#	Rv #	ELECTRICAL CRITERIA - GENERAL CONDITIONS	Check Off
EC-01	-	PERMITS & FEES: Secure & pay for all fees, licenses, permits, inspections. Submit Copy Of Each Permit.	
EC-02	-	LICENSE(S)-BUSINESS: This Contactor Shall Be Properly Licensed Business Wise, In This Project State, In Accordance With All Applicable State Laws. Submit Copies Of Business License(s).	
EC-03	-	BONDING & INSURANCE(s): This Contactor Shall Be Properly Bonded And Insured In Accordance With The General & Supplements Requirement Of The Project Document. Submit Copies Of All Such Documents.	
EC-04	-	COORDINATION OF OTHER TRADES- This contractor is responsible for coordinating with all other trades for the proper installation of this work, maintaining required clearances, and confirming the electrical characteristics and requirement of electrical power equipment of other trades (prior to ordering equipment). Submit Copies Of All Such Documents.	
EC-05	-	MANUFACTURERS, ALTERNATES & SUBSTITUTIONS- Components & products are to be provided matching the prescribed characteristics, features, performance, types, etc. based on the Manufacturer & Series as given. NO After-"Bid" Alternates, Changes Or Substitutions Accepted Or Allowed. Prior-To-Bid Request For Acceptance Must Be Submitted To Architect & Engineer NO-LESS Than Two-Business-Weeks Prior To Bid Date. Request-For-Acceptance Must Include Complete & Marked Product Data Indicating Full Matching Compliance. Any Variations Must Be Marked & Noted. Acceptance Will Be At The Description Of The A/E Judgment.	
EC-06	-	SUBMITTALS- Provide compete submittals on all items. Mark & indicate specific items to be used. Submit prior to finalizing orders. Submit three sets min., or per General Conditions.	
EC-07	-	WARRANTY- This contractor shall warrant all materials, labor & installation for one full year from date of Substantial Completion. Any extended product warranties shall be passed onto the owner.	
		End Of Electrical Criteria - General Conditions	

#	Rv #	ELECTRICAL CRITERIA - BASICS CRITERIA	Check Off
EB-01	-	GENERAL- Provide a complete electrical system, left in proper working order. Provide herein means installed completely, including labor & materials.	
EB-02	-	LICENSE(S)-ELECTRICAL: This Contactor Shall Be Fully Licensed To Perform Electrical Work, In This Project State, For The Type Of Work To Be Performed In Accordance With All Applicable State Laws. Submit Copies Of Electrical License(s).	
EB-03	-	CODES - Meet & comply with all prevailing Federal, State, County & City Codes Including NEC (NFPA-70); ICC-BC & any Ga Amendments; ICC-IEC & any Ga Amendments.	
EB-04	-	PERMITS & FEES: Secure & pay for all fees, licenses, permits, inspections. Submit Copy Of Each Permit.	
EB-05	-	COORDINATION OF POWER UTILITY- Coordinate & verify, in writing, with the utility power company, confirming the electrical power arrangements, characteristics (Voltage, Phase, Transformer Type & KVA, Fault-Current, Etc.), metering arrangement and equipment locations. Copy Own/ Archt/ Engr.	
EB-06	-	COORDINATION OF LV COMMUNICATIONS UTILITY- Coordinate & verify, in writing, with the LV Communications Utility Company, confirming the LV Com Service routing, conduit quantity & sizes, termination locations, and other related requirements.	
EB-07	-	PROVISIONS TO BE INCLUDED- Labor, supplies and materials, tools, equipment, etc.; installation of all electical equipment & connections; coordination with other trades; material shipping, delivery, receiving, storage, & protection; excavation, backfilling, cutting, patching and cleaning; guarantee for one year, plus any extended manufacturer's warranties; as-built reproducible Mylar record documents.	
EB-08	-	MATERIALS- All materials shall be new, currently manufactured, U.L. labeled, and meet all industry standards. Label all equipment. Provide 3000 PSI class concrete for bases and backfill. Provide 3/4" thick A/D fire retardant grade backboards. Provide all support hardware and systems for electrical work. Fire/smoke seal each penetration of any rated barrier (floor, wall, etc.).	
EB-09	-	MOTORS & CONTROLS- Motors are furnished and installed under other specification sections. Control and interlock wiring is furnished and installed under other specification sections. Individually mounted starters are furnished under other sections, mounted and power wiring connections provided under this section.	
EB-10	-	ELECTRICAL CONNECTIONS- Provide power wiring complete to all items. Coordinate actual equipment characteristics with drawing. Provide backboards for equipment mounting. Label all equipment and over-current protective devices with equipment name, voltage, ratings, and O.C.P. ratings.	
EB-11	-	INSTALLATION STANDARDS: All electrical work shall be installed in accordance with the NEC, NEIS (Nat. Electrical Installation Stds.), related codes and the manufacturer's published requirements.	
		End Of Electrical Criteria - Basic Materials & Methods	

#	Rv #	ELECTRICAL CRITERIA - BONDING & GROUNDING	Check Off
EG-01	-	BONDING & GROUNDING GENERAL: Provide components, conductors, fittings and hardware to provide for an electrical system that is completely bonded and grounded with the NEC and these requirements	
EG-02	-	GENERAL REQUIRMENTS: Provide for the complete Bonding & Grounding of the entire electrical system, including bonding for communication systems.	
EG-03	-	BUILDING BONDING: Provide for the Bonding together of all metallic systems in the facility, including but not limited to, structural steel, slab rebar, water piping, fire-protection piping, gas piping, HVAC system piping.	
EG-04	-	SUBMITTALS- Provide compete submittals on all items. Mark & indicate specific items to be used. Submit prior to finalizing orders. Submit three sets min., or per General Conditions.	
EG-05	-	GROUNDING IN-GRADE CONDUCTORS: Bare, Tin-Plated Copper Of Size & Rating As Scheduled or Required.	
EG-06	-	BONDING & GROUNDING CONDUCTORS:- #10 and smaller - solid copper THHN/THWN Green Jacket Color; #6 & 8 - stranded copper THHN/THWN black jacket; #4 & larger - stranded copper THHN/THWN identified with Green Tape.	
EG-07	-	CONNECTIONS, IN-GRADE TYPE: UL Labeled for the application, location & use. Heavy-Duty Pure Wrought Copper fitting & devices. Compression type connections. BURNDY HYGROUND Series or Equivalent.	
EG-08	-	CONNECTIONS, COPPER- Twist on type for #8 and smaller copper conductors. Set screw/bolted type for #4 and larger copper conductors. Completely insulate each connection, splice, termination.	
EG-09	-	GROUND RODS (ERITECH 683400 Rod): Provide 10 Foot Long, 0. 75 In Diameter, Tin-On-Copper 10 Mil. Plated Steel Pointed Ground Rod, driven into earth with top 18 Inches below finished grade with inspection/ test well cover, top flush with grade. ANSI/UL-467 & ANSI/ NEMA-GR1. Mechancial Direct-Burial Ground Connector or Exothermic-Weld all ground cables to rods.	
EG-10	-	GROUND ROD INSPECTION WELLS/ ERITECH Wells - Where indicated or required, provide Ground Rod Inspection/ Test Well & Cover, top flush with grade.	
EG-11	-	MASTER GROUND BAR (MGB) (BURNDY BBB or ERICO TGB/TMGB)- Provide bare solid Alloy 110 Cu bus bar, electro-tin-plated, with pre-punched holes for two-bolt ground lugs, mounted on stainless steel brackets with insulated flame-resistant stand-offs. 0.25 Inch Thick, 4 Inch High, 20 Inch Long. UL 467 & C22.2 Listed. Anchor to structural wall at height as indicated or noted. Connection to this bar shall be by two-hole bolt lugs, exothermic welded or irreversible crimp connected to the respective cable. Locate at or near the electrical service main disconnect. Label MASTER GROUND BAR	
EG-12	-	ISBT (Inter-System-Bonding-Termination) GROUND BAR (ISBT) (ILSCO PET or Equal): Provide dual-rated, 8-hole lug with 2-predrilled mounting holes. Attach to each TELCO backboard for bonding of LV systems by others. Label ISBT GRND.	
EG-13	-	INSTALLATION STANDARDS: All bonding & grounding shall be installed in accordance with the NEC, NEIS (Nat. Electrical Installation Stds.), related codes and the manufacturer's published requirements.	
		End Of Electrical Criteria - Bonding & Grounding	

#	Rv #	ELECTRICAL CRITERIA - CONDUITS, BOXES & FITTINGS	Chk Off
ER-01	-	GENERAL- All wiring for power and systems shall done in accordance with the applicable codes. All materials shall be U.L. labeled, matched for proper applications and installed in accordance with U.L. & manufacturer's requirements.	
ER-02	-	SUBMITTALS- Provide compete submittals on all items. Mark & indicate specific items to be used. Submit prior to finalizing orders. Submit three sets min., or per General Conditions.	
ER-03	-	GENERAL UNDERGROUND- All underground, in-slab, exterior and exposed or surface mounted wiring shall be in conduits, unless otherwise directed.	
ER-04	-	GENERAL CONCEALED- All wiring shall be concealed where possible (i. e. -above ceilings, in walls, in slabs, or underground).	
ER-05	-	GENERAL EXPOSED- Exposed conduits shall be routed as high as possible and parallel or perpendicular to structural elements.	
ER-06	-	GENERAL BOXES- Provide boxes for all connections, devices, system, etc. Coordinate box sizes with structure to which it will be secured. Coordinate the exact final box location with the architectural/interior drawings prior to rough-in of box.	
ER-07	-	CONDUITS, IMC- conduit & fittings shall be utilized for exterior exposed locations and interior exposed locations subject to damage.	
ER-08	-	CONDUITS, EMT- EMT conduit & fittings shall be utilized for in slabs not on grade, concealed dry interior locations, interior exposed locations above 10'0" A. F. F.with set screw fittings indoor concealed dry locations and compression raintight fittings in slabs, and damp locations.	
ER-09	-	CONDUITS, PVC- conduit & fittings shall be utilized in slabs on grade, conduits in earth. PVC fittings, boxes, etc. shall be of same manufacture with solvent bond. Depth per code.	
ER-10	-	CONDUITS, FLEXIBLE- Flexible metallic conduit & fittings shall be utilized where motion or vibrations are encountered. Liquid-tight type flex shall be used in damp or wet locations, (i. e. - outdoors, kitchens, areas subject to wash down, shops & industrial areas, etc.). Provide ground wire in all flex.	
ER-11	-	CONDUIT MISC. FITTINGS- Conduit expansion/deflection fittings shall be utilized where crossing expansion joints, floating slabs or isolated slabs. Conduit thru wall seals shall be utilized where crossing between interior/exterior or damp locations. Conduit fire seals shall be utilized where passing thru fire rated construction, U. L. fire and smoke seal to maintain the fire rating of the barrier.	
ER-12	-	CONDUIT BOXES- Utilize interior stamped steel for indoors dry flush mounted devices. Masonry/tile for indoors dry flush mounted devices. Concrete boxes for flush mounting in poured concrete. Cast metal boxes for surface mounted devices, or damp/wet locations. Junction & pull boxes as required or needed. Galvanized steel wire-ways with hinged front cover, only permitted where noted.	
ER-13	-	FLOOR BOXES - Utilize flush-in-floor type, adjustable post-pour, PVC base with brass flip-lid covers. Gang qty to match application & conduit entries., Covers to match device types. Hubbell, Steel City or Wiremold	
ER-14	-	SEISMIC BRACING & SUPPORT- All work shall be anchored, braced & supported in accordance with he Local Seismic Zone rating requirements.	
ER-15	-	INSTALLATION STANDARDS: Each item shall be installed in accordance with the NEIS (Nat. Electrical Installation Stds.), NEC & related codes and the manufacturer's published requirements.	
		End Of Electrical Criteria - Conduits, Boxes & Fittings	

#	Rv #	ELECTRICAL CRITERIA - LOW VOLTAGE CONDUCTORS	Chk Off
EC-01	-	CONDUCTORS GENERAL: Provide conductors for all circuiting, wiring and systems.	
EC-02	-	SUBMITTALS- Provide compete submittals on all items. Mark & indicate specific items to be used. Submit prior to finalizing orders. Submit three sets min., or per General Conditions.	
EC-03	-	CONDUCTORS COLOR CODED: Each conductor shall be properly color coded to represent it's respective phase, neutral, ground, etc. Wire sizes #12 thru #8 shall have continuous color-coded jacket. Larger wire sizes shall have colored tape at each termination, pull-box, etc.	
EC-04	-	CONDUCTOR LABELING: Each circuit labeled on the conductor and at each box.	
EC-05	-	CONDUCTORS, COPPER- #12 & #10 - solid copper THHN/THWN color coded; #6 & 8 - stranded copper THHN/THWN black jacket; #4 & larger - stranded copper THHN/THWN. No conductors less than #12 Cu allowed, unless specifically noted or control wiring.	
EC-06	-	CONDUCTORS, ALUMINUM- Aluminum (AL) not permitted unless noted. Where noted, conductors shall be compact strand type, THHN/ THWN.	
EC-07	-	CONNECTIONS, COPPER- U.L. Listed, 600V, 90C rated; Twist on type for #8 and smaller copper conductors. Set-Screw, Bolted or Compression type for #4 and larger copper conductors. Completely insulate each connection, splice, termination.	
EC-08	-	CONNECTIONS, ALUMINUM- U.L. Listed, 600V, 90C rated, compression, split-bolt, or set-screw type(s),for Aluminum or Dual-Rated. Completely insulate each connection, splice, termination.	
EC-09	-	CONNECTIONS, DAMP & WET LOCATION- UL Listed 486D type connector for damp & wet locations, sealant filled type. IDEAL Model 66 or Equal	
EC-10	-	CONNECTIONS, IN-GRADE, UNDER-GROUND, SUBMERSIBLE, WATER-TIGHT- UL Listed 486D, 600V, 90C rated for In-Grade, Direct-Burial, Submersible.	
EC-11	-	GROUNDING CONNECTIONS, IN-GRADE, UNDER-GROUND, SUBMERSIBLE- UL 467 Listed, 90C rated, Compress Or Bolt Type With Inhibiting compound; For Use In Earth or Concrete.	
EC-12	-	METAL-CLAD (MC) CABLE (CONCEALED WIRING)- Contractor may utilize Metal-Clad (Type MC) for interior concealed branch circuit wiring in accordance with the code. All materials, fittings, hardware, etc. shall be U.L. labeled for use with MC cable and properly installed and supported. Type MC cable shall have an integral full length ground conductor, bonded to a ground lug or terminal at each end.	
EC-13	-	INSTALLATION STANDARDS: All wiring & connects shall be installed in accordance with the NEIS (Nat. Electrical Installation Stds.), NEC & related codes and the manufacturer's published requirements.	
		End Of Electrical Criteria - Low Voltage Conductors	

#	Rv #	ELECTRICAL CRITERIA - LOW VOLT. ELECT. DISTRIB. GEAR	Chk Off
		GENERAL ITEMS	
ED-01	-	GENERAL- Provide Low-Voltage Electrical Distribution Gear as required to provide for a complete system to distribute electrical power.	
ED-02	-	ELECTRICAL RATINGS- Prior to ordering or submitting any electrical distribution equipment, verify all equipment ratings (Voltages, Phase, Short-Circuit With-Stand & Interrupting Ratings).	
ED-03	-	EQUIPM. DIMENSIONS, CLEARANCES & ACCESS: Prior to ordering or submitting any electrical distribution equipment, verify dimensions, space requirements, clearances, access and interference with work of other trades.	
ED-04	-	SUBMITTALS- Provide compete submittals on all items. Mark & indicate specific items to be used. Submit prior to finalizing orders. Submit three sets min., or per General Conditions.	
		LABELING & INSTALLATION	
ED-10	-	EQUIPMENT LABELS: Provide Engraved Melamine Equipment Labels, Adhesive Attached To The Items Face Or Interior Cover. Label To Include Equipment Name, Voltage(s) And OCP Device Ratings If Applicable.	
ED-11	-	SAFETY & WARNING LABELS: Provide Clear & Legible Safety & Warning Labels On Each Item Of Electrical Distribution Gear As Required By The NEC, OSHA & Other Regulations.	
ED-12	-	ARC-FLASH LABELS: Provide Clear & Legible Arc-Flash Labels On Each Item Of Electrical Distribution Gear, Giving The Minimum Ratings, Arc-Flash Energy Level & Required PPE For Each Specific Location.	
ED-13	-	SIESMIC BRACING & SUPPORT- Equipment shall be anchored, braced & supported in accordance with he Local Seismic Zone rating requirements.	
ED-14	-	INSTALLATION STANDARDS: Each item shall be installed in accordance with the NEIS (Nat. Electrical Installation Stds.), NEC & related codes and the manufacturer's published requirements.	
		LOW VOLTAGE OVER-CURRENT PROTECTIVE DEVICES	
ED-21	-	OCP GENERAL- Provide over-current-protective (O.C.P.) devices as required by code and/or otherwise prescribed. All lugs and terminals 60/75 deg. C rated.	
ED-22	-	MOLDED CASE (MC) CIRCUIT BREAKERS- Thermal-magnetic, bolt-in, quick-make/quick-break type. Trip free operation with ON, OFF & TRIPPED position. Monolithic tie-handle common trip and common reset multi-pole breakers. Trip rating molded on handle or face. Lugs to match cable type terminations. Single pole 15 and 20 ampere breakers to be "SWITCHING" rated.	
ED-23	-	DISCONNECT REQUIRMENTS - NEMA 1 enclosure indoors, NEMA 3R for damp/wet locations. Voltage, poles, amperage, fusible as required. Equipped with both isolated neutral and ground lugs. Class H, J, R or T fuse with rejection features. Provide switch label.	
ED-24	-	DISCONNECTS 30AMP. – 200AMP (240V Max) - Labeled per UL #98. NEMA KS1 general duty type, load make/break rated. Interrupting rating of 100,000 RMS amps (with R/ T fuse).	
ED-25	-	DISCONNECTS 400 & 600 AMPERES - Labeled per UL #98. NEMA KS-1 heavy duty type, load make/break rated. Interrupting rating of 200,000 RMS amps (with fuse).	
ED-26	-	DISCONNECT OVER 600 AMPERES- Labeled per Ulf #977, bolted pressure or high pressure contact type. NEMA heavy duty type, load make/break rated. Accept Class L fuses (as required). Interrupting rating of 200,000 RMS (with fusing). Manual close - manual/electric trip open. Load side phase under voltage detection/trip. Zero sequence GFCI on switches 1000A @ 277 and greater.	
ED-27	-	FUSES- Fuses shall be of same make, manufacturer, type & rating where providing two or three wire O.C.P. at a device. Provide Busman LOW-PEAK KRP-C. fuses (U.L. 198 C Class L) for protection over 600 amperes. Provide Busman LOW-PEAK LPN-RK (250V) or LPS-RK (600V) (U.L. 198E Class RK1) for protection up to 600 amperes.	
		PANELBOARDS	
ED-30	-	PANELBOARDS GENERAL- Provide dead front design with hinged & locking front cover door, NEMA 1 cabinet unless otherwise noted and with devices as scheduled. Voltage, phase, ampacity and devices as scheduled. Service entrance rated as applicable. Series rated and labeled, unless indicated otherwise. Flush or surface mounted NEMA 1 enclosure. All lugs & terminals 60/75 deg. C rated.	
ED-31	-	PANELBOARD STANDARDS- Labeled UL 67 and 50 (Cabinets, Boxes & Trim); NEMA 250 and PB1; NFPA 70-384 and 373; Federal Specs. W-P-115c; Circuit Breakers- Type I Class 1 & Fusible Switches- Type II, Class 1.	
ED-32	-	SHORT CIRCUIT RATING & ARC-FLASH LABELS: Match or exceed the Available Short Circuit Current available at the actual panel location; Properly label with Arc-Flash Energy Level & protective requirements (PPE).	
ED-33	-	PANELBOARD INTERIOR- Factory assembled, double row construction. Staggered numbering, sequence phased. Tin-plated copper or aluminum busing. Full ampacity phase & neutral bus, 50% ground bus.	
ED-34	-	OCP DEVICES, COMPONENTS, ETC: Provide all over-current-devices and other components and related as scheduled and / or required. Refer to panel schedule for details. Refer to Over-Current Protective (OCP) devices criteria.	
ED-35	-	PANEL DIRECTORIES - All Panel Directories Shall Be Current, Fully Detailed & Legible Per NEC-110.22 & 408.4(A)	
		SWITCHBOARDS	
ED-40	-	SWITCHBOARDS GENERAL- Provide equipment with dead front design and with devices as scheduled. Voltage, phase, ampacity and devices as scheduled. Service entrance rated as applicable. Free-Standing, NEMA 1 enclosure unless otherwise required. All lugs & terminals 60/75 deg. C rated.	
ED-41	-	SWITCHBOARD STANDARDS- The equipment and all installed components shall be UL Listed & Labeled. Labeled UL 891; NEMA 250 and PB2; NFPA 70-384 and 373; Federal Specs. W-P-115c; Circuit Breakers- Type I Class 1 & Fusible Switches- Type II, Class 1.	
ED-42	-	SHORT CIRCUIT RATING & ARC-FLASH LABELS: Match or exceed the Available Short Circuit Current available at the actual panel location; Properly label with Arc-Flash Energy Level & protective requirements (PPE).	
ED-43	-	SWITCHBOARD INTERIOR- Factory preassembled, sequence phased. Tin-plated copper or aluminum busing unless otherwise noted. Full ampacity phase & neutral bus, 50% ground bus.	
ED-44	-	OCP DEVICES, COMPONENTS, ETC: Provide all over-current-devices and other components and related as scheduled and / or required. Refer to panel schedule for details. Refer to Over-Current Protective (OCP) devices criteria.	
ED-45	-	CIRCUIT DIRECTORIES - All Circuit Directories Shall Be Current, Fully Detailed & Legible Per NEC-110.22 & 408.4(A)	
		TRANSFORMERS	
ED-50	-	TRANSFORMERS GENERAL- Provide dead-front dry-type transformer. Labeled per UL #506, conform with NEMA #250, #ST20 and TR27. General purpose air-cooled dry-type construction. Size, capacity, primary and secondary voltage, as indicated. NEMA 1 enclosure for indoor dry locations, NEMA 3R enclosure for damp/wet locations. Dead-front construction with removable covers. Maximum temperature rise by resistance of 115 degrees C. in a 40 degrees C. ambient. 75 degrees C. maximum terminal compartment with 60/75 degree C. lugs to match the conductor types. Two 2-1/2% above normal and four 2-1/2% below normal full capacity winding taps.	
		End Of Electrical Criteria - Low Voltage Electrical Distribution Gear	

