

LINETYPES LEGEND:

- NEW
- - - NEW - ON ROOF
- EXISTING
- - - EXISTING - ON ROOF
- DEMOLITION

DUCTWORK LEGEND:

- DUCT (SINGLE LINE)
- DUCT (DOUBLE LINE)
- ⊠ ROUND O/A OR S/A DOWN
- ⊠ ROUND O/A OR S/A UP
- ⊠ ROUND E/A OR R/A DOWN
- ⊠ ROUND E/A OR R/A UP
- ⊠ RECTANGULAR O/A OR S/A DOWN
- ⊠ RECTANGULAR O/A OR S/A UP
- ⊠ RECTANGULAR E/A OR R/A DOWN
- ⊠ RECTANGULAR E/A OR R/A UP
- ⊠ O/A OR S/A DIFFUSER
- ⊠ E/A OR R/A GRILLE
- ⊠ AIR DEVICE WITH FLEX DUCT CONNECTION
- ⊠ AIR DEVICE WITH HARD DUCT CONNECTION
- ⊠ FLEXIBLE CONNECTION TO EQUIPMENT
- ⊠ DUCT BREAK/CONTINUATION
- ⊠ MANUAL BALANCING DAMPER
- ⊠ MOTOR-OPERATED DAMPER
- ⊠ BACKDRAFT DAMPER
- ⊠ FIRE DAMPER
- ⊠ FIRE/SMOKE DAMPER
- ⊠ SMOKE DAMPER

ANNOTATION LEGEND:

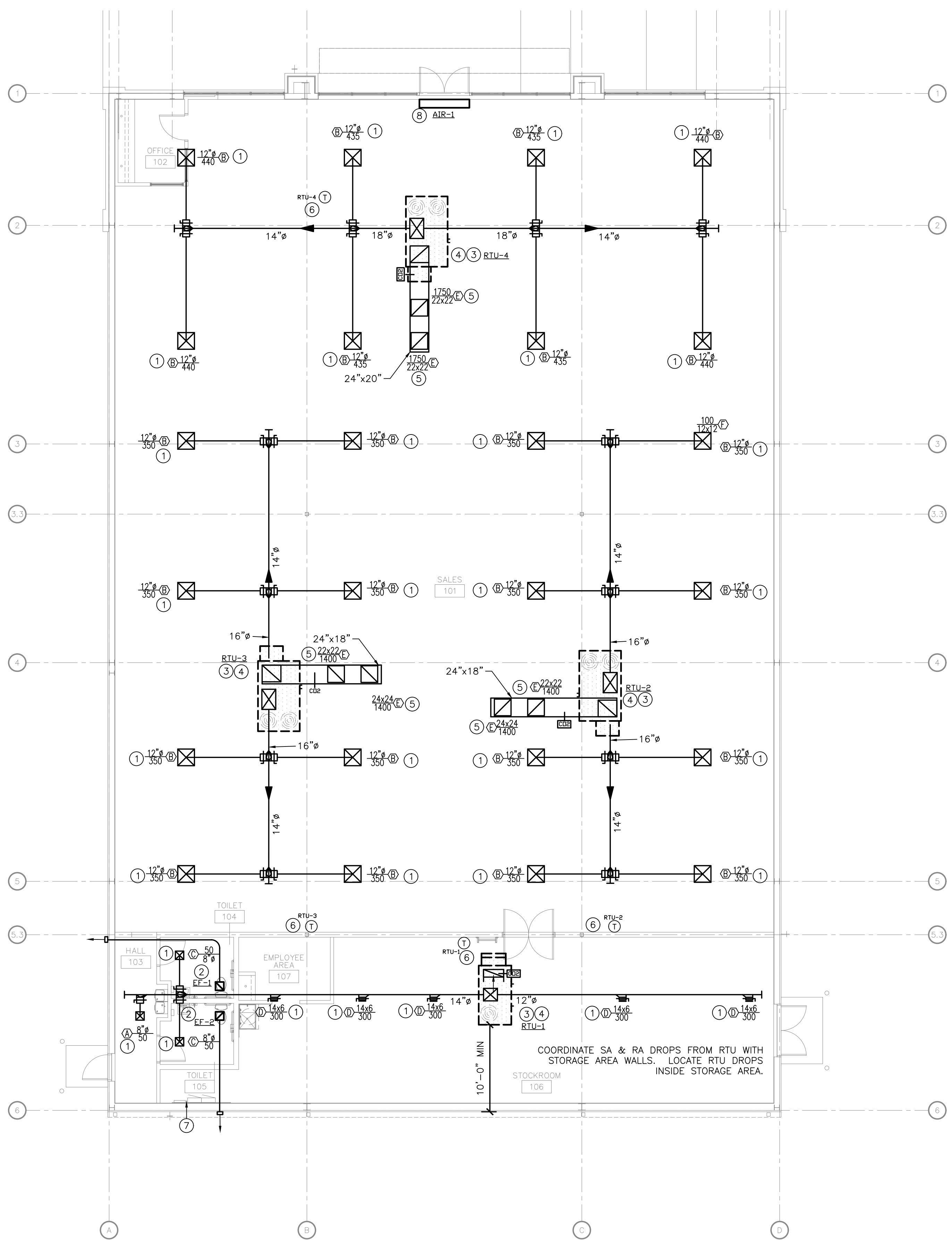
- ABC-1 EQUIPMENT / FIXTURE TAG
- ⊖ PLAN NOTE
- ⊕ CONNECT TO EXISTING
- AIR FLOW DIRECTION
- SIZE G/R/D TAG
- AIRFLOW @ TYPE

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- AFG ABOVE FINISHED GRADE
- AHU AIR HANDLING UNIT
- APD AIR PRESSURE DROP
- ATU AIR TERMINAL UNIT
- AV ANALOG VIRTUAL
- BAS BUILDING AUTOMATION SYSTEM
- BOD BOTTOM OF DUCT
- BOP BOTTOM OF PIPE
- CAV CONSTANT AIR VOLUME
- CFM CUBIC FEET PER MINUTE
- CFH CUBIC FEET PER HOUR
- CU CONDENSING UNIT
- DDC DIRECT DIGITAL CONTROL
- DN DOWN
- (E) EXISTING
- E ELECTRONIC
- E/A EXHAUST AIR
- EAT ENTERING AIR TEMPERATURE
- EF EXHAUST FAN
- EG EXHAUST GRILLE
- ESP EXTERNAL STATIC PRESSURE
- EWT ENTERING WATER TEMPERATURE
- FACP FIRE ALARM CONTROL PANEL
- FC FAIL CLOSED
- FCU FAN COIL UNIT
- FFA FROM FLOOR ABOVE
- FFB FROM FLOOR BELOW
- FIP FAIL IN PLACE
- FO FAIL OPEN
- FPI FINS PER INCH
- FPM FEET PER MINUTE
- FT.WG FEET WATER GAUGE
- GPM GALLONS PER MINUTE
- HC HEATING CAPACITY
- HP HORSEPOWER
- HUM HUMIDIFIER
- IFB INTEGRAL FACE AND BYPASS
- IN.W.G INCHES WATER GAUGE
- LAT LEAVING AIR TEMPERATURE
- MAX MAXIMUM
- MBH 1,000 BTUH
- MIN MINIMUM
- NC NOISE CRITERIA
- O/A OUTDOOR AIR
- P PNEUMATIC
- P PRESSURE
- QTY QUANTITY
- R/A RETURN AIR
- RE/A RELIEF AIR
- REFR REFRIGERANT
- RF RETURN FAN
- RG RETURN GRILLE
- RH REHEAT
- RH ROOFTOP UNIT
- S/A SUPPLY AIR
- SC SENSIBLE COOLING CAPACITY
- SD SUPPLY DIFFUSER
- STM STEAM
- TC TOTAL COOLING CAPACITY
- TFA TO FLOOR ABOVE
- TFB TO FLOOR BELOW
- TRA TO ROOF ABOVE
- TSP TOTAL STATIC PRESSURE
- VAV VARIABLE AIR VOLUME
- VEL VELOCITY
- VFD VARIABLE FREQUENCY DRIVE
- WPD WATER PRESSURE DROP

MECHANICAL GENERAL NOTES:

- MECHANICAL WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. REFER TO ARCHITECTURAL CODE PLANS FOR SPECIFIC CODE REFERENCES.
- COORDINATE MECHANICAL WORK WITH ALL OTHER PROJECT TRADES (E.G. ARCHITECTURAL, STRUCTURAL, ELECTRICAL, PLUMBING, FIRE SPRINKLER, ETC.).
- COORDINATE WITH ELECTRICAL CONTRACTOR FOR REQUIRED ELECTRICAL POWER WIRING. PROVIDE ALL CONTROL WIRING AND FINAL CONTROL DEVICE (E.G. THERMOSTATS).
- COORDINATE ALL AUDIO/VISUAL ALARMS REQUIRED WITH THE ELECTRICAL CONTRACTOR.
- FABRICATE AND INSTALL DUCTWORK PER SMACNA RECOMMENDATIONS FOR THE PRESSURE CLASSIFICATIONS ENCOUNTERED.
 - LOW PRESSURE SUPPLY AIR: +2.0 IN.WG
 - RETURN AIR: -1.0 IN.WG
 - EXHAUST AIR (DOWNSTREAM OF FAN): +1.0 IN.WG
- PROVIDE ALL CONDENSATE DRAINS FOR EQUIPMENT THAT GENERATES CONDENSATE. COORDINATE WITH PLUMBING CONTRACTOR.
- PROVIDE DUCT WRAP INSULATION FOR ALL ROUND AND RECTANGULAR SUPPLY AIR DUCTWORK. DUCT WRAP INSULATION SHALL BE 2" THICK, MINIMUM R-5.0 FIBERGLASS WITH VAPOR BARRIER.
- PROVIDE INTERNAL LINER INSULATION FOR ALL RECTANGULAR RETURN AIR DUCTWORK. INTERNAL LINER INSULATION SHALL BE A MINIMUM OF 1" THICK AND 1% PCF FIBERGLASS, NEOPRENE COATED, AND ADHERED WITH AN APPROVED ADHESIVE WITH 100% COVERAGE AND STICK CLIPS ON 12" CENTERS. INTERNALLY LINED INSULATION SHALL MEET BACTERIOLOGICAL STANDARD ASTM C 665. DUCT DIMENSIONS SHOWN ON THE PLANS INDICATE THE FREE AREA DIMENSIONS. INCREASE SHEET METAL DIMENSIONS AS REQUIRED TO MEET FREE AREA DIMENSIONS WITH LINER INSTALLED.
- FLEXIBLE DUCTWORK SHALL HAVE 2" THICK, MINIMUM R-5.0 INSULATION. FLEXIBLE DUCTWORK SHALL NOT EXCEED 5'-0" IN LENGTH FOR SUPPLY AIR APPLICATIONS AND 3'-0" IN LENGTH FOR RETURN AIR AND EXHAUST AIR APPLICATIONS.
- PROVIDE BALANCING DAMPERS IN DUCT TAKE-OFFS TO AIR DEVICES IN LAY-IN CEILINGS, IN THE NECKS OF AIR DEVICES IN GYP BOARD CEILINGS, AND IN THE NECKS OF SIDE WALL AIR DEVICES FOR PROPER AIR BALANCING.
- TOILET ROOM EXHAUST FANS SHALL BE AS SCHEDULED. PROVIDE A MINIMUM OF 75 CFM EXHAUST PER FLUSH FIXTURE.
- COORDINATE ALL REQUIRED ROOF PENETRATIONS WITH ROOFING CONTRACTOR TO AVOID ROOF WARRANTY CONFLICTS.
- VERIFY AVAILABLE SPACE ABOVE ALL CEILINGS PRIOR TO FABRICATION OR INSTALLATION OF ANY DUCTWORK. COORDINATE DUCT INSTALLATION WITH OTHER TRADES.
- ALL DIMENSIONS SHOWN ON PLAN ARE IN INCHES, UNLESS EXPLICITLY LABELED OTHERWISE.
- PROVIDE A COMPLETE TEST AND BALANCE BY A NEBB CERTIFIED TEST AND BALANCE AGENCY.
- PROVIDE ACCESS PANELS AND ADEQUATE CLEARANCE FOR ACCESS OF ALL EQUIPMENT, VALVES, DAMPERS AND DEVICES.
- ALL PENETRATIONS THROUGH EXTERIOR WALLS SHALL BE FLASHED AND COUNTERFLASHED IN A WATERPROOF MANNER. (COLOR TO MATCH EXTERIOR)
- ALL SUSPENDED MATERIALS AND EQUIPMENT SHALL BE INDIVIDUALLY SUPPORTED FROM THE BUILDING STRUCTURE. DO NOT SUSPEND ITEMS FROM THE CEILING OR ITS SUPPORT SYSTEM.
- INSTALL CONTROL DEVICES, INCLUDING THERMOSTATS AND SWITCHES 4'-0" ABOVE FINISHED FLOOR. PROVIDE THE REQUIRED DEVICES FOR ALL SYSTEM WHETHER LOCATED ON PLANS OR NOT.
- PROVIDE A 1 YEAR WARRANTY ON ALL EQUIPMENT AND A 5 YEAR WARRANTY ON ALL COMPRESSORS.
- CONTRACTOR SHALL VERIFY LOCATIONS OF ALL WALL CAPS WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL PAINT ALL VENT CAPS, CONFIRM COLOR WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.



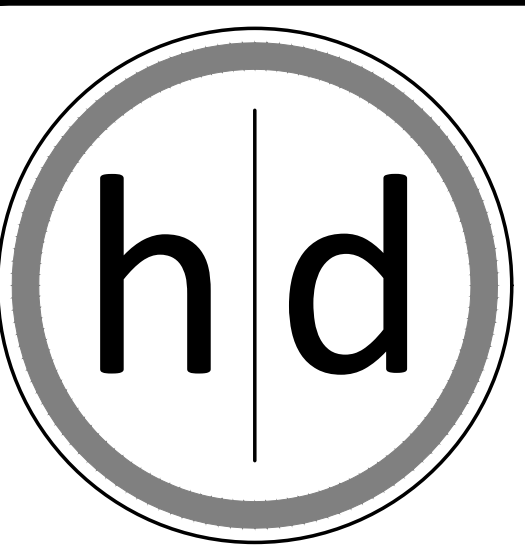
1 MECHANICAL HVAC PLAN
SCALE: 1/8" = 1'-0"

MECHANICAL PLAN NOTES:

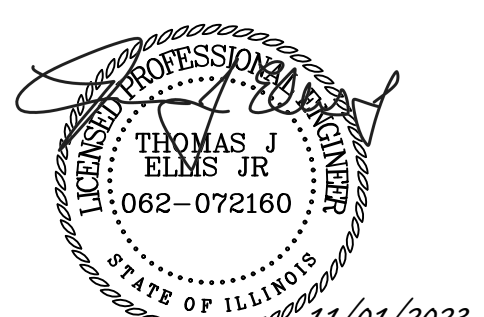
- PROVIDE SUPPLY AIR DEVICE PER SCHEDULE WHERE SHOWN. COORDINATE FINISH WITH ARCHITECT AND OWNER. COORDINATE WITH REFLECTED CEILING PLAN.
- EXTEND EXHAUST FAN PER SCHEDULE. ROUTE 6" EXHAUST DUCT FROM EXHAUST FAN THROUGH WALL AS SHOWN. PROVIDE WALL PENETRATION AND VENT CAP EQUAL TO GREENHECK WC-6 WITH BUILT IN BIRDSHIELD AND BACKDRAFT DAMPER. LOCATE DISCHARGE AT MINIMUM OF 10'-0" FROM ANY BUILDING OPENINGS, OUTDOOR AIR INTAKES OR FIRE SEPARATIONS.
- PROVIDE RTU, WITH CONTROLS AND ACCESSORIES FOR A FULLY FUNCTIONING SYSTEM. REFERENCE RTU SCHEDULE. LOCATE RTU WHERE SHOWN. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. DISCHARGE CONDENSATE DRAIN ON ROOF.
- EXTEND SUPPLY AND RETURN AIR DROPS FROM RTU'S TO BELOW STRUCTURE. EXTEND SUPPLY DUCT HORIZONTALLY TO FEED THE ZONE IT SERVES. PROVIDE A RETURN AIR ELBOW FULL-SIZE OF RTU OPENING FOR PLENUM RETURN.
- PROVIDE RETURN AIR DEVICE PER SCHEDULE. COORDINATE FINISH WITH ARCHITECT AND OWNER. PROVIDE BALANCING DAMPER IN TAKE OFF ABOVE ACCESSIBLE CEILING OR AT FACE OF DEVICE IN AN INACCESSIBLE CEILING.
- CONTRACTOR TO PROVIDE STANDARD THERMOSTAT FOR INITIAL COMMISSIONING OF EQUIPMENT. LOCATE ON CEILING GRID/WALL/OR COLUMN AS SHOWN. PROVIDE WITH 50' EXTRA CONTROL WIRING. VENSTAR WILL REPLACE WITH THEIR THERMOSTAT AT TIME OF FAMILY DOLLAR UPFIT.
- FUTURE ENERGY MANAGEMENT SYSTEM TO BE PROVIDED AT TIME OF FAMILY DOLLAR UPFIT.
- LOCATE NEW AIR CURTAIN ON WALL WHERE SHOWN. INSTALL ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS, MINIMUM 8'-0" AFF.

SEQUENCES OF OPERATION:

- ROOFTOP UNITS RTU-1, RTU-2, RTU-3, RTU-4:**
UNIT SHALL OPERATE SUBJECT TO MANUFACTURER'S STANDARD SEQUENCES AND SAFETIES VIA FACTORY-INSTALLED CONTROLLER AND CONTROL DEVICES. THE 7-DAY PROGRAMMABLE THERMOSTAT SHALL PROVIDE RTU CONTROLLER WITH HEATING/COOLING COMMAND, OCCUPIED/UNOCCUPIED SCHEDULE, AND FAN CONTROL INPUTS.
- SET POINTS:**
- OCCUPIED MODE: 70°F HEATING, 75°F COOLING
 - UNOCCUPIED MODE: 55°F HEATING, 65°F COOLING
 - ECONOMIZER MODE ENABLE: O/A TEMPERATURE < 65°F
- SUPPLY FAN CONTROL:**
- OCCUPIED MODE: MULTI-STAGE FAN SHALL OPERATE CONTINUOUSLY. FAN STAGE TO BE DETERMINED BY MANUFACTURER'S STANDARD SEQUENCE.
 - UNOCCUPIED MODE: FAN SHALL CYCLE WITH HEATING AND COOLING COMMANDS.
- OUTDOOR AIR DAMPER:**
- OCCUPIED MODE: OUTDOOR AIR DAMPER SHALL OPEN TO SCHEDULED MINIMUM OUTDOOR AIR FLOW POSITION. OUTDOOR AIR DAMPER MINIMUM POSITION SHALL BE DETERMINED DURING TESTING AND BALANCING.
 - DCV OCCUPIED MODE: OUTDOOR AIR DAMPER SHALL OPEN TO SCHEDULED DCV MINIMUM OUTDOOR AIR FLOW POSITION. DCV MINIMUM OUTDOOR AIR DAMPER POSITION SHALL BE DETERMINED DURING TESTING AND BALANCING.
 - UNOCCUPIED MODE: OUTDOOR AIR DAMPER SHALL BE CLOSED, UNLESS UNIT IS IN COOLING MODE AND OUTDOOR AIR TEMPERATURES ARE SUITABLE FOR ECONOMIZER OPERATION.



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A New Retail Location For:

West of 5736 W. Monnee Manhattan Rd
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PERMIT

Date	11/01/2023
Job Number	20-003.03
Drawn By	JS
Checked By	GH
Type	3A-I-3

Revisions	Number	Date	Description

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ROOFTOP UNIT SCHEDULE																															
TAG	AREA SERVED	MANUFACTURER	SERIES	SUPPLY FAN				O/A FLOW				COOLING COIL (DX)								HEATING COIL (NATURAL GAS)				ELECTRICAL			WEIGHT (LBS)	NOTES			
				FAN CONTROL	S/A FLOW (CFM)	MOTOR (BHP)	ESP (IN. WG)	MIN (CFM)	DCV MIN (CFM)	NOM TONS	REFR TYPE	TC (MBH)	SC (MBH)	EAT		LAT		MIN EFF		STAGES (QTY)	NOM INPUT (CFH)	HC (MBH)	EAT (°F DB)	LAT (°F DB)	MIN EFF (%)	STAGES (QTY)			V/PH	MCA	MOCP
														(°F DB)	(°F WB)	(°F DB)	(°F WB)	(EER)	(SEER)												
RTU-1	STORAGE	CARRIER	48FCE	CAV	1,650	1.4	1.00	150	150	5	R-410A	84.9	38	74.5	63.7	53.0	52.0	12.5	16.1	1	110	88.0	54.5	103.7	80	2	208/3	31	45	871	A-N
RTU-2	WEST SALES	CARRIER	48FCE	MSAV	2,800	2.4	1.00	650	350	7.5	R-410A	84.5	63	78.5	67.1	53.0	52.0	11.2	15 IEER	2	180	144.0	43.0	90.4	80	2	208/3	39	50	1,065	A-N
RTU-3	EAST SALES	CARRIER	48FCE	MSAV	2,800	2.4	1.00	650	350	7.5	R-410A	84.5	63	78.5	67.1	53.0	52.0	11.2	15 IEER	2	180	144.0	43.0	90.4	80	2	208/3	39	50	1,065	A-N
RTU-4	SOUTH SALES	CARRIER	48FCE	MSAV	3,500	3.0	1.00	775	400	10	R-410A	115.7	86	78.2	66.9	53.0	52.0	11.0	15 IEER	2	224	179.2	43.8	91.0	80	2	208/3	45	60	1,600	A-N

NOTES:
A. PROVIDE WITH CONTROLLER AND CONTROL DEVICES BY MANUFACTURER. REFER TO SEQUENCES OF OPERATION.
B. PROVIDE WITH MANUFACTURER'S STANDARD 7-DAY PROGRAMMABLE THERMOSTAT.
C. PROVIDE WITH INTEGRATED ENTHALPY TYPE ECONOMIZER ASSEMBLY.
D. PROVIDE WITH MANUFACTURER'S BAROMETRIC RELIEF DAMPER.
E. PROVIDE WITH MANUFACTURER'S STANDARD INSULATED ROOF CURB WITH 1'-2" MINIMUM HEIGHT.
F. PROVIDE WITH DUCT-MOUNTED CARBON DIOXIDE SENSOR FOR DEMAND CONTROL VENTILATION (DCV) SEQUENCE.
G. PROVIDE WITH NON-POWERED WEATHER-PROOF DUPLEX RECEPTACLE.
H. PROVIDE WITH 2" THICK, MINIMUM MERV-8 FILTERS.
I. PROVIDE WITH FACTORY-MOUNTED RETURN AIR SMOKE DETECTOR.
J. PROVIDE WITH LOUVERED CONDENSER COIL GUARDS.
K. PROVIDE WITH FACTORY DISCONNECT SWITCH.
L. UNIT SIZED FOR 100°F AMBIENT CONDENSING TEMPERATURE.
M. UNIT PROVIDED WITH MULTISTAGE FAN COOLING SHALL BE PROVIDED WITH MULTISTAGE FAN CONTROL.
N. PROVIDE WITH MANUFACTURER APPROVED CURB-MOUNTED ROOF-SCREEN SYSTEM. COORDINATE EXACT LOUVER TYPE AND COLOR WITH ARCHITECT AND/OR OWNER PRIOR TO PURCHASE.

