

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

EQUIPMENT SCHEDULE

ADDISON MODEL HWY-030, 2.5 TON WATER SOURCE AIR CONDITIONING UNIT.

POWER 208-1-60,

NOMINAL 1000 CFM NYC MEA# 152-99-E

NYC MEA# 152-99-E

AC-2 ADDISON MODEL HWY-042, 3.5 TON WATER SOURCE AIR CONDITIONING UNIT. POWER 208-1-60, NOMINAL 1400 CFM

TEF 1-4 BROAN MODEL L100, 80 CFM @ 0.38 ESP POWER 120-1-60, 1.1 AMP INCLUDES GRILL AND INTEGRAL BACKDRAFT

DH-1 WARREN ELECTRIC DUCT HEATER
5KW, 208-1-60, 2-STEP, 24 VOLT
CONTROL WITH ALL INTEGRAL SAFETY
CONTROLS AND AIRFLOW SWITCH.
SILENT CONTACTOR OPTION.

EDH-2 WARREN ELECTRIC DUCT HEATER
6.5KW, 208-1-60, 2-STEP, 24 VOLT
CONTROL WITH ALL INTEGRAL SAFETY
CONTROLS AND AIRFLOW SWITCH.
SILENT CONTACTOR OPTION.

PROJECT SPECIFICATIONS

- 1. ALL WORK SHALL CONFORM TO NYC BUILDING CODE AND ALL OTHER JURISDICTIONS AS APPLICABLE.
- 2. THE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF WORK AND ARE NOT INTENDED TO INDICATE OBSTRUCTIONS AND EVERY CHANGE OF DIRECTION OR FIELD CONDITION WHICH MAY BE ENCOUNTERED.

3. ALL EQUIPMENT SHALL BE RIGGED INTO ITS FINAL POSITION AS REQUIRED.

SCOPE OF PROJECT

FURNISH AND INSTALL WATER SOURCE HEAT PUMP UNITS.
SUSPEND UNITS OR PLACE ON STANDS AS APPLICABE.
SHEET METAL DUCTWORK
LOOP WATER PIPING
TEMPERATURE CONTROL
INSULATION
TESTING, AND START-UP
VIBRATION ISOLATION
WARRANTY

EQUIPMENT

SEE EQUIPMENT SCHEDULE

DUCTWORK

ALL DUCTWORK TO BE PER LATEST SMACNA AND ASHRAE STANDARDS DUCTWORK SHALL BE ACOUSTICALLY LINED WHERE SHOWN.
RETURN AIR SHALL BE PROVIDED THROUGH CEILING MOUNTED GRILLS.

PIPING

HEAT PUMP LOOP PIPING SHALL BE TYPE L COPPER WITH WRAUGHT COPPER FITTINGS. JOINT SHALL EITHER BE SILVER BRAZED OR SILVER SOLDERED WITH HARRIS STAY-BRITE-8 HIGH TENSILE STRENGTH ALLOY.

CONDENSATE DRAIN SHALL BE ROUTED TO NEAREST INDIRECT FLOOR DRAIN OR STANDPIPE. PROVIDE CONDENSATE PUMPS WHERE REQUIRED.

ALL PIPING SHALL BE NEATLY ARRANGED AND SECURELY HUNG/FASTENED USING CLEVIS-TYPE HANGERS OR KINDORF STRUT WITH MATING CLIPS.

THERMAL INSULATION

1. ALL UNLINED DUCTWORK IN CONCEALED AREAS SHALL BE INSULATED WITH 1½" FSK FIBERGLASS BLANKET TYPE INSULATION.

TEMPERATURE CONTROLS AND CONTROL WIRING

A CONTROL DIAGRAM SHALL BE PROVIDED SHOWING ALL REQUIRED CONNECTIONS AND CONTROL RUNOUTS FOR A FULLY OPERATIONAL AND INTERLOCKED SYSTEM. WSHP'S SHALL BE PROVIDED WITH DIGITAL PROGRAMMABLE THERMOSTATS. CONTROL SEQUENCE: THERMOSTAT SHALL BE INDEXED TO EITHER HEATING OR COOLING WHICH SHALL CONTROL THE AC UNIT AND ELECTRIC DUCT HEATER. IN THE COOLING MODE, UPON A CALL FOR COOLING, THE COMPRESSOR AND FAN SHALL BE ACTIVATED. IN THE HEATING MODE, UPON A CALL FOR HEATING, THE ELECTRIC DUCT HEATER STAGES AND THE FAN SHALL BE ACTIVATED. THE USER MAY MANUALLY INDEX THE THERMOSTAT FOR CONTINUOUS FAN OPERATION.

