MECHANICAL GENERAL NOTES

1. GENERAL
A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, AND ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL BE PART OF THESE SPECIFICATIONS.
B. "PROVIDE" AS USED HEREIN MEANS TO FURNISH AND INSTALL COMPLETE.
C. "FURNISH" AS USED HEREIN MEANS TO PURCHASE AND DELIVER TO THE PROJECT SITE IN UNDAMAGED CONDITION. WHERE APPLICABLE, SUBMIT FOR REVIEW AND APPROVAL AND COORDINATE WITH THE CONTRACT DOCUMENTS.
D. "INSTALL" AS USED HEREIN MEANS TO STORE AND PROTECT FROM DAMAGE, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS, AND MAKE ALL CONNECTIONS COMPLETE.
E. THE TERM "CONTRACTOR" AS USED HEREIN MEANS ANY CONTRACTOR OR SUBCONTRACTOR CONTRACTED TO PERFORM WORK INCLUDED IN AND DEFINED BY THIS SECTION.
F. MECHANICAL WORK SHALL BE PROVIDED IN STRICT COMPLIANCE WITH THE NEW YORK CITY MECHANICAL CODE 2022, AND ALL APPLICABLE LOCAL ORDINANCES, STATE LAWS AND FEDERAL LAWS.

2. PRIOR TO BIDDING:
A. THOROUGHLY REVIEW THE BID INSTRUCTIONS INCLUDING ALL CIVIL, ARCHITECTURAL, STRUCTURAL, AND MEP CONSTRUCTION DOCUMENTS. OBTAIN AND THOROUGHLY EXAMINE THE MANUFACTURERS' WRITTEN INSTALLATION INSTRUCTIONS, DETAILS, AND REQUIREMENTS FOR THE SCHEDULED AND SPECIFIED EQUIPMENT AND MATERIALS FOR AMBIGUOUS, CONTRADICTORY, OR CONFLICTING ITEMS WITHIN THE CONSTRUCTION DOCUMENTS, THE CONTRACTOR SHALL REQUEST CLARIFICATION IN A WRITTEN "REQUEST FOR INFORMATION" (RFI), AT LEAST FIVE (5) WORKING DAYS PRIOR TO BID DATE. RFI-RELATED WORK NOT CLARIFIED PRIOR TO BID SHALL BE PROVIDED PER THE ARCHITECT (ENGINEER) IN STRICT ACCORDANCE WITH THE MOST STRINGENT MATERIALS, EQUIPMENT, AND SCOPE OF WORK.
B. IF THE CONTRACTOR BELIEVES THE DRAWINGS AND SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE ARCHITECT (ENGINEER) IN WRITING.
C. NO ALLOWANCES WILL BE MADE DUE TO CONTRACTOR'S UNFAMILIARITY WITH THE CONSTRUCTION DOCUMENTS OR FOR THE FAILURE OF THE CONTRACTOR TO OBTAIN CLARIFICATIONS PRIOR TO BID.
D. VISIT THE JOB SITE AND THOROUGHLY INVESTIGATE CONDITIONS. THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.
E. REFER TO APPLICABLE CODES CITED IN CONSTRUCTION DOCUMENTS. EXAMINE GOVERNING STATE AND LOCAL CODES, AND LOCAL REGULATIONS AND ORDINANCES, AND PROVIDE ALL EQUIPMENT AND INSTALLATION IN STRICT ACCORDANCE WITH SAME.
F. REFER TO CONSTRUCTION DOCUMENTS FOR SCHEDULED AND SPECIFIED MATERIALS AND EQUIPMENT. INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURERS' WRITTEN INSTRUCTIONS AND DETAILS.
G. ALL WORK SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE LANDLORD'S CONSTRUCTION CRITERIA AND TENANT/LANDLORD AGREEMENT. THIS CONTRACTOR SHALL EXAMINE THE LANDLORD CRITERIA AND TENANT/LANDLORD AGREEMENT AND THEY SHALL BE PART OF THESE SPECIFICATIONS. NO ALLOWANCES WILL BE MADE DUE TO CONTRACTOR'S UNFAMILIARITY WITH THESE DOCUMENTS.

3. BIDDING
A. SUBMISSION OF A BID ACKNOWLEDGES THAT THE CONTRACTOR HAS REVIEWED THE BID INSTRUCTIONS, HAS VISITED THE SITE, EXAMINED ALL CONSTRUCTION DOCUMENTS, AND AGREES TO ALL ITEMS AND CONDITIONS WITHIN THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR'S BID SHALL INCLUDE ALL MECHANICAL WORK IN THE CONSTRUCTION DOCUMENTS, INCLUDING MECHANICAL WORK RELATED TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS.

4. PERMITS
A. SECURE AND PAY FOR ALL PERMITS, LICENSES, AND INSPECTIONS REQUIRED BY THE AHJ FOR THIS WORK.

5. SUBSTITUTIONS
A. MANUFACTURERS' EQUIPMENT, APPLIANCES, AND MATERIALS SCHEDULED, NOTED, AND SPECIFIED IN THE CONSTRUCTION DOCUMENTS ARE THE DESIGN STANDARD. NO SUBSTITUTIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL BY THE ARCHITECT OR ENGINEER. IN BIDDING, CONTRACTOR SHALL NOT ASSUME ACCEPTANCE OF SUBSTITUTIONS. CONTRACTOR MUST STATE IN SUBSTITUTION REQUEST: "PROPOSED SUBSTITUTIONS ARE OF EQUAL OR HIGHER QUALITY, EFFICIENCY AND DEPENDABILITY COMPARED TO THE SPECIFIED EQUIPMENT AND MATERIAL. CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS." IF DEEMED NECESSARY BY THE ARCHITECT OR ENGINEER, SUBSTITUTIONS WHICH ARE NOT APPROVED OR NOT EQUAL TO DESIGN STANDARD SHALL BE REMOVED AND THE SCHEDULED, NOTED, AND SPECIFIED EQUIPMENT AND MATERIALS SHALL BE INSTALLED AT CONTRACTOR'S EXPENSE. SUBMITTING CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR ADDITIONAL ENGINEERING COSTS AND COSTS TO OTHER CONTRACTORS DUE TO SUBSTITUTIONS.

6. UTILITIES
A. THE UTILITY INFORMATION NOTED AND SPECIFIED IN THE CONSTRUCTION DOCUMENTS ARE THE DESIGN STANDARD AND AS ACCURATE AS COULD BE SECURED BUT IS NOT GUARANTEED. PRIOR TO INSTALLING ANY UTILITY-RELATED WORK, THIS CONTRACTOR SHALL CONTACT THE LOCAL UTILITY - IN WRITING - TO COORDINATE AND CONFIRM THE SERVICE AND CONNECTION REQUIREMENTS WITH THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL REQUEST THE UTILITY SERVICE AND CONNECTION IN AMPLE TIME TO MEET THE CONSTRUCTION SCHEDULE. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND THE ACTUAL UTILITY SERVICE SHALL BE SUBMITTED WITHOUT DELAY TO THE ARCHITECT (ENGINEER) IN WRITING, AS A "REQUEST FOR INFORMATION" (RFI). RFI-SUBJECT UTILITY WORK MUST BE RESOLVED WITH THE ARCHITECT (ENGINEER) PRIOR TO INSTALLATION. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY AND ALL COSTS FOR WORK NOT COORDINATED WITH THE UTILITY AND NOT SUBMITTED TO THE ARCHITECT (ENGINEER) FOR RESOLUTION.

7. SCHEDULING
A. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION, AS SCHEDULED BY THE GC. PROVIDE COMPLETE INFORMATION AND FULL COOPERATION WITH OTHER CONTRACTORS AND TRADES, AS REQUIRED FOR THE TIMELY COMPLETION AND COORDINATION OF THE COMPLETE PROJECT.
B. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY AHJ.
C. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE PROJECT COMPLETION.

8. SCOPE
A. PROVIDE PERMIT(S), INSPECTIONS, FINAL CERTIFICATE(S) OF INSPECTION BY AHJ, PERMIT AND INSPECTION FEES, AND ALL MATERIALS, EQUIPMENT, RIGGING, AND LABOR NECESSARY FOR A COMPLETE AND FULLY OPERATING HVAC SYSTEM.
B. STRUCTURAL ENGINEERING FOR THE SUPPORT AND MOUNTING OF THE SCHEDULED AND SPECIFIED MATERIALS AND EQUIPMENT IS THE RESPONSIBILITY OF OTHERS . THE MECHANICAL CONSTRUCTION DOCUMENTS DO NOT INCLUDE STRUCTURAL ENGINEERING FOR SUPPORT OF MECHANICAL EQUIPMENT, APPLIANCES, OR SYSTEMS.
C. THROUGHOUT CONSTRUCTION, THIS CONTRACTOR'S WORK SHALL INCLUDE ONGOING COORDINATION OF THIS WORK WITH THE CONSTRUCTION DOCUMENTS. THE WORK OF ALL OTHER TRADES, AND WITH UTILITY SERVICE(S) AND UTILITY CONNECTION(S). FOR AMBIGUOUS, CONTRADICTORY, OR CONFLICTING ITEMS WITHIN THE CONSTRUCTION DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE ACTUAL UTILITY SERVICE AND CONNECTION REQUIREMENTS, THE CONTRACTOR SHALL REQUEST CLARIFICATION IN A WRITTEN "REQUEST FOR INFORMATION" (RFI). RFI SHALL BE ISSUED WITHOUT DELAY AND PRIOR TO PROCEEDING WITH ANY RFI-SUBJECT WORK. RFI NOT CLARIFIED PRIOR TO BID SHALL BE PROVIDED PER THE ARCHITECT (ENGINEER) IN STRICT ACCORDANCE WITH THE MOST STRINGENT MATERIALS, EQUIPMENT, AND SCOPE OF WORK, AT NO ADDITIONAL COST TO THE OWNER.
D. PROVIDE HOISTING FOR ALL MATERIALS AND EQUIPMENT FURNISHED AND/OR INSTALLED, IN ACCORDANCE WITH ALL CITY, STATE AND FEDERAL RULES AND REGULATIONS.
E. INSTALL ALL WORK AND EQUIPMENT RIGID, DEAD LEVEL, PLUMB, AND TRUE-TO-LINE. UNLESS NOTED OTHERWISE, SUPPORT AND MOUNTING OF EQUIPMENT, DUCT, PIPING, ETC., ARE THIS CONTRACTOR'S MEANS AND METHODS. THE CONTRACTOR SHALL UNDERSTAND THE SPECIFIED AND SCHEDULED EQUIPMENT AND MATERIALS AND MEANS AND METHODS OF INSTALLATION. THIS CONTRACTOR SHALL PROVIDE ALL ACCESSORIES REQUIRED FOR PROPER SUPPORT WHETHER SHOWN ON THE DRAWINGS OR NOT. IF SUPPORTS ARE REQUIRED, CONTRACTOR SHALL SUBMIT DRAWINGS TO THE ARCHITECT FOR APPROVAL.
F. PROVIDE ACCESSORY MOUNTING HARDWARE INCLUDING BUT NOT LIMITED TO STRUCTURAL STEEL, STRUT SYSTEMS, ALL THREAD RODS, AND BRACES, AS REQUIRED TO MOUNT EQUIPMENT. PROVIDE STEEL SHAPES AND FRAMES TO SUPPORT EQUIPMENT WHERE NEEDED. ALL SYSTEMS SHALL BE SUPPORTED INDEPENDENT OF AND ISOLATED FROM EQUIPMENT VIBRATION.
G. PRODUCTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' PRINTED INSTALLATION AND MAINTENANCE LITERATURE. COMPONENTS REQUIRING PERIODIC MAINTENANCE OR ADJUSTMENTS SHALL BE INSTALLED AS TO PERMIT ACCESS WITHOUT DAMAGE TO STRUCTURE, FINISHES, OR OTHER EQUIPMENT.
H. PROVIDE ALL LABOR, EQUIPMENT AND MATERIAL REQUIRED FOR THE REINSTALLATION AND RE-SUPPORT OF EXISTING SERVICES (DUCTWORK, ELECTRICAL CONDUIT, PIPING, EXISTING EQUIPMENT, ETC.) DISTURBED BY THE INSTALLATION OF NEW WORK UNDER THIS CONTRACT, INCLUDING THE WORK OF OTHER TRADES.
I. DEMOLITION: REFER TO THE ARCHITECTURAL DRAWINGS FOR THE GENERAL SCOPE OF DEMOLITION. THIS CONTRACTOR SHALL DISCONNECT AND CAREFULLY REMOVE ALL EXISTING HVAC EQUIPMENT LOCATED IN DEMOLISHED AREAS INCLUDING ROOF, PLENUMS, CEILINGS, WALLS, AND FLOORS. U.N.O., DISCONNECT AND REMOVE EXISTING HVAC SYSTEMS COMPLETE, INCLUDING EQUIPMENT, CURBS, DUCTS, INSULATION, AIR DEVICES, AND PIPING LOCATED IN THESE AREAS. ALL HVAC SYSTEM COMPONENTS INCLUDING AIR TERMINAL UNITS, FANS, MOTORS, CONTROL DEVICES AND SENSORS, DAMPERS, ACTUATORS, HANGERS, RESTRAINTS, MOUNTING HARDWARE, ETC., SHALL BE REMOVED AND LEGALLY DISPOSED OF BY THIS CONTRACTOR.
J. UNLESS NOTED OTHERWISE, ABANDONMENT IN PLACE (AIP) IS NOT ACCEPTABLE. UNUSED EQUIPMENT, DUCT, PIPING, AND OTHER COMPONENTS WITHIN OR SERVING THIS SPACE MUST BE COMPLETELY REMOVED TO POINT OF ORIGIN. ENDS OF SYSTEMS BEYOND GENERAL SCOPE OF DEMOLITION MAY BE ABANDONED ONLY WITH WRITTEN APPROVAL OF ARCHITECT (ENGINEER). WHERE THESE ABANDONED ENDS TERMINATE, TRIM CLEANLY AND PROPERLY CAP OR SEAL IN AN APPROVED MANNER, LEAVING TERMINATION SAFE AND SECURE BEHIND NEW FINISHES. MAINTAIN SYSTEM CONTINUITY TO HVAC SYSTEMS SERVING AREAS BEYOND GENERAL DEMOLITION, AS NEEDED. THIS INCLUDES BUT IS NOT LIMITED TO REMOVAL, MODIFICATION AND/OR REINSTALLATION OF EQUIPMENT, AS NEEDED. COMPLETION OF THIS PROJECT SHALL INCLUDE RETURNING THESE ADJACENT AREAS TO FULLY FUNCTIONING OPERATION.
K. CONTRACTOR SHALL PROVIDE DAILY CLEAN-UP, REMOVAL AND LEGAL DISPOSAL OF ALL RUBBISH GENERATED BY THIS WORK.
L. AS-BUILT DRAWINGS: DURING CONSTRUCTION, AS WORK PROCEEDS, MAINTAIN AS-BUILT MARK-UPS OF ACTUAL INSTALLATION. AT CONSTRUCTION COMPLETION AND PRIOR TO TURNOVER TO OWNER , PROVIDE FINAL MARK-UPS IN PDF AND DWG FORMAT TO ARCHITECT AND ENGINEER.
M. PROVIDE FINAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS, AS NOTED (GAS FIRED EQUIPMENT, COMMERCIAL KITCHEN EQUIPMENT, LAUNDRY EQUIPMENT, ETC.).
N. DO NOT ROUTE ANY PIPING OR DUCTWORK ABOVE ELECTRICAL PANELS.
O. UNLESS NOTED OTHERWISE, ALL DUCT AND PIPE SHALL BE RUN PARALLEL TO OR AT RIGHT ANGLES TO WALLS, BEAMS, OR COLUMNS. PIPE SHALL BE RUN AS DIRECT AS POSSIBLE - AVOID UNNECESSARY OFFSETS AND MAXIMIZE HEADROOM.
P. PRIOR TO ORDERING EQUIPMENT, THIS CONTRACTOR SHALL PROVIDE FINAL COORDINATION OF ELECTRICAL POWER REQUIREMENTS WITH THE ELECTRICAL CONTRACTOR.
Q. CONTRACTOR SHALL MAINTAIN ACTIVITIES WITHIN AREA APPROVED BY OWNER OR GC. CONTRACTOR'S ACTIVITIES SHALL NOT INTERFERE WITH THE OWNER'S OPERATIONS, EXCEPT AS APPROVED.
R. EXCEPT THOSE COORDINATED AND APPROVED BY THE G.C., CONTINUITY OF ALL BUILDING SERVICES AND UTILITIES SERVING BUILDING FACILITIES SHALL BE MAINTAINED UNINTERRUPTED AT NO ADDITIONAL COST. PROVIDE ALL NECESSARY CROSS CONNECTIONS AND TEMPORARY CONNECTIONS REQUIRED TO PERFORM THE CONSTRUCTION, AS DETERMINED BY THE G.C., AND NEEDED TO MAINTAIN CONTINUITY OF THE BUILDING SERVICE(S). THIS CONTRACTOR SHALL SCHEDULE WORK SUCH THAT ANY AND ALL CONNECTIONS, AND/OR REARRANGEMENT OF EXISTING EQUIPMENT, PIPING, ETC., SHALL ASSURE FULL RESUMPTION OF SERVICE(S) AT THE G.C.'S DESIGNATED TIME.

9. CODE REQUIREMENTS
A. ALL WORK SHALL COMPLY WITH THE CONSTRUCTION DOCUMENTS OR, AS A DIRECTED BY THE ARCHITECT (ENGINEER), AND SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND REGULATIONS OF THE AHJ, WHETHER SO SHOWN OR NOT. CONTRACTOR SHALL BE FAMILIAR WITH PROVISIONS OF ALL APPLICABLE CODES AND SHALL ENSURE THE WORK COMPLIES WITH ALL LOCAL, STATE AND FEDERAL CODES, TRADE STANDARDS AND MANUFACTURER'S RECOMMENDATIONS. IF CONTRACTOR BELIEVES THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH CODE REQUIREMENTS, IMMEDIATELY NOTIFY THE G.C. IN WRITING. DO NOT INSTALL WORK NOT COMPLYING WITH CODE REQUIREMENTS. IN CASE OF CONFLICT BETWEEN THE CONSTRUCTION DOCUMENTS AND THE CODES AND ORDINANCES, THE HIGHEST STANDARD SHALL APPLY. AS A MINIMUM STANDARD, CONTRACTOR SHALL SATISFY CODE REQUIREMENTS. ALL MODIFICATIONS REQUIRED BY AHJ SHALL BE MADE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. BEFORE COMMENCING WORK NOT SHOWN IN DOCUMENTS BUT REQUIRED TO ACHIEVE FULL COMPLIANCE WITH CODES, CONTRACTOR SHALL NOTIFY ARCHITECT (ENGINEER).

10. CUTTING & PATCHING
A. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS A REQUIRED FOR EQUIPMENT, PIPE, DUCTWORK. PRIOR TO CUTTING, PERFORM NON-DESTRUCTIVE TESTING TO VERIFY LOCATION OF PIPING, CONDUIT, AND STRUCTURAL COMPONENTS. NOTIFY ARCHITECT (ENGINEER) OF ANY DISCREPANCIES. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACE AND READY TO RECEIVE FINISH. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING.

11. FIRE STOPPING
A. PROVIDE FIRE STOPPING FOR PENETRATIONS OF DUCT, PIPING, AND A. OTHER MECHANICAL EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES), AND VERTICAL SERVICE SHAFT WALLS AND PARTITIONS. (WHERE THIS WORK IS BEING PERFORMED UNDER A GC, PRIOR TO INSTALLATION, THIS CONTRACTOR SHALL COORDINATE FIRESTOPPING WITH GC). FIRESTOP SYSTEM INSTALLATION MUST MEET REQUIREMENTS OF ASTM E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN THAT OF CONSTRUCTION BEING PENETRATED. INSTALL IN STRICT ACCORDANCE WITH UL FIRE RESISTANCE DIRECTORY, AHJ, AND MANUFACTURER'S SPECIFIED REQUIREMENTS. ONLY TESTED FIRESTOP SYSTEMS BY "3M", "HILTI", OR EQUAL SHALL BE USED. REFER TO ARCHITECTURAL DRAWINGS FOR ASSEMBLY RATING.

12. MATERIALS AND WORKMANSHIP
A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE NEW U.N.O., FREE OF DEFECTS, AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND DETAILS, AND INDEPENDENTLY TESTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY - UNDERWRITERS LABORATORIES (UL) OR INTERTEK (ETL), ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY U.N.O.
B. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E84 OR UL 723. ALL MATERIALS INSTALLED IN PLENUM SPACES SHALL BE LISTED AND LABELED FOR SUCH APPLICATION.
C. ALL WORK SHALL BE SUPERVISED BY THE INSTALLING CONTRACTOR'S COMPETENT AND SKILLED FOREMAN. ALL WORK SHALL BE PERFORMED BY COMPETENT AND SKILLED WORKERS, WITH ALL TRADE AND MANUFACTURER REQUIRED TRAINING, AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE BEST QUALITY STANDARDS OF THE TRADE AND IN CONFORMANCE WITH ALL FEDERAL, STATE, AND LOCAL CODES AND STANDARDS, INCLUDING APPLICABLE OSHA REGULATIONS. PROPERLY PROTECT WORK DURING CONSTRUCTION. AT CONSTRUCTION COMPLETION, THOROUGHLY CLEAN WORK AND REMOVE ALL DEBRIS FROM THE PREMISES.

13. PROTECTION OF WORK AND PROPERTY
A. PROTECT ALL WORK FROM DAMAGE AND PROTECT THE OWNER'S PROPERTY FROM DIRT, DAMAGE, OR LOSS ARISING FROM CONTRACTOR WORK.
B. COMPLY WITH OSHA REQUIREMENTS AND TAKE ALL NECESSARY PRECAUTIONS FOR EMPLOYEE SAFETY.
C. PROTECT ALL OPEN PIPING, DUCT, AND EQUIPMENT, EXISTING AND NEW FROM CONSTRUCTION DIRT AND DUST. COVER, CAP, OR PLUG OPEN ENDS OF PIPING AND DUCT. KEEP EQUIPMENT CLOSED OR COVER AND SEAL EQUIPMENT OPENINGS. ANY MECHANICAL SYSTEMS, NEW AND/OR EXISTING OPERATED DURING CONSTRUCTION SHALL BE PROTECTED BY COVERING EACH RETURN AIR DUCT OPENING WITH MERV 8 FILTERS AND INSTALLING MERV 8 FILTER(S) IN EQUIPMENT FILTER RACK. PRIOR TO TESTING AND BALANCING, REMOVE FILTERS FROM FILTER RACKS AND INSTALL NEW MERV 8 FILTERS.
D. AT COMPLETION OF WORK, PRIOR TO EQUIPMENT START-UP, REMOVE COVERS, CAPS, OR PLUGS ON DUCT AND PIPING.

14. DAMAGE BY LEAKS
A. THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL DAMAGES TO THE PROPERTY (GROUNDS, WALKS, ROADS, BUILDING COMPONENTS, FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS, HVAC SYSTEMS, AND THEIR EQUIPMENT AND CONTENT) CAUSED BY LEAKS IN THE SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED AS PART OF THIS WORK. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

15. DRAWINGS AND SPECIFICATIONS
A. DRAWINGS ARE DIAGRAMMATIC AND INTENDED TO SHOW GENERAL LOCATIONS OF DUCTS, PIPES, AND EQUIPMENT AND THE METHODS OF CONNECTING AND CONTROL. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONDITIONS AND THE WORK OF OTHER TRADES PERMIT. THE DRAWINGS ARE NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL OR ALL OFFSETS, TRANSITIONS, OR FITTINGS REQUIRED FOR A COMPLETE SYSTEM NOR IS IT IMPLIED THAT ALL CONFLICTS BETWEEN BUILDING ELEMENTS AND/OR OTHER TRADES ARE INDICATED. DO NOT SCALE DRAWINGS. EXAMINE FIELD CONDITIONS AND SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR EXACT LOCATION OF DOORS, WINDOWS, LIGHTS, ETC.
B. THE DRAWINGS AND SPECIFICATIONS ARE MUTUALLY COMPLEMENTARY, AND ANY WORK REQUIRED BY ONE BUT NOT BY THE OTHER SHALL BE REQUIRED BY BOTH.
C. PRIOR TO INSTALLING EQUIPMENT, DUCT, OR PIPE COORDINATE PROPOSED LOCATIONS WITH EACH TRADE/DISCIPLINE AND GC. EXAMINE EACH DISCIPLINE'S DRAWINGS FOR CONSTRUCTION DETAILS, CEILING HEIGHTS, REQUIRED CLEARANCES, AND SPACE CONSTRAINTS. PROVIDE SYSTEMS INSTALLATION BASED ON THIS EXAMINATION AND COORDINATION. IMMEDIATELY REPORT INSTALLATION CONFLICTS IN WRITING TO THE GC. RESOLVE ALL CONFLICTS WITH GC AND OTHER TRADES PRIOR TO PROCEEDING. INSTALLING CONTRACTOR IS FULLY RESPONSIBLE FOR CORRECT INTERPRETATION AND APPLICATION OF ALL SIZES AND DIMENSIONS.
D. SIGNIFICANT DEVIATIONS OR CHANGES FROM THE DRAWINGS, WHICH ARE REQUIRED TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS MUST BE REVIEWED AND APPROVED BY THE ARCHITECT (ENGINEER) BEFORE PROCEEDING. IF THE CONTRACTOR BELIEVES CHANGES TO THE CONTRACT DRAWINGS ARE NECESSARY, SHOP DRAWINGS WITH WRITTEN DESCRIPTIONS OF THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE ARCHITECT (ENGINEER) FOR APPROVAL.
E. ALL PIPE, DUCTS, VENTS, ETC., EXTENDING THROUGH WALLS AND ROOF SHALL BE FLASHED WATERPROOF. PROVIDE ALL FLASHING FOR PIPE AND DUCTWORK PENETRATIONS BUILDING ENVELOPE. PROVIDE DUCT AND/OR PIPE SLEEVES AT WALL PENETRATIONS. SEAL ANNULAR SPACE WEATHER TIGHT.

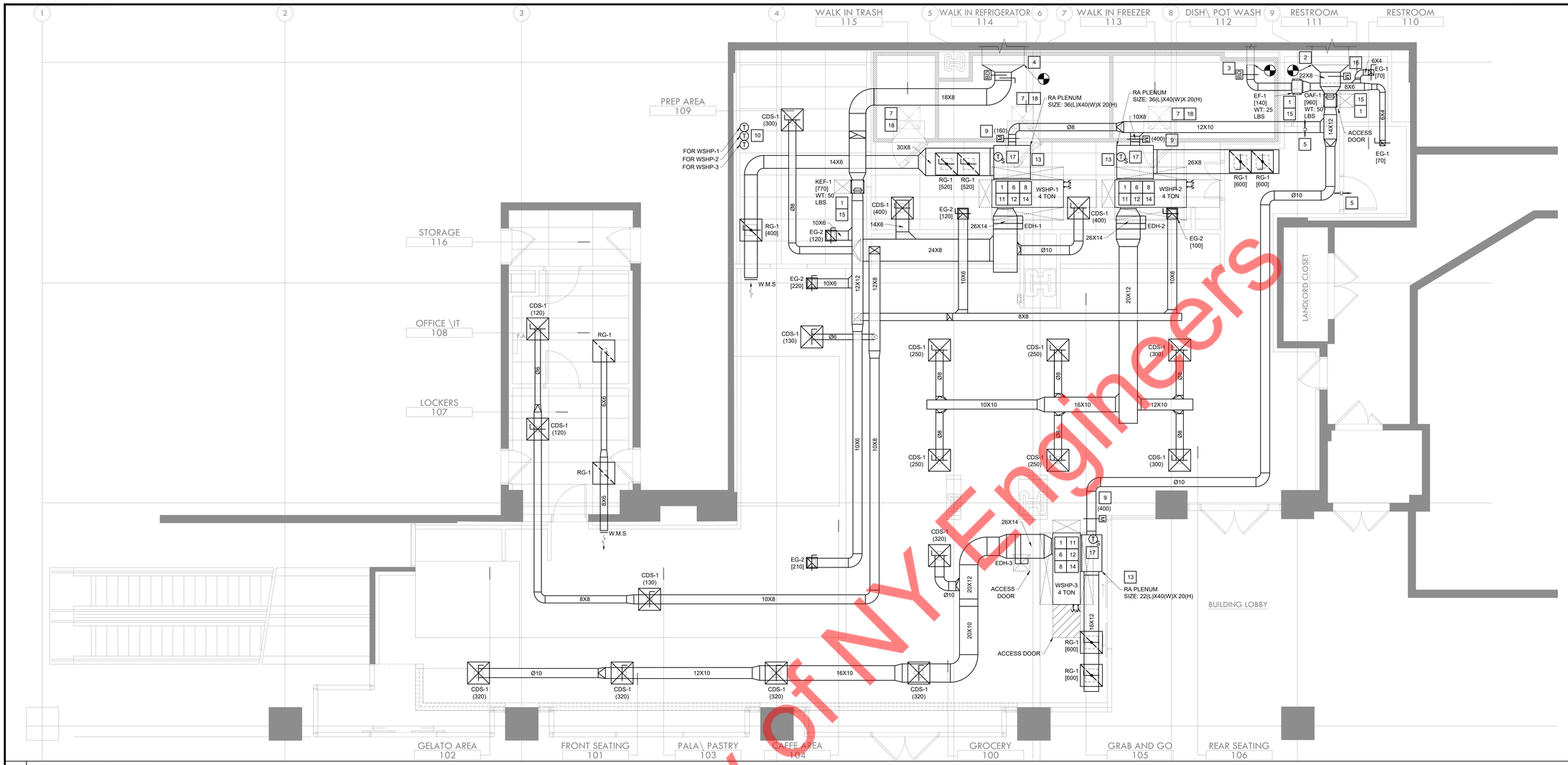
16. CONTROLS
A. PROVIDE COMPLETE EQUIPMENT CONTROLS, INCLUSIVE OF ALL COMPONENTS, VOLTAGES, PROGRAMMING, WIRING ETC. FOR COMPLETE AND OPERATIONAL SYSTEMS. MOUNT THERMOSTATS AND SWITCHES 4'-0" ABOVE FINISHED FLOOR. MOUNT OTHER SENSORS (HUMIDITY, CO2, CO, NOX, ETC.) PER MANUFACTURER'S IOM. PRIOR TO MOUNTING, COORDINATE THERMOSTAT LOCATION(S) WITH FINAL FIXTURE AND EQUIPMENT. DO NOT MOUNT THERMOSTATS IN DIRECT SUNLIGHT, IN DISCHARGE OR EQUIPMENT, ON WALLS WITH INTERNAL HEAT SOURCES (DUCT OR OR ON EXTERIOR WALLS. IF EXTERIOR WALL MOUNTING IS NECESSARY, PROVIDE INSULATED MOUNTING BASE. WHERE THERMOSTAT LOCATION IS SUBJECT TO DAMAGE, PROVIDE LOCKABLE HIGH-IMPACT GUARD.

17. PIPING
A. IN FINISHED AREAS, ALL PIPING SHALL BE CONCEALED UNLESS NOTED OTHERWISE.
B. SEE PIPE SCHEDULE FOR PIPE MATERIALS AND PIPE INSULATION.
C. DO NOT INSTALL PVC PIPING IN PLENUM AREAS.
D. PAINT PIPE TO MATCH OWNER'S OR BUILDING STANDARD.
E. PROVIDE PIPE LABELS AND FLOW DIRECTION PER BUILDING OR FACILITY'S STANDARD OR AS SCHEDULED. ORIENT ALL MARKERS SO AS TO BE VISIBLE FROM FLOOR LEVEL. AT A MINIMUM PIPE LABELS AND FLOW DIRECTION MARKERS SHALL BE LOCATED:
   - AT LEAST ONCE IN EACH ROOM
   - AT EQUIPMENT CONNECTIONS
   - AT ACCESS DOORS
   - AT BRANCH MAINS
   - ON ALL ACCESSIBLE PIPE A MAXIMUM OF 25' BETWEEN MARKERS.
F. BRANCH TAKE-OFFS SHALL BE MADE WITH SWING CONNECTIONS AS REQUIRED T AVOID STRESS AT THESE POINTS.
G. DO NOT INSTALL ANY PIPING ABOVE ELECTRICAL PANELS AND/OR TRANSFORMERS.
H. INSTALL AND SIZE REFRIGERANT PIPE IN STRICT ACCORDANCE WITH EQUIPMENT/APPLIANCE MANUFACTURER'S IOM. DO NOT INSTALL REFRIGERANT PIPE BELOW GROUND. REFRIGERANT PIPE INSTALLED ON BUILDING EXTERIOR SHALL BE ROUTED TO MINIMIZE EXTERIOR EXPOSURE. INSULATE REFRIGERANT PIPE PER MANUFACTURER'S IOM. PROVIDE INSULATION EXPOSED TO AMBIENT CONDITIONS WITH A CONTINUOUS 30 MIL PVC JACKET.
I. ROUTE PIPE THROUGH ROOF WITH ALUMINUM PIPE HOOD, PATE CURB MODEL "PHA-2" WITH 14" TALL MODEL "G-2" CURB. SEAL PIPE THROUGH CURB WEATHER-TIGHT.
J. ON HYDRONIC PIPING, PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS TO ALLOW BLEEDING OF AIR FROM THE SYSTEM, AND BALL VALVES WITH HOSE END DRAIN FITTINGS AT ALL LOW POINTS TO ALLOW DRAINING THE SYSTEM.
K. PRIOR TO INSTALLING EQUIPMENT/APPLIANCES, CAREFULLY CONSIDER FALL REQUIREMENTS OF CONDENSATE DRAIN PIPE. PROVIDE MINIMUM 1/8" / FOOT SLOPE. EXTEND CONDENSATE DRAIN PIPE TO AN APPROVED RECEPTOR AND TERMINATE VIA AN INDIRECT CONNECTION.
L. ALL HOLES REQUIRED THROUGH EXISTING FLOORS AND MASONRY WALLS SHALL BE CORE DRILLED.

18. DUCT MOUNTED SMOKE DETECTORS
A. DUCT MOUNTED SMOKE DETECTORS SHALL BE PROVIDED BY E.C. AND UPON DETECTING SMOKE, SHALL SHUT DOWN PROTECTED AIR SYSTEM.

19. SHOP DRAWINGS
A. SUBMIT SHOP DRAWINGS ON SCHEDULED AND NOTED EQUIPMENT AND MATERIALS. PRIOR TO SUBMITTAL, EACH SHOP DRAWING SHALL BE REVIEWED BY THE CONTRACTOR TO CONFIRM THAT THE PROPOSED EQUIPMENT IS CLEARLY MARKED, HIGHLIGHTED, AND NOTED. ALL DIMENSIONS, QUANTITIES, CONNECTIONS, CAPACITATES AND ACCESSORIES SHALL BE CLEARLY SHOWN IN CONFORMANCE WITH THE CONTRACT DOCUMENTS, AND SHALL BE MARKED OR STAMPED TO CONFIRM THAT SUCH REVIEW WAS MADE AND COMPLIANCE WAS CONFIRMED. SHOP DRAWING SUBMITTED WITHOUT BEING MARKED, HIGHLIGHTED, AND NOTED WILL BE REJECTED WITHOUT REVIEW.
B. PROVIDE ADEQUATE TIME FOR SUBMITTAL REVIEW AND CORRECTIONS, IF ANY, T PREVENT CONSTRUCTION DELAY. DO NOT PERFORM ANY PORTION OF WORK WHICH REQUIRES APPROVED SUBMITTALS UNTIL THE RESPECTIVE SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.
C. REVIEW OF SHOP DRAWINGS BY THE OWNER, OWNER'S AGENT, ARCHITECT, OR ENGINEER IS FOR GENERAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR IS SOLELY RESPONSIBILITY FOR COMPLYING WITH ALL TERMS OF THE CONTRACT DOCUMENTS AND FOR PERFORMANCE OF ALL EQUIPMENT AND MATERIALS PURCHASED, FOR QUANTITIES, PROPER FIT, AND OTHER DIMENSIONAL REQUIREMENTS.

20. DUCTWORK
A. REFER TO KEYED NOTES FOR CLARIFICATION OF DUCT DIMENSIONS. PROVIDE ALL DUCTWORK IN STRICT ACCORDANCE WITH THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION "HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE", LATEST EDITION UNLESS NOTED OTHERWISE. SHEET METAL SHALL BE GALVANIZED SHEET METAL. ALL EXPOSED DUCTWORK SHALL HAVE A MILL-PHOSPHATIZED FINISH FOR PAINT ADHESION. EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM TYPE. NO FIBERGLASS DUCTBOARD WILL BE ALLOWED.
B. PROVIDE TURNING VANES AT ALL CHANGES IN DIRECTION.
C. UNLESS NOTED OTHERWISE, EACH DUCTED AIR DEVICE SHALL BE PROVIDED WITH A VOLUME DAMPER, WHETHER SHOWN ON THE PLANS OR PROVIDE A VOLUME DAMPER AT EACH BRANCH DUCT SERVING AN AIR DEVICE AND/OR AS SHOWN, DETAILED, AND SPECIFIED. WHERE A DUCT MOUNTED VOLUME DAMPER WOULD BE INACCESSIBLE, PROVIDE A VOLUME DAMPER IN THE AIR DEVICE GRILLE NECK OR A DAMPER WITH REMOTE CABLE CONTROL. PROVIDE EACH ROUND BRANCH DUCT TAKE-OFF FROM MAIN DUCT WITH SPIN-IN FITTING AND VOLUME BALANCING DAMPER. VOLUME DAMPERS SHALL BE YOUNG REGULATOR MODEL 5020R LOCKING QUADRANT VOLUME DAMPER WITH 2" HANDLE STANDOFF FO



1 MECHANICAL FIRST FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL BALANCE EACH DEVICE WITH THE CFM SHOWN ON PLAN.
2. NEW DUCTWORK SHOWN ON PLAN ARE SCHEMATIC ONLY. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING. OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA PIPING, DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.
3. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS BEFORE FABRICATION OF DUCTWORK, PIPING ETC.
4. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE AIR STREAM DIMENSIONS.
5. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.
6. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.
7. MOUNT DUCTWORK AS HIGH AS POSSIBLE.
8. TEST AND BALANCE AIR SYSTEMS. PROVIDE REPORT TO G.C AND OWNER.
9. PROVIDE R-6 INSULATION FOR SUPPLY AND R-6 FOR RETURN DUCT.
10. COORDINATE ALL EQUIPMENT WITH STRUCTURAL.
11. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/ BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS.
12. FOR SUPPLY AND RETURN AIR DUCTS PROVIDE ACOUSTICAL LINING WITH R-6 INSULATION RATING UP TO 10' OF DUCT RUN FROM WSHP. PROVIDE R-6 THERMAL INSULATION AFTER 10' OF DUCT RUN FROM AC UNITS.
13. ALL DUCT SIZES SHOWN ON MECHANICAL FLOOR PLANS ARE CLEAR INSIDE.INTERNAL AND EXTERNAL INSULATION THICKNESS OF DUCTS SHALL BE CONSIDERED SEPARATELY.
14. PROVIDE OPPOSED BLADE VOLUME DAMPERS AT FACE OF ALL CEILING SUPPLY DIFFUSERS, RETURN AND EXHAUST GRILLES.
15. RUN CONTROL WIRING FROM TEMPERATURE SENSOR TO THE CORRESPONDING THERMOSTAT IN THE OFFICE.
16. GRAVITY (NON MOTORIZED) DAMPERS SHALL HAVE AN AIR LEAKAGE RATE NOT GREATER THAN 40 CFM/FT2 WHERE LESS THAN 24 INCHES IN EITHER DIMENSION. THE RATE OF AIR LEAKAGE SHALL BE DETERMINED AT 1.0 INCH WATER GAUGE WHEN TESTED IN ACCORDANCE WITH AMCA 500D FOR SUCH PURPOSE.THE DAMPERS SHALL BE LABELED BY AN APPROVED AGENCY.
17. FOR CEILING MOUNTED SMOKE AND CARBON MONOXIDE DETECTORS, REFER TO FIRE ALARM DRAWINGS.
18. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PATCHING ANY HOLES ON ROOF, CEILING OR WALLS RESULTING FROM THE REMOVAL OF MECHANICAL DEVICES.
19. THE MECHANICAL CONTRACTOR IS RESPONSIBLE FOR VISITING THE SITE PRIOR TO BID TO DETERMINE FIELD CONDITIONS AND TO FIELD VERIFY THE EXTENT OF THE REMOVALS WORK.
20. CONTRACTOR SHALL NOTIFY ARCHITECT / ENGINEER IMMEDIATELY OF ANY DISCREPANCY BETWEEN DRAWINGS AND FIELD CONDITIONS.
21. CONTRACTOR SHALL NOTIFY ARCHITECT / ENGINEER IMMEDIATELY OF ANY DISCREPANCY OR CONFLICTS SHOWN ON MEP DRAWINGS.

KEY NOTES

1	PROVIDE CLEARANCE TO EQUIPMENTS AS PER MANUFACTURER'S RECOMMENDATIONS.
2	CONNECT NEW OUTSIDE AIR DUCT TO EXISTING 40"X18" BASE BUILDING OUTSIDE AIR DUCT. FIELD VERIFY THE SIZE & LOCATION OF EXISTING DUCT.
3	CONNECT NEW TOILET EXHAUST AIR DUCT TO EXISTING 8"X6" BASE BUILDING TOILET EXHAUST AIR DUCT. FIELD VERIFY THE SIZE & LOCATION OF EXISTING DUCT.
4	CONNECT NEW KITCHEN EXHAUST AIR DUCT TO EXISTING 46"X22" BASE BUILDING KITCHEN EXHAUST AIR DUCT. FIELD VERIFY THE SIZE & LOCATION OF EXISTING DUCT.
5	PROVIDE 1" DOOR UNDERCUT FOR AIR TRANSFER AS SHOWN ON THE PLAN. COORDINATE WITH ARCHITECT.
6	PROVIDE NEW CONDENSER WATER SUPPLY AND RETURN PIPING CONNECTIONS ALONG WITH ALL ACCESSORIES FROM NEW WSHP UNITS AND ROUTE TO LANDLORD PROVIDED MAIN CONDENSER WATER PIPING TAPS. FIELD VERIFY EXACT SIZE & LOCATION OF CONDENSER WATER CONNECTIONS WITH LANDLORD'S REPRESENTATIVE, AND OBTAIN APPROVAL PRIOR TO INSTALLATION OF CONDENSER WATER PIPING.
7	CONTRACTOR TO VERIFY THE CONDENSER WATER REQUIREMENT (TEMPERATURE, GPM, DELTA T) FOR WATER COOLED WALKIN FREEZER SECTIONS WITH OWNER & CONNECT WITH MAIN LL PROVIDED CONDESER WATER LINE LOOP WITH ALL REQUIRED PIPING & ACCESORIES.
8	CONTRACTOR TO MAKE SURE THAT CENTRAL CONDENSER WATER SYSTEM IS CAPABLE OF PROVIDING 55 °F ENTERING WATER TEMPERATURE FOR WSHP TO OPERATE IN HEATING MODE DURING WINTER OPERATIONS. IF NOT CONTRACTOR SHALL PROVIDE EQUIVALENT AUXILIARY HEATING AS MENTIONED IN WSHP SCHEDULE ON SHEET M-200.00.
9	INTERLOCK OPERATION OF MOTORIZED DAMPER WITH RESPECTIVE WSHP UNITS.
10	LOCATION OF DIGITAL THERMOSTAT CONTROL. INSTALL AND WIRE NEW 7-DAY PROGRAMMABLE THERMOSTAT. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
11	1" CONDENSATE DRAIN SHALL BE PROVIDED AND SHALL BE CONVEYED FROM THE DRAIN PAN OUTLET TO AN APPROVED PLACE OF DISPOSAL. PROVIDE HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN 1/8 UNIT VERTICAL IN 12 UNITS HORIZONTAL. CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREAS SO AS TO CAUSE A NUISANCE.
12	PROVIDE SHUT-OFF VALVE AFTER NEW CONNECTION TO EXISTING CONDENSER WATER PIPING AND PROVIDE ACCESS AS REQUIRED WHERE NEW SHUT-OFF VALVES WILL BE LOCATED.
13	EXTEND THE RETURN AIR DUCT WITH THE SAME SIZE OPENING FROM THE WSHP UNIT AND CONNECT THE BRANCH DUCTS TO THE PLENUM AS SHOWN.
14	PROVIDE AUXILIARY DRAIN PAN WITH WATER LEAKAGE SENSOR AND ALARM TO SHUT DOWN THE UNIT. 1" DEEP, MINIMUM 3" BEYOND FOOTPRINT OF UNIT. PROVIDE CONDENSATE DRAIN LIFT PUMP AS/IF REQUIRED.
15	PROVIDE NEW CEILING SUSPENDED INLINE OUTSIDE AIR INTAKE / EXHAUST FAN. FAN SHALL BE SUSPENDED STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURE MEMBER PRIOR TO INSTALLATION.
16	INTERLOCK OPERATION OF MOTORIZED DAMPER WITH OAF-1.
17	PROVIDE REMOTE TEMP./HUMIDITY SENSOR MOUNTED IN RETURN DUCT AND WIRE BACK TO T-STAT.
18	CONTRACTOR TO RELOCATE THE CONDENSERS FOR WATER COOLED WALK IN FREEZER SECTIONS TO ACCOMMODATE THE DUCT.

