## GENERAL MECHANICAL NOTES

GENERAL

ALL WORK SHALL BE IN COMPLIANCE WITH APPLICABLE STANDARDS AND CODES, REFERENCE THE 2022 NEW YORK CITY MECHANICAL CODE, NEW YORK CITY ENERGY CONSERVATION CODE AND/OR ASHRAE 90.1-2016.

1. WHEN A CONFLICT BETWEEN THE DRAWINGS, NOTES AND/OR SPECIFICATIONS OCCUR, THE MORE STRINGENT, AND/OR LARGER QUANTITY AND/OR MORE EXPENSIVE SHALL APPLY. THE REQUIREMENTS LISTED WITHIN NOTES OR SPECIFICATIONS SHALL BE REQUIRED, PROVIDED AND INSTALLED WHETHER SPECIFICALLY INDICATED ON THE DRAWINGS OR NOT.

2. IT IS THE INTENTION OF THE SPECIFICATIONS AND DRAWINGS TO PROVIDE FOR FINISHED WORK, TESTED AND READY FOR OPERATION.

3. ITEMS AND SERVICES NOT SHOWN ON DRAWINGS OR SPECIFICATIONS BUT REQUIRED TO RENDER THE WORK COMPLETE AND READY FOR OPERATION, SHALL BE PROVIDED WITHOUT ADDITIONAL COST.

4. WORK OF THIS SECTION SHALL BE GOVERNED BY THE CONTRACT DOCUMENTS. PROVIDE MATERIALS, LABOR, EQUIPMENT AND SERVICES NECESSARY TO FURNISH, DELIVER AND INSTALL ALL WORK AS SPECIFIED AND AS REQUIRED BY JOB CONDITIONS. WHERE A CONFLICT EXISTS BETWEEN THESE NOTES, THE DRAWINGS AND THE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

5. DRAWINGS ARE DIAGRAMMATIC AND INDICATE A GENERAL ARRANGEMENT OF WORK AND ARE NOT TO BE CONSIDERED SUB-CONTRACTOR DOCUMENTS. IT IS THE INTENT OF THESE DOCUMENTS TO INCLUDE THE PROVISION AND INSTALLATION OF ALL NECESSARY WORK AND MATERIALS FOR COMPLETE, OPERATIONAL AND CODE COMPLIANT SYSTEMS BY THE CONTRACTOR. GENERAL DESIGN CONCEPTS INDICATED MUST BE FOLLOWED OR BETTERED. THE BID SHALL INCLUDE OFFSETS, ADDITIONAL PIPING, VALVES AND EQUIPMENT AND COMPONENTS AS REQUIRED TO MEET CONSTRUCTION CONDITIONS FOR PROPER OPERATION. DO NOT SCALE DRAWINGS. CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SPACE CONDITIONS AND ADDITIONAL REQUIREMENTS.

6. PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT GENERAL CONDITIONS AND WITH THE PROVISIONS OF ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND LAWS.

7. WORK SHALL INCLUDE ALL INCIDENTALS, LABOR, MATERIAL, EQUIPMENT, APPLIANCES, SERVICES, HOISTING, SCAFFOLDING, SUPPORTS, TOOLS, CONSUMABLE ITEMS, FEES, LICENSES, AND ADMINISTRATIVE TASKS REQUIRED TO COMPLETE AND MAKE OPERABLE WORK SHOWN ON THE DRAWINGS, SPECIFIED HEREIN AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM.

8. STORE MATERIALS INSIDE AND PROTECTED FROM DEBRIS, WEATHER AND MOISTURE.

9. THIS CONTRACTOR SHALL PROVIDE AND INSTALL ALL POWER AND CONTROL WIRING REQUIRED FOR EQUIPMENT OPERATION NOT SPECIFICALLY PROVIDED BY OTHERS BUT REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. THIS CONTRACTOR SHALL PROVIDE MOTOR STARTERS. COORDINATE REQUIREMENTS WITH DIVISION 26 OR 16.

ALTERATION WORK AND DEMOLITION

1. ALL EQUIPMENT, DUCTWORK, PIPING, CONTROL DEVICES, ETC. TO BE REMOVED, SHALL BE DISPOSED OF, TURNED OVER TO THE OWNER, OR SALVAGED AS DIRECTED BY THE OWNER. EQUIPMENT, DUCTWORK, PIPING, CONTROL DEVICES, ETC. SHALL NOT BE REMOVED FROM THE PREMISES WITHOUT THE OWNER'S APPROVAL.

2. UPON COMPLETION OF REMOVALS AND MODIFICATIONS, ALL DUCTWORK AND PIPING TO REMAIN SHALL BE PROPERLY VALVED, CAPPED AND/OR BY PASSED SUCH THAT UPON COMPLETION OF WORK ALL SYSTEMS TO REMAIN, REMAIN OPERATIONAL.

3. NO DEAD ENDS SHALL BE LEFT ON ANY DUCTWORK OR PIPING SYSTEM UPON COMPLETION OF WORK.

4. EXISTING DUCTWORK AND PIPING SYSTEMS NOT TO BE REUSED, AND NOT SPECIFICALLY NOTED FOR REMOVAL SHALL BE COMPLETELY REMOVED.

5. ALL SYSTEMS SHALL BE LEFT IN WORKING ORDER TO THE SATISFACTION OF THE OWNER UPON COMPLETION OF ALL NEW WORK.

6. ALL EXISTING UNNECESSARY DUCTWORK AND PIPING NOT RELATED TO NEW WORK SHALL BE COMPLETELY REMOVED.

7. RE-ROUTE ALL EXISTING DUCTWORK, PIPING AND SYSTEMS WHERE NECESSARY TO AVOID NEW EQUIPMENT, STRUCTURAL, OR MASONRY WORK AS REQUIRED BY THE PROPOSED ALTERATIONS.

8. WHERE PORTIONS OF EXISTING DUCT SYSTEMS ARE TO REMAIN CONTRACTOR TO TAKE AIRFLOW READINGS AT ALL AIR TERMINALS ASSOCIATED WITH THE DUCT SYSTEM TO BE MODIFIED BEFORE COMMENCEMENT OF WORK AND AFTER ALTERATION WORK IS COMPLETE. AIR BALANCING WORK SHALL BE PERFORMED BY AN INDEPENDENT NEEB CERTIFIED COMPANY, NOT ASSOCIATED WITH THE CONTRACTOR. REPORTS ARE TO BE ISSUED TO THE OWNER AND ENGINEER AT BOTH OCCURRENCES. IF AS-BUILTS ARE AVAILABLE, DISCREPANCIES NOTED BETWEEN THE AS BUILT DRAWINGS AND THE INITIAL AIR FLOW READINGS ARE TO BE NOTED ON THE AIR FLOW REPORT. EXISTING AIR TERMINALS ARE TO BE BALANCED TO THE ORIGINAL READINGS AT COMPLETION OF WORK UNLESS OTHERWISE IDENTIFIED.

SHOP DRAWINGS

1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO BE REVIEWED BY THE ENGINEER PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE SUBMITTED FOR DUCTWORK LAYOUT, PIPING LAYOUT, SHEET METAL SHOP STANDARDS AND ALL EQUIPMENT FURNISHED.

2. ELECTRONIC DRAWING FILES SHALL BE GENERATED BY THE CONTRACTOR. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTOCAD VERSION AS REQUIRED BY THE OWNER) OR AUTOCAD VERSION 2010 IF NOT SPECIFIED.

3. PRIOR TO THE SUBMISSION AND REVIEW OF SHEET METAL SHOP DRAWINGS, THE CONTRACTOR SHALL SUBMIT FOR REVIEW SHEET METAL SHOP STANDARDS. ANY SHEET METAL SHOP DRAWINGS SUBMITTED PRIOR TO THE SUBMISSION OF THE SHOP STANDARDS SHALL BE RETURNED "NOT REVIEWED".

COORDINATION DRAWINGS

1. ELECTRONIC DRAWING FILES SHALL BE GENERATED BY THE CONTRACTOR. IF REQUESTED, ELECTRONIC FILES OF THE MECHANICAL FLOOR PLANS, SECTIONS AND ELEVATIONS ONLY WILL BE MADE AVAILABLE. ELECTRONIC FILES WILL BE RELEASED ONLY UPON RECEIPT OF THE SIGNED AGREEMENT FOR TRANSFER OF ELECTRONIC FILE DATA, AGREEMENT FOR TRANSFER OF BUILDING INFORMATION MODEL AND ALL FEES INDICATED THEREIN.

2. DEVELOP AND SUBMIT COORDINATION DRAWINGS AS OUTLINED.

A. SHEET METAL, PLUMBING AND FIRE PROTECTION SHOP DRAWINGS THAT HAVE BEEN COORDINATED WITH ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW. DRAWINGS MUST BE RETURNED FROM ENGINEER EITHER "REVIEWED" OR "FURNISH AS CORRECTED" PRIOR TO BEING USED AS BASIS FOR COORDINATION DRAWINGS.

B. AFTER SHEET METAL AND PIPING DRAWINGS HAVE BEEN REVISED PER ENGINEERS COMMENTS, REPRODUCIBLE COPIES SHALL BE SENT TO THE TRADES IN THE FOLLOWING SEQUENCE FOR THE INCLUSION OF THEIR WORK:

-MECHANICAL SHEET METAL
-PLUMBING PIPING
-MECHANICAL PIPING
-SPRINKLER PIPING
-ELECTRICAL WORK

2. AFTER ALL TRADES HAVE INCLUDED THEIR WORK ON THE COORDINATION DRAWING AND NOTED CONFLICTS, ALL TRADES SHALL MEET TO RESOLVE CONFLICTS AND AGREE TO ACCEPTABLE SOLUTIONS. EACH TRADE SHALL SIGN COORDINATION DRAWINGS. ITEMS NOT SHOWN ON COORDINATION DRAWING IS RESPONSIBILITY OF OMITTING CONTRACTOR AND CONTRACTOR IS SUBJECT TO ADDITIONAL COSTS INCURRED BY OTHER TRADES.

3. THE ARCHITECT AND ENGINEER ARE NOT PART OF THE COORDINATION DRAWING PROCESS. THE ENGINEER WILL PROVIDE ASSISTANCE FOR NOTED CONFLICTS ONLY. COORDINATION DRAWINGS ARE NOT TO BE CONSIDERED PIPING OR DUCT SHOP DRAWINGS. THE CONTRACTOR IS REQUIRED TO SUBMIT INDIVIDUAL PIPING AND DUCTWORK SHOP DRAWINGS FOR REVIEW BY THE ENGINEER. PIPING AND DUCTWORK SHOP DRAWINGS SHALL FOLLOW THE DESIGN INTENT OF THE CONTRACT DOCUMENTS.

4. SUBMIT FINAL SIGNED COORDINATION DRAWING TO ENGINEER FOR REVIEW. ENGINEER WILL REVIEW COORDINATION DRAWINGS FOR GENERAL ARRANGEMENT AND FOR NOTED CONFLICTS ONLY. SPECIFIC INSTALLATION REQUIREMENTS WILL BE REVIEWED ONLY IN INDIVIDUAL TRADE SHOP DRAWINGS.

5. ANY WORK FABRICATED OR INSTALLED PRIOR TO SIGN OFF BY ALL TRADES WHICH IS DEEMED TO BE IN CONFLICT WITH COORDINATION DRAWINGS SHALL BE REMOVED AND RE-INSTALLED IN CONFORMANCE WITH COORDINATION DRAWINGS.

6. EACH CONTRACTOR (MENTIONED ABOVE) IS RESPONSIBLE FOR THE COORDINATION OF HIS SUB-CONTRACTORS.

7. THE OVERALL COORDINATION OF THE COORDINATION PROCESS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE ENGINEER IS NOT RESPONSIBLE FOR THE COORDINATION PROCESS. THE ENGINEER WILL RESPOND TO QUESTIONS THAT ARISE FROM THE COORDINATION PROCESS. DRAWINGS SUBMITTED WILL BE REVIEWED FOR CLEARLY IDENTIFIED CONFLICTS ONLY. SOLUTIONS TO CONFLICTS WILL NOT BEAR ADDITIONAL COST.

AS BUILT DRAWINGS

1. PROVIDE A COMPLETE SET OF AS-BUILT DRAWINGS REFLECTING AS INSTALLED CONDITIONS. AS-BUILT DRAWINGS SHALL INDICATE ALL INSTALLED CONDITIONS OF SYSTEMS WITHIN THIS DISCIPLINE. DRAWINGS SHALL BE OF SIMILAR SCALE AS THE CONSTRUCTION DOCUMENTS AND INCLUDE DETAILS AS NECESSARY TO CLEARLY REFLECT THE INSTALLED CONDITION. DRAWINGS SHALL BE BOUND IN A COMPLETE AND CONSECUTIVE SET. SUPPLEMENTAL SKETCHES AND LOOSE PAPERWORK WILL NOT BE ACCEPTABLE AND WILL BE RETURNED FOR REVISION. THE CONTRACTOR SHALL COMPLY WITH THE ENGINEERS COMMENTS TO PRODUCE A CLEAR AND CONCISE SET OF DRAWINGS. DRAWINGS SHALL BE SUBMITTED IN BOTH HARD COPY AND ELECTRONIC VERSION (AUTO-CAD VERSION AS REQUIRED BY THE OWNER) OR AUTOCAD VERSION2010 IF NOT SPECIFIED. NUMBER OF COPIES OF EACH AS REQUESTED BY THE OWNER.

