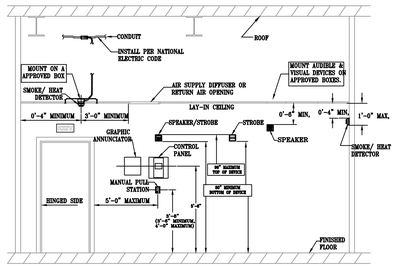
ELECTRICAL GENERAL NOTES

1. ALL WORK IN THIS DIVISION SHALL COMPLY WITH ALL LOCAL BUILDING CODES, LAWS, REGULATIONS, ORDINANCES, AND THE REQUIREMENTS OF THE 2023 NATIONAL ELECTRICAL CODE, WITH GEORGIA AMENDMENTS.
2. ALL WORK SHALL COMPLY WITH THE BASE BUILDING SPECIFICATIONS. OBTAIN A COPY OF SPECIFICATIONS FROM BUILDING LANDLORD AS NECESSARY PRIOR TO BID.
3. THE CONTRACTOR SHALL KEEP A RECORD OF THE CHANGES WHICH ARE IN CONFLICT WITH THESE DRAWINGS AND SPECIFICATIONS. AT THE COMPLETION OF HIS WORK HE SHALL SUBMIT "AS BUILT" PRINTS TO THE OWNER.
4. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW EVERY FITTING AND DETAIL. ALL WORK SHALL BE INSTALLED SO THAT JUNCTION BOXES AND COMPONENTS WILL BE ACCESSIBLE FOR SERVICE.
5. ALL SYSTEMS, EQUIPMENT, COMPONENTS, WORK, ETC. PROVIDED UNDER THIS DIVISION SHALL BE COVERED BY A ONE YEAR GUARANTEE STARTING AT THE TIME OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. ANY DEFECTS IN THE WORK, SYSTEMS, EQUIPMENT, OR COMPONENTS FOUND DURING THIS YEAR SHALL BE CORRECTED AT NO CHARGE. THE GUARANTEE SHALL INCLUDE PROVIDING ALL NECESSARY CUTTING, PATCHWORK, REPAINTING, ETC. TO MAKE THE WORK COMPLETE AND NEW.
6. ALL WORK MUST BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER ACCORDING TO GENERAL ACCEPTABLE PRINCIPALS OF FIRST CLASS WORKMANSHIP.
7. ALL CONDUCTORS SHALL BE COPPER WITH TYPE "THW" OR "THHN" INSULATION. THE MINIMUM WIRE SIZE SHALL EB #12-AWG WITH A 194-DEGREE F TEMPERATURE RATING.
8. PROVIDE ALL GROUNDING AS REQUIRED BY NEC.
9. PROVIDE A SEPARATE GREEN, INSULATED, #12-AWG EQUIPMENT GROUNDING CONDUCTOR ROUTED WITH THE BRANCH CIRCUIT HOMERUN CONDUCTORS UNLESS OTHERWISE IDENTIFIED ON PLANS.
10. PROVIDE A SEPARATE GREEN, INSULATED, #12-AWG EQUIPMENT GROUNDING CONDUCTOR FOR ALL MECHANICAL EQUIPMENT UNLESS OTHERWISE IDENTIFIED ON PLANS. ALL EQUIPMENT SHALL BE GROUNDED AT THE PANEL WHICH FEEDS THE EQUIPMENT.
11. ALL CONDUIT MUST BE CONCEALED IN THE WALLS OR ABOVE THE CEILING UNLESS OTHERWISE NOTED. ALL HOMERUN BRANCH-CIRCUITS SHALL BE MINIMUM 2#12, 1#12G IN 3/4" CONDUIT UNLESS OTHERWISE NOTED. ALL NON-HOMERUN BRANCH-CIRCUITS SHALL BE MINIMUM 2#12, 1#12G IN 1/2" CONDUIT UNLESS OTHERWISE NOTED.
12. ELECTRICAL EQUIPMENT EXPOSED WITHIN A PLENUM SHALL BE INSTALLED IN METALLIC ENCLOSURES OR SHALL BE LISTED AND LABELED FOR SUCH USE.
13. ALL CABLES USED WITHIN PLENUMS SHALL BE PLENUM-RATED AND SHALL BE SPECIFICALLY TESTED FOR COMPLIANCE.
14. ALL PENETRATIONS THROUGH RATED WALLS, FLOORS, AND CEILINGS SHALL BE FIRE STOPPED PER NEC 300.21 AND SHALL COMPLY WITH INTERNATIONAL BUILDING CODE, SECTION 714.5.1.
15. ALL OUTLET BOXES AND MEMBRANE PENETRATIONS IN RATED WALLS SHALL BE INSTALLED IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE, SECTION 714.5.2.
16. COORDINATE ALL FLOOR CORES WITH ARCHITECT AND BUILDING OWNER/MANAGEMENT REPRESENTATIVE (BUILDING ENGINEER).
17. ALL UPPER LEVEL SLAB PENETRATIONS SHALL BE CORE DRILLED, SLEAVED & SEALED PER LANDLORD'S REQUIREMENTS. X-RAY SLAB PRIOR TO CORING.
18. ALL ROOF PENETRATIONS SHALL BE AS AUTHORIZED BY LANDLORD AND IN ACCORDANCE WITH LANDLORD REQUIREMENTS. MAINTAIN ROOF WATERTIGHT INTEGRITY.
19. DEVICE MOUNTING HEIGHTS ARE TO BE MEASURED TO THE DEVICE CENTERLINE UNLESS NOTED OTHERWISE.
20. PROVIDE A LAMINATED LABEL ON COVERPLATE FOR ALL OUTLETS IDENTIFYING PANEL AND BREAKER POSITIONS FROM WHICH IT IS FED.
21. ALL EXISTING POWER DISTRIBUTION, FIRE ALARM, ETC. JUNCTION BOXES SHALL BE RELOCATED IF LOCATED OVER A CEILING SCHEDULED TO BE GYPSUM BOARD OR ANY OTHER INACCESSIBLE CEILING. ALL EXISTING JUNCTION BOXES SHALL BE RELOCATED AS REQUIRED TO AN ACCESSIBLE LOCATION.
22. REUSE ALL REMOVED, EXISTING UNDAMAGED RECEPTACLES WHERE POSSIBLE.
23. RING OUT ALL CIRCUITS IN EXISTING PANEL AFFECTED BY THIS ALTERATION. WHERE ADDITIONAL CIRCUITS ARE NEEDED, REUSE ALL AVAILABLE AND ABANDONED CIRCUITS AND BREAKERS IN EXISTING PANELS, OR PROVIDE NEW BREAKERS, TAG ALL UNUSED CIRCUITS AS SPARE AND PLACE IN "OFF" POSITION, REPLACE ALL INOPERATIVE OR DEFECTIVE CIRCUIT BREAKERS. TIGHTEN ALL CONNECTIONS.
24. REUSE EXISTING HOMERUNS WHERE APPLICABLE WITHIN THE DESIGN CRITERIA OF THESE DRAWINGS. ALL HOMERUNS ARE TO BE PROTECTED BY 20A/1P BREAKERS UNLESS OTHERWISE NOTED.
25. WHERE WORK BY THE GENERAL CONTRACTOR (WALL REMOVAL, NEW OR RELOCATED WALL OPENING, ETC.) RESULTS IN THE REMOVAL, RELOCATION OR REFEEDING OF ELECTRICAL DEVICES OR LIGHTING FIXTURES, THE ELECTRICAL CONTRACTOR SHALL DISCONNECT OR RECONNECT AS REQUIRED ALL ACTIVE DEVICES REMAINING ON THAT CIRCUIT SYSTEM.
26. WHERE DEMOLITION DISRUPTS ELECTRICAL CONTINUITY OF EXISTING TO REMAIN RECEPTACLES/LIGHTS, AND NO RECONNECTION IS SHOWN, RECONNECT TO ITS EXISTING CIRCUIT.
27. WHERE RECEPTACLES ARE REMOVED OR MOVED, REUSE EXISTING CIRCUITRY IF POSSIBLE.
28. REMOVE ALL ABANDONED CIRCUITING, WIRING, CABLING, AND CONDUIT SYSTEMS FOR POWER, LOW VOLTAGE CONTROLS AND COMMUNICATIONS BACK TO SOURCE.
29. ARC-FLASH HAZARD WARNING MARKINGS SHALL BE PROVIDED ON ALL EQUIPMENT IN AFFECTED ELECTRICAL ROOMS PER NEC 110.16. THE FIELD-APPLIED HAZARD MARKINGS SHALL MEET THE REQUIREMENTS IN NEC 110.21(B).
30. PROVIDE A UPDATED, PRINTED PANEL SCHEDULE FOR ALL PANELS MODIFIED WITHIN SCOPE OF WORK. CORRECTLY LABEL ALL EXISTING CIRCUITS, NEW CIRCUIT, SPARES AND SPACES. EACH CIRCUIT SHALL BE IDENTIFIED TO A LEVEL OF DETAIL THAT ALLOWS EACH CIRCUIT TO BE DISTINGUISHED FROM ALL OTHERS IN ACCORDANCE WITH NEC 408.4(A). NOTIFY DESIGN ENGINEER OF ANY DISCREPANCY OF PANEL LABELS.
31. PROVIDE PLASTIC NAMEPLATE ON ALL PANELS (NEW AND EXISTING) INDICATING PANEL NAME AND SOURCE IN ACCORDANCE WITH NEC 408.4(B).
32. CONTRACTOR SHALL CLEAN SITE AT END OF PROJECT. ALL DUST, DEBRIS, OILS, SPRAYS, FINGERPRINTS, AND LABELS SHALL BE REMOVED FROM ALL EXPOSED FINISHED SURFACES. ELECTRICAL AND TELEPHONE ROOMS SHALL BE PUT BACK AS FOUND; FLOORS ARE TO BE SWEPT, MOPPED, AND REPAINTED

