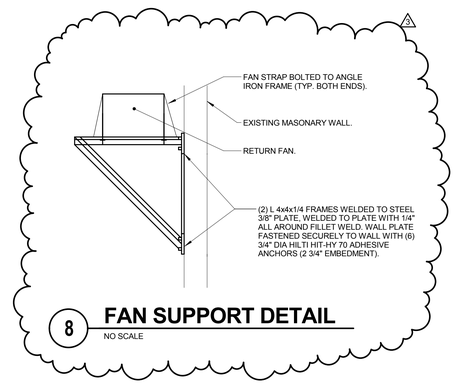


7 PIPE ROOF SUPPORT DETAIL

NO SCALE

NOTES:

1. SPACE STANDS AS REQUIRED TO MEET MANUFACTURERS RATED CAPACITIES.
2. COORDINATE PIPESTAND LOCATIONS WITH G.C.
3. PROVIDE EPDM PAD TO PROTECT ROOF IF REQUIRED BY ROOFING MANUFACTURER.
4. MIRO INDUSTRIES (800)768-6978.



8 FAN SUPPORT DETAIL

NO SCALE

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

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1100 WARRENVILLE ROAD, #400W
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SHEET STATUS: 02/18/2016
ISSUED FOR BID

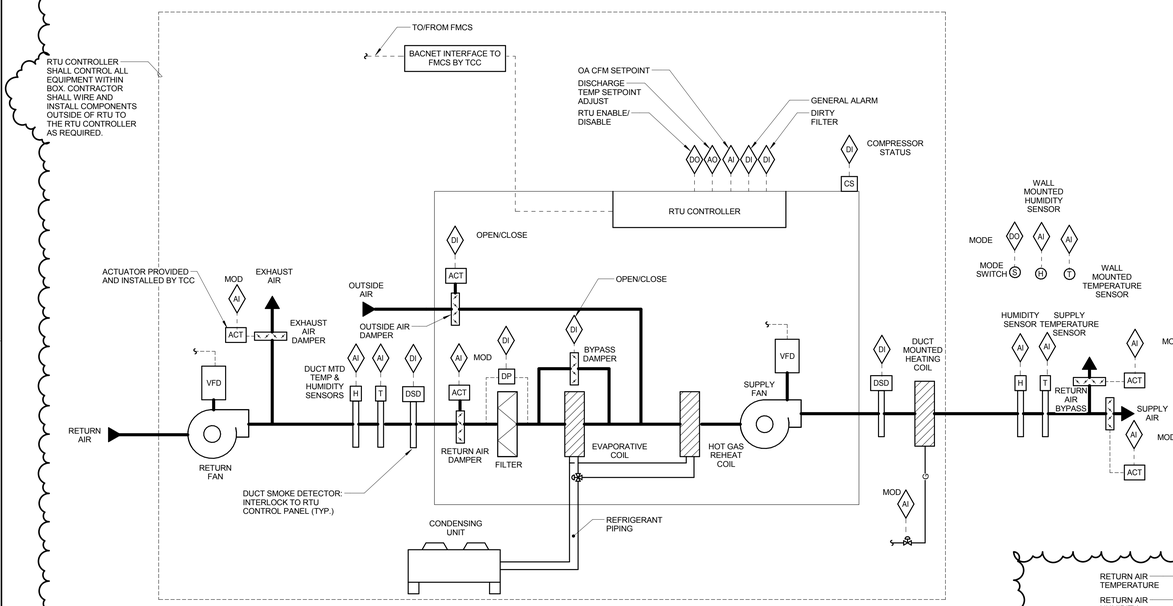
NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
MECHANICAL DETAILS

SHEET NUMBER:
M3.01

KJWW ENGINEERING CONSULTANTS
The FUTURE Built SMARTER.
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.3320 FAX: 630.527.2321
www.kjww.com
PROJECT # 15.0765.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3



AHU REPORT GENERATION:
DDC FMCS SHALL MONITOR THE FOLLOWING POINTS ON 10 MINUTE (ADJ.) INTERVALS WITHIN A SINGLE TREND. THE TREND SHALL RUN FOR A 14-DAY (ADJ.) DURATION AT WHICH POINT THE NEWEST VALUES SHALL AUTOMATICALLY OVERWRITE THE OLDEST VALUES:

- DATE
- TIME
- GLOBAL OUTSIDE AIR TEMP [°F]
- GLOBAL OUTSIDE AIR DEWPOINT [°F]
- GLOBAL OUTSIDE AIR HUMIDITY [%RH]
- SUPPLY AIRFLOW [CFM]
- SUPPLY AIR TEMP (SAT) [°F]
- SUPPLY AIR RELATIVE HUMIDITY [%]
- ROOM AIR TEMP SETPOINT [°F]
- RETURN AIR TEMP (RAT) [°F]
- RETURN AIR RELATIVE HUMIDITY [%]
- MIXED AIR TEMP [°F]
- PRE-FILTER LOADING [INCHES W.G.]
- OUTSIDE AIR DAMPER POSITION [OPEN/CLOSE]
- RETURN AIR DAMPER POSITION [% OPEN]

THIS INFORMATION SHALL BE ACCESSIBLE TO VIEW IN EITHER TABULAR OR GRAPHICAL FORM ON THE FMCS OPERATOR WORKSTATION.

ONCE PER MONTH, THE DDC FMCS SHALL RECORD THE LARGEST AHU AIRFLOW WHICH OCCURRED DURING THAT MONTH. THE DATE, TIME, OUTSIDE AIR TEMP (AND ALL OTHER VALUES LISTED ABOVE) THAT COINCIDED WITH THAT EVENT SHALL ALSO BE RECORDED. THIS INFORMATION SHALL BE STORED TO A MEMORY LOCATION ON THE FMCS OPERATOR WORKSTATION THAT IS MAINTAINED (NOT AUTOMATICALLY OVERWRITTEN).

AIR HANDLING UNIT REPORT GENERATION

RTU FAN INTERLOCK SCHEDULE		
SYSTEM	**INTERLOCKED EXHAUST FANS**	**REMARKS**
RTU-3	**RF-1**	**NOTE 1**

NOTES:
1. **INTERLOCK EXHAUST FAN OPERATION THROUGH THE FMCS WITH RESPECTIVE RTU IN ACCORDANCE WITH RTU SEQUENCE OF OPERATION.**

CONTROL SYMBOLS LIST

SYMBOL:	DESCRIPTION:
T	THERMOSTAT
H	HUMIDISTAT/SENSOR (DUCT MOUNTED)
P	PRESSURE SENSOR (DUCT MOUNTED)
T	TEMPERATURE SENSOR (DUCT MOUNTED)
ACT	ACTUATOR
EA	EXHAUST/RELIEF AIR
MA	MIXED AIR
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
RA	RETURN AIR
SA	SUPPLY AIR
	OPPOSED BLADE DAMPER
DSD	DUCT SMOKE DETECTOR
	FAN
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
	FILTER

PACKAGE ROOFTOP UNIT SYSTEM DESCRIPTION:
REFER TO SECTION 23 74 11 FOR A DESCRIPTION OF THE RTU AND THE CONTROLS PROVIDED BY THE RTU MANUFACTURER.

SEQUENCE OF OPERATION:
THE TCC SHALL EXTEND THE FMCS NETWORK TO THE RTU UNITARY CONTROLLER PER THE PROTOCOL SPECIFIED IN SECTION 23 09 00. THE TCC SHALL PROVIDE ALL ADDITIONAL CONTROL COMPONENTS REQUIRED TO ACCOMPLISH THE SEQUENCE OF OPERATION LISTED BELOW. RTU SHALL OPERATE IN "LAB" OR "LECTURE" MODE BASED ON WALL SWITCH WITHIN THE SPACE. RTU SHALL OPERATE IN OCCUPIED/UNOCCUPIED MODE BASED ON BUILDING SCHEDULE.

WHEN RTU IS INDEXED TO RUN, THE FOLLOWING SHALL OCCUR:
- WHEN THE SUPPLY FAN HAS STARTED INTERLOCKED RETURN FAN (RF-1) SHALL START.

ROOM TEMPERATURE CONTROL
- SUPPLY FAN SHALL RUN CONTINUOUSLY.
- RETURN FAN SHALL RUN CONTINUOUSLY.
- THE OUTSIDE AIR DAMPER SHALL BE OPEN. THE RETURN AIR DAMPER AND RELIEF AIR DAMPERS SHALL MODULATE IN OPPOSITION TO A FIXED POINT TO INTRODUCE MINIMUM OUTSIDE AIR RATE. CONTRACTOR SHALL DETERMINE THIS POINT VIA BALANCING AT THE END OF CONSTRUCTION.
- THE RTU CONTROLLER SHALL STAGE THE COMPRESSOR, DUCT MOUNTED HEATING COIL AND HOT GAS REHEAT COIL TO MAINTAIN SPACE TEMPERATURE AND HUMIDITY SETPOINTS IN ACCORDANCE WITH ITS INTERNAL LOGIC.

SPACE SETPOINTS
- DURING OCCUPIED MODE THE RTU SHALL OPERATE IN EITHER LAB MODE OR IN LECTURE MODE BASED ON THE POSITION OF A WALL MOUNTED SWITCH WITHIN THE SPACE.
- DURING LAB MODE THE RTU SHALL CONTROL THE SPACE TEMPERATURE TO 60F (ADJ.) AND A SPACE RELATIVE HUMIDITY BELOW 50% (ADJ.). IN LAB MODE THE SUPPLY AIR DAMPER SHALL BE 100% OPEN (ADJ.) AND THE RETURN AIR BYPASS DAMPER SHALL BE 100% CLOSED (ADJ.).
- DURING LECTURE MODE THE RTU SHALL CONTROL THE SPACE TEMPERATURE TO 70F (ADJ.) AND A SPACE RELATIVE HUMIDITY LEVEL BELOW 60% (ADJ.). IN LECTURE MODE THE SUPPLY AIR DAMPER SHALL MODULATE TO A FIXED POSITION AS DETERMINED VIA BALANCING AT THE END OF CONSTRUCTION. THE FIXED POSITION SHALL CORRELATE TO A SUPPLY AIR FLOW RATE TO THE ROOM OF 2,500 CFM. THE RETURN AIR BYPASS DAMPER SHALL MODULATE IN OPPOSITION TO THE SUPPLY AIR DAMPER.

ECONOMIZER OPERATION:
- WHEN THE OUTSIDE AIR ENTHALPY IS LESS THAN THE RETURN AIR ENTHALPY ECONOMIZER CONTROLS SHALL BE ENABLED.
- WHEN THE OUTSIDE AIR ENTHALPY IS GREATER THAN THE RETURN AIR ENTHALPY FOR 10 MINUTES (ADJ.) ECONOMIZER CONTROLS SHALL BE DISABLED AND THE ROOFTOP UNIT SHALL REVERT BACK TO MINIMUM OUTSIDE AIR CONTROL.
- ONCE ECONOMIZER CONTROLS HAVE BEEN ENABLED OR DISABLED, THE UNIT SHALL CONTINUE TO OPERATE IN THAT MODE FOR A MINIMUM OF 10 MINUTES (ADJ.) BEFORE BEING ALLOWED TO SWITCH BACK (TO PREVENT SHORT CYCLING).
- IN ECONOMIZER MODE THE OUTSIDE AIR DAMPER SHALL BE OPEN AND THE RELIEF AIR DAMPER AND RETURN AIR DAMPER SHALL MODULATE IN OPPOSITION TO MAINTAIN ROOM AIR TEMPERATURE SETPOINT.
- ECONOMIZER CONTROLS SHALL BE ENABLED AS THE FIRST STAGE OF EITHER HEATING OR COOLING. IF ECONOMIZER CONTROLS BY THEMSELVES CANNOT MAINTAIN SPACE TEMPERATURE AND HUMIDITY LEVELS THEN MECHANICAL HEATING OR COOLING SHALL BE ENGAGED AS FURTHER STAGES OF CONTROL.

FROST PREVENTION CONTROL:
ONLY IN LECTURE MODE
- DURING LOW AMBIENT TEMPERATURE, UNIT SHALL USE SUCTION LINE TEMPERATURE TO START HOT GAS DEFROST CYCLE TO DEFROST THE EVAPORATOR WHEN COIL FREEZES UP.

UN-OCCUPIED MODE OPERATION:
WHEN THE BUILDING IS UNOCCPIED BASED ON BUILDING SCHEDULE.
- RTU SHALL BE DISABLED. SUPPLY FAN SHALL BE ENABLED TO OPERATE INTERMITTENTLY WHEN SPACE TEMPERATURE DROPS BELOW 60°F (ADJ.) OR EXCEEDS 80°F (ADJ.),IF THE TEMPERATURE DOES NOT FALL BACK INTO THE DESIRED RANGE WITHIN, 10 MINUTES THEN THE RTU SHALL TURN ON AND OPERATE UNTIL SPACE EXCEEDS 65°F (ADJ.) OR DROPS BELOW 75°F (ADJ.).
- OUTSIDE AIR, RELIEF AIR AND RETURN AIR BYPASS DAMPER SHALL REMAIN CLOSED. SUPPLY AND RETURN AIR DAMPER SHALL BE FULLY OPEN.

ALARMS, INTERLOCKS AND SAFETIES:
THE FOLLOWING SAFETIES SHALL BE INSTALLED BY THE TCC IN THE FIELD.
- FIRE ALARM RELAY (WIRED TO SUPPLY FAN)

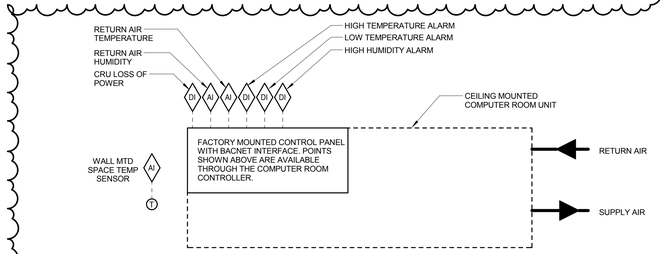
SEND AN ALARM TO THE FMCS FOR THE FOLLOWING:
- DIRTY FILTERS (WHEN FILTER PRESSURE DROP EXCEEDS 0.6" W.C. (ADJ.)
- IF SPACE SETPOINT IS MORE THAN 10°F (ADJ.). ABOVE OR BELOW SETPOINT.
- IF THE FIRE ALARM SYSTEM IS ACTIVATED
- EMERGENCY STOP

WHENEVER RTU IS SHUTDOWN THE FMCS SHALL COMMAND THE FOLLOWING TO OCCUR:
- SUPPLY FAN AND ASSOCIATED RETURN SHALL STOP.
- OUTSIDE AIR DAMPER SHALL FULLY CLOSE. THE RETURN AIR DAMPER SHALL FULLY OPEN. RELIEF AIR DAMPER SHALL BE CLOSED.
- HEATING AND COOLING SHALL BE DISABLED.

MORNING START-UP OPERATION:
SHALL BE PROGRAMED BY TCC
- THE FMCS SHALL MEASURE EACH OF THE SPACE TEMPERATURES AND OUTSIDE AIR TEMPERATURE TO DETERMINE THE MINIMUM RUNTIME TO WARM THE SPACES TO THEIR SETPOINT.
- WHEN THE COMPUTED START TIME IS REACHED THE FMCS SHALL ENABLE THE RTU.
- RESET ALL SPACE TEMP SETPOINTS TO OCCUPIED SPACE TEMPERATURE SETPOINTS.
- THE RETURN AIR DAMPER AND SUPPLY AIR SHALL BE OPEN. THE OUTSIDE AIR, EXHAUST AIR AND RETURN AIR BYPASS DAMPERS.

GRAPHICAL DISPLAY:
DISPLAY THE GLOBAL OUTSIDE AIR TEMPERATURE AND HUMIDITY ON AHU GRAPHIC PAGE.

1 ROOFTOP UNIT CONTROL - RTU-3
NO SCALE



CRU SEQUENCE OF OPERATION GENERAL: (CONTROLS PROVIDED WITH UNIT)

THE CRU IS CONTROLLED BY A FACTORY ASSEMBLED AND MOUNTED MICROPROCESSOR BASED CONTROL SYSTEM AND CONNECTED TO THE FACILITY MANAGEMENT CONTROL SYSTEM (FMCS) FOR MONITORING PURPOSES.

THE MICROPROCESSOR CONTROL SYSTEM SHALL MONITOR THE RETURN AIR TEMPERATURE AND HUMIDITY. THE MICROPROCESSOR CONTROL SYSTEM SHALL AUTOMATICALLY HEAT, COOL, REHEAT, HUMIDIFY, AND DEHUMIDIFY AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE AND HUMIDITY SETPOINTS.

THE SPACE SETPOINTS ARE 68°F (ADJ.) AND 40 PERCENT RELATIVE HUMIDITY (ADJ.).

THE MICROPROCESSOR CONTROL SYSTEM SHALL BE PROGRAMMABLE ON A DAILY BASIS PROGRAM SCHEDULE AND SHALL AUTOMATICALLY RESTART FOLLOWING A POWER FAILURE.

ALARMS, INTERLOCKS, AND SAFETIES:

ACTIVATE AN AUDIBLE AND VISUAL ALARM UPON THE OCCURRENCE OF ANY OF THE FOLLOWING MICROPROCESSOR CONTROL SYSTEM ALARM CONDITIONS:

- HIGH TEMPERATURE
- LOW TEMPERATURE
- HIGH HUMIDITY

MICROPROCESSOR CONTROL SYSTEM SHALL BE CAPABLE OF DISABLING ANY ALARM IF REQUIRED.

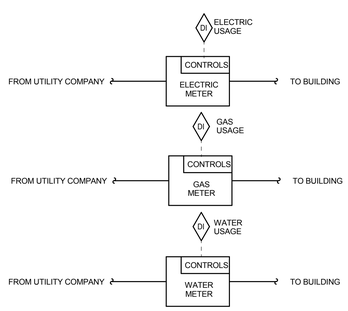
FMCS SEQUENCE OF OPERATION (CONTROLS PROVIDED BY TCC)

THE TCC SHALL EXTEND THE FMCS NETWORK TO THE CRU MICROPROCESSOR CONTROLLER PER THE PROTOCOL SPECIFIED IN SECTION 23 09 00. THE FMCS SHALL MONITOR THE OPERATING PARAMETERS AND ALARM CONDITIONS INDICATED BY THE CRU.

ALARMS, INTERLOCKS AND SAFETIES:

SEND AN ALARM TO THE FMCS OPERATOR INTERFACE UPON THE OCCURRENCE OF ANY OF THE FOLLOWING MICROPROCESSOR CONTROL SYSTEM ALARM CONDITIONS:
- LOSS OF POWER TO CRU
- HIGH TEMPERATURE
- LOW TEMPERATURE
- HIGH HUMIDITY

2 COMPUTER ROOM UNIT CONTROL
NO SCALE



SEQUENCE OF OPERATION:

GENERAL:
THE UTILITIES ARE METERED THROUGH THE DDC VIA THE FMCS.

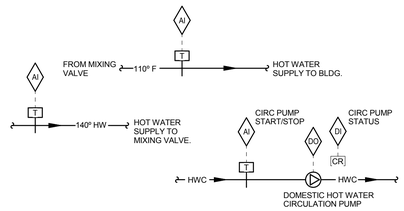
UTILITY METERING CONTROL:

- WATER METERING:
  - THE ATC SHALL CONNECT THE FMCS TO THE WATER METER TO PROVIDE WATER USAGE INFORMATION.
- GAS METERING:
  - THE ATC SHALL CONNECT THE FMCS TO THE WATER METER TO PROVIDE WATER USAGE INFORMATION.
- ELECTRIC METERING:
  - THE ATC SHALL CONNECT THE FMCS TO THE WATER METER TO PROVIDE WATER USAGE INFORMATION.

UTILITY METERING REPORT GENERATION:

- FMCS SHALL MONITOR THE FOLLOWING POINTS ON 5 MINUTE (ADJ.) INTERVALS WITHIN A SINGLE TREND. THE TREND SHALL RUN FOR A 14-DAY (ADJ.) DURATION AT WHICH POINT THE NEWEST VALUES SHALL OVERWRITE THE OLDEST VALUES:
  - DATE
  - TIME
  - GLOBAL OUTSIDE AIR TEMP. (°F)
  - GLOBAL OUTSIDE AIR DEWPOINT TEMP. (°F)
  - GAS USE (THERMS)
  - WATER USE (GALLONS)
  - ELECTRICAL USE (KW)
- THIS INFORMATION SHALL BE ACCESSIBLE TO VIEW IN EITHER TABULAR OR GRAPHICAL FORM ON THE FMCS OPERATOR INTERFACE.
- ONCE PER MONTH, THE FMCS SHALL RECORD THE LARGEST WATER USE (IN LITERS) WHICH OCCURRED DURING THAT MONTH. THE DATE AND TIME THAT COINCIDED WITH THAT EVENT SHALL ALSO BE RECORDED. THIS INFORMATION SHALL BE STORED TO A MEMORY LOCATION ON THE FMCS OPERATOR INTERFACE THAT IS MAINTAINED (NOT AUTOMATICALLY OVERWRITTEN).

4 UTILITY METERING CONTROL
NO SCALE



SEQUENCE OF OPERATION:
FMCS SHALL MONITOR THE TEMPERATURE AT THE 110°F CIRCULATION PUMP. THE CIRCULATION PUMP SHALL TURN ON WHEN THE TEMPERATURE FALLS BELOW 102°F (ADJ.) AND SHALL TURN OFF WHEN THE TEMPERATURE RISES ABOVE 107°F (ADJ.)

FMCS SHALL MONITOR THE OUTPUT TEMPERATURE OF THE WATER HEATERS AND THE OUTPUT TEMPERATURE DOWNSTREAM OF THE MIXING VALVE.

OPERATOR WORKSTATION SHALL DISPLAY PUMP CURRENT STATUS AND ALLOW OPERATOR TO ENABLE/DISABLE THE CIRCULATION PUMP FOR 110°F SYSTEM.

ALARMS, INTERLOCKS & SAFETIES:
FMCS SHALL TIE INTO BACNET CONTROLLER AND INDICATE AN ALARM TO THE FMCS OPERATOR WORKSTATION IN THE EVENT THE FOLLOWING OCCUR:
- THE LEAVING HOT WATER TEMPERATURE IS ABOVE 145°F (ADJ.) OR BELOW 135°F (ADJ.) FOR MORE THAN 5 MINUTES.(ADJ.)
- THE MIXING VALVE LEAVING HOT WATER TEMPERATURE IS ABOVE 115°F (ADJ.) OR BELOW 105°F (ADJ.) FOR MORE THAN 5 MINUTES.(ADJ.)

3 DOMESTIC HOT WATER CONTROL
NO SCALE

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
CONTROL DIAGRAMS

SHEET NUMBER:
M4.00

KJ WW ENGINEERING CONSULTANTS
The FUTURE Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT # 15.0760.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3

ROOFTOP UNIT SCHEDULE

SYMBOL	SERVICE	TYPE	REFRIGERANT TYPE	CFM	OUTSIDE AIR CFM	ESP	EAT (DB°F / WB°F)	TOTAL MOISTURE CAPACITY (LB/HR)	TOTAL COOLING CAPACITY (MBH)	ELECTRICAL: VOLT-PHASE	ELECTRICAL: MCA	ELECTRICAL: MOCP	ELECTRICAL: DISCONNECT BY (NOTE A)	ELECTRICAL: DISCONNECT TYPE (NOTE B)	ELECTRICAL: CONTROLLER/STARTER BY (NOTE A)	BLOWER: HP	BLOWER: FLA	COMPRESSOR: NOMINAL TONNAGE	COMPRESSOR: RLA	COMPRESSOR: FLA	SCCR	CONTROL DIAGRAM (NOTE 11)	MANUFACTURER	MODEL	REMARKS
RTU-3	ICE CARVING LAB	REFRIGERATION	R-407C	6,900	200	1	60/50.4	19.8	92.7	480-3	43.8	70.0	MFR	NF	MFR	7.5	9.8	15	NA	27.2	65 ka	1/M4.00	DESERT AIRE	LT-15	NOTES 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11

NOTES:
1. MOUNT PER MANUFACTURER REQUIREMENTS.
2. UNIT SHALL INCLUDE AN ADJUSTABLE TIMER TO INITIATE DEFROST CYCLE. DEFROST CYCLE SHALL BE INITIATED IF THE SUCTION TEMPERATURE DROPS BELOW 30°F. DEFROST CYCLE SHALL BE LIMITED TO 10 MINUTES. HOT GAS BYPASS IS NOT ACCEPTABLE.
3. UNIT SHALL INCLUDE ALL NECESSARY CONTROLS AND COMPONENTS AS NECESSARY TO PROVIDE THE SCHEDULED DEHUMIDIFICATION CAPACITY WHILE REJECTING HEAT TO A MANUFACTURER REMOTE CONDENSER.
4. THE REMOTE CONDENSER SHALL BE PROVIDED BY THE DEHUMIDIFIER MANUFACTURER.
5. PROVIDE BACNET CARD TO INTERFACE WITH BAS AND REMOTE DISPLAY OPTION FOR CONTROLLER.
6. UNIT SHALL BE OUTDOOR RATED.
7. UNIT SHALL HAVE 4" PLEATED MERV 7 FILTERS.
8. UNIT SHALL BE ETL/UL LISTED.
9. UNIT MANUFACTURER SHALL PROVIDE START-UP.
10. UNIT SHALL CONTROL SEPARATE HC-1 DUCT HEATER. THE DUCT HEATER IS SHIPPED LOOSE AND WILL REQUIRE A SEPARATE POINT OF POWER. 3
11. MANUFACTURER SHALL REFER TO CONTROL DIAGRAM AND PROVIDE COMPONENTS IN RTU AS SHOWN IN DETAIL.

