

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

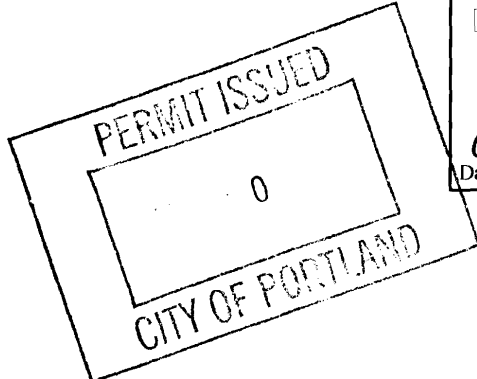
| | | |
|-----------------------|-------------|---------------------|
| Permit No: 07-1477 | Issue Date: | CBL: 063 C004001 |
|-----------------------|-------------|---------------------|

| | | | |
|---------------------------------------------|----------------------------------------------|-----------------------------------------------|---------------------|
| Location of Construction: 229 VAUGHAN ST | Owner Name: VAUGHAN STREET REALTY AS | Owner Address: 233 VAUGHAN ST | Phone: |
| Business Name: | Contractor Name: Nason Mechanical Systems | Contractor Address: 194 Merrow Road Auburn | Phone 2077820707 |
| Lessee/Buyer's Name | Phone: | Permit Type: HVAC | Zone: R-6 |

| | | | | |
|--------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------|
| Past Use: Commercial-Medical Offices <i>profession</i> | Proposed Use: Commercial -Medical Offices with rooftop cooling unit <i>profession</i> | Permit Fee: \$1,820.00 | Cost of Work: \$180,000.00 | CEO District: 2 |
| Proposed Project Description: Install a rooftop cooling unit | | FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied | INSPECTION: Use Group: <i>U</i> Type: <i>HVAC</i> | |
| | | Signature: <i>[Signature]</i> | Signature: <i>[Signature]</i> | |
| PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.) | | | | |
| Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied | | | | |
| | | Signature: | Date: | |

| | | | | |
|-----------------------------|---------------------------------|------------------------|--|--|
| Permit Taken By: ldobson | Date Applied For: 12/06/2007 | Zoning Approval | | |
|-----------------------------|---------------------------------|------------------------|--|--|

| | | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules. Building permits do not include plumbing, septic or electrical work. Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work.. | Special Zone or Reviews <input type="checkbox"/> Shoreland <input type="checkbox"/> Wetland <input type="checkbox"/> Flood Zone <input type="checkbox"/> Subdivision <input type="checkbox"/> Site Plan Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/> Date: <i>12/10/07</i> | Zoning Appeal <input type="checkbox"/> Variance <input type="checkbox"/> Miscellaneous <input type="checkbox"/> Conditional Use <input type="checkbox"/> Interpretation <input type="checkbox"/> Approved <input type="checkbox"/> Denied Date: | Historic Preservation <i>to D.A. 12/10/07</i> <input type="checkbox"/> Not in District or Landmark <input type="checkbox"/> Does Not Require Review <input type="checkbox"/> Requires Review <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied Date: <i>12/10/08 SFH</i> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|



CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

| | | | |
|---------------------------------------------|---------|------|-------|
| SIGNATURE OF APPLICANT | ADDRESS | DATE | PHONE |
| RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE | | DATE | PHONE |

City of Portland, Maine - Building or Use Permit

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

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|------------------------------|----------------------------------------|----------------------------|
| Permit No: 07-1477 | Date Applied For: 12/05/2007 | CBL: 063 C004001 |
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| | | | |
|----------------------------------------------------|-----------------------------------------------------|------------------------------------------------------|--------------------------------|
| Location of Construction: 229 VAUGHAN ST | Owner Name: VAUGHAN STREET REALTY AS | Owner Address: 233 VAUGHAN ST | Phone: |
| Business Name: | Contractor Name: Nason Mechanical Systems | Contractor Address: 194 Merrow Road Auburn | Phone (207) 782-0707 |
| Lessee/Buyer's Name | Phone: | Permit Type: HVAC | |

| | |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| Proposed Use: Commerical -Medical (professional) Offices with rooftop cooling unit | Proposed Project Description: Install a rooftop cooling unit |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------|

| | | | |
|-----------------------|-------------------------|----------------------------------|---------------------------------------------------------|
| Dept: Historic | Status: Approved | Reviewer: Scott Hanson | Approval Date: 02/06/2008 |
| Note: | | | Ok to Issue: <input checked="" type="checkbox"/> |
| Dept: Zoning | Status: Approved | Reviewer: Marge Schmuckal | Approval Date: 12/10/2007 |
| Note: | | | Ok to Issue: <input checked="" type="checkbox"/> |
| Dept: Building | Status: Approved | Reviewer: Tammy Munson | Approval Date: 02/11/2008 |
| Note: | | | Ok to Issue: <input checked="" type="checkbox"/> |
| Dept: Fire | Status: Approved | Reviewer: Capt Greg Cass | Approval Date: 02/07/2008 |
| Note: | | | Ok to Issue: <input checked="" type="checkbox"/> |

Weights

EXISTING ROOFTOP UNITS

Table 90-1 Factory Installed Options (FIOPS) Net Weights (Lbs)^{1,2,3}

| Accessory | Accessory Model Number | Weight |
|------------------------------|------------------------|--------|
| High Efficiency Motors | FIYHEMT001-002 | 15 |
| | FIYHEMT003-005 | 49 |
| | FIYHEMT006-008 | 36 |
| Hinged Doors | FIYHNGE001-002 | 10 |
| | FIYHNGE003-009 | 27 |
| Powered Convenience Outlet | FIYCOPO101-206 | 38 |
| Through the Base Electrical | FIYTBUE101-111 | 16 |
| | FIYTBUE201-216 | 23 |
| Unit Mounted Circuit Breaker | FIYUCB4015-4150 | 5 |
| | FIYUCB3175-3250 | 10 |
| Unit Mounted Disconnect | FIYUDC4150-6100 | 5 |
| | FIYUDC3250 | 10 |

NOTES:

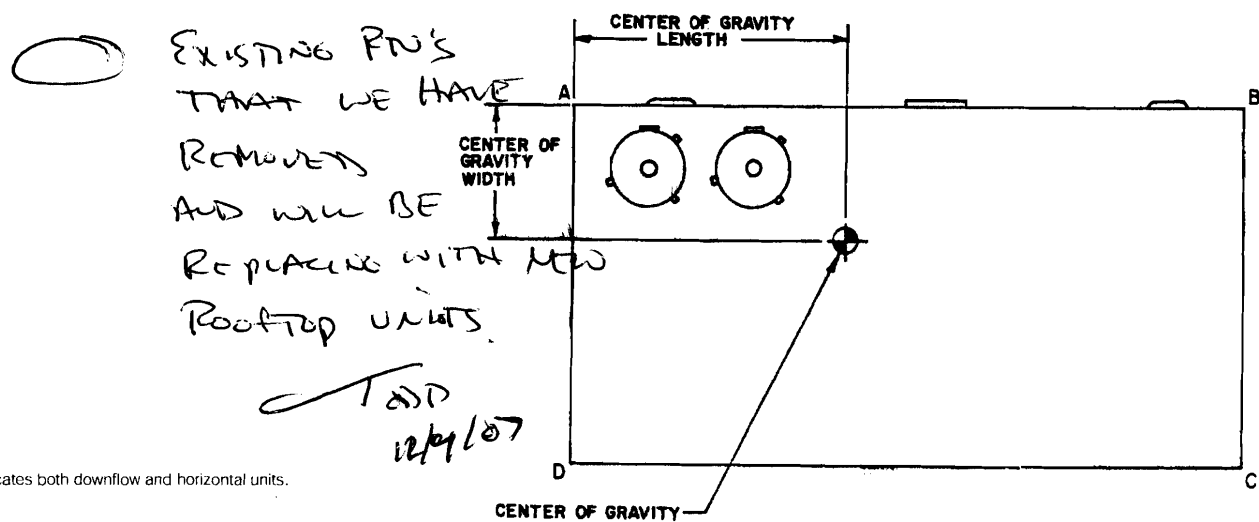
- Weights for FIOP accessories not listed are >5 lbs.
- Net weight should be added to unit weight when ordering factory installed accessories.
- See Table 69-1 for standard factory installed economizer, electric heater and oversized motor.

Table 90-2 Maximum Unit And Corner Weights (Lbs) And Center Of Gravity Dimensions (In.)

| Tons | Unit Model No. | Maximum Weights (Lbs) | | Corner Weights (Lbs) ¹ | | | | Center of Gravity (In.) | |
|-------|--------------------------------------|-----------------------|----------------------|-----------------------------------|---------|---------|---------|-------------------------|-------|
| | | Shipping ² | Net | A | B | C | D | Length | Width |
| 3 | TC*036C/TC*037C | 702/731 | 541/571 | 184/192 | 137/139 | 99/107 | 120/133 | 36/36 | 19/20 |
| 4 | TC*048C/TC*049C | 731/765 | 559/592 | 190/196 | 138/147 | 106/114 | 123/135 | 36/37 | 19/20 |
| 5 | TC*060C/TC*061C | 751/821 | 579/633 | 194/284 | 143/156 | 109/121 | 134/152 | 36/38 | 20/21 |
| 6, 6½ | TC*075C/TC*074C | 819/852 | 630/663 | 196/207 | 162/173 | 123/130 | 150/153 | 39/40 | 21/21 |
| 7, 7½ | TC*090C/TC*086C Single Compressor | 878/861 | 680/673 | 229/213 | 177/173 | 130/130 | 153/156 | 39/39 | 20/21 |
| | TC*090D/TC*091D Dual Compressor | 940/953 | 751/765 | 264/265 | 182/188 | 130/135 | 175/176 | 36/37 | 20/20 |
| 8½ | TC*102C/TC*103C | 1064/1393 | 857/1094 | 298/353 | 217/291 | 144/203 | 197/246 | 37/43 | 20/26 |
| 10 | TC*120C/TC*121C | 1086/1753 | 879/1385 | 302/468 | 225/357 | 150/242 | 202/317 | 38/46 | 20/29 |
| 12½ | TC*150C/TC*151C | 1460/1776 | 1181/1408 | 389/474 | 307/349 | 205/248 | 260/337 | 42/45 | 26/30 |
| 15 | TC*180B/TC*181C | 1739/2309 | 1371/1850 | 482/635 | 350/464 | 227/317 | 312/434 | 45/52 | 28/35 |
| 17½ | TC*210C/TC*211C | 1820/2380 | 1452/1921 | 500/643 | 378/495 | 247/341 | 327/442 | 46/53 | 28/35 |
| 20 | TC*240B/TC*241C | 2309/2470 | 1850/2011 | 654/692 | 487/523 | 303/343 | 406/453 | 52/53 | 33/34 |
| 25 | TC*300B/TC*301C | 2365/2475 | 1906/2016 | 661/695 | 507/524 | 320/343 | 454/454 | 53/53 | 33/34 |

