

FLEX - HARRIS RD

PROJECT COLUMBUS



1601 HARRIS RD, LIBERTYVILLE, IL 60048



ZONING BOARD SUBMITTAL

03.10.2025

2025.03.10 ZONING AND PLANNING SUBMITTAL_ADDENDUM
2025.01.10 ZONING AND PLANNING SUBMITTAL

DATE REVISIONS / ISSUANCES



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Interiors New York
Engineering Warsaw
Construction

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Prof. Design Firm No. 184000537-007
Prof. Engineering Firm No. 184000537-007

PROJECT NUMBER: 24275
PROJECT MANAGER: A. BIESCHKE
PA / PE: A. COLAVITTI
DRAWN BY: C. BOETTGER
CHECKED BY: E. CURLEY

TITLE SHEET

Z-001

<i>MEP / FP Engineer</i>	<i>Structural Engineer</i>	<i>Civil Engineer</i>	<i>Architect of Record</i>	<i>FLEX</i>
EPSTEIN 800 WEST FULTON STREET CHICAGO, ILLINOIS 60661 312.454.9100	FLEX 1501 HARRIS RD, LIBERTYVILLE, IL 60048			



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NEW SIGN ON WALL AT
NORTHEAST CORNER



2 3D VIEW - NORTHEAST CORNER
SCALE: 1" = 1'-0"



MAP - LOCATION



AERIAL MAP

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3D VIEW - NORTHEAST
CORNER

Z-002

MEP / FP Engineer

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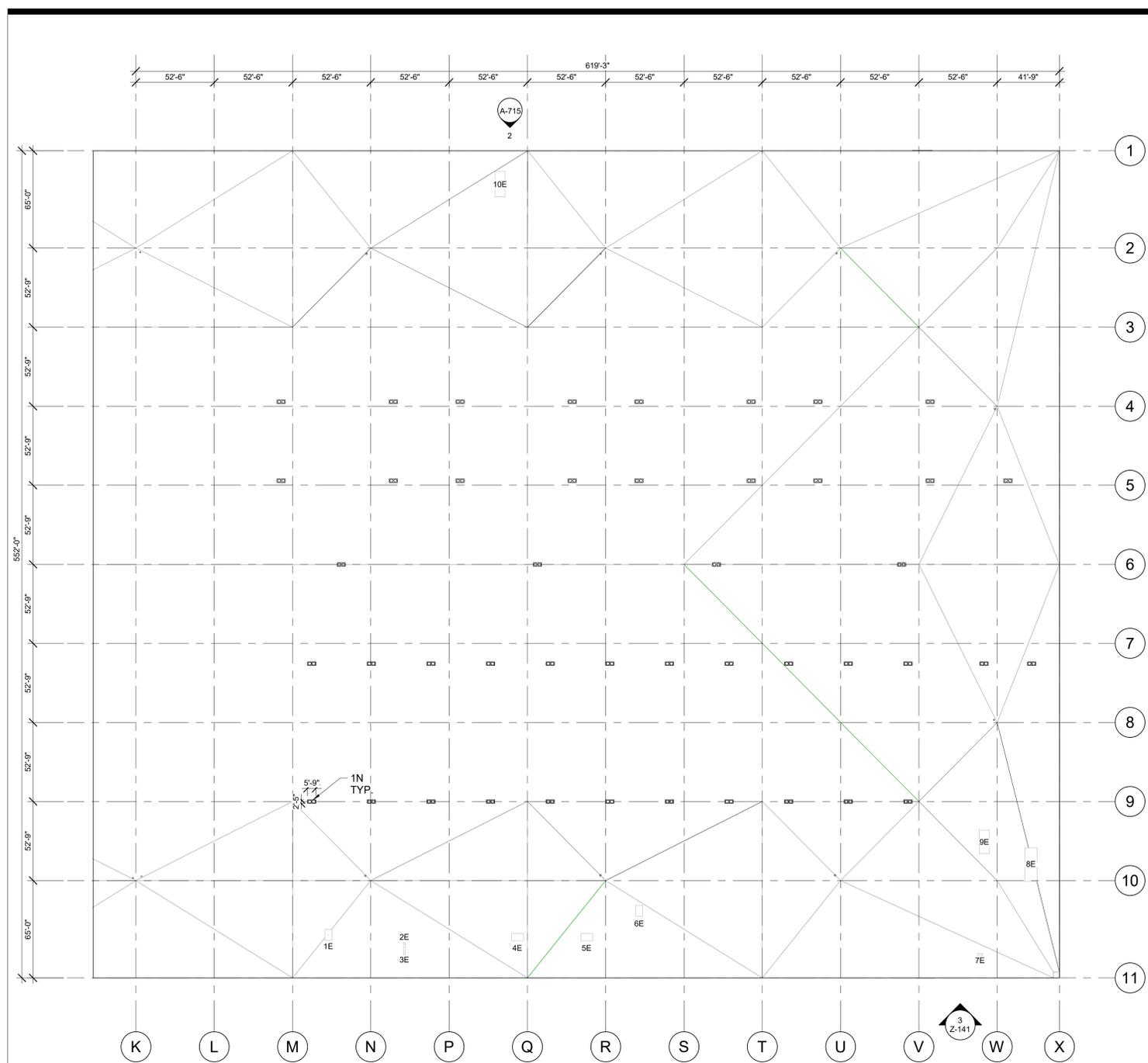
FLEX

