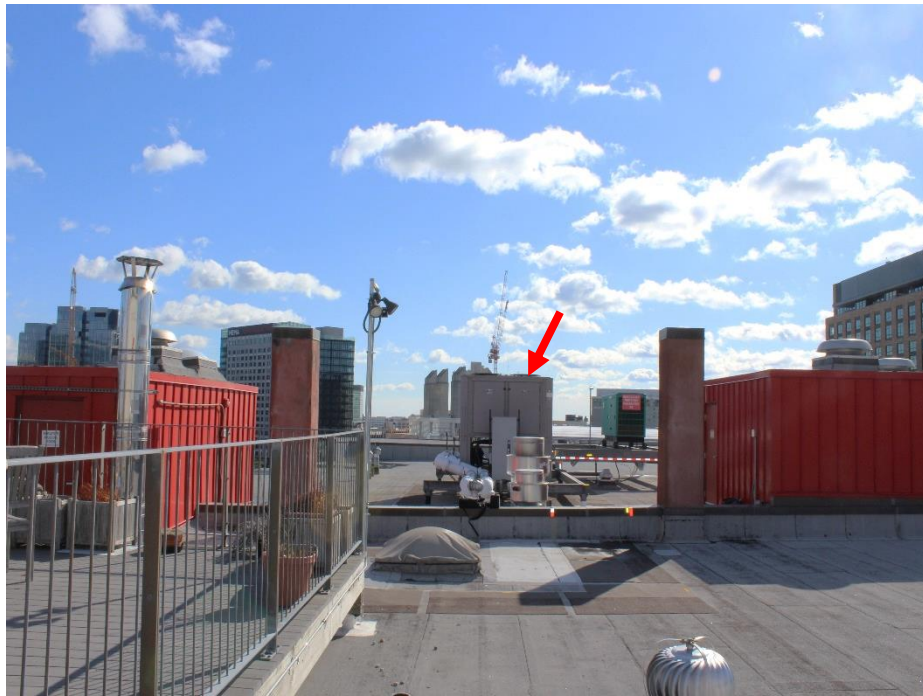


# Chiller Replacement 300 Summer Street

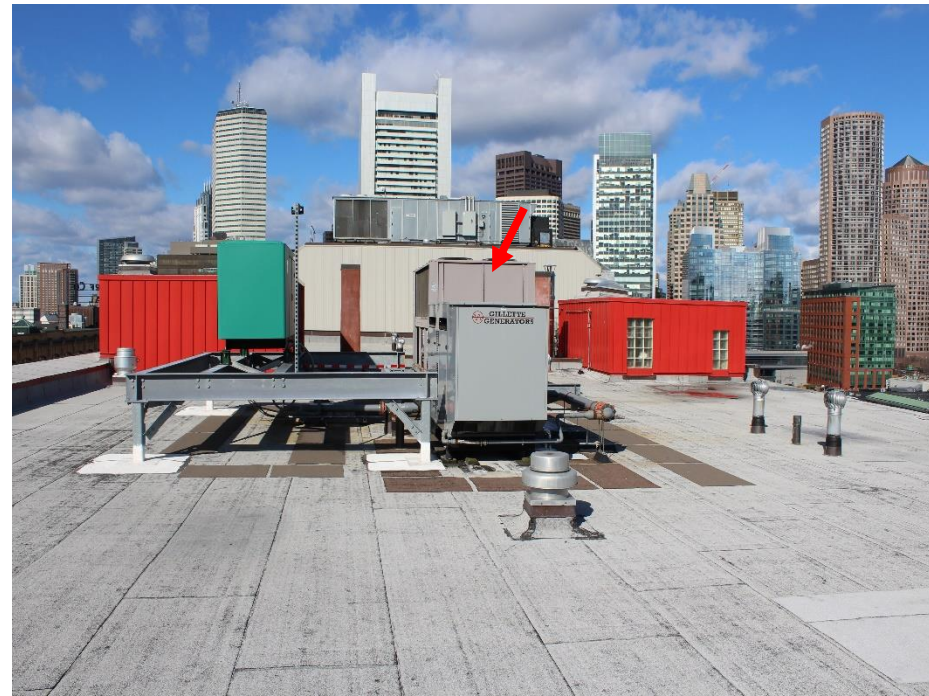
Fort Point Channel Landmark District Application for Design Approval

20 February 2020

# Roof Existing Conditions

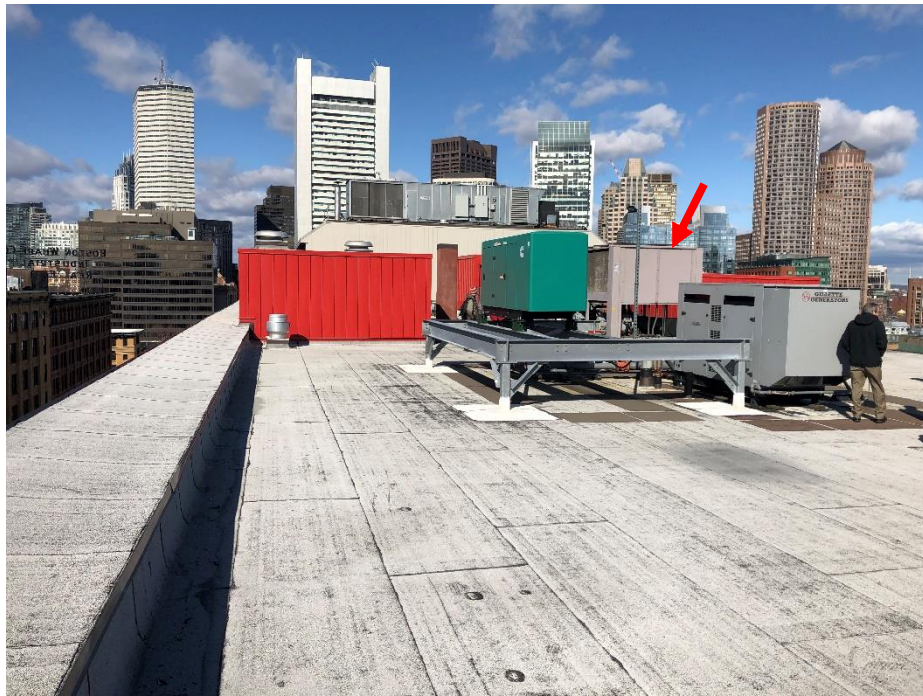


Looking east (chiller noted with red arrow)



