**REQUEST:**
RDM Electric - 6/15/12

RFI 71

Reference Sheets FP-T3, FP121A, FP121B, FP121C, FP121D, FP121G, FP121H, FP121JK, FP121L, FP121M, FP121N, FP121P, FP121QR, E010, E011, E012, E013 & E014

1. Note #4 on the Fire Protection Title Sheet calls out for a 10" electric fire bell at each riser location. The Fire Protection Floor Plan for each building also shows the 10" electric fire bell at each riser location. Please provide the elevations for the fire alarm bells.
2. On the Electrical Plans neither the Panel Schedules nor the Floor Plans show any power requirements for these bells. Please provide the power requirements for the fire alarm bells.

**ANSWER:**
1. See No. 2
2. All connections for Fire Alarm system have been verified with the Division of the State Architect and the Local City Fire Marshal for compliance to Code. The Risers require the flow switches to be connected to an "audible device", which they are per approved plans. The Bells are not required.

**REQUEST:**
RDM Electric - 6/26/12

RFI 83R

Reference Sheets E007, E131B, T101, T201B

1. There are no elevations provided for the Fire Alarm Annunciator Panel, the Flush Mount Speakers, the Public Address Weatherproof Horns, the LED Annunciator Panels and the Intrusion Sirens. Please provide the elevations for these devices.

2. Please provide the box and ring requirements for the LED Annunciator Panels and Intrusion Sirens.

RDM Electric - REVISED QUESTION
There are no elevations provided for the Intercom Flush Mount Speakers and Annunciator Panel, the Public Address Weatherproof Horns and the Intrusion Sirens. Please provide the elevations for these devices.

**ANSWER:**
John Maloney - JMPE - 6/27/12

See sheet E-000, Fire Alarm System Requirements, note 22 for mounting heights.

Coordinate enclosure requirements with the Fire Alarm System Supplier and manufacturer cut sheets.

**REQUEST:**
RDM Electric - 6/13/12

RFI 66

Reference Sheets E121A, E121B & T201A

Per the Electrical Floor Plans, please provide layout dimensions for the floor boxes in Rooms A105, A108, A149 and B101. Per the Telecom Drawings, please provide layout dimensions for the floor boxes in Rooms A105, A109 and A136.

**ANSWER:**
Joe Covington - Ordiz-Melby - 7/3/12

For Library Rooms A105 & A149, Electrical Floor Boxes shown on Sheet E121A are for cleaning/maintenance purposes. They are approximate and can be scaled off the drawings and installed as not to interfere with any fixed cabinets. Please review attached furniture layout drawings for electrical junction boxes which are used with District furnished furniture. Data Floor Boxes are being verified with Infinity.

For Room 108 Gym, floor box for connection to scoreboard and shot clock has been verified and located per RFI 67 response.

For Rooms A109 Stage & A136 Stage, it will be allowable to "scale" the drawing locations and make a "field" judgment" concerning locations for the data boxes.

For Room B101 Administration, Electrical floor boxes shown will be aligned 10 feet south of G.L. 4. First box will start 10 feet east of G.L. D, and be 10 feet on center for 3 floor boxes. Data floor boxes are being verified with Infinity.

**REQUEST:**
RDM Electric - 8/15/12

RFI 108

Reference Sheets E-016, E-132A, E-132B, E-132H & E-321M

Please provide the mounting height elevations for the Type EM and L light fixtures shown in Buildings A, B, H and M.

**ANSWER:**
Mount Fixtures at +86".
At Building 'M', move fixtures to avoid ductwork.
John Maloney / JMPE 8/16/12

**REQUEST:**
RDM Electric - 9/11/12

RFI 132

Is it suitable to use MC cable for light fixture whips out of the main conduit backbone junction boxes? Please advise.

**ANSWER:**
John Maloney - JMPE - 9/11/12

This is acceptable for the final connection to light fixtures in accessible ceiling areas only.

**RFI 156**

**Request:**
RDM Electric - 9/28/12
Reference Sheets E-000 & T-300
The Electrical Plans show the Workroom receptacles at the casework to be installed at +42". The casework plans show the top of backsplash to be +40", which will not allow the receptacles to be installed at +42".
Is it acceptable to install the Workroom receptacles at the casework at +44" to clear the backsplash and maintain uniformity with the data boxes at the same location? Please advise.