FLEX
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LIBERTYVILLE, IL 60048

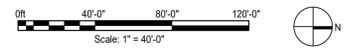
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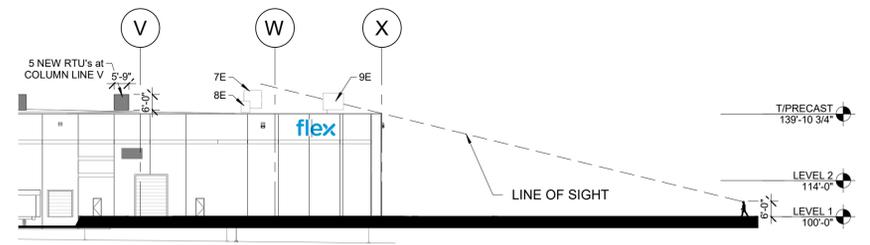
1 OVERALL ROOF PLAN
SCALE: 1" = 40'-0"



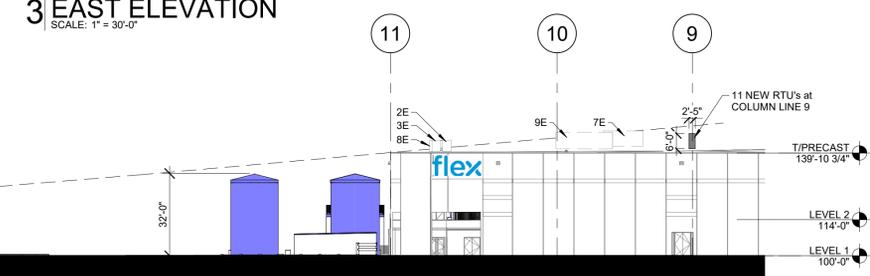
2 NORTH ELEVATION
SCALE: 1" = 30'-0"

HVAC LEGEND

- E - EXISTING RTU LOCATION (EXISTING TO REMAIN)
- N - NEW RTU LOCATION (COLOR TO MANUFACTURER'S STANDARD - BEIGE)



3 EAST ELEVATION
SCALE: 1" = 30'-0"



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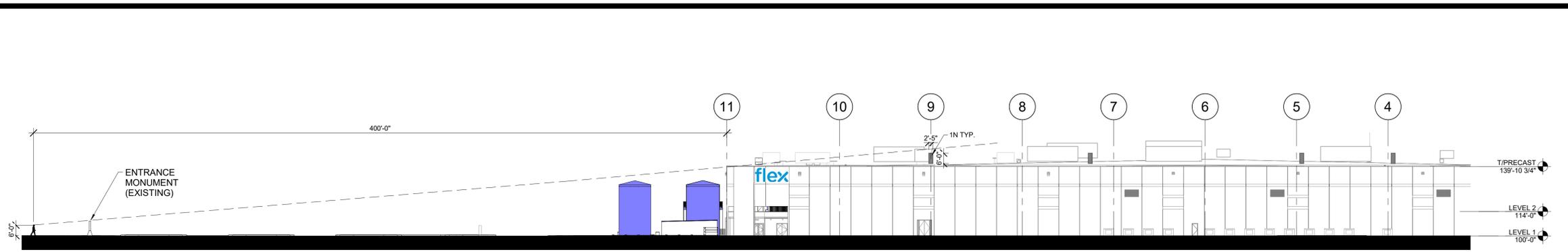
ROOF PLAN - HVAC RELOCATION

