ELECTRICAL SPECIFICATIONS

1. GENERAL

1.1 RELATED DOCUMENTS:

A. REQUIREMENTS OF THE GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS, AND SPECIAL CONDITIONS APPLY TO THIS SECTION.
B. ARCHITECTURAL, STRUCTURAL, MECHANICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS.

1.2 WORK INCLUDED:

A. ELECTRICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
B. PERMITS AND INSPECTIONS REQUIRED FOR WORK.
C. TEMPORARY ELECTRIC FOR SITE DURING CONSTRUCTION AS REQUIRED.
D. COORDINATION OF FINAL SELECTIONS, LOCATIONS, CONNECTIONS, ELECTRICAL CHARACTERISTICS, ETC. OF EQUIPMENT SUPPLIED BY OTHERS ON PROJECT.

1.3 JOB CONDITIONS:

A. COORDINATE WITH BUILDING CONSTRUCTION AND WITH OTHER TRADES.
B. IN CASE OF CONFLICT BETWEEN SPECIFICATIONS AND DRAWINGS, CONSULT ARCHITECT IMMEDIATELY FOR DETERMINATION OF PROCEDURE METHOD.

1.4 CONFORMANCE TO REGULATIONS:

A. WORK SHALL CONFORM WITH 2018 VIRGINIA UNIFORM STATEWIDE BUILDING CODE, NFPA, LOCAL ORDINANCES AND THE RULES AND REGULATIONS OF THE UTILITIES.
B. WORK SHALL BE IN ACCORDANCE WITH THE OWNER'S CRITERIA AND REQUIREMENTS.

1.5 QUALITY ASSURANCE:

A. MEET OR EXCEED RECOMMENDATIONS OF: IEEE, IES, NEMA AND UL.
B. NOTIFY ARCHITECT IMMEDIATELY OF CONFLICTS AND DEFICIENCIES. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN RESOLVED.

1.6 MATERIALS AND EQUIPMENT:

A. PROVIDE NEW MATERIALS AND EQUIPMENT UNLESS OTHERWISE NOTED.
B. FURNISH (INCLUDING FREIGHT AND UNLOADING) AND INSTALL UNLESS OTHERWISE NOTED.
C. EQUIPMENT PROVIDED FOR THIS PROJECT SHALL BE NEW UNLESS NOTED OTHERWISE.

1.7 SUBMITTALS:

A. SUBMIT SHOP DRAWINGS AND PRODUCT DATA FOR EQUIPMENT IN ACCORDANCE WITH THE ARCHITECT'S REQUIREMENTS.
B. UPON COMPLETION OF THE INSTALLATION, AND PRIOR TO ACCEPTANCE BY THE OWNER, CONTRACTOR SHALL FURNISH AS-BUILT DOCUMENTATION AND O&M MANUALS IN ACCORDANCE WITH THE ARCHITECT'S REQUIREMENTS.
C. PROVIDE WIRING DIAGRAMS SPECIFIC TO THIS PROJECT FOR ALL ROOMS WITH LOW VOLTAGE DEVICES SHOWING INTERCONNECTIONS BETWEEN POWER PACK, SWITCHES, AND OCCUPANCY SENSORS.

1.8 PROJECT CLOSEOUT:

A. REPAIR DAMAGED AND DEFECTIVE EQUIPMENT AND MATERIALS. REPLACE ITEMS THAT CANNOT BE PROPERLY REPAIRED.
B. CLEAN EXPOSED AND SEMI-EXPOSED SURFACES OF EQUIPMENT AND MATERIALS.
C. TOUCH-UP SHOP-APPLIED FINISHES TO RESTORE DAMAGED AND SOILED AREAS.
D. INSTRUCT OWNER'S REPRESENTATIVE IN OPERATION AND MAINTENANCE OF ELECTRICAL SYSTEMS UTILIZING THE OPERATION AND MAINTENANCE MANUAL.
E. INSTRUCTION PERIOD SHALL OCCUR AFTER SUBSTANTIAL COMPLETION OF ELECTRICAL SYSTEMS AND PRIOR TO COMPLETION OF THE PROJECT. COORDINATE WITH THE ARCHITECT AND OWNER.

2. PRODUCTS

2.1 RACEWAYS AND FITTINGS:

A. CONDUIT SIZES SHALL BE AS REQUIRED BY THE CODE (UNLESS INDICATED OR SPECIFIED OTHERWISE) FOR THE NUMBER AND SIZE OF WIRE INDICATED. MINIMUM SIZE CONDUIT SHALL BE 1/2" ELECTRICAL TRADE SIZE. FLEXIBLE METAL CONDUIT USED FOR LIGHTING FIXTURE WHIPS MAY BE 3/8" WHERE ALLOWED BY THE CODE.
B. USE ELECTRICAL METALLIC TUBING EXCEPT AS FOLLOWS. USE RIGID NONMETALLIC CONDUIT IN OR UNDER ON GRADE CONCRETE SLABS. USE FLEXIBLE METAL CONDUIT FOR MOTOR AND EQUIPMENT CONNECTIONS IN DRY LOCATIONS. USE LIQUIDTIGHT FLEXIBLE METAL CONDUIT IN WET OR DAMP LOCATIONS.

2.2 WIRE AND CABLE:

A. CONDUCTORS SHALL BE COPPER, MINIMUM SIZE NO. 12 AWG. OTHER WIRE SIZES SHALL BE AS NOTED OR AS REQUIRED FOR THE CIRCUIT SIZE. CONDUCTOR INSULATION SHALL BE THHN/THWN.
B. BRANCH CIRCUIT WIRING WHERE CONCEALED IN WALLS AND ABOVE CEILINGS MAY BE TYPE MC (METAL CLAD) CABLE WHERE ALLOWED BY THE CODE.

2.3 BOXES:

A. GALVANIZED SHEET STEEL TYPE. SINGLE DEVICE BOX SHALL BE "NON-GANGABLE" TYPE AND FOR MULTIPLE DEVICES "GANGABLE" TYPE SHALL BE USED. BOXES FOR EXPOSED WORK SHALL BE 4" SQUARE TYPE. BOXES FOR EXPOSED WORK IN WET LOCATIONS SHALL BE DIE CAST TYPE WITH THREADED HUBS. SECTIONAL BOXES SHALL NOT BE USED IN MASONRY OR CONCRETE. SIZED FOR NUMBER OF CONDUCTORS, FITTINGS AND DEVICES AS REQUIRED BY THE CODE.

2.4 WIRING DEVICES:

A. 20 AMPERE SPECIFICATION GRADE.
B. COVERPLATES SHALL BE AS FOLLOWS: INTERIOR RECESSED - SMOOTH UNBREAKABLE NYLON; SURFACE - 4" SQUARE RAISED COVER. GALVANIZED; WEATHERPROOF - DIE CAST ALUMINUM, GFCI TYPE, WATERTIGHT WHILE IN USE TYPE. USE EXTERNAL OPERATING TYPE FOR WEATHERPROOF SWITCHES.
C. DEVICE AND PLATE COLOR SHALL BE AS SELECTED BY ARCHITECT.

2.5 DISCONNECT SWITCHES:

A. SAME MANUFACTURER AS THE PANELBOARDS, NEMA 3R FOR OUTDOOR USE.
B. DISCONNECT SWITCHES SHALL BE FUSED OR NON-FUSED AS INDICATED AND BE VISIBLE BLADE TYPE WITH EXTERNAL OPERATING HANDLE AND COVER INTERLOCK AND PAD LOCKING.
C. ALL LABELING ON EXTERIOR DISCONNECT SWITCHES SHALL BE UV RESISTANT.

2.6 PANELBOARDS:

A. PANELBOARDS FOR THE PROJECT ARE EXISTING, NEW BREAKERS SHALL BE OF THE SAME MANUFACTURER AND AIC RATINGS AS THE EXISTING. UPDATE PANEL DIRECTORIES TO INDICATE CHANGES IN BRANCH CIRCUIT WORK. LEAVE SPARE BREAKERS IN "OFF" POSITION.

