ADDENDUM NO. 1

TO: **PLANS AND SPECIFICATIONS FOR STATE OF MISSOURI**

Troop A Headquarters, MSHP
Lee's Summit, Missouri
PROJECT NO. R2219-01

Bid Opening Date: 1:30 PM Tuesday, October 3rd, 2023 (Not Changed)

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

SPECIFICATION CHANGES:

1. Section 064023 – Interior Architectural Woodwork
   a. DELETE: Item 1.4.D.
   b. NO CHANGE: Item 2.1.B.3: As listed, M-2 Particleboard is an acceptable core material.
   c. ADD: Item 2.2.E.1: Line bore shelf support system is acceptable with either twin pin anti-tip clips or metal paddle clips.
   d. MODIFY: Item 2.5.E.3 from 'HGS' to 'VGS.'
   e. MODIFY: Item 2.6.E and F from 'Grade M-2 Exterior glue' to 'M-2 Moisture Resistant.'

2. Section 074243 – Composite Wall Panels
   a. ADD: Item 2.2.A.2.c Acceptable Manufacturer: Alfrex FR Metal Composite Material.

3. Section 075423 – Thermoplastic-Polyolefin (TPO) Roofing
   a. MODIFY: Item 1.11.A.2 from '30 years' to '25 years.'

4. Section 076200 – Sheet Metal Flashing and Trim
   a. DELETE: Item 2.6.A.3.b.

5. Section 077123 – Manufactured Gutters and Downspouts
   a. MODIFY: Item 2.4.A from 'style 1' to 'style 2 with integral overflow.'
   b. MODIFY: Item 2.4.B. from 'Conductor Heads' to:
      B. Thru-Wall Scuppers: Pop-riveted, no conductor head.
         1. Material: 24 ga. Galvanized steel
         2. Picture Frames: Front and back, 3" wide.

6. Section 084113 – Aluminum-Framed Entrances and Storefronts
   a. ADD: Item 2.3.B '(Equivalent Manufacturer Standard Thermal System).'
   b. DELETE: Item 2.3.B, 1-5 Manufacturer model numbers.

7. Section 084413 – Glazed Aluminum Curtain Walls
   a. ADD: Item 2.3.B '(Equivalent Manufacturer Standard Thermal System).'
   b. DELETE: Item 2.3.B, 1-4 Manufacturer model numbers.
   c. ADD: Item 2.3.B.5. Acceptable Manufacturer: EFCO Series 5600.

8. Section 095113 – Acoustical Ceilings

a. ADD: Item 2.3.A.2.c and 2.3.B.2.c Acceptable Manufacturer: Rockfon Artic.

9. Section 116723 – Shooting Range Equipment
   a. MODIFY: Item 2.1.B: Substitutions only permitted for 'Bullet Traps and Collection' and 'Baffles and Guards.'
   b. ADD: Item 2.1.B.2.a. Acceptable Manufacturers; Action Target, Rubber Berm Trap and Flame Lock Fire-Retardant; Action Target, Ceiling Baffles; Theissen Training Systems, Modular Bullet Trap.
   c. DELETE: Item 2.2.A.5, 6, 10.b and 10.c.
   d. DELETE: Item 2.3.A.2.
   e. MODIFY: Item 2.4.A from 'Model CB4 and Containment Ceiling, Model SC12, Re-Directive Guard, Model RG' to 'Model JA4, Rubber Air-Space Guard, Model JA8.'
   f. DELETE: Item 2.4.A.4.
   g. MODIFY: Item 2.4.A.6 from 'Model EG' to 'Model JA8.'
   h. DELETE: Item 2.4.A.7.

10. Section 235216 – Condensing Boilers
    a. ADD: Item 2.4.F: The gas/air system shall allow the boiler to modulate and remain stable throughout the firing range. An oxygen trim system shall be standard equipment, and shall consistently measure the oxygen in the exhaust gases, and adjust the air/fuel ratio by varying the combustion air speed, relative to the fuel valve settings, to ensure consistent efficiency, clean combustion, and high heat recovery throughout the modulation range.

11. Section 237413 – Rooftop Modular Air Handling Units (DOAU-FR-1)
    a. ADD: Item 2.1.7 – Acceptable Manufacturer: Aaon – Series RNA

12. Section 237416.12 – Packaged Rooftop Air Conditioning Units – 25 Ton and Below (RTU-FR-1)
    a. ADD: Item 2.1.E – Acceptable Manufacturer: Aaon

13. Section 237416.13 – Packaged Rooftop Air Conditioning Units – 25 Ton and Below (RTU-1 & RTU-2)
    a. ADD: Item 2.1.E – Acceptable Manufacturer: Aaon

14. Section 238216 – Split System Air Conditioning Units
    a. ADD: Item 2.1A – Acceptable Manufacturer: JCI

15. Section 238200 – Terminal Heat Transfer Units
    a. MODIFY: Item 2.1.J – Acceptable Manufacturer: Vulcan "Lino-Vane" to "PR2F"
    b. MODIFY: Item 2.1.J – Acceptable Manufacturer: Zehnder-Rittling "ETL" to "R2F"
    c. ADD: Item 2.2 G – Acceptable Manufacturer: Vulcan – HV.

16. Section 263213 – Packaged Engine Generator Systems
    a. MODIFY: Item 1.1 B & C – Removed remote radiator and Heat exchanger as not applicable to this project.
    b. MODIFY: Item 1.11 – Adjusted warranty from 10 year to 5 year to match standard.
    c. MODIFY: Item 2.3.D – Changed engine speed to 1800 rpms.
    d. MODIFY: Item 2.7 – Removed entire section as not applicable to this project.

DRAWING CHANGES:

1. Sheet S113:
    a. MODIFY (Attached): Precast roof panel note to remove the reinforcement restriction

2. Sheet A-601 (Attached) :
    a. ADD: Comment '1' to Door 145B.

3. Sheet A-602 (Attached):
    a. MODIFY: Frame Type 14 from Hollow Metal to Aluminum.

4. Sheet M602 (Attached):
    a. Changed electrical motor phase data for HWCP-1 and HWCP-2 from 1 phase to 3 phase.

5. Sheet E212 (Attached) :
    a. Changed circuit numbers for HWCP-1 and HWCP-2 to match pumps changing from 208V, 1 phase to 208V, 3 phase.
    b. Adjusted size of generator tap box from 600A to 700A.
    c. Adjusted size of DP-G from 600A to 700A.
    d. Changed generator size from 275kW to 350kW.

6. Sheet E500 (Attached):
    a. Added estimated short circuit current values for all panels.
    b. Adjusted some panelboard ratings based on estimated short circuit current values.
    c. Added general notes to clarify that emergency and legally required systems shall be fully coordinated.
    d. Changed ATS-2 rating from 300A to 600A.
    e. Changed ELP2 panel size from 300A to 600A.
    f. Changed wire sizes for ATS-2 and ELP2 to match rating changes.
    g. Removed panels serving Firing Range as not a part of base bid.
    h. Changed rating on 'DP-G' from 600A to 700A.
    i. Changed wire size of 'DP-G' from 600A to 700A.
    j. Changed wire sizes feeding transformers TR-E1, TR-E2, TR-1, and TR-2.
    k. Changed ATS-3 rating from 150A to 200A.
    l. Changed wire sizes for ATS-3 to match rating changes.
    m. Changed genset to 300kW / 375kVA.
    n. Changed wire size of gen set to match rating.
    o. Changed size of panel UP1 from 300A to 600A.
    p. Changed wire size of UP1 to match rating.

7. Sheet E501 (Attached):
    a. Added estimated short circuit current values for all panels.
    b. Adjusted some panelboard ratings based on estimated short circuit current values.
    c. Added general notes to clarify that emergency and legally required systems shall be fully coordinated.
    d. Changed ATS-2 rating from 300A to 600A.
    e. Changed ELP2 panel size from 300A to 600A.
    f. Changed wire sizes for ATS-2 and ELP2 to match rating changes.
    g. Changed ATS-3 rating from 150A to 200A.
    h. Changed wire sizes for ATS-3 to match rating.

i. Changed wire sizes feeding transformers TR-E1, TR-E2, TR-1, TR-2 and TR-3.
j. Changed size of panel UP1 from 300A to 600A.
k. Changed wire size of UP1 to match rating.

8. Sheet E700 (Attached):
    a. Changed circuit breaker sizes for ATS-2 in switchboard MSB to match upsizing.
    b. Changed circuit breaker sizes for ATS-2 in switchboard DP-G to match upsizing.
    c. Changed circuit breaker sizes for ATS-2 in switchboard DP-G1 to match upsizing.
    d. Changed rating of 'DP-G' from 600A to 700A for coordination.
    e. Added note on distribution panels 'DP-G' and 'DP-G1' to provide LSI settings on main circuit breakers.
    f. Changed SCCR ratings for panels 'DP-G' and 'DP-G1'.

9. Sheet E701 (Attached) :
    a. Changed panel rating / main circuit breaker for panel 'ELP2' from 300A to 600A.
    b. Changed circuit breaker size feeding TR-E1 to 50A.
    c. Changed wire size feeding TR-E1 to match new breaker size.
    d. Changed circuit breaker size feeding TR-E2 to 125A.
    e. Changed wire size feeding TR-E2 to match new breaker size.
    f. Changed circuit breaker size feeding TR-1 to 125A.
    g. Changed wire size feeding TR-1 to match new breaker size.
    h. Changed circuit breaker size feeding TR-2 to 125A.
    i. Changed wire size feeding TR-2 to match new breaker size.

10. Sheet E702 (Attached):
    a. Changed circuit breaker on panel LP3 from 100A to 70A

11. Sheet E703 (Attached) :
    a. Changed circuit breakers for HWCP-1 and HWCP-2 from 20A 2-pole breakers to 20A 3-pole breakers on panel 'ERP2'.

12. Sheet E704 (Attached) :
    a. Changed panel rating / main circuit breaker for panel 'UP1' from 300A to 600A.

GENERAL:

1. The Pre-Bid Meeting was held Tuessday, September 12th, 2023 at 10:30 AM followed by a walk- through of the facility. Sign-In Sheet attached.

2. Please contact Mandy Roberson, Contract Specialist, at 573-522-0074 or Mandy.Roberson@oa.mo.gov questions about bidding procedures and MBE\WBE\SDVE goals and submittal requirements.

3. **All bids shall be submitted on the bid forms without additional terms and conditions, modifications, or stipulations. Each space on the bid forms shall be properly filled including a bid amount for the alternate. Failure to do so will result in rejection of the bid.**

4. **MBE/WBE/SDVE participation requirements can be found in DIVISION 00. The MBE/WBE/SDVE participation goals are 10%/10%/3%, respectively. All MBE, WBE,**

and MBE/WBE contractors, subcontractors, and suppliers must be certified by the State of Missouri, Office of Equal Opportunity. No other certifications from other Missouri certifying agencies will be accepted. 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.

5. **The deadline for technical questions was September 26th, 2023 at noon.**
6. Changes to, or clarification of, the bid documents are only made as issued in the addenda.
7. All correspondence with respect to this project must include the State of Missouri project number as indicated above.
8. Current Planholders list available online at: https://www.oafmdcplanroom.com/jobs/2127/plan-holders/r2219-01-construct-new-headquarters-mshp-troop-a
9. Prospective Bidders contact American Document Solutions, 1400 Forum Blvd., Suite 7A, Columbia MO 65203, 573-446-7768 to order official plans and specifications.

ATTACHMENTS:

1. Pre-Bid Sign-In
2. S-113
3. A-601
4. A-602
5. M-602
6. E-212
7. E-500
8. E-501
9. E-700
10. E-701
11. E-702
12. E-703
13. E-704

END OF ADDENDUM NO. 1

Pre-Bid Meeting Attendance Sheet
Construct New Headquarters
Troop A HQ, MSHP
Lee's Summit, MO
Project No. R2219-01
9/12/23 1030

Name & Title	Company Name, Type of Contracting, MBE/WBE/SDVE Status	Phone	E-Mail Address
Chris Lloyd Project Manager	OA FMDC	573-526-0160	Christopher.lloyd@oa.mo.gov
Andy Meyer Designer	Gastinger Walker &	816-569-0824	ameyer@gastingerwalker.com
Laura Scott Designer	Gastinger Walker &	816-569-0834	Lscott@gastingerwalker.com
Mandy Roberson Contract Specialist	OA FMDC	573-522-0074	mandy.roberson@oa.mo.gov
Ricky Howard Construction Administrator	OA FMDC	816-728-0385	Ricky.howard@oa.mo.gov
Steven Wilhoit Troop Commander	MSHP Troop A	573 469-1404	Steven.Wilhoit@MSHP.DPS.MO.GOV

Pre-Bid Meeting Attendance Sheet
Construct New Headquarters
Troop A HQ, MSHP
Lee's Summit, MO
Project No. R2219-01
9/12/23 1030

Name & Title	Company Name, Type of Contracting, MBE/WBE/SDVE Status	Phone	E-Mail Address
LT. S.A. COATS	MSHP - A	(816) 944-9660	STEPHEN.COATS@MSHP.DPS.MO.GOV
SHANE GREEN LIEUTENANT	MSHP TROOP A	816-679-4723	derek.green@mshp.dps.mo.gov
Chris Hart Range Consultant	Action Target	(801) 319-1314	chrish@actiontarget.com
Tim Rosa	Titan Built LLC General Contractor	913 927 0338	trosa@titanbuilt.com
Michael Varhola	OA/FMDC	816-797-3442	michael.varhola@OA.MO.GOV
Cole Tagtmeyer	RED CONSTRUCTION SERVICES	913-530-3283	cole_tagtmeyer@redcs.com
Tate Holmes	E&K of Kansas City	816-674-8878	Tate.Holmes@e-kco.com

