

Addendum No. 3
March 8, 2021

Project: Beadle County Highway Maintenance Building
Huron, SD
2832

Architect: Architecture Incorporated

Letting: March 11, 2021
2:00 PM
Beadle County Auditor
450 3rd Street SW, Suite 201
Huron, South Dakota, 57350

Scope of this Addendum:

To all bidders and all others to whom drawings and specifications have been issued by Architecture Incorporated, this Addendum forms a part of the Contract Documents. Acknowledge receipt of this addendum by listing its number and date in the bidder's Form of Proposal. Failure to do so may subject bidder to disqualification. This addendum modifies the drawings and specifications as follows:

MECHANICAL ITEMS:

1) SPECIFICATION SECTION 230713 - Duct Insulation

- a. Add paragraph 3.3.G "Supply Ductwork from ERV into space", with subparagraph 1 to read "Glass fiber duct insulation: 1" thick"
- b. Add paragraph 3.3H Exhaust ductwork from space to ERV, with subparagraph 1 to read "Glass fiber duct insulation: 1" thick"

2) DRAWING SHEET 8.50

- a. See attached Revised Drawing Sheet 8.50 with revised Electric Heat Schedule.

ELECTRICAL ITEMS:

3) DRAWING SHEET 9.20 – POWER & COMMUNICATIONS PLAN

- a. See attached Revised Drawing Sheet 9.20 for information regarding overhead door switchbank location.

4) DRAWING SHEET 9.40 – ELECTRICAL DETAILS AND SCHEDULES

- a. See attached Revised Drawing Sheet 9.40 for changes to Electrical One-Line Diagrams.

5) DRAWING SHEET 9.50 – ELECTRICAL SCHEDULES

- a. See attached Revised Drawing Sheet 9.50 for electrical modifications.

MECHANICAL / ELECTRICAL APPROVALS:

The following material or equipment furnished by the manufacturers listed, may be substituted as equivalent providing that each item, material, and piece of equipment conforms to the design and requirement of the specifications.

<u>SECTION</u>	<u>ITEM</u>	<u>MANUFACTURER</u>
235234	Copper Tube Boilers	Thermal Solutions

END OF ADDENDUM

AIR TO AIR HEAT RECOVERY SCHEDULE																														
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	TYPE	PRIMARY AIR										EXHAUST AIR				HEATING						VIBRATION ISOLATION	ELECTRICAL			COMMENTS	
					CFM	E.S.P.	SUMMER (IN)		WINTER (IN)		SUMMER (OUT)		WINTER (OUT)		CFM	E.S.P.	SUMMER (IN)		WINTER (IN)		FUEL	INPUT	OUTPUT	EAT		LAT	VOLTAGE	PHASES		MCA
ERV	1	BOUSQUET	SBA-20-20	PLATE	15,700	1.00 in-wg	90 °F	75 °F	-20 °F	-20 °F	90 °F	75 °F	61 °F	48 °F	15,700	1.00 in-wg	90 °F	75 °F	70 °F	53 °F	NAT GAS	300000 Btu/h	240000 Btu/h	61 °F	76 °F	YES	208	3	78 A	1-9

- COMMENTS:
- PROVIDE MOTORIZED INTAKE AND EXHAUST DAMPER.
 - PROVIDE 2" PLEATED EXHAUST AIR FILTER AND PRIMARY AIR FILTER.
 - PROVIDE WITH 120V CONVENIENCE OUTLET AND MARINE LIGHTS.
 - PROVIDE SINGLE POINT POWER CONNECTION.
 - PROVIDE WITH BASE RAIL.
 - PROVIDE WITH STAND ALONE MANUFACTURERS CONTROLLER.
 - PROVIDE WITH 2-6HP SUPPLY FANS AND 2-5.5 HP EXHAUST FANS
 - UNIT TO NOT REQUIRE DEFROST MODE.
 - PROVIDE UNIT WITH MANUFACTURERS WIRED DISCONNECT.

FURNACE SCHEDULE																					
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	SERVES	CFM	OA	E.S.P.	FUEL	HP	HEATING		COOLING COIL				CONFIGURATION	ELECTRICAL			COMMENTS	
										INPUT	OUTPUT	BTUH	EAT WB	EAT DB	LAT WB		LAT DB	VOLTAGE	PHASES		MCA
F	1	YORK	TM9Y080C16MP11	OFFICE	1200	150	0.80 in-wg	NG	0.5	80000	77000	36900	64 °F	78 °F	56 °F	53 °F	HORIZONTAL	120	1	9 A	1.2,4,5,6,7,8
F	2	YORK	TM9Y100C20MP11	TRAINING/LOCKER	1600	400	0.90 in-wg	NG	0.75	100000	96000	54200	66 °F	80 °F	56 °F	54 °F	HORIZONTAL	120	1	11 A	1.3,4,5,6,7,8

- COMMENTS:
- PROVIDE 2"X20"X20" PLEATED FILTER WITH ANGLE FRAME IN RETURN AIR DUCTWORK.
 - PROVIDE WITH YORK CM48CBA1 COOLING COIL.
 - PROVIDE WITH YORK CM48DXA1 COOLING COIL.
 - PIPE FURNACE CONDENSATE DRAIN TO FLOOR DRAIN.
 - PROVIDE MATCHING CONDENSING UNIT, SEE CONDENSING UNIT SCHEDULE.
 - PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT.
 - PROVIDE MANUFACTURERS RECOMMENDED INTAKE AND VENT.
 - UNIT TO HAVE TWO STAGES OF HEAT

CONDENSING UNIT SCHEDULE																
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	SERVES	CAPACITY BTUH	AMBIENT TEMP	COIL EAT		REF TYPE	SUCTION TEMPERATURE	SCCR	ELECTRICAL				COMMENTS
							DB	WB				V	PH	MCA	SEER	
CU	1	YORK	TF4B4221S	F-1	36900	95 °F	80 °F	67 °F	R-410A	45 °F	5K	208	1	22 A	14.75	1-6
CU	2	YORK	TW4B6021S	F-2	54200	95 °F	80 °F	67 °F	R-410A	45 °F	5K	208	1	32 A	14	1-6

- COMMENTS:
- PROVIDE 6" THICK CONCRETE PAD MINIMUM OF 6" LARGER THAN UNIT IN ALL DIRECTIONS.
 - W/HAIL GUARD.
 - PROVIDE 5 YR COMPRESSOR WARRANTY.
 - LOW AMBIENT CONTROL AND HEAD PRESSURE CONTROL.
 - SUCTION TEMP OF 45 DEG. F.
 - PROVIDE 7-DAY PROGRAMMABLE THERMOSTAT.