NFPA 72 AND ADA DEVICE INSTALLATION REQUIREMENTS



1 FIRE ALARM DEVICE MOUNTING DETAIL
E-0.1 NO SCALE

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	NOTES
	CONCEALED CONDUIT IN CEILING OR WALL - 2 CONDUCTORS + GND	
	CONCEALED CONDUIT UNDER RAISED FLOOR - 2 CONDUCTORS + GND	
	CIRCUIT HOMERUN TO PANEL; EACH ARROWHEAD = 1 CIRCUIT	
	NO. OF CONDUCTORS IN CONDUIT; EACH CROSSHATCH = 1 CONDUCTOR; GROUND CONDUCTOR DENOTED BY INDICATION	
○ ●	CONDUIT STUBBED UP OR TURNED DOWN	
J	JUNCTION BOX - SIZE AND MOUNTING AS REQUIRED	
M	MOTOR OPERATED DAMPER - PROVIDED BY DIVISION 23	MOUNT AS REQ'D
	MOTOR-RATED TOGGLE SWITCH - 30A MINIMUM RATING	MOUNT AS REQ'D
S 30/3/F	DISCONNECT SWITCH (FRAME/POLES/FUSE-IF REQUIRED)	MOUNT AS REQ'D
AFF/AFG	ABOVE FINISHED FLOOR/ABOVE FINISHED GRADE	
WP	WEATHER PROOF	

(EXISTING) PANEL '1FE7'

VOLTAGE: 120 / 208 AMP: 60
PHASE: 3 MAIN: MLO

DESCRIPTION	KW	BKR	CK	PH	CK	BKR	KW	DESCRIPTION
RECEPTACLES	0.7	20/1	1	A	2	20/1	0.7	RECEPTACLES
RECEPTACLES	0.7	20/1	3	B	4	20/1	0.8	RECEP/U.C. LIGHTS
RECEPTACLES	0.7	20/1	5	C	6	20/1	1.0	FUME HOOD
REFRIGERATOR	0.9	20/1	7	A	8	20/1	0.7	RECEPTACLES
RECEPTACLES	0.7	20/1	9	B	10	20/1	1.0	VENDING
RECEPTACLES	0.7	20/1	11	C	12	20/1	0.5	FAX
RECEP/U.C. LIGHTS	0.8	20/1	13	A	14	20/1	0.7	EXISTING
DISPENSERS	1.0	20/1	15	B	16	20/1	0.7	EXISTING
PATIENT MONITOR TREAT.	1.0	20/1	17	C	18	20/1	0.7	EXISTING
SPACE			19	A	20			SPACE
SPACE			21	B	22			SPACE
SPACE			23	C	24			SPACE
SPACE			25	A	26			SPACE
SPACE			27	B	28			SPACE
SPACE			29	C	30			SPACE

* - PROVIDE CONNECTION TO EXISTING CIRCUIT BREAKER ** - PROVIDE CONNECTION TO NEW CIRCUIT BREAKER
# - PROVIDE CONNECTION TO NEW GFCI CIRCUIT BREAKER

Phase A Load (kVA)	4.6	Connected kVA	14.2	92% A-B Balance	
Phase B Load (kVA)	5.0	Dem. kVA	13.8	95% B-C Balance	
Phase C Load (kVA)	4.7	Dem. Amps	38.4	97% C-A Balance	

Load Classification	Connected kVA	Demand Factor	Demand kVA
Receptacles			
First 10kVA or less	11.6	100%	10.0
Remainder over 10kVA		50%	0.8
Lighting	1.6	125%	2.0
Air Conditioning	0.0	100% of Largest Load: Heating & A/C	0.0
Heating	0.0		
Largest Motor	0.0	125%	0.0
All other Motors	0.0	100%	0.0
Non-continuous Equip. Load	1.0	100%	1.0
Kitchen Equipment	0.0	100%	0.0
Elevators	0.0	100%	0.0

(NEW) PANEL '1FE7-B'

VOLTAGE: 120 / 208 AMP: 150
PHASE: 3 MAIN: MCB

DESCRIPTION	KW	BKR	CK	PH	CK	BKR	KW	DESCRIPTION
EDH-B1,B2,C	1.2	20/3	1	A	2	25/3	1.6	CU-A
-----	1.2	---	3	B	4	---	1.6	-----
-----	1.2	---	5	C	6	---	1.6	-----
EDH-A	3.7	40/3	7	A	8	15/2	0.6	SS-A
-----	3.7	---	9	B	10	---	0.6	-----
-----	3.7	---	11	C	12	15/1	0.1	VF-1
PANEL "1FE7"	4.6	60/3	13	A	14	15/1	0.1	LEVEL 1 COND PUMP
-----	5.0	---	15	B	16	20/1		SPARE
-----	4.7	---	17	C	18	20/1		SPARE
SPARE		20/1	19	A	20	20/1		SPARE
SPARE		20/1	21	B	22	20/1		SPARE
SPARE		20/1	23	C	24	20/1		SPARE
SPARE		20/1	25	A	26	20/1		SPARE
SPARE		20/1	27	B	28	20/1		SPARE
SPARE		20/1	29	C	30	20/1		SPARE

* - PROVIDE CONNECTION TO EXISTING CIRCUIT BREAKER ** - PROVIDE CONNECTION TO NEW CIRCUIT BREAKER
# - PROVIDE CONNECTION TO NEW GFCI CIRCUIT BREAKER

Phase A Load (kVA)	11.7	Connected kVA	34.8	98% A-B Balance	
Phase B Load (kVA)	11.9	Dem. kVA	34.7	94% B-C Balance	
Phase C Load (kVA)	11.2	Dem. Amps	96.2	96% C-A Balance	

Load Classification	Connected kVA	Demand Factor	Demand kVA
Receptacles			
First 10kVA or less	11.6	100%	10.0
Remainder over 10kVA		50%	0.8
Lighting	1.6	125%	2.0
Air Conditioning	0.0	100% of Largest Load: Heating & A/C	14.5
Heating	14.5		
Largest Motor	1.2	125%	1.5
All other Motors	0.1	100%	0.1
Non-continuous Equip. Load	5.8	100%	5.8
Kitchen Equipment	0.0	100%	0.0
Elevators	0.0	100%	0.0

BW&A

Barrett, Woodyard & Associates, Inc.

3495 Holcomb Bridge Road
Norcross, GA 30092
Phone (770) 810-8800

GEORGIA REGISTERED No. 044161 PROFESSIONAL ENGINEER JAMES ROBERT GIVENS

No.	Drawing Issue Description	Date
	ISSUED FOR CONSTRUCTION	10/03/25

5445 MERIDIAN MARK RD.,
SANDY SPRINGS, GA
30342

MERIDIAN MARK

NORTHSIDE PHARMACY

ELECTRICAL SYMBOL LEGEND & GENERAL NOTES

JOE CRAWFORD	2025-1345
PROJECT MANAGER	PROJECT NO.
BOBBY GIVENS	AS NOTED
PROJECT ENGINEER	SCALE
YONAS HAILEMICHAEL	10/03/2025
DRAWN BY	DATE

E-0.1

DRAWING NO.

ISSUED FOR CONSTRUCTION

SECTION 260100
ELECTRICAL GENERAL

1.0 GENERAL

1.01 SCOPE

A. Division 26 includes all Specifications in the 260000 series and the accompanying Electrical Drawings. Provide all labor, materials and equipment, and all necessary operations to provide the compete the complete scope of the electrical systems intended under this Division. Division 26 is not a stand alone document, but a part of the complete Project Documents.

B. Attention is called to the fact that there are many interfaces between the work required in this Division and the work required in other Divisions. Provide the necessary interface and coordination with other Divisions to provide a complete project.

1.02 EXISTING CONDITIONS

A. Attention is called to the fact that the work is to be performed within an existing, operational facility. Prior to the submission of bids, each bidder shall visit the project site, thoroughly investigate and be familiar with all existing conditions which will affect their work; especially the work to be performed above the existing ceilings.

B. When the project is finished, the work under this Division shall be complete in every respect, completely integrated with all the existing systems, and left in perfect operating condition. the electrical service to the building shall not be interrupted at any time without written coordination of the building's Owner. All existing electrical equipment removed during the project shall be removed from the site after inspection of the building's Owner. all existing electrical systems required to be operating at the project's completion or required to remain in use during the project shall be reconnected, replaced, rerouted or otherwise made to fit with proper workmanship techniques and left in safe working order.

C. Connect new work to existing work in a neat and workmanlike manner. Where an existing structure must be cut or existing utilities interfere, such obstructions shall be bypassed, removed, replaced, ore relocated, patched and repaired. Work disturbed or damaged shall be replaced or repaired to its prior condition.

D. Prior to the start of any demolition or construction, secure the services of a qualified, EPA Certified asbestos abatement agency to check the existing insulation, etc. for asbestos. Should asbestos be found, do not proceed with demolition or construction; notify the Architect in any case in writing of the agency's findings.

