ADDENDUM 3

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NOTICE TO BIDDERS: Amend the Project Manuals and Drawings to the above referenced project as follows:

PROJECT MANUAL

SEE APPENDIX 1 FOR ADDED OR REPLACED SPEC SECTIONS AS REFERENCED BELOW.

ITEM NO. 1 SECTION 086200 SKYLIGHTS

A. ADD this specification section in its entirety. See attached.

ITEM NO. 2 SECTION 101100 VISUAL DISPLAY UNITS

A. ADD this specification section in its entirety. See attached.

ITEM NO. 3 SECTION 102800 TOILET, BATH, AND LAUNDRY ACCESSORIES

A. 2.4, A & B: Remove this portion in relation to Custodial Accessories. There are no Mop & Broom Holders within this project.

B. 2.3, E: ADD Diaper Changing Station (BCS) as Contractor Furnished, Contractor Installed per specifications below:

1. Basis-of-Design Product: Model KB200-01, grey color, as manufactured by Koala Kare Products, a Division of Bobrick.
2. Materials. FDA approved injection-molded polypropylene.
3. Operation: Concealed pneumatic cylinder providing controlled, slow opening and closing of the changing station bed.
4. Hinge Mechanism: Reinforced full length steel-on-steel hinge.
5. Changing Surface: Contoured, concave and smooth, 450 sq. in.
6. Safety Straps: Replaceable, snap-lock, nylon protective holding straps.
7. Performance: When mounted to specification, unit has been tested to 300 lbs and will deflect less than 1 degree from 90 degrees with a 200 lb static load placed in the center of the changing surface.
8. Mounting: Concealed 11 gauge plated steel mounting chassis with 16 inch centers and 6 mounting points the top 2 mounting points feature keyholes for ease of installation units include mounting hardware.
9. Features: No hinge structure exposed on interior or exterior surfaces
10. Instruction Graphics: Universal instruction graphics and safety messages in multiple languages.

ITEM NO. 4 SECTION 283111 DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM

A. REPLACE this specification section in its entirety. See attached.

DRAWINGS

SEE APPENDIX 2 FOR DRAWING SKETCHES AS REFERENCED BELOW.

CODE

ITEM NO. CP1 SHEET CP1.1 – CODE PLAN – FIRE SEPARATION

A. Drawing 12: West Courtyard Existing Elevation Code Diagram – Remove reference to replacing existing windows with Fire Rated Glazing System. Fire Rated Glazing is not required in this project.

ARCHITECTURAL

ITEM NO. A1 SHEET A1.2 – FLOOR PLAN – AREA B

A. Add end wall at trophy cases for recessed installation as shown on attached SK-A3.

ITEM NO. A1 SHEET A2.1 – ENLARGED TOILET PLANS

A. KEYNOTES: Revise to include OFCI (Owner Furnished, Contractor Installed) items and add sanitary napkin dispenser and toilet seat cover dispensers per attached SK-A1.

ITEM NO. A2 SHEET A4.2 – ROOF DETAILS

A. Remove and replace detail 12 Skylight Detail per attached SK-A2. (Also see corresponding added specification section from this addendum.)

ITEM NO. A3 SHEET A5.1 – EXTERIOR ELEVATIONS

A. Remove Keynote 4 regarding super graphic allowance and replace keynote text with “NOT USED”.

ITEM NO. A4 SHEET A9.1 – DOOR & FRAME SCHEDULE

A. Skylight Type S01: Revise dimensions to read 4’-0” x 4’-0”. (Also see new spec section included in this addendum.)

B. Door & Frame Schedule: Door 105G: Revise dimensions to read 2’-6” wide x 5’-0” height and insert Type F.

ITEM NO. A5 SHEET A12.2 – INTERIOR ELEVATIONS

A. Remove Keynote and dashed circle on drawing 3 in regards to super graphic allowance.

STRUCTURAL

ITEM NO. S1 SHEET S0.2 – GENERAL STRUCTURAL NOTES

A. Remove and REPLACE with attached full sheet, including added Concrete Notes.

ITEM NO. S2 SHEET S0.3 – GENERAL STRUCTURAL NOTES

A. Remove and with attached full sheet.

RESPONSE TO BIDDER’S QUESTIONS

SEE APPENDIX 3 FOR RESPONSES TO BIDDER’S QUESTIONS.

APPROVED SUBSTITUTIONS

SEE APPENDIX 4 FOR APPROVED SUBSTITUTIONS LIST.

END OF ADDENDUM 3

ADDENDUM 3 APPENDIX 1

PROJECT MANUAL SECTIONS

SECTION 086200 - UNIT SKYLIGHTS

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. Self-flashing unit skylights with integral curbs.

B. Related Requirements:

1. Division 7 Section “Polyvinyl-chloride (pvc) Roofing”
2. Division 7 Section “Sheet Metal and Flashing”
3. Division 7 Section “Roof Accessories”
4. Division 7 Section “Joint Sealants”

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of unit skylight.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for unit skylights.
2. Motors: Show nameplate data, power requirements, ratings, characteristics, and mounting arrangements.

B. Shop Drawings: For unit skylight work.

1. Include plans, elevations, sections, details, and connections to supporting structure and other adjoining work.

2. Multiple Units: Methods of connection and structural support for multiple units clustered together.

C. Aluminum Finish Samples: For each type of exposed finish required, in a representative section of each unit skylight in manufacturer's standard size.

D. Glazing Samples: For each color and finish of glazing indicated, 12 inches (300 mm) square and of same thickness indicated for the final Work.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified manufacturer.

B. Product Test Reports: For each type and size of unit skylight, for tests performed within the last four years by a qualified testing agency. Test results based on testing of smaller unit skylights than specified will not be accepted.

C. Field quality-control reports.

D. Sample Warranty: For special warranty.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For unit skylights to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: A manufacturer capable of fabricating unit skylights that meet or exceed performance requirements indicated and of documenting this performance by inclusion in lists and by labels, test reports, and calculations.

B. Installer Qualifications: An installer acceptable to unit skylight manufacturer for installation of units required for this Project.

1.8 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace components of unit skylights that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Uncontrolled water leakage.
b. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
c. Yellowing of acrylic glazing.
d. Breakage of polycarbonate glazing.

e. Deterioration of insulating-glass hermetic seal.

2. Warranty Period: Five years from date of Substantial Completion.

3. Special Warranty: 10 years against leaking from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Basis of Design:
1. Bristolite Daylighting Systems, 401 E Goetz, Ave, Santa Ana, CA 92707, phone Architectural Solutions, Inc., Gary Stella 503.341.4404, fax 503.977.2373, 1asi2996@gmail.com.
2. Applicable model: Energy Star ES-ALIT-SF-3-ESA-CPM-CPM-HW-IR-MF-12"-WIB-INS-WN
3. Or equal, as prior approved by Architect.

2.2 PERFORMANCE REQUIREMENTS

A. Unit Skylight Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
1. Performance Class and Grade: Class CW-PG 30.
2. Certification: AAMA-, WDMA-, or CSA-certified unit skylights with label attached to each.

B. Thermal Performance:
1. Maximum U-factor of 0.45.
2. Solar Heat-Gain Coefficient (SHGC): NFRC 200 maximum SHGC of 0.40.

C. Visible Light Transmittance: 0.60.

2.3 UNIT SKYLIGHTS

A. General: Provide factory-assembled unit skylights that include glazing, extruded-aluminum glazing retainers, gaskets, and inner frames and that are capable of withstanding performance requirements indicated.

B. Unit Shape and Size: Rectangular, 48 inches by 48 inches.

C. Quantity: As indicated on the Drawings.

D. Glazing Gaskets: Manufacturer's standard. Gasketing is important for a long lasting seal. Some manufactures gaskets don't hold up. Recommend: Monsanto 25 year, UL listed, Exxon Monsanto Santoprene thermoplastic gasket. Silicone not acceptable.

E. Integral Curb: Extruded-aluminum, self-flashing type.

1. Extruded-Aluminum Shapes: ASTM B 221 (ASTM B 221M), alloy and temper to suit structural and finish requirements but with not less than the strength and durability of Alloy 6063-T52.
2. Height: 12 inches (300 mm).
3. Construction: Singlewall.
4. Insulation: Manufacturer's standard rigid.

a. Exposed Insulation: Cover face of insulation exposed to interior of building with aluminum liner

F. Condensation Control: Fabricate unit skylights with integral internal gutters and nonclogging weeps to collect and drain condensation to the exterior.

G. Thermal Break: Fabricate unit skylights with an AAMA compliant "poured and debridged" thermal break, separating exterior and interior metal framing.

2.4 ACCESSORY MATERIALS

A. Fasteners: Same metal as metal being fastened, nonmagnetic stainless steel, or other noncorrosive metal as recommended by manufacturer. Finish exposed fasteners to match material being fastened.

1. Where removal of exterior exposed fasteners might allow access to building, provide nonremovable fastener heads.

B. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15-mil (0.4-mm) dry film thickness per coat.

2.5 ALUMINUM FINISHES

A. Mill Finish: Manufacturer's standard.

PART 3 - EXECUTION

3.1 EXAMINATION

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

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

3.2 INSTALLATION

A. Coordinate installation of unit skylight with installation of substrates, vapor retarders, roof insulation, roofing membrane, and flashing as required to ensure that each element of the Work performs properly and that combined elements are waterproof and weathertight.

B. Comply with recommendations in AAMA 1607 and with manufacturer's written instructions for installing unit skylights.

C. Install unit skylights level, plumb, and true to line, without distortion.

D. Anchor unit skylights securely to supporting substrates.

E. Where aluminum surfaces of unit skylights will contact another metal or corrosive substrates, such as preservative-treated wood, apply bituminous coating on concealed metal surfaces or provide other approved permanent separation recommended in writing by unit skylight manufacturer.

3.3 CLEANING

A. Clean exposed unit skylight surfaces according to manufacturer's written instructions. Touch up damaged metal coatings and finishes.

B. Remove excess sealants, glazing materials, dirt, and other substances.

C. Remove and replace glazing that has been broken, chipped, cracked, abraded, or damaged during construction period.

D. Protect unit skylight surfaces from contact with contaminating substances resulting from construction operations.

END OF SECTION 086200

SECTION 101100 - VISUAL DISPLAY UNITS

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. Marker Boards (MBD).
2. Tack Boards (TBD)

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, finishes, and accessories for visual display units.

B. Shop Drawings: For visual display units.

1. Include plans, elevations, sections, details, and attachment to other work.
2. Include sections of typical trim members.

C. Samples for Verification: For each type of visual display Surface indicated.

D. Product Schedule: For visual display units. Use same designations indicated on Drawings.

1.4 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for surface-burning characteristics of tackboards.

C. Sample Warranties: For special warranties.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver factory-fabricated visual display units completely assembled in one piece. If dimensions exceed maximum manufactured unit size, or if unit size is impracticable to ship in one piece, provide two or more pieces with joints in locations indicated on approved Shop Drawings.

1.6 PROJECT CONDITIONS

A. Environmental Limitations: Do not deliver or install visual display units until spaces are enclosed and weathertight, wet-work in spaces is complete and dry, work above ceilings is complete, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.

B. Field Measurements: Verify actual dimensions of construction contiguous with visual display units by field measurements before fabrication.

1. Allow for trimming and fitting where taking field measurements before fabrication might delay the Work.

1.7 WARRANTY

A. Special Warranty for Porcelain-Enamel Face Sheets: Manufacturer agrees to repair or replace porcelain-enamel face sheets that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Surfaces lose original writing and erasing qualities.
b. Surfaces exhibit crazing, cracking, or flaking.

2. Warranty Period: 50 years from date of Substantial Completion.
3. Warranty Period: Life of the building.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Source Limitations: Obtain each type of visual display unit from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Flame-Spread Index: 25 or less.

2. Smoke-Developed Index: 50 or less.

2.3 MARKER BOARD ASSEMBLIES (MBD)

A. Porcelain-Enamel Marker Boards: Balanced, high-pressure, factory-laminated marker board assembly of three-ply construction consisting of backing sheet, core material, and 0.021-inch-(0.53-mm-) thick, porcelain-enamel face sheet with high -gloss finish.

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

a. AARCO Products, Inc.
b. ADP Lemco, Inc.
c. Aywon.
d. Bangor Cork Company, Inc.
e. Best-Rite Manufacturing.
f. Claridge Products and Equipment, Inc.
g. Egan Visual Inc.
h. Ghent Manufacturing, Inc.
i. Marsh Industries, Inc.; Visual Products Group.
j. Platinum Visual Systems; a division of ABC School Equipment, Inc.
k. PolyVision Corporation; a Steelcase company.
l. Tri-Best Visual Display Products.

2.4 TACK BOARD ASSEMBLIES (TBD)

A. Colored Cork-Plate Tack Boards: ¼” thick cork-plate surface, self-healing, impregnated with vinyl and tinted color. Bond to moisture-resistant MDF, framed in 7/8”W x 5/8”D standard satin aluminum.

