MECHANICAL SYMBOLS LIST

AC-1 / TXF-1	EQUIPMENT SYMBOL
XX / X	RISER SYMBOL
AIR DEVICES	
	SUPPLY GRILL
	RETURN GRILL
DUCT ACCESSORIES	
GD	GRAVITY DAMPER
	FIRE DAMPER W/ ACCESS DOOR
M	MOTORIZED DAMPER W/ ACCESS DOOR
VD VD	VOLUME DAMPER W/ ACCESS DOOR
UC	DOOR UNDERCUT
HVAC PIPING	
CP	NEW CONDENSATE PIPING
REF	NEW REFRIGERANT PIPING
CONTROLS AND SENSORS	
T	THERMOSTAT
S	MANUAL ON/OFF SWITCH
S	SMOKE DETECTOR
CO	CO DETECTOR
DUCTWORK	
	AIR DUCT W/ 1.5" ACOUSTICAL LINING
	FLEXIBLE DUCT
FC FC	FLEXIBLE CONNECTION
24X12	RECTANGULAR DUCT (WIDTH X DEPTH)
ø12	ROUND DUCT (DIAMETER)
	ROUND DUCT CROSS SECTION
	SUPPLY AIR RECTANGULAR DUCT CROSS SECTION
	RETURN AIR RECTANGULAR DUCT CROSS SECTION

MECHANICAL ABBREVIATIONS

AC	AIR CONDITIONING UNIT
ACC	AIR COOLED CONDENSER
AL	ACOUSTIC LINING
GD	GRAVITY DAMPER
CFM	CUBIC FEET OF AIR PER MINUTE
C.O.	CLEAN OUT
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
CR	CONDENSATE RETURN PIPING
CD	CONDENSATE DRAIN PIPE
DN	DOWN
EDH	ELECTRIC DUCT HEATER
EER	ENERGY EFFICIENCY RATIO
EUH	ELECTRIC UNIT HEATER
EG	EXHAUST GRILLE
EN	ENERGY ANALYSIS
FD	FIRE DAMPER W/FUSIBLE LINK
GX	GENERAL EXHAUST RISER
GXF	GENERAL EXHAUST FAN
HS	HYDRO SEPERATOR
HSPF	HEATING SEASONAL PERFORMANCE FACTOR
GRXF	GARAGE EXHAUST FAN
IEER	INTEGRATED ENERGY EFFICIENCY RATIO
MD	MOTORIZED DAMPER
OA	OUTDOOR AIR
REF	REFRIGERANT PIPING
RG	RETURN GRILLE
SAR	SUPPLY AIR REGISTER
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SG	SUPPLY GRILLE
TRXF	TRASH ROOM EXHAUST FAN
TRX	TRASH ROOM EXHAUST RISER
TX	TOILET EXHAUST RISER
TXF	TOILET EXHAUST FAN
VD	VOLUME DAMPER
W.M.S.	WIRE MESH SCREEN

MECHANICAL DRAWING LIST

FLORIDA BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF 2023 FLORIDA BUILDING CODE (FBC) AND ALL AMENDMENTS AND RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE. THE LICENSED PROFESSIONAL ENGINEER, ARCHITECT OR OTHER PERSON HAVING NOT LESS THAN FIVE (5) YEARS EXPERIENCE SUPERVISING THE INSTALLATION OF SUCH MECHANICAL SYSTEMS AND CONDUCTING SUCH TESTS WILL FILE DOCUMENTATION AND REPORTS OF TESTS THAT THE SYSTEM COMPLIES WITH THE CONSTRUCTION DOCUMENTS AND APPLICABLE LAWS.

1. TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2023 FMC, 8TH EDITION:
   A. VENTILATION SYSTEM SERVING COMMERCIAL COOKING APPLIANCES – FMC 506
2. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:
   A. DUCT CONSTRUCTION AND INSTALLATION– 2023 FMC 603
   B. AIR INTAKES, EXHAUSTS AND RELIEF – 2023 FMC 401.5
   C. GAS FIRED EQUIPMENT –2023 FLORIDA FUEL GAS CODE
3. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
4. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2023 FMC 401.
5. A STATEMENT SHALL BE FILED BY THE OWNER OR TENANT IN POSSESSION THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION AT ALL TIMES DURING THE NORMAL OCCUPANCY OF THE STRUCTURE AS REQUIRED BY 2023 FMC 403.3.1.3 (SYSTEM OPERATION)
6. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE–RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
7. THESE PLANS ARE APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION SHEET. ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON OR TO BE CONSIDERED AS BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.
8. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
9. DUCT SMOKE DETECTOR SHALL MEET UL268A.
10. VENTILATION SYSTEMS SHALL BE BALANCED TO MAINTAIN THE MINIMUM VENTILATION AIRFLOW RATE AS SHOWN IN VENTILATION REQUIREMENT TABLE. THIS SYSTEM SHALL BE BALANCED BY APPROVED METHOD – FMC 2023 608.1. CONTRACTOR SHALL SUBMIT THE AIR BALANCE REPORT TO THE INSPECTOR.

GENERAL NOTES

1. CONTRACTOR SHALL SURVEY THE AREA OF THIS WORK BEFORE SUBMITTING A BID AND SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT OF ANY CONDITIONS WHICH WOULD PREVENT THE INSTALLATION OF THE WORK AS SHOWN ON DRAWINGS.
2. ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED BY THE CONTRACTOR.
3. BEFORE PROCEEDING WITH ANY WORK IN OCCUPIED OR USED AREAS, THE CONTRACTOR SHALL APPLY TO OWNER FOR PERMISSION TO ENTER SUCH AREAS. THE CONTRACTOR IS OBLIGED TO PERFORM HIS WORK ONLY AT THE TIMES DESIGNATED BY OWNER. THERE WILL BE NO ADDITIONAL COMPENSATION FOR THE WORK PERFORMED AFTER HOURS OR ON OFF–DAYS WITHOUT PRIOR WRITTEN APPROVAL.
4. THE WORK IN THE BUILDING SHALL BE DONE WHEN AND AS DIRECTED, AND IN A MANNER SATISFACTORY TO THE OWNER. THE WORK SHALL BE PERFORMED SO AS TO CAUSE THE LEAST POSSIBLE INCONVENIENCE AND DISTURBANCE TO THE PRESENT OCCUPANTS.
5. THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PREDICATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK IN OVERTIME AND THE ADDITIONAL COST TO BE CHARGED THEREFORE SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.
6. CONTRACTOR SHALL ASCERTAIN THE APPROPRIATE METHOD FOR BRINGING THE UNITS INTO AND THROUGH THE BUILDING TO POSITION UNIT IN LOCATION SHOWN ON THE PLANS. WHERE NECESSARY, EQUIPMENT SHALL BE SHIPPED FROM MANUFACTURER IN SECTIONS OF SIZE SUITABLE FOR MOVING THROUGH RESTRICTIVE SPACES. COORDINATE WITH BUILDING OWNER APPROPRIATE TIMES OF DAY SUCH EQUIPMENT MAY BE MOVED THROUGH ALL AREAS.
7. DUCTWORK AND PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL MAKE ALLOWANCE IN PRICING FOR ROUTING OF DUCTWORK AND PIPING TO AVOID OBSTRUCTIONS. EXACT LOCATIONS ARE SUBJECT TO APPROVAL OF ARCHITECT. COORDINATION WITH THE EXISTING SERVICES, INCLUDING THOSE OF OTHER TRADES IS REQUIRED.
8. SUPPORT ALL DUCTWORK AND PIPING FROM BUILDING STRUCTURE AND/OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OR SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING. INSERTS SHALL BE STEEL SLOTTED TYPE AND FACTORY PAINTED. SINGLE ROD SHALL BE SIMILAR TO GRINNELL FIG. 281. MULTI–ROD SHALL BE SIMILAR TO FEE & MASON SERIES 9000 WITH END CAPS AND CLOSURE STRIPS. MAXIMUM LOADING INCLUDING PIPES, DUCTWORK CONTENTS AND COVERING SHALL NOT EXCEED 75% OF RATED INSERT CAPABILITY. WHEN SUPPORTING FROM BUILDING USE BEAM CLAMPS IN APPROVED MANNER.
9. PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS, LOUVERS, CONDUIT, AND EQUIPMENT. PROVIDE EQUIPMENT CURBS AND DUNNAGE STEEL AS REQUIRED.
10. SEAL OPENINGS AROUND DUCTS AND PIPING THROUGH PARTITIONS, WALLS AND FLOORS (NOT IN SHAFTS) WITH MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL (FIBERGLASS INSULATION IS NOT ACCEPTABLE).
11. WHERE PENETRATIONS THROUGH FIRE RATED WALLS ARE NOT FIRE PROOFED THIS CONTRACTOR SHALL BE RESPONSIBLE TO SEAL SAME TO MAINTAIN THE RATED INTEGRITY.
12. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
13. ACCESS DOORS ARE REQUIRED FOR ALL BUILDING SERVICE VALVES THAT RUN THROUGH THE SPACE, AND ACCESS DOOR SHALL HAVE THE EQUAL RATED CAPACITY (1HR, 2HR, ETC.) AS WALL. COORDINATE ALL LOCATIONS OF ACCESS DOORS WITH THE ARCHITECT.
14. REMOVABLE ACCESS TILE AND/OR ACCESS DOOR ARE REQUIRED IN HUNG CEILINGS, SHAFTS AND WALLS FOR ALL VOLUME AND FIRE DAMPERS, AUTOMATIC DAMPERS AND ALL OTHER MECHANICAL EQUIPMENT AND DEVICES. HVAC CONTRACTOR TO FURNISH ACCESS LOCATION REQUIREMENTS TO GENERAL CONTRACTOR. ACCESS TILE IDENTIFICATION: PROVIDE BUTTONS, TABS, AND MARKERS TO IDENTIFY LOCATION OF CONCEALED VALVES, DAMPERS AND EQUIPMENT.
15. THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING, EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.
16. UNLESS OTHERWISE SPECIFICALLY SPECIFIED, INCLUDE ALL CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, PARTITIONS AND OTHER MATERIALS IN THE EXISTING BUILDING. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION.
17. MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
18. ALL EQUIPMENT SHALL BE PROVIDED WITH ONE YEAR WARRANTY PARTS AND LABOR AND FIVE YEARS ON COMPRESSORS. WARRANTY PERIOD BEGINS UPON PROJECT ACCEPTANCE
19. ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK WITH TS COMPLETION AND FINAL ACCEPTANCE AND SHALL REPLACE ANY OF THE SAME WHICH MAY BE DAMAGED, LOST, OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER.
21. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FAILURE OF ANY DUCTWORK SYSTEM OR EQUIPMENT TO FUNCTION PROPERLY UPON COMPLETION OF HIS WORK UPON SAID SYSTEM OR EQUIPMENT.
22. SUBMIT SHOP DRAWING OF ALL WORK WHICH MUST BE APPROVED BY THE ARCHITECT AND ENGINEER BEFORE WORK COMMENCES.
23. SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING BUILDING, EQUIPMENT, ETC., WHICH AFFECT THIS WORK, AND THE ACCESS TO SUCH SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION. THE ON–SITE INSPECTION SHALL VERIFY EXISTING DUCTWORK, PIPING (SIZES, CLEARANCES, ETC) AND CONDITIONS.
24. INSURANCE: IN ACCORDANCE WITH BUILDING REQUIREMENTS THE CONTRACTOR SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
25. THE FINAL ACCEPTANCE WILL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, BALANCED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATES OF INSPECTION AND APPROVAL.
26. SPECIFICATIONS ARE OF SIMPLIFIED FORM AND INCLUDE INCOMPLETE SENTENCES. WORDS OR PHRASES SUCH AS "THE CONTRACTOR SHALL," "SHALL BE," "FURNISH," "PROVIDE," "A," "THE," AND "ALL" HAVE BEEN OMITTED FOR BREVITY.
27. WHERE A CONFLICT EXISTS BETWEEN THE DRAWINGS, THE SPECIFICATIONS OR ANY OTHER CONSTRUCTION DOCUMENT, THE ONE WITH THE MOST STRINGENT REQUIREMENT(S) SHALL APPLY.

DEFINITIONS:

1) "PROVIDE": TO SUPPLY, INSTALL AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION THE PARTICULAR WORK REFERRED TO UNLESS SPECIFICALLY OTHERWISE NOTED.
2) "INSTALL": TO ERECT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES.
3) "FURNISH" OR "SUPPLY": TO PURCHASE, PROCURE, ACQUIRE AND DELIVER COMPLETE WITH RELATED ACCESSORIES.

NOTE TO CONTRACTOR

1. THE WORK UNDER CONTRACT INCLUDES ALL LABOR, MATERIALS AND APPLIANCES NECESSARY FOR THE FURNISHING, INSTALLING AND TESTING, COMPLETE AND READY FOR SAFE OPERATION OF THE SYSTEMS AS DESCRIBED IN THE SPECIFICATIONS, FLOOR PLAN(S) DESIGN, DETAIL DRAWINGS, NOTES, RFI'S, ETC. FOR THIS PROJECT. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.
2. THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH THE DEPARTMENT HAVING JURISDICTION, OBTAIN PERMITS OR LICENSES NECESSARY TO CARRY OUT THIS WORK AND PAY ALL FEES THEREFORE. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY OR ALL PARTS OF THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR, AND FURNISH TO THE OWNER BEFORE FINAL BILLING, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.
3. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OR ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES, BY OWNER, INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER DATE IS EARLIER. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDE THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR.

SCOPE OF WORK

SCOPE OF WORK

1. THE WORK UNDER CONTRACT INCLUDES ALL LABOR, MATERIALS AND APPLIANCES NECESSARY FOR THE FURNISHING, INSTALLING AND TESTING, COMPLETE AND READY FOR SAFE OPERATION OF THE SYSTEMS AS DESCRIBED IN THE SPECIFICATIONS, FLOOR PLAN(S) DESIGN, DETAIL DRAWINGS, NOTES, RFI'S, ETC. FOR THIS PROJECT. WORK SHALL BE INSTALLED IN A NEAT, WORKMANLIKE MANNER.
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HVAC NOTES

SECTION 230593 – TESTING, ADJUSTING, AND BALANCING FOR HVAC

1.1 SUMMARY
   A. TESTING, ADJUSTING, AND BALANCING FOR THE FOLLOWING:
      1. AIR SYSTEMS: CONSTANT

1.2 QUALITY ASSURANCE
   A. THE CONTRACTOR SHALL PROCURE THE SERVICES OF A TESTING, ADJUSTING AND BALANCING (TAB) SPECIALIST WHO SPECIALIZES IN HEATING, VENTILATION AND AIR CONDITIONING SYSTEMS. THE TAB AGENT SHALL HAVE THE FOLLOWING QUALIFICATIONS: AABC, NEBB OR TABB CERTIFIED.

1.3 EXECUTION
   A. THE TAB SPECIALIST SHALL PERFORM FLOW MEASUREMENTS OF ALL EXISTING AIR AND HYDRONIC SYSTEMS THAT ARE TO REMAIN OR TO BE INCORPORATED INTO NEW WORK PRIOR TO THE STARTING OF WORK IN THE PROJECT SCOPE. A REPORT OF THESE MEASUREMENTS, INDICATING ANY AND ALL DEFICIENCIES SHALL BE SUBMITTED FOR OWNER REVIEW.
   B. THE TAB SPECIALIST SHALL PERFORM FLOW MEASUREMENTS OF ALL NEW AIR AND HYDRONIC SYSTEMS AS LISTED ABOVE IN THE PROJECT SCOPE. A REPORT OF THESE MEASUREMENTS, INDICATING ANY AND ALL DEFICIENCIES SHALL BE SUBMITTED FOR OWNER REVIEW.
   C. THE REPORT SHALL INDICATE A SCHEMATIC DIAGRAM INDICATING LOCATIONS OF ALL EQUIPMENT TESTED AND MEASUREMENT LOCATIONS.
   D. PRIOR TO FINAL INSPECTION OF THE WORK, THE TAB SPECIALIST SHALL BALANCE ALL SYSTEMS AS INDICATED ABOVE TO THE REQUIREMENTS OF THE DESIGN.
   E. THE CONTRACTOR SHALL HAVE FURNISH AND INSTALL ALL ADDITIONAL BALANCING EQUIPMENT, PRESSURE TAPS, GAUGES AND OTHER EQUIPMENT AS REQUIRED FOR A PROPERLY BALANCED SYSTEM AT NO ADDITIONAL COST TO THE OWNER. SUCH ADDITIONAL EQUIPMENT SHALL ADHERE IN STRICT ACCORDANCE WITH THE RESPECTIVE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
   F. THE CONTRACTOR SHALL HAVE THE TESTING AND BALANCING SPECIALIST COORDINATE ALL WORK OF THIS S3ECTION WITH THE BUILDING MANAGER. BALANCING WORK SHALL NOT CONFLICT WITH OTHER WORK SO AS TO MAINTAIN COMPLETION WITHIN THE SPECIFIED TIME.
   G. ALL INSTRUMENTS USED FOR TAB SHALL BE MAINTAINED IN GOOD WORKING CONDITION AND ACCURATELY CALIBRATED.
   H. TOLERANCES: PLUS OR MINUS 5 PERCENT OF DESIGN VALUES.
   I. INSPECTIONS: RANDOM CHECKS BY OWNER OR ARCHITECT TO VERIFY FINAL TESTING, ADJUSTING, AND BALANCING REPORT.
   J. ADDITIONAL TESTS: RANDOM TESTS WITHIN 90 DAYS OF COMPLETING TAB TO VERIFY BALANCE CONDITIONS AND SEASONAL TESTS.

END OF SECTION 230593

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

ZAXBY'S TENANT IMPROVEMENTS

MECHANICAL SYMBOLS, ABBREVIATION AND NOTES

04-19-24

NYE

23-244

M0.1

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

SECTION 230713 – DUCT INSULATION

1.1 QUALITY ASSURANCE

SURFACE–BURNING CHARACTERISTICS: ALL INSULATION SHALL HAVE COMPOSITE (INSULATION JACKET OR FACING AND ADHESIVE USED TO ADHERE THE FACING OR JACKET TO THE INSULATION) A FLAME–SPREAD INDEX OF 25, AND SMOKE–DEVELOPED INDEX OF 50 FOR INSULATION INSTALLED INDOOR, 75, AND SMOKE–DEVELOPED INDEX OF 150 FOR INSULATION INSTALLED OUTDOORS; ACCORDING TO ASTME 84.

1.2 FIELD QUALITY CONTROL

A. FIELD INSPECTIONS: BY OWNER–ENGAGED AGENCY.

1.3 INDOOR DUCT AND PLENUM INSULATION SCHEDULE;

A. CONCEALED, RECTANGULAR, ROUND AND FLAT–OVAL, SUPPLY–RETURN, OUTDOOR–AND EXHAUST–AIR DUCT AND AIR PLENUM INSULATION:

B. FLEXIBLE ELASTOMERIC, MINERAL–FIBER BLANKET, MINERAL–FIBER BOARD OR POLYOLEFIN WITH MINIMUM INSTALLED THERMAL RESISTANCE AS FOLLOWS:

	SUPPLY	RETURN
UNCONDITIONED SPACES WITHIN BUILDING:	R–4.2	R–4.2
WITHIN BUILDING ENVELOPE ASSEMBLY:	R–6	R–4.2
OUTSIDE OF BUILDING:	R–6	R–4.2

1.4 ITEMS NOT INSULATED:

1. FIBROUS–GLASS DUCTS.
2. METAL DUCTS WITH DUCT LINER OR SUFFICIENT THICKNESS TO COMPLY WITH ENERGY CODE ANDASHRAE/IESNA 90.1.
3. FACTORY–INSULATED FLEXIBLE DUCTS.
4. FACTORY–INSULATED PLENUMS AND CASINGS.
5. FLEXIBLE CONNECTORS.
6. VIBRATION–CONTROL DEVICES.
7. FACTORY–INSULATED ACCESS PANELS AND DOORS.
8. DUCTS THAT HAVE INTERNAL ACOUSTICAL LINING.

1.5 PRODUCTS

A. THE FOLLOWING INSULATION MANUFACTURERS WILL BE ACCEPTABLE:

1. JOHNS–MANVILLE
2. OWENS–CORNING

1.6 ACOUSTICAL TREATMENT

1. WHERE SHOWN ON THE DRAWINGS, LOW PRESSURE DUCTWORK SHALL BE LINED WITH 1.5" THICK R–6 AS MANUFACTURED BY DUCTMATE, 1–1/2 POUND MINIMUM DENSITY, NEOPRENE COATED, FLEXIBLE FIBERGLASS DUCT LINER. LINING SHALL COMPLY WITH NFPA 90A AND SHALL HAVE A FLAME SPREAD CLASSIFICATION OF NOT MORE THAN 25 AND A SMOKE DEVELOPED RATING NOT MORE THAN 50. DUCT SIZES WHERE LINING IS INDICATED ON PLANS ARE MINIMUM INSIDE CLEAR DIMENSIONS REQUIRED,

END OF SECTION 230713

SECTION 233113 – METAL DUCTS

1.1 CONSTRUCTION

A. EACH DUCT SYSTEM SHALL BE CONSTRUCTED FOR THE SPECIFIC SMACNA DUCT PRESSURE CLASSIFICATIONS SHOWN ON THE CONTRACT DRAWINGS. WHERE NO PRESSURE CLASSES ARE SPECIFIED BY THE DESIGNER, THE SMACNA 1 INCH WG PRESSURE, SEAL CLASS "A".

B. ALL DUCTWORK SHALL BE CONSTRUCTED TO SMACNA 1" WG DESIGN AND NOT LESS THAN THE FOLLOWING STANDARDS:

1. CONSTRUCT SO THAT ALL INTERIOR SURFACES ARE SMOOTH. USE SLIP AND DRIVE OR FLANGED AND BOLTED CONSTRUCTION WHEN FABRICATING RECTANGULAR DUCTWORK. USE SPIRAL LOCK SEAM CONSTRUCTION WHEN FABRICATING ROUND SPIRAL DUCTWORK. SHEET METAL SCREWS MAY BE USED ON DUCT HANGERS, TRANSVERSE JOINTS AND OTHER SMACNA APPROVED LOCATIONS IF THE SCREW DOES NOT EXTEND MORE THAN 1/2 INCH INTO THE DUCT.
2. SHEET STEEL SHALL COMPLY WITH ASTMA653 STANDARD SPECIFICATION FOR STEEL SHEET METAL, ZINC COATED (GALVANIZED) OR ZINC IRON ALLOY–COATED (GALVANINEALED) BY HOT DIP PROCESS, AND A924 STANDARD SPECIFICATION FOR GENERAL REQUIREMENT FOR SHEET METALLIC–COATED BY HOT DIP PROCESS. ALL ANGLE IRON USED FOR SUPPORT SHALL BE GALVANIZED. CONNECTIONS TO WALLS OR FLOOR SHALL BE AIR TIGHT WITH ANGLE IRON AND CAULKING. SEAL ALL DUCT SEAMS, TRANSVERSE AND LONGITUDINAL, AIR TIGHT. PROVIDE TURNING VANES ALL 90° ELBOWS.
3. USE ELBOWS AND TEES WITH A CENTER LINE RADIUS TO WIDTH OR DIAMETER RATIO OF 1.5 WHEREVER SPACE PERMITS. WHEN A SHORTER RADIUS MUST BE USED DUE TO LIMITED SPACE, INSTALL SINGLE WALL SHEET METAL SPLITTER VANES IN ACCORDANCE WITH SMACNA PUBLICATIONS, TYPE RE 3. WHERE SPACE WILL NOT ALLOW AND THE C VALUE OF THE RADIUS ELBOW, AS GIVEN IN SMACNA PUBLICATIONS, EXCEEDS 0.31, USE RECTANGULAR ELBOWS WITH TURNING VANES AS SPECIFIED IN SECTION 23 33 00. SQUARE THROAT–RADIUS HEEL ELBOWS WILL NOT BE ACCEPTABLE. STRAIGHT TAPS OR BULLHEAD TEES ARE NOT ACCEPTABLE.
4. WHERE RECTANGULAR ELBOWS ARE USED, PROVIDE TURNING VANES IN ACCORDANCE WITH SECTION 23 33 00.
5. PROVIDE EXPANDED TAKE–OFFS OR 45 DEGREE ENTRY FITTINGS FOR BRANCH DUCT CONNECTIONS WITH BRANCH DUCTWORK AIRFLOW VELOCITIES GREATER THAN 700 FPM. SQUARE EDGE 90–DEGREE TAKE–OFF FITTINGS OR TRAIGHT TAPS WILL NOT BE ACCEPTED.
6. BUTTON PUNCH SNAP–LOCK CONSTRUCTION WILL NOT BE ACCEPTED ON ALUMINUM DUCTWORK.
7. ROUND DUCTS MAY BE SUBSTITUTED FOR RECTANGULAR DUCTS IF SIZED IN ACCORDANCE WITH ASHRAE TABLE OF EQUIVALENT RECTANGULAR AND ROUND DUCTS. NO VARIATION OF DUCT CONFIGURATION OR SIZES PERMITTED EXCEPT BY WRITTEN PERMISSION OF THE ENGINEER.

C. WHERE LATEST EDITION OF SMACNA DOES NOT CLEARLY STATE GAUGES AND/OR STIFFENERS TO BE USED OR, WHERE SMACNA STANDARDS REQUIRE INTERPRETATION, THE FOLLOWING MINIMUM METAL GAUGES AND BRACING SHALL BE USED:

USG	MAX. SIDE INCHES	TRANSVERSE JOINTS AND BRACING
22	UP TO 12	S SLIP, DRIVE SLIP, ONE INCH POCKET LOCK ON 8 FOOT CENTERS
22	13 TO 24	1"X1"X1/8" ANGLES ON 4 FOOT CENTERS
20	25 TO 35	1"X1"X1/8" ANGLES ON 2 FOOT CENTERS

D. PROVIDE TAPPING IN DUCTS FOR THERMOMETERS WHERE SPECIFIED. IN ADDITION, PROVIDE AN AIRTIGHT PLUGGED TAPPING LOCATED AS FOLLOWS:

1. UPSTREAM OF EACH REHEAT COIL AND VAV BOX.
2. DOWNSTREAM OF EACH REHEAT COIL AND VAV BOX.

E. FLAT OVAL OR ROUND DUCTWORK MAY BE PROVIDED IN LIEU RECTANGULAR DUCTWORK WITH THE REINFORCEMENT FOR FLAT SIDES SAME AS SPECIFIED FOR THE RECTANGULAR DUCTWORK, AND AS PER SMACNA FLAT OVAL DUCT CONSTRUCTION STANDARDS SHOWN IN FIG. 3–6 AND AS SHOWN IN FIG. 3–1 AND 3–2 FOR ROUND DUCTWORK.

F. ALL DUCTWORK SHALL BE SEALED TO CLASS "A" AND LEAK TESTED TO MEAT SMACNA CLASS 6 FOR RECTANGULAR AND CLASS 3 FOR ROUND DUCTS.

1.2 MATERIALS

A. SINGLE–WALL RECTANGULAR DUCTS AND FITTINGS.

B. SINGLE–WALL ROUND AND FLAT–OVAL DUCTS AND FITTINGS.

C. SHEET METAL MATERIALS:

1. GALVANIZED SHEET STEEL.
2. STAINLESS–STEEL SHEETS.
3. ALUMINUM SHEETS.
4. FACTORY–APPLIED ANTI–MICROBIAL COATING.

D. DUCT LINER:

1. FIBROUS GLASS, TYPE I, FLEXIBLE.
   a. WITH ANTI–MICROBIAL EROSION–RESISTANT COATING.
2. FLEXIBLE ELASTOMERIC.
3. NATURAL FIBER.

E. SEALANT MATERIALS:

1. TWO–PART TAPE SEALING SYSTEM.
2. WATER–BASED JOINT AND SEAM SEALANT.
3. SOLVENT–BASED JOINT AND SEAM SEALANT.
4. FLANGED JOINT SEALANT.
5. FLANGE GASKETS.
6. ROUND DUCT JOINT O–RING SEALS.

1.3 DUCT CLEANING

A. CLEAN EXISTING DUCT SYSTEM(S) BEFORE TESTING, ADJUSTING, AND BALANCING.

B. CLEAN THE FOLLOWING ITEMS:

1. AIR OUTLETS AND INLETS.
2. SUPPLY, RETURN, AND EXHAUST FANS.
3. AIR–HANDLING UNITS.
4. COILS AND RELATED COMPONENTS.
5. RETURN–AIR DUCTS, DAMPERS, ACTUATORS, AND TURNING VANES.
6. SUPPLY–AIR DUCTS, DAMPERS, ACTUATORS, AND TURNING VANES.
7. DEDICATED EXHAUST AND VENTILATION COMPONENTS AND MAKEUP AIR SYSTEMS.

1.4 DUCT SCHEDULE

A. ALL DUCTS SHALL BE GALVANIZED STEEL EXCEPT AS FOLLOWS:

8. MOIST ENVIRONMENT DUCT MATERIAL: ALUMINUM.

END OF SECTION 233113

NON–METAL DUCTS

A. ALL DUCTS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH SMACNA/ANSI–HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE, LATEST EDITION, SMACNA HVAC AIR DUCT LEAKAGE TEST MANUAL LATEST EDITION, NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARD AND 2020 FBC– MECHANICAL CODE , SECTION 603. THE MORE STRINGENT REQUIREMENT OF ANY CODES SHALL APPLY.

B. NONMETALLIC DUCTS SHALL BE CONSTRUCTED WITH CLASS 0 OR CLASS 1 DUCT MATERIAL AND SHALL COMPLY WITH UL 181. FIBROUS DUCT CONSTRUCTION SHALL CONFORM TO THE SMACNA FIBROUS GLASS DUCT CONSTRUCTION STANDARDS OR NAIMA FIBROUS GLASS DUCT CONSTRUCTION STANDARDS. THE AIR TEMPERATURE WITHIN NONMETALLIC DUCTS SHALL NOT EXCEED 250°F (121°C).

C. THE USE OF GYPSUM BOARDS TO FORM AIR SHAFTS (DUCTS) SHALL BE LIMITED TO RETURN AIR SYSTEMS WHERE THE AIR TEMPERATURES DO NOT EXCEED 125°F (52°C) AND THE GYPSUM BOARD SURFACE TEMPERATURE IS MAINTAINED ABOVE THE AIRSTREAM DEW–POINT TEMPERATURE. AIR DUCTS FORMED BY GYPSUM BOARDS SHALL NOT BE INCORPORATED IN AIR–HANDLING SYSTEMS UTILIZING EVAPORATIVE COOLERS.

D. FACTORY–MADE FLEXIBLE AIR DUCTS AND CONNECTORS SHALL BE NOT MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF RIGID ELBOW OR FITTINGS. FLEXIBLE AIR DUCTS SHALL BE PERMITTED TO BE USED AS AN ELBOW AT A TERMINAL DEVICE.

SECTION 233713 – DIFFUSERS, REGISTERS, AND GRILLES

1.1 PRODUCTS

A. DIFFUSERS, REGISTERS AND GRILLES SHALL BE FURNISHED AND INSTALLED FOR CAPACITIES AND IN LOCATIONS INDICATED ON DRAWINGS. ALL REGISTERS AND DIFFUSERS SHALL BE PRIME COATED STEEL OR EXTRUDED ALUMINUM FINISHED UNLESS OTHERWISE NOTED IN BAKED WHITE ENAMEL.

B. MANUFACTURERS: TITUS

1. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY ONE OF THE FOLLOWING:
   a. CARNES.
   b. HART & COOLEY INC.
   c. KRUEGER.
   d. METALAIRE, INC.
   e. NAILOR INDUSTRIES INC.
   f. RUSKIN

C. ALL DIFFUSERS SHALL HAVE CONTROLLING/EQUALIZING GRID AND OPPOSED BLADE DAMPER UNLESS OTHERWISE NOTED.

D. ALL DUCTED RETURN REGISTERS SHALL HAVE AN OPPOSED BLADE DAMPER UNLESS OTHERWISE NOTED.

2. END OF SECTION 233713

KITCHEN EXHAUST DUCT:

A MINIMUM INSULATION COVERING OF 2 INCHES (50 MM) OF MAGNESIUM OR CALCIUM SILICATE BLOCK, WITH STAGGERED JOINTS, ATTACHED WITH GALVANIZED STEEL WIRE OR MATERIAL ASSEMBLY EQUIVALENT IN INSULATING AND FIRE–RESISTANT QUALITIES WHICH CANNOT BE PENETRATED BY GREASE SHALL BE APPLIED TO ALL KITCHEN DUCTS INSIDE THE BUILDING.

A. NON–INSULATED DUCTWORK:

1) WHERE SOUND LINING IS OF MINIMUM THICKNESS SPECIFIED FOR INSULATION.

2) AIR CONDITIONING RETURN AIR DUCTWORK EXPOSED IN AIR CONDITIONED SPACES AND INSTALLED IN HUNG CEILINGS WHERE SPACE IMMEDIATELY ABOVE AND BELOW ARE BOTH AIR CONDITIONED.MATERIAL:

D. MATERIAL:

1) TYPE D–1: MINIMUM 1–LB DENSITY FIBERGLASS BLANKET, MAXIMUM 0.28 K–FACTOR AT 75 ADEG F MEAN TEMPERATURE WITH FACTORY–APPLIED FOIL–SKRIM–KRAFT FACING SIMILAR TO MANVILLE MICROLITE.

2) TYPE D–2: 3 LB. FIBERGLASS BOARD. THE MAXIMUM K FACTOR SHALL BE 0.23 AT 75 DEG F MEAN TEMPERATURE WITH A MINIMUM DENSITY OF 3 LB. THE INSULATION SHALL BE PROVIDED WITH A FACTORY–APPLIED ALL PURPOSE OR ALL SERVICE FACING. THE INSULATION SHALL BE EQUAL TO MANVILLE TYPE 814 SPIN–GLAS AP.