#	Rv #	ELECTRICAL CRITERIA - LIGHTING FIXTURES	Chk Off
EL-01	-	GENERAL- Provide a complete system of lighting, including but not limited to, lighting fixtures, lamps, lighting controls, hardware, support and related wiring. The lighting system shall be installed complete & left in proper operation & function.	
EL-02	-	PRE_SUBMITTAL COORDINATION - Prior to issuing product submittals and / or ordering this contractor shall review & coordinate the specific construction each fixture is to be installed in, any Fire-Ratings, fixture mounting & support, & attachment methods, & ballast voltages. Dimmed fixtures shall be coordinated with their respective dimmer controls for comp ability. Fixtures that are to be fitted to Architectural features (i.e.-coves, slots, etc.) shall be coordinated with the respective trades prior to submitting.	
EL-03	-	SUBMITTALS - Prepare & submit project specific product documentation, including but not limited to , fixture cut-sheets with all model numbers, features & option indicated; specific lamps type(s). Custom type fixtures shall include the manufacturers shop fabrication drawings.	
EL-04	-	CODES & REQUIRMENTS- Each fixture shall be U.L. Labeled. Comply with the requirement of the NEC. Installation shall comply with the N.E.I.S. Emergency Lighting & Egress Signage shall comply with NFPA-101.	
EL-05	-	ENERGY EFFICENCY CODES- Each fixture shall conform with energy code requirements.	
EL-06	-	MANUFACTURERS SERIES- The Lighting Fixture Schedule describes the fixture type, features, lamp(s), and other characteristics that is to be provided. The Manufacturer's Model Number are provided as a reference to the grade, quality, features & components required. It is the responsibility of this Contractor to verify with the Manufacturer the actual final correct fixture make & model number required and to be submitted.	
EL-07	-	MANUFACTURER(S) BASIS - The projects base quote shall be based on the prescribed Manufacturer(s) as identified in the Lighting Fixture Schedule.	
EL-08	-	ALTERNATE MANUFACTURER(S) - Alternate Manufacturer(s) products may be proposed as Add / Deduct Alternate to the Original Base Bid (Post Bid Proposals Not Accepted). The alternate proposal shall be supported with complete fixture and lamp data / cut-sheets with the specific model, features & characteristics indicated. Any variation from the Lighting Fixture Schedule shall be noted / indicated.	
EL-09	-	LAMPS- Lamps shall be a scheduled & Full Light Output, Energy Saving. Lamps shall be by General Electric, Philips, or Osram /Sylvania unless otherwise noted.	
EL-10	-	LAMPS COLOR & CRI- Lamps, unless otherwise noted, shall be a 30k-35k Color and CRI of 80+ for Fluorescents & 90+ for LEDs.	
EL-11	-	LED LAMPS- Shall be UL Labeled (#8750 & 1598c), tested & performance rated per ANSI/ ANSLG, CIE, FTC, FCC, IES (LM-79, LM-80 & Related), NEMA	
EL-12	-	LINEAR FLUORESCENT BALLAST- Shall be rated & matched to the specific lamp type(s) it serves, High Power Factor, Full Light Output, Energy Saving Electronic Type. Ballast shall be Multi-Volt (120-480) or Universal Voltage (120/277) & 10% THD or less.	
EL-13	-	COMPACT FLUORESCENT LAMP (CFL) BALLAST- Shall be rated & matched to the specific lamp type(s) it serves, High Power Factor, Full Light Output, Energy Saving Electronic Type. Ballast shall be Multi-Volt (120-480) or Universal Voltage (120/277) & 10% THD or less.	
EL-14	-	HIGH INTENSITY DISCHARG (HID) BALLAST- Shall be rated & matched to the specific lamp type(s) it serves, High Power Factor, Full Light Output, Energy Saving Type. Ballast shall be Multi-Volt (120-480) or Universal Voltage (120/277) & 10% THD or less.	
EL-15	-	DIMMING BALLAST & CONTROLS- Provide fixtures with dimming type ballast as prescribed. The Ballast & Controls shall be fully coordinate & matched for proper system operation.	
EL-16	-	EBIS (EMERGENCY BATTERY/ INVERTERS SYSTEMS) FOR FLUORESCENT LAMPS- Provide Battery/ Inverter units where shown or required for emergency egress lighting in accordance with NFPA-101 & NEC. 90 Minute operation (min.) unless otherwise noted. U.L. Listed & Labeled.	
EL-17	-	EBIS FEATURES- EBIS units shall be Self-Diagnostic, Automatic Testing with Audio & Visual alarm notification of trouble conditions. If the above feature is not available, provide Manual Test Switch w/ Indicator Lamp.	
EL-18	-	EBIS TEST FEATURES- units shall be Self-Diagnostic, Automatic Testing with Audio & Visual alarm notification of trouble conditions.	
EL-19	-	EBIS LINEAR LAMP PERFROMANCE - The EBIS shall provide the following minimum Lumen outputs. 48 Inch, 14-32 Watt lamps @ 1100-1400 Lumens. 48 Inch T5 20-55 Watt @ 1800-3000 Lumens	
EL-20	-	EBIS CFL LAMP PERFROMANCE - The EBIS shall provide the following minimum Lumen outputs. CFL 09-13 Watt, 2-Piin @ 350-650 Lumens. CFL 13-26 Watt, 2-Pin @ 500-950 Lumens; CFL 09-42 Watt 4-Pin @ 1100-1400 Lumens.	
EL-21	-	FIXTURE MOUNTING & SUPPORT- Each fixture shall be supported from the ceiling structure (verify ceiling structural capacity) or directly from building structure. Secure fixture to ceiling structure in accordance with code. Pendant supported fxtures shall be supported from building structure.	
EL-22	-	SIESMIC BRACING & SUPPORT- Fixtures shall be braced & supported in accordance with he Local Seismic Zone rating requirements.	
EL-23	-	INSTALLATION STANDARDS: Each item shall be installed in accordance with the NEIS (Nat. Electrical Installation Stds.), NEC & related codes and the manufacturer's published requirements.	
		End Of Electrical Criteria - Lighting Fixtures	

#	Rv #	ELECTRICAL CRITERIA - TELCO V/D/B RACEWAYS	Chk Off
ET-01	-	TELCO RACEWAY SCOPE-OF-WORK: Providing raceways, backboards and wall boxes with conduit stub-ups & pull-strings only for devices, cabling & equipment installation by others (Telco, Voice, Data, Broadband, Etc.)	
ET-02	-	TELCO DEVICES, CABLING & EQUIPMENT: All cabling, jacks, devices, hardware, equipment & software & related installation is the responsibility of the owner or tenant.	
ET-03	-	TELCO UTILITY COORDINATION: Prior to any rough in, coordinate, in writing, with the Telco Service Provider all related requirements- route, conduit qty & sizes, grounding, etc.	
ET-04	-	TELCO SYSTEM PROVIDER COORDINATION: Prior to any rough in, coordinate, in writing, with the Telco Service Provider all related requirements- route, conduit qty & sizes, grounding, etc.	
ET-05	-	TELCO SERVICE CONDUITS: Quanity & size as required or shown, use long radius bends (10X) on all raceway bends & turns. Install Pull-Strings, tagged & tied-off at each end.	
ET-06	-	TELCO- V/D BACKBOARDS: 3/ 4" Thick A/D Grade fire-retardant plywood, painted with two coats of fire-retardant grey paint, bottom 18 In AFF, secured to wall structure. Provide 4-Hole ground lug with #6 ground extended to main service ground & bonded.	
ET-07	-	V/D WALL BACKBOXES & STUB-UPS: Provide double gang wall boxes with plaster ring with 1" C. stub-up & turn-out into an accessible plenum. Jacks, devices & covers by owner or tenant's vendor-installer. Install Pull-Strings, tagged & tied-off at each end.	
ET-08	-	V/D WALL FLOOR BOXES & STUB-UPS: Provide flush-in-floor box(s) with 1" C. under floor, to a wall & stub-up & turn-out into an accessible plenum. Jacks, devices & covers by owner or tenant's vendor-installer. Install Pull-Strings, tagged & tied-off at each end.	
		End Of Electrical Criteria - TELCO V/D/B Raceways	

18.09.27		Fayette Co Fire Station 04	
DN-	Rv	ELECTRICAL DISCLAIMERS & PROJECT NOTES	CO
01	-	CONSTRUCTION NEW> This Project Is All New Work.	
02	-	UTILITY POWER> Utility Power Is To Be Field Verified & Documented By The Contractor Prior To The Start Of Any Work. Confirm Voltages, Phase, & Available Fault Current.	
03	-	GENERATOR POWER SYSTEM> The Generator Power System Being Installed For This Facility Is Classified As An: OPTIONAL STANDBY SYSTEM (i.e.-Non-Life-Safety Functions Per NFPA-101).	
04	-	EMERGENCY EGRESS & EXIT LIGHTING Is Provided Via Battery Backup Units. Refer To The Lighting Fixture Schedule.	
05	-	LIGHTING - Refer To The Architectural-Interiors (A/I) For The Complete Lighting Design (Ceiling Types & Layouts, Fixture Selections & Lamping, Mounting Heights, Etc.)	
06		EQUIPMENT VERIFICATION - Contractor Is To Verify The Electrical Characteristics & Ratings Of Electrical Equipment Provided By Other Trades, Etc. Prior To Ordering Materials & Any Rough-Ins.	
06	-	EQUIPMENT ON GEN. PWR SYSTEM: - Contractor Is To Coordinate Early With Other Trades, Owner, Etc. Regarding The Electrical Characteristics, Ratings & Motor Starter Types Of Electrical Equipment Provided By Other Trades, Etc. To Ensure Proper Generator Operation.	
07		GEN. PWR SYSTEM LOAD SEQUENCE STARTING: Selected Loads Are Noted As Delayed Restart Or Delayed Start To Avoid All Loads Being Connecte To The Generator Source At The Same Time.	
08		FIRE ALARM - Not Included In This Work-Scope.	
09	-	TELCO-VOICE-DATA SYSTEM(s)- Not Included In This Work-Scope.	
10	-	TV-BROADBAND SYSTEM(s)- Not Included In This Work-Scope.	
11	-	ACCESS CONTROL & SECURITY- Not Included In This Work-Scope.	
12	-	OWNER-TENANT-USER RESPONSIBILITIES- To Review & Train In Proper Operations & Maintenance Of The Electrical Components & System.	
13	-	OWNER-TENANT-USER RESPONSIBILITIESy- Regularly Test (Every 3 Months) GFCI & AFCI Devices To Ensure Proper Operation.	
14		OWNER-TENANT-USER RESPONSIBILITIES- To Regularly Check, Test & Document The Proper Operation Of The Emergency Lighting System. Refer To NFPA-101 & OSHA Regulations. Documentation & Forms Are Available From NFPA & OSHA	
15	-	GENERATOR POWER SYSTEM MAINTEANCE> The Owner Is Responsible For The Maintaining The Generator Power System In Proper Working Order And Conducting & Documenting Regular Operational Testing Per Codes & Other Agency Requirments.	
17-151		End Of Disclaimer & Project Notes	

architecture
interiors
town planning

KAOD
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GEORGIA REGISTERED No. 13252 PROFESSIONAL ENGINEER ROBERT M MADDOX 2018 09 20

THE MADDOX GROUP
DESIGN & ENGINEERING
9309 Semmole Road
Jonesboro, GA 30236
770-471-9076
maddoxgroup@comcast.net

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DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO.
FIRE STATION
4

278 McElroy Road
Fayetteville, GA. 30214

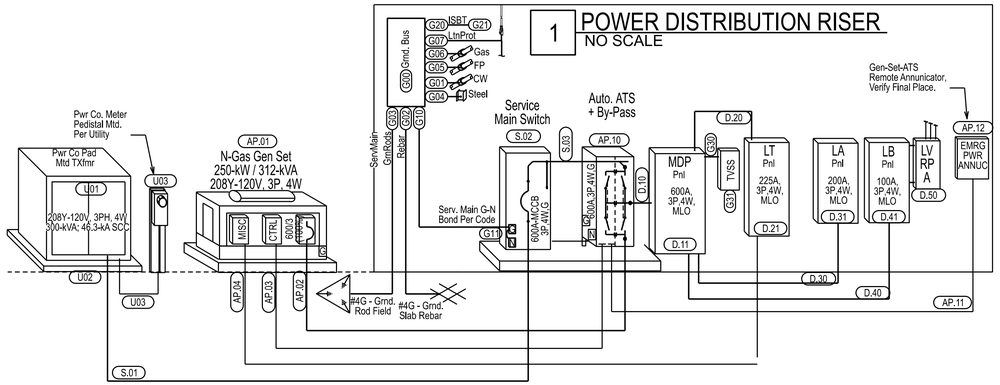
Prepared for

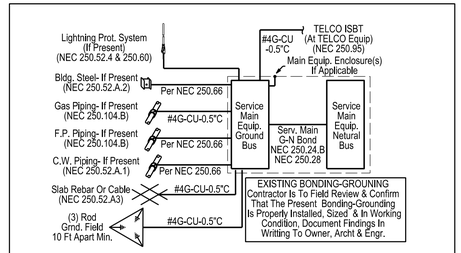
FAYETTE CO.
FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL CRITERIA

SHEET NO:
E-0.1
RELEASED FOR PERMIT OR CONSTRUCTION





SERVICE MAIN - BONDING & GROUNDING
DETAIL # - MG NOT TO SCALE

Project:	Fayette Co Fire Station 04						MDP		Schd	Fayetteville, GA. 30241 City,St.						
Gen Nt 1:	Bkr Ties On Multi-Wire Ckts NEC 210.4B						Volt- LL	208		Enclosure-Mtg:	NEMA 1		Wall Surf Mtd.			
Gen Nt 2:	Seismic Certified & Seismic Rated Anchors & Supports Reqd.						Volt- LN	120		Cover & Door:	Door-In-Door, With Locks					
Gen Nt 3:	Main Distb Panel						Phs. 3	W. 4		OCP Types:	Main - MCCB-60C/75C		Branch- MCCB, 60C/75C Lugs			
Gen Nt 4:	- - -						Buss Amps	600		All Bussing:	CU or AL		100% N & G Busing			
Gen Nt 5:	- - -						Main OCP	MLO		Arc-Flash:	Labeled Per NEC & OSHA					
17-151	MADDOX GROUP INC.				Spare % =	15%	KA-AIC SCA	65		18.09.27	Date:			Const	Status	
Rv	Nt	Description	Wiring	ID	W/VA	OCP	P	#	P	#	OCP	P	W/VA	ID	Wiring	Description	Nt	Rv
		Pnl LA Fdr	- - - -	P	18,856	150	-	01	A	02	225	-	25,935	P	- - - -	Pnl LT Fdr		
		208V, 3Ph, 4W, G	See Riser	P	18,014	-	-	03	B	04	-	-	27,135	P	See Riser	208V, 3Ph, 4W, G		
		- - - -	- - - -	P	19,038	-	3	05	C	06	-	3	23,735	P	- - - -	- - - -		
		Pnl LB Fdr	- - - -	P	8,690	100	-	07	A	08	50	-	2,905	M	See Connect Data	Air-Compr Gen Use	1,2	
		208V, 3Ph, 4W, G	See Riser	P	7,975	-	-	09	B	10	-	-	2,905	M	= = =	7.5 HP-208V-3Phs		
		- - - -	- - - -	P	6,910	-	3	11	C	12	-	3	2,905	M	= = =	Schultz 7580VV30X-3		
		Air Tank Compr	See Connect Data	M	7,128	100	-	13	A	14	40	-	0		- - -	TVSS Surge Prot		
	1,2	20HP-208V-3Phs	= = =	M	7,128	-	-	15	B	16	-	-	0		4# 8+ 8G-MC	208V, 3Ph, 4W, G		
		Hushair Conn. 7500	= = =	M	7,128	-	3	17	C	18	-	3	0		- - -	- - - -		
		< Space Only >	- - -		0	SP	-	19	A	20	SP	-	0		- - -	< Space Only >		
		< Space Only >	- - -		0	-	-	21	B	22	-	-	0		- - -	< Space Only >		
		< Space Only >	- - -		0	-	3	23	C	24	-	3	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	25	A	26	20	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	27	B	28	20	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	29	C	30	20	1	0		- - -	< Space Only >		
N# 01-		HACR Listed & Labeled MCCB				Phs-A =	34.1 %	529	A		63,514 VA		26.1 KVA Facotred End Use				72	A
N# 02-		Verify Soft-Start & Time Delay On Power Loss Restart.				Phs-B =	33.9 %	526	A		63,157 VA		158.8 KVA Pass Thru Load				441	A
N# 03-		Not Used				Phs-C =	32.0 %	497	A		59,716 VA		3.9 KVA Spare				11	A
N# 04-		Not Used				Summary =		517	A		186,387 VA		188.8 KVA Total				524	A

ELECTRICAL UTILITY & LOAD DATA			
Proj:	Fayette Co Fire Station 04	Owner :	Fayette Co Fire Dept
Street	278 McElroy Road	Contact :	Capt. Scarboro
City	Fayetteville, GA. 30240	Phone # :	- - - -
GSF:	10,200	18.09.27 -Date	Status- Const

ELECTRICAL LOAD DATA & SUMMARY					
Load ID	Connected Load Type	Connected @ 100% kVA	%	W/SF	Descriptions, Comments & Notes	Rv #
-	Exist. Demand	0.00	0%	0.00	Not Applicable - New Project	-
L	Lighting	11.18	6%	1.10	Interior & Exterior With Occupancy Switches	-
R	General Rcpts.	26.50	14%	2.60	General Use Receptacles	-
A	Appliances	23.40	13%	2.29	Residential Kitchen & Laundry Appliances	-
E	Electronics, PCs, Etc.	14.40	8%	1.41	Small UPS, Voice-Data-TV Equipment	-
H	HVAC- Mtrs	17.79	10%	1.74	HVAC- Fans, Blowers, & Similar	-
C	HVAC-Refrig	11.55	6%	1.13	HVAC- Cooling Equipment, HPUs, CUs, Etc.	-
G	HVAC- Heating	13.00	7%	1.27	HVAC- Space Heating & Related	-
M	Misc- M	30.10	16%	2.95	Air Comprs> 7.5 HP + 20 HP	-
T	Misc- T	38.48	21%	3.77	Commercial Laundry Equip: Wash-Extractor, Dryer, +Misc.	-
- -	Spare	0.00	0%	0.00	-	-
	Summary kVA >	186	100%	18.3	< W/SF Sum	

Supply Characteristics		Amps 100% > 517	General Comments
208	Volts-LL	1-	N-Gas> Major Cooking Appliances
120	Volts-LN	2-	N-Gas> HVAC Space Heating (Gas Furnaces, Non-Simult With Cooling)
3	Phase-1/3	3-	- - -
4	Wire #	4-	- - -
600 Amps/ 2 Sets> 4# 350-CU or 500-AL		5-	Back-Up Generator Set With Automatic Open-Transfer Switch.

Prefered Power Co. Service, Transformer & Metering - Verify With Utility			
____	Tfmr. kVA	Pwr Company:	Cowetta-Fayette EMC
		Pwr. Co. Contact:	Curtis Camp, 770-252-7241
____	Secd.3P-Bolted kA SCCA	Pwr Co. Primary:	Under Ground Primary; Provided By Power Co. (Verify)
		Pwr Co. TXfmr:	Pad & Transformer By Power Co. (Verify)
____	Secd. Phs-Grn kA SCCA	Pwr Co. Metering:	Pedistal Mtd Mtr; Pedistal & 1.5"C Conduit By Contractor (Verify)

12-101 MADDOX GROUP INC. End Of Utility Load Data

#	Rv #	ELECTRICAL CRITERIA - PROJECT CLOSE-OUT	Chk Off
EZ-01	-	REVIEW REQUEST NOTICE(s)- This Contractor Shall Notify, In Writing, At Least 10 Days In Advance, To Own/ Archt/ Engr, Of The Desired Date To Request Having An On-Site Review Performed.	
EZ-02	-	AHJ INSPECTION REPORTS- This Contractor Shall Submitt Copy(s) Of Each Inspection Report As Given By The Authority Having Jurisdiction (AHJ) To The Own/ Archt/ Engr.	
EZ-03	-	ROUGH IN REVIEWS - Request Rough-In Reivew(s) Before Any Material Or Work Is Covered And Unobservable.	
EZ-04	-	CERTIFICATIONS & TEST REPORTS- Provide Copies Of All Required Certifications And Test Results Prior To Requesting Final Review.	
EZ-05	-	CONTRACTOR REVIEW- This Contractor Shall Throughly Review & Document That The Complete Work Is Properly Functioning & Opeating Prior To Requesting A Final Review.	
EZ-06	-	REVIEW ELECTRICAL BONDING & GROUNDS- Verify Each Service Ground & Bond Is Properly Installed, Connected & Labled.\	
EZ-07	-	REVIEW ELECTRICAL SERVICE & VOLTAGE- Test & Record The Actual Voltages (L-L, L-N,L-G, N-G) And Amperages Of Each Line, Netural & Ground At The Service Entrance	
EZ-08	-	REVIEW ELECTRICAL DISTRIBUTION- Review & Document Each Part Of The Electrical Distribution System. Verify Proper Size & Ratings Of Each Item, Proper Connections & Torque Values. Verify Proper Bonding & Grounding.	
EZ-09	-	REVIEW ELECTRICAL PANEL DIRECTORIES - Review & Verify Detial Panel Directories Are Complete, Correct & Installed. Provide Complete "As-Built" Panel Schesule, In PDF Format To Owner For Their Records.	
EZ-10	-	REVIEW ELECTRICAL EQUIPMENT WIRING- Review Each Equipment Connection, Verify Circuit Protection Complies With The Equipment UL Listings & Ratings. Verify Disconnects Are Properly Labeled. Check For Proper Voltage & Phase Rotation For Equipment.	
EZ-11	-	REVIEW ELECTRICAL WIRING & DEVICES- Review & Document That All Branch Circuit Wiring Is Properly Installed, Bonded & Operational. Test Each Outlet With For Proper Continuity, Polarity & Grounding. Test Using An IDEAL INDUSTRIES SURE-TEST Model 61-165 Or Equal.	
EZ-12	-	REVIEW ELECTRICAL LIGHTING & CONTROLS- Review & Document That All LIGHTING Fixtures Are Properly Operating And Clean. Verify Proper Operation Of All Lighting Controls. Program & Set An Control Operations And/ Or Schedules Per Owner.	
EZ-13	-	REVIEW ELECTRICAL EMERGENCY EGRESS LIGHTING & EXIT SIGNS:- Review & Document That Each Emergency Lighting Fixture And / Or System And Each Exit Sign Is Properly Functioning. Turn Off Building / Suite Power For 90 Minutes And Verify Emergency Lighting & Exit Are Operational Per Code.	
EZ-14	-	REVIEW ELECTRICAL SUB-SYSTEMS- Refer To The Specific Requirments Of Each "Sub-Systems" (i.e.-Fire Alalrm, Data-Voice, Etc.).	
EZ-16	-	KEYS & SPARE PARTS- Label & Turn Over All Keys To Owner's Personell. Review & Show All Spare Components & Parts To Owner's Personell & Document With Transmittal.	
EZ-17	-	"AS_BUILTS" - Provide Copies, In Hard-Copy & PDF Format, Of The Field Recored Documents With All "As-Built" Field Documentation Reflecting The Final Installed Conditions. Copy To Own/ Archt/ Engr.	
EZ-18	-	WARRANTY- This contractor shall warrant all materials, labor & installation for one full year from date of Certifcate of Occupancy. Any extended product warranties shall be passed onto the owner.	
EZ-20	-	INSTRUCTIONS & TRAINING:- Schedule & Provide A Instructional & Traning Session With The Owner's Designated Personell. Review The Project Manual, Perform A "Walk-Thru" Review Of The All Electrical System(s) And Their Proper Operation, Including Resetting Of Breaker & Replacment Of Fuses.	
EZ-21	-	PROJECT MANUAL(S)- Provide Both A Bound "Hard-Copy" & PDF Version To The Owner & PDF Copy To The Archt/ Engr. The Project Manual Shall Include The Contractors Contact Information, Permits, Copies Of All "As-Builts", Product Submittal Data, Copies Of All Inspection Reports, Certifications & Test Results. Include All Mainteance Data, Instructions, & Warranty Information.	
EZ-22	-	FINAL REVIEWS - Request A Final Reivew Once All Work & Systems Are Completed, Checked And In Proper Operation	
		End Of Electrical Criteia - Project Close-Out	

POWER DISTRIBUTION SCHEDULE

Fayette Co Fire Station 04 — ELCT. DISTB. SYSTEM SCHEDULE — 18.09.27
Fayetteville, GA. 30241 — ELECTRICAL DISTRIBUTION SYSTEM — Const

