MECHANICAL SYMBOLS LIST

- ROOF TOP UNIT
- MAKE–UP AIR UNIT
- CEILING MOUNTED FAN
- ROOF MOUNTED FAN

AIR DEVICES

- CEILING DIFFUSER SUPPLY
- CEILING DIFFUSER RETURN/EXHAUST

DUCT ACCESSORIES

- VOLUME DAMPER W/ ACCESS DOOR (VD)
- BACKDRAFT DAMPER (BD)

CONTROLS AND SENSORS

- (T) THERMOSTAT
- (P) PULL STATION
- (T_S) TEMPERATURE SENSOR

DUCTWORK

- 24X12 RECTANGULAR DUCT (WIDTH X DEPTH)
- AIR DUCT W/ 1.5" ACOUSTICAL LINING
- FC FC FLEXIBLE CONNECTION
- ø12 ROUND DUCT (DIAMETER)
- ROUND DUCT CROSS SECTION
- POINT OF NEW CONNECTION
- SUPPLY AIR RECTANGULAR DUCT GOING UP/DOWN
- RETURN AIR RECTANGULAR DUCT GOING UP/DOWN

MECHANICAL DRAWING LIST

M–0.1	MECHANICAL SYMBOL, ABBREVIATION & NOTES
M–0.2	MECHANICAL SPECIFICATIONS
M–1.0	MECHANICAL FLOOR PLAN
M–1.1	MECHANICAL ROOF PLAN
M–2.0	MECHANICAL DETAILS (1 OF 2)
M–2.1	MECHANICAL DETAILS (2 OF 2)
M–2.2	MECHANICAL SCHEDULE
M–2.3	HEATLOAD CALCULATION (1 OF 2)
M–2.4	HEATLOAD CALCULATION (2 OF 2)
M–3.0	HOOD DETAILS (1 OF 5)
M–3.1	HOOD DETAILS (2 OF 5)
M–3.2	HOOD DETAILS (3 OF 5)
M–3.3	HOOD DETAILS (4 OF 5)
M–3.4	HOOD DETAILS (5 OF 5)

MECHANICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AL	ACOUSTIC LINING
BD	GRAVITY DAMPER
CD	CONDENSATE DRAIN
CFM	CUBIC FEET OF AIR PER MINUTE
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
DN	DOWN
E	EXISTING
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EN	ENERGY ANALYSIS
FC	FLEXIBLE CONNECTION
FD/AD	FIRE DAMPER W/ACCESS DOOR
FD	FIRE DAMPER W/FUSIBLE LINK
FSD	FIRE SMOKE DAMPER
HSPF	HEATING SEASONAL PERFORMANCE FACTOR
IEER	INTEGRATED ENERGY EFFICIENCY RATIO
KEF	KITCHEN EXHAUST FAN
MAU	MAKEUP AIR UNIT
MD	MOTORIZED DAMPER
N	NEW
OA	OUTSIDE AIR
RA	RETURN AIR
RAD	RETURN AIR DUCT
REF	REFRIGERANT PIPING
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SAD	SUPPLY AIR DUCT
SAE	SAME AS EXISTING
SEER	SEASONAL ENERGY EFFICIENCY RATIO
TX	TOILET EXHAUST FAN
VD	VOLUME CONTROL DAMPER
VIF	VERIFY IN FIELD

APPLICABLE CODES
(WITH CITY OF PHOENIX AMENDMENTS.)

A. 2024 INTERNATIONAL BUILDING CODE

B. 2024 INTERNATIONAL MECHANICAL CODE

C. 2024 INTERNATIONAL PLUMBING CODE

D. 2024 INTERNATIONAL ENERGY CONSERVATION CODE

BUILDING DEPARTMENT NOTES

ALL WORK SHALL COMPLY WITH APPLICABLE SECTIONS OF IBC 2024 AND ALL RULES AND REGULATIONS OF THE DEPARTMENT OF BUILDINGS TO DATE.

1. 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.
2. SMOKE DETECTOR SHALL MEET UL268A.
3. TESTS OF MECHANICAL SYSTEMS SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING SECTIONS OF THE 2024 IMC:
   A. VENTILATION SYSTEM MC 403.3.1.1
   B. VENTILATION SYSTEM SERVING COMMERCIAL COOKING APPLIANCES – MC 507.6
   C. GREASE DUCT TEST: MC 506.3.2.5
4. THE FOLLOWING WORK ITEMS, COMPONENTS, MATERIALS, CAPACITIES, ETC. SHALL COMPLY WITH THE REFERENCED CODE OR STANDARD:
   A. DUCT CONSTRUCTION AND INSTALLATION– 2024 INTERNATIONAL MECHANICAL CODE, 603
   B. STANDARDS OF HEATING 2024 INTERNATIONAL MECHANICAL CODE – 309.1
   C. AIR INTAKES, EXHAUSTS AND RELIEF – 2024 INTERNATIONAL MECHANICAL CODE 401.5
   D. AIR FILTERS – 2024 INTERNATIONAL MECHANICAL CODE 605
   E. MANUAL AND AUTOMATIC FIRE AND SMOKE CONTROLS FOR AIR DISTRIBUTION SYSTEMS –2024 INTERNATIONAL MECHANICAL CODE – 606
5. MINIMUM TEMPERATURE TO BE MAINTAINED IN OCCUPIED SPACES DURING HEATING SEASON: 68 DEG. FAHRENHEIT.
6. VENTILATION FOR ALL AREA SHALL COMPLY WITH 2024 INTERNATIONAL MECHANICAL CODE 401.
7. 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 2024 INTERNATIONAL MECHANICAL CODE 403.
8. REFER TO ARCHITECTURAL DRAWINGS FOR REQUIRED FIRE–RATED WALL AND SMOKE WALL CONSTRUCTION AND LOCATION.
9. 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.
10. ALL HEATING AND COOLING LOADS CALCULATED PER ASHRAE/ACCA 183.
11. 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 CONTRACTOR. CONTRACTOR TO SUBMIT THE AIR BALANCE REPORT TO INSPECTOR OF RESPECTIVE BUILDING DEPARTMENT PRIOR TO FINAL INSPECTION.
13. MECHANICAL SYSTEM COMMISSIONING SHALL BE DONE AS PER 2024 INTERNATIONAL ENERGY CONSERVATION CODE SECTION C408.

THERMOSTATIC CONTROL NOTES

A. 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.

B. 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 WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

C. 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.

D. 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).

E. 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.

F. C403.4.2.3 AUTOMATIC START
AUTOMATIC START CONTROL SHALL BE PROVIDED FOR EACH HVAC SYSTEM. THE CONTROL SHALL BE CONFIGURED TO AUTOMATICALLY ADJUST THE DAILY START TIME OF THE HVAC SYSTEM IN ORDER TO BRING EACH SPACE TO DESIRED OCCUPIED TEMPERATURE IMMEDIATELY PRIOR TO SCHEDULED OCCUPANCY.

THERMOSTAT SET POINT SCHEDULE			
PERIOD	HEATING	COOLING	FAN
OCCUPIED	68°F	72°F	ON

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 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. MATERIALS AND WORKMANSHIP, UNLESS OTHERWISE NOTED, SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
17. ALL EQUIPMENT SHALL BE PROVIDED WITH ONE YEAR WARRANTY PARTS AND LABOR AND FIVE YEARS ON COMPRESSORS. WARRANTY PERIOD BEGINS UPON PROJECT ACCEPTANCE
18. ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED AND SHALL BE IN ACCORDANCE WITH BUILDING STANDARDS.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK WITH ITS COMPLETION AND FINAL ACCEPTANCE AND SHALL REPLACE ANY OF THE SAME WHICH MAY BE DAMAGED, LOST, OR STOLEN WITHOUT ADDITIONAL COST TO THE OWNER.
20. 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.
21. SUBMIT SHOP DRAWING OF ALL WORK WHICH MUST BE APPROVED BY THE ARCHITECT AND ENGINEER BEFORE WORK COMMENCES.
22. INSURANCE: IN ACCORDANCE WITH BUILDING REQUIREMENTS THE CONTRACTOR SHALL INCLUDE A HOLD HARMLESS CLAUSE FOR OWNER AND ENGINEER.
23. 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.
24. 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.
25. 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.

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.
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.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)–788–0295
ny–engineers.com

07–28–2025–ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
MECHANICAL SYMBOL, ABBREVIATION & NOTES

PROJECT NUMBER 25–012

DATE 07–07–2025

SHEET NO.
M–0.1

SHEET 1 OF 14

SPECIFICATIONS

SECTION 0001 – NOTICE TO BIDDERS

1.1 BIDDERS REPRESENTATIONS

A. THE BIDDER BY MAKING A BID REPRESENTS THAT:

B. THE BIDDER HAS READ AND UNDERSTANDS THE BIDDING DOCUMENTS, TO THE EXTENT THAT SUCH DOCUMENTATION RELATES TO THE WORK FOR WHICH THE BID IS SUBMITTED, AND FOR OTHER PORTIONS OF THE PROJECT, IF ANY, BEING BID CONCURRENTLY OR PRESENTLY UNDER CONSTRUCTION.

C. THE BID IS MADE IN COMPLIANCE WITH THE BIDDING DOCUMENTS.

D. THE SPECIFICATIONS AND DRAWINGS ARE INTENDED TO SERVE JOINTLY AS A BASIS FOR THE BIDDER TO SUBMIT A CONTRACT PRICE FOR THE MATERIAL AND LABOR.

E. SHOULD CONFLICTS OR DISCREPANCIES OCCUR WITHIN THE BIDDING DOCUMENTS, THE ITEM OR ITEMS IN DISPUTE THAT REPRESENT THE GREATER COST SHALL PREVAIL IN THE FINAL BID.

F. THE BID IS BASED UPON THE MATERIALS, EQUIPMENT AND SYSTEMS REQUIRED BY THE BIDDING DOCUMENTS WITHOUT EXCEPTION.

1.2 EXISTING CONDITIONS AND COORDINATION

A. THE BIDDER HAS VISITED THE SITE, BECOME FAMILIAR WITH LOCAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED, AND HAS CORRELATED THE BIDDER'S OBSERVATIONS WITH THE REQUIREMENTS OF THE PROPOSED BIDDING DOCUMENTS.

B. THE BIDDER SHALL PROPOSE COORDINATION OF WORK SUCH THAT CONFLICTS WITH OTHER TRADES AND SPACE ALLOCATIONS ARE AVOIDED.

1.3 RESPONSIBILITIES

A. THE BIDDER UNDERSTANDS THAT ANY CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR THE TIMELY COMPLETION AND ACCEPTANCE OF THEIR WORK AND THAT ANY ITEMS DAMAGED, LOST, OR STOLEN DURING TIME OF CONSTRUCTION SHALL BE REPAIRED OR REPLACED WITHOUT ANY ADDITIONAL COST TO THE OWNER.

B. THE BIDDER UNDERSTANDS THAT ANY PROPOSED WORK IN OCCUPIED TENANT SPACES SHALL BE PERFORMED DURING TIMES OF NON–TENANT OCCUPANCY OR AS SCHEDULED OR DIRECTED BY THE BUILDING MANAGER.

C. THE BIDDER UNDERSTANDS THAT ANY PROPOSED SHUTDOWN OF EXISTING SYSTEMS DURING CONSTRUCTION SHALL BE PRE–ARRANGED WITH THE BUILDING MANAGER AND THAT SUCH SHUTDOWNS ARE TO BE KEPT TO A MINIMUM.

END OF SECTION 0001

SECTION 0101 – QUALITY OF WORK

1.1 WORKMANSHIP

A. ALL WORK SHALL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE.

B. ALL DEFECTS WHICH DEVELOP OR ARE DISCOVERED WITHIN THIS PERIOD SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE ARCHITECT OR BUILDING MANAGER AT NO ADDITIONAL COST TO THE OWNER.

C. UPON COMPLETION OF THE WORK THE CONTRACTOR SHALL REMOVE FROM THE SITE, ALL TOOLS, DEMOLISHED APPLIANCES AND ANY SURPLUS MATERIAL.

1.2 CODE COMPLIANCE

A. ALL WORK SHALL MEET ALL STATE AND LOCAL CODES HAVING JURISDICTION.

END OF SECTION 0101

SECTION 0102 –REQUIRED DOCUMENTS

1.1 SHOP DRAWINGS

A. A SET OF PRINTS FOR ANY MECHANICAL WORK INCLUDING BUT NOT LIMITED TO, DUCTWORK AND PIPING LAYOUT SHALL BE SUBMITTED FOR APPROVAL TO THE ENGINEER PRIOR TO CONSTRUCTION OR PURCHASE OF MATERIALS.

1.2 SUBMITTALS

A. EQUIPMENT SUBMITTALS OF ALL PROPOSED MECHANICAL AND ANCILLARY EQUIPMENT INCLUDING ALL ACCESSORIES SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW. ALL PERTINENT MODELS, SIZES, ACCESSORIES, AND CHOICES SHALL BE CHECKED, PRINTED, OR OTHERWISE INDICATED ON THE SUBMITTALS.

1.3 RECORD DRAWINGS

A. UPON COMPLETION OF THE WORK, A RECORD DRAWING SHALL BE SUBMITTED TO THE OWNER DEPICTING ALL SUBSEQUENT CHANGES, ADDITIONS AND OR CORRECTIONS TO THE CONTRACT DRAWINGS AND OR CONTRACT SCOPE MADE DURING CONSTRUCTION. THIS DRAWING SHALL REPRESENT A COMPLETE RECORD OF THE WORK INSTALLED.

1.4 EQUIPMENT OPERATING INSTRUCTIONS

A. ON COMPLETION AND ACCEPTANCE OF WORK, THIS CONTRACTOR SHALL FURNISH WRITTEN INSTRUCTIONS, 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. THE CONTRACTOR SHALL GIVE THREE COPIES OF THE INSTRUCTIONS TO THE OWNER AND ONE ELECTRONIC COPY TO THE ENGINEER.

C. THE INSTRUCTION BOOKLET SHALL BE ORGANIZED IN SECTIONS, WITH ONE SECTION PER SYSTEM. THE COVER OF THE INSTRUCTION BOOKLET SHALL BEAR THE NAME, ADDRESS AND PHONE NUMBER OF THE PROJECT, ARCHITECT, ENGINEER, MECHANICAL CONTRACTOR AND SUBCONTRACTORS.

END OF SECTION 0102

SECTION 078413–PENETRATION FIRE–STOPPING

1.1 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: AN FM GLOBAL–APPROVED FIRE–STOP CONTRACTOR OR A UL–QUALIFIED FIRE–STOP CONTRACTOR.

B. FIRE–TEST–RESPONSE CHARACTERISTICS: UL, INTERTEK ETL SEMKO OR FM GLOBAL

1.2 PENETRATION FIRESTOPPING

A. PENETRATIONS IN FIRE–RESISTANCE–RATED WALLS: F–RATINGS PER ASTM E 814 OR UL 1479.

B. PENETRATIONS IN HORIZONTAL ASSEMBLIES: F– AND T–RATINGS PER ASTM E 814 OR UL 1479:

C. PENETRATIONS IN SMOKE BARRIERS: L–RATINGS PER UL 1479.

D. W–RATINGS: PER UL 1479.

1.3 INSTALLATION

A. IDENTIFICATION: PREPRINTED METAL OR PLASTIC LABELS.

1.5 FIELD QUALITY CONTROL

A. INSPECTION OF INSTALLED FIRE–STOPPING: BY OWNER–ENGAGED AGENCY ACCORDING TO ASTM E 2174.

1.5 THROUGH–PENETRATION FIRESTOP SYSTEM SCHEDULE:

A. WHERE UL–CLASSIFIED SYSTEMS ARE INDICATED, THEY REFER TO SYSTEM NUMBERS IN UL'S "FIRE RESISTANCE DIRECTORY" UNDER PRODUCT CATEGORY XHEZ.

B. FOR THE FOLLOWING SYSTEMS: METALLIC AND NON–METALLIC PIPES, CONDUIT, OR TUBING, ELECTRICAL CABLES, CABLE TRAYS WITH ELECTRIC CABLES, MISCELLANEOUS ELECTRICAL PENETRANTS, INSULATED PIPES, GROUPINGS OF PENETRANTS, USE ONE OR MORE OF THE FOLLOWING MATERIALS:

a. LATEX SEALANT

b. SILICONE SEALANT

c. MORTAR

d. SILICONE FOAM

e. PILLOWS/BAGS

f. INTUMESCENT WRAP STRIPS

1.6 MANUFACTURERS

A. HILTI CONSTRUCTION CHEMICAL, INC

B. 3M FIRE PROTECTION PRODUCTS

END OF SECTION 078413

SECTION 230517 – SLEEVES AND SLEEVE SEALS FOR HVAC PIPING

1.1 SLEEVE–SEAL SYSTEMS

A. FIELD–ASSEMBLED, MODULAR SEALING–ELEMENT UNIT FOR FILLING ANNULAR SPACE BETWEEN PIPING AND SLEEVE.

1. SEALING ELEMENTS: EPDM RUBBER OR NBR.
2. PRESSURE PLATES: CARBON STEEL, PLASTIC, STAINLESS STEEL.
3. CONNECTING BOLTS AND NUTS: CARBON STEEL WITH CORROSION–RESISTANT COATING, STAINLESS STEEL.

B. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, AVAILABLE MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

1. ADVANCE PRODUCTS & SYSTEMS, INC.
2. CALPICO, INC.
3. METRAFLEX COMPANY (THE).
4. PIPELINE SEAL AND INSULATOR, INC.

1.2 SLEEVE–SEAL FITTINGS

A. MANUFACTURED PLASTIC, SLEEVE–TYPE, PLASTIC OR RUBBER WATER–STOP ASSEMBLY MADE FOR IMBEDDING IN CONCRETE SLAB OR WALL.

1.3 GROUT

A. NON–SHRINK, FACTORY PACKAGED.

1.4 SLEEVE AND SLEEVE–SEAL SCHEDULE

A. USE SLEEVES AND SLEEVE SEALS FOR THE FOLLOWING PIPING–PENETRATION APPLICATIONS:

1. INTERIOR PARTITIONS:

a. PIPING SMALLER THAN NPS 6 (DN 150): GALVANIZED–STEEL–PIPE SLEEVES, PVC–PIPE SLEEVES.

b. PIPING NPS 6 (DN 150) AND LARGER: GALVANIZED–STEEL–SHEET SLEEVES.

END OF SECTION 230517

SECTION 230529 – HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT

1.1 PERFORMANCE REQUIREMENTS

A. DELEGATED DESIGN: DESIGN TRAPEZE PIPE HANGERS AND EQUIPMENT SUPPORTS, INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A QUALIFIED PROFESSIONAL ENGINEER, USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.

B. STRUCTURAL PERFORMANCE: HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT SHALL WITHSTAND THE EFFECTS OF GRAVITY LOADS AND STRESSES WITHIN LIMITS AND UNDER CONDITIONS INDICATED ACCORDING TO ASCE/SEI 7.

1. DESIGN SUPPORTS FOR MULTIPLE PIPES CAPABLE OF SUPPORTING COMBINED WEIGHT OF SUPPORTED SYSTEMS, SYSTEM CONTENTS, AND TEST WATER.
2. DESIGN EQUIPMENT SUPPORTS CAPABLE OF SUPPORTING COMBINED OPERATING WEIGHT OF SUPPORTED EQUIPMENT AND CONNECTED SYSTEMS AND
3. DESIGN SEISMIC–RESTRAINT HANGERS AND SUPPORTS FOR PIPING AND EQUIPMENT AND OBTAIN APPROVAL FROM AUTHORITIES HAVING JURISDICTION.

1.2 SUBMITTALS

A. SHOP DRAWINGS: SIGNED AND SEALED BY A PROFESSIONAL ENGINEER

1.3 QUALITY ASSURANCE

A. AWS D1.1/D1.1M, "STRUCTURAL WELDING CODE – STEEL."

1.4 COMPONENTS

A. METAL PIPE HANGERS AND SUPPORTS: CARBON OR STAINLESS STEEL

B. FIBERGLASS PIPE HANGERS: –CLEVIS, CENTURY COMPOSITES, COOPER B–LINE

D. METAL FRAMING SYSTEMS: MFMA MANUFACTURER

E. FIBERGLASS STRUT SYSTEMS: COOPER B–LINE

F. THERMAL–HANGER SHIELD INSERTS:

G. FASTENER SYSTEMS: POWDER–ACTUATED FASTENERS OR MECHANICAL–EXPANSION ANCHORS

H. PIPE STANDS: COMPACT, LOW TYPE, SINGLE PIPE, HIGH TYPE, SINGLE PIPE, HIGH TYPE, MULTIPLE PIPES, CURB–MOUNTED TYP EQUIPMENT SUPPORTS.

END OF SECTION 230529

SECTION 230548 – VIBRATION CONTROLS FOR PIPING AND HVAC EQUIPMENT

PART 1 – GENERAL

1.1 PERFORMANCE REQUIREMENTS

A. SEISMIC–RESTRAINT LOADING:

1. SITE CLASS AS DEFINED IN THE IBC: A, B
2. ASSIGNED SEISMIC USE GROUP OR BUILDING CATEGORY AS DEFINED IN THE IBC: I II III

a. COMPONENT IMPORTANCE FACTOR: 1.0

b. COMPONENT RESPONSE MODIFICATION FACTOR: 2.5

c. COMPONENT AMPLIFICATION FACTOR: 2.5.

3. DESIGN SPECTRAL RESPONSE ACCELERATION AT SHORT PERIODS (0.2 SECOND) 18%
4. DESIGN SPECTRAL RESPONSE ACCELERATION AT 1–SECOND PERIOD: 8%

1.2 COMPONENTS

A. VIBRATION ISOLATORS:

1. ISOLATOR PADS: NEOPRENE, RUBBER, HERMETICALLY AND/OR SEALED COMPRESSED FIBERGLASS
2. MOUNTS: DOUBLE–DEFLECTION TYPE.
3. RESTRAINED MOUNTS: ALL DIRECTIONAL MOUNTINGS WITH SEISMIC RESTRAINT; CAST–DUCTILE–IRON HOUSING.
4. SPRING ISOLATORS: FREESTANDING, LATERALLY STABLE, OPEN–SPRING TYPE.
5. RESTRAINED SPRING ISOLATORS: FREESTANDING, STEEL, OPEN–SPRING TYPE WITH SEISMIC RESTRAINT.
6. HOUSED SPRING MOUNTS: DUCTILE–IRON OR STEEL HOUSING, WITH INTEGRAL, VERTICALLY ADJUSTABLE SEISMIC SNUBBERS.
7. ELASTOMERIC HANGERS: DOUBLE–DEFLECTION TYPE.
8. SPRING HANGERS: COMBINATION COIL–SPRING AND ELASTOMERIC–INSERT HANGERS WITH SPRING AND INSERT IN COMPRESSION.
9. SPRING HANGERS WITH VERTICAL–LIMIT STOP: COMBINATION COIL–SPRING AND ELASTOMERIC–INSERT HANGERS WITH SPRING AND INSERT IN COMPRESSION AND WITH VERTICAL–LIMIT STOP.
10. PIPE RISER RESILIENT SUPPORT: ALL–DIRECTIONAL, ACOUSTICAL PIPE ANCHOR.
11. RESILIENT PIPE GUIDES.

B. AIR–MOUNTING SYSTEMS:

1. AIR MOUNTS: FREESTANDING, SINGLE OR MULTIPLE, COMPRESSED–AIR BELLOWS.
2. RESTRAINED AIR MOUNTS: HOUSED COMPRESSED–AIR BELLOWS.

C. RESTRAINED VIBRATION ISOLATION ROOF–CURB RAILS: FACTORY–ASSEMBLED, FULLY ENCLOSED, INSULATED, AIR– AND WATERTIGHT CURB RAIL; WITH SPRING ISOLATORS MOUNTED ON ELASTOMERIC ISOLATION PADS, AND SNUBBER BUSHINGS.

D. VIBRATION ISOLATION EQUIPMENT BASES:

1. STEEL BASE: FACTORY– FABRICATED, WELDED, STRUCTURAL– STEEL BASES AND RAILS.
2. INERTIA BASE: FACTORY– FABRICATED, WELDED, STRUCTURAL– STEEL BASES AND RAILS READY FOR FIELD–APPLIED, CAST–IN–PLACE CONCRETE

1.3 FIELD QUALITY CONTROL

A. TESTING: BY EITHER OWNER–ENGAGED AGENCY, CONTRACTOR–ENGAGED AGENCY, OR CONTRACTOR.

PART–2 PRODUCTS

1.4 VIBRATION ISOLATORS & SEISMIC–RESTRAINT DEVICES

A. AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:

B. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

1. ACE MOUNTINGS CO., INC.
2. AMBER/BOOTH COMPANY, INC.
3. CALIFORNIA DYNAMICS CORPORATION.
4. COOPER B–LINE, INC.; A DIVISION OF COOPER INDUSTRIES.
5. HILTI, INC.
6. ISOLATION TECHNOLOGY, INC.
7. KINETICS NOISE CONTROL.

END OF SECTION 230548

SECTION 230593 – TESTING, ADJUSTING, AND BALANCING FOR HVAC

1.1 SUMMARY

A. TESTING, ADJUSTING, AND BALANCING FOR THE FOLLOWING:

1. MOTORS.
2. CONDENSING UNITS.
3. AIR SYSTEM: CONSTANT VOLUME

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

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: PRICE

1. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCT BY ONE OF THE FOLLOWING:

a. HART & COOLEY INC.

b. KRUEGER.

c. METALAIRE, INC.

d. 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.

END OF SECTION 233713

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 (GALVANNEALED) 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.

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:

SUPPORT SCHEDULE – DUCTWORK

USG	MAX SIDE INCHES	TRANSVERSE JOINT AND BRACING
22	UP TO 12	S SLIP, DRIVE, ONE INCH POCKET ON 8 FOOT
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 OF RECTANGULAR DUCTWORK WITH THE REINFORCEMENT FOR FLAT SIDES SAME AS SPECIFIED FOR THE RECTANGULAR DUCTWORK, AND AS PER SMACNA FLAT OVAL DUCT CONSTRUCTION STANDARDS

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 WITH ANTI–MICROBIAL EROSION–RESISTANT COATING.
2. FLEXIBLE ELASTOMERIC.
3. NATURAL FIBER.

E. SEALANT MATERIALS:

3. TWO–PART TAPE SEALING SYSTEM.
4. WATER–BASED JOINT AND SEAM SEALANT.
5. SOLVENT–BASED JOINT AND SEAM SEALANT.
6. FLANGED JOINT SEALANT.
7. FLANGE GASKETS.
8. 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:

1. MOIST ENVIRONMENT DUCT MATERIAL: ALUMINUM.

END OF SECTION 233113

SECTION 230713 – INSULATION

INSULATION – GENERAL REQUIREMENTS

A. ALL INSULATION MATERIALS, INCLUDING JACKETS, FACING, ADHESIVE, COATINGS, AND ACCESSORIES ARE TO BE FIRE HAZARD RATED AND LISTED BY UNDERWRITERS LABORATORIES, INC. USING STEINER TUNNEL TEST METHOD FOR FIRE HAZARD CLASSIFICATION OF BUILDING MATERIALS, STANDARD UL 723 (ASTM E–84), (ASA A2.5–1963). FLAMESPREAD: MAXIMUM 25. FUEL CONTRIBUTED AND SMOKE DEVELOPED: MAXIMUM 50. FLAMEPROOFING TREATMENTS SUBJECT TO DETERIORATION FROM MOISTURE OR HUMIDITY ARE NOT ACCEPTABLE.

B. DEFINITIONS:

1) EXPOSED: INDOOR DUCTS, PIPING OR EQUIPMENT LOCATED IN MECHANICAL EQUIPMENT ROOMS AND IN AREAS WHICH WILL BE VISIBLE WITHOUT REMOVING CEILINGS OR OPENING ACCESS PANELS.

2) CONCEALED: INDOOR DUCTS, PIPING OR EQUIPMENT WHICH IS NOT EXPOSED.

3) OUTDOOR: DUCTS, PIPING OR EQUIPMENT WHICH IS EXPOSED TO THE WEATHER.

DUCTWORK INSULATION

A. INSULATE ALL DUCTWORK IN ACCORDANCE WITH INSULATION SCHEDULE EXCEPT AS OTHERWISE NOTED.

INSULATION SCHEDULE – DUCTWORK

SERVICE	LOCATION	R–VALUE	TYPE	FINISH
SUPPLY/RETURN	CONCEALED	R–6	D–1	VAPORSEAL
SUPPLY/RETURN	EXPOSED	R–8	D–1	VAPORSEAL
INTAKE	ALL	R–8	D–1	VAPORSEAL
SUPPLY	EXTERIOR	R–8	D–1	VAPORSEAL
KITCHEN EX.	INTERIOR	1.5" (2 LAYER)		3M FIRE MASTER DUCT WRAP

B. REINSULATE ALL DUCTWORK AND PIPING WHICH IS EXISTING TO REMAIN AND WAS DAMAGED DURING CONSTRUCTION OR SHOWN OR REQUIRED TO BE RELOCATED. INSULATE WITH SAME MATERIAL AND THICKNESS.

C. 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. FINISH:

1) TYPE F–1: FITTING COVER, MOLDED WHITE PVC JACKET, UL CLASS 1, MAXIMUM PERMEANCE 0.05 SIMILAR TO MANVILLE ZESTRON.

2) TYPE F–2: WHITE VAPOR BARRIER COATING WITH 10X10 OR 20X20 MESH WHITE GLASS, POLYESTER OR NYLON CLOTH REINFORCING MEMBRANE, MINIMUM 31 MIL DRY FILM THICKNESS, SIMILAR TO FOSTER TITE–FIT, UL LABEL.

3) TYPE F–4: ALUMINUM JACKETING WITH MINIMUM 0.016 IN. WALL THICKNESS AND LONGITUDINAL JOINTS WITH LOCK SEAMS.

4) TYPE F–6: WHITE FINISHING AND INSULATING CEMENT APPLIED OVER HEXAGONAL WIRE MESH. CEMENT SIMILAR TO KEENE SUPERSLICK.

F. INSTALLATION:

a. FIBERGLASS BLANKET: 2 IN. LAP STRIPS AT ALL SEAMS. SECURE BOTTOM OF ALL DUCTS OVER 24 IN. WIDE WITH MIN 2 ROWS OF WELD PINS 12 IN. ON CENTER. SECURE ALL SEAMS WITH FOIL VAPOR BARRIER TAPE AND VAPORSEAL ADHESIVE.

b. 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.

G. ACOUSTICAL TREATMENT

ACOUSTICALLY LINE THE FIRST 10'–0" OF BOTH SUPPLY AND RETURN MAIN DUCTS, 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.

THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ACTUAL CONDITIONS, CONSTRUCTION AND/OR USE THEREOF. THIS DRAWING IS TO CONVEY DESIGN INTENTIONS AND/OR CODE COMPLIANCE ONLY. USE OF THESE DRAWINGS IMPLIES AGREEMENT WITH THESE CONDITIONS. **THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS.**

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)–788–0295
ny–engineers.com

07–28–2025–ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
MECHANICAL SPECIFICATIONS

DOB NOW Q01211462–S2
PROJECT NUMBER 25–012
DATE 07–07–2025
SHEET NO.
M–0.2

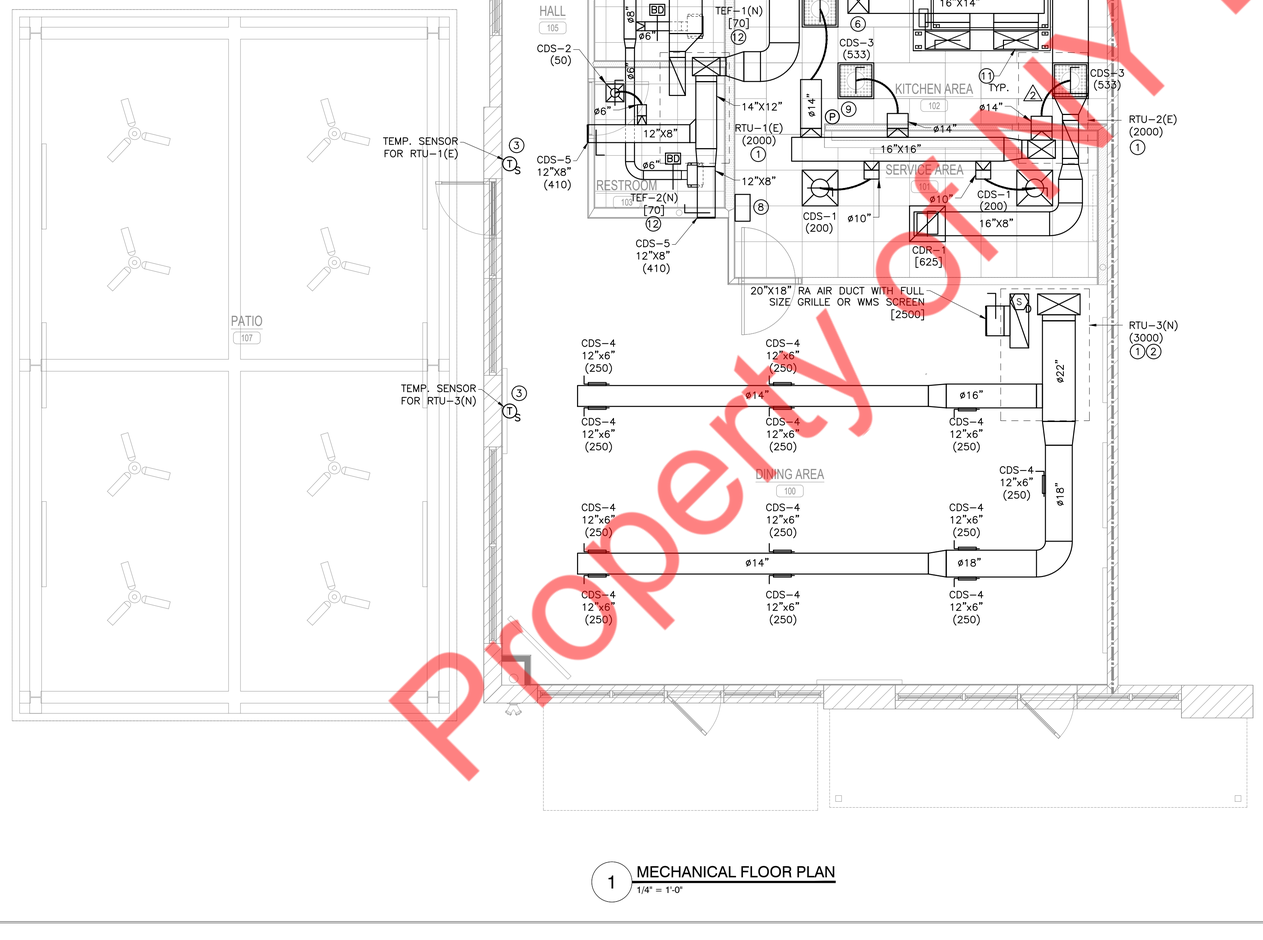
SHEET 2 OF 14

KEYED NOTES: (#)

1. EXTEND FULL SIZE SUPPLY AND RETURN DUCTWORK FROM ROOFTOP UNIT TO SPACE, EXTEND AS SHOWN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND SIZE.
2. PROVIDE DUCT MOUNTED SMOKE DETECTOR UPON DETECTION OF SMOKE, RTU WILL SHUTDOWN AND ACTIVATE ALARM. COORDINATE INSTALLATION LOCATION WITH ACCESS REQUIREMENT.
3. PROVIDE REMOTE SENSOR LOCATED 68" ABOVE FINISHED FLOOR NEAR LOCATION INDICATED. SEAL WALL OPENINGS WITH CAULK. COORDINATE LOCATION ON SITE WITH GENERAL CONTRACTOR AND EQUIPMENT. AVOID LOCATING NEAR OR ABOVE SOURCES OF HEAT.
4. RELOCATE THE EXISTING THERMOSTAT AT SHOWN LOCATION. IF NOT REUSABLE, PROVIDE NEW 7-DAY PROGRAMMABLE THERMOSTAT. MOUNT ON WALL AT 48" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
5. PROVIDE NEW 7-DAY PROGRAMMABLE THERMOSTAT. MOUNT ON WALL AT 48" A.F.F. COORDINATE EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN. PROVIDE LOCKABLE COVER.
6. 16"X14" SUPPLY DUCT UP TO ROOF MAU-1(N).
7. TYPE-I HOOD. RUN SHEET METAL DUCT FROM CONNECTION ON HOOD TO KEF-1(N). OFFSET AND TRANSITION AT CONNECTIONS IF NEEDED. VERIFY DIMENSIONS PRIOR TO FABRICATION OR INSTALLATION. USE FACTORY-MANUFACTURED PIPE AND FITTINGS ONLY. VERIFY LOCATION ON SITE WITH MOST RECENT KITCHEN PLANS. DUCT SHALL BE SLOPED 1/4" UNIT VERTICAL IN 12" UNIT HORIZONTAL TOWARDS HOOD.
8. HOOD CONTROL PANEL AND FIRE SUPPRESSION SYSTEM FURNISHED BY HOOD SUPPLIER AND INSTALLED ON WALL BY HVAC CONTRACTOR. HOOD FIRE SUPPRESSION SYSTEM FURNISHED AND INSTALLED BY LICENSED FIRE SUPPRESSION CONTRACTOR. F.S. CONTRACTOR TO SUBMIT PLAN AND OBTAIN APPROVAL UNDER SEPARATE PERMIT APPLICATION PRIOR TO COMMENCEMENT OF WORK. CONTRACTOR TO COORDINATE & CONFIRM FINAL LOCATION OF CONTROL & FIRE SUPPRESSION PANEL ON FIELD.
9. PROVIDE MANUAL PULL STATION FOR KITCHEN HOOD EXHAUST AND MAKE-UP AIR SYSTEM, FILED VERIFY EXACT LOCATION. INTERLOCK WITH KITCHEN HOODS TO DE-ENERGIZE HOOD SIMULTANEOUSLY UPON ACTIVATION OF EMERGENCY SWITCH.
10. ø14" GREASE EXHAUST DUCT UP TO ROOF TO KEF-1(N). PROVIDE FACTORY FABRICATED UL LISTED EXHAUST DUCT BY ACCUREX (OR EQUAL).
11. (14"X10") MAKE-AIR DUCT TO HOOD COLLAR. PROVIDE MANUAL BALANCING DAMPER TO 600 CFM AS PER OPENING ON BOTH HOOD. REFER ACCUREX DRAWINGS FOR PROVIDED AIRFLOW INFORMATION.

KEYED NOTES: (#)

12. CEILING MOUNTED EXHAUST FAN. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. VERIFY EXACT LOCATION OF STRUCTURAL MEMBERS PRIOR TO INSTALLATION.
13. ø8" TOILET EXHAUST DUCT UP TO ROOF.
14. 2XØ3" VENT FOR COMBUSTION AIR INTAKE/EXHAUST FROM GAS FIRED EQUIPMENT TO ROOF. TERMINATE AS PER MANUFACTURER RECOMMENDATION. ROUTE PIPING WITH MINIMAL AMOUNT OF BEND AND LENGTH AS REQUIRED BY RESPECTIVE UNIT MANUFACTURERS'S REQUIREMENT.



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

GENERAL NOTES:

A. ALL WORK SHALL COMPLY WITH ALL LOCAL AND STATE CODES AND AUTHORITIES HAVING JURISDICTION.

B. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL REQUIRED PERMITS AND ARRANGE ALL REQUIRED INSPECTIONS.

C. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS AND TRADES.

D. THESE DRAWINGS, AS PREPARED, ARE DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS CONSTRUCTION OF THE PROJECT AND THE WORK OF THE TRADES WILL PERMIT. EQUIPMENT LOCATIONS INDICATED ARE APPROXIMATE. COORDINATE EXACT LOCATIONS AND REQUIRED CLEARANCES WITH EQUIPMENT SUPPLIER AND ALL TRADES PRIOR TO INSTALLATION.

E. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE EQUIPMENT INDICATED WITHIN THE MECHANICAL DRAWINGS UNLESS OTHERWISE NOTED. ALL EQUIPMENT SHALL BE UL LISTED. VERIFY LOCATION AND DIMENSIONS IN THE FIELD PRIOR TO FABRICATION AND / OR INSTALLATION.

F. EACH UNIT GENERATING CONDENSATE SHALL BE PROVIDED WITH A CONDENSATE DRAIN WITH EXTERNAL, 4" DEEP P-TRAP. EXTEND DRAIN TO A ROOF MOUNTED SPLASH PAD OR AN ACCEPTABLE LOCATION REQUIRED BY CODE.

G. DUCT SIZES SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSION.

H. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED, SEALED, AND INSULATED PER THE LATEST ISSUE OF SMACNA LOW-VELOCITY DUCT MANUAL.

I. UNLESS OTHERWISE NOTED, ALL SUPPLY TAKEOFFS SHALL HAVE A MANUAL VOLUME CONTROL DAMPER.

J. ALL FLEX DUCT SHALL BE TESTED IN ACCORDANCE WITH UL 181. AND DUCT SHALL BE LISTED AND LABELED AS CLASS 1. MAXIMUM LENGTH TO BE 5'-0" PER DROP OR PER LOCAL CODE.

K. THE CONTRACTOR SHALL COORDINATE DIFFUSER LOCATIONS ON SITE WITH THE MOST RECENT REFLECTED CEILING PLAN.

L. THE CONTRACTOR IS TO MAKE ALL LOW-VOLTAGE WIRING CONNECTIONS FOR ALL HVAC EQUIPMENT INCLUDING TEMPERATURE CONTROLS, ROOF TOP UNITS, SMOKE DETECTORS AND CONTACTOR PANEL.

M. PROVIDE AND INSTALL SMOKE DUCT DETECTORS IN EACH AIR CONDITIONING UNIT RETURN DUCT GREATER THAN 2000 CFM. CONTRACTOR SHALL PROVIDE INTERCONNECTION AND WIRE TO THE FIRE ALARM CONTROL PANEL IF REQUIRED. DUCT DETECTORS SHALL HAVE REMOTE TEST STATIONS LOCATED IN THE OFFICE NEAR THE RESPECTIVE THERMOSTATS. VERIFY CODE REQUIREMENTS FOR DUCT DETECTORS IN BOTH THE SUPPLY AND RETURN AIR STREAMS.

N. THE ENTIRE INSTALLATION SHALL BE GUARANTEED FREE OF DEFECTS AND CONTRACTOR SHALL REPAIR AND / OR REPLACE ANY DEFECTIVE MATERIALS OR EQUIPMENT AT NO COST TO THE OWNER FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE BY ARCHITECT OR ENGINEER.

O. ALL WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE ARCHITECT AND OWNER. THE ARCHITECT SHALL BE NOTIFIED OF ANY AND ALL DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH THAT PORTION OF THE WORK. FAILURE OF PROPER NOTIFICATION DOES NOT RELIEVE THE CONTRACTOR. THE CONTRACTOR SHALL CORRECT ANY AND ALL WORK ARISING FROM SUCH FAILURE TO COORDINATE DISCREPANCIES TO THE SATISFACTION OF THE ARCHITECT WITHOUT ADDITIONAL COST TO THE OWNER.

P. THE CONTRACTOR SHALL, UPON COMPLETION OF PROJECT, PERFORM A COMPLETE TEST AND BALANCE OF ALL EQUIPMENT. PROVIDE A WRITTEN REPORT TO THE ARCHITECT. ALL CAPACITIES MUST BE SET TO WITHIN ±10% OF AMOUNTS INDICATED ON THE FLOOR PLAN AND SCHEDULES.

Q. PROVIDE FIRE OR FIRE+SMOKE DAMPER WHEREVER DUCTS ARE CROSSING FIRE/SMOKE RATED WALLS/ BARRIERS. COORDINATE WITH ARCHITECTURAL DRAWING FOR FIRE RATING OF THE WALLS.

R. PROVIDE VOLUME DAMPER IN ACCESSIBLE CEILING AND PROVIDE CORD OPERATED DAMPER IN INACCESSIBLE CEILING.

S. FLEXIBLE CONNECTION SHALL BE INSTALLED BETWEEN EQUIPMENT AND CONNECTING DUCTWORK.

KITCHEN EXHAUST NOTES:

A. PROVIDE CLEAN OUT AT ALL ELBOWS AND BOTTOM OF RISER AND EVERY 15 FEET HORIZONTAL KITCHEN EXHAUST DUCT.

B. COMMERCIAL KITCHEN GREASE DUCTS SHALL BE DESIGNED FOR THE TYPE-1 OF COOKING APPLIANCE AND HOOD SERVED.

C. PROVIDE FACTORY BUILT COMMERCIAL GREASE DUCT LISTED AND LABELED WITH UL-1978. IF NOT THEN KITCHEN EXHAUST DUCT SHALL BE CONSTRUCTED OF 0.0575-INCH NO.16 GAUGE STEEL OR 0.0450-INCH NO. 18 STAINLESS STEEL.

D. JOINTS, SEAMS AND PENETRATIONS OF GREASE DUCTS SHALL BE MADE WITH A CONTINUOUS LIQUID TIGHT WELD OR BRAZE MADE IN THE EXTERNAL SURFACE IF THE DUCT SYSTEMS.

E. DUCT-TO-EXHAUST FAN CONNECTIONS SHALL BE FLANGED AND GASKETED AT THE BASE OF THE FAN FOR VERTICAL DISCHARGE FANS; SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET OF THE FAN FOR SIDE-INLET UTILITY FANS; AND SHALL BE FLANGED, GASKETED AND BOLTED TO THE INLET AND OUTLET OF THE FAN FOR IN-LINE FANS. GASKET AND SEALING MATERIALS SHALL BE RATED FOR CONTINUOUS DUTY AT A TEMPERATURE OF NOT LESS THAN 1,500°F (816°C).

F. A VIBRATION ISOLATION CONNECTOR FOR CONNECTING A DUCT TO A FAN SHALL CONSIST OF NON-COMBUSTIBLE PACKING IN A METAL SLEEVE JOINT OF APPROVED DESIGN OR SHALL BE A COATED-FABRIC FLEXIBLE DUCT CONNECTOR LISTED AND LABELED FOR THE APPLICATION. VIBRATION ISOLATION CONNECTORS SHALL BE INSTALLED ONLY AT THE CONNECTION OF A DUCT TO A FAN INLET OR OUTLET.

G. GREASE DUCT BRACING AND SUPPORTS SHALL BE OF NON-COMBUSTIBLE MATERIAL SECURELY ATTACHED TO THE STRUCTURE AND DESIGNED TO CARRY GRAVITY AND SEISMIC LADS WITHIN THE STREET LIMITATIONS. BOLTS, SCREWS, RIVETS AND OTHER MECHANICAL FASTENERS SHALL NOT PENETRATE DUCT WALLS.

H. THE CLEANOUTS FOR HORIZONTAL GREASE DUCT SHALL BE LOCATED ON THE SIDE OF THE DUCT WITH THE OPENING NOT LESS THAN 1.5" ABOVE THE BOTTOM OF THE DUCT AND NOT LESS THAN 1" BELOW THE TOP OF THE DUCT.

I. GREASE DUCT SHALL BE PERMITTED TO BE ENCLOSED IN ACCORDANCE WITH APPLICABLE BUILDING CODE REQUIREMENT FOR SHAFT CONSTRUCTION. SUCH GREASE DUCT SYSTEM AND EXHAUST EQUIPMENT SHALL HAVE A CLEARANCE TO COMBUSTIBLE CONSTRUCTION NOT LESS THAN 18 INCHES AND SHALL HAVE A CLEARANCE TO NONCOMBUSTIBLE CONSTRUCTION AND GYPSUM WALLBOARD ATTACHED TO NONCOMBUSTIBLE STRUCTURES OF NOT LESS THAN 6 INCHES.

J. PROVIDE 2 LAYERS OF 1.5" FIRE WRAP AROUND KITCHEN EXHAUST GREASE DUCTS.

K. PROVIDE MANUAL PULL STATION IN EGRESS PATH IN CASE OF EMERGENCY FOR SHUTTING OFF HOOD AND FANS.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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REVISIONS:

NO.	DATE	DESCRIPTION	BY
02	10/03/25	MECHANICAL CHANGES	NYE
03	11/11/25	MECHANICAL CHANGES	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
MECHANICAL FLOOR PLAN

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
M-1.0

SEQUENCE OF OPERATION (KITCHEN EXHAUST SYSTEM)

1. HOOD & MAU INTERLOCK

- WHEN THE HOOD IS ON, THE MAU TURNS ON AND PROVIDES REQUIRED MAKE-UP AIR.
- WHEN THE HOOD IS OFF, THE MAU RETURNS TO OFF MODE.

2. HOOD MODE (HOOD ON) WHEN THE KITCHEN HOOD IS OPERATING:

MAU OPERATION

- OA DAMPER OPENS TO FULL MAKE-UP AIR.
- SUPPLY FAN RUNS CONTINUOUSLY.
- COOLING OPERATES TO MAINTAIN SPACE CONDITIONS THROUGH RTU.

EXHAUST FAN

- EXHAUST FAN TURNS ON WITH HOOD.
- FAN CONTINUES TO RUN AS LONG AS HOOD IS ON.

3. NORMAL MODE (HOOD OFF) WHEN THE HOOD IS NOT OPERATING:

MAU OPERATION

- MAU FAN REMAINS OFF.

EXHAUST FAN

- EXHAUST FAN REMAINS OFF.

4. SAFETY INTERLOCKS IN A FIRE-SUPPRESSION EVENT:

- EXHAUST FAN STAYS ON.
- MAU MAY SHUT DOWN OR GO TO PURGE MODE DEPENDING ON HOOD PACKAGE.
- GAS TO APPLIANCES SHUTS OFF.

RTU SEQUENCE OF OPERATION (GENERAL)

4

1. OCCUPIED MODE

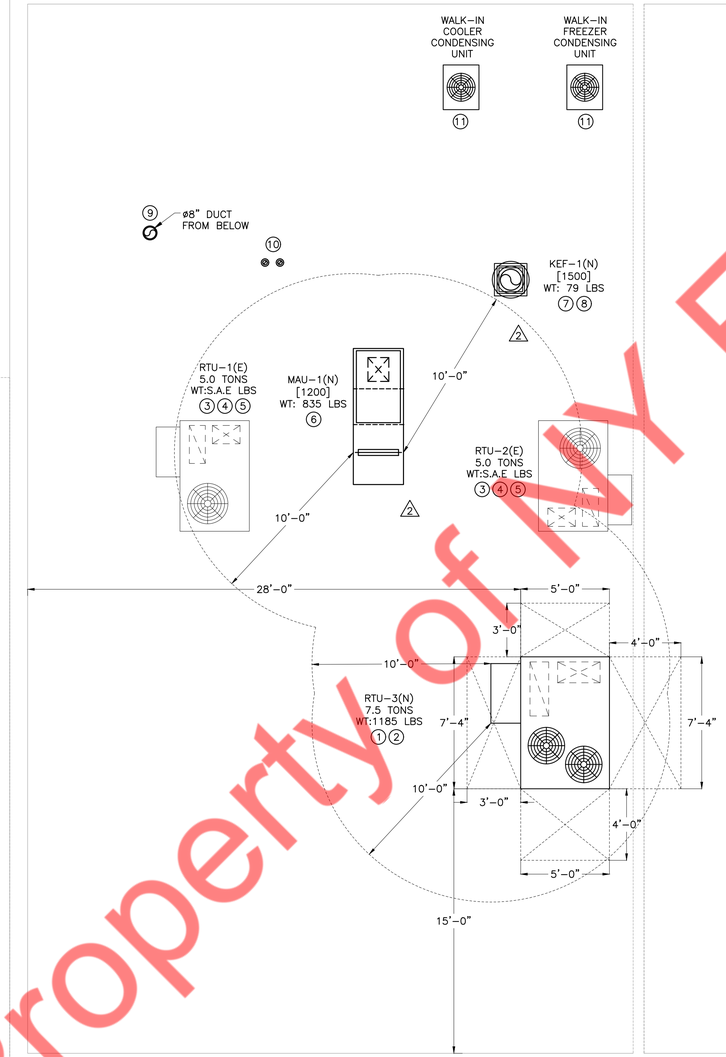
- SUPPLY FAN OPERATES CONTINUOUSLY.
- COOLING: COMPRESSOR(S)/DX COIL MODULATE TO MAINTAIN THERMOSTAT COOLING SETPOINT.
- HEATING: ELECTRIC COIL HEATING MODULATE TO MAINTAIN HEATING SETPOINT.
- ECONOMIZER:
  1. OPENS BASED ON OUTDOOR AIR TEMPERATURE/ENTHALPY
  2. MINIMUM OA MAINTAINED BY OUTDOOR AIR DAMPER PER VENTILATION SCHEDULE.

2. UNOCCUPIED MODE

- UNIT CYCLES ONLY TO MAINTAIN UNOCCUPIED HEATING/COOLING SETPOINTS.
- FAN CYCLES WITH CALL.

3. SAFETY INTERLOCKS

- HIGH-STATIC CUTOUT.
- FREEZE-STAT (LOCKS OUT COOLING, OPENS HEATING).



1 MECHANICAL ROOF PLAN
1/4" = 1'-0"

MECHANICAL GENERAL NOTES

A. COORDINATE LOCATIONS AND SIZES OF ROOF OPENINGS WITH OWNER AND LL ROOFING CONTRACTOR. PROVIDE NEW OPENING IF REQUIRED AND CLOSE USED OPENINGS.

B. EQUIPMENT SIZES, DIMENSIONS AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE ACTUAL EQUIPMENT SELECTED VENDOR DRAWINGS AND SITE BEFORE FABRICATION OF DUCTWORK, PIPING ETC.

C. CONTRACTOR SHALL COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL HVAC BASED ON ACTUAL EQUIPMENT SELECTED PRIOR TO INSTALLATION.

D. CONTRACTOR SHALL COORDINATE EQUIPMENT WEIGHTS AND SUPPORTS BASED ON ACTUAL EQUIPMENT SELECTED.

E. COORDINATE ALL EQUIPMENT WITH STRUCTURAL DRAWING.

F. MAINTAIN ALL CODE AND MANUFACTURERS RECOMMENDED CLEARANCE AROUND ALL ROOF EQUIPMENT.

G. ALL ROOF PENETRATION AND MEMBRANE ROOF REPAIRS ARE TO BE ACCOMPLISHED BY THE LANDLORD'S ROOFING CONTRACTOR FOR WARRANTY PURPOSES.

H. ROOF REPAIR UNIT PRICES SHOULD BE SUBMITTED PRIOR TO COMMENCEMENT OF CONSTRUCTION.

I. CONTRACTOR SHALL ENSURE THAT ALL NEW ROOFTOP MOUNTED EQUIPMENT IS INSTALLED WITHIN ANY EXISTING REINFORCED STRUCTURAL AREAS OR ZONE THAT ARE DESIGNATED FOR FUTURE MECHANICAL EQUIPMENT. COORDINATE WITH ALL EXISTING STRUCTURAL CONDITIONS PRIOR TO BEGINNING ANY WORK. GENERAL CONTRACTOR NEEDS TO COORDINATE WITH STRUCTURAL ENGINEER/ARCHITECT FOR ADDITIONAL BRACING OR SUPPORTS FOR NEW UNITS.

J. CONTRACTOR TO COORDINATE WITH STRUCTURAL ENGINEER AND ADD BLOCKING TO ENSURE PROPER LOAD DISTRIBUTION ON EXISTING TRUSSES.

KEY NOTES (#)

1. PROVIDE NEW MECHANICAL ROOFTOP UNIT. PROVIDE FLEXIBLE CONNECTORS ON SUPPLY AND RETURN DUCT CONNECTIONS. SET OUTSIDE AIR AS INDICATED ON ROOFTOP UNIT SCHEDULES. MECHANICAL CONTRACTOR SHALL SCRIBE INTO UNIT POSITION OF OUTSIDE AIR DAMPER AND LABEL OUTSIDE AIR VOLUME AND PERCENT OF OUTSIDE AIR. TRANSITION AND CONNECT SUPPLY AND RETURN DUCTWORK FROM BELOW. COORDINATE ROUTING THROUGH STRUCTURAL TRUSSES AND OFFSET AS REQUIRED IN CURB SPACE.
2. CONDENSATE DRAIN FROM UNIT SHALL BE CONVEYED TO AN APPROVED PLACE OF DISPOSAL. SUCH PIPING SHALL MAINTAIN A MINIMUM HORIZONTAL SLOPE IN THE DIRECTION OF DISCHARGE OF NOT LESS THAN THE 1/8TH UNIT VERTICAL IN 12 UNITS HORIZONTAL (1% SLOPE). CONDENSATE SHALL NOT DISCHARGE INTO A STREET, ALLEY OR OTHER AREAS SO AS TO CAUSE A NUISANCE. PLEASE REFER TO PLUMBING DRAWING – SHEET P-102.01
3. EXISTING MECHANICAL ROOFTOP UNIT TO REMAIN ALONG WITH ALL ACCESSORIES. CLEAN AND REFURBISH TO LIKE NEW CONDITION. REPAIR/REPLACE ANY ACCESSORIES AS REQUIRED TO PROVIDE FULLY FUNCTIONING VERIFY PRIOR TO BID. SET OUTSIDE AIR AS INDICATED ON ROOFTOP UNIT SCHEDULES. MECHANICAL CONTRACTOR SHALL SCRIBE INTO UNIT POSITION OF OUTSIDE AIR DAMPER AND LABEL OUTSIDE AIR VOLUME AND PERCENT OF OUTSIDE AIR.
4. CONDENSATE DRAIN TO BE REMAIN AS IT IS FOR EXISTING RTU. CONTRACTOR TO FLUSH THE EXISTING DRAIN. CONTRACTOR TO CLEAN/REPAIR/REPLACE DRAIN IF FOUND DAMAGED.
5. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF EXISTING RTU.
6. CONTRACTOR TO INSTALL MAKE-UP AIR UNIT ON CURB PROVIDED BY KITCHEN EQUIPMENT SUPPLIER. FILED VERIFY EXACT LOCATION. INSTALL AS PER MANUFACTURERS RECOMMENDATION WITH REQUIRED STRUCTURAL SUPPORT. COORDINATE WITH ACCUREX FOR ACTUAL FLOW REQUIRMENT AND COORDINATE WITH PLUMBING CONTRACTOR.
7. CONTRACTOR TO INSTALL NEW EXHAUST FAN AS PER MANUFACTURER'S RECOMMENDATION. EXHAUST FAN AND ROOF CURB PROVIDED BY THE KITCHEN EQUIPMENT SUPPLIER AND INSTALLED MECHANICAL CONTRACTOR. COORDINATE THE INSTALLATION OF ANY NEW STRUCTURAL SUPPORT AS REQUIRED. CONNECT EXHAUST DUCT FROM BELOW. MAINTAIN MIN 10'-0" DISTANCE FROM ANY OUTSIDE AIR INTAKE SOURCE ON ROOF.
8. CONTRACTOR TO ENSURE THAT EXHAUST OUTLETS SHALL MAINTAIN MINIMUM 10' HORIZONTALLY DISTANCE FROM OUTSIDE AIR INTAKE SOURCE ON ROOF.
9. 8"ø TOILET EXHAUST DUCT FROM BELOW. TERMINATE ON ROOF WITH GOOSENECK AND BIRD SCREEN. MAINTAIN MINIMUM 10'-0" HORIZONTAL DISTANCE FROM ANY OUTSIDE AIR INTAKE SOURCE.
10. 3"/5"Ø CONCENTRIC VENT FOR COMBUSTION AIR INTAKE/EXHAUST FROM GAS FIRED EQUIPMENT TO ROOF. TERMINATE AS PER MANUFACTURER RECOMMENDATION. MAINTAIN MINIMUM 10' DISTANCE FROM MECHANICAL AIR INTAKE. 4
11. WALK-IN COOLER/FREEZER CONDENSING UNIT TO BE INSTALLED ON THE ROOF ABOVE THE WALK-IN COOLER. THE COOLER IS PROVIDED BY THE OWNER AND INSTALLED BY THE MECHANICAL CONTRACTOR. CONDENSER REFRIGERANT PORTS SHALL HAVE LOCKING CAPS.

4

CONTRACTOR NOTES:

CONTRACTOR SHALL ENSURE ALL PENETRATIONS THROUGH WALLS, FLOORS, OR CEILINGS OF THE WALK-IN COOLER SHALL BE PROPERLY SEALED. PIPING INSULATION EXPOSED TO THE WEATHER SHALL BE PROTECTED, AND FIELD-INSTALLED REFRIGERANT PIPING SHALL BE PRESSURE AND LEAK TESTED.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
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NO.	DATE	DESCRIPTION	BY
02	10/03/25	MECHANICAL CHANGES	NYE
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

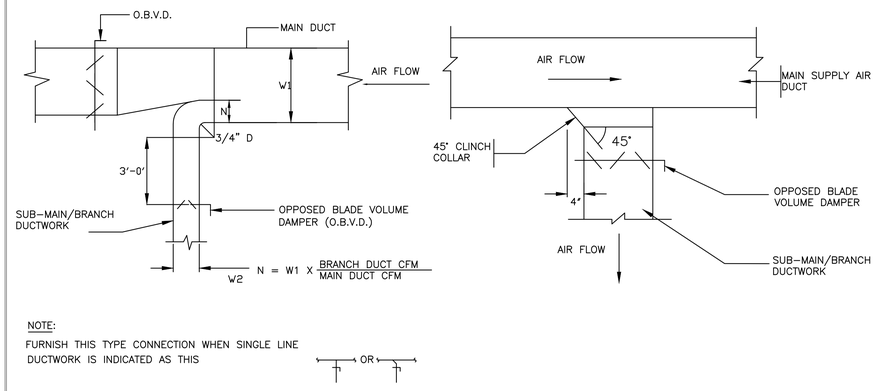
PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
MECHANICAL ROOF PLAN

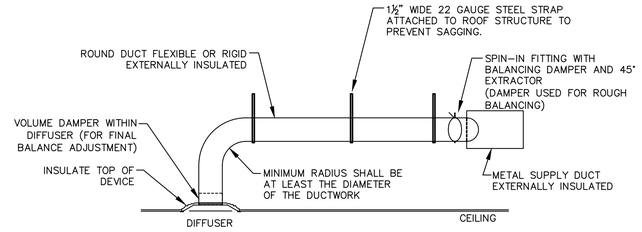
PROJECT NUMBER 25-012

DATE 07-07-2025

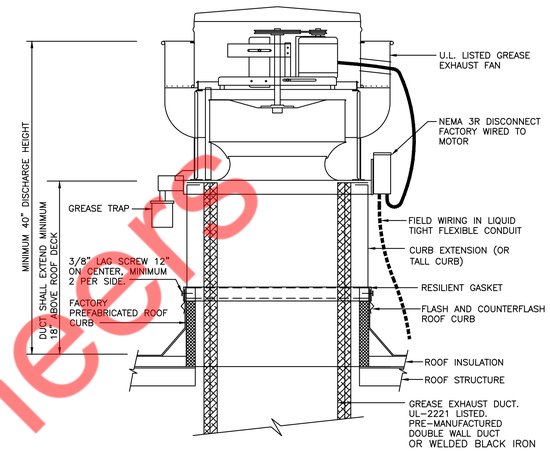
SHEET NO.
M-1.1



1 DUCTWORK SUB-MAIN/BRANCH TAKE-OFF DETAIL
1/4" = 1'-0"

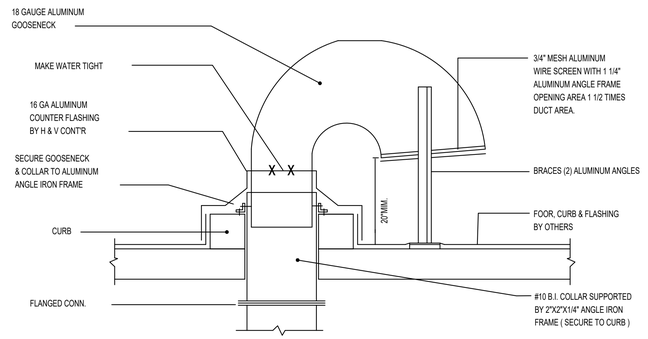


2 TYPICAL DIFFUSER CONNECTION DETAIL
1/4" = 1'-0"

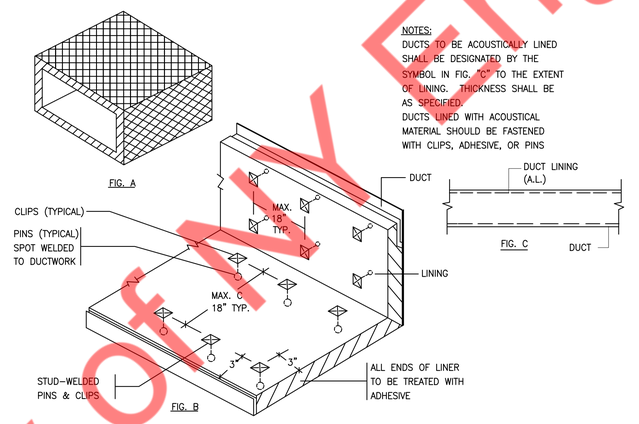


NOTE: INSTALLATION SHALL BE IN ACCORDANCE WITH NFPA 96 REQUIREMENTS.