3) TYPE D–3: MINIMUM 6 LB FIBERGLASS BOARD. MAXIMUM 0.22 K–FACTOR AT 75 DEG F MEAN TEMPERATURE WITH FACTORY APPLIED ALL PURPOSE OR ALL SERVICE FACING. SIMILAR TO MANVILLE 817 SPIN–GLAS AP

E. INSTALLATION:

1. FIBERGLASS BLANKET: 2 IN. LAP STRIPS AT ALL SEAMS. SECURE BOTTOM OF ALL DUCTS OVER 24 IN. WIDE WITH 2 ROWS OF WELD PINS 12 IN. ON CENTER. SECURE ALL SEAMS WITH FOIL VAPOR BARRIER TAPE AND VAPORSEAL ADHESIVE.
2. FIBERGLASS BOARD: SEAL JOINTS AND BREAKS IN FACING WITH 3 IN. WIDE TAPE TO MATCH FACING AND ADHERE WITH VAPOR SEAL ADHESIVE. APPLY 5 IN. WIDE TAPE AT CORNERS, WELD PINS ON TOP, SIDES AND BOTTOM.

THERMOSTATIC CONTROLS:

C403.4.1 THERMOSTATIC CONTROLS
THE SUPPLY OF HEATING AND COOLING ENERGY TO EACH ZONE SHALL BE CONTROLLED BY INDIVIDUAL THERMOSTATIC CONTROLS CAPABLE OF RESPONDING TO TEMPERATURE WITHIN THE ZONE. WHERE HUMIDIFICATION OR DEHUMIDIFICATION OR BOTH IS PROVIDED, NOT FEWER THAN ONE HUMIDITY CONTROL DEVICE SHALL BE PROVIDED FOR EACH HUMIDITY CONTROL SYSTEM.

C403.4.1.2 DEADBAND
WHERE USED TO CONTROL BOTH HEATING AND COOLING, ZONE THERMOSTATIC CONTROLS SHALL BE CONFIGURED TO PROVIDE A TEMPERATURE RANGE OR DEADBAND OF NOT LESS THAN 5°F (2.8°C) WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

C403.4.1.3 SETPOINT OVERLAP RESTRICTION
WHERE A ZONE HAS A SEPARATE HEATING AND A SEPARATE COOLING THERMOSTATIC CONTROL LOCATED WITHIN THE ZONE, A LIMIT SWITCH, MECHANICAL STOP OR DIRECT DIGITAL CONTROL SYSTEM WITH SOFTWARE PROGRAMMING SHALL BE CONFIGURED TO PREVENT THE HEATING SETPOINT FROM EXCEEDING THE COOLING SETPOINT AND TO MAINTAIN A DEADBAND IN ACCORDANCE WITH SECTION C403.4.1.2.

C403.4.2 OFF–HOUR CONTROLS
EACH ZONE SHALL BE PROVIDED WITH THERMOSTATIC SETBACK CONTROLS THAT ARE CONTROLLED BY EITHER AN AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROL SYSTEM.

C403.4.2.1 THERMOSTATIC SETBACK
THERMOSTATIC SETBACK CONTROLS SHALL BE CONFIGURED TO SET BACK OR TEMPORARILY OPERATE THE SYSTEM TO MAINTAIN ZONE TEMPERATURES DOWN TO 55°F (13°C) OR UP TO 85°F (29°C).

C403.4.2.2 AUTOMATIC SETBACK AND SHUTDOWN
AUTOMATIC TIME CLOCK OR PROGRAMMABLE CONTROLS SHALL BE CAPABLE OF STARTING AND STOPPING THE SYSTEM FOR SEVEN DIFFERENT DAILY SCHEDULES PER WEEK AND RETAINING THEIR PROGRAMMING AND TIME SETTING DURING A LOSS OF POWER FOR NOT FEWER THAN 10 HOURS. ADDITIONALLY, THE CONTROLS SHALL HAVE A MANUAL OVERRIDE THAT ALLOWS TEMPORARY OPERATION OF THE SYSTEM FOR UP TO 2 HOURS; A MANUALLY OPERATED TIMER CONFIGURED TO OPERATE THE SYSTEM FOR UP TO 2 HOURS; OR AN OCCUPANCY SENSOR.

C403.4.2.3 AUTOMATIC START AND STOP
AUTOMATIC START AND STOP CONTROLS SHALL BE PROVIDED FOR EACH HVAC SYSTEM. THE AUTOMATIC START CONTROLS SHALL BE CONFIGURED TO AUTOMATICALLY ADJUST THE DAILY START TIME OF THE HVAC SYSTEM IN ORDER TO BRING EACH SPACE TO THE DESIRED OCCUPIED TEMPERATURE IMMEDIATELY PRIOR TO SCHEDULED OCCUPANCY. AUTOMATIC STOP CONTROLS SHALL BE PROVIDED FOR EACH HVAC SYSTEM WITH DIRECT DIGITAL CONTROL OF INDIVIDUAL ZONES. THE AUTOMATIC STOP CONTROLS SHALL BE CONFIGURED TO REDUCE THE HVAC SYSTEM'S HEATING TEMPERATURE SETPOINT AND INCREASE THE COOLING TEMPERATURE SETPOINT BY NOT LESS THAN 2°F (–16.6°C) BEFORE SCHEDULED UNOCCUPIED PERIODS BASED ON THE THERMAL LAG AND ACCEPTABLE DRIFT IN SPACE TEMPERATURE THAT IS WITHIN COMFORT LIMITS

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

ZAXBY'S TENANT IMPROVEMENTS

MECHANICAL SPECIFICATIONS

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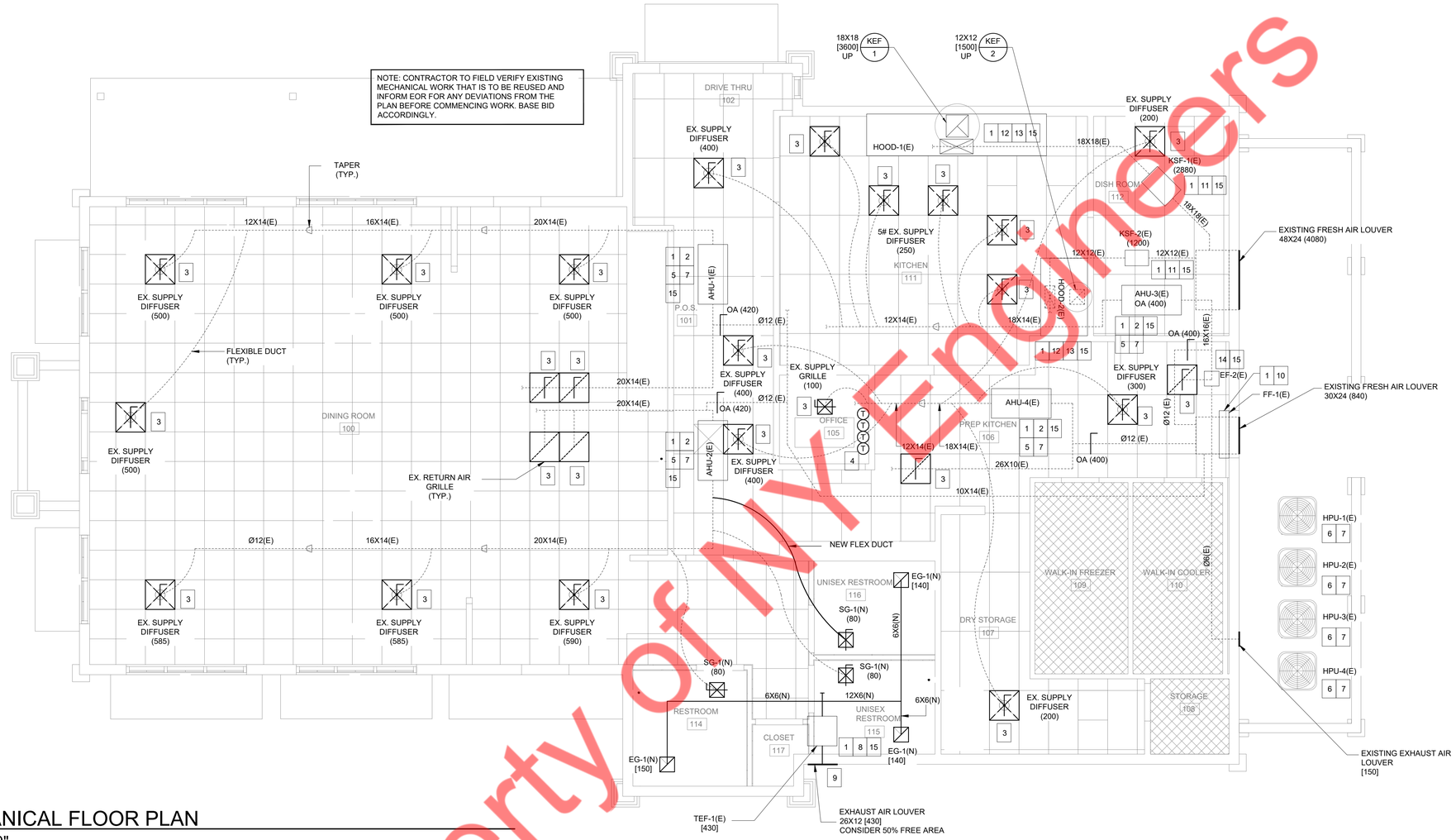
MECHANICAL FLOOR PLAN



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1 / M1.0 MECHANICAL FLOOR PLAN

1/4" = 1'-0"

MECHANICAL GENERAL NOTES

A. IF EXISTING UNITS BEING REUSED, TENANT TO BRING UP TO "LIKE NEW" CONDITION.

B. THE THERMOSTATIC CONTROLS FOR HVAC SYSTEMS SHALL BE CAPABLE OF BEING SET LOCALLY OR REMOTELY BY TO CONTROL COMFORT HEATING DOWN TO 55 °F OR LOWER AND COOLING UP TO 85°F OR HIGHER. THE THERMOSTATIC CONTROLS SHALL BE CAPABLE OF PROVIDING A DEAD BAND RANGE OF AT LEAST 5°F WITHIN WHICH HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

C. SUPPLY-AIR DUCTS CONVEYING HEATED OR COOLED AIR SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (R-8 IN UNCONDITIONED SPACE), UNLESS DUCTS ARE IN CONDITIONED SPACE.

D. EXISTING DUCTWORK TO REMAIN. CONTRACTOR SHALL CLEAN AND REFURBISH TO 'LOOK LIKE' NEW CONDITION. VERIFY EXACT LOCATION AND SIZE IN FIELD. CONTRACTOR SHALL INSPECT, PATCH, REPAIR, AND/OR REPLACE INSULATION TO MAKE THE ENTIRE SYSTEM AIR-TIGHT. COORDINATE IN FIELD PRIOR TO BID.

E. RELOCATE AND REUSE EXISTING THERMOSTAT, IF EXISTING THERMOSTAT IS NOT IN CONDITION TO REUSE THEN INSTALL NEW THERMOSTAT WITH LOCKABLE VENTED BOX TO BE MOUNTED AT 45" CENTER LINE A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.

F. ALL ITEMS TO BE RE-USED OR RELOCATED SHALL BE CLEANED, REPAIRED, AND RESTORED TO LIKE NEW CONDITION PRIOR TO RE-USE.

G. CONTRACTOR SHALL BALANCE EACH AIR DIFFUSER AS SHOWN ON PLANS.

H. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES FOR DUCTWORK ROUTING, OFFSET AND RUN PIPING, DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ANY EXTRA DUCTWORK, FITTINGS, INSULATIONS AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATION.

I. EXISTING CONDITIONS AND LOCATIONS OF EQUIPMENT AND DUCT WORK SHALL BE FIELD VERIFIED PRIOR TO COMMENCING WORK.

J. REPAIR OR REPLACE EXISTING DAMAGED INSULATION FOR DUCTWORK, PROVIDE SAME R-VALUE AS EXISTING INSULATION.

MECHANICAL KEYED NOTES

1. EXISTING EQUIPMENT WITH ITS ASSOCIATED ACCESSORIES, SUPPORTS AND PIPING TO REMAIN AS IS. CONTRACTOR TO VERIFY AND COORDINATE EXACT LOCATION OF EQUIPMENT ON SITE. REPAIR OR REPLACE AS NEEDED FOR PROPER OPERATION OF EQUIPMENT. CLEAN AND REFURBISH TO LOOK LIKE' NEW CONDITION.
2. EXISTING OUTSIDE AIR DUCT CONNECTIONS TO REMAIN AS IS. BALANCE OUTSIDE AIR INTAKE AS SHOWN ON PLANS TO EACH AHU.
3. EXISTING SUPPLY AND EXHAUST DIFFUSERS/GRILLES TO REMAIN AS IS. ADJUST THE AIRFLOW AS SHOWN ON PLANS. CLEAN AND REFURBISH TO LOOK LIKE' NEW CONDITION. PROVIDE VOLUME DAMPER OR COLLAR DAMPER IF NOT AVAILABLE IN EXISTING CONDITION. VERIFY IN FIELD BEFORE BID.
4. USE EXISTING TEMPERATURE SENSOR AND THERMOSTAT. IF NOT IN GOOD CONDITION, REPLACE WITH SAME IN KIND. LOCATE THERMOSTAT FOR ALL AHU'S IN OFFICE. COORDINATE LOCATION OF TEMPERATURE SENSOR WITH OWNER/ARCHITECT, LOCATE 72" ABOVE AFF.
5. VERIFY EXISTING CONDENSATE DRAIN TERMINATION. IF NOT IN GOOD CONDITION, PROVIDE NEW 1" CD WITH CONDENSATE DRAIN PUMP TO NEAREST LAVATORY WASTE W/ AIR GAP FITTING. COORDINATE WITH PLUMBING CONTRACTOR.
6. EXISTING CONDENSER UNITS TO BE REUSED AND REMAIN AS IS WITH ALL ITS SUPPORTS AND ACCESSORIES.
7. VERIFY IN FIELD THE CONDITION OF REFRIGERANT PIPING. CONTRACTOR TO REDO THE REFRIGERANT PIPING CONNECTION FROM CONDENSING UNIT TO RESPECTIVE AHU AS REQUIRED PER MANUFACTURER'S RECOMMENDATION.
8. EXISTING TOILET EXHAUST FAN TO REMAIN AS IS. CONTRACTOR TO RELOCATE AS NEEDED TO CONNECT WITH NEW TOILET DUCTWORK DISTRIBUTION.
9. TERMINATE TOILET EXHAUST DUCT 10 FT AWAY FROM ANY OUTDOOR AIR INTAKE, 3FT AWAY FROM ANY OPERABLE OPENING AND LOT LINE.
10. FLYER FAN TO BE REUSED. RELOCATE FAN AS SHOWN ON PLAN.
11. EXISTING KITCHEN HOOD MAKEUP AIR SUPPLY FAN. PROVIDE MERV8 FILTER UPSTREAM OF FAN IF NOT AVAILABLE IN EXISTING CONDITION. CONTRACTOR TO VERIFY IN FIELD THE OUTDOOR INTAKE FOR THE SAME IS TERMINATED 10 FT AWAY FROM ANY EXHAUST LOUVER.
12. EXISTING KITCHEN HOOD EXHAUST FAN. CONTRACTOR TO CONNECT THE HOOD EXHAUST AIR DUCT TO RESPECTIVE EXHAUST FAN. OFFSET AND TRANSITION AT CONNECTIONS AS NEEDED.
13. REUSE AND RELOCATE EXISTING HOOD AS PER RECENT EQUIPMENT PLAN. CONTRACTOR TO CLEAN AND REFURBISH THE HOOD TO LOOK LIKE' NEW CONDITION. CONTRACTOR TO DO THE NECESSARY AIR DUCT CONNECTIONS TO HOOD AS PER EXACT LOCATION. VERIFY IN FILED.
14. REUSE AND RELOCATE EXISTING EXHAUST FAN OVER MOP SINK AS PER RECENT EQUIPMENT PLAN. TERMINATE EXHAUST 10 FT AWAY FROM ANY OUTDOOR AIR INTAKE, 3FT AWAY FROM ANY OPERABLE OPENING AND LOT LINE.
15. CONTRACTOR TO FIELD VERIFY THE EXACT CAPACITY AND LOCATION OF EXISTING MECHANICAL EQUIPMENT. REPORT BACK TO EOR FOR ANY DISCREPANCY BEFORE ANY CONSTRUCTION/ BID.

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ZAXBY'S TENANT IMPROVEMENTS

MECHANICAL SCHEDULES

AIR CONDITIONER SCHEDULES (INDOOR UNITS)

BASIS OF DESIGN: SAE

UNIT TAG	NO. OF UNITS	LOCATION	TYPE	CAP. (TON)	OUTSIDE AIR (CFM)	COOLING (MBH)	ELECTRIC HEAT (KW)	TOTAL AIRFLOW (CFM)	ESP (INCH OF WC)	MOTOR (HP)	MAX. SOUND PRESS.(DBA)	ELECTRICAL DATA			DIMENTIONS (HXWXD) (IN.)	WEIGHT (LBS.)	MODEL NO.
												VOLT/PH/HZ	MCA	MOCP (A)	UNIT		
AHU-1(E), 2(E)	2	SEE PLAN	FAN COIL UNIT	5.0	420	SAE	SAE	2000	SAE	SAE	SAE	208-230/3/60	SAE	SAE	SAE	SAE	SAE
AHU-3(E), 4(E)	2	SEE PLAN	FAN COIL UNIT	5.0	400	SAE	SAE	2000	SAE	SAE	SAE	208-230/1/60	SAE	SAE	SAE	SAE	SAE

NOTES:
1) SAE : SAME AS EXISTING; VIF : VERIFY IN FIELD.
2) EXISTING AHU WITH ALL ACCESSORIES TO REMAIN SAME AND TO BE REUSED.
3) CONTRACTOR TO CONFIRM IF EXISTING AHU IS WORKING AT ITS 100% RATED CAPACITY.
4) CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION OF AHU ON SITE.
5) IF REQUIRED, PROVIDE NEW THERMOSTAT AND TEMPERATURE SENSOR COMPATIBLE WITH EXISTING AHU. CO-ORDINATE FINAL LOCATION OF T-SENSOR WITH ARCHITECT/OWNER.
6) CONTRACTOR TO REBALANCE OUTSIDE AIR & RETURN AIR DAMPERS ON EXISTING AHU TO MATCH VALUES MENTIONED IN ABOVE TABLE.
7) REPLACE FILTERS WITH NEW ONES IF NOT IN GOOD CONDITIONS.

OUTDOOR HEAT PUMP CONDENSING UNITS

BASIS OF DESIGN: SAE

UNIT TAG	LOCATION	INDOOR UNITS SERVED	CAP.TR	COOLING MBH AT 95 DEG F	HEATING MBH AT 47 DEG F	UNIT DIMENSIONS IN.(HXWXD)	WEIGHT (LBS)	PIPING DIMENSION		ELECTRICAL			SOUND LEVEL (Dba)	EER	SEER	HSPF	MODEI NO.
								LIQUID-HI PRESSURE	GAS LOW-PRESSURE	(V/Hz/Ph)	MCA	MOP					
HPU-1 (E)	SEE PLAN	AHU-1	5	SAE	SAE	SAE	SAE	SAE	SAE	208-230/60/3	SAE	SAE	SAE	SAE	SAE	SAE	N4A360GHC300 (VIF)
HPU-2 (E)	SEE PLAN	AHU-2	5	SAE	SAE	SAE	SAE	SAE	SAE	208-230/60/3	SAE	SAE	SAE	SAE	SAE	SAE	N4A360GHC300 (VIF)
HPU-3 (E)	SEE PLAN	AHU-3	5	SAE	SAE	SAE	SAE	SAE	SAE	208-230/60/3	SAE	SAE	SAE	SAE	SAE	SAE	N4A360GHC300 (VIF)
HPU-4 (E)	SEE PLAN	AHU-4	5	SAE	SAE	SAE	SAE	SAE	SAE	208-230/60/3	SAE	SAE	SAE	SAE	SAE	SAE	N4A360GHC300 (VIF)

NOTES:
1. SAE : SAME AS EXISTING; VIF : VERIFY IN FIELD.
2. EXISTING ACCU WITH ALL ACCESSORIES TO REMAIN AND TO BE REUSED.
3. CONTRACTOR TO CONFIRM IF EXISTING ACCUS ARE WORKING AT 100% RATED CAPACITY. IF NOT, REVERT BACK TO ENGINEER BEFORE BID/CONSTRUCTION.
4. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION OF ACCU ON SITE. RELOCATE UNITS AS SHOWN ON PLANS.

FANS SCHEDULE

TAG	SERVICE	MODEL	FAN SPEED (RPM)	STATIC IN. WG	CFM	ELEC (V/Hz/Ph.)	POWER(HP)	INTERLOCK WITH	WEIGHT (LBS)	BASIS OF DESIGN
KEF-1 (E)	EXHAUST	SAE	SAE	SAE	3600	SAE	SAE	HOOD-1 OPERATION	SAE	SAE
KSF-1 (E)	SUPPLY	SAE	SAE	SAE	2880	SAE	SAE	HOOD-1 OPERATION	SAE	SAE
KEF-2 (E)	EXHAUST	SAE	SAE	SAE	1500	SAE	SAE	HOOD-2 OPERATION	SAE	SAE
KSF-2 (E)	SUPPLY	SAE	SAE	SAE	1200	SAE	SAE	HOOD-2 OPERATION	SAE	SAE
TEF-1 (E)	EXHAUST	SAE	SAE	SAE	430	SAE	SAE	AHU-2(E)	SAE	SAE
EF-2 (E)	EXHAUST	SAE	SAE	SAE	150	SAE	SAE	AHU-4(E)	SAE	SAE

NOTES :-
1) EXISTING FANS WITH ALL ACCESSORIES TO REMAIN AND TO BE REUSED.
2) VIF - VERIFY IN FIELD, SAE - SAME AS EXISTING

AIR BALANCE

UNIT	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	RETURN AIR (CFM)	EXHAUST AIR(CFM)
AHU-1 (E)	2000	420	1580	0
AHU-2 (E)	2000	420	1580	0
AHU-3 (E)	1600	400	1200	0
AHU-4 (E)	1600	400	1200	0
TEF-1 (E)	0	0	0	430
EF-2 (E)	0	0	0	150
KEF-1 (E)	0	0	0	3600
KSF-1 (E)	2880	2880	0	0
KEF-2 (E)	0	0	0	1500
KSF-2 (E)	1200	1200	0	0
TOTAL:	11280	5720	5560	5680
BUILDING PRESSURE:		40	POSITIVE	

NOTES:
1. CONTRCTOR TO FIELD VERIFY AND ADJUST THE OUTSIDE AIR PROVISION TO THE EXISTING AHU'S AS PER TABLE ABOVE.

AIR CURTAIN SCHEDULE

MANUFACTURER	UNIT ID	MODEL	LENGTH (IN.)	CFM	QUANTITY	V/PH/HZ	HP	FLA
SAE	FF-1 (E)	SAE	36	1700	1	SAE	SAE	SAE

NOTES / ACCESSORIES:
1. ALL THE ACCESSORIES AND UNIT TO REMAIN AS IS.
2. REPAIR/REPLACE AS NEEDED FOR PROPER OPERATION OF THE UNIT.

VENTILATION CALCULATION

ROOM NAME	AREA	HEIGHT	NUMBER OF PEOPLE/1000sq.ft AS PER 2023 MMC	SQFT/PERSON AS PER 2023 FBC	NUMBER OF PEOPLE 2023 FMC	NUMBER OF CHAIR	FINAL PEOPLE NO.	CFM AS PER 2023 FMC		CALCULATED VENT CFM	PROVIDED OA	EXHAUST AIRFLOW RATE	TOTAL EXHAUST REQUIRED	PROVIDED EXHAUST	REMARK
								CFM/PERSON	CFM/SQ.FT			CFM/SQFT OR CFM/FIXT.	CFM	CFM	
DINING ROOM	1210	12.00	70	0	85	83	83	7.5	0.18	840		0	0	0	FMC 2023 - Dining Rooms
POS	310	12.00	15	0	5	2	2	7.5	0.12	52		0	0	0	FMC 2023 - Sales
OFFICE	36	12.00	5	0	1	1	1	5	0.06	7		0	0	0	FMC 2023 - Office Spaces
RESTROOM	60	12.00	0	0	0	0	0	0	0	0		70	70	120	FMC 2023 - Public Toilet
UNISEX RESTROOM	50	12.00	0	0	0	0	0	0	0	0		70	70	120	FMC 2023 - Public Toilet
UNISEX RESTROOM	50	12.00	0	0	0	0	0	0	0	0	5720	70	70	120	FMC 2023 - Public Toilet
CLOSET	15	12.00	0	0	0	0	0	0	0	0		0	0	70	FMC 2023 - Public Toilet
DRY STORAGE	140	12.00	0	0	0	0	0	0	0.12	17		0	0	0	FMC 2023 - Storage Rooms
PREP KITCHEN	256	12.00	20	0	6	6	6	7.5	0.12	76		0.7	0	5100	FMC 2023 - Kitchens (cooking)
KITCHEN	360	12.00	20	0	8	5	5	7.5	0.12	81		0.7	0	0	FMC 2023 - Kitchens (cooking)
DISH ROOM	140	12.00	20	0	3	2	2	7.5	0.12	32		0.7	0	150	FMC 2023 - Kitchens (cooking)
GRAND TOTAL	2907									1105				5680	

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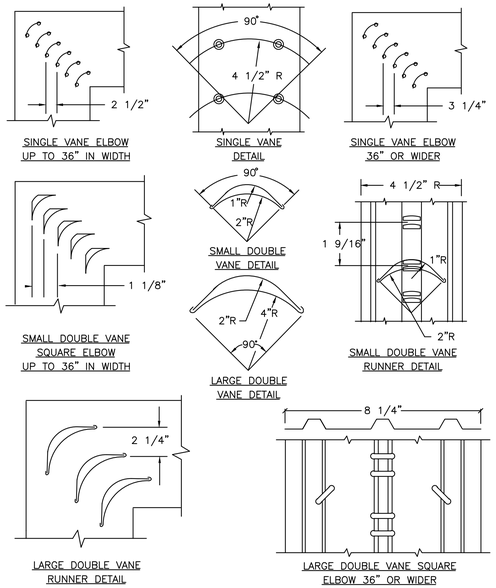
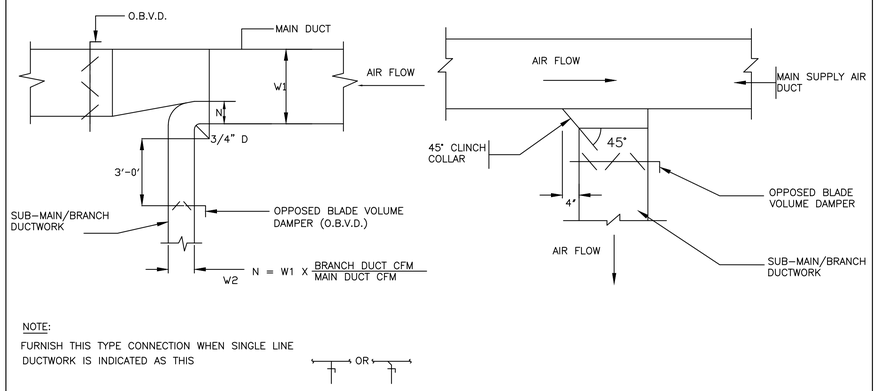
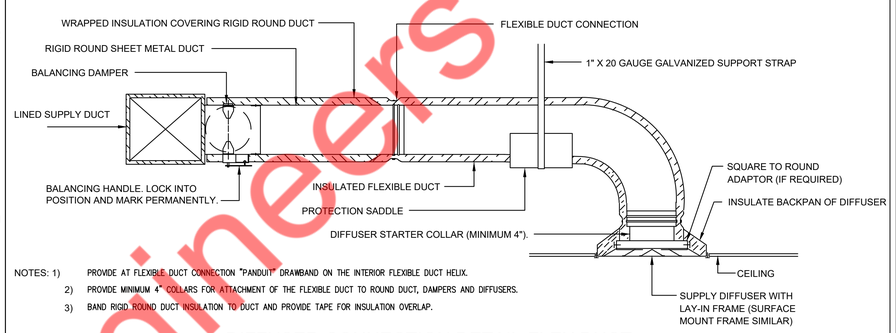


1 M3.0 LOW VELOCITY DUCTWORK ELBOWS N.T.S



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

2 M3.0 SUPPLY AIR DUCTWORK SUB-MAIN/BRANCH DUCT CONNECTION N.T.S



NOTES: 1) PROVIDE AT FLEXIBLE DUCT CONNECTION "PANDUIT" DRAWBAND ON THE INTERIOR FLEXIBLE DUCT HELIX.
2) PROVIDE MINIMUM 4" COLLARS FOR ATTACHMENT OF THE FLEXIBLE DUCT TO ROUND DUCT, DAMPERS AND DIFFUSERS.
3) BAND RIGID ROUND DUCT INSULATION TO DUCT AND PROVIDE TAPE FOR INSULATION OVERLAP.

DIFFUSER CONNECTION DETAIL-FLEX DUCT NOT TO SCALE

3 M3.0 DIFFUSER CONNECTION DETAIL-FLEX DUCT N.T.S

NOTES:
DUCTS TO BE ACOUSTICALLY LINED SHALL BE DESIGNATED BY THE SYMBOL IN FIG. "C" TO THE EXTENT OF LINING. THICKNESS SHALL BE AS SPECIFIED.
DUCTS LINED WITH ACOUSTICAL MATERIAL SHOULD BE FASTENED WITH CLIPS, ADHESIVE, OR PINS

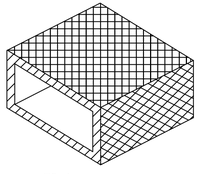


FIG. A

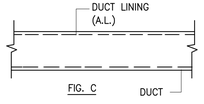


FIG. C

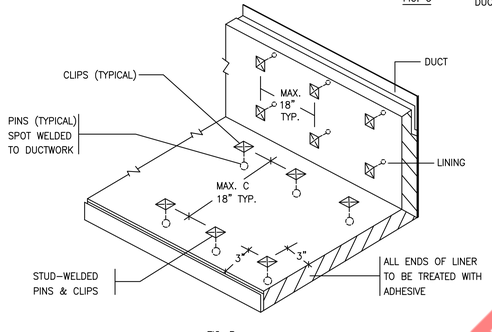
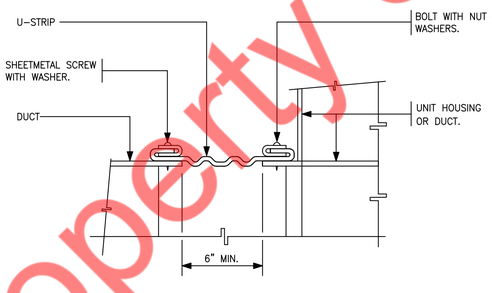
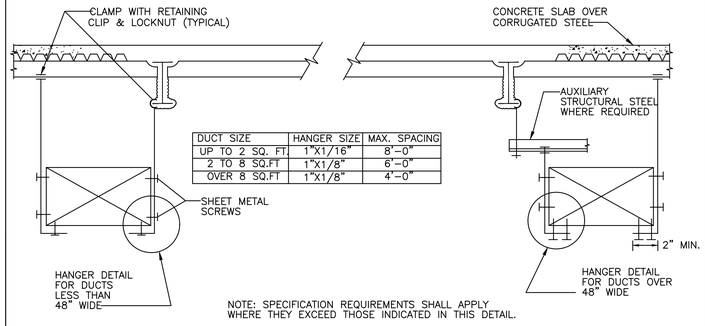


FIG. B

4 M3.0 ACOUSTICAL TREATMENT DUCT LINING N.T.S



5 M3.0 FLEXIBLE CONNECTION (DUCT-EQUIPMENT) N.T.S

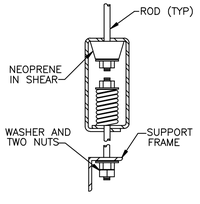


DUCT SIZE	HANGER SIZE	MAX. SPACING
UP TO 2 SQ. FT	1"X1/16"	8'-0"
2 TO 8 SQ.FT	1"X1/8"	6'-0"
OVER 8 SQ.FT	1"X1/8"	4'-0"

NOTE: SPECIFICATION REQUIREMENTS SHALL APPLY WHERE THEY EXCEED THOSE INDICATED IN THIS DETAIL.

No. PINS	LINEAR INTERIOR WIDTH
0	8" DN
2	9"-16"
3	17"-28"
4	29"-40"
5	41"-52"
6	53"-64"
7	65"-76"
8	77"-88"
9	89"-100"

6 M3.0 DUCT SUPPORT DETAIL - STRUCTURAL STEEL N.T.S



7 M3.0 VIBRATION ISOLATOR DETAIL N.T.S

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

ZAXBY'S TENANT IMPROVEMENTS

MECHANICAL DETAILS

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

04-19-24

NYE

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M3.0

ELECTRICAL SYMBOLS LIST

LIGHTING

	LED LIGHTING FIXTURE AND OUTLET BOX. HALF SHADED FIXTURE OR "EM" INDICATES FIXTURES WITH INTEGRAL BATTERY PACK FOR EMERGENCY SERVICE, U.O.N.
A Q 2 a EM	LUMINAIRE TYPE : INDICATE BY LIPPERCASE LETTER SEE LIGHTING EXTURE SCHEDULE. CIRCUIT NUMBER : INDICATED BY NUMBER SWITCHING INDICATED BY LOWER CASE LETTERS. DENOTES LUMINAIRE ON EMERGENCY CIRCUIT.
	CEILING/WALL MOUNTED SELF POWERED EXIT LIGHT FIXTURE WITH DIRECTIONALARROWS AS INDICATED. SHADED AREA DENOTES FACE(S). ISOLITE ELITE SERIES LED EXIT SIGN

SWITCHES AND CONTROLS

$	MANUAL SWITCH
$3	3 WAY SWITCH
$OS	WALL MOUNTED OCCUPANCY SENSOR
(DS)	CEILING MOUNTED DAYLIGHT SENSOR.
PC	WALL MOUNTED PHOTOCELL MOUNTED IN NEMA 3R ENCLOSURE.
(OS)	CEILING OCCUPANCY SENSOR, NUMBER INDICATES TYPE; SEE OCCUPANCY SENSOR SCHEDULE. 'A' LETTER REFERES TO WIRING DIAGRAM.

