

**PROJECT:** Kansas City Kansas Public Schools USD 500  
M E Pearson Elementary School – Modular Classroom  
310 N 11th St.  
Kansas City, Kansas 66102  
ACI Project #3-20023

**ARCHITECT:** ACI/Boland, Inc.  
1710 Wyandotte Street  
Kansas City, MO 64108  
Architect Contact - (816)-763-9600

**DATE:** August 17, 2020

## **ADDENDUM NO. 1**

This addendum, applicable to work herein, shall be understood to be, and is, an Addendum and as such shall be a part of and included in the Contract. IT IS ESSENTIAL THAT ALL BIDDERS/ CONTRACTORS FURNISHING LABOR, MATERIAL, AND SERVICES IN CONNECTION WITH THE PROJECT READ EACH SECTION OF THIS ADDENDUM. Bids shall acknowledge receipt of and inclusion of all addenda items.

### **General**

#### **1-1 Contents**

Addendum No. 1 includes the following sections:  
Addendum No. 1 - MEP

### **ATTACHMENTS**

- A. Addendum No. 1 - MEP

**END OF ADDENDUM NO. 1**

## **ADDENDUM NO. 1 – Mechanical, Electrical and Plumbing**

This addendum, applicable to work herein, shall be understood to be, and is, an Addendum and as such shall be a part of and included in the Contract. IT IS ESSENTIAL THAT ALL BIDDERS/ CONTRACTORS FURNISHING LABOR, MATERIAL, AND SERVICES IN CONNECTION WITH THE PROJECT READ EACH SECTION OF THIS ADDENDUM. Bids shall acknowledge receipt of and inclusion of all addenda items.

### **MEP Drawings**

**1-MEP1 Sheet ME1.1**

Reissued sheet in its entirety.

**1-MEP2 Sheet ME2.1**

Reissued sheet in its entirety.

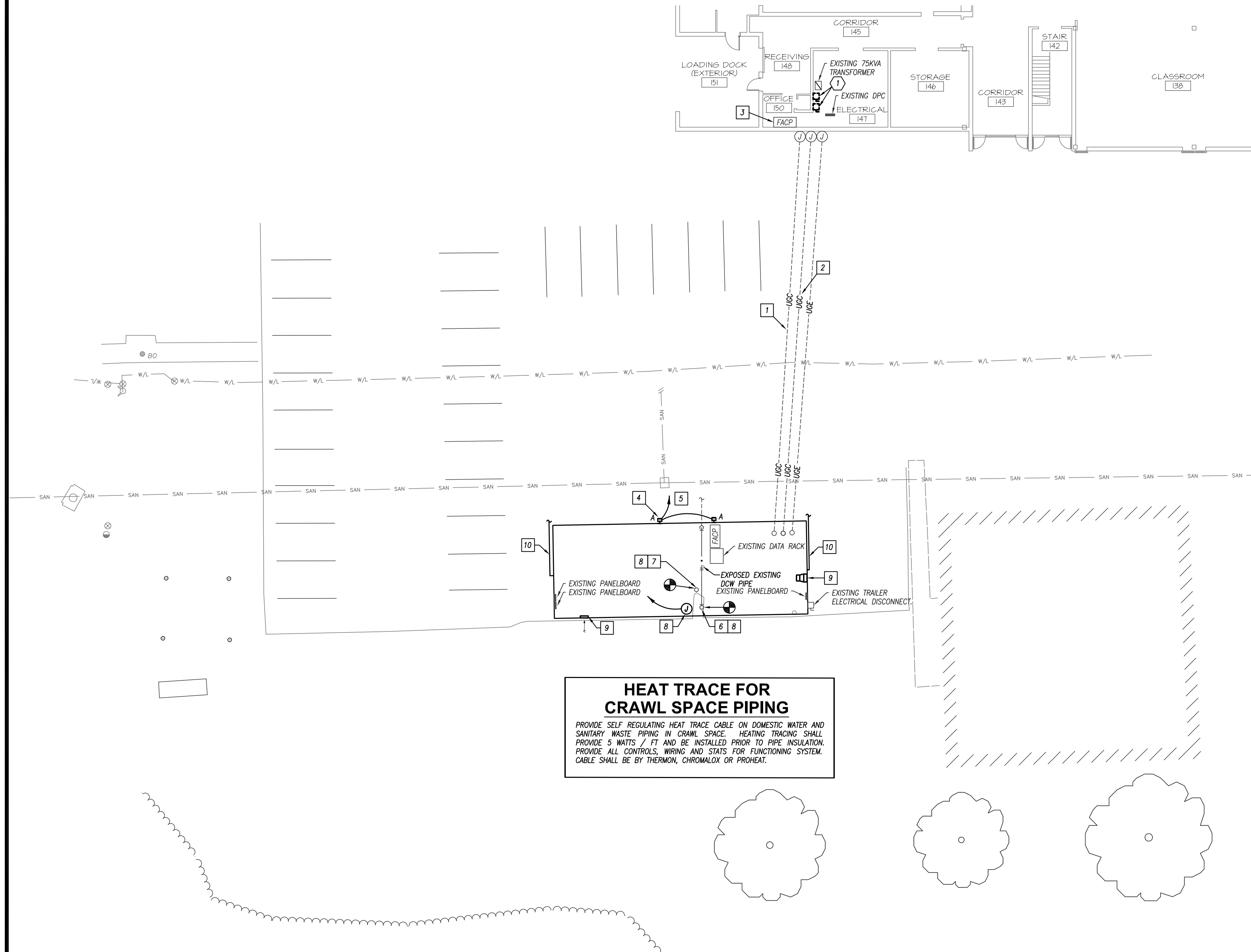
**1-MEP3 Sheet ME 2.2**

Reissued sheet in its entirety.

### **ATTACHMENTS**

- A. Sheet ME1.1, reissued in its entirety, dated 08/17/20
- B. Sheet ME2.1, reissued in its entirety, dated 08/17/20
- C. Sheet ME2.2, reissued in its entirety, dated 08/17/20