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CLIENT:
EATALY

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PROJECT NUMBER:
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DRAWN BY: NYE CHECKED BY: NYE

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1	04.16.25	CLIENT COMMENTS

SHEET TITLE
MECHANICAL FIRST FLOOR PLAN

SHEET NUMBER
M-100.00

WATER SOURCE HEAT PUMP UNIT SCHEDULE

TAG	LOCATION	SERVING	TONANGE	SUPPLY AIR (CFM)	ESP (IN OF WC)	COOLING CAPACITY					HEATING CAPACITY					ELECTRICAL DATA			DIMENSION (LXWXH) (IN.)	WEIGHT (LBS)	MODEL	MAKE
						TOTAL MBH	WATER FLOW RATE (GPM)	WATER PRESSURE DROP (FT OF W.C)	EWT/ LWT (DEG F)	EER	TOTAL MBH	WATER FLOW RATE (GPM)	WATER PRESSURE DROP (FT OF W.C)	EWT/ LWT (DEG F)	COP	V/ PH/ HZ	MCA (A)	MOP (A)				
WSHP-1	SEE PLAN	SEE PLAN	4	1600	1	46.5	12	10	86/95	17.5	44.5	12	10	55/48.8	5.8	208/60/3	20	30	78X30X23	565	EXHK048B	TRANE
WSHP-2	SEE PLAN	SEE PLAN	4	1600	1	46.5	12	10	86/95	17.5	44.5	12	10	55/48.8	5.8	208/60/3	20	30	78X30X23	565	EXHK048B	TRANE
WSHP-3	SEE PLAN	SEE PLAN	4	1600	1	46.5	12	10	86/95	17.5	44.5	12	10	55/48.8	5.8	208/60/3	20	30	78X30X23	565	EXHK048B	TRANE

NOTES FOR WSHP UNIT:-

1) PROVIDE 2" MERV 8 FILTER AT RETURN OF WSHP.
2) SUPPLY CFM BASED ON HIGH CFM.
3) PROVIDE MOUNTING BRACKET AND ALL ASSOCIATED ACCESSORIES.
4) UNIT TO BE INSTALLED WITH SECONDARY DRAIN PAN AS WELL AS WATER BUG SENSOR TO SHUT DOWN CORRESPONDING EQUIPMENT AND TO NOTIFY THE OPERATOR/OWNER IN EVENT OF WATER LEAKAGE.
5) PROVIDE CONDENSATE DRAIN PUMP IF REQUIRED.
6) EXISTING WATER PIPING SHALL BE FLUSHED PRIOR TO CONNECTING NEW HEAT PUMPS.
7) ALL WSHP TO BE INSTALLED WITH VIBRATION ISOLATOR (RESILENTLY SUPPORTED) TO MINIMIZE SOUND AND VIBRATION TO SPACE.
8) CONTRACTOR TO MAKE SURE THAT ALL UNITS ARE RECEIVING CONDENSER WATER AS PER GPM & EWT MENTIONED IN THE TABLE ABOVE. CONTRACTOR TO CONSIDER ALL THE WATER-SIDE PRESSURE DROPS IN ALL AC UNITS. IF THERE IS NO ENOUGH GPM AVAILABLE FROM THE MAIN INCOMING WATER LINES, INFORM ENGINEER IMMEDIATELY (BEFORE BID). IF EXISTING WATER LINES DO NOT HAVE ENOUGH HEAD, INFORM TO ENGINEER.
9) CONTRACTOR TO MAKE SURE THAT THE CENTRAL COOLING TOWER SYSTEM IS CAPABLE OF PROVIDING 55 DEG F INLET WATER TEMPERATURE TO OPERATE WSHP IN HEATING MODE DURING WINTERS. CONTRACTOR TO INFORM THE ENGINEER IF FOUND ANY DISCREPANCY BEFORE THE BASE BID.

FANS SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	LOCATION	AREA SERVED	FAN PERFORMANCE			ELECTRICAL DATA				MCA	MOP	SONES	WEIGHT	CONTROL
						CFM	ESP	FAN RPM	FLA	VOLTS	PHASE	HZ					
KEF-1	GREENHECK	SQ-7-M1-VG	INLINE	SEE PLAN	SEE PLAN	770	1	3148	6.6	115	1	60	8.2	15	13.4	50	TIME CLOCK
OAF-1	GREENHECK	SQ-7-M1-VG	INLINE	SEE PLAN	SEE PLAN	960	1	3550	6.6	115	1	60	8.2	15	17.3	50	WSHP-1,2 & 3
EF-1	GREENHECK	SP-A390-VG	INLINE	SEE PLAN	TOILET	140	1	1681	1.5	115	1	60	1.9	15	3.9	25	LIGHT SWITCH

NOTES

1) FAN SPEED SHALL BE EASILY FIELD ADJUSTABLE.
2) PROVIDE MOTOR STARTERS, DISCONNECTS. ALL EQUIPMENT NORMAL POWER WIRING BY ELECTRICAL CONTRACTOR. COORDINATE POWER REQUIREMENTS.
3) PROVIDE BACK DRAFT DAMPER AS SHOWN ON PLAN.
4) OAF-1 SHALL BE EQUIPPED WITH VARIE GREEN MOTOR TO OPERATE AT 3 DIFFERENT AIRFLOW RATES BASED ON OPERATION OF WSHP UNITS.

VENTILATION CALCULATION (AS PER 2022 NYC)

SR. NO	ROOM NAME	AREA	OCCUPANCY AS PER 2022 NYC /1000SQ.FT.	OCCUPANY AS 2022 NYC	NO. OF CHAIR	FINAL OCCUPANCY	CFM/SQ.FT	CFM/PERSON	ZONE AIR DISTRIBUTION EFFECTIVENESS	REQUIRED OA CFM	PROVIDED OA CFM	EXHAUST AIR FLOW RATE (CFM/SQ.FT OR /FIX.)	TOTAL EXHAUST REQUIRED (CFM)	EXHAUST CFM PROVIDED
1	KITCHEN	482	0	0	0	0	0	0	0.8	0	0	0.7	337	340
2	SERVICE AREA	605	0	0	0	0	0	0	0.8	0	0	0.7	424	430
3	DINING	1985	70	139	39	45	0.18	7.5	0.8	869	900	-	-	-
4	LOCKERS 107	118	0	0	0	0	0.12	0	0.8	18	30	-	-	-
5	OFFICE / IT 108	103	5	1	0	1	0.06	5	0.8	14	30	-	-	-
6	RESTROOM 111	62	0	0	0	0	0	0	0.8	0	0	70	70	70
7	RESTROOM 110	44	0	0	0	0	0	0	0.8	0	0	70	70	70
	TOTAL	**3399**	-	-	-	**46**	-	-		**900**	**960**	-		**910**

ELECTRIC DUCT HEATERS

UNIT TAG	LOCATION	TYPE	ELECTRICAL DATA			UNIT DIMENSIONS	INTERLOCK	MODEL	MAKE
			KW	AMPs	(V/Hz/Ph)	(WXDXH)			
EDH-1	SEE PLAN	SLIP IN DUCT HEATER	5.0	13.87	208-60-3	26X14X6	WSHP-1	IDHE	GREENHECK
EDH-2	SEE PLAN	SLIP IN DUCT HEATER	5.0	13.87	208-60-3	26X14X6	WSHP-2	IDHE	GREENHECK
EDH-3	SEE PLAN	SLIP IN DUCT HEATER	5.0	13.87	208-60-3	26X14X6	WSHP-3	IDHE	GREENHECK

REMARKS:

1. INSTALL DUCT HEATER AS PER MANUFACTURER RECOMMENDATION.
2. PROVIDE REMOTE THERMOSTAT FOR DUCT HEATER AT LOCATION APPROVED BY ARCHITECT/OWNER.
3. INTERLOCK DUCT HEATER OPERATION WITH ALL RESPECTIVE WSHP.
4. CONTRACTOR TO ENSURE THE CONTROLS & COMPATIBILITY WITH WSHP UNIT MANUFACTURER BEFORE PLACING THE ORDER.

AIR TERMINAL SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	CFM RANGE	NECK SIZE	NOMINAL FACE SIZE
CDS-1	TITUS	TMSA	CEILING DIFFUSER SUPPLY	0-150	6"Ø	24"X24"
				160-300	8"Ø	
				310-400	10"Ø	
				410-500	12"Ø	
RG-1		350RL	CEILING MOUNTED RETURN GRILLE	0-100	6"X6"	24"X24"
				110-220	8"X8"	
				230-350	10"X10"	
				360-520	12"X12"	
				550-700	14"X14"	
				710-1000	18"X18"	
				1010-1300	20"X20"	
				1310-1500	22"X22"	
EG-1		350RL	EXHAUST GRILLE	0-80	6"X6"	6"X6"
EG-2				90-220	8"X8"	12"X12"

NOTES:

1) ALL DIFFUSERS : CONTRACTOR SHALL COORDINATE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS TO ENSURE PROPER AIR DEVICE BORDER SELECTION..
2) REFER ARCHITECTURAL DRAWINGS FOR CEILING TYPE.
3) COORDINATE COLOR/FINISH WITH ARCHITECT.
4) PROVIDE VOLUME CONTROL DAMPER/OPPOSED BLADE DAMPER AS ACCESSORY FOR ALL AIR TERMINAL FOR AIR BALANCING.

AIR BALANCE SCHEDULE

UNIT	AREA SERVED	SUPPLY AIR	OUTSIDE AIR	RETURN AIR	EXHAUST AIR
WSHP-1	SEE PLAN	1600	160	1440	-
WSHP-2	SEE PLAN	1600	400	1200	-
WSHP-3	SEE PLAN	1600	400	1200	-
KEF-1	SEE PLAN	-	-	-	770
EF-1	SEE PLAN	-	-	-	140
TOTAL:		4800	960	3840	910
BUILDING PRESSURE:			**50**		**POSITIVE**

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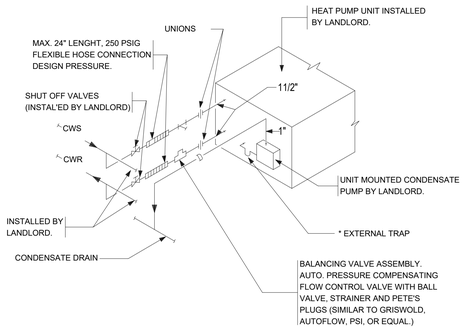
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SHEET TITLE
MECHANICAL SCHEDULES

SHEET NUMBER
M-200.00

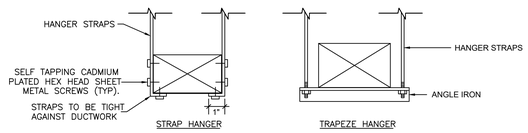


NOTES:

1. MAINS UP TO SHUT OFF VALVES ARE PROVIDED BY LANDLORD.
2. PROVIDE CONTROL FOR CONDENSATE PUMP SAFETY HIGH LEVEL. CUT OUT SWITCH TO DISABLE COMPRESSORS OF THE HEAT PUMP UNIT.

* EXTERNAL P. TRAP FOR SINGLE UNITS ONLY.

1 M-300.00 WATER SOURCE HEAT PUMP DETAIL (HORIZONTAL) N.T.S



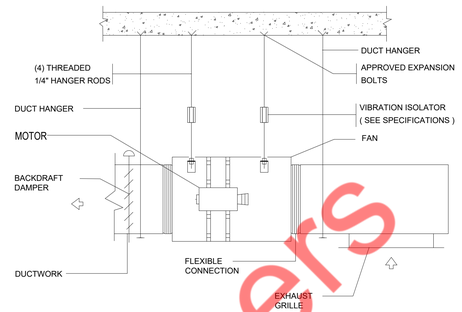
NOTE:
NO POP RIVETS ALLOWED, USE SELF-TAPPING SHEETMETAL SCREWS ONLY.

HANGER SIZES*

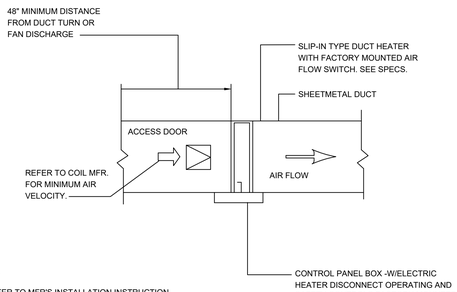
MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
30"	1"x18" GAUGE STRAP	NONE REQUIRED	10'-0"
36"	1/4" ROD	1-1/2"x1-1/2"x1/8"	8'-0"
48"	1/4" ROD	2"x2"x1/8"	8'-0"
60"	5/16" ROD	2"x2"x1/8"	8'-0"
84"	3/8" ROD	2"x2"x1/8"	8'-0"

* FOR RECTANGULAR DUCTS

2 M-300.00 DUCT HANGING DETAILS N.T.S



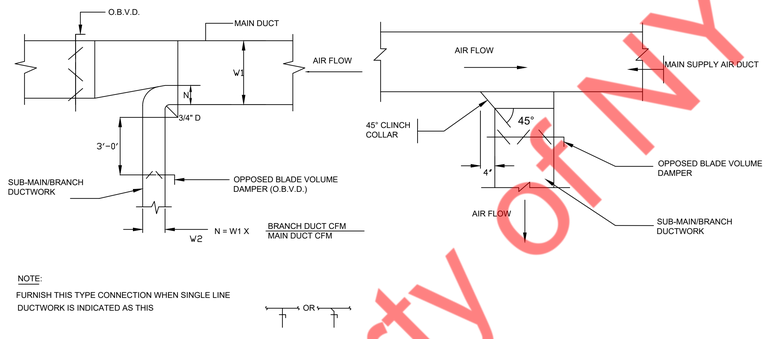
3 M-300.00 INLINE FAN HANGING SUPPORT DETAIL N.T.S



NOTE:

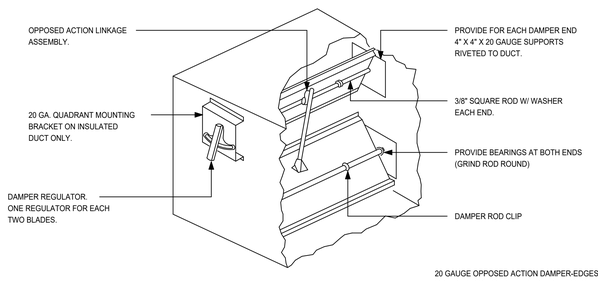
1. REFER TO MFR'S INSTALLATION INSTRUCTION ON HOW TO INSTALL DUCT HEATERS.
2. PROVID ACCESS DOOR IN DUCT FOR ELEMENT REPLACMENT WHEN INSTALLTION DOES NOT PERMIT SLIP-OUT OF DUCT HEATER.

4 M-300.00 ELECTRIC DUCT HEATER N.T.S



NOTE:
FURNISH THIS TYPE CONNECTION WHEN SINGLE LINE DUCTWORK IS INDICATED AS THIS

5 M-300.00 SUPPLY AIR DUCTWORK SUB-MAIN/BRANCH DUCT CONNECTION N.T.S



NOTE : 1. FOR DUCTS OVER 29" WIDE AND/OR OVER 12" HIGH.

6 M-300.00 LOW PRESSURE BALANCING DAMPER N.T.S

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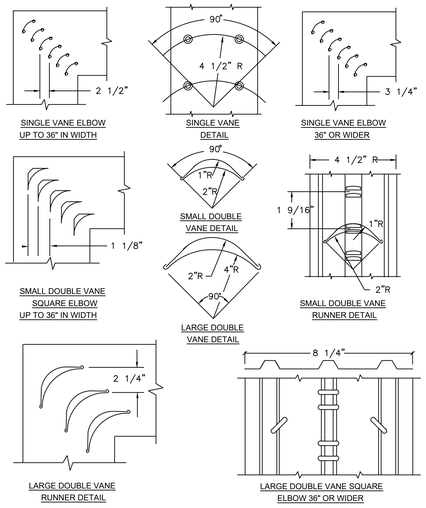
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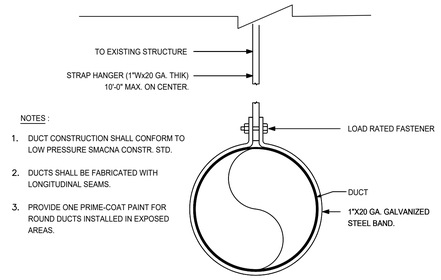
	DATE	REVISION DESCRIPTION
2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE
MECHANICAL DETAILS (1 OF 2)

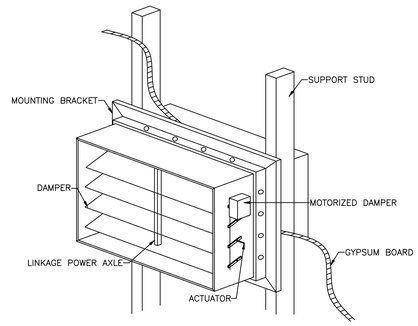
SHEET NUMBER
M-300.00



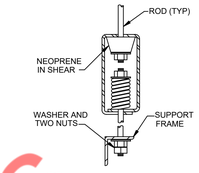
1 M-301.00 LOW VELOCITY DUCTWORK ELBOWS N.T.S



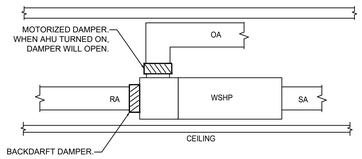
2 M-301.00 ROUND DUCT HANGING DETAIL N.T.S



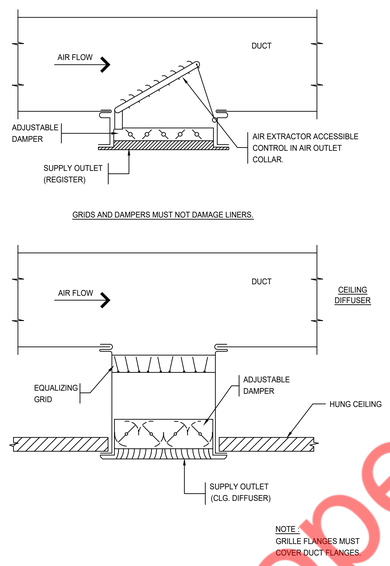
3 M-301.00 MOTORIZED DAMPER DETAIL N.T.S



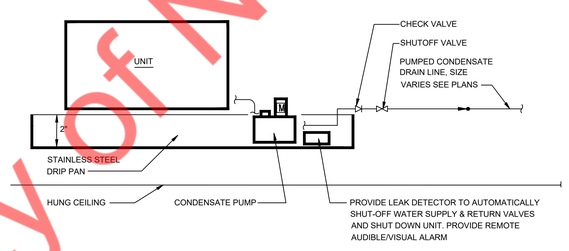
4 M-301.00 VIBRATION ISOLATOR DETAIL N.T.S



5 M-301.00 WSHP OUTSIDE AIR DETAIL N.T.S



6 M-301.00 DIFFUSER AND REGISTER CONNECTIONS N.T.S



7 M-301.00 UNIT DRIP PAN DETAIL N.T.S

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CLIENT:
EATALY

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PROJECT NUMBER:
12308-24
DRAWN BY : NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION
2	04.25.25	CLIENT COMMENTS
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SHEET TITLE

MECHANICAL
DETAILS (2 OF 2)

SHEET NUMBER

M-301.00

COM*check* Software Version 4.1.5.5

Mechanical Compliance Certificate

Project Information

Energy Code:	2020 New York City Energy Conservation Code
Project Title:	Eataly 200 Park Ave
Location:	New York, New York
Climate Zone:	4a
Project Type:	Alteration

Construction Site:
200 Park Ave
New York, NY

Owner/Agent:

Designer/Contractor:
Michael Tobias
NY Engineers
382 NE 191st ST, Suite 49674
Miami, FL 33179

Mechanical Systems List

Quantity **System Type & Description**

3 WSHP-1,2,3 (Single Zone):
Water Source Heat Pump
Heating Mode: Capacity = 45 kBtu/h,
Proposed Efficiency = 5.80 COP, Required Efficiency = 4.30 COP
Cooling Mode: Capacity = 47 kBtu/h,
Proposed Efficiency = 17.50 EER, Required Efficiency: 13.00 EER

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2020 New York City Energy Conservation Code requirements in COMcheck Version 4.1.5.5 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title _____ Signature _____ Date _____

COM*check* Software Version 4.1.5.5

Inspection Checklist

Energy Code: 2020 New York City Energy Conservation Code

Requirements: 100.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical systems and equipment and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.2 [PR36][1]	Electrical meters for tenant spaces in covered buildings. Each covered tenant space in a new building shall be equipped with a separate meter or sub-meter to measure the electrical consumption of such space when let or sublet. See section details and Section 28-311.2 of the Administrative Code. As new covered tenant spaces are created, they shall be equipped with meters or sub-meters as provided in this section	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Footing / Foundation Inspection	Complies?	Comments/Assumptions
C403.12.2, C403.12.3 [FO9][1]	Snow/ice melting system and freeze protection systems have sensors and controls configured to limit service for pavement temperature and outdoor temperature. future connection to controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][1]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.3 [PL7][1]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.7 [PL8][1]	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][1]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.8.1 [ME65][1]	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.3 [ME117][1]	Fans have efficiency grade (FEG) >= 67. The total efficiency of the fan at the design point of operation <= 15% of maximum total efficiency of the fan.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Fans integral to equipment listed under Section C403.2.3.
C403.12.1 [ME71][1]	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.3 [ME55][1]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.8.1.1 [ME36][1]	New traction elevators with a rise of 75 feet or more have a power conversion system that complies as follows: C405.8.1.1.1 Induction motors with a Class IE2 efficiency ratings are be used. C405.8.1.1.2 Transmissions does not reduce the efficiency of the combined motor/transmission below that shown for the Class IE2 motor for elevators with capacities below 4,000 lbs. C405.8.1.1.3 Potential energy released during motion recovered with a regenerative drive that supplies electrical energy to the building electrical system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.10 [ME37][1]	Commercial kitchen equipment shall comply with the minimum efficiency requirements of Tables C405.10(1) through table C405.10(5).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.3.2 Table12 [ME144][1]	Vapor Compression Based Indoor Pool Dehumidifiers comply with the minimum efficiency requirements of Table C403.3.2(12).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
Table C403.3.2.13, Table C403.3.2.14 [ME145][1]	Electrically operated DX-DOAS units, single-package and remote condenser, without energy recovery comply with minimum efficiency requirements of Table C403.3.2(13). Units with energy recovery comply with minimum efficiency requirements of Table C403.3.2(14).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.2.2 [ME59][1]	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.7.1 [ME59][1]	Demand control ventilation provided for spaces >500 ft2 and >25 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.2 [ME115][1]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.6 [ME141][1]	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.4 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.5 [ME116][1]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.11.1, C403.11.2 [ME60][1]	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.3.3.2 [ME121][1]	Closed-circuit cooling tower within heat pump loop have either automatic bypass valve or lower leakage positive closure dampers. Open-circuit tower within heat pump loop have automatic valve to bypass all heat pump water flow around the tower. Open- or closed-circuit cooling towers used in conjunction with a separate heat exchanger have heat loss by shutting down the circulation pump on the cooling tower loop. Open- or closed circuit cooling towers have a separate heat exchanger to isolate the cooling tower from the heat pump loop, and heat loss is controlled by shutting down the circulation pump on the cooling tower loop.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.4 [ME48][1]	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 85F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.5, C403.5.1, C403.5.2 [ME123][1]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL28][1]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.7 [EL27][1]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.8.2, C405.8.2.1 [EL28][1]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.9 [EL29][1]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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CLIENT:
EATALY

EATALY

PROJECT NUMBER:
12308-24
DRAWN BY: NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION
1	04.25.25	CLIENT COMMENTS
2	04.16.25	CLIENT COMMENTS

SHEET TITLE

MECHANICAL COMPLIANCE (1 OF 2)

SHEET NUMBER

M-400.00

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [FI8][1]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.2 [FI27][1]	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1 [FI47][1]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.1 [FI42][1]	Heat pump controls prevent supplemental electric resistance heat from coming on when not needed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.2 [FI38][1]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.1.3 [FI20][1]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2 [FI39][1]	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.4.2.1, C403.2.4.2.2 [FI40][1]	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock; 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

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1	04.16.25	CLIENT COMMENTS

SHEET TITLE
MECHANICAL COMPLIANCE (2 OF 2)

SHEET NUMBER
M-401.00

BUILDING DATA

PROJECT DESCRIPTION		BUILDING OCCUPANCY				BUILDING DESCRIPTION						FIRE ALARM SYSTEM FEATURES	
	NEW BUILDING	X	ASSEMBLY GROUP A (A1,A2,A3,A4 AND A5)		RESIDENTIAL GROUP R (R1,R2 AND R3)		TOTAL NUMBER OF LEVELS		ATRIUM		STAIR PRESSURIZATION		NON-VOICE EVACUATION
	FIRE ALARM SYSTEM UPGRADE		BUSINESS GROUP B		STORAGE GROUP S (S1 AND S2)		ABOVE GROUND LEVELS		FIRE DEPARTMENT ACCESS		POST FIRE SMOKE PURGE	X	VOICE EVACUATION
	LIFE SAFETY SYSTEM UPGRADE		EDUCATIONAL GROUP E		UTILITY AND MISCELLANEOUS GROUP U		BELOW GROUND LEVELS	X	FULLY SPRINKLERED		GENERATOR		PARTIAL/SELECTIVE EVACUATION
X	RENOVATION		FACTORY INDUSTRIAL GROUP F (F1 AND F2)		OTHER:	2	NUMBER OF ELEVATOR BANKS		PARTIALLY SPRINKLERED		FIRE PUMP		GENERAL EVACUATION
	EMERGENCY REPAIR		HIGH-HAZARD GROUP H (H1,H2,H3,H4 AND H5)			2	NUMBER OF EGRESS STAIRS		NON-SPRINKLERED		OTHER:		DIGITAL ALARM COMMUNICATOR
	TENANT ADDITION		INSTITUTIONAL GROUP I (I1,I2 AND I3)				LOW RISE BUILDING		PRE-ACTION SPRINKLER		OTHER:		PRE-SIGNAL SYSTEM
	OTHER:		MERCANTILE GROUP M			X	HIGH RISE BUILDING						FIRE FIGHTER'S TELEPHONE SYSTEM

TYPE OF DESIGN

INSTALLATION OF MANUAL & AUTOMATIC SMOKE/HEAT DETECTION AND FIRE ALARM SYSTEM USING NEW FIRE ALARM CONTROL PANEL (FACP) INTERCONNECTED WITH BASE BUILDING MAIN FACP.

FIRE ALARM NOTES:

1. ALL EQUIPMENT AND WIRING INDICATED ON THESE PLANS IS NEW (U.O.N.).
2. PROVIDE WIRING AS REQUIRED BETWEEN ALL DEVICES AND EQUIPMENT AS REQUIRED TO PERFORM FIRE ALARM SYSTEM FUNCTIONS.
3. WIRING FOR FIRE ALARM DEVICES IN FINISHED SPACES WITHOUT HUNG CEILING SHALL BE INSTALLED IN EMT CONDUIT.
4. ALL STROBES AND HORN/STROBES SHALL BE FLUSH WALL MOUNTED FINISH BY ARCHITECT, APPROVED FOR USE IN NYC.
5. FOR WALL MOUNTED F.A. DEVICES PROVIDE 3/4" CONDUIT TERMINATED IN NEAREST ACCESSIBLE CEILING.
6. WIRING FOR FIRE ALARM DEVICES IN UNFINISHED SPACES SHALL BE INSTALLED IN RGS CONDUIT UP TO 8'-0" AFF AND THEN IN EMT CONDUIT ABOVE 8'-0" AFF.
7. FOR LOCATIONS AND QUANTITIES OF DEVICES REFER TO FIRE ALARM FLOOR PLANS. WHERE THERE ARE DISCREPANCIES BETWEEN THE PLANS AND THE RISER DIAGRAM, THE GREATER QUANTITY SHALL BE USED.
8. CONTRACTOR SHALL VERIFY ALL WIRING WITH FIRE ALARM VENDOR AND OBTAIN WIRING DIAGRAMS BEFORE PROCEEDING WITH THE START OF ANY WORK.
9. ALL WIRING SHALL BE IN ACCORDANCE WITH THE NYC ELECTRICAL CODE 760.179(D).
10. PROVIDE ALL REQUIRED EXPANSION PANELS, PC BOARDS, POWER SUPPLIES, BATTERIES, FUSE CUTOUTS AND BRANCH CIRCUITS, ETC, FOR A COMPLETE AND OPERATIONAL FIRE ALARM SYSTEM.
11. STROBES AND SPEAKERS SHALL BE WIRED ON ALTERNATING A-B CIRCUITING IN ALL AREAS, AS INDICATED ON THE RISER DIAGRAM.
12. CONTRACTOR SHALL PERFORM ALL NYC BUILDING DEPT. FILINGS AND OBTAIN ALL APPROVALS. CONTRACTOR SHALL OBTAIN ALL REQUIRED SIGNED & SEALED NYC BUILDING DEPT. FORMS AND ALL REQUIRED SETS OF DRAWINGS FROM ENGINEER OF RECORD AND BUILDING DEPT. EXPEDITOR.
13. UPON COMPLETION OF INSTALLATION THE SYSTEM SHALL BE 100% PRE-TESTED BY THE FIRE ALARM VENDOR AND THE LICENSED ELECTRICAL CONTRACTOR PRIOR TO FDNY INSPECTION.
14. CONTRACTOR SHALL SUBMIT TO THE ENGINEER A MARKUP OF FA DRAWINGS INDICATING "AS-BUILT" CONDITIONS FOR ENGINEER'S REFERENCE. IN PREPARING "AS-BUILT" DRAWINGS FOR FILING, CONTRACTOR SHALL SIGN "AS-BUILT" STATING A FUNCTIONAL TEST HAS BEEN CONDUCTED OF THE FIRE ALARM SYSTEM AND THE SYSTEM OPERATES AS DESIGNED AND IN ACCORDANCE WITH THE INPUT/OUTPUT PROGRAMMING MATRIX IN ACCORDANCE WITH 3 RCNY & 105-01.

FIRE ALARM LEGEND

LEGEND	DESCRIPTION
F	FIRE ALARM MANUAL PULL STATION
D	DUCT MOUNTED SMOKE DETECTOR
S	SMOKE DETECTOR
H	HEAT DETECTOR
▶F◀	CEILING MOUNTED FIRE ALARM SPEAKER STROBE LIGHT
F◀	WALL MOUNTED FIRE ALARM HORN STROBE LIGHT
S◀	WALL MOUNTED FIRE ALARM STROBE LIGHT
WFS	WATER FLOW SWITCH
TS	TAMPER SWITCH

NOTE:
1. NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS.

ABBREVIATION:
(E) - EXISTING; (R) - EXISTING RELOCATED; (C) - CEILING MOUNTED (F) - FLOOR MOUNTED; (SW)- SHOW WINDOW; (USB) - USB/ DUPLEX COMBINATION RECEPTACLE: (AC) - ABOVE COUNTER/DESK RECEPTACLE; (BC) - BELOW COUNTER/DESK RECEPTACLE; (SL) - SHELF LEVEL RECEPTACLE

DRAWING LIST

SHEET NUMBER	SHEET NAME
FA-001.00	FIRE ALARM NOTES, LEGEND AND SCHEMATIC
FA-100.00	FIRE ALARM PLAN

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
C	CONDUIT
DGP	DATA GATHERING PANEL
E	EXISTING
EL	EXISTING TO BE LOWERED
ELV	ELEVATOR LOBBY
EMT	ELECTRIC METALLIC TUBING
ER	EXISTING TO BE RELOCATED
FA	FIRE ALARM
FCC	FIRE COMMAND CENTER
FCS	FIRE COMMAND STATION
FACP	FIRE ALARM CONTROL PANEL
FDS	FUSED DISCONNECT SWITCH
G	GROUND
HC	HUNG CEILING
N	NEW
NE	NEW TO REPLACE EXISTING
NTS	NOT TO SCALE
R	REMOVE
RCU	REMOTE COMPUTER UNIT
RE	RELOCATED EXISTING
RGS	RIGID GALVANIZED STEEL
RP	RELOCATED POSITION
UON	UNLESS OTHERWISE NOTED
W	WIRE
WFS	WATER FLOW SWITCH
TS	TAMPER SWITCH

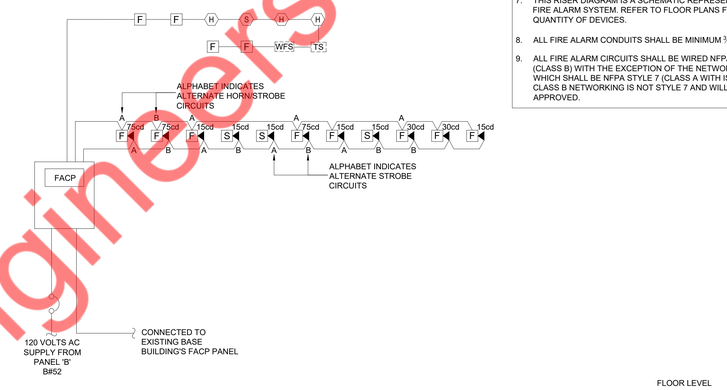
FIRE ALARM I/O MATRIX

SYSTEM INPUTS / INITIATING DEVICES	SYSTEM OUTPUTS / INDICATING/CONTROLLED DEVICES	CONTROL UNIT ANNUNCIATION					NOTIFICATION						REQUIRED FIRE SAFETY CONTROL				
		A: ACTIVATE COMMON ALARM SIGNAL INDICATOR ON LCD OF FIRE ALARM CONTROL PANEL & OUTLYING ANNUNCIATORS	B: ACTIVATE COMMON SUPERVISORY SIGNAL INDICATOR ON LCD OF FIRE ALARM CONTROL PANEL & OUTLYING ANNUNCIATORS.	C: ACTIVATE COMMON TROUBLE SIGNAL INDICATOR ON LCD OF FIRE ALARM CONTROL PANEL & OUTLYING ANNUNCIATORS.	D: SOUND INTERNAL BUZZER AT FIRE ALARM CONTROL PANEL & OUTLYING ANNUNCIATORS.	E: TEXT MESSAGE DISPLAY DEVICE TYPE & LOCATION OF THE ACTIVATING DEVICES ON LCD OF FIRE ALARM CONTROL PANEL & OUTLYING ANNUNCIATORS.	F: ACTIVATE EVACUATION SIGNAL THROUGH HORN AND FLASH THE STROBES THROUGHOUT THE BUILDING.	G: TRANSMIT "MANUAL" ALARM SIGNAL TO FIRE DEPARTMENT VIA AN APPROVED CENTRAL STATION MONITORING COMPANY.	H: TRANSMIT "SMOKE/HEAT" ALARM SIGNAL TO FIRE DEPARTMENT VIA AN APPROVED CENTRAL STATION MONITORING COMPANY.	I: TRANSMIT "WATERFLOW" ALARM SIGNAL TO FIRE DEPARTMENT VIA AN APPROVED CENTRAL STATION MONITORING COMPANY.	J: TRANSMIT "SUPERVISORY" ALARM SIGNAL TO FIRE DEPARTMENT VIA AN APPROVED CENTRAL STATION MONITORING COMPANY.	K: TRANSMIT "TROUBLE" ALARM SIGNAL TO FIRE DEPARTMENT VIA AN APPROVED CENTRAL STATION MONITORING COMPANY.	O: INITIATE THE AUTOMATIC FIRE MODE CONDITIONS FOR FAN (AC UNIT) OPERATION, PROCEED A/C UNIT SHUTDOWN SEQUENCE.	P: RECALL ELEVATORS TO FIRST FLOOR.	Q: RELEASE/ OPEN ASSOCIATED SMOKE VENTS (AREA DETECTOR ONLY)	S: ONCE RECALL IS ACTIVATED, PERFORM ELEVATOR SHUNT TRIP SEQUENCE	T: RELEASE ALL ELECTRIC LATCH HELD OPEN FIRE & SMOKE DOORS.
		A	B	C	D	E	F	G	H	I	J	K	O	P	Q	S	T
1	MANUAL PULL STATION	●			●	●	●	●	●	●							●
2	AREA SMOKE DETECTOR	●			●	●	●		●				●		●		●
3	FIRE ALARM AC POWER FAILURE			●	●	●						●					
4	FIRE ALARM SYSTEM LOW BATTERY			●	●	●						●					
5	OPEN CIRCUIT			●	●	●						●					
6	GROUND CIRCUIT			●	●	●						●					
7	NOTIFICATION APPLIANCE CIRCUIT SHORT			●	●	●						●					
8	HEAT DETECTOR	●							●				●	●	●	●	

LEGEND: NEW / EXISTING

FIRE ALARM RISER NOTES:

1. ALL DEVICES SHALL BE COMPATIBLE WITH AND MAINTAIN THE UL LISTING OF EXISTING FA SYSTEM.
2. ALL COMPONENTS REQUIRED TO MAKE SYSTEM WORKABLE SHALL BE INCLUDED IN BID PRICE.
3. EACH FA RELAY SHALL HAVE MINIMUM OF THREE SETS OF 2 CONTACT 10A RATED @ 120V (TYPICAL).
4. ALL DUCT SMOKE DETECTORS INSTALLED IN HUNG CEILING AREA AND IN OUT OF SIGHT AREA SHALL HAVE REMOTELY INSTALLED STATUS INDICATOR LAMPS. COORDINATE EXACT LOCATION WITH ARCHITECT AND GENERAL CONTRACTOR.
5. FOR WALL MOUNTED F.A. DEVICES PROVIDE 3/4" CONDUIT TERMINATED IN NEAREST ACCESSIBLE CEILING.
6. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN CONDUIT WHERE REQUIRED BY NYC ELECTRICAL CODE 760.131.
7. THIS RISER DIAGRAM IS A SCHEMATIC REPRESENTATION OF THE FIRE ALARM SYSTEM. REFER TO FLOOR PLANS FOR EXACT QUANTITY OF DEVICES.
8. ALL FIRE ALARM CONDUITS SHALL BE MINIMUM ¾".
9. ALL FIRE ALARM CIRCUITS SHALL BE WIRED NFPA STYLE 4/Y/B (CLASS B) WITH THE EXCEPTION OF THE NETWORK CIRCUIT WHICH SHALL BE NFPA STYLE 7 (CLASS A WITH ISOLATION). DUAL CLASS B NETWORKING IS NOT STYLE 7 AND WILL NOT BE APPROVED.