Looking west (chiller noted with red arrow)

# Roof Existing Conditions

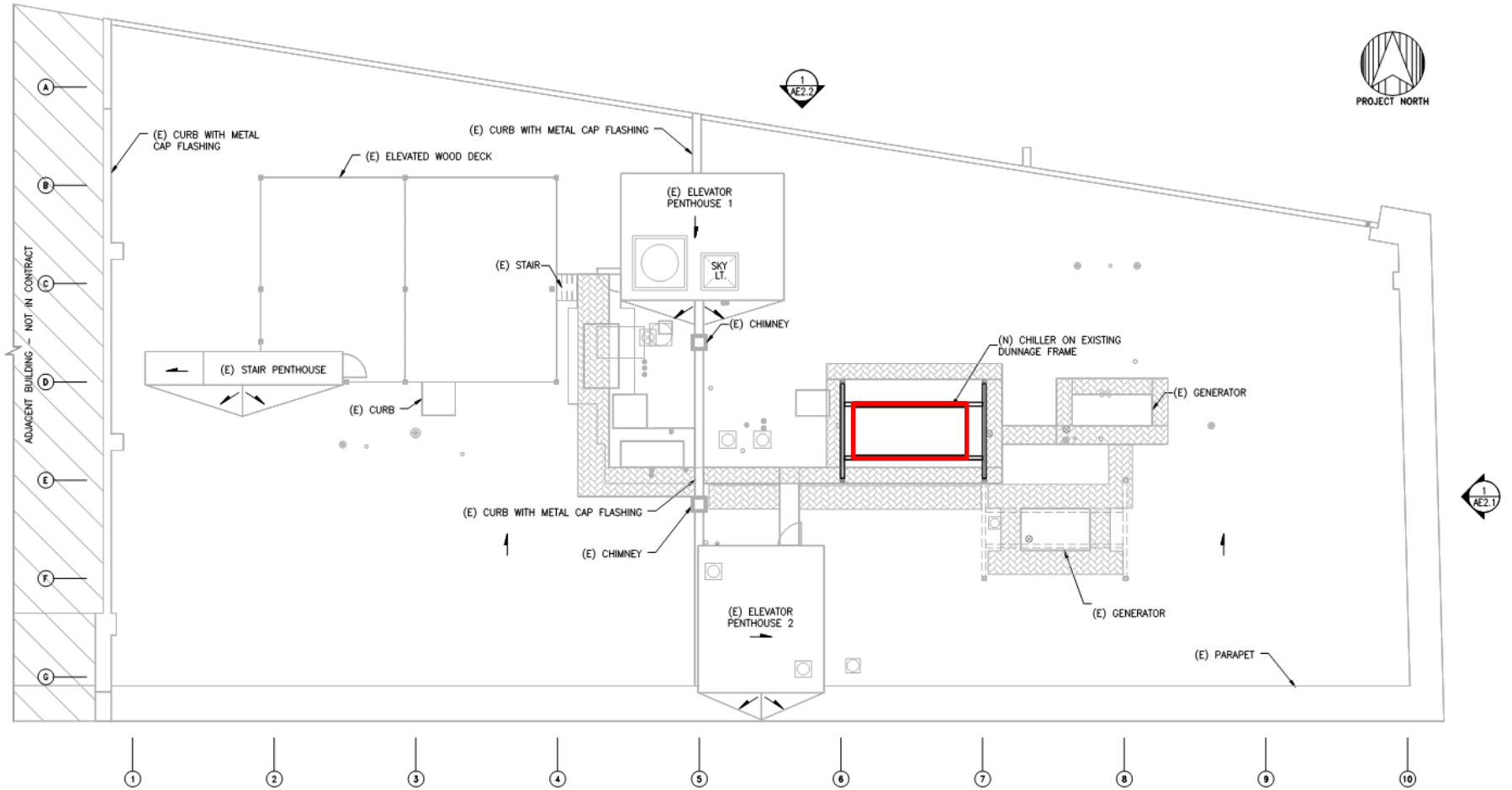


Looking west (chiller noted with red arrow)

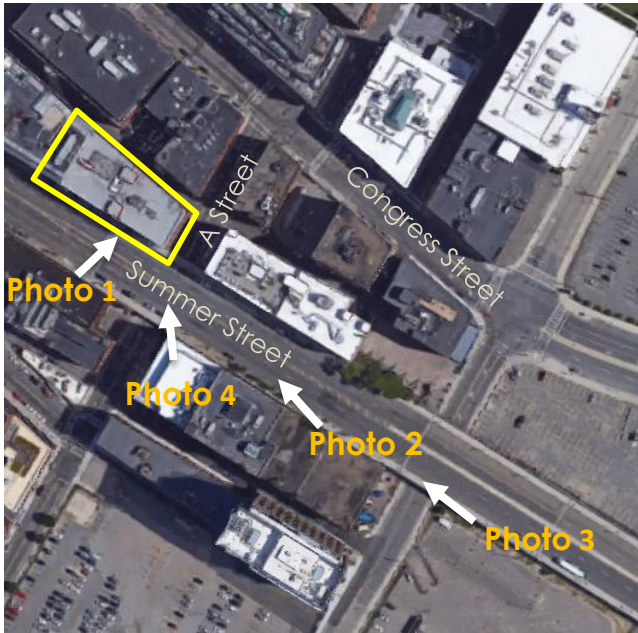


Looking west (chiller noted with red arrow)

