DYER BROWN

Red Hat

ND NATIONAL DEVELOPMENT

Dyer Brown & Associates, Inc.
dyerbrown.com

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976 Brady Avenue, NW #100
Atlanta, GA 30318

300 A Street National Development - Fort Point Landmarks Review

May 19, 2021

—

PREPARED BY

Dyer Brown
One Winthrop Square
Boston, MA 02110

DYER BROWN®

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DYER BROWN®

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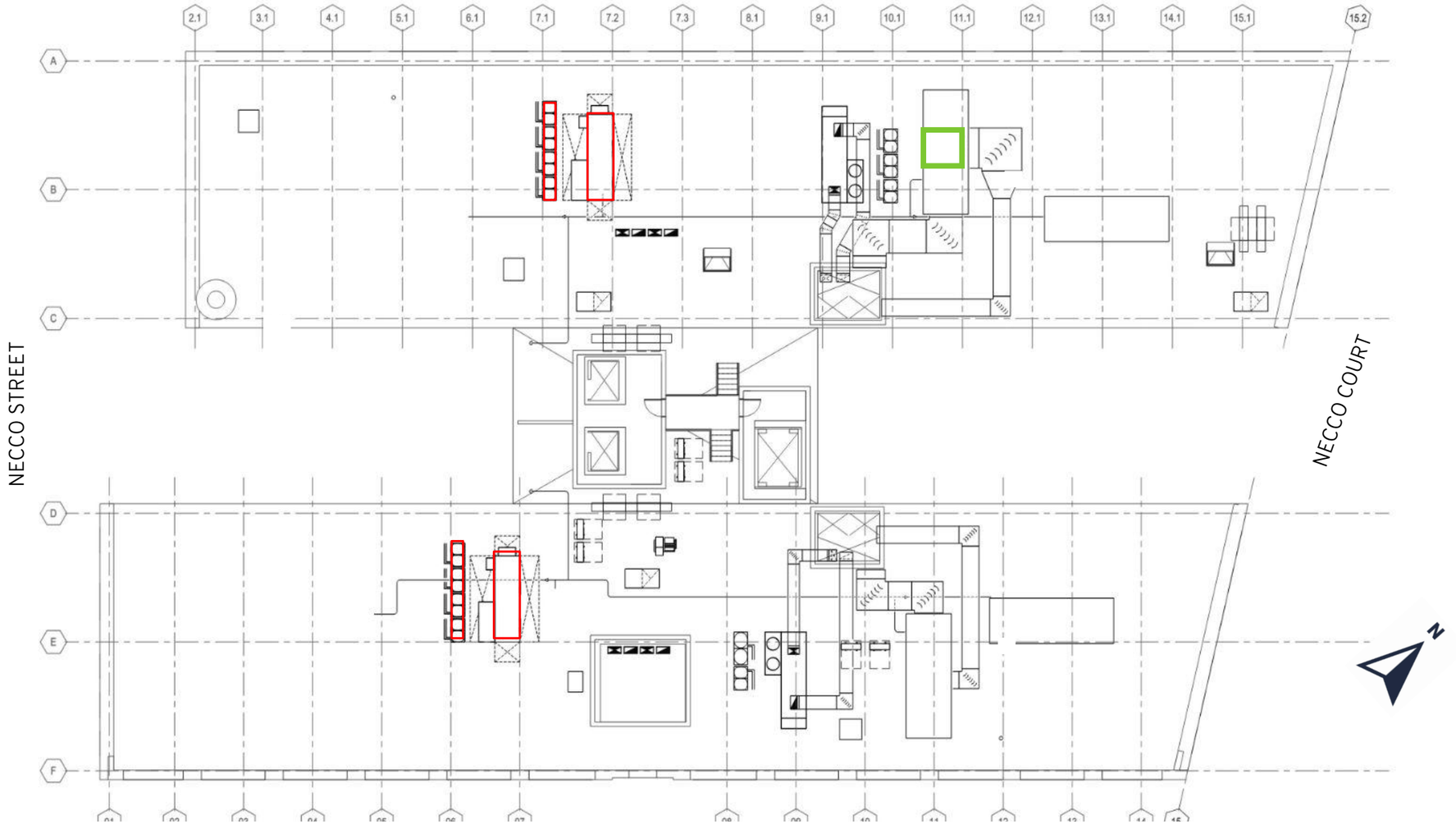
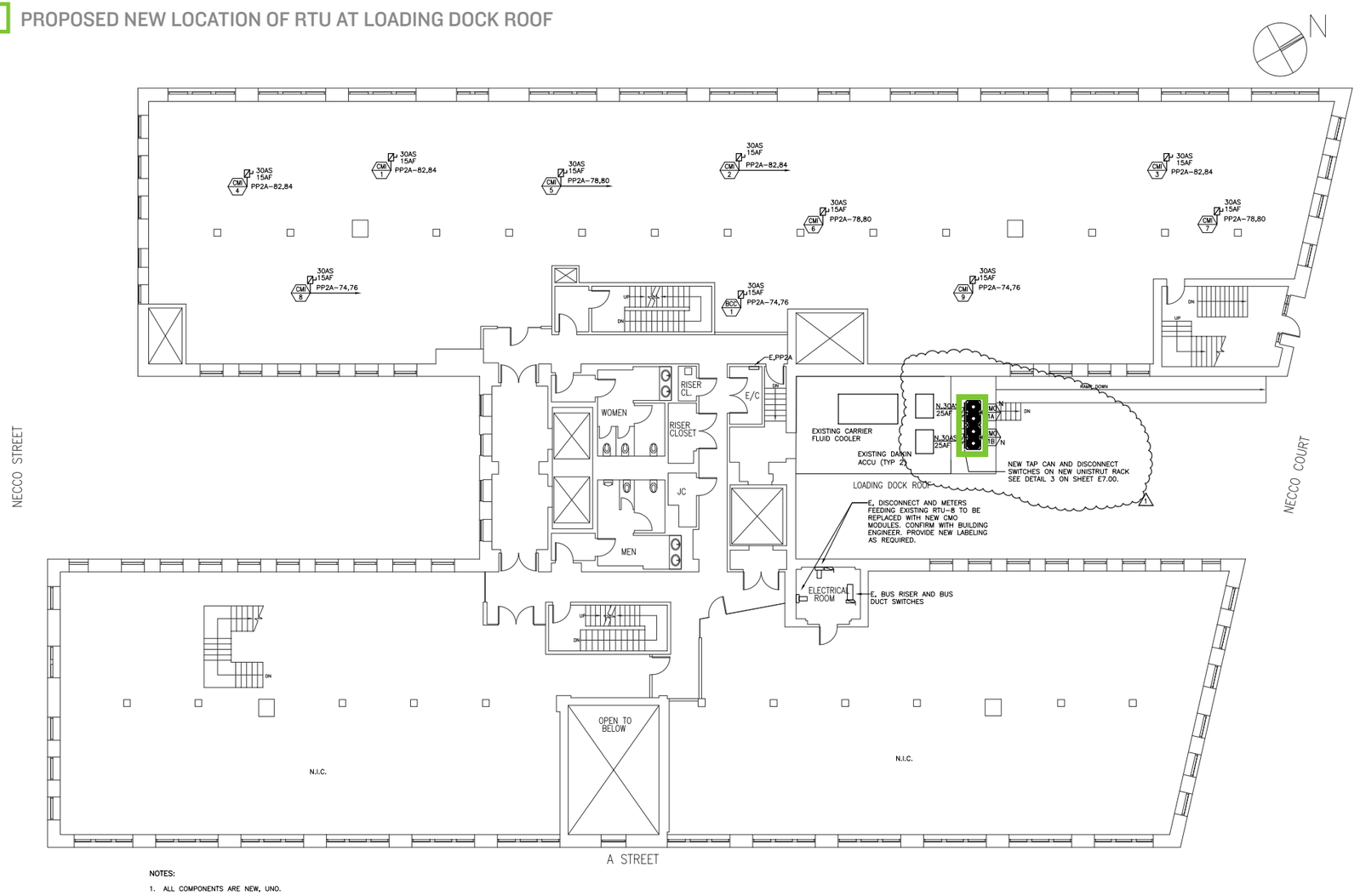


ROOF PLAN: PROPOSED NEW ROOFTOP UNITS

PROPOSED NEW LOCATION OF RTU AT LOADING DOCK ROOF



NOTES:

1. ALL COMPONENTS ARE NEW, UNO.

ROOF PLAN: PROPOSED NEW LOADING DOCK UNIT

DYER BROWN®

SECTION 02

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ROOFTOP UNITS






ROOFTOP UNITS: EXISTING CONDITIONS PHOTOS

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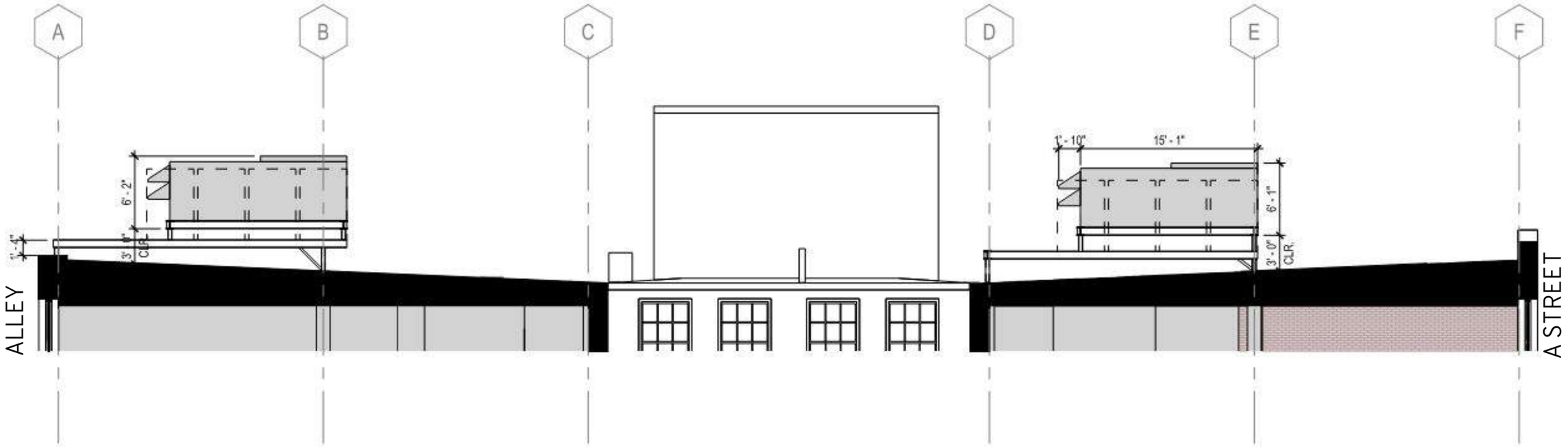
ROOFTOP UNITS: ELEVATION OF PROPOSED UNITS (NOT TO SCALE)



