

BASE SCOPE

RTU 9 Compressor Replacements -

Replace two compressors: one each per circuits 1 & 2.

PROJECT SCOPE:

- Provide all materials, labor, equipment, and tools necessary to complete the work.
- Set up refrigerant recovery materials and mount them in place.
- Recover the existing refrigerant from circuits 1 & 2
- Disconnect existing electrical connections
- Disconnect existing piping connections to the two compressors
- Remove and properly dispose of the two existing compressors
- Provide two new compressors and get them to the units on the roof. An elevator can get you to the 3rd floor and an access door approx 40" wide can get you to the roof or the contractor can coordinate a crane or other conveyance to raise them straight to the roof. Any street or sidewalk closure permits via DPW or Police Details required are at the cost of the contractor. Contractor is responsible for determining the size of the crane, if using one, and location to lift from and to. All options chosen by the contractor shall be included in the bid price to cover all costs associated with the work.
- Reconnect existing refrigerant piping
- Furnish and install (1) new filter drier for circuits 1 & 2
- Reconnect existing electrical connections to the compressors
- Mount the vacuum pump in place and monitor the system until the proper microns are met
- Pressurize the system and perform a leak check to ensure all piping is tight and secure
- Remove the nitrogen from the system
- Re-charge the unit to the manufacturer's nameplate recommended charge with new R-22 refrigerant
- Remove any compromised refrigerant and dispose of per EPA requirements.
- Start and test each unit and verify compressor operation, circuit pressures, and overall cooling performance. Document and make any recommendations of additional repairs to ensure the unit functions as designed.
- Provide any necessary Worcester Fire Prevention Hot Works permit and if required paid detail
- All work to be done during normal working hours: 7:00 am – 3:30 pm

RTU's 12 Compressor Replacements -

Replace one compressor on circuits 1.

PROJECT SCOPE:

- Provide all materials, labor, equipment, and tools necessary to complete the work.
- Set up refrigerant recovery materials and mount them in place.
- Recover the existing refrigerant from circuits 1
- Disconnect existing electrical connections
- Disconnect existing piping connections to the compressor
- Remove and properly dispose of the existing compressor
- Provide one new compressors and get it to the unit on the roof. An elevator can get you to the 3rd floor and internal stairs can get you to the roof or you can coordinate a crane or other conveyance to raise them straight to the roof. Any street or sidewalk closure permits via DPW or Police Details required are at the cost of the contractor. Contractor is responsible for determining the size of the crane, if using one, and location to lift from and to. All options chosen by the contractor shall be included in the bid price to cover all costs associated with the work.
- Reconnect existing refrigerant piping
- Furnish and install (1) new filter drier for circuits 1
- Reconnect existing electrical connections to the compressor
- Mount the vacuum pump in place and monitor the system until the proper microns are met
- Pressurize the system and perform a leak check to ensure all piping is tight and secure
- Remove the nitrogen from the system
- Re-charge the unit to the manufacturer's nameplate recommended charge with new R-22 refrigerant
- Remove any compromised refrigerant and dispose of per EPA requirements.
- Start and test the unit and verify compressor operation, circuit pressures, and overall cooling performance. Document and make any recommendations of additional repairs to ensure the unit functions as designed.
- Provide any necessary Worcester Fire Prevention Hot Works permit and if required paid detail
- All work to be done during normal working hours: 7:00 am – 3:30 pm

ADD Alternate #1

RTU 15 Compressor Replacements –

Replace two compressor: one each per circuits 1 & 2.

PROJECT SCOPE:

- Provide all materials, labor, equipment, and tools necessary to complete the work.
- Set up refrigerant recovery materials and mount them in place.
- Recover the existing refrigerant from circuits 1 & 2
- Disconnect existing electrical connections
- Disconnect existing piping connections to the two compressors
- Remove and properly dispose of the two existing compressors
- Provide two new compressors and get them to the units on the roof. An elevator can get you to the 3rd floor and internal stairs can get you to the roof or you can coordinate a crane or other conveyance to raise them straight to the roof. Any street or sidewalk closure permits via DPW or Police Details required are at the cost of the contractor. Contractor is responsible for determining the size of the crane, if using one, and location to lift from and to. All options chosen by the contractor shall be included in the bid price to cover all costs associated with the work. Add alternates, if accepted, shall be accepted when the base bid is accepted.
- Reconnect existing refrigerant piping
- Furnish and install (1) new filter drier for circuits 1 & 2
- Reconnect existing electrical connections to the compressors
- Mount the vacuum pump in place and monitor the system until the proper microns are met
- Pressurize the system and perform a leak check to ensure all piping is tight and secure
- Remove the nitrogen from the system
- Re-charge the unit to the manufacturer's nameplate recommended charge with new R-22 refrigerant
- Remove any compromised refrigerant and dispose of per EPA requirements.
- Start and test each unit and verify compressor operation, circuit pressures, and overall cooling performance. Document and make any recommendations of additional repairs to ensure the unit functions as designed.
- Provide any necessary Worcester Fire Prevention Hot Works permit and if required paid detail
- All work to be done during normal working hours: 7:00 am – 3:30 pm