Rv#	Tag ID#	Description / Label	Volts/ Phase/ Wires	Wiring (#Sets,Cu/Al), Ratings, Size, Etc.	Item Nt #	Fault SCkA	Arc-Flash	Feet
		Electrical Utility Source						
-	U01	Utility Co. Transformer, Pad Mounted Type	208Y-120V,3P,4W	Verify - 300 kVA	- -	46.3	Per Util	-
-	U02	Transformer Pad	Structural Concrete Pad	Verify With Utility & Provide As Required	- -	NA	NA	-
-	U03	Utility Co. Meter	Extend 1.5"C-Empty From Meter To Txfmr.	Contractor Provides Pedistal, Get Meter & Mount; Meter Wiring & Related Transformer Connects By Pwr Co.	- -	NA	NA	-
-	-	- - -	- - -	- - -	-	-	-	-
		Service Bonding & Grounding (Each Service)						
-	G00	Master Grnd Bus (MGB)	Ground-Bus, Mtd. High On Wall With Label	Term. Cables With 2-Hole Cable Lugs & Label Each Cable; Burndy BBB or Erico TGB/ TMGB	- -	- -	- -	-
-	G01	Bond/Grnd- To CW Main	(1) #3/0G- 1"PVC	Clamp With-In 5 Ft Of Pipe Entrance	- -	- -	- -	-
-	G02	Grnd- To Slab Rebar	(1) #4G- 1"PVC	20 Ft 1/2" OD Rebar Or #4 Bare Cu	- -	- -	- -	-
-	G03	Grnd- To Grnd Rod Field	(1) #4G- 1"PVC	(3) 10 Ft SS Grnd Rods Space 10 Ft Apart	- -	- -	- -	-
-	G04	Bond/Grnd- To Bldg Steel	(1) #3/0G- 1"PVC	U.L Bond To Major Steel Member	- -	- -	- -	-
-	G05	Bond/Grnd- To FP Main	(1) #3/0G- 1"PVC	Clamp With-In 5 Ft Of Pipe Entrance	- -	- -	- -	-
-	G06	Bond- To Gas Main Pipe	(1) #4G- 1"PVC	Clamp With-In 5 Ft Of Pipe Entrance	- -	- -	- -	-
-	G07	Bond/Grnd- To Lightning Prot	(1) #3/0G- 1"PVC	Bond To Ltgn Prot (If Present)	- -	- -	- -	-
-	G10	Grnd Electrode To Each Serv	(1) #3/0G- 1"PVC	Bond To Main Grnd @ Service	- -	- -	- -	-
-	G11	Main Bonding Jumper (G-N)	(1) #3/0G- 1"PVC	Unspliced Inside Each Serv Disc	- -	- -	- -	-
-	G20	Bond- To Telco ISBT	(1) #2G- 1"PVC	Grnd To Each LV Comm Service(s)	- -	- -	- -	-
-	G21	ISBT(Inter-System Bonding Terminal) Ground Bar	ILSOC PET Or Equal	Dual-Rated, 8-Hole Lug With 2-Mtg Holes	- -	- -	- -	-
-	-	- - -	- - -	- - -	-	-	-	-
		TVSS (Surge Protection)						
-	G30	TVSS Connection; NEC 280.25	(1) 4# 4+ 4G- 1.25"C	Keep Wiring Leads Very Short	- -	- -	- -	-
-	G31	TVSS Unit - Mount. Close As Possible To Protected Item / Equipment	208Y-120V,3P,4W,G	C-Class, 250 kA/ Phs; 125kA/ Mode: EMI/ RFI Filter, Disconnect, Alarm & Meters, NEMA-3R; LEA LS Plus Series	- -	- -	- -	-
-	G31	TVSS Unit - Mount. Close As Possible To Protected Item / Equipment	480Y-277V,3P,4W,G	C-Class, 250 kA/ Phs; 125kA/ Mode: EMI/ RFI Filter, Disconnect, Alarm & Meters, NEMA-3R; LEA LS Plus Series	- -	- -	- -	-
-	-	- - -	- - -	- - -	-	-	-	-
		All Conductors Are Copper (Cu) Unless Specifically Noted As Aluminum (Al) (Compact Strand)						
		Electrical Service(s)						
-	S01	Elect. Service> Main Serv > 600 Amps	208Y-120V,3P,4W,G	(2Cu) 4# 350- 4.00"C or (2Al) 4# 500- 4.00"C	- -	- -	- -	-
-	S01	Elect. Service> Main Serv Disc.> 600 Amps	208Y-120V,3P,4W,G	Main Service Entrance Rated MCCB In NEMA-1 Enclosure, Wall Mtd. 208Y-120V,3P,4W,G	- -	- -	- -	-
-	S03	Fdr To ATS-Norm > 600 Amps	208Y-120V,3P,4W,G	(2Cu) 4# 350+ 1G- 4.00"C or (2Al) 4# 500+ 2/0G- 4.00"C	- -	- -	- -	-
-	S04	House Keeping Pad	na	Provide House-Keeping Pad For Floor Mounted Items. Secured Equipment Per Seismic Requirements	- -	- -	- -	-
-	-	- - -	- - -	- - -	-	-	-	-
		Generator System Electrical Distribution						
-	AP.01	N-Gas Gen Set; 250-kW, 312-kVA	208Y-120V,3P,4W,G; 867 FLA, 600A-100% Output MCCB	See Detailed Criteria. Coordinate Structural Pad, Access Pad, Fencing & Protection With GC	- -	- -	- -	-
	AP.02	Feed Gen Set To ATS	208Y-120V,3P,4W,G	(2Cu) 4# 350+ 1G- 4.00"C or (2Al) 4# 500+ 2/0G- 4.00"C	- -	- -	- -	-
	AP.03	Gen Set Control Wiring	Per Manuf	Prior To Any Rough-Ins, Verify Per Manufacturer Cabling Requirements & Conduit Size (1.25"C Minimum)	- -	- -	- -	-
	AP.04	Ges Set Misc Power (Jacket Htr, Charger, Etc.)	208Y-120V,3P,4W,G	Prior To Any Rough-Ins, Verify Per Manufacturer Cabling Wiring (3# 6+10G) & Conduit Size (1.25"C Minimum)	- -	- -	- -	-
	AP.05	Gen Set Grounding	Grnd	Ensure Gen Set, Housing, & All Components Are Fully Bonded Together & Grounded (3/0 Cu-Min)	- -	- -	- -	-
	AP.10	Automatic Transfer Switch (ATS); 600A, 3P, SN, By-Pass	208Y-120V,3P,4W,G; 600A-100%	See Detailed Criteria; Coordinate Structural Mounting, Provide House-Keeping Pad If Floor Mounted. Secured Per seismic Requirements	- -	- -	- -	-
	AP.11	Remote Annunicator Wiring	Per Manuf	Prior To Any Rough-Ins, Verify Manufacture Cabling Requirements & Conduit Size (1.25"C Minimum); Verify With Location Prior To Rough-In.	- -	- -	- -	-
	AP.12	Remote Annunicator, Verify Location Prior To Rough-In.	Per Manuf	See Detailed Criteria; Verify Location Prior To Rough-Ins, Walll Mounted. Secured Per seismic Requirements	- -	- -	- -	-
-	-	- - -	- - -	- - -	-	-	-	-
		Electrical Distribution						
-	D.10	MDP Fdr > 600 Amps	208Y-120V,3P,4W,G	(2Cu) 4# 350+ 1G- 4.00"C or (2Al) 4# 500+ 2/0G- 4.00"C	- -	- -	- -	-
-	D.11	MDP	208Y-120V,3P,4W,G	See Schedule	- -	- -	- -	-
-	D.20	LT Fdr > 225 Amps	208Y-120V,3P,4W,G	(1Cu) 4# 4/0+ 4G- 2.50"C or (1Al) 4# 300+ 2G- 3.00"C	- -	- -	- -	-
-	D.21	LT	208Y-120V,3P,4W,G	See Schedule	- -	- -	- -	-
-	D.30	LA Fdr > 200 Amps	208Y-120V,3P,4W,G	(1Cu) 4# 3/0+ 6G- 2.00"C or (1Al) 4# 250+ 4G- 2.50"C	- -	- -	- -	-
-	D.31	LA	208Y-120V,3P,4W,G	See Schedule	- -	- -	- -	-
-	D.40	LB Fdr > 100 Amps	208Y-120V,3P,4W,G	(1Cu) 4# 3+ 8G- 1.25"C or (1Al) 4# 1+ 6G- 1.25"C	- -	- -	- -	-
-	D.41	LB	208Y-120V,3P,4W,G	See Schedle	- -	- -	- -	-
-	D.41	Low-Voltage Relay Pnl- A (LVRP-A)	208Y-120V,3P,4W,G	See Schedule; Extend LV Wiring (MC Cable) To LV Switches	- -	- -	- -	-
-	-	- - -	- - -	- - -	-	-	-	-

MADDOX GR — End Of Distribution Schedule - Utility Power — 17-151

TELCO RISER
NO SCALE

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GEORGIA REGISTERED PROFESSIONAL ENGINEER No. 13252 ROBERT M MADDOX 2018 09.20

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DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO. FIRE STATION # 4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

FAYETTE CO. FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL RISER & SCHEDULES

SHEET NO:
E-02

RELEASED FOR PERMIT OR CONSTRUCTION

Project:	Fayette Co Fire Station 04				LT	Schd	Fayetteville, GA. 30241	City,St.
Gen Nt 1:	Bkr Ties On Multi-Wire Ckts NEC 210.4B				Volt- LL	208	Enclosure-Mtg:	NEMA 1	Wall Surf Mtd.
Gen Nt 2:	Seismic Certified & Seismic Rated Anchors & Supports Reqd.				Volt- LN	120	Cover & Door:	Door-In-Door, With Locks	
Gen Nt 3:	Serves Truck Bays & Related				Phs. 3	W. 4	OCP Types:	Main - MCCB-60C/75C	Branch- MCCB, 60C/75C Lugs
Gen Nt 4:	Matching Pnl. Wire Gutter & Sectional Covers, Pnl To Clg. With Trim				Buss Amps	225	All Busing:	CU or AL	100% N & G Busing
Gen Nt 5:	- - -				Main OCP	MLO	Arc-Flash:	Labeled Per NEC & OSHA	
17-151	MADDOX GROUP INC.			Spare % = 0%	KA-AIC SCA	42	18.09.27	Date:	Const Status

Rv	Nt	Description	Wiring	ID	W/VA	OCP	P	#	P	#	OCP	P	W/VA	ID	Wiring	Description	Nt	Rv
	1	Washer-Extractor	See Connect Data	T	4,800	40	-	01	A	02	20	-	1,500	G	See Connect Data	M.EWH.02	1	
		208V-3Phs	= = =	T	4,800	-	-	03	B	04	-	2	1,500	G	= = =	3.0 kW, 208V, 1Phs		
		Continental E=I255	= = =	T	4,800	-	3	05	C	06	20	-	1,000	G	See Connect Data	M.EWH.03	1	
	1	Drying Cabinet	See Connect Data	T	2,125	30	-	07	A	08	-	2	1,000	G	= = =	2.0 kW, 208V, 1Phs		
		208V-3Phs	= = =	T	2,125	-	-	09	B	10	20	-	1,500	G	See Connect Data	M.EWH.04	1	
		CirculAir D634	= = =	T	2,125	-	3	11	C	12	-	2	1,500	G	= = =	3.0 kW, 208V, 1Phs		
	1	M.AFU.01 &02	See Connect Data	H	1,105	20	-	13	A	14	20	1	900	E	See Connect Data	Fir Prot Cntrl Pnl	1	
		1.0 HP, 208V, 3Phs Ea	= = =	H	1,105	-	-	15	B	16	20	1	700	H	See Connect Data	M.F.09, 0.25 HP	1	
		AirVac 911	= = =	H	1,105	-	3	17	C	18	20	1	700	H	See Connect Data	M.F.10, 0.25 HP	1	
	1	M.AFU.03 & 04	See Connect Data	H	1,105	20	-	19	A	20	20	1	700	H	See Connect Data	M.F.11, 0.25 HP	1	
		1.0 HP, 208V, 3Phs Ea	= = =	H	1,105	-	-	21	B	22	20	1	1,600	H	See Connect Data	M.GRH.xx Htr & Louver	1	
		AirVac 911	= = =	H	1,105	-	3	23	C	24	20	1	1,600	H	See Connect Data	M.GRH.xx Htr & Louver	1	
	1	M.F.02	See Connect Data	H	900	20	-	25	A	26	20	1	1,600	E	See Connect Data	Truck Pwr Reel		
		2.0 HP, 208V, 3Phs Ea	= = =	H	900	-	-	27	B	28	20	1	1,600	E	See Connect Data	Truck Pwr Reel		
		Ex Fan	= = =	T	900	-	3	29	C	30	20	1	1,600	E	See Connect Data	Truck Pwr Reel		
	1	Doors 4-Fold Truck Bay	See Connect Data	T	1,800	20	-	31	A	32	20	1	1,600	E	See Connect Data	Truck Pwr Reel		
		208V, 3Phs Ea	= = =	T	1,800	-	-	33	B	34	20	1	1,600	E	See Connect Data	Truck Pwr Reel		
		1.0 HP Each Of 3	= = =	T	1,800	-	3	35	C	36	20	1	1,600	E	See Connect Data	Truck Pwr Reel		
	1	Doors 4-Fold Truck Bay	See Connect Data	T	1,800	20	-	37	A	38	20	1	1,200	R	2# 10+ 10G- MC	Rcpts- Truck Bay Extr		
		208V, 3Phs Ea	= = =	T	1,800	-	-	39	B	40	20	1	1,200	R	2# 10+ 10G- MC	Rcpts- Truck Bay Extr		
		1.0 HP Each Of 3	= = =	T	1,800	-	3	41	C	42	20	1	1,200	R	2# 10+ 10G- MC	Rcpts- Truck Bay Intr		
		Gen Set Block Htg	2# 8+10G-1.25°C	T	3,000	40	-	43	A	44	20	1	800	R	2# 10+ 10G- MC	Rcpts- Truck Bay Intr		
		208V, 1Phs	- - -	T	3,000	-	2	45	B	46	20	1	800	R	2# 10+ 10G- MC	Rcpts- Truck Bay Intr		
		> Spare MCCB <	- - -		0	20	1	47	C	48	20	1	900	R	2# 10+ 10G- MC	Rcpts- Truck Bay Wr Ft		
		< Space Only >	- - -		0	Sp	1	49	A	50	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	51	B	52	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	53	C	54	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	55	A	56	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	57	B	58	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	59	C	60	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	61	A	62	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	63	B	64	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	65	C	66	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	67	A	68	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	69	B	70	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	71	C	72	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	73	A	74	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	75	B	76	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	77	C	78	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	79	A	80	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	81	B	82	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	83	C	84	Sp	1	0		- - -	< Space Only >		
		- - -	- - -		0	na	-	Sub	A	Sub	na	-	0		- - -	- - -		
		Not Used	- - -		0	-	-	Feed	B	Feed	-	-	0		- - -	Not Used		
		- - -	- - -		0	-	3	Load	C	Load	-	3	0		- - -	- - -		

N# 01-	HACR Listed & Labeled MCCB	Phs-A =	33.8 %	216	A	25,935 VA	67.7 KVA Facotred End Use	188 A
N# 02-	Not Used	Phs-B =	35.3 %	226	A	27,135 VA	0.0 KVA Pass Thru Load	0 A
N# 03-	Not Used	Phs-C =	30.9 %	198	A	23,735 VA	0.0 KVA Spare	0 A
N# 04-	Not Used	Summary =		213	A	76,805 VA	67.7 KVA Total	188 A

Project:	Fayette Co Fire Station 04				LA	Schd	Fayetteville, GA. 30241	City,St.
Gen Nt 1:	Bkr Ties On Multi-Wire Ckts NEC 210.4B				Volt- LL	208	Enclosure-Mtg:	NEMA 1	Wall Surf Mtd.
Gen Nt 2:	Seismic Certified & Seismic Rated Anchors & Supports Reqd.				Volt- LN	120	Cover & Door:	Door-In-Door, With Locks	
Gen Nt 3:	Matching Pnl. Wire Gutter & Sectional Covers, Pnl To Clg. With Trim				Phs. 3	W. 4	OCP Types:	Main - MCCB-60C/75C	Branch- MCCB, 60C/75C Lugs
Gen Nt 4:	- - -				Buss Amps	200A	All Busing:	CU or AL	100% N & G Busing
Gen Nt 5:	All 20A/ 1P MCCB To Have AFCI Protection (NEC-210.12)				Main OCP	MLO	Arc-Flash:	Labeled Per NEC & OSHA	
17-151	MADDOX GROUP INC.			Spare % = 15%	KA-AIC SCA	42	18.09.27	Date:	Const Status

Rv	Nt	Description	Wiring	ID	W/VA	OCP	P	#	P	#	OCP	P	W/VA	ID	Wiring	Description	Nt	Rv
		M.CU.01, 2.0T	See Connect Data	C	1,186	20	-	01	A	02	20	1	1,500	A	See Connect Data	Appl- Ice Maker		
		208V, 1Ph	= = =	C	1,186	-	2	03	B	04	20	1	1,500	A	See Connect Data	Appl- K-Range Hood		
		M.CU.02, 2.5T	See Connect Data	C	1,410	25	-	05	C	06	20	1	1,500	A	See Connect Data	Appl- K-Refg		
		208V, 1Ph	= = =	C	1,410	-	2	07	A	08	20	1	1,500	A	See Connect Data	Appl- K-Freez		
		M.CU.03, 4.0T	See Connect Data	C	1,768	35	-	09	B	10	20	1	1,500	A	2# 12+ 12G-MC	Appl- Kitch Island		
		208V, 1Ph	= = =	C	1,768	-	2	11	C	12	20	1	1,500	A	See Connect Data	Appl- K-Microwave		
		M.CU.04, 2.5T	See Connect Data	C	1,410	25	-	13	A	14	20	1	1,500	A	See Connect Data	Appl- K_Dishwash UC		
		208V, 1Ph	= = =	C	1,410	-	2	15	B	16	20	1	1,500	A	See Connect Data	Appl- K-Disposal UC		
		C-Dryer Resd	See Connect Data	A	2,500	30	-	17	C	18	20	1	1,500	A	See Connect Data	Appl- Kitch		
		208V, 1Ph	= = =	A	2,500	-	2	19	A	20	20	1	1,500	A	See Connect Data	Appl- Kitch		
		M.EWH.01, 2.0kW	See Connect Data	G	1,000	20	-	21	B	22	20	1	1,500	A	See Connect Data	Appl- Kitch		
		208V, 1Ph	= = =	G	1,000	-	2	23	C	24	20	1	1,500	A	See Connect Data	Appl- Laundry		
		M.GF.01, 0.50 HP	See Connect Data	H	750	20	1	25	A	26	20	1	200	R	2# 12+ 12G-MC	Rcpt- Ded- Shwr		
		M.GF.02, 0.50 HP	See Connect Data	H	750	20	1	27	B	28	20	1	200	R	2# 12+ 12G-MC	Rcpt- Ded- Shwr		
		M.GF.03, 0.75 HP	See Connect Data	H	1,060	20	1	29	C	30	20	1	200	R	2# 12+ 12G-MC	Rcpt- Ded- Shwr		
		M.GF.04, 0.50 HP	See Connect Data	H	750	20	1	31	A	32	20	1	800	R	2# 12+ 12G-MC	Rcpt- Sleep Area		
		C_Washer Resd	See Connect Data	R	1,500	20	1	33	B	34	20	1	1,200	R	2# 12+ 12G-MC	Rcpt- Sleep Area		
		M.WH.01 Ignitor	See Connect Data	E	900	20	1	35	C	36	20	1	1,200	R	2# 12+ 12G-MC	Rcpt- Sleep Area		
		M.F.08,03,13	See Connect Data	R	1,500	20	1	37	A	38	20	1	1,200	R	2# 12+ 12G-MC	Rcpt- Misc		
		M.F.14 + KH.01(Hood)	See Connect Data	R	1,500	20	1	39	B	40	20	-	1,500	G	See Connect Data	M.EWH.01	1	
		M.F.05,06	See Connect Data	R	1,500	20	1	41	C	42	-	2	1,500	G	= = =	3.0 kW, 208V, 1Phs		
		M.GF.05, 0.50 HP	See Connect Data	H	750	20	1	43	A	44	20	1	400	A	See Connect Data	Appl- Kitch		
		> Spare MCCB <	- - -		0	20	1	45	B	46	Sp	1	0		- - -	< Space Only >		
		> Spare MCCB <	- - -		0	20	1	47	C	48	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	49	A	50	Sp	1	0		- - -	< Space Only >		
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		< Space Only >	- - -		0	Sp	1	53	C	54	Sp	1	0		- - -	< Space Only >		

N# 01-	HACR Listed & Labeled MCCB	Phs-A =	33.7 %	157	A	18,856 VA	52.4 KVA Facotred End Use	146 A
N# 02-	Not Used	Phs-B =	32.2 %	150	A	18,014 VA	0.0 KVA Pass Thru Load	0 A
N# 03-	Not Used	Phs-C =	34.1 %	159	A	19,038 VA	7.9 KVA Spare	22 A
N# 04-	Not Used	Summary =		155	A	55,908 VA	60.3 KVA Total	167 A

Project:	Fayette Co Fire Station 04				LB	Schd	Fayetteville, GA. 30241	City,St.
Gen Nt 1:	Bkr Ties On Multi-Wire Ckts NEC 210.4B				Volt- LL	208	Enclosure-Mtg:	NEMA 1	Wall Surf Mtd.
Gen Nt 2:	Seismic Certified & Seismic Rated Anchors & Supports Reqd.				Volt- LN	120	Cover & Door:	Door-In-Door, With Locks	
Gen Nt 3:	Matching Pnl. Wire Gutter & Sectional Covers, Pnl To Clg. With Trim				Phs. 3	W. 4	OCP Types:	Main - MCCB-60C/75C	Branch- MCCB, 60C/75C Lugs
Gen Nt 4:	- - -				Buss Amps	100	All Busing:	CU or AL	100% N & G Busing
Gen Nt 5:	All 20A/ 1P MCCB To Have AFCI Protection (NEC-210.12)				Main OCP	MLO	Arc-Flash:	Labeled Per NEC & OSHA	
17-151	MADDOX GROUP INC.			Spare % = 15%	KA-AIC SCA	42	18.09.27	Date:	Const Status

Rv	Nt	Description	Wiring	ID	W/VA	OCP	P	#	P	#	OCP	P	W/VA	ID	Wiring	Description	Nt	Rv
	2	Ltg- Truck Hi-Bay (a)	#10+ 10G-MC	L	1,600	20	1	01	A	02	20	1	850	L	#10+ 10G-MC	Ltg- Truck Bay Util		
	2	Ltg- Truck Hi-Bay (b)	#10+ 10G-MC	L	1,600	20	1	03	B	04	20	1	835	L	#12+ 12G-MC	Ltg- Sleep Area		
	2	Ltg- Truck Hi-Bay (r)	#10+ 10G-MC	L	1,200	20	1	05	C	06	20	1	610	L	#12+ 12G-MC	Ltg- Day Area		
	2	Ltg- Extr	#10+ 10G-MC	L	460	20	1	07	A	08	20	1	880	L	#12+ 12G-MC	Ltg- Day Area		
	2	Ltg- Extr	#10+ 10G-MC	L	730	20	1	09	B	10	20	1	710	L	#12+ 12G-MC	Ltg- Offices		
	2	Ltg- Extr	#10+ 10G-MC	L	400	20	1	11	C	12	20	1	1,100	L	#12+ 12G-MC	Ltg- Exercise		
	2	Ltg- Step Lts	#12+ 12G-MC	L	200	20	1	13	A	14	20	1	0		- - -	> Spare MCCB <		
		> Spare MCCB <	- - -		0	20	1	15	B	16	20	1	0		- - -	> Spare MCCB <		
		Relay Pnl	2# 12+ 12G-MC	E	300	20	1	17	C	18	20	1	0		- - -	> Spare MCCB <		
		Security Ctrl Pnl-Ded	2# 12+ 12G-MC	E	900	20	1	19	A	20	20	1	1,400	R	2# 12+ 12G-MC	Rcpt- Sleep Area		
		V-D Telco Ctrl Pnl-Ded	2# 12+ 12G-MC	E	900	20	1	21	B	22	20	1	1,400	R	2# 12+ 12G-MC	Rcpt- Sleep Area		
		V-D Telco Ctrl Pnl-Ded	2# 12+ 12G-MC	E	900	20	1	23	C	24	20	1	600	R	2# 12+ 12G-MC	Rcpt- Sleep Area		
		Rcpt- Ded Exercise	2# 12+ 12G-MC	R	200	20	1	25	A	26	20	1	1,200	R	2# 12+ 12G-MC	Rcpt- Day Rm Area		
		Rcpt- Ded Exercise	2# 12+ 12G-MC	R	200	20	1	27	B	28	20	1	800	R	2# 12+ 12G-MC	Rcpt- Day Rm Area		
		Rcpt- Ded Exercise	2# 12+ 12G-MC	R	200	20	1	29	C	30	20	1	600	R	2# 12+ 12G-MC	Rcpt- Day Rm Area		
		Rcpt- Exercise	2# 12+ 12G-MC	R	200	20	1	31	A	32	20	1	600	R	2# 12+ 12G-MC	Rcpt- Offices		
		Rcpts- Extr	2# 12+ 12G-MC	R	200	20	1	33	B	34	20	1	600	R	2# 12+ 12G-MC	Rcpt- Offices		
		Rcpts- Extr	2# 12+ 12G-MC	R	200	20	1	35	C	36	20	1	800	R	2# 12+ 12G-MC	Rcpt- Offices		
		> Spare MCCB <	- - -		0	20	1	37	A	38	Sp	1	0		- - -	> Spare MCCB <		
		> Spare MCCB <	- - -		0	20	1	39	B	40	Sp	1	0		- - -	> Spare MCCB <		
		> Spare MCCB <	- - -		0	20	1	41	C	42	Sp	1	0		- - -	> Spare MCCB <		
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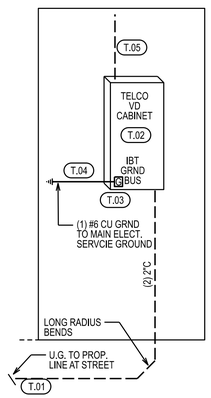
		< Space Only >	- - -		0	Sp	1	45	B	46	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	47	C	48	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	49	A	50	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	51	B	52	Sp	1	0		- - -	< Space Only >		
		< Space Only >	- - -		0	Sp	1	53	C	54	Sp	1	0		- - -	< Space Only >		

