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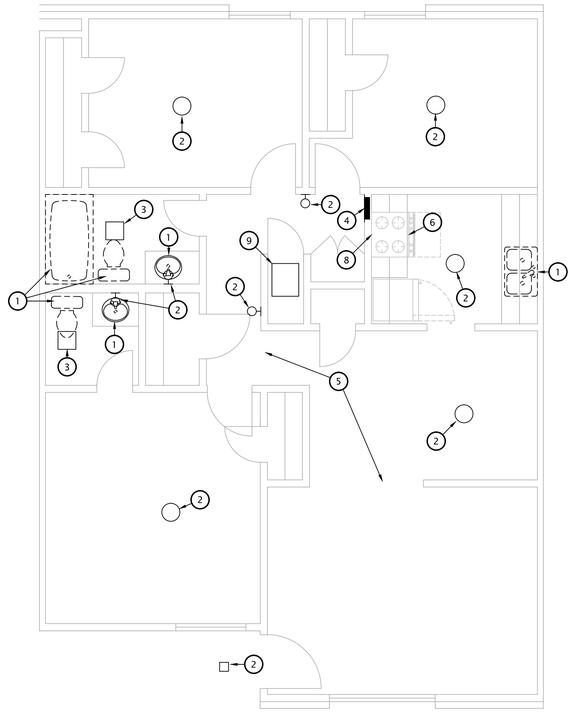
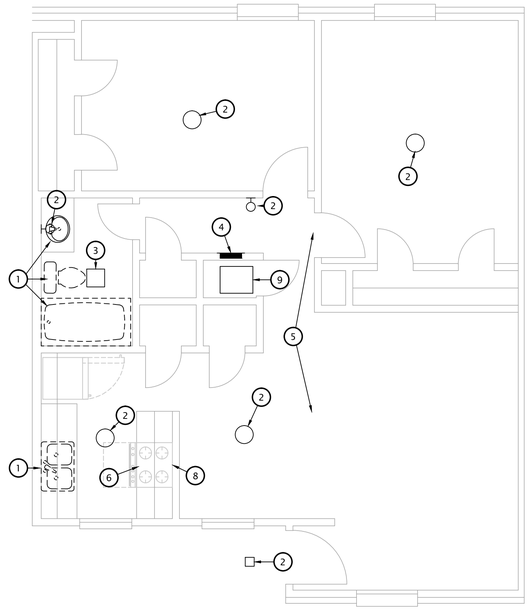
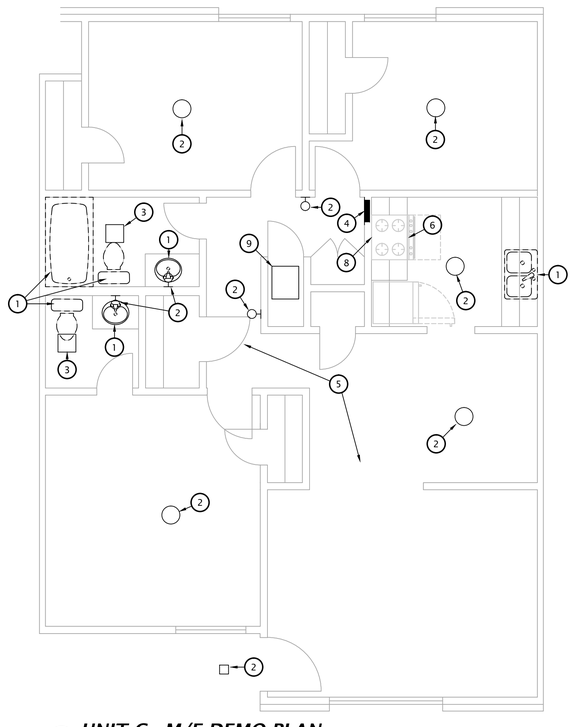
Project 24040 August 2025



5 UNIT E - M/E DEMO PLAN
1/4" = 1'-0"



4 UNIT D - M/E DEMO PLAN
1/4" = 1'-0"



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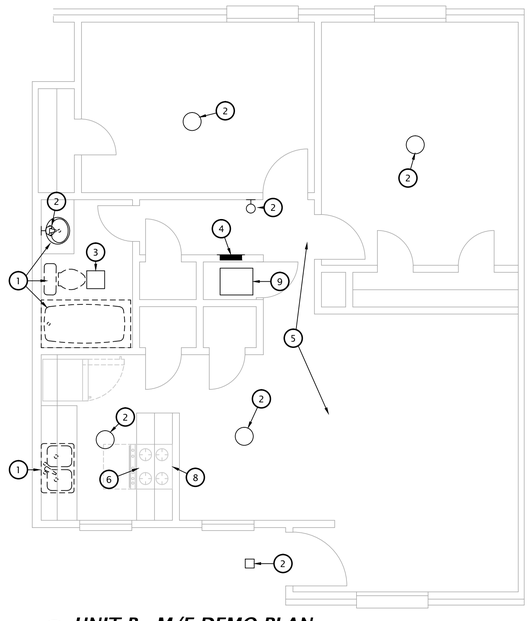
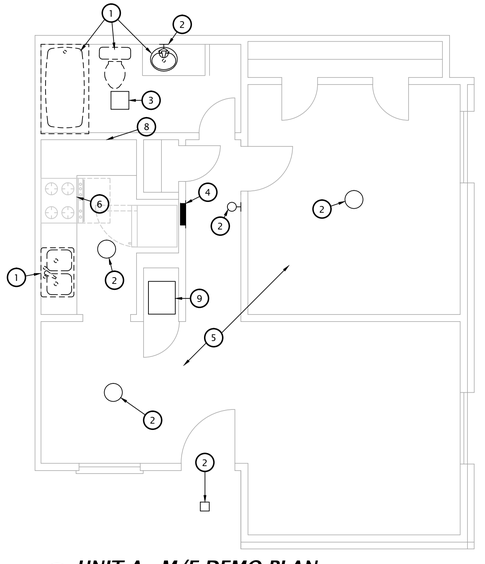
1/4" = 1'-0"



2 UNIT B - M/E DEMO PLAN
1/4" = 1'-0"



1 UNIT A - M/E DEMO PLAN
1/4" = 1'-0"

GENERAL DEMOLITION NOTES

1. REMOVE MECHANICAL AND ELECTRICAL INSTALLATION FROM PROJECT AREA. AS REQUIRED FOR NEW WORK. COORDINATE WITH OWNER AND G.C.
2. SERVICES TO ITEMS NOT REMOVED AS PART OF THIS WORK SHALL BE RESTORED UPON COMPLETION OF THIS WORK TO FULLY OPERATIONAL CONDITION.
3. NOT ALL ITEMS REQUIRED TO BE DEMOLISHED MAY BE INDICATED ON DRAWINGS. ALL DEMOLITION OF AFFECTED SPACE SHALL BE PERFORMED AS IF INDICATED.
4. DELIVER DEMOLISHED EQUIPMENT, WIRING, ETC. TO OWNER OR DISPOSE OF, AS DIRECTED BY OWNER.
5. FIELD VERIFY EXACT LOCATION OF ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT INDICATED ON DRAWINGS.
6. ALL ITEMS TO BE RE-USED OR RELOCATED SHALL BE CLEANED, REPAIRED, AND RESTORED TO LIKE NEW CONDITION PRIOR TO RE-USE.

GENERAL MECHANICAL DEMOLITION NOTES

1. ALL PIPING TAKEN OUT OF SERVICE SHALL BE REMOVED. WHERE PIPING TO BE REMOVED IS CONNECTED TO EXISTING PIPING TO REMAIN, PIPING SHALL BE REMOVED BACK TO MAIN AND CAPPED, UNLESS INDICATED OTHERWISE.
2. WHERE PIPING TAKEN OUT OF SERVICE IS LOCATED BELOW SLAB AND IS UNABLE TO BE REMOVED, CAP BELOW SLAB.
3. ALL DUCTWORK TAKEN OUT OF SERVICE SHALL BE REMOVED.
4. COORDINATE CUTTING, PATCHING OF EXISTING WALLS, CEILINGS, ROOF AND FLOORS AFFECTED BY MECHANICAL DEMOLITION WITH G.C.

NOTE: ALL UNITS SHOWN AS TYPICAL, REFER TO SCOPE OF WORK SCHEDULE FOR SPECIFIC UNIT EXTENT OF WORK.

GENERAL ELECTRICAL DEMOLITION NOTES

1. ALL EQUIPMENT, FIXTURES, RACEWAY, WIRING AND DEVICES WHICH ARE REMOVED SHALL BE REMOVED FROM THE JOB SITE BY THIS CONTRACTOR, UNLESS DIRECTED OTHERWISE BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. CONFORM TO ALL LAWS AND ORDINANCES IN EFFECT CONCERNING THE PROPER DISPOSAL OF LUMINAIRES AND LAMPS.
2. COORDINATE THE REMOVAL OF MECHANICAL AND PLUMBING EQUIPMENT WITH THE MECHANICAL AND PLUMBING CONTRACTORS. DISCONNECT AND REMOVE ELECTRICAL POWER AND CONTROL CIRCUITS FOR EQUIPMENT BEING REMOVED. REMOVE ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH DEMOLISHED MECHANICAL AND PLUMBING EQUIPMENT (DISCONNECT SWITCHES, MOTOR STARTERS, RELAYS, ETC).

(#) M/E DEMO PLAN NOTES BY SYMBOL

1. REMOVE AND REPLACE EXISTING PLUMBING FIXTURE, SEE NEW WORK PLANS FOR MORE INFORMATION.
2. REMOVE EXISTING LIGHT FIXTURES, RE-USE EXISTING CIRCUITRY FOR NEW LIGHT FIXTURE. SEE NEW WORK PLANS FOR MORE INFORMATION.
3. REMOVE EXISTING EXHAUST FAN. RE-USE EXISTING EXHAUST DUCT AND CIRCUITRY FOR NEW EXHAUST FAN. SEE NEW WORK PLANS FOR MORE INFORMATION.
4. EXISTING ELECTRICAL LOAD CENTER, SEE NEW WORK PLANS FOR MORE INFORMATION.
5. EXISTING AIR DEVICES TO REMOVED PER SCOPE OF WORK SCHEDULE. SEE NEW WORK PLANS FOR MORE INFORMATION.
6. DISCONNECT GAS FROM EXISTING RANGE TO BE REPLACED. EXISTING NATURAL GAS ROUGH-IN TO REMAIN FOR NEW RANGE. SEE NEW WORK PLANS FOR MORE INFORMATION.
7. NOT USED.
8. DISCONNECT EXHAUST DUCT FROM HOOD TO BE REMOVED. EXISTING DUCT TO REMAIN FOR RE-USE, SEE NEW WORK PLANS FOR MORE INFORMATION.
9. FURNACE, EVAPORATOR COIL, AND CONDENSING UNIT TO BE INSPECTED AND SERVICED AS REQUIRED FOR CONTINUED OPERATION. PROVIDE NEW FILTERS FOR ALL UNITS.

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REHAB APARTMENTS
WICHITA FALLS, TEXAS

08-29-2025
STATE OF KANSAS
TIMOTHY C. TREDWAY
95252
LICENSED PROFESSIONAL ENGINEER

REVISION:
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1 ASI #1 8-29-2025

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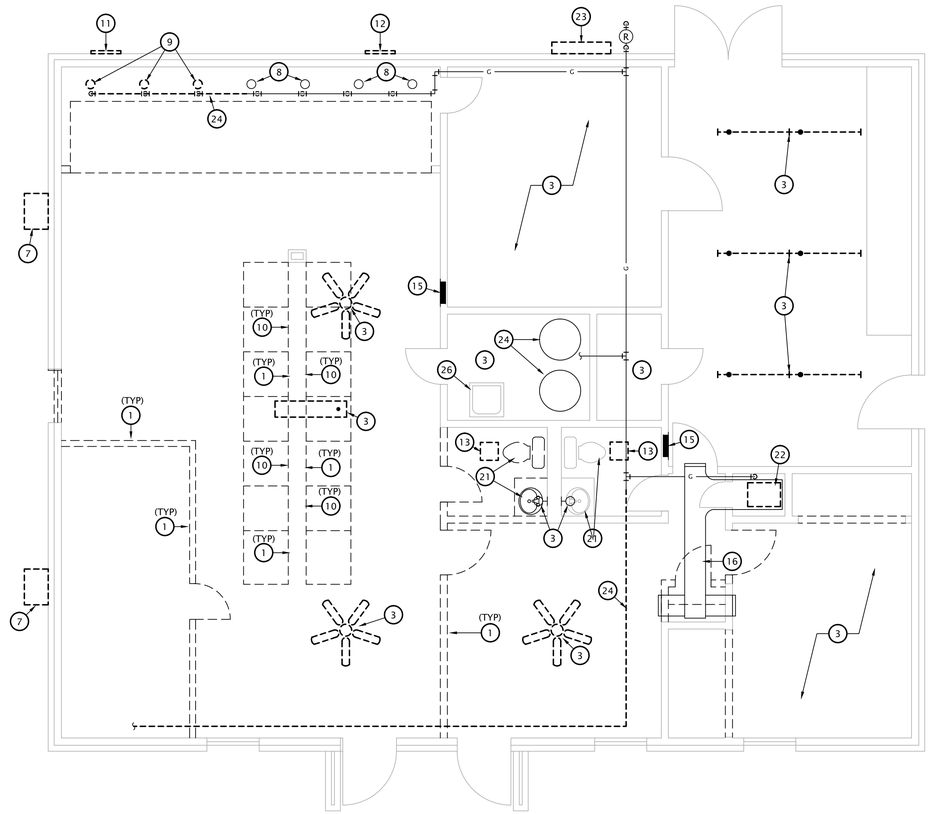
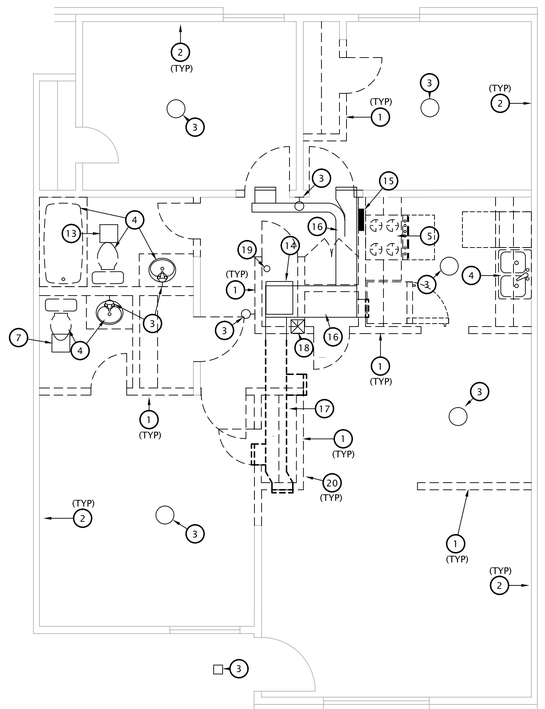
ME1.1



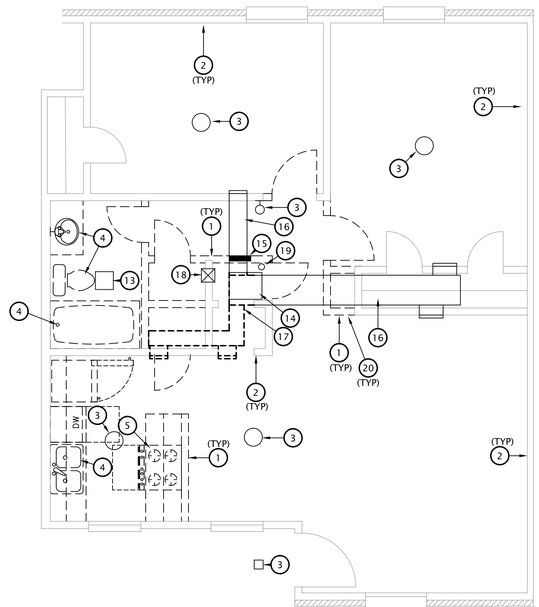
4 CLUBHOUSE - M/E DEMO PLAN

1/4" = 1'-0"



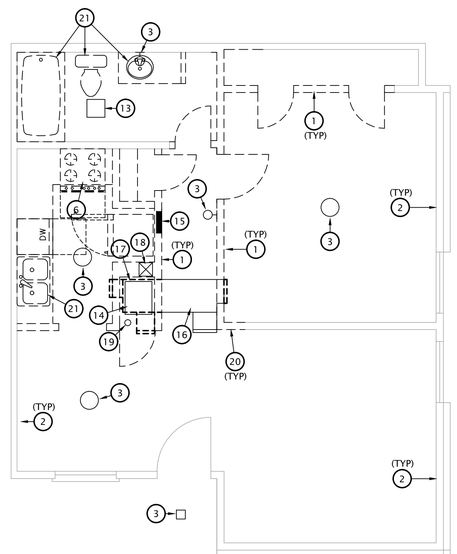
3 UNIT H - M/E DEMO PLAN

1/4" = 1'-0"



2 UNIT G - M/E DEMO PLAN

1/4" = 1'-0"



1 UNIT F - M/E DEMO PLAN

1/4" = 1'-0"

SEE GENERAL DEMOLITION NOTES ON ME1.1.