FIRE ALARM SCHEMATIC

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CONTRACTOR'S NOTE:
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CLIENT:
EATALY

EATALY

PROJECT NUMBER:
12308-24
DRAWN BY: NYE CHECKED BY: NYE

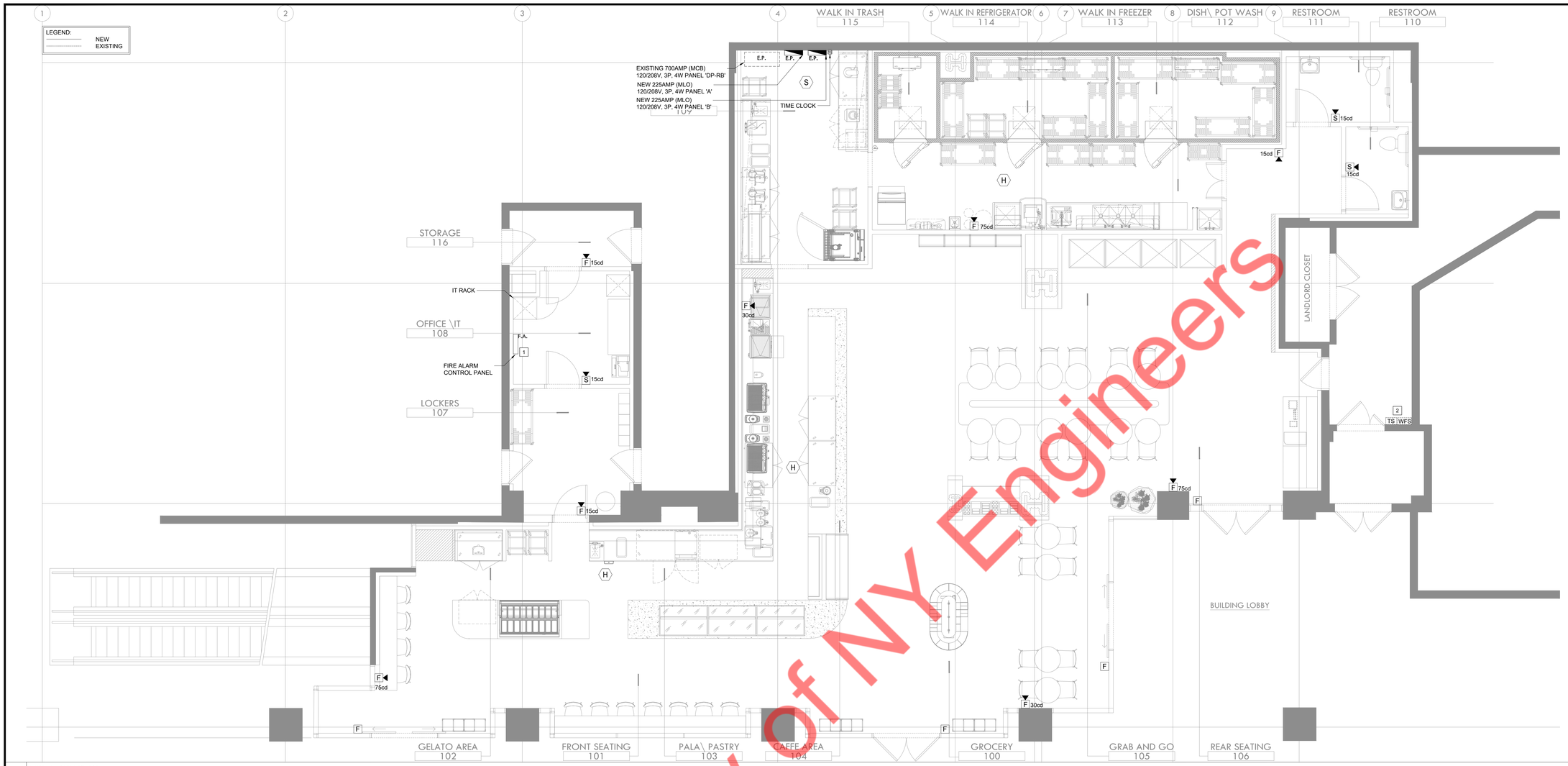
DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION

2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE:
FIRE ALARM NOTES,LEGEND AND SCHEMATIC

SHEET NUMBER:
FA-001.00



1 FIRE ALARM PLAN
1/4" = 1'-0"

GENERAL NOTES

1. PROVIDE EQUIPMENT AS SHOWN ON DRAWINGS FOR COVERAGE IN ACCORDANCE WITH PROVISIONS OF THE NEW YORK CITY ELECTRICAL CODE, NYC BUILDING CODE, THE NFPA AND THE NATIONAL ELECTRICAL CODE.
2. ALL EQUIPMENT SHALL BE COMPATIBLE WITH THE EXISTING BUILDING SYSTEM IN ACCORDANCE WITH THE LATEST CODE REQUIREMENTS.
3. ALL LOW VOLTAGE FIRE ALARM WIRING TO BE NEW YORK CITY CERTIFIED 200" RATED. ALL WIRING AND DEVICES ARE NEW U.O.N..
4. PROVIDE ALL THE NECESSARY EQUIPMENT AS REQUIRED FOR CONNECTION TO THE EXISTING BUILDING FIRE ALARM SYSTEM. ALL REQUIRED DEVICES & INTERCONNECTION WIRING SHALL BE PROVIDED BY THIS CONTRACTOR.
5. COORDINATE WITH FIRE ALARM BUILDING MANAGEMENT CONTRACTOR FOR INTERCONNECTION OF NEW FIRE ALARM CONTROL PANEL WITH BASE BUILDING FIRE ALARM CONTROL PANEL .
6. CONTRACTOR TO PROVIDE AS-BUILT PLANS TO THE CLIENT AND ENGINEER 2 WEEKS PRIOR TO ANY SCHEDULED INSPECTION. AS-BUILTS TO BE SUBMITTED 3 HARD COPIES AND IN CAD FOR AS-BUILT FILING.
7. ALL FIRE ALARM WIRING TO BE IN CONDUIT WHERE EXPOSED.
8. FA SHUTDOWNS TO BE COORDINATED WITH FA VENDOR AND BUILDING MANAGEMENT.
9. PLAN INDICATES GENERAL LOCATION OF FIRE ALARM DEVICES. COORDINATE EXACT LOCATION AND ADA MOUNTING HEIGHT OF DEVICES WITH ARCHITECT. LOCATION TO BE WITHIN 10 FEET OF LOCATION SHOWN.
10. COORDINATE WITH ARCHITECT FOR FIRE ALARM DEVICE FINISH AND COLOUR.
11. COORDINATE WITH WALK-IN COOLER/FREEZER VENDOR FOR REQUIREMENTS OF FIRE ALARM DETECTOR FOR WALK IN COOLER/FREEZER.

KEY NOTES

1 NEW FIRE ALARM CNTROL PANEL SHALL BE COMPATIBLE FOR INTERCONNECTION TO EXISTING BASE BUILDING FIRE ALARM CONTROL PANEL. CONTRACTOR SHALL VERIFY ALL WIRING AND INTERCONNECTION REQUIREMENTS WITH FIRE ALARM VENDOR AND BASE BUILDING ENGINEER. BASE BID ACCORDINGLY.

2 CONTRACTOR SHALL COORDINATE IN FIELD AND VERIFY THE EXISTING WATER FLOW SWITCH AND TAMPER SWITCH LOCATION, OPERATING CONDITION, OTHERWISE PROVIDE NEW IF IT IS INOPERABLE. IT SHALL BE COMPATIBLE WITH AND MAINTAIN THE UL LISTING OF THE FA SYSTEM. CONNECT EXISTING WATER FLOW SWITCH AND TAMPER SWITCH TO NEW FIRE ALARM CONTROL PANEL AS REQUIRED. BASE BID ACCORDINGLY.

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SHEET TITLE
FIRE ALARM PLAN

SHEET NUMBER
FA-100.00

LEGENDS, ABBREVIATIONS AND DRAING LIST

ELECTRICAL LEGEND

LEGEND	DESCRIPTION
	HOME RUN
	SIMPLEX RECEPTACLE @ 18" A.F.F. U.N.O. MOUNTED AT CODE HEIGHT
	DUPLEX RECEPTACLE @ 18" A.F.F. U.N.O. MOUNTED AT CODE HEIGHT.
GFI	GROUND FAULT PROTECTED DUPLEX RECEPTACLE
GFI	DEDICATED GROUND FAULT PROTECTED DUPLEX RECEPTACLE.
	QUAD RECEPTACLE @ 18" A.F.F. U.N.O. MOUNTED AT CODE HEIGHT.
	TWISTLOCK RECEPTACLE-WALL
	SINGLE OUTLET/SPECIAL RECEPTACLE
	DUPLEX RECEPTACLE - FLOOR
	QUAD RECEPTACLE - FLOOR
	TWISTLOCK RECEPTACLE - FLOOR
	DUPLEX RECEPTACLE - CEILING
	DATA RECEPTACLE AT +18"A.F.F., U.N.O.
	TELEPHONE RECEPTACLE AT +18"A.F.F., U.N.O.
	TELEPHONE / DATA COMBINATION RECEPTACLE AT +18"A.F.F., U.N.O.
	DATA RECEPTACLE - FLOOR
	TELEPHONE RECEPTACLE - FLOOR
	TELEPHONE / DATA COMBINATION RECEPTACLE - FLOOR
	DATA RECEPTACLE-CEILING
J	JUNCTION BOX-CEILING
J	JUNCTION BOX-WALL
	DISCONNECT SWITCH
	ELECTRICAL PANEL.
TC	TIME CLOCK
C	LIGHTING CONTACTOR
S_M	MOTOR RATED SWITCH
M	INDOOR AC UNIT/EXHAUST FAN
T	THERMOSTAT
	RECESSED SPEAKER
SC	SECURITY CAMERA (PROVIDE 02 NETWORK CABLES)
WAP	WIFI HUB

NOTE:
1. NOT ALL SYMBOLS MAY APPEAR ON DRAWINGS.

ABBREVIATION:
(E) - EXISTING; (N) - NEW; (R) - EXISTING RELOCATED; (C) - CEILING MOUNTED; (F) - FLOOR MOUNTED; (SW)- SHOW WINDOW; (USB) - USB/ DUPLEX COMBINATION RECEPTACLE; (AC) - ABOVE COUNTER/DESK RECEPTACLE; (BC) - BELOW COUNTER/DESK RECEPTACLE; (SL) - SHELF LEVEL RECEPTACLE

ABBREVIATIONS

A	AMPERES
V	VOLTS
W	WATTS
PH	PHASE
AFF	ABOVE FINISHED FLOOR
DN	DOWN TO ABOVE
BTC	BRANCH TO CONNECTION POINT AND CONNECT EQUIPMENT
HP	HORSE POWER
KW	KILOWATTS
DC	DIRECT CONNECTION
K.E.C.	KITCHEN EQUIPMENT CONTRACTOR
E.C.	ELECTRICAL CONTRACTOR
G.C.	GENERAL CONTRACTOR
WP	WEATHER PROOF
MR	MOTOR RATED DISCONNECT

NOTE: NOT ALL ABBREVIATIONS MAY APPEAR ON DRAWINGS.

DRAWING LIST

SHEET NUMBER	SHEET NAME
E-001.00	ELECTRICAL LEGEND & ABBREVIATIONS
E-002.00	ELECTRICAL SPECIFICATIONS
E-100.00	ELECTRICAL LIGHTING PLAN
E-200.00	ELECTRICAL POWER PLAN
E-300.00	LOW VOLTAGE PLAN
E-400.00	ELECTRICAL RISER DIAGRAM & PANEL SCHEDULE
E-500.00	ELECTRICAL DETAILS
E-600.00	ELECTRICAL COMCHECK

GENERAL NOTES

ELECTRICAL GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CURRENT VERSION OF THE NATIONAL ELECTRICAL CODE (NEC).
2. CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS THAT MAY AFFECT THE WORK. NO ADDITIONAL COMPENSATION WILL BE CONSIDERED FOR FAILURE TO DO SO.
3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, TEST REPORTS, AND CERTIFICATIONS FOR TEMPORARY AND FINAL CERTIFICATE OF OCCUPANCY.
4. FIRE STOP ALL PENETRATIONS OF FIRE RATED CONSTRUCTION IN A CODE APPROVED MANNER IN ORDER TO MAINTAIN FIRE RATING. ALL PENETRATIONS SHALL BE SLEEVED AND SEALED WATERTIGHT.
5. SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, RAW PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE, PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10 FT APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
6. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT NSTALLED: FURNISH FISH WIRE.
7. VERIFY LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT, EQUIPMENT, VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
8. CONTRACTOR SHALL PROVIDE A WARRANTY ON ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
9. ALL UNUSED MATERIALS AND DEBRIS SHALL BE LEGALLY REMOVED AND DISPOSED OF AWAY FROM THE PREMISES ON A DAILY BASIS.
10. CONTRACTOR SHALL PATCH, PAINT, AND RESTORE EXISTING SURFACES DAMAGED DURING THE COURSE OF THIS CONSTRUCTION TO PRE-EXISTING CONDITIONS OR BETTER.
11. MINIMUM SIZE OF CONDUIT SHALL BE 3/4". AND TYPE SHALL BE ELECTRICAL METALLIC TUBING (EMT), UNLESS OTHERWISE NOTED. PROVIDE NYLON DRAG LINE AND CONDUIT CAP FOR ALL EMPTY CONDUITS.
12. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
13. PULL AND JUNCTION BOXES WHERE INDICATED ON THE DRAWINGS, SHALL BE CONSIDERED SHOWN AT THEIR APPROXIMATE LOCATION. THE CONTRACTOR SHALL LOCATE THEM AS FIELD CONDITIONS DICTATE. ADDITIONAL PULL AND JUNCTION BOXES NOT SHOWN ON DRAWINGS SHALL BE PROVIDED WHERE REQUIRED BY APPLICABLE CODE PROVISIONS OR WHERE CALLED FOR BY FIELD CONDITIONS. PULL AND JUNCTION BOXES SHALL BE SURFACE TYPE IN UNFINISHED AREAS AND INSTALLED CONCEALED IN FINISHED AREAS, AND ALL COVERS TO PULL & JUNCTION BOXES SHALL BE READILY ACCESSIBLE.
14. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
15. FOR EXACT LOCATION AND MOUNTING HEIGHT OF LIGHTING FIXTURES AND SWITCH/RECEPTACLE OUTLETS, REFER TO ARCHITECTURAL REFLECTED CEILING AND POWER PLANS.
16. ALL ELECTRICAL ACCESSORIES AND EQUIPMENT INSTALLED OUTSIDE OR EXPOSED TO WEATHER SHALL HAVE NEMA 3R ENCLOSURES AND SHALL BE TIGHTLY GASKETED FOR A COMPLETE RAINTIGHT INSTALLATION. ALL BUILDING EXTERIOR MOUNTED RECEPTACLES SHALL BE GFCI RATED AND MOUNTED IN WEATHERPROOF ENCLOSURE.
17. ALL ACCESS PANEL LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
18. ELECTRICAL CONTRACTOR SHALL COORDINATE THE LOCATION AND INSTALLATION WITH THE GENERAL CONTRACTOR AND OTHER ASSOCIATED TRADES IN A TIMELY MANNER. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL DIMENSIONS AND CONDITIONS PRIOR TO CONSTRUCTION. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL, DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
19. ALL CONDUITS AND EQUIPMENT TO BE CONCEALED IN FINISHED SPACES UNLESS OTHERWISE NOTED.
20. ALL EQUIPMENT AND MATERIALS INSTALLED IN PLENUM CEILINGS SHALL BE APPROVED FOR THAT APPLICATION.
21. OUTLET BOXES AND JUNCTION BOXES ON OPPOSITE SIDES OF FIRE-RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES, UNLESS FIRE-RATED BOXES OR PUTTY PADS ARE UTILIZED.
22. COORDINATE ALL FLOOR PENETRATIONS WITH THE ARCHITECTURAL DRAWINGS. CONFIRM PENETRATION LOCATIONS WITH THE ENGINEER AND OWNER BEFORE INSTALLATION.
23. LIGHTING FIXTURES DESIGNATED AS EMERGENCY TYPE SHALL BE WIRED AHEAD OF ANY CONTROL DEVICES.
24. NUMBER(S) SHOWN AT RECEPTACLES, JUNCTION BOXES AND EQUIPMENT INDICATES CIRCUIT NUMBERS IN PANELBOARD. PROVIDE WIRE AND CONDUIT TO INTERCONNECT EQUIPMENT AND DEVICES WITH SAME CIRCUIT NUMBERS AND RUN TO PANELBOARD.
25. PROVIDE RACEWAY, BACK-BOXES, GROUNDING PROVISIONS AND 120V POWER AS NECESSARY FOR LOW VOLTAGE SYSTEMS (SECURITY, TELEPHONE DATA, CABLE TELEVISION, PAGING, INTERCOM, ETC. AS APPLICABLE TO PROJECT). REFER TO ASSOCIATED CONSULTANT'S DRAWING FOR EXACT REQUIREMENTS AND LOCATIONS OF DEVICES.
26. PROVIDE HANDLE TIES TO ALLOW FOR SIMULTANEOUS DISCONNECTION OF CONDUCTORS IN ANY MULTI-BRANCH CIRCUITS WITH A SHARED NEUTRAL.
27. THE ELECTRICAL SPECIFICATIONS AND CONNECTIONS SHOWN ON THESE PLANS ARE FOR FOOD SERVICE EQUIPMENT REQUIREMENTS ONLY. IT IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO CONSULT THE ARCHITECT'S, MECHANICAL ENGINEERS AND/OR GENERAL CONTRACTOR'S PLANS AND THE OWNER FOR FURTHER BUILDING ELECTRICAL REQUIREMENTS.
28. ACCESS AREAS AND CUT-INS ON CUSTOM AND BUYOUT EQUIPMENT AND AS REQUIRED FOR PROPER FIXTURES SHALL BE PROVIDED BY THE K.E.C. INSTALLATION OF ELECTRICAL OUTLETS, JUNCTION BOXES, HOME RUNS, ETC. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL SHIELDS AND EXTENSION BOXES AS REQUIRED.
29. THE ELECTRICAL CONTRACTOR SHALL CONNECT ALL COMPRESSORS AND PROVIDE FUSED DISCONNECTS, MAGNETIC STARTERS AND THERMO OVERLOAD PROTECTION AS REQUIRED.
30. VAPOR PROOF LIGHT FIXTURES FOR EXHAUST HOODS SHALL BE FURNISHED BY THE HOOD SUPPLIER. THE ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL PULL BOXES,CONDUIT, WIRE, BULBS, ETC. PROVIDE AND CONNECT TO A WALL MOUNTED SWITCH (WITH PILOT LIGHT) LOCATED PER PLANS.
31. VAPOR PROOF LIGHT FIXTURES FOR WALK-IN COOLERS AND FREEZERS SHALL BE FURNISHED WITH AN EXTERIOR PILOT LIGHT SWITCH BY THE WALK-IN SUPPLIER. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO INTERCONNECT AND INSTALL THESE ITEMS AS REQUIRED. ELECTRICAL CONTRACTOR SHALL CONNECT DOOR HEATERS, RELIEF PORTS.
32. ELECTRICAL CONTRACTOR TO INTERCONNECT THE REMOTE REFRIGERATION: COMPRESSOR, EVAPORATOR, T-STAT, SOLENOID AND DEFROST TIMER (ALL CONTROLS) WHERE REQUIRED.
33. ALL ELECTRICAL MATERIALS INCLUDING WIRING, FLEX CONDUIT, SWITCHES, DISCONNECTS, MAGNETIC STARTERS, THERMO-OVERLOAD PROTECTORS, TRANSFORMERS, ELECTRICAL PANELS, CORDS, PLUGS, RECEPTACLES, BULBS, ETC. SHALL BE SUPPLIED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFIED IN THESE PLANS OR IN WRITING BY THE FOOD SERVICE EQUIPMENT CONTRACTOR.
34. IT SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR TO PROVIDE WATER PROOF POWER OUTLET(S) ON THE ROOF FOR EXHAUST SYSTEM FAN(S) MAKE-UP AIR FAN(S) AND REFRIGERATION SYSTEM(S) AS REQUIRED. LOW VOLTAGE (OR COMMON VOLTAGE) WIRING SHALL ALSO BE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR WHEN NECESSARY TO CONTROL AND INTERCONNECT THE ABOVE SYSTEMS.
35. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ANY AND ALL ELECTRICAL CONTACTORS AS REQUIRED BY APPLICABLE CODES AND ORDINANCES.
36. ALL DIMENSIONS SHOWN ON THESE PLANS ARE MEASURED FROM FINISHED WALLS, FLOORS, CEILINGS AND/OR COLUMN CENTER LINES OR GRID LINES TO ENTER LINES OF OUTLETS AND PULL BOXES. THE ELECTRICAL CONTRACTOR SHALL MAKE ALLOWANCES FOR FINISHES WHEN ROUGHING-IN AS REQUIRED.
37. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ELEMENT CONTACTOR (RELAY) SHUTOFFS (SHUNT TRIP) AND/OR SOLENOID SHUTOFF VALVE AND INTERCONNECT WITH THE FIRE SUPPRESSION SYSTEM FOR THE COOKING EQUIPMENT, TO SHUT OFF ALL EQUIPMENT AUTOMATICALLY IN CASE OF FIRE. VERIFY WITH LOCAL CODES FOR SHUTDOWN OF EXHAUST FAN(S) AND OR MAKE-UP AIR FAN(S).
38. ALL 115 VOLT CONVENIENCE OUTLETS NOT DESIGNATED WITH SPECIFIC LOADS ARE TO BE RATED 20.0 AMPS. ELECTRICAL CONTRACTOR IS TO PROVIDE ANY ADDITIONAL OUTLETS AS CALLED FOR BY ARCHITECT, OWNER AND/OR GENERAL CONTRACTOR.
39. ELECTRICAL CONTRACTOR TO PROVIDE CAPS AND CORDS FOR ALL EQUIPMENT WHERE CAPS AND CORDS ARE NOT STANDARD WITH MANUFACTURE. ELECTRICIAN TO ALSO SHORTEN ANY CORDS SUPPLIED WITH EQUIPMENT IF REQUESTED TO DO SO BY OWNER OR FOOD SERVICE EQUIPMENT CONTRACTORS' REPRESENTATIVE.
40. ELECTRICAL CONTRACTOR TO PROVIDE ALL ROUGH-IN BUILDING SERVICES AND MAKE FINAL CONNECTIONS TO ALL FOOD SERVICE EQUIPMENT PROVIDED BY K.E.C. THIS SHALL INCLUDE THE INSTALLATION MOUNTING OF THE AIR CURTAINS(S)/MICROSWITCH(S).
41. ELECTRICAL CONTRACTOR TO PROVIDE TEMPORARY POWER TO FOOD SERVICE EQUIPMENT CONTRACTORS' INSTALLERS, AS REQUIRED.
42. ALL ROUGH-INS ARE SHOWN IN OPTIMUM SPOTS, UTILIZE ALL EXISTING SERVICES WHEN APPLICABLE.
43. ALL RECEPTACLES AND JUNCTION BOXES TO BE FLUSHED MOUNTED IN WALLS WITH STAINLESS STEEL COVER PLATE.
44. VERIFY ALL ELECTRICAL ROUGH-INS AND LOCATIONS WITH OWNER, VENDOR, OR GENERAL CONTRACTOR ON EXISTING EQUIPMENT OR OTHER EQUIPMENT NOT PROVIDED BY K.E.C.
45. WHERE APPLICABLE, ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT WIRING, INSTALL ELECTRICAL COMPONENTS, AND INTERWIRE, BETWEEN
- CONTROL PANELS TO VENTILATORS AND EXHAUST/SUPPLY FANS PER MANUFACTURE'S INSTRUCTIONS.
- KITCHEN EXHAUST HOOD/VENTILATORS TO FIRE CONTROL SYSTEM AND HOOD CONTROLS.
- CALL LIGHTS AND WAITRESS CONTROL SYSTEMS.
- LIGHT FIXTURE, CHANDELIERS, ETC. LAMPS FOR ANY LIGHT FIXTURES ARE TO BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS INDICATED ON THE LIGHTING SCHEDULES OR DRAWINGS.
- MODULE COUNTERS AND COMPONENTS OR EQUIPMENT MOUNTED ON COUNTERS.
- HEAT LAMPS ARE TO BE CONNECTED THRU REMOTE CONTROLS, PILOT LIGHTS, ETC.

46. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL ALL LIGHT BULBS FOR FIXTURES, WHERE APPLICABLE.
47. ALL ITEMS SHOWN WITH P.I. CONNECTIONS, PLUG INTO RECEPTACLES FURNISHED BY THE K.E.C. AS PART OF THE EQUIPMENT.
48. WHERE CONNECTION IS SHOWN AS J.B., ELECTRICAL CONTRACTOR SHALL CONNECT TO J.B. FURNISHED AS PART OF THE EQUIPMENT.
49. ALL HORIZONTAL DIMENSIONS ARE FROM FACE OF FINISHED WALL TO CENTER-LINE OF OUTLET OR FROM CENTER-LINE OF OUTLET TO CENTERLINE OF OUTLET UNLESS OTHERWISE NOTED.
50. ALL SYMBOLS FOR OUTLET ON WALLS ARE INDICATED AT A SPECIFIC HEIGHT. HEIGHT OF OUTLET IS GIVEN FROM FINISHED FLOOR TO CENTERLINE OF OUTLET.

PROPERTY of NY Engineers

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CONTRACTOR'S NOTE

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF, THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

CLIENT:
EATALY

EATALY

PROJECT NUMBER:
12308-24
DRAWN BY : NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION
2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE

ELECTRICAL LEGENDS AND ABBREVIATIONS

SHEET NUMBER

E-001.00

ELECTRICAL SPECIFICATIONS

SUMMARY

A. GENERAL AND SUPPLEMENTARY CONDITIONS WITHIN THE SPECIFICATIONS ARE HEREBY INCORPORATED AND BECOME PART OF THESE SPECIFICATIONS AND AS SUCH SHALL BE APPLICABLE TO THE WORK OF THE ELECTRICAL CONTRACT.
B. PRIOR TO SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND LIMITATIONS THAT IMPACT THE WORK OF THIS CONTRACT. NO ADDITIONAL COSTS TO THE OWNER SHALL BE PERMITTED FOR CHANGES TO THE WORK AS A RESULT OF THE CONTRACTORS FAILURE TO VISIT THE SITE PRIOR TO BIDDING AND IDENTIFY ITEMS THAT WERE ABLE TO BE VERIFIED DURING A SITE VISIT PRIOR TO THE SUBMISSION OF A BID PROPOSAL.
C. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, RIGGING, AND MISCELLANEOUS ITEMS AS REQUIRED FOR A COMPLETE, OPERATIONAL, FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THESE SPECIFICATIONS.

LANDLORDS REQUIREMENTS

A. ALL WORK OF THIS CONTRACT SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LANDLORD'S WORK LETTER, LANDLORD'S CONSTRUCTION CRITERIA AND/OR THE TENANT/LANDLORD AGREEMENT. THIS CONTRACTOR SHALL EXAMINE THESE DOCUMENTS PRIOR TO THE SUBMISSION OF A BID PROPOSAL.
B. ALL APPLICABLE REQUIREMENTS OF THE LANDLORD'S WORK LETTER, LANDLORDS CONSTRUCTION CRITERIA AND/OR THE TENANT/LANDLORD AGREEMENT DOCUMENTS SHALL BE CONSIDERED PART OF THESE SPECIFICATIONS.

EXISTING CONDITIONS

A. THE CONTRACT DOCUMENTS ARE BASED ON INFORMATION PROVIDED TO THE CONSULTANT AT THE TIME OF DESIGN. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID PROPOSAL. BIDS AND SUBSTITUTIONS A PRIOR TO SUBMISSION OF A BID PROPOSAL CONTRACTOR SHALL THOROUGHLY REVIEW THE BID INSTRUCTIONS AND ALL CIVIL, ARCHITECTURAL, STRUCTURAL, FOOD SERVICE AND MEPFP CONSTRUCTION DOCUMENTS.
B. SHOULD THE CONTRACTOR WISH TO SUBMIT AN ALTERNATE PRODUCT TO THE MANUFACTURERS NAMED IN THESE SPECIFICATIONS OR ON THE DRAWINGS FOR ANY EQUIPMENT, THE CONTRACTOR SHALL SUBMIT A VOLUNTARY ALTERNATIVE A MINIMUM OF SEVEN (7) CALENDAR DAYS PRIOR TO THE BID, STATING THE MANUFACTURER'S NAME, MODEL NUMBER, WRITTEN, DETAILED PRODUCT DATA.
C. WORK PERFORMED OR CONSTRUCTED WITH UNAPPROVED EQUALS IS AT CONTRACTOR'S RISK AND ANY REQUIRED CORRECTION OF WORK INCORPORATING UNAPPROVED EQUALS SHALL BE AT CONTRACTOR'S SOLE COST AND EXPENSE.
D. NO SUBSTITUTIONS PERMITTED FOR LIGHTING FIXTURES.

QUALITY ASSURANCE

A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.
B. PROVIDE PERMITS, INSPECTIONS, FINAL CERTIFICATES OF INSPECTION BY THE AUTHORITY HAVING JURISDICTION, PERMIT AND INSPECTION FEES AND ALL MATERIALS, EQUIPMENT AND LABOR AS REQUIRED FOR A COMPLETE, FUNCTIONAL, FULLY OPERATIONAL AND CODE COMPLIANT ELECTRICAL SYSTEM
C. THIS CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND ACCESSORIES FOR A COMPLETE FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION, WHETHER OR NOT SHOWN ON THE DRAWINGS OR SPECIFIED IN THESE SPECIFICATIONS.
D. EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY THE OWNER OF ANY DIFFERENCES
E. REQUIREMENTS OF REGULATORY AGENCIES:
   1. PERMITS: ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND UTILITY CONNECTIONS REQUIRED.
   2. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
   3. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE COMPLETION OF THE PROJECT, INCLUDE IN OPERATION AND MAINTENANCE MANUALS.
F. CODES AND STANDARDS
   1. COMPLY WITH SPECIFIED CODES AND STANDARDS. IF CONFLICT EXISTS BETWEEN CODES OR STANDARDS AND DRAWINGS, PROJECT MANUAL OR ADDENDA REQUIREMENTS, REQUEST CLARIFICATION FROM ARCHITECT/ENGINEER.
   2. CONFORM TO THE INSTALLATION RULES AND REGULATIONS OF THE CODES AND STANDARDS LISTED INCLUDING ALL SUBSEQUENTLY PUBLISHED AMENDMENTS THERETO ISSUED PRIOR TO THE DATE OF THE BIDDING DOCUMENTS.
   3. CONFORM TO THE REQUIREMENTS OF ALL LOCAL STATE AND FEDERAL AGENCIES WHICH HAVE AUTHORITY OVER THIS PROJECT.
   4. COMPLY WITH THE APPLICABLE EDITION OF THE FOLLOWING CODES AND STANDARDS THAT HAVE BEEN ADOPTED BY AND ARE ENFORCED BY THE AUTHORITY HAVING JURISDICTION:
      a. INTERNATIONAL BUILDING CODE
      b. INTERNATIONAL ENERGY CONSERVATION CODE
      c. INTERNATIONAL MECHANICAL CODE
      d. NATIONAL ELECTRICAL CODE
      e. INTERNATIONAL FIRE CODE
      f. LIFE SAFETY CODE, NFPA 101
      g. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
      h. ALL LOCAL CODES AND ORDINANCES ADOPTED AND ENFORCED BY THE AUTHORITY HAVING JURISDICTION
G. REFERENCED STANDARDS:
   1. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE RATED, TESTED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE INDUSTRY STANDARDS.
   2. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE LISTED AND LABELED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (UL, ETL, ETC)

ELECTRICAL CONTRACT DOCUMENTS

A. THE ELECTRICAL DRAWINGS (DRAWINGS) AND THE SPECIFICATIONS SHALL TOGETHER FORM A SET OF CONTRACT DOCUMENTS FOR THE ELECTRICAL WORK. NEITHER THE DRAWINGS OR THE SPECIFICATIONS SHALL BE COMPLETE WITHOUT THE OTHER. ANY ITEM SHOWN ONLY ON THE DRAWINGS OR SPECIFIED ONLY IN THE SPECIFICATIONS SHALL BE CONSIDERED AS IF SHOWN AND SPECIFIED IN BOTH.
B. ELECTRICAL DRAWINGS AND SPECIFICATIONS: COMPLY WITH THE FOLLOWING REQUIREMENTS:
   1. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL DRAWINGS AND SPECIFICATIONS WITHIN THE CONTRACT DOCUMENTS, INCLUDING, BUT NOT NECESSARILY LIMITED TO, GEOTECHNICAL, LANDSCAPE, CIVIL, ARCHITECTURAL, STRUCTURAL, FOOD SERVICE, MECHANICAL, PLUMBING, TELECOMMUNICATION AND FIRE PROTECTION DRAWINGS AND SPECIFICATIONS.
   2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO INDICATE APPROXIMATE LOCATION AND QUANTITY OF ELECTRICAL WORK. THE ACTUAL LOCATION OF ANY ELECTRICAL WORK SHALL NOT INTERFERE WITH THE LOCATION, CLEARANCES, ETC. REQUIRED BY THE WORK OF OTHER TRADES.
   3. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE ALL DEVICE LOCATIONS WITH THE ARCHITECTURAL WALL ELEVATIONS, CASEWORK/CABINETRY ELEVATIONS AND DETAILS AND THE FINAL, APPROVED FOOD SERVICE SHOP DRAWINGS.
C. DEFINITIONS: THE FOLLOWING TERMS ARE USED ON THE ELECTRICAL DRAWINGS AND IN THE SPECIFICATIONS AND SHALL BE DEFINED AS FOLLOWS:
   1. CONTRACTOR - THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.
   2. WORK - ALL MATERIAL, LABOR, TRANSPORTATION OF THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.
   3. FURNISH - PURCHASE. SUBMIT FOR REVIEW AND APPROVAL, COORDINATE WITH THE CONTRACT DOCUMENTS AND DELIVER TO THE PROJECT SITE IN NEW, UNDAMAGED CONDITION, STORE AS DIRECTED, PROTECT FROM DAMAGE DURING STORAGE.
   4. INSTALL - INSTALL IN PLACE, MAKE READY FOR CONNECTION TO THE REQUIRED SERVICE.
   5. CONNECT - CONNECT TO THE REQUIRED SERVICE AS REQUIRED FOR PROPER OPERATION. TEST FOR PROPER OPERATION AND FUNCTIONALITY IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND REQUIREMENTS SPECIFIED WITHIN THESE SPECIFICATIONS AND TURN OVER TO THE OWNER IN FULL OPERATING CONDITION.
   6. PROVIDE - FURNISH, INSTALL AND CONNECT AS DEFINED HEREIN FOR A COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION READY FOR INTENDED USE.
   7. FINISHED SPACE - SPACES HAVING WALLS PAINTED OR FINISHED WITH WALL COVERING, LAY-IN OR DRYWALL CEILINGS, AND FINISHED FLOORING MATERIALS. EXAMPLES OF FINISHED SPACES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, ALL SPACES IN A DWELLING UNIT, OFFICES, LOBBIES, CORRIDORS, TOILET ROOMS, ETC.
   8. UNFINISHED SPACES - SPACES WITH UNFINISHED WALLS AND FLOORS AND TYPICALLY ARE NOT EQUIPPED WITH A CEILING. EXAMPLES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, MECHANICAL ROOMS, ELECTRICAL ROOMS, SERVICE AREAS, ETC.
   9. SHALL - ACTION THAT IS REQUIRED WITHOUT OPTION OR QUALIFICATION.
   10. REMOVE - DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF SITE UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND RE-INSTALLED.
   11. REMOVE AND SALVAGE - - CAREFULLY DETACH FROM EXISTING CONSTRUCTION IN A MANNER TO PREVENT DAMAGE AND DELIVER TO OWNER READY FOR RE-USE.
   12. REMOVE AND REINSTALL - DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE FOR RE-USE, RE-INSTALL AND RECONNECT WHERE INDICATED SUCH THAT THE RE-INSTALLED ITEM IS FULLY OPERATIONAL.
   13. EXISTING TO REMAIN - EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE PERMANENTLY REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED OR REMOVED AND RE-INSTALLED.

SUBMITTALS

A. REVIEW OF THE SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR OF BUILDING CONDITIONS; NOR SHALL IT BE CONSTRUED AS RELIEVING THE CONTRACTORS OF BASIC RESPONSIBILITIES UNDER HIS CONTRACT. ARCHITECT/ENGINEER WILL REVIEW SHOP DRAWINGS ONLY FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT. REVIEW BY THE ARCHITECT/ENGINEER SHALL NOT BE CONSTRUED:
   1. AS PERMITTING ANY DEPARTURE FROM THE CONTRACT REQUIREMENTS.
   2. AS RELIEVING THE CONTRACTOR OF THE RESPONSIBILITY FOR ANY ERROR IN DETAILS, DIMENSIONS OR OTHERWISE THAT MAY EXIST.
   3. AS APPROVED DEPARTURES FROM ADDITIONAL DETAILS OR INSTRUCTIONS PREVIOUSLY FURNISHED BY THE ARCHITECT/ENGINEER.

SHOP DRAWINGS:

   1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESCRIPTIVE LITERATURE OF EQUIPMENT TO BE FURNISHED UNDER THIS CONTRACT. DRAWINGS SHALL STATE CAPACITIES, SIZES, ETC., OF ALL EQUIPMENT AND SHALL BE SUBMITTED IN SPECIAL CONDITIONS AND SUPPLEMENTARY CONDITIONS FOR ADDITIONAL REQUIREMENTS.
   2. PROVIDE SUBMITTALS FOR LIGHTING FIXTURES, TRANSFORMERS, PANELBOARDS, LIGHTING CONTROL DEVICES, CONTACTORS, WIRING DEVICES, DISCONNECT SWITCHES, POWER SYSTEM STUDY.

B. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK REQUIRING SUBMITTAL AND REVIEW OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNTIL THE RESPECTIVE SUBMITTALS HAS BEEN APPROVED BY THE ENGINEER.

ELECTRICAL COORDINATION DRAWINGS

A. PREPARE ELECTRICAL COORDINATION DRAWINGS AS REQUIRED BY THE WORK AND AS DIRECTED BY THE GENERAL CONTRACTOR.
B. MEET WITH REPRESENTATIVES OF THE OTHER DISCIPLINES/TRADES TO COORDINATE THE ELECTRICAL WORK WITH THE WORK OF EACH DISCIPLINE AND TO OBTAIN INFORMATION REGARDING THEIR WORK THAT IS TO BE INDICATED ON THE COORDINATION DRAWINGS.

POWER SYSTEM STUDIES - GENERAL

A. PROVIDE COMPUTER-BASED, POWER SYSTEM STUDIES THAT INCLUDES:

A SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF OVERCURRENT PROTECTIVE DEVICES.

AN ARC-FLASH STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR NEAR ELECTRICAL EQUIPMENT.

B. STUDIES SHALL BE PERFORMED UTILIZING COMPUTER PROGRAMS THAT ARE DISTRIBUTED NATIONALLY AND ARE IN WIDE USE. SOFTWARE ALGORITHMS SHALL COMPLY WITH REQUIREMENTS OF STANDARDS AND GUIDES SPECIFIED IN THIS SECTION. MANUAL CALCULATIONS ARE UNACCEPTABLE.
C. SOFTWARE DEVELOPERS: SUBJECT TO COMPLIANCE WITH SPECIFIED REQUIREMENTS, PERFORM STUDIES UTILIZING SOFTWARE PRODUCTS BY ONE OF THE FOLLOWING:
   1. EASY POWER
   2. POWER ANALYTICS CORPORATION
   3. SKM SYSTEMS ANALYSIS
D. ALL STUDIES SHALL BE BASED ON THE DEVICE CHARACTERISTICS OF ACTUAL EXISTING COMPONENTS AND THE NEW COMPONENTS BEING INSTALLED.
E. PROVIDE ADDITIONAL DATA AS REQUIRED TO OBTAIN ALL DATA NECESSARY TO CONDUCT THE STUDIES SPECIFIED HEREIN.
F. SUBMIT STUDIES FOR REVIEW BEFORE SUBMITTING THE SYSTEM OVERCURRENT PROTECTIVE DEVICE AND POWER DISTRIBUTION EQUIPMENT SUBMITTALS. SUBMIT STUDY REPORT FOR REVIEW AND APPROVAL. APPROVAL OF THE OVERCURRENT PROTECTIVE DEVICE AND DISTRIBUTION EQUIPMENT SUBMITTALS.
G. WHERE FORMAL COMPLETION OF STUDIES WILL CAUSE A DELAY IN THE ORDERING AND MANUFACTURING OF OVERCURRENT PROTECTIVE DEVICES AND POWER DISTRIBUTION EQUIPMENT, OBTAIN APPROVAL FROM ENGINEER FOR PRELIMINARY SUBMITTAL OF SUFFICIENT STUDY DATA TO ENSURE THAT THE SELECTED EQUIPMENT AND DEVICE CHARACTERISTICS IS SATISFACTORY AND IN COMPLIANCE WITH THE RESULTS OF THE STUDIES BEING PERFORMED.

SHORT CIRCUIT STUDY

A. PROVIDE A COMPUTER-BASED, SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES.
B. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT.
C. FOR EXISTING RELOCATED EQUIPMENT AND EXISTING EQUIPMENT THAT IS EXISTING TO REMAIN, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS. THE QUALIFICATIONS OF TECHNICIANS AND ENGINEERS SHALL BE QUALIFIED AS DEFINED BY NFPA 70E.
D. GATHER AND TABULATE ALL REQUIRED DATA TO SUPPORT THE SHORT-CIRCUIT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 551 FOR THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.
E. BEGIN SHORT-CIRCUIT CURRENT ANALYSIS AT THE SERVICE, EXTENDING DOWN TO THE SYSTEM OVERCURRENT PROTECTIVE DEVICES AS FOLLOWS:
   1. TO NORMAL SYSTEM LOW-VOLTAGE LOAD BUSES WHERE FAULT CURRENT IS 10 KA OR LESS.

ARC FLASH HAZARD STUDY

A. PROVIDE A COMPUTER-BASED, ARC-FLASH HAZARD STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR NEAR EXISTING AND NEW ELECTRICAL EQUIPMENT.
B. ELECTRICAL SURVEY DATA: GATHER AND TABULATE ALL REQUIRED INPUT DATA TO SUPPORT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 1584 AND NFPA 70E AS TO THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.
C. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT.
D. FOR EXISTING EQUIPMENT, WHETHER OR NOT RELOCATED, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS.
E. HAZARD LABELS SHALL HAVE AN ORANGE HEADER WITH THE WORDING, "WARNING, ARC-FLASH HAZARD," AND SHALL INCLUDE THE FOLLOWING INFORMATION TAKEN DIRECTLY FROM THE ARC-FLASH HAZARD ANALYSIS:
   1. LOCATION DESIGNATION.
   2. NOMINAL VOLTAGE.
   3. FLASH PROTECTION BOUNDARY.
   4. HAZARD RISK CATEGORY.
   5. INCIDENT ENERGY.
   6. WORKING DISTANCE.
   7. ENGINEERING REPORT NUMBER, REVISION NUMBER, AND ISSUE DATE.
F. ARC FLASH HAZARD WARNING LABELS SHALL BE A 3.5-BY-5-INCH THERMAL TRANSFER LABEL OF HIGH-ADHESION POLYESTER FOR EACH WORK LOCATION INCLUDED IN THE ANALYSIS.
G. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD-APPLIED MARKINGS.

RECORD DOCUMENTS

A. DURING THE PROGRESS OF THE WORK, CONTRACTOR SHALL MAINTAIN A CURRENT (DAILY) AS-BUILT SET OF THE DRAWINGS AND SPECIFICATIONS, INDICATING THEREON ALL WORK INSTALLED AT VARIANCE WITH SUCH CONTRACT DOCUMENTS INCLUDING, WITHOUT LIMITATION, WORK COVERED BY ADDENDA, FIELD WORK ORDERS, CHANGE ORDERS, AND ENGINEERS
B. CONTRACTOR SHALL PROVIDE THE TENANT WITH THE FINAL AS-BUILT SET OF DRAWINGS AT THE COMPLETION OF THE WORK.

COORDINATION WITH LANDLORD AND UTILITY COMPANIES

A. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL COORDINATE THE WORK OF THIS CONTRACT WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE AND AUTHORIZED REPRESENTATIVES OF EACH SERVING UTILITY THAT WILL PROVIDE SERVICE TO THIS SITE, INCLUDING BUT NOT NECESSARILY LIMITED TO, ELECTRIC, TELEPHONE AND CABLE/SATELLITE TV SERVICE PROVIDERS.
B. CONTRACTOR SHALL MEET WITH AUTHORIZED REPRESENTATIVES OF THE LANDLORD AND EACH UTILITY TO DISCUSS LANDLORD UTILITY COMPANY SCOPE OF WORK, CONTRACTOR SCOPE OF WORK, POINT OF SERVICE PICK-UP, DETAILS REGARDING SYSTEM INTERFACE, UTILITY COMPANY STANDARDS TO BE COMPLIED WITH, ETC.