**Answer:**
Joe Covington - OMA - 10/2/12
Provide receptacles above countertops at +44" in workrooms. -

**JMPE**
ELECTRICAL ENGINEERING
LIGHTING DESIGN
CA REGISTRATION NO. E13083

**FIELD REVIEW LOG**

PROJECT: BCSD New Campus

DATE: May 30, 2012

PRESENT: Brian Phillips – IQR
Daniel, John - JMPE

ITEMS:

1. #3/0 UFER at MSB is acceptable. #4 UFER for everywhere else is acceptable.
2. Provide metal risers from underground conduits and metal 90"s at S/M panel locations.
3. Cadweld tee is acceptable for UFER or cold water bond.
4. Conduit marking is only required on surface-mounted conduits.
5. Need submittals/shop drawings on raised floor system showing boxes and raceway locations.
6. Provide 6" depression in slab where 2" conduits enter subfloor area at raised floor for Comm. conduits.
7. PVC sleeves in footings are acceptable as long as location is approved by structural engineer.
8. Concrete encasement can be omitted if appropriate credit is given: except PG&E conduits.
9. PVC is acceptable in masonry walls if appropriate credit is given.
10. PVC elbows may be used for slab on grade PVC conduits 1" and smaller.
11. Panels in Buildings A: LA1, LA2, LA3, LA4, LA5, LA6 shall be flush mounted. HA1, HA2, HA3 may be surface mounted.
12. Panels in Building B: Panels HB1, HB2, LB1, LB2 may be surface mounted.
13. PVC stub ups to 20" may be used to feed receptacles in framed walls at Group E receptacles.
14. Building Q – terminal cabinet in Q104 can be moved out of roof access ladder clearance.
15. Building R – fire alarm booster panel can be moved away from roof access ladder in Room R104.
16. Building H – Panel LH1 can be moved away from the roof access ladder.

**Item #30: Refer to Electrical Drawing E-000 Fire Alarm Requirements Note 16.**
ADD No. 1
A. REVISE NOTE TO READ: Per CEC Standards all wiring is to be pulled through each junction box and connected directly to each fire alarm device. Do not splice wire. There must bee at least 6" of lead wire from the box to the device. All boxes to be sized per CEC.

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PRFI | O-M | LM | M0027 | Fire Alarm Cable | | CLO | 2/17/2012 | 2/24/2012 |

A-C Electric - 2/16/12 — John Maloney - 2/17/12
What type of wire or cable should be used to connect the Fire Alarm [RM] to the [SFD]? — SLC Cable "A", Westpenn 975 or equal.

**RFI 163**

**Request:**
RDM Electric - 10/9/12
Reference Sheets E-000, E132C, E-132D, E132E, E-132F, E-132G, E-132N, E-132P & Lighting Submittal
The General Notes on the Electrical Plans show the lighting dimmers to be installed for the lighting at +48" to top of box and the light switches to be installed at +42". A 5-button Lutron wall station is shown to be installed for the lighting controls in the classrooms. Please provide mounting height (elevation) for the classroom lighting control wall stations.

**Answer:**
Joseph W. Covington - Ordiz-Melby (10/11/12)
Install all switches and dimmers at +42" to the center of the box.

**REQUEST:**
RDM Electric - 10/9/12

RFI 163

Reference Sheets E-000, E132C, E-132D, E132E, E-132F, E-132G, E-132N, E-132P & Lighting Submittal

The General Notes on the Electrical Plans show the lighting dimmers to be installed for the lighting at +48" to top of box and the light switches to be installed at +42". A 5-button Lutron wall station is shown to be installed for the lighting controls in the classrooms. Please provide mounting height (elevation) for the classroom lighting control wall stations.

**ANSWER:**
Joseph W. Covington - Ordiz-Melby (10/11/12)

Install all switches and dimmers at +42" to the center of the box.