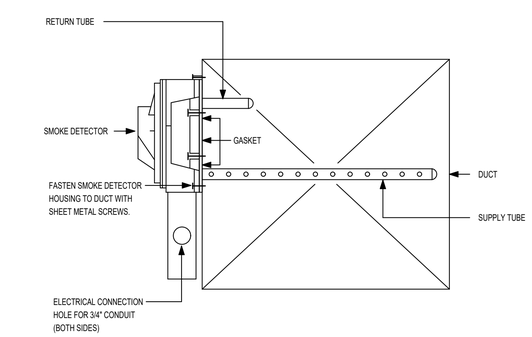
3 ROOF MOUNTED GREASE EXHAUST FAN DETAIL
1/4" = 1'-0"



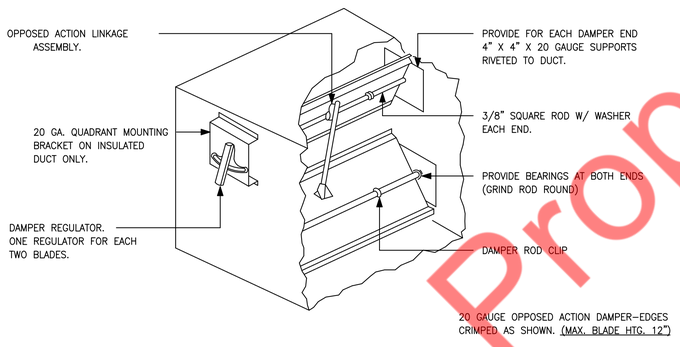
4 TYPICAL GOOSENECK DETAIL
1/4" = 1'-0"



5 ACOUSTIC LINING DETAIL
1/4" = 1'-0"

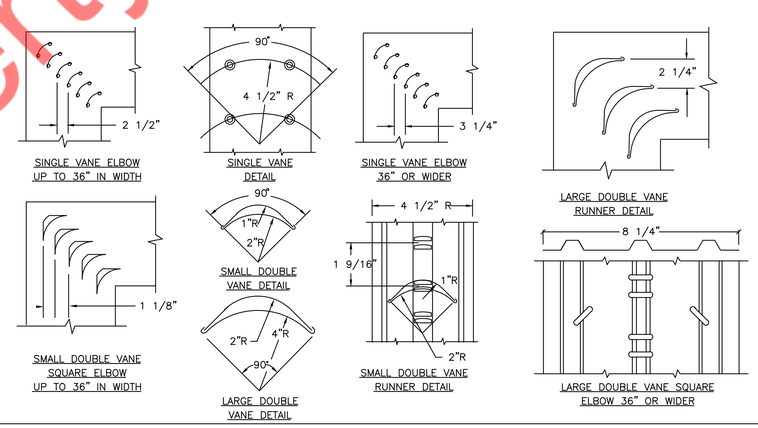


6 SMOKE DETECTOR DETAIL
1/4" = 1'-0"

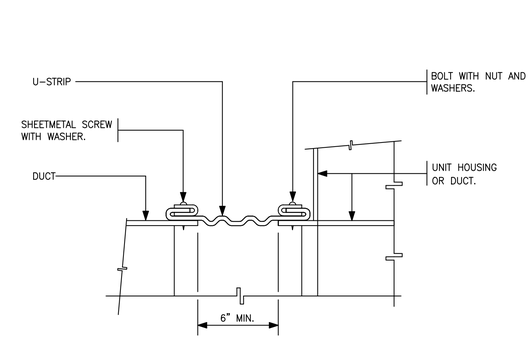


NOTE : 1. FOR DUCTS OVER 29" WIDE AND/OR OVER 12" HIGH.

7 LOW PRESSURE BALANCING DAMPER
1/4" = 1'-0"



8 LOW VELOCITY DUCTWORK ELBOWS
1/4" = 1'-0"



9 FLEXIBLE CONNECTION DETAIL
1/4" = 1'-0"

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382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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REVISIONS:

NO.	DATE	DESCRIPTION	BY

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

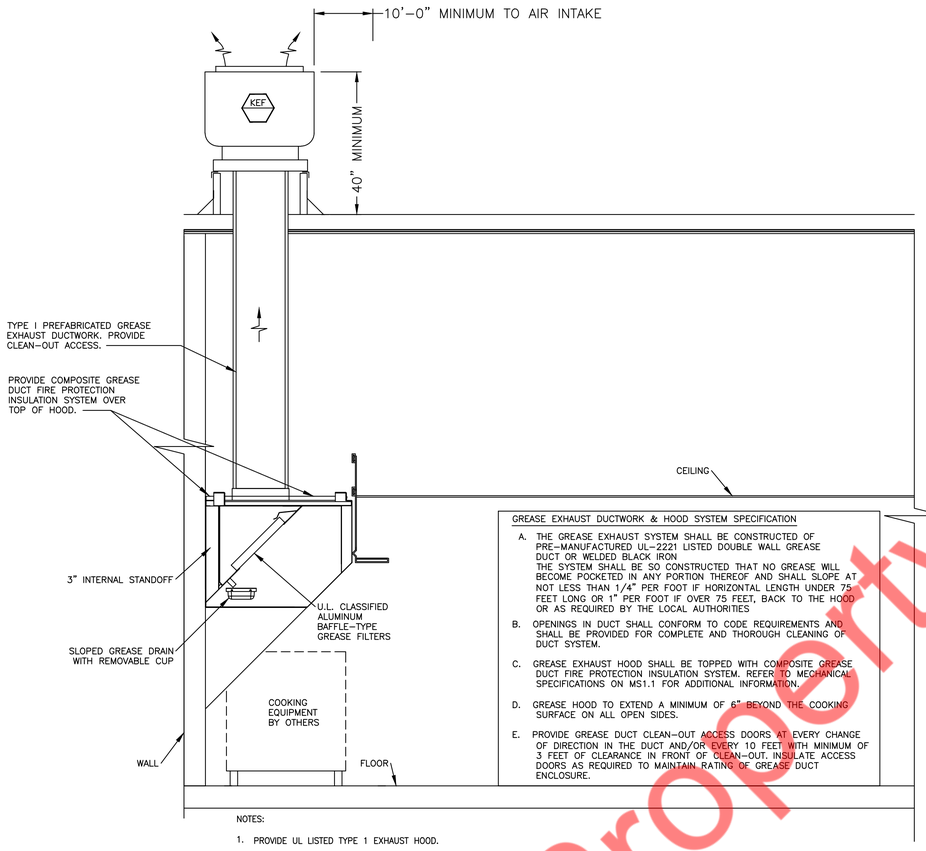
SHEET TITLE:
MECHANICAL DETAILS (1 OF 2)

PROJECT NUMBER 25-012

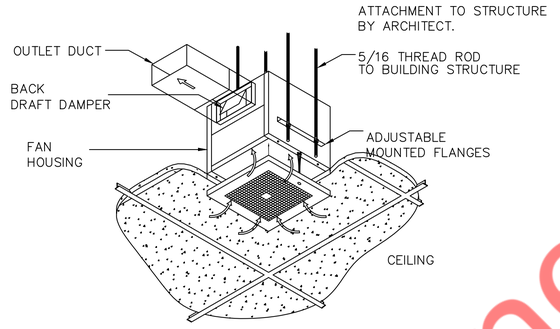
DATE 07-07-2025

SHEET NO.
M-2.0

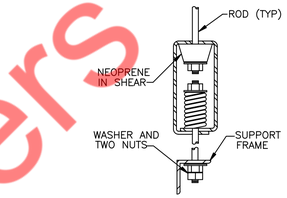
SHEET 5 OF 14



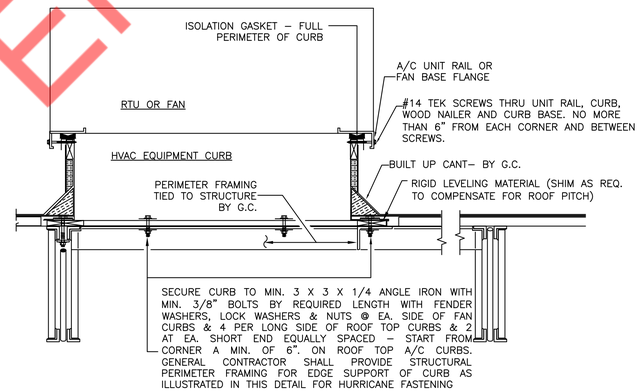
1 KITCHEN HOOD SCHEMATICS
SCALE: N.T.S.



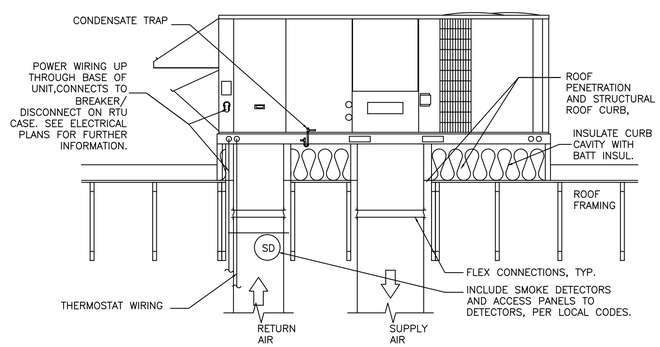
2 CEILING MOUNTED FAN DETAIL
SCALE: N.T.S.



3 VIBRATION ISOLATOR DETAIL
SCALE: N.T.S.



4 TYPICAL RTU INSTALLATION DETAIL
SCALE: N.T.S.



5 RTU SCHEMATIC
SCALE: N.T.S.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
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REVISIONS:

NO.	DATE	DESCRIPTION	BY

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
MECHANICAL DETAILS (2 OF 2)

PROJECT NUMBER 25–012

DATE 07–07–2025

SHEET NO.
M–2.1

SHEET 6 OF 14

ROOF TOP UNIT SCHEDULE

UNIT ID	MANUFACTURER	MODEL	AREA SERVED	NOMINAL TONS	SUPPLY FAN			HEATING	COOLING				ELECTRICAL			EER	IEER	OPERATING WEIGHT (LBS)
					TOTAL CFM	OUTSIDE AIR CFM	EXTERNAL STATIC PRESSURE(IN. W.G.)	ELECTRIC HEAT KW	TOTAL MBH	SENSIBLE MBH	AMBIENT DB (°F)	ENTERING DB / WB(°F)	VOLTAGE	MCA(A)	MOCP(A)			
RTU-1 (E)	CARRIER	50GC-J06	SEE PLAN	5 (V.I.F.)	2000 (V.I.F.)	150	0.5 (V.I.F.)	12 (V.I.F.)	53.8 (V.I.F.)	44.8 (V.I.F.)	S.A.E.	S.A.E.	208-230 /3 / 60 (V.I.F.)	53 (V.I.F.)	60 (V.I.F.)	S.A.E.	S.A.E.	775 (V.I.F.)
RTU-2 (E)	CARRIER	50GC-J06	SEE PLAN	5 (V.I.F.)	2000 (V.I.F.)	150	0.5 (V.I.F.)	12 (V.I.F.)	53.8 (V.I.F.)	44.8 (V.I.F.)	S.A.E.	S.A.E.	208-230 /3 / 60 (V.I.F.)	53 (V.I.F.)	60 (V.I.F.)	S.A.E.	S.A.E.	775 (V.I.F.)
RTU-3 (N)	CARRIER	50GE-M08B (OR EQUIVALENT)	SEE PLAN	7.5	3000	500	1.0	16	91.9	69.3	95	80/67	208-230 / 3 / 60	63	70	12.4	17.7	1185

NOTES FOR EXISTING RTU :-

1. EXISTING RTUs WITH ALL ACCESSORIES TO REMAIN SAME AND TO BE REUSED.
2. S.A.E. : SAME AS EXISTING , V.I.F.: VERIFY IN FIELD
3. CONTRACTOR TO FIELD VERIFY IF ALL RTUs ARE WORKING AT THEIR 100% RATED CAPACITY. INFORM TO DESIGN ENGINEER IF ANY DISCREPANCIES ARE FOUND IN PERFORMANCE PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO FIELD VERIFY EXACT LOCATION AND CONFIGURATION OF UNIT ON SITE.
5. IF REQUIRED, PROVIDE NEW THERMOSTAT AND TEMPERATURE SENSOR COMPATIBLE WITH EXISTING RTU. CO-ORDINATE FINAL LOCATION OF T-SENSOR WITH ARCHITECT/OWNER.
6. CONTRACTOR TO BALANCE OUTSIDE AIR & RETURN AIR DAMPER ON EXISTING RTU TO MATCH VALUES MENTIONED IN ABOVE TABLES.
7. REPLACE FILTERS, IF REQUIRED.
8. CONTRACTOR SHALL VERIFY EXACT ELECTRICAL CONNECTIONS, WIRE SIZES, BREAKER, DISCONNECT ETC. PRIOR TO ORDERING AND BID.

NOTES FOR NEW RTU :-

1. ALL EQUIPMENT MUST BE HIGH EFFICIENT, MEETING OR EXCEEDING THE BRANDS MINIMUM REQUIREMENTS.
2. ELECTRICAL CONNECTION TO BE SINGLE POINT AND TO BE THROUGH THE BOTTOM OF THE UNIT.
3. PROVIDE DISCONNECT SWITCH AND AN UNPOWERED GFIC RECEPTACLE.
4. 14" ROOF CURB - CONTRACTOR SHALL FIELD INSULATE. SHIP ASAP AHEAD OF THE UNIT.
5. CONDENSATE DRAIN WITH 2" DEEP VENTED TRAP DISCHARGE TO SPLASH BLOCK ON ROOF.
6. CABINET WITH 1/2" FIBERGLASS INSULATION.
7. PROVIDE 8-WIRE, 24 VAC, AUTOMATIC CHANGEOVER, 2-STAGE HEAT / COOL, REMOTELY PROGRAMMABLE THERMOSTAT.
8. ANTI SHORT CYCLE TIMER.
9. THROWAWAY 2" FILTERS (MERV 8).
10. WHERE REQUIRED, PROVIDE LOW AMBIENT COOLING CAPABILITY DOWN TO 0 DEGREES F.
11. PROVIDE ALL COMPRESSORS WITH 5 YEAR WARRANTY.
12. REFRIGERANT R454B SHALL BE PROVIDED.
13. RETURN AIR SMOKE DETECTOR - MOUNTED AS SHOWN ON PLAN.

MAKE UP AIR UNIT SCHEDULE

UNIT ID	CFM	ESP (IN W.G.)	HP	ELECTRICAL DATA VOLTS/PH	MCA (A)	MOCP (A)	COOLING CAPACITY (MBH)	SUMMER (F) DRY	WET	WEIGHT (LBS)	MANUFACTURER	MODEL
MAU-1(N)	1200	0.5	0.5	208/3	5.5	15	40.9	110.2	76.1	835	ACCUREX	AWSX-P 105-H12-MF

REMARK:

1. REFER TO HOOD DETAILS SHEET M-3.0 & M-3.1 FOR ALL REQUIRED AND INSTALL AS PER MANUFCTURERS RECOMMENDATION.
2. ALL EQUIPMENT NORMAL POWER WIRING BY ELECTRICAL CONTRACTOR. COORDINATE POWER REQUIREMENTS.
3. CONTRACTOR TO COORDINATE WITH PLUMBING CONTRACTOR AND ACCUREX FOR THE ACTUAL WATER REQUIRMENT AND PIPE SIZES.

FAN SCHEDULE

UNIT ID	MANUFACTURER	CFM	ESP(IN W.G.)	RPM	HP	VOLTS/PH	FLA(A)	WEIGHT (LBS)	MODEL	NOTES
KEF-1(N)	ACCUREX	1500	1.1	1638	0.8	115/1	13.8	79	XCUE-130-VG	1
TEF-1(N)	GREENHECK	70	0.5	950	-	115/1	0.27	10	SP-B110ES	2,3,4,5
TEF-2(N)	GREENHECK	70	0.5	950	-	115/1	0.27	10	SP-B110ES	2,3,4,5

NOTES:

1. REFER TO HOOD DETAILS, M-3.0 FOR ALL REQUIRED ACCESSORIES. AND INSTALL AS PER MANUFACTURERS RECOMMENDATION.
2. PROVIDE GRAVITY BACKDRAFT DAMPER
3. PROVIDE DISCONNECT SWITCH.
4. HANGING BRACKET WITH VIBRATION ISOLATOR.
5. INTERLOCK WITH RTU-1(E).

HOOD SCHEDULE

UNIT ID	MANUFACTURER	LENGTH (INCH)	MODEL	TYPE	COOKING LOAD / DUTY RATING	EXHAUST AIR (CFM)	EXHAUST COLLAR (INCH)	EXHAUST E.S.P (IN. W.G.)	CONSTRUCTION
HOOD-1	ACCUREX	80	XBEW-83-S	1	HEAVY	1500	14X10	0.413	430 SS WHERE EXPOSED

NOTES:

1. REFER TO HOOD DETAILS, M-3.0 FOR ALL REQUIRED ACCESSORIES. AND INSTALL AS PER MANUFACTURERS RECOMMENDATION.

VENTILATION CALCULATIONS AS PER IMC 2024

ROOM NAME	AREA (SQ.FT.)	NO. OF PEOPLE/1000sq.ft AS PER IMC-2024 (4)	NO. OF PEOPLE AS PER IMC-2024	NO. OF CHAIR	FINAL PEOPLE NO.	MIN. OUTSIDE AIR AS PER IMC-2024 (4) CFM/PEOPLE	MIN. OUTSIDE AIR AS PER IMC-2024 (4) CFM/SQ.FT	EFFECTIVENESS	REQ. OA (CFM)	PROVIDED OA(CFM)	EXHAUST AIRFLOW RATE (CFM/SQ.FT OR CFM/FIXT.)	TOTAL EXHAUST (CFM)	PROVIDED EXHAUST (CFM)
DINING AREA - 100	782	70	55	40	40	7.5	0.18	0.8	551	2000	0	0	**0**
SERVICE AREA - 101	176	15	3	0	4	7.5	0.12	0.8	64		0	0	0
KITCHEN AREA - 102	606	20	13	0	8	7.5	0.12	0.8	166		0.7	424	1500
HALL - 105	132	0	0	0	0	0	0.06	0.8	10		0	0	0
RESTROOM - 1 - 103	58	0	0	0	0	0	0	0.8	0		70	70	70
RESTROOM - 2 - 104	57	0	0	0	0	0	0	0.8	0		70	70	70
TOTAL									**791**	**2000**	-	-	**1640**

AIR BALANCE

UNIT	AREA SERVED	SUPPLY AIR (CFM)	OUTSIDE AIR (CFM)	RETURN AIR (CFM)	EXHAUST AIR(CFM)
RTU-1 (E)	SEE PLAN	2000	150	1850	0
RTU-2 (E)	SEE PLAN	2000	150	1850	0
RTU-3 (N)	SEE PLAN	3000	500	2500	0
MAU-1(N)	SEE PLAN	1200	1200	0	0
KEF-1(N)	SEE PLAN	0	0	0	1500
TEF-1(N)	SEE PLAN	0	0	0	70
TEF-2(N)	SEE PLAN	0	0	0	70
TOTAL:		8200	2000	6200	1640
BUILDING PRESSURE:			**360**	**POSITIVE**	

NOTES:

1. CONTRACTOR TO ADJUST MOTORIZED DAMPER ON OUTSIDE AIR TAP TO PROVIDE OUTSIDE AIR AS MENTIONED IN ABOVE TABLE.

AIR TERMINAL SCHEDULE

BASIS OF DESIGN : PRICE

TAG	TYPE	DIMENSION (IN)	MODEL NO.	MAX NC dBA
CDS-1	SUPPLY	24X24	SPD	20
CDS-2	SUPPLY	12X12	SPD	20
CDS-3	SUPPLY	24X24	PDN	20
CDS-4	SUPPLY	12X6	SDGE	20
CDS-5	SUPPLY	12X8	SDGE	30
CDR-1	RETURN	24X24	PDDR	20
CDR-2	RETURN	24X10	SDGE	20

NOTES FOR DIFFUSERS

1. ALL GRILLES : CONTRACTOR SHALL COORDINATE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLANS PLANS TO ENSURE PROPER AIR DEVICE BORDER SELECTION
2. COORDINATE COLOR/FINISH WITH ARCHITECT

FOR ROUND DIFFUSER NECK SIZE	FOR SQUARE DIFFUSER NECK SIZE
6" DIA: 0-100 CFM	6"X6" : 0 - 115 CFM
8" DIA: 101-175 CFM	8"X8" : 116 - 220 CFM
10" DIA: 176-275 CFM	10"X10" : 221 - 350 CFM
12" DIA: 276-395 CFM	12"X12" : 351 - 520 CFM
14" DIA: 396-535 CFM	14"X14" : 521 - 730 CFM
15" DIA:536-750 CFM	16"X16" : 731 - 840 CFM
	18"X18" : 840 - 1035 CFM
	20"X20" : 1036 - 1285 CFM
	22"X22" : 1286 - 1570 CFM

REFRIGERANT CALCULATION

(4)

1. REFRIGERANT TYPE: R410A & R454B
2. REFRIGERATION CLASSIFICATION (TABLE 1103.1): A1 & A2L
3. REFRIGERANT SYSTEM CLASSIFICATION (TABLE 1103.2,1103.3): DIRECT SYSTEM, HIGH-PROBABILITY
4. MAXIMUM REFRIGERANT QUANTITY FOR R410A & R454B (TABLE 1103): 26 LBS/1000 CU FT & 3.1 LBS/1000 CU FT
5. SYSTEM APPLICATION / VOLUME CALCULATIONS / SPACE INTERNAL VOLUME = 18110 CU FT
6. MAXIMUM ALLOWABLE REFRIGERANT IN THE SYSTEM
   - **6.1. (R410A - A1) : 18110 CU FT X 26 LBS/1000 CU FT = 470.8 LBS OF REFRIGERANT**
   - **6.2. (R454B - A2L) : 18110 CU FT X 3.1 LBS/1000 CU FT = 56.1 LBS OF REFRIGERANT**
7. EQUIPMENT AND CHARGE:
   - **RTU-1(E): PURON® (R-410A) — 11.0 LB**
   - **RTU-2(E): PURON® (R-410A) — 11.0 LB**
   - **RTU-3(N): PURON ADVANCE™ (R-454B) — 13.0 LB**
8. COMPLIANCE CHECK
   - **R-410A (RTU-1(E) & RTU-2(E)):**
     TOTAL CHARGE = 22.0 LB ≤ MAX ALLOWABLE 470.8 LB → ☑ COMPLIES
   - **R-454B (RTU-3(N)):**
     TOTAL CHARGE = 13.0 LB ≤ MAX ALLOWABLE 56.1 LB → ☑ COMPLIES

ALL RTUS ARE WELL BELOW THEIR RESPECTIVE MAXIMUM ALLOWABLE REFRIGERANT CHARGES BASED ON IMC 1104.3/1104.4, AND MANUFACTURER GUIDANCE. THE SYSTEM CONFIGURATION IS SAFE FOR THE OCCUPIED SPACE, AND THE REFRIGERANT CONCENTRATIONS COMPLY WITH CODE LIMITS.

NOTE:

1. COORDINATE WITH THE MANUFACTURER FOR EXACT DETAILS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL COORDINATE WITH THE EQUIPMENT MANUFACTURER AND ENSURE THAT THE REFRIGERANT CHARGE DOES NOT EXCEED THE LIMIT VALUES MENTIONED ABOVE.
3. THE ABOVE CALCULATIONS ARE FOR REFERENCE ONLY. FINAL CALCULATIONS AND DATA SHALL BE VERIFIED AND COORDINATED WITH THE EQUIPMENT MANUFACTURER.
4. DIMENSIONS CONSIDERED FOR THE CALCULATIONS ARE NET INTERNAL DIMENSIONS.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
MECHANICAL SCHEDULE

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
M-2.2

System Checksums

By Trial

RTU-1(DINING) — **Single Zone**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 8 / 16
Outside Air: OADB/WB/HR: 106 / 69 / 49

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	2,998	2,998	4
Glass Solar	9,645	0	9,645	14
Glass/Door Cond	7,111	0	7,111	10
Wall Cond	5,480	596	6,076	9
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	573		573	1
Sub Total ==>	22,808	3,594	26,403	37
Internal Loads				
Lights	2,989	747	3,737	5
People	22,000	0	22,000	31
Misc	3,737	0	3,737	5
Sub Total ==>	28,726	747	29,473	41
Ceiling Load	383	-383	0	0
Ventilation Load	0	0	16,470	23
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		-992	-992	-1
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	51,917	2,966	71,354	100.00

CLG SPACE PEAK

Mo/Hr: Sum of
OADB: Peaks

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	13,075	30
Glass/Door Cond	6,361	14
Wall Cond	6,011	14
Partition/Door	0	0
Floor	0	0
Adjacent Floor	0	0
Infiltration	597	1
Sub Total ==>	26,044	59
Internal Loads		
Lights	2,989	7
People	11,000	25
Misc	3,737	8
Sub Total ==>	17,726	40
Ceiling Load	358	1
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	44,128	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 39

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-984	1.47
Glass Solar	0	0	0.00
Glass/Door Cond	-7,832	-7,832	11.73
Wall Cond	-2,541	-2,819	4.22
Partition/Door	0	0	0.00
Floor	-1,365	-1,365	2.04
Adjacent Floor	0	0	0
Infiltration	-4,698	-4,698	7.04
Sub Total ==>	-16,436	-17,699	26.51
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-107	0	0.00
Ventilation Load	0	-20,267	30.35
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-29,132	-29,132	43.63
Exhaust Heat		329	-0.49
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-45,675	-66,769	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	90.0
Ra Plenum	76.6	71.6
Return	76.6	71.6
Ret/OA	83.7	63.7
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	2,293	2,293
Terminal	2,293	2,293
Main Fan	2,293	2,293
Sec Fan	0	0
Nom Vent	560	560
AHU Vent	560	560
Infil	19	130
MinStop/Rh	0	0
Return	2,312	2,422
Exhaust	579	690
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	24.4	24.4
cfm/ft²	2.93	2.93
cfm/ton	335.28	
ft²/ton	114.36	
Btu/hr·ft²	104.93	-106.73
No. People	40	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB °F	Enter WB °F	Enter HR gr/lb	Leave DB °F	Leave WB °F	Leave HR gr/lb
Main Clg	6.8	82.1	72.7	2,293	83.7	63.1	53.9	55.0	50.6	48.0
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	6.8	82.1								

AREAS

	Gross Total	Glass ft²	Glass (%)
Floor	782		
Part	0		
Int Door	0		
ExFlr	57		
Roof	782	0	0
Wall	959	387	40
Ext Door	48	48	100

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-83.5	2,293	63.7	90.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-83.5			

Project Name:
Dataset Name: ATOMIC WINGS PHOENIX AZ.TRC

TRACE® 700 v6.3.3 calculated at 03:48 PM on 06/24/2025
Alternative - 1 System Checksums Report Page 1 of 2

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
HEATLOAD CALCULATION (1 OF 2)

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
M-2.3

SHEET 8 OF 14

System Checksums

By Trial

RTU-2(KITCHEN) — **Single Zone**

COOLING COIL PEAK

Peaked at Time: Mo/Hr: 7 / 18
Outside Air: OADB/WB/HR: 106 / 66 / 33

	Space Sens. + Lat. Btu/h	Plenum Sens. + Lat Btu/h	Net Total Btu/h	Percent Of Total (%)
Envelope Loads				
Skylite Solar	0	0	0	0
Skylite Cond	0	0	0	0
Roof Cond	0	3,931	3,931	5
Glass Solar	10,374	0	10,374	13
Glass/Door Cond	5,646	0	5,646	7
Wall Cond	2,639	4,654	7,293	9
Partition/Door	0		0	0
Floor	0		0	0
Adjacent Floor	0	0	0	0
Infiltration	2,551		2,551	3
Sub Total ==>	21,210	8,586	29,795	38
Internal Loads				
Lights	3,933	983	4,917	6
People	6,600	0	6,600	9
Misc	28,484	0	28,484	37
Sub Total ==>	39,018	983	40,001	52
Ceiling Load	787	-787	0	0
Ventilation Load	0	0	8,742	11
Adj Air Trans Heat	0		0	0
Dehumid. Ov Sizing			0	0
Ov/Undr Sizing	0		0	0
Exhaust Heat		-993	-993	-1
Sup. Fan Heat			0	0
Ret. Fan Heat		0	0	0
Duct Heat Pkup		0	0	0
Underflr Sup Ht Pkup			0	0
Supply Air Leakage		0	0	0
Grand Total ==>	61,014	7,790	77,546	100.00

CLG SPACE PEAK

Mo/Hr: Sum of
OADB: Peaks

	Space Sensible Btu/h	Percent Of Total (%)
Envelope Loads		
Skylite Solar	0	0
Skylite Cond	0	0
Roof Cond	0	0
Glass Solar	10,374	18
Glass/Door Cond	5,646	10
Wall Cond	2,639	5
Partition/Door	0	0
Floor	0	0
Adjacent Floor	0	0
Infiltration	3,135	5
Sub Total ==>	21,795	37
Internal Loads		
Lights	3,933	7
People	3,300	6
Misc	28,484	49
Sub Total ==>	35,718	61
Ceiling Load	852	1
Ventilation Load	0	0
Adj Air Trans Heat	0	0
Ov/Undr Sizing	0	0
Exhaust Heat		
OA Preheat Diff.		
RA Preheat Diff.		
Additional Reheat		
Underflr Sup Ht Pkup		
Supply Air Leakage		
Grand Total ==>	58,364	100.00

HEATING COIL PEAK

Mo/Hr: Heating Design
OADB: 39

	Space Peak Space Sens Btu/h	Coil Peak Tot Sens Btu/h	Percent Of Total (%)
Envelope Loads			
Skylite Solar	0	0	0.00
Skylite Cond	0	0	0.00
Roof Cond	0	-1,278	1.74
Glass Solar	0	0	0.00
Glass/Door Cond	-6,038	-6,038	8.21
Wall Cond	-1,063	-3,047	4.14
Partition/Door	0	0	0.00
Floor	-1,296	-1,296	1.76
Adjacent Floor	0	0	0
Infiltration	-3,724	-3,724	5.07
Sub Total ==>	-12,121	-15,383	20.93
Internal Loads			
Lights	0	0	0.00
People	0	0	0.00
Misc	0	0	0.00
Sub Total ==>	0	0	0.00
Ceiling Load	-280	0	0.00
Ventilation Load	0	-10,496	14.28
Adj Air Trans Heat	0	0	0
Ov/Undr Sizing	-48,008	-48,008	65.31
Exhaust Heat		374	-0.51
OA Preheat Diff.		0	0.00
RA Preheat Diff.		0	0.00
Additional Reheat		0	0.00
Underflr Sup Ht Pkup		0	0.00
Supply Air Leakage		0	0.00
Grand Total ==>	-60,409	-73,513	100.00

TEMPERATURES

	Cooling	Heating
SADB	55.0	90.0
Ra Plenum	77.4	71.1
Return	77.4	71.1
Ret/OA	80.1	68.1
Fn MtrTD	0.0	0.0
Fn BldTD	0.0	0.0
Fn Frict	0.0	0.0

AIRFLOWS

	Cooling	Heating
Diffuser	3,032	3,032
Terminal	3,032	3,032
Main Fan	3,032	3,032
Sec Fan	0	0
Nom Vent	290	290
AHU Vent	290	290
Infil	93	103
MinStop/Rh	0	0
Return	3,125	3,135
Exhaust	383	393
Rm Exh	0	0
Auxiliary	0	0
Leakage Dwn	0	0
Leakage Ups	0	0