2.7 ELECTRIC SERVICE:

A. EXISTING SERVICE IS 120/208 VOLT, 3 PHASE, 4 WIRE.

2.8 LAMPS:

A. NUMBER, SIZE AND TYPE OF LAMPS SHALL BE AS SPECIFIED ON THE DRAWINGS.

2.9 DRIVERS AND ACCESSORIES:

A. LED DRIVERS SHALL BE ELECTRONIC TYPE WITH EQUAL TO OR LESS THAN 10% THD AND A 3 YEAR WARRANTY. VOLTAGE TO MATCH SYSTEM VOLTAGE.
B. ACCESSORIES SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING FOR A COMPLETE LIGHTING FIXTURE INSTALLATION: PLASTER FRAMES, TEE BAR HANGERS, FIXTURE STUDS AND HOLD DOWN CLIPS FOR SUSPENDED CEILINGS.

2.10 LIGHTING FIXTURES:

A. LIGHTING FIXTURES SHALL BE AS SPECIFIED ON THE DRAWINGS.

2.11 EMPTY CONDUIT SYSTEMS:

A. PROVIDE FOR USE BY THE OWNER'S CABLING CONTRACTOR. CONDUIT SYSTEM SHALL BE AS DESCRIBED ON THE DRAWINGS FOR DATA, TELEPHONE, TELEVISION, SOUND, SECURITY, ETC.

2.12 FIRE ALARM SYSTEM:

A. FIRE ALARM CONTRACTOR SHALL PROVIDE ALL DRAWINGS, CALCULATIONS, PRODUCT DATA, ETC. TO THE LOCAL AUTHORITY REQUIRED FOR PERMITTING AND INSPECTIONS OF THE SYSTEM.
B. SIGNALING DEVICES SHALL BE ADA COMPLIANT.
C. CABLE SHALL BE FIRE PROTECTIVE SIGNALING TYPE.
D. NEW DEVICES SHALL MATCH AND/OR BE LISTED AS COMPATIBLE WITH THE EXISTING SYSTEM.
E. ALL ACCESSORIES, EXPANDERS, ANNUNCIATORS, GRAPHIC PANELS, ETC. SHALL BE INCLUDED AS REQUIRED FOR A COMPLETE FULLY FUNCTIONING SYSTEM MEETING STATE AND LOCAL CODE REQUIREMENTS.

3. EXECUTION

3.1 RACEWAYS AND FITTINGS:

A. INSTALL CONDUITS CONCEALED IN WALLS, CEILINGS OR FLOORS UNLESS INDICATED OR SPECIFIED OTHERWISE. CONDUITS MAY BE INSTALLED EXPOSED IN UNFINISHED AREAS (IE: EQUIPMENT ROOMS). INSTALL EXPOSED CONDUITS IN RUNS PARALLEL OR PERPENDICULAR TO WALLS STRUCTURAL MEMBERS, OR INTERSECTIONS OF VERTICAL PLANES OR CEILINGS. EXPOSED AND CONCEALED CONDUITS SHALL PASS THROUGH WALLS, FLOORS OR CEILINGS AT RIGHT ANGLES. UNDERGROUND CONDUITS SHALL HAVE BURY DEPTH AS REQUIRED BY THE CODE.
B. INSURE THAT CONDUITS ARE IN ALIGNMENT BETWEEN BENDS, ELBOWS AND TERMINATIONS; THAT BENDS ARE FREE OF CRIMPS, THAT JOINTS AND TERMINATIONS ARE TIGHT AND SECURE; THAT INTERIORS ARE SMOOTH AND FREE OF BURRS AND FOREIGN OBJECTS; AND THAT INTERIORS ARE FULL SIZE ENTIRE LENGTH. DURING CONSTRUCTION, CLOSE ENDS OF CONDUITS WITH METAL OR PLASTIC CAPS INTENDED FOR THE PURPOSE.
C. FIELD BENDING OF CONDUITS AND TUBING SHALL BE MADE WITH HAND OR POWERED EQUIPMENT APPROVED FOR THE PURPOSE. USE OF TORCHES TO BEND NONMETALLIC CONDUIT IS NOT APPROVED. RADIUS OF BENDS SHALL BE AS PER THE CODE FOR TYPE OF CONDUIT AND TUBING USED. CONDUITS PASSING THROUGH A FIRE RATED WALL OR FLOOR SHALL NOT LESSEN THE RATING OF THE STRUCTURE THROUGH WHICH THEY PASS. FINAL INSTALLATION OF CONDUITS PENETRATING WATERPROOF CONSTRUCTION SHALL BE COMPLETELY WATERTIGHT.
D. SLEEVE CONDUITS PASSING THROUGH CONCRETE FLOOR SLABS AND CONCRETE, MASONRY, TILE AND GYPSUM WALLS.
E. CONDUIT SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE AT INTERVALS REQUIRED BY THE CODE. USE STANDARD CONDUIT HANGERS, ONE HOLE SNAP STRAPS, THIN WALL CONDUIT CLAMPS, MALLEABLE IRON PIPE STRAPS, STRUT CHANNEL, BEAM CLAMPS, U-BOLTS AND ALL-THREAD RODS. DO NOT USE WIRE TIES, STAB-ON CLIPS OR PERFORATED STRAP IRON.
F. PAINT ANY EXPOSED CONDUITS NOT WITHIN UTILITY ROOMS TO MATCH SURROUNDINGS.

3.2 WIRE AND CABLE:

A. SPLICE CONDUCTORS NO. 10 AND SMALLER WITH STEEL SPRING WIRE CONNECTOR WITH THERMOPLASTIC SHELL. SPLICE CONDUCTORS NO.8 AND LARGER WITH MECHANICAL TYPE, TAP CONNECTORS WITH INSULATED COVERS OR SPLIT BOLTS TAPED TO CONDUCTOR INSULATION VALUE.
B. INSTALL CONDUCTORS IN RACEWAYS. CONDUCTORS SHALL BE CONTINUOUS FROM POINT OF ORIGIN TO PANEL OR EQUIPMENT TERMINATION WITHOUT RUNNING SPLICES IN INTERMEDIATE BOXES. CONDUCTORS OF DIFFERENT VOLTAGES SHALL NOT BE PULLED INTO SAME RACEWAY.
C. CABLE SHALL BE SUPPORTED DIRECTLY FROM THE BUILDING STRUCTURE WITH STAPLES OR ONE-HOLE STRAPS AT INTERVALS REQUIRED BY THE CODE. BORED HOLES SHALL NOT EXCEED 1" DIAMETER AND SHALL BE A MINIMUM OF 2'-0" FROM STRUCTURAL BEARING POINTS, NOTCHING OF STRUCTURAL MEMBERS IS PROHIBITED. PROVIDE GUARD STRIPS AT LEAST AS HIGH AS CABLE WHERE RUN ACROSS TOP OF STRUCTURE IN ACCESSIBLE ATTIC SPACES.
D. DO NOT RUN ANY WIRE OR CABLE IN PLUMBING WALLS UNTIL PIPING SYSTEMS HAVE BEEN COMPLETED. PLUMBING SHALL PRESIDE IN THESE WALLS.
E. DO NOT SHARE NEUTRAL CONDUCTORS FOR 120 VOLT CIRCUITS.
F. COLOR CODE CONDUCTORS TO INDUSTRY STANDARDS.
G. INCREASE WIRE SIZES AS REQUIRED TO COMPENSATE FOR VOLTAGE DROP BASED ON FEEDER/BRANCH CIRCUIT LENGTH.