UNIT HEATER SCHEDULE												
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	CFM	HEATING		ELECTRICAL				COMMENTS
						BTU/H INPUT	BTU/H OUTPUT	HP	VOLTAGE	PHASES	MCA	
UH	1	STERLING	GG030	PARTS 1118	370	30000	24900	0.05 hp	120	1	4 A	1,2,5
UH	2	STERLING	GG075	SHOP 119	920	75000	61500	0.08 hp	120	1	5 A	1,2,5
UH	3	STERLING	GF150	FABRICATION 120	2400	150000	124500	0.25 hp	120	1	9 A	1,3,4
UH	4	STERLING	GG075	SHOP 119	920	75000	61500	0.08 hp	120	1	5 A	1,2,5
UH	5	STERLING	GF250	WASH BAY 121	3450	250000	207500	0.34 hp	120	1	10 A	1,3,4
UH	6	STERLING	GG045	SIGNS 122	550	45000	37350	0.05 hp	120	1	4 A	1,2,5
UH	7	STERLING	GG045	WEED SHOP 123	550	45000	37350	0.05 hp	120	1	4 A	1,2,5
UH	8	STERLING	GF250	WASH BAY 121	3450	250000	207500	0.34 hp	120	1	10 A	1,3,4
UH	9	STERLING	GG075	SHOP 119	920	75000	61500	0.08 hp	120	1	5 A	1,2,5
UH	10	STERLING	GG075	SHOP 119	920	75000	61500	0.08 hp	120	1	5 A	1,2,5

- COMMENTS:
- PROVIDE WITH DIGITAL HEATING ONLY THERMOSTAT
 - PROVIDE WITH COMPLETE MANUFACTURERS RECOMMENDED VENTING AND INTAKE KIT AND CONCENTRIC KIT.
 - PROVIDE WITH COMPLETE MANUFACTURERS RECOMMENDED VENTING SYSTEM
 - PROVIDE WITH STAINLESS STEEL CASING, 408 STAINLESS STEEL BURNER, TOTALLY ENCLOSED MOTOR, AND TWO STAGE GAS CONTROL AND STAINLESS STEEL MOUNTING KIT.
 - PROVIDE WITH MANUFACTURES WALL MOUNTING KIT.

ROOF INTAKE & RELIEF VENTILATOR SCHEDULE											
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	SERVES	CFM	S.P.	THROAT SIZE		VELOCITY	FREE AREA
								WIDTH	LENGTH		
IH	1	ACME	TIV	MEZZANINE 201	INTAKE	15,700	0.09 in-wg	4' - 6"	4' - 6"	775	20.3 SF
IH	2	ACME	TEV	MEZZANINE 201	EXHAUST	15,700	0.09 in-wg	4' - 6"	4' - 6"	775	20.3 SF
IH	3	ACME	TIV	WASH BAY 121	INTAKE	4,000	0.11 in-wg	2' - 0"	2' - 0"	1000	4.0 SF
IH	4	ACME	TIV	MEZZANINE 201	INTAKE	550	0.03 in-wg	1' - 0"	1' - 0"	550	1.0 SF
IH	5	ACME	TIV	FABRICATION 120	INTAKE	1,180	0.03 in-wg	2' - 0"	2' - 0"	295	4.0 SF

- COMMENTS:
- PROVIDE ROOF CURB.
 - PROVIDE MOTORIZED DAMPERS

FAN SCHEDULE													
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	SERVICE	VIBRATION ISOLATION	CFM	S.P.D.	SONES	ELECTRICAL			COMMENTS
										HP	VOLTAGE	PHASES	
EF	1	PENNBARRY	ZQ80GPE-4	CUST 117	EXHAUST	YES	75	0.38 in-wg	0.2	0.03	120	1	1,2,4,6,7
EF	2	PENNBARRY	SX115SCGP	ELEC 116	EXHAUST	YES	400	0.50 in-wg	3	0.33	120	1	1,2,3,4,7
EF	3	PENNBARRY	ZQ80GPE-4	MEN 105	EXHAUST	YES	75	0.38 in-wg	0.2	0.03	120	1	1,2,4,6,7
EF	4	PENNBARRY	ZQ80GPE-4	WOMENS 106	EXHAUST	YES	75	0.38 in-wg	0.2	0.03	120	1	1,2,4,6,7
EF	5	PENNBARRY	SX229BC	WASH BAY 121	EXHAUST	YES	4000	0.50 in-wg	9	1	120	1	1,2,3,4,5,8
EF	6	PENNBARRY	SX115QICGP	FABRICATION 120	EXHAUST	YES	1180	0.50 in-wg	7	0.5	120	1	1,2,3,4,8

- COMMENTS:
- PROVIDE WITH STANDARD PREWIRED DISCONNECT.
 - PROVIDE WITH THERMAL OVERLOAD.
 - PROVIDE WITH MOTORIZED DAMPER.
 - PROVIDE WITH RUBBER ISOLATORS.
 - PROVIDE WITH ALUMINUM HOUSING
 - PROVIDE WITH PLASTIC GRILLE.
 - PROVIDE WITH WALL CAP
 - PROVIDE WITH WEATHER HOOD

REGISTER GRILLES AND DIFFUSER SCHEDULE															
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	NOMINAL SIZE			THROAT SIZE			MAX CFM	THROW	S.P.D.	NC	FRAME	COMMENTS
				WIDTH	LENGTH	DIA.	WIDTH	LENGTH	DIA.						
S	1	PRICE	PRICE	24"	24"	6"	20"	20"	6"	150	7	0.07 in-wg	15	LAY-IN	2
S	2	PRICE	PRICE	24"	24"	8"	20"	20"	8"	270	9	0.07 in-wg	19	LAY-IN	2
S	3	PRICE	HCDZ	32"	12"		30"	10"		1150	92	0.08 in-wg	26	SURFACE	2
S	4	PRICE	510	8"	8"		6"	6"		150	21	0.09 in-wg	20	SURFACE	1,2
S	5	PRICE	520	8"	16"		6"	14"		320	28	0.09 in-wg	20	SURFACE	1,2
R	1	PRICE	80	24"	12"		22"	10"		600	N/A	0.04 in-wg	17	SURFACE	
R	2	PRICE	510Z	16"	10"		14"	8"		415	N/A	0.05 in-wg	23	SURFACE	2
E	1	PRICE	80	12"	12"		10"	10"	0"	480	N/A	0.09 in-wg	19	SURFACE	2
E	2	PRICE	610Z	38"	8"		36"	6"		650	N/A	0.04 in-wg	25	SURFACE	2

- COMMENTS:
- THROW AT 22 DEGREES
 - OPPOSED BLADE DAMPER.

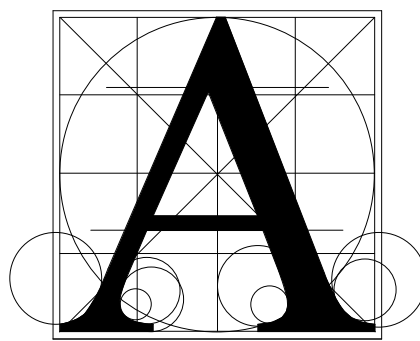
DUCTLESS SPLIT HEAT PUMP SCHEDULE													
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	ELECTRIC			BTUH	SEER	COOLING		EAT		HEATING AT 47 DEGREES
				VOLTAGE	PHASES	MCA			AMB	WB	DB	WB	
AC	1	MITSUBISHI	MSZ-FH12NA	208	1	17 A	12000	13	95 °F	80 °F	67 °F		13600

- COMMENTS:
- PROVIDE WITH MUZ-FH12NA OUTDOOR UNIT
 - PROVIDE REMOTE THERMOSTAT WITH WALL MOUNT.
 - PIPE CONDENSATE TO DRAIN.
 - PROVIDE WITH INTEGRAL CONDENSATE PUMP
 - OUTDOOR PORTION TO BE MOUNTED ON MEZZANINE

