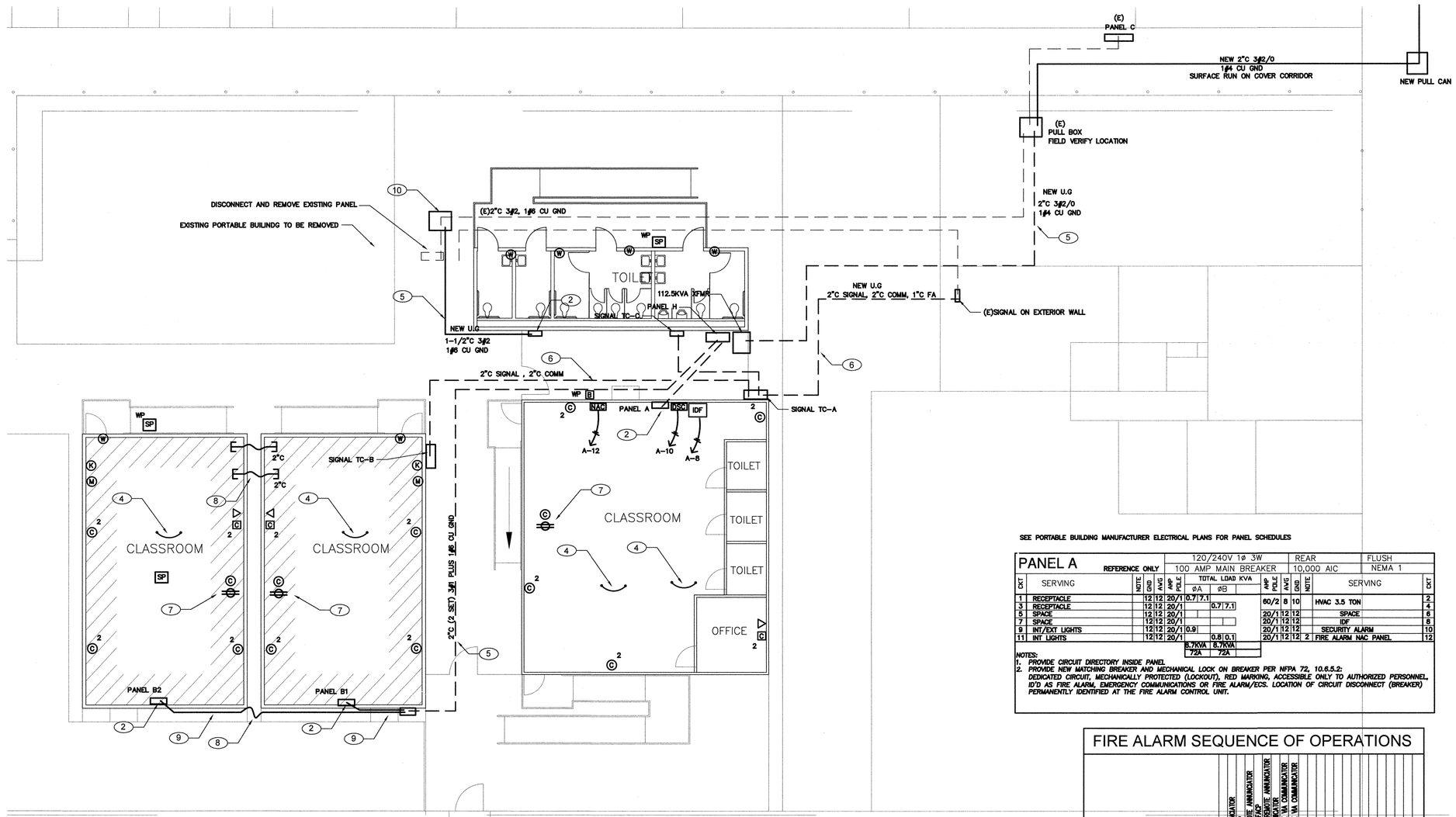



SEE PORTABLE BUILDING MANUFACTURER ELECTRICAL PLANS FOR PANEL SCHEDULES

**PANEL A** — REFERENCE ONLY — 120/240V 1ø 3W — 100 AMP MAIN BREAKER — REAR — 10,000 AIC — FLUSH — NEMA 1

| CKT | SERVING | NOTE | GND | AWG | AMP POLE | TOTAL LOAD KVA ØA | TOTAL LOAD KVA ØB | AMP POLE | AWG | GND | NOTE | SERVING | CKT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | RECEPTACLE | | 12 | 12 | 20/1 | 0.7 | 7.1 | 60/2 | 8 | 10 | | HVAC 3.5 TON | 2 |
| 3 | RECEPTACLE | | 12 | 12 | 20/1 | | 0.7 | 20/1 | 12 | 12 | | SPACE | 4 |
| 5 | SPACE | | 12 | 12 | 20/1 | | | 20/1 | 12 | 12 | | SPACE | 6 |
| 7 | SPACE | | 12 | 12 | 20/1 | | | 20/1 | 12 | 12 | | IDF | 8 |
| 9 | INT/EXT LIGHTS | | 12 | 12 | 20/1 | 0.9 | | 20/1 | 12 | 12 | | SECURITY ALARM | 10 |
| 11 | INT LIGHTS | | 12 | 12 | 20/1 | | 0.8 | 20/1 | 12 | 12 | 2 | FIRE ALARM NAC PANEL | 12 |
| | | | | | | 8.7KVA 72A | 8.7KVA 72A | | | | | | |

NOTES:
1. PROVIDE CIRCUIT DIRECTORY INSIDE PANEL
2. PROVIDE NEW MATCHING BREAKER AND MECHANICAL LOCK ON BREAKER PER NFPA 72, 10.6.5.2: DEDICATED CIRCUIT, MECHANICALLY PROTECTED (LOCKOUT), RED MARKING, ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL. ID'D AS FIRE ALARM, EMERGENCY COMMUNICATIONS OR FIRE ALARM/ECS. LOCATION OF CIRCUIT DISCONNECT (BREAKER) PERMANENTLY IDENTIFIED AT THE FIRE ALARM CONTROL UNIT.

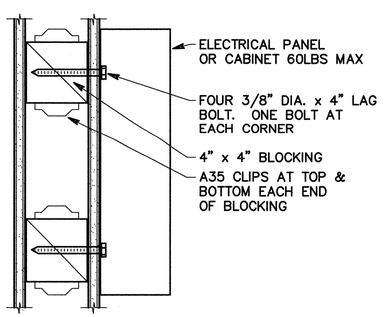
## FIRE ALARM SEQUENCE OF OPERATIONS

| | ACTIVATE ALARM FACP | ACTIVATE ALARM AT REMOTE ANNUNCIATOR | ACTIVATE TROUBLE SIGNAL AT FACP | ACTIVATE TROUBLE SIGNAL AT REMOTE ANNUNCIATOR | ACTIVATE SUPERVISORY SIGNAL AT FACP | ACTIVATE SUPERVISORY SIGNAL AT REMOTE ANNUNCIATOR | SEND ALARM OFF-SITE VIA COMMUNICATOR | SEND SUPERVISORY SIGNAL OFF-SITE VIA COMMUNICATOR | SEND SUPERVISORY & TROUBLE SIGNALS OFF-SITE VIA COMMUNICATOR | ACTIVATE WATER FLOW BELL | PRIMARY FLOOR RECALL | SECONDARY FLOOR RECALL | ELEVATOR SHUNT TRIP | ELEVATOR RECALL SYSTEMS | SHUT PRE-SMOKE DAMPERS | CLOSE FIRE DOORS | RESET 120VAC INITIATING DEVICES | ACTIVATE BATTERY BACK-UP HORNS | ACTIVATE VISIBLE SIGNALS | DEACTIVATE VISIBLE SIGNALS | RESET 24V 4-WIRE DEVICES | SYSTEM NORMAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MANUAL PULL STATION | X | X | | | | | X | | | X | | | | | | | X | | | | | |