ENGINEERING CKS

	Cooling	Heating
% OA	9.6	9.6
cfm/ft²	2.95	2.95
cfm/ton	408.03	
ft²/ton	138.46	
Btu/hr·ft²	86.66	-89.30
No. People	12	

COOLING COIL SELECTION

	Total Capacity ton	Total Capacity MBh	Sens Cap. MBh	Coil Airflow cfm	Enter DB/WB/HR °F	Enter DB/WB/HR °F	Enter DB/WB/HR gr/lb	Leave DB/WB/HR °F	Leave DB/WB/HR °F	Leave DB/WB/HR gr/lb
Main Clg	7.4	89.2	87.1	3,032	80.0	59.4	43.3	55.0	48.5	40.6
Aux Clg	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Opt Vent	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	0.0
Total	7.4	89.2								

AREAS

	Gross Total ft²	Glass ft²	Glass (%)
Floor	1,029		
Part	0		
Int Door	0		
ExFlr	54		
Roof	1,029	0	0
Wall	908	280	31
Ext Door	48	48	100

HEATING COIL SELECTION

	Capacity MBh	Coil Airflow cfm	Ent °F	Lvg °F
Main Htg	-91.9	3,032	68.1	90.0
Aux Htg	0.0	0	0.0	0.0
Preheat	0.0	0	0.0	0.0
Humidif	0.0	0	0.0	0.0
Opt Vent	0.0	0	0.0	0.0
Total	-91.9			

Project Name:
Dataset Name: ATOMIC WINGS PHOENIX AZ.TRC

TRACE® 700 v6.3.3 calculated at 03:48 PM on 06/24/2025
Alternative - 1 System Checksums Report Page 2 of 2

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
HEATLOAD CALCULATION (2 OF 2)

PROJECT NUMBER 25-012
DATE 07-07-2025
SHEET NO.
M-2.4

SHEET 9 OF 14

HOOD INFORMATION

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)			HOOD CONSTR.	COOKING LOAD / DUTY RATING	EXHAUST						SUPPLY		HANGING WEIGHT LBS.	SECTION LOCATION
			LENGTH	WIDTH	HEIGHT			TOTAL CFM	COLLAR(S)					MUA CFM	AC CFM		
									WIDTH	LENGTH	DIA.	CFM	S.P.				
1	ITEM 35 HOOD	XBEW-80-S	80	54	24	430 SS WHERE EXPOSED	HEAVY	1500	10	14		1500	0.413	1200		424	SINGLE

HOOD INFORMATION

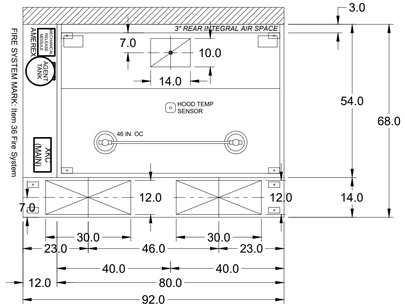
HOOD NO.	MARK	LIGHTING DETAILS			GREASE FILTRATION DETAILS				UTILITY CABINET(S)				
		FIXTURE TYPE BULB / LAMP INFO	QTY	FOOT CANDLES	TYPE / MODEL MATERIAL	QTY	SIZE (IN.)		LOCATION	FIRE SYSTEM		CONTROLS	
							L	H		TYPE	SIZE	MODEL	INTERFACE
1	ITEM 35 HOOD	ROUND LED	2	68.06	BAFFLE STAINLESS STEEL	5	16	20	LEFT	AMEREX KP	3.75	XKC	
						0	20						

SUPPLY PLENUM INFORMATION

HOOD NO.	MARK	POS.	TYPE	SIZE (IN.)			INSULATED	DAMPER(S)	LED LIGHT(S)		TOTAL CFM	TOTAL S.P.	COLLARS							
				L	W	H			SUPPLIED	QTY			TYPE	MOUNTING	QTY	W	L	DIA.	CFM	VEL.
1	ITEM 35 HOOD	FRONT	ASP	92	14	4	NO	YES	NO		1200	0.01	MUA	FACTORY	2	12	30		600	240

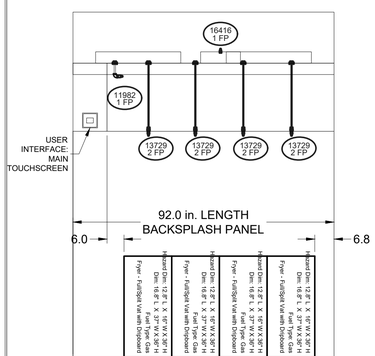
HOOD OPTIONS

- UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625
- BACK INTEGRAL AIR SPACE - 3 IN WIDE
- 18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
- FACTORY MOUNTED EXHAUST COLLAR(S)
- BACKSPLASH 80.00 IN HIGH 92.00 IN LONG
- PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
- STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

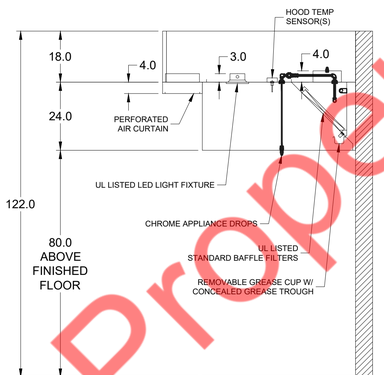


MARK: Item 35 Hood - SECTION 1
PLAN VIEW

FIRE (PIPING/DROPS/NOZZLES/ETC.) SUBJECT TO CHANGE. AS-BUILT DRAWINGS CAN BE PROVIDED AT TIME OF ORDER AND INCLUDED WITH PRODUCT SHIPMENT

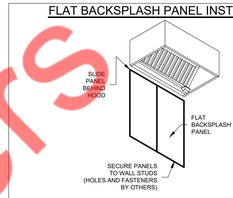


MARK: Item 35 Hood - SECTION 1
ELEVATION VIEW

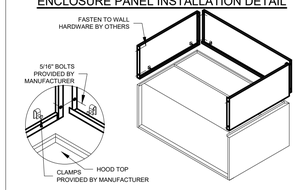


MARK: Item 35 Hood
SECTION VIEW

FLAT BACKSPLASH PANEL INST. DETAIL



ENCLOSURE PANEL INSTALLATION DETAIL

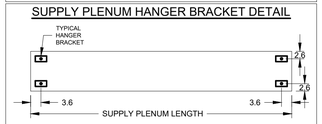


HOOD HANGING HEIGHT FOR FIRE SYSTEMS

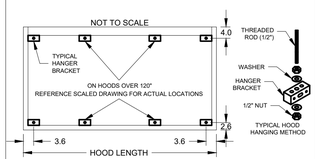
VERIFICATION OF HOOD HANGING HEIGHT ABOVE FINISHED FLOOR (A.F.F.) IS REQUIRED FOR CORRECT PLACEMENT OF FIRE SYSTEM NOZZLES.

- ☐ RECOMMENDED HANGING HEIGHT = 80" FROM FINISHED FLOOR TO LOWER FRONT EDGE OF HOOD.
- ☐ OTHER HANGING HEIGHT = _____" FROM FINISHED FLOOR TO LOWER EDGE OF HOOD.

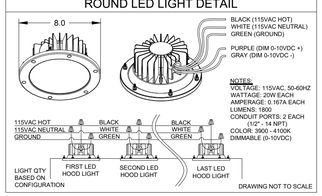
SUPPLY PLENUM HANGER BRACKET DETAIL



HOOD HANGER BRACKET DETAIL



ROUND LED LIGHT DETAIL



PROJECT 4/28/2025

MARK

ATOMIC WINGS PHOENIX R1

ITEM 35 HOOD

ACCUREX

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
HOOD DETAILS (1 OF 5)

⚠1

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.

M-3.0

SHEET 10 OF 14

FIRE SYSTEM INFORMATION

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
ITEM 36 FIRE SYSTEM	AMEREX KP WET CHEMICAL	CABINET – LEFT END OF ITEM 35 HOOD	10 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	ITEM 35 HOOD SECTION 1

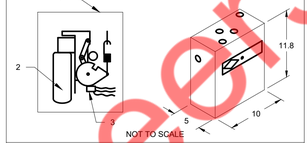
FIRE SYSTEM OPTIONS AND ACCESSORIES

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
METAL BLOW-OFF CAPS - INCLUDED
GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2.00" (AMEREX) - PART# 468830
HOOD SUPPRESSION TANK - INCLUDED - 3.75 GAL. - [(1) 3.75 TANK(S)]
REMOTE PULL STATION - STANDARD - FIELD INSTALLATION AT SINGLE POINT OF EGRESS

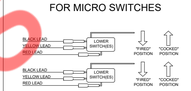
AMEREX KP (WET CHEMICAL) FIRE PROTECTION SYSTEM - MODEL FSSK

CONTROL PANEL

1. MRM (MECHANICAL RELEASE MODULE)
2. NITROGEN ACTUATION CYLINDER
3. MICROSWITCH



WIRING DIAGRAM FOR MICRO SWITCHES

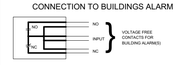


SWITCH RATING:
21A 125/250/277VAC
1HP 125/250/277VAC
2HP 250/277VAC

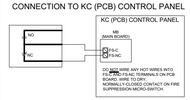
BOTH UPPER AND LOWER SWITCH(ES)

DPDT SWITCHES PROVIDED BY MANUFACTURER MAY BE WIRED PER TYPICAL EXAMPLES SHOWN. VERIFY WITH LOCAL CODES AND EQUIPMENT SUPPLIED AS THE CONNECTION NEEDED FOR YOUR INSTALLATION.

CONNECTION TO BUILDINGS ALARM



CONNECTION TO KC (PCB) CONTROL PANEL



NOTES:
1. _____ DENOTES FIELD INSTALLATION.
2. _____ DENOTES FACTORY INSTALLATION.

NOTES:

WET CHEMICAL FIRE PROTECTION SYSTEM TO BE AMEREX KP, DESIGNED IN COMPLIANCE WITH UL 300 REQUIREMENTS.
-VERIFICATION OF ALL COOKING EQUIPMENT MAKE, MODEL AND LOCATION REQUIRED FOR ALL FIRE PROTECTION SYSTEMS.
-ALL FIRE SYSTEM PIPING IS STANDARDLY TO THE RIGHT END OF THE HOOD UNLESS A WALL IS LOCATED ON THE RIGHT END.
-AMEREX MRM/PRM TO BE LOCATED WITHIN 60" OF HOOD.

THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
-GAS SHUT-OFF VALVE, IF REQUIRED, TO BE SUPPLIED BY MANUFACTURER (UP TO 2" DIAMETER AS STANDARD), AND INSTALLED BY A LICENSED PLUMBER.
-MICRO SWITCH TO BE SUPPLIED BY MANUFACTURER FOR CONNECTION TO, BUT NOT LIMITED TO, BUILDING ALARM SYSTEM(S), EXHAUST AND SUPPLY FANS AND ELECTRICAL POWER SHUT DOWN. FIELD WIRING AND CONNECTIONS TO BE PERFORMED BY A LICENSED ELECTRICIAN.
-THREE TRIPS TO THE JOBSITE.
-ANY STATE OR LOCAL INSTALLATION PERMITS.

THE BASIC FIRE SYSTEM DOES NOT INCLUDE THE FOLLOWING:
-FULL DUMP TEST OTHER THAN WHT IS SPECIFIED PER THE INSTALLATION MANUAL OR TO SATISFY A STATE OR LOCAL CODE.
-MORE THEN THREE TRIPS TO THE JOBSITE OR SPECIAL TRANSPORTATION, OR OVERNIGHT LODGING REQUIREMENTS IN REMOTE AREAS. NORMAL TRAVEL DISTANCE IS FIRST 50 MI. (80.5 KM.) FROM OFFICE.
-SPECIAL CLASSES OR ADDITIONAL LABOR FOR ACCESS TO SECURITY SENSITIVE AREAS.
-INSTALLATION OF GAS SHUT-OFF VALVE.
-SPECIAL DRAWINGS REQUIRED TO SATISFY STATE OR LOCAL CODE.
-UNION LABOR, GOVERNMENT LABOR, OR PREVAILING WAGES REQUIRED FOR FINAL FIELD HOOK-UP.
-ANY AND ALL ELECTRICAL COMPONENTS/CONNECTIONS REQUIRED TO SHUT DOWN FANS, SHUT OFF DEVICE FOR ELECTRIC COOKING EQUIPMENT (SHUNT TRIP BREAKER), OR ACTIVATE AN ALARM SYSTEM, ETC.
-ANY DISMANTLING OR REASSEMBLY REQUIRED TO GAIN ACCESS TO THE FIRE SUPPRESSION PIPING LOCATED ON THE TOP OF THE HOOD.
-PLAN EXAMINATION FEES, PE OR FPS APPROVAL STAMP.
-ROUGH-IN CONDUIT FOR REMOTE PULL STATION OR GAS VALVE (FOR FLUSH MOUNTED PULL STATION).
-INSTALLATION OF MORE THAN (1) REMOTE PULL STATIONS OR DISTANCES GREATER THAN 20 FT (6.1M.).
-PARTS OR LABOR REQUIRED TO CORRECT PIPING DUE TO COOKING EQUIPMENT CHANGES OR DEVIATION FROM PLANS, OR ANY CHARGES FOR MISSING OR ADDITIONAL PARTS OTHER THEN THOSE INDICATED ON THE FIRE SUPPRESSION DETAIL.

ACCUREX

PROJECT 4/28/2025

ATOMIC WINGS PHOENIX R1

MARK

ITEM 36 FIRE SYSTEM

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

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01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

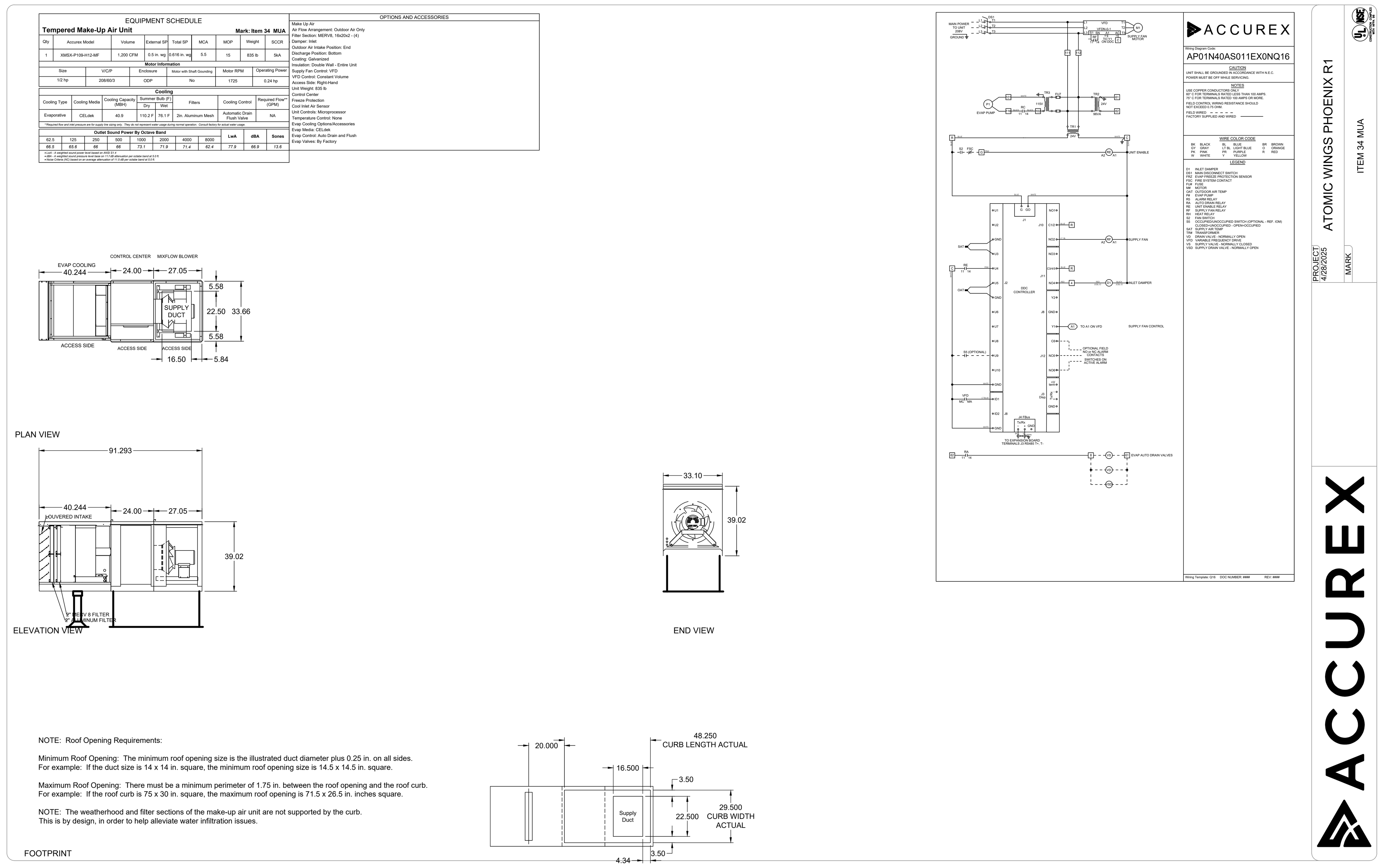
SHEET TITLE:
HOOD DETAILS (2 OF 5)

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
M-3.1

SHEET 11 OF 14



NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:

HOOD DETAILS
(3 OF 5)

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.

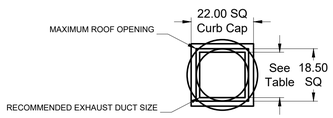
M-3.2

Direct Drive Upblast Centrifugal Roof Exhaust Fan

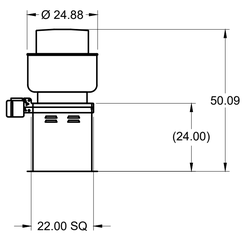
MARK INFORMATION		FAN INFORMATION									SOUND INFORMATION					MOTOR INFORMATION								
MARK	QTY	MODEL	DRIVE TYPE	VOLUME (CFM)	EXTERNAL SP (IN. WG)	TOTAL EXTERNAL SP (IN. WG)	FAN SPEED (RPM)	OUTLET VELOCITY (FT/MIN)	FEI	TOTAL WEIGHT (LB)	INLET dBA	INLET SONES	INLET SONES (SPHERICAL)	OUTLET dBA	OUTLET SONES	OPERATING POWER (HP)	MOTOR SIZE (HP)	FEP INPUT POWER (KW)	ENCLOSURE	VOLTAGE	CYCLE	PHASE	EC MOTOR	NEC FLA*
Item 32 Ex. Fan	1	XCUE-130-VG	Direct	1,500	1.1	1.1	1,638	1,171.88	0	78.6	65	14.15	0	0	0	0.47	0.75	0	OP	115	60	1	VariGreen	13.8

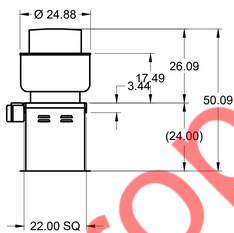
*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2020. Actual motor FLA may vary for sizing thermal overload, consult factory"

Item 32 Ex. Fan : SELECTED OPTIONS AND ACCESSORIES
Motor VFD Rated without Shaft Grounding Protection
One piece fully welded windband
Tapered bushing wheel hub
Breather tube outlet area min. 4.4 sq. in. (sizes 99-480), 2.0 sq. in. (sizes 60-95)
Min. windband material thickness: 0.051" aluminum (060-240), 0.064" aluminum (240HP, 240XP), 0.080" aluminum (sizes 300-480)
Larger Curb Cap Size - 22 Square
UL/cUL 705 Listed - Supplement SC - "Power Ventilators for Restaurant Exh. Appliances" (Formerly UL 762)
Switch, NEMA-3R, Toggle,
Hinge, Factory Installed
High Temp Curb Seal Rated for Continuous Duty at 1500 F (Factory Attached)
Fastener Material: Stainless
Grease Trap (PN 475538)
Aluminum Wheel Material



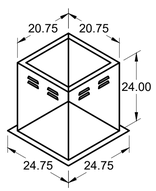
DUCT TYPE	SIZE
STANDARD	16 SQ
FIRE-WRAPPED	8 SQ





DUCT DIMENSIONS ARE LARGEST POSSIBLE DUCT TO FIT THROUGH CURB. CONSULT SYSTEM DESIGN ENGINEER FOR RECOMMENDED DUCT SIZE.

OVERALL HEIGHT MAY BE GREATER DEPENDING ON MOTOR, ADAPTER, AND/OR HINGE BASE.



PROJECT 4/28/2025

MARK

ATOMIC WINGS PHOENIX R1

ITEM 32 EX. FAN

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
HOOD DETAILS (4 OF 5)

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
M-3.3

EQUIPMENT SCHEDULE

Tempered Make-Up Air Unit — **Mark: Item 34 MUA**

Qty	Accurex Model	Volume	External SP	Total SP	MCA	MOP	Weight	SCCR
1	XMSX-P109-H12-MF	1,200 CFM	0.5 in. wg	0.616 in. wg	5.5	15	835 lb	5kA

Motor Information

Size	V/C/P	Enclosure	Motor with Shaft Grounding	Motor RPM	Operating Power
1/2 hp	208/60/3	ODP	No	1725	0.24 hp

Cooling

Cooling Type	Cooling Media	Cooling Capacity (MBH)	Summer Bulb (F)		Filters	Cooling Control	Required Flow** (GPM)
			Dry	Wet			
Evaporative	CELdek	40.9	110.2 F	76.1 F	2in. Aluminum Mesh	Automatic Drain Flush Valve	NA

**Required flow and inlet pressure are for supply line sizing only. They do not represent water usage during normal operation. Consult factory for actual water usage.

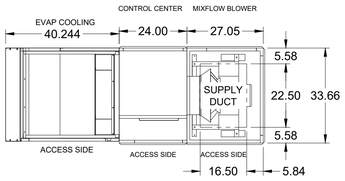
Outlet Sound Power By Octave Band

62.5	125	250	500	1000	2000	4000	8000	LwA	dBA	Sones
66.5	65.6	66	66	73.1	71.9	71.4	62.4	77.9	66.9	13.6

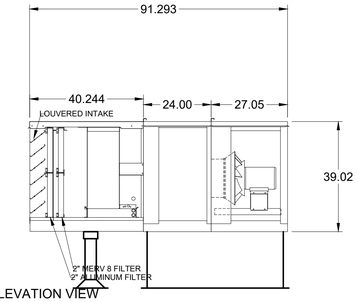
- LwA - A weighted sound power level based on ANSI S1.4
- dBA - A weighted sound pressure level base on 11?.dB attenuation per octabe band at 5.0 ft.
- Noise Criteria (NC) based on an average attenuation of 11.5 dB per octabe band at 5.0 ft.

OPTIONS AND ACCESSORIES

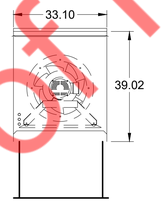
Make Up Air
Air Flow Arrangement: Outdoor Air Only
Filter Section: MERV8, 16x20x2 - (4)
Damper: Inlet
Outdoor Air Intake Position: End
Discharge Position: Bottom
Coating: Galvanized
Insulation: Double Wall - Entire Unit
Supply Fan Control: VFD
VFD Control: Constant Volume
Access Side: Right-Hand
Unit Weight: 835 lb
Control Center
Freeze Protection
Cool Inlet Air Sensor
Unit Controls: Microprocessor
Temperature Control: None
Evap Cooling Options/Accessories
Evap Media: CELdek
Evap Control: Auto Drain and Flush
Evap Valves: By Factory



PLAN VIEW



ELEVATION VIEW



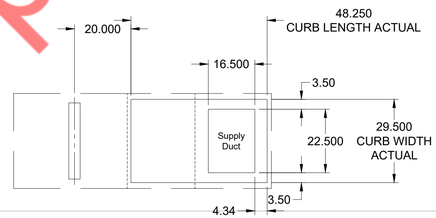
END VIEW

NOTE: Roof Opening Requirements:

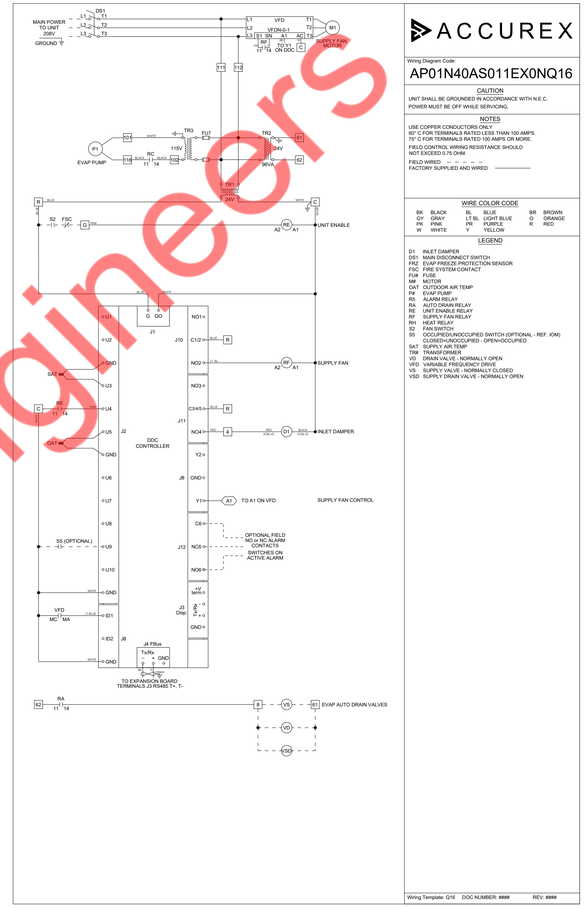
Minimum Roof Opening: The minimum roof opening size is the illustrated duct diameter plus 0.25 in. on all sides.
For example: If the duct size is 14 x 14 in. square, the minimum roof opening size is 14.5 x 14.5 in. square.

Maximum Roof Opening: There must be a minimum perimeter of 1.75 in. between the roof opening and the roof curb.
For example: If the roof curb is 75 x 30 in. square, the maximum roof opening is 71.5 x 26.5 in. inches square.

NOTE: The weatherhood and filter sections of the make-up air unit are not supported by the curb.
This is by design, in order to help alleviate water infiltration issues.



FOOTPRINT



ACCUREX

Wiring Diagram Code:

AP01N40AS011EX0NQ16

CAUTION
UNIT SHALL BE GROUNDED IN ACCORDANCE WITH N.E.C.
POWER MUST BE OFF WHILE SERVICING.

NOTES
USE COPPER CONDUCTORS ONLY
60° C FOR TERMINALS RATED LESS THAN 100 AMPS
75° C FOR TERMINALS RATED 100 AMPS OR MORE.
FIELD CONTROL WIRING RESISTANCE SHOULD NOT EXCEED 0.75 OHM.
FIELD WIRED
FACTORY SUPPLIED AND WIRED

WIRE COLOR CODE

BK	BLACK	BL	BLUE	BR	BROWN
GY	GRAY	LT BL	LIGHT BLUE	O	ORANGE
PK	PINK	PR	PURPLE	R	RED
W	WHITE	Y	YELLOW		

LEGEND

D1	INLET DAMPER
DS1	MAIN DISCONNECT SWITCH
FRZ	EVAP FREEZE PROTECTION SENSOR
FS	FAN PROVE SYSTEM CONTACT
FU#	FUSE
MM	MOTOR
OAT	OUTDOOR AIR TEMP
P#	EVAP PUMP
R5	ALARM RELAY
RA	AUTO DRAIN RELAY
RC	UNIT ENABLE RELAY
RF	SUPPLY FAN RELAY
RH	HEAT RELAY
S2	FAN SWITCH
S5	OCCUPIED/UNOCCUPIED SWITCH (OPTIONAL - REF. IOM) CLOSED=UNOCCUPIED - OPEN=OCCUPIED
SAT	SUPPLY AIR TEMP
V#	EVAP VALVE
VD	DRAIN VALVE - NORMALLY OPEN
VFD	VARIABLE FREQUENCY DRIVE
VS	SUPPLY VALVE - NORMALLY CLOSED
VSD	SUPPLY DRAIN VALVE - NORMALLY OPEN

Wiring Template: Q16 DOC NUMBER: #### REV: ####

ACCUREX

PROJECT 4/28/2025

MARK

ATOMIC WINGS PHOENIX R1

ITEM 34 MUA

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

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FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
HOOD DETAILS (5 OF 5)

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.

M-3.4

SHEET 14 OF 14

SWITCHES AND CONTROLS

$	LOCAL TOGGLE SWITCH S.P.S.T., 20A, SPEC GRADE
$^{D}_{a}$	DIMMER SWITCH, LEVITON #IP710-LFZ (OR EQUAL) U.O.N. "a" DENOTES LIGHTING FIXTURE CONTROLLED
$_{os}$	WALL MOUNTED OCCUPANCY SENSOR HUBBELL CONTROL SOLUTIONS #LHMTS1-G-WH (OR EQUAL)
^{T}	WALL MOUNTED TIMER SWITCH INTERMATIC #ST01 (OR EQUAL)
$_{OV}$	OVERRIDE SWITCH
(S)$_{D}$	DUCT SOME DETECTOR

WIRING SYSTEMS

----------	EXISTING
————	NEW

ANNOTATION

+24"	INDICATES MOUNTING HEIGHT CENTER LINE TO FINISHED FLOOR.
(#)	KEYED NOTE REFERENCE

POWER DISTRIBUTION

▬	DISTRIBUTION PANELBOARD, 208Y/120V-SURFACE OR FLUSH MOUNTED.

ELECTRICAL DRAWING LIST

E-001.00	ELECTRICAL SYMBOL LIST, ABBREVIATIONS AND GENERAL NOTES
E-002.00	ELECTRICAL SPECIFICATIONS (1 OF 2)
E-003.00	ELECTRICAL SPECIFICATIONS (2 OF 2)
E-100.00	LIGHTING PLAN
E-200.00	POWER PLAN
E-201.00	ROOF POWER PLAN
E-300.00	ELECTRICAL PANEL SCHEDULE & RISER DIAGRAM

POWER AND TELECOMMUNICATION

(J)	JUNCTION BOX
	DUPLEX CONVENIENCE RECEPTACLE.
GFI	GFCI DUPLEX CONVENIENCE RECEPTACLE.
	QUAD RECEPTACLE
	SPECIAL RECEPTACLE
◀	TYPICAL DATA/COMM OUTLET DOUBLE GANG OUTLET BOX WITH SINGLE GANG MUD RING. ROUTE 3/4 INCH CONDUIT TO ABOVE CEILING SPACE. PROVIDE PULL STRING. COMMUNICATIONS CONTRACTOR TO PROVIDE FACE PLATE, WIRING, AND FINAL CONNECTIONS.

MOTORS AND CONTROLS

(M)	EXHAUST FAN/MOTOR
NF	NON FUSED DISCONNECT SWITCH AMPERAGE, AND NUMBER OF POLES AS NOTED.
	NON FUSED DISCONNECT
S	MANUAL MOTOR SWITCH

APPLICABLE CODES

A. 2024 INTERNATIONAL BUILDING CODE
B. 2024 INTERNATIONAL MECHANICAL CODE
C. 2024 INTERNATIONAL PLUMBING CODE
D. 2024 INTERNATIONAL ENERGY CONSERVATION CODE

ELECTRICAL ABBREVIATIONS

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

GENERAL NOTES
(APPLY TO ALL "E" DRAWINGS)

1. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE 2023 NATIONAL ELECTRICAL CODE, LOCAL JURISDICTION REQUIREMENTS, AND ALL GOVERNING LOCAL CODES, LAWS, AND REGULATIONS. 1
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 CANCEALED 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 CONCEALED 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
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
ELECTRICAL SYMBOL LIST, ABBREVIATION AND GENERAL NOTES

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
E-001.00

ELECTRICAL SPECIFICATION

1. GENERAL:

A. THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION," AIA DOCUMENT, 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. 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: 277/480 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: PROVIDEADDITIONAL FRAMING. SUBMIT FOR REVIEW.

e. PAINT SHALL BE THE BEST GRADE FOR ITS PURPOSE. DELIVER INORIGINAL 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 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.