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

a. AARCO Products, Inc.
b. ADP Lemco, Inc.
c. Aywon.
d. Bangor Cork Company, Inc.
e. Best-Rite Manufacturing.
f. Claridge Products and Equipment, Inc.
g. Egan Visual Inc.
h. Ghent Manufacturing, Inc.
i. Marsh Industries, Inc.; Visual Products Group.
j. Platinum Visual Systems; a division of ABC School Equipment, Inc.
k. PolyVision Corporation; a Steelcase company.
l. Tri-Best Visual Display Products.

2.5 MARKERBOARD ACCESSORIES

A. Aluminum Frames and Trim: Fabricated from not less than 0.062-inch- thick, extruded aluminum; standard size and shape.

1. Field-Applied Trim: Manufacturer's standard, snap-on trim with no visible screws or exposed joints.
2. Factory-Applied Trim: Manufacturer's standard.

B. Marker Tray: Manufacturer's standard, continuous.

1. Box Type: Extruded aluminum with slanted front, grooved tray, and cast-aluminum end closures.

2.6 FABRICATION

A. Porcelain-Enamel Visual Display Assemblies: Laminate porcelain-enamel face sheet and backing sheet to core material under heat and pressure with manufacturer's standard flexible, waterproof adhesive.

B. Visual Display Boards: Factory assemble visual display boards unless otherwise indicated.

1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display boards at manufacturer's factory before shipment.

C. Factory-Assembled Visual Display Units: Coordinate factory-assembled units with trim and accessories indicated. Join parts with a neat, precision fit.

1. Make joints only where total length exceeds maximum manufactured length. Fabricate with minimum number of joints, balanced around center of board, as acceptable to Architect.
2. Provide manufacturer's standard vertical-joint spline system between abutting sections of marker boards.
3. Where size of visual display boards or other conditions require support in addition to normal trim, provide structural supports or modify trim as indicated or as selected by Architect from manufacturer's standard structural support accessories to suit conditions indicated.

D. Aluminum Frames and Trim: Fabricate units straight and of single lengths, keeping joints to a minimum. Miter corners to a neat, hairline closure.

1. Where factory-applied trim is indicated, trim shall be assembled and attached to visual display units at manufacturer's factory before shipment.

2.7 GENERAL FINISH REQUIREMENTS

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

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

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.8 ALUMINUM FINISHES

A. Clear Anodic Finish: AAMA 611, AA-M12C22A31, Class II, 0.010 mm or thicker.

B. Color Anodic Finish: AAMA 611, AA-M12C22A32/A34, Class II, 0.010 mm or thicker.

C. Baked-Enamel or Powder-Coat Finish: AAMA 2603, except with a minimum dry film thickness of 1.5 mils (0.04 mm). Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

2.9 VISUAL DISPLAY SURFACE SCHEDULE

A. Marker Boards (MBD): Factory assembled.

1. Markerboard: Porcelain-enamel markerboard assembly.
   a. Color: White.
2. Corners: Square.
3. Width: As indicated on Drawings.
4. Height: 48 inches.
5. Mounting: Wall.
6. Mounting Height: As indicated on Drawings.
7. Aluminum Trim: Manufacturer's standard with clear anodic finish.
8. Accessories:
   a. Marker tray: Box type.

B. Tack Boards (TBD): Factory assembled

1. Tack Board: Colored cork-plate surface assembly.
   a. Color: As selected by Architect from standard tinted colors.
2. Corners: Square.
3. Width: As indicated on Drawings.
4. Height: 48 inches.
5. Mounting: Wall.
6. Mounting Height: As indicated on Drawings.
7. Aluminum Trim: Manufacturer's standard with clear anodic finish.

PART 3 - EXECUTION

3.1 EXAMINATION

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

B. Examine walls and partitions for proper preparation and backing for visual display units.

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

3.2 PREPARATION

A. Comply with manufacturer's written instructions for surface preparation.

B. Prepare surfaces to achieve a smooth, dry, clean surface free of flaking, unsound coatings, cracks, defects, projections, depressions, and substances that will impair bond between visual display units and wall surfaces.

3.3 INSTALLATION

A. General: Install visual display surfaces in locations and at mounting heights indicated on Drawings, or if not indicated, at heights indicated below. Keep perimeter lines straight, level, and plumb. Provide grounds, clips, backing materials, adhesives, brackets, anchors, trim, and accessories necessary for complete installation.

1. Mounting Height: As indicated on drawings, interior elevations.

3.4 INSTALLATION OF FACTORY-FABRICATED VISUAL DISPLAY BOARDS AND ASSEMBLIES

A. Visual Display Boards: Attach concealed clips, hangers, and grounds to wall surfaces and to visual display boards with fasteners at not more than 16 inches o.c. Secure both top and bottom of boards to walls.

1. Field-Applied Aluminum Trim: Attach trim over edges of visual display boards and conceal grounds and clips. Attach trim to boards with fasteners at not more than 24 inches o.c.

a. Attach marker trays to boards with fasteners at not more than 12 inches o.c.

3.5 CLEANING AND PROTECTION

A. Clean visual display units according to manufacturer's written instructions. Attach one removable cleaning instructions label to visual display unit in each room.

B. Touch up factory-applied finishes to restore damaged or soiled areas.

C. Cover and protect visual display units after installation and cleaning.

END OF SECTION 101100

SECTION 283111 - DIGITAL, ADDRESSABLE FIRE-ALARM SYSTEM

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. Manual fire-alarm boxes.
2. System smoke detectors.
3. Heat detectors.
4. Notification appliances.
5. Addressable interface device.

1.3 DEFINITIONS

A. LED: Light-emitting diode.

B. NICET: National Institute for Certification in Engineering Technologies.

1.4 SYSTEM DESCRIPTION

A. Fire Alarm System: Provide a complete, supervised, power limited, fire detection and evacuation system.

B. System Supervision: The fire alarm system shall be an electrically supervised system, which shall monitor the integrity of the circuit conductors and power supplies. Performance of the fire alarm system circuits shall be in accordance with Class-B (Style-B) operation for initiating devices, and Class B operation for the addressable Notification Appliance Circuits.

1.5 PERFORMANCE REQUIREMENTS/ OPERATION

A. Seismic Performance: Fire-alarm raceways shall withstand the effects of earthquake motions determined according to SEI/ASCE 7.

1. The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified and the unit will be fully operational after the seismic event."

1.6 SUBMITTALS

A. General Submittal Requirements:

1. Submittals shall be approved by authorities having jurisdiction prior to submitting them to Architect.
2. Shop Drawings shall be prepared by persons with the following qualifications:

a. Trained and certified by manufacturer in fire-alarm system design.
b. NICET-certified fire-alarm technician, Level III minimum.
c. Licensed or certified by authorities having jurisdiction.

1.7 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified Installer.

B. Field quality-control reports.

1.8 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm components to include in emergency, operation, and maintenance manuals. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following at the time of final inspection and system activation:

1. Comply with the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
2. Provide "Record of Completion Documents" according to NFPA 72 article "Permanent Records" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter.
3. Record copy of site-specific software.
4. Provide "Maintenance, Inspection and Testing Records" according to NFPA 72 article of the same name and include the following:

a. Frequency of testing of installed components.
b. Frequency of inspection of installed components.
c. Requirements and recommendations related to results of maintenance.
d. Manufacturer's user training manuals.

5. Manufacturer's required maintenance related to system warranty requirements.
6. Abbreviated operating instructions for mounting at fire-alarm control unit.

B. Software and Firmware Operational Documentation:

1. Device address list.

1.9 QUALITY ASSURANCE

A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.

B. Installer Qualifications: Installation shall be by personnel certified by NICET as fire-alarm Level III technician.

C. Source Limitations for Fire-Alarm System and Components: Obtain fire-alarm system from single source from single manufacturer.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

E. NFPA Certification: Obtain certification according to NFPA 72 by an NRTL.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

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

1. NOTIFIER as provided by a NESCO affiliate.
2. SIMPLEXGRINNELL.

2.2 SYSTEMS OPERATIONAL DESCRIPTION

A. Fire-alarm signal initiation shall be by one or more of the following devices and systems as required to meet current building code requirements and satisfy AHJ fire code requirements:

1. Manual stations.
2. Heat detectors.
3. Smoke detectors.
4. Duct smoke detectors.
5. Automatic sprinkler system water flow.

B. Fire-alarm signal shall initiate the following actions:

1. Continuously operate alarm notification appliances.
2. Identify alarm at fire-alarm control unit and remote annunciators.
3. Transmit an alarm signal to the remote alarm receiving station.
4. Release fire and smoke doors held open by magnetic door holders.
5. Activate emergency shutoffs for gas and fuel supplies.
6. Record events in the system memory.

C. Supervisory signal initiation shall be by one or more of the following devices and actions:

1. Valve supervisory switch.
2. Low-air-pressure switch of a dry-pipe sprinkler system.

D. System trouble signal initiation shall be by one or more of the following devices and actions:

1. Open circuits, shorts, and grounds in designated circuits.
2. Opening, tampering with, or removing alarm-initiating and supervisory signal-initiating devices.
3. Low-air-pressure switch operation on a dry-pipe or pre-action sprinkler system.

E. System Trouble and Supervisory Signal Actions: Initiate notification appliance and annunciate at fire-alarm control unit and remote annunciators.

2.3 MANUAL FIRE-ALARM BOXES

A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes shall be finished in red with molded, raised-letter operating instructions in contrasting color; shall show visible indication of operation; and shall be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.

1. Single-action mechanism requiring one action to initiate an alarm, pull-lever type; with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to fire-alarm control unit.
2. Station Reset: Key- or wrench-operated switch.
3. Indoor Protective Shield: Factory-fabricated clear plastic enclosure hinged at the top to permit lifting for access to initiate an alarm, with sounder. (Model STI-1100-G)

2.4 SYSTEM SMOKE DETECTORS

A. General Requirements for System Smoke Detectors:

1. Comply with UL 268; operating at 24-V dc, nominal.
2. Detectors shall be four-wire type.
3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.
4. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
5. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
6. Integral Visual-Indicating Light: LED type indicating detector has operated and power-on status.

B. Photoelectric Smoke Detectors:

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.

2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

    a. Primary status.
    b. Device type.
    c. Present average value.
    d. Present sensitivity selected.
    e. Sensor range (normal, dirty, etc.).

C. Duct Smoke Detectors: Photoelectric type complying with UL 268A.

1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:

    a. Primary status.
    b. Device type.
    c. Present average value.
    d. Present sensitivity selected.
    e. Sensor range (normal, dirty, etc.).

3. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector or SimplexGrinnell Weatherproof Duct Housing Enclosure 4098-9845 as required.
4. Each sensor shall have multiple levels of detection sensitivity.
5. Sampling Tubes: Design and dimensions as recommended by manufacturer for specific duct size, air velocity, and installation conditions where applied.
6. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.

2.5 HEAT DETECTORS

A. General Requirements for Heat Detectors: Comply with UL 521.

B. Heat Detector or Weatherproof based on environmental considerations: Actuated by either a fixed temperature of 135 deg F (57 deg C) or a rate of rise that exceeds 15 deg F (8 deg C) per minute unless otherwise indicated.

1. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

C. Heat Detector, Fixed-Temperature Type: Actuated by temperature that exceeds a fixed temperature of 190 deg F (88 deg C).

1. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to fire-alarm control unit.

2.6 NOTIFICATION APPLIANCES

A. General Requirements for Notification Appliances: Connected to notification appliance signal circuits, zoned or addressable based on system capability, equipped for mounting as indicated and with screw terminals for system connections. (White with Red Letter Devices Required for this project.)

1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly, equipped for mounting as indicated and with screw terminals for system connections.

B. Visible Notification Appliances: Xenon strobe lights comply with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch- (25-mm-) high letters on the device in red.

1. Rated Light Output:

a. 15/30/75/110 cd, candela settings to be set at the panel for each device as require.

2. Mounting: Wall mounted unless otherwise indicated.
3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place.
4. Flashing shall be in a temporal pattern, synchronized with other units.
5. Strobe Leads: Factory connected to screw terminals.
6. Mounting Faceplate: Factory finished, white.

C. Tone Notification Appliances:

1. Comply with UL 1480.
2. High-Range Units: Rated 2 to 15 W.
3. Low-Range Units: Rated 1 to 2 W.
4. Mounting: Flush.
5. Matching Transformers: Tap range matched to acoustical environment of speaker location.

2.7 ADDRESSABLE INTERFACE DEVICE

A. Description: Microelectronic monitor module, NRTL listed for use in providing a system address for alarm-initiating devices for wired applications with normally open contacts.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION

A. Comply with NFPA 72 for installation of fire-alarm equipment.

1. Comply with requirements for seismic-restraint devices specified in Section 260548.16 "Seismic Controls for Electrical Systems."