Pre-Bid Meeting Attendance Sheet
Construct New Headquarters
Troop A HQ, MSHP
Lee's Summit, MO
Project No. R2219-01
9/12/23 1030

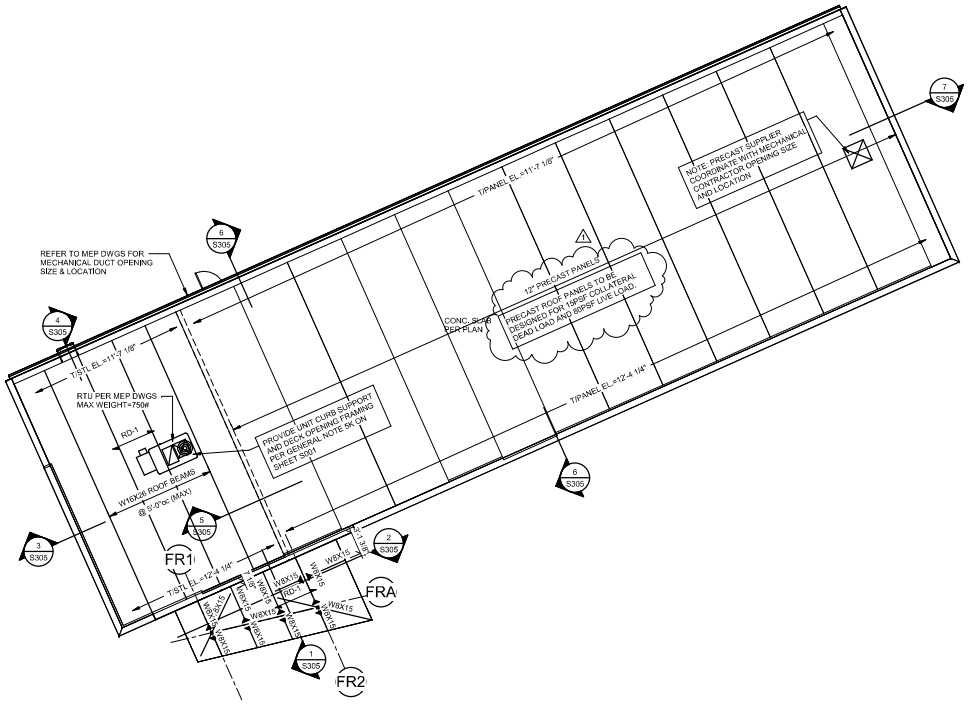
Name & Title	Company Name, Type of Contracting, MBE/WBE/SDVE Status	Phone	E-Mail Address
Jason Polallis PM	Core electric	816-852-9859	jpolallis@coreelectricKC.com
Austin Rethemeyer	Infinity Group	816-812-2792	austin.r@infinitygroupmo.com
CASEY O'DONNELL PM	BRINKMANN CONSTRUCTORS, GC	770.408.8433	CODONNELL@BRINKMANNCONSTRUCTORS.com
Bruce Hay Proj Engr	LMEG	816 918 7053	Bruce.E.Hay@LMEGCORP.com
Clark Basinger EOR	Bob D. Campbell & Co	8165314144	cbasinger@bdc-engrs.com
Matt Crossland PM	Crossland Const. Co.	479-439-1491	Matt.crossland@crossland.com

Pre-Bid Meeting Attendance Sheet
Construct New Headquarters
Troop A HQ, MSHP
Lee's Summit, MO
Project No. R2219-01
9/12/23 1030

Name & Title	Company Name, Type of Contracting, MBE/WBE/SDVE Status	Phone	E-Mail Address
Spencer Hinrichs / PM	Rand Construction / GC	~~816-421-~~ 913-231-5082	Spencer.h@randsc.com
Holly Lilig / PM	J.A. Lilig Excavating, Earthwork WBE/DBE	816-331-2280	holly@jalilig.com
Chuck Decker / Acct Mgr	Southwest Solutions Group/Spacesaver	913-558-1134	cdecker@southwestsolutions.com
Todd Meyers	Theissen Training (Range Equip)	352 327 2106	todd.meyers@~~theissentraining~~ theissentraining.net
Steve Dorrell	Anderson Mechanical	816-352-4787	steve@andersonmechanicalkc.com
Adam Kutny	BCS	715-991-0858	akutny@bldgcontrols.com

Pre-Bid Meeting Attendance Sheet
Construct New Headquarters
Troop A HQ, MSHP
Lee's Summit, MO
Project No. R2219-01
9/12/23 1030

Name & Title	Company Name, Type of Contracting, MBE/WBE/SDVE Status	Phone	E-Mail Address
MICHAEL BUTLER OWNER	PHOENIX FIRE LLC FIRE SPRINKLERS, NONE	(816) 838 1996	MBUTLER@PHOENIXFIRELLC.COM
Zach Brachtenbach	IMEG	816-842-8437	Zachary.M.Brachtenbach @imegcorp.com
CAMERON LAMPE	IMEG	816-842-8427	Cameron.lampe@imegcorp.com



1 ROOF FRAMING PLAN - FIRING RANGE (ALTERNATE #04)
1/8" = 1'-0"

STATE OF MISSOURI
MIKE PARSON,
GOVERNOR

Clark A. Basinger - Engineer
MO# 2010026832

GastingerWalker
Architects | Interior Designers | Construction Managers
817 Wyandotte Kansas City Missouri 64105 816.421.2800 gastingerwalker.com
Project Number: 2022.152

Bob D. Campbell & Company
Missouri Certificate of Authority: #PE0000042

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: Addendum No. 1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: S113.dwg
DRAWN BY: MLF
CHECKED BY: CAB
DESIGNED BY: BDC

SHEET TITLE:

ROOF FRAMING PLAN - FIRING RANGE (ALTERNATE #04)

SHEET NUMBER:

S113

SHEET 048 OF 202

08/01/2023

Door and Frame Schedule

Door Number		Room Name	Door				Frame			Rating	Hardware	Comments
			Type	Width	Height	Thickness	Type	Jamb	Head			
100	A	Vestibule	C	6' - 0"	7' - 0"	1 3/4"	12	6/A-503	5/A-503		Set 2,0	1
100	B	Vestibule	C	6' - 0"	7' - 0"	1 3/4"	12	6/A-503	5/A-503		Set 9,0	1
101	–	Lobby	B	3' - 6"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 10,0	
102	A	Reception	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 31,0	
102	B	Reception	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 31,0	
103	–	Men	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 43,0	
104	A	Conference	B	3' - 0"	7' - 0"	1 3/4"	1/A-210	2/A-503	14/A-501 SIM		Set 26,0	
104	B	Conference	B	3' - 0"	7' - 0"	1 3/4"	1/A-210	2/A-503	14/A-501 SIM		Set 26,0	
105	–	2 Zone Office	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
106	–	2 Zone Srgnt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
107	–	Sgt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
108	–	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
109	–	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
110	–	Clerk	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
111	–	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
112	–	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
113	–	Corridor	A	3' - 0"	7' - 0"	1 3/4"	8	6/A-503 SIM	5/A-503		Set 3,0	
115	–	Men	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 43,0	
116	–	Jan.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 33,0	
117	–	Women	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 43,0	
118	–	Radio Equip.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 19,0	
119	A	Radio Room	B	3' - 0"	7' - 0"	1 3/4"	4/A-210	2/A-503	14/A-501 SIM		Set 28,0	
119	B	Radio Room	B	3' - 0"	7' - 0"	1 3/4"	4/A-210	2/A-503	14/A-501 SIM		Set 28,0	
120	–	Electrical	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 21,1	
121	–	Break Room	B	3' - 0"	7' - 0"	1 3/4"	4	2/A-503	14/A-501 SIM		Set 34,0	
122	–	Men	B	3' - 0"	7' - 0"	1 3/4"	2	2/A-503 SIM	1/A-503 SIM		Set 39,0	
123	–	Women	B	3' - 0"	7' - 0"	1 3/4"	2	2/A-503 SIM	1/A-503 SIM		Set 39,0	
125	–	Electrical	B	3' - 6"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 21,1	
126	–	Trng. Officer	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
127	–	Chief Radio Op.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
128	–	Sgt./Clerk III	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
129	–	Supply	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 23,0	
133	–	Captain	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
134	–	Toilet	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 42,0	
135	A	Captain Asst.	B	3' - 0"	7' - 0"	1 3/4"	5	2/A-503	14/A-501 SIM		Set 26,0	
135	B	Captain Asst.	B	3' - 0"	7' - 0"	1 3/4"	5	2/A-503	14/A-501 SIM		Set 31,0	
135	C	Captain Asst.	A	3' - 0"	7' - 0"	1 3/4"	8	6/A-503 SIM	5/A-503		Set 3,0	
136	B	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
137	–	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
138	–	Open Office	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
139	–	Chief Comm. Veh.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
140	–	Clerk IV HR.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
141	–	Corridor	B	3' - 6"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 36,0	
143	–	Asst. Engr.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
144	–	Chief Comm. Engr.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
145	A	Vestibule	D	6' - 4"	7' - 0"	1 3/4"	7	6/A-503	5/A-503		Set 2,1	1
145	B	Vestibule	C	6' - 4"	7' - 0"	1 3/4"	14	2/A-503	14/A-501 SIM		Set 9,0	1 1
147	–	Kitchen	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 11,0	
148	–	Corp.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
149	–	Sgt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
150	–	Sgt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
151	–	Lt.	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
152	A	Corridor	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 33,0	

Door and Frame Schedule

Door Number		Room Name	Door				Frame			Rating	Hardware	Comments
			Type	Width	Height	Thickness	Type	Jamb	Head			
152	B	Corridor	B	3' - 6"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 13,0	
153	–	Outside Evidence Office	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 14,0	
154	–	Road Office	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 15,0	
155	A	Intake	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 37,0	
155	B	Intake	A	3' - 6"	7' - 0"	1 3/4"	8	14/A-503 SIM	10/A-503		Set 5,0	
156	–	Toilet	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 40,0	
157	–	Jan.	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 32,0	
158	–	Elec.	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 24,0	
160	–	Interview	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 35,0	Door Peep Scope; "In Use" sign above door
161	–	Obs.	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 35,0	Door Peep Scope; "In Use" sign above door
162	–	Women's Shower	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 41,0	
163	–	Men's Shower	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 41,0	
164	A	Automobile Service Garage	E	12' - 0"	12' - 0"	1 1/2"	MANF.	MANF.	MANF.		Set 1,0	2, 3
164	B	Automobile Service Garage	E	12' - 0"	12' - 0"	1 1/2"	MANF.	MANF.	MANF.		Set 1,0	2, 3
165	A	Radio Repair Bay	E	12' - 0"	12' - 0"	1 1/2"	MANF.	MANF.	MANF.		Set 1,0	2, 3
165	B	Radio Repair Bay	A	3' - 0"	7' - 0"	1 3/4"	9	14/A-503	9/A-503 SIM		Set 6,0	
166	–	Office	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
167	A	Building/Ground Maintenance	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 16,0	
167	B	Building/Ground Maintenance	E	12' - 0"	10' - 0"	1 1/2"	MANF.	MANF.	MANF.		Set 1,0	2, 3
167	C	Building/Ground Maintenance	A	3' - 0"	7' - 0"	1 3/4"	9	14/A-503	9/A-503 SIM		Set 6,0	
167	D	Building/Ground Maintenance	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 12,0	
168	A	Supply/Storage	E	12' - 0"	10' - 0"	1 1/2"	MANF.	MANF.	MANF.		Set 1,0	2, 3
168	B	Supply/Storage	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 17,0	
169	–	SWAT	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 25,0	
170	–	Fire Riser	A	3' - 6"	7' - 0"	1 3/4"	1	14/A-503	15/A-503		Set 7,0	
171	–	Mechanical	A	4' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 22,0	
172	–	Grounds Office	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 26,0	
173	A	Evidence Office	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 28,0	
173	B	Evidence Office	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 29,0	
174	–	Drying Room	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 23,0	
175	–	Drug Evidence	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 17,0	
176	–	Evidence Storage	A	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 18,0	
177	–	Lockable File Storage	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 21,0	
178	–	Toilet	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 40,0	
179	–	Chair Storage	B	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 38,0	
180	A	Troop Meeting Room	A	3' - 0"	7' - 0"	1 3/4"	9	14/A-503 SIM	10/A-503 SIM		Set 8,0	
180	B	Troop Meeting Room	B	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 30,0	
180	C	Troop Meeting Room	B	6' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 30,0	
180	D	Troop Meeting Room	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 10,0	
181	–	Women	B	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 43,0	
200	–	Lobby	C	3' - 0"	7' - 0"	1 3/4"	13	6/A-503	5/A-503		Set 4,0	(Alternate #04); 1
201	–	Office	A	3' - 0"	7' - 0"	1 3/4"	6	2/A-503	1/A-503		Set 26,0	(Alternate #04)
203	–	Storage	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 20,0	(Alternate #04)
204	–	Toilet	A	3' - 0"	7' - 0"	1 3/4"	1	2/A-503	1/A-503		Set 40,0	(Alternate #04)
205	A	Vestibule	A	3' - 0"	7' - 0"	1 3/4"	3	2/A-503	1/A-503		Set 32,0	(Alternate #04)
205	B	Vestibule	A	3' - 0"	7' - 0"	1 3/4"	2	2/A-503	1/A-503		Set 31,0	(Alternate #04)
206	–	Control	A	3' - 0"	7' - 0"	1 3/4"	10	2/A-503	1/A-503		Set 27,0	(Alternate #04)
207	–	Firing Range	A	3' - 0"	7' - 0"	1 3/4"	1	14/A-503	15/A-503		Set 8,0	(Alternate #04)

Door and Frame Schedule Comments:
1. Automatic door operator (087113).
2. Motorized operator (083613).
3. 48" High yellow "Z" guard track protection (083613).

