DYER BROWN

Red Hat

ND NATIONAL DEVELOPMENT

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300 A Street National Development - Fort Point Landmarks Review

July 15, 2021

—

PREPARED BY

Dyer Brown
One Winthrop Square
Boston, MA 02110

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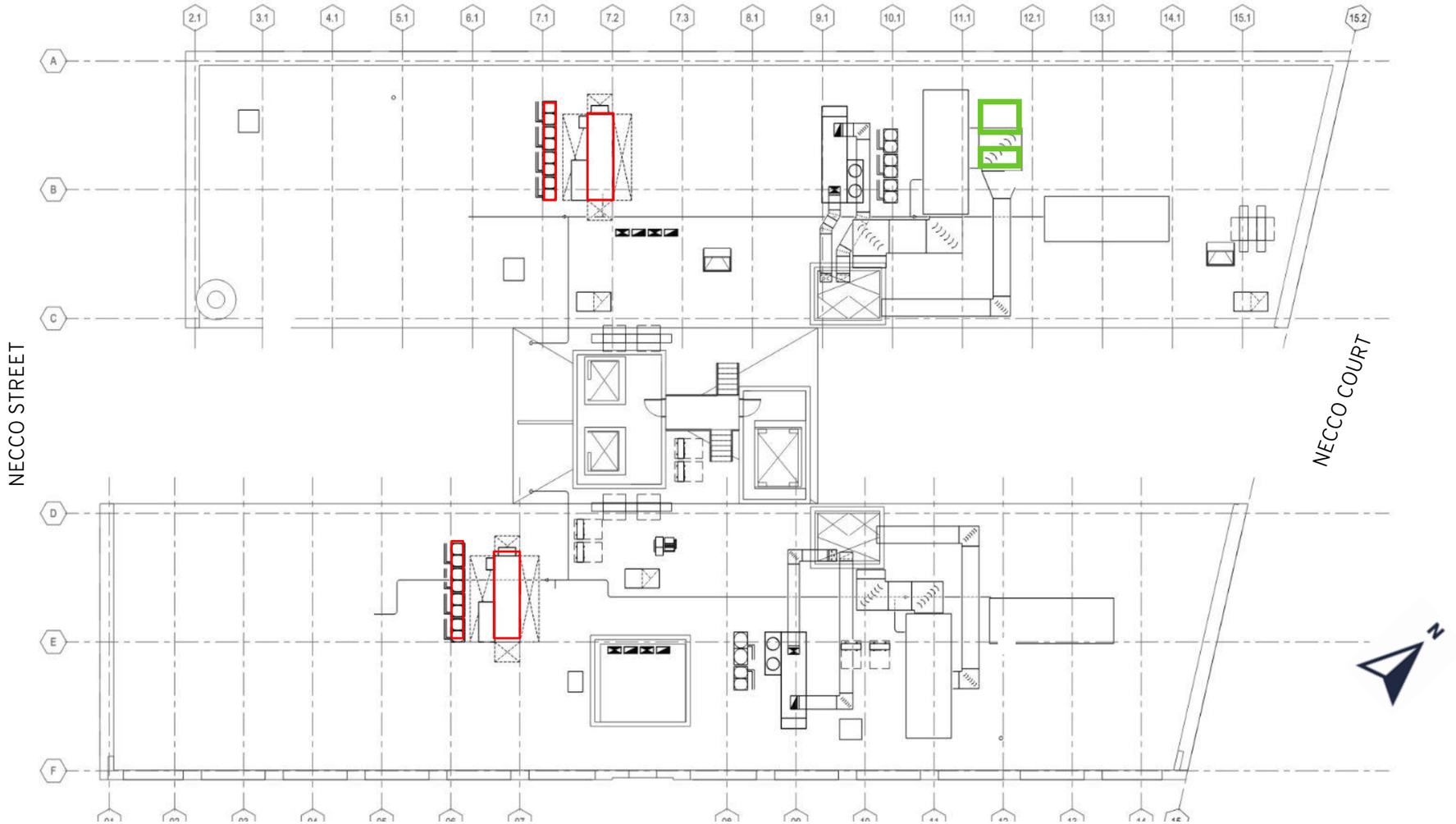