ELECTRIC HEAT SCHEDULE									
UNIT TYPE	UNIT NUMBER	MANUFACTURER	MODEL	LOCATION	MOUNT TYPE	ELECTRICAL DATA			COMMENTS
						KW	VOLT	PHASE	
EH	1	BERKO	FFCH548	VEST 101	CEILING	2	208 V	3	1,2,3,4
EH	2	BERKO	CF758	OPEN OFFICE 102	CEILING	0.75	208 V	1	5,6
EH	3	BERKO	SRA2024DSF	WOMEN 106	WALL	0.75	208 V	1	4,7,8
EH	4	BERKO	SRA2024DSF	MEN 105	WALL	0.75	208 V	1	4,7,8
EH	5	BERKO	SRA2024DSF	VEST 112	WALL	1.5	208 V	1	4,7,8
EH	6	BERKO	SRA2024DSF	SHOWER 113	WALL	0.75	208 V	1	4,7,8
EH	7	BERKO	SRA2024DSF	MEN 114	WALL	0.75	208 V	1	4,7,8
EH	8	BERKO	SRA2024DSF	WOMEN 115	WALL	0.75	208 V	1	4,7,8

- COMMENTS:
- PROVIDE WITH INTEGRAL THERMOSTAT.
 - UNIT TO FIT IN LAY IN CEILING
 - PROVIDE UNIT WITH BERKO MODEL FFCHRE RECESSED MOUNTING ENCLOSURE
 - PROVIDE UNIT WITH INTEGRAL ELECTRIC DISCONNECT
 - UNIT TO BE RADIANT PANEL ONLY, NO FAN INCLUDED
 - PROVIDE WITH WALL MOUNTED THERMOSTAT
 - PROVIDE WITH INTEGRAL THERMOSTAT AND MOUNTING FRAME
 - HEATER TO FIT INTO A STANDARD 4" WALL

WPE#: BS19085



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Project: BEADLE COUNTY HIGHWAY MAINTENANCE

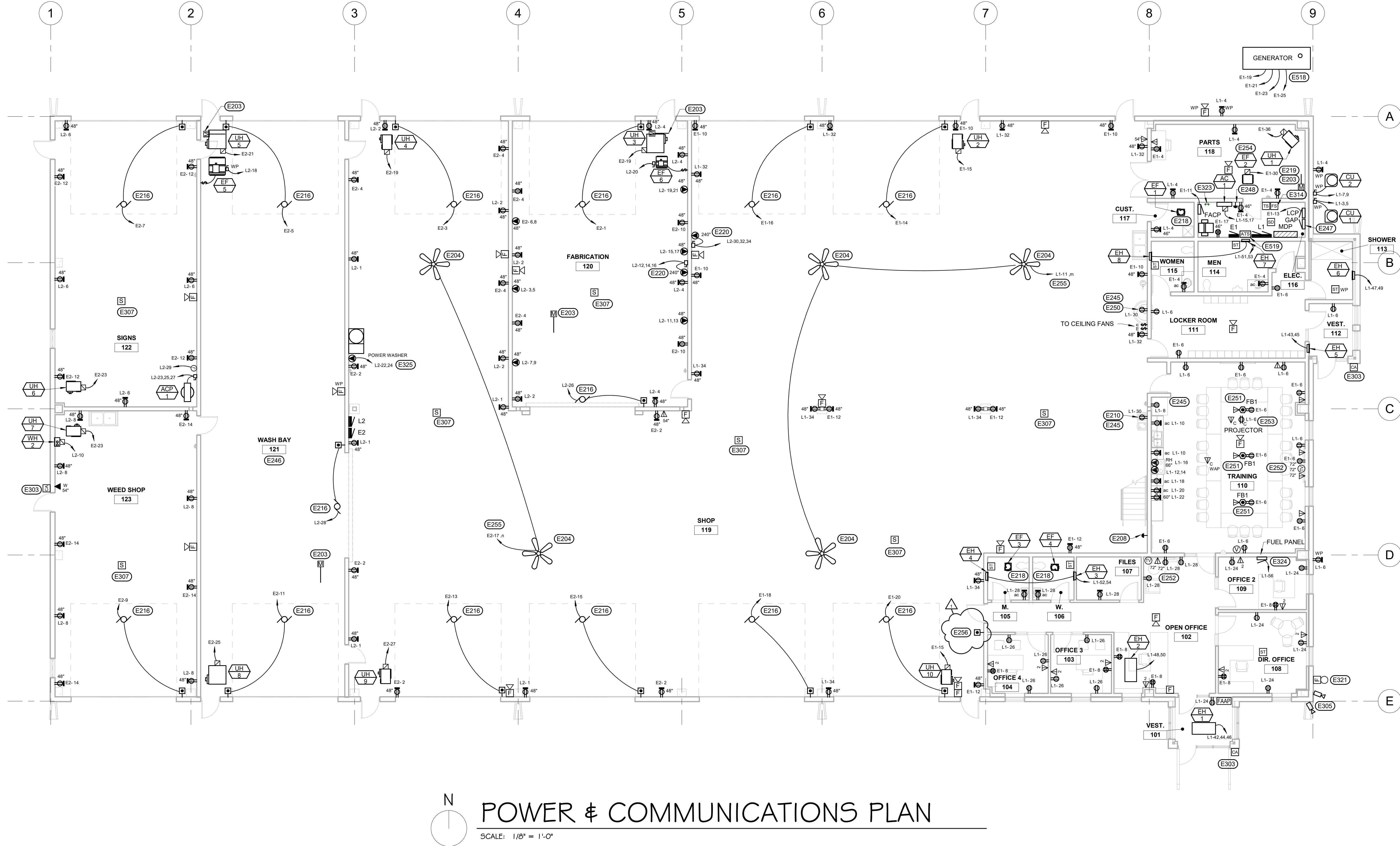
Building: BUILDING

Sheet Contents: MECHANICAL SCHEDULES

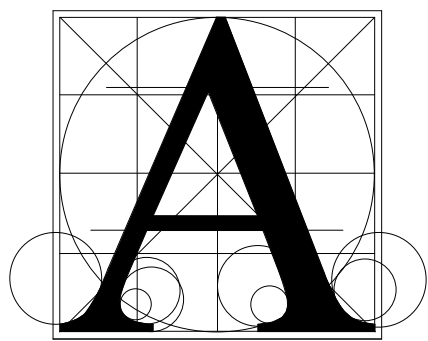
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1 03/08/21 Addendum #2