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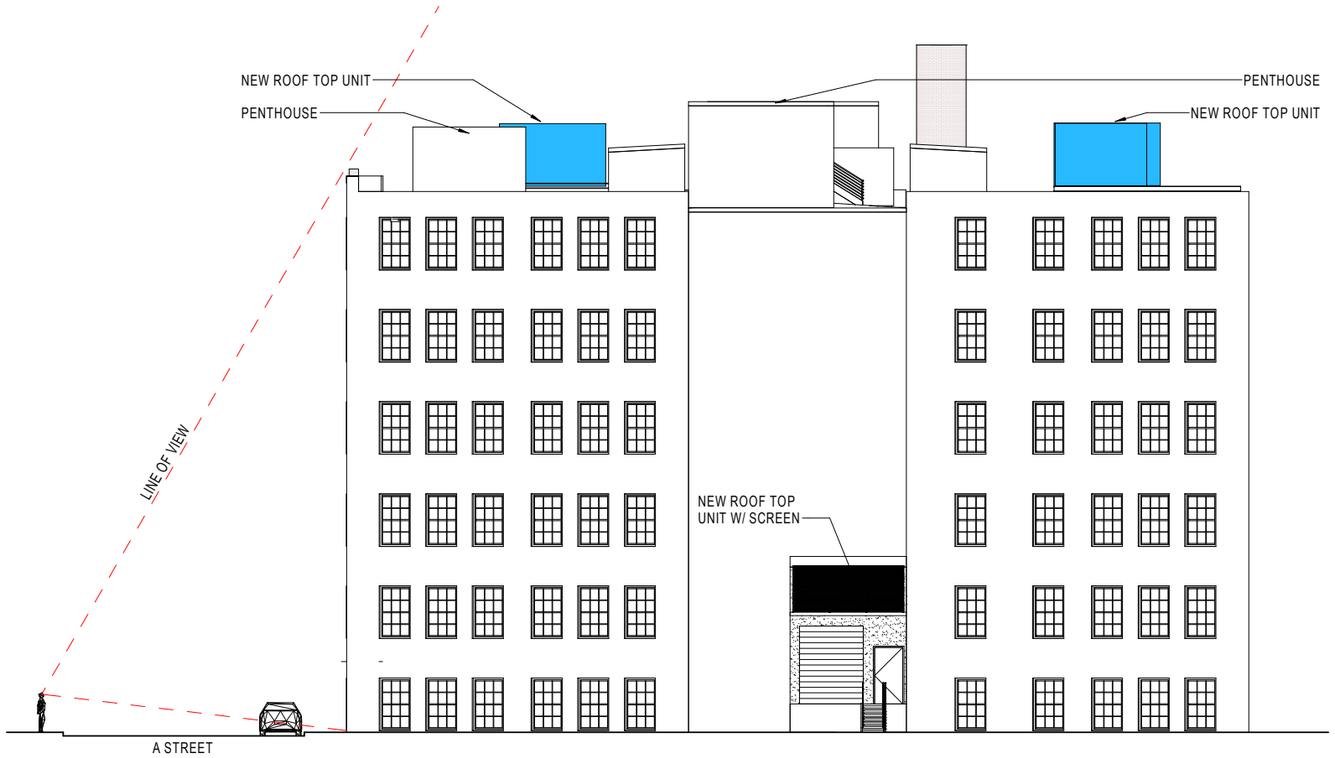
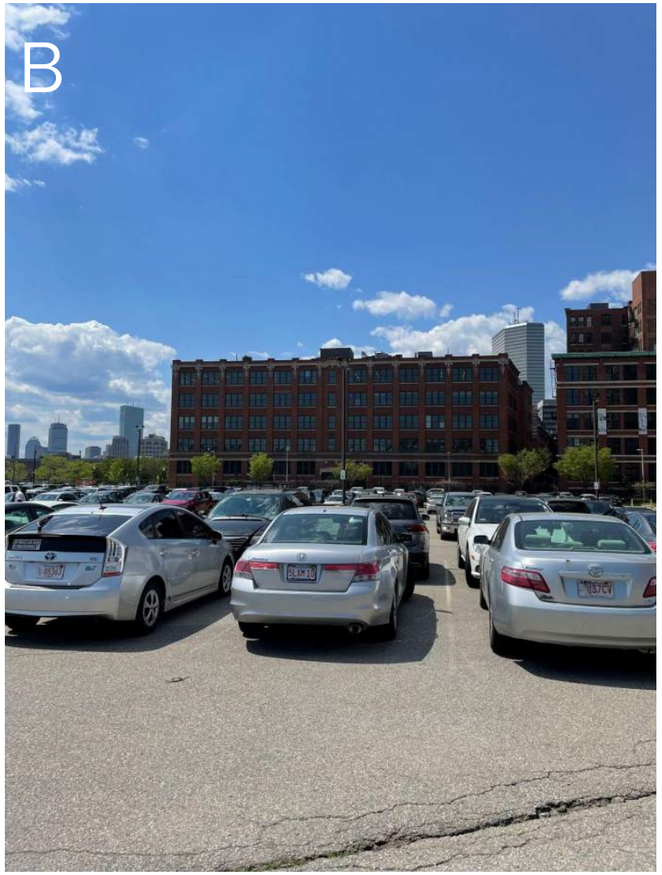
ROOFTOP UNITS: SECTION OF PROPOSED UNITS (NOT TO SCALE)



ROOFTOP UNITS: VIEWING ANGLE (NOT TO SCALE)



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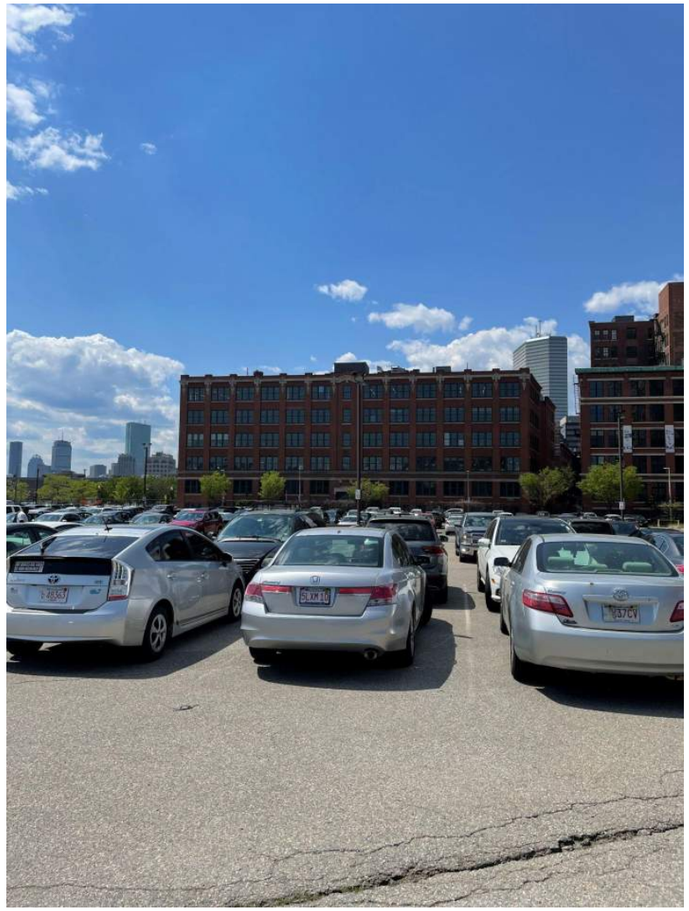
ROOFTOP UNITS: PROPOSED ROOFTOP EQUIPMENT REPLACEMENT



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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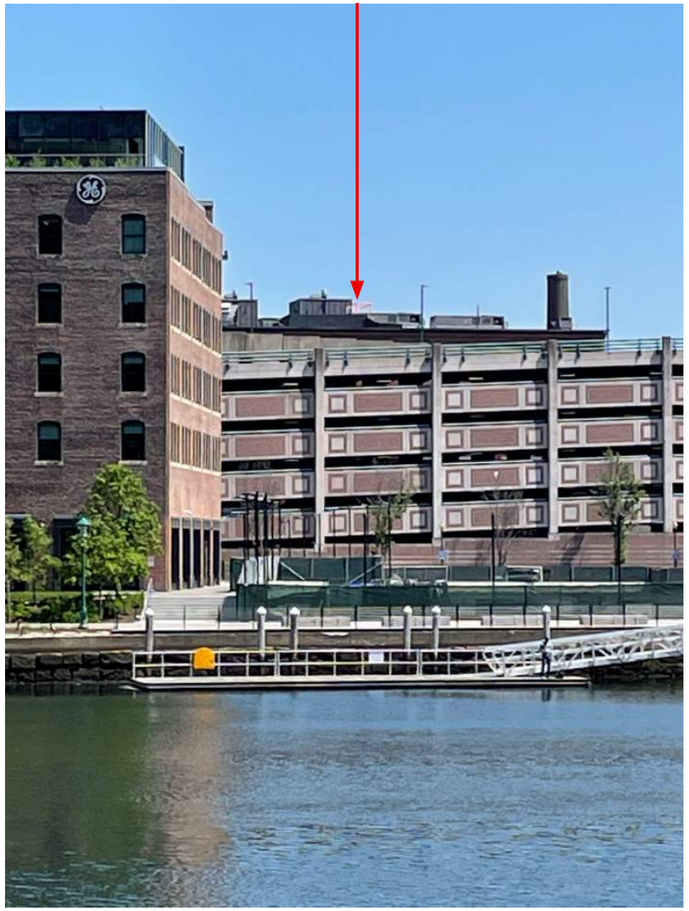
ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP

Proposed Location
View from Summer Street Bridge



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

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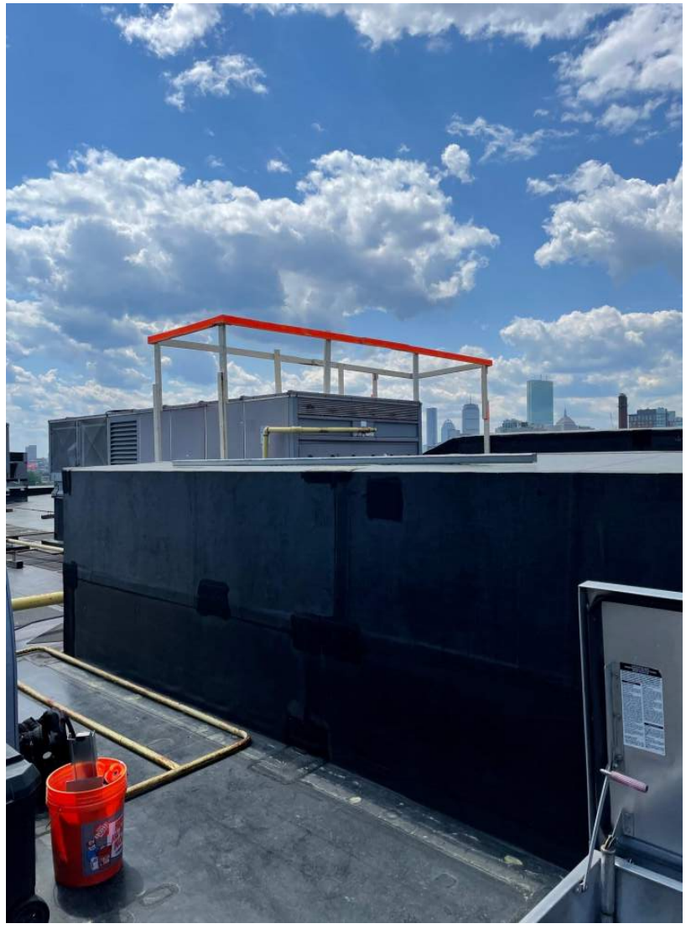
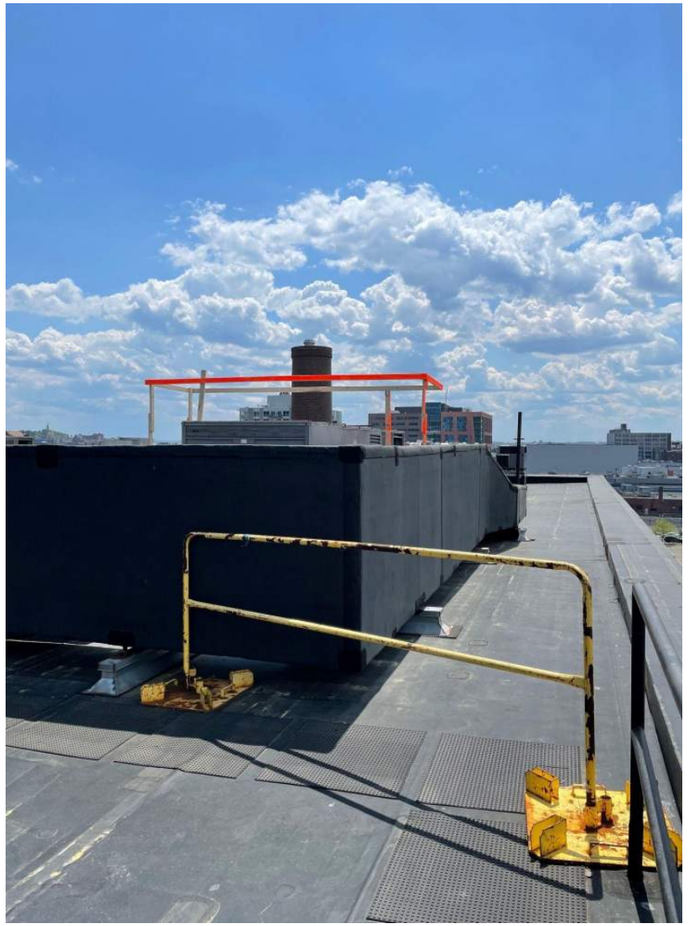
ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP





UNIT 1

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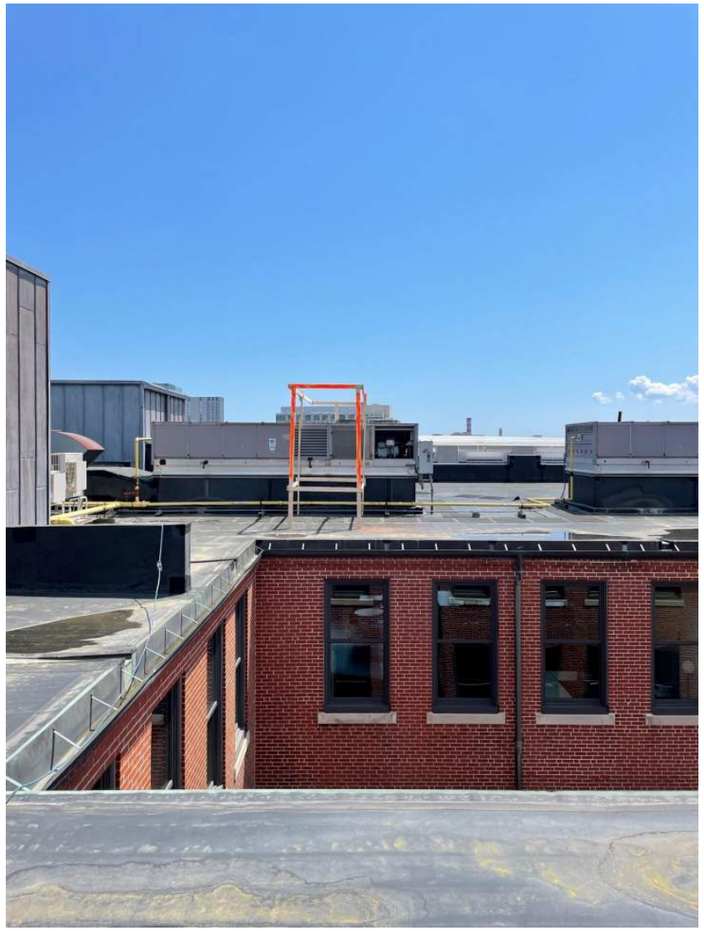
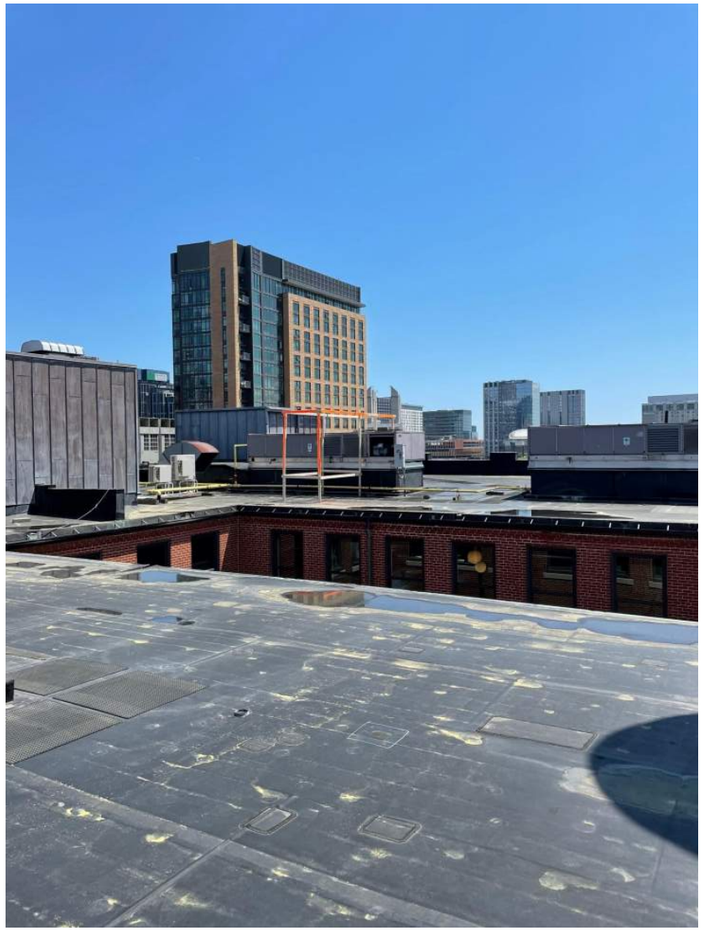
ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP





UNIT 2

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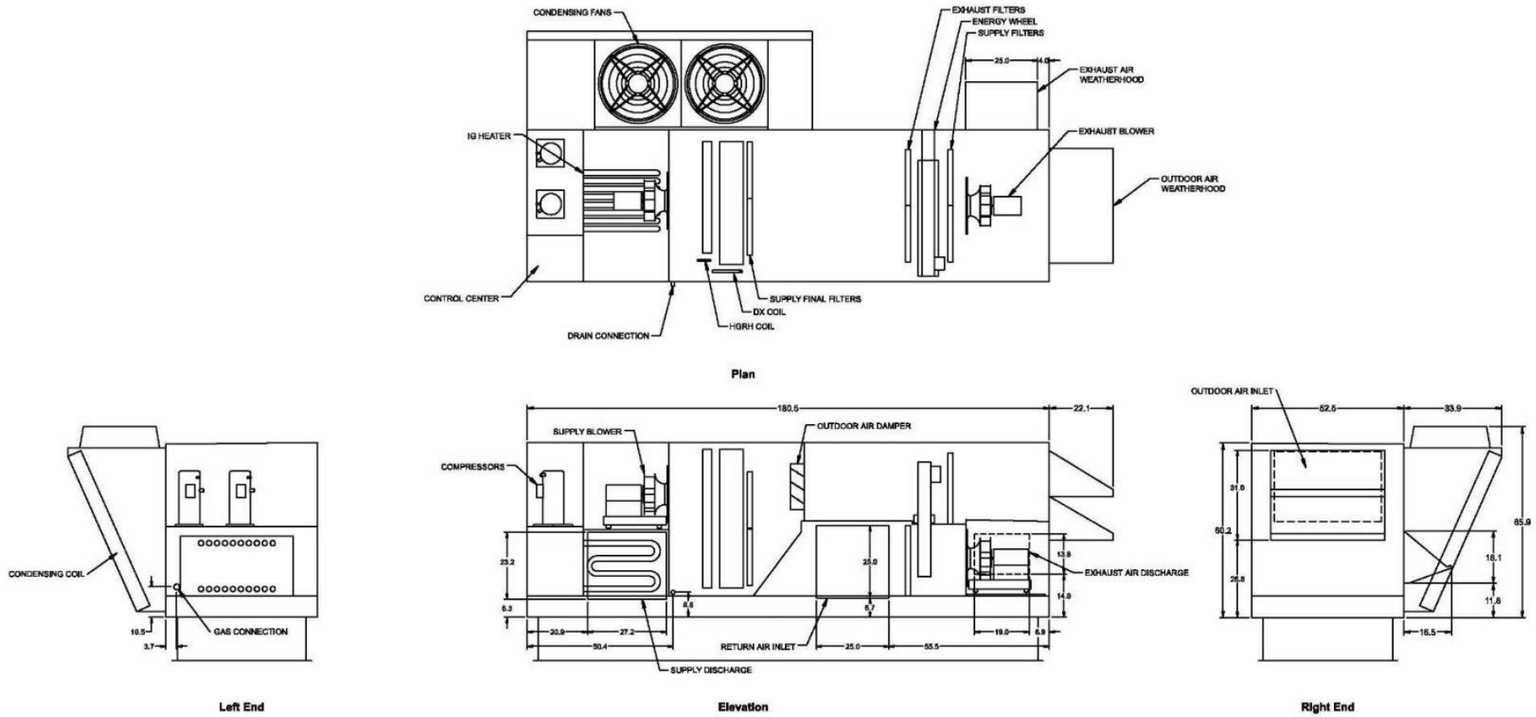
ROOFTOP UNITS: ROOFTOP EQUIPMENT MOCKUP

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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SECTION 02

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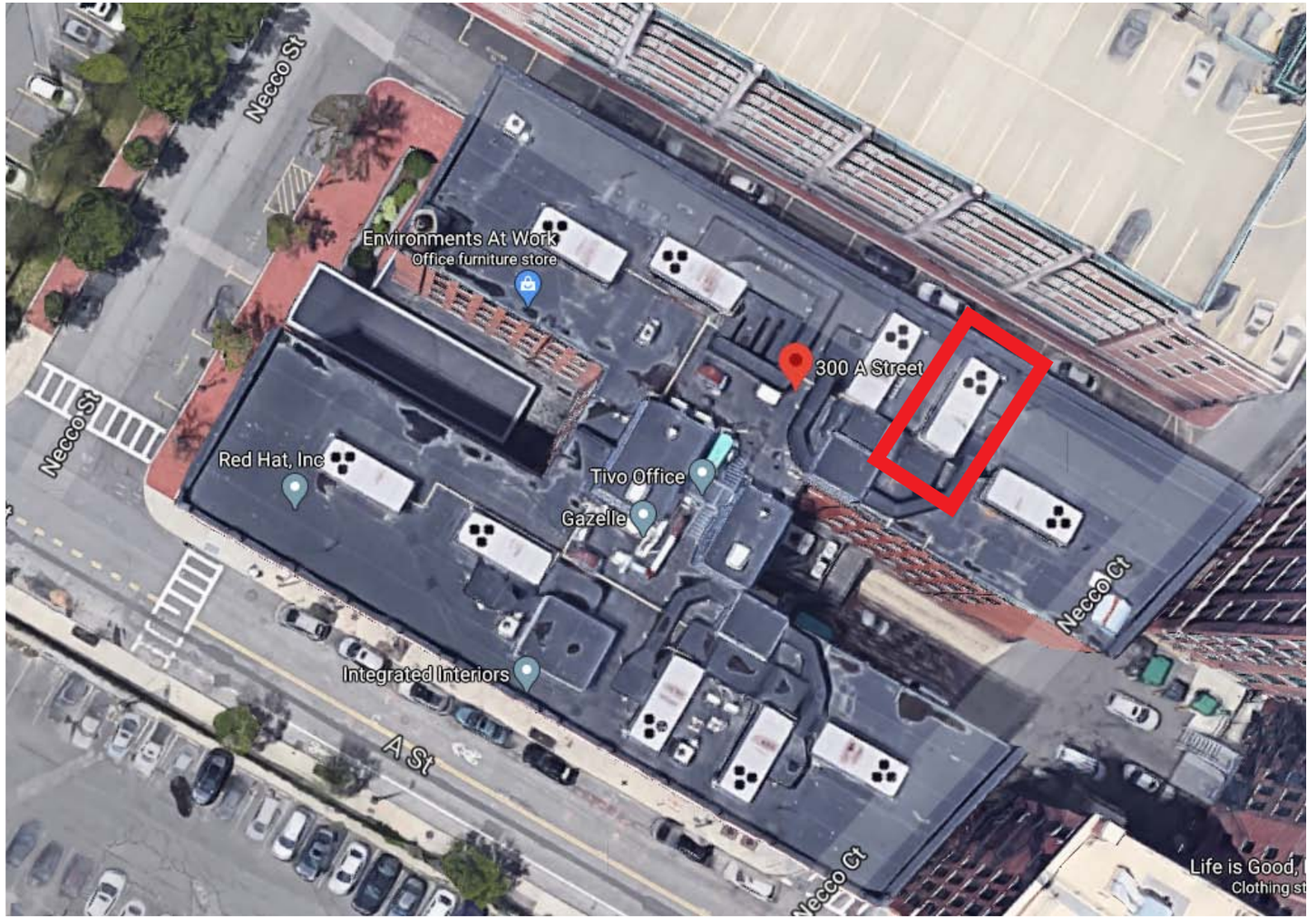
LOADING DOCK UNITS