3.3 BOXES:

A. SECURE BOXES TO STRUCTURE BY MEANS OF SCREWS, BOLTS, ROD HANGERS OR OTHER APPROVED MEANS. RACEWAYS ENTERING OR LEAVING BOX SHALL NOT BE USED AS SUPPORT. BOXES SHALL BE LEVEL AND PLUMB. BOXES FOR FLUSH EQUIPMENT SHALL BE PLACED TO WITHIN 1/4" OF THE FINISHED SURFACE. PROVIDE EXTENSIONS OR PLASTER RINGS AS REQUIRED. JUNCTION AND PULL BOXES SHALL BE INSTALLED READILY ACCESSIBLE, UNOBSTRUCTED BY PIPING, DUCTS OR OTHER EQUIPMENT.
B. BOXES SHALL BE MOUNTED AT HEIGHT INDICATED ON THE DRAWINGS OR DIRECTLY ADJACENT TO PIECE OF EQUIPMENT SERVED. SEAL SPARE OR UNUSED OPENINGS IN BOXES WITH APPROVED FITTINGS. FOR BOXES INSTALLED IN WET LOCATIONS PROVIDE CLEAR SILICONE CAULK BETWEEN BOX AND SURROUNDING SURFACE TO PREVENT WATER ENTRY.
C. BOXES IN RATED CONSTRUCTION SHALL BE SUITABLE FOR THE USE AND INSTALLED IN ACCORDANCE WITH THE CODE.

3.4 WIRING DEVICES:

A. INSTALL DEVICES APPROXIMATELY AT THE LOCATIONS INDICATED ON THE DRAWINGS. DETERMINE EXACT LOCATION BY CONDITIONS OF CONSTRUCTION. COORDINATE LOCATIONS TO AVOID CONFLICT WITH OTHER EQUIPMENT BEING INSTALLED. INSTALL DEVICES STRAIGHT AND SOLID TO BOX. MOUNTING HEIGHTS OF WALL OUTLETS SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL BE MEASURED FROM THE FINISHED FLOOR TO THE CENTER OF THE OUTLET. WHERE DEVICES ARE SHOWN GROUPED TOGETHER, PROVIDE A SINGLE, MULTIPLE GANG PLATE.
B. COORDINATE PLACEMENT IN AND AROUND KNEE SPACES, LAVATORIES AND OTHER EQUIPMENT TO AVOID CONFLICTS WITH MIRRORS AND OTHER APPURTENANCES, REFER TO ARCHITECTURAL DRAWINGS. SWITCHES SHALL BE LOCATED TO STRIKE SIDE OF THE DOOR. VERIFY FINAL DOOR SWINGS.
C. WHERE GFCI OUTLETS ARE USED TO PROVIDE FEED-THRU PROTECTION FOR DOWNSTREAM OUTLETS ON SAME CIRCUIT, DO NOT FEED-THRU WIRE ACROSS PARTITIONS, USE A SEPARATE DEVICE.
D. VERIFY THE NEMA CONFIGURATIONS OF ALL OUTLETS WITH OWNER.

3.5 DISCONNECT SWITCHES:

A. MOUNT SWITCHES ON WALL OR AT ASSOCIATED PIECE OF EQUIPMENT. WALL MOUNTED SWITCHES SHALL BE 48 INCHES ABOVE FINISHED FLOOR. PROVIDE ENGRAVED PLASTIC LAMINATE NAMEPLATE FOR EACH DISCONNECT SWITCH LOCATED ON FRONT OUTSIDE COVER. NAMEPLATE SHALL INDICATE ITEM SERVED.
B. SWITCHES SCHEDULED ARE FOR DESIGN BASED EQUIPMENT. REVIEW OTHER TRADES' SUBMITTALS TO DETERMINE IF SUBSTITUTIONS HAVE BEEN MADE. PROVIDE SWITCH TO MATCH EQUIPMENT SUPPLIED.

3.6 GROUNDING:

A. CONDUIT SYSTEM SHALL NOT BE USED FOR GROUNDING.

3.7 PANELBOARDS:

A. NEATLY PRINT CIRCUIT DESIGNATIONS ON DIRECTORY CARD. NOTATIONS SHALL INDICATE THE NATURE AND LOCATION OF LOADS SERVED. DO NOT USE A PERMANENT MARKER TO LABEL CIRCUIT DESIGNATIONS ON PANEL HOUSING.

3.8 LAMPS:

A. PERMANENT LAMPS SHALL NOT BE USED AS TEMPORARY LIGHTING DURING CONSTRUCTION. IF FIXTURES ARE TO BE USED, TEMPORARY LAMPS SHALL BE PROVIDED AND PERMANENT LAMPS SHALL NOT BE INSTALLED UNTIL TIME OF OWNER'S ACCEPTANCE OF BUILDING.

3.9 LIGHTING FIXTURES:

A. INSTALLATION OF FIXTURES SHALL BE IN A NEAT, WORKMANLIKE MANNER. PROVIDE STRAPS, SUPPORTS, HANGERS AND OTHER MATERIALS REQUIRED FOR PROPER INSTALLATION.
B. SURFACE MOUNTED FIXTURES SHALL NOT HAVE GAPS BETWEEN THE FIXTURE AND ATTACHING SURFACE UNLESS MOUNTING IS DESIGNED TO HOLD FIXTURE OFF CEILING, OR EXCEPT WHERE REQUIRED BY THE CODE REGULATION. CONTINUOUS ROWS OF FIXTURES SHALL BE INSTALLED SO AS TO PROVIDE PERFECT ALIGNMENT.
C. SUPPORT SURFACE MOUNTED FIXTURES DIRECTLY FROM THE BUILDING STRUCTURE AND NOT FROM THE CEILING GRID SYSTEM. USE ALL-THREAD RODS, BEAM CLAMPS, PIPE CLAMPS AND PIPE OR PERFORATED STEEL CHANNEL FOR SUPPORT. WIRE TIES AND STAB-ON CLIPS WILL NOT BE ACCEPTED. THE SUPPORT ASSEMBLY SHALL BE CAPABLE OF SUPPORTING 150 POUNDS IN ADDITION TO THE FIXTURE WEIGHT INDEFINITELY.
D. RECESSED FIXTURES SHALL NOT HAVE GAPS BETWEEN THE FIXTURE TRIM AND ADJACENT SURFACE. WHERE LIGHT LEAKS OCCUR, SUITABLE GASKETS SHALL BE INSTALLED.
E. RECESSED LIGHTING FIXTURES INSTALLED IN MODULAR OR INTEGRATED CEILINGS SHALL BE OF THE PROPER TYPE FOR THE TYPE OF CEILING BEING INSTALLED. VERIFY TYPE OF CONSTRUCTION PRIOR TO ORDERING OF FIXTURES. ADDITIONAL CEILING TIES SHALL BE INSTALLED AT EACH CORNER OF THE LIGHTING FIXTURE TO REINFORCE THE CEILING SYSTEM.
F. CONNECT EXIT AND EMERGENCY LIGHTING FIXTURES TO BRANCH CIRCUIT SERVING NORMAL LIGHTING IN AREA AHEAD OF LOCAL SWITCHING.

3.10 EMPTY CONDUIT SYSTEMS:

A. LEAVE CONDUITS WITH PULL CORDS. AT COMPLETION OF THE PROJECT, PROVIDE BLANK COVERPLATES FOR ANY OUTLET BOXES NOT UTILIZED AND LEFT SPARE BY THE OWNER'S CABLING CONTRACTOR.