MEP / FP Engineer	Structural Engineer	Civil Engineer	Architect of Record	FLEX
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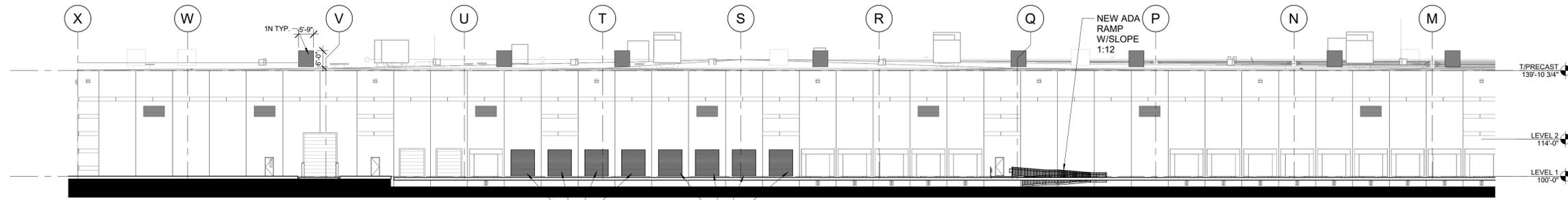


Z-141

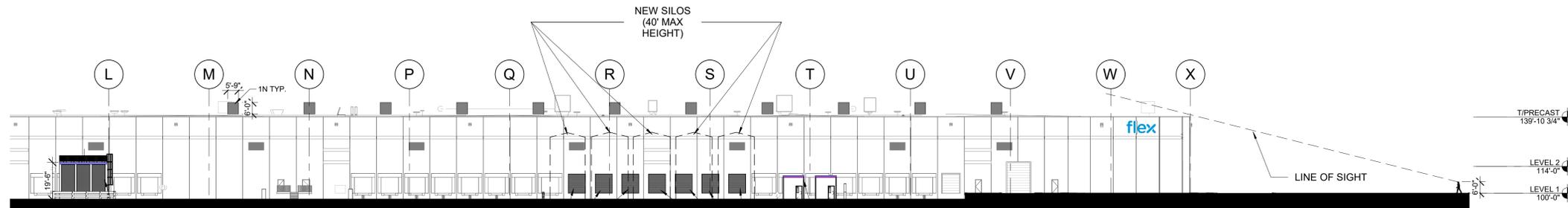
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1 NORTH ELEVATION
SCALE: 1" = 30'-0"



2 WEST ELEVATION
SCALE: 1" = 20'-0"



3 EAST ELEVATION
SCALE: 1" = 30'-0"

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BUILDING ELEVATIONS -
LINE OF SIGHT

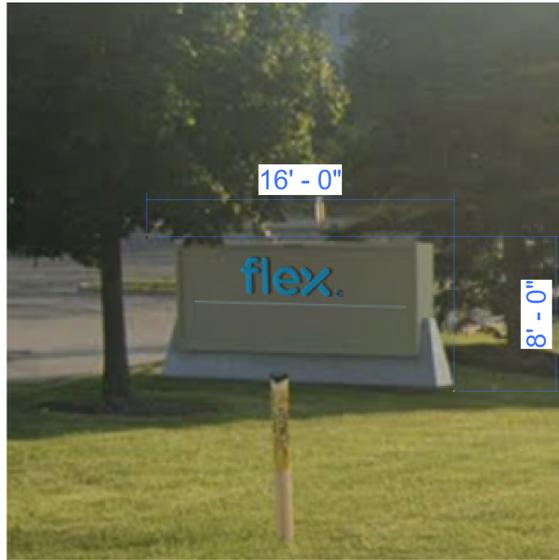
Z-301

MEP / FP Engineer	Structural Engineer	Civil Engineer	Architect of Record	FLEX
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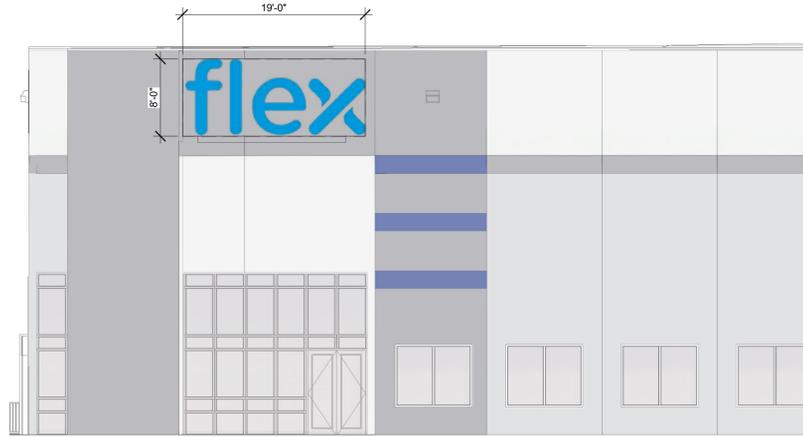