**END OF ADDENDUM NO. 1 - MEP**



**SITE PLAN - MECHANICAL/ELECTRICAL**  
 1/16" = 1'-0"

**GENERAL CONSTRUCTION NOTES**

1. ALL WORK SHALL COMPLY WITH LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (NFPA 70) AND ALL LOCAL BUILDING CODES.
2. SAWCUT AND TRENCH PARKING LOT AND SURFACES TO INSTALL PIPING AND CONDUITS. PATCH TO MAKE LIKE NEW AFTER INSTALLATION.
3. COORDINATE EXACT PIPING AND CONDUIT STUB-UP LOCATIONS AT MODULAR CLASSROOMS WITH ACTUAL EXISTING EQUIPMENT LOCATIONS IN MODULAR TO BE RELOCATED.
4. COORDINATE AND MAKE ALL FINAL CONNECTIONS TO MODULAR. ENSURE ALL SYSTEMS ARE IN PROPER WORKING ORDER.
5. EXISTING CIRCUITING MAY BE RE-USED WHERE POSSIBLE.
6. CONCEAL CIRCUITING IN WALLS WHERE POSSIBLE. FOR NEW DEVICES INSTALLED ON EXISTING BLOCK WALLS, CONCEAL CIRCUITING IN WIREMOLD.
7. PROVIDE EMPTY CONDUITS WITH PULLSTRINGS AND BUSHED ENDS.
8. THE CONTRACTOR SHALL COORDINATE THE EXACT ROUTING AND PATH OF PIPING AND CONDUITS WITH THE SITE LAYOUT AND WITH ALL TRADES. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY OFFSETS, TURNS, RISES AND DROPS FOR CONDUITS AND PIPING AS NEEDED TO CLEAR STRUCTURES AND OTHER SYSTEMS, EITHER NEW OR EXISTING.
9. EXISTING UNDERGROUND CONDUIT AND PIPING LOCATIONS ARE ESTIMATED BASED UPON REVIEW OF OLD PLANS AND FIELD EXAMINATION. FIELD VERIFY EXACT LOCATIONS DURING CONSTRUCTION AND PROVIDE ALL NECESSARY MODIFICATIONS.
10. COORDINATE EXACT LOCATIONS OF SMOKE DETECTORS WITH HVAC DIFFUSERS, LIGHTS, ETC., PER NFPA REQUIREMENTS.
11. PAINT NEW EXPOSED CONDUITS TO MATCH EXISTING SURROUNDING SURFACES.
12. EXTEND ELECTRICAL OUTLETS/JUNCTION BOXES AS REQUIRED SO THEY ARE SURFACE MOUNTED TO NEW HARDIPANEL OR HARDITRIM. EXTEND JUNCTION BOXES AS REQUIRED SO THAT MOUNTING FACE OF BOX IS FLUSH WITH HARDIPANEL OR HARDITRIM - SALVAGE AND REINSTALL ELECTRICAL DEVICES WHERE JUNCTION BOXES ARE EXTENDED.

**NEW WORK KEYED NOTES**

- 1 EXISTING 2" CONDUIT FOR TELECOMMUNICATIONS, INTERCOM AND SAFE DEFEND CABLING FROM EXISTING BUILDING. VERIFY EXISTING CONDUIT IS SUITABLE TO BE REUSED. PULL NEW TELECOMMUNICATIONS CABLING. CONTRACTOR IS TO VERIFY EXACT LENGTHS IN FIELD. PULL NEW FIBER OPTIC CABLING FOR DATA FROM EXISTING BUILDING IDF TO MODULAR TRAILER IDF. CONFIRM EXACT CONNECTIONS REQUIRED IN FIELD AND WITH DISTRICT PRIOR TO ROUTING CONDUIT.
- 2 EXISTING 1" CONDUIT FOR EXTENSION OF FIRE ALARM AND INTERCOM SYSTEM CABLING FROM EXISTING BUILDING. VERIFY EXISTING CONDUIT IS SUITABLE TO BE REUSED. ROUTE CABLING CONCEALED EITHER ABOVE ACCESSIBLE CEILING OR IN SURFACE MOUNT WIREMOLD TO EQUIPMENT/DEVICE LOCATIONS. FIELD VERIFY EXACT ROUTING.
- 3 EXISTING FIRE ALARM SYSTEM. PROVIDE TIE-IN TO MODULAR FIRE ALARM CONTROL PANEL. COORDINATE WORK WITH MANUFACTURER.
- 4 REMOVE EXISTING WALL PACK LIGHT FIXTURES AND EMERGENCY REMOTE HEADS. REPLACE WITH NEW WALL PACK. REFER TO LIGHT FIXTURE SCHEDULE FOR FIXTURE REPLACEMENT.
- 5 CIRCUIT TO EXISTING EXTERIOR LIGHTING CIRCUIT.
- 6 DOMESTIC COLD WATER CONNECTION TO TRAILER. VERIFY EXACT CONNECTION LOCATION WITH TRAILER. INSULATE AND HEAT TRACE ALL EXPOSED PIPING UNDERNEATH TRAILER AND ALL UNDERGROUND PIPING THAT IS LESS THAN 36" BELOW GRADE.
- 7 SANITARY CONNECTION TO TRAILER. VERIFY EXACT LOCATION AND CONNECTION REQUIREMENTS. INSULATE AND HEAT TRACE ALL EXPOSED PIPING UNDERNEATH TRAILER AND ALL UNDERGROUND PIPING THAT IS LESS THAN 36" BELOW GRADE.
- 8 CONNECT HEAT TRACE CIRCUITING TO PANELBOARD INDICATED. REPLACE CIRCUIT BREAKER FOR HEAT TRACE WITH GFCI TYPE CIRCUIT BREAKER AND WIRE TO SAME. LOCATE HEAT TRACE CONTROLS IN CLOSET NEAR WATER HEATER.
- 9 REINSTALL EXISTING FAN AND LOUVERS TO CIRCULATE AIR IN TRAILER CRAWLSPACE.
- 10 PVC CONDENSATE PIPE TO DRAIN TO EAST SIDE OF TRAILER. PAINT TO MATCH OUTSIDE OF TRAILER.

**GENERAL DEMOLITION NOTES**

1. REFER TO ARCHITECTURAL PLANS FOR ANY REQUIRED DEMOLITION REQUIREMENTS.
2. COORDINATE ALL DEMOLITION AND CONSTRUCTION WORK WITH OWNER.
3. CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF EXISTING UTILITIES BELOW GRADE.
4. DISCONNECT AND PULL FIBER OPTIC CABLE AND CONDUIT FOR DATA SERVICE BACK TO POINT OF RECONNECTION. PROTECT CABLE FOR REUSE TO SERVE NEW MODULAR CLASSROOMS. EXISTING MAIN SCHOOL BUILDING DATA SERVICE TO REMAIN UNAFFECTED. COORDINATE WORK WITH TELECOMMUNICATIONS UTILITY.
5. SALVAGE TELECOMMUNICATIONS EQUIPMENT; FIBER SWITCH, PATCH PANEL, ROUTER, CABLING, ETC., AND TURN OVER TO OWNER.
6. REUSE FIBER OPTIC CABLE, CONDUIT, PUNCH-DOWN BLOCKS, CONNECTORS, ETC., AS NEEDED FOR RECONNECTION TO NEW MODULAR CLASSROOMS. DISCONNECT AND REMOVE ANY UNUSED EQUIPMENT AND TURN OVER TO OWNER.
7. SALVAGE CRAWLSPACE VENTILATION FAN AND ASSOCIATED LOUVERS. REMOVE FAN AND DUCTWORK FOR TRANSPORTATION AND REINSTALL AT NEW LOCATION.
8. MAINTAIN ALL EXISTING DEVICES, EQUIPMENT, ASSOCIATED CIRCUITS ETC. SHOWN AS EXISTING TO REMAIN OR OTHERWISE UNRELATED TO THE SCOPE OF THE PROJECT IN WORKING ORDER.
9. CONTRACTOR SHALL REMOVE LAY-IN CEILING, LIGHT FIXTURES, ETC. AS REQUIRED FOR CONSTRUCTION AND REPLACE SAME AFTER CONSTRUCTION. EXISTING CONDUITS ABOVE CEILING SHALL BE RELOCATED AND/OR TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF NEW EQUIPMENT.
10. NOTES AND DRAWINGS ARE BASED UPON A FIELD EXAMINATION OF THE SITE AND MAY NOT INDICATE ALL ITEMS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND THE SCOPE OF WORK FOR THE CONTRACT PRIOR TO BID. ANY EXISTING CONDITION WHICH IS APPARENT OR COULD BE REASONABLY INFERRED FROM A VISIT TO THE SITE SHALL NOT BE THE BASIS FOR A CHANGE IN THE CONTRACT AMOUNT.
11. REFER TO PLAN FOR ANY ITEMS THAT MAY REQUIRE RELOCATION.
12. PROPERLY DISPOSE OF ALL DEMOLISHED ITEMS OFF SITE.
13. PROTECT ALL EXISTING SURFACES AND EQUIPMENT DURING CONSTRUCTION. EXISTING ITEMS SHALL BE ADEQUATELY PROTECTED, AS REQUIRED. ANY ITEMS DAMAGED OR MARRED SHALL BE ADEQUATELY CLEANED OR REPLACED TO THE OWNER'S SATISFACTION TO ORIGINAL CONDITION PRIOR TO CONSTRUCTION.
14. PATCH ANY HOLES IN STRUCTURE CREATED BY REMOVAL OF DUCTWORK, CONDUITS, PIPES, ETC.
15. ALL UNUSED ELECTRICAL CONDUIT AND WIRING DUE TO WORK HEREIN SHALL BE REMOVED BACK TO PANELBOARDS AND PROPERLY TERMINATED.