WIRING SYSTEMS

3 UP–	POWER OR LIGHTING CIRCUITRY HOMERUN WITH PANELBOARD DESIGNATION, NUMBER WHERE USED INDICATES CIRCUIT NUMBER. IT SHALL CONSISTS OF 1#12 ø, 1#12 N. & 1#12 G. IN 3/4"C, UNLESS OTHERWISE NOTED.
3 5 UP–	POWER OR LIGHTING CIRCUITRY HOMERUN WITH PANELBOARD DESIGNATION, NUMBER WHERE USED INDICATES CIRCUIT NUMBER. IT SHALL CONSISTS OF 2#12 ø, 2#12 N. & 2#12 G. IN 3/4"C, UNLESS OTHERWISE NOTED.
3 5 7 UP–	POWER OR LIGHTING CIRCUITRY HOMERUN WITH PANELBOARD DESIGNATION, NUMBER WHERE USED INDICATES CIRCUIT NUMBER. IT SHALL CONSISTS OF 3#12 ø, 3#12 N. & 3#12 G. IN 3/4"C, UNLESS OTHERWISE NOTED.
	UNDERGROUND
	EXISTING
	NEW

ELECTRICAL DRAWING LIST

CODE COMPLIANCE

- 2023 FLORIDA BUILDING CODE – 8TH EDITION.
- 2023 FLORIDA MECHANICAL CODE– 8TH EDITION.
- 2023 FLORIDA PLUMBING CODE – 8TH EDITION.
- 2020 NATIONAL ELECTRICAL CODE (NFPA 70).
- 2023 FLORIDA ENERGY CONSERVATION CODE – 8TH EDITION.

POWER AND TELECOMMUNICATION

J	JUNCTION BOX WITH BLANK COVER PLATE, FLUSH IN FLOOR.
	DUPLEX CONVENIENCE RECEPTACLE, +18" AFF OR AS NOTED.
GFI	DUPLEX GFI RECEPTACLE, +18" AFF OR AS NOTED.
	TELEPHONE/DATA OUTLET, 4"SQUARE OUTLET BOX WITH SINGLE GANG COLLAR AND BLANK PLATE. PROVIDE 3/4" E.C., U.O.N., UP TO HUNG CEILING AND TERMINATE WITH 90' ELBOW, BUSHING AND DRAG WIRE.
	DOUBLE DUPLEX RECEPTACLE – 20A–1P, 125V, NEMA 5–20R.
	TELEPHONE OUTLET, TEL / DATA OUTLET TO BE PROVIDED WITH 1" CONDUIT U.O.N. TO H.C. AND TERMINATED WITH 90 DEGREE REE ELBOW AND BUSHING. TEL / DATA OUTLET PLATE SHALL BE PROVIDED WITH 1 1/4"DIAMETER GROMMETED OPENING.
	DATA OUTLET – (1) PORT UNO, TEL / DATA OUTLET TO BE PROVIDED WITH 1" CONDUIT U.O.N. TO H.C. AND TERMINATED WITH 90 DEGREE ELBOW AND BUSHING. TEL / DATA OUTLET PLATE SHALL BE PROVIDED WITH 1 1/4" DIAMETER GROMMETED OPENING.
CL	CEILING MOUNTED DUPLEX RECEPTACLE

MOTORS AND CONTROLS

M	EXHAUST FAN WITH JUNCTION BOX AND MOTOR SWITCH.
	NON FUSED DISCONNECT SWITCH
SM	MANUAL MOTOR SWITCH

ANNOTATION

+24"	INDICATES MOUNTING HEIGHT, CENTER LINE TO FINISHED FLOOR.
X	KEYED NOTE REFERENCE
1 E/2–1	DETAIL REFERENCE: DETAIL NUMBER INDICATED ON TOP; DRAWING NUMBER INDICATED ON BOTTOM

POWER DISTRIBUTION

	DISTRIBUTION PANELBOARD, 208/120V–SURFACE OR FLUSH MOUNTED.

ELECTRICAL ABBREVIATIONS

A	AMPERES	EA	EACH
A/C, AC	AIR CONDITIONING UNIT	EC	EMPTY CONDUIT/ ELECTRICAL CONTRACTOR
AF	AMPERE FRAME/AMP FUSE	EF	EXHAUST FAN
AFF	ABOVE FINISHED FLOOR	EM	EMERGENCY
AS	AMP SWITCH	EMT	ELECTRICAL METALLIC TUBING
AIC	AMPS INTERRUPTING CAPACITY	EQUIP	EQUIPMENT
AT	AMP TRIP	ER	EXISTING TO BE RELOCATED
ATS	AUTOMATIC TRANSFER SWITCH	ETR	EXISTING TO REMAIN
AUTO	AUTOMATIC	EWF	ELECTRIFIED WORKSTATION FURNITURE
AWG	AMERICAN WIRE GAUGE	EWH	ELECTRIC WATER HEATER
C	CONDUIT	FA	FIRE ALARM
C/B,CB	CIRCUIT BREAKER	FBO	FURNISHED BY OTHERS, INSTALLED & WIRED BY EC
CKT	CIRCUIT	FDR	FEEDER
CLG	CEILING	FIBO	FURNISHED & INSTALLED BY OTHERS., WIRED BY EC
COMM	COMMUNICATION	FIXT	FIXTURE
CT	CURRENT TRANSFORMER	FL	FLOOR
CU	COPPER	FLUOR	FLUORESCENT
°C	DEGREE CELSIUS	G	GROUND
°F	DEGREE FAHRENHEIT	GFI	GROUND FAULT INTERRUPTER
DIA	DIAMETER	GP	GENERAL PURPOSE
DISC	DISCONNECT	HC	HUNG CEILING
DN	DOWN	HP	HORSEPOWER
DP	DISTRIBUTION PANEL	HWH	HOW WATER HEATER
DWH	DOMESTIC WATER HEATER	HZ	HERTZ
DWG	DRAWING	IC	INTERRUPTING CAPACITY
JB	JUNCTION BOX	PP	POWER PANEL
KCMIL	ONE THOUSAND CIRCULAR MILS	PVC	POLYVINYL CHLORIDE
KV	KILOVOLT	PWR	POWER
KVA	KILOVOLT–AMPERES	R	REMOVE
KW	KILOWATTS	RE	RELOCATED EXISTING
LP	LIGHTING PANEL	REC	RECEPTACLE
LTG	LIGHTING	RGS	RIGID GALVANIZED STEEL
MAX	MAXIMUM	RR	REMOVE & RELOCATE
MC	MOTOR CONTROLLER	SECT	SECTION
MCB	MAIN CIRCUIT BREAKER	SPDT	SINGLE POLE DOUBLE THROW
MER	MECHANICAL EQUIPMENT ROOM	SPST	SINGLE POLE SINGLE THROW
MIN	MINIMUM	SPEC	SPECIFICATION
MLO	MAIN LUGS ONLY	SW	SWITCH
MTD	MOUNTED	SWBD	SWITCHBOARD
MTS	MANUAL TRANSFER SWITCH	SYM	SYMMETRICAL
N	NEUTRAL	SYS	SYSTEMS
NE	NEW DEVICE TO REPLACE EXISTING	TELE	TELEPHONE
NIC	NOT IN CONTRACT	TEMP	TEMPERATURE
NL	NIGHT LIGHT	TXF	TOILET EXHAUST FAN
NTS	NOT TO SCALE	TYP	TYPICAL
OC	ON CENTER	UON	UNLESS OTHERWISE NOTED
P	POLES	V	VOLT/VOLTAGE
PB	PULLBOX	VA	VOLT AMPERE
PC	PERSONAL COMPUTER	VAV	VARIABLE AIR VOLUME
ø	PHASE	VFD	VARIABLE FREQUENCY DRIVE
PNL	PANEL	VP	VAPORPROOF
W	WATT	WP	WEATHER PROOF
W	WIRE	XFMR	TRANSFORMER
WH	WALL HEATER	ZRT	ZONE REGISTER TERMINALS
E	EXISTING	IG	ISOLATED GROUND

GENERAL NOTES

(APPLY TO ALL "E" DRAWINGS)

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CURRENT VERSION OF THE 2020 NATIONAL ELECTRICAL CODE (NEC), LOCAL JURISDICTION REQUIREMENTS, AND ALL GOVERNING LOCAL CODES, LAWS, AND REGULATIONS.
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, RAWL 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 INSTALLED: 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 ¾", 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 OF NEW WORK 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 CONCEAL ED IN FINISHED SPACES UNLESS OTHERWISE NOTED. CONDUITS SHALL BE ENCASED IN THE CONCRETE FLOOR SLAB.
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 STRUCTURAL AND ARCHITECTURAL DRAWINGS. CONFIRM PENETRATION LOCATIONS WITH THE ENGINEER AND OWNER BEFORE INSTALLATION.
23. COORDINATE THE MOUNTING HEIGHT AND LOCATION OF RACEWAYS, COMMUNICATIONS OUTLETS, AND RECEPTACLES WITH THE ARCHITECTURAL CASEWORK DRAWINGS AND DETAILS. COORDINATE LOCATIONS OF LIGHT FIXTURES, SWITCHES, AND RELATED DEVICES WITH THE ARCHITECTURAL DRAWINGS AND DETAILS.
24. REFER TO ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL LUMINARIES AND SWITCHES, AND FOR ALL FINISHED CEILING HEIGHTS.
25. REFER TO ARCHITECTURAL PLANS FOR FINAL LOCATIONS OF ALL ELECTRICAL DEVICES, AND FOR FINAL CEILING AND WALL HEIGHTS AND LAYOUTS.
26. LIGHTING FIXTURES PROVIDED WITH EMERGENCY BATTERY PACKS AND INDICATED WITH SWITCH CONTROL SHALL BE WIRED WITH BATTERY CHARGING/SENSING CIRCUIT WIRED AHEAD OF SWITCH CONTROL.
27. 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.

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

ZAXBY'S TENANT IMPROVEMENTS

ELECTRICAL SYMBOL LIST, ABBREVIATIONS & GENERAL NOTES

04-19-24

NYE

23-244

E0.1

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

ELECTRICAL SPECIFICATIONS

1. GENERAL:

A. THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AIA DOCUMENT A201, LATEST EDITION, AND THESE SPECIFICATIONS AS APPLICABLE ARE PART OF THIS CONTRACT.

B. DRAWING ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONDUIT ROUTING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OF RUNS. THE CONTRACTOR SHALL ALLOW IN HIS PRICE FOR ROUTING OF CONDUIT TO AVOID OBSTRUCTIONS. COORDINATION WITH EXISTING SERVICES, INCLUDING THOSE OF OTHER TRADES, IS REQUIRED, MAINTAIN HEADROOM AND SPACE CONDITIONS.

C. BIDDERS, BEFORE SUBMITTING PROPOSALS, SHALL VISIT AND CAREFULLY EXAMINE THE AREA AFFECTED BY THIS WORK TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL ATTEND THE EXECUTION OF THIS WORK. 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.

D. INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTANANCE AND REPAIR, MINOR DEVIATIONS FROM DRAWING MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.

E. REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK MAY BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES AND CHARGES IN MAKING UP THE WORK PROPOSAL.

F. CONNECTIONS TO EXISTING WORK: INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS OF EXISTING SERVICES SHALL BE PERFORMED AT NO ADDITIONAL CHARGES. AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING FACILITIES AND ONLY WITH WRITTEN CONSENT OF OWNER. ALARM AND EMERGENCY SYSTEMS SHALL NOT BE INTERRUPTED. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK. CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER. RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.

G. DISCONNECT, REMOVE AND/OR RELOCATE EXISTING MATERIAL, EQUIPMENT AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW WORK.

H. THE CONTRACTOR SHALL KEEP ALL EQUIPMENT AND MATERIALS, AND ALL PARTS OF THE BUILDING EXTERIOR SPACES AND ADJACENT STREETS, SIDEWALKS AND PAVEMENTS, FREE FROM MATERIAL AND DEBRIS RESULTING FROM THE EXECUTION OF THIS WORK. EXCESS MATERIALS WILL NOT BE PERMITTED TO ACCUMULATE EITHER ON THE INTERIOR OR THE EXTERIOR.

I. SEAL OPENINGS THROUGH PARTITIONS, WALLS AND FLOORS WITH MINERAL WOOL OR OTHER NONCOMBUSTIBLE MATERIAL, UNLESS OTHERWISE NOTED.

J. PROVIDE ALL NECESSARY FLASHING AND COUNTER FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THE BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF CONDUIT AND EQUIPMENT, PROVIDE EQUIPMENT CURBS AS REQUIRED.

K. ALL EXISTING MATERIAL, EQUIPMENT AND CONSTRUCTION DEBRIS TO BE REMOVED UNDER THIS CONTRACT SHALL BECOME THE PROPERTY OF THE CONTRACTOR WITH THE EXCEPTION OF SPECIFIC EQUIPMENT ND APPARATUS REQUESTED BY THE BUILDING REPRESENTATIVE, ARCHITECT OR AS NOTED TO BE RELOCATED ON THE DRAWINGS. REMOVED EQUIPMENT SHALL BE PROPERLY DISPOSED OF BY THIS CONTRACTOR.

L. THE CONTRACTOR'S PROPOSAL FOR ALL WORK SHALL BE PREDICATED ON THE PERFORMANCE OF THE WORK DURING REGULAR WORKING HOURS. WHEN SO DIRECTED, HOWEVER, THE CONTRACTOR SHALL INSTALL WORK DURING OVERTIME HOURS AND THE ADDITIONAL COST TO BE CHARGED THEREFORE SHALL BE ONLY THE "PREMIUM" PORTION OF THE WAGES PAID.

M. UNLESS OTHERWISE SPECIFICALLY NOTED OR SPECIFIED, INCLUDE ALL CUTTING AND PATCHING OF EXISTING FLOORS, WALLS, PARTITIONS AND OTHER MATERIALS IN THE EXISTING BUILDING. THE CONTRACTOR SHALL RESTORE THESE AREAS TO ORIGINAL CONDITION.

N. ALL MATERIAL AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.

O. INSURANCE: PROVIDE IN ACCORDANCE WITH OWNER/BUILDING REQUIREMENTS AND SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.

P. THE FINAL ACCEPTANCE SHALL BE MADE AFTER THE CONTRACTOR HAS ADJUSTED HIS EQUIPMENT, TESTED THE VARIOUS SYSTEMS, DEMONSTRATED THAT IT FULFILLS THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS AND HAS FURNISHED ALL THE REQUIRED CERTIFICATED OF INSPECTION AND APPROVAL.

2. GENERAL PROVISIONS FOR ELECTRICAL WORK:

A. DEFINITIONS:

1) "PROVIDE": TO FURNISH, INSTALL AND CONNECT UP COMPLETE AND READY FOR SAFE AND REGULAR OPERATION THE PARTICULAR WORK REFERRED TO UNLESS SPECIFICALLY OTHERWISE NOTED.

2) "INSTALL": TO ERECT, MOUNT AND CONNECT COMPLETE WITH RELATED ACCESSORIES.

3) "FURNISH" OR "SUPPLY": TO PURCHASE, PROCURE, ACQUIRE. AND DELIVER COMPLETE WITH RELATED ACCESSORIES.

4) "WORK": LABOR, MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES AND OTHER ITEMS REQUIRED FOR PROPER AND COMPLETE INSTALLATION.

5) "WIRING": RACEWAY. FITTINGS, WIRE, BOXES, AND RELATED ITEMS.

6) "CONCEALED": EMBEDDED IN MASONRY OR OTHER CONSTRUCTION, INSTALLED IN FURRED SPACES, WITHIN DOUBLE PARTITIONS OR HUNG CEILINGS, IN TRENCHES, IN CRAWL SPACES, OR IN ENCLOSURES.

7) "EXPOSED": NOT INSTALLED UNDERGROUND OR "CONCEALED" AS DEFINED ABOVE.

8) "SIMILAR" OR "EQUAL": EQUAL IN MATERIALS, WEIGHT, SIZE, DESIGN AND EFFICIENCY OF SPECIFIED PRODUCT.

B. TEMPORARY LIGHT AND POWER: PROVIDE TEMPORARY LIGHT AND POWER SYSTEMS AT EARLIEST POSSIBLE DATE WITHIN THE CONSTRUCTION AREAS FOR THE REQUIREMENTS OF ALL TRADES AS HEREIN DESCRIBED. EXTEND SYSTEMS TO NEW CONSTRUCTION AS SOON AS PHYSICALLY POSSIBLE. MAINTAIN SYSTEM DURING WORKING OWNER. PROVIDE ALL REQUIRED MAINTENANCE, INCLUDING LAMPS AND SOCKETS.

C. QUALITY ASSURANCE

1) QUALITY OF MATERIALS: ALL EQUIPMENT SHALL BE NEW SPECIFICATION GRADE, FREE FROM DEFECTS AND LISTED BY APPROVED TESTING AGENCY AND BEARING THEIR LABEL MATERIALS AND EQUIPMENT OF SIMILAR APPLICATION SHALL BE OF SAME MANUFACTURER, EXCEPT AS NOTED.

2) GUARANTEE: ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED AS DEFINED IN PARAGRAPH 2.C.

3) CURRENT CHARACTERISTICS:

a. SERVICE: 120/208 VOLT, 3 PHASE, 4 WIRE, 60 HERTZ WITH GROUNDED NEUTRAL.

b. DISTRIBUTION: 120/208 VOLT, 3 PHASE, 4 WIRE, 60 HERTZ WITH GROUNDED NEUTRAL.

4) HEIGHTS OF OUTLETS:

a. FROM FINISHED FLOOR TO CENTERLINE OF OUTLETS FOR:

– RECEPTACLES AND TELEPHONES: 1 FT–6 IN.

– WALL SWITCHES: 4 FT–0 IN.

– WALL FIXTURES: 7 FT–0 IN.

– MOTOR CONTROLLERS: 5 FT–0 IN.

– CLOCKS: 7 FT 6 IN

b. EXCEPTIONS: AT JUNCTION OF DIFFERENT WALL FINISH MATERIALS, ON MOLDING OR BREAK IN WALL SURFACE, IN VIOLATION OF CODE, OR AS NOTED OR DIRECTED.

D. PRODUCT DELIVERY, STORAGE AND HANDLING

1) MOVING OF EQUIPMENT: WHERE NECESSARY, SHIP IN CARTED SECTIONS OF SIZE TO PERMIT PASSING THROUGH AVAILABLE SPACES.

2) ACCESSIBILITY: FOR OPERATION, MAINTENANCE AND REPAIR, MINOR DEVIATIONS SHALL BE PERMITTED, CHANGES OF MAGNITUDE OR INVOLVING EXTRA COST ARE NOT PERMISSIBLE WITHOUT REVIEW. GROUP CONCEALED ELECTRICAL EQUIPMENT REQUIRING ACCESS WITH EQUIPMENT FREELY ACCESSIBLE THROUGH ACCESS DOORS.

E. MATERIALS

1) NAMEPLATES: PROVIDE BLACK LAMICOID SHEET WITH 3/4 IN. WHITE LETTERING, FASTENED WITH EPOXY CEMENT FOR EACH DISCONNECT SWITCH, CIRCUIT BREAKER, PANEL, CABINET, TRANSFORMER, ENCLOSURE, MOTOR CONTROLLER AND THE LIKE. NAMEPLATES SHALL DESCRIBE THE NAME AND NUMBER OF EACH COMPONENT.

2) CABLE TAGS: TAG EACH CONDUCTOR PASSING THROUGH SPLICE OR PULLBOX WITH A WHITE LINEN TAG, INDICATING POINT OF ORIGIN AND TERMINATION OF THE CIRCUIT.

3) INSERTS AND SUPPORTS:

a. INSERTS: STEEL, SLOTTED TYPE, FACTORY PAINTED.

– SINGLE ROD: SIMILAR TO GRINNELL FIG. 281.

– MULTI–ROD: SIMILAR TO FEE AND MASON SERIES 9000 WITH END CAPS AND CLOSURE STRIPS.

– CLIP FORM NAILS FLUSH WITH INSERTS.

– MAXIMUM LOADING 75 PERCENT OF RATING.

b. SUPPORTS FROM BUILDING CONSTRUCTION: INSERTS, BEAM CLAMPS, STEEL FISHPLATES (IN CONCRETE FILL ONLY), CANTILEVER BRACKETS OR OTHER MEANS. SUBMIT FOR REVIEW.

c. GROUPED LINES AND SERVICES: TRAPEZE HANGERS OF BOLTED ANGLES OR CHANNELS.

d. WHERE BUILDING CONSTRUCTION IS INADEQUATE: PROVIDE ADDITIONAL FRAMING. SUBMIT FOR REVIEW.

F. PAINT SHALL BE THE BEST GRADE FOR ITS PURPOSE. DELIVER IN ORIGINAL SEALED CONTAINERS AND APPLY IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. COLORS SHALL BE AS SELECTED BY ARCHITECT OR ENGINEER. UTILIZE GALVANIZED IRON PRIMER ON PANEL AND PULL BOXES, AFTER FABRICATION. UTILIZE HOT DIPPED GALVANIZED OR DIPPED IN ZINC BASED PRIMER FOR: OUTLET BOXES, JUNCTION BOXES, CONDUIT HANGERS, RODS, INSERTS AND SUPPORTS. ZINC BASED PRIMER WITH FINISH TO MATCH SURROUNDINGS SHALL BE USED FOR MARRED SURFACES OF STEEL EQUIPMENT AND RACEWAYS. A FIELD–APPLIED ZINC BASED PRIME COAT SHALL BE UTILIZED FOR STEEL OR IRONWORK.

G. BRUSH AND CLEAN WORK PRIOR TO CONCEALING, PAINTING AND ACCEPTANCE. PAINTED EXPOSED WORK SOILED OR DAMAGED; CLEAN AND REPAIR TO MATCH ADJOINING WORK BEFORE FINAL ACCEPTANCE. REMOVE DEBRIS FROM INSIDE AND OUTSIDE OF MATERIAL AND EQUIPMENT.

H. FINAL LOCATIONS AND MOUNTING ORIENTATIONS OF ALL SWITCHES, RECEPTACLES AND LIGHT FIXTURES SHALL BE VERIFIED WITH ARCHITECT.

I. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.

3. SCOPE OF WORK:

A. SCOPE OF WORK SHALL CONSIST OF PROVIDING LABOR, MATERIALS, EQUIPMENT, SERVICES AND FEES NECESSARY FOR COMPLETE AND SAFE INSTALLATION IN CONFORMING WITH THE CURRENT VERSION OF 2020 NATIONAL ELECTRICAL CODE (NEC), AND ALL OTHER APPLICABLE INDUSTRY, NATIONAL AND LOCAL CODES AND AUTHORITIES HAVING JURISDICTION, AS INDICATED ON DRAWINGS AND HEREIN SPECIFIED.

B. ALL DRAWINGS, PLANS, DETAILS, SPECIFICATIONS AND SPECIFICATION ADDENDA ARE MADE PART OF THIS CONTRACT AND SHALL APPLY TO ALL WORK UNDER THE CONTRACT UNLESS OTHERWISE AMENDED, MODIFIED, SUPPLIED OR SPECIFIED HEREIN.

C. THE CONTRACTOR SHALL FURNISH A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKSMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM THE DATE OF FINAL CERTIFICATE FOR PAYMENT AND/OR FROM DATE OR ACTUAL USE OF EQUIPMENT OR OCCUPANCY OF SPACES BY OWNER INCLUDED UNDER THE VARIOUS PARTS OF THE WORK, WHICHEVER, DATE IS EARLIER, THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL ALSO PROVIDED THAT WHERE DEFECTS OCCUR, THE CONTRACTOR WILL ASSUME RESPONSIBILITY OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THE CONTRACTOR

D. THE CONTRACTOR SHALL GIVE NECESSARY NOTICE, FILE DRAWINGS AND SPECIFICATIONS WITH ALL DEPARTMENTS HAVING JURISDICTION, WORK AND PAY ALL FEES THEREFORE. THE CONTRACTOR SHALL ARRANGE FOR INSPECTION AND TESTS OF ANY OR ALL PARTS OF THE WORK IF SO REQUIRED BY AUTHORITIES AND PAY ALL CHARGES FOR SAME. THE CONTRACTOR SHALL PAY ALL COSTS FOR, AND FURNISH TO THE OWNER BEFORE FINAL PAYMENT, ALL CERTIFICATES NECESSARY AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH ALL REGULATIONS WHERE THEY APPLY TO THIS WORK.

E. CONTRACTOR SHALL PERFORM ALL CONTROLLED INSPECTIONS IN ACCORDANCE WITH THE MICHIGAN BUILDING CODE. SECURE ALL REQUIRED PERMITS AND APPROVALS AND TRANSMIT SAME TO OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FEES.

F. AREAS WITH NO ELECTRICAL WORK SHALL REMAIN AS IS. CONTRACTOR SHALL MAINTAIN CONTINUITY OF ALL ELECTRICAL SYSTEMS TO ALL AREAS NOT COVERED BY THIS RENOVATION AND SHALL PROVIDE 48 HOUR NOTICE TO LANDLORD OF ANY PLANNED POWER INTERRUPTIONS OR SIGNAL SYSTEM OUTAGES.

4. SHOP DRAWINGS

A. PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT, CONTRACTOR SHALL PROVIDE COMPLETE SETS OF COORDINATED SHOP DRAWINGS OF ALL NEW AND EXISTING EQUIPMENT, INDICATING CAPACITY, DIMENSIONS AND SEQUENCE OF OPERATION FOR WRITTEN APPROVAL BY THE ARCHITECT AND ENGINEER.

B. INDICATE ON EACH SHOP DRAWINGS SUBMITTED:

1) PROJECT NAME AND LOCATION

2) NAME OF ARCHITECT AND ENGINEER

3) ITEM IDENTIFICATION

4) APPROVAL STAMP OF PRIME CONTRACTOR

C. SUBMISSIONS:

1) SUBMISSIONS 11 IN. X 17 IN. OR SMALLER: IF THE SUBMISSION IS A CATALOG CUT, THEN THE CONTRACTOR SHALL SUBMIT ONE ORIGINAL AND TWO COPIES. OTHERWISE, HE SHALL SUBMIT THREE COPIES. THE ARCHITECT WILL FORWARD THE ORIGINAL AND ONE COPY (TWO COPIES WHEN NO ORIGINAL IS RECEIVED) TO THE ENGINEER. ALL CATALOG CUTS SHALL BE COMPLETE.

2) SUBMISSIONS LARGER THAN 11 IN. X 17 IN.: SUBMIT TWO PRINTS AND ONE PAPER SEPIA TO THE ARCHITECT. THE ARCHITECT WILL FORWARD ONE PRINT AND THE PAPER SEPIA TO THE ENGINEER.

D. SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:

1) SAFETY/DISCONNECT SWITCHES

2) FUSES

3) CIRCUIT BREAKERS

4) PANELBOARDS/LOADCENTER (INCLUDING DIMENSIONS, SCHEDULES, AND CATALOG CUTS).

5) RACEWAYS

6) WIRE AND CABLE

7) WALL SWITCHES

8) INSERTION RECEPTACLES

9) MOMENTARY CONTACT SWITCHES

10) TIME SWITCHES

11) LIGHTING FIXTURES.

E. ASSIST AND PROVIDE ALL NECESSARY INFORMATION, DIAGRAMS, SKETCHES, ETC. TO THE HVAC CONTRACTOR, FOR THE PREPARATION OF COORDINATED SHOP DRAWINGS INDICATING ROUTING OF FEEDERS, CONTROL CONDUITS, RECESSED FIXTURES AND ADJACENT NEARBY PIPING AND DUCTWORK WHERE APPLICABLE, CERTIFIED BY ALL TRADES THAT COORDINATION HAS BEEN ESTABLISHED. SUBMIT FOUR(4) BOOKBOUND OPERATING AND SERVICE MANUALS WHICH SHALL INCLUDE COPIES OF ALL SHOP DRAWING. PROVIDE SHOP DRAWINGS FOR PANELS, FIXTURES, WIRING DEVICES, CONDUIT, CABLE, DISCONNECT SWITCH, RELAYS, CONTRACTORS, AND OTHER SYSTEMS AS DIRECTED BY THE ENGINEER.

5. AS–BUILT DRAWINGS AND EQUIPMENT OPERATIONAL INSTRUCTIONS

A. UPON COMPLETION AND ACCEPTANCE OF WORK, CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS AND EQUIPMENT MANUALS AND DEMONSTRATE TO THE OWNER THE PROPER OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND APPARATUS FURNISHED UNDER THIS CONTRACT.

B. THESE INSTRUCTIONS SHALL BE TYPED ON 8–1/2 IN. X 11 IN. PAPER AND BOUND IN THREE RING BINDERS WITH CLEAR ACETATE COVERS. CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE COPY TO THE ENGINEER.

C. THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PROJECT, ARCHITECT AND ENGINEER.

D. REPRODUCIBLE "AS–BUILT" DRAWINGS SHALL BE PROVIDED INDICATING THE AS INSTALLED CONDITIONS OF THE WORK. "AS–BUILT" DRAWINGS SHALL BE PROVIDED TO THE ARCHITECT AFTER COMPLETION OF THE INSTALLATION.

6. LOW–VOLTAGE DISTRIBUTION EQUIPMENT:

A. PROVIDE COMPLETE EQUIPMENT INCLUDING: SWITCHES, FUSES, CIRCUIT BREAKERS, PANELS AND TRANSFORMERS.

B. ALL EQUIPMENT SHALL CONFORM TO NEMA, ANSI AND IEEE STANDARDS.

C. DISCONNECT SWITCHES SHALL BE FUSED OR NONFUSED AS NOTED, VOLTAGE SHALL BE AS REQUIRED. SWITCHES SHALL BE HEAVY DUTY, EXCEPT AS NOTED, AND HORSEPOWER RATED FOR MOTOR LOADS. TOGGLE TYPE SWITCHES SHALL BE NONFUSED, LOAD BREAK, HAVING MAXIMUM RATINGS OF 20 AMP AT 600 VOLTS AND 30 AMP AT 240 VOLTS. TWO–POLE SWITCHES SHALL BE SIMILAR TO HART AND HEGEMAN NO. 6808F. THREE–POLE SWITCHES SHALL BE SIMILAR TO HART AND HEGEMAN NO. 7810F. KNIFE–BLADE TYPE SWITCHES SHALL BE LOAD BREAK, QUICK–MAKE– QUICK–BREAK, UL CLASS R UP TO 600 AMP. MAXIMUM RATING EXCEPT AS NOTED SHALL BE 800 AMP. ARC QUENCHERS SHALL BE PROVIDED. SWITCHES SHALL BE SIMILAR TO GENERAL ELECTRIC QMR. ALL SWITCH ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, EXCEPT AS NOTED.

7. FUSES:

A. CIRCUITS 0 TO 600 AMPERES SHALL BE PROTECTED BY FUSES SIMILAR TO CURRENT LIMITING BUSSMAN LOW–PEAK DUAL–ELEMENT TIME–DELAY LPN–RK (AMP)SP (250V)/LPS–RK (AMP)SP (600V) OR LPJ (AMP)SP (600V) (UL CLASS RK1 OR CLASS J), AND BE LISTED BY UL WITH AN INTERRUPTING RATING OF 300,000 AMPERES RMS SYMMETRICAL.

B. MOTOR CIRCUITS – ALL INDIVIDUAL MOTOR CIRCUITS WITH FULL LOAD AMPERE RATINGS (FLA) OF 480 AMPERES OR LESS SHALL BE PROTECTED BY FUSES SIMILAR TO CURRENT LIMITING BUSSMANN LOW–PEAK DUAL–ELEMENT TIME–DELAY LPN–RK (AMP)SP (250V) /LPS–RK (AMP)SP (600V) OR LPJ (AMP)SP (600V) (UL CLASS RK1 OR CLASS J), AND BE LISTED BY UL WITH AN INTERRUPTING RATING OF 300,000 AMPERES RMS SYMMETRICAL.

C. ALL FUSES SHALL BE PROVIDED BY SAME MANUFACTURER.

D. PROVIDE 1 SPACE MATCHING FUSE FOR EACH SET OF 3.

E. CIRCUIT BREAKERS: MOLDED CASE BREAKERS SHALL BE THERMAL–MAGNETIC, QUICK–MAKE–QUICK–BREAK, BOLT–ON TYPE, MANUALLY OPERATED WITH INSULATED TRIP–FREE HANDLE. MULTI–POLE TYPE BREAKERS SHALL CONTAIN INTERNAL TRIP BAR. TERMINALS SHALL BE SUITABLE FOR COPPER OR ALUMINUM CABLE. FURNISH AUXILIARY DEVICES WHERE REQUIRED FOR SHUNT–TRIPPING, OPEN A NO. CLOSE MOTOR OPERATOR AND ALARM INDICATION. ENCLOSURES SHALL BE DEAD FRONT, NEMA TYPE 1, EXCEPT AS NOTED. FRAMES, IC AND INTERCHANGEABLE TRIPS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:

1) 120 VOLTS, 100–AMP FRAME: 10,000 AMPS, 1 POLE.

2) 120/240 VOLTS, 225–AMP FRAME: 22,000 AMPS MINIMUM

8. DISTRIBUTION PANELBOARDS, CIRCUIT BREAKER TYPE:

A. THREE PHASE, 4 OR 5 WIRE, COPPER BUS BARS, WITH 2, 3, OR 4 WIRE BRANCHES, AS NOTED. CAPACITY OF PANEL AND CIRCUITS, AS NOTED BELOW. PANELBOARD TO HAVE GROUND BUS SAME SIZE AS PHASE BUSES.

B. CABINETS: CODE GAUGE GALVANIZED SHEET STEEL PRIMED AND PAINTED WITH TRIM AND DOOR, TYPE AS NOTED, LAP AND RIVET CORNERS OR FORM AS APPROVED.

C. TRIM: ONE PIECE FULL FINISH PRIMED AND PAINTED SHEET STEEL. TRIM SHALL BE MOUNTED WITH A CONTINUOUS PIANO HINGE CONFIGURED IN SUCH A MANNER THAT IT SHALL BE POSSIBLE TO GAIN FULL ACCESS TO CIRCUIT BREAKERS AND WIRING GUTTERS WITHOUT REMOVING THE TRIM. PROVIDE A MULTI–PIN CYLINDER LOCK (YALE, CORBIN OR EQUAL) TO LATCH THE TRIM. KEYS SHALL BE MILLED.