1.03 CODES AND REGULATIONS

A. All work under this Division shall comply with all local building codes, laws, regulations, ordinances and the requirements of the 2023 National Electrical Code.

B. Where conflicts of installation requirements occur between the aforementioned codes, regulations or the Contract Documents, the most restrictive shall govern.

C. Obtain all permits and licenses and pay all fees required by local authorities. Arrange for all necessary inspections required by the authorities having jurisdiction and provide written certificates of approval to the project Owner or his designated representative.

1.04 DEFINITIONS

A. Contract Documents: The complete set of project Drawings and Specifications.

B. Provide: Furnish, install and connect.

C. Work: All materials installed, including all labor to provide complete system.

D. Wiring or Wired: All wire or cable installed in conduit from panelboard to equipment and connected at both ends with all required boxes, connectors, couplings, etc.

E. Conduit: Rigid steel conduit intermediate metal conduit (I.M.C.), electrical metallic tubing (EMT), plastic conduit (PVC), or flexible steel conduit.

1.05 DRAWINGS AND SPECIFICATIONS

A. The Drawings and Specifications together are to be considered as the Contract Documents. Any work shown in one and not shown in the other, or implied by either, shall be provided to give a complete project.

B. Should any conflicts exist between the Drawings and Specifications or there is an item shown/called for which is not clearly defined, immediately submit a request for clarification. No additional monies will be granted later when a conflict is resolved or an item is more clearly defined.

C. The Drawings are schematic and are not intended to show the exact location outlets, etc. or the routing of conduit.

D. The exact location of equipment requiring electrical connections (mechanical equipment, elevators, lights, etc.) shall be as located by other Divisions of the Contract Documents. Refer to the Architectural, Structural and Mechanical Documents for dimensions and details of building construction and provide work described in this Division so that it conforms to the details of the project. The right is reserved to relocate any receptacle, switch or other outlet a maximum of 10'-0" before it is permanently installed without incurring additions to the Contract amount.

1.06 SITE VISIT

A. Visit the site and become familiar with all aspects of the site and existing conditions before submitting Contract price. No allowance will be made for lack of knowledge of existing conditions.

1.07 DEVIATIONS

A. No deviations from the Contract Documents shall be made without the full knowledge and written consent of the Architect.

B. If the existing conditions make it desirable to modify the Contract Documents in regard to any item, provide a written request to the Architect.

2.0 PRODUCTS

2.01 STANDARDS FOR MATERIALS AND WORKMANSHIP

A. All materials used shall be new and shall be stamped with the label of Underwriters Laboratories, Inc. (UL).

B. All materials shall meet the standards of the following associations and institutes where applicable:

1. National Fire Protection Association (NFPA)
2. American Society of Testing Materials (ASTM)
3. American National Standards Institute (ANSI)
4. National Electrical Manufacturer's Association (NEMA)
5. Institute of Electrical and Electronic Engineers (IEEE)

C. Manufacutrer's names and catalog numbers specified herein are intended to describe the material and set the standard of quality. All buds shall be based on materials specified. Requests for approval of material not specified shall be considered if the request is in written form and submitted to the Architect no later than fourteen (14) days before bid date. All requests shall conform with the provisions of the general and supplementary conditions.

D. Samples of materials requested to be substituted shall be furnished upon the request of the Architect.

2.02 SHOP DRAWINGS AND SUBMITTAL

A. The Engineer's review of shop drawings or submittals is a cursory review to check for general compliances of submittals with the design intent of the Contract Documents. The Engineer's review does not relieve the Contractor of his responsibility of complying with the Contract Documents. All coordination of the work in strict compliance with the Contract Documents is the sole responsibility of the Contractor.

B. The following items shall be submitted for review:

1. Conduit and wire
2. Grounding System
3. Devices
4. Coverplates
5. Panelboards
6. Transformers
7. Fuses
8. Overcurrent Devices
9. Disconnect Switches
10. Life Safety Systems

C. All shop drawings and submittals shall be submitted in compliance with the requirements of the general and supplemental conditions. No more than four (4) copies of submittal data will be reviewed, Any additional copies will be returned unmarked. The responsibility of copying review comments on any additional copies will rest solely with the contractor.

D. All submittals shall bear the name of the manufacturer to be used.

E. All shop drawings and submittals shall include a stamped indication signifying that the submittal has been reviewed for compliance with the Contract Documents by the Contractor. The Stamped indication also represents the fact that the Contractor has checked this submital for its interaction with all other Divisions and certifies by his signature or initials that all coordination has taken place. The stamp shall include the date, name of the Contracting Firm, the signature of the Contractor, certification of compliance and approval. The stamp shall be on the submittal before the Engineer will review it.

F. The Engineer will review an individual submittal not more than twice. If the submittal is rejected again on the second review, the contractor will bare all responsibility for paying for the Engineer's time for additional reviews. Such payments to the Engineer shall be withheld from the next monthly pay application.

2.03 RECORD (AS-BUILT) DRAWINGS AND MAINTENANCE MANUALS

A. At job completion, submit to the Architect, a set of prints (PDF and DWG) showing all deviations from the Contract Documents. The Drawings shall also have dimensions locating all underground conduits.

B. At job completion, submit to the Architect, three (3) sets of maintenance and instruction manuals for all equipment furnished on the project.

3.0 EXECUTION

3.01 COORDINATION

A. Coordinate all space requirements with all other Divisions before installing any work. Install work such that adequate space will be allotted for all other work from other Divisions to be installed and also will allow room for future access for repair and maintenance.

B. Any work installed without proper coordination shall be relocated at the Architect's direction without increasing the Contract price.

C. During the bidding process or the pricing for a guaranteed maximum price, coordinate with all other Divisions for the total amount of work required in Division 26. Any work shown or implied in another Division requiring work in Division 26 shall be included in the Contract price regardless of whether or not it is addressed in Division 26.

3.02 PROTECTION OF MATERIALS

A. All equipment shall have the original finish when the building is turned over to the Owner.

B. Protect equipment during construction from dirt, water, chemical, mechanical damage, etc. Protect all conduit openings so that no foreign materials will enter the conduit.

3.03 TEST, DEMONSTRATIONS AND INSTRUCTIONS

A. Test all systems described in this Division in the presence of the Owner or a designated representative upon completion of the work. Demonstrate that the installation is in accordance with Contract Documents.

B. Any work found not to be in compliance with the Contract Documents shall be repaired or replaced without incurring any additions to the Contract price.

C. Provide to the Owner, all instruction on maintenance and operations of all systems and equipment provided under this Division. Provide all necessary tools and personnel to thoroughly present these instructions.

3.02 GUARANTEE

A. All systems, equipment, components, work, etc. provided under this Division shall be covered by a one year guarantee starting at the time of final acceptance of the work by the Owner. Any defects in the work, systems, equipment or components found during this year shall be corrected at no charge. The guarantee shall include providing all necessary cutting, patchwork, repainting, etc. to make the work complete and new.

B. Present this guarantee and any additional warranties or guarantees on furnished equipment or systems to the Architect. All equipment or system guarantees are in addition to the general guarantee.

- END OF SECTION -

SECTION 261000
ELECTRICAL BASIC MATERIALS & METHODS

1.0 GENERAL

1.01 DESCRIPTION

A. All work specified in the Section shall comply with the provisions of Section 260100.

B. The Section describes the basic electrical materials and installation methods that are acceptable and applicable to Division 26.

2.0 PRODUCTS

2.01 CONDUIT

A. Galvanized rigid steel conduit shall be low carbon, hot-dipped galvanized both inside and out with threaded joints.

B. Intermediate metal conduit (IMC) shall be steel, galvanized both inside and out with threaded joints.

C. Electrical metallic tubing (EMT) shall be steel, galvanized both inside and out.

D. Plastic conduit (PVC) shall be schedule 40 PVC heavy wall type. A grounding conductor shall be provided.

E. Flexible metal conduit shall be flexible steel conduit tubing and shall meet Underwriters Laboratories Standard for Flexible Steel Conduit.

F. Liquid-tight flexible metal conduit and liquid-tight non-metallic conduits shall be liquid-tight and sunlight resistant.

G. Steel conduit approved manufacturers are Allied, Triangle and Republic.

H. PVC conduit approved manufacturers are Carlon and Triangle.

2.02 CONDUIT FITTINGS

A. Rigid conduit and IMC conduit fittings shall be zinc-coated, ferrous metal and taper threaded type.

B. EMT fittings shall be zinc-coated steel and hexnut compression or set-screw type. EMT connectors shall have insulated throats.

C. PVC fittings, elbows and cement shall be produced by the same manufacturer. All joints shall be solvent welded in accordance with the manufacturer's recommendations.

D. Conduit connections to transformers, panel cabinets, and pull boxes shall have grounding wedge lugs between the bushing and the box or locknuts designed to bite into the metal.

E. Each conduit end shall be provided with either an insulated throat connector or separate locknut and insulated bushing. Bushing shall be installed before any wire is pulled.

F. Conduit fittings approved manufacturers are Raco, Steel City, O.Z. Gedney, Thomas & Betts and Appleton.

G. Expansion fittings shall be provided in all conduit which crosses an expansion joint.

2.03 CONDUCTORS

A. Conductors shall be copper of 98% conductivity, 600 volt insulation. Sizes specified are AWG gauge for No. 4/0 and smaller and circular mils (MCM) for all sizes larger than no. 4/0. Conductors No. 10 and smaller shall be solid and type "THHN" or "THWN" insulation. No. 8 and larger shall be stranded and type "THW" or "XHHW" insulation.