| SMOKE DETECTORS: | | | | | | | | | | | | | | | | | | | | | | |
| ALL (EXCEPT LISTED BELOW) | X | X | | | | | X | | | X | | | | | | | X | | | | | |
| PRIMARY FLOOR LOBBY | X | X | | | | | X | | | X | | | | X | | | X | | | | | |
| ALL OTHER LOBBIES | X | X | | | | | X | | | X | | X | | | | | X | | | | | |
| ELEVATOR MACHINE ROOM | X | X | | | | | X | | | X | | | X | | | | X | | | | | |
| ELEVATOR SHAFT | X | | | | | | X | | | X | | X | | | | | X | | | | | |
| HEAT DETECTORS: | | | | | | | | | | | | | | | | | | | | | | |
| ALL (EXCEPT LISTED BELOW) | X | X | | | | | X | | | X | | | | | | | X | | | | | |
| ELEVATOR MACHINE ROOM | X | X | | | | | X | | | X | | | | X | | | X | | | | | |
| ELEVATOR SHAFT | X | X | | | | | X | | | X | | | | X | | | X | | | | | |
| DUCT DETECTOR | | | | | X | X | | X | | | | | | | X | X | | | | | | |
| FIRE SPRINKLER WATERFLOW SWITCH | X | X | | | | | X | | X | X | | | | | | | X | | | | | |
| FIRE SPRINKLER TAMPER SWITCH | | | | | X | X | | X | | | | | | | | | | | | | | |
| POST INDICATOR VALVE | | | | | X | X | | X | | | | | | | | | | | | | | |
| WIRING CONDITIONS: | | | | | | | | | | | | | | | | | | | | | | |
| SIGNALING LINE CIRCUIT (SLC)– | | | | | | | | | | | | | | | | | | | | | | |
| WIRE-TO-WIRE SHORT | | | X | X | | | | X | | | | | | | | | | | | | | |
| SINGLE OPEN | | | X | X | | | | X | | | | | | | | | | | | | | |
| SINGLE GROUND | | | X | X | | | | X | | | | | | | | | | | | | | |
| INITIATING DEVICE CIRCUIT (IDC)– | | | | | | | | | | | | | | | | | | | | | | |
| WIRE-TO-WIRE SHORT | X | X | | | | | X | | X | | | | | | | | X | | | | | |
| SINGLE OPEN | | | X | X | | | | X | | | | | | | | | | | | | | |
| SINGLE GROUND | | | X | X | | | | X | | | | | | | | | | | | | | |
| NOTIFICATION APPLIANCE CIRCUIT (NAC)– | | | | | | | | | | | | | | | | | | | | | | |
| WIRE-TO-WIRE SHORT | | | X | X | | | | | | | | | | | | | | | | | | |
| SINGLE OPEN | | | X | X | | | | | | | | | | | | | | | | | | |
| SINGLE GROUND | | | X | X | | | | | | | | | | | | | | | | | | |
| LOSS OF 120VAC POWER | | | X | X | | | X | | | | | | | | | | X | | | | | |
| SIGNAL SILENCE | | | | | | | | | | | | | | | | | | | X | X | | |
| RESET FACP | | | | | | | | | | | | | | | | | X | | X | X | X | X |