# Proposed Rooftop Equipment Changes

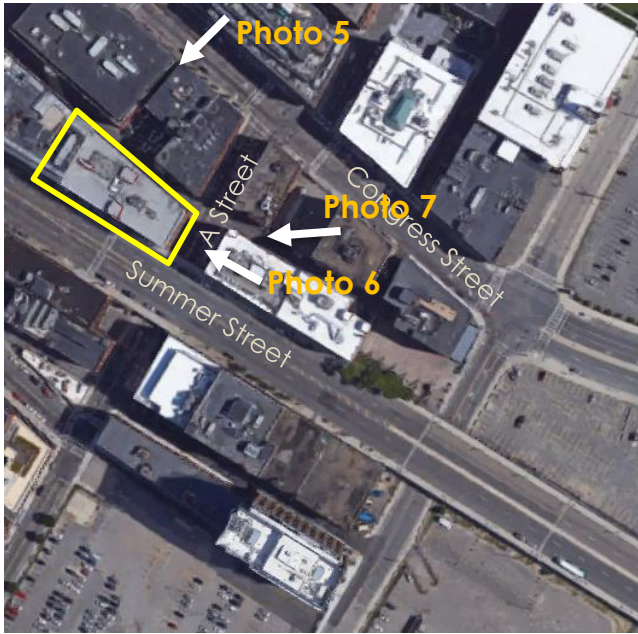


# Proposed Rooftop Equipment Changes



Chiller not visible from Summer Street

# Proposed Rooftop Equipment Changes



Chiller not visible from A Street and adjacent streets

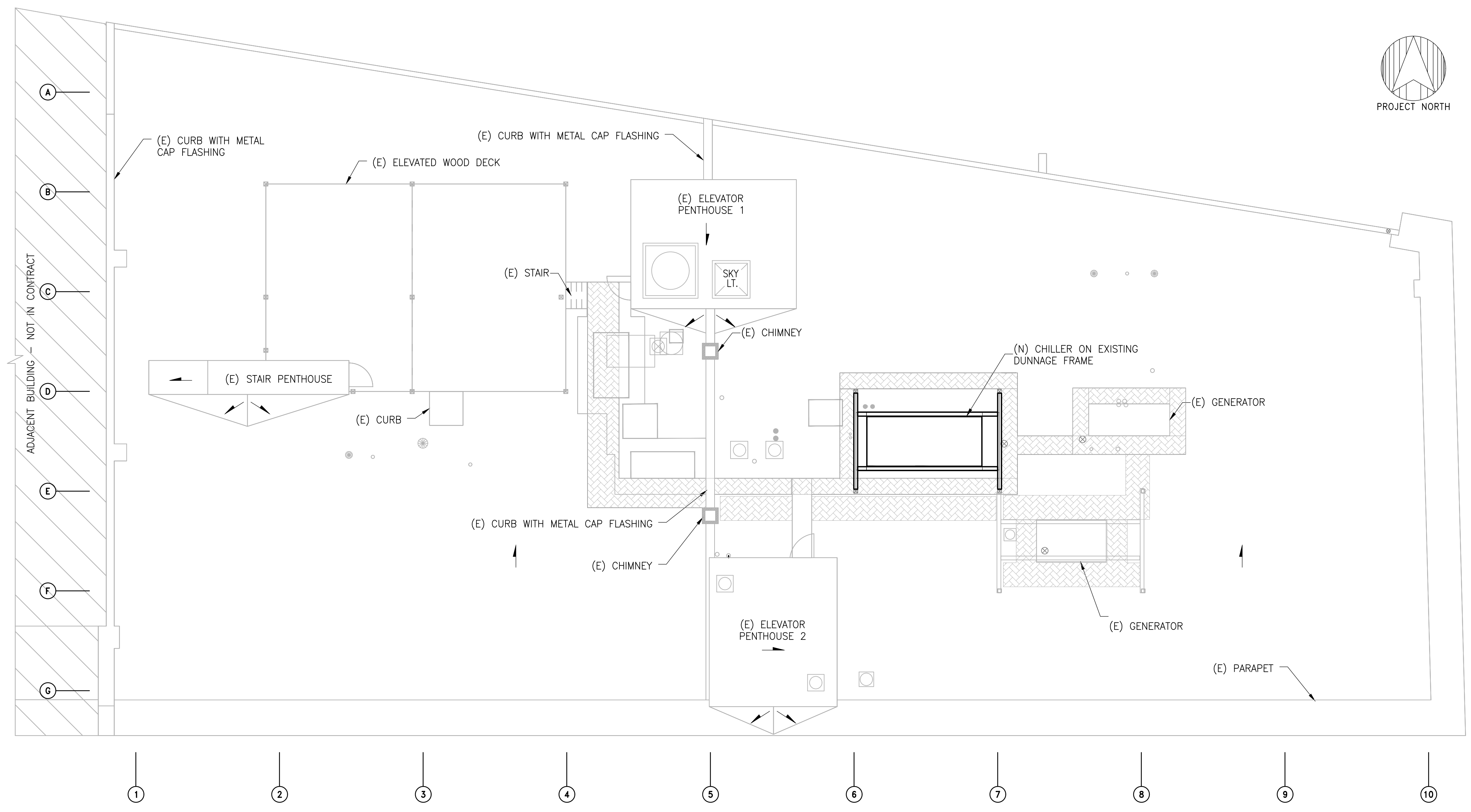


**SCOPE OF WORK – ROOF PLAN:**

- CHILLER:** Remove (E) chiller. Inspect (E) dunnage and repair if required; scrape and paint where corrosion is visible. Provide (N) chiller on (E) dunnage; coordinate with MEP specifications. (N) chiller to approximate (E) chiller dimensions
- PIPE PENETRATIONS:** Provide (N) pipe penetrations with PMMA reinforced liquid flashing; coordinate locations with MEP Engineer.

**LEGEND**

- (E) FAND CURB
- ⊗ (E) EXHUAUST FAN
- (E) PIPE PENETRATION
- (E) PIPE PENETRATION
- SLOPE
- (E) POST PEDESTAL
- ▨ (E) WALKWAY PAD (APPROXIMATE LOCATION)



**1 ROOF PLAN** 1/8" = 1'-0"

**SIMPSON GUMPERTZ & HEGER**  
 Engineering of Structures  
 and Building Enclosures

Boston  
 Chicago  
 Houston  
 Los Angeles  
 New York  
 San Francisco  
 Washington, DC

Simpson Gumpertz & Heger Inc.  
 800 Boylston Street, Suite 2320  
 Boston, Massachusetts 02199  
 main: 617.963.5400 fax: 617.963.5401  
 www.sgh.com