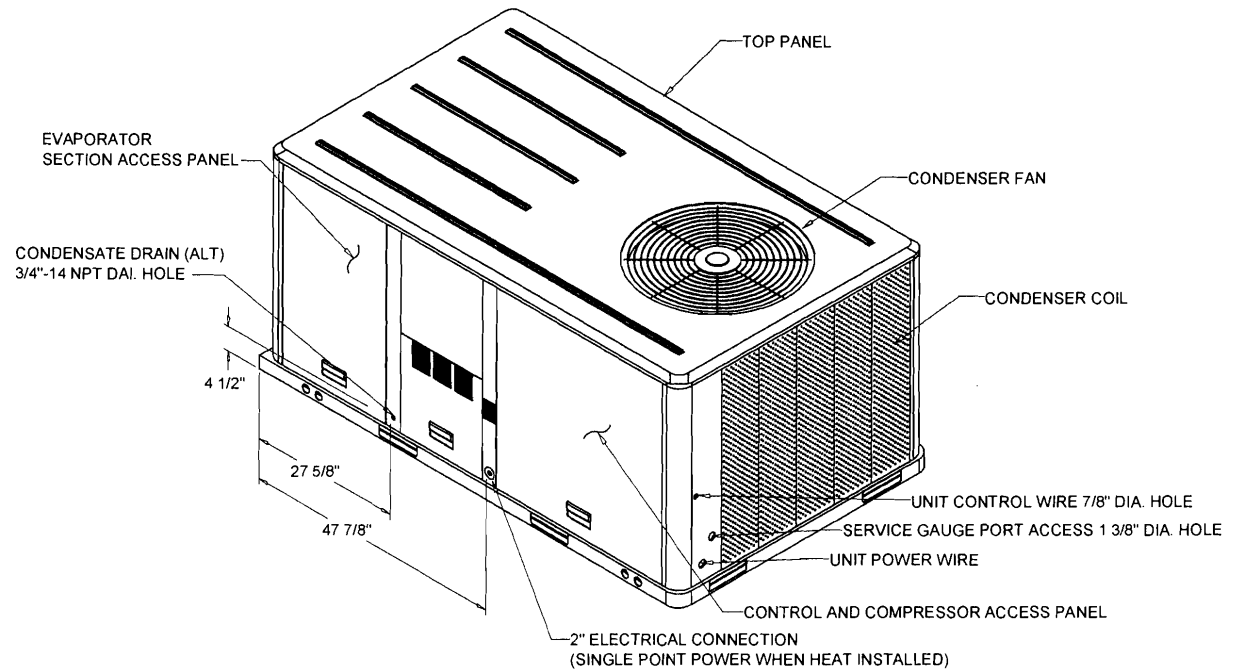
NOTE:

- Corner weights are given for information only. 8½-25 ton models must be supported continuously by a curb or equivalent frame support.
- Weights are approximate. Horizontal and downflow unit and corner weights may vary slightly.

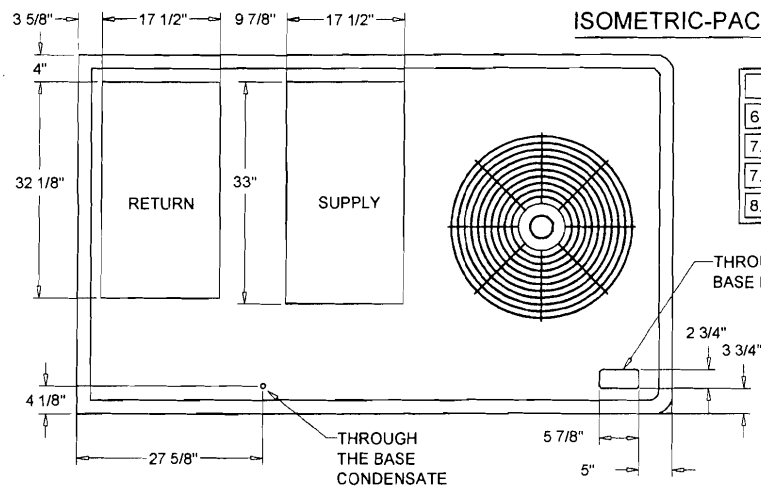


*Indicates both downflow and horizontal units.

Unit Dimensions - THC120A3R 10 Ton / THC092A3R 7.5 Ton Packaged Cooling Only Rooftop Units
Qty: 2 Tag(s): RTU-1, RTU-2

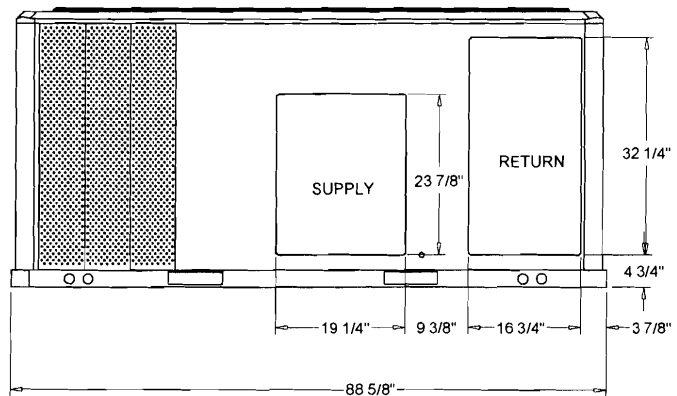


ISOMETRIC-PACKAGED COOLING

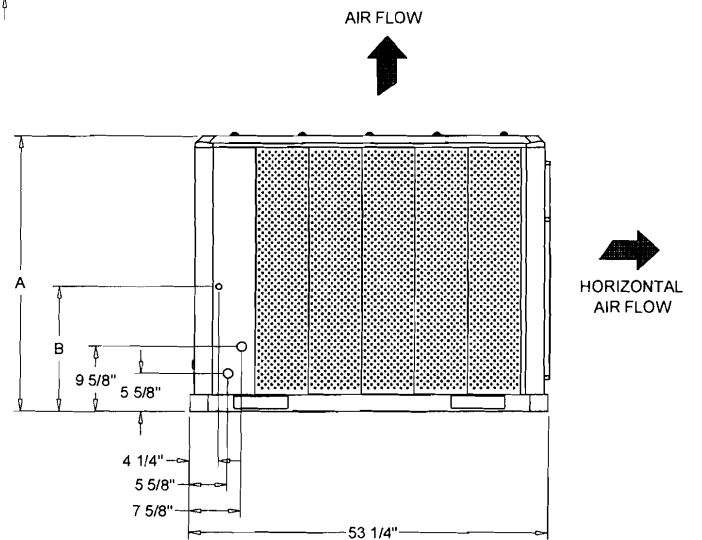


| UNIT HEIGHT | A | B |
|----------------------------------------------|---------|---------|
| 6 TONS STANDARD HIGH EFFICIENCY | 40 7/8" | 18 1/2" |
| 7.5 TON STANDARD EFFICIENCY | 40 7/8" | 18 1/2" |
| 7.5 TON HIGH EFFICIENCY | 46 7/8" | 24 1/2" |
| 8.5 AND 10 TONS STANDARD AND HIGH EFFICIENCY | 46 7/8" | 24 1/2" |

DOWNFLOW-PENETRATION

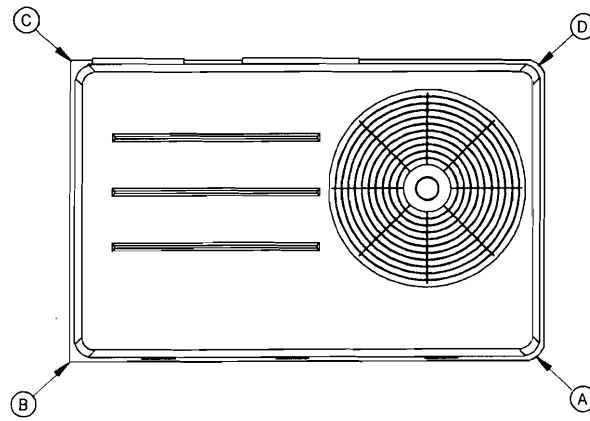


HORIZONTAL-PENETRATION



RIGHT-PACKAGED COOLING

Weight, Clearance & Rigging Diagram - THC120A3R 10 Ton Packaged Cooling Only Rooftop Unit
Qty: 1 Tag(s): RTU-1



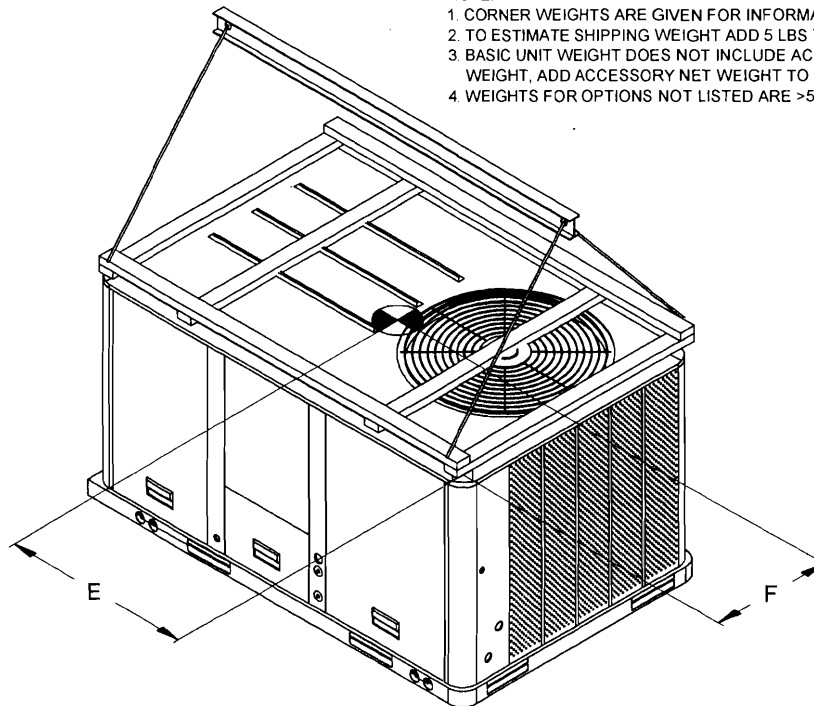
CORNER WEIGHT

INSTALLED ACCESSORIES NET WEIGHT DATA

| ACCESSORY | | WEIGHTS | | | |
|----------------------------------------|----------|----------------|-----|-------------------|-----------|
| ECONOMIZER | | 36.0 lb | | | |
| MOTORIZED OUTSIDE AIR DAMPER | | | | | |
| MANUAL OUTSIDE AIR DAMPER | | | | | |
| BAROMETRIC RELIEF | | | | | |
| OVERSIZED MOTOR | | 8.0 lb | | | |
| BELT DRIVE MOTOR | | | | | |
| POWER EXHAUST | | | | | |
| HEATER | | | | | |
| THROUGH THE BASE ELECTRICAL (FIOPS) | | 13.0 lb | | | |
| UNIT MOUNTED CIRCUIT BREAKER (FIOPS) | | | | | |
| UNIT MOUNTED DISCONNECT (FIOPS) | | 5.0 lb | | | |
| POWERED CONVENIENCE OUTLET (FIOPS) | | 38.0 lb | | | |
| HINGED DOORS (FIOPS) | | 12.0 lb | | | |
| HAIL GUARD | | | | | |
| SMOKE DETECTOR, RETURN | | | | | |
| SMOKE DETECTOR, SUPPLY | | | | | |
| NOVAR CONTROL | | | | | |
| DEHUMIDIFICATION (HOT GAS REHEAT) COIL | | | | | |
| ROOF CURB | | | | | |
| BASIC UNIT WEIGHTS | | CORNER WEIGHTS | | CENTER OF GRAVITY | |
| SHIPPING | NET | (A) | (C) | (E) LENGHT | (F) WIDTH |
| 1125.0 lb | 982.0 lb | (B) | (D) | 39" | 22" |

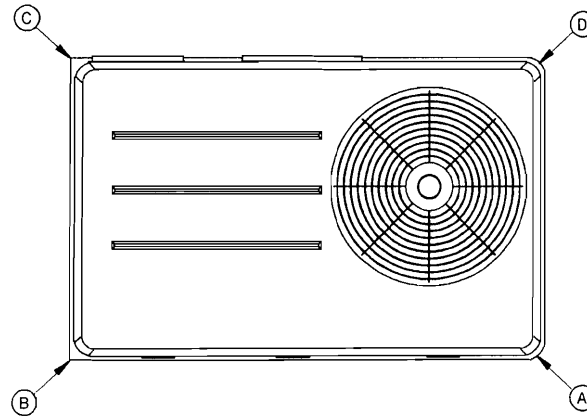
NOTE:

1. CORNER WEIGHTS ARE GIVEN FOR INFORMATION ONLY.
2. TO ESTIMATE SHIPPING WEIGHT ADD 5 LBS TO NET WEIGHT.
3. BASIC UNIT WEIGHT DOES NOT INCLUDE ACCESSORY WEIGHT. TO OBTAIN TOTAL WEIGHT, ADD ACCESSORY NET WEIGHT TO BASIC UNIT WEIGHT.
4. WEIGHTS FOR OPTIONS NOT LISTED ARE >5 LBS.