NOTE: SOME SEQUENCE OF OPERATIONS SHOWN MAY NOT APPLY

# POWER AND SIGNAL PLAN

SCALE : 1/8" = 1' – 0"




1 SURFACE MOUNTED IDF DETAIL

N.T.S

## MEP COMPONENT ANCHORAGE NOTES

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAILS IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2013 CBC, SECTIONS 1616A.1.18 THROUGH 1616A. 1.28 AND ASCE 7–10 CHAPTER 13, 26 AND 30.

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 7–10 SECTION 13.3 AS DEFINED IN ASCE 7–10 SECTION 12.6.6, 13.6.5.6 AND 2013 CBC, SECTION 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

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 (OPM #) 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.

## SHEET NOTES

1. FURNISH AND INSTALL FIRE ALARM SIGNAL AND AUDIO BOOSTER PANEL AND WITH 110V POWER CONNECTION AND DEDICATED CIRCUIT FROM PANEL A–12. SEE DRAWING E–3 FOR MORE INFORMATION.
2. PROVIDE POWER CONNECTION FOR RELOCATABLE BUILDING PRE–WIRED PANEL. SEE SINGLE LINE DIAGRAM ON DRAWING E–4.
3. PROVIDE 2"C EMT BETWEEN BUILDINGS AND STUB INTO BUILDING CEILING CAVITY FOR SIGNAL WIRING RACEWAY. CORE DRILL AND SEAL EXTERIOR WALL AS REQUIRED. PULL BACK PA/IC/TELE CABLE TO ADMIN OFFICE MASTER EQUIPMENT FOR NEW DEVICES CONNECTION. SEE RISER DIAGRAMS.
4. PROVIDE #6 COPPER GROUNDING CONDUCTOR AND BOND TO EACH SECTION STRUCTURAL STEEL BEAM, FIELD VERIFY EXACT LOCATION WITH GENERAL CONTRACTOR PRIOR TO INSTALLATION.
5. NEW U.G POWER CONDUITS. SEE SINGLE LINE DIAGRAM.
6. NEW U.G SIGNAL CONDUITS. SEE RISER DIAGRAMS FOR CONDUCTORS REQUIREMENT.
7. DATA AND POWER OUTLET AT CEILING FOR SMART BOARD. FIELD VERIFY EXACT LOCATION AND REQUIREMENT WITH OWNER PRIOR TO INSTALLATION. SEE RISER DIAGRAM.
8. PROVIDE FLEX CONDUIT RACEWAY BETWEEN BUILDINGS AS REQUIRED.
9. NEW SURFACE MOUNTED POWER CONDUITS AND FEEDERS. SEE SINGLE LINE DIAGRAM.
10. EXISTING U.G CONDUIT AND FEEDER TO REUSE FOR NEW TOILET BUILDING PRE WIRED PANEL POWER CONNECTION. PROVIDE PULL BOX AND INTERCEPT EXISTING U.G CONDUIT AND EXTEND TO NEW TOILET PRE PLANS. FIELD VERIFY LOCATION.