Consultant

**LANDMARK SUBMISSION  
 NOT FOR CONSTRUCTION**

No.	Date	Description	By

**CHILLER  
 REPLACEMENT**

300 SUMMER STREET  
 BOSTON, MA.

Project

**ROOF PLAN**

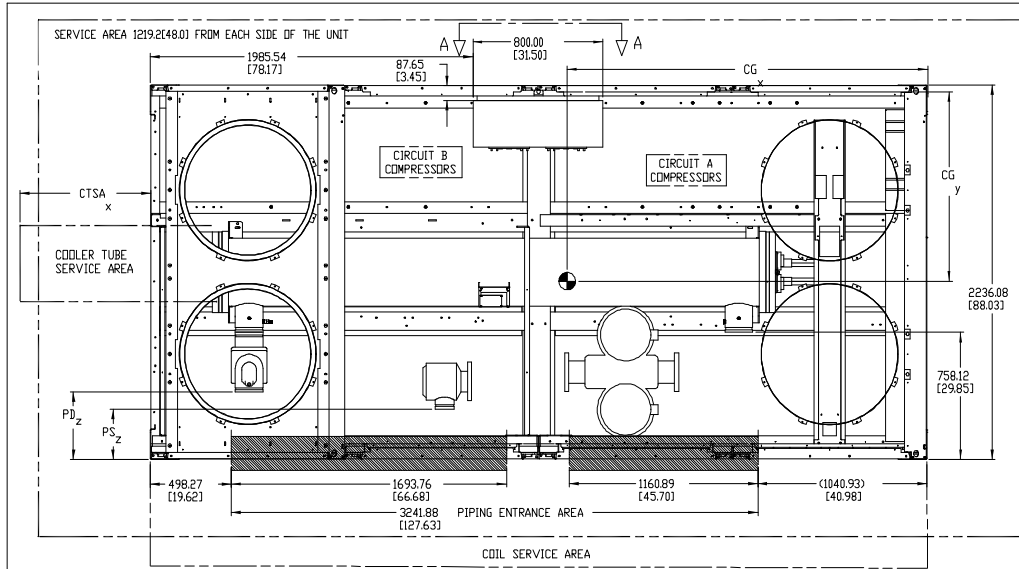
Drawing Title

Project No. 160933.00	Checked CCW	Date 02/20/2017
Drawn AB	Approved SLK	Scale AS NOTED
Seal		Drawing No. <b>AE1.0</b>

# Certified Drawing for 130 ton chiller

Project: ~Untitled5  
Prepared By:

01/08/2020  
01:44PM

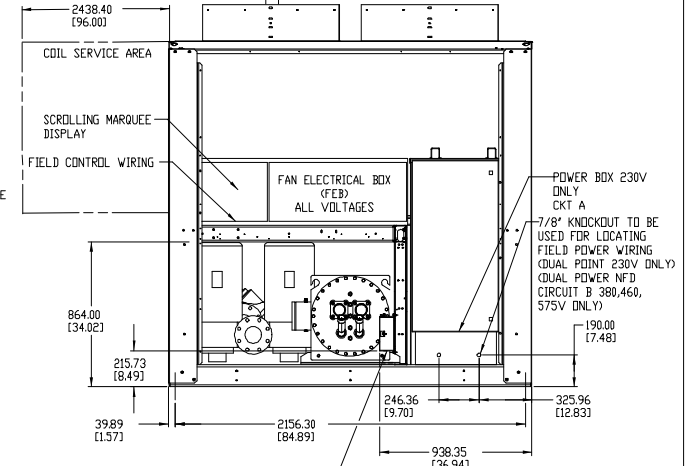
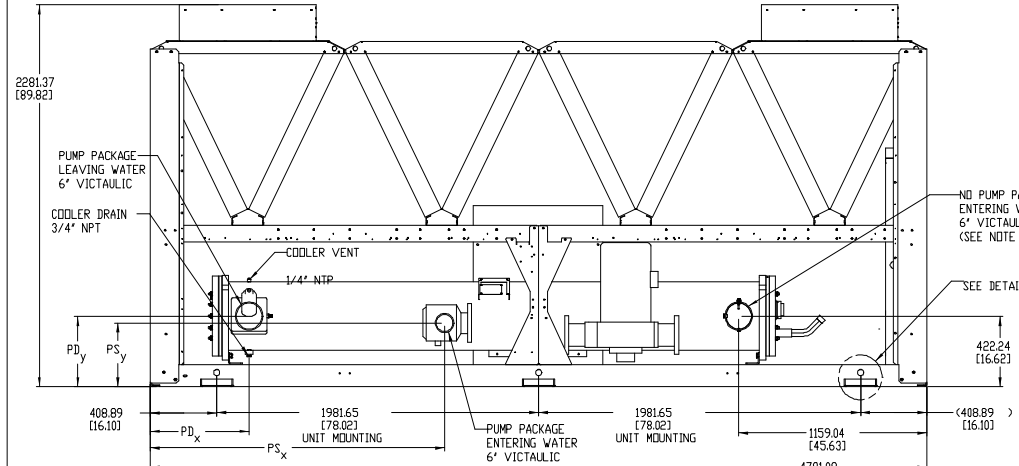
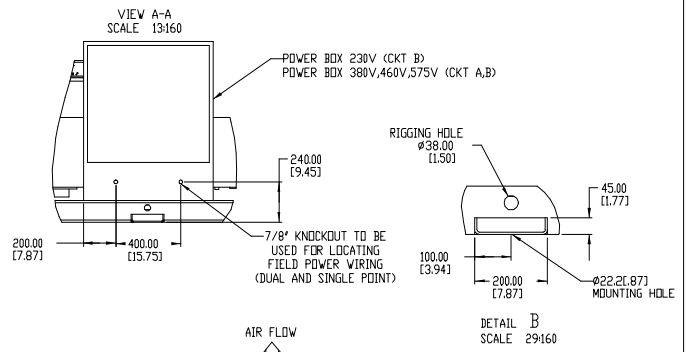


**UNITED TECHNOLOGIES CARRIER**  
P.O. BOX 488 SYRACUSE, NY 13221

THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT.

SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.

- NOTES: 1. UNIT MUST HAVE CLEARANCES AS FOLLOWS:  
TOP- DO NOT RESTRICT  
SIDES AND END- 6' FROM SOLID SURFACE, FOR AIRFLOW  
SIDE - 8' REQUIRED FOR COIL SERVICE AREA  
2. ALL PUMPS HAVE DRAINS LOCATED AT THE BOTTOM OF VOLUTE FOR DRAINING  
3. TEMPERATURE RELIEF DEVICES LOCATED ON SUCTION LINE, LIQUID LINE AND FILTER DRIER OF EACH CIRCUIT AND HAVE 1/4" FLARE CONNECTION.  
4. NO PUMP PACKAGE LEAVING WATER CONNECTION IS SAME SIZE AND HAS SAME Y AND Z DIMENSIONS AS ENTERING WATER. ALSO HAS SAME PDX DIMENSION AS PUMP PACKAGE.