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- ELECTRICAL SPECIFIC NOTES**
- E203 INTERLOCK MOTORIZED DAMPER TO ASSOCIATED EQUIPMENT. DAMPER SHALL OPEN WHEN EQUIPMENT IS ON AND CLOSE WHEN EQUIPMENT IS OFF.
- E204 PROVIDE LEADING EDGE INDUSTRIAL 80" CEILING FAN, MODEL #60001 OR EQUIVALENT. MOUNT CEILING FAN TO THE BOTTOM OF JOIST. COORDINATE WITH ALL TRADES & EQUIPMENT PRIOR TO INSTALL.
- E208 PROVIDE AN EMERGENCY SHUTDOWN PUSHBUTTON SWITCH WITH (RED) MUSHROOM HEAD AND INTERLOCK WITH THE BOILER(S). PROVIDE WITH A CLEAR FLIP-UP COVER AND LABEL "EMERGENCY BOILER SHUT DOWN".
- E210 MOUNT RECEPTACLE IN WATER COOLER HOUSING. COORDINATE WITH MECHANICAL CONTRACTOR.
- E216 AUTOMATIC OVERHEAD DOOR PUSHBUTTON STATIONS AND OPERATORS. EQUIPMENT PROVIDED AND INSTALLED BY GC. CONNECTED/POWERED BY EC. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND COORDINATE EXACT REQUIREMENTS WITH ARCHITECTURAL SPECIFICATIONS/SHOP DRAWINGS. PROVIDE NECESSARY CONTROL WIRING FOR SAFETY FEATURES. COORDINATE EXACT LOCATIONS WITH OWNER AND OTHER TRADES TO MAKE ALL SERVICES FIT IN THIS AREA. TYPICAL.
- E218 EXHAUST FAN TO BE INTERLOCKED WITH LIGHTING CIRCUIT IN THAT ROOM.
- E219 CIRCUIT TO NEAREST 120V (NON-SWITCHED) CIRCUIT. FIELD VERIFY LOADS AND BALANCING. PROVIDE SURFACE MOUNTED RACEWAY FOR BRANCH CIRCUITS.
- E220 CRANE HOIST FURNISHED AND INSTALLED BY OTHERS. PROVIDE SAFETY SWITCH AND INTERLOCK WITH ON/OFF PUSHBUTTON. PUSHBUTTON IS FURNISHED BY SUPPLIER, INSTALLED AND WIRED BY EC. COORDINATE ELECTRICAL REQUIREMENTS WITH CRANE SUPPLIER PRIOR TO ROUGH-IN.
- E245 ALL GFCI RECEPTACLES MUST COMPLY WITH CODE REQUIREMENT FOR A READILY ACCESSIBLE RESET BUTTON. CONTRACTOR HAS THE OPTION TO PROVIDE AND INSTALL A DEADFRONT GFCI TEST/RESET DEVICE LOCATED IN A READILY ACCESSIBLE LOCATION WHERE REQUIRED OR PROVIDE A GFCI BREAKER IN ASSOCIATED PANEL SERVING RECEPTACLE. VERIFY WITH LOCAL AHJ INTERPRETATION FOR READILY ACCESSIBLE WHERE IN QUESTION. TYPICAL OF ALL.
- E246 ALL ELECTRICAL DEVICES, EQUIPMENT, AND WIRING SHALL BE RATED FOR WASH DOWN.
- E247 GENERATOR REMOTE ANNUNCIATOR PANEL.
- E248 PROVIDE AN EMERGENCY SHUT-DOWN PUSH BUTTON AND INTERLOCK WITH THE GENERATOR CONTROLS. PROVIDE A FLIP-UP CLEAR COVER AND LABEL "GENERATOR EMERGENCY SHUT DOWN".
- E250 MOUNT RECEPTACLE IN HAND WASH FOUNTAIN. COORDINATE WITH MECHANICAL CONTRACTOR.
- E251 COORDINATE LOCATION OF FLOOR BOX WITH OWNER PRIOR TO ROUGH-IN. SEE FLOOR BOX SCHEDULE FOR DETAILS. FLOOR BOX CONTAINS BOTH POWER AND COMMUNICATIONS.
- E252 COORDINATE MONITOR LOCATION WITH OWNER AND ARCHITECT PRIOR TO ROUGH-IN.
- E253 OVERHEAD PROJECTOR COORDINATE LOCATION OF PROJECTOR PRIOR TO ROUGH-IN.
- E254 EXHAUST FAN SHALL BE CONTROLLED LIGHTING IN LOCKER ROOM 111, SHOWER 113, MEN 114, AND WOMEN 115. SUCH THAT IF THE LIGHT IS TURNED ON IN EITHER ROOM, THE EXHAUST FAN IS ON. PROVIDE NECESSARY RELAYS FOR THE SWITCHES TO CONTROL THE EXHAUST FAN. COORDINATE WIRING REQUIREMENTS AND LOCATION WITH MECHANICAL CONTRACTOR. EXHAUST FAN SHALL BE POWERED THRU LIGHTING CIRCUIT.
- E255 CEILING FANS TO BE CONTROLLED THROUGH LIGHTING CONTROL SYSTEM. SEE SCHEMATIC LIGHTING CONTROL DIAGRAM.
- E256 OVERHEAD DOOR SWITCHBANK LOCATION. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN. LOW VOLTAGE WIRING TO EXTEND FROM EACH OVERHEAD DOOR TO THIS LOCATION.
- E303 CARD ACCESS TO BE FURNISHED BY OWNER. CONTRACTOR TO PROVIDE 1 INCH CONDUIT WITH FULL STRING FROM FUTURE CAMERA LOCATION TO FUTURE SECURITY SYSTEM HEADEND. PROVIDE BLANK PLATE ON J-BOX.
- E305 CAMERA TO BE FURNISHED BY OWNER. CONTRACTOR TO PROVIDE 1 INCH CONDUIT WITH FULL STRING FROM FUTURE CAMERA LOCATION TO FUTURE SECURITY SYSTEM HEADEND. PROVIDE BLANK PLATE ON J-BOX.
- E307 ROUTE 1 INCH CONDUIT TO SPEAKERS FOR TWO WAY RADIO BACK TO OFFICE 104. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO INSTALL. CABLING BY CONTRACTOR. SPEAKERS BY OWNER.
- E314 COORDINATE EXACT QUANTITIES OF FLOW SWITCHES, TAMPER SWITCHES AND CONTROL VALVES WITH SPRINKLER CONTRACTOR. PROVIDE NECESSARY DEVICES TO CONNECT TO FIRE ALARM SYSTEM. IF REQUIRED, UTILIZE A SPARE 20A/1P BREAKER FROM NEAREST PANEL TO FEED ALL 120V CONTROL VALVES. SYSTEM SHALL INCLUDE (5) FIVE TAMPER SWITCHES, (2) TWO FLOW SWITCHES, AND (1) ONE LOW PRESSURE ALARM.
- E321 COORDINATE EXACT LOCATION FOR EXTERIOR WEATHERPROOF FIRE ALARM HORN/STROBE WITH FIRE SPRINKLER INSTALLER SUCH THAT HORN/STROBE IS LOCATED ABOVE FIRE DEPARTMENT CONNECTION. HORN/STROBE SHALL INITIATE WHEN WATER FLOW IS DETECTED IN THE SPRINKLER SYSTEM.
- E323 COORDINATE RACEWAY STUB-UPS FOR COMMUNICATIONS UTILITY CONDUITS.
- E324 FUEL CONTROL PANEL PROVIDE BY OTHERS. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- E325 PROVIDE AN ELECTRICAL CONNECTION TO AN OWNER FURNISHED CONTRACTOR INSTALLED PRESSURE WASHER. COORDINATE PLUG/CONNECTION TYPE WITH OWNER PRIOR TO ROUGH IN.
- E518 PROVIDE AND INSTALL A NEW 125KW/158KVA, 208-VOLT, 3-PHASE, 4-WIRE NATURAL GAS GENERATOR WITH A WEATHERPROOF SOUND-ATTENUATED ENCLOSURE. PROVIDE WITH A 400-AMP MAIN CIRCUIT BREAKER PLUS AN ADDITIONAL 400-AMP CIRCUIT BREAKER FOR LOAD BANK TESTING. PROVIDE WITH BATTERY CHARGER, ENGINE BLOCK/JACKET HEATER, INTERNAL MOTORIZED LOUVERS, AND ENCLOSURE HEATER AS DESCRIBED IN THE SPECIFICATIONS, AS WELL AS BRANCH CIRCUITS FROM THE BUILDING TO POWER THESE ACCESSORIES. AS AN OPTION THE CONTRACTOR AND GENERATOR SUPPLIER MAY PROVIDE A LOAD CENTER INTEGRAL TO THE GENERATOR WITH BRANCH CIRCUITS FOR GENERATOR ACCESSORIES AND MAY BRING A FEEDER FROM THE BUILDING EMERGENCY PANEL TO SERVE THE LOAD CENTER. PROVIDE GENERATOR START SIGNAL AS REQUIRED.
- E519 PROVIDE A NEW AUTOMATIC TRANSFER SWITCH 400-AMP, 3-POLE, 4-WIRE, FULLY RATED, 208-VOLT AC, 3-PHASE, 4-WIRE IN A NEMA 1 ENCLOSURE. PROVIDE START SIGNAL RACEWAY AND CONDUCTORS FROM GENERATOR TO ATS.