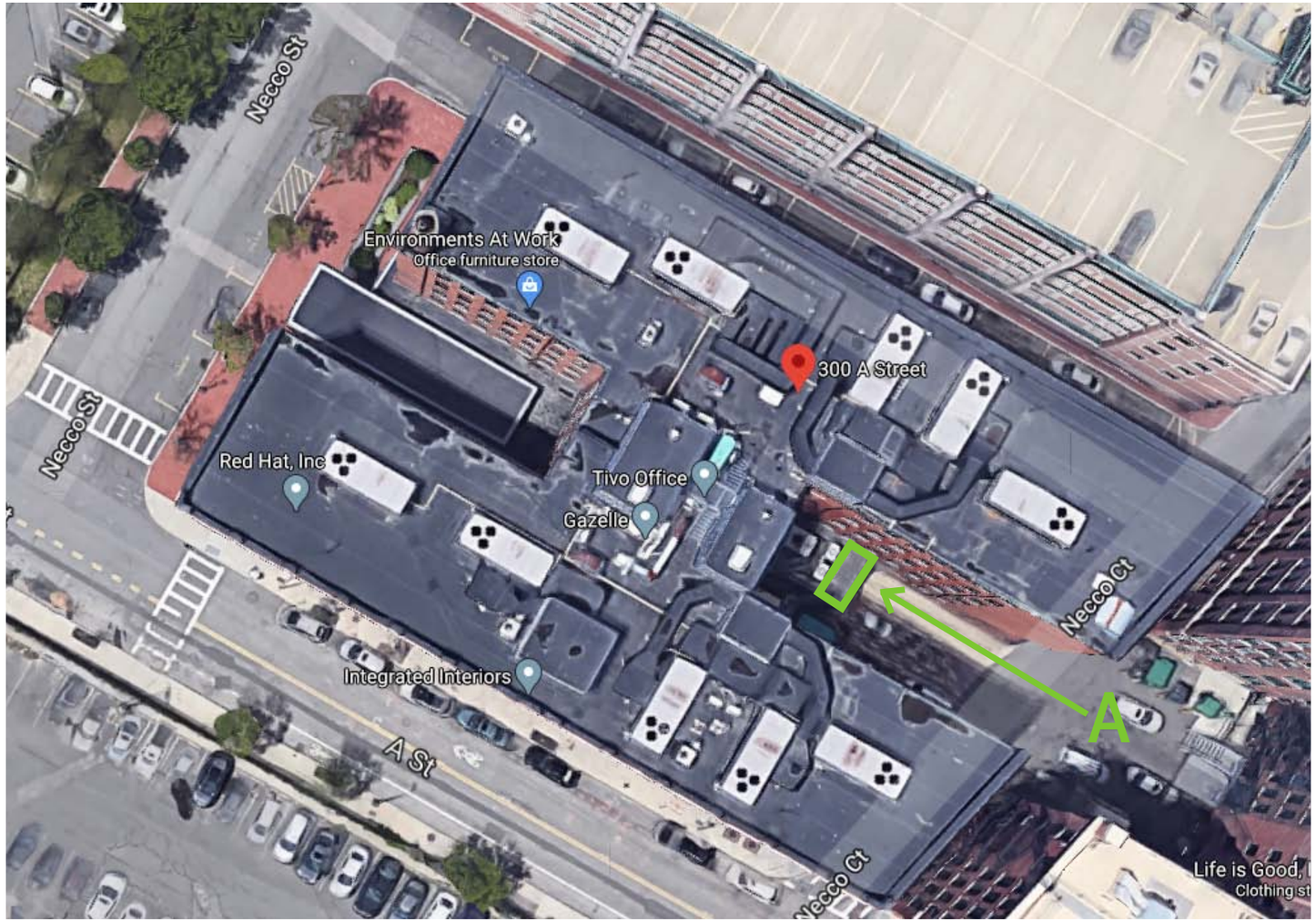





LOADING DOCK: EXISTING CONDITIONS IMAGES



LOADING DOCK UNIT: CURRENT LOCATION SITE MAP



LOADING DOCK UNIT: PROPOSED EQUIPMENT REPLACEMENT





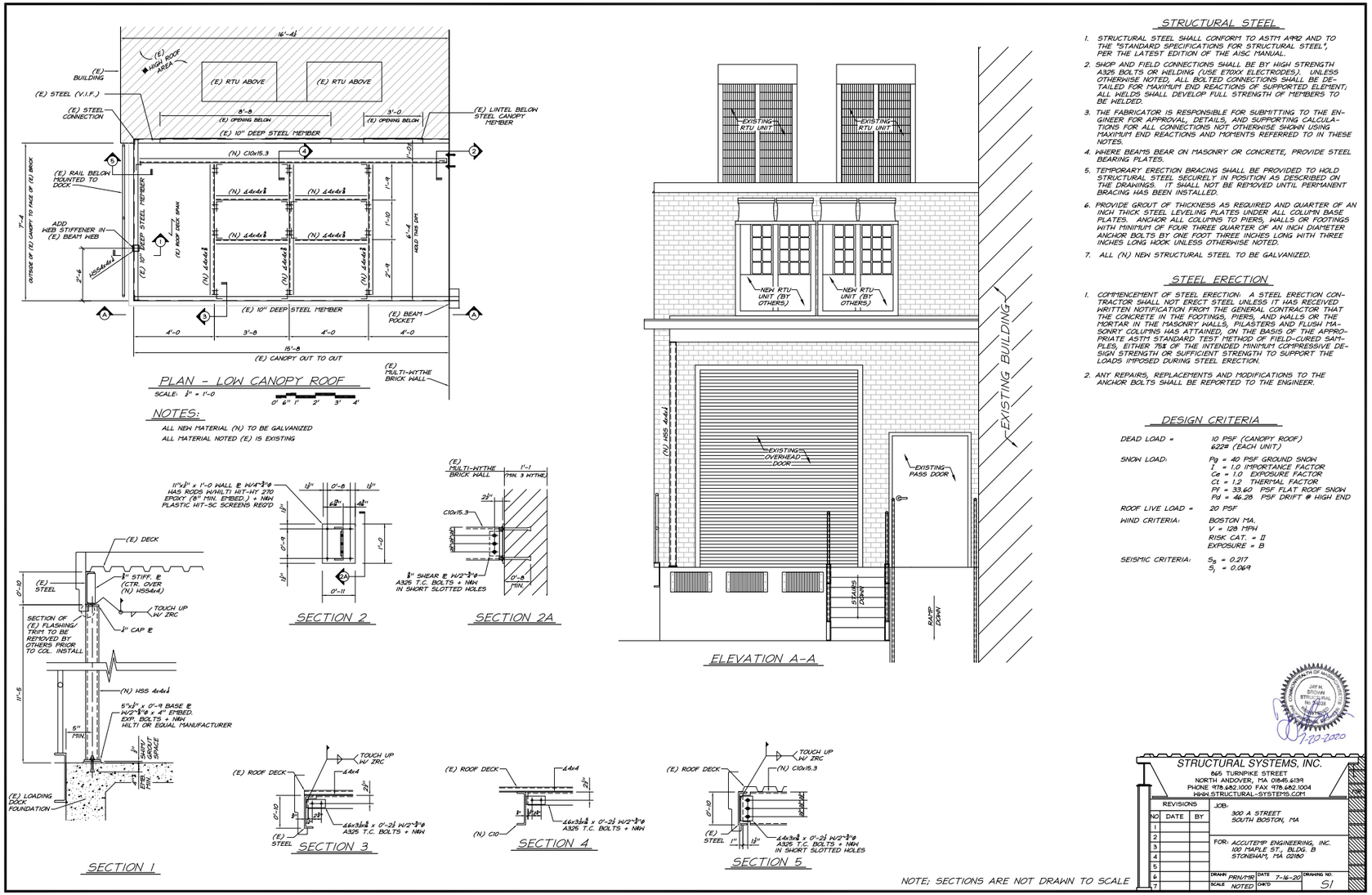

LOADING DOCK UNIT: CURRENT LOCATION EXISTING CONDITIONS IMAGES

LOADING DOCK: VIEWING ANGLE (NOT TO SCALE)

EXISTING CONDITION

PROPOSED SCREEN

LOADING DOCK: PERSPECTIVE VIEW



STRUCTURAL STEEL

1. STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 AND TO THE "STANDARD SPECIFICATIONS FOR STRUCTURAL STEEL", PER THE LATEST EDITION OF THE AISC MANUAL.
2. SHOP AND FIELD CONNECTIONS SHALL BE BY HIGH STRENGTH A325 BOLTS OR WELDING (USE E70XX ELECTRODES). UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS SHALL BE DETAILED FOR MAXIMUM END REACTIONS OF SUPPORTED ELEMENT; ALL WELDS SHALL DEVELOP FULL STRENGTH OF MEMBERS TO BE WELDED.
3. THE FABRICATOR IS RESPONSIBLE FOR SUBMITTING TO THE ENGINEER FOR APPROVAL, DETAILS, AND SUPPORTING CALCULATIONS FOR ALL CONNECTIONS NOT OTHERWISE SHOWN USING MAXIMUM END REACTIONS AND MOMENTS REFERRED TO IN THESE NOTES.
4. WHERE BEAMS BEAR ON MASONRY OR CONCRETE, PROVIDE STEEL BEARING PLATES.
5. TEMPORARY ERECTION BRACING SHALL BE PROVIDED TO HOLD STRUCTURAL STEEL SECURELY IN POSITION AS DESCRIBED ON THE DRAWINGS. IT SHALL NOT BE REMOVED UNTIL PERMANENT BRACING HAS BEEN INSTALLED.
6. PROVIDE GROUT OF THICKNESS AS REQUIRED AND QUARTER OF AN INCH THICK STEEL LEVELING PLATES UNDER ALL COLUMN BASE PLATES. ANCHOR ALL COLUMNS TO PIERS, WALLS OR FOOTINGS WITH MINIMUM OF FOUR THREE QUARTER OF AN INCH DIAMETER ANCHOR BOLTS BY ONE FOOT THREE INCHES LONG WITH THREE INCHES LONG HOOK UNLESS OTHERWISE NOTED.
7. ALL (N) NEW STRUCTURAL STEEL TO BE GALVANIZED.

STEEL ERECTION

1. COMMENCEMENT OF STEEL ERECTION: A STEEL ERECTION CONTRACTOR SHALL NOT ERECT STEEL UNLESS IT HAS RECEIVED WRITTEN NOTIFICATION FROM THE GENERAL CONTRACTOR THAT THE CONCRETE IN THE FOOTINGS, PIERS, AND WALLS OR THE MORTAR IN THE MASONRY WALLS, PILASTERS AND FLUSH MASONRY COLUMNS HAS ATTAINED, ON THE BASIS OF THE APPROPRIATE ASTM STANDARD TEST METHOD OF FIELD-CURED SAMPLES, EITHER 75% OF THE INTENDED MINIMUM COMPRESSIVE DESIGN STRENGTH OR SUFFICIENT STRENGTH TO SUPPORT THE LOADS IMPOSED DURING STEEL ERECTION.
2. ANY REPAIRS, REPLACEMENTS AND MODIFICATIONS TO THE ANCHOR BOLTS SHALL BE REPORTED TO THE ENGINEER.