N# 01-	HACR Listed & Labeled MCCB	Phs-A =	36.9 %	72	A	8,690 VA	27.1 KVA Facotred End Use	75 A
N# 02-	Thru LV Relay Pnl & LV Switching	Phs-B =	33.8 %	66	A	7,975 VA	0.0 KVA Pass Thru Load	0 A
N# 03-	Not Used	Phs-C =	29.3 %	58	A	6,910 VA	4.1 KVA Spare	11 A
N# 04-	Not Used	Summary =		65	A	23,575 VA	31.2 KVA Total	87 A



? TELCO RISER
NO SCALE

TELCO (V-D-TV) SCHEDULE

Fayette Co Fire Station 04 — **Broadband-Data-Telco Distribution-Riser Schedule** — **18.09.27** Date
Fayetteville, GA. 30241 — **KAOD** — **Const** Status

Rv#	ID #	Comments / Descriptions	(Qty) Size, Etc	Description	Nt #	Run Ft
-	T01	Serivce Conduit	(2) 4.0"C	Empty Conduits With Long-Radius Bends, From Attic To Main Telco Board / Cabinet Per Utility- Field Verify In Writing		-
-	T02	Main Telco Backboard	4 Ft x 8 Ft, Btm 18" AFF	0.75" A/D Grade Plywood, 2-Coats Of Fire-Retardant Paint		
-	T03	Main Telco Backboard ITSB	Grnd Bar	Dual-Rated, 8-Hole Lug With 2-Mtg Holes. ILSCO PET or Equal		
-	T04	ITSB Bond/Grnd To Main	(1) #2G- 1"PVC	Extend All The Way Back & Bond To Main Serivce Grnd		
-	T05	Conduits To Attic / Plenum	(5) 2.0"	From Top Of Bkbd Up & Into Plenum With 90 Degree Elbow(s)		
-	-	- - - -	- -	- - - -	- -	- -

Rv#	Nt #	General Notes Applicable To All
-	GN-01	Field Coordinate With Each Utility Service (Broadband / Voice / Data / Telco / Etc) The Specific Service Point(s), Service Route(s), Conduit Size(s) And All Related Details & Document In Writing With Each And To The Owner, G.C., Architect & Engineer.
-	GN-02	Each Conduit Bend Shall Be Long-Radius Type Bend, Conduits 2.0 Inch And Smaller, Trade Size, Shall Have Bends Of No Less Than 6X Times The Conduit Trade-Size, All Larger Conduits Shall Have A Minimum Bend Radius Of No Less Than 10X Times The Trade-Size.
-	GN-03	All In-Slab Conduit(s) Stub-Up(s) Shall Extend A Minimum Of 4 Inches Above The Slab.
-	GN-04	Each Conduit Shall Be, At EachEnd, Terminated With A Smooth Bushing; Left With A Pull-Line Tied Off At Each End, & Labeled / Tagged. Metallic Conduits Shall Have Grounding Type Bushing Bonded To The Ground System. Mark Each Conduits Location & Route On The As-
-	GN-05	Properly Fire / Smoke Seal Each Penetration Of Rated Barriers In Accordance With The Code(s).
-	GN-06	Backboards & Cabinets Shall Be Secured To The Building Structural Members, Not To Wall Surfaces.
-		

17-151 — End Of B-D-T Schedule

architecture
interiors
town planning

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Bldg 400 - Suite 100
Newnan, Georgia 30263
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Facsimile: 770-683-9171
E-Mail: info@kaod.com
Web Site: www.kaod.com

GEORGIA REGISTERED No. 13252 PROFESSIONAL ENGINEER ROBERT M MADDOX 2018 (09.30)

THE MADDOX GROUP
DESIGN & ENGINEERING
9309 Seminole Road
Jonesboro, GA 30236
770-471-9076
maddoxgroup@comcast.net

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DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO. FIRE STATION # 4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

FAYETTE CO. FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL RISER & SCHEDULES

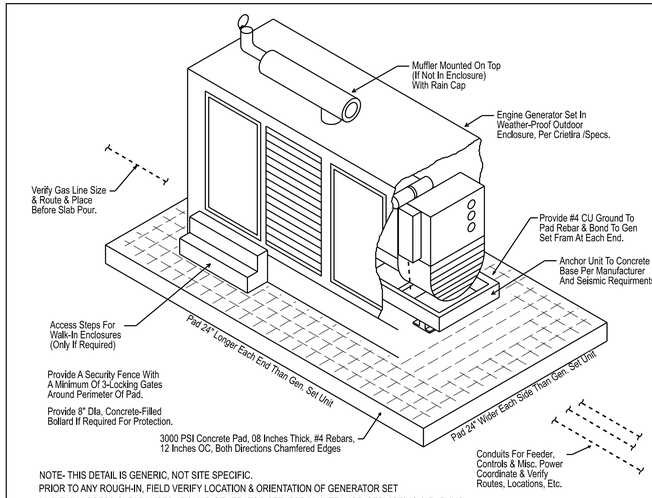
SHEET NO:
E-03

RELEASED FOR PERMIT OR CONSTRUCTION

18.09.27	Fayette Co Fire Station 04	
GS-	Rv	NATURAL GAS GENERATOR SET / ATS CRITERIA	CO
1		**GENERAL ITEMS, SUBMITTALS & DOCUMENTATION**	
1A		Provide a complete emergency power system consisting of a power generator (GenSet) with all related components and Automatic Transfer Switch (ATS). The contractor shall utilize the design service of the factory authorized system vendor to obtain the proper system operation, layout and function as required by the prevailing codes and these project criteria.	
1B		The contractor, with vendor / installer, shall thoroughly & completely review the complete system requirements, characteristics & conditions prior to quote, and provide for the complete & proper system equipment, installed & operation.	
1C		Provide all necessary installation, wiring, components, hardware, software, programming, testing and certifying to provide a complete, properly functioning systems.	
1E		These drawings & document represent only the minimum design internet. A complete system shall be provided in accordance with all standards, AHJ & Code requirements.	
1F		The contractor shall utilize the design service of the factory authorized system vendor to obtain the proper system layout(s), function, interoperability with systems of other trades, wiring & operation, as required by this specification, drawings, prevai	
1G		Coordinate with all other trades for the proper coordination and interfacing with their work, systems & control(s).	
1H		Submit complete product data & wiring diagrams showing the control panel(s), all devices, wiring and related items. All wiring & connection shall be labeled and identified. Submit plans and related data to other related trades and vendors for proper	
1I		The system design, equipment & material, function & operation shall comply with - National Electrical Code; Underwriters Laboratory Labeled; & Local Codes & Authority Having Jurisdiction	
2		**MANUFACTURERS & WARRANTY**	
2A		All components shall be new, standard manufacturer cataloged items, and shall be fully compatible & provided by the Generator Set Provider so as to **provide unit-responsibility for the complete & proper operation of the Emergency Generator System.**	
2B		Basis-Of-Design: This criteria and design is based on manufacturer-matched components & products of Cummings Power. (404-765-5150)	
2C		Equivalent Product: Products providing the equivalent performance, characteristics and features may be quoted as **Adds or Deducts** to the base design package. Catipelair / Olympian, Generac, Kohler	
		Base Warranty: 5-Year Basic Power Warranty	
2D		Service-Maintenance Agreement: Provided by the Generator Set Provider for the owner's optional acceptance.	
3		**POWER GENERATOR CRITERIA**	
3A		Provide A Complete Factory Assembled, Pre-Wired, Pre-Tested Engine Generator Set Mounted On A Steel Frame With Vibration Isolators, Siesmic Rated, Complete With Anchoring	
3B		Basis-Of-Design: This criteria and design is based on manufacturer-matched components & product of Cummings Power : C250N6 Engine Generator Set.	
3C		Application (Per ISO & Related Standards): Emergency Stand-By (ESP)	
3D		EPA Application: NSPS Stationary Emergency Certified	
3E		NFPA: 101-Life Safety; NFPA-110 Type 10 (Level 1 & @ & Standby) & NFPA-70 (NEC)	
3F		UL: UL-2200 Certified	
3G		Location Environment Temperatures & Elevation: Atlanta, Ga (Metro Area)	
3H		Power Rating (60Hz): 250-kW / 312- kVA (Nominal)	
3I		Maximum Surge Power kW: 300-kW	
3J		Maximum Motor Starting kVA (Recovering to 90% Rated Voltage): 904-kVA	
3K		Output Voltage & Phase @ 60 Hz: 208Y-120V, 3-Phase, 4-Wire	
3L		Output FLA & OCP: 867 FL Amps; 600-Amp, 100%-Rated Circuit-Breaker	
3M		Fuel Type & Use: Natural Gas, 1,951 CFH @ 50% Load, 3,440 CFH @ 100% Load.	
3N		Digital Isochronous Regulator: ISO 8528 Part 1 Class G3 Digital Governor Regulation Class; +/- 1.0% Voltage Regulation (no Load to Full Load); Digital Isochronous Frequency Regulation; Complies With Standard Commercial & Industrial Radio Frequency Emissions Regulations.	
3O		Engine:Naturally Aspirated or Turbocharged, Industrial Cast Iron Engine, 12 Volt Battery Charging Alternator, Replicable Industrial Engine Lube Filter, Unit Mounted Radiator & Cooling Pump.	
3P		Alternator: Reconnectable Type; 4-Pole Brushless Drip Proof Revolving Field Alternator; 2/3 Stator Pitch; NEMA MG1-1.65 Class-H Insulation System; Total Harmonic Distortion Less Than 5% (No Load To Full Load); Telephone Influence Factor less than 50 Per NEMA MG1-22.43; Telephone Harmonic Factor Less Than 3	
3Q		Alternator Excitation: PMG- Permanent Magnet Generator Exciter	
3R		Alternator Temp. Rise: 120-C Temperature Rise	
3S		Digital Control System: Industrial Grade, Surge-Protected, Control System, Complete With All Control Functions, Features, Metering With Alarms & NFPA-110 Level 1 Compliance.	
3T		Aux. Relays: Provide Auxiliary Dry-Contact Relay(s) Set For Remote Signaling.	
3U		Starting Battery: Provide Battery, Charger, Monitor & Battery Warmer, 0-F Rated	
3V		Exhaust Silencer: Complete Exhaust System With Residential Grade Silencer	
3W		Engine Coolant Heater: Automatic To Maintain Engine Temperature For Optimum Starting.	

18.09.27	Fayette Co Fire Station 04	
GS-	Rv	NATURAL GAS GENERATOR SET / ATS CRITERIA	CO
4		**AUTOMATIC TRANSFER SWITCH (ATS)**	
4A		Provide A Complete Factory Assembled, Pre-Wired, Pre-Tested Automatic Transfer Switch To Monitor Power Conditions, Automatically Start & Stop Generator, & Transfer Power Between Sources & Related Components & Functions.	
4B		Basis-Of-Design: This criteria and design is based on manufacturer-matched components by Cummings Power: BTPC Series Automatic Transfer Switch	
4C		Standards: CSA 282 Certified; IEEE 446 Compliant ISO 9001 Certified.	
4D		NEC & NEMA Stds: NEC 700 / 701 / 702; NEMA ICS 10 Compliant;	
4E		NFPA: NFPA-20, 70, 99 & 110-Level 01 Compliant	
4F		UL: UL-1008 Labeled	
4G		Seismic: Seismic Certified With Attachment Instructions.	
4H		Enclosure: NEMA 1 Indoor, Locking Cover, Front Mounted Controls & Meters	
4I		Auto. Transfer: Programmed-Delay (Both Directions) Open-Transition (Break-Before-Make)	
4J		Manual Transfer of ATS: Feature Allowing Manual Transfer Of Switch If Auto Transfer Fails.	
4K		Isolation By-Pass: Yes- DeEnergized Manual ByPass To Either Source Capability & Isolation of main ATS.	
4L		Poles: 3-Pole Transfer, Solid Neutral, Ground Bus	
4M		Voltage & Phase @ 60 Hz.: 208Y-120 Volts, 3 Phase, 4 Wire	
4N		Amperage: 600 Amps (Phase & Neutral) 100% Continuous Duty Rated	
4O		Aux Relays: Equipped With Two Sets Of Auxiliary Contacts Rated 10 Amps @ 250VAC.	
4P		Application: Listed for Utility-To-Generator.	
4Q		Digital Controller: Industrial Grade, Surge-Protected, Digital Microprocessor Providing Full-Authority Engine Protection With RS-485 Port For PC-Monitoring & Networking. Including, But Not Limited To, Adjustable Time Delays, Undervoltage & Overvoltage & Frequency & Voltage Imbalance Sensing, Automatic Generator Exerciser and Fully Meter & Function Indication; Date & Time Event Logging Feature.	
		Aux. Relays: UL Listed, 600VAC, To Indicate ATS Positions	
5		**RELATED COMPONENTS, EQUIPMENT & ITEMS**	
5A		Remote Annunciator: Provide A Complete Factor Pre-Assembled & Pre-Wired Wall-Flush-Mounted, Remote Generator Monitoring & Alarm Annunciator With Long-Life LED or Digital Display Providing Visual & Audible Alarms, Status & Warnings. UL Labeled; CSA Certified, CE Marked; NFPA 110 Compliant	
5B		Remote Monitoring System: Provide complete hardware, software & set-up for teh remote monitoring fo the generator set, ATS & related items. This shall include, but not be limited to, Monitor-Communicator (Data & Event Logging, Reports, Diagnostics & Security, Etc.) Communicating via GSM / CDMA Cellular Antenna, Ethernet or USB (Verify With Owner). Rated for use in industrial & outdoor conditions. UL-60950-1; CSA Certified, CE Marked; FCC Compliant, RoHS Compliant.	
5C		Enclosure: Outdoor Type (that also houses silencer) ; Heavy-Duty, Steel, Treated-Premiered-Powder Top Coat Corrosion Resistant Protective Coatings; Locking Hinged & Removable Covers & Panels; Seismic-Rated; Wind-Rated to 100-MPH, Level-1 Sound Rated	
5D		Fuel System (Natural Gas): See Engine Data, Coordinate & provide for a Natural Gas supply with the other trades and Gas Supply Company. Verify required pressure & flow requirements with all parties.	
6		**SYSTEM INSTALLATION:**	
6A		Provide for a complete & functioning installation in compliance with the National Electrical Code, NECA/ ANSI/ EGSA NEIS-404 & the manufacturer's written requirements & recommendations.	
6B		All wiring shall be installed in conduit.	
6C		All exposed generator set related wiring in unfinished areas (I.e. no ceilings) shall be in EMT conduit (minimum) with matching boxes, etc. All generator set related conduits, concealed & exposed, shall be painted red unless otherwise directed by architect.	
6D		All boxes, mountings & supports shall be labeled and approved for the purpose.	
6E		Color code, number & label all wiring & conductors per point-to-point wiring diagram.	
6F		Label each device with its ID, function & rating.	
6G		Provide a complete concrete mounting pad with structural reinforcement. Anchor the generator set per the manufacturer's recommendations.	
6H		Fully re-charge all batteries, test & report on their condition.	
6I		Change engine oil & all filters with new types as directed by the generator set manufacturer.	
6J		Provide a complete Natural Gas fuel piping system complete with valves & regulators, properly sized to supply gas at proper pressure and flow rate.	
7		**SYSTEM TEST, VERIFICATION, DOCUMENTATION & SERVICE:**	
7A		The manufacturer's factory authorized & trained representative shall provide installation guidance and assistance, and system start-up.	
7B		Prepare & provide 3 copies of bound operation manuals, part & service & "as-built" plans & wiring. Complete with the Company Names, Personnel Names with phone numbers & email address of all trades & parties involved.	
7C		The manufacturer's factory authorized & trained representative shall provide a total system checkout of emergency generator system and testing, and shall send written certification of the system(s) proper operation to the owner, architect, engineer.	
7D		The system shall be fully tested in the presence of the owner's representative(s), inspector(s), and AHJ . personnel.	
7E		Perform a on-site 3 hour full-load test. Provide load bank as needed for the testing. Fully document the test.	
7F		At the completion of the project, demonstrate proper system operation by turning off the normal power source to simulate normal source power failure. Observe & document the system operation, allow to run for 30 minutes minimum, then restore normal power, observing proper return to normal source power & system shut-down.	

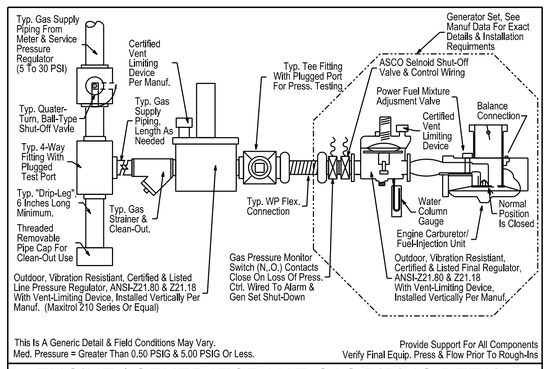
17-151 END OF GENERATOR SET / ATS CRITERIA



NOTE- THIS DETAIL IS GENERIC, NOT SITE SPECIFIC.
PRIOR TO ANY ROUGH-IN, FIELD VERIFY LOCATION & ORIENTATION OF GENERATOR SET
MAINTAIN ACCESS CLEARANCES AROUND GENERATOR SET, FOR MAINTEANCE, SERVICEING & FUELING.
ALL GEN. SET CONNECTIONS SHALL BE MADE WITH LIQUID-TITE FLEXIBLE CONNECTORS.

TYP. NAT-GAS GEN. SET- OUTDOOR MTG. DETAIL

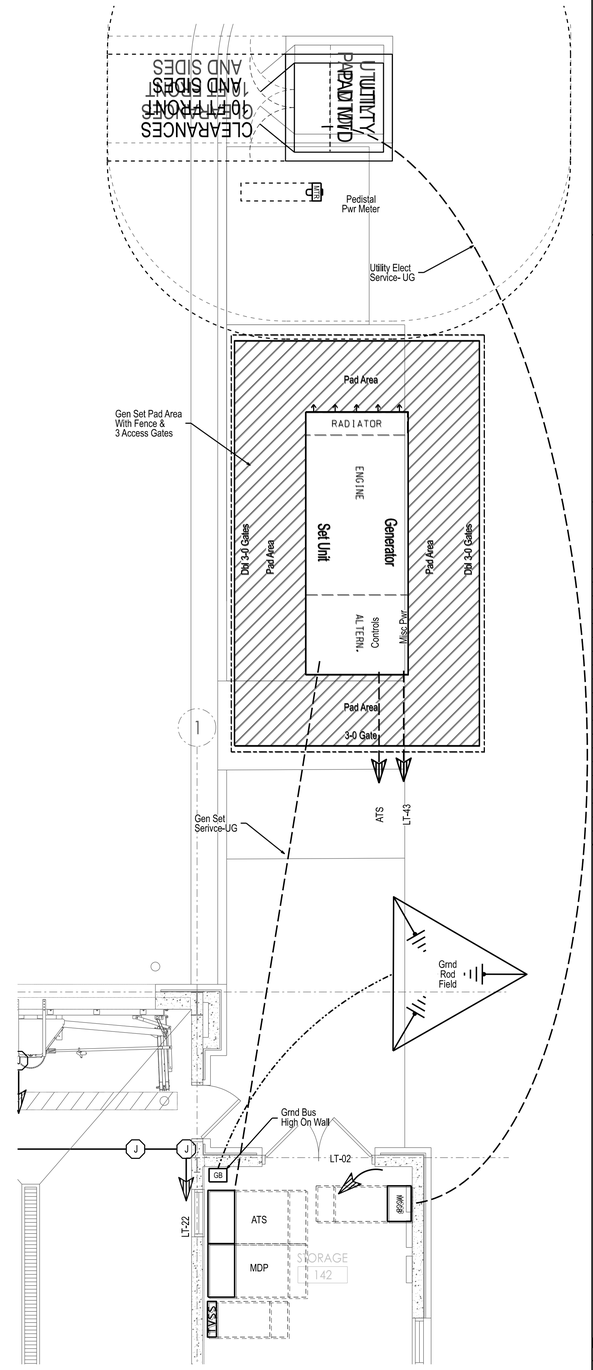
DETAIL # - MG NOT TO SCALE



This Is A Generic Detail & Field Conditions May Vary.
Med. Pressure = Greater Than 0.50 PSIG & 5.00 PSIG Or Less.
Provide Support For All Components
Verify Final Equip. Press & Flow Prior To Rough-Ins

ENGINE / GENERATOR NAT-GAS PIPING DETAIL

MG Detail #: Not To Scale



1 ELECTRICAL- GEN SET PART PLAN

10 20

architecture
interiors
town planning

KAOD

K A Oldham Design, Inc.
75 Jackson Street
Bldg 400 - Suite 100
Newnan, Georgia 30263
Telephone: 770-683-9170
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GEORGIA REGISTERED No. 13252 PROFESSIONAL ENGINEER ROBERT M MADDOX 2018 09 30

THE MADDOX GROUP
DESIGN & ENGINEERING
9309 Seminole Road
Jonesboro, GA 30236
770-471-9076
maddoxgroup@comcast.net

DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO. FIRE STATION # 4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

FAYETTE CO. FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL GEN. SET. CRITERIA & DETAILS