Revised: August 30, 2011

**MEP Component Anchorage Note**

All mechanical, plumbing, and electrical components shall be anchored and installed per the details on the DSA approved construction documents. Where no detail is indicated, the following components shall be anchored or braced to meet the force and displacement requirements prescribed in the 2010 CBC, Sections 1615A.1.12 through 1615A.1.22 and ASCE 7-05 Chapter 6 and 13.

1. All permanent equipment and components.
2. Temporary or movable equipment that is permanently attached (e.g. hard wired) to the building utility services such as electricity, gas or water.
3. Movable equipment which is stationed in one place for more than 8 hours and heavier than 400 pounds are required to be anchored with temporary attachments.

The attachment of the following mechanical and electrical components shall be positively attached to the structure, but need not be detailed on the plans. These components shall have flexible connections provided between the component and associated ductwork, piping, and conduit.

A. Components weighing less than 400 pounds and have a center of mass located 4 feet or less above the adjacent floor or roof level that directly support the component.
B. Components weighing less than 20 pounds, or in the case of distributed systems, less than 5 pounds per foot, which are suspended from a roof or floor or hung from a wall.

For those elements that do not require details on the approved drawings, the installation shall be subject to the approval of the Structural Engineer of Record and the DSA District Structural Engineer. The project inspector will verify that all components and equipment have been anchored in accordance with above requirements.

**Piping, Ductwork, and Electrical Distribution System Bracing Note**

Piping, ductwork, and electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7-05 Section 13.3 as defined in ASCE 7-05 Section 13.6.8, 13.6.7, 13.6.5.6, and 2010 CBC, Sections 1615A.1.20, 1615A.1.21 and 1615A.1.22.

The bracing and attachments to the structure shall be detailed on the approved drawings or they shall comply with one of the OSHPD Pre-Approvals (OPA #) as modified to satisfy anchorage requirements of ACI 318, Appendix D.

Copies of the manual shall be available on the jobsite prior to the start of hanging and bracing of the pipe, ductwork, and electrical distribution systems.

The Structural Engineer of Record shall verify the adequacy of the structure to support the hanger and brace loads.

**REQUEST:**
RDM Electric - 1/25/13

RFI 255

Reference Sheet E000 & Specification Section 16143, 2.2-2 & 2.2-5
The Electrical Plans show the receptacles to be duplex receptacles and the switches to be toggle switches. However, the specifications call out for both the receptacles and switches to be Decora Plus style. Please confirm which type of receptacles and switches that are to be installed at both Fletcher ES and Cato MS.

**ANSWER:**
John Maloney - JMPE - 1/29/13

Provide Decora Plus Style.

**REQUEST:**
RDM Electric - 12/6/12

RFI 221

Reference Sheets A131A, E132A, A131B, E132B, A131L & E132L
The Electrical Plans for Buildings A, B & L show different exit light fixture quantities and locations than what is shown on the Architectural Plans. Please advise which layout is correct.

**ANSWER:**
Ed Hewitt - OMA - 12/18/12

Building A: Sheet E132A shall take precedence with the exception that Door A149B requires and exit light; please provide.
Building B: Sheet E132B shall take precedence with the exception that Door B105A requires an exit light; please provide.
Building L: Sheet E132L shall take precedence with the following exceptions. Delete exit light from Door L108A, add exit light to Doors L111B & L102A.

**REQUEST:**
RDM Electric - 3/4/13

RFI 272

We have run the following circuits in a 3/4" conduit. LP3 - 16, 18, 208V, LP3 - 10 with dedicated neutral & LP3 - 20 - with dedicated neutral. These circuits combined equal six current carrying conductors at 60% per NEC 310.15(B)(2)(a). This permits 20 amps on each conductor per NEC 310.16. This installation is in accordance with both the 2008 NEC and CEC. However, the project IOR requested that an RFI be submitted. Please confirm that this installation is acceptable.

**ANSWER:**
Ed Hewitt - OMA - 3/5/13

The installation described in RFI 272 is not acceptable. The design intent is to allow the district to add circuitry in the future as needed without having to install additional conduit. A field representative of the EOR will be out to determine the corrective process.