AIR CURTAIN SCHEDULE												
TAG	MANUFACTURER	MODEL	LOCATION	LENGTH	CFM	MOTOR HP	HEAT CAPACITY	ELECTRICAL			WEIGHT	NOTES
								V / PH	AMPS	MOCP		
AIR-1	POWERED AIRE	EVE-2-72	FRONT ENTRY	72"	1968	1/4 HP (2)	NONE	120 / 1	4.4	15	100 LBS	1-9

NOTES:
A. UNIT SHALL MEET IECC BUILDING CODE WHICH ALLOWS AMCA CERTIFIED AIR CURTAIN AS AN ALTERNATE TO VESTIBULES.
B. PROVIDE WITH MAGNETIC DOOR SWITCH FOR ACTIVATION. ONE PER EACH DOOR FOR TOTAL OF TWO.
C. PROVIDE WITH 24V TRANSFORMER AND BUILT-IN TIME DELAY RELAY.
D. PROVIDE WITH REMOTE MOUNTED VARIABLE SPEED SWITCH.
E. PROVIDE WITH UNIT MOUNTED NON-FUSED DISCONNECT SWITCH.
F. PROVIDE WITH CLEANABLE WIRE MESH FILTERS.
G. FINISH SHALL BE WHITE OR AS SELECTED BY ARCHITECT.
H. MOUNT BOTTOM OF AIR CURTAIN AT 7'-2" ABOVE FINISHED FLOOR.
I. AIR CURTAIN SHALL BE BY POWERED AIRE AS SCHEDULED OR APPROVED EQUAL.

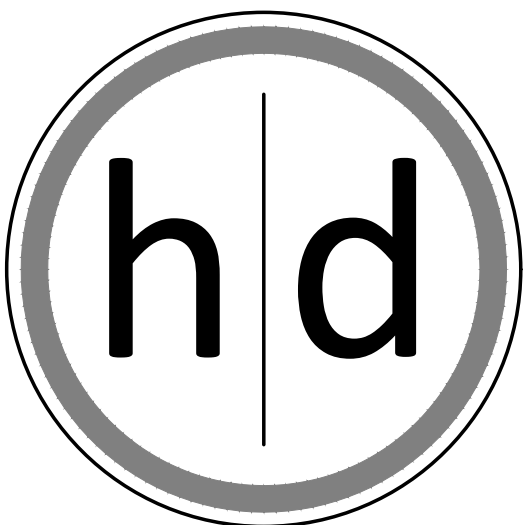
OUTSIDE AIR CALCULATIONS									
TAG	OCCUPANCY CLASSIFICATION	AREA (FT ²)	OCCUPANTS (QTY)	R _s (CFM/PERSON)	MIN OCCUPANT O/A (CFM)	R _a (CFM/FT ²)	MIN AREA O/A (CFM)	MIN REQUIRED O/A (CFM)	PROVIDED
RTU-1	STORAGE	1185	0	0	0	0.12	142	142	150
RTU-2	SALES	2780	42	7.5	315	0.12	334	649	650
RTU-3	SALES	2780	42	7.5	315	0.12	334	649	650
RTU-4	SALES	3260	49	7.5	367.5	0.12	391	759	775
								REQD	2,198
								PROVIDED	2,225
CALCULATIONS PER ASHRAE 62.1									

FAN SCHEDULE									
TAG	MANUFACTURER	MODEL	MOUNTING	SERVES	CFM	ESP (IN)	MOTOR POWER	VOLTAGE	NOTES
EF-1	GREENHECK	SP-B110	CEILING	RESTROOM	75	0.25	80 WATTS	120/1/60	ALL
EF-2	GREENHECK	SP-B110	CEILING	RESTROOM	75	0.25	80 WATTS	120/1/60	ALL

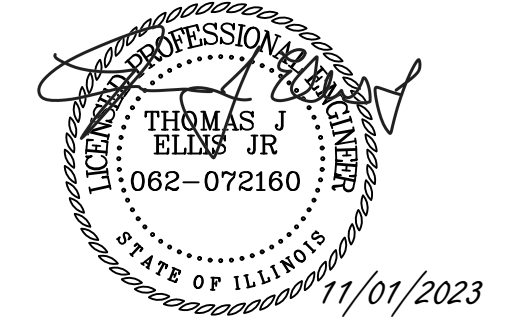
NOTES:
A. PROVIDE WITH MANUFACTURER'S STANDARD HANGING KIT AND CEILING MOUNT TRIM.
B. PROVIDE WITH DISCONNECT SWITCH.
C. PROVIDE WITH BACKDRAFT DAMPER.
D. PROVIDE WITH ROOF DISCHARGE CAP FOR EXHAUST THROUGH THE ROOF. COMBINE EXHAUST OF ALL EXHAUST FANS FOR A SINGLE DISCHARGE.
E. INTERLOCK FAN WITH ASSOCIATED RESTROOM LIGHT SWITCH

GRILLES, REGISTERS AND DIFFUSERS									
TAG	SERVICE	MANUFACTURER	MODEL	MATERIAL	MOUNTING	FACE SIZE	MAX NC	MAX DP	NOTES
A	SUPPLY	METALAIRES	5700	ALUMINUM	LAY IN	12x12	30	0.1	A,B,C,F,G
B	SUPPLY	METALAIRES	5700	ALUMINUM	LAY IN	24x24	30	0.1	A,B,C,F
C	SUPPLY	METALAIRES	5700	ALUMINUM	SURFACE	SEE PLAN	30	0.1	A,B,C,F,G
D	SUPPLY	METALAIRES	V400D	ALUMINUM	DUCT	12x12	30	0.1	A,C,D,E,F,G
E	RETURN	METALAIRES	CC1	ALUMINUM	LAY IN	24x24	30	0.1	C,F
F	TRANSFER	METALAIRES	DG DF	ALUMINUM	DOOR	SEE PLANS	30	0.1	C,F
G	TRANSFER	METALAIRES	RH	ALUMINUM	WALL	SEE PLANS	30	0.1	C,F

NOTES:
A. NECK SIZE SHOWN ON PLANS.
B. 4 WAY THROW UNLESS INDICATED OTHERWISE ON PLANS.
C. BAKED ENAMEL FINISH, WHITE TO MATCH CEILING/WALL COLOR. VERIFY WITH ARCHITECT PRIOR TO ORDER.
D. FRONT BLADES PARALLEL TO HORIZONTAL DIMENSION. VERIFY WITH PLANS.
E. PROVIDE DOUBLE DEFLECTION BARS THAT ARE ADJUSTABLE.
F. FRAME TYPE TO MATCH CEILING/WALL CONSTRUCTION. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING PLAN.
G. PROVIDE OPPOSED BLADE DAMPER THAT IS ADJUSTABLE FROM THE FACE OF THE DEVICE.



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A New Retail Location For:

West of 5766 W. Monee Manhattan Rd
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Job Number	20-003.03
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Checked By	GH
Type	3A-I-3

Revisions Number	Date	Description

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MECHANICAL SCHEDULES
AND DETAILS
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PLUMBING GENERAL NOTES:

- DRAWINGS ARE SCHEMATIC IN NATURE AND BASED ON PRELIMINARY SITE OBSERVATION AND ORIGINAL DESIGN DRAWINGS (WHEN AVAILABLE). PRIOR TO BID, CONTRACTOR SHALL INVESTIGATE THE PROJECT SITE AND BECOME FULLY AWARE OF ALL FIELD CONDITIONS, CURRENT SYSTEM OPERATION AS WELL AS COORDINATION REQUIREMENTS. COORDINATE ALL MECHANICAL WORK WITH ARCHITECTURAL DRAWINGS, EXISTING CONDITIONS AND OTHER TRADES PRIOR TO BID OR START OF WORK.
- PLUMBING WORK SHALL CONFORM TO APPLICABLE CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION. REFER TO ARCHITECTURAL CODE PLANS FOR SPECIFIC CODE REFERENCES.
- PLUMBING WORK SHALL BE COORDINATED WITH ALL OTHER PROJECT TRADES (E.G. ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL, AND FIRE SPRINKLER).
- EXACT LOCATION AND ELEVATIONS OF ALL EXISTING UTILITIES SHALL BE VERIFIED PRIOR TO ANY INSTALLATION OF CONNECTIONS THEREOF. ALL CONNECTIONS TO EXISTING UTILITIES (E.G. DOMESTIC WATER, SEWER, VENT, AND NATURAL GAS) SHALL BE MADE WITH APPROVAL OF THE ADMINISTRATIVE AUTHORITY AND THE RESPECTIVE UTILITY COMPANIES.
- SANITARY WASTE, AND VENT SHALL BE SCHEDULE 40 PVC WITH SOLVENT-WELDED JOINTS.
- SANITARY WASTE, AND VENT, SHALL BE NO-HUB CAST IRON IN RETURN AIR PLENUM APPLICATIONS. PVC OR ABS PIPING CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.
- SLOPE SANITARY PIPING AS FOLLOWS: 1/4" PER FOOT FOR PIPE SIZES 2-1/2" AND SMALLER, AND 1/8" PER FOOT FOR PIPE SIZES 3" AND LARGER.
- COORDINATE ALL CONDENSATE DRAIN REQUIREMENTS WITH THE HVAC CONTRACTOR AND OTHER TRADES.
- CONDENSATE DRAIN PIPING SHALL BE TYPE M COPPER PIPING WITH WROUGHT FITTINGS AND SOLDERED JOINTS IN RETURN AIR PLENUM APPLICATIONS. PVC CAN BE USED IN AREAS OTHER THAN RETURN AIR PLENUMS AS ALLOWED BY CODE.
- SLOPE CONDENSATE DRAIN PIPING AS FOLLOWS: 1/8" PER FOOT FOR ALL PIPE SIZES.
- PROVIDE WATER SUPPLY SHUT-OFF VALVES ON EACH TOILET ROOM GROUP AND TO MISCELLANEOUS EQUIPMENT.
- PROVIDE SIZE "A" WATER HAMMER ARRESTORS ON SUPPLY TO ALL PLUMBING FIXTURES.
- PROVIDE STOP VALVES ON ALL INDIVIDUAL PLUMBING FIXTURE SUPPLIES.
- COORDINATE SELECTION OF ALL PLUMBING FIXTURES WITH ARCHITECT AND OWNER. ALL HANDICAPPED FIXTURES (WHERE REQUIRED) SHALL COMPLY WITH A.D.A. REQUIREMENTS.
- DOMESTIC WATER PIPING BELOW GRADE SHALL BE TYPE K SOFT COPPER WITH FLARED FITTINGS OR TYPE K HARD COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- DOMESTIC WATER PIPING ABOVE GRADE SHALL BE TYPE L COPPER WITH WROUGHT FITTINGS AND SOLDERED JOINTS.
- WHERE ALLOWED BY CODE, CROSS-LINKED POLYETHYLENE (PEX) PIPING MAY BE USED IN LIEU OF COPPER PIPING. ADJUST SIZING OF PIPING FOR REDUCED FRICTION OF PEX PIPING. ALL PEX PIPE ROUTED IN RETURN AIR PLENUMS MUST MEET THE FLAME SPREAD RATING AND SMOKE DEVELOPED RATING FOR SUCH APPLICATIONS.
- INSULATE NEW DOMESTIC COLD WATER, HOT WATER, HOT WATER RECIRCULATION, INTERIOR CONDENSATE DRAIN, AND STORM PIPING WITH MINIMUM 1" FIBERGLASS INSULATION (MINIMUM R-4.0) WITH PAPER COVERING.
- ALL NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL WITH MALLEABLE FITTINGS. SUPPORT PIPING AT INTERVALS NOT TO EXCEED THOSE LISTED IN TABLE 415.1 OF THE INTERNATIONAL FUEL GAS CODE.
- PAINT ALL NATURAL GAS PIPING LOCATED EXTERIOR TO THE BUILDING AS REQUIRED BY CODE.
- PROVIDE A.G.A. APPROVED GAS COCKS AND DIRT LEGS AT CONNECTIONS TO ALL GAS-FIRED EQUIPMENT.
- INSTALL ALL PLUMBING EQUIPMENT, FIXTURES, VALVES, ETC. PER MANUFACTURER'S INSTALLATION REQUIREMENTS. PROVIDE ADDITIONAL APPURTENANCES PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- INSTALL CLEANOUTS AT EVERY END OF SANITARY PIPING RUNS, AT MINIMUM OF EVERY 100'-0" OF SANITARY PIPING, AND AT EVERY CHANGE IN DIRECTION GREATER THAN 45°. REFER TO SECTION 708 OF THE INTERNATIONAL PLUMBING CODE FOR ADDITIONAL REQUIREMENTS.
- ALL FLOOR DRAINS SHALL HAVE A 2" THROAT AND P-TRAP UNLESS NOTED OTHERWISE.
- PLUMBING CONTRACTOR SHALL INSPECT ALL PLUMBING EQUIPMENT TO REMAIN. REPORT ANY DEFICIENCIES TO OWNER PRIOR TO START OF WORK.
- CONTRACTOR SHALL LABEL ALL PIPING, VALVES AND EQUIPMENT WITH MANUFACTURER STANDARD LABELING SYSTEMS. COORDINATE WITH OWNER FOR FINAL EQUIPMENT DESIGNATIONS.

FIRE SPRINKLER SYSTEM NOTES:

- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- SPRINKLER SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH NFPA 13. SYSTEM SHALL ALSO MEET ALL APPLICABLE CODES AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO BID SUBMITTAL.
- LAYOUT FIRE SPRINKLER SYSTEM, PERFORM REQUIRED CALCULATIONS AND COORDINATE WITH OTHER TRADES.
- PROVIDE ADDITIONAL MATERIALS AND LABOR REQUIRED DUE TO LACK OF COORDINATION AND TO MEET AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER REQUIREMENTS.
- MODIFY EXISTING SPRINKLER SYSTEM, RELOCATE AND/OR PROVIDE ADDITIONAL SPRINKLERS, PIPING, HANGERS, ETC. COORDINATE WITH WALLS, CEILINGS, LIGHTS, DIFFUSERS, STRUCTURE, OBSTRUCTIONS, ETC. IN AREAS AFFECTED BY SCOPE OF WORK.
- COORDINATE SPRINKLER SYSTEM MODIFICATIONS TO MINIMIZE SYSTEM IMPAIRMENT. PROVIDE FIRE WATCH AND INTERIM FIRE PROTECTION MEASURES WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, INSURANCE CARRIER, OR OWNER.
- ADJUST LOCATION OF PIPING ABOVE CEILING AS NECESSARY FOR NEW CEILING HEIGHTS. PROVIDE FITTINGS, PIPING, ETC. AS NECESSARY FOR COMPLETE INSTALLATION. SIGNIFICANT MODIFICATIONS TO THE EXISTING SYSTEM SHALL WARRANT A REVIEW OF THE SYSTEM HYDRAULICS TO VERIFY THAT THE REQUIRED DENSITY AND PRESSURE WILL BE PROVIDED.
- COORDINATE PIPE ROUTING NEAR ELECTRICAL EQUIPMENT WITH NFPA 70.
- COORDINATE SPRINKLER TEMPERATURES NEAR HEAT-PRODUCING SOURCES WITH NFPA 13.
- DO NOT CONNECT MORE THAN ONE SPRINKLER TO AN EXISTING ONE-INCH OUTLET.
- REMOVE ALL ABANDONED PIPING, FITTINGS, HANGERS, ETC.
- FORWARD COMPLETED CONTRACTOR MATERIAL TEST CERTIFICATIONS TO THE OWNER.
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

PLUMBING FIXTURE SCHEDULE:

INFORMATION BELOW IS FOR GENERAL FIXTURE REQUIREMENTS ONLY. PLUMBING CONTRACTOR SHALL COORDINATE WITH OWNER AND ARCHITECT FOR EXACT FIXTURE REQUIRED FOR THE PROJECT. COORDINATE WITH OWNER FOR INFORMATION ON PROCURING FIXTURES AND ASSOCIATED COSTS. CONTRACTOR SHALL BE CLEAR AS TO WHAT FIXTURES ARE INCLUDED IN THEIR PROPOSED COSTS.

FIXTURES IN THIS SCHEDULE, OR THE APPROVED EQUIVALENT, SHALL BE PROVIDED BY THE PLUMBING CONTRACTOR UNLESS NOTED OTHERWISE. REFER TO SPECIFICATIONS AND MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR FURTHER REQUIREMENTS.

ALL PLUMBING FIXTURES SHALL BE PROVIDED WITH ALL ACCESSORIES, HANGERS, VALVES, STOPS, TAILPIECES, TRAPS, FAUCETS, STRAINERS, ETC. PROVIDE ISOLATION VALVES AT ALL PLUMBING FIXTURES AND EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS AND LOCATIONS OF ALL PLUMBING FIXTURES AND EQUIPMENT.

- DF**
- DRINKING FOUNTAIN (ADA ACCESSIBLE): WALL-MOUNTED, MODULAR, BARRIER FREE, STAINLESS STEEL BI-LEVEL BOWLS AND WALL PLATE.
 - TRIM: FRP BACKSPLASH AT SURROUNDING WALLS TO 8'-0" AFF. QUARTER-TURN BALL TYPE ANGLE STOP VALVE WITH RISER AND ESCUTCHEON, 1-1/4" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON.
 - MOUNT TO MEET ADA REQUIREMENTS. REFERENCE ARCHITECTURAL DRAWINGS.

- ET**
- EXPANSION TANK: 150 PSIG MAXIMUM WORKING PRESSURE, 4.5-GALLON CAPACITY, 0.45 MAXIMUM ACCEPTANCE FACTOR, AND 3/4" PIPE CONNECTION. SET THE AIR CHARGE PRESSURE TO MATCH EXISTING WATER SYSTEM PRESSURE.

- FCO**
- FLOOR CLEANOUT: ZURN MODEL Z1454. CAST IRON BODY, FLASHING FLANGE WITH CLAMPING COLLAR, ABS PLUG, AND ADJUSTABLE, ROUND, SECURED, SCORATED DURA-COATED CAST IRON TOP WITH MEMBRANE FLASHING FLANGE. INSTALL PER MANUFACTURER'S REQUIREMENTS BASED ON FLOORING TYPE USED. PROVIDE ACCESSORIES AS REQUIRED FOR PROPER INSTALLATION. COORDINATE FINISH TYPE WITH ARCHITECTURAL PLANS.

- FD**
- FLOOR DRAIN: CAST IRON FLOOR DRAIN WITH FLANGE, INTEGRAL REVERSIBLE CLAMPING COLLAR, SEEPAGE OPENINGS, AND 6" NICKEL BRONZE STRAINER WITH VANDAL-PROOF SCREWS. PROVIDE P-TRAP AND WASTE ARM SIZED AS INDICATED ON PLAN.

- FPMB**
- WOODFORD B65 NON FREEZE WALL HYDRANT, FULLY RECESSED BOX, CAST BRASS, INTEGRAL VACUUM BREAKER, 3/4" INLET AND OUTLET

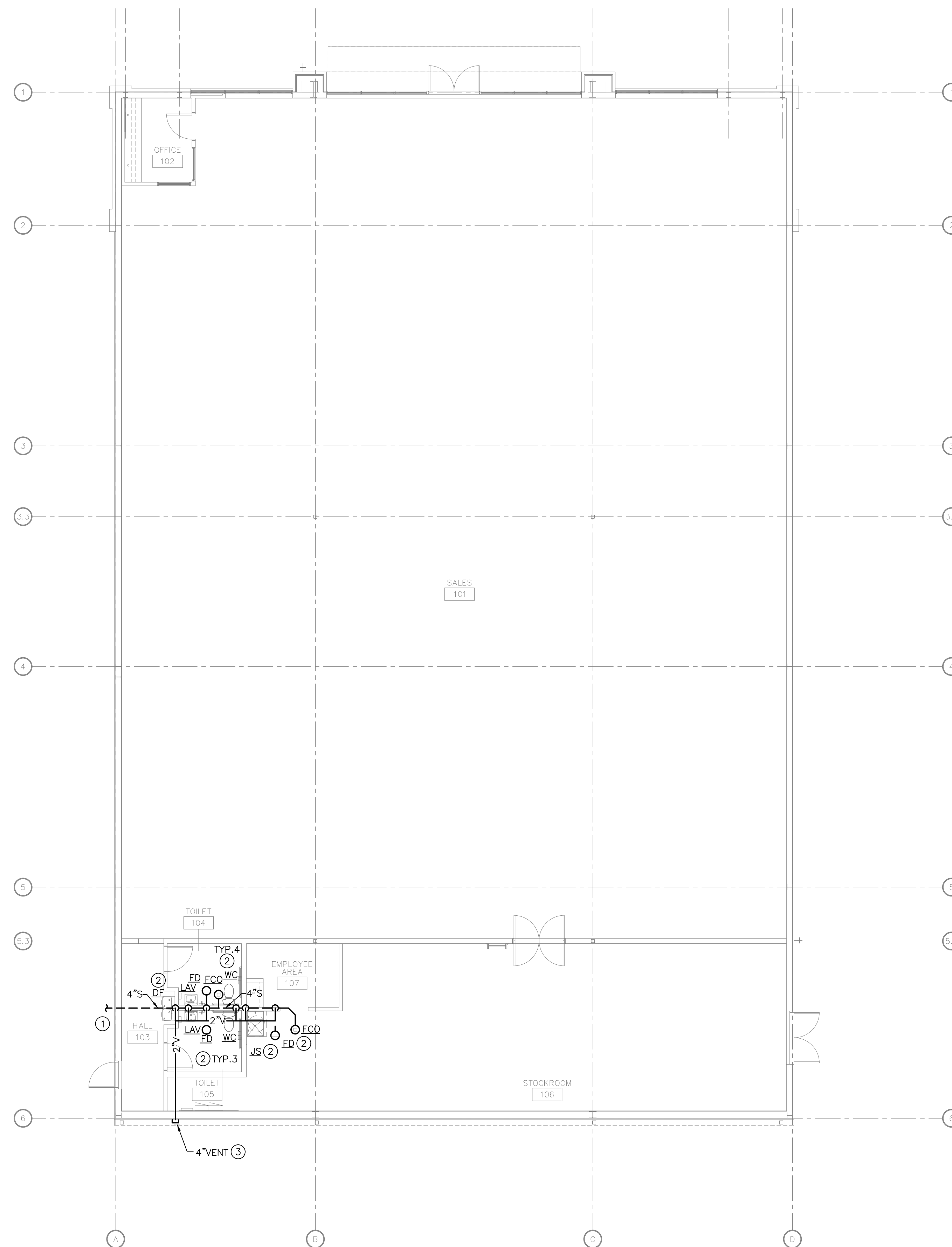
- JS**
- JANITOR'S SINK: 36" x 24" x 10" HIGH MOLDED FIBER BASIN WITH INTEGRAL STAINLESS STEEL DRAIN BODY.
 - FAUCET: FAUCET WITH WALL BRACE, INTEGRAL VACUUM BREAKER, PAL HOOK, AND 3/4" MALLE HOSE THREADED OUTLET. SECURE FAUCET IN WALL WITH BACKBOARD.
 - TRIM: FRP BACKSPLASH SURROUNDING WALLS TO 8'-0" AFF. THREE FOOT LONG REINFORCED HOSE WITH 3/4" CHROME COUPLING AND WALL HOOK; EXTRUDED VINYL BUMPER GUARD, AND 24" STAINLESS STEEL MOP HANGER.

- LAV**
- WALL-MOUNTED LAVATORY (ADA ACCESSIBLE): 20-1/2" x 18-1/4" RECTANGULAR WALL MOUNTED WHITE VITREOUS CHINA FIXTURE WITH FAUCET LEDGE AND FRONT OVERFLOW.
 - FAUCET: FAUCET WITH 4" CENTERSET, VANDAL RESISTANT, FAUCET WITH LEVER HANDLES AND 0.5 GPM AERATOR.
 - TRIM: GRID DRAIN WITH TAILPIECE, QUARTER-TURN BALL TYPE ANGLE STOP VALVES WITH RISERS AND ESCUTCHEONS, 1-1/4" 17-GAUGE TUBULAR CHROME PLATED BRASS ADJUSTABLE P-TRAP AND WASTE ARM WITH CLEANOUT PLUG AND ESCUTCHEON, CONCEALED ARM CARRIER WITH STANCHIONS TO FLOOR, AND INSULATION KIT FOR WATER AND WASTE PIPES.
 - MOUNT TO MEET ADA REQUIREMENTS. REFERENCE ARCHITECTURAL DRAWINGS.