**DEMOLITION KEYED NOTES**

- 1 REMOVE EXISTING 100 AMP FUSED DISCONNECT AND WIRE. LEAVE CONDUIT TO BE REUSED FOR NEW DISCONNECT AND WIRE.

**ELECTRICAL ALLOWANCE (INSIDE TRAILER WORK)**

ALLOW THIRTY-TWO (32) HOURS LABOR AND \$500.00 MATERIAL FOR THE FOLLOWING:  
 TRAILER CONNECTIONS: MAKE ALL ELECTRICAL CROSS OVER CONNECTIONS GROUND ALL JUNCTION BOXES ABOVE CEILING  
 PROVIDE LIGHT FIXTURE SUPPORTS  
 ATTACH ALL MC CABLE TO STRUCTURE.

**INTERCOM SCOPE OF WORK**

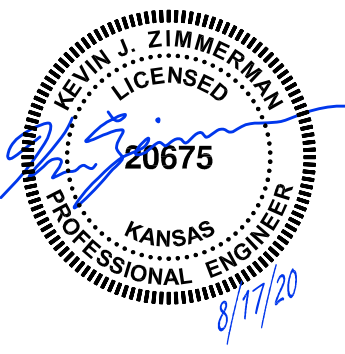
1. REMOVE ANY AND ALL INTERCOM DEVICES FROM EXISTING MODULAR BUILDING.
2. PROVIDE NEW INTERCOM/CLOCK SYSTEM DEVICES (SPEAKERS AND CALL BUTTONS) AND WIRING TO MATCH EXISTING BUILDING SYSTEM MANUFACTURER IN EACH MODULAR CLASSROOM (2) AND EXTEND WIRING BACK TO HEAD END SYSTEM.  
 (2) CLASSROOMS: (1) WALL CLOCK/SPEAKER EACH  
 (1) CALL BUTTON EACH

**FIRE ALARM SCOPE OF WORK**

1. ALL EXISTING FIRE ALARM DEVICES AND EXTENDER PANEL IN EXISTING MODULAR BUILDING TO REMAIN.
2. REMOVE ALL ASSOCIATED CABLING. CONDUIT MAY BE REUSED.
3. REMOVE EXISTING FIRE ALARM CABLING FROM SCHOOL BUILDING TO MODULAR. CONDUIT MAYBE REUSED. PROVIDE NEW CABLING FROM SCHOOL'S MAIN FIRE ALARM PANEL TO EXISTING FIRE ALARM PANEL IN MODULAR CLASSROOM.

**SAFE DEFEND SCOPE OF WORK**

1. COORDINATE SAFE DEFEND DEVICES WITH OWNER AND SAFE DEFEND INSTALLERS. SAFE DEFEND CABLING SHALL BE PULLED AT SAME TIME AS OTHER LOW VOLTAGE CABLING.
2. PROVIDE A NEW SAFE DEFEND INITIATION DEVICE IN EACH MODULAR CLASSROOM (2) AND EXTERIOR HORN/STROBE (1) OUTSIDE. EXTEND WIRING BACK TO HEAD END SYSTEM.



1710 Wyandotte  
 Kansas City, MO 64108  
 T: 816.763.9600 F: 816.763.9757

ACI/Boland, Inc.  
 Kansas City | St. Louis  
 Licensee's Certificate of Authority Number:  
 # A-508

**CIVIL CONSULTANT**

Renaissance Infrastructure Consulting - RIC  
 1815 McGee Street, Suite 200  
 Kansas City, MO 64108  
 Tele: 816-800-0950

**STRUCTURAL CONSULTANT**

Bob D. Campbell Engineers  
 4338 Bellevue  
 Kansas City, MO 64111  
 Tele: 816-531-4144 Fax: 816-531-8572

**MEP CONSULTANT**

PKMR Engineers  
 13300 W. 98th Street  
 Lenexa, KS 66215  
 Tele: 913-492-2400 Fax: 913-492-2437

Kansas City, Kansas Public Schools USD 500  
**ME Pearson Elementary  
 Modular Classrooms**  
 310 North 11th St - Kansas City, Kansas - 66102

Date	8/14/20
Job Number	3-20053
Drawn By	BP
Checked By	KZ

Revisions	Number	Date	Description
	1	08/17/20	Addendum #1



PEARSON KENT MCKINLEY RAFF ENGINEERS LLC  
 13300 W 98TH STREET  
 LENEXA, KS 66215  
 913.492.2400 WWW.PKMRENG.COM



© 2020 ACI Boland Architects  
 Site Plan - Mechanical/Electrical



**ELECTRICAL SPECIFICATIONS**

**SECTION 16000 - ELECTRICAL REQUIREMENTS**

**GENERAL REQUIREMENTS**

- A. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING CODE, NATIONAL ELECTRICAL CODE, NFPA, CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES.
- B. ALL MATERIALS & EQUIPMENT SHALL BE NEW & SHALL BEAR U.L. LABEL WHERE APPLICABLE. PROVIDE WATERPROOF EQUIPMENT ENCLOSURES WHERE REQUIRED.
- C. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO ELECTRICAL CONNECTIONS TO BUILDING AS REQUIRED.
- D. CONTRACTOR SHALL PROVIDE ALL LABOR & MATERIALS REQUIRED TO HAVE COMPLETE FUNCTIONING ELECTRICAL LIGHTING & POWER SYSTEMS THROUGHOUT THE ENTIRE PROJECT & ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS.
- E. WHERE AN ELECTRICAL DEVICE IS REQUIRED BY CODE BUT NOT SHOWN, IT SHALL BE PROVIDED AS THOUGH FULLY SHOWN & SPECIFIED.
- F. CONTRACTOR SHALL VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE. ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECT'S ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN THIS CONNECTION FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.
- G. FINAL ACCEPTANCE OF WORK SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATIONS.
- H. WARRANTY TO OWNER QUALITY OF MATERIALS, EQUIPMENT, WORKMANSHIP & OPERATION OF EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS FOR ONE YEAR FROM & AFTER COMPLETION OF BUILDING & ACCEPTANCE OF MECHANICAL SYSTEMS BY OWNER.
- I. ALL MATERIALS INSTALLED IN PLENUMS SHALL BE NONCOMBUSTIBLE OR HAVE FLAME/SMOKE INDEX OF NO MORE THAN 25/50 IN ACCORDANCE W/ ASTM E 84.