ROOF PLAN: PROPOSED NEW ROOFTOP UNITS

DYER BROWN®

SECTION 02

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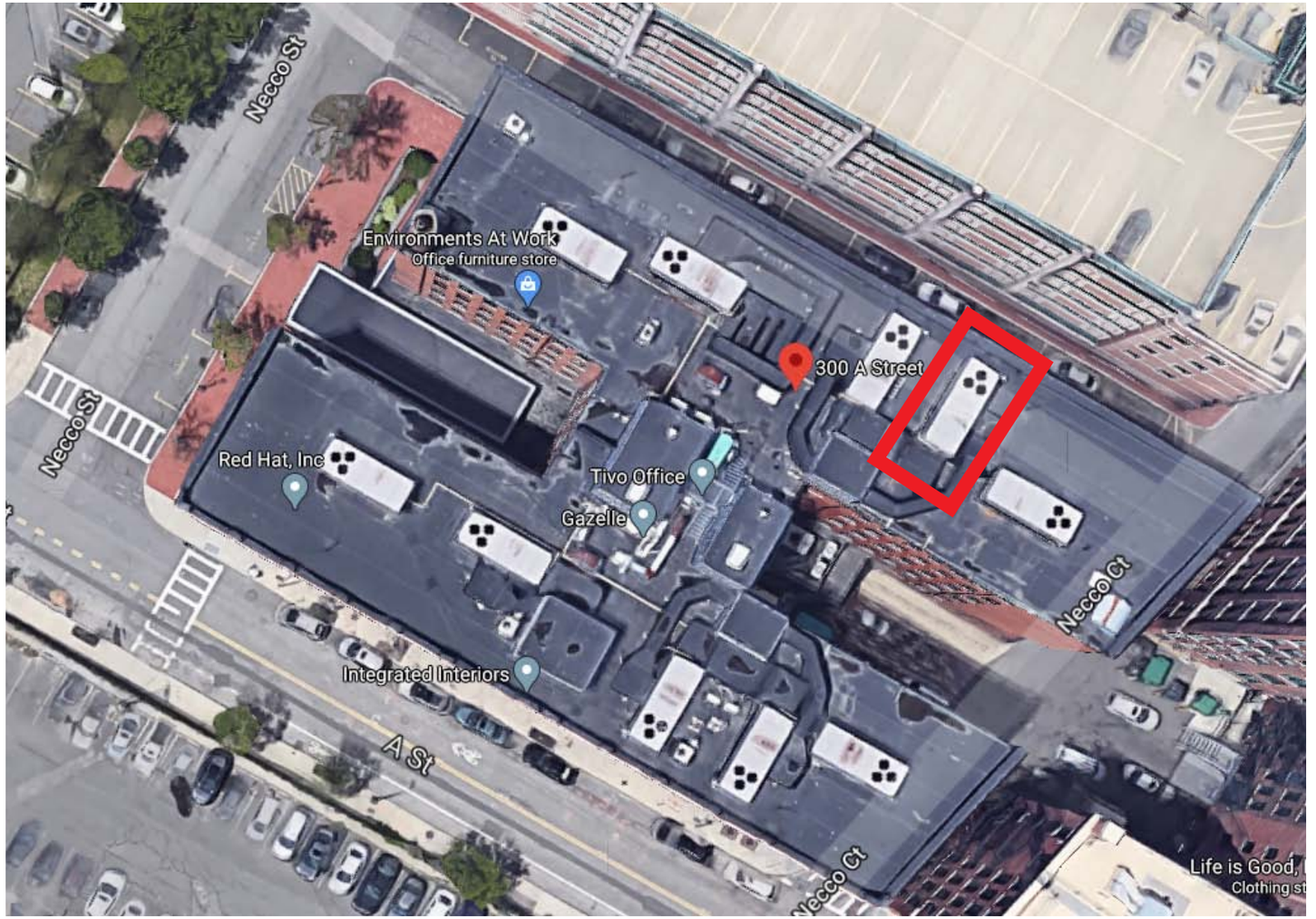
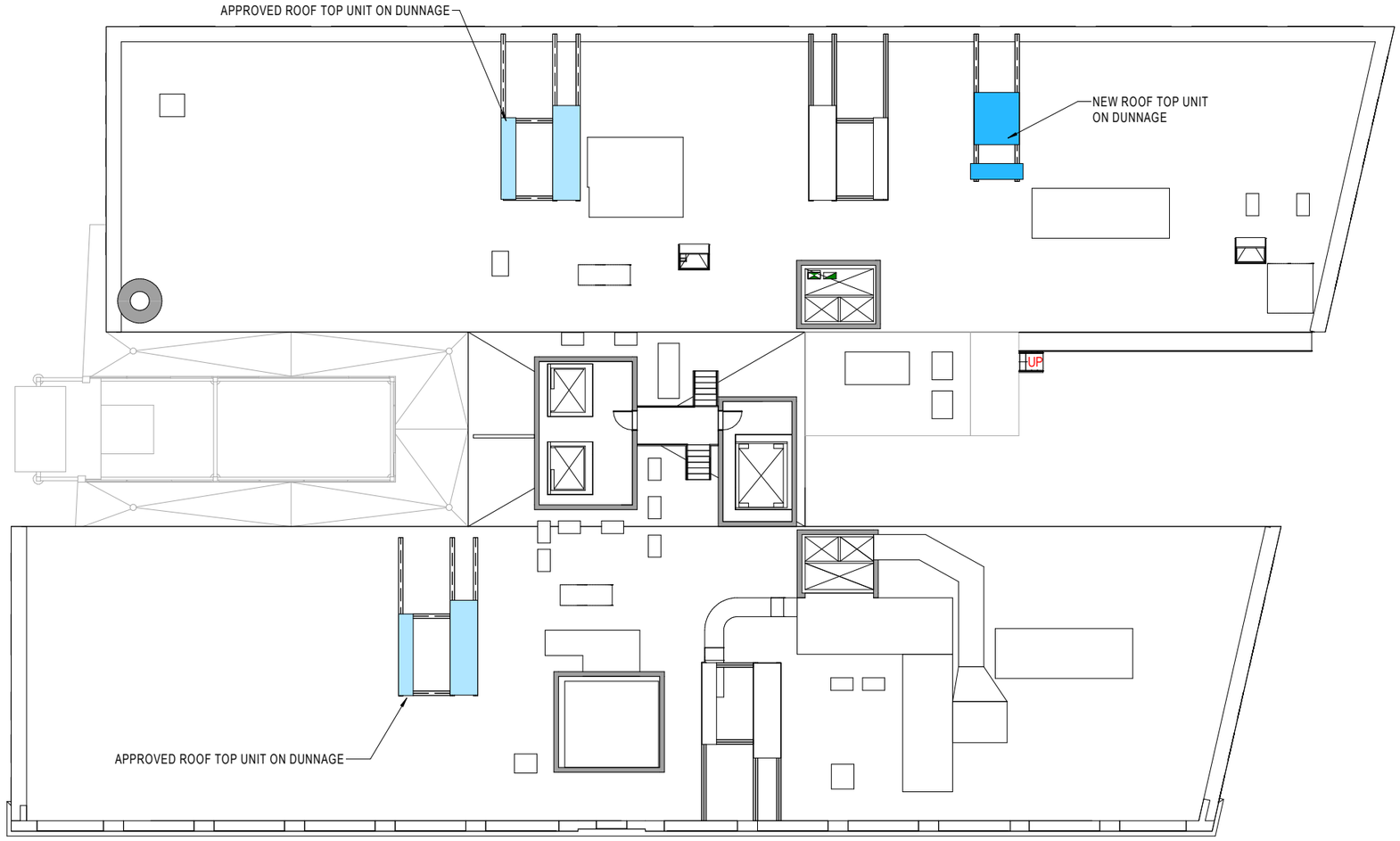
ROOFTOP UNITS