DESIGN CRITERIA

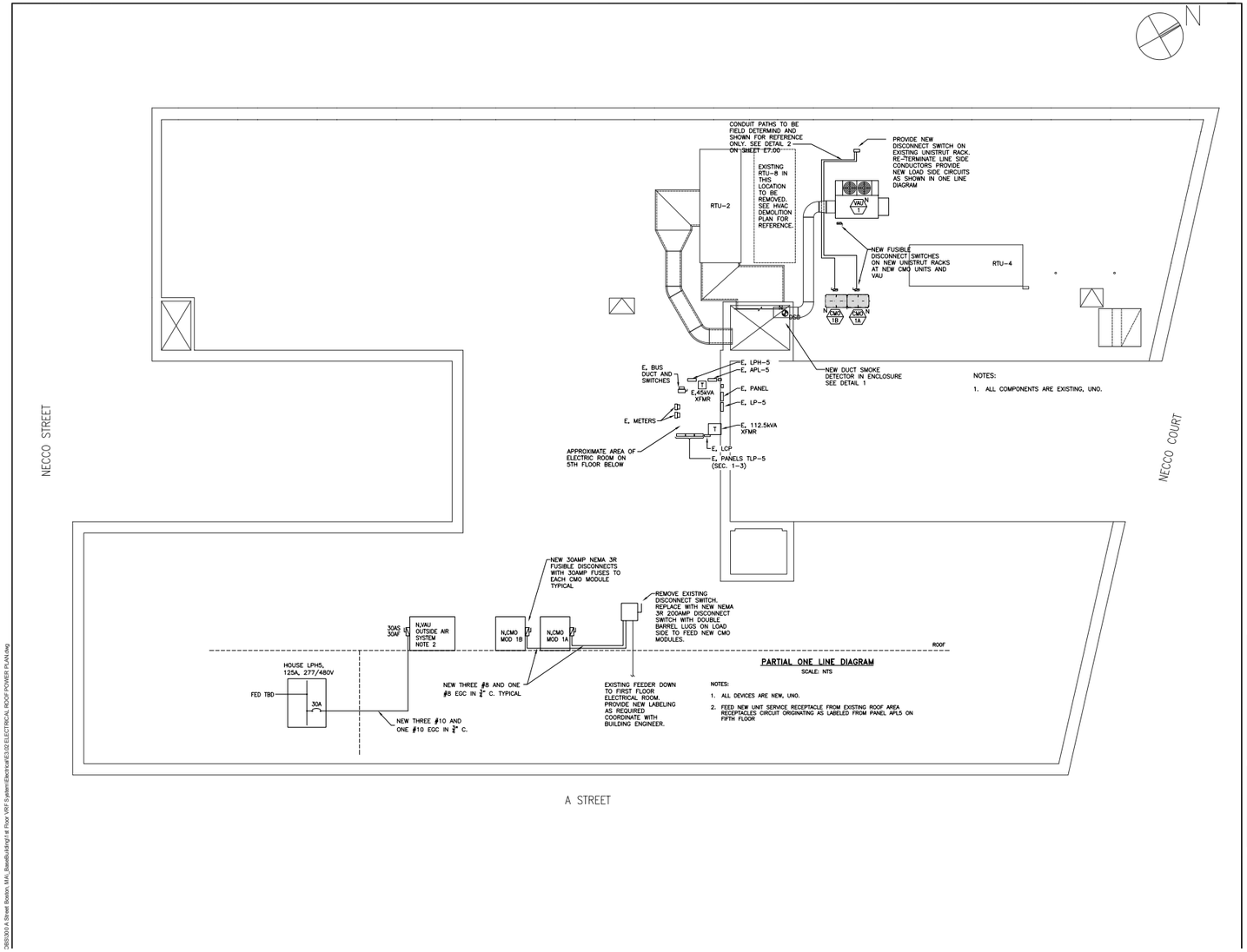
DEAD LOAD =	10 PSF (CANOPY ROOF) 622# (EACH UNIT.)
SNOW LOAD:	Pg = 40 PSF GROUND SNOW I = 1.0 IMPORTANCE FACTOR Ce = 1.0 EXPOSURE FACTOR Ct = 1.2 THERMAL FACTOR Pf = 33.60 PSF FLAT ROOF SNOW Pd = 46.28 PSF DRIFT @ HIGH END
ROOF LIVE LOAD =	20 PSF
WIND CRITERIA:	BOSTON MA. V = 128 MPH RISK CAT. = II EXPOSURE = B
SEISMIC CRITERIA:	S_S = 0.217 S_1 = 0.069

JAY H. BROWN STRUCTURAL No. 49835 REGISTERED PROFESSIONAL ENGINEER
7-20-2020

STRUCTURAL SYSTEMS, INC.
865 TURNPIKE STREET
NORTH ANDOVER, MA 01845-6139
PHONE 978.682.1000 FAX 978.682.1004
WWW.STRUCTURAL-SYSTEMS.COM

REVISIONS			JOB: 300 A STREET, SOUTH BOSTON, MA
NO.	DATE	BY	
1			
2			FOR: ACCUTEMP ENGINEERING, INC. 100 MAPLE ST., BLDG. B STONEHAM, MA 02180
3			
4			
5			
6			DRAWN PRH/MR DATE 7-16-20 DRAWING NO. S1
7			SCALE NOTED CHK'D

LOADING DOCK UNIT: STRUCTURAL DETAILS (NOT TO SCALE)



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

ELECTRICAL ROOF POWER PLAN

Drawing Title

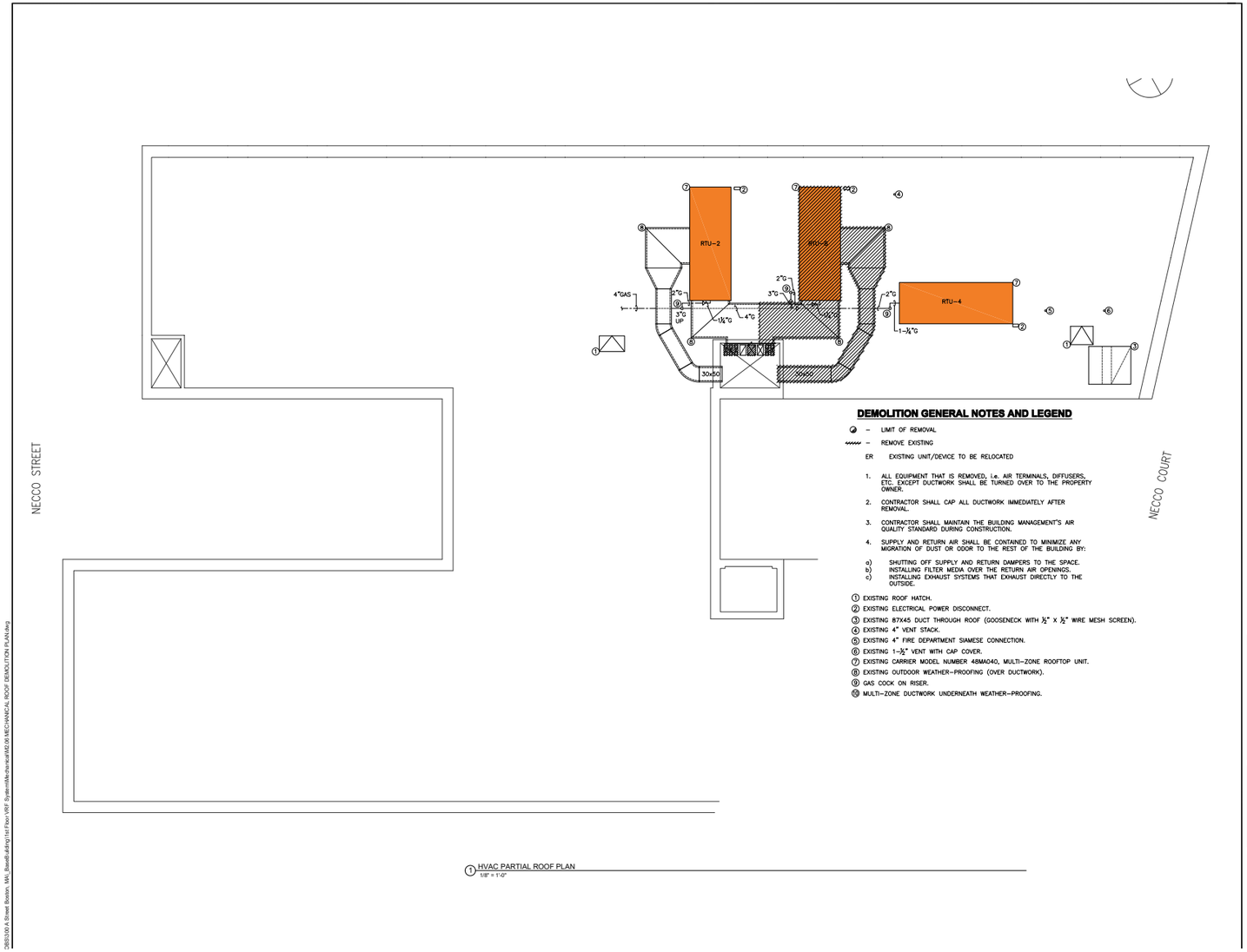
Project No. 21772	Checked SB	Date 12/6/2019
Drawn SB	Approved BW	Scale 1/8" = 1'0"

Drawing No.

E3.02

C:\BIS\300 A Street Boston, MA_BaseBuilding\18 Floor VRF System\Electrical\E3.02 ELECTRICAL ROOF POWER PLAN.dwg

LOADING DOCK UNIT: ELECTRICAL ROOF POWER PLAN (NOT TO SCALE)



DEMOLITION GENERAL NOTES AND LEGEND

– LIMIT OF REMOVAL
– REMOVE EXISTING
ER EXISTING UNIT/DEVICE TO BE RELOCATED

1. ALL EQUIPMENT THAT IS REMOVED, i.e. AIR TERMINALS, DIFFUSERS, ETC. EXCEPT DUCTWORK SHALL BE TURNED OVER TO THE PROPERTY OWNER.
2. CONTRACTOR SHALL CAP ALL DUCTWORK IMMEDIATELY AFTER REMOVAL.
3. CONTRACTOR SHALL MAINTAIN THE BUILDING MANAGEMENT'S AIR QUALITY STANDARD DURING CONSTRUCTION.
4. SUPPLY AND RETURN AIR SHALL BE CONTAINED TO MINIMIZE ANY MIGRATION OF DUST OR ODOR TO THE REST OF THE BUILDING BY:
   a) SHUTTING OFF SUPPLY AND RETURN DAMPERS TO THE SPACE.
   b) INSTALLING FILTER MEDIA OVER THE RETURN AIR OPENINGS.
   c) INSTALLING EXHAUST SYSTEMS THAT EXHAUST DIRECTLY TO THE OUTSIDE.

1. EXISTING ROOF HATCH.
2. EXISTING ELECTRICAL POWER DISCONNECT.
3. EXISTING 87X45 DUCT THROUGH ROOF (GOOSENECK WITH ½" X ½" WIRE MESH SCREEN).
4. EXISTING 4" VENT STACK.
5. EXISTING 4" FIRE DEPARTMENT SIAMESE CONNECTION.
6. EXISTING 1-½" VENT WITH CAP COVER.
7. EXISTING CARRIER MODEL NUMBER 48MA040, MULTI-ZONE ROOFTOP UNIT.
8. EXISTING OUTDOOR WEATHER-PROOFING (OVER DUCTWORK).
9. GAS COCK ON RISER.
10. MULTI-ZONE DUCTWORK UNDERNEATH WEATHER-PROOFING.