General Notes:
A. All means of egress doors shall be of a side-swinging type.
B. All means of egress doors shall be readily openable from the side of which egress is to be made without the use of a key, special knowledge or effort.
C. Door handles, pulls, latches, locks and other operating devices shall be at maximum height of 48" above the finished floor.
D. Thresholds are not to exceed 1/2" in height with beveled edges no greater than 1:2 slope. typ.
E. Doors opening into mechanical or electrical equipment rooms, and entrances to vehicular traffic areas shall have a detectible warning knurled surface on the door handle.
F. Verify all lock functions and keying with Owner.

1 Door Schedule
Not to Scale

STATE OF MISSOURI
MIKE PARSON,
GOVERNOR

STATE OF MISSOURI
JANA E BEE TRIPLETT
NUMBER A-2002006831
ARCHITECT
Jana F. Bee Triplett - Architect
MO# 2002006831

GastingerWalker&
Architects | Interior Designers | Construction Managers
817 Wyandotte | Kansas City Missouri 64105 | 816.421.8200 gastingerwalker.com
Project Number: 2022.152

GastingerWalker& Architects, LLC
Missouri Certificate of Authority: #2023012872

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: #1 - Addendum 01
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: A-601.dwg
DRAWN BY: LS/KJ
CHECKED BY: JBT
DESIGNED BY: GW&

SHEET TITLE:

Door Schedule

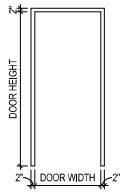
SHEET NUMBER:

A-601

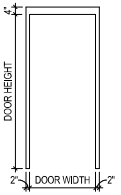
SHEET 093 OF 202

08/01/2023

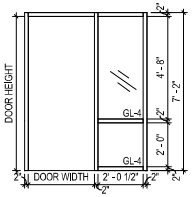
Frame Types



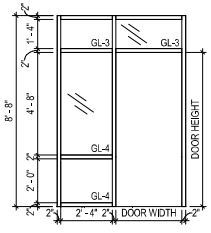
Frame Type '1'
Knock Down Hollow Metal, Painted
(081113, 099123)



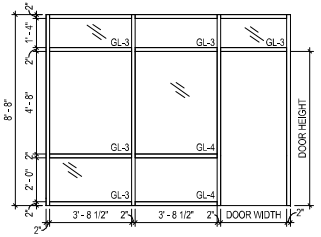
Frame Type '2'
Welded Hollow Metal, Painted
(081113, 099123)



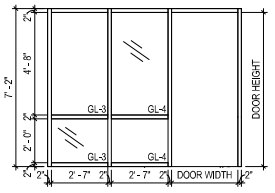
Frame Type '3' (Alternate #04)
Knock Down Hollow Metal, Painted
(081113, 099123)



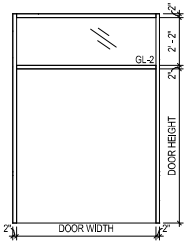
Frame Type '4'
Knock Down Hollow Metal, Painted
(081113, 099123)



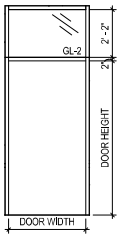
Frame Type '5'
Knock Down Hollow Metal, Painted
(081113, 099123)



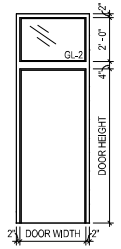
Frame Type '6' (Alternate #04)
Knock Down Hollow Metal, Painted
(081113, 099123)



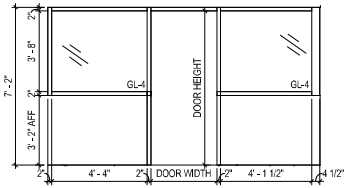
Frame Type '7'
Welded Hollow Metal, Painted
(084113)



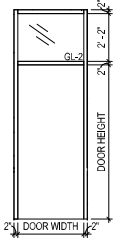
Frame Type '8'
Welded Hollow Metal, Painted
(081113, 099123)



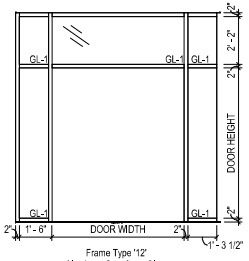
Frame Type '9'
Welded Hollow Metal, Painted
(081113, 099123)



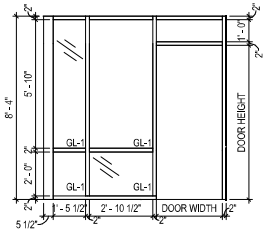
Frame Type '10' (Alternate #04)
Knock Down Hollow Metal, Painted
(081113, 099123)



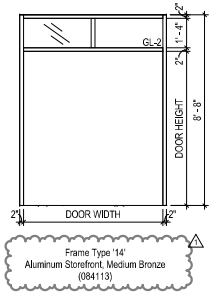
Frame Type '11'
Aluminum Storefront, Medium Bronze
(084113)



Frame Type '12'
Aluminum Storefront, Clear
(084113)

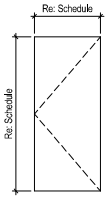


Frame Type '13' (Alternate #04)
Aluminum Storefront, Medium Bronze
(084113)

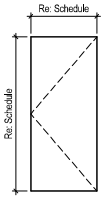


Frame Type '14'
Aluminum Storefront, Medium Bronze
(084113)

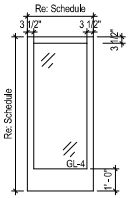
Door Types:



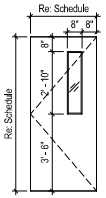
Door Type 'A'
Hollow Metal, Painted
(081113, 099123)



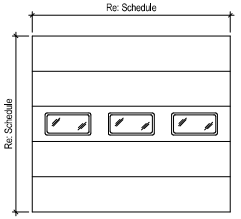
Door Type 'B'
Solid Core Wood, Stained
(081416, 099123)



Door Type 'C'
Aluminum Entrace with Full Lite
(084113)



Door Type 'D'
Hollow Metal with Lite, Painted
(081113, 099123)



Door Type 'E'
Overhead Sectional
(083613)

STATE OF MISSOURI
MIKE PARSON,
GOVERNOR

STATE OF MISSOURI
JANA E BEE TRIPLETT
NUMBER A-2002006831
ARCHITECT
Jana E Bee Triplett - Architect
MO# 2002006831

GastingerWalker
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817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com
Project Number: 2022.152

GastingerWalker& Architects, LLC.
Missouri Certificate of Authority: #2023012872

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: Addendum 01
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: A-602.dwg
DRAWN BY: SW
CHECKED BY: JBT
DESIGNED BY: GW&

SHEET TITLE:

Door and Frame Types

SHEET NUMBER:

A-602

SHEET 094 OF 202

08/01/2023

TERMINAL AIR BOX SCHEDULE - FAN POWERED WITH REHEAT

NOTES:
1.NEITHER RADIATED NOR DISCHARGE SOUND LEVELS SHALL EXCEED NC 35 AT 1.5" INLET STATIC PRESSURE WHEN TESTED PER AHRI STANDARD 885-2008 USING 5/8" 20-LB DENSITY MINERAL FIBER CEILING TILE.
2.TOTAL AIR PRESSURE DROP OF TAB AND REHEAT COIL SHALL NOT EXCEED 0.50" WC.
3.REFER TO CONTROL DRAWINGS FOR DESCRIPTION OF CONTROL TYPE.
4.SENSOR TYPES: 1 - SENSOR ONLY, 2 - SENSOR WITH ADJUSTMENT, 3 - SENSOR WITH OVERRIDE, 4 - SENSOR WITH ADJUSTMENT AND OVERRIDE.
5.HEATING COIL IS BASED ON HEATING AIR FLOW. WATER PRESSURE DROP OF REHEAT COILS SHALL NOT EXCEED 5'. PROVIDE REHEAT COILS SEPARATE FROM BOXES IF REQUIRED TO MEET WATER PRESSURE DROP REQUIREMENTS.
6.HEATING COIL SELECTION SHALL BE BASED ON A FIXED LEAVING AIR TEMPERATURE AND VARIABLE FLOW (GPM). PROVIDE FINAL MAXIMUM FLOW RATE (GPM) TO TEST & BALANCE AND TEMPERATURE CONTROLS CONTRACTORS.

			CFM	HEATING COIL (NOTE 5)						FAN			ELECTRICAL											
TAG NAME	AREA SERVED	CONFIGURATION	MAX.	MIN.	EAT °F	LAT °F	EWT °F	MAX. GPM	MIN. INLET SIZE	CFM	S.P. IN. W.C.	HP	VOLTAGE	PHASES	DISCONNECT BY (NOTE A)	DISCONNECT TYPE (NOTE B)	CONTROLLER/ STARTER BY (NOTE A)	CONTROLLER / STARTER SCCR	CONTROL TYPE (NOTE 3)	SENSOR TYPE (NOTE 4)	WEIGHT	MANUFACTURER	MODEL (NOTES 1, 2)	NOTES
VFP-1	OFEN WORKSPACE 142 / CHIEF COMM. ENGR. 144	PARALLEL	1130	340	60	95	160	1.0	12"	450	0.5	0.25	120	1	EC	NF	MC	5000	NOTE 3	NOTE 4	24	TITUS	DTQP	NOTES 1, 2
VFP-2	OPEN WORKSPACE 142	PARALLEL	900	270	60	95	160	1.0	10"	450	0.5	0.25	120	1	EC	NF	MC	5000	NOTE 3	NOTE 4	20	TITUS	DTQP	NOTES 1, 2

BOILER SCHEDULE - HOT WATER

NOTES:
1.

										ELECTRICAL					MAX. DIMENSIONS (IN.)			WEIGHT (LBS)				
													DISCONNECT		CONTROLLER/ STARTER								
TAG NAME	NOMINAL BHP	FUEL	INLET FUEL PRESSURE (PSI)	TURNDOWN RATIO	INPUT MBH	OUTPUT MBH	EWT °F	LWT °F	OPERATING PRESSURE PSI	HP	VOLTAGE	PHASES	BY	TYPE	BY	SCCR	LENGTH	WIDTH	HEIGHT	DRY	OPERATING	MANUFACTURER	MODEL	NOTES
BLR-1	42.5	NAT. GAS	2	20:1	1500	1425	130	160	0	0	120	1	EC	FUSED	MC	5000	60.3	30.2	80.0	1600	2292	LAARS Heating Systems	MAGNATHERM FT	
BLR-2	42.5	NAT. GAS	2	20:1	1500	1425	130	160	0	0	120	1	EC	FUSED	MC	5000	60.3	30.2	80.0	1600	2292	LAARS Heating Systems	MAGNATHERM FT	

SPLIT SYSTEM UNIT SCHEDULE

NOTES:
1.PROVIDE LOW AMBIENT WIND BAFFLE FOR OU"DOOR UNIT

		INDOOR UNIT							OUTDOOR UNIT						ELECTRICAL									
				MAX. DIMENSIONS						MAX. DIMENSIONS									DISCONNECT		CONTROLLER/ STARTER			
TAG NAME	AREA SERVED	CFM	COOLING MBH	LENGTH	WIDTH	HEIGHT	WEIGHT	MODEL	SEER	HEIGHT	LENGTH	WIDTH	WEIGHT	MODEL	VOLTAGE	PHASE	MCA	MOCP AMPS	BY	TYPE	BY	SCCR	MANUFACTURER	NOTES
CU-ER-1	ELEC RM 158	455	18	35	9	11	28	PKA-A18-LA	21.4	2'-0"	2'-8"	1'-0"	92	PUY-A18NKA7	208	1	19.0	26	EC	FUSED	MC	5000	MITSUBISHI	1
CU-ER-2	ELEC RM 120	310	12	35	9	11	28	PKA-A12-LA	21.4	2'-0"	2'-8"	1'-0"	92	PUY-A12NKA7	208	1	19.0	26	EC	FUSED	MC	5000	MITSUBISHI	1
CU-ER-3	ELEC RM 120	455	18	35	9	11	28	PKA-A18-LA	21.4	2'-0"	2'-8"	1'-0"	92	PUY-A18NKA7	208	1	19.0	26	EC	FUSED	MC	5000	MITSUBISHI	1

PUMP SCHEDULE

NOTES:
1.PROVIDE SHAFT GROUNDING AS REQUIRED IN THE MOTOR SPECIFICATION 23 05 13.