## SIGNAL AND COMM. LEGEND

**SECURITY ALARM SYSTEM**

- DSC — DIGITAL SECURITY ALARM CONTROL PANEL. MODEL SONITROL (64ZONE). INTERFACE WITH EXISTING BUILDING MASTER SECURITY ALARM PANEL AS REQUIRED.
- K — LCD KEYPAD – MATCH EXISTING EQUIPMENT AS REQUIRED.
- M — DUAL TECHNOLOGY CEILING MOUNT DETECTOR. MATCH EXISTING EQUIPMENT AS REQUIRED.
- B — EXTERIOR BELL (SIREN) – DSC#SD15W WITH WEATHERPROOF BACKBOX AND TAMPER SWITCH.
- W — DOOR CONTACT SWITCH. RECESS ABOVE DOOR JAMB AT OPEN SIDE.
- —B— INDOOR SECURITY ALARM CABLE. WEST PENN #241
- —B1— OUTDOOR SECURITY ALARM CABLE. WEST PENN #AQC224

**COMMUNICATION (TELEPHONE/INTERCOM) SYSTEM**

- ▽ — HANDSET/IP PHONE – FIELD VERIFY MODEL NO. AND MATCH EXISTING MASTER EQUIPMENT AS REQUIRED.
- SP — CEILING SPEAKER – RAULAND #US0221 W/ACC1000 BAFFLE. PROVIDE BACKBOX AND CEILING SUPPORT AS REQUIRED
- SP WP — OUTDOOR SPEAKER – ATLAS #APF15 HORN W/XFMR AND LOWELL #GB84 FOR SURFACE, #S675X FOR RECESS) BACK BOX W/SQLK GRILL
- —T— OUTDOOR TELE/IC CABLE. 22AWG SOILD COPPER 12 PAIR SHIELDED AND 12 PAIR UNSHIELDED CABLE.
- —TI— INDOOR TELEPHONE CABLE. CAT.3 22AWG SOILD COPPER 4UTP SHIELDED CABLE.
- —P1— OUTDOOR PA/IC CABLE – WEST PENN #AQC–369

**DATA COMMUNICATION SYSTEM**

- C 2 — DATA OUTLET – LEVITON CAT 5E (DUAL RECEPTACLE RED IN COLOR FOR ADMINISTRATIVE)
- C 2 — DATA OUTLET – LEVITON CAT 5E (DUAL RECEPTACLE BLUE IN COLOR FOR INSTRUCTIONAL)
- —FO— FIBER OPTIC CABLE MA INNER DUCT WITH J–HOOK IN ATTIC AND 2"C FOR OUTDOOR. SEE RISER DIAGRAM FOR MODEL NO.
- —C1— (ONE) CAT 5E 22AWG 4UTP. SEE RISER DIAGRAM FOR MODEL NO.
- —C2— (TWO) CAT 5E 22AWG 4UTP. SEE RISER DIAGRAM FOR MODEL NO.

NOTES:

ALL SIGNAL CONDUCTORS CANNOT SPLICE INSIDE PULL BOX. CONDUCTOR MUST BE CONTINUE RUN BETWEEN SIGNAL DEVICES BACK BOX OR ABOVE GROUND TERMINAL CABINET.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Sheet Title: POWER AND SIGNAL PLAN

Project Name & Address: WAYSIDE ELEMENTARY SCHOOL 3 RELOCATABLE CLRM 1 TOILET
BAKERSFIELD CITY SCHOOL DISTRICT
1000 MING AVE., BAKERSFIELD, CA

Issue Date: 00/00/14 | Date: 05/27/14 | Designer: J CHONG | DR: J CHONG | Pic: CJM

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