	WEIGHT		WEIGHT		WEIGHT		WEIGHT		CENTER OF GRAVITY		PUMP SUCTION (PS)			PUMP DISCHARGE (PD)			COOLER TUBE SERVICE AREA		
	CU/AL	LB/KG	CU/AL	LB/KG	CU/AL	LB/KG	CU/AL	LB/KG	C <sub>Gx</sub>	C <sub>Gy</sub>	X	Y	Z	X	Y	Z	CTS A	X	
30RB-130	8045	3649	9668	4068	9010	4068	9933	4506	7482	8325	2772	983	1808.5	281.9	60.9	1366.5	391.2	233.7	1447.8
													171.2	111.1	12.41	153.81	115.41	19.21	157.01
30RB-150	9174	4161	10419	4726	10139	4599	11384	5164	8517	9762	2392	983	1808.5	381	297.2	604.5	421.6	231.1	2905.8
													171.2	115.01	11.71	123.83	116.61	19.11	114.41

DATE	SUPERCEDES	30RB-130,150 AIR COOLED CHILLER	00DCN500001400A	REV
06/10/10	04/20/10			G.4



# Field Wiring Diagram for 130 ton chiller

Project: ~Untitled5  
Prepared By:

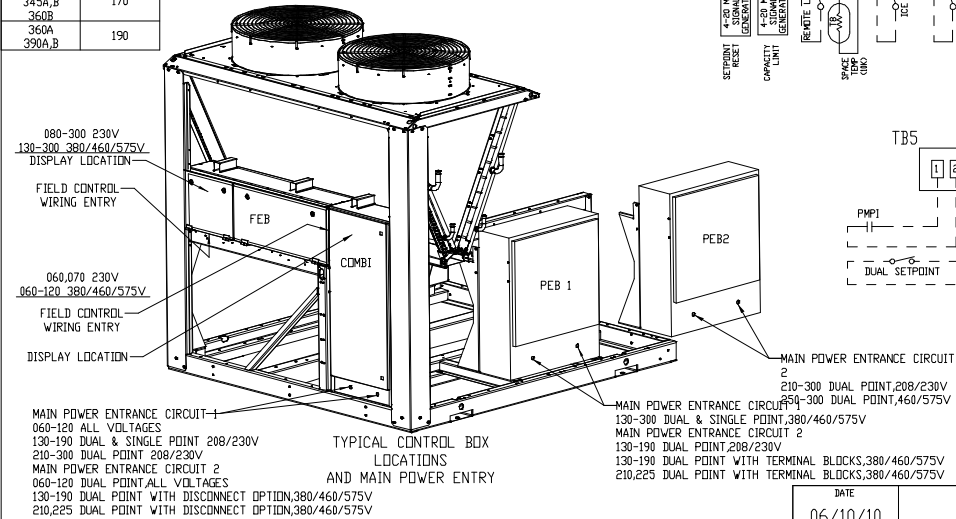
01/08/2020  
01:44PM

**NOTES:**

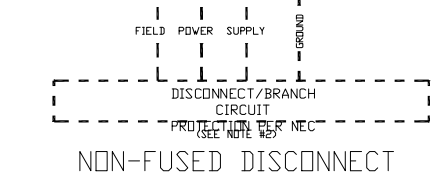
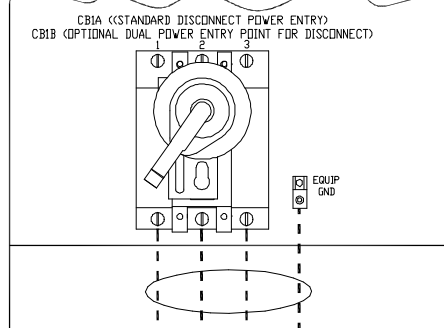
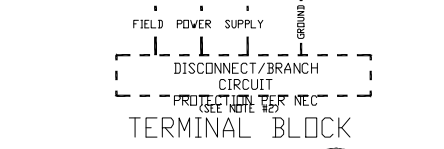
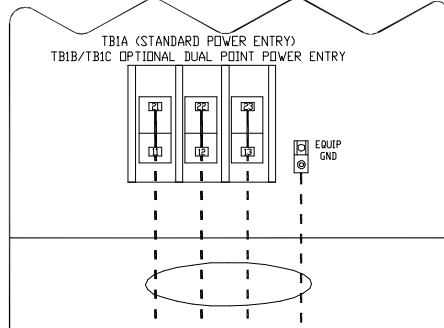
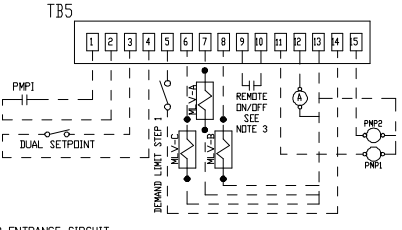
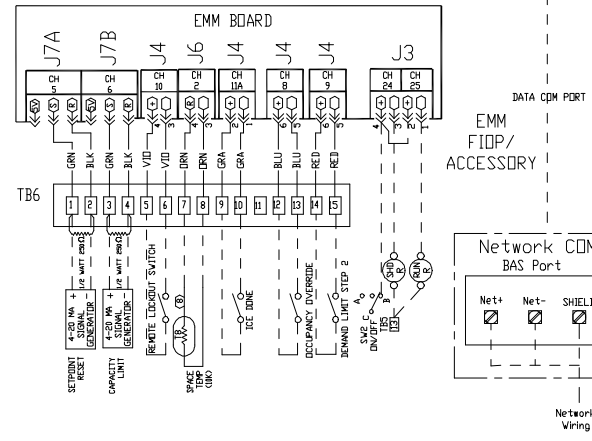
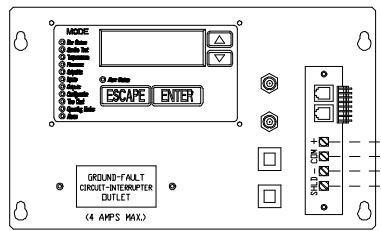
1. FACTORY WIRING IS IN ACCORDANCE WITH UL 1995 STANDARDS. FIELD MODIFICATIONS OR ADDITIONS MUST BE IN COMPLIANCE WITH ALL APPLICABLE CODES.
2. WIRING FOR MAIN FIELD SUPPLY MUST BE RATED 75% MINIMUM. USE COPPER FOR ALL UNITS. INCOMING WIRE SIZE RANGE FOR THE TERMINAL BLOCK IS #4 AWG TO 500 KCMIL. INCOMING WIRE SIZE RANGE OF NON-FUSED DISCONNECT WITH MCA UP TO 599.9 AMPS IS 3/0 TO 500 KCMIL. INCOMING WIRE SIZE RANGE OF NON-FUSED DISCONNECT WITH MCA FROM 600 TO 799.9 AMPS IS 1/0 TO 500 KCMIL. INCOMING WIRE SIZE RANGE OF NON-FUSED DISCONNECT WITH MCA FROM 800 TO 1199.9 AMPS IS 250 KCMIL TO 500 KCMIL.
3. TERMINALS 9 AND 10 OF TB5 ARE FOR FIELD EXTERNAL CONNECTIONS FOR REMOTE ON-OFF. THE CONTACTS MUST BE RATED FOR DRY CIRCUIT APPLICATION CAPABLE OF HANDLING A 24VAC LOAD UP TO 50 MA.
4. TERMINALS 1 AND 2 OF TB5 ARE FOR EXTERNAL CONNECTIONS OF CHILLED WATER PUMP INTERLOCK. THE CONTACTS MUST BE RATED FOR DRY CIRCUIT APPLICATION CAPABLE OF HANDLING A 24VAC LOAD UP TO 50 MA.
5. TERMINALS 11 AND 13 OF TB5 ARE FOR CONTROL OF CHILLED WATER PUMP1 (PMP1) STARTER. TERMINALS 13 AND 15 OF TB5 ARE FOR CONTROL OF CHILLED WATER PUMP2 (PMP2) STARTER. THE MAXIMUM LOAD ALLOWED FOR THE CHILLED WATER PUMP RELAY IS 5 VA SEALED, 10 VA INRUSH AT 24V. FIELD POWER SUPPLY IS NOT REQUIRED.
6. FOR CONTROL OF CHILLED WATER PUMPS, A SET OF NORMALLY OPEN CONTACTS RATED FOR DRY CIRCUIT APPLICATION MUST BE SUPPLIED FROM FIELD SUPPLIED PUMP STARTER RELAY. CONNECT CONTACTS TO VIOLET AND PINK WIRES IN HARNESS FROM MAIN BASE BOARD CHANNEL 1B. WIRES IN HARNESS ARE MARKED PMP1-13 AND PMP1-14.
7. TERMINALS 12 AND 13 OF TB5 ARE FOR AN ALARM RELAY. THE MAXIMUM LOAD ALLOWED FOR THE ALARM RELAY IS 10 VA SEALED, 25 VA INRUSH AT 24V. FIELD POWER SUPPLY IS NOT REQUIRED.
8. MAKE APPROPRIATE CONNECTIONS TO TB6 AS SHOWN FOR ENERGY MANAGEMENT BOARD OPTIONS. THE CONTACTS FOR OCCUPANCY OVERRIDE, DEMAND LIMIT AND ICE DONE OPTIONS MUST BE RATED FOR DRY CIRCUIT APPLICATION CAPABLE OF HANDLING A 24VAC LOAD UP TO 50 MA.
9. J3 - 24 AND 25 OF EMM BOARD ARE FOR RUN RELAY AND SHUTDOWN RELAY. THE MAXIMUM LOAD ALLOWED FOR THE RUN AND SHUTDOWN RELAY IS 10 VA SEALED, 25 VA INRUSH AT 24V. FIELD POWER SUPPLY IS NOT REQUIRED.