M/E DEMO PLAN NOTES BY SYMBOL

1. REMOVE ALL ELECTRICAL DEVICES AND ASSOCIATED CIRCUITRY IN WALLS TO BE DEMOLISHED. FIELD VERIFY EXACT LOCATION OF EXISTING.
2. ELECTRICAL DEVICES IN WALLS NOT DEMOLISHED TO BE RE-USED WHERE PLACEMENT MEETS NEC SPACING REQUIREMENTS. SEE NEW WORK PLANS FOR MORE INFORMATION.
3. REMOVE ALL EXISTING LIGHT FIXTURES AND CEILING FANS. REMOVE ASSOCIATED CIRCUITRY WHERE REQUIRED, SEE NEW WORK PLANS FOR MORE INFORMATION.
4. REMOVE PLUMBING FIXTURE AND ALL ASSOCIATED INSTALLATION, SEE NEW WORK PLANS FOR MORE INFORMATION.
5. REMOVE RANGE, RANGE HOOD AND ALL ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION. SEE NEW WORK PLANS FOR MORE INFORMATION.
6. REMOVE RANGE, RANGE HOOD. ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION TO BE RE-USED, SEE NEW WORK PLANS FOR MORE INFORMATION.
7. REMOVE EXHAUST FAN AND ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION. COORDINATE WALL PATCHING WITH ARCHITECT AND G.C.
8. (4) DRYER EXHAUST DUCT AND ROOF JACKS TO REMAIN. ENSURE IN GOOD CONDITION AND PROPER WORKING ORDER. THOROUGHLY CLEAN DUCT AND JACK BEFORE RE-USE. FIELD COORDINATE EXACT LOCATION WITH NEW WORK PLANS.
9. DRYER EXHAUST DUCT AND ROOF JACK TO BE REMOVED. COORDINATE PATCHING OF ROOF WITH ARCHITECT AND G.C.
10. REMOVE CLOTHES WASHER CONNECTION BOX AND ALL ASSOCIATED INSTALLATION.
11. REMOVE WALL LOUVER AND ASSOCIATED INSTALLATION, COORDINATE WALL PATCHING WITH ARCHITECT AND G.C.
12. REMOVE WALL LOUVER AND ASSOCIATED INSTALLATION, SEE NEW WORK PLAN FOR MORE INFORMATION.
13. REMOVE EXISTING EXHAUST FAN. RE-USE EXISTING EXHAUST DUCT FOR NEW EXHAUST FAN. SEE NEW WORK PLANS FOR MORE INFORMATION.
14. MODIFY DUCTWORK AS REQUIRED TO ACCOMMODATE NEW WORK. SEE NEW WORK PLANS FOR MORE INFORMATION.
15. REMOVE ELECTRICAL PANEL, SEE NEW WORK PLAN FOR MORE INFORMATION.
16. SUPPLY AIR DUCT TO REMAIN, SEE NEW WORK PLAN FOR MORE INFORMATION.
17. SUPPLY AIR DUCT TO BE REMOVED, SEE NEW WORK PLAN FOR MORE INFORMATION.
18. COMBUSTION AIR DUCT TO BE BE MODIFIED FOR NEW MECHANICAL CLOSET LOCATION, SEE NEW WORK PLANS FOR MORE INFORMATION.
19. FURNACE FLUE TO BE MODIFIED FOR NEW FURNACE LOCATION, SEE NEW WORK PLANS FOR MORE INFORMATION.
20. REMOVE ALL PHONE, DATA, AND CATV DEVICES AND ASSOCIATED INSTALLATION IN WALL BEING DEMOLISHED, SEE NEW WORK PLANS FOR MORE INFORMATION.
21. REMOVE PLUMBING FIXTURE, SEE NEW WORK PLANS FOR MORE INFORMATION.
22. FURNACE, EVAPORATOR COIL, AND CONDENSING UNIT TO BE REMOVED.
23. REMOVE EXISTING ELECTRICAL SERVICE INSTALLATION, SEE NEW WORK PLANS FOR MORE INFORMATION.
24. REMOVE NATURAL GAS PIPING TO EQUIPMENT BEING REMOVED. SEE NEW WORK PLANS FOR MORE INFORMATION.
25. EXISTING WATER HEATERS AND ASSOCIATED INSTALLATION TO REMAIN.
26. EXISTING SINK TO REMAIN.

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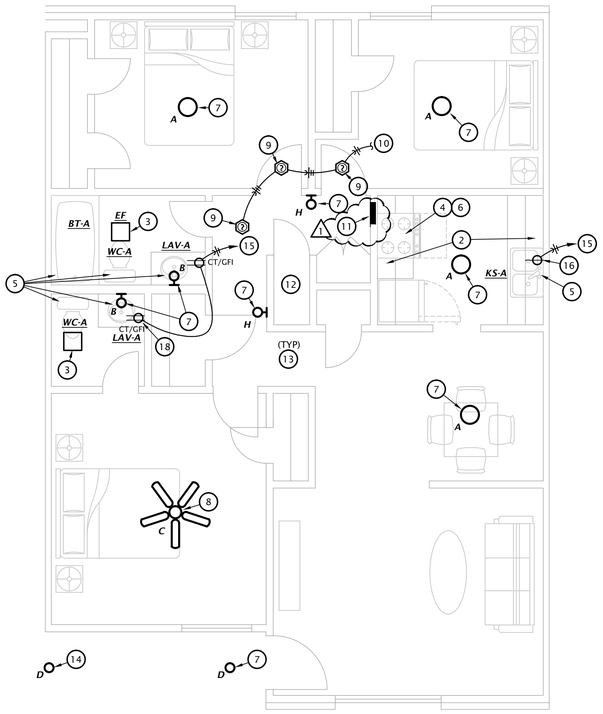
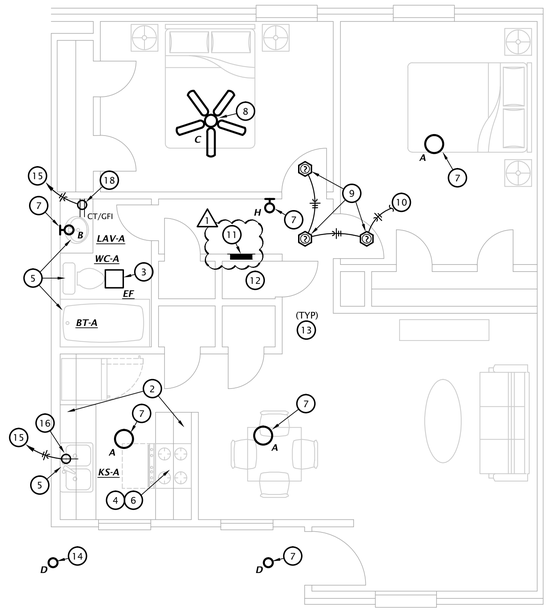
ME1.2



5 UNIT E - M/E PLAN
1/4" = 1'-0"



4 UNIT D - M/E PLAN
1/4" = 1'-0"

NOTE: ALL UNITS SHOWN AS TYPICAL, REFER TO SCOPE OF WORK SCHEDULE FOR SPECIFIC UNIT EXTENT OF WORK.

FOR APARTMENTS DESIGNATED FOR HEARING-IMPAIRED, REFER TO ARCH DRAWING FOR APPLICABLE ROOMS, PROVIDE THE FOLLOWING:

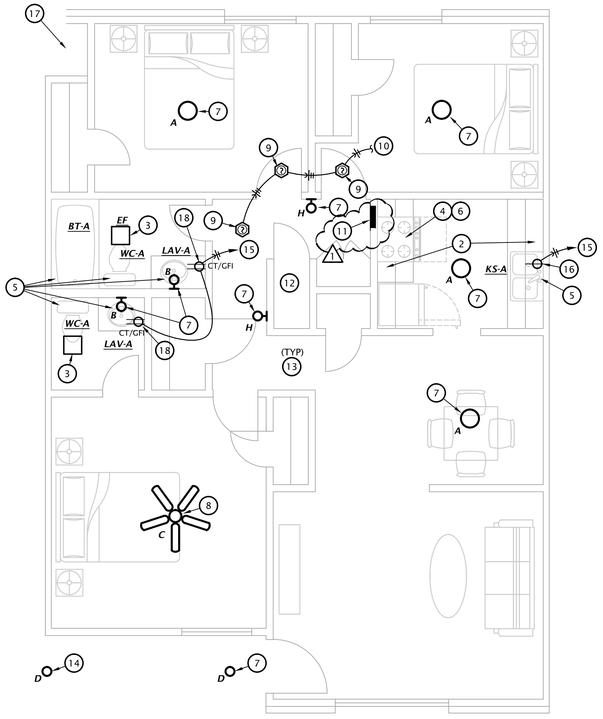
- CEILING MOUNTED SMOKE ALARMS IN ALL BEDROOMS AND OUTSIDE OF BEDROOMS. CEILING MOUNTED SMOKE ALARM IN APARTMENTS TO BE 120VAC WITH BATTERY BACKUP, INTERCONNECTED TO OTHERS IN SAME APARTMENT. DEVICE SHALL HAVE CARBON MONOXIDE DETECTOR AND PHOTOELECTRIC TYPE SMOKE DETECTOR WITH SOUNDER HORN HAVING AN 85dB OUTPUT AT 10' AND STROBE LIGHT WITH 177 CANDELA OUTPUT, SHALL HAVE A SINGLE BUTTON FOR TEST/SILENCE AND LED INDICATOR LIGHTS, AND SHALL BE UL 217 LISTED. BRK #7030BSL OR EQUAL. CONNECT TO UNSWITCHED 120V CIRUIT.
- PROVIDE DOOR ANNUNCIATOR SYSTEM A/V HORN/STROBE DEVICE AND LOW VOLTAGE TRANSFORMER AT ALL APARTMENTS. INSTALL HORN/STROBE APPLIANCE AT 80" AFF PER ADA. INSTALL TRANSFORMER IN DOUBLE GANG JUNCTION BOX ABOVE HORN/STROBE WITH BLANK COVER PLATE AND PROVIDE LOW VOLTAGE CONTROL WIRING. REFER TO DETAIL 1, SHEET E6.1. PROVIDE ENGRAVED SIGN AT THE HORN/STROBE DEVICE TO READ "DOOR". CONNECT TO UNSWITCHED 120V CIRCUIT.
- PROVIDE PUSH BUTTON AT 48" AFF FOR ANNUNCIATOR SYSTEM AT ALL APARTMENTS. REFER TO DETAIL 1, SHEET E6.1.

GENERAL NOTES:

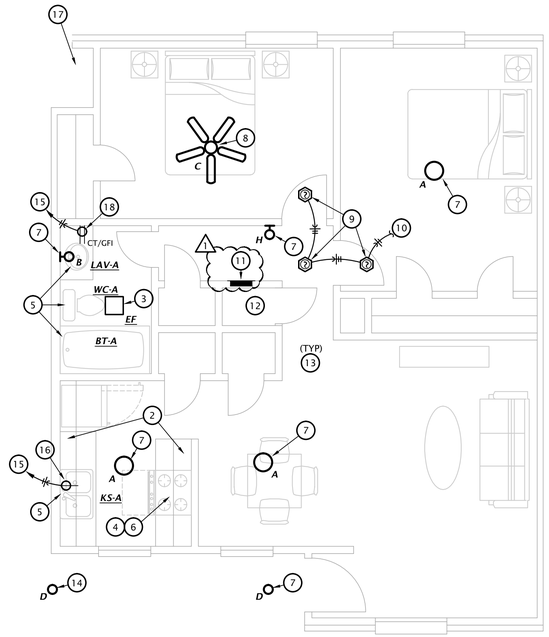
- PROVIDE TAMPER PROOF RECEPTACLES IN DWELLING UNITS PER NEC REQUIREMENTS WHERE NEW OR BEING REPLACED.
- ALL ELECTRICAL MODIFICATIONS SHALL ADHERE TO THE 2017 NEC AND ALL LOCAL ORDINANCES.
- ALL CIRCUITS BEING MODIFIED SHALL BE PROVIDED WITH AFCI PROTECTION PER 2017 NEC REQUIREMENTS.

(#) PLAN NOTES BY SYMBOL

1. NOT USED.
2. ALL RECEPTACLES SERVING KITCHEN COUNTERTOPS SHALL BE GFCI PROTECTED. FIELD VERIFY EXISTING CONDITIONS AND REPLACE RECEPTACLES AS REQUIRED.
3. REPLACE EXISTING EXHAUST FAN WITH NEW. MODIFY EXISTING MECHANICAL AND ELECTRICAL INSTALLATION AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.
4. CONNECT NATURAL GAS TO NEW RANGE PROVIDED BY OTHERS. MODIFY EXISTING ROUGH-IN AS REQUIRED FOR NEW WORK. COORDINATE EXACT REQUIREMENTS WITH EXISTING CONDITIONS AND EQUIPMENT PROVIDED.
5. REPLACE EXISTING PLUMBING FIXTURE. MODIFY EXISTING ROUGH-INS AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.
6. CONNECT NEW RANGE HOOD PROVIDED BY OTHERS. MODIFY EXISTING MECHANICAL AND ELECTRICAL INSTALLATION AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.
7. REPLACE EXISTING FIXTURE. ROUGH-IN AND EXISTING CIRCUITRY TO BE RE-USED, MODIFY AS REQUIRED.
8. REPLACE EXISTING FIXTURE WITH NEW CEILING FAN. EXISTING CIRCUITRY TO BE RE-USED AND PROVIDE ADDITIONAL SUPPORT TO STRUCTURE FOR FAN.
9. PROVIDE NEW OR REPLACE EXISTING SMOKE DETECTORS WITH SMOKE/CO DETECTORS. DETECTORS TO HAVE BATTERY BACKUP AND SHALL BE INTERCONNECTED TO OTHERS IN SAME APARTMENT. FIELD VERIFY REQUIREMENTS AND EXACT LOCATION OF EXISTING.
10. RE-USE EXISTING UNSWITCHED 120V CIRCUITRY OR CONNECT TO EXISTING UNSWITCHED 120V CIRCUIT, FIELD VERIFY EXACT REQUIREMENTS.
11. IN 30 DWELLING UNITS, PROVIDE NEW FLUSH MOUNT, 125 AMP MLO, 120/240V-1PH-3W LOAD CENTER WITH MINIMUM 12 SPACES. PROVIDE NEW CIRCUIT BREAKERS OF EQUAL AMPERAGE AND POLES FOR EXISTING CIRCUITS AND PROVIDE NEW CIRCUIT BREAKERS AS INDICATED ON PLANS. ALL CIRCUITS SERVING RECEPTACLES IN BEDROOMS, LIVING ROOMS, KITCHENS, DINING ROOMS, HALLWAYS OR SIMILAR AREAS SHALL BE PROVIDED WITH AFCI BREAKERS. COORDINATE EXACT UNITS TO BE MODIFIED WITH SCOPE OF WORK AND G.C.
12. PROVIDE NEW FURNACE, EVAPORATIVE COIL, CONDENSING UNIT, AND ASSOCIATED INSTALLATION OF EQUAL COOLING AND HEATING CAPACITY. REFER TO SCOPE OF WORK FOR WHICH APARTMENTS TO HAVE SYSTEM REPLACED.
13. PROVIDE NEW SUPPLY AND RETURN GRILLE OF EQUAL KIND AND QUALITY. REFER TO SCOPE OF WORK. IF DEVICE IS TO BE RE-USED, CLEAN, REPAIR AND RESTORE EXISTING AIR DEVICES TO LIKE NEW CONDITION. COORDINATE WITH G.C.
14. REPLACE EXISTING FIXTURE. ROUGH-IN AND EXISTING CIRCUITRY TO BE RE-USED. LIGHT TO BE CONTROLLED BY EXTERIOR LIGHTING CONTROLS, FIELD VERIFY.
15. IN 30 DWELLING UNITS, PROVIDE NEW (2) #12, #12G, CIRCUIT TO PANEL WITH NEW 20A SINGLE POLE GFCI BREAKER. COORDINATE EXACT UNITS TO BE MODIFIED WITH SCOPE OF WORK AND G.C.
16. IN 30 DWELLING UNITS, PROVIDE SIMPLEX RECEPTACLE BELOW COUNTER FOR GARBAGE DISPOSAL. PROVIDE SWITCH FOR DISPOSAL OPERATION. COORDINATE EXACT UNITS TO BE MODIFIED WITH SCOPE OF WORK AND G.C.
17. EXISTING HOT WATER RECIRCULATION PUMP TO REMAIN.
18. IN 30 DWELLING UNITS, PROVIDE NEW RECEPTACLE IN BATHROOM, PROVIDE GFCI RECEPTACLE IF NOT PROVIDING GFCI CIRCUIT BREAKER. COORDINATE EXACT UNITS TO BE MODIFIED WITH SCOPE OF WORK AND G.C.



3 UNIT C - M/E PLAN
1/4" = 1'-0"



2 UNIT B - M/E PLAN
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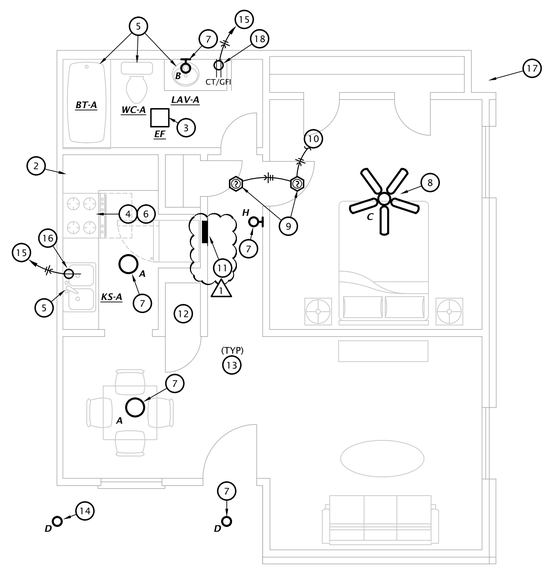

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ME1.3

DIVISION 15 - MECHANICAL SPECIFICATIONS

SECTION 15050 - BASIC MECHANICAL MATERIALS AND METHODS

15050.01 The drawings and general provisions of the Contract, including General Conditions, Supplementary General Conditions, and General Requirements apply to the work specified in DIVISION 15 - MECHANICAL.