ON REVERSE TEMPERATURE SEQUENCE, THE COMPRESSOR, HEATER STAGES AND THE FAN

VIBRATION CONTROL

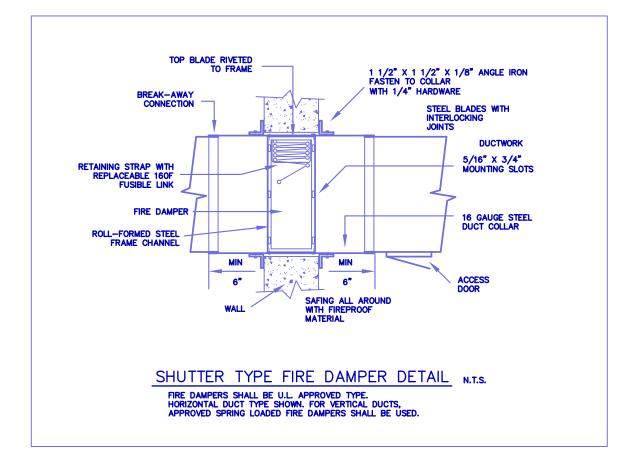
SUSPENDED AIR HANDLERS SHALL BE HUNG WITH SPRING TYPE VIBRATION ISOLATOR HANGERS.

TESTING, BALANCING AND START-UP

1. ALL EQUIPMENT SHALL BE ADJUSTED, CHECKED AND STARTED AND PUT INTO PROPER OPERATING CONDITION.

<u>VARRANTY</u>

1. ALL EQUIPMENT AND INSTALLATION SHALL BE WARRANTED AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF START-UP.



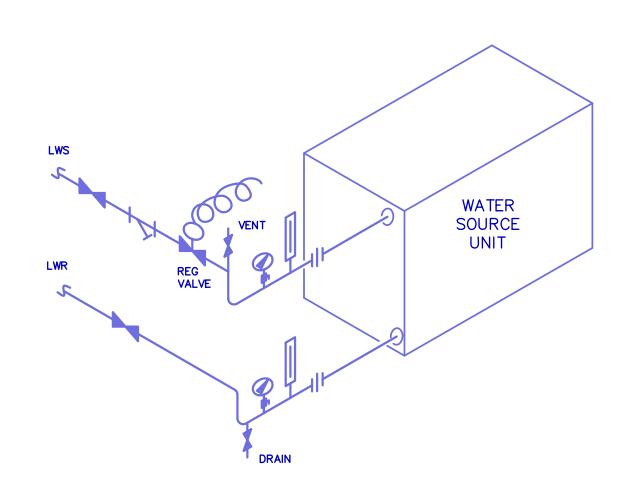
CONTROLLED INSPECTION

A test shall be conducted in the presence of a licensed professional engineer or architect demonstrating that the ventilation system is in compliance with NYC code

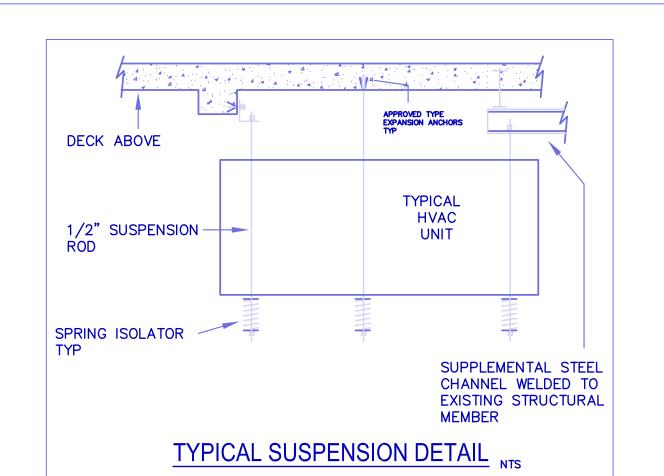
Results of the successful test shall be filed with the building department and equipment use permits, as applicable, shall be obtained for the project. A statement will be filed by the owner, or tenant, that the ventilation systems will be operated continuously during occupied periods for the subject space.