- A - ALARM
- PMP1 - CHILLED WATER PUMP INTERLOCK
- CWP - CHILLED WATER PUMP
- EMM - ENERGY MANAGEMENT
- SHD R - SHUTDOWN RELAY
- RUN R - RUN RELAY
- MLV - MINIMUM LOAD VALVE
- TB - TERMINAL BLOCK
- FIELD POWER WIRING
- FIELD CONTROL WIRING

SIZE	STD UNIT
315A.B	160
330B	
330A	
345A.B	170
360B	
360A	
390A.B	190



UNITED TECHNOLOGIES CARRIER P.O. BOX 4808 SYRACUSE, NY 13221 THIS DOCUMENT IS THE PROPERTY OF CARRIER CORPORATION AND IS DELIVERED UPON THE EXPRESS CONDITION THAT THE CONTENTS WILL NOT BE DISCLOSED OR USED WITHOUT CARRIER CORPORATION'S WRITTEN CONSENT. SUBMISSION OF THESE DRAWINGS OR DOCUMENTS DOES NOT CONSTITUTE PART PERFORMANCE OR ACCEPTANCE OF CONTRACT.



DATE	SUPERCEDES	30RB060-390 AIR-COOLED AQUASNAP CHILLER	00DCN500001300A	REV
06/10/10	03/09/09			G.2

# Summary Performance Report For 130 ton chiller

Project: ~Untitled5  
Prepared By:

01/08/2020  
01:44PM



## 30RB with Greenspeed® Intelligence



### Unit Information

Tag Name:..... **130 ton chiller**  
 Model Number:..... **30RB130**  
 Quantity:..... **1**  
 Manufacturing Source:..... **Charlotte, NC USA**  
 ASHRAE 90.1:..... **2013/2016, 2010, 2007**  
 Refrigerant:..... **R-410A**  
 Independent Refrigerant Circuits:..... **2**  
 Shipping Weight:..... **7671** lb  
 Operating Weight:..... **8046** lb  
 Refrigerant Weight (Circuit A):..... **133** lb  
 Refrigerant Weight (Circuit B):..... **106** lb  
 Unit Length:..... **189** in  
 Unit Width:..... **89** in  
 Unit Height:..... **90** in

### Accessories and Installed Options

Al Fin/Cu Tube, E-Coat  
 Low Sound Option  
 Single Point  
 BACnet Translator Control  
 No Coil Trim Panels  
 Greenspeed Intelligence: High-Efficiency Variable Condenser Fans

### Electrical Information

Unit Voltage:..... **208/230-3-60** V-Ph-Hz  
 Connection Type:..... **Single Point**  
 Minimum Voltage:..... **187** Volts  
 Maximum Voltage:..... **253** Volts

### Evaporator Information

Fluid Type:..... **Fresh Water**  
 Fouling Factor:..... **0.000100** (hr-sqft-F)/BTU  
 Leaving Temperature:..... **44.00** °F  
 Entering Temperature:..... **54.00** °F  
 Fluid Flow:..... **303.7** gpm  
 Pressure Drop:..... **12.4** ft H2O

### Condenser Information

Altitude:..... **0.000** ft  
 Number of Fans:..... **8**  
 Total Condenser Fan Air Flow:..... **99,200** CFM  
 Entering Air Temperature:..... **95.0** °F

### Integrated Pump Information

No Pump Selected

### Performance Information

Cooling Capacity:..... **127.0** Tons  
 Total Compressor Power:..... **130.6** kW  
 Total Fan Motor Power:..... **20.64** kW  
 Total Unit Power (without pump):..... **151.3** kW  
 Efficiency (without pump) (EER):..... **10.07** BTU/Wh  
 IPLV:..IP:..... **16.66** BTU/Wh

Amps	Electrical Circuit 1	Electrical Circuit 2
MCA	626.7	---
MOCP	700.0	---
ICF	1068.9	---
Rec Fuse Size	700.0	---

Existing Chiller:  
 Length = 169 in.  
 Width = 92 in.  
 Height = 96 in.