									ELECTRICAL (NOTE 1)						MAX. DIMENSIONS					
											DISCONNECT		CONTROLLER/ STARTER							
TAG NAME	AREA SERVED	GPM	PUMP FT. HEAD AT DESIGN	MINIMUM PUMP EFFICIENCY	INLET SIZE	IMPELLER SIZE	HP (NOTE E)	RPM	VOLTAGE	PHASES	BY	TYPE	BY	TYPE	LENGTH	WIDTH	HEIGHT	WEIGHT	MANUFACTURER	MODEL	NOTES
HWCP-1	HQ BUILDING - PRIMARY	128.0	10.00	61.8	3"	7.000	2	1883	208	3	EC	FUSED	MC	ECM	12	10	16	49	B & G	eccoirc XL 27-320	
HWCP-2	HQ BUILDING - PRIMARY	128.0	10.00	61.8	3"	7.000	2	1883	208	3	EC	FUSED	MC	ECM	12	10	16	49	B & G	eccoirc XL 27-320	

WASTE OIL HEATER/FURNACE SCHEDULE

NOTES:
1. BASE BID - OWNER PROV DED WOH OF EQUAL SIZE AND MODEL. ALTERNATE #1: CLEAN-BURN 1750 CENTRAL FURNACE PACKAGE WITH OIL STORAGE TANK

			FAN/BLOWER					ELECTRICAL					HEATING		MAX. DIMENSIONS (IN.)			WEIGHT		VIBRATION ISOLATION			
										DISCONNECT		CONTROLLER/ STARTER											
TAG NAME	AREA SER/ED	EXT. S.P. IN. W.C.	CFM (HIGH SPEED)	MAX. COIL A.P.D. IN. W.C.	HP	RPM	AIR FLOW TYPE	VOLTAGE	PHASES	BY	TYPE	BY	SCCR	CAPACITY - BTU/HR	OIL CONSUMPTION (G.P.H.)	LENGTH	WIDTH	HEIGHT	DRY	OPERATING	TYPE	MANUFACTURER	MODEL	NOTES
WOH-1	AUTO SERVICE GARAGE 164	0.5	1,700	0.25	0.75	3200	CROSSFLOW	120 V	1	EC	SWITCH	MFR	5000	175000	1.2	83	27	27	400	408	NEOPRENE	CLEAN BURN	CB-1750	

LINEAR DIFFUSER SCHEDULE

NOTES:
1.CONTRACTOR SHALL DETERMINE PROPER MARGIN STYLE TO MATCH CEILING CONSTRUCTION.
2.PROVIDE WITH CONCEALED FASTENERS.
3.DIFFUSERS WITH MULTIPLE SLOTS SHALL HAVE THE INNER MOST SLOT DIRECTED TOWARDS THE INTERIOR OF THE BUILDING, THE REMAINING SHALL BE DIRECTED TOWARDS THE EXTERIOR UNLESS NOTED OTHERWISE.2 – 34375

TAG NAME	MATERIAL	SLOT WIDTH	NO. OF SLOTS	WIDTH	LENGTH	PLENUM REQUIRED	PLENUM INSULATION TYPE	PLENUM INLET SIZE	PATTERN CONTROL REQUIRED	BALANCING DAMPER REQUIRED	FINISH	MANUFACTURER	MODEL	NOTES
LD-1	STEEL	1"	2	4"	4'-0"	Yes	WRAPPED	SEE DWG.	Yes	No	WHITE	TITUS	TBD	NOTE 1, 2 , & 3
LD-2	STEEL	1"	1	4"	4'-0"	Yes	WRAPPED	SEE DWG.	Yes	No	WHITE	TITUS	TBD	NOTE 1, 2 , & 3
LD-3	STEEL	1"	1	4"	2'-0"	Yes	WRAPPED	SEE DWG.	Yes	No	WHITE	TITUS	TBD	NOTE 1, 2 , & 3
LD-4	STEEL	3/4"	2	3 1/2"	2'-0"	Yes	WRAPPED	SEE DWG.	Yes	No	WHITE	TITUS	TBD	NOTE 1, 2 , & 3

GENERAL SHEET NOTE: MANUFACTURER(S) LISTED ARE BASIS OF DESIGN (B.O.D.). SEE SPECIFICATICNS FOR APPROVED ALTERNATES

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER PE-2007017824
PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
MO# 22817

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Project Number 2022.152

IMEG, CORP.
Missouri Certificate of Authority: #F001325536

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: ADDENDUM #1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

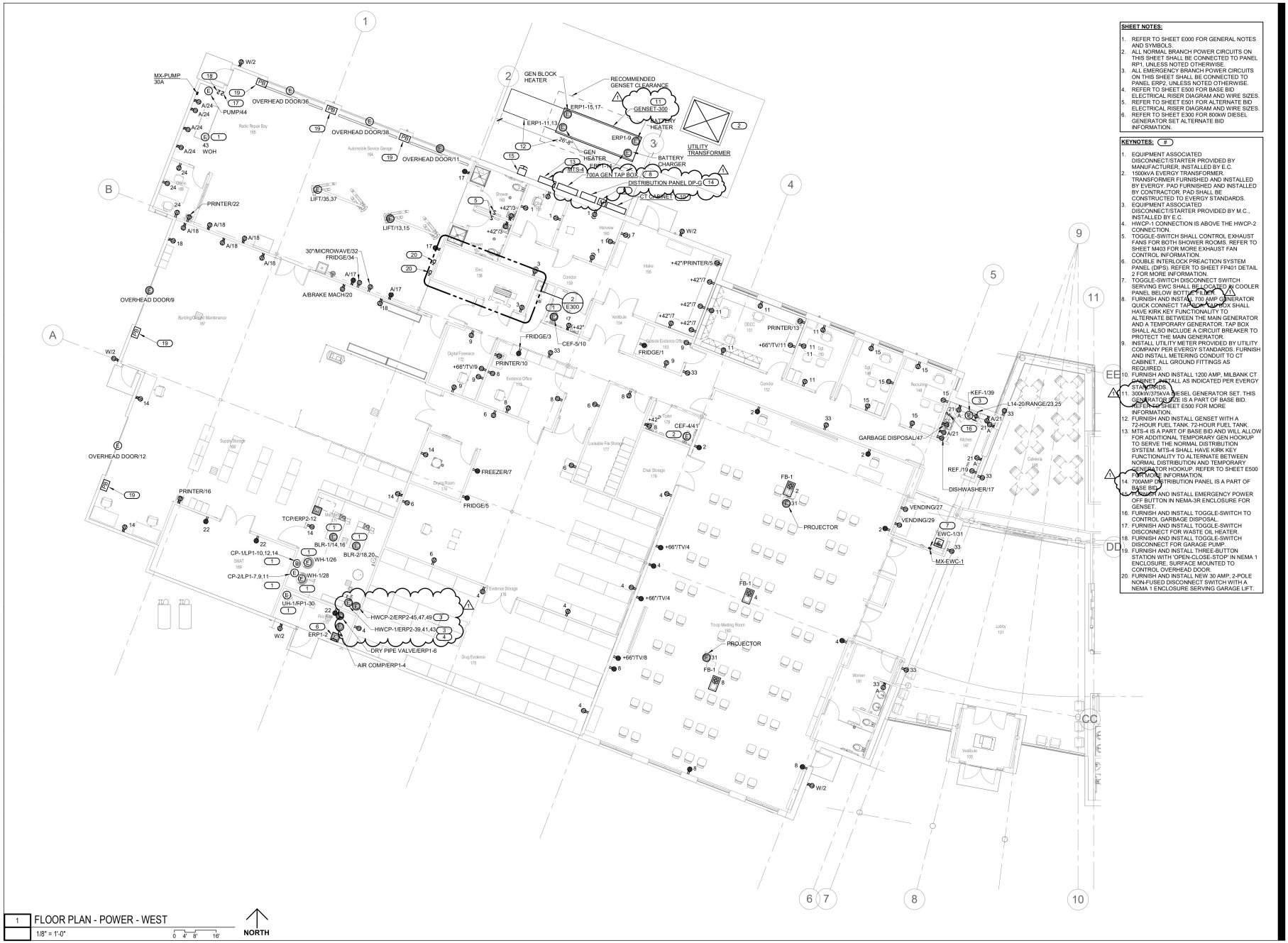
CAD DWG FILE: M602.dwg
DRAWN BY: JCL
CHECKED BY: BEH
DESIGNED BY: GW&

SHEET TITLE:
MECHANICAL SCHEDULES

SHEET NUMBER:
M602

SHEET 157 OF 202

08/01/2023



1 FLOOR PLAN - POWER - WEST

1/8" = 1'-0" 0 4' 8' 16'

NORTH

SHEET NOTES:

1. REFER TO SHEET E000 FOR GENERAL NOTES AND SYMBOLS.
2. ALL NORMAL BRANCH POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL RP1, UNLESS NOTED OTHERWISE.
3. ALL EMERGENCY BRANCH POWER CIRCUITS ON THIS SHEET SHALL BE CONNECTED TO PANEL ERP2, UNLESS NOTED OTHERWISE.
4. REFER TO SHEET E500 FOR BASE BID ELECTRICAL RISER DIAGRAM AND WIRE SIZES.
5. REFER TO SHEET E501 FOR ALTERNATE BID ELECTRICAL RISER DIAGRAM AND WIRE SIZES.
6. REFER TO SHEET E300 FOR 800kW DIESEL GENERATOR SET ALTERNATE BID INFORMATION.

KEYNOTES: (#)

1. EQUIPMENT ASSOCIATED DISCONNECT/STARTER PROVIDED BY MANUFACTURER, INSTALLED BY E.C.
2. 1500kVA EVERGY TRANSFORMER. TRANSFORMER FURNISHED AND INSTALLED BY EVERGY. PAD FURNISHED AND INSTALLED BY CONTRACTOR. PAD SHALL BE CONSTRUCTED TO EVERGY STANDARDS.
3. EQUIPMENT ASSOCIATED DISCONNECT/STARTER PROVIDED BY M.C., INSTALLED BY E.C.
4. HWCP-1 CONNECTION IS ABOVE THE HWCP-2 CONNECTION.
5. TOGGLE-SWITCH SHALL CONTROL EXHAUST FANS FOR BOTH SHOWER ROOMS. REFER TO SHEET M403 FOR MORE EXHAUST FAN CONTROL INFORMATION.
6. DOUBLE INTERLOCK PREACTION SYSTEM PANEL (DIPS). REFER TO SHEET FP401 DETAIL 2 FOR MORE INFORMATION.
7. TOGGLE-SWITCH DISCONNECT SWITCH SERVING EWC SHALL BE LOCATED IN COOLER PANEL BELOW BOTTLE FILLER.
8. FURNISH AND INSTALL 700 AMP GENERATOR QUICK CONNECT TAP BOX. TAP BOX SHALL HAVE KIRK KEY FUNCTIONALITY TO ALTERNATE BETWEEN THE MAIN GENERATOR AND A TEMPORARY GENERATOR. TAP BOX SHALL ALSO INCLUDE A CIRCUIT BREAKER TO PROTECT THE MAIN GENERATOR.
9. INSTALL UTILITY METER PROVIDED BY UTILITY COMPANY PER EVERGY STANDARDS. FURNISH AND INSTALL METERING CONDUIT TO CT CABINET, ALL GROUND FITTINGS AS REQUIRED.
10. FURNISH AND INSTALL 1200 AMP, MILBANK CT CABINET, INSTALL AS INDICATED PER EVERGY STANDARDS.
11. 300kW/375kVA DIESEL GENERATOR SET. THIS GENERATOR SIZE IS A PART OF BASE BID. REFER TO SHEET E500 FOR MORE INFORMATION.
12. FURNISH AND INSTALL GENSET WITH A 72-HOUR FUEL TANK. 72-HOUR FUEL TANK.
13. MTS-4 IS A PART OF BASE BID AND WILL ALLOW FOR ADDITIONAL TEMPORARY GEN HOOKUP TO SERVE THE NORMAL DISTRIBUTION SYSTEM. MTS-4 SHALL HAVE KIRK KEY FUNCTIONALITY TO ALTERNATE BETWEEN NORMAL DISTRIBUTION AND TEMPORARY GENERATOR HOOKUP. REFER TO SHEET E500 FOR MORE INFORMATION.
14. 700AMP DISTRIBUTION PANEL IS A PART OF BASE BID.
15. FURNISH AND INSTALL EMERGENCY POWER OFF BUTTON IN NEMA-3R ENCLOSURE FOR GENSET.
16. FURNISH AND INSTALL TOGGLE-SWITCH TO CONTROL GARBAGE DISPOSAL.
17. FURNISH AND INSTALL TOGGLE-SWITCH DISCONNECT FOR WASTE OIL HEATER.
18. FURNISH AND INSTALL TOGGLE-SWITCH DISCONNECT FOR GARAGE PUMP.
19. FURNISH AND INSTALL THREE-BUTTON STATION WITH 'OPEN-CLOSE-STOP' IN NEMA 1 ENCLOSURE, SURFACE MOUNTED TO CONTROL OVERHEAD DOOR.
20. FURNISH AND INSTALL NEW 30 AMP, 2-POLE NON-FUSED DISCONNECT SWITCH WITH A NEMA 1 ENCLOSURE SERVING GARAGE LIFT.