15050.02 The Mechanical Contract includes all labor, materials and equipment required for the complete mechanical systems as shown and herein specified.

15050.03 This contractor is responsible for reviewing ALL drawings to determine extent of coordination required with other trades. Additional offsets, bends, material will not be accepted as a result of un-coordinated work.

15050.04 This contractor is required to perform work in a professional and quality workman like manner. This includes, but is not limited to:

a. Make vertical elements plumb and horizontal elements level unless noted otherwise.
b. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless noted otherwise.
c. Protect work from damage and water during construction. Replace all equipment/material damaged or exposed to water during construction.
d. Clean equipment, interior and exterior, at completion of construction and remove all temporary labels, stains and foreign substances.
e. Protect HVAC ductwork from accumulating dirt and debris during construction and replace all HVAC filters at completion of construction

15050.05 Each major component of equipment shall have the manufacturer's name; address, model number and rating on a nameplate securely affixed.

15050.06 All equipment of one type (such as furnaces, condensing units, etc.) shall be the products of one manufacturer, unless otherwise specified.

15050.07 The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding. Where the quality of required material is not specified, the Contractor shall furnish a first class standard item as approved by the Architect/Engineer.

15050.08 Manufacturer's names are intended to establish type and quality of items to be provided via the contract.The materials, products, and equipment described in the specifications or on the drawings establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution. Listing of these manufacturers shall in no way be construed as a device intended to limit the bidders to those specifically listed.

15050.09 Electrical Characteristics for Mechanical Equipment: Equipment of higher electrical characteristics may be furnished provided such proposed equipment is approved in writing and connecting electrical services, circuit breakers, and conduit sizes are appropriately modified. If minimum energy ratings or efficiencies are specified, equipment shall comply with requirements.

15050.10 The Drawings are schematic only and are not intended to show the exact routing of piping, ductwork, etc. Final determination of routing shall be made at the jobsite, in coordination with other trades.

15050.11 Install all equipment in strict accordance with the manufacturer's recommendations.

15050.12 All work under this contract shall conform to the requirements of all applicable local, state, and federal code requirements. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

15050.13 All components, accessories, and installation required for a complete mechanical installation shall be provided. Where materials or labor are required for completion of a system, such material or labor shall be included as if fully specified herein.

15050.14 Periodically during construction and prior to Owner acceptance of the building, Contractor shall remove from the premises and dispose of all packing material and debris related to work performed under this Division.

15050.15 Before submitting his bid, the Contractor shall visit the actual location of the job and shall fully understand the scope of the work to be done and the conditions under which it is to be performed.

15050.16 The Mechanical Contractor shall be responsible for locating and setting his own pipe sleeves, and be well aware of the job progress to avoid unnecessary delay for setting of same.

15050.17 The Mechanical Contractor shall do all excavating and backfilling necessary to complete work under this contract. Lines shall be used to lay out the trenches for underground work. Trenches shall be of sufficient width and shall be cribbed or braced to prevent cave in or settlement. Trenches close to walls and columns of the building shall not be excavated without the Architect's prior consent. The bottoms of trenches shall be tamped hard and graded to secure the required fall before laying pipe. Bell holes shall be excavated so the pipe will rest on solid ground for its entire length. Hand backfill and tamp backfill into place at sides of pipes, leaving tops and joints exposed until pipe runs have been tested and approved.

15050.18 Notify the Engineer of errors, discrepancies, or omissions in the drawings and specifications before construction or fabrication of affected work, or failing such notice, be responsible for correction of such work without cost to the Owner, Architect, or Engineer.

SECTION 15060 PIPE AND FITTINGS

15060.01 Above Grade Piping and Fittings:

A. Type L hard copper pipe with sweat type fittings and 50/50 solder shall be used for all discharge pipe from relief valves, condensate drain, and non-potable domestic water piping.
B. Domestic water piping:
1. Type L hard copper pipe with sweat type fitting and 95/5 lead free solder.
2. If approved by owner, cross-linked polyethylene (PEX) with brass barbed fittings. All components shall be from same manufacturer, and installed in strict accordance with Manufacturer's instructions. System used must have been in production for a minimum of five years.
All piping installed where subject to damage shall be copper.
C. Service weight centrifugally cast iron soil pipe, bearing the mark of the Cast Iron Institute, with "NO HUB" joints shall be used for soil, waste and vent lines. All changes in direction shall be made by the use of 45 wyes, half wyes, long sweep l/4 bends, 1/6, 1/8, or 1/16 bends. Sanitary tees may be used where the changes in direction of flow is from horizontal to vertical. Where space conditions necessitate the use of short radius fitting, approval shall be obtained before installation.
NOTE: WHERE PERMITTED BY LOCAL BUILDING CODES, ABOVE GROUND SANITARY WASTE AND VENT PIPING MAY BE SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS. ALL FITTINGS SHALL BE DRAINAGE PATTERN FITTINGS, AND NO PVC PIPING SHALL BE USED IN RETURN AIR PLENUMS.

15060.02 Below Grade Pipe and Fittings

A. Schedule 40 PVC drain waste and vent piping with solvent welded joints shall be used for all soil, waste and vent lines. All changes in directions shall be made by the use of 45 wyes, half wyes, long sweep 1/4 bends, 1/6, 1/8, or 1/16 bends. Sanitary tees may be used where the changes in direction of flow are from horizontal to vertical. Where space conditions necessitate the use of short radius fitting, approval shall be obtained before installation.
B. Water Piping:
1. Copper Pipe: ASME B16.18, cast copper alloy or ASME B16.22 wrought copper and bronze with ASTM B 32, alloy Sn95 solder joints.
2. PE Pipe: ASTM D2239, or ASTM D2447 Schedule 40, with ASTM D2609 PE fittings and mechanical joints with stainless steel clamp.

15060.03 Soil, Waste and Vent Piping

A. The arrangement of the systems must be as direct as possible avoiding all unnecessary offsets. All pipe shall run as indicated on the drawings, unless some condition should arise which would make it necessary or seem advisable to alter same; in which case, the Architect or his representative must be consulted before making any change. Horizontal lines shall be graded at 1/8" per foot, unless noted otherwise. Where necessary, lines may pitch at 1/10" per foot when approved or noted.
B. Every vent for traps shall be connected to the waste line by as short a connection as possible, but in no case shall such connections have a length greater than 2' in length, measuring horizontally from the center of the fixture to the vent. Horizontal vents shall connect into the main stack at least 18" above the highest fixture.
C. Each fixture and piece of equipment requiring connection to the sanitary drainage system shall be equipped with a trap. Each trap shall be placed as near the fixture as possible and no fixture shall be double trapped. Combination drain/vent piping is acceptable where indicated and allowed by building codes.
D. All under slab plastic piping shall be installed in strict compliance with building codes as well as all manufacturers' recommendations.

15060.04 Domestic Water Piping

A. All runs of pipe shall be installed as shown on drawings, unless some condition should arise which would make it necessary or seem advisable to alter same; in which case, the Architect or his representative must be consulted before making any change.

15060.05 Refrigeration Piping

A. All refrigerant piping shall be Type L ACR hard copper with silfos joints. All elbow fittings,except suction line oil traps, shall be long radius type. Suction line oil traps shall be comprised of short radius elbows to minimize the quantity of oil retained.
B. All refrigerant lines shall be charged with nitrogen during all sweating and heating operations, and shall be evacuated with a vacuum pump prior to charging.

SECTION 15080 MECHANICAL INSULATION

15080.06 Insulate refrigerant suction lines with 3/4" foam pipe insulation, "Armacell Armaflex" or equivalent. Paint exterior insulation with two coats of "Armacell Armaflex" finish.

15080.07 Condensate drains from cooling coils shall be insulated with 1/2" thick preformed fiberglass pipe insulation.

15080.08 Insulate ductwork as scheduled. Duct dimensions indicated on the plans are free area.

Indoor Concealed Supply Duct: Insulate all rectangular and round sheet metal duct with 1-1/2" fiberglass Duct wrap with foil exterior vapor barrier
Indoor Concealed Return Duct: 1-1/2" fiberglass duct wrap with foil exterior vapor barrier
General Building Exhaust Duct: None Required
Outdoor Air Intake Ductwork: 1-1/2" fiberglass duct wrap with foil exterior vapor barrier.

SECTION 15120 PIPING SPECIALTIES AND VALVES

15120.01 Valves shall be installed at locations shown and specified; the locations shall be accessible. All valves shall be installed with their stems or spindles horizontal or above.

15120.02 Provide unions where shown at all equipment connections and at other points where disconnection of piping will be required.

15120.03 Apollo bronze body ball valves, Series 70 or approved equal, with threaded or soldered end, shall be used in 3" and smaller copper and steel lines for domestic water duties. Provide with extended stem when used in insulated lines.

15120.04 Screwed or solder type ground joint unions shall be used on piping 2" and smaller.

15120.05 Unions shall not be installed in walls or partitions or above non accessible ceilings.

15120.06 Dielectric unions shall be used where copper lines connect to other types of materials.

15120.07 Provide chrome plated escutcheons on exposed pipes where they pass through walls and ceilings.

SECTION 15140 PIPING SUPPORTS, ANCHORS AND SEALS

15140.01 Provide pipe sleeves, hangers and supports.

15140.02 Pipe shall be securely supported from structure. Hangers shall be provided where required. No plastic hangers or straps shall be used.

15140.03 Pipe sleeves will be required in all pipe penetrations through exterior walls and floors. Sleeves shall be Schedule 5 steel pipe, field fabricated from minimum 16 gauge steel with 2" overlap at the seam.

15140.04 Space between sleeves and pipes in outside walls shall be filled or tightly caulked with oakum, butyl rubber, link seals or other approved equally effective material to resist the penetration of water. Pipe sleeve shall be sufficient diameter to provide approximately 1/2" clearance around pipe, and in the case of insulated pipe, approximately 1/2" around insulation.

15140.05 Sleeves shall be set no closer than three pipe diameters center to center, be set 3/4" past all wall surfaces, and securely anchored to the wall.

15140.06 Hanger and support spacing for horizontal steel and copper piping shall not exceed the following:

PIPE SIZE	STEEL PIPE	COPPER PIPE
1/2" - 1-1/4"	7'	5'
1-1/2" - 2"	9'	6'
2-1/2" - 3"	11'	10'

15140.07 Soil, waste, vent and drain pipe shall have a minimum of one hanger per pipe section at the joints and at changes in direction and branch connections.

15140.08 Spacing of supports and braces for exposed vertical piping shall not exceed the hanger spacing specified for horizontal pipe, unless otherwise indicated.

SECTION 15430 PLUMBING SPECIALTIES

15430.01 Provide Zurn, Smith, Wade, Josam, or approved equal cleanouts where shown. Cleanouts shall be the same size pipe for pipe 4" and smaller, and 4" for lines 4" and larger.

15430.02 Floor and exterior cleanouts shall be Zurn ZN-1400. Set in 12" x 12" x 4" concrete pad for exterior use.

15430.03 Wall cleanouts shall be "NO-HUB" caps behind Zurn Z1446 round stainless steel cover.

SECTION 15440 PLUMBING FIXTURES AND TRIM

15440.01 Provide complete, all fixtures indicated. All fixtures shall be set firm and true, connected to all pipe and ready for use. All fixtures shall be of one manufacturer throughout the entire installation, unless otherwise specified. Stop valves shall be provided on the water connections to all fixtures.

15440.02 Refer to plumbing fixture schedule on drawings. Fixtures from Eljer, American Standard, Crane, and Kohler are equally accepted provided comparable units are provided.

15440.03 Refer to elevations on the Architect's drawings for installation height of wall mounted fixtures.

15440.04 Plumbing trim utilized shall be provided with renewable seats and replaceable internal working components.

15440.05 All fixtures shall be substantially supported in an approved manner. Furnish and install adjustable carriers as required for all wall hung fixtures.

15440.06 All spaces between fixtures and finished surfaces shall be caulked and pointed square with an approved white silicone sealant resulting in a neat and smooth appearance.

15440.07 The contractor shall be responsible for the protection and cleanliness of all fixtures, equipment and accessories.

SECTION 15670 - A/C SYSTEMS

15670.01 Provide Trane, Lennox, York, or Carrier condensing unit/evaporator/furnace combinations as scheduled on the drawings.

15670.02 Gas fired furnaces shall be provided with direct drive factory balanced, resilient mounted, centrifugal fan. Fans shall be multispeed with internal thermal protection and permanent lubrication.

15670.03 Gas heat exchangers shall be stamped and welded aluminized steel. Heating system shall be equipped with electronic pilot ignition, 100 percent safety gas shutoff valve, control gas valve, and manual shutoff.

15670.04 Combustion air intake and vent piping shall be PVC pipe, sized per Manufacturer's recommendations. Terminations through wall or roof shall be made utilizing Manufacturer's PVC fitting.

15670.05 All system components shall be of same Manufacturer.

15670.06 Refrigerant evaporator coils shall be copper tube with mechanically bonded aluminum fins, complying with ARI 210/240, and with thermal expansion valve.

15670.07 Filters shall be 1" thick throwaway type.

15670.08 Condensing units shall have steel housing with removable panels to access controls. Service valves, fittings and gage ports shall be on exterior of unit. Housing shall be finished with baked enamel. Condenser coils shall be copper tube with mechanically bonded aluminum fins complying with ARI 210/240.

15670.09 Compressors shall be hermetically sealed scroll type mounted on vibration isolators. Provide with crankcase heater. Motor shall be permanently lubricated and have thermal and current sensitive overload protection, start capacitor, relay, and contactor.

15670.10 Provide with programmable thermostats and all required control wiring.

SECTION 15890 SHEET METAL WORK

15890.01 Provide all sheet metal work for supply, return, and exhaust air systems. Provide all grilles, louvers, hand dampers, and all work required to make the job complete as shown on the drawings.

15890.02 All duct construction, gauges, methods of construction, and methods for hanging and supporting shall conform to SMACNA Standards applicable sections of the Mechanical Code.

15890.03 All ductwork shall be constructed of galvanized sheet steel to 2" SMACNA pressure class and Class "C" sealing.

15890.04 Make joints in rectangular ductwork airtight and patch or solder open corners.

15890.05 All round ductwork shall be 26 gauge galvanized "Snap Lock" pipe with all changes in direction made via adjustable elbows. All seams and connections shall be sealed with foil faced pressure sensitive tape. Silver-coated polyethylene cloth tape is not acceptable. All rectangular duct shall be 24 gauge galvanized sheetmetal. Duct sizes shown on drawings are air stream size.

15890.06 Provide Ventfabrics, Inc., "Metaledge Ventglass" canvas connections for all duct systems at connections to motorized equipment.

15890.07 Coordinate ductwork installation with other trades and verify the location of all light fixtures, pipes, beams, and other possible obstructions, and adjust routing of ductwork as required to accommodate same.

SECTION 15950 TESTING, ADJUSTING, AND BALANCING

15950.01 All testing and balancing work shall be performed in accordance with NEBB National Standards for Testing, Adjusting, and Balancing of Environmental Systems.

15950.02 Adjust all fans and air outlets to within 10% of specified airflow.

END OF DIVISION 15

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PLUMBING SYMBOLS

- SANITARY DRAIN BELOW GRADE
- SANITARY DRAIN ABOVE GRADE
- SANITARY VENT
- DOMESTIC COLD WATER
- DOMESTIC HOT WATER
- W — WATER SERVICE
- SHORT RADIUS 90° ELBOW
- PIPE TURNED UP
- PIPE TURNED DOWN
- TEE UP
- TEE DOWN
- SHORT RADIUS 45° ELBOW
- TEE
- CO — CLEANOUT
- BALL VALVE
- FD — FLOOR DRAIN

HVAC SYMBOLS

- RECTANGULAR SUPPLY DUCT UP
- RECTANGULAR SUPPLY DUCT DOWN
- ROUND DUCT UP
- ROUND DUCT DOWN
- RECTANGULAR RETURN DUCT UP
- RECTANGULAR RETURN DUCT DOWN
- SQUARE SUPPLY DIFFUSER
- FLEXIBLE DUCTWORK - MAX 5'
- RIGID DUCTWORK
- WALL GRILLE (SUPPLY OR RETURN)
- THERMOSTAT
- 90° ELBOW WITH TURNING VANES
- GRILLE/DIFFUSER TAG
  - TOP: DEVICE TAG (SEE SCHEDULE)
  - MIDDLE: NECK SIZE
  - BOTTOM: AIRFLOW

SYMBOL MODIFICATION DESIGNATORS/ABBREVIATIONS

OA	OUTDOOR AIR
RA	RETURN AIR
SA	SUPPLY AIR
MC	MECHANICAL CONTRACTOR
TC	TEMPERATURE CONTROL CONTRACTOR
EC	ELECTRICAL CONTRACTOR
GC	GENERAL CONTRACTOR
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
BG	BELOW GRADE
FG	FINISHED GRADE
FFCO	FINISH FLOOR CLEAN OUT
FWCO	FINISH WALL CLEAN OUT
FGCO	FINISH GRADE CLEAN OUT
UNO	UNLESS NOTED OTHERWISE

GENERAL SYMBOLS

- DETAIL REFERENCE
  - # — DETAIL NUMBER
  - ## — SHEET NUMBER
- ELEVATION REFERENCE
  - # — DETAIL NUMBER
  - ## — SHEET NUMBER
- SECTION CUT
  - # — DETAIL NUMBER
  - ## — SHEET NUMBER
- # — KEYED PLAN NOTE
- # — REVISION NOTE
- ELEVATION
- CONNECT TO EXISTING. FIELD VERIFY LOCATION & MATERIAL OF EXISTING

