

ADDENDUM NO. 2

TO: PLANS AND SPECIFICATIONS FOR STATE OF MISSOURI

New FMDC Grounds & Maintenance Building
FMDC Maintenance Facility
Jefferson City, Missouri
PROJECT NO.: O2301-03

Bid Opening Date: 1:30 PM, Thursday, June 15, 2023 (Not Changed)

Bidders are hereby informed that the construction Plans and/or Specifications are modified as follows:

SPECIFICATION CHANGES:

1. Section 233400 – CIRCULATION FANS
 - a. Under 2.1 MANUFACTURERS:
 - i. **REMOVE** sub-item B complete.
 - ii. **ADD** sub-item B that reads as follows:
 - B. Acceptable Equivalents: Hunter, Big Ass Fans, **MacroAir**
2. Section 235523.13 – LOW-INTENSITY, GAS-FIRED, RADIANT HEATERS
 - a. Under 2.2 MANUFACTURERS, sub-item B. Basis of Design Product - **ADD** sub-item #5 that reads as follows:
 5. **Advanced Radiant Systems**
3. Section 260923 – LIGHTING CONTROL DEVICES
 - a. Under 1.2 SUMMARY, **REMOVE** sub-item A.1 Photoelectric switches.
 - b. Under 1.2 SUMMARY, **REVISE** sub-item A.2 Indoor occupancy sensors to be sub-item A.1
 - c. Under 1.4 INDOOR OCCUPANCY SENSORS, **ADD** sub-item A.8 that reads as follows:
 8. Utilize auxiliary contacts in sensor to connect / control exhaust fans and HVAC units, via control wiring.
 - d. Under 1.5 OCCUPANCY SENSORS, revise sub-item B to read as follows:
 - B. Detector Technology: PIR. Ceiling mounted; **Ultrasound-Dual Technology.**
 - e. Under 1.5 OCCUPANCY SENSORS:
 - i. **REMOVE** sub-item B.2 complete.
 - ii. **ADD** sub-item B.2 that reads as follows:
 2. Detection Coverage (Room): Detect occupancy anywhere in a circular area of **2,000** sq. ft. (**186** sq. m).

- f. Under 2.1 SENSOR INSTALLATION:
 - i. **REMOVE** sub-item C complete.
 - ii. **ADD** sub-item C to read as follows:

C. Interconnection of sensors per pod area shall control all lights, **exhaust fans, and HVAC units**, together in each pod enabled by toggle switch at entry roll-doors, **and as indicated on drawings**.

DRAWING CHANGES:

1. Sheet S-001 STRUCTURAL GENERAL NOTES

- a. Under SPECIAL INSPECTIONS SCHEDULE – CONCRETE CONSTRUCTION, the Referenced Standards in the REFERENCED STANDARD(S) column are **REVISED** as illustrated below:

<u>CONCRETE CONSTRUCTION:</u>		
1. INSPECTION OF REINFORCING STEEL AND PLACEMENT	PERIODIC	ACI 318: Ch. 20, 25.2, 25.3, 26.6.1-26.6.3
2. INSPECTION OF BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE.	PERIODIC	ACI 318: 17.8.2
3. INSPECTION OF POST-INSTALLED ANCHORS IN HARDENED CONCRETE.	CONTINUOUS	ACI 318: 17.8.2, 17.8.2.4
4. VERIFYING USE OF REQUIRED DESIGN MIX	PERIODIC	ACI 318: Ch. 19, 26.4.3, 26.4.4 IBC 1904.1, 1904.2
5. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	CONTINUOUS	ASTM C31, ASTM C172 ACI 318:26.5, 26.12
6. INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	CONTINUOUS	ACI 318: 26.5
7. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	PERIODIC	ACI 318: 26.5.3-26.5.5
8. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	PERIODIC	ACI 318: 26.11.1.2(b)
<u>WOOD FABRICATED ITEMS</u>		
1. PREFABRICATED WOOD TRUSSES		IBC 1704.2.5

2. Sheet A-102 ROOF PLAN AND DETAILS

- a. At Details 2/A-102 ROOF EDGE DETAIL (H.P.) and 3/A-102 GUTTER/FASCIA DTL.:
 - i. **REMOVE** all references of 30# ROOFING FELT underlayment.
 - ii. **ADD** references of ICE AND WATER SHIELD underlayment.

3. Sheet M-101 MECHANICAL FLOOR PLAN

- a. The following MAINTENANCE BAY MECHANICAL EQUIPMENT SEQUENCE OF OPERATION has been **ADDED** to the sheet:

MAINTENANCE BAY MECHANICAL EQUIPMENT SEQUENCE OF OPERATION	
MAINTENANCE BAY EXHAUST FANS, ROOF INTAKE HOODS & GAS-FIRED INDOOR PACKAGE UNIT, GAS-FIRED UNIT HEATERS AND RADIANT HEATER:	
1. BUILDING OCCUPIED HOURS:	
A. MAINTENANCE BAY "107A" EXHAUST FAN SHALL RUN UPON ACTIVATION OF ROOM OCCUPANCY SENSORS TO PROVIDE CODE REQUIRED FRESH AIR PER MECHANICAL CODE.	
	<ul style="list-style-type: none">• EXHAUST FAN "EF-5" SHALL BE ENERGIZED.• EXHAUST HOOD MOTORIZED DAMPER IN MAINTENANCE BAY "A" SHALL OPEN.• RADIANT HEATER SHALL OPERATE ON A DROP IN SPACE TEMPERATURE BELOW 60° F PER ADJUSTABLE WALL MOUNTED THERMOSTAT.• UPON SPACE OCCUPANCY SENSOR DETECTS NO MOVEMENT IN SPACE, EXHAUST FAN SHALL RUN FOR AN ADDITIONAL MINIMUM 15 MINUTES (ADJUSTABLE).• EXHAUST MOTORIZED DAMPERS SHALL CLOSE.
B. MAINTENANCE BAY "107B" EXHAUST FAN AND GAS-FIRED INDOOR PACKAGE UNIT SHALL BE INTERLOCKED TO RUN UPON ACTIVATION OF ROOM OCCUPANCY SENSORS TO PROVIDE CODE REQUIRED FRESH AIR PER MECHANICAL CODE.	
	<ul style="list-style-type: none">• EXHAUST FAN "EF-6" SHALL BE ENERGIZED.• EXHAUST HOOD MOTORIZED DAMPERS SHALL OPEN.• GAS-FIRED INDOOR PACKAGE UNIT "OAU-1" SHALL BE ENERGIZED.• INTAKE HOOD MOTORIZED DAMPERS SHALL OPEN.• INDOOR PACKAGE UNIT SHALL MODULATE GAS HEATING TO MAINTAIN ROOM MINIMUM TEMPERATURE SET-POINT OF 55° F PER ADJUSTABLE WALL MOUNTED THERMOSTAT.• UPON SPACE OCCUPANCY SENSOR DETECTS NO MOVEMENT IN SPACE, EXHAUST FAN AND GAS-FIRED INDOOR PACKAGE UNIT SHALL RUN FOR AN ADDITIONAL MINIMUM 15 MINUTES (ADJUSTABLE).• INTAKE AND EXHAUST MOTORIZED DAMPERS SHALL CLOSE.• GAS FIRED UNIT HEATERS SHALL OPERATE A ON DROP IN SPACE TEMPERATURE BELOW 60° F PER ADJUSTABLE WALL MOUNTED THERMOSTAT.
2. UNOCCUPIED HOURS:	
A. MAINTENANCE BAY "107A"	
	<ul style="list-style-type: none">• EXHAUST FANS "EF-5" SHALL BE DE-ENERGIZED / OFF.• EXHAUST HOOD MOTORIZED DAMPERS SHALL CLOSE.• RADIANT HEATER SHALL OPERATE ON A DROP IN SPACE TEMPERATURE BELOW 60° F PER ADJUSTABLE WALL MOUNTED THERMOSTAT. (ADJUSTABLE)
B. MAINTENANCE BAY "107B"	
	<ul style="list-style-type: none">• EXHAUST FANS "EF-6" SHALL BE DE-ENERGIZED / OFF.• EXHAUST HOOD MOTORIZED DAMPERS SHALL CLOSE.• GAS-FIRED INDOOR PACKAGE UNIT SHALL DE-ENERGIZE / OFF.• GAS FIRED UNIT HEATERS SHALL OPERATE ON A DROP IN SPACE TEMPERATURE BELOW 60° F PER ADJUSTABLE WALL MOUNTED THERMOSTAT. (ADJUSTABLE)

4. Sheet E-101 ELECTRICAL LIGHTING FLOOR PLAN

- a. At 1/E-101 ELECTRICAL LIGHTING FLOOR PLAN, **ADD** Occupancy Sensors to the plan. Refer to Supplemental Sheets 1.E-101 and 2.E-101 for type, location and quantity.


5. Sheet E-102 ELECTRICAL POWER FLOOR PLAN

- a. At 1/E-102 ELECTRICAL POWER FLOOR PLAN, **ADD** denotation "LM" to all Occupancy Sensors added under Addendum #2 DRAWING CHANGES item 4.a. Refer to Supplemental Sheets 1.E-102 and 2.E-102 for affected Occupancy Sensors.
- b. At 1/E-102 ELECTRICAL POWER FLOOR PLAN, in MAINTENANCE BAY, #107B: – the Occupancy Sensor in between column lines D and E, along column line 2, has been **RELOCATED** to the east (right) by one overhead door opening (approximately 12'-0"). Refer to Supplemental Sheet 1.E-102.
- c. In KEYED NOTES, **ADD** Keyed Note #13 that shall read as follows:

13. UTILIZE AUXILIARY CONTACTS IN LIGHTING OCCUPANCY SENSOR TO CONNECT OAU-1 AND/OR EXHAUST FAN CONTROLS WITH OVERRIDE BY SWITCH IN SPACE. SEE SHEET E101.

Refer to Supplemental Sheets 1.E-102 and 2.E-102.

6. Sheet E-601 ELECTRICAL LEGEND, NOTES & SCHEDULES

In ELECTRICAL SYMBOLS schedule, **ADD** symbol _{LM} with the following description:

CEILING MOUNTED OCCUPANCY SENSOR, 2000 SF COVERAGE, VERIS #MSC-D-2000, PASSIVE INFRARED-ULTRASONIC TECHNOLOGIES

Refer to Supplemental Sheets 1.E-601.

NOTE: Veris manufacturer and model # is basis of design. Approved equivalent manufacturers: Lutron and Hubbell.

7. Sheet E-602 ELECTRICAL ONE-LINE DIAGRAM AND SCHEDULES
 - a. At ELECTRICAL SCHEDULE – for Plan Marks EF-5 and EF-6:
 - i. **REMOVE** Remark “INTEGRAL DISC SW. CONTROL BY TIME CLOCK” complete.
 - ii. **ADD** Remark “INTEGRAL DISC SW. CONTROL BY OCC SENSOR”. *Refer to Supplemental Sheet 1.E-602.*
 - b. At 2/E-601 TIMECLOCK WIRING DIAGRAM, in Plan Note box:
 - i. **REMOVE** 2nd bullet point CHANNEL #2 FOR MISC complete.
 - ii. **ADD** 2nd bullet point that reads: CHANNEL #2 FOR CONTROL OF EF #4 OPERATION DURING BUSINESS HOURS, SHUT-DOWN DURING UNOCCUPIED HOURS. COORDINATE TIME SETTINGS WITH MC PRIOR TO PROGRAMMING. *Refer to Supplemental Sheet 1.E-602.*
 - iii. **REVISE** CHANNEL #2 TIMECLOCK ONLY portion of diagram. *Refer to Supplemental Sheet 1.E-602.*
 - c. At PANEL MP Panel Schedule:
 - i. **REMOVE** Description EF-4,5,6 and HVAC figure 1.8 from CKT-42.
 - ii. **ADD** Description EF-6 and HVAC figure 1.5 to CKT-42. *Refer to Supplemental Sheet 2.E-602.*

GENERAL COMMENTS:

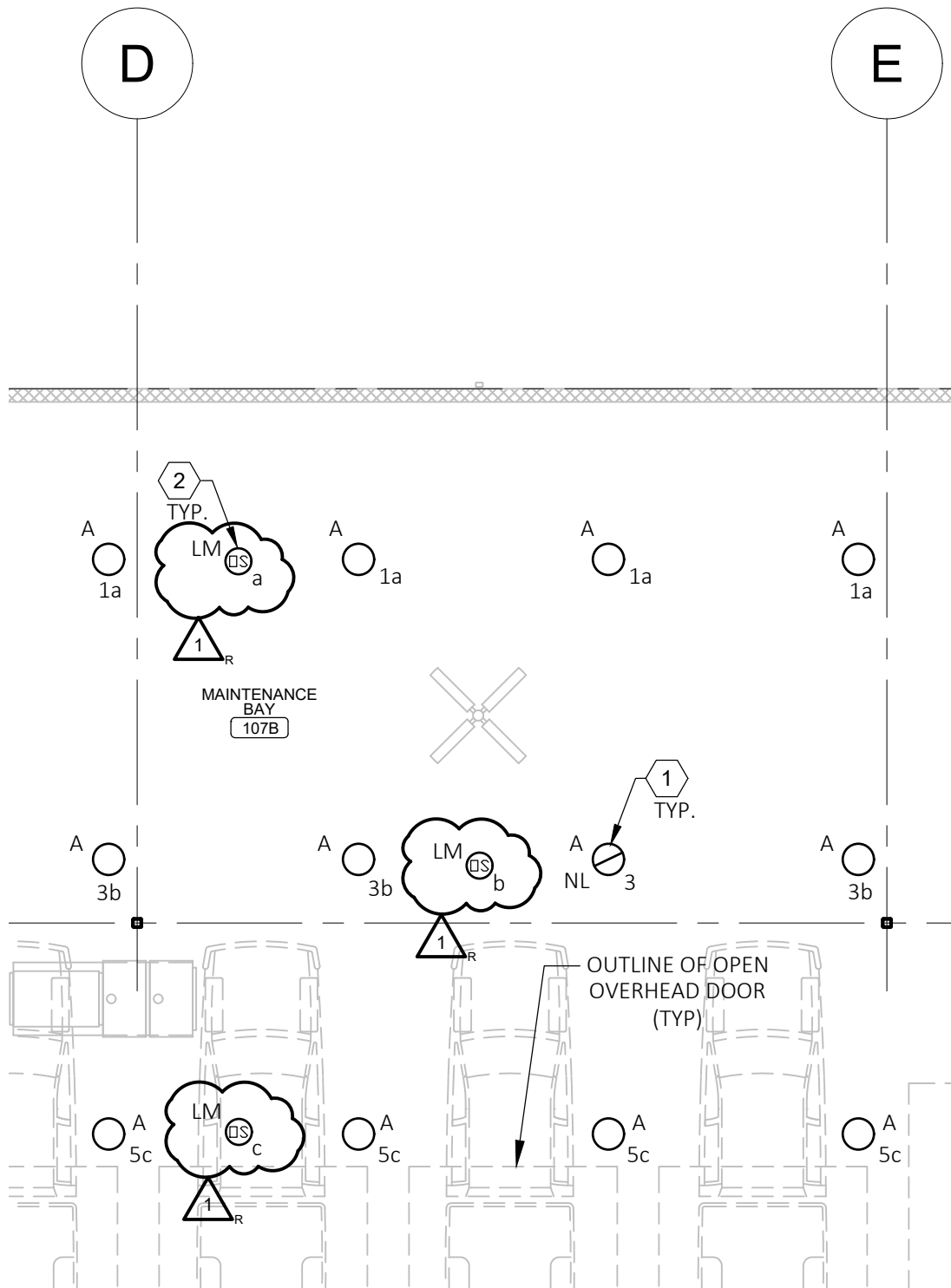
1. The Pre-bid Meeting was held May 31, 2023 at 10:30 AM. The Pre-bid Meeting sign-in sheet was included in Addendum #1, dated June 5, 2023.
2. Please contact Mandy Roberson, Contract Specialist, at 573-522-0074 or mandy.roberson@oa.mo.gov for questions about bidding procedures, MBE\WBE\SDVE Goals, and other submittal requirements.
3. **The deadline for technical questions was Wednesday, June 7, 2023 at 1:30p.**
4. Changes to, or clarification of, the bid documents are only made as issued in the addenda.
5. All correspondence with respect to this project must include the State of Missouri project number as indicated above.
6. Current Plan holders list available online at <https://www.oafmdcplanroom.com/jobs/1993/plan-holders/o2301-03-new-fmdc-grounds-maintenance-building-fmdc-maintenance-facility>.
7. Prospective Bidders contact American Document Solutions, 1400 Forum Blvd Suite 1C, Columbia MO 65201, 573-446-7768 to order official plans and specifications.
8. **All bids shall be submitted on the bid form without additional terms and conditions, modifications, or stipulations. Each space on the bid form shall be properly filled including a bid amount for the alternate. Failure to do so will result in rejection of the bid.**
9. **MBE/WBE/SDVE participation requirements can be found in DIVISION 00. The MBE/WBE/SDVE participation goals are 10%/10%/3%, respectively. Only certified firms as of the bid opening date can be used to satisfy the MBE/WBE/SDVE participation goals for this project. If a bidder is unable to meet a participation goal, a Good Faith Effort Determination Form must be completed. Failure to complete this process will result in rejection of the bid.**

ATTACHMENTS:

1. Supplemental Sheet 1.E-101, dated 6/8/2023
2. Supplemental Sheet 2.E-101, dated 6/8/2023
3. Supplemental Sheet 1.E-102, dated 6/8/2023
4. Supplemental Sheet 2.E-102, dated 6/8/2023
5. Supplemental Sheet 1.E-601, dated 6/8/2023
6. Supplemental Sheet 1.E-602, dated 6/8/2023
7. Supplemental Sheet 2.E-602, dated 6/8/2023

June 8, 2023

END OF ADDENDUM NO. 2



1
E-101

ELECTRICAL LIGHTING FLOOR PLAN

SCALE: 1/8" = 1'-0"

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONTRUCTION

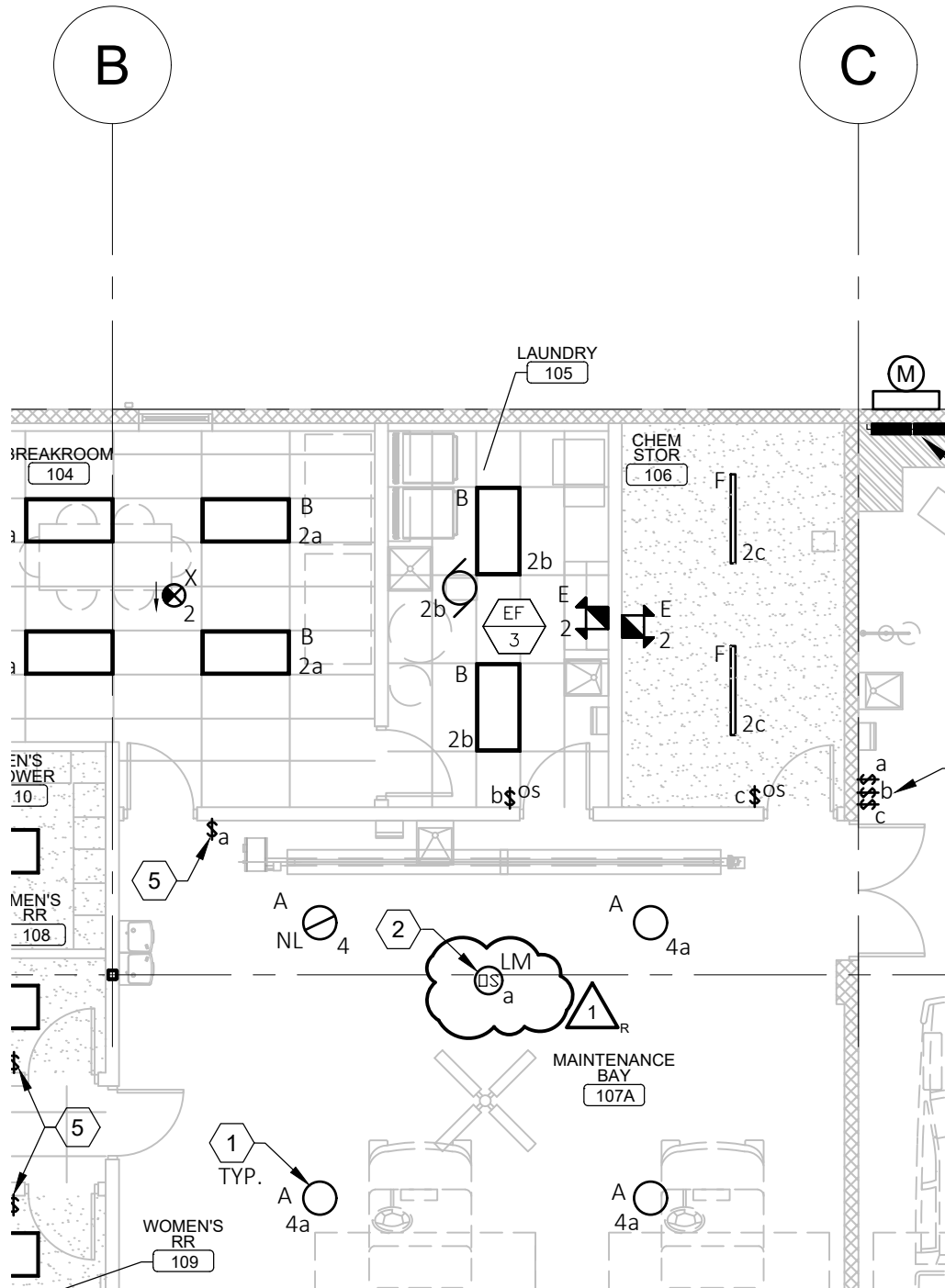
1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

SUPPLEMENTAL SHEET 1.E-101
6/8/2023

CASCO

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1
E-101

ELECTRICAL LIGHTING FLOOR PLAN

SCALE: 1/8" = 1'-0"

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

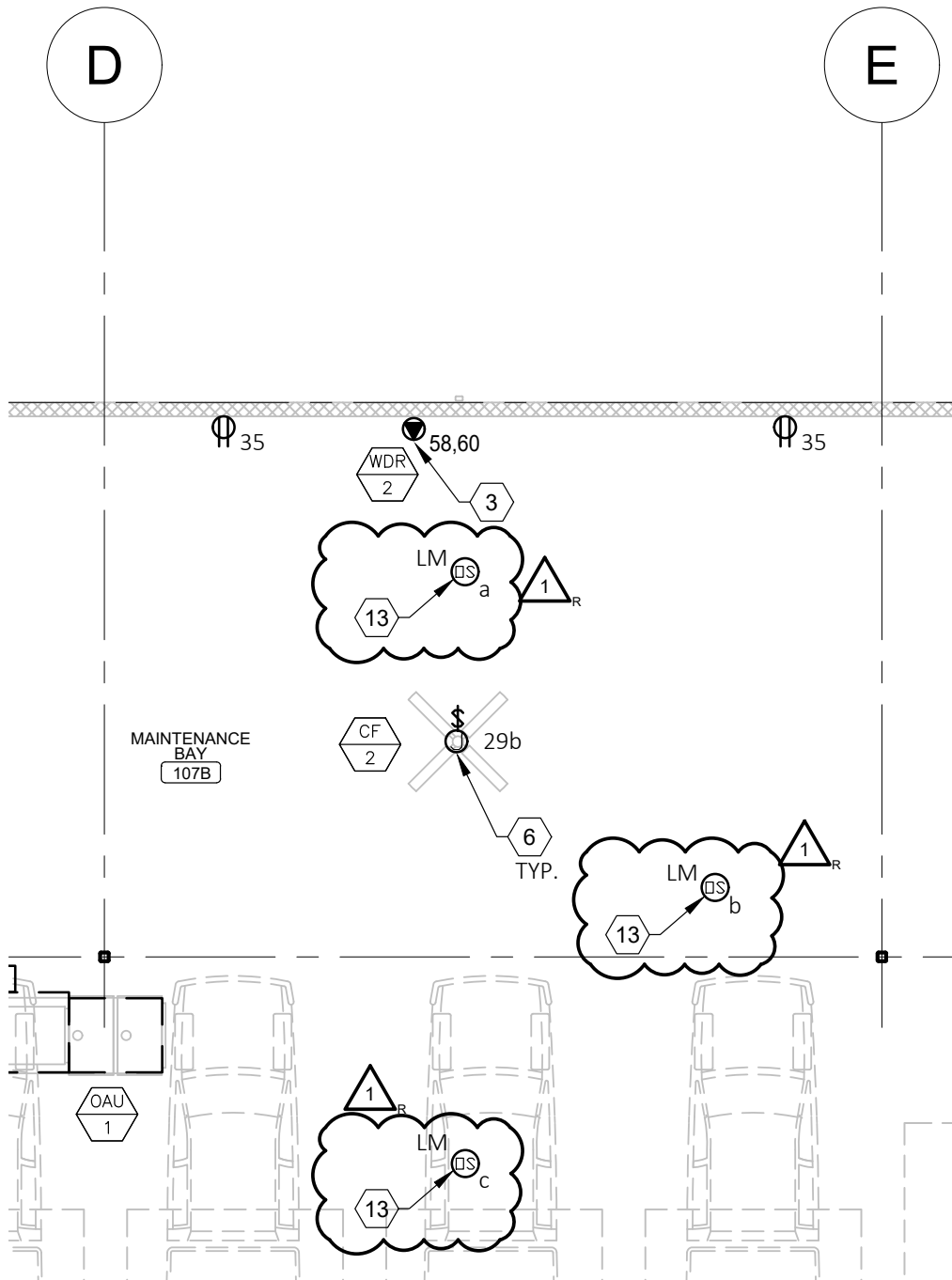
1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

SUPPLEMENTAL SHEET 2.E-101
6/8/2023

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12. EXHAUST FAN CONTROLLED BY ROOM LIGHTING OCCUPANCY SENSOR. SEE SHEET E101 FOR WORK.

13. UTILIZE AUXILIARY CONTACTS IN LIGHTING OCCUPANCY SENSOR TO CONNECT OAU-1 AND/OR EXHAUST FAN CONTROLS WITH OVERRIDE BY WALL SWITCH IN SPACE. SEE SHEET E101.

1
E-102

ELECTRICAL POWER FLOOR PLAN

SCALE: 1/8" = 1'-0"

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DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

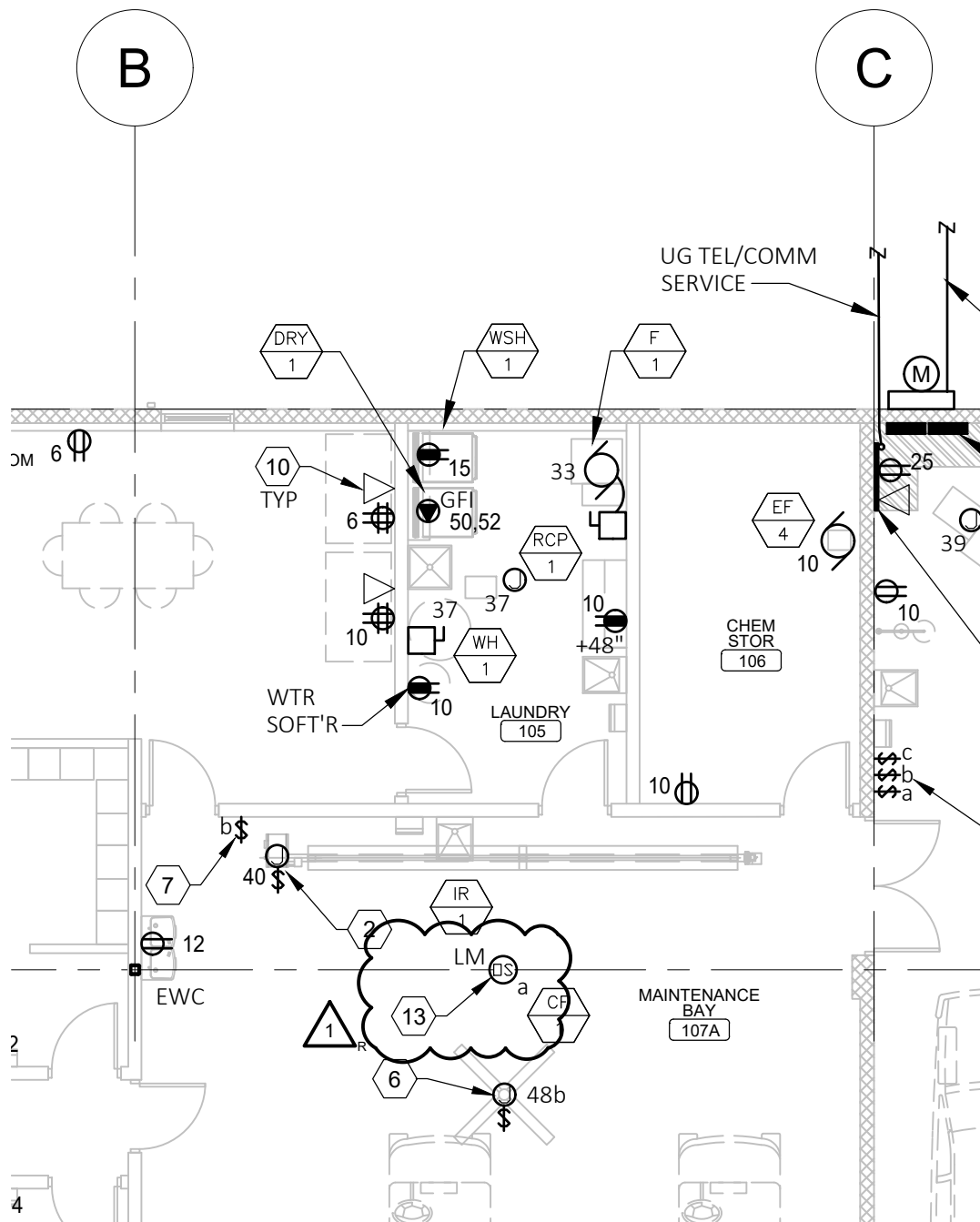
1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

PROJECT # O2301-03
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SUPPLEMENTAL SHEET 1.E-102
6/8/2023

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12. EXHAUST FAN CONTROLLED BY ROOM LIGHTING OCCUPANCY SENSOR. SEE SHEET E101 FOR WORK.

13. UTILIZE AUXILIARY CONTACTS IN LIGHTING OCCUPANCY SENSOR TO CONNECT OAU-1 AND/OR EXHAUST FAN CONTROLS WITH OVERRIDE BY WALL SWITCH IN SPACE. SEE SHEET E101.

1
E-102

ELECTRICAL POWER FLOOR PLAN

SCALE: 1/8" = 1'-0"

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

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1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

PROJECT # O2301-03
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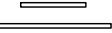














SUPPLEMENTAL SHEET 2.E-102
6/8/2023

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ELECTRICAL SYMBOLS

(NOT ALL SYMBOLS ARE USED)

	2' X 4' LED LIGHT FIXTURE, RECESSED		GROUND FAULT R
	2' X 2' LED LIGHT FIXTURE, RECESSED		EQUIP OUTLET, W APPROPRIATE REC
	4-ft, 8-ft LED STRIP LIGHT FIXTURE		TELEPHONE OUTL
	PENDANT LED FIXTURE		COMPUTER OUTLI
\$	SINGLE POLE SW-20A-120/277V-LEVITON CSB1-20 IVORY OR EQ, MOUNT 48" AFF		WALL MOUNTED FIXTURE, MOUNT
\$ ₃	SINGLE POLE SW-20A-120V/277V-3-WAY LEVITON CSB3-20 IVORY OR EQ, MOUNT 48" AFF		BATTERY POWER
\$ _M	SINGLE POLE SWITCH, MOTOR RATED, MOUNT 48" AFF		ELECTRIC MOTOR
\$ _{OS}	SINGLE POLE WALL MOUNTED OCCUPANCY SENSOR, LEVITON OSSMT-GD WITH OVER-RIDE OR APPROVED EQUAL, MOUNT 48" AFF		JUNCTION BOX, SI
(OS)	CEILING MOUNTED OCCUPANCY SENSOR, 1,000 SF COVERAGE, LEVITON ODC10-MDW		DISTRIBUTION PAI
(OS) LV	CEILING MOUNTED LOW VOLTAGE OCCUPANCY SENSOR, 1,000 SF COVERAGE, LEVITON ODC10-MDW		BRANCH PANELBC
(OS) LT	CEILING MOUNTED LOW TEMP OCCUPANCY SENSOR, 900 SF COVERAGE, LOW TEMP, LEVITON OSFHU-CTW		DISCONNECT SWI
(PP)	POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSOR, LEVITON OSP20-NDO		FA MANUAL PULL
(OS) LM	CEILING MOUNTED OCCUPANCY SENSOR, 2000 SF COVERAGE, VERIS #MSC-D-2000, PASSIVE INFRARED-ULTRASONIC TECHNOLOGIES		FA SMOKE DETECT
	DUPLX RECEPTACLE, LEVITON 5320 IVORY, 18" AFF UNO		BRANCH CIRCUIT INDICATES PANEL

SHEET TITLE:

ELECTRICAL LEGEND, NOTES & SCHEDULES

SHEET NUMBER:

E-601

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONTRUCTION

1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

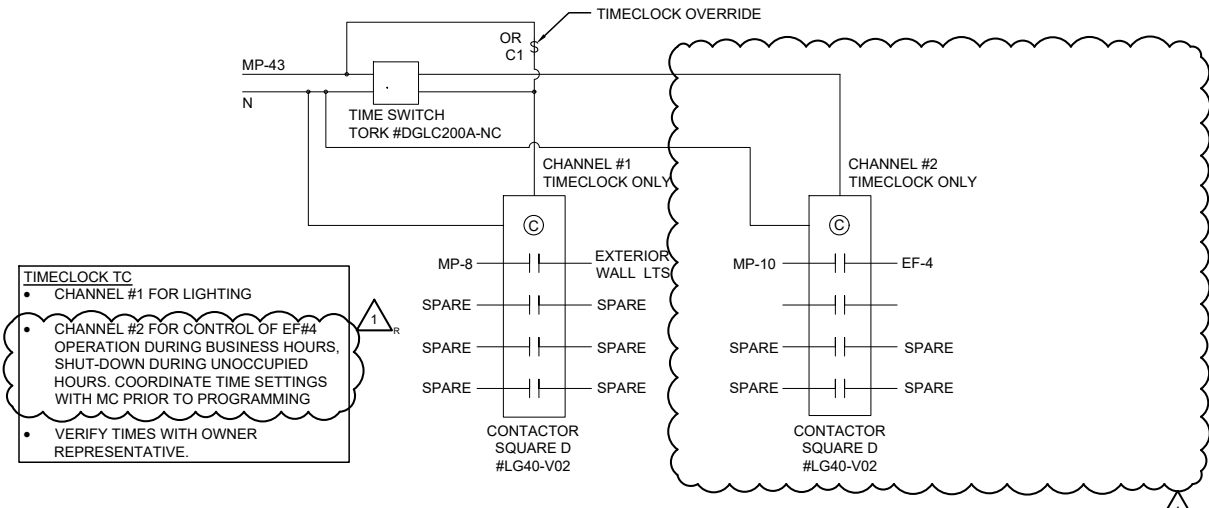
PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

SUPPLEMENTAL SHEET 1.E-601
6/8/2023

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EQUIPMENT SCHEDULE							FILE: 2202659 LOAD.xlsm		
PLAN MARK	EQUIPMENT SERVED	LOAD	VOLT/ PHASE	FED BY	DISC BY	MCA	MOCPPD	FEEDER	REMARKS
UH-1	UNIT HEATER	0.85KVA	120/1	MP	MC	7.10	15A	(2)#12,#12G 1/2"C	DISC SW FURN'D WITH UNIT, CONTROL BY WALL T'STAT
UH-2	UNIT HEATER	0.85KVA	120/1	MP	MC	7.10	15A	(2)#12,#12G 1/2"C	DISC SW FURN'D WITH UNIT, CONTROL BY WALL T'STAT
EF-1	EXHAUST FAN	0.14KVA	120/1	MP	MC	1.20	20A	(2)#12,#12G 1/2"C	INTEGRAL DISC SW. CONTROL WITH ROOM LTS
EF-2	EXHAUST FAN	0.13KVA	120/1	MP	MC	1.05	20A	(2)#12,#12G 1/2"C	INTEGRAL DISC SW. CONTROL WITH ROOM LTS
EF-3	EXHAUST FAN	0.13KVA	120/1	MP	MC	1.05	20A	(2)#12,#12G 1/2"C	INTEGRAL DISC SW. CONTROL WITH ROOM LTS
EF-4	EXHAUST FAN	0.09KVA	120/1	MP	MC	0.75	20A	(2)#12,#12G 1/2"C	INTEGRAL DISC SW. CONTROL BY TIME-CLOCK
EF-5	EXHAUST FAN	0.86KVA	120/1	MP	MC	7.20	20A	(2)#12,#12G 1/2"C	INTEGRAL DISC SW. CONTROL BY OCC SENSOR
EF-6	EXHAUST FAN	0.86KVA	120/1	MP	MC	7.20	20A	(2)#12,#12G 1/2"C	INTEGRAL DISC SW. CONTROL BY OCC SENSOR
DRY-1	DRYER	4.99KVA	208/1	MP	PLUG	24.00	30A	(2)#10,#10G 1/2"C	COORDINATE RECEPTACLE WITH FURNISHED UNIT



2 TIMECLOCK WIRING DIAGRAM
SCALE: NOT TO SCALE

SHEET TITLE:

ELECTRICAL
ONELINE DIAGRAM
& SCHEDULES

SHEET NUMBER:

E-602

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONTRUCTION

1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

SUPPLEMENTAL SHEET 1.E-602
6/8/2023

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MOUNT: SURFACE			120/208			3-PHASE, 4W			PANEL MP			CAPACITY: 400A			INT CAP: 35KA			
LOCATION: MAINTENANCE BAY AREA						LUGS:			MLO			DEMAND LOAD: 225A			AV. FAULT: 27 KA			
CKT	LTG	REC	HVAC	MISC	NP	DESCRIPTION	AMP	POLE	Φ	AMP	POLE	DESCRIPTION	LTG	REC	HVAC	MISC	NP	CKT
1	0.8					L-MAINT. BAY	20	1	A	20	1	L-OFF, BRK, TLTS, EF'S	1.5					2
3	0.8					L-MAINT. BAY	20	1	B	20	1	L-MAINT. BAY, EF-4	0.4		0.8			4
5	0.8					L-MAINT. BAY	20	1	C	20	1	R-BREAK RM		1.3				6
7		1.2				R-BREAK RM (REFRIG)	20	1	A	20	1	L-EXTERIOR WALL	0.7					8
9		0.9				R-BREAK RM (MICR'W)	20	1	B	20	1	R-LAUNDRY, CHEM, EF-4		1.3				10
11		1.5				R-BREAK RM	20	1	C	20	1	R-OFF's, MAINT BAY, TLT		1.3				12
13		0.9				R-BRK RM (ICE MAK'R)	20	1	A	20	1	R-OFF's, MAINT BAY, TLT		1.6				14
15		1.0				R-WASHER	20	1	B	20	1	R-MAINT BAYS		1.6				16
17		1.4				R-MAINT BAYS	20	1	C	20	1	OVERHEAD DOOR				1.2		18
19		1.2				R-MAINT BAYS	20	1	A	20	1	OVERHEAD DOOR				1.2		20
21		1.4				R-MAINT BAYS	20	1	B	20	1	OVERHEAD DOOR				1.2		22
23		1.4				R-MAINT BAYS	20	1	C	20	1	OVERHEAD DOOR				1.2		24
25		0.4				R-COMM EQUIP	20	1	A	20	1	OVERHEAD DOOR				1.2		26
27				1.0		MAINT BAY CIRC FAN	20	1	B	20	1	OVERHEAD DOOR				1.2		28
29				1.0		MAINT BAY CIRC FAN	20	1	C	20	1	OVERHEAD DOOR				1.2		30
31				1.0		MAINT BAY CIRC FAN	20	1	A	20	1	OVERHEAD DOOR				1.2		32
33			1.7			FURNACE	20	1	B	20	1	OVERHEAD DOOR				1.2		34
35		1.3				R-MAINT BAY	20	1	C	20	1	OVERHEAD DOOR				1.2		36
37				1.4		WATER HTR-1, 2	20	1	A	20	1	OVERHEAD DOOR				1.2		38
39			0.9			UNIT HEATR (UH-1)	20	1	B	20	1	INFRA-RED HEATER				0.4		40
41			0.9			UNIT HEATR (UH-2)	20	1	C	20	1	EF-6			1.5			42
43				0.2		TIME CLOCK	20	1	A	20	1	R-COVERED STORAGE		0.5				44
45				1.6		PRESSURE WASHER	20	1	B	20	1	L-COVERED STORAGE	0.4					46
47			2.9			CU-1	45	2	C	20	1	MAINT BAY CIRC FAN				1.0		48
49			2.9			CONDENSING UNIT	45	2	A	30	2	DRY-1		2.5				50
51				2.5		CPR-1	30	2	B	50	2	DRYER		2.5				52
53				2.5		COMPRESSOR			C			WDR-1				4.0		54
55			2.5			OAU-1			A			(WELDER)				4.0		56
57			2.5			OUTSIDE AIR UNIT	35	3	B			WDR-2				4.0		58
59			2.5						C			(WELDER)				4.0		60
61						SPARE	20	1	A	20	1	SPARE						62
63						SPARE	20	1	B	20	1	SPARE						64
65						SPARE	20	1	C	20	1	SPARE						66
67						SPARE	20	1	A	20	1	SPARE						68
69						SPARE	20	1	B	20	1	SPARE						70
71						SPARE	20	1	C	20	1	SPARE						72
PHASE BALANCE			LOAD TYPE	CONNECTED	DEMAND	DEMAND FORMULA	TOTAL LOAD											
Φ	LOAD	%	RECEPTACLE	5.4 KVA	6.8 KVA	LOAD X 125% NEC 210.19 CONTINUOUS	CONNECTED	DEMAND										
A	27.8 KVA	31%	HVAC	19.1 KVA	15.3 KVA	LOAD X 80% (USED MCA IN CALCULATION)	252.8A	225.0A										
B	28.3 KVA	32%	MISC	41.4 KVA	41.4 KVA	LOAD X 100% NEC 210.19 NON-CONT.	FILENAME:											
C	32.5 KVA	37%	NP	0.0 KVA	0.0 KVA	0 NONCOINCIDENTAL LOADS NEC 220.60	2202659 LOAD.xlsm											

NOTES:
A. SERVICE ENTRANCE RATED, FULLY AIC RATED.

SHEET TITLE:

ELECTRICAL
ONELINE DIAGRAM
& SCHEDULES

SHEET NUMBER:

E-602

CONSTRUCT FMDC GROUNDS & MAINTENANCE BLDG.

DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONTRUCTION

1635 INDUSTRIAL DRIVE, JEFFERSON CITY, MO 65101

PROJECT # O2301-03
SITE # 1002
FACILITY # 3101002008

SUPPLEMENTAL SHEET 2.E-602
6/8/2023

CASCO

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