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Project: BEADLE COUNTY HIGHWAY MAINTENANCE

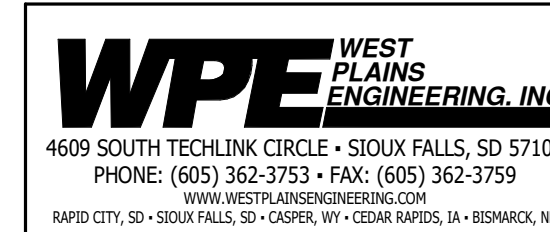
Building

POWER & COMMUNICATIONS PLAN

number	2832
date	02/19/21
revision	
drawn	TB
checked	JK

NO.	DATE	DESCRIPTION
1	03/08/21	Addendum #2

WPE #: BS19085



9.20

ELECTRICAL ABBREVIATIONS

A STANDARD LIST. NOT ALL WORDS APPEAR IN THIS DRAWING.

SEE SPECIFICATION SECTION REGARDING WRITING FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

A or AMP	AMPERE	LA	LIGHTNING ARRESTOR
AC	AIR CONDITIONING	LT	LIGHT
AE or AE	ARCHITECT & ENGINEER	LTG	LIGHTING
ACU	AUTO COUNT	LTS	LIGHTS
AL	ALTERNATING CURRENT		
ADA	AMERICANS WITH DISABILITIES ACT	MC	MECHANICAL CONTROLLER
AD	ARREST FUSE/LOAD	MCB	MAIN CIRCUIT BREAKER
AF	ARREST FUSION GRADE	MCC	MAIN CONTROL CENTER
AF or AFICI	ARREST FUSE INTERRUPTER	MCN	THOUSAND CIRCULAR MILS
AHJ	AUTHORITY HAVING JURISDICTION	MCP	MAIN DISTRIBUTION PANEL
AIC	AIR HANDLING UNIT	MCH	MEDICINE
AI	AMPERES INTERRUPTING CURRENT	MIS	MAIN ISUBLE ONLY
AL	ALUMINUM	ML	METAL HALO
ANN	ANNUNCIATOR	MLC	MAIN LUG ONLY
AS	AUTOMATIC SENSORS	MSB	MAIN SWITCHBOARD
AWG	AMERICAN WIRE GAUGE	MTD	MOTOR DRIVE
		MTS	MOTOR THERMAL SWITCH
		MW	MERCURY WATT
		MCWAVE	MICROWAVE
BC	BELLY COUNTER	NA or N/A	NOT APPLICABLE
BL	BLEACHER HOOK OPER	NC	NORMALLY CLOSED
BL	BLEACHER	NEC	NATIONAL ELECTRICAL CODE
BL	BLEACHER ELECTRIC OPERATOR	NEUA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
BRD or BD	BOARD		
BUR	BURST UNIT HEATER	NEUT	NEUTRAL
		NF	NOT FUSED
C or COND	CONDUIT	NL	NIGHT LIGHT
C or CB	CIRCUIT BREAKER	NGN	NIGHTLY OPEN
CAT	CATEGORY	OFF, OF, or OFC	OFFICE
CCT or CXT	CIRCUIT	OHD	OVERHEAD
CM	CARBON MONOXIDE SENSOR		
CM	CARBON MONOXIDE		
COMB	COMBINATION		
CONF	CONFERENCE		
CP	CEILING PROJECTOR		
CPC	CABLE TERMINATION PANEL		
CU or CUJ	COPPER		
CUH	CABINET UNIT HEATER		
DC	DIRECT CURRENT	P	POLE
DC	DISTRIBUTION PANEL	PA	PUBLIC ADDRESS
DD	DRY DISTRIBUTION PANEL	PB	PUSH BUTTON
DN	DOWN	PH	PHASE
DSP	DISPOSAL	PLB	PLUMBING
DP	DOCK LEVELER	PN	PERMITS
DN or DWN	DOWN	PR or pr	PAR
DR	DOOR	PRV	POWER ROOF VENTILATOR
DW	DRAINWASH	PS	PULL SWITCH
DWG	DRAWING	PS	PULL SWITCH
		PTZ	PROJECTOR SCREEN
		PVC	PAN TILT ZOOM
		PVC	POLY VINYL CHLORIDE
		POWER	POWER
		RCP	REFLECTED CEILING PLAN
EC	ELECTRICAL CONTRACTOR	REP or RECEIPT	REPAIR RECEIPT
EC	ELECTRICAL CABINET	REF or REFERR	REFRIGERATOR
EH	EXHAUST FAN	RH	RAVANT HEAT
EH	ELECTRICAL HEAT	RH	RAVANT HOOD
EL	ELECTRICAL OR ELECTRICAL	RMS	RELAY
EL	ELECTRIC HAND DRYER	ROOM	ROOM
EM or EMERG	EMERGENCY	RLY	ROOM SQUARE
EMT	ELECTRICAL METALLIC TUBING		
EMT	ELECTRICAL NONMETALLIC TUBING	SCC	SHORT CIRCUIT CURRENT
EUH	ELECTRIC HEAT	SD	SMOKE DETECTOR
EW	ELECTRIC WATER COOLER	SFT	SAFETY RECEPTACLE
EX	EXISTING	SFTY	SAFETY
EXP	EXPLOSION PROOF	SHL	SHIELD ON SHIELDED
		SIGNAL	SIGNAL
F or FUS	FUSE OR FUSE	SMR	SURFACE MOUNT RACEWAY
F	FIRE ALARM	SN	SNAP
FAFP	FIRE ALARM ANNUNCIATOR PANEL	SP	SPEAKERS
FAC	FIRE ALARM CONTROL PANEL	SPR	SPEAKER
FBO	FURNISHED BY OTHERS	SPT	SPLIT
FL or FLU or FLUR	FLOODESCENT	SWR	SWITCH RECEPTACLE
F	FULL LOAD AMPERES	SW	SWITCH
FV	FULL VOLTAGE, NON-REVERSING	SWD	SWITCHBOARD
FVR	FULL VOLTAGE, REVERSING		
GC	GENERAL CONTRACTOR		
GD	GARAGE DISPOSAL		
GEN	GENERATOR		
GFI or GFCI	GROUND FAULT CIRCUIT INTERRUPTER	TC	TEMPERATURE CONTROL
GR	GALVANIZED RIBBED CONDUIT	TEL	TELEPHONE
GR or GRND	GROUND	TEL	TELEPHONE TERMINATION BOARD
		TV	TELEVISION
H-AC	HEATING & AIR CONDITIONING	TVS	TRANSIENT VOLTAGE SURGE SUPPRESSION
HA	HEATING & VENTILATING		
HA	HANDICAP ACCESS DOOR	U	UNDERGROUND
HA	HAND DRYER	UH	UNIT HEATER
HA	HIGH INTENSITY DISCHARGE	UV	UNIT VENTILATOR
HP	HORSE POWER		
HPS	HIGH PRESSURE SODIUM		
HT	HEATING	V	VOLT
HT	HEATER	VFD	VARIABLE FREQUENCY DRIVE
HVAC	HEATING, VENTILATION & AIR CONDITIONING		
	HERTZ (CYCLES/SEC)	W	WATT
		WI	WITHOUT
I	INTERESTING CURRENT	WTR	WEATHERPROOF
IGR	ISOLATED GROUND RECEPTACLE	WTR or H2O	WATER
I	INTERMEDIATE METAL CONDUIT	WS	WINDOW SHADE
INC	INCANDESCENT		
ISO	ISOLATED OR ISOLATION	XMR	XYMETER
J, JB or J-BOX	JUNCTION BOX		
		WYE	WYE CONNECTION
KCMIL	THOUSAND CIRCULAR MILS		
KV	KILOVOLT	Ø	Ø PHASE
KVA	KILOVOLT - AMPERE	Δ	Δ DELTA
KVAR	KILOVOLT-AMPERE REACTIVE		
KW	KILOWATT		
KWH	KILOWATT - HOUR		