## FIRE ALARM SYSTEM REQUIREMENTS

1) APPLICABLE STANDARD 2010 NFPA 72
2) INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.
3) UPON COMPLETION OF THE INSTALLATION OF THE SYSTEMS, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4) A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5) ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6) DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
7) ALL PENETRATIONS THROUGH RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
8) WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR ENTIRE LENS TO BE BETWEEN 80" AND 90"FROM FINISHED FLOOR.
9) WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE.
10) AUDIBLE DEVICES TO BE AT LEAST 15 DBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75 DBA AT 10 FEET OR MORE THAN 110 DBA AT THE MINIM HEARING DISTANCE . SOUND LEVEL SHALL BE MAINTAIND FOR DURATION OF AT LEAST 60 SECTIONS 5 DBA MUST BE MAINTAINED.
11) AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12) THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13) VISUAL DEVICES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISUAL DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14) UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVAL FOR WET LOCATIONS.
15) ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
16) PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. THERE MUST BE AT LEAST 6' OF LEAD WIRE FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC.
17) SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18) ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMETS.
19) FIRE ALARM PANEL, REMOTES, AND COMPONENETS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURER'S SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
20) A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
21) THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, FIGURE 10.18.2.1.1.
22) CONTROL PANELS, REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" 23) THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
24) SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
25) OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISORY STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATIONS SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE AND PROPRIETARY) BY UNDERWRITERS LABORATORY (UL) OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD FM 3011.

## EQUIPMENT ANCHORAGE NOTE

ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE ANCHORED OR BRACED TO MEET THE HORIZONTAL AND VERTICAL FORCES PRESCRIBED IN THE 2010 CBC, SECTION 1615A.1.20, 1615A.1.21 AND ASCE 7-05 SECTIONS 13.3, 13.4, 13.6 AND CHAPTER 6.

THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED ABOVE, BUT NEED NOT BE DETAILED ON THE PLANS, AND THE PROJECT INSPECTOR WILL VERIFY THAT THESE ITEMS (EQUIPMENT) HAVE BEEN ANCHORED:

A. EQUIPMENT WEIGHING LESS THAT 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.
B. FURNITURE REQUIRED TO BE ATTACHED IN ACCORDANCE WITH ASCE 7-05, SECTION 13.5.
C. TEMPORARY OR MOVABLE EQUIPMENT WITH FLEXIBLE CONNECTION TO POWER OR UTILITIES.
D. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.
E. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE MECHANICAL/ELECTRICAL ENGINEER.

## PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7, 13.6.5.5 ITEM 6, AND 2010 CBC 1615A.1.22.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PRE APPROVALS WITH AN OPA#, SUCH AS MASON INDUSTRIES (OPA 349) OR ISAT (OPA 485) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTIONS SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

## GENERAL NOTES

1. VISIT JOB SITE AND VERIFY EXISTING CONDITIONS PRIOR TO BID.
2. THE ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE AND ALL APPLICABLE LOCAL ORDINANCES. WHERE PLANS CALL FOR A HIGHER STANDARD THAN APPLICABLE CODES, THE PLANS SHALL GOVERN.
3. CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD TO SUIT FIELD CONDITIONS.
4. ALL ELECTRICAL EQUIPMENT, APPLIANCES AND LIGHTING FIXTURES SHALL BE LISTED BY A RECOGNIZED TEST LAB AND BEAR THAT LABEL OF APPROVAL.
5. CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL MATERIAL AND EQUIPMENT FOR THIS WORK UNLESS OTHERWISE NOTED.
6. FURNISH DISCONNECT SWITCHES AT REMOTE MOTORS.
7. ALL SPACES AS INDICATED ON PANELS OR SWITCHBOARD SHALL BE COMPLETE WITH HARDWARE AND BUSSING FOR FUTURE BREAKER OR SWITCH.
8. CHECK ARCHITECTURAL PLANS FOR DOOR SWINGS BEFORE INSTALLING SWITCH OUTLETS.
9. GROUNDING AND BONDING SHALL BE PER CODE PLUS ANY ADDITIONAL PROVISIONS SPECIFIED OR SHOWN ON DRAWINGS.
10. ALL CONDUIT RUNS SHALL CONTAIN A CODE SIZED GROUND CONDUCTOR.
11. THESE PLANS ARE NOT COMPLETE UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION.
12. ALL CONDUCTORS SHALL BE IN CONDUIT.
13. ALL CONDUCTORS SHALL BE COPPER WITH TYPE THHN/THWN INSULATION.
14. CURRENT CALIFORNIA BUILDING CODE ACCESS COMPLIANT MOUNTING HEIGHTS APPLY ONLY TO NEW OR RELOCATED ELECTRICAL SWITCHES, OUTLETS, PUSH BUTTONS ETC.. THEY SHALL COMPLY WITH CALIFORNIA BUILDING CODE 11178.6.
15. COORDINATE WITH SERVING ELECTRICAL UTILITY COMPANY AND MAKE PROVISIONS FOR ELECTRICAL SERVICE ACCORDINGLY. INCLUDE ALL SERVICE COSTS AND UTILITY COMPANY CHARGES IN BID.
16. COORDINATE WITH SERVING TELEPHONE UTILITY COMPANY AND MAKE PROVISIONS FOR TELEPHONE SERVICE ACCORDINGLY. INCLUDE ALL SERVICE COSTS AND ANY UTILITY COMPANY CHARGES I BID.
17. COORDINATE WITH SERVING CABLE UTILITY COMPANY AND MAKE PROVISIONS FOR TELEPHONE SERVICE ACCORDINGLY. INCLUDE ALL SERVICE COSTS AND ANY UTILITY COMPANY CHARGES I BID.
18. ALL PERMITS SHALL BE OBTAINED AND PAID FOR BY CONTRACTOR.