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER PE-2007017824
PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
MO# 22817

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Project Number 2022.152

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Missouri Certificate of Authority: #F001325536

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MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: ADDENDUM #1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE:
ISSUE DATE: 01 August 2023

CAD DWG FILE: E212.dwg
DRAWN BY: JTS
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:

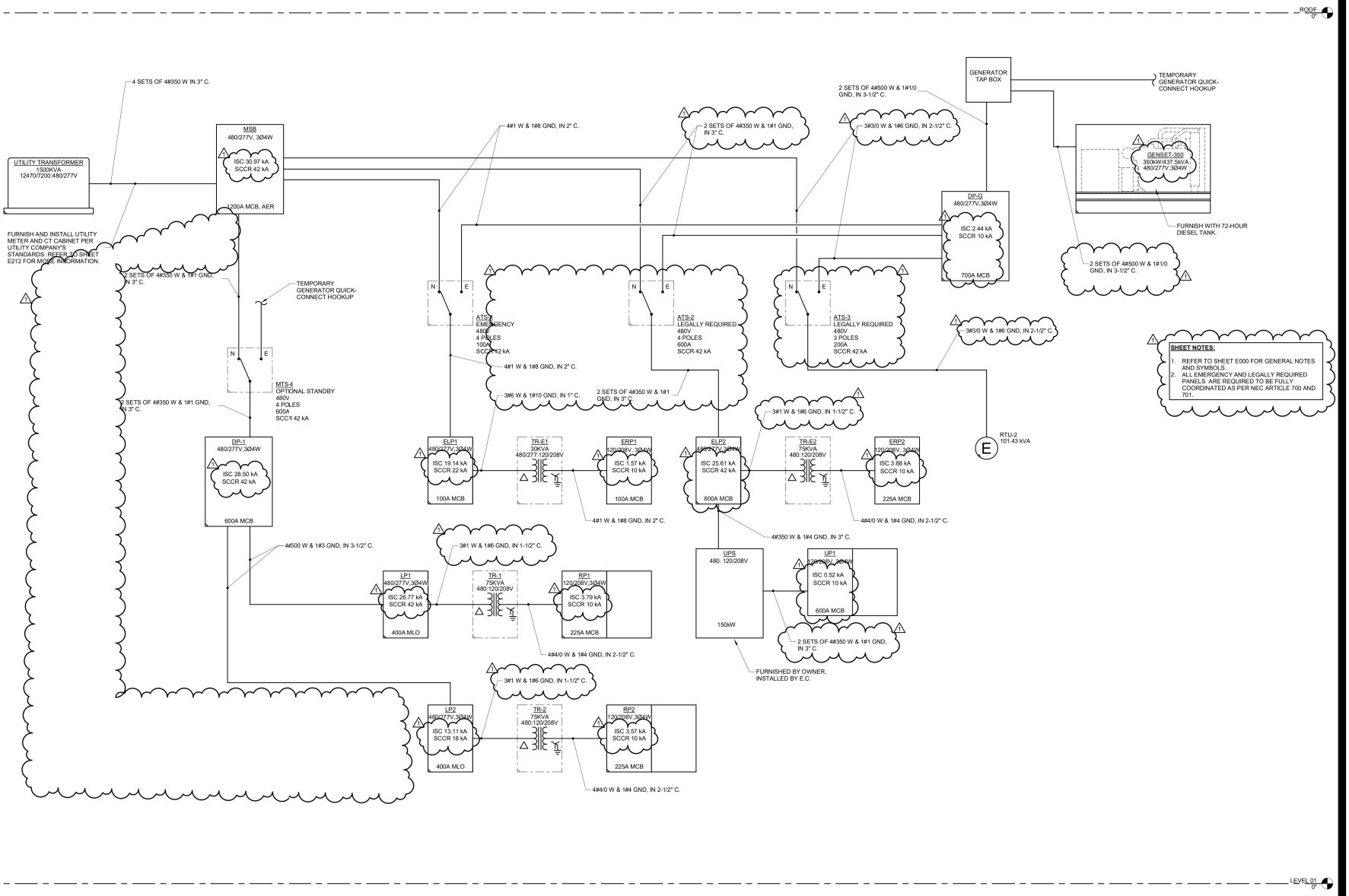
FLOOR PLAN - POWER - WEST

SHEET NUMBER:

E212

SHEET 171 OF 202

08/01/2023



1 **ELECTRICAL RISER DIAGRAM**
NO SCALE

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER E-22817
PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
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DATE: Bid Documents
ISSUE DATE: 01 August 2023

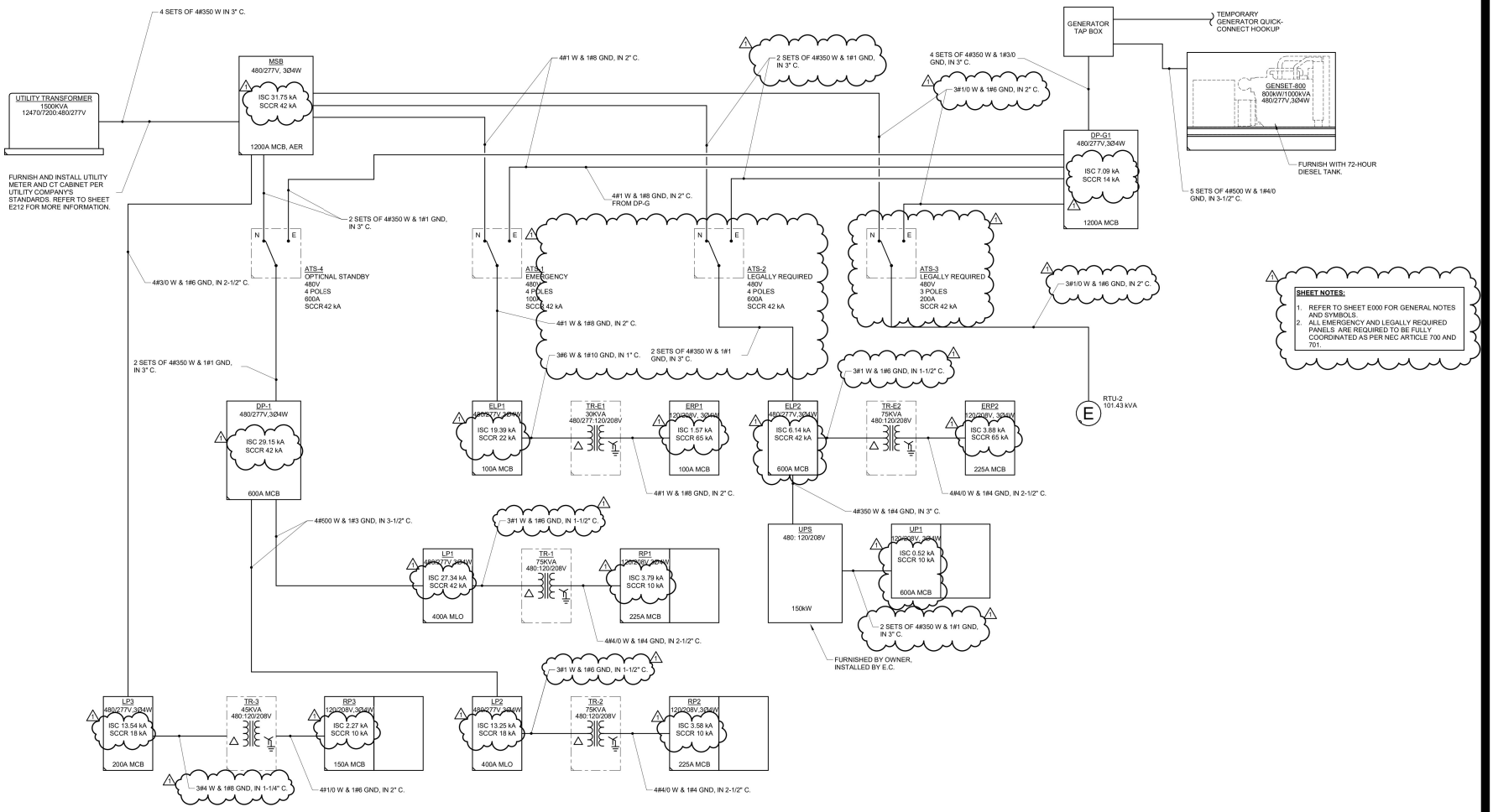
CAD DWG FILE: E500.dwg
DRAWN BY: ZMB
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL RISER DIAGRAM - BASE BID

SHEET NUMBER:
E500

SHEET 183 OF 202

08/01/2023



1 ELECTRICAL RISER DIAGRAM

12" = 1'-0"

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER E-22817
PROFESSIONAL ENGINEER
08-01-2023

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DATE: 26 September 2023
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REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: E501.dwg
DRAWN BY: JTS
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL RISER DIAGRAM (ALTERNATE #03)

SHEET NUMBER:
E501

SHEET 184 OF 202

08/01/2023

SWITCHBOARD MSB

ENCLOSURE: NEMA 1
FED FROM: 1,200 A/3P @ UTILITY TRANSFORMER
LOCATION: Elec. 158

SOLID NEUTRAL GROUND BUS

MAIN: 1,200 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA
ISC UNKNOWN 0 A

NOTES: PROVIDE LSI SETTINGS AND GROUND FAULT SETTINGS ON 1200 AMP MAIN CIRCUIT BREAKER.

CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	ATS-1 ELEC. 158	13.45 kVA	3	400 A	400 A	CB	LSI	4#1/0 & #8 GND IN 2" C.	
2	ATS-2 ELEC. 158	205.4 kVA	3	800 A	600 A	CB	LSI	2 SETS OF 4#350 W & 1#1 GND IN 3" C.	
3	ATS-3 ELEC. 158	164.43 kVA	3	200 A	150 A	CB	LSI	4#4 W & 1#6 GND IN 2" C.	
4	PANEL LP3: FIRING RANGE ELEC. RM	133.91 kVA	3	250 A	200 A	CB	LSI	4#3/0 & #6 EGC IN 2 1/2" C.	A
5	DP-1 via MTS-4 OR ATS-4	271.19 kVA	3	800 A	600 A	CB	LSI	2 SETS OF 4#350 W & 1#1 GND IN 3" C.	
6	SPARE	0 kVA	3	400 A	400 A	--	--	--	--
7	SPARE	0 kVA	3	400 A	200 A	--	--	--	--
8									

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	261.941 kVA	100.00%	261.941 kVA		
Lighting	17.548 kVA	100.00%	17.548 kVA	**TOTAL CONNECTED LOAD:**	725.18 kVA
Other	0 kVA	0.00%	0 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	676.681 kVA
Power	338.689 kVA	100.00%	338.689 kVA	**TOTAL CONNECTED AMPS:**	872.26 A
Receptacles	107.006 kVA	54.67%	58.503 kVA	**TOTAL ESTIMATED DEMAND AMPS:**	813.9 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDJNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: A - CIRCUIT BREAKER AND CIRCUIT ARE A PART OF ALTERNATE #04.

DISTRIBUTION PANEL DP-1

ENCLOSURE: NEMA PB 1
FED FROM: 600 A/3P CB @ MSB
LOCATION: Elec. 158

SOLID NEUTRAL GROUND BUS

MAIN: 600 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA
ISC UNKNOWN 0 A

NOTES:

CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	PANEL LP1: ELEC. 158	56.19 kVA	3	400 A	400 A	CB		4#500 & 1#3 GND IN 3-1/2" C.	
2	PANEL LP2: ELEC. 120	54.55 kVA	3	400 A	400 A	CB		4#500 & 1#3 GND IN 3-1/2" C.	
3	RTU-1: WEST ROOF	160.45 kVA	3	400 A	400 A	CB		3#500 & 1#3 GND IN 3-1/2" C.	
4	SPARE	0 kVA	3	400 A	400 A	--	--	--	--
5	SPARE	0 kVA	3	250 A	200 A	--	--	--	--
6	SPARE	0 kVA	3	150 A	100 A	--	--	--	--
7									
8									
9									
10									
11									
12									

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	160.515 kVA	100.00%	160.515 kVA		
Lighting	11.746 kVA	100.00%	11.746 kVA	**TOTAL CONNECTED LOAD:**	271.19 kVA
Power	32.181 kVA	100.00%	32.181 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	242.815 kVA
Receptacles	66.746 kVA	57.49%	38.373 kVA	**TOTAL CONNECTED AMPS:**	326.19 A
				TOTAL ESTIMATED DEMAND AMPS:	292.1 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDJNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

DISTRIBUTION PANEL DP-G

ENCLOSURE: NEMA 3R
FED FROM: 0 A/0P @
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 700 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC UNKNOWN 0 A

NOTES: THIS DIST. PANEL IS A PART OF BASE BID. PROVIDE LSI SETTINGS ON MAIN CIRCUIT BREAKER.

CKT	LOAD DESCRIPTION	Load	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	ATS-1	13.45 kVA	3	400 A	400 A	CB		4#1 W & 1#6 GND IN 2" C.	
2	ATS-2	205.4 kVA	3	800 A	600 A	CB		2 SETS OF 4#350 W & 1#1 GND IN 3" C.	
3	ATS-3	164.43 kVA	3	400 A	150 A	CB		4#4 W & 1#6 GND IN 2" C.	
4	SPARE	0 kVA	3	400 A	400 A	--	--	--	--
5									

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	101.426 kVA	100.00%	101.426 kVA		
Lighting	3.551 kVA	100.00%	3.551 kVA	**TOTAL CONNECTED LOAD:**	320.08 kVA
Power	183.445 kVA	100.00%	183.445 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	309.252 kVA
Receptacles	31.68 kVA	65.79%	20.83 kVA	**TOTAL CONNECTED AMPS:**	385.00 A
				TOTAL ESTIMATED DEMAND AMPS:	372 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

DISTRIBUTION PANEL DP-G1

ENCLOSURE: NEMA 3R
FED FROM: 0 A/0P @
LOCATION:

SOLID NEUTRAL GROUND BUS

MAIN: 1,200 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 14 kA
ISC UNKNOWN 0 A

NOTES: THIS DIST. PANEL IS A PART OF ALTERNATE #3 WITH THE 800KW GENERATOR. PROVIDE LSI SETTINGS ON MAIN CIRCUIT BREAKER.