REQUIRED CONTROLLED INSPECTIONS: MECHANICAL VENTILATION - ENGINEER/INSTALLER VENTIL. CERTIF.

NOISE CONTROL TESTS
FINAL INSPECTION



WATER SOURCE UNIT DETAIL NTS



NEW YORK CITY VENTILATION INDEX MINIMUM VENTILATION REQUIREMENTS ARE BASED ON THE GUIDELINES SET FORTH IN CHAPTER C26—1206.3 OF THE NEW YORK CITY BUILDING CODE.

| SAMPLE ROOM CALCULATIONS | | SAMPLE ROOM No. | AREA | VOLUME | PEOPLE | INDEX | FACTOR | SUPPLY | EXH | SUPPLY | EXH | TECH ST. | 73 | 584 | 2 | 657 | 0.9 | 66 | 66 | 230 | 230 |

NOTE: SAMPLE ROOM CALCULATIONS MEET NEW YORK CITY VENTILATION REQUIREMENTS.

MINIMUM OUTSIDE AIR QUANTITIES WILL BE AS FOLLOWS:

A) FOR VENTILATED SPACES— QUANTITIES LISTED IN TABLE 12.2 OF THE NEW YORK CITY BUILDING CODE.

B) FOR AIR CONDITIONED SPACES— 33 1/3% OF THE MINIMUM SUPPLY AIR REQUIREMENT, BUT NOT LESS THAN 5 CFM PER OCCUPANT.

 $INDEX = \frac{ROOM\ VOLUME}{\#\ OF\ OCCUPANTS} + \frac{ROOM\ AREA\ X\ 10}{\#\ OF\ OCCUPANTS} \qquad \frac{584}{2} + \frac{730}{2} = 657$

NEW YORK CITY BUILDING DEPARTMENT NOTES:

ALL WORK SHALL COMPLY WITH THE APPLICABLE SECTIONS OF THE BUILDING CODE OF THE CITY OF NEW YORK DATED DECEMBER 6, 1968, AMENDED DEC 1 ,1991 OR AS FURTHER AMENDED.

THE FOLLOWING ITEMS OF WORK, MATERIALS, CAPACITIES, ETC. SHALL BE REFERENCED TO THE FOLLOWING:

Α.	DUCT CONSTRUCTION, ETC.	RS 13-1	2-1.1.1 TO 2-1.3.9
В.	DUCT ACCESS AND INSPECTION	RS 13-1	2-1.4.1 TO 2-1.4.6
C.	AIR OUTLETS, INLETS AND FRESH AIR INTAKES	RS 13-1	2-3.1
D.	LOCATION OF OUTLETS AND INLETS	RS 13-1	2-3.2.1 TO 2-3.5
E.	AIR FILTERS	RS 13-1	2-4.1.1 TO 2-4.1.2
F.	FANS	RS 13-1	2-5.1 TO 2-5.3
G.	ELECTRICAL WIRING AND EQUIPMENT	RS 13-1	2-6.1 TO 2-6.2
Н.	AIR COOLING AND HEATING EQUIPMENT	RS 13-1	2-7.1 TO 2-7.4
I.	PENETRATIONS - PROTECTION OF OPENINGS	RS 13-1	3-3.1 TO 3-3.6
J.	FIRE DAMPERS, ETC.	RS 13-1	3-3.7.1 TO 3-3.8.2
K.	CONTROLS	RS 13-1	4-1 TO 4-5.4
L.	EXHAUST SYSTEMS FOR COOKING SPACES	RS 13-2	
М.	EXHAUST SYSTEMS FOR COOKING SPACES	RS 13-3	
N.	HEATING CAPACITY	RS 12-1	
0.	HEATING EQUIPMENT	RS 14	
Р.	CHIMNEY AND GAS VENTS	RS 15	
Q.	NOISE CRITERIA LEVEL	RS 12-4	

A STATEMENT WILL BE FILED BY THE OWNER OR TENANT THAT THE VENTILATION SYSTEM WILL BE KEPT IN CONTINUOUS OPERATION DURING OCCUPANCY OF THE PREMISES.