COORDINATION WITH OTHER TRADES

A. ELECTRICAL WORK SHALL BE INSTALLED SO AS TO NOT CONFLICT WITH THE WORK OF OTHER TRADES.
B. SET ALL SLEEVES AND CUT AND PATCH ALL MISCELLANEOUS HOLES NECESSARY FOR THE CONVENIENT AND PROPER INSTALLATION OF THE WORK.
C. CONFER WITH THE OTHER CONTRACTORS REGARDING THE LOCATION AND SIZE OF PIPES, EQUIPMENT, DUCTS, OPENINGS AND SPECIAL ARCHITECTURAL TREATMENTS IN ORDER THAT THERE MAY BE NO INTERFERENCES BETWEEN THE INSTALLATION OR THE PROGRESS OF THE WORK OF ANY CONTRACTOR ON THE PROJECT
D. ALL LINE VOLTAGE WIRING AND FINAL CONNECTIONS TO COMPLETE MECHANICAL SYSTEMS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR.
E. PROVIDE FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS, (HVAC EQUIPMENT, PLUMBING EQUIPMENT, COMMERCIAL KITCHEN EQUIPMENT, ETC.
F. COORDINATE THE NEMA CONFIGURATION OF THE RECEPTACLE TO BE PROVIDED WITH THE NEMA PLUG CONFIGURATION OF THE CORD/PLUG ASSEMBLY FURNISHED WITH THE EQUIPMENT TO BE INSTALLED. PROVIDE RECEPTACLES HAVING A NEMA CONFIGURATION THAT MATCHES THE NEMA CONFIGURATION OF THE PLUG ON THE EQUIPMENT.
G. PROVIDE FINAL COORDINATION OF AVAILABLE POWER (VOLTAGE/PHASE) WITH OTHER TRADES PRIOR TO THEIR ORDERING OF EQUIPMENT.
H. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING ELECTRICAL WORK TO BE PROVIDED ASSOCIATED WITH MECHANICAL EQUIPMENT.
I. WHERE ELECTRICAL WORK (CONDUIT BOXES, RECEPTACLES, DISCONNECT SWITCHES, ETC.) ARE SECURED DIRECTLY TO THE HOUSING OF MECHANICAL EQUIPMENT, THEY SHALL BE INSTALLED ON A PORTION OF THE EQUIPMENT HOUSING NOT REQUIRED TO BE REMOVED FOR ROUTINE MAINTENANCE. PRIOR TO INSTALLATION, COORDINATE ALL ELECTRICAL WORK AT MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR.

TEMPORARY POWER

A. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY CONSTRUCTION POWER AND LIGHTING TO ALLOW ALL CONTRACTORS AND SUB-CONTRACTORS TO PERFORM THE WORK OF THEIR CONTRACTS.
   PRIOR TO THE SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL CONTACT THE GENERAL CONTRACTOR TO COORDINATE THE TYPE OF EQUIPMENT TO BE UTILIZED DURING THE WORK OF THIS CONTRACT

SEQUENCING AND SCHEDULING

A. COORDINATE ELECTRICAL EQUIPMENT INSTALLATION WITH OTHER BUILDING COMPONENTS AND THE PROJECT PHASING PLAN.

UTILITY COMPANY METERING EQUIPMENT

A. PROVIDE ALL EQUIPMENT REQUIRED FOR ELECTRICITY METERING BY UTILITY COMPANY. ALL METERING EQUIPMENT AND THE INSTALLATION OF THE EQUIPMENT SHALL BE IN COMPLIANCE WITH ALL UTILITY COMPANY REQUIREMENTS.
B. ELECTRICAL SERVICE CONNECTIONS: COORDINATE WITH UTILITY COMPANIES AND COMPONENTS THEY FURNISH AS FOLLOWS:
   1. COMPLY WITH REQUIREMENTS OF UTILITIES PROVIDING ELECTRICAL POWER SERVICES.
   2. COORDINATE INSTALLATION AND CONNECTION OF UTILITIES AND SERVICES, INCLUDING PROVISION FOR ELECTRICITY-METERING COMPONENTS.
C. METERS SHALL BE FURNISHED BY UTILITY COMPANY; INSTALLED BY ELECTRICAL CONTRACTOR.
D. METER SOCKETS: COMPLY WITH REQUIREMENTS OF ELECTRICAL-POWER UTILITY COMPANY. INSTALL ALL CONDUITS AS ACCEPTABLE OR BOTH TO UTILITY COMPANY'S WRITTEN REQUIREMENTS. PROVIDE EMPTY CONDUITS FOR METERING LEADS AND EXTEND GROUNDING CONNECTIONS AS REQUIRED BY UTILITY COMPANY.

FIRE STOPPING

A. PROVIDE FIRE STOPPING FOR PENETRATIONS BY CONDUIT OR CABLES AND OTHER EQUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS), HORIZONTAL BARRIERS (FLOORS ASSEMBLIES) AND VERTICAL SHAFT WALLS AND PARTITIONS.
B. FIRESTOP SYSTEM INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF ATME E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR GREATER THAN THAT OF THE CONSTRUCTION BEING PENETRATED.

SEISMIC RESTRAINT

A. PROVIDE SEISMIC RESTRAINT FOR ELECTRICAL WORK AND SYSTEMS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION
B. SUBMIT ALL REQUIRED DETAILS TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.

CUTTING & PATCHING

A. PRIOR TO CORE DRILLING OR SAW CUTTING OPERATIONS, CONTRACTOR SHALL X-RAY OR GROUND PENETRTING RADAR (GPR) THE EXISTING SLAB TO DETERMINE THE LOCATION OF ANY EXISTING UTILITIES, STRUCTURAL MEMBERS, ETC. COORDINATE ALL SCANNING, CUTTING AND CORE DRILLING OPERATIONS WITH GC AND LANDLORD PRIOR TO COMMENCEMENT OF WORK.
B. CORE-DRILL OR SAW-CUT OPENINGS IN CONCRETE, ROOF ETC. AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL WORK. STRUCTURAL COMPONENTS, INCLUDING BUT NOT NECESSARILY LIMITED TO, COLUMNS, BEAMS, GIRDERS, PLATES OR JOISTS SHALL NOT BE CUT.
   PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACES AND PREPARE TO RECEIVE SPECIFIED FINISHES. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING SYSTEM. ALL ROOF WORK SHALL BE PERFORMED TO MEET THE WARRANTY REQUIREMENTS OF THE EXISTING ROOFING SYSTEM.

GROUNDING

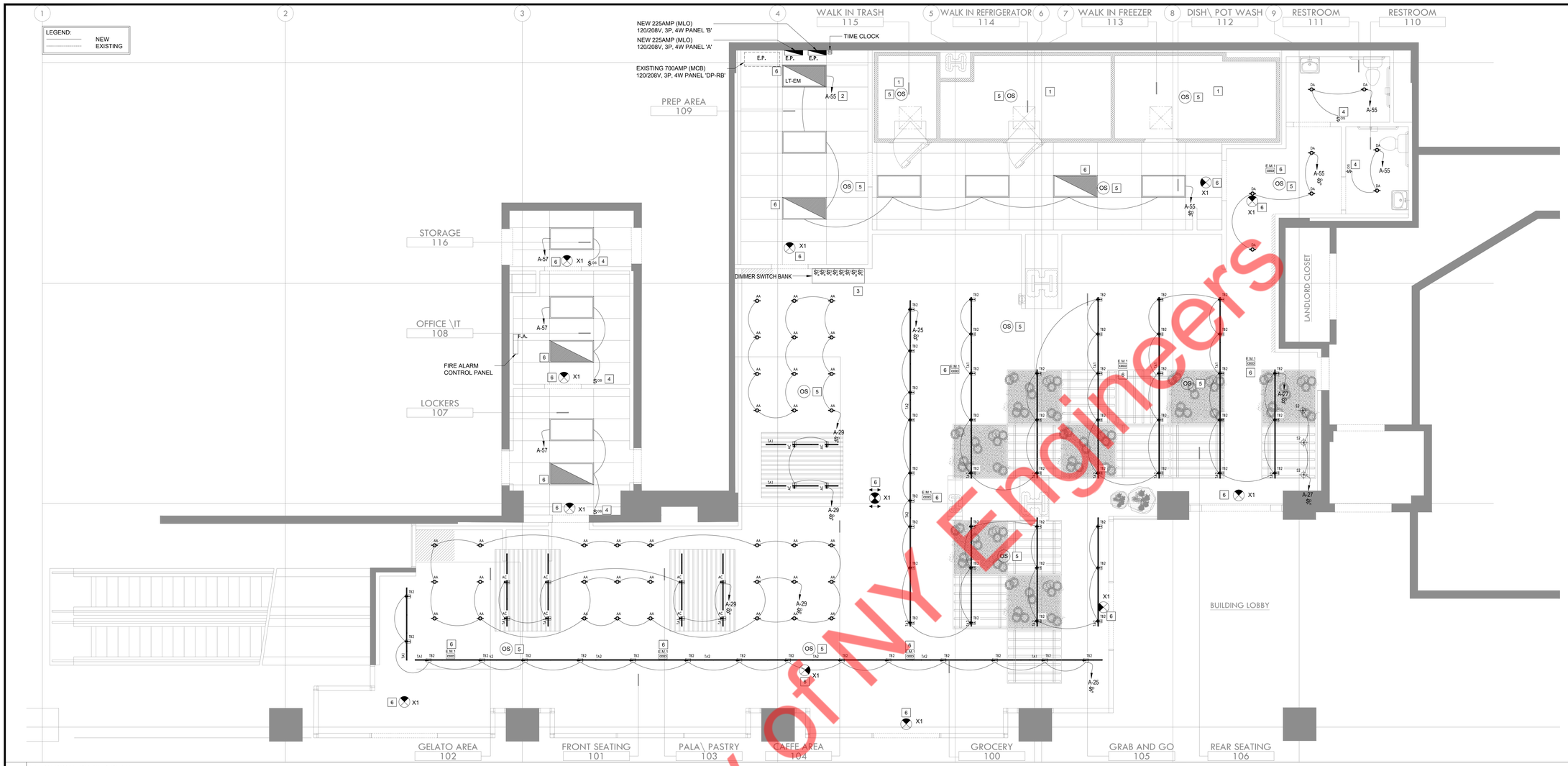
A. PROVIDE ELECTRICAL SYSTEM AND EQUIPMENT GROUNDING IN ACCORDANCE WITH APPLICABLE N.E.C. REQUIREMENTS.
B. THE METALLIC CONDUIT SYSTEM SHALL BE GROUNDED AND BONDED TO FORM AN EQUIPMENT GROUNDING CONDUCTOR.
C. PROVIDE AN INSULATED EQUIPMENT GROUND CONDUCTOR WITHIN ALL FEEDERS AND BRANCH CIRCUITS. THIS EQUIPMENT GROUND CONDUCTOR SHALL BE IN ADDITION TO THE EQUIPMENT GROUND CONDUCTOR FORMED BY THE METALLIC CONDUIT SYSTEM.
   PROVIDE AN ISOLATED GROUND CONDUCTOR IN ADDITION TO THE EQUIPMENT GROUNDING CONDUCTOR IN SELECT BRANCH CIRCUITS AS NOTED ON THE DRAWINGS.
D. PROVIDE A #6 AWG GREEN INSULATED GROUNDING CONDUCTOR FROM THE GROUND BAR AT TELEPHONE TERMINAL BOARD TO THE ELECTRICAL SERVICE GROUND.
   PROVIDE A COPPER GROUNDING BAR AT THE TELEPHONE TERMINAL BACKBOARD. GROUNDING BAR SHALL BE ¼ INCH X ¼ INCHES X 12 INCHES, PRE-DRILLED FOR CONDUCTOR TERMINATIONS, WITH NON-METALLIC STAND-OFF BRACKETS WITH INSULATORS. CHATSWORTH PRODUCTS 10622-012 OR APPROVED EQUAL.

EQUIPMENT IDENTIFICATION

A. PROVIDE EQUIPMENT LABELS ON PANELBOARDS, DISCONNECT SWITCHES, CONTACTORS, TRANSFORMERS, CONTROLS, ETC. EQUIPMENT LABELS SHALL BE ENGRAVED PHENOLIC RESIN NAMEPLATES ATTACHED TO ENCLOSURE WITH MECHANICAL FASTENERS. SELF-ADHESIVE NAMEPLATES ARE NOT ACCEPTABLE. LETTERING SHALL BE 1/2" HIGH, BLACK TEXT ON WHITE BACKGROUND.
B. ENGRAVED NAMEPLATES ATTACHED TO COMPONENTS SHALL IDENTIFY THE EQUIPMENT DESIGNATION, NAME OF THE "UPSTREAM" POWER SOURCE (AS APPLICABLE), VOLTAGE AND PHASE.
C. THE COVERS OF ALL OUTLET AND JUNCTION BOXES INSTALLED ABOVE CEILINGS AND INSTALLED EXPOSED IN UNFINISHED SPACES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL, VOLTAGE, PHASE AND CIRCUIT NUMBERS CONTAINED WITHIN THE BOX. LABEL SHALL BE LEGIBLY HANDWRITTEN WITH BLACK, FELT TIP PERMANENT MARKER.
D. THE COVER PLATES OF ALL WIRING DEVICES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL AND THE CIRCUITS SERVING THE DEVICE. LABELS SHALL BE MACHINE PRINTED, BLACK TEXT ON A CLEAR, SELF ADHESIVE LABEL.

CONDUIT AND FITTINGS

A. ALL INTERIOR AND EXTERIOR CONDUITS SHALL BE INSTALLED AND SUPPORTED IN ACCORDANCE WITH N.E.C. REQUIREMENTS.
B. MINIMUM CONDUIT SIZE SHALL BE ½" TRADE SIZE. SWITCH LEGS SHALL BE ½" TRADE SIZE.
C. WITHIN INTERIOR FINISHED AREAS, ALL CONDUIT SHALL BE INSTALLED CONCEALED WITHIN NEW AND EXISTING WALLS AND ABOVE NEW AND EXISTING CEILINGS.
D. CONDUIT INSTALLED WITHIN THE INTERIOR OF THE BUILDING SHALL BE GALVANIZED ELECTRICAL METALLIC TUBING (EMT). CONDUIT FITTINGS FOR INDOOR EMT CONDUITS SHALL BE CAST METAL, COMPRESSION TYPE.
E. EMT SHALL BE USED FOR INTERIOR FEEDERS AND BRANCH CIRCUITS INSTALLED EXPOSED IN UNFINISHED SPACES, CONCEALED ABOVE NEW OR EXISTING CEILINGS OR CONCEALED WITHIN EXISTING AND NEW INTERIOR PARTITIONS.
F. CONDUITS INSTALLED EXPOSED ON THE EXTERIOR OF THE BUILDING SHALL BE GALVANIZED RIGID STEEL, FITTINGS SHALL BE THREADED TYPE.
G. CONDUITS INSTALLED UNDER SLAB ON GRADE CONSTRUCTION SHALL BE RIGID NON-METALLIC (RNC), SCHEDULE 40 PVC. RNC COMPLYING WITH NEMA TC 2 AND UL 651 UNLESS OTHERWISE INDICATED. FITTINGS FOR RIGID NON-METALLIC CONDUIT SHALL COMPLY WITH NEMA TC 3. MATCH TO CONDUIT TYPE AND MATERIAL.
H. PROVIDE CONDUIT EXPANSION FITTINGS IN ALL CONDUIT RUNS THAT EXTEND ACROSS BUILDING EXPANSION JOINTS AND WHERE MOVEMENT MAY BE ENCOUNTERED.
I. CONDUIT SHALL BE SUPPORTED FROM STRUCTURE ONLY.
J. PVC CONDUIT SHALL ONLY BE USED BELOW GRADE.
K. PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT WITHIN INTERIOR DRY LOCATIONS. MAXIMUM CONDUIT LENGTH SHALL BE 36 INCHES.
L. PROVIDE LI



1 ELECTRICAL POWER PLAN
1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE

SYMBOL	QUANTITY	DESCRIPTION	MANUFACTURER	CATALOG NO.	VOLTAGE	WATTAGE	REMARKS
LT-EM	4	2'X4' RECESSED LIGHT PANEL - EMERGENCY LIGHT	ENVISION LED	LED-BPL-2x4-3M50-5CCT-EMB	120V	50W	ELECTRICAL CONTRACTOR SHALL RESPONSIBLE TO COORDINATE WITH ARCHITECT/OWNER/FRANCHISEE FOR THE EXACT LIGHTING FIXTURE SPECIFICATIONS AND CONTROLLING REQUIREMENTS PRIOR TO BID AND PROVIDE AS REQUIRED WITH NO ADDITIONAL COST TO CLIENT. ELECTRICAL CONTRACTOR TO PROVIDE ANY ADDITION ACCESSORIES REQUIRED PER FIELD COORDINATION OR FRANCHISEE SPECIFICATIONS.
LT	8	2'X4' RECESSED LIGHT PANEL	ENVISION LED	LED-BPL-2x4-3M50-5CCT	120V	50W	
X1	8	EXIT SIGN GREEN LED STENCIL FACE, UNIVERSAL MOUNTING. 90 MIN BATTERY PACK	LEVITON-ConTech	REXAMFREM-B	120/277V	5W	
E.M.1	5	RECESSED EMERGENCY LIGHT.	BEST LIGHTING	REM-W-WHITE	120/277V	4W	
AC	12	LASER ADJUSTABLE OPTIC	iGUZZINI	ILAS75-RTNC-927-SCA-FL-120-LTE-02	120V	19.7W	
TB2	60	PALCO LOW VOLTAGE PROJECTOR	iGUZZINI	IPLC-LV1-51-927-WF-02	120V	19.7W	
TA1	13	LOW VOLTAGE TRACK, 2M CEILING, WALL AND SUSPENDED APPLICATIONS	iGUZZINI	I IPLC-LV1-51-927-FL-	120V	5W/FT	
TA2	17	LOW VOLTAGE TRACK, 3M CEILING, WALL AND SUSPENDED APPLICATIONS	iGUZZINI	IPLC-LV1-51-927-FL-	120V	5W/FT	
AA	36	LASER- FIXED ROUND RECESSED LUMINAIRE LED	iGUZZINI	ILAS75RTNC-927-SCAFL-120-EDA	120V	17W	
DA	8	LASER- FIXED ROUND RECESSED LUMINAIRE LED	iGUZZINI	ILAS75RTNC-927-SCFVW-120-EDA	120V	17W	
SU	3	SIMPLE LED SUSPENSION BULB	TBD	TBD	120V	TBD	

KEY NOTES

1. LIGHT FIXTURES OF WALK-IN BOX AND STORAGE ARE FURNISHED BY THE VENDOR. ELECTRICAL CONTRACTOR TO INSTALL AND CONNECT FIXTURES.
2. LIGHTING NEAR ELECTRICAL PANELS SHALL NOT BE CONTROLLED BY ONLY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).
3. DIMMER SWITCH BANK COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER. DIMMER SWITCHES SHALL BE RATED FOR TOTAL LOAD OF SWITCHED CIRCUIT AND LAMP TYPE AS REQUIRED. DIMMERS SHALL BE PROVIDED WITH AN ON/OFF SWITCH.
4. WALL MOUNTED OCCUPANCY SENSOR EQUAL TO WATTSTOPPER WS-250. SET OFF TIME TO 15 MINUTES FOR RESTROOM, OFFICE SET DIP SWITCH TO AUTOMATIC ON.
5. PROVIDE LOW VOLTAGE OCCUPANCY SENSOR EQUAL TO WATTSTOPPER DT-305. PROVIDE WATTSTOPPER BZ POWER PACK(S) AS REQUIRED. INTERCONNECT OCCUPANCY SENSORS SO THAT ANY SENSOR WILL TRIGGER ALL LIGHTS. SET OFF TIME FOR 15 MINUTES.
6. WIRE ALL EMERGENCY, EXIT LIGHT AND NIGHT LAMP TO THE NEAREST CIRCUIT AHEAD OF ALL CONTROLS & SWITCHING FOR CONTINUOUS OPERATION.

GENERAL NOTES

1. REFER ARCHITECTURAL SET FOR LIGHT FIXTURE SCHEDULE, MOUNTING AND FIXTURE LOCATION.
2. CONTRACTOR IS ADVISED THAT ADJUSTMENTS TO EMERGENCY AND EXIT LIGHT FIXTURE LOCATIONS/QUANTITIES MAY BE REQUIRED BY AHJ UPON FINAL INSPECTION. PROVIDE ADDITIONAL LIGHT FIXTURE AS REQUIRED IN FIELD.
3. ALL EXTERIOR LIGHTING (BUILDING SIGNAGE, DIRECTIONAL SIGNAGE, LED STRIP, CANOPY LIGHTS ETC.) SHALL BE CONTROLLED BY PHOTOCELL & TIME CLOCK.

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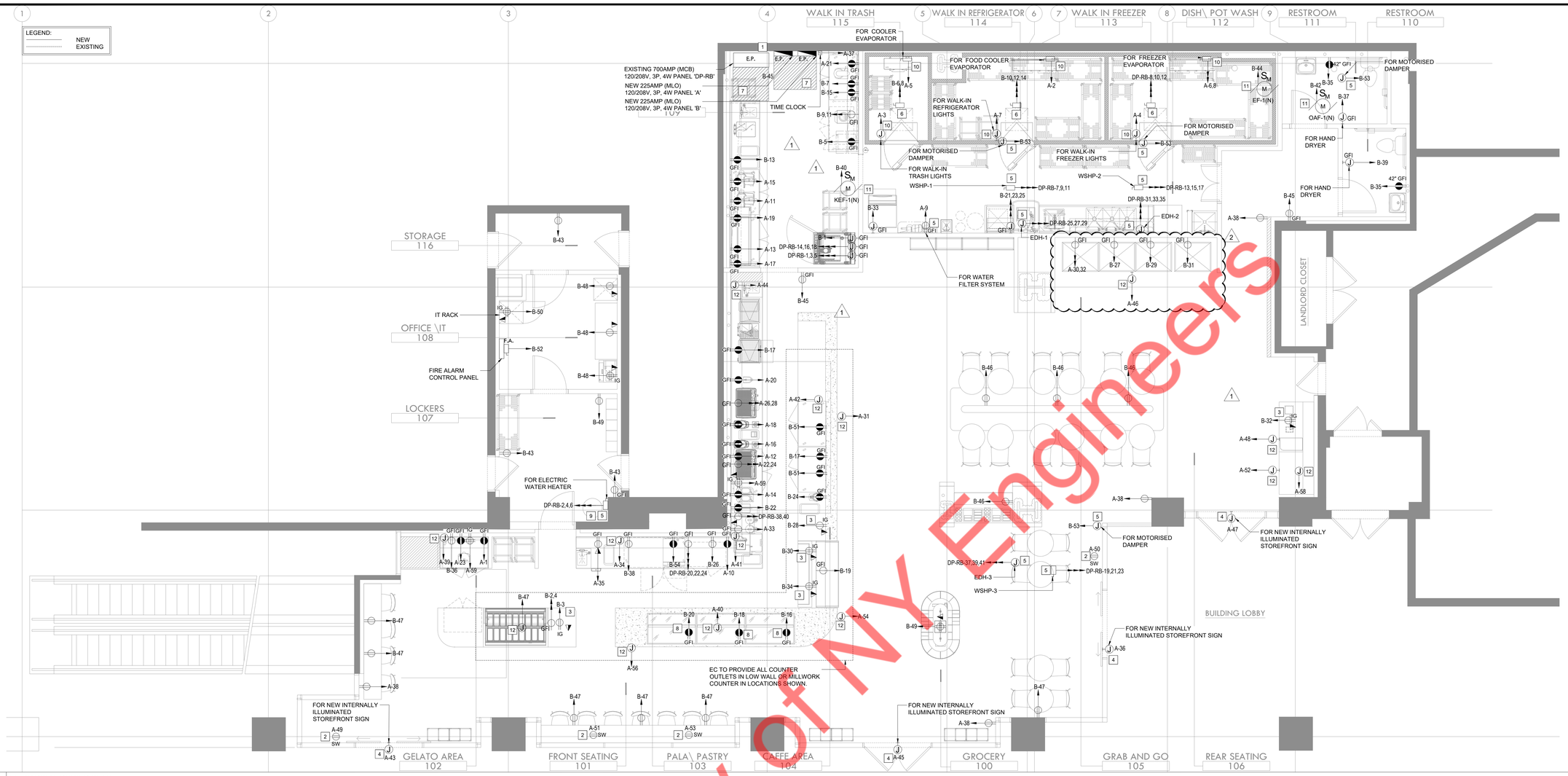
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SHEET TITLE
ELECTRICAL LIGHTING PLAN

SHEET NUMBER
E-100.00



1 ELECTRICAL POWER PLAN
1/4" = 1'-0"

GENERAL NOTES

1. ROUGH-IN ELECTRICAL PERFORMED BY THE ELECTRICAL CONTRACTOR SHALL INCLUDE ALL MATERIAL, WIRE, SWITCHES, JUNCTION BOXES, CONVENIENCE OUTLETS, DISCONNECTS, HEAT TAPE, STARTERS, CONTACTORS, SHUNT BREAKERS, MICROSWITCHES, RECEPTACLES AND PULL BOXES NOT BUILT INTO THE FOOD SERVICE EQUIPMENT.
2. FINAL CONNECTIONS USUALLY PERFORMED BY THE ELECTRICAL CONTRACTOR SHALL INCLUDE ALL MATERIALS, MOUNTING ALL SWITCHES OR CONTROL PANELS, COOLER/FREEZER LIGHTS AND INTERCONNECTING WIRING BETWEEN SWITCHES, PANELS, LIGHTS, SOLENOID VALVES, COMPRESSORS, CONDENSERS, EVAPORATORS, DOOR HEATERS, HEATED VENTS, DEFROST HEATERS, HEAT TAPE AND DISCONNECTS AS REQUIRED.
3. SEE HOOD DRAWINGS FOR ELECTRICAL SPECIFICATIONS REQUIRED FOR EXHAUST HOODS, FAN PACKAGE AND FIRE SUPPRESSION SYSTEM.
4. ALL ELECTRICAL RECEPTACLES IN FOOD SERVICE AREA TO BE MOUNTED HORIZONTALLY.
5. ALL ELECTRICAL OUTLETS SHOWN ON THIS PLAN ARE FOR FIXTURES FURNISHED BY THE KITCHEN EQUIPMENT CONTRACTOR OR VENDOR. FOR FURTHER BLDG ELECTRICAL REQUIREMENTS (TELEPHONES, CLOCKS, SIGNS, EXHAUST HOOD SWITCHING, ETC.) SEE OTHER PLANS.
6. ELECTRICIAN TO CONNECT ALL ELECTRICAL EQUIPMENT AND FIXTURES AND DO ANY INTERNAL WIRING REQUIRED IN THE FIXTURES AS REQUIRED BY THE SPECIFICATIONS. ALL ELECTRICAL OUTLET COVER PLATES ARE TO BE STAINLESS STEEL AND ARE TO BE FURNISHED BY THE ELECTRICIAN, AS WELL AS THE RECEPTACLE, UNLESS OTHERWISE SPECIFIED IN THE ITEM SPECIFICATIONS. KITCHEN EQUIPMENT CONTRACTOR TO FURNISH A GALVANIZED JUNCTION BOX IN THE FIXTURE CUTOUT TO RECEIVE THE RECEPTACLE, UNLESS OTHERWISE NOTED. ALL DISCONNECT SWITCHES REQUIRED ARE TO BE FURNISHED AND INSTALLED BY THE ELECTRICIAN AT TIME OF INSTALLATION.ELECTRICIAN TO MAKE MINIMUM PENETRATIONS IN VAULT CEILING TO ACCESS LIGHT FIXTURE CONNECTIONS INSIDE WALK-IN VAULTS. CONDUIT TO BE ROUTED ABOVE THE WALK-IN VAULT CEILING.
7. ALL WORK TO BE PERFORMED IN FULL ACCORDANCE WITH ALL APPLICABLE CODES RELATING TO HOOK-UP, INSTALLATION & WIRING OF EQUIPMENT. OMISSIONS OR ERRORS ON THE SCHEDULE DO NOT RELIEVE THE ELECTRICIAN FROM COMPLETE FINAL CONNECTION RESPONSIBILITY.
8. REQUIREMENTS SHOWN ARE FOR FOOD SERVICE EQUIPMENT ONLY. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS.
9. CONTROL CIRCUIT FROM ELECTRICIAN FURNISHED AND INSTALL SHUNT TRIP BREAKER(S) TO FIRE CONTROL SYSTEM CONTROL MICRO-. SWITCH. SHUNT TRIP BREAKER(S) TO BE UNDER EXHAUST HOOD. IN CASE OF FIRE, ALL POWER TO EQUIPMENT UNDER HOOD WILL BE SHUT OFF. ALL GAS EQUIPMENT LOCATED UNDER HOOD WILL ALSO BE SHUT OFF IN CASE OF FIRE. MUST BE WIRED THAT IN THE EVENT OF POWER FAILURE, FIRE CONTROL SYSTEM WILL NOT BE ACTIVATED AND WHEN POWER IS RESTORED, FIRE SYSTEM WILL NOT DISCHARGE.
10. ALL HORIZONTAL WIRING ON WALK-IN COOLERS AND FREEZERS TO BE DONE ON EXTERIOR OF WALK-INS. WIRING BY E.C.

KEY NOTES

1	EXISTING ELECTRICAL PANEL SHALL REMAIN. E.C. SHALL COORDINATE WITH LANDLORD IN FIELD & VERIFY EXACT LOCATION, RATING, VOLTAGE, PHASE, OPERABLE CONDITION IN FIELD. REPLACE WITH NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY. REFER SHEET E-400.00 ELECTRICAL RISER DIAGRAM FOR MORE INFORMATION.
2	PROVIDE NEW SHOW WINDOW RECEPTACLE ABOVE WINDOW ON WALL OR CEILING AS REQUIRED TO MEET NEC 210.62 SHOW WINDOW REQUIREMENTS. COORDINATE EXACT LOCATION WITH ARCHITECT. CONTRACTOR TO FIELD VERIFY THE EXISTING SHOW WINDOW RECEPTACLE AVAILABILITY & OPERABLE CONDITION REUSE IF POSSIBLE, OTHERWISE PROVIDE NEW AS SHOWN ON PLAN.
3	POS/CASH WRAP LOCATION. CONTRACTOR SHALL COORDINATE EXACT LOCATION WITH ARCHITECT & COORDINATE WITH VENDER FOR REQUIREMENTS PRIOR TO ROUGH IN. VERIFY EXACT MOUNTING LOCATION WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN. GC/EC TO RUN ALL POS & PRINTER DATA LINES TO OFFICE.
4	NEW STOREFRONT SIGN. PROVIDE ACCESSIBLE WEATHERPROOF JUNCTION BOX WITH TOGGLE DISCONNECT SWITCH FOR TENANT SIGN. CONTRACTOR SHALL COORDINATE THE FINAL LOCATION, MOUNTING HEIGHT AND NUMBER OF JUNCTION BOX WITH SIGN VENDOR PRIOR ROUGH IN. CONNECT TO SIGN PER MANUFACTURER INSTRUCTIONS. ROUTE CIRCUIT TO PANEL VIA EXTERIOR LIGHTING/SIGNAGE'S TIMECLOCK.
5	ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED ROUGH-INS, MOCP, AND WIRE SIZE REQUIREMENTS. THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE MANUFACTURER FOR THE EXACT LOCATION AND TYPE OF ROUGH-INS AND WIRE SIZE BEFORE COMMENCEMENT OF WORK.
6	CONDENSING UNIT SHALL BE PROVIDED WITH THE REQUIRED ROUGH-INS, MOCP, AND WIRE SIZE REQUIREMENTS. THE ELECTRICAL CONTRACTOR MUST COORDINATE WITH THE MANUFACTURER FOR THE EXACT TYPE OF ROUGH-INS AND WIRE SIZE THE COMMENCEMENT OF WORK.
7	EC SHALL MAINTAIN CLEARANCE FOR ELECTRICAL PANELS PER NEC 110.26.
8	VERIFY REFRIGERATED DISPLAY CORD LOCATION WITH MANUFACTURER BEFORE INSTALLATION.
9	CONTRACTOR TO COORDINATE WITH PLUMBING CONTRACTOR/EQUIPMENT VENDOR FOR ELECTRICAL REQUIREMENT OF WATER HEATER, ALSO COORDINATE WITH ARCHITECT/OWNER FOR EAXCT LOCATION IN FIELD.
10	PROVIDE CONNECTION FOR WALK-IN FRIDGE EVAPORATOR AND LIGHTS AS REQUIRED. COORDINATE ALL ELECTRICAL REQUIREMENTS AND EXACT LOCATIONS WITH EQUIPMENT VENDOR PRIOR TO ROUGH-IN.
11	EXHAUST FAN FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR INTERLOCK WITH TIME CLOCK. E.C. SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR SWITCHING & CONTROLS AND PROVIDE ALL NECESSARY WIRING REQUIRED IN FIELD.
12	JUNCTION BOX FOR UNDERCOUNTER LED STRIP,ILL, SIGNAGE AT COUNTER, BUILT-IN FIXTURE LIGHTING AND FOR LED TAP IN SOFFIT. E.C. SHALL COORDINATE WITH VENDORS TO CONFIRM EXACT HEIGHT & REQUIREMENT IN FIELD.

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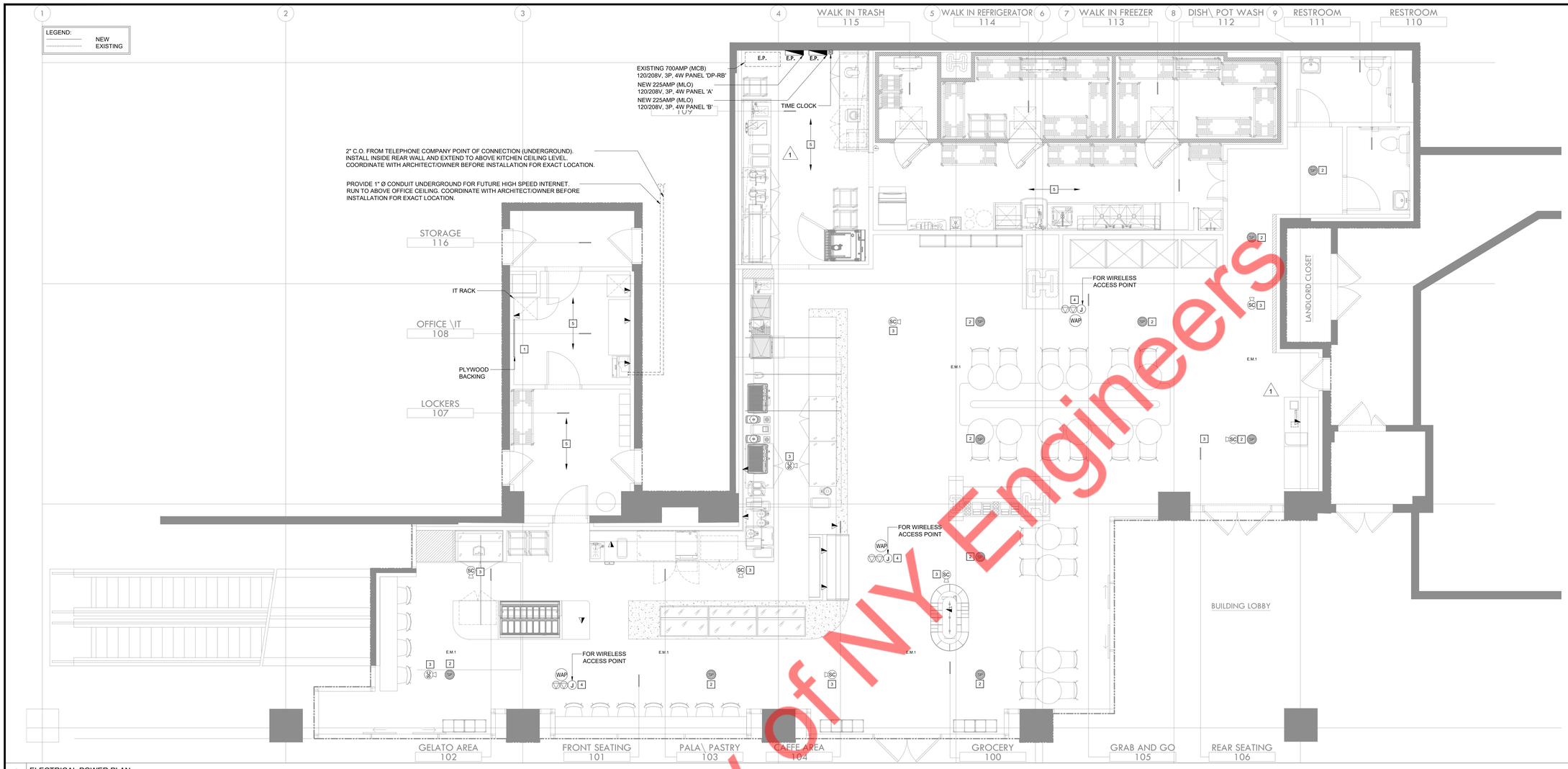
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SHEET TITLE
ELECTRICAL POWER PLAN

SHEET NUMBER
E-200.00



1 ELECTRICAL POWER PLAN
1/4" = 1'-0"

GENERAL NOTES

1. FINAL POS DRAWINGS NEED TO BE PROVIDED TO POS VENDOR THAT IS SELECTED.
2. POS VENDORS REQUIRE DEDICATED ISOLATED GROUNDED (DIG) OUTLETS ON A 20 AMP CIRCUIT DEDICATED ONLY TO POS EQUIPMENT. 60HZ, 120+/-10%. ALL POS TERMINALS AND VIDEO DISPLAY DEVICES REQUIRE A DUPLEX OUTLET. THE BACK OFFICE CONTROLLER REQUIRES A QUAD OUTLET. THE NETWORK SWITCH REQUIRES A DUPLEX. IF FEDERAL, STATE, AND LOCAL WIRING CODES DO NOT MEET THIS REQUIREMENT, CONTACT THE POS VENDOR FOR INFORMATION ON ADDITIONAL EQUIPMENT THAT CAN BE PURCHASED TO MEET THIS REQUIREMENT. IF THIS REQUIREMENT IS NOT MET, THE POS SYSTEM WARRANTY IS INVALID.
3. ALL POWER INDICATED ON THIS PLAN MUST HAVE A THIRD WIRE, ISOLATED GROUND, AND BE TERMINATED WITHIN (4) FEET OF THE DEVICE.
4. IG-5362 RECEPTACLES MUST BE USED FOR ALL POS UNITS. VDU UNITS AND SITE CONTROLLER UNIT (IN OFFICE). LABEL RECEPTACLES "POS ONLY".
5. ALL LOW VOLTAGE WIRE SHALL BE CATEGORY 5e UNLESS OTHER WISE INDICATED.
6. ALL LOW VOLTAGE CABLE TERMINATIONS SHALL BE BY THE ELECTRICAL CONTRACOR
7. LOW VOLTAGE CABLE RUN IN 1½" CONDUIT FOR POS EQUIPMENT ONLY, AND MUST BE TERMINATED WITH RJ45 JACKS. ALL POS EQUIPMENT LINES TERMINATE AT THE FRONT COUNTER CHASE.
8. A 12" MINIMUM SEPARATION MUST BE MAINTAINED BETWEEN LOW VOLTAGE WIRES AND POWER WIRING (TO AVOID ELECTRICAL INTERFERENCE).
9. EXACT # OF RECEPTACLES ON OFFICE MUST BE COORDINATED ON A PROJECT-BY-PROJECT BASIS IN TERMS OF EQUIPMENT LOCATED IN THE OFFICE
10. ALL CEILING MOUNTED VDU'S TO BE SUSPENDED FROM UNISTRUT BY THREADED ROD W/ WHITE PVC SLEEVE. CONNECT UNISTRUT TO ROOF STRUCTURE. VDU BY POS VENDOR; UNITSTRUT & THREADED ROD BY G.C. UNISTRUT TO SUPPORT MINIMUM 50 LB. WEIGHT
11. DIGITAL MENUBOARD PREP WIRING:
    11.1. PROVIDE BOX, PLATE AND 1" DIA. CONDUIT FROM FROM (2) QUAD DATA OUTLETS IN MENUBOARD SOFFIT TO (2) QUAD DATA OUTLETS IN OFFICE WALL. EITHER (A) PROVIDE PULL STRING IN EACH CONDUIT (CAT 5 CABLING AND FINAL DATA CONNECTIONS BY DMB VENDOR), OR (B) PROVIDE ALL CAT 5 CABLING AND FINAL CONNECTIONS TO DATA PLATES/BOXES- COORD. W/ FEE

KEY NOTES

1. NEW TELEPHONE BACKBOARD LOCATION (V.I.F.). ENSURE THERE IS CONDUIT FOR THE PHONE LINES AND 66 PHONE WIRING BLOCK. COORDINATE WITH ARCHITECTURE FOR TELEPHONE BACKBOARD INFORMATION.
2. TERMINATE SPEAKER WIRE AT OFFICE VOLUME CONTROLS. E.C. SHALL COORDINATE WITH ARCHITECT/LOW VOLTAGE VENDER FOR THE EXACT LOCATION & REQUIREMENTS OF SPEAKER IN FIELD. BASE BID ACCORDINGLY.
3. E.C. SHALL COORDINATE WITH ARCHITECT/LOW VOLTAGE VENDER FOR THE EXACT LOCATION & REQUIREMENTS OF SECURITY CAMERA IN FIELD. BASE BID ACCORDINGLY.
4. E.C. SHALL COORDINATE WITH ARCHITECT/LOW VOLTAGE VENDER FOR THE EXACT LOCATION & REQUIREMENTS OF WIRELESS ACCESS POINT IN FIELD. BASE BID ACCORDINGLY.
5. E.C. SHALL COORDINATE WITH ARCHITECT/LOW VOLTAGE VENDER FOR THE EXACT LOCATION & REQUIREMENTS OF SECURITY CAMERA, SPEAKER ANF WIRELESS ACCESS POINT. BASE BID ACCORDINGLY.

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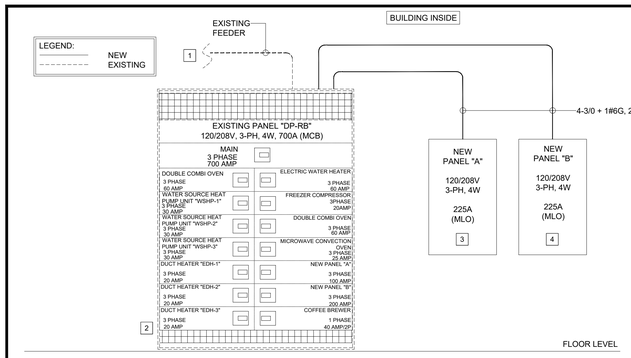
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SHEET TITLE
LOW VOLTAGE PLAN

SHEET NUMBER
E-300.00



1 ELECTRICAL RISER DIAGRAM
NTS

RISER DIAGRAM GENERAL NOTES

1. ABOVE RISER DIAGRAM IS FOR REFERENCE PURPOSES ONLY. E.C. SHALL VERIFY EXACT POWER DISTRIBUTION IN FIELD AND INFORM ENGINEER ON RECORD FOR ANY DISCREPANCY.
2. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION WITH UTILITY COMPANY/OWNER.
3. ELECTRICAL CONTRACTOR TO COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.
4. E.C. SHALL COORDINATE WITH UTILITY COMPANY AND SELECT THE AIC RATING OF THE PANELS BASED ON THE AIC RATING OF UTILITY AT SERVICE EQUIPMENTS.
5. ALL THE SERVICE EQUIPMENTS SELECTED SHALL BE UTILITY APPROVED AND MEET ALL REQUIREMENTS OF LOCAL AHJ.
6. E.C. SHALL PROVIDE ALL REQUIRED ACCESSORIES/WIRES AND DEVICES REQUIRED FOR THE PROPER DISTRIBUTION PER LOCAL AHJ REQUIREMENTS. BASE BID ACCORDINGLY.
7. E.C. SHALL ENSURE THAT VOLTAGE DROP SHALL BE WITHIN THE LIMIT OF PERMISSIBLE VALUES PER LOCAL AHJ AND NEC REQUIREMENTS.
8. CONDUCTOR AND INSTALLATION CHARACTERISTICS. THE PARALLEL CONDUCTORS IN EACH PHASE, POLARITY, NEUTRAL, GROUNDED CIRCUIT CONDUCTOR, EQUIPMENT GROUNDING CONDUCTOR, OR EQUIPMENT BONDING JUMPER SHALL COMPLY WITH ALL THE FOLLOWING:
   A. BE THE SAME LENGTH
   B. CONSIST OF THE SAME MATERIAL
   C. BE THE SAME SIZE IN CIRCULAR MIL AREA
   D. HAVE THE SAME SIZE INSULATION TYPE
   E. BE TERMINATED IN THE SAME MANNER

RISER DIAGRAM KEY NOTES

1. EXISTING ELECTRICAL SERVICE FOR THE PROJECT SPACE SHALL REMAIN. E.C. SHALL COORDINATE WITH LANDLORD IN FIELD & VERIFY EXACT LOCATION, FEEDER RATING, VOLTAGE, PHASE, OPERABLE CONDITION IN FIELD. REPLACE WITH NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
2. EXISTING 700A, 120/208V, 3P, 4W FLOOR MOUNTED ELECTRICAL PANEL 'DP-RB' SHALL REMAIN. E.C. SHALL COORDINATE WITH LANDLORD IN FIELD & VERIFY EXACT LOCATION, RATING, VOLTAGE, PHASE, OPERABLE CONDITION IN FIELD. REPLACE WITH NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.
3. NEW 225A (MLO), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" FOR THE PROJECT SPACE. E.C. SHALL VERIFY THE EXACT LOCATION OF ELECTRICAL PANEL "A" WITH LANDLORD/OWNER IN FIELD.
4. NEW 225A (MLO), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" FOR THE PROJECT SPACE. E.C. SHALL VERIFY THE EXACT LOCATION OF ELECTRICAL PANEL "B" WITH LANDLORD/OWNER IN FIELD.