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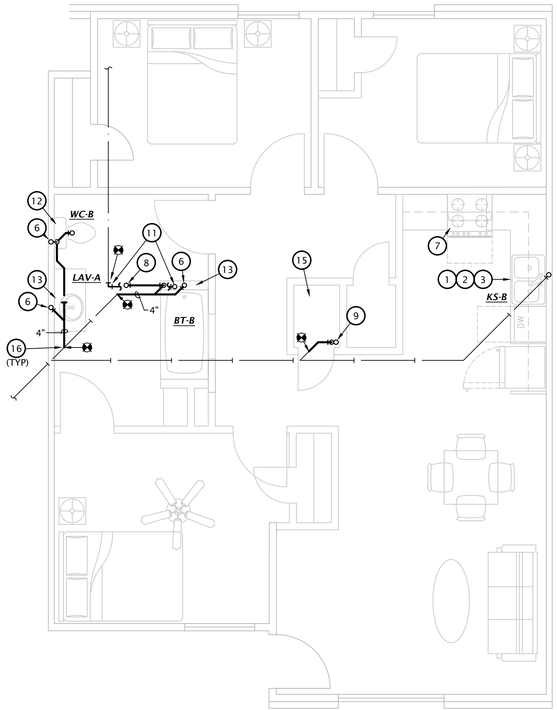
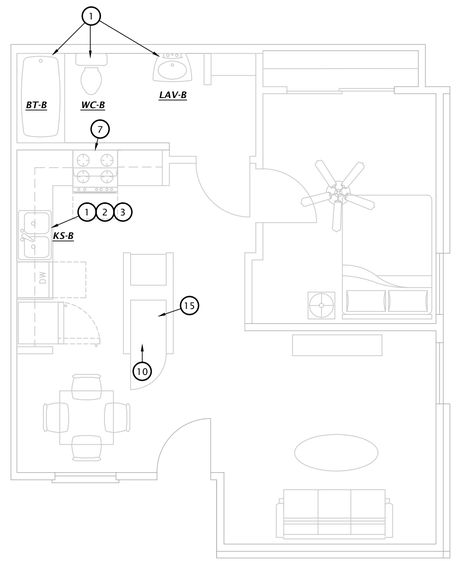
PLUMBING PLAN NOTES BY SYMBOL

1. CONNECT NEW PLUMBING FIXTURE TO EXISTING ROUGH-INS, MODIFY ROUGH-INS AS REQUIRED.
2. PROVIDE 1/2" VALVED HW BRANCH AND CONNECT DISHWASHER. COORDINATE EXACT REQUIREMENTS WITH EQUIPMENT PROVIDED.
3. CONNECT DISHWASHER DRAIN TO INDIRECT CONNECTION AT GARBAGE DISPOSAL IN ACCORDANCE TO MANUFACTURER'S INSTRUCTIONS.
4. CONNECT TO EXISTING 4" OR LARGER WASTE PIPING PREVIOUSLY SERVING AREA. FIELD VERIFY EXACT ROUTING OF EXISTING PIPING.
5. CONNECT TO EXISTING 2" OR LARGER WASTE PIPING PREVIOUSLY SERVING AREA. FIELD VERIFY EXACT ROUTING OF EXISTING PIPING.
6. CONNECT TO EXISTING VENT PIPING PREVIOUSLY SERVING AREA.
7. MODIFY GAS PIPING AS REQUIRED FOR NEW RANGE LOCATION.
8. 4" WASTE STACK SERVING PLUMBING FIXTURES ABOVE. RE-ROUTE ABOVE CEILING TO NEAREST WALL AND ROUTE THROUGH WALL TO BELOW FLOOR. FIELD VERIFY EXACT ROUTING.
9. PROVIDE NEW 2" TRAPPED OPEN HUB DRAIN IN NEW MECHANICAL CLOSET FOR CONDENSATE DRAINAGE.
10. MODIFY OPEN HUB DRAIN FOR NEW MECHANICAL CLOSET LAYOUT.
11. INTERCEPT 1-1/4" CW PIPING BELOW FLOOR AND ROUTE UP IN NEW FLOOR. RE-CONNECT TO EXISTING PIPING ABOVE CEILING AND RE-CONNECT ANY FIXTURES STAYING IN SERVICE. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
12. PROVIDE NEW 1/2" CW TO WATER CLOSET, CONNECT TO NEAREST 3/4" OR LARGER CW PIPING. FIELD COORDINATE EXACT LOCATION AND REQUIREMENTS.
13. PROVIDE NEW 1/2" CW AND 1/2" HW CONNECTIONS TO LAVATORY, KITCHEN SINK, AND BATHTUB, CONNECT TO NEAREST 3/4" OR LARGER CW AND HW PIPING. FIELD COORDINATE EXACT LOCATION AND REQUIREMENTS.
14. EXISTING WASTE STACK SERVING UNIT ABOVE TO REMAIN.
15. MODIFY GAS PIPING AS REQUIRED FOR NEW FURNACE LOCATION.
16. CONNECT TO EXISTING SANITARY DRAIN. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING. SCOPE EXISTING PIPING WITH CAMERA TO VERIFY CONDITION.



3 UNIT H (ACCESSIBLE) - PLUMBING PLAN
1/4" = 1'-0"

2 UNIT G (ACCESSIBLE) - PLUMBING PLAN
1/4" = 1'-0"



1 UNIT F (ACCESSIBLE) - PLUMBING PLAN
1/4" = 1'-0"

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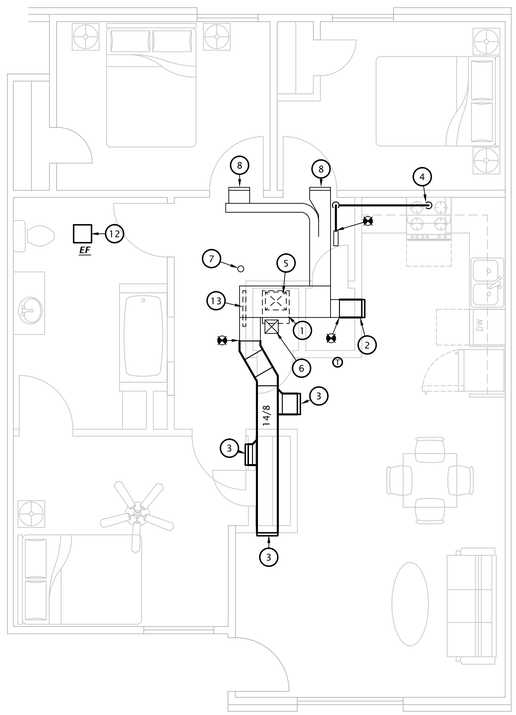
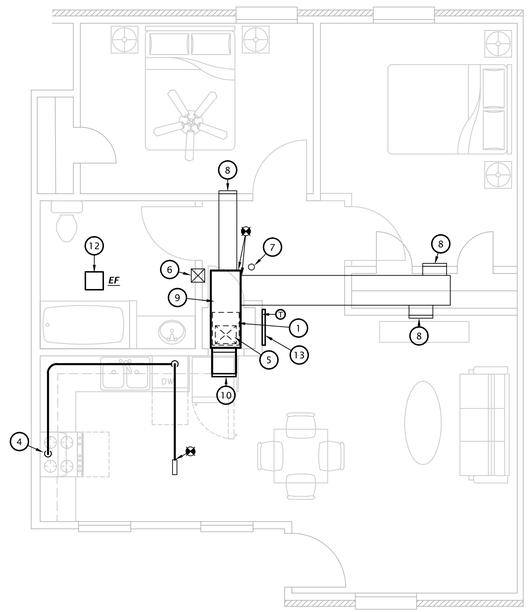
PLAN NOTES BY SYMBOL

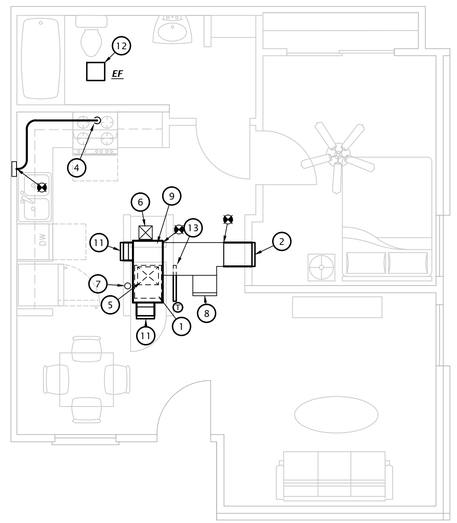
1. EXISTING FURNACE TO REMAIN. FURNACE, EVAPORATOR COIL, AND CONDENSING UNIT TO BE INSPECTED AND SERVICED AS REQUIRED FOR CONTINUED OPERATION. PROVIDE NEW FILTERS FOR ALL UNITS.
2. EXTEND DUCT TO NEW WALL AND PROVIDE NEW SUPPLY GRILLE OF EQUAL KIND, QUALITY AND SIZE OF EXISTING. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
3. PROVIDE NEW 14"x6" SUPPLY GRILLE OF EQUAL KIND AND QUALITY OF EXISTING, FIELD VERIFY.
4. CONNECT NEW 6"Ø DUCT TO RANGE HOOD. ROUTE DUCT THROUGH SOFFIT ABOVE CABINETS AND INTO JOIST SPACE TO CONNECT TO EXISTING EXHAUST DUCT UP THROUGH FLOOR.
5. MODIFY DUCTWORK AS INDICATED ON PLANS. PATCH AND SEAL EXISTING CONNECTION BEING REMOVED.
6. MODIFY COMBUSTION AIR DUCT AS REQUIRED TO TERMINATE IN NEW MECHANICAL CLOSET.
7. EXISTING FLUE THROUGH FLOOR TO ROOF, EXTEND AS REQUIRED TO NEW FURNACE LOCATION.
8. PROVIDE NEW SUPPLY GRILLE OF EQUAL SIZE, KIND AND QUALITY OF EXISTING, FIELD VERIFY.
9. PROVIDE NEW 20"x8" SUPPLY DUCT AND CONNECT TO EXISTING DUCTS TO REMAIN. FIELD VERIFY EXACT LOCATION AND REQUIREMENTS.
10. PROVIDE NEW 16"x6" SUPPLY GRILLE OF EQUAL KIND AND QUALITY OF EXISTING, FIELD VERIFY.
11. PROVIDE NEW 12"x6" SUPPLY GRILLE OF EQUAL KIND AND QUALITY OF EXISTING, FIELD VERIFY.
12. REPLACE EXISTING EXHAUST FAN WITH NEW. CONNECT TO EXISTING DUCT, MODIFY AS REQUIRED. VERIFY DUCT AND WALL CAP WITH BACKDRAFT DAMPER ARE IN GOOD WORKING ORDER, REPAIR/REPLACE AS REQUIRED.
13. PROVIDE NEW 24"x14" RETURN GRILLE EQUAL TO EXISTING BEING REMOVED. PROVIDE SHEET METAL PLENUM FROM RETURN GRILL TO FURNACE, SEE DETAIL 1 ON SHEET M6.1 FOR MORE INFORMATION.



3 UNIT H (ACCESSIBLE) - HVAC PLAN
1/4" = 1'-0"



2 UNIT G (ACCESSIBLE) - HVAC PLAN
1/4" = 1'-0"



1 UNIT F (ACCESSIBLE) - HVAC PLAN
1/4" = 1'-0"

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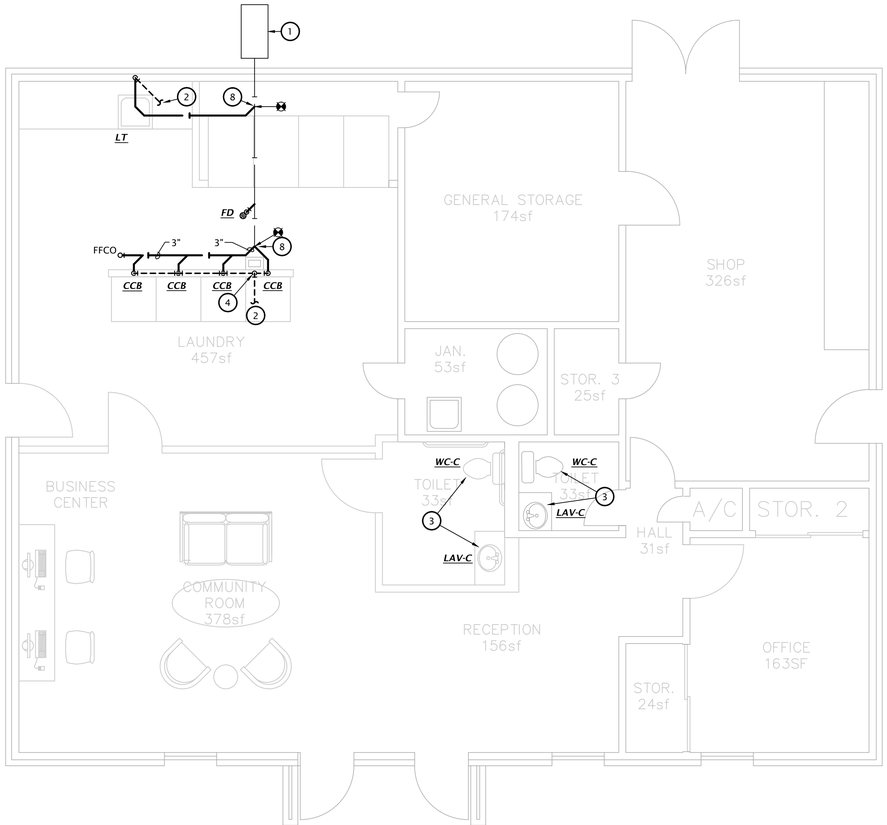
Project 24040 August 2025

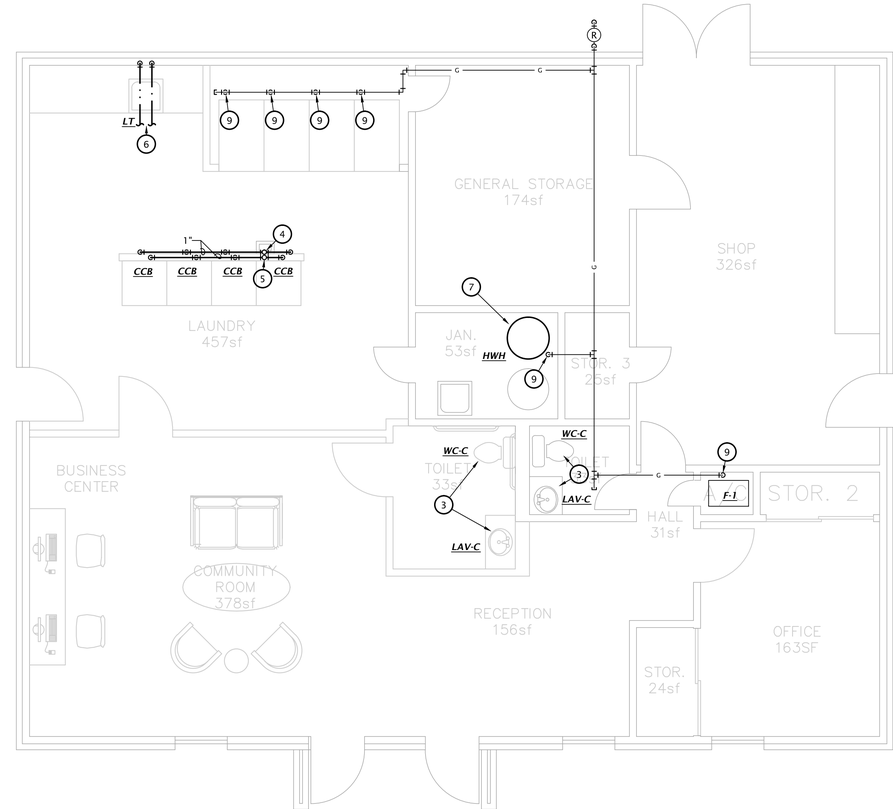
(#) PLAN NOTES BY SYMBOL

1. LINT INTERCEPTOR, CLEAN, REPAIR AND RESTORE TO LIKE NEW CONDITION. FIELD VERIFY EXACT LOCATION AND CONDITION.
2. CONNECT TO EXISTING 2" OR LARGER VENT PIPING.
3. REPLACE EXISTING PLUMBING FIXTURE. MODIFY EXISTING ROUGH-INS AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.
4. ROUTE PIPING UP IN EXISTING CHASE. FIELD VERIFY.
5. ROUTE 1-1/4" CW AND HW PIPING UP IN CHASE AND CONNECT TO EXISTING CW AND HW PIPING PREVIOUSLY SERVING WASHING MACHINES.
6. CONNECT TO NEAREST 3/4" CW AND HW PIPING. FIELD VERIFY EXACT REQUIREMENTS.
7. PROVIDE NEW WATER HEATER. MODIFY WATER PIPING AS REQUIRED TO CONNECT TO EXISTING PIPING TO NEW WATER HEATER, FIELD VERIFY EXACT REQUIREMENTS. SEE DETAIL 2 ON SHEET M6.1 FOR MORE INFORMATION.
8. CONNECT TO EXISTING SANITARY DRAIN. FIELD VERIFY EXACT SIZE AND LOCATION OF EXISTING PIPING. SCOPE EXISTING PIPING WITH CAMERA TO VERIFY CONDITION.
9. MODIFY EXISTING GAS PIPING AS REQUIRED FOR NEW EQUIPMENT, FIELD VERIFY EXACT REQUIREMENTS. PROVIDE DIRT LEG, UNION, AND SHUT-OFF VALVE, CONNECT TO EQUIPMENT.