2.04 OUTLETS

A. Outlet boxes and covers shall be of such form and dimensions as to be adapted to their specified usage, locations, size and quantity of conduit, and size and quantity of conductors entering the boxes. In special "Fire Rated" partitions, outlets shall comply with ASTM No. E119.

B. Flush ceiling outlets for surface or pendant mounted lighting fixtures shall be one-piece 4" square or octagonal pressed steel boxes. Boxes for devices in unfinished masonry walls or stud walls shall be pressed steel, square corner, sectional switch boxes, or shall be 4" square box with a square cornered tile wall cover, set flush with masonry construction. Boxes in concrete ceiling slab shall be octagonal, shallow concrete boxes. Welded boxes are not acceptable.

A. All outlet boxes in plaster or masonry walls or ceiling shall be provided with plaster rings.

B. Junction boxes and all outlets not indicated as containing wiring devices or lighting fixtures shall have covers. Covers for outlets in walls shall be as specified for wall switches and receptacles.

C. Outlet boxes exposed to the weather shall be of cast iron corrosion resistant type.

F. Outlet box approved manufacturers are Appleton, Raco, Steel City or Crouse-Hinds.

2.05 DISCONNECT SWITCHES

A. Disconnect switches shall be "heavy-duty" type, enclosed switches of quick-make, quick-break construction. Switches shall be horsepower rated for 600 volts AC as required. Lugs shall be UL listed for copper and aluminum.

B. Padlocking provisions shall be provided for padlocking in the OFF position.

C. Switches shall be furnished in NEMA 1 General purpose enclosure unless noted otherwise. Switches located on the exterior of the building or in "wet" locations shall have NEMA 3R enclosures.

D. Disconnect switches shall be mounted to structure. Disconnect switches shall not be mounted to mechanical equipment or ductwork.

E. Fused disconnect switches shall have rejection type fuse clips with dual element, current limiting fuses of rating shown.

2.06 NAMEPLATES

A. Nameplates shall have 3/8" high engraved letters.

B. 120 or 208 volts: white core laminated bakelite with black finish.

C. 277 or 480 or higher volts: white core laminated bakelite with red finish.

D. Nameplate shall indicate the panel name and the name of the device or equipment where the power supply/feeder originates.

2.07 WALL SWITCHES

A. Wall switches shall be plastic, totally enclosed, quiet type, self-grounding, 120 volt or 277 volts (as required) and 20A rating and shall match existing.

B. Color shall be as selected by architect.

2.08 RECEPTACLES

A. Duplex receptacles shall be plastic, two-pole, three wire, self-grounding, side wired, 125 volts and 15A rating and shall match existing.

B. Dedicated receptacles shall be plastic, two-pole, three wire, self-grounding, side wired, 125 volts and 20A rating and shall match existing.

C. Ground fault circuit interrupt (GFCI) receptacles shall be provided in accordance with NEC 210.8(B). Provide new to match existing.

2.09 COVERPLATES

A. Coverplates for flush mounted devices shall be brushed finished stainless steel standard size, Hubbell "P" Series or equal by Leviton, P&S, or Cooper.

B. Telephone and data outlet coverplates shall have same finish as above.

C. Coverplates for exterior devices shall be self-closing, die-cast aluminum Hubbell WP8M or equal by Leviton, P&S, or Cooper.

2.10 PLYWOOD BACKBOARDS

A. Provide plywood backboards where shown. Backboards shall be minimum 3/4" thick and sized as shown or to accommodate equipment indicated to be mounted thereon.

B. Secure plywood to the building structure and paint with two coats to match wall color.

2.11 SMOKE AND FIRE STOP FITTINGS

A. Smoke and Fire Stop Fittings shall be UL listed for that purpose. The fittings used to seal conduit either on the outside of the conduit, busway or cable or internally shall have heat activated intumescent material, which expands to fill all voids. Smoke and fire stop fittings shall be O.Z./Gedney "FIRE-SEAL" or Dow Corning silicone RTV foam with an hourly fire-rating equal to or higher than the rating of the floor, ceiling or wall through which the cable or conduit passes. The seals for conduit shall be of the flanged type.

2.12 FUSES

A. Provide all fuses. All fuses shall be of the same manufacturer. All fuses shall be of the high interrupting rating (200,000 Amps), current limiting type and manufactured by Bussmann. Fuses shall be provided for each fuse cutout and the specified quantity of fuses shall be furnished for spares.

B. Circuits 0 to 600 ampere shall be protected by rejection type, current limiting BUSSMANN LOWPEAK Dual Element Fuses LPN-RK (250 volts). All dual-element fuses shall have separate overload and short-circuit clearing chamber. The fuse must hold 500% of rated current for a minimum of 10 seconds and be listed by Underwriter's Laboratories, Inc., with an interrupting rating of 200,000 amperes RMS symmetrical. The fuses shall be UL Class RK-1.

C. Furnish and turn over to the Owner/Tenatn a minimum of one (1) set of spare fuses (set consisting of three fuses) for each type and rating of fuse used. When the number of fuse sets of the same type and rating actually installed exceeds five (5) sets, furnish an additional spare set of fuses for each five (5) or fraction thereof.

D. Acceptable manufacturers are Bussman or equal by Littlefuse.

3.0 EXECUTION

3.01 CONDUIT

A. Rigid steel (or IMC) shall be used for service entrance and all feeders and branch circuit where exposed to damage.

B. EMT shall be used for branch circuits, fire alarm and telephone when not underground or in concrete in contact with the earth.

C. Schedule 40 PVC may be used for all underground feeders under the lowest floor slab. Plastic conduit (PVC) is not permitted for use on this project.

D. Conduit shall be continuous from outlet to outlet, from outlet to cabinet, junction box and pull box. Conduit shall enter and be secured to all boxes, etc., in such a manner that each system will be electrically continuous from service to all outlets such that a good ground is provided. All conduit from cabinets and junction boxes or conduit fittings. Conduit connections to any box with has no threaded hub shall be doubled locknutted.

E. Provide junction boxes or pull boxes where shown and where necessary to avoid excessive runs or too many bends between outlets. The conduit sizes shown may increase if desired to facilitate the pulling of cables.

F. All conduit shall be concealed unless indicated otherwise. Install exposed conduit parallel with or at right angles to the building walls and support from walls or ceilings at intervals required by Code with approved galvanized iron clamps or hangers. Concealed conduit above the ceiling shall be supported independent of ceiling construction. Where ceilings of lay-in type are used, conduit must be installed high enough to permit removal of ceiling panels and lighting fixtures. Use threaded roads and hangers for supporting single conduit. Use trapeze hangers consisting of double-nutted threaded rods and "Unistrut" channels or angles of 12 gauge minimum steel for supporting multiple conduit.

G. Minimum size conduit for branch circuits shall not be smaller than 1/2". Home runs sahll extend from outlets shown to panel designated. Home runs shown shall not be combined. Home run conduit shall not be smaller than 3/4" conduit.

H. At couplings, conduit ends shall be threaded so that they meet in the coupling. Right and left hand couplings shall not be used; conduit couplings of the Erikson Type shall be used at locations requiring such joints.

I. All conduits for future use, for telephone wire, or for data communication cable, shall be left with No. 16 gauge wire pulled in them or a pull line as manufactured by Ideal, and the ends securely corked or capped.

J. Expansion fitting shall be installed in all conduit which pass through the cross-sectional area of expansion joints.

K. Provide non-hardening elastic type duct seal compound, Neer No. DC., 3M Co. "Scotchfil", or Gardner Bender duct seal, for each conduit entering the building from outside and for each conduit passing through one space into another which is normally at a lower temperature.

L. Provide watertight conduit hubs on conduit terminating in a box or cabinet exposed to the weather.

M. Space in sleeves or around conduit that pass through fire resistive or fire rated walls, partitions, floors, or ceiling shall be closed by packing with an unlabelled fire resistive material that will maintain the fire rating of the barrier penetrated.

3.02 FLEXIBLE CONDUIT

A. Weatherproof PVC extruded cover flexible conduit shall be used in making short flexible connections to exterior rotating or vibrating machinery or exterior equipment or any equipment not installed within environmental air plenums.

B. Flexible conduit shall be used in making short flexible connections to rotating or vibrating machinery or equipment within environmental air plenums. The flexible conduit at these locations shall be as short as possible, but shall have a minimum length of 12".

C. A green stranded bonding jumper shall be installed outside of all flexible conduit that extends directly from a non-flex conduit to a rotating or vibrating machine. Where a junction box is used, the green stranded bonding jumper shall be installed inside the flexible conduit and attached to the junction box and to the machine. When the bonding jumper is installed outside of the flexible conduit, plastic wire straps shall be used 6" o.c. to secure the jumper to the flexible conduit.

D. Flexible metal (MC) conduit system may be utilized where concealed in walls, millwork, and/or below raised accessible floor. MC Cable shall run from point of exit from wall or millwork to nearest structurally support junction box. MC cable will not be permitted to be installed in the above ceiling space and shall not pass through a fire rated partition. Conductor colors of the MC cable shall comply with 261000 3.04 D.

1. MC cable shall be constructed to have an insulated, copper ground conductor. Sheathing with a bare aluminum conductor shall not be used as the ground.

3.03 CONDUIT PROTECTION

A. Conduit shall be secured in place and protected where necessary to prevent damage to work during construction. The ends of all conduit shall be plugged to avoid filling with any foreign matter. All conduit shall be blown out and swabbed clear of water and trash prior to pulling wire.