2. PROVIDE "AS-BUILT DRAWINGS" INDICATING IN A NEAT AND ACCURATE MANNER A COMPLETE RECORD OF ALL REVISIONS OF THE ORIGINAL DESIGN OF THE WORK. INDICATE THE FOLLOWING INSTALLED CONDITIONS:

3. INCLUDE ALL CHANGES AND AN ACCURATE RECORD IN AUTOCAD DRAWING OR APPROPRIATE SHOP DRAWINGS, OF ALL DEVIATIONS, BETWEEN THE WORK SHOWN AND WORK INSTALLED.

4. MAINS AND BRANCHES OF PIPING SYSTEMS, WITH VALVES AND CONTROL DEVICES LOCATED AND NUMBERED, CONCEALED UNIONS LOCATED, AND WITH ITEMS REQUIRING MAINTENANCE LOCATED (I.E., TRAPS, STRAINERS, EXPANSION COMPENSATORS, TANKS, ETC.). VALVE LOCATION DIAGRAMS, COMPLETE WITH VALVE TAG CHART.

5. EQUIPMENT LOCATIONS (EXPOSED AND CONCEALED), DIMENSIONED FROM PROMINENT BUILDING LINES.

6. APPROVED SUBSTITUTIONS, CONTRACT MODIFICATIONS, AND ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

7. CONTRACT MODIFICATIONS, ACTUAL EQUIPMENT AND MATERIALS INSTALLED.

8. SUBMIT FOR REVIEW BOUND SETS OF THE REQUIRED DRAWINGS, MANUALS AND OPERATING INSTRUCTIONS.

9. SUBMIT A COMPLETE MAINTENANCE MANUAL OF ALL EQUIPMENT INSTALLED UNDER THIS CONTRACT.

HOUSEKEEPING PADS

1. PROVIDE CONCRETE HOUSEKEEPING PADS FOR FLOOR-MOUNTED EQUIPMENT. COORDINATE EXACT LOCATIONS, DIMENSIONS, PIPING LOCATIONS, AND ANCHOR BOLT REQUIREMENTS. PROVIDE CONCRETE HOUSEKEEPING PADS UNDER ALL FLOOR MOUNTED EQUIPMENT. PADS SHALL BE CONSTRUCTED OF 3,000 PSI CONCRETE. PADS SHALL BE 4 INCHES HIGH, AND MINIMUM 4 INCHES WIDER THAN THE EQUIPMENT IN BOTH DIRECTIONS.

2. COORDINATE FLOOR DRAIN LOCATIONS WITH RESPECT TO EQUIPMENT HOUSEKEEPING PADS. PLACE DRAINS SUCH THAT EDGE OF THE FLOOR GRATE EXTENDS NO CLOSER THAN 2 INCHES FROM THE SIDE OF THE PAD. FLOOR DRAINS TO BE COORDINATED WITH PLUMBING CONTRACTOR.

HANGERS AND SUPPORT

1. SEISMIC RESTRAINT: PROVIDE SEISMIC RESTRAINT AND EXPANSION OF ALL MECHANICAL EQUIPMENT AND SYSTEMS IN ACCORDANCE WITH STATE AND FEDERAL BUILDING CODE REQUIREMENTS. SUBMIT SHOP DRAWINGS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF THE PROJECT INDICATING ALL NECESSARY COMPONENT CUTS, PLAN LOCATIONS AND CALCULATIONS FOR A COMPLETE SYSTEM.

2. PROVIDE ALL NECESSARY STRUCTURAL MEMBERS INCLUDING ADDITIONAL STRUCTURAL SUPPORT TO SUPPORT PIPING AND EQUIPMENT. HANGERS AND SUPPORTS SHALL BE OF AN APPROVED DESIGN NECESSARY TO SUPPORT DUCTWORK, PIPING, EQUIPMENT AND TO KEEP IN PROPER ALIGNMENT AND PREVENT TRANSMISSION OF INJURIOUS THRUSTS AND VIBRATIONS. IN ALL CASES WHERE HANGERS, BRACKETS, ETC., ARE SUPPORTED FROM CONCRETE CONSTRUCTION, DO NOT WEAKEN CONCRETE OR PENETRATE WATERPROOFING. ALL HANGERS AND SUPPORTS SHALL BE CAPABLE OF SCREW ADJUSTMENT AFTER EQUIPMENT AND PIPING IS ERECTED. HANGERS SUPPORTING PIPING EXPANDING INTO LOOPS, BENDS AND OFFSETS SHALL BE SECURED TO THE BUILDING STRUCTURE IN SUCH A MANNER THAT HORIZONTAL ADJUSTMENT PERPENDICULAR TO THE RUN OF PIPING SUPPORTED MAY BE MADE TO ACCOMMODATE DISPLACEMENT DUE TO EXPANSION. ALL SUCH HANGERS SHALL BE FINALLY ADJUSTED BOTH IN THE VERTICAL AND HORIZONTAL DIRECTION, AS REQUIRED. HANGERS IN CONTACT WITH COPPER OR BRASS PIPE SHALL BE DIELECTRIC, COMPATIBLE WITH COPPER AND BRASS ALLOY OR PROVIDED WITH FELT SLEEVE.

3. PROVIDE ADDITIONAL SUPPORT FOR DUCTWORK PIPING AND EQUIPMENT WHEN DECK IS NOT CAPABLE OF SUPPORT.

4. BEAM CLAMPS - HANGERS SUPPORTED FROM STEEL SHALL BE CENTER LOADING BEAM CLAMPS FOR HANGERS SUPPORTING PIPING 2 INCHES. FOR PIPING 2-1/2 INCHES AND LARGER, I BEAM CLAMPS SHALL BE FORGED STEEL "C" CLAMPS ARE NOT TO BE USED.

5. PROVIDE AND INSTALL EXPANSION COMPENSATION FOR ALL PIPING. SUBMIT PLANS, CALCULATIONS AND EQUIPMENT DATA.

## MECHANICAL GENERAL NOTES

1. COORDINATE ALL HVAC WORK AND EQUIPMENT WITH STRUCTURAL STEEL, FIRE PROTECTION PIPING, PLUMBING PIPING, LIGHT FIXTURES, ELECTRICAL EQUIPMENT AND OWNER'S EQUIPMENT.

2. ALL EXISTING CONDITIONS AS INDICATED ARE APPROXIMATIONS OF EXACT CONDITIONS TO BE VERIFIED IN THE FIELD. CONTRACTOR SHALL VISIT THE SITE TO VERIFY THE CONSTRUCTION CONDITIONS BEFORE SUBMITTING BID.

3. WHENEVER THE DOCUMENTS INDICATE FOR NEW PIPING TO CONNECT TO AN EXISTING PIPING SYSTEM (OTHER THAN A STEAM SYSTEM), CONTRACTOR SHALL INSTALL A TEMPORARY CORROSION INHIBITOR SYSTEM TO TREAT THE EXISTING PIPING. THE SYSTEM SHALL CONSIST OF AN INJECTOR, PIPING MODIFICATIONS AND APPLICABLE CHEMICALS REQUIRED TO TREAT THE EXISTING SYSTEM FOR A MINIMUM OF THREE WEEKS PRIOR TO ANY NEW CONNECTIONS. UPON INSTALLATION OF THE NEW PIPING SYSTEM, THE ENTIRE SYSTEM (NEW & EXISTING) SHALL BE FLUSHED WITH A CHEMICAL CLEANSING AGENT.

4. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL CEILING GRILLES, REGISTERS AND DIFFUSERS.

5. PROVIDE VOLUME DAMPERS IN EACH BRANCH DUCT SERVING DIFFUSER WHETHER INDICATED OR NOT.

6. PROVIDE CABLE OPERATED DAMPERS IN BRANCH DUCT SERVING DIFFUSERS IN INACCESSIBLE CEILING LOCATIONS WHETHER INDICATED OR NOT.

7. LOCATE ALL DUCT BALANCING DAMPERS ABOVE ACCESSIBLE CEILINGS, OR PROVIDE ACCESS DOORS.

8. INSTALL ALL FLOOR MOUNTED HVAC EQUIPMENT, INCLUDING AHU'S, PUMPS, CHILLERS, ETC.

ON 4" CONCRETE PADS UNLESS OTHERWISE INDICATED.

9. PROVIDE TRAPPED CONDENSATION DRAIN PIPING FROM COOLING COIL DRAIN PAN TO DISCHARGE POINT INDICATED. (REFER TO PLUMBING PLANS FOR FLOOR DRAIN LOCATIONS).

10. ALL CONCRETE HOUSEKEEPING PADS FOR HVAC EQUIPMENT ARE BY DIVISION 15 (23).

11. RUN REFRIGERATION PIPING FROM AIR COOLED CONDENSING UNITS TO RESPECTIVE DX COOLING COILS. ROUTE AND SIZE PIPING PER EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.

12. DUCTWORK INDICATED BY SINGLE LINE REPRESENTATION ARE GENERALLY SMALLER BRANCH ZONE DUCTS. COORDINATE ELEVATIONS AND PROVIDE NECESSARY OFFSETS.

13. ALL HWS AND HWR PIPING SERVING RADIATION SHALL BE CONCEALED IN WALLS OR FLOORS UNLESS OTHERWISE NOTED.

14. WHEREVER EXISTING SYSTEMS ARE ALTERED OR EXTENDED THE INTEGRITY OF THE SYSTEM IS TO BE MAINTAINED AND FUNCTION FULLY AS BEFORE. COORDINATE SCHEDULE FOR HOOK-UPS TO EXISTING SYSTEMS AND EQUIPMENT REMOVAL OR RELOCATION WITH THE OWNER AND PERFORM THIS WORK AT SUCH TIMES TO ENSURE THAT PERIODS OF SHUTDOWN WILL BE ACCEPTABLE TO THE OWNER.

15. VERIFY EXACT LOCATION OF CONNECTION POINTS (NEW TO EXISTING) IN FIELD PRIOR TO CONSTRUCTION.

16. RELOCATE EXISTING DUCTWORK AND/OR PIPE WORK IN EXISTING CEILING SPACES TO ACCOMMODATE ALL RENOVATIONS AND ADDITIONS.

17. TAKE DOWN AND REINSTALL EXISTING CEILINGS IN ALL AREAS WHERE MECHANICAL WORK IS INDICATED AND EXISTING CEILINGS REMAIN. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN DRAWINGS FOR LOCATIONS WHERE EXISTING CEILINGS REMAIN. REPLACE CEILING TILES DAMAGED DURING WORK.

18. PATCH ALL WALLS, FLOORS, CEILINGS, AND ROOFS TO MATCH EXISTING IN ALL CASES WHERE EXISTING WALLS, FLOORS, CEILINGS, AND ROOFS REMAIN AND HVAC DEMOLITION IS INDICATED.

19. THIS PROJECT CONSISTS OF MULTIPLE PHASES OF CONSTRUCTION OVER A SPECIFIED TIME PERIOD. PROVIDE ALL WORK NECESSARY TO KEEP EXISTING SYSTEMS IN SAFE OPERATION. PROVIDE ISOLATION (SHUTOFF) VALVES AT ALL CONNECTION POINTS TO EXISTING SYSTEMS.

20. PROVIDE FIRE DAMPERS, SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS AS REQUIRED TO MAINTAIN WALL & FLOOR RATINGS AS DEFINED IN ARCHITECTURAL DRAWINGS.

21. PROVIDE PITCH CORRECTION CURBS FOR ALL MECHANICAL EQUIPMENT AS REQUIRED. ROOF MOUNTED EQUIPMENT TO BE INSTALLED PLUMB AND LEVEL ACCORDING TO EQUIPMENT MANUFACTURERS INSTALLATION INSTRUCTIONS.

22. PROVIDE STAINLESS STEEL DRIP PANS WITH LEAK DETECTION FOR ALL SUSPENDED EQUIPMENT WITH COOLING COILS. LEAK DETECTION ALARM TO ALERT TO BMS.