D. HARDWARE: MULTI–PIN, CYLINDER LOCKS WITH MILLED KEYS. ALL PANELS SHALL BE KEYED ALIKE. DOOR OVER 48" HIGH SHALL BE EQUIPPED WITH A CHROME PLATED VAULT HANDLE, BUILT–IN LOCK AND 3–POINT CATCH FASTENING DOOR AT TOP, BOTTOM AND CENTER.

E. HINGES: CONCEALED, CONTINUOUS PIANO HINGE AS DESCRIBED ABOVE.

F. DIRECTORY HOLDER: MEAL FRAME WITH NONBREAKABLE TRANSPARENT COVER AND DIRECTORY CARD. ENTRIES TO BE TYPEWRITTEN BY ELECTRICAL CONTRACTOR. PROVIDE AN ENGRAVED LAMINATED NAMEPLATE ADJACENT TO EACH BRANCH BREAKER. MOUNT WITH SELF TAPPING MACHINE SCREWS.

G. FURNISH MULTI–CABLE LUGS WHERE REQUIRED. DOUBLE LUGGING NOT PERMITTED. SECURE LUGS TO BUS BY STUD BOLTS.

H. PANELBOARD CONSTRUCTION FOR BOLTED TYPE BREAKERS. MINIMUM SHORT CIRCUIT RATING 25,000 AMPERES, RMS SYMMETRICAL FOR ALL 120/208V APPLICATIONS. INDIVIDUAL CIRCUIT BREAKERS SHALL HAVE MINIMUM 100A FRAME, TRIPS SIZED AS SHOW ON THE PLANS.

I. MINIMUM GUTTER SPACES: PANELS WITH 225 AMPERE MAINS, 5–¼" MINIMUM, 400 AMPERES AND OVER, MINIMUM CUTTERS 8". FOR PANELS WITH THROUGH FEEDERS, INCREASE GUTTER WIDTH BY 2" MINIMUM AND PROVIDE A SHEET STEEL BARRIER BETWEEN THE PANEL GUTTER AND THE THROUGH FEEDER PORTION OF THE BACK BOX. BRANCH CIRCUIT BREAKERS SHALL BE MECHANICALLY INTERLOCKED WHEN SHOWN ON DRAWINGS.

J. DISTRIBUTION AND SUB–DISTRIBUTION PANELBOARDS SHALL BE A MINIMUM OF 30" WIDE AND 10" DEEP.

K. PANELBOARD SHALL HAVE MAIN CIRCUIT BREAKER OR MAIN LUGS AS INDICATED ON THE DRAWINGS. QUANTITY, POLES AND TRIP RATINGS OF BRANCH CIRCUIT BREAKERS TO BE AS INDICATED ON DRAWINGS.

L. PANELBOARD SHALL HAVE ENGRAVED WHITE CORE, BLACK LAMACOID NAMEPLATE SCREWED ONTO PANE TRIM WITH DESIGNATION LISTED (PANELBOARD NAME, VOLTAGE, RATING OR MAINS IN AMPS).

8. DISTRIBUTION PANELBOARDS, SWITCH AND FUSE:

A. THREE PHASE, 3 OR 4 WIRE WITH COPPER BUS BARS. ALL THROUGH BUS SHALL BE INSULATED.

B. NEMA CLASS 1 CONSTRUCTION TO ACCOMMODATE FUSIBLE, INDIVIDUALLY ENCLOSED SWITCHES, FRONT REMOVABLE, SWITCH AND DOOR INTERLOCKS. COVERS TO BE PAD–LOCKABLE.

C. PANELBOARD SHALL BE CONSTRUCTED OF CODE–GAUGE STEEL GRAY FINISH OVER RUST INHIBITOR, FOR SURFACE MOUNTING. BOX AND PANEL FRAME SHALL BE FLANGED AND REINFORCED FOR RIGID SUPPORT OF INTERIOR AND ACCURATE ALIGNMENT OF INTERIOR WITH FRONT. TRIMS TO BE FASTENED TO BACK BOX WITH SCREWS.

D. ALL BRANCH SWITCHES SHALL HAVE INDIVIDUAL ENGRAVED LAMICOID NAMEPLATES (BLACK WITH WHITE CORE).

E. DISTRIBUTION PANELBOARD CONSTRUCTION MINIMUM SHORT CIRCUIT RATING 25,000 AMPERES, RMS SYMMETRICAL FOR ALL 120/208V APPLICATIONS. APPLICATIONS.

F. DISCONNECTS

1) DISCONNECT SWITCHES SHALL CONFORM TO NEMA AND UL STANDARDS, AND SHALL BE HORSEPOWER RATED.

2) SWITCHING MECHANISM SHALL BE QUICK–MAKE, QUICK–BREAK, SINGLE THROW WITH EXTERNAL OPERATING HANDLE MECHANICALLY INTERLOCKED WITH ENCLOSURE COVER TO PROVIDE ACCESS TO INTERIOR ONLY WHEN DISCONNECT IS IN OFF POSITION ONLY. PROVIDE MEANS TO LOCK OPERATING HANDLE IN THE OPEN AND CLOSED POSITION. DESIGNATE ON THE ENCLOSURE THE OPEN AND CLOSED POSITION OF THE OPERATING HANDLE.

3) SWITCHES SHALL BE OF THE DOUBLE STATIONARY CONTACT TYPE.

4) SWITCHES SHALL BE EQUIPPED WITH REJECTION TYPE FUSE HOLDERS, FUSIBLE AS SHOWN ON THE DRAWINGS; PROVIDE COMPLETE WITH FUSES AS SCHEDULED.

G. INSTALLATION

1) DISTRIBUTION PANELBOARD SHALL BE MOUNTED TO STRUCTURAL STEEL CHANNEL (KINDORF) WHICH SHALL BE BOLTED TO THE WALL USING EXPANSION ANCHORS FOR LARGE PANELS.

H. IDENTIFICATION

1) PROVIDE NAMEPLATE AT EACH SWITCH IDENTIFYING THE LOAD SERVED.

2) NAMEPLATES SHALL BE MOUNTED ON THE FRONT COVER SECURED WITH SELF–TAPPING SCREWS OR NUTS AND BOLTS. NAMEPLATES SHALL BE LAMINATED PHENOLIC, BLACK WITH A MINIMUM OF ¼" HIGH WHITE LETTERING.

I. DISTRIBUTION AND SUB–DISTRIBUTION PANELBOARDS SHALL BE A MINIMUM OF 30" WIDE AND 10" DEEP.

J. POWER PANELBOARDS SHALL BE SIMILAR TO GENERAL ELECTRIC TYPE "QMR", AS MANUFACTURED BY ATLAS SWITCH COMPANY, ELECTRIC SWITCHBOARD COMPANY OR APPROVED EQUAL.

K. PANELBOARD SHALL HAVE MAIN CIRCUIT BREAKER OR MAIN LUGS AS INDICATED ON THE DRAWINGS. QUANTITY, POLES AND TRIP RATINGS OF BRANCH CIRCUIT BREAKERS TO BE AS INDICATED ON DRAWINGS.

L. PANELBOARD SHALL HAVE ENGRAVED WHITE CORE, BLACK LAMACOID NAMEPLATE SCREWED ONTO PANE TRIM WITH DESIGNATION LISTED (PANELBOARD NAME, VOLTAGE, RATING OR MAINS IN AMPS).

B. MATERIALS

1) RACEWAYS:

a. RIGID STEEL CONDUIT: FULL–WEIGHT PIPE, GALVANIZED, THREADED.

b. ELECTROMETALLIC TUBING (EMT): THIN WALL PIPE, GALVANIZED, THREADLESS.

c. FLEXIBLE STEEL CONDUIT: CONTINUOUS SINGLE STRIP, GALVANIZED.

d. WIREWAYS: WIRE SHALL BE AS NOTED, MINIMUM NO. 16 GAUGE STEEL WITH GROUND CONTINUITY. FINISH SHALL BE BAKED ENAMEL. COVERS SHALL BE SCREW–ON.

e. SURFACE METAL RACEWAY: SIZE AS NOTED. BASE 0.04 IN., COVER 0.25 IN. MATERIAL SHALL BE STEEL. FINISH SHALL BE BAKED ENAMEL. COVERS SHALL BE SCREW–ON.

2) FITTINGS AND ACCESSORIES:

a. RIGID STEEL: NONSPLIT, THREADED, STEEL OR MALLEABLE IRON. ZINC DIE CAST NOT PERMITTED.

b. ELECTROMETALLIC TUBING: COMPRESSION TYPE. GALVANIZED RIGID STEEL ELBOWS, 2 IN. OR LARGER.

c. FLEXIBLE METALLIC CONDUIT: ANGLE WEDGE TYPE WITH INSULATED THROAT.

d. BUSHINGS: METALLIC INSULATED TYPE.

3) BOXES:

a. OUTLET BOXES: EXCEPT AS OTHERWISE REQUIRED BY CONSTRUCTION, DEVICES OR WIRING, BOXES SHALL BE STAMPED STEEL, 4 IN. SQUARE OR OCTAGON FOR FIXTURES. BOXES ABOVE CEILING SHALL BE 1–1/2 IN. DEEP. BOXES IN CEILING OR SLAB SHALL BE 3 IN. DEEP. BOXES IN WALL FOR FIXTURES SHALL BE 2–3/4 IN. DEEP. BOXES IN WALL FOR RECEPTACLES AND SWITCHES SHALL BE 1–1/2 IN. DEEP. FURNISH WITH RAISED COVERS AND FIXTURE STUDS WHERE REQUIRED. WITHOUT FIXTURE OR DEVICE: FURNISH BLANK COVER. OFFSET BACK–TO–BACK OUTLETS WITH MINIMUM 6 IN. SEPARATION.

b. JUNCTION AND PULL BOXES: GALVANIZED SHEET STEEL WITH SCREW–ON COVERS, EXCEPT AS NOTED. FURNISH WITH INSULATED SUPPORTS FOR CABLES. L

ELECTRICAL SPECIFICATIONS (CONT.)

G. PROVIDE FLAMEPROOF LINEN OR FIBER TAGS IN ACCESSIBLE LOCATIONS. FOR FEEDERS INDICATE FEEDER NUMBER, SIZE, PHASE AND POINTS OF ORIGIN AND TERMINATIONS. FOR CONTROL AND ALARM WIRING INDICATE TYPE (CONTROL OR ALARM), SIZE OF WIRE, AND POINTS OF ORIGIN AND TERMINATIONS.

H. TERMINATIONS, SPLICES AND TAPS UNDER 600 VOLTS: COPPER CONDUCTORS NO. 10 AND SMALLER SHALL UTILIZE COMPRESSION–TYPE OF TWIST–ON SPRING–LOADED CONNECTORS AND CLEAR NYLON–INSULATED COVERING. COPPER CONDUCTORS NO. 8 AND LARGER SHALL UTILIZE MECHANICAL BOLTED PRESSURE OR HYDRAULIC COMPRESSION TYPE USING MANUFACTURER'S RECOMMENDED TOOLING. CABLE LUGS AND CONNECTORS SHALL UTILIZE COMPRESSION TYPE OF SAME METAL AS CONDUCTOR. PROVIDE TO MATCH CABLE, WITH MARKING INDICATING SIZE AND TYPE. COPPER LUG CONNECTIONS TO BUS BARS: USE ANTISEIZE COMPOUND ON TANG.

I. NOT MORE THAN 3 LIGHTING OR CONVENIENCE OUTLET CIRCUITS SHALL BE INSTALLED IN ONE CONDUIT UNLESS OTHERWISE INDICATED. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32 DEG F. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF 120/208 AND 265/460 VOLT SYSTEMS, EXCEPT 460 VOLT MOTOR BRANCH CIRCUIT WIRING AND RELATED 120 VOLT CONTROL WIRING. THERMOPLASTIC WIRES SHALL NOT BE INSTALLED IN COMPUTER AREA RAISED FLOORS.

J. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS.

K. PERFORM CONTINUITY AND INSULATION TESTS. MEGGER TEST 100 PERCENT OF FEEDERS, 10 PERCENT OF BRANCH CIRCUITS AND ALL MOTOR BRANCH CIRCUITS OVER 25 HP.

PERFORM TESTS PRIOR TO CONNECTING EQUIPMENT AND IN PRESENCE OF AUTHORIZED REPRESENTATIVES. SUBMIT WRITTEN REPORT OF RESULTS. CORRECT OR REPLACE CABLE TESTING BELOW MANUFACTURER'S STANDARDS.

11. WIRING DEVICES:

A. WIRING DEVICES SHALL BE SPECIFICATION GRADE UNLESS OTHERWISE SPECIFIED. ALL DEVICES SHALL BE FLUSH MOUNTED, UNLESS OTHERWISE NOTED. PROVIDE COMPLETE MATERIAL AND ACCESSORIES AS NOTED.

B. LOCAL WALL SWITCHES SHALL BE ROCKER TYPE, QUIET OPERATING, RATED 20 AMP, 120/277 VOLT, AC. SIMILAR TO LEVITON DECORA SERIES A5621 (SINGLE POLE), A5623 (3–WAY) AND A5624 (4–WAY).

C. STRAIGHT BLADE RECEPTACLES SHALL BE COMMERCIAL SPECIFICATION GRADE DUPLEX CONVENIENCE 125 VOLTS, 2 POLE, 3 WIRE, U GROUND SLOT, DECORA SERIES BY LEVITON. GROUNDED, EXCEPT AS NOTED.

1) SINGLE GANG, RECESSED, DUPLEX RECEPTACLE: TAMPER RESISTANT, 2–POLE, 3–WIRE GROUNDING, 15A, 125V, NEMA 5–20R; LEVITON 689 SERIES (COLOR AS SPECIFIED BY ARCHITECT).
2) USB CHARGER/ DUPLEX TAMPER–RESISTANT RECEPTACLE: TAMPER RESISTANT,

D. INSERTION RECEPTACLES SHALL BE HOSPITAL GRADE DUPLEX CONVENIENCE 125 VOLTS, 2 POLE, 3 WIRE, U GROUND SLOT. GROUNDED, EXCEPT AS NOTED.

1) HEALTH CARE FACILITIES:

a) DUPLEX, 20 AMP, 125 VOLTS, 2 POLE, 3 WIRE, U GROUND SLOT: SIMILAR TO HUBBELL NO. 8300 HOSPITAL GRADE.

b) SINGLE, 20 AMP, 125 VOLT, 2 POLE, 3 WIRE, U GROUND SLOT: SIMILAR TO HUBBELL NO. 8310 HOSPITAL GRADE.

2) GROUND FAULT INTERRUPTER RECEPTACLES:

a. 20 AMP DUPLEX FEED–THROUGH TYPE. SIMILAR TO NO. GF8300.

E. DEVICE PLATES: SEE ARCHITECT FOR TYPE. FOR RECEPTACLES WITH OTHER THAN 120 VOLT, INSCRIBED VOLTAGE AVAILABLE.

F. COLORS: COORDINATE COLORS WITH ARCHITECT.

G. MOUNTING ORIENTATION OF RECEPTACLES (HORIZONTAL OR VERTICAL): COORDINATE WITH ARCHITECT.

12. LIGHTING FIXTURES:

A. FIXTURES TO BE AS SPECIFIED BY ARCHITECT AND SHALL BE COMPLETELY FACTORY ASSEMBLED, WIRED AND EQUIPPED WITH ALL NECESSARY SOCKETS, BALLASTS, SUPPORTING HARDWARE AND ACCESSORIES. REFER TO DRAWINGS FOR INDIVIDUAL FIXTURE DESCRIPTIONS.

B. FIXTURE CATALOG NUMBERS USED TO ILLUSTRATE EQUIPMENT TYPE DO NOT NECESSARILY DENOTE REQUIRED MOUNTING EQUIPMENT OR ACCESSORIES. PROVIDE ACCESSORIES TO SUIT.

C. BALLAST: CLASS P, HIGH POWER FACTOR, LOWEST AVAILABLE NEMA RATED NOISE LEVEL, ET1 AND CBM APPROVED. ENERGY SAVING TYPE. TRIGGER START FOR 24–INCH LAMPS AND RAPID START FOR 48–INCH. TWO LAMP BALLASTS; NO THREE LAMP BALLASTS. BALLASTS SHALL BE ADVANCE MAGNETEK, UNIVERSAL OR EQUAL.

D. LED DRIVERS SHALL BE ELECTRONIC TYPE, LABELED AS COMPLIANT WITH RADIO FREQUENCY INTERFERENCE (RFI) REQUIREMENTS OF FCC TITLE 47, PART 15 AND COMPLY WITH NEMA SSL 1 "ELECTRONIC DRIVERS FOR LED DEVICES, ARRAYS OR SYSTEMS". LED DRIVERS SHALL HAVE A SOUND RATING OF "A", HAVE A MINIMUM EFFICIENCY OF 85% AND BE RATED FOR A THD OF LESS THAN 20% AT ALL INPUT VOLTAGES.

E. DIMMABLE LED DRIVERS SHALL BE CAPABLE OF DIMMING WITHOUT LED STROBING OR FLICKER ACROSS THEIR FULL DIMMING RANGE. PROVIDE TYPE OF LED DRIVER AS PER LIGHTING FIXTURE SCHEDULE, DIMMABLE LED DRIVERS SHALL BE 0–10V WHERE NOT INDICATED.

F. CONTINUOUS ROW, TWO LAMP STRIP FIXTURES SHALL BE STAGGERED TYPE.

G. FLUORESCENT LIGHTING FIXTURES, INCLUDING GENERAL CONSTRUCTION, LAMPS AND BALLASTS SHALL CONFORM TO THE ENERGY EFFICIENCY REQUIREMENTS OF CONSOLIDATED EDISON CO. AND QUALITY FOR A UTILITY REBATE TO OWNER UNDER CON EDISON'S ENLIGHTENED ENERGY LIGHTING REBATE PROGRAM. CONTRACTOR SHALL COORDINATE REBATE PROGRAM WITH CON EDISON AND ARRANGE FOR CON EDISON TO PERFORM A SURVEY TO INVENTORY ALL EXISTING FIXTURES PRIOR TO DEMOLITION.

H. EXIT SIGNS SHALL BE PRECISION DIE–CAST ALUMINUM HOUSING WITH LASER–FORMED ACRYLIC LEGEND. EXIT SIGNS SHALL COMPLY WITH UL 924 AND BE MEA APPROVED FOR USE IN NEW YORK CITY. AC POWERED WITH PREMIUM LONG–LIFE NICKEL CADMIUM BATTERY WITH STANDARD UL LISTED 3–HOUR RUN TIME. PROVIDE WITH INTEGRAL AUTOMATIC CHARGER IN A SELF CONTAINED POWER PACK. LED INDICATOR WITH PUSH TO TEST SWITCH.

13. TELEPHONE CONDUIT SYSTEM:

A. PROVIDE COMPLETE SYSTEM OF: RACEWAYS AND ACCESSORIES, OUTLET BOXES, SLEEVES AND FISHWIRES.

B. EQUIPMENT SHALL CONFORM TO REQUIREMENTS OF TELEPHONE COMPANY.

C. OUTLETS SHALL BE:

1) WALL: 4 IN. SQUARE WITH BUSHED COVER PLATE.

D. PROVIDE FISHWIRES, IN RACEWAYS OVER 10 FT LONG.

E. CONDUIT SHALL BE 3/4 IN. MINIMUM. FURNISH EMPTY CONDUIT FROM OUTLET BOX TO BUSHED END THRU WALL 6" BELOW THE PLASTER CEILING.

F. FACE RACEWAYS IN ROOMS SHALL HUBBELL HBL500, HBL750 OR HBL2000 SERIES OR AS ACCEPTABLE.

14. PANELBOARDS:

A. PANELBOARDS SHALL BE OF THE DEAD FRONT TYPE MANUFACTURED IN CODE GAUGE AND SIZE BOXES FOR MOUNTING AS INDICATED ON PLANS COMPLETE WITH TRIM, DOORS AND LOCKS. ALL LOCKS SHALL BE KEYED ALIKE.

B. CIRCUIT BREAKERS SHALL BE OF THE BOLT–ON THERMAL MAGNETIC MOLDED CASE TYPE, AND SHALL HAVE THE TRIP RATINGS AND NUMBER OF POLES SHOWN IN SCHEDULES ON THE CONTRACT DRAWINGS. FOR BLANK (SPACE) COMPARTMENTS, PROVIDE FULL RATED BUS. MINIMUM GUTTER SPACES SHALL BE 5–3/4". SIDES, TOP AND BOTTOM, INCREASE FOR THROUGH FEEDERS. PROVIDE 25% COPPER GROUND BUS AND 100% COPPER NEUTRAL BUS AND INCREASE NEUTRAL BUS INDICATED.

C. LOCKING TABS SHALL BE PROVIDED ON ALL CIRCUIT BREAKERS SERVING EMERGENCY LIGHTING, FIRE ALARM SYSTEM, SECURITY SYSTEMS AND OTHER EMERGENCY OR CRITICAL EQUIPMENT AND AS NOTED ON THE CONTRACT DRAWINGS. A TOTAL OF 5 SPARE LOCKING TABS SHALL BE FURNISHED TO THE OWNER.

D. BUSES SHALL BE HARD DRAWN COPPER OF 98 PERCENT CONDUCTIVITY AND SHALL HAVE CROSS SECTIONAL AREAS LARGE ENOUGH TO LIMIT THE TEMPERATURE RISE, WHEN CARRYING FULL LOAD, TO 35 DEGREES C. ABOVE AN AMBIENT INSIDE THE ENCLOSURE OF 55 DEGREES C. AS DEFINED IN IEEE STANDARD RULES. MAIN BUS CAPACITY SHALL BE AS SHOWN ON THE CONTRACT DRAWINGS.

E. ENCLOSURES SHALL BE SURFACE OR FLUSH AS INDICATED. TRIMS SHALL BE SECURED TO PANEL WITH MACHINE SCREWS. COVERS SHALL BE HINGED DOOR–IN–DOOR CONSTRUCTION WITH CYLINDER LOCKS AND CATCHES. LOCKS MUST BE COMPATIBLE WITH BUILDING STANDARD KEY SYSTEM AND WHEN NONE EXISTS, THEY SHALL BE SIMILAR TO A YALE NO. 911 KEY.

F. DISTRIBUTION AND SUB–DISTRIBUTION PANELBOARD SHALL BE A MINIMUM OF 30" WIDE AND 10" DEEP.

G. ALL STANDARD PANELBOARDS SHALL BE A MINIMUM OF 20" WIDE AND 5 3/4" DEEP.

H. FURNISH ALL PANELBOARDS WITH FEED–THRU LUGS UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

I. ALL NEW PANELBOARDS SHALL BE PROVIDED WITH AN ENGRAVED WHITE CORE LAMACOID NAMEPLATE, WITH 3/4 IN. WHITE LETTERING ON A BLACK BACKGROUND, WITH DESIGNATION LISTED (PANELBOARD NAME), FASTENED WITH EPOXY CEMENT OR OVAL HEAD CHROME PLATED MACHINE SCREWS.

J. THE CIRCUIT DIRECTORY SHALL BE TYPEWRITTEN AND PROVIDED INSIDE EACH PANEL DOOR TO INDICATE EQUIPMENT AND/OR AREA SERVED. DIRECTORY HOLDER SHALL BE METAL FRAME WITH CLEAR PLASTIC, TRANSPARENT COVER. THE TYPEWRITTEN LIST INDICATING CIRCUIT NUMBERS, OUTLETS SUPPLIED AND THEIR LOCATIONS SHALL BE PROVIDED.

K. TIE–BARS SHALL NOT BE USED TO CREATE MULTI–POLE CIRCUITS. MAXIMUM 42 CIRCUITS ALLOWED.

L. ONLY ONE WIRE SHALL BE INSTALLED UNDER EACH CIRCUIT BREAKER LUG.

M. SHORT CIRCUIT RATING OF PANELBOARDS SHALL NOT BE LESS THAN AS INDICATED ON THE CONTRACT DRAWINGS OR SPECIFIED HEREIN. WHERE NOT INDICATED OR SPECIFIED THE MINIMUM SHORT CIRCUIT RATING SHALL BE EQUAL TO THE INTERRUPTING CAPACITY OF THE LOWEST RATED CIRCUIT BREAKER IN THE PANELBOARD, BUT IN NO CASE LESS THAN 10,000 AMPERES R.M.S. SYMMETRICAL FOR 208Y/120 VOLT SYSTEM AND 14,000 AMPERES R.M.S. SYMMETRICAL FOR 480Y/277 VOLT SYSTEM. SERIES RATED PANELBOARDS SHALL BE USED TO ACHIEVE REQUIRED SHORT CIRCUIT RATINGS.

N. FOR ALL EXISTING PANELBOARDS, CONTRACTOR SHALL PROVIDE NEW CIRCUIT BREAKERS TO REPLACE EXISTING AS REQUIRED AS INDICATED ON DRAWINGS.

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

ZAXBY'S TENANT IMPROVEMENTS

ELECTRICAL SPECIFICATIONS (2 OF 2)

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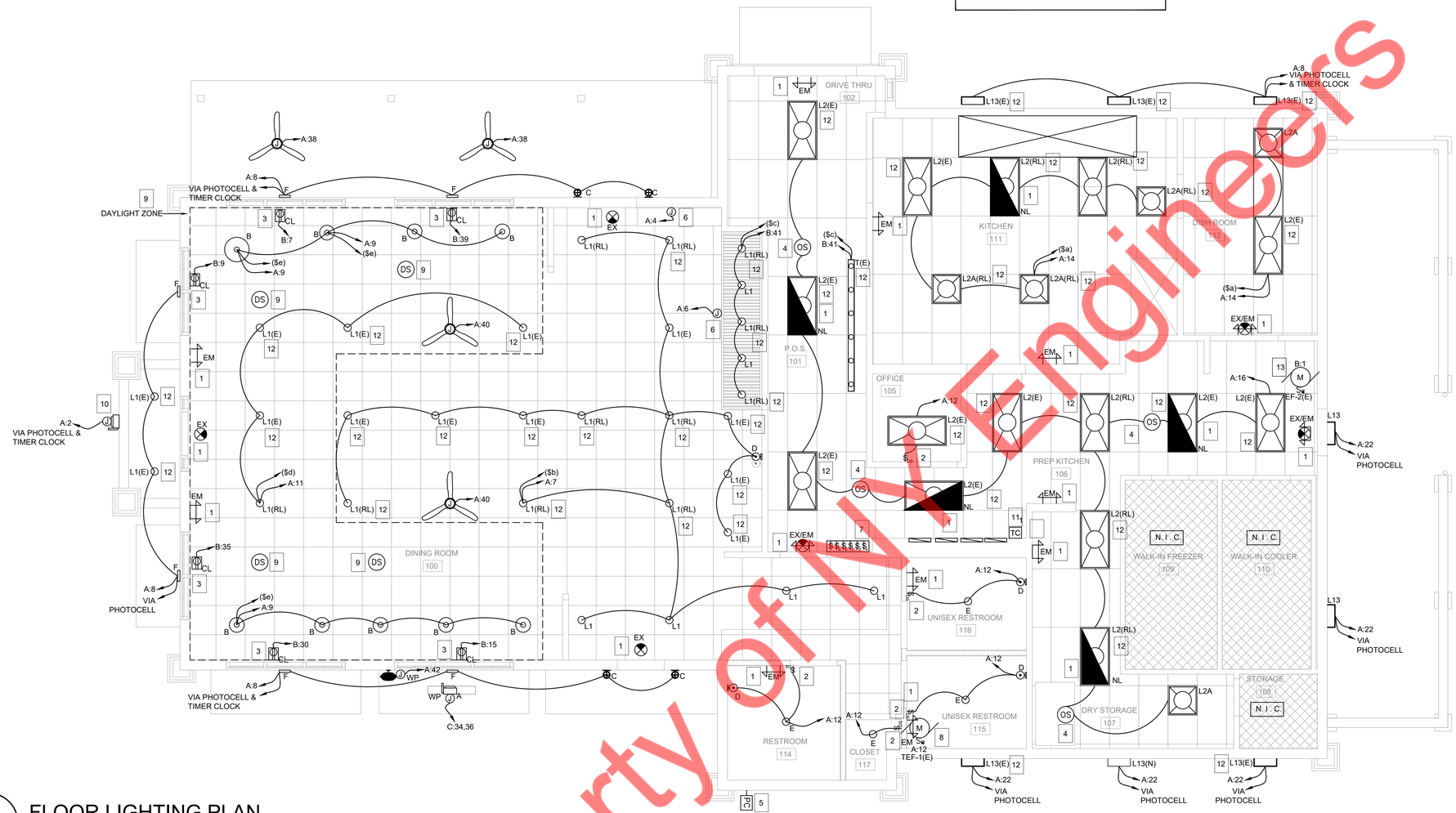
ZAXBY'S TENANT IMPROVEMENTS

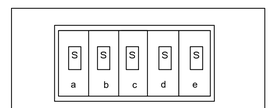
ELECTRICAL LIGHTING PLAN

NOTE: CONTRACTOR TO FIELD VERIFY EXISTING ELECTRICAL WORK THAT IS TO BE REUSED AND INFORM EOR FOR ANY DEVIATIONS FROM THE PLAN BEFORE COMMENCING WORK. BASE BID ACCORDINGLY.



1 / E1.0 FLOOR LIGHTING PLAN

1/4" = 1'-0"



TIMER SWITCHBANK DETAIL

N.T.S.

LIGHTING PLAN GENERAL NOTES

1. ALL EMERGENCY AND EXIT LIGHTS SHALL BE CONNECTED TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROL FOR CONTINUOUS OPERATION.
2. CONTRACTOR SHALL PROVIDE THE LIGHTING CONTROLS AND ALL REQUIRED DEVICES/ACCESSORIES/WIRING AS PER ASHRAE 90.1 (2019) FLORIDA CODE REQUIREMENTS.
3. MAXIMUM VOLTAGE DROP FOR FEEDER AND BRANCH CIRCUIT CONDUCTORS COMBINED,SHALL NOT EXCEED A 5% VOLTAGE DROP.
4. E.C. SHALL PROVIDE ADDITIONAL LIGHTING CONTROLS AS PER AHJ REQUIREMENTS IF ANY TO COMPLETE THE PERMIT REQUIREMENTS.

LIGHTING PLAN KEYED WORK NOTES

1. CONNECT ALL EXISTING/NEW EMERGENCY EGRESS LIGHTING FIXTURES TO THE NEAREST LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING AND CONTROLS PER STATE AND LOCAL CODES
2. WALL MOUNTED OCCUPANCY SENSOR. SET OFF TIME AS PER AHJ REQUIREMENT,
3. PROVIDE SHOW WINDOW RECEPTACLE AS PER NEC 210.62. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER.
4. CEILING MOUNTED LOW VOLTAGE OCCUPANCY SENSOR. PROVIDE POWER PACK(S) AS REQUIRED. INTERCONNECT OCCUPANCY SENSORS SO THAT ANY SENSOR WILL TRIGGER ALL LIGHTS. SET OFF TIME FOR 20 MINUTES.
5. EXTERIOR/ROOF MOUNTED PHOTOCELL. ROUTE ALL EXTERIOR LIGHTING CIRCUIT/BUILDING SIGNAGE VIA PHOTOCELL & TIMECLOCK. COORDINATE EXACT LOCATION OF PHOTOCELL WITH ARCHITECT/OWNER.
6. E.C. SHALL VERIFY EXACT LOCATION AND POWER REQUIREMENT FOR ZAXBY LOGO/PICK UP SIGNAGE.
7. E.C. TO COORDINATE FINAL LOCATION OF TIMER SWITCH BANK WITH ARCHITECT/OWNER.
8. EXISTING EXHAUST FAN SHALL REMAIN. EXHAUST FANS SHALL BE CIRCUITED AND CONTROLLED ALONG WITH THE AHU-2. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE ELECTRICAL CONNECTION FEEDING THE MECHANICAL UNIT. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
9. LIGHTING FIXTURES IN DAYLIGHT ZONE SHALL BE CONTROLLED BY DAYLIGHT SENSOR.
10. PROVIDE JUNCTION BOX, DISCONNECT SWITCH, AND 120V/20A BRANCH CIRCUIT FOR SIGNAGE IN NON-VISIBLE, ACCESSIBLE LOCATION. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH SIGNAGE VENDOR PRIOR TO ROUGH-IN.
11. TIME-CLOCK. E.C. SHALL COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER IN FIELD.
12. EXISTING LIGHT FIXTURE DENOTED BY (E) SHALL REMAIN AND THE EXISTING FIXTURE DENOTED BY (RL) SHALL BE RELOCATED AND SHALL BE CIRCUITED AS SHOWN IN THE DRAWING. E.C SHALL VERIFY THE OPERABLE CONDITION OF THE LIGHT FIXTURES AND REPLACE IF FOUND INOPERABLE. INFORM ENGINEER ON RECORD FOR ANY DISCREPANCIES/ISSUES BEFORE COMMENCING ANY WORK. BASE BID ACCORDINGLY.
13. EXISTING EXHAUST FAN SHALL REMAIN. EXHAUST FANS SHALL BE CIRCUITED AND CONTROLLED ALONG WITH THE AHU-4. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE ELECTRICAL CONNECTION FEEDING THE MECHANICAL UNIT. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	BULB TYPE	BULB QUANTITY	BULB WATTAGE	PROVIDED BY	COLOR
L1	6" TRIMLESS DOWNLIGHT	JUNO	TBD	LED	30	17.5W	CONTRACTOR	WHITE
L2	2X4 TROFFER LIGHT	LITHONIA LIGHTING	2BLT4 40L ADP EZ1 LP840	LED	15	30.5W	CONTRACTOR	WHITE
L2A	2X2 TROFFER LIGHT	LITHONIA LIGHTING	2BLT2 33L ADP EZ1 LP835	LED	5	26.5W	CONTRACTOR	WHITE
B	SMALL PENDANT	TRENT AUSTIN	ZURCHER-1 W100857811	LED	9	40W	OWNER	WHITE/BRASS
C	BEV STM	TBD	TBD	LED	4	40W	OWNER	BLACK
D	SINGLE SHADE SCONCE	GOLDEN LIGHT	ORE WELL	LED	4	100W	OWNER	MATTE BLACK
E	AGED BRASS (2) LIGHT CLASSIC W/ SHADE	GOLDEN LIGHTING	3602-14 - DUNCAN	LED	3	60W	OWNER	WHITE/BRASS
T	TRACK LIGHT	PROTRACK	MELSON 4 LIGHT	LED	4	10W	OWNER	WHITE
F	WALL MOUNT FIXTURE	SPEL LIGHTING	HAWTHORNE	LED	6	20W	OWNER	MODERN GREY
L13	EXTERIOR DOWN LIGHT FIXTURE	WAC	WP-LED127-ANT-PC-120-WT	LED	8	20W	CONTRACTOR	WHITE
EM	EMERGENCY LIGHT	LITHONIA	TBD	LED	10	5W	CONTRACTOR	WHITE
EX	EXIT LIGHT	LITHONIA	TBD	LED	3	5W	CONTRACTOR	WHITE
EX/EM	EXIT/EMERGENCY COMBO UNIT	LITHONIA	TBD	LED	3	5W	CONTRACTOR	WHITE

NOTE- E.C SHALL COORDINATE WITH THE ARCHITECT/OWNER/LIGHTING VENDOR FOR EXACT LIGHT FIXTURE MODEL AND MANUFACTURER. BASE BID ACCORDINGLY.