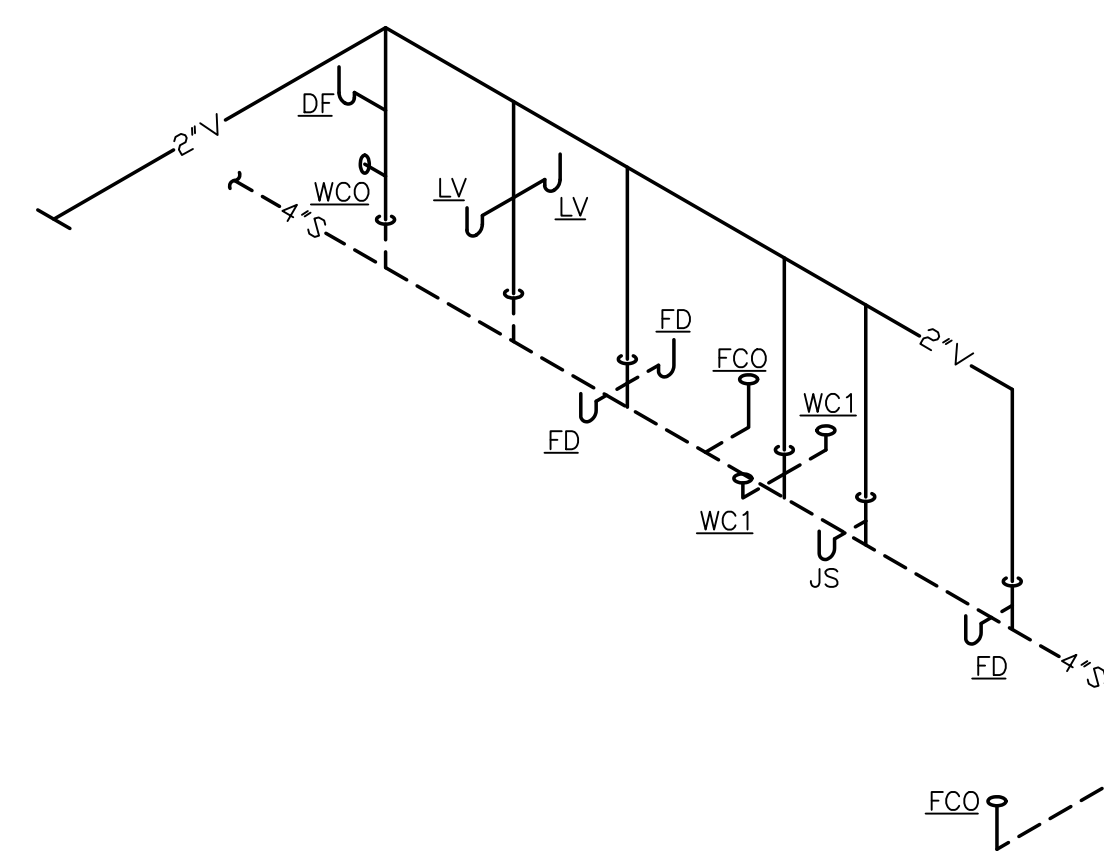
- TMV**
- THERMOSTATIC MIXING VALVE: SOLID BRASS BODY, THERMOSTATIC WAX ELEMENT, CORROSION RESISTANT INTERNAL PARTS, AND INTEGRAL CHECKS, ASSE 1070 COMPLIANT, CAPABLE OF 2.2 GPM WITH A 20 PSI DIFFERENTIAL AND A MINIMUM FLOW RATE OF 0.5 GPM. MAXIMUM TEMPERATURE STOP SET FOR 110 DEGREES. MOUNT BELOW THE PLUMBING FIXTURE WHERE INDICATED ON PLANS.

- WC**
- FLOOR-MOUNTED WATER CLOSET (ADA ACCESSIBLE): TANK TYPE WHITE VITREOUS CHINA FIXTURE WITH ELONGATED BOWL, 1.6 GALLON PER FLUSH, SIPHON FLUSH ACTION, AND CLOSE-COUPLED TANK WITH TRIP LEVER ON THE WIDE SIDE OF THE STALL.
 - TRIM: WHITE OPEN-FRONT CONTOURED, SOLID PLASTIC, HEAVY-DUTY, SEAT-LESS-COVER WITH SELF-SUSTAINING HINGES AND STAINLESS STEEL BOLTS; QUARTER-TURN BALL TYPE ANGLE STOP VALVE WITH RISER AND CHROME-PLATED ESCUTCHEON.
 - MOUNT TO MEET ADA REQUIREMENTS. REFERENCE ARCHITECTURAL DRAWINGS.

- WH**
- WATER HEATER: ELECTRIC, 10 GALLON, 1.5 KW INPUT, 8 GALLON PER HOUR RECOVERY AT 80°F TEMPERATURE RISE AND 120°F OPERATING TEMPERATURE. PROVIDE ALL WATER CONNECTIONS, VALVES, AND SPECIALS PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
 - ELECTRICAL REQUIREMENTS: 120-VOLT, SINGLE PHASE, 13 FULL LOAD AMPS.
 - BASIS OF DESIGN: A.O. SMITH MODEL # DEL-10S.



1 PLUMBING WASTE AND VENT PLAN
SCALE: 1/8" = 1'-0"

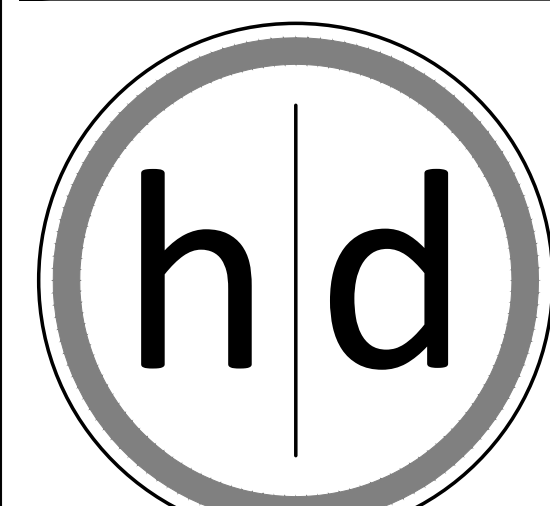


NOTES:
1. REFERENCE PLANS AND FIXTURE CONNECTION SCHEDULE FOR SIZES.

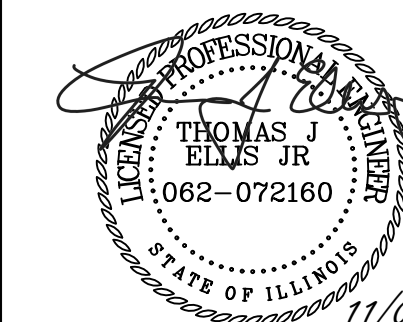
2 WASTE AND VENT ISOMETRIC
SCALE: NTS

PLUMBING PLAN NOTES:

- 4" SANITARY SEWER INTO BUILDING. FIELD COORDINATE ROUTING WITH LOCAL UTILITY PLANS PRIOR TO CONSTRUCTION.
- PROVIDE PLUMBING FIXTURE, SANITARY UP TO PLUMBING FIXTURE, AND VENT PIPING AS SHOWN. REFERENCE PLUMBING FIXTURE SCHEDULE AND PLUMBING CONNECTION SCHEDULE FOR MORE INFORMATION.
- EXTEND VENT THRU WALL. DO NOT PENETRATE ROOF. TERMINATE VENT THRU WALL 6" FROM EXTERIOR FACE OF WALL AND MINIMUM 10'-0" ABOVE AVERAGE GRADE LEVEL. VENT SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY BUILDING OPENINGS OR FRESH AIR INTAKES. SEAL, CAULK AND PAINT TO MATCH THE EXTERIOR. COVER WITH WIRE MESH SCREEN.



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hd Architecture, LLC



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MEP CONSULTANT

SBY5 Engineers, LLC
1100 Main Street, Floor 4
Kansas City, MO 64105
(816) 689-9449

A New Retail Location For:

West of 5766 W. Monree Manhattan Rd
Monree, IL 60449

PERMIT

Date	11/01/2023
Job Number	20-003.03
Drawn By	JS
Checked By	GH
Type	3A-L-3

Revisions	Number	Date	Description

5BY5 ENGINEERS
1100 Main Street, 4th Floor
Kansas City, MO 64105
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5by5eng.com

LINETYPES LEGEND:

- NEW - ABOVE SLAB
- - - NEW - BELOW SLAB
- EXISTING - ABOVE SLAB
- - - EXISTING - BELOW SLAB
- DEMOLITION

PIPING LEGEND:

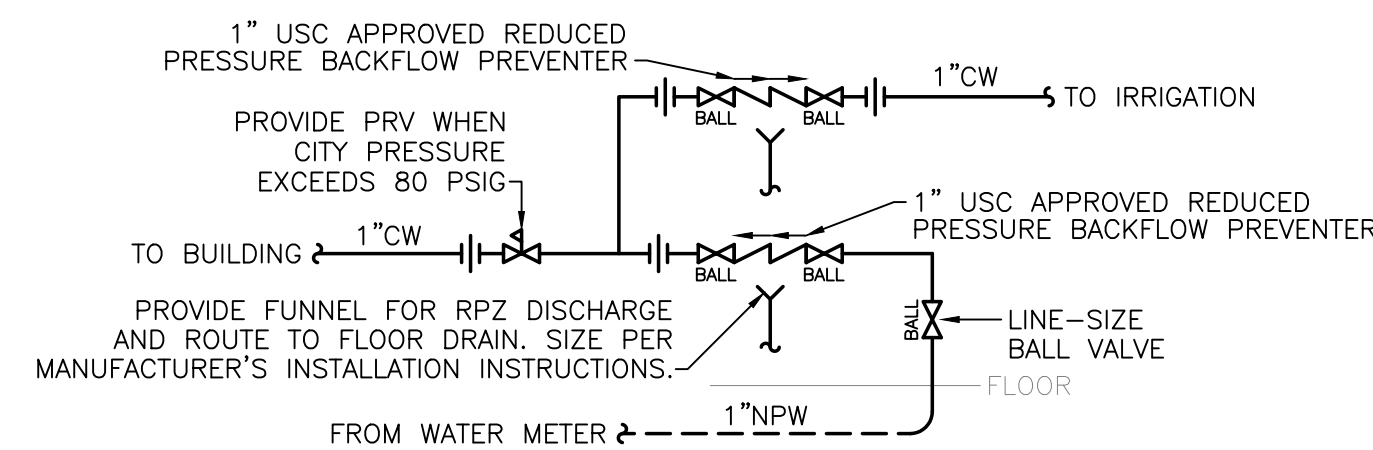
- ⊖ ELBOW DOWN
- ⊕ ELBOW UP
- P-TRAP
- ⊕ TEE DOWN
- ⊖ ELBOW UP
- ⊕ SHUT-OFF VALVE (GENERIC)
- ⊕ BALL VALVE
- ⊕ GLOBE VALVE
- ⊕ BUTTERFLY VALVE
- ⊕ GATE VALVE
- ⊕ CHECK VALVE
- ⊕ BALANCING VALVE
- ⊕ PRESSURE REDUCING VALVE
- ⊕ GAS COCK
- ⊕ WYE-STRAINER
- ⊕ UNION
- ⊕ FLANGE
- ⊕ RELIEF VALVE
- ⊕ AIR VENT (MANUAL / AUTOMATIC)
- FLOW DIRECTION
- PIPE BREAK / CONTINUATION
- FLOOR DRAIN
- FLOOR SINK
- FLOOR CLEANOUT
- ⊕ HOSE BIBB

ANNOTATION LEGEND:

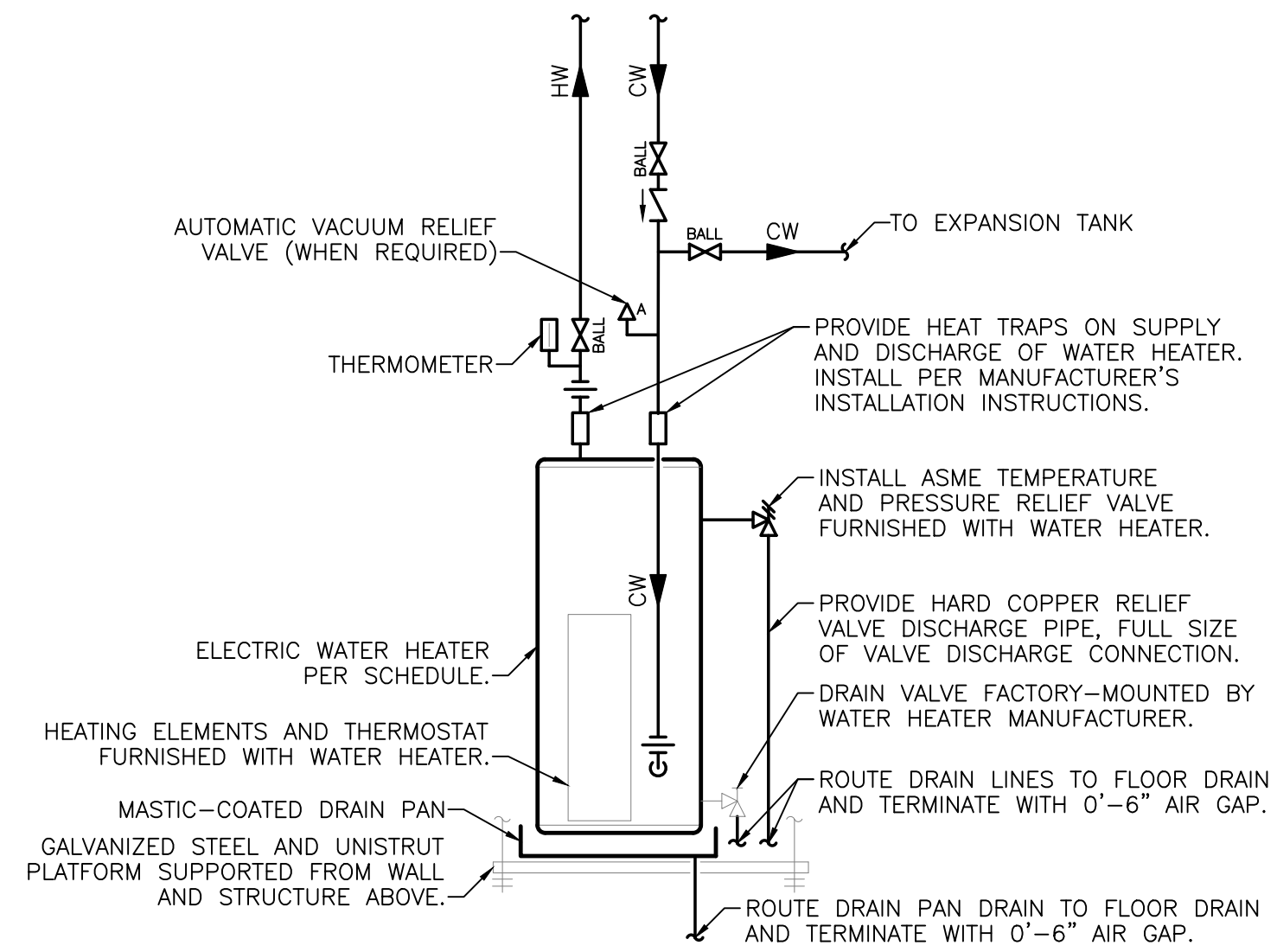
- ABC-1 EQUIPMENT / FIXTURE TAG
- PLAN NOTE
- ⊕ CONNECT TO EXISTING

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- AFB ABOVE FINISHED GRADE
- BOP BOTTOM OF PIPE
- BT BATHTUB
- CFH CUBIC FEET PER HOUR
- CO CLEANOUT
- CW DOMESTIC COLD WATER
- DF DRINKING FOUNTAIN
- DN DOWN
- DSN DOWNSPOUT NOZZLE
- (E) EXISTING
- ET EXPANSION TANK
- EWC ELECTRIC WATER COOLER
- EWS EYE WASH STATION
- FCO FLOOR CLEANOUT
- FD FLOOR DRAIN
- FF FINISHED FLOOR
- FFA FROM FLOOR ABOVE
- FFB FROM FLOOR BELOW
- FS FLOOR SINK
- GI GREASE INTERCEPTOR
- GPM GALLONS PER MINUTE
- HB HOSE BIBB
- HP HORSEPOWER
- HWR HOT WATER RECIRCULATION
- IE INVERT ELEVATION
- IN.WG INCHES WATER GAUGE
- JS JANITOR SINK
- LNT LINT INTERCEPTOR
- LS LAUNDRY SINK
- LV LAVATORY
- MAX MAXIMUM
- MB MOP BASIN
- MBH 1,000 BTUH
- MIN MINIMUM
- NG NATURAL GAS
- NHB NON-FREEZE HOSE BIBB
- NRH NON-FREEZE ROOF HYDRANT
- OD OVERFLOW ROOF DRAIN
- PW PUMPED WASTE
- QTY QUANTITY
- RD ROOF DRAIN
- RP RECIRCULATION PUMP
- RPZ REDUCED PRESSURE ZONE BACKFLOW PREVENTER
- S SANITARY WASTE
- SH SHOWER
- SK SINK
- SS SERVICE SINK
- SWP SEWAGE PUMP
- TD TRENCH DRAIN
- TFA TO FLOOR ABOVE
- TFB TO FLOOR BELOW
- TMV THERMOSTATIC MIXING VALVE
- TRA TO ROOF ABOVE
- TSP TOTAL STATIC PRESSURE
- UR URINAL
- V VENT
- WC WATER CLOSET
- WH WATER HEATER
- WCO WALL CLEANOUT
- WPD WATER PRESSURE DROP



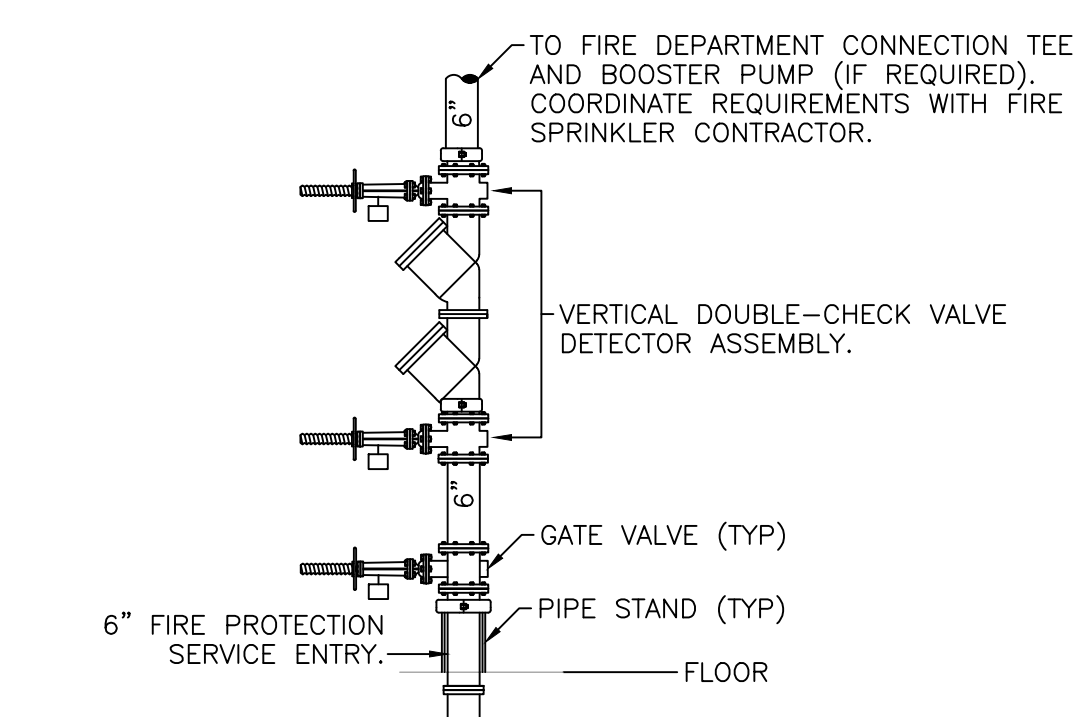
3 WATER SERVICE ENTRANCE DETAIL
SCALE: NTS



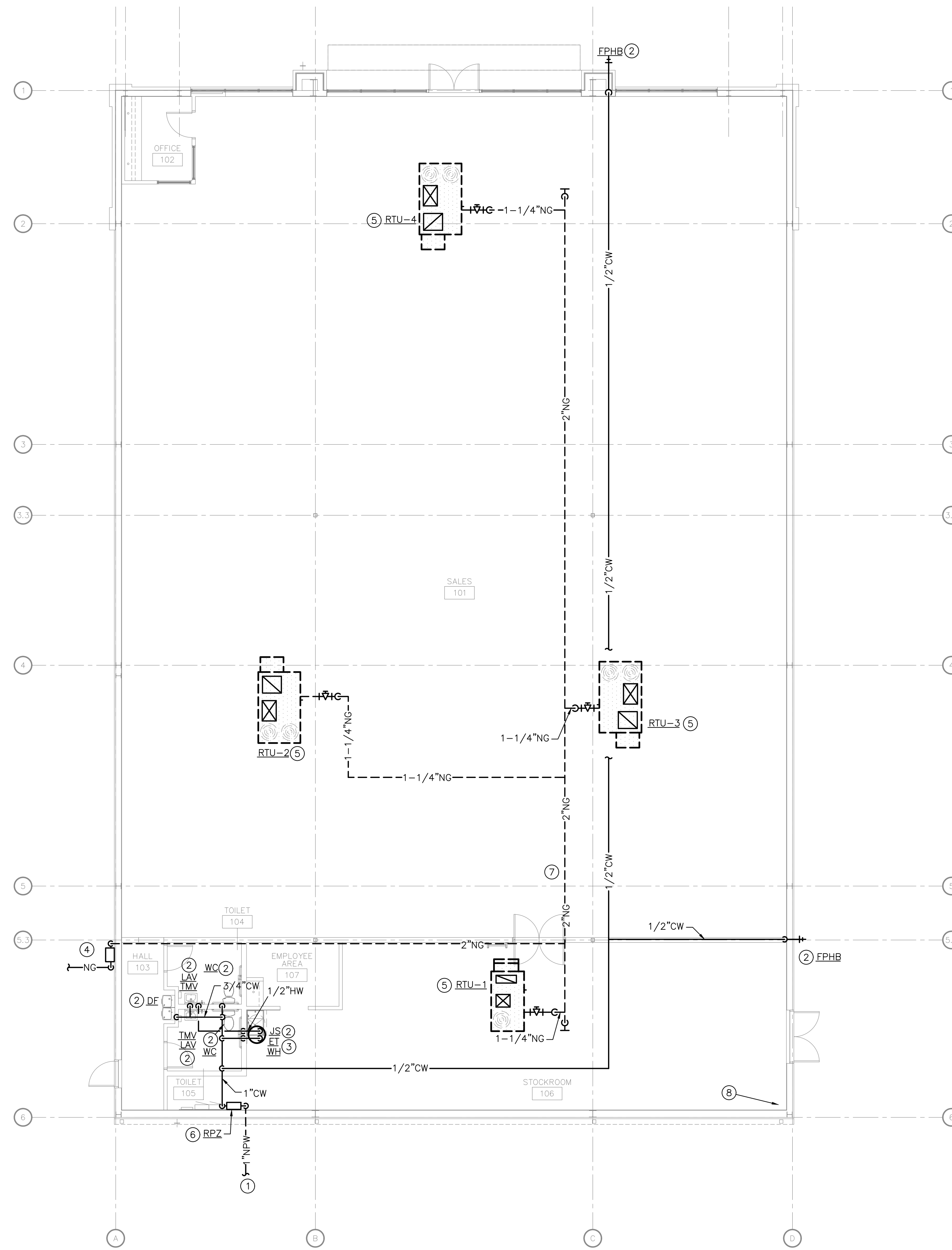
NOTES:

- STRUCTURE AND PLATFORM SHALL BE DESIGNED TO HOLD THE MAXIMUM WEIGHT OF THE WATER HEATER. CONFIRM CAPACITY OF SHELF WITH MANUFACTURER PRIOR TO INSTALLATION.