## CODE REQUIREMENTS

PERFORMANCE OF THE WORK OF THIS CONTRACT SHALL CONFORM TO THE REQUIREMENTS OF APPLICABLE GOVERNING CODES AND ORDINANCES INCLUDING THE FOLLOWING:

| | | |
|---|---|---|
| 2010 | BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, | C.C.R. |
| 2010 | CALIFORNIA BUILDING CODE, PART 2, TITLE 24 C.C.R. (2009 IBC, | VOLUMES 1-3 WITH CALIFORNIA AMENDMENTS) |
| 2010 | CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24 C.C.R. (2008 N.E.C. | WITH CALIFORNIA AMENDMENTS) |
| 2010 | CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 C.C.R (2009 U.M.C. | WITH CALIFORNIA AMENDMENTS) |
| 2010 | CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 C.C.R. (2009 U.P.C. | WITH CALIFORNIA AMENDMENTS) |
| 2010 | CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R. | |
| 2010 | CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. (2009 I.F.C. | WITH CALIFORNIA AMENDMENTS) |
| 2010 | CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R. TITLE 19 C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL | REGULATIONS. |
| NFPA 13 | AUTOMATIC SPRINKLER SYSTEM ----------2010 EDITION | |
| NFPA 14 | STANDPIPE SYSTEM ----------2007 EDITION | |
| NFPA 17A | WET CHEMICAL SYSTEM ----------2002 EDITION | |
| NFPA 24 | PRIVATE SERVICE MAINS ----------2010 EDITION | |
| NFPA 72 | NATIONAL FIRE ALARM CODE ----------2010 EDITION (NOTE SEE UL STANDARDS 1971 FOR ("VISUAL DEVICES") | |

**INSTALLATION HEIGHTS OF ELECTRICAL SWITCHES AND RECEPTACLE OUTLETS**

**ELECTRICAL SWITCHES.** CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES (1219 MM) MEASURED FROM THE TOP OF THE OUTLET BOX NOR LESS THAN 15 INCHES (381 MM) MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM.

**ELECTRICAL RECEPTACLE OUTLETS.** ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES (1219 MM) MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES (381 MM) MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM.