## MECHANICAL DRAWING LIST




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ARCHITECTS
ENGINEERS
INTERIORS

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Project Title:

TENANT FIT-OUT:
POPUP BAGELS
661 DRIGGS AVENUE
BROOKLYN, NY 11211

| Revision: | Description: | Date: | Revised By: |
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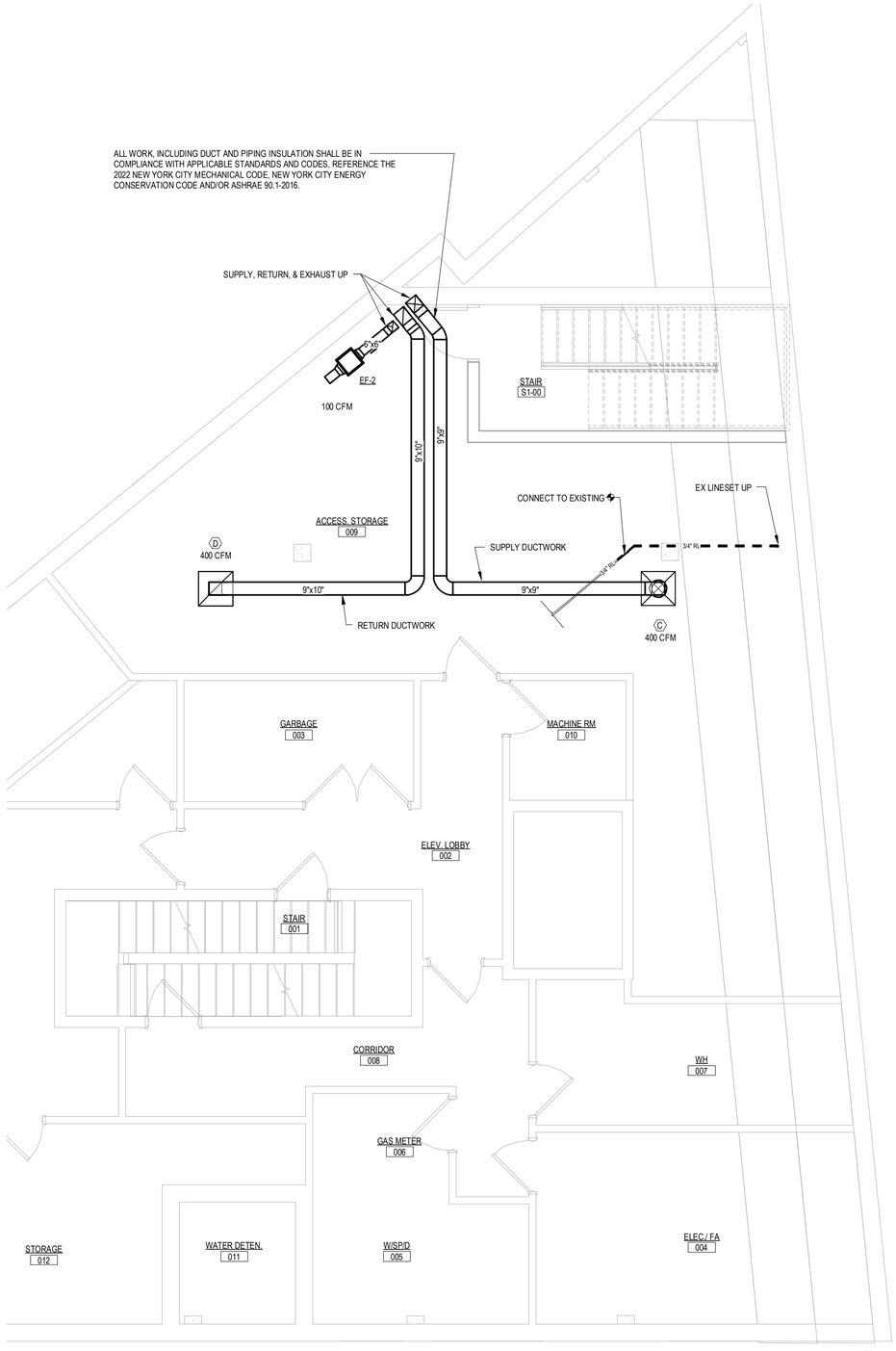
Date: 8/20/24 | Scale: 12" = 1'-0"
Drawn By: MPB | Project Number: 24-119

Sheet Title:
GENERAL MECHANICAL NOTES

Sheet Number:
M-100.00

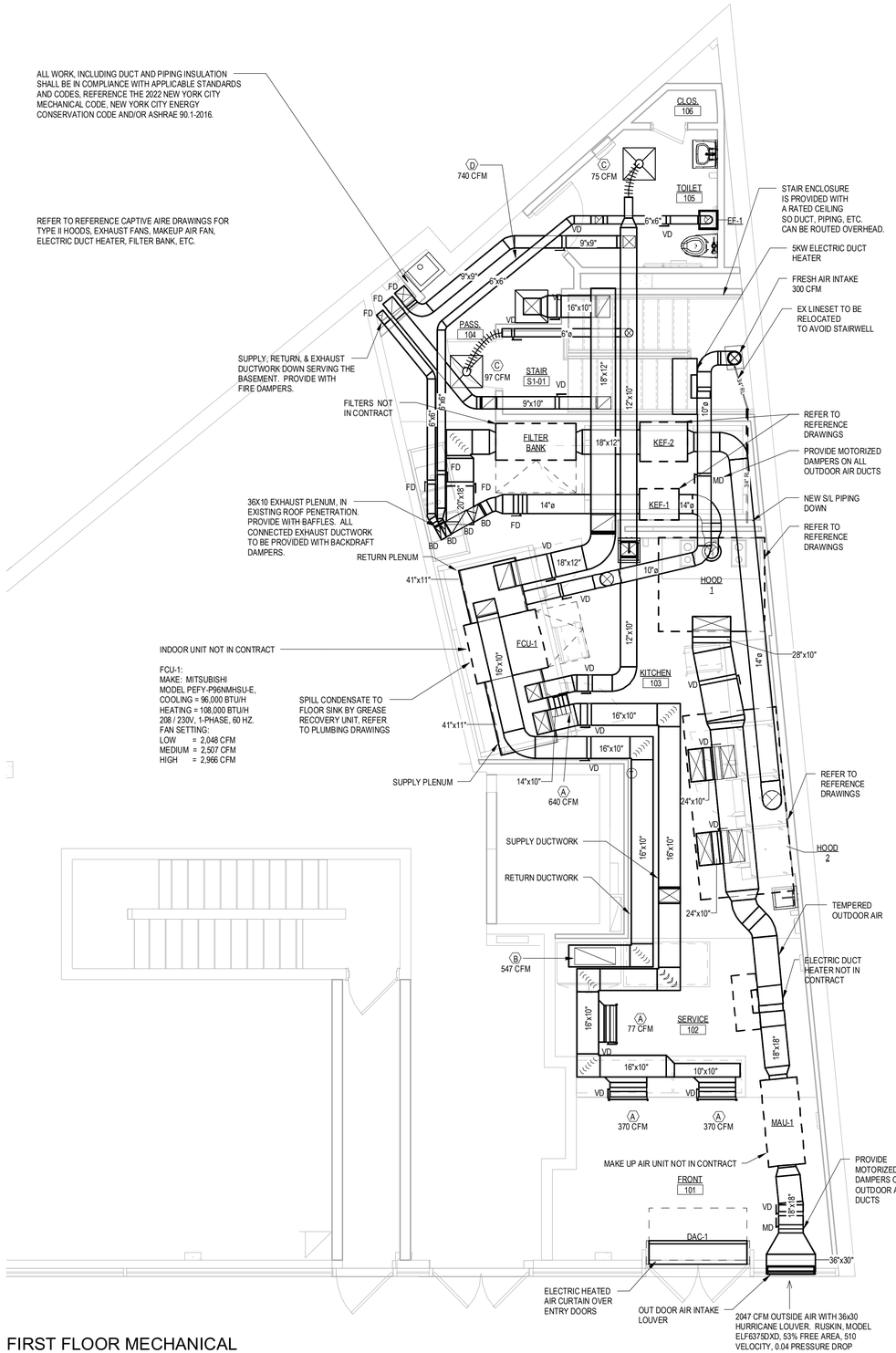


FULL SIZE SHEET: 24"X36"




## 2 BASEMENT MECHANICAL PLAN

1/4" = 1'-0"




## 1 FIRST FLOOR MECHANICAL

1/4" = 1'-0"

FULL SIZE SHEET: 24"x36"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Date: 8/20/24 | Scale: 1/4" = 1'-0"

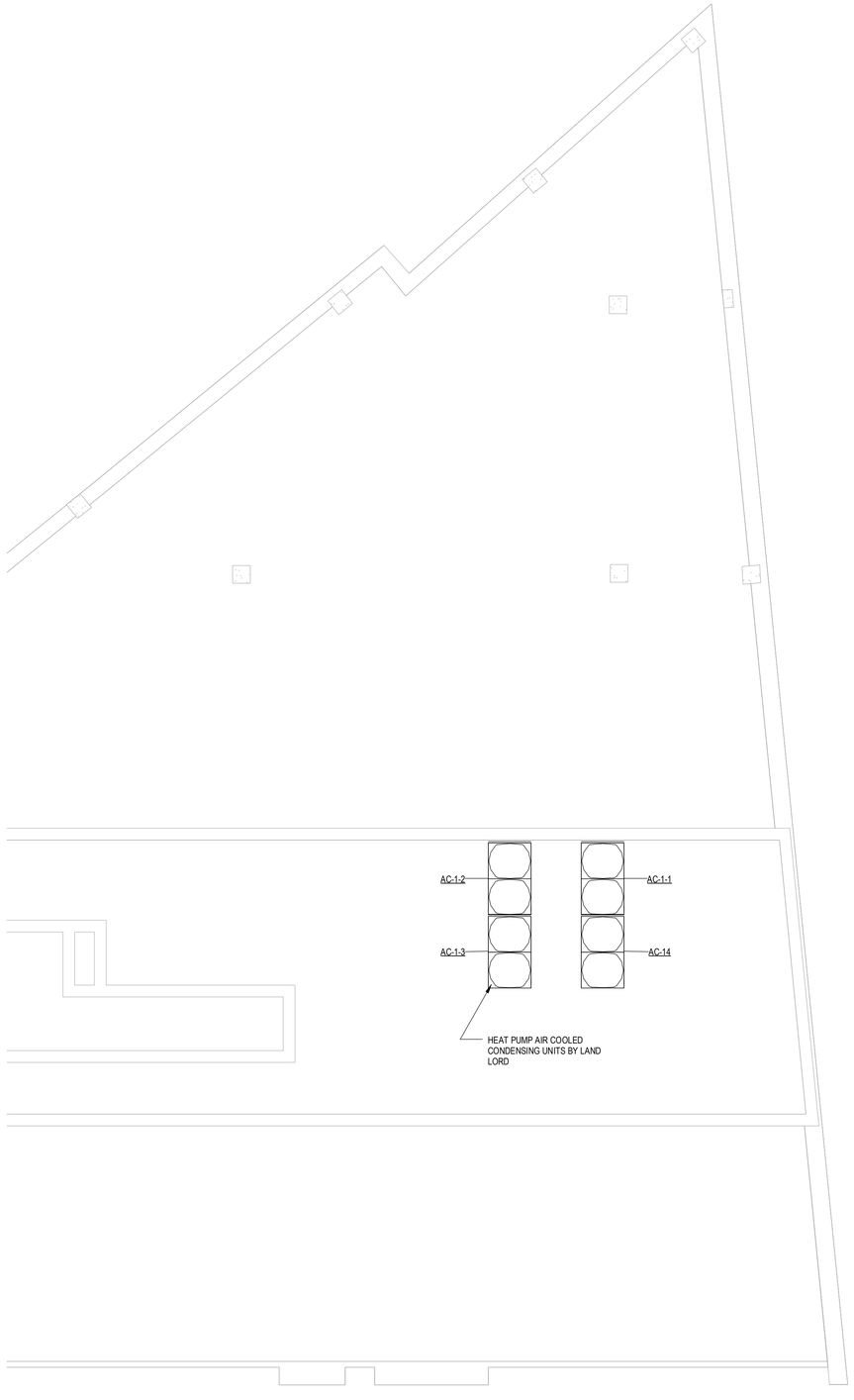
Drawn By: MPB | Project Number: 24-119

Sheet Title:

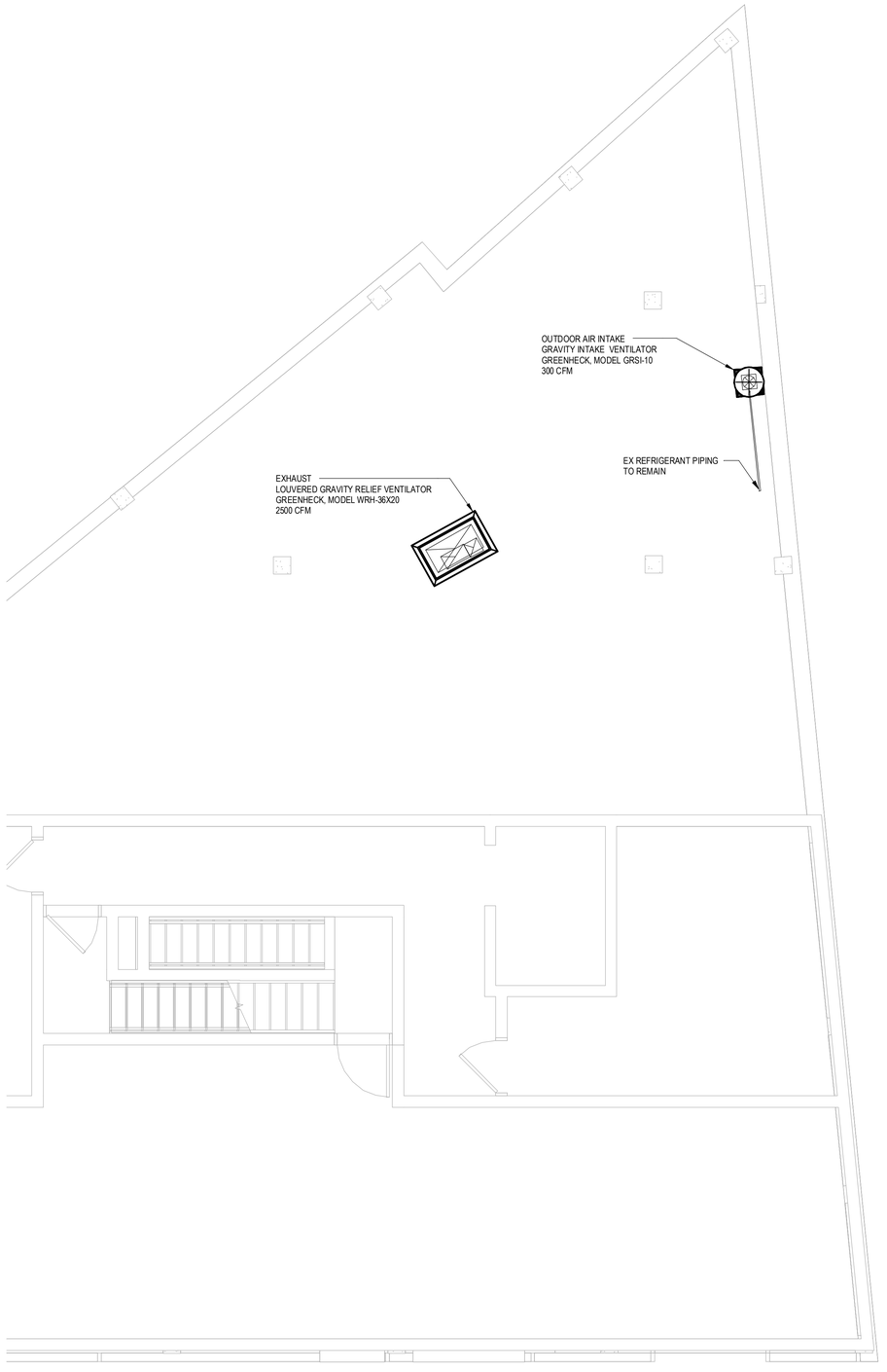
MECHANICAL BASEMENT AND FIRST FLOOR PLAN