3.11 DEMOLITION:

A. REFER TO ARCHITECTURAL DRAWINGS AND OWNER FOR EXACT EXTENT OF DEMOLITION.
B. REMOVE ITEMS SHOWN ON THE PLAN OR AS REQUIRED TO CLEAR AREAS OF NEW CONSTRUCTION. COORDINATE WITH OTHER TRADES FOR EQUIPMENT THAT MAY REQUIRE ELECTRIC CONNECTIONS TO BE DEMOLISHED.
C. CONDUCTORS SHALL BE REMOVED FULLY FROM OUTLET BOX BACK TO NEAREST JUNCTION POINT, CONDUITS AND BOXES SHALL BE REMOVED WHERE EXPOSED AND CAN BE ABANDONED WHERE CONCEALED. LEAVE BOXES WITH BLANK COVERPLATES.
D. CONDUITS, OUTLET, JUNCTION AND PULL BOXES MAY BE REUSED WHERE PRACTICAL.
E. ELECTRICAL WORK BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND SHALL BE STORED OR REMOVED FROM THE SITE AS DIRECTED.
F. ITEMS DISTURBED BY WORK UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL OPERATING CONDITION.
G. WHERE ITEMS ARE TO BE RELOCATED, USE CARE IN REMOVAL AND PROTECT UNTIL REINSTALLED. CLEAN SURFACES OF EQUIPMENT PRIOR TO REINSTALLATION.
H. DEMOLITION DRAWINGS ARE BASED ON ITEMS THAT WERE VISIBLE DURING THE TIME OF THE SITE VISIT. CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED DEMOLITION AND SHALL FIELD VERIFY REQUIREMENTS PRIOR TO BID.
I. MAINTAIN CONTINUITY TO REMAINING DEVICES AND FIXTURES ON ALTERED CIRCUITS AS REQUIRED.

3.12 FIRE ALARM SYSTEM:

A. ON CALL FROM INITIATING DEVICE, SYSTEM SHALL SOUND EVACUATION THROUGHOUT BUILDING AND NOTIFY CENTRAL STATION.
B. COORDINATE DEVICE ROUGH-IN LOCATIONS WITH FINAL FIRE ALARM DRAWINGS.

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Electrical Specifications

NO SCALE

City Hall Renovations
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
MICHAEL DAVID IRWIN
Lic. No. 0402 043784
3/29/22
PROFESSIONAL ENGINEER

Date:	03/29/2022
Project:	21139
File:	21139-E01.AEC
Drawn By:	RBP

E0.1

EXISTING PANEL 3A

VOLTS: 120/208 | PHASE: 3 | WIRES: 4 | MOUNTING: SURFACE
AMPS: 200 | MAIN: LUGS ONLY

BRKR P	BRKR A	DESCRIPTION	CIRCUIT AMPS	CIRCUIT DEMAND	CIRCUIT NO.	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	CIRCUIT NO.	CIRCUIT DEMAND	CIRCUIT AMPS	DESCRIPTION	BRKR A	BRKR P
1	20	LTS. - 301, 302, 303, 304, 305, 306, 307, 308	13.3	125%	1	40.6			2	125%	19.2	WATER HEATER #2	30	2
1	20	LTS. - 309, 310, 311, 312, 313, 317, 318, 320	11.1	125%	3		37.9		4	125%	19.2	--	--	--
1	20	LIGHTS - 322, 323, 324, 326, 333	12.2	125%	5			24.0	6	100%	8.7	FC/AH/DB-7	15	2
1	20	LTS. - 334, 335, 336, 343, 344, 345, 346, 347, 349, 350	13.3	125%	7	25.3			8	100%	8.7	--	--	--
1	20	LIGHTS - 338, 348, 352, 353, 355, 356	13.7	125%	9		26.4		10	100%	9.3	FC/AH/DB-8	15	2
1	20	CHANDELIER - 332	8.0	125%	11			19.3	12	100%	9.3	--	--	--
1	20	WALL SCONCES - 332	6.0	125%	13	15.5			14	100%	8.0	HOT WATER DISPENSER	20	1
1	20	LIGHTS - CONF., OFF., OFF. (1)	4.0	125%	15		15.0		16	100%	10.0	REFRIGERATOR	20	1
1	20	SPARE	0.0	100%	17			0.0	18	100%	0.0	SPARE	20	1
1	20	DOOR SECURITY - 321, 335, 339	5.0	100%	19	5.0			20	100%	0.0	SPARE	20	1
1	20	DOOR SECURITY - 316, 329, 339	5.0	100%	21		5.0		22	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	23			8.0	24	100%	8.0	UNDERCOUNTER REFRIGERATOR	20	1
1	20	SPARE	0.0	100%	25	10.0			26	100%	10.0	EWC - 321	20	1
2	40	VHP/FC-1 (2)	20.0	100%	27		25.0		28	100%	5.0	BREAK ROOM COUNTER	20	1
--	--	--	20.0	100%	29			25.0	30	100%	5.0	BREAK ROOM COUNTER	20	1
1	20	SPARE	0.0	100%	31	5.0			32	100%	5.0	BREAK ROOM COUNTER	20	1
1	20	SPARE	0.0	100%	33		5.0		34	100%	5.0	BREAK ROOM COUNTER	20	1
2	30	TANKLESS WATER HEATER #1 - 333	16.8	100%	35			43.2	36	100%	26.4	TANKLESS WATER HEATER - 345, 346	35	2
--	--	--	16.8	100%	37	43.2			38	100%	26.4	--	--	--
2	30	TANKLESS WATER HEATER #1 - 334	16.8	100%	39		43.2		40	100%	26.4	TANKLESS WATER HEATER	35	2
--	--	--	16.8	100%	41			43.2	42	100%	26.4	--	--	--
						144.7	157.5	162.7						