3.04 WIRING

A. All conductors shall be installed in conduit. No conductors shall be pulled into the conduit until the conduit system is complete and plaster had dried. Wire pulling lubricants shall be Gardner-Bender "Wireaide" or Ideal "Yellow 77".

B. Conductors shall be continuous from outlet to outlet and from outlet to junction box or pull box. All splices and joints shall be carefully and securely made to be mechanically and electrically solid with pressure type connectors, Gardner Bender "Wingyard" or Ideal "Wingnut". Tape shall be 'Scotch' No. 33 for indoor and No. 88 for outdoor or Gardner Bender No. 95-661. Where connection is made to any terminals of more than 30 amperes capacity and where conductors larger than No. 10 are connected to any terminal, copper terminal lugs shall be bolted to the conductors. Where multiple connections are made to the same terminal, individual lugs for each conductor shall be used. (Aluminum conductors, if used for service conductors, shall be made with high compression lugs as manufactured by Square D, Ideal or MAC.)

C. Each conduit shall have a minimum of two (2) conductors, plus ground, pulled in unless that particular conduit is noted as being for systems other than electrical circuitry and/or future use or unless noted otherwise.

D. Conductors for lighting and receptacle circuits shall have color coded jackets. The wiring shall be color coded with the same color used with its respective phase through the entire job as follows:

208/120 Volt System	480/277 Volt System
Phase A - Black	Phase A - Brown
Phase B - Red	Phase B - Orange
Phase C - Blue	Phase C - Yellow
Neutral - White	Neutral - Gray
Ground - Green	Ground - Green

E. The feeder and service entrance conductors shall be color coded by the use of colored plastic tape applied within 6" of each conductor end.

F. Branch circuit conductors shall not be smaller than No. 12 and where the home run from center of load exceeds 100'-0", the conductors from home run outlet to panel shall be No. 10 minimum.

G. For branch circuits terminating in outlet without device, leave minimum of 12" of slack wire coiled for connection of equipment. All conductors shall be identified with proper circuit numbers at terminals, junction boxes at panelboards within 6" of conductor ends.

3.05 OUTLETS

A. Provide galvanized steel or cast type boxes for all outlets.

B. Where outlet boxes are used to support lighting fixtures, the outlet box shall be anchored to the structural members of the building per NEC 370.13.

C. Outlet boxes shall be flush mounted unless they are specifically shown as being used with exposed conduit or are located above a ceiling.

D. Where outlets are supplied from conduit run in or below floor slabs, the conduit shall be stubbed up at the location shown and the wall built up around the conduit.

E. Cuts for outlet boxes in masonry walls shall be made so that the coverplate will completely cover the cut. The mounting height of switch, receptacle and other outlets may be varied slightly, with the Architect's approvals, so that the outlet box, top or bottom, will occur at a masonry joint.

F. The edge of all outlet boxes shall be flush with the surface in which they are recessed. The devices that fit into the outlet boxes shall be screwed tight before the coverplate is installed and the coverplate shall not be used as a means of tightening the devices in place.

G. Where outlets are shown as being adjacent and different mounting heights are specified for each, they shall be mounted one directly over the other, on the centerline of the group.

3.06 NAMEPLATES

A. Provide specified nameplates on the panelboards, disconnect switches, and motor switches.

B. Nameplates for surface mounted equipment shall be installed on the exterior of equipment with sheetmetal screws. Nameplates for flush or recessed mounted equipment shall be installed on the inside of the panel door or cover with epoxy cement.

3.07 WALL SWITCHES AND RECEPTACLES

A. Where more than one device is indicated at a location, the devices shall be gang-mounted in combined multi-gang boxes and covered jointly by a common coverplate. Provide barriers as required by the devices and voltages being used.

3.08 COVERPLATES

A. All junction boxes, outlet boxes, multi-gang switch boxes, utility boxes, etc., shall be covered with a coverplate. The coverplate shall be a finished plate as specified unless designated otherwise.

B. Coverplates shall be mounted vertically unless designated otherwise

3.09 GROUNDING

A. Ground connections shall be in accordance with the 2023 National Electrical Code.

B. Provide an insulated green bonding jumper from the grounding lug of all receptacles to Steel City "GEC" clip or sheet metal screw in the outlet box. The grounding wire installed behind the device mounting screw will not be acceptable.

C. Provide a teleco ground bar located in the Tenant's I.T. Room. Provide grounding conductor to building ground via #2 copper insulated conductor.

D. Provide a minimum #6 insulated ground conductor to ladder tray and all equipment within the Tenant's I.T. rooms from the telco ground bar.

3.10 TELEPHONE CONDUIT SYSTEM

A. Provide an outlet and conduit system for the telephones as shown and leave the same in readiness for wiring by others. Provide pull line in all telephone conduit. Terminate all conduit at a uniform height with smooth insulated bushings at the telephone wood backboards.

B. Telephone wall outlets shall be pressed steel sectional switch boxes, wall mounted at the locations indicated. Coverplate shall have a bushed hole.

C. Telephone floor outlets shall be floor boxes as specified at the locations indicated.

3.11 CONNECTION TO EQUIPMENT

A. Equipment furnished by the Owner or under other Sections, such as mechanical equipment, elevators, escalators, signs, kitchen equipment, etc., will be installed by others. Provide electrical service and make the electrical circuit connection to this equipment.

B. Provide PVC insulated flexible cord sets for all cord and plug connected building appliances and equipment. Cords shall be sized in accordance with electrical circuits indicated. Multiple conductor cords shall be "SO" cable with PVC jacket and green insulated ground conductor.

3.12 CORING, CUTTING AND PATCHING

A. Set sleeves for conduit accurately before the concrete floors are poured, or set boxes on the forms so as to leave openings in the floors in which the required sleeves can be subsequently located. Fill in the voids around the sleeves with concrete.

B. Should the performance of this preliminary work be neglected and should cutting be required in order to install conduit, then the expense of the cutting and restoring of surfaces to their original conditions shall be accomplished without incurring additions to the Contract.

3.13 EQUIPMENT ANCHORING

A. All items of electrical equipment, such as switchboards, motor control centers, transformers, standby generator, etc., shall be securely anchored to the building structure. The anchoring shall be accomplished by utilizing a minimum size of 3/8" steel anchor bolts in the structure and to the item of equipment. A minimum of two (2) anchor bolts shall be provided on each side of each item of equipment with the following exceptions:

Exception No. 1: If the equipment manufacturer includes more than two (2) anchor holes per side in the base or base frame of the equipment item, then there shall be one anchor for each anchor hole.

Exception No. 2: If the equipment manufacturer recommends a particular quantity greater than two (2) per side, then that quantity of anchors shall be provided.

- END OF SECTION -

SECTION 262000
SERVICE AND DISTRIBUTION

1.0 GENERAL

1.01 DESCRIPTION

A. All work specified in this Section shall comply with the provisions of Section 26 01 00.

B. Provide a complete electrical distribution system. The system shall include the service entrance, main switchboard, feeders, transformers, distribution panels, panelboards, busway, remote control switches, contactors, etc., to provide a complete system.

C. All distribution switchgear (branch circuit panelboards, switchboard, distribution panelboards, transformers, busway, etc.) shall be the unit responsibility of one manufacturer. All component parts of the above listed items shall be of the same manufacturer except where a written request for deviation from this requirement has been approved prior to bid date.

D. Shop drawings for equipment specified in this Section shall show that all specified requirements have been incorporated.

E. Coordination studies shall be done prior to shop drawing submittals. Shop drawings shall include all breakers that meet the coordination study. If study is performed after the shop drawings are submitted, any revisions to breakers or panels shall be at no additional cost to the project.

F. All floor mounted distribution equipment shall be mounted on a 4" high concrete pad.

2.0 PRODUCTS

2.01 BRANCH CIRCUIT PANELBOARDS

A. Panelboards (panels) shall be general purpose enclosures and shall be surface or flush mounted as indicated. Panels shall be of the automatic circuit breaker type, factory assembled by the manufacturer of the circuit breakers. Panels shall be for the voltage indicated with the quantity of poles and ampacity of circuit breakers shown.

B. Boxes and trim shall be made from code gauge steel. Boxes shall be sufficient size to provide a minimum gutter space of 4" on all sides. Boxes shall be minimum 20" width and 5 3/4" depth.

C. Hinged door covering all device handles shall be included in all panel trim. Doors shall have flush-type cylinder lock and catch, except that doors over 48" in height shall have auxiliary fasteners at top and bottom of door in addition to flush-type cylinder lock and catch. Door hinges shall be concealed. All locks shall be keyed alike. Directory frame and card having a transparent cover shall be furnished each panel door.

D. Trims for flush panels shall overlap the box by at least 3/4" all around. Surface trims shall have the same width and height as the box. Trims shall be mountable by a screwdriver without the need for special tools. After installation, trim mounting mechanism or hardware shall not be accessible when panel door is closed and locked.

E. All exterior and interior steel surfaces of the trim shall be cleaned and finished with gray paint over a rust-inhibiting phosphatized coating.

F. All interiors shall be completely factory assembled with protective devices, wire connectors, etc. All wire connectors, except screw terminals, shall be of the anti-turn solderless type and all shall be suitable for copper or aluminum wire.

G. Interiors shall be so designed that devices can be replaced without disturbing adjacent units and without removing the main bus connectors, and shall be so designed that devices may be changed without machining, drilling or tapping.