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

g. 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 2023 NATIONAL ELECTRICAL CODE WITH LOCAL ADOPTIONS, AND ALL OTHER APPLICABLE INDUSTRY 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 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 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 BILLING, 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 2024 INTERNATIONAL 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.

12) TRANSFORMER.

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 A 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 FULLLOAD AMPERE RATINGS (FLA) OF 480 AMPERES OR LESS SHALL BE PROTECTED BY FUSES SIMILAR TO CURRENT LIMITINGBUSSMANN 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 ND 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, 5–¾" MINIMUM, 400 AMPERES AND OVER, MINIMUM GUTTERS 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).

9. 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, REMS 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 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.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)–788–0295
ny–engineers.com

07–28–2025–ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
ELECTRICAL SPECIFICATIONS (1 OF 2)

PROJECT NUMBER 25–012

DATE 07–07–2025

SHEET NO.
E–002.00

ELECTRICAL SPECIFICATION (CONT.)

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 "OMR", 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).

M. 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. LOCATIONS SHALL BE AS NOTED OR REQUIRED AND ACCESSIBLE. PROVIDE BARRIERS IN NEW AND RENOVATED BOXES BETWEEN 120/208 VOLT AND 265/460 VOLT WIRING AND BETWEEN EMERGENCY AND NORMAL WIRING. FLOOR BOXES SHALL BE SUITABLE FOR CONDUIT AND DEVICES NOTED. RAISED OUTLETS SHALL BE HUBBELL#B2414 SERIES WITH ABOVE FLOOR FITTING.TELEPHONE: BUSHED HOLE. POWER: DUPLEX RECEPTACLE OR OTHER AS NOTED. INCREASE SIZE TO SUIT AS NECESSARY. FLUSH OUTLETS SHALL BE HUBBELL #B2414 SERIES WITH FLUSH FLOOR FITTING FOR TELEPHONE AND FLUSH DUAL FLAP COVER WITH DUPLEX RECEPTACLE FOR POWER AS NOTED. INCREASE SIZE TO SUIT AS NECESSARY.

N. PROVIDE RACEWAYS ONLY AS HEREIN SPECIFIED, EXCEPT AS NOTED. RACEWAYS SHALL BE RUN CONCEALED, EXCEPT AS NOTED.

PROVIDE RACEWAY SUPPORT UTILIZING CEILING TRAPEZE, STRAP HANGERS, OR WALL BRACKETS. PROVIDE U-BOLTS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND CONNECTED TO ACCEPTABLE SUPPORTS. PROVIDE RISER CLAMPS AT EACH FLOOR LEVEL OF RISER RACEWAYS AND RESTING ON SLAB. FOR THROUGH-THE-FLOOR SYSTEMS, UTILIZE AN ASSEMBLY SIMILAR TO HUBBELL FIRE RATED POKE-THROUGH-FLOOR BOX SYSTEM. FOR ABOVE FLOOR FITTINGS TELEPHONE SHALL BE BUSHED HOLE AND POWER SHALL BE DUPLEX RECEPTACLE OR OTHER AS NOTED. PROVIDE SEPARATION BARRIER BETWEEN POWER AND TELEPHONE COMPARTMENTS. PROVIDE JUNCTION BOX ON UNDERSIDE OF FLOOR. PACK FITTING TO RESTORE FIRE RATING OF FLOOR.

SECURE ALL RACEWAYS TO SUPPORTS WITH PIPE STRAPS OR U-BOLTS. SPACING OF SUPPORTS SHALL BE A MINIMUM OF 10 FT ON CENTER FOR METALLIC RACEWAY AND AS REQUIRED FOR NONMETALLIC RACEWAY. SPACING SHALL BE 5 FT ON CENTER FOR WIREWAYS AND PER CODE AND AS NOTED FOR OTHERS. MOUNT SUPPORTS TO STRUCTURE MASONRY WITH TOGGLE BOLTS ON HOLLOW MASONRY, EXPANSION SHIELDS OR INSERTS IN CONCRETE AND BRICK, MACHINE SCREWS ON METAL, BEAM CLAMPS ON FRAMEWORK, WOOD SCREWS ON WOOD, AND PAN THROUGH STRAPS IN METAL DECK. NAILS, RAWL PLUGS OR WOOD PLUGS SHALL NOT BE PERMITTED. WHERE REQUIRED BY STRUCTURE, FURNISH THROUGH BOLTS AND FISHPLATES.

EXPOSED RACEWAYS SHALL BE RUN PARALLEL WITH OR AT RIGHT ANGLES TO WALLS. PROVIDE CLEARANCE WITH WATER, STEAM OR OTHER PIPING (MINIMUM 3 IN. SEPARATION FROM STEAM AND HOT WATER PIPES, EXCEPT 1 IN. FROM PIPE COVER AT CROSSINGS AND 18 IN. FOR PARALLEL RUNS). FOR HUNG CEILING OUTLETS, RUN IN HUNG CEILING AND CONNECT TO CEILING SUPPORT CHANNELS. IN MASONRY AND POURED CONCRETE, RUN VERTICALLY ONLY.

MAINTAIN GROUNDING CONTINUITY OF INTERRUPTED METALLIC RACEWAYS WITH GROUND CONDUCTOR, AND IN FLEXIBLE CONDUIT FOR FEEDERS AND MOTOR TERMINAL CONNECTIONS.

EMPTY RACEWAYS OVER 10 FT LONG: PROVIDE FISH OR PULL WIRE, GALVANIZED OR NYLON ROPE.

RIGID STEEL CONDUIT SHALL BE PERMITTED FOR FEEDERS AND BRANCH CIRCUITS. PAINT MALE THREADS OF FIELD-THREADED CONDUIT WITH GRAPHITE-BASE PIPE COMPOUND AND BUTT CONDUIT ENDS. TOUCH UP MARRED SURFACES AND FIELD-CUT THREADS. CRC-COLD GALVANIZED. EMT SHALL BE PERMITTED FOR BRANCH CIRCUITS ONLY, IN DRY LOCATIONS, DRY WALLS, HUNG CEILINGS, HOLLOW BLOCK WALLS AND FURRED SPACES. EMT SHALL NOT BE PERMITTED IN RAISED FLOORS. FLEXIBLE STEEL CONDUIT SHALL BE UTILIZED FOR SHORT CONNECTIONS WHERE RIGID CONDUIT IS IMPRACTICAL. FROM OUTLET BOX TO RECESSED LIGHTING FIXTURE: PROVIDE MINIMUM 4 FT AND MAXIMUM 6 FT LENGTHS. FOR FINAL CONNECTION TO MOTOR TERMINAL BOX, TRANSFORMER AND OTHER VIBRATING EQUIPMENT: PROVIDE WITH POLYVINYL SHEATHING AND GROUND CONDUCTOR. MINIMUM LENGTH: 18 IN. WITH SLACK. CONNECT GROUND CONDUCTOR TO ENCLOSURE OR RACEWAY AT EACH END. FOR EXPANSION JOINT CROSSINGS, CROSS AT RIGHT ANGLES AND ANCHOR ENDS.

CUT CONDUIT ENDS SQUARE. REAM SMOOTH. PAINT MALE THREADS OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.

ALL COUPLINGS SHALL BE COMPRESSION TYPE. NO SET SCREW FITTINGS.

EXPANSION FITTINGS SHALL BE INSTALLED AT RIGHT ANGLES WITH CLIP JOINT CENTERED IN EXPANSION JOINT. PROVIDE A LENGTH OF RUN IN ACCORDANCE MANUFACTURER'S RECOMMENDATIONS. PRESET FITTINGS SHALL ALLOW FOR TEMPERATURE VARIATION.

RACEWAYS PASSING THROUGH FIRE-RATED CONSTRUCTION: SEAL OPENING WITH FIRE SEALANT. ⚠1

O. PROVIDE CABLE SUPPORTS IN ACCORDANCE WITH 2023 NATIONAL ELECTRIC CODE ARTICLE 300.19. CABLE SUPPORTS SHALL UTILIZE A ONE-PIECE PLUG WITH POZI-GRIP WEDGING PLUG AS MANUFACTURED BY OZ-GEDNEY. TYPE SF SHALL BE USED FOR ARMORED CABLE.

INSTALL CABLE SUPPORTS AT THE TOP OF A VERTICAL RISE AND PROVIDE INTERMEDIATE ADDITIONAL SUPPORTS AS REQUIRED TO LIMIT SUPPORTED CONDUCTOR LENGTHS TO NOT GREATER THAN THOSE SPECIFIED IN TABLE 300.19(A).

P. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. OUTLET BOXES SHALL BE SET SQUARE AND TRUE WITH BUILDING FINISH. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRON OR GROUT IN WITH MASONRY. VERIFY OUTLET LOCATIONS IN FINISHED SPACES WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISHES. PROVIDE BARRIER BETWEEN SWITCHES CONNECTED TO DIFFERENT PHASES FOR VOLTAGES EXCEEDING 150 VOLTS TO GROUND.

Q. PANEL, JUNCTION AND PULL BOXES SHALL BE LOCATED CLEAR OF OTHER TRADES. CONCEAL JUNCTION AND PULL BOXES IN FINISHED WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT. BOXES SHALL BE ACCESSIBLE. SUPPORT BOXES FROM BUILDING STRUCTURE, INDEPENDENT OF CONDUIT. PROVIDE FLOOR-TO-CEILING CHANNELS FOR MOUNTING ON DRYWALL AND LIGHTWEIGHT CONSTRUCTION. OUTLET BOXES FOR FIXTURES RECESSED IN HUNG CEILINGS SHALL BE ACCESSIBLE THROUGH OPENING CREATED BY REMOVAL OF FIXTURE. SECURE TO BLACK IRON SUPPORT. MOTOR TERMINAL BOXES: COORDINATE WITH MOTOR BRANCH CIRCUIT CONDUIT AND WIRING; ADD BOX VOLUME WHERE REQUIRED.

R. FIRE SEALANTS: PROVIDE FOR RACEWAYS AND WIRE PASSING THROUGH FLOOR SLOTS, SLEEVES OR OPENINGS IN FIRE-PARTITIONS ROOMS.

S. PERFORM CONTINUITY TESTS OF RESISTANCE OF FEEDER CONDUITS FROM SERVICE TO POINT OF FINAL DISTRIBUTION USING 1 CONDUCTOR RETURN. MAXIMUM RESISTANCE SHALL BE 25 OHMS.

10. WIRE AND CABLE:

A. PROVIDE WIRE AND CABLE COMPLETE WITH ACCESSORIES. SIZE REFERENCE SHALL BE AWG EXCEPT AS NOTED.

B. CONDUCTORS SHALL BE COPPER, ASTM STANDARD SOLID (NO. 10 AND SMALLER) OR STRANDED (NO. 8 AND LARGER). GENERAL USE CABLING SHALL BE NO. 12 MINIMUM. AT 120 VOLTS AND OVER 100 FT CIRCUIT LENGTH PROVIDE NO. 10 MINIMUM. AT 265 VOLTS AND OVER 200 FT CIRCUIT LENGTH PROVIDE NO. 10 MINIMUM.

C. CONTROL AND ALARM CABLING, EXCEPT AS NOTED, SHALL BE NO. 14 MINIMUM. AT 120 VOLTS AND OVER 200 FT CIRCUIT LENGTH PROVIDE NO. 12 MINIMUM. OTHER VOLTAGES AND PHASES: ADJUST CABLE SIZING AS REQUIRED TO MAINTAIN VOLTAGE DROP. INCREASE RACEWAY SIZES FOR LARGER WIRE AS REQUIRED.

D. INSULATION SHALL BE RUBBER AND THERMOPLASTIC MEETING ASTM AND IPCEA STANDARDS. TYPE THW OR THWN SHALL BE UTILIZED FOR FEEDERS AND BRANCH CIRCUITS EXCEPT AS NOTED. TYPE SFF-2 SHALL BE UTILIZED FOR BRANCH CIRCUITS LOCATED IN WIRING CHANNELS OF CONTINUOUS FLUORESCENT FIXTURES AND IN AMBIENT TEMPERATURES OVER 90 DEG C.FOR UNGROUNDED ISOLATED BRANCH CIRCUITS PROVIDE CROSS-LINKED POLYETHYLENE INSULATION (TYPE XHHW).

E. ARMORED CABLE (BX) SHALL BE UTILIZED FOR BRANCH CIRCUITS IN DRY HOLLOW LOCATIONS, HUNG CEILINGS, AND BLOCK WALLS. WHEN USED IN LIEU OF WIRING IN CONDUIT, STATE IN PROPOSAL THAT PRICE IS BASED UPON THE USE OF HOSPITAL GRADE 'BX'.

F. COLOR CODING SHALL BE AS FOLLOWS:

120/208 VOLT SYSTEM:
BLACK FOR A PHASE
RED FOR B PHASE
BLUE FOR C PHASE

1) NEUTRAL WIRE SHALL UTILIZE WHITE OUTER COVERING THROUGHOUT. EQUIPMENT GROUND WIRE SHALL UTILIZE GREEN OUTER COVERING THROUGHOUT.

G. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION TO OVERLAP CONDUCTORS WITH 6 IN. OF COLOR TAPING IN ACCESSIBLE LOCATIONS.

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

E. COLORS: COORDINATE COLORS WITH ARCHITECT.

F. 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. 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 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. 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. 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.

1. INTERCOM CONDUIT SYSTEM:

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

B. EQUIPMENT SHALL CONFORM TO REQUIREMENTS OF INTERCOM MANUFACTURER.

C. OUTLETS SHALL BE:

1) WALL: 4 IN. SQUARE WITH SINGLE GANG COVER PLATE.

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

E. CONDUIT SHALL BE 3/4 IN. MINIMUM. FURNISH EMPTY CONDUIT FROM EACH APARTMENT TO MAIN INTERCOM CONTROLLER AT ENTRANCE.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
ELECTRICAL SPECIFICATIONS (2 OF 2)

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.

E-003.00

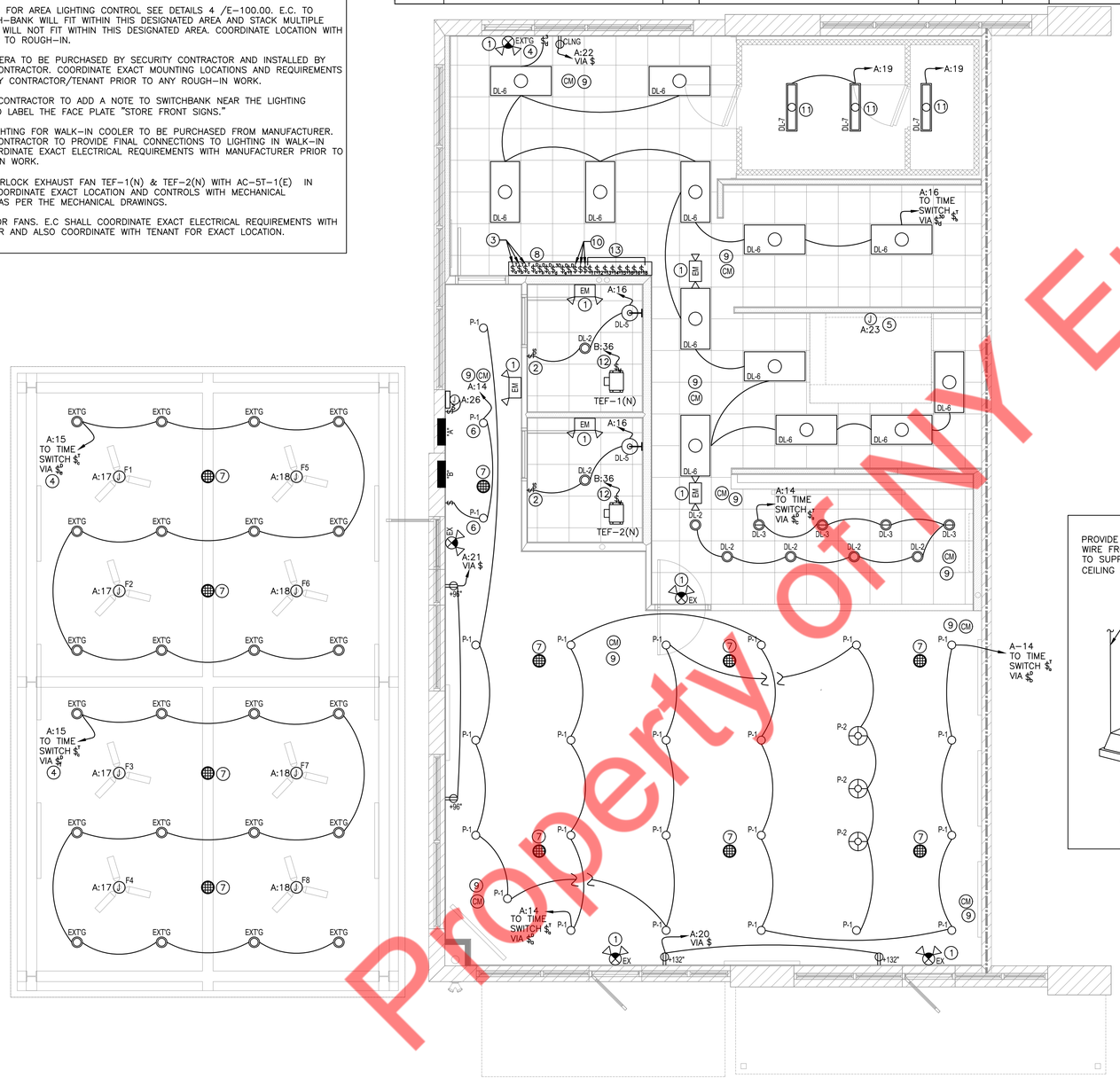
SHEET 3 OF 7

LIGHTING PLAN KEYED NOTES: (#)

1. WIRE ALL EMERGENCY AND EXIT LIGHT TO THE DEDICATED CIRCUIT(A:7) WITHOUT ANY CONTROL FOR CONTINUOUS OPERATION.
2. WALL MOUNTED OCCUPANCY SWITCH SENSOR. SET OFF TIME TO 20 MINUTES. SET DIP SWITCH TO AUTOMATIC ON.
3. PROVIDE DIGITAL IN WALL TIMER SWITCH, PROGRAMMABLE 7-DAY CONTROL. LITHIUM BATTERY BACKUP FOR TIMEKEEPING. MANUAL OVERRIDE CONTROL FOR MAXIMUM 3 HOURS, ADJUST ON/OFF SCHEDULE AS DIRECTED BY AUTHORIZED REPRESENTATIVE OF TENANT.
4. EXISTING LIGHT FIXTURES SHALL REMAIN AS IS. E.C SHALL VERIFY THE OPERABLE CONDITION OF EXISTING LIGHT FIXTURES AND REPLACE WITH NEW IF FOUND INOPERABLE, BASE BID ACCORDINGLY.
5. UNDER HOOD LIGHT FIXTURES TO BE FURNISHED WITH EQUIPMENT, CONNECT AS REQUIRED.
6. LIGHT IN THIS AREA SHALL NOT BE CONTROLLED BY ANY AUTOMATIC MEANS AND SHALL BE COMPLIED AS PER NEC 110.26(D).
7. DENOTES CEILING MOUNTED/SUSPENDED SPEAKER PROVIDED AND INSTALLED BY OWNER.
8. DIMMER/TIMER FOR AREA LIGHTING CONTROL SEE DETAILS 4 /E-100.00. E.C. TO VERIFY SWITCH-BANK WILL FIT WITHIN THIS DESIGNATED AREA AND STACK MULTIPLE SWITCH BANK WILL NOT FIT WITHIN THIS DESIGNATED AREA. COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.
9. DENOTES CAMERA TO BE PURCHASED BY SECURITY CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR. COORDINATE EXACT MOUNTING LOCATIONS AND REQUIREMENTS WITH SECURITY CONTRACTOR/TENANT PRIOR TO ANY ROUGH-IN WORK.
10. ELECTRICAL CONTRACTOR TO ADD A NOTE TO SWITCHBANK NEAR THE LIGHTING SWITCHES AND LABEL THE FACE PLATE "STORE FRONT SIGNS."
11. DENOTES LIGHTING FOR WALK-IN COOLER TO BE PURCHASED FROM MANUFACTURER. ELECTRICAL CONTRACTOR TO PROVIDE FINAL CONNECTIONS TO LIGHTING IN WALK-IN COOLER. COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH MANUFACTURER PRIOR TO ANY ROUGH-IN WORK.
12. E.C. TO INTERLOCK EXHAUST FAN TEF-1(N) & TEF-2(N) WITH AC-5T-1(E) IN RESTROOM, COORDINATE EXACT LOCATION AND CONTROLS WITH MECHANICAL CONTRACTOR AS PER THE MECHANICAL DRAWINGS.
13. SWITCHES FOR FANS. E.C SHALL COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH MANUFACTURER AND ALSO COORDINATE WITH TENANT FOR EXACT LOCATION.

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	LAMP	MANUFACTURER PART #	KELVIN	VOLTAGE	WATTAGE	MOUNTING
EM	EMERGENCY DUAL-HEAD FIXTURE WITH BATTERY BACK UP	LED	COMPASS LIGHTING CATALOG #CU2	–	120	3	UNIVERSAL MOUNT TO WALL OR CEILING
EX/EX-2	THERMOPLASTIC LED EXIT SIGN COMBO WITH HEADS, BATTERY BACKUP.	LED	COMPASS LIGHTING CATALOG #CCR	–	120	3	SURFACE MOUNT PER MANUFACTURER
DL-2	5" RECESSED LED DOWNLIGHT (BLACK FINISH)	LED	CSL LIGHTING CATALOG #ED5-NC-3000-90-50-30-S/ED5-R-F-ST-BK	3000	120	30	RECESSED MOUNTED
DL-3	5" ADJUSTABLE RECESSED LED DOWNLIGHT (BLACK FINISH)	LED	CSL LIGHTING CATALOG #ED5-ANC-3000-90-50-30-S/ED5-R-A-ST-BK	3000	120	30	RECESSED MOUNTED
DL-5	12" WALL MOUNTED LED LIGHT	LED	DOMINION LIGHTING CATALOG #SPS-0489--REV B-3000	3000	120	30	RECESSED MOUNTED
DL-6	2'X4' LED SELECTABLE LUMEN/CCT FIXTURE (3400/4100/5500 LUMENS)	LED	CURRENT LIGHTING CATALOG #CFP24-LSCS	–	120	35	RECESSED MOUNTED
P-1	LED PENDANT FIXTURE (BLACK FINISH)	LED	CURRENT LIGHTING CATALOG #LTC-6RD-P-LENGTH-15L30K8MD-DM1-S-BT-BL	3000	120	19	PENDANT MOUNTED
P-2	PENDANT MOUNTED LED LIGHT	LED	DOMINION SERIES CATALOG #SPS-0152 REC C-3000	–	120	23	PENDANT MOUNTED



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

LIGHTING PLAN GENERAL NOTES:

1. CONTRACTOR IS ADVISED THAT ADJUSTMENTS TO EMERGENCY AND EXIT LIGHT FIXTURE LOCATIONS/QUANTITIES MAY BE REQUIRED BY AHJ UPON FINAL INSPECTION.
2. ALL EMERGENCY AND EXIT LIGHT AND NIGHT LAMP FIXTURES SHALL BE CONNECTED AHEAD OF SWITCHED LIGHTING CIRCUIT.
3. ALL EXTERIOR LIGHTS/ SIGNS SHALL BE CONTROLLED VIA PHOTOCELL/TIME-CLOCK. E.C. SHALL PROVIDE ALL THE LIGHTING CONTROL COMPLYING WITH 2024 IECC AND LOCAL AHJ REQUIREMENTS. ⚠1
4. FINAL CONDUIT/CABLE ROUTING SHALL BE DETERMINED IN-FIELD, AND PRIOR TO THE COMMENCEMENT OF WORK, COORDINATED WITH OTHER TRADE CONTRACTORS AND THE TENANT.
5. SWITCHES LOCATIONS SHOWN IN THE DRAWINGS ARE DIAGRAMMATIC, FOR ACTUAL LOCATION AND MOUNTING HEIGHTS OF SWITCHES REFER TO ARCHITECTURAL PLANS.
6. THE LIGHTING FIXTURE CATALOG NUMBERS IDENTIFY THE SERIES OF LIGHTING FIXTURE ONLY. PROVIDE ALL FIELD FABRICATION, MOUNTING HARDWARE, ACCESSORIES AND OPTIONS REQUIRED TO ADAPT TO THE CONDITIONS AND MEET THE INTENT OF THE FIXTURE DESCRIPTION.
7. LED DRIVERS MUST LIMIT THE INRUSH CURRENT AND MEET OR EXCEED THE "NEMA 410" DRIVER INRUSH STANDARDS. MUST BE ABLE TO WITHSTAND UP TO A 1,000 VOLT SURGE WITHOUT IMPAIRMENT OF PERFORMANCE, HAVE LESS THAN 20% HARMONIC DISTORTION AND BE "UL" RECOGNIZED. DRIVERS SHALL HAVE A FIVE YEAR WARRANTY PERIOD FROM DATE OF INSTALLATION.
8. BALLASTS & DRIVERS SHALL BE CONSTANT CURRENT TYPE DESIGNED TO START AND MAINTAIN PROPER OPERATION OF THE LAMP(S) OR DIODES IN THE ENVIRONMENTAL AND TEMPERATURE CONDITIONS IN WHICH THE FIXTURES ARE APPLIED.
9. LAY-IN TYPE FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE INDEPENDENT FROM THE CEILING SYSTEM AND BE CLIPPED TO THE GRID WITH EARTHQUAKE/HURRICANE CLIPS.
10. ALL LIGHT FIXTURES SHALL MEET THE SEISMIC REQUIREMENTS OF ASCE 7.

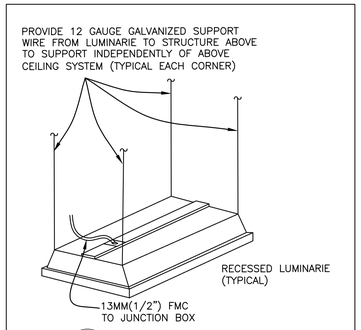
^T_a	^T_b	^T_c	^D_a	^D_b	^D_c	$^{3D}_d$	^D_e	^D_f	$	$	$
A:14 DIGITAL IN WALL TIMER SWITCH	A:16 DIGITAL IN WALL TIMER SWITCH	A:15 DIGITAL IN WALL TIMER SWITCH	A:14 DINING AREA (TYPE-B)	A:14 DINING AREA (TYPE-A)	A:14 SERVICE AREA (TYPE-A)	A:16 KITCHEN AREA (TYPE-B)	A:15 PATIO (TYPE-A)	A:15 PATIO (TYPE-A)	A:20 STORE FRONT SIGNS	A:21 STORE FRONT SIGNS	A:22 STORE FRONT SIGNS

DIMMER SWITCH SHALL BE:
TYPE A: LEVITON #IPL06-10Z (OR EQUAL)
TYPE B: LEVITON #IP710-LFZ (OR EQUAL)

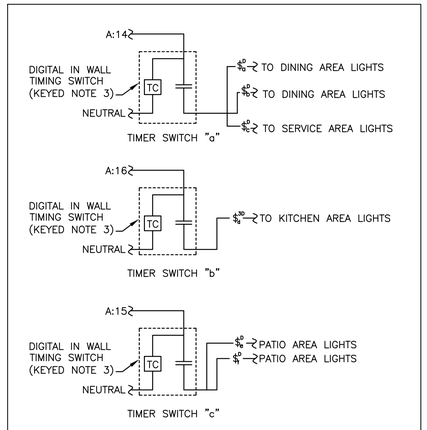
TIMER SWITCH SHALL BE:
WALL MOUNTED TIMER SWITCH
INTERMATIC #ST01 (OR EQUAL)

NOTE: E.C. SHALL COORDINATE EXACT MAKE/MODEL/COLOR OF DIMMER & TIMER SWITCH AND COVER PLATES WITH ARCHITECT/OWNER IN FIELD.

4 TIMER SWITCH CONTROL DETAIL
1/4" = 1'-0"



3 LIGHTING MOUNTING DETAIL
1/4" = 1'-0"



2 TIMER SWITCH CONTROL DETAIL
1/4" = 1'-0"

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

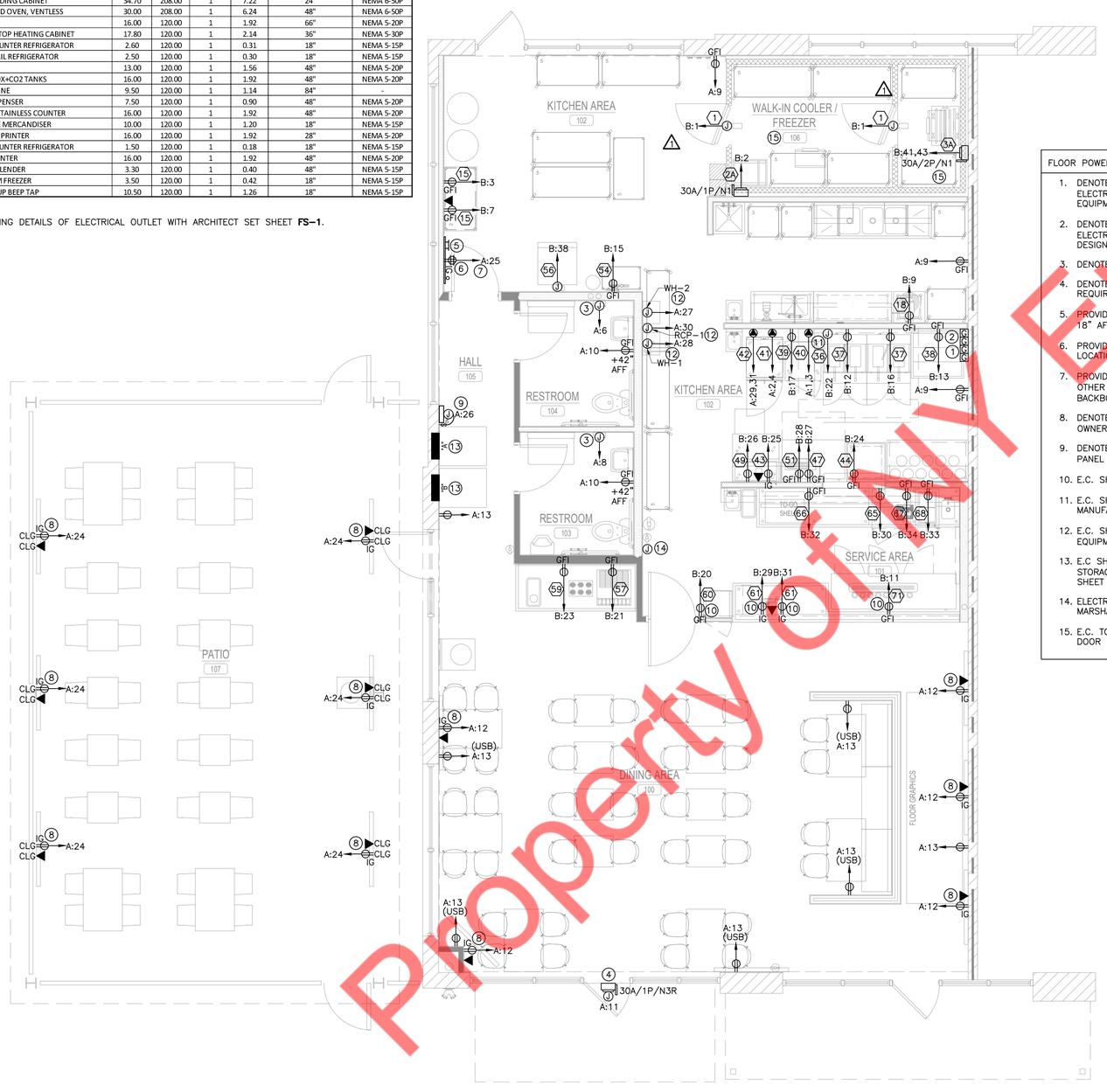
SHEET TITLE:
LIGHTING PLAN

PROJECT NUMBER 25-012
DATE 07-07-2025
SHEET NO.
E-100.00

KITCHEN EQUIPMENT SCHEDULE

TAG	DESCRIPTION	ELECTRICAL					
		AMPS.	VOLTS	PHASE	KW	⚠1 HEIGHT A.F.F	PLUG TYPE
1	WALK-IN COOLER/FREEZER DOOR	3.20	120.00	1	0.38	120"	-
2A	COOLER EVAPORATOR	1.80	120.00	1	0.22	120"	-
2B	COOLER CONDENSING UNIT	15.00	208.00	1	3.12	-	-
3A	FREEZER EVAPORATOR	5.33	208.00	1	1.11	120"	-
3B	FREEZER CONDENSING UNIT	21.00	208.00	1	4.37	-	-
15	MANAGER STATION	16.00	120.00	1	1.92	48"	NEMA 5-20P
18	MIXER	10.00	120.00	1	1.20	48"	NEMA 5-20P
36	HOOD FIRE SUPPRESSION CABINET W/ CONTROL PANEL	15.00	120.00	1	1.80	-	-
37	2 BATTERY FRYER	12.00	120.00	1	1.44	18"	NEMA 5-15P
38	BREAD & BATTER STATION	2.30	120.00	1	0.28	24"	NEMA 5-15P
39	WORKTOP FREEZER	5.00	120.00	1	0.60	24"	NEMA 5-20P
40	DUMP STATION, FRY	8.70	208.00	1	1.81	48"	NEMA 6-20P
41	CVAP HOLDING CABINET	34.70	208.00	1	7.22	24"	NEMA 6-50P
42	HIGH SPEED OVEN, VENTLESS	30.00	208.00	1	6.24	48"	NEMA 6-50P
43	PRINTER	16.00	120.00	1	1.92	66"	NEMA 5-20P
44	COUNTERTOP HEATING CABINET	17.80	120.00	1	2.14	36"	NEMA 5-30P
47	UNDERCOUNTER REFRIGERATOR	2.60	120.00	1	0.31	18"	NEMA 5-15P
49	RAISED RAIL REFRIGERATOR	2.50	120.00	1	0.30	18"	NEMA 5-15P
51	TOASTER	13.00	120.00	1	1.56	48"	NEMA 5-20P
54	BAG IN BOX+CO2 TANKS	16.00	120.00	1	1.92	48"	NEMA 5-20P
56	ICE MACHINE	9.50	120.00	1	1.14	84"	-
57	SODA DISPENSER	7.50	120.00	1	0.90	48"	NEMA 5-20P
59	CUSTOM STAINLESS COUNTER	16.00	120.00	1	1.92	48"	NEMA 5-20P
60	BEVERAGE MERCANDISER	10.00	120.00	1	1.20	18"	NEMA 5-15P
61	POS WITH PRINTER	16.00	120.00	1	1.92	28"	NEMA 5-20P
65	UNDERCOUNTER REFRIGERATOR	1.50	120.00	1	0.18	18"	NEMA 5-15P
66	BACK COUNTER	16.00	120.00	1	1.92	48"	NEMA 5-20P
67	SPINDLE BLENDER	3.30	120.00	1	0.40	48"	NEMA 5-15P
68	ICE CREAM FREEZER	3.50	120.00	1	0.42	18"	NEMA 5-15P
71	BOTTOM UP BEEP TAP	10.50	120.00	1	1.26	18"	NEMA 5-15P

NOTE:
COORDINATE MOUNTING DETAILS OF ELECTRICAL OUTLET WITH ARCHITECT SET SHEET **FS-1**.