EATON PRL1A
SEE SPEC. NOTES

(1) - NEW CIRCUIT, EXISTING CIRCUIT BREAKER
(2) - NEW CIRCUIT, NEW CIRCUIT BREAKER

EXISTING 2 SECTION PANEL 3R

VOLTS: 120/208 | PHASE: 3 | WIRES: 4 | MOUNTING: SURFACE
AMPS: 200 | MAIN: LUGS ONLY

BRKR P	BRKR A	DESCRIPTION	CIRCUIT AMPS	CIRCUIT DEMAND	CIRCUIT NO.	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	CIRCUIT NO.	CIRCUIT DEMAND	CIRCUIT AMPS	DESCRIPTION	BRKR A	BRKR P
						SE CTION 1								
1	20	RECS. - LOBBY, CONF., CMO LOBBY (1)	10.5	100%	1	19.5			2	100%	9.0	RECEPTACLES - 352, 356	20	1
1	20	RECEPTACLES - 312, 313	9.0	100%	3		18.0		4	100%	9.0	RECEPTACLES - 350, 352	20	1
1	20	RECS. - 313, 316, 317, 318, 319	9.0	100%	5			18.0	6	100%	9.0	RECEPTACLES - 349, 350	20	1
1	20	RECEPTACLES - 309, 311, 312	9.0	100%	7	18.0			8	100%	9.0	RECEPTACLES - 342, 343	20	1
1	20	RECEPTACLES - 307, 309	9.0	100%	9		18.0		10	100%	9.0	RECEPTACLES - 343, 344	20	1
1	20	RECEPTACLES - 301, 303, 307	9.0	100%	11			18.0	12	100%	9.0	RECEPTACLES - 335, 336, 341	20	1
1	20	RECEPTACLES - 303, 304, 314	9.0	100%	13	18.0			14	100%	9.0	RECEPTACLES - 336, 337, 338	20	1
1	20	RECEPTACLES - 301, 302, 304	9.0	100%	15		18.0		16	100%	9.0	RECEPTACLES - 345, 346, 348	20	1
1	20	RECEPTACLES - 302, 306	9.0	100%	17			18.0	18	100%	9.0	RECEPTACLES - 338, 354, 355	20	1
1	20	RECEPTACLES - 322	9.0	100%	19	18.0			20	100%	9.0	RECEPTACLES - 353, 354, 355	20	1
1	20	RECEPTACLES - 321, 323, 325	9.0	100%	21		18.0		22	100%	9.0	RECEPTACLES - 340, 353	20	1
1	20	RECEPTACLES - 321, 323, 324	9.0	100%	23			18.0	24	100%	9.0	RECEPTACLES - 331, 338, 339	20	1
1	20	RECEPTACLES - 308, 310	9.0	100%	25	18.0			26	100%	9.0	RECEPTACLES - 325, 327, 330	20	1
1	20	RECS. - 308, 310, 314, 315	9.0	100%	27		18.0		28	100%	9.0	RECEPTACLES - 327, 333	20	1
1	20	RECEPTACLE - 315	9.0	100%	29			18.0	30	100%	9.0	RECEPTACLES - 347	20	1
1	20	RECEPTACLE - 315	1.5	100%	31	10.5			32	100%	9.0	RECEPTACLES - 347	20	1
1	20	RECEPTACLES - 315, 316	9.0	100%	33		18.0		34	100%	9.0	RECEPTACLES - 341, 347	20	1
1	20	RECEPTACLES - 305	9.0	100%	35			18.0	36	100%	9.0	RECEPTACLES - 315	20	1
1	20	RECEPTACLES - 305	9.0	100%	37	16.5			38	100%	7.5	RECEPTACLES - OFF., REC. (1)	20	1
1	20	RECEPTACLES - EXT.	9.0	100%	39		18.0		40	100%	9.0	RECS. - REC., CMO LOBBY (1)	20	1
1	20	RECEPTACLES - 325, 329	9.0	100%	41			13.0	42	100%	4.0	TELEVISION - CONF. (1)	20	1
						SE CTION 2								
1	20	SPARE	0.0	100%	43	0.0			44	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	45		0.0		46	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	47			0.0	48	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	49	0.0			50	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	51		0.0		52	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	53			0.0	54	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	55	0.0			56	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	57		0.0		58	100%	0.0	SPARE	20	1
1	20	SPARE	0.0	100%	59			0.0	60	100%	0.0	SPARE	20	1
1	--	PROVISION	0.0	100%	61	0.0			62	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	63		0.0		64	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	65			0.0	66	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	67	0.0			68	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	69		0.0		70	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	71			0.0	72	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	73	0.0			74	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	75		0.0		76	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	77			0.0	79	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	79	0.0			80	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	81		0.0		82	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	83			0.0	84	100%	0.0	PROVISION	--	1
						118.5	126.0	121.0						

EATON PRL1A
PANEL SHALL HAVE SUB-FEED LUGS
SEE SPEC. NOTES

(1) - NEW CIRCUIT, EXISTING CIRCUIT BREAKER

EXISTING PANEL EM2

VOLTS: 120/208 | PHASE: 3 | WIRES: 4 | MOUNTING: SURFACE
AMPS: 100 | MAIN: LUGS ONLY

BRKR P	BRKR A	DESCRIPTION	CIRCUIT AMPS	CIRCUIT DEMAND	CIRCUIT NO.	PHASE LOAD A	PHASE LOAD B	PHASE LOAD C	CIRCUIT NO.	CIRCUIT DEMAND	CIRCUIT AMPS	DESCRIPTION	BRKR A	BRKR P
1	20	LIGHTS - 222, 223	9.5	125%	1	17.9			2	100%	6.0	2ND FLOOR HIDDEN SPACE	20	1
1	20	LIGHTS - 214, 220, 225, 233, 234	8.1	125%	3		20.1		4	125%	8.0	LIGHTS - 252, 254, 259	20	1
1	20	LIGHTS - 205	7.0	125%	5			14.8	6	100%	6.0	3RD FLOOR HIDDEN SPACE	20	1
1	20	LIGHTS - 229, 237	13.3	125%	7	21.6			8	100%	5.0	3RD FLOOR FIRE ALARM	20	1
1	20	SPARE	8.1	100%	9		13.1		10	100%	5.0	2ND FLOOR FIRE ALARM	20	1
1	20	LIGHTS - 235, 246, 247	8.4	125%	11			10.5	12	100%	0.0	SPARE	20	1
1	20	LIGHTS - 315	6.3	125%	13	12.9			14	100%	5.0	BAS CONTROLS	20	1
1	20	LTS. - 321, 330, 331, 337, CMO LOB. (1)	5.0	125%	15		6.3		16	100%	0.0	SPARE	20	1
1	20	LIGHTS - 340, 341, 351, RECEPTION (1)	11.9	125%	17			14.9	18	100%	0.0	PROVISION	--	1
1	20	LIGHTS - 331	7.5	125%	19	9.4			20	100%	0.0	PROVISION	--	1
1	20	LIGHTS - 314, 316, 325, 329	13.7	125%	21		17.1		22	100%	0.0	PROVISION	--	1
1	20	LIGHTS - 342	7.0	125%	23			8.8	24	100%	0.0	PROVISION	--	1
1	20	LIGHTS - 319	9.3	125%	25	11.6			26	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	27		0.0		28	100%	0.0	PROVISION	--	1
1	--	PROVISION	0.0	100%	29			0.0	30	100%	0.0	PROVISION	--	1
						73.4	56.6	48.9						

EATON PRL1A
SEE SPEC. NOTES

(1) - EXISTING CIRCUIT, NEW CIRCUIT DESCRIPTION

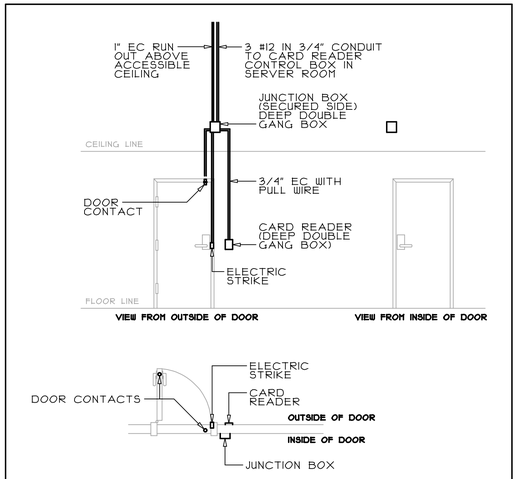
MECHANICAL EQUIPMENT CONNECTION SCHEDULE

ITEM	DESCRIPTION	VOLTS	PH	FLA	WIRE	GND.	MOCP	DISCONNECT	PNL. & CKT.	REMARKS
1	VHP/FC-1	208	1	20.0	2 #8	#10	40A	2P-60A-NFSS	3A-27	NEMA 3R NOTE 1
2	RELOCATED FC	EXISTING, EXTEND TO NEW LOCATION					15A	EXISTING, RELOCATE	NOTE 2	3 LOCATIONS

SCHEDULE NOTES

- VERIFY FINAL LOCATIONS, CONNECTIONS, ELECTRICAL CHARACTERISTICS, ETC. WITH FINAL EQUIPMENT SELECTIONS. CONTRACTOR IS RESPONSIBLE FOR CORRECTNESS OF ALL BREAKERS, WIRES, ETC.
- VHP/FC = VARIABLE HEAT PUMP/FAN COIL UNIT. FC = FAN COIL UNIT.

1. WIRE INDOOR UNIT THROUGH OUTDOOR UNIT PER MANUFACTURER'S REQUIREMENTS. COORDINATE WITH HVAC. PAINT ANY EXPOSED CONDUITS TO MATCH SURROUNDINGS.
2. EXTEND EXISTING CIRCUIT SERVING FAN COIL TO NEW FAN COIL LOCATION AND RECONNECT. VERIFY ALL REQUIREMENTS.



NOTE: DIAGRAMS ARE GENERAL IN NATURE. COORDINATE WITH FINAL EQUIPMENT SUPPLIER'S INSTALLATION GUIDELINES PRIOR TO ROUGH-IN.