H. Bus bars for the mains shall be of copper sized in accordance with U.L. standards. Full size bars shall be included. Bus bar taps for panels with single pole branches shall be arranged for sequence phasing of the branch circuit devices.

I. Phase bussing shall be full height without reduction. Cross and center connectors shall be of the same material as the bus.

J. The neutral bus shall utilize setscrews to bond the neutral wire to the neutral bus through holes drilled in the neutral bar. A sheet copper neutral bus utilizing flathead screws to hold the neutral wires will not be acceptable.

K. Spaces for future devices shall be included as indicated and shall be bussed for the maximum rated device that can be fitted into them.

L. All circuit breakers shall be manually operated, thermal-magnetic, automatic, of the ampacity and poles as indicated. They shall be quick-make, quick-break, both on manual and automatic operation. Breakers shall be over-the-center toggle operating type, with the handle going to a position between ON and OFF to indicate automatic tripping. All multi-pole breakers shall have internal common trip. The minimum interrupting capacity of the breakers furnished shall be 10,000 amperes RMS symmetrical for 120/208 volt and 14,000 amperes RMS symmetrical for 480/277 volt unless indicated otherwise on the riser diagram. The breakers furnished shall be determined by the specifications and by the minimum U.L. labeled RMS symmetrical amperes interrupting capacity at circuit voltage. All circuit breakers shall be bolted on and rigidly braced.

M. Panels having sub-feed lugs for feeding through shall have 8" minimum extra gutter space at the lug end and on one side.

N. Each panel as a complete unit shall have a short-circuit current rating equal to or greater than the equipment rating indicated.

O. All circuit breakers serving the fire alarm system shall include red marking and a listed locking mechanism per NFPA 72.

P. Panels shall be as manufactured by General Electric to match existing base building system.

2.02 TRANSFORMERS

A. Branch circuit and distribution transformers shall be the dry type and shall have the ratings indicated.

B. Single phase transformers shall be 480 volt primary and 120/208 volt secondary. Three phase transformers shall be 480 volt delta primary and 120/208 volt grounded type secondary. Transformers 25 kVA and larger shall have a minimum of four (4) 2.5% full capacity primary taps.

C. Transformers shall have a U.L. recognized 220 degree insulation system and shall be designed so that under full load, the average conductor temperature rise does not exceed 115 degree C. rise above a 40 degree C. ambient and the enclosure does not exceed a 50 degree C. rise at any point.

D. Transformer coils shall be of the continuous wound construction and shall be impregnated with non-hygroscopic, thermosetting varnish. All cores to be constructed of high grade, non-aging silicon steel with high magnetic permeability, and low hysteresis and eddy current losses. Magnetic flux densities shall be kept well below the saturation point. The core laminations shall be clamped together with structural steel angles. The completed core and coil shall then be bolted to the base of the enclosure but isolated therefrom by means of rubber, vibration-absorbing mounts. There shall be no metal-to-metal contact between the core and coil and the enclosure. On transformers 500 kVA and smaller, the vibration isolating system shall be designed to provide a permanent fastening of the core and coil to the enclosure. Sound isolating systems requiring the complete removal of all fastening devices will not be acceptable. Sound levels shall be guaranteed by the manufacturer not to exceed the following: 25 to 50 kVA - 45 DB; 51 to 150 kVA - 50 DB; 151 to 300 kVA - 55 DB; 301 to 500 kVA - 60 DB.

E. Transformers 24 kVA and larger shall be in a heavy gauge, sheet steel, ventilated enclosure. The ventilating openings shall be designed to prevent accidental access to live parts in accordance with UL, NEMA, and National Electrical Code standard for ventilated enclosures. Transformers 25 kVA through 112.5 kVA shall be designed so that they can be either floor or wall mounted. Above 112.5 kVA, they shall be floor-mounted design. The entire transformer enclosure shall be degreased, cleaned, phosphatized, primed and finished with a gray, baked enamel.

F. Transformers shall be compliant with the 2016 DOE efficiency standards:

Table I.6--Electrical Efficiencies for All Low-Voltage Dry-Type Distribution Transformer Equipment Classes

Equipment Class 3 (Single-Phase)		Equipment Class 4 (Three-Phase)	
kVA	%	kVA	%
15	97.70	15	97.89
25	98.00	30	98.23
37.5	98.20	45	98.40
50	98.30	75	98.60
75	98.50	112.5	98.74
100	98.60	150	98.83
167	98.70	225	98.94
250	98.80	300	99.02
333	98.90	500	99.14
		750	99.23
		1,000	99.28

G. Transformers that are of the floor-mounted type shall be mounted on Korfund Vibration Eliminators of the pad type.

H. Transformers shall be as manufactured by General Electric to match existing base building system.

3.0 EXECUTION

3.01 INSTALLATION

A. Provide a typewritten directory under plastic for all panelboards with spares marked in pencil. Circuit identification shall include sufficient detail to allow each circuit to be distinguished from all others. Include specific tenant suite numbers in multi-tenant buildings in the circuit description. Provide a label on each breaker in a switchboard or distribution panelboard with the same level of circuit identification details.

B. Provide all necessary hardware to level and secure the switchgear as required by the manufacturer's instructions. Make all electrical connections for supply and load circuits and leave in operating condition.

C. Clean enclosure of all switchgear of all foreign matter, including dust.

D. Remove all rust marks and repaint to leave switchgear in new condition.

3.02 STUDIES

A. As a requirement for the project documents to be delivered by the contractor, provide a complete short circuit and selective coordination study from the service entrance to all end devices. The study shall be provided by the switchgear manufacturer or their vendor and shall utilize time current curves that are developed by the gear manufacturer selected for use in the building. The study shall be made available for review by the engineer and local code enforcement authorities no later than at the times they deem necessary for certificates of occupancy to be issued. Obtain critical dates from the inspections department of the local code enforcement department during the inspection process to determine when presentation of the selective coordination study to the inspections department is necessary for timely issuance of the certificate of occupancy.

B. The minimum project requirement described in A. above shall not be scaled back to the minimum NEC code requirement unless agreed to by all parties associated with the construction of the project including, but not limited to, the owner, architect, engineer, developer, etc.

- END OF SECTION -

BW &A

Barrett, Woodyard & Associates, Inc.

3495 Holcomb Bridge Road
Norcross, GA 30092
Phone (770) 810-8800

GEORGIA REGISTERED No. 044166 PROFESSIONAL ENGINEER JAMES ROBERT GIVENS

No.	Drawing Issue Description	Date
	ISSUED FOR CONSTRUCTION	10/03/25

5445 MERIDIAN MARK RD.,
SANDY SPRINGS, GA
30342

MERIDIAN MARK

NORTHSIDE PHARMACY

ELECTRICAL SPECIFICATIONS

JOE CRAWFORD	2025-1345
PROJECT MANAGER	PROJECT NO.
BOBBY GIVENS	AS NOTED
PROJECT ENGINEER	SCALE
YONAS HAILEMICHAEL	10/03/2025
DRAWN BY	DATE

E-0.2

DRAWING NO.

ISSUED FOR CONSTRUCTION

SCHEDULES OF HILTI THROUGH PENETRATION FIRESTOP SYSTEMS					
CONCRETE FLOORS			GYPSUM WALLBOARD ASSEMBLIES		
TYPE OF PENETRANT	F-RATING	UL-CLASSIFIED SYSTEM	TYPE OF PENETRANT	F-RATING	UL-CLASSIFIED SYSTEM
METAL PIPES OR CONDUIT	1	F-A-1016	METAL PIPE OR CONDUIT	1	W-L-1054
	2	F-A-1016		2	W-L-1054
			MULIPLE METAL PIPES OR CONDUITS	1	W-L-1389
				2	W-L-1389

NOTES:

1. Jobsite conditions of each through-penetration firestop system must meet ALL details of the UL-Classified System selected.

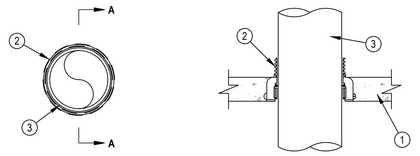
2. Where more than one applicable UL-Classified System is listed in the schedules, choose the UL System which is most economical for each through-penetration firestop system.

3. Coordinate work with other trades to assure that penetration opening sizes are appropriate for penetrant locations, and vice versa.

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

System No. F-A-1016

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating — 2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)	FH Rating — 2 Hr
L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)	FTH Rating — 0 Hr
W Rating — Class 1 (See Items 4B and 4B1)	L Rating At Ambient — Less Than 1 CFM/sq ft (See Item 3)
	L Rating At 400 F — Less Than 1 CFM/sq ft (See Item 3)



1. Floor Assembly — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete.
1A. Floor Assembly — (Optional, Not Shown)—The fire rated unprotected concrete and steel floor assembly shall be constructed of the materials and in the manner specified in the individual D900 Series designs in the UL Fire Resistance Directory and as summarized below:
   A. Concrete — Min 2-1/2 in. (64 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete.
   B. Steel Floor and Form Units* — Composite or non-composite max 3 in. (76 mm) deep galv steel fluted units as specified in the individual Floor-Ceiling Design.
2. Firestop Device* — Cast in place firestop device permanently embedded during concrete placement or grouted in concrete floor assembly in accordance with accompanying installation instructions. The devices may extend a max of 2 in. (51 mm) above the top surface of the concrete.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 680N-75/2.5", CP 680N-110/4", CP 680N-160/6", CP 682-75/2.5", CP 682-110/4", CP 680-M 2", CP 680-M 3", CP 680-M 4", CP 680-M 6", CP 680-P 2", CP 680-P 3", CP 680-P 4", CP 680-P 6", CP 680-PX 2", CP 680-PX 3"
3. Through Penetrants — One metallic pipe, conduit or tubing to be installed within the firestop device. Pipe, conduit or tubing to be rigidly supported on both sides of floor assembly. The following types of pipe, conduit or tubing may be used:
   A. Steel Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
   D. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing.
   E. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   F. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) Regular) or heavier copper pipe.