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ZAXBY'S TENANT IMPROVEMENTS

ELECTRICAL POWER PLAN

NOTE: CONTRACTOR TO FIELD VERIFY EXISTING ELECTRICAL WORK THAT IS TO BE REUSED AND INFORM EOR FOR ANY DEVIATIONS FROM THE PLAN BEFORE COMMENCING WORK. BASE BID ACCORDINGLY.

N

1 / E2.0 FLOOR POWER PLAN

1/4" = 1'-0"

POWER PLAN GENERAL NOTES

1. SEE ARCHITECTURAL ELEVATIONS FOR PLACEMENT OF DEVICES.
2. COORDINATE WITH ARCHITECT/OWNER FOR FINAL LOCATION OF OUTLET & MOUNTING HEIGHTS.
3. FINAL CONDUIT/CABLE ROUTING SHALL BE DETERMINED IN FIELD, AND PRIOR TO THE COMMENCEMENT OF WORK. COORDINATE WITH OTHER TRADE CONTRACTORS AND THE OCCUPANT.
4. THE RECEPTACLES MARKED AS GFI ON THE FLOOR PLAN INDICATES THAT THE RECEPTACLES SHALL BE GFI PROTECTED. E.C SHALL PROVIDE GFI BREAKER IN PANEL IF GFI RECEPTACLES IS NOT READILY ACCESIBLE OR FOR THE RECEPTACLE OTHER THAN 20A.
5. ALL CONVENIENCE OUTLETS TO BE MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
6. E.C. TO COORDINATE WITH MECHANICAL CONTRACTOR/ARCHITECT FOR EXACT LOCATION OF MECHANICAL EQUIPMENT IN FIELD.
7. ALL EXISTING EQUIPMENT SHALL BE FIELD VERIFIED. IF ANY EQUIPMENT IS FOUND TO BE INOPERABLE, REPLACED WITH NEW, FUNCTIONING UNITS. ADDITIONALLY, THE EXACT POWER REQUIREMENTS AND LOCATIONS OF ALL EXISTING EQUIPMENT SHOULD BE FIELD VERIFIED TO ENSURE ACCURACY AND PROPER INTEGRATION INTO THE ELECTRICAL DESIGN.

POWER PLAN KEYED WORK NOTES

1. EXISTING 200A (MLO), 208/120V, 3 PH, 4W ELECTRICAL PANEL "A" TO REMAIN. E.C. SHALL VERIFY OPERABLE CONDITION IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
2. EXISTING 200A (MLO), 208/120V, 3 PH, 4W ELECTRICAL PANEL "B" TO REMAIN. E.C. SHALL VERIFY OPERABLE CONDITION IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
3. EXISTING 400A (MLO), 208/120V, 3 PH, 4W ELECTRICAL PANEL "C" TO REMAIN. E.C. SHALL VERIFY OPERABLE CONDITION IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
4. EXISTING WH AND HWCP SHALL REMAIN. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE EXISTING ELECTRICAL FIXTURE IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
5. E.C SHALL COORDINATE WITH EQUIPMENT MANUFACTURER/VENDOR FOR THE EXACT POWER REQUIREMENT. BASE BID ACCORDINGLY.
6. EXISTING HOOD SHALL REMAIN. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE EXISTING ELECTRICAL CONNECTION AND FIXTURE IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
7. EXISTING MECHANICAL UNIT SHALL REMAIN AND REMAIN CONNECTED TO EXISTING "MDP" PANEL AS SHOWN IN THE PANEL SCHEDULE. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE EXISTING ELECTRICAL FIXTURE AND CONNECTION IN FIELD. REPLACE IF FOUND IN-OPERABLE. REPORT ENGINEER FOR ANY DISCREPANCIES. BASE BID ACCORDINGLY.
8. EXISTING FF-1 SHALL REMAIN. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE EXISTING ELECTRICAL CONNECTION IN FIELD. BASE BID ACCORDINGLY.
9. EXISTING KSF-1(E) & KSF-2(E) SHALL REMAIN. EXHAUST FANS SHALL BE INTERLOCKED WITH HOOD 1 & HOOD 2 FOR OPERATION. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE ELECTRICAL CONNECTION IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
10. TIME-CLOCK. E.C. SHALL COORDINATE EXACT LOCATION WITH ARCHITECT/OWNER IN FIELD.
11. POWER PROVISION FOR CENTER LINE LOAD CENTER PANEL. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH OWNER/ CENTER LINE VENDOR/ KITCHEN CONSULTANT FOR EXACT REQUIREMENT ON FIELD. BASE BID ACCORDINGLY.
12. EXISTING 600A (MCB), 208/120V, 3 PH, 4W ELECTRICAL PANEL "MDP" TO REMAIN. E.C. SHALL VERIFY OPERABLE CONDITION IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
13. E.C SHALL PROVIDE ATLAS AMERICAN ONE GANG ELECTRICAL BOX WITH KEY LOCK AA-EB-1GCL STAINLESS, VANDAL PROOF.LOCKABLE RECEPTACLE.

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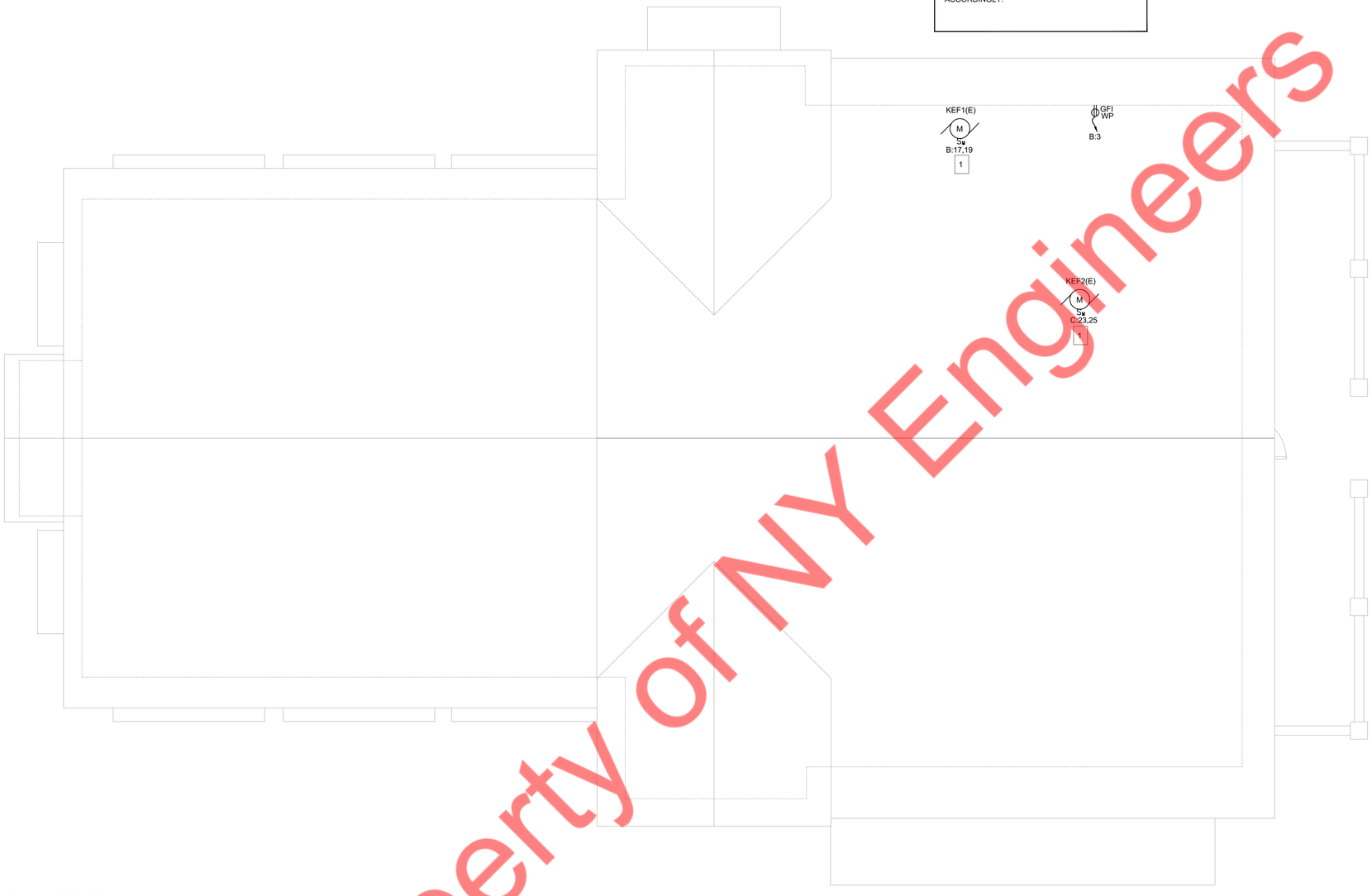

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ROOF POWER PLAN

1/4" = 1'-0"

ROOF PLAN KEYED WORK NOTES

1 KEF-1(E) & KEF-2(E) SHALL REMAIN. INTERCONNECT KEF-1(E) & KEF-2(E) WITH THE EXISTING HOOD-1 & HOOD-2 RESPECTIVELY. E.C. SHALL VERIFY THE OPERABLE CONDITION OF THE ELECTRICAL CONNECTION FEEDING THE MECHANICAL UNIT. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.

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ROOF POWER PLAN

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PANEL:	A (EX)					MOUNTING:	RECESSED
208Y/120	VOLTS,	3	PHASE,	4	WIRE	PANEL LOCATION:	PREP KITCHEN
MAIN CB:	NA	MLO:	200A	BUS:	225A	MIN,	FED FROM: MDP

NOTE:

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	SPARE				1.20			2#2, #12G, 3/4"C	1.20	L	EXTERIOR SIGNAGE	20	2
3	30/2P	PYLON SIGN (EXISTING)	L	1.75	EXISTING		2.95		2#2, #12G, 3/4"C	1.20	L	PICKUP SIGNAGE	20	4
5			L	1.75				2.95	2#2, #12G, 3/4"C	1.20	L	INTERNAL ZAXBY LOGO	20	6
7	20	DINNING AREA LIGHTING	L	0.46	2#2, #12G, 3/4"C	1.08			2#2, #12G, 3/4"C	0.36	L	EXTERIOR LIGHTING	20	8
9	20	DINNING AREA LIGHTING	L	0.65	2#2, #12G, 3/4"C		0.65					SPARE		10
11	20	DINNING AREA LIGHTING (EXISTING)	L	0.20	2#2, #12G, 3/4"C			0.46	2#2, #12G, 3/4"C	0.26	L	LIGHTING TOILET AND TEF	20	12
13	20	SPARE				0.40			2#2, #12G, 3/4"C	0.40	L	LIGHTING	20	14
15	20	EXTERIOR RECEPTACLE	R	0.18	2#2, #12G, 3/4"C		0.83		2#2, #12G, 3/4"C	0.65	L	LIGHTING	20	16
17	30/2P	SITE LIGHTING BY LSI (EXISTING)	L	1.75	EXISTING			2.65	EXISTING	0.90	L	SITE LIGHTING BY (LSI) (EXISTING)	20/2P	18
19			L	1.75		2.65				0.90	L			20
21	20	SPARE					0.12		2#2, #12G, 3/4"C	0.12	L	EXTERIOR LIGHTING	20	22
23	20	SPARE						1.20	2#2, #12G, 3/4"C	1.20	O	DRIVE THRU SIGN	20	24
25	20	GENERAL RECEPTACLE	R	0.72	2#2, #12G, 3/4"C	1.92			2#2, #12G, 3/4"C	1.20	O	DRIVE THRU SOUND	20	26
27	30/2P	SITE LIGHTING BY LSI (EXISTING)	L	0.90	EXISTING		0.90					SPARE	20	28
29			L	0.90				0.90				SPARE	20	30
31	20	SPARE				0.72			2#2, #12G, 3/4"C	0.72	R	OFFICE RECEPTACLE	20	32
33	20	POS RECEPTACLES	R	0.72	2#2, #12G, 3/4"C		0.72					SPARE	20	34
35	20	POS RECEPTACLES	R	0.36	2#2, #12G, 3/4"C			0.36				SPARE	20	36
37	20	14_ONE SELECTION FULL DOOR REFRIGERATOR	E	0.58	2#2, #12G, 3/4"C	1.08			2#2, #12G, 3/4"C	0.50	L	EXTERIOR CEILING FANS	20	38
39	20	17_REACH IN REFRIGERATOR	E	0.69	2#2, #12G, 3/4"C		1.19		2#2, #12G, 3/4"C	0.50	L	CEILING FANS	20	40
41	20	SPARE						0.50	2#2, #12G, 3/4"C	0.50	L	EXTERIOR FANS	20	42
				TOTAL CONNECTED LOAD (KVA)		9.05	7.36	9.02						

PANEL:	B (EX)					MOUNTING:	RECESSED
208Y/120	VOLTS,	3	PHASE,	4	WIRE	PANEL LOCATION:	PREP KITCHEN
MAIN CB:	NA	MLO:	200A	BUS:	225A	MIN,	FED FROM: MDP

NOTE:

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	20	EXHAUST FAN #1	M	0.20	2#12, #12G, 3/4"C	0.40			EXISTING	0.20	M	EXHAUST FAN #1 (EXISTING)	20	2
3	20	ROOF RECEPTACLE	R	0.18	2#12, #12G, 3/4"C		0.18					SPACE ONLY		4
5	20	SHOW WINDOW RECEPTACLE	L	1.80	2#12, #12G, 3/4"C			2.16	2#2, #12G, 3/4"C	0.36	R	EXTERIOR RECEPTACLES	20	6
7	20	SHOW WINDOW RECEPTACLE	L	1.80	2#12, #12G, 3/4"C	2.32			2#2, #12G, 3/4"C	0.52	E	15_HEATED HOLDING CABINET	20	8
9	20	SHOW WINDOW RECEPTACLE	L	1.80	2#12, #12G, 3/4"C		1.80					SPACE ONLY		10
11	20	FF-1(E)	H	0.67	2#12, #12G, 3/4"C			1.36	2#2, #12G, 3/4"C	0.69	E	2_ICE.BEV.DISPENSER_SENSATION 44	20	12
13		SPACE ONLY			2#12, #12G, 3/4"C	0.50			2#2, #12G, 3/4"C	0.50	R	JUNCTION BOX FOR HOOD	20	14
15	20	SHOW WINDOW RECEPTACLE	L	1.80	2#12, #12G, 3/4"C		3.24		2#2, #12G, 3/4"C	1.44	E	12_OPEN FRYER	20	16
17	20/2P*	KEF-1(E)	O	0.56	2#2, #12G, 3/4"C			0.91	2#2, #12G, 3/4"C	0.35	E	3_ICE.BEV.DISPENSER_SENSATION 30	20	18
19			O	0.56		2.00			2#2, #12G, 3/4"C	1.44	E	12_OPEN FRYER	20	20
21	20	JUNCTION BOX FOR HOOD	R	0.50	2#12, #12G, 3/4"C		1.00		EXISTING	0.50	M	FREEZER COMP. (EXISTING)	30/3P	22
23		SPACE						0.50		0.50	M			24
25	20	SUPPLY FAN #1 3/4 HP	M	0.50	2#12, #12G, 3/4"C	1.00				0.50	M			26
27	20/3P	COOLER COMP (EXISTING)	O	0.50	EXISTING		1.19		2#2, #12G, 3/4"C	0.69	E	13_RANDELL REFRIGERATOR	20	28
29			O	0.50				2.30	2#2, #12G, 3/4"C	1.80	L	SHOW WINDOW RECEPTACLE	20	30
31			O	0.50		0.50						SPACE ONLY		32
33	20	2_ICE.BEV.DISPENSER_SENSATION 44	E	0.35	2#12, #12G, 3/4"C		0.35					SPACE ONLY		34
35	20	SHOW WINDOW RECEPTACLE	L	1.80	2#12, #12G, 3/4"C			3.46	2#2, #12G, 3/4"C	1.66	E	RELOCATED ICE MACHINE	20/2P	36
37		SPACE ONLY				1.66				1.66	E			38
39	20	SHOW WINDOW RECEPTACLE	L	1.80			3.55		2#2, #12G, 3/4"C	1.75	E	1_ICE MACHINE@2-0 (EXISTING)	20	40
41	20	LIGHTING _TRACK LIGHTS AND POS	L	0.44	2#12, #12G, 3/4"C			2.19	2#2, #12G, 3/4"C	1.75	E	1_ICE MACHINE@2-0 (EXISTING)	20	42
				TOTAL CONNECTED LOAD (KVA)		8.38	11.31	12.88						

PANEL:	C (EX)					MOUNTING:	RECESSED
208Y/120	VOLTS,	3	PHASE,	4	WIRE	PANEL LOCATION:	PREP KITCHEN
MAIN CB:	NA	MLO:	400A	BUS:	400A	MIN,	FED FROM: MDP

NOTE:

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1	60/3P	SPARE				3.24			3#8, #10G, 3/4"C	3.24	E	11_TABLE TOP GRIDDLE	50/3P*	2
3							3.24			3.24	E			4
5								3.24		3.24	E			6
7	60/3P	SPARE				0.00						SHUNT TRIP		8
9							1.00		2#2, #12G, 3/4"C	1.00	E	16_OPEN FRYER	20*	10
11								1.08	2#2, #12G, 3/4"C	1.08	R	GENERAL RECEPTACLE	20*	12
13	50/3P	11_TABLE TOP GRIDDLE	E	3.24	3#8, #10G, 3/4"C	3.24					E	SPARE	60/3P	14
15			E	3.24			3.24				E			16
17			E	3.24				3.24			E			18
19		SHUNT TRIP				0.90			2#2, #12G, 3/4"C	0.90	M	SUPPLY FAN #2 1/3 HP (Existing)	20	20
21	20	4_WORKTOP REFRIGERATOR	E	0.35	2#2, #12G, 3/4"C		1.35		2#2, #12G, 3/4"C	1.00	M	HWCP	20	22
23	20/2P	KEF-2(E)	O	0.56	2#2, #12G, 3/4"C			0.56			E	SPARE	60/3P	24
25			O	0.56		0.56					E			26
27	20	WH-1 (EX)	O	1.00	2#2, #12G, 3/4"C		1.00				E			28
29	20	4_WORKTOP REFRIGERATOR	E	0.35	2#2, #12G, 3/4"C			0.35	EXISTING			FIRE SUPPESSION SYSTEM HOODS (Existing)	20	30
31	20	23_REACH IN REFRIGERATOR	E	1.84	2#2, #12G, 3/4"C	1.84			EXISTING			FIRE SUPPESSION SYSTEM HOODS (Existing)	20	32
33	20	22_OIL MANAGEMENT SYSTEM	E	0.96	2#2, #12G, 3/4"C		2.46		2#2, #12G, 3/4"C	1.50	H	HEATER	20/2P	34
35		SPACE ONLY						1.50		1.50	H			36
37	20/2P*	27_WORKTOP SHAKE FREEZER	E	1.04	2#2, #12G, 3/4"C	1.04						SPACE ONLY		38
39			E	1.04			1.04					SPACE ONLY		40
41		SPACE ONLY						0.00				SPACE ONLY		42
				TOTAL CONNECTED LOAD (KVA)		10.82	13.33	9.97						

PANEL BOARD 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.
2. E.C. SHALL PROVIDE SHUNT TRIP PROTECTION FOR ALL EQUIPMENT UNDER TYPE-1 HOOD. CO-ORDINATE WITH MECHANICAL CONTRACTOR FOR HOOD AND CONTROL DETAILS. PROVIDE ELECTRICAL CONNECTIONS ACCORDINGLY.
3. "MDP" PANEL EXISTING CIRCUITS SHALL REMAIN SAME. E.C. VERIFY THE OPERABLE CONDITION OF THE BREAKER. REPLACE IF FOUND INOPERABLE, INFORM E.O.R. OF ANY DISCREPANCIES FOUND.
4. "*" - NEW BREAKER SHALL INSTALLED IN EXISTING PANEL.

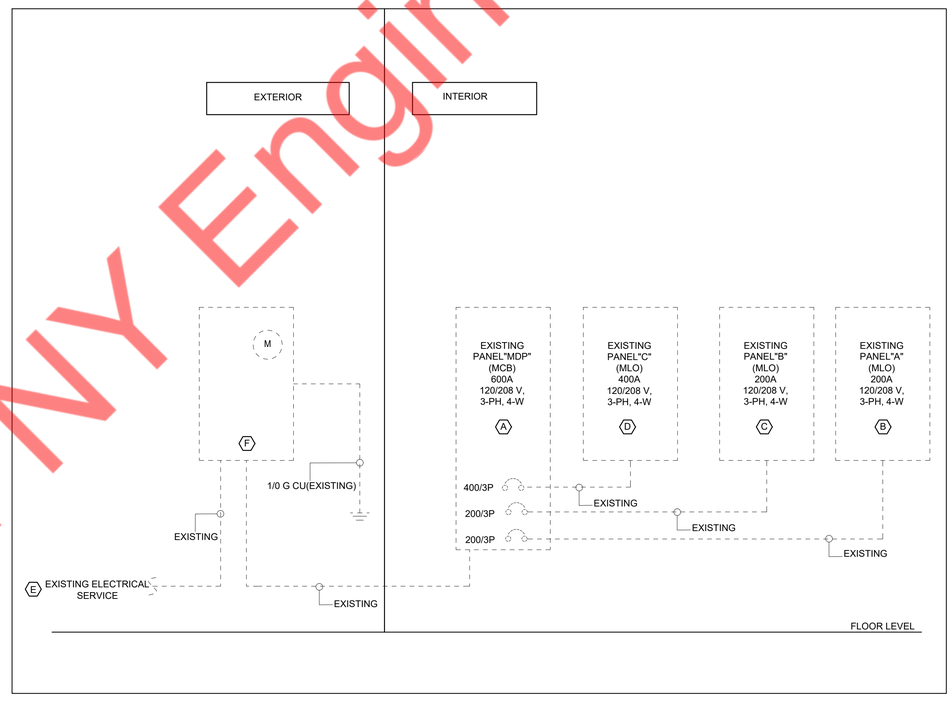
FAN SCHEDULE

DESCRIPTION/COLOR	MAKE	MODEL	TYPE	QUANTITY	WATTAGE
CARAMEL/BLACK- INT. CLG FAN	BIG ASS FAN	HAIKU L	LED	2	20.3 W
COCOA/BLACK EXT. CLG FAN	BIG ASS FAN	COASTAL HAIKU	LED	1	35.7 W
BLACK EXT. FAN	BIG ASS FAN	RENE DIRECTIONAL	FAN	1	311 W
BLACK EXT. HEATER	BIG ASS FAN	OBSIDIAN	HEATER	1	3000 W

PANEL:	MDP (EX)					MOUNTING:	RECESSED
208Y/120	VOLTS,	3	PHASE,	4	WIRE	PANEL LOCATION:	EXISTING
MAIN CB:	NA	MLO:	600A	BUS:	600A	MIN,	FED FROM: EXISTING

NOTE:

CKT NO.	TRIP AMPS	DESCRIPTION OF LOAD	LOAD TYPE	LOAD (KVA)	MINIMUM BRANCH CIRCUIT	PER PHASE (KVA) A	B	C	MINIMUM BRANCH CIRCUIT	LOAD (KVA)	LOAD TYPE	DESCRIPTION OF LOAD	TRIP AMPS	CKT NO.
1			O	9.05		9.05								2
3	200/3P	PANEL-A	O	7.36	EXISTING		7.36					MAIN SERVICE DISCONNECT	600/3P	4
5			O	9.02				9.02						6
7	200/3P	PANEL-B	O	8.38	EXISTING	19.20			EXISTING	10.82	O	PANEL-C	400/3P	8
9			O	11.31			24.64			13.33	O			10
11			O	12.88				22.85		9.97	O			12
13	100/3P	LOAD CENTER	O	2.43	EXISTING	5.07			EXISTING	2.64	H	HPU#1	30/3P	14
15			O	2.43			5.07			2.64	H			16
17			O	2.43				5.07		2.64	H			18
19	60/3P	AHU#1	H	13.23	EXISTING	15.87			EXISTING	2.64	H	HPU#2	30/3P	20
21			H	13.23			15.87			2.64	H			22
23			H	13.23				15.87		2.64	H			24
25	60/3P	AHU#2	H	13.23	EXISTING	15.87			EXISTING	2.64	H	HPU#3	25/3P	26
27			H	13.23			15.87			2.64	H			28
29			H	13.23				15.87		2.64	H			30
31	40/3P	AHU#3	H	13.23	EXISTING	15.87			EXISTING	2.64	H	HPU#4	25/3P	32
33			H	13.23			15.87			2.64	H			34
35			H	13.23				15.87		2.64	H			36
37	40/3P	AHU#4	H	13.23	EXISTING	13.23						SPACE	-	38
39			H	13.23			13.23							40
41			H	13.23				13.23						42
				TOTAL CONNECTED LOAD (KVA)		94.16	97.91	97.78						



ELECTRICAL RISER KEYED WORK NOTES:

- (A) EXISTING 600A (MCB), 208/120V, 3 PH, 4W ELECTRICAL PANEL "MDP" TO REMAIN. E.C. SHALL VERIFY EXACT RATING, LOCATION OPERABLE CONDITION OF THE PANEL IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
- (B) EXISTING 200A (MLO), 208/120V, 3 PH, 4W ELECTRICAL PANEL "A" TO REMAIN. E.C. SHALL VERIFY EXACT RATING, LOCATION OPERABLE CONDITION OF THE PANEL IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
- (C) EXISTING 200A (MLO), 208/120V, 3 PH, 4W ELECTRICAL PANEL "B" TO REMAIN. E.C. SHALL VERIFY EXACT RATING, LOCATION OPERABLE CONDITION OF THE PANEL IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
- (D) EXISTING 400A (MLO), 208/120V, 3 PH, 4W ELECTRICAL PANEL "C" TO REMAIN. E.C. SHALL VERIFY EXACT RATING, LOCATION OPERABLE CONDITION OF THE PANEL IN FIELD. REPLACE IF FOUND IN-OPERABLE. BASE BID ACCORDINGLY.
- (E) EXISTING 600A 208/120V, 3PH, 4W ELECTRICAL SERVICE TO PROJECT SPACE FROM THE ELECTRICAL UTILITY COMAPNY SHALL REMAIN. E.C. SHALL VERIFY EXACT AMPERAGE RATING OF THE SERVICE ON FIELD.REPORT ENGINEER ON RECORD FOR ANY DISCREPANCIES FOUND. BASE BID ACCORDINGLY.
- (F) EXISTING 600A 208/120V, 3PH, 4W ELECTRICAL METER AND C.T CABINET TO PROJECT SPACE SHALL REMAIN. E.C SHALL VERIFY EXACT RATING AND OPERABLE CONDITION OF THE METER AND CT CABINET ON FIELD. REPLACE IF FOUND INOPERABLE. REPORT ENGINEER ON RECORD FOR ANY DISCREPANCIES FOUND. BASE BID ACCORDINGLY.

ELECTRICAL RISER SYMBOLS:

- NEW
- EXISTING ITEM/FEEDER TO REMAIN
- EXISTING ITEM/FEEDER TO BE DISCONNECTED & REMOVED

ELECTRICAL RISER GENERAL NOTES:

1. E.C. SHALL VERIFY INCOMING SERVICE AMPERAGE, WIRE SIZING AND DISTRIBUTION.
2. E.C. SHALL INFORM ENGINEER OF ANY DISCREPANCY BEFORE COMMENCING ANY WORK.
3. E.C. SHALL VERIFY THE EXISTING DISTRIBUTION IN FIELD. INFORM ENGINEER FOR ANY DISCREPANCY FOUND. BASE BID ACCORDINGLY.
4. ELECTRICAL CONTRACTOR TO COORDINATE FAULT CURRENT (Isc) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.

1 E4.0 PANEL SCHEDULES N.T.S.

2 E4.0 ELECTRICAL RISER DIAGRAM N.T.S.

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

ZAXBY'S TENANT IMPROVEMENTS

PANEL SCHEDULES & ELECTRICAL RISER DIAGRAM

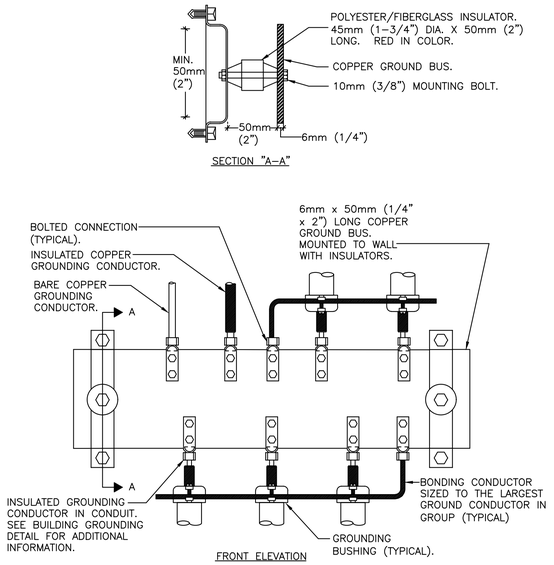
PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

04-19-24

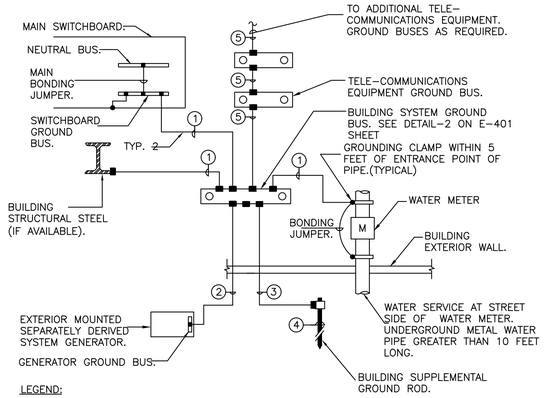
NYE

23-244

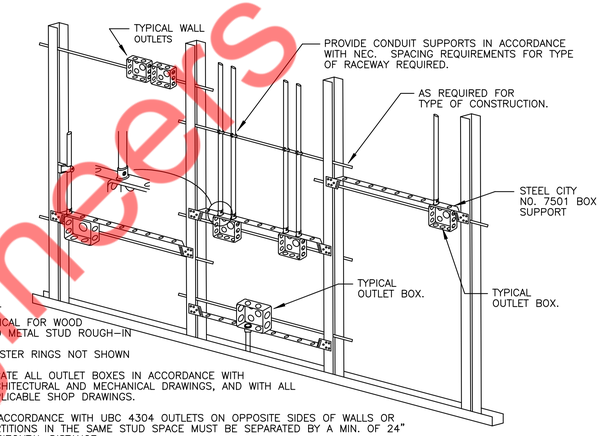
E4.0



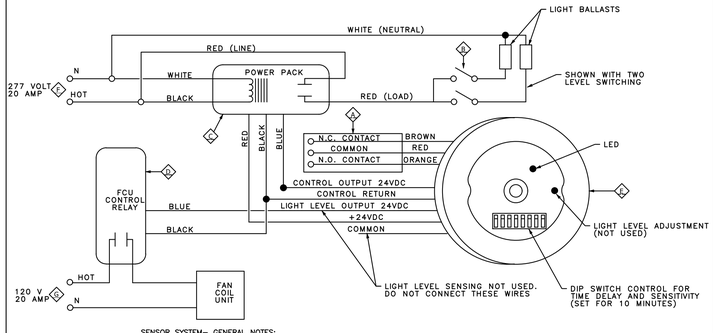
6 E5.0 BUILDING ELECTRICAL SYSTEMS GROUND BUS
N.T.S



4 E5.0 BUILDING GROUNDING ELECTRODE SYSTEM
N.T.S



2 E5.0 DETAIL TYPICAL ROUGH-IN REQUIREMENTS
N.T.S



SENSOR SYSTEM- GENERAL NOTES:

1. ALL WIRING SHALL BE IN RACEWAYS.
2. USE TWO (OR MORE) JUNCTION BOXES, BOLTED TOGETHER AS NEEDED TO ACCOMMODATE WIRING OF DEVICES SO 277 VOLT, 120 VOLT AND 24 VOLT APPLICATIONS ARE NOT IN SAME BOX, OR RACEWAY. SUPPORT BOXES ABOVE CEILING, AT LOCATIONS OF SENSOR.
3. LIGHT SWITCHING WILL BE PLACED AT DOOR OF ROOM AND WILL ALLOW COMPLETE CONTROL OF LIGHTS WHEN ROOM IS OCCUPIED. PART OR ALL OF LIGHTING MAY BE TURNED OFF, OR BACK ON, AS NEEDED.
4. PROVIDE THREE-WAY SWITCHING IN NOTED ROOMS, IN SUCH ROOMS ONLY ONE "SENSOR SYSTEM" IS NEEDED. WIRE THREE-WAYS IN STANDARD FASHION.
5. NO OCCUPANCY SENSORS SHALL BE PLACED ON LIGHTING FOR CORRIDORS OR STAIRWAYS.
6. ALL SENSOR SYSTEM RELATED EQUIPMENTS SHALL BE FROM ONE MANUFACTURER.

SENSOR SYSTEM - REFERENCE NOTES:

A USE THESE CONTACTS FOR CONTROL OF HVAC VIA TEMPERATURE CONTROL SYSTEM. COORDINATE WIRING EXTENSIONS WITH TC CONTRACTOR.