RIGGING AND CENTER OF GRAVITY

Weight, Clearance & Rigging Diagram - THC092A3R 7.5 Ton Packaged Cooling Only Rooftop Unit
 Qty: 1 Tag(s): RTU-2



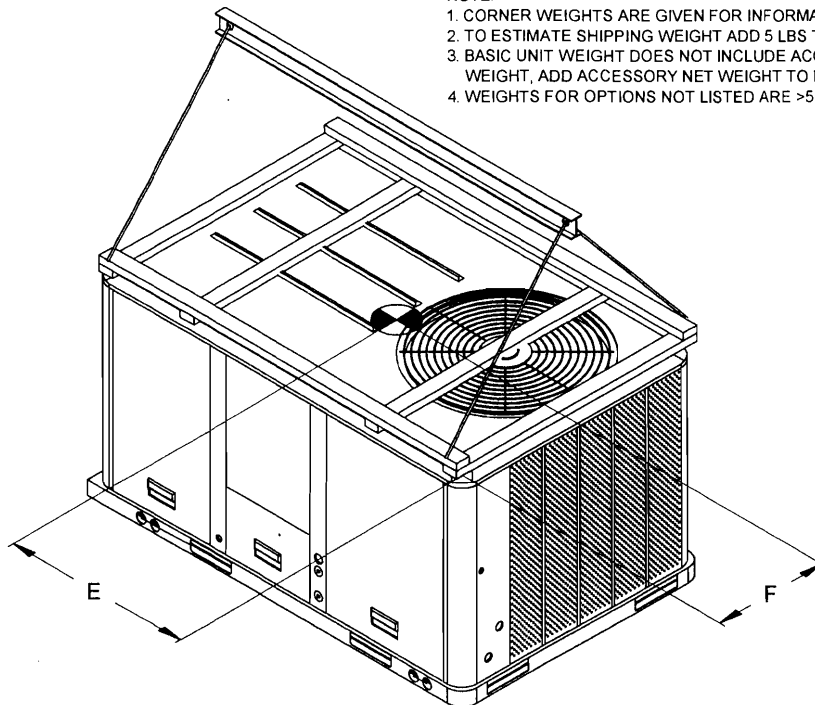
CORNER WEIGHT

INSTALLED ACCESSORIES NET WEIGHT DATA

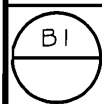
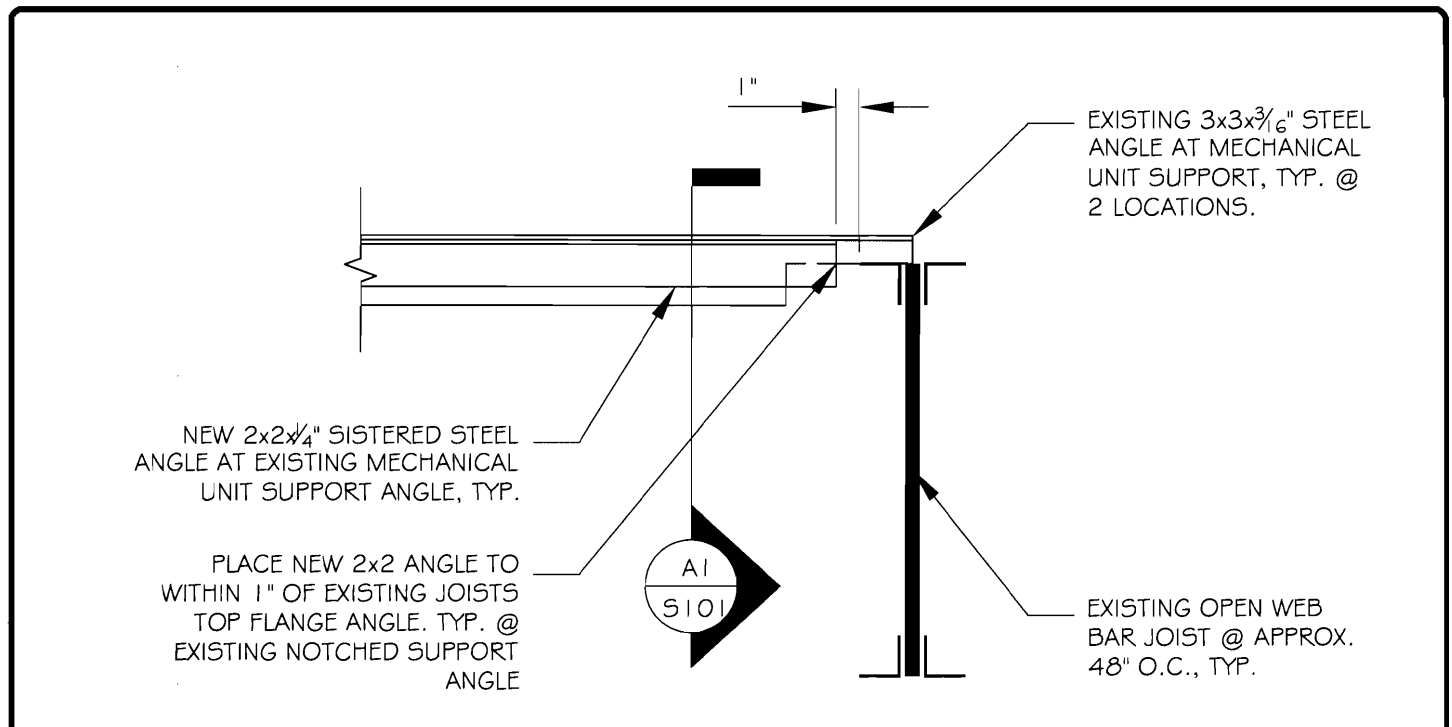
| ACCESSORY | | WEIGHTS | | | |
|----------------------------------------|----------|----------------|-----|-------------------|-----------|
| ECONOMIZER | | 36.0 lb | | | |
| MOTORIZED OUTSIDE AIR DAMPER | | | | | |
| MANUAL OUTSIDE AIR DAMPER | | | | | |
| BAROMETRIC RELIEF | | | | | |
| OVERSIZED MOTOR | | 8.0 lb | | | |
| BELT DRIVE MOTOR | | | | | |
| POWER EXHAUST | | | | | |
| HEATER | | | | | |
| THROUGH THE BASE ELECTRICAL (FIOPS) | | 13.0 lb | | | |
| UNIT MOUNTED CIRCUIT BREAKER (FIOPS) | | | | | |
| UNIT MOUNTED DISCONNECT (FIOPS) | | 5.0 lb | | | |
| POWERED CONVENIENCE OUTLET (FIOPS) | | 38.0 lb | | | |
| HINGED DOORS (FIOPS) | | 12.0 lb | | | |
| HAIL GUARD | | | | | |
| SMOKE DETECTOR, RETURN | | | | | |
| SMOKE DETECTOR, SUPPLY | | | | | |
| NOVAR CONTROL | | | | | |
| DEHUMIDIFICATION (HOT GAS REHEAT) COIL | | | | | |
| ROOF CURB | | | | | |
| BASIC UNIT WEIGHTS | | CORNER WEIGHTS | | CENTER OF GRAVITY | |
| SHIPPING | NET | (A) | (C) | (E) LENGHT | (F) WIDTH |
| 1000.0 lb | 857.0 lb | (B) | (D) | 38" | 21" |

NOTE:

1. CORNER WEIGHTS ARE GIVEN FOR INFORMATION ONLY.
2. TO ESTIMATE SHIPPING WEIGHT ADD 5 LBS TO NET WEIGHT.
3. BASIC UNIT WEIGHT DOES NOT INCLUDE ACCESSORY WEIGHT. TO OBTAIN TOTAL WEIGHT, ADD ACCESSORY NET WEIGHT TO BASIC UNIT WEIGHT.
4. WEIGHTS FOR OPTIONS NOT LISTED ARE >5 LBS.

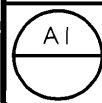
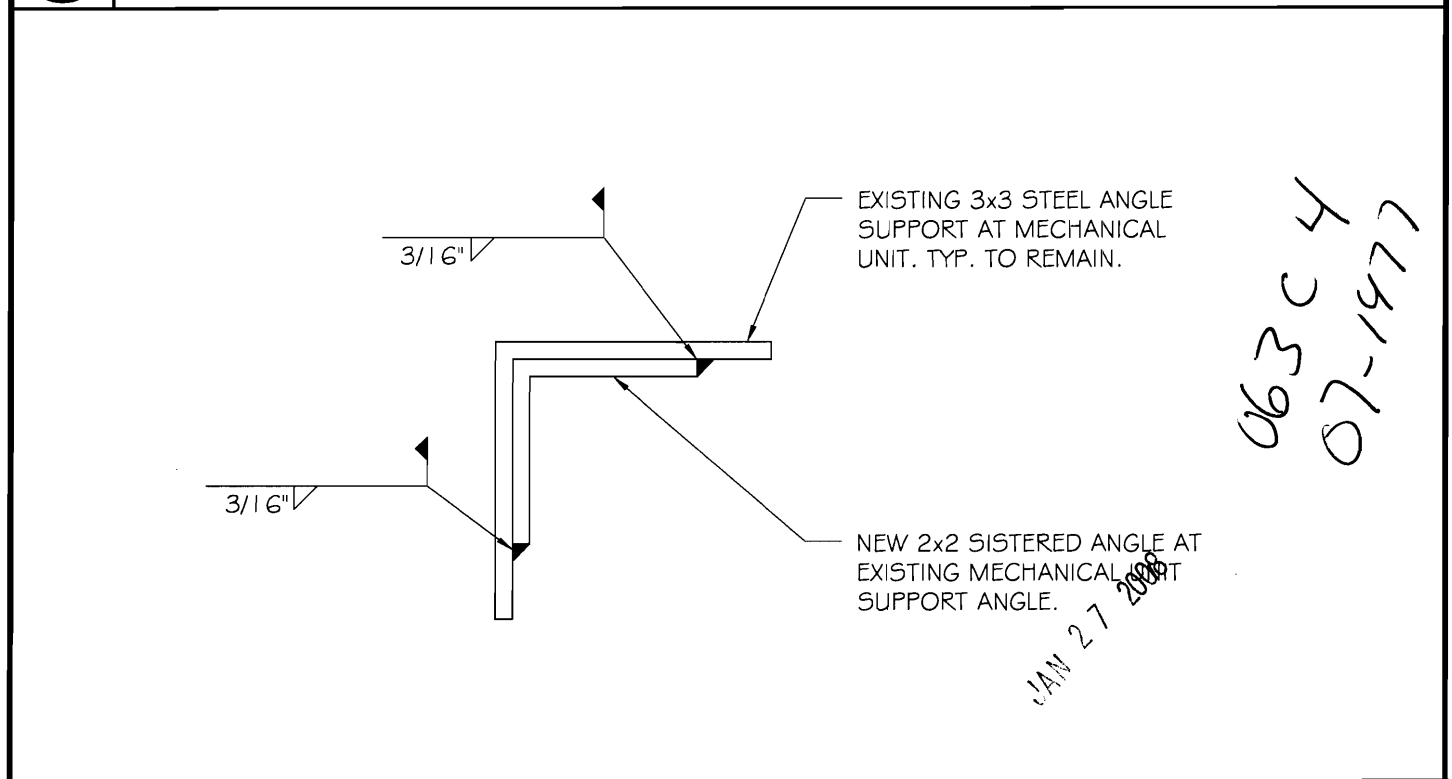