4 WATER HEATER DETAIL
SCALE: NTS



5 VERTICAL FIRE PROTECTION SERVICE ENTRANCE DETAIL
SCALE: NTS

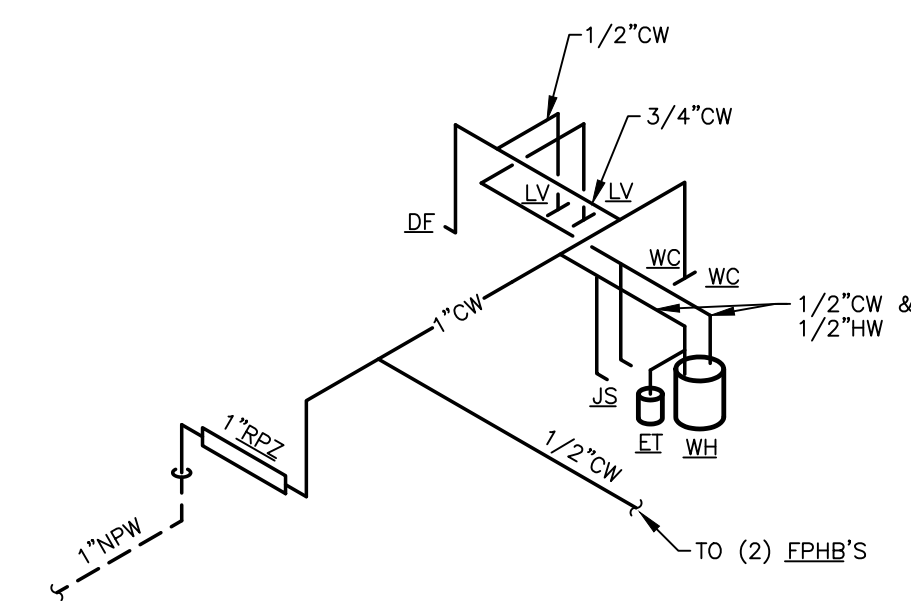


1 PLUMBING WATER AND GAS PLAN
SCALE: 1/8" = 1'-0"

FIXTURE CONNECTION SCHEDULE					
FIXTURE	WASTE	VENT	COLD	HOT	NOTES
DRINKING FOUNTAIN	2"	1-1/2"	1/2"		
LAVATORY - PUBLIC	2"	1-1/2"	1/2"	1/2"	TMV
JANITOR'S SINK	3"	1-1/2"	1/2"	1/2"	VB
WATER CLOSET - TANK	4"	2"	1/2"		
FLOOR DRAIN	2"				
HOSE BIBS			1/2"		VB

NOTES:
 RP - REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1013.
 DCV - DOUBLE CHECK VALVE ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1015
 DCVB - DOUBLE CHECK VALVE ASSEMBLY, LINE SIZED, CONFORMING TO ASSE 1022
 VB - ATMOS TYPE VACUUM BREAKER CONFORMING TO ASSE 1020
 TMV - POINT OF USE TYPE THERMOSTATIC MIXING VALVE CONFORMING TO ASSE 1020
 AG - AIR GAP FITTING AS PROVIDED BY MANUFACTURER
 TMVS - SCALD PROTECTION SHOWER/TUB VALVE, CONFORMING TO ASSE 1016

INSTALL BACKFLOW PREVENTION DEVICES ON EQUIPMENT AND FIXTURES PER LOCAL WATER COMPANY REQUIREMENTS. ALL BACKFLOW PREVENTERS SHALL BE IN AN ACCESSIBLE LOCATION FOR PERIODIC INSPECTION AND TESTING.



2 DOMESTIC WATER ISOMETRIC
SCALE: NTS

PLUMBING GENERAL NOTES:

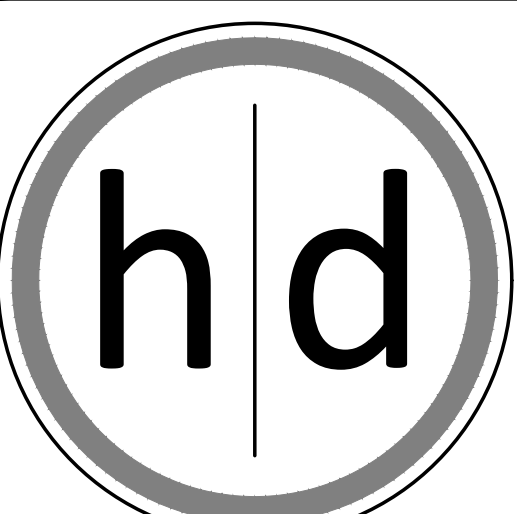
- SEE SHEET P1.0 FOR PLUMBING GENERAL NOTES.
- PLUMBING PLAN NOTES**
1. NEW 1" DOMESTIC WATER SERVICE ENTRANCE. REFER TO DETAIL 1 AND TO CIVIL PLANS FOR CONTINUATION OUTSIDE OF BUILDING. SEE CIVIL PLANS FOR SEPARATE IRRIGATION WATER SERVICE NOT TO EXTEND INTO BUILDING.
 2. PROVIDE PLUMBING FIXTURE AND WATER SUPPLY TO PLUMBING FIXTURE AS SHOWN. REFER TO PLUMBING FIXTURE SCHEDULE AND PLUMBING FIXTURE CONNECTION SCHEDULE ON SHEET P1.0
 3. PROVIDE WATER HEATER ABOVE JANITOR'S SINK. OFFSET ON PLANS FOR CLARITY. REFERENCE DETAIL 2 ON P1.1 FOR MORE INFORMATION. INSTALL PER MANUFACTURER'S REQUIREMENTS.
 4. PROVIDE NATURAL GAS SERVICE WHERE SHOWN. SIZE SERVICE FOR 11" W.C. WITH 115' DEVELOPED LENGTH AT A MINIMUM OF 0.5" PRESSURE LOSS. TOTAL CONNECTED LOAD IS 699 MBH. REFER TO CIVIL PLANS FOR CONTINUATION OUTSIDE OF BUILDING.
 5. EXTEND NATURAL GAS ALONG ROOF TO HVAC EQUIPMENT AS SHOWN. PROVIDE DIRT LEG AND GAS COCK AT EQUIPMENT CONNECTION. REFER TO HVAC EQUIPMENT INSTALLATION INSTRUCTIONS FOR ADDITIONAL REQUIREMENTS.
 6. PROVIDE 1" RPZ AFTER BUILDING RPZ FOR IRRIGATION SYSTEM. REFERENCE WATER SERVICE ENTRANCE DETAIL. STACK IRRIGATION RPZ WITH WATER SERVICE RPZ.
 7. COORDINATE EXACT ROUTING OF GAS MAIN IN FIELD.
 8. PROVIDE FIRE RISER IN LOCATION SHOWN. REFER TO DETAIL 5 ON THIS SHEET FOR ADDITIONAL INFORMATION. COORDINATE WITH ARCHITECT AND OTHER TRADES FOR EXACT LOCATION.

FIRE SPRINKLER SYSTEM NOTES:

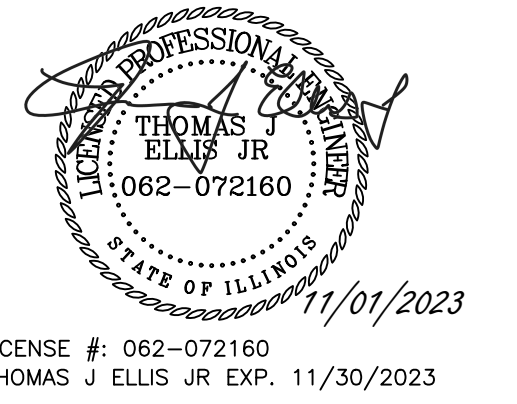
- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS OF THE PROJECT. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND OTHER DRAWINGS FOR ADDITIONAL REQUIREMENTS WHICH MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT, ENGINEER AND/OR OWNER OF CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.
- SPRINKLER SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH NFPA 13. SYSTEM SHALL ALSO MEET ALL APPLICABLE CODES AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER. VERIFY REQUIREMENTS PRIOR TO BID SUBMITTAL.
- LAYOUT FIRE SPRINKLER SYSTEM. PERFORM REQUIRED CALCULATIONS AND COORDINATE WITH OTHER TRADES.
- PROVIDE ADDITIONAL MATERIALS AND LABOR REQUIRED DUE TO LACK OF COORDINATION AND TO MEET AUTHORITY HAVING JURISDICTION AND INSURANCE CARRIER REQUIREMENTS.
- COORDINATE SPRINKLER SYSTEM MODIFICATIONS TO MINIMIZE SYSTEM IMPAIRMENT. PROVIDE FIRE WATCH AND INTERIM FIRE PROTECTION MEASURES WHERE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, INSURANCE CARRIER, OR OWNER.
- ADJUST LOCATION OF PIPING ABOVE CEILING AS NECESSARY FOR CEILING HEIGHTS. PROVIDE FITTINGS, PIPING, ETC. AS NECESSARY FOR COMPLETE INSTALLATION.
- COORDINATE PIPE ROUTING NEAR ELECTRICAL EQUIPMENT WITH NFPA 70.
- COORDINATE SPRINKLER TEMPERATURES NEAR HEAT-PRODUCING SOURCES WITH NFPA 13.
- DO NOT CONNECT MORE THAN ONE SPRINKLER TO AN EXISTING ONE-INCH OUTLET.
- FORWARD COMPLETED CONTRACTOR MATERIAL TEST CERTIFICATIONS TO THE OWNER.
- REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

NATURAL GAS LOAD SCHEDULE				
EQUIPMENT TAG	QTY	DESCRIPTION	CFH INPUT (EACH)	TOTAL CFH
RTU-1	1	ROOFTOP UNIT	115	115
RTU-2	1	ROOFTOP UNIT	180	180
RTU-3	1	ROOFTOP UNIT	180	180
RTU-4	1	ROOFTOP UNIT	224	224
SYSTEM TOTAL =			699	

NOTES:
 A. METER DISCHARGE PRESSURE: 11 IN.WG.
 B. TOTAL DEVELOPED LENGTH: 115 FT.
 C. DESIGN NATURAL GAS PIPING SYSTEM PRESSURE DROP: 0.5 IN.WG.
 D. INLET PRESSURE FOR ALL GAS-FIRED EQUIPMENT: 7 TO 11 IN.WG.



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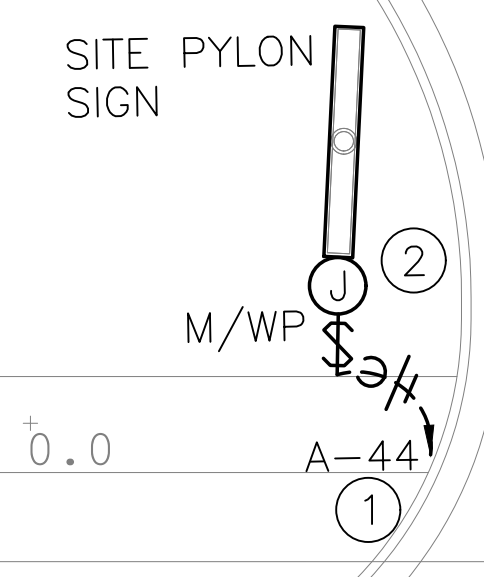
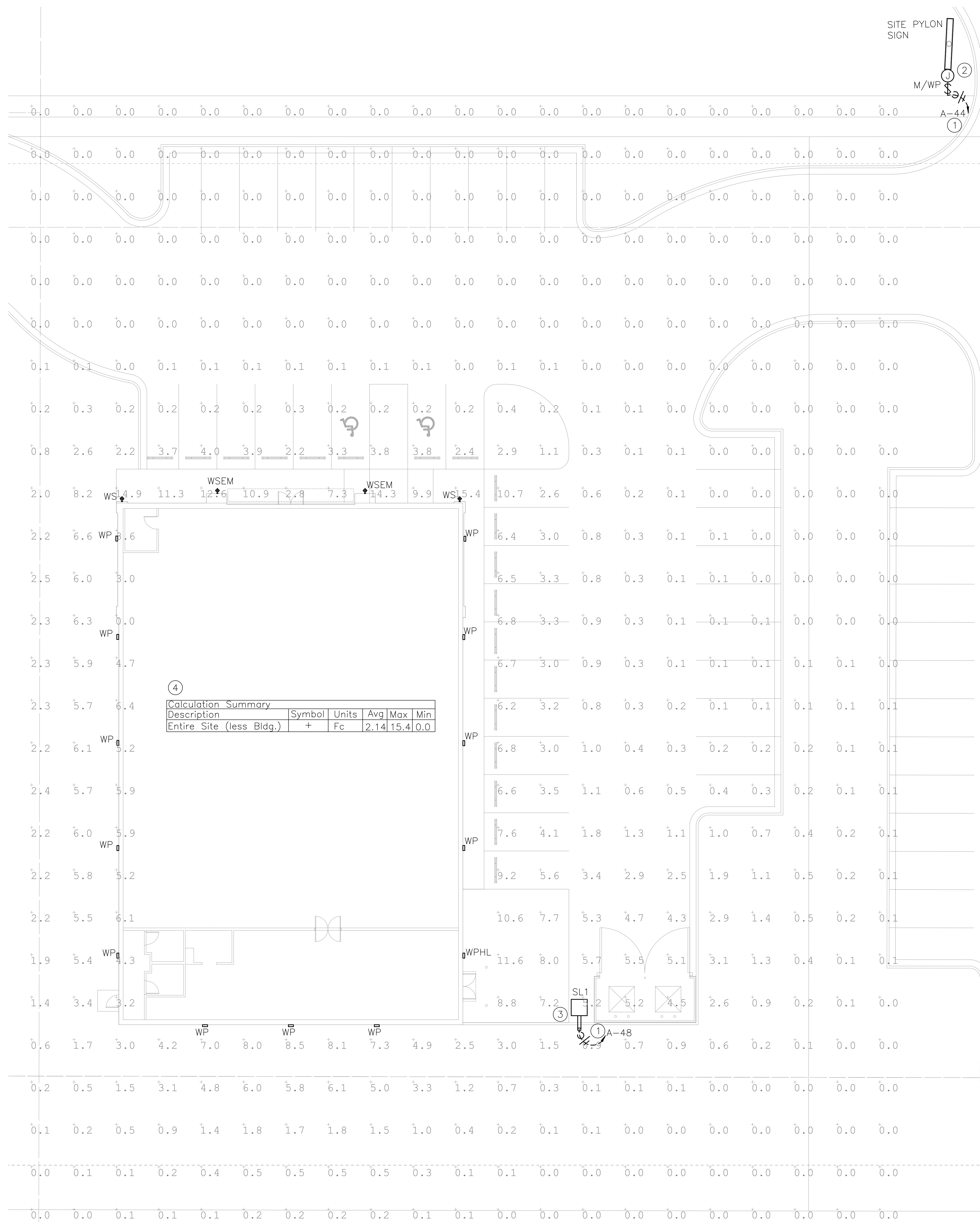
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Date	11/01/2023
Job Number	20-003.03
Drawn By	JS
Checked By	GH
Type	3A-I-3

Revisions Number	Date	Description

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P1.1
PLUMBING WATER AND GAS PLAN
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ELECTRICAL PLAN NOTES:

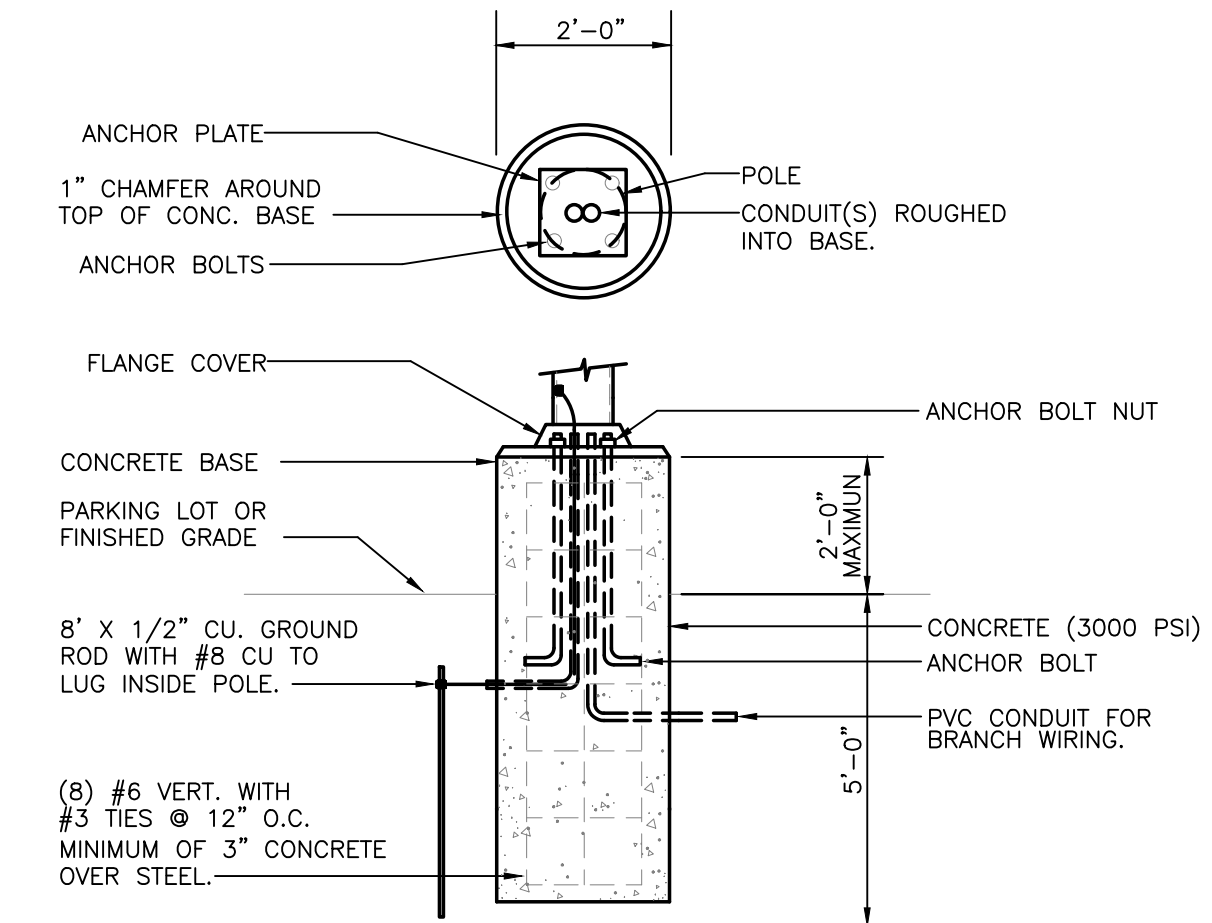
- ROUTE CIRCUIT FROM PANEL VIA TERMINAL STRIP ENCLOSURE. REFERENCE PANELBOARD SCHEDULES ON SHEET E5.0 FOR ADDITIONAL INFORMATION. REFERENCE TERMINAL STRIP ENCLOSURE DETAIL ON SHEET E1.0 DETAIL 2 FOR MORE INFORMATION.
- CONTRACTOR SHALL PROVIDE A WEATHERPROOF JUNCTION BOX FOR FUTURE PYLON SIGN. MOUNT TO SIGN PEDESTAL OR POLE. CONTRACTOR SHALL RUN (3) #8 WIRE IN 1" CONDUIT UNDERGROUND TO PYLON SIGN LOCATION. PYLON SIGN CIRCUIT SHALL BE CIRCUITED VIA TERMINAL STRIP ENCLOSURE. PROVIDE ADDITIONAL 12'-0" FEET OF CONDUCTORS COILED UP ABOVE ELECTRICAL PANEL AT CEILING FOR FUTURE USE.
- POLE MOUNTED LIGHT FIXTURE. LSI SLM-LED-24L-SIL-FT-40-70CRI-IL, 16,262 LUMEN PACKAGE, 4000K COLOR TEMPERATURE, 161 WATTS. PROVIDE WITH 20" STEEL SQUARE POLE. PROVIDE AND INSTALL POLE PER LIGHT FIXTURE MANUFACTURER RECOMMENDATIONS. REFER TO LIGHT POLE BASE ON THIS SHEET DETAIL 2. CONFIRM FINISH COLOR WITH ARCHITECT PRIOR TO ORDERING.
- PHOTOMETRIC CALCULATIONS PER BASIS OF DESIGN. ALTERNATE LIGHT FIXTURES OR CHANGES IN MOUNTING HEIGHTS WILL REQUIRE RECALCULATION.

ELECTRICAL GENERAL NOTES:

- REFERENCE SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

ELECTRICAL "VANILLA BOX" GENERAL NOTES:

- REFERENCE SHEET E3.0 FOR ELECTRICAL "VANILLA BOX" GENERAL NOTES.