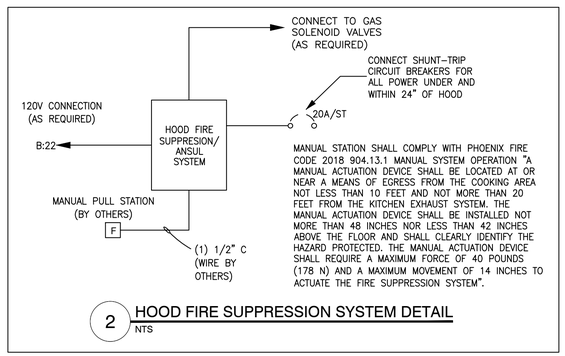
1 POWER PLAN
1/4" = 1'-0"

POWER PLAN GENERAL NOTES: (#)

1. THE ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL ALL DISCONNECT SWITCHES, RECEPTACLE, ETC. TO MECHANICAL/PLUMBING AND KITCHEN EQUIPMENT AS REQUIRED. THE ELECTRICAL CONTRACTOR. SHALL ALSO PROVIDE ALL CORDS, PLUGS, CABLES, ETC. FOR EQUIPMENT AS REQUIRED.
2. THE ELECTRICAL CONTRACTOR SHALL PROVIDE FINAL CONNECTIONS TO ALL MECHANICAL/PLUMBING AND KITCHEN EQUIPMENT AS REQUIRED.
3. VERIFY MOUNTING HEIGHTS OF DISCONNECT SWITCHES, STARTERS, ETC. VERIFY LOCATIONS OF ALL KITCHEN EQUIPMENT WITH FOOD SERVICE CONTRACTOR.
4. ALL DISCONNECT SWITCHES, FUSE SIZES, PLUG CONFIGURATIONS, BREAKER SIZES, ETC., SHALL BE COORDINATED WITH FOOD SERVICE SHOP DRAWINGS PRIOR TO ORDERING EQUIPMENT AND ROUGHING-IN. ELECTRICAL CHARACTERISTICS SCHEDULED ABOVE ARE BASED ON INFORMATION AVAILABLE AT THE TIME OF DESIGN. ELECTRICAL CONTRACTOR SHALL VERIFY AND ADJUST IF NECESSARY TO MATCH THE REQUIREMENTS OF EQUIPMENT TO BE INSTALLED, ANY EQUIPMENT INSTALLED INCORRECTLY BECAUSE OF LACK OF COORDINATION WILL BE REMOVED AND INSTALLED CORRECTLY AT THE ELECTRICAL CONTRACTOR'S EXPENSE.
5. ALL SINGLE-PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 50 AMPERES OR LESS AND THREE-PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 100 AMPERES OR LESS INSTALLED IN THE KITCHEN/FOOD PREP AREA SHALL HAVE GROUND-FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL PER THE REQUIREMENTS OF NEC ARTICLE 210.8(B). FOR EACH CIRCUIT SHOWING "GFCI" THE E.C. SHALL PROVIDE EITHER GFCI CIRCUIT BREAKERS OR RECEPTACLES THAT WILL MEET THE "READILY ACCESSIBLE" REQUIREMENT.
6. SEE KITCHEN EQUIPMENT SHUTDOWN DETAIL FOR CONTROL OF ITEMS LOCATED UNDER KITCHEN HOOD.
7. ELECTRICAL CONTRACTOR TO INSTALL STAINLESS STEEL BLACK FINISH DEVICE PLATES FOR ALL DEVICES IN KITCHEN.

FLOOR POWER PLAN KEYED NOTES: (#)

1. DENOTES PASS & SEYMOUR DEAD FRONT SELF-TEST GFCI CATALOG # 2087-FINISH(OR APPROVED EQUAL) TO BE PURCHASED AND INSTALLED BY ELECTRICAL CONTRACTOR FOR 2 BATTERY FRYER (37). DEVICE TO ACT AS GFI PROTECTION AND RESET BUTTON FOR DESIGNATED KITCHEN EQUIPMENT UNDER HOOD. COORDINATE EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLING.
2. DENOTES PASS & SEYMOUR DEAD FRONT SELF-TEST GFCI CATALOG # 2087-FINISH(OR APPROVED EQUAL) TO BE PURCHASED AND INSTALLED BY ELECTRICAL CONTRACTOR FOR WORKTOP FREEZER (39) AND DUMP STATION, FRY (40). DEVICE TO ACT AS GFI PROTECTION AND RESET BUTTON FOR DESIGNATED KITCHEN EQUIPMENT UNDER HOOD. COORDINATE EXACT MOUNTING LOCATION WITH OWNER PRIOR TO INSTALLING.
3. DENOTES JUNCTION BOX FOR RECESSED HAND DRYER. ELECTRICAL CONTRACTOR TO VERIFY EXACT LOCATION AND MOUNTING PRIOR TO INSTALLATION.
4. DENOTES JUNCTION BOX INTEGRAL TO SIGN WITH EXTERNAL DISCONNECT SWITCH. ELECTRICAL CONTRACTOR TO COORDINATE EXACT ELECTRICAL REQUIREMENTS WITH OWNER PRIOR TO INSTALLING. EXTERIOR SIGNAGE TO BE WIRED THRU INTERMATIC TIMER.
5. PROVIDE TELEPHONE GROUNDING BUS TO 1/3"X4"X1/8" 98% CONDUCTIVE COPPER INSTALLED ON 600 VOLT PORCELAIN INSULATOR MOUNTED AT 18" AFF. CONNECT TO BUILDING GROUNDING SYSTEM.
6. PROVIDE (1) 2" CONDUIT WITH PULL STRING FOR PHONE/FIBER SERVICE. ROUTE CONDUIT TO PHONE/FIBER DISTRIBUTION LOCATION. COORDINATE LOCATION WITH UTILITY COMPANY PRIOR TO INSTALLING.
7. PROVIDE TELEPHONE BACKBOARD AT THIS LOCATION. BACKBOARD TO BE PREMIUM GRADE 2'X4' SHEET OF PLYWOOD FREE FROM ANY WARPING AND OTHER DEFECTS. PLYWOOD TO BE PAINTED ON ALL 6 SIDES WITH GRAY FIRE RETARDANT PAINT. ORIENT BACKBOARD WITH 4'-0". TOP OF BACKBOARD PLYWOOD TO BE 12" BELOW CEILING. COORDINATE RECEPTACLE MOUNTING HEIGHT WITH OWNER PRIOR TO INSTALLING.
8. DENOTES RECEPTACLE AND DATA FOR FLAT SCREEN TV MONITOR. COORDINATE EXACT MOUNTING HEIGHT AND INSTALLATION REQUIREMENT WITH OWNER/ARCHITECT PRIOR TO INSTALLING.
9. DENOTES NEW TIME CLOCK TO BE PURCHASED AND INSTALLED BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE POWER FROM PANEL A CIRCUIT (12) WITH (2)#12, #12G IN 3/4" CONDUIT. TIME CLOCK TO BE INTERMATIC CATALOG #GM40AV OR APPROVED EQUAL.
10. E.C. SHALL COORDINATE EXACT LOCATION OF ELECTRICAL OUTLET PLACEMENT FOR EQUIPMENT IN FIELD WITH ARCHITECT/OWNER.
11. E.C. SHALL COORDINATE EXACT ELECTRICAL POWER & OUTLET REQUIREMENT INCLUDING J-BOX/RECEPTACLE IN FIELD WITH EQUIPMENT MANUFACTURER, MAKE POWER PROVISION ACCORDINGLY. BASE BID ACCORDINGLY.
12. E.C. SHALL COORDINATE EXACT POWER AND OUTLET REQUIREMENT OF NEW PLUMBING/MECHANICAL EQUIPMENT WITH PLUMBING/MECHANICAL EQUIPMENT MANUFACTURER IN FIELD IN COORDINATION WITH ARCHITECT/OWNER, MAKE POWER PROVISION ACCORDINGLY. BASE BID ACCORDINGLY.
13. E.C SHALL FIELD VERIFY THAT THE PANELS ARE UNOBSTRUCTED AND THE AREA WHERE THE PANELS ARE PLACED SHALL NOT BE USED AS A STORAGE SPACE AND WORKING SPACE FOR ELECTRICAL PANEL SHALL BE AS PER THE NATIONAL ELECTRICAL CODE 2023 SECTION 110.26(A). REFER SHEET E-300.00 FOR PANELS DETAILS. ⚠1
14. ELECTRICAL CONTRACTOR TO PROVIDE JUNCTION BOX FOR REMOTE PULL STATION. COORDINATION EXACT MOUNTING LOCATION AND HEIGHT WITH FIRE MARSHAL PRIOR TO INSTALLING.
15. E.C. TO PROVIDE POWER CONNECTION FOR WALK-IN COOLER/FREEZER REFRIGERATION UNIT. COORDINATE EXACT OUTLET & CONNECTION TO LIGHT, DOOR HEATER, EVAPORATOR AND ANY OTHER REQUIREMENTS WITH SUPPLIER PRIOR TO ROUGH-IN. BASE BID ACCORDINGLY.



2 HOOD FIRE SUPPRESSION SYSTEM DETAIL
NTS

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
POWER PLAN

PROJECT NUMBER 25-012
DATE 07-07-2025
SHEET NO.
E-200.00

SHEET 5 OF 7

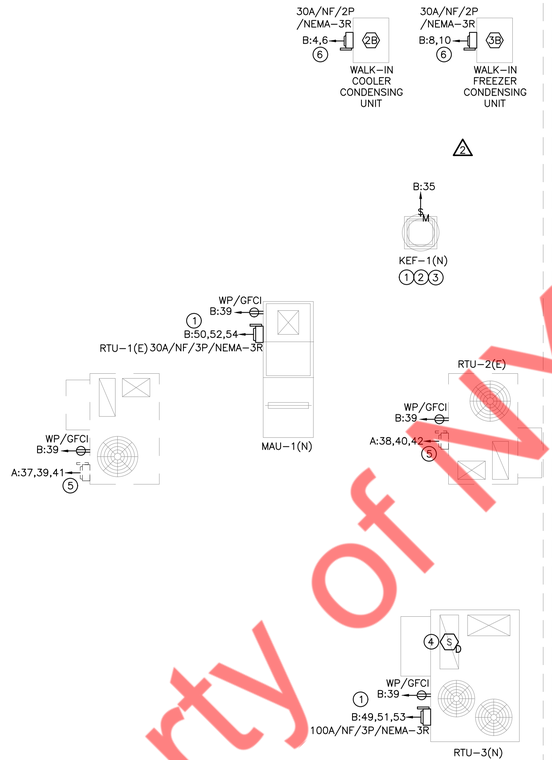
ROOF POWER PLAN GENERAL NOTES:

A. COORDINATE EXACT LOCATION OF HVAC EQUIPMENTS ON ROOF WITH MECHANICAL CONTRACTOR.

B. ELECTRICAL CONTRACTOR SHALL COORDINATE DISCONNECT REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER FOR FINAL SELECTION PRIOR TO ROUGH–IN. E.C. COORDINATE LOCATION OF DISCONNECT SWITCH WITH MANUFACTURER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH–IN. LOCATE AS REQUIRED TO MAINTAIN CLEARANCES AS PER LOCAL CODE.

ROOF POWER PLAN KEYED NOTES: (#)

1. E.C. SHALL COORDINATE DISCONNECT/SWITCH REQUIREMENT FOR MECHANICAL UNIT WITH MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER PRIOR TO ROUGH–IN AND PROVIDE AS REQUIRED. COORDINATE LOCATION OF DISCONNECT WITH MANUFACTURER AND MECHANICAL CONTRACTOR PRIOR TO ROUGH–IN. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.
2. E.C. TO ROUTE ROOF MOUNTED EQUIPMENT TROUGH TERMINAL BLOCK AT HOOD CONTROL PANEL. REFER HOOD DRAWING FOR WIRING DIAGRAM.
3. EXHAUST FANS FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. E.C. SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR SWITCHING & CONTROLS AND PROVIDE ALL NECESSARY WIRING REQUIRED.
4. DENOTES NEW DUCT SMOKE DETECTOR PROVIDED BY FIRE ALARM CONTRACTOR, INSTALLED BY MECHANICAL CONTRACTOR AND WIRED BY FIRE ALARM CONTRACTOR. COORDINATE UNIT SHUT DOWN WITH MECHANICAL CONTROLS CONTRACTOR. DETECTORS SHOWN FOR REFERENCE, FIRE ALARM SCOPE OF WORK TO BE COMPLETED IN SEPARATE CONTRACT WITH OWNER.
5. E.C. SHALL VERIFY OPERABLE CONDITION OF EXISTING DISCONNECTING MEANS FOR EXISTING MECHANICAL UNIT, IN CASE OF FOUND INOPERABLE PROVIDE NEW ONE IN COORDINATION WITH ARCHITECT/OWNER. BASE BID ACCORDINGLY. LOCATE AS REQUIRED TO MAINTAIN NEC CLEARANCES.
6. PROVIDE 20A/2P CIRCUIT FOR WALK–IN COOLER/FREEZER CONDENSER. E.C. SHALL COORDINATE WITH EQUIPMENT MANUFACTURER FOR EXACT LOCATION AND ELECTRICAL REQUIREMENTS IN FIELD.



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

EATON
BUSSMANN SERIES

FC² available fault current calculator

Your System Details

Project Name: Atomic Wings, Phoenix, AZ
System Type: Three-Phase
Creator Name:
Creator Email:
Creator Company/Organization:
Creator Title/Position:
Creation Date:

FAULT - X1
$I_{total\ s.c.\ (L-L-L)}$ 45,614 AMPS
Voltage (L-L) 208 V
← AT SERVICE ENTRANCE SECTION

CONDUCTOR RUN - C1
LENGTH 30 FT
SIZE 4/0
QTY (per phase) 1
TYPE Three-Conductor Cable
CONDUIT Nonmagnetic
WIRE Cu, 600 V
CONDUCTOR

FAULT - X2
$I_{total\ s.c.\ (L-L-L)}$ 27,615 AMPS
Voltage (L-L) 208 V
← AT PANEL A

CONDUCTOR RUN - C2
LENGTH 30 FT
SIZE 4/0
QTY (per phase) 1
TYPE Three-Conductor Cable
CONDUIT Nonmagnetic
WIRE Cu, 600 V
CONDUCTOR

FAULT - X3
$I_{total\ s.c.\ (L-L-L)}$ 27,615 AMPS
Voltage (L-L) 208 V
← AT PANEL B

Created Using Eaton's Bussmann Series - Available Fault Current Calculator 1.5 Page 1

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NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)–788–0295
ny–engineers.com

07–28–2025–ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
02	10/03/25	MECHANICAL CHANGES	NYE
04	12/04/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
ROOF POWER PLAN

PROJECT NUMBER 25–012
DATE 07–07–2025
SHEET NO.
E–201.00

SHEET 6 OF 7

PANEL: A (NEW) — S.S.C. RATING: 35K AIC — MOUNTING: RECESSED

120/208	VOLTS,	3	PHASE,	4	WIRE	LOCATION	HALL AREA
MAIN CB	200A	MLO:	NA	BUS:	225A	FED FROM	NEW ELECTRICAL SERVICE

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	2P-20*	#40_DUMP STATION, FRY	E	0.90	2#12, #12G, 3/4"C	4.51			2#8, #10G, 3/4"C	3.61	E	#41_CVAP HOLDING CABINET	2P-50*	2
3			E	0.90			4.51			3.61	E			4
5		SHUNT TRIP						0.50	2#12, #12G, 3/4"C	0.50	E	HAND DRYER	20	6
7	20	EXIT & EMERGENCY LIGHT	L	0.30	2#12, #12G, 3/4"C	0.80			2#12, #12G, 3/4"C	0.50	E	HAND DRYER	20	8
9	20	KITCHEN AREA RECEPTACLE	R	0.54	2#12, #12G, 3/4"C		0.90		2#12, #12G, 3/4"C	0.36	R	RESTROOM RECEPTACLE	20	10
11	20	EXTERIOR SIGNAGE	L	1.20	2#12, #12G, 3/4"C			2.10	2#12, #12G, 3/4"C	0.90	R	DINING AREA TV RECEPTACLE	20	12
13	20	DINING AREA RECEPTACLE	R	1.26	2#12, #12G, 3/4"C	2.07			2#12, #12G, 3/4"C	0.81	L	DINING AREA & SERVICE LIGHTING	20	14
15	20	PATIO LIGHTING	L	0.72	2#12, #12G, 3/4"C		1.29		2#12, #12G, 3/4"C	0.57	L	KITCHEN & RESTROOM LIGHTING	20	16
17	20	FANS (PATIO AREA)	M	0.24	2#12, #12G, 3/4"C			0.48	2#12, #12G, 3/4"C	0.24	M	FANS (PATIO AREA)	20	18
19	20	WALK-IN COOLER/FREEZER LIGHTING	L	0.06	2#12, #12G, 3/4"C	1.26			2#12, #12G, 3/4"C	1.20	L	SHOW WINDOW RECEPTACLE	20	20
21	20	SHOW WINDOW RECEPTACLE	L	1.20	2#12, #12G, 3/4"C		2.40		2#12, #12G, 3/4"C	1.20	L	SHOW WINDOW RECEPTACLE	20	22
1 23	20	HOOD LIGHTING & CONTROL	L	1.30	2#12, #12G, 3/4"C			2.38	2#12, #12G, 3/4"C	1.08	R	PATIO AREA TV RECEPTACLE	20	24
25	20	TELEPHONE BOARD RECEPTACLE	E	0.50	2#12, #12G, 3/4"C	0.80			2#12, #12G, 3/4"C	0.30	L	TIME CLOCK	20	26
27	20	WH-2	H	0.48	2#12, #12G, 3/4"C		0.96		2#12, #12G, 3/4"C	0.48	H	WH-1	20	28
29	2P-50*	#42_HIGH SPEED OVEN, VENTLESS	E	3.12	2#8, #10G, 3/4"C			3.22	2#12, #12G, 3/4"C	0.10	M	RCP-1	20	30
31			E	3.12		3.12						SPARE	20	32
33	20	SPARE					0.00					SPARE	20	34
35	20	SPARE						0.00				SPARE	20	36
37	3P-60	RTU-1 (E)	H	6.36	3#6, #10G, 3/4"C	12.73			3#6, #10G, 3/4"C	6.36	H	RTU-2 (E)	3P-60	38
39			H	6.36			12.73			6.36	H			40
41			H	6.36				12.73		6.36	H			42
TOTAL CONNECTED LOAD (KVA)						25.30	22.79	21.41						

LOAD CLASSIFICATION		CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
TOTLA LIGHTING	L	8.86	125%	11.07
TOTAL RECEPTACLE	R	4.14	100%	4.14
TOTAL HVAC	H	39.15	100%	39.15
TOTAL MOTOR	M	0.58	100%	0.58
TOTAL KITCHEN/EQUIPMENTS	E	16.77	65%	10.90
TOTAL OTHER/MISCILLANEOUS	O	0.00	100%	0.00

PANEL TOTAL LOAD		
TOTAL CONNECTED LOAD	69.49	KVA
TOTAL DEMAND LOAD	65.84	KVA
TOTAL CONNECTED CURRENT	193.11	AMP
TOTAL DEMAND CURRENT	182.96	AMP
SYSTEM VOLTAGE	120/208 Wye	

PANEL: B (NEW) — S.S.C. RATING: 35K AIC — MOUNTING: RECESSED

120/208	VOLTS,	3	PHASE,	4	WIRE	LOCATION	HALL AREA
MAIN CB	200A	MLO:	NA	BUS:	225A	FED FROM	NEW ELECTRICAL SERVICE

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	#1_WALK-IN COOLER/FREEZER DOOR	E	0.38	2#12, #12G, 3/4"C	0.60			2#12, #12G, 3/4"C	0.22	E	#2A_COOLER EVAPORATOR	20	2
3	20	#15_MANAGER STATION	E	1.92	2#12, #12G, 3/4"C		3.48		2#12, #12G, 3/4"C	1.56	E	#2B_COOLER CONDENSING UNIT	2P-15	4
5	20	SPARE						1.56		1.56	E			6
7	20	#15_MANAGER STATION	E	1.92	2#12, #12G, 3/4"C	4.10			2#10, #10G, 3/4"C	2.18	E	#3B_FREEZER CONDENSING UNIT	2P-25	8
9	20	#18_MIXER	E	1.20	2#12, #12G, 3/4"C		3.38			2.18	E			10
11	20	#71_BOTTOM UP BEEP TAP	E	1.26	2#12, #12G, 3/4"C			2.70	2#12, #12G, 3/4"C	1.44	E	#37_2 BATTERY FRYER	20	12
13	20	#38_BREAD & BATTER STATION	E	0.28	2#12, #12G, 3/4"C	0.28						SHUNT TRIP		14
15	20*	#54_BAG IN BOX+CO2 TANKS	E	1.92	2#12, #12G, 3/4"C		3.36		2#12, #12G, 3/4"C	1.44	E	#37_2 BATTERY FRYER	20	16
17	20*	#39_WORKTOP FREEZER	E	0.60	2#12, #12G, 3/4"C			0.60				SHUNT TRIP		18
19		SHUNT TRIP				1.20			2#12, #12G, 3/4"C	1.20	E	#60_BEVERAGE MERCANDISER	20	20
21	20	#57_SODA DISPENSER	E	0.90	2#12, #12G, 3/4"C		2.70		2#12, #12G, 3/4"C	1.80	O	#36_HOOD FIRE SUPPRESSION CABINET	20	22 1
23	20	#59_CUSTOM STAINLESS COUNTER	R	1.92	2#12, #12G, 3/4"C			4.06	2#12, #12G, 3/4"C	2.14	E	#44_COUNTERTOP HEATING CABINET	30	24
25	20	#43_PRINTER	R	1.92	2#12, #12G, 3/4"C	2.22			2#12, #12G, 3/4"C	0.30	E	#49_RAISED RAIL REFRIGERATOR	20*	26
27	20	#47_UNDERCOUNTER REFRIGERATOR	E	0.31	2#12, #12G, 3/4"C		1.87		2#12, #12G, 3/4"C	1.56	E	#51_TOASTER	20	28
29	20	#61_POS WITH PRINTER	R	1.92	2#12, #12G, 3/4"C			2.10	2#12, #12G, 3/4"C	0.18	E	#65_UNDERCOUNTER REFRIGERATOR	20*	30
31	20	#61_POS WITH PRINTER	R	1.92	2#12, #12G, 3/4"C	3.84			2#12, #12G, 3/4"C	1.92	E	#66_BACK COUNTER	20	32
33	20	#68_ICE CREAM FREEZER	E	0.42	2#12, #12G, 3/4"C		0.82		2#12, #12G, 3/4"C	0.40	E	#67_SPINDLE BLENDER	20	34
35	20	KEF-1(N)	M	1.98	2#12, #12G, 3/4"C			2.06	2#12, #12G, 3/4"C	0.08	M	TEF-1(N) & TEF-2(N)	20	36
37	20	DUCT SMOKE DETECTOR	O	0.30	2#12, #12G, 3/4"C	1.44			2#12, #12G, 3/4"C	1.14	E	#56_ICE MACHINE	20*	38
39	20	ROOF RECEPTACLE	R	0.72	2#12, #12G, 3/4"C		0.72					SPARE	20	40
41	2P-20	#3A_FREEZER EVAPORATOR	E	0.55	2#12, #12G, 3/4"C			0.55				SPARE	20	42
43			E	0.55		0.55						SPARE	20	44
45	20	SPARE					0.00					SPARE	20	46
47	20	SPARE						0.00				SPARE	20	48
49	3P-70	RTU-3(N)	H	7.57	3#4, #8G, 1"C	8.23			3#12, #12G, 3/4"C	0.66	H	MAU-1(N)	3P-15	50
51			H	7.57			8.23			0.66	H			52
53			H	7.57				8.23		0.66	H			54
TOTAL CONNECTED LOAD (KVA)						22.46	24.56	21.86						

LOAD CLASSIFICATION		CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
TOTLA LIGHTING	L	0.00	125%	0.00
TOTAL RECEPTACLE<=10KVA	R	8.40	100%	8.40
TOTAL RECEPTACLE.10KVA	R	0.00	50%	0.00
TOTAL HVAC	H	24.68	100%	24.68
TOTAL MOTOR	M	2.06	100%	2.06
TOTAL KITCHEN/EQUIPMENTS	E	31.64	65%	20.56
TOTAL OTHER/MISCILLANEOUS	O	2.10	100%	2.10

PANEL TOTAL LOAD		
TOTAL CONNECTED LOAD	68.88	KVA
TOTAL DEMAND LOAD	57.80	KVA
TOTAL CONNECTED CURRENT	191.41	AMP
TOTAL DEMAND CURRENT	160.64	AMP
SYSTEM VOLTAGE	120/208 Wye	

PANEL SCHEDULE KEYED NOTES: (#)

1. E.C. TO COORDINATE FIRE SUPPRESSION AND HOOD POWER & CONTROL REQUIREMENT WITH EQUIPMENT MANUFACTURER IN FIELD, MAKE POWER PROVISION ACCORDINGLY.

PANEL SCHEDULE GENERAL NOTES:

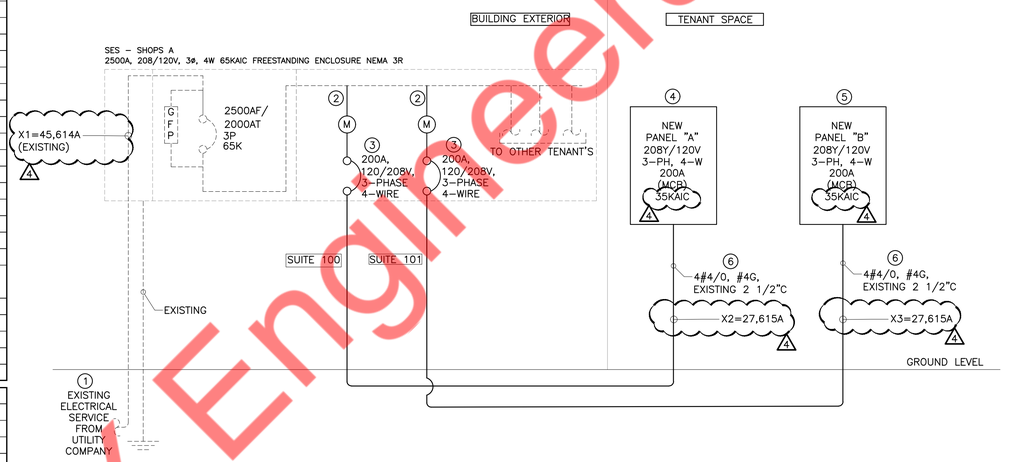
1. E.C. TO VERIFY THE EXACT PANEL SIZES AND INCOMING FEEDER SIZE IN FIELD.
2. E.C. SHALL COORDINATE BREAKER RATING AND POWER REQUIREMENT FOR PLUMBING/MECHANICAL EQUIPMENT WITH PLUMBING/MECHANICAL CONTRACTOR AND EQUIPMENT MANUFACTURER FOR FINAL SELECTION PRIOR TO ROUGH-IN.
3. E.C. TO VERIFY EXACT BREAKER RATING FOR THE KITCHEN EQUIPMENT WITH MANUFACTURER FOR FINAL SELECTION PRIOR TO ROUGH-IN.
4. E.C. SHALL VERIFY OPERABLE CONDITION OF ALL THE EXISTING BREAKERS/WIRE/CONDUIT BEFORE REUSING IT, REPLACE WITH NEW IF FOUND INOPERABLE. BASE BID ACCORDINGLY.

ELECTRICAL PANEL SCHEDULE ABBREVIATIONS:

(E)	EXISTING
(N)	NEW
MLO	MAIN LEG ONLY
L	LIGHTING
R	RECEPTACLE
H	HVAC
M	MOTOR
E	EQUIPMENT
O	OTHER
*	NEW GFI BREAKER

ELECTRICAL RISER SYMBOLS:

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



RISER DIAGRAM KEYED NOTES: (#)

1. EXISTING 2500A ELECTRICAL SERVICE FROM UTILITY COMPANY SHALL REMAIN AS IS FOR THE PROJECT SPACE. E.C. SHALL COORDINATE WITH ARCHITECT/UTILITY/LANDLORD FOR EXACT LOCATION, RATING & POWER DISTRIBUTION IN FIELD. INFORM TO ENGINEER ON RECORD IN CASE OF ANY DISCREPANCY FOUND IN FIELD.
2. NEW 200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL SERVICE FOR THE PROJECT SPACE FROM EXISTING "SES-SHOPS A". E.C. TO COORDINATE WITH UTILITY COMPANY / LANDLORD FOR EXACT POWER DISTRIBUTION OF ELECTRICAL SERVICE IN FIELD.
3. NEW 200A, 120/208V, 3-PHASE, 4-WIRE ELECTRICAL METER AND FUSED DISCONNECT/BREAKER FOR PROJECT SPACE. E.C. TO COORDINATE WITH UTILITY/OWNER/LANDLORD FOR FINAL LOCATION OF METER AND FUSED DISCONNECT/BREAKER IN FIELD.
4. NEW 200A(M.C.B), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "A" FOR PROJECT SPACE. E.C. TO COORDINATE WITH ARCHITECT/OWNER FOR FINAL LOCATION OF ELECTRICAL PANEL "A" IN FIELD.
5. NEW 200A(M.C.B), 120/208V, 3-PHASE, 4-WIRE ELECTRICAL PANEL "B" FOR PROJECT SPACE. E.C. TO COORDINATE WITH ARCHITECT/OWNER FOR FINAL LOCATION OF ELECTRICAL PANEL "B" IN FIELD.
6. E.C. TO FIELD VERIFY EXACT LENGTH OF THE CABLE AND CHECK THE VOLTAGE DROP IS UNDER LIMIT PER NEC BEFORE INSTALLATION. E.C. SHALL PROVIDE THE UPDATED WIRE/FEEDER SIZE AS NEEDED AS PER THE VOLTAGE DROP CALCULATION. BASE BID ACCORDINGLY.