RIGGING AND CENTER OF GRAVITY



TYP. SECTION @ MECH. SUPPORT

SCALE: 1 $\frac{1}{2}$ " = 1'-0"



DETAIL AT SUPPORT ANGLES

SCALE: 6" = 1'-0"

ASSOCIATED DESIGN PARTNERS INC.

80 Leighton Road Office: (207) 878-1751
Falmouth, Maine 04105 Fax: (207) 878-1788
E-Mail: adp@adpengineering.com

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PROJECT: **229 VAUGHN STREET**
PORTLAND, MAINE
FOR: NASON MECHANICAL

SHEET TITLE:

MECHANICAL CURB REINFORCEMENT

REVISIONS

| No. | BY | DESCRIPTION | DATE |
|-----|----|-------------|------|
| △ | | | |
| △ | | | |
| △ | | | |
| △ | | | |

DATE : 12/31/07
SCALE : 3/4" = 1'-0"
DESIGN BY: ASW
DRAWN BY: CMB
FILE #: 07339-S101.DWG
PROJECT NUMBER:
07339
SHEET NO:
S101

| | | | | | | | | | | | |
|--|--------------------------------------------------|--|-----------------------------------|--|-----------------------------------------------------------------------------------|--|----------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|
| | PIPE ELBOW TURNED DN | | GLOBE VALVE | | FLOW SWITCH | | WALL CLEANOUT | | DUCTWORK ~ FIRST DIMENSION IS SIDE SHOWN IN INCHES S = SUPPLY, R = RETURN, E = EXHAUST, FA = FRESH AIR F.D. = FLAT OVAL | | DUCTWORK TO BE REMOVED |
| | PIPE ELBOW TURNED UP | | LOCKABLE BALL VALVE | | SELF-CONTAINED TEMP. CONTROL VALVE WITH REMOTE SENSOR | | AQUASTAT | | EXPANSION LOOP | | ACCUSTICAL LINING (DUCT DIMENSION FOR NET FREE AREA) |
| | PIPING TEE DOWN | | PLUG VALVE | | STEAM TRAP (FLOAT & THERMOSTATIC INDICATED T.T. = THERMOSTAT, B.T. = BUCKET TRAP) | | FLOOR DRAIN | | SHOCK ABSORBER (WATER HAMMER ARRESTER) | | DUCT TRANSITION |
| | PIPING TEE UP | | 2-WAY CONTROL VALVE | | PUMP - POINT OF TRIANGLE INDICATES DIRECTION OF FLOW | | FIRE DEPARTMENT CONNECTION | | FREE STANDING FIRE DEPARTMENT CONNECTION | | SQUARE TO ROUND TRANSITION |
| | PIPE RISER | | 3-WAY CONTROL VALVE | | GAS SHUT-OFF VALVE | | WATER GONG | | FLEX DUCT ~ DOUBLE LINE | | FLEX DUCT ~ SINGLE LINE |
| | 45° ELBOW DOWN | | LOCK & SHIELD VALVE | | HOSE END DRAIN VALVE W/CAP | | TEMPERATURE/PRESSURE TAP (PETE'S PLUG) | | THERMOMETER/COCK | | SOLENOID VALVE |
| | PIPING TO BE REMOVED | | CHECK VALVE | | ORIFICE FLOWMETER | | DIFFERENTIAL PRESSURE TRANSMITTER | | HUMIDIFIER | | FINNED TUBE BASEBOARD |
| | CAPPED PIPING | | AIR ELIMINATOR | | HOSE BIB/WALL HYDRANT | | FLOOR CLEANOUT | | FUSIBLE LINK VALVE | | SHUT-OFF/ISOLATION VALVE REFER TO SPECIFICATIONS |
| | CAPPED BELOW FINISHED FLOOR | | BALANCING VALVE (CIRCUIT SETTER) | | RELIEF/SAFETY VALVE | | SIGHT GLASS | | PRESSURE REDUCING VALVE | | GATE VALVE - OUTSIDE SCREW & YOKE (OS&Y) |
| | CONCENTRIC REDUCER | | AUTOMATIC AIR VENT | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | ECCENTRIC REDUCER | | MANUAL AIR VENT W/4" HIGH CHAMBER | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | DIRECTION OF FLOW | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | PIPING PITCHES DOWN | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | PIPE GUIDE | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | EXPANSION JOINT | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | PIPE ANCHOR | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | UNION | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | FLANGED CONNECTION | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | BACKFLOW PREVENTER | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | FLEXIBLE CONNECTION | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | SHUT-OFF/ISOLATION VALVE REFER TO SPECIFICATIONS | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | GATE VALVE - OUTSIDE SCREW & YOKE (OS&Y) | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |
| | DUCT/PIPE CAP (SINGLE/DOUBLE LINE) | | STRAINER | | STRAINER W/BLOWDOWN VALVE AND CAP | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) | | EXPANSION VALVE (AUTOMATIC) |

D1 PIPING SYMBOLS LEGEND

NONE

D6 AIR DISTRIBUTION SYMBOLS LEGEND

SCALE

| | | | |
|------|---------------------------------|------|-----------------------------------|
| ACID | ACID WASTE | LPS | LOW-PRESSURE STEAM |
| AR | ARGON | MA | MEDICAL AIR |
| ATV | AIR RELIEF | MPC | MEDIUM-PRESSURE CONDENSATE |
| BBD | BOILER BLOWDOWN | MPS | MEDIUM-PRESSURE STEAM |
| C | CONDENSATE | MU | MAKEUP WATER |
| C | CONDENSATE (BELOW FLOOR) | N2 | NITROGEN |
| CA | COMPRESSED AIR | NG | NATURAL GAS |
| CDA | CLEAN DRY AIR | NO | NITROUS OXIDE |
| CHWR | CHILLED WATER RETURN | NPW | NON-POTABLE WATER |
| CHWS | CHILLED WATER SUPPLY | OX | OXYGEN |
| CWC | CONDENSER WATER SUPPLY | PC | PUMPED CONDENSATE |
| CWR | CONDENSER WATER RETURN | PCWR | PROCESSED COLD WATER RETURN |
| | DOMESTIC COLD WATER | PCWS | PROCESSED COLD WATER SUPPLY |
| | DOMESTIC HOT WATER | RD | REFRIGERANT DISCHARGE |
| | DOMESTIC WATER RECIRC. | RL | REFRIGERANT LIQUID |
| D | DRAIN | RS | REFRIGERANT SUCTION |
| FDD | FUEL OIL DISCHARGE | | SANITARY SOIL WASTE (ABOVE FLOOR) |
| FDF | FUEL OIL FILL | | SANITARY SOIL WASTE (BELOW FLOOR) |
| FDP | FUEL OIL RETURN | | SANITARY SOIL VENT (ABOVE FLOOR) |
| FDS | FUEL OIL SUPPLY | | SANITARY SOIL VENT (BELOW FLOOR) |
| FDV | FUEL OIL TANK VENT | SV | SANITARY WASTE & VENT COMBINATION |
| GHR | GLYCOL HEATING RETURN | SD | STORM DRAIN ABOVE FLOOR OR GRADE |
| GHS | GLYCOL HEATING SUPPLY | SD | STORM DRAIN BELOW FLOOR OR GRADE |
| H | HUMIDIFICATION LINE | SP | SPRINKLER MAIN PIPING |
| H2 | HYDROGEN GAS | Sw | SOFT WATER |
| HPh2 | HIGH PRESSURE HYDROGEN GAS | TP | TRAP PRIMER PIPING ABOVE GRADE |
| HCV | HOUSE CLEANING VAC. | TP | TRAP PRIMER PIPING BELOW GRADE |
| HE | HELIUM GAS | TWR | TEMPERED RETURN WATER |
| HPC | HIGH-PRESSURE CONDENSATE | TWS | TEMPERED SUPPLY WATER |
| HPS | HIGH-PRESSURE CONDENSATE SUPPLY | VAC | VACUUM (AIR) |
| HTWR | HIGH-TEMP. HOT WATER RETURN | VC | VACUUM CLEANING |
| HWR | LOW-HOT. WATER RETURN | VPD | VACUUM PUMP DISCHARGE |
| HWS | HOT WATER SUPPLY | | |
| IND | INDUSTRIAL WASTE | | |
| IW | INDIRECT DRAIN | | |
| LN | LIQUID NITROGEN | | |
| LX | LIQUID OXYGEN | | |
| LPC | LOW-PRESSURE CONDENSATE | | |
| LPG | LIQUID PETROLEUM GAS | | |