## SYMBOLS

| | |
|---|---|
| | CONDUIT EXISTING |
| | CONDUIT CONCEALED IN WALL OR CEILING |
| | CONDUIT CONCEALED UNDER FLOOR OR BELOW GRADE |
| | CONDUIT STUBBED OUT AND CAPPED |
| | CONDUIT TURNED UP |
| | CONDUIT TURNED DOWN |
| | HATCH MARKS INDICATE NO. OF #12 WIRES IN CODE SIZED CONDUIT IN 3/4" C., (3) MAX. IN 1"C., NO MARKS = 2#12. |
| A-3 | HOME RUN. LETTER INDICATES PANEL, NUMBER(S) INDICATES CIRCUIT(S). |
| | SAWCUT |
| | GROUND CONNECTION |
| | DISTRIBUTION SWITCHBOARD OR PANEL |
| | PANEL, BRANCH CIRCUIT TYPE, SURFACE AND FLUSH |
| | SIGNAL TERMINAL CABINET, SURFACE & FLUSH |
| | FLUORESCENT FIXTURE |
| | OUTLET DATA: BAR INDICATES WALL MOUNT, LETTER INDICATES SWITCH CONTROL, NO. INDICATES CIRCUIT. |
| | SURFACE FIXTURE ON FLUSH OUTLET. |
| | RECESSED FIXTURE WITH JUNCTION BOX FOR THRU WIRING |
| | DOWN LIGHT |
| | EXIT LIGHT WITH ARROWS AS SHOWN ON PLANS, WALL AND CEILING MOUNT. |
| | EXTERIOR WALL MOUNT FIXTURE/SCONCE |
| | STRIP LIGHT W/WIRE GUARD |
| | PENDANT |
| | EXTERIOR CEILING SURFACE |
| | EXTERIOR IN GROUND LIGHT |
| | LOW LEVEL EXIT SIGN, +6" AFF, +4" FROM DOOR JAMB |
| A 100 | LIGHT FIXTURE DESIGNATION, LETTER INDICATES TYPE, NO. INDICATES WATTAGE. SEE FIXTURE SCHEDULE. |
| FC 1 | MECHANICAL EQUIPMENT DESIGNATION. SEE MECHANICAL DRAWINGS. |
| | SPECIAL RECEPTACLE - SEE PLAN |
| M | METER |
| | FLUSH FLOOR RECEPTACLE |
| | RECEPTACLE, DUPLEX, 15A, 125V, NEMA 5-15R +18" UNO. |
| | DUPLEX RECEPTACLE MTD. ABOVE BACKSPLASH+42" UNO. |
| | DUPLEX RECEPTACLE W/LOWER HALF SWITCHED +18" UNO. |
| GFI | GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE 18" UNO. |
| | DOUBLE DUPLEX RECEPTACLE +18" UNO. |
| | CEILING RECEPTACLE |
| | RECEPTACLE, DUPLEX, 20A, 125V, NEMA 5-20R +18" UNO. |
| J | JUNCTION BOX 4" SQUARE, 1-1/2" DEEP UNO. |
| T | THERMOSTAT F.D.O. +48" TOP OF BOX (MAX) |
| 2 | MOTOR, NO. INDICATES HORSEPOWER |
| | CLOCK OUTLET +7'-6" UNO. |
| | DISCONNECT SWITCH, NON-FUSED |
| F | DISCONNECT SWITCH FUSED HORSEPOWER RATED OR SIZED AS NOTED |
| | COMBINATION MAGNETIC STARTER WITH DISCONNECT SWITCH AND FUSES |
| | MAGNETIC MOTOR STARTER W/OVERLOADS IN EACH PHASE |
| D | DIMMER W/INTEGRAL "ON-OFF" SW. +48" UNO. TOP OF BOX (MAX) |
| | PUSHBUTTON +48" UNO. TOP OF BOX (MAX) |
| PC | PHOTOCELL |
| SD | SMOKE DETECTOR |
| AP | WIRELESS ACCESS POINT |
| | TELEPHONE/COMPUTER/DATA OUTLET, TWO GANG BOX W/1 GANG COVERPLATE & GROMMETED OPENING +18" UNO. |
| TV | CABLE TV OUTLET +18" UNO. |
| M | MOTION SENSOR |
| AP | ACCESS POINT WIRELESS |
| | CAMERA |
| $ | EXISTING SWITCH |
| S | SINGLE POLE SWITCH } QUIET TOGGLE TYPE RATED AT 20A 120/277V AC. +48" UNO. |
| $^2$ | DOUBLE POLE SWITCH } QUIET TOGGLE TYPE RATED AT 20A 120/277V AC. +48" UNO. |
| $^3$ | THREE WAY SWITCH } QUIET TOGGLE TYPE RATED AT 20A 120/277V AC. +48" UNO. |
| $^P$ | SWITCH W/PILOT LT. } QUIET TOGGLE TYPE RATED AT 20A 120/277V AC. +48" UNO. |
| $^M$ | MANUAL MOTOR STARTER |
| FACP | FIRE ALARM CONTROL PANEL |
| GFI | GROUND FAULT CIRCUIT INTERRUPTING |
| LST | LABOR SAVING TANDEM |
| MLO | MAIN LUGS ONLY |
| W/ | WITH |
| C.O. | CONDUIT ONLY |
| W.P. | WEATHERPROOF |
| F.B.O. | FURNISHED BY OTHERS, INSTALL & CONNECT |
| U.N.O. | UNLESS NOTED OTHERWISE |
| N.E.C. | NATIONAL ELECTRICAL CODE |
| N.I.C. | NOT IN CONTRACT |
| (E) | EXISTING |
| (N) | NEW |
| (R) | REMOVE |
| (RL) | RELOCATE |
| S/M | SURFACE MOUNT |
| U/G | UNDERGROUND |
| CWP | COLD WATER PIPE |
| AFF | ABOVE FINISHED FLOOR |
| HACR | HEATING AND AIR CONDITIONING RATED CIRCUIT BREAKER |
| N.L. | NIGHT LIGHT |

