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SECTION 16410

ENCLOSED SWITCHES AND CIRCUIT BREAKERS

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. This Section includes the following individually mounted, enclosed switches and circuit breakers:
 - 1. Fusible switches.
 - 2. Nonfusible switches.
 - 3. Molded-case circuit breakers.
 - 4. Molded-case switches.
 - 5. Enclosures.

1.3 DEFINITIONS

- A. GD: General duty.
- B. GFCI: Ground-fault circuit interrupter.
- C. HD: Heavy duty.
- D. RMS: Root mean square.
- E. SPDT: Single pole, double throw.

1.4 QUALITY ASSURANCE

- A. Conform to requirements of NFPA 70.
- B. Products: Furnish products listed and classified by Underwriters Laboratories Inc. as suitable for purpose specified and indicated.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in CEC, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. Comply with CEC.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation under the following conditions, unless otherwise indicated:
 - 1. Ambient Temperature: Not less than minus 22 deg F and not exceeding 118 deg F.
 - 2. Altitude: Not exceeding 6600 feet.

1.6 COORDINATION

- A. Coordinate layout and installation of switches, circuit breakers, and components with other construction, including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:

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

2.2 FUSIBLE AND NONFUSIBLE SWITCHES

- A. Manufacturers:
 1. Eaton Corporation; Cutler-Hammer Products.
 2. General Electric Co.; Electrical Distribution & Control Division.
 3. Siemens Energy & Automation, Inc.
 4. Square D/Group Schneider.
- B. Fusible Switch, 600 A and Smaller: NEMA KS 1, Type HD, with clips or bolt pads to accommodate specified fuses, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
- C. Nonfusible Switch, 600 A and Smaller: NEMA KS 1, Type HD, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
- D. Accessories:
 1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
 2. Neutral Kit: Internally mounted; insulated, capable of being grounded, and bonded; and labeled for copper and aluminum neutral conductors.
 3. Auxiliary Contact Kit: Auxiliary set of contacts arranged to open before switch blades open.

2.3 MOLDED-CASE CIRCUIT BREAKERS AND SWITCHES

- A. Manufacturers:
 1. Eaton Corporation; Cutler-Hammer Products.
 2. General Electric Co.; Electrical Distribution & Control Division.
 3. Square D/Group Schneider.
- B. Molded-Case Circuit Breaker: NEMA AB 1, with interrupting capacity to meet available fault currents.
 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 2. Adjustable Instantaneous-Trip Circuit Breakers: Magnetic trip element with front-mounted, field-adjustable trip setting.
 3. Electronic Trip-Unit Circuit Breakers: RMS sensing; field-replaceable rating plug; with the following field-adjustable settings:
 - a. Instantaneous trip.
 - b. Long- and short-time pickup levels.
 - c. Long- and short-time time adjustments.
 - d. Ground-fault pickup level, time delay, and I₂t response.
 4. Current-Limiting Circuit Breakers: Frame sizes 400 A and smaller and let-through ratings less than NEMA FU 1, RK-5.
 5. Integrally Fused Circuit Breakers: Thermal-magnetic trip element with integral limiter-style fuse listed for use with circuit breaker and trip activation on fuse opening or on opening of fuse compartment door.
 6. GFCI Circuit Breakers: Single- and two-pole configurations with 5-mA trip sensitivity.
- C. Molded-Case Circuit-Breaker Features and Accessories:
 1. Standard frame sizes, trip ratings, and number of poles.
 2. Lugs: Mechanical style suitable for number, size, trip ratings, and conductor material.

3. Application Listing: Type SWD for switching fluorescent lighting loads; Type HACR for heating, air-conditioning, and refrigerating equipment.
 4. Ground-Fault Protection: Integrally mounted relay and trip unit with adjustable pickup and time-delay settings, push-to-test feature, and ground-fault indicator.
 5. Communication Capability: Circuit-breaker-mounted Integral communication module with functions and features compatible with power monitoring and control system specified in Division 16 Section "Electrical Power Monitoring and Control."
 6. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 75 percent of rated voltage.
 7. Undervoltage Trip: Set to operate at 35 to 75 percent of rated voltage with field-adjustable 0.1- to 0.6-second time delay.
 8. Auxiliary Switch: One SPDT switch with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts, "b" contacts operate in reverse of circuit-breaker contacts.
 9. Key Interlock Kit: Externally mounted to prohibit circuit-breaker operation; key shall be removable only when circuit breaker is in off position.
 10. Zone-Selective Interlocking: Integral with electronic trip unit; for interlocking ground-fault protection function.
- D. Molded-Case Switches: Molded-case circuit breaker with fixed, high-set instantaneous trip only, and short-circuit withstand rating equal to equivalent breaker frame size interrupting rating.
- E. Molded-Case Switch Accessories:
1. Lugs: Mechanical style suitable for number, size, trip ratings, and material of conductors.
 2. Application Listing: Type HACR for heating, air-conditioning, and refrigerating equipment.
 3. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 75 percent of rated voltage. Provide "dummy" trip unit where required for proper operation.
 4. Undervoltage Trip: Set to operate at 35 to 75 percent of rated voltage with field-adjustable 0.1- to 0.6-second time delay. Provide "dummy" trip unit where required for proper operation.
 5. Auxiliary Switch: One SPDT switch with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts, "b" contacts operate in reverse of circuit-breaker contacts.
 6. Key Interlock Kit: Externally mounted to prohibit operation; key shall be removable only when switch is in off position.

2.4 FUSES

- A. Manufacturer
1. Gould Shawmut
 2. Bussman
 3. Reliance
- B. Description: Dual element, current limiting, time delay, one-time fuse, 600 volt, UL 198C and UL 198E, Class RK1.
- C. Interrupting Rating: 200,000 rms amperes.

2.5 ENCLOSURES

- A. NEMA AB 1 and NEMA KS 1 to meet environmental conditions of installed location.
1. Outdoor Locations: NEMA 250, Type 3R.
 2. Kitchen Areas: NEMA 250, Type 4X, stainless steel.
 3. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 4. Hazardous Areas Indicated on Drawings: NEMA 250, Type 7C.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine elements and surfaces to receive enclosed switches and circuit breakers for

compliance with installation tolerances and other conditions affecting performance.

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

3.2 INSTALLATION

- A. Comply with applicable portions of NECA 1, NEMA PB 1.1, and NEMA PB 2.1 for installation of enclosed switches and circuit breakers.
- B. Mount individual wall-mounting switches and circuit breakers with tops at uniform height, unless otherwise indicated. Anchor floor-mounting switches to concrete base.
- C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

3.3 FIELD QUALITY CONTROL

- A. Inspect and test each circuit breaker.
- B. Inspect each circuit breaker visually.
- C. Perform several mechanical ON-OFF operations on each circuit breaker.
- D. Verify circuit continuity on each pole in closed position.
- E. Determine that circuit breaker will trip on overcurrent condition, with tripping time to NEMA AB 1 requirements.
- F. Include description of testing and results in test report.

3.4 ADJUSTING

- A. Set field-adjustable switches and circuit-breaker trip ranges.
- B. Adjust trip settings so that circuit breakers coordinate with other overcurrent protective devices in circuit.
- C. Adjust trip settings to provide adequate protection from overcurrent and fault currents.

3.5 CLEANING

- A. On completion of installation, vacuum dirt and debris from interiors; do not use compressed air to assist in cleaning.
- B. Inspect exposed surfaces and repair damaged finishes.

END OF SECTION

SECTION 16443

PANELBOARDS

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. This Section includes the following:
 - 1. Distribution panelboards.
 - 2. Lighting and appliance branch-circuit panelboards.
 - 3. Transient voltage suppression panelboards.

1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. GFCI: Ground-fault circuit interrupter.
- C. RFI: Radio-frequency interference.
- D. RMS: Root mean square.
- E. SPDT: Single pole, double throw.

1.4 SUBMITTALS

- A. Product Data: For each type of panelboard, overcurrent protective device, transient voltage suppression device, accessory, and component indicated. Include dimensions and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
- B. Shop Drawings: For each panelboard and related equipment.
 - 1. Dimensioned plans, elevations, sections, and details. Show tabulations of installed devices, equipment features, and ratings. Include the following:
 - a. Enclosure types and details for types other than NEMA 250, Type 1.
 - b. Bus configuration, current, and voltage ratings.
 - c. Short-circuit current rating of panelboards and overcurrent protective devices.
 - d. UL listing for series rating of installed devices.
 - e. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
 - 2. Wiring Diagrams: Power, signal, and control wiring.
- C. Manufacturer Seismic Qualification Certification: Submit certification that panelboards, overcurrent protective devices, accessories, and components will withstand seismic forces. Include the following:
 - 1. Basis of Certification: Indicate whether withstand certification is based on actual test of assembled components or on calculation.
 - a. 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."
 - 2. Detailed description of equipment anchorage devices on which the certification is based and their installation requirements.
- D. Qualification Data: For testing agency.
- E. Field quality-control test reports including the following:
 - 1. Test procedures used.
 - 2. Test results that comply with requirements.

3. Results of failed tests and corrective action taken to achieve test results that comply with requirements.
- F. Panelboard Schedules: For installation in panelboards. Submit final versions after load balancing.
- G. Operation and Maintenance Data: For panelboards and components to include in emergency, operation, and maintenance manuals. Include the following:
 1. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
 2. Time-current curves, including selectable ranges for each type of overcurrent protective device.

1.5 QUALITY ASSURANCE

- A. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a member company of the International Electrical Testing Association or is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7, and that is acceptable to authorities having jurisdiction.
 1. Testing Agency's Field Supervisor: Person currently certified by the International Electrical Testing Association or the National Institute for Certification in Engineering Technologies to supervise on-site testing specified in Part 3.
- B. Testing Agency Qualifications: An independent agency, with the experience and capability to conduct the testing indicated, that is a nationally recognized testing laboratory (NRTL) as defined by OSHA in 29 CFR 1910.7.
- C. Source Limitations: Obtain panelboards, overcurrent protective devices, components, and accessories through one source from a single manufacturer.
- D. Product Options: Drawings indicate size, profiles, and dimensional requirements of panelboards and are based on the specific system indicated.
- E. Electrical Components, Devices, and Accessories: Listed and labeled as defined in CEC, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- F. Comply with NEMA PB 1.
- G. Comply with CEC.

1.6 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation under the following conditions, unless otherwise indicated:
 1. Ambient Temperature: Not exceeding 118 deg F
 2. Altitude: Not exceeding 6600 feet (2000 m).
- B. Service Conditions: NEMA PB 1, usual service conditions, as follows:
 1. Ambient temperatures within limits specified.
 2. Altitude not exceeding 6600 feet (2000 m).
- C. Interruption of Existing Electric Service: Do not interrupt electric service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary electric service according to requirements indicated:
 1. Notify Architect and Owner no fewer than 14 days in advance of proposed interruption of electrical service.
 2. Do not proceed with interruption of electrical service without Architects and Owners written permission.

1.7 COORDINATION

- A. Coordinate layout and installation of panelboards and components with other construction that

penetrates walls or is supported by them, including electrical and other types of equipment, raceways, piping, and encumbrances to workspace clearance requirements.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Keys: Six spares for each type of panelboard cabinet lock.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Panelboards, Overcurrent Protective Devices, Controllers, Contactors, and Accessories:
 - a. Eaton Corporation; Cutler-Hammer Products.
 - b. General Electric Co.; Electrical Distribution & Protection Div.
 - c. Square D.
 - 2. Transient Voltage Suppression Panelboards:
 - a. Current Technology.
 - b. Liebert Corporation.

2.2 MANUFACTURED UNITS

- A. Fabricate and test panelboards according to IEEE 344 to withstand seismic forces
- B. Enclosures: Flush- and surface-mounted cabinets. NEMA PB 1, Type 1.
 - 1. Rated for environmental conditions at installed location.
 - a. Outdoor Locations: NEMA 250, Type 3R unless noted otherwise.
 - b. Kitchen Areas: NEMA 250, Type 4X, stainless steel.
 - c. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 - d. Hazardous Areas Indicated on Drawings: NEMA 250, Type 7C.
 - 2. Front: Secured to box with concealed trim clamps. For surface-mounted fronts, match box dimensions; for flush-mounted fronts, overlap box.
 - 3. Skirt for Surface-Mounted Panelboards: Same gage and finish as panelboard front with flanges for attachment to panelboard, wall, and ceiling or floor.
 - 4. Gutter Extension and Barrier: Same gage and finish as panelboard enclosure; integral with enclosure body. Arrange to isolate individual panel sections.
 - 5. Column-Type Panelboards: Narrow gutter extension, with cover, to overhead junction box equipped with ground and neutral terminal buses.
 - 6. Finish: Manufacturer's standard enamel finish over corrosion-resistant treatment or primer coat.
 - 7. Directory Card: With transparent protective cover, mounted in metal frame, inside panelboard door.
- C. Phase and Ground Buses:
 - 1. Material: Hard-drawn copper, 98 percent conductivity.
 - 2. Equipment Ground Bus: Adequate for feeder and branch-circuit equipment ground conductors; bonded to box.
 - 3. Isolated Equipment Ground Bus: Adequate for branch-circuit equipment ground conductors; insulated from box.
 - 4. Extra-Capacity Neutral Bus: Neutral bus rated 200 percent of phase bus and UL listed as suitable for nonlinear loads.
 - 5. Split Bus: Vertical buses divided into individual vertical sections.
- D. Conductor Connectors: Suitable for use with conductor material.

1. Main and Neutral Lugs: Compression type.
 2. Ground Lugs and Bus Configured Terminators: Compression type.
 3. Feed-Through Lugs: Compression type suitable for use with conductor material. Locate at opposite end of bus from incoming lugs or main device.
 4. Extra-Capacity Neutral Lugs: Rated 200 percent of phase lugs mounted on extra-capacity neutral bus.
- E. Service Equipment Label: UL labeled for use as service equipment for panelboards with main service disconnect switches.
- F. Future Devices: Mounting brackets, bus connections, and necessary appurtenances required for future installation of devices.

2.3 PANELBOARD SHORT-CIRCUIT RATING

- A. UL label indicating connected rating with integral or remote upstream overcurrent protective devices. Include size and type of upstream device allowable, branch devices allowable, and UL connected short-circuit rating.
- B. Fully rated to interrupt symmetrical short-circuit current available at terminals.

2.4 DISTRIBUTION PANELBOARDS

- A. Doors: Secured with vault-type latch with tumbler lock; keyed alike. Omit for fused-switch panelboards.
- B. Main Overcurrent Protective Devices: Circuit Breaker.
- C. Branch Overcurrent Protective Devices:
 1. For Circuit-Breaker Frame Sizes 125 A and Smaller: Bolt-on type circuit breakers.
 2. For Circuit-Breaker Frame Sizes Larger Than 125 A: Bolt-on circuit breakers.

2.5 LIGHTING AND APPLIANCE BRANCH-CIRCUIT PANELBOARDS

- A. Branch Overcurrent Protective Devices: Bolt-on type circuit breakers, replaceable without disturbing adjacent units.
- B. Doors: Concealed hinges; secured with flush latch with tumbler lock; keyed alike.

2.6 OVERCURRENT PROTECTIVE DEVICES

- A. Molded-Case Circuit Breaker: UL 489, with interrupting capacity to meet available fault currents.
 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads, and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 2. Adjustable Instantaneous-Trip Circuit Breakers: Magnetic trip element with front-mounted, field-adjustable trip setting.
 3. Electronic trip-unit circuit breakers shall have RMS sensing; field-replaceable rating plug; and with the following field-adjustable settings:
 - a. Instantaneous trip.
 - b. Long- and short-time pickup levels.
 - c. Long- and short-time time adjustments.
 - d. Ground-fault pickup level, time delay, and I_{2t} response.
 4. Current-Limiting Circuit Breakers: Frame sizes 400 A and smaller; let-through ratings less than NEMA FU 1, RK-5.
 5. Integrally Fused Circuit Breakers: Thermal-magnetic trip element with integral limiter-style fuse listed for use with circuit breaker; trip activation on fuse opening or on opening of fuse compartment door.
 6. GFCI Circuit Breakers: Single- and two-pole configurations with 5-mA trip sensitivity.
- B. Molded-Case Circuit-Breaker Features and Accessories: Standard frame sizes, trip ratings, and

number of poles.

1. Lugs: Compression style, suitable for number, size, trip ratings, and conductor materials.
 2. Application Listing: Appropriate for application; Type SWD for switching fluorescent lighting loads; Type HACR for heating, air-conditioning, and refrigerating equipment.
 3. Ground-Fault Protection: Integrally mounted relay and trip unit with adjustable pickup and time-delay settings, push-to-test feature, and ground-fault indicator.
 4. Communication Capability: Universal-mounted communication module with functions and features compatible with power monitoring and control system.
 5. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage.
 6. Undervoltage Trip: Set to operate at 35 to 75 percent of rated voltage with field-adjustable 0.1- to 0.6-second time delay.
 7. Auxiliary Contacts: Two SPDT switches with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts, "b" contacts operate in reverse of circuit-breaker contacts.
 8. Key Interlock Kit: Externally mounted to prohibit circuit-breaker operation; key shall be removable only when circuit breaker is in off position.
 9. Zone-Selective Interlocking: Integral with electronic trip unit; for interlocking ground-fault protection function.
 10. Multipole units enclosed in a single housing or factory-assembled to operate as a single unit.
- C. Fused Switch: NEMA KS 1, Type HD; clips to accommodate specified fuses; lockable handle.

2.7 CONTROLLERS

- A. Motor Controllers: NEMA ICS 2, Class A, combination controller equipped for panelboard mounting and including the following accessories:
1. Individual control-power transformers.
 2. Fuses for control-power transformers.
 3. Bimetallic-element overload relay.
 4. Indicating lights.
 5. Seal-in contact.
 6. 2 convertible auxiliary contacts.
 7. Push buttons.
 8. Selector switches.
- B. Contactors: NEMA ICS 2, Class A, combination controller equipped for panelboard mounting and including the following accessories:
1. Individual control-power transformers.
 2. Fuses for control-power transformers.
 3. Indicating lights.
 4. Seal-in contact.
 5. 2 convertible auxiliary contacts or as otherwise indicated on drawings.
 6. Push buttons.
 7. Selector switches.
- C. Controller Disconnect Switches: Adjustable instantaneous-trip circuit breaker integrally mounted and interlocked with controller.
1. Auxiliary Contacts: Integral with disconnect switches to de-energize external control-power source.
- D. Contactors in Main Bus: NEMA ICS 2, Class A, mechanically held general-purpose controller.
1. Control-Power Source: Control-power transformer, with fused primary and secondary terminals, connected to main bus ahead of contactor connection.
 2. Control-Power Source: 120-V branch circuit.

2.8 ACCESSORY COMPONENTS AND FEATURES

- A. Furnish accessory set including tools and miscellaneous items required for overcurrent

protective device test, inspection, maintenance, and operation.