Sheet Number:

# M-101.00




2 HIGH ROOF PLAN
1/4" = 1'-0"




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

FULL SIZE SHEET: 24"x36"

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Sheet Title:
MECHANICAL ROOF PLANS

Sheet Number:
M-102.00

## DUCT MATERIAL SCHEDULE

| APPLICATION | SUPPLY | RETURN | EXHAUST |
|---|---|---|---|
| TYPICAL (UNLESS OTHERWISE SPECIFIED) | G90 GALVANIZED STEEL | G90 GALVANIZED STEEL | G90 GALVANIZED STEEL |
| 10 FT UPSTREAM AND DOWNSTREAM OF DUCT MOUNTED HUMIDIFIER DISPERSION TUBE OR DISPERSION GRID. | 3003 H-14 ALUMINUM | 3003 H-14 ALUMINUM | 3003 H-14 ALUMINUM |
| OUTDOOR AIR INTAKE PLENUM | 3003 H-14 ALUMINUM | -- | -- |
| OUTDOOR AIR | 3003 H-14 ALUMINUM | -- | -- |
| TYPE I COMMERCIAL KITCHEN HOOD EXHAUST DUCT & PLENUM | -- | -- | 10 GAUGE ALL WELDED EXPOSED: 304 STAINLESS STEEL No. 4 FINISH CONCEALED: CARBON STEEL |
| EXPOSED AND CONCEALED EXHAUST DUCTWORK AND PLENUMS SERVING TOILET ROOMS, SHOWER ROOMS, CLOTHES DRYER. ALL DUCTWORK RUNNING THROUGH, OVER OR SERVING SHOWER ROOMS, HATCHERIES, AND ALL SPACES WITH OPEN TANKS. | 3003 H-14 ALUMINUM | 3003 H-14 ALUMINUM | 3003 H-14 ALUMINUM |
| EXPOSED DUCTWORK LOCATED IN AND SERVING AIR-CONDITIONED SPACES TO BE FIELD PAINTED OTHER THAN DUCTWORK LOCATED IN SPACES REQUIRED TO BE ALUMINUM. | A60 GALVANNEALED STEEL | A60 GALVANNEALED STEEL | A60 GALVANNEALED STEEL |
| EXPOSED DUCTWORK LOCATED IN AND SERVING CONDITIONED SPACES OTHER THAN DUCTWORK LOCATED IN SPACES REQUIRED TO BE ALUMINUM. | G90 GALVANIZED STEEL | G90 GALVANIZED STEEL | G90 GALVANIZED STEEL |
| EXPOSED DUCTWORK LOCATED IN AND SERVING CONDITIONED SPACES OTHER THAN DUCTWORK LOCATED IN SPACES REQUIRED TO BE ALUMINUM OR TO BE FIELD PAINTED. | G90 GALVANIZED STEEL | G90 GALVANIZED STEEL | G90 GALVANIZED STEEL |
| DISHWASHER HOOD | -- | -- | 304 STAINLESS STEEL EXPOSED: No. 4 FINISH CONCEALED: No. 2D FINISH |

1. DUCT CONSTRUCTION SHALL MEET SMACNA METAL & FLEXIBLE 2005 3RD EDITION STANDARDS.

## DUCT INSULATION SCHEDULE

| SYSTEM | INSULATION TYPE | MINIMUM INSTALLED INSULATION VALURS | NOMINAL DENSITY |
|---|---|---|---|
| INDOOR DUCT/PLENUM<br>CONCEALED SA, RA, OA: OTHER THAN PRE-MANUFACTURED LINEAR SUPPLY AND RETURN GRILLE PLENUMS. | MINERAL FIBER BLANKET | SEE NOTE 1 | SEE NOTE 1 |
| | MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER. | SEE NOTE 1 | SEE NOTE 1 |
| INDOOR DUCT/PLENUM<br>EXPOSED SA AND RA: LOCATED IN MECHANICAL ROOMS, OTHER NON-OCCUPIED SPACES, NON-AIR CONDITIONED SPACES, PASSING THROUGH AIR CONDITIONED SPACES. | MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER. | SEE NOTE 1 | SEE NOTE 1 |
| INDOOR DUCT/PLENUM<br>EXPOSED OA: ALL SPACES OTHER THAN ATTICS AND CRAWLSPACES | MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER. | SEE NOTE 1 | SEE NOTE 1 |
| INDOOR DUCT/PLENUM<br>EXPOSED SA, RA, OA, EA: ALL ATTIC SPACES AND CRAWL SPACES | MINERAL FIBER BLANKET | SEE NOTE 1 | SEE NOTE 1 |
| | MINERAL FIBER BOARD WITH REFLECTIVE VAPOR BARRIER. | SEE NOTE 1 | SEE NOTE 1 |
| INDOOR DUCT/PLENUM<br>EXPOSED SA AND RA: LOCATED WITHIN THE AIR-CONDITIONED SPACE IT SERVES. | NONE; UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE SPECIFICATION. | SEE NOTE 1 | SEE NOTE 1 |
| DUCT LINING<br>DUCTS INSTALLED OUTDOORS, ALL ATTIC SPACES AND CRAWL SPACES SA AND RA. SA AND RA DUCTWORK WHERE INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION, 15 FT DOWNSTREAM OF SUPPLY FANS, RETURN FANS AND 10 FT DOWNSTREAM OF TERMINAL BOXES WHETHER INDICATED OR NOT. | FIBROUS-GLASS DUCT LINER WITH CLEANABLE COMPOSITE COATING ON AIRSTREAM SIDE. METAL NOSING SHALL BE FURNISHED ON ALL LEADING AND LEAVING EDGES. (REFER TO NOTES #2, #4) | SEE NOTE 1 | SEE NOTE 1 |
| DUCT LINING<br>DUCTS INSTALLED IN INDOOR SPACES: EXPOSED AND CONCEALED SA OR RA DUCTWORK WHERE INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION, 15 FT DOWNSTREAM OF SUPPLY FANS, RETURN FANS AND 10 FT DOWNSTREAM OF TERMINAL BOXES WHETHER INDICATED OR NOT. | FIBROUS-GLASS DUCT LINER WITH CLEANABLE COMPOSITE COATING ON AIRSTREAM SIDE. METAL NOSING SHALL BE FURNISHED ON ALL LEADING AND LEAVING EDGES. (REFER TO NOTES #2, #4) | SEE NOTE 1 | SEE NOTE 1 |
| ABOVEGROUND, OUTDOOR DUCT/PLENUM<br>CONCEALED OR EXPOSED SA, RA, AND OA. | MINERAL FIBER BOARD<br>(REFER TO NOTE #1) | SEE NOTE 1 | SEE NOTE 1 |
| EXHAUST AIR SYSTEMS<br>DRYER, LABORATORY FUME HOOD, KILN AND ALL OTHER EXHAUST SYSTEMS WHERE FIRE, SMOKE AND FIRE/SMOKE DAMPERS ARE NOT PERMITTED TO BE INSTALLED WITHIN THE DUCTWORK. | FIRE-RATED BLANKET OR BOARD<br>(REFER TO NOTE #5) | SEE NOTE 1 | SEE NOTE 1 |
| CONCEALED TYPE I COMMERCIAL KITCHEN HOOD<br>EXHAUST DUCT & PLENUM. | FIRE-RATED BLANKET OR BOARD | SEE NOTE 1 | SEE NOTE 1 |

NOTES:

1. DUCT INSULATION SHALL BE IN COMPLIANCE WITH APPLICABLE STANDARDS AND CODES, REFERENCE THE 2022 NEW YORK CITY MECHANICAL CODE, NEW YORK CITY ENERGY CONSERVATION CODE AND/OR ASHRAE 90.1-2016.
2. FOR OUTDOOR DUCTWORK PROVIDE A PRE-MANUFACTURED SELF ADHERING PRODUCT WITH AN UV RESISTANT, STUCCO EMBOSSED FACING. WATER VAPOR TRANSMISSION OF THE INSTALLED PRODUCT SHALL BE .020 PERMS OR LESS. PRODUCT SHALL BE SUITABLE FOR CONTINUOUS USE IN LOW TEMPERATURES OF -10°F. MANUFACTURERS SHALL BE SIMILAR TO FLEX-CLAD 400, MFM BUILDING PRODUCTS CORP. OR ALUMAGUARD 60, POLYGUARD PRODUCTS, INC.
3. DUCT LINING SHALL NOT BE INSTALLED WITHIN 10 FT UPSTREAM OR DOWNSTREAM OF A DUCT MOUNTED HUMIDIFIER DISPERSION TUBE OR DISPERSION GRID.
4. INSULATION TYPES INDICATED IN THE SCHEDULE SHALL USED UNLESS OTHERWISE INDICATED ON THE PLANS OR SPECIFICATIONS.
5. CLOSED CELL, FIBER FREE, ANTI-MICROBIAL COATED, LOW VOC CERTIFIED, MOISTURE AND MOLD RESISTANT DUCT LINING SHALL BE PROVIDED IN DUCTWORK AND EQUIPMENT WITHIN HOSPITAL AND HEALTHCARE FACILITIES AND ROOMS CLASSIFIED AS MOIST OR WET ENVIRONMENTS WHERE THIS SCHEDULE, DRAWINGS AND SPECIFICATION INDICATE DUCT LINING.
6. DUCTWORK SHALL BE FIRE WRAPPED FROM THE APPLIANCE CONNECTION TO THE TERMINATION POINT.

ABBREVIATIONS:

OA = OUTDOOR AIR DUCTWORK
SA = SUPPLY AIR DUCTWORK
RA = RETURN AIR DUCTWORK
EA = EXHAUST AIR DUCTWORK

## VIBRATION-CONTROL AND SEISMIC-RESTRAINT DEVICE SCHEDULE

| EQUIPMENT | BASE | ISOLATOR* | SEISMIC RESTRAINT | DEFLECTION |
|---|---|---|---|---|
| CONDENSING UNITS (GRADE AND ROOF MOUNTED) | 24" HIGH EQUIPMENT RAILS | NP | LAG BOLT TO RAIL. RAIL TO BE ATTACHED TO STRUCTURE. | 0.2" |
| SUSPENDED CABINET UNIT HEATERS | -- | HN | CABLE RESTRAINTS | 0.25" |
| VAV BOXES LESS THEN 50BLS IN WEIGHT | -- | -- | CABLE RESTRAINTS | -- |
| SUSPENDED INLINE FANS | -- | HSN | CABLE RESTRAINTS | 1.5" |
| INDOOR CEILING MOUNTED AIR HANDLING UNITS | -- | HSN | CABLE RESTRAINTS | 1.2" |
| CEILING MOUNTED FAN COIL UNITS | -- | HSN | CABLE RESTRAINTS | 1.2" |
| FAN POWERED VAV UNITS | -- | HN | CABLE RESTRAINTS | 0.25" |
| ROOF MOUNTED FANS | SRC | -- | -- | -- |
| PIPING WITHIN 50FT OF CONNECTION TO ANY PIECE OF EQUIPMENT WITH A MOTOR | -- | HSN | -- | 1.2" |
| DUCTWORK IN MECH. ROOMS OR WITHIN 50FT OF CONNECTED VIBRATION-ISOLATED EQUIPMENT | -- | HN | -- | 0.25" |

REMARKS:
(NP) - NEOPRENE PAD, (DNP) - DOUBLE NEOPRENE PAD, (FNC) - FLOOR NEOPRENE RESTRAINED MOUNTS, (FSN) - FLOOR SPRING AND NEOPRENE SPRING ISOLATOR, (FSNTL) - FLOOR SPRING AND NEOPRENE TRAVEL LIMITED RESTAINED SPRING ISOLATOR, (HN) - NEOPRENE HANGER, (HSN) - SPRING AND NEOPRENE HANGER, (RC2) - ROOF CURB, TYPE 2, (BSF) - BASE, STEEL FRAME, (BIB) - BASE, INERTIA BASE, (FPC) - FLEXIBLE PIPE CONNECTIONS, (SRC) - SEISMIC ROOF CURB.

* IN ADDITION TO ANY INTERNAL VIBRATION ISOLATION.
** SYSTEM SHALL BE DESIGNED TO BE 90% EFFICIENT.

## FAN SCHEDULE

| MARK | LOCATION | SYSTEM SERVED | TYPE | CFM | SP | MAX BHP | FAN RPM | TIP SPEED | SOUND SONES | ELECTRICAL DATA | | | | MAKE/ MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | HP | VOLTS | Ø | MOP | | |
| EF-1 | TOILET | EXHAUST | CEILING | 75 | .5 | .01 | 771 | - | 3 | 0.01 | 115 | 1 | 15 | GREENHECK SP-LP0511-1 | DIRECT DRIVE |
| EF-2 | BASEMENT | EXHAUST | INLINE | 100 | .5 | .065 | 825 | - | 1.3 | 56.8 WATTS | 115 | 1 | 15 | GREENHECK CSP-A200 | DIRECT DRIVE |

REMARKS:

1. ALL FANS SHALL BE BALANCED TO AIRFLOW QUANTITY INDICATED ON PLANS AT INLETS AND OUTLETS.
2. PROVIDE SPEED CONTROLLERS.
3. PROVIDE BACKDRAFT DAMPERS.
4. PROVIDE VIBRATION ISOLATION
5. PROVIDE MOTOR COVERS/BELT GUARDS.