Sound power measured in accordance with ANSI/AHRI Standard 370-2015.



## GUIDE SPECIFICATIONS – 30RBX13052-GKG7L

### HVAC Guide Specifications Outdoor Air-Cooled Liquid Chiller

Size: 130

#### Part 1: General

##### SYSTEM DESCRIPTION

- 1.01. Microprocessor controlled, air-cooled liquid chiller for outdoor installation, utilizing scroll compressors and low sound fans.
- 1.02. With the addition of Greenspeed intelligence, all fans are controlled with variable speed fan drive motors. Chiller software shall be specifically developed to coordinate optimal fan speed for application conditions and provide refrigerant circuit optimization, resulting in higher part-load efficiency and reduced acoustic levels.

##### QUALITY ASSURANCE

- 1.01. Unit shall be rated in accordance with AHRI (Air-Conditioning, Heating and Refrigeration Institute) Standard 550/590, latest edition (U.S.A.) and all units shall be ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning Engineers) 90.1 compliant.
- 1.02. Unit construction shall comply with ASHRAE 15 Safety Code, UL latest edition, and ASME (American Society of Mechanical Engineers) applicable codes (U.S.A. codes).
- 1.03. Unit shall be manufactured in a facility registered to ISO 9001 Manufacturing Quality Standard.
- 1.04. Unit shall be full load run tested at the factory.

##### DELIVERY, STORAGE AND HANDLING

- 1.01. Unit controls shall be capable of withstanding 150 F (66 C) storage temperatures in the control compartment.
- 1.02. Unit shall be stored and handled per unit manufacturer's recommendations.

#### Part 2: Products

##### EQUIPMENT

###### 2.01. General:

- A. Factory assembled, single-piece chassis, air-cooled liquid chiller. Contained within the unit cabinet shall be all factory wiring, piping, controls, refrigerant charge (R-410A), and special features required prior to field start-up.

###### 2.02. Unit Cabinet:

- A. Frame shall be of heavy-gage, painted galvanized steel.
- B. Cabinet shall be galvanized steel casing with a baked enamel powder or pre-painted finish.
- C. Cabinet shall be capable of withstanding 500-hour salt spray test in accordance with the ASTM (American Society for Testing and Materials) (U.S.A.) B-117 standard.

###### 2.03. Fans:

- A. Condenser fans shall be direct-driven, VFD [variable frequency drive] controlled, 9-blade airfoil cross-section, reinforced polymer construction, shrouded-axial type, and shall be statically and dynamically balanced with inherent corrosion resistance.
- B. Air shall be discharged vertically upward.
- C. Fans shall be protected by coated steel wire safety guards.

## Guide Specification for 130 ton chiller

Project: ~Untitled5  
Prepared By:

01/08/2020  
01:44PM

### 2.04. Compressor/Compressor Assembly:

- A. Fully hermetic scroll type compressors.
- B. Direct drive, 3500 rpm (60 Hz), protected by motor temperature sensors, suction gas cooled motor.
- C. External vibration isolation rubber-in-shear.
- D. Each compressor shall be equipped with crankcase heaters to minimize oil dilution.

### 2.05. Cooler:

- A. Shell-and-tube type, direct expansion.
- B. Tubes shall be internally enhanced seamless-copper type rolled into tube sheets.
- C. Shall be equipped with Victaulic-type water connections.
- D. Shell shall be insulated with 3/4-in. (19-mm) PVC foam (closed-cell) with a maximum K factor of 0.28.
- E. Design shall incorporate a minimum of 2 independent direct-expansion refrigerant circuits.
- F. Cooler shall be tested and stamped in accordance with ASME Code for a refrigerant working side pressure of 445 psig (3068 kPa). Cooler shall have a maximum water-side pressure of 300 psig (2068 kPa).
- G. Cooler shall be provided with a factory-installed flow switch.

### 2.06. Condenser:

- A. Coil shall be air-cooled Novation® heat exchanger technology with microchannel (MCHX) coils and shall have a series of flat tubes containing a series of multiple, parallel flow microchannels layered between the refrigerant manifolds. Coils shall consist of a two-pass arrangement. Coil construction shall consist of aluminum alloys for fins, tubes, and manifolds in combination with a corrosion-resistant coating.
- B. Tubes shall be cleaned, dehydrated, and sealed.
- C. Assembled condenser coils shall be leak tested and pressure tested at 656 psig (4522 kPa).

### 2.07. Refrigeration Components:

- A. Refrigerant circuit components shall include replaceable-core filter drier, moisture indicating sight glass, electronic expansion device, discharge service valve and liquid line service valves, and complete operating charge of both refrigerant R-410A and compressor oil.

### 2.08. Controls, Safeties, and Diagnostics:

- A. Unit controls shall include the following minimum components:
  1. Microprocessor with non-volatile memory. Battery backup system shall not be accepted.
  2. Separate terminal block for power and controls.
  3. Control transformer to serve all controllers, relays, and control components.
  4. ON/OFF control switch.
  5. Replaceable solid-state controllers.
  6. Pressure sensors shall be installed to measure suction and discharge pressure. Thermistors shall be installed to measure cooler entering and leaving fluid temperatures as well as optional heat reclaim condenser entering and leaving fluid temperatures, and refrigerant pump down pressure and temperature.
- B. Unit controls shall include the following functions:
  1. Automatic circuit lead/lag.
  2. Hermetic scroll compressors are maintenance free and protected by an auto-adaptive control that minimizes compressor wear.
  3. Capacity control based on leaving chilled fluid temperature and compensated by rate of change of return-fluid temperature with temperature set point accuracy to 0.1° F (0.06° C).
  4. Limiting the chilled fluid temperature pulldown rate at start-up to an adjustable range of 0.2° F to 2° F (0.11° C to 1.1° C) per minute to prevent excessive demand spikes at start-up.
  5. Seven-day times schedule.
  6. Leaving chilled fluid temperature reset from return fluid and outside air temperature.
  7. Chilled water pump and optional heat reclaim condenser water pump start/stop control and primary/standby sequencing to ensure equal pump run time.
  8. Dual chiller control for parallel chiller applications without addition of hardware modules and control panels

## Guide Specification for 130 ton chiller

Project: ~Untitled5  
Prepared By:

01/08/2020  
01:44PM

(additional thermistors and wells are required).