- B. Furnish portable test set to test functions of solid-state trip devices without removal from panelboard.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install panelboards and accessories according to NEMA PB 1.1.
- B. Mount top of trim 74 inches (1880 mm) above finished floor, unless otherwise indicated.
- C. Mount plumb and rigid without distortion of box. Mount recessed panelboards with fronts uniformly flush with wall finish. Where panelboards are recessed into fire rated walls, notify Architect immediately of condition and provide additional furring of wall (and related drywall) to bring panelboard front flush with finished surface.
- D. Install overcurrent protective devices and controllers.
 - 1. Set field-adjustable switches and circuit-breaker trip ranges.
- E. Install filler plates in unused spaces.
- F. Stub five 1-inch (27-GRC) empty conduits from panelboard into accessible ceiling space or space designated to be ceiling space in the future. Stub four 1-inch (27-GRC) empty conduits into raised floor space or below slab not on grade.
- G. Arrange conductors in gutters into groups and bundle and wrap with wire ties after completing load balancing in a neat and professional manor.

3.2 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs.
- B. Create a directory to indicate installed circuit loads (after balancing panelboard loads). The Contractor shall be responsible for updating directories to indicate actual area served which is not necessarily the description indicated on the bid documents. Use a computer or typewriter to create directory; handwritten directories are not acceptable.
- C. Panelboard Nameplates: Label each panelboard with engraved metal or laminated-plastic nameplate mounted with corrosion-resistant screws or rivets.

3.3 CONNECTIONS

- A. Ground equipment according to Section "Grounding and Bonding for Electrical Systems."
- B. Connect wiring according to Section "Low-Voltage Electrical Power Conductors and Cables."

3.4 FIELD QUALITY CONTROL

- A. Prepare for acceptance tests as follows:
 - 1. Test insulation resistance for each panelboard bus, component, connecting supply, feeder, and control circuit.
 - 2. Test continuity of each circuit.

3.5 CLEANING

- A. On completion of installation, inspect interior and exterior of panelboards. Remove paint splatters and other spots. Vacuum dirt and debris prior to pulling any conductors; do not use compressed air to assist in cleaning. Repair exposed surfaces to match original finish.

END OF SECTION

SECTION 16510

INTERIOR LIGHTING

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Interior luminaires.
- B. Emergency lighting units.
- C. Exit signs.
- D. Ballasts.
- E. Fluorescent dimming ballasts and controls.
- F. Fluorescent emergency power supply units.
- G. Lamps.
- H. Luminaire accessories.

1.2 REFERENCE STANDARDS

- A. ANSI C78.379 - American National Standard for Electric Lamps -- Reflector Lamps -- Classification of Beam Patterns; 2006.
- B. ANSI C82.1 - American National Standard for Lamp Ballast - Line Frequency Fluorescent Lamp Ballast; 2004.
- C. ANSI C82.4 - American National Standard for Ballasts for High-Intensity-Discharge and Low Pressure Sodium Lamps (Multiple-Supply Type); 2002.
- D. IESNA LM-63 - ANSI Approved Standard File Format for Electronic Transfer of Photometric Data and Related Information; 2002.
- E. NECA 1 - Standard for Good Workmanship in Electrical Contracting; National Electrical Contractors Association; 2006.
- F. NECA/IESNA 500 - Standard for Installing Indoor Commercial Lighting Systems; National Electrical Contractors Association; 2006.
- G. NECA/IESNA 502 - Standard for Installing Industrial Lighting Systems; National Electrical Contractors Association; 2006.
- H. NEMA WD 6 - Wiring Devices - Dimensional Requirements; National Electrical Manufacturers Association; 2002 (R2008).
- I. NFPA 70 - National Electrical Code; National Fire Protection Association; 2008.
- J. NFPA 101 - Code for Safety to Life from Fire in Buildings and Structures; National Fire Protection Association; 2009.
- K. UL 924 - Emergency Lighting and Power Equipment; Current Edition, Including All Revisions.
- L. UL 1598 - Luminaires; Current Edition, Including All Revisions.

1.3 SUBMITTALS

- A. Shop Drawings: Indicate dimensions and components for each fixture that is not a standard product of the manufacturer.
- B. Product Data: Provide manufacturer's standard catalog pages and data sheets including detailed information on luminaire construction, dimensions, ratings, finishes, mounting requirements, listings, service conditions, photometric performance, installed accessories, and

ceiling compatibility; include model number nomenclature clearly marked with all proposed features.

- C. Operation and Maintenance Data: Instructions for each product including information on replacement parts.
- D. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. Extra lamps: Ten percent (10%) of total quantity installed for each type, but not less than two of each type.

PART 2 PRODUCTS

2.1 LUMINAIRES

- A. Provide products that comply with requirements of NFPA 70.
- B. Provide products that are listed and labeled as complying with UL 1598, where applicable.
- C. Provide products that comply with requirements of NFPA 70 and NFPA 101.
- D. Provide products listed and classified by Underwriters Laboratories Inc. as suitable for the purpose specified and indicated.
- E. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.
- F. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, supports, trims, accessories, etc. as necessary for a complete operating system.
- G. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.

2.2 EMERGENCY LIGHTING UNITS

- A. Description: Emergency lighting units complying with NFPA 101 and all applicable state and local codes, and listed and labeled as complying with UL 924.
- B. Operation: Upon interruption of normal power source or brownout condition exceeding 20 percent voltage drop from nominal, solid-state control automatically switches connected lamps to integral battery power for minimum of 90 minutes of rated emergency illumination, and automatically recharges battery upon restoration of normal power source.
- C. Battery:
 - 1. Size battery to supply all connected lamps, including emergency remote heads where indicated.
- D. Diagnostics: Provide power status indicator light and accessible integral test switch to manually activate emergency operation.
- E. Provide low-voltage disconnect to prevent battery damage from deep discharge.

2.3 FIXTURE TYPES

- A. Furnish products as indicated in Schedule included on the Drawings.

2.4 EXIT SIGNS

- A. All Exit Signs: Internally illuminated with LEDs unless otherwise indicated; complying with NFPA 101 and all applicable state and local codes, and listed and labeled as complying with UL 924.
 - 1. Number of Faces: Single or double as indicated or as required for the installed location.
 - 2. Directional Arrows: As indicated or as required for the installed location.

- B. Exit Signs: Exit sign fixture suitable for use as emergency lighting unit.
 - 1. Provide fixtures complying with NFPA 101.
 - 2. Lamps: LED.
 - 3. Mounting: As indicated.

2.5 BALLASTS

- A. All Ballasts:
 - 1. Provide ballasts containing no polychlorinated biphenyls (PCBs).
 - 2. Minimum Efficiency/Efficacy: Provide ballasts complying with all current applicable federal and state ballast efficiency/efficacy standards.

2.6 FLUORESCENT EMERGENCY POWER SUPPLY UNITS

- A. Description: Self-contained fluorescent emergency power supply units suitable for use with indicated luminaires, complying with NFPA 101 and all applicable state and local codes, and listed and labeled as complying with UL 924.
- B. Compatibility:
 - 1. Ballasts: Compatible with electronic, standard magnetic, energy saving, and dimming AC ballasts, including those with end of lamp life shutdown circuits.
- C. Operation: Upon interruption of normal power source, solid-state control automatically switches connected lamp(s) to the fluorescent emergency power supply for minimum of 90 minutes of rated emergency illumination, and automatically recharges battery upon restoration of normal power source.
- D. Diagnostics: Provide accessible and visible multi-chromatic combination test switch/indicator light to display charge, test, and diagnostic status and to manually activate emergency operation.

2.7 LAMPS

- A. Manufacturers:
 - 1. GE Lighting: www.gelighting.com.
 - 2. Philips Lighting Co of NA: www.lighting.philips.com.
 - 3. Sylvania.
- B. All Lamps:
 - 1. Unless explicitly excluded, provide new, compatible, operable lamps in each luminaire.
 - 2. Verify compatibility of specified lamps with luminaires to be installed. Where lamps are not specified, provide lamps per luminaire manufacturer's recommendations.
 - 3. Minimum Efficiency: Provide lamps complying with all current applicable federal and state lamp efficiency standards.
 - 4. Color Temperature Consistency: Unless otherwise indicated, for each type of lamp furnish products which are consistent in perceived color temperature. Replace lamps that are determined by the Architect to be inconsistent in perceived color temperature.
- C. Lamp Types: As specified for each fixture.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Coordinate locations of outlet boxes provided under Section 16138 as required for installation of luminaires provided under this section.
- B. Install products according to manufacturer's instructions.
- C. Install luminaires securely, in a neat and workmanlike manner, as specified in NECA 1 (general workmanship), NECA 500 (commercial lighting), and NECA 502 (industrial lighting).

- D. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.
- E. Install fixtures securely, in a neat and workmanlike manner, as specified in NECA 500 and 502.
- F. Surface Mounted Fixtures: Install plumb and square and aligned with building lines and with each other; secure to prevent movement.
- G. Suspended Ceiling Mounted Fixtures:
 - 1. Install at locations indicated on reflected ceiling plan.
 - 2. Support fixtures larger than 2 by 4 feet in size independent of ceiling framing.
 - 3. Fixtures Recessed in Ceilings: Install to permit removal from below.
 - 4. Lay-In Ceiling Mounted Fixtures:
 - a. See section where lay-in ceiling is specified for additional requirements.
 - b. Support fixtures of all sizes independently of the grid, anchored directly to building structure.
 - c. Install clips to secure fixtures in place.
 - 5. Fixtures Recessed in Fire-Rated Ceilings: Install using accessories and firestopping materials to meet regulatory requirements for fire rating.
 - 6. Suspended Fixtures: Install using pendants supported from swivel hangers, with pendant length as required for indicated height.
- H. Wall Mounted Fixtures: Install at height as indicated on the drawings.
- I. Install accessories furnished with each luminaire.
- J. Make wiring connections to branch circuit using building wire with insulation suitable for temperature conditions within fixture.
- K. Bond products and metal accessories to branch circuit equipment grounding conductor.
- L. Emergency Lighting Units:
- M. Exit Signs:
- N. Fluorescent Emergency Power Supply Units:
- O. Install lamps in each luminaire.
- P. Install in accordance with manufacturers instructions.
- Q. Install specified lamps in each luminaire, emergency lighting unit and exit sign.
- R. Verify all ceiling types and provide lighting fixtures with suitable mounting hardware for mounting in or on subject ceiling.
- S. Surface Mounted Fluorescent Fixtures: Where fixtures are indicated for installation on low-density cellulose fiberboard (see room finish schedule on drawings), provide 1-1/2" insulation, unless UL approved for mounting directly to the ceiling material.
- T. Standard Plaster Frames: Provide plaster frames for all recessed lighting fixtures installed in plaster or drywall ceilings (see room finish schedule on drawings). Provide plaster frame designed and fabricated of such materials to preclude the possibility of staining the plaster.
- U. Properly support and align fixtures and provide all necessary steel shapes for support of the fixtures. Coordinate complete fixture installation with the building construction.
- V. Where special fixtures to be used in special ceiling are scheduled, verify all ceiling systems and coordinate fixture type and accessories prior to ordering fixtures. Coordinate and cooperate with ceiling supplier in the preparation of ceiling system Shop Drawings.
- W. Install fluorescent fixtures as recommended by the manufacturer or as necessary to provide exact horizontal alignment, preventing horizontal or vertical deflection on angular jointing of fixtures suspended in continuous rows.

- X. Two-lamp ballasts shall be allowed to feed single lamps in tandem fixtures and shall be properly identified to show which lamps are fed from this ballast by markers on the fixture and the ballast. Provide the quantity and type of ballasts required to achieve switching configuration indicated on the drawings.

3.2 FIELD QUALITY CONTROL

- A. See Section 01400 - Quality Requirements, for additional requirements.
- B. Inspect each product for damage and defects.
- C. Operate each luminaire after installation and connection to verify proper operation.
- D. Test self-powered exit signs, emergency lighting units, and fluorescent emergency power supply units to verify proper operation upon loss of normal power supply.
- E. Correct wiring deficiencies and repair or replace damaged or defective products. Repair or replace excessively noisy ballasts as determined by Architect.
- F. Each fluorescent fixture when initially energized shall be left on continuously for 100 consecutive hours to properly burn in fluorescent lamps.

3.3 ADJUSTING

- A. Aim and position adjustable luminaires to achieve desired illumination as indicated or as directed by Architect. Secure locking fittings in place.
- B. Aim and position adjustable emergency lighting unit lamps to achieve optimum illumination of egress path as required or as directed by Architect or authority having jurisdiction.
- C. Exit Signs with Field-Selectable Directional Arrows: Set as indicated or as required to properly designate egress path as directed by Architect or authority having jurisdiction.
- D. Aim and adjust fixtures as indicated.
- E. Position exit sign directional arrows as indicated.

3.4 CLEANING

- A. Clean surfaces according to NECA 500 (commercial lighting), NECA 502 (industrial lighting), and manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.
- B. Clean electrical parts to remove conductive and deleterious materials.
- C. Remove dirt and debris from enclosures.
- D. Clean photometric control surfaces as recommended by manufacturer.
- E. Clean finishes and touch up damage.

3.5 CLOSEOUT ACTIVITIES

3.6 SCHEDULE - See Drawings

END OF SECTION

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SECTION 16520

AUTOMATIC LIGHTING CONTROL SYSTEM

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. Provide and design an automatic lighting control system as described in this specification and as called for on the drawings.

1.2 QUALITY ASSURANCE

- A. Manufacturer shall have a minimum of 10 years experience in manufacturing and installing this type of system.
- B. The Contractor shall provide a list of recent jobs completed during the last 5 years with the name and phone number of a contact person.
- C. All components and assemblies are to be pre-tested and assembled at the factory prior to installation.
- D. Provide a factory-trained technician on site. The technician shall functionally test each component in the system after installation to verify proper operation and confirm that the panel wiring and addressing conform to the wiring documentation.

1.3 SUBMITTALS

- A. The following list includes the required shop drawings and product data information that shall be submitted.
 - 1. Underwriters Laboratories, Inc. (UL) listing and factory test reports.
 - 2. Internal and system wiring diagrams.
 - 3. Single line diagram of the system configuration. Typical riser diagrams are not acceptable.
 - 4. Dimensions of the equipment layout.
 - 5. Control wiring and conduits layout and connections.
 - 6. Floor plans to scale showing the location of each device and equipment.
 - 7. Product data of all the components including but not limited to programmable central controllers, transceivers panels, input relays, switches and other ancillary equipment.

1.4 REFERENCES

- A. UL 916 Energy Management Equipment.
- B. FCC Emissions Standards specified in Part 15, subpart J for Class A, Applications.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Provide and microprocessor controlled relay panels for the Lighting Control System. The system shall include programmable standalone master panel, switch inputs, wiring, power supplies, relays and ancillary relays.
- B. Panels shall be capable of standing alone or operating as part of a network.
 - 1. The system shall provide intelligence to operate as follows:
 - a. Store all user operating data.
 - b. Initiate all relay output commands based on:
 - 1) Operator inputs
 - 2) Automatic operating schedule
 - 3) Binary type field sensors
 - 4) Universal override switch inputs
 - 5) Internal 56K Baud modem
 - c. Provide automatic system diagnostics and alarming based on detected faults in the

- controller, transceiver panels, relays, and data line.
2. System shall include a memory back up to be able to survive an indefinite length of power failure.
- C. Lighting Control Panel (LCP): Microprocessor based, complete prewired assemblies consisting of the following:
1. Stand alone panel controller capable of receiving and acting upon programs downloaded from the central computer. Programs downloaded from the network shall be capable of continuing to operate even if the network should fail. Battery Back up provides 8 days of memory retention. Panel shall be part of a system that can control up to 750 relays and receive up to 500 switch inputs. Panel shall have an USB input for local programming and trouble shooting from a laptop computer.
 2. Internal digital clock with self control power.
 3. Output modules: Plug in type to receive coded digital commands from the panel controller and pulse output relays to the appropriate state. Actual status feedback of the relays are to be fed back to the panel controller and from there to the central computer. Actual status of each relay is to be indicated by a pilot LED on the control board. Each Module controls 8 or 16 relays.
 4. Switch input modules: Plug-in type, actuated by remote external contact closures. These contact closures may be either momentary or maintained. The action of the contact is noted by the panel controller and acted upon as programmed by software. The action of the contact can command any group of output relays to the desired state. Either 8 or 24-input channels as shown on the plans.
 5. Output Relays
 - a. Type: Momentary pulsed, mechanically latched with pilot light contact.
 - b. Rating: 20 Ampere, 277VAC
 - c. Number per panel: 16,32 or 48 as required to satisfy this project scope.
 6. The low voltage and high voltage sections of the lighting control cabinet shall be separated by a 14 gage steel barrier in which the relays are mounted. In areas where both 120 volt and 277 volt loads are present the high voltage compartment shall have a 14 gage steel barrier between the relays that carry 120 VAC and the relays that carry 277VAC. Each section shall be clearly labeled as to the voltage in that compartment.
 7. Panel power supply shall be dual primary 115/277 volts AC, 60 Hz. \pm 10%. Low voltage side shall be protected from power line surges and spikes on the input power. The low voltage section shall be protected against short circuit faults and relay failures.
 8. Panels shall be UL approved and shall have a short circuit withstand current rating at 14,000 AIC.
 9. Manufacturer: Lighting Control and Design, or G.E. or equal.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. The Lighting Control System shall be installed and wired completely as required by the equipment manufacturer by the contractor, who shall make all necessary wiring connections to the lighting fixtures, override switches, photo cells and equipment.
- B. The Contractor shall provide on-site programming time with factory-trained personnel for the system set-up. The Contractor shall set up the software program and program the entire system in accordance with the Owner's instructions.
- C. Documentation
 1. Accurate "as-built" drawings shall be provided by the Contractor. These shall indicate the load controlled by each relay and the identification number for that switch connected to an input and the identification number of that input. Three sets of space plans or reflected ceiling plans shall be provided by the contractor indicating which fixtures are controlled by each relay.
 2. A separate data grade private line with RJ45 jack shall be furnished for each modem.

3.2 SERVICE AND SUPPORT

- A. Startup: After the system has been installed, the Contractor shall provide the services of a factory trained representative of the manufacturer to verify correct operation of all system components. The contractor shall guarantee all material and workmanship involving the system for three years after startup.
- B. Training: After system startup and after all the programming is completed, the Contractor shall arrange for a factory trained representative to train the Owner's personnel. The trainer shall instruct the Owner's personnel in how to program the system and demonstrate a typical operating program for an area. The Contractor shall allow for 24 hours' instruction time for the Owner's training.
- C. Factory Support: Factory support shall be available free of charge during the three-year warranty period to answer programming and application questions. The manufacturer, or his representative, shall have a remote terminal capable of programming the system to support the Owner's personnel during this period. The Contractor shall include a modem, necessary cabling and telephone extension to support this telecommunications operation. The Contractor shall provide a three-year maintenance service contract as part of the cost.
- D. The Contractor shall also provide a software site licensing so that the Owner will be able to transfer the software program from the main computer to the other computers. This transfer shall not be an extra cost to the Owner.

END OF SECTION

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SECTION 16720

FIRE DETECTION AND ALARM

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. This Section includes fire alarm systems.
- B. Related Sections include the following:
 - 1. Division 08 Section "Door Hardware" for door closers and holders with associated smoke detectors, electric door locks, and release devices that interface with the fire alarm system.

1.3 DEFINITIONS

- A. FACP: Fire alarm control panel.
- B. LED: Light-emitting diode.
- C. NICET: National Institute for Certification in Engineering Technologies.
- D. Definitions in NFPA 72, 1999 Edition, apply to fire alarm terms used in this Section.