CARD READER ELECTRIC STRIKE DETAIL

NO SCALE

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Elec. Schedules and Details

NO SCALE

City Hall Renovations
Harrisonburg, Virginia

COMMONWEALTH OF VIRGINIA
MICHAEL DAVID IRWIN
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3/29/22
PROFESSIONAL ENGINEER

Date:	03/29/2022
Project:	21139
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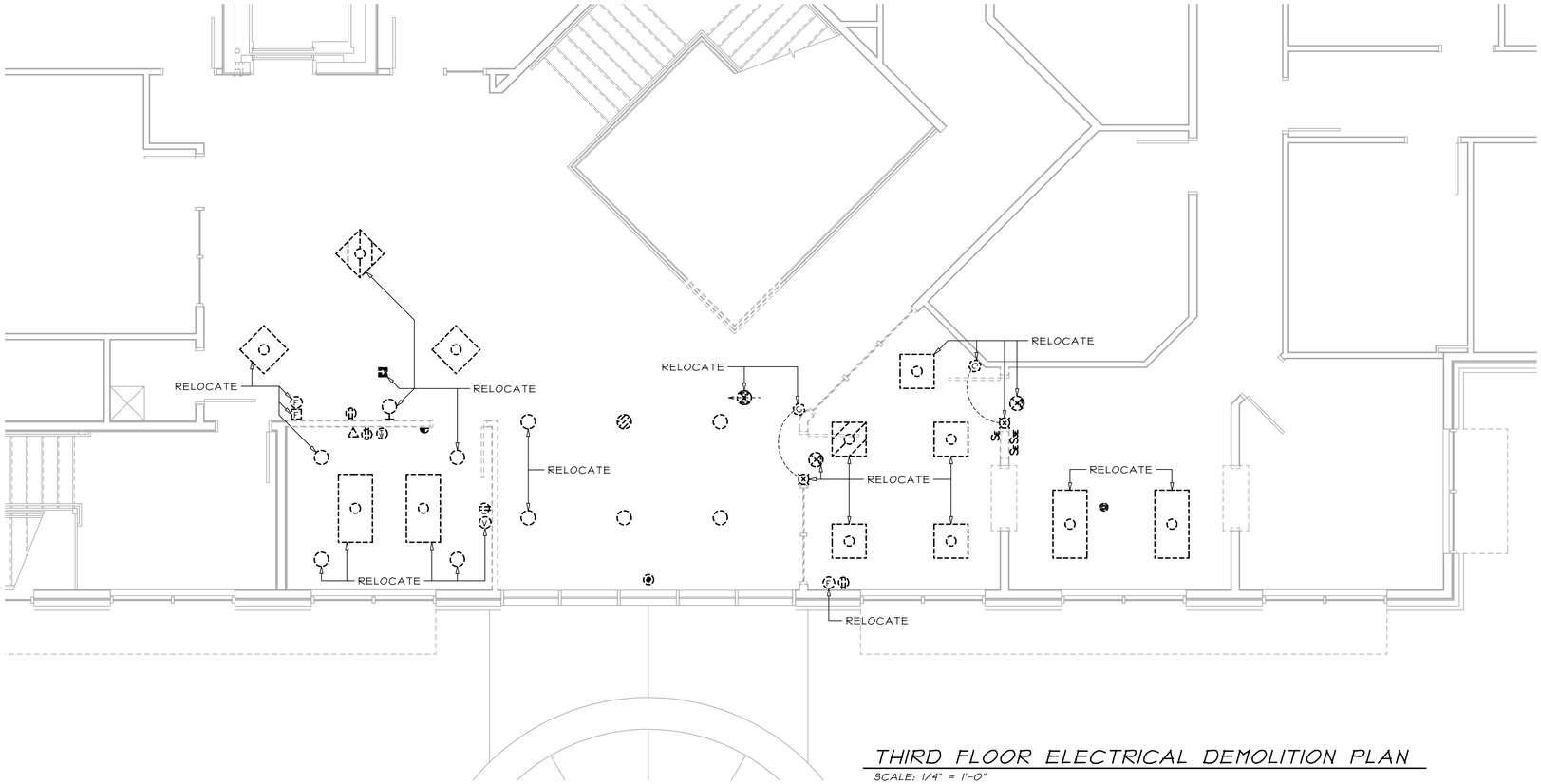
E0.2



THIRD FLOOR ELECTRICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

SYMBOLS LIST

- OUTLET FOR CEILING OR WALL MOUNTED FLUORESCENT OR LED LIGHTING FIXTURE
- EXISTING OUTLET FOR CEILING OR WALL MOUNTED FLUORESCENT OR LED LIGHTING FIXTURE
- RELOCATED OUTLET FOR CEILING OR WALL MOUNTED FLUORESCENT OR LED LIGHTING FIXTURE
- EXISTING OUTLET FOR CEILING OR WALL MOUNTED INCANDESCENT, COMPACT FLUORESCENT, LED OR HID LIGHTING FIXTURE
- RELOCATED OUTLET FOR CEILING OR WALL MOUNTED INCANDESCENT, COMPACT FLUORESCENT, LED OR HID LIGHTING FIXTURE
- OUTLET FOR CEILING OR WALL MOUNTED EXIT LIGHTING FIXTURE WITH BATTERY
- EXISTING OUTLET FOR CEILING OR WALL MOUNTED EXIT LIGHTING FIXTURE
- R RELOCATED OUTLET FOR CEILING OR WALL MOUNTED EXIT LIGHTING FIXTURE
- OUTLET FOR CEILING OR WALL MOUNTED EMERGENCY EGRESS FLUORESCENT LIGHTING FIXTURE
- EXISTING OUTLET FOR CEILING OR WALL MOUNTED EMERGENCY EGRESS FLUORESCENT OR LED LIGHTING FIXTURE
- RELOCATED OUTLET FOR CEILING OR WALL MOUNTED EMERGENCY EGRESS FLUORESCENT OR LED LIGHTING FIXTURE
- EXISTING OUTLET FOR CEILING OR WALL MOUNTED EMERGENCY EGRESS INCANDESCENT, COMPACT FLUORESCENT, LED OR HID LIGHTING FIXTURE
- 1 LIGHTING FIXTURE TYPE SEE SCHEDULE
- S SINGLE POLE WALL SWITCH AT 48" AFF TO TOP OF BOX
- SE EXISTING SINGLE POLE WALL SWITCH AT 48" AFF
- S3 THREE-WAY WALL SWITCH AT 48" AFF TO TOP OF BOX
- S3E EXISTING THREE-WAY WALL SWITCH AT 48" AFF
- GENERAL PURPOSE DUPLEX RECEPTACLE AT 18" AFF TO BOTTOM OF BOX
- EXISTING GENERAL PURPOSE DUPLEX RECEPTACLE AT 18" AFF
- EXISTING FLUSH FLOOR OUTLET WITH DUPLEX RECEPTACLE
- OUTLET FOR LOW VOLTAGE CABLE (DATA, TELEPHONE OR TELEVISION) AT 18" AFF TO BOTTOM OF BOX WITH A 3/4" EC STUBBED INTO ACCESSIBLE CEILING SPACE
- EXISTING OUTLET FOR LOW VOLTAGE CABLE (DATA, TELEPHONE OR TELEVISION) AT 18" AFF
- EXISTING OUTLET FOR TELEVISION CABLE AT 18" AFF
- EXISTING CARD READER DEVICE AT 48" AFF
- R RELOCATED CARD READER DEVICE AT 48" AFF WITH A 3/4" EC TO DOOR CONTROL JUNCTION BOX, SEE DETAIL ON SHEET E0.2, COORDINATE ALL REQUIREMENTS WITH OWNER PRIOR TO ANY ROUGH-IN
- EXISTING DOOR CONTROL JUNCTION BOX
- R RELOCATED DOOR CONTROL JUNCTION BOX WITH A 1" EC STUBBED INTO ACCESSIBLE CEILING SPACE, A 3/4" EC TO DOOR ACCESS DEVICE, A 3/4" EC TO DOOR CONTACTS AND A 3/4" EC TO ELECTRIC STRIKES, SEE DETAIL ON SHEET E0.2, COORDINATE ALL REQUIREMENTS WITH OWNER PRIOR TO ANY ROUGH-IN
- EXISTING CONNECTION IN CEILING FOR WIRELESS ACCESS POINT
- R RELOCATED CONNECTION IN CEILING FOR WIRELESS ACCESS POINT
- F OUTLET FOR EXISTING FIRE ALARM PULL STATION AT 48" AFF
- R F OUTLET FOR RELOCATED FIRE ALARM PULL STATION AT 48" AFF TO TOP OF BOX WITH A 3/4" EC STUBBED INTO ACCESSIBLE CEILING SPACE
- F OUTLET FOR AUDIO/VISUAL FIRE ALARM SIGNAL DEVICE AT 6'-8" AFF, WITH A 3/4" EC STUBBED INTO ACCESSIBLE CEILING SPACE
- F OUTLET FOR EXISTING AUDIO/VISUAL FIRE ALARM SIGNAL DEVICE AT 6'-8" AFF
- R F OUTLET FOR RELOCATED AUDIO/VISUAL FIRE ALARM SIGNAL DEVICE AT 6'-8" AFF, WITH A 3/4" EC STUBBED INTO ACCESSIBLE CEILING SPACE
- V OUTLET FOR EXISTING AUDIO/VISUAL FIRE ALARM SIGNAL DEVICE AT 6'-8" AFF
- R V OUTLET FOR RELOCATED VISUAL ONLY FIRE ALARM SIGNAL DEVICE AT 6'-8" AFF, WITH A 3/4" EC STUBBED INTO ACCESSIBLE CEILING SPACE
- M MOTOR OUTLET
- PANELBOARD
- 2 KEYED NOTE DESIGNATION
- 20 EQUIPMENT CONNECTION DESIGNATION SEE SCHEDULE
- SWITCHED BRANCH CIRCUIT WIRING, 2 #12 - CROSS MARKS INDICATE NUMBER OF CONDUCTORS IF MORE THAN TWO
- SWITCHED BRANCH CIRCUIT WIRING, 2 #12 - WITH ADDITIONAL DIMMING CONTROL WIRING AS REQUIRED FOR FIXTURE SUPPLIED
- UNSWITCHED BRANCH CIRCUIT WIRING, 2 #12 - CROSS MARKS INDICATE NUMBER OF CONDUCTORS IF MORE THAN TWO
- A-1,3 BRANCH CIRCUIT HOMERUN TO PANEL PANEL AND CIRCUIT NUMBER DESIGNATED
- AFF ABOVE FINISHED FLOOR
- C/EC CONDUIT/EMPTY CONDUIT
- ENC EXISTING, NO CHANGE
- FC FAN COIL UNIT
- FSS/NFSS FUSIBLE/NON-FUSIBLE SAFETY SWITCH