SCHEDULE GENERAL NOTES:
A. DISCONNECT AND CONTROLLER STARTER FURNISHED AND INSTALLED BY:
MFR = MANUFACTURER
EC = ELECTRICAL CONTRACTOR
B. DISCONNECT TYPE:
NF = NON-FUSED
VFD = VARIABLE FREUENCY DRIVES
C. CONTROLLER STARTER TYPE:
FV = FULL VOLTAGE
E. NO EQUIPMENT SHALL BE SELECTED ABOVE 90% OF MOTOR NAME PLATE RATING.
F. MUST BE WITHIN +/- 10% OF SCHEDULED RPM.
G. CURB TYPE:
MFR = STANDARD CURB BY MANUFACTURER

COMPUTER ROOM UNIT SCHEDULE - DIRECT EXPANSION

SYMBOL	SERVICE	CFM	EXT. S.P. IN. W.C.	REFRIGERANT COOLING COIL: COIL TYPE & REFRIGERANT	EAT °FDB	EAT °FWB	MBH TOTAL	MBH SENSIBLE	FILTERS TYPE	ELECTRICAL: HP	VOLT-PHASE	FLA/RLA	MCA	MOCP AMPS	DISCONNECT BY (NOTE A)	CONTROLLER/STARTER BY (NOTE A)	CONTROLLER/STARTER SCCR	CONTROL DIAGRAM	MANUFACTURER	MODEL	REMARKS
CRU-1	IT 1118	2,500	0.5	DX-R407C	72	63	64.5	61.5	MERV8	1.5	208-3	5.6	7.3	15.0	MFR	MFR	-	2/M4.00	LIEBERT	MMD60E	

CONDENSING UNIT SCHEDULE

SYMBOL	SERVICE	NOMINAL DESIGN MBH	REFRIGERANT	AMBIENT TEMP. °F	MINIMUM AMBIENT TEMP. °F	NUMBER OF COMPRESSORS	NUMBER OF STAGES	NUMBER OF CIRCUITS	NUMBER OF FANS	ELECTRICAL: VOLT-PHASE	FLA/RLA	MCA	MOCP AMPS	DISCONNECT BY (NOTE A)	DISCONNECT TYPE (NOTE B)	CONTROLLER/STARTER BY (NOTE A)	CONTROLLER/STARTER SCCR	MANUFACTURER	MODEL	REMARKS
CU-1	IT 1118	60	R407C	95	-30	1	1	1	1	460-3	10.9	13.4	20.0	MFR	NF	MFR	-	LIEBERT	PFHZ67A-_L7	
CU-2	RTU-3	125.8	R407C	95	-20	-	-	-	1	460-3	2.0	4.0	6.0	MFR	NF	MFR	10K	DESERT AIRE	RC5S032C	

CABINET HEATER SCHEDULE - STEAM

SYMBOL	SERVICE	TYPE	NOMINAL CFM	MBH	STEAM PSIG (NOTE 4)	ELECTRICAL: FAN HP	VOLT/PHASE	DISCONNECT BY (NOTE A)	DISCONNECT TYPE (NOTE B)	CONTROLLER/STARTER BY (NOTE A)	CONTROL DIAGRAM	MANUFACTURER	MODEL	REMARKS
CH-1	VESTIBULE-1119	HORIZONTAL RECESSED	550	33.9	2	1/9	120-1	MFR	NF	BAS	1/M4.01	TRANE	MODEL E	NOTE 1, 2, 3
CH-2	VESTIBULE-1125	VERTICAL CABINET	500	32.4	2	1/9	120-1	MFR	NF	BAS	1/M4.01	TRANE	MODEL M	NOTE 1, 2, 5, 6

NOTES:
1. COORDINATE COLOR SELECTION WITH ARCHITECT.
2. SET UNIT FAN ON HIGH SPEED. PROVIDE FAN SPEED SELECTOR.
3. UNIT SHALL HAVE BOTTOM STAMPED LOUVER FOR INLET AND OUTLET.
4. STEAM PRESSURE IS PRESSURE DOWNSTREAM FROM CONTROL VALVE.
5. UNIT SHALL HAVE FRONT STAMPED LOUVER FOR INLET AND OUTLET.
6. PROVIDE UNIT MOUNTED THERMOSTAT.

FAN SCHEDULE

SYMBOL	SERVICE	CFM	S.P. IN. W.C.	WHEEL DIA. INCHES	FAN RPM (NOTE F)	DRIVE	MAX. AMCA SONES	BACKDRAFT DAMPER	CURB TYPE (NOTE G)	ELECTRICAL: BHP (NOTE E)	MHP (NOTE E)	VOLT-PHASE	DISCONNECT BY (NOTE A)	DISCONNECT TYPE (NOTE B)	CONTROLLER/STARTER TYPE (NOTE C)	CONTROL DIAGRAM	MANUFACTURER	MODEL	REMARKS
EF-1	RESTROOM	2,150	0.75	15.0	1,308	BELT	16.2	ELECTRIC	MFR	0.55	0.75	120-1	MFR	NF	BAS	2/M4.01	COOK	150ACWB	
EF-2	NOT USED																		
EF-3	BAR	1,350	0.3	15.0	827	BELT	[illegible]	ELECTRIC	MFR	0.15	0.25	120-1	MFR	NF	BAS	6/M4.01	COOK	150ACEB	
RF-1	RTU-3	6,900	1	22.5	1,088	BELT	21	ELECTRIC	MFR	2.59	3.00	460-3	EC	VFD	BAS	1/M4.00	COOK	SQIB	

RADIATION SCHEDULE - STEAM

SYMBOL	SERVICE	MBH/FT	ELEMENT: MATERIAL	LENGTH (FT.)	PIPE SIZE	FIN HEIGHT & WIDTH	NO. OF ROWS	FINS PER FT	STEAM PSIG (NOTE 1)	STYLE	CONTROL DIAGRAM	MANUFACTURER	MODEL	REMARKS
RAD-1121	WOMEN"S TOILET 1121	1.69	COPPER	5	1"	4-1/4" x 3-5/8"	1	40	2	WALL MOUNTED	4/M4.01	VULCAN	JV4-AR	NOTE 1, 2, 3.
RAD-1029.1	FLEX SPACE 1029	1.45	COPPER	4	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1029.2	FLEX SPACE 1029	1.45	COPPER	3	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1030.1	CLASSROOM 1030	1.45	COPPER	3	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1030.2	CLASSROOM 1030	1.45	COPPER	4	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1030.3	CLASSROOM 1030	1.45	COPPER	4	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1032	COAT 1032	1.45	COPPER	2.5	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1033	COAT 1033	1.45	COPPER	2.5	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-1036.1	CLASSROOM 1036	1.69	COPPER	12	1"	4-1/4" x 3-5/8"	1	40	2	WALL MOUNTED	4/M4.01	VULCAN	JV4-AR	NOTE 1, 2, 3.
RAD-1036.2	CLASSROOM 1036	1.69	COPPER	12	1"	4-1/4" x 3-5/8"	1	40	2	WALL MOUNTED	4/M4.01	VULCAN	JV4-AR	NOTE 1, 2, 3.
RAD-1036.3	CLASSROOM 1036	1.69	COPPER	8.5	1"	4-1/4" x 3-5/8"	1	40	2	WALL MOUNTED	4/M4.01	VULCAN	JV4-AR	NOTE 1, 2, 3.
RAD-1036.4	CLASSROOM 1036	1.69	COPPER	7.5	1"	4-1/4" x 3-5/8"	1	40	2	WALL MOUNTED	4/M4.01	VULCAN	JV4-AR	NOTE 1, 2, 3.
RAD-2020.1	BALLROOM 2020	1.45	COPPER	4.5	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-2020.2	BALLROOM 2020	1.45	COPPER	9	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-2020.3	BALLROOM 2020	1.45	COPPER	4.5	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-2020.4	BALLROOM 2020	1.45	COPPER	4.5	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.
RAD-2020.5	BALLROOM 2020	1.45	COPPER	4.5	1"	4-1/4" x 3-5/8"	1	40	2	PEDESTAL	4/M4.01	VULCAN	JV4-AR-PM	NOTE 1, 2, 3.

NOTES:
1. STEAM PRESSURE INDICATED IS THE PRESSURE AVAILABLE DOWNSTREAM OF THE CONTROL VALVE.
2. PROVIDE NEW BRACKETS, ETC FOR INSTALLATION OF FIN-TUBE.
3. MOUNT FIN-TUBE HIGH ENOUGH IN CUSTOM ENCLOSURE TO ALLOW FOR INSTALLATION OF STEAM TRAP WITH-IN ENCLOSURE.

RELIEF HOOD SCHEDULE

SYMBOL	SERVICE	CFM	THROAT VELOCITY SIZE	STATIC PRESSURE (IN W.C.)	FREE AREA (FT2)	TYPE	MAX. HEIGHT (TOP OF CURB TO TOP OF EQUIPMENT) INCH	DAMPER	CURB (NOTE A)	MANUFACTURER	MODEL	REMARKS
RH-1	RTU-3 EXHAUST	6,900	1,656	0.18	5.83	ROOF HOOD	34	MOD-3	MFR	COOK	20X30GR	

MOTOR OPERATED DAMPER SCHEDULE

SYMBOL	SERVICE	SIZE W x H (IN.)	CFM MAX.	CFM MIN.	OPPOSED OR PARALLEL BLADES	HORIZONTAL OR VERTICAL BLADES	INSULATED	ACTUATOR TYPE	ACTUATOR STYLE	POWER FAILURE POSITION	POSITIVE POSITION FEEDBACK	REMARKS
MOD-1	SUPPLY AIR	30x24	6,900	2,500	OPPOSED	HORIZONTAL	NO	ELECTRONIC	MODULATING	OPEN	NO	NOTE 1
MOD-2	RETURN AIR BYPASS	30x20	4,400	0	OPPOSED	HORIZONTAL	NO	ELECTRONIC	MODULATING	CLOSED	NO	NOTE 1
MOD-3	EXHAUST AIR	30x24	6,900	0	OPPOSED	HORIZONTAL	NO	ELECTRONIC	MODULATING	CLOSED	NO	NOTE 1

NOTES:
1. COORDINATE DAMPER ACTUATOR LOCATION AND MOUNTING REQUIREMENTS WITH TEMPERATURE CONTROL CONTRACTOR.

GRILLES REGISTERS & DIFFUSERS SCHEDULE

SYMBOL	MATERIAL	TYPE	MARGIN (NOTE 1)	INLET SIZE (INCH)	FACE SIZE (INCH)	VOLUME DAMPER REQUIRED	FINISH	MANUFACTURER	MODEL	REMARKS
CD-1	STEEL	PANEL FACE	LAY-IN	SEE DWG.	24x24	NO	WHITE	TITUS	OMNI	FLUSH FACE PANEL
CD-2	STEEL	PANEL FACE	LAY-IN	SEE DWG.	12x12	NO	WHITE	TITUS	OMNI	FLUSH FACE PANEL
CD-3	STEEL	PERFORATED FACE	LAY-IN	SEE DWG.	24x24	NO	WHITE	TITUS	PAS	PERFORATED
RG-1	STEEL	PERFORATED FACE	LAY-IN	SEE DWG.	24x24	NO	WHITE	TITUS	PAR	DUCTED RETURN
RG-2	STEEL	PERFORATED FACE	LAY-IN	N/A	12x12	NO	WHITE	TITUS	PAR	PROVIDE 12x12 WITH LIGHT SHIELD
TG-1	STEEL	PERFORATED FACE	LAY-IN	SEE DWG.	24x24	NO	WHITE	TITUS	PAR	DUCTED RETURN
EG-1	STEEL	PERFORATED FACE	LAY-IN	SEE DWG.	24x24	NO	WHITE	TITUS	PAR	DUCTED RETURN
EG-2	STEEL	35° DEFLECTION	1 1/4"	SEE DWG.	INLET +2	NO	WHITE	TITUS	350F	DUCTED RETURN

NOTES:
1. CONTRACTOR SHALL DETERMINE PROPER MARGIN STYLE TO MATCH CEILING CONSTRUCTION.
2. ALL RUN OUT DUCTWORK TO DIFFUSERS SHALL BE NECK SIZE UNLESS OTHERWISE NOTED.

COIL SCHEDULE - GAS

SYMBOL	SERVICE	CFM	SIZE (IN.) L x H	HEATING (MBH) INPUT	HEATING (MBH) OUTPUT	NO. OF STEPS	VOLT-PHASE	DISCONNECT BY (NOTE A)	DISCONNECT TYPE (NOTE B)	CONTROLLER/STARTER BY (NOTE A)	MANUFACTURER	MODEL	REMARKS
HC-1	RTU-3	6,900	30x24	32	25	NOTE 1	120-1	MFR	NF	NOTE 2	HEATCO	HD	NOTE 1, 2

NOTES:
1. COIL SHALL BE ABLE TO MODULATE FROM 20-100% BASED ON EXTERNAL ANALOG INPUT.
2. REFER TO 1/M4.00 FOR CONTROL SEQUENCE.

TRAP SCHEDULE

SYMBOL	SERVICE	TYPE	SAFETY FACTOR	SIZE	LB/HR.	PRESSURE DIFFERENTIAL	MANUFACTURER	MODEL	REMARKS
T-1	DRIP	F&T	10%	3/4"	NOTE 1	10	ARMSTRONG	125A3	NOTES 2, 3, & 4

NOTES:
1. SIZE TRAP FOR EQUIPMENT LOAD.
2. SUITABLE TO 125 PSIG, SIDE INLET & OUTLET, SS FLOAT MECHANISM AND VALVE, CAST IRON BODY, BALANCED PRESSURE THERMOSTATIC AIR VENT, ALL INTERNALS REPLACEABLE IN-LINE.
3. CAPACITY AT OTHER DIFFERENTIAL PRESSURES SHALL BE AT LEAST 525#/HR AT 10 PSID, AND 1080#/HR AT 75 PSID. 1/8" ORIFICE.
4. WITH INTEGRAL VACUUM BREAKER.

MECHANICAL MATERIAL LIST

TAG	DESCRIPTION	ACCEPTABLE MANUFACTURERS
GR-1	GAS PRESSURE REGULATOR - CAST IRON BODY, EXTERNAL PRESSURE RELIEF, THREADED CONNECTIONS, ADJUSTABLE PRESSURE SETTING, TIGHT SHUTOFF. PROVIDE MULTIPLE GAS REGULATORS IF REQUIRED TO MEET OUTLET PRESSURE AND CFH. 5 PSI INLET PRESSURE, 1/2 PSI OUTLET PRESSURE, 4314 CFH CAPACITY, MINIMUM CONTROLLABLE FLOW OF 200 CFH	FISHER , ITRON , SENSUS , MAXITROL OR EQUAL

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION
214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
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NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
MECHANICAL SCHEDULES AND MATERIAL LIST

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www.kjww.com
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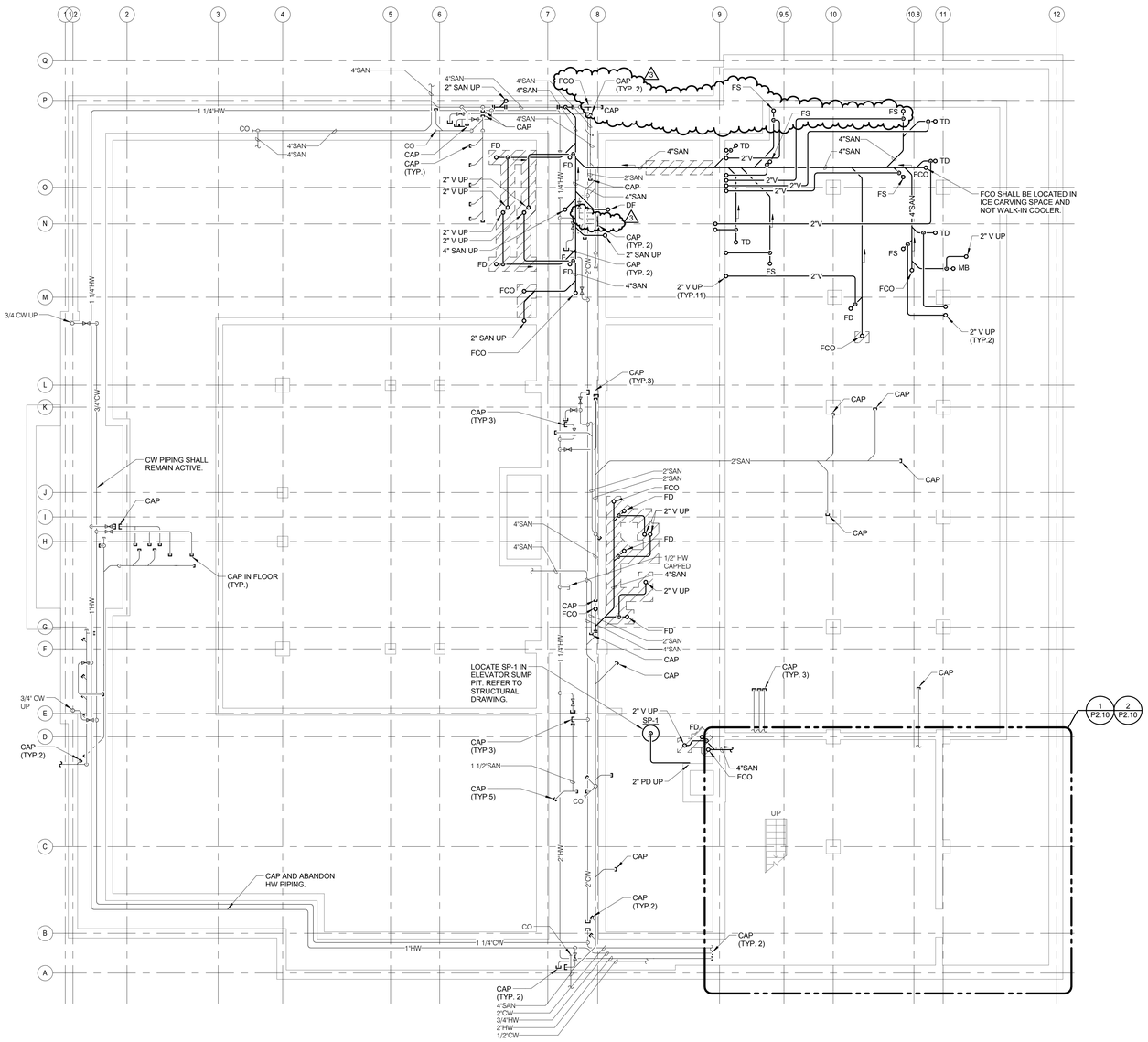
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES

SHEET NUMBER:

GENERAL PLUMBING NOTES

1. SAWCUT FIRST FLOOR SLAB AS REQUIRED TO INSTALL NEW SANITARY AND VENT PIPING. CUT AND PATCH FLOOR AS REQUIRED TO MATCH EXISTING. COORDINATE WITH S1.00 SHEET FOR LOCATIONS WHERE NEW SLAB IS BIENG PROVIDED.



1 BASEMENT FLOOR PLAN - PLUMBING

1/8" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

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EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

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SHEET TITLE:
BASEMENT FLOOR PLAN - PLUMBING

SHEET NUMBER:
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1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.3320 FAX: 630.527.2321
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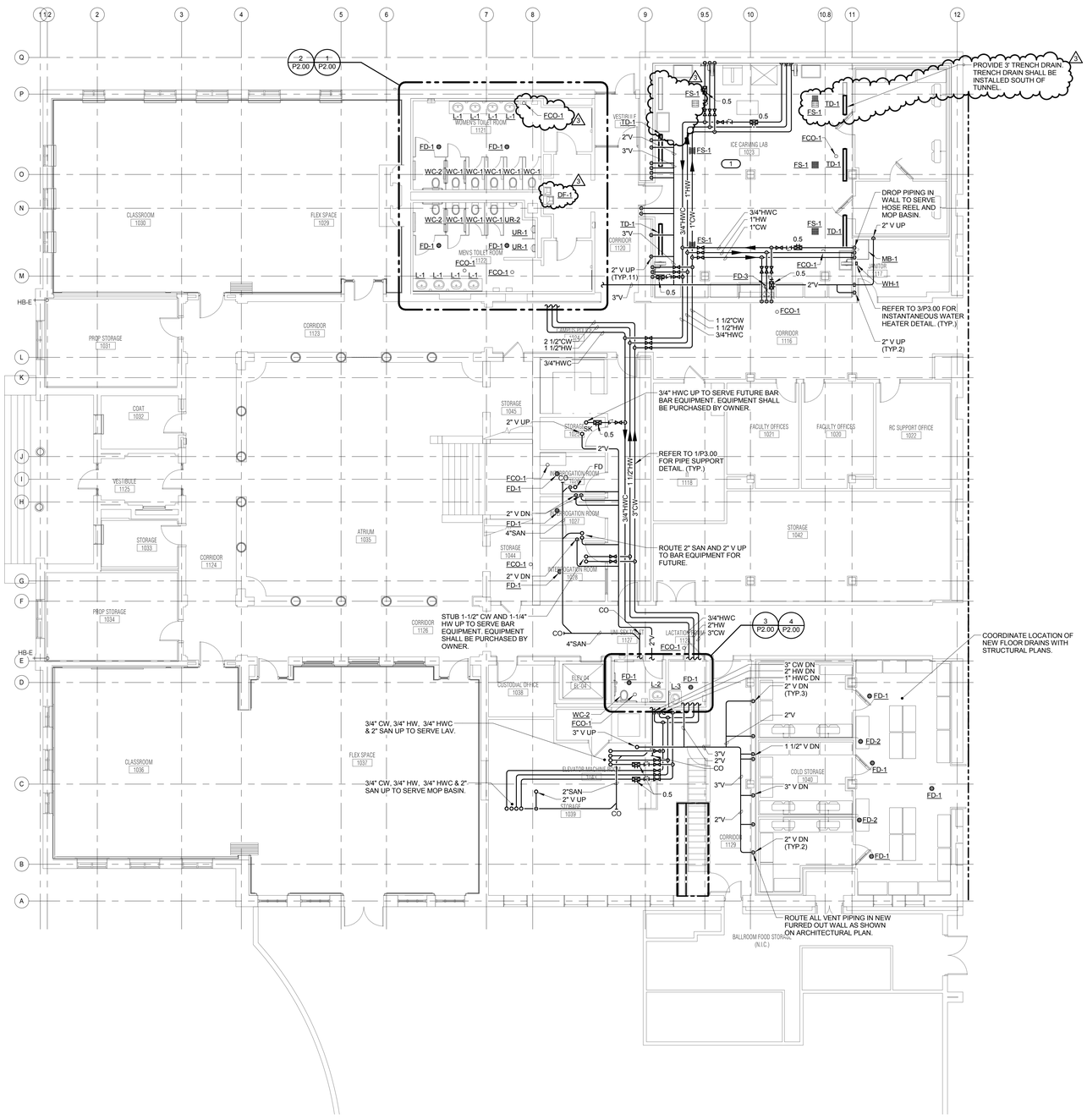
REFERENCE SCALE IN INCHES
0 1 2 3

GENERAL PLUMBING NOTES

1. PROVIDE ACOUSTICAL LAGGING ON ALL PIPING WITHIN THE CEILING SPACE OF THE ICE CARVING LAB. LAGGING SHALL BE CONTINUOUS WITH 2" OVERLAP OF ALL SEAMS AND A 2" OVERLAP AT WALL/CEILING PENETRATIONS. REFER TO SPECIFICATION SECTION 23 07 13 FOR LAGGING REQUIREMENTS.
2. ALL DOMESTIC WATER PIPING SHALL BE 3/4" UNLESS NOTED OTHERWISE
3. ALL HWC PIPING SERVING FIXTURES SHALL BE ROUTED WITHIN THE WALL AND BE CONNECTED WITHIN 3' OF FIXTURE.