(2) CLUBHOUSE WASTE AND VENT PLAN

1/4" = 1'-0"



(1) CLUBHOUSE DOMESTIC WATER AND GAS PLAN

1/4" = 1'-0"

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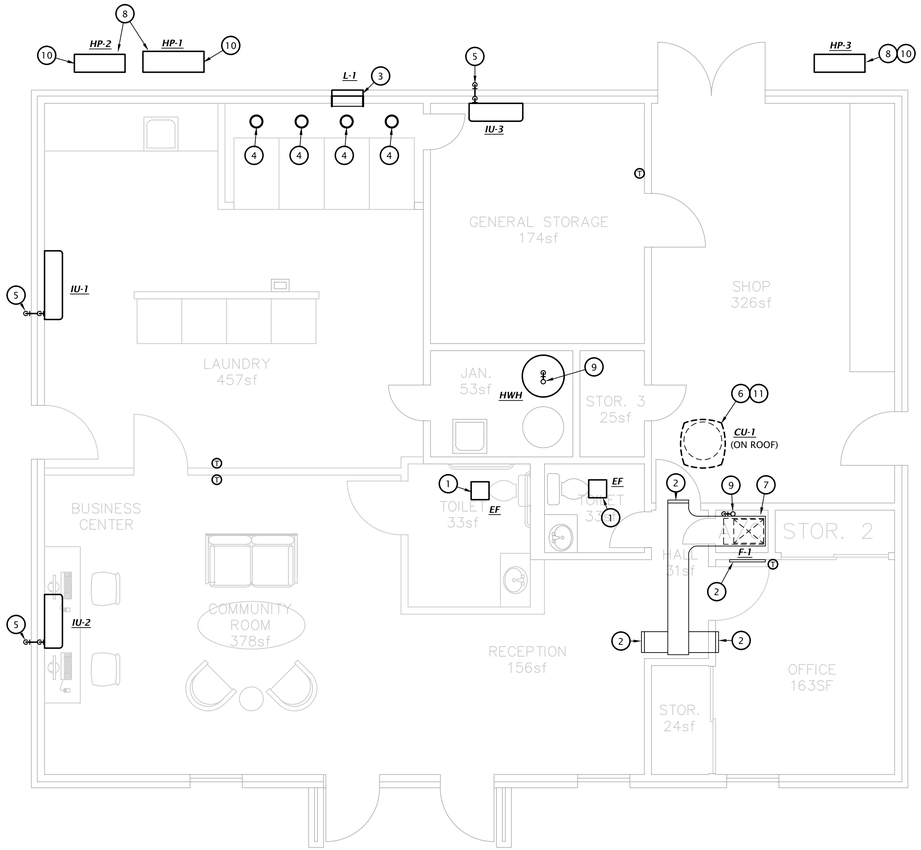
Project 24040

August 2025

(#) PLAN NOTES BY SYMBOL

1. REPLACE EXISTING EXHAUST FAN WITH NEW. CONNECT TO EXISTING DUCT, MODIFY AS REQUIRED. VERIFY DUCT AND ROOF JACK WITH BACKDRAFT DAMPER ARE IN GOOD WORKING ORDER, REPAIR/REPLACE AS REQUIRED.
2. PROVIDE NEW SUPPLY AND RETURN GRILLES OF EQUAL KIND AND QUALITY. REFER TO SCOPE OF WORK. IF DEVICE IS TO BE RE-USED, CLEAN, REPAIR AND RESTORE EXISTING AIR DEVISES TO LIKE NEW CONDITION. COORDINATE WITH G.C.
3. PROVIDE NEW COMBINATION LOUVER/DAMPER IN EXISTING WALL OPENING. PROVIDE FRAME TYPE COMPATIBLE WITH EXISTING CONDITIONS AND FULL SIZED DUCT INTO CHASE. FIELD VERIFY EXACT REQUIREMENT.
4. TRANSITION FROM EXISTING DRYER EXHAUST THROUGH ROOF TO NEW DRYER AS RECOMMENDED BY DRYER MANUFACTURER. CLEAN, REPAIR, AND RESTORE EXISTING DUCT AND ROOF TERMINATION TO LIKE NEW CONDITION. ENSURE ROOF TERMINATION HAS BACKDRAFT DAMPER AND BIRD SCREEN. FIELD VERIFY EXACT REQUIREMENTS.
5. PROVIDE CONDENSATE DRAIN CONCEALED IN WALL AND TERMINATE WITH ELBOW DOWN AT 12" A.F.G. ABOVE SPLASH BLOCK.
6. MOUNT CONDENSING UNIT TO UNISTRUT FRAME SUPPPORTED ON NVENT CADDY PYRAMID ROOF SUPPORTS. PROVIDE VIBRATION ISOLATORS BETWEEN ROOF SUPPORTS AND UNISTRUT FRAME.
7. PROVIDE FULL SIZED DUCT FROM EVAPORATOR COIL TO EXISTING DUCT. PATCH EXISTING DUCT AS REQUIRED. SEE DETAIL 1 SHEET M6.1.
8. MOUNT HEAT PUMP ON 18" HIGH STAND, "QUICK-SLING" OR EQUIVALENT, ON 3-1/2" THICK LEVEL CONCRETE PAD. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH G.C.
9. ROUTE INTAKE AND VENT PIPING FROM FURNACE/WATER HEATER UP TO MANUFACTURER'S CONCENTRIC VENT ROOF TERMINATION. SIZE PER MANUFACTURER'S RECOMMENDATIONS.
10. ROUTE REFRIGERANT PIPING FROM HEAT PUMP TO MATCHING INDOOR UNIT. PENETRATE EXTERIOR WALL AT 18" A.F.G. PROVIDE PIPING WALL PENETRATION ASSEMBLY EQUAL TO AIREX TITAN OUTLET.
11. ROUTE REFRIGERANT PIPING FROM CONDENSING UNIT TO MATCHING EVAPORATOR COIL AT FURNACE. PENETRATE ROOF WITH MANUFACTURED ROOF PENETRATION ASSEMBLY EQUAL TO 'RPS'. COORDINATE REQUIREMENTS WITH G.C.



(1) CLUBHOUSE MECHANICAL PLAN

1/4" = 1'-0"

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SUN VALLEY APARTMENTS

REHAB APARTMENTS

WICHITA FALLS, TEXAS

08-29-2025

STATE OF TEXAS
TIMOTHY C. TREDWAY
95252
LICENSED PROFESSIONAL ENGINEER

REVISION:
ADDENDUM #1 8-2-2024

DATE:	7-19-2024
JOB:	24-3391
SHEET NO.:	

M1.4

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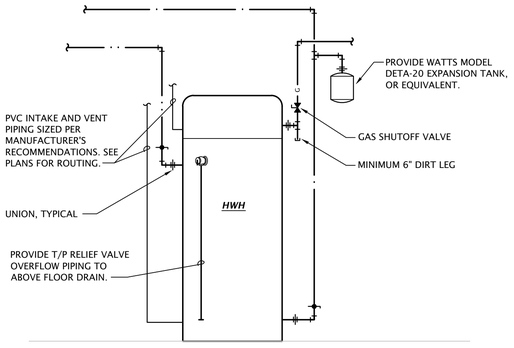
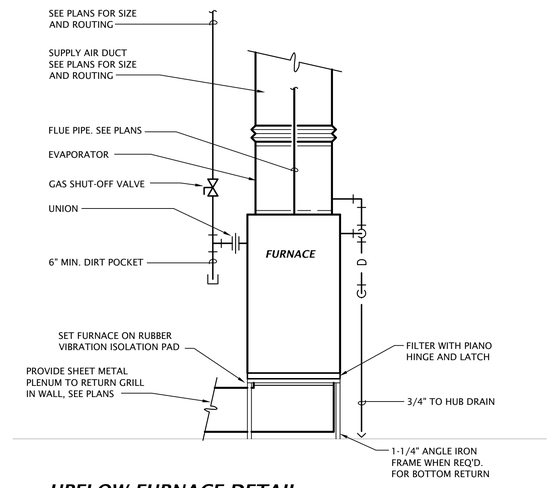
Project 24040 August 2025



② WATER HEATER DIAGRAM

SCALE: NOT TO SCALE



① UPFLOW FURNACE DETAIL

NO SCALE

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	ESP (" wg)	POWER	VOLTS/ PHASE	NOTES
EF	BROAN	XB80	80	0.4"	6 W	120 / 1	1,2,3,4,5

NOTES:

1. Fixture shall be Energy Star listed.
2. Fixture shall operate at <1 SONE
3. Provide integral disconnect.
4. Provide integral backdraft damper.
5. Provide with manufacturer's ceiling radiation damper.

DUCTLESS SPLIT SYSTEM SCHEDULE

INDOOR UNIT		
MARK	IU-1	IU-2, IU-3
MANUFACTURER	TRANE	TRANE
MODEL	TPKA0A0361KA80A	TPKA0A0121LA10A
CONFIGURATION	WALL SURFACE MOUNT	WALL SURFACE MOUNT
VOLTAGE / PHASE	240/1	240/1
MCA / MOCP	NOTE #4	NOTE #4
NOMINAL COOLING CAPACITY	36,000 BTU/H	12,000 BTU/H

OUTDOOR HEAT PUMP UNIT		
MARK	HP-1	HP-2, HP-3
MANUFACTURER	TRANE	TRANE
MODEL	TRUZH0361KA00NA	TRUZA3121KA70NA
NOMINAL COOING CAPACITY	36,000 BTU/H	12,000 BTU/H
VOLTAGE / PHASE	240/1	240/1
MIN. CKT. AMPS	24	11
MAX C/B SIZE	40	25

NOTES:

1. Provide refrigerant piping sized in accordance with manufacturer's recommendations for actual field installed length and routing.
2. Provide 7-day programmable thermostat for each indoor unit.
3. Provide with R410-A refrigerant.
4. Indoor units are powered from outdoor unit.

SPLIT SYSTEM SCHEDULE

FURNACE	
MARK	F-1
MANUFACTURER	TRANE
MODEL	S9X1B060U4PSB
SUPPLY AIRFLOW (CFM)	600
ESP ("WG)	0.5
BLOWER SPEED	MED
NAT. GAS INPUT (MBH)	60
NAT. GAS OUTPUT (MBH)	58.3
MCA	11.8
MOCP	15
VOLTAGE/PHASE	120/1

EVAPORATOR	
ENT. AIR DB	80
ENT. AIR WB	67
NET SENS. CAPACITY (MBH)	13.8
NET TOTAL CAPACITY (MBH)	18.8

CONDENSING UNIT	
MARK	CU-1
MANUFACTURER	TRANE
MODEL	4TTR4019N1
O.A. DB	95'F
REFRIGERANT	R410-A
VOLTAGE/PHASE	240/1
MCA	12
MOCP	20

NOTES:

1. Provide refrigerant piping sized in accordance with manufacturer's recommendations for actual field installed length and routing.
2. Provide PVC intake and exhaust piping in accordance with manufacturer's recommendations.
3. Provide with 7-day programmable thermostat.
4. Provide with R140a refrigerant.

PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER	DESCRIPTION	TRIM		ROUGH-IN SIZES				NOTES
			MANUFACTURER	DESCRIPTION	WASTE	VENT	CW	HW	
WC-A	KOHLER	Model 3999-0 "Highline" ADA compliant flush tank water closet, white vitreous china, two piece, 12" rough-in, elongated 16-1/2" high bowl, siphon jet flushing action, 1.28 GPF, polished chrome actuator.	KOHLER	K-5588 Purefresh white, elongated closed front seat and cover	4"	2"	1/2"	---	5
WC-B	KOHLER	Model 3999-0 "Highline" ADA compliant flush tank water closet, white vitreous china, two piece, 12" rough-in, elongated 16-1/2" high bowl, siphon jet flushing action, 1.28 GPF, polished chrome actuator.	KOHLER	K-5588 Purefresh white, elongated closed front seat and cover	4"	2"	1/2"	---	1,5
WC-C	KOHLER	Model 3999-0 "Highline" ADA compliant flush tank water closet, white vitreous china, two piece, 12" rough-in, elongated 16-1/2" high bowl, siphon jet flushing action, 1.28 GPF, polished chrome actuator.	KOHLER	K-4731-C-0 white open front plastic seat.	4"	2"	1/2"	---	1,5
LAV-A	KOHLER	Model 2196-4-0 self-rimming lavatory, white vitreous china, 20"W x 17", faucet holes on 4" centers.	DELTA	Model 583LF-WF single handle faucet with pop-up drain.	2"	1-1/2"	1/2"	1/2"	2,4,5
LAV-B	KOHLER	Model 2005-0 wall hung lavatory, white vitrous china, 18-1/4"W x 17-1/4", faucet holes on 4" centers.	DELTA	Model 583LF-WF single handle faucet. Provide grid drain. Provide point of use tempering valve.	2"	1-1/2"	1/2"	1/2"	2,3,4,5
LAV-C	KOHLER	Model 2196-4-0 self-rimming lavatory, white vitreous china, 20"W x 17", faucet holes on 4" centers.	DELTA	Model 583LF-WF single handle faucet. Provide grid drain. Provide point of use tempering valve.	2"	1-1/2"	1/2"	1/2"	1,2,3,4,5
KS-A	JUST	Model DL-2233-A-GR two compartment 18 GA stainless steel sink, self rimming, 14"x16"x8"D inside, fully undercoated, faucet holes as req.	DELTA IN-SINK-ERATOR	Model 400-HDF single handle kitchen sink faucet with hose spray attachment. Chrome finish. Provide basket strainer. "Badger 5" garbage disposal, 1/2hp, 120V, cord and plug connected.	2"	1-1/2"	1/2"	1/2"	2,4
KS-B	JUST	Model DL-ADA-2233-A-GR two compartment 18 GA stainless steel sink, self rimming, 14"x16"x5"D inside, fully undercoated, faucet holes as req., and drain holes center rear.	DELTA IN-SINK-ERATOR	Model 400-HDF single handle kitchen sink faucet with hose spray attachment. Chrome finish. Provide basket strainer. "Badger 5" garbage disposal, 1/2hp, 120V, cord and plug connected.	2"	1-1/2"	1/2"	1/2"	1,2,3,4
BT-A	N/A	Model G 6063 TS reinforced fiberglass tub/shower, 60"W x35-3/4"D x76-1/2"H, with integral soap/toiletry shelves, right or left hand rough-in as required, white finish.	DELTA	Model R10000-UNWS/T13H232 single handle pressure-balancing valve with metal tub filler with pull diverter, push-clean showerhead and pop-up drain with overflow.	2"	1-1/2"	1/2"	1/2"	2,4,5
BT-B	AQUARIUS	Model S 6000 TS OT reinforced fiberglass ADA tub/shower, 60"W x33"D x82"H, with integral soap/toiletry shelves and grab bars in accordance with ADA requirements, seat at end of tub, right or left hand rough-in as required, white finish.	DELTA	Model R10000-UNWS/T13H252 pressure balancing tub/shower valve with non-positive shut-off control and temperature control to ensure maximum 120' water with single metal lever handle, 1.5 GPM handshower with double check valves, flexible hose, 24" stainless steel slide bar, metal lever handshower, diverter valve, and shower head with arm.	2"	1-1/2"	1/2"	1/2"	1,2,4,5,6
LT	JUST	Model SLADA1921A50-J single compartment 18 GA stainless steel sink, self rimming, 14"x18"x5" inside, fully undercoated, faucet holes as req., and drain hole center rear	DELTA	Model 27C4265 deckmount faucet, 8" tubular swing spout, vandal resistant laminar outlet, two metal blade handles. Provide basket stainer.	2"	1-1/2"	1/2"	1/2"	2,4
CCB	WATER TITE	Model W4700 recessed washing machine box with 2"PVC/ABS drain coupling and knockout test cap. Two, 1/4 turn adaptor ball valves, sweat connection.			2"	2"	1/2"	1/2"	
ICB	WATER TITE	Model W9700 ice maker connection box with 1/4 turn ball valve and 1/2" sweat copper connection.			---	---	1/2"	---	
FD	WADE	1100 series floor drain with 6" satin nickel bronze strainer. Provide trap protection device equal to ProSet Trapguard.			2"	1-1/2"	---	---	
HWH	A.O. SMITH	Model BTH-150, 100 gallon 96% efficient gas water heater, direct vent, 150,000 BTUH input, 178 GPH recovery @ 100'F temp rise. Supplied with temperature & pressure relief valve and brass drain valve. Provide with manufacturer's concentric roof vent kit.							

GENERAL:

- Provide fixtures with all trim necessary for complete installation

NOTES:

1. Fixture and installation to meet requirements of Americans with Disabilities Act.
2. Provide 1/4 turn angle stops with escutcheon plates, and chrome plated or braided stainless steel supplies, and 1-1/4" cast brass p-trap.
3. Insulate water and waste piping below lavatory. Utilize insulation kit equivalent to LavGuard by Truebro.
4. Trim shall be provided with polished chrome finish.
5. Fixture shall be WaterSense labeled.
6. Coordinate requirements with general contractor prior to ordering fixture.

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	SIZE	FREE AREA (SF)	FINISH	SCREEN	DAMPER	SERVICE	DESCRIPTION
L-1	GREENHECK	EAC-401	21"H x 21"W x 4"D	0.82	KYNAR, WHITE	BIRD	120V	INTAKE	EXTRUDED ALUMINUM COMBINATION LOUVER/DAMPER

NOTES:

1. Coordinate frame type and finish with Arch. and G.C..

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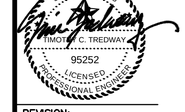
SUN VALLEY APARTMENTS
REHAB APARTMENTS
WICHITA FALLS, TEXAS

08-29-2025



REVISION:
ADDENDUM #1 8-2-2024

DATE: 7-19-2024
JOB: 24-3391
SHEET NO.:

M6.1

DIVISION 16 - ELECTRICAL

SECTION 16010 - GENERAL ELECTRICAL REQUIREMENTS

16010.01 The drawings and general provisions of the Contract, including General Conditions, Supplementary General Conditions, and General Requirements apply to the work specified in Division 16 - ELECTRICAL.