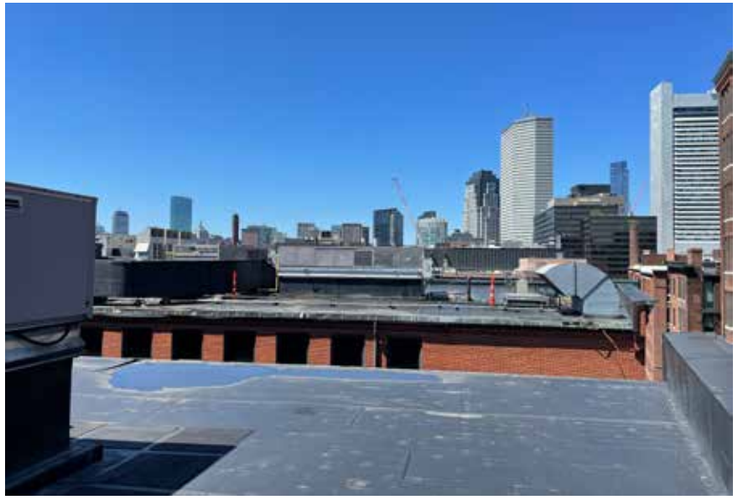
ROOFTOP UNIT: CURRENT LOCATION SITE MAP



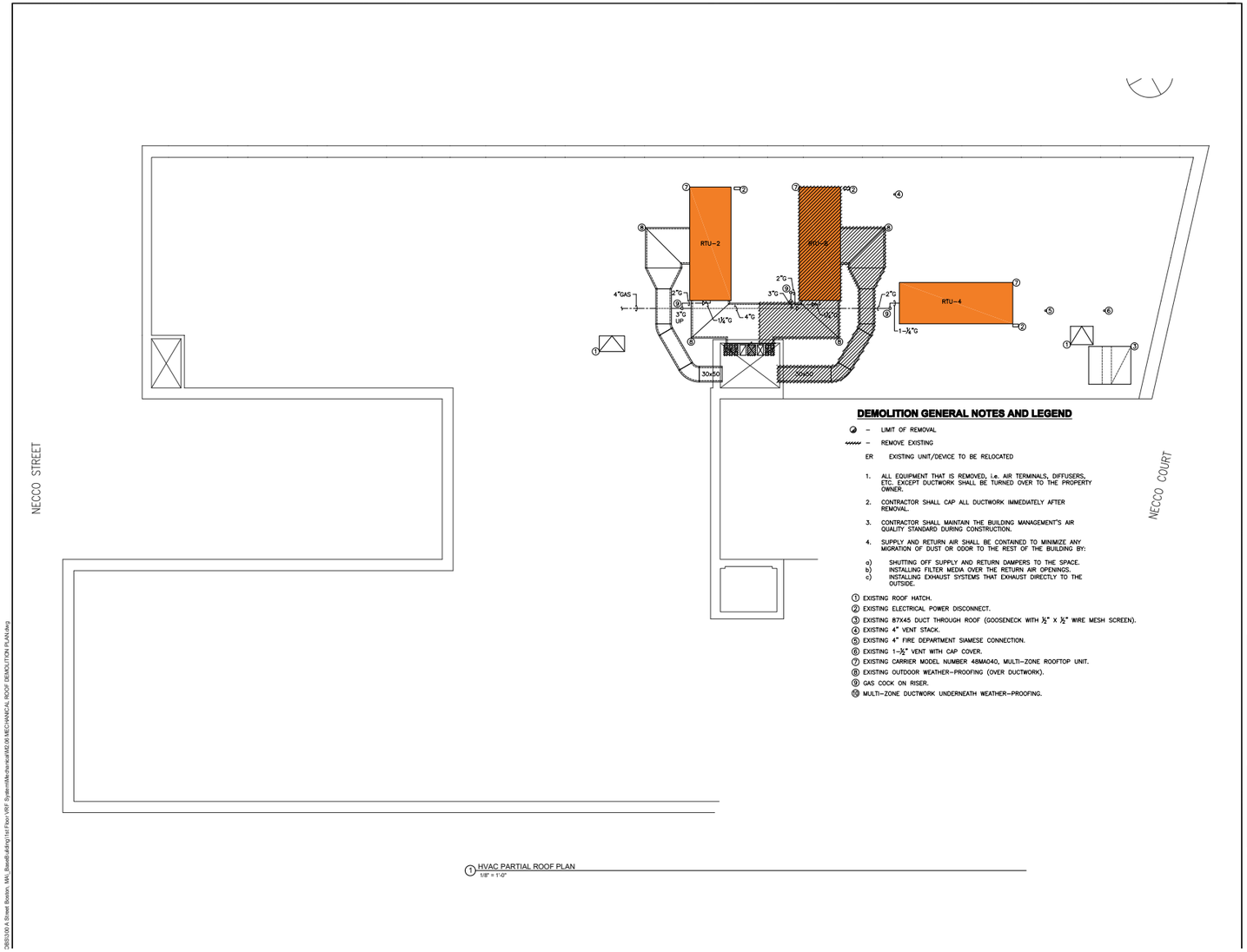
ROOF PLAN: APPROVED NEW ROOFTOP UNITS








ROOFTOP UNIT DUCTWORK: CURRENT LOCATION EXISTING CONDITIONS IMAGES



1 HVAC PARTIAL ROOF PLAN
1/8" = 1'-0"

C:\BIS\300 A Street Boston, MA_BaseBuilding\1st Floor\VRF System\Mechanical\M2.06 MECHANICAL ROOF DEMOLITION PLAN.dwg

Commercial Construction Consulting, Inc.
313 Congress Street
Boston, MA 02210
617.330.9390
617.330.9383 fax
Info@c3boston.com
Consulting Engineers/Construction Managers

ADDENDUMS

No.	Date	Description	By

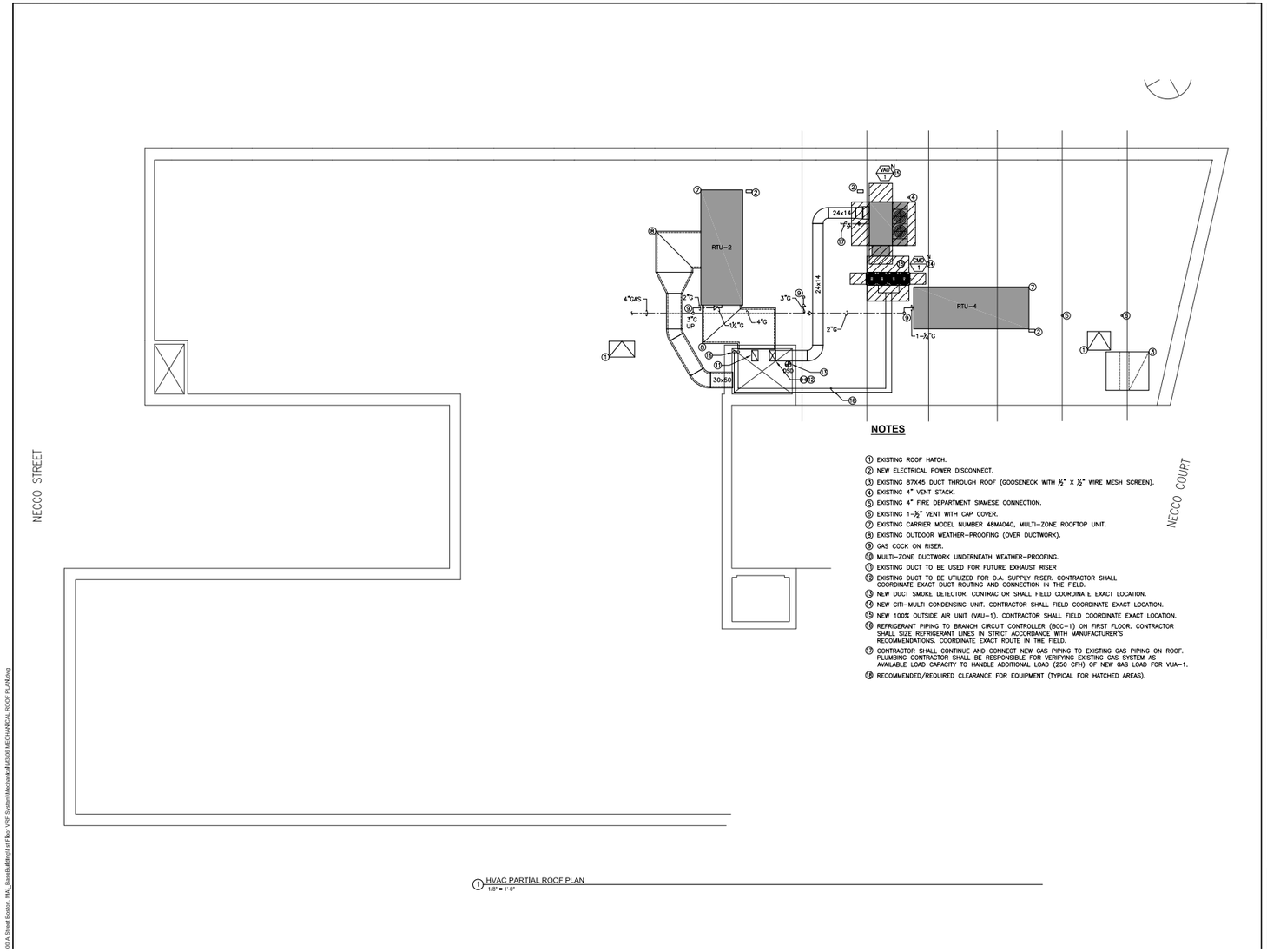
1ST FLOOR VRF SYSTEM
300 A STREET, BOSTON MA
Project

MECHANICAL ROOF DEMOLITION PLAN
Drawing Title

Project No. 21772	Checked BSK	Date 12/6/2019
Drawn ZDA	Approved MNF	Scale 1/8" = 1'-0"

Drawing No. M2.06

LOADING DOCK UNIT: MECHANICAL ROOF DEMOLITION PLAN (NOT TO SCALE)



1 HVAC PARTIAL ROOF PLAN
1/8" = 1'-0"

300 A Street Boston, MA_BaseBuilding\1st Floor VRF System\Mechanical\M3.06 MECHANICAL ROOF PLAN.dwg

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313 Congress Street
Boston, MA 02210
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617.330.9383 fax
Info@ccboston.com
Consulting Engineers/Construction Managers

ADDENDUMS

No.	Date	Description	By
1	9/8/20	CMO-1 Landlord Relocation	

1ST FLOOR VRF SYSTEM
300 A STREET, BOSTON MA
Project

MECHANICAL ROOF PLAN
Drawing Title

Project No.	Checked	Date
21772	BSK	12/6/2019
Drawn	Approved	Scale
ZDA	MNF	1/8" = 1' 0"