KEYNOTES (#)

1. ROUTE ALL PIPING SERVING PLUMBING FIXTURES WITHIN ICE CARVING IN NEW FURRED OUT WALL AS SHOWN ON ARCHITECTURAL PLANS.



1 FIRST FLOOR PLAN - PLUMBING

1/8" = 1'-0"

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DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

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EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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RENAISSANCE CENTER RENOVATION

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SHEET TITLE:
FIRST FLOOR PLAN - PLUMBING

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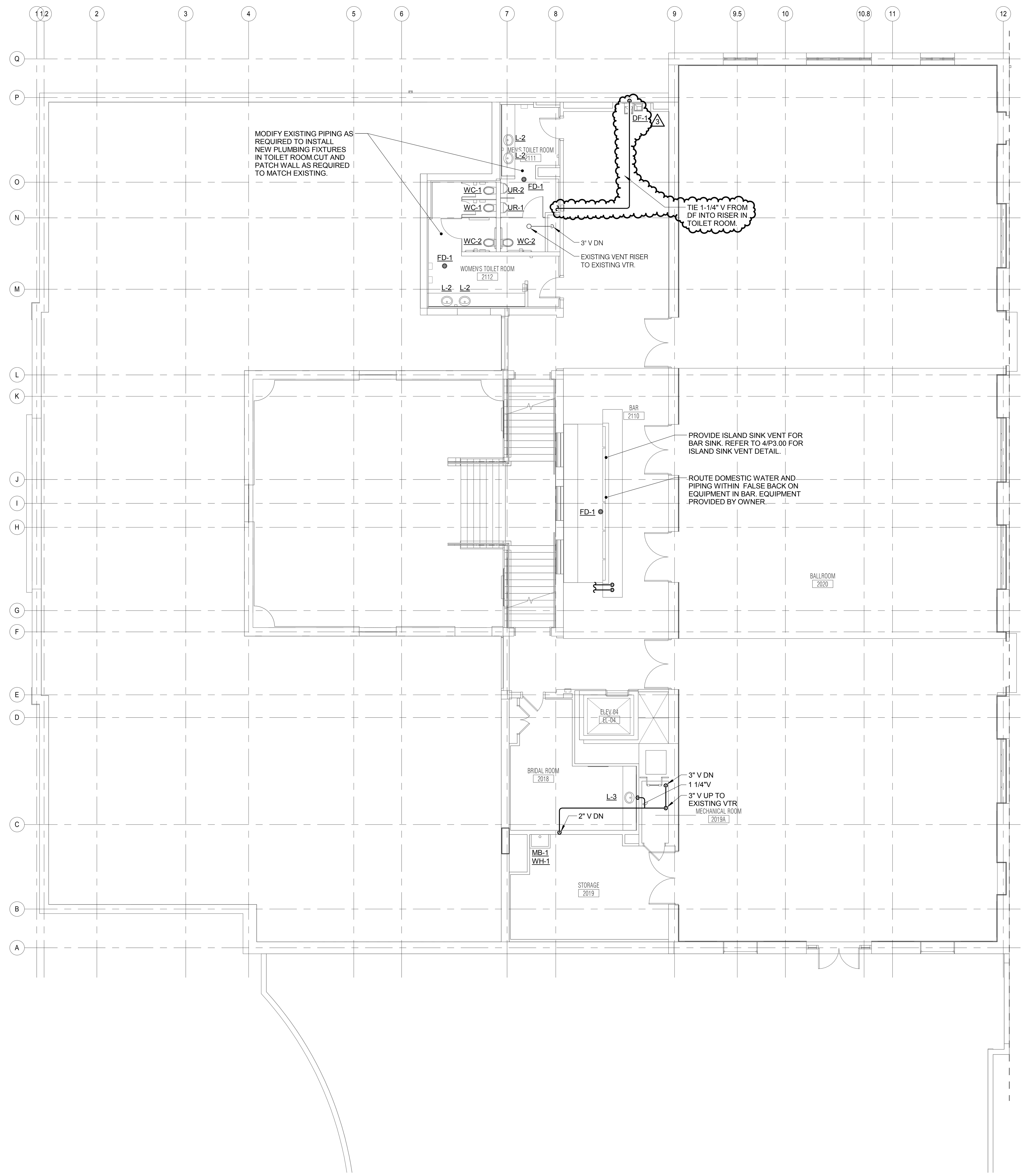

1 SECOND FLOOR PLAN - PLUMBING

1/8" = 1'-0"

NORTH

GENERAL PLUMBING NOTES

1. PROVIDE ACOUSTICAL LAGGING ON ALL PIPING WITHIN THE CEILING SPACE OF THE ICE CARVING LAB. LAGGING SHALL BE CONTINUOUS WITH 2" OVERLAP OF ALL SEAMS AND A 2" OVERLAP AT WALL/CEILING/FLOOR PENETRATIONS. REFER TO SPECIFICATION SECTION 23 07 13 FOR LAGGING REQUIREMENTS.
2. PENETRATION SHALL BE NO MORE THAN 1/4" LARGER THAN THE PIPING. PIPING SHALL BE CENTERED IN THE OPENING. PROVIDE BACKER ROD AND ACOUSTICAL SEALANT ON BOTH SIDES OF ADD TO HEATING THE PENETRATION.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

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SECOND FLOOR PLAN - PLUMBING

SHEET NUMBER:

P1.20

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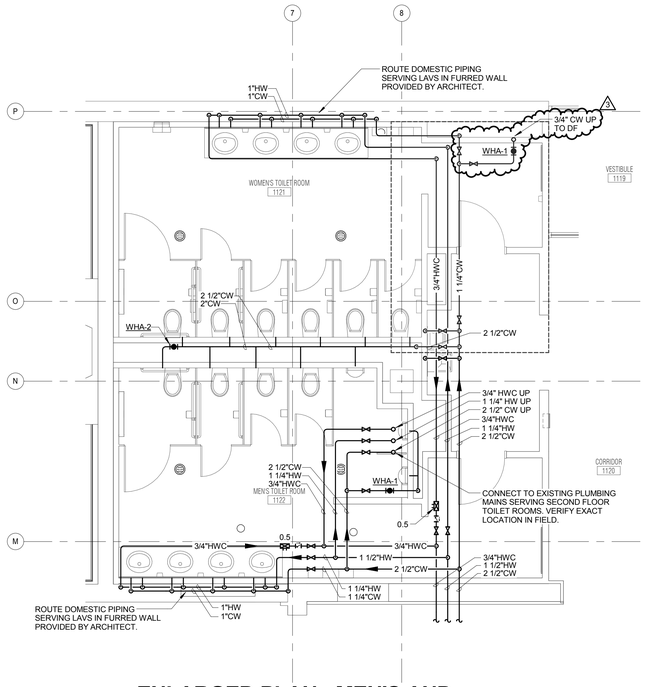
REFERENCE SCALE IN INCHES
0 1 2 3

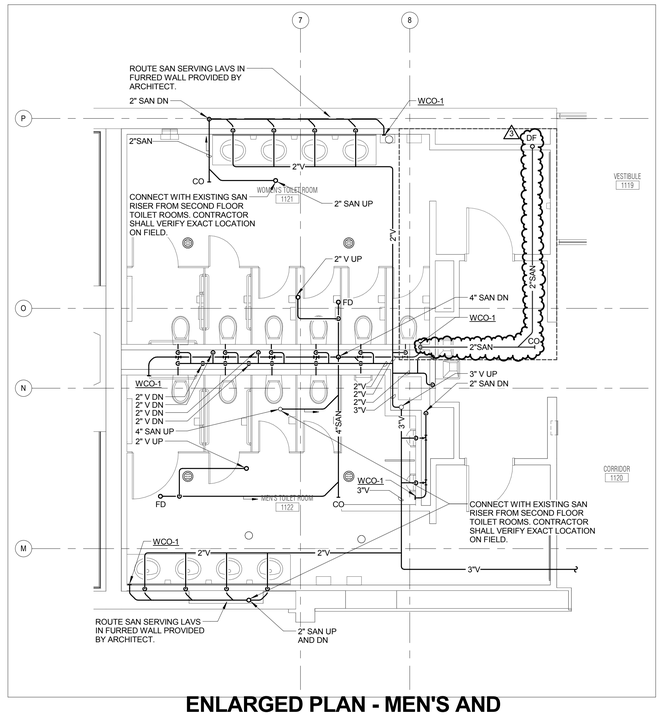
GENERAL PLUMBING NOTES

1. ALL DOMESTIC PIPING SHALL BE 3/4" UNLESS NOTED OTHERWISE.
2. ALL HWC PIPING SERVING FIXTURES SHALL BE ROUTED WITHIN THE WALL AND BE CONNECTED WITHIN 3' OF FIXTURE.



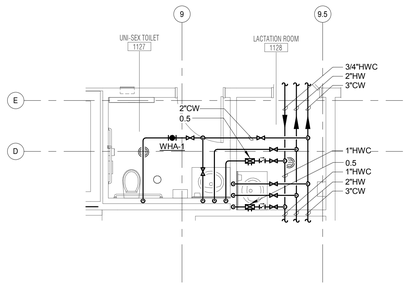
ENLARGED PLAN - MEN'S AND WOMEN'S TOILET ROOM (FIRST FLOOR) - PLUMBING - DOMESTIC

1/4" = 1'-0"



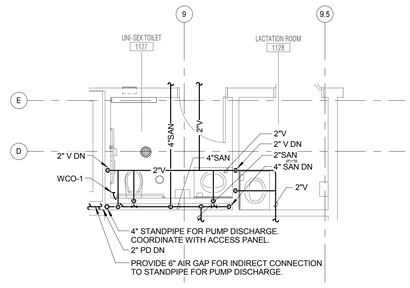
ENLARGED PLAN - MEN'S AND WOMEN'S TOILET ROOM (FIRST FLOOR)- PLUMBING - SAN & VENT

1/4" = 1'-0"



ENLARGED PLAN - LACTATION ROOM 1128 - PLUMBING - DOMESTIC

1/4" = 1'-0"



ENLARGED PLAN - LACTATION ROOM 1128 - PLUMBING - SAN & VENT

1/4" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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SHEET STATUS: 02/18/2016
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SHEET TITLE:
PLUMBING ENLARGED PLANS

SHEET NUMBER:
P2.00

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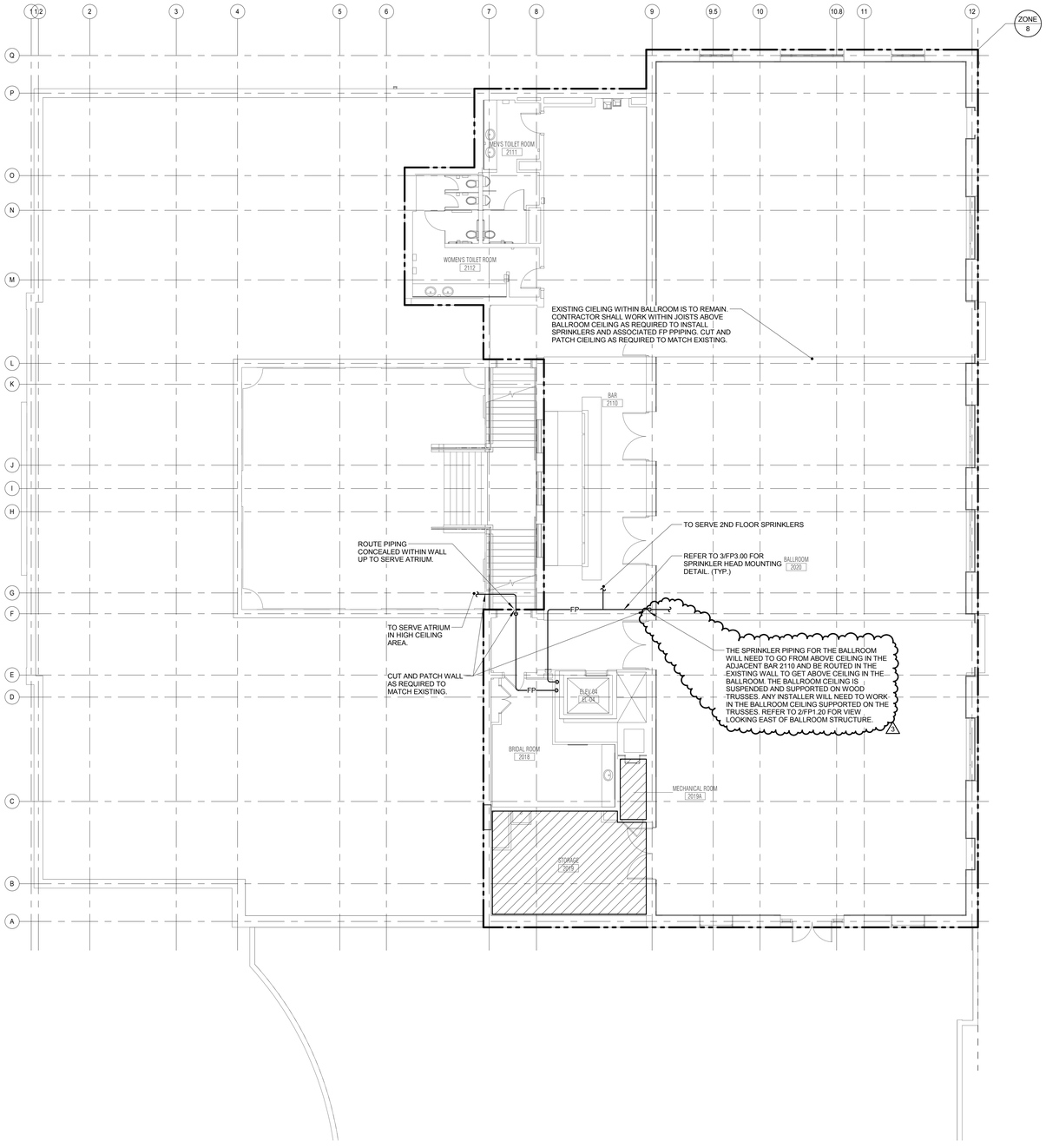
REFERENCE SCALE IN INCHES
0 1 2 3

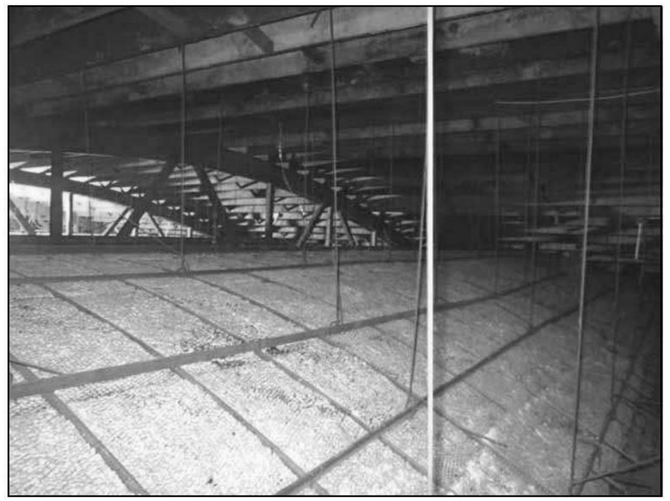
GENERAL FIRE PROTECTION NOTES

1. ROUTE AND SIZE SPRINKLER PIPING PER NFPA13. CONTRACTOR RESPONSIBLE FOR FINAL DESIGN, LAYOUT AND QUANTITY OF SPRINKLER HEADS.



1 SECOND FLOOR PLAN - FIRE PROTECTION

1/8" = 1'-0"



2 BALLROOM STRUCTURE

NO SCALE

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DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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RENAISSANCE CENTER RENOVATION

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KEY PLAN:

SHEET STATUS: 02/18/2016
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NO:	DESCRIPTION:	DATE:
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SHEET TITLE:
SECOND FLOOR PLAN - FIRE PROTECTION

SHEET NUMBER:
FP1.20

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The FUTURE. Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT #: 15.0765.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
E / E	ECONN	26 05 33	ELECTRICAL CONNECTION
J / J	JB	26 05 33	JUNCTION BOX
GTD	SW-GTD	26 09 33	EMERGENCY TRANSFER DEVICE
	PANEL '###'	26 24 16	PANELBOARD - RECESS MOUNT
	PANEL '###'	26 24 16	PANELBOARD - SURFACE MOUNT
	MX-#/MS-#/CS-#	26 24 19	MANUAL SWITCH / STARTER / COMBINATION STARTER
	TR-#	26 22 00	TRANSFORMER
	REC-DUP	26 27 26	DUPLEX RECEPTACLE, 125V
	REC-DUP-GFI	26 27 26	DUPLEX GFI RECEPTACLE, 125V
	REC-SIM-520R	26 27 26	SIMPLEX RECEPTACLE, 125V
	REC-QUAD	26 27 26	QUAD RECEPTACLE, 125V
	REC-QUAD-GFI	26 27 26	QUAD GFI RECEPTACLE, 125V
V	REC-QUAD-VAC	26 27 26	VACANCY CONTROLLED QUAD RECEPTACLE
W	REC-QUAD-WP	26 27 26	QUAD GFI WEATHERPROOF RECEPTACLE, 125V
W	REC-DUP-WP	26 27 26	DUPLEX GFI WEATHERPROOF RECEPTACLE, 125V
	REC-QUAD-WP	26 27 26	QUAD GFI WEATHERPROOF RECEPTACLE, 125V
	REC-TAMP	26 27 26	DUPLEX RECEPTACLE, TAMPERPROOF, 125V
	REC-TAMP-QUAD	26 27 26	QUAD RECEPTACLE, TAMPERPROOF, 125V
GB	GB	26 05 26	ENCLOSED GROUNDING BUS

3

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
S	SW-1P	26 51 00	SWITCH - SINGLE POLE
S_T	SW-1P-ADJ	26 51 00	SWITCH - LOCAL TIMER - USER ADJUSTABLE
S_K	SW-1P-K	26 51 00	SWITCH - SINGLE POLE - KEY LOCK
S_3	SW-3W	26 51 00	SWITCH - THREE WAY
S_O S_V	SW-OC-W	26 51 00	OCCUPANCY/ VACANCY SENSOR SWITCH
S_P	SW-1P-PL	26 51 00	RED PILOT LIGHT SINGLE POLE SWITCH
WC	SW-PB	26 51 00	WALL CONTROL INTERFACE
OC_D	SW-OC	26 51 00	OCCUPANCY SENSOR - DUAL TECHNOLOGY
VC_D	SW-VC	26 51 00	VACANCY SENSOR - DUAL TECHNOLOGY
LS	SW-LS	26 51 00	DAYLIGHT LEVEL SENSOR
	F#	26 51 00	LINEAR LUMINAIRE
	F#	26 51 00	TROFFER
	F#	26 51 00	DOWNLIGHT LUMINAIRE
	EX1/EX3	26 51 00	SINGLE FACE EXIT SIGN
	EX2	26 51 00	DOUBLE FACE EXIT SIGN

ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
H	FA-HD	28 31 00	FIRE ALARM HEAT DETECTOR
SD	FA-SD	28 31 00	FIRE ALARM SMOKE DETECTOR
SD	FA-DSD	28 31 00	FIRE ALARM SMOKE DUCT DETECTOR
F	FA-PS	28 31 00	FIRE ALARM MANUAL PULL STATION
V1 V3 V7 VH	FA-VW	28 31 00	FIRE ALARM VISUAL NOTIFICATION DEVICE - WALL MOUNTED
V11 V3 V7 VH	FA-VC	28 31 00	FIRE ALARM VISUAL NOTIFICATION DEVICE - CEILING MOUNTED
A	FA-AW	28 31 00	FIRE ALARM AUDIO NOTIFICATION DEVICE - WALL MOUNTED
A	FA-AC	28 31 00	FIRE ALARM AUDIO NOTIFICATION DEVICE - CEILING MOUNTED
A1 A3 A7 AH	FA-AVW	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - WALL MOUNTED
A1 A3 A7 AH	FA-AVC	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - CEILING MOUNTED
$A7_W$	FA-AVC-WP	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - CEILING MOUNTED - WEATHERPROOF
$A7_W$	FA-AVW-WP	28 31 00	FIRE ALARM AUDIO/VISUAL NOTIFICATION DEVICE - WALL MOUNTED - WEATHERPROOF
FS	FA-FS	28 31 00	FLOW SWITCH CONNECTION
MS	FA-MS	28 31 00	MONITOR SWITCH CONNECTION
MM	FA-MM	28 31 00	FIRE ALARM ADDRESSABLE MONITOR MODULE
AR	FA-AR	28 31 00	FIRE ALARM ADDRESSABLE RELAY
	FAA-1	28 31 00	FIRE ALARM ANNUNCIATOR PANEL
RI	FA-RI	28 31 00	FIRE ALARM REMOTE INDICATOR
SD_W	FA-DSD	28 31 00	FIRE ALARM SMOKE DUCT DETECTOR - WEATHERPROOF
DH	FA-DH	28 31 00	DOOR HOLD CONNECTION

3

ELECTRICAL EQUIPMENT TAGS

TAG:	DESCRIPTION:	RELATED SPECIFICATION:
DP-#	DISTRIBUTION PANEL	26 24 16
DS-#	DISCONNECT SWITCH, REFER TO DISCONNECT AND STARTER SCHEDULE	26 28 16
FDS-#	FUSIBLE DISCONNECT SWITCH, REFER TO DISCONNECT AND STARTER SCHEDULE	26 28 16
LC-#	LIGHTING CONTACTOR, REFER TO CONTACTOR SCHEDULE	26 28 31
MS-#	MANUAL STARTER, REFER TO DISCONNECT AND STARTER SCHEDULE	26 14 19
MX-#	MANUAL SWITCH, REFER TO DISCONNECT AND STARTER SCHEDULE	26 14 19
SPD-#	SURGE PROTECTION DEVICE	26 43 00
TR-#	TRANSFORMER - DRY TYPE, REFER TO TRANSFORMER SCHEDULE	26 22 00
~~CS-#~~	~~COMBINATION STARTER, REFER TO DISCONNECT AND STARTER SCHEDULE~~	~~26 24 19~~
VFD-#	VARIABLE FREQUENCY DRIVE	26 29 23

3

ELECTRICAL GENERAL NOTES

1. **##-###** INDICATES ELECTRICAL EQUIPMENT DEFINED IN ELECTRICAL SCHEDULES OR SPECIFICATION. REFER TO DRAWINGS CONTAINING ELECTRICAL SCHEDULES. PERMANENT NAMEPLATE SHALL MATCH FINAL EQUIPMENT NOMENCLATURE, NOT ELECTRICAL EQUIPMENT TAG NAME, REFER TO SPECIFICATIONS.
2. **{L###}** INDICATES THE LIGHTING SEQUENCE OF OPERATION FOR THE SPACE. REFER TO THE LIGHTING SEQUENCE OF OPERATION MATRIX ON SHEET **#/###**.
3. "NL" INDICATES LUMINAIRE IS UNSWITCHED FOR NIGHT LIGHT.
4. "SE" INDICATES LUMINAIRE IS SWITCHED DURING NORMAL OPERATION AND OPERATES FROM EMERGENCY CIRCUIT VIA AN EMERGENCY TRANSFER DEVICE UPON LOSS OF POWER.
5. SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY CIRCUIT.

LUMINAIRE KEY:

LUMINAIRE

F1 = FIXTURE TAG
1 = CIRCUIT NUMBER
a = SWITCH NUMBER
NL = SUBSCRIPT (IF APPLICABLE)

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION.
EX: F1 / 1 / A / NL

DEVICE KEY:

DEVICE

A = MOUNTING (IF APPLICABLE)
1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1

ELECTRICAL MOUNTING SUBSCRIPT KEY:
A MOUNT ABOVE COUNTER (+6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH)
C MOUNT FLUSH IN CEILING

A SLASH IS USED BETWEEN TWO SUBSCRIPTS e.g.: A/H
REFER TO SPECIFICATIONS FOR FULL DESCRIPTIONS AND MANUFACTURERS OF ALL DEVICES.

LINE TYPE KEY:
NEW WORK BY THIS CONTRACTOR (DARK SOLID LINE)
NEW WORK UNDERFLOOR OR UNDERGROUND BY THIS CONTRACTOR (DARK LONG DASHED LINE)
NEW WORK BY OTHERS AND/OR EXISTING TO REMAIN (LIGHT SOLID LINE)
EXISTING TO BE REMOVED BY THIS CONTRACTOR (DARK SHORT DASHED LINE)

FIRE BARRIER DESIGNATIONS

THE SYMBOLS SHOWN ARE FOR THE CONVIENIENCE OF THE CONTRACTOR. THE CONTRACTOR SHALL VERIFY RATINGS WITH THE LATEST SET OF ARCHITECTURAL PLANS AND FURNISH ALL MATERIALS REQUIRED TO COMPLY WITH THOSE RATINGS WHETHER SHOWN OR NOT.

ALL FLOOR AND WALL ASSEMBLIES SHALL BE DESIGNATED AS 1 AND 3 HOUR FIRE BARRIER, UNLESS NOTED OTHERWISE ON THE PLANS. RATINGS WERE ACQUIRED FROM THE ARCHITECTURAL PLANS DATED 02/18/2016.

1 HOUR FIRE BARRIER

3 HOUR FIRE BARRIER

ELECTRICAL SYMBOL LIST

SYMBOL:	DESCRIPTION:
	NORMAL BRANCH LUMINAIRE
	LIFE SAFETY BRANCH LUMINAIRE, NIGHT LIGHTS
	LIFE SAFETY BRANCH LUMINAIRE, SWITCHED EMERGENCY

ELECTRICAL EQUIPMENT IDENTIFICATION:

DP-LS C 1 H 1

SOURCE:
LS=LIFE SAFETY
EQ=EMERGENCY EQUIPMENT
DP=DISTRIBUTION PANEL

BUILDING:
C=CITY CENTER
R=RENAISSANCE CENTER

FLOOR:
1=FIRST FLOOR
2=SECOND FLOOR
P=PENTHOUSE

VOLTAGE:
H=480Y/277V
L=208Y/120V

SEQUENCE IDENTIFIER:
1 THRU 9 PER AREA

BRANCH CIRCUIT WIRING KEY

WIRE ID	THHW / THWN COPPER CONDUCTORS			EQUIPMENT GROUNDING CONDUCTOR	CONDUIT
	2 WIRE	3 WIRE	4 WIRE		
A#	2#12	3#12	4#12	1#12	3/4"
B#	2#10	3#10	4#10	1#10	3/4"
C#	2#8	3#8	4#8	1#10	3/4"
D#	2#6	3#6	4#6	1#10	1"
E#	2#4	3#4	4#4	1#8	1 1/4"
F#	2#2	3#2	4#2	1#8	1 1/4"
G#	2#1	3#1	4#1	1#6	1 1/2"
H#	2#1/0	3#1/0	4#1/0	1#6	2"

ALL BRANCH CIRCUITS SHALL INCLUDE THE EQUIPMENT GROUND CONDUCTOR.