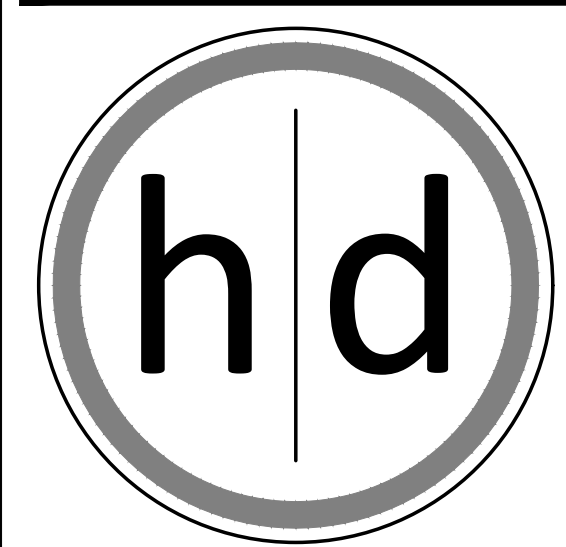


2 LIGHT POLE BASE DETAIL
NO SCALE

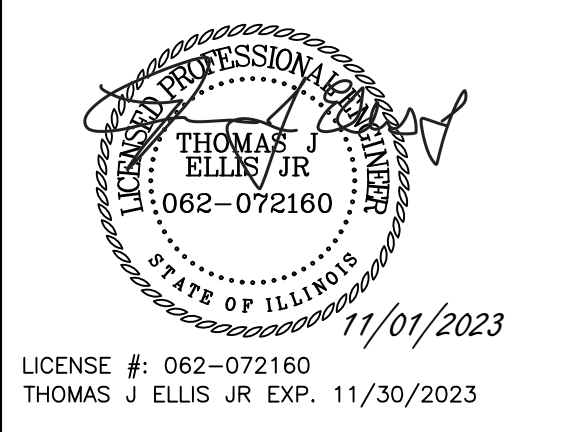
Schedule	Symbol	Label	QTY	Manufacturer	Catalog	LED SOURCE	LUMEN OUTPUT	LLF	Input Power
	□	SL1	1	LSI INDUSTRIES, INC.	SLM-LED-24L-SIL-FT-40-70CRI-IL	YES	16,262	0.9	161
	□	WP	12	H.E. WILLIAMS	WPCS-L44-840-BZ	YES	4,454	0.9	42
	□	WPHL	1	H.E. WILLIAMS	WPCL-L97-840-BZ	YES	9,702	0.9	93
	□	WS	4	LSI INDUSTRIES	XFW3-WT-LED-48-350-NW-UE	YES	4,789	0.9	55

1 ELECTRICAL SITE PLAN
SCALE: 1" = 10'-0"

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Overland Park, KS 66223
hd Architecture, LLC



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913-317-9500

STRUCTURAL CONSULTANT
Apex Engineers, Inc
1625 Locust St
Kansas City, MO 64108
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MEP CONSULTANT
SBY5 Engineers, LLC
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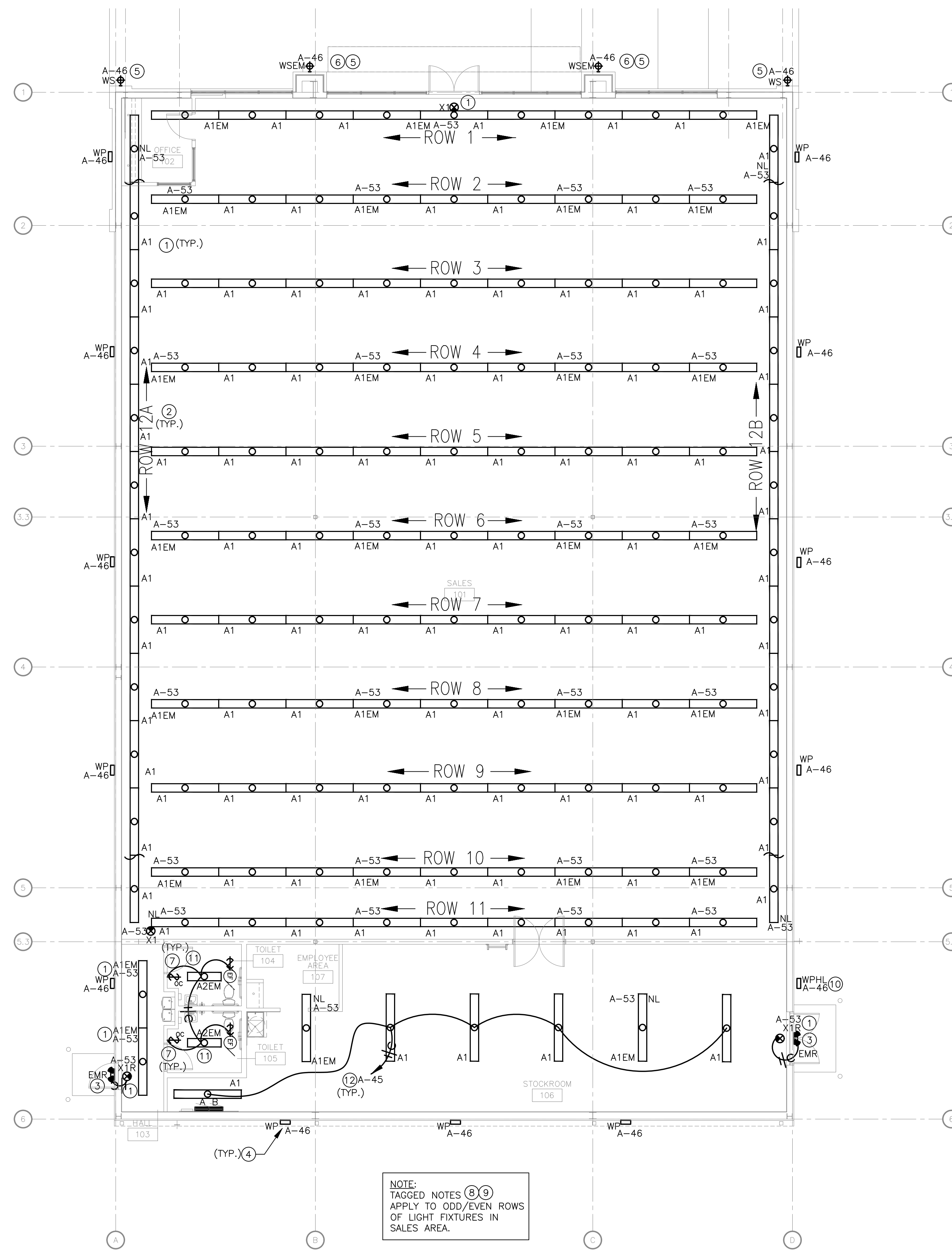
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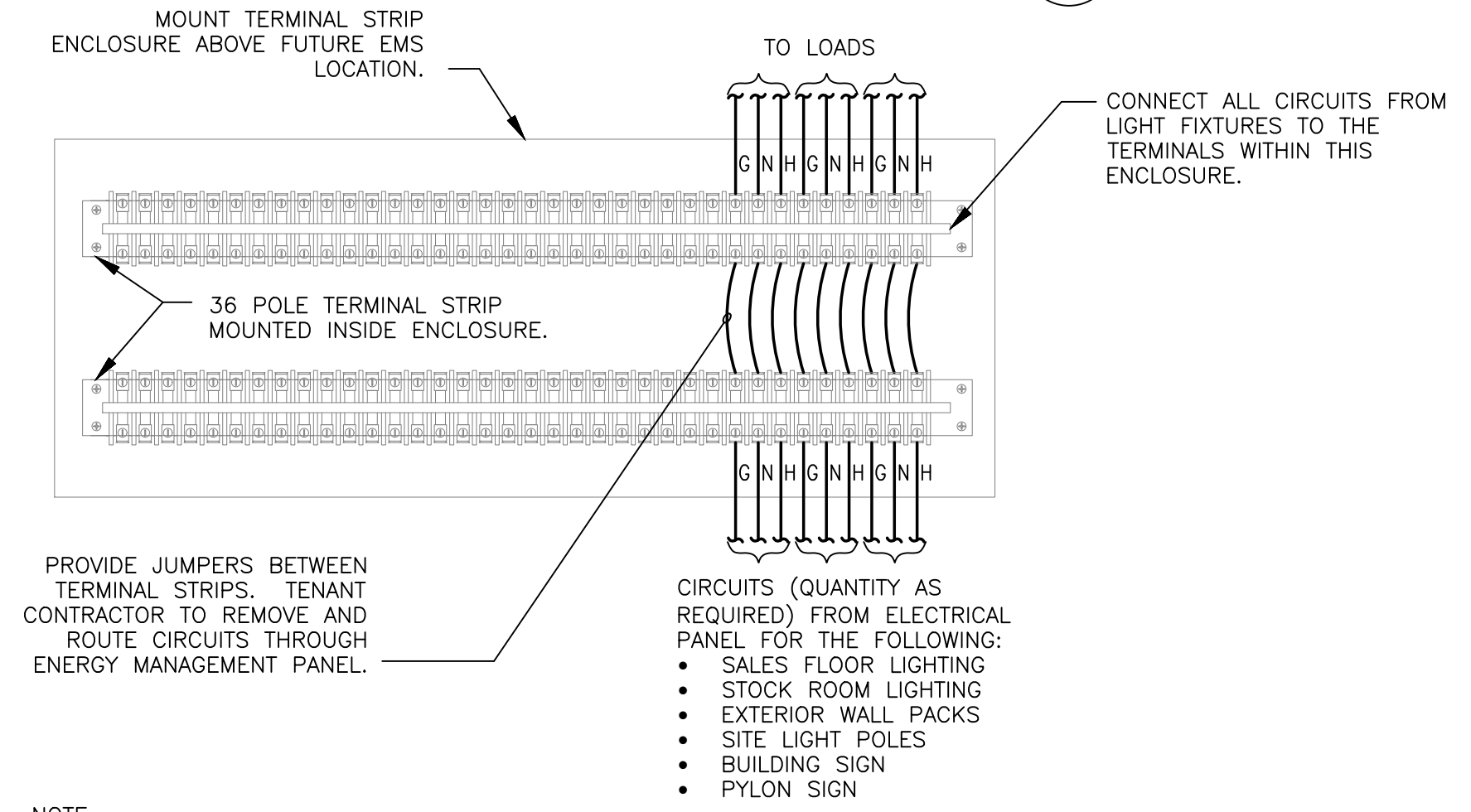
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1 ELECTRICAL LIGHTING PLAN
SCALE: 1/8" = 1'-0"



NOTE:

- DEDICATED CIRCUIT FOR EXIT SIGNS, NIGHT LIGHTS AND NIGHT LIGHTS WITH EMERGENCY BATTERY PACK SHALL BE CIRCUITED DIRECTLY TO ELECTRICAL PANEL AND NOT VIA TERMINAL STRIP ENCLOSURE.
- HOT LEG FOR EMERGENCY BATTERY BACKUP FOR INTERIOR AND EXTERIOR LIGHTING SHALL BE CIRCUITED DIRECTLY TO ELECTRICAL PANEL AND NOT VIA TERMINAL STRIP ENCLOSURE.

2 TERMINAL STRIP ENCLOSURE DETAIL
NO SCALE

ELECTRICAL LIGHTING PLAN NOTES:

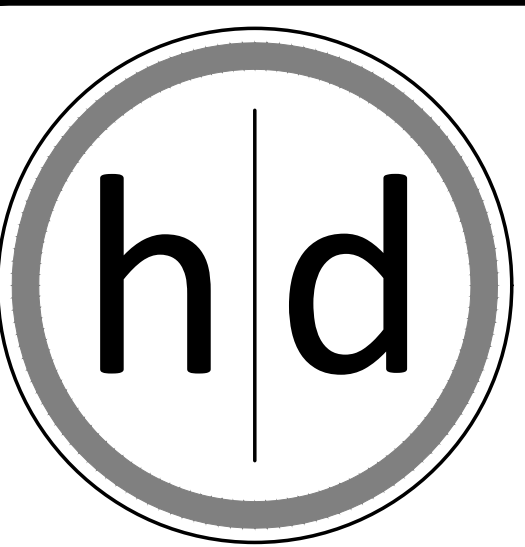
- ALL EXIT SIGNS, NIGHT LIGHTS, AND NIGHT LIGHTS WITH EMERGENCY BATTERY BACKUP SHALL BE CIRCUITED TO DEDICATED CIRCUIT WITH BREAKER LOCK.
- WIRE EMERGENCY BATTERY BALLAST TO HOT LEG, AHEAD OF ANY LOCAL SWITCHING, INCLUDING FUTURE ENERGY MANAGEMENT SYSTEM CONTRACTORS.
- EXTERIOR EMERGENCY LIGHT (2 HEADS) MOUNTED CENTERED ABOVE DOOR AT 7'6". EXTERIOR EMERGENCY LIGHT SHALL BE CONNECTED TO EMERGENCY EXIT LIGHT HI-OUTPUT BATTERY BACKUP.
- EXTERIOR LED WALLPACK. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION.
- EXTERIOR WALL SCONCE. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION. STOREFRONT REQUIRED FOOTCANDLE LEVELS PER FAMILY DOLLAR ARE 10fc MINIMUM AT SURFACE LEVEL.
- EXTERIOR LED LIGHT FIXTURE WITH EMERGENCY BATTERY. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION.
- PROVIDE OCCUPANCY SENSOR/SWITCH.
- ONLY ODD NUMBERED ROW OF LIGHT FIXTURES SHALL BE ON THE SAME LIGHTING CIRCUIT(S) AND SHALL BE WIRED SUCH THAT THE CIRCUIT(S) CAN BE RE-WIRED THRU FUTURE ENERGY MANAGEMENT SYSTEM AT TIME OF FUTURE TENANT UPGIT. REFERENCE TERMINAL STRIP DETAIL ON THIS SHEET AND PANELBOARD SCHEDULE ON SHEET E4.0 FOR FURTHER INFORMATION.
- ONLY EVEN NUMBERED ROW OF LIGHT FIXTURES SHALL BE ON THE SAME LIGHTING CIRCUIT(S) AND SHALL BE WIRED SUCH THAT THE CIRCUIT(S) CAN BE RE-WIRED THRU FUTURE ENERGY MANAGEMENT SYSTEM AT TIME OF FUTURE TENANT UPGIT. REFERENCE TERMINAL STRIP DETAIL ON THIS SHEET AND PANELBOARD SCHEDULE ON SHEET E4.0 FOR FURTHER INFORMATION.
- EXTERIOR LED WALLPACK HIGH LUMEN OUTPUT. REFER TO ARCHITECTURAL PLANS FOR FINAL MOUNTING HEIGHT AND LOCATION.
- EXHAUST FAN AND RESTROOM LIGHT FIXTURE SHALL BE CONTROLLED BY WALL MOUNTED OCCUPANCY SENSOR.
- ROUTE LIGHTING CIRCUIT THROUGH TERMINAL STRIP. REFERENCE DETAIL 2 ON THIS SHEET FOR FURTHER INFORMATION.

ELECTRICAL GENERAL NOTES:

- CONTRACTOR SHALL INSTALL ADDITIONAL WIRE TIE SUPPORTS FROM THE CEILING GRID TO THE STRUCTURE ABOVE FOR SUPPORT OF THE LIGHT FIXTURES CLIPPED ON THE GRID.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL LIGHT FIXTURES AND CONTROLS PER IECC 2012. COORDINATE WITH FINAL TENANT PACKAGE PRIOR TO INSTALL. LIGHTING CONTROLS SHALL BE PROVIDED BY TENANT. SHOULD BUILDING SHELL BE COMPLETED PRIOR TO TENANT INSTALLATION, TIMECLOCK AND PHOTOCELL SHALL BE REQUIRED PER IECC 2012. TIMECLOCK SHALL BE REMOVED ONCE TENANT'S CONTRACTOR HAS MADE LIGHT CIRCUIT CONNECTIONS TO EMS PANEL PER IECC REQUIREMENTS.
- REFERENCE SHEET E3.0 FOR ADDITIONAL ELECTRICAL GENERAL NOTES.

ELECTRICAL "VANILLA BOX" GENERAL NOTES:

- REFERENCE SHEET E3.0 FOR ELECTRICAL "VANILLA BOX" GENERAL NOTES.



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THOMAS J. ELLIS, JR. EXP. 11/30/2023

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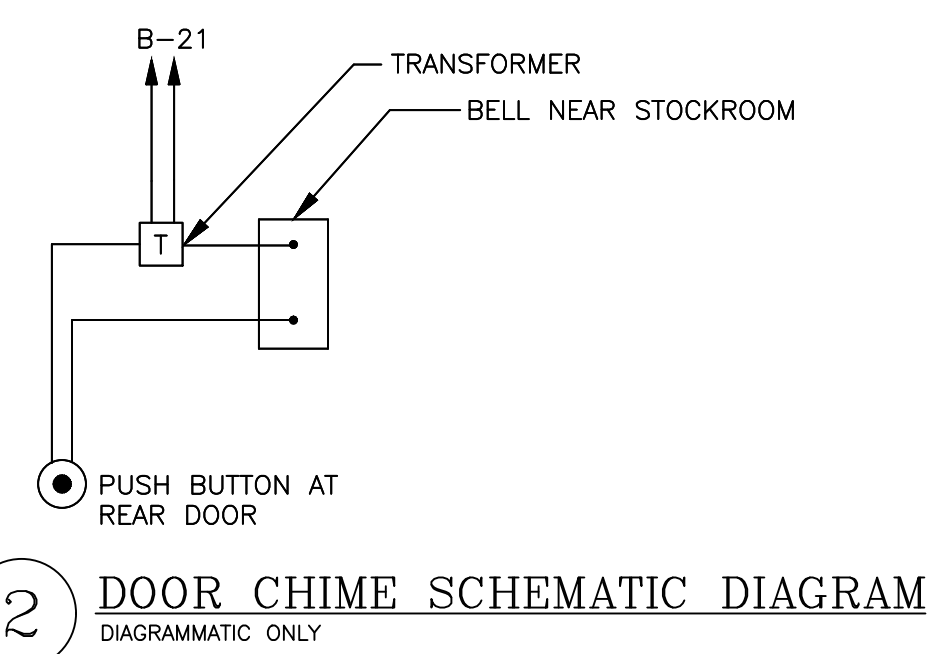
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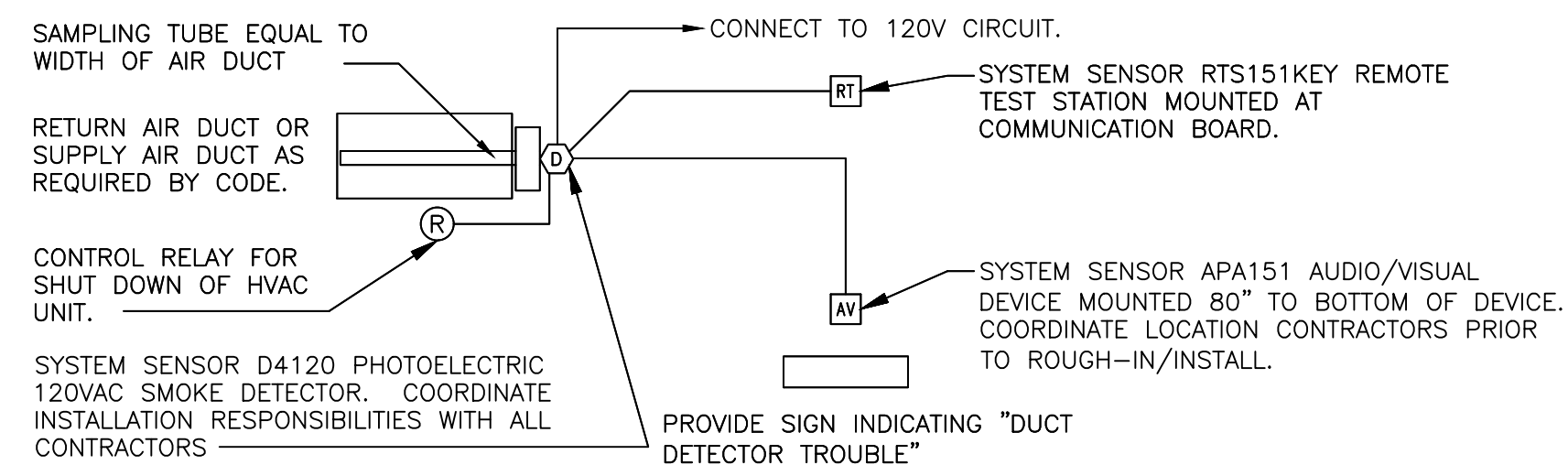
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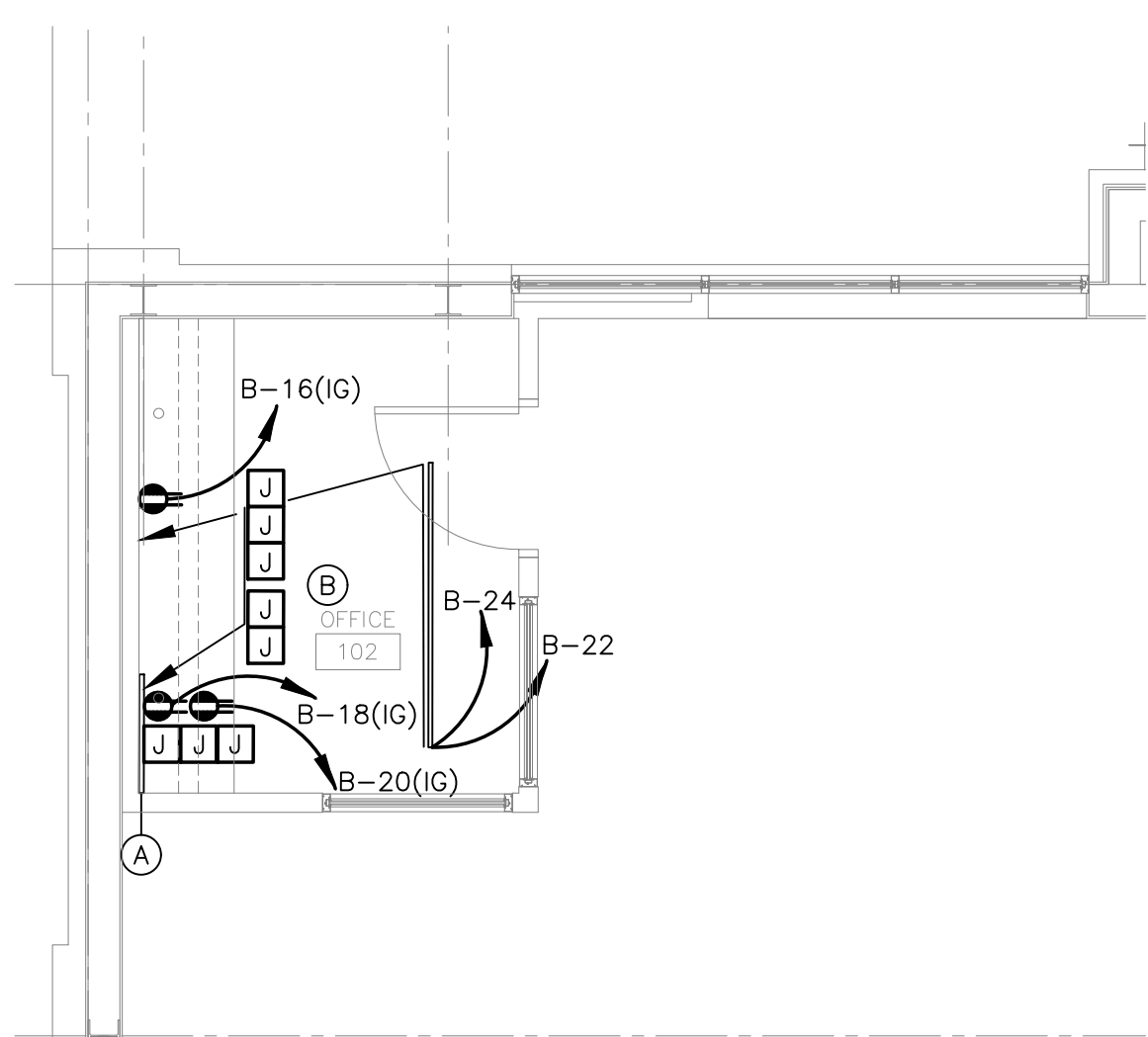
- ALL EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE LATEST LOCAL CODES.
- CONTRACTOR SHALL PROVIDE, WIRE AND TEST OPERATION OF DUCT SMOKE DETECTORS, REMOTE TEST STATIONS AND NOTIFICATION DEVICES.
- INSTALL/WIRE DUCT SMOKE DETECTORS, REMOTE TEST STATIONS AND NOTIFICATION DEVICES PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.