**SECTION 16050 - EXCAVATION, TRENCHING AND BACKFILL**

**GENERAL REQUIREMENTS**

- A. PERFORM NECESSARY EXCAVATION TO RECEIVE WORK. PROVIDE NECESSARY SHEATHING, SHORING, CRIBBING, TARPULLINS, ETC. FOR THIS OPERATION, AND REMOVE AT COMPLETION OF WORK. PERFORM EXCAVATION IN ACCORDANCE WITH APPROPRIATE SECTION OF THESE SPECIFICATIONS, AND IN COMPLIANCE WITH OSHA SAFETY STANDARDS.
- B. EXCAVATE TRENCHES OF SUFFICIENT WIDTH TO ALLOW AMPLE WORKING SPACE, AND NO DEEPER THAN NECESSARY FOR INSTALLATION OF WORK.
- C. CONDUIT EXCAVATIONS SO NO WALLS OR FOOTINGS ARE DISTURBED OR INJURED.
- D. BACKFILL EXCAVATIONS MADE UNDER OR ADJACENT TO FOOTING WITH SELECTED EARTH OR SAND AND TAMP TO COMPACTION REQUIRED BY A/E.
- E. MECHANICALLY TAMP BACKFILL UNDER CONCRETE AND PAVERIES IN 6" LAYERS TO 95% STANDARD DENSITY.
- F. BACKFILL TRENCHES AND EXCAVATIONS TO REQUIRED HEIGHTS WITH ALLOWANCE MADE FOR SETTLEMENT.
- G. TAMP FILL MATERIAL THOROUGHLY AND MOISTENED AS REQUIRED FOR SPECIFIED COMPACTION DENSITY.
- H. DISPOSE OF EXCESS EARTH, RUBBLE AND DEBRIS AS DIRECTED BY ARCHITECT.
- I. WHEN AVAILABLE, REFER TO TEST HOLE INFORMATION ON ARCHITECTURAL DRAWINGS OR SPECIFICATIONS FOR TYPES OF SOIL TO BE ENCOUNTERED IN EXCAVATIONS.
- J. RETURN SURFACES TO ORIGINAL CONDITIONS. REPLACEMENT OF GRASS SHALL BE WITH SOG TO MATCH EXISTING TURF TYPE.

**SECTION 16100 - CONDUIT & CONDUCTORS**

**GENERAL REQUIREMENTS**

- A. FOLLOW CIRCUITS SHOWN ON PLANS. USE NO CONDUIT SMALLER THAN 1/2" & NO CONDUCTORS SMALLER THAN #12 GA. UNLESS NOTED OTHERWISE.
- B. WIRE SHALL BE IN NON-FLEXIBLE METALLIC CONDUIT (EMT, IMC OR RMC) FOR ALL CIRCUITS AND FEEDERS GREATER THAN 30A, LIGHT SWITCH RISERS, KITCHEN CIRCUITS & HOME RUNS.
- C. CONDUIT INSTALLED BELOW GRADE SHALL BE SCHEDULE 80 PVC HEAVY WALL PLASTIC CONDUIT MEETING NEMA STANDARDS & UL LISTED FOR UNDERGROUND & EXPOSED USE. PROVIDE 90° BENDS & RISERS AS CONDUITS RISE ABOVE GRADE OR ABOVE FLOOR SLAB.
- D. PROVIDE INTERLOCKING SPACERS FOR MULTIPLE RUNS OF UG CONDUITS IN SAME TRENCH.
- E. LIGHTING & RECEPTACLE CIRCUIT CONDUCTORS SHALL BE COPPER THIN/THIN 800 VOLT, 75 DEG C, COLOR CODED AS DESCRIBED UNDER APPLICABLE CODES. NO REXCEL PLASTIC FLEX TUBING ETC PERMITTED. LIGHT FIXTURE WIRE INSULATION SHALL HAVE TEMP RATING NOT LESS THAN INDIVIDUAL FIXTURE MANUF. RECOMMENDED RATING.
- F. CIRCUITS W/ NO. 8 OR LARGER CONDUCTORS, MOTOR CIRCUITS, POWER & FEEDER CIRCUITS & BUILDING SERVICE FEEDERS SHALL BE COPPER THIN/THIN 800 VOLT, 75 DEG C.
- G. ALL CONDUIT, JUNCTION BOXES, ETC. ABOVE CEILING SHALL BE SUPPORTED FROM STRUCTURE. PIPE SLEEVES, HANGERS & SUPPORTS SHALL BE FURNISHED & SET & CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER & PERMANENT LOCATIONS.

**SECTION 16200 - GROUNDING**

**GENERAL REQUIREMENTS**

- A. SUPPLEMENT GROUNDING NEUTRAL OF SECONDARY DISTRIBUTION SYSTEM W/ EQUIPMENT GROUNDING SYSTEM, INSTALLED SO THAT METALLIC STRUCTURES, ENCLOSURES, RACKS, JUNCTION BOXES, OUTLET BOXES, CABINETS, MACHINE FRAMES, PORTABLE EQUIPMENT & OTHER CONDUCTIVE ITEMS OPERATE CONTINUOUSLY AT GROUND POTENTIAL & PROVIDE LOW IMPEDANCE PATH FOR GROUND FAULT CURRENTS.
- B. SYSTEM SHALL COMPLY W/ NATIONAL ELECTRICAL CODE, DRAWINGS & AS SPECIFIED.
- C. PROVIDE EQUIPMENT GROUND BUS IN BASE OF LOW VOLTAGE, SWITCHGEAR BRAZED OR OTHERWISE ADEQUATELY CONNECTED BY AN APPROVED METHOD TO GROUND RODS.
- D. PROVIDE IN CONDUIT GREEN INSULATED COPPER GROUND CONDUCTOR TO MAIN METALLIC WATER SERVICE ENTRANCE & CONNECT BY MEANS OF ADEQUATE GROUND CLAMPS.
- E. EQUIPMENT GROUNDING CONDUCTORS FOR BRANCH CIRCUIT HOME RUNS SHOWN ON DRAWINGS SHALL INDICATE AN INDIVIDUAL & SEPARATE GROUND CONDUCTOR FOR THAT BRANCH CIRCUIT WHICH SHALL BE TERMINATED AT BRANCH CIRCUIT PANELBOARD, SWITCHBOARD, OR OTHER DISTRIBUTION EQUIPMENT.
- F. PROVIDE LOW VOLTAGE DISTRIBUTION SYSTEM W/ SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR FOR EACH SINGLE OR THREE-PHASE FEEDER. SINGLE PHASE 120 VOLT BRANCH CIRCUITS FOR LIGHTING & POWER SHALL CONSIST OF PHASE & NEUTRAL CONDUCTORS & GREEN GROUND CONDUCTOR INSTALLED IN COMMON CONDUIT WHICH SHALL SERVE AS GROUNDING CONDUCTOR.
- G. GROUNDING CONDUCTORS SHALL BE AS SHOWN ON PLANS OR IF NOT SPECIFICALLY SHOWN SHALL BE NO SMALLER THAN THAT REQUIRED BY NEC.