SHEET NO:
E-0.4
RELEASED FOR PERMIT OR CONSTRUCTION

18.09.27		Fayette Co Fire Station 04	Const
ID #	Rv #	**LOW-VOLTAGE RELAY SWITCHING (LVRS) CX-HARDWIRED SYSTEM**	Check Off
7.01	-	GENERAL - Providing complete Low-Voltage Switching System, consisting of LV Switching Panels with LV switching relays, completely pre-assembled & pre-wired with relays, power supply, controls and all components for a complete and properly operating system. Provide matching Hard-Wired LV switching devices, and controls.	
7.02	-	MANUFACTURER - The design is based on the products of Hubbell CX Lighting & Building Automation and shall be the manufacturer for the LV Relay Switching System.	
7.03	-	ALTERNATE MANUFACTURERS - Products of other manufacturers, providing the equivalent level of product quality, operation, functionality and features, shall be submitted as add / deduct to this manufacture for owner's considerations, complete with full product documentation and literature indicating complete compliance and performance.	
7.04	-	CODES & CERTIFICATIONS - All products shall be UL Listed, CSA approved, and comply with EEMAC / NEMA standards & NEC.	
7.05		WARRANTY - The system manufacturer shall warrant the complete system with a Full-Service-Warranty on all parts and labor for a minimum of 10 Years.	
7.06		SUBMITTALS - Prepare & submit project specific product documentation, including but not limited to, manufacturer's qualifications & personnel contact information, compcnent product data, complete relay & component schedules and matching wiring diagrams for field use in the proper installation of the system.	
7.07		RELAY PANELS - Provide pre-assembled 16 or 24 Pole relay panels, pre-finished steel with hinged & locking cover / door for surface of flush mounting. The interior shall divider for LV siring per code, control power transformer sized for 125% of the load, LV devices and controls as required.	
7.08		RELAYS - Provide relays as scheduled and required for proper operation. Relays shall be Heavy-Duty, Full Load Rated, UL-508 Labeled, HID, breaker snap-in style, mechanically latching type with a manual ON/OFF switch that display the switches' ON/OFF state. 1-Pole, 20 Amp relays rated at 120 & 277 VAC. 1-Pole, 30 Amp relays rated at 120, 277 & 347 VAC. 2-Pole 20-Amp relays shall be rate for up to 480 VAC. UL 508 short-circuit rating of 14,000 Amps. Rated for switching of incandescent, fluorescent, electronic ballast & HID loads. 3,000 Amps inrush capability. Relays shall have a 5 year warranty.	
7.09		CONTROLLER- Solid-state, programmable relay controller to receive all control inputs and control all ouptus to relays. Controller shall include Astronomical Schedule 365-Day Time Clock-Scheduler, Automatic Daylight Saving Time & Leap-Year Compenstion. Controller to have built-in keypad for programming & non-volatile memory.	
7.10		LCD USER INTERFACE- Provide front-mounted LCD display with touch-button interface device with instructions.	
7.11		CONTROL WIRING- Hard-Wired LV Two-Wire Per Switch Or Input Control Device	
7.12		SWITCHING STATIONS- Provide switching devices where shown and / or required. Devices shall be matching two-wire type. Each Switch Station shall provide for up to 6 Pilot-Light buttons. Devices located in wet locations shall be Wet-Location listed & labeled. Devices shall be of same manufacturer as the LV system manufacturer U.N.O.	
7.13		WALL SWITCH / LOCAL USE VANDAL RESISTIANT - Provide where shown or required heavy-duty, vandal resistant wet-location labeled switch & cover plate with tamper resistant screws. Engrave cover plate with switch function (i.e. lights). Douglas WR-8321 Series	
7.14		WALL SWITCH / KEY OPERATED - Provide where shown or required heavy-duty, key-operated switch & cover plate. Engrave cover plate with switch function (i.e. lights).	
7.15		WALL MASTER / GROUP SWITCHES - Provide where shown or required heavy-duty, multi-gang group mounted rocker type switches, complete with all switches, mounting hardware & cover plates. Label switches with their function (i.e. lights).	
7.16		INSTALLATION PER MANUFACTURER, NEC, NEIS - The LVRS shall be installed in accordance with the manufacturer's written documentation, NEC & NEIS. The manufacturer's factory authorized & trained agent shall provide installation guidance and assistance and system start-up.	
7.17		INSTALLATION CABLING - All wiring shall be CU in conduit or Type MC cable unless otherwise noted. The wire size shall be per the manufacturer. Wire size shall be increased to the next larger standard size for runs over 100 Feet.	-
7.18		INSTALLED MANUFACTURERS CHEK-OUT & CERTIFICATION: Prior to energizing the system, the Manufacturers Authorized Agent, shall perform and On-Site Check-Out of the completed system and provide written certification that the components and installation are acceptable, that the system is fully programmed / scheduled and fully functional & properly operating.	
7.19		INSTALLED DOCUMENTATION - Provide three sets of As-Installed Field Record document of the completed system, showing all equipment, components & wiring. Include complete manufacturer & product documentation and warranty forms.	
7.20		INSTALLATION DEMONSTARTION & TRANING - The complete system(s) shall be fully demonstrated to the Owners Representative(s) to show full compliance and proper operation. Train the Owner's Personnel in the proper operation, programming and maintenance of the system.	-
-			-
End Of Low Voltage Relay Switching Systems			

LOW-VOLTAGE RELAY PANEL (LVRP) SCHEDULE

Proj	**Fayette Co Fire Station 04**	**LV Relay System Basis Of Design**	Pnl ID: **LVRP-A**
Place	**Fayetteville, GA. 30241**	Hubbell Relay System: CX Series	Issued 18.10.11
For	KA Oldham Design, Inc.	Enclosure Type: NEMA-1 / 3R	Status: Const

LV Relay Schedule - Devices, Controls, Etc.

Rv#	Rly #	Rly Type	Rly Amps	Rly Pole	PNL	CKT #	Circuit Load Description	LV Ctrl. Sta: LCA	LV Ctrl. Sta: LCB	LV Ctrl. Sta: LCC	LV Ctrl. Sta: LCD	LV Ctrl. Sta: LCE	LV Ctrl Function Abbrv.	Specific Item Nt #
-	01	L	20	1	LB	*01*	Ltg- Truck Hi-Bay (a)	a	a	a	a	a	LLG, LSD	1,2
-	02	L	20	1	LB	*03*	Ltg- Truck Hi-Bay (b)	b	b	b	b	b	LLG	1
-	03	L	20	1	LB	*05*	Ltg- Truck Hi-Bay (c)	c	c	c	c	c	LL1	3
-	04	L	20	1	LB	*05*	Ltg- Truck Hi-Bay (d)	d	d	d	d	d	LL1	3
-	05	L	20	1	LB	*07*	Ltg- Extr	e	e	e	e	e	LASa, LLG	4,5
-	06	L	20	1	LB	*09*	Ltg- Extr	e	e	e	e	e	LASa, LLG	4,5
-	07	L	20	1	LB	*11*	Ltg- Extr	e	e	e	e	e	LASa, LLG	4,5
-	08	L	20	1	LB	*13*	Ltg- Step Lts	- -	- -	- -	- -	- -	LASb	4
-	09	-	-	1	-	-	< Space Only >	- -	- -	- -	- -	- -	- -	-
-	10	-	-	1	-	-	< Space Only >	- -	- -	- -	- -	- -	- -	-
-	11	-	-	1	-	-	< Space Only >	- -	- -	- -	- -	- -	- -	-
-	12	-	-	1	-	-	< Space Only >	- -	- -	- -	- -	- -	- -	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Specific Item Notes #

N01-	Local On / Off Switching From Multiple Locations (Truck-Bay Normal Hi-Bay Lts)
N02-	Day-Light Sensor & Dimming For Fixtures Adjacent Truck-Bay Doors.
N03-	Local On / Off Switching From Multiple Locations (Truck-Bay "Red Night Vision" Hi-Bay Lts)
N04-	Astronomic Schedule On / Off a & b represent different schedules per owner.
N05-	"e" Switch Provides A Timed (Verify 1-Hr) Over-Ride To Turn Lights On IF They Are Off.
-	

Control Funtion & Device Type

Rv#	Hubbell Device Series	Mtg	LV Ctrl Function Abbrv.	LV Ctrl Function Description	Comments & Notes
-	LV-Pnl	Ctrl Pnl	LASx	Astro-Time-Control, Schd-x	Built-In Feature Of LV Relay Panel Controller
-	LVSD	Wall	LDM	0-10V Dimmer- Manual	Verify Matching Dimming Type Ballast / Driver
-	CXSW	Wall	LDP	0-10V Dimm., 6-Button PreSet	- - - - - -
-	LVSKEY	Wall	LK	1-Gang 3-Pos.Key-Switch	- - - - - -
-	LVS-x-PL	Wall	LL1	Local Control Push-Button	- - - - - -
-	LVS-x-PL	Wall	LLG	Local Group Ctrl Push-Button	- - - - - -
-	LVS-x-PL	Wall	LLM	Local Master Ctrl Push-Button	- - - - - -
-	LVS-x-PL	Wall	LPB	LV Push-Button	- - - - - -
-		Wall / Clg	LOA	Occ. Sensor Type-A (On-Off)	Verify Exact Mtg Location Per Manuf For Proper Operation
-		Wall / Clg	LSD	Sun Day Lt Sensor	Verify Exact Mtg Location Per Manuf For Proper Operation
-	- - -	- - -	- - -	- - -	- - - -

General Notes Applicabel To All

G01	Provide A Complete & Properly Functioning System.
G02	The Complete System(s) With All Comonets, Design, Etc. Shall Be Of Single Manufacturer Responsibility.
G03	Provide Complete Product & Wiring Submittals For Review
G04	Verify Final Device Color(s) With Archt-Owner Befor Ordering & Submittals
G05	LV Switch Devices To Be Labeled Or Color-Coded, Coordinate With Archt-Owner Beibre Ordering & Submittals
G06	Provide All Enviromental Return Air Cabling & Wiring Per Manufacturer.
G07	Program System & Insturct User On Proper Operation.
- - -	- - -

MADDOX GROUP INC. End Of LV Relaiy Schedule 17-151

Proj:	Fayette Co Fire Station 04	ELECTRICAL CONNECTIONS DATA	18.09.27	Date
Place:	Fayetteville, GA. 30241			Status

Rv #	ID / TAG	Qty #	N.E.R, X	Equipment / Description	Power Data- HP/ kW/ Etc	Volts	Phs	OCP A/P	Fed From	Wiring Data	Connection Data & Misc	Item Note #
				Archt. Items								
-	A-100	6	N	Doors 4-Fold	1.0 HP Each	208	3	- -	LT	#10 + 10G- MC	Direct Conn Per Manuf	
-	A-200	1	N	C-Washer	Typ Resd	120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, GFCI	
-	A-201	1	N	C-Dryer	Typ Resd	208	1	30/1	LA	#10 + 10G- MC	Rcpt- NEMA 13-30R	
	A-300	1	N	Ice Maker		120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, GFCI	
	A-301a	1	N	Kitchen Hood- Ex Fan	See Mech							
	A-302	1	N	Kitch- Refg	Typ Resd	120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, GFCI	
	A-303	1	N	Kitch-Freez	Typ Resd	120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, GFCI	
	A-304	1	N	Kitch- Microwave	Typ Resd	120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, GFCI	
	A-305	1	N	Kitch- Dishwsher	Typ Resd	120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, GFCI	
	A-306	1	N	Kitch- Disposal	Typ Resd	120	1	20/1	LA	#12+ 12G-MC	WP Toggle Switch & Rcpt- Ded, GFCI	
	A-400a-d	4	N	Exercise Eqipment	Typ Resd	120	1	20/1	LB	#12+ 12G-MC	Rcpt- Ded	
				Building System Items								
	B-100	1	N	Fire Prot. Sprinkler Control Pnl	- - - -	120	1	20/1	LA	#12+ 12G-MC	Rcpt- Ded, TVSS	
	B-200	1	N	Security Equipment	- - - -	120	1	20/1	LB	#12+ 12G-MC	Rcpt- Ded, TVSS	
	B-300	1	N	Voice-Data-Telco Equipment	- - - -	120	1	20/1	LB	#12+ 12G-MC	Rcpt- Ded, TVSS	
	B-300	1	N	Voice-Data-Telco Equipment	- - - -	120	1	20/1	LB	#12+ 12G-MC	Rcpt- Ded, TVSS	
				FEE Items								
-	E-100	1	N	Air Compressor- Air Tanks, 7,000 PSI	20 HP	208	3	100	MDP	3# 4+ 8G- 1.00°C	DS- 100A,3P,NF,G,N-1R	1, 2
-	E-110	1	N	Air Compressor- Gen Use	7.5 HP	208	3	50	MDP	3# 8+ 10G- 0.75°C	DS- 60A,3P,NF,G,N-1R	
-	E-120	1	N	Washer-Extractor	Continental EH255	208	3	40	LT	3# 8+ 10G- MC	DS- 60A,3P,NF,G,N-1R	
-	E-121	1	N	Drying Cabinet	CircuiAir D634	208	3	30	LT	3# 10+ 10G- MC	DS- 30A,3P,NF,G,N-1R	
	D-201	1	N	Truck Pwr	Charge Pwr	120	1	20/1	LT	#12+ 12G-MC	Via Clg Pwr Reel	
	D-202	1	N	Truck Pwr	Charge Pwr	120	1	20/1	LT	#12+ 12G-MC	Via Clg Pwr Reel	
	D-203	1	N	Truck Pwr	Charge Pwr	120	1	20/1	LT	#12+ 12G-MC	Via Clg Pwr Reel	
	D-204	1	N	Truck Pwr	Charge Pwr	120	1	20/1	LT	#12+ 12G-MC	Via Clg Pwr Reel	
	D-205	1	N	Truck Pwr	Charge Pwr	120	1	20/1	LT	#12+ 12G-MC	Via Clg Pwr Reel	
	D-206	1	N	Truck Pwr	Charge Pwr	120	1	20/1	LT	#12+ 12G-MC	Via Clg Pwr Reel	

Notes - Item Specific

01-	0-5 Min Power-Loss Delay Restart (Time-Mark 18-volts or Equal)	02-	With "Soft-Start" Motor Starter
03-	- - - -	04-	- - -

Notes - Applicable To All

G1-	Coordinate & Verify Data w/ Other Trades Prior To Orders, Rough-Ins	G2-	Make Final Connections To Equipment Per Equip. Manuf. Data
G3-	-	G4-	- - -

ABBREVIATIONS & TERMS		ABBREVIATIONS	
DC	Direct Connect Per Manuf	MCCB	Molded Case Circuit Breaker
DB	Disconnect MCCB In NEMA Encl., A&P As Shown, Flex & Conn.	F	Fuse
DF	Disconnect Fused In NEMA Encl., A&P As Shown, Flex & Conn.	FHMS	Fractional HP Mtr Rated Toggle Switch
DS	Disconnect Non-Fused In NEMA Encl., A&P As Shown, Flex & Conn.	HACR	Heating Air Conditioner Rated (Breaker)
DTS	Disconnect Toggle Switch, 120V-277V, 20A, 1P.	MCP	Motor Ckt Protector
		Px	Bus Plug- B/F/N
N-#	NEMA Encls Type (1, 3R, 4X, Etc)	WP	Weather Proof (NEMA-3R)
PR	Power Receptacle, Type As Reqd Or Shown	N	New
Rcpt	Recptacle; NEMA= NEMA Config. Type; GFC= Ground Fault Interrupter.	E	Existing, Remains In-Place
TS	Toggle Switch, Motor Rated, 30 Amp, 1.0 HP, 120-Volt, 1-2-3 Pole Rated.	R	Relocate Existing
		X	Demo- Remove

MADDOX GROUP INC. End OF Elect. Connection Data 17-151

Proj:	Fayette Co Fire Station 04	ELECTRICAL CONNECTIONS DATA	18.09.27	Date
Place:	Fayetteville, GA. 30241			Status

Rv #	ID / TAG	Qty #	N.E.R, X	Equipment / Description	Power Data- HP/ kW/ Etc	Volts	Phs	OCP A/P	Fed From	Wiring Data	Connection Data & Misc	Item Note #
				Mechanical HVAC & Plumbing Items								
-	M.AFU.0-4	4	N	HVAC> AFU (Air Filtering) Air-Vac-911	1.0 HP	208	3	- -	LT	As Shown	DS- 30A, 3P, F-10A, G, N-1R	
-	M.CU.01	1	N	Cond Unit	2.0 Ton, 14.1 MCA	208	1	20	LA	#12+ 12G-MC	DS- 30A,2P,NF,G,N-3R	1
-	M.CU.02	1	N	Cond Unit	2.5 Ton, 16.8 MCA	208	1	25	LA	#12+ 12G-MC	DS- 30A,2P,NF,G,N-3R	1
	M.CU.03	1	N	Cond Unit	4.0 Ton, 20.9 MCA	208	1	35	LA	#10+ 10G-MC	DS- 30A,2P,NF,G,N-3R	1
	M.CU.04	1	N	Cond Unit	2.5 Ton, 16.8 MCA	208	1	25	LA	#12+ 12G-MC	DS- 30A,2P,NF,G,N-3R	1
	M.GF.01	1	N	Furnace, Gas Heat	0.50 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.GF.02	1	N	Furnace, Gas Heat	0.50 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.GF.03	1	N	Furnace, Gas Heat	0.75 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.GF.04	1	N	Furnace, Gas Heat	0.50 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.GF.05	1	N	Furnace, Gas Heat	0.50 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.F.01	1	N	Fan, Switch W/ Lts	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.02	1	N	Fan, Switch W/ Lts	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.03	1	N	Fan & Switch	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.04	1	N	Fan, Switch W/ Lts	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.05	1	N	Fan & T-Stat	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.06	1	N	Fan, Switch W/ Lts	0.25 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.07	1	N	Fan, Switch W/ Lts	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.08	1	N	Fan & T-Stat	0.10 HP	120	1	- -	- -	#12+ 12G-MC	DTS- 20A,1P	
	M.F.09	1	N	Fan & Switch	0.25 HP	120	1	20A,1P	LT	#12+ 12G-MC	DTS- 20A,1P	
	M.F.10	1	N	Fan & Switch	0.25 HP	120	1	20A,1P	LT	#12+ 12G-MC	DTS- 20A,1P	
	M.F.11	1	N	Fan, Mech Ctrls	0.25 HP	120	1	20A,1P	LT	#12+ 12G-MC	DTS- 20A,1P	
	M.F.12	1	N	Fan, Mech Ctrls	2.0 HP, 2-Speed	208	3	20A,3P	LT	#12 + 12G- MC	DS- 60A,3P,NF,G,N-1R	
	M.F.13	1	N	Fan & Switch	0.10 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.F.14	1	N	Fan, Range Exahust	0.50 HP	120	1	20A,1P	LA	#12+ 12G-MC	DTS- 20A,1P	
	M.KH.01	1	N	Kitchen Hood- Lts & Fire Supp	See Mech	120	1	20/1	LA	#12+ 12G-MC	J-Box Flex & Connect	
	M.EWH.01	1	N	Heat, Wall Heater	2.0 kW	208	1	20A,2P	LA	#12 + 12G- MC	Direct Conn	
	M.EWH.02	1	N	Heat, Wall Heater	3.0 kW	208	1	20A,2P	LT	#12 + 12G- MC	Direct Conn	
	M.EWH.03	1	N	Heat, Wall Heater	2.0 kW	208	1	20A,2P	LT	#12 + 12G- MC	Direct Conn	
	M.EWH.04	1	N	Heat, Wall Heater	3.0 kW	208	1	20A,2P	LT	#12 + 12G- MC	Direct Conn	
	M.GRH.01	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.02	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.03	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.04	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.05	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.06	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.07	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.GRH.08	1	N	Gas IR Heat Tube	Ctrls & 0.125 HP Fan	120	1	20A,1P	LT	#12 + 12G- MC	DTS- 20A,1P	
	M.PWH.01	1	N	Wtr Htg, Tank, Gas	Ctrls, Gas Ignitor	120	1	20A,1P	LT	#12 + 12G- MC	DTS & GFCI Rcpt	
	M.PWH.02	1	N	Wtr Htg, Tank, Gas	Ctrls, Gas Ignitor	120	1	20A,1P	LT	#12 + 12G- MC	DTS & GFCI Rcpt	
	M.HCP.01	1	N	Circ Pump, HW	Ctrls + 0.125 HP	120	1	20A,1P	LT	#12 + 12G- MC	DTS & GFCI Rcpt	

Notes - Item Specific

01-	0-5 Min Power-Loss Delay Restart (Time-Mark 18-volts or Equal)	02-	With "Soft-Start" Motor Starter
03-	- - - -	04-	- - - -

Notes - Applicable To All

G1-	Coordinate & Verify Data w/ Other Trades Prior To Orders, Rough-Ins	G2-	Make Final Connections To Equipment Per Equip. Manuf. Data
G3-	- -	G4-	- - -

MADDOX GROUP INC. End OF Elect. Connection Data 17-151

architecture
interiors
town planning

KAOD

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GEORGIA REGISTERED No. 13252 PROFESSIONAL ENGINEER ROBERT M MADDOX 2018 09 30

THE MADDOX GROUP
DESIGN & ENGINEERING
9309 Seminole Road
Jonesboro, GA 30236
770-471-9076
maddoxgroup@comcast.net

TMG Proj # 17-151
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DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO.
FIRE STATION
4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

FAYETTE CO.
FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL & LIGHTING PLAN

SHEET NO:
E-10

RELEASED FOR PERMIT OR CONSTRUCTION

LOW-VOLTAGE DEVICE - ROUGH-INS

SYMBOLS	MTG/UNO	DESCRIPTIONS
	FLR MTD	VOICE-DATA EQUIPMENT RACK/ CABINET, FREE STANDING (BY OTHERS)
V-D	TOP 60" AFF	VOICE-DATA EQUIPMENT PANEL, WALL MOUNTED (BY OTHERS)
	BTM 18" AFF	VOICE-DATA EQUIP.- PROVIDE WALL MTD. BACKBOARD, 0.75" THICK A/D GRADE PLY-WOOD, SIZE A PRESCRIBED
	18" AFF	VOICE JACK WALL MTD QTY. JACKS AS SHOWN
	18" AFF	DATA JACK WALL MTD QTY OF JACKS AS SHOWN
	18" AFF	COMBO VOICE-DATA JACKS QTY. JACK DEVICES AS SHOWN
	18" AFF	TV / BROADBAND JACK(S) DUPLEX PLATE WALL MTD

NOTES

1- This Contractor Is To Provide For Wiring Pathways For Each Low-Voltage Device Shown Consisting Of A "Ring & String" And / Or Wall-Box & Conduit Stub-Ups. The Low-Voltage Cabling & System(s) Is "By-Others".
2- Ring & String= 2-Gang Wall Plaster Ring & String To Accessible Plenum.
3- Wall Box & Stub Up= 2-Gang (4" Square) Box With 1-Gang Plater-Ring, With 1.25" Conduit Stub-Up To Accessible Ceiling Plenum With A Pull-String From Box To Conduit End & Tied-Off.
4- Floor Box Mounted Devices= Provide A Floor Box Of Type As Prescribed With Low-Voltage Device Mounting Plates and 1.25" E.C. Under-Floor & Extended To The Tenants Accessible Plenum With Pull-String. Products, Set-Ups, Programming, & Related.
5- All Conduit / Raceway Bends Shall Be Long-Radius Bends (10X Diameter).
6- The Owner / Tenant Provides All The Remaing Materialsl, Installation, Products, Set-Ups, Programming, & Related.

WIRING & EQUIPMENT

SYMBOLS	DESCRIPTIONS
	J-Box Clg / Wall Mtd. @ 24" AFF UNO
	Flexible Conduit, LT Damp-Wet Areas
	Solid Curved- Concealed Wiring
	Solid Straight- Exposed Wiring
	Dashed- In-Slab Or U.G. Wiring
	Arrowhead- Home Run As Shwon
	Surf. Mtd Multi-Channel Raceway
	Grounding Symbol / Grnd Rod
	Plywood Bkbd, Size As Noted
	Motor, F- Fract. HP, #- HP
	Manual Motor Rated Switch, 30A, 3P, 600V, NEMA-3R Encls
	Magnetic Motor Combo Starter / Switch, Ratings As Noted Or Scheduled
	Electric Heat Unit
	Disc. Switch, Ratings As Noted
	Panel / Distb. Panel & Clearances
	Distrib. Equip. & Clearances
	Transformer & Clerances

NOTES & COMMENTS

1- Single Branch Circuit Homeruns (#12) To The Same Panel May Be Combined Into Multi-Circuit Homeruns Of No More Than (2) 3-Ckt/ 4-Wire Homeruns. Note Multi-Pole OCP Required At Panel.

2- Every Ckt., Regardless Of Conduit Type, Shall Be Provided With A Green Ground Wire (#12 Min), Size Per Code U.N.O.