16010.02 The Electrical Contract includes all labor, material and equipment required for the complete electrical systems as shown and specified.

16010.03 This contractor is responsible for reviewing ALL drawings to determine extent of coordination required with other trades. Additional offsets, bends, and materials will not be accepted as a result of un-coordinated work.

16010.04 This contractor is required to perform work in a professional and quality workman like manner. This includes, but is not limited to:
a. Make vertical elements plumb and horizontal elements level unless noted otherwise.
b. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless noted otherwise.
c. Protect work from damage and water during construction. Replace all equipment/material damaged or exposed to water during construction.
d. Clean equipment, interior and exterior, at completion of construction and remove all temporary labels, stains and foreign substances.

16010.05 Each major component of equipment shall have the manufacturer's name, address, model number, and U.L. label securely affixed in a conspicuous place.

16010.06 All equipment of one type (such as panelboards, switches, wiring devices, etc.) shall be the product of one manufacturer, unless specified otherwise.

16010.07 Where the quality of required material is not specified, the Contractor shall furnish a first class standard item as approved by the Architect/Engineer.

16010.08 The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of requirements. Refer uncertainties to Architect for a decision before proceeding. Where the quality of required material is not specified, the Contractor shall furnish a first class standard item as approved by the Architect/Engineer.

16010.09 Manufacturer's names are intended to establish type and quality of items to be provided via the contract. The materials, products, and equipment described in the specifications or on the drawings establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution. Listing of these manufacturers shall in no way be construed as a device intended to limit the bidders to those specifically listed.

16010.10 Install all equipment in strict accordance with the manufacturer's recommendations and the shop drawings approved by the Engineer.

16010.11 All work under this contract shall conform to the requirements of the 2017 National Electrical Code (NFPA 70) and all applicable local, state, and federal code requirements. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

16010.12 Periodically during construction and prior to Owner acceptance of the building, Contractor shall remove from the premises and dispose of all packing material and debris associated with the Work specified under this Division.

16010.13 Before submitting bid, the Contractor shall visit the actual location of the job and shall fully understand the scope of the work to be done and the condition under which it is to be performed.

16010.14 Electrical Contractor shall coordinate requirements for electrical service with utility company and Owner, and facilitate installation of such equipment by providing additional electrical installation where required.

16010.15 Procure and pay for all permits and service charges required as related to this Work.

16010.16 Notify the Engineer of errors, discrepancies, or omissions in the drawings and specifications before construction or fabrication of affected work, or failing such notice, be responsible for correction of such work without cost to the Owner, Architect, or Engineer.

16010.17 Where fire rated construction is penetrated by this Work, fire seal at penetrations with UL listed fire sealing system. Refer to Architectural drawings and specifications.

16010.18 Provide Shop Drawings for the following electrical equipment. Refer to Division 1 specifications for submittal process. Electrical equipment listed below shall not be ordered or installed until shop drawings have been submitted and reviewed. Shop Drawings shall include product data indicating performance, dimensions, finish/color and configuration. Include all accessories and installed components.
Panelboards; Load Centers; Light Fixtures (provided by Contractor); Wiring Devices; Lighting Control Devices; Disconnect Switches

SECTION 16030 - ELECTRICAL CONNECTIONS

16030.01 The Electrical Contractor shall provide all conduit and wiring and shall connect complete and ready for operation all electrical motors and equipment in the other contracts. The other contractors shall furnish to the Electrical Contractor all switches, electrical controls, capacitors and other accessories required. Installation of all motors, equipment, etc., shall be made by the Contractor furnishing the equipment, except where otherwise indicated.

16030.02 The Electrical Contractor shall provide disconnect switches as shown and where otherwise required to comply with applicable electrical codes.

SECTION 16060 - GROUNDING

16060.01 The entire electrical system, including all special power systems, shall be grounded in accordance with the National Electrical Code.

16060.02 Equipment grounding conductors shall be installed in all conduits. The conduit system shall not be used as the sole means of grounding.

SECTION 16110 - RACEWAYS

16110.01 Provide the conduits and raceways as specified and indicated on the plans.

16110.02 All exterior above grade raceways shall be Galvanized Rigid Metal Conduit (RMC) or Intermediate Metal Conduit (IMC) with threaded couplings and fittings.

16110.03 All exterior below grade conduits and conduits installed below floor slab-on-grade shall be Schedule 40 PVC, Galvanized Rigid Metal Conduit (RMC), or High Density Polyethylene Conduit (HDPE). When utilizing PVC or HDPE, transition to Galvanized RMC before turning up and penetrating finished grade or floor slab.

16110.04 All interior dry location raceways shall be thinwall Electrical Metallic Tubing (EMT) with compression or setscrew couplings and fittings.

16110.05 Flexible Metal Conduit (FMC) may be used for final connections to light fixtures and vibrating equipment in lengths not to exceed 6'-0" and where fished through existing wall construction. Utilize Liquid Tight Flexible Metal Conduit (LFMC) where exposed to moisture.

16110.06 Single conduits shall be used for all circuits, but more than one circuit may be carried in each conduit, provided the number of conductors and size of conductors are proportioned in accordance with the rules of the NEC, and conduits are of ample size to allow for removal and replacement of conductors when necessary. Do not exceed 40% fill.

16110.07 Where conduit is carried in walls, it shall be thoroughly bedded and not visible. In placing conduits, they shall be so located as to not weaken or injure the construction of the building in any way, and the installation of these shall be approved by the Architect.

16110.08 Joints must be made so the ends of the pipes come together in the center of the coupling.

16110.09 All conduit shall be run parallel or perpendicular to the building surfaces.

16110.10 All empty conduit systems shall be provided with suitable pull strings.

SECTION 16120 - WIRE AND CABLES

16120.01 Provide the wire as specified and the circuiting as shown on the drawings.
16120.02 All wire and cable shall be copper, #12 awg, unless noted otherwise. Conductors #8 and smaller shall be solid. All wire shall be Code Type THWN or THHN, unless noted otherwise, and shall be Rome, General Cable, Crescent, Southwire, or General Electric. Where approved by owner, feeders may be compact aluminum. Increase size to provide ampacity equivalent to that of copper conductors shown.

16120.03 All wiring, except control, special systems and low voltage wiring shall be in conduit, unless noted otherwise.

16120.04 The circuiting of all light and receptacle outlets has been shown on the plans, and the Contractor shall follow this circuiting layout.

16120.05 Circuitry sizes shown are minimum, and allowances shall be made to limit voltage drop. Circuits over 75' long shall be increased by one wire size, circuits over 150' long shall be increased by two wire sizes.

16120.06 Machine or power pulling of cables into raceways shall be accomplished such that pulling stresses shall not exceed those recommended by the manufacturer.

16120.07 All cables shall be lubricated with "Polywater," or equally effective cable lubricating material.

16120.08 Wiring for individual dwelling units may be Type NM or BX cable, installed in accordance with the NEC.

SECTION 16130 - ELECTRICAL BOXES AND FITTINGS

16130.01 Provide all electrical pull, junction and outlet boxes as specified and shown on the drawings, as well as those required for a complete and code acceptable installation.

16130.02 Junction and pull boxes shall be galvanized metal of the knockout type, and shall be provided throughout in accessible locations.

16130.03 All outlet boxes for light fixtures, receptacles, and wall switches in dry locations shall be of the Steel City, or equal, galvanized knockout type. Lighting fixture outlet boxes in ceiling shall be not less than 4" square of the knockout type. Gangable type boxes shall be used in all gypboard surfaces. Plug unused openings in all boxes.

16130.04 Install boxes for switch and receptacle outlets at the locations shown on the drawings, allowing for relocation of up to 4 feet in any direction if so directed prior to rough-in, without additional cost to the Owner. Boxes shall be flush mounted on all walls for concealed work in occupied/finished areas.

16130.05 Electrical boxes located in 1-hour fire rated walls shall be installed as follows:
a. Boxes shall be U.L. listed for use in fire rated assemblies.
b. Annular space around listed boxes shall not exceed 1/8".
c. Boxes on opposite sides of the fire rated wall shall comply with one of the following:
1. Be separated by the horizontal distance specified in the listing of the electrical box.
2. Be separated by fire blocking material in accordance with IBC section 717.2.1.
3. Protect both boxes with listed fire rated putty pads.

16130.06 Electrical boxes located in fire rated ceiling/floor assemblies shall:
a. Be steel construction and not exceed 16 square inches in area.
b. Annular space around ceiling boxes shall not exceed 1/8".
c. The aggregate area of ceiling boxes does not exceed 100 square inches for every 100 square feet of ceiling area.

SECTION 16140 - WIRING DEVICES

16143.01 Provide the wiring devices and cover plates as specified.

16143.02 Wiring Devices shall be as manufactured by Pass & Seymour, Leviton, Hubbell, Eaton, or approved equal. Devices shall be commercial specification grade, rated at 20 amps, 120 volts, unless specified otherwise. Coordinate device color with Architect. Devices shall be as follows:

a. Switches:	
1. 1-Pole (SPST) Switch	P&S #PS20AC1_
2. 2-Pole (DPST) Switch	P&S #PS20AC2_
3. 3-Way switch	P&S #PS20AC3_
b. Wall Receptacles:	
1. Single Receptacle	P&S #5361_
2. Duplex Receptacle	P&S #PS5362_
3. Tamperproof Duplex Receptacle	P&S #TR63_
4. GFCI Duplex Receptacle	P&S #2095_

16143.03 Terminations at wiring devices shall be made using screw terminals only. Use of "stab-in" connections is not acceptable.

16143.04 All flush-mounted wiring devices in finished areas shall be provided with stainless steel cover plates.

16143.05 Cover plates for wiring devices in surface-mounted boxes and unfinished areas shall be galvanized utility box covers, raised 1/4".

16143.06 Where more than one device is in a single location, utilize a one-piece multigang cover plate.

16143.07 Devices shall be set at the following elevations from the finished floor to the center of the box, unless otherwise indicated on the plans:

a. Light switches	48"
b. Convenience Receptacles	18"

SECTION 16145 - LIGHTING CONTROL DEVICES

16145.01 Provide the lighting control devices as specified and shown on plans.

16145.03 Exterior photocells shall be 120 Volt, thermal type with a cadmium sulfide photocell and polycarbonate case and lens to seal out moisture. Photocells shall have a delay action to eliminate nuisance "off" switching of loads. Furnish complete with 1/2" threaded stem and swivel mount, and light level slide adjustment. Mount photocells as directed on plans, facing North.
a. Intermatic #K4221C or equal by Tork.

16145.04 Wall mounted occupancy sensors shall be dual technology passive infrared and ultrasonic type, 120/277 VAC, 800 watt rated, with a 20' x 15', 180˚ coverage pattern tested to NEMA Guide Publication WD 7-2000. Sensors shall be time delay adjustable from 30 seconds to 30 minutes and shall be compatible with all electronic ballasts and drivers. Sensors shall have a manual pushbutton and shall mount in a single gang device box.
a. Wattstopper #DW-100 or equal by Hubbell, Leviton or Sensorswitch.

16145.09 Provide cover plates for all wall mounted occupancy sensors and in-wall devices. Unless noted otherwise on drawings, mount devices at 46" AFF to the center of the box.

SECTION 16285 - SURGE PROTECTION DEVICES

16285.01 Provide surge protection devices as specified and indicated on the plans, and listed to U.L. 1449 3rd edition for type 1 and 2 surge protection devices. Devices shall be manufactured by APT, Current Technology, Square D, Siemens, General Electric, or Eaton Cutler-Hammer.

16285.02 Surge protection devices shall provide for all modes of protection (L-N, L-G, N-G, L-L) with 200kAIC fault rating. Devices shall have a response time of less than 0.5 nanoseconds, nominal surge current (L-N) of 20kA, repetitive surge current capacity not less than 5,000 impulses, and a maximum continuous operating voltage (MCOV) not less than 115% of nominal system voltage.

16285.03 Voltage Protection Ratings (VPR's) shall be as follows:
a. 240/120 V System: ≤700 V for L-N, L-G and N-G modes, and 1,200 V for L-L mode

16285.04 Devices shall have status indicator lights (one per phase), service indicator light, form 'C' contacts (NO/NC), audible alarm with silence button, and surge counter.

16285.05 Devices shall be factory installed, internally mounted in panelboards and shall utilize field replaceable modular or non-modular protection circuits. Provide with surge rated integral disconnect switch where not connected to a circuit breaker or fused switch or not direct bus connected.

16285.06 All surge protection devices shall come with a 10 year standard manufacturer's warranty.

16285.07 Main distribution panel shall be provided with surge protection device having a 120kA surge rating per mode, 240kA per phase.

16285.08 Branch circuit panelboards shall be provided with surge protection devices having a 60kA surge rating per mode, 120kA per phase.

SECTION 16442 - PANELBOARDS

16442.01 Provide Square D, Siemens, or Eaton 3-phase, 4-wire panelboards with circuit breakers as scheduled.

16442.02 Provide panels with equipment ground bars, surface mounted or recessed cabinets as scheduled, and U.L. label.

16442.03 Circuit breakers shall be bolt-on, thermal-magnetic molded case type. Breakers shall be 1, 2 or 3-pole with an integral crossbar to assure simultaneous opening of all poles in multi-pole circuit breakers. Breakers shall have an over-center, trip-free, toggle-type operating mechanism with quick-make, quick-break action and positive handle indication. Handles shall have "ON," "OFF" and "TRIPPED" positions. Circuit breakers shall be UL listed in accordance with UL Standard 489 and shall have continuous current ratings as noted on the plans. Interrupting ratings shall be 10,000 rms symmetrical amps maximum at 240 volts ac and 14,000 rms symmetrical amps maximum at 480 volts ac.

16442.04 Panelboard bus structure and main lugs or main circuit breaker shall have current ratings as scheduled. Such ratings shall be established by heat rise tests, conducted in accordance with UL Standard 67. Bus structure shall be insulated. Bus bar connections to the branch circuit breakers shall be the "distributed phase" type. All current carrying parts of the bus structure shall be plated.

16442.05 The panelboard bus assembly shall be enclosed in a steel cabinet. The rigidity and gauge of steel to be as specified in UL Standard 50 for cabinets. Wiring gutter space shall be in accordance with UL Standard 67 for panelboards. The box shall be fabricated from galvanized steel or equivalent rust resistant steel. Each front shall include a door and have a flush, cylinder tumbler-type lock with catch and spring-loaded stainless steel door pull. All panelboard locks shall be keyed alike. Fronts shall have adjustable indicating trim clamps which shall be completely concealed when the doors are closed. Doors shall be mounted with completely concealed steel hinges. Fronts shall not be removable with door in the locked position. A circuit directory frame and card with a clear plastic covering shall be provided on the inside of the door.

16442.06 Inside each panel door, provide an approved typewritten schedule card showing what each circuit feeds. Provide each panelboard with an engraved plastic laminate nameplate with black background and 1/4" white letters to designate panel name.

SECTION 16510 - LIGHT FIXTURES

16510.01 Provide the light fixtures as specified and scheduled on plans. Material, equipment or services necessary to complete the installation of these fixtures, but not specifically mentioned shall be furnished as though specified.

16510.02 UL or CSA US Listing: Light fixtures shall be manufactured in strict accordance with the appropriate and current requirements of the "Standards for Safety" to UL 8750 or others as they may be applicable. A listing shall be provided for each fixture type, and the appropriate label or labels shall be affixed to each fixture in a position concealing it from normal view.

16510.03 Approved Manufacturers: Provide products of firms regularly engaged in the manufacture of light fixtures of types and ratings required, whose products have been in satisfactory use in similar service for not less than 5 years. The manufacturer of the lighting fixtures shall comply with the provisions of the appropriate code and standards.

16510.04 LED FIXTURES - Comply with UL 1598. Test according to IESNA LM 80-08, where life expectancy is specified. Provide luminaires with the following characteristics unless otherwise noted:
a. Life: 50,000 hours minimum interior/100,000 hours minimum exterior
b. Efficacy: 90 lumens/watt
c. CRI: 80 minimum interior/70 minimum exterior
d. MacAdam ellipse: 4-step minimum per ANSI recommendations

16510.05 LED's shall be manufactured by, Nichia, Samsung, LG, Osram, Philips or Cree.
a. Individual LEDs shall be connected such that a catastrophic loss or the failure of one LED will not result in the loss of the entire luminaire
b. LED Boards shall be suitable for field maintenance or service from below the ceiling with plug-in connectors.

16510.06 LED drivers shall be manufactured by eldoLED, Osram, Philips or Cree. Drivers shall have <10% total harmonic distortion, minimum 95% power factor, and universal 120/277 volt operation.

16510.07 Light fixture manufacturers shall provide a warranty against loss of performance and defects in materials and workmanship for the fixtures for a period of 5 years after acceptance of the products. Warranty shall cover all components comprising the fixture.