Drawing No.
M3.06

NEW ROOF ELECTRICAL: ROOF POWER PLAN (NOT TO SCALE)

CITYMULTI® Outdoor Unit: 20-TON PURY-EP240YSNU-A (-BS)

(Consists of Two PURY-EP120YNU-A (-BS) and One CMY-R200NCBK Twinning Kit)

MITSUBISHI ELECTRIC

Job Name:

System Reference: Date:

OUTDOOR VRF HEAT PUMP WITH HEAT RECOVERY SYSTEM

UNIT OPTION

- ☐ Standard Model PURY-EP240YSNU-A
- ☐ Seacoast (BS) Model PURY-EP240YSNU-A-BS

ACCESSORIES

- ☐ Twinning Kit (required) CMY-R200NCBK
- ☐ Joint Kit .... for details see Pipe Accessories Submittal
- ☐ BC Controller (required) .... for details see BC Controller Submittals
- ☐ Low Ambient Kit .... for details see Low Ambient Kit Submittal
- ☐ Snow/Hail Guards Kit .... for details see Snow/Hail Guards Kit Submittal
- ☐ Panel Heater Kit .... for details see Panel Heater Kit Submittal

Specifications			System	Module 1	Module 2
Unit Type			PURY-EP240YSNU-A (-BS)	PURY-EP120YNU-A (-BS)	PURY-EP120YNU-A (-BS)
Nominal Cooling Capacity		Btu/h	240,000	120,000	120,000
Nominal Heating Capacity		Btu/h	270,000	135,000	135,000
Guaranteed Operating Range *1		Cooling (Outdoor) *2	Refer to Module Data	23~126°F (-5~52°C)	
		Heating (Outdoor) *3		-13~60°F (-25~15.5°C)	
Extended Operating Range *4		Heating (Outdoor)		-25~60°F (-31.5~15.5°C)	
External Dimensions (H x W x D)		In. (mm)	Refer to Module Data	71-5/8 x 48-7/8 x 29-5/32 (1,818 x 1,240 x 740)	71-5/8 x 48-7/8 x 29-5/32 (1,818 x 1,240 x 740)
Net Weight		Lbs. (kg)	1314 (596)	657 (298)	657 (298)
External Finish			Refer to Module Data	Pre-coated galvanized steel sheet (+powder coating for -BS type) <MUNSELL 5Y 8/1>	
Electrical Power Requirements		Voltage, Phase, Hertz	Refer to Module Data	3-phase 3-wire 460 V ±10% 60 Hz	
Minimum Circuit Ampacity (MCA)		A		19	19
Maximum Overcurrent Protection (MOP)		A		30	30
Recommended Fuse Size		A		30	30
Recommended Minimum Wire Size		AWG (mm)		10 (5.3)	10 (5.3)
Short-circuit Current Rating (SCCR)		kA		5	5
Piping Diameter (Brazed) (In. / mm)		Liquid (High Pressure)	7/8 (22.2) Brazed (1-1/8 (28.58) Brazed for the part that exceeds 65 m)	Refer to System Data	
		Gas (Low Pressure)	1-3/8 (34.93) Brazed		
Max. Total Refrigerant Line Length		Ft.	3,936		
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.	541		
Max. Control Wiring Length		Ft.	1,640		
Indoor Unit		Total Capacity	50~150% of outdoor unit capacity	Refer to System Data	
		Model / Quantity	P05~P96/2~50		
Sound Pressure Levels		dB(A)	63.0/65.0	Refer to System Data	
Sound Power Levels		dB(A)	83.0/83.5		
Fan	Type x Quantity		Refer to Module Data	Propeller fan x 2	Propeller fan x 2
	Airflow Rate	CFM		8,300	8,300
	External Static Pressure	In. WG		Selectable; 0, 0.12, 0.24, 0.32 in.WG; factory set to 0 in.WG	
Compressor Operating Range			7.5% to 100%	Refer to System Data	
Compressor Type x Quantity			Refer to Module Data	Inverter scroll hermetic compressor x 1	Inverter scroll hermetic compressor x 1
Refrigerant			Refer to Module Data	R410A 17 lbs + 10 oz (8.0 kg)	R410A 17 lbs + 10 oz (8.0 kg)
Protection Devices		High Pressure	Refer to Module Data	High pressure sensor, High pressure switch at 4.15 MPa (601 psi)	
		Inverter Circuit (Comp. / Fan)		Over-heat protection, Over-current protection	
		Fan Motor		Over-current protection	
AHRI Ratings (Ducted/Non-Ducted)		EER	11.7 / 12.2	Refer to System Data	
		IEER	23.9 / 27.4		
		COP	3.46 / 3.58		
		SCHE	22.9 / 26.8		

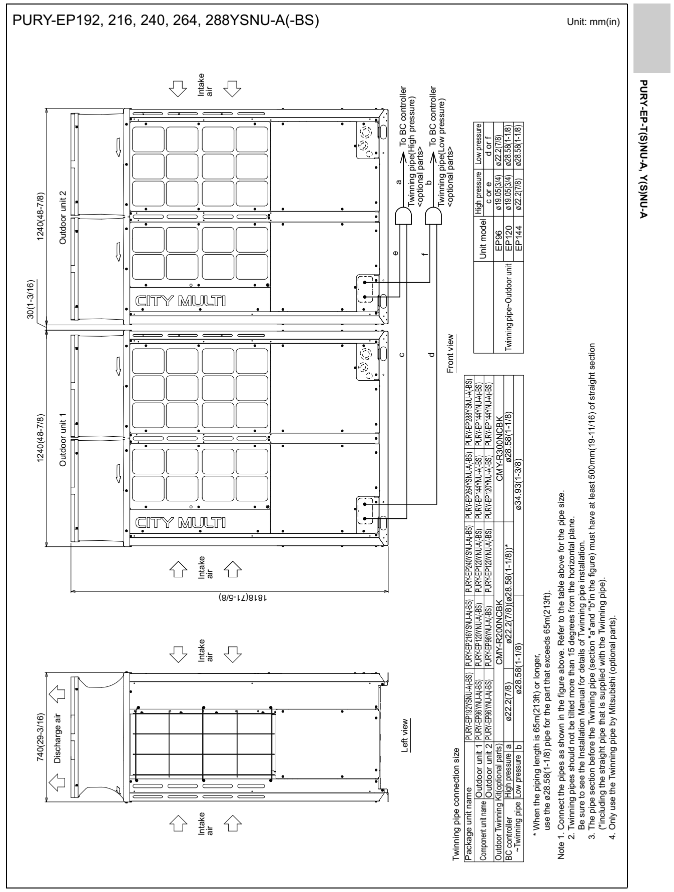
NOTES:
Nominal cooling conditions (Test conditions are based on AHRI 1230) Indoor: 80°FD.B./67°FW.B. (26.7°CD.B./19.4°CW.B.), Outdoor: 95°FD.B. (35°CD.B.)
Nominal heating conditions (Test conditions are based on AHRI 1230) Indoor: 70°FD.B. (21.1°CD.B.), Outdoor: 47°FD.B./43°FW.B. (8.3°CD.B./6.1°CW.B.)
** Each individual module requires a separate electrical connection. Refer to electrical data for each individual module.

1. Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
2. For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
3. When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating
4. Unit will continue to operate in extended operating range, but capacity is not guaranteed

Specifications are subject to change without notice.