## DOOR AIR CURTAIN SCHEDULE

| MARK | LOCATION | NOZZLE LENGTH | CFM | VEL (FPM) | FAN MOTOR DATA | | | MTG. HT. (A.F.F.) | MAKE/ MODEL | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | HP | VOLT | Ø | | | |
| DAC-1 | FRONT DOOR | 6'-0" | 2080 | 1387 | (2)@1/2 | 208 | 3 | VERIFY IN FIELD | MARS STD272-2E6312 | HEATED, 12 KW |

REMARKS:

1. PROVIDE WITH FACTORY DISCONNECT, MOUNTING BRACKETS, FILTERS,

## REGISTERS, GRILLES & DIFFUSERS

| SYM | SERVICE | TYPE | MAKE | MODEL | MATERIAL FINISH | NECK SIZE | FACE SIZE | CFM RANGE | ACCESSORIES |
|---|---|---|---|---|---|---|---|---|---|
| A | SUPPLY | CD | TITUS | 272 (FL / FS) | BY ARCH | 27x8 | -- | 0-675 | -- |
| B | RETURN | TR | TITUS | 23R | BY ARCH | 14x24 | -- | 0-535 | -- |
| C | SUPPLY | CD | TITUS | TDC | BY ARCH | 6"Ø | 24x24 | 0-100 | -- |
| | | | | | | 8"Ø | 24x24 | 101-220 | -- |
| | | | | | | 10"Ø | 24x24 | 221-375 | -- |
| | | | | | | 12"Ø | 24x24 | 376-475 | -- |
| | | | | | | 14"Ø | 24x24 | 476-650 | -- |
| | | | | | | 16"Ø | 24x24 | 651-850 | -- |
| D | RETURN | CG | TITUS | 355 RL | BY ARCH | 22x22 | 24x24 | 0-2000 | -- |

## VENTILATION INDEX BASED ON MC TABLE 403.3

| LOCATION | AREA (SFT) | OCCUPANT LOAD (PERSONS) | PEOPLE OUTDOOR AIR (CFM/PERSONS) | AREA OUTDOOR AIR (CFM/SFT) | REQUIRED OUTDOOR AIR (CFM) | EXHAUST AIRFLOW (CFM/SFT) | EXHAUST AIRFLOW (CFM) TX/KX |
|---|---|---|---|---|---|---|---|
| ACCESS STORAGE | 773 | 6 | – | 0.06 | 0.06 x 773 = 46 | – | 100 / 0 |
| PASS | 80 | 0 | – | 0.06 | 0.06 x 80 = 4.8 | – | -- |
| KITCHEN | 518 | 5 | – | 0.18 | 0.18 x 518 = 93 | – | 0 / 2,325 |
| SERVICE | 149 | 1 | – | 0.18 | 0.18 x 149 = 27 | – | -- |
| FRONT | 162 | 5 | – | 0.06 | 0.06 x 162 = 10 | – | -- |
| TOILET | 77 | 0 | – | -- | -- | – | 100 / 0 |


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SEAL & S


Project Title:

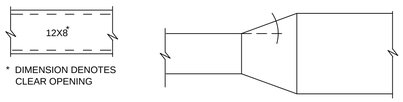
TENANT FIT-OUT:
POPUP BAGELS
661 DRIGGS AVENUE
BROOKLYN, NY 11211

| Revision: | Description: | Date: | Revised By: |
|---|---|---|---|
| | | | |

Date: 8/20/24 | Scale: NONE
Drawn By: MPB | Project Number: 24-119

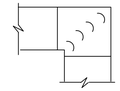
Sheet Title:
MECHANICAL SCHEDULES
SHEET 1

Sheet Number:
M-103.00



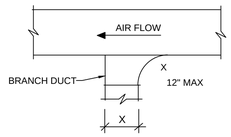

* DIMENSION DENOTES CLEAR OPENING

ACOUSTICALLY LINED DUCT

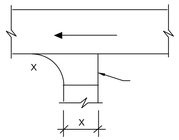


ONLY ACCEPTABLE WERE SPACE DOES NOT PERMIT THE USE OF RADIUS ELBOWS

SQUARE ELBOW

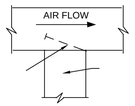



SUPPLY TAP

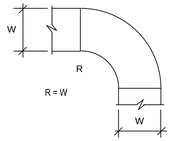


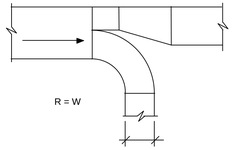

NOTE:

SPECIFICATIONS EXCEED SMACNA STANDARDS IN SOME INSTANCES. SMACNA SHALL BE CONSIDERED THE MINIMUM STANDARD UNLESS OTHERWISE NOTED ON THE DRAWINGS, DETAILS OR IN THE SPECIFICATIONS.



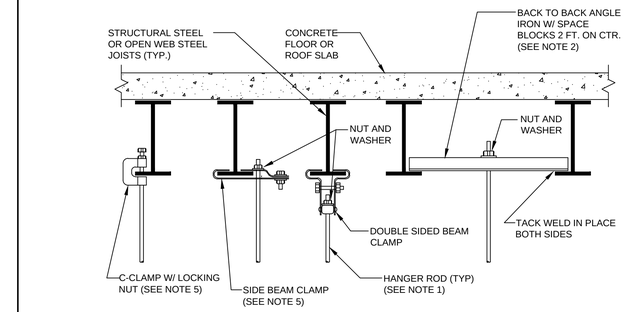

TAKE-OFF TO EXPOSED SIDEWALL REGISTER




## DUCT CONSTRUCTION DETAIL

NOT TO SCALE




NOTES:

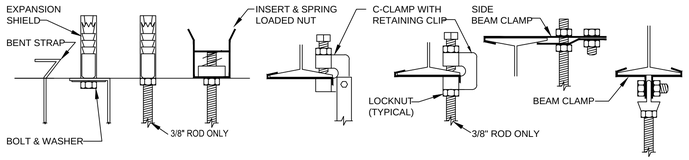
1. REFER TO SPECIFICATIONS FOR PIPE HANGER ROD SIZE. FOR CEILING SUSPENDED EQUIPMENT PROVIDE MIN. 3/8" DIA. HANGER ROD (REFER TO MANUFACTURERS INSTALLATION INSTRUCTIONS).
2. FOR PIPES UNDER 2" USE A SINGLE 1-1/2"x1-1/2"x1/4" ANGLE IRON WITH C-CLAMP. FOR PIPES 2-1/2" AND LARGER USE 3"x3"x1/4" ANGLE IRON BACK TO BACK AS SHOWN.
3. REFER TO "TYPICAL METHOD OF SECURING HANGER RODS TO CONCRETE DECK DETAIL" FOR ATTACHING HANGER RODS TO CONCRETE DECK.
4. REPAIR OF FIREPROOFING IN ORDER TO FACILLITATE THE INSTALLATION OF HANGER RODS IN EXISTING CONSTRUCTION SHALL BE BY THE G.C.
5. USE OF C-CLAMPS AND SIDE BEAM CLAMPS IS LIMITED TO PIPING 2-1/2" AND UNDER.

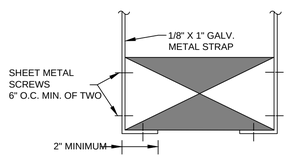
## TYPICAL METHOD OF SECURING HANGER RODS TO STRUCTURAL STEEL DETAIL

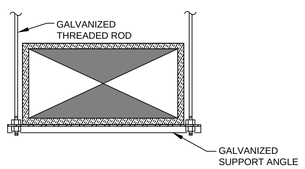
NOT TO SCALE

| DUCT WIDTH | SUPPORT ANGLE OR EQUIV. CHANNEL | ROD DIA. | MAXIMUM SPACING | MAXIMUM AREA * |
|---|---|---|---|---|
| 25" TO 30" | 1 1/2" X 1 1/2" X 1/8" | 3/8" | 8'-0" O.C. | 4 SQ. FT. |
| 31" TO 42" | 1 1/2" X 1 1/2" X 1/8" | 3/8" | 6'-0" O.C. | 10 SQ. FT. |
| 43" TO 60" | 1 1/2" X 1 1/2" X 1/8" | 1/2" | 6'-0" O.C. | 10 SQ. FT. |
| 61" TO 84" | 2" X 2" X 1/4" | 1/2" | 4'-0" O.C. | - |
| 85" AND UP | 2" X 2" X 1/4" | 1/2" | 4'-0" O.C. | - |

* REDUCE SPACING TO NEXT SMALLER INTERVAL IF DUCT AREA EXCEEDS MAXIMUM



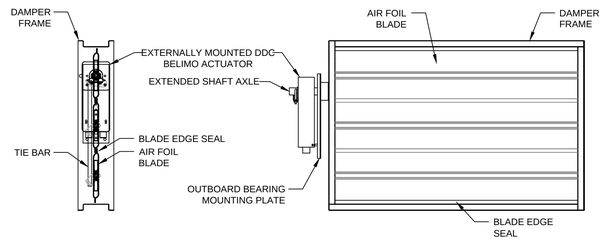




25" OR WIDER

## DUCT SUPPORT DETAIL

NOT TO SCALE




SIDE VIEW

FRONT VIEW

## DAMPER UNIT WITH EXTERNAL MOUNTED ELECTRONIC ACTUATOR DETAIL

NOT TO SCALE


ARCHITECTS ENGINEERS INTERIORS

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|---|---|---|---|

Date: 8/20/24 | Scale: NONE

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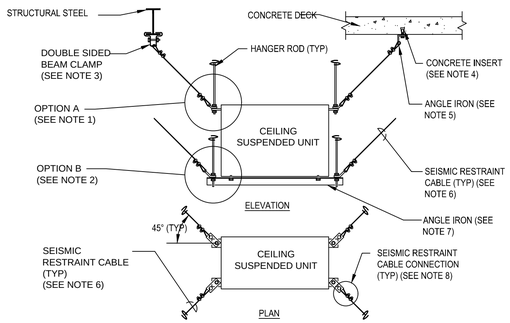
MECHANICAL DETAILS
SHEET 1

Sheet Number:

M-104.00

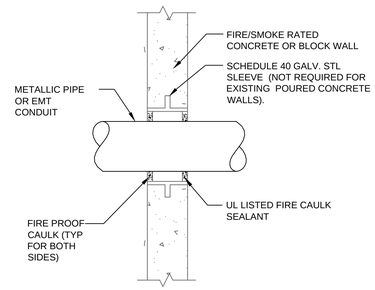



NOTES:

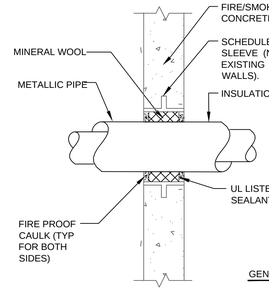
1. OPTION A APPLIES TO EQUIPMENT HAVING TOP OR SIDE ATTACHMENT.
2. OPTION B APPLIES TO EQUIPMENT SUPPORTED FROM THE BOTTOM OF THE EQUIPMENT.
3. USE DOUBLE SIDED BEAM CLAMPS FOR ATTACHMENT TO STRUCTURAL STEEL OR JOISTS.
4. USE CONCRETE INSERTS FOR ATTACHMENT TO CONCRETE DECK TYPE CONSTRUCTION.
5. ANGLE IRON SHALL BE 2-1/2"x5"x1/4" ANGLE 2" WIDE WITH (2) 9/16" HOLES FOR FASTENING TO CONCRETE DECK.
6. SIZE CABLE BASED ON SEISMIC HAZARD LEVEL SPECIFIED. PROVIDE CABLE WITH 1/2" OF SLACK WHERE CABLES ARE USED WITH VIBRATION ISOLATED EQUIPMENT.
7. PROVIDE 2 ANGLES FOR BOTTOM SUPPORT OF UNIT (OPTION B). PROVIDE (4) 2"x 2"x 2"x1/4" ANGLES WELDED TO BOTTOM SUPPORT ANGLES AND TO UNIT. (THIS IS NOT REQUIRED WHERE UNIT IS PROVIDED WITH BOTTOM MOUNTING HOLES).
8. REFER TO SMACNA-"SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS" FOR CABLE CONNECTION DETAIL.

## TYPICAL SEISMIC BRACING FOR SUSPENDED EQUIPMENT DETAIL

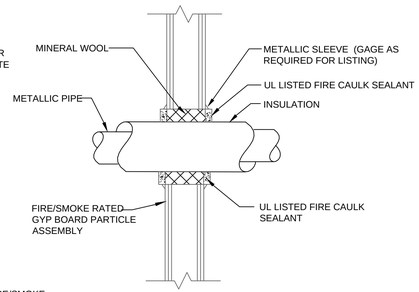
NOT TO SCALE




NON INSULATED PIPE/ CONDUIT




INSULATED PIPE



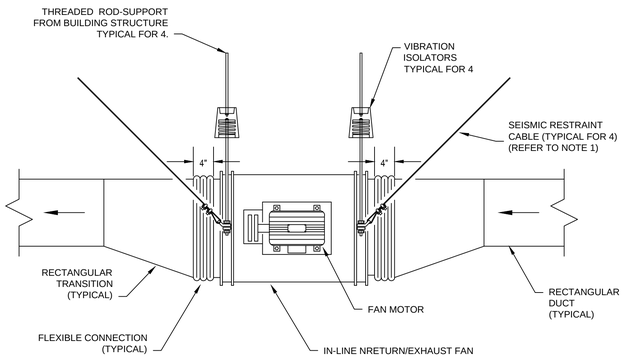

INSULATED/NON INSULATED PIPE

GENERAL NOTES:

PROVIDE UL LISTED FIRE/SMOKE PENETRATION ASSEMBLY IN ACCORDANCE W/ UL1479, ASTM E814 REQUIREMENTS FOR WALL TYPE, RATING, PIPE SIZE AND INSULATION THICKNESS INSTALLED. PLASTIC PIPE SYSTEMS: REFER TO MANUFACTURERS REQUIREMENTS.