1.4 SYSTEM DESCRIPTION

- A. Noncoded, analog-addressable system; automatic sensitivity control of certain smoke detectors; and multiplexed signal transmission dedicated to fire alarm service only.
 - 1. Interface with existing fire alarm system.

1.5 PERFORMANCE REQUIREMENTS

- A. Comply with NFPA 72, 1999 Edition, CBC, CFC & Titles 19 and 24 CCR.
- B. Fire alarm signal initiation shall be by one or more of the following devices:
 - 1. Manual stations.
 - 2. Heat detectors.
 - 3. Flame detectors.
 - 4. Smoke detectors.
 - 5. Verified automatic alarm operation of smoke detectors.
 - 6. Automatic sprinkler system water flow.
 - 7. Fire extinguishing system operation.
 - 8. Fire standpipe system.
- C. Fire alarm signal shall initiate the following actions:
 - 1. Alarm notification appliances shall operate continuously.
 - 2. Identify alarm at the FACP and remote annunciators.
 - 3. De-energize electromagnetic door holders.
 - 4. Transmit an alarm signal to the remote alarm receiving station.
 - 5. Unlock electric door locks in designated egress paths.
 - 6. Release fire and smoke doors held open by magnetic door holders.
 - 7. Activate voice/alarm communication system.
 - 8. Switch heating, ventilating, and air-conditioning equipment controls to fire alarm mode.
 - 9. Close smoke dampers in air ducts of system serving zone where alarm was initiated.
 - 10. Record events in the system memory.
 - 11. Record events by the system printer.
- D. Supervisory signal initiation shall be by one or more of the following devices or actions:

1. Operation of a fire-protection system valve tamper.
- E. System trouble signal initiation shall be by one or more of the following devices or actions:
1. Open circuits, shorts and grounds of wiring for initiating device, signaling line, and notification-appliance circuits.
 2. Opening, tampering, or removal of alarm-initiating and supervisory signal-initiating devices.
 3. Loss of primary power at the FACP.
 4. Ground or a single break in FACP internal circuits.
 5. Abnormal ac voltage at the FACP.
 6. A break in standby battery circuitry.
 7. Failure of battery charging.
 8. Abnormal position of any switch at the FACP or annunciator.
 9. Fire-pump power failure, including a dead-phase or phase-reversal condition.
 10. Low-air-pressure switch operation on a dry-pipe or preaction sprinkler system.
- F. System Trouble and Supervisory Signal Actions: Ring trouble bell and annunciate at the FACP and remote annunciators. Record the event on system printer.

1.6 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings:
1. Shop Drawings shall be prepared by persons with the following qualifications:
 - a. Trained and certified by manufacturer in fire alarm system design.
 - b. Fire alarm certified by NICET, minimum Level III.
 2. System Operation Description: Detailed description for this Project, including method of operation and supervision of each type of circuit and sequence of operations for manually and automatically initiated system inputs and outputs. Manufacturer's standard descriptions for generic systems are not acceptable.
 3. Device Address List: Coordinate with final system programming.
 4. System riser diagram with device addresses, conduit sizes, and cable and wire types and sizes.
 5. Wiring Diagrams: Power, signal, and control wiring. Include diagrams for equipment and for system with all terminals and interconnections identified. Show wiring color code.
 6. Batteries: Size calculations.
 7. Duct Smoke Detectors: Performance parameters and installation details for each detector, verifying that each detector is listed for the complete range of air velocity, temperature, and humidity possible when air-handling system is operating.
 8. Ductwork Coordination Drawings: Plans, sections, and elevations of ducts, drawn to scale and coordinating the installation of duct smoke detectors and access to them. Show critical dimensions that relate to placement and support of sampling tubes, the detector housing, and remote status and alarm indicators. Locate detectors according to manufacturer's written recommendations.
 9. Voice/Alarm Signaling Service: Equipment rack or console layout, grounding schematic, amplifier power calculation, and single-line connection diagram.
 10. Floor Plans: Indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits.
- C. Qualification Data: For Installer.
- D. Field quality-control test reports.
- E. Operation and Maintenance Data: For fire alarm system to include in emergency, operation, and maintenance manuals. Comply with NFPA 72, Appendix A, recommendations for Owner's manual. Include abbreviated operating instructions for mounting at the FACP.
- F. Submittals to Authorities Having Jurisdiction: In addition to distribution requirements for submittals specified in Division 01 Section "Submittals," make an identical submittal to authorities having jurisdiction. To facilitate review, include copies of annotated Contract

Drawings as needed to depict component locations. Resubmit if required to make clarifications or revisions to obtain approval. On receipt of comments from authorities having jurisdiction, submit them to Architect for review.

G. Documentation:

1. Approval and Acceptance: Provide the "Record of Completion" form according to NFPA 72 to Owner, Architect, and authorities having jurisdiction.
2. Record of Completion Documents: Provide the "Permanent Records" according to NFPA 72 to Owner, Architect, and authorities having jurisdiction. Format of the written sequence of operation shall be the optional input/output matrix.
 - a. Hard copies on paper to Owner, Architect, and authorities having jurisdiction.
 - b. Electronic media may be provided to Architect and authorities having jurisdiction.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in CEC Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.8 PROJECT CONDITIONS

- A. Interruption of Existing Fire Alarm Service: Do not interrupt fire alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service according to requirements indicated:
 1. Notify Architect no fewer than fourteen days in advance of proposed interruption of fire alarm service.
 2. Do not proceed with interruption of fire alarm service without Architect's and Owner's written permission.

1.9 SEQUENCING AND SCHEDULING

- A. Existing Fire Alarm Equipment: Maintain fully operational until new equipment has been tested and accepted. As new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service and label existing fire alarm equipment "NOT IN SERVICE" until removed from the building.
- B. Equipment Removal: After acceptance of the new fire alarm system, remove existing disconnected fire alarm equipment.

1.10 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 1. Lamps for Remote Indicating Lamp Units: Quantity equal to 10 percent of amount installed, but not less than 1 unit.
 2. Lamps for Strobe Units: Quantity equal to 10 percent of amount installed, but not less than 1 unit.
 3. Smoke, Fire, and Flame Detectors: Quantity equal to 10 percent of amount of each type installed, but not less than 1 unit of each type.
 4. Detector Bases: Quantity equal to 2 percent of amount of each type installed, but not less than 1 unit of each type.
 5. Keys and Tools: One extra set for access to locked and tamperproofed components.
 6. Audible and Visual Notification Appliances: One of each type installed.
 7. Fuses: Two of each type installed in the system.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. FACP and Equipment:
 - a. Fire Control Instruments, Inc.; a GE-Honeywell Company.
 - b. Or equal by NOTIFIER; a GE-Honeywell Company.
 - 2. Wire and Cable:
 - a. West Penn Wire/CDT; a division of Cable Design Technologies or equal.
 - 3. Audible and Visual Signals:
 - a. Wheelock Inc..

2.2 EXISTING FIRE ALARM SYSTEM

- A. Compatibility with Existing Equipment: Fire alarm system and components shall operate as an extension of an existing system.

2.3 FACP

- A. General Description:
 - 1. Modular, power-limited design with electronic modules, UL 864 listed.
 - 2. Addressable initiation devices that communicate device identity and status.
 - a. Smoke sensors shall additionally communicate sensitivity setting and allow for adjustment of sensitivity at the FACP.
 - b. Temperature sensors shall additionally test for and communicate the sensitivity range of the device.
 - 3. Addressable control circuits for operation of mechanical equipment.
- B. Alphanumeric Display and System Controls: Arranged for interface between human operator at the FACP and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.
 - 1. Annunciator and Display: Liquid-crystal type, three line(s) of 80 characters, minimum.
 - 2. Keypad: Arranged to permit entry and execution of programming, display, and control commands; and to indicate control commands to be entered into the system for control of smoke-detector sensitivity and other parameters.
- C. Circuits:
 - 1. Signaling Line Circuits: NFPA 72, Class A, Style 2.
 - 2. Signaling Line Circuits: NFPA 72, Class B, Style 0.5.
 - a. System Layout: Install no more than 100 addressable devices on each signaling line circuit.
 - 3. Notification-Appliance Circuits: NFPA 72, Class A, Style Z.
 - 4. Notification-Appliance Circuits: NFPA 72, Class B, Style W.
 - 5. Actuation of alarm notification appliances, emergency voice communications, annunciation, smoke control, elevator recall, and actuation of suppression systems shall occur within 20 seconds after the activation of an initiating device.
 - 6. Electrical monitoring for the integrity of wiring external to the FACP for mechanical equipment shutdown and magnetic door-holding circuits is not required, provided a break in the circuit will cause doors to close and mechanical equipment to shut down.
- D. Smoke-Alarm Verification:
 - 1. Initiate audible and visible indication of an "alarm verification" signal at the FACP.
 - 2. Activate a listed and approved "alarm verification" sequence at the FACP and the detector.
 - 3. Record events by the system printer.
 - 4. Sound general alarm if the alarm is verified.
 - 5. Cancel FACP indication and system reset if the alarm is not verified.

- E. Notification-Appliance Circuit: Operation shall sound in a temporal pattern, complying with ANSI S3.41.
- F. Elevator Controls: Heat detector operation shuts down elevator power by operating a shunt trip in a circuit breaker feeding the elevator.
- G. Elevator Controls: Water-flow alarm connected to sprinkler in an elevator shaft and elevator machine room shuts down elevators associated with the location without time delay.
 - 1. A field-mounted relay actuated by the fire detector or the FACP closes the shunt trip circuit and operates building notification appliances and annunciator.
- H. Power Supply for Supervision Equipment: Supply for audible and visual equipment for supervision of the ac power shall be from a dedicated dc power supply, and power for the dc component shall be from the ac supply.
- I. Alarm Silencing, Trouble, and Supervisory Alarm Reset: Manual reset at the FACP and remote annunciators, after initiating devices are restored to normal.
 - 1. Silencing-switch operation halts alarm operation of notification appliances and activates an "alarm silence" light. Display of identity of the alarm zone or device is retained.
 - 2. Subsequent alarm signals from other devices or zones reactivate notification appliances until silencing switch is operated again.
 - 3. When alarm-initiating devices return to normal and system reset switch is operated, notification appliances operate again until alarm silence switch is reset.
- J. Walk Test: A test mode to allow one person to test alarm and supervisory features of initiating devices. Enabling of this mode shall require the entry of a password. The FACP and annunciators shall display a test indication while the test is underway. If testing ceases while in walk-test mode, after a preset delay, the system shall automatically return to normal.
- K. Remote Smoke-Detector Sensitivity Adjustment: Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and control of changes in those settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and make a print-out of the final adjusted values on the system printer.
- L. Transmission to Remote Alarm Receiving Station: Automatically transmit alarm, trouble, and supervisory signals to a remote alarm station through a digital alarm communicator transmitter and telephone lines.
- M. Service Modem: Ports shall be RS-232 for system printer and for connection to a dial-in terminal unit.
 - 1. The dial-in port shall allow remote access to the FACP for programming changes and system diagnostic routines. Access by a remote terminal shall be by encrypted password algorithm.

- N. **Printout of Events:** On receipt of signal, print alarm, supervisory, and trouble events. Identify zone, device, and function. Include type of signal (alarm, supervisory, or trouble), and date and time of occurrence. Differentiate alarm signals from all other printed indications. Also print system reset event, including the same information for device, location, date, and time. Commands initiate the printing of a list of existing alarm, supervisory, and trouble conditions in the system and a historical log of events.
- O. **Primary Power:** 24-V dc obtained from 120-V ac service and a power-supply module. Initiating devices, notification appliances, signaling lines, trouble signal, supervisory and digital alarm communicator transmitter and digital alarm radio transmitter shall be powered by the 24-V dc source.
 - 1. The alarm current draw of the entire fire alarm system shall not exceed 80 percent of the power-supply module rating.
 - 2. Power supply shall have a dedicated fused safety switch for this connection at the service entrance equipment. Paint the switch box red and identify it with "FIRE ALARM SYSTEM POWER."
- P. **Secondary Power:** 24-V dc supply system with batteries and automatic battery charger and an automatic transfer switch.
 - 1. Batteries: Sealed lead calcium or Sealed, valve-regulated, recombinant lead acid.
 - 2. Battery and Charger Capacity: Comply with NFPA 72.
- Q. **Surge Protection:**
 - 1. Install surge protection on normal ac power for the FACP and its accessories. Comply with Division 16 Section "Transient-Voltage Suppression for Low-Voltage Electrical Power Circuits" for auxiliary panel suppressors.
 - 2. Install surge protectors recommended by FACP manufacturer. Install on all system wiring external to the building housing the FACP.
- R. **Instructions:** Computer printout or typewritten instruction card mounted behind a plastic or glass cover in a stainless-steel or aluminum frame. Include interpretation and describe appropriate response for displays and signals. Briefly describe the functional operation of the system under normal, alarm, and trouble conditions.

2.4 MANUAL FIRE ALARM BOXES

- A. **Description:** UL 38 listed; finished in red with molded, raised-letter operating instructions in contrasting color. Station shall show visible indication of operation. Mounted on recessed outlet box; if indicated as surface mounted, provide manufacturer's surface back box.
 - 1. Single-action mechanism, breaking-glass or plastic-rod or pull-lever type. With integral addressable module, arranged to communicate manual-station status (normal, alarm, or trouble) to the FACP.
 - 2. Double-action mechanism requiring two actions to initiate an alarm, breaking-glass or plastic-rod or pull-lever type. With integral addressable module, arranged to communicate manual-station status (normal, alarm, or trouble) to the FACP.
 - 3. Station Reset: Key- or wrench-operated switch.
 - 4. Indoor Protective Shield: Factory-fabricated clear plastic enclosure, hinged at the top to permit lifting for access to initiate an alarm. Lifting the cover actuates an integral battery-powered audible horn intended to discourage false-alarm operation.
 - 5. Weatherproof Protective Shield: Factory-fabricated clear plastic enclosure, hinged at the top to permit lifting for access to initiate an alarm.

2.5 SYSTEM SMOKE DETECTORS

- A. **General Description:**
 - 1. UL 268 listed, operating at 24-V dc, nominal.

2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to the FACP.
 3. Multipurpose type, containing the following:
 - a. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to the FACP.
 - b. Piezoelectric sounder rated at 88 dBA at 10 feet (3 m) according to UL 464.
 - c. Heat sensor, combination rate-of-rise and fixed temperature.
 4. Plug-in Arrangement: Detector and associated electronic components shall be mounted in a plug-in module that connects to a fixed base. Provide terminals in the fixed base for connection of 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.
 7. Remote Control: Unless otherwise indicated, detectors shall be analog-addressable type, individually monitored at the FACP for calibration, sensitivity, and alarm condition, and individually adjustable for sensitivity from the FACP.
 - a. Rate-of-rise temperature characteristic shall be selectable at the FACP for 15 or 20 deg F (8 or 11 deg C) per minute.
 - b. Fixed-temperature sensing shall be independent of rate-of-rise sensing and shall be settable at the FACP to operate at 135 or 155 deg F (57 or 68 deg C).
 - c. Provide multiple levels of detection sensitivity for each sensor.
- B. Photoelectric Smoke Detectors:
1. Sensor: LED or infrared light source with matching silicon-cell receiver.
 2. Detector Sensitivity: Between 2.5 and 3.5 percent/foot (0.008 and 0.011 percent/mm) smoke obscuration when tested according to UL 268A.
- C. Duct Smoke Detectors:
1. Photoelectric Smoke Detectors:
 - a. Sensor: LED or infrared light source with matching silicon-cell receiver.
 - b. Detector Sensitivity: Between 2.5 and 3.5 percent/foot (0.008 and 0.011 percent/mm) smoke obscuration when tested according to UL 268A.
 2. UL 268A listed, operating at 24-V dc, nominal.
 3. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to the FACP.
 4. Plug-in Arrangement: Detector and associated electronic components shall be mounted in a plug-in module that connects to a fixed base. The fixed base shall be designed for mounting directly to the air duct. Provide terminals in the fixed base for connection to building wiring.
 - a. Weatherproof Duct Housing Enclosure: UL listed for use with the supplied detector. The enclosure shall comply with NEMA 250 requirements for Type 4X.
 5. Self-Restoring: Detectors shall 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. Provide remote status and alarm indicator and test station where indicated.
 7. Remote Control: Unless otherwise indicated, detectors shall be analog-addressable type, individually monitored at the FACP for calibration, sensitivity, and alarm condition, and individually adjustable for sensitivity from the FACP.
 8. Each sensor shall have multiple levels of detection sensitivity.
 9. Sampling Tubes: Design and dimensions as recommended by manufacturer for the specific duct size, air velocity, and installation conditions where applied.
 10. Relay Fan Shutdown: Rated to interrupt fan motor-control circuit.

2.6 HEAT DETECTORS

- A. General: UL 521 listed.

- B. Heat Detector, Combination Type: Actuated by either a fixed temperature of 135 deg F (57 deg C) or rate-of-rise of temperature that exceeds 15 deg F (8 deg C) per minute, unless otherwise indicated.
 - 1. Mounting: Plug-in base, interchangeable with smoke-detector bases.
 - 2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to the FACP.
- C. Heat Detector, Fixed-Temperature Type: Actuated by temperature that exceeds a fixed temperature of 190 deg F (88 deg C).
 - 1. Mounting: Adapter plate for outlet box mounting or Plug-in base, interchangeable with smoke-detector bases.
 - 2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to the FACP.
- D. Continuous Linear Heat-Detector System: Consists of detector cable and control unit.
 - 1. Detector Cable: Rated detection temperature 155 deg F (68 deg C). Listed for "regular" service and a standard environment. Cable includes two steel actuator wires twisted together with spring pressure, wrapped with protective tape, and finished with PVC outer sheath. Each actuator wire is insulated with heat-sensitive material that reacts with heat to allow the cable twist pressure to short circuit wires at the location of elevated temperature.
 - 2. Control Unit: Two-zone or multizone unit as indicated. Provides same system power supply, supervision, and alarm features as specified for the central FACP.
 - 3. Signals to the Central FACP: Any type of local system trouble is reported to the central FACP as a composite "trouble" signal. Alarms on each detection zone are individually reported to the central FACP as separately identified zones.
 - 4. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to the FACP.

2.7 NOTIFICATION APPLIANCES

- A. Description: Equipped for mounting as indicated and with screw terminals for system connections.
 - 1. Combination Devices: Factory-integrated audible and visible devices in a single-mounting assembly.
 - 2. Revise sound-level values in first four paragraphs below to comply with local interpretations of ADA requirements. See Editing Instruction No. 10 in the Evaluations.
- B. Bells: Electric-vibrating, 24-V dc, under-dome type; with provision for housing the operating mechanism behind the bell. Bells shall produce a sound-pressure level of 94 dBA, measured 10 feet (3 m) from the bell. 10-inch (254-mm) size, unless otherwise indicated. Bells are weatherproof where indicated.
- C. Chimes, Low-Level Output: Vibrating type, 75-dBA minimum rated output.
- D. Chimes, High-Level Output: Vibrating type, 81-dBA minimum rated output.
- E. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet (3 m) from the horn.
- F. Visible Alarm Devices: Xenon strobe lights listed under 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 lens.
 - 1. Rated Light Output: candela as indicated on drawings.
 - 2. Strobe Leads: Factory connected to screw terminals.