CKT	LOAD DESCRIPTION	LOAD	POLES	FRAME	TRIP	TYPE	ACC.	WIRE AND RACEWAY	CIRCUIT KEY
1	ATS-1	13.45 kVA	3	400 A	400 A	CB		4#1 W & 1#6 GND IN 2" C.	
2	ATS-2	206.2 kVA	3	800 A	600 A	CB	--	2 SETS OF 4#350 W & 1#1 GND IN 3" C.	--
3	ATS-3	164.43 kVA	3	400 A	150 A	CB		4#4 W & 1#6 GND IN 2" C.	--
4	ATS-4	271.19 kVA	3	800 A	600 A	CB		2 SETS OF 4#350 W & 1#1 GND IN 3" C.	
5	SPARE	0 kVA	3	400 A	400 A	--	--	--	--

LOAD SUMMARY (INCLUDES ALL TUBS IN THIS PANEL)

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	261.941 kVA	100.00%	261.941 kVA		
Lighting	15.297 kVA	100.00%	15.297 kVA	**TOTAL CONNECTED LOAD:**	592.07 kVA
Power	215.826 kVA	100.00%	215.826 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	537.367 kVA
Receptacles	99.006 kVA	44.96%	44.503 kVA	**TOTAL CONNECTED AMPS:**	712.17 A
				TOTAL ESTIMATED DEMAND AMPS:	646.61 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER
E-22817
PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
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DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: E700.dwg
DRAWN BY: JTS
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:
E700

SHEET 186 OF 202
08/01/2023

PANEL ELP1

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 20 A/3P @ ATS-1
LOCATION: Elec. 158

SOLID NEUTRAL
GROUND BUS

MAIN: 100 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 22 kA
ISC UNKNOWN 0.00 kA

NOTES: FURNISH AND INSTALL INTERNAL SPD IN THIS PANEL.

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	LTS: WEST EMERGENCY LTS	20 A	1	12	--	12	2.06	1.29		12	12	12	1	20 A	LTS: EAST EMERGENCY LTS	2	
	3	TR-E1	50 A	3	6	--	10		2.6	0	--	--	--	3	40 A	SPD	4	--
--	5	--	--	--	--	--	--			3.81	0	--	--	--	--	--	6	--
--	7	--	--	--	--	--	--	3.5	0		--	--	--	--	--	--	8	--
--	9	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	10	--
--	11	SPARE	20 A	1	--	--	--			0	0	--	--	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	14	--
--	15	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--			0	0	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	20	--
--	21	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	42	--
			Total Load:					6.85 kVA	2.60 kVA	3.81 kVA								
			Total Amps:					25.41	9.39	14.43								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	3.351 kVA	100.00%	3.351 kVA
Power	9.91 kVA	100.00%	9.91 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	13.26 kVA
TOTAL ESTIMATED DEMAND LOAD:	13.261 kVA
TOTAL CONNECTED AMPS:	15.95 A
TOTAL ESTIMATED DEMAND AMPS:	16 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL ELP2

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 600 A/3P @ ATS-2
LOCATION: Elec. 158

SOLID NEUTRAL
GROUND BUS

MAIN: 600 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA
ISC UNKNOWN 0.00 kA

NOTES: FURNISH AND INSTALL INTERNAL SPD IN THIS PANEL.

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	TR-E2: ELEC. 158	125 A	3	1	--	6	5.75	4.38									
--	3	--	--	--	--	--	--		13.26	4.38								
--	5	--	--	--	--	--	--			14.44	4.38	--	--	--	--	--	6	--
	7	CU: EAST ROOF	40 A	3	8	8	10	4.38	4.38					10	8	8	3	40 A	CU: EAST ROOF	8	
--	9	--	--	--	--	--	--		4.38	4.38				--	--	--	--	--	--	10	--
--	11	--	--	--	--	--	--			4.38	4.38	--	--	--	--	--	--	--	--	12	--
	13	CU: EAST ROOF	40 A	3	8	8	10	4.38	0					--	--	--	3	40 A	SPARE	14	--
--	15	--	--	--	--	--	--		4.38	0				--	--	--	--	--	--	16	--
--	17	--	--	--	--	--	--			4.38	0	--	--	--	--	--	--	--	--	18	--
--	19	SPD	40 A	3	--	--	--	0	0					--	--	--	3	40 A	SPARE	20	--
--	21	--	--	--	--	--	--			0	0	--	--	--	--	--	--	--	--	22	--
--	23	--	--	--	--	--	--			0	0	--	--	--	--	--	--	--	--	24	--
	25	UPS	300 A	3	350	350	4	37.1	0					--	--	--	3	40 A	SPARE	26	--
--	27	--	--	--	--	--	--		36.82	0				--	--	--	--	--	--	28	--
--	29	--	--	--	--	--	--			34.48	0	--	--	--	--	--	--	--	--	30	--
--	31	SPARE	20 A	3	--	--	--	0	0					--	--	--	3	20 A	SPARE	32	--
--	33	--	--	--	--	--	--		0	0				--	--	--	--	--	--	34	--
--	35	--	--	--	--	--	--			0	0	--	--	--	--	--	--	--	--	36	--
--	37	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	38	--
--	39	SPARE	20 A	1	--	--	--		0	0				--	--	--	1	20 A	SPARE	40	--
--	41	SPARE	20 A	1	--	--	--			0	0	--	--	--	--	--	1	20 A	SPARE	42	--
			Total Load:					71.37 kVA	67.59 kVA	66.43 kVA								
			Total Amps:					258.28	244.67	239.84								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	0.2 kVA	100.00%	0.2 kVA
Power	173.535 kVA	100.00%	173.535 kVA
Receptacles	31.66 kVA	65.79%	20.83 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	205.40 kVA
TOTAL ESTIMATED DEMAND LOAD:	194.565 kVA
TOTAL CONNECTED AMPS:	247.05 A
TOTAL ESTIMATED DEMAND AMPS:	234 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL LP1

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 400 A/3P CB @ DP-1
LOCATION: Elec. 158

SOLID NEUTRAL
GROUND BUS

MAIN: 400 A MLO
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 42 kA
ISC UNKNOWN 0.00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	TR-1: ELEC. 158	125 A	3	1	--	6	5.62	2.76		12	12	12	1	20 A	LTS: AUTO & REPAIR	2	
--	3	--	--	--	--	--	--		14.86	1.2	12	12	12	1	20 A	LTS: WEST OFFICES & CONF RMS	4	
--	5	--	--	--	--	--	--			13.26	1.62	10	10	10	1	20 A	LTS: NORTH SITE LIGHTS	6	
	7	CP-2: MECHANICAL 171	20 A	3	12	12	12	0.93	1.27		10	10	10	1	20 A	LTS: SOUTH SITE LIGHTS	8	
--	9	--	--	--	--	--	--			0.93	0.93	12	12	12	3	20 A	CP-1: MECHANICAL 171	10	
--	11	--	--	--	--	--	--				0.93	0.93	--	--	--	--	--	--	12	--
--	13	SPARE	20 A	1	--	--	--	0	0.93					--	--	--	1	--	--	14	--
--	15	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--				0	0	--	--	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	26	--
--	27	SPACE	--	1	--	--	--			0	0			--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--					0	0	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	0	0					--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			0	0			--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--					0	0	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	0	0					--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			0	0			--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--					0	0	--	--	--	1	--	SPACE	42	--
			Total Load:					21.51 kVA	17.93 kVA	16.74 kVA								
			Total Amps:					78.32	65.38	60.45								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	7.05 kVA	100.00%	7.05 kVA
Power	17.089 kVA	100.00%	17.089 kVA
Receptacles	32.046 kVA	65.60%	21.023 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	56.19 kVA
TOTAL ESTIMATED DEMAND LOAD:	45.162 kVA
TOTAL CONNECTED AMPS:	67.58 A
TOTAL ESTIMATED DEMAND AMPS:	54.3 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL LP2

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 400 A/3P CB @ DP-1
LOCATION: Elec. 120

SOLID NEUTRAL
GROUND BUS

MAIN: 400 A MLO
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 18 kA
ISC UNKNOWN 0.00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	LTS: EAST OFFICES	20 A	1	12	12	12	1.35	20.53				6	--	1	3	125 A	TR-2: ELEC. 120	2	
	3	LTS: EAST CORRIDOR & LOBBY	20 A	1	12	12	12		1.45	15.58				--	--	--	--	--	--	4	--
	5	LTS: EAST OFFICES	20 A	1	12	12	12													6	--
--	7	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	8	--
--	9	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	10	--
--	11	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	14	--
--	15	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	20	--
--	21	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	22	--
--	23	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	24	--
--	25	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	26	--
--	27	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	28	--
--	29	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	42	--
			Total Load:					21.88 kVA	17.02 kVA	15.65 kVA								
			Total Amps:					79.76	62.23	56.49								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
HVAC	0.063 kVA	100.00%	0.063 kVA
Lighting	4.696 kVA	100.00%	4.696 kVA
Power	15.092 kVA	100.00%	15.092 kVA
Receptacles	34.7 kVA	64.41%	22.35 kVA

TOTALS*	
TOTAL CONNECTED LOAD:	54.55 kVA
TOTAL ESTIMATED DEMAND LOAD:	42.201 kVA
TOTAL CONNECTED AMPS:	65.61 A
TOTAL ESTIMATED DEMAND AMPS:	50.8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

STATE OF MISSOURI
MIKE PARSON,
GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER
PE-2007017824
PROFESSIONAL ENGINEER

08-01-2023

Bruce E Hart - Engineer
MO# 22817

GastingerWalker
Architects | Interior Designers | Construction Managers
817 Wyandotte Kansas City Missouri 64105 816.421.8200 gastingerwalker.com
Project Number 2022.152

IMEG, CORP.
Missouri Certificate of Authority: #F001325536

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters,
MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: ADDENDUM #1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: E701.dwg
DRAWN BY: JTS
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:
E701

SHEET 187 OF 202

08/01/2023

PANEL LP3 (ALTERNATE #04)

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 200 A/3P CB @ MSB
LOCATION: Storage 203

SOLID NEUTRAL
GROUND BUS

MAIN: 200 A MCB
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 18 kA
ISC UNKNOWN 0.00 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	TR-3: FIRING RANGE	70 A	3	4	--	8	5.66	2.25		12	12	12	1	20 A	LTS: FIRING RANGE LTS	2	
--	3	--							5.78	3.1	12	12	12	3	20 A	RTU-FR-1: FIRING RANGE ROOF	4	
--	5	--	--	--	--	--	--			7.72	3.1	--	--	--	--	--	6	--
	7	EF-FR-1: FIRING RANGE ROOF	20 A	3	12	12	12	2.03	3.1		--	--	--	--	--	--	8	--
--	9	--	--	--	--	--	--		2.03	32.37	6	1	1	3	125 A	FR-DOAU-1: OUTSIDE FIRING...	10	
--	11	--	--	--	--	--	--			2.03	32.37	--	--	--	--	--	12	--
--	13	SPARE	20 A	1	--	--	--	0	32.37		--	--	--	--	--	--	14	--
--	15	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	16	--
--	17	SPARE	20 A	1	--	--	--			0	0	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--			0	0	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0		--	--	--	1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--		0	0	--	--	--	1	20 A	SPARE	28	--
--	29	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	32	--
--	33	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	34	--
--	35	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--	--	--	--		--	--	--	1	--	SPACE	38	--
--	39	SPACE	--	1	--	--	--		--	--	--	--	--	1	--	SPACE	40	--
--	41	SPACE	--	1	--	--	--			--	--	--	--	1	--	SPACE	42	--
			Total Load:					45.41 kVA	43.28 kVA	45.22 kVA								
			Total Amps:					165.02	156.26	164.33								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Lighting	2.251 kVA	100.00%	2.251 kVA
Other	0 kVA	0.00%	0 kVA
Power	123.063 kVA	100.00%	123.063 kVA
Receptacles	8.6 kVA	100.00%	8.6 kVA

TOTALS*

TOTAL CONNECTED LOAD:	133.91 kVA
TOTAL ESTIMATED DEMAND LOAD:	133.914 kVA
TOTAL CONNECTED AMPS:	161.07 A
TOTAL ESTIMATED DEMAND AMPS:	161.1 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL RP3 (ALTERNATE #04)

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 150 A/3P @ TR-3
LOCATION: Storage 203

SOLID NEUTRAL

MAIN: 150 A
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR:
ISC UNKNOWN

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: ELEC, RR, CONTROL	20 A	1	12	12	12	1.08	0.9		12	12	12	1	20 A	REC: OUTDOOR & ROOF	2	
	3	REC: WORKROOM	20 A	1	12	12	12		0.72	0.5	12	12	12	1	20 A	WH-2: FIRING RANGE	4	
	5	REC: OFFICE & CORRIDOR	20 A	1	12	12	12			0.72	0.5	12	12	1	20 A	WH-2: FIRING RANGE	6	
	7	REC: FIRING RANGE PLAN	20 A	1	12	12	12	0.18	0.5		12	12	12	1	20 A	WH-2: FIRING RANGE	8	
	9	REC: FIRING RANGE PLAN	20 A	1	12	12	12			1	0.06	12	12	1	20 A	CEF-FR-1: FIRING RANGE	10	
	11	REC: FIRING RANGE PLAN	20 A	1	12	12	12				1	2	10	10	10	2	30 A	SERVICE REC: FIRING RANGE PLAN	12	
	13	REC: FIRING RANGE PLAN	20 A	1	12	12	12	1	2		--	--	--	--	--	--	14	--
	15	REC: FIRING RANGE PLAN	20 A	1	12	12	12			1	2.5	10	10	10	2	30 A	CEH-3: FIRING RANGE	16	
	17	REC: FIRING RANGE PLAN	20 A	1	12	12	12				1	2.5	--	--	--	--	18	--
--	19	SPARE	20 A	1	--	--	--	0	0					1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--			0	0			1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--				0	0		1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0					1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--			0	0			1	20 A	SPARE	28	--
--	29	SPARE	20 A	1	--	--	--					0	0	1	20 A	SPARE	30	--
--	31	SPARE	20 A	1	--	--	--	0	0					1	20 A	SPARE	32	--
--	33	SPARE	20 A	1	--	--	--		0	0				1	20 A	SPARE	34	--
--	35	SPARE	20 A	1	--	--	--			0	0			1	20 A	SPARE	36	--
--	37	SPARE	20 A	1	--	--	--	0	0					1	20 A	SPARE	38	--
--	39	SPARE	20 A	1	--	--	--		0	0				1	20 A	SPARE	40	--
--	41	SPARE	20 A	1	--	--	--			0	0			1	20 A	SPARE	42	--
			Total Load:					5.66 kVA	5.78 kVA	7.72 kVA								
			Total Amps:					47.17	48.35	64.49								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Power	10.563 kVA	100.00%	10.563 kVA
Receptacles	8.6 kVA	100.00%	8.6 kVA

TOTALS*

TOTAL CONNECTED LOAD:	19.16 kVA
TOTAL ESTIMATED DEMAND LOAD:	19.163 kVA
TOTAL CONNECTED AMPS:	53.19 A
TOTAL ESTIMATED DEMAND AMPS:	53.2 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL ERP1

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 100 A/3P @ TR-E1
LOCATION: Elec. 158

SOLID NEUTRAL

MAIN: 100 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC UNKNOWN

NOTES: FURNISH AND INSTALL INTERNAL SPD IN THIS PANEL.