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

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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

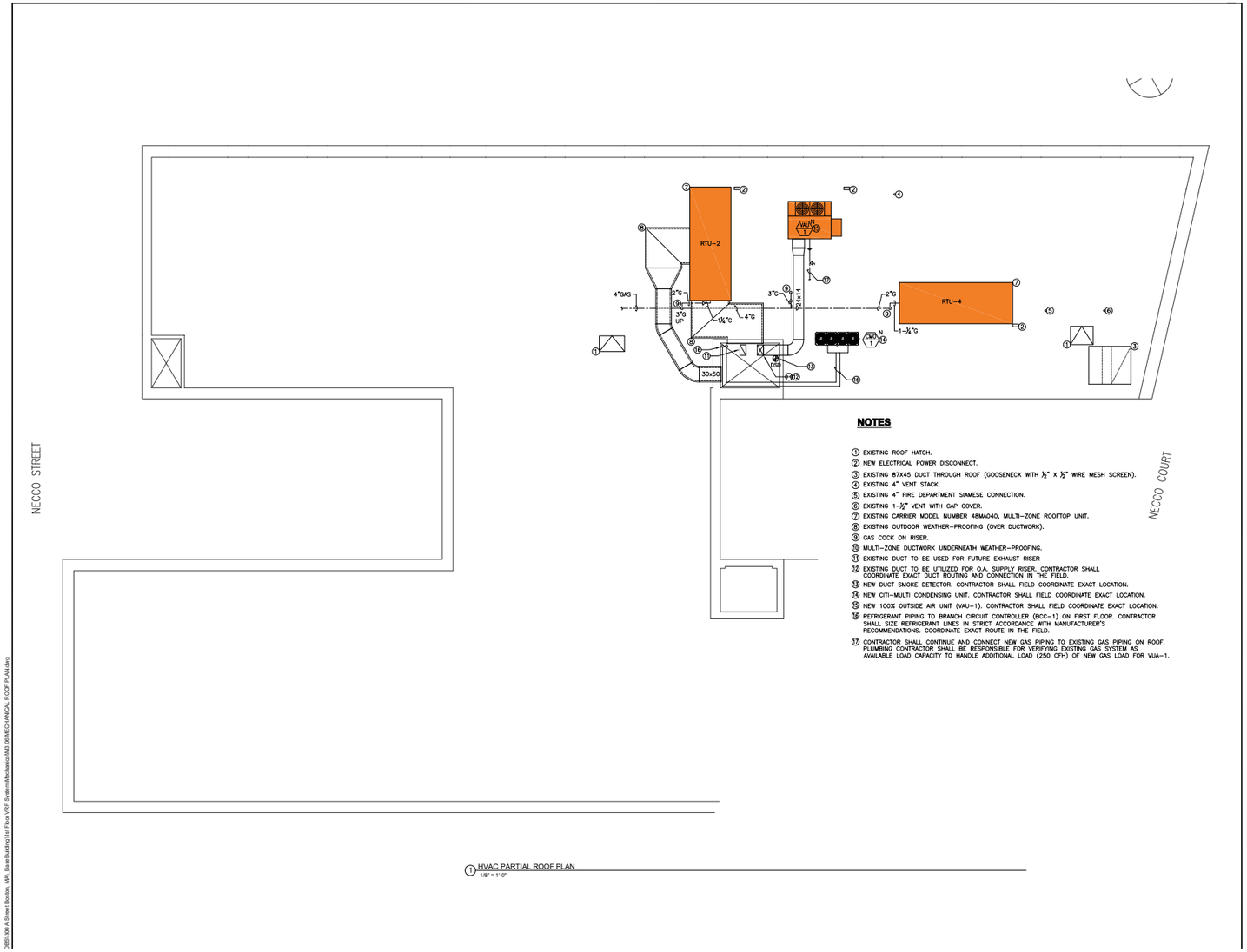
MECHANICAL ROOF DEMOLITION PLAN
Drawing Title

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

COMMONWEALTH OF MASSACHUSETTS KENNETH R. HAGMEIER MECHANICAL No. 47703 REGISTERED PROFESSIONAL ENGINEER

Drawing No.
M2.06

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



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

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Consulting Engineers/Construction Managers

ADDENDUMS

No.	Date	Description	By

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

MECHANICAL ROOF PLAN
Drawing Title

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

Drawing No. M3.06

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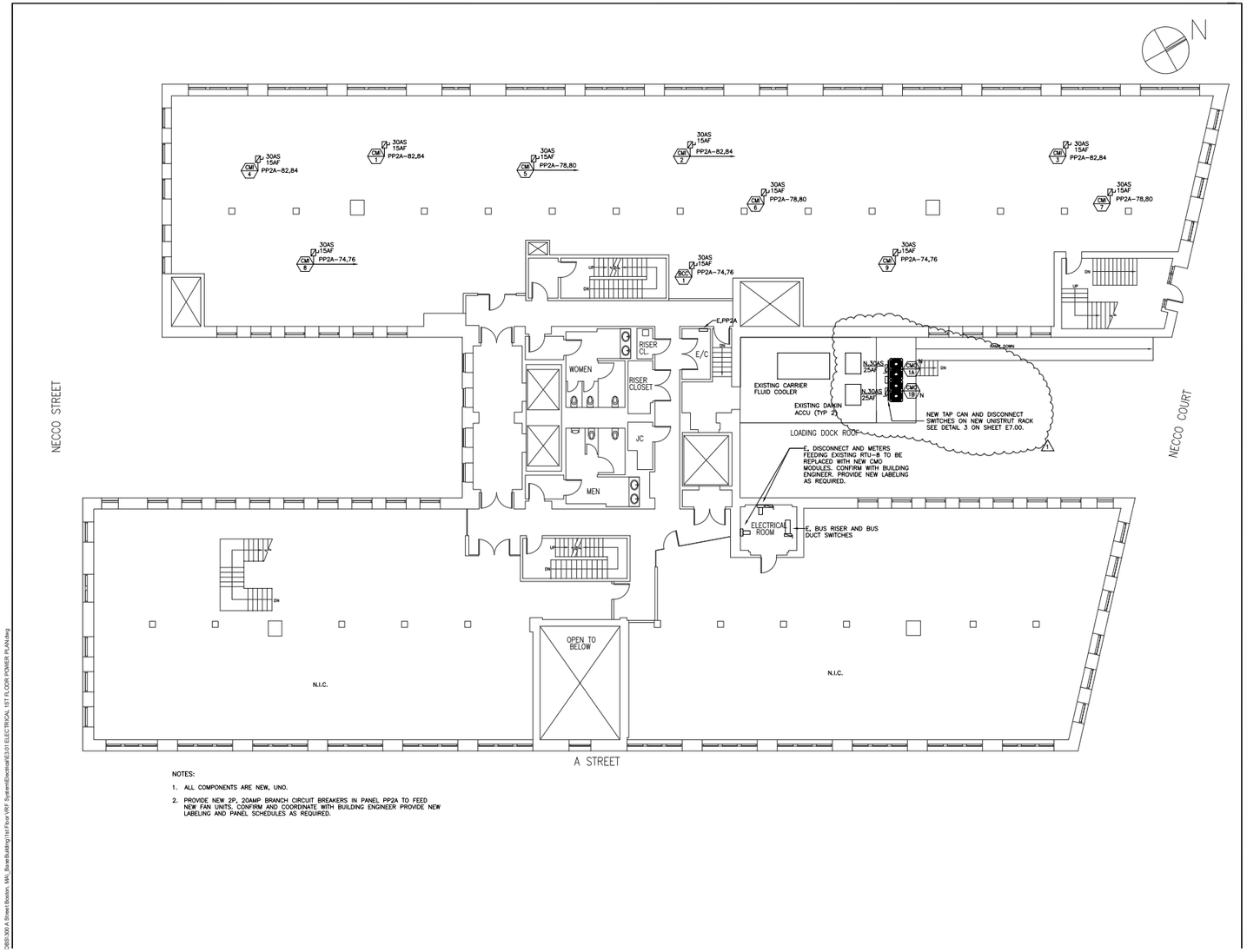
LOADING DOCK UNIT: MECHANICAL ROOF PLAN (NOT TO SCALE)



NOTES:

1. ALL COMPONENTS ARE NEW, UNO.
2. PROVIDE NEW 2P, 20AMP BRANCH CIRCUIT BREAKERS IN PANEL PP2A TO FEED NEW FAN UNITS. CONFIRM AND COORDINATE WITH BUILDING ENGINEER PROVIDE NEW LABELING AND PANEL SCHEDULES AS REQUIRED.

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617.330.9383 fax
Info@c3boston.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