PANEL SCHEDULE GENERAL NOTES

1. ALL CIRCUITING SHOWN IS FOR REFERENCE PURPOSE ONLY. E.C. SHALL VERIFY THE ELECTRICAL REQUIREMENT FOR CIRCUITING IN FIELD AS PER THE FINAL ELECTRICAL LOAD AND INFORM ENGINEER FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY
2. E.C. SHALL VERIFY THE BREAKER AND CABLE RATING WITH EQUIPMENT SUPPLIER/OWNER AND ACCORDINGLY UPDATE THE BREAKER RATING CABLE SIZE IN FIELD.
3. E.C. SHALL COORDINATE WITH WALK-IN SUPPLIER FOR THE BREAKER AND CABLE REQUIREMENT AND ACCORDINGLY UPDATE IF REQUIRED IN FIELD.
4. ALL 125-VOLT THROUGH 250-VOLT RECEPTACLES SUPPLIED BY SINGLE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 50 AMPERES OR LESS, AND ALL RECEPTACLES SUPPLIED BY THREE-PHASE BRANCH CIRCUITS RATED 150 VOLTS OR LESS TO GROUND, 100 AMPERES OR LESS, INSTALLED IN THE LOCATIONS SPECIFIED IN 210.8(B) SHALL BE WITH GFCI PROTECTION.
5. REFER TO ARCHITECTURAL SHEET K-1.0 & K-1.1 FOR KITCHEN EQUIPMENT SCHEDULE. E.C. SHALL VERIFY THE BREAKER, CABLE, ELECTRICAL LOAD AND CONDUIT REQUIREMENT/SIZES/RATINGS FOR ALL KITCHEN EQUIPMENTS/MECHANICAL EQUIPMENTS WITH EQUIPMENT SUPPLIER/MANUFACTURER AND PROVIDE THE ELECTRICAL CONNECTION ACCORDINGLY. BASE BID ACCORDINGLY.

ELECTRICAL PANEL SCHEDULE

PANELBOARD			A	VOLTAGE	120 / 208 V		PHASE		3	WIRE		4					
PANEL TYPE			MLO	MAINS			BUS RATING		225A	AIC RATING		FIELD VERIFY					
NEMA TYPE ENCLOSURE			1	MOUNTING	SURFACE		OPTIONS			NOTE		NEW PANEL					
CKT. NO.	EQT TAG	CKT TAG	DESCRIPTION	POLE	WIRE SIZE	BKR. SIZE	TOTAL WATTS	PHASE	TOTAL WATTS	BKR. SIZE	WIRE SIZE	POLE	DESCRIPTION	CKT TAG	EQT TAG	CKT. NO.
1			E-4.05_MILK SHAKE MIXER	1	12	20	300	A	276	20	12	1	E1.05__FOOD COOLER EVAP COIL			2
3			E1.01_TRASH WALK IN COOLER	1	12	20	600	B	600	20	12	1	E1.07_WALK IN FREEZER			4
5			E1.02_COOLER EVAP COIL	1	12	20	120	C	853	20	12	2	E1.08_FREEZER EVAP COIL			6
7			E1.04_FOOD WALK IN COOLER	1	12	20	600	A	853							8
9			E1.12_WATER FILTER SYSTEM	1	12	20	10	B	334	20	12	1	E-5.18_COLD BREW DISPENSER			10
11			E_2.07_SLICER	1	12	20	480	C	360	20	12	1	E-5.10_UC REFRIGERATOR			12
13			E_2.06_REFRIGERATED RAIL	1	12	20	192	A	540	20	12	1	E-5.20_FROZEN DRINK MACHINE			14
15			E_2.07_SLICER	1	12	20	480	B	320	20	12	1	E-5.22_ESPRESSO GRINDER			16
17			E-2.10_UC REFRIGERATOR	1	12	20	360	C	320	20	12	1	E-5.22_ESPRESSO GRINDER			18
19			E-2.10_UC REFRIGERATOR	1	12	20	360	A	300	20	12	1	E-5.25_MILK SHAKE MIXER			20
21			E-2.11_UC REFRIGERATOR	1	12	20	1,380	B	3,450	40	8	2	E-5.21_ESPRESSO MACHINE			22
23			E-4.08_UC FREEZER	1	12	20	384	C	3,450							24
25			DINING AREA LIGHTING	1	12	20	690	A	3,450	40	8	2	E-5.21_ESPRESSO MACHINE			26
27			DINING AREA LIGHTING	1	12	20	812	B	3,450							28
29			CAFE AREA LIGHTING	1	12	20	848	C	3,300							30
31			UNDERCOUNTER LED STRIP	1	12	20	1,000	A	3,300							32
33			COUNTER SERVICE SIGNAGE	1	12	20	1,000	B	1,000	20	12	1	BUILT IN FIXTURE LIGHTING			34
35			COUNTER SERVICE SIGNAGE	1	12	20	1,000	C	1,000	20	12	1	STORE FRONT SIGN			36
37			TIME CLOCK	1	12	20	500	A	720	20	12	1	GENERAL PURPOSE DINING AREA RECEPTACLE			38
39			BUILT IN FIXTURE LIGHTING	1	12	20	1,000	B	1,000	20	12	1	COUNTER SERVICE SIGNAGE			40
41			BUILT IN FIXTURE LIGHTING	1	12	20	1,000	C	1,000	20	12	1	COUNTER SERVICE SIGNAGE			42
43			STORE FRONT SIGN	1	12	20	1,000	A	1,000	20	12	1	BUILT IN FIXTURE LIGHTING			44
45			STORE FRONT SIGN	1	12	20	1,000	B	1,000	20	12	1	BUILT IN FIXTURE LIGHTING			46
47			STORE FRONT SIGN	1	12	20	1,000	C	1,000	20	12	1	BUILT IN FIXTURE LIGHTING			48
49			SHOW WINDOW RECEPTACLE	1	12	20	1,600	A	1,800	20	12	1	SHOW WINDOW RECEPTACLE			50
51			SHOW WINDOW RECEPTACLE	1	12	20	1,800	B	1,000	20	12	1	BUILT IN FIXTURE LIGHTING			52
53			SHOW WINDOW RECEPTACLE	1	12	20	1,800	C	1,000	20	12	1	SOFFIT LED LIGHTING			54
55			RESTROOM AND BOH LIGHTING	1	12	20	486	A	1,000	20	12	1	UNDERCOUNTER LED STRIP			56
57			OFFICE AND LOCKER ROOM LIGHTING	1	12	20	250	B	1,000	20	12	1	LED STRIP AND ILL POWER			58
59			PROVISION FOR MENU BOARD	1	12	20	720	C					SPARE			60

ALL PHASES TO BE BALANCED T0 WITHIN 7%
A= 19,966 WATTS
B= 21,486 WATTS
C= 19,995 WATTS

(E) EXISTING TO REMAIN
(N) NEW CIRCUIT
GFCI GROUND FAULT CURRENT INTERRUPTER
IG CIRCUITS WITH ISOLATED GROUND
TC CIRCUITS ON TIMECLOCK

TOTAL CONNECTED LOAD	61,447	WATTS	171 AMPS
TOTAL DEMAND LOAD	60,436	WATTS	168 AMPS

ELECTRICAL PANEL SCHEDULE

PANELBOARD			B	VOLTAGE	120 / 208 V		PHASE		3	WIRE		4					
PANEL TYPE			MLO	MAINS			BUS RATING		225A	AIC RATING		FIELD VERIFY					
NEMA TYPE ENCLOSURE			1	MOUNTING	SURFACE		OPTIONS			NOTE		NEW PANEL					
CKT. NO.	EQT TAG	CKT TAG	DESCRIPTION	POLE	WIRE SIZE	BKR. SIZE	TOTAL WATTS	PHASE	TOTAL WATTS	BKR. SIZE	WIRE SIZE	POLE	DESCRIPTION	CKT TAG	EQT TAG	CKT. NO.
1			E-2.02B_COMBI OVEN HOOD	1	12	20	100	A	1,196							2
3			E-4.04_POS TERMINAL	1	12	20	1,800	B	1,196	20	12	2	E-4.02_ICE CREAM DISPLAY CASE			4
5			E-2.13_MICROWAVE	1	10	25	2,076	C	634							6
7			E-2.09_MIXER	1	12	20	500	A	634	20	12	2	E-1.03_COOLER COMPRESSOR (WATER COOLED)			8
9			E-2.01_INDUCTION WARMER	2	12	20	325	B	612							10
11							325	C	612	20	12	3	E-1.06_FOOD COOLER COMPRESSOR (WATER COOLED)			12
13			E-2.05_PREP TABLE	1	12	20	1,800	A	612							14
15			E-2.05_PREP TABLE	1	12	20	1,800	B	420	20	12	1	E-5.08_DISPLAY CASE			16
17			E-5.06_U/C DISHWASHER	1	12	20	1,920	C	420	20	12	1	E-5.08_DISPLAY CASE			18
19			E-5.04_REFRI. MERCHANDISER	1	12	20	1,920	A	420	20	12	1	E-5.08_DISPLAY CASE			20
21			E3.03_VENTLESS DISHMACHINE	3	4	70	6,773	B	1,320	20	12	1	E-5.27_COFFEE GRINDER			22
23							6,773	C	1,104	20	12	1	E-5.19_HOT CHOCOLATE MACHINE			24
25							6,773	A	1,800	20	12	1	E-5.12_WORK COUNTER			26
27			E-6.05_REFRI. MERCHANDISER	1	8	40	3,600	B	1,800	20	12	1	E-5.05_POS TERMINAL			28
29			E-6.05_REFRI. MERCHANDISER	1	8	40	3,600	C	1,800	20	12	1	E-5.05_POS TERMINAL			30
31			E-6.05_REFRI. MERCHANDISER	1	8	40	3,600	A	1,800	20	12	1	E-6.02_POS TERMINAL			32
33			E-1.16_ICE MAKER	1	12	20	1,800	B	1,800	20	12	1	E-5.05_POS TERMINAL			34
35			RESTROOM RECEPTACLES	1	12	20	360	C	1,800	20	12	1	E-4.09_WORK COUNTER			36
37			RESTROOM HAND DRYER	1	12	20	1,000	A	1,800	20	12	1	E-5.12_WORK COUNTER			38
39			RESTROOM HAND DRYER	1	12	20	1,000	B	1,541	15	12	1	KEF-1			40
41			QUAD RECEPTACLE FOR BANQUETTE TABLE	1	12	20	360	C	1,990	15	12	1	OAF-1			42
43			DRY STORAGE RECEPTACLE	1	12	20	540	A	449	15	12	1	EF-1			44
45			BOH AREA RECEPTACLE	1	12	20	900	B	720	20	12	1	DINING AREA RECEPTACLES			46
47			DINING AREA RECEPTACLES	1	12	20	1,080	C	900	20	12	1	OFFICE RECEPTACLE			48
49			CARD READER RECEPTACLE	1	12	20	180	A	360	20	12	1	IT RACK RECEPTACLE			50
51			E-5.10_UC REFRIGERATOR	1	12	20	360	B	180	20	12	1	FACP RECEPTACLE			52
53			MOTORISED DAMPER	1	12	20	400	C	360	20	12	1	E-5.11_UC REFRIGERATOR			54
55			SPARE					A					SPARE			56
57			SPARE					B					SPARE			58
59			SPARE					C					SPARE			60

ALL PHASES TO BE BALANCED T0 WITHIN 7%
A= 25,484 WATTS
B= 27,947 WATTS
C= 26,514 WATTS

(E) EXISTING TO REMAIN
(N) NEW CIRCUIT
GFCI GROUND FAULT CURRENT INTERRUPTER
IG CIRCUITS WITH ISOLATED GROUND
TC CIRCUITS ON TIMECLOCK

TOTAL CONNECTED LOAD	79,946	WATTS	223 AMPS
TOTAL DEMAND LOAD	57,440	WATTS	160 AMPS

ELECTRICAL PANEL SCHEDULE

PANELBOARD			DP-RB	VOLTAGE	120 / 208 V		PHASE		3	WIRE		4					
PANEL TYPE			MCB	MAINS	700 A		BUS RATING		700 A	AIC RATING		FIELD VERIFY					
NEMA TYPE ENCLOSURE			1	MOUNTING	FLOOR		OPTIONS			NOTE		EXISTING PANEL					
CKT. NO.	EQT TAG	CKT TAG	DESCRIPTION	POLE	WIRE SIZE	BKR. SIZE	TOTAL WATTS	PHASE	TOTAL WATTS	BKR. SIZE	WIRE SIZE	POLE	DESCRIPTION	CKT TAG	EQT TAG	CKT. NO.
1							5,644	A	6,000							2
3			E-2.02A_DOUBLE COMBI OVEN	3	6	60	5,644	B	6,000	60	6	3	ELECTRIC WATER HEATER			4
5							5,644	C	6,000							6
7							2,402	A	1,333							8
9			WSHP-1	3	10	30	2,402	B	1,333	20	12	3	E-1.09_FREEZER COMPRESSOR (WATER COOLED)			10
11							2,402	C	1,333							12
13							2,402	A	5,644							14
15			WSHP-2	3	10	30	2,402	B	5,644	60	6	3	E-2.02_DOUBLE COMBI OVEN			16
17							2,402	C	5,644							18
19							2,402	A	2,356							20
21			WSHP-3	3	10	30	2,402	B	2,356	25	10	3	E-5.16_MICROWAVE CONVECTION OVEN			22
23							2,402	C	2,356							24
25							1,667	A	20,145							26
27			EDH-1	3	12	20	1,667	B	20,145	200	3/0	3	PANEL - A			28
29							1,667	C	20,145							30
31							1,667	A	19,147							32
33			EDH-2	3	12	20	1,667	B	19,147	200	3/0	3	PANEL - B			34
35							1,667	C	19,147							36
37							1,667	A	3,000							38
39			EDH-3	3	12	20	1,667	B	3,000	40	8	2	E-5.17_COFFEEE BREWER			40
41							1,667	C					SPARE			42

ALL PHASES TO BE BALANCED T0 WITHIN 7%
A= 75,474 WATTS
B= 75,474 WATTS
C= 72,474 WATTS

(E) EXISTING TO REMAIN
(N) NEW CIRCUIT
GFCI GROUND FAULT CURRENT INTERRUPTER
IG CIRCUITS WITH ISOLATED GROUND
TC CIRCUIT VIA TIMECLOCK
HACR HEATING, A/C, REFRIGERATION

TOTAL CONNECTED LOAD	223,421	WATTS	621 AMPS
TOTAL DEMAND LOAD	206,995	WATTS	575 AMPS

ELECTRICAL LOAD SUMMARY

DESCRIPTION	NEC CONNECTED kW	VOLT	PHASE	NEC DEMAND FACTOR	NEC DEMAND kW
LIGHTING- 120V	14.1	120	1	1.25	17.6
RECEPTACLES	25.5	120	1	>10kW=10+[0.5*(kW-10)]	17.8
STOREFRONT SIGN	8.0	120	1	1.25	10.0
S/W OUTLETS	7.0	120	1	1.25	8.8
EXAUST FAN	4.0	120	1	1.00	4.0
DUCT HEATER	15.0	208	3	1.00	15.0
WSHP	22.0	208	3	1.00	22.0
REFRIGERATION	15.8	208	3	1.00	15.8
KITCHEN EQUIPMENT	115.5	208	3	0.65	75.1
HOT WATER HEATER	18.0	208	3	1.00	18.0
TOTALS	246.9				206.0

NOTES:
* USE GREATER VALUE OF THE TWO CATEGORIES.
** 125% OF THE LARGEST MOTOR OR COMPRESSOR IN SYSTEM APPLIED ONLY ON ONE UNIT.
*** N.E.C. ARTICLE 220-12 REQUIREMENT (200 VA PER FOOT OF SHOW WINDOW)
MINUS ACTUAL SHOW WINDOW LIGHTING kVA.

N.E.C. DEMAND kVA x 1,000 / SYSTEM VOLTAGE x 1.732 = MINIMUM FEEDER AMPERAGE

206.0 x 1000 = 206,025
208 x 1.732 = 360
571.9 AMPS USE (EXISTING) 700AMP SERVICE.

Property of fx Engineers

CONSULTANTS
NY ENGINEERS
NEARBY ENGINEERS
382 NE 191ST STREET SUITE 49674,
MIAMI, FL 33179
PH-914.257.3455
WWW.NY-ENGINEERS.COM

ARCHITECT / ENGINEER SEAL

CONTRACTOR'S NOTE
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CLIENT:
EATALY

EATALY

PROJECT NUMBER:
12308-24
DRAWN BY : NYE CHECKED BY: NYE

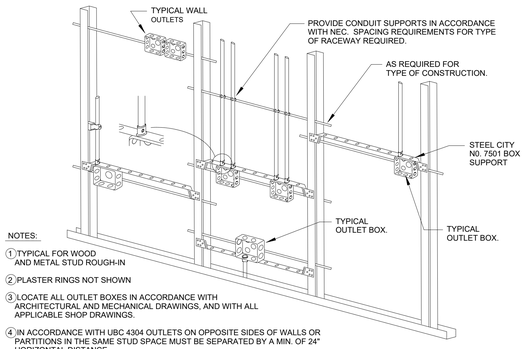
DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION

2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE
ELECTRICAL RISER & PANEL SCHEDULE

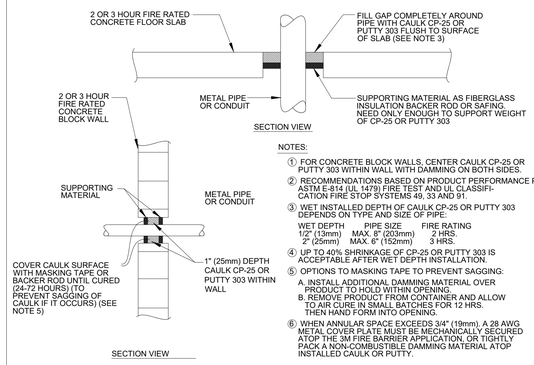
SHEET NUMBER
E-400.00



NOTES:

1. TYPICAL FOR WOOD AND METAL STUD ROUGH-IN
2. PLASTER RINGS NOT SHOWN
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. IN ACCORDANCE WITH UBC 4304 OUTLETS ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 24" HORIZONTAL DISTANCE.

1 E-500.00 — DETAIL TYPICAL ROUGH-IN REQUIREMENTS — N.T.S



NOTES:

1. FOR CONCRETE BLOCK WALLS, CENTER CAULK CP-25 OR PUTTY 303 WITHIN WALL WITH DAMMING ON BOTH SIDES.
2. RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) FIRE TEST AND UL CLASSIFICATION FIRE STOP SYSTEMS 49, 33 AND 91.
3. WET INSTALLED DEPTH OF CAULK CP-25 OR PUTTY 303 DEPENDS ON TYPE AND SIZE OF PIPE:

WET DEPTH	PIPE SIZE	FIRE RATING
1/2" (13mm)	MAX. 8" (203mm)	2 HRS.
2" (25mm)	MAX. 6" (152mm)	3 HRS.

4. UP TO 40% SHRINKAGE OF CP-25 OR PUTTY 303 IS ACCEPTABLE AFTER WET DEPTH INSTALLATION.
5. OPTIONS TO MASKING TAPE TO PREVENT SAGGING:
   A. INSTALL ADDITIONAL DAMMING MATERIAL OVER PRODUCT TO HOLD WITHIN OPENING.
   B. REMOVE PRODUCT FROM CONTAINER AND ALLOW TO AIR CURE IN SMALL BATCHES FOR 12 HRS. THEN HAND FORM INTO OPENING.
6. WHEN ANNULAR SPACE EXCEEDS 3/4" (19mm), A 26 AWG METAL COVER PLATE MUST BE MECHANICALLY SECURED ATOP THE 3M FIRE BARRIER APPLICATION, OR TIGHTLY PACK A NON-COMBUSTIBLE DAMMING MATERIAL ATOP INSTALLED CAULK OR PUTTY.

2 E-500.00 — FIRE STOP DETAIL — N.T.S

MANUAL MODE OPERATION:

1. PUSHBUTTON PRESS IS REQUIRED TO TURN LOAD ON.
2. LOAD TURNS OFF WHEN SENSOR TIMES OUT OR BY PRESSING PUSH BUTTON.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, LOAD WILL NOT TURN ON.

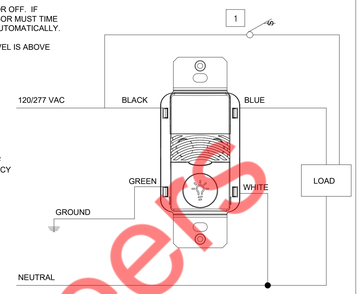
AUTOMATIC MODE OPERATION:

1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. PUSHBUTTON CAN BE USED TO TURN LOAD ON OR OFF. IF PUSHBUTTON IS USED TO TURN LOAD OFF, SENSOR MUST TIME OUT FIRST, BEFORE LOAD CAN TURN BACK ON AUTOMATICALLY.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, LOAD WILL NOT TURN ON.

SENSOR TYPES INCLUDE:

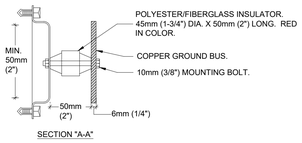
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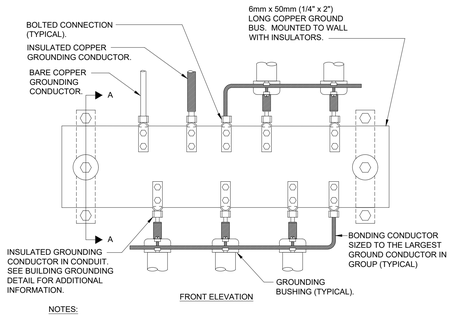
1 PROVIDE SENSING CONDUCTOR TAPPED AHEAD OF ANY SWITCHES WHERE SWITCH SERVES EMERGENCY FIXTURES.





3 E-500.00 — CONNECTION OCCUPANCY/VACANCY-SINGLE LEVEL WIRING DIAGRAM-LINE VOLTAGE WALL SWITCH SENSOR(NEUTRAL) — N.T.S

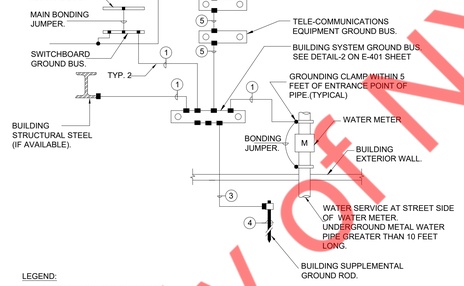




NOTES:

1. REFER TO BUILDING GROUNDING ELECTRODE SYSTEM DETAIL FOR EXACT CONFIGURATION.

4 E-500.00 — BUILDING ELECTRICAL SYSTEMS GROUND BUS — N.T.S



LEGEND:

- ● INDICATES BOLTED CONNECTION.
- ■ INDICATES EXOTHERMIC WELD CONNECTION, COMPATIBLE WITH MATERIALS BEING JOINED.

1. INSULATED COPPER GROUNDING ELECTRODE CONDUCTOR IN CONDUIT SIZED AS PER NEC ARTICLE 250.66.
2. INSULATED COPPER GROUNDING ELECTRODE CONDUCTOR ENCASED IN CONCRETE SIZED AS PER NEC ARTICLE 250.66.
3. 1/0 AWG BARE COPPER GROUND CONDUCTOR.
4. 3/4" x 10'-0" LONG COPPER-CLAD GROUND ROD DRIVEN WITH TOP 12" BELOW GRADE.
5. 2 AWG INSULATED COPPER GROUND CONDUCTOR IN 30mm CONDUIT.

5 E-500.00 — BUILDING GROUNDING ELECTRODE SYSTEM — N.T.S

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CLIENT:
EATALY

EATALY

PROJECT NUMBER
12308-24
DRAWN BY: NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

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1	04.16.25	CLIENT COMMENTS

SHEET TITLE

ELECTRICAL DETAILS

SHEET NUMBER

E-500.00

COMcheck Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2020 New York City Energy Conservation Code
Project Title: EATALY, 200 Park Ave. NY
Project Type: Alteration

Construction Site:
200 PARK AVE.
New York 10166

Owner/Agent:

Designer/Contractor:
MICHAEL TOBIAS
NY ENGINEERS
382 NE 191ST STREET SUITE 49674
MIAMI, Florida 33179

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Common Space Types:Dining Area - Cafeteria/Fast Food	1782	0.53	944
2-Common Space Types:Restrooms	101	0.75	76
3-Common Space Types:Office - Enclosed	112	0.85	95
4-Common Space Types:Food Preparation	1660	0.92	1527
5-Common Space Types:Locker Room	129	0.45	58
		Total Allowed Watts =	2701

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Common Space Types: Dining Area - Cafeteria/Fast Food (1782 sq.ft.)				
LED: S2: Other:	1	3	100	300
LED: TB2: Other:	1	60	20	1182
Common Space Types: Restrooms (101 sq.ft.)				
LED: DA: Other:	1	4	17	68
Common Space Types: Office - Enclosed (112 sq.ft.)				
LED: LT: Other:	1	1	50	50
Common Space Types: Food Preparation (1660 sq.ft.)				
LED: AA: Other:	1	36	17	612
LED: AC: Other:	1	12	20	236
LED: LT: Other:	1	4	50	200
Common Space Types: Locker Room (129 sq.ft.)				
LED: LT: Other:	1	1	50	50
			Total Proposed Watts =	2698

Interior Lighting PASSES

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2020 New York City Energy Conservation Code requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

COMcheck Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2020 New York City Energy Conservation Code

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4] [1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.2 [PR36] [1]	Electrical meters for tenant spaces in covered buildings. Each covered tenant space in a new building shall be equipped with a separate meter or sub-meter to measure the electrical consumption of such space when let or sublet. See section details and Section 28-311.2 of the Administrative Code. As new covered tenant spaces are created, they shall be equipped with meters or sub-meters as provided in this section	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.10 [PR38] [1]	New parking garages and new parking lots powered by the energy services for a building, and with 10 or greater parking spaces, provide either: 1. Panel capacity and conduit for the future installation of minimum 208/240V 40-amp outlets for 5 percent of the total parking spaces and not less than two parking spaces; or 2. Minimum 208/240V 40-amp outlets for 5 percent of the total parking spaces and not less than two parking spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Requirement does not apply.**

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.2 [EL22] [1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Lighting that is related to means of egress in** stairways, ramps, corridors, or emergency routes.
C405.2.1, C405.2.1.1 [EL18] [1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, corridor/transition areas, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, janitorial closets, corridors/transition areas, dining areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces, cafeteria dining areas, and fast food dining areas.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.1.2 [EL19] [1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Requirement does not apply.**
C405.2.1.3 [EL20] [1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Requirement does not apply.**
C405.2.2.1, C405.2.2.2 [EL21] [2]	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3, C405.2.3.1, C405.2.3.2 [EL23] [2]	Daylight zones provided with individual controls that control the lights independent of general area lighting within daylight zones in the following spaces: 1. Spaces with a total of more than 100 watts of general lighting within sidelit zones complying with Section C405.2.3.2. General lighting does not include lighting that is required to have specific application control in accordance with Section C405.2.4. 2. Spaces with a total of more than 100 watts of general lighting within toplit zones complying with Section C405.2.3.3. See code section C405.2.3.1 Daylight responsive control function and section	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Requirement does not apply.**
C405.2.4 [EL26] [1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.2.4 [EL27] [1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.1.1 [EL6] [1]	Internally illuminated exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.6 [EL26] [2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Requirement does not apply.**
C405.7 [EL27] [2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.8.2, C405.8.2.1 [EL28] [2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception: Requirement does not apply.**
C405.9 [EL29] [2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17] [3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.3.1 [FI18] [1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	See the Interior Lighting fixture schedule for values.
C408.1.1 [FI57] [1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.3 [FI33] [1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) | 2 Medium Impact (Tier 2) | 3 Low Impact (Tier 3)

Property of NY Engineers

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ARCHITECT / ENGINEER SEAL:

CONTRACTOR'S NOTE

WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF, THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

CLIENT:
EATALY

EATALY

PROJECT NUMBER
12308-24
DRAWN BY : NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET.

	DATE	REVISION DESCRIPTION

	DATE	CLIENT COMMENTS
2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE

ELECTRICAL COMCHECK

SHEET NUMBER

E-600.00

GENERAL NOTES:

1. ALL SPRINKLER WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF N.F.P.A.-13 AND ALL LOCAL AUTHORITIES.
2. CONTRACTOR SHALL FIELD VERIFY EXACT ELEVATION, LOCATION AND PIPE SIZES OF EXISTING SPRINKLER HEADS AND PIPING BEFORE INSTALLATION OF NEW WORK. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND SHALL INSTALL NEW WORK TO CLEAR DUCTWORK AND LIGHTING FIXTURES.
3. ALL SPRINKLER WORK SHALL COMPLY WITH BUILDING STANDARDS AND REQUIREMENTS.
4. ALL SPRINKLER HEADS SHALL BE INSTALLED AT CENTER OF TILE IF CEILING IS PROVIDED.
5. GENERAL CONTRACTOR SHALL COORDINATE FINAL FURNITURE/EQUIPMENT HEIGHT ELEVATIONS AND LOCATIONS WITH SPRINKLER INSTALLATION. ENGINEER SHALL BE NOTIFIED WHEN FURNITURE/EQUIPMENT IS LESS THAN 18" TO UNDERSIDE OF CEILING.
6. THE SPRINKLER SYSTEMS ARE TO BE HYDROSTATIC TESTED FOR A (1) HOUR MINIMUM AT 200 LBS AS PER NYC APPENDIX Q. PRESSURE AND ARE TO BE WITNESSED BY AUTHORIZED BUILDING PERSONNEL. COORDINATE ALL TESTING WITH BUILDING MANAGER.
7. PIPES SIZES SHOWN ARE BASED ON DESIGN PIPING LAYOUTS ONLY. ACTUAL PIPE SIZES SHALL BE DETERMINED BY CONTRACTORS HYDRAULIC CALCULATIONS BASED ON HIS INSTALLATION DRAWINGS. CONTRACTOR SHALL ALLOW FOR THIS AND INCLUDE THIS IN HIS CONTRACT PRICE.
8. DRAWING INDICATES SPRINKLER SYSTEM DESIGN ONLY. CONTRACTOR RESPONSIBLE FOR OFFSETS, DROPS AND RISES FOR COORDINATION WITH OTHER TRADES.
9. G.C. SHALL COORDINATE AND ARRANGE FOR DRAINING AND DEACTIVATION OF EXISTING SPRINKLER SYSTEM WITH BUILDING MANAGEMENT AS REQUIRED.
10. G.C. SHALL BE RESPONSIBLE FOR ALL FINAL TESTS AND INSPECTIONS OF COMPLETED WORK REQUIRED BY THE BUILDING MANAGEMENT PRIOR TO OCCUPANCY OF SPACE.
11. ALL SPRINKLER WORK SHALL BE TESTED AND MADE OPERATIONAL PRIOR TO CARPET AND FURNITURE INSTALLATION. G.C. SHALL REPAIR AND/OR REPLACE ALL FINISHES DAMAGED BY DEFECTIVE SPRINKLER WORK AT HIS EXPENSE.
12. G.C. SHALL PROPERLY TEST AND INSPECT EXISTING SPRINKLER SYSTEM PRIOR TO COMMENCEMENT OF WORK AND SHALL NOTIFY BUILDING MANAGEMENT IMMEDIATELY IF REPAIR OF EXISTING SPRINKLER SYSTEM IS REQUIRED.
13. ALL BURNING, CUTTING, SOLDERING AND WELDING SHALL BE COORDINATED WITH BUILDING FIRE SYSTEMS WITH BUILDING MANAGEMENT, AS REQUIRED.
14. G.C. SHALL COORDINATE ARRANGEMENTS FOR TEMPORARY DISCONNECT AND RECONNECT WITH MANAGEMENT PRIOR TO COMMENCEMENT OF WORK.
15. G.C. SHALL BE RESPONSIBLE FOR OBTAINING PERMITS AND APPROVALS REQUIRED BY BUILDING INSPECTOR AND FIRE MARSHALL IN CONJUNCTION WITH CHANGES TO EXISTING SPRINKLER SYSTEM.
16. REFER TO ENGINEERING DRAWINGS FOR SPRINKLER HEADS, LIGHT SENSORS AND FIRE DETECTION DEVICES.
17. ALL SERVICE SHUTDOWNS SHALL BE BY BASE BUILDING ENGINEERS. MINIMUM OF 48 HOURS NOTICE IS REQUIRED TO THE BUILDING OFFICE PRIOR TO SHUT DOWN.
18. ALL WORK TO BE DONE DURING THE HOURS DESIGNATED BY OWNER.
19. UPON COMPLETION OF ALL SPRINKLER WORK, CONTRACTOR SHALL TEST AND INSPECT ENTIRE SPRINKLER SYSTEM. ENTIRE SYSTEM SHALL BE FULLY OPERATIONAL AND APPROVED IN COMPLIANCE WITH ALL AHJ.
20. UPON SUCCESSFUL COMPLETION OF ALL TESTING, CONTRACTOR SHALL PRIME AND PAINT ALL EXPOSED SPRINKLER PIPING. COLOR AND FINISH SHALL BE AS PER ARCHITECT.
21. CONTRACTOR SHALL INCLUDE IN HIS BID THE COST TO PROVIDE (5) FIVE ADDITIONAL SPRINKLERS INSTALLED. EXACT LOCATIONS OF THESE SPRINKLER HEADS SHALL BE DETERMINED IN FIELD.
22. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND SHALL INSTALL NEW WORK TO CLEAR DUCTWORK AND LIGHTING FIXTURES.
23. ALL SPRINKLER WORK SHALL COMPLY WITH BUILDING STANDARDS AND REQUIREMENTS.
24. DRAWING INDICATES SPRINKLER SYSTEM DESIGN ONLY. CONTRACTOR RESPONSIBLE FOR OFFSETS, DROPS AND RISES FOR COORDINATION WITH OTHER TRADES.
25. PIPES SIZES SHOWN ARE BASED ON SCHEDULE OF PIPE SIZE PIPING LAYOUTS ONLY. ACTUAL PIPE SIZES SHALL BE DETERMINED BY CONTRACTORS HYDRAULIC CALCULATIONS BASED ON HIS INSTALLATION DRAWINGS. CONTRACTOR SHALL ALLOW FOR THIS AND INCLUDE THIS IN HIS CONTRACT PRICE.
26. PROVIDE AUXILIARY DRAINS AT TRAPPED SECTIONS OF PIPING AS REQUIRED BY NFPA-13.
27. GENERAL CONTRACTOR SHALL COORDINATE FINAL FURNITURE/ EQUIPMENT HEIGHT ELEVATIONS AND LOCATIONS WITH SPRINKLER INSTALLATION. ENGINEER SHALL BE NOTIFIED WHEN FURNITURE/EQUIPMENT IS LESS THAN 18" TO UNDERSIDE OF CEILING PRIOR TO INSTALLATION.
28. COMPOSITE DRAWINGS

    CONTRACTOR SHALL BE GIVEN A SEPIA TRANSPARENCIES TO IMPOSE THEIR WORK FOR A COORDINATED ALLOCATION OF SPACE. PROCEDURE SHALL INCLUDE HVAC CONTRACTOR TO INDICATE DUCT WORK, PIPING, STRUCTURAL AND ARCHITECTURAL DETAILS. SEPIAS SHALL BE GIVEN TO PLUMBING, SPRINKLER AND ELECTRICAL TRADES WHO WILL DRAW HIS WORK ON DRAWINGS. HVAC CONTRACTORS SHALL HOLD A COORDINATION MEETING WITH ALL CONTRACTORS TO ELIMINATE INTERFERENCE OR CONFLICTS IN INSTALLING WORK. IF UNABLE TO EACH AGREEMENT ISSUE, ARCHITECT SHALL MAKE BINDING DECISION.
29. CONTRACTOR SHALL COORDINATE SPRINKLER MAIN AND BRANCHES WITH NEW CONSTRUCTION TO AVOID CONFLICTS WITH CEILING HEIGHTS, DUCTWORK, LIGHTING FIXTURES, BEAMS. CONTRACTOR TO ADJUST PIPING ACCORDINGLY TO ACCOMMODATE NEW CONSTRUCTION.

BUILDING DEPARTMENT SPRINKLER NOTES

1. THE INSTALLATION, COMPONENTS, SIZING, SPACING, CLEARANCES, POSITION AND TYPE OF SYSTEMS SHALL CONFORM TO THE 2022 NEW YORK CITY BUILDING CODE APPENDIX Q, SECTION BCQ102 AND SECTION BC903.
2. ONLY APPROVED MATERIALS SHALL BE USED AS PER CHAPTER 6 OF APPENDIX Q, SECTION BCQ102.
3. DIRECT CONNECTION OF SPRINKLERS TO THE PUBLIC WATER SYSTEM SHALL CONFORM TO SECTION BCQ102.1
4. SPRINKLER SHALL BE PROTECTED AGAINST FREEZING AND INJURY AS PER APPENDIX Q BCQ102.
5. INSPECTION AND TESTS OF SPRINKLERS SHALL BE CONDUCTED AS SEC. 901.5 AND APPENDIX Q, SEC. BCQ102, CH. 27 & NEW YORK CITY FIRE CODE.
6. THE OCCUPANCY OF THE AREAS TO BE SPRINKLERED IN ACCORDANCE WITH SECTION 5.2 AND A.5.2 OF APPENDIX Q SECTION BCQ102.
7. WATER SUPPLY TEST PIPES AND GAUGES SHALL BE PROVIDED AS PER SECTION 8.16.1 AND 8.16.4 OF APPENDIX Q, SECTION BCQ102.
8. PIPING, FITTINGS, SPECIFICATIONS, PIPE SCHEDULES, SYSTEM TEST PIPES, PROTECTION AGAINST CORROSION, DAMAGE, VALVES, HANGERS, SPRINKLERS GUARDS AND SHIELDS SHALL BE AS PER APPENDIX Q SECTION BCQ102, CHAPTERS 6 AND 9.
9. STOCK OF EXTRA SPRINKLERS WILL BE FURNISHED AS PER SECTION 6.2.9 APPENDIX Q, SECTION BCQ102 (REQUIRED FOR EACH TEMPERATURE RATING).
10. SPRINKLER ALARM SHALL BE IN ACCORDANCE WITH SECTION 8.16.1 OF APPENDIX Q, SECTION BCQ102.
11. SPACING, LOCATION AND POSITION OF SPRINKLER WILL BE AS PER SECTION 8 OF APPENDIX Q, SECTION BCQ102.
12. ALL BLIND SPACES EXCEEDING 6" IN WIDTH OR DEPTH WHICH CONTAIN COMBUSTIBLE MATERIAL WILL BE SPRINKLERED.
13. ALL PIPE PASSING THROUGH WALLS WILL COMPLY WITH SECTION BC712.
14. THERE IS NO HIGH PILED STORAGE AS DEFINED IN SECTION 3-3.12 OF APPENDIX Q, SECTION BC Q102
15. DISTANCE OF SPRINKLERS FROM HEAT SOURCE SHALL BE IN AS PER TABLES 9.3.2.5 (A) AND 8.3.2.5 (B).
16. AS PER SECTION BC903.1.2 PROVIDE DEPARTMENT OF WATER SUPPLY LETTER WITH FLOW TEST DATE IF THERE IS A DIRECT CONNECTION TO THE STREET WATER SUPPLY.
17. THIS APPLICATION IS NOT FILED AS A RESULT OF ACTION BY THE FIRE COMMISSIONER AS AUTHORIZED BY BS & A TO MODIFY THE CERTIFICATE OF OCCUPANCY NOR IS SUCH ACTION PENDING.
18. ALL VALVES SHALL BE IDENTIFIED AS REQUIRED BY SECTION 6.7.4. OF APPENDIX Q, SECTION BCQ102.
19. DRAINAGE SHALL CONFORM TO SECTION 8.15.2 OF APPENDIX Q, SECTION BCQ102.
20. A ONE PIECE REDUCING FITTING OF GOOD DESIGN SHOULD BE USED WHEREVER A CHANGE IS MADE IN THE SIZE OF PIPE, AS PER SECTION 6.4.6 OF APPENDIX Q, SECTION BCQ102.
21. ALL VALVES ON CONNECTIONS TO WATER SUPPLIES TO SPRINKLER SHALL BE APPROVED O.S. & Y. OR APPROVED INDICATOR TYPE.
22. DRAIN VALVES AND TEST VALVES SHALL BE APPROVED TYPE AS PER 6.7.3 OF APPENDIX Q, SECTION BCQ102.
23. HANGERS SHOULD BE SUPPORTED BY WROUGHT IRON U TYPE OR APPROVED ADJUSTABLE HANGERS. HANGERS SHALL BE OF THE TYPE APPROVED FOR USE WITH THE PIPE OR TUBE INVOLVED, AS PER CHAPTER 9, OF APPENDIX Q, SECTION BCQ102.
24. PROVISIONS SHOULD BE MADE TO FACILITATE FLUSHING SYSTEM PIPING BY PROVIDING FLUSHING CONNECTIONS CONSISTING OF A CAPPED NIPPLE 4" LONG ON END OF A CROSS MAIN AS PER SECTION 8.14.16 OF APPENDIX Q, SECTION BCQ102.
25. SPRINKLER SHALL BE AN APPROVED TYPE AS PER SECTION 8.3 OF APPENDIX Q, SECTION BCQ102.
26. TEMPERATURE RATING SHALL COMPLY WITH SECTION 8.3.2 OF APPENDIX Q, SECTION BCQ102.
27. 18" MINIMUM CLEARANCE TO BELOW SPRINKLER DEFLECTOR AS PER SECTION 8.5.6. OF APPENDIX Q, SECTION BCQ102.
28. SPACING AND LOCATION OF SPRINKLERS SHALL COMPLY WITH CHAPTER 8 OF APPENDIX Q, SECTION BCQ102.
29. SPRINKLER SYSTEM COMPLIES WITH 13-2016 AS MODIFIED BY APPENDIX Q, SECTION BCQ102.
30. SOURCES OF WATER SUPPLY FOR SPRINKLER SYSTEMS AS PER CHAPTER 15 OF APPENDIX Q, SECTION BCQ102.
31. PIPE SCHEDULE SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION 14.5 OF APPENDIX Q, SECTION BCQ102.
32. HYDRAULICALLY DESIGNED SYSTEMS SHALL BE IN ACCORDANCE WITH CHAPTER 11 OF APPENDIX Q, SECTION BCQ102.
33. MINIMUM BRANCH PIPE SIZE TO BE ONE INCH (1").
34. THIS APPLICATION IS MADE ONLY FOR WORK INDICATED ON THE SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
35. PAINTING FOR DEDICATED SPRINKLER PIPING AND VALVES HANDLES SHOULD BE AS PER NYC BC SECTION 903.6.