A1 PIPING LINETYPE LEGEND

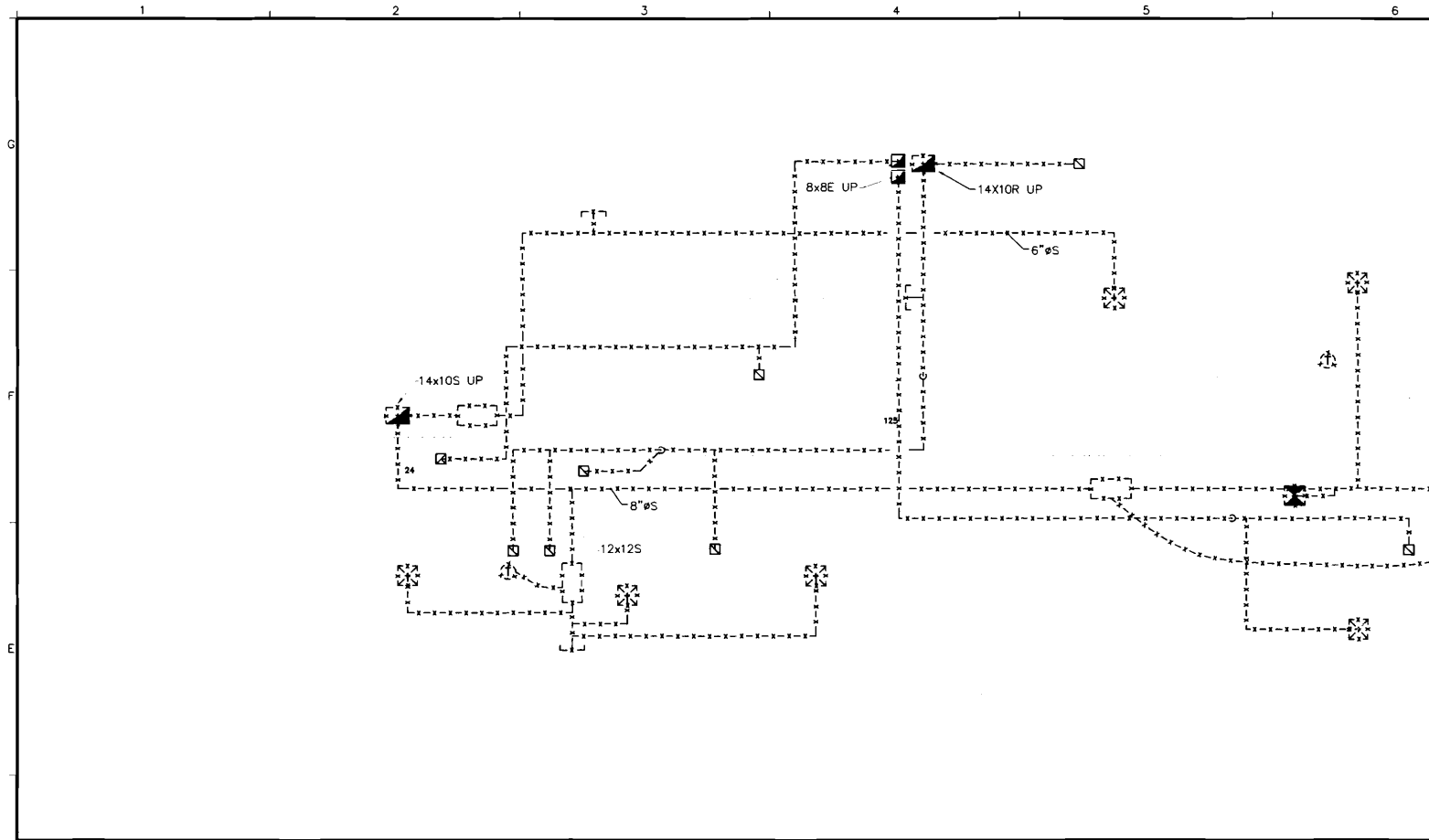
NONE

| | |
|------------|---------------------------------|
| AAV | AUTOMATIC AIR VENT |
| AC | ABOVE CEILING |
| ACC | AIR COOLED CONDENSER |
| ACU | AIR CONDITIONING UNIT |
| ADA | AMERICANS WITH DISABILITIES ACT |
| AD | ACCESS DOOR |
| AE | ACID EXHAUST |
| AW | ACID WASTE |
| AF, A.F.F. | ABOVE FINISHED FLOOR |
| AHU | AIR HANDLING UNIT |
| AP | ACCESS PANEL |
| APPROX | APPROXIMATE; APPROXIMATELY |
| APMR | AS PER MFR'S RECOMMENDATIONS |
| ATC | AUTOMATIC TEMPERATURE CONTROL |
| AV | AIR VENT |
| BC | BALANCING COCK |
| BDD | BACKDRAFT DAMPER |
| BG | BLAST GATE |
| BF | BARRIER FREE |
| BFP | BACKFLOW PREVENTER |
| BLDG | BUILDING |
| BOD | BOTTOM OF DUCT |
| B.T.U. | BRITISH THERMAL UNIT |
| C, CONV. | CONVECTOR |
| CF | CAPPED FOR FUTURE |
| CFM | CUBIC FEET PER MINUTE |
| CLG | CEILING |
| C.O. | CLEANOUT |
| CM | CONSTRUCTION MANAGER |
| CNTR | COUNTER; COUNTERTOP |
| CONN | CONNECT; CONNECTION |
| CONT | CONTINUE; CONTINUATION |
| COORD | COORDINATE |
| CORR | CORRIDOR |
| CR | CHEMICAL RESISTING |
| CT | COOLING TOWER |
| CTE | CONNECT TO EXISTING |
| CTR | CENTER |
| CTRLN | CENTERLINE |
| CU | COPPER |
| CUH | CABINET UNIT HEATER |
| C.V. | CONTROL VALVE |
| CW | COLD WATER, CONDENSER WATER |
| DB | DRY BULB TEMPERATURE, °F |
| DC | DOUBLE CONTAINED |
| DDC | DIRECT DIGITAL CONTROL |
| DET | DETAIL |
| DIA | DIAMETER |
| DIC | DOWN IN CHASE |
| DIW | DOWN IN WALL |
| DN | DOWN |
| DS | DOWNSPOUT |

| | | | |
|----------|-----------------------------------|----------|----------|
| DT | DROP AND TRANSITION | MBH | MBH |
| DV | DRAIN VALVE | MFR | MFR |
| DWG | DRAWING | MIN | MIN |
| EA | EXHAUST AIR | MOD | MOD |
| EF | EXHAUST FAN | MPC | MPC |
| EL; ELEV | ELEVATION | MPV | MPV |
| ELONG | ELONGATE | MTD | MTD |
| ENC | ENCLOSURE | MTG | MTG |
| ER | EXHAUST REGISTER | MUA | MUA |
| ET | EXPANSION TANK | N.C. | N.C. |
| EX;(E) | EXISTING | N.O. | N.O. |
| F & T | FLOAT AND THERMOSTATIC | NIC | NIC |
| FBO | FURNISHED BY OTHERS | NPT | NPT |
| FBP | FACE AND BYPASS | NTS | NTS |
| FC | FLEXIBLE CONNECTION | OA | OA |
| FCO | FLOOR CLEANOUT | OBD | OBD |
| FD-# | FLOOR DRAIN TAG | OED | OED |
| FD | FIRE DAMPER | P-# | P-# |
| FIN | FINISH | PCHWS | PCHWS |
| FL | FLOOR | PD | PD |
| FTG | FOOTING | PPE | PPE |
| FTR | FINNED TUBE RADIATION | PRS | PRS |
| FS | FLOW SWITCH | PRV | PRV |
| FM | FORCE MAIN | RA | RA |
| GC | GENERAL CONTRACTOR | RD | RD |
| GPM | GALLONS PER MINUTE | REC | REC |
| GV | GRAVITY VENTILATOR | REG | REG |
| H | HUMIDIFIER | RF | RF |
| HB | HOSE BIB | RG | RG |
| HC; HDC | HANDICAP ACCESS | RHC | RHC |
| HGT, HT. | HEIGHT | RM | RM |
| HP | HEAT PUMP | RPZ | RPZ |
| HPT | HOSE PIPE THREAD | RR | RR |
| HRU | HEAT RECOVERY UNIT | RV | RV |
| HTR | HEATER | S | S |
| H & V | HEATING AND VENTILATION | SA-- | SA-- |
| HVAC | HEATING, VENTILATING, & AIR COND. | SCHWS | SCHWS |
| HW | HOT WATER | SCHWR | SCHWR |
| HWR | HOT WATER RETURN | SL | SL |
| HX | HEAT EXCHANGER | SCV | SCV |
| IN WG | INCHES WATER GAUGE | SD | SD |
| INCL | INCLUDING | SF | SF |
| INV EL | INVERT ELEVATION | SG | SG |
| IPS | IRON PIPE SIZE | SGL | SGL |
| KE-# | KITCHEN EQUIPMENT NUMBER | SHT | SHT |
| LD | LINEAR DIFFUSER | SK | SK |
| LE-# | SCIENCE LAB EQUIPMENT NUMBER | SPLR | SPLR |
| LPG | LIQUID PETROLEUM GAS | SQ FT | SQ FT |
| LPR | LOW PRESSURE STEAM RETURN | S/O | S/O |
| LPS | LOW PRESSURE STEAM SUPPLY | SR | SR |
| MAX | MAXIMUM | SS; S.S. | SS; S.S. |
| | | TG | TG |
| | | TOD | TOD |