3- Where IG CKts. Are Required, Each IG Ckt. Shall Have A Seperate (Non-Shared) Netural & A Shared Insulated Ground (IG) Conductor.

4-Grouping Of Controls / Switching May Be Indicated By Lower Case Letters (i.e.- a,b,c- - -).

RECEPTACLE DEVICES

15A	20A	Mtg-UNO	Descriptions	LEGRAND-P&S Series
		18" AFF	Single Rcpt. HD Tamper Resistiant	TR 26/36 x
		18" AFF	Duplex Rcpt.	PT26 2/3 52x
		18" AFF	Quad Rcpt. (2-Duplex)	415/420
		18" AFF	Duplex WR-ST-TR GFCI Rcpt	PT 15/20 97x
		18" AFF	Duplex-WR-ST-TR-GFCI Rcpt.+ WP In-Use Cover	PT 15/20 97x & WIUC10x
		18" AFF	Duplex Surge Protected (See Wiring Notes)	PTTR-5262-xx-SP
		18" AFF	Two Duplex Surge Prot. (See Wiring Notes)	(2)PTTR-5262-xx-SP
		18" AFF	Dplx Rcpt-Top Switched	PT26 2/3 52x
		18" AFF	TR Duplex Rcpt & 2-USB Type-A Ports, Class-2.0	TR5 2/3 62YSBx
		18" AFF	Tamper Resistiant Duplex Rcpt.	PTTR 26 2/3 62x
		18" AFF	Tamper Resistiant Duplex Rcpt. ST-GFCI	PT 15/20 97NAWx

COMMENTS & NOTES

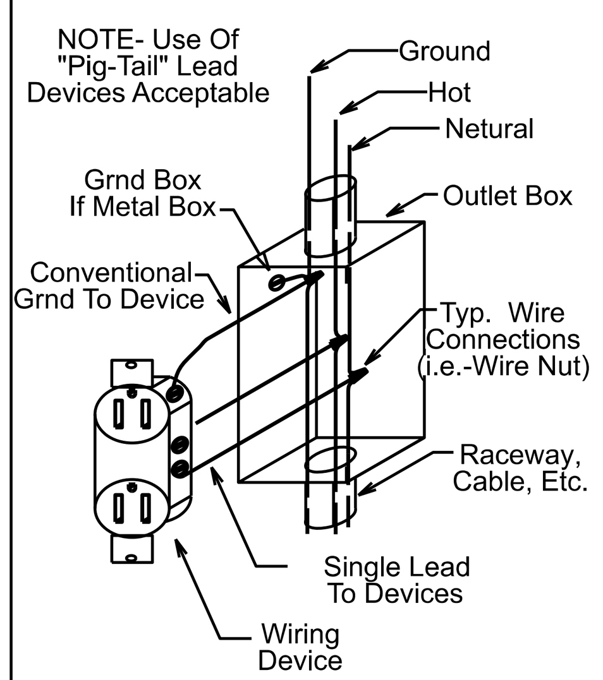
01- Devices To Be UL20, UL498 Listed & Labeled Where Applicable.
02- Devices To Be FSUL-WS896, FSUL-WC596 Compliant Where Applicable.
03- Devices To Be NFTA (Buy American) Where Avialable.
04- Devices To Be Legrand / P&S, PlugTail, Specification Grade Devices, UNO.
05- Devices To Be Decor Style Unless Not Available In Decor Style.
06- Provide Smooth Finish Matching P&S Trade-Master Grade Cover Plates.
07- Products Of Other Manufactures, Equivalent In Apperance, Features, Performance, Rating & Size, Are Acceptable.
08- Color As Selected By Owner / Tenant Or Architect.
09- Field Verify Final Exact Location Prior To Rough-In With Archt., Owner / User.
10- Multiple Adjacent Devices Shall Be Mtd In Multi-Gang Box With Multi-Gang Cover.
11- Surge Protective Recpts.> UL1449, 3-Mode, 340 Joules, LED & Audible Alarm.

MISC. DEVICES & ITEMS

SYMBOL	DESCRIPTIONS U.N.O.	COMMENTS - UNO
	Outlet(s)- Special Type As Reqd., 48" AFF (Verify Final Mtg Htg)	As Noted Or Required
	Power Pole, Type As Noted, Secure To Structure	Hubbell AL Serv Poles Series Or Equal
	Poke-Thru Floor Device As Noted P-Power, D-Data, C-Comm	Hubbell FRPT Series Or Equal
	Multi-Service Floor Box (P-V-D), Type As Reqd., Coord. Exact Placement	Hubbell 3-4-8 Gang Series Or Equal
J D P T	1-Gang Floor Boxes, Type As Reqd., J-JBox, D-Data, P-Pwr, T-Telco	Hubbell System-One Series Or Equal
	Plug-Mold Raceway, 2-Channel Type Lenght As Shown Or Reqd.	Wiremold 4000 Series Or Equal
	Surface Raceway, 2-Channel Type Lenght As Shown Or Reqd.	Wiremold DS4000 Series Or Equal
	Door Bell Button, Lighted, WP, 48"AFF Door Bell Chime, Multi-Tone	Nutone-BK142LWH Chime Kit

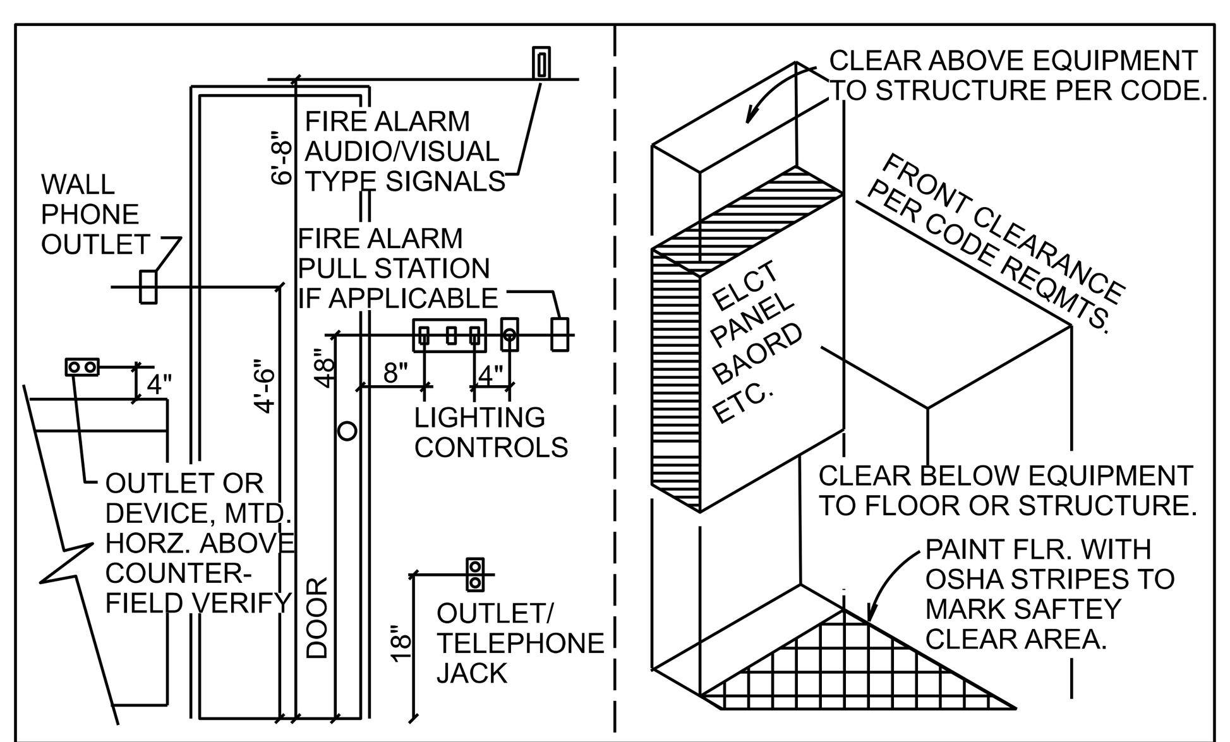
COMMENTS & NOTES

1- Devices To Be UL Listed & Labeled Where Applicable.
2- Devices To Be NFTA (Buy American) Where Avialable.
3- Color As Selected By Owner / Tenant Or Architect.
4- Field Verify Final Exact Location Prior To Roug-In With Archt., Owner / User.
5- Products Of Other Manufactures, Equivalent In Apperance, Features, Performance, Rating & Size, Are Acceptable.



TYP. OUTLET WIRING

Detail# - MG Not To Scale

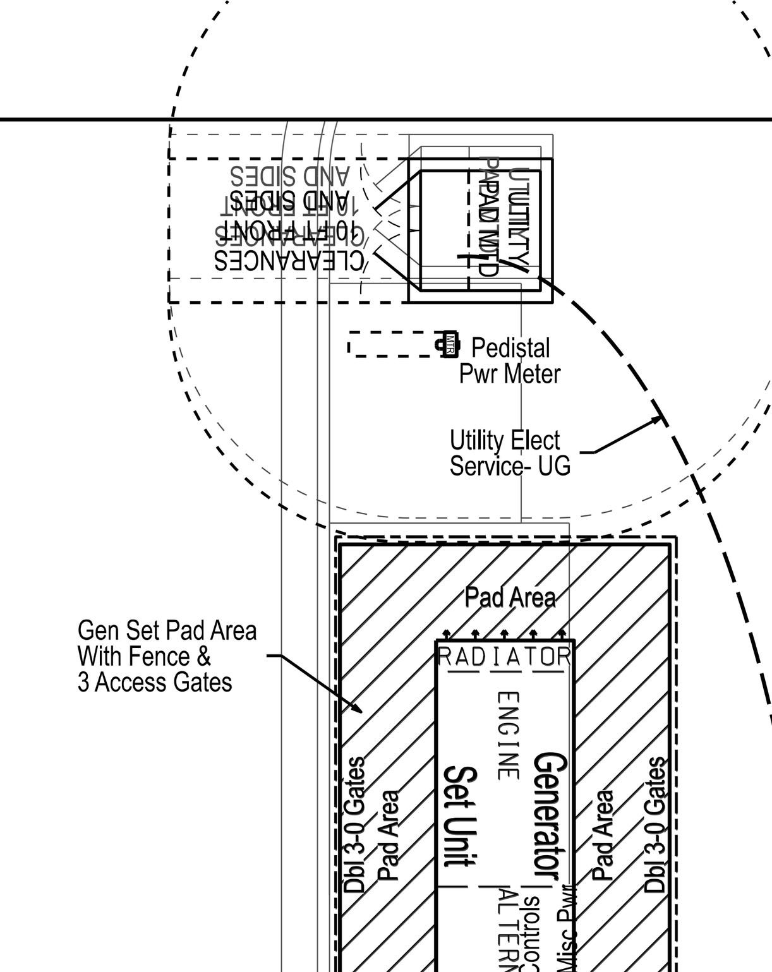


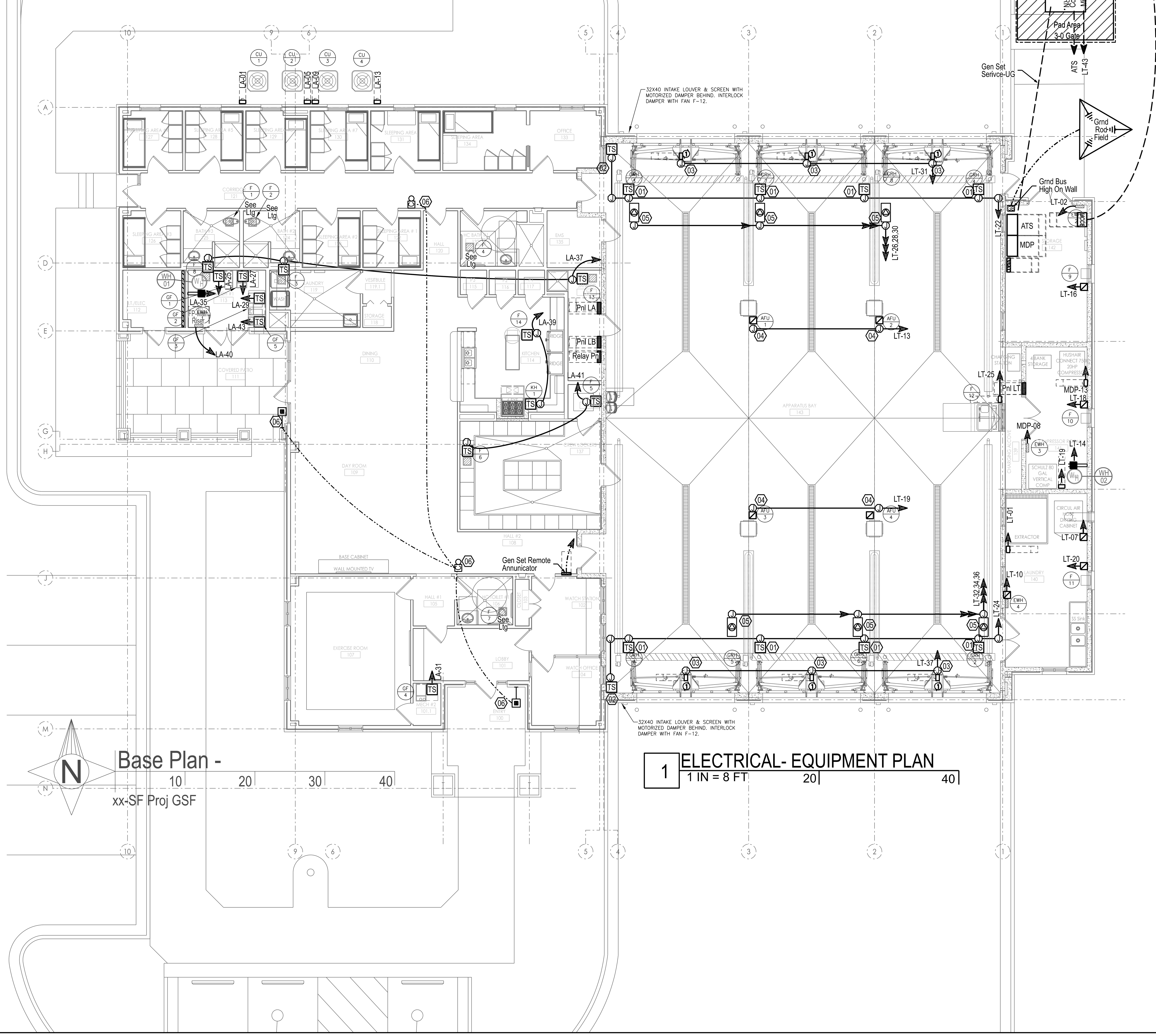
TYP. DEVICE & PANEL MOUNTING

DETAIL # - MG NOT TO SCALE

LEGEND NOTES

18.09.24		Fayette Co Fire Station 04	
#	Rv	LEGEND NOTES - E11	CO
01	-	HVAC IR Htr Ignitor & Fan Power (Verify 120V)- Provide Motor-Rated Toggle Disc. Switch & Connect Per Manuf.	
02	-	HVAC Louver Actuator (Verify 120V)- Provide Motor-Rated Toggle Disc. Switch & Connect Per Manuf.	
03	-	Door Power- Field Verify Final Pwr Needs Prior To Rough-Ins. (1.0 HP, 208V, 3Phs). Set J-Box & Fused Disonnect With 10 Amp Class-J Fuses. Verify "Wirless" Controls Used.	
04	-	HVAC Air Filtration Unit(s) (Verify Power) (1.0 HP, 208V, 3Phs). Set J-Box & Fused Disonnect With 10 Amp Class-J Fuses.	
05	-	Auto-Eject Vechile Cord Reel: Prior To Rough-In Or Ordering, Field Verify Exact Vehicle Power & Outlet Type Requirments. Wall / Ceiling Mountable, Automatic Spring Retracion Operation. With Matching Auto-Eject Receptacle and "Auto-Safe" Controller To Shut-Off Reel Power When Retracted. 45 Foot, #12 AWG CU 3 Conductor OSHA Orange Power Cord. Each Reel On A Dedicated Circuit. Verify Exact Mounting Location To Coordinate With Vechicle Type. Support from building structure (not from ceilig or walls). Kussmaul "Auto-Reel (091-220-20-120-AS) or equal by Appelton Electric, Crouse-Hinds, Reel-Craft.	
06	-	2-Door LV-Wired 2-Tone Chime Kit: Complete Chime Kit With 2-WP Door Illuminated-Push-Buttons, Transformer & Chime. Verfy Color. Wire Per Manuf. Edwards Signal C212x-2L Or NuTone LA11BG	
- -	-	- - - - -	- -
17-151		End Of Legend Notes	





1 ELECTRICAL- EQUIPMENT PLAN

1 IN = 8 FT 20 40

architecture
interiors
town planning
KAOD
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75 Jackson Street
Bldg 400 - Suite 100
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GEORGIA REGISTERED No 13252 PROFESSIONAL ENGINEER ROBERT M MADDOX
2018 09.20

THE MADDOX GROUP
DESIGN & ENGINEERING
9309 Seminole Road
Jonesboro, GA 30236
770-471-9076
maddoxgroup@comcast.net

DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO.
FIRE STATION
4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

FAYETTE CO.
FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL EQUIPMENT PLAN

SHEET NO:
E-11

RELEASED FOR PERMIT OR CONSTRUCTION

LOW-VOLTAGE DEVICE - ROUGH-INS

SYMBOLS	MTG/UNO	DESCRIPTIONS
	FLR MTD	VOICE-DATA EQUIPMENT RACK/ CABINET, FREE STANDING (BY OTHERS)
VCP	TOP 60" AFF	VOICE-DATA EQUIPMENT PANEL, WALL MOUNTED (BY OTHERS)
	BTM 18" AFF	VOICE-DATA EQUIP.- PROVIDE WALL MTD. BACKBOARD, 0.75" THICK A/D GRADE PLY-WOOD, SIZE A PRESCRIBED
	18" AFF	VOICE JACK WALL MTD QTY. JACKS AS SHOWN
	18" AFF	DATA JACK WALL MTD QTY OF JACKS AS SHOWN
	18" AFF	COMBO VOICE-DATA JACKS QTY. JACK DEVICES AS SHOWN
	18" AFF	TV / BROADBAND JACK(S) DUPLEX PLATE WALL MTD

NOTES

1- This Contractor Is To Provide For Wiring Pathways For Each Low-Voltage Device Shown Consisting Of A "Ring & String" And / Or Wall-Box & Conduit Stub-Ups. The Low-Voltage Cabling & System(s) Is "By-Others".
2- Ring & String= 2-Gang Wall Plaster Ring & String To Accessible Plenum.
3- Wall Box & Stub Up= 2-Gang (4" Square) Box With 1-Gang Plater-Ring, With 1.25" Conduit Stub-Up To Accessible Ceiling Plenum With A Pull-String From Box To Conduit End & Tied-Off.
4- Floor Box Mounted Devices= Provide A Floor Box Of Type As Prescribed With Low-Voltage Device Mounting Plates and 1.25" E.C. Under-Floor & Extended To The Tenants Accessible Plenum With Pull-String. Products, Set-Ups, Programming, & Related.
5- All Conduit / Raceway Bends Shall Be Long-Radius Bends (10X Diameter).
6- The Owner / Tenant Provides All The Remaing Materials!, Installation, Products, Set-Ups, Programming, & Related.

RECEPTACLE DEVICES

15A	20A	Mtg-UNO	Descriptions	LEGRAND-P&S Series
		18" AFF	Single Rcpt. HD Tamper Resistant	TR 26/36 x
		18" AFF	Duplex Rcpt.	PT26 2/3 52x
		18" AFF	Quad Rcpt. (2-Duplex)	415/420
		18" AFF	Duplex WR-ST-TR GFCI Rcpt	PT 15/20 97x
		18" AFF	Duplex-WR-ST-TR-GFCI Rcpt.+ WP In-Use Cover	PT 15/20 97x & WIUC10x
		18" AFF	Duplex Surge Protected (See Wiring Notes)	PTTR-5262-xx-SP
		18" AFF	Two Duplex Surge Prot. (See Wiring Notes)	(2)PTTR-5262-xx-SP
		18" AFF	Dplx Rcpt-Top Switched	PT26 2/3 52x
		18" AFF	TR Duplex Rcpt & 2-USB Type-A Ports, Class-2.0	TR5 2/3 62YSBx
		18" AFF	Tamper Resistiant Duplex Rcpt.	PTTR 26 2/3 62x
		18" AFF	Tamper Resistiant Duplex Rcpt. ST-GFCI	PT 15/20 97NAWx

COMMENTS & NOTES

01- Devices To Be UL20, UL498 Listed & Labeled Where Applicable.
02- Devices To Be FSUL-WS896, FSUL-WC596 Compliant Where Applicable.
03- Devices To Be NFTA (Buy American) Where Avialable.
04- Devices To Be Legrand / P&S, Plug/Tail, Specification Grade Devices, UNO.
05- Devices To Be Decor Style Unless Not Available In Decor Style.
06- Provide Smooth Finish Matching P&S Trade-Master Grade Cover Plates.
07- Products Of Other Manufactures, Equivalent In Apperance, Features, Performance, Rating & Size, Are Acceptable.
08- Color As Selected By Owner / Tenant Or Architect.
09- Field Verify Final Exact Location Prior To Rough-In With Archt., Owner / User,
10- Multiple Adjacent Devices Shall Be Mtd In Multi-Gang Box With Multi-Gang Cover.
11- Surge Protective Recpts.> UL1449, 3-Mode, 340 Joules, LED & Audible Alarm.

MISC. DEVICES & ITEMS

SYMBOL	DESCRIPTIONS U.N.O.	COMMENTS - UNO
	Outlet(s)- Special Type As Reqd., 48" AFF (Verify Final Mtg Htg)	As Noted Or Required
	Power Pole, Type As Noted, Secure To Structure	Hubbell AL Serv Poles Series Or Equal
	Poke-Thru Floor Device As Noted P-Power, D-Data, C-Comm	Hubbell FRPT Series Or Equal
	Multi-Service Floor Box (P-V-D), Type As Reqd., Coord. Exact Placement	Hubbell 3-4-8 Gang Series Or Equal
	1-Gang Floor Boxes, Type As Reqd., J-JBox, D-Data, P-Pwr, T-Telco	Hubbell System-One Series Or Equal
	Plug-Mold Raceway, 2-Channel Type Lenght As Shown Or Reqd.	Wiremold 4000 Series Or Equal
	Surface Raceway, 2-Channel Type Lenght As Shown Or Reqd.	Wiremold DS4000 Series Or Equal
	Door Bell Button, Lighted, WP, 48"AFF	Nutone-BK142LWH
	Door Bell Chime, Multi-Tone	Chime Kit

COMMENTS & NOTES

1- Devices To Be UL Listed & Labeled Where Applicable.
2- Devices To Be NFTA (Buy American) Where Avialable.
3- Color As Selected By Owner / Tenant Or Architect.
4- Field Verify Final Exact Location Prior To Roug-In With Archt., Owner / User.
5- Products Of Other Manufactures, Equivalent In Apperance, Features, Performance, Rating & Size, Are Acceptable.

WIRING & EQUIPMENT

SYMBOLS	DESCRIPTIONS
	J-Box Clg / Wall Mtd. @ 24" AFF UNO
	Flexible Conduit, LT Damp-Wet Areas
	Solid Curved- Concealed Wiring
	Solid Straight- Exposed Wiring
	Dashed- In-Slab Or U.G. Wiring
	Arrowhead- Home Run As Shwon
	Surf. Mtd Multi-Channel Raceway
	Grounding Symbol / Grnd Rod
	Plywood Bkbd, Size As Noted
	Motor, F- Fract. HP, #- HP
	Manual Motor Rated Switch, 30A, 3P, 600V, NEMA-3R Ends
	Magnetic Motor Combo Starter / Switch, Ratings As Noted Or Scheduled
	Electric Heat Unit
	Disc. Switch, Ratings As Noted
	Panel / Distb. Panel & Clearances
	Distrib. Equip. & Clearances
	Transformer & Clerances

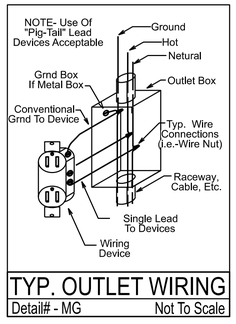
NOTES & COMMENTS

1- Single Branch Circuit Homeruns (#12) To The Same Panel May Be Combined Into Multi-Circuit Homeruns Of No More Than (2) 3-Cckt/ 4-Wire Homeruns. Note Multi-Pole OCP Required At Panel.