B DIAGRAM SHOWS TWO LEVEL LIGHTING FOR (FIXTURES WITH 3 OR 4 LAMPS). FIXTURES WITH TWO LAMPS, OR AS NOTED OTHERWISE, WILL ONLY NEED AN LIGHT SWITCH.

C USA A 277 TO 24 VOLT POWER SUPPLY HAVING A 277 VOLTS, 20 AMP RATED CONTROL CONTACT CAPABLE OF SWITCHING POWER FOR LIGHTS. USE WATTSTOPPER A277-E, OR A FUNCTIONALLY EQUIVALENT DEVICE THAT IS APPROVED FOR PURPOSE SHOWN.

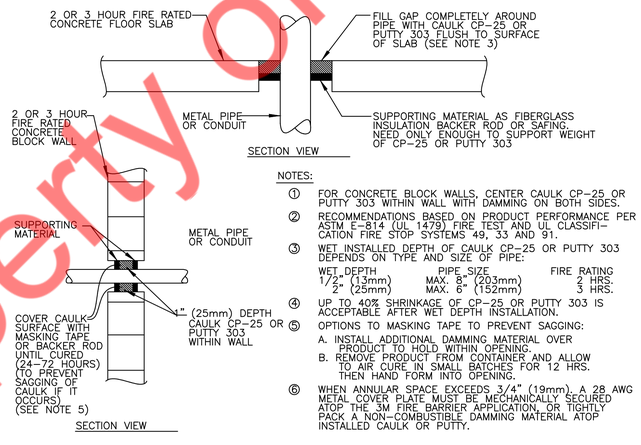
D USE A 24 VOLT CONTROL RELAY WITH A 24 VOLT COIL, AND A 120 VOLT, 20 AMP CONTACT. USE WATTSTOPPER S-277-E, OR FUNCTIONALLY EQUIVALENT DEVICE THAT IS APPROVED FOR PURPOSE SHOWN.

E USE A DUAL TECHNOLOGY TYPE SENSOR UTILIZING PASSIVE INFARED SENSOR AND ULTRASONIC DETECTION. SENSOR SHALL TURN ON WHEN BOTH TECHNOLOGIES ARE SENSED, AND SHALL TURN OFF WHEN NEITHER TECHNOLOGY IS SENSED. SENSOR TO COVER AREAS OF UP TO 1500 SQUARE FEET AND MOUNTABLE ON WALL. MOUNT SENSOR ON "LONG" WALL OF ROOM, CENTERED ON WALL, APPROXIMATELY 6' BELOW CEILING. USE WATTSTOPPER DT-100L WITH CM 100 MOUNTING BRACKET, OR FUNCTIONALLY EQUIVALENT DEVICE THAT IS APPROVED FOR PURPOSE SHOWN.

F SEE LIGHTING PLAN FOR CIRCUIT NUMBER. PLEASE NOTE THAT ONE CIRCUIT SERVES MULTIPLE ROOMS.

G SEE RECEPTACLE PANEL SCHEDULE FOR CIRCUIT NUMBERS. PLEASE NOTE THAT FAN COIL UNITS IN SEVERAL ROOMS MAY BE ON ONE CIRCUIT.

5 E5.0 SCHEMATIC FOR OS S (LIGHTS, HVAC, FCU, DUAL TECH)
N.T.S



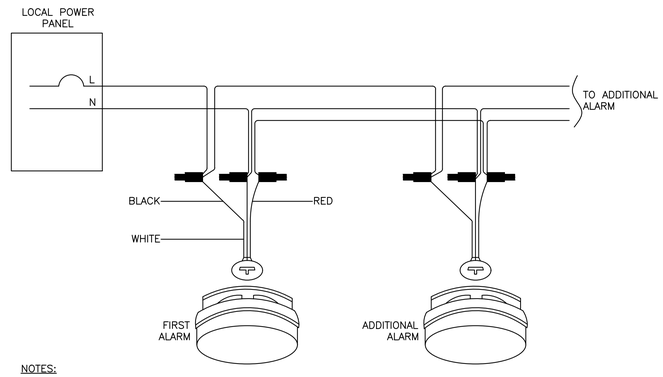
NOTES:

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 CLASSIFI-CATION 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 28 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.

3 E5.0 FIRE STOP DETAIL
N.T.S



NOTES:

1. ALL ALARMS ARE WIRED TO A SINGLE, CONTINUOUS (NON SWITCHED) POWER LINE, WHICH IS NOT PROTECTED BY A GROUND FAULT INTERRUPTER.
2. A MAXIMUM OF 1000 ft OF WIRE CAN BE USED IN THE INTERCONNECT SYSTEM AND MAXIMUM 24 NO. OF KIDDE DEVICES CAN BE CONNECTED.
3. USE STANDARD UL LISTED HOUSEHOLD WIRE AS REQUIRED BY THE CODE.
4. ALL ALARMS IN A TANDEM INSTALLATION MUST BE CONTROLLED BY THE SAME FUSE OR CIRCUIT BREAKER. OTHERWISE TANDEM UNITS WILL NOT OPERATE.

1 E5.0 SMOKE ALARM TANDEM WIRING DIAGRAM
N.T.S

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ZAXBY'S TENANT IMPROVEMENTS

ELECTRICAL DETAILS (1 OF 2)

04-19-24
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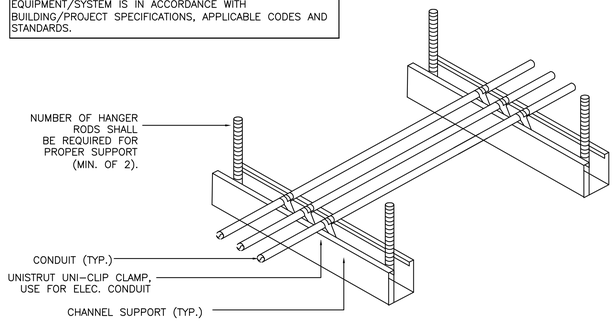
E5.0

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

NOTE:
THIS INFORMATION MAY NOT CONTAIN ALL DETAILS REQUIRED FOR CONSTRUCTION. APPROPRIATE MODIFICATION MAY BE REQUIRED TO ENSURE SUITABILITY OF THESE DRAWINGS FOR THE SPECIFIC APPLICATION. IT IS THE USER'S RESPONSIBILITY TO ENSURE INSTALLATION OF THE EQUIPMENT/SYSTEM IS IN ACCORDANCE WITH BUILDING/PROJECT SPECIFICATIONS, APPLICABLE CODES AND STANDARDS.



NOTES:

1. ALL CONDUIT MAY BE COMBINED ON SAME SUPPORT CHANNEL WHERE PRACTICAL.
2. SUPPORT CHANNEL LENGTH SHALL NOT BE DETERMINED UNTIL ALL PIPING, CONDUIT, ETC. TO BE SUPPORTED IS COORDINATED.
3. SUPPORT CHANNEL SPACING SHALL BE NO MORE THAN 10'-0".
4. UNISTRUT AND CONDUIT INSTALLATION MAY BE REVERSED.

2 / E5.1 CONDUIT SUPPORT 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.

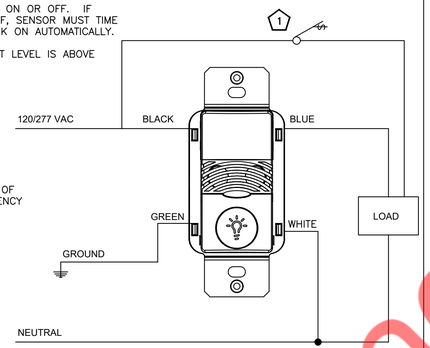
AUTOMATIC MODE OPERATION:

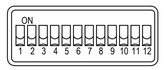
1. WHEN SENSOR ACTIVATES LOAD TURNS ON.
2. PUSHBUTTON CAN BE USED TO TURN LOAD ON OR OFF. IF PUSHBUTTON IS USED TO TURN LOAD OFF, SENSOR MUST TIME OUT FIRST, BEFORE LOAD CAN TURN BACK ON AUTOMATICALLY.
3. IF DAYLIGHT SENSOR IS ENABLED AND LIGHT LEVEL IS ABOVE SETPOINT, LOAD WILL NOT TURN ON.

SENSOR TYPES INCLUDE:

ONW-D-1001-MV-N

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



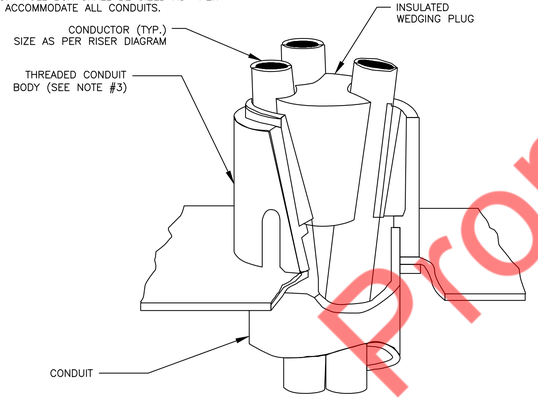


(ONW-D-1001-MV-N SENSORS)
ON (UP) = MANUAL ON
OFF (DOWN) = AUTO ON

3 / E5.1 CONNECTION) OCCUPANCY/VACANCY-SINGLE LEVEL WIRING DIAGRAM-LOW VOLTAGE WALL SWITCH SENSOR(NEUTRAL
N.T.S

NOTES:

1. ALL CONDUCTORS IN VERTICAL RACEWAYS SHALL BE SUPPORTED IN ACCORDANCE WITH ARTICLE 300.19 OF NEC. CABLE SUPPORTS SHALL BE LOCATED AT THE INTERVALS REQUIRED BY THE NEC.
2. CABLE SUPPORT SYSTEM SHALL BE AS MANUFACTURED BY O-Z GEDNEY WITH pOZi-GRIP "S-STYLE" WEDGING PLUG OR APPROVED EQUAL.
3. FOR THREADLESS CONDUIT (RIGID, IMC OR EMT), ATTACH CONDUIT BODY TO MALE THREADS OF A SET SCREW OR COMPRESSION CONNECT, AS PERMITTED BY SPECIFICATIONS.
4. PROVIDE PULL BOX AT EACH LOCATION OF CABLE SUPPORTS. PULL BOX SHALL BE SIZED AS PER CODE TO ACCOMMODATE ALL CONDUITS.



1 / E5.1 VERTICAL CABLE SUPPORT DETAIL
N.T.S

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NEARBY ENGINEERS
382 NE 191ST STREET, SUITE 49674, MIAMI, FL 33179
PH-914.257.3455
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ZAXBY'S TENANT IMPROVEMENTS

ELECTRICAL DETAILS (2 OF 2)

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

04-19-24
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E5.1

PLUMBING SYMBOLS LIST

- SANITARY PIPING
- VENT PIPING
- COLD WATER PIPING
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- UNGD. SANITARY PIPING
- EXISTING VENT PIPING
- EXISTING COLD WATER PIPING
- EXISTING HOT WATER PIPING
- EXISTING HOT WATER RETURN PIPING
- G — EXISTING GAS PIPING
- P-TRAP
- PIPE UP
- PIPE DROP
- FLOOR CLEAN OUT
- CHECK VALVE
- BACK FLOW PREVENTER
- SLEEVE
- GAS PLUG VALVE
- BALANCING VALVE
- PRESSURE RELIEF VALVE
- POINT OF NEW CONNECTION
- POINT OF DISCONNECTION

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISH FLOOR
BFP	BACK FLOW PREVENTER
CW	COLD WATER
DN	DOWN
E	EXISTING
ET	EXPANSION TANK
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
HW	HOT WATER
HWR	HOT WATER RETURN
LAV	LAVATORY
MS	MOP SINK
HWCP	HOT WATER RE-CIRCULATION PUMP
SAN	SANITARY
SQ. FT.	SQUARE FEET
TYP.	TYPICAL
V	VENT
VTR	VENT THRU ROOF
W	WASTE
WH	HOT WATER HEATER
WC	WATER CLOSET

BUILDING DEPARTMENT PLUMBING NOTES:

1. ALL PLUMBING SYSTEMS (SANITARY, WASTE, VENT & WATER DISTRIBUTION PIPING SYSTEMS) AND ASSOCIATED EQUIPMENT SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF 2023 FLORIDA PLUMBING CODE, 8TH EDITION.
2. INSTALLATION OF UNDERGROUND SANITARY DRAINAGE AND VENT PIPING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION IN PC 702.2
3. PROTECTION OF PIPING AND PLUMBING SYSTEM COMPONENTS AS PER SECTION IN PC 305.
4. TRENCHING, EXCAVATION AND BACKFILL AS PER SECTION IN PC 306.
5. RODENT PROOFING AS PER IN PC 304.
6. MATERIALS USED IN PLUMBING SYSTEMS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION IN PC 303, PC 402, PC 605, PC 702, PC 802, PC 902 & PC 1004.
7. EQUIPMENT CONNECTIONS AND JOINING OF PIPING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTERS 4, 5, 6, 7 AND 9.
8. DEEP SEAL TRAPS FOR FLOOR DRAINS SHALL BE PROVIDED AS PER PC 1002, AND CLEAN-OUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION PC 708
9. BUILDING HOUSE TRAPS SHALL BE PROVIDED AS PER SECTION PC 1002.
10. DRAINAGE PIPE CLEANOUTS AS PER SECTION PC 708.
11. VERTICAL AND HORIZONTAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION PC 308
12. WATER SUPPLY SYSTEMS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 6 SECTION PC 601–603, 604, 606, 607, 608, 610
13. THE SANITARY DRAINAGE SYSTEM SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF PC CHAPTER 7 SECTIONS PC 701 THROUGH PC 712.
14. VENT PIPING FOR THE SANITARY DRAINAGE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTER 9 SECTIONS PC 901 THROUGH PC 912 THROUGH PC 917
15. THE GAS PIPING SHALL BE SIZED AND INSTALLED IN ACCORDANCE 2023 FBC FUEL GAS CODE 8TH EDITION CHAPTER 4.
16. INSPECTION AND TESTING OF PLUMBING AND GAS PIPING SYSTEMS SHALL BE IN ACCORDANCE WITH SECTION PC107,312.

PLUMBING DRAWING LIST

PLUMBING SPECIFICATIONS:

1. BASIC PLUMBING REQUIREMENTS, MATERIALS AND METHODS

1.01 SCOPE

A. PROVIDE ALL MATERIAL, TOOLS, SUPERVISION AND LABOR INCLUDING ALL MISCELLANEOUS AND INCIDENTAL ITEMS REQUIRED FOR COMPLETE AND OPERABLE PLUMBING INSTALLATIONS AS SHOWN OR DESCRIBED ON THE DRAWINGS AND IN THESE SPECIFICATIONS.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING AND NEW CONDITIONS AND MATERIALS WITHIN THE CONSTRUCTION AREA. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE OWNER'S SATISFACTION.

C. OBTAIN ALL PERMITS, PAY ALL PERMIT FEES AND SCHEDULE ALL REQUIRED INSPECTIONS. COPIES OF ALL PERMITS AND INSPECTION CERTIFICATES SHALL BE FORWARDED TO THE OWNER FOR RECORD.

D. THE GENERAL CONDITIONS OF THE CONTRACT AND ALL DIVISION 1 REQUIREMENTS APPLY TO THE WORK OF THIS SECTION.

E. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID TO DETERMINE CONDITIONS AND THE EXTENT OF THE WORK. BY COMMENCING WORK, THE CONTRACTOR ACKNOWLEDGES HIS CONFIRMATION OF ALL CONDITIONS AS ACCEPTABLE WITH REFERENCE TO HIS CONTRACT, SCOPE OF WORK AND BID PRICE SUCH THAT NO ADDITIONAL COMPENSATION SHALL BE FORTHCOMING FOR UNFORESEEN EXISTING CONDITIONS.

F. IN ALL AREAS SUBJECT TO FREEZING CONDITIONS, THE CONTRACTOR SHALL PROVIDE FREEZE PROTECTION FOR ALL DOMESTIC WATER PIPING INSTALLED UNDER HIS CONTRACT.

G. ALL ELECTRICAL REQUIREMENTS SHALL BE COORDINATED WITH THE CONTRACTOR FOR ELECTRICAL WORK. THIS CONTRACTOR IS RESPONSIBLE FOR ALL LOW VOLTAGE WIRING FOR EQUIPMENT INSTALLED UNDER HIS CONTRACT. THE CONTRACTOR FOR ELECTRICAL WORK IS RESPONSIBLE FOR LINE VOLTAGE POWER WIRING ONLY.

H. COLOR AND FINISH SELECTIONS FOR ALL MATERIALS, INCLUDING PAINTING OF PIPING, SHALL BE AS DIRECTED AND/OR APPROVED BY THE ARCHITECT.

I. MINOR DETAILS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR THE PROPER AND ACCEPTABLE CONSTRUCTION, INSTALLATION OR OPERATION OF ANY PART OF THE WORK AS DETERMINED BY THE ENGINEER SHALL BE INCLUDED AS IF SPECIFIED OR INDICATED ON THE DRAWINGS.

J. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIREMENTS FOR THE INSTALLATION, CONNECTION, EXTENSION OR MODIFICATION TO ALL UTILITY SERVICES WITH RESPECTIVE PROVIDERS INCLUDING PAYMENT OF ALL ASSOCIATED FEES.

K. THE CONTRACTOR IS RESPONSIBLE FOR ALL PAINTING ASSOCIATED WITH CUTTING AND PATCHING. ALL PAINTING IN AREAS WITH COMPLETE FINISH RENOVATIONS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR.

1.02 SUBMITTALS

A. SUBMITTAL REQUIREMENTS SHALL BE COORDINATED WITH THE ARCHITECT AND AUTHORITIES HAVING JURISDICTION. UNLESS OTHERWISE DIRECTED, CONTRACTOR SHALL PROVIDE SUBMITTALS AS LISTED BELOW.

1. PIPE AND FITTINGS
2. VALVES
3. HANGERS AND SUPPORTS
4. PLUMBING PIPING LAYOUT
5. TESTS
6. PLUMBING FIXTURES
7. FLOOR DRAINS
8. MIXING VALVES
9. ALL SCHEDULED PLUMBING EQUIPMENT

B. SUBMITTALS FROM SUPPLIERS OR MANUFACTURERS WHICH DO NOT BEAR THE STAMP OF THE SUBMITTING CONTRACTOR INDICATING THAT THE CONTRACTOR HAS REVIEWED THE SUBMITTAL FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS WILL BE RETURNED REJECTED.

C. THE ENGINEER'S REVIEW OF SUBMITTALS IS A COURTESY WHICH DOES NOT RELIEVE THE CONTRACTOR FROM CONFORMING WITH THE CONSTRUCTION DOCUMENTS, REGARDLESS OF THE ACTION INDICATED BY THE SHOP DRAWINGS STAMP.

D. REVIEW OF SHOP DRAWINGS BY THE ENGINEER SHALL BE LIMITED TO THE INITIAL REVIEW, AND A SECOND REVIEW OF ANY REQUIRED RESUBMITTED DATA. IF THE ENGINEER IS REQUIRED TO REVIEW SHOP DRAWINGS FOR A THIRD (OR MORE) SUBMISSION OF THE SAME ITEM, THE CONTRACTOR SHALL BE LIABLE FOR COMPENSATING THE ENGINEER FOR THESE SUBSEQUENT REVIEWS AS PER THE ENGINEER'S CURRENT HOURLY RATE SCHEDULE.

E. SUBMIT PROOF OF APPROVAL AND/OR CONFIRMATION OF SATISFACTORY TEST RESULTS TO THE OWNER AND THE ARCHITECT.

F. SUBMIT TO THE OWNER'S MAINTENANCE PERSONNEL OPERATION AND MAINTENANCE DATA FOR ALL SYSTEM COMPONENTS, SERVICING REQUIREMENTS, INSPECTION DATA, REPLACEMENT PART NUMBERS AND AVAILABILITY AND CONTACT INFORMATION FOR SERVICE/SUPPLY COMPANY.

G. FOR ALL BELOW GRADE PIPING WHERE ACTUAL INSTALLATION DEVIATES FROM CONSTRUCTION DRAWINGS, THE CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS INDICATING BELOW GRADE PIPE LOCATIONS DIMENSIONED TO NEAREST COLUMN LINES.

H. RECORD AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE OWNER/TENANT AFTER COMPLETION OF THE WORK SHOWING ANY ALTERATIONS, ADDITIONS AND/OR DELETIONS TO THE SYSTEM(S) INSTALLED.

1.03 SUBSTITUTIONS

A. ALL EQUIPMENT SHALL BE PRODUCTS OF THE SPECIFIED MANUFACTURER OR MANUFACTURERS. ALL BIDS SHALL BE BASED ON THE SPECIFIED MANUFACTURER OR MANUFACTURER'S EQUIPMENT. FOR SUBSTITUTIONS OF OTHER MANUFACTURER'S EQUIPMENT TO BE CONSIDERED, THE SUBSTITUTION MUST BE INDICATED PRIOR TO BIDDING WITH THE REASON FOR THE PROPOSED SUBSTITUTION IDENTIFIED, AND THE PROPOSED CREDIT TO THE OWNER INDICATED. THE ENGINEER SHALL DETERMINE THE ACCEPTABILITY OF ANY PROPOSED SUBSTITUTIONS.

B. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR COORDINATING THE WORK OF OTHER TRADES WHICH MAY BE AFFECTED BY SUBSTITUTIONS, INCLUDING ALL RELATED COSTS.

1.04 DEFINITIONS

A. FURNISH: TO PURCHASE, PROCURE, ACQUIRE AND DELIVER, COMPLETE WITH RELATED ACCESSORIES.

B. INSTALL: TO ERECT, MOUNT AND CONNECT, COMPLETE WITH RELATED ACCESSORIES.

C. PROVIDE: TO FURNISH AND INSTALL.

D. PLUMBING CONTRACTOR, THE CONTRACTOR, THIS CONTRACTOR: THE CONTRACTOR FOR PLUMBING WORK WHICH IS SPECIFIED HEREIN AND SHOWN ON THESE DRAWINGS.

E. REFER TO THE NATIONAL STANDARD PLUMBING CODE FOR ADDITIONAL DEFINITIONS.

1.05 DRAWINGS

A. THE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO ILLUSTRATE THE GENERAL ARRANGEMENT AND ROUTING OF PIPING AND GENERAL LOCATIONS OF EQUIPMENT. PRECISE LOCATIONS OF EQUIPMENT, RISERS AND STACKS, AND ROUTING AND ELEVATION OF ALL PIPING SYSTEMS SHALL BE COORDINATED IN THE FIELD WITH THE ARCHITECT, ARCHITECTURAL DRAWINGS, THE WORK OF OTHER TRADES, EXISTING AND NEW BUILDING CONDITIONS AND/OR THE PREFERENCES OF THE OWNER/TENANT AS CONSTRUCTION PROCEEDS. ALL PIPING SHALL BE INSTALLED CONCEALED IN FINISHED SPACES, UNLESS NOTED OTHERWISE.

B. PROVIDE ALL NECESSARY INCIDENTAL MATERIALS AND ACCESSORIES REQUIRED TO MAKE THE WORK COMPLETE IN ALL RESPECTS, EVEN IF NOT PARTICULARLY SHOWN OR SPECIFIED.

C. REFER TO PLUMBING EQUIPMENT/FIXTURE SCHEDULE ON THE DRAWINGS FOR ALL FIXTURE AND EQUIPMENT SPECIFICATIONS.

D. REFER TO FIXTURE CONNECTION SIZE SCHEDULE FOR ALL FIXTURE ROUGHING SIZE REQUIREMENTS.

E. VERIFY ALL INDICATED CONDITIONS BEFORE STARTING WORK AND REPORT ANY DISCREPANCIES. THE DRAWINGS REFLECT CONDITIONS WHICH CAN BE REASONABLY INTERPRETED FROM THE EXISTING VISIBLE CONDITIONS OR FROM DRAWINGS AND INFORMATION FURNISHED BY THE OWNER.

F. LOCATE ALL FIXTURES AND EQUIPMENT AS PER THE FINAL ARCHITECTURAL DRAWINGS.

1.06 PRODUCTS

A. SANITARY AND VENT PIPING:

1. ABOVE GRADE SANITARY AND VENT PIPING SHALL BE POLYVINYL CHLORIDE (PVC) PLASTIC PIPE WITH A SOLID CELLULAR CORE OR COMPOSITE WALL. PIPE SHALL BE COMPLY WITH ASTM D2665, ASTM F891, ASTM F1488, CSA B181.2. PVC PIPE AND FITTINGS AS SPECIFIED UNDER SECTION 702.1 SHALL BE USED.
2. BELOW GROUND SANITARY AND VENT PIPING SHALL BE POLYVINYL CHLORIDE (PVC) PLASTIC PIPE.PIPE SHALL COMPLY WITH ASTM D 2665, ASTM F 891, CAS B181.2 AND FITTING WITH JOINTS MADE WITH PVC ASTM D 3034 AND FITTINGS AS SPECIFIED UNDER SECTION 702.4 SHALL BE USED.
3. SLOPE OF DRAINAGE SYSTEM SHALL BE 1/8" PER FOOT OF RUN FOR PIPE 3" TO 6" (I.D.) AND 1/4" PER FOOT OF RUN FOR PIPE 2–1/2" AND SMALLER (I.D.). VENT PIPING SHALL BE PITCHED TO DRAIN.
4. PVC OR OTHER COMBUSTIBLE PLASTIC PIPING SHALL NOT BE INSTALLED IN CEILING PLENUM SPACES.

B. DOMESTIC WATER PIPING:

1. ABOVE GRADE WATER PIPING SHALL BE TYPE 'L' HARD-DRAWN COPPER TUBE.
2. FITTINGS IN DOMESTIC WATER PIPING SHALL BE WROUGHT COPPER OR CAST BRASS.
3. JOINTS SHALL BE MADE WITH LEAD-FREE SOLDER.
4. CROSS-LINKED POLYETHYLENE (PEX) PIPE & FITTIINGS MAY BE USED IN LIEU OF COPPER. PEX PIPE & FITTINGS MUST CONFORM TO STANDARDS MENTIONED IN 2023 FLORIDA BUILDING CODE SECTION 605.3, 605.4 & 605.5.
5. THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE INSULATED INCLUDING ALL VALVES, FITTINGS, ETC.
6. COMPLY WITH NSF 61 FOR MATERIALS FOR WATER-SERVICE PIPING AND SPECIALTIES FOR DOMESTIC WATER.
7. ALL DOMESTIC WATER PIPING ABOVE GRADE SHALL BE INSULATED WITH FIRE RETARDANT, FACTORY-APPLIED JACKET. PROVIDE COLD WATER PIPING WITH FACTORY-APPLIED VAPOR BARRIER. INSULATION REQUIREMENT SHOULD COMPLY WITH ASHRAE 90.1 2019 SECTION ENERGY CONSERVATION CODE 7.4.3 BELOW TABLE.

MINIMUM PIPE INSULATION THICKNESS

FLUID OPERATING TEMPERATURE RANGE AND USAGE (°F)	INSULATION CONDUCTIVITY		NOMINAL PIPE OR TUBE SIZE (INCHES)				
	CONDUCTIVITY BTU·IN./(H·FT2·°F)	MEAN RATING TEMPERATURE, °F	<1	1 to < 1½	1½ to < 4	4 to < 8	<8
141–200	0.25–0.29	125	1.5	1.5	2	2	2
105–140	0.21–0.28	100	1.0	1.0	1.5	1.5	1.5
40–60	0.21–0.27	75	0.5	0.5	1.0	1.0	1.0

8. AS PER ASHRAE 90.1 2019 SECTION 7.4.4.1, TEMPERATURE CONTROLS SHALL BE PROVIDED THAT ALLOW FOR STORAGE TEMPERATURE ADJUSTMENT FROM 120° OR LOWER TO A MAXIMUM TEMPERATURE COMPATIBLE WITH THE INTENDED USE.
9. AS PER ASHRAE 90.1 2019 SECTION 7.4.4.2, SYSTEM DESIGNED TO MAINTAIN USAGE TEMPERATURE IN HOT WATER PIPES, SUCH AS RECIRCULATING HOT WATER SYSTEMS OR HEAT TRANCE, SHALL BE EQUIPED WITH AUTOMATIC TIME SWITCHES OR OTHER CONTROLS THAT CAN BE USED TO SWITCH THE USAGE TEMPERATURE MAINTAINANCE SYSTEM DURING EXTENDED PERIOD WHEN HOT WATER IS NOT REQUIRED.
10. AS PER ASHRAE 90.1 2019 SECTION 7.4.4.3, TEMPERATURE CONTROLLING MEANS SHALL BE PROVIDED TO LIMIT THE MAXIMUM TEMPERATURE OF WATER DELIVERED FROM LAVATORY FAUCETS IN PUBLIC FACILITY RESTROOMS TO 110°F.
11. AS PER ASHRAE 90.1 2019 SECTION 7.4.4.4, WHEN USED TO MAINTAIN STORAGE TANK WATER TEMPERATURE, RECIRCULATING PUMPS SHALL BE EQUIPPED WITH CONTROLS LIMITING OPERATION TO A PERIOD FROM THE START OF THE HEATING CYCLE TO A MAXIMUM OF FIVE MINUTES AFTER THE END OF THE HEATING CYCLE.
12. SEAL ALL JOINTS BETWEEN SEGMENTS OF INSULATION.
13. PROVIDE SHIELDS BETWEEN HANGERS AND INSULATION.

C. MIXING VALVES

1. VALVE BODY SHALL BE MADE OF CAST BRASS. THE INTERNAL COMPONENTS SHALL BE MADE OF BRASS OR STAINLESS STEEL.
2. TYPES A, C & D VALVES: VALVE SHUTS OFF IN FULL COLD POSITION AND MUST PASS THROUGH COLD RANGE BEFORE DELIVERING WARM, AND/OR HOT WATER. TEMPERATURE LIMIT SET AT 105°F MAXIMUM DELIVERY TEMPERATURE. IF ONE SUPPLY SHOULD FAIL, THE OTHER WILL AUTOMATICALLY AND INSTANTLY SHUT DOWN. DELIVERY CAPACITY IS 5GPM @ 45 PSIG DIFFERENTIAL.
3. TYPES OF VALVES: TYPE A– THERMOSTATICALLY OPERATED BY MEANS OF BI–METALLIC STRIP, OR EXPANSION BELLOWS; TYPE B– SINGLE HANDLE MECHANICAL MIXER, OR INDIVIDUAL HOT AND COLD CONTROL VALVES; TYPE C– PRESSURE BALANCING SHOWER VALVE/PISTON OPERATED MIXING VALVE; TYPE D– BALANCED PRESSURE OPERATION, WITH INTEGRAL DIAL THERMOMETER INDICATING DELIVERED WATER TEMPERATURE.
4. EACH ELEMENT SHALL BE CONTROLLED BY AN INDIVIDUALLY MOUNTED THERMOSTAT AND HIGH TEMPERATURE CUT–OFF SWITCH. ALL INTERNAL CIRCUITS SHALL BE FUSED. THE OUTER JACKET SHALL BE OF BAKED ENAMEL FINISH AND SHALL BE PROVIDED WITH FULL SIZE CONTROL COMPARTMENT FOR PERFORMANCE OF SERVICE AND MAINTENANCE THROUGH HINGED FRONT PANEL AND SHALL ENCLOSE THE TANK WITH FOAM INSULATION. ELECTRICAL JUNCTION BOX WITH HEAVY DUTY TERMINAL BLOCK SHALL BE PROVIDED. THE DRAIN VALVE SHALL BE LOCATED IN THE FRONT FOR EASE OF SERVICING.

D. HOT WATER RE–CIRCULATING PUMP

1. IN–LINE PUMP: SINGLE STAGE VOLUTE TYPE PUMP SHALL BE MADE OF CAST IRON OR FORGED LEAD–FREE BRONZE IMPELLER.
2. THE PUMP SHALL HAVE A GROUND AND POLISHED STEEL SHAFT WITH A HARDENED INTEGRAL THRUST COLLAR. THE SHAFT SHALL BE SUPPORTED BY TWO HORIZONTAL SLEEVE BEARINGS DESIGNED TO CIRCULATE OIL. THE PUMPS ARE TO BE EQUIPPED WITH A MECHANICAL SEAL WITH CARBON SEAL FACE ROTATING AGAINST CERAMIC SEAT. THE MOTOR SHALL BE NON–OVERLOADING AT ANY POINT ON PUMP CURVE.
3. DIRECT CONNECT PUMP TO ELECTRIC MOTOR WITH FLEXIBLE COUPLING. THE MOTOR SHALL BE OF THE DRIP–PROOF, SLEEVE– BEARING, QUIET OPERATING, RUBBER–MOUNTED CONSTRUCTION. EQUIPMENT MOTOR WITH BUILT–IN THERMAL OVERLOAD PROTECTION.
4. INSTALL IN–LINE CIRCULATING PUMPS BETWEEN PIPE FLANGES IN PIPING SYSTEMS. INSTALL OVERHEAD PIPE SUPPORTS, BOTH SIDES OF IN–LINE PUMPS, INSTALLED IN HORIZONTAL PIPING RUNS.

E. HANGERS AND SUPPORTS:

1. HANGERS SHALL BE STANDARD STEEL, MALLEABLE OR WROUGHT IRON, AS MANUFACTURED BY GRINNELL OR APPROVED EQUAL, SUITABLE FOR THE TYPE OF CONSTRUCTION. PIPING SHALL NOT BE HUNG FROM OTHER PIPE.
2. SECTIONS OF INDIVIDUAL PIPE RUNS SHALL BE SUPPORTED BY CLEVIS HANGERS.
3. ALL EQUIPMENT SHALL BE PROVIDED WITH APPROVED SUPPORTS.
4. PROVIDE SEISMIC RESTRAINTS IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES AND STANDARDS AND THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
5. UNLESS OTHERWISE INDICATED OR REQUIRED BY AUTHORITIES HAVING JURISDICTION, THE FOLLOWING SHALL BE PROVIDED WITH SEISMIC RESTRAINTS AS REQUIRED BY THE BOCA NATIONAL BUILDING CODE, SECTION 1610.6.4: ALL EQUIPMENT AND MACHINERY, ALL NEW PIPING 2–1/2" AND LARGER (1–1/4" AND LARGER INBOILER/MECHANICAL ROOMS) WITH HANGERS GREATER THAN 12" IN LENGTH FROM THE TOP OF PIPE TO THE STRUCTURE.
6. SUPPORTS SHALL BE PROVIDED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPING MANUFACTURER.