CONTRACTOR RESPONSIBILITIES

RUN ALL ELECTRICAL CONDUIT, REFRIGERANT AND GAS PIPING PROPERLY FASTENED USING PROVEN SECURING TECHNIQUES.
 INSTALL ANY STEELWORK OR DUNNAGE REQUIRED TO STABILIZE AND SUPPORT THE ROOF MOUNTED AIR CONDITIONING UNITS.
 PAY FOR, FILE, AND OBTAIN ANY AND ALL PERMITS REQUIRED FOR THE PROJECT.

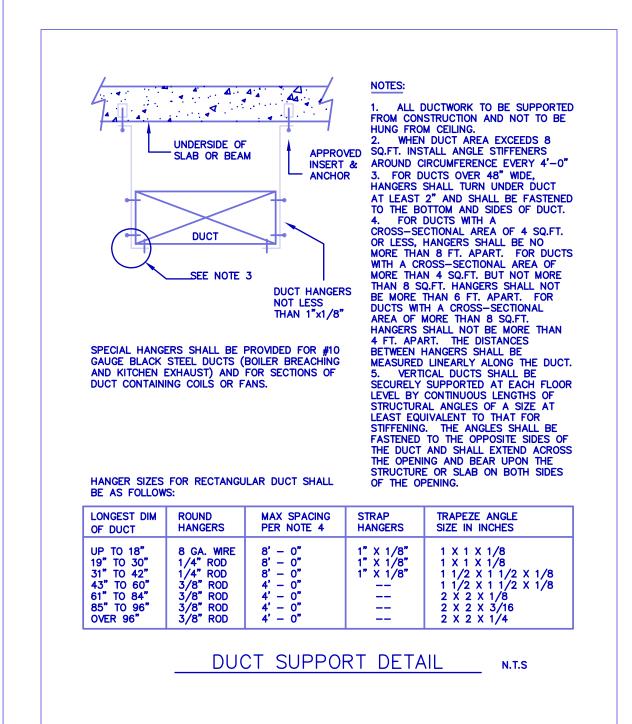
TENANT SAFETY NOTES

1. ALL WORK SHALL COMPLY WITH THE RULES AND REGULATIONS OF THE CITY OF NEW YORK BUILDING DEPARTMENT.
2. CONSTRUCTION SHALL BE LIMITED TO NORMAL WORKING HOURS, MONDAY THROUGH FRIDAY, 8 AM

TO 4 PM, EXCEPT LEGAL HOLIDAYS.

3. TWO FULLY CHARGED AND OPERABLE FIRE EXTINGUISHERS SHALL BE PROVIDED BY THE CONTRACTOR AND MADE READILY ACCESSIBLE AT ALL TIMES.

4. THERE SHALL BE NO INTERRUPTION OF ELECTRIC, HEAT OR HOT WATER SERVICE.
5. CONSTRUCTION SHALL NOT BLOCK HALLWAYS OR OTHER MEANS OF EGRESS.
6. CONSTRUCTION AREAS SHALL BE KEPT AS DUST-FREE AND CLEAN AS POSSIBLE.





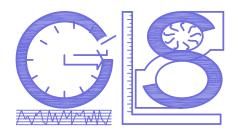
PLANNING DESIGN MANAGING CONSTRUCTION

465 BLUE POINT ROAD FARMINGVILLE, N.Y. 11738-1800 PHONE LINE: (631) 732-2200 FAX LINE: (631) 732-3322

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THIS PLAN IS APPROVED ONLY FOR THE WORK INDICATED ON THE APPLICATION SPECIFICATION.
ALL OTHER MATTERS SHOWN ARE NOT TO BE RELIED UPON, OR TO BE CONSIDERED AS EITHER BEING APPROVED OR IN ACCORDANCE WITH APPLICABLE CODES.

ISSUE / REVISION

No. DATE DESCRIPTION

PROJECT ENT DR's OFFICES 200 EAST 62nd ST

TITLE

HVAC FLOOR PLAN

DATE

12/30/07 1/4"=1'-0"

DWN BY

CHECKED BY

JOB No.

07100

DRAWING No.

|M-1|