ONE LINE DIAGRAM NOTES

1. SCCR RATINGS LISTED FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUS BRACING AND DEVICE RATING. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
2. INDICATES DIRECT CONNECTION OF GROUND CONDUCTOR TO GROUND BUS.
3. INDICATES O.Z. GEDNEY OR EQUAL GROUND BUSHING BONDED TO GROUND BUS WITH CONDUCTOR SIZED TO MAXIMUM FEEDER GROUND CAPACITY.
4. INDICATES OVERLOADS SIZED PER MOTOR NAMEPLATE FULL LOAD AMPERES.
5. # INDICATES STARTER NEMA SIZE.
6. AF INDICATES MOLDED/INSULATED CASE BREAKER FRAME SIZE, FOR ADJUSTABLE TRIP BREAKERS.
7. AT INDICATES MOLDED/INSULATED CASE BREAKER TRIP UNIT RATING, FOR ADJUSTABLE TRIP BREAKERS.
8. [LSIG] INDICATES FEATURES PROVIDED WITH SOLID STATE CIRCUIT BREAKER. [LONG TIME (w/DELAY), SHORT TIME (w/DELAY), INSTANTANEOUS, GROUND FAULT].
9. CONDUCTOR AND CONDUIT SIZES ON THE LINE AND LOAD SIDES OF ALL VFDS, STARTERS, AND DISCONNECT SWITCHES SHALL BE IDENTICAL UNLESS NOTED OTHERWISE.
10. DPM INDICATES DIGITAL POWER MONITOR.
11. M INDICATES KILOWATT-HOUR METER AS SUPPLIED BY UTILITY COMPANY.
12. INDICATES CURRENT/POTENTIAL TRANSFORMER.
13. ST INDICATES SHUNT TRIP BREAKER.

ELECTRICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
AFF	ABOVE FINISHED FLOOR
C.	CONDUIT
GND	GROUND
N.C.	NORMALLY CLOSED
N.I.C.	NOT IN CONTRACT
N.O.	NORMALLY OPEN
TYP.	TYPICAL
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
G.C.	GENERAL CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR

ELECTRICAL INSTALLATION NOTES

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATIONS DETAIL ON THIS PAGE FOR ADDITIONAL INFORMATION.
2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY (NOT) BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
3. CIRCUITS SERVING EMERGENCY AND EXIT LUMINAIRES WILL BE RUN IN A SEPARATE RACEWAY FROM ALL OTHER CIRCUITS.
4. FLUSH MOUNT ALL TOGGLE SWITCHES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. TOGGLE SWITCHES MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
5. TWO ADJACENT SWITCHES SHOWN WITH A SINGLE CIRCUIT CONNECTION INDICATES MULTI-LEVEL SWITCHING; INBOARD AND OUTBOARD LAMPS ARE TO BE SWITCHED SEPARATELY.
6. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TELECOMMUNICATION OUTLETS AT +18" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED.
7. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF THROUGH-PENETRATION FIRESTOPS. REFER TO [27 05 03 AND 28 05 03] [DIVISION 7] [26 05 03] FOR ADDITIONAL INFORMATION AND REQUIREMENTS SPECIFIC TO FIRESTOPPING. REFER TO ARCHITECTURAL CODE PLANS AND WALL TYPES FOR RATED CONSTRUCTION.
8. DUPLEX RECEPTACLES FOR ELECTRIC WATER COOLERS (EWC) SHALL BE CONCEALED BEHIND WATER COOLER ACCESS PLATE OR BE DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO BE INSTALLED.
9. MOUNT RECESSED CLOCK RECEPTACLES AT +7'-0" (+84") FROM FLOOR EXCEPT WHERE OTHERWISE NOTED.
10. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION) EXCEPT WHERE OTHERWISE NOTED.
11. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE.
12. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL DETECTORS AND/OR SPEAKERS WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. CENTER ALL DEVICES IN CEILING TILE PATTERN. SMOKE DETECTORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE.
13. CONTRACTOR SHALL VERIFY ALL FURNITURE, MODULAR FURNITURE, AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.
14. ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF, OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.
16. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE ARCHITECT/ENGINEER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF ANY WELDERS ASSIGNED TO THE JOB.
17. CONTRACTOR SHALL REMOVE AND REINSTALL ALL CEILING TILES AS REQUIRED FOR THE EXECUTION OF ELECTRICAL WORK THAT IS OUTSIDE THE CONTRACT LIMITS OF CONSTRUCTION. CONTRACTOR SHALL REPLACE CEILING TILES WITH IDENTICAL MATERIAL WHERE DAMAGED BY THIS CONTRACTOR.

ELECTRICAL SHEET INDEX

KJ WW ENGINEERING CONSULTANTS
The FUTURE. Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT # 15.0765.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
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dkA

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ELECTRICAL COVER SHEET

SHEET NUMBER:
E0.00

GENERAL SHEET NOTES

1. REFER TO SHEET E0.00 FOR ELECTRICAL GENERAL NOTES, ELECTRICAL INSTALLATION NOTES, AND ELECTRICAL SYMBOL LIST
2. REFER TO SHEET E5.00 FOR LUMINAIRE SCHEDULE.
3. REFER TO 4/E5.02 FOR SIDE BY SIDE DEVICE OPENING DETAIL.
4. (LS##) INDICATES THE SEQUENCE OF OPERATION FOR SPACE. REFER TO LIGHTING SEQUENCE OF OPERATION, SHEET E5.00.
5. EXPOSED CONDUIT SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL ELEVATIONS FOR ALL DEVICES PRIOR TO INSTALLATION.

KEYNOTES (#)

1. MOUNT F3 VERTICALLY IN SHAFT, CENTERED 5'-0" ABOVE PIT FLOOR. COORDINATE EXACT LOCATION OF F3 AND SWITCH WITH ELEVATOR CONTRACTOR SO THAT THERE IS NO CONFLICT WITH MOVING EQUIPMENT.
2. ROUTE BRANCH CIRCUIT FEEDING DEVICE FROM THE OTHER SIDE OF THE WALL. NO SURFACE MOUNTED CONDUITS SHALL BE VISIBLE IN ATRIUM AREA.
3. REUSE EXISTING BACKBOX/CONDUIT. VERIFY CONDUIT ROUTE AND ALLOW FOR CONNECTION TO PANEL 'LSC1L1'.
4. PROVIDE ACOUSTIC TREATMENT FOR BACKBOXES LOCATED IN EITHER SIDE OF WALLS SURROUNDING ICE CARVING LAB. PENETRATIONS THROUGH THESE WALLS SHALL HAVE A 1/8" GAP SEALED WITH CAULK.
5. PROVIDE STI #6519 CLEAR SINGLE GANG PROTECTIVE COVER.
6. REWIRE EXISTING CIRCUIT TO EMERGENCY CIRCUIT.
7. INSTALL DEVICE AND WIRING IN SURFACE RACEWAY (WIREMOLD 700 OR EQUAL). PAINT TO MATCH SURROUNDING FINISHES.
8. ROUTE CIRCUIT SERVING LUMINAIRE THROUGH A PHOTOCELL FOR DUSK ON/DUSK OFF CONTROL. LOCATE PHOTOCELL ON ROOF.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

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SHEET STATUS: 02/18/2016
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NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
FIRST FLOOR PLAN - LIGHTING

SHEET NUMBER:
E1.10

1 FIRST FLOOR PLAN - LIGHTING

1/8" = 1'-0"

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The FUTURE Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
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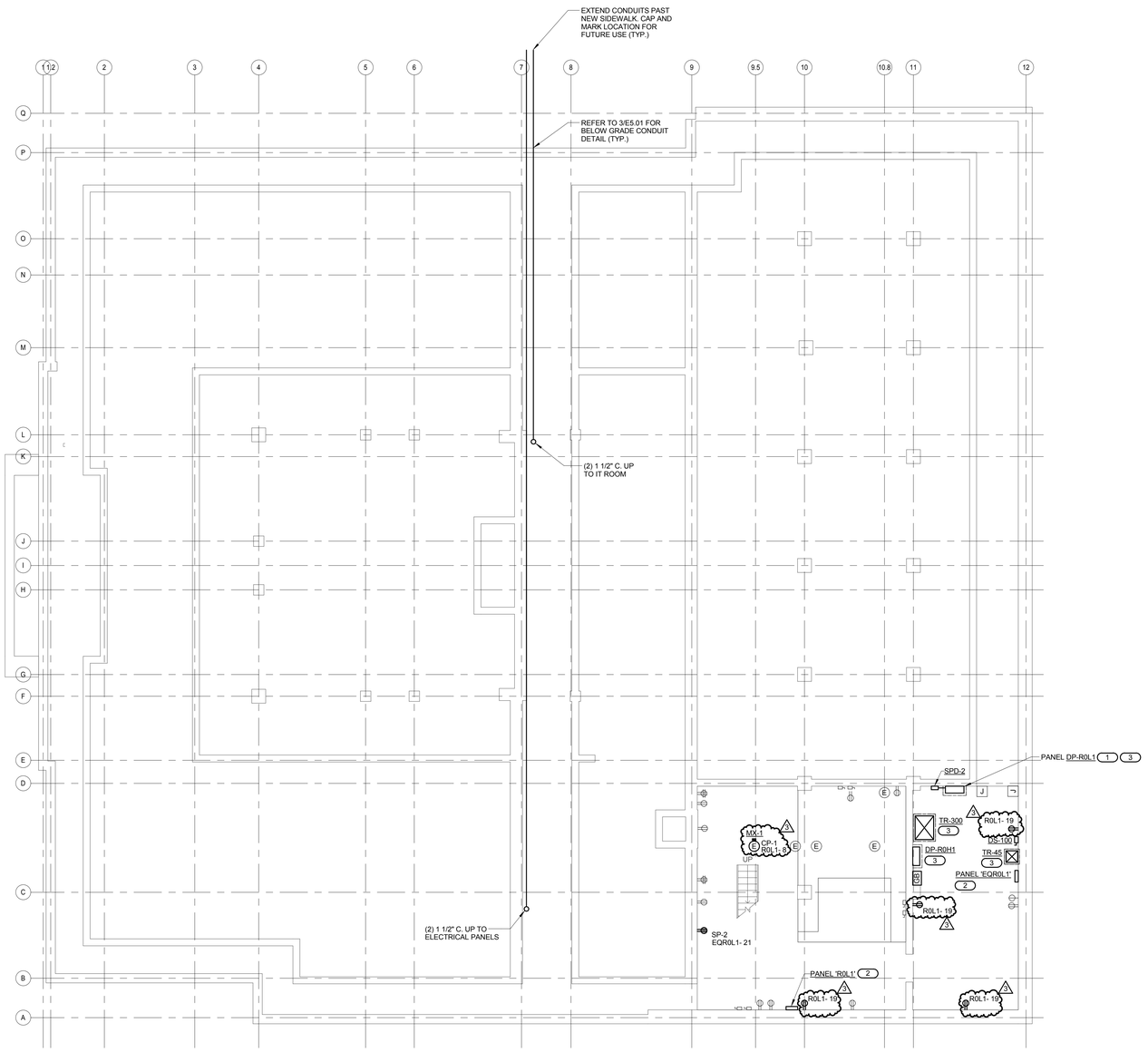

GENERAL SHEET NOTES

1. REFER TO SHEET E0.00 FOR ELECTRICAL GENERAL NOTES, ELECTRICAL INSTALLATION NOTES, AND ELECTRICAL SYMBOL LIST.
2. REFER TO SHEETS E4.00, E4.01, ED4.00, AND ED4.01 FOR ONE LINE DIAGRAMS.
3. REFER TO 4/E5.02 FOR SIDE BY SIDE DEVICE OPENING DETAIL.
4. REFER TO SHEETS E6.00, E6.01, ED6.00, AND ED6.01 FOR PANEL SCHEDULES.
5. EXPOSED CONDUIT SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL ELEVATIONS FOR ALL DEVICES PRIOR TO INSTALLATION.

KEYNOTES (#)

1. RECONNECT EXISTING BRANCH FEEDERS AND CIRCUITS TO NEW DISTRIBUTION PANEL. REFER TO ONE-LINE DIAGRAMS FOR ADDITIONAL INFORMATION.
2. RECONNECT EXISTING CIRCUITS FROM DEMOLISHED PANELS. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION. MATCH CONDUIT AND WIRING. PROVIDE NEW TYPED CIRCUIT DIRECTORIES (COPY FROM EXISTING).
3. MOUNT ON 4" HOUSEKEEPING PAD.

1 BASEMENT FLOOR PLAN - POWER

1/8" = 1'-0"

NORTH

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
BASEMENT FLOOR PLAN - POWER

SHEET NUMBER:
E2.00

KJ WW ENGINEERING CONSULTANTS
The FUTURE Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
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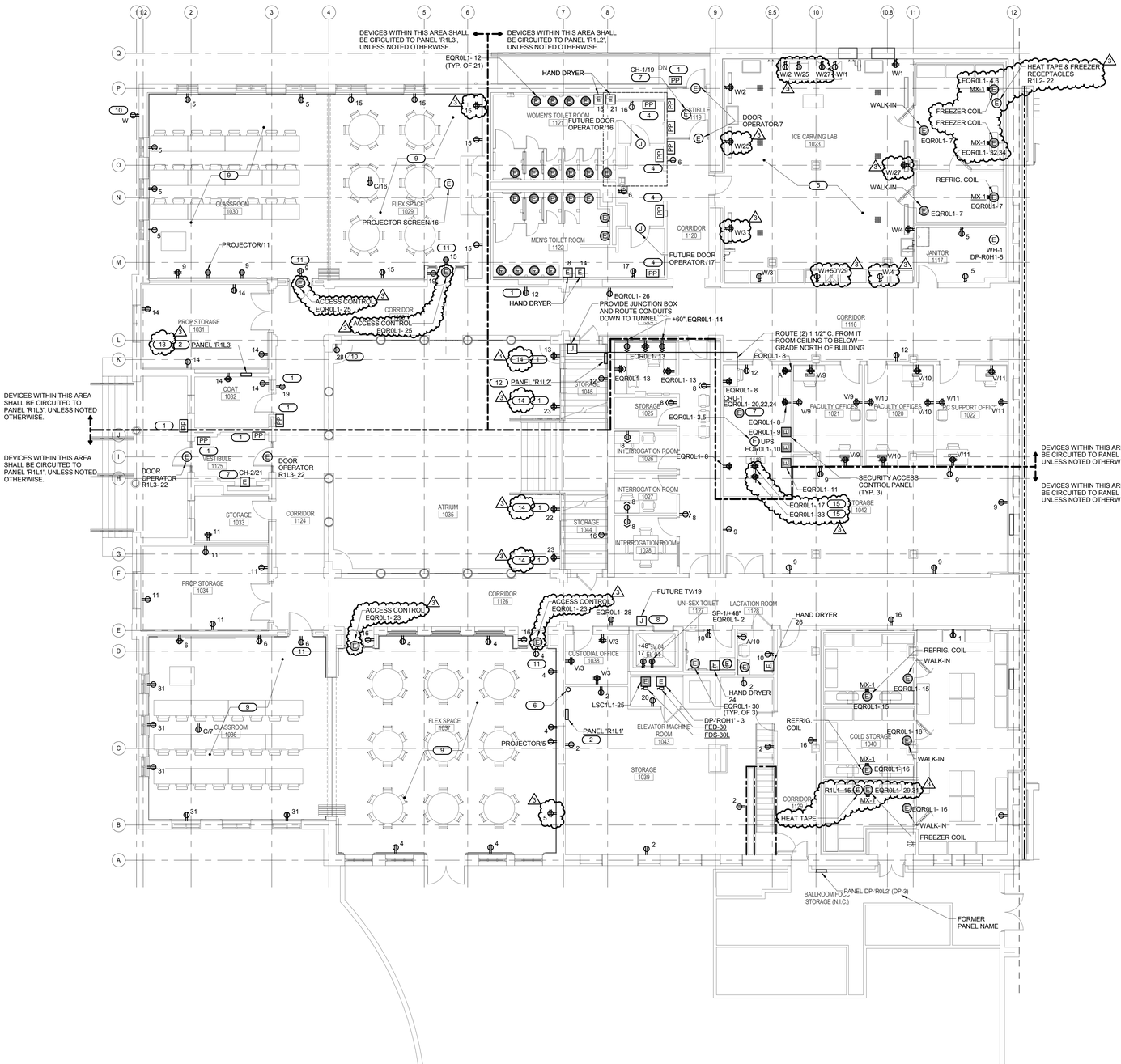

1 FIRST FLOOR PLAN - POWER

1/8" = 1'-0"

GENERAL SHEET NOTES

1. REFER TO SHEET E0.00 FOR ELECTRICAL GENERAL NOTES, ELECTRICAL INSTALLATION NOTES, AND ELECTRICAL SYMBOL LIST.
2. REFER TO SHEETS E4.00, E4.01, ED4.00, AND ED4.01 FOR ONE LINE DIAGRAMS.
3. REFER TO 4/E5.02 FOR SIDE BY SIDE DEVICE OPENING DETAIL.
4. REFER TO SHEETS E6.00, E6.01, ED6.00, AND ED6.01 FOR PANEL SCHEDULES.
5. EXPOSED CONDUIT SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL ELEVATIONS FOR ALL DEVICES PRIOR TO INSTALLATION.

KEYNOTES (#)

1. ROUTE BRANCH CIRCUIT FEEDING DEVICE FROM THE OTHER SIDE OF THE WALL. NO SURFACE MOUNTED CONDUITS SHALL BE VISIBLE IN ATRIUM AREA OR ON EXTERIOR WALLS.
2. RECONNECT EXISTING CIRCUITS FROM DEMOLISHED PANELS. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION. MATCH CONDUIT AND WIRING. PROVIDE NEW TYPED CIRCUIT DIRECTORIES (COPY FROM EXISTING).
3. INSTALL IN SURFACE RACEWAY WIREMOD V700 OR EQUAL, PAINTED TO MATCH WALL.
4. ROUGH-IN ONLY. PROVIDE RECESSED BOX WITH 1/2" C FOR FUTURE PUSHPAD. STUB TO ABOVE CEILING.
5. PROVIDE ACOUSTIC TREATMENT FOR BACKBOXES LOCATED IN EITHER SIDE OF WALLS SURROUNDING ICE CARVING LAB. PENETRATIONS THROUGH THESE WALLS SHALL HAVE A 1/8" GAP SEALED WITH CAULK.
6. ROUTE (2) 1 1/2" C. FROM THIS LOCATION TO BELOW GRADE NORTH OF BUILDING VIA TUNNEL.
7. CONNECT TO MANUFACTURER PROVIDED DISCONNECT/CONTROLLER.
8. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
9. PROVIDE STAINLESS STEEL COVERPLATES FOR DEVICES IN THIS ROOM.
10. PROVIDE NEW RECEPTACLE AND COVER IN EXISTING LOCATION.
11. RECEPTACLE FOR CLOCK LOCATED ABOVE DOOR. COORDINATE EXACT LOCATION WITH A/E.
12. PROVIDE EXTENSION ON EXISTING BOX FROM DEMOLISHED PANEL 'I-5' TO ALLOW NEW SURFACE CONDUIT TO BE INSTALLED BETWEEN EXISTING BOX AND NEW PANEL. PROVIDE SCREW COVER ON BOX EXTENSION. LOCATE NEW PANEL ADJACENT TO EXISTING BOX.
13. REFER TO 5/E5.02 FOR PANEL INSTALLATION REQUIREMENTS.
14. INSTALL DEVICE IN SURFACE RACEWAY BOX (WIREMOLD OR EQUAL). PAINT TO MATCH SURROUNDING FINISHES.
15. RECEPTACLE TO BE MOUNTED TO RACK. COORDINATE LOCATION WITH OWNER.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

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KEY PLAN:

SHEET STATUS: 02/18/2016
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NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
FIRST FLOOR PLAN - POWER

SHEET NUMBER:
E2.10

KJ WW ENGINEERING CONSULTANTS
The FUTURE Built SMARTER.
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT # 15.0765.00
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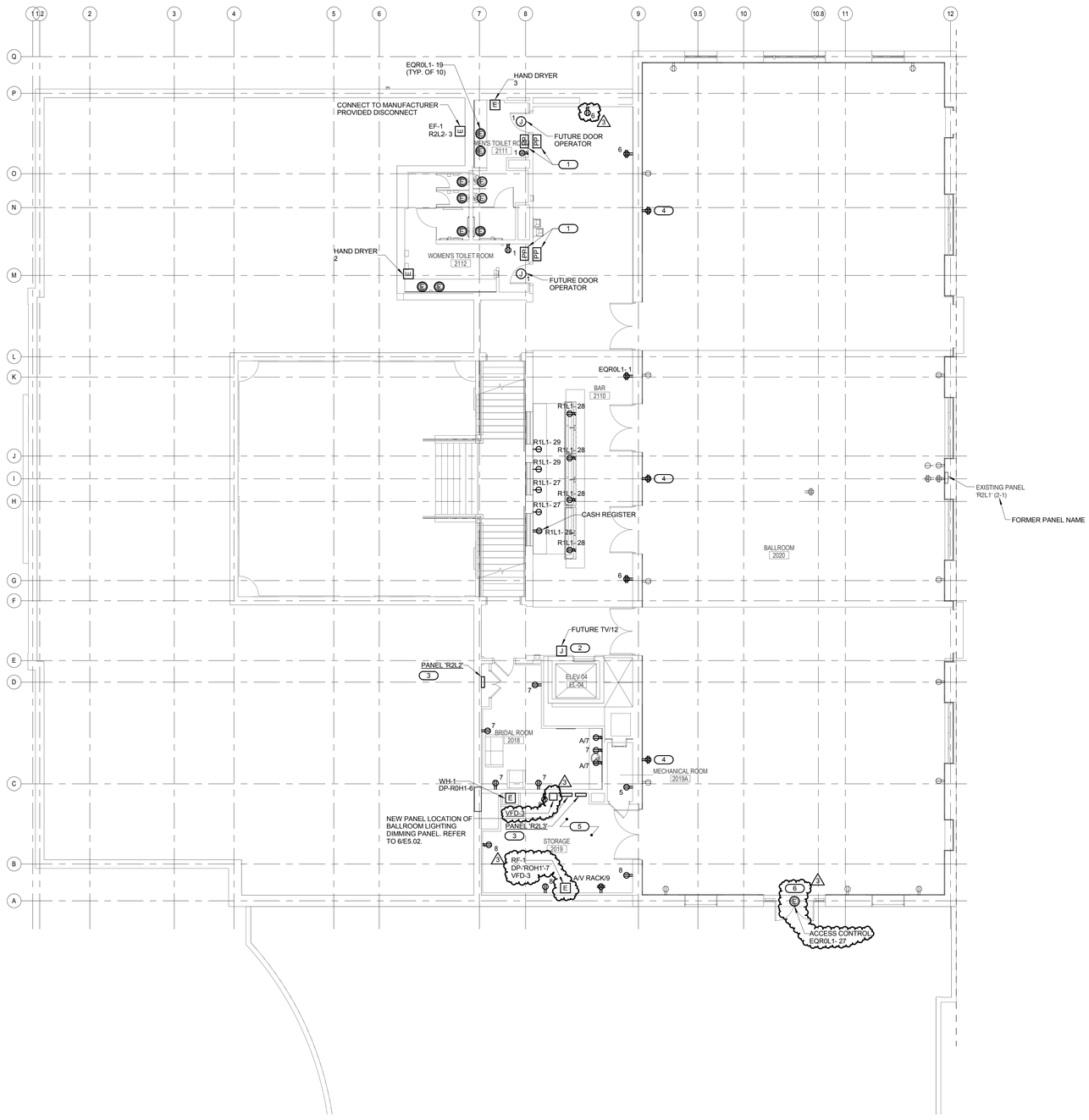
DEVICES IN THIS SHEET SHALL BE CIRCUITED TO PANEL 'R2L3', UNLESS NOTED OTHERWISE.



GENERAL SHEET NOTES

1. REFER TO SHEET E0.00 FOR ELECTRICAL GENERAL NOTES, ELECTRICAL INSTALLATION NOTES, AND ELECTRICAL SYMBOL LIST.
2. REFER TO SHEETS E4.00, E4.01, ED4.00, AND ED4.01 FOR ONE LINE DIAGRAMS.
3. REFER TO 4/E5.02 FOR SIDE BY SIDE DEVICE OPENING DETAIL.
4. REFER TO SHEETS E6.00, E6.01, ED6.00, AND ED6.01 FOR PANEL SCHEDULES.
5. EXPOSED CONDUIT SHALL NOT BE PERMITTED UNLESS NOTED OTHERWISE.
6. REFER TO ARCHITECTURAL ELEVATIONS FOR ALL DEVICES PRIOR TO INSTALLATION.

KEYNOTES (#)

1. ROUGH-IN ONLY. PROVIDE RECESSED BOX WITH 1/2" C FOR FUTURE PUSHPAD. STUB TO ABOVE CEILING.
2. COORDINATE MOUNTING HEIGHT WITH ARCHITECT.
3. RECONNECT EXISTING CIRCUITS FROM DEMOLISHED PANELS. REFER TO PANEL SCHEDULES FOR ADDITIONAL INFORMATION. MATCH CONDUIT AND WIRING. PROVIDE NEW TYPED CIRCUIT DIRECTORIES (COPY FROM EXISTING).
4. PROVIDE NEW DEVICE IN SURFACE RACEWAY BOX (WIREMOLD OR EQUAL) PAINTED TO MATCH SURROUNDING CONDITIONS. CONNECT TO EXISTING CONDUIT AND WIRING.
5. ALL ELECTRICAL EQUIPMENT ON NORTH WALL OF STORAGE 2019 SHALL NOT BE INSTALLED WITHIN 4'-0" OF MOP BASIN.
6. ROUTE CONDUIT AND WIRING FOR OWNER FURNISHED ACCESS CONTROL SYSTEM DOWN TO CEILING OF FLOOR BELOW. COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.