SPACING BETWEEN SPRINKLER HEADS

LIGHT HAZARD: 15' MAX. & 6' MIN.

NOTE: MAXIMUM DISTANCE BETWEEN SPRINKLER HEADS & WALLS IS ½ THE DISTANCE BETWEEN HEADS.

PROTECTION AREA OF SPRINKLER HEADS

LIGHT HAZARD: 225 SQ.FT.

SCOPE OF WORK:

1. FOR AUTOMATIC SPRINKLER WORK.THE SPRINKLER SYSTEM IS DESIGNED AS PER NFPA 13, AS MODIFIED BY NYC BC APPENDIX Q.
2. SCOPE IS FOR EATALY CAFEE FITOUT SPACE.

DESIGN CRITERIA SUMMARY

PROJECT DESIGNED BY HYDRAULIC CALCULATION AND NFPA13-2016.

GENERAL NOTES:

1. FOR SPRINKLER WORK ONLY.
2. ALL SPRINKLER HEADS MEET DESIGN CRITERIA PER COVERAGE.
3. PROVIDE FREEZE PROTECTION FOR ALL SPRINKLER PIPING AND EQUIPMENTS SUBJECT TO TEMPERATURE BELOW 40 DEGREE F.

SPECIAL INSPECTION SPRINKLER NOTE:

1. SPECIAL INSPECTION OF SPRINKLER SYSTEM TO BE PERFORMED IN ACCORDANCE WITH NY CITY BUILDING CODE SECTION BC 1705-29
2. FIRE RESISTANT PENETRATION & JOINTS IN ACCORDANCE WITH NY CITY BUILDING CODE BC-1705.17
3. POST INSTALLATION ANCHOR INSPECTION TO BE DONE IN ACCORDANCE WITH NY CITY BUILDING CODE BC-1705.37

PROGRESS INSPECTION SPRINKLER NOTE

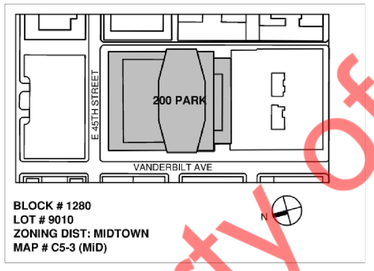
1. ENERGY CODE COMPLIANCE - THIS SHOULD BE INDICATED ON THE ENERGY ANALYSIS CHART THAT THE IS AN EXEMPT WORK TYPE UNDER NYCECC 2020

ECC NOTES

2020 NYCECC COMPLIANCE; NEW YORK CITY CONSERVATION CODE.

TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, ALL WORK UNDER THIS APPLICATION IS EXEMPT FROM THE NYCECC IN ACCORDANCE WITH ONE OF THE FOLLOWING: FA, FP, SD, SP, FS, EQ, CC, OT/BPP, OT/FPP

KEY PLAN:



BLOCK # 1280
LOT # 9010
ZONING DIST: MIDTOWN
MAP # C5-3 (MID)

SPRINKLER DRAWING LIST

01	SP-001.00	SPRINKLER SYMBOLS, NOTES & RISER
02	SP-002.00	SPRINKLER SPECIFICATIONS & SCHEDULES
03	SP-101.00	SPRINKLER PLAN
04	SP-501.00	SPRINKLER DETAILS

SPRINKLER LEGEND

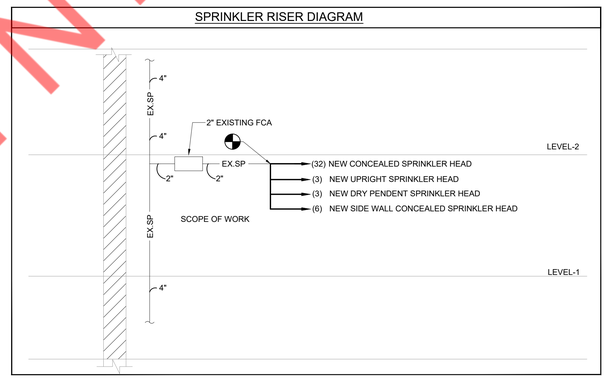
● (N)	NEW CONCEALED PENDENT SPRINKLER HEAD
◉ (N)	NEW UPRIGHT SPRINKLER HEAD
○ (D)	NEW DRY PENDENT SPRINKLER HEAD
▶	NEW DRY SIDEWALL SPRINKLER HEAD
— SP —	NEW SPRINKLER PIPING
— EX. SP —	EXISTING SPRINKLER PIPING TO REMAIN
✣	POINT OF CONNECTION

HAZARD CLASSIFICATION AND DESIGN DENSITY:
AREA: ALL

OCCUPANCY: LIGHT HAZARD
MINIMUM DESIGN DENSITY: 0.10 GPM/SQ. FT.

ABBREVIATIONS:
(N)- NEW SPRINKLER HEAD
(D) - DRY SPRINKLER HEAD
NIC - NOT IN CONTRACT

SPRINKLER RISER DIAGRAM



Property of NY Engineers

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ARCHITECT / ENGINEER SEAL:

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CLIENT:
EATALY

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PROJECT NUMBER
12308-24
DRAWN BY: NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
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2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE
SPRINKLER SYMBOLS, NOTES & RISER

SHEET NUMBER
SP-001.00

1 | SCALE N.T.S. | SPRINKLER NOTES, SYMBOLS AND SPECIFICATIONS

SPRINKLER SPECIFICATIONS

PART 1 - GENERAL

1.01 REQUIREMENTS

A. THE SPRINKLER CONTRACTOR SHALL BE A LICENSED, AUTHORIZED INSTALLER OF SPRINKLER SYSTEMS AND SHALL HAVE HAD A MINIMUM OF FIVE YEARS EXPERIENCE IN THE INSTALLATION OF SPRINKLER SYSTEMS IN THE CITY OF NEW YORK.

B. BEFORE SUBMITTING HIS BID, THE SPRINKLER CONTRACTOR SHALL VISIT THE SITE AND SHALL FULLY FAMILIARIZE HIMSELF WITH, AND BECOME FAMILIAR WITH THE DIFFICULTIES THAT WILL ATTEND THE EXECUTION OF THIS WORK. CONTRACTOR SHALL PERFORM THIS PRIOR TO SUBMITTING HIS PROPOSAL. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE, AND LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN HAD SUCH AN EXAMINATION BEEN MADE.

C. UPON REVIEW OF THE DRAWINGS AND SPECIFICATIONS, PRIOR TO SUBMITTING HIS PROPOSAL, THE SPRINKLER CONTRACTOR SHALL INFORM ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES OR REQUEST CLARIFICATION IN WRITING, IF NECESSARY, CONCERNING THE INTENT OF THE PLANS AND SPECIFICATIONS TO PROVIDE A COMPLETE SPRINKLER SYSTEM INSTALLATION. LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OF MATERIALS SHOULD SUCH PROCEDURE NOT BE FOLLOWED.

D. THE SCHEDULING OF THE SPRINKLER WORK SHALL BE COORDINATED WITH BUILDING MANAGEMENT, WITH OTHER CONTRACTORS AND WITH THE ENGINEER.

E. NECESSARY SHUT-DOWNS OF BASE BUILDING SPRINKLER SYSTEM MUST BE COORDINATED WITH BUILDING MANAGEMENT. SHUT-DOWNS OF BASE BUILDING SYSTEMS SHALL TAKE PLACE AFTER OR BEFORE NORMAL BUSINESS HOURS AND SHALL BE CONSIDERED OVERTIME WORK. THE CONTRACTOR MUST GIVE BUILDING MANAGEMENT AND NEW YORK CITY FIRE DEPARTMENT 48 HOURS NOTICE PRIOR TO SHUT-DOWN OF SPRINKLER, OR OTHER SYSTEMS.

1.02 WORK INCLUDED

A. WORK SHALL INCLUDE ALL SPRINKLER WORK FURNISHED AND INSTALLED AS INDICATED ON THE PLANS AND AS SPECIFIED HEREIN.

1. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE, N.F.P.A. STANDARD 13-2016, N.Y.C. FIRE DEPARTMENT AND OWNERS INSURANCE RATING ORGANIZATION.

2. PROVIDE COMPLETE NEW SPRINKLER SYSTEM CONNECTING TO EXISTING SPRINKLER SYSTEM FLOOR CONTROL VALVE ASSEMBLY.

3. THESE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF WORK. SCALED DIMENSIONS SHALL NOT BE USED. ANY DIMENSIONS NOT SHOWN SHALL BE OBTAINED FROM FIELD MEASUREMENTS.

4. PROVIDE COMPUTER GENERATED HYDRAULIC CALCULATIONS IN ACCORDANCE WITH N.Y.C. BUILDING DEPARTMENT AND NFPA STANDARDS.

1.03 SHOP DRAWINGS AND SUBMITTALS

A. THE CONTRACTOR SHALL SUBMIT, FOR APPROVAL, FULLY COORDINATED SHOP DRAWINGS, CAPACITY, DATA, AND CATALOG CUTS OF THE FOLLOWING:

1. PIPE AND FITTINGS
2. VALVES
3. HANGERS AND SUPPORTS
4. SPRINKLER PIPING LAYOUT
5. TESTS
6. SPRINKLER HEADS

A. THE SPRINKLER SYSTEM SHALL BE DESIGNED AS PER PIPE SCHEDULE.

B. THE SPRINKLER CONTRACTOR SHALL OBTAIN THE LATEST FIRE PUMP TEST AT THE SITE TO VERIFY THE AVAILABLE WATER SUPPLY.

1.04 BUILDING DEPARTMENT FILING, PERMITS AND CERTIFICATES

A. THE SPRINKLER CONTRACTOR SHALL FILE ALL REQUIRED DRAWINGS WITH THE BUILDING DEPARTMENT AND BE RESPONSIBLE FOR OBTAINING FINAL APPROVAL.

B. ARRANGE FOR INSPECTION AND TESTS OF ANY AND ALL PARTS OF THE WORK AS REQUIRED BY AUTHORITIES HAVING JURISDICTION AND PAY ALL CHARGES FOR SAME.

1.05 INSPECTION AND TESTING

A. THE SPRINKLER SYSTEM SHALL BE INSPECTED AND TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW YORK CITY BUILDING CODE FIRE DEPARTMENT INSPECTOR.

B. THE SPRINKLER SYSTEM SHALL BE SUBJECTED TO A HYDROSTATIC PRESSURE TEST FOR A PERIOD OF ONE HOURS AT A PRESSURE OF AT LEAST 200 PSIG OR 50 PSI IN EXCESS OF THE MAXIMUM PRESSURE TO BE MAINTAINED WHEN THE MAXIMUM PRESSURE IN THE SYSTEM IS IN EXCESS OF 150 PSI AS PER NFPA.

C. THE BUILDING DEPARTMENT SHALL BE NOTIFIED THAT THE SYSTEM IS READY FOR REINSPECTION AND TESTING. THE BUILDING DEPARTMENT INSPECTOR SHALL WITNESS THE TEST. FINAL APPROVAL OF THE SPRINKLER SYSTEM SHALL BE OBTAINED FROM BUILDING DEPARTMENT, AND FIRE DEPARTMENT.

PART 2 - MATERIALS

2.01 GENERAL

A. THE SPRINKLER SYSTEM SHALL BE COMPLETE WITH ALL PIPE, FITTINGS, VALVES, DRAINAGE SYSTEM AND VALVES, HANGERS AND SUPPORTS. ALSO, MISCELLANEOUS WORK ITEMS, SUCH AS, SIGNS AS REQUIRED, VALVE TAGS, ETC., AND ALL OTHER RELATED EQUIPMENT, APPARATUS AND MATERIAL ITEMS NECESSARY FOR COMPLETE, APPROVED TYPE SYSTEM, READY FOR FUTURE EXTENSION.

B. ALL PIPE, FITTINGS, HANGERS, SUPPORTS, SPRINKLER HEADS, ETC., SHALL CONFORM TO THE NEW YORK CITY BUILDING CODE AND NATIONAL FIRE PROTECTION ASSOCIATION'S REQUIREMENTS AS TO TYPES OF MATERIALS, ARRANGEMENT, SIZES AND INSTALLATION. PIPING PENETRATING FIRE RATED PARTITIONS SHALL HAVE OPENING SEALED WITH U.L. APPROVED FIREPROOF SEALANT.

2.02 SPRINKLER PIPING

A. ALL SPRINKLER PIPING SHALL BE SCHEDULE 40 IN ACCORDANCE WITH NFPA 13. PIPE SHALL BE UL/FM APPROVED.

B. STEEL PIPE SHALL BE BETHLEHEM STEEL CO., ALLIED TUBE, BERGER INDUSTRIES OR APPROVED.

C. AS PER NFPA 13 MODIFIED BY APPENDIX Q, PIPE OR TUBE USED IN SPRINKLER SYSTEMS SHALL BE OF THE MATERIALS SPECIFIED IN TABLE 5.2.1.1 OR SHALL BE IN ACCORDANCE WITH 5.2.2.

D. AS PER NFPA 13, FITTINGS USED IN SPRINKLER SYSTEMS SHALL BE OF THE MATERIALS LISTED IN TABLE 5.2.5 OR SHALL BE IN ACCORDANCE WITH 5.2.9. FITTING SHALL BE UL/FM APPROVED. CONTRACTOR.

E. NONMETALLIC PIPES & FITTINGS USED IN MULTIPURPOSE PIPING SYSTEMS NOT EQUIPPED WITH A FIRE DEPARTMENT CONNECTION SHALL BE DESIGNED TO WITHSTAND A WORKING PRESSURE OF NOT LESS THAN 130PSI AT 120°F.

2.03 CUTTING AND PATCHING

DO ALL CUTTING AND CORE DRILLING NECESSARY FOR THE INSTALLATION OF SPRINKLER WORK. ACCURATELY LAYOUT WORK FOR WHICH CUTTING IS REQUIRED. PATCH AND RESTORE ANY DAMAGE WORK TO LIKE NEW CONDITION.

2.04 CUTTING AND PATCHING

1. DO ALL CUTTING AND CORE DRILLING NECESSARY FOR THE INSTALLATION OF SPRINKLER WORK. ACCURATELY LAYOUT WORK FOR WHICH CUTTING IS REQUIRED. PATCH AND RESTORE ANY DAMAGE WORK TO LIKE NEW CONDITION.

2. FOR REPLACEMENT OF THE WORK REMOVED, MATCH EXISTING IN NATURE, CONSTRUCTION AND FINISH.

3. MAINTAIN THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH COVERED BY THE WORK, REMOVE ALL SURPLUS MATERIALS, TOOLS ETC. AND LEAVE PREMISES CLEAN.

2.05 FIRE STOPPING

INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURERS PUBLISHED DIRECTIONS AND PER FIRE TESTED DESIGNS THAT HAVE BEEN ACCEPTED BY THE APPROPRIATE CODE AUTHORITY HAVING JURISDICTION.

2.06 PHASING

PHASING SHALL BE COORDINATED BETWEEN THE SPRINKLER CONTRACTOR AND GENERAL CONTRACTOR. SPRINKLER INSTALLATION SHALL BE PHASED IN A MANNER WHICH WILL ALLOW FULL OCCUPANCY OF THE EXISTING FACILITY WHILE THE INSTALLATION IS IN PROGRESS.

2.06 ALTERNATES/SUBSTITUTIONS

CONTRACTOR SHALL STATE IN THEIR PROPOSAL ANY CONTRACTOR PROPOSED SUBSTITUTIONS OF THE MATERIALS OR METHODS OF INSTALLATION FROM THAT SPECIFIED. THESE ALTERATIONS SHALL BE LISTED ON THE PROPOSAL AS CONTRACTOR ALTERNATIVE.

2.07 LEAK DAMAGE

THE SPRINKLER CONTRACTOR SHALL BE RESPONSIBLE DURING THE INSTALLATION AND TESTING PERIODS OF THE SPRINKLER SYSTEM FOR ANY LOSS OR DAMAGE TO THE WORK OF OTHERS, TO THE BUILDING, IT'S CONTENTS ETC. CAUSED BY LEAKS IN THE EQUIPMENT. BY UNPLUGGED OR DISCONNECTED PIPES, FITTINGS ETC. OR BY OVERFLOW, AND SHALL PAY FOR THE NECESSARY REPLACEMENTS OR REPAIRS TO THE WORK OF OTHERS, DAMAGED BY SUCH LEAKAGE.

2.08 INSERTS, HANGERS, ETC.

A. ALL SPRINKLER PIPING SHALL BE SUBSTANTIALLY SUPPORTED AND SHALL COMPLY WITH THE STANDARDS FOR THE NATIONAL FIRE PROTECTION ASSOCIATION FOR THE INSTALLATION OF SPRINKLER SYSTEMS AND AS REQUIRED BY THE NEW YORK CITY BUILDING CODE.

B. HANGERS AND THEIR COMPONENTS SHALL BE FERROUS. HANGERS SHALL BE ADJUSTABLE FLAT IRON TYPE OF CLEVIS TYPE.

C. SPRINKLER PIPING OR HANGERS SHALL NOT BE USED TO SUPPORT NON-SYSTEM COMPONENTS.

D. SPRINKLER PIPING SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE WHICH MUST SUPPORT THE ADDED LOAD OF THE WATER-FILLED PIPE PLUS A MINIMUM OF 250 LBS. APPLIED AT THE POINT OF HANGING. CONTRACTOR SHALL SUBMIT DETAIL OF SUPPORT FOR REVIEW AND APPROVAL.

E. SPRINKLER PIPING SHALL BE SUPPORTED INDEPENDENTLY OF THE CEILING SHEATHING.

F. WHEN SPRINKLER PIPING IS INSTALLED BELOW DUCTWORK, PIPING SHALL BE SUBSTANTIALLY SUPPORTED FROM THE BUILDING STRUCTURE, NOT FROM THE DUCTWORK.

G. MAXIMUM DISTANCE BETWEEN HANGERS SHALL NOT EXCEED 12 FT. FOR 1 AND 1-1/4" SIZES NOR 15' FOR SIZES 1-1/2" AND LARGER.

H. EXPANSION SHIELDS FOR SUPPORTING PIPES UNDER CONCRETE CONSTRUCTION MAYBE USED IN A HORIZONTAL POSITION IN THE SIDES OF BEAMS. IN CONCRETE HAVING GRAVEL OR CRUSHED STONE AGGREGATE, EXPANSION SHIELDS MAY BE USED IN THE VERTICAL POSITION TO SUPPORT PIPES 4" OR LESS IN DIAMETER.

2.09 ESCUTCHEONS

PROVIDE ESCUTCHEONS ON ALL EXPOSED PIPING PASSING THROUGH WALLS, PARTITIONS, FLOORS AND CEILINGS, ESCUTCHEON SHALL BE HELD IN PLACE BY INTERNAL TENSION OR SET SCREW.

2.10 AS-BUILT DRAWINGS

PREPARE AND SUBMIT "AS BUILT" DRAWINGS AT THE COMPLETION OF THE PROJECT.

2.11 SPRINKLER HEADS

A. SPRINKLERS SHALL BE RATED FOR ORDINARY TEMPERATURES (135/165 DEG. F) EXCEPT AS REQUIRED NEAR HEATERS OR LOCATIONS WHERE ELEVATED TEMPERATURES MAY NORMALLY BE EXPECTED OR AS OTHERWISE INDICATED ON THE CONTRACT DRAWINGS.

B. SPRINKLER HEADS SHALL BE BY TYCO SPRINKLER CO., INC. MANUFACTURE OR APPROVED EQUAL, UL AND FM APPROVED, AS FOLLOWS:

1. SPRINKLER HEADS IN AREAS WITH CEILING SHALL BE CONCEALED.

2. PROVIDE SPARE SPRINKLER EMERGENCY CABINETS CONFORMING TO NFPA 13.

3. SPRINKLER EMERGENCY CABINETS SHALL BE OF TYCO SPRINKLER CO., INC. OR APPROVED EQUAL, UL AND FM APPROVED.

4. CABINET SHALL BE CONSTRUCTED OF 22 GAUGE STEEL WITH PRIME COAT AND MANUFACTURER'S BAKED ENAMEL FINISH IN COLOR SELECTED BY THE ARCHITECT.

5. CABINET SHALL CONTAIN A MINIMUM OF 6 SPRINKLER HEADS OF EACH TYPE EMPLOYED.

2.12 PRESSURE GAUGE

A. ASHCROFT SERIES 1079, OR APPROVED OTHER, 4-1/2" DIAMETER, 0-200 P.S.I. RANGE, 2D P.S.I. INTERVALS.

PART 3 - EXECUTION

3.01 GUARANTEE

A. GUARANTEE FOR A PERIOD OF ONE (1) YEAR FORM THE DATE OF ACCEPTANCE BY THE OWNER, ALL MATERIALS, APPARATUS AND WORKMANSHIP WHETHER FURNISHED BY HIMSELF OR BY HIS SUBCONTRACTORS AND HE SHALL REPLACE OR REPAIR IN A MANNER APPROVED BY THE ARCHITECTS, WITHOUT COST TO THE OWNER, ANY PART OR PARTS OF THE WORK WHICH MAY PROVE DEFECTIVE OR UNSATISFACTORY WITH IN THE PERIOD OF THE GUARANTEE.

3.02 INSTALLATION

A. PIPING

1. INSTALL PIPING AS SHOWN ON THE CONTRACT DRAWINGS AND STRAIGHT AND DIRECT AS POSSIBLE, FORMING RIGHT ANGLES OR PARALLEL LINES WITH BUILDING WALLS, NEATLY SPACED, WITH RISERS PLUMB AND TRUE.

2. SPRINKLER PIPING SHALL BE INSTALLED SO THAT THE SYSTEM CAN BE DRAINED.

3. PIPE SHALL BE REMOVED BY REAMING.

4. BEFORE INSTALLING PIPE, THOROUGHLY CLEAN THE INSIDE FREE OF CUTTING AND FOREIGN MATTER. CUT ALL PIPE SQUARE AND SMOOTH AND MAKE UP ALL JOINTS TO REQUIRED LIMITS.

B. PIPE JOINTS

1. THREADED JOINTS SHALL BE MADE UP OF TIGHT USING PIPE JOINT TEFLON COMPOUND OR TAPE, APPLIED ON THE MALE THREADS ONLY.

SPRINKLER SCHEDULE

SYMBOL	NAME	COVERAGE	AREA	METAL	TEMPERATURE (°F)	RESPONSE	K-FACTOR	NPT	MFG	MODEL#	APPROVALS
●RC	CONCEALED PENDENT	STANDARD	LH/OH CEILING	BRASS	155	QUICK	5.6	½"	TYCO	SERIES RF-II TY3531	FM APPROVED
⊗RC	UPRIGHT	STANDARD	OPEN AREAS	BRASS	155	QUICK	5.6	½"	TYCO	SERIES FRL TY3121	FM APPROVED
●RC	QUICK RESPONSE DRY CONCEALED PENDENT	STANDARD	WALK IN FREEZER, REFRIGERATOR & TRASH	BRASS	155	QUICK	5.6	½"	TYCO	SERIES DS-C TY3535	UL APPROVED
▶	SIDEWALL	STANDARD	OPEN AREAS	BRASS	155	QUICK	5.6	½"	TYCO	SERIES FR-II (HWS) TY3521	UL APPROVED

NOTE: COORDINATE ALL SPRINKLER COLOR FINISHES WITH ARCHITECT.

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CONTRACTOR'S NOTE
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CLIENT:
EATALY

EATALY

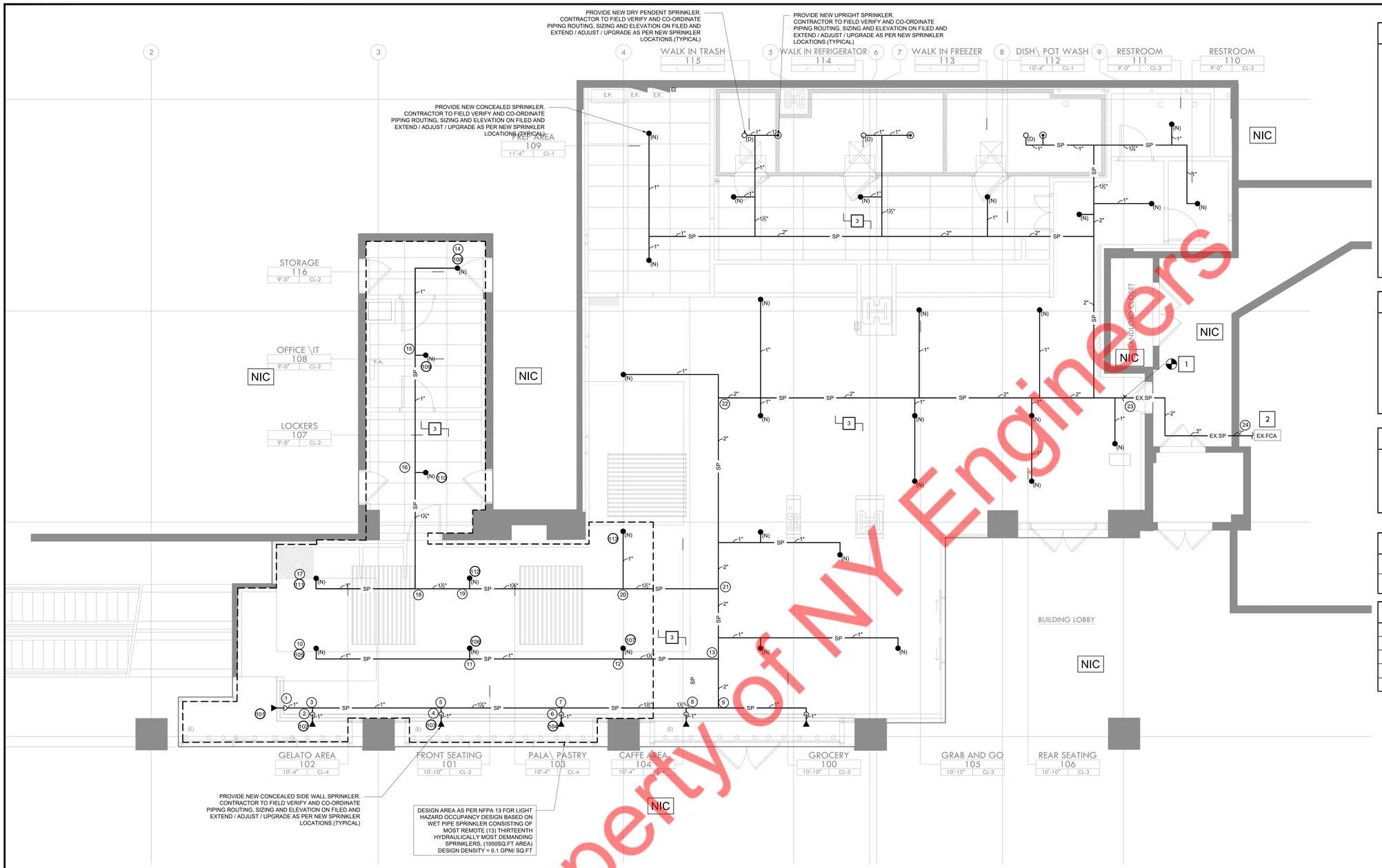
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SHEET TITLE
SPRINKLER SPECIFICATIONS & SCHEDULES

SHEET NUMBER
SP-002.00



GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY TO INSTALL ALL SPRINKLER HEADS TO BE MAX. 12" FROM CEILING.
2. ALL NEW SPRINKLER HEADS LOCATION TO BE COORDINATED WITH LIGHTING AND DIFFUSERS TO AVOID CONFLICT.
3. ALL SPRINKLER HEADS & PIPING TO BE COORDINATED OTHER TRADES.
4. ANY WORK SHOWN ON THE DRAWINGS AND NOT PARTICULARLY DESCRIBED IN THE SPECIFICATIONS OR DETAILS, OR ANY WORK WHICH MAY BE DEEMED NECESSARY TO COMPLETE THE CONTRACT SHALL BE PROVIDED BY THE CONTRACTOR AS PART OF THIS CONTRACT.
5. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, SPRINKLER DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND SIZE AND LOCATION OF EQUIPMENT. ARE DRAWN TO SCALE WHEREVER POSSIBLE. THE DRAWING INDICATE SIZE, CONNECTION POINTS, AND ROUTED OF PIPES. IT IS NOT INTENDED, HOWEVER, THAT ALL OFFSETS, RISES AND DROPS ARE SHOWN. PROVIDE PIPING AS REQUIRED TO FIT STRUCTURE, AVOID OBSTRUCTIONS, AND RETAIN CLEARANCES, HEADROOM OPENINGS AND PASSAGEWAYS.
   ALL PENDANT SPRINKLERS MUST BE SPACED AS FOLLOWS -
   MAXIMUM 7.5' FROM WALL
   MAXIMUM DISTANCE BETWEEN 2 SPRINKLER HEADS IS 15'.
   MINIMUM DISTANCE BETWEEN 2 SPRINKLER HEADS IS 6'.
6. COVERAGE AREA PER SPRINKLER SHALL BE MAX. 225 SQ.FT FOR LIGHT HAZARD AND 130 SQ.FT. FOR ORDINARY HAZARD.
7. ALL SPRINKLER HEADS MEET DESIGN CRITERIA PER COVERAGE.
8. AUXILIARY DRAIN SHALL BE PROVIDED AT THE TRAPPED SECTIONS.
9. FOR SPRINKLER WORK ONLY.
10. ALL BRANCH TAKE-OFF FOR EACH SPRINKLER TO BE MIN. 1".

KEYED NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING SPRINKLER PIPING AVAILABILITY. CONNECT NEW SPRINKLERS WITH THE EXISTING MAIN SPRINKLER PIPES. CONTRACTOR SHALL VERIFY IN THE MODIFY THE EXISTING SPRINKLERS AND PIPES AS REQUIRED FOR THE NEW LOCATION OF SPRINKLERS.
2. EXISTING FCA ASSEMBLY TO REMAIN WITH ASSOCIATED ACCESSORIES AND FITTING
3. CONTRACTOR SHALL ENSURE THERE ARE NO COMBUSTIBLE MATERIALS IN THE ABOVE CEILING SPACE TO PREVENT THE NEED FOR SPRINKLERS IN THAT AREA AS PER NFPA 13.

CONTRACTOR'S NOTE:

THE SPRINKLER SUBCONTRACTOR IS REQUIRED TO VISIT THE SITE DURING BIDDING AND VERIFY LOCATION(S) OF WHERE SPRINKLER PIPING/EQUIPMENT IS INDICATED TO BE PLACED, THEIR ROUTE(S) AND POSSIBLE INTERSECTION(S) WITH OTHER EQUIPMENT / WORK / STRUCTURE (I.E. STEEL BEAMS, ETC.) TO BE INSTALLED AND/OR "EXISTING TO REMAIN". THIS SUBCONTRACTOR IS TO VERIFY HEIGHTS "TO BE INSTALLED" TO MAINTAIN DESIGNED CEILING HEIGHTS AND HEAD ROOM. ANY DISCREPANCIES BETWEEN DESIGNED AND ACTUAL TO BE TOLD TO THE GENERAL CONTRACTOR AND INDICATED ON THE BID FORM.

HAZARD CLASSIFICATION AND DESIGN DENSITY

OCCUPANCY:	LIGHT HAZARD
MINIMUM DESIGN DENSITY:	0.10 GPM/SQ. FT.
OCCUPANCY:	ORDINARY HAZARD
MINIMUM DESIGN DENSITY:	0.15 GPM/SQ. FT.

SPRINKLER HEAD COUNT

NEW CONCEALED SPRINKLER	32
NEW UPRIGHT SPRINKLER	03
NEW DRY CONCEALED SPRINKLER	03
NEW SIDE WALL SPRINKLER	06
TOTAL SPRINKLER	44

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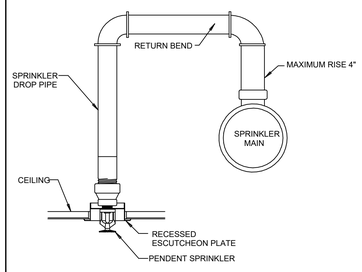
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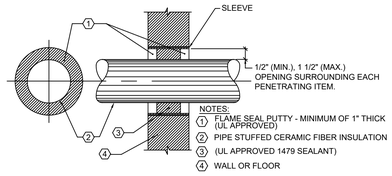
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SPRINKLER PLAN

SHEET NUMBER
SP-100.00

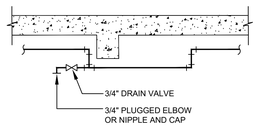
1 | SCALE 1 / 4" = 1' - 0" | SPRINKLER PLAN



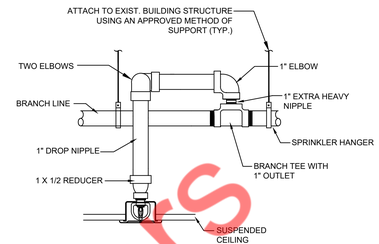
1	SCALE	RECESSED PENDENT SPRINKLER HEAD DETAIL
	N.T.S.	



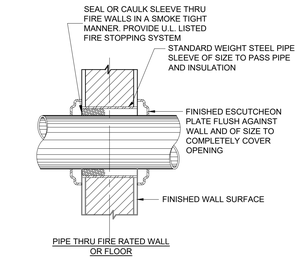
2	SCALE	FIRE STOPPING DETAIL FOR FIRE/ SMOKE RATED WALL/FLOOR OPENINGS
	N.T.S.	



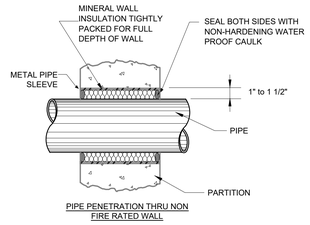
3	SCALE	TYPICAL DRAIN CONNECTION FOR TRAPPED LINES ON WET PIPE SPRINKLER SYSTEMS
	N.T.S.	



4	SCALE	NEW CONCEALED PENDENT SPRINKLER HEAD DETAIL
	N.T.S.	

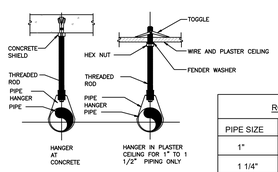


PIPE THRU FIRE RATED WALL OR FLOOR



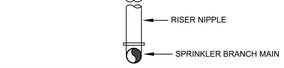
PIPE PENETRATION THRU NON FIRE RATED WALL

5	SCALE	PIPE SLEEVE THRU WALL SECTION
	N.T.S.	

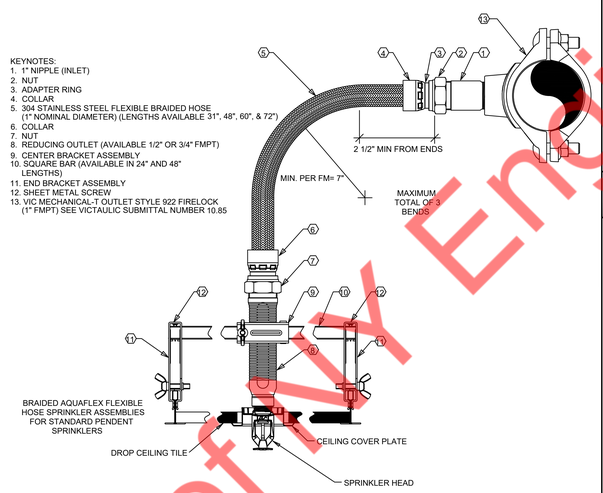


ROD SCHEDULE		
PIPE SIZE	ROD SIZE	SPACING
1"	3/8"	5'-8'
1 1/4"	3/8"	6'-10'
1 1/2"	3/8"	8'-10'
2"	3/8"	10'-12'

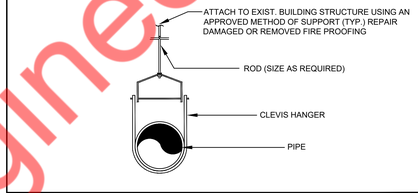
6	SCALE	TYPICAL HANGER DETAIL AND ROD SCHEDULE
	N.T.S.	



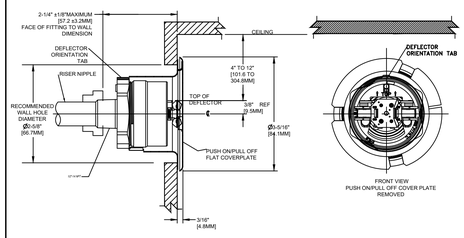
7	SCALE	UPRIGHT SPRINKLER HEAD DETAIL
	N.T.S.	



8	SCALE	FLEXIBLE HOSE SPRINKLER ASSEMBLY DETAIL
	N.T.S.	



9	SCALE	HANGER DETAILS TYPICAL
	N.T.S.	



10	SCALE	CONCEALED SIDEWALL SPRINKLER HEAD DETAIL
	N.T.S.	

Property of NY Engineers

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ARCHITECT / ENGINEER SEAL:

CONTRACTOR'S NOTE
WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF, THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

CLIENT:
EATALY

PROJECT NUMBER
12308-24
DRAWN BY: NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

DATE	REVISION DESCRIPTION
04.25.25	CLIENT COMMENTS
04.16.25	CLIENT COMMENTS

SHEET TITLE
SPRINKLER DETAILS

SHEET NUMBER
SP-200.00

PLUMBING SPECIFICATIONS

1. GENERAL

THE "ARCHITECTURAL GENERAL CONDITIONS" GOVERN WORK UNDER THIS SECTION. BEFORE SUBMITTING A PROPOSAL, THIS CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND SHALL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS. IT IS EXPRESSLY UNDERSTOOD THAT THIS PROPOSAL IS BASED ON THE ABOVE REQUIREMENTS AND THAT IT COVERS EVERYTHING NECESSARY TO DO AND COMPLETE THE WORK.

2. INSPECTION AND COOPERATION

NO DEVIATION FROM THE DRAWINGS AND /OR SPECIFICATIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT OR ENGINEER. THIS CONTRACTOR SHALL COOPERATE WITH THE OTHER CONTRACTORS TO ALLOW FOR THE INSTALLATION OF THEIR WORK AS WELL AS HIS OWN.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK FITTING IN PLACE WITHOUT CONFLICT WITH THE OTHER TRADES, WHERE PROPER PLANNING COULD AVOID INTERFERENCE.

3. CODES AND PERMITS

NOTHING IN THE DRAWINGS AND/OR SPECIFICATIONS SHALL BE INTERPRETED TO CONFLICT WITH ANY CITY OR PROVINCIAL LAW, REGULATION, CODE, ORDINANCE, RULING, OR FIRE UNDERWRITER'S REQUIREMENT APPLICABLE TO THIS CLASS OF WORK.

SHOULD THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH SUCH LAWS OR ORDINANCES, THE CONFLICTING PORTION OF THE WORK SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH SUCH LAWS AND ORDINANCES WITHOUT EXTRA COST.

THIS CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THIS INSTALLATION OF HIS WORK.

4. ACCURACY OF DATA

THE INFORMATION GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED, BUT ITS EXTREME ACCURACY IS NOT GUARANTEED. THIS CONTRACTOR SHALL EXAMINE THE LOCATIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS AND EXISTING PIPE SIZES BEFORE STARTING THE WORK AS ALL PIPING SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC ONLY.

THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, RAISED AND DROPS IN PIPING AND DUCTWORK AS REQUIRED BY BUILDING CONDITIONS AT NO ADDITIONAL COST.

MECHANICAL DRAWINGS SHALL NOT BE USED FOR GENERAL CONSTRUCTION DIMENSIONS OR FOR TYPE OF MATERIAL USED. FOR EXACT BUILDING LAYOUT, DIMENSIONS AND BUILDING MATERIAL USED, THIS CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS.

5. SHOP DRAWINGS

SHOP OR INSTALLATION DRAWINGS, FOUNDATION PLANS, EQUIPMENT OR APPARATUS DRAWINGS SHALL BE FURNISHED BY THIS CONTRACTOR. THESE DRAWINGS SHALL BE CLEARLY MARKED INDICATING WHICH ITEMS ARE TO BE SUPPLIED AND SHALL STATE CAPACITIES, SIZES AND GENERAL DESCRIPTION OF ALL EQUIPMENT. ANY CHANGES FROM THE SPECIFIED ITEMS SHALL BE NOTED ON THE SUBMITTALS.

SHOP DRAWINGS OF SPECIAL APPARATUS OR EQUIPMENT WHICH IS TO BE FABRICATED INDIVIDUALLY FOR THIS PROJECT AND IS NOT DESCRIBED BY STANDARD MANUFACTURER'S DRAWINGS OR BULLETINS SHALL BE SUBMITTED FOR PROCESSING BEFORE FABRICATION.

THESE DRAWINGS SHALL BE SUBMITTED IN A TIMELY MANNER.

IT SHALL BE THIS CONTRACTORS RESPONSIBILITY TO MAINTAIN LIAISON WITH ALL PARTIES CONCERNED WITH THE MATERIAL SUBMITTED. THIS CONTRACTOR SHALL NOT PURCHASE ANY EQUIPMENT UNTIL SHOP DRAWINGS HAVE BEEN PROCESSED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FEES ACCRUED FROM THE RETURN OF FIXTURES PURCHASED PRIOR TO THE REVIEW OF SHOP DRAWINGS AND THAT ARE NOT APPROVED.

THIS CONTRACTOR SHALL SUBMIT NO DRAWINGS WITHOUT NOTATION INDICATING DATE OF CONTRACTOR'S REVIEW AND SIGNATURE OF CHECK FOR CONTRACTOR TOGETHER WITH CONTRACTOR'S NAME AND PROJECT IDENTIFICATION.

ARCHITECT'S PROCESSING WILL NOT CONSTITUTE A COMPLETE CHECK BUT WILL INDICATE ONLY THAT GENERAL METHOD OF CONSTRUCTION AND DETAILING IS SATISFACTORY.

ARCHITECT'S PROCESSING WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS SINCE THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONS AND DESIGNS OF ADEQUATE CONNECTIONS, DETAILS AND SATISFACTORY CONSTRUCTION OF ALL WORK, AS WELL AS FURNISHING MATERIALS AND WORKMANSHIP REQUIRED BY DRAWINGS AND SPECIFICATIONS WHICH MAY NOT BE INDICATED ON THE SUBMITTALS WHEN APPROVED.

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING ENGINEER REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR: EQUIPMENT VOLTAGES AND DIMENSIONS TO BE CONFIRMED AND CORRELATED WITH ALL DISCIPLINES PRIOR TO PURCHASE; INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION; COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.

6. SUBSTITUTIONS OF EQUIPMENT OR MATERIAL

THE BRAND NAMES OF EQUIPMENT OR MATERIALS SPECIFIED HEREIN SHALL ESTABLISH QUALITY, CAPACITY, TYPE AND DIMENSIONS TO BE INCLUDED IN THE BASE BID.