B. Duct Smoke Detectors: Comply with NFPA 72 and NFPA 90A. Install sampling tubes so they extend the full width of duct.

C. Remote Status and Alarm Indicators: Install near each smoke detector and each sprinkler water-flow switch and valve-tamper switch that is not readily visible from normal viewing position.

D. Audible Alarm-Indicating Devices: Install not less than 6 inches (150 mm) below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille.

E. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches (150 mm) below the ceiling.

F. Device Location-Indicating Lights: Locate in public space near the device they monitor.

3.2 CONNECTIONS

A. Make addressable connections with a supervised interface device to the following devices and systems. Install the interface device less than 3 feet (1 m) from the device controlled. Make an addressable confirmation connection when such feedback is available at the device or system being controlled.

1. Alarm-initiating connection to activate emergency shutoffs for gas and fuel supplies.
2. Supervisory connections at valve supervisory switches.
3. Supervisory connections at low-air-pressure switch of each dry-pipe sprinkler system.

3.3 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

3.4 FIELD QUALITY CONTROL

A. Field tests shall be witnessed by authorities having jurisdiction.

B. Tests and Inspections:

1. Visual Inspection: Conduct visual inspection prior to testing.

    a. Inspection shall be based on completed Record Drawings and system documentation that is required by NFPA 72 in its "Completion Documents, Preparation" Table in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter.
    b. Comply with "Visual Inspection Frequencies" Table in the "Inspection" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.

2. System Testing: Comply with "Test Methods" Table in the "Testing" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.
3. Factory-authorized service representative shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" Section of the "Fundamentals of Fire Alarm Systems" Chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" Section of the "Inspection, Testing and Maintenance" Chapter in NFPA 72.

C. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.

D. Fire-alarm system will be considered defective if it does not pass tests and inspections.

E. Prepare test and inspection reports.

F. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.5 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system.

B. Provide End-User Training.

END OF SECTION 283111

ADDENDUM 3 APPENDIX 2

DRAWING SKETCHES & FULL SIZE SHEETS

KEYNOTES: ENLARGED RESTROOM PLAN

1. TOILET
2. SINK
3. URINAL
4. MIRROR
5. LIQUID SOAP DISPENSER (OFCI)
6. RECESSED TOWEL DISPENSER & WASTE RECEPTACLE (OFCI)
7. TOILET PAPER DISPENSER (OFCI)
8. SANITARY NAPKIN DISPOSAL (OFCI)
9. RESTROOM STALL PARTITION
10. ADA GRAB BARS
11. BABY CHANGING STATION
12. AMBULATORY ACCESS STALL
13. WHEELCHAIR CLEARANCE CIRCLE
14. A. 60" x 60" FIXTURE CLEARANCE
    B. 48" x 30" FIXTURE CLEARANCE
15. SANITARY NAPKIN DISPENSER (OFCI), TYP OF 1 @ WOMEN 108
16. TOILET COVER DISPENSER (OFCI), TYP OF 14 @ ALL WCs

ADD-3

OFCI TOILET ACCESSORIES

Attachment No. SK-A1
to ADD 3
Dated: 3/25/2016

DLR Group
Architecture Planning Interiors

A2.1 .

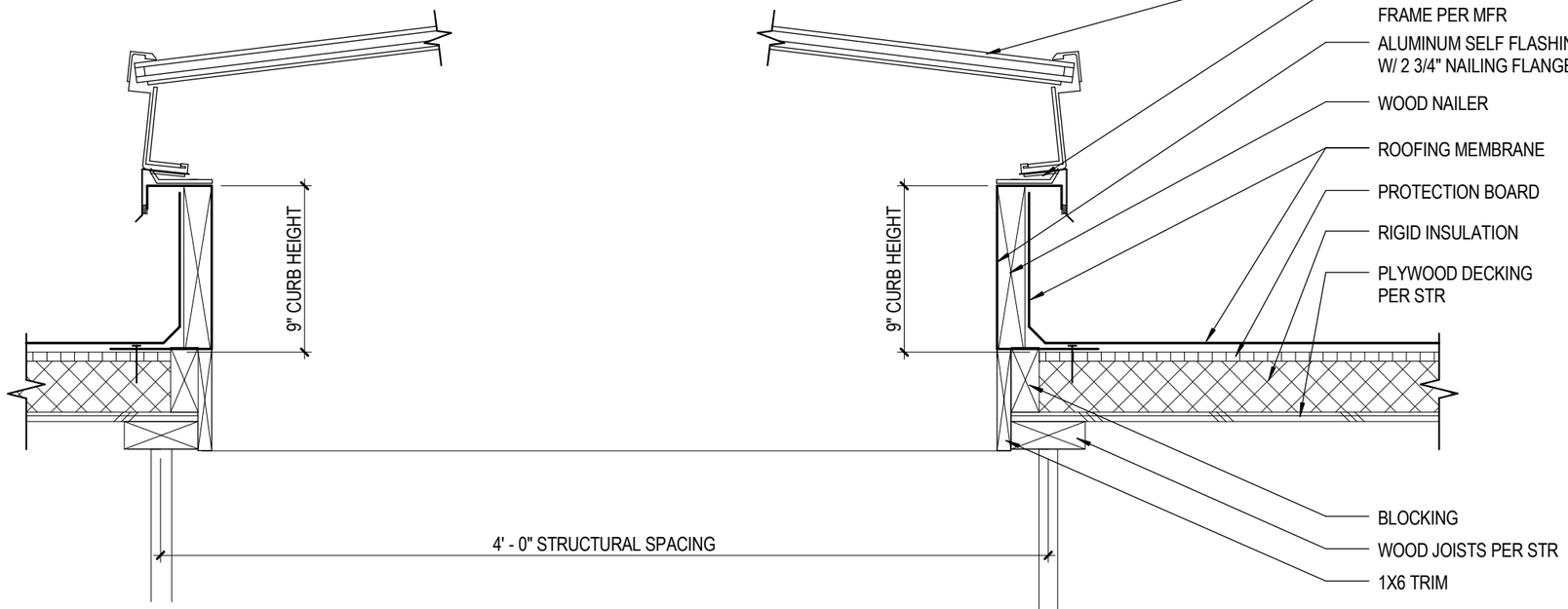
74-13107-40

03/03/ 2016

ENLARGED PLANS
ELMIRA HIGH SCHOOL
RENOVATIONS

REGISTERED ARCHITECT
ROBERT J. ESAU
PORTLAND, OR
STATE OF OREGON

ADD-3



12 / A4.2. SKYLIGHT DETAIL
SCALE: 1 1/2" = 1'-0"

Attachment No. SK-A2
to ADD 3
Dated: 3/25/2016

ROOF DETAILS
ELMIRA HIGH SCHOOL
RENOVATIONS

A4.2.
74-13107-40
03/03/ 2016

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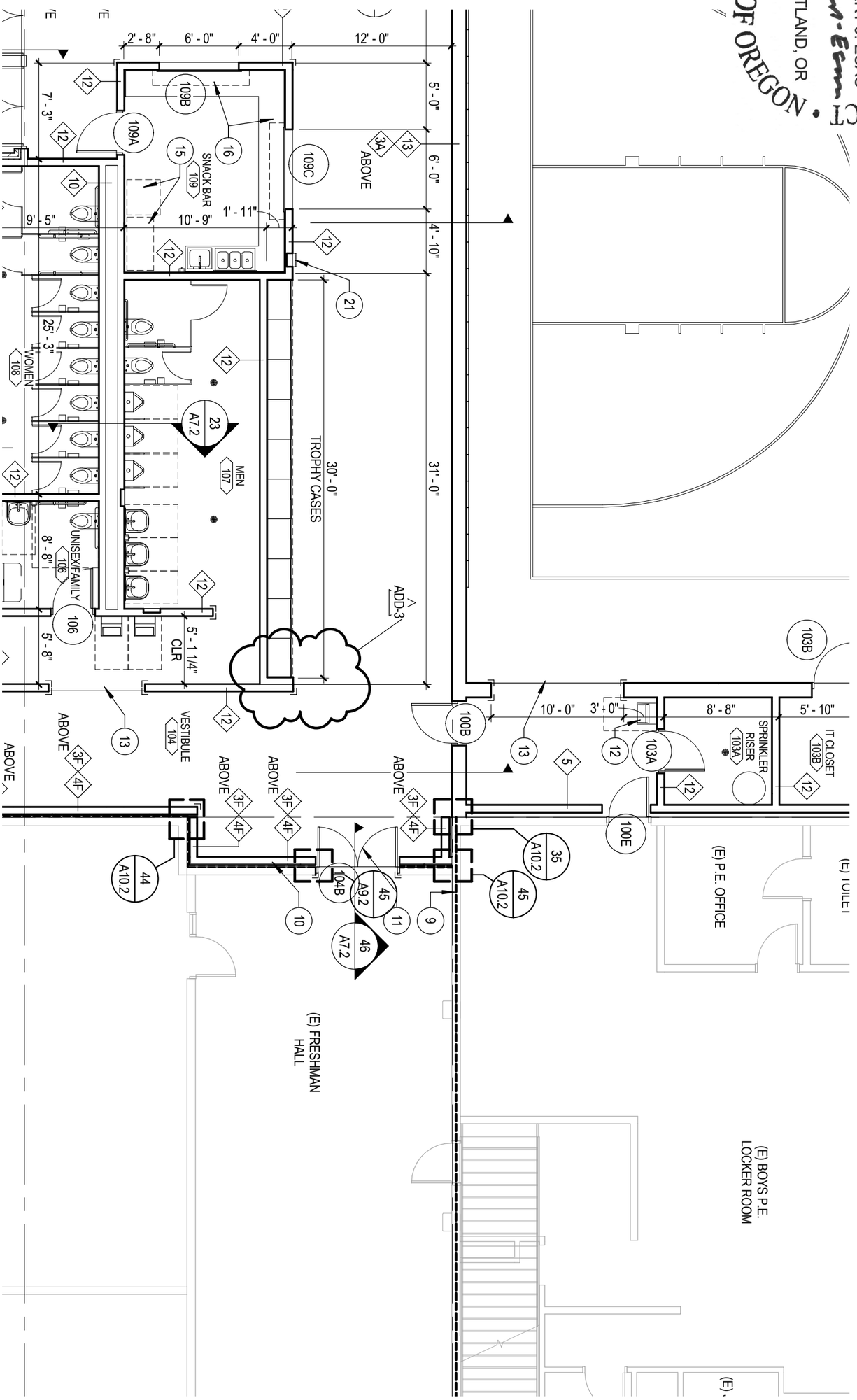
REGISTERED ARCHITECT
ROBERT J. ESAU
PORTLAND, OR
STATE OF OREGON



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74-13107-40
03/03/ 2016

FLOOR PLAN - AREA B
ELMIRA HIGH SCHOOL
RENOVATIONS

Attachment No. SK-A3
to ADD-3
Dated: 3/25/2016

GENERAL STRUCTURAL NOTES

STRUCTURAL DRAWINGS ARE A PORTION OF THE CONTRACT DOCUMENTS AND ARE INTENDED TO BE USED WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE REQUIREMENTS FROM THESE DRAWINGS INTO THEIR SHOP DRAWINGS AND WORK.

THESE GENERAL NOTES SUPPLEMENT THE PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. NOTES AND DETAILS ON THE STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.

CODE REQUIREMENTS:
CONFORM TO THE 2014 OREGON STRUCTURAL SPECIALTY CODE (OSSC), BASED ON THE 2012 INTERNATIONAL BUILDING CODE (IBC).

TEMPORARY CONDITIONS:
THE STRUCTURE IS DESIGNED TO FUNCTION AS A UNIT UPON COMPLETION. THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ALL TEMPORARY BRACING AND/OR SUPPORT THAT MAY BE REQUIRED AS THE RESULT OF THE CONTRACTOR'S CONSTRUCTION METHODS AND/OR SEQUENCES.

CONTRACTOR'S CONSTRUCTION AND/OR ERECTION SEQUENCES SHALL RECOGNIZE AND CONSIDER THE EFFECTS OF THERMAL MOVEMENTS OF STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PERIOD.

EXISTING CONDITIONS:
ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS SHALL BE FIELD VERIFIED. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT OF ANY SIGNIFICANT DISCREPANCIES FROM CONDITIONS SHOWN ON THE DRAWINGS.