1 SECOND FLOOR PLAN - POWER

1/8" = 1'-0"

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

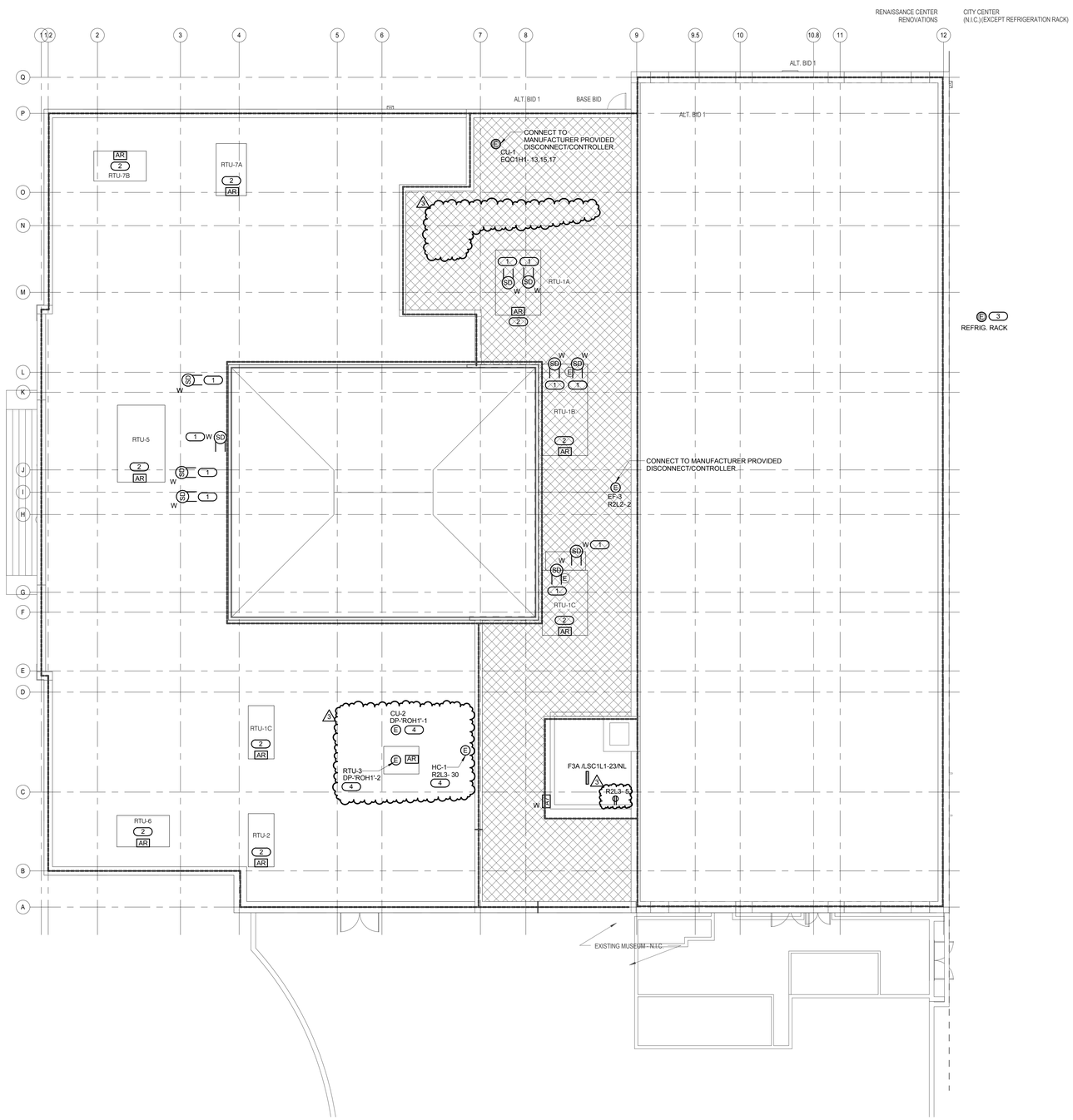
NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
SECOND FLOOR PLAN - POWER

SHEET NUMBER:
E2.20

KJ WW ENGINEERING CONSULTANTS
The FUTURE Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT # 15.0765.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3



ROOF PLAN - ELECTRICAL

1/8" = 1'-0"

GENERAL SHEET NOTES

1. REFER TO SHEET E0.00 FOR ELECTRICAL GENERAL NOTES, ELECTRICAL INSTALLATION NOTES, AND ELECTRICAL SYMBOL LIST.
2. REFER TO SHEETS E4.00, E4.01, ED4.00, AND ED4.01 FOR ONE LINE DIAGRAMS.
3. REFER TO 4/E5.02 FOR SIDE BY SIDE DEVICE OPENING DETAIL.
4. REFER TO SHEETS E6.00, E6.01, ED6.00, AND ED6.01 FOR PANEL SCHEDULES.
5. PROVIDE NEW LIGHTING PROTECTION SYSTEM COMPONENTS TO ACCOMMODATE NEW ROOFING ON MID-ROOF LEVEL AND NEW ROOF MOUNTED EQUIPMENT. REFER TO SPECIFICATION SECTION 26 41 00.

KEYNOTES (#)

1. WEATHER PROOF DUCT TYPE SMOKE DETECTOR FOR AIR HANDLING UNIT SHUTDOWN. INSTALL SAMPLING TUBES IN STRAIGHT RUN OF DUCT, DOWN STREAM OF FILTERS AND AHEAD OF BRANCH DUCTS. COORDINATE INSTALLATION PRIOR TO ROUGH-IN. SEAL ALL DUCT PENETRATIONS AIR-TIGHT.
2. COORDINATE CONNECTION TO MOTOR CONTROLLER FOR FAN SHUTDOWN. MOUNT ADDRESSABLE RELAY WITHIN 3'-0" OF CONTROLLER.
3. CONNECT REFRIGERATION RACK TO PANEL 'EQC3L1' LOCATED IN ELECTRICAL CLOSET 3103 IN CITY CENTER. PROVIDE A NEW 80A/3P CIRCUIT BREAKER. USE 3#4 AND 1#8 GND IN 1" C. MATCH EXISTING TYPE AND RATINGS.
4. CONNECT TO MANUFACTURER PROVIDED DISCONNECT/CONTROLLER.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

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KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
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EF WHITNEY
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T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ROOF PLAN - ELECTRICAL

SHEET NUMBER:
E2.30

KJWW ENGINEERING CONSULTANTS
The FUTURE. Built SMARTER.®
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.2320 FAX: 630.527.2321
www.kjww.com
PROJECT #: 15.0765.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3

PANEL NAME: R1L3

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 10,000
LOCATION: COAT 1032

SOLID NEUTRAL
GROUND BUS

CONNECTED 11.2 kVA
MAIN: 100 A/MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 11.21 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	Lighting, *C	20 A	1	0.9	0					1	20 A	PANEL '1-6' (Coat Rm) -2, *E, *C	2
3	LC-1A, LC- 1B	20 A	1			0.4	0			1	20 A	PANEL '1-6 (Coat Rm) '-4, *E, *C	4
5	Power	20 A	1					1	0	1	20 A	PANEL '1-6' (Coat Rm) -6, *E, *C	6
7	SPARE	20 A	1	0	0					1	20 A	PANEL '1-6' (Coat Rm) -8, *E, *C	8
9	Power CLASSROOM 1030	20 A	1			0.8	0			1	20 A	PANEL '1-6' (Coat Rm) -10, *E, *C	10
11	PROJECTOR	20 A	1					0.2	0	1	20 A	SPARE	12
13	Lighting, *C	20 A	1	0.9	1.2					1	20 A	Power PROP STORAGE 1031	14
15	Power FLEX SPACE 1029	20 A	1			1.6	0.5			1	20 A	PROJECTOR, PROJECTOR SCREEN	16
17	Lighting, *C	20 A	1					0.36	0	1	20 A	PANEL '1-6'-24, *E	18
19	Power	20 A	1	0.4	1.55					1	20 A	Lighting Room 1030, 1029	20
21	SPARE	20 A	1			0	0.6			1	20 A	Power	22
23	PANEL '1-6' (Coat Rm) -23, *E	20 A	1					0	0	1	20 A	PANEL '1-6' (Coat Rm) -26, *E	24
25	PANEL '1-6' (Coat Rm) -25, *E	20 A	1	0	0					1	20 A	SPARE	26
27	PANEL '1-6' (Coat Rm) -16, *E	20 A	1			0	0.2			1	20 A	Power	28
29	SPARE	20 A	1					0	0	1	20 A	SPARE	30
31	Power	20 A	1	1	0					1	20 A	SPARE	32
33	SPARE	20 A	1			0	0			1	20 A	SPARE	34
35	SPARE	20 A	1					0	0	--	--	SPACE	36
37	SPACE	--	--	0	0					--	--	SPACE	38
39	SPACE	--	--			0	0			--	--	SPACE	40
41	SPACE	--	--					0	0	--	--	SPACE	42
			Total Load:	5.95 kVA		4.1 kVA		1.56 kVA					
			Total Amps:	52.84		37.42		13					

[Key*:] *E=EXISTING LOAD TO BE RECONNECTED TO NEW PANEL, *C = THRU CONTACTOR

PANEL NAME: R1L1

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 10,000
LOCATION: Space 1121

SOLID NEUTRAL
GROUND BUS

CONNECTED 20.8 kVA
MAIN: 225 A/MLO (3)
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 20.83 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	Power	20 A	1	0.4	1.2					1	20 A	Power Room 1121	2
3	Power	20 A	1			1.2	1.4			1	20 A	Power FLEX SPACE 1037	4
5	PROJECTOR	20 A	1					0.7	0.8	1	20 A	Power CLASSROOM 1036	6
7	PROJECTOR	20 A	1	0.3	1.2					1	20 A	Power Room 1024, 1025, 1026, 1027,...	8
9	Power IT 1118	20 A	1			1.2	0.6			1	20 A	Power	10
11	Power Room 1032, 1033	20 A	1					1.2	0	1	20 A	Lighting Room 1033, 1034, 1036	12
13	Lighting FLEX SPACE 1037	20 A	1	1.3	0					1	20 A	Lighting	14
15	HEAT TAPE	20 A	1			0.5	1			1	20 A	Power	16
17	Power ELEV 04	20 A	1					0.27	0.4	1	20 A	DOOR RELEASE	18
19	Power, FUTURE TV	20 A	1	0	0.2					1	20 A	POWER, LIGHTING	20
21	CH-2	15 A	1			0.51	0.4			1	20 A	Power	22
23	Power	20 A	1					0.4	0.5	1	20 A	HAND DRYER	24
25	CASH REGISTER Space 1125	20 A	1	0.5	0.5					1	20 A	HAND DRYER	26
27	Power Space 1125	20 A	1			1.6	0.8			1	20 A	Power Space 1125	28
29	Power Space 1125, Lighting Room 2110	20 A	1					1.6	0.15	1	20 A	Lighting Space 1125	30
31	SPARE	20 A	1	0	0					3	20 A	PANEL '1-3' - 25, 27, 29, *E, A3	32
33	SPARE	20 A	1			0	0			--	--	--	34
35	SPARE	20 A	1					0	0	--	--	--	36
37	SPARE	20 A	1	0	0					1	20 A	SPARE	38
39	SPARE	20 A	1			0	0			1	20 A	SPARE	40
41	SPARE	20 A	1					0	0	1	20 A	SPARE	42
			Total Load:	5.6 kVA		9.21 kVA		6.02 kVA					
			Total Amps:	46.67		77.28		50.66					

[Key*:] *E=EXISTING LOAD TO BE RECONNECTED TO NEW PANEL

PANEL NAME: R2L3

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 10,000
LOCATION: STORAGE 2019

SOLID NEUTRAL
GROUND BUS

CONNECTED 7.6 kVA
MAIN: 225 A/MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 7.62 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	Power	20 A	1	0.4	0.5					1	20 A	Hand Dryer	2
3	Hand Dryer	20 A	1			0.5	0.4			1	20 A	Lighting Space 1125	4
5	Power	20 A	1					0.4	0.6	1	20 A	Power	6
7	Power	20 A	1	1.4	0.8					1	20 A	Power	8
9	Power	20 A	1			0.4	0.2			1	20 A	LC-2	10
11	Lighting	20 A	1					0.55	0	1	20 A	Power, FUTURE TV	12
13	PANEL '2-3'-1, *E	20 A	1	0	0					1	30 A	PANEL '2-3'-16, *E, B2	14
15	PANEL '2-3'-9, *E	20 A	1			0	0			1	20 A	PANEL '2-3'-18, *E	16
17	PANEL '2-3'-15, *E	20 A	1					0	0	1	30 A	PANEL '2-3'-28, *E, B2	18
19	PANEL '2-3'-21, *E	20 A	1	0	0					1	20 A	PANEL '2-3'-41, *E	20
21	PANEL '2-3'-29, *E	20 A	1			0	0			1	20 A	PANEL '2-3'-36, *E	22
23	PANEL '2-3'-25, *E	20 A	1					0	0	3	90 A	PANEL '2-4'-1,3,5, *E, F3	24
25	PANEL '2-3'-27, *E	20 A	1	0	0					--	--	--	26
27	PANEL '2-4'-37, *E	20 A	1			0	0			--	--	--	28
29	SPARE	30 A	1					0	1.67	1	20 A	HC-1	30
31	PANEL '2-3'-17, *E	20 A	1	0	0					1	20 A	SPARE	32
33	PANEL '2-3'-19, *E	20 A	1			0	0			1	20 A	SPARE	34
35	SPARE	20 A	1					0	0	1	20 A	SPARE	36
37	SPARE	20 A	1	0	0					1	20 A	SPARE	38
39	SPARE	20 A	1			0	0			1	20 A	SPARE	40
41	SPACE	--	--					0	0	--	--	SPACE	42
			Total Load:	3.1 kVA		1.5 kVA		3.22 kVA					
			Total Amps:	27.88		12.5		28.84					

[Key*:] *E=EXISTING LOAD TO BE EXTENDED TO NEW PANEL

PANEL NAME: 'R2L1' (2-1)

TYPE: BOLT-ON
MOUNTING: RECESSED
FED FROM:
SCCR: 10,000
LOCATION: BALLROOM 2020

SOLID NEUTRAL
GROUND BUS

CONNECTED 0 kVA
MAIN: 100 A/MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 0 kVA

Panel Notes: FORMER PANEL NAME IN PARENTHESIS
UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	SPARE	15 A	2	0	0					2	15 A	SPARE	2
3	--	--	--			0	0			--	--	--	4
5	SCREEN, *E	20 A	1					0	0	1	20 A	REC BY PANEL, *E	6
7	PROJECTOR, *E	20 A	1	0	0					1	20 A	REC BY PANEL, *E	8
9	REC BY PANEL, *E	20 A	1			0	0			1	20 A	REC BY PANEL, *E	10
11	HOT CART, *E	30 A	2					0	0	2	30 A	HOT CART, *E	12
13	--	--	--	0	0					--	--	--	14
15	HOT CART, *E	30 A	2			0	0			2	30 A	HOT CART, *E	16
17	--	--	--					0	0	--	--	--	18
19	COLD CART, *E	20 A	1	0	0					1	20 A	COLD START, *E	20
21	SPACE	--	--			0	0			--	--	SPACE	22
23	SPACE	--	--					0	0	--	--	SPACE	24
			Total Load:	0 kVA		0 kVA		0 kVA					
			Total Amps:	0		0		0					

[Key*:] *E=EXISTING LOAD

PANEL NAME: R1L2

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 10,000
LOCATION: STORAGE 1045

SOLID NEUTRAL
GROUND BUS

CONNECTED 13.8 kVA
MAIN: 100 A/MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 13.81 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	Power ICE CARVING LAB 1023	20 A	1	0.4	0.4					1	20 A	Power ICE CARVING LAB 1023	2
3	Power ICE CARVING LAB 1023	20 A	1			0.4	0.4			1	20 A	Power ICE CARVING LAB 1023	4
5	Power	20 A	1					0.4	0.4	1	20 A	Power CORRIDOR 1120	6
7	Power CORRIDOR 1120	20 A	1	0.6	0.5					1	20 A	Hand Dryer	8
9	Power FACULTY OFFICES 1021	20 A	1			1.6	1.6			1	20 A	Power	10
11	Power RC SUPPORT OFFICE 1022	20 A	1					1.6	0.8	1	20 A	Power	12
13	Power	20 A	1	0.4	0.5					1	20 A	Hand Dryer	14
15	Hand Dryer	20 A	1			0.5	0.2			1	20 A	Power Room 1120	16
17	Power Room 1120	20 A	1					0.2	0	1	20 A	Lighting	18
19	CH-1	20 A	1	0.51	0					1	20 A	Lighting CORRIDOR 1116	20
21	Hand Dryer	20 A	1			0.5	0.5			1	20 A	HEAT TAPE AND FREEZER RECEPT.	22
23	Power	20 A	1					0.4	0	1	20 A	SPARE	24
25	Power ICE CARVING LAB 1023	20 A	1	0.4	0					1	20 A	SPARE	26
27	Power ICE CARVING LAB 1023	20 A	1			0.4	0			1	20 A	SPARE	28
29	Power ICE CARVING LAB 1023	20 A	1					0.2	0	1	20 A	SPARE	30
31	SPARE	20 A	1	0	0					1	20 A	SPARE	32
33	SPARE	20 A	1			0	0			--	--	SPACE	34
35	SPACE	--	--					0	0	--	--	SPACE	36
37	SPACE	--	--	0	0					--	--	SPACE	38
39	SPACE	--	--			0	0			--	--	SPACE	40
41	SPACE	--	--					0	0	--	--	SPACE	42
			Total Load:	3.71 kVA		6.1 kVA		4 kVA					
			Total Amps:	30.92		51.21		33.71					

[Key*:] *E=EXISTING LOAD TO BE RECONNECTED TO NEW PANEL

PANEL NAME: R0L1

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 10,000
LOCATION: BASEMENT R0xx

SOLID NEUTRAL
GROUND BUS

CONNECTED 2.6 kVA
MAIN: 100 A/MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 2.58 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	Lighting	20 A	1	0.65	0					1	15 A	PANEL 'B-4'-14, *E	2
3	SPARE	30 A	3			0	0			1	30 A	PANEL 'B-3'-2, *E, B2	4
5	--	--	--					0	0	1	20 A	PANEL 'B-3'-8, *E	6
7	--	--	--	0	1.13					1	20 A	CP-1	8
9	PANEL 'B-3'-1, *E, B2	30 A	1			0	0			1	15 A	PANEL 'B-4' -13, *E	10
11	PANEL 'B-3'-3, *E, B2	30 A	1					0	0	1	20 A	PANEL 'B-4' -12, *E	12
13	DP-2-15, *E	20 A	1	0	0					3	20 A	DP-2-7, *E, A3	14
15	SPARE	40 A	2			0	0			--	--	--	16
17	--	--	--					0	0	--	--	--	18
19	Power	20 A	1	0.8	0					3	20 A	DP-2-8, *E, A3	20
21	SPARE	20 A	1			0	0			--	--	--	22
23	SPARE	20 A	1					0	0	--	--	--	24
25	SPARE	20 A	1	0	0					1	20 A	SPARE	26
27	SPARE	20 A	1			0	0			1	20 A	SPARE	28
29	SPARE	20 A	1					0	0	--	--	SPACE	30
31	SPACE	--	--	0	0					--	--	SPACE	32
33	SPACE	--	--			0	0			--	--	SPACE	34
35	SPACE	--	--					0	0	--	--	SPACE	36
37	SPACE	--	--	0	0					--	--	SPACE	38
39	SPACE	--	--			0	0			--	--	SPACE	40
41	SPACE	--	--					0	0	--	--	SPACE	42
			Total Load:	2.58 kVA		0 kVA		0 kVA					
			Total Amps:	21.5		0		0					

[Key*:] *E=EXISTING LOAD TO BE RECONNECTED TO NEW PANEL

PANEL NAME: R2L2

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 22,000
LOCATION:

SOLID NEUTRAL
GROUND BUS

CONNECTED 2.3 kVA
MAIN: 400 A/MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 2.27 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A		B		C		POLES	AMP	LOAD DESCRIPTION	CKT NO.
1					0.67					1	20 A	EF-3	2
3	EF-1	20 A	1			1.6	0			3	30 A	PANEL '2-2A'-2,4,6, *E, B3	4
5	PANEL '2-2A'-1,3,5,7,9,11, *E, *S, H3	150 A	3					0	0	--	--	--	6
7	--	--	--	0	0					--	--	--	8
9	--	--	--			0	0			3	30 A	PANEL '2-2A'-14,16,18, *E, B3	10
11	PANEL '2-2A'-13,15,17, *E, B3	35 A	3					0	0	--	--	--	12
13	--	--	--	0	0					--	--	--	14
15	--	--	--			0	0			3	40 A	PANEL '2-2A'-20,22,24, *E, C3	16
17	PANEL '2-2A'-31,33,35, *E, B3	35 A	3					0	0	--	--	--	18
19	--	--	--	0	0					--	--	--	20
21	--	--	--			0	0			3	35 A	PANEL '2-2A'-38,40,42, *E, B3	22
23	PANEL '2-2A'-37,39, *E, B2	30 A	2					0	0	--	--	--	24
25	--	--	--	0	0					--	--	--	26
27	PANEL '2-2B'-21, *E	20 A	1			0	0			1	20 A	PANEL '2-2B'-16, *E	28
29	PANEL '2-2B'-29, *E	20 A	1					0	0	1	20 A	PANEL '2-2B'-20, *E	30
31	PANEL '2-4'-7,9,11, *E, B3	35 A	3	0	0					1	20 A	PANEL '2-4'-22, *E	32
33	--	--	--			0	0			1	20 A	SPARE	34
35	--	--	--					0	0	1	20 A	SPARE	36
37	SPARE	20 A	1	0	0					1	20 A	SPARE	38
39	SPARE	20 A	1			0	0			1	20 A	SPARE	40
41	SPARE	20 A	1					0	0	1	20 A	SPARE	42
			Total Load:	0.67 kVA		1.6 kVA		0 kVA					
			Total Amps:	6.44		14.19		0					

[Key*:] *E=EXISTING LOAD TO BE RECONNECTED TO NEW PANEL, *S=SUB FEED BREAKER

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PROJECT # 15.0765.00
Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION
214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ELECTRICAL SCHEDULES - NEW WORK

SHEET NUMBER:
E6.10

PANEL NAME: EQC1H1

CONNECTED 8.1 kVA

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR:
LOCATION:

SOLID NEUTRAL
GROUND BUS

MAIN: 250 A/MLO
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
DEMAND: 8.1 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET. EXISTING PANEL – CONTRACTOR SHALL FIELD VERIFY ALL PANEL CHARACTERISTICS AND EXISTING CIRCUIT BREAKERS AND LAODS.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A	B	C	POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	EXISTING LOAD, *E	20 A	1	0			1	20 A	EXISTING SPARE	2
3	EXISTING LOAD, *E	20 A	1		0		1	20 A	EXISTING SPARE	4
5	EXISTING LOAD, *E	30 A	3			0	3	30 A	EXISTING LOAD, *E	6
7	--	--	--	0			--	--	--	8
9	--	--	--		0		--	--	--	10
11	EXISTING LOAD, *E	20 A	1			0	1	20 A	EXISTING LOAD, *E	12
13	CU-1 (3#12 & 1#12 GND), *N	20 A	3	2.7						14
15	--	--	--		2.7					16
17	--	--	--			2.7				18
19	PANEL 'EQR0L1' VIA TR-45, *N	70 A	3	0	0		--	--	EXISTING SPACE	20
21	--	--	--		0	0	--	--	EXISTING SPACE	22
23	--	--	--			0	--	--	EXISTING SPACE	24
25	EXISTING SPACE	--	--	0	0		--	--	EXISTING SPACE	26
27	EXISTING SPACE	--	--		0	0	--	--	EXISTING SPACE	28
29	EXISTING SPACE	--	--			0	--	--	EXISTING SPACE	30
31	EXISTING LOAD, *E	40 A	3	0	0		3	20 A	EXISTING LOAD, *E	32
33	--	--	--		0	0	--	--	--	34
35	--	--	--			0	--	--	--	36
37	EXISTING SPARE	15 A	3	0	0		3	15 A	EXISTING SPARE	38
39	--	--	--		0	0	--	--	--	40
41	--	--	--			0	--	--	--	42
			Total Load:	2.7 kVA	2.7 kVA	2.7 kVA				
			Total Amps:	9.75	9.75	9.75				

[Key*:] *E = EXISTING LOAD., *N = PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE. MATCH EXISTING TYPE AND RATINGS (EATON).