Outdoor Unit: PURY-EP240YSNU-A (-BS) – DIMENSIONS

2. EXTERNAL DIMENSIONS R2-Series (High efficiency)



NOTES:
SEACOAST PROTECTION
- Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
- Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
- Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

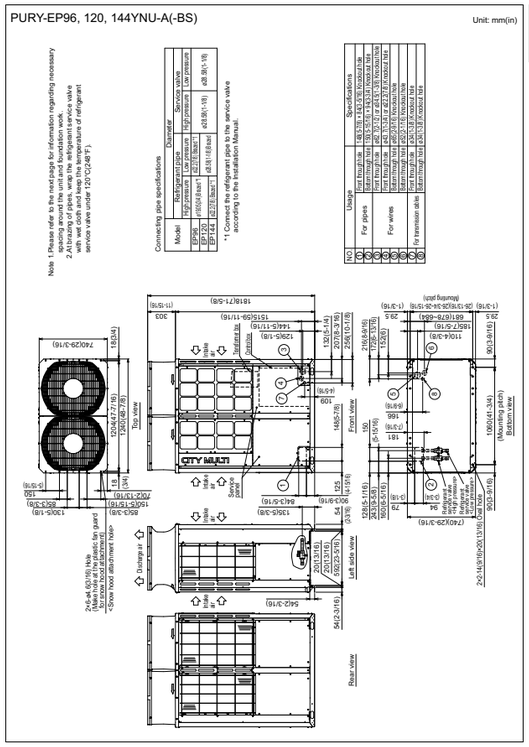
Specifications are subject to change without notice.

HEAT PUMP UNITS: CUTSHEETS

Modules 1 and 2: PURY-EP120YNU-A (-BS) – DIMENSIONS

2. EXTERNAL DIMENSIONS R2-Series (High efficiency)

PURY-EP96, 120, 144YNU-A(-BS) Unit: mm(in)



NOTES:
SEACOAST PROTECTION
- Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
- Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
- Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development to 960 hours.

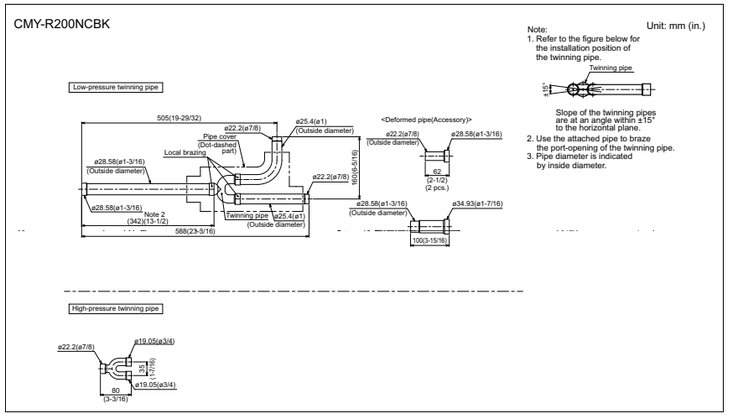
PURY-EP-T(S)NU-A, Y(S)NU-A

Specifications are subject to change without notice.

Twinning Kit: CMY-R200NCBK

Unit: mm (inch)

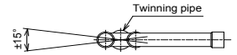
CMY-R200NCBK Unit: mm (in.)



Note:
1. Refer to the figure below for the installation position of the twinning pipe.

Slope of the twinning pipes are at an angle within ±15° to the horizontal plane.
2. Use the attached pipe to braze the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.

Note 1. Reference the attitude angle of the twinning pipe below the fig.



The angle of the twinning pipe is within ±15° against the horizontal plane.
2. Use the attached pipe to braze the port-opening of the twinning pipe.
3. Pipe diameter is indicated by inside diameter.
4. Only use the Twinning pipe by Mitsubishi (optional parts) .

PURY-EP-T(S)NU-A, Y(S)NU-A

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COOLING & HEATING
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Toll Free: 800-433-4822 www.mehvac.com

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FORM# PUHY-EP96TNU-A (-BS) - 201907

Specifications are subject to change without notice.

HEAT PUMP UNITS: CUTSHEETS

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SECTION 03

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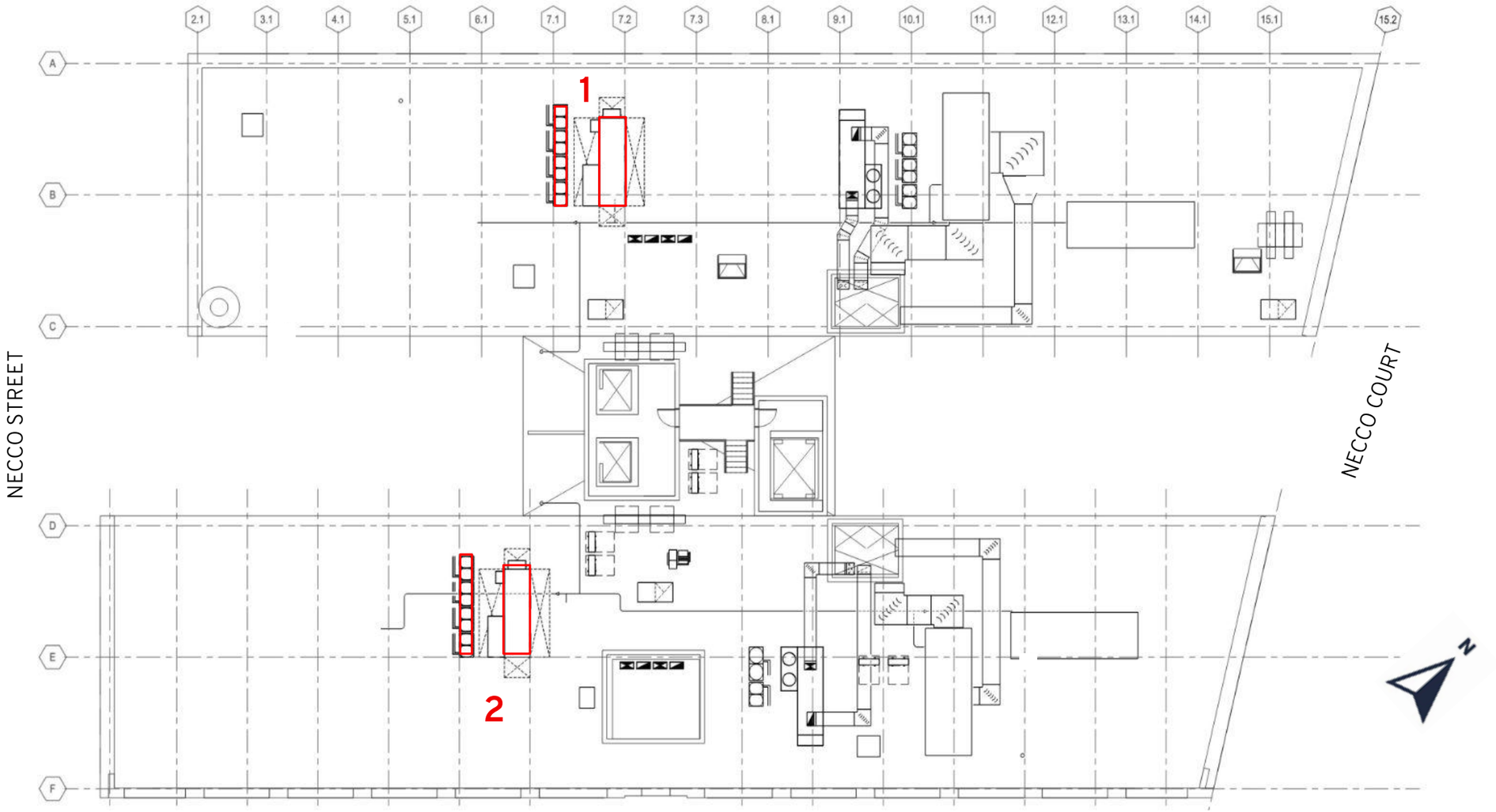
ROOFTOP UNITS