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	AUTODOOR: VESTIBULE 145	20 A	1	12	12	12	1	0.3		12	12	12	1	20 A	DIP PANEL: FIRE RISER 170	2	
--	3	SPD	30 A	3	--	--	--			0	0.51			12	12	12	1	20 A	AIR COMP: FIRE RISER 170	4	
--	5	--	--	--	--	--	--					0	0.2	12	12	12	1	20 A	DRY PIPE VALVE: FIRE RISER 170	6	
--	7	--	--	--	--	--	--	0	0.3					12	12	12	1	20 A	FIRE ALARM PANEL: ELEC RM 158	8	
	9	GEN BATTERY HEATER: UTILITY YARD	20 A	1	12	12	12			0.5	0.3			10	10	10	1	20 A	FIRE ALARM EXT. PANEL: ELEC RM 125	10	
	11	GEN HEATER: UTILITY YARD	20 A	2	12	12	12					0.5	0.3	10	10	10	1	20 A	FIRE ALARM EXT. PANEL: FR ELEC RM	12	
--	13	--	--	--	--	--	--	0.5	0.5					12	12	12	1	20 A	GEN BATTERY CHRGR: UTILITY YARD	14	
	15	GEN BLOCK HEATER: UTILITY YARD	35 A	2	8	8	10			2.5	0			--	--	--	1	20 A	SPARE	16	--
--	17	--	--	--	--	--	--					2.5	0	--	--	--	1	20 A	SPARE	18	--
--	19	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	20	--
--	21	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	22	--
--	23	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	26	--
--	27	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	28	--
--	29	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	30	--
--	31	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	32	--
--	33	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	34	--
--	35	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	36	--
--	37	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	38	--
--	39	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	40	--
--	41	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	42	--
--	43	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	44	--
--	45	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	46	--
--	47	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	48	--
--	49	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	50	--
--	51	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	52	--
--	53	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	54	--
--	55	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	56	--
--	57	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	58	--
--	59	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	60	--
--	61	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	62	--
--	63	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	64	--
--	65	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	66	--
--	67	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	68	--
--	69	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	70	--
--	71	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	72	--
--	73	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	74	--
--	75	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	76	--
--	77	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	78	--
--	79	SPACE	--	1	--	--	--	--	--					--	--	--	1	--	SPACE	80	--
--	81	SPACE	--	1	--	--	--			--	--			--	--	--	1	--	SPACE	82	--
--	83	SPACE	--	1	--	--	--					--	--	--	--	--	1	--	SPACE	84	--
			Total Load:					2.60 kVA	3.81 kVA	3.50 kVA								
			Total Amps:					21.67	32.90	30.32								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND
Power	9.91 kVA	100.00%	9.91 kVA

TOTALS*

TOTAL CONNECTED LOAD:	9.91 kVA
TOTAL ESTIMATED DEMAND LOAD:	9.91 kVA
TOTAL CONNECTED AMPS:	27.51 A
TOTAL ESTIMATED DEMAND AMPS:	27.5 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER
E-22817
PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
MO# 22817

GastingerWalker&
Construction Managers | Interior Designers | Architects
816.421.8200 gastingerwalker.com
Kansas City Missouri 64105
817 Wyandotte
Project Number 2022.152

IMEG, CORP.
Missouri Certificate of Authority: #F001325536

OFFICE OF ADMINISTRATION DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: ADDENDUM #1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: E702.dwg
DRAWN BY: ZMB
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:
E702

SHEET 188 OF 202

08/01/2023

PANEL ERP2

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 225 A/3P @ TR-E2
LOCATION: Elec. 158

SOLID NEUTRAL

MAIN: 225 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC UNKNOWN

NOTES: FURNISH AND INSTALL INTERNAL SPD IN THIS PANEL.

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	FRIDGE: EVIDENCE OFFICE 153	20 A	1	12	12	12	1.5	1.22		12	12	12	1	20 A	FB, REC:TROOP MEETING RM 104	2	
	3	FRIDGE: EVIDENCE OFFICE 173	20 A	1	12	12	12		1.5	1.86	12	12	12	1	20 A	FB, TV, REC:TROOP MEETING RM...	4	
	5	FRIDGE: EVIDENCE STORAGE 176	20 A	1	12	12	12			1.5	3.06	12	12	12	1	20 A	REC: CORRIDOR	6	
	7	FREEZER: EVIDENCE STORAGE 176	20 A	1	12	12	12	1.5	1.54			12	12	12	1	20 A	FB, TV, REC:TROOP MEETING RM...	8	
	9	OVERHEAD DOOR: SPLY/STOR. 168	20 A	1	12	12	12		1.18	0.06		12	12	12	1	20 A	CEF-5: TOILET 156	10	
	11	OVERHEAD DOOR: AUTOMOBILE...	20 A	1	12	12	12			1.18	0.3	12	12	12	1	20 A	TCP: MECH 171	12	
	13	LIFT: RADIO BAY 165	20 A	2	12	12	12	0.75	1.4			12	12	12	2	20 A	BLR-1: MECHANICAL 171	14	
--	15	--	--	--	--	--	--		0.75	1.4		--	--	--	--	--	--	16	--
	17	REC: RADIO BAY 165	20 A	1	12	12	12			0.72	1.4	12	12	12	2	20 A	BLR-2: MECHANICAL 171	18	
	19	CU-ER-2: EAST ROOF PLAN	25 A	2	10	10	10	1.58	1.4			--	--	--	--	--	--	20	--
--	21	--	--	--	--	--	--		1.58	0.54		12	12	12	1	20 A	REC: SWAT 169, FIRE 170	22	
	23	CU-ER-3: EAST ROOF PLAN	25 A	2	10	10	10				1.58	1.58	10	10	10	2	25 A	CU-ER-1: WEST ROOF PLAN	24	
--	25	--	--	--	--	--	--	1.58	1.58				--	--	--	--	--	26	--
	27	RTU-2 LTS: EAST ROOF	20 A	1					0.2	0.67			12	12	12	1	20 A	EF-3: WEST ROOF PLAN	28	
	29	FB: CONFER. 104	20 A	1	12	12	12				0.54	0.06	12	12	12	1	20 A	PRV-DR-1: WEST ROOF PLAN	30	
	31	PROJECTORS: TROOP MEETING R...	20 A	1				0.6	0				--	--	--	3	30 A	SPD	32	--
	33	REC, TV: CONFERENCE 104	20 A	1	12	12	12			1.72	0		--	--	--	--	--	--	34	--
	35	REC: EAST ROOF	20 A	1	8	8	8					0.72	0	--	--	--	--	36	--
	37	TCP: ELEC 120	20 A	1	12	12	12	0.3	0		1			--	--	--	--	38	--
	39	HWCP-1: MECH 171	20 A	3	12	12	12			0.9	0			--	--	--	1	20 A	SPARE	40	--
--	41	--	--	--	--	--	--				0.9	0		--	--	--	1	20 A	SPARE	42	--
--	43	--	--	--	--	--	--	0.9	0					--	--	--	1	20 A	SPARE	44	--
	45	HWCP-2: MECH 171	20 A	3	12	12	12			0.9	0			--	--	--	1	20 A	SPARE	46	--
--	47	--	--	--	--	--	--				0.9	0		--	--	--	1	20 A	SPARE	48	--
--	49	--	--	--	--	--	--	0.9	0					--	--	--	1	20 A	SPARE	50	--
--	51	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	52	--
--	53	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	54	--
--	55	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	56	--
--	57	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	58	--
--	59	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	60	--
--	61	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	62	--
--	63	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	64	--
--	65	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	66	--
--	67	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	68	--
--	69	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	70	--
--	71	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	72	--
--	73	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	74	--
--	75	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	76	--
--	77	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	78	--
--	79	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	80	--
--	81	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	82	--
--	83	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	84	--
								Total Load:	16.75 kVA	13.26 kVA		14.44 kVA							
								Total Amps:	141.11	110.53		121.88							

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	0.2 kVA	100.00%	0.2 kVA		
Power	26.339 kVA	100.00%	26.339 kVA	**TOTAL CONNECTED LOAD:**	44.46 kVA
Receptacles	17.92 kVA	77.90%	13.96 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	40.499 kVA
				TOTAL CONNECTED AMPS:	123.41 A
				TOTAL ESTIMATED DEMAND AMPS:	112.4 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

PANEL RP1

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 225 A/3P @ TR-1
LOCATION: Elec. 158

SOLID NEUTRAL

MAIN: 225 A
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR:
ISC UNKNOWN

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: OBS. & INTERVIEW	20 A	1	12	12	12	1.08	0.9					12	12	1	20 A	REC: EXTERIOR WEST	2	
	3	REC: SHOWERS, CORRIDOR, ELEC.	20 A	1	12	12	12			0.72	1.08			12	12	1	20 A	REC: E.STORAGE, C. STORAGE,...	4	
	5	PRINTER: INTAKE 155	20 A	1	12	12	12					1.5	0.9	12	12	1	20 A	REC: EVIDENCE STORAGE	6	
	7	REC: INTAKE & TOILET	20 A	1	12	12	12	1.08	0.9					12	12	1	20 A	REC: EVI. OFFICE, L.F. STORAGE,...	8	
	9	REC, TV: OFFICES 153 & 172	20 A	1	12	12	12			1.4	1.5			12	12	1	20 A	PRINTER: EVIDENCE OFFICE 173	10	
	11	REC, TV: SRGNT 150 & DDCC 151	20 A	1	12	12	12					1.58	1.18	12	12	1	20 A	OVERHEAD DOOR: SPLY/STOR. 168	12	
	13	PRINTER: DDCC 151	20 A	1	12	12	12	1.5	0.9					12	12	1	20 A	REC: RM 168, 171, 174	14	
	15	REC: SRGNT. & CORP.	20 A	1	12	12	12			1.08	1.5			12	12	1	20 A	PRINTER: SUPPLY/STOR. 168	16	
*G	17	REC: DISHWASHER: KITCHEN	20 A	1	12	12	12					0.18	1.26	12	12	1	20 A	REC: RM 165, 167	18	
	19	REC: FRIDGE: KITCHEN	20 A	1	12	12	12	0.8	1.42					12	12	1	20 A	BRAKE MACH. SUPPLY/STOR. 168	20	
	21	REC: KITCHEN	20 A	1	12	12	12			0.9	1.5			12	12	1	20 A	PRINTER: OFFICE 166	22	
	23	RANGE: KITCHEN 147	20 A	2	12	12	12					1	1.26	12	12	1	20 A	REC: RADIO 165, OFFICE 166	24	
--	25	--	--	--	--	--	--	1	0.51					12	12	1	20 A	WH-1: MECHANICAL 171	26	
	27	REC: VENDING	20 A	1	12	12	12			1.5	0.51			12	12	1	20 A	WH-1: MECHANICAL 171	28	
	29	REC: VENDING	20 A	1	12	12	12					1.5	0.03	12	12	1	20 A	UH-1: MECHANICAL 171	30	
*G	31	EWC-1: VENDING 182	20 A	1	12	12	12	1	1					12	12	1	20 A	REC: MICROWAVE GARAGE AREA	32	*G
	33	REC: CORR, WOMEN, CAFE, LOBBY	20 A	1	12	12	12			1.44	0.75			12	12	1	20 A	REC: UC FRIDGE GARAGE AREA	34	*G
	35	LIFT: RADIO BAY 165	20 A	2	12	12	12					0.75	1.18	12	12	1	20 A	OVERHEAD DOOR: AUTOMOBILE...	36	
--	37	--	--	--	--	--	--	0.75	1.18					12	12	1	20 A	OVERHEAD DOOR: AUTOMOBILE...	38	
	39	KEF-1: KITCHEN 147	20 A	1	12	12	12			0.06	0.2			12	12	1	20 A	RTU-1 LTS: WEST ROOF	40	
	41	CEF-4: TOILET 178	20 A	1	12	12	12					0.06	0.67	12	12	1	20 A	EF-4: WEST ROOF PLAN	42	
	43	WASTE OIL HEATER: RADIO REPAI...	30 A	1	10	10	10	1.6	0					12	12	1	20 A	PUMP: RADIO BAY 165	44	
	45	REC: WEST ROOF	20 A	1	10	10	10			0.72	0			--	--	--	1	20 A	SPARE	46	--
	47	REC: GARB. DISP. KITCHEN 147	20 A	1	12	12	12					0.2	0	--	--	--	1	20 A	SPARE	48	--
--	49	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	50	--
--	51	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	52	--
--	53	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	54	--
--	55	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	56	--
--	57	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	58	--
--	59	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	60	--
--	61	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	62	--
--	63	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	64	--
--	65	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	66	--
--	67	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	68	--
--	69	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	70	--
--	71	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	72	--
--	73	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	74	--
--	75	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	76	--
--	77	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	78	--
--	79	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	80	--
--	81	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	82	--
--	83	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	84	--
								Total Load:	15.62 kVA	14.86 kVA		13.26 kVA							
								Total Amps:	132.19	125.92		110.47							