## PIPE PENETRATION WITH FIRE / SMOKE SEAL

NOT TO SCALE

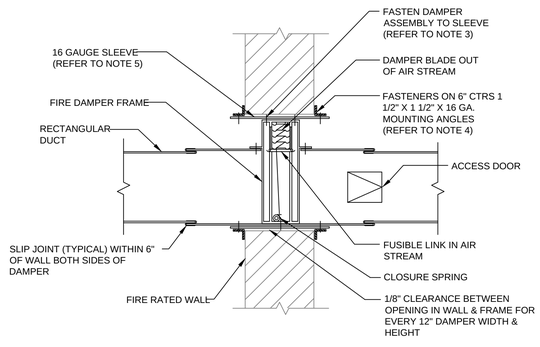



NOTES:

1. INSTALL SEISMIC RESTRAINT CABLE PER SPECIFICATIONS, SMACNA SEISMIC RESTRAINT MANUAL-GUIDLINES FOR MECHANICAL SYSTEMS.

## INLINE CENTRIFUGAL FAN INSTALLATION DETAIL

NOT TO SCALE

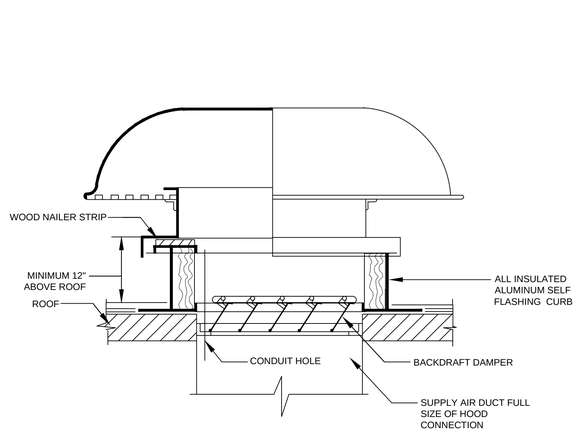



NOTES:

1. INSTALL ACCESS DOOR IN DUCT FOR DAMPER ACCESS. ACCESS DOORS SHALL BE DOUBLE WALL WHEN LOCATED IN INSULATED DUCTWORK.
2. INSTALL IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS AND NFPA-90A.
3. REFER TO SMACNA-"FIRE, SMOKE AND RADIATION DAMPER INSTALLATION GUIDE FOR HVAC SYSTEMS" FOR FIRE DAMPER INSTALLATION DETAILS.
4. MOUNTING ANGLES SHALL BE 2" X 2" X 16 GA. FOR DAMPERS 48" OR LARGER IN WIDTH OR HEIGHT.
5. SLEEVE THICKNESS SHALL NOT BE LESS THAN THE GAUGE OF THE DUCT.
6. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH U.L. 555.
7. VERTICAL DAMPER INSTALLATION IS INDICATED, HORIZONTAL MOUNTING IS SIMILAR.
8. PROVIDE ACCESS DOOR IN DRYWALL CEILINGS FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILINGS.
9. PROVIDE FIRE DAMPERS AT ALL PENETRATIONS OF WALLS WITH FIRE RATED CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS.

## FIRE DAMPER MOUNTING DETAIL

NOT TO SCALE




## ROOF INTAKE/EXHAUST INSTALLATION DETAIL

NOT TO SCALE


ARCHITECTS
ENGINEERS
INTERIORS

ARCHITECT:

**SILVER PETRUCELLI & ASSOC.**
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
P. 203 230 9007 silverpetrucelli.com

M/E/P/SP:

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3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
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SEAL & S


Project Title:

TENANT FIT-OUT:
POPUP BAGELS
661 DRIGGS AVENUE
BROOKLYN, NY 11211

| Revision: | Description: | Date: | Revised By: |
|---|---|---|---|

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|---|---|
| Date: 8/20/24 | Scale: NONE |
| Drawn By: MPB | Project Number: 24-119 |

Sheet Title:

MECHANICAL DETAILS
SHEET 2

Sheet Number:

M-105.00

## HOOD INFORMATION – JOB#6910421

| HOOD NO | TAG | MODEL | MANUFACTURER | LENGTH | MAX COOKING TEMP | TYPE | APPLIANCE DUTY | DESIGN CFM/FT | TOTAL EXH CFM | EXHAUST PLENUM RISER(S) WIDTH | LENG | HEIGHT | DIA | CFM | VEL | SP | TOTAL SUPPLY CFM | HOOD CONSTRUCTION | HOOD CONFIG END TO END | ROV |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HD1-Kettles | 5424 EX-2-PSP-F | ECON-AIR | 6' 6" | 450 DEG | II | N/A | 138 | 900 | | | 4" | 10" | 900 | 1650 | -0.222" | 765 | 430 SS WHERE EXPOSED | ALONE | ALONE |
| 2 | HD2-Ovens | 5424 EX-2-PSP-F | ECON-AIR | 10' 4" | 450 DEG | II | N/A | 138 | 1425 | | | 4" | 14" | 1425 | 1333 | -0.217" | 1282 | 430 SS WHERE EXPOSED | ALONE | ALONE |

## HOOD INFORMATION

| HOOD NO | TAG | FILTER(S) TYPE | QTY | HEIGHT | LENGTH | EFFICIENCY @ 7 MICRONS | LIGHT(S) QTY | TYPE | WIRE GUARD | UTILITY CABINET(S) LOCATION | SIZE | FIRE SYSTEM TYPE | FIRE SYSTEM SIZE | ELECTRICAL MODEL # | SWITCHES QUANTITY | FIRE SYSTEM PIPING | HOOD HANGING WEIGHT |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HD1-Kettles | CONDENSATE BAFFLE | 4 | 16" | 16" | N/A | 3 | L55 SERIES E26 | NO | | | | | | | NO | 460 LBS |
| 2 | HD2-Ovens | CONDENSATE BAFFLE | 7 | 16" | 16" | N/A | 4 | L55 SERIES E26 | NO | LEFT | 12"x54"x24" | | | SC-22111000 | 1 LIGHT 1 FAN | NO | 673 LBS |

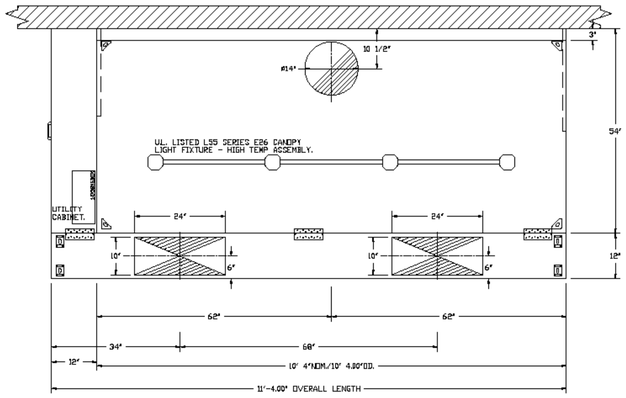
## HOOD OPTIONS

| HOOD NO | TAG | OPTION |
|---|---|---|
| 1 | HD1-Kettles | FIELD WRAPPER 7.00" HIGH FRONT, LEFT, RIGHT. |
| | | BACKSPLASH 80.00" HIGH X 78.00" LONG 430 SS VERTICAL. |
| | | RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |
| | | LEFT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |
| 2 | HD2-Ovens | FIELD WRAPPER 7.00" HIGH FRONT, LEFT, RIGHT. |
| | | BACKSPLASH 80.00" HIGH X 136.00" LONG 430 SS VERTICAL. |
| | | LEFT QUARTER END PANEL 23" TOP WIDTH, 0" BOTTOM WIDTH, 23" HIGH 430 SS. |
| | | RIGHT VERTICAL END PANEL 27" TOP WIDTH, 21" BOTTOM WIDTH, 80" HIGH INSULATED 430 SS. |

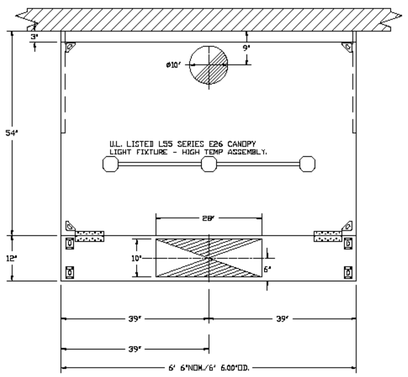
## PERFORATED SUPPLY PLENUM(S)

| HOOD NO | TAG | POS | LENGTH | WIDTH | HEIGHT | RISER(S) TYPE | WIDTH | LENG | DIA | CFM | SP |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | HD1-Kettles | Front | 78" | 12" | 6" | MUA | 10" | 28" | | 765 | 0.198" |
| 2 | HD2-Ovens | Front | 136" | 12" | 6" | MUA | 10" | 24" | | 641 | 0.178" |
| | | | | | | MUA | 10" | 24" | | 641 | 0.178" |

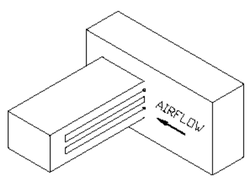
HOOD SYSTEMS IS TYPE 2 APPLICATION (HEAT, ODOR, & FUMES ONLY) APPLICATION. HOOD SUPPLIED WITH CONDENSATE BAFFLES TO ASSIST WITH GOOD FILTER VELOCITY ALONG ENTIRE LENGTH OF HOOD SYSTEM.




PLAN VIEW – HOOD #2 (HD2-Ovens)
10' 4.00" LONG 5424EX-2-PSP-F

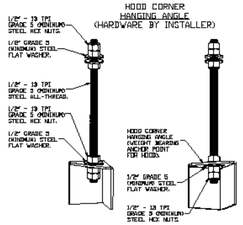



PLAN VIEW – HOOD #1 (HD1-Kettles)
6' 6.00" LONG 5424EX-2-PSP-F




ELECTRIC DUCT

ELECTRIC DUCT INSERT HEATER (INLINE), 2047 CFM, 208 VOLT, 3 PHASE, 26 KW, 2-STAGE HEATER, 72 AMPS AT FLA WITH SIZE 16 X 18 COIL. FLOW SWITCH, AND DUCT THERMOSTAT. SYSTEM TO HEAT AIR AN ADDITIONAL 40 DEGREES MAX (DELTA). ELECTRICIAN ALSO TO PROVIDE EXTERNAL DISCONNECT IF REQUIRED BY LOCAL CODE OFFICIALS.

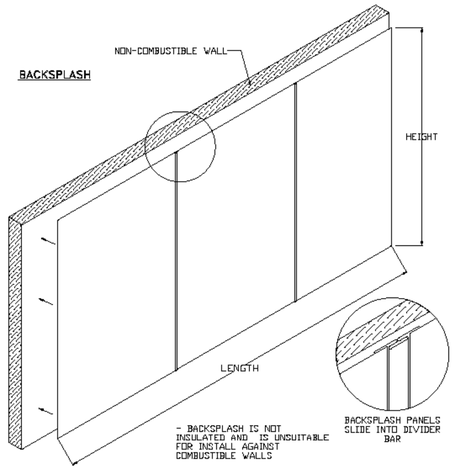


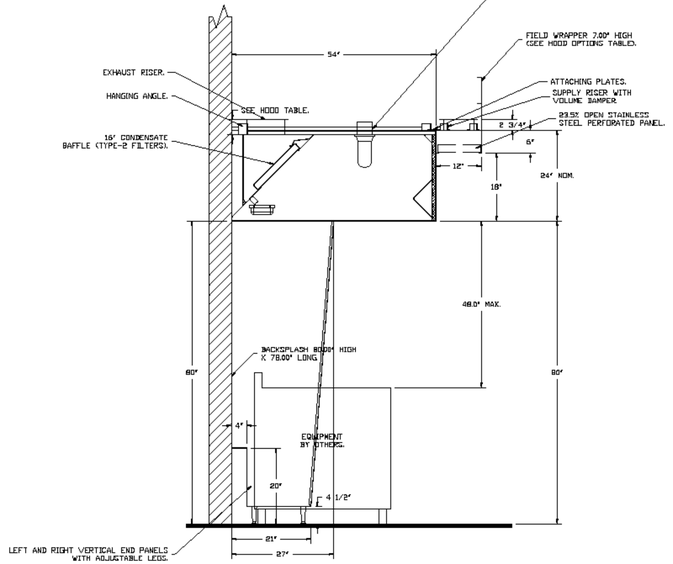

ASSEMBLY INSTRUCTIONS

HANGING ANGLE MUST BE SUPPORTED WITH 1/2" - 13 TPI GRADE 5 (MINIMUM) ALL-THREAD. SANDWICH HANGING ANGLES AND CEILING ANCHOR POINTS WITH 1/2" GRADE 5 (MINIMUM) STEEL FLAT WASHERS AND 1/2" - 13 TPI GRADE 5 (MINIMUM) HEX NUTS AS SHOWN. MUST USE DOUBLED HEX NUT CONFIGURATION BENEATH HOOD HANGING ANGLES AND ABOVE CEILING ANCHORS. MAINTAIN 1/4" OF EXPOSED THREADS BENEATH BOTTOM HEX NUT. TORQUE ALL HEX NUTS TO 57 FT-LBS.