2 DOOR CHIME SCHEMATIC DIAGRAM
DIAGRAMMATIC ONLY



3 DUCT DETECTOR MOUNTING DETAIL
DIAGRAMMATIC ONLY



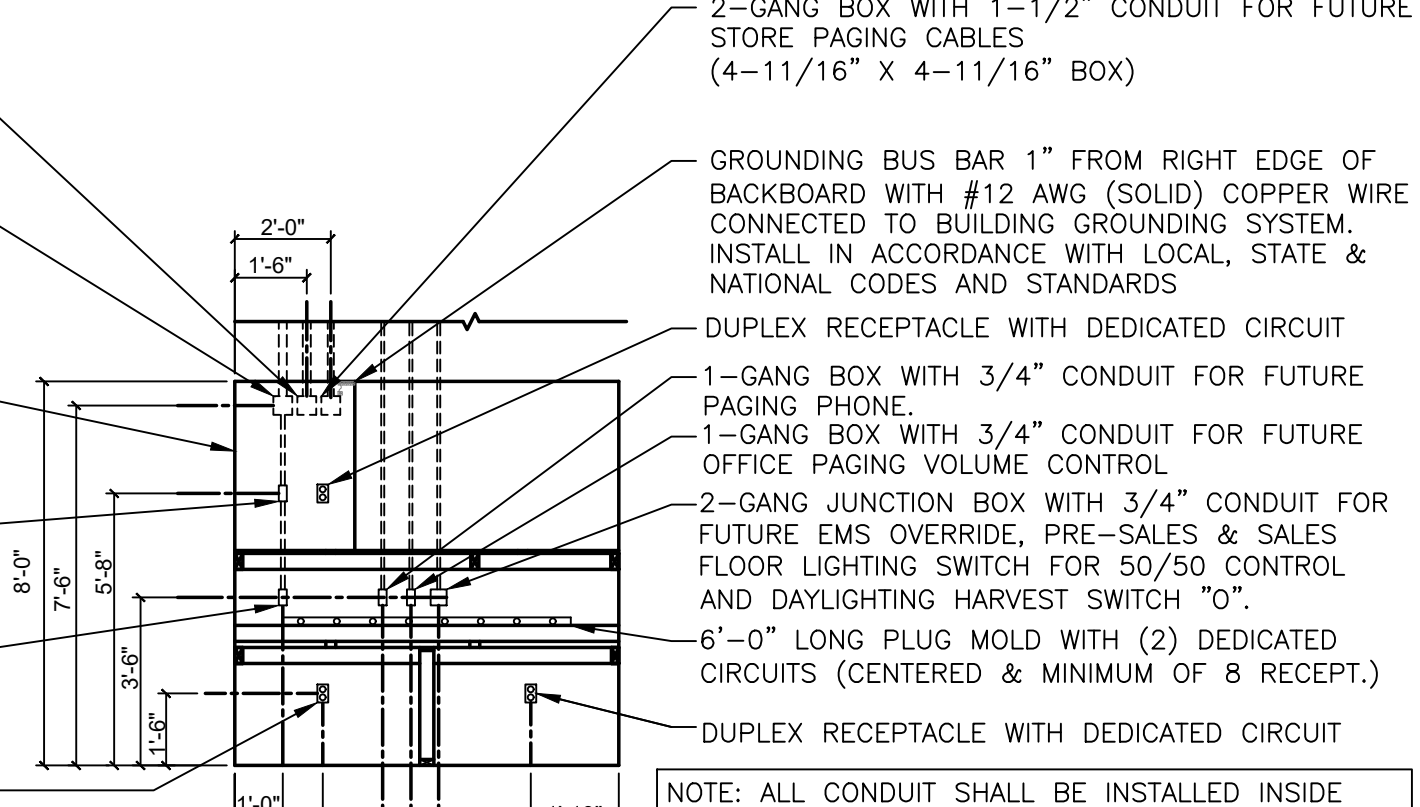
4 ENLARGED OFFICE POWER PLAN
SCALE: 1/4" = 1'-0"

ENLARGED OFFICE/RR PLAN NOTES:

- DVR BOARD: PROVIDE 3'-6"(H) x 2'-6"(W) 3/4" FIRE RETARDANT PLYWOOD WITH A UL CLASSIFICATION STAMP THAT MEETS OR EXCEEDS THE REQUIREMENTS FOR CLASS I OR CLASS A FLAMESPREAD RATING (IBC 2012 SECTION 2303.2). MOUNT DVR BOARD WITH BRACING AND FASTENERS RATED TO SUPPORT UP TO 250 LBS OF WEIGHT. MOUNT TOP OF DVR BOARD 8'-0" A.F.F. WITH EDGE OF DVR BOARD TIGHT AGAINST ADJACENT WALL.
- SEE DETAIL 5 ON THIS SHEET FOR ADDITIONAL ELECTRICAL INFORMATION.

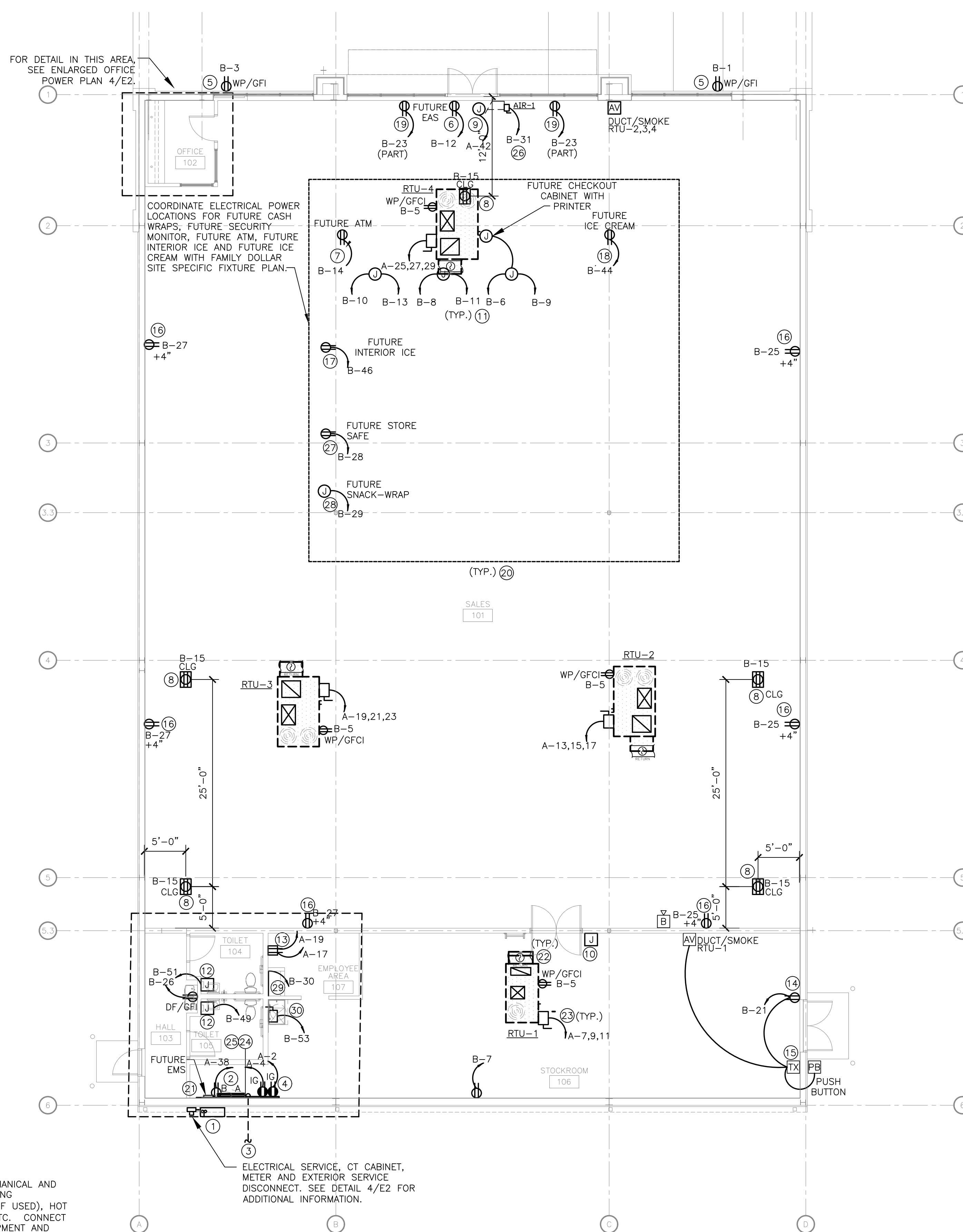
NOTE:
COORDINATE WITH ARCHITECTURAL, PLUMBING, MECHANICAL AND SITE PLANS FOR POWER REQUIREMENTS TO PLUMBING EQUIPMENT, HVAC EQUIPMENT, AUTOMATIC DOORS (IF USED), HOT BOX (IF USED), SITE LIGHT POLES, PYLON SIGN, ETC. CONNECT ALL PLUMBING, MECHANICAL AND ELECTRICAL EQUIPMENT AND FIXTURES, INCLUDING BUT NOT LIMITED TO EXIT, EMERGENCY AND SITE LIGHTING AND IRRIGATION SYSTEM. ALL EQUIPMENT AND FIXTURES SHALL BE COMPLETELY CONNECTED, TESTED AND FULLY OPERATIONAL PRIOR TO DELIVERY DATE.

- 2-GANG DEEP BOX & SINGLE GANG MUD RING WITH 2" CONDUIT FOR FUTURE SECURITY LAN CABLES (4-11/16" x 4-11/16" BOX)
- 2-GANG DEEP BOX & SINGLE GANG MUD RING WITH 2" CONDUIT FOR FUTURE STORE LAN CABLES (4-11/16" x 4-11/16" BOX)
- 3'-6"(H) x 2'-6"(W) 3/4" FIRE RETARDANT PLYWOOD BACKBOARD INSTALLED BY CONTRACTOR. TOP OF BOARD AT 8'-0" AFF. PAINT LIGHTNING WHITE
- 1-GANG BOX WITH 1" CONDUIT FOR FUTURE DIAL BACK-UP & DSL CABLES
- 1-GANG BOX WITH 1" CONDUIT FOR FUTURE PC, PHONE & DATA CABLES
- DUPLEX RECEPTACLE WITH DEDICATED CIRCUIT



NOTE: ALL CONDUIT SHALL BE INSTALLED INSIDE WALL. ALL CONDUIT STUBS SHALL BE FINISHED WITH CONNECTOR/BUSHING AND HAVE PULL STRINGS INSTALLED. ALL CONDUIT SHALL BE SIZE AS INDICATED ON DETAIL. ALL CONDUIT & BOXES ARE DIMENSIONED TO CENTERLINE. CONTRACTOR SHALL LABEL TOP OF CONDUIT TO MATCH LABELS ON JACKS/JUNCTIONS BELOW. CONDUIT TO EXTEND TO LAY-IN CEILING.

5 OFFICE ELEVATION
SCALE: NTS



1 ELECTRICAL POWER PLAN
SCALE: 1/8" = 1'-0"

ELECTRICAL GENERAL NOTES:

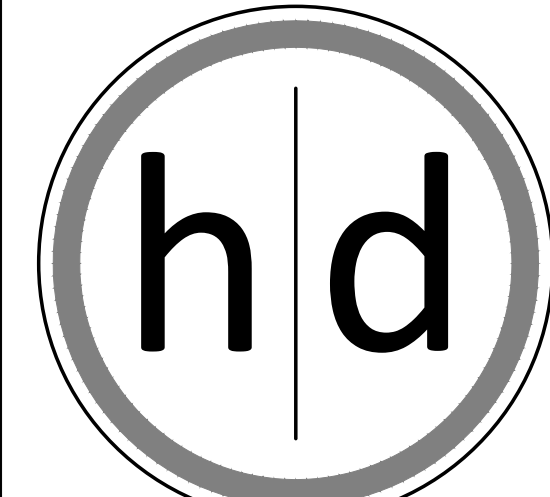
- REFERENCE SHEET E3.0 FOR ELECTRICAL GENERAL NOTES.

ELECTRICAL "VANILLA BOX" GENERAL NOTES:

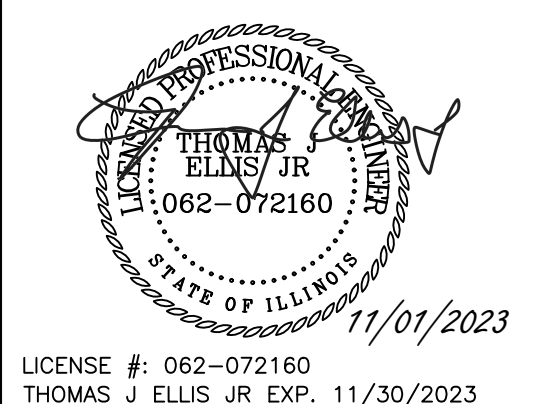
- REFERENCE SHEET E3.0 FOR ELECTRICAL "VANILLA BOX" GENERAL NOTES.

ELECTRICAL POWER PLAN NOTES:

- PROVIDE MINIMUM 600A, 208Y/120V, 3PH, 4WIRE ELECTRICAL SERVICE TO BUILDING. PROVIDE A SERVICE DISCONNECT SWITCH ON EXTERIOR OF BUILDING. A LARGER SERVICE MAY BE REQUIRED IF HVAC UNITS WITH ELECTRIC HEAT OR HEAT PUMPS WITH SUPPLEMENTAL ELECTRIC HEAT ARE USED. SERVICE LOAD CALCULATIONS AND PANEL LOAD CALCULATIONS SHALL INCLUDE A FUTURE REFRIGERATION LOAD OF 30KW. ALTERNATE SERVICE VOLTAGE AND/OR PHASES REQUIRE PRIOR WRITTEN APPROVAL FROM FAMILY DOLLAR PRIOR TO BEGINNING CONSTRUCTION AND WILL NOT BE ACCEPTED OTHERWISE. SEE ELECTRICAL RISER DIAGRAM ON SHEET E3.0 FOR FURTHER INFORMATION.
- ELECTRICAL PANEL LOCATION PER FAMILY DOLLAR APPROVED FLOOR PLAN. SEE ELECTRICAL RISER DIAGRAM ON SHEET E3.0 FOR FURTHER INFORMATION. ALTERNATE LOCATIONS REQUIRE PRIOR WRITTEN APPROVAL FROM FAMILY DOLLAR PRIOR TO BEGINNING CONSTRUCTION AND WILL NOT BE ACCEPTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE 2" EMPTY CONDUIT, SCHEDULE 40 PVC, WITH NYLON PULLWIRE FOR INCOMING TELEPHONE SERVICE. CONTRACTOR SHALL ROUTE TELEPHONE CONDUIT TO PHONE PEDESTAL, PROPERTY LINE, OR POINT AS COORDINATED WITH LOCAL TELEPHONE COMPANY. STUD CONDUIT BELOW COMMUNICATION BOARD LOCATION. TELEPHONE COMPANY DIMARC SHALL BE INSTALLED INSIDE ON COMMUNICATION BOARD. DO NOT INSTALL CONDUIT OR DIMARC EXPOSED ON FACE OF EXTERIOR WALL. THESE MUST BE LOCATED INSIDE.
- PROVIDE 4' x 6' PLYWOOD COMMUNICATION BACKBOARD NEXT TO ELECTRICAL PANELS MOUNTED 12" A.F.F. PROVIDE TELCO GROUND BAR AND #8 GROUNDING CONDUCTOR TO SERVICE GROUND. PROVIDE (2) DEDICATED 20A 120V IG CIRCUITS TO (2) DEDICATED IG RECEPTACLES SURFACE MOUNTED ON COMMUNICATION BACKBOARD MOUNT RECEPTACLES AT 6'-0" A.F.F. ON RIGHT SIDE OF COMMUNICATION BOARD.
- PROVIDE DEDICATED 120V, 20A CIRCUIT TO GFCI, WEATHERPROOF EXTERIOR RECEPTACLE RECESSED IN WALL 18" A.F.F. WITH FACE FLUSH WITH EXTERIOR WALL. PROVIDE WITH "IN-USE" COVERS. DO NOT LOCATE RECEPTACLE ADJACENT TO HANDICAP ACCESS AREAS/RAMPS.
- PROVIDE DEDICATED 120V, 20A CIRCUIT TO FLUSH MOUNTED IG RECEPTACLE IN WALL 6" BELOW FINISHED CEILING HEIGHT FOR FUTURE EAS POWER SUPPLY. RECEPTACLE SHALL BE MOUNTED DIRECTLY ABOVE DOOR MULLION CLOSEST TO FUTURE CHECKOUT STATIONS. CONFIRM SIDE TO MOUNT RECEPTACLE WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION. FUTURE EAS SHALL BE FURNISHED AND INSTALLED BY EAS VENDOR AT TIME OF FD UPFIT.
- PROVIDE DEDICATED 120V, 20A DUPLEX RECEPTACLE AND CIRCUIT FOR FUTURE ATM. CONFIRM RECEPTACLE LOCATION WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION (INSTALL POWER AND CONDUIT WITH PULL STRING - PRICE AS ELECTRICAL ALTERNATE.)
- PROVIDE FLUSH MOUNTED RECEPTACLE IN CEILING FOR FUTURE SECURITY MONITORS. PROVIDE ONE 120V, 20A CIRCUIT FOR ALL RECEPTACLES.
- FURNISH AND INSTALL 120V, 20A DEDICATED CIRCUIT TO JUNCTION BOX ABOVE CEILING FOR FUTURE EXTERIOR BUILDING SIGN. CIRCUIT SHALL BE TERMINATED AT A JUNCTION BOX(ES) LOCATED MINIMUM 13'-0" AFF. BUILDING SIGN CIRCUIT SHALL BE CIRCUITED VIA TIMELOCK. PROVIDE ADDITIONAL 6'-0" FEET OF SLACK ABOVE ELECTRICAL PANEL LOCATION. ACTUAL NUMBER OF BUILDING MOUNTED SIGNS WITH ARCHITECTURAL ELEVATIONS AND FDS PROJECT MANAGER PRIOR TO CONSTRUCTION. COORDINATE REQUIRED JUNCTION BOX QUANTITIES AND LOCATION WITH ARCHITECTURAL ELEVATIONS AND SIGN SUPPLIER PRIOR TO ELECTRICAL ROUGH-IN.
- PROVIDE SINGLE GANG JUNCTION BOX MOUNTED NEXT TO STOCK ROOM DOOR FOR FUTURE PAGING PHONE E.C. SHALL MOUNT JUNCTION BOX IN WALL AT 48" A.F.F. WITH 3/4" CONDUIT WITH PULL STRING UP IN WALL TO 6" ABOVE SALES FLOOR CEILING. PAGING SYSTEM SHALL BE PROVIDED BY FDS VENDOR AT TIME OF FUTURE TENANT UPFIT.
- PROVIDE (6) SIX DEDICATED 120V, 20A CIRCUITS FOR FUTURE CASH STATIONS. CIRCUITS SHALL BE TERMINATED TO JUNCTION BOXES SECURED TO STRUCTURE. CONFIRM LOCATION OF JUNCTION BOXES WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION. FUTURE POWER POLES FOR CASH STATIONS SHALL BE FURNISHED AND INSTALLED AT TIME OF FUTURE FD UPFIT. JUNCTION BOXES SHALL BE LOCATED WITHIN 3' OF FUTURE POWER POLE LOCATIONS. LABEL ALL JUNCTION BOXES WITH CIRCUIT NUMBER AND DESCRIPTION AS SHOWN ON PANEL SCHEDULE. ALL CIRCUITS SHALL HAVE DEDICATED NEUTRALS. DO NOT SHARE NEUTRALS. PROVIDE ADDITIONAL JUNCTION BOX ABOVE CEILING FOR FUTURE CHECKOUT CABINET AND CIRCUIT TO NEAREST CASH STATION JUNCTION BOX.
- PROVIDE DEDICATED 120V, 20A CIRCUIT FOR FUTURE HAND DRYER. CIRCUIT SHALL BE TERMINATED TO JUNCTION BOX IN WALL. CONFIRM MOUNTING HEIGHT AND LOCATION WITH ARCHITECTURAL ENLARGED RESTROOM PLAN.
- PROVIDE QUAD RECEPTACLE MOUNTED AT 18" A.F.F. IN EMPLOYEE BREAK AREA. PROVIDE TWO (2) DEDICATED 120V, 20A CIRCUITS. ONE CIRCUIT SHALL FEED THE LEFT DUPLEX RECEPTACLE AND THE SECOND CIRCUIT SHALL FEED THE RIGHT DUPLEX RECEPTACLE. CONFIRM RECEPTACLE LOCATION WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.
- PROVIDE DEDICATED 120V, 20A CIRCUIT TO FLUSH MOUNTED RECEPTACLE IN WALL 18" A.F.F. IN STOCK ROOM NEAR FREIGHT DOOR.
- PROVIDE DOOR BELL, PUSH BUTTON AND LOW VOLTAGE TRANSFORMER. MOUNT DOOR BELL ABOVE STOCK ROOM DOOR ON SALES SIDE. WIRE TO CIRCUIT FOR STOCK ROOM RECEPTACLE.
- PROVIDE RECEPTACLES ON SALES FLOOR APPROXIMATELY 50' APART ON EACH WALL MOUNTED 4' A.F.F. MINIMUM TWO (2) RECEPTACLES PER WALL EXCEPT THAT WALL WITH REFRIGERATION CASES ONLY GETS ONE (1). PROVIDE TWO (2) 120V, 20A CIRCUITS FOR THE RECEPTACLES.
- PROVIDE DEDICATED 120V, 20A CIRCUIT TO FLUSH MOUNTED RECEPTACLE IN WALL 18" A.F.F. FOR FUTURE INTERIOR ICE. CONFIRM RECEPTACLE LOCATION WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.
- PROVIDE DEDICATED 120V, 20A CIRCUIT TO FLUSH MOUNTED RECEPTACLE IN WALL 18" A.F.F. FOR FUTURE ICE CREAM BUNKER. PROVIDE PULL STRING. CONFIRM RECEPTACLE LOCATION WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION. (PRICE AS ELECTRICAL ALTERNATE.)
- PROVIDE DUPLEX RECEPTACLE FOR "SHOW WINDOW" LIGHTING. MOUNT ABOVE WINDOW IN WALL OR CEILING, BUT WITHIN 18" OF TOP OF WINDOW. PROVIDE ONE (1) 120V, 20A CIRCUIT FOR ALL RECEPTACLES.
- MC CABLE IS ALLOWED AS BUILDING STANDARD WHERE LOCAL CODE JURISDICTION WILL ALLOW. ALL CABLE SHALL BE BE OVERHEAD, AND IN A NEAT AND ORGANIZED FASHION. WHERE CODE DOES NOT ALLOW MC CABLE, EMT SHALL BE USED. ALL EXPOSED CABLE AND CONDUIT SHALL BE RUN TIGHT TO CEILING CONSTRUCTION AND CONCEALED FROM VIEW WHEREVER POSSIBLE.
- FUTURE ENERGY MANAGEMENT SYSTEM (EMS). FUTURE EMS SHALL BE PROVIDED BY EMS VENDOR AT TIME OF FUTURE FD UPFIT.
- PROVIDE DUCT MOUNTED SMOKE DETECTOR IN RETURN AIR MAIN. MOUNT REMOTE TEST STATION IN ACCESSIBLE LOCATION. COORDINATE WITH AHJ AND ARCHITECT. REFERENCE 3/E2.0 FOR FURTHER INFORMATION.
- RTU SHALL BE PROVIDED WITH INTEGRAL DISCONNECT SWITCH AND NON-POWERED DUPLEX CONVENIENCE RECEPTACLE INSTALLED ON MECHANICAL EQUIPMENT AT THE FACTORY. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR. REFERENCE SHEET E4.0 PANEL SCHEDULES AND MECHANICAL SHEETS FOR ADDITIONAL INFORMATION.
- PROVIDE AND INSTALL (7) CONDUITS BACK TO LEFT SIDE OF PANEL "A" FOR COOLERS. MOUNT BOXES AT 100" A.F.F. INSTALL PULL STRINGS. (PRICE AS ELECTRICAL ALTERNATE.) CONFIRM SIZE AND LOCATIONS WITH FAMILY DOLLAR CONSTRUCTION MANAGER.
- PROVIDE AND INSTALL (2) CONDUITS BACK TO LEFT SIDE OF PANEL "A" FOR FREEZERS. MOUNT BOXES AT 100" A.F.F. INSTALL PULL STRINGS. (PRICE AS ELECTRICAL ALTERNATE.) CONFIRM SIZE AND LOCATIONS WITH FAMILY DOLLAR CONSTRUCTION MANAGER.
- PROVIDE POWER TO NEW AIR CURTAIN WHERE SHOWN. COORDINATE EXACT REQUIREMENTS WITH MECHANICAL CONTRACTOR. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- PROVIDE DEDICATED 120V DUPLEX RECEPTACLE AND 20A CIRCUIT FOR FUTURE STORE SAFE. CONFIRM RECEPTACLE LOCATION WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.
- PROVIDE DEDICATED 120V, 20A CIRCUIT IN JUNCTION BOX AT STRUCTURE FOR FUTURE SNACK-WRAP LOCATION. CONFIRM LOCATION WITH FD SITE SPECIFIC FIXTURE PLAN PRIOR TO BEGINNING CONSTRUCTION.
- PROVIDE AND INSTALL 30" PLUGMOLD WITH (1) 120V, 20A DEDICATED CIRCUIT AND A MINIMUM OF FIVE RECEPTACLES. COORDINATE MOUNTING LOCATION WITH ARCHITECTURAL PLANS. PROVIDE AND INSTALL (1) SINGLE-GANG DATA BOX MOUNTED IN HORIZONTAL CONFIGURATION WITH 3/4" STUB-UP.
- SINGLE PHASE /120V CONNECTION FOR ELECTRIC WATER HEATER. PROVIDE NEMA 3R DISCONNECT SWITCH WITH RATINGS AS INDICATED FOR WATER HEATER. COORDINATE ALL WORK WITH PLUMBING CONTRACTOR AND ENSURE NEC CLEARANCES ARE MAINTAINED. ROUTE CIRCUIT TO DISCONNECT AND FROM DISCONNECT TO WATER HEATER. REFERENCE PLUMBING SHEET FOR ADDITIONAL INFORMATION.