RISER DIAGRAM GENERAL NOTES:

1. ABOVE RISER DIAGRAM IS FOR REFERENCE PURPOSE ONLY. E.C TO VERIFY EXACT POWER DISTRIBUTION, INCOMING CONNECTION & OPERABLE CONDITION OF EXISTING ELECTRICAL SERVICE & DEVICES IN FIELD AND INFORM, ENGINEER FOR ANY DISCREPANCY.
2. E.C. SHALL VERIFY THE RATING, SIZE, LOCATION AND OPERABLE CONDITION OF ALL THE EXISTING ELECTRICAL EQUIPMENTS / PANELS AND ELECTRICAL CONNECTION IN FIELD. INFORM ENGINEER FOR ANY DISCREPANCY FOUND BEFORE COMMENCING ANY WORK.
3. E.C. SHALL VERIFY THE INCOMING SERVICE AMPERAGE, VOLTAGE, NUMBER OF PHASES, WIRE SIZE AND DISTRIBUTION IN FIELD.
4. E.C. TO COORDINATE FAULT CURRENT (ISC) RATING WITH UTILITY COMPANY AND AHJ PRIOR TO COMMENCING ANY WORK.

LOAD CALCULATION:

REMAINING BUILDING SPACE: 7,749 S.F.

GENERAL RECEPTACLES @ 3.0VA/S.F. =	23,247	VA
GENERAL LIGHTING @ 3.5VA/S.F. (x 125%) =	33,902	VA
MECHANICAL EQUIPMENT @ 14.0VA/S.F. =	108,486	VA
MISC. EQUIPMENT @ 6.0VA/S.F. =	46,494	VA
TOTAL = 212,129 VA ÷ (208V. x √3) = 588.8		AMPS

CONNECTED LOADS:

PANEL 'HPA' =	7.0	AMPS
PANEL 'HPS' =	46.0	AMPS
TOTAL LOAD ON S.E.S. =	641.8	AMPS

EXISTING CONNECTED CURRENT ON S.E.S	641.8A
PROJECT SPACE CONNECTED CURRENT	389.56A
TOTAL CONNECTED CURRENT ON S.E.S	1031.36A

PROJECT NAME : ATOMIC WINGS, PHOENIX, AZ

ELECTRICAL LOAD CALCULATIONS:

VOLTAGE: 208Y/120, 3-PHASE, 4W

SR. NO.	LOAD TYPE	CONNCETED LOAD (KVA)		DEMAND FACTOR	DEMAND LOAD (KVA)
1	LIGHTING	8.86	X	1.25	11.08
2	RECEPTACLE <= 10 KVA	10.00	X	1.00	10.00
3	RECEPTACLE >= 10 KVA	2.54	X	0.50	1.27
4	KITCHEN/EQUIPMENTS	48.40	X	0.65	31.46
5	MOTOR	2.64	X	1.00	2.64
6	LARGEST MOTOR	1.98	X	1.25	2.48
7	HVAC LOAD	63.82	X	1.00	63.82
8	OTHER LOADS	2.10	X	1.00	2.10
	TOTAL LOAD (KVA)	**140.34**			**124.84**

TOTAL CONNECTED LOAD :	**140.34**	KVA
TOTAL CONNECTED CURRENT:	**389.56**	AMP
TOTAL DEMAND LOAD:	**124.84**	KVA
TOTAL DEMAND CURRENT:	**346.53**	AMP

REQUIRED ELECTRICAL SERVICE (3-PHASE) = 400 AMPS @ 208Y/120, 3-PHASE

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE
04	12/04/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
ELECTRICAL PANEL SCHEDULE & RISER DIAGRAM

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
E-300.00

SHEET 7 OF 7

PLUMBING SYMBOL LIST

— SAN —	SANITARY SEWER (ABOVE FLOOR)
— SAN —	SANITARY SEWER (UNDERGROUND)
— EX.SAN —	EXISTING SANITARY SEWER (UNDERGROUND)
— GW —	GREASE WASTE (UNDERGROUND)
— FW —	FILTER WATER PIPING
– – – – –	VENT PIPING
—— – ——	COLD WATER PIPING
—— – – ——	HOT WATER PIPING
—— – ——	EXISTING COLD WATER PIPING
—— – – ——	EXISTING HOT WATER PIPING
—— – – – ——	HOT WATER RETURN PIPING
——ↄ○	P–TRAP
——○	PIPE UP
——ↄ	PIPE DROP
——⊙	FLOOR CLEANOUT
——‖	PLUGGED OUTLET/CLEANOUT
●	SHUT–OFF VALVE
◕	POINT OF CONNECTION
⋈	ANGLE VALVE
◀	RECIRCULATION PUMP
⌀	BALANCING VALVE

PLUMBING ABBREVATIONS

FCO	FLOOR CLEANOUT
CW	COLD WATER
HW	HOT WATER
HWR	HOT WATER RETURN
SAN	SANITARY
V	VENT
LAV	LAVATORY
WC	WATER CLOSET
TYP.	TYPICAL
DN	DOWN
FD	FLOOR DRAIN
GW	GREASE WASTE
FW	FILTER WATER
WH	WATER HEATER
ET	EXPANSION TANK
RCP	RECIRCULATION PUMP
FS	FLOOR SINK
GI	GREASE INTERCEPTOR
WH	WATER HEATER
RPZ	REDUCED PRESSURE ZONE DEVICE
EWT	ENTERING WATER TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
G	GAS
CD	CONDENSATE DRAIN

PLUMBING DRAWING LIST

P–001.01	PLUMBING NOTES, SYMBOLS, ABBREVIATIONS & SPECIFICATIONS
P–002.01	PLUMBING SPECIFICATIONS & DETAIL
P–100.01	PLUMBING SITE PLAN
P–101.01	PLUMBING WATER PLAN
P–102.01	PLUMBING SANITARY PLAN
P–103.01	PLUMBING GAS PLAN
P–501.01	PLUMBING DETAILS
P–601.01	PLUMBING RISERS
P–701.01	PLUMBING SCHEDULES

△4

BUILDING DEPARTMENT PLUMBING NOTES

1. ALL PLUMBING SYSTEMS (SANITARY WASTE, VENT, WATER) AND ASSOCIATED EQUIPMENT SHALL BE INSTALLED, OPERATED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE.
2. INSTALLATION OF UNDERGROUND PIPING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE SECTION 704.
3. PROTECTION OF PIPING AND PLUMBING SYSTEM COMPONENTS AS PER 2024 INTERNATIONAL PLUMBING CODE SECTION 305.
4. TRENCHING, EXCAVATION AND BACKFILL AS PER 2024 INTERNATIONAL PLUMBING CODE SECTION 306.
5. RODENT PROOFING AS PER 2024 INTERNATIONAL PLUMBING CODE SECTION 304.
6. MATERIALS USED IN PLUMBING SYSTEMS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE SECTION PC 303, 605, 702 AND 902.
7. TRAP PRIMERS FOR FLOOR DRAINS SHALL BE PROVIDED AS PER 2024 INTERNATIONAL PLUMBING CODE SECTION 1002 AND CLEAN OUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENT OF SECTION 708.
8. VERTICAL AND HORIZONTAL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE SECTION 308.
9. WATER SUPPLY SYSTEMS SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE CHAPTER 6 SECTION 601–603, 604, 605, 606, 607, 608, 610.
10. THE SANITARY DRAINAGE SYSTEM SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE CHAPTER 7 SECTION 701, 704, 705, 706, 707, 708, 711.
11. VENT PIPING FOR THE SANITARY DRAINAGE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF 2024 INTERNATIONAL PLUMBING CODE CHAPTER 9 SECTIONS 901–12 AND SECTION 917.
12. INSPECTION AND TESTING OF PLUMBING SYSTEMS SHALL BE IN ACCORDANCE WITH 2024 INTERNATIONAL PLUMBING CODE SECTION 312.
13. GREASE INTERCEPTOR SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 19–49 AS PER CODE OF ORDIANCE, MUNICODE.

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. WATER HEATERS & ACCESSORIES
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.

△1 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.

1.05 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.

1.06 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.

1.07 PRODUCTS

A. SANITARY AND VENT PIPING:

1. ABOVE GRADE AND UNDERGROUND PIPING SHALL BE POLYVINYL CHLORIDE(PVC) AS PER ASTM D2665, ASTM F891 AND CSA B181.2 STANDARDS ON TABLE P–702–1 AND P–702.2 RESPECTIVELY AS PER 2024 INTERNATIONAL PLUMBING CODE. △1
2. SLOPE OF DRAINAGE SYSTEM SHALL BE 1/8" PER FOOT OF RUN FOR PIPE OVER 3" (I.D.) AND 1/4" PER FOOT OF RUN FOR PIPE 3" AND SMALLER (I.D.). VENT PIPING SHALL BE PITCHED TO DRAIN.
3. 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 COPPER OR COPPER ALLOY
3. JOINTS SHALL BE MADE WITH LEAD–FREE SOLDIER.
4. THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE INSULATED INCLUDING ALL VALVES, FITTINGS, ETC.
5. COMPLY WITH NSF 61 FOR MATERIALS FOR WATER–SERVICE PIPING AND SPECIALTIES FOR DOMESTIC WATER.
6. 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 2024 INTERNATIONAL ENERGY CONSERVATION CODE SECTION C404.4 TABLE C404.4.1.

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	1.0	1.0	2	2	2
105–140	0.22–0.28	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

7. WATER DISTRIBUTION SYSTEM AS PER 2024 INTERNATIONAL ENERGY CONSERVATION CODE C404.6, HEATED–WATER CIRCULATION SYSTEMS SHALL BE PROVIDED WITH A CIRCULATION PUMP. THE SYSTEM RETURN PIPE SHALL BE A DEDICATED RETURN PIPE OR A COLD WATER SUPPLY PIPE. GRAVITY AND THERMO–SYPHON CIRCULATION SYSTEMS SHALL BE PROHIBITED. CONTROLS FOR CIRCULATING HOT WATER SYSTEM PUMPS SHALL AUTOMATICALLY TURN OFF THE PUMP WHEN THE WATER IN THE CIRCULATION LOOP IS AT THE DESIRED TEMPERATURE AND WHEN THERE IS NOT A DEMAND FOR HOT WATER.
   A. THE CONTROL SHALL START THE PUMP UPON RECEIVING A SIGNAL FROM THE ACTION OF A USER OF A FIXTURE OR APPLIANCE, SENSING THE PRESENCE OF A USER OF A FIXTURE OR SENSING THE FLOW OF HOT OR TEMPERED WATER TO A FIXTURE FITTING OR APPLIANCE.
   B. THE CONTROL SHALL LIMIT THE TEMPERATURE OF THE WATER ENTERING THE COLD–WATER PIPING TO 104°F (40°C).
8. HW SYSTEM PIPING IS DESIGNED AS PER MAXIMUM ALLOWED PIPE LENGTH METHOD AS PER 2024 INTERNATIONAL ENERGY CONSERVATION CODE C404.5.1. THE HW PIPE LENGTH FROM THE NEAREST SOURCE OF HEATED WATER TO THE TERMINATION OF THE FIXTURE SUPPLY PIPE SHALL BE AS PER FOLLOWING TABLE C404.5.1.

NOMINAL PIPE SIZE (INCHES)	MIXIMUM PIPING LENGTH (FEET)	
	PUBLIC LAV	OTHER FIXTURES
½"	2'	43'
¾"	0.5'	21'
1"	0.5'	13'
1¼"	0.5'	8'
1½"	0.5'	6'
2" OR LARGER	0.5'	4'

C. 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. SUPPORTS SHALL BE PROVIDED IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPING MANUFACTURER.

D. 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.

E. 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.

F. 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.

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

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

I. VENT PENETRATIONS THROUGH THE ROOF SHALL BE FLASHED.

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

△1 K. PIPE BACKFLOW PREVENTER DRAINS TO FLOOR DRAIN OR OTHER APPROVED INDIRECT WASTE SOURCE.

L. 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.

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

N. 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.

O. 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.

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

Q. 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.

2. INSTALLATION

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 RESPECT.

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. 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.

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.

J. ALL EQUIPMENT WILL BE FACTORY TESTED.

I. 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 ESB 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.

THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ACTUAL CONDITIONS, CONSTRUCTION AND/OR USE THEREOF. THIS DRAWING IS TO CONVEY DESIGN INTENTIONS AND/OR CODE COMPLIANCE ONLY. USE OF THESE DRAWINGS IMPLIES AGREEMENT WITH THESE CONDITIONS. **THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS.**

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)–788–0295
ny–engineers.com

07–28–2025–ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
PLUMBING NOTES,
AND
SPECIFICATIONS

PROJECT NUMBER 25–012
DATE 07–07–2025
SHEET NO.
P–001.01

SHEET 1 OF 9

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.

B. GAS TANKLESS WATER HEATER

1. TANKLESS WATER HEATERS SHALL HAVE 150 PSI WORKING PRESSURE AND BE EQUIPPED WITH EXTRUDED HIGH DENSITY ANODE.

2. ALL INTERNAL SURFACES OF THE HEATER EXPOSED TO WATER SHALL BE GLASS-LINED WITH AN ALKALINE BORO SILICATE COMPOSITION THAT HAS BEEN FUSED-TO-STEEL BY FIRING AT A TEMPERATURE RANGE OF 1400°F TO 1600°F.

3. ELECTRIC HEATING ELEMENTS SHALL BE LOW WATT DENSITY GOLDENROD 1" SCREW-IN TYPE.

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.

C. 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.

GAS PIPING NOTES: ⚠1

1. GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE 2024 INTERNATIONAL FUEL GAS CODE.

2. GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES SCRIBED IN NFPA NO 54. ANY OTHER TEST AS REQUIRED BY THE LOCAL GAS INSPECTION DEPARTMENT OR GAS COMPANY SHALL ALSO BE PERFORMED.

3. MINIMUM GAS PIPING SIZING SHALL BE 3/4".

4. GAS PIPING COLOR/LABELS:

   EXTERIOR:
   A. LABEL ALL GAS PIPING "GAS/PRESSURE ON PIPE AT 5'-0" CENTERS.
   B. COLOR: ON ROOF PAINT WITH TWO COATS OF YELLOW ENAMEL, ON VERTICAL WALLS PAINT TO MATCH WALL COLOR.

   INTERIOR:
   A. LABEL ALL GAS PIPING "GAS/PRESSURE", SPACING AND COLOR PER ANSI/ASME A13.1 CODE REQUIREMENTS.

5. GAS PIPING SUPPORTS:

   EXTERIOR:
   A. PIPING ROUTED ON ROOF SHALL BE STRAPPED TO MANUFACTURED SUPPORTS "QUICK-BLOCK" OR EQUAL. GAS SUPPORTS SPACED PER NFPA 54 7.2.5.2.

   INTERIOR:
   A. PIPING TO BE SUPPORTED BY CLEVIS HANGERS W/ THREADED ROD OR UNI-STRUT SYSTEM. GAS SUPPORTS SPACED PER NFPA 54 7.2.5.2.

6. GAS VALVES SHALL BE ANSI/CSA APPROVED, 125 PSI RATED, 2 PIECE, FULL PORT, BALL VALVES W/BRASS BODY AND BALL. PROVIDE W/ LEVER HANDLE.

7. PROVIDE UNIONS, FLANGES OR COUPLINGS AT CONNECTION TO ALL VALVES AND EQUIPMENT. DO NOT USE DIRECT WELDED OR THREADED CONNECTIONS TO VALVES, EQUIPMENT OR OTHER APPARATUS.

8. PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.

9. PROVIDE DIRT LEG, GAS VALVE AND GAS REGULATOR AT EACH PIECE OF EQUIPMENT INSTALLED IN ACCESSIBLE LOCATION WITH-IN 36" OF EQUIPMENT. USE VENT-LESS REGULATORS INDOORS WHEN POSSIBLE. ROUTE VENTED REGULATOR VENTS TO EXTERIOR.

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

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REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:

PLUMBING SPECIFICATIONS

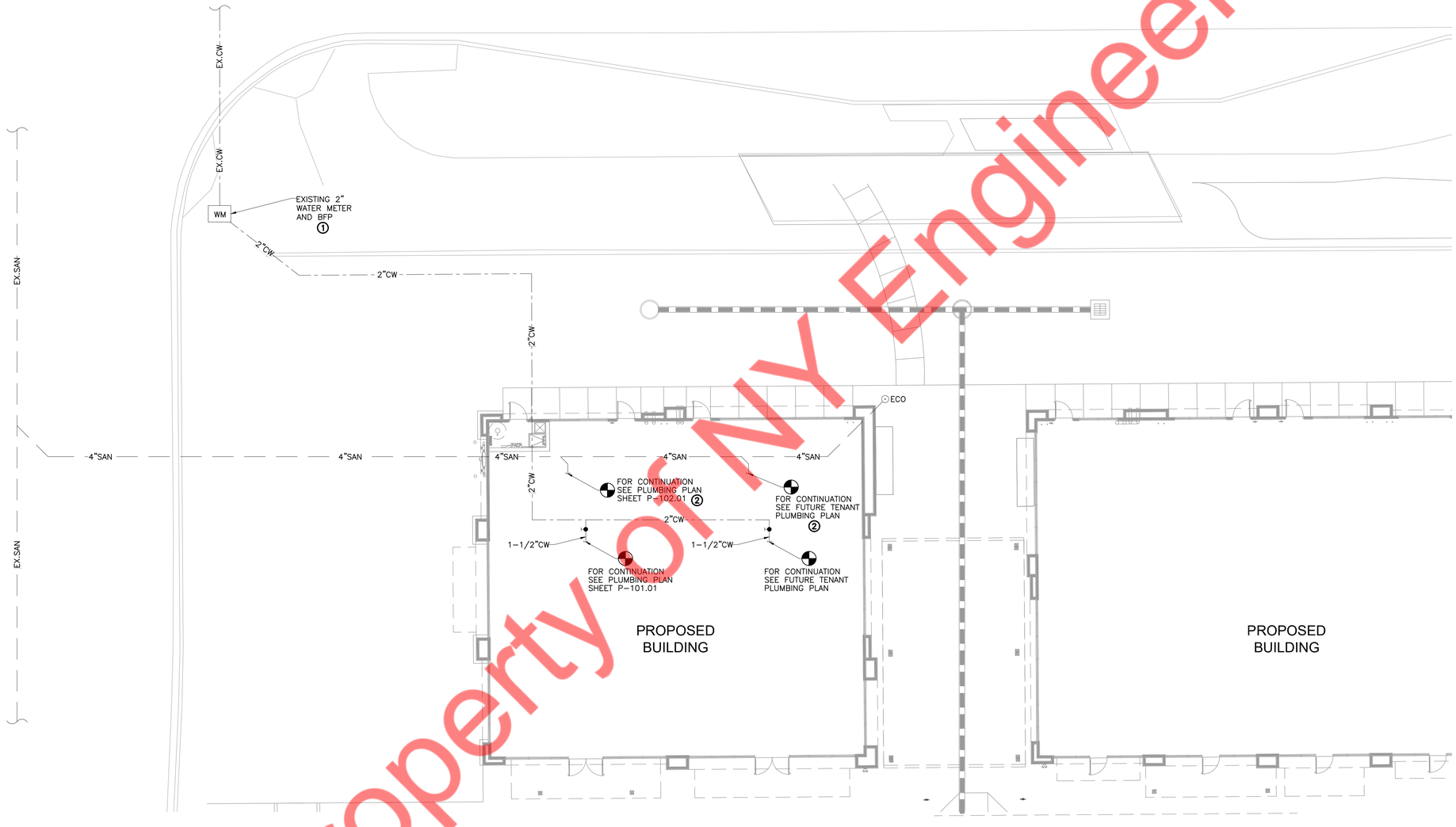
PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.

P-002.01

SITE KEY NOTES: (#)
1. EXISTING 2" WATER METER AND BFP.
2. EXISTING SANITARY LINE.



1 PLUMBING SITE PLAN
1/4" = 1'-0"

THE CONTRACTOR IS TO VERIFY ALL DIMENSIONS.

THE ARCHITECT SHALL NOT BE RESPONSIBLE FOR ACTUAL CONDITIONS, CONSTRUCTION AND/OR USE THEREOF. THIS DRAWING IS TO CONVEY DESIGN INTENTIONS AND/OR CODE COMPLIANCE ONLY. USE OF THESE DRAWINGS IMPLIES AGREEMENT WITH THESE CONDITIONS.

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382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
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GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
PLUMBING SITE PLAN

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
P-100.01

WATER CALCULATION

CRITICAL ELEVATIONS AND DISTANCES:	FEET
ELEVATION OF CONTROLLING FIXTURE (WATER CLOSET)	4.0
ELEVATION OF FINISHED FLOOR	0.0
ELEVATION OF WATER MAIN	−4.0
ELEVATION OF WATER ENTRY	8.0
VERTICAL DIST. FROM WATER MAIN TO CONTROLLING FIXTURE	8.00000
SYSTEM PRESSURE REQUIREMENTS:	PSI
ELEVATION (VERTICAL DISTANCE) X 0.434 PSI/FT	3.5
PRESSURE NEEDED AT CONTROLLING FIXTURE	20.0
BACKFLOW PREVENTER: 1−1/4" AT 23 GPM	15.0
WATER METER: 1" AT 23 GPM	5.0
TOTAL	43.5
PIPE RUNS:	FEET
EXTERIOR, MAIN TO BUILDING ENTRY	55.0
EXTERIOR, VERTICAL RISE	12.0
INTERIOR, ENTRY TO CONTROLLING FIXTURE	45.0
INTERIOR, VERTICAL RISE	−4.0
ALLOWANCE FOR FITTINGS, ETC. (LENGTH X 0.25)	27.0
TOTAL	135.0
SYSTEM PRESSURE DATA:	PSI
STREET PRESSURE	55.0
SYSTEM PRESSURE REQUIRED	43.5
PRESSURE AVAILABLE FOR (PIPING) FRICTION LOSS	11.5
PIPE SIZING:	PSI/100'
PRESSURE AVAILABLE X 100 / (TOTAL PIPE RUN)	8.5

* NOTE: ALL PIPING IS SIZED FOR 5 PSI/100' PRESSURE LOSS

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

WATER GENERAL NOTES:

1. CW/HW PIPING TO BE PROVIDED WITH INSULATION AS PER 2024 INTERNATIONAL ENERGY CONSERVATION CODE (REFER SHEET P−001.00)
2. PROVIDE BRANCH PRV IF PRESSURE EXCEEDS 80 PSI.
3. PROVIDE ACCESS PANELS FOR WATER HAMMER ARRESTOR & SHUT−OFF VALVES AS REQUIRED.
4. WATER HEATER DRAIN SPILLS TO THE FLOOR DRAIN.

WATER KEY NOTES:

1. CONNECT NEW 1¼" CW PIPING TO THE EXISTING 1½" COLD WATER STUB IN SPACE. PROVIDE NEW 1" WATER METER & 1−1/4" BACKFLOW PREVENTER AS PER PLAN. CONTRACTOR TO FIELD VERIFY EXACT SIZE, PRESSURE AND LOCATION OF EXISTING CW LINE AND WATER METER, REPLACE IF REQUIRED.
2. PROVIDE A TEMPERATURE MIXING VALVE FOR LAVATORY AND HAND SINK. SET TEMPERATURE TO A MAXIMUM OF 110° F.
3. WALL MOUNTED WATER HEATER. PROVIDE PIPING MANIFOLD PER MANUFACTURER REQUIREMENTS. ROUTE CONDENSATE TO FLOOR DRAIN WITH APPROVED AIR GAP.

TANKLESS WATER HEATER CALCULATIONS

SR. NO.	FIXTURE	QUANTITY	FLOW RATE (GPM)	
			PER FIXTURE	TOTAL
01	3 COMPARTMENT SINK	1	2	2.0
02	1 COMPARTMENT SINK	1	1	1.0
03	HAND SINK	3	0.5	1.5
04	DUMP SINK	1	0.5	0.5
05	MOP SINK	1	1.5	1.5
06	LAVATORY	2	0.5	1.0
		TOTAL FLOW RATE (GPM)		7.5

PLUMBING KITCHEN EQUIPMENT SCHEDULE

TAG	DESCRIPTION	MAKE	MODEL
8	MOP SINK W/FAUCET	STEEL WORKS	SWFMMS−212510
6	WALL MOUNT HAND SINK	BY OWNER	−−
12	3 COMPARTMENT SINK W/ PRE−RINSE FAUCET	STEEL WORKS	SWS3C162012−18LR−318
21	PREP SINK W/ FAUCET	STEEL WORKS	SWS1C2442414−24R−316
37	2−BATTERY FRYER	HENNY PENNY	OFG−322
54	BAG IN BOX	BY VENDOR	−−
55	WATER FILTER	−−	−−
56	ICE MACHINE	HOSHIZAKI	KM−350/520/660M_J(Z)
57	SODA DISPENSER	BY VENDOR	−−
58	CONDIMENT DISPENSER	−−	−−
63	DROP−IN DUMP SINK	STEEL WORKS	SWDIS−1FB101410
69	DIPPERWELL	GLASTENDER	−−

BACKFLOW PREVENTER SCHEDULE

DESCRIPTION	VALVE MODEL	ASSE
WATER SERVICE	WATTS 1−1/4" # LF909	1013
SODA DISPENSER	WATTS 1/2" # SD−3	1022
CONDIMENT DISPENSER	WATTS 1/2" # LF7	1024
ICE − MACHINE	WATTS 3/8" # LF9D	1012
CHECK VALVES	WATTS # LF600 SERIES	N/A

WATER SUPPLY FIXTURE UNIT CALCULATION

TAG	UNITS PER FIXTURE				TOTAL		
	QTY.	CW	HW	TOTAL	CW	HW	TOTAL
LAVATORY	2	1.5	1.5	2.0	3.0	3.0	4.0
WATER CLOSET	2	5	−−	5	10	−−	10
MOP SINK	1	2.25	2.25	3.0	2.25	2.25	3.0
HAND SINK	3	0.5	0.5	0.7	1.5	1.5	2.1
DUMP SINK	1	0.5	0.5	0.7	0.5	0.5	0.7
3−COMP SINK	1	3.0	3.0	4.0	3.0	3.0	4.0
1−COMP SINK	1	3.0	3.0	4.0	3.0	3.0	4.0
FILTERATION UNITS	4	0.25	−−	0.25	1.0	−−	1.0
				TOTAL FIXTURE UNITS	24.25	13.25	28.80

TOTAL FIXTURE UNITS− 28.80=22.9 GPM

WSFU VALUES AS PER INTERNATIONAL PLUMBING CODE TABLE E103.3(2)

PER 2024 PHOENIX PLUMBING CODE TABLE E103.3(3) FOR 22.9 GPM CALCULATED PIPE SIZE IS 1−1/4"

REQUIRED EXTERIOR METER SIZE − 3/4"

EXISTING EXTERIOR WATER METER SIZE − 2" (MAXIMUM ALLOWABLE GPM=160)

EXISTING EXTERIOR BFP SIZE − 2" (MAXIMUM ALLOWABLE GPM=80)

THEREFORE THE EXISTING ON SITE WATER METER AND BFP ARE SUFFICIENT FOR NEW TENANCY.

NY ENGINEERS
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MIAMI, FL 33179
(786)−788−0295
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GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

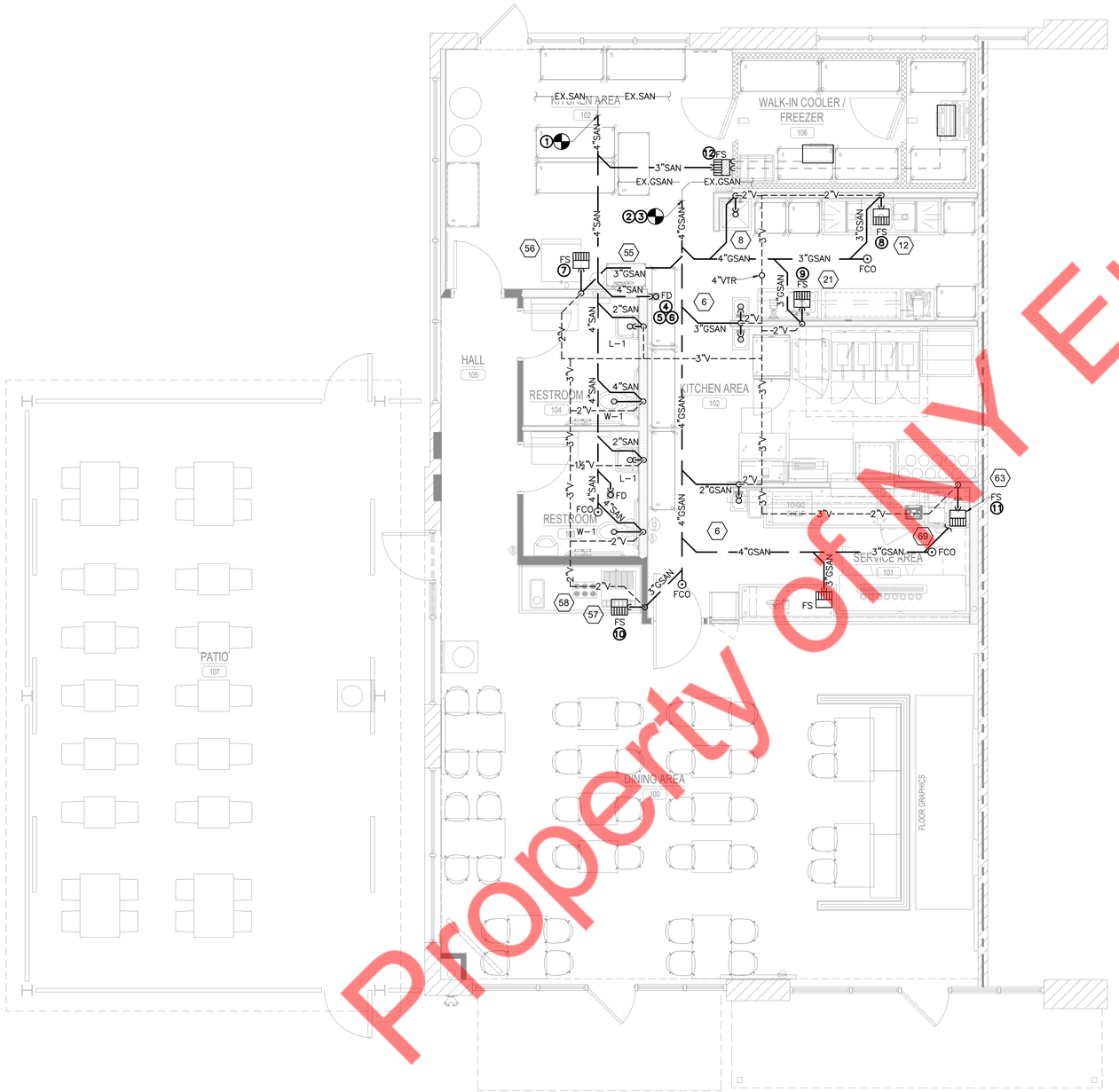
SHEET TITLE:
PLUMBING WATER PLAN

PROJECT NUMBER 25−012

DATE 07−07−2025

SHEET NO.
P−101.01

SHEET 4 OF 9



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

SANITARY GENERAL NOTES:

1. CONTRACTOR TO FIELD VERIFY FEASIBILITY OF SLAB PENETRATION AS PER STRUCTURAL REQUIREMENT.
2. THE VENT SHALL RISE 6 INCHES VERTICALLY ABOVE THE FLOOD RIM LEVEL OF THE FIXTURE BEING VENTED BEFORE OFFSETTING HORIZONTALLY OR VERTICALLY DOWNWARD BEFORE CONNECTING TO THE OUTSIDE VENT TERMINAL.
3. PROVIDE ACCESS PANEL FOR ALL CLEANOUTS AS REQUIRED.