ASSUMED FUTURE CONSTRUCTION:
VERTICAL: NONE
HORIZONTAL: NONE

DESIGN CRITERIA:
DESIGN WAS BASED ON THE STRENGTH AND DEFLECTION CRITERIA OF THE OSSC. IN ADDITION TO THE DEAD LOADS, THE FOLLOWING LOADS AND ALLOWABLES WERE USED FOR DESIGN, WITH LIVE LOADS (L.L.) REDUCED PER OSSC:

DESIGN CRITERIA		
GRAVITY SYSTEM CRITERIA		
ROOF LIVE	**20 PSF L.L. (ALSO SEE SNOW LOAD CRITERIA BELOW)**	
FLOOR LIVE LOADS:	**UNIFORM LOAD**	**CONCENTRATED LOAD**
CORRIDORS AND STAIRS	100 PSF L.L.	2,000 LBS. (300 LBS. @ STAIRS)
GYMNASIUM	100 PSF L.L.	2,000 LBS.
CHANGING ROOMS, RESTROOMS	100 PSF L.L.	2,000 LBS.
LOBBIES	100 PSF L.L.	2,000 LBS.
NOTES:	1. LIVE LOADS REDUCED PER OSSC.	
	2. MEMBER DESIGNED FOR MORE CRITICAL OF UNIFORM OR CONCENTRATED LOAD.	
SNOW CRITERIA		
DESIGN ROOF SNOW LOAD	27 PSF = 22 PSF + 5PSF RAIN ON SNOW SURCHARGE	
SNOW DRIFT	PER OSSC AS SHOWN ON PLANS	
GROUND SNOW LOAD	Pg= 19 PSF IN ACCORDANCE WITH 2007 SNOW LOAD ANALYSIS FOR OREGON	
FLAT ROOF SNOW LOAD	Pf = 15 PSF	
SNOW EXPOSURE FACTOR	Ce = 1.0	
SNOW LOAD IMPORTANCE FACTOR	Is = 1.1	
THERMAL FACTOR	Ct = 1.0	
GEOTECHNICAL CRITERIA		
DESIGN BASED ON REPORT BY:	K & A ENGINEERING INC. DATED AUGUST 28, 2007	
ALLOWABLE SOIL PRESSURE:	2,000 PSF	
SHORT TERM LOADING	2,666 PSF	
WIND CRITERIA		
RISK CATEGORY	III	
MAIN WIND FORCE RESISTING SYSTEM	Vult = 130 MPH ULTIMATE DESIGN WIND SPEED (3-SECOND GUST)	
COMPONENTS AND CLADDINGS	Vult = 130 MPH ULTIMATE DESIGN WIND SPEED (3-SECOND GUST)	
EXPOSURE CATEGORY	B	
GUST/INTERNAL PRESSURE	GCpi = +/- 0.18	
SEISMIC CRITERIA		
RISK CATEGORY	III	
SEISMIC DESIGN CATEGORY	D	
SITE CLASS	D	
IMPORTANCE FACTOR	IE = 1.25	
MCE SPECTRAL ACCELERATION	Ss = 0.922	S1 = 0.477
SITE COEFFICIENT	Fa = 1.131	Fv = 1.522
DESIGN SPECTRAL ACCELERATION	SDS = 0.696	SD1 = 0.484
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE PER ASCE 7-10, SECTION 12.8	
	X DIRECTION (E / W)	Y DIRECTION (N / S)
SEISMIC FORCE RESISTING SYSTEM (SFRS)	WOOD BEARING WALL SHEATHED w/ WOOD STRUCTURAL PANELS	WOOD BEARING WALL SHEATHED w/ WOOD STRUCTURAL PANELS
RESPONSE MODIFICATION FACTOR	R = 6.5	R = 6.5
SEISMIC RESPONSE COEFFICIENT	Cs = 0.13	Cs = 0.13
DESIGN BASE SHEAR	56 KIPS	56 KIPS
REDUNDANCY FACTOR	rho = 1.0	rho = 1.0

SEISMIC LOAD RESISTING SYSTEM:
THE SEISMIC FORCE RESISTING SYSTEM (SFRS) FOR THE COMPLETED STRUCTURE IS AS FOLLOWS:

NEW GYMNASIUM AND RESTROOMS: TIMBER SHEATHED WOOD SHEAR WALLS TRANSFER LATERAL LOADS FROM ROOF DIAPHRAGMS TO CONTINUOUS STRIP FOOTINGS.

REFER TO THE GENERAL STRUCTURAL NOTES AND PROJECT SPECIFICATIONS FOR DETAILING, INSTALLATION, TESTING AND INSPECTION REQUIREMENTS FOR MEMBERS THAT ARE PART OF THE SEISMIC FORCE RESISTING SYSTEM (SFRS).

DESIGN AND DETAILING WAS BASED ON CRITERIA FOR SEISMIC DESIGN CATEGORY D.

STRUCTURAL OBSERVATION:
THE STRUCTURAL ENGINEER OF RECORD (SER) WILL PERFORM STRUCTURAL OBSERVATION BASED ON THE REQUIREMENTS OF THE OSSC AT THE STAGES OF CONSTRUCTION LISTED BELOW. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SER TO PERFORM THESE OBSERVATIONS.

STRUCTURAL OBSERVATIONS			
ITEM	**OBSERVED BY (2)**		**COMMENTS**
	AOR	**SER**	
PRIOR TO FIRST CONCRETE POUR		X	REF. NOTES 1,3,4,5
AS REQUIRED TO ADDRESS STRUCTURAL ISSUES		X	REF. NOTES 1,3,4

FOOTNOTES:

1. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE SER IN ADVANCE.
2. SER - STRUCTURAL ENGINEER OF RECORD.
   AOR - ARCHITECT OF RECORD.
3. A FIELD REPORT WILL BE SUBMITTED TO THE BUILDING DEPARTMENT FOLLOWING EACH SITE VISIT.
4. STRUCTURAL OBSERVATION IS FOR THE GENERAL CONFORMANCE OF THE STRUCTURAL DRAWING, SPECIAL INSPECTION IS STILL REQUIRED.
5. AFTER REINFORCING STEEL HAS BEEN INSTALLED.

SPECIAL INSPECTION AND TESTING:
SPECIAL INSPECTION WILL BE PROVIDED BY THE OWNER BASED ON THE REQUIREMENTS OF THE OSSC AS SUMMARIZED IN THE SPECIAL INSPECTION AND TESTING PROGRAM ON SHEET S00X. CONTRACTOR SHALL PROVIDE SUFFICIENT NOTICE AND ACCESS FOR THE SPECIAL INSPECTOR TO PERFORM THESE INSPECTIONS.

SUBMITTALS:
SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION OF ALL STRUCTURAL ITEMS, INCLUDING THE FOLLOWING:

SUBMITTALS			
ITEM	**SUBMITTAL (1,4)**	**DEFERRED SUBMITTAL (2,4)**	**COMMENTS**
CONCRETE MIX DESIGNS	X		
CONCRETE REINFORCEMENT	X		
CONCRETE ANCHORAGES	X		
EMBEDDED STEEL ITEMS	X		
STRUCTURAL STEEL	X		
STEEL WELDING PROCEDURES	X		
GLUE-LAMINATED MEMBERS	X		
ENGINEERED WOOD I-JOISTS		X	
ENGINEERED WOOD OPEN-WEB JOISTS		X	
GLAZING SYSTEMS		X	
SKYLIGHTS		X	
MEP EQUIPMENT ANCHORAGE AND BRACING		X	REF. NOTES

FOOTNOTES:

1. SHOP DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION AND CONSTRUCTION OF STRUCTURAL ITEMS. IF THE SHOP DRAWINGS DIFFER FROM OR ADD TO THE DESIGN OF THE STRUCTURAL DRAWINGS, THEY SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON. ANY CHANGES TO THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO THE ARCHITECT AND ARE SUBJECT TO REVIEW AND ACCEPTANCE OF THE STRUCTURAL ENGINEER.
2. DESIGN DRAWINGS, SHOP DRAWINGS, AND CALCULATIONS FOR THE DESIGN AND FABRICATION OF ITEMS THAT ARE DESIGNED BY OTHERS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION. CALCULATIONS SHALL BE INCLUDED FOR ALL CONNECTIONS TO THE STRUCTURE, CONSIDERING LOCALIZED EFFECTS ON STRUCTURAL ELEMENTS INDUCED BY THE CONNECTION LOADS. DESIGN SHALL BE BASED ON THE REQUIREMENTS OF THE OSSC AND AS NOTED UNDER "DESIGN CRITERIA".
3. THE CONTRACTOR SHALL COORDINATE SEISMIC RESTRAINTS OF MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT, MACHINERY, AND ASSOCIATED PIPING WITH THE STRUCTURE. CONNECTIONS TO STRUCTURE SHALL CONFORM TO ASCE 7-10 CHAPTER 13, BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF OREGON, AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FABRICATION.
4. FIELD ENGINEERED DETAILS DEVELOPED BY THE CONTRACTOR THAT DIFFER FROM OR ADD TO THE STRUCTURAL DRAWINGS SHALL BEAR THE SEAL AND SIGNATURE OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO CONSTRUCTION.

CONCRETE:
CONCRETE WORK SHALL CONFORM TO CHAPTER 19 OF THE OSSC. CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD CYLINDER TESTS PER ASTM C39. MIX DESIGNS SHALL BE AS FOLLOWS:

CONCRETE MIX DESIGNS				
USE	f'c (PSI)	TEST AGE (DAYS)	MAX. W/CM RATIO (NOTE 1)	MAX. AGGREGATE SIZE
MISC. CONCRETE, CURBS, SIDEWALKS, ETC.	3,000	28	0.50	1"
INTERIOR SLABS ON GRADE	4,000	28	0.50	1"
SPREAD AND STRIP FOOTINGS	4,000	28	0.45	1"

TABLES NOTES:
1. VERIFY WATER-CEMENTITOUS MATERIAL RATIO WITH FLOOR COVERING MANUFACTURER FOR CONCRETE FLOORS WITH MOISTURE SENSITIVE FLOOR COVERINGS.
2. ESTABLISH WATER-CEMENTITOUS MATERIAL RATIO PER ACI 318-11 CHAPTER 5.
3. REFERENCE EXPOSED SLAB GENERAL NOTES FOR ADDITIONAL MIX REQUIREMENTS.
4. POST-TENSIONED OR PRESTRESSED CONCRETE SHALL NOT CONTAIN MORE THAN 0.06% CHLORIDE IONS BY WEIGHT OF CEMENT.

PORTLAND CEMENT CONTENT MAY BE REPLACED UP TO 20% WITH FLYASH CONFORMING TO ASTM C618 (INCLUDING TABLE 2A) TYPE F OR TYPE C OR UP TO 50% WITH SLAG CEMENT CONFORMING TO ASTM C989, PROVIDED THAT THE MIX STRENGTH IS SUBSTANTIATED BY TEST DATA. FOR MIX DESIGNS WITH f'c = 5,000 PSI OR LESS, SLAG CEMENT MAY BE SUBSTITUTED FOR FLYASH AT A 1:1 RATIO WITHOUT TEST DATA. WHEN SLAG CEMENT IS SUBSTITUTED IN HIGHER STRENGTH MIXES OR AT DIFFERENT RATIO, THE MIX STRENGTH MUST BE SUBSTANTIATED BY TEST DATA.

A WATER-REDUCING ADMIXTURE CONFORMING TO ASTM C494 USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS SHALL BE INCORPORATED IN CONCRETE DESIGN MIXES. A HIGH-RANGE WATER-REDUCING (HRWR) ADMIXTURE CONFORMING TO ASTM C494 TYPE F OR G MAY BE USED IN CONCRETE MIXES PROVIDING THAT THE SLUMP DOES NOT EXCEED 10". AN AIR-ENTRAINING AGENT CONFORMING TO ASTM C260 SHALL BE USED IN CONCRETE MIXES FOR ALL CONCRETE EXPOSED TO WEATHER. THE AMOUNT OF ENTRAINED AIR BY VOLUME SHALL BE AS FOLLOWS ± 1.5%:

ADD 3

ADD 3

CONCRETE MIX AIR CONTENT		
MAX. AGGREGATE SIZE	**CONCRETE SUBJECT TO FREEZE/THAW**	**CONCRETE SUBJECT TO CONT. MOISTURE AND/OR DEICING CHEMICALS**
3/8"	6.0%	7.5%
1/2"	5.5%	7.0%
3/4"	5.0%	6.0%
1"	4.5%	6.0%
1-1/2"	4.5%	5.5%

CONCRETE ELEMENTS SUBJECT TO FREEZE/THAW INCLUDE ALL MISC. CONCRETE, CURBS, SIDEWALKS AND EXTERIOR SLABS.

THE CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS ALONG WITH TEST DATA COMPLIANT WITH ACI 318-11 OSSC SECTION 1905 A MINIMUM OF TWO WEEKS PRIOR TO PLACING CONCRETE. NO WATER MAY BE ADDED TO CONCRETE IN THE FIELD UNLESS SPECIFICALLY APPROVED IN WRITING BY THE CONCRETE SUPPLIER IN CONJUNCTION WITH THE CONCRETE MIX DESIGN.

SLEEVES, OPENINGS, CONDUIT, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE PLACING CONCRETE. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIMENSION THAN ONE THIRD OF THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER.

WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE, THE EXISTING CONCRETE SURFACE SHALL BE CLEANED AND ROUGHENED TO A MINIMUM 1/4" AMPLITUDE PER ACI 318 SECTION 11.6.9. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED OTHERWISE.

VERIFY ALL BLOCK OUTS WITH ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING REQUIREMENTS.

REINFORCING STEEL:
ALL LONGITUDINAL FLEXURAL REINFORCEMENT IN ABOVE GROUND LEVEL BEAMS, COLUMNS AND SHEAR WALLS SHALL BE ASTM A706, GRADE 60. ALL OTHER DEFORMED BAR REINFORCEMENT MAY BE ASTM A615 GRADE 60 OR ASTM A706 GRADE 60. ASTM A615 REINFORCEMENT MAY BE SUBSITUTED FOR ASTM A706 REINFORCEMENT PROVIDED THAT THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED 78,000 PSI AND THE RATIO OF ACTUAL TENSILE STRENGTH TO ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25. MILL TESTS CERTIFICATIONS FOR SUBSTITUTED BARS SHALL BE SUBMITTED TO THE SPECIAL INSPECTOR AND EOR PRIOR TO PLACEMENT.

SMOOTH WELDED WIRE FABRIC (WWF) SHALL BE ASTM A1064, UNLESS NOTED OTHERWISE. REINFORCING STEEL TO BE WELDED SHALL CONFORM TO ASTM A706. WELDING SHALL COMPLY WITH AWS D1.4. COLUMN SPIRALS SHALL BE PLAIN OR DEFORMED BARS CONFORMING TO ASTM A615, GRADE 60. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE WITH #16 ANNEALED IRON WIRE.

BARS IN BEAMS AND SLABS SHALL BE SUPPORTED ON WELL-CURED CONCRETE BLOCKS OR APPROVED METAL OR PLASTIC CHAIRS, AS SPECIFIED BY THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1. REINFORCING STEEL SHALL BE DETAILED IN ACCORDANCE WITH THE "ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES," ACI 315. SHOP DRAWINGS SHALL INCLUDE ELEVATIONS OF ALL BEAMS, WALLS AND COLUMNS SHOWING BAR LOCATIONS. LAP ALL REINFORCING BARS PER THE TYPICAL LAP SPLICE LENGTH SCHEDULES, EXCEPT AS NOTED ON DRAWINGS. USE LAP LENGTH FOR SMALLER BAR WHEN SPLICING DIFFERENT BAR SIZES. BARS SPLICED WITH NONCONTACT LAPS SHALL BE SPACED NO FARTHER THAN 1/5TH THE LAP LENGTH OR 6 INCHES. MECHANICAL SPLICES NOTED ON THE PLANS SHALL BE DAYTON SUPERIOR BAR-LOCK (ICC ESR-2495) OR TAPERLOCK COUPLERS (IAPMO ES-0319) OR APPROVED WITH A CURRENT EVALUATION APPROVAL REPORT.

TYP. WALL AND SLAB LAP SPLICE LENGTH SCHEDULE (IN.)				
BAR SIZE	WALL VERTICAL AND SLAB BOTTOM BARS (NOTE 7)		WALL HORIZONTAL AND SLAB TOP BARS (NOTE 7)	
	f'c = 3,000 PSI	f'c = 4,000 PSI	f'c = 3,000 PSI	f'c = 4,000 PSI
#3	14	12	18	16
#4	22	20	28	26
#5	32	28	42	36
#6	44	38	58	50
#7	70	62	92	78

TYP. FOUNDATION AND MAT LAP SPLICE LENGTH SCHEDULE (IN.)				
BAR SIZE	BOTTOM BARS (NOTE 7)		TOP BARS (NOTE 7)	
	f'c = 3,000 PSI	f'c = 4,000 PSI	f'c = 3,000 PSI	f'c = 4,000 PSI
#3	14	12	18	16
#4	18	16	24	20
#5	22	20	30	26
#6	28	24	36	32
#7	44	40	58	50

TABLE NOTES:
1. MINIMUM LAP SPLICES NOTED ARE FOR NON-LATERAL LOAD RESISTING ELEMENTS. FOR REBAR LAPS SPLICES AT LATERAL LOAD RESISTING ELEMENTS, REFERENCE PLANS AND ELEVATIONS.
2. ASTM A615 OR ASTM A706, GRADE 60 DEFORMED REINFORCING BARS
3. MINIMUM CLEAR COVER AND BAR SPACING of 4db TO BE PROVIDED.
4. NORMAL WEIGHT CONCRETE, FOR LIGHT-WEIGHT CONCRETE MULTIPLY TABLE VALUES BY 1.3.
5. UNCOATED BARS, FOR EPOXY-COATED BARS MULTIPLY TABLE VALUES BY 1.5.
6. COMBINATIONS OF EFFECTS DUE TO CONCRETE STRENGTH, CONCRETE WEIGHT, AND EPOXY COATING ARE CUMULATIVE.
7. SLAB, FOUNDATION AND MAT TOP BARS ARE BARS CAST ABOVE MORE THAN 12" OF FRESH CONCRETE. ALL OTHER SLAB BARS MAY BE CONSIDERED BOTTOM BARS.

REINFORCING STEEL SHALL HAVE PROTECTION AS FOLLOWS:

REINFORCING STEEL CONCRETE COVER	
USE	**CLEAR COVER**
WALLS: INTERIOR FACES	3/4"
WALLS: EXPOSED TO EARTH OR WEATHER	1-1/2" (#5 AND SMALLER)
	2" (#6 AND LARGER)
CONCRETE CAST AGAINST AND EXPOSED TO EARTH	3"

CONCRETE REINFORCING DETAILS:
CONTINUE HORIZONTAL WALL BARS THROUGH PILASTERS, COLUMNS AND INTERSECTING WALLS. AT SLAB AND WALL OPENINGS PROVIDE A MINIMUM OF TWO #5 BARS OVER, UNDER AND AT THE SIDES OF THE OPENINGS. EXTEND THESE BARS LAP DISTANCE OR A MINIMUM OF 2'-0" PAST THE OPENING. PROVIDE ONE #5 FOR SINGLE-LAYER REINFORCING AND TWO #5 FOR DOUBLE-LAYER REINFORCING, 4'-0" LONG, DIAGONALLY AT EACH CORNER OF ALL OPENINGS. REFER TO TYPICAL DETAILS FOR DISPOSITION OF CORNER BARS AND BARS IN SMALL WALL SECTIONS. SLAB BARS SHALL BE HOOKED INTO WALLS, OR HOOKED DOWELS SHALL BE PROVIDED TO MATCH SLAB REINFORCING. PROVIDE TWO #4, 4'-0" LONG DIAGONALLY AT EACH RE-ENTRANT CORNER IN SLABS. PROVIDE HOOKED DOWELS FROM FOOTINGS TO MATCH VERTICAL WALL REINFORCING, UNLESS NOTED OTHERWISE.

CONCRETE ACCESSORIES:
HEADED SHEAR STUDS SHALL BE NELSON HEADED ANCHORS WITH FLUXED ENDS (ICC ESR-2856) OR APPROVED. DEFORMED BAR ANCHORS (D.B.A.) SHALL BE NELSON, TYPE D2L (ICC ESR-2907), OR APPROVED. STUDS AND D.B.A. SHALL BE AUTOMATICALLY END-WELDED WITH THE MANUFACTURER'S STANDARD EQUIPMENT IN ACCORDANCE WITH THEIR RECOMMENDATIONS.

BID / PERMIT SET
ADDENDUM 3

STRUCTURAL
REGISTERED PROFESSIONAL ENGINEER
15,773
OREGON
JAN. 21, 1982
GERALD L. ABDIE
EXPIRES 12-31-17

GENERAL STRUCTURAL NOTES
ELMIRA HIGH SCHOOL
RENOVATIONS

S0.2
74-13107-40
03/03/16
REVISIONS
ADD 3 03.25.16

DLR Group
Architecture Planning Interiors

GENERAL STRUCTURAL NOTES

POST-INSTALLED ANCHORS SHALL BE OF THE TYPE AND PRODUCT SPECIFIED ON THE DRAWINGS OR AS FOLLOWS:

POST INSTALLED CONCRETE ANCHORS	
TYPE	**APPROVED ANCHORS**
EXPANSION	**HILTI KWIK BOLT TZ (ICC ESR-1917)**
CONCRETE SCREW	**HILTI KWIK HUS-EZ (ICC ESR-3027)**
EPOXY ADHESIVE	**HILTI HIT-HY200 (ICC ESR-3187)**

ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PRODUCT EVALUATION REPORTS. EMBEDMENTS SPECIFIED ON DRAWINGS ARE "EFFECTIVE" EMBEDMENTS. REFERENCE MANUFACTURER LITERATURE FOR CORRESPONDING ACTUAL EMBEDMENT DEPTHS.

REQUESTS FOR ANCHOR SUBSTITUTIONS SHALL BE SUBMITTED TO THE EOR IN WRITING ALONG WITH EVIDENCE OF EQUAL OR GREATER CAPACITY TO THE SPECIFIED CONNECTION. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION.

INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED SHALL BE PERFORMED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER AS CERTIFIED THROUGH ACI/CRSI AND IN ACCORDANCE WITH ACI 318-11 SECTION D.9.2.2. PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE EOR PRIOR TO INSTALLATION.

ANCHORS EXPOSED TO EARTH OR WEATHER SHALL BE PROTECTED FROM CORROSION BY HOT-DIP GALVANIZING OR USE OF STAINLESS STEEL. PERMANENTLY EXPOSED EMBEDDED PLATES AND ANGLES SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION, UNLESS NOTED OTHERWISE.

NO LOADS OR WELDS SHALL BE PLACED ON EMBEDDED PLATES OR ANGLES FOR A MINIMUM OF 7 DAYS AFTER CASTING. IN ACCORDANCE WITH ACI 318-11 SECTION D.2.2 ADHESIVE ANCHORS SHALL NOT BE INSTALLED FOR A MINIMUM OF 21 DAYS AFTER CASTING.

EPOXY REPAIR ADHESIVE:

EPOXY REPAIR ADHESIVE SHALL CONFORM TO ASTM C881 AND SHALL BE A TWO-COMPONENT, LIQUID EPOXY WITH NON-SAG CONSISTENCY AND A LONG POT LIFE. THE EPOXY ADHESIVE SHALL BE SUITABLE FOR USE ON DRY OR DAMP SURFACES. MINIMUM SLANT SHEAR STRENGTH SHALL BE 5,000 PSI, AND MINIMUM TENSILE STRENGTH SHALL BE 4,000 PSI. HOLE SIZES AND INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE APPROVED EVALUATION REPORT REQUIREMENTS. DO NOT CUT REINFORCING IN NEW OR EXISTING CONCRETE DURING INSTALLATION.

MASONRY ACCESSORIES:

ALL ANCHORS SHALL BE INSTALLED IN STRICT CONFORMANCE WITH MANUFACTURER'S RECOMMENDATIONS. REINFORCING IN NEW OR EXISTING MASONRY SHALL NOT BE CUT DURING INSTALLATION. ALL ANCHORS EXPOSED TO EARTH OR WEATHER SHALL BE PROTECTED FROM CORROSION BY HOT-DIP GALVANIZING OR USE OF STAINLESS STEEL.

MASONRY ANCHORS		
ANCHORS	**TYPE**	**ALTERNATE**
EXPANSION	HILTI KWIK BOLT 3 (ICC ESR-1385)	SIMPSON WEDGE-ALL (ICC ESR-1396)
SCREW	HILTI HUS-EZ (ICC ESR-3056)	SIMPSON TITEN HD (ICC ESR-1056)
ADHESIVE	HILTI HIT HY-70 (ICC ESR-2682)	SIMPSON SET (ICC ESR-1772)

NOTE:

1. MINIMUM GROUT COVER BETWEEN REINFORCEMENT AND INSIDE FACE OF CELL SHALL BE 1/4" FOR FINE GROUT AND 1/2" FOR COURSE GROUT.

SAWN LUMBER:

SAWN LUMBER SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE CURRENTLY ACCEPTED NATIONAL DESIGN SPECIFICATION (NDS) DESIGN VALUES FOR WOOD CONSTRUCTIONAND CONFORMING TO THE WEST COAST LUMBER INSPECTION BUREAU OR WESTERN WOOD PRODUCTS ASSOCIATION GRADING RULES. LUMBER SHALL BE THE SPECIES, GRADE, AND MOISTURE CONTENT NOTED BELOW:

SAWN LUMBER		
USE	**SPECIES AND GRADE**	**MOISTURE CONTENT**
LUMBER 2" TO 4" THICK x 5" OR WIDER (JOISTS/RAFTERS)	DOUGLAS FIR-LARCH NO. 2 & BTR	S-DRY
LUMBER 2" TO 3" THICK x 4" TO 6" WIDE (STUDS)	DOUGLAS FIR-LARCH STUD	S-DRY
LUMBER 5x5 AND GREATER (BEAMS)	DOUGLAS FIR-LARCH NO. 1	S-DRY
LUMBER 5x5 AND GREATER (POSTS)	DOUGLAS FIR-LARCH NO. 1	S-DRY

ALL LUMBER IN CONTACT WITH CONCRETE OR CMU SHALL BE PRESSURE TREATED, UNLESS AN APPROVED MOISTURE BARRIER IS PROVIDED.