2.8 FIREFIGHTERS' TWO-WAY TELEPHONE COMMUNICATION SERVICE

- A. Dedicated, two-way, supervised, telephone voice communication links between the FACP, the Fire Command Center, and remote firefighters' telephone stations. Supervised telephone lines shall be connected to talk circuits by controls in a control module. Provide the following:
 - 1. Common-talk type for firefighter use only.
 - 2. Selective-talk type for use by firefighters and fire wardens.
 - 3. Controls to disconnect phones from talk circuits if too many phones are in use simultaneously.
 - 4. Audible Pulse and Tone Generator, and High-Intensity Lamp: When a remote telephone is activated, it causes audible signal to sound and high-intensity lamp to flash.
 - 5. Selector panel controls simultaneous operation of telephones in selected zones and permits up to six phones to be operated simultaneously. Indicate ground faults and open or shorted telephone lines on the panel front by individual LEDs.
 - 6. Provide liquid-crystal digital display to indicate location of caller.
 - 7. Remote Telephone Cabinet: Flush or surface-mounted cabinet, as indicated, factory-standard red finish, with handset.
 - a. Install one-piece handset to cabinet with vandal-resistant armored cord. Silk-screened or engraved label on cabinet door, designating "Fire Warden Phone" or "Fire Emergency Phone."
 - b. With "break-glass" type door access lock.
 - 8. Remote Telephone Jack Stations: Single-gang, stainless-steel-plate mounted plug, engraved "Fire Warden Phone" or "Fire Emergency Phone."
 - 9. Handsets: Provide push-to-talk type sets with noise-canceling microphone. Provide 10 handsets stored in a cabinet adjacent to the FACP.

2.9 REMOTE ANNUNCIATOR

- A. Description: Duplicate annunciator functions of the FACP for alarm, supervisory, and trouble indications. Also duplicate manual switching functions of the FACP, including acknowledging, silencing, resetting, and testing.
 - 1. Mounting: Flush cabinet, NEMA 250, Class 1.
- B. Display Type and Functional Performance: Alphanumeric display same as the FACP. Controls with associated LEDs permit acknowledging, silencing, resetting, and testing functions for alarm, supervisory, and trouble signals identical to those in the FACP.

2.10 ADDRESSABLE INTERFACE DEVICE

- A. Description: Microelectronic monitor module listed for use in providing a system address for listed alarm-initiating devices for wired applications with normally open contacts.
- B. Integral Relay: Capable of providing a direct signal to the elevator controller to initiate elevator recall and to a circuit-breaker shunt trip for power shutdown.

2.11 DIGITAL ALARM COMMUNICATOR TRANSMITTER

- A. Listed and labeled according to UL 632.

- B. Functional Performance: Unit receives an alarm, supervisory, or trouble signal from the FACP, and automatically captures one or two telephone lines and dials a preset number for a remote central station. When contact is made with the central station(s), the signal is transmitted. The unit supervises up to two telephone lines. Where supervising 2 lines, if service on either line is interrupted for longer than 45 seconds, the unit initiates a local trouble signal and transmits a signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. When telephone service is restored, unit automatically reports that event to the central station. If service is lost on both telephone lines, the local trouble signal is initiated.
- C. Secondary Power: Integral rechargeable battery and automatic charger. Battery capacity is adequate to comply with NFPA 72 requirements.
- D. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.

2.12 GUARDS FOR PHYSICAL PROTECTION

- A. Description: Welded wire mesh of size and shape for the manual station, smoke detector, gong, or other device requiring protection.
 - 1. Factory fabricated and furnished by manufacturer of the device.
 - 2. Finish: Paint of color to match the protected device.

2.13 WIRE AND CABLE

- A. Wire and cable for fire alarm systems shall be UL listed and labeled as complying with CEC, Article 760.
- B. Signaling Line Circuits: Twisted, shielded pair, No. 14 AWG or as indicated on drawings.
 - 1. Circuit Integrity Cable: Twisted shielded pair, CEC Article 760, Classification CI, for power-limited fire alarm signal service. UL listed as Type FPL, and complying with requirements in UL 1424 and in UL 2196 for a 2-hour rating.
- C. Non-Power-Limited Circuits: Solid-copper conductors with 600-V rated, 75 deg C, color-coded insulation.
 - 1. Low-Voltage Circuits: No. 16 AWG, minimum.
 - 2. Line-Voltage Circuits: No. 12 AWG, minimum.
 - 3. Multiconductor Armored Cable: CEC Type MC, copper conductors, TFN/THHN conductor insulation, copper drain wire, copper armor with outer jacket with red identifier stripe, UL listed for fire alarm and cable tray installation, plenum rated, and complying with requirements in UL 2196 for a 2-hour rating.

PART 3 - EXECUTION

3.1 EQUIPMENT INSTALLATION

- A. Connecting to Existing Equipment: Verify that existing fire alarm system is operational before making changes or connections.
 - 1. Connect new equipment to the existing control panel in the existing part of the building.
 - 2. Connect new equipment to the existing monitoring equipment at the Supervising Station.
 - 3. Expand, modify, and supplement the existing control equipment as necessary to extend the existing control functions to the new points. New components shall be capable of merging with the existing configuration without degrading the performance of either system.
- B. Smoke or Heat Detector Spacing:
 - 1. Smooth ceiling spacing shall not exceed 30 feet (9 m) and the rating of the detector.
 - 2. Spacing of heat detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas, shall be determined according to Appendix A in NFPA 72.

3. Spacing of heat detectors shall be determined based on guidelines and recommendations in NFPA 72.
- C. HVAC: Locate detectors not closer than 3 feet (1 m) from air-supply diffuser or return-air opening.
- D. Duct Smoke Detectors: Comply with NFPA 72, NFPA 90A and CMC. Install sampling tubes so they extend the full width of the duct.
- E. Heat Detectors in Elevator Shafts: Coordinate temperature rating and location with sprinkler rating and location.
- F. Single-Station Smoke Detectors: Where more than one smoke alarm is installed within a dwelling or suite, they shall be connected so that the operation of any smoke alarm causes the alarm in all smoke alarms to sound.
- G. 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.
- H. Coordinate first paragraph below with Drawings.
- I. 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.
- J. Visible Alarm-Indicating Devices: Install adjacent to each alarm bell or alarm horn and at least 6 inches (150 mm) below the ceiling.
- K. Device Location-Indicating Lights: Locate in public space near the device they monitor.
- L. FACP: Surface mount with tops of cabinets not more than 72 inches (1830 mm) above the finished floor.
- M. Annunciator: Install with top of panel not more than 72 inches (1830 mm) above the finished floor.
- N. Coordinate below with Drawings.
- O. Antenna for Radio Alarm Transmitter: Mount to building structure where indicated. Use mounting arrangement and substrate connection that will resist 100-mph (160-km/h) wind load with a 1.3 gust factor without damage.

3.2 WIRING INSTALLATION

- A. Install wiring according to the following:
 1. NECA 1.
 2. TIA/EIA 568-A.
 3. CEC
- B. Wiring Method: Install wiring in metal raceway according to Division 16 Section "Raceway and Boxes for Electrical Systems."
 1. Fire alarm circuits and equipment control wiring associated with the fire alarm system shall be installed in a dedicated raceway system. This system shall not be used for any other wire or cable.
 2. Retain paragraph and subparagraph above or first paragraph and subparagraphs below.
- C. Wiring Method:
 1. Cables and raceways used for fire alarm circuits, and equipment control wiring associated with the fire alarm system, may not contain any other wire or cable.

2. Fire-Rated Cables: Use of 2-hour fire-rated fire alarm cables, CEC Types MI and CI, is not permitted.
 3. Signaling Line Circuits: Power-limited fire alarm cables shall not be installed in the same cable or raceway as signaling line circuits.
- D. Wiring within Enclosures: Separate power-limited and non-power-limited conductors as recommended by manufacturer. Install conductors parallel with or at right angles to sides and back of the enclosure. Bundle, lace, and train conductors to terminal points with no excess. Connect conductors that are terminated, spliced, or interrupted in any enclosure associated with the fire alarm system to terminal blocks. Mark each terminal according to the system's wiring diagrams. Make all connections with approved crimp-on terminal spade lugs, pressure-type terminal blocks, or plug connectors.
 - E. Cable Taps: Use numbered terminal strips in junction, pull, and outlet boxes, cabinets, or equipment enclosures where circuit connections are made.
 - F. Color-Coding: Color-code fire alarm conductors differently from the normal building power wiring. Use one color-code for alarm circuit wiring and a different color-code for supervisory circuits. Color-code audible alarm-indicating circuits differently from alarm-initiating circuits. Use different colors for visible alarm-indicating devices. Paint fire alarm system junction boxes and covers red.
 - G. Risers: Install at least two vertical cable risers to serve the fire alarm system. Separate risers in close proximity to each other with a minimum 1-hour-rated wall, so the loss of one riser does not prevent the receipt or transmission of signals from other floors or zones.
 - H. Wiring to Remote Alarm Transmitting Device: 1-inch (25-mm) conduit between the FACP and the transmitter. Install number of conductors and electrical supervision for connecting wiring as needed to suit monitoring function.
 - I.

3.3 IDENTIFICATION

- A. Identify system components, wiring, cabling, and terminals according to Division 16 Section "Identification for Electrical Systems."
- B. Install instructions frame in a location visible from the FACP.
- C. Paint power-supply disconnect switch red and label "FIRE ALARM."

3.4 GROUNDING

- A. Ground the FACP and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to the FACP.

3.5 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.
- B. Testing Agency: Owner will engage a qualified testing and inspecting agency to perform field tests and inspections and prepare test reports.
- C. Testing Agency: Engage a qualified testing and inspecting agency to perform the following field tests and inspections and prepare test reports:
- D. Perform the following field tests and inspections and prepare test reports:

1. Before requesting final approval of the installation, submit a written statement using the form for Record of Completion shown in NFPA 72.
2. Perform each electrical test and visual and mechanical inspection listed in NFPA 72. Certify compliance with test parameters. All tests shall be conducted under the direct supervision of a NICET technician certified under the Fire Alarm Systems program at Level III.
3. Include the existing system in tests and inspections.
4. Visual Inspection: Conduct a visual inspection before any testing. Use as-built drawings and system documentation for the inspection. Identify improperly located, damaged, or nonfunctional equipment, and correct before beginning tests.
5. Testing: Follow procedure and record results complying with requirements in NFPA 72.
 - a. Detectors that are outside their marked sensitivity range shall be replaced.
6. Test and Inspection Records: Prepare according to NFPA 72, including demonstration of sequences of operation by using the matrix-style form in Appendix A in CEC.
- 7.

3.6 ADJUSTING

- A. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project outside normal occupancy hours for this purpose.
- B. Follow-Up Tests and Inspections: After date of Substantial Completion, test the fire alarm system complying with testing and visual inspection requirements in NFPA 72. Perform tests and inspections listed for three monthly, and one quarterly, periods.
- C. Work in two paragraphs below is normally the responsibility of Owner. Retain one or both paragraphs if Owner needs additional time for inspections required by NFPA 72.
- D. Semiannual Test and Inspection: Six months after date of Substantial Completion, test the fire alarm system complying with the testing and visual inspection requirements in NFPA 72. Perform tests and inspections listed for monthly, quarterly, and semiannual periods. Use forms developed for initial tests and inspections.
- E. Annual Test and Inspection: One year after date of Substantial Completion, test the fire alarm system complying with the testing and visual inspection requirements in NFPA 72. Perform tests and inspections listed for monthly, quarterly, semiannual, and annual periods. Use forms developed for initial tests and inspections.

3.7 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain the fire alarm system, appliances, and devices. Refer to Division 01 Section "Demonstration and Training."

3.8 DOCUMENTATION

- A. Provide an NFPA Certificate of compliance to Local Fire Marshal, and Architect.

END OF SECTION

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OFFICE OF
CLERK OF THE BOARD OF SUPERVISORS
1st FLOOR, COUNTY ADMINISTRATIVE CENTER
P.O. BOX 1147, 4080 LEMON STREET
RIVERSIDE, CA 92502-1147
PHONE: (951) 955-1060
FAX: (951) 955-1071

KECIA HARPER-IHEM
Clerk of the Board of Supervisors

KIMBERLY A. RECTOR
Assistant Clerk of the Board

July 21, 2011

THE PRESS ENTERPRISE
ATTN: LEGALS
PO BOX 792
RIVERSIDE, CA 92501

FAX (951) 368-9018
E-MAIL: legals@pe.com

**RE: NOTICE INVITING BIDS: RIVERSIDE CENTRE BUILDING SECOND FLOOR –
TENANT IMPROVEMENT PROJECT**

To Whom It May Concern:

Attached is a copy for publication in your newspaper for **TWO (2) MONDAYS:
July 25 and August 1, 2011.**

We require your affidavit of publication immediately upon completion of the last publication.

Your invoice must be submitted to this office in duplicate, WITH TWO CLIPPINGS OF THE PUBLICATION.

**NOTE: PLEASE COMPOSE THIS PUBLICATION INTO A SINGLE COLUMN
FORMAT.**

Thank you in advance for your assistance and expertise.

Sincerely,

Mcgil

Cecilia Gil, Board Assistant to
KECIA HARPER-IHEM, CLERK OF THE BOARD

Gil, Cecilia

From: PE Legals <legals@pe.com>
Sent: Thursday, July 21, 2011 9:00 AM
To: Gil, Cecilia
Subject: RE: FOR PUBLICATION: Riverside Ctr Bldg 2nd Floor

Received for publication on July 25 & Aug. 1

Thank You!

enterpris@media

Publisher of the Press-Enterprise

Maria G. Tinajero • Legal Advertising Department

1-800-880-0345 • Fax: 951-368-9018 • email: legals@pe.com

Please Note: Deadline is 10:30 AM two (2) business days prior to the date you would like to publish.
Additional days required for larger ad sizes

From: Gil, Cecilia [<mailto:CCGIL@rcbos.org>]
Sent: Thursday, July 21, 2011 8:47 AM
To: PE Legals
Subject: FOR PUBLICATION: Riverside Ctr Bldg 2nd Floor

Maria,

Please disregard the 1st email. I attached the wrong packet. Please use this for publication on July 25 and Aug. 1 and confirm this email. Thank you!

Cecilia Gil

Board Assistant to the
Clerk of the Board of Supervisors
951-955-8464

THE COUNTY ADMINISTRATIVE CENTER IS CLOSED EVERY FRIDAY UNTIL FURTHER NOTICE.
PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.



OFFICE OF
CLERK OF THE BOARD OF SUPERVISORS
1st FLOOR, COUNTY ADMINISTRATIVE CENTER
P.O. BOX 1147, 4080 LEMON STREET
RIVERSIDE, CA 92502-1147
PHONE: (951) 955-1060
FAX: (951) 955-1071

KECIA HARPER-IHEM
Clerk of the Board of Supervisors

KIMBERLY A. RECTOR
Assistant Clerk of the Board

July 21, 2011

RIVERSIDE COUNTY RECORD
ATTN: LEGALS
PO BOX 3187
RIVERSIDE, CA 92519

FAX (951) 685-2961
E-MAIL: recordmde@aol.com

**RE: NOTICE INVITING BIDS: RIVERSIDE CENTRE BUILDING, SECOND FLOOR –
TENANT IMPROVEMENT PROJECT**

To Whom It May Concern:

Attached is a copy for publication in your newspaper for **TWO (2) THURSDAYS:
July 28 and August 4, 2011.**

We require your affidavit of publication immediately upon completion of the last publication.

Your invoice must be submitted to this office in duplicate, WITH TWO CLIPPINGS OF THE PUBLICATION.

**NOTE: PLEASE COMPOSE THIS PUBLICATION INTO A SINGLE COLUMN
FORMAT.**

Thank you in advance for your assistance and expertise.

Sincerely,

Mcgil

Cecilia Gil, Board Assistant to
KECIA HARPER-IHEM, CLERK OF THE BOARD

Gil, Cecilia

From: recordmde@aol.com
Sent: Thursday, July 21, 2011 11:50 AM
To: Gil, Cecilia
Subject: Re: FOR PUBLICATION: Bids for Riv. Ctr Bldg. 2nd Floor

Hello Cecilia,
I have received the notice inviting bids for publication.
Thanks Much, Mike

-----Original Message-----

From: Gil, Cecilia <CCGIL@rcbos.org>
To: recordmde <recordmde@aol.com>
Sent: Thu, Jul 21, 2011 4:45 am
Subject: FOR PUBLICATION: Bids for Riv. Ctr Bldg. 2nd Floor

Good Morning! Notice Inviting Bids for publication on 2 Thursdays: July 28 and Aug. 4, 2011. Please confirm. THANK YOU!

Cecilia Gil
Board Assistant to the
Clerk of the Board of Supervisors
951-955-8464

*THE COUNTY ADMINISTRATIVE CENTER IS CLOSED EVERY FRIDAY UNTIL FURTHER NOTICE.
PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.*

NOTICE INVITING BIDS

COUNTY OF RIVERSIDE, herein called Owner, invites sealed proposals for the:

Riverside Centre 2nd Floor Tenant Improvement Project

This project is a 16,217 S.F. office tenant improvement for the second floor of a high rise building in downtown Riverside, CA. The work includes renovation and new construction, HVAC, electrical, plumbing and fire suppression improvements.

Proposals shall be delivered to the Clerk of the Board of Supervisors, on the 1st floor of the County Administrative Center located at 4080 Lemon Street, Riverside, CA 92501 no later than **10:00 a.m., on, Tuesday August 23, 2011** to be promptly opened in public at said address.

Each Proposal shall be in accordance with the Plans approved and date stamped 7-19-2011 by County of Riverside Economic Development Agency Design & Construction and, Specifications with other Contract Documents form approved and date stamped 5-16-2011 by County Counsel that were prepared by County of Riverside with Holt Architects, 70-225 Highway 111, Suite D, Rancho Mirage, California 92270, 760-328-5280.

Plans and Specifications are available for purchase by the Contractors at Mission Reprographics, 2050 E La Cadena Dr # L, Riverside, CA 92507, 951-686-8828 or www.missionreprographics.com. Plan Holders List is available at Mission Reprographics.

Notice of Award will be available at Mission Reprographics, www.missionreprographics.com

Pursuant to the Labor Code, the Governing Board of the Owner has obtained from the Director of the Department of Industrial Relations, State of California, his determination of general prevailing rates of per diem wages applicable to the work, and for holiday and overtime work, including employer payments for health and welfare, pension, vacation, and similar purposes, as set forth on the schedule which is on file at the principal office of the Owner, and which will be made available to any interested person upon request.

The Contract General Conditions for this project will contain provisions allowing successful contractor to substitute securities for monies withheld by the County to ensure performance (Public Contract Code 22300).

A Performance Bond and Payment Bond shall be required for this Project.

The Contractor will be required, per Public Contracts Code, Section 3300 and for this contract, to have a State of California contractor's license classification B – General Building Contractor. A **mandatory** pre-bid job walk inspection will be held on **Monday, August 8, 2011 at 10:00 a.m.**, meeting at 3403 10th Street, Riverside, CA 92501 at 2nd Floor Lobby. **No bids will be accepted from bidders who have not attended the pre-bid job walk.**

All Requests for Information (RFI) should be emailed to both Ruben Coronado of Holt Architects at rcoronado@holtarchitects AND to Dawn Torres, EDA Project Manager at drtorres@rivcoeda.org. RFI'S will not be answered via phone calls. Deadline for submission of Bid RFI is Thursday, August 11, 2011 at 2:00 p.m.