The firestop device and metallic penetrant shall be sized as follows:

Nom Pipe Diam +, ++	Firestop Device
1-1/2 to 2-1/2 in.(38 to 64 mm) - Other than copper pipe or tubing	CP680N-75/2.5"or CP682-75/2.5"
1-1/2 to 2 in.(38 to 51 mm) - Other than copper pipe or tubing	CP 680-M 2", CP 680-P 2, CP 680-PX 2"
2 to 2-1/2 in. (51 to 64 mm) - Copper pipe or tubing	CP680N-75/2.5"or CP682-75/2.5"
	CP 680-M 2", CP 680-P 2", CP 680-PX 2"
2-1/2 to 3 in. (64 to 76 mm)	CP 680-M 3", CP 680-P 3", CP 680-PX 3"
4 in. (102 mm)	CP680N-110/4"or CP682-110/4"
	CP 680-M 4", CP 680-P 4"
6 in. (152 mm)	CP680N-160/6"
	CP 680-M 6", CP 680-P 6"

+ When metallic pipes of diameters smaller than those shown above are installed within the device, CP618 Firestop Putty Stick or mineral wool insulation shall be installed within the device.
++ L Rating applies only to CP 680-M and -P(X) devices and only when the nom diam of pipe equals size of device (2 in. diam pipe in 2" device etc.). L Rating does not apply to CP 680N and CP682 devices.

4. Fill, Void or Cavity Material* - Putty (Not Shown) — Min 1 in. (25 mm) thickness of fill material applied within annulus flush with top surface of device.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 618 Firestop Putty Stick
4A. Packing Material (Not Shown) — As an alternate to Item 4, min 4 in. (102 mm) thickness of min 4 pcf (64 kg/m3) mineral wool insulation firmly packed to the fullest extent possible within annulus flush with top surface of device.
4B. Firestop Device* - Top Seal Plug — (Optional. Not Shown) - Top seal plug for use with CP 680-M 2" and CP 680-P 2" devices and nom pipe, conduit or tubing sizes of 1/2 in. (13 mm) to 2 in. (51 mm) diam. Plug is friction fit into top of firestop device (Item 2) in accordance with the manufacturer's instructions. When top seal plug is used, no putty (Item 4) or packing material (Item 4A) is required. W Rating applies only to nom 1, 1-1/4, 1-1/2 and 2 in. (25, 32, 38 and 51 mm) diam copper pipe/tube in conjunction with 2" CPS Top Seal and CP 680-M 2" or CP 680-P(X) 2" devices.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CPS Top Seal Plug

4B1. Firestop Device* - Water Barrier Module — (Optional, Not Shown) - Used as an alternate to the top seal plug (Item 4B) and in combination with the CP 680-M and CP 680-P(X) devices to achieve a W Rating. Module is threaded onto top of device. See Table below for sizes of device/module and penetrants covered. When water barrier module is used, a W Rating applies to the water barrier module, device and penetrant sizes specified in Table below. For W Rating with Water Barrier Module, pipe shall be installed from bottom of device.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Water Barrier Module

Penetrat Type (See Item 3 above)	Nom Penetrant Diam	Size of Device/Module
A, B, C, D	2"	2"
	2-1/2"	3"
	3"	3"
	4"	4"
	6"	6"
E, F	2"	2"
	3"	3"
	4"	4"
	6"	6"

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

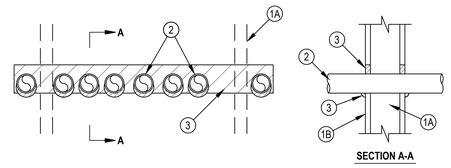
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
June 29, 2015

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

System No. W-L-1389

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings — 1 and 2 Hr (See Item 1and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
	FH Ratings — 1 and 2 Hr (See Items 1 and 3)
	FTH Rating — 0 Hr



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing shall consist of min 3-5/8 in. (92 mm) wide steel studs spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Thickness, type, number of layers and fasteners, as specified in the individual Wall and Partition Design. Max height of opening is 3-1/2 in. (89 mm). Max width of opening is 32 in. (813 mm).
   The hourly F, FH Ratings of the firestop system are equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrants — Multiple pipes or conduits installed in single layer array within the firestop system. The annular space between the pipes and conduits and the edges of the opening shall be min 0 in. (0 mm, point contact) to max 1-3/8 in. (35 mm). The separation between pipes and conduits to be a min 0 in. (0 mm, point contact) to a max 1-1/4 in. (32 mm). Pipes and conduits to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or conduits may be used:
   A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 5 (or heavier) steel pipe.
   B. Conduit — Nom 2 in. (51 mm) diam (or smaller) rigid steel conduit or steel electrical metallic tubing (EMT).
3. Fill Void or Cavity Materials* - Sealant — Min 5/8 in. (16 mm) thickness of fill material installed to completely fill annular space between pipes, conduits and gypsum flush with each surface of wall. Min 1/2 in. (13 mm) diam bead of fill material applied to the through penetrant/wall interface at the point contact locations on both sides of the wall. The 2 hour F, FH Ratings apply only when FS-ONE Sealant is used.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Hilti CP 606 Flexible Firestop Sealant or FS-ONE Sealant, FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

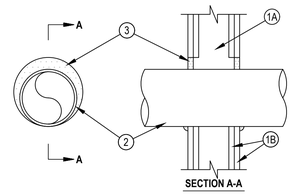
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
January 22, 2015

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

System No. W-L-1054

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft
	L Rating at 400 F — Less Than 1 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.
   The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.
2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
October 14, 2015

BW&A

Barrett, Woodyard & Associates, Inc.

3495 Holcomb Bridge Road
Norcross, GA 30092
Phone (770) 810-8800

GEORGIA REGISTERED No. 044111 PROFESSIONAL ENGINEER JAMES ROBERT GIVENS

No.	Drawing Issue Description	Date
	ISSUED FOR CONSTRUCTION	10/03/25

5445 MERIDIAN MARK RD.,
SANDY SPRINGS, GA
30342

MERIDIAN MARK

NORTHSIDE PHARMACY

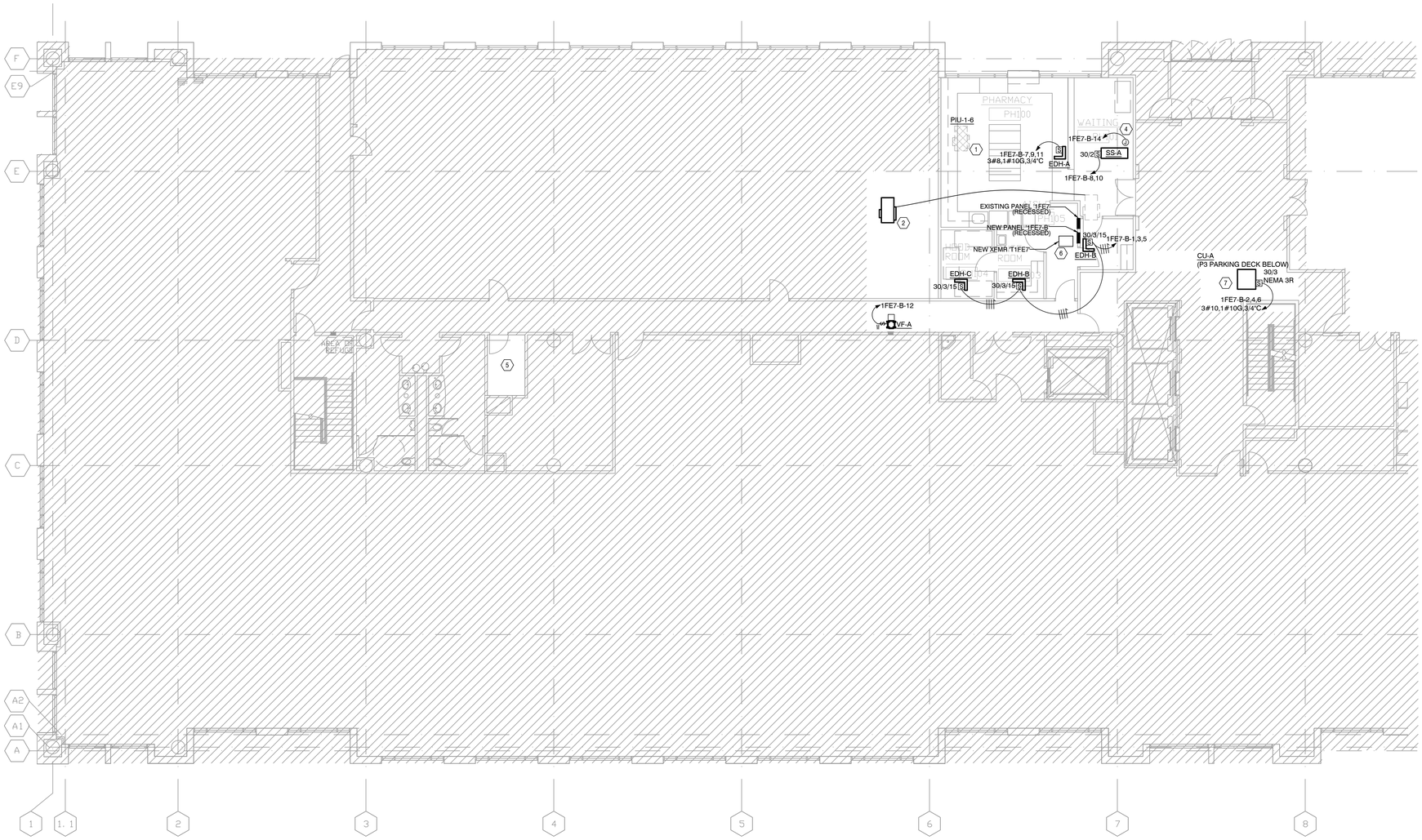
ELECTRICAL FIRE STOPPING PENETRATION DETAILS