SANITARY AND VENT KEY NOTES: (4)

1. CONNECT NEW 4" SANITARY WASTE PIPING TO EXISTING SANITARY STUB IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, ROUTING, DIRECTION AND INVERT OF EXISTING PIPE ON SITE.
2. CONNECT NEW 4" GREASE WASTE PIPING TO EXISTING GREASE WASTE STUB IN SPACE. CONTRACTOR TO FIELD VERIFY EXACT SIZE, ROUTING, DIRECTION AND INVERT OF EXISTING PIPE ON SITE.
3. CONTRACTOR TO FIELD VERIFY THE EXISTING GREASE INTERCEPTOR CAPACITY, LOCATION & CONDITION. REPLACE IF REQUIRED.
4. ROUTE CONDENSATE DRAIN FROM WATER HEATERS TO FLOOR DRAIN. DISCHARGE WITH 1" AIR GAP.
5. ROUTE INDIRECT DRAIN FROM RPZ TO FLOOR DRAIN. DISCHARGE WITH 6.75" AIR GAP.
6. ROUTE INDIRECT DRAIN FROM WATER FILTER TO FLOOR DRAIN. DISCHARGE WITH 1" AIR GAP.
7. ROUTE CONDENSATE DRAIN FROM ICE MACHINE TO FLOOR SINK. DISCHARGE WITH 1-1/2" AIR GAP.
8. ROUTE INDIRECT DRAIN FROM 3-COMPARTMENT SINK TO FLOOR SINK. DISCHARGE WITH 1-1/2" AIR GAP.
9. ROUTE INDIRECT DRAIN FROM PREP SINK TO FLOOR SINK. DISCHARGE WITH 1-1/2" AIR GAP.
10. ROUTE INDIRECT DRAIN FROM SODA DISPENSER TO FLOOR SINK. DISCHARGE WITH 1" AIR GAP.
11. ROUTE INDIRECT DRAIN FROM DUMP SINK AND DIPPERWELL TO FLOOR SINK. DISCHARGE WITH 1-1/2" AIR GAP.
12. ROUTE CONDENSATE DRAIN LINE FROM WALK-IN FREEZER TO FLOOR SINK WITH 1-1/2" AIR GAP.

WASTE DFU CALCULATIONS

MARK	FIXTURE	TYPE OF FIXTURE			TOTAL QTY.	DFU	TOTAL
		EXISTING TO REMAIN	EXISTING TO BE REMOVED	NEW			
(6)	HAND SINK	--	--	3	3	2	6
(8)	MOP SINK	--	--	1	1	5	5
W-1	WATER CLOSET	--	--	2	2	4	8
L-1	LAVATORY	--	--	2	2	2	4
FD	FLOOR DRAIN	--	--	1	1	5	5
FD	FLOOR DRAIN	--	--	1	1	6	6
FS	FLOOR SINK	--	--	7	7	5	35
TOTAL							69

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INTERIOR ALTERATION

SHEET TITLE:
PLUMBING SANITARY PLAN

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
P-102.01

SHEET 5 OF 9

1 PLUMBING GAS PLAN
1/4" = 1'-0"

GAS GENERAL NOTES:

1. GAS PIPING TO BE SCHEDULE 40 STEEL PIPE W/125 CAST IRON SCREWED FITTINGS.
2. GAS PIPING TO BE INSTALLED BY QUALIFIED LICENSED CONTRACTOR. ⚠1
3. VERIFY ALL EQUIPMENT BTU'S PRIOR TO INSTALLATION. ADJUST PIPE SIZE ACCORDING TO 2024 INTERNATIONAL FUEL GAS CODE TABLE 402.4(2).

GAS KEY NOTES:

1. CONNECT NEW 2" GAS LINE TO NEW GAS METER IN SPACE. SEE GAS LOAD SCHEDULE ON SHEET P-601.00 FOR GAS DEMAND. PLUMBING CONTRACTOR SHALL COORDINATE THE METER LOCATION, CAPACITY AND PRESSURE WITH THE LOCAL UTILITY COMPANY. IF THE DELIVERY PRESSURE AND CAPACITY INDICATED IS NOT AVAILABLE, THE PLUMBING CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IMMEDIATELY.
2. PLUMBING CONTRACTOR SHALL INSTALL ANSUL VALVE ABOVE CEILING. TIE VALVE INTO HOOD FIRE SUPPRESSION SYSTEM. VALVE SHALL CLOSE UPON HOOD SUPPRESSION ACTIVATION. PROVIDE MANUAL RESET.
3. CONTRACTOR TO PROVIDE ADEQUATE INLET PRESSURE REQUIRED GAS FIRED WH-1 & 2 AND KITCHEN EQUIPMENTS. PROVIDE GAS SHUT OFF VALVE, UNION AND DIRTLEG.

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382 NE 191st Street Suite 49674
MIAMI, FL 33179
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SHEET TITLE:
PLUMBING GAS PLAN

PROJECT NUMBER 25-012
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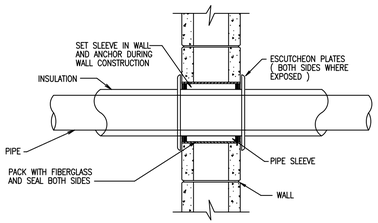
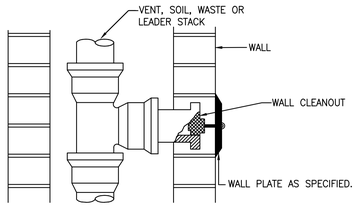
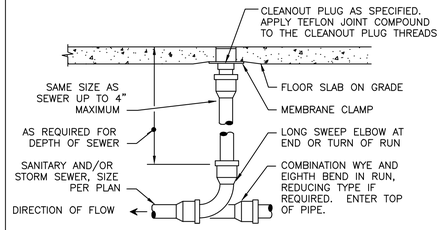
P-103.01



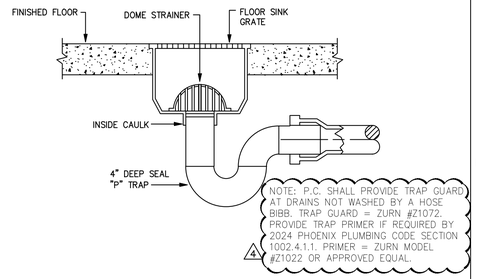
1 PIPE SLEEVE THRU WALL SECTION NTS



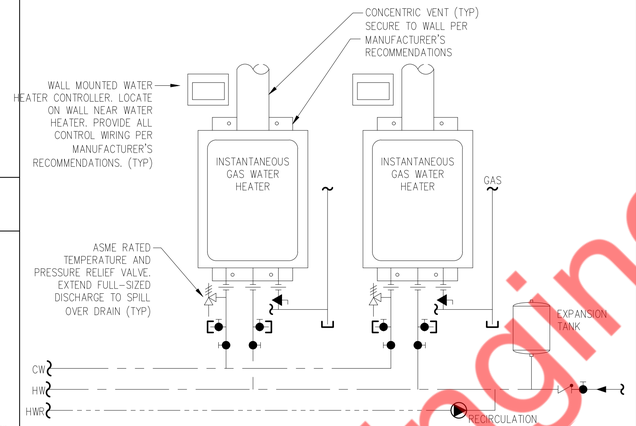
3 WALL CLEANOUT DETAILS NTS



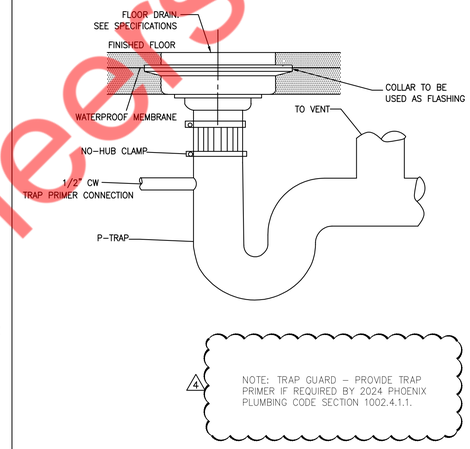
2 FLOOR CLEANOUT DETAILS NTS



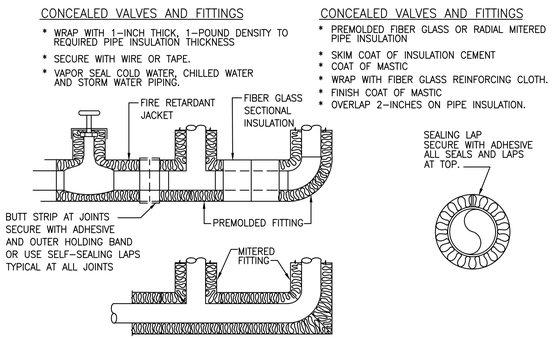
4 FLOOR SINK DETAILS NTS



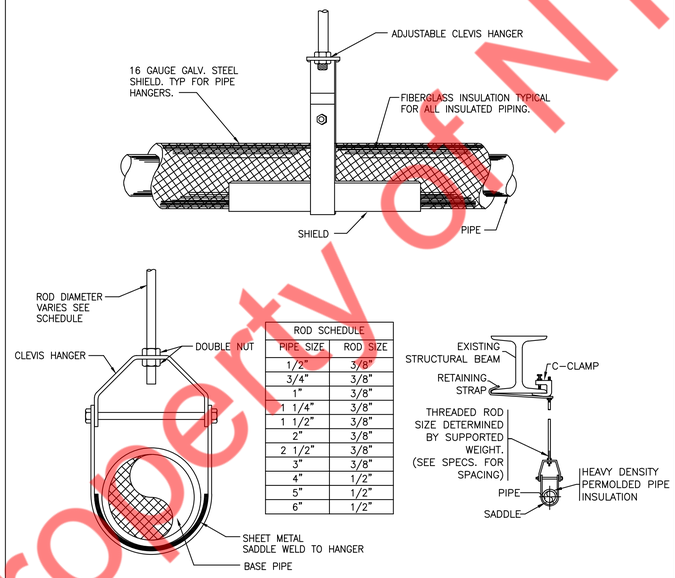
5 TANKLESS GAS WATER HEATER DETAILS NTS



6 FLOOR DRAIN DETAILS NTS

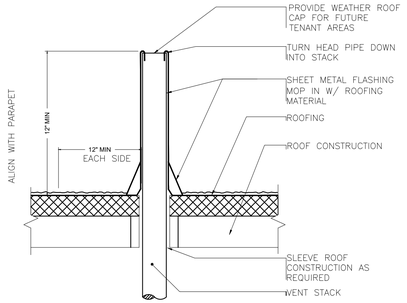


INSULATION OF PIPING, VALVES AND FITTINGS FOR EXPOSED AND CONCEALED LOCATIONS
7 NTS

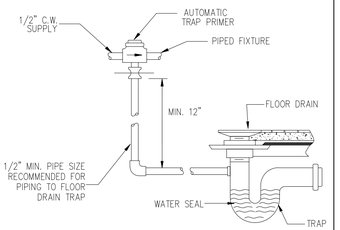


ROD SCHEDULE	
PIPE SIZE	ROD SIZE
1/2"	3/8"
3/4"	3/8"
1"	3/8"
1 1/4"	3/8"
1 1/2"	3/8"
2"	3/8"
2 1/2"	3/8"
3"	3/8"
4"	1/2"
5"	1/2"
6"	1/2"

8 HANGER DETAILS NTS



9 VENT THRU ROOF DETAIL NTS



10 TRAP PRIMER DETAIL NTS

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
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INTERIOR ALTERATION

SHEET TITLE:
PLUMBING DETAILS

PROJECT NUMBER 25-012

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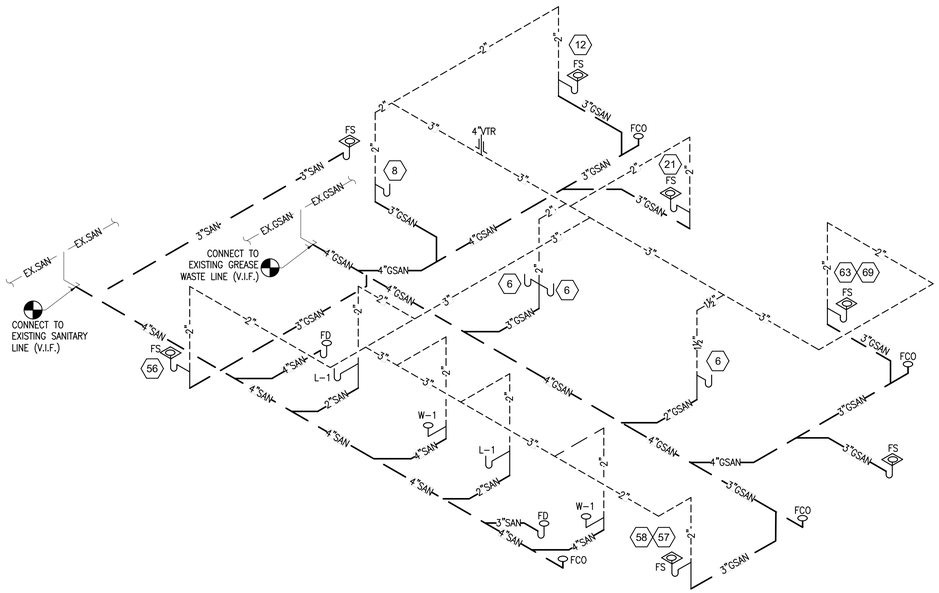
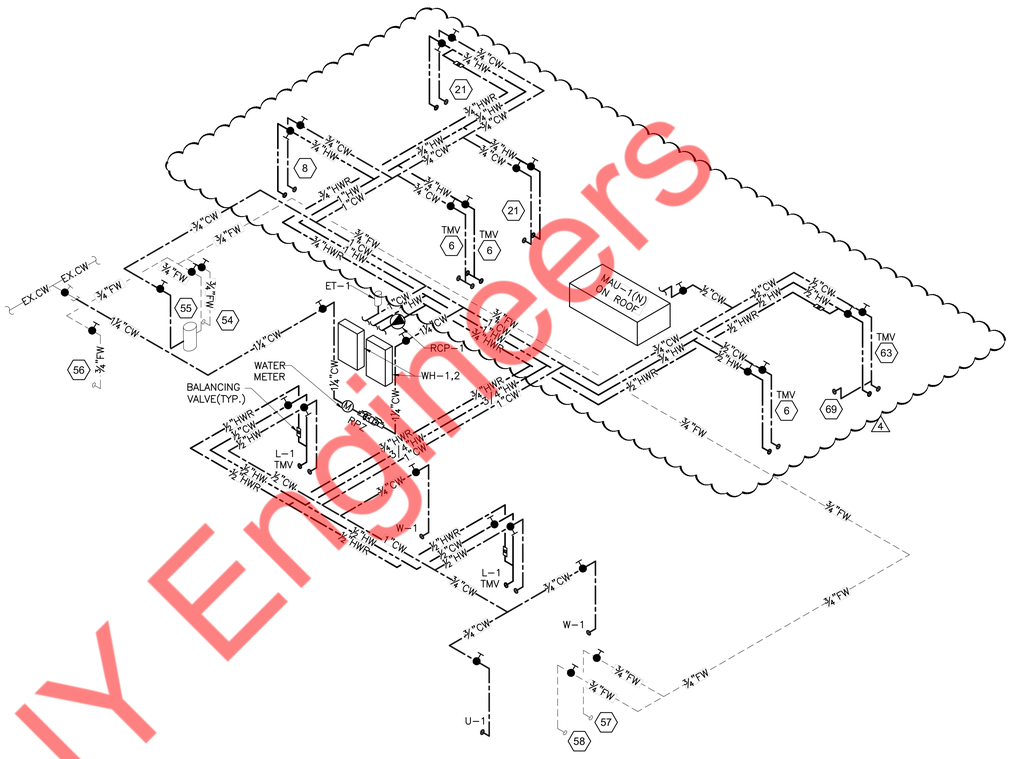
SHEET NO.
P-501.01

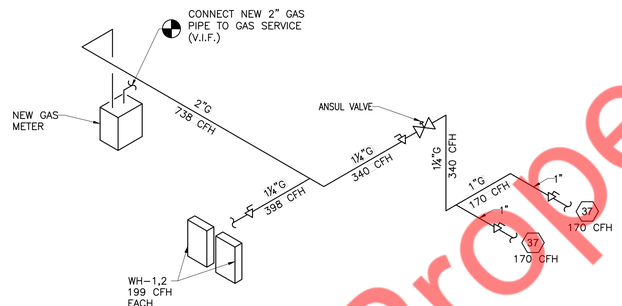
SHEET 7 OF 9



1 SANITARY RISER DIAGRAM
N.T.S



2 WATER RISER DIAGRAM
N.T.S



3 GAS RISER DIAGRAM
N.T.S

GAS PIPING NOTES

1. GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST ISSUE OF THE INTERNATIONAL OR STATE FUEL GAS CODE AND NFPA STANDARD NO. 54 WHICH APPLY.
2. GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA NO 54. ANY OTHER TEST AS REQUIRED BY THE LOCAL GAS INSPECTION DEPARTMENT OR GAS COMPANY SHALL ALSO BE PERFORMED.
3. MINIMUM GAS PIPING SIZING SHALL BE 1/2".
4. GAS PIPING COLOR/LABELS:
   EXTERIOR:
   A. LABEL ALL GAS PIPING "GAS/PRESSURE" ON PIPE AT 5'-0" CENTERS.
   B. COLOR: ON ROOF PAINT WITH TWO COATS OF YELLOW ENAMEL, ON VERTICAL WALLS PAINT TO MATCH WALL COLOR.
   INTERIOR:
   A. LABEL ALL GAS PIPING "GAS/PRESSURE", SPACING AND COLOR PER ANSI/ASME A13.1 CODE REQUIREMENTS.
5. GAS PIPING SUPPORTS:
   EXTERIOR:
   A. PIPING ROUTED ON ROOF SHALL BE STRAPPED TO MANUFACTURED SUPPORTS "QUICK-BLOCK" OR EQUAL. GAS SUPPORTS SPACED PER NFPA 54 7.2.5.2.
   INTERIOR:
   A. PIPING TO BE SUPPORTED BY CLEVIS HANGERS W/ THREADED ROD OR UNI-STRUT SYSTEM. GAS SUPPORTS SPACED PER NFPA 54 7.2.5.2.
6. GAS VALVES SHALL BE ANSI/CSA APPROVED, 125 PSI RATED, 2 PIECE, FULL PORT, BALL VALVES W/BRASS BODY AND BALL. PROVIDE W/ LEVER HANDLE.
7. PROVIDE UNIONS, FLANGES OR COUPLINGS AT CONNECTION TO ALL VALVES AND EQUIPMENT. DO NOT USE DIRECT WELDED OR THREADED CONNECTIONS TO VALVES, EQUIPMENT OR OTHER APPARATUS.
8. PROVIDE NON-CONDUCTING DIELECTRIC UNIONS WHENEVER CONNECTING DISSIMILAR METALS.
9. PROVIDE DIRT LEG, GAS VALVE AND GAS REGULATOR (IF GAS PRESSURE REQUIRED IS BELOW 14"WC) AT EACH PIECE OF EQUIPMENT INSTALLED IN ACCESSIBLE LOCATION WITH-IN 36" OF EQUIPMENT. USE VENT-LESS REGULATORS INDOORS WHEN POSSIBLE. ROUTE VENTED REGULATOR VENTS TO EXTERIOR. 4
10. GAS INSPECTION, TESTING AND PURGING AS PER 2024 IFGC SECTION 406, 406.1, 406.2, 406.3, 406.4, 406.5, 406.6, 406.7

GAS LOAD REQUIREMENTS

TAG	DESCRIPTION	QTY	INPUT CFH	TOTAL CFH
WH-1,2	TANKLESS WATER HEATER	2	199	398
37	2-BATTERY FRYER	2	170	340
TOTAL GAS LOAD MBH				738

GAS PIPE SIZING 1

- TABLE: 2024 INTERNATIONAL FUEL GAS CODE TABLE 402.4(2)
- TOTAL GAS INPUT: 738 MBH
- INLET PRESSURE: LESS THAN 2 PSI
- PRESSURE DROP: 0.5 IN/WC
- FITTINGS FACTOR: 40%
- TOTAL EQUIVALENT LENGTH: 70 LN/FT

PIPE SIZE (INCHES)	CAPACITY (CFH)
1/2	60
3/4	126
1	237
1-1/4	486
1-1/2	728
2	1,400

NY ENGINEERS
382 NE 191st Street Suite 49674
MIAMI, FL 33179
(786)-788-0295
ny-engineers.com

07-28-2025-ISSUED FOR PERMIT

REVISIONS:

NO.	DATE	DESCRIPTION	BY
01	09/23/25	CLIENT COMMENTS	NYE
04	12/05/25	PLAN REVIEW COMMENTS	NYE

FRANCHISEE NAME:
GRIFFIN RESTAURANTS, INC

PROJECT NAME:
ATOMIC WINGS
INTERIOR ALTERATION

SHEET TITLE:
PLUMBING RISERS

PROJECT NUMBER 25-012

DATE 07-07-2025

SHEET NO.
P-601.01

SHEET 8 OF 9

PLUMBING FIXTURE SCHEDULE

TAG	FIXTURE TYPE	DESCRIPTION	SERVICE CONNECTIONS				REMARKS
			SAN	VENT	HW	CW	
W-1	WATER CLOSET TANK-TYPE	WATER CLOSET SHALL BE EQUAL TO AMERICAN STANDARD "CADET PRO" MODEL #215CA.104.020, WHITE, VITREOUS CHINA, ELONGATED BOWL, TANK TYPE, 1.28 GPF, FLOOR MOUNTED, BOTTOM OUTLET, 12" ROUGH-IN. SEAT SHALL BE EQUAL TO CHURCH MODEL #9500SSCT, ELONGATED WHITE OPEN FRONT SEAT LESS COVER. WATER CLOSET SHALL BE PROVIDED WITH CHROME PLATED SUPPLY WITH LOOSE KEY STOP EQUAL TO MCGUIRE #172.	4"	2"	-	3/4"	FIXTURE RIM TO FINISHED FLOOR MOUNTING HEIGHT SHALL BE 15". WATER CLOSET SHOULD NOT EXCEED 1.28 GPF.
L-1	BARRIER-FREE LAVATORY WALL HUNG	LAVATORY SHALL BE AMERICAN STANDARD "LUCERNE" MODEL #0356.015.020, VITREOUS CHINA, WALL HUNG. PROVIDE AMERICAN STANDARD FAUCET MODEL #7057.115.002 SENSOR FAUCET. PROVIDE LAVATORY COMPLETE WITH GRID DRAIN, PREWRAPPED INSULATED, CAST BRASS, OFFSET TAILPIECE AND P-TRAP WITH CLEANOUT (EQUAL TO McGUIRE #PW2150WC) AND CHROME PLATED SUPPLIES (EQUAL TO McGUIRE #175).	2"	1 1/2"	1/2"	1/2"	LAVATORY SHOULD NOT EXCEED 0.25 GALLONS PER METERING CYCLE.
U-1	URINAL	URINAL SHALL BE EQUAL TO AMERICAN STANDARD "ALLBROOK FLOWISE" MODEL #6550.005.020, WHITE, VITREOUS CHINA, 0.5 GPF, WALL MOUNTED. URINAL SHALL BE MOUNTED USING A HANGER PLATE CARRIER. FLUSH VALVE SHALL BE EQUAL TO SLOAN REGAL #186.	2"	1 1/2"	-	3/4"	FIXTURE RIM TO FINISHED FLOOR MOUNTING HEIGHT SHALL BE 24". URINAL SHOULD NOT EXCEED 0.25 GPF. 2
FD	FLOOR DRAIN	FLOOR DRAIN SHALL BE EQUAL TO ZURN MODEL #ZS-415 TYPE "S" 5"X5" STRAINER, DEEP SEAL P-TRAP.	SEE DWGS.	-	-	-	PROVIDE TRAP GUARD CONNECTION AS REQUIRED.
FS	FLOOR SINK	FLOOR SINK SHALL BE EQUAL TO ZURN MODEL #Z-1900-2 . PROVIDE FLOOR SINK WITH P-TRAP.	SEE DWGS.	-	-	-	PROVIDE TRAP GUARD CONNECTION AS REQUIRED.
CO	CLEANOUT	-	SEE DWGS.	-	-	-	GAS/WATER TIGHT ABS PLUG
FCO	FLOOR CLEANOUT	FLOOR CLEANOUT SHALL BE EQUAL TO ZURN MODEL #ZS-1400. CLEANOUT.	SEE DWGS.	-	-	-	GAS/WATER TIGHT ABS PLUG

FOOD SERVICE PLUMBING SCHEDULE

TAG	DESCRIPTION	WASTE		VENT	C.W.	H.W.		GAS CONN.	GAS MBH	NOTES/OPTIONS
		DIRECT	INDIRECT			120°	140°			
8	MOP SINK W/FAUCET	3"	-	-	3/4"	-	3/4"	-	-	-
6	WALL MOUNT HAND SINK	2"	-	-	1/2"	1/2"	-	-	-	2 UNITS, PROVIDE MIXING VALVE MV-2
12	3 COMPARTMENT SINK W/ PRE-RINSE FAUCET	-	FS	-	3/4"	-	3/4"	-	-	PROVIDE TEE ON CW/HW LINES FOR CHEMICAL FEEDS
21	PREP SINK W/ FAUCET	-	FS	-	3/4"	-	3/4"	-	-	-
37	2-BATTERY FRYER	-	-	-	-	-	-	1-1/4"	170	2 UNITS
54	BAG IN BOX	-	-	-	1/2"	-	-	-	-	CONNECT FILTERED WATER
55	WATER FILTER	-	-	-	3/4"	-	-	-	-	CONNECT FILTERED WATER
56	ICE MACHINE	-	-	-	3/4"	-	-	-	-	CONNECT FILTERED WATER
57	SODA DISPENSER	-	-	-	3/4"	-	-	-	-	CONNECT FILTERED WATER 4
58	CONDIMENT DISPENSER	-	-	-	3/4"	-	-	-	-	CONNECT FILTERED WATER
63	DROP-IN DUMP SINK	-	FS	-	1/2"	1/2"	-	-	-	PROVIDE MIXING VALVE TMV
69	DIPPERWELL	-	FS	-	1/2"	-	-	-	-	PROVIDE ASSE 1022 BACKFLOW

PLUMBING EQUIPMENT NOTES:

1. IT SHALL BE THE PLUMBING CONTRACTORS RESPONSIBILITY TO MAKE ALL FINAL CONNECTIONS FROM KITCHEN/BAR EQUIPMENT TO THE PLUMBING MAINS SHOWN ON THIS PLAN.
2. THE PLUMBING CONNECTION SCHEDULE ON THIS PLAN RELATES REQUIRED CONNECTIONS TO INDIVIDUAL EQUIPMENT ONLY.
3. PLUMBING CONTRACTOR SHALL REFER TO "KITCHEN EQUIPMENT COMPANY" CUT SHEETS FOR ALL ROUTING OF FINAL CONNECTIONS TO EQUIPMENT AND EXACT ROUGH-IN LOCATIONS.
4. PLUMBING CONTRACTOR SHALL MOUNT ALL FLOOR SINKS FLUSH WITH FINISHED FLOOR ELEVATION.
5. ALL FLOOR DRAINS ARE WASHED BY HOSE BIBBS LOCATED IN BATHROOMS AND KITCHEN.

EXPANSION TANK SCHEDULE

TAG	DESCRIPTION	VOLUME (GALLONS)	DIAMETER (INCHES)	HEIGHT (INCHES)	SELECTION BASED ON		REMARKS
					MANUFACTURER	MODEL NUMBER	
ET-1	BLADDER TYPE	2.0	8"	12 1/2"	AMTROL	ST-5	NOTE 1

NOTES:

1. INSTALL EXPANSION TANK ON IN-COMING COLD WATER PER MANUFACTURERS REQUIREMENTS.

THERMOSTATIC MIXING VALVE SCHEDULE

TAG	DESCRIPTION	MAXIMUM GPM	MINIMUM GPM	PRESSURE LOSS	SELECTION BASED ON		REMARKS/OPTIONS
					MANUFACTURER	MODEL NUMBER	
TMV	THERMOSTATIC MIXING VALVE	3.5	.25	5	LEONARD	270-LF	NOTE 1, A

OPTIONS (ALL UNITS)

- LEAD FREE NSF APPROVED
- PROVIDE T'STAT ON TEMPERED LINE

ADDITIONAL OPTIONS (UNITS AS NOTED)

A: ASSE 1070 APPROVED, SET @ 100° F. ¾" INLETS/ ½" OUTLET, MOUNT BELOW FIXTURE

NOTES:

1. INSTALL MIXING VALVE PER MANUFACTURERS REQUIREMENTS. PROVIDE ALL PIPING AND VALVES PER O&M MANUAL.

TANKLESS GAS WATER HEATER SCHEDULE

TAG No.	NO. OF ELEMENTS	STORAGE GALLONS	MIN. FLOW RATE	MAX. FLOW RATE	EWT DEG. F	LWT DEG. F	BTU/HR	MANUFACTURER & MODEL NO.	REMARKS
WH-1,2	2	0	5.5 GPM EACH	11 GPM EACH	73	140	199 EACH	RINNAI CX199i	-

HEATER NEUTRALIZER KIT 4

MANUFACTURER	MODEL NO.	REMARKS
RINNAI	804000074	INSTALL ON THE CONDENSATE PIPING OF WATER HEATER

RECIRCULATION PUMP SCHEDULE

TAG	DESCRIPTION	TYPE	CAPACITY		ELECTRICAL DATA				SELECTION BASED ON		REMARKS/OPTIONS
			GPM	HEAD (ft.)	HP	V	PH	HZ	MANUFACTURER	MODEL NUMBER	
RCP-1	HOT WATER RECIRC. PUMP	IN-LINE	2.5	7	1/12	120	1	60	BELL & GOSSETT	PL-30-B	NOTE 1,2

OPTIONS (ALL RCP UNITS)

- AQUA-STAT & NIGHT TIMER
- FLANGED PUMP
- BALANCING VALVE & CHECK VALVE
- MAINTENANCE BALL VALVES ON BOTH SIDES OF PUMP

OPTIONS (ALL SUMP UNITS)

- 30"X30"X30" BASIN BY G.C.
- DISCHARGE CHECK VALVE
- DISCHARGE BALL VALVE
- ---

ADDITIONAL OPTIONS (UNITS AS NOTED)

A: OIL-MINDER ALARM/CONTROL SYSTEM

NOTES:

1. SET AQUA-STAT WITH SET POINT 10 DEGREES BELOW SYSTEM SUPPLY TEMP.
2. INSTALL RECIRCULATION PUMP PER MANUFACTURERS REQUIREMENTS.

SHOCK ARRESTOR TABLE

PDI WH201 DESIGNATION	FIXTURE UNITS	SELECTION BASED ON		REMARKS
		MANUFACTURER	MODEL NUMBER	
AA	1-3	SIOUX CHIEF	660	NOTE 1
A	4-11	SIOUX CHIEF	652-A	NOTE 1
B	12-32	SIOUX CHIEF	653-B	NOTE 1
C	33-60	SIOUX CHIEF	654-C	NOTE 1
D	61-113	SIOUX CHIEF	655-D	NOTE 1

NOTES:

1. INSTALL ARRESTORS PER PDI WH201 AND MANUFACTURERS REQUIREMENTS.

GREASE TRAP SIZING CALCULATIONS

SR. NO.	FIXTURE	QUANTITY	DFU	TOTAL DFU'S
1	FLOOR SINK	6	5	30
2	MOP SINK	1	5	5
4	HAND SINK	3	2	6
TOTAL			1	41

AS PER 2024 INTERNATIONAL PLUMBING CODE, (TABLE 1014.3.6) FOR 41 DFU'S, MINIMUN OF 1,250 GALLONS GREASE INTERCEPTOR IS REQUIRED.

BACKFLOW PREVENTER SCHEDULE

EQUIPMENT	TAG	MODEL	ASSE
--	RPZ	LF009	ASSE 1013

NY ENGINEERS
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P-701.01

SHEET 9 OF 9