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A New Retail Location For:



West of 5766 W. Monree Manhattan Rd
Monree, IL 60449

Date	11/01/2023
Job Number	20-003-03
Drawn By	JS
Checked By	GH
Type	3A-I-3

Revisions	Number	Date	Description

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E2.0
ELECTRICAL POWER PLAN
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POWER LEGEND:

- INDICATES ABOVE COUNTER (TYP)
- DUPLX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLX ISOLATED GROUND RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). ABOVE COUNTER RECEPTACLES SHALL BE +48" AFF (UNO).
- DUPLX RECEPTACLE ON STAND-BY GENERATOR POWER, MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN ABOVE COUNTER SHALL BE +48" AFF (UNO).
- FOURPLX RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN TO BE ABOVE COUNTER SHALL BE +48" AFF (UNO).
- FOURPLX ISOLATED GROUND RECEPTACLE MOUNTED AT +18" AFF TO CENTER OF RECEPTACLE (UNO). RECEPTACLES SHOWN TO BE ABOVE COUNTER SHALL BE +48" AFF (UNO).
- FLOOR-MOUNTED DUPLX OR FOURPLX RECEPTACLE MOUNTED IN PVC FLOORBOX, OR POKE-THRU
- "OFI" INDICATES GROUND FAULT CIRCUIT INTERRUPTER TYPE
"WP" INDICATES WEATHERPROOF WITH "N-USE" COVER.
- "N" INDICATES ISOLATED GROUND RECEPTACLE WITH ISOLATED GROUND WIRE AND DEDICATED NEUTRAL HUBBELL #IG-5262
- WEATHERPROOF PUSH BUTTON FOR DOORBELL SYSTEM MOUNTED 46" A.F.F. TO CENTER, EDWARDS MODEL #690-W WITH EDWARDS MODEL #147-1 MOUNTING PLATE.
- DOOR CHIME FOR DOORBELL SYSTEM MOUNTED ABOVE CEILING. CONNECT TO DOOR CHIME TRANSFORMER, EDWARDS MODEL #338-G5 (24VAC, 12VA)
- LOW VOLTAGE STEP DOWN TRANSFORMER FOR DOORBELL SYSTEM, EDWARDS MODEL #593 PROVIDE WITH EDWARDS MODEL #593 TRANSFORMER MOUNTING PLATE. MOUNT 9"-0" A.F.F. IN SUPPORT ROOM.
- SINGLE POLE WALL MOUNT TOGGLE SWITCH, MOUNT AT +46" AFF TO CENTER OF SWITCH. "M" INDICATES 120V, 20A MOTOR RATED TOGGLE SWITCH.
- OCCUPANCY SENSOR SWITCH WITH OVERRIDE SWITCH, MOUNTED 46" A.F.F. TO CENTER, PROVIDE SENSOR SWITCH MODEL ACUTY #WSX-WH.
- CEILING MOUNT LINE VOLTAGE OCCUPANCY SENSOR, MOUNTED IN CEILING, PROVIDE OCC. SENSOR MODEL ACUTY #CM-WH.
- TELEPHONE OUTLET, 18" A.F.F. TO CENTER OR AT HEIGHT INDICATED ON PLANS, PROVIDE SINGLE GANG DATA BOX WITH 5" CONDUIT WITH PULL STRING TO 6" ABOVE LAY-IN CEILING OR TO 12" A.F.F. IN AREAS WITH NO CEILING. CATSE CABLEING AND COVERPLATE SHALL BE INSTALLED BY FD'S LOW VOLTAGE CONTRACTOR AT TIME OF FUTURE TENANT UFIT.
- DATA OUTLET, 18" A.F.F. TO CENTER OR AT HEIGHT INDICATED ON PLANS, PROVIDE SINGLE GANG DATA BOX WITH 5" CONDUIT WITH PULL STRING TO 6" ABOVE LAY-IN CEILING OR TO 12" A.F.F. IN AREAS WITH NO CEILING. CATSE CABLEING AND COVERPLATE SHALL BE INSTALLED BY FD'S LOW VOLTAGE CONTRACTOR AT TIME OF FUTURE TENANT UFIT.
- GENERAL DUTY FUSIBLE/NON-FUSIBLE DISCONNECT SWITCH, NUMBERS INDICATE FRAME SIZE, NUMBER OF POLES AND FUSING. PROVIDE NEMA 1 ENCLOSURE INSIDE. PROVIDE NEMA 3 ENCLOSURE FOR ALL SWITCHES LOCATED OUTSIDE.
"FM" INDICATES FUSE PER EQUIPMENT NAMEPLATE. "NF" INDICATES NON-FUSED.
- ELECTRICAL PANEL BOARD, FLUSH OR SURFACE MOUNT
- JUNCTION BOX WALL OR CEILING MOUNTED
- NOTE: LINE THROUGH DEVICE INDICATES TO BE MOUNTED ABOVE COUNTERTOP OR CABINET. REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHTS IF NOT INDICATED ON POWER PLAN.
- FAN, FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR, PROVIDE DISCONNECTING MEANS AS REQUIRED.

- LINE TYPES LEGEND:
 - NEW
 - EXISTING OR BY OTHERS
 - DEMOLITION
- LIGHTING LEGEND:**
- 8"-0" INDUSTRIAL STRIP FIXTURE
 - 8"-0" INDUSTRIAL STRIP FIXTURE WITH EMERGENCY BATTERY BACKUP
 - 4"-0" INDUSTRIAL STRIP FIXTURE
 - 4"-0" INDUSTRIAL STRIP FIXTURE WITH EMERGENCY BATTERY BACKUP
 - EXTERIOR LED WALL MOUNTED LIGHT FIXTURE (UNO)
 - EXTERIOR LED WALL MOUNTED LIGHT FIXTURE WITH BATTERY BACKUP
 - SINGLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE.
 - SINGLE FACE EXIT LIGHT FIXTURE, WALL OR CEILING MOUNT, WITH FIELD CONFIGURABLE ARROWS. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON DRAWINGS. SHADED AREA INDICATES EXIT LIGHT FACE. HIGH OUTPUT BATTERY BACKUP.
 - EXTERIOR EMERGENCY FIXTURE REMOTE HEADS
 - INTERIOR EMERGENCY FIXTURE
 - EXTERIOR POLE MOUNTED FIXTURE
 - EXTERIOR WALL PACK
 - EXTERIOR HIGH LUMEN WALL PACK
- NOTE: REFER TO LIGHT FIXTURE SCHEDULE AND ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION AND MOUNTING HEIGHTS.

FIRE ALARM LEGEND:

- SMOKE DETECTOR
- COMBINATION AUDIO/VISUAL DEVICE, +80" AFF
- VISUAL DEVICE, +80" AFF
- PULL STATION, +48" AFF
- FIRE ALARM BELL, 120V
- FIRE ALARM RELAY
- DUCT SMOKE DETECTOR AUDIO/VISUAL DEVICE MOUNTED 80" AFF TO BOTTOM OF DEVICE. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS. SEE WIRING DIAGRAM 3/E-2 FOR DETAILS.
- DUCT SMOKE DETECTOR TEST STATION MOUNTED AT COMMUNICATION BOARD. SEE DETAIL 1/E4.0 FOR EXACT LOCATION. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS. SEE WIRING DIAGRAM 3/E-2 FOR DETAILS.
- SUPPLY DUCT/PLENUM MOUNTED SMOKE DETECTOR, CONNECT TO 120V CIRCUIT INDICATED. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS. SEE WIRING DIAGRAM 3/E-2 FOR DETAILS.
- RETURN DUCT/PLENUM MOUNTED SMOKE DETECTOR, CONNECT TO 120V CIRCUIT INDICATED. COORDINATE INSTALLATION RESPONSIBILITIES WITH ALL CONTRACTORS. SEE WIRING DIAGRAM 3/E-2 FOR DETAILS.
- FIRE ALARM CONTROL PANEL
- FIRE ALARM ANNUNCIATOR PANEL
- FIRE ALARM STROBE POWER SUPPLY
- FIRE ALARM DOOR HOLD
- FIRE ALARM DOOR RELEASE
- FIRE SPRINKLER FLOW/TAMPER SUPERVISORY PANEL. PROVIDE (2) DEDICATED PHONE LINES AS REQUIRED.

WIRING LEGEND:

- HOMERUN TO PANELBOARD WITH NUMBER AND SIZE OF CONDUCTORS INDICATED ON PLANS.
- GROUNDING CONDUCTOR.
- CONDUIT OR CIRCUIT BREAK/CONTINUATION.
- CONDUIT WITH ENDCAP FOR FUTURE USE.
- GROUNDING SOURCE.

ABBREVIATIONS LEGEND:

- AFF ABOVE FINISHED FLOOR
- ED EXISTING TO BE DEMOLISHED
- EM EMERGENCY
- ER EXISTING TO BE RELOCATED
- ETR EXISTING TO REMAIN
- GFI GROUND FAULT INTERRUPTER
- NL NIGHT LIGHT
- UNO UNLESS NOTED OTHERWISE

ELECTRICAL "VANILLA BOX" GENERAL NOTES:

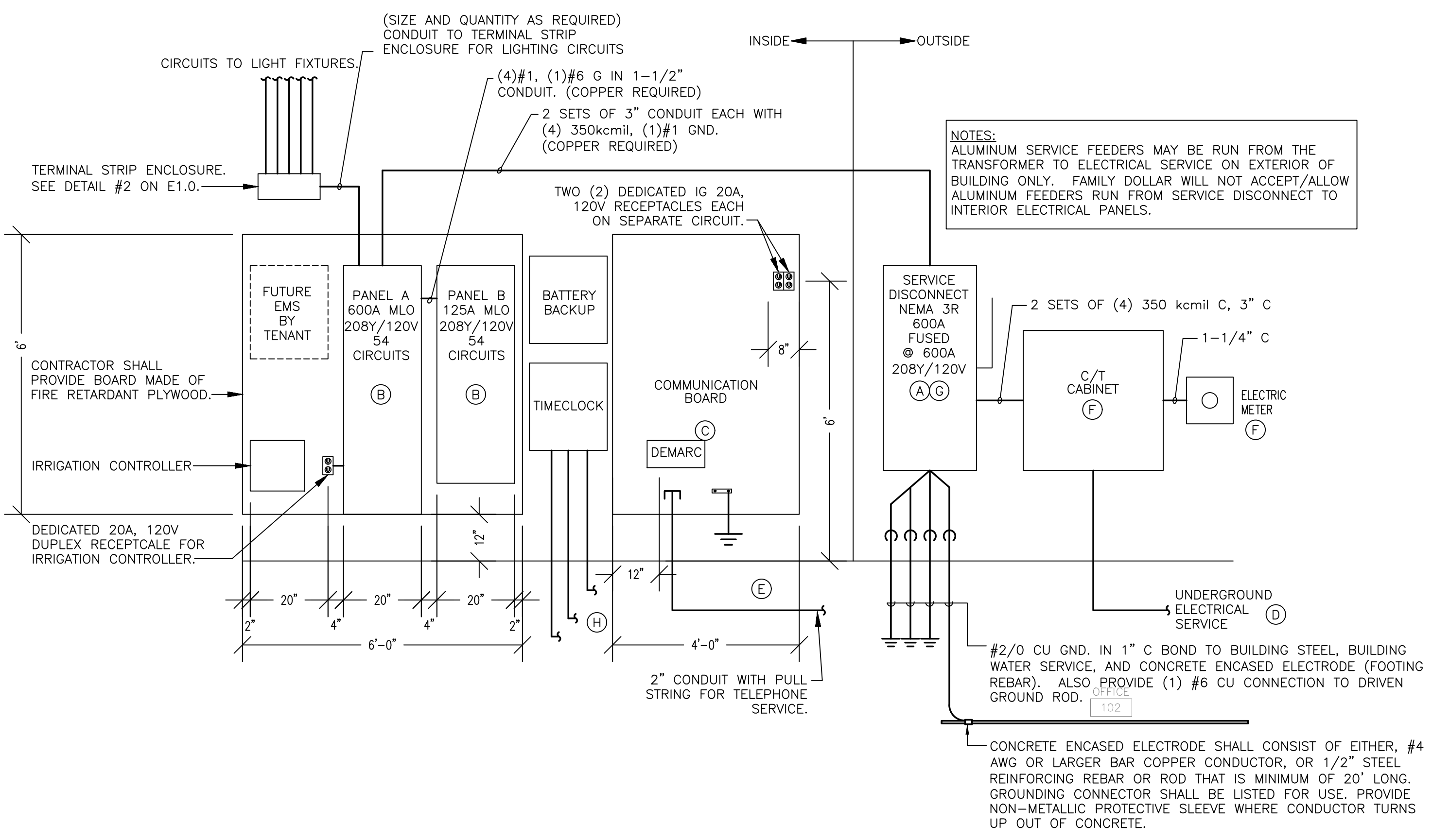
- ELECTRICAL SERVICE CONNECTION: CONTRACTOR SHALL INSTALL ALL MAIN DISTRIBUTION PANEL(S) (MDP), ELECTRICAL PANEL(S), METER AND METER BASE, BREAKERS, TRANSFORMER(S) BASED ON FAMILY DOLLAR (FD) GENERAL ELECTRICAL SERVICE REQUIREMENTS. ALL ELECTRICAL PANELS MUST BE INSTALLED IN LOCATIONS SHOWN ON FD'S FINAL PLANS. CONTRACTOR SHALL INSTALL PANEL SCHEDULES INSIDE EACH ELECTRICAL PANEL GIVING DESCRIPTION FOR EACH CIRCUIT USED. IF SITE HAS A DIFFERENT SERVICE VOLTAGE CONFIGURATION, CONTRACTOR MUST NOTIFY ENGINEER/TO DETERMINE APPROPRIATE SERVICE SIZE.
- ELECTRICAL - SIGNAGE: CONTRACTOR SHALL INSTALL FD'S SIGNAGE CIRCUIT CONSISTING OF (1) 20A, 110V CIRCUIT. TERMINATE CIRCUIT IN JUNCTION BOX AT THE STOREFRONT AND IN THE TERMINAL STRIP ENCLOSURE PER PLANS AND DESCRIBED IN ELECTRICAL-LIGHTING PARAGRAPH BELOW NEAR ELECTRICAL PANELS. THIS WILL PROVIDE AN INTERFACE POINT FOR FD'S FUTURE ENERGY MANAGEMENT SYSTEM. (EMS)
- ELECTRICAL - CHECKOUTS: CONTRACTOR SHALL INSTALL (1) JUNCTION BOX CONSISTING OF (1) DEDICATED CIRCUIT AND (1) ISOLATED DEDICATED CIRCUIT FOR EACH CHECKOUT. JUNCTION BOX SHALL BE LOCATED ABOVE THE CEILING ABOVE EACH CHECKOUT. REFER TO FD'S PLANS FOR QUANTITY AND LOCATION
- ELECTRICAL - DUPLEX RECEPTACLES: CONTRACTOR SHALL INSTALL (1) CEILING MOUNTED DUPLX RECEPTACLE CENTERED ON STOREFRONT DOORS AND 12"-0" FROM FRONT WALL. SALES AREA - A MINIMUM OF (3) CIRCUITS SHALL BE USED TO FEED THE SALES AREA RECEPTACLES WITH THE CIRCUIT LOADS BALANCED AS BEST AS POSSIBLE. CONTRACTOR SHALL INSTALL (1) CEILING MOUNTED DUPLX CENTERED ON STOREFRONT DOORS AND 12"-0" FROM FRONT WALL. STOCKROOM - CONTRACTOR SHALL INSTALL STANDARD DUPLX RECEPTACLE AT 0"-18" A.F.F. AND SPACED NO MORE THAN 40"-0" APART ON THE STOCK ROOM PERIMETER WALL UNLESS OTHERWISE REQUIRED BY CODE.
- ELECTRICAL - ABOVE STOREFRONT DOOR: CONTRACTOR SHALL INSTALL ISOLATED DEDICATED DUPLX RECEPTACLE ABOVE STOREFRONT DOORS BETWEEN 10"-0" AND 12"-0" A.F.F.
- ELECTRICAL - DOORBELL: CONTRACTOR SHALL INSTALL DOORBELL BUTTON ON EXTERIOR LATCH SIDE OF THE FREIGHT DOOR AND A DOORBELL CHIME ON THE SALES SIDE OF STOCKROOM WALL ABOVE THE STOCKROOM DOORS.
- ELECTRICAL - EMPLOYEE AREA: CONTRACTOR SHALL INSTALL FD'S EMPLOYEE ELECTRICAL/DATA PACKAGE TO INCLUDE BUT NOT LIMITED TO JUNCTION BOXES, CONDUIT WITH PULL STRINGS, ELECTRICAL DEVICES, FACE PLATES, ETC. PER FD'S PLANS.
- ELECTRICAL - ATM (FAMILY DOLLAR ONLY): CONTRACTOR SHALL INSTALL ISOLATED DEDICATED DUPLX RECEPTACLE AT 0"-18" A.F.F.
- ELECTRICAL - COMMUNICATION BOARD (FAMILY DOLLAR ONLY): CONTRACTOR SHALL INSTALL (2) ISOLATED DEDICATED DUPLX RECEPTACLES.
- ELECTRICAL - FUTURE VENDING (FAMILY DOLLAR ONLY): CONTRACTOR SHALL INSTALL (2) WATERPROOF GFI RECEPTACLE ON STOREFRONT EXTERIOR, (1) ON EACH SIDE OF STOREFRONT ENTRANCES.
- ELECTRICAL - LIGHTING: CONTRACTOR SHALL INSTALL AN ENCLOSURE (WITH TERMINAL STRIPS) PER FD'S PLANS ADJACENT TO ELECTRICAL PANELS. CONTRACTOR SHALL CONNECT ALL CIRCUITS FROM THE LIGHT FIXTURES TO THE TERMINALS WITHIN THIS ENCLOSURE. EACH ROW OF LIGHT FIXTURES SHALL BE ON AN INDIVIDUAL CIRCUIT ON THE ELECTRICAL PANEL FOR SEPARATION OF CONTROL. FAMILY DOLLAR WILL INSTALL AN ENERGY MANAGEMENT SYSTEM (EMS) AT A LATER DATE AND WILL USE THIS ENCLOSURE AS THE INTERFACE POINT FOR CONTROLLING THE LIGHTING CIRCUITS. NIGHT LIGHTS AND EXIT SIGNS SHALL BE WIRED DIRECTLY TO ELECTRICAL PANEL. CONTRACTOR SHALL HAVE ALL LIGHTS COMPLETELY CONNECTED, TESTED AND READY TO ENERGIZE PRIOR TO DELIVERY DATE.

ELECTRICAL GENERAL NOTES:

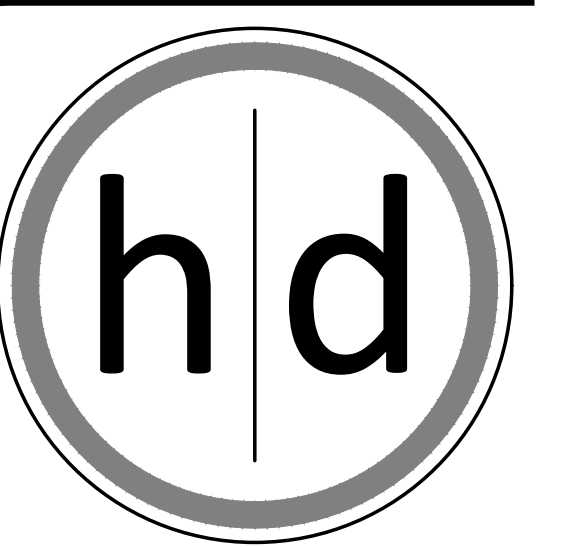
- PRIOR TO SUBMITTING BID, VISIT THE JOB SITE AND BECOME FULLY ACQUAINTED WITH THE EXISTING CONDITIONS, NOTIFY ARCHITECT AND ENGINEER OF ANY CONFLICTS OF DISCREPANCIES PRIOR TO SUBMITTING BID.
- ALL WORK SHALL CONFORM TO ALL LOCAL CODES AND ORDINANCES AS WELL AS APPLICABLE INDUSTRY STANDARDS.
- COORDINATE EXACT LOCATIONS OF ALL LIGHT FIXTURES AND ELECTRICAL DEVICES WITH ARCHITECTURAL DRAWING AND OTHER TRADES PRIOR TO ROUGH-IN. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRE TO PROPERLY INSTALL ALL SYSTEMS.
- ELECTRICAL DRAWINGS ARE DIAGRAMMATIC/SCHEMATIC IN NATURE AND REPRESENT THE GENERAL SCOPE OF WORK.
- COORDINATE RECEPTACLES AND COVER PLATE TYPES WITH ARCHITECT AND OWNER, PRIOR TO ORDER.
- INSTALL PULL STRING IN ALL EMPTY CONDUIT/RACEWAY. TERMINATE CONDUIT STUB-UP WITH A NYLON BUSHING.
- COLOR FOR RECEPTACLES, SWITCHES, NETWORK DEVICES AND COVER PLATES SHALL MATCH. COLOR SHALL MATCH AND BE SELECTED AS BRIGHT WHITE UNLESS NOTED OTHERWISE. CONFIRM EXACT COLOR WITH ARCHITECT PRIOR TO ORDERING MATERIAL.
- ALL EXTERIOR PENETRATIONS SHALL BE SEALED WEATHER TIGHT.
- ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE AND ALL LOCAL AND STATE CODES.
- ALL MATERIAL, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITER'S LABORATORIES, INC., AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
- ALL ELECTRICAL PERMITS AND INSPECTION FEES SHALL BE OBTAINED AND PAID FOR BY THE ELECTRICAL CONTRACTOR. DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE ONLY THE GENERAL ARRANGEMENT. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS, DO NOT SCALE PLANS.
- ELECTRICAL CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS FOR ONE YEAR FROM THE DATE THE PROJECT IS ACCEPTED BY THE OWNER.
- ELECTRICAL CONTRACTOR SHALL MAKE ALL ELECTRICAL POWER CONNECTIONS TO HVAC, PLUMBING AND OTHER EQUIPMENT AS REQUIRED.
- A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
- ALL CUTTING AND PATCHING OF WALLS AND FLOORS FOR ELECTRICAL EQUIPMENT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- CONDUCTORS SHALL BE COPPER RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE #12 AWG UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL WIRE #8 AWG AND LARGER SHALL BE STRANDED. ALL CONDUCTORS #10 AND SMALLER SHALL BE SOLID, UNLESS OTHERWISE NOTED. BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE THHN/THWN OR XHHW AS REQ'D.
- ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH NEC. TYPE MC CABLE IS THE PREFERRED WIRING METHOD, USE EMT WHERE MC IS PROHIBITED. USE RIGID STEEL CONDUIT WHERE EXPOSED OUTDOORS. USE LIQUID TIGHT FMC FOR ALL CONNECTIONS TO MOTORS AND CONDENSING UNITS. MINIMUM CONDUIT SIZE TO BE 3/4". EC TO RUN ALL ELECTRICAL OVERHEAD IN A NEAT AND ORGANIZED FASHION.
- PROVIDE A PULLWIRE IN ALL EMPTY CONDUITS.
- PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL PANELBOARDS AND DISCONNECT SWITCHES, WHITE LETTERS ON BLACK BACKGROUND.
- FUSES O - 600 AMPS SHALL BE UL CLASS "RK-1" LOW PEAK DUAL ELEMENT TIME DELAY WITH 200,000 AMPERE INTERRUPTING RATING AS MANUFACTURED BY BUSSMANN, UNLESS NOTED OTHERWISE.
- ALL TERMINALS/LUGS SHALL BE 75' RATED. ALL TERMINALS, SPLICING CONNECTORS, LUGS, ETC SHALL BE IDENTIFIED FOR USE WITH THE MATERIAL (CU/AL) OF THE CONDUCTOR AND SHALL BE PROPERLY INSTALLED.
- VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH POWER COMPANY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
- ALL ELECTRICAL DEVICES (SWITCHES AND OUTLETS) SHALL BE "WHITE" WITH WHITE NYLON UNBREAKABLE WALL COVER PLATES EXCEPT THAT IG OUTLETS SHALL BE "ORANGE".
- THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ELECTRICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPACKLE, ETC.).