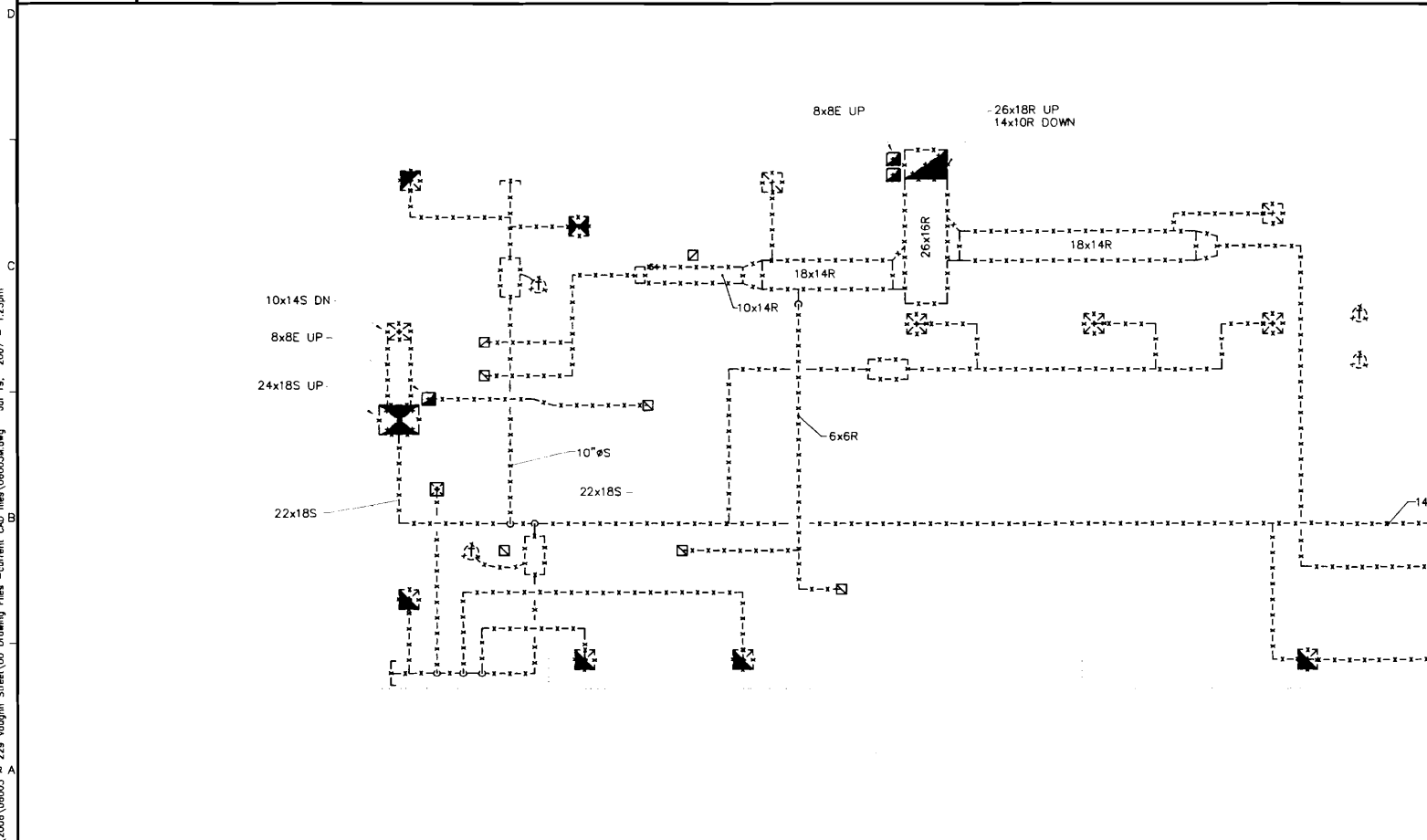
A4 ABBREVIATIONS

NONE



D1 MECHANICAL DEMOLITION PLAN ~ GROUND FLOOR

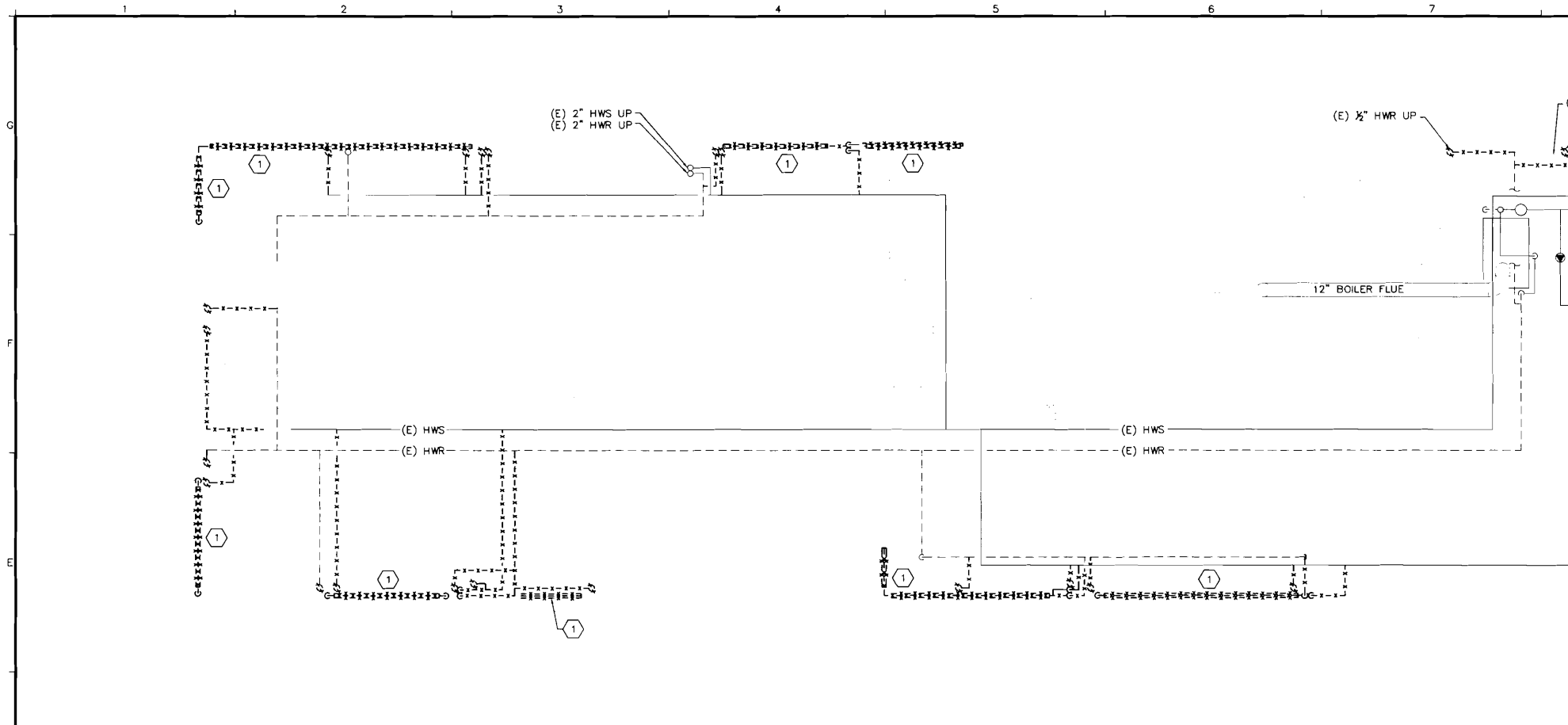
1/4" = 1'-0"



A1 MECHANICAL DEMOLITION PLAN ~ FIRST FLOOR

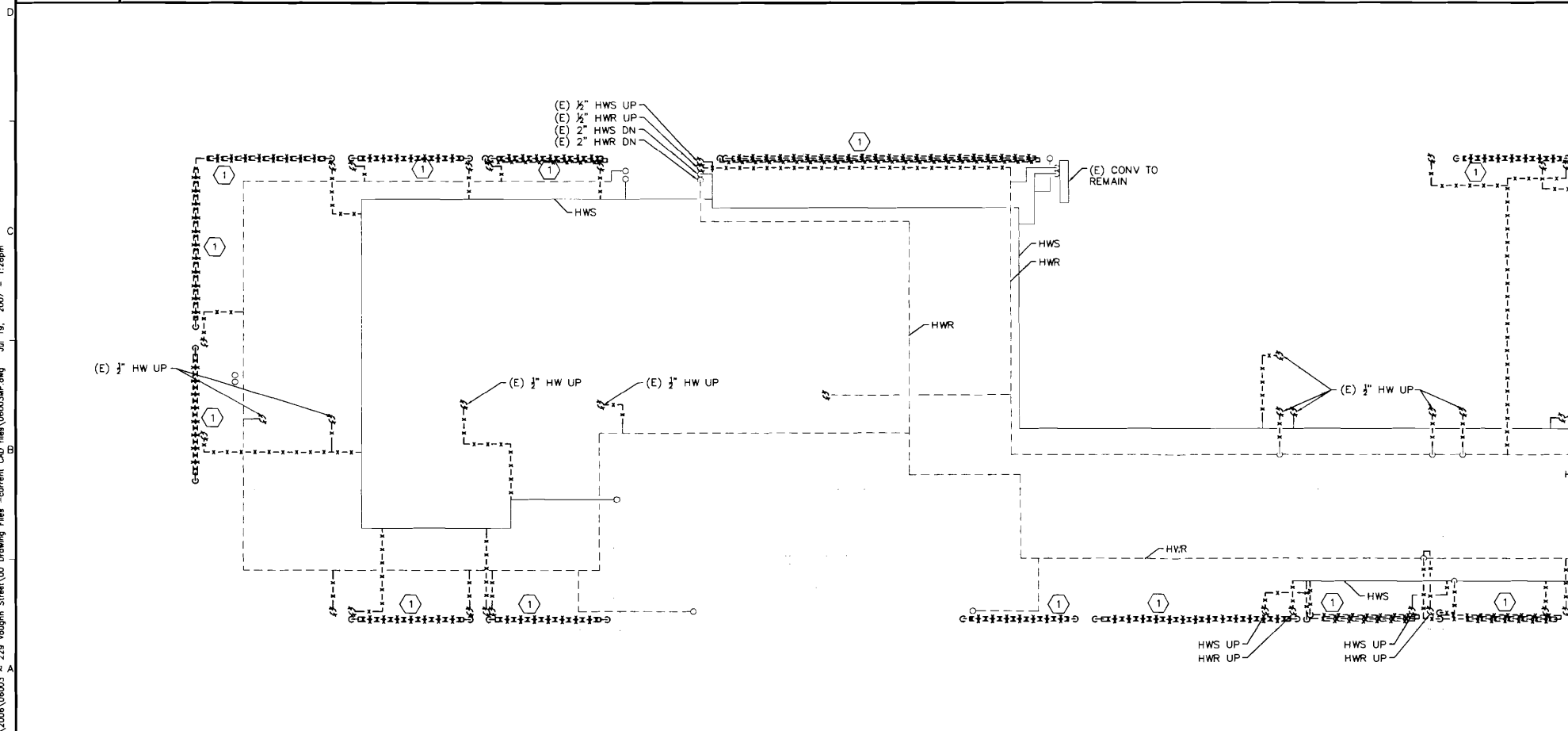
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D1 MECHANICAL PIPING DEMOLITION PLAN ~ GROUND FLOOR

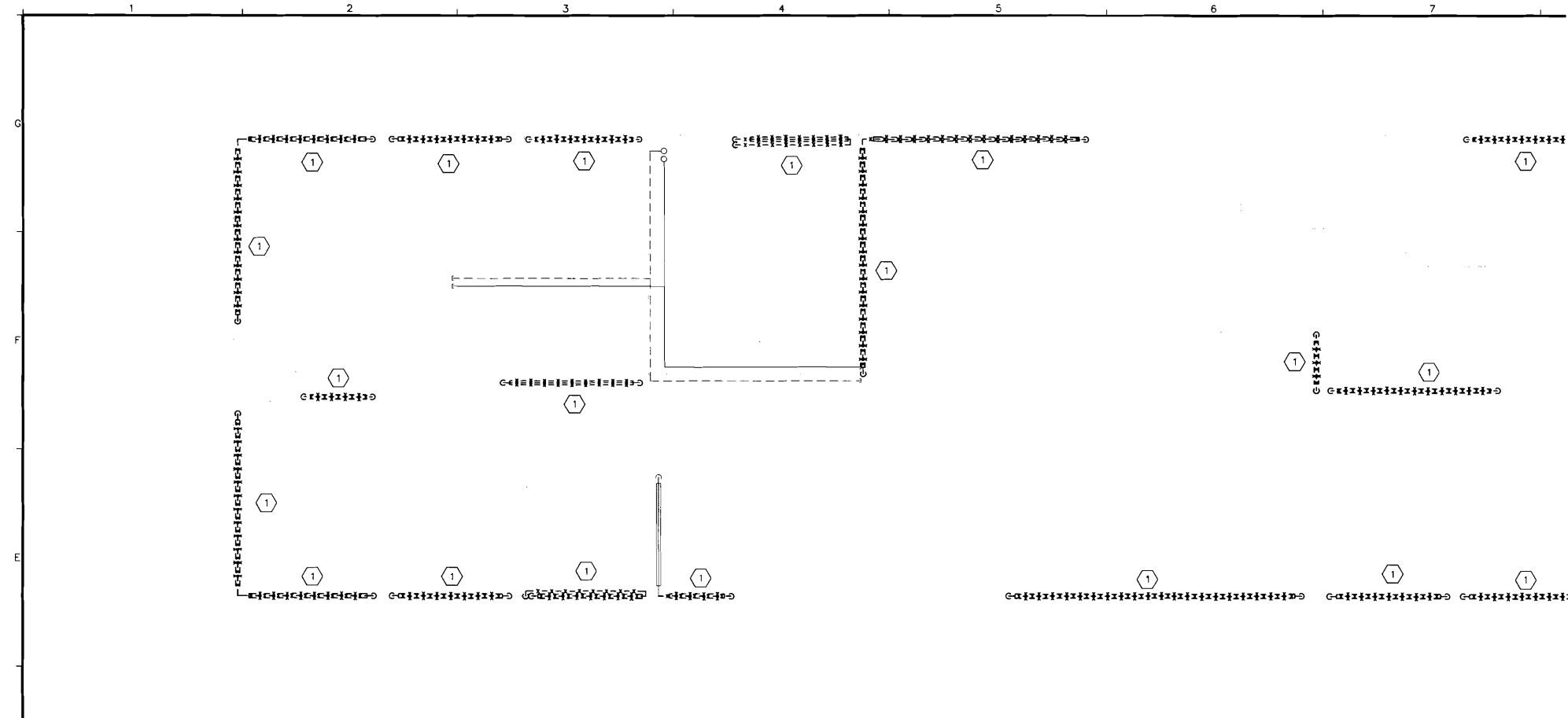
1/4" = 1'-0"