For further information, contact Dawn Torres, Project Manager, at the Economic Development Agency, Project Management Office at 3403 10th Street, Suite 500, Riverside, CA 92501 whose telephone number is 951-955-4880 and email is drtorres@rivcoeda.org.

Dated: July 21, 2011

KECIA HARPER-IHEM
Clerk of the Board
By: Cecilia Gil, Board Assistant



| 10 | 11 | 12 | 13 | 15 | 16 | 17 | 18 | 19 | 20 |
|---------------------------|--------------------|--------------------------------------|------------------|-----------|--------------|-----------|------|----------------|------------|
| DATE | REFERENCE NUMBER | DESCRIPTION - OTHER COMMENTS/CHARGES | PRODUCT/ZONE | SIZE | BILLED UNITS | TIMES RUN | RATE | GROSS AMOUNT | NET AMOUNT |
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6 BILLING ACCOUNT NAME AND ADDRESS

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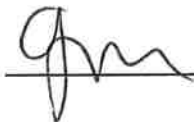
Ad Desc.: EN10736560 /

I am a citizen of the United States. I am over the age of eighteen years and not a party to or interested in the above entitled matter. I am an authorized representative of THE PRESS-ENTERPRISE, a newspaper in general circulation, printed and published daily in the County of Riverside, and which newspaper has been adjudicated a newspaper of general circulation by the Superior Court of the County of Riverside, State of California, under date of April 25, 1952, Case Number 54446, under date of March 29, 1957, Case Number 65673, and under date of August 25, 1995, Case Number 267864; that the notice, of which the annexed is a printed copy, has been published in said newspaper in accordance with the instructions of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

07/25, 08/01/2011

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date: August 01, 2011
At: Riverside, California



BOARD OF SUPERVISORS
P.O. BOX 1147
COUNTY OF RIVERSIDE
RIVERSIDE, CA 92502

Ad Number: 0000582227-01

P.O. Number:

Ad Copy:

NOTICE INVITING BIDS
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Riverside Centre 2nd Floor Tenant Improvement Project

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Each Proposal shall be in accordance with the Plans approved and date stamped 7-19-2011 by County of Riverside Economic Development Agency Design & Construction and Specifications with other Contract Documents form approved and date stamped 5-16-2011 by County Counsel that were prepared by County of Riverside with Holt Architects, 70-225 Highway 111, Suite D, Rancho Mirage, California 92270, 760-328-5280.

Plans and Specifications are available for purchase by the Contractors at Mission Reprographics, 2050 E La Cadena Dr # L, Riverside, CA 92507, 951-686-8828 or www.missionreprographics.com. Plan Holders List is available at Mission Reprographics.

Notice of Award will be available at Mission Reprographics, www.missionreprographics.com.

Pursuant to the Labor Code, the Governing Board of the Owner has obtained from the Director of the Department of Industrial Relations, State of California, his determination of general prevailing rates of per diem wages applicable to the work, and for holiday and overtime work, including employer payments for health and welfare, pension, vacation, and similar purposes, as set forth on the schedule which is on file at the principal office of the Owner, and which will be made available to any interested person upon request.

The Contract General Conditions for this project will contain provisions allowing successful contractor to substitute securities for monies withheld by the County to ensure performance (Public Contract Code 22300).

A Performance Bond and Payment Bond shall be required for this Project.

The Contractor will be required, per Public Contracts Code, Section 3300 and for this contract, to have a State of California contractor's license classification B - General Building Contractor. A mandatory pre-bid job walk inspection will be held on **Monday, August 8, 2011** at 10:00 a.m., meeting at 3403 10th Street, Riverside, CA 92501 at 2nd Floor Lobby. **No bids will be accepted from bidders who have not attended the pre-bid job walk.**

All Requests for Information (RFI) should be emailed to both Ruben Coronado of Holt Architects at rcoronado@holtarchitects.com AND to Dawn Torres, EDA Project Manager at drtorres@rivcoeda.org. RFI'S will not be answered via phone calls. Deadline for submission of Bid RFI is **Thursday, August 11, 2011 at 2:00 p.m.**

For further information, contact Dawn Torres, Project Manager, at the Economic Development Agency, Project Management Office at 3403 10th Street, Suite 500, Riverside, CA 92501 whose telephone number is 951-955-4880 and email is drtorres@rivcoeda.org.

Dated: July 21, 2011
KECIA HARPER-IHEM

Clerk of the Board
By: Cecilia Gil, Board Assistant

7/25, 8/1



The Riverside County Record Newspaper

Western Riverside County's Only Hometown Newspaper

Since 1955

Post Office Box 3187 • Riverside, California 92519

⁹⁵¹685-6191 • FAX ⁹⁵¹685-2961

e-mail: recorddhh@aol.com

INVOICE

July 27, 2011

Riverside County
Clerk of the Board
4080 Lemon Street, 1st Floor
P.O. Box 1147
Riverside, CA 92502- 1147

Legal Advertising

Notice Inviting Bids

Your: Riverside Centre 2nd Floor Tenant Improvement Project
Our #0584

14.00 column inches x \$8.94 = \$125.16 x 2 = \$250.32

Publish two (2) week: July 28, 2011;
August 4, 2011

Amount Due: \$250.32

Thank You,

Cathy Sypin-Barnes

EDA
3-27 of 05/24/11

Affidavit of Publication

(2015.5 C.C.P.)

County of Riverside

State of California

Catherine Sypin-Barnes, being first duly sworn, deposes and says: all times hereinafter, mentioned that she was a citizen of the United States over the age of eighteen years, and a resident of said County, and during all said times the principal clerk of the printer and publisher of The Riverside County Record-News, a newspaper of general circulation adjudicated by court decree, printed and published weekly in said County of Riverside, State of California, that said Riverside County Record-News is and was at all times herein mentioned, a newspaper of general circulation as that term is defined in section 4460 of the Political Code, and, as provided by that section, is published for the dissemination of local and telegraphic news and intelligence of a general character, having a bona fide subscription list of paying subscribers, and is not devoted to nor published for the entertainment or instruction of a particular class, profession, trade, race or denomination; that at all said time said newspaper has been published, printed and published in said County and State at regular intervals more than one year preceding the date of publication of the notice herein mentioned; that said notice was set in type not smaller than nonpareil and preceded with words printed in black face type not smaller than nonpareil describing and expressing in general terms the purport and character of the notice intended to be given; that the

RIVERSIDE COUNTY RECORD NEWSPAPER

of which the annexed is a printed copy, published and printed in said newspaper in at least 2 weekly issues, as follows:

July 28, 2011;
August 4, 2011

I certify (or declare) under penalty of perjury that the foregoing is true and correct.



Signature

Dated: August 4, 2011 at
Riverside, California

NOTICE INVITING BIDS

COUNTY OF RIVERSIDE, herein called Owner, invites sealed proposals for the:

Riverside Centre 2nd Floor Tenant Improvement Project

This project is a 16,217 S.F. office tenant improvement for the second floor of a high rise building in downtown Riverside, CA. The work includes renovation and new construction, HVAC, electrical, plumbing and fire suppression improvements.

Proposals shall be delivered to the Clerk of the Board of Supervisors, on the 1st floor of the County Administrative Center located at 4080 Lemon Street, Riverside, CA 92501 no later than **10:00 a.m., on, Tuesday August 23, 2011** to be promptly opened in public at said address.

Each Proposal shall be in accordance with the Plans approved and date stamped 7-19-2011 by County of Riverside Economic Development Agency Design & Construction and, Specifications with other Contract Documents form approved and date stamped 5-16-2011 by County Counsel that were prepared by County of Riverside with Holt Architects, 70-225 Highway 111, Suite D, Rancho Mirage, California 92270, 760-328-5280.

Plans and Specifications are available for purchase by the Contractors at Mission Reprographics, 2050 E La Cadena Dr # L, Riverside, CA 92507, 951-686-8828 or www.missionreprographics.com. Plan Holders List is available at Mission Reprographics.

Notice of Award will be available at Mission Reprographics, www.missionreprographics.com

Pursuant to the Labor Code, the Governing Board of the Owner has obtained from the Director of the Department of Industrial Relations, State of California, his determination of general prevailing rates of per diem wages applicable to the work, and for holiday and overtime work, including employer payments for health and welfare, pension, vacation, and similar purposes, as set forth on the schedule which is on file at the principal office of the Owner, and which will be made available to any interested person upon request.

The Contract General Conditions for this project will contain provisions allowing successful contractor to substitute securities for monies withheld by the County to ensure performance (Public Contract Code 22300).

A Performance Bond and Payment Bond shall be required for this Project.

The Contractor will be required, per Public Contracts Code, Section 3300 and for this contract, to have a State of California contractor's license classification B - General Building Contractor. A **mandatory** pre-bid job walk inspection will be held on **Monday, August 8, 2011 at 10:00 a.m.**, meeting at 3403 10th Street, Riverside, CA 92501 at 2nd Floor Lobby. **No bids will be accepted from bidders who have not attended the pre-bid job walk.**

All Requests for Information (RFI) should be emailed to both Ruben Coronado of Holt Architects at rcoronado@holtarchitects.com AND to Dawn Torres, EDA Project Manager at drtorres@rivcoeda.org. RFI'S will not be answered via phone calls. Deadline for submission of Bid RFI is Thursday, August 11, 2011 at 2:00 p.m.

For further information, contact Dawn Torres, Project Manager, at the Economic Development Agency, Project Management Office at 3403 10th Street, Suite 500, Riverside, CA 92501 whose telephone number is 951-955-4880 and email is drtorres@rivcoeda.org.

Dated: July 21, 2011

KECIA HARPER-IHEM
Clerk of the Board

By: Cecilia Gil, Board Assistant

Published: July 28, 2011; August 4, 2011

RCR0584



MEMORANDUM

RIVERSIDE COUNTY COUNSEL

CONFIDENTIAL
ATTORNEY-CLIENT PRIVILEGE

DATE: August 24, 2011

TO: Jane Jennings
Clerk of the Board

FROM: Marsha L. Victor
Principal Deputy

RE: Bid Summary for Riverside Centre Building 2nd Floor TI

The six low bids submitted for the above referenced project have been reviewed by this office. The bids are as shown in your summary of bids.

The apparent low bid by Avi-Con, Inc. dba CA Construction appears to be in appropriate form and would constitute a proper basis for award of a contract.

All documents submitted are returned herewith.

A handwritten signature in blue ink, appearing to be "MLV".

MLV

cc: Dawn Torres, EDA Project Management

Bid Summary

TO: Pamela J. Walls
County Counsel

PROJECT: Riverside Centre Building 2nd Floor
Tenant Improvement Project

FROM: Jane Jennings 955-8092
Board Assistant, COB

BID DATE: 8/23/11

Project Mgr: Dawn Torres - EDA
(951) 955-4880

BID TIME: 10:00 a.m.

ITEM/DATE: #3.27 of 05/24/11

(PLEASE REFER ALL QUESTIONS TO THE PROJECT MANAGER)

CONTRACTORS

BID AMOUNT

Avi-Con, Inc. dba CA Construction
981 Iowa Ave. Suite A
Riverside, CA 92507
(951) 781-8055

Total Base Bid: \$ 914,000.00

Rasmussen Brothers Constr., Inc. (RBC)
40441 Gavilan Mountain Road
Fallbrook, CA 92028
(760) 731-5243

Total Base Bid: \$ 970,500.00

The Sun Group
3151 Airway Ave. Bldg. V
Costa Mesa, CA 92626
(949) 476-3133

Total Base Bid: \$ 974,000.00

Doug Nielsen Construction, Inc.
5998 Keswick Avenue
Riverside, CA 92506
951-683-2988

Total Base Bid: \$ 1,016,711.00

Doug Wall Construction, Inc.
78450 Ave. 41
Bermuda Dunes, CA 92203
(760) 772-8446

Total Base Bid: \$ 1,020,000.00

DeLaSecura, Inc.
dba: DLS Builders
1975 N. Batavia Street
Orange, CA 92865
(714) 998-3790

Total Base Bid: \$ 1,033,000.00

(PLEASE REFER ALL QUESTIONS TO THE PROJECT MANAGER)

CONTRACTORS

BID AMOUNT

| | | |
|--|-----------------|-----------------|
| TBC Contractors Corp. 1241 N. Lakeview Ave., Ste K Anaheim, CA 92807 (714) 693-3993 | Total Base Bid: | \$ 1,044,000.00 |
|--|-----------------|-----------------|

| | | |
|---|-----------------|-----------------|
| ACR Builders, Inc. 17 Via Belmonte Rancho Santa Margarita, CA 92688 (949) 713-3266 | Total Base Bid: | \$ 1,054,263.00 |
|---|-----------------|-----------------|

| | | |
|--|-----------------|-----------------|
| Orr Builders 39-301 Badger St. Ste. #300 Palm Desert, CA 92211 (760) 360-6632 | Total Base Bid: | \$ 1,057,000.00 |
|--|-----------------|-----------------|

| | | |
|---|-----------------|-----------------|
| Dalke & Sons Construction, Inc. 4585 Allstate Dr. Riverside, CA 92501 (951) 274-9880 | Total Base Bid: | \$ 1,068,480.00 |
|---|-----------------|-----------------|

| | | |
|---|-----------------|-----------------|
| Nile Advanced Construction, Inc. 4106 Valley Blvd. Walnut, CA 91789 (909) 595-6611 | Total Base Bid: | \$ 1,083,000.00 |
|---|-----------------|-----------------|

| | | |
|--|-----------------|-----------------|
| J.M. Builders, Inc. P.O. Box 1741 Redlands, CA 92373 (909) 793-4687 | Total Base Bid: | \$ 1,083,000.00 |
|--|-----------------|-----------------|

| | | |
|---|-----------------|-----------------|
| Abboud Diamond Construction, Inc. P.O. Box 6230 Moreno Valley, CA 92554 (909) 370-3924 | Total Base Bid: | \$ 1,098,000.00 |
|---|-----------------|-----------------|

(PLEASE REFER ALL QUESTIONS TO THE PROJECT MANAGER)

CONTRACTORS

BID AMOUNT

| | | |
|---|----------------|-----------------|
| GRD Contractors, Inc. DBA Day Construction Company 3188-C Airway Ave. Costa Mesa, CA 92626 (714-885-8950) | Total Base Bid | \$ 1,148,060.00 |
|---|----------------|-----------------|

| | | |
|--|-----------------|-----------------|
| New Creation Builders, Corporation 17809 Clark Avenue Bellflower, CA 90706 (562) 804-0478 | Total Base Bid: | \$ 1,157,000.00 |
|--|-----------------|-----------------|

| | | |
|--|-----------------|-----------------|
| DLE Construction, Inc. 1020 S. Willow Ave. West Covina, CA 91790 (926) 960-6000 | Total Base Bid: | \$ 1,220,000.00 |
|--|-----------------|-----------------|

| | | |
|---|-----------------|-----------------|
| Fast-Track Construction Corp. 5857 Uplander Way Culver City, CA 90230 (310) 215-3099 | Total Base Bid: | \$ 1,239,000.00 |
|---|-----------------|-----------------|

| | | |
|--|-----------------|-----------------|
| Big West Construction Corp. 15331 Normandie Irvine, CA 92604 (949) 795-2219 | Total Base Bid: | \$ 1,260,000.00 |
|--|-----------------|-----------------|

CONTRACTOR'S PROPOSAL

TO THE GOVERNING BOARD OF THE COUNTY OF RIVERSIDE:

Date: 8/22/11

Bidder: Avi-Con, inc. dba CA Construction

The undersigned, having carefully examined the proposed site and the Plans and Specifications, the Notice Inviting Bids, the Instructions to Bidders, the Agreement Form, the Bond Forms, the General Conditions for the construction of the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO**, hereby proposes and agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials necessary to complete the work in strict conformity with the Plans and Specifications, including all work specified in Addenda numbered and dated:

Addendum No. 1 Date 8/17/11
Addendum No. _____ Date _____
Addendum No. _____ Date _____
Addendum No. _____ Date _____
Addendum No. _____ Date _____

For the total Base Bid nine hundred and fourteen thousand dollars (\$ 914,000.00), including all applicable taxes, permits, and licenses.

(Add or Deduct state which)

| | | |
|-------------|--------------------|-----------------------------|
| Alternate 1 | \$ <u>7,000.00</u> | <u>Add per m-21 note #7</u> |
| Alternate 2 | \$ _____ | _____ |
| Alternate 3 | \$ _____ | _____ |
| Alternate 4 | \$ _____ | _____ |

Bids must be submitted on all items. Failure to bid on all items may result in the bid being rejected as non-responsive. The basis for award will be the qualified bidder with the lowest total of the Base Bid and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.

DESIGNATION OF SUBCONTRACTORS

In compliance with Section 4104 of the Public Contract Code the undersigned submits the following complete list of each Subcontractor who will perform work or labor or render service in or about the construction/installation in an amount in excess of 1/2 of 1% of said total bid.

| <u>PORTION OF THE WORK</u> | <u>SUBCONTRACTOR</u> | <u>LOCATION</u> |
|----------------------------|---|--|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| Doors & Hardware | Monster Door | 5530 Santa Fe Trail suite D Yuca Valley, CA 91204 |
| Tile | J. Colavin & Son | 5323 Alhambra Ave. Los Angeles, CA 90031 |
| Flooring | Fair Price Carpet | 1070 Center Street Riverside, CA 92507 |
| Painting | Streamline Painting | 9510 Sunnybrook Drive Moreno Valley, CA 92557 |
| HVAC | Westland Heating and Air Conditioning | 14151 South Cucamonga Ave Ontario, CA 91761 |
| Plumbing | Sorenson Plumbing | 9759 Beechwood drive Alhambra, CA 91801 |
| Fire Sprinklers | Alarm Valve and fire protection services | 13421 Del Monte drive #14-J Seal beach, CA 92740 |
| Electrical | Collins Electric | PO Box 584 Tomball, CA 91593 |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

AWARD OF CONTRACT

The undersigned fully understands that a Contract is formed upon the acceptance of this Proposal by the Owner and the undersigned further agrees that upon request he will promptly execute and deliver to Owner a written memorial of the Contract together with the required Payment and Performance Bonds and proof of insurance.

BID GUARANTEE

The enclosed certified or cashier's check or bidder's bond on approved form, made payable to the Owner in the amount of ten percent of the total bid submitted herewith, is hereby given as a guarantee that the bidder will execute and deliver the above mentioned written memorial and required bonds and insurance if awarded the contract, and in the event that the undersigned fails or refuses to execute and deliver said documents, such check or bond is to be charged with the costs of the damages experienced by the Owner as a result of such failure or refusal, including but not limited to publication costs, the difference in money between the amount of the bid of the said principal and the amount for which obligee may legally contract with another party to perform the said work if such amount be in excess of the former, building lease or rental costs, transportation costs and additional salary costs that result from the delay due to the principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum hereof.