**SECTION 16300 - ELECTRICAL EQUIPMENT**

**GENERAL REQUIREMENTS**

- A. JUNCTION BOXES & OUTLET BOXES SHALL BE GALVANIZED KNOCKOUT TYPE. LIGHTING FIXTURE BOXES IN CEILING SHALL NOT BE LESS THAN 4" OCTAGONAL KNOCKOUT TYPE. OUTLETS SHALL BE INSTALLED IN LOCATIONS SHOWN ON DRAWINGS EXCEPT OUTLETS MAY BE MOVED 4 FEET IN EITHER DIRECTION IF SO DIRECTED, WITHOUT ADDITIONAL COST. BOXES SHALL BE FLUSH MOUNTED ON WALLS FOR CONCEALED WORK. GANGABLE BOXES SHALL BE USED IN ALL GYPOBOARD SURFACES.

**PANELBOARDS**

- A. BRANCH CIRCUIT 208/240V PANELS SHALL BE CAPACITY SHOWN W/ TIN PLATED COPPER BUSSES & BRACED FOR MINIMUM OF 10,000A IIC OR AS OTHERWISE NOTED OR REQUIRED (SERIES RATED ACCEPTABLE). BOLT ON CIRCUIT BREAKERS. MINIMUM 20" WIDE W/ GALV. STEEL ENCLOSURE W/ HINGED DOOR & KEYS LOCK. COORD. TRIM WITH MOUNTING LOCATION. PANELS TO BE RECESSED WHENEVER POSSIBLE.
- B. EQUIVALENT BY SQUARE D, SIEMENS, OUTLER HAMMER, OR GE.

**CIRCUIT BREAKERS IN EXISTING PANELBOARDS**

- A. PROVIDE NEW CIRCUIT BREAKERS, FOR INSTALLATION IN EXISTING PANELBOARDS, OF SAME MANUFACTURER, TYPE & SHORT CIRCUIT CURRENT INTERRUPTING RATINGS AS EXISTING PANELBOARD CIRCUIT BREAKERS.

**SECTION 16350 - ELECTRICAL IDENTIFICATION**

**GENERAL REQUIREMENTS**

- A. MANUFACTURED LABELS FOR EACH PANELBOARD. PROVIDE TYPEWRITTEN PANEL SCHEDULES MOUNTED IN PANELS.
- B. PRINTED TAPE STYLE LABEL FOR EACH RECEPTACLE INDICATING PANEL & CIRCUIT #.
- C. MANUFACTURED LABELS FOR ALL DISCONNECT SWITCHES AND DISTRIBUTION PANEL CIRCUIT BREAKERS INDICATING EQUIPMENT SERVED.
- D. BRANCH CIRCUITS - IDENTIFY EACH CIRCUIT W/ WIRE MARKERS WHEN ENCLOSURE LABEL AND WIRE COLORS DO NOT PROVIDE ENOUGH INFORMATION TO IDENTIFY EACH CIRCUIT WITHOUT TRACING. FEEDERS & BRANCH CIRCUIT HOME RUNS W/ WIRE MARKER W/ PANEL & CRT #. BOX COVERS ABOVE LAY-IN CEILINGS NEATLY MARKED W/ INDELIBLE MARKER.
- E. FIRE ALARM - NAMEPLATE ON EACH FIRE ALARM TERMINAL CABINET. LABEL ALL WIRING.

**SECTION 16400 - WIRING DEVICES**

**GENERAL REQUIREMENTS**

- A. CONVENIENCE OUTLETS - SPEC GRADE 20 AMP DUPLEX W/ GROUND & SS WALL PLATES. OTHER OUTLETS SHALL BE VERIFIED W/ EQUIPMENT SUPPLIERS FOR PROPER NEMA CONFIGURATIONS. PROVIDE GFCI RATED DEVICES WHERE INDICATED AND AS REQ'D PER CODE.
- B. EQUIVALENT DEVICES BY LEVITON, BRYANT, HUBBEL, MATSTOPPER, LITHONIA, SENSOR SWITCH.

**EXECUTION**

- A. ALL OUTLETS, SHALL BE MOUNTED W/ BOTTOM AT 18" AFF & SWITCHES W/ BOTTOM AT 44" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE ON PLANS.

**SECTION 16500 - LUMINAIRES, LAMPS & BALLASTS**

**LUMINAIRES**

- A. PROVIDE LIGHTING FIXTURES & ACCESSORIES REQ'D FOR HANGING. COORD MOUNTING OF LIGHTING FIXTURES W/ ARCHITECT & G/C. ADDITIONAL FIXTURE SUPPORTS SHALL BE PROVIDED BY E/C. SUPPORTS SHALL COMPLY W/ LATEST EDITION OF NEC. PROVIDE LIGHTING FIXTURE SECURING CLIPS AS REQUIRED. CONSULT ARCH PLANS FOR CEILING TYPES & PROVIDE SURFACE & RECESSED LIGHTING FIXTURES W/ APPROPRIATE MOUNTING COMPONENTS & ACCESSORIES.
- B. EQUIVALENT LUMINAIRES BY HUBBELL, INFINITY, LITHONIA, WILLIAMS, COLUMBIA, EXTRONICS, LITELARM, EXIDE.

**SECTION 16600 - FIRE ALARM SYSTEM**

**GENERAL REQUIREMENTS**

- A. PROVIDE COMPLETE & OPERATIONAL MICROPROCESSOR BASED FIRE ALARM SYSTEM. SYSTEM SHALL HAVE CAPABILITY TO OPERATE SMOKE DETECTORS, INITIATE ALARMS FROM INITIATING DEVICES, CONTROL NOTIFICATION APPLIANCES, & PROVIDE THIRD PARTY/CENTRAL STATION MONITORING THROUGH DIGITAL ALARM COMMUNICATOR OR DIALER.
- B. PROVIDE WITH BATTERY BACKUP FOR 24 HOURS OF OPERATION & 5 MINUTES OF ALARM.
- C. SUBMIT SHOP DRAWINGS W/ WIRING DIAGRAMS & BATTERY CALCS FOR APPROVAL TO FIRE MARSHALL AND A/E.
- D. MANUFACTURER: SILENT KNIGHT, EST, SIEMENS, OR APPROVED EQUAL.