FRAMING ACCESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG TIE (OR APPROVED EQUAL) AND OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. ALL NAIL HOLES SHALL BE FILLED WITH STRUCTURAL FASTENERS, UNLESS NOTED OTHERWISE ON THE DRAWINGS AND FASTENERS SHALL BE INSTALLED FOLLOWING ALL MANUFACTURERS REQUIREMENTS. IF A SUBSTITUTION IS MADE, A DOCUMENT SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL OUTLINING THE FRAMING ACCESSORIES BEING REPLACED AND THE SUBSTITUTED FRAMING ACCESSORIES. ALLOWABLE LOADS FOR THE SIMPSON ACCESSORIES SHALL BE TABULATED ALONG WITH ALLOWABLE LOADS FOR THE SUBSTITUTED ACCESSORIES, WHICH CLEARLY INDICATE THE SUBSTITUTED ACCESSORIES HAVING AN EQUAL OR GREATER CAPACITY.

ALL FRAMING NAILS SHALL BE OF THE SIZE AND QUANTITY INDICATED ON THE DRAWINGS AND CONFORM TO ASTM F 1667, "STANDARD SPECIFICATION OF DRIVEN FASTENERS: NAILS, SPIKES, AND STAPLES AND ICC-ES REPORT ESR-1539 "POWER-DRIVEN STAPLES AND NAILS". NAILS SHALL BE IDENTIFIED BY LABELS (ATTACHED TO THEIR CONTAINERS) THAT SHOW THE MANUFACTURER'S NAME AND ICC-ES REPORT NUMBER, NAIL SHANK DIAMETER, AND LENGTH AND SHALL BE SUBMITTED TO THE ARCHITECT PRIOR TO FRAMING. NAILING NOT SHOWN SHALL BE AS INDICATED ON OSSC TABLE 2304.9.1 OR ESR-1539. THE FOLLOWING NAIL SIZES SHALL BE USED WITH THE NAIL LENGTH DETERMINED BY MINIMUM PENETRATION INTO FRAMING MEMBER:

FRAMING NAILS		
NAIL TYPE	**SHANK DIAMETER (IN.)**	**MINIMUM PENETRATION INTO FRAMING MEMBER (IN.)**
6d	0.113	1.125
8d	0.131	1.375
10d	0.148	1.5
12d	0.148	1.5
16d	0.162	1.625

BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1. ALL BOLTS AND LAG SCREWS SHALL BE INSTALLED WITH STANDARD CUT WASHERS.

CUTTING AND NOTCHING OF JOISTS AND STUDS SHALL CONFORM TO THE TYPICAL WOOD DETAILS PROVIDED OR OSSC SECTIONS 2308.4.2.4, 2308.5.9 AND 2308.7.4 WHERE NO DETAILS ARE SPECIFIED.

SALVAGED LUMBER IS ACCEPTABLE PROVIDED IT IS GRADED BY AN APPROVED GRADING AGENCY PRIOR TO USE AND MEETS A MINIMUM ALLOWABLE BENDING STRESS (Fb) OF **1,000 PSI**. CONTRACTOR TO SUBMIT A GRADING REPORT ON EACH MEMBER TO THE ARCHITECT PRIOR TO INSTALLATION.

WOOD STRUCTURAL PANELS:

THE TERM "WOOD STRUCTURAL PANEL" REFERS TO A WOOD-BASED PANEL PRODUCT BONDED WITH A WATERPROOF ADHESIVE. INCLUDED UNDER THIS DESIGNATION ARE BOTH PLYWOOD AND ORIENTED STRAND BOARD (OSB). WOOD STRUCTURAL PANELS SHALL CONFORM TO U.S. DEPARTMENT OF COMMERCE VOLUNTARY PRODUCT STANDARDS PS1 OR PS2 FOR WOOD-BASED STRUCTURAL USE PANELS, OR APA PERFORMANCE STANDARD PRP-108 (ICC-ES ESR-2586). PANELS SHALL BE APA RATED SHEATHING OR APA RATED STURD-I-FLOOR, EXTERIOR OR EXPOSURE 1, OF THE THICKNESS AND SPAN RATING SHOWN ON THE DRAWINGS. PANELS SHALL BE STAMPED WITH THE APA TRADEMARK.

WOOD STRUCTURAL PANEL INSTALLATION SHALL BE IN CONFORMANCE WITH APA RECOMMENDATIONS. ALLOW 1/8" SPACING AT PANEL ENDS AND EDGES, UNLESS OTHERWISE RECOMMENDED BY THE PANEL MANUFACTURER.

ALL ROOF SHEATHING AND FLOOR SHEATHING SHALL BE INSTALLED WITH FACE GRAIN OR STRENGTH AXIS PERPENDICULAR TO SUPPORTS, EXCEPT AS INDICATED ON THE DRAWINGS. ROOF SHEATHING SHALL EITHER BE BLOCKED, TONGUE-AND-GROOVE, OR HAVE EDGES SUPPORTED BY PLYCLIPS. WHERE BLOCKING IS SPECIFICALLY INDICATED ON THE DRAWINGS, T&G EDGES OR PLYCLIPS MAY NOT BE SUBSTITUTED. SHEATHING SHALL BE UNBLOCKED, EXCEPT AS INDICATED ON DRAWINGS. FLOOR SHEATHING SHALL BE FIELD GLUED TO THE FRAMING USING ADHESIVES MEETING APA SPECIFICATION AFG-01 OR ASTM D3498. TONGUE AND GROOVE PANELS SHALL ALSO BE GLUED AT THE T&G JOINT.

SHEAR WALL SHEATHING SHALL BE INSTALLED EITHER HORIZONTALLY OR VERTICALLY AND BE BLOCKED WITH 2x FRAMING AT ALL PANEL EDGES. NAILING NOT SHOWN SHALL BE AS INDICATED ON OSSC TABLE 2304.9.1.

WOOD STRUCTURAL PANEL SHEAR WALLS:

SHEAR WALL WOOD STRUCTURAL PANELS SHALL BE PLYWOOD OR OSB PANELS CONFORMING TO THE REQUIREMENTS FOR ITS TYPE SPECIFIED IN U.S. DOC PS1 OR PS2. SHEATHING SHALL BE APPLIED EITHER HORIZONTALLY OR VERTICALLY. SHEET SIZES SHALL BE 4x8 UNLESS AT BOUNDARIES OR FRAMING CHANGES.

NAIL HEADS SHALL BE DRIVEN FLUSH WITH SHEATHING. DO NOT PENETRATE SURFACE PLY WITH NAIL HEADS. IF NAIL HEADS ARE NOT FLUSH NOTIFY E.O.R. CONTRACTOR IS RESPONSIBLE FOR ANY REPAIRS NECESSARY DUE TO OVER-PENETRATION OF NAILS.

ALL SHEAR WALL PANEL SHEATHING EDGES SHALL BE BLOCKED. EDGE NAILS SHALL BE AT LEAST 3/8" FROM EDGES AND ENDS OF PANELS. STAGGER NAILING ON EDGES.

GLUED-LAMINATED MEMBERS:

GLUED-LAMINATED (GLULAM) MEMBERS SHALL BE FABRICATED IN CONFORMANCE WITH ANSI STANDARD A190.1, AMERICAN NATIONAL STANDARD FOR STRUCTURAL GLUED LAMINATED TIMBER OR OTHER CODE- APPROVED DESIGN, MANUFACTURING AND/OR QUALITY ASSURANCE PROCEDURES. EACH MEMBER SHALL BEAR AN AITC OR APA-EWS IDENTIFICATION MARK OR BE ACCOMPANIED BY A CERTIFICATE OF CONFORMANCE. ONE COAT OF END SEALER SHALL BE APPLIED IMMEDIATELY AFTER TRIMMING IN EITHER THE SHOP OR THE FIELD.

GLULAM MEMBERS SHALL BE FRAMING (HIDDEN) OR ARCHITECTURAL (EXPOSED) APPEARANCE CLASSIFICATION AND OF THE STRENGTH INDICATED BELOW:

GLUED-LAMINATED MEMBERS				
COMBINATION SYMBOL (SPECIES)	**USE**	**FLEXURAL STRESS, Fb (PSI)**	**MODULUS OF ELASTICITY (PSI)**	**HORIZONTAL SHEAR STRESS Fv (PSI)**
24F-V4 (DF/DF)	SIMPLE SPAN	+2,400 / -1,850	1,800,000	265
24F-1.8E	SIMPLE SPAN	+2,400 / -1,450	1,800,000	265

ADHESIVE SHALL BE WET-USE EXTERIOR, WATERPROOF GLUE. FIELD NOTCHING AND BORING OF GLULAM MEMBERS NOT ALLOWED UNLESS APPROVED BY SER.

GLULAM MEMBERS SHALL BE SUPPLIED TO THE PROJECT WITH BETWEEN 3,500 AND 5,000 FOOT STANDARD MILL CAMBER WITH TOLERANCES AS ALLOWED BY ANSI A190. THE DRAWINGS WILL INDICATE WHETHER OR NOT ADDITIONAL CAMBER IS REQUIRED.

ENGINEERED WOOD I-JOISTS:

DESIGN OF THE WOOD I-JOIST SYSTEM SHALL BE THE CONTRACTOR'S RESPONSIBILITY. WOOD I-JOISTS SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS, MANUFACTURED BY TRUS-JOIST OR AN APPROVED EQUAL, CONFORMING TO APA EWS STANDARD PRI-400, "PERFORMANCE STANDARD FOR APA EWS I-JOISTS" OR A CURRENT ICC-ES REPORT. ALTERNATES WILL BE CONSIDERED, PROVIDED THE ALTERNATE IS COMPATIBLE WITH THE LOAD CAPACITY, STIFFNESS, DIMENSIONAL, DIAPHRAGM NAILING, AND FIRE RATING REQUIREMENTS OF THE PROJECT.

CONTRACTOR SHALL PROVIDE BRIDGING IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. ROOF JOISTS AND BRIDGING SHALL BE CAPABLE OF RESISTING THE WIND UPLIFT BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

THE JOIST SUPPLIER SHALL VISIT THE JOB SITE AS REQUIRED TO VERIFY PROPER INSTALLATION OF JOISTS AND PROVIDE WRITTEN VERIFICATION TO THE ARCHITECT UPON COMPLETION.

IN ADDITION TO SELF WEIGHT, JOISTS SHALL BE DESIGNED FOR THE MINIMUM LOADS SPECIFIED BELOW AND ANY ADDITIONAL LOADS AS NOTED ON THE PLANS INCLUDING SNOW DRIFT, WIND, SEISMIC, MECHANICAL EQUIPMENT, ADDITIONAL LIVE OR DEAD LOADS.

ENGINEERED WOOD I-JOIST LOADING CRITERIA	
LOCATION	**LOAD**
ROOF DEAD LOAD	20 PSF
ROOF LIVE LOAD	20 PSF
ROOF NET WIND UPLIFT	16 PSF

DESIGN SHALL CONFORM TO THE FOLLOWING MINIMUM DEFLECTION CRITERIA: L/240 (ROOF DEAD LOAD PLUS LIVE LOAD.)

ENGINEERED WOOD OPEN-WEB TRUSSES

DESIGN OF THE ENGINEERED WOOD OPEN-WEB TRUSS SYSTEM SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. WOOD CHORD, OPEN STEEL WEB TRUSSES SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS AND MANUFACTURED BY REDBUILT OR AN APPROVED EQUAL. ALTERNATES WILL BE CONSIDERED PROVIDED THE ALTERNATE IS ICC APPROVED, COMPATIBLE WITH THE DIAPHRAGM NAILING, LOAD CAPACITY, STIFFNESS, DIMENSIONAL, AND FIRE RATING REQUIREMENTS OF THE PROJECT.

CONTRACTOR SHALL PROVIDE BRIDGING IN CONFORMANCE WITH THE MANUFACTURER'S REQUIREMENTS. ROOF TRUSSES AND BRIDGING SHALL BE CAPABLE OF RESISTING THE WIND UPLIFT BELOW, UNLESS NOTED OTHERWISE ON THE DRAWINGS.

THE TRUSS MANUFACTURER/SUPPLIER SHALL VISIT THE JOB SITE AS REQUIRED TO VERIFY PROPER INSTALLATION OF JOISTS AND PROVIDE WRITTEN VERIFICATION TO THE ARCHITECT UPON COMPLETION.