ELECTRICAL SYMBOLS

THESE SYMBOLS COMPRISE A STANDARD LIST: NOT ALL SYMBOLS MAY APPEAR ON THIS PROJECT.

ALL MOUNTING HEIGHTS ARE TO CENTER OF DEVICE ABOVE FINISHED FLOOR. MOUNTING HEIGHTS INDICATED ON ARCH. WALL ELEVATIONS ORAS NOTED SPECIFICALLY ON THE DRAWINGS OR IN THE SPECIFICATIONS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS LISTED BELOW.

LIGHTING			
			OCCUPANCY
			SINGLE POLE SWITCH (40°)
			DOUBLE POLE SWITCH (40°)
			THREE-WAY SWITCH (40°)
			FOUR-WAY SWITCH (40°)
			SWITCH WITH PILOT (40°)
			KEY OPERATED SWITCH (40°)
			MOMENTARY CONTACT SWITCH (40°)
			DIMMER SWITCH (40°)
			TIMER SWITCH (40°)
			VARIABLE SPEED SWITCH
			FUSED
POWER			
			REMOTE HVAC SENSOR
			RADIANT HEAT PANEL
			BASEBOARD OR CONV. ELEC. HEAT
			ELECTRIC UNIT HEATER
			ELECTRIC CABINET UNIT HEATER
			MOTORIZED DAMPER
			SURFACE MOUNT RACEWAY
			COMBINATION VARIABLE FREQUENCY DRIVE DISCONNECT
			SWITCHING PADDLE PANEL
			TYPE OF EQUIPMENT - SEE SCHEDULES
			EQUIPMENT NUMBER
			ROOF-TOP EQUIPMENT/CIRCUITING
			EXISTING EQUIPMENT/CIRCUITING
			CONDUIT IN FLOOR OR UNDERGROUND
			DEAD FRONT GF TEST AND RESET
TELECOM			
			ALARM MOUNT DATA
			COMBINATION VOICE/ DATA OUTLET (18"
			TELEVISION OUTLET (18"
			ALARM MOUNT TELEVISION
FIRE ALARM			
			MINI FIRE ALARM HORN
			MINI FIRE ALARM PROJECTION
			FIRE ALARM STROBE (80"
			CEILING MOUNT FIRE ALARM
			FIRE ALARM BELL (80"
			COMBINATION FIRE/SMOKE
			FIRE ALARM ANNUNCIATOR
			FIRE FIGHTER PHONE
SOUND AND SECURITY			
			ALARM DOOR
			DOOR RELEASE
			ALARM MOTION
			ALARM SHUNT
			ALARM KEYPAD
			CARD ACCESS
			SECURITY INTERCOM (14"
			REQUEST EXIT PUSH

ELECTRICAL SERVICE/FEEDER SCHEDULE		
SERVICE/FEEDER AMPACITY	3 WIRE SERVICE/FEEDER	4 WIRE SERVICE/FEEDER
150A	2" 3#1/0 & 1#6 GND	2" 2C, 4#1/0 & 1#6 GND
200A	2" 3#3/0 & 1#6 GND	2" 2C, 4#3/0 & 1#6 GND
300A	3" 3#550 & 1#4 GND	3" 2C, 4#550 & 1#4 GND
400A	(2) 2" 12C, 3#550 & 1#6 GND	(2) 2" 12C, 4#550 & 1#6 GND
600A	(2) 3" 3#550 & 1#1 GND	(2) 3" 2C, 4#550 & 1#1 GND

XXXAY

XXX AMPERAGE

Y # OF CONDUCTORS

NOTES:

- *OPTIONAL INSTALLATION, UNLESS NOTED OTHERWISE.
- (#) = PROVIDE PARALLEL SETS OF CONDUCTORS AS INDICATED.
- SCHEDULE IS BASED ON COPPER CONDUCTORS. REFER TO SPECIFICATIONS, IF ALUMINUM CONDUCTORS ARE ALLOWED, CONTRACTOR IS RESPONSIBLE FOR CONDUCTOR AND CONDUIT SIZING.
- SERVICE ENTRANCE CONDUCTORS SHALL NOT REQUIRE GROUNDING CONDUCTOR.

[illegible]

NOTES:

ALL FIRE ALARM WIRING SHALL BE INSTALLED IN METAL CONDUIT UNLESS IDENTIFIED OTHERWISE IN THE DOCUMENTS.

- COORDINATE WIRE COUNTS WITH FA SYSTEM SUPPLIER.
- PROVIDE RED ENGRAVED LABEL AT BRANCH CIRCUIT BREAKER SERVING FACP.
- PROVIDE POWER TO DOOR HOLD OPENERS AND

1/8" = 1'-0"

h,i,j,k,l,m,n,o

PC PHOTO CELL

LIGHTING CONTROL PANEL

120V CIRCUITS IN CONDUIT

120V CONTROL PANEL POWER IN CONDUIT

a b c d e f g h

LIGHTING CIRCUITS PER FLOOR PLANS

S S

LIGHTING CONTROL STATIONS PER FLOOR PLANS

WATT STOPPER, SERIES LP-24 120/277-24 ZONE LIGHTING CONTROL PANEL, POWER SUPPLY, PROGRAMMABLE CONTROLLER, ASTRONOMICAL TIME CLOCK AND ALL ACCESSORIES FOR A COMPLETE SYSTEM, PROVIDE PROGRAMMING AND TRAINING TO THE OWNER. SEE FLOOR PLAN FOR LIGHTING ZONES. REMAINING RELAYS SHALL BE SPARES.