A1 MECHANICAL PIPING DEMOLITION PLAN ~ FIRST FLOOR

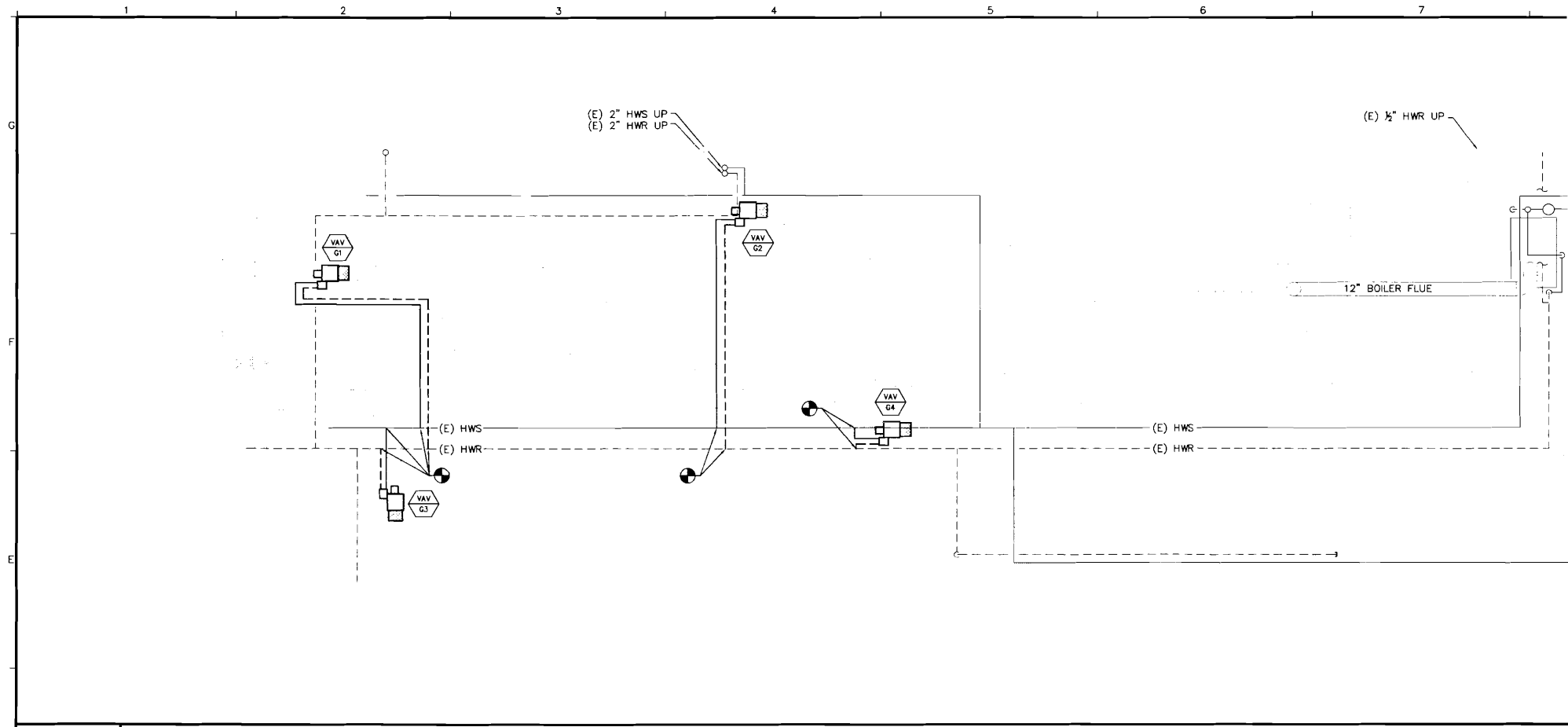
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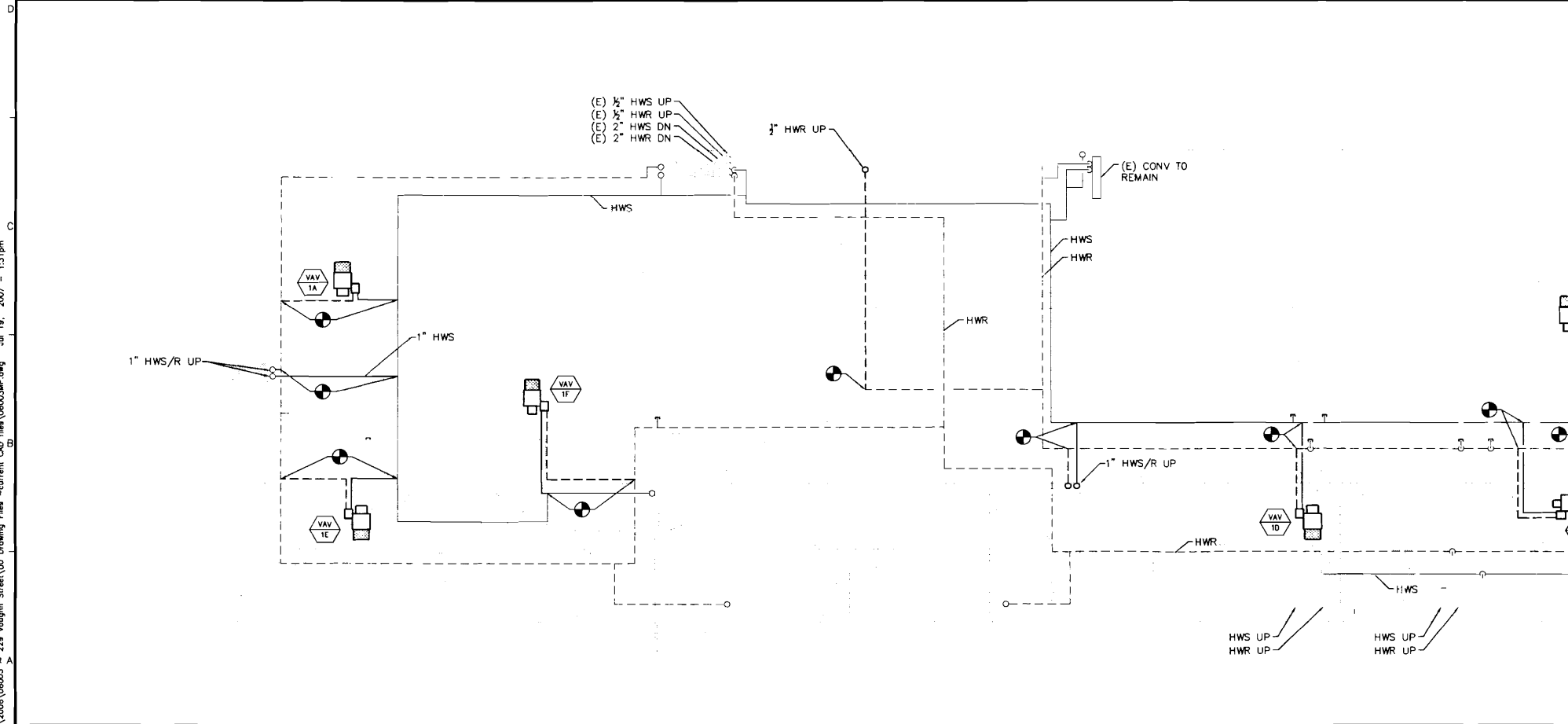
| | |
|--------------|--------------------------------------------------|
| D1 | MECHANICAL PIPING DEMOLITION PLAN - SECOND FLOOR |
| 1/4" = 1'-0" | |

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D1 MECHANICAL PIPING PLAN - GROUND FLOOR

1/4" = 1'-0"

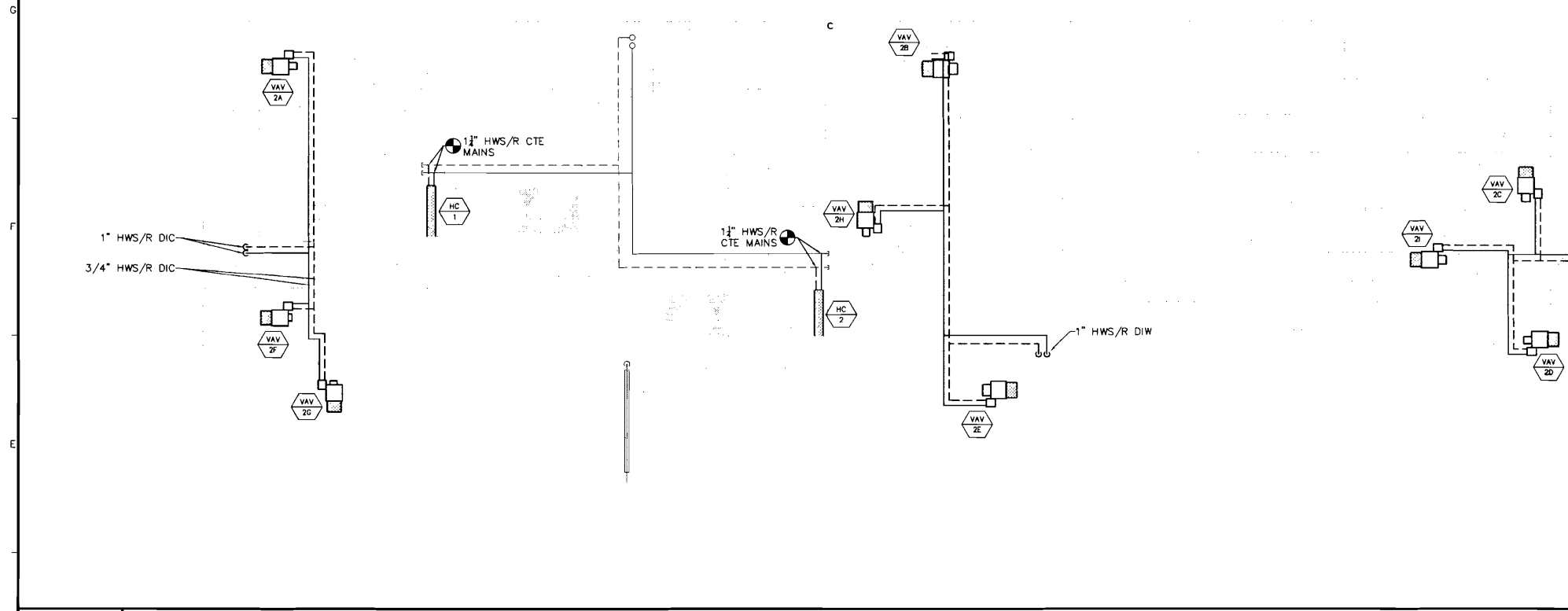


A1 MECHANICAL PIPING PLAN - FIRST FLOOR

1/4" = 1'-0"