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Third Floor Elec. Demo. Plan

SCALE: 1/4" = 1'-0"

City Hall Renovations
Harrisonburg, Virginia

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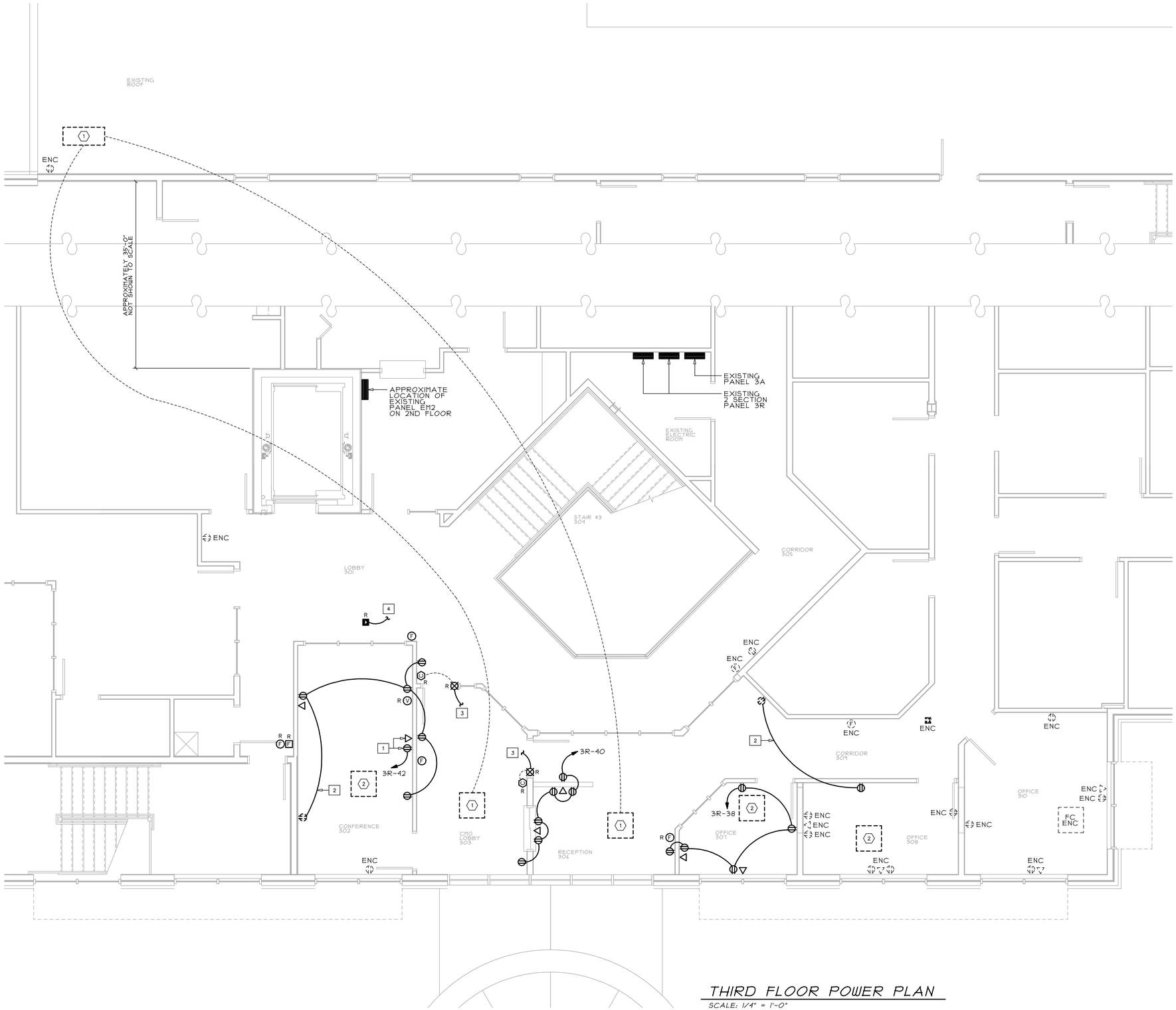
E1.1



THIRD FLOOR POWER PLAN

SCALE: 1/4" = 1'-0"

KEYED DRAWING NOTES

1. DUPLEX RECEPTACLE AND COMMUNICATIONS OUTLET FOR TELEVISION. VERIFY MOUNTING HEIGHT WITH THE OWNER PRIOR TO ROUGH-IN. COORDINATE WITH MOUNTING HARDWARE.

2. EXTEND CIRCUIT SERVING EXISTING OUTLET TO NEW RECEPTACLE(S) AS SHOWN. VERIFY REQUIREMENTS.

3. RE-CONNECT RELOCATED DOOR CONTROL TO EXISTING CIRCUIT SERVING DOOR CONTROL AT LOCATION BEING REMOVED. VERIFY REQUIREMENTS.

4. RE-CONNECT RELOCATED WIRELESS ACCESS POINT TO EXISTING CIRCUIT SERVING WIRELESS ACCESS POINT AT LOCATION BEING REMOVED. VERIFY REQUIREMENTS.