NOTE: NOT ALL SYMBOLS SHOWN ARE USED ON THIS PROJECT.


**ORDIZ MELBY**
ARCHITECTS, INC.

5500 MING AVENUE SUITE 280
BAKERSFIELD, CALIFORNIA 93309
TELEPHONE (661) 832-5258
FACSIMILE (661) 832-4291


LICENSED ARCHITECT — ESPINDA, CARLOS — No. C-14728 — MAY 31, 2013 — RENEWAL DATE — STATE OF CALIFORNIA

DANNY E. ORDIZ, AIA
ARCHITECT C-14,728

WILLIAM J. MELBY, AIA
ARCHITECT C-16,835

CONSULTANT

IDENTIFICATION STAMP
DIVISION OF STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. # 02-112027
FILE # : 15-6
AC FSS SS
DATE 7/18/12

**REQUEST:**
Lundgren Management - 3/28/13

RFI 291

1) Please advise AFF to bottom of lighting fixture K to be installed at Rooms L109 & A114 (Cut Sheet Attached)
2) Please advise AFF to bottom of lighting fixture R to be installed at Rooms L105 & B102 (Cut Sheet Attached)
3) Please advise AFF to bottom of lighting fixture N to be installed at Rooms B101 & A130 (Cut Sheet Attached)

**ANSWER:**
Joe Covington - OMA - 3/27/13

1) Fixture 'K'
a. Room L109 - 10'-0" ceiling: set bottom of fixture @ 8'-6" AFF
b. Room A114 - 12'-4" ceiling: set bottom of fixture @ 10'-6" AFF

2) Fixture 'R'
a. Room L105 - 10'-0" ceiling: set bottom of fixture @ 8'-6" AFF
b. Room B102 - 10'-0" ceiling: set bottom of fixture @ 8'-6" AFF

3) Fixture 'N'
a. Room B101 - 9'-0" soffit: set bottom of fixture @ 7'-6" AFF
b. Room A130 - 11'-0" ceiling: set bottom of fixture @ 8'-6" AFF

BAKERSFIELD
CALIFORNIA
93306

FOR:

BAKERSFIELD CITY SCHOOL DISTRICT
1300 BAKER STREET
BAKERSFIELD
CALIFORNIA
93305


**JMPE**
ELECTRICAL ENGINEERING
LIGHTING DESIGN
CA REGISTRATION NO E13083
10244
5500 MING AVENUE
SUITE 250
BAKERSFIELD, CA 93309
(661) 831-7851
FAX (661) 831-7813
EMAIL: mailroom@jmpe.net
www.jmpe.net


| MARK | DATE | DESCRIPTION |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |

JOB NUMBER:
20101244
CAD DRAWING FILE:

DRAWN BY:
AC
CHECKED BY:
PH

CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH THE WORK. REPORT DESCREPANCIES TO THE ARCHIT