END DIVISION 16 - ELECTRICAL

1 ELECTRICAL SPECIFICATIONS
NO SCALE

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CIRCUIT AND RACEWAY SYMBOLS

- CIRCUIT DESIGNATION: TOP INDICATES PANEL OF CIRCUIT ORIGIN; BOTTOM INDICATES CIRCUIT NUMBER
- HOMERUN - WIRING TO PANEL OF CIRCUIT ORIGIN
- PARTIAL HOMERUN - WIRING TO PANEL OF CIRCUIT ORIGIN
- CONDUIT CONCEALED IN WALL OR ABOVE CEILING
- CONDUIT BELOW GRADE OR EMBEDDED IN CONCRETE
- LINE VOLTAGE CIRCUIT CONDUCTORS: SHORT = HOT/TRACER/SWITCH LEG CONDUCTOR; LONG = NEUTRAL (GROUNDED) CONDUCTOR; CURVED = GROUNDING (BONDING) CONDUCTOR
- GROUNDING CONNECTION

LIGHTING SYMBOLS

- RECESSED DOWNLIGHT
- WALL MOUNTED LUMINAIRE
- CEILING MOUNTED LUMINAIRE
- SURFACE MOUNTED LINEAR LUMINAIRE
- STRIP LIGHT

POWER SYMBOLS

- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE
- S SINGLE POLE WALL SWITCH
- S_3 THREE WAY WALL SWITCH
- S_4 FOUR WAY WALL SWITCH
- S_m MOTOR HP RATED SWITCH WITHOUT OVERLOAD PROTECTION
- S_D DIMMER WALL SWITCH
- S_{OS} LINE VOLTAGE OCCUPANCY SENSING WALL SWITCH (MANUAL ON/AUTO OFF)
- JUNCTION BOX
- DISCONNECT SWITCH
- LINE VOLTAGE OCCUPANCY SENSOR
- BRANCH CIRCUIT PANELBOARD, FLUSH MOUNTED
- MOTORIZED DAMPER

SYMBOL MODIFYING DESIGNATORS

CLG	CEILING MOUNTED • FLUSH MOUNTED IN SUSPENDED CEILINGS • SURFACE MOUNTED TO STRUCTURE ABOVE IN OPEN CEILINGS
CT	MOUNT BOTTOM OF DEVICE AT 6" ABOVE COUNTERTOP
GFI	GROUND FAULT CIRCUIT INTERRUPTING DEVICE
NL	NIGHTLIGHT WIRED TO UNSWITCHED HOT CONDUCTOR
WP	PROVIDE WEATHERPROOF ENCLOSURE FOR DEVICE
XX"	MOUNTING HEIGHT OF DEVICE ABOVE FINISHED FLOOR

GENERAL SYMBOLS

- DETAIL REFERENCE: DETAIL NUMBER / SHEET NUMBER
- ELEVATION REFERENCE: DETAIL NUMBER / SHEET NUMBER
- SECTION CUT: DETAIL NUMBER / SHEET NUMBER
- KEYED PLAN NOTE
- REVISION NOTE
- ELEVATION
- CONNECT TO EXISTING. FIELD VERIFY LOCATION & MATERIAL OF EXISTING

ABBREVIATIONS

A	AMPERE
AFF	ABOVE FINISH FLOOR
C	CONDUIT
CATV	COMMUNITY ANTENNA TELEVISION
CT	CURRENT TRANSFORMER
FMC	FLEXIBLE METALLIC CONDUIT
G	GROUNDING (BONDING) CONDUCTOR
GC	GENERAL CONTRACTOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
kcmil	THOUSAND CIRCULAR MILLS
MLO	MAIN LUG ONLY
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEC	NATIONAL ELECTRICAL CODE (NFPA 70)
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY
PH or Φ	PHASE
PVC	POLYVINYL CHLORIDE CONDUIT
RCPT	RECEPTACLE
TYP	TYPICAL
UG	UNDERGROUND
U.L.	UNDERWRITERS LABORATORY
UNO	UNLESS NOTED OTHERWISE
V	VOLT (ALTERNATING CURRENT)
VA	VOLTAMPERE
W	WATT(S)

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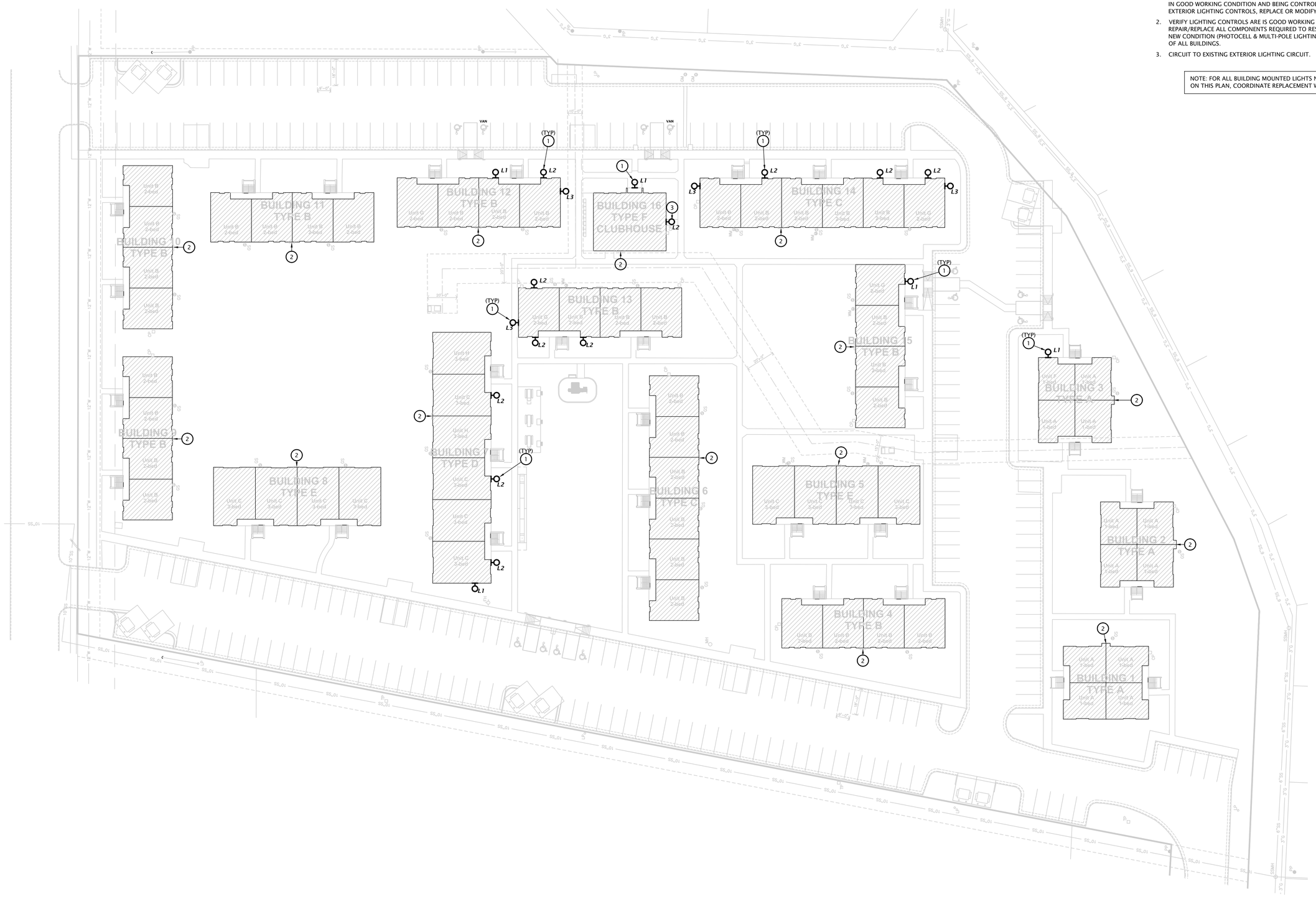
(#) PLAN NOTES BY SYMBOL

1. PROVIDE LIGHT FIXTURE AS SCHEDULED. INSTALL AT EXISTING FIXTURE/ JUNCTION BOX LOCATION. RE-USE EXISTING WIRING. VERIFY EXISTING WIRING IS IN GOOD WORKING CONDITION AND BEING CONTROLLED BY BUILDINGS EXTERIOR LIGHTING CONTROLS, REPLACE OR MODIFY IF REQUIRED. TYPICAL
2. VERIFY LIGHTING CONTROLS ARE IS GOOD WORKING CONDITION. REPAIR/REPLACE ALL COMPONENTS REQUIRED TO RESTORE CONTROL TO LIKE NEW CONDITION (PHOTOCELL & MULTI-POLE LIGHTING CONTACTOR). TYPICAL OF ALL BUILDINGS.
3. CIRCUIT TO EXISTING EXTERIOR LIGHTING CIRCUIT.

NOTE: FOR ALL BUILDING MOUNTED LIGHTS NOT IDENTIFIED ON THIS PLAN, COORDINATE REPLACEMENT WITH OWNER.



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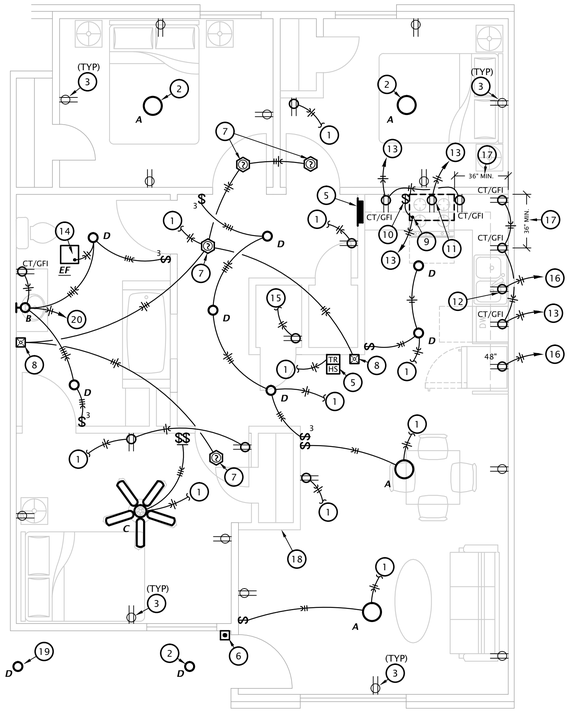
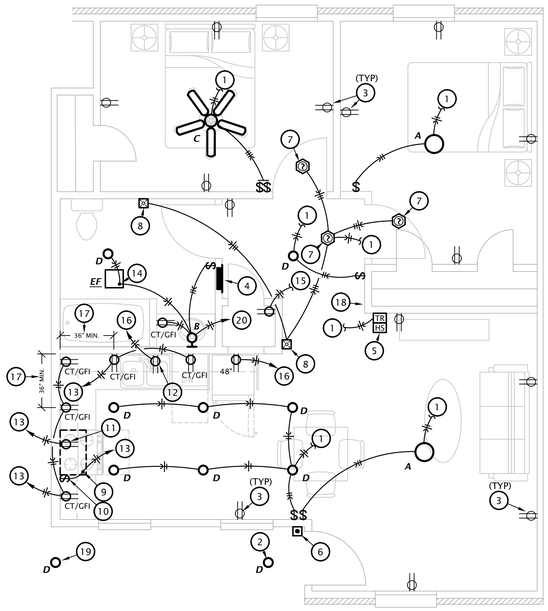


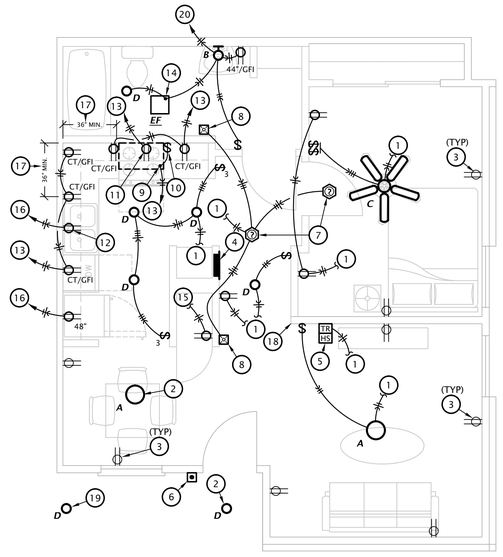
3 UNIT H (ACCESSIBLE) - ELECTRICAL PLAN

1/4" = 1'-0"



2 UNIT G (ACCESSIBLE) - ELECTRICAL PLAN

1/4" = 1'-0"



1 UNIT F (ACCESSIBLE) - ELECTRICAL PLAN

1/4" = 1'-0"

PLAN NOTES BY SYMBOL

1. CONNECT TO EXISTING 120V UN-SWITCHED CIRCUIT PREVIOUSLY SERVING AREA.
2. REPLACE EXISTING FIXTURE. ROUGH-IN AND EXISTING CIRCUITRY TO BE RE-USED, MODIFY AS REQUIRED.
3. EXISTING RECEPTACLE ON EXISTING WALLS MAY REMAIN. WHERE EXISTING RECEPTACLES DO NOT MEET NEC SPACING REQUIREMENTS, PROVIDE NEW RECEPTACLES AND CONNECT TO EXISTING CIRCUIT SERVING AREA, FIELD VERIFY.
4. PROVIDE NEW FLUSH MOUNT, 125 AMP MLO, 120/240V-1PH-3W LOAD CENTER WITH MINIMUM 16 SPACES, PROVIDE NEW CIRCUIT BREAKERS OF EQUAL AMPERAGE AND POLES FOR EXISTING CIRCUITS AND PROVIDE NEW CIRCUIT BREAKERS AS INDICATED ON PLANS. RE-CONNECT EXISTING CIRCUIT TO BE RE-USED. ALL CIRCUITS SERVING RECEPTACLES IN BEDROOMS, LIVING ROOMS, KITCHENS, DINING ROOMS, HALLWAYS OR SIMILAR AREAS SHALL BE PROVIDED WITH AFCI BREAKERS.
5. PROVIDE DOOR ANNUNCIATOR SYSTEM A/V HORN/STROBE DEVICE AND LOW VOLTAGE TRANSFORMER. INSTALL HORN/STROBE APPLIANCE AT 80" AFF. INSTALL TRANSFORMER IN DOUBLE GANG JUNCTION BOX ABOVE HORN/STROBE WITH BLANK COVER PLAT AND PROVIDE LOW VOLTAGE CONTROL WIRING. REFER TO DETAIL 1 ON E6.1. PROVIDE ENGRAVED SIGN AT THE HORN/STROBE DEVICE TO READ 'DOOR'.
6. PROVIDE PUSH BUTTON AT 48" AFF FOR ANNUNCIATOR SYSTEM AT ALL APARTMENTS DESIGNATED FOR HEARING-IMPAIRED. COORDINATE LOCATION OF UNITS WITH ARCH. SEE DETAIL 1 ON E6.1.
7. PROVIDE CEILING MOUNTED SMOKE/CO DETECTORS WITH 177 CANDELA STROBE LIGHT. DETECTORS TO BE 120 VAC WITH BATTERY BACKUP AND SHALL BE INTERCONNECTED TO OTHERS IN SAME APARTMENT.
8. PROVIDE STROBE LIGHT, STROBE LIGHTS SHALL BE 120 VAC WITH BATTERY BACKUP AND SHALL BE INTERCONNECTED TO SMOKE DETECTORS IN THE SAME APARTMENT.
9. PROVIDE 120V CONNECTION TO RANGE HOOD. COORDINATE EXACT ELECTRICAL ROUGH-IN REQUIREMENTS WITH EQUIPMENT PROVIDED. IF EQUIPMENT IS CORD AND PLUG, PROVIDE RECEPTACLE INSIDE CABINET ABOVE RANGE.
10. PROVIDE SWITCH FOR CONTROL OF RANGE HOOD.
11. PROVIDE RECEPTACLE BEHIND RANGE FOR CONNECTION OF RANGE. COORDINATE PLACEMENT OF RECEPTACLE WITH THE EQUIPMENT PROVIDED.
12. PROVIDE RECEPTACLE BELOW COUNTER FOR DISHWASHER AND GARBAGE DISPOSAL. PROVIDE CORD AND GROUNDING PLUG AS REQUIRED FOR DISHWASHER. RECEPTACLE SHALL BE LOCATED IN BASE CABINET ADJACENT TO DISHWASHER TO ALLOW ACCESS TO PLUG. PROVIDE AIR ACTIVATED PUSH BUTTON SWITCH FOR DISPOSAL OPERATION, FINISH TO MATCH SINK. COORDINATE EXACT LOCATION OF PUSH BUTTON WITH ARCHITECT.
13. PROVIDE NEW 120V CIRCUIT. ROUTE TO NEW 20A/1P AFCI BREAKER IN UNIT ELECTRICAL PANEL. ROUTE (2) #12 AND #12 GROUND TO RECEPTACLE(S)/ EQUIPMENT.
14. CONNECT EXHAUST FAN PROVIDED BY MECHANICAL CONTRACTOR.
15. CONNECT TO EXISTING 120V CIRCUIT PREVIOUSLY SERVING FURNACE. COORDINATE REQUIREMENTS AND LOCATION WITH EQUIPMENT PROVIDED.
16. PROVIDE NEW 120V CIRCUIT. ROUTE TO NEW 20A/1P COMBINATION AFCI/GFCI BREAKER IN UNIT ELECTRICAL PANEL. ROUTE (2)#12 AND #12 GROUND TO RECEPTACLE.
17. IN ACCESSIBLE UNITS, INSTALL COUNTERTOP RECEPTACLES A MINIMUM 36" AWAY FROM CORNER, INSTALL RECEPTACLE AS FAR FROM CORNER AS POSSIBLE. PROVIDE ADDITIONAL OUTLETS WITHIN 36" OF CORNER TO ENSURE COMPLIANCE WITH NEC SPACING REQUIREMENTS.
18. COORDINATE WITH OWNER NEW LOCATION OF PHONE, DATA, OR CATV DEVICES WHERE DEVICES WERE IN WALLS BEING DEMOLISHED. TYPICAL THROUGHOUT APARTMENT.
19. REPLACE EXISTING FIXTURE. ROUGH-IN AND EXISTING CIRCUITRY TO BE RE-USED. LIGHT TO BE CONTROLLED BY EXTERIOR LIGHTING CONTROLS, FIELD VERIFY.
20. PROVIDE NEW 120V CIRCUIT. ROUTE TO NEW 20A/1P BREAKER IN UNIT ELECTRICAL PANEL. ROUTE (2) #12 AND #12 GROUND TO RECEPTACLE(S)/ EQUIPMENT.