Name of Bidder: Avi-Con, Inc. dba CA Construction

Type of Organization: Corporation

Signed By: [Signature]

Title of Signer: Secretary

Address of Bidder: 981 Iowa Avenue Suite A

Riverside, CA 92507

Affix Seal
If
Corporation

Telephone No.: 951-781-8055

Contractor's License No.: 588602

Classification: A, B, D06 Expiration Date: 6/30/12

LICENSURE STATEMENTS ARE MADE UNDER PENALTY OF PERJURY

If bidder is a corporation, and signer is not President or Secretary, attach a certified copy of By-Laws or resolution authorizing execution. If bidder is a corporation, affix corporate seal. If signer is an agent, attach Power of Attorney. If bidder is not an individual, list names of other persons authorized to bind the organization.

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California) ss.
County of Riverside)

Jacob Avila, being first duly sworn, deposes and says:

That he or she is Secretary of Avi-Con, Inc. dba CA Construction the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.


Signature

Subscribed and sworn to before me this _____ day of _____, 2011.

See Attached
Signature of officer administering oath

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Riverside

On Aug 18 2011 before me, Stephanie D. Montague, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Jacob Avila
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Handwritten Signature]
Signature of Notary Public



Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Bid Package

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

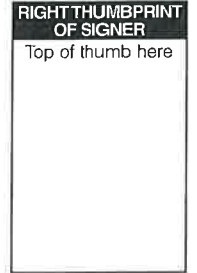
- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Bid Bond

KNOWN TO ALL MEN BY THESE PRESENTS, that we, the undersigned AVI-CON, Inc. dba
CA Construction, as Principal; and (1), as Surety, are
hereby held and firmly bound unto the County of Riverside, hereinafter called the "Owner", in the sum of
(2) Dollars (\$ -----) for the payment of such sum, well
and truly to be made, do hereby jointly and severally bind ourselves, our heirs, executors, administrators,
successors and assigns. (1) First National Insurance Company of America (2) not to exceed
ten percent (10%) of the total bid amount
WHEREAS, the said Principal is herewith submitting its Proposal for the **Riverside Centre 2nd Floor Tenant
Improvement Project - Federal GSA-USAO.**

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the aforesaid Principal shall be awarded
the Contract upon said Proposal and shall, within the required number of days after the notice of such award,
execute a written memorial of the awarded Contract and submit the required Labor and Material Payment and
faithful Performance Bond and proof of insurance, then this obligation shall be null and void; and in the event
that the Principal fails and/or refuses to execute and deliver said documents this Bond will be charged with the
costs of the damages experienced by the Owner as a result of such refusal, including but not limited to,
publication cost, the difference in money between the amount of the bid of the said Principal and the amount
for which the obligee may legally contract with another party to perform the said work if such amount be in
excess of the former; building lease or rental costs, transportation cost, and additional salary costs that result
from the delay due to the Principal's default on the awarded Contract. In no event however, shall the Surety's
liability exceed the penal sum hereof.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond
shall be in no way impaired or affected by any extension of the time within which the Owner may accept such
bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their separate
seals this 18th day of August, 2011, the name and corporate seal of each corporate party
being hereto affixed and those present duly signed by its undersigned representative, pursuant to authority of
its governing body.

AVI-CON, Inc. dba CA Construction
(Firm Name - Principal)
981 Iowa Ave., Suite A, Riverside, CA 92507

(Business Address)

By [Signature]
(Original Signature)

Secretary
(Title)

First National Insurance Company of America
(Corporation Name - Surety)

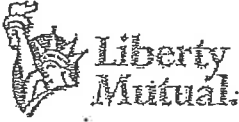
333 City Blvd West, Suite 300, Orange, CA 92868
(Business Address)

By [Signature]
(Original Signature) Julia B. Gladding

ATTORNEY-IN-FACT

Affix Seal
If
Corporation

Affix
Corporate
Seal



POWER OF ATTORNEY

First National Insurance Company of America
1001 4th Avenue
Suite 1700
Seattle, WA 98154

KNOW ALL BY THESE PRESENTS:

No. 12417

That FIRST NATIONAL INSURANCE COMPANY OF AMERICA, a Washington corporation, does hereby appoint

*****KENNETH A. COATE; JULIA B. GLADDING; Riverside, California*****

its true and lawful attorney(s)-in-fact, with full authority to execute on behalf of the company fidelity and surety bonds or undertakings and other documents of a similar character issued by the company in the course of its business, and to bind FIRST NATIONAL INSURANCE COMPANY OF AMERICA thereby as fully as if such instruments had been duly executed by its regularly elected officers at its home office.

IN WITNESS WHEREOF, FIRST NATIONAL INSURANCE COMPANY OF AMERICA has executed and attested these presents

this 21st day of March 2009

Dexter R. Legg

Dexter R. Legg, Secretary

TAMIKOLAJEWSKI

Timothy A. Mikolajewski, Vice President

CERTIFICATE

Extract from the By-Laws of FIRST NATIONAL INSURANCE COMPANY OF AMERICA:

"Article V, Section 13. - FIDELITY AND SURETY BONDS ... the President, any Vice President, the Secretary, and any Assistant Vice President appointed for that purpose by the officer in charge of surety operations, shall each have authority to appoint individuals as attorneys-in-fact or under other appropriate titles with authority to execute on behalf of the company fidelity and surety bonds and other documents of similar character issued by the company in the course of its business... On any instrument making or evidencing such appointment, the signatures may be affixed by facsimile. On any instrument conferring such authority or on any bond or undertaking of the company, the seal, or a facsimile thereof, may be impressed or affixed or in any other manner reproduced; provided, however, that the seal shall not be necessary to the validity of any such instrument or undertaking."

Extract from a Resolution of the Board of Directors of FIRST NATIONAL INSURANCE COMPANY OF AMERICA adopted July 28, 1970.

"On any certificate executed by the Secretary or an assistant secretary of the Company setting out,

- (i) The provisions of Article V, Section 13 of the By-Laws, and
- (ii) A copy of the power-of-attorney appointment, executed pursuant thereto, and
- (iii) Certifying that said power-of-attorney appointment is in full force and effect,

the signature of the certifying officer may be by facsimile, and the seal of the Company may be a facsimile thereof."

I, Dexter R. Legg, Secretary of FIRST NATIONAL INSURANCE COMPANY OF AMERICA, do hereby certify that the foregoing extracts of the By-Laws and of a Resolution of the Board of Directors of this corporation, and of a Power of Attorney issued pursuant thereto, are true and correct, and that both the By-Laws, the Resolution and the Power of Attorney are still in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the facsimile seal of said corporation

this day of AUG 18 2011



Dexter R. Legg

Dexter R. Legg, Secretary

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

CIVIL CODE § 1189

State of California

County of Riverside

On AUG 18 2011 before me, Stephanie D. Montague, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Julia B. Gladding
Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that ~~he/she/they~~ executed the same in ~~his/her/their~~ authorized capacity(ies), and that by ~~his/her/their~~ signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature: [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

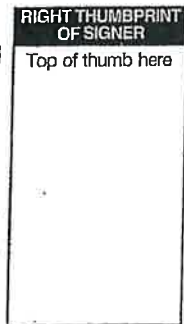
- Corporate Officer — Title(s): _____
- Individual
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Signer's Name: _____

- Corporate Officer — Title(s): _____
- Individual
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Riverside

On Aug 18 2011 before me, Stephanie D. Montague, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Jacob Avila
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.



I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature [Handwritten Signature]
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Bid Package

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer(s)

Signer's Name: _____

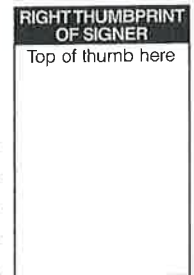
- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing: _____

AGREEMENT FORM

THIS AGREEMENT, entered into this _____ day of _____, 2011, by and between _____, hereinafter called the "Contractor", and the County of Riverside hereinafter called the "Owner".

WITNESSETH: That the parties hereto have mutually covenanted and agreed as follows:

CONTRACT: The Complete Contract includes all of the Contract Documents, to wit: The Notice Inviting Bids, the Instructions to Bidders, the Contractor's Proposal, Wage Schedule, Payment and Performance Bonds, the Plans and Specifications plus any Addenda thereto, the General Conditions, the Supplementary General Conditions, if applicable and this Agreement. All Contract Documents are intended to cooperate and be complimentary so that any work called for in one and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all Contract Documents.

STATEMENT OF WORK: The Contractor hereby agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials for the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO**. In strict accordance with the Plans and Specifications dated December 2010 prepared by Holt Architects, hereinafter called the "Architect", and County of Riverside including Addenda thereto as listed in the Contractor's Proposal, all of which are made a part hereof.

TIME FOR COMPLETION: The work shall be commenced on a date to be specified in a written order of the Architect and shall be completed within one hundred and twenty (120) calendar days from and after said date. It is expressly agreed that except for extensions of time duly granted in the manner and for the reasons specified in the General Conditions, time shall be of the essence.

COMPENSATION TO BE PAID TO CONTRACTOR: The Owner agrees to pay and the Contractor agrees to accept in full consideration for the performance of the Contract, subject to additions and deductions as provided in the General Conditions, the sum of _____ dollars (\$ _____) being the total of the base bid plus the following addenda: __, __, __, __. The sum is to be paid according to the schedule as provided in the General Conditions.

Pursuant to Labor Code, Section 1861, the Contractor gives the following certification: I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract.

IN WITNESS WHEREOF, the parties hereto on the day and year first above written have executed this agreement in four (4) counterparts.

Type of Contractor's organization: _____

If other than individual or corporation, list names of all members who have authority to bind firm.

Firm Name: _____

Address: _____

Contractor's License No.: _____

IF OTHER THAN CORPORATION EXECUTE HERE

Signature: _____

Title: _____

IF CORPORATION, FILL OUT FOLLOWING AND EXECUTE

Name of President of Corporation: _____

Name of Secretary of Corporation: _____

Corporation is organized under the laws of State of _____

Signature: _____

Title: _____

Owner: COUNTY OF RIVERSIDE

Signature: _____

Title: Chairman - Board of Supervisors

Attest: Clerk - Board of Supervisors

By: _____

Title: _____

Affix Seal
If
Corporation

PAYMENT BOND

(Public Work - Civil Code Section 3247 et seq.)

The makers of this Bond are _____ as Principal and Original Contractor and _____, a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract dated _____, 2011 between Principal and County of Riverside, a public entity, as owner, for _____ dollars (\$ _____) the total amount payable. **THE AMOUNT OF THIS BOND IS 100% OF SAID SUM.** Said contract is for public work of: **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO.**

The beneficiaries of this Bond are as is stated in 3248 of the Civil Code and the requirements and conditions of this Bond are as is set forth in Sections 3248, 3249, 3250 and 3252 of said Code. Without notice, Surety consents to extension of time for performance, change in requirements, amount of compensation, or prepayment under said Contract.

Signed and Sealed this _____ Day of _____ 2011.

(Firm Name - Principal)

(Business Address)

Affix Seal
if
Corporation

By: _____
(Signature - Attach Notary's Acknowledgment)

(Title)

(Corporation Name - Surety)

(Business Address)

Affix
Corporate
Seal

By: _____
(Signature - Attached Notary's Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

PERFORMANCE BOND

The makers of this Bond, _____, as Principal, and _____ as Surety, are held and firmly bound unto County of Riverside, hereinafter called the Owner, in the sum of _____ Dollars (\$ _____) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that whereas the Principal entered into a certain contract, hereto attached, with the Owner, dated _____, 2011 for: **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO.**

Now therefore, if the Principal shall well and truly perform and fulfill all the undertakings covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extension thereof that may be granted by the Owner, with or without notice to the Surety, and during the file of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may thereafter be made, then this obligation to be void, otherwise to remain in full force and virtue. Without notice, Surety consents to extension of time for performance, change in requirements, change in compensation or prepayment under said Contract.

Signed and Sealed this _____ Day of _____, 2011.

(Firm Name - Principal)

(Business Address)

Affix Seal
if
Corporation

By: _____
(Signature - Attach Notary's Acknowledgment)

(Title)

(Corporation Name - Surety)

(Business Address)

Affix
Corporate
Seal

By: _____
(Signature - Attach Notary's Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

**CONTRACTOR'S CERTIFICATE
REGARDING WORKERS' COMPENSATION**


Labor Code Section 3700

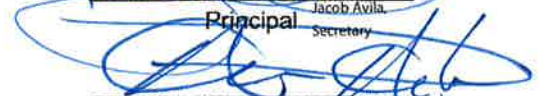
Every employer, except the State and all political subdivisions or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

- (b) By securing from the Director of Industrial Relations, a Certificate of Consent to Self-Insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of this Contract.


Principal Jacob Avila
Secretary


Principal Aaron Avila
President/CEO

Title

(In accordance with Article 5 [commencing at Section 1860], Chapter, Part 7, Division 2 of the Labor Code, the above Certificate must be signed and filed with the Owner prior to performing any work under this Contract.)

Avi-Con, Inc. dba CA Construction
981 Iowa Ave. Ste A
Riverside, CA 92507
License No. 588602
Phone: (951) 781-8055
Fax: (951) 781-8053

Riverside Centre
2nd Floor Tenant Improvement

SEALED BID RECEIVED
CLERK OF THE BOARD OF SUPERVISORS

RECEIVED RIVERSIDE COUNTY
CLERK OF THE BOARD OF SUPERVISORS

2011 AUG 23 AM 9:56

County of Riverside
Clerk of the Board
4000 Lemon Street
Riverside, CA 92501



Aaron Avila

☎ 951.660.5291

aa@caconstruction.net

981 Iowa Avenue, Suite A • Riverside, CA 92507

☎ 951.781.8055 ☎ 951.781.1077

9285 Chesapeake Drive, Suite N • San Diego, CA 92123

☎ 858.560.0988 ☎ 858.560.0860

www.CAConstruction.net

Lic # 588602 A B C61

CONTRACTOR'S PROPOSAL

TO THE GOVERNING BOARD OF THE COUNTY OF RIVERSIDE:

Date: 8/23/11

Bidder: RASMUSSEN BROTHERS CONSTRUCTION, INC

The undersigned, having carefully examined the proposed site and the Plans and Specifications, the Notice Inviting Bids, the Instructions to Bidders, the Agreement Form, the Bond Forms, the General Conditions for the construction of the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO**, hereby proposes and agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials necessary to complete the work in strict conformity with the Plans and Specifications, including all work specified in Addenda numbered and dated:

Addendum No. 1 Date 8/17/11
Addendum No. _____ Date _____
Addendum No. _____ Date _____
Addendum No. _____ Date _____
Addendum No. _____ Date _____

For the total Base Bid Nine Hundred Seventy Thousand ^{Five hundred} dollars (\$ 970,500), including all applicable taxes, permits, and licenses.

| | | (Add or Deduct state which) |
|-------------|-------------------------------|--|
| Alternate 1 | \$ <u>15,000⁰⁰</u> | <u>ADD (2ND AC IN ADT ROOM)</u> |
| Alternate 2 | \$ _____ | _____ |
| Alternate 3 | \$ _____ | _____ |
| Alternate 4 | \$ _____ | _____ |

Bids must be submitted on all items. Failure to bid on all items may result in the bid being rejected as non-responsive. The basis for award will be the qualified bidder with the lowest total of the Base Bid and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.

AWARD OF CONTRACT

The undersigned fully understands that a Contract is formed upon the acceptance of this Proposal by the Owner and the undersigned further agrees that upon request he will promptly execute and deliver to Owner a written memorial of the Contract together with the required Payment and Performance Bonds and proof of insurance.

BID GUARANTEE

The enclosed certified or cashier's check or bidder's bond on approved form, made payable to the Owner in the amount of ten percent of the total bid submitted herewith, is hereby given as a guarantee that the bidder will execute and deliver the above mentioned written memorial and required bonds and insurance if awarded the contract, and in the event that the undersigned fails or refuses to execute and deliver said documents, such check or bond is to be charged with the costs of the damages experienced by the Owner as a result of such failure or refusal, including but not limited to publication costs, the difference in money between the amount of the bid of the said principal and the amount for which obligee may legally contract with another party to perform the said work if such amount be in excess of the former, building lease or rental costs, transportation costs and additional salary costs that result from the delay due to the principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum hereof.

Name of Bidder: RASMUSSEN BROTHERS CONSTRUCTION, INC

Type of Organization: CORP.

Signed By: [Signature]

Title of Signer: MICHAEL RASMUSSEN, PRES./CEO

Address of Bidder: 40941 CAVITAN MOUNTAIN ROAD
FALLBROOK CA 92028

Affix Seal
If
Corporation

Telephone No.: 760-731-5243

Contractor's License No.: 495897

Classification: B Expiration Date: 7/31/12

LICENSURE STATEMENTS ARE MADE UNDER PENALTY OF PERJURY

If bidder is a corporation, and signer is not President or Secretary, attach a certified copy of By-Laws or resolution authorizing execution. If bidder is a corporation, affix corporate seal. If signer is an agent, attach Power of Attorney. If bidder is not an individual, list names of other persons authorized to bind the organization.

NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California) ss.
County of Riverside)

Michael Zasmussen

, being first duly sworn, deposes and says:

That he or she is PRESIDENT, CEO of ZASMUSSEL BROS. CONST. INC. the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

[Signature]
Signature

Subscribed and sworn to before me this 22 day of August, 2011.



Donna Michelle Leon
Signature of officer administering oath

Bid Bond

KNOWN TO ALL MEN BY THESE PRESENTS, that we, the undersigned Rasmussen Brothers Construction, Inc., as Principal; and Developers Surety and Indemnity Company, as Surety, are hereby held and firmly bound unto the County of Riverside, hereinafter called the "Owner", in the sum of ten percent of amount bid _____ Dollars (\$ 10%) for the payment of such sum, well and truly to be made, do hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

WHEREAS, the said Principal is herewith submitting its Proposal for the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO.**

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the aforesaid Principal shall be awarded the Contract upon said Proposal and shall, within the required number of days after the notice of such award, execute a written memorial of the awarded Contract and submit the required Labor and Material Payment and faithful Performance Bond and proof of insurance, then this obligation shall be null and void; and in the event that the Principal fails and/or refuses to execute and deliver said documents this Bond will be charged with the costs of the damages experienced by the Owner as a result of such refusal, including but not limited to, publication cost, the difference in money between the amount of the bid of the said Principal and the amount for which the obligee may legally contract with another party to perform the said work if such amount be in excess of the former; building lease or rental costs, transportation cost, and additional salary costs that result from the delay due to the Principal's default on the awarded Contract. In no event however, shall the Surety's liability exceed the penal sum hereof.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their separate seals this 23rd day of August, 2011, the name and corporate seal of each corporate party being hereto affixed and those present duly signed by its undersigned representative, pursuant to authority of its governing body.

Rasmussen Brothers Construction, Inc.
(Firm Name - Principal)
40441 Gavilan Mountain Rd, Fallbrook CA 92028
(Business Address)

By [Signature]
(Original Signature)
Michael Rasmussen, President
(Title)

Affix Seal
If
Corporation

Developers Surety and Indemnity Company
(Corporation Name - Surety)
PO Box 19725, Irvine CA 92623
(Business Address)

By [Signature]
Blake A Pfister,
ATTORNEY-IN-FACT

Affix
Corporate
Seal

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

STATE OF CALIFORNIA

County of Orange }

On August 19, 2011 before me, Lianne Nahina, Notary Public
Date Here Insert Name and Title of the Officer

personally appeared Blake A. Pfister
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal.