APPROVAL OF SUBSTITUTED ITEMS WILL BE BASED ON ABILITY AND CAPACITY TO PERFORM FUNCTION SERVED, QUALITY AND AVAILABILITY OF PARTS AND SERVICE, QUALITY OF EQUIPMENT, DELIVERY SCHEDULE, ETC. THE ARCHITECT SHALL REVIEW ALL SUCH REQUESTS BUT RESERVES THE SOLE RIGHT OF JUDGEMENT TO APPROVE OR REJECT THE PROPOSED SUBSTITUTIONS.

ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL NOT CAUSE ADDITIONAL COST, ANY CHANGES OF PIPING, DUCTWORK, ELECTRICAL CONTROLS OR INSTALLATION REQUIRED BECAUSE OF THE SUBSTITUTION OR EQUIPMENT SHALL BE PAID FOR BY THIS CONTRACTOR PROPOSING THE SUBSTITUTION.

7. ERECTION OF APPARATUS

ALL WORK SHALL BE DONE UNDER THE PERSONAL SUPERVISION OF THIS CONTRACTOR WHO SHALL PROVIDE A COMPETENT FOREMAN TO LAY OUT ALL WORK. ALL WORK SHALL BE LAID OUT WITH DUE REGARD FOR THE SPACE REQUIREMENTS OF THE OTHER CONTRACTORS. THIS CONTRACTOR SHALL REPORT ANY CONFLICTS OR DIFFICULTIES IN REGARD TO THE INSTALLATION IMMEDIATELY.

WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, THIS CONTRACTOR SHALL MAKE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATIONS OF PIPES, DUCT, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES, SHALL BE APPROVED BY ARCHITECT AND ENGINEER BEFORE INSTALLATION OF THE WORK.

EQUIPMENT OF A TYPE TO REQUIRE REPLACEMENT, SERVICING, ADJUSTING OR MAINTENANCE SHALL BE LOCATED TO ALLOW EASY ACCESS AND SPACE FOR REMOVAL OF INTERNAL ASSEMBLIES, IT REQUIRED.

8. EXCAVATION AND BACKFILL

THIS CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED TO INSTALL PIPES AND EQUIPMENT SHOWN ON THE PLANS OR REQUIRED FOR PROPER OPERATION. EXCESS EXCAVATION BELOW THE REQUIRED LEVEL SHALL BE BACKFILLED WITH EARTH AND THOROUGHLY TAMPED. UTILITIES SERVICES LINES SHALL BE INSPECTED AND APPROVED BY THE PROPER INSPECTION AUTHORITY BEFORE BACKFILLING.

INSTALL PLASTIC PIPE AND FITTINGS IN STRICT ACCORDANCE WITH THE INSTALLATION RECOMMENDATIONS OF THE PIPE AND FITTINGS MANUFACTURER, APPENDIX X1 OF ASTM D2265 (STORAGE AND INSTALLATION PROCEDURES FOR PLASTIC DRAIN, WASTE, AND VENT PIPING) AND FOR BURIED PIPE ASTM D2321 (STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS), SUCH INSTRUCTIONS SHALL INCLUDE BUT ARE NOT LIMITED TO CUTTING, SOLVENT CEMENTING AND PRIMING, JOINTS, CONNECTIONS, TRANSITIONS, ALIGNMENT AND GRADE, TRENCHING, BEDDING, BACKFILL AND COMPACTION, SUPPORTS AND SPACING AND ALLOWANCE FOR THERMAL EXPANSION.

CAST IRON PIPING TRENCHING SHALL BE IN ACCORDANCE TO THE CAST IRON SOIL PIPE AND FITTINGS HANDBOOK ISSUED BY THE CAST IRON SOIL PIPE INSTITUTE.

THE BOTTOM OF TRENCHES SHALL BE TAMPED HARD AN GRADED TO SECURE THE REQUIRED FALL. ROCK, WHERE ENCOUNTERED SHALL BE EXCAVATED TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE PIPE, AND BEFORE THE PIPE IS LAID, THE SPACE BETWEEN BOTTOM PIPE AND ROCK SURFACE SHALL BE FILLED WITH GRAVEL. IF TRENCHES ARE DEEPER THAN BOTTOM OF FLOORING OR CLOSER THAN THREE FEET (3'0") TO FOOTING THEY MUST BE FILLED WITH COHESIVE SOIL AND COMPACTED TO 95% OF MAXIMUM DENSITY, STANDARD PROCTOR, ASTM D- 698. ALL OTHER EXCAVATIONS UNDER FLOOR SLABS COMPACTED TO 95% STANDARD PROCTOR.

WHEN EXCESS DIRT HAS BEEN REMOVED, THE TRENCH SHALL BE BROUGHT TO THE REQUIRED LEVEL WITH SAND AND GRAVEL FIRMLY COMPACTED.

TRENCHES AND EXCAVATION SHALL BE BACKFILLED IN 6" LAYERS OF EARTH, FREE FROM CLODS, AND STONES THOROUGHLY TAMPED TO A DEPTH OF 12" ABOVE THE PIPE. AFTER THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL BE DONE IN 12" LAYERS, THOROUGHLY TAMPED. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO ANY DAMAGES OR SAGS TO THE PIPING SYSTEMS THAT OCCUR FROM THE IMPROPER EXCAVATION AND BACKFILL METHODS.

9. EQUIPMENT SUPPORTS

ANY STRUCTURAL STEEL MEMBERS REQUIRED TO ADAPT THE EQUIPMENT AND PIPING AS FURNISHED BY THIS CONTRACTOR, TO THE BUILDING STEEL OR STRUCTURE, SHALL BE INCLUDED IN THE BID OF THE CONTRACTOR FURNISHING THE EQUIPMENT OR PIPING. HANGING OF ALL EQUIPMENT AND REQUIRED SUPPORTING STEEL AND BRACING SHALL BE FURNISHED BY THE CONTRACTOR WHO SUPPLIES THE EQUIPMENT.

10. CUTTING AND PATCHING

THIS CONTRACTOR SHALL INCLUDE ALL CUTTING, PATCHING AND PAINTING OF PATCHED AREAS REQUIRED FOR AND RESULTING FROM THE INSTALLATION OF ALL OF THIS CONTRACTOR'S WORK, EXCEPT WHERE NOTED OTHERWISE.

ALL OPENINGS AROUND PIPE PENETRATIONS THROUGH SMOKE OR FIRE-RATED FLOORS, CEILINGS OR WALLS SHALL BE SEALED AIRTIGHT WITH MATERIAL HAVING A RATING EQUAL TO THE MATERIAL OF THE WALL, CEILING AND/OR FLOOR PENETRATED.

ALL PATCHING SHALL BE NEATLY FINISHED TO THE SATISFACTION OF THE ARCHITECT.

11. ACCESS PANELS

THIS CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY THE GENERAL CONTRACTOR, ALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THE CONTRACT.

ALL PANELS SHALL BE MILCOR, STYLE "M" FOR MASONRY, "A" FOR ACOUSTICAL TILE AND "K" FOR PLASTER; EXCEPT FOR FIRE-RATED UL 1-1/2 HOUR AND "B" LABEL ACCESS PANELS SHALL BE FURNISHED IN FIRE-RATED WALLS AND CEILINGS AS INDICATED ON THE DRAWINGS. ACCESS DOORS SHALL BE 12" X 12" MINIMUM SIZE FOR VALVES.

12. DIELECTRIC UNIONS

FOR THE PREVENTION OF ELECTROLYTIC CORROSION AT CONNECTIONS BETWEEN PIPE OF DISSIMILAR METALS OR BETWEEN PIPE AND EQUIPMENT CONNECTIONS OF DISSIMILAR METALS, PROVIDE DIELECTRIC UNIONS OR FLANGES.

13. MOTORS, STARTERS AND DISCONNECTS

UNLESS SPECIFIED TO BE FURNISHED WITH EQUIPMENT, ALL MOTOR STARTERS AND DISCONNECT SWITCHES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

14. JOINTS AND FITTINGS

THREADS ON SCREWED PIPE SHALL BE STANDARD, CLEAN BUTT AND TAPERED. PIPE SHALL BE REAMED OF BURRS AND KEPT CLEAN OF SCALE, DIRT AND SHAVINGS. TREADS SHALL BE MADE WITH FLAKED GRAPHITE AND LUBRICATING OIL OR APPROVED PIPE COMPOUND ON THE MALE THREAD ONLY.

COPPER-TO-STEEL AND COPPER-TO-BRASS JOINTS SHALL BE MADE WITH SILVER SOLDER. ALL OTHER COPPER-TO-COPPER JOINTS ABOVE GROUND SHALL BE MADE WITH LEAD FREE SOLDER. COPPER PIPE SHALL BE CUT SQUARE, BURRS REMOVED AND CARE SHALL BE GIVEN TO KEEP THE LINES FREE OF DIRT AND MOISTURE. ALL TUBING AND FITTINGS SHALL BE THOROUGHLY CLEANED.

WELDED PIPE SHALL HAVE BUTT WELDED SINGLE "V" TYPE JOINTS FOR WHICH PIPE HAS BEEN BEVELED TO 45 DEGREES. WELD SHALL BE ONE-FOURTH GREATER THICKNESS THAN THE PIPE. CONNECTIONS TO EQUIPMENT, ACCESSORIES, ETC. SHALL BE MADE BY MEANS OF FLANGES AND/OR ADAPTERS.

UNIONS SHALL BE PROVIDED AT EACH SCREWED VALVE AND UNIONS OR FLANGES AT EACH EQUIPMENT CONNECTION.

15. EXPANSION JOINTS

FURNISH AND INSTALL FLEXONICS EXPANSION JOINTS IN PIPING SYSTEM WHERE SHOWN OR NECESSARY FOR EXPANSION AND CONTRACTION.

EXPANSION JOINTS IN PIPE 4" AND GREATER SHALL BE THE PACKLESS TYPE WITH STAINLESS STEEL BELLOWS AND HAVE WELDED OR FLANGED END. JOINTS SHALL HAVE TRAVERSE AS INDICATED ON THE PLANS. EXPANSION JOINTS SHALL BE OF THE CONTROLLED FLEXING TYPE.

EXPANSION JOINTS IN COPPER PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL BELLOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

EXPANSION JOINTS IN STEEL PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL ELBOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

PROVIDE GUIDES ON EACH SIDE OF EXPANSION JOINT, AT 4 PIPE DIAMETERS, 14 PIPE DIAMETERS, AND A THIRD GUIDE AS RECOMMENDED BY THE MANUFACTURER.

16. PIPE FLEXIBLE CONNECTIONS

FLEXIBLE PIPE CONNECTIONS SHALL BE RESISTOFLEX #R6904 OR APPROVED EQUAL FLEXIBLE CONNECTIONS MADE FROM TEFLON.

PROVIDE FOR MOVEMENT IN PIPING BY USE OF SWING JOINTS AT CONNECTION OF ALL BRANCHES TO MAINS AND RISERS. ALL BRANCHES FROM MAINS AND RISERS SHALL HAVE 1/4" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE TO PERMIT PIPE MOVEMENT.

17. VALVES

THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL VALVES OF ONE MANUFACTURER, FIGURE NUMBER AND TYPE THROUGHOUT THE ENTIRE INSTALLATION OF THE WORK, UNLESS OTHERWISE SPECIFIED. THE FOLLOWING NUMBERS ARE FROM THE CRANE CATALOG. EQUAL VALVES OF REPUTABLE MANUFACTURERS, SUCH AS HAMMOND, NIBCO-SCOTT AND/OR JENKINS WILL BE CONSIDERED EQUIVALENT.

ALL VALVES SHALL BE BUILT FOR A MINIMUM OF 125 PSIG WORKING PRESSURE.

ISOLATION VALVES SHALL BE PROVIDED ON ALL INDIVIDUAL FIXTURES AND FIXTURE GROUPS.

CHECK VALVES 2-1/2" AND SMALLER SHALL BE #36 (SCREWED ENDS) OR #1342 (SOLDER-JOINT ENDS) SWING-TYPE WITH BRONZE BODY AND BRONZE TRIM.

BUTTERFLY VALVES 2" AND LARGER SHALL BE #12F, IRON BODY, CAST-IRON WAFER W/LOCK LEVER.

BALL VALVE UP TO 3" IN SIZE SHALL BE APOLLO SERIES #70 BRONZE VALVE WITH CHROME-PLATED BALL AND TEFLON SEAT.

GAS LINE COCKS UP TO 4" SHALL BE #320. 1/2 PSI FOR INDOOR APPLIANCE CONNECTIONS SHALL CONFORM TO ANSI Z21.15 AND CSA 9.1, 5 PSI FOR INDOOR SHUTOFF SHALL CONFORM TO CGA 91-002 AND ASME B16.44

HOSE END VALVES SHALL BE #438 GATE VALVES WITH HOSE END NIPPLES.

18. PIPE SLEEVES AND COLLARS

THIS CONTRACTOR SHALL LAY OUT ALL HIS WORK AND SET SLEEVES IN NEW CONSTRUCTION AS CONCRETE FORMS AND WALL ARE ERECTED SO AS TO BE FREE TO INSTALL HIS WORK WITHOUT CUTTING OR BREAKING OF FLOORS OR WALLS. ALL SLEEVES FOR INSULATED PIPING SHALL BE LARGE ENOUGH TO ALLOW INSULATION TO PASS THROUGH SLEEVE.

ALL SLEEVES PASSING THROUGH FLOORS WHICH ARE WATERPROOFED SHALL BE COPPER TUBING SLEEVES EXTENDING 1" ABOVE FINISHED FLOOR. ALL OTHER SLEEVES SHALL BE 24 GAUGE GALVANIZED PIPES AND SLEEVES TO BE THOROUGHLY PACKED WITH WATERPROOF SEALANT AND THE REMAINING SPACE FILLED WITH MASTIC AND MUST BE WATERTIGHT.

ALL SLEEVES PASSING THROUGH INNER WALLS SHALL BE STANDARD PIPE THIMBLES EQUAL TO THE THICKNESS OF THE WALL.

SPACES BETWEEN PIPES AND SLEEVES THROUGH OUTSIDE WALLS, ABOVE GRADE, SHALL BE CAULKED WITH CAULKING COMPOUND; THOSE BELOW GRADE SHALL BE MADE WATERTIGHT.

SPACE AROUND ALL PIPING THROUGH FIRE OR SMOKE RATED PARTITIONS OR FLOORS SHALL BE SEALED AIRTIGHT WITH MATERIALS OR EQUIPMENT AS SPECIFIED UNDER FIRESTOPPING.

ALL PIPE PENETRATIONS OF SLABS ON GRADE SHALL BE WRAPPED WITH #15 BUILDING FELTS OR FOAM WRAP.

19. HANGERS

A. PIPE HANGER AND SUPPORT PRODUCTS INSTALLATION
   a. VERTICAL PIPING: MSS TYPE 8 OR 42 CLAMPS.
   b. INDIVIDUAL, STRAIGHT, HORIZONTAL PIPING RUNS: 100 FEET AND LESS: MSS TYPE 1, ADJUSTABLE, STEEL CLEVIS HANGERS. LONGER THAN 100 FEET: MSS TYPE 43, ADJUSTABLE ROLLER HANGERS. LONGER THAN 100 FEET IF INDICATED: MSS TYPE 49, SPRING CUSHION ROLLS.
   c. MULTIPLE, STRAIGHT, HORIZONTAL PIPING RUNS 100 FEET OR LONGER:MSS TYPE 44, PIPE ROLLS. SUPPORT PIPE ROLLS ON TRAPEZE.
   d. BASE OF VERTICAL PIPING: MSS TYPE 52, SPRING HANGERS.
B. SUPPORT VERTICAL PIPING AND TUBING AT BASE AND AT EACH FLOOR.
C. ROD DIAMETER MAY BE REDUCED ONE SIZE FOR DOUBLE-ROD HANGERS, TO A MINIMUM OF 3/8 INCH
D. INSTALL HANGERS FOR ALL PIPING PER MSS SP-69, MANUFACTURERS MANUALS AND AS PER HANGER SUPPORT DETAIL ON DRAWINGS
E. INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET.
F. INSTALL SUPPORTS FOR VERTICAL STEEL PIPING EVERY 15 FEET.
G. SUPPORT PIPING AND TUBING NOT LISTED IN THIS ARTICLE ACCORDING TO MSS SP-69 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

20. DAMAGE BY LEAKS

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO THE GROUNDS, WALKS, ROADS, ALL BUILDING COMPONENTS AND FINISHES, PIPING SYSTEMS, ELECTRICAL SYSTEMS AND THEIR EQUIPMENT AND CONTENT, CAUSED BY LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED HEREIN. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

21. PIPE MARKERS

FURNISH AND INSTALL BRADY #B-350 THIN FILM OR APPROVED EQUAL PIPE MARKERS. MARKERS SHALL BE 1-1/8" HIGH FOR PIPES 3" AND UNDER AND 2-1/4" HIGH FOR PIPES OVER 3". MARKERS SHALL INDICATE TYPE OF SERVICE AND DIRECTION OF FLOW.

PIPE MARKERS SHALL BE LOCATED:
- AT EQUIPMENT CONNECTIONS · AT ACCESS DOORS.
- AT BRANCH MAINS.
- ON ALL ACCESSIBLE PIPE A MAXIMUM OF 75' BETWEEN MARKERS.
- AT ALL PENETRATIONS ON EITHER SIDE OF PENETRATION

22. FLOOR, WALL AND CEILING PLATES

PIPES PASSING THROUGH FLOORS AND FINISHED CEILINGS, FITTED WITH CHROME- PLATED PLATES OR ESCUTCHEONS LARGE ENOUGH TO COMPLETELY CLOSE OPENING AROUND PIPE OR PIPE COVERING AND FLOOR SUPPORT IN THE CASE OF VERTICAL PIPING, SECURELY HELD IN PLACE; CAULK WATERTIGHT AROUND PIPE IN UNFINISHED ROOMS.

23. FIRE STOPPING

THE PENETRATIONS OF FIRE AND/OR SMOKE RATED WALLS OR FLOORS SHALL BE PROTECTED BY A UL APPROVED MATERIAL TO RETAIN THE INTEGRITY OF THE TIME-RATED CONSTRUCTION BY MAINTAINING AS EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE AND GASES. IT SHALL BE USED IN ALL DUCT CABLE, CONDUIT AND PIPING PENETRATIONS THROUGH FLOOR SLABS AND TIME-RATED WALLS, AND/OR FLOORS. THE RATING OF THE FIRESTOPPING SHALL EQUAL THE RATING OF THE TIME-RATED ASSEMBLY.

FIRESTOPPING MATERIAL SHALL BE 3M FIRE BARRIER SEALING SYSTEM OF APPROVED EQUAL. FIRESTOPPING MATERIAL SHALL CONSTITUTE ONE OR MORE OF THE FOLLOWING PRODUCTS:
- CAULK: CP-25
- PUTTY: #303
- WRAP/STRIP: FS195
- COMPOSITE SHEET: CS195
- PENETRATING SEALING SYSTEMS: 7900 SERIES

INSTALLATION OF FIRESTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH AND IN STRICT CONFORMITY WITH MANUFACTURER'S PRINTED INSTRUCTIONS AS TO SURFACE PREPARATION, INSTALLATION AND QUALITY CONTROL. AREAS OF WORK SHALL REMAIN ACCESSIBLE UNTIL INSPECTION AND APPROVAL BY THE APPLICABLE CODE AUTHORITIES.

ON INSULATED PIPES, THE FIRE-RATING CLASSIFICATION SHALL NOT REQUIRE REMOVAL OF THE INSULATION.

QUALITY ASSURANCE:
SUBMIT MANUFACTURER'S PRODUCT DATA, LETTER OF CERTIFICATION OR CERTIFIED LABORATORY TEST REPORT THAT THE MATERIAL OR COMBINATION OF MATERIALS MEET THE REQUIREMENTS SPECIFIED IN ASTM E814 AND ARE SO CLASSIFIED IN UL'S BUILDING MATERIALS DIRECTORY. MATERIALS SHALL MEET AND BE ACCEPTABLE FOR USE BY ALL MODEL BUILDING CODES. MATERIALS SHALL MEET THE REQUIREMENTS OF NFPME61-LIFE SAFETY CODE AND NFPA 70 NATIONAL ELECTRICAL CODE.

SUBMITTALS:
SUBMIT SHOP DRAWINGS, PRODUCT DATA, CERTIFICATES AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUBMIT MANUFACTURER'S PRODUCT DATA FOR ALL MATERIALS AND PREFABRICATED DEVICES, PROVIDING DESCRIPTIONS SUFFICIENT FOR IDENTIFICATION AT THE JOB SITE. INCLUDE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.

SUBMIT SHOP DRAWINGS SHOWING PROPOSED MATERIAL, REINFORCEMENT, ANCHORAGE, FASTENINGS, AND METHOD OF INSTALLATION. CONSTRUCTION DETAILS SHALL ACCURATELY REFLECT ACTUAL JOB CONDITIONS.

24. CLEANUP AND ADJUSTMENT

ALL PARTS WORK LEFT CLEAN: EQUIPMENT, FIXTURES, VALVES, PIPES AND FITTINGS CLEANED OF GREASE AND METAL CUTTINGS. ANY DISCOLORATION OR OTHER DAMAGE TO PORTIONS OF BUILDING, ITS FINISH OR FURNISHING DUE TO THIS CONTRACTORS FAILURE TO PROPERLY CLEAN INTERIOR OF PIPING, REPAIRED AT THIS CONTRACTOR'S EXPENSE. ALL AUTOMATIC CONTROL DEVISES ADJUSTED FOR PROPER OPERATION. ALL SURPLUS MATERIALS AND ANY RUBBISH REMOVED AS IT ACCUMULATES. ALL EQUIPMENT LEFT IN SAFE, PROPER OPERATING CONDITION.

DAMAGE TO ANY PORTIONS MUST BE REPAIRED OF THE PART REPLACED BY THIS CONTRACTOR AND ALL PARTS LEFT WITHOUT DENTS, SCRATCHES, THROUGH THE FINISH PAINT, LOOSE PLASTER, STAINS OR OTHER BLEMISHES.

25. PIPE TESTING AND START-UP

ALL PIPING TO BE TESTED IN ACCORDANCE WITH THE FOLLOWING:
- WATER - 100 PSI WATER PRESSURE
  ALL TESTING MUST HOLD FOR AT LEAST 24 HOURS WITHOUT LOSS OF PRESSURE OR VACUUM. ALL CONCEALED PIPING SHALL BE TESTED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO COVERING. BEFORE STARTING ANY SYSTEM, ALL EQUIPMENT SHALL BE LUBRICATED PER MANUFACTURERS REQUIREMENTS BY THIS CONTRACTOR. TEST ENTIRE BUILDING SYSTEMS UNDER FULL LOAD CONDITIONS FOR A PERIOD OF NOT LESS THAT ONE (1) WEEK DURING WHICH TIME THE OPERATING PERSONNEL SHALL BE FULLY INSTRUCTED IN THE OPERATION AND MAINTENANCE OF THE PLANT. AFTER THE PLANT IS IN FULL OPERATION, THIS CONTRACTOR IS TO FURNISH WHATEVER ADDITIONAL SERVICE IS REQUIRED TO RECALIBRATE AND RESET CONTROLS, VALVES, BALANCING COCKS, ETC. TO ENSURE PROPER OPERATION OF THIS SYSTEM.

26. TESTING AND BALANCING

THIS CONTRACTOR SHALL AT THE TIME OF INSTALLATION ENSURE THAT ALL DEVICES TO COMPLETE TESTING AND BALANCING AS DIRECTED HEREIN ARE FURNISHED AND INSTALLED DURING FABRICATION AND INSTALLATION OF WORK. THIS WORK SHALL BE PERFORMED PRIOR TO TURNOVER TO BUILDING OCCUPANT AND WITH AMPLE TIME TO MAKE ANY NECESSARY REPAIRS OR CHANGES TO ACHIEVE A PROPERLY OPERATING SYSTEM.

27. SEISMIC RESTRAINTS ON MECHANICAL EQUIPMENT

ALL PLUMBING EQUIPMENT SHALL BE PROVIDED WITH SEISMIC RESTRAINING SERVICES AS REQUIRED BY LOCAL BUILDING CODES. CONTRACTOR SHALL HAVE LOCAL BUILDING OFFICE REVIEW EACH PIECE OF EQUIPMENT WHEN INSTALLED AND THE CONTRACTOR SHALL INSTALL ALL REQUIRED TIE DOWN, ANCHORS, STRAPS OR OTHER DEVICES REQUIRED

28. GUARANTEE

THIS CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, MATERIALS, AND LABOR FURNISHED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AND SHALL REPAIR OR REPLACE ANY EQUIPMENT OR MATERIAL WHICH IS DEFECTIVE OR IMPROPERLY INSTALLED. IN ADDITION, THIS CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE BUILDINGS AND ITS CONTENTS OR OTHER EQUIPMENT, CAUSED BY DEFECTS OR IMPROPER INSTALLATION OF EQUIPMENT OR MATERIALS INSTALLED UNDER THIS SECTION OF THE SPECIFICATIONS.

29. TEMPORARY WATER

TEMPORARY WATER SERVICE (IF REQUIRED) TO THE BUILDING SHALL BE PROVIDED BY THIS CONTRACTOR TO THE BUILDING FOR CONSTRUCTION PURPOSES. THIS CONTRACTOR TO MAINTAIN WATER SERVICE AS REQUIRED DURING CONSTRUCTION.

30. DOMESTIC WATER SERVICE

THIS CONTRACTOR SHALL COORDINATE EXACT AVAILABLE DELIVERY PRESSURE AND PROVIDE ALTERNATE FEE FOR A PRESSURE BOOSTING SYSTEM IF PRESSURE IS LESS THAN REQUIRED PRESSURE. PROVIDE PRESSURE REDUCING VALVE WITH STRAINER IN SERVICE LINE IF REQUIRED BY LOCAL CODES OR PRESSURE IS ABOVE 80 PSI.

JOINTS SHALL BE CLEANED AND DEBURRED AS RECOMMENDED BY THE MANUFACTURER AND FEDERAL, STATE, AND LOCAL CODES AND PRESS FITTINGS ARE AN ACCEPTABLE IF ALLOWED BY LOCAL AHJ. WHERE PRESS FITTING S ARE NOT ALLOWED SOLDERED AS LISTED BELOW. FLUX SHALL BE NON-CORROSIVE. VICTAULIC GROOVED COUPLINGS ARE ACCEPTABLE ALTERNATE IF ALLOWED BY LOCAL AHJ.

ABOVE GRADE - WHERE FITTINGS ARE SOLDERED BOTH FITTINGS AND TUBING SHALL BE CLEANED AS DESCRIBED ABOVE. UNDER NO CIRCUMSTANCES SHALL DISSIMILAR METALS COME INTO DIRECT CONTACT WITH COPPER TUBING; E.G., GALVANIZED STRAPPING, HANGERS, OR CLAMPS TO SECURE THE TUBING.

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL - HIGH TEMPERATURE, SOLDER, 1200 DEG. F OR GREATER MELTING POINT.

NOTE : WATER PIPE TO BE PROPERLY SECURED AND ALIGNED SO AS NOT TO EXERT VERTICAL OR HORIZONTAL STRESSES ON THE SEATING OF THE MATING (MALE AND FEMALE) SURFACES OF THE UNIONS.

MATERIALS - UNDERGROUND: TYPE "K" COPPER TUBE, SOFT TEMPER MATERIALS - ABOVEGROUND: TYPE "L" COPPER TUBE. HARD DRAWN. ALTERNATE MATERIALS - PEX-A PIPING IS AN ACCEPTABLE ALTERNATE IF NOT INSTALLED IN A PLENUM AND APPROVED BY LOCAL CODE OFFICIALS. VIEGA, PROPRESS COPPER ½-INCH THROUGH 4-INCH WITH EPDM SEALING ELEMENT AND/OR VIEGA,

PLUMBING SYMBOLS LIST

PLUMBING LEGENDS	
— SAN —	WASTE PIPE UNDER GROUND
- EX.SAN -	EXISTING WASTE PIPE UNDER GROUND
SAN	WASTE PIPE ABOVE GROUND
EX.SAN	EXISTING WASTE PIPE ABOVE GROUND
- - - - - V - - - - -	VENT PIPING
- - - - EX.V - - - -	EXISTING VENT PIPING
— - CW - —	COLD WATER
EX.CW	EXISTING COLD WATER
- HW -	HOT WATER
EX.HW	EXISTING HOT WATER
HWR	RECIRCULATING HOT WATER
EX.HWR	EX. RECIRCULATING HOT WATER
FW	FILTER WATER
	SECONDARY BFP
	BALANCING VALVE
	PIPE UP OR DOWN
	PIPE UP
	UNION
	ISOLATION VALVE
FCO	FLOOR CLEANOUT
	BACKFLOW PREVENTER
	POINT OFF CONNECTION
	RE-CIRCULATION PUMP
	HUB / FLOOR DRAIN
CD	CONDENSATE DRAIN
F	FRANCHISE
EV	EQUIPMENT VENDOR
CC	CONTRACTORS CHOICE
OC	OWNERS CHOICE
	ACCESS PANEL

PLUMBING ABBREVIATIONS	
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RETURN
SAN	WASTE SANITARY
VTR	VENT THRU ROOF
V	VENT
AFF/AFG	ABOVE FINISHED FLOOR/GRADE
AHJ	AUTHORITY HAVING JURISDICTION
BFP	BACKFLOW PREVENTER
ETR	EXISTING TO REMAIN
CO	CLEANOUT
GC	GENERAL CONTRACTOR
IW	INDIRECT WASTE
PC	PLUMBING CONTRACTOR
WCO	WALL CLEANOUT
WH	WATER HEATER
ET	EXPANSION TANK
RCP	RE CIRCULATION PUMP
FD	FLOOR DRAIN
FT	FLOOR TROUGH
TYP	TYPICAL
CD	CONDENSATE DRAIN
VLL	VERIFY WITH LANDLORD
SPS	SEE PLUMBING SCHDULE
WHA	WATER HAMMER ARRESTOR
VIF	VERIFY IN FIELD
FFD	FUNNEL DRAIN

PLUMBING FIXTURE COUNT AND SIZING

FIXTURE	NO.	DRAIN		COLD WATER		HOT WATER		
		D.F.U.	TOTAL D.F.U.	F.U. C.W.	TOTAL C.W.	F.U. H.W.	TOTAL H.W.	TOTAL WSFU
WATER CLOSET (FLUSH TANK)	2	4	8	5.0	10.0	--	--	10.0
LAVATORY	2	1	2	1.5	3.0	1.5	3.0	4.0
MOP SINK	1	2	2	2.25	2.25	2.25	2.25	3.0
FLOOR DRAIN	3	5	15	--	--	--	--	--
FLOOR SINK/ FUNNEL DRAIN	8	5	40	--	--	--	--	--
DISHWASHING MACHINE	2	-	-	-	-	1.4	2.8	2.8
HAND SINK	4	1	4	0.5	2.0	0.5	2.0	2.8
3-COMP SINK / PREP / SCRAP SINK	4	-	-	3.0	12.0	3.0	12.0	20.0
OTHER FIXTURES(FW)	10	-	-	0.25	2.50	--	--	2.50
TOTAL	--	--	71	--	31.75	--	22.05	45.1

PROBABLE DEMANDS/ AND PIPE SIZING REQUIREMENTS:	DRAIN: SAN	71.00 DFU	USE 4" SANITARY (MIN)
	SUPPLY: CW	31.75 WSFU	USE 1-1/4" WATER SUPPLY
	SUPPLY: HW	22.05 WSFU	USE 1-1/4" WATER SUPPLY
	TOTAL:	45.1 WSFU	USE 1-1/4" WATER SUPPLY

DRAIN AND WATER SUPPLY PIPE SIZES BASED ON THE NEW YORK CITY PLUMBING CODE 2022
(ADOPTS AND AMENDMENTS FROM IPC-2015.)

KITCHEN EQUIPMENT SCHEDULE

ITEM NUMBER	DESCRIPTION	WASTE		VENT	CW	HW		FW	QTY	REMARK
		DIRECT	INDIRECT			110°F	140°F			
1.02	TRASH EVAPORATIVE COIL	-	1"	-	-	-	-	-	1 NO.	-
1.05	FOOD EVAPORATIVE COIL	-	1"	-	-	-	-	-	1 NO.	-
1.08	FREEZER EVAPORATIVE COIL	-	1"	-	-	-	-	-	1 NO.	-
1.10	MOP SINK	2"	-	1-1/2"	-	-	-	-	1 NO.	PROVIDE WALL MOUNTED MUSTEE MODEL: 16 UTILATUB OR EQUIVALANT
1.10A	MOP SINK FAUCET	-	-	-	1/2"	-	1/2"	-	1 NO.	"
1.12	WATER FILTER SYSTEM	-	3/4"	-	1"	-	-	-	1 NO.	"
1.16	ICE MACHINE	-	3/4"	-	-	-	-	1/2"	1 NO.	"
1.16A	ICE BIN	-	3/4"	-	-	-	-	-	1 NO.	"
1.16C	FLOOR TROUGH	3"	-	2"	-	-	-	-	1 NO.	"
2.02	DOUBLE COMBI OVEN W/ STAND ON CASTERS	-	2"	-	-	-	-	3/4"	2 NO'S.	"
2.05	PREP SINK	-	2"	-	1/2"	-	1/2"	-	1 NO.	"
2.05A	HAND SINK W/ SPLASH GUARD	1-1/2"	-	1-1/2"	1/2"	1/2"	-	-	1 NO.	"
3.01	3-COMPARTMENT SINK & SCRAP SINK W/ REMOVABLE BASKET	-	2" (3)	-	3/4"	-	3/4"	-	1 NO.	-
3.01A	SCRAP SINK	-	2"	-	1/2"	-	1/2"	-	1 NO.	"
3.03	VENTLESS DISHMACHINE	-	1-1/2"	-	1/2"	-	1/2"	-	1 NO.	"
3.07	HAND SINK	1-1/2"	-	1-1/2"	1/2"	1/2"	-	-	1 NO.	"
4.03	DIPPER WELL	-	1"	-	1/2"	-	-	-	1 NO.	"
4.06	HAND SINK W/ SPLASH GUARD	1-1/2"	-	1-1/2"	1/2"	1/2"	-	-	1 NO.	"
5.02	DROP IN SINK	-	2"	-	-	-	-	-	1 NO.	"
5.02A	PRE RINSE FAUCET WITH FAUCET ADD ON	-	-	-	1/2"	-	1/2"	-	1 NO.	"
5.06	UNDERCOUNTER LOW TEMP DISHWASHER	-	2"	-	-	-	1/2"	-	1 NO.	"
5.07	DROP IN DRAINBOARD TOP	-	1"	-	-	-	-	-	2 NO'S.	"
5.13	HAND SINK W/ SPLASH GUARD	1-1/2"	-	1-1/2"	1/2"	1/2"	-	-	1 NO.	"
5.17	COFFEE BREWER	-	-	-	-	-	-	1/2"	1 NO.	"
5.18	COLD BREW DISPENSER	-	-	-	-	-	-	1/2"	1 NO.	"
5.20	FROZEN DRINK MACHINE	-	-	-	-	-	-	1/2"	1 NO.	"
5.21	ESPRESSO CAPPUCCINO MACHINE	-	1"	-	-	-	-	1/2"	2 NO'S.	"
5.24	GLASS RINSER	-	5/8"	-	-	-	-	1/2"	2 NO'S.	"

NOTE:
1. ALL FIXTURE MAY BE SUBSTITUTED WITH APPROVED EQUAL. CONTACT OWNER/ARCHITECT FOR APPROVAL
2. REFER FOOD SERVICE EQUIPMENT PLAN AND EQUIPMENT SCHEDULE FOR MORE INFORMATION.

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	SAN.	VENT	C.W.	H.W.	REMARKS
FS-1	FLOOR SINK - HALF GRATE	3"	2"	-	-	J.R. SMITH 3060Y-12, CAST IRON FLANGED, ROUND RECEPTOR WITH SEEPAGE OPENINGS, ACID RESISTANT COATED INTERIOR, NB HALF GRATE, INTERIOR DOME STRAINER.
FD-1	FLOOR DRAIN	3"	2"	-	-	J.R. SMITH 2010Y, CAST IRON FLANGED, ROUND.
TMV	THERMOSTATIC MIXING VAVLE POINT OF USE	-	-	1/2"	1/2"	ACORN ST-70 SET TO 110°F. PROVIDE TO LAVATORY AND HAND SINK
WC-1	WATER CLOSET	4"	2"	3/4"	-	KOHLER K-4325-0. ADA COMPLIANT ELONGATED BOWL WITH WALL CARRIER.
LAV-1	LAVATORY	2"	2"	1/2"	1/2"	KOHLER K-2007-0. WALL HUNG WITH CONCEALED ARM, FLOOR PEDESTAL CARRIER, ADA COMPLIANT. PROVIDE WITH KOHLER K-13466 FAUCET.
FFD-1	FUNNEL DRAIN	3"	2"	-	-	ZURN MODEL 325-NH. INDIRECT WASTE FUNNEL WITH INTEGRAL BACKWATER VALVE AND P-TRAP

ALL FIXTURE MAY BE SUBSTITUTED WITH APPROVED EQUAL. CONTACT OWNER/ARCHITECT FOR APPROVAL

POTABLE WATER BACKFLOW SCHEDULE

MARK	TYPE OF EQUIPMENT ON SYSTEM	METHOD OF CROSS CONNECTION CONTROL	MANUFACTURE AND MODEL NUMBER	REMARKS
BFP-1	COFFEE BREWER, DOUBLE COMBI OVEN, COLD BREW DISPENSER, ESPRESSO MACHINE, FROZEN DRINK MACHINE, GLASS RINSER	DUAL CHECK VALVE BACKFLOW PREVENTER	WATTS SD-3	ASSE 1022 APPROVED LEAD FREE
BFP-2	ICE MACHINE	DUAL CHECK VALVE BACKFLOW PREVENTER	WATTS LF9D	ASSE 1012 APPROVED LEAD FREE
BFP-3	WATER SERVICE RPZ	REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTOR	(WATTS LF007	ASSE 1013APPROVED LEAD FREE

1. CONTRACTOR SHALL PROVIDE INDIVIDUAL BACKFLOW PREVENTERS FOR EACH PIECE OF EQUIPMENT IF REQUIRED.
2. EACH BACKFLOW PREVENTER MUST HAVE TESTING PORTS.
3. BRONZE BODIED BACKFLOW PREVENTERS ARE PERMISSABLE IF ALLOWED BY LOCAL CODES.

ELECTRIC TYPE HOT WATER HEATER WITH STORAGE

TAG	TOTAL NO. OF HEATERS	TEMP. SET POINT DEG. F.	RATED STORAGE (GALLONS)	MEASURED STORAGE (GALLONS)	POWER INPUT	ELECTRICAL DATA	RECOVERY CAP. (GPM/GPH) @ RISE	STORAGE WATER TEMP.	TYPE	MANUFACTURER & MODEL NO.	REMARKS
						V/PH/HZ					
WH-1	1	140	120	119	18 KW	208V/3Ø/60Hz	83 GPH @ 90°F	140°F	ELECTRIC STORAGE TANK TYPE WATER HEATER (FLOOR MOUNTED)	(BRADFORD WHITE) MODEL: E32-120R-3	-DIMENSIONS 28.25"D X 64.625"H -FLOOR MOUNTED ELECTRIC WATER HEATER PROVIDE DRAIN PAN -PROVIDE EXPANSION TANK (ET-1), HOT WATER & RE-CIRCULATION PUMP (RCP-1). -MAINTAIN CLEARANCE AS PER MANUFACTURER RECOMMENDATION -CSA CERTIFIED

RE-CIRCULATION PUMP SCHEDULE

TAG	QUANTITY	SERVICE	LOCATION	PERFORMANCE DATA/PUMP			PUMP CONSTRUCTION DATA		MOTOR DATA/PUMP								REMARKS
				GPM	TDH (FT)	WATER TEMP. (°F)	PUMP TYPE	IMPELLER MATERIAL	POWER INPUT	STARTER TYPE	V/PH/HZ	RPM	F. L. A.	SERVICE FACTOR	WEIGHT (LBS)	MFGR MODEL	
RCP-1	1	HWR CIRC. SYSTEM	UTILITY ROOM	2	10	110	INLINE	NORYL	125 WATTS	AQUA STAT	115/1/60	2800	1.10	1.0	10	BELL & GOSSETT NBF-25	INLINE ON HW RETURN LINE AT WATER HEATER WITH NEMA 1 RATED MOTOR

GENERAL NOTES

1. VERIFY ALL PIPING IS GRADED AS PER CODE AND INSTALLED AS CALLED FOR IN DRAWINGS AND REQUIRED FOR PROPER OPERATION.
2. PROVIDE WALL PLATES, STOPS, SUPPLIES, TRAPS AND DRAIN OUTLETS FOR ALL KITCHEN EQUIPMENT AND MISCELLANEOUS EQUIPMENT.
3. CONNECT ALL EQUIPMENT AND FIXTURES SUPPLIES BY OTHERS.
4. ALL HOT WATER PIPING SHALL BE FIBERGLASS INSULATED.
5. PROVIDE NAIL GUARDS AS REQUIRED.
6. ALL WORK TO BE DONE IN ACCORDANCE WITH ALL LOCAL CODES AND REQUIREMENTS.
7. VERIFY EXACT SIZE AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO BID AND START OF WORK.
8. ALL EXPOSED PIPING FOR DESIGNATED DISABLED ACCESS FIXTURES SHALL BE COVERED OR OTHERWISE WRAPPED IN ACCORDANCE WITH A.D.A REQUIREMENTS AND LOCAL AUTHORITY.
9. ALTERNATE MATERIAL NOT IDENTIFIED IN DRAWINGS BUT APPROVED BY LOCAL AUTHORITY SHALL BE SUBMITTED TO ARCHITECT AND PLUMBING ENGINEER FOR REVIEW PRIOR TO INSTALLATION.
10. PLUMBING CONTRACTOR TO FURNISH AND INSTALL ALL MATERIAL AND PIPING REQUIRED FROM ROUGH-IN LOCATION TO EQUIPMENT CONNECTION LOCATIONS, BOTH SUPPLY AND WASTE (DIRECT & INDIRECT).
11. ALL HORIZONTAL LINES AS EXTENDED AND CONNECTED TO EQUIPMENT SHALL BE RUN AT HIGHEST POSSIBLE ELEVATION AND NOT LESS THAT 6 INCHES ABOVE FINISHED FLOOR SURFACE TO PROVIDE CLEARANCE FOR CLEANING AT ALL SUCH LOCATIONS.
12. PLUMBING CONTRACTOR TO INSTALL FAUCETS, AND WASTE ON ALL SINKS AND MAKE FINAL CONNECTIONS.
13. ALL INTERIOR PIPING FOR GREASE WASTE SYSTEM SHALL BE PCV, SOLVENT WELDED IF LOCAL CODE PERMIT.
14. WHEN PERMITTED BY CODE AND THE OWNER, CONTRACTOR MAY USE PEX AS ALTERNATE SYSTEM FOR POTABLE WATER SYSTEMS.