2- Every Ckt., Regardless Of Conduit Type, Shall Be Provided With A Green Ground Wire (#12 Min), Size Per Code U.N.O.

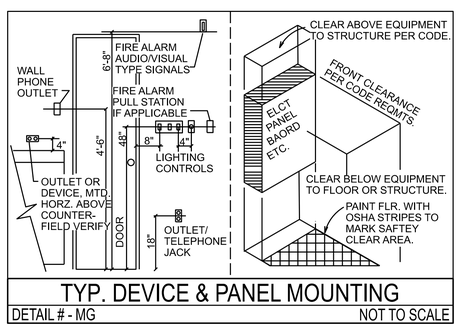
3- Where IG CKts. Are Required, Each IG Ckt. Shall Have A Seperate (Non-Shared) Neturral & A Shared Insulated Ground (IG) Conductor.

4-Grouping Of Controls / Switching May Be Indicated By Lower Case Letters (i.e.- a,b,c- - -).



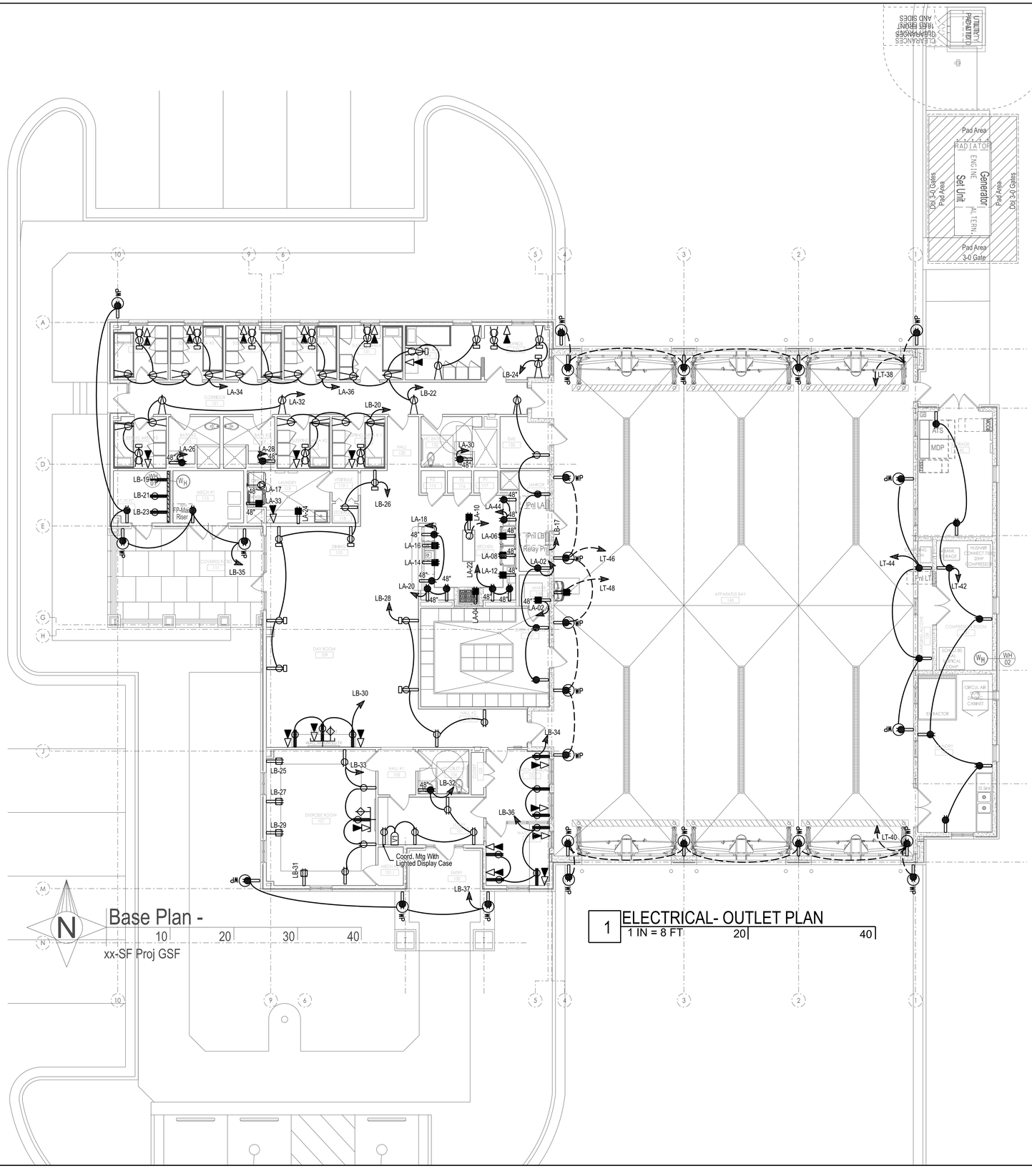
TYP. OUTLET WIRING

Detail# - MG — Not To Scale



TYP. DEVICE & PANEL MOUNTING

DETAIL # - MG — NOT TO SCALE



1 ELECTRICAL- OUTLET PLAN

1 IN = 8 FT — 20 — 40

architecture
interiors
town planning

KAOD

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DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO. FIRE STATION # 4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

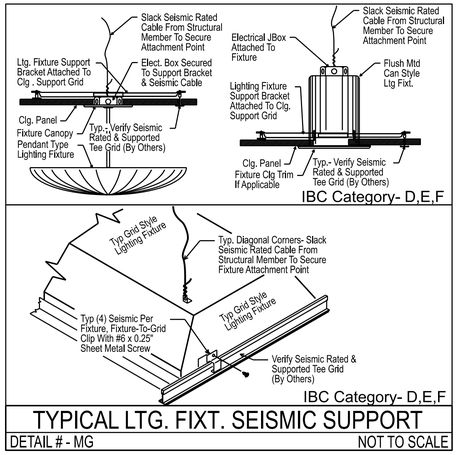
FAYETTE CO. FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
ELECTRICAL OUTLET PLAN

SHEET NO:
E-12

RELEASED FOR PERMIT OR CONSTRUCTION



TYPICAL LTG. FIXT. SEISMIC SUPPORT

DETAIL # - MG NOT TO SCALE

FLOODLIGHT- TENON MTG DETAIL

NOT TO SCALE

FLAGPOLE LIGHTING DETAIL

DETAIL # - MG NOT TO SCALE

Section 1: Project Information

Energy Code: **2009 IECC**
Project Title: Fayette Co Fire Sta-04, McElroy Rd
Project Type: New Construction

Construction Site: McElroy Road Fayetteville, Georgia
Owner/Agent:
Designer/Contractor:

Section 2: Interior Lighting and Power Calculation

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts (B x C)
Living Area (Police/Fire Station)	4757	1	4757
Truck Bay (Police/Fire Station)	5440	1	5440
		Total Allowed Watts =	10197

Section 3: Interior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Living Area (Police/Fire Station, 4757 sq.ft.)				
LED: A: Other: Exemption:Sleeping Unit Lighting	1	18	32	Exempt
LED: B: Other: Exemption:Sleeping Unit Lighting	1	26	3	Exempt
LED: C: Other:	1	21	29	609
LED: D: Other:	1	6	29	174
LED: E: Other:	1	4	16	64
LED: F: Other:	1	7	23	161
LED: G: Other:	1	4	20	80
LED: H: Other:	1	11	11	121
LED: I: Other:	1	35	55	1925
LED: J: Cove Lt By Archt: Other:	1	1	880	880
LED: K: Other:	1	17	42	714
LED: L: Other:	1	16	185	2960
LED: M: Other:	1	6	185	1110
LED: N: Other:	1	2	60	120
Truck Bay (Police/Fire Station, 5440 sq.ft.)				
			Total Proposed Watts =	8918

Section 4: Requirements Checklist

Interior Lighting PASSES: Design 13% better than code.

Lighting Wattage:

❑ 1. Total proposed watts must be less than or equal to total allowed watts.

Allowed Watts	Proposed Watts	Complies
10197	8918	YES

Controls, Switching, and Wiring:

❑ 2. Daylight zones under skylights more than 15 feet from the perimeter have lighting controls separate from daylight zones adjacent to vertical fenestration.

❑ 3. Daylight zones have individual lighting controls independent from that of the general area lighting.

Exceptions:

❑ Contiguous daylight zones spanning no more than two orientations are allowed to be controlled by a single controlling device.

❑ Daylight spaces enclosed by walls or ceiling height partitions and containing two or fewer light fixtures are not required to have a separate switch for general area lighting.

❑ 4. Independent controls for each space (switch/occupancy sensor).

Exceptions:

❑ Areas designated as security or emergency areas that must be continuously illuminated.

❑ Lighting in stairways or corridors that are elements of the means of egress.

❑ 5. Master switch at entry to hotel/motel guest room.

❑ 6. Individual dwelling units separately metered.

❑ 7. Medical task lighting or art/history display lighting claimed to be exempt from compliance has a control device independent of the control of the nonexempt lighting.

❑ 8. Each space required to have a manual control also allows for reducing the connected lighting load by at least 50 percent by either controlling all luminaires, dual switching of alternate rows of luminaires, alternate luminaires, or alternate lamps, switching the middle lamp luminaires independently of other lamps, or switching each luminaire or each lamp.

Exceptions:

❑ Only one luminaire in space.

❑ An occupant-sensing device controls the area.

❑ The area is a corridor, storeroom, restroom, public lobby or sleeping unit.

❑ Areas that use less than 0.6 Watts/sq.ft.

❑ 9. Automatic lighting shutoff control in buildings larger than 5,000 sq.ft.

Exceptions:

❑ Sleeping units, patient care areas; and spaces where automatic shutoff would endanger safety or security.

❑ 10. Photocell/astronomical time switch on exterior lights.

Exceptions:

❑ Lighting intended for 24 hour use.

❑ 11. Tandem wired one-lamp and three-lamp ballasted luminaires (No single-lamp ballasts).

Exceptions:

❑ Electronic high-frequency ballasts; Luminaires on emergency circuits or with no available pair.

Section 5: Compliance Statement

Compliance Statement: The proposed lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COM*check-Web* and to comply with the mandatory requirements in the Requirements Checklist.

Robert M. Maddox, PE
Name - Title | Signature | Date

Project Notes:
New Fire Station

UNDER-CABINET LTG DETAIL

DETAIL # - MG NOT TO SCALE

CLG. INSULATION AT LTG DETAIL

Detail # : Not To Scale

Generated by COM*check-Web* Software

Exterior Lighting Compliance Certificate

Section 1: Project Information

Energy Code: **2009 IECC**
Project Title: Fayette Co Fire Sta-04, McElroy Rd
Project Type: New Construction
Exterior Lighting Zone: 2 (Residential mixed use area)

Construction Site: McElroy Road Fayetteville, Georgia
Owner/Agent:
Designer/Contractor:

Section 2: Exterior Lighting Area/Surface Power Calculation

A Exterior Area/Surface	B Quantity	C Allowed Watts / Unit	D Tradable Wattage	E Allowed Watts (B x C)	F Proposed Watts
Entry canopy	200 ft2	0.25	Yes	50	164
Flag Pole (Special feature area)	100 ft2	0.14	Yes	14	165
Rear drive (Driveway)	2275 ft2	0.06	Yes	136	206
Front drive (Driveway)	2275 ft2	0.06	Yes	136	264
Large Porch (Entry canopy)	365 ft2	0.25	Yes	91	162
Other door (not main entry)	15 ft of door width	20	Yes	300	84
Main entry	3 ft of door width	20	Yes	60	84
			Total Tradable Watts* =	788	1129
			Total Allowed Watts =	788	
			Total Allowed Supplemental Watts** =	600	

* Wattage tradeoffs are only allowed between tradable areas/surfaces.
** A supplemental allowance equal to 600 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Section 3: Exterior Lighting Fixture Schedule

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
Entry canopy (200 ft2): Tradable Wattage				
LED: WA: Other:	1	2	28	56
LED: WF: Other:	1	4	27	108
Main entry (3 ft of door width): Tradable Wattage				
LED: WA: Other:	1	3	28	84
Other door (not main entry) (15 ft of door width): Tradable Wattage				
LED: WA: Other:	1	3	28	84
Large Porch (Entry canopy, 365 ft2): Tradable Wattage				
LED: WF: Other:	1	6	27	162
Front drive (Driveway, 2275 ft2): Tradable Wattage				
LED: WA: Other:	1	3	28	84
LED: WB: Other:	1	3	20	60
LED: WC: Other:	1	4	30	120
Rear drive (Driveway, 2275 ft2): Tradable Wattage				
LED: WA: Other:	1	2	28	56
LED: WB: Other:	1	3	20	60
LED: WC: Other:	1	3	30	90
Flag Pole (Special feature area, 100 ft2): Tradable Wattage				

Project Title: Fayette Co Fire Sta-04, McElroy Rd
Data filename:
Report date: 10/03/18
Page 3 of 4

LED: WE: Other:	1	3	55	165
			Total Tradable Proposed Watts =	1129

Section 4: Requirements Checklist

Lighting Wattage:

❑ 1. Within each non-tradable area/surface, total proposed watts must be less than or equal to total allowed watts. Across all tradable areas/surfaces, total proposed watts must be less than or equal to total allowed watts.
Compliance: Passes using supplemental allowance watts.

Controls, Switching, and Wiring:

❑ 2. All exemption claims are associated with fixtures that have a control device independent of the control of the nonexempt lighting.

❑ 3. Lighting not designated for dusk-to-dawn operation is controlled by either a a photosensor (with time switch), or an astronomical time switch.

❑ 4. Lighting designated for dusk-to-dawn operation is controlled by an astronomical time switch or photosensor.

❑ 5. All time switches are capable of retaining programming and the time setting during loss of power for a period of at least 10 hours.

Exterior Lighting Efficacy:

❑ 6. All exterior building grounds luminaires that operate at greater than 100W have minimum efficacy of 60 lumen/watt.

Exceptions:

❑ Lighting that has been claimed as exempt and is identified as such in Section 3 table above.

❑ Lighting that is specifically designated as required by a health or life safety statue, ordinance, or regulation.

❑ Emergency lighting that is automatically off during normal building operation.

❑ Lighting that is controlled by motion sensor.

Section 5: Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications and other calculations submitted with this permit application. The proposed lighting system has been designed to meet the 2009 IECC requirements in COM*check-Web* and to comply with the mandatory requirements in the Requirements Checklist.

LIGHTING FIXTURE SCHEDULE

Proj: **Fayette Co Fire Station 04** | 18.10.05 Date
Loc: **Fayetteville, GA. 30241** | KA Oldham Design, Inc. | **Const** Status

Fixt ID	General Lighting Fixture Descriptions	Ttl Mean Lumens	Lamp Qty & Type	Ballast-Driver Type	Power V	Power VA	Mount. Notes	Item Notes	Manufacturer Series / Model	Revs #
A-	Center Lens Fixt., 2x2- LED Lamp, Curved Prismatic Acrylic Lenses, 5-Yr.Warranty, Dimming To 1%.	3616-L; 60-kHrs	LED, 80-CRI, 35k-CCT	0-10V 1%-Dimm; 10%-THD; 0.95PF	UNV 120-277	32	FIC	-	Columbia: LCAT-22-80CRI-35k-HLHE- G-Curve-NoAir-ED1-Unv	-
B	LED Step Light, Die-Cast Housing, Die-Cast Aluminum Cover, Frosty Glass Diffuser, Vandal-Resistant Hardware, Mounts On Standard J-Box. Wet Location Labeled. Cover Finish> Silver; Diffuser Color > RED	160	LED, 80-CRI, 35k-CCT	LED Driver & Power Supply Per Manuf	UNV-120/ 277	3	Wall Mtd 18" AFF UNO	-	Lumux Ltg. SL100 Series: SL100-LED-RedLED, Silver Finish	-
C	Center Lens Fixt., 2x2- LED Lamp, Curved Prismatic Acrylic Lenses, 5-Yr.Warranty	3200-L; 60-kHrs	LED, 80-CRI, 35k-CCT	Non-Dimm; 10%-THD; 0.95PF	UNV 120-277	29	FIC	-	Columbia: LCAT-22-80CRI-35k-ML- G-Curve-NoAir-E-Unv	-
D	Center Lens Fixt., 2x2- LED Lamp, Curved Prismatic Acrylic Lenses, 5-Yr Warranty (Kitchen Area)	3200-L; 60-kHrs	LED, 80-CRI, 35k-CCT	Non-Dimm; 10%-THD; 0.95PF	UNV 120-277	29	FIC	-	Columbia: LCAT-22-80CRI-35k-ML- G-Curve-NoAir-E-Unv	-
E	LED Task-Light, 1.5 Inch Deep, 32-Inch Long; Alum. Extrusion + Frosted Lens, Provide All Mtg. Hdwr, Intergral -Driver, 5-Yr.Warr., In-Line Switch, Std. Finish Per Archt / Owner. (xx= Installed Length In Ft.)	894-L; 50-kHrs	LED, 80-CRI, 30k-CCT	LED Driver, 20% THD, 0.9-PF	120V	16	Under Cabinet Face Wall-Verify Ft	-	Elite EUD-LED Series: EUD-LED- 32-Inch-120V-xx Finish	*
F	24L Wall Mtd Wth Occ-Sensor, LED, White Acrylic Diffuser, Steel Housing; 5-Yr.Warranty; End-Caps & Motion-Sensor	2,000-L; 50-kHrs	LED, 90-CRI, 35k-CCT	LED Driver, 20% THD, 0.9-PF	UNV 120-277	23	WM Over Mirror Or Door		Elite-Grade OW1B-LED Series: 02Ft-OW1B-LED-2000Lu-DIM10-Mvolt-35kCCT-85CRI-MS-FM105	-
G	32"L, 2.75"W, 2.5"D, LED, Vanity Wall. Sconce Fixture, ADA Compialnt, White Acrylic Diffuse & Satin Nickel Hardware, Dimmable To 1%	1,751-L; 60-kHrs	LED, 90-CRI, 35k-CCT	0-10V 1%-Dimm; 10%-THD; 0.95PF	120	20	Horz Wall Htg Per Archt		Oxygen Apollo Series: 3-525-24 Dimm	
H	4 In. Wet-Location IC_Housing Shower Lite, LED, Smooth Frost Lens & White Trim Ring, 5-Yr Warranty.	600-L; 50-kHrs	LED, 90-CRI, 35k-CCT	Fixed; 10%-THD; 0.95-PF	MV 120V 277V	11	FIC	-	Elite-MaxiLume: H-LED2-41C + LED2-1437-600L-MD-35K-90C-CL-WH	
I	06 In LED Dnlt, 45D Cut-Off, Diff-Lens, Satin-Haze Alzak Reflector & Trim Ring, Damp/Wet Location, 5-Yr Warranty, Wide Distb; Dimmable To 1%	4,000-L; 102-kHrs	LED, 90-CRI, 35k-CCT	0-10V 1%-Dimm; 10%-THD; 0.95PF	MV 120V 277V	55	FIC		Elite-MaxiLume: HH6-LED-4000Lu-Dim1%-MVolt-WDdistb-35K-90+CRI-6501-CL-WH	-
J	Architectural Cove & Light System FBO-IBC, Furnished Complete With Lamps & All Components & Hardware. Coordinate With Owner, Electrical To Hook-Up Per Manuf.	1,450 Lumn / Ft (Verify)	By Manuf With Fixture; 85-CRI; 35k-CCT	Fixed / 0-10V Dimm To 01%; 10%-THD; 0.95PF	UNV 120-277	13.5 Watts / Ft (Verify)	Per Archt / Interiors (65 Ft-Verify)		Furnished-By-Others & Installed-By-Contractor (FBO-IBC)(Basis: Vode Zip-Wave-707)	-
K	LED 4 Ft, Enclosed & Gasketed Fiberglass, Non-Porus Gasketing, Wet-Location, High-Impact Frosted Acrylic Lens, SS Latches & Mounting Hardware, 5-Yr Warr., Occ. Sensor	4,688-L; 60-kHrs	LED, 85-CRI, 35k-CCT	Fixed; 10%-THD; 0.95PF	UNV 120-277	42	SM-PH	-	Columbia Series LXEM 4 Ft, 35K, ML-Lumen, RFA, ED, UV, SSL, TP + Optons As Needed +Occ Sensor	-
L	LED 8 Ft, Enclosed & Gasketed Fiberglass, Non-Porus Gasketing, Wet-Location, IP67, High-Impact Frosted Acrylic Lens, SS Latches & Mounting Hardware; 5-Yr.Warranty	20,223 Lum; 60-kHrs	LED, 85-CRI, 35k-CCT	0-10V 1%-Dimm; 10%-THD; 0.95PF	UNV 120-277	183	SM-PH	-	Columbia Series LXEM 8 Ft, 35K, XL-Lumen, RFA, ED1, UV, SSL, TP + Optons As Needed	-
M	LED 8 Ft, Enclosed & Gasketed Fiberglass, Non-Porus Gasketing, Wet-Location, IP67, High-Impact Frosted Acrylic Lens, SS Latches & Mounting Hardware, 5-Yr.Warranty; RED LIGHT / DIFFUSER	20,223 Lum; 60-kHrs	LED, 85-CRI, 35k-CCT	0-10V 1%-Dimm; 10%-THD; 0.95PF	UNV 120-277	183	SM-PH	-	Columbia Series LXEM 8 Ft, 35K, XL-Lumen, RFA, ED1, UV, SSL, TP + Optons As Needed; RED LIGHT / DIFFUSER	-
N	Indoor Paddle Fan, Light & Remote Control + Wall Holster: 48 Inch Dia, 3-Blade, Reversable, 3-Speed, LED-Light, Provide All Related Components: Finish & Stem(s)-Mtg. Heigth Per Architect; 5-Yr.Warranty	1400-L, 18-W	LED; 30k-CCT, 90+CRI	Per Manuf, 10%-THD; 0.95PF	120V	60	CM		Fanmation "Pylon" Series: LP8277Lxx Or Equal By Casablancal or Modern Fan Co	*