Signature Lianne Nahina
Signature of Notary Public



Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: Bid Bond No. 11-393-018

Document Date: August 23, 2011 Number of Pages: 1

Signer(s) Other Than Named Above: None

Capacity(ies) Claimed by Signer(s)

Signer's Name: Blake A. Pfister

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing:
Developers Surety and
Surety Company

Signer's Name: _____

- Individual
- Corporate Officer — Title(s): _____
- Partner — Limited General
- Attorney in Fact
- Trustee
- Guardian or Conservator
- Other: _____



Signer Is Representing:

POWER OF ATTORNEY FOR
DEVELOPERS SURETY AND INDEMNITY COMPANY
INDEMNITY COMPANY OF CALIFORNIA
PO Box 19725, IRVINE, CA 92623 (949) 263-3300

Attached 11-393-018

KNOW ALL BY THESE PRESENTS that except as expressly limited, DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, do each hereby make, constitute and appoint: ***Blake A. Pfister***

as their true and lawful Attorney(s)-in-Fact, to make, execute, deliver and acknowledge, for and on behalf of said corporations, as sureties, bonds, undertakings and contracts of suretyship giving and granting unto said Attorney(s)-in-Fact full power and authority to do and to perform every act necessary, requisite or proper to be done in connection therewith as each of said corporations could do, but reserving to each of said corporations full power of substitution and revocation, and all of the acts of said Attorney(s)-in-Fact, pursuant to these presents, are hereby ratified and confirmed.

This Power of Attorney is granted and is signed by facsimile under and by authority of the following resolutions adopted by the respective Boards of Directors of DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA, effective as of January 1st, 2008.

RESOLVED, that a combination of any two of the Chairman of the Board, the President, Executive Vice-President, Senior Vice-President or any Vice President of the corporations be, and that each of them hereby is, authorized to execute this Power of Attorney, qualifying the attorney(s) named in the Power of Attorney to execute, on behalf of the corporations, bonds, undertakings and contracts of suretyship; and that the Secretary or any Assistant Secretary of either of the corporations be, and each of them hereby is, authorized to attest the execution of any such Power of Attorney;

RESOLVED, FURTHER, that the signatures of such officers may be affixed to any such Power of Attorney or to any certificate relating thereto by facsimile, and any such Power of Attorney or certificate bearing such facsimile signatures shall be valid and binding upon the corporations when so affixed and in the future with respect to any bond, undertaking or contract of suretyship to which it is attached.

IN WITNESS WHEREOF, DEVELOPERS SURETY AND INDEMNITY COMPANY and INDEMNITY COMPANY OF CALIFORNIA have severally caused these presents to be signed by their respective officers and attested by their respective Secretary or Assistant Secretary this January 1st, 2008.

By: Daniel Young
Daniel Young, Vice-President

By: Stephen T. Pate
Stephen T. Pate, Senior Vice-President



State of California
County of Orange

On January 31, 2011 before me, Antonio Alvarado, Notary Public
Date Here Insert Name and Title of the Officer

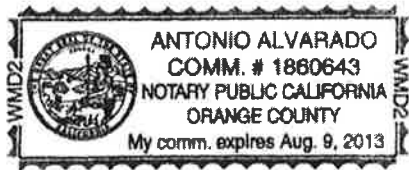
personally appeared Daniel Young and Stephen T. Pate
Name(s) of Signer(s)

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Antonio Alvarado
Antonio Alvarado, Notary Public



Place Notary Seal Above

CERTIFICATE

The undersigned, as Secretary or Assistant Secretary of DEVELOPERS SURETY AND INDEMNITY COMPANY or INDEMNITY COMPANY OF CALIFORNIA, does hereby certify that the foregoing Power of Attorney remains in full force and has not been revoked and, furthermore, that the provisions of the resolutions of the respective Boards of Directors of said corporations set forth in the Power of Attorney are in force as of the date of this Certificate.

This Certificate is executed in the City of Irvine, California, this 23rd day of August, 2011

By: Gregg Okura
Gregg Okura, Assistant Secretary

SEALED BID RECEIVE
CLERK OF THE BOARD OF SUPERVISORS

RECEIVED RIVERSIDE COUNTY
CLERK / BOARD OF SUPERVISORS
2011 AUG 23 AM 9:52

*County of Riverside
Clerk of the Board of Supervisors
4080 Central Street
Riverside CA 92501*



40441 Gavilan Mountain Rd
Fallsbrook, CA 92028

CONTRACTOR'S PROPOSAL

TO THE GOVERNING BOARD OF THE COUNTY OF RIVERSIDE:

Date: 8/23/11

Bidder: THE SUN GROUP

The undersigned, having carefully examined the proposed site and the Plans and Specifications, the Notice Inviting Bids, the Instructions to Bidders, the Agreement Form, the Bond Forms, the General Conditions for the construction of the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO**, hereby proposes and agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials necessary to complete the work in strict conformity with the Plans and Specifications, including all work specified in Addenda numbered and dated:

Addendum No. 1 Date 8/17/11
 Addendum No. _____ Date _____
 Addendum No. _____ Date _____
 Addendum No. _____ Date _____
 Addendum No. _____ Date _____

For the total Base Bid NINE HUNDRED SEVENTY FOUR THOUSAND dollars (\$ 974,000), including all applicable taxes, permits, and licenses. INCLUDES 7% IN ADVANCES PER ADDENDUM 1, PART III, SEC 'C'

| | | |
|-------------|--------------------------------|--|
| Alternate 1 | \$ <u>15,000.⁰⁰</u> | (Add or Deduct state which) <u>ALTERNATE TO "ADD" SECOND A/C-1 PER SHEET M2.1 NOTE #7</u> |
| Alternate 2 | \$ _____ | _____ |
| Alternate 3 | \$ _____ | _____ |
| Alternate 4 | \$ _____ | _____ |

Bids must be submitted on all items. Failure to bid on all items may result in the bid being rejected as non-responsive. The basis for award will be the qualified bidder with the lowest total of the Base Bid and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.

DESIGNATION OF SUBCONTRACTORS

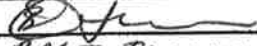
In compliance with Section 4104 of the Public Contract Code the undersigned submits the following complete list of each Subcontractor who will perform work or labor or render service in or about the construction/installation in an amount in excess of 1/2 of 1% of said total bid.

PORTION OF THE WORK

SUBCONTRACTOR

LOCATION

* PLEASE SEE ATTACHED "DESIGNATION OF SUBCONTRACTORS" FORM



BRETT ISAACMAN

8/23/11

THE SUN GROUP

DESIGNATION OF SUBCONTRACTORS


In compliance with Section 4104 of the Public Contract Code the undersigned submits the following complete list of each Subcontractor who will perform work or labor or render service in or about the construction/installation in an amount in excess of 1/2 of 1% of said total bid.

PORTION OF THE WORK

SUBCONTRACTOR

LOCATION

* PLEASE SEE ATTACHED "DESIGNATION OF SUBCONTRACTORS" FORM


BRIET BRANCMAN
8/23/11
THE SUN GROUP

AWARD OF CONTRACT

The undersigned fully understands that a Contract is formed upon the acceptance of this Proposal by the Owner and the undersigned further agrees that upon request he will promptly execute and deliver to Owner a written memorial of the Contract together with the required Payment and Performance Bonds and proof of insurance.

BID GUARANTEE

The enclosed certified or cashier's check or bidder's bond on approved form, made payable to the Owner in the amount of ten percent of the total bid submitted herewith, is hereby given as a guarantee that the bidder will execute and deliver the above mentioned written memorial and required bonds and insurance if awarded the contract, and in the event that the undersigned fails or refuses to execute and deliver said documents, such check or bond is to be charged with the costs of the damages experienced by the Owner as a result of such failure or refusal, including but not limited to publication costs, the difference in money between the amount of the bid of the said principal and the amount for which obligee may legally contract with another party to perform the said work if such amount be in excess of the former, building lease or rental costs, transportation costs and additional salary costs that result from the delay due to the principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum hereof.

Name of Bidder: THE SUN GROUP

Type of Organization: Corporation - G.C.

Signed By: 

Title of Signer: PRESIDENT

Address of Bidder: 3151 AIRWAY AVE., Bldg V
COSTA MESA, CA 92626

Affix Seal
If
Corporation

Telephone No.: 949-476-3133

Contractor's License No.: 947719

Classification: B Expiration Date: 5/31/12

LICENSURE STATEMENTS ARE MADE UNDER PENALTY OF PERJURY

If bidder is a corporation, and signer is not President or Secretary, attach a certified copy of By-Laws or resolution authorizing execution. If bidder is a corporation, affix corporate seal. If signer is an agent, attach Power of Attorney. If bidder is not an individual, list names of other persons authorized to bind the organization.

ACKNOWLEDGMENT

State of California
County of Riverside)

On August 23, 2011 before me, Karen Hansen, Notary Public
(insert name and title of the officer)

personally appeared Brett Isaacman,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature Karen Hansen (Seal)



NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

State of California) ss.
County of Riverside)

BRETT ISAACKMAN, being first duly sworn, deposes and says:

That he or she is PRESIDENT of THE SUN GROUP the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

[Signature]
Signature

Subscribed and sworn to before me this 23 day of AUGUST, 2011.



Karen Hansen
Signature of officer administering oath

Bid Bond

KNOWN TO ALL MEN BY THESE PRESENTS, that we, the undersigned THE SUN GROUP, as Principal; and LIBERTY MUTUAL INSURANCE COMPANY, as Surety, are hereby held and firmly bound unto the County of Riverside, hereinafter called the "Owner", in the sum of TEN PERCENT OF AMOUNT BID Dollars (\$ 10%) for the payment of such sum, well and truly to be made, do hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

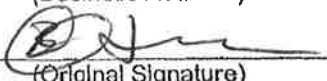
WHEREAS, the said Principal is herewith submitting its Proposal for the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO**.

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the aforesaid Principal shall be awarded the Contract upon said Proposal and shall, within the required number of days after the notice of such award, execute a written memorial of the awarded Contract and submit the required Labor and Material Payment and faithful Performance Bond and proof of insurance, then this obligation shall be null and void; and in the event that the Principal fails and/or refuses to execute and deliver said documents this Bond will be charged with the costs of the damages experienced by the Owner as a result of such refusal, including but not limited to, publication cost, the difference in money between the amount of the bid of the said Principal and the amount for which the obligee may legally contract with another party to perform the said work if such amount be in excess of the former; building lease or rental costs, transportation cost, and additional salary costs that result from the delay due to the Principal's default on the awarded Contract. In no event however, shall the Surety's liability exceed the penal sum hereof.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above bounded parties have executed this Instrument under their separate seals this 5TH day of AUGUST, 2011, the name and corporate seal of each corporate party being hereto affixed and those present duly signed by its undersigned representative, pursuant to authority of its governing body.

THE SUN GROUP
(Firm Name - Principal)
3151 AIRWAY AVE. BLDG. V COSTA MESA, CA 92626
(Business Address)

By 
(Original Signature)
PRESIDENT
(Title)

Affix Seal
If
Corporation

LIBERTY MUTUAL INSURANCE COMPANY
(Corporation Name - Surety)
534 E. BADILLO ST. COVINA, CA 91723
(Business Address)

By 
(Original Signature) PHILIP VEGA, ATTORNEY-IN-FACT
ATTORNEY-IN-FACT

Affix
Corporate
Seal

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

LIBERTY MUTUAL INSURANCE COMPANY
BOSTON, MASSACHUSETTS
POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS: That Liberty Mutual Insurance Company (the "Company"), a Massachusetts stock insurance company, pursuant to and by authority of the By-law and Authorization hereinafter set forth, does hereby name, constitute and appoint PHILIP E. VEGA, FRANK MORONES, KEVIN E. VEGA, BRITTON CHRISTIANSEN, JADON H. SMITH, MYRNA SMITH, ALL OF THE CITY OF COVINA, STATE OF CALIFORNIA

, each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations in the penal sum not exceeding ONE HUNDRED MILLION AND 00/100 DOLLARS (\$ 100,000,000.00) each, and the execution of such undertakings; bonds, recognizances and other surety obligations, in pursuance of these presents, shall be as binding upon the Company as if they had been duly signed by the president and attested by the secretary of the Company in their own proper persons.

That this power is made and executed pursuant to and by authority of the following By-law and Authorization:

ARTICLE XIII - Execution of Contracts: Section 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

By the following instrument the chairman or the president has authorized the officer or other official named therein to appoint attorneys-in-fact:

Pursuant to Article XIII, Section 5 of the By-Laws, Garnet W. Elliott, Assistant Secretary of Liberty Mutual Insurance Company, is hereby authorized to appoint such attorneys-in-fact as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

That the By-law and the Authorization set forth above are true copies thereof and are now in full force and effect.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Company and the corporate seal of Liberty Mutual Insurance Company has been affixed thereto in Plymouth Meeting, Pennsylvania this 28th day of February, 2011.

LIBERTY MUTUAL INSURANCE COMPANY



By Garnet W. Elliott, Assistant Secretary

COMMONWEALTH OF PENNSYLVANIA ss
COUNTY OF MONTGOMERY

On this 28th day of February, 2011, before me, a Notary Public, personally came Garnet W. Elliott, to me known, and acknowledged that he is an Assistant Secretary of Liberty Mutual Insurance Company; that he knows the seal of said corporation; and that he executed the above Power of Attorney and affixed the corporate seal of Liberty Mutual Insurance Company thereto with the authority and at the direction of said corporation.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Teresa Pastella, Notary Public
Plymouth Twp., Montgomery County
My Commission Expires March 28, 2013
Member, Pennsylvania Association of Notaries

By Teresa Pastella, Notary Public

CERTIFICATE

I, the undersigned, Assistant Secretary of Liberty Mutual Insurance Company, do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy, is in full force and effect on the date of this certificate; and I do further certify that the officer or official who executed the said power of attorney is an Assistant Secretary specially authorized by the chairman or the president to appoint attorneys-in-fact as provided in Article XIII, Section 5 of the By-laws of Liberty Mutual Insurance Company.

This certificate and the above power of attorney may be signed by facsimile or mechanically reproduced signatures under and by authority of the following vote of the board of directors of Liberty Mutual Insurance Company at a meeting duly called and held on the 12th day of March, 1980.

VOTED that the facsimile or mechanically reproduced signature of any assistant secretary of the company, wherever appearing upon a certified copy of any power of attorney issued by the company in connection with surety bonds, shall be valid and binding upon the company with the same force and effect as though manually affixed.

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said company, this 5TH day of AUGUST, 2011.



By David M. Carey, Assistant Secretary

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California

County of Los Angeles

On 08/05/2011

Date

before me, Monica Blaisdell, Notary Public

Here Insert Name and Title of the Officer

personally appeared Philip E. Vega

Name(s) of Signer(s)



who proved to me on the basis of satisfactory evidence to be the person ~~(s)~~ whose name ~~(s)~~ is ~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/it~~ executed the same in his/~~her/its~~ authorized capacity ~~(ies)~~ and that by his/~~her/its~~ signature ~~(s)~~ on the instrument the person ~~(s)~~ or the entity upon behalf of which the person ~~(s)~~ acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature Monica Blaisdell

Signature of Notary Public

Place Notary Seal Above

ACKNOWLEDGMENT

State of California
County of Riverside)

On August 23, 2011 before me, Karen Hansen, Notary Public
(insert name and title of the officer)

personally appeared Brett Isaacman
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing
paragraph is true and correct.

WITNESS my hand and official seal.

Signature Karen Hansen (Seal)



AGREEMENT FORM

THIS AGREEMENT, entered into this _____ day of _____, 2011, by and between _____, hereinafter called the "Contractor", and the County of Riverside hereinafter called the "Owner".

WITNESSETH: That the parties hereto have mutually covenanted and agreed as follows:

CONTRACT: The Complete Contract includes all of the Contract Documents, to wit: The Notice Inviting Bids, the Instructions to Bidders, the Contractor's Proposal, Wage Schedule, Payment and Performance Bonds, the Plans and Specifications plus any Addenda thereto, the General Conditions, the Supplementary General Conditions, if applicable and this Agreement. All Contract Documents are intended to cooperate and be complimentary so that any work called for in one and not mentioned in the other, or vice versa, is to be executed the same as if mentioned in all Contract Documents.

STATEMENT OF WORK: The Contractor hereby agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials for the **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO**. In strict accordance with the Plans and Specifications dated December 2010 prepared by Holt Architects, hereinafter called the "Architect", and County of Riverside including Addenda thereto as listed in the Contractor's Proposal, all of which are made a part hereof.

TIME FOR COMPLETION: The work shall be commenced on a date to be specified in a written order of the Architect and shall be completed within one hundred and twenty (120) calendar days from and after said date. It is expressly agreed that except for extensions of time duly granted in the manner and for the reasons specified in the General Conditions, time shall be of the essence.

COMPENSATION TO BE PAID TO CONTRACTOR: The Owner agrees to pay and the Contractor agrees to accept in full consideration for the performance of the Contract, subject to additions and deductions as provided in the General Conditions, the sum of _____ dollars (\$_____) being the total of the base bid plus the following addenda: __, __, __, __. The sum is to be paid according to the schedule as provided in the General Conditions.

Pursuant to Labor Code, Section 1861, the Contractor gives the following certification: I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for Worker's Compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract.

IN WITNESS WHEREOF, the parties hereto on the day and year first above written have executed this agreement in four (4) counterparts.

Type of Contractor's organization: _____

If other than individual or corporation, list names of all members who have authority to bind firm.

_____, _____, _____

Firm Name: _____

Address: _____

Contractor's License No.: _____

IF OTHER THAN CORPORATION EXECUTE HERE

Signature: _____

Title: _____

IF CORPORATION, FILL OUT FOLLOWING AND EXECUTE

Name of President of Corporation: _____

Name of Secretary of Corporation: _____

Corporation is organized under the laws of State of _____

Signature: _____

Title: _____

Affix Seal
If
Corporation

Owner: COUNTY OF RIVERSIDE

Signature: _____

Title: Chairman - Board of Supervisors

Attest: Clerk - Board of Supervisors

By: _____

Title: _____

PAYMENT BOND

(Public Work - Civil Code Section 3247 et seq.)

The makers of this Bond are _____ as Principal and Original Contractor and _____, a corporation, authorized to issue Surety Bonds in California, as Surety, and this Bond is issued in conjunction with that certain public works contract dated _____, 2011 between Principal and County of Riverside, a public entity, as owner, for _____ dollars (\$ _____) the total amount payable. THE AMOUNT OF THIS BOND IS 100% OF SAID SUM. Said contract is for public work of: **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO.**

The beneficiaries of this Bond are as is stated in 3248 of the Civil Code and the requirements and conditions of this Bond are as is set forth in Sections 3248, 3249, 3250 and 3252 of said Code. Without notice, Surety consents to extension of time for performance, change in requirements, amount of compensation, or prepayment under said Contract.

Signed and Sealed this _____ Day of _____ 2011.