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

ZAXBY'S TENANT IMPROVEMENTS

PLUMBING SYMBOLS, ABBREVIATIONS, NOTES & SPECIFICATIONS

04-19-24
NYE
23-244
P0.1

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

F. VALVES:

1. PROVIDE GATE VALVES, BUTTERFLY OR BALL VALVES FOR SHUT–OFF DUTY ON MAIN AND BRANCH SUPPLY LINES. FOR ALL PIPE RUNS 2" AND SMALLER, PROVIDE BALL FOR ALL PIPE RUNS LARGER THAN 2" AND SMALLER THAN 4". PROVIDE GATE VALVES. PIPING 4" AND LARGER, PROVIDE BUTTERFLY VALVES FOR SHUT–OFF DUTY.

2. ALL FIXTURES WITH THE EXCEPTION O FLUSHOMETER–EQUIPPED WATER CLOSETS AND URINALS SHALL HAVE STOP VALVES TO CONTROL SUPPLY TO THE FIXTURE. WHERE SUPPLIES ARE EXPOSED PROVIDE CHROME–PLATED STOPS WITH CHROME–PLATED ESCUTCHEONS ON PIPING PENETRATIONS.

3. ALL PLUMBING FIXTURES AND EQUIPMENT TO HAVE SHUT–OFF VALVES ON SUPPLY LINES.
4. ALL BRANCH LINES TO HAVE SHUT–OFF VALVES.

5. ALL VALVES SHALL BE ACCESSIBLE. PROVIDE ACCESS DOORS WHERE REQUIRED FOR VALVE ACCESS.

6. PROVIDE GLOBE VALVES FOR THROTTLING/BALANCING OF THE HOT WATER CIRCULATING SYSTEM.

G. SLEEVES AND ESCUTCHEONS:

1. SLEEVES THROUGH STRUCTURAL CONCRETE MEMBERS AND SLEEVES FOR WALLS BELOW GRADE AND FLOORS ON GRADE SHALL BE STANDARD WEIGHT GALVANIZED SCHEDULE 40 STEEL PIPE. SLEEVES THROUGH OTHER THAN STRUCTURAL COMPONENTS OF THE BUILDING SHALL BE 20 GAGE GALVANIZED SHEET METAL WITH LOCK SEAM JOINTS. USG THERMAFIBER SAFING INSULATION SHALL BE INSTALLED BETWEEN PIPE AND SLEEVE.

2. PIPE ESCUTCHEON PLATES SHALL BE INSTALLED WHERE EXPOSED PIPING PASSES THROUGH WALLS, CEILINGS, AND FLOORS AND SHALL BE MINIMUM 20 GAGE STEEL. PROVIDE CHROME PLATED ESCUTCHEON PLATES IN FINISHED AREAS.

H. DRAINAGE ACCESSORIES

1. GENERAL:

   a. INSTALL THE WORK OF THIS SECTION IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS, UNLESS OTHERWISE SPECIFIED.

   b. SECURE EXTERNAL COMPONENTS IN PLACE WITH VANDAL RESISTANT FASTENERS OR DEVICES WHICH CANNOT BE REMOVED WITHOUT SPECIAL TOOLS.

2. DEVICES:

   a. CLEANOUT & CLEANOUT PLUG

   • THREADED PIPE FITTING OR CAST IRON FERRULE WITH GAS TIGHT CLEANOUT PLUG

   • PLUG SHOULD BE CAST BRASS OR BRONZE, WITH THREADED END, AND RAISED OR COUNTERSUNK HEAD.

   • LUBRICATE THREADS OF CLEANOUT PLUG WITH ANTI–SEIZE LUBRICANT BEFORE FINAL INSTALLATION.

   b. CLEANOUT WALL PLATE

   • IT SHOULD BE ROUND, STAINLESS STEEL OR POLISHED CHROME PLATED BRONZE COVER PLATE WITH STAINLESS STEEL VANDAL RESISTANT FASTENER TO SECURE TO CLEANOUT PLUG.

   c. CLEANOUT DECK PLATE

   • IT SHOULD BE STANDARD DUTY FLOOR CLEANOUT FITTING WITH COATED CAST IRON BODY; ROUND, POLISHED NICKEL BRONZE SCORIATED TOP SECURED TO CLEANOUT PLUG WITH STAINLESS STEEL VANDAL RESISTANT FASTENER; THREADED HEIGHT ADJUSTMENT, CAST IRON HEAD, GAS TIGHT CLEANOUT PLUG, AND CONNECTION TO MATCH PIPING OPTION SELECTED.
   •

I. INSTALL PIPING TO CONSERVE BUILDING SPACE. DO NOT INTERFERE WITH USE OF BUILDING SPACE AND THE WORK OF OTHER TRADES. ALL PIPING RUN IN CEILING SHALL BE INSTALLED TIGHT TO THE STRUCTURE ABOVE.

J. VERIFY EXACT LOCATIONS OF ALL EXISTING UTILITIES. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS OR CONNECTED EQUIPMENT. PROVIDE PIPE ANCHORS, GUIDES AND EXPANSION JOINTS OR LOOPS IN ALL HOT WATER AND HOT WATER CIRCULATING MAIN SUPPLY PIPING AND SEGMENTS OF SUCH PIPE THAT EXCEED 30'–0" IN LENGTH.

K. IN ALL AREAS WITH FINISHED SURFACES, SYSTEM PIPING AND COMPONENTS SHALL BE CONCEALED ABOVE OR WITHIN FINISHED SURFACES.

L. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL. REMOVE PROTECTIVE COATINGS PRIOR TO INSTALLATION.

M. REDUCTIONS IN PIPE SIZES SHALL BE MADE WITH ONE–PIECE REDUCING FITTINGS. BUSHINGS ARE NOT ACCEPTABLE. USE FLANGED FITTINGS AT THE BASE OF RISERS.

N. VENT PENETRATIONS THROUGH THE ROOF SHALL BE FLASHED.

O. IF WATER PRESSURE EXCEEDS 80 PSI, A WATER PRESSURE REDUCING VALVE SHALL BE INSTALLED IN WATER PIPING AT CONNECTION TO MAIN.

P. PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR METALS.

Q. IN ALL AREAS WITH FINISHED SURFACES, SYSTEM PIPING AND COMPONENTS SHALL BE CONCEALED ABOVE OR WITHIN FINISHED SURFACES.

R. INSTALL VALVES WITH STEMS UPRIGHT OR HORIZONTAL. REMOVE PROTECTIVE COATINGS PRIOR TO INSTALLATION.

S. REDUCTIONS IN PIPE SIZES SHALL BE MADE WITH ONE–PIECE REDUCING FITTINGS. BUSHINGS ARE NOT ACCEPTABLE. USE FLANGED FITTINGS AT THE BASE OF RISERS.

T. VENT PENETRATIONS THROUGH THE ROOF SHALL BE FLASHED.

U. IF WATER PRESSURE EXCEEDS 80 PSI, A WATER PRESSURE REDUCING VALVE SHALL BE INSTALLED IN WATER PIPING AT CONNECTION TO MAIN.

V. PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR METALS.

W. PIPE BACKFLOW PREVENTER DRAINS TO FLOOR DRAIN OR OTHER APPROVED INDIRECT WASTE SOURCE.

X. PROVIDE ACCESS DOORS/PANELS FOR SERVICE AND ACCESS TO ALL VALVES AND OTHER SYSTEM COMPONENTS ENCLOSED IN WALLS AND CEILINGS. ACCESS DOORS SHALL BE FURNISHED BY THIS CONTRACTOR, INSTALLED BY THE GENERAL CONTRACTOR.

Y. ALL FIXTURES REQUIRING VACUUM BREAKERS SHALL BE EQUIPPED WITH INTEGRAL VACUUM BREAKERS.

Z. ANY PENETRATIONS THROUGH FIRE RATED PARTITIONS, FLOORS, OR CEILINGS SHALL BE STEEL SLEEVED AND SEALED WITH 3M BRAND UL RATED FIRE BARRIER CAULK OR APPROVED EQUAL.

AA. WHEN THE WATER PIPING SYSTEM IS COMPLETE, THOROUGHLY FLUSH ALL DIRT, SEDIMENT, SOLDER, ETC., OUT OF THE SYSTEM, REMOVING ALL STRAINERS, VALVE STEM SEATS, ETC., REQUIRED TO ACCOMPLISH THE FLUSHING.

AB. AT ALL INDIRECT WASTE DRAINS, MAINTAIN AIR GAP AS REQUIRED BY CODE.

AC. ALL PIPING INSTALLED ON THE ROOF SHALL BE SUPPORTED BY "PILLOW BLOCK" PIPE STANDS AS MANUFACTURED BY MIRO INDUSTRIES, OR APPROVED EQUAL. WOOD PIPE SUPPORTS SHALL NOT BE ACCEPTABLE. PROVIDE TRAFFIC/WALK PADS BELOW ALL PIPE STANDS.

AD. INSTALL SLEEVES FOR ALL PIPES WHICH PASS THROUGH WALLS, FLOORS, AND CEILINGS. WHERE PIPES ARE TO BE INSULATED, THE SLEEVE SHALL BE LARGE ENOUGH TO ACCOMMODATE INSULATION. SLEEVES SHALL BE FLUSH WITH FINISHED SURFACES AT BOTH ENDS. ON FINISHED SURFACES IN EXPOSED AREAS PROVIDE ESCUTCHEONS COMPATIBLE WITH FINISH.

AE. PROVIDE WATER HAMMER ARRESTERS ON SUPPLY PIPING TO ALL FLUSHOMETER VALVES AND QUICK–CLOSING VALVES.

AF. UNLESS OTHERWISE INDICATED, TRAPS SEALS AT ALL FLOOR DRAINS SHALL BE MAINTAINED BY AN APPROVED TRAP PRIMING DEVICE.

AG. MAINTAIN ALL REQUIRED AND RECOMMENDED CLEARANCES FOR ALL PLUMBING SYSTEM COMPONENTS AND EQUIPMENT.

M. MAINTAIN MINIMUM 10'–0" CLEARANCE BETWEEN ALL PLUMBING V.T.R.S AND ALL OUTDOOR AIR INTAKES. OFFSET VENT STACKS AND STACK VENTS IF AND AS REQUIRED BELOW ROOF TO MAINTAIN SUCH CLEARANCE WHETHER OR NOT SUCH OFFSET IS INDICATED ON THE DRAWINGS. PROVIDE ALL REQUIRED SEISMIC SUPPORTS.

2.01 GENERAL

A. ALL WORK WHICH REQUIRES DISRUPTION OF THE ROOFING SHALL BE DONE BY A CONTRACTOR CERTIFIED BY THE ROOFING MANUFACTURER AS REQUIRED TO MAINTAIN ANY EXISTING ROOF WARRANTIES.

B. EXTERIOR INSTALLATIONS TO BE WEATHER PROOF IN ALL RESPECTS.

C. EXTERIOR MATERIALS AND EQUIPMENT SHALL BE PAINTED TO PREVENT CORROSION, COLOR PER ARCHITECT.

D. COORDINATE THE PLUMBING WORK WITH ALL OTHER AFFECTED WORK AND THE CONSTRUCTION SCHEDULE.

E. REAM PIPE AND TUBE ENDS. REMOVE BURRS. BEVEL PLAIN AND FERROUS END PIPE.

F. REMOVE SCALE AND FOREIGN MATERIAL, FROM INSIDE AND OUTSIDE, BEFORE ASSEMBLY.

G. PREPARE PIPING CONNECTIONS TO EQUIPMENT WITH FLANGES AND UNIONS.

H. COORDINATION WITH THE WORK OF OTHER TRADES IS REQUIRED. PROVIDE OFFSETS IN PIPING SYSTEMS OR MINOR DEVIATIONS TO THE INDICATED PIPE ROUTING IN ORDER TO COORDINATE THE PLUMBING WORK WITH THE WORK OF ALL OTHER TRADES AND THE GENERAL BUILDING CONDITIONS.

I. NO DOMESTIC WATER PIPING SHALL BE INSTALLED IN UNHEATED SPACES.

J. PRIOR TO DISCONNECTING AND CONNECTING NEW WORK TO EXISTING SYSTEMS, THE PLUMBING CONTRACTOR SHALL NOTIFY THE PROPERTY MANAGER AND OFFER A PROPOSED SCHEDULE OF WORK. ELECTRICAL SERVICE BOARD(ESB) WILL AUTHORIZE CONNECTIONS AND COORDINATE NECESSARY SHUT DOWNS AND DRAIN DOWNS AS REQUIRED. SHUT DOWNS AND DRAIN DOWNS MAY BE PERFORMED BY THE PLUMBING CONTRACTOR ONLY AFTER RECEIVING ESB AUTHORIZATION, AND SHOULD BE PERFORMED UNDER SUPERVISION OF ESB PERSONNEL. THREE (3) DAYS ADVANCE NOTICE TO THE PROPERTY MANAGER IS REQUIRED.

K. THE PLUMBING CONTRACTOR IS ADVISED THAT DUE TO THE NATURE OF THE OPERATIONS AND TENANT REQUIREMENTS, CONNECTIONS TO EXISTING SYSTEMS MAY HAVE TO BE MADE AFTER REGULAR WORKING HOURS. THE PROPERTY MANAGER WILL ADVISE THE PLUMBING CONTRACTOR OF THE TIME CONSTRAINTS UPON RECEIPT AND APPROVAL OF THE PLUMBING CONTRACTOR'S REQUEST FOR SHUT DOWN AND CONNECTION TO EXISTING SYSTEMS.

L. WHEN CONNECTING TO EXISTING STACKS AND RISERS, PROVISION IS TO BE MADE FOR FUTURE CONNECTIONS BY PROVIDING CAPPED AND VALVED OUTLETS ON DOMESTIC WATER RISERS AND PLUGGED OUTLETS ON THE SANITARY AND VENT STACKS.

2.02 ABOVE GRADE

A. INSTALL PLUMBING PIPING IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PIPING COMPLIES WITH REQUIREMENTS AND SERVES INTENDED PURPOSES.

B. ROUTE PIPING IN AN ORDERLY MANNER, PLUMB AND PARALLEL TO BUILDING STRUCTURE. MAINTAIN GRADIENT. SLOPE PIPING AND ARRANGE SYSTEMS TO DRAIN. IN DOMESTIC WATER SYSTEMS, PROVIDE DRAIN VALVES AT MAIN SHUT–OFF VALVES AND ALL LOW POINTS IN PIPING.

C. USE EXISTING CONNECTIONS AT MAINS WHERE AVAILABLE FOR NEW BRANCH PIPING. LOCATE ALL RISERS AND PIPING BEFORE CONSTRUCTION COMMENCES AND TAKE CARE NOT TO DAMAGE SAME. ANY DAMAGE OCCURRING TO THE EXISTING PIPING WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

2.03 INSULATION

COVER ALL HOT WATER AND HOT WATER RECIRCULATION PIPE WITH 1" THICK FOR PIPE SIZE UP TO 1¼" AND 1½" THICK FOR PIPE SIZE 1½" AND GREATER WITH MANVILLE MICRO–LOK AP–T PLUS FIBERGLASS INSULATION. COVER ALL COLD WATER PIPE WITH ½" THICK FOR PIPE SIZE UP TO 1¼" AND 1" THICK FOR PIPE SIZE 1½" AND GREATER WITH 1" MANVILLE MICRO–LOK AP–T PLUS FIBERGLASS INSULATION. FITTINGS AND VALVES SHALL BE INSULATED WITH MANVILLE ZESTON 2000 PVC INSULAT–ED FITTING COVERS. INSTALL ALL INSULATION AS PER MANUFACTURERS RECOMMENDATIONS. ALL INSULATION MATERIAL SHALL COMPLY WITH THE NEW YORK CITY BUILDING CODE REQUIREMENT OF A FLAME SPREAD RATING NOT TO EXCEED 25 AND A SMOKE DEVELOPED RATING NOT TO EXCEED 50. ALL PIPE INSULATION SHALL COMPLY WITH 2023 FLORIDA ENERGY CONSERVATION CODE.

3. TESTING

A. AT THE COMPLETION OF THE PLUMBING WORK, COMPLETELY TEST THE ENTIRE INSTALLATION OF ALL SYSTEMS FOR PROPER OPERATION AND COMPLIANCE WITH APPLICABLE CODES AND LOCAL REQUIREMENTS. CORRECT ALL DEFICIENCIES FOUND.

B. TESTING OF THE INSTALLED SYSTEMS SHALL BE MADE BY THE CONTRACTOR IN THE PRESENCE OF A REPRESENTATIVE OF THE OWNER.

C. THE CONTRACTOR SHALL NOT COVER UP OR PERMANENTLY CONCEAL PIPING, DEVICES OR ANY PORTION OF NEWLY CONSTRUCTED PLUMBING SYSTEM(S) UNTIL SUCH SYSTEM, OR PORTION OF THE SYSTEM, HAS BEEN TESTED IN THE PRESENCE OF A REPRESENTATIVE OF THE OWNER AND INSPECTED BY THE LOCAL INSPECTOR AND APPROVED IN WRITING, EXCEPT PIPING PASSING THROUGH FLOORS, WALLS, PARTITIONS, OR BEAMS, FOR DISTANCES EQUAL TO THE THICKNESS OF SUCH FLOOR, WALL, PARTITION OR BEAM.

D. THIS CONTRACTOR SHALL NOTIFY THE VARIOUS DEPARTMENTS, BUREAUS AND INDIVIDUALS AT LEAST TWO WEEKS IN ADVANCE OF THE TIME THAT THE TESTS ARE TO BE CONDUCTED.

E. ALL DEFECTIVE PARTS SHALL BE REPLACED OR CORRECTED BY THIS CONTRACTOR AND AN EXTRA TEST OR TESTS SHALL BE MADE UNTIL THE OPERATION IS SATISFACTORY. ALL ARRANGEMENTS AND EXPENSES NECESSARY TO CONDUCT ALL TESTS REQUIRED BY THESE SPECIFICATIONS AND THE VARIOUS AGENCIES HAVING JURISDICTION OVER THE WORK INSTALLED UNDER THIS CONTRACT SHALL BE MADE BY THIS CONTRACTOR. NO EXTRA COMPENSATION WILL BE ALLOWED FOR THESE TESTS, THE COST THEREOF BEING INCLUDED IN THE LUMP SUM BID FOR THIS CONTRACT.

F. WHERE ANY EVIDENCE OF STOPPAGE IS FOUND IN PIPING OR EQUIPMENT, THIS CONTRACTOR SHALL DISCONNECT, CLEAN, REPAIR AND RECONNECT ALL OBSTRUCTED PIPING OR EQUIPMENT AND SHALL ALSO PAY FOR ALL NECESSARY CUTTING AND REPAIRS TO ADJOINING WORK.

G. ALL PIPING AND EQUIPMENT SHALL BE THOROUGHLY CLEANED INSIDE AND OUT, OF DIRT, CUTTINGS, OILS AND OTHER FOREIGN SUBSTANCES AND SHALL BE LEFT CLEAN.

H. ALL REQUIRED TESTS SHALL BE WITNESSED BY LOCAL AUTHORITIES AND THE OWNER'S REPRESENTATIVE.

I. ALL EQUIPMENT WILL BE FACTORY TESTED.

J. CONTRACTOR SHALL IDENTIFY TO THE OWNER'S REPRESENTATIVE ANY LEAKS OR DAMAGE THAT OCCURS AS A RESULT OF SYSTEM TESTING. CONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO LIMIT ANY POTENTIAL DAMAGE. CORRECTIVE ACTION REQUIRED AS A RESULT OF TESTING SHALL BE PERFORMED IMMEDIATELY AND AT THE CONTRACTOR'S EXPENSE.

K. REPORT IN WRITING TO AUTHORITIES HAVING JURISDICTION, THE ARCHITECT AND THE OWNER THE RESULTS OF ALL TESTING.

L. TESTING REQUIREMENTS
   a. TEST ALL DOMESTIC WATER PIPING HYDROSTATICALLY TO 125 PSIG.
   b. HYDROSTATIC TEST PRESSURES SHALL REMAIN CONSTANT WITH NO VARIATION FOR 120 MINUTES.
   c. TESTS SHALL BE WITNESSED BY THE BUILDING ENGINEER.
   d. THE PLUMBING CONTRACTOR WILL BE HELD RESPONSIBLE FOR ALL DAMAGE DUE TO TEST FAILURES AND LEAKAGE IN THE TEST AREA AND ADJACENT TENANT OR ELECTRICAL SERVICE BOARD SPACES.

M. REFILL ENTIRE POTABLE HOT AND COLD WATER SUPPLY SYSTEM WITH CHLORINE SOLUTION (HTH OLIN CHEMICAL CORP.) AT A STRENGTH TO MEET STANDARDS OF THE DEPARTMENT OF HEALTH, AND FOR A PERIOD OF RETENTION AS STIPULATED.

N. THOROUGHLY FLUSH PIPING SYSTEM WITH FRESH WATER IMMEDIATELY PRIOR TO FINAL ACCEPTANCE.

4. WARRANTY

A. EQUIPMENT, MATERIALS AND WORKMANSHIP FURNISHED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK BY THE OWNER. THE CONTRACTOR SHALL KEEP THE WORK IN GOOD REPAIR FOR ONE YEAR AFTER THE DATE OF FINAL APPROVAL. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROMPTLY CORRECT AND REPAIR ANY AND ALL BREAKS, FAILURES OR WEAR DUE TO FAULTY MATERIALS, WORKMANSHIP OR EQUIPMENT. ALL SETTLEMENTS OF SURFACES THAT MAY OCCUR WITHIN THAT PERIOD SHALL ALSO BE PROMPTLY REPAIRED.

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ZAXBY'S TENANT IMPROVEMENTS

PLUMBING SPECIFICATIONS

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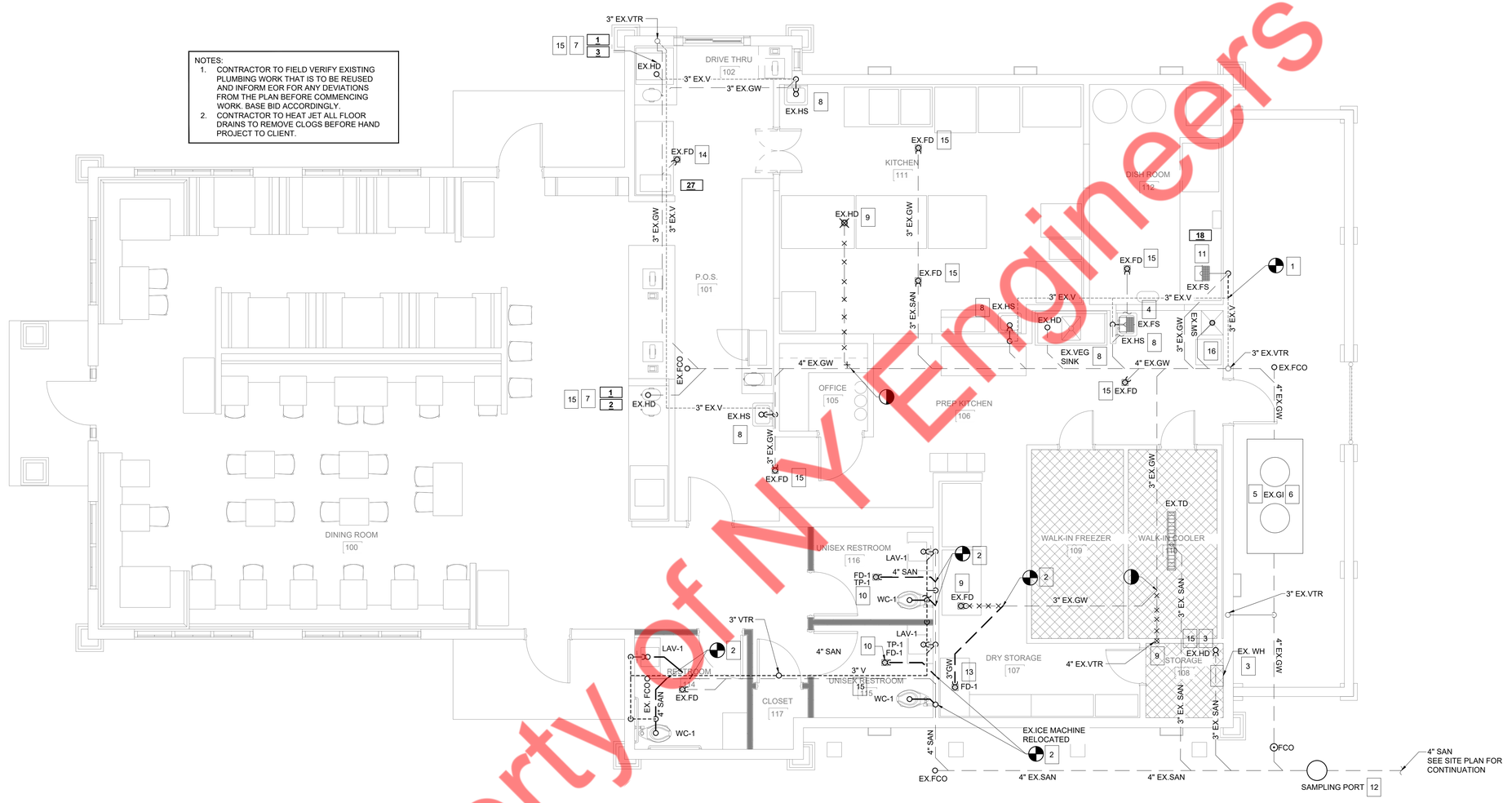
ZAXBY'S TENANT IMPROVEMENTS

PLUMBING SANITARY AND VENT FLOOR PLAN

NOTES:
1. CONTRACTOR TO FIELD VERIFY EXISTING PLUMBING WORK THAT IS TO BE REUSED AND INFORM EOR FOR ANY DEVIATIONS FROM THE PLAN BEFORE COMMENCING WORK. BASE BID ACCORDINGLY.
2. CONTRACTOR TO HEAT JET ALL FLOOR DRAINS TO REMOVE CLOGS BEFORE HAND PROJECT TO CLIENT.



1 P1.0 PLUMBING SANITARY AND VENT FLOOR PLAN
1/4" = 1'-0"

KEY NOTES

1. CONNECT NEW VENT PIPE TO EXISTING VENT PIPING NETWORK. CONTRACTOR TO FIELD VERIFY EXACT SIZE AND LOCATION PRIOR TO BID.
2. CONNECT NEW SANITARY LINE TO EXISTING SANITARY PIPING NETWORK. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION AND INVERT ON SITE PRIOR TO BID.
3. INDIRECT WASTE FROM EXISTING WATER HEATER(EX. WH) TO THE EXISTING HUB DRAIN (EX. HD) TO REMAIN. CONTRACTOR TO VIF EXACT LOCATION.
4. INDIRECT WASTE FROM EXISTING HAND SINK(EX. HS) TO THE EXISTING FLOOR SINK (EX. FS) TO REMAIN. CONTRACTOR TO VIF EXACT LOCATION.
5. EXISTING GREASE INTERCEPTOR TO REMAIN. CONTRACTOR TO VERIFY THAT INTERCEPTOR IS IN OPERABLE CONDITION BEFORE CONSTRUCTION.
6. BEFORE CONSTRUCTION, CONTRACTOR TO VERIFY THAT EXISTING INTERCEPTOR HAS ADEQUATE CAPACITY TO MEET PROJECT DEMAND PER CALCULATION. IF IT DOES NOT, ADD A SECOND INTERCEPTOR IN SERIES SUCH THE THE COMBINED CAPACITY WILL MEET PROJECT DEMAND.
7. CONTRACTOR TO VIF AND DRAIN NEW ICE MACHINE(#TAG 1) AND BEVERAGE DISPENSER(#TAG 3) TO NEAREST EXISTING HUB DRAIN WITH APPROVED AIR GAP.
8. EXISTING PLUMBING FIXTURE WITH EXISTING SANITARY AND VENT CONNECTIONS TO REMAIN AS IS.
9. EXISTING HUB DRAIN TO BE DEMOLISHED AND EXISTING SANITARY & VENT OF THE SAME TO BE CAPPED OFF.
10. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS PROVIDED IN ALL RESTROOMS.
11. CONTRACTOR TO VIF AND ROUTE INDIRECT WASTE FROM 4-COMP SINK(#TAG 18) TO THE EXISTING FLOOR SINK (EX.FS) WITH APPROVED AIR GAP. CONTRACTOR TO ENSURE THAT DRAIN LINES FROM EACH COMPARTMENT ARE ROUTED SEPARATELY TO FLOOR SINK. DO NOT COMBINE THE DRAIN LINES. REFER DETAIL #4 ON SHEET P5.1 FOR DETAILS. REFER SHEET P5.1 FOR DETAILS.
12. PROVIDE A SAMPLING PORT IF THERE ISN'T ANY EXISTING SAMPLING PORT ALREADY PRESENT. PLEASE ENSURE THAT NO SANITARY WASTE LINE TO BYPASS THE PORT.
13. CONTRACTOR TO VIF AND ROUTE INDIRECT WASTE FROM EX. RELOCATED ICE MACHINE TO THE NEAREST FLOOR DRAIN WITH APPROVED AIR GAP.
14. CONTRACTOR TO VIF AND DRAIN NEW COUNTERTOP SHAKE FREEZER (#TAG 27) TO NEAREST EXISTING FLOOR DRAIN WITH APPROVED AIR GAP.
15. EXISTING FLOOR DRAIN(EX. FD)/ HUB DRAIN(EX. HD) WITH EXISTING PLUMBING CONNECTIONS TO REMAIN AS IS. CONTRACTOR TO VIF EXACT LOCATION.
16. EXISTING CONDITIONS SHOW A WATER LEAK IN THIS AREA. CONTRACTOR TO INVESTIGATE SOURCE OF LEAK. REPLACE ANY SANITARY PIPES WHERE REQUIRED.

GREASE INTERCEPTOR CALCULATIONS

GREASE INTERCEPTOR CALCULATIONS

SR. NO	FIXTURE TYPE	COMPARTMENT QUANTITY	L	W	D	VOLUME (CU. IN.)	VOLUME (GALLONS)	% FULL	DRAIN TIME (MINUTES)	DRAINAGE LOAD (GALLONS)
1	MOP SINK	1	24	24	10	5760	24.9	0.5	2	6.2
2	4-COMP SINK	4	20	28	14	31360	135.8	0.5	2	33.9
3	HAND SINK	4	15	12	6	4320	18.7	0.5	2	4.7
4	PREP SINK	1	19.5	15.5	6	1813.500000	7.9	0.5	2	2.0
									*TOTAL FIXTURE FLOW RATE (GPM):	46.8

SYMBOL	FIXTURE TYPE	QUANTITY	FLOW CAPACITY (GPM)	FLOW RATE (GPM)
EX.FD	FLOOR DRAIN	7	2.5	17.500000
EX.HD	HUB DRAIN	3	2.5	7.500000
			MAXIMUM FLOW RATE (GPM):	64
			RETENTION TIME (MINUTES):	30
			REQUIRED VOLUME (GALLONS):	1929

NOTE: EMERGENCY FLOOR DRAINS ARE EXCLUDED FROM CALCULATION AS THEY WILL NOT BE IN OPERATION DURING ACTIVE KITCHEN USE.

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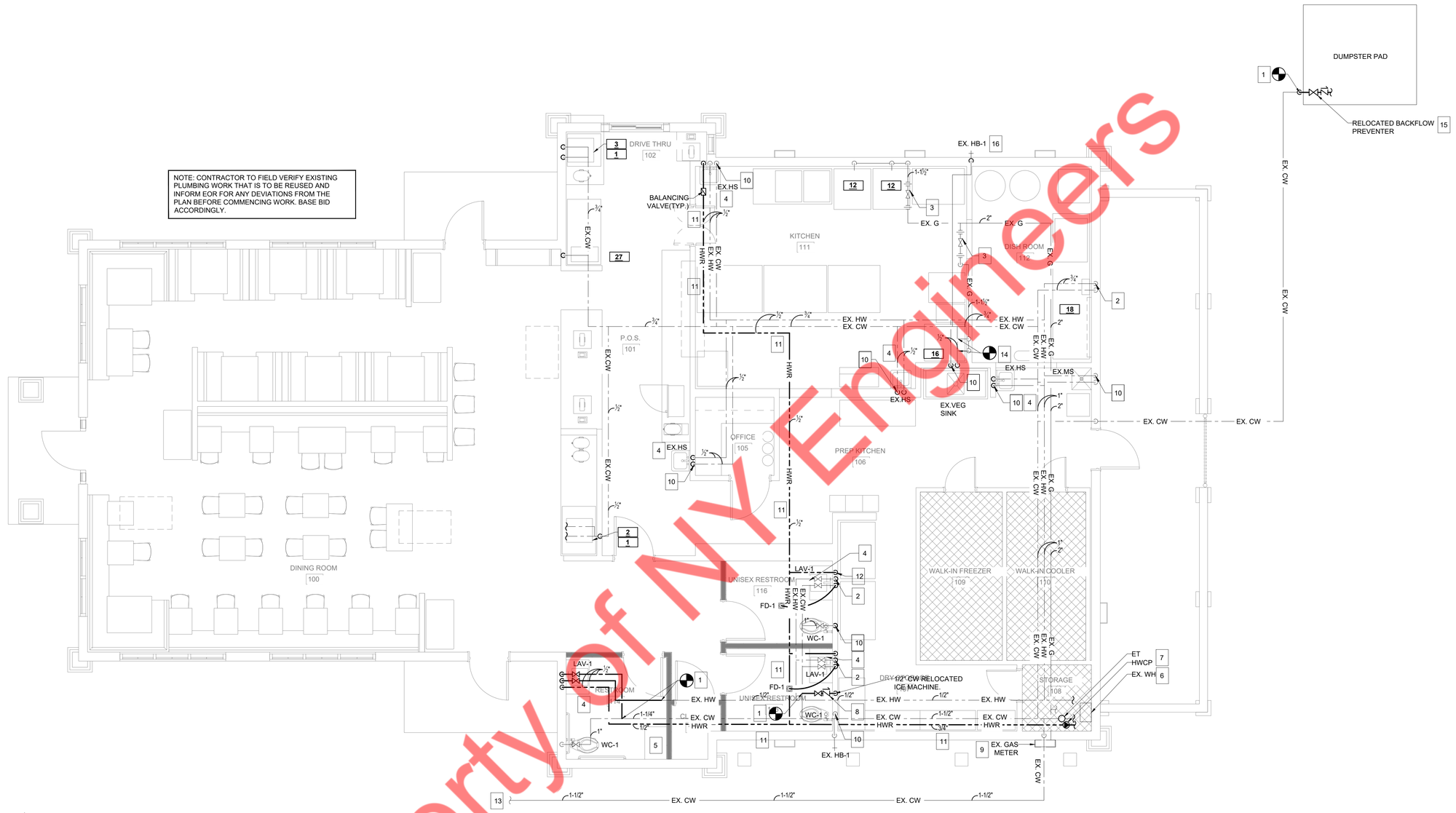
ZAXBY'S TENANT IMPROVEMENTS

PLUMBING WATER AND GAS FLOOR PLAN

NOTE: CONTRACTOR TO FIELD VERIFY EXISTING PLUMBING WORK THAT IS TO BE REUSED AND INFORM EOR FOR ANY DEVIATIONS FROM THE PLAN BEFORE COMMENCING WORK. BASE BID ACCORDINGLY.