ROOFTOP UNITS: EXISTING CONDITIONS PHOTOS

Proposed RTU (and associated condensers) Location



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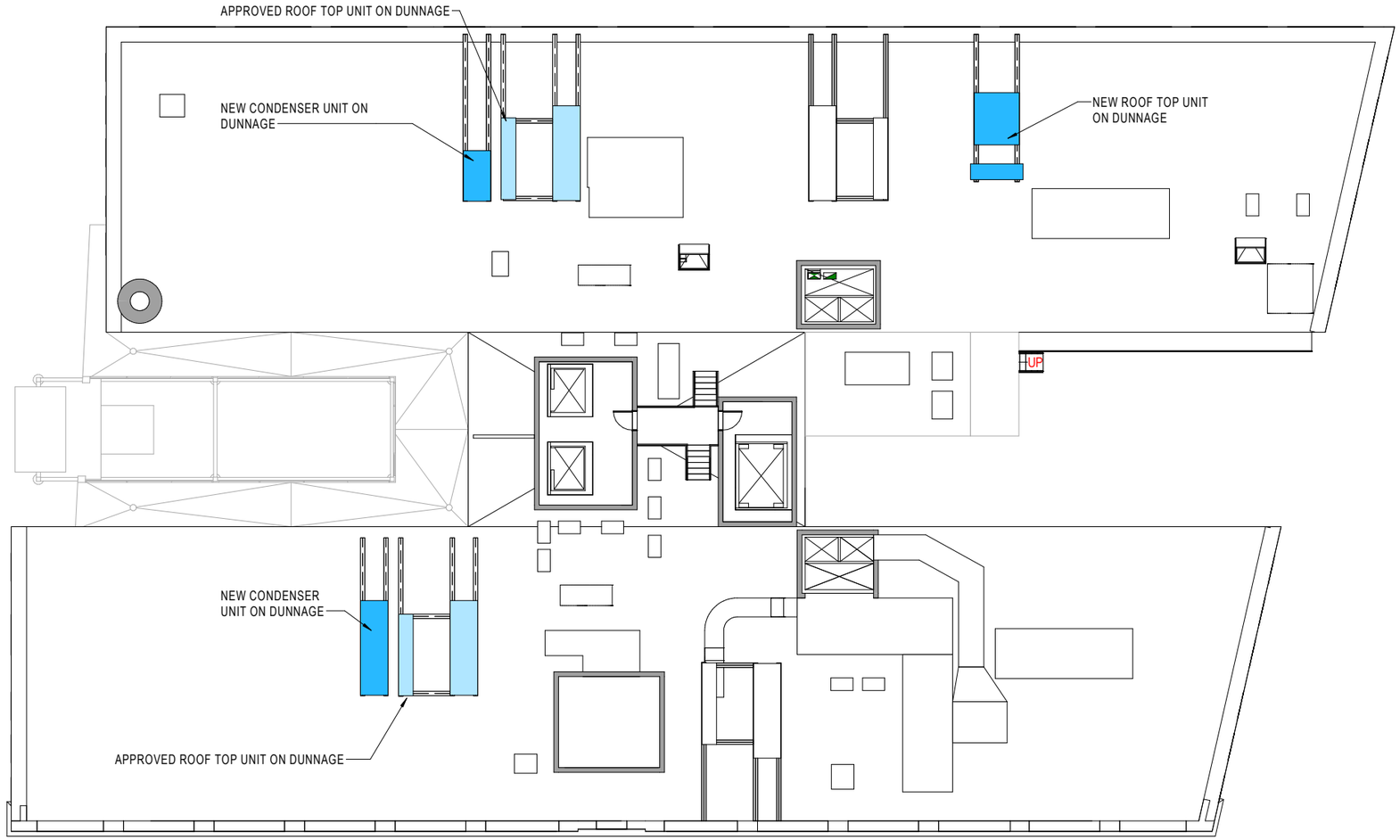
ROOFTOP UNITS: PREVIOUSLY APPROVED ROOFTOP EQUIPMENT REPLACEMENT



ROOF PLAN: APPROVED NEW ROOFTOP UNITS

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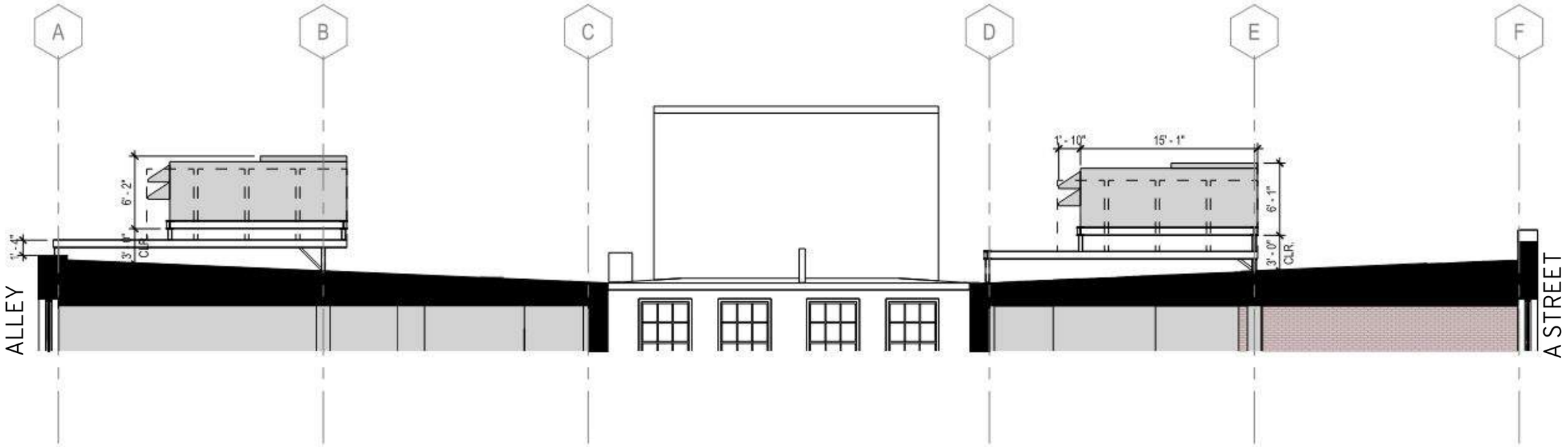
ROOFTOP UNITS: ELEVATION OF PROPOSED UNITS (NOT TO SCALE)