(Firm Name - Principal)

(Business Address)

Affix Seal
if
Corporation

By: _____
(Signature - Attach Notary's Acknowledgment)

(Title)

(Corporation Name - Surety)

(Business Address)

Affix
Corporate
Seal

By: _____
(Signature - Attached Notary's Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

PERFORMANCE BOND

The makers of this Bond, _____, as Principal, and _____ as Surety, are held and firmly bound unto County of Riverside, hereinafter called the Owner, in the sum of _____ Dollars (\$ _____) for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

The condition of this obligation is such that whereas the Principal entered into a certain contract, hereto attached, with the Owner, dated _____, 2011 for: **Riverside Centre 2nd Floor Tenant Improvement Project - Federal GSA-USAO.**

Now therefore, if the Principal shall well and truly perform and fulfill all the undertakings covenants, terms, conditions and agreements of said Contract during the original term of said Contract and any extension thereof that may be granted by the Owner, with or without notice to the Surety, and during the file of any guarantee required under the Contract, and shall also well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of any and all duly authorized modifications of said Contract that may thereafter be made, then this obligation to be void, otherwise to remain in full force and virtue. Without notice, Surety consents to extension of time for performance, change in requirements, change in compensation or prepayment under said Contract.

Signed and Sealed this _____ Day of _____, 2011.

(Firm Name - Principal)

(Business Address)

By: _____
(Signature - Attach Notary's Acknowledgment)

(Title)

Affix Seal
if
Corporation

(Corporation Name - Surety)

(Business Address)

By: _____
(Signature - Attach Notary's Acknowledgment)

ATTORNEY-IN-FACT
(Title-Attach Power of Attorney)

Affix
Corporate
Seal

**CONTRACTOR'S CERTIFICATE
REGARDING WORKERS' COMPENSATION**

Labor Code Section 3700

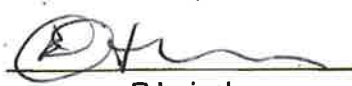
Every employer, except the State and all political subdivisions or institutions thereof, shall secure the payment of compensation in one or more of the following ways:

- (a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.

- (b) By securing from the Director of Industrial Relations, a Certificate of Consent to Self-Insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees

I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Workers' Compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of this Contract.

THE SUN GROUP
BRIET ISRAELMAN
Principal


Principal

PRESIDENT
Title

(In accordance with Article 5 [commencing at Section 1860], Chapter, Part 7, Division 2 of the Labor Code, the above Certificate must be signed and filed with the Owner prior to performing any work under this Contract.)

**COUNTY OF RIVERSIDE
ECONOMIC DEVELOPMENT AGENCY
PROJECT MANAGEMENT OFFICE
3403 TENTH STREET, 4TH FLOOR
RIVERSIDE, CA 92501**

DATE: August 17, 2011

PROJECT: Riverside Centre 2nd Floor Tenant Improvement Project

PROJECT NO.: FM047611047700

ADDENDUM: NUMBER 01

I. INSTRUCTIONS:

- A. This supplement to the bid package is issued prior to the receipt of proposals. All changes covered in this supplement shall be included in the original quotation and the supplement will be considered one of the contract documents.
- B. Contractors, Manufacturers and/or Distributors shall confirm the receipt and consideration of this addendum prior to the submittal of their proposal by noting inclusion of Addendum One on the Contractor's Proposal.

II. PURPOSE OF ADDENDUM

- A. The purpose of this addendum is to provide all bidders who attended the pre-bid job walk held Monday, August 8, 2011 with additional information to be included in your bids.

III. CHANGES AND CLARIFICATIONS:

- A. "SCIF" Room 239
 - 1) All references to "SCIF" room equate to "SPR" Room 239 on the plans and specifications issued for this project.
- B. Security Requirements for SCIF Room 239
 - 1) Federal level security clearances are required for all workers who will touch this room for the duration of the contract. The clearances will be run through the FBI at no cost to the Contractor or subcontractors. The Contractor and subcontractors must submit multiple employee names from every trade and or company that will be performing work on any part of the SCIF room. The purpose is to have substitute workers available so there are no delays. The timeframe to complete these clearances can take 4-6 months, however, we may be able to accomplish approvals faster. Therefore, submission of employee information from all contractors who may touch this room will be required immediately after bid award and execution of the contract Agreement. Contractors should use U.S. citizens for the

construction of the SCIF room as this will speed the security clearance process. The proper FBI form will be provided to the awarded Contractor and subcontractors for submission of employee names.

2) General Contractor is to assign a Superintendent or Lead tradesman to be in charge of the SCIF Room construction oversight. They will be responsible to insure that all personnel sign in and out on a daily log during all of the SCIF room phases of its construction along with other oversight duties as directed by the County. This person must be someone other than the Construction Superintendent for the overall project.

3) Contractor(s) personnel must wear a specifically identified/color coded badge that allows them to enter or touch any construction of the SCIF room. The badges will be issued by the County of Riverside.

4) No electronic devices will be allowed in the SCIF room during or after construction completion. This includes but is not limited to computers, cell phones, ipods, Bluetooth, radios, cd players or other devices. Violations may result in revocation of security access with no County acceptance of delays.

C. Allowances:

1) Door and Hardware: Contractor must include a \$10,000.00 allowance for door hardware & coordination in the base bid. Contractor to obtain approval from County before Door Hardware can be ordered. The Contractor must also get approval from the County prior to expending any allowance funds. Any funds from the allowance not utilized will be returned back to the County via deduction from the final contract amount.

2) Fire/Life/Safety: Contractor must include a \$10,000.00 allowance for door hardware & coordination in the base bid. Contractor to obtain approval from County before Fire/Life/Safety items can be ordered. The Contractor must also get approval from the County prior to expending any allowance funds. Any funds from the allowance not utilized will be returned back to the County via deduction from the final contract amount.

3) Mechanical/Electrical: Contractor must include a \$10,000.00 allowance for door hardware & coordination in the base bid. Contractor to obtain approval from County before mechanical or electrical items can be ordered. The Contractor must also get approval from the County prior to expending any allowance funds. Any funds from the allowance not utilized will be returned back to the County via deduction from the final contract amount.

4) Security/IT: Contractor must include a \$10,000.00 allowance for door hardware & coordination in the base bid. Contractor to obtain approval from County before security or IT items can be ordered. The Contractor must also get approval from the County prior to expending any allowance funds. Any funds from the allowance not utilized will be returned back to the County via deduction from the final contract amount.

D. Fire Alarm /Fire Sprinkler Systems:

1) The existing fire alarm system service company is Troy Alarm Inc. 5981 Republic St, Riverside, CA 92504 at 951-352-7589. There is an existing overhead enunciation system in the Riverside Centre building including the 2nd floor that must remain operational and be tied into.

E. Schedules:

1) As per Specifications under General Conditions Article 6, Contractor is to submit a CPM construction schedule that is noted with coordination of services outside the general contractor's scope of work, such as phone and data cabling that is being handled by County of Riverside/RCIT and/or is directly contracted by USAO/GSA. A sub-schedule for the SCIF room is also to be included in the CPM. The Contractor is responsible for coordination of all work associated with the project to insure there are no delays in completion of the work.

2) Construction meetings and inspections are to be scheduled on a day and time that will coordinate with the USAO/GSA representatives regular site inspections.

F. Specification Section 12500 Window Treatment for 2" horizontal blinds is attached and is to replace Section 12500 Window Treatment for manual roller shades that is in the Specifications book provided with the plans. The plans already have the correct reference to the horizontal blinds, refer to sheet A-400 Interior Materials Schedule.

G. Weather stripping on interior side of the exterior windows is not a part of this project and should not be included in bids.

H. Sheet A-101, Refer to A1/A-101 Signage Legend Item # 2 - Room ID Signage. Item # 2 indicates to refer to details L15/A-101 & H15/A-101. L15/A-101 is only referring to the proper mounting height & location of the Room ID Signage. H15/A-101 is the appropriate Room ID Signage to be provided for the project.

I. Responses to RFI's:

1) Big West Construction – RFI dated 8-10-11 (see attached)

2) DLS Builders – RFI#1: (see attached)

3) Digital Technologies, Inc – RFI #1, 2, 3 & 4: (see attached)

4) The other two RFI's that came in were received after the deadline of 2:00 p.m.

Thursday, August 23, 2011.

(Refer to attachments included below)

SECTION 12500

WINDOW TREATMENT

PART 1 – GENERAL

1.01 SCOPE

- A. Furnish and install 2" Horizontal Aluminum Blinds.
- B. Provide complete with brackets, cornices, control wands and accessories.

1.02 SUBSTITUTIONS

Substitutions will be considered per Article 5.3 of the General Conditions

1.03 SUBMITTALS

- A. Submit Product Data: Manufacturer's descriptive literature shall be submitted indicating materials, finishes, construction and installation instructions and verifying that product meets requirements specified. Manufacturers recommendations for maintenance and cleaning shall be included.
- B. Samples: Responsible contracting officer or agent shall supply one sample shade of each type specified in this contract for approval. Supplied units shall be furnished complete with all required components, mounting and associated hardware, instructions and warranty.

1.04 DELIVERY, STORAGE AND HANDLING:

- A. Product shall be delivered to site in manufacturer's original packaging.
- B. Product shall be handled and stored to prevent damage to materials, finishes and operating mechanisms.

1.05 JOB CONDITIONS:

- A. Prior to shade installation, building shall be enclosed.
- B. Interior temperature shall be maintained between 60° F. and 90° F. during and after installation; relative humidity shall not exceed 80%. Wet work shall be complete and dry.

1.06 WARRANTY:

- A. Lifetime Limited Warranty. Specific product warranties available from manufacturer or its authorized agent.

PART 2 – PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

Hunter Douglas Contract/ 12250 Parkway Centre Dr. / Poway, CA 92064/ Phone: 800-727-953 Fax: 800-205-9819/ Website: www.hunterdouglascontract.com, or architect approved equivalent. Product substitutions must be approved by architect minimum of 30 days prior to close of bid.

2.02 2" HORIZONTAL ALUMINUM BLINDS

A. **PRODUCT:** Hunter Douglas "H200 2" Aluminum Blind"

B. **MATERIALS:**

1. **SLATS:** 2" wide x .008" thick, heat-treated and spring tempered (except 5000 series alloy on metallized finishes) aluminum alloy 6011 with eased corners and manufacturing burrs removed. Product to have a minimum of 95% pre-consumer recycled content. Furnish not less than nominal 7.2 slats per foot to ensure tight closure and light control. Finish with manufacturer's standard baked-on finish in colors selected by architect from manufacturer's available contract colors utilizing Dust Shield™ finish to inhibit dust build-up for easier maintenance.
2. **SLAT SUPPORT:** Braided ladders of 100% polyester yarn color compatible with slats and spacing of ladder no more than 42mm.
3. **HEADRAIL:** U-shaped profile with rolled edges, measuring 1 1/2" x 2 1/4" x .024" constructed of corrosion resistant steel. Internally fit with components required for specified performance and designed for smooth, quiet, trouble-free operation. Headrail finish to be standard baked-on polyester and to match slats. Ends fitted with zinc coated steel end lock with adjustable tab for centering blinds.
4. **BOTTOM RAIL:** .019" steel, with corrosion-resistant finish formed with double-lock seam into closed oval shape for optimum beam and torsional strength. Ends fitted with color-coordinated engineered polymer caps. Color-coordinated engineered polymer tape buttons secure the ladder and cord. Bottom Rail finish to be standard baked-on polyester color coordinated to slats.
5. **LIFTING MECHANISM:** Crashproof steel cordlocks with corrosion-resistant finish and steel locking dogs, polyester cord which meet or exceed commercial specifications No/ 1029-86 lift cords, and Cord Stop/Single Pull Cord. Located on either side of individual blind unit as per architect's request.
6. **TILTING MECHANISM:** Die-cast helical worm and gear type tilter gear mechanism in polymer housing with clutch action to protect ladder tapes from over rotation of the solid steel, corrosion resistant tilt rod.
7. **TILT CONTROL WAND:** Tubular shaped 7/16" diameter extruded clear plastic, ribbed for positive grip and detachable without tools. Located on either side of individual blind unit as per architect's request.
8. **MOUNTING HARDWARE:** Manufacturer's standard .030" steel box brackets with baked-on polyester finish to match headrail with additional support brackets for blinds over 84" wide.

2.03 FABRICATION

Blind measurements shall be accurate to within $\pm 1/8"$ or as recommended in writing by manufacturer.

2.04 FINISHES

- A. Slat finish selection to be selected by Architect.
- B. Slat support braided ladders shall be color coordinated with slat.



PART 3 - EXECUTION

3.01 INSPECTION:

- A. Subcontractor shall be responsible for inspection on site, approval of mounting surfaces, installation conditions and field measurement for this work.
- B. Other interacting trades shall receive drawings of shade systems, dimensions, assembly and installation methods from subcontractor upon request.

3.02 INSTALLATION:

- A. Installation shall comply with manufacturer's specifications, standards and procedures as detailed on contract drawings.
- B. Adequate Clearance shall be provided to permit unencumbered operation of shade and hardware.
- C. Clean finish installation of dirt and finger marks. Leave work area clean and free of debris.

3.03 DEMONSTRATION:

- A. Demonstrate operation method and instruct owner's personnel in the proper operation and maintenance of the blinds.

**** END OF SECTION ****



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RFI

Riverside Centre 2nd Floor TI

I. Sheet A100, Note A12 calls for walls to under grid. Sheet A110, J14 indicates walls 6" above grid. Please clarify.

If walls are not full Height they will be 6" above the ceiling typical.

*Ruben Coronado
8/11/2011*



DIGITAL TECHNOLOGIES, INC.

11650 Mission Park Drive, Suite 112, Rancho Cucamonga, Ca 91730
Tel (909) 563-8703 Fax (909) 657-9153

REQUEST FOR INFORMATION

Project Name: Riverside Centre, 2nd Floor T.I. RFI Number: 1
Project Location: Riverside, Ca Date: 8/10/11
Requested By: Ruben Fierro Job Number: FM047611047700
To: County of Riverside EDA/Holt Architects Attention: Dawn Torres, Ruben Coronado
Subject: Telecommunications
Spec. Number: Specification: N/A Section: N/A Drawing Sheet: N/A Detail No.: N/A

Description of Problem: 1. Who is to Provide Network Equipment (i.e. Cisco Switch, routers and hubs.)?
2. Will there be Specifications for Low Voltage/ Telecommunications to determine what products and equipment is approved and to be installed?

Proposed Resolution of Problem: 1. Advise who is responsible for providing network equipment.
(Response) U.S. Attorney Security/ I.T. Contractor will provide network equipment.
2. Provide a Specification for Low Voltage/ Telecommunication.
(Response) U.S. Attorney Security/ I.T. Contractor will provide network equipment.

Cost Impact: YES

Schedule Impact: N/A

Requested Date for RFI Response:

Review Comments:

By: Ruben Coronado, Holt Architecture

Date: 08-17-2011

Handwritten signature



DIGITAL TECHNOLOGIES, INC.

11650 Mission Park Drive, Suite 112, Rancho Cucamonga, Ca 91730
Tel (909) 563-8703 Fax (909) 657-9153

REQUEST FOR INFORMATION

Project Name: Riverside Centre 2nd Floor T.I. RFI Number: 2
Project Location: Riverside, Ca Date: 8-10-11
Requested By: Ruben Fierro Job Number: FM047611047700
To: County of Riverside EDA/Holt Architects Attention: Dawn Torres, Ruben Coronado
Subject: Telecommunications
Spec. Number: Specification: N/A Section: N/A Drawing Sheet: E-3.1 Detail No. 21

Description of Problem: 1. From 24" x 24" pullbox in office 224, what type cable is to be pulled to ADP room. (i.e.- multi pair copper or fiber optic cable)

Proposed Resolution of Problem: Advise what type of cable is to be installed.
(Response) U.S. Attorney Security/ I.T. Contractor will pull cable. Contractor to provide back bone with conduit and pull strings.

Cost Impact: YES

Schedule Impact: N/A

Requested Date for RFI Response:

Review Comments:

By: Ruben Coronado, Holt Architecture

Date: 08-17-2011

Handwritten signature



DIGITAL TECHNOLOGIES, INC.

11650 Mission Park Drive, Suite 112, Rancho Cucamonga, Ca 91730
Tel (909) 563-8703 Fax (909) 657-9153

REQUEST FOR INFORMATION

| | | | |
|--------------------------|---|---------------------|------------------------------------|
| Project Name: | <u>Riverside Centre 2nd Floor T.I.</u> | RFI Number: | <u>3</u> |
| Project Location: | <u>Riverside, Ca</u> | Date: | <u>8-10-11</u> |
| Requested By: | <u>Ruben Fierro</u> | Job Number | <u>FM047611047700</u> |
| To: | <u>County of Riverside EDA/Holt Architects</u> | Attention: | <u>Dawn Torres, Ruben Coronado</u> |
| Subject: | <u>Telecommunications</u> | | |
| Spec. Number | <u>Specification: N/A</u> | <u>Section: N/A</u> | <u>Drawing Sheet: E-3.1</u> |
| | | | <u>Detail No.</u> |

Description of Problem: in room 246 (ADP room) are low voltage/data equipment cabinet/rack existing or to be provided new by low voltage contractor.

Proposed Resolution of Problem: If products are to be provided by low voltage contractor, please provide product specifications for cabinet or relay rack.

(Response) U.S. Attorney Security/ I.T. Contractor will install low voltage/date equipment.

Cost Impact: yes

Schedule Impact: N/A

Requested Date for RFI Response:

Review Comments:

By: Ruben Coronado, Holt Architecture

Date: 08-17-2011



DIGITAL TECHNOLOGIES, INC.

11650 Mission Park Drive, Suite 112, Rancho Cucamonga, Ca 91730
Tel (909) 563-8703 Fax (909) 657-9153

REQUEST FOR INFORMATION

Project Name: Riverside Centre 2nd Floor T.I. RFI Number: 4
Project Location: Riverside, Ca Date: 8-10-11
Requested By: Ruben Fierro Job Number: FM047611047700
To: County of Riverside EDA/Holt Architects Attention: Dawn Torres, Ruben Coronado
Subject: Telecommunications
Spec. Number: Specification: N/A Section: N/A Drawing Sheet: E-3.1 Detail No.

Description of Problem: 1. Will specifications for Access Control be provided to determine what system is to be installed?

2. Will electrified door hardware be provided by Door installer or Low Voltage Contractor?

Proposed Resolution of Problem: 1. Provide a specification for access control, what system is approved for installation (i.e. Kantech, Bosch)

(Response) Refer to Sheet A-011 Door Type Specifications. U.S. Attorney Security/ I.T. Contractor will install access controls.

2. Advise who is responsible for providing and installation of electrified door hardware.

(Response) Refer to Sheet A-011 Door Type Specifications.

Cost Impact: yes

Schedule Impact: N/A

Requested Date for RFI Response:

Review Comments:

By: Ruben Coronado, Holt Architecture

Date: 08-17-2011

Handwritten initials/signature

The Sun Group
3151 Airway Ave., Bldg V
Costa Mesa, CA 92626
(949) 476-3133, license #947719

Sealed Bid for Riverside Centre 2nd Floor T.I.
Clerk of the Board of Supervisors
1st floor of the County Administrative Center
4080 Lemon Street, Riverside, CA 92501
Project #FM047611047700
BID OPENING: 8/23/11 @ 10AM SHARP

SEALED BID RECEIVED
CLERK OF THE BOARD OF SUPERVISORS

8 23 AM 9:51
RIVERSIDE COUNTY
CLERK OF SUPERVISORS