1 / P1.1 PLUMBING WATER AND GAS FLOOR PLAN

1/4" = 1'-0"

KEY NOTES

1. CONNECT NEW CW/HW PIPING TO EXISTING DOMESTIC CW/HW NETWORK. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION AND INVERT ON SITE.
2. CONNECT EXISTING CW/HW PIPING TO NEW PLUMBING FIXTURE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, LOCATION AND INVERT ON SITE.
3. CONTRACTOR TO VERIFY THAT AN EMERGENCY SHUT-OFF VALVE IS PROVIDED TO GAS PIPE TO HOOD. PROVIDE EMERGENCY SHUT-OFF VALVE IF NOT ALREADY PROVIDED. COORDINATE ITS LOCATION WITH HOOD CONTRACTOR. PROVIDE EMERGENCY SHUT-OFF VALVE. CONTRACTOR TO COORDINATE ITS LOCATION WITH HOOD CONTRACTOR.
4. PROVIDE THERMOSTATIC MIXING VALVE ON ALL LAVATORIES AND HAND SINKS. LIMIT TEMPERATURE TO 105 DEG.F. IGNOTE IF EXISTING MIXING VALVE IS ALREADY PROVIDED.
5. THERE WAS A LAVATORY HERE. IF STILL REMAINING ON SITE, REMOVE THE LAVATORY AND DEMOLISH CW/HW FOR THE SAME.
6. EXISTING WALL MOUNTED GAS WATER HEATER WITH EXISTING CONNECTIONS TO REMAIN.CONTRACTOR TO CHECK CONDITION OF EXISTING HEATER & WHETHER HEATER HAD ADEQUATE CAPACITY TO MEET PROJECT DEMAND. IF IT DOES NOT. REPLACE EXISTING HEATER WITH NEW HEATER OF ADEQUATE CAPACITY AND BASE BID ACCORDINGLY.
7. PROVIDE NEW RE-CIRCULATION PUMP(HWCP) ON HWR LINE AND NEW EXPANSION TANK(ET) ON CW LINE AS SHOWN. REFER EQUIPMENT SCHEDULE ON SHEET P3.0 FOR EQUIPMENT SCHEDULE.
8. PROVIDE WATTS LF9D DCV BACKFLOW PREVENTER BFP-1.
9. EXISTING GAS METER 7" W.C. GAS PRESSURE. BEFORE CONSTRUCTION, CONTRACTOR TO VERIFY THAT ADEQUATE PRESSURE IS SUPPLIED TO THE ALL THE GAS EQUIPMENT'S PROPER OPERATION. CONTRACTOR TO VERIFY THAT GAS METER HAS MINIMUM 800 CFH CAPACITY & 6" W.C. GAS PRESSURE. IF LESS, INFORM OWNER & UPGRADE THE METER & LINE TO HIGHER PRESSURE.
10. EXISTING PLUMBING FIXTURE WITH EXISTING CW/HW CONNECTION TO REMAIN AS IS.
11. PROVIDE HWR LINE AS SHOWN ON FLOOR PLANS. PROVIDE BALANCING VALVE WHERE EVER HWR LINE CONNECT TO EXISTING HW LINE.
12. CONNECT HWR LINE TO THE EXISTING HW LINE FOR LAVATORY. POINT OF CONNECTION MUST BE LESS THAN 2' AWAY FROM THE LAV. PROVIDE BALANCING VALVE VERTICALLY ON HWR LINE.
13. CONTRACTOR TO VERIFY THAT EXISTING CW LINE IS PROVIDED WITH EXISTING WATER METER AND EXISTING RPZ.
14. CONNECT NEW GAS FRYERS TO EXISTING GAS CONNECTION.
15. PROVIDE WATTS LF8 BACKFLOW PREVENTER TO COLD WATER LINE FOR DUMPSTER AREA. BACKFLOW PREVENTER MUST COMPLY WITH ASSE 1011.
16. RELOCATE BACK FLOW PREVENTER TO THIS LOCATION. COORDINATE EXACT LOCATION WITH CIVIL CONTRACTOR.

HOT WATER DEMAND CALS

HOT WATER DEMAND CALS			
FIXTURE	QUANTITY	GPM PER FIXTURE	TOTAL GPM
4-COMP SINK	1	2.0	2.0
HAND SINK	4	0.5	2.0
MOP SINK	1	2.0	2.0
VEGETABLE SINK	1	2.0	2.0
LAVATORIES	3	0.5	1.5
		TOTAL GPM	9.5

NOTE: GPM VALUES FOR FIXTURES PER TABLE 11, CHAPTER 51 SERVICE WATER HEATING OF ASHRAE HANDBOOK.
CONTRACTOR TO FIELD VERIFY EXISTING WATER HEATER HAS ADEQUATE CAPACITY TO MEET PROJECT DEMAND.

GAS NETWORK NOTES:

1. NO NEW GAS PIPING IS PROPOSED FOR THIS PROJECT. ONLY EQUIPMENT IS REPLACED OR REMOVED.
2. EXISTING GAS NETWORK IS BASED ON PAST ZAXBY PROJECT. CONTRACTOR TO VERIFY ROUTING AND SIZE ON SITE. INFORM OWNER IF THERE ARE ANY MAJOR DEVIATIONS.
3. CONTRACTOR TO VERIFY THAT EXISTING GAS NETWORK IS IN OPERABLE CONDITIONS AND IS FREE OF LEAKS. PERFORM REPAIRS/REPLACEMENT OF DAMAGED NETWORK WHERE REQUIRED.
4. CONTRACTOR TO VERIFY THAT GAS PRESSURE AT NEW & EXISTING EQUIPMENT IS WITHIN 5" TO 10" W.C. RANGE. PROVIDE PRESSURE REGULATOR WHERE PRESSURE EXCEEDS 10" W.C.

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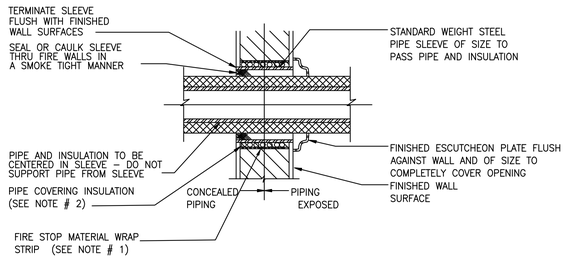
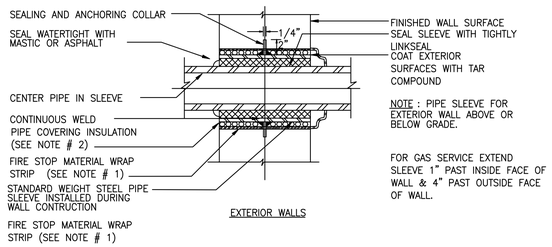
PLUMBING DETAILS (1 OF 2)



INTERIOR WALLS

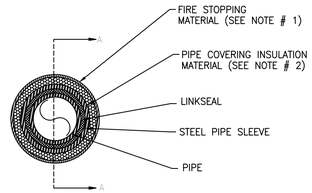


EXTERIOR WALLS

NOTE : PIPE SLEEVE FOR EXTERIOR WALL ABOVE OR BELOW GRADE.

FOR GAS SERVICE EXTEND SLEEVE 1" PAST INSIDE FACE OF WALL & 4" PAST OUTSIDE FACE OF WALL.

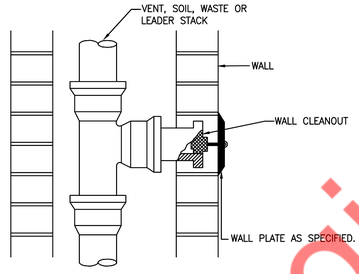
PIPE SLEEVE THRU WALL SECTION

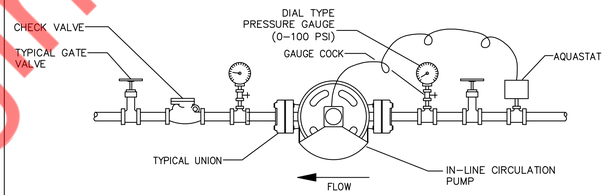


PIPE SLEEVE VIEW

NOTES:

1. FIRESTOP MATERIAL WRAP STRIP SHALL BE ¼" THICK INTUMESCENT ELASTOMERIC MATERIAL FACED ON ONE SIDE WITH ALUMINUM FOIL SUPPLIED IN 2 IN. WIDE STRIPS AND WRAP AROUND THE PIPE AS PER UL MATERIAL LISTED3M COMPANY FS-195+ OR FILL CAVITY WITH CAULK OR SEALANT MIN. ¼" DIA. CONTINUOUS BEAD APPLIED TO THE WRAP STRIP/WALL INTERFACE AND TO THE EXPOSED OF THE WRAP STRIP LAYER APPROX. 3/4" FROM WALL SURFACE. AS PER UL LISTED 3M COMPANY CP25WB+, IC 15WB+, FIRE DAM 150+CAULK.
2. PIPE COVERING INSULATION SHALL BE 2" THICK HOLLOW CYLINDRICAL HEAVY DENSITY GLASS FIBER UNITS JACKETED ON THE OUTSIDE WITH AN ALL SERVICE JACKETED. AS PER UL CLASSIFICATION AND MARKING WITH A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE DEVELOPED INDEX OF 50 OR LESS MAY BE USED.





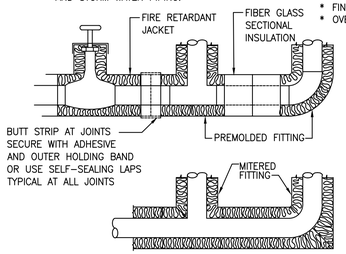
1 / P5.0 PIPE SLEEVE THRU WALL SECTION
N.T.S

2 / P5.0 WALL CLEANOUT DETAIL
N.T.S

3 / P5.0 INLINE RECIRCULATING PUMP DETAIL
N.T.S

CONCEALED VALVES AND FITTINGS

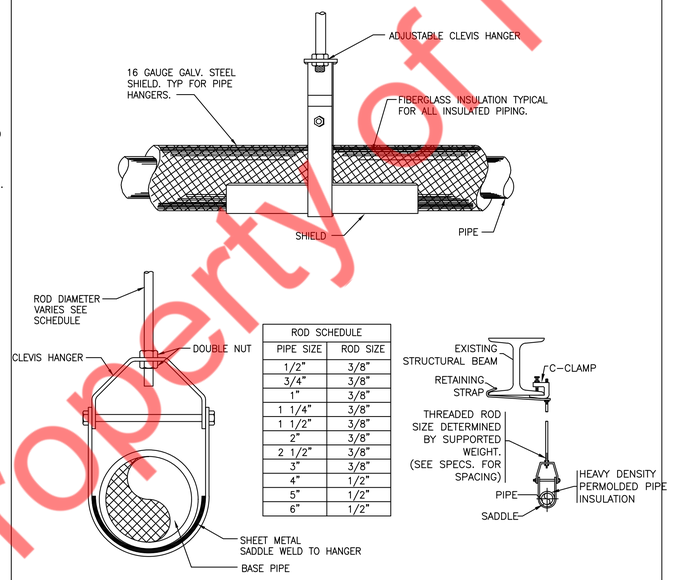
- WRAP WITH 1-INCH THICK, 1-POUND DENSITY TO REQUIRED PIPE INSULATION THICKNESS
- SECURE WITH WIRE OR TAPE.
- VAPOR SEAL COLD WATER, CHILLED WATER AND STORM WATER PIPING.



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.

4 / P5.0 INSULATION OF PIPING, VALVES AND FITTINGS FOR EXPOSED AND CONCEALED LOCATION
N.T.S



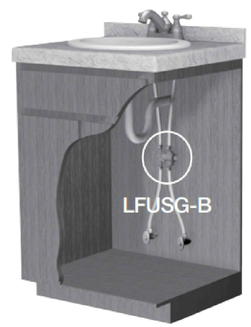
ROD SCHEDULE	
PIPE SIZE	ROD SIZE
1/2"	3/8"
3/4"	3/8"
1"	3/8"
1 1/4"	3/8"
1 1/2"	3/8"
2"	3/8"
2 1/2"	3/8"
3"	3/8"
4"	1/2"
5"	1/2"
6"	1/2"

5 / P5.0 HANGER DETAIL
N.T.S

Flush all piping thoroughly before installation.

1. Locate suitable place for the thermostatic mixing valve. Valve should be accessible for service and adjustment and as close to the point-of-use as possible.
2. Connect hot and cold water to the supply valve using ⅜" compression connections. Make sure copper tubing does not extend more than 3⁄16" beyond the compression ferrule. For quick-connect refer to quick-connect installation.
3. Connect outlets of thermostatic mixing valve to fixture inlets.
4. Turn hot and cold water supplies on. If any leaks are observed, tighten connections as necessary before proceeding.
5. Turn on fixture and allow water to flow for 2 minutes. Measure temperature at the outlet.

If water is not at desired temperature, adjust as necessary (see temperature adjustment section).



Two Handle Faucet

ASSE 1070, cUPC and NSF Listed

6 / P5.0 THERMOSTATIC MIXING VALVE INSTALLATION DETAIL
N.T.S

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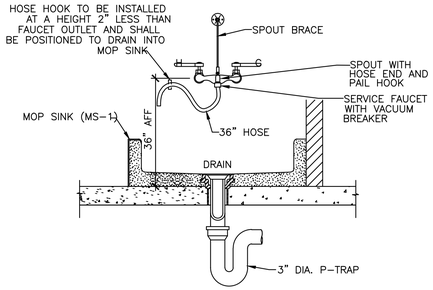
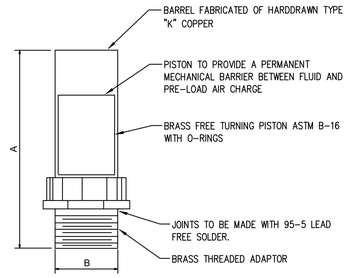


1 P5.1 MOP SINK DETAIL

N.T.S

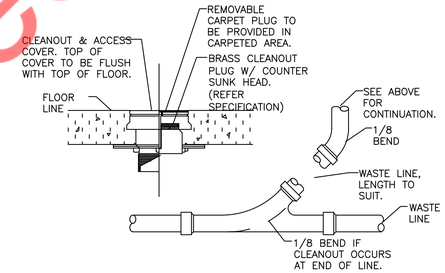


PIPE SIZE	P.D.I. SYMBOL	FIXTURE UNIT RATINGS	A SIZE	B SIZE
1/2"	A	1 – 11	5"	1/2"
3/4"	B	12 – 32	5"	3/4"
1"	C	33 – 60	7"	1"
1-1/4"	D	61 – 113	7"	1-1/4"
1-1/2"	E	114 – 154	9"	1-1/2"
2"	F	155 – 330	9"	2"

NOTE: LOCATE ONE FOR EACH BANK OF FLUSHOMETER FIXTURES AT LAST FIXTURE PROVIDE A STAINLESS STEEL ACCESS DOOR FOR EACH SUFFICIENT IN SIZE TO ALLOW REPLACEMENT OF ARRESTOR AT A FUTURE DATE.

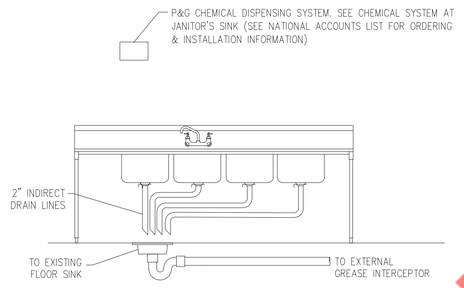
2 P5.1 WATER HAMMER ARRESTOR DETAIL

N.T.S



3 P5.1 FLOOR CLEANOUT DETAIL

N.T.S



COMMENTS:

1. COORDINATE INDIVIDUAL BAY DRAINAGE , AIR GAP, & DRAIN FUNNEL WITH LOCAL CODE REQUIREMENTS.

4 P5.1 4 COMPARTMENT SINK DETAIL

N.T.S

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

ZAXBY'S TENANT IMPROVEMENTS

PLUMBING DETAILS (2 OF 2)

04-19-24

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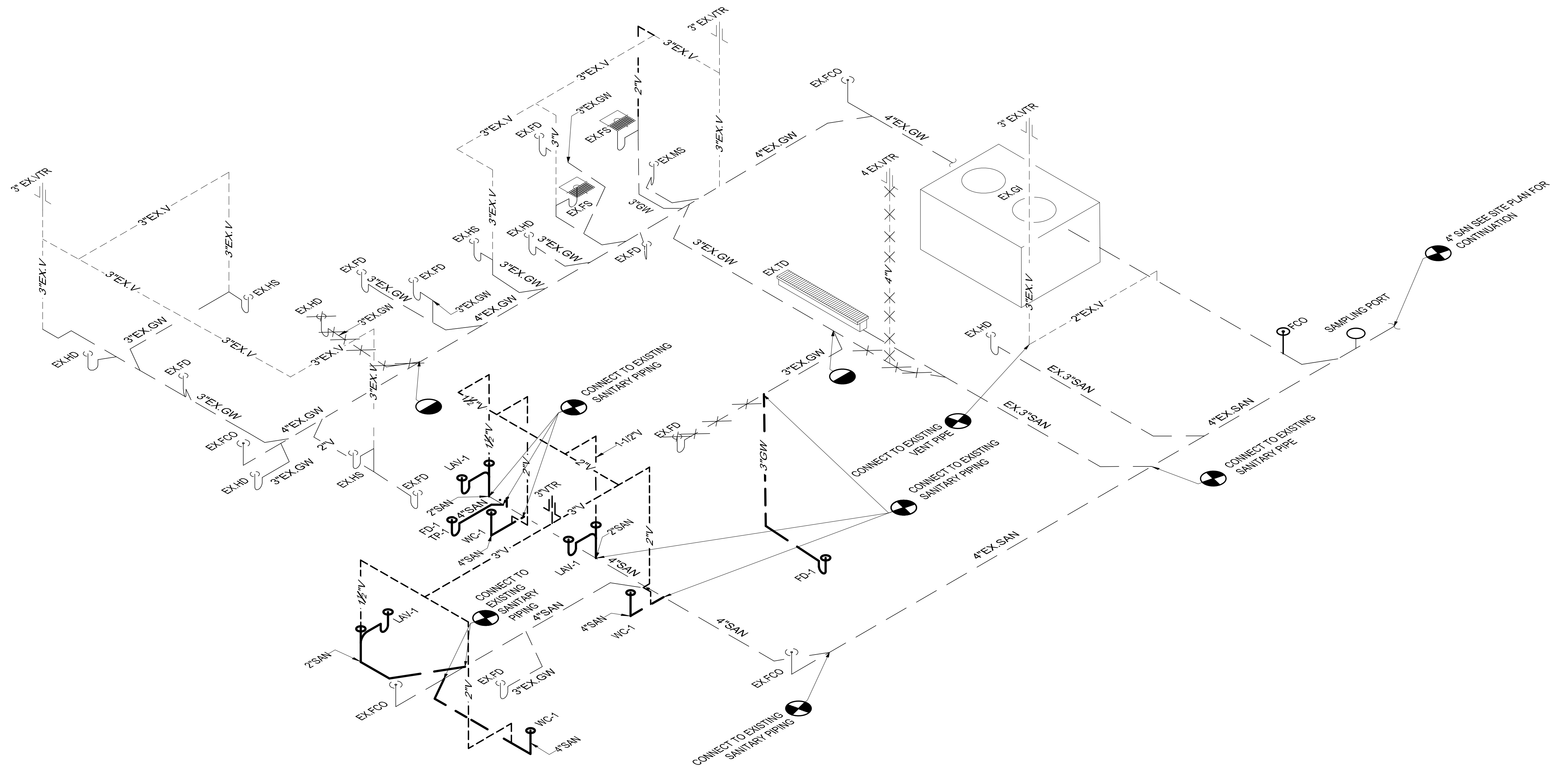
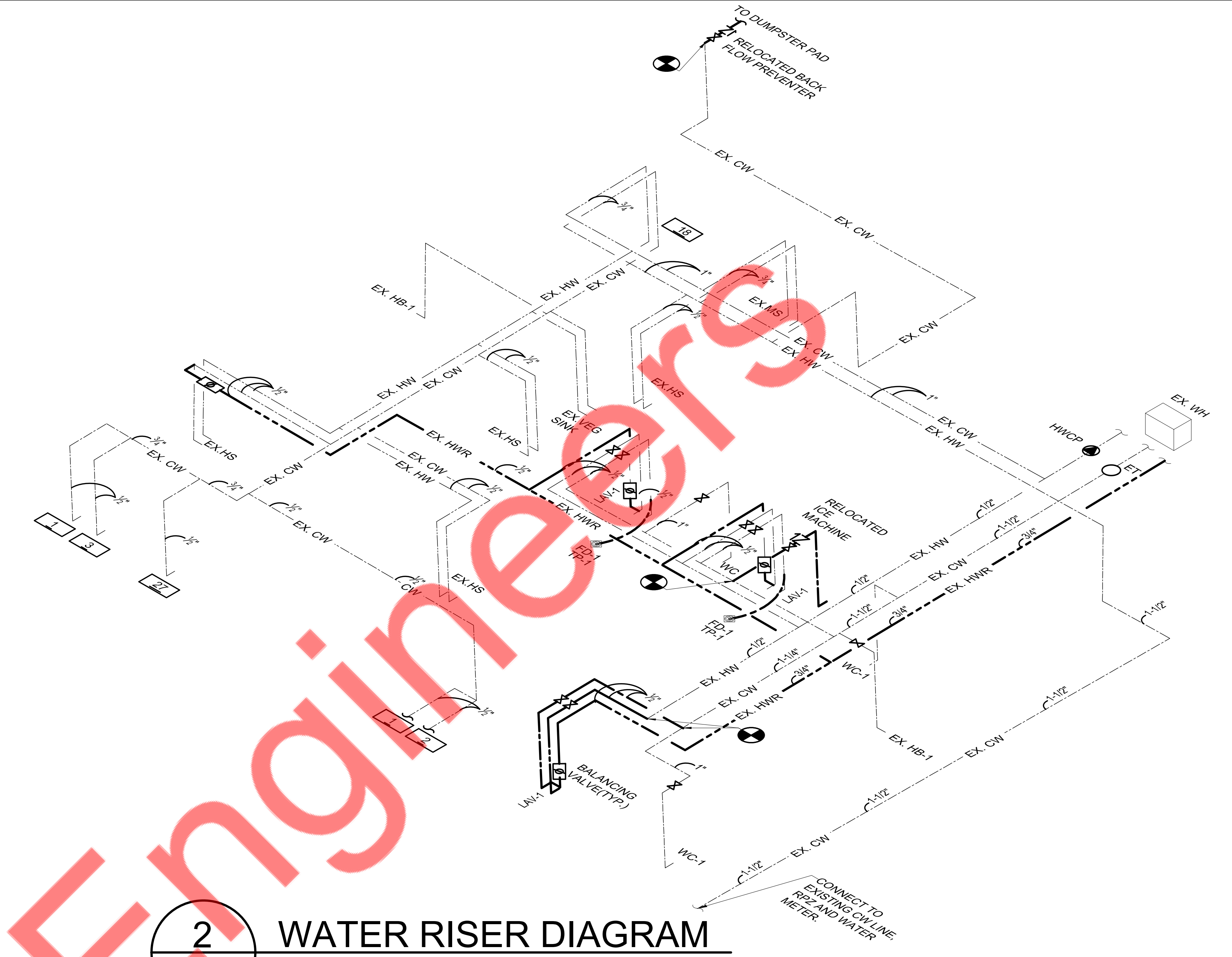
PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

P5.1



1 P6.0 SANITARY RISER DIAGRAM

NO SCALE



2 P6.0 WATER RISER DIAGRAM

1/4" = 1'-0"

PLUMBING FIXTURE SCHEDULE

LEGEND	QUANTITY	PLUMBING FIXTURE	CONNECTION SIZE - INCHES					THERMOSTATIC MIXING VALVE	REMARKS
			SOIL/WASTE	VENT	COLD WATER	HOT WATER	GAS		
12	2	WELL GASS OPEN FRYER	-	-	-	-	E	-	170 MBH
16	2	WELL GASS OPEN FRYER	-	-	-	-	E	-	100 MBH
1	2	ICE MACHINE	-	-	½"	-	-	-	RUN DRAIN LINE TO EXISTING HUB DRAIN
2 3	2	COLD CARBONATION ICE BEV. DISPENSER	-	-	½"	-	-	-	RUN DRAIN LINE TO EXISTING HUB DRAIN
18 21	1	4 COMPARTMENT SINK	-	-	E	E	-	-	RUN DRAIN LINE TO EXISTING FLOOR SINK
24	1	RELOCATED ICE MACHINE	-	-	½"	-	-	-	RUN DRAIN LINE TO EXISTING FLOOR DRAIN
27	1	COUNTERTOP SHAKE FREZZER	-	-	½"	-	-	-	RUN DRAIN LINE TO EXISTING FLOOR DRAIN
EX.VEG SINK	1	EXISTING VEG SINK	-	-	E	E	-	-	RUN DRAIN LINE TO EXISTING HUB DRAIN
EX.HS	4	EXISTING HAND SINK	E	E	E	E	-	-	-
WC-1	3	WATER CLOSET	4"	2"	1"	-	-	-	FLUSH VALVE AMERICAN STANDARD
LAV-1	3	LAVATORY	2"	1½"	½"	½"	-	PROVIDE	P-TRAP
EX.MS	1	EXISTING MOP SINK	E	E	E	E	-	-	-
EX.FD	7	EXISTING FLOOR DRAIN	E	E	-	-	-	-	-
EX.FS	2	FLOOR SINK	E	E	-	-	-	-	P-TRAP
EX.TD	1	EXISTING TRENCH DRAIN	E	E	-	-	-	-	-
EX.HD	4	EXISTING HUB DRAIN	E	E	-	-	-	-	-
FD-1	3	FLOOR DRAIN-1	4"	2"	-	-	-	-	PRVIDE TRAP PRIMER(TP-1) TO FLOOR DRAIN

NOTE: CONTRACTOR TO COORDINATE WITH ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURES SPECIFICATIONS AND MOUNTING HEIGHT INSTALLATION.

NATURAL GAS PIPING SYSTEM

PROVIDE A COMPLETE GAS PIPING SYSTEM TO SERVE GAS EQUIPMENT FURNISHED BY OTHERS, AS NOTED ON THE DRAWINGS. PROVIDE EITHER THREADED STEEL OR MALLEABLE IRON PIPE WITH MALLEABLE FITTINGS OR WELDED STEEL. PROVIDE ALL UNIONS, SHUT-OFF VALVES AND DIRT LEGS REQUIRED BY NFPA-54 AND GOVERNING LOCAL CODES AND AT EACH GAS APPLIANCE CONNECTION. PROVIDE ALL TESTS, METERS, INSPECTIONS, HANGERS AND EQUIPMENT CONNECTIONS REQUIRED FOR A COMPLETE AND OPERATING SYSTEM.

NOTE:

1. GAS PIPING TO BE SCHEDULE 40 STEEL PIPE W/125 CAST IRON SCREWD FITTINGS
2. GAS SYSTEM TO BE INSTALLED BY QUALIFIED LICENSED CONTRACTOR.
3. VERIFY ALL EQUIPMENT BTUS'S PRIOR TO INSTALLATION. ADJUST PIPE SIZE ACCORDING 2018 INTERNATIONAL FUEL GAS CODE(2018 IFGC), TABLE 402.4(2)
4. ALL GAS EQUIPMENT SHALL BE PROVIDED WITH PRESSURE REGULATOR TO OPERATE EQUIPMENT SATISFACTORILY.

GAS LOAD SUMMARY

EQUIPMENT	QTY	MBH LOAD
WATER HEATER (EX. WH)	1	199 (ASSUMED)
WELL GAS OPEN FRYER (TAG #12)	2	340 (170 EACH)
WELL GAS OPEN FRYER (TAG #16)	2	200 (100 EACH)
TOTAL LOAD		739

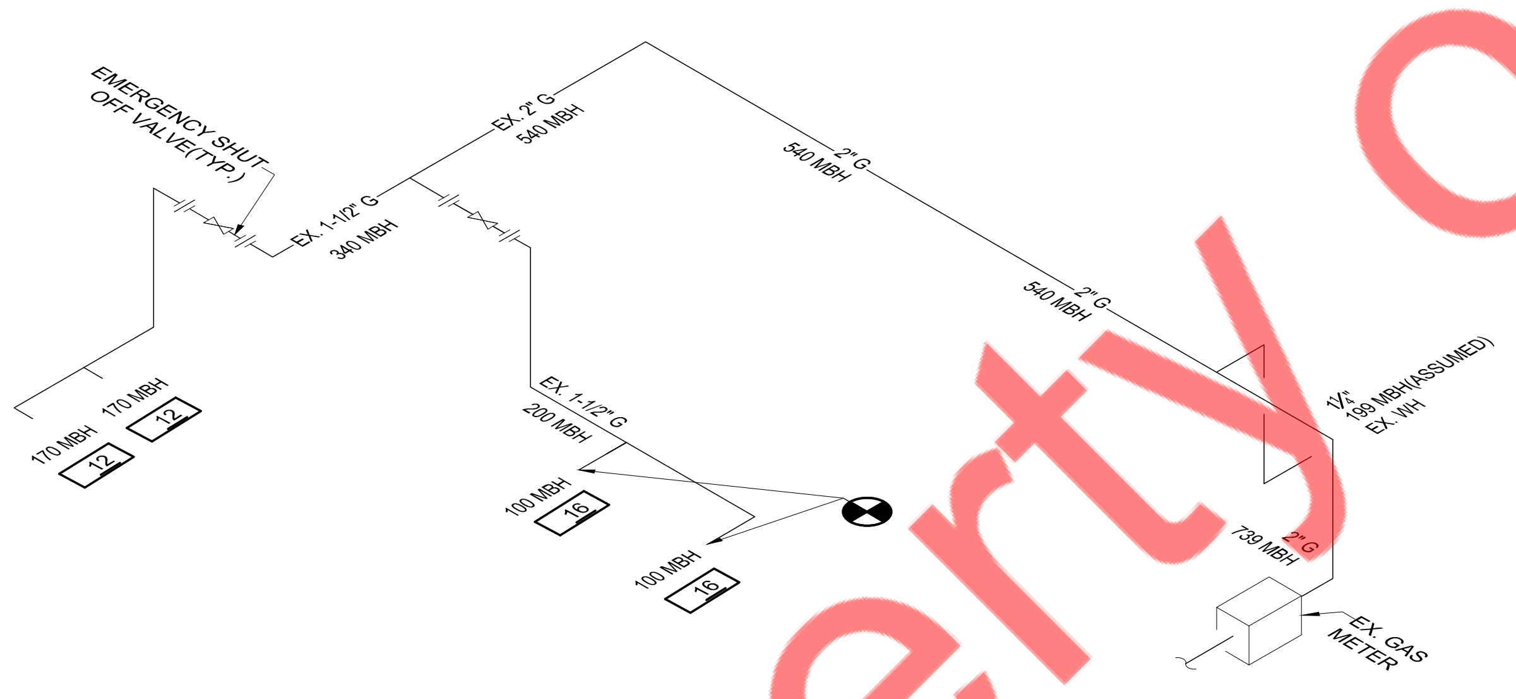
GAS PIPE SIZING PER TABLE 402.4(2) INTERNATIONAL FUEL GAS CODE (IFGC 2018)

GAS INLET PRESSURE- LESS THAN 2 PSI.

PRESSURE DROP- 0.5 PSI

SPECIFIC GRAVITY- 0.60

EQUIVALENT LENGTH OF PIPE = 100 FT



3 P6.0 GAS RISER DIAGRAM

NO SCALE

RECIRCULATING PUMP SCHEDULE

MARK	QUANTITY	MANUFACTURER	MODEL	GPM	TOTAL HEAD FT.	VOLATAGE	PHASE	WATTS	AMPS	NOTES
HWCP	1	GRUNDFOS	UPS 15-18 BUC5	2	10	115	1	85	0.74A	1

NOTES: RECIRCULATING PUMP: BRONZE BODY RECIRCULATING PUMP WITH AUTO ADAPT VARIABLE SPEED MOTOR. INSTALL NEAR WATER HEATER PER MANUFACTURERS INSTRUCTIONS. PROVIDE WIT ALPHA 3 PRONG PLUG AND COORDINATE WITH ELECTRICAL CONTRACTOR. PROVIDE WITH HONEYWELL L6006C SURFACE MOUNT AQUASTAT SET TO 5F BELOW WATER OPERATING TEMPERATURE

EXPANSION TANK SCHEDULE

TAG	QUANTITY	LOCATION	SERVICE	CAPACITY (GALLONS)	MANUFACTURER & MODEL	DIMENSION (DIA X HEIGHT)	WEIGHT (LBS)	NO. OF EXPANSION TANK
ET	1	REFER FLOOR PLANS	HW	2	THERM-X-TROL ST-5	8" X 13"	5	1

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ZAXBY'S TENANT IMPROVEMENTS

PLUMBING ISOMETRIC RISERS AND SCHEDULES

04-19-24

NYE

23-244

PRELIMINARY DRAWINGS - NOT FOR CONSTRUCTION

P6.0