**PRODUCTS:**

- A. MICROPROCESSOR BASED FIRE ALARM CONTROL PANEL W/ INDICATION & NOTIFICATION CIRCUITS REQUIRED BASED ON DEVICES & DESCRIPTION HEREIN. COMPLETE CONTROL PANEL W/ POWER SUPPLY, BATTERIES, PROCESSOR, DIALER, ETC., IN SINGLE CABINET WITH HINGED LOCKABLE DOOR, SURFACE MOUNTED.
- B. PHOTOELECTRIC CEILING MOUNTED SMOKE DETECTORS.
- C. DOUBLE ACTION PULL STATIONS.
- D. CAPABLE OF CONNECTION WITH REMOTE ANNUNCIATOR, RECESSED MOUNTED.
- E. NOTIFICATION APPLIANCES - STROBES & COMBINATION HORN/STROBES. 15/75 CANDELA RATING UNLESS OTHERWISE NOTED OR REQUIRED. WEATHERPROOF WHERE EXTERIOR MOUNTED.
- F. MODULES FOR MONITORING MISCELLANEOUS DEVICES.

**EXECUTION**

- A. INSTALLED & TESTED PER NFPA 72 & APPLICABLE SECTIONS OF NFPA 70. PROVIDE COMPLETE FIRE ALARM SYSTEM AS DESCRIBED HEREIN & SHOWN TO BE WIRED, CONNECTED, & IN FIRST CLASS CONDITION. INCLUDE SUFFICIENT CONTROL UNITS(S), ANNUNCIATOR, MANUAL STATIONS, AUTOMATIC SMOKE DETECTORS, AUDIBLE & VISIBLE NOTIFICATION APPLIANCES, WIRING, TERMINATIONS, ELECTRICAL BOXES, & ALL NECESSARY MATERIAL FOR COMPLETE OPERATING SYSTEM.
- B. SYSTEM SHALL BE UL LISTED.
- C. SYSTEM WIRING, WIRE & CABLE SHALL BE LISTED FOR ITS INTENDED USE BY AN APPROVAL AGENCY ACCEPTABLE TO AHJ & SHALL BE INSTALLED IN ACCORDANCE W/ APPROPRIATE ARTICLES FROM CURRENT APPROVED EDITION OF NEC.

**SECTION 16700 - LOW VOLTAGE CABLING**

**GENERAL REQUIREMENTS**

- A. PROVIDE CABLING IN TYPE AS DIRECTED BY SCHOOL DISTRICT FOR TELEVISION OUTLETS.
- B. PROVIDE ALL NECESSARY CABLING, EQUIPMENT, BOXES, CONNECTORS, COVERS, ETC. FOR COMPLETE SYSTEM.

**EXECUTION**

- A. CABLING SHALL BE INSTALLED CONCEALED IN EXISTING CONSTRUCTION.
- B. CABLING SHALL BE UL LISTED FOR INTENDED USE & INSTALLED IN ACCORDANCE W/ APPROPRIATE ARTICLES FROM LATEST NEC.

**ELECTRICAL SYMBOL LEGEND**

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

	HOME RUN (2 #12, 1 #12 G UNLESS NOTED OTHERWISE)		DUPLEX RECEPTACLE		MANUAL PULL STATION
	INDICATES 2 PHASE, 1 NEUTRAL, AND 1 GROUND CONDUCTOR		LINE THRU DEVICE INDICATES ABOVE COUNTER		CEILING SMOKE DETECTOR
	OVERHEAD ELECTRICAL		QUADPLEX RECEPTACLE		DUCT SMOKE DETECTOR
	UNDERGROUND ELECTRICAL		JUNCTION BOX		HEAT DETECTOR
	UNDERGROUND TELEPHONE CONDUIT		TELEPHONE OUTLET (SINGLE-GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING)		STROBE LIGHT WITH CANDELA RATING, 15cd RATING UNLESS OTHERWISE NOTED ON PLANS.
	UNDERGROUND COMMUNICATIONS CONDUIT		LINE THRU DEVICE INDICATES ABOVE COUNTER		COMBINATION HORN/STROBE WITH CANDELA RATING, 15cd RATING UNLESS OTHERWISE NOTED ON PLANS.
	UNDERGROUND DATA CONDUIT		DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CEILING)		HORN
	FLUORESCENT LIGHT FIXTURE		TELEPHONE/DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CLG.)		FIRE ALARM CONTROL PANEL
	FLUORESCENT STRIP FIXTURE		PHONE/DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED		FIRE ALARM EXTENDER CABINET
	SURFACE/RECESSED LIGHT FIXTURE		WALL SPEAKER		DISCONNECT SWITCH. SIZE, NUMBER OF POLES, AND FUSING AS INDICATED ON PLANS.
	WALL-MOUNTED LIGHT FIXTURE		CEILING SPEAKER		INDICATES CONNECT TO EXISTING
	EXIT LIGHT		VOLUME CONTROL		CEILING-MOUNTED MOTION SWITCH
	BATTERY-OPERATED EMERGENCY LIGHT (WALL MTD)		INTERCOM CALL STATION		SURFACE PANELBOARD
	REMOTE EMERGENCY LIGHT (WALL MTD)		RELOCATED FIXTURE OR DEVICE EXISTING FIXTURE OR DEVICE		RECESSED PANELBOARD
	LIGHT SWITCH - SINGLE POLE		WEATHER PROOF GROUND FAULT INTERRUPT		SWITCHBOARD. FEEDER/MAIN CIRCUIT BREAKER SECTION AND DISTRIBUTION SECTION.
	WALL-MOUNTED MOTION SWITCH		EMERGENCY FIXTURE/DEVICE COORDINATE EXACT MOUNTING HEIGHT OF DEVICE		

**LIGHT FIXTURE SCHEDULE**

FIXTURE TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMP NUMBER / DESCRIPTION	VOLTAGE	REMARKS
A	WILLIAMS	WPAS SERIES	EXTERIOR WALL-MOUNTED FIXTURE. DIE-CAST ALUMINUM HOUSING. PRIMATIC BOROSILICATE LENS. INTEGRAL LED DRIVER. POWDER COAT FINISH DARK BRONZE. - COORDINATE WITH ARCHITECT/BUILDING OWNER. UL LISTED WET LOCATION. FURNISH WITH OPTIONAL PHOTOCCELL FOR ON/OFF CONTROL OF LIGHT FIXTURE AND 6-WATT EMERGENCY BATTERY.	ONE (1) LED ARRAY. 44 WATTS, 3400 LUMENS. 5000K CCT.	120	1