9. Timed maintenance scheduling to signal maintenance activities for pumps, strainer maintenance and user-defined maintenance activities.
10. Low ambient protection to energize cooler and optional heat reclaim or hydronic system heaters.
11. Periodic pump start to ensure pump seals are properly maintained during off-season periods.
12. Single step demand limit control activated by remote contact closure.
13. Generation of 0 to 10 vdc signal to control 3-way valve position when optional heat reclaim is employed.
14. Nighttime sound mode to reduce the sound of the machine by a user-defined schedule.

### C. Diagnostics:

1. The control panel shall include, as standard, a scrolling marquee display capable of indicating the safety lockout condition by displaying a code for which an explanation may be scrolled at the display with time and date stamp.
2. Information included for display shall be:
  - a. Compressor lockout.
  - b. Loss of charge.
  - c. Low fluid flow.
  - d. Cooler coil and optional heat reclaim coil freeze protection.
  - e. Cooler set point.
  - f. Optional heat reclaim set point.
  - g. Chilled water reset parameters.
  - h. Thermistor and transducer malfunction.
  - i. Entering and leaving-fluid temperature.
  - j. Evaporator and condenser pressure.
  - k. System refrigerant temperatures.
  - l. Chiller run hours.
  - m. Compressor run hours.
  - n. Compressor number of starts.
  - o. Time of day:
    - I) Display module, in conjunction with the microprocessor, must also be capable of displaying the output (results) of a service test. Service test shall verify operation of every switch, thermistor, fan, and compressor before chiller is started.
    - II) Diagnostics shall include the ability to review a list of the 30 most recent alarms with clear language descriptions of the alarm event. Display of alarm codes without the ability for clear language descriptions shall be prohibited.
    - III) An alarm history buffer shall allow the user to store no less than 30 alarm events with clear language descriptions, time and date stamp event entry.
    - IV) The chiller controller shall include multiple connection ports for communicating with the local equipment network, the Carrier Comfort Network® (CCN) system and access to chiller control functions from any point on the chiller.
    - V) The control system shall allow software upgrade without the need for new hardware modules.
  - p. Crankcase heater failure.

### D. Safeties:

1. Unit shall be equipped with thermistors and all necessary components in conjunction with the control system to provide the unit with the following protections:
  - a. Loss of refrigerant charge.
  - b. Reverse rotation.
  - c. Low chilled fluid temperature.
  - d. Thermal overload.
  - e. High pressure.

## Guide Specification for 130 ton chiller

Project: ~Untitled5  
Prepared By:

01/08/2020  
01:44PM

- f. Electrical overload.
    - g. High heat reclaim leaving fluid temperature.
  - 2. Condenser fan and factory pump motors shall have external overcurrent protection.
- 2.09. Operating Characteristics:
  - A. Unit shall be capable of starting and running at outdoor ambient temperatures from 32 F to 125 F (0° to 52 C) for all sizes.
  - B. Unit shall be capable of starting up with 95 F (35 C) entering fluid temperature to the cooler.
- 2.10. Motors:
  - A. Condenser-fan motors shall be totally enclosed single-speed, 3-phase type with permanently lubricated bearings and Class F insulation.
- 2.11. Electrical Requirements:
  - A. Unit/module primary electrical power supply shall enter the unit at a single location (some chiller voltage/size combinations require 2 power supplies).
  - B. Unit shall operate on 3-phase power at the voltage shown in the equipment schedule.
  - C. Control points shall be accessed through terminal block.
  - D. Unit shall be shipped with factory control and power wiring installed.
- 2.12. Chilled Water Circuit:
  - A. Chilled water circuit shall be rated for 300 psig (2068 kPa).
- 2.13. Special Features:
  - A. High-efficiency variable condenser fans:
    - 1. All fans on the unit shall have variable speed fan motors to provide higher part load efficiency and reduced acoustic levels. Each fan circuit shall have a factory-installed, independent variable speed drive with display. Variable speed drives are rated IP-55 enclosures and UL Listed. The use of this option, with the addition of antifreeze in the cooler circuit and wind baffles, shall allow running with outdoor ambient temperatures down to -20 F (-28.9 C).
  - B. Optional Condenser Coil Materials:
    - 1. Aluminum fin/copper tube coils:
      - a. Coil shall be constructed of seamless copper tubes mechanically bonded to aluminum fins. Fins shall have wavy enhancements. These condenser coils are recommended with remote cooler applications. These coils are not recommended for corrosive environments.
    - 2. E-coated aluminum-fin coils:
      - a. Coil shall have a flexible epoxy polymer coating uniformly applied to all coil surface areas without material bridging between fins. Coating process shall ensure complete coil encapsulation. Color shall be high gloss black with gloss — 60° of 65 to 90% per ASTM D523-89. Uniform dry film thickness from 0.8 to 1.2 mil on all surface areas including fin edges. Superior hardness characteristics of 2H per ASTM D3363-92A and cross hatch adhesion of 4B-5B per ASTM D3359-93. Impact resistance shall be up to 160 in./lb (ASTM D2794-93). Humidity and water immersion resistance shall be up to minimum 1000 and 250 hours respectively (ASTM D2247-92 and ASTM D870-92). Corrosion durability shall be confirmed through testing to no less than 3000 hours salt spray per ASTM B117-90. Coil construction shall be aluminum fins mechanically bonded to copper tubes.
  - C. BACnet Translator Control:
    - 1. Unit shall be supplied with factory-installed interface between the chiller and a BACnet Local Area Network (LAN, i.e., MS/TP EIA-485). Field programming shall be required.
  - D. Compressor Sound Reduction:
    - 1. Shall provide sound reduction for the scroll compressors.
      - a. Unit shall be equipped with factory-installed option low sound - compressor sound reduction blanket which reduces unit sound levels by providing an acoustic blanket on each compressor.