Reference information

RTU 9 nameplate data

0331324

		QTY.	HP (EA)	AMPS (EA)	RLA (EA)	LRA (EA)	VOLT./HZ/PH
COMPRESSOR MOTOR		2	40	71	RLA	297	460-60-3
COMPRESSOR MOTOR					RLA		
CONDENSER FAN MOTOR		8	1	2.5	FLA		460-60-3
CONDENSER FAN MOTOR (SPEEDTROL)					FLA		
EVAPORATOR FAN MOTOR		1	20	23.8	FLA		460-60-3
RETURN FAN MOTOR		1	5	6.4	FLA		460-60-3
EXHAUST FAN MOTOR					FLA		
ELECTRIC HEATER	KW				FLA		

UNIT SPECIFICATIONS

STANDARD POWER SUPPLY	VOLTS/HZ/PH	MCA	MROPD	MCS
ALL LOADS ON ONE SUPPLY CIRCUIT				
SERVICE ELECTRICAL OUTLET				
MULTIPLE POWER SUPPLY				
ELECTRIC CIRCUIT #1	COND. SAF	460-60-3	200	AMPS
ELECTRIC CIRCUIT #2	RAF	460-60-3	15	AMPS
ELECTRIC CIRCUIT #3		120-60-1	15	AMPS
SERVICE ELECTRICAL OUTLET				

McQuerry

FOR CANADIAN INSTALLATION ONLY. MAXIMUM CIRCUIT BREAKER SIZE (TIME LIMITED).

1. MOTOR COMPRESSOR(S) THERMALLY PROTECTED SYSTEM(S).
 2. THERMALLY PROTECTED CONDENSER FAN MOTORS.
 3. SEE "INSTALLATION INSTRUCTIONS".
 4. SUITABLE FOR OUTDOOR USE.
 5. FOR NON-RESIDENTIAL INSTALLATION ONLY.
 6. SEE BURNER AND FURNACE RATING PLATES FOR GAS HEAT.
 7. UNITS WITH ELECTRIC FURNACE—ZERO INCH CLEARANCE TO COMBUSTIBLES.

FACTORY CHARGE

REFRIGERANT TYPE

LBS. CIRCUIT #1 CHARGE

LBS. CIRCUIT #2 CHARGE

FACTORY TEST PRESSURES

PSIG. LOW SIDE

PSIG. HIGH SIDE

FOR CANADIAN INSTALLATION ONLY. MAXIMUM CIRCUIT BREAKER SIZE (TIME LIMITED).

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RTU 12 nameplate data

ALPHA Facility Solutions

0331291

UNIT SPECIFICATIONS					
COMPONENT	QTY	HP (EA)	AMPS (EA)	LRA (EA)	VOLTS/HZ/PH
COMPRESSOR MOTOR	1	30	53 FLA	235	460-60-3
COMPRESSOR MOTOR			RLA		
CONDENSER FAN MOTOR	10	1	2.0 FLA		460-60-3
EVAPORATOR FAN MOTOR (SPEED CTRL)					
EVAPORATOR FAN MOTOR		20	23.8 FLA		460-60-3
RETURN FAN MOTOR		10	12.5 FLA		460-60-3
EXHAUST FAN MOTOR					
ELECTRIC HEATER					
	KW		FLA		

STANDARD POWER SUPPLY	VOLTS/HZ/PH	MCA	MROPD	MCB
ALL LOADS COMMON SUPPLY CIRCUIT				
SERVICE ELECTRICAL OUTLET				
MULTIPLE POWER SUPPLY				
ELECT CRKT #1	460-60-3	270 AMPS	300 AMPS	
ELECT CRKT #2	460-60-3	16 AMPS	20 AMPS	
ELECT CRKT #3				
SERVICE ELECTRICAL OUTLET	120-60-1	15 AMPS	15 AMPS	

McQuay
International

P.O. BOX 1551, MINNEAPOLIS, MN 55440

NOTE: THIS UNIT IS SOLD SUBJECT TO MC QUAY INTERNATIONALS LIMITED WARRANTY. REFER TO THE UNIT INSTALLATION AND MAINTENANCE MANUAL FOR DETAILS.