**REMARKS:**

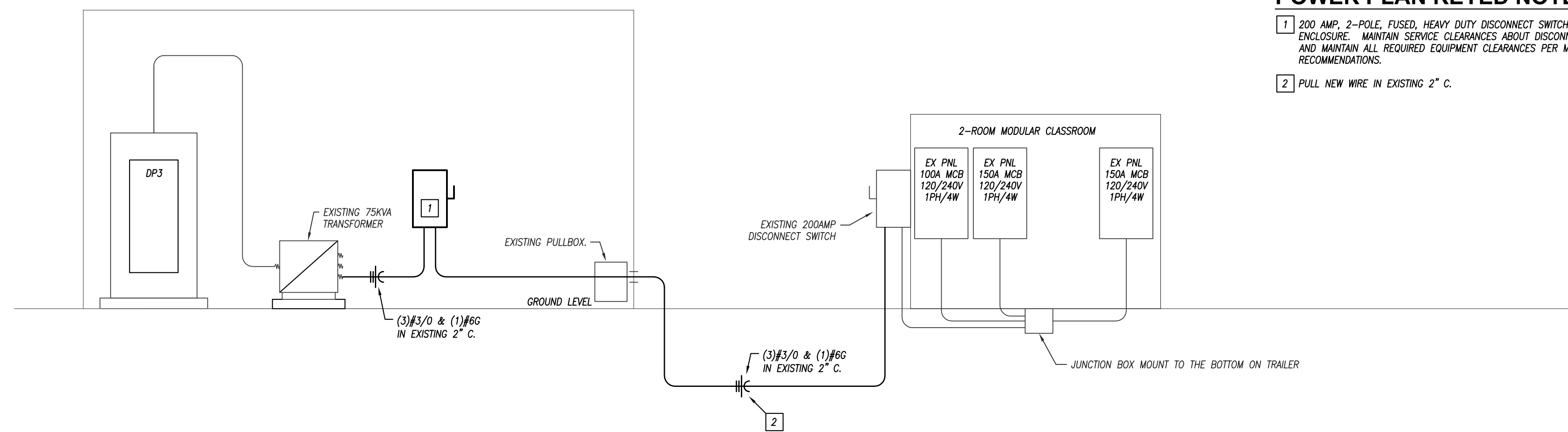
- 1. FURNISH WITH AND INSTALL ALL NECESSARY HARDWARE AND MOUNTING BRACKETS.

**GENERAL NOTES (APPLICABLE TO ALL FIXTURES):**

- 1) REFER TO SPECIFICATIONS FOR APPROVED EQUAL FIXTURE MANUFACTURERS AND ADDITIONAL FIXTURE/DRIVER/BALLAST REQUIREMENTS.
- 2) ALL FIXTURES WITH PAINTED METAL PARTS SHALL BE PAINTED AFTER FABRICATION.
- 3) LUMENS LISTED FOR LED FIXTURES ARE GENERALLY DELIVERED LUMENS UNLESS NOTED OTHERWISE.

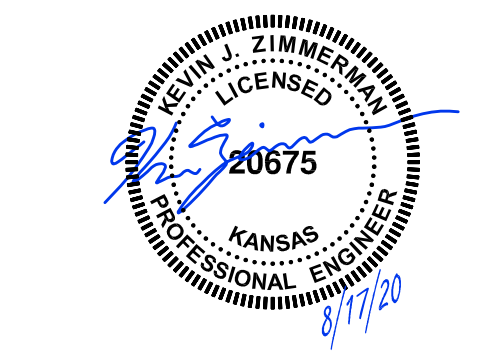
**POWER PLAN KEYED NOTES**

- 1) 200 AMP, 2-POLE, FUSED, HEAVY DUTY DISCONNECT SWITCH IN NEMA 1 ENCLOSURE. MAINTAIN SERVICE CLEARANCES ABOUT DISCONNECT PER NEC. AND MAINTAIN ALL REQUIRED EQUIPMENT CLEARANCES PER MANUFACTURER'S RECOMMENDATIONS.
- 2) PULL NEW WIRE IN EXISTING 2" C.



**PARTIAL ELECTRICAL RISER DIAGRAM**

NO SCALE



1710 Wyandotte  
Kansas City, MO 64108  
T: 816.763.9600 F: 816.763.9757

ACI/Boland, Inc.  
Kansas City | St. Louis  
Licensee's Certificate of Authority Number:  
# A-508

**CIVIL CONSULTANT**

Renaissance Infrastructure Consulting - RIC  
1815 McGee Street, Suite 200  
Kansas City, MO 64108  
Tel: 816-800-0950

**STRUCTURAL CONSULTANT**

Bob D. Campbell Engineers  
4338 Bellevue  
Kansas City, MO 64111  
Tel: 816-531-4144 Fax: 816-531-8572

**MEP CONSULTANT**

PKMR Engineers  
13300 W. 98th Street  
Lenexa, KS 66215  
Tel: 913-492-2400 Fax: 913-492-2437

Kansas City, Kansas Public Schools USD 500  
**ME Pearson Elementary Modular Classrooms**  
310 North 11th St - Kansas City, Kansas - 66102

Date	8/14/20
Number	3-20053
Drawn By	BP
Checked By	KZ

Revisions	Number	Date	Description
	1	08/17/20	Addendum #1



## MECHANICAL SPECIFICATIONS

### SECTION 15000 - MECHANICAL REQUIREMENTS GENERAL REQUIREMENTS

- A. ALL WORK SHALL BE IN ACCORDANCE W/ LATEST EDITION OF INTERNATIONAL BUILDING, MECHANICAL & PLUMBING CODES, CODES AS ADOPTED BY CITY, COUNTY, STATE & ALL OTHER APPLICABLE CODES.
- B. FURNISH & INSTALL ALL LABOR & MATERIALS REQUIRED FOR COMPLETE, FUNCTIONING, MECHANICAL & PLUMBING SYSTEMS W/ ALL ASSOCIATED EQUIPMENT & APPARATUS AS SHOWN ON PLANS. "PROVIDE" MEANS TO FURNISH & INSTALL.
- C. OBTAIN & PAY FOR ALL PERMITS REQUIRED FOR EXECUTION OF THIS WORK & SHALL MAKE ARRANGEMENTS FOR MODIFICATIONS TO WATER, GAS & SEWER CONNECTIONS TO BUILDING AS REQUIRED.
- D. ALL MATERIALS SHALL BE NEW & SHALL BARE UL LABEL WHERE APPLICABLE.
- E. VISIT SITE & OBSERVE CONDITIONS UNDER WHICH WORK WILL BE DONE. ANY DISCREPANCIES SHALL BE CALLED TO ARCHITECT'S ATTENTION. NO SUBSEQUENT ALLOWANCE WILL BE MADE IN CONTRACT FOR ANY ERROR OR NEGLIGENCE ON CONTRACTOR'S PART.
- F. FINAL ACCEPTANCE OF WORK SHALL BE SUBJECT TO CONDITION THAT ALL SYSTEMS, EQUIPMENT, APPARATUS & APPLIANCES OPERATE SATISFACTORILY AS DESIGNED & INTENDED. WORK SHALL INCLUDE REQUIRED ADJUSTMENT OF SYSTEMS & CONTROL EQUIPMENT INSTALLED UNDER THESE SPECIFICATIONS.
- G. WARRANT TO OWNER QUALITY OF MATERIALS, EQUIPMENT, WORKMANSHIP & OPERATION OF EQUIPMENT PROVIDED UNDER THESE SPECIFICATIONS FOR ONE YEAR FROM & AFTER COMPLETION OF BUILDING & ACCEPTANCE OF MECHANICAL SYSTEMS BY OWNER.