PANEL NAME: EQR0L1

CONNECTED 23.4 kVA

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR: 10,000
LOCATION: BASEMENT R0xx

SOLID NEUTRAL
GROUND BUS

MAIN: 150 A/MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 23.36 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C. USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A	B	C	POLES	AMP	LOAD DESCRIPTION	CKT NO.
1	Power Space 1125	20 A	1	0.2	0.2		1	20 A	SP-1, ELEV 04	2
3	UPS (3#6 & 1#10 GND)	50 A	2			0	1	20 A	FREEZER COIL, B2	4
5	--	--	--			1.5	--	--	--	6
7	WALK-IN, REFRIG. COIL	20 A	1	1.3	1.4		1	20 A	Power IT 1118	8
9	Power IT 1118	20 A	1			0.2	1	20 A	Power IT 1118	10
11	Power IT 1118	20 A	1				1	20 A	Power	12
13	Power CAMPUS POLICE 1024	20 A	1	0.6	0.4		1	20 A	Power CAMPUS POLICE 1024	14
15	WALK-IN, REFRIG. COIL	20 A	1			1	1	20 A	WALK-IN, REFRIG. COIL	16
17	Power IT 1118	20 A	1				1	20 A	SPARE	18
19	Power	20 A	1	0.01	0.7		3	15 A	CRU-1 (3#12 & 1#12 GND)	20
21	SP-2	20 A	1				--	--	--	22
23	ACCESS CONTROL	20 A	1				--	--	--	24
25	ACCESS CONTROL	20 A	1	1.2			1	20 A	Power CORRIDOR 1123	26
27	ACCESS CONTROL	20 A	1				1	20 A	Power	28
29	FREEZER COIL, A2	20 A	2				1	20 A	Power	30
31	--	--	--	1.5	1.5		2	20 A	FREEZER COIL, B2	32
33	Power IT 1118	20 A	1				--	--	--	34
35	SPARE	20 A	1				1	20 A	SPARE	36
37	SPARE	20 A	1				1	20 A	SPARE	38
39	SPARE	20 A	1				1	20 A	SPARE	40
41	SPARE	20 A	1				1	20 A	SPARE	42
			Total Load:	9.21 kVA	7.9 kVA	6.25 kVA				
			Total Amps:	78.82	67.95	52.08				

[Key*:]

PANEL NAME: LSC1L1

CONNECTED 2.5 kVA

TYPE: BOLT-ON
MOUNTING: SURFACE
FED FROM:
SCCR:
LOCATION:

SOLID NEUTRAL
GROUND BUS

MAIN: 100 A/MLO
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
DEMAND: 2.47 kVA

Panel Notes: UNLESS NOTED OTHERWISE, ALL CIRCUITS SHALL HAVE 2#12 & 1#12 GND IN 3/4" C., USE #10 FOR CIRCUIT HOME RUN LENGTHS OVER 75 FEET. EXISTING PANEL - CONTRACTOR SHALL FIELD VERIFY ALL PANEL CHARACTERISTICS AND EXISTING CIRCUIT BREAKERS AND LOADS.

CKT NO.	LOAD DESCRIPTION	AMP	POLES	A	B	C	POLES	AMP	LOAD DESCRIPTION	CKT NO.
LSC1L1-1	EXISTING LOAD, *E	20 A	1	0.2	0.5		1	20 A	EXISTING LOAD, *E	LSC1L1-2
LSC1L1-3	EXISTING LOAD, *E	20 A	1		0.9	0.4	1	20 A	EXISTING LOAD, *E	LSC1L1-4
LSC1L1-5	EXISTING LOAD, *E	20 A	1			0.3	0.2	1	20 A	EXISTING LOAD, *E	LSC1L1-6
LSC1L1-7	EXISTING LOAD, *E	20 A	1	0.3	0.2		1	20 A	EXISTING LOAD, *E	LSC1L1-8
LSC1L1-9	EXISTING LOAD, *E	20 A	1		0.2	0.6	1	20 A	EXISTING LOAD, *E	LSC1L1-10
LSC1L1-11	BALLROOM CHANDELIERS	20 A	1			0.24	0	1	20 A	EXISTING SPARE	LSC1L1-12
LSC1L1-13	EXISTING LOAD, *E	20 A	1	0.2	0		1	20 A	EXISTING SPARE	LSC1L1-14
LSC1L1-15	EXISTING LOAD, *E	20 A	1		0.5	0.2	1	20 A	EXISTING LOAD, *E	LSC1L1-16
LSC1L1-17	BALLROOM CHANDELIERS	20 A	1			0.24	0.45	1	20 A	Lighting	LSC1L1-18
LSC1L1-19	BALLROOM CHANDELIERS	20 A	1	0.24	0.47		1	20 A	Lighting, *N	LSC1L1-20
LSC1L1-21	EXISTING SPACE	--	--		0	0.1	1	20 A	EXISTING LOAD, *E	LSC1L1-22
LSC1L1-23	Lighting, *N	20 A	1			0.33	0.2	1	20 A	EXISTING LOAD, *E	LSC1L1-24
LSC1L1-25	Power	20 A	1	0.5	0					EXISTING SPACE	LSC1L1-26
LSC1L1-27	EXISTING SPACE	--	--		0	0	--	--	EXISTING SPACE	LSC1L1-28
LSC1L1-29	EXISTING SPACE	--	--			0	0	--	EXISTING SPACE	LSC1L1-30
			Total Load:	2.61 kVA	2.9 kVA	1.96 kVA				
			Total Amps:	22.6	25.01	16.29				

[Key*:] *E = EXISTING LOAD., *N = PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE. MATCH EXISTING TYPE AND RATINGS (EATON).

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ELECTRICAL SCHEDULES - NEW WORK

SHEET NUMBER:
E6.11

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1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
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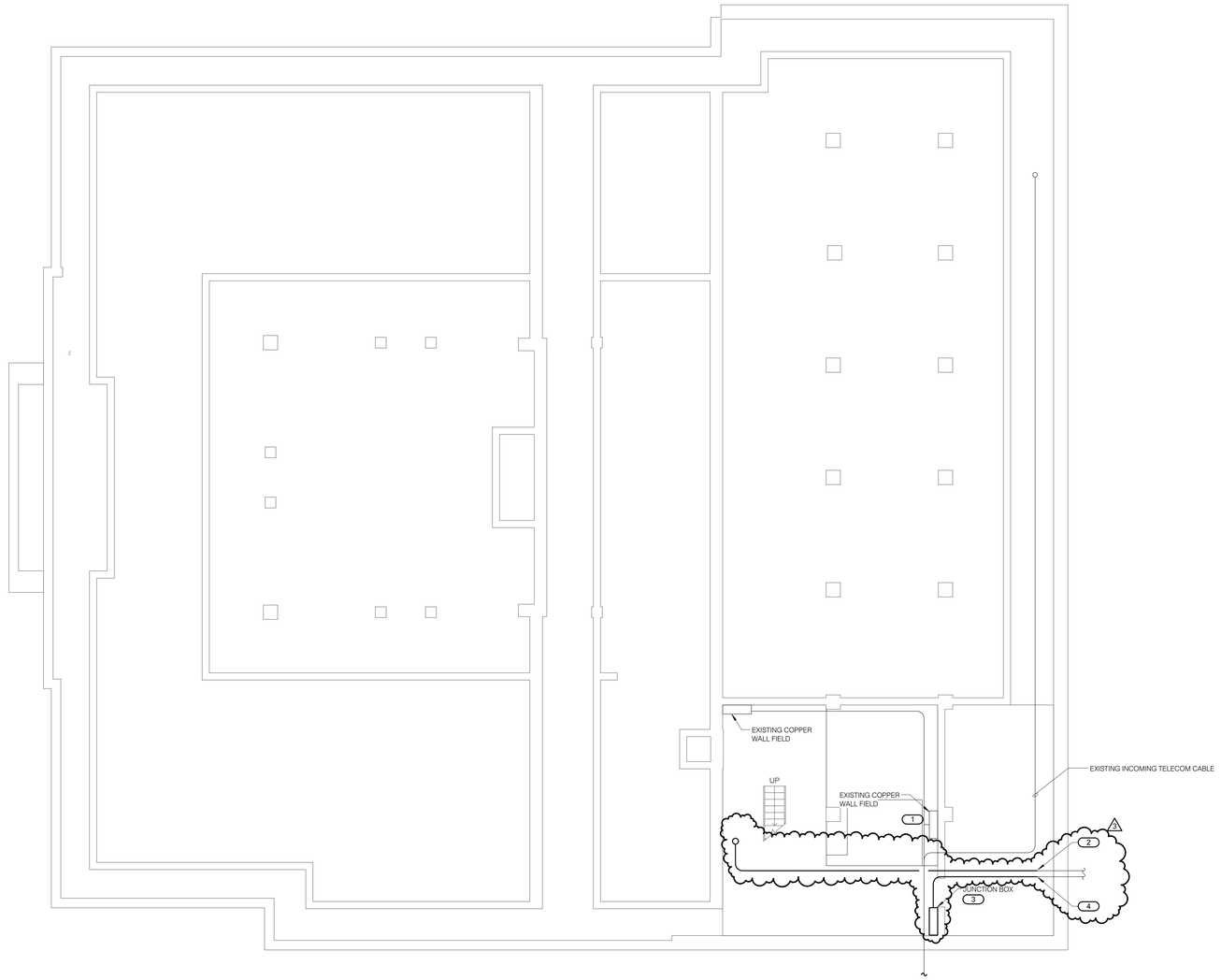
Illinois Design Firm Registration #184-005973

REFERENCE SCALE IN INCHES
0 1 2 3

GENERAL TECHNOLOGY NOTES
1. REFER TO T5.00 FOR GENERAL TECHNOLOGY EQUIPMENT SCHEDULE.

KEYNOTES (#)
1. EXISTING AT&T NODE EQUIPMENT. PROTECT AT ALL TIMES.
2. EXTEND (2) EXISTING 4" CONDUITS TO HC-1. REFER TO T1.10 FOR LOCATION.
3. COORDINATE WITH SERVICE PROVIDE FOR NEW JUNCTION BOX WHERE INCOMING TELECOM CABLE ENTERS BASEMENT. PROVIDE NO LESS THAN A 6X6' BOX.
4. EXTEND (1) EXISTING 4" CONDUIT TO NEW JUNCTION BOX FOR INCOMING TELECOM CABLES ROUTED TO CITY CENTER BY OTHERS.



1 BASEMENT FLOOR PLAN - TECHNOLOGY

1/8" = 1'-0"

NORTH

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

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DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
BASEMENT FLOOR PLAN - TECHNOLOGY

SHEET NUMBER:
T1.00

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Illinois Design Firm Registration #184-000973

REFERENCE SCALE IN INCHES
0 1 2 3

1 FIRST FLOOR PLAN - TECHNOLOGY

1/8" = 1'-0"

NORTH

GENERAL TECHNOLOGY NOTES

1. ALL INFORMATION OUTLETS ON THIS SHEET SHALL BE SERVED FROM HC-1 UNLESS NOTED OTHERWISE.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT AND COORDINATE ALL OUTLET LOCATIONS PRIOR TO ROUGH-IN.
3. REFER TO T5.00 FOR GENERAL TECHNOLOGY EQUIPMENT SCHEDULE.

KEYNOTES (#)

1. COORDINATE WITH ELEVATOR CONTRACTOR FOR CONNECTION OF ELEVATOR TELEPHONE.
2. ROUGH-IN ONLY FOR FUTURE MONITOR AND EMERGENCY CALL STATION.
3. PROVIDE IN-SERVICE COVERS ON INFORMATION OUTLETS IN THIS ROOM TO MATCH ELECTRICAL. REFER TO DIVISION 27 SPECIFICATIONS FOR ADDITIONAL INFO.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
FIRST FLOOR PLAN - TECHNOLOGY

SHEET NUMBER:
T1.10

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The FUTURE. Built SMARTER.™
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NAPERVILLE, ILLINOIS 60563
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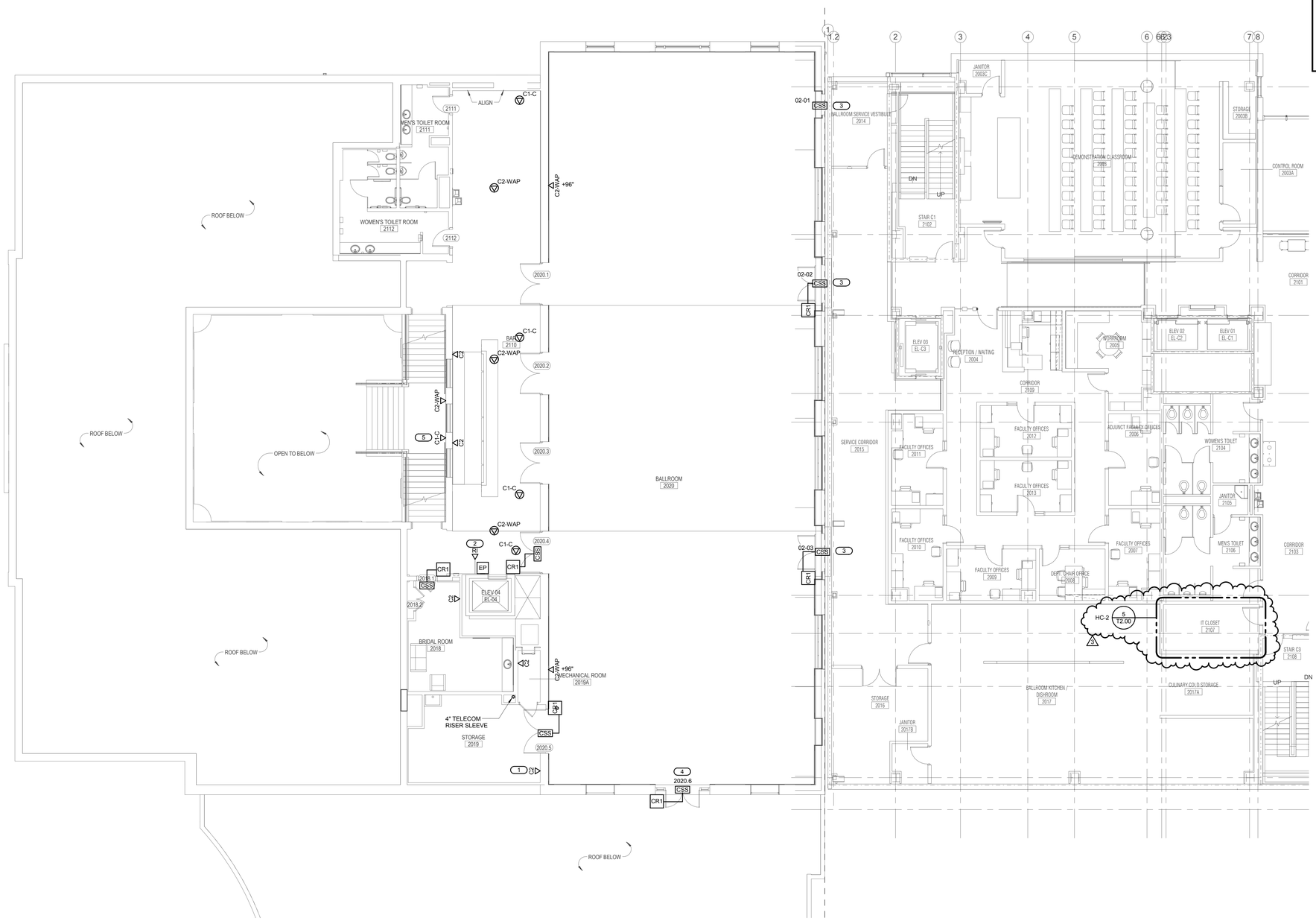

GENERAL TECHNOLOGY NOTES

1. ALL INFORMATION OUTLETS ON THIS SHEET SHALL BE SERVED FROM HC-1 UNLESS NOTED OTHERWISE. REFER TO T1.10 FOR ROOM LOCATION.
2. REFER TO T5.00 FOR GENERAL TECHNOLOGY EQUIPMENT SCHEDULE.

KEYNOTES (#)

1. COORDINATE LOCATION OF OUTLET WITH AUDIO VIDEO RACK.
2. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT.
3. CONTRACTOR SHALL ROUTE SECURITY CABLE TO CLOSEST EXISTING CONTROL PANEL IN CITY CENTER BUILDING. COORDINATE ROUTE WITH JJC PRIOR TO INSTALLATION.
4. ROUTE CONDUIT AND CABLE FOR OWNER FURNISHED ACCESS CONTROL SYSTEM DOWN TO CEILING OF FLOOR BELOW. COORDINATE WITH ARCHITECT PRIOR TO INSTALLATION.
5. RE-USE EXISTING CAMERA ROUGH-IN LOCATION.

1 SECOND FLOOR PLAN - TECHNOLOGY

1/8" = 1'-0"

NORTH

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
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KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
SECOND FLOOR PLAN - TECHNOLOGY

SHEET NUMBER:
T1.20

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The FUTURE. Built SMARTER.
1100 WARRENVILLE ROAD, SUITE 400W
NAPERVILLE, ILLINOIS 60563
630.527.3320 FAX: 630.527.2321
www.kjww.com
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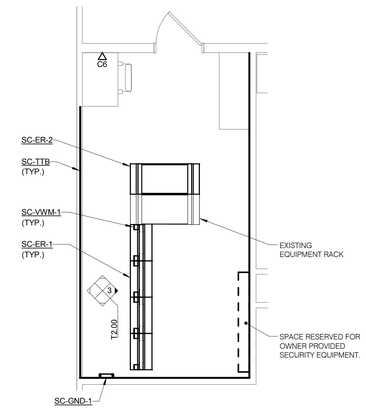


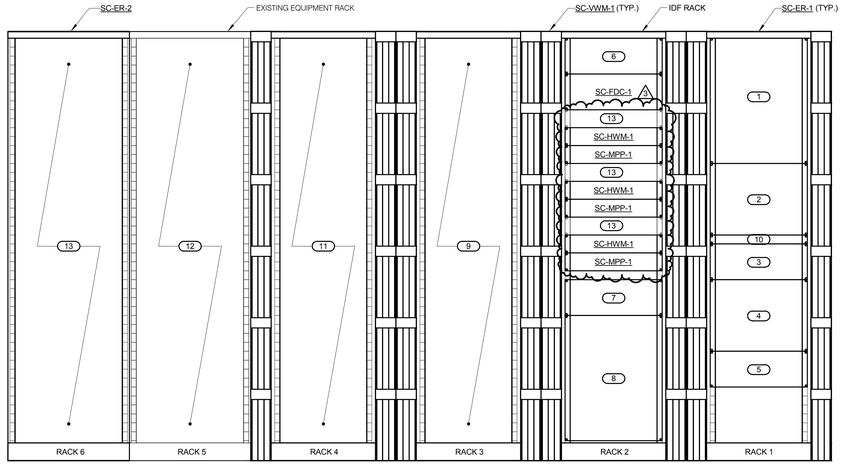
NORTH 1

EQUIPMENT ROOM LAYOUT - HC-1

1/4" = 1'-0"

NOTES:

1. REFER TO 2/T2.00 FOR EQUIPMENT ROOM PATHWAY - HC-1.
2. REFER TO 4/T2.00 FOR CONNECTIVITY RISER DIAGRAM - HC-1.
3. REFER TO T5.00 FOR TECHNOLOGY EQUIPMENT SCHEDULE.
4. REFER TO T3.00 FOR GROUNDING DETAIL AND DIAGRAMS.



EQUIPMENT RACK ELEVATION - HC-1

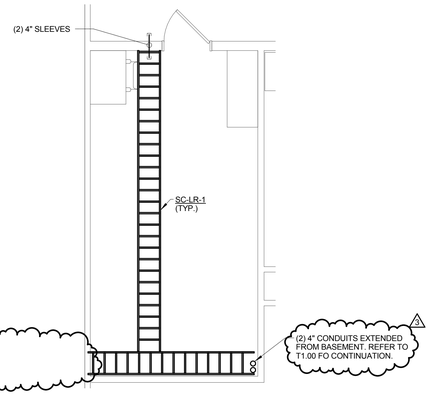
1" = 1'-0"

NOTES:

1. REFER TO 1/T2.00 FOR EQUIPMENT ROOM LAYOUT - HC-1.
2. REFER TO 4/T2.00 FOR CONNECTIVITY RISER DIAGRAM - HC-1.
3. REFER TO T5.00 FOR TECHNOLOGY EQUIPMENT SCHEDULE.
4. COORDINATE WITH JJC IS DEPARTMENT FOR LAYOUT OF ALL RACKS IN HC-1 PRIOR TO INSTALLATION.

KEYNOTES:

1. SPACE PROVIDED FOR CCTV SERVER.
2. SPACE PROVIDED FOR POS SERVER.
3. SPACE PROVIDED FOR IMAGING SERVER.
4. SPACE PROVIDED FOR AVAYA GATEWAY.
5. SPACE PROVIDED FOR PHONE FAIL OVER SERVER.
6. SPACE PROVIDED FOR COMCAST DEMARC.
7. SPACE PROVIDED FOR IDF ROUTER.
8. SPACE PROVIDED FOR IDF SERVER.
9. SPACE PROVIDED FOR AT&T PRI'S.
10. SPACE PROVIDED FOR SLIDE OUT KEYBOARD AND MONITOR.
11. SPACE PROVIDED FOR LECTURE CAPTURE SERVER AND OTHER NEW OWNER PROVIDED EQUIPMENT.
12. SPACE PROVIDED FOR EXISTING UPS. COORDINATE WITH JJC IS DEPARTMENT FOR RELOCATION OF UPS FROM HOTEL TOWER SERVER ROOM.
13. SPACE PROVIDED FOR OWNER EQUIPMENT.



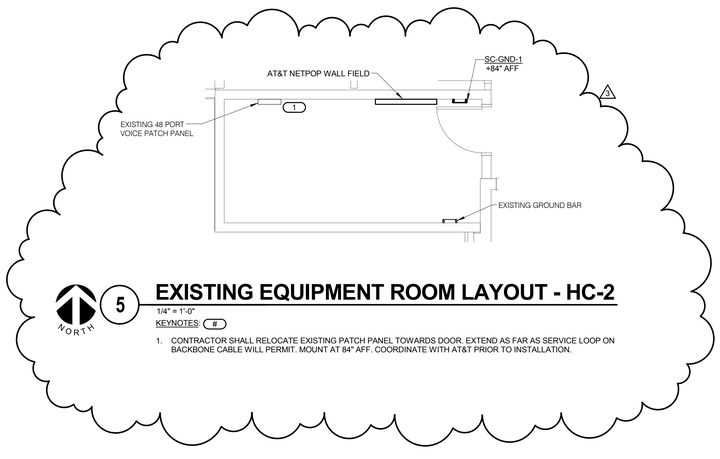
NORTH 2

EQUIPMENT ROOM PATHWAY - HC-1

1/4" = 1'-0"

NOTES:

1. REFER TO 1/T2.00 FOR EQUIPMENT ROOM LAYOUT - HC-1.
2. REFER TO T5.00 FOR TECHNOLOGY EQUIPMENT SCHEDULE.
3. INSTALL LADDER RACK AT 7'-6" AFF.



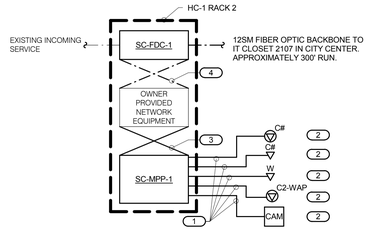
NORTH 5

EXISTING EQUIPMENT ROOM LAYOUT - HC-2

1/4" = 1'-0"

KEYNOTES: (#)

1. CONTRACTOR SHALL RELOCATE EXISTING PATCH PANEL TOWARDS DOOR. EXTEND AS FAR AS SERVICE LOOP ON BACKBONE CABLE WILL PERMIT. MOUNT AT 84" AFF. COORDINATE WITH AT&T PRIOR TO INSTALLATION.



CONNECTIVITY RISER DIAGRAM HC-1

NO SCALE

NOTES:

1. THIS RISER IS DIAGRAMMATIC AND MAY NOT SHOW ACTUAL ROUTING OR QUANTITIES OF MATERIALS SHOWN. THIS RISER IS SHOWN FOR CLARIFICATION OF CONNECTION LOCATIONS AND CABLE TYPE. ALL INFORMATION OUTLETS ARE TYPICAL OF THE OUTLETS IN THE AREA SHOWN. REFER TO FLOOR PLANS FOR MORE SPECIFIC ROUTING AND QUANTITY INFORMATION. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. REFER TO T5.00 FOR TECHNOLOGY EQUIPMENT SCHEDULE.

KEYNOTES: (#)

1. 23 GAUGE, 4-PAIR, CATEGORY 6, UNSHIELDED TWISTED PAIR CABLE. SEE SPECIFICATIONS.
2. REFER TO INFORMATION OUTLET SCHEDULE ON T5.00 AND THE FLOOR PLANS FOR QUANTITY OF CABLES AND JACKS TO BE INSTALLED AT EACH INFORMATION OUTLET.
3. RJ-45 TO RJ-45 CATEGORY CAT 6 UTP PATCH CORD. SEE SPECIFICATIONS.
4. FIBER PATCH CORD. SEE SPECIFICATIONS.