ELECTRICAL
1ST FLOOR POWER PLAN
Drawing Title

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

Drawing No. E3.01

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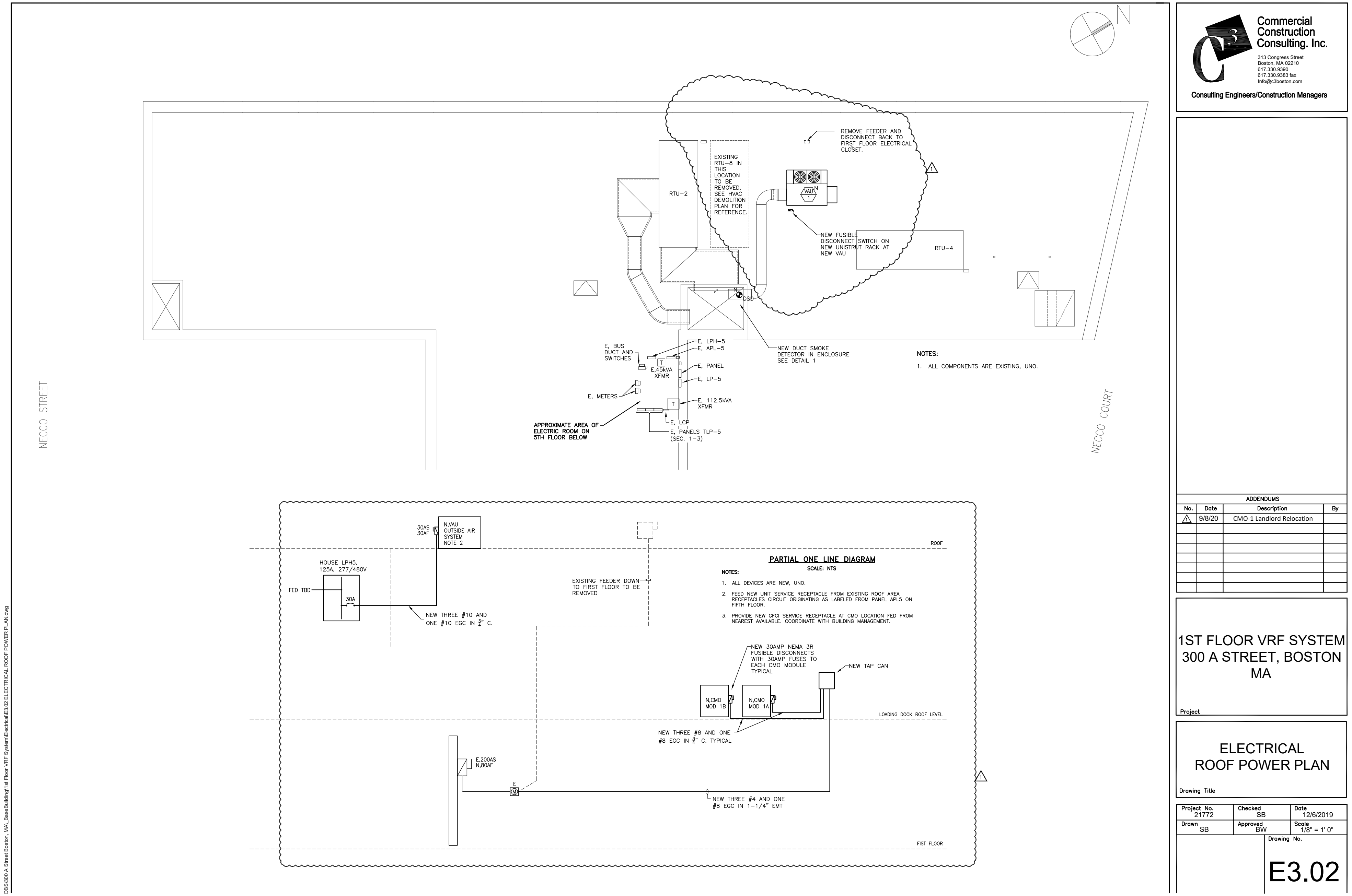
LOADING DOCK UNIT: ELECTRICAL IST FLOOR POWER PLAN (NOT TO SCALE)



LOADING DOCK UNIT: 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.

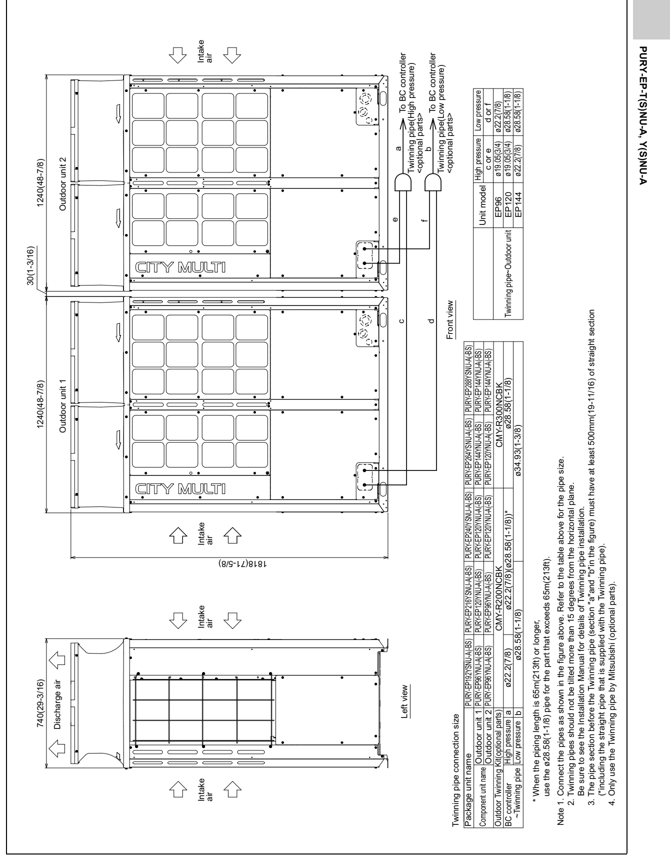
1. Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region
2. For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal
3. When applying product below -4°F, consult your 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)

PURY-EP192, 216, 240, 264, 288YSNU-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.

Specifications are subject to change without notice.

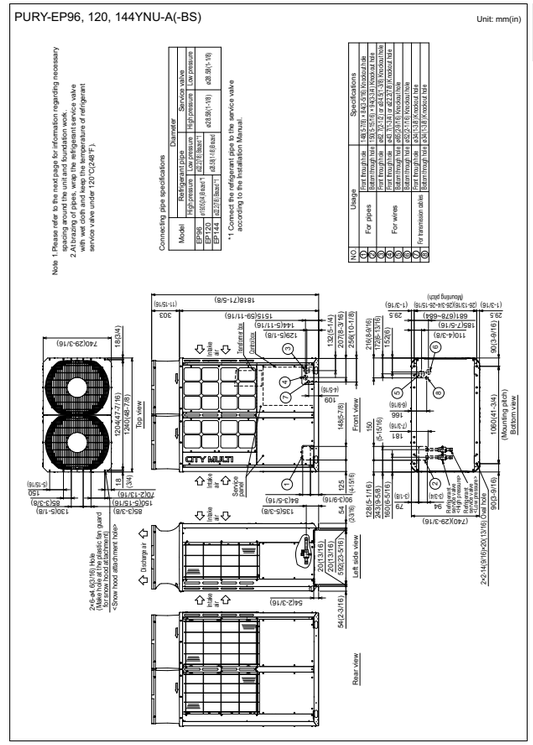
LOADING DOCK UNIT: CUTSHEETS

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)

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



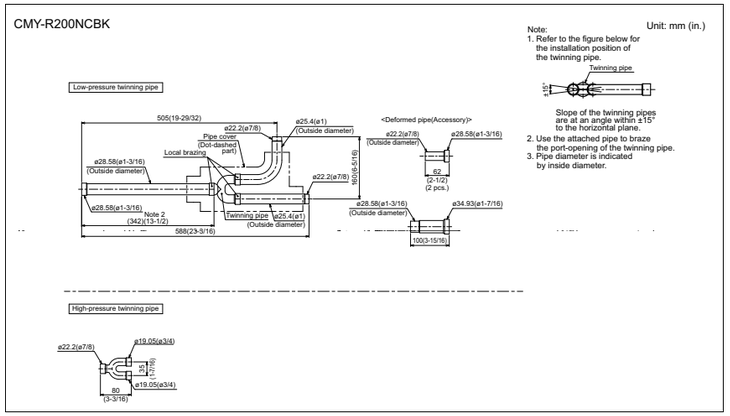
NOTES:
SEACOAST PROTECTION
- Anti-corrosion Protection: A coating treatment is applied to condenser coil for protection from air contaminants.
- Standard: Salt Spray Test Method - no unusual rust development to 480 hours.
- Sea Coast (BS): Salt Spray Test Method (JRA 9002) - no unusual rust development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

Twinning Kit: CMY-R200NCBK

Unit: mm (inch)

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

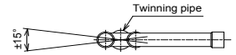
CMY-R200NCBK Unit: mm (in.)



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) .

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

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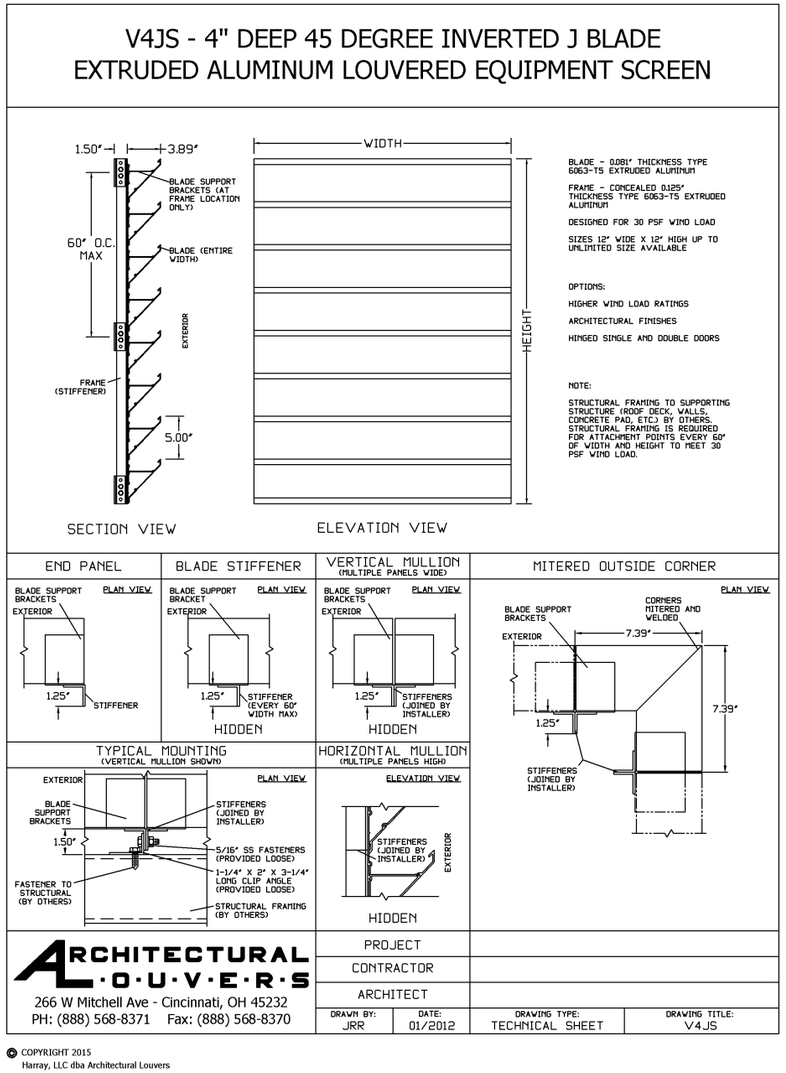

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