TRUSSES SHALL BE DESIGNED FOR THE LOADS SPECIFIED BELOW AND ANY ADDITIONAL LOADS AS NOTED ON THE PLANS INCLUDING, WIND, SEISMIC, SNOW DRIFT, MECHANICAL EQUIPMENT, ADDITIONAL LIVE OR DEAD LOADS.

ENGINEERED WOOD OPEN-WEB TRUSS LOADING CRITERIA	
LOCATION	**LOAD**
ROOF DEAD LOAD	20 PSF
ROOF LIVE LOAD	20 PSF
ROOF NET WIND UPLIFT	16 PSF

DESIGN SHALL CONFORM TO THE FOLLOWING MINIMUM DEFLECTION CRITERIA: L/240 (ROOF DEAD LOAD PLUS LIVE LOAD.)

STRUCTURAL COMPOSITE LUMBER:

STRUCTURAL COMPOSITE LUMBER PRODUCTS SUCH AS LAMINATED VENEER LUMBER (LVL), PARALLEL STRAND LUMBER (PSL), AND LAMINATED STRAND LUMBER (LSL) SHALL BE OF THE SIZE AND TYPE SHOWN ON THE DRAWINGS. ALL STRUCTURAL COMPOSITE LUMBER PRODUCTS NOTED HERE SHALL HAVE A CURRENT ICC-ES REPORT.

MEMBERS SHALL HAVE THE FOLLOWING MINIMUM DESIGN PROPERTIES:

STRUCTURAL COMPOSITE LUMBER MINIMUM PROPERTIES		
LUMBER TYPE	**FLEXURAL STRESS, Fb (PSI)**	**MODULUS OF ELASTICITY (PSI)**
PSL	2,900	2,200,000
LVL	2,600	2,000,000
LSL HEADERS	2,325	1,550,000
LSL STUDS	1,900	1,500,000
LSL RIM BOARD	1,700	1,300,000
LSL SILL PLATE (TREATED)	1,900	1,300,000

FLEXURAL STRESS NOTED ABOVE ARE FOR A 12-INCH MEMBER. DEEPER MEMBERS SHALL BE DESIGNED FOR REDUCED STRESSES PER THE MANUFACTURER'S REQUIREMENTS.

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ADDENDUM 3

STRUCTURAL
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GENERAL STRUCTURAL NOTES
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ADDENDUM 3

APPENDIX 3

RESPONSE TO BIDDER'S QUESTIONS:

Question: Do you have any other information on the existing fire tank, like as-builts or something?
Response: ***This civil detail sheet from the 1999 installation of the fire protection tank, pump system, and pump house has been provided for information only. It has been confirmed that Xerxes provided the tank for the existing system. All other information shown on this record drawing should be confirmed in the field.***

Question: There are no specifications for the tack boards & marker boards. What are these?
Response*:** ***Specification Section 101100 Visual Display Units has been added to this Addendum.

Question: Section 10 28 00 Toilet Accessories has specifications for TTD, GB, MR 24x36 and MBH, are the remaining toilet accessories Owner Furnished, Contractor Installed?
Response*:** ***OFCI items have been updated in the keynotes on A2.1 in this addendum. Baby changing station (CFCI) has been added to the specification in this addendum.

Question: Sheet A5.1 says to provide an allowance for the Super Graphic Signage (Falcon Logo), are we to include this in our bid and how much should the bidders include for this allowance?
Response*:** ***Reference to allowance has been deleted in this addendum.

Question: Sheet 12.2 says to provide an allowance for the Super Graphic Logo on the wall, are we to include this in our bid and how much should the bidders include for this allowance?
Response: ***Reference to allowance has been deleted in this addendum.***

Question: What is the wall composed of between the north storage rooms at the Girls' Locker rooms that is to be demolished.
Response: ***Field verification revealed that this is a CMU wall.***

Question: We have several discrepancies between the A sheets and the S sheets in wall parapet details. I assume the S sheet is the one we should be bidding?
Response: ***Structural details take precedence for sheathing, nailing, and maximum height requirements. Architectural details take precedence regarding finish materials.***

Question: The skylights detail shows a metal deck pan but the deck is specified to be 1 1/8" plywood. Also it looks like several of the skylights are shown directly over the top of structural 4x blocking. Will these be exposed under the skylight?
Response: ***Skylight Detail has been revised per this addendum. Also see corresponding added specification section. Any blocking will be covered by 1x finish trim rather than exposed.***

Question: Are we to bid integration to or expansion of the existing Siemens MLX-IQ FACP?
Response*:** ***The design is to provide expansion of the existing Siemens MLX-EQ panel.

Question: Has there been a location selected for the new FACP and or the Voice Evacuation Panel?

Response*:** ***New FACP is not required. Voice evacuation panel is not required. All devices will tie directly back to existing FACP. See revised specification.

Question: Are all notification devices in the remodel and new area to be speakers-strobes and speakers? There will be problems if the voice evacuation and non-voice devices such as horn-strobes can be heard from the same location. See note #1 sheet E2.1.

Response*:** ***Voice evacuation is not required. See revised specification.

Question: NFPA Certification: FM Global-approved alarm company. The only reference to FM Global we find in NFPA is with regards to an alarm monitoring company. Are you requiring that the alarm manufacture, alarm installing company or materials supplier have a FM Global Placard? I'm not finding that any of the listed manufacturers are FM Global approved nor do I believe there is a fire alarm company in Oregon with FM global approval. Is this a code requirement or is it coming from another source, such as the AHJ, Owner, Owner's insurer?

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Warranty: 283111 – 4, 1.10 A Special Warranty: A) Warranty Extent: Maintenance Service Agreement: is this agreement to be negotiated between the owner and fire alarm materials supplier? Is it to be in place prior to the end of the first year? B) Warranty Period: The only materials and services covered for years 2-05 will be those not addressed in the Maintenance Services Agreement, correct?

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Section 283111 – 9, 2.4, J. 2: Firefighter's two-way phones. OSSC 907.2.13.2 Fire department communications system. A Wired communication system must be approved by the AHJ, otherwise code calls for a Distributed Antenna System (OXXC section 510). Has the wired system been approved by the local AHJ and Fire Department?

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Section 283111 – 10, 2.5 B. 3: Weatherproof Protective Shield. If you place a protective shield over a Double Action station, that makes it a triple action. This may be an ADA violation.

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Warranty: 283111 – 12, 2.8 B General Requirements: Individually addressed notifications devices. To my knowledge Simplex is the only fire alarm manufacturer offering the application. Requires additional power supplies and heavier gage cable, increases cost. There is no cost effective advantage to using this type of devices. Is it acceptable to use non-addressable notification devices?

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Warranty: 283111 – 15, 2.13 C. BACNET communication with HVAC. For a system of this size without smoke control, this is an unnecessary and costly option. Cost usually runs from 5-8 K. In most cases, it is best to use addressable relay modules, is this acceptable?

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Warranty: 283111 – 16, 3.1 A. Examine area and conditions and #1 Verify that manufacturer's written instructions for environmental conditions have been permanently established. I agree that it is the responsibility of the fire alarm installer, designer and supplier to make sure that the fire alarm equipment is installed and listed for the general space and intent of the coverage. According to these sections, it appears that we are also responsible for the work of others. Is this correct?

Response: ***This requirement is listed incorrectly. See revised specification.***

Question: Is there a vapor barrier under slab? It's in the spec but don't see it on the drawings.

Response: ***It's typical procedure for the spec to handle this, and yes, it is required, per the spec.***

Question: Spec section 033000 page 7 subsection 2.13 A indicates "Proportion all concrete mixtures as noted on general structural notes: Sheets on structural drawings." However no Cast-in-place note is present on the structural drawings.

Response: ***Notes have been added to Structural Drawings in this Addendum. See revised drawing sheets.***

Question: Door opening 105H is called out to be a 5'x4' opening but a type is not given, the only type that is close is type F – fire shutter but it is a 2'-6" x 5 opening, please clarify

Response: ***Door 105H has been updated in the Door and Frame Schedule. See Item A4, B in the Drawing Change Narrative in this Addendum.***

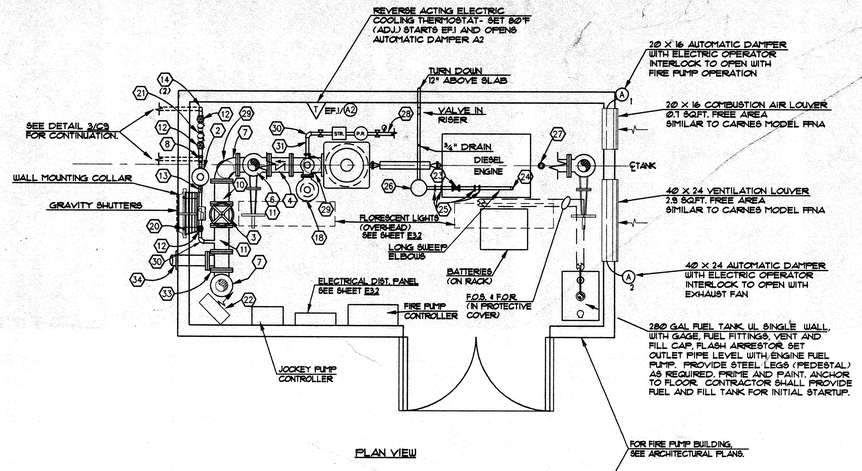
Question: The trophy cases are called out as Claridge Products series 390. The 390 Series are recessed into a wall. The floor plan shows free standing cases. The wall adjacent to these cases are shown as a 6" wall and not drawn to accommodate flush Trophy cases. Please provide clarification on trophy case installation.

Response: ***See detail 41/A11.1 for recessed info. There are dropped soffits above and built-up bases below for recessed finish. End wall has been added to east edge in this addendum.***

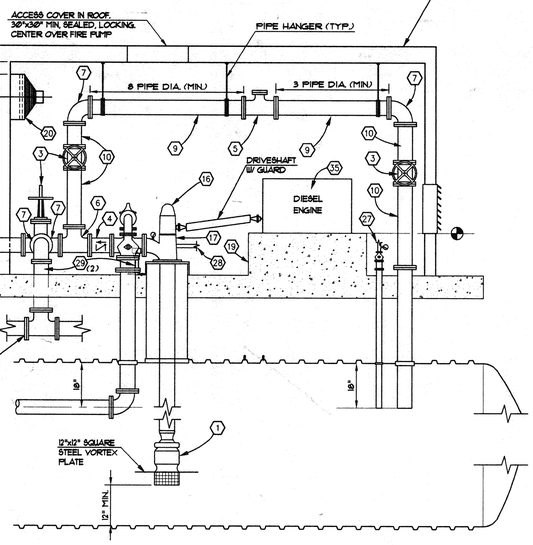
Question: Regarding the Sheet Metal wall panels: Looking at drawing 44/A4.2 it shows new metal wall panels at the existing wall but this is the only reference of it. Are there new wall panels and coping at the existing walls at grid line 1 and A above the canopy?

Response: ***Yes, per detail A4.2, there is new metal siding above the new canopies along gridlines 1 and A.***

END OF RESPONSE TO BIDDER'S QUESTIONS



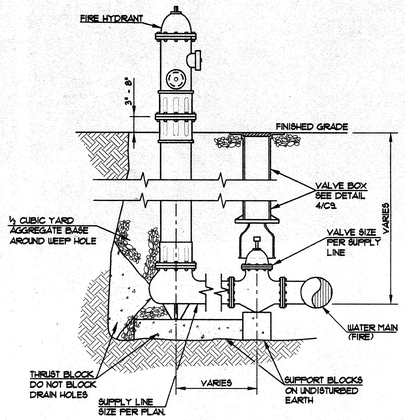
PLAN VIEW



ELEVATION VIEW

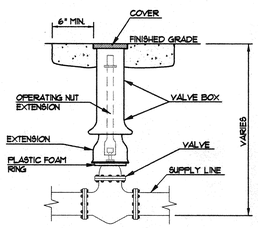
1 PUMP HOUSE DETAIL

NO SCALE



2 FIRE HYDRANT ASSEMBLY

NO SCALE

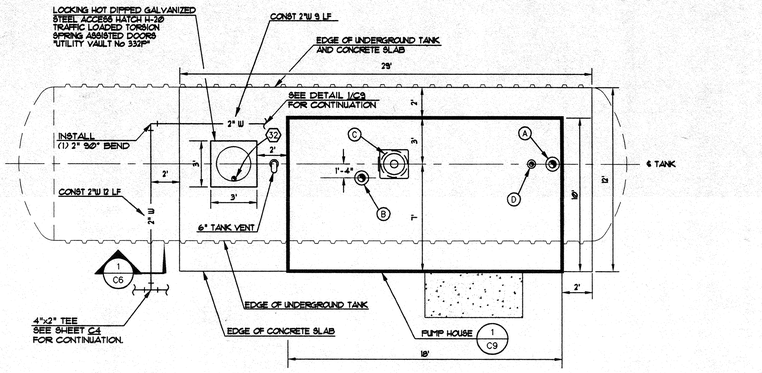


NOTES:

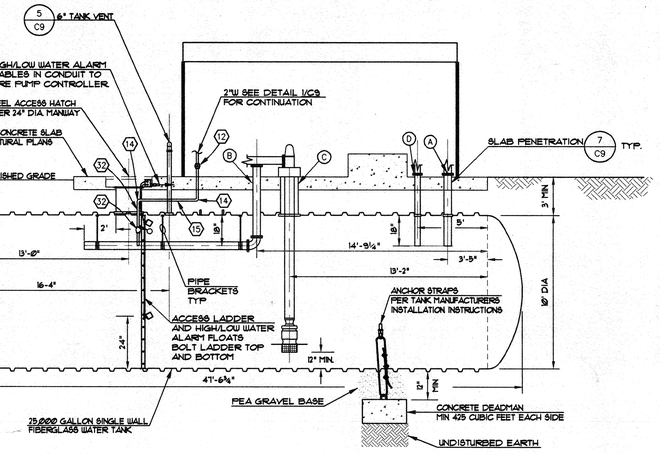
1. VALVE BOX SHALL NOT REST ON OPERATING ASSEMBLY.
2. OPERATOR EXTENSION REQUIRED WHEN VALVE NUT IS DEEPER THAN 4 FEET FROM FINISHED GRADE.
3. CENTER VALVE BOX ON AXIS OF OPERATOR NUT.
4. VALVE BOX EXTENSION SHALL BE CAST IRON OR PVC.
5. VALVE BOX SHALL BE CAST IRON.
6. COVER TO BE TRAFFIC RATED CAST IRON.