ARCHITECT OF RECORD
DEMONICA KEMPER ARCHITECTS
125 N. HALSTED STREET, SUITE 301
CHICAGO, IL 60661
P: 312.496.0000

STRUCTURAL & MEP/FP ENGINEERS
KJWW ENGINEERING
1100 WARRENVILLE ROAD, #400W
NAPERVILLE, IL 60563
T: 630.753.8553

FOOD SERVICE DESIGN CONSULTANTS
EF WHITNEY
568 ANN ST.
BIRMINGHAM, MI 48009
T: 248.644.0990

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RENAISSANCE CENTER RENOVATION

214 NORTH OTTAWA STREET
JOLIET, IL 60432
DKA PROJECT NO: 14-025

KEY PLAN:

SHEET STATUS: 02/18/2016
ISSUED FOR BID

NO:	DESCRIPTION:	DATE:
1	ADDENDUM 3	03/07/2016

SHEET TITLE:
ENLARGED PLANS - TECHNOLOGY

SHEET NUMBER:
T2.00

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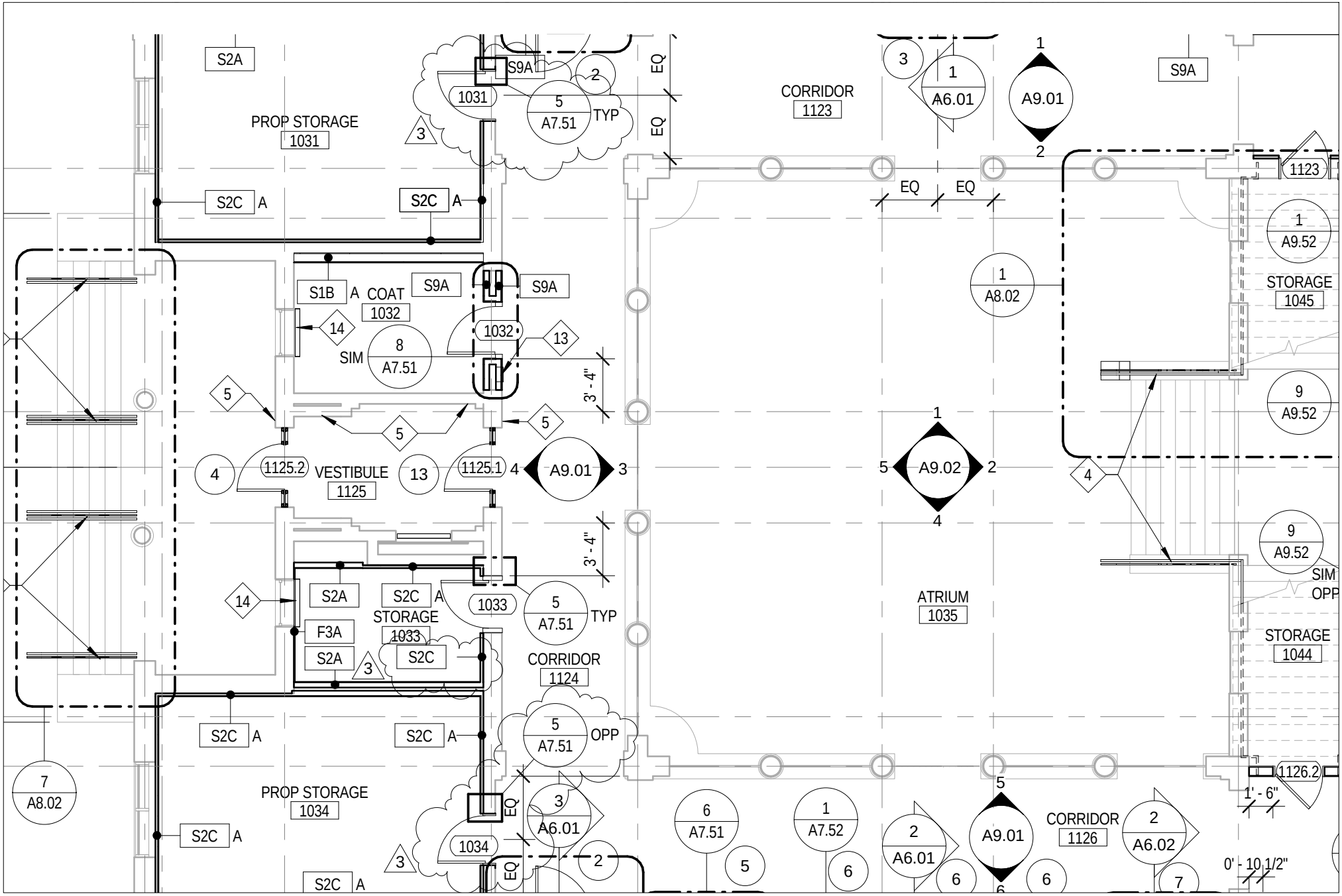
PROJECT # 15.0765.00
Illinois Design Firm Registration #184-005973

REFERENCE SCALE IN INCHES
0 1 2 3



JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER
RENOVATION

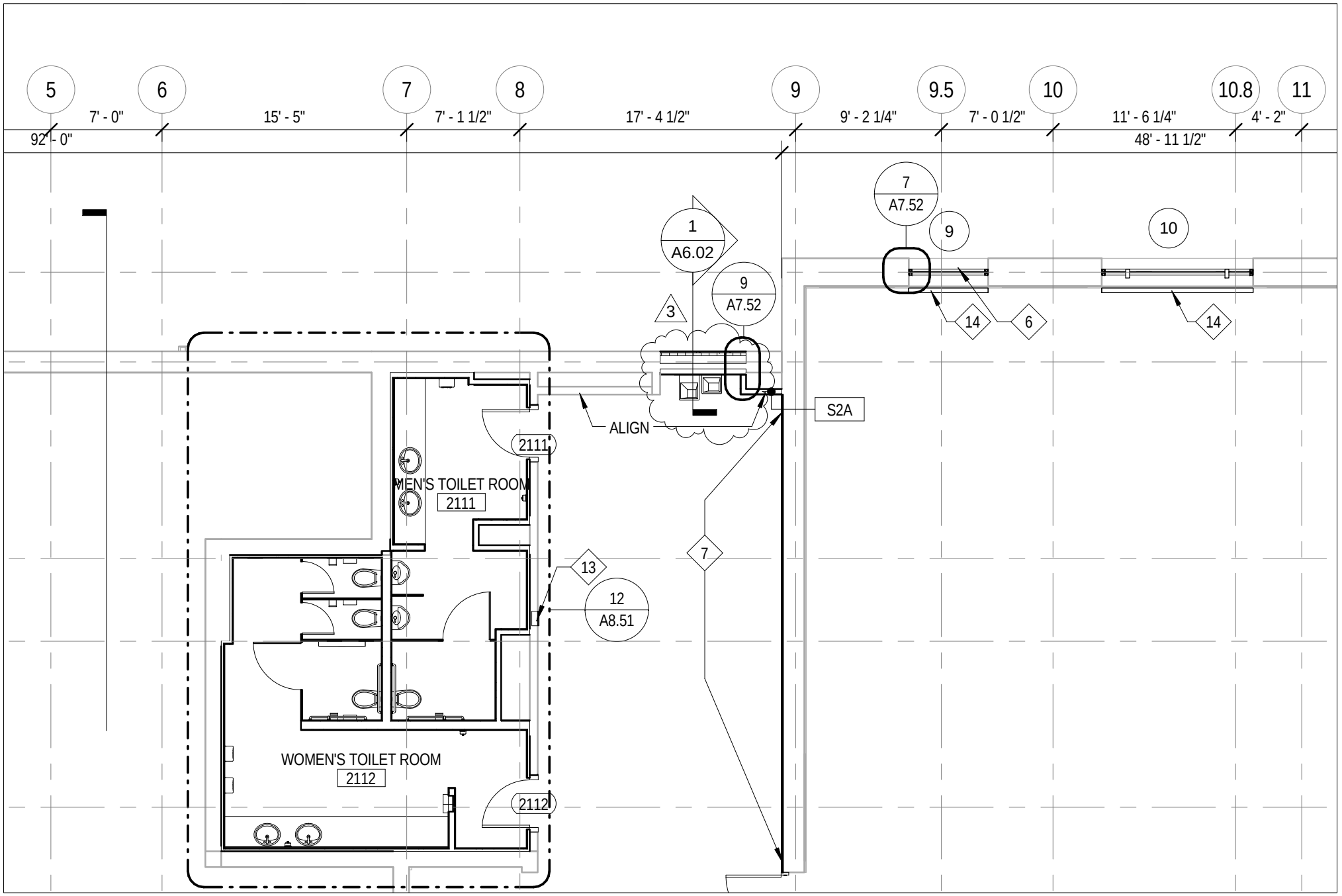
PROJECT: 14-025

DATE: 03.07.16

REF SHEET: A1.11

Addendum 3

A111-01

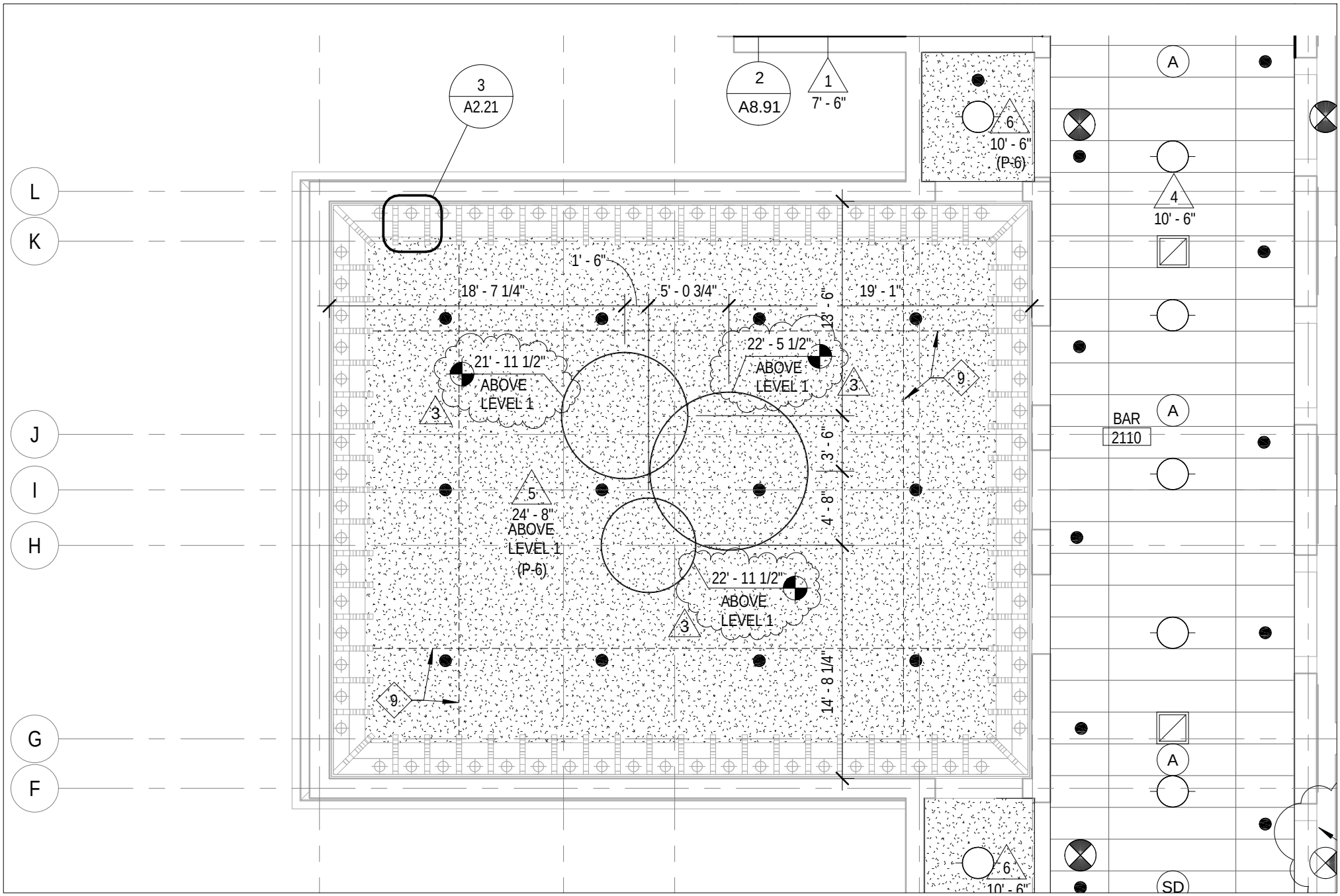


JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER
RENOVATION

PROJECT: 14-025
DATE: 03.07.16
REF SHEET: A1.21

Addendum 3

A121-02



JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER
RENOVATION

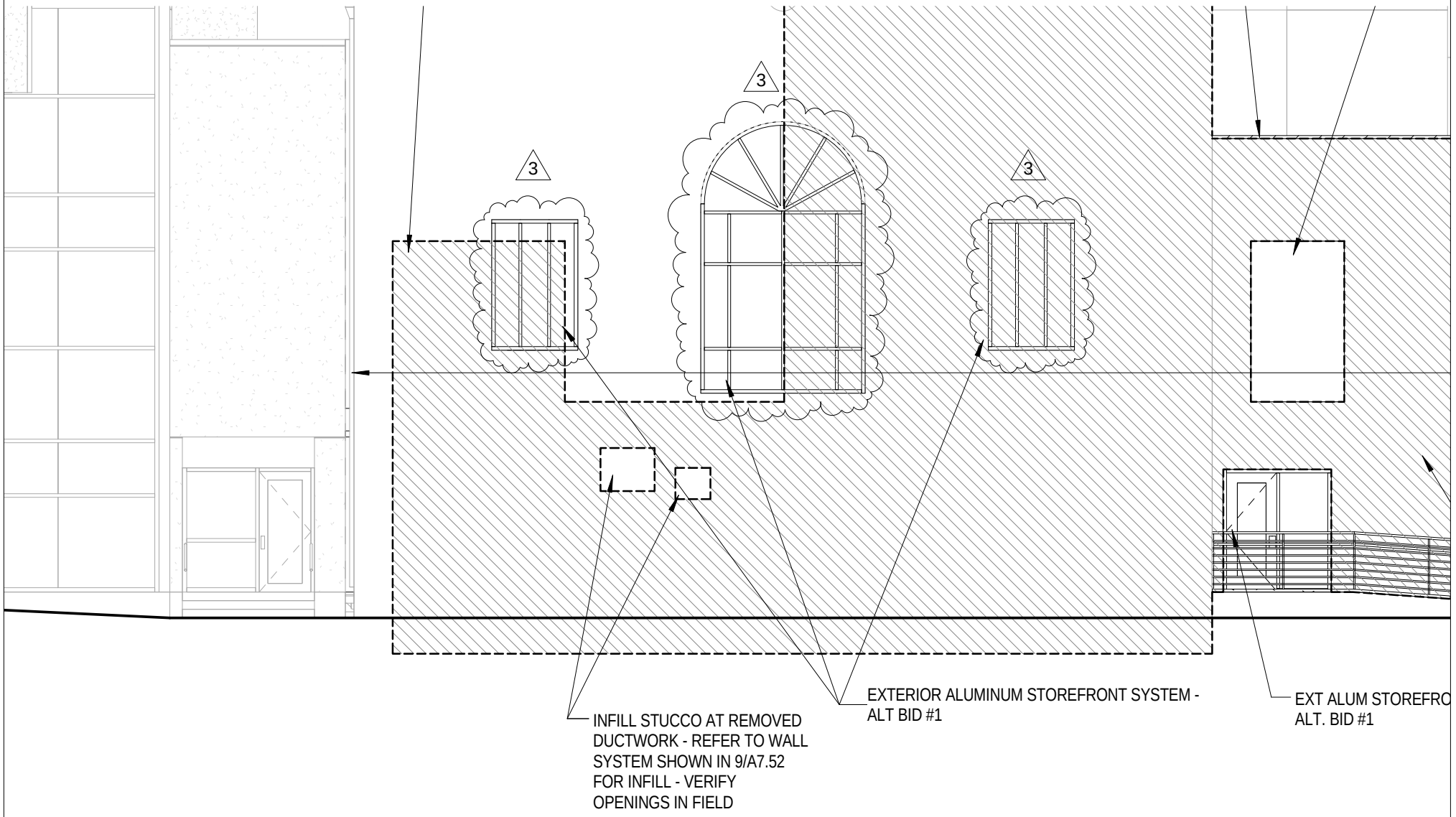
PROJECT: 14-025

DATE: 03.07.16

REF SHEET: A2.21

Addendum 3

A221-01



1 NORTH ELEVATION - ALT. BID #1

1/8" = 1'-0"

JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER RENOVATION

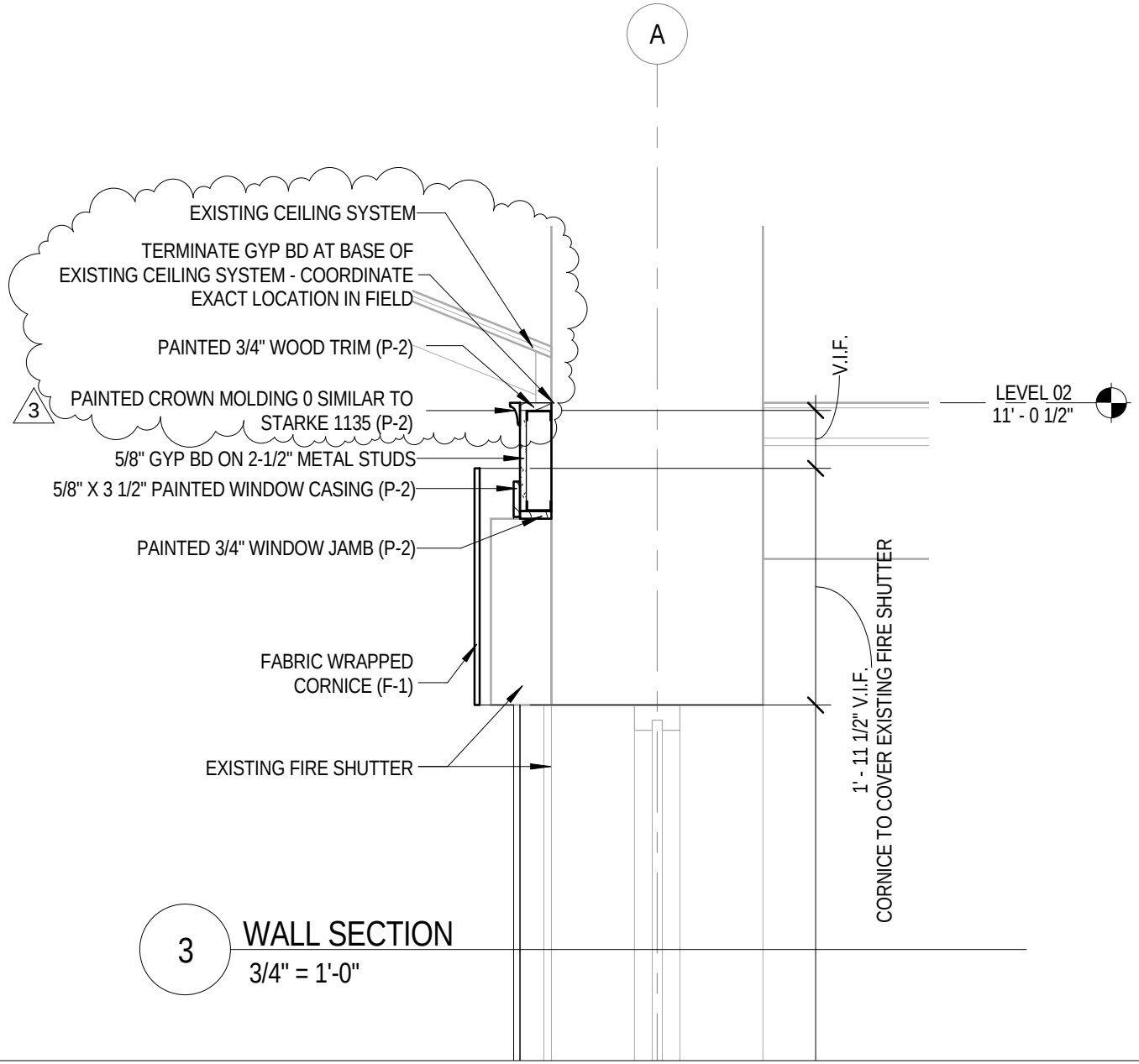
PROJECT: 14-025

DATE: 03.07.16

REF SHEET: A4.01

Addendum 3

A401-01

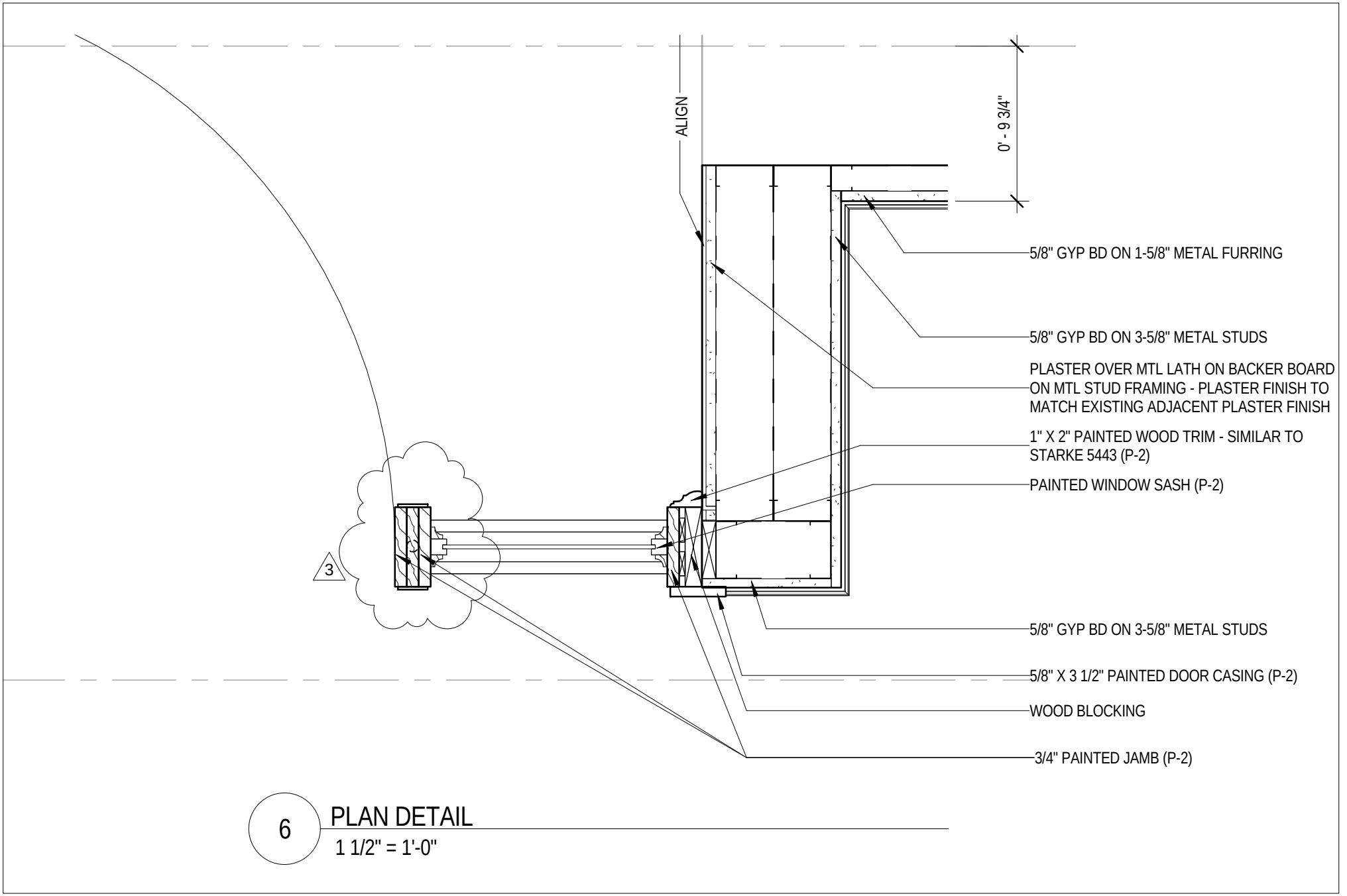


JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER
RENOVATION

PROJECT: 14-025
DATE: 03.07.16
REF SHEET: A6.02

Addendum 3

A602-01



6 PLAN DETAIL

1 1/2" = 1'-0"

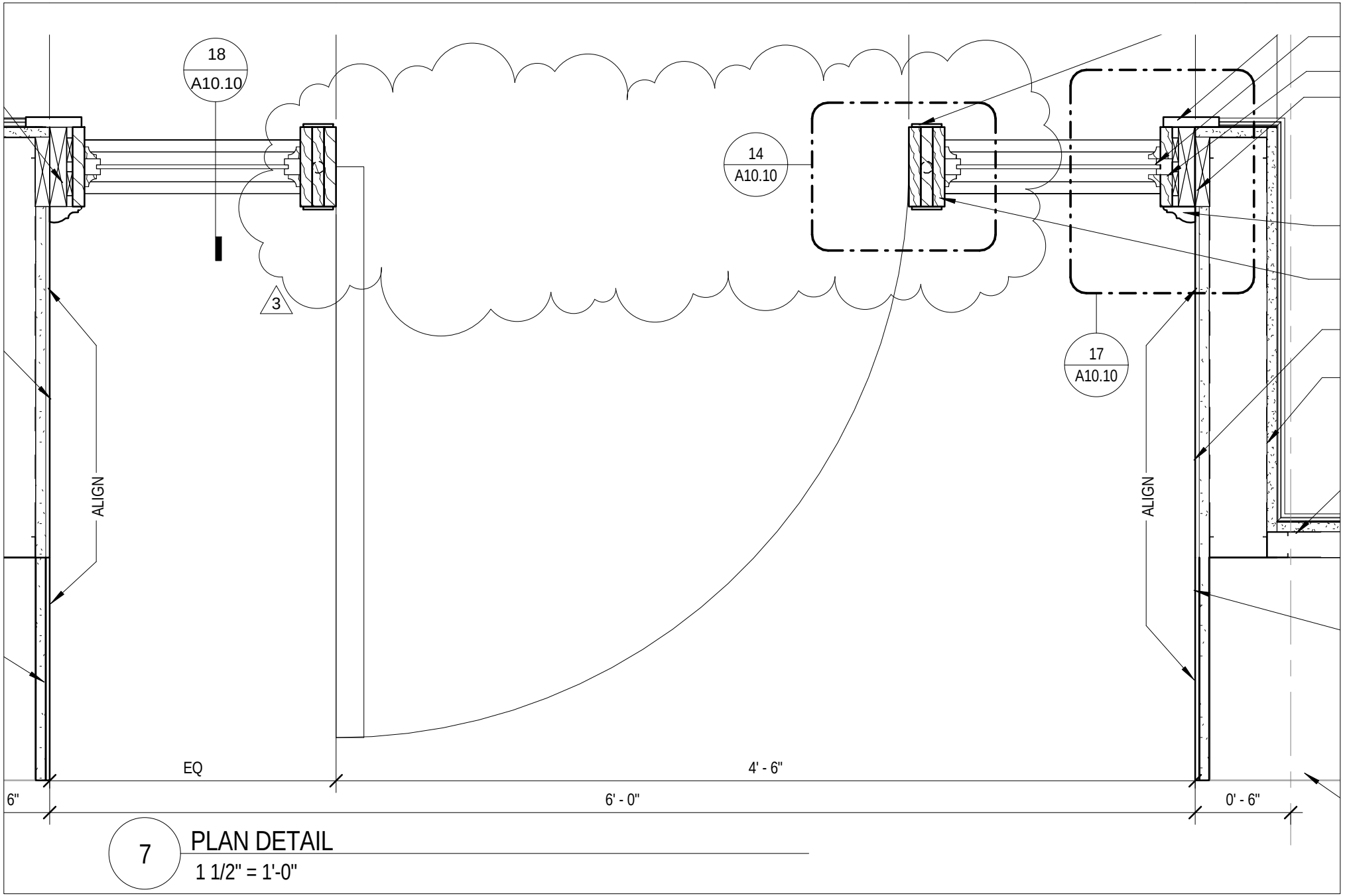
JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER RENOVATION