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Third Floor Power Plan

SCALE: 1/4" = 1'-0"

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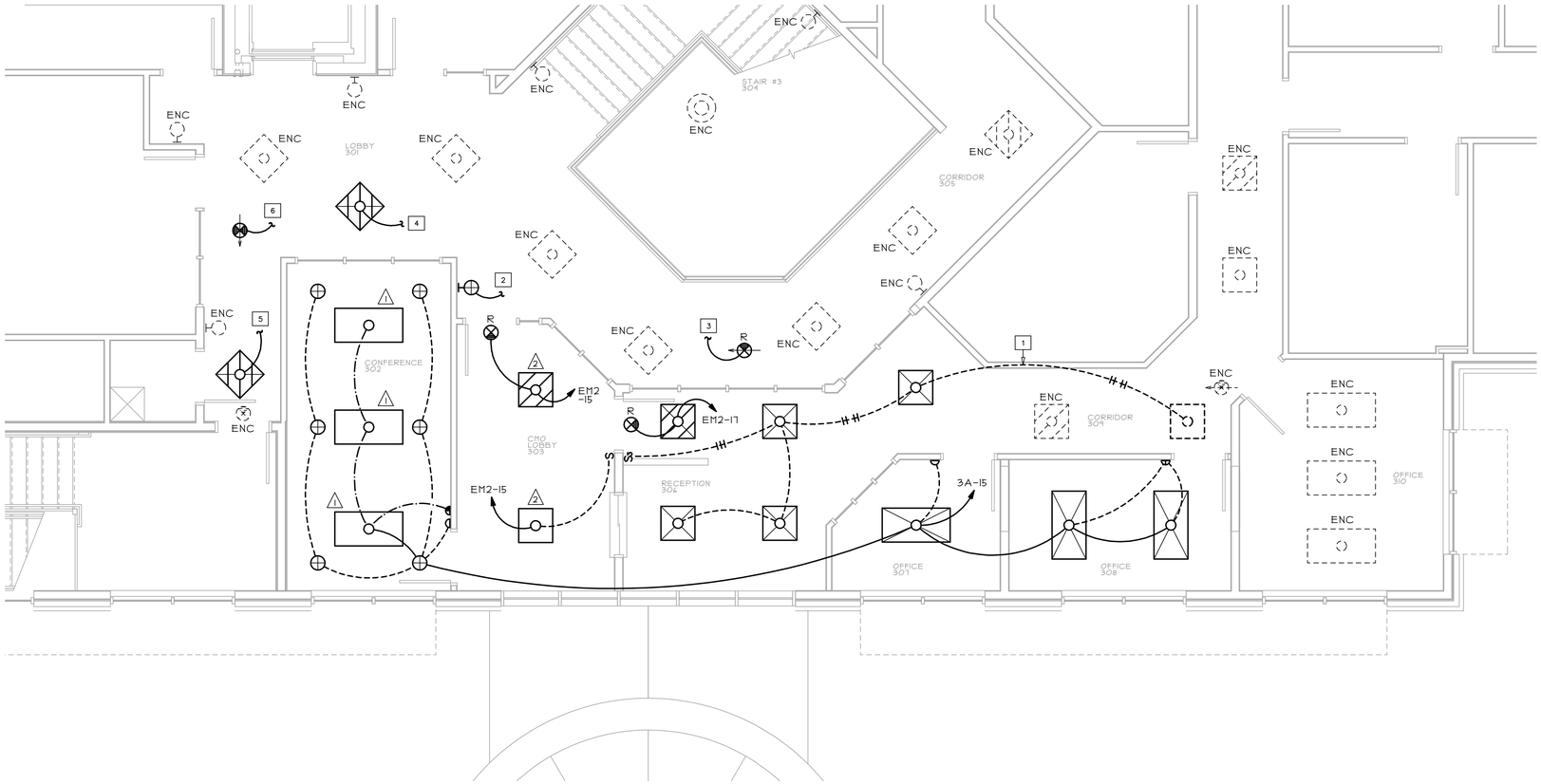
E2.1



THIRD FLOOR LIGHTING PLAN

SCALE: 1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER/CATALOG NO.	LAMPS NO.	LAMPS TYPE	WATTAGE	MOUNTING	REMARKS
1	DAY-BRITE CF-S-24-G-PF-30L-30-U-DZT	3000 LUMEN LED		44.3	RECESSED	
2	DAY-BRITE CF-S-22-G-PF-28L-30-U-DZT	2800 LUMEN LED		46.9	RECESSED	
6	CHLORIDE 46L-2-R	FURNISHED W/FIXTURE		2.5	SURFACE	DOUBLE FACE

SCHEDULE NOTES

- SPECIFIED FIXTURES MATCH DESIGN OF EXISTING ON SITE. NO SUBSTITUTIONS PERMITTED.
- ALL FIXTURES SPECIFIED HAVE AN INTERGRATED LED ARRAY.

[x] KEYED DRAWING NOTES

1. EXTEND SWITCH LEG CIRCUIT SERVING EXISTING FIXTURE TO RELOCATED FIXTURES AS SHOWN. VERIFY REQUIREMENTS.

2. RE-CONNECT RELOCATED WALL SCONCE TO EXISTING CIRCUIT SERVING WALL SCONCE AT LOCATION BEING REMOVED. VERIFY REQUIREMENTS.

3. RE-CONNECT RELOCATED EXIT LIGHT TO EXISTING CIRCUIT SERVING EXIT LIGHT AT LOCATION BEING REMOVED. VERIFY REQUIREMENTS.

4. RE-CONNECT RELOCATED EMERGENCY LIGHT FIXTURE TO EXISTING CIRCUIT SERVING EMERGENCY LIGHT FIXTURE AT LOCATION BEING REMOVED. VERIFY REQUIREMENTS.

5. CONNECT RELOCATED 2 X 2 LIGHT FIXTURE TO CIRCUIT SERVING EXISTING EMERGENCY 2 X 2 LIGHT FIXTURES IN AREA AHEAD OF ANY LOCAL SWITCHING. VERIFY REQUIREMENTS.

6. CONNECT NEW EXIT LIGHT TO CIRCUIT SERVING EXISTING EXIT LIGHTS IN AREA AHEAD OF ANY LOCAL SWITCHING. VERIFY REQUIREMENTS.

LIGHTING FIXTURE CONTROLS SYMBOLS LIST

	EXISTING PASSIVE INFRARED DUAL TECHNOLOGY MICROPHONIC LINE VOLTAGE CEILING MOUNT SENSOR
	PASSIVE INFRARED DUAL TECHNOLOGY MICROPHONIC LINE VOLTAGE WALL MOUNT SENSOR, AT 48" AFF TO TOP OF BOX. MANUAL "ON" AUTOMATIC "OFF"
	PASSIVE INFRARED DUAL TECHNOLOGY MICROPHONIC LINE VOLTAGE WALL MOUNT 2 POLE SENSOR FOR SEPARATE FIXTURE CONTROL, AT 48" AFF TO TOP OF BOX. MANUAL "ON" AUTOMATIC "OFF"
	PASSIVE INFRARED DUAL TECHNOLOGY MICROPHONIC LINE VOLTAGE WALL MOUNT SENSOR WITH 0-10VDC DIMMING CONTROL, AT 48" AFF TO TOP OF BOX. MANUAL "ON" AUTOMATIC "OFF"
AFF	ABOVE FINISHED FLOOR

LIST NOTES

1. ACCEPTABLE MANUFACTURERS SHALL BE DOUGLAS, LEVITON AND SENSOR SWITCH.
2. ALL COMPONENTS AND WIRING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
3. ADJUST SENSITIVITY, OVERRIDE SWITCHES (WHERE APPLICABLE) AND TIME DELAYS TO THE SATISFACTION OF THE OWNER.

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Third Floor Lighting Plan

SCALE: 1/4" = 1'-0"

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E3.1