Fixt ID	Wet-Location Outdoor Lighting Fixture Descriptions	Ttl Mean Lumens	Lamp Qty & Type	Ballast-Driver Type	Power V	Power VA	Mount. Notes	Item Notes	Manufacturer Series / Model	Revs #
WA	Small UL-Wet-Location, LED Architectural Geo-Shaped Wall-Pak; Vandal-Resistant Die-Cast Aluminum, Full-Cut-Off, Dark-Sky; Bronze Finish. *Verify Final Mfg, Color-Finish With Architet-Owner Prior To Ordering.*	2900-L; 345-kHrs.	LED, 85-CRI, 40k-CCT	Fixed; 10%-THD; 0.95PF	UV 120-277	28	WM As High Possible, Per Archt	-	Hubbell Geo Series: OSP1 - 12LED-30-Watt-4k-3-Distb-UNV-DB-Finish	-
WB	RLM Style Shade On Pendant-Pipe-Stem; Wet-Location Listed; MC-Style 18-Dia RLM Shade + Red Tempered Globe + Matching Stem & Remote LED Driver. Color Per Archt-Owner	Per Manuf; 60-kHrs	1x20 Watt LED, 35k-CCT, 85+CRI	Fixed; 10%-THD; 0.95PF	120V Only	20	PH Per Archt	-	BaseLite RLM Series: MC18+ WM31+ RE4+ GU+Remote-Driver	
WC	22Hx08Wx05D, UL-Wet-Location, LED, Wall Mt. Columinar Fixture, ADA Compliant, Cast-Al Base; Matte-White Acrylic Diffuser & Std / Custom Color Finish Per Architect-Owner)	1,347-L; 60-kHr	LED, 85-CRI, 35k-CCT	Fixed / 0-10V 1%-Dimm; 10%-THD; 0.95PF, TVSS	UNV-120-277	26	WM Vert @ Htg Per Archt-Own		Oxygen "LEDA" Series: 3-713-2xx	
WD	Damp-Location Paddle Fan & Remote Control + Wall Holster: 54 Inch Dia, 4-Blade, Reversable, 3-Speed; Provide All Related Components: Finish & Stem(s)-Mtg. Heigth Per Architect,	NA	NA	NA	120V	60	CM		Fanmation "ASCENSION" Series: FP6717xx Or Equal By Casablancal or Modern Fan Co	*
WE	Flag & Pole Small Flood Lt, LED, Wet Location Labeled, Tempered Glass Lens, Glare-Sheild, Yoke-Mount, Dark-Bronze Finish, Surge-Prot., 5-Yr.Warr, Beam-Spread NEMA 3x3	4,957-L; 696-kHrs	LED, 70-CRI, 50k-CCT	LED Driver & Power Supply Per Manuf	UNV 120V 277V	52	Concrete Base, Aim		Hubbell Series FML-LED: 52, 5k, 3x3, UV, K, DB, SP	-
WF	06 In LED Dnlt, 45D Cut-Off, Diff-Lens, Satin-Haze Alzak Reflector & Trim Ring, Damp/Wet Location, 5-Yr Warranty, Wide Distb	2,000-L; 102-kHrs	LED, 90-CRI, 35k-CCT	Fixed; 10%-THD; 0.95PF	MV 120V 277V	27	FIC		Elite-MaxiLume: HH6-LED-2000Lu-NonDim-MVolt-WDdistb-35K-90+CRI-6501-CL-WH	-

Fixt ID	Exit Signs & Emergency Ltg. Units Fixture Descriptions	1.0 FC Avg	Unit Heads Qty & Type	Unit Battery	Power V	Power VA	Mount. Notes	Item Notes	Manufacturer Series / Model	Revs #
X1	White Thermoplastic Emerg. Ltg. Unit 2-LED MR16 Heads, Damp-Location, 3-Yr.Full-Warr; UL924+NFPA101 Self-Diagnostic-Testing, +Weather-Proof(WP)	07-MH; 6x15Ft	(2) 70-Lumen, 3.6 W-LED MR16 Heads; 50-kHrs	3.6-V Nickle-Metal-Hydride	UNV-120, 277	7.5	Clg or WM @ 7'-0" High	1	LightAlarms: LCA-2LED +WP	-
X2	White Thermoplastic Emerg. Ltg. Unit; LED NiCad Battery, 5-Yr.Full-Warr; UL924+NFPA101 Self-Diagnostic-Testing, Vandal-Resistant.	15-MH; 6x80Ft	(2) 540-Lumen, 6.0 W-LED MR16 Heads	12 VDC Sealed Lead-Calcium	UNV-120, 277	7.5	Clg or WM @ 15'-0" High	1	LightAlarms Grande Series: 2Hd-GR12N4-(2) LD10-WB-ID-T3-DL +CM/PM	-
X0	Dual-Function LED Exit & Batt.Egress Wall-Light, Die-Cast Alumn. Vandal-Resistant, Wet Location, 5-Yr.Full-Warr; Self-Contained Norm-AC / Emerg. Batt. Unit, Photo-Cell; Heater & Self-Test-Monitor-Alarm, Forward Throw; Std. Color Per Archt-Owner	15-MH; 6x40Ft	(2) 640-Lumen, 6.0 W-LED Heads; 50-kHrs	Nick-Metal Hydride	UNV-120V-277V	3 / 15(Hr)	WM Abv Door	1	LightAlarms Camray LED: CAM-ACSD-Color--CS-FT-HL-PC	-
XU	Combo LED Exit Sign, 1/2 Face, 2-Adjust LED Heads, Univ Mtg, Batt-Back-Up, Red Ltr, Arrows As Needed, Self-Test-Alarm, 5-Yr.Full Warr; White; (17W,13H,04D)	07-MH; 6x89Ft	(2) 6.0 W-LED MR16 Heads	12 VDC- Lead-Calcium	UNV-120V-277V	5	UM	1	LightAlarms GRANDE Series: GR-1224M-R-U-W-2HD-LD10-ID	-

SPECIFIC ITEM NOTES

1-	Connect Emerg Battery To Unswitched Source	2-	Refer To Interior Lighting Plans & Schedules For Details.
3-		4-	

Misc Abbrevations		Lamp / Ballast / Driver Terms		Mounting Terms	
FBO-	Furnished By Owner Complete U.N.O.	CRI	Color Rending Index (Of Lamp)	BFC-	Below Finished Ceiling
FMC-	Fixt. Material Cost With Lamps & Hardware Complete	xx K	Kelvin (Lamp Color)	CB-	Concrete Base- See Details
IBC -	Installed Complete By Contractor, U.N.O.	Lum	Lumens (Lamp Light Output)	FIC-	Flush In Ceiling
		mA	Milli-Amp (LED Driver Rating)	FIG-	Flush In Grade
		PS	Programmed Start		
PBC-	Provided By Contractor	STA	Self-Test & Alarm	PH-	Pend.Hung,Htg As Ntd; Per Archt.
SBO-	Selected By Owner	RS	Rapid Start	SM-	Surface Mtd On Ceiling Or Structure
		THD	Total Harmonic Distrotion Max.	WM-	Wall Mtd- Htg As Noted; Per Archt.

ALTERNATES / PRIOR APPROVAL REQUEST

AA	Project Base Quote Shall Be Based On The Lighting As Scheduled & Specified.
AB	Lighting Products Of Other Manufacturers May Be Submitted As Add Or Deduct Alternates, Complete With Labeled Fixtures & Lampe Data, Cut-Sheets & Any Variations From The Specified Fixtures Must Be Denoted.

SUBMITTALS REQUIRED

SA	A Complete Submittal Is Required, Including Cover-Page, Bill-Of-Materials, & Individual Product Data. **The Submittal Shall Bear The "Compliance Statement" & Reviewed Stamp" Of The Supplier, Sub-Contractor & General Contractor. Failure To Do So Is Grounds For Automatic Rejection Of Submittals.**
SB	Each Items Cut-Sheet Shall be Labeled With Specific Choices Marked, Including Lamp Data, Indicating Full Compliance With The Criteria-Specification Requirements.

MADDOX GROUP INC. End Of Lighting Fixture Schedule - See Lighting Criteria 17-151

architecture
interiors
town planning

KAOD
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GEORGIA REGISTERED PROFESSIONAL ENGINEER ROBERT M MADDOX No 13252 2018 09-30

THE MADDOX GROUP
DESIGN & ENGINEERING
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Jonesboro, GA 30236
770-471-9076
maddoxgroup@comcast.net

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DATE	ACTION	COMMENTS
18.09.27	Issued	Price, Permit & Construction

FAYETTE CO. FIRE STATION # 4

278 McElroy Road
Fayetteville, GA. 30214

Prepared for

FAYETTE CO. FIRE DEPT.

COMMISSION / JOB NO:
1748.00

SHEET TITLE:
LIGHTING PLAN

SHEET NO:
E-20

RELEASED FOR PERMIT OR CONSTRUCTION

LIGHTING FIXTURE SYMBOLS

SYMBOLS	MTG/UNO	DESCRIPTIONS
	SEE SCHD.	LIGHTING FIXTURES, GENERALLY CEILING MOUNTED SHAPE GENERALLY INDICATES SHAPE OF FIXTURE
	SEE SCHD.	FLUORESCENT STRIP TYPE FIXTURE
D	SEE SCHD.	WALL OR BRACKET MOUNTED TYPE FIXTURE
	SEE SCHD.	LIGHTING TRACK & FIXTURES
	SEE SCHD.	EXIT SIGNAGE FIXTURE
	SEE SCHD.	EXIT SIGNAGE WITH DIRECTIONAL ARROWS
	SEE SCHD.	EXIT SIGNAGE WITH EMERGENCY FLOOD LIGHTS
	SEE SCHD.	BATTERY TYPE EGRESS FIXTURES
XXX	SEE SCHD.	LIGHTING FIXTURE TYPE ID / TAG- SEE LTG FIXTURE SCHEDULE

LIGHTING GENERAL NOTES

NOTES & COMMNETS

FIXTURE TYPES ARE INDICATED BY UPPER CASE CHARACTERS
SWITCHING GROUPS SHOWN BY LOWER CASE LTRS. WHERE APPLICABLE.
CIRCUIT GROUPING SHOWN BY NUMBERS, WHERE APPLICABLE.
REFER TO REFLECTED CEILING PLANS FOR EXACT FIXTURE LOCATIONS.
WP INDICATES WEATHER PROOF SWITCH COVER.

LIGHTING CONTROLS - MANUAL, LINE-VOLTAGE, HARD-WIRED

SYMBOLS	MTG UNO	GENERIC DESCRIPTIONS	RATINGS	MANUF. & SERIES LEGRAND/P&S- UNO
MANUAL DEVICES - LINE VOLTAGE TYPE				
Tx	48" AFF	(T)oggle Switch, 1= SPST; 2= 2PST; 3= 3-Way; 4= 4-Way	20A; Grnd 120V & 277V	PT-262-XX
Kx	48" AFF	(K)ey Operated Switch, 1= SPST; 2= 2PST; 3= 3-Way; 4= 4-Way	20A; Grnd 120V & 277V	PT-20AC-XX
Ix	48" AFF	(I)lluminated When On Switch (UNO), 1= SPST; 2= 2PST; 3= 3-Way; 4= 4-Way	20A; Grnd 120V & 277V	PT-262-XX
Ma	48" AFF	(M)omentary Contact Switch, 1-Pole 3-Position (a) Subscript Indicates Switching Group, Etc.	20A; Grnd 120V & 277V	TM811-DTMO-XX
DL	48" AFF	(D)immer Line Volt, (1/3) Way,Full-Off, Incand., CFL & LED; NEMA-SSL7, Forward Phs Dim.	120V, G 150W-CFL, 600W-I	Lutron Maestro C-L Dimmers
D0	48" AFF	(D)immer, 0-10V Analog Control; 1%-100%; On-Off Switch, Level Slider, Pwr-Fail Memory	0-10V Analog Control Wires	Lutron Diva Series
WS	48" AFF	(W)eather-(P) Toggle Switch, 1-Pole & WP Cover	20A,120V,277V,G	PT-262-XX & CA1GL
SM	48" AFF	Switch Motor Rated, NEMA 3R Enclosure	3 Pole, 30A, 600V	7803 Switch & 7833 Ends

COMMENTS & NOTES

1- Devices To Be UL20, Listed & Labeled Where Applicable.
2- Devices To Be NEMA WD-1 & WD-6 Compliant Where Applicable.
3- Devices To Be NFTA (Buy American) Where Avialable.
4- Devices To Be Legrand / P&S, PlugTail. Spec. Grade Devices, UNO.
5- Device Face To Decor Style Unless Not Availlable In Decor Style.
6- Provide Smooth Finish Matching P&S Trade-Master Grade Cover Plates.
7- Color As Selected By Owner / Tenant Or Architect.
8- Products Of Other Manufactures, Equivalent In Apperance, Features, Performance, Rating & Size, Are Acceptable,
09- Field Verify Exact Final Location Prior To Rough-Ins Per Archt., Owner/ User.
10- Control / Grouping Indicated By Lower Case Letters (i.e.-a,b,c)
11- Multiple Adjacent Devices Shall Be Mounted In Multi-Gang Box With Multi-Gang Cover

LIGHTING CONTROLS - SENSOR, LINE-VOLTAGE, HARD-WIRED

SYMBOLS	MTG UNO	GENERIC DESCRIPTIONS	RATINGS	MANUF. & SERIES HUBBELL - UNO
V1 / V2	Wall Mt. 48" AFF	(V)acancy Sensor, (1/2) Ckt, PIR, Wall Mtd, Auto or Man On, Adjustable Time OFF	800W-F/I @ 120V 1200W-F @ 277V	(V1-1P) LHIRS1-xx-M (V2-2P) LHIRS2G-xx-M
VD	Wall Mt. 48" AFF	(V)acancy Sensor - (D)immer, 1-Ckt, 0-10V Dimm, PIR, Auto or Man On, Self-Adjusting Time OFF	800W-CFL- @ 120V 1200W-CFL- @ 277V	LightHawk2- LHD-IRS-3-N
U1 / U2	Wall Mt. 48" AFF	(U)ltra-Sonic/PIR Dual Sensor, (1/2) Ckt, Self-Adaptive, Off Warning, Man/ Auto Select 20x15 Minor & 35x30 Major Motion Range	800W-I @ 120V 800W-F @ 120V 1200W-F @ 277V	(U1-1P) LHMTS1G-xx (U2-2P) LHMTDS2G-xx
P1 / P2	Clg Mtd Per Manuf	(P)IR Occupancy Sensor, (1/2/x) Range, Power Pack, RFI & EMI Resistant, Adjust. Delay & Sensitivity P1- 500 Sq Ft, P2- 1200 Sq FT Coverage Range	24 VDC Sensor 20A, 120/ 277V Power Pack	(P1>500Sf) OMNI-IR (P2>1200Sf) OMNI-IRL
U2 / U1 / U3	Clg Mtd Per Manuf	(U)ltra-Sonic Sensor, (1/2/x) Range. Power Pack, RFI & EMI Resistant, Adjust. Delay & Sensitivity U1- 500 SF, U2-1100 SF, U3- 2200 SF Range	24 VDC Sensor 20A, 120/ 277V Power Pack	(U1>500Sf) OMNI-US500 (U2>1100Sf) OMNI-US1000 (U3>2200Sf) OMNI-US2000
DL	Clg Mtd Per Manuf	(D)ay(L)ight Switching (Non-Dim) Sensor, Closed-Loop Light Sensing,Matching Power Pack, RFI & EMI Resistant, Adjust. Delay & Sensitivity	24 VDC Sensor 20A, 120/ 277V Power Pack	NX-DS Sensor & NX-RC1RUNV Power-Pack
C#	Clg Mtd Per Manuf	(C)ombo (D)ual-Tech, US/PIR Sensor, Power Pack, RFI & EMI Resistant, Adjust. Delay & Sensitivity 360D-Sensing, 1000 & 2000 SF Range	24 VDC Sensor 20A, 120/ 277V Power Pack	(C1>1000Sf) OMNI-DT1000 (C2>2000Sf) OMNI-DT2000

COMMENTS & NOTES

01- Devices To Be UL20, Listed & Labeled Where Applicable.
02- Devices To Be NEMA WD-1 & WD-6 Compliant Where Applicable.
03- Devices To Be NFTA (Buy American) Where Avialable.
04- Devices To Be Hubbell, Spec. Grade Devices, UNO.
05- Color, If Option, Selected By Owner / Tenant Or Architect.
06- Products Of Other Manufactures, Equivalent In Apperance, Features, Performance, Rating & Size, Are Acceptable.
07- Field Verify Exact Final Location Prior To Rough-Ins Per Archt., Owner/ User.
08- Control / Grouping Indicated By Lower Case Letters (i.e.-a,b,c)
09- Multiple Adjacent Devices Shall Be Mounted In Multi-Gang Box With Multi-Gang Cover

LIGHTING CONTROLS - WIRELESS TYPE

SYMBOLS	MTG UNO	GENERIC DESCRIPTIONS	RATINGS	MANUF. & SERIES LUTRON - UNO
WIRELESS DEVICES				
W#	Wall Mtd 48" AFF UNO	(W)ireless Push-Button Remote (# Qty Buttons), RF-Based, WireLess Comm, EMI Resistant, UL, FCC Approved, Color (WH,BL,IV,LA,WG) Per Archt-Owner,	WireLess 10 Year Batt Life	PICO PJ2 Series (01-03 Button - UNO)
WC	Clg Or Wall Mtd High As Possible	(W)ireless (C)orner Occupancy Sensor, RF-Based WireLess Comm, EMI Resistant, UL, FCC Approved, Ft. Range> 30 Ft Minor / 50 Ft Major Motion.	WireLess 10 Year Batt Life	LRF-2-O- 90 Deg Corner Mtd. Coverage
WH	Clg Or Wall Mtd High As Possible	(W)ireless (H)all-Way Occupancy Sensor, RF-Based WireLess Comm, EMI Resistant, UL, FCC Approved, Ft. Range> 6Wx50L; 8Wx100L;10Wx150L	WireLess 10 Year Batt Life	LRF-2-O- Hall-Way Long Coverage
WO	Clg Or Wall Mtd High As Possible	(W)ireless (O)pen Area Occupancy Sensor, RF-Based WireLess Comm, EMI Resistant, UL, FCC Approved, Ft. Range> 30Wx50LMinor; 50Wx60L Major	WireLess 10 Year Batt Life	LRF-2-O- 180 Deg Coverage
WD	Clg Mtd Place & Aim Per Manuf	(W)ireless (D)aylight Compensating Sensor, RF-Based, WireLess Comm, EMI Resistant, UL, FCC Approved, 0-150FC Range.	WireLess 10 Year Batt Life	LRFX-DCRB-WH (White)
WR	Plenum Mtd On JBox	(W)ireless (R)eceiver-Power Pack-Switching Relay, Zero-Crossing Switching, RF-Based WireLess Comm, EMI Resistant, Plenum-Rated, UL, FCC Approved.	120/277 V~ 50/60 Hz. 1.0 W 1P-16 Amp Rated	RMJ-16R-DV-B (RMJ-16RCC01-DV-B Where Noted- LV (24V-1.0A) Dry-Contact Load Control)
WS	Plenum Mtd On JBox	(W)ireless(S) Receiver-Power Pack-Dimming Module, Zero-Crossing Switching, RF-Based WireLess Comm, EMI Resistant, Plenum-Rated, UL, FCC Approved, 0-10V Compatable Dimming Ballast-Drivers Reqd.	120/277 V~ 50/60 Hz. 1.0 W; NEC Class I or II Ballast Ctrl. Wiring	RMJ-5T-DV-B (URMJ-5T-DV-B
WV	Plenum Mtd On JBox	(W)ireless(V) Receiver-Power Pack-Dimming Module, Zero-Crossing Switching, RF-Based WireLess Comm, EMI Resistant, Plenum-Rated, UL, FCC Approved, EcoSystem Dimming Digital Ballast-Drivers Reqd.	120/277 V~ 50/60 Hz. 1.0 W; NEC Class I or II Ballast Ctrl. Wiring	RMJ-ECO32-DV-B (URMJ-ECO32-DV-B

COMMENTS & NOTES

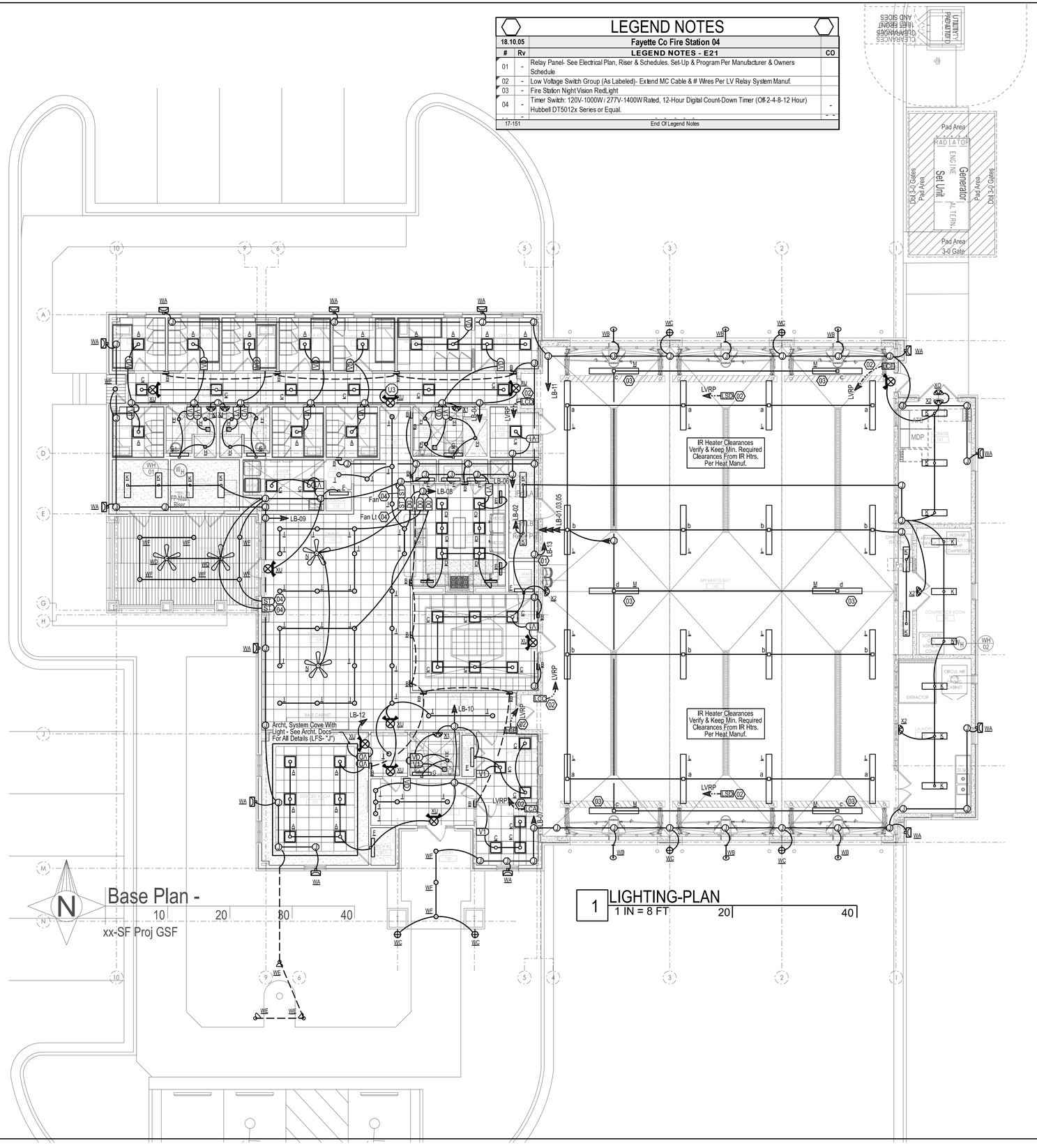
1- All Wireless Devices & Componet To Be Of Same Manufacturer.
2- This Design & Products Are Based On Lutron "Radio-Powr-Savr" System.
3- Color As Selected By Owner / Tenant Or Architect,
4- Products Of Other Manufactures. Equivalent In Apperance, Features, Performace, Ratings & Size May Be Submitted As Add / Deduct Alternates For Consideration (With Complete Supporting Documentation).
05- Locate & Install All Product In Accordance With Manufacturer's Documented Instructions.
06- Field Verify Exact Final Location Prior To Rough-Ins Per Archt., Owner/ User.
07- Control / Grouping Indicated By Lower Case Letters (i.e.-a,b,c)

LEGEND NOTES

18.10.05 — Fayette Co Fire Station 04

#	Rv	LEGEND NOTES - E21	CO
01	-	Relay Panel- See Electrical Plan, Riser & Schedules. Set-Up & Program Per Manufacturer & Owners Schedule	
02	-	Low Voltage Switch Group (As Labeled)- Extend MC Cable & # Wires Per LV Relay System Manuf.	
03	-	Fire Station Night Vision RedLight	
04	-	Timer Switch: 120V-1000W / 277V-1400W Rated, 12-Hour Digital Count-Down Timer (Off-2-4-8-12 Hour) Hubbell DT5012x Series or Equal.	-

17-151 — End Of Legend Notes



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FAYETTE CO. FIRE STATION # 4

278 McElroy Road
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Prepared for

FAYETTE CO. FIRE DEPT.

COMMISSION / JOB NO:
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SHEET TITLE:
LIGHTING PLAN

SHEET NO:
E-21

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