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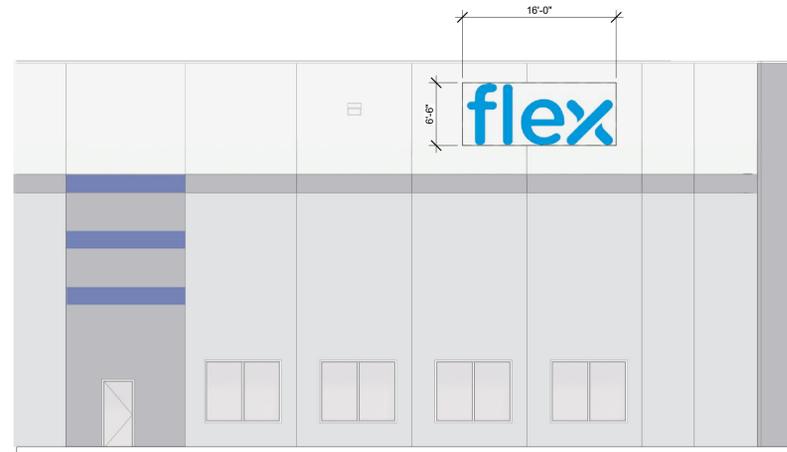


1 | MONUMENTAL SIGN
SCALE: 1/4" = 1'-0"



2 | NORTH ELEVATION
SCALE: 1/8" = 1'-0"

CHANNEL LETTER SIGN SPECS		
Sign Type: <ul style="list-style-type: none"> Channel Letter Sign (Front-Lit) 	Mounting: <ul style="list-style-type: none"> Method: Raceway-mounted (aluminum raceway, painted to match building color). Alternate Option: Flush-mounted with concealed wiring. Mounting Hardware: Stainless steel for durability and rust resistance. 	Font and Logo: <ul style="list-style-type: none"> Custom font to match brand identity. Logo dimensions are scaled to fit the overall sign layout.
Dimensions: <ul style="list-style-type: none"> Individual Letters: 24" H x 12" D x Variable Width (proportional to text/logo design) Total Length: Adjusted to fit the phrase "flex." 	Electrical Requirements: <ul style="list-style-type: none"> Voltage: 120V AC. Total Power Consumption: ≤ 120W (depending on letter count and size). Wiring: All internal wiring is concealed within the raceway or wall. 	Compliance: <ul style="list-style-type: none"> Meets all local building and electrical codes. UL-certified components for safety.
Material: <ul style="list-style-type: none"> Face: 3/16" thick acrylic, translucent white with applied vinyl (color: PMS 280C Navy Blue). Return (Sides): 0.063" aluminum, painted to match PMS 280C Navy Blue. Back Panel: 0.063" aluminum, non-illuminated, sealed to protect phrase "flex." 	Weatherproofing: <ul style="list-style-type: none"> Letters will be sealed to prevent moisture ingress. Gaskets applied at joints and LED housings. 	Additional Features: <ul style="list-style-type: none"> Dimmer control for brightness adjustment (optional). Photo cell timer for automatic on/off operation (optional).
Illumination: <ul style="list-style-type: none"> Type: LED modules (UL-listed). Color Temperature: 6000K (bright white). Power Supply: Remote-mounted LED drivers, UL-rated. Lifespan: 50,000+ hours. 	Warranty: <ul style="list-style-type: none"> LED Components: 5-year manufacturer warranty. Structural Materials: 3-year warranty against defects. 	



3 | EAST ELEVATION
SCALE: 1/8" = 1'-0"

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BUILDING ELEVATIONS -
WALL & MONUMENT
SIGNAGE

Z-302

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FLEX
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SEAL

AIR COMPRESSOR BUILDING SPECS

- General Description:**
- Prefabricated metal building, crafted for versatility and long-lasting performance.
 - Designed with a bolt-together galvanized steel framework, the shed ensures quick assembly, exceptional structural integrity, and adaptability to multiple uses.
 - Incorporates weather-resistant materials designed to withstand heavy snow loads, high winds, prolonged exposure to UV rays.
 - Features premium trims and seals for enhanced longevity, protection against pests and environmental intrusions, minimal maintenance requirements over its lifespan.