1. MOTOR COMPRESSOR(S) THERMALLY PROTECTED SYSTEM(S)
2. THERMALLY PROTECTED CONDENSER FAN MOTORS.
3. SEE "INSTALLATION INSTRUCTIONS".
4. SUITABLE FOR OUTDOOR USE.
5. FOR NON-RESIDENTIAL INSTALLATION ONLY.
6. SEE BURNER AND FURNACE RATING PLATES FOR GAS HEAT.
7. UNITS WITH ELECTRIC FURNACE—ZERO INCH CLEARANCE TO COMBUSTIBLES.

UNIT MODEL NUMBER

UNIT SERIAL NUMBER

UNIT PART NUMBER

HOT WATER COIL (280°F/120 PSIG. MAX. INLET WATER)

STEAM COIL (35 PSIG. MAX. STEAM PRESSURE)

ELECTRIC HEATER MODEL NUMBER

ELECTRIC HEATER MBH

IN. W.C.

MAX. EXTERNAL STATIC PRESSURE TESTED

MAX. OUTPUT AIR TEMPERATURE

FACTORY CHARGE

REFRIGERANT TYPE

LBS. CIRCUIT #1 CHARGE

LBS. CIRCUIT #2 CHARGE

FACTORY TEST PRESSURES

PSIG. LOW SIDE

PSIG. HIGH SIDE

RTU 2

FORM NO. 73317B-01-0

RTU 15 nameplate data

ALPHA Facilities Solutions

0331293

		UNIT SPECIFICATIONS			
	QTY.	HP (EA)	AMPS (EA)	LRA (EA)	VOLTS/HZ/PH
COMPRESSOR MOTOR	4	25	39 RLA	214	460-60-3
COMPRESSOR MOTOR			RLA		
CONDENSER FAN MOTOR	9	1	2.0 FLA		460-60-3
CONDENSER FAN MOTOR (SPEEDTROL)			FLA		
EVAPORATOR FAN MOTOR	1	20	23.8 FLA		460-60-3
RETURN FAN MOTOR	1	7.5	9.8 FLA		460-60-3
EXHAUST FAN MOTOR			FLA		
ELECTRIC HEATER			FLA		

		UNIT SPECIFICATIONS			
	QTY.	HP (EA)	AMPS (EA)	LRA (EA)	VOLTS/HZ/PH
COMPRESSOR MOTOR	4	25	39 RLA	214	460-60-3
COMPRESSOR MOTOR			RLA		
CONDENSER FAN MOTOR	9	1	2.0 FLA		460-60-3
CONDENSER FAN MOTOR (SPEEDTROL)			FLA		
EVAPORATOR FAN MOTOR	1	20	23.8 FLA		460-60-3
RETURN FAN MOTOR	1	7.5	9.8 FLA		460-60-3
EXHAUST FAN MOTOR			FLA		
ELECTRIC HEATER			FLA		

STANDARD POWER SUPPLY

ALL LOADS COMMON SUPPLY CIRCUIT

SERVICE ELECTRICAL OUTLET

MULTIPLE POWER SUPPLY

UNIT MODEL NUMBER: RPS105CSA

UNIT SERIAL NUMBER: 36600830 02

UNIT PART NUMBER: X9 626290110

HOT WATER COIL (260°F MAX. INLET WATER)

STEAM COIL (35 PSIG. MAX. STEAM PRESSURE)

ELECTRIC HEATER MODEL NUMBER

ELECTRIC HEATER MBH

MAX. EXTERNAL STATIC PRESSURE TESTED

MAX. OUTPUT AIR TEMPERATURE

MINIMUM CIRCUIT AMPACITY

MAXIMUM RATING OVER-CURRENT PROTECTIVE DEVICE (TIME DELAY FUSE OR INVERSE TIME CIRCUIT BREAKER) CANADA - MAXIMUM FUSE SIZE

FOR CANADIAN INSTALLATION ONLY - MAXIMUM CIRCUIT BREAKER SIZE (TIME LIMITED)