4 CAST IRON VALVE BOX

NO SCALE



PLAN VIEW



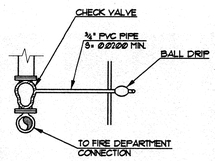
ELEVATION VIEW

NOTES:

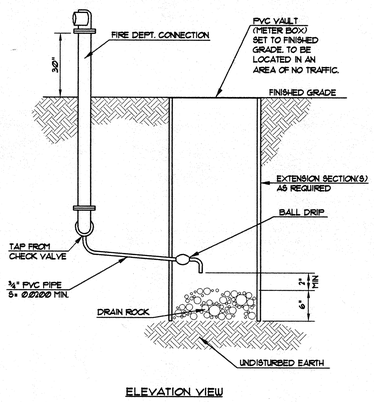
1. INSTALLATION OF TANK SHALL CONFORM TO NFPA 22 STANDARDS.
2. CONTRACTOR SHALL COMPLY WITH TANK MANUFACTURERS INSTALLATION INSTRUCTIONS.
3. BEDDING AND BACKFILL SHALL BE PEA GRAVEL MEETING MANUFACTURER'S REQUIREMENTS.
4. VERIFY TANK DEPTH WITH PUMP REQUIREMENTS.

3 FIRE PUMP SYSTEM

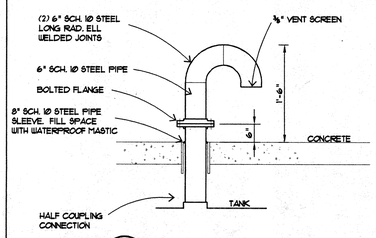
NO SCALE



PLAN VIEW



ELEVATION VIEW



5 TANK VENT

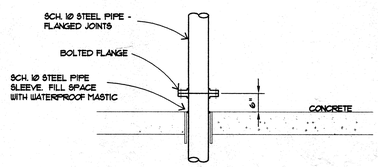
NO SCALE

6 FIRE DEPARTMENT CONNECTION

NO SCALE

PIPE AND SLEEVE SIZES

CONNECTION	Ⓐ	Ⓑ	Ⓒ	Ⓓ
PIPE	8"	8"	8"	2"
PIPE SLEEVE	10"	10"	24"	4"



7 SLAB PENETRATION DETAIL

NO SCALE

EQUIPMENT NOTES

1. "LAYNE" OR APPROVED UL/FM VERTICAL TURBINE DIESEL DRIVEN FIRE PUMP, 1500 GPM, 85 PSI BOOST, WITH 8" SUCTION. INSTALL COLUMN IN 5' SECTIONS. REFER TO ARCHITECTURAL DRAWINGS FOR ROOF ACCESS HATCH.
2. JOCKEY PUMP, ½ HP, 208 VOLT, 3 PHASE 10 GPM, 100 PSI BOOST WITH 1¼" NPT SUCTION AND 1½ DISCHARGE. STANDARD SUCTION/DISCHARGE POSITION. SUPPORT JOCKEY PUMP ON 3" DIAMETER FLANGED PIPE STAND. ANCHOR PIPE STAND TO FLOOR AND PROVIDE 4" HIGH CONCRETE HOUSEKEEPING BASE.
3. 8" ALL FLANGE OS&Y VALVE, MOUNT VERTICAL OR HORIZONTAL AS SHOWN.
4. 8" ALL FLANGE SWING CHECK VALVE, IRON BODY.
5. 8" ALL FLANGE TEST METER. INSTALL IN PIPE LOOP OVER FIRE PUMP AS SHOWN.
6. 8" ALL FLANGE TEE.
7. 8" ALL FLANGE 90° ELBOW
8. 2" x 2" x 1¼" TEE
9. 8" ALL FLANGE SPOOL, LENGTH DETERMINED BY METER MANUFACTURER'S SPECIFICATIONS. VERIFY AND PROVIDE MINIMUM NUMBER OF PIPE DIAMETERS UPSTREAM AND DOWNSTREAM OF METER.
10. 8" ALL FLANGE SPOOL, LENGTH AS REQUIRED.
11. 8" x 8" x 3" ALL FLANGE TEE. INSTALL BLIND FLANGE WITH TAPPED 1¼" NPT CONNECTION ON 3" BRANCH SIDE OF TEE.
12. 2" OS&Y VALVE.
13. 1¼" SWING CHECK VALVE, IRON BODY.
14. 2" 90° ELBOW.
15. 2" PIPE. LENGTH AS REQUIRED.
16. RIGHT ANGLE GEAR DRIVE
17. DISCHARGE HEAD WITH PRESSURE GAUGE AND AUTOMATIC AIR RELIEF VALVE. PROVIDE 6" HIGH CONCRETE HOUSEKEEPING PAD BELOW DISCHARGE HEAD. ANCHOR DISCHARGE HEAD BASE PLATE TO FLOOR WITH (4) ⅝" DIAMETER X1 12" LONG "J" ANCHOR BOLTS TO BE CAST IN CONCRETE FLOOR SLAB.
18. 4" ALL FLANGE RELIEF VALVE AND 4"x8" ALL FLANGE WASTE CONE, WITH SIGHT GLASS. CONNECT VALVE AND CONE WITH 4" ALL FLANGE LONG RADIUS 90° ELBOW. 8" DISCHARGE SIDE OF WASTE CONE DISCHARGES DOWN THROUGH CONCRETE FLOOR INTO WATER TANK.
19. CONCRETE ENGINE SKID PAD. LOCATE PAD UNDER CENTER OF ENGINE SKID. DIMENSION PAD PER PUMP MANUFACTURER'S RECOMMENDATIONS TO PROVIDE OPTIMUM DRIVESHAFT ANGLE. PROVIDE ANCHORAGE BOLTS.
20. EXHAUST FAN, 1600 CFM @ ⅛" SP, SIMILAR TO CARNES LYDKIL3 ¼ HP, 120V, 1Ø WITH GRAVITY SHUTTERS, PROPELLER GUARD, UL LISTING WALL MOUNTING COLLAR, MOUNTING ANGLE FLANGES.
21. 2" BACKFLOW PREVENTER
22. ELECTRIC UNIT HEATER SIMILAR TO TRANE YUHEC-Ø3, 3.3KW, 208V 3Ø, WITH UNIT MOUNTED THERMOSTAT AND WALL/CEILING SWIVEL BRACKETS. SET THERMOSTAT PER ENGINE MANUFACTURERS RECOMMENDATIONS OR 40° F WHICHEVER IS LESS.
23. FLEXIBLE PIPE CONNECTION.
24. FLEXIBLE PIPE CONNECTION AT ENGINE CONNECTION.
25. SUPPORT
26. 2 ½" EXHAUST PIPE THRU 16" DIA. SLEEVE FLEXIBLE PIPE CONNECTION IN RISER - PROVIDE THIMBLE W/ SPRAY SHIELD.
27. 2" WASTE CONE WITH SIGHT GLASS AND TEMPERATURE GAUGE. CONNECT TO HEAT EXCHANGER WASTE LINE.
28. INSTALL (2) 1½" OS&Y VALVES, STRAINER, PRESSURE REGULATOR AND PRESSURE GAUGE. SET PRESSURE REGULATOR PER ENGINE MANUFACTURERS RECOMMENDATIONS. CONNECT TO HEAT EXCHANGER INTAKE LINE FROM ENGINE.
29. ADJUSTABLE COLUMN PIPE STAND WITH FLOOR FLANGE. PROVIDE SADDLE AS REQUIRED FOR PIPE/FITTING. ANCHOR FLOOR FLANGE WITH EXPANSION BOLTS.
30. 1¼" 90° ELBOW.
31. 1¼" PIPE. LENGTH AS REQUIRED.
32. 2" AUTOMATIC FILL VALVE.
33. 8" x 4" TEE
34. FIRE DEPARTMENT CONNECTION ASSEMBLY WITH CHECK VALVE AND BALL DRIP. COORDINATE HEIGHT WITH LOCAL FIRE DEPARTMENT.
35. 133 HP, 1500 RPM, UL/FM CLARK DIESEL ENGINE MODEL PDFP-L4YN.

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REGISTERED PROFESSIONAL ENGINEER #13,624 OREGON JULY 16, 1981 MONICA B. ANDERSON
EXPIRES 12/31/99

Batzhiser & Hubbard Engineers
975 LINCOLN / EUGENE OR 97401
(541) 686-8478 / 345-5303 FAX
423783CSDWG 423798

FERN RIDGE SCHOOL DISTRICT No. 28J
ELMIRA HIGH SCHOOL
ADDITIONS AND ALTERATIONS
24936 FIR GROVE LANE
ELMIRA, OREGON 97437

REVISED

CIVIL DETAILS

PROJECT NUMBER 95064 | DATE 4/30/99

C9

APPENDIX 4

SUBSTITUTION REQUEST REVIEW (PREBID)

Approval applies to specific product substitution only and does not relieve the Contractor/Supplier from the responsibility of meeting all applicable requirements of the Plans and Specifications. "Yes" indicates that the substitution request is accepted; "No" indicates that it is NOT accepted, and "Pending" indicates that evaluation of the substitution request is pending.

The following representatives and manufacturers have further agreed upon the following:

1. The proposed substitution does not affect dimensions show on the Drawings.
2. The proposer will pay for changes to the building design, including engineering design, detailing, and construction costs caused by the requested substitution.
3. The proposed substitution will have no adverse effect on other trades, the construction schedule, or specified warranty requirements.
4. Maintenance and service parts will be locally available for the proposed substitution.
5. The proposed substitution function, appearance, and quality are equivalent or superior to the specified item.

Product	Proposed Added Manufacturer	Accepted?
PVC Roofing	Carlisle Sure-Flex	Yes
Centrifugal Roof Ventilator EF-1	Twin City Fans	Yes
Ceiling Mounted Ventilators EF-2	Twin City Fans	Yes
Roof Hoods	Twin City Fans	Yes
Split System Air Conditions AC-1/CU-1	Daikin AC	Yes
HVAC Controls	Johnson Controls FX Series	No
Water Cooler w/ Filler EWC-1	Murdock A132 Series	No
Water Cooler w/ Filler EWC-2	Murdock A131 Series	No
Water Mixing Valve	Acorn Controls MV17 Series	No
Water Mixing Valve	Acorn Controls ST70 Series	No
Light Fixture SF2	Day-Brite LPL LED Series	Yes

Light Fixture WF1A & WF1B	Primus ALX2-SQL Series	Yes
Light Fixture X1, X1G, X2	Chloride CE Series	Yes
Light Fixture DL1	Gotham 4” EVO Series	Yes
Light Fixture PF1	Lithonia IBL Series	Yes
Light Fixture PF2A & PF2B	Finelite S18 LED Series	Yes
Light Fixture RF1	Lithonia 2BLT Series	Yes
Light Fixture SF1	Nulite X-SA LED Series	No
Light Fixture SF2	Kenall MLRS12 Series	Yes
Light Fixture WF1A & WF1B	Nulite X-SA LED Series	Yes
Light Fixture WP1	Teron Cornerstone Series	No
Light Fixture X3	Acculite PG Series	No
Light Fixture X4	Gotham 4” EVO Series	No

END OF SUBSTITUTION REQUEST REVIEW