- Materials:**
- **Framework:**
 - a. Material: Galvanized steel with a bolt-together framework.
 - b. Coating: Rust-resistant coating for long-term durability.
 - c. Warranty: 50-year structural warranty.
 - **Wall and Roof Panels:**
 1. Material: Pre-cut, corrugated sheet metal.
 2. Thickness: Gauge appropriate for the region's wind and snow loads.
 3. Coating: Weather-resistant coating to prevent rust, corrosion, and UV damage.
 4. Warranty: 40-year panel warranty.
 - **Fasteners and Bolts:**
 1. Material: Galvanized steel or stainless steel.
 2. Coating: Rust-proof for outdoor use.
 - **Trim:**
 1. Material: Premium-grade trim pieces.
 2. Function: Seal gaps and prevent the intrusion of rodents or insects.
 - **Insulation:**
 1. Type: Rigid foam or fiberglass insulation.
 2. Purpose: Enhance energy efficiency and reduce condensation.

Color Options: **Flex choices are highlighted.**

- **Exterior Colors:**
 1. Options: Neutral tones such as **white**, gray, beige, or bold colors like red, blue, and green.
 2. Coating: UV-resistant paint to prevent fading and maintain vibrancy over time.
 3. Finish: **Glossy** or matte finishes are available depending on client preference.
- **Trim Colors:**
 1. Trim pieces are available in **complementary (white)** or contrasting colors to highlight edges and provide a polished look.
- **Customization:**
 1. Custom color matching is available to align with branding or aesthetic preferences.

NEW SILOS SPECS

- General Description:**
- The silos are engineered for dry bulk material storage including grains, powders, resins, and aggregates, providing a durable, efficient, and customizable solution for industrial applications.
 - Constructed from high-quality carbon steel, stainless steel, or aluminum, the silos are designed to withstand challenging environmental conditions and ensure long-term performance.
 - Advanced coating systems, including Trico Bond EP® and Trico Bond SD™, deliver exceptional corrosion resistance and extend the lifespan of the structure.

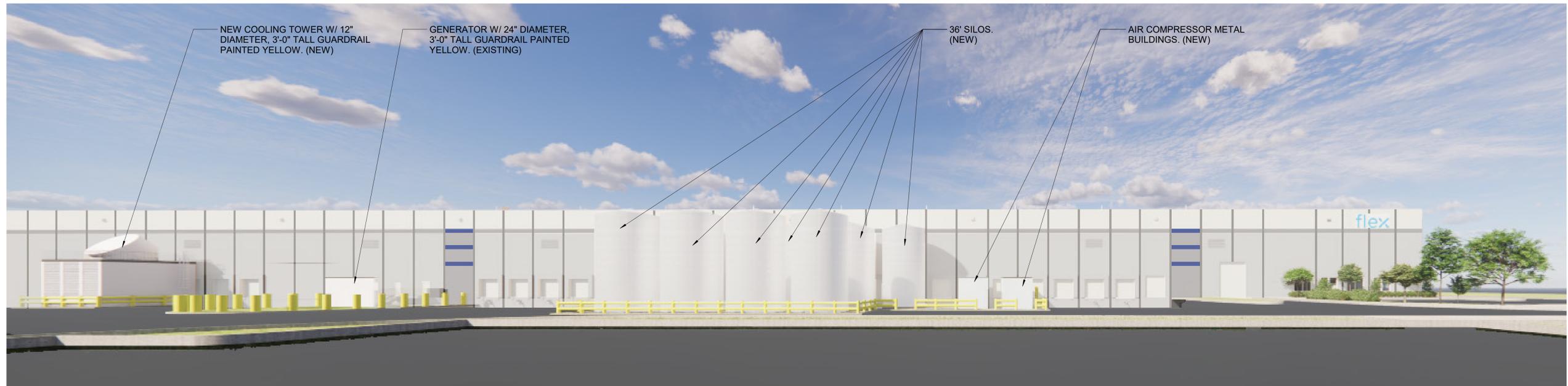
- Materials:**
- Flat panel, chime panel, or welded configurations.
 - Capabilities range from 1,000 ft³ to over 200,000 ft³, with diameters up to 51 feet and heights tailored to meet specific project requirements.

- Color Options: Flex choices are highlighted.**
- The silos are available in a range of exterior color options to suit aesthetic, branding, or environmental considerations.
 - Standard colors include tan, **white**, green, blue, and gray, with custom colors available upon request.
 - The exterior coating includes a high-performance urethane topcoat for added protection against UV exposure and weathering, ensuring a durable and visually appealing finish.
 - This flexibility allows the silos to integrate seamlessly into their surroundings or reflect corporate branding.

The design adheres to strict industry standards, including ISO 9001:2015, API-12B, and NFPA, ensuring safety, reliability, and