## PATENT NUMBERS

AC-PSP (UNITED STATES) - US PATENT 7963830 B2.
AC-PSP WALL (CANADA) - CA PATENT 2820509.
AC-PSP ISLAND (CANADA) - CA PATENT 2520330.




SECTION VIEW – MODEL 5424EX-2-PSP-F
HOOD – #1 (HD1-Kettles)

FOR QUESTIONS, CALL THE
Air Solutions
REGION 120
PHONE: (513) 860 - 5555
EMAIL: reg120@captiveaire.com

**REVISIONS**

| | DESCRIPTION | DATE |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |

CAPTIVE-AIRE
Air Solutions
1329 East Kemper Rd, Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860 - 5555 EMAIL: reg120@captiveaire.com
www.captiveaire.com

Pop Up Bagels (3Oven-Proto)
661 Driggs Avenue,
Brooklyn, NY, 11211

**DATE:** 7/30/2024
**DWG.#:** 6910421
**DRAWN BY:**
**SCALE:** 3/4" = 1'-0"
**MASTER DRAWING**
**SHEET NO.** 1

S+P+A ARCHITECTS ENGINEERS INTERIORS

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Date: 8/20/24 | Scale: 12" = 1'-0"
Drawn By: - | Project Number: 24-119

Sheet Title:
REFERENCE

Sheet Number:
M-106.00

7 OF 9

FULL SIZE SHEET: 24"x36"

## EXHAUST FAN INFORMATION – JOB#6910421

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | MANUFACTURER | CFM | ESP | RPM | MOTOR ENCL. | HP | BHP | PHASE | VOLT | FLA | WEIGHT (LBS) | SONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EF1-KETTLE | 1 | SIF13DD-SS | CAPTIVEAIRE | 900 | 0.850 | 1327 | TEAO-ECM | 1.000 | 0.4200 | 1 | 115 | 11.6 | 167 | 8.9 |
| 2 | EF2-OVEN | 1 | SIF18DD-HE | CAPTIVEAIRE | 1425 | 2.400 | 1676 | TEAO-ECM | 2.000 | 1.4090 | 3 | 230 | 7.7 | 270 | 17.8 |

## MUA FAN INFORMATION – JOB#6910421

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | BLOWER | HOUSING | DESIGN CFM | ESP | RPM | MOTOR ENCL. | HP | BHP | PHASE | VOLT | FLA | MCA | MOCP | WEIGHT (LBS) | SONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | KMUA | 1 | A1-G10 | G10D | A1 | 2047 | 0.300 | 880 | TEAO-ECM | 1.000 | 0.5070 | 1 | 208 | 6.9 | 9.3A | 15A | 312 | 18.5 |

## FAN OPTIONS

| FAN UNIT NO | TAG | QTY | DESCRIPTION |
|---|---|---|---|
| 1 | EF1-KETTLE | 1 | SIF13 - INLET - STANDARD 14" DUCT CONNECTION |
| | | 1 | SIF - HORIZONTAL OVERHEAD MOUNT - PRE-INSTALLED MOUNTS (11-36) |
| | | 1 | ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION |
| | | 1 | HANGING SPRING VIBRATION ISOLATORS (SET OF 4), FOR INDOOR OR OUTDOOR USE WITH SQUARE INLINE FANS (HSA125) |
| | | 1 | I 19-BDD DAMPER |
| | | 1 | SIF13-SS - STRAIGHT DISCHARGE. STANDARD 14" DUCT CONNECTION |
| | | 1 | 2 YEAR PARTS WARRANTY |
| 2 | EF2-OVEN | 1 | SIF - HORIZONTAL OVERHEAD MOUNT - PRE-INSTALLED MOUNTS (11-36) |
| | | 1 | ECM WIRING PACKAGE - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION |
| | | 1 | SIF18DD & SIF20DD ECM DISCONNECT PLATE. SWITCHES SIFRTRD FOR SIFRTRD-ECM DISCONNECT PLATE |
| | | 1 | HANGING SPRING VIBRATION ISOLATORS (SET OF 4), FOR INDOOR OR OUTDOOR USE WITH SQUARE INLINE FANS (HSA125) |
| | | 1 | I 23-BDD DAMPER |
| | | 1 | SIF18 - STRAIGHT DISCHARGE FOR SIF 18. OUTLET RING DUCT CONNECTION |
| | | 1 | SIF18 - INLET RING DUCT CONNECTION |
| | | 1 | 2 YEAR PARTS WARRANTY |
| 3 | KMUA | 1 | INSULATION OPTION FOR VBANK FILTER SECTION |
| | | 1 | A1 INDOOR HANGING OPTION - INCLUDES 2 HSA125 HANGING SPRING ISOLATORS PER UNI-STRUT |
| | | 1 | GRAVITY BACKDRAFT DAMPER FOR SIZE 1 HOUSING |
| | | 1 | ECM WIRING PACKAGE-SUPPLY - PWM SIGNAL FROM ECPM03 PREWIRE (TELCO MOTOR), CCW ROTATION |
| | | 1 | 2 YEAR PARTS WARRANTY |

## FAN ACCESSORIES

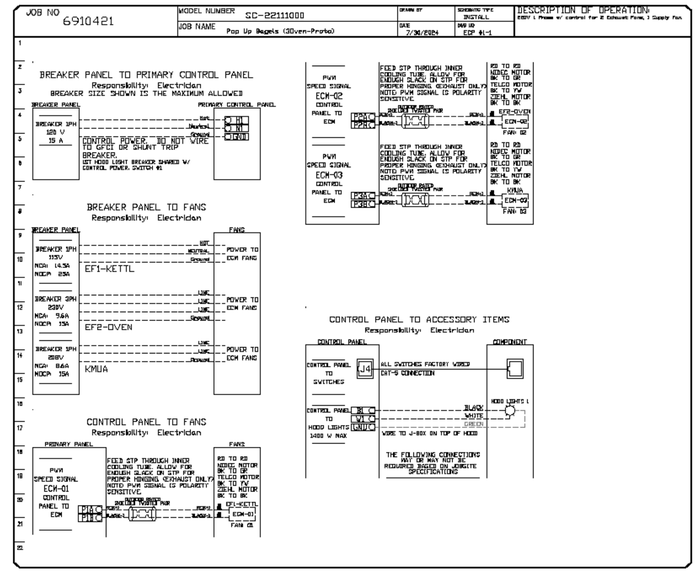
| FAN UNIT NO | TAG | EXHAUST | | | SUPPLY | | | |
|---|---|---|---|---|---|---|---|---|
| | | GREASE CUP | GRAVITY DAMPER | WALL MOUNT | SIDE DISCHARGE | GRAVITY DAMPER | MOTORIZED DAMPER | WALL MOUNT |
| 1 | EF1-KETTLE | | YES | | | | | |
| 2 | EF2-OVEN | | YES | | | | | |
| 3 | KMUA | | | | YES | YES | | |

## ELECTRICAL PACKAGE – JOB#6910421

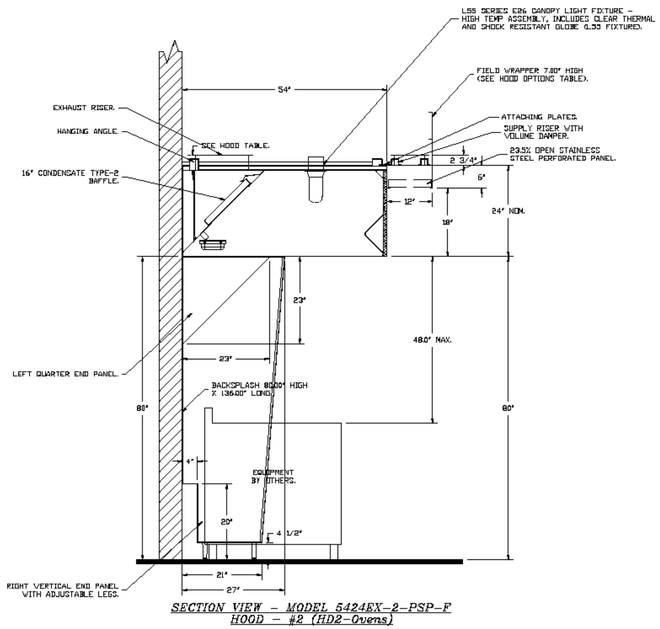
| NO | TAG | PACKAGE # | LOCATION | SWITCHES | | OPTION | FANS CONTROLLED | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | LOCATION | QUANTITY | | FAN TAG | TYPE | Φ | HP | VOLT | FLA |
| 1 | ECP 1 | SC-22111000 | UTILITY CABINET LEFT | UTILITY CABINET LEFT | 1 LIGHT | SMART CONTROLS BASIC | EF1-KETTLE | EXHAUST | 1 | 1.000 | 115 | 11.6 |
| | | | | HOOD # 2 | 1 FAN | | EF2-OVEN | EXHAUST | 3 | 2.000 | 230 | 7.7 |
| | | | | | | | KMUA | SUPPLY | 1 | 1.000 | 208 | 6.9 |

JOB NO 6910421 | MODEL NUMBER SC-22111000 | JOB NAME Pop Up Bagels (3Oven-Proto) | DRAWN BY | SCHEMATIC TYPE INSTALL | DATE 7/30/2024 | PAN ID ECP #1-1

DESCRIPTION OF OPERATION
EXHAUST: Press w/ control for 2 Exhaust Fans, 1 Supply Fan



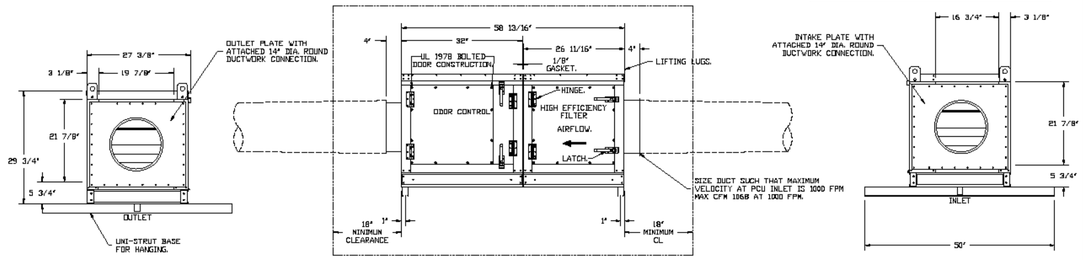

HOOD SYSTEMS IS TYPE 2 APPLICATION (HEAT, ODOR, & FUMES ONLY) APPLICATION. HOOD SUPPLIED WITH CONDENSATE BAFFLES TO ASSIST WITH GOOD FILTER VELOCITY ALONG ENTIRE LENGTH OF HOOD SYSTEM.




SECTION VIEW – MODEL 5424EX-2-PSP-F
HOOD – #2 (HD2-Ovens)

## POLLUTION CONTROL UNIT (ODOR CONTROL FOR OVEN HOOD)

PCU #1 - PCU-HE-OC-REFS-1 - POLLUTION CONTROL UNIT FOR ODOR CONTROL. INCLUDES HIGH EFFICIENCY MERV 15 FILTER MODULE AND ODOR CONTROL MODULE.



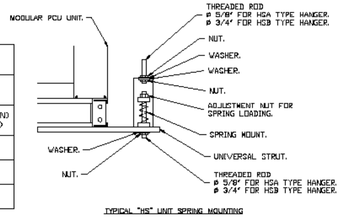

PCU #1 PCU-HE-OC-REFS-1
PCU WEIGHT - 254LBS
PCU LOCATION: INDOOR (CONDITIONED SPACE).

NOTES:
1. ALL DIMENSIONS ARE NOMINAL AND GIVEN IN INCHES.
2. CLEARANCE ON FILTER ACCESS SIDE OF THE PCU SHOULD BE A MINIMUM OF 36" FOR PROPER SERVICE OF THE UNIT. ALL OTHER SIDES SHOULD FOLLOW CLEARANCE TO COMBUSTIBLE GUIDELINES PER CODE.

INLET NOTES:
1. MAX INLET DUCT VELOCITY TO BE 1000 FPM INTO THE PCU. DUCTWORK SHOULD BE SIZED APPROPRIATELY.
2. DUCT MUST BE GRADUALLY TRANSITIONED TO THE INLET OPENING OF THE PCU TO SPREAD AIR OUT ON ALL PCU FILTERS. FAILURE TO DO THIS WILL RESULT IN ODOR AND SMOKE BYPASS.

| PCU FILTER SPECIFICATIONS | | | | | |
|---|---|---|---|---|---|
| DESIGN CFM - 1425 | | | | | |
| MODULE | FILTER TYPE | FILTER EFFICIENCY | QTY | SIZE | SP(CLEAN) (in WC) |
| 1 | HIGH EFFICIENCY | MERV 15 | 3 | 20X25X4 | 0.452 |
| 2 | OC 100% CARBON | N/A | 3 | 20X25X4 | 1.071 |
| | | | | | 1.523 |

NOTE: TWO HANGERS PER UNIVERSAL STRUT.