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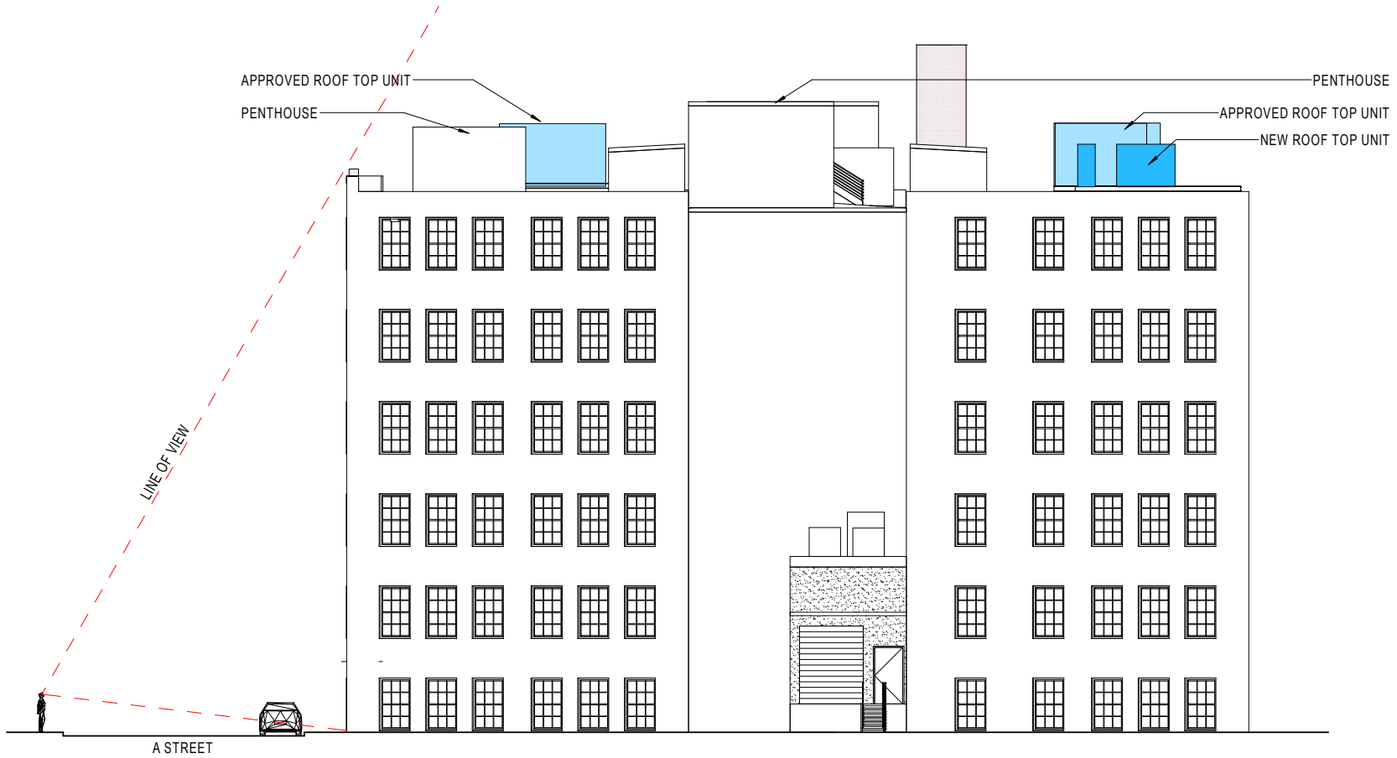
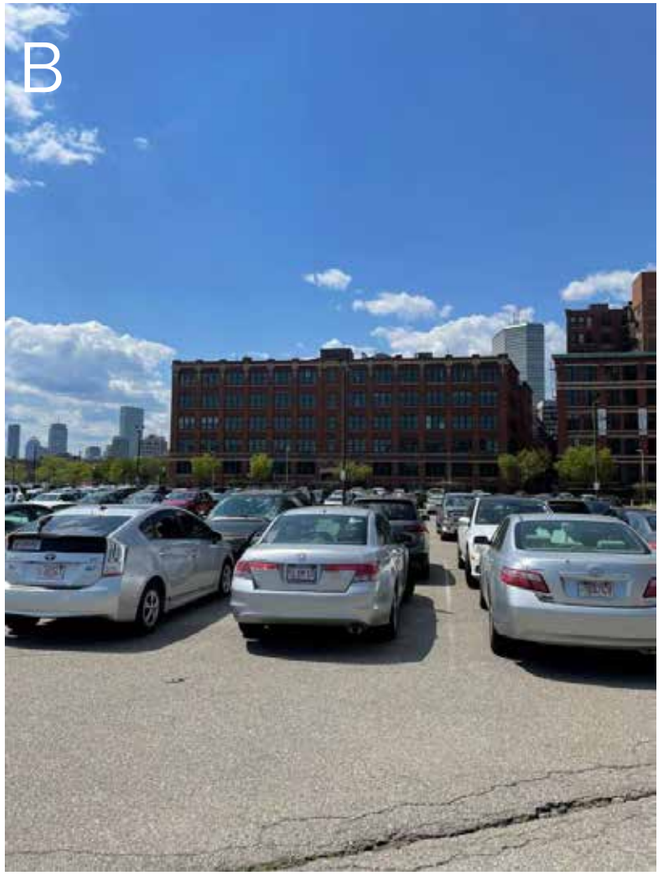
ROOFTOP UNITS: SECTION OF PROPOSED UNITS (NOT TO SCALE)



ROOFTOP UNITS: VIEWING ANGLE (NOT TO SCALE)



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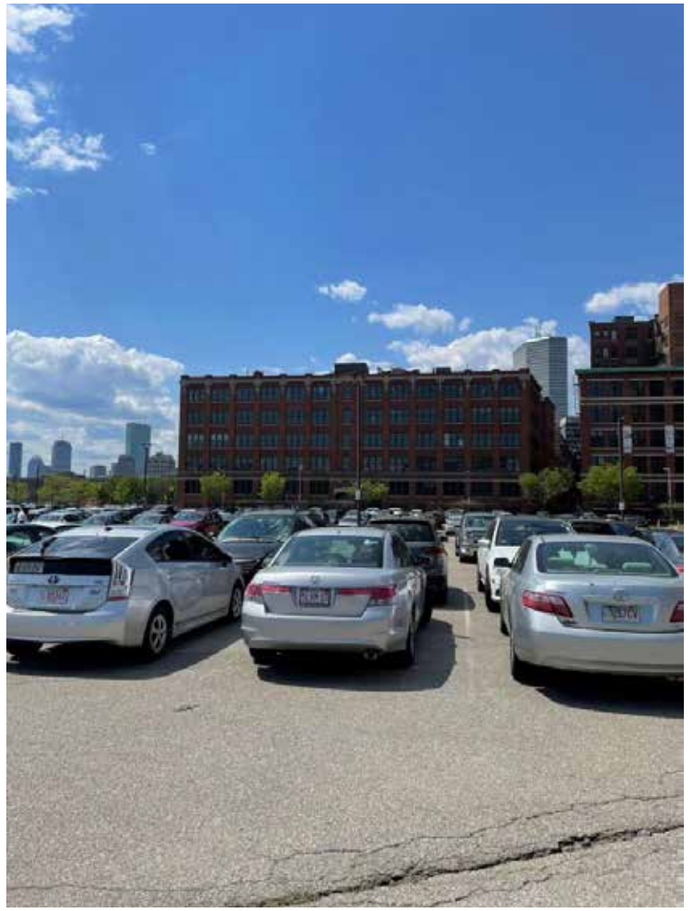
ROOFTOP UNITS: PROPOSED ROOFTOP EQUIPMENT REPLACEMENT



Proposed Location
View from Parking Lot south of A Street

Proposed Location
View from Parking Lot south of A Street (Zoom 5x)

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ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP

Proposed Location
View from Summer Street Bridge

Proposed Location
View from Summer Street Bridge (Zoom 5x)

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ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP

UNIT 1

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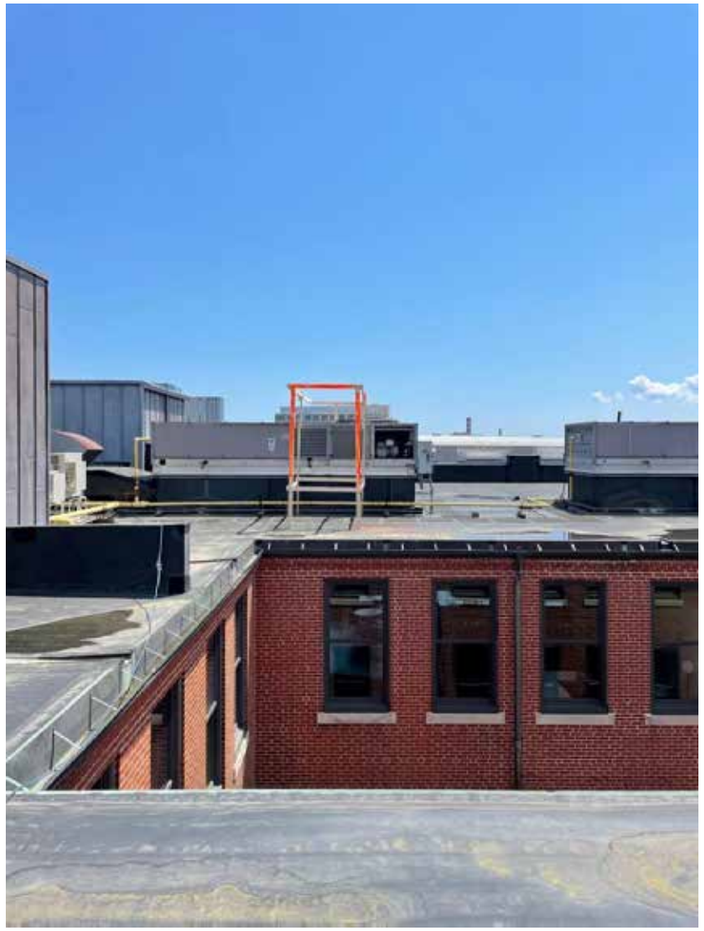
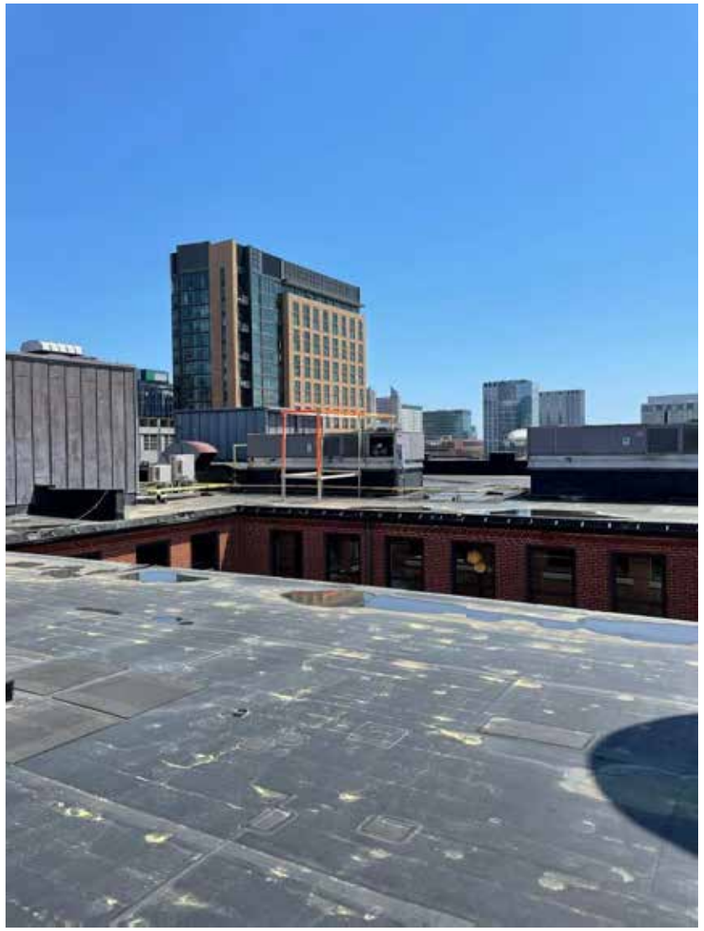
ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP





UNIT 2

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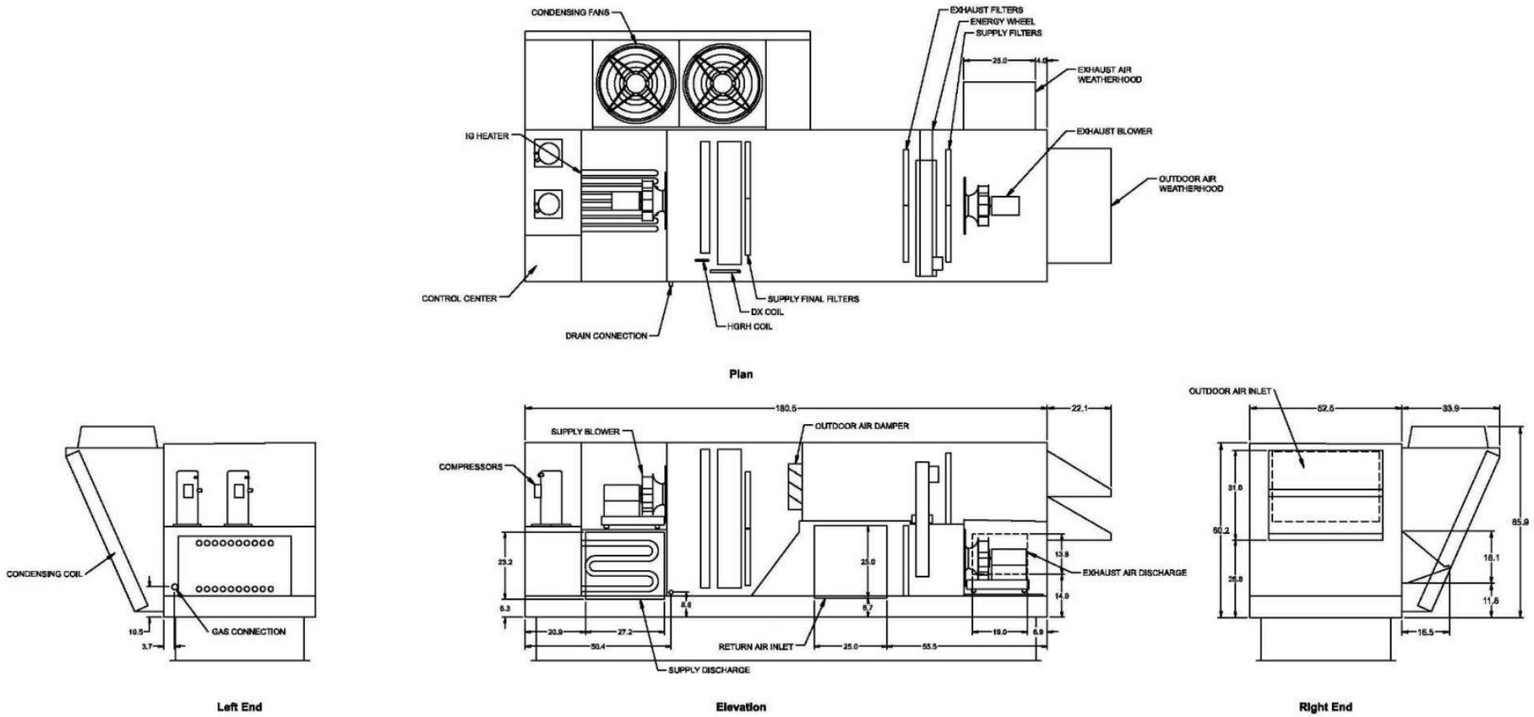
ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP

PremiSys®

Model: MPE-1-W2-4C-090-4

MITSUBISHI ELECTRIC
COOLING & HEATING

OVERVIEW DRAWINGS



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ROOFTOP UNITS: PROPOSED ROOFTOP EQUIPMENT CHANGES - CUTSHEET

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