PIPE MATERIAL SCHEDULE

PIPES	MATERIALS
WASTE AND VENT	-ABOVE GROUND: PVC SCH. 40, CAST IRON - HUB TYPE WITH NEOPRENE JOINTS - WITH STAINLESS STEEL CONNECTORS WHEN PVC IS NOT ALLOWED PER LOCAL CODE. -SLOPE OF DRAINAGE SYSTEM SHALL BE 1/8" PER FOOT OF RUN FOR PIPE OVER 3" AND 1/4" PER FOOT OF RUN FOR PIPE 3" AND SMALLER. -PVC OR OTHER COMBUSTIBLE PLASTIC PIPING SHALL NOT BE INSTALLED IN CEILING PLENUM SPACES. -WHERE THE DRAINAGE PIPING IS UPSTREAM OF GREASE TRAP, THE SLOPE OF THE PIPING SHALL BE NOT LESS THAN 1/4" PER FOOT.
WATER PIPING	A. UNDERGROUND: TYPE "K" COPPER TUBE, SOFT TEMPER B. ABOVEGROUND: TYPE "L" COPPER TUBE, HARD DRAWN C. INSULATION: INSULATION FOR HOT AND COLD WATER PIPING SHALL BE AS PER NYC 2020 ENERGY CONSERVATION CODE (IECC 2020). D. PEX PIPE SHALL BE USED FOR ALL FILTERED AND R.O. WATER LINES

GREASE INTERCEPTOR CALCULATION

TAG	DESCRIPTION	QUANTITY	TABLE	LENGTH INCH	WIDTH INCH	DEPTH INCH	VOLUME CUBIC INCH	REMARK
1.10	MOP SINK	1	TABLE-1	20	20	10	4000.00	
3.01	3 COMP SINK	1	TABLE-1	18	24	14	18144.00	
FD-1	FLOOR DRAIN	1	TABLE-1		-		00.00	
				A) TOTAL VOLUME AS PER TABLE-1			22144.00	
3.01A	SCRAPER SINK	1	TABLE-2		-		3465.00	
5.06	DISHWASHER	1	TABLE-2		-		1100.00	
				B)TOTAL VOLUME AS PER TABLE-2			4565.00	
				C)TOTAL VOLUME (A+2XB)			31274.00	
				D) TOTAL LBS AS PER TABLE-1			150	
				MINIMUM GREASE TRAP FLOW			75	

GREASE TRAP FLOW CALCULATION AS PER THE TITLE 15 OF THE RULE OF THE NYC.

GREASE INTERCEPTOR SCHEDULE

TAG	MANUFACTURER	MODEL	FLOW RATE GPM	GREASE CAPACITY LBS	LIQUID CAPACITY GAL	NOTE#	REMARK
GI-1	SCHIER	GB-2	50	127	20	1,2,3	FOR 3-COMP SINK, SCRAPER SINK, & DISHWASHER
GI-2	SCHIER	GB-1	20	70	10	1,2,3	FOR MOP SINK

NOTES:
1. CONTRACTOR SHALL SUBMIT PROPOSED GREASE INTERCEPTOR INSTALLATION PLANS AND SPECIFICATIONS TO LOCAL AUTHORITIES FOR THEIR APPROVAL BEFORE ACQUISITION. SEE MANUFACTURER INSTALLATION MANUAL FOR ADDITIONAL INSTRUCTIONS.
2. PROVIDE WATER/GAS TIGHT SEAL AND HAVE MINIMUM 450 LBS. LOAD CAPACITY.
3. PROVIDE PP1 PUMPOUT PORT KIT.

EXPANSION TANK SCHEDULE

TAG	QTY.	LOCATION	SERVICE	TYPE	CONNECTION SIZE	MAX WORKING PRESSURE(PSI)	SHIPPING WEIGHT(LBS)	TANK VOLUME (GAL)	MAKE	REMARKS
ET-1	1	HOT WATER HEATER	HOT WATER	DIAPHRAGM	¾"	150	17	6.4	AMTROL ST-12C-DD	AMTROL- THERMXTROL ASME APPROVED ST-12C-DD DIMENSIONS- 18"(H)x12"(DIA.)

Property of NY Engineers

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ARCHITECT / ENGINEER SEAL:

CONTRACTOR'S NOTE
WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF, THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

CLIENT:
EATALY

EATALY

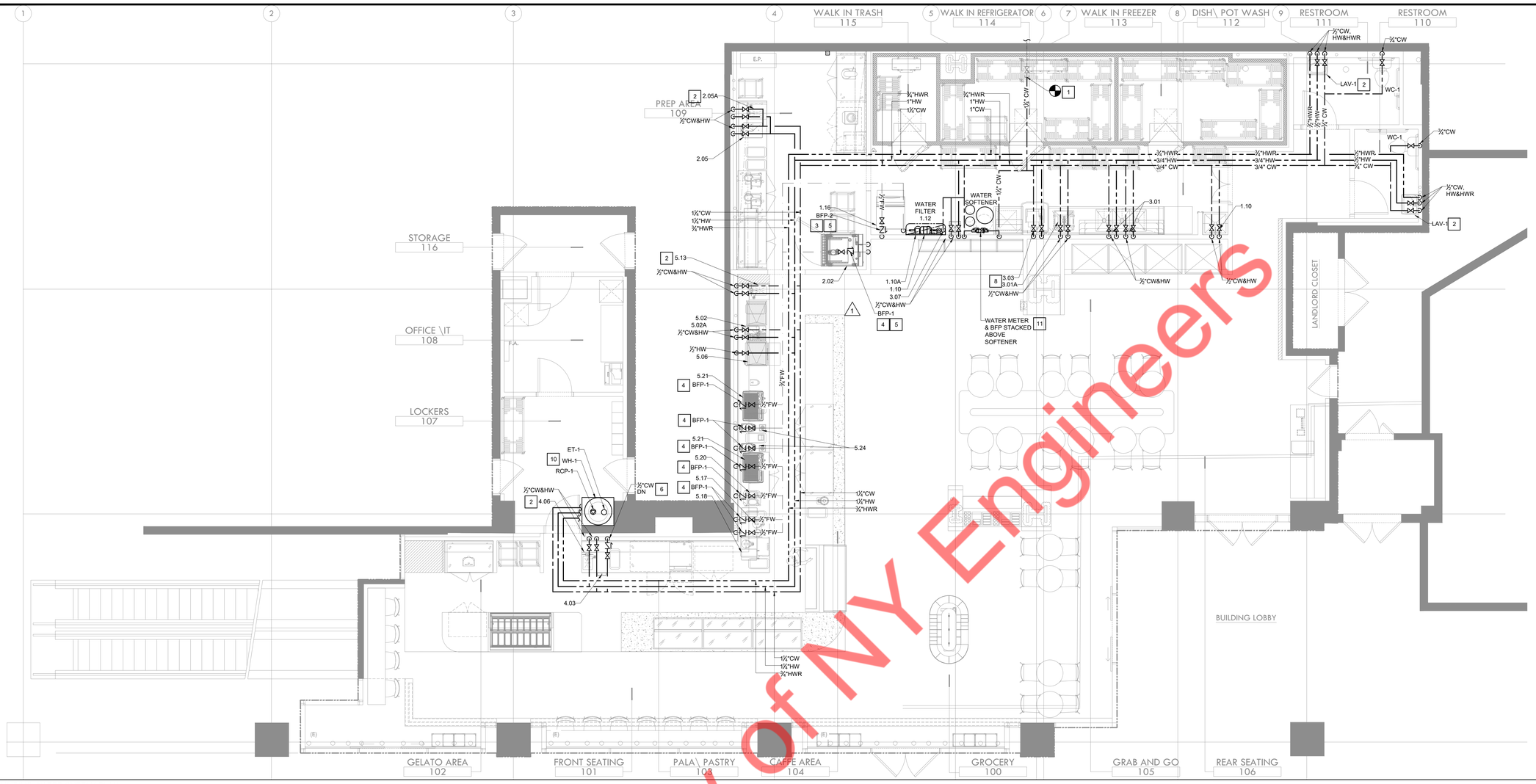
PROJECT NUMBER:
12308-24
DRAWN BY : NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION
2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE
PLUMBING SCHEDULE

SHEET NUMBER
P-001.00



1 PLUMBING WATER SUPPLY PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. CONTRACTOR SHALL VERIFY EXISTING WATER PRESSURE IN FIELD PRIOR TO ANY WORK AND PIPING ROUGH IN. PROVIDE PRESSURE REDUCING VALVE STATION IF REQUIRED.
2. ALL FIXTURES, EQUIPMENT, PIPING, AND MATERIALS SHALL BE LISTED.
3. ALL PLUMBING FIXTURES SHALL MEET THE FLOW REQUIREMENTS SPECIFIED IN THE NYC PLUMBING CODE.
4. ALL FAUCETS IN PUBLIC RESTROOMS SHALL BE SELF CLOSING OR SELF CLOSING METERING FAUCETS.
5. WATER PIPES AND FITTINGS WITH A LEAD CONTENT WHICH EXCEEDS 0.25% SHALL BE PROHIBITED IN SYSTEMS CONVEYING POTABLE WATER.
6. PUBLIC LAVATORIES SHALL HAVE CONTROLS TO LIMIT THE WATER TEMPERATURE TO 110 DEGREES FAHRENHEIT.
7. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
8. PROVIDE TRAP PRIMER FOR FLOOR DRAIN.
9. REFER RISER DIAGRAM FOR ALL PIPE SIZES.
10. COPPER PIPE SHALL BE USED FOR ALL WATER PIPING EXCEPT FILTERED AND R.O.WATER PIPING. TYPE "L" HARD DRAWN COPPER SHALL BE USED FOR PIPE NOT SET UNDER CONCRETE. TYPE "K" SOFT COPPER SHALL BE USED FOR PIPING UNDER CONCRETE. FITTINGS SHALL BE WROUGHT COPPER THROUGHOUT. (LARR #:5482) PEX PIPE SHALL BE USED FOR ALL FILTERED AND R.O. WATER LINES, "UPONOR" PEX PIPE AND FITTINGS ASTM F 876/877 AND PEX-A FITTINGS ASTM F1960, MULTI-PORT TEES, MANIFOLDS AND TRANSITION FITTINGS AS REQUIRED. INSTALLATION SHALL BE AS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS
11. ALL PLUMBING SHUTOFF VALVE SHALL BE COORDINATED WITH MECHANICAL EQUIPMENT AND SHALL BE EASILY ACCESSIBLE EASILY ACCESSED FOR FUTURE OPERATION.
12. REFER FOOD SERVICE EQUIPMENT PLAN AND EQUIPMENTS SCHEDULES FOR MORE INFORMATION.

KEYED NOTES:

1. EXTEND AND CONNECT NEW 1-1/4" CW TO EXISTING CW LINE STUB-OUT IN THE SPACE. CONTRACTOR TO FIELD VERIFY THE EXACT SIZE OF EXISTING LINE IN SPACE AND UPGRADE TO 1-1/4" IF NOT SUFFICIENT.
2. PROVIDE ASSE 1070 APPROVED THERMOSTATIC MIXING VALVE (TMV) TO LAVATORY AND HAND SINK. SET AT MAXIMUM 110° F.
3. PROVIDE ASSE 1012 APPROVED WATTS LF9D OR EQUIVALENT BACKFLOW PREVENTER TO ICE MACHINE AT ACCESSIBLE LOCATION.
4. PROVIDE ASSE 1022 APPROVED WATTS SD-3 OR EQUIVALENT BACKFLOW PREVENTER TO ESPRESSO MACHINE AND OTHER EQUIPMENT AT ACCESSIBLE LOCATION.
5. PROVIDE 1/2" FILTERED WATER SUPPLY TO ICE MACHINE, DOUBLE COMBI OVEN, COFFEE BREWER, FROZEN DRINK MACHINE, ESPRESSO MACHINE, GLASS RINSER, COLD BREW DISPENSER, AND HOT CHOCOLATE MACHINE .
6. PROVIDE 1/2" CW LINE TO DIPPER WELL.
7. PROVIDE 1/2" CW & 1/2" LINE TO PREP SINK AND 1/2" TO DISHWASHER. ROUTE THE PIPING DOWN IN WALL TO CELLAR LEVEL. CONTRACTOR SHALL VERIFY EXACT LOCATION.
8. PROVIDE 1/2" CW & HW LINE TO PREP SINK AND 1/2" HW TO DISHWASHER.
9. ½" CW & ¾" HW LINE DOWN TO ISLAND FIXTURE. ROUTE THE PIPING DOWN IN WALL TO BELOW FINISHED FLOOR THROUGH THE TRENCH AND ROUTE PIPING UP IN MILLWORK. CONTRACTOR SHALL VERIFY EXACT LOCATION.
10. PROVIDE NEW ELECTRIC WATER HEATER (WH-1) WITH 12" HEIGHT PLATFORM, EXPANSION TANK (ET-1) AND RE-CIRCULATION PUMP. CONTRACTOR TO FIELD VERIFY SPACE FOR INSTALLATION PRIOR TO ORDERED.
11. CONTRACTOR TO COORDINATE WITH LANDLORD/AHJ REQUIREMENT OF WATER METER & BFP. PROVIDE WATER METER & BFP (WATTS LF009 OR EQUIVALENT) AS SHOWN ON THE PLAN IF REQUIRED. INSTALLED BFP AS PER LOCAL AHJ. BASE BID ACCORDINGLY.

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CLIENT:
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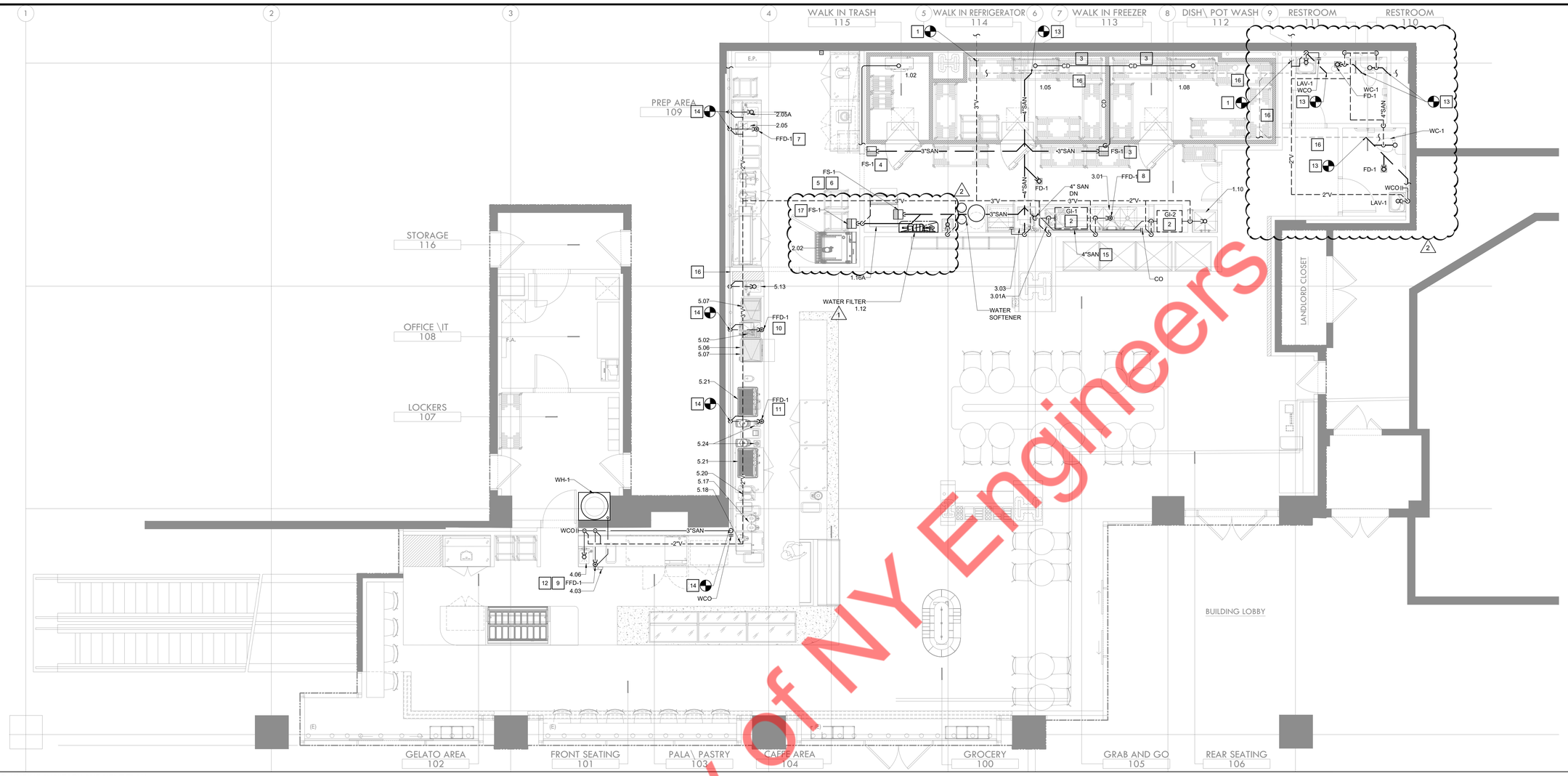
PROJECT NUMBER:
12308-24
DRAWN BY : NYE CHECKED BY: NYE

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03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
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SHEET TITLE
PLUMBING WATER SUPPLY PLAN

SHEET NUMBER
P-101.00



Proof of NY Engineers

1 PLUMBING SANITARY AND VENT PLAN
1/4" = 1'-0"

GENERAL NOTES:

1. SANITARY SEWER PIPING SHOWN ON DRAWINGS IS DIAGRAMMATIC AND MAY DIFFER SLIGHTLY FROM ACTUAL FIELD CONDITIONS. PLUMBING CONTRACTOR (PC) SHALL COORDINATE WITH EXISTING FIELD CONDITIONS VIA A SANITARY VIDEO SURVEY/SCOPE TO DETERMINE THE EXACT SIZE, LOCATION, INVERT ELEVATIONS AT THE PROPOSED CONNECTIONS TO EXISTING PLUMBING SERVICES PRIOR TO BID/CONSTRUCTION. IF ACTUAL FIELD FINDINGS VARY SIGNIFICANTLY FROM THOSE AS INDICATED ON PLANS, PC SHALL NOTIFY GENERAL CONTRACTOR (GC) IMMEDIATELY PRIOR TO STARTING ANY WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR ADDITIONAL COSTS INCURRED BY FAILED COORDINATION AFTER CONSTRUCTION HAS BEGUN. PC SHALL BE RESPONSIBLE FOR UTILIZING A REPUTABLE UTILITY LOCATING SERVICE PRIOR TO ANY EXCAVATION.
2. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENTS.
3. ANY UNUSED PLUMBING EQUIPMENT, PIPING, ETC WITHIN OR SERVING THE PREMISES MUST BE COMPLETELY REMOVED TO POINT OF ORIGIN AND CAPPED. DO NOT ABANDON IN PLACE.
4. ALL FLOOR DRAINS ARE REQUIRED TO HAVE TRAP PRIMERS.
5. REFER RISER DIAGRAM FOR ALL PIPE SIZES.
6. CLEAN OUT TO BE ACCESSIBLE BY ACCESS PANEL BY G.C.
7. FLOOR SINK: INSTALLED FLUSH WITH FINISHED FLOOR.
8. COORDINATE OVERALL PIPING DIAMETER (INCLUDING INSULATION) WITH WALL DEPTH.
9. NOTIFY ARCHITECT IF OVER ALL PIPE DIAMETER EXCEEDS WALL DEPTH.
10. NO 90° HORIZONTAL TURNS SHALL BE USED IN THE SANITARY PIPING SYSTEM. ALL HORIZONTAL TURNS SHALL BE MADE WITH 45° ELBOWS WITH PIPE IN BETWEEN THE TWO ELBOWS.
12. REFER FOOD SERVICE EQUIPMENT PLAN AND EQUIPMENTS SCHEDULES FOR MORE INFORMATION.

KEYED NOTES:

1. CONNECT NEW 2"/3" VENT LINE TO EXISTING VENT LINE IN SPACE CONNECTED TO EXISTING VTR. CONTRACTOR TO FIELD VERIFY EXISTING VENT LINE AND ITS SIZE AND LOCATION PRIOR TO CONNECT. REROUTE IF REQUIRED.
2. GREASE TRAP LOCATION SHOWN IN THE DRAWING APPROX. CONTRACTOR CO-ORDINATE WITH ARCHITECT AND LOCAL AHJ FOR GREASE TRAP LOCATIONS AND INSTALLATIONS.
3. CONTRACTOR TO ROUTE 1" CONDENSATE LINES FROM WALK IN FREEZER/ FOOD EVAPORATORS TO FLOOR SINK (FS-1) WITH APPROVED AIR GAP. PROVIDE WITH HEAT TRACE TAPE IF REQUIRED. CONNECT TO SANITARY LINE.
4. CONTRACTOR TO ROUTE 1" CONDENSATE LINES FROM TRASH EVAPORATORS TO FLOOR SINK (FS-1) WITH APPROVED AIR GAP. PROVIDE WITH HEAT TRACE TAPE IF REQUIRED. CONNECT TO SANITARY LINE.
5. ROUTE INDIRECT WASTE FROM ICE MACHINE, ICE BIN, WATER FILTER, WATER SOFTENER TO FLOOR SINK (FS-1) WITH APPROVED AIR GAP.
6. ROUTE INDIRECT WASTE FROM BACKFLOW PREVENTER (BFP) TO ADJACENT FLOOR SINK WITH APPROVED AIR GAP.
7. ROUTE INDIRECT WASTE FROM PREP SINK TO ADJACENT FUNNEL DRAIN (FFD-1) WITH APPROVED AIR GAP.
8. ROUTE INDIRECT WASTE FROM 3-COMPARTMENT SINK, SCRAP SINK AND DISHWASHER TO ADJACENT FUNNEL DRAIN (FFD-1) WITH APPROVED AIR GAP.
9. ROUTE WATER HEATER T&P DRAIN LINES TO FUNNEL DRAIN (FFD-1) WITH APPROVED AIR GAP.
10. ROUTE INDIRECT WASTE FROM PREP SINK, DROP IN SINK DRAIN BOARD TOP AND LOW TEMP. DISHWATER TO ADJACENT EXISTING FLOOR SINK (EX.FS) WITH APPROVED AIR GAP.
11. ROUTE INDIRECT WASTE FROM COFFEE BREWER, FROZEN DRINK MACHINE, ESPRESSO MACHINE, AND GLASS RINSER TO ADJACENT FUNNEL DRAIN (FFD-1) WITH APPROVED AIR GAP.
12. ROUTE INDIRECT WASTE FROM DIPPER WELL TO ADJACENT FUNNEL DRAIN (FFD-1) WITH APPROVED AIR GAP.
13. FIELD VERIFY AND CONNECT NEW 2"/3"/4" SANITARY LINE TO THE EXISTING SANITARY LINE IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF EXISTING SANITARY LINE, SIZE, INVERT AND FLOW OF DIRECTION PRIOR TO CONNECT. NOTIFY THE ENGINEER IF INVERT CAN NOT BE MET. REROUTE PIPING AND UPGRADE PIPE IF REQUIRED.
14. EXTEND AND CONNECT NEW 2"/3" SANITARY PIPE TO EXISTING SANITARY PIPE IN THE SPACE. FIELD VERIFY LOCATION, OF EXISTING SANITARY LINE, VERIFY SIZE AND INVERT. NOTIFY THE ENGINEER IF INVERT CAN NOT BE MET. VERIFY THE CONDITION OF PIPING, REPLACE IF REQUIRED.
15. NEW SANITARY WASTE AND VENT RUNNING ABOVE THE FLOOR TOUCHING THE WALL. VERIFY AND COORDINATE THE INVERT OF PIPE WITH EQUIPMENT AS PER SITE CONDITION. NOTIFY THE ENGINEER IF INVERT CAN NOT BE MET, PRIOR TO INSTALL.
16. EXISTING SANITARY WASTE PIPING TO REMAIN. VERIFY THE SIZE, FLOW DIRECTION. INVERT ELEVATION AND CONDITION OF EXISTING PIPING, REPLACE IF REQUIRED
17. ROUTE INDIRECT WASTE FROM DOUBLE COMBI OVEN TO FLOOR SINK (FS-1) WITH APPROVED AIR GAP.

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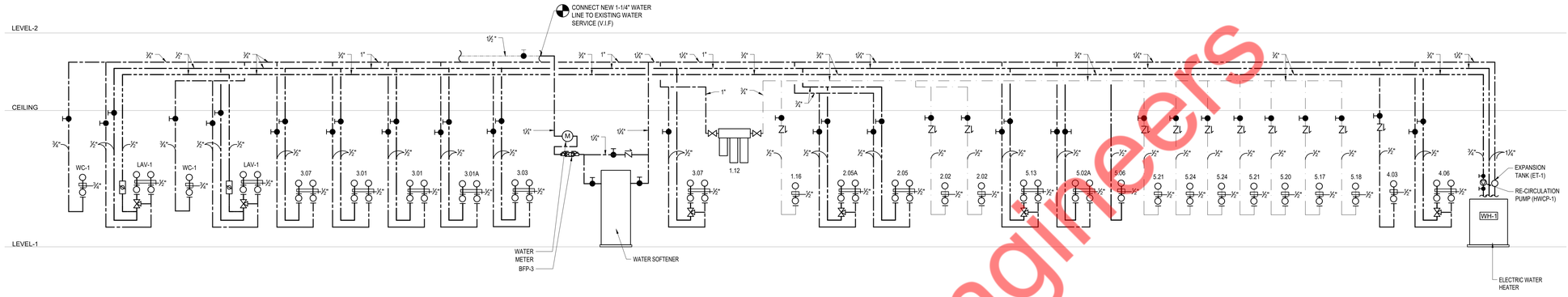
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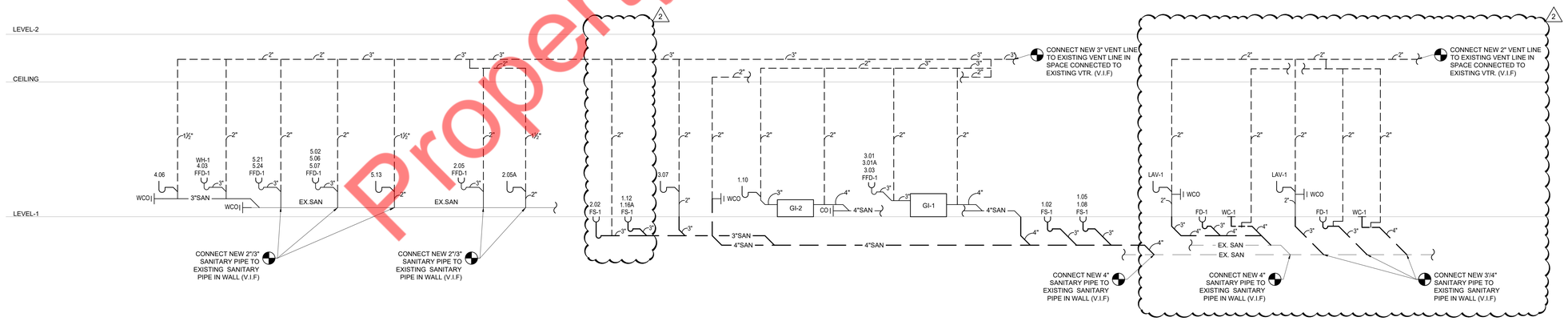
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PLUMBING SANITARY AND VENT PLAN

SHEET NUMBER
P-102.00



1 SCALE NTS — WATER SUPPLY RISER DIAGRAM



GENERAL NOTES:

1. SANITARY SEWER PIPING SHOWN ON DRAWINGS IS DIAGRAMMATIC AND MAY DIFFER SLIGHTLY FROM ACTUAL FIELD CONDITIONS. PLUMBING CONTRACTOR (PC) SHALL COORDINATE WITH EXISTING FIELD CONDITIONS VIA A SANITARY VIDEO SURVEYSCOPE TO DETERMINE THE EXACT SIZE, LOCATION, INVERT ELEVATIONS AT THE PROPOSED CONNECTIONS TO EXISTING PLUMBING SERVICES PRIOR TO BID/CONSTRUCTION. IF ACTUAL FIELD FINDINGS VARY SIGNIFICANTLY FROM THOSE AS INDICATED ON PLANS, PC SHALL NOTIFY GENERAL CONTRACTOR (GC) IMMEDIATELY PRIOR TO STARTING ANY WORK. THE OWNER SHALL NOT BE RESPONSIBLE FOR ADDITIONAL COSTS INCURRED BY FAILED COORDINATION AFTER CONSTRUCTION HAS BEGUN. PC SHALL BE RESPONSIBLE FOR UTILIZING A REPUTABLE UTILITY LOCATING SERVICE PRIOR TO ANY EXCAVATION.

2 SCALE NTS — SANITARY AND VENT RISER DIAGRAM

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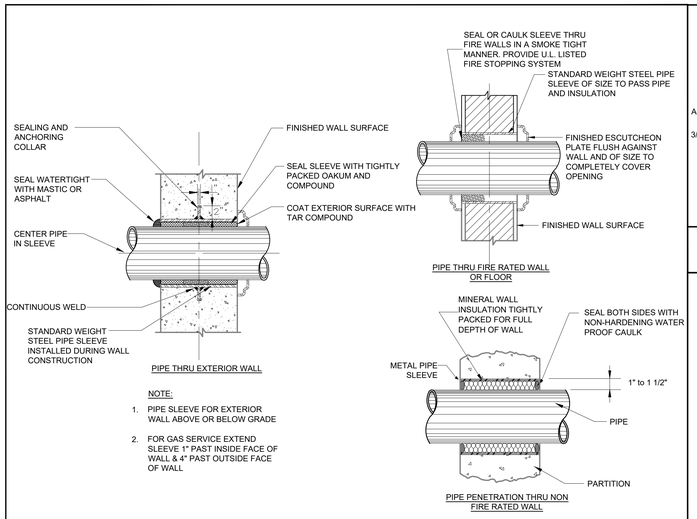
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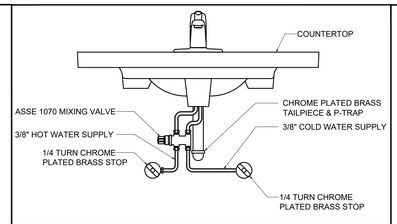
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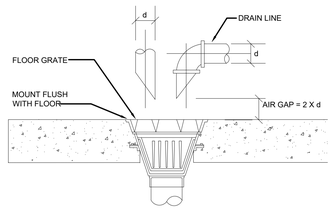
NOTE:

1. PIPE SLEEVE FOR EXTERIOR WALL ABOVE OR BELOW GRADE
2. FOR GAS SERVICE EXTEND SLEEVE 1" PAST INSIDE FACE OF WALL & 4" PAST OUTSIDE FACE OF WALL

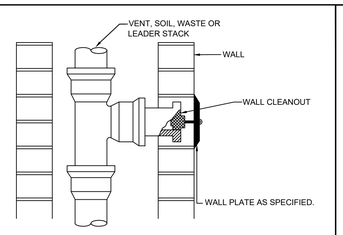
1	SCALE N.T.S.	PIPE SLEEVE THROUGH WALL SECTION



2	SCALE N.T.S.	MIXING VALVE DETAILS

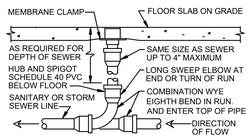


3	SCALE N.T.S.	FLOOR SINK DETAILS



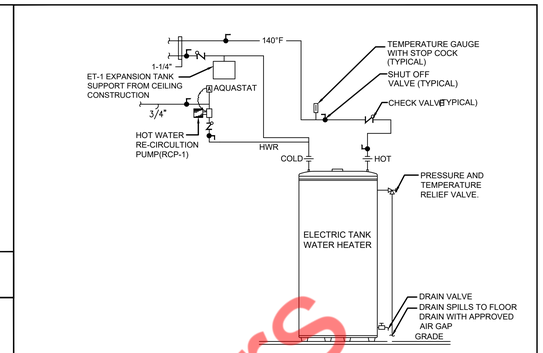
4	SCALE N.T.S.	WALL CLEAN OUT DETAIL

PROVIDE ROUND SECURED NICKEL BRONZE ADJUSTABLE TOP WITH "CO" CAST IN COVER. PROVIDE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED FOR UNFINISHED FLOORS). PROVIDE BRONZE PLUG IN CAST IRON BODY.

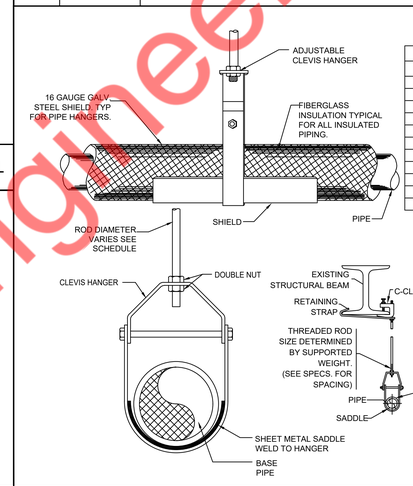


LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER THAN 45 DEGREES, AT 50' INTERVALS ON STRAIGHT RUNS, AND WHERE SHOWN ON PLANS. PROVIDE BACKFILL PER ARCHITECTURAL SPECIFICATIONS. LOCATE CLEANOUTS WHERE THERE IS 18" CLEAR AROUND. CONSULT LOCAL CODES FOR OTHER FCO REQUIREMENTS.

5	SCALE N.T.S.	FLOOR CLEAN OUT DETAIL



6	SCALE N.T.S.	ELECTRIC WATER HEATER DETAILS



ROD SCHEDULE	
PIPE SIZE	ROD SIZE
1/2"	3/8"
3/4"	3/8"
1"	3/8"
1 1/4"	3/8"
1 1/2"	3/8"
2"	3/8"
2 1/2"	3/8"
3"	3/8"
4"	1/2"
5"	1/2"
6"	1/2"

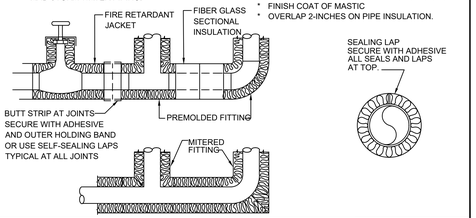
10	SCALE N.T.S.	HANGER DETAILS

CONCEALED VALVES AND FITTINGS

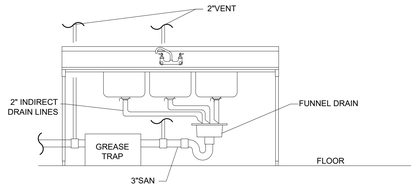
- WRAP WITH 1-INCH THICK, 1-POUND DENSITY TO REQUIRED PIPE INSULATION THICKNESS
- SECURE WITH WIRE OR TAPE.
- VAPOR SEAL COLD WATER, CHILLED WATER AND STORM WATER PIPING.

CONCEALED VALVES AND FITTINGS

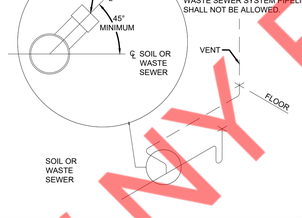
- PREMOLDED FIBER GLASS OR RADIAL MITERED PIPE INSULATION
- SKIM COAT OF INSULATION CEMENT
- COAT OF MASTIC
- WRAP WITH FIBER GLASS REINFORCING CLOTH.
- FINISH COAT OF MASTIC
- OVERLAP 2-INCHES ON PIPE INSULATION.



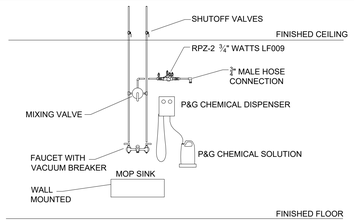
7	SCALE N.T.S.	PIPE INSULATION DETAILS



8	SCALE N.T.S.	3-COMPARTMENT SINK DETAILS



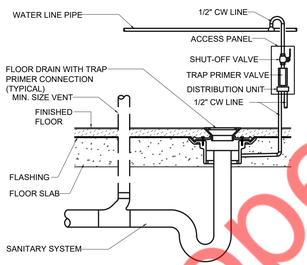
9	SCALE N.T.S.	VENT PIPING INSTLLATION



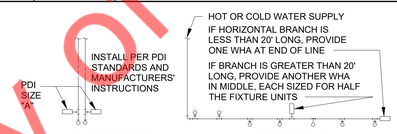
COMMENTS:

1. EACH CHEMICAL DISPENSER MUST HAVE A DEDICATED WATER SUPPLY, LOCATED WITHIN 4 FEET OF THE DISPENSER. IT MUST PROVIDE TEMPERED WATER (ADJUSTABLE FROM 60-120F) WITH A FLOW RATE OF 4 GPM AT 40 PSI DYNAMIC/FLOWING PRESSURE (35 PSID MIN.). THE HOT AND COLD WATER SUPPLY LINES MUST HAVE CHECK VALVES TO PREVENT HOT/COLD WATER CROSSOVER. IF THE TEMPERING VALVE DOES NOT INCLUDE THEM. IT MUST INCLUDE A SHUTOFF VALVE TERMINATING IN A ¾" GARDEN HOSE MALE FITTING.
2. THE DEDICATED WATER SUPPLY SHOULD NOT HAVE ANY BACKFLOW PREVENTION (E.G. NO ATMOSPHERIC VACUUM BREAKER, ETC.), UNLESS REQUIRED BY THE LOCAL PLUMBING CODE OR UTILITY- EACH CHEMICAL DISPENSER INCLUDES AN INTEGRAL BACKFLOW PREVENTOR ASSE 1055 OR ASSE 1013)

11	SCALE N.T.S.	CHEMICAL SYSTEM AT MOP SINK



12	SCALE N.T.S.	FLOOR DRAIN WITH TRAP PRIMER



SINGLE FIXTURE

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	155-330

MULTIPLE FIXTURES

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	5	--
URINAL	5	--
COUNTER SINK	1.5	1.5
LAVATORY	1.5	1.5
MOP BASIN	2.25	2.25
WATER COOLER	.25	--

PROVIDE WATER HAMMER ARRESTERS BY SIOUX CHIEF, PRECISION PLUMBING PRODUCTS, WATTS OR APPROVED EQUAL WITH PISTON AND O-RING CONSTRUCTION HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL INLINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE UNITS PER TABLES ABOVE.

13	SCALE N.T.S.	WATER HAMMER ARRESTOR

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SHEET TITLE

PLUMBING DETAILS

SHEET NUMBER

P-500.00

COMcheck Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code: 2020 New York City Energy Conservation Code
Project Title:
Location:
Climate Zone:
Project Type:

Construction Site: Owner/Agent: Designer/Contractor:

Mechanical Systems List

Quantity **System Type & Description**

1 WH-1:
Electric Storage Water Heater, Capacity: 119 gallons w/ Circulation Pump
Proposed Efficiency: 0.52 SL, %/h (if > 12 kW), Required Efficiency: 0.53 SL, %/h (if > 12 kW)

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical alteration project represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2020 New York City Energy Conservation Code requirements in COMcheck Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Name - Title Signature Date

COMcheck Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2020 New York City Energy Conservation Code

Requirements: 100.0% were addressed directly in the COMcheck software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR3][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the service water heating systems and equipment and document where exceptions to the standard are claimed. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.5.2 [PR36][1]	Electrical meters for tenant spaces in covered buildings. Each covered tenant space in a new building shall be equipped with a separate meter or sub-meter to measure the electrical consumption of such space when let or sublet. See section details and Section 28-311.2 of the Administrative Code. As new covered tenant spaces are created, they shall be equipped with meters or sub-meters as provided in this section	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.10 [PR38][3]	New parking garages and new parking lots powered by the energy services for a building, and with 10 or greater parking spaces, provide either: 1. Panel capacity and conduit for the future installation of minimum 208/240V 40-amp outlets for 5 percent of the total parking spaces and not less than two parking spaces; or 2. Minimum 208/240V 40-amp outlets for 5 percent of the total parking spaces and not less than two parking spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][1]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.1, C404.6.2 [PL3][1]	Automatic time switches installed to automatically switch off the recirculating hot-water system or heat trace.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.3 [PL7][3]	Pumps that circulate water between a heater and storage tank have controls that limit operation from startup to <= 5 minutes after end of heating cycle.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.7 [PL8][1]	Demand recirculation water systems have controls that start the pump upon receiving a signal from the action of a user of a fixture or appliance and limits the temperature of the water entering the cold-water piping to 104°F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][1]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.8.1.1 [ME36][1]	New traction elevators with a rise of 75 feet or more have a power conversion system that complies as follows: C405.8.1.1.1 Induction motors with a Class IE2 efficiency ratings are be used. C405.8.1.1.2 Transmissions does not reduce the efficiency of the combined motor/transmission below that shown for the Class IE2 motor for elevators with capacities below 4,000 lbs. C405.8.1.1.3 Potential energy released during motion recovered with a regenerative drive that supplies electrical energy to the building electrical system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.10 [ME37][1]	Commercial kitchen equipment shall comply with the minimum efficiency requirements of Tables C405.10(1) through table C405.10(5).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.3.2. Table12 [ME144][1]	Vapor Compression Based Indoor Pool Dehumidifiers comply with the minimum efficiency requirements of Table C403.3.2(12).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
Table C403.3.2. 13, Table C403.3.2. 14 [ME145][1]	Electrically operated DX-DOAS units, single-package and remote condenser, without energy recovery comply with minimum efficiency requirements of Table C403.3.2(13), Units with energy recovery comply with minimum efficiency requirements of Table C403.3.2(14).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.2 [ME115][1]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.5 [ME116][1]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.1.4 [ME63][2]	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.5, C403.5.1, C403.5.2 [ME123][1]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.5.1 and refrigeration compressor systems that comply with C403.5.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.6 [EL26][1]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.7 [EL27][1]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.8.2, C405.8.2.1 [EL28][1]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.9 [EL29][1]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C404.3 [FI11][1]	Heat traps installed on supply and discharge piping of non-circulating systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C404.4 [FI25][1]	All piping insulated in accordance with section details and Table C403.11.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C404.6.1 [FI12][1]	Controls are installed that limit the operation of a recirculation pump installed to maintain temperature of a storage tank. System return pipe is a dedicated return pipe or a cold water supply pipe.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1 High Impact (Tier 1) 2 Medium Impact (Tier 2) 3 Low Impact (Tier 3)

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CONTRACTOR'S NOTE
WRITTEN DIMENSIONS HOLD PREFERENCE OVER SCALED DIMENSIONS. DO NOT SCALE THE DRAWINGS. THE CONTRACTORS MUST VISIT JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS BEFORE SUBMITTING BIDS. REPORT ANY DISCREPANCIES OF ANY CONDITIONS WHICH MAY INTERFERE WITH THE PROPER EXECUTION OF, THE CONTRACT TO THE TENANT'S REPRESENTATIVE. REPORT DISCREPANCIES DURING BIDDING PROCESS AND BEFORE START OF CONSTRUCTION. CHANGE ORDERS NEED TO BE APPROVED BY CONSTRUCTION MANAGER FOR ISSUES ARISING FROM THE FIELD CONDITIONS OR CONFLICTS BETWEEN THE PLANS AND THE EXISTING CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK.

CLIENT:
EATALY

EATALY

PROJECT NUMBER:
12308-24
DRAWN BY: NYE CHECKED BY: NYE

DATE	ISSUANCE DESCRIPTION
03.31.25	100% CD CLIENT'S REVIEW
04.16.25	BID SET
04.25.25	BID SET

	DATE	REVISION DESCRIPTION

2	04.25.25	CLIENT COMMENTS
1	04.16.25	CLIENT COMMENTS

SHEET TITLE
PLUMBING COMPLIANCE

SHEET NUMBER
P-600.00

07 OF 07