TYPICAL "HS" UNIT SPRING MOUNTING

REVISIONS

| | DESCRIPTION | DATE: |
|---|---|---|
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CAPTIVEAIRE
Air Solutions
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH. 45246 PHONE: (513) 860 - 5556 EMAIL: rep128@captiveaire.com
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661 Driggs Avenue,
Brooklyn, NY, 11211

**DATE:** 7/30/2024

**DWG.#:** 6910421

**DRAWN BY:**

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 2

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Date: 8/20/24 | Scale: 12" = 1'-0"
Drawn By: - | Project Number: 24-119

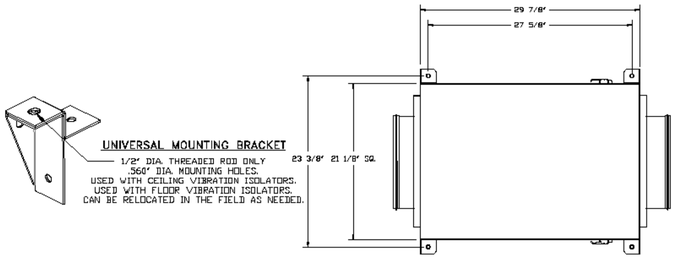
Sheet Title:
REFERENCE

Sheet Number:
M-107.00
8 OF 9

FULL SIZE SHEET: 24"x36"

# EXHAUST & SUPPLY FANS FOR TYPE (2) HOOD SYSTEMS

FAN #1 SIF13DD-SS - EXHAUST FAN (EF1-KETTLE)




UNIVERSAL MOUNTING BRACKET

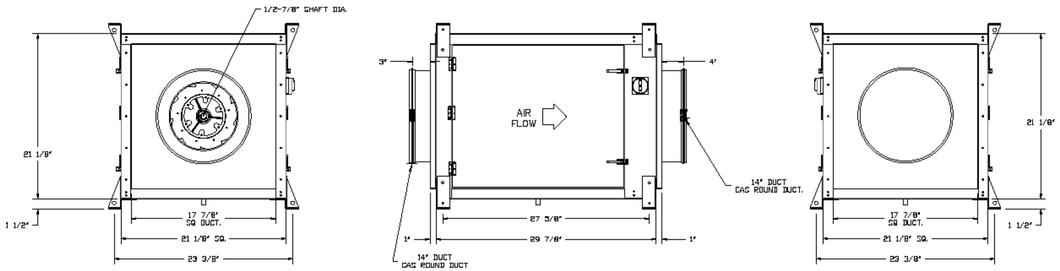
1/2" DIA. THREADED ROD ONLY
.562" DIA. MOUNTING HOLES.
USED WITH CEILING VIBRATION ISOLATORS.
USED WITH FLOOR VIBRATION ISOLATORS.
CAN BE RELOCATED IN THE FIELD AS NEEDED.

FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- TWO ACCESS DOORS FOR EASY ACCESS.
- BACKWARD INCLINED NON-OVERLOADING WHEELS.
- UL705 LISTING.
- AMCA AIR & SOUND CERTIFIED.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- 2" NPT THREADED DRAIN CENTERED IN BASE (SS MODELS).

OPTIONS

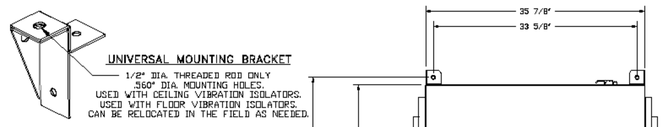
- SIF13 - INLET - STANDARD 14" DUCT CONNECTION.
- SIF - HORIZONTAL OVERHEAD MOUNT - PRE-INSTALLED MOUNTS (11-36).
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPW03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- HANGING SPRING VIBRATION ISOLATORS (SET OF 4), FOR INDOOR OR OUTDOOR USE WITH SQUARE INLINE FANS (HSA125).
- I 19-BDD DAMPER.
- SIF13-SS - STRAIGHT DISCHARGE. STANDARD 14" DUCT CONNECTION.
- 2 YEAR PARTS WARRANTY.




*EXHAUST FAN INFORMATION - JOB#6910421*

| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | MANUFACTURER | CFM | ESP | RPM | MOTOR ENCL | HP | BHP | PHASE | VOLT | FLA | WEIGHT (LBS) | SONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | EF1-KETTLE | 1 | SIF13DD-SS | CAPTIVEAIRE | 900 | 0.850 | 1327 | TEAO-ECM | 1.000 | 0.4200 | 1 | 115 | 11.6 | 167 | 8.9 |
| 2 | EF2-OVEN | 1 | SIF18DD-HE | CAPTIVEAIRE | 1425 | 2.400 | 1676 | TEAO-ECM | 2.000 | 1.4090 | 3 | 230 | 7.7 | 270 | 17.8 |

FAN #2 SIF18DD-HE - EXHAUST FAN (EF2-OVEN)



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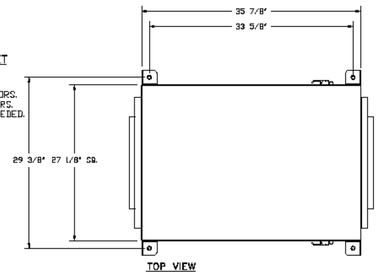
CAN BE RELOCATED IN THE FIELD AS NEEDED.

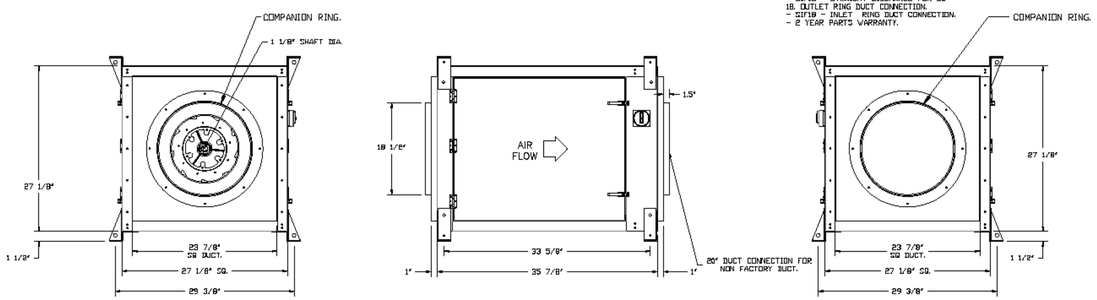



FEATURES:

- DIRECT DRIVE CONSTRUCTION (NO BELTS/PULLEYS).
- TWO ACCESS DOORS FOR EASY ACCESS.
- BACKWARD INCLINED NON-OVERLOADING WHEELS.
- UL705 LISTING.
- AMCA AIR & SOUND CERTIFIED.
- THERMAL OVERLOAD PROTECTION (SINGLE PHASE).
- NEMA 3R SAFETY DISCONNECT SWITCH.

OPTIONS

- SIF - HORIZONTAL OVERHEAD MOUNT - PRE-INSTALLED MOUNTS (11-36).
- ECM WIRING PACKAGE - PWM SIGNAL FROM ECPW03 PREWIRE (TELCO MOTOR), CCW ROTATION.
- SIF18DD & SIF20DD ECM DISCONNECT PLATE. SWITCHES SIFXTRD FOR SIFXTRD-ECM DISCONNECT PLATE.
- HANGING SPRING VIBRATION ISOLATORS (SET OF 4), FOR INDOOR OR OUTDOOR USE WITH SQUARE INLINE FANS (HSA125).
- I 23-BDD DAMPER.
- SIF18 - STRAIGHT DISCHARGE FOR SIF 18. OUTLET RING DUCT CONNECTION.
- SIF18 - INLET - RING DUCT CONNECTION.
- 2 YEAR PARTS WARRANTY.

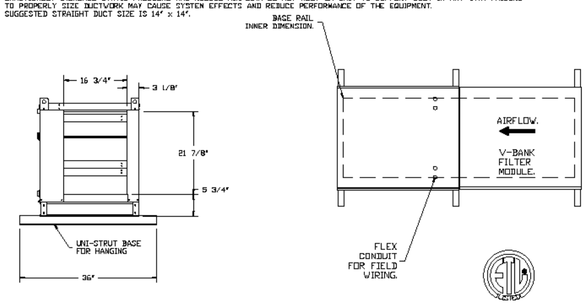


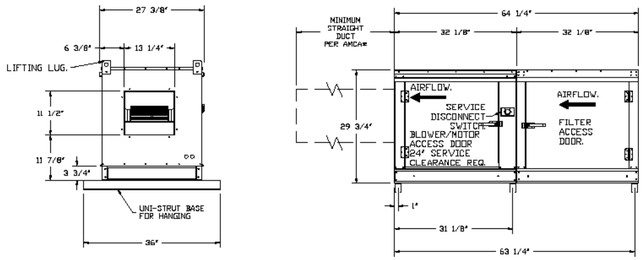

*MUA FAN INFORMATION - JOB#6910421*

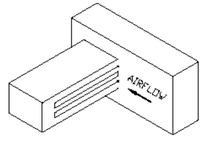
| FAN UNIT NO | TAG | QTY | FAN UNIT MODEL # | BLOWER | HOUSING | DESIGN CFM | ESP | RPM | MOTOR ENCL | HP | BHP | PHASE | VOLT | FLA | MCA | MOCP | WEIGHT (LBS) | SONES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | KMUA | 1 | A1-G10 | G10 | A1 | 2047 | 0.300 | 880 | TEAO-ECM | 1.000 | 0.5070 | 1 | 208 | 6.9 | 9.3A | 15A | 312 | 18.5 |

FAN #3 A1-G10 - SUPPLY FAN (KMUA)
1. DIRECT DRIVE UNTEMPERED SUPPLY UNIT WITH 10" BLOWER IN SIZE #1 HOUSING WITH SPEED CONTROL, DISCONNECT SWITCH.
2. V-BANK EZ FILTERS - INDOOR.
3. SIDE DISCHARGE - AIR FLOW RIGHT -> LEFT.
4. INSULATION FOR V-BANK INTAKE OPTION.
5. INDOOR HANGING CRADLE FOR THE SIZE 1 UNTEMPERED UNIT. 2 HSA125 HANGING ISOLATORS PER UNI-STRUT INCLUDED.
6. GRAVITY BACK DRAFT DAMPER, 16" WIDE X 18" HIGH, STANDARD GALVANIZED CONSTRUCTION, 1 1/4" REAR FLANGE, FOR SIZE 1 UNTEMPERED FAN HOUSING (S1BD).
7. ECM WIRING PACKAGE FOR SUPPLY MOTORS WITH PWM SIGNAL FROM ECPW03 PREWIRE.
8 HINGED DOUBLE WALL INSULATED DOOR ASSEMBLY (BURNER/BLOWER SECTION).
9. 2 YEAR PARTS WARRANTY.

#NOTE: SUPPLY DUCT MUST BE INSTALLED TO MEET SMACNA STANDARDS. A MINIMUM STRAIGHT DUCT LENGTH MUST BE MAINTAINED DOWNSTREAM OF UNIT DISCHARGE AS OUTLINED IN AMCA PUBLICATION 201. WHEN USING RECTANGULAR DUCTWORK, ELBOWS MUST BE RADIUS THROAT, RADIUS BACK WITH TURNING VANES. FLEXIBLE DUCTWORK AND SQUARE THROAT/SQUARE BACK ELBOWS SHOULD NOT BE USED. ANY TRANSITION AND/OR TURNS IN THE DUCTWORK WILL CAUSE SYSTEM EFFECT. SYSTEM EFFECT WILL DRASTICALLY INCREASE STATIC PRESSURE AND REDUCE AIRFLOW. DO NOT RELY ON UNIT TO SUPPORT DUCT IN ANY WAY. FAILURE TO PROPERLY SIZE DUCTWORK MAY CAUSE SYSTEM EFFECTS AND REDUCE PERFORMANCE OF THE EQUIPMENT.
SUGGESTED STRAIGHT DUCT SIZE IS 14" x 14".




ELECTRIC DUCT

ELECTRIC DUCT INSERT HEATER (INLINE), 2047 CFM, 208 VOLT, 3 PHASE, 26 KW, 2-STAGE HEATER, 72 AMPS AT FLA WITH SIZE 16 X 18 COIL. FLOW SWITCH, AND DUCT THERMOSTAT. SYSTEM TO HEAT AIR AN ADDITIONAL 40 DEGREES MAX (DELTA). ELECTRICIAN ALSO TO PROVIDE EXTERNAL DISCONNECT IF REQUIRED BY LOCAL CODE OFFICIALS.

**REVISIONS**

| DESCRIPTION | DATE: |
|---|---|
| | |
| | |
| | |
| | |

CAPTIVEAIRE
Air Solutions
1329 East Kemper Rd., Ste. 4210, Cincinnati, OH, 45246 PHONE: (513) 860 - 5555 EMAIL: rsg120@captiveaire.com
www.captiveaire.com

Pop Up Bagels (3Oven-Proto)
661 Driggs Avenue,
Brooklyn, NY, 11211

**DATE:** 7/30/2024

**DWG.#:** 6910421

**DRAWN BY:**

**SCALE:** 3/4" = 1'-0"

**MASTER DRAWING**

**SHEET NO.** 3

FULL SIZE SHEET: 24"X36"

S+P+A
ARCHITECTS
ENGINEERS
INTERIORS


ARCHITECT:
**SILVER PETRUCELLI & ASSOC.**
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
P. 203 230 9007 silverpetrucelli.com

M/E/P/SP:
**SILVER PETRUCELLI & ASSOC.**
3190 WHITNEY AVENUE, HAMDEN CT 06518
311 STATE STREET NEW LONDON, CT 06320
P. 203 230 9007 silverpetrucelli.com


SEAL & SIGNATURE:

Project Title:

TENANT FIT-OUT:
POPUP BAGELS
661 DRIGGS AVENUE
BROOKLYN, NY 11211

| Revision: | Description: | Date: | Revised By: |
|---|---|---|---|
| | | | |

Date: 8/20/24 | Scale: 12" = 1'-0"
Drawn By: - | Project Number: 24-119

Sheet Title:
REFERENCE

Sheet Number:
M-108.00

9 OF 9