② SCHEMATIC LIGHTING CONTROL DIAGRAM
NO SCALE

ROUTED TO SPEC. TYP.

WIRING

ABLE

4 PORT SINGLE FACEPLATES

V

D

B

V₂

B

B

B

B

V₂

V OR V

V=VOICE, D=DATA
#INDICATED # OF WIRED (ACTIVE) DATA JACKS

V_B = BLANK COVER PLATE

SEE SPECIFICATIONS FOR MATERIAL TYPES. DRAWINGS REFLECT QUANTITIES ONLY

SWITCHBANK ARRANGEMENT DETAIL
NO SCALE

PROVIDE FUSE(S) IN CKT. TO BALLAST.
FUSE HOLDERS SHALL BE WATER PROOF.
SIZE OF FUSE SHALL BE AS REQUIRED BY
LUMINAIRE MANUFACTURE.

CONNECT GROUND TO POLE BASE

BASE COVER

BUSH CONDUITS

FINISH PARKING LOT
GRADE LINE

#6 GROUND WIRE

GROUND ROD
CLAMP

3/4" X 10' COPPER
CLAD GROUND
ROD

1/2" PVC CONDUIT FOR
GROUND WIRE

HAND HOLE - 4" X 6" (NOMINAL)

PROJECT ANCHOR BOLTS 3" ABOVE TOP
BASE. PROVIDE DOUBLE NUTS FOR LE
UNIT (ONE ABOVE & ONE BELOW BASE
FLANGE). GROUT VOID BETWEEN BASE
& TOP OF CONCRETE & HAND FINISH

1" CHAMFER

FINISH
GRADE LINE

2'-0"

ABOVE FINISH
GRADE LINE

2'-0"

POLES UNDER 14' - 0" =
POLES 14' TO 30' = 5#

4 #5 REBARS
VERTICAL

#2 TIE RODS TOP,
BOTTOM & 12' O.C.

POLES UNDER 14' - 0" = 15" S.O. OR 18" S.O.
POLES 14' TO 30' = 20" S.O. OR 24" SONOTON

SEE PLANS FOR
TYPE OF WIRING

1 REINFORCED CONCRETE BASE

2 ANCHOR BOLTS TO BE
FURNISHED BY POLE

* SEE FIXTURE LEGEND FOR
REQUIRING TRANSFORMER

⑦ BASE DETAIL - OUTDOOR LIGHTING STANDARDS - TALL
NO SCALE

WPE#: BS19085

WPE WEST PLAINS
ENGINEERING, INC.

4609 SOUTH TECHLINK CIRCLE • SIOUX FALLS, SD 57106
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ELECTRICAL DETAILS & SCHEDULES

number 2832
date 02/19/21
revision _____
drawn TB checked JK

NO.	DATE	DESCRIPTION
1	03/08/21	Addendum #2

5		

9.40

L1		VOLTS:		120/208 Wye		PHASES:		3		WIRE:		4		MAIN CAPACITY:		200 A	
		AIC RATING:		22,000		LOCATION:		ELEC. 116						MAIN CONNECTION:		MLO	
		MOUNTING:		SURFACE		FEEDER SIZE:		SEE ONE-LINE DIAGRAM						MAIN TYPE:		TYPE 1	
		ITEM FED	WIRE SIZE	AMPS	POLES	A (WATTS)	B (WATTS)	C (WATTS)	POLES	AMPS	WIRE SIZE	ITEM FED	CKT				
1	WH-1	12	20 A	1	500	888			1	20 A	12	RECEP 201, CP-5	2				
3							2288	900		1	20 A	12	RECEP 116,117,118	4			
5	CU-1	8	35 A	2				2288	1440	1	20 A	12	RECEP 110,111,112	6			
7					3328	180			1	20 A	12	REF 110	8				
9	CU-2	6	50 A	2			3328	360		1	20 A	12	KIT RECEP 110	10			
11	CEILING FANS 119	12	20 A	1				300	90	2	50 A	6	RANGE 110	12			
13	SITE LIGHTING	10	20 A	1	594	90				1	20 A	12	RANGE HOOD 110	14			
15	ACU-1 201, AC-1 116	12	20 A	2		2668	180			1	20 A	12	KIT RECEP 110	16			
17							2668	180		1	20 A	12	MICRO 110	18			
19					829	180			1	20 A	12	MICRO 110	20				
21	CP-1	12	20 A	3			829	180	1	20 A	12	RECEP 101,108,109	24				
23					829	1080			1	20 A	12	RECEP 103,104	26				
25							829	1080	1	20 A	12	RECEP 102,105,106,107	28				
27	CP-2	12	20 A	3				829	360	1	20 A	12	EWC, HAND WASH FOUNTAIN 119	30			
29					1321	900			1	20 A	12	RECEP 119	32				
31							1321	900	1	20 A	12	RECEP 119	34				
33	CP-3	12	20 A	3					1321	120	1	20 A	12	B-1	36		
35									1	20 A	12	B-2	38				
37					1321	120			1	20 A	12	ERV-1 LIGHTS	40				
39	CP-4	12	20 A	3			1321	0						42			
41					750	667		1321	667	3	20 A	12	EH-1	44			
43	EH-5	12	20 A	2			750	667						46			
45									375	500	2	20 A	12	EH-2	48		
47	EH-6	12	20 A	2	375	500		750	750					50			
49														52			
51	EH-7	12	20 A	2				750	750	2	20 A	12	EH-3, EH-4	54			
53														56			
55	SPARE	20 A	1	0	500				1	20 A	12	FUEL PANEL	58				
57	SPARE	20 A	1			0	0		--	--	--	SPACE	60				
59	SPARE	20 A	1					0	0	--	--	--	SPACE	62			
61	SPARE	20 A	1	0	0				--	--	--	SPACE	64				
63	SPARE	20 A	1			0	0		--	--	--	SPACE	66				
65	SPARE	20 A	1					0	0	--	--	--	SPACE	68			
67	SPARE	20 A	1	0	0				--	--	--	SPACE	70				
69	SPARE	20 A	1			0	0		--	--	--	SPACE	72				
71	SPARE	20 A	1					0	0	--	--	--	SPACE	74			
73	SPARE	20 A	1	0	0				--	--	--	SPACE	76				
75	SPARE	20 A	1			0	0		--	--	--	SPACE	78				
77	SPARE	20 A	1					0	0	--	--	--	SPACE	80			
79	SPACE	--	--	--	0	0			--	--	--	SPACE	82				
81	SPACE	--	--	--		0	0		--	--	--	SPACE	84				
83	SPACE	--	--	--				0	0	--	--	SPACE	86				
TOTAL CONNECTED LOAD:					14340 W	18422 W	15227 W	AMPS:	132 A	LOAD:	47485.23 W						