1. MOTOR COMPRESSORS - NORMALLY PROTECTED SYSTEMS

2. THERMALLY PROTECTED CONDENSER FAN MOTORS

3. SEE INSTALLATION INSTRUCTIONS

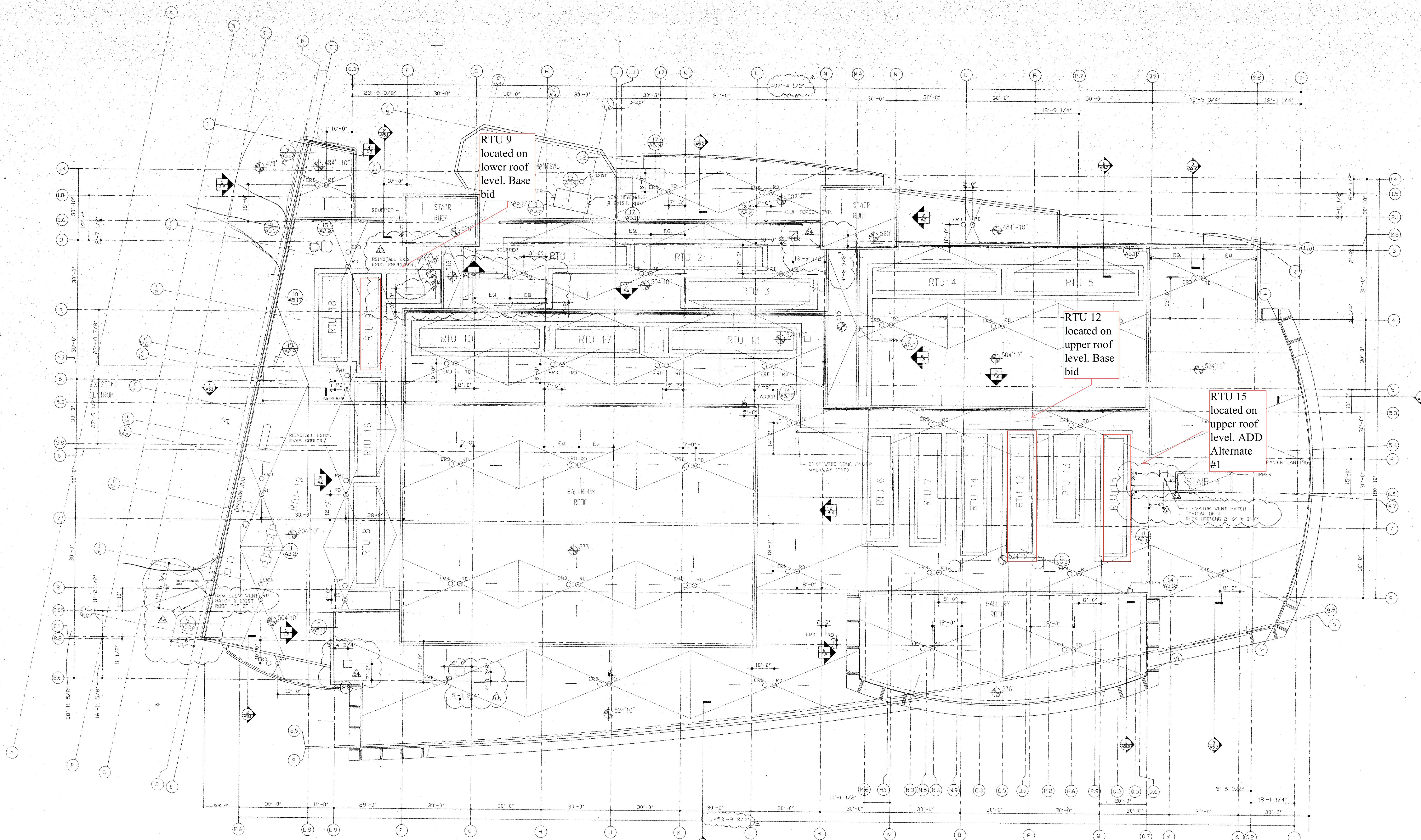
4. SUITABLE FOR OUTDOOR USE

GENERAL NOTES

- RD ROOF DRAIN 5/A2.2
- ERD EMERGENCY ROOF DRAIN 6/A2.2

TAPERED INS CRICKET @ 1/8" FT SLOPE. ALL OTHER INS SLOPING AT 1/4" FT.

- ALL EQUIPMENT SHOWN DASHED TO BE MOUNTED ON STEEL SUPPORTS. SEE 13/A2.2
- SEE ELEC. FOR LIGHTNING PROTECTION SYSTEM LAYOUT.
- SEE MECH, ELEC. & PLUMB FOR ADDITIONAL EQUIPMENT AND ROOFING PENETRATIONS NOT SHOWN ON THIS DRAWING.



1-71 8/2/96
NO. 90 DATE 2/22/96 REVISION EMERG GEN LOCATION

PERRY DEAN ROGERS & PARTNERS: ARCHITECTS

177 MILK STREET, BOSTON, MASSACHUSETTS 02109
617 423-0000

THOMPSON, VENTULETT, STAINBACK
& ASSOCIATES, INC. ARCHITECTS
2700 PROMENADE TWO
1230 PEACHTREE STREET N.E.
ATLANTA, GEORGIA 30309-3591
404-888-6600 FAX: 404-888-6700

SCALE: 1/16" = 1'-0" 3249.00'

WORCESTER
CONVENTION CENTER

CONSTRUCTION DRAWINGS

ROOF PLAN

19 MAY OF

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