JOE CRAWFORD	2025-1345
PROJECT MANAGER	PROJECT NO.
BOBBY GIVENS	AS NOTED
PROJECT ENGINEER	SCALE
YONAS HAILEMICHAEL	10/03/2025
DRAWN BY	DATE

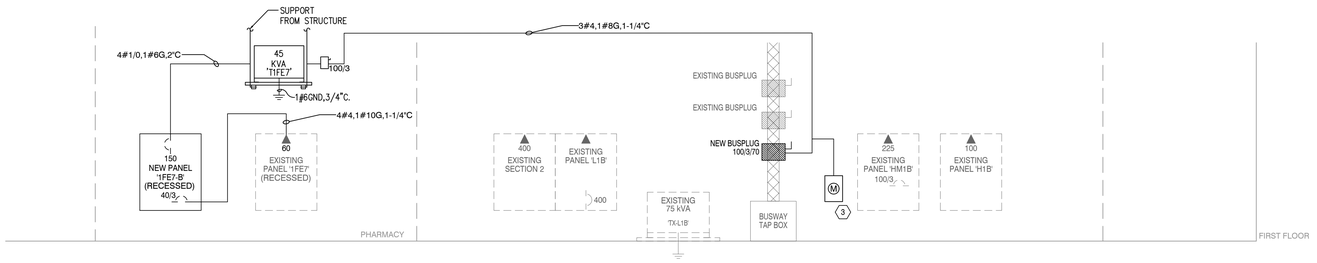
E-0.3

DRAWING NO.

ISSUED FOR CONSTRUCTION



1 E-1.0 PARTIAL FIRST FLOOR HVAC CONNECTIONS - ELECTRICAL
1/8"=1'-0"



1 E-1.1 PARTIAL ELECTRICAL RISER DIAGRAM
1/8"=1'-0"

SHEET NOTES

1. SCOPE IS LIMITED TO NEW HVAC EQUIPMENT AND PROVIDING SUBMETERING OF PHARMACY LOADS (HVAC, LIGHTING, RECEPTACLE/PLUG-LOADS, ETC.). ALL EXISTING RECEPTACLES, LIGHTING, FIRE ALARM DEVICES, ETC. SHALL BE EXISTING TO REMAIN. ALL DEVICES AND EQUIPMENT SHOWN SHALL BE CONSIDERED NEW UNLESS OTHERWISE NOTED.
2. ALL NEW DEVICES AND EQUIPMENT SHALL COMPLY WITH BASE BUILDING STANDARDS.
3. MECHANICAL EQUIPMENT LOCATIONS ARE SHOWN FOR REFERENCE ONLY. COORDINATE FINAL LOCATION OF MECHANICAL EQUIPMENT WITH DIVISION 23. REFER TO PLUMBING AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
4. FIELD COORDINATE FINAL LOCATIONS OF EQUIPMENT LOCATED ABOVE CEILINGS OR IN AREAS WITH LIMITED ACCESS WITH DIVISION 23 AND ALL APPLICABLE TRADES PRIOR TO INSTALLATION OR RELOCATION OF EQUIPMENT. VERIFY ALL DISCONNECTS, CONTROL CABINETS, ACCESS PANELS, ETC. ARE PROVIDED WITH THE REQUIRED ACCESS AND WORKING CLEARANCE IN ACCORDANCE WITH NEC 110.26(A)(4). THE REQUIRED ACCESS AND WORKING CLEARANCE SHALL NOT BE BLOCKED BY OR CONTAIN ANY DEVICES OR EQUIPMENT, INCLUDING, BUT NOT LIMITED TO: SPRINKLER PIPING, SPRINKLER HEADS, FIXTURE SUPPORTS, CEILING HANGERS, ETC.
5. COORDINATE EXACT CONNECTION AND ELECTRICAL REQUIREMENTS FOR MECHANICAL EQUIPMENT WITH DIVISION 23 PRIOR TO ROUGH-IN AND INSTALLATION. PROVIDE NEUTRAL CONDUCTORS IF REQUIRED BY MANUFACTURER.
6. DRAWING IS DIAGRAMMATIC. COORDINATE EXACT CONDUIT ROUTING IN THE FIELD WITH ALL OTHER TRADES. UPSIZE CONDUCTORS SUCH THAT VOLTAGE DROP DOES NOT EXCEED 3%.
7. MAINTAIN INTEGRITY OF PARTIAL CIRCUITS TO EXISTING EQUIPMENT DISRUPTED DURING DEMOLITION/RENOVATION.
8. CIRCUIT NUMBERS ARE SHOWN FOR DESIGN INTENT PURPOSES ONLY. FIELD VERIFICATION WILL DETERMINE EXACT BRANCH CIRCUITS AVAILABLE FOR USE BY THIS TENANT. REUSE EXISTING CIRCUITS THAT ARE MADE AVAILABLE DURING RENOVATION BEFORE USING AVAILABLE SPARES. PROVIDE AN UPDATED, PRINTED (NOT HANDWRITTEN) PANEL SCHEDULE FOR ALL PANELS MODIFIED DURING CONSTRUCTION.
9. HATCHING INDICATES AREA NOT IN SCOPE OF WORK.

(#) SHEET KEYNOTES

1. EXISTING EQUIPMENT SCHEDULED TO BE DEMOLISHED BY DIVISION 23. PRIOR TO DEMOLITION, DISCONNECT FROM EXISTING CIRCUIT AND REMOVE ASSOCIATED EQUIPMENT, BRANCH-CIRCUIT, AND CONDUIT SYSTEMS BACK TO SOURCE. SET CIRCUIT BREAKER IN THE "OFF" POSITION AND MARK AS "SPARE" ON PANEL SCHEDULE IF CIRCUIT IS NOT REUSED DURING RENOVATION.
2. EXISTING EQUIPMENT SCHEDULED TO BE RELOCATED BY DIVISION 23. PRIOR TO RELOCATION, DISCONNECT FROM EXISTING CIRCUIT AND EXTEND EXISTING CIRCUIT/CONDUIT SYSTEMS TO NEW LOCATION FOR RECONNECTION. COORDINATE FINAL LOCATION WITH DIVISION 23.
3. PROVIDE NEW BUILDING STANDARD SUB-METER FOR 24/7 POWER MONITORING OF PHARMACY LOADS. ALTHOUGH NOT SHOWN, PROVIDE A 277/V, 1PH BASE BUILDING SUBMETER FOR POWER MONITORING OF PHARMACY LIGHTING CIRCUIT (BELIEVED TO BE CIRCUIT H1B-12. CONTRACTOR TO FIELD VERIFY).
4. PROVIDE JUNCTION BOX ABOVE CEILING FOR HARDWIRE POWER CONNECTIONS TO PLENUM-RATED CONDENSATE PUMP. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH DIVISION 23.
5. INSTALL NEW BUSPLUG IN THIS ELECTRICAL ROOM TO SERVE NEW TRANSFORMER 'T1FE7'. REFER TO PARTIAL RISER DIAGRAM 2/E-1.0. ADDITIONALLY, RELOCATE EXISTING SUB-METER TO AVOID CONFLICT WITH NEW BUPLUG. ALL CODE REQUIRED CLEARANCES FOR NEW AND EXISTING EQUIPMENT SHALL BE MAINTAINED. ENSURE COMPLIANCE WITH NEC 110.26.
6. FIELD VERIFY FINAL LOCATION OF NEW TRANSFORMER 'T1FE7' SUCH THAT ALL CODE REQUIRED CLEARANCES ARE MAINTAINED AND INSTALLATION COMPLIES WITH NEC 110.26. THE SECONDARY CONDUCTORS ROUTED FROM THE SECONDARY TERMINALS TO THE LINE SIDE OF PANEL '1FE7-B' MAIN BREAKER SHALL NOT EXCEED 25-FT IN ACCORDANCE OF NEC 240.21(C)(6).
7. FIELD VERIFY THAT AN EXISTING GFCI RECEPTACLE IS LOCATED WITHIN 25-FT OF UNIT. IF NOT, PROVIDE AND INSTALL NEW GFCI RECEPTACLE IN ACCORDANCE WITH NEC 210.63. PROVIDE CONNECITON TO THE EXISTING 120V GENERAL RECEPTACLE CIRCUIT CURRENTLY SERVING THIS AREA. PROVIDE WEATHER-PROOF ENCLOSURE WHERE INSTALLED IN WET LOCATION.

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PROJECT MANAGER	PROJECT NO.
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