L2		VOLTS:			120/208 Wye <th colspan="2">PHASES:</th> <td colspan="2">3</td> <th colspan="2">WIRE:</th> <td colspan="2">4<th colspan="2">MAIN CAPACITY:</th><td colspan="2">300 A</td></td>		PHASES:		3		WIRE:		4 <th colspan="2">MAIN CAPACITY:</th> <td colspan="2">300 A</td>		MAIN CAPACITY:		300 A	
		AIC RATING:			22,000		LOCATION:				SHOP 119		MAIN CONNECTION:		MLO			
		MOUNTING:			SURFACE		FEEDER SIZE:				SEE ONE-LINE DIAGRAM		MAIN TYPE:		TYPE 1			
		ITEM FED		WIRE SIZE	AMPS	POLES	A (WATTS)	B (WATTS)	C (WATTS)	POLES	AMPS	WIRE SIZE	ITEM FED	CKT				
1	RECEP 119	12	20 A	1	900	900				1	20 A	12	RECEP 119,120	2				
3	WELDING RECEP 120++	6	50 A	2		5200	720			1	20 A	12	RECEP 122	4				
5						5200	900			1	20 A	12	RECEP 122	6				
7	WELDING RECEP 120++	6	50 A	2						1	20 A	12	RECEP 123	8				
9						5200	120			1	20 A	12	WH-2	10				
11	CHOP SAW RECEP 120++	12	20 A	2		90	2102			3	30 A	10	OVEHEAD CRANE 120	12				
13							5200	2102										
15	WELDING RECEP 120++	6	50 A	2						1	30 A	10	EF-5	14				
17										1	20 A	12	EF-6	16				
19	WELDING RECEP 120++	6	50 A	2		5200	1176											
21							5200	3120										
23								3036	3120		2	40 A	8	POWER WASHER++	18			
25	ACP-1	8	30 A	3	3036	120				1	20 A	12	OVERHEAD DOOR 120	20				
27							3036	120		1	20 A	12	OVERHEAD DOOR 121	22				
29	AIR DRYER	20 A	1					120	2102									
31	SPARE	20 A	1	0	2102					3	20 A	12	OVERHEAD CRANE 119	24				
33	SPARE	20 A	1			0	2102											
35	SPARE	20 A	1					0	0	--	--	--	SPACE	26				
37	SPARE	20 A	1	0	0					--	--	--	SPACE	28				
39	SPARE	20 A	1				0	0		--	--	--	SPACE	30				
41	SPARE	20 A	1						0	0	--	--	SPACE	32				
TOTAL CONNECTED LOAD:					21725 W		32119 W		23609 W		AMPS: 215 A		LOAD: 77454 W					

++ DENOTES GFCI BREAKER (SERIES RATED)

++ - DENOTES GFCI BREAKER (SERIES RATED)

MAIN DISTRIBUTION PANEL: MDP		VOLTS:		120/208 Wye	PHASES:		3	WIRE:		4	MAIN CAPACITY:		600 A
		AIC RATING:		22,000	LOCATION:		ELEC. 116	MAIN CONNECTION:		MLO			
		MOUNTING:		SURFACE	FEEDER SIZE:		SEE ONE-LINE DIAGRAM	MAIN TYPE:		TYPE 1			
		WIRE SIZE	AMPS	POLES	A (WATTS)	B (WATTS)	C (WATTS)	POLES	AMPS	WIRE SIZE	ITEM FED	CKT	
1	PANEL L1	200 A	3	200 A				1	20 A	12	RECEP 201, CP-5	2	
2	PANEL L2	300 A	3	400 A				1	20 A	12	RECEP 116,117,118	4	
3	ERV-1	175 A	3	200 A				1	20 A	12	REF 110	8	
4	PANEL E1	200 A	3	200 A				1	20 A	12	KIT RECEP 110	10	
5	ATS	400 A	3	400 A				1	20 A	12	RANGE HOOD 110	12	
6	SPARE	100 A	3	--				1	20 A	12	MICRO 110	14	
7	SPARE	100 A	3	--				1	20 A	12	MICRO 110	16	
8	SPARE	100 A	3	--				1	20 A	12	RECEP 101,108,109	18	
9	SPARE	100 A	3	--				1	20 A	12	RECEP 103,104	20	
10	SPARE	100 A	3	--				1	20 A	12	RECEP 102,103,104,107	22	
11	SPARE	100 A	3	--				1	20 A	12	EWC, HAND WASH FOUNTAIN 119	24	
12	SPACE	--	--	--				1	20 A	12	RECEP 119	26	
TOTAL LOAD:					558 A	AMPS:	558 A	TOTAL CONNECTED LOAD:	64940 W	72716 W	65347 W		

Notes:
INTEGRAL SPD, 42,000 AIC, LOCKABLE DOOR.

E1		VOLTS:		120/208 Wye		PHASES:		3		WIRE:		4		MAIN CAPACITY:		400 A	
		AIC RATING:		22,000		LOCATION:		ELEC. 116		MAIN CONNECTION:		MLO					
		MOUNTING:		SURFACE		FEEDER SIZE:		SEE ONE-LINE DIAGRAM		MAIN TYPE:		TYPE 1					
		WIRE SIZE	AMPS	POLES	A (WATTS)	B (WATTS)	C (WATTS)	POLES	AMPS	WIRE SIZE	ITEM FED	CKT					
1	TCP	12	20 A	1	500	900		1	20 A	12		RECEP 201	2				
3	SPACE	--	--	--		0	900		1	20 A	12	RECEP 114,115,116,118	4				
5	SPACE	--	--	--			0	1800	1	20 A	12	RECEP 110	6				
7	F-1	12	20 A	1	1080	1080			1	20 A	12	RECEP 102,103,104,108,109	8				
9	F-2	12	20 A	1		1320	900		1	20 A	12	RECEP 119	10				
11	FACP	12	20 A	1			500	720	1	20 A	12	RECEP 119	12				
13	LCP	12	20 A	1	500	120			1	20 A	12	OVERHEAD DOOR 119	14				
15	UH-2,UH-10	12	20 A	1		1200	120		1	20 A	12	OVERHEAD DOOR 119	16				
17	RECEP 116	12	20 A	1			360	120	1	20 A	12	OVERHEAD DOOR 119	18				
19	GEN BLOCK HEATER	12	20 A	1	1000	120			1	20 A	12	OVERHEAD DOOR 119	20				
21	GEN BATTERY CHARGER	12	20 A	1		600	628		1	20 A	12	LIGHTING 119	22				
23	GEN ENCLOSURE HEATER	12	20 A	1			1500	971	1	20 A	12	LIGHTING 119	24				
25	GEN LOUVERS	12	20 A	1	600	638			1	20 A	12	LIGHTING 119	26				
27	SPACE	--	--	--		0	810		1	20 A	12	LIGHTING 201	28				
29	SPACE	--	--	--			0	1850	1	20 A	12	LIGHTING	30				
31	SPARE	20 A	1	0	1686				1	20 A	12	LIGHTING	32				
33	SPARE	20 A	1			0	788		1	20 A	12	EXTERIOR LIGHTING	34				
35	SPARE	20 A	1				0	360	1	20 A	12	UH-1	36				
37	SPARE	20 A	1	0	11726				1	125 A	1	PANEL E2	38				
39	SPARE	20 A	1			0	5919						40				
41	SPARE	20 A	1				0	9574					42				
TOTAL CONNECTED LOAD:					20150 W		13385 W		17755 W		AMPS: 138 A		LOAD: 49790.4 W				