ELECTRICAL RISER NOTES:

- FAMILY DOLLAR REQUIRES MINIMUM 600A, 208Y/120V, 3PH, 4 WIRE ELECTRICAL SERVICE TO BUILDING. A LARGER SERVICE MAY BE REQUIRED IF HVAC UNITS WITH ELECTRIC HEAT OR HEAT PUMPS WITH SUPPLEMENTAL ELECTRIC HEAT ARE USED. SERVICE LOAD CALCULATIONS AND PANEL LOAD CALCULATIONS SHALL INCLUDE A FUTURE REFRIGERATION LOAD OF 30KW. ALTERNATE SERVICE VOLTAGES AND/OR PHASE REQUIRE PRIOR WRITTEN APPROVAL FROM FAMILY DOLLAR PRIOR TO BEGINNING CONSTRUCTION AND WILL NOT BE ACCEPTED OTHERWISE.
- PANELS A & B SHALL BE 54 CIRCUITS. PANELS WITH SMALLER NUMBER OF CIRCUITS WILL NOT BE ACCEPTED BY FAMILY DOLLAR. ALTERNATE PANEL DESIGN REQUIRES PRIOR WRITTEN APPROVAL FROM FAMILY DOLLAR PRIOR TO BEGINNING CONSTRUCTION AND WILL NOT BE ACCEPTED OTHERWISE.
- CONTRACTOR SHALL PROVIDE #6 CU GROUND TO SERVICE GROUND BAR (7 TERMINALS) AS REQUIRED FOR GROUNDING OF COMMUNICATION EQUIPMENT. PROVIDE 10' LOOP OF #6 GROUND WIRE TERMINATED WITH LUG. NETWORK INTERFACE DEVICE (DEMARC) WITH TEST PLUGS SHALL BE INSTALLED INSIDE MOUNTED AT THE COMMUNICATION BOARD. DO NOT INSTALL ON EXTERIOR OF BUILDING.
- CONTRACTOR SHALL CONFIRM WITH UTILITY IF SERVICE TRANSFORMER IS POLE MOUNTED OR PAD MOUNTED PRIOR TO ANY INSTALLATION. CONTRACTOR SHALL CONFIRM WITH UTILITY IF PAD IS TO BE PROVIDED BY CONTRACTOR AS WELL AS LOCATION REQUIRED IF SERVICE IS FROM A PAD MOUNTED TRANSFORMER. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY IF UTILITY CONDUIT IS REQUIRED TO EXTEND 4" TO PROPERTY LINE. IT IS ASSUMED UTILITY WILL SERVE PROJECT WITH A 112.5 OR 150KVA TRANSFORMER MAXIMUM. WITH THIS ASSUMPTION FAULT CURRENT AT THE UTILITY TRANSFORMER LUGS WILL BE APPROXIMATELY 20,645A.
- CONTRACTOR SHALL COORDINATE WITH TELECOMMUNICATION SERVICE IF TELECOM CONDUIT SHALL RUN TO PROPERTY LINE.
- SIZE METER AND CT CABINET PER UTILITY REQUIREMENTS.
- SERVICE DISCONNECT SHALL BE SERVICE ENTRANCE RATED AND LOCKABLE.
- PROVIDE (1) 1" CONDUIT FOR SITE LIGHTING, (1) 1" CONDUIT FOR MOMENTUM SIGN AND (1) 1" CONDUIT FOR SPARE (STUB UP AND CAP ON EXTERIOR SIDE OF BUILDING ABOVE SLAB.) PROVIDE WITH PULL STRING.



1 ELECTRICAL RISER DIAGRAM
DIAGRAMMATIC ONLY



15225 Broadmoor Street
Overland Park, KS 66223
hjd Architecture, LLC



LICENSE # 062-072160
THOMAS J. ELLIS JR. EXP. 11/30/2023

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PERMIT

A New Retail Location For:

West of 5766 W. Monsee Manhattan Rd
Monsee, IL 60449

Date	11/01/2023
Job Number	20-003.03
Drawn By	JS
Checked By	GH
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E3.0
ELECTRICAL DETAILS AND SCHEDULES
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COMMERCIAL LOAD SUMMARY					
BUILDING AREA:		10,500 SQ. FT		VOLTAGE: 208Y/120V, 3PH, 4W	
LOAD DESCRIPTION	CONNECTED LOAD (VA)	DEMAND FACTOR	DEMAND LOAD (VA)		
LIGHTING					
INTERIOR LIGHTING	5,276	x 125%	=	6,595	0
EXTERIOR LIGHTING	985	x 125%	=	1,231	
SIGNAGE	2,400	x 125%	=	3,000	
MINIMUM GENERAL LIGHTING PER NEC-220 x 125%				24,938	
MINIMUM TRACK LIGHTING/SHOW WINDOW PER NEC-220 x 125%				0	
POWER & HVAC					
EXISTING	0	x 100%	=	0	
RECEPTACLES	4,940	x 100%/50%	=	4,940	
MISCELLANEOUS EQUIPMENT	4,960	x 100%	=	4,960	
REFRIGERATION EQUIPMENT	29,988	x 100%	=	29,988	
KITCHEN	0	x 100%	=	0	
HVAC - SUMMER	54,414	x 100%	=	54,414	
HVAC - WINTER	0	x 100%	=	0	
SUPP. ELECTRIC HEAT	0	x 100%	=	0	
MOTORS	2,160	x 100%	=	2,160	
LARGEST MOTOR	0	x 25%	=	0	
SUB-TOTAL (VA)	105,123			SUB-TOTAL (VA)	125,631
SUB-TOTAL (AMPS)	292			SUB-TOTAL (AMPS)	348
				SERVICE SIZE (AMPS)	600
				SPARE CAPACITY (AMPS)	251

LIGHT FIXTURE SCHEDULE												
FIXTURE TYPE	MANUFACTURER & MODEL #	DESCRIPTION	VOLTS	WATTS	MINIMUM LUMEN OUTPUT	NUMBER AND TYPE OF LAMPS	COLOR TEMP	DIMMABLE	FINISH	MOUNTING	SCHEDULE NOTES	NOTES
A1	STANDARD INDUSTRIAL STRIP BY LSI, HE WILLIAMS, LITHONIA OR EQUAL	8'-0" STRIP LIGHT	120	36	2200/LAMP	(2) 18W LED LINEAR T8 TUBES	4000	0-10V / 10%	WHITE	SUSPENDED	INTERIOR/EXTERIOR STRIP.	A,B,C,D,E,F
A1EM	STANDARD INDUSTRIAL STRIP BY LSI, HE WILLIAMS, LITHONIA OR EQUAL WITH BATTERY BACKUP	8'-0" STRIP LIGHT (EMERGENCY LIGHT)	120	36	2200/LAMP	(2) 18W LED LINEAR T8 TUBES	4000	0-10V / 10%	WHITE	SUSPENDED	INTERIOR/EXTERIOR STRIP. PROVIDE WITH INTEGRAL 90 MINUTE BATTERY BACKUP	A,B,C,D,E,F
A2	STANDARD INDUSTRIAL STRIP BY LSI, HE WILLIAMS, LITHONIA OR EQUAL	4'-0" STRIP LIGHT	120	18	2200/LAMP	(1) 18W LED LINEAR T8 TUBES	4000	0-10V / 10%	WHITE	SUSPENDED	INTERIOR/EXTERIOR STRIP	A,B,C,D,E,F
A2EM	STANDARD INDUSTRIAL STRIP BY LSI, HE WILLIAMS, LITHONIA OR EQUAL WITH BATTERY BACKUP	4'-0" STRIP LIGHT (EMERGENCY LIGHT)	120	36	2200/LAMP	(2) 18W LED LINEAR T8 TUBES	4000	0-10V / 10%	WHITE	SUSPENDED	EMERGENCY LIGHT WITH INTEGRAL 90 MINUTE BATTERY BACKUP	A,B,C,D,E,F
EMR	SURELITES SRP600 OR EQUAL	EMERGENCY LIGHT (EXTERIOR)	120	2.5	500	INTEGRAL LEDES	4000	0-10V / 10%	WHITE	SURFACE	EXTERIOR EMERGENCY LIGHT REMOTE HEADS CONNECT TO EXIT SIGN HI-OUTPUT BATTERY BACKUP.	A,B,D
EM	SURELITES AP25QLED OR EQUAL	EMERGENCY LIGHT (INTERIOR)	120	2	-	INTEGRAL LEDES	4000	0-10V / 10%	WHITE	SURFACE	INTERIOR EMERGENCY LIGHT (2 HEADS) WITH INTEGRAL 90 MINUTE BATTERY BACKUP	A,B,D
SL1	LSI SLM-LED-24L-SIL-FT-40-70CRI OR EQUAL	POLE MOUNTED LIGHT FIXTURE	UNV	189	24,000	INTEGRAL LEDES	4000	0-10V / 10%	DARK BRONZE	POLE	PROVIDE WITH 20'-0" STEEL SQUARE POLE.	A,B,D
WP	HE WILLIAMS WPCS LED FULL CUTOFF WALL PACK WPCS-L44-8-40-BZ-PC-UNV OR EQUAL	EXTERIOR WALL PACK	120	42	4400	INTEGRAL LEDES	4000	0-10V / 10%	DARK BRONZE	WALL	STANDARD FULL CUT OFF WALL PACK.	A,B,D,G
WPHL	HE WILLIAMS WPCL LED FULL CUTOFF WALL PACK WPCL-L97-8-40-BZ-UNV OR EQUAL	EXTERIOR WALL PACK	120	93	9700	INTEGRAL LEDES	4000	0-10V / 10%	DARK BRONZE	WALL	HIGH LUMEN FULL CUT OFF WALL PACK.	A,B,D,G,H
WS	LSI LED PATRIOT XPWS3-WT-LED-48-350-NW-UE	EXTERIOR BUILDING MOUNTED FIXTURE	120	55	4800	INTEGRAL LEDES	4000	0-10V / 10%	DARK BRONZE	WALL	-	A,B,D,G
WSEM	LSI LED PATRIOT XPWS3-WT-LED-48-350-NW-UE-BB	EXTERIOR BUILDING MOUNTED FIXTURE	120	55	4800	INTEGRAL LEDES	4000	0-10V / 10%	DARK BRONZE	WALL	EXTERIOR BUILDING MOUNTED FIXTURE WITH INTEGRAL 90 MINUTE BATTERY BACKUP	A,B,D,G
X1	SURELITES APC OR EQUAL	EXIT LIGHT	120	5	-	INTEGRAL LEDES	4000	0-10V / 10%	WHITE	CEILING	LED SINGLE-FACE EXIT SIGN W/ 90 MINUTE EMERGENCY BATTERY BACKUP	A,B,D
X1R	SURELITES APCH OR EQUAL	EXIT LIGHT	120	5	-	INTEGRAL LEDES	4000	0-10V / 10%	WHITE	CEILING	EXIT SIGN WITH SINGLE FACE WITH INTEGRAL 90 MINUTE HI-OUTPUT BATTERY BACKUP. CONNECT TO EXTERIOR REMOTE HEADS.	A,B,D

LIGHT FIXTURE SCHEDULE NOTES:
A. ALL LIGHT FIXTURES SHALL BE PROVIDED WITH LED LAMPS.
B. CONTRACTOR SHALL COORDINATE VOLTAGE OF LIGHT FIXTURE WITH CIRCUIT VOLTAGE.
C. LIGHT FIXTURES DENOTED BY "NIGHT LIGHT" OR "NL" SHALL REMAIN ON 24/7.
D. CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORT HARDWARE AND ADAPTERS FOR EACH LIGHT FIXTURE UNLESS NOTED OTHERWISE.
E. COORDINATE LIGHT FIXTURE MOUNTING WITH CEILING TYPE. REFER TO ARCHITECTURAL PLANS.
F. LIGHT FIXTURES IN SALES AREA SHALL BE SURFACE MOUNTED TO BOTTOM OF LAY-IN CEILING AT 11'-10". LIGHT FIXTURES IN THE STOCK ROOM SHALL BE SUSPENDED FROM STRUCTURE USING CADDY SPEED LINK. PENTAIR CADDY SPEED LINK UNIVERSAL SUPPORT SYSTEM INCLUDES LOCKING DEVICE, WIRE ROPE AND SPECIALTY END FITTINGS. CADDY SPEED LINK SUPPORT SYSTEM SHALL BE FURNISHED WITH LIGHT FIXTURES. FOR STOCK ROOM, SUSPEND BOTTOM OF LIGHT FIXTURE TO 10'-0" A.F.F. FOR RESTROOMS, OFFICE AND HALL, LIGHT FIXTURES SHALL BE SURFACE MOUNTED TO BOTTOM OF CEILING. FOR LIGHT FIXTURES SURFACE MOUNTED TO T-BAR PER NEC 410-36.
G. COORDINATE LIGHT FIXTURE MOUNTING HEIGHT WITH ARCHITECTURAL PLANS PRIOR TO INSTALL.
H. WALL PACK SHALL BE INSTALLED BETWEEN RECEIVING DOOR AND BACK SALES DOOR ONLY. (UNO)

PANELBOARD A														
BUS AMPS:		600A		LOCATION:		ELECTRICAL ROOM		GROUND BUS:		YES				
MAIN SIZE / TYPE:		MLO		NEMA RATING:		NEMA 1		ISOL. GROUND BUS:		NO				
VOLTS/PHASE:		208Y/120V, 3PH, 4W		AFC VALUE:		TBD		FEED THRU LUGS:		NO				
MOUNTING:		SURFACE		AIC RATING:		65,000		SECTIONS:		1 OF 1				
CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	WIRE SIZE	NOTES	LOAD (VA)			LOAD (VA)	NOTES	WIRE SIZE	BREAKER P	CIRCUIT DESCRIPTION	CKT #	
					A	B	C							
1	PANEL B	125	3	O.L.	4,605	5,805		1,200	BL #1	2	15	REACH-IN COOLER (FUTURE)	2	
3,690						4,890		1,200				4		
4,790						5,980		1,200				6		
7	RTU-1	30	#10	#2	2,883	4,083		1,200	BL #1	2	15	REACH-IN COOLER (FUTURE)	8	
2,883						4,083		1,200				10		
2,883						4,083		1,200				12		
11	RTU-2	50	#8	#2	4,685	7,355		2,670	BL #1	2	40	REACH-IN FREEZER (FUTURE)	14	
4,685						7,355		2,670				16		
4,685						7,355		2,670				18		
17	RTU-3	50	#8	#2	4,685	7,355		2,670	BL #1	2	40	REACH-IN FREEZER (FUTURE)	20	
4,685						7,355		2,670				22		
4,685						7,355		2,670				24		
21	RTU-4	60	#6	#2	5,885	8,555		2,670	BL #1	2	40	REACH-IN FREEZER (FUTURE)	26	
5,885						8,555		2,670				28		
5,885						8,555		2,670				30		
31	SPARE	20	1		0	0	0						32	
33	SPARE	20	1		0	0	0		BL	3	20	SPARE (RESERVED FOR FUTURE EMS PHASE MONITOR)	34	
35	SPARE	20	1		0	0	0						36	
37	LTS - RR'S/OFFICE EF-1 / EF-2	20	1	#12	TS	268		0	BL	1	20	RESERVED FOR FUTURE EMS	38	
39	LTS - SALES (EVEN ROWS)	20	1	#12	TS	600		600		1	20	SPARE	40	
41	LTS - SALES (EVEN ROWS)	20	1	#12	TS	600		1,800		#8	1	20	BUILDING SIGN	42
43	LTS - SALES (ODD ROWS)	20	1	#12	TS	600	1,800	1,200		#4	1	20	PYLON SIGN	44
45	LTS - STOCK	20	1	#12	TS	198		994		#10	1	20	EXT. LIGHTS BLDG	46
47	LTS - SALES (ODD ROWS)	20	1	#12	TS	744		933		#12	1	20	SITE LIGHTING	48
49	LTS - SALES (ODD ROWS)	20	1	#12	TS	744	744	0		1	20	RESERVED FOR ADD. LTG	50	
51	LTS - SALES (ODD ROWS)	20	1	#12	TS	744		744		1	20	RESERVED FOR ADD. LTG	52	
53	LTS - NL/EXIT/EMERG.	20	1	#12	BL, TS	938		938		1	20	RESERVED FOR ADD. LTG	54	
PER PHASE SUB-TOTALS					35,965	34,576	34,329							
PANEL BUS BARS SHALL BE ALUMINUM					TOTAL CONNECTED PANELBOARD (VA)	104,870			TS - VIA TERMINAL STRIP (TEMP.) TO EMS (IN FUTURE)					
					TOTAL CONNECTED PANELBOARD (AMPS)	291			GF - GROUND FAULT INTERRUPTER					
					TOTAL PANELBOARD DEMAND (VA)	107,035			BL - BREAKER LOCKING DEVICE					
					TOTAL PANELBOARD DEMAND (AMPS)	297			OL - RE: ONE-LINE DIAGRAM					
PANEL SCHEDULE NOTES:														
#1. PROVIDE CIRCUIT BREAKERS ONLY FOR FUTURE REFRIGERATION EQUIPMENT BY TENANT.														
#2. COORDINATE BREAKER AND WIRE SIZING REQUIREMENTS WITH MECHANICAL DRAWINGS														

PANELBOARD B															
BUS AMPS:		125A		LOCATION:		ELECTRICAL ROOM		GROUND BUS:		YES					
MAIN SIZE / TYPE:		MLO		NEMA RATING:		NEMA 1		ISOL. GROUND BUS:		YES					
VOLTS/PHASE:		208Y/120V, 3PH, 4W		AFC VALUE:		TBD		FEED THRU LUGS:		NO					
MOUNTING:		SURFACE		AIC RATING:		22K		SECTIONS:		1 OF 1					
CKT #	CIRCUIT DESCRIPTION	BREAKER AMPS	WIRE SIZE	NOTES	LOAD (VA)			LOAD (VA)	NOTES	WIRE SIZE	BREAKER P	CIRCUIT DESCRIPTION	CKT #		
					A	B	C								
1	RECPT - EXT.	20	1	#12	180		380	200	BL, IG	#12	1	20	RECPT - COMM BOARD	2	
3	RECPT - EXT.	20	1	#12	180		380	200	BL, IG	#12	1	20	RECPT - COMM BOARD	4	
5	RECPT - RTU UNITS	20	1	#12	GF, WP	720		1,120	400	BL	#12	1	20	CHECKOUT STATION #1 POS	6
7	RECPT - IRRIGATION	20	1	#12	GF, WP	200		600	400	BL	#12	1	20	CHECKOUT STATION #2 POS	8
9	CHECKOUT STATION (DIRTY #1)	20	1	#12		400		800	400	BL	#12	1	20	CHECKOUT STATION #3 POS	10
11	CHECKOUT STATION (DIRTY #2)	20	1	#12		400		600	200	BL, IG	#12	1	20	RECPT - FUTURE EAS	12
13	CHECKOUT STATION (DIRTY #3)	20	1	#12		400		600	200	BL, IG	#12	1	20	RECPT - FUTURE ATM	14
15	RECPT - FUTURE MONITOR	20	1	#12	180		360	180	IG	#12	1	20	RECPT - OFFICE	16	
17	RECPT - BREAK AREA	20	1	#12	180		360	180	IG	#12	1	20	RECPT - OFFICE	18	
19	RECPT - BREAK AREA	20	1	#12	180		360	180	IG	#12	1	20	RECPT - OFFICE	20	
21	RECPT - STOCK ROOM	20	1	#12	180		360	180	IG	#12	1	20	RECPT - OFFICE PLUG MOLD	22	
23	RECPT - WINDOW	20	1	#12	360		540	180	IG	#12	1	20	RECPT - OFFICE PLUG MOLD	24	
25	RECPT - SALES	20	1	#12	540	1,140		600	GF	#12	1	20	RECPT - DRINKING FOUNTAIN	26	
27	RECPT - SALES	20	1	#12	540		790	250	#12	1	20	RECPT - FUTURE SAFE	28		
29	J-BOX - FUTURE SNACK-WRAP	20	1	#12	400		850	450	#12	1	20	PLUG MOLD DESK AREA	30		
31	AIR CURTAIN 'AIR-1'	20	1	#12	525	525		0				1	20	SPARE	32
33	SPARE	20	1		0		0	0				1	20	SPARE	34
35	SPARE	20	1		0		0	0				1	20	SPARE	36
37	SPARE	20	1		0		0	0				1	20	SPARE	38
39	SPARE	20	1		0		0	0				1	20	SPARE	40
41	SPARE	20	1		0		0	0				1	20	SPARE	42
43	SPARE	20	1		0		0	0	#12	1	20	RECPT - FUTURE ICE CREAM	44		
45	SPARE	20	1		0		0	0	#12	1	20	RECPT - FUTURE INT. ICE	46		
47	SPARE	20	1		0		0	0				1	20	SPARE	48
49	FUTURE HAND DRYER	20	1	#12	GF	1,000	1,000	0				1	20	SPARE	50
51	FUTURE HAND DRYER	20	1	#12	GF	1,000	1,000	0				1	20	SPARE	52
53	WATER HEATER	20	1	#12		1,560		1,760	200	#12	1	20	DUCT DETECTORS	54	
PER PHASE SUB-TOTALS					4,605	3,690	5,230								
PANEL BUS BARS SHALL BE ALUMINUM					TOTAL CONNECTED PANELBOARD (VA)	13,525			LEGEND:						
					TOTAL CONNECTED PANELBOARD (AMPS)	38			TS - VIA TIME SWITCH						
					TOTAL PANELBOARD DEMAND (VA)	13,525			GF - GROUND FAULT INTERRUPTER						
					TOTAL PANELBOARD DEMAND (AMPS)										