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1 2 3 4 5 6 7

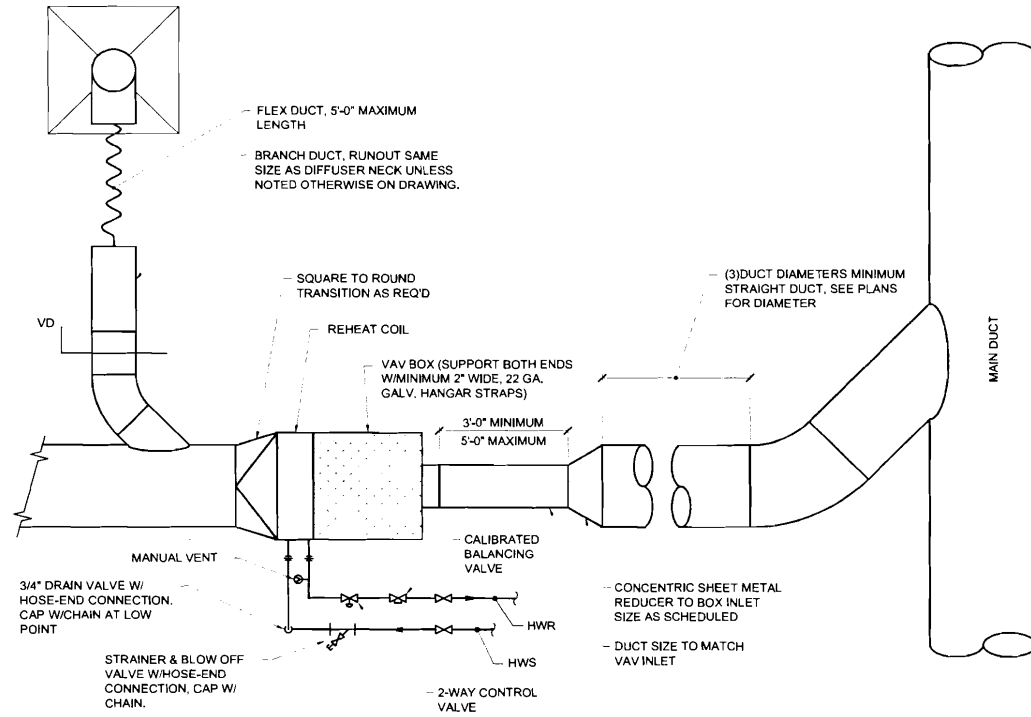


D1 MECHANICAL PIPING PLAN ~ SECOND FLOOR

1/4" = 1'-0"

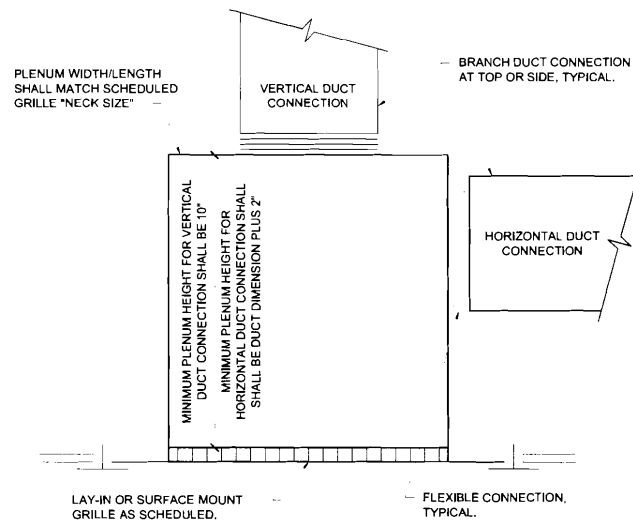
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1 2 3 4 5 6



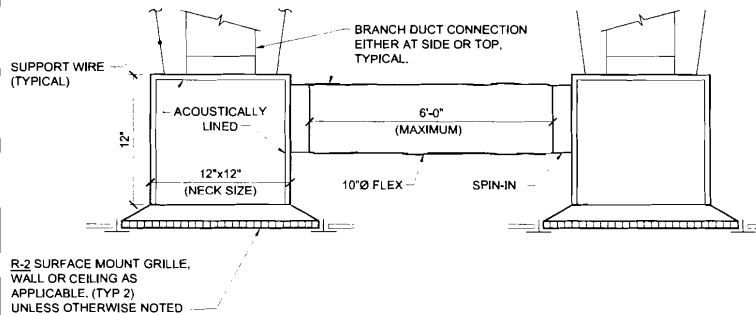
A1 DETAIL - VAV BOX SCHEMATIC

1/4" = 1'-0"



A1 DETAIL - RETURN/EXHAUST AIR REGISTER BOOT

1/4" = 1'-0"



A1 DETAIL - AIR TRANSFER DUCT

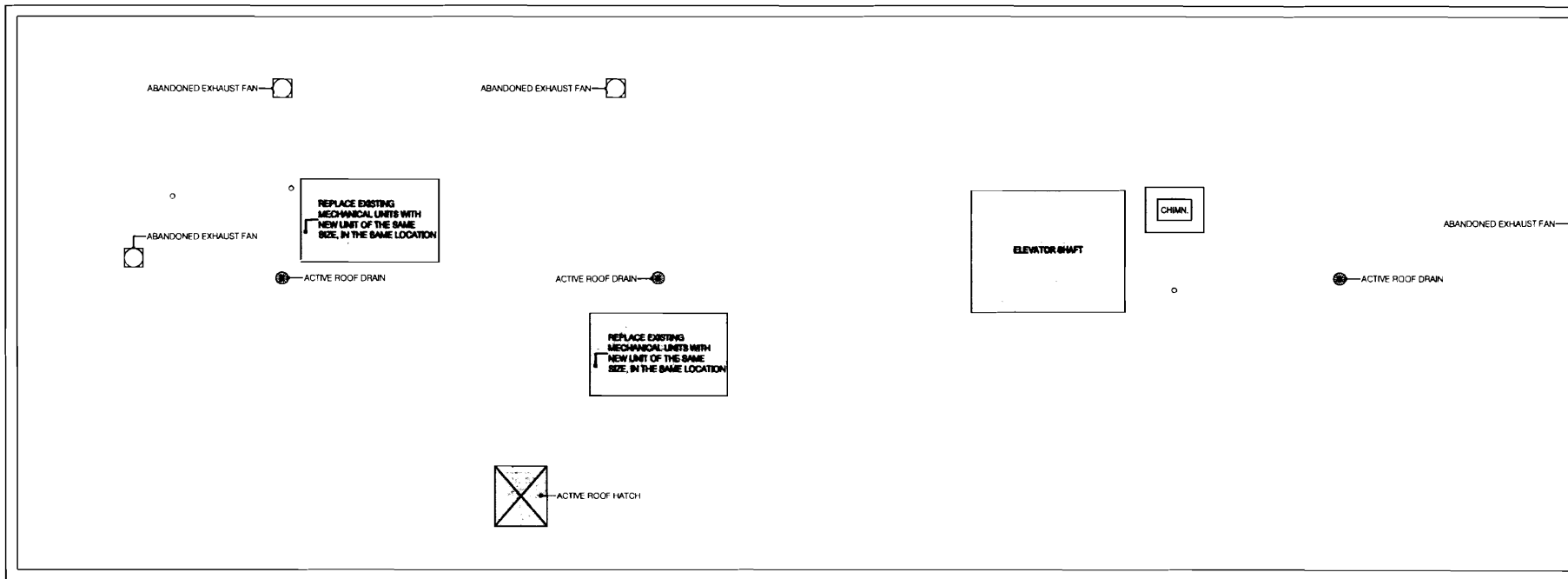
1/4" = 1'-0"

| TAG | SERVES | AIRF |
|------|--------|------|
| HC-1 | RTU-1 | 40 |
| HC-2 | RTU-2 | 30 |

| TAG | LOCATION | SERVES | COOK MODEL |
|------|----------|--------------|------------|
| EF-1 | ROOF | EAST TOILETS | ACE-D |
| EF-2 | ROOF | WEST TOILETS | ACE-D |

| REGIST | | | |
|--------|-------------|-------------------------------------------------|--|
| TAG | PRICE MODEL | TYPE | |
| S-1 | TBDV675 | T-BAR SLOT DIFFUSER | |
| S-2 | SCDA | SQ. CEILING SUPPLY DIFFUSER | |
| S-3 | SCDA | SQ. CEILING SUPPLY DIFFUSER | |
| R-1 | 630 | ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES | |
| R-2 | 630 | ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES | |
| R-3 | 630 | ALUM. RETURN GRILLE, 3/4" SPACING, 35 DEG VANES | |
| R-4 | 630 | ALUM. RETURN GRILLE, 3/4" SPACING, 0 DEG VANES | |

| TAG | FLOOR | SERVES | CFM MAX | CFM MIN | Trane Model N |
|---------|-------|--------------------|---------|---------|---------------|
| VAV-G1 | G | CONFERENCE 1 | 230 | 120 | VCWF05 |
| VAV-G2 | G | CONFERENCE 2 | 230 | 120 | VCWF05 |
| VAV-G3 | G | OFFICES | 100 | 60 | VCWF04 |
| VAV-G4 | G | BREAK ROOMS | 100 | 120 | VCWF04 |
| VAV-1A | 1 | S. OFFICES | 850 | 400 | VCWF08 |
| VAV-1B | 1 | SW. CORNER OFFICES | 350 | 175 | VCWF06 |
| VAV-1C | 1 | NW. CORNER OFFICES | 230 | 100 | VCWF05 |
| VAV-1D | 1 | N. OFFICES | 500 | 200 | VCWF08 |
| VAV-1E | 1 | NE. OFFICES | 600 | 300 | VCWF08 |
| VAV-1F | 1 | CORE AREA | 780 | 390 | VCWF06 |
| VAV-BP1 | 2 | RTU-1 BYPASS DUCT | 3200 | | VARA2R |
| VAV-2A | 2 | SW. CORNER OFFICE | 230 | 100 | VCWF05 |
| VAV-2B | 2 | S. OFFICES | 600 | 300 | VCWF08 |
| VAV-2C | 2 | SW. CORNER OFFICES | 400 | 200 | VCWF06 |
| VAV-2D | 2 | NW. CORNER OFFICE | 230 | 100 | VCWF05 |
| VAV-2E | 2 | N. OFFICES | 500 | 200 | VCWF08 |
| VAV-2F | 2 | NE. CORNER OFFICES | 250 | 120 | VCWF05 |
| VAV-2G | 2 | NE. CORNER OFFICE | 230 | 100 | VCWF05 |
| VAV-2H | 2 | CORE OFFICES WEST | 200 | 120 | VCWF05 |
| VAV-2I | 2 | CORE OFFICES EAST | 350 | 175 | VCWF06 |
| VAV-BP2 | 2 | RTU-2 BYPASS DUCT | 2300 | | VARA1R |



1 Roof Plan
Scale 1/8"=1'