PROJECT:	14-025
DATE:	03.07.16
REF SHEET:	A7.51

Addendum 3

A751-01



7 PLAN DETAIL

1 1/2" = 1'-0"

JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER RENOVATION

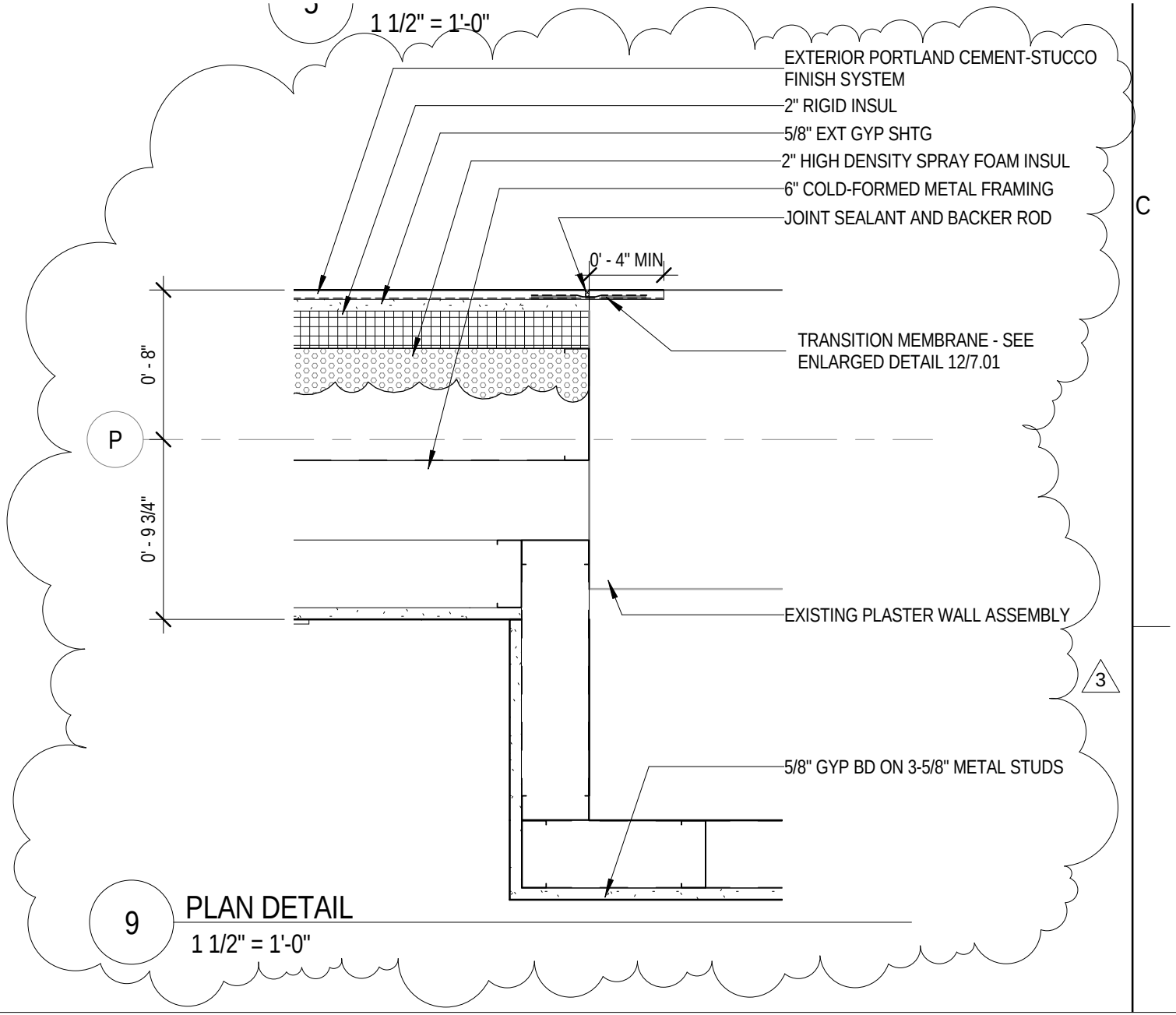
PROJECT: 14-025

DATE: 03.07.16

REF SHEET: A7.51

Addendum 3

A751-02



YP BD ON 1-5/8" METAL FURRING

PAINTED WOOD CASING (P-2)

OF EXISTING WALL

KING ANCHORED TO EXISTING STRUCTURE

AINTED JAMB (P-2)

USTIC FABRIC WRAPPED OPERABLE TITION

9 PLAN DETAIL

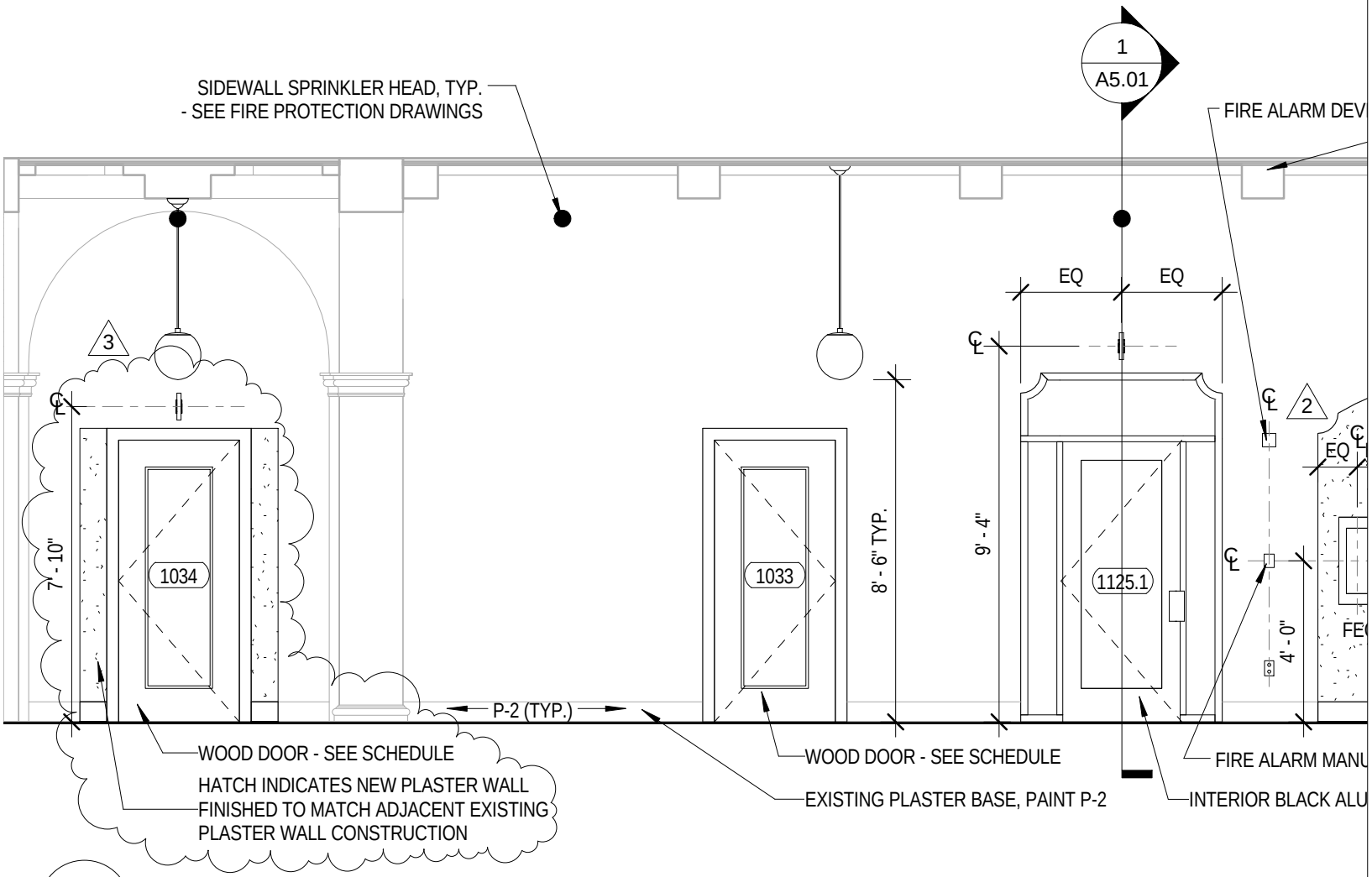
1 1/2" = 1'-0"

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER
RENOVATION

PROJECT: 14-025
DATE: 03.07.16
REF SHEET: A7.52

Addendum 3

A752-01



4 WEST CORRIDOR LEVEL 01 - WEST ELEVATION

1/4" = 1'-0"

JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER
RENOVATION

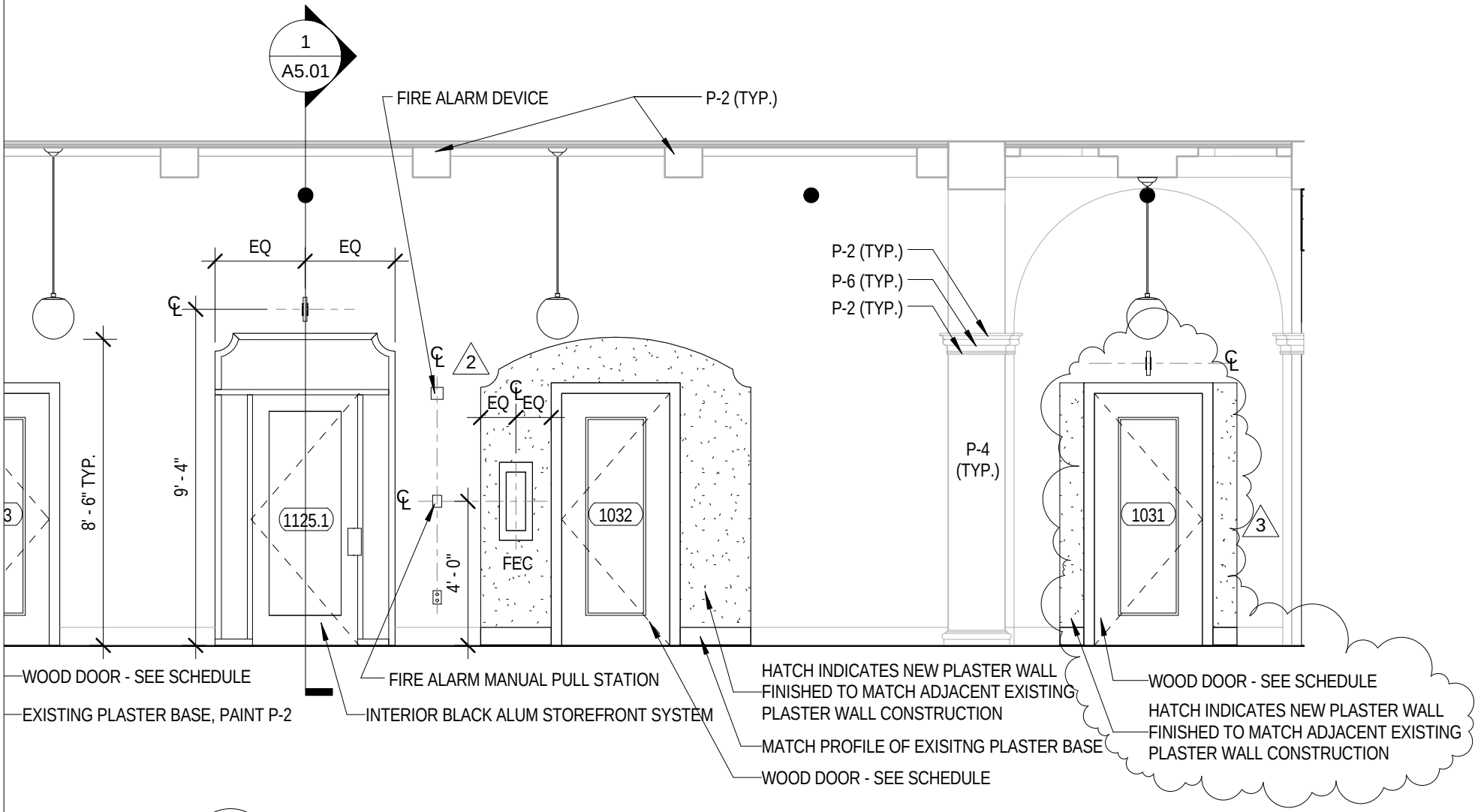
PROJECT: 14-025

DATE: 03.07.16

REF SHEET: A9.01

Addendum 3

A901-01



4 WEST CORRIDOR LEVEL 01 - WEST ELEVATION

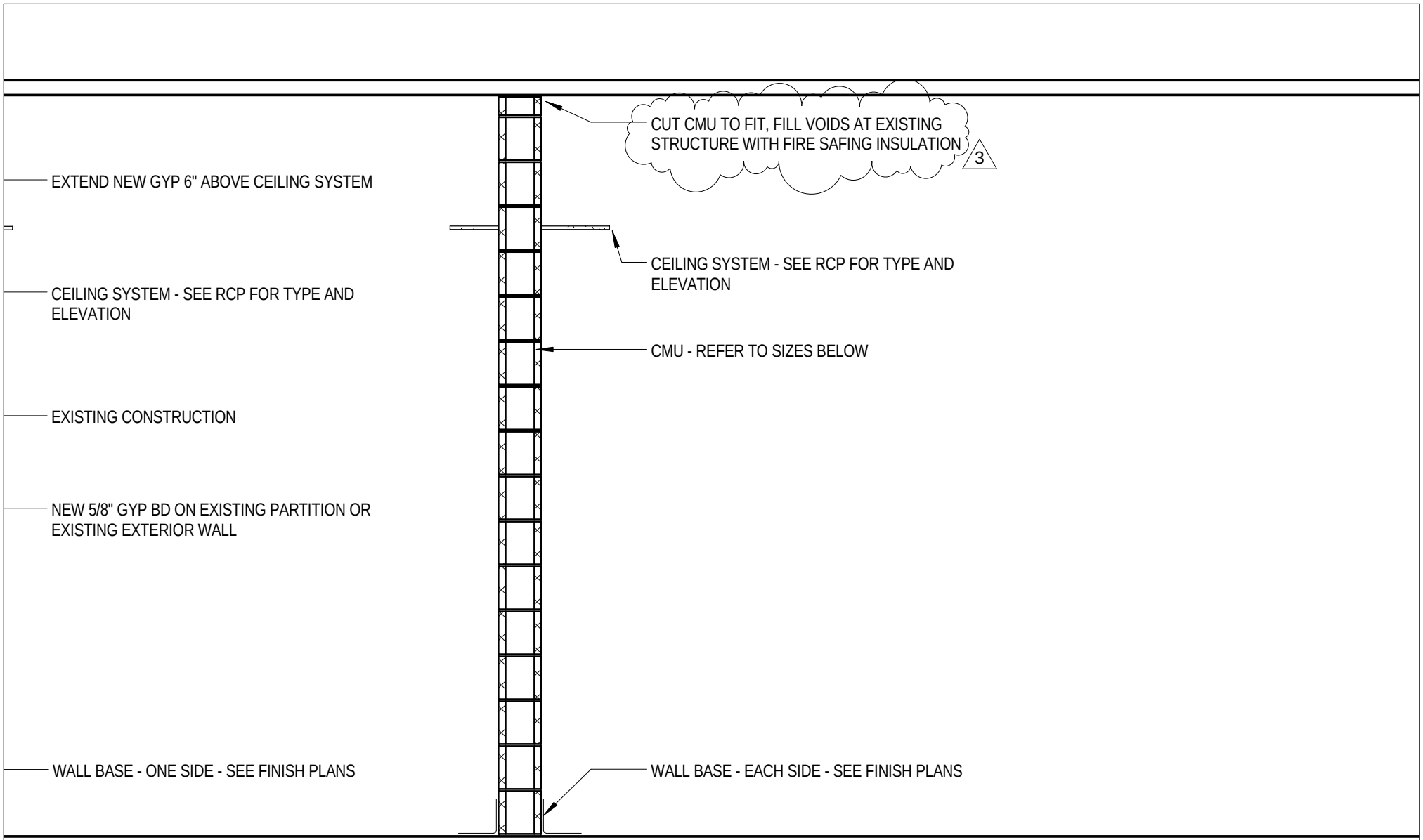
1/4" = 1'-0"

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER
RENOVATION

PROJECT: 14-025
DATE: 03.07.16
REF SHEET: A9.01

Addendum 3

A901-02



P BD @ EXISTING GYP BD PARTITION

M1 - MASONRY WALL - CMU

JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER
RENOVATION

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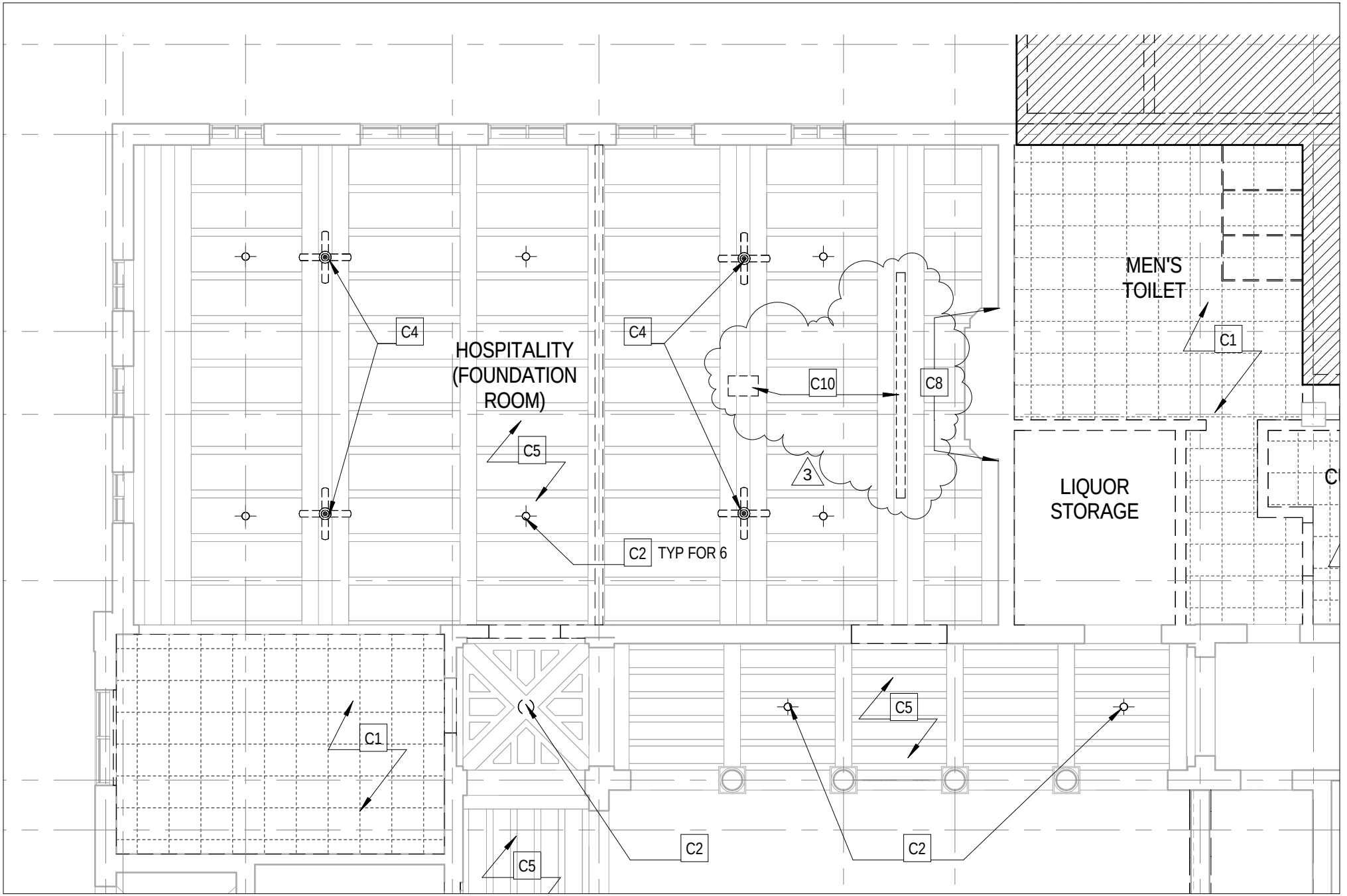
REF SHEET:	A10.01

Addendum 3

A1001-01

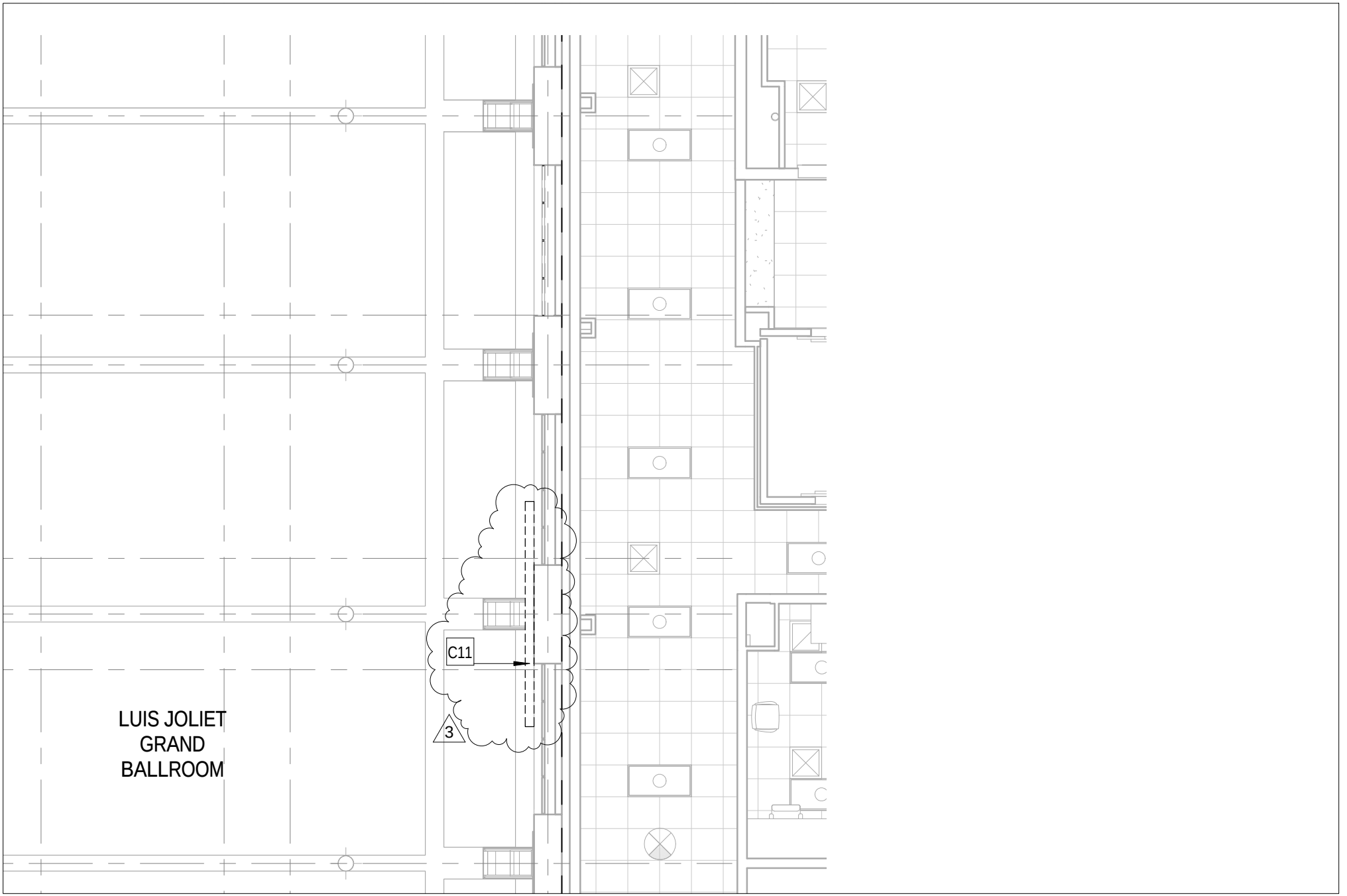


JOLIET JUNIOR COLLEGE
RENAISSANCE CENTER
RENOVATION

PROJECT: 14-025
DATE: 03.07.16
REF SHEET: AD2.11

Addendum 3

AD211-01



JOLIET JUNIOR COLLEGE

RENAISSANCE CENTER
RENOVATION

PROJECT:	14-025
DATE:	03.07.16
REF SHEET:	AD2.21

Addendum 3

AD221-02