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GENERAL NOTES:

- PROVIDE TAMPER PROOF RECEPTACLES IN DWELLING UNITS PER NEC REQUIREMENTS.
- ALL ELECTRICAL WORK SHALL ADHERE TO THE 2017 NEC AND ALL LOCAL ORDINANCES.

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Designation: 'A'				Manufacturer: Square D 'NQ'		
Location: Laundry				Bus Amps: 225		
Voltage: 240/120V-1Ph-3W				MCB Amps: MLO		
Enclosure: NEMA 1				AIC Rating: 10 kAIC		
Mounting: Recessed				Other: Integral Surge Protection		
Circuit #	Load Description	Conductors	C/B Size	C/B Size	Conductors	Load Description	Circuit #
1	LIGHTING - LAUNDRY/ COMM. ROOM	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES WASHER	2
3	RCPTS - BUSINESS CENTER	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES WASHER	4
5	RCPTS - COMM. RM/ RECEPTION	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES WASHER	6
7	RCPTS - RESTROOMS	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES WASHER	8
9	RCPTS - LAUNDRY	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES DRYER	10
11	LOUVER DAMPER MOTOR	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES DRYER	12
13	HEAT PUMP 'HP-1'	2#8,#10G,3/4"C	40 / 2	20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES DRYER	14
15				20 / 1	2#12,#12G,1/2"C	RCPT - CLOTHES DRYER	16
17	HEAT PUMP 'HP-2'	2#10,#10G,3/4"C	25 / 2	20 / 1	2#12,#12G,1/2"C	RCPT - WATER HEATER	18
19				20 / 1	2#12,#12G,1/2"C	EXISTING RECEPTACLES	20
21	SPARE BREAKER	---	20 / 1	20 / 1	2#12,#12G,1/2"C	EXISTING RECEPTACLES	22
23	SPARE BREAKER	---	20 / 1	20 / 1	2#12,#12G,1/2"C	EXISTING RECEPTACLES	24
25	SPACE	---	---	---	---	SPACE	26
27	SPACE	---	---	---	---	SPACE	28
29	SPACE	---	---	---	---	SPACE	30

NOTE: FIELD VERIFY ALL CIRCUITS TO REMAIN AND CONNECT THEM TO NEW BREAKERS IN PANEL.

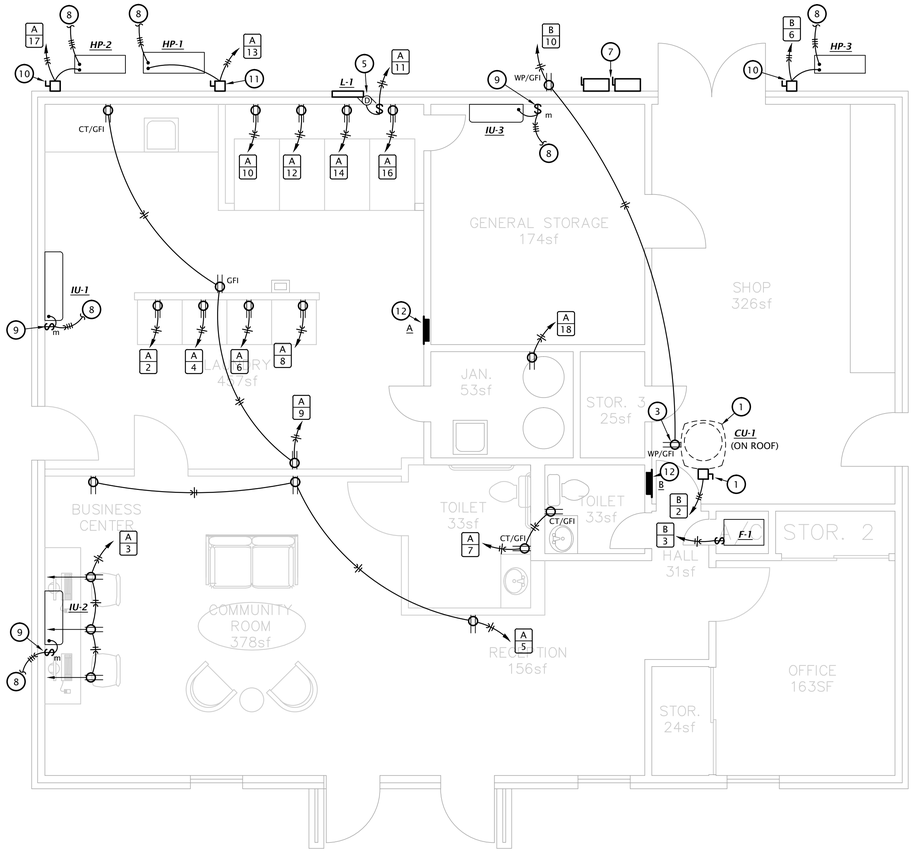
Designation: 'B'				Manufacturer: Square D 'NQ'		
Location: Shop				Bus Amps: 225		
Voltage: 240/120V-1Ph-3W				MCB Amps: MLO		
Enclosure: NEMA 1				AIC Rating: 10 kAIC		
Mounting: Recessed				Other: Integral Surge Protection		
Circuit #	Load Description	Conductors	C/B Size	C/B Size	Conductors	Load Description	Circuit #
1	LIGHTING - OFFICE/ SHOP/STORAGE	2#12,#12G,1/2"C	20 / 1	20 / 2	2#12,#12G,1/2"C	CONDENSING UNIT 'CU-1'	2
3	FURNACE ' F-1'	2#12,#12G,1/2"C	15 / 1				4
5	RECEPT - ROOF	2#12,#12G,1/2"C	20 / 1	25 / 2	2#10,#10G,3/4"C	HEAT PUMP 'HP-3'	6
7	EXISTING RECPTACLES	2#12,#12G,1/2"C	20 / 1				8
9	EXISTING RECPTACLES	2#12,#12G,1/2"C	20 / 1	20 / 1	2#12,#12G,1/2"C	RCPTS - EXT./ROOF	10
11	EXISTING RECPTACLES	2#12,#12G,1/2"C	20 / 1	30 / 1	2#10,#10G,3/4"C	EXISTING	12
13	SPARE BREAKER	---	20 / 1	30 / 1	2#10,#10G,3/4"C	EXISTING	14
15	SPARE BREAKER	---	20 / 1	---	---	SPACE	16
17	SPACE	---	---	---	---	SPACE	18
19	SPACE	---	---	---	---	SPACE	20

NOTE: FIELD VERIFY ALL CIRCUITS TO REMAIN AND CONNECT THEM TO NEW BREAKERS IN PANEL.

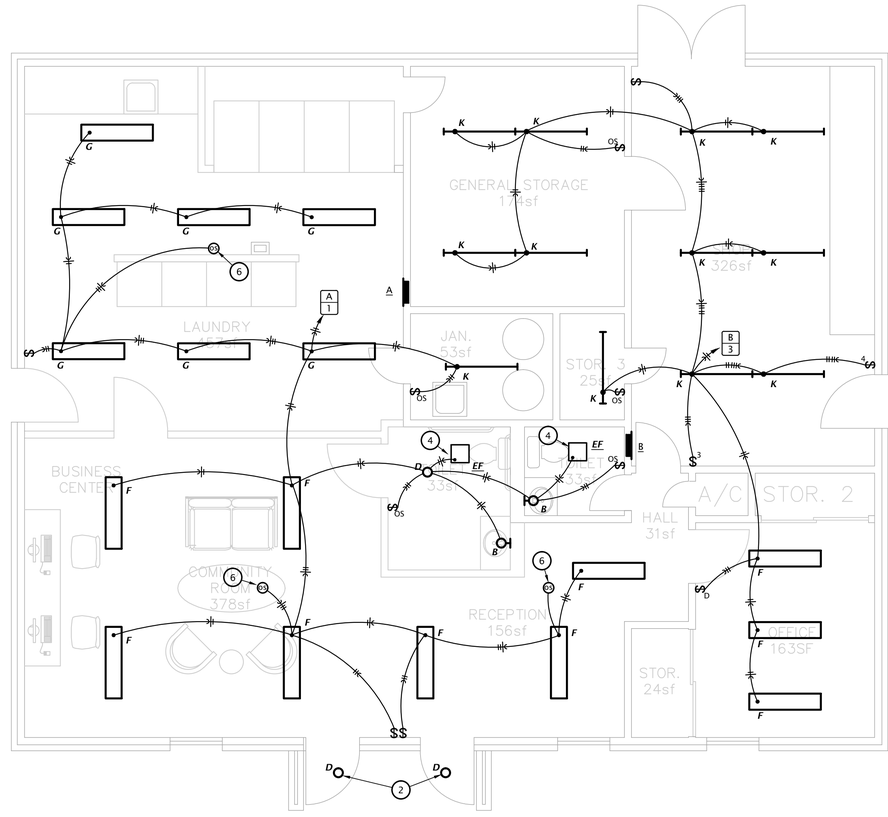
(#) PLAN NOTES BY SYMBOL

1. PROVIDE 30A/2P, NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE AND MAKE FINAL CONNECTION TO EQUIPMENT IN LFMC RACEWAY. MOUNT TO UNISTRUT FRAME SUPPORTED FROM EQUIPMENT SUPPORT RAILS.
2. REPLACE EXISTING FIXTURE. ROUGH-IN AND EXISTING CIRCUITRY TO BE RE-USED, MODIFY AS REQUIRED.
3. MOUNT RECEPTACLE TO UNISTRUT FRAME SUPPORTED FROM CONDENSING UNIT UNISTRUT FRAME.
4. CONNECT EXHAUST FAN/LIGHT PROVIDED BY MECHANICAL CONTRACTOR. MODIFY EXISTING MECHANICAL INSTALLATION AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.
5. MOTORIZED DAMPER TO BE INTERLOCKED WITH DRYERS. WHEN ANY ONE DRYER IS ON THE DAMPER SHOULD BE IN THE OPEN POSITION. PROVIDE CURRENT SENSORS AND RELAYS AS REQUIRED.
6. PROVIDE LINE VOLTAGE OCCUPANCY SENSOR EQUAL TO SENSORWORX MODEL # SWX-211-2.
7. NEW ELECTRICAL SERVICE, SEE RISER DIAGRAM ON SHEET E6.1.
8. PROVIDE (3) #12, #12G, 1/2"C INTERCONNECTING WIRING BETWEEN OUTDOOR AND INDOOR UNITS.
9. 30A/3P MANUAL MOTOR STARTER SNAP SWITCH IN NEMA 1 ENCLOSURE. MOUNT ADJACENT TO INDOOR UNIT AND MAKE FINAL CONNECTION.
10. 30A/2P NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. MAKE FINAL CONNECTION TO EQUIPMENT.
11. 60A/2P NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. MAKE FINAL CONNECTION TO EQUIPMENT.
12. NEW ELECTRICAL PANEL, SEE RISER DIAGRAM ON SHEET E6.1.

GENERAL NOTE:
- ALL ELECTRICAL WORK SHALL ADHERE TO THE 2017 NEC AND ALL LOCAL ORDINANCES.



2 CLUBHOUSE POWER PLAN
1/4" = 1'-0"



1 CLUBHOUSE LIGHTING PLAN
1/4" = 1'-0"

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APARTMENT LIGHT FIXTURE SCHEDULE

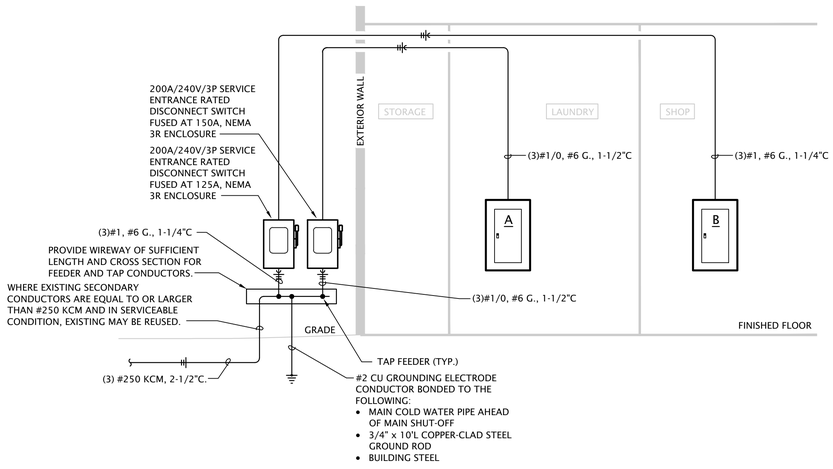
MARK	MANUF.	MODEL NUMBER	LAMP DATA		BALLAST/LED DRIVER	MOUNTING	FINISH	DESCRIPTION	NOTES
			#	TYPE					
A	LITHONIA	FMML-13-8-30	---	1900 LUMEN 28W LED	STANDARD	SURFACE	WHITE	13" ROUND LED FLUSH MOUNT	
B	SEAGULL	4423003EN3-710	3	9.5W LED	STANDARD	WALL	BURNT SIENNA	3 LAMP VANITY LIGHT	
C	SEAGULL	15030EN-829	2	10W LED	STANDARD	SURFACE	BRONZE	52" DIAMETER CEILING FAN WITH LED LIGHT KIT	
D	HALO	SMD6R-6-930-WH	---	600 LUMEN 10W LED	STANDARD	SURFACE	WHITE	6" ROUND SURFACE MOUNT DOWNLIGHT	4
F	LITHONIA	FMFL-30840-CAML-WH	---	2800 LUMEN 35W LED	STANDARD	SURFACE	WHITE	LED DECORATIVE SURFACE	
G	LITHONIA	FML-WL-48-35	---	2380 LUMEN 40W LED	STANDARD	SURFACE	WHITE	4' LED WRAP AROUND	
H	SEAGULL	4138EN-15	1	10W LED	STANDARE	WALL	WHITE	LED WALL SCONCE WITH ACRYLIC DIFFUSER	
K	LITHONIA	CSS-L48-AL03-MVOLT-40K-80CRI	---	5880 LUMEN 41.5W LED	STANDARD	SURFACE	WHITE	4' LED STRIP LIGHT	
L1	LITHONIA	WDGE2-LED-P4-40K-80CRI-T4M-MVOLT-DDXBD	---	4177 LUMENS 47W LED	STANDARD	WALL	DARK BRONZE	4000K LED WALL PACK TYPE IV DISTRIBUTION	2
L2	LITHONIA	WDGE2-LED-P2-40K-80CRI-T3M-MVOLT-DDXBD	---	2060 LUMENS 19W LED	STANDARD	WALL	DARK BRONZE	4000K LED WALL PACK TYPE II DISTRIBUTION	2
L3	LITHONIA	WDGE2-LED-P2-40K-80CRI-T2M-MVOLT-DDXBD	---	2060 LUMENS 19W LED	STANDARD	WALL	DARK BRONZE	4000K LED WALL PACK TYPE III DISTRIBUTION	2

GENERAL:

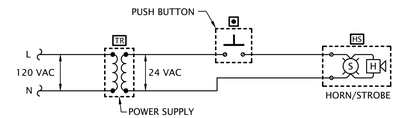
- All fixtures shall be provided with multi-volt driver capable of operating between 120V-277V
- All exterior fixtures shall be 4000K color temperature
- All interior fixtures shall be 3000K color temperature
- All apartment light fixtures and ceiling fans shall be Energy Star rated

NOTES:

1. Provide wall or ceiling mounted as required
2. Fixture shall be U.L. listed for wet locations.
3. Provide with test switch, status indicator and rechargeable nickel-cadmium battery for 90 minutes of emergency power.
4. Fixture shall be U.L. listed for damp locations where installed exterior to building.



2 CLUBHOUSE ELECTRICAL RISER DIAGRAM
NO SCALE



DOOR ALARM BUZZER SYSTEM NOTES

1. PROVIDE DOOR ANNUNCIATOR SYSTEM COMPLETE WITH PUSH BUTTON, HORN/STROBE(S), POWER SUPPLIES AND ALL WIRING REQUIRED. HORN/STROBE SHALL ACTIVATE WHEN PUSH BUTTON IS DEPRESSED.
2. HORN/STROBE SHALL OPERATE AT 24VAC, HAVE A CLEAR LENS WITH 50cd STROBE AND HORN WITH 82dB AT 10', UL 1638 LISTED, EDWARDS #6536-G5. FLUSH MOUNT IN WALL AT 6'-8" AFF.
3. PUSH BUTTON SHALL BE WHITE WITH CHROME RIM, NON-ILLUMINATED, WITH N.O. MOMENTARY CONTACTS, RATED FOR 0.67 AMPS AT 24VAC, EDWARDS #620. PROVIDE WITH STAINLESS STEEL COVER PLATE, EDWARDS #147-10. MOUNT AT 48" AFF.
4. POWER SUPPLY SHALL BE A LOW VOLTAGE CLASS 2 TRANSFORMER WITH 120VAC PRIMARY AND 24VAC SECONDARY, 20VA, EDWARDS #598. FLUSH MOUNT IN 2-GANG WALL BOX WITH BLANK COVER PLATE, DIRECTLY ABOVE HORN/STROBE.
5. LOW VOLTAGE CLASS 2 CABLING SHALL BE MINIMUM 18 AWG UNSHIELDED.

1 APARTMENT DOOR ANNUNCIATOR DIAGRAM
No Scale

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SUN VALLEY APARTMENTS
REHAB APARTMENTS
WICHITA FALLS, TEXAS

08-29-2025
STATE OF TEXAS
TIMOTHY C. TREDWAY
95252
LICENSED PROFESSIONAL ENGINEER

REVISION:
ADDENDUM #1 8-2-2024

DATE: 7-19-2024
JOB: 24-3391
SHEET NO.:

E6.1