### SECTION 15100 - PLUMBING

#### PIPING

- A. WATER PIPING - ALL WATER PIPING SHALL BE 95-5 TIN-ANTIMONY JOINED TYPE L COPPER. INSULATE W/ FIBERGLASS W/ ASJ & PVC COVERS. THICKNESS IN ACCORDANCE W/ ASHRAE 90.1.
- B. WASTE & VENT PIPING - CI BELL & SPIGOT OR HUBLESS CI W/ NEOPRENE GASKET FITTINGS W/ STAINLESS STEEL BANDS. SCHED 40 PVC W/ SOLVENT WELDS MAY BE USED WHERE ALLOWED BY LOCAL CODE. PVC NOT ALLOWED IN PLENUMS.

#### VALVES

- A. EQUIVALENT VALVES LISTED ON CURRENT COMPARISON CHARTS OF SPECIFIED VALVE MANUFACTURERS BY MILWAUKEE, STOCKHAM, POWELL, RED-WHITE, CRANE, APOLLO, MUELLER, MUESSCO, WATTS, HAYS, ROCKWELL-NORSTROM.
- B. BALL VALVES - 2" & UNDER - BRONZE FULL PORT W/ TEFLOM SEATS, BRONZE BALL & INSULATED HANDLE.

#### EXECUTION

- A. PROVIDE UNIONS OR FLANGED JOINTS IN EACH PIPE LINE PRECEDING CONNECTIONS TO EQUIPMENT TO ALLOW REMOVAL FOR REPAIR OR REPLACEMENT. PROVIDE ALL SCREWED & CONTROL VALVES W/ UNIONS ADJACENT TO EACH CONNECTION. PROVIDE SCREWED END VALVES W/ UNION ADJACENT TO VALVE UNLESS VALVE CAN BE OTHERWISE EASILY REMOVED FROM LINE.
- B. AFTER PIPING IS IN PLACE TEST LINES TO INSURE NO LEAKS.
- C. ALL PIPING & EQUIPMENT SHALL BE SUPPORTED PROPERLY FROM STRUCTURE.
- D. ESCUTCHEONS - PROVIDE NICKEL-BRASS OR CHROME PLATED ON ALL EXPOSED PIPES WHEN PASSING THRU WALL OR CEILING OF FINISHED ROOMS.
- D. VERIFY FLOOR MATERIALS USED FROM ARCHITECTURAL PLANS & PROVIDE PROPER CLEANOUT TOPS, WHERE THEY OCCUR IN CARPET, QUARRY TILE, VINYL TILE OR CERAMIC TILE.
- E. PROVIDE WATER HAMMER ARRESTORS FOR ALL PLUMBING BANKS W/ FIXTURES UTILIZING FLUSH VALVES IN ANY CAPACITY. LOCATE ARRESTER BETWEEN LAST TWO FIXTURES SERVED ON BRANCH LINE.

## MECHANICAL SYMBOL LEGEND

SOME SYMBOLS AND ABBREVIATIONS ON THIS LEGEND MAY NOT BE USED

	THERMOSTAT		GAS (NATURAL)		SHUTOFF VALVE
	TEMPERATURE SENSOR		DOMESTIC COLD WATER		PIPING ELBOW UP
	INDICATES CONNECT TO EXISTING		DOMESTIC HOT WATER		PIPING ELBOW DOWN
	FLUSH WALL CLEAN OUT		WASTE ABOVE GRADE OR FLOOR		PIPING TEE
	FLUSH FLOOR CLEAN OUT		WASTE BELOW GRADE OR FLOOR		PIPING ELBOW
	FLUSH GRADE CLEAN OUT		PLUMBING VENT		CHECK VALVE
	VENT THROUGH ROOF		WATER SERVICE		REDUCED PRESSURE BACKFLOW PREVENTER
	ABOVE FINISHED FLOOR BELOW GRADE		HOSE BIBB		DOUBLE CHECK BACKFLOW PREVENTER
	ABOVE FINISHED GRADE ABOVE GRADE		WALL HYDRANT		FIRE PROTECTION PIPING
	PLUMBING FIXTURE AND CALLOUT				
	CLEAN OUT				

## PIPING MATERIAL SCHEDULE

PIPING SYSTEM	SIZE	TYPE	SCHED.	GRADE	ASTM	MATERIAL	FITTINGS		MAX NORMAL WORKING		FIELD TEST		
							MATERIAL	TYPE	PRESS	TEMP	PRESS	TIME	
Building Sewer	4"-8"	BS	SDR-26	--	D-2241	PVC	PVC	NG	--	75	10'	1/2 hr.	
Domestic Cold Water	1/2"-6"	L	--	--	B-88	CP	CP	SJ	85	40 to 55	130 lb.	1/2 hr.	
Domestic Cold Below Grade	1/2"-6"	K	--	--	B-88	CP	CP	SS	85	40 to 55	120	1/2 hr.	
Soil & Waste Above Grade	1-1/2"-6"	NH	SV	--	A-74	CI	CI	NH	--	75	10'	1/2 hr.	
Soil & Waste Above Grade	2"-4"	S	40	--	D-2665-88	PVC	PVC	SW	--	75	10'	1/2 hr.	
Soil & Waste Below Grade	2"-4"	S	40	--	D-2665-88	PVC	PVC	SW	--	75	40	10'	1/2 hr.

#### ABBREVIATIONS:

BLK - Black	ERW - Electric Resistant Weld	NG - Neoprene Gasket	S - Socket Joint	T - Threaded
BS - Bell & Spigot	F - Fusion Weld	NH - No Hub	SJ - Solder Joint 95-5 Tin-antimony	W - Welded
CI - Cast Iron	GLV - Galvanized	PVC - Polyvinyl Chloride	SL - Seamless	V - Victaulic
CP - Copper	MECH - Mechanical	PC - Rolled Grooved Pipe Coupling	SS - Silver Solder	
CS - Carbon Steel	MI - Malleable Iron	PE - Polyethylene	SV - Service Weight	
DI - Ductile Iron	MJ - Mechanical Joint	PP - Polypropylene	SW - Solvent Weld	



1710 Wyandotte  
Kansas City, MO 64108  
T: 816.763.9600 F: 816.763.9757

ACI/Boland, Inc.  
Kansas City | St. Louis  
Licensee's Certificate of Authority Number:  
# A-508

#### CIVIL CONSULTANT

Renaissance Infrastructure Consulting - RIC  
1815 McGee Street, Suite 200  
Kansas City, MO 64108  
Tel: 816-800-0950

#### STRUCTURAL CONSULTANT

Bob D. Campbell Engineers  
4338 Bellevue  
Kansas City, MO 64111  
Tele: 816-531-4144 Fax: 816-531-8572

#### MEP CONSULTANT

PKMR Engineers  
13300 W. 98th Street  
Lenexa, KS 66215  
Tele: 913-492-2400 Fax: 913-492-2437

Kansas City, Kansas Public Schools USD 500  
**ME Pearson Elementary  
Modular Classrooms**  
310 North 11th St - Kansas City, Kansas - 66102

Date	8/14/20
Job Number	3-20053
Drawn By	BP
Checked By	KZ

Revisions	Number	Date	Description
	1	08/17/20	Addendum #1



PEARSON KENT MCKINLEY RAFF ENGINEERS LLC  
13300 W 98TH STREET  
LENEXA, KS 66215  
913.492.2400  
WWW.PKMRENGINEERS.COM



© 2020 ACI Boland Architects

Schedules/Details - Mechanical