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Lighting	0.2 kVA	100.00%	0.2 kVA		
Power	11.489 kVA	100.00%	11.489 kVA	**TOTAL CONNECTED LOAD:**	43.74 kVA
Receptacles	32.046 kVA	65.60%	21.023 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	32.712 kVA
				TOTAL CONNECTED AMPS:	121.40 A
				TOTAL ESTIMATED DEMAND AMPS:	90.8 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: *G=GFCI BREAKER

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER
E-22817
REGISTERED PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
MO# 22817

GastingerWalker&
Construction Managers | Interior Designers | Architects
816.421.8200 gastingerwalker.com
Kansas City Missouri 64105
817 Wyandotte
Project Number 2022.152

IMEG, CORP.
Missouri Certificate of Authority: #F001325536

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: ADDENDUM #1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: E703.dwg
DRAWN BY: ZMB
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:
E703

SHEET 189 OF 202

08/01/2023

RP2

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: 225 A/3P @ TR-2
LOCATION: Elec. 120

SOLID NEUTRAL

MAIN: 225 A
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR:
ISC UNKNOWN

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: CLERK & CHIEF	20 A	1	12	12	12	1.08	1.5		12	12	12	1	20 A	PRINTER: WORKSPACE 142	2	
	3	COPIER: CHIEF COMM.	20 A	1	12	12	12		1.8	1.34	12	12	12	1	20 A	VFP-1&2: OPEN WORKSPACE 142	4	
	5	REC: OPEN OFFICE, LT 136 & 137	20 A	1	12	12	12			1.08	1.44	12	12	12	3	20 A	FB-1 POWER FURN: OPEN WORK...	6	
	7	REC, TV, LT, 360, CAPTAIN ASST. &...	20 A	1	12	12	12	1.9	1.44			--	--	--	--	--	--	8	--
	9	PRINTER: CAPTAIN ASST. 135	20 A	1	12	12	12		1.5	1.44		--	--	--	--	--	--	10	--
	11	FAX: CAPTAIN ASST. 135	20 A	1	12	12	12			0.18	1.5	12	12	12	1	20 A	PRINTER: OPEN WORKSPACE 142	12	
	13	CAPTAIN & LT. 112	20 A	1	12	12	12	1.58	1.08			12	12	12	1	20 A	REC: CC AND ASST. ENGR	14	
	15	REC, TV: LT. 111 & 112	20 A	1	12	12	12		1.9	0.72		12	12	12	1	20 A	REC: MEN,WOMEN,RECEP.	16	
	17	REC: LT 109 & CLERK	20 A	1	12	12	12				1.26	12	12	12	1	20 A	REC: 2 ZONE OFFICE	18	
	19	REC, TV: LT 108 & 109	20 A	1	12	12	12	1.9	1.08			12	12	12	1	20 A	REC: SRGNT & 2 ZONE SRGNT	20	
	21	REC: RECRUIT & SRGNT/ CLERK III	20 A	1	12	12	12		0.54	0.18		12	12	12	1	20 A	FRIDGE: BRK ROOM	22	*G
	23	REC: TRNG. OFFICER & CHIEF...	20 A	1	12	12	12				1.08	1.4	12	12	1	20 A	MICROWAVE: BREAK RM 121	24	
	25	REC: POLICE SUPPLY & SRGNT...	20 A	1	12	12	12	1.08	1.4				12	12	1	20 A	COFFEE: BREAK RM 121	26	
	27	REC: MAIL 130	20 A	1	12	12	12		0.9	0.9			12	12	12	1	20 A	REC: ELEC, MEN, WOMEN, BRK...	28	
	29	FAX: MAIL 130	20 A	1	12	12	12				0.18	0.9	12	12	12	1	20 A	REC: CAFETERIA & LOBBY	30	
	31	PRINTER: MAIL 130	20 A	1	12	12	12	1.5	0.72				12	12	12	1	20 A	REC: EXTERIOR EAST	32	
	33	WH-2: TOILET 134	20 A	1	12	12	12			0.5	0.06		12	12	12	1	20 A	CUH-1: VESTIBULE 100	34	
	35	WH-3: BREAK RM 121	20 A	1	12	12	12				0.5	0.6	12	12	12	1	20 A	FB: LT 136 & 137	36	
	37	WH-4: JAN 116	20 A	1	12	12	12	0.5	0.06				12	12	12	1	20 A	CEF-1: TOILET 134	38	
	39	CP-4: JAN 116	20 A	1	12	12	12			0.51	0.51		12	12	12	1	20 A	CP-3: BREAK ROOM 121	40	
	41	CUH-2: VESTIBULE 145	20 A	1	12	12	12					0.06	0.06	12	12	1	20 A	CEF-3: MEN 122	42	
*G	43	EWC-1: CORRIDOR 114	20 A	1	12	12	12	1	0.67					12	12	1	20 A	EF-1: EAST ROOF PLAN	44	
	45	CEF-2: WOMEN 123	20 A	1	12	12	12			0.06	0.67			12	12	1	20 A	EF-2: EAST ROOF PLAN	46	
	47	REC: GARB. DISP. BRK RM 121	20 A	1	12	12	12					0.2	1.44	12	12	3	20 A	FB-1 POWER FURN: OPEN WORK...	48	
	49	FB: LT 108 & 109	20 A	1	12	12	12	0.6	1.44					--	--	--	--	--	50	--
	51	FB: LT 111 & 112	20 A	1	12	12	12			0.6	1.44			--	--	--	--	--	52	--
	53	FB: CAPTAIN 133	20 A	1	12	12	12					0.6	0	--	--	--	1	20 A	SPARE	54	--
--	55	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	56	--
--	57	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	58	--
--	59	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	60	--
--	61	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	62	--
--	63	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	64	--
--	65	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	66	--
--	67	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	68	--
--	69	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	70	--
--	71	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	72	--
--	73	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	74	--
--	75	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	76	--
--	77	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	78	--
--	79	SPARE	20 A	1	--	--	--	0	0					--	--	--	1	20 A	SPARE	80	--
--	81	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	82	--
--	83	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	84	--
						Total Load:		20.53 kVA	15.58 kVA		13.75 kVA								
						Total Amps:		173.45	132.15		114.55								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
HVAC	0.063 kVA	100.00%	0.063 kVA		
Power	15.092 kVA	100.00%	15.092 kVA	**TOTAL CONNECTED LOAD:**	49.86 kVA
Receptacles	34.7 kVA	64.41%	22.35 kVA	**TOTAL ESTIMATED DEMAND LOAD:**	37.505 kVA
				TOTAL CONNECTED AMPS:	138.38 A
				TOTAL ESTIMATED DEMAND AMPS:	104.1 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES: *G=GFCI BREAKER

PANEL UP1

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: UPS
LOCATION: Elec. 125

SOLID NEUTRAL

MAIN: 600 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA
ISC UNKNOWN

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	WIRE SIZE H	N	G	A	B	C	WIRE SIZE G	N	H	P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC: RADIO ROOM 119	20 A	1	12	12	12	0.72	1.2				12	12	1	20 A	FB-1: RADIO ROOM 119	2	
	3	PRINTER: RADIO ROOM 119	20 A	1	12	12	12			1.5	1.2		12	12	1	20 A	FB-1: RADIO ROOM 119	4	
	5	REC: RADIO EQUIP. 118	20 A	1	12	12	12					1.08	1.2	12	12	1	20 A	FB-1: RADIO ROOM 119	6	
	7	REC: RECEPTION 102	20 A	1	12	12	12	0.72	1.2					12	12	1	20 A	FB-1: RADIO ROOM 119	8	
	9	REC: RECEPTION 102	20 A	1	12	12	12			0.72	1.2			12	12	1	20 A	FB-1: RADIO ROOM 119	10	
	11	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.2	12	12	1	20 A	FB-1: RADIO ROOM 119	12	
--	13	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	14	
--	15	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	16	--
	17	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	18	--
--	19	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	20	
--	21	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	22	--
	23	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	24	--
--	25	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	26	
--	27	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	28	--
	29	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	30	--
--	31	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	32	
--	33	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	34	--
	35	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	36	--
--	37	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	38	
--	39	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	40	--
	41	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	42	--
--	43	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	44	
--	45	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	46	--
	47	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	48	--
--	49	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	50	
--	51	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	52	--
	53	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	54	--
--	55	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	56	
--	57	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	58	--
	59	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	60	--
--	61	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	62	
--	63	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	64	--
	65	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	66	--
--	67	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	68	
--	69	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	70	--
	71	IT RACK: RADIO EQUIP 118	30 A	3	10	10	10					1.33	1.33	--	--	--	--	--	--	72	--
--	73	--	--	--	--	--	--	1.33	1.33					10	10	10	3	30 A	IT RACK: RADIO EQUIP 118	74	
--	75	--	--	--	--	--	--			1.33	1.33			--	--	--	--	--	--	76	--
--	77	SPD	30 A	3	--	--	--					0	1.33	--	--	--	--	--	--	78	--
--	79	--	--	--	--	--	--	0	0.6					12	12	12	1	20 A	TVs: RADIO RM	80	
--	81	--	--	--	--	--	--			0	1.2			12	12	12	1	20 A	TVs: RADIO RM	82	
--	83	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	84	--
	85	IN ROW COOLER: RADIO EQUIP 118	20 A	2	12	12	12	0.83	0.83					12	12	12	2	20 A	IN ROW COOLER: RADIO EQUIP 118	86	
--	87	--	--	--	--	--	--			0.83	0.83			--	--	--	--	--	--	88	--
	89	IN ROW COOLER: RADIO EQUIP 118	20 A	2	12	12	12					0.83	0.83	12	12	12	2	20 A	IN ROW COOLER: RADIO EQUIP 118	90	
--	91	--	--	--	--	--	--	0.83	0.83					--	--	--	--	--	--	92	--
--	93	SPARE	30 A	3	--	--	--			0	0			--	--	--	3	30 A	SPARE	94	--
--	95	--	--	--	--	--	--					0	0	--	--	--	--	--	--	96	--
--	97	--	--	--	--	--	--	0	0					--	--	--	--	--	--	98	--
--	99	SPARE	30 A	3	--	--	--			0	0			--	--	--	1	20 A	SPARE	100	--
--	101	--	--	--	--	--	--					0	0	--	--	--	1	20 A	SPARE	102	--
--	103	--	--	--	--	--	--	0	0					--	--	--	1	20 A	SPARE	104	--
--	105	SPARE	20 A	1	--	--	--			0	0			--	--	--	1	20 A	SPARE	106	--
--	107	SPARE	20 A	1	--	--	--					0	0	--	--	--	1	20 A	SPARE	108	--
						Total Load:		37.10 kVA	36.82 kVA		34.48 kVA								
						Total Amps:		312.18	309.81		287.31								

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*	
Power	94.656 kVA	100.00%	94.656 kVA		
Receptacles	13.74 kVA	86.39%	11.87 kVA	**TOTAL CONNECTED LOAD:**	108.40 kVA
				TOTAL ESTIMATED DEMAND LOAD:	106.526 kVA
				TOTAL CONNECTED AMPS:	300.88 A
				TOTAL ESTIMATED DEMAND AMPS:	295.7 A

*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

STATE OF MISSOURI
MIKE PARSON, GOVERNOR

STATE OF MISSOURI
BRUCE ELDON HART
NUMBER E-22817
PROFESSIONAL ENGINEER
08-01-2023

Bruce E Hart - Engineer
MO# 22817

Gastinger Walker &
Construction Managers | Interior Designers | Architects
816.421.8200 gastingerwalker.com
Kansas City Missouri 64105
817 Wyandotte

Project Number 2022.152

IMEG, CORP.
Missouri Certificate of Authority: #F001325536

OFFICE OF ADMINISTRATION
DIVISION OF FACILITIES MANAGEMENT, DESIGN AND CONSTRUCTION

Project Name:
Troop A Headquarters, MSHP

1900 NE Independence Ave.
Lee's Summit, MO 64086

PROJECT # R2219-01
SITE # 6018
FACILITY # 8136018019

REVISION: ADDENDUM #1
DATE: 26 September 2023
REVISION:
DATE:
REVISION:
DATE: Bid Documents
ISSUE DATE: 01 August 2023

CAD DWG FILE: E704.dwg
DRAWN BY: JTS
CHECKED BY: PIP
DESIGNED BY: GW&

SHEET TITLE:
ELECTRICAL PANEL SCHEDULES

SHEET NUMBER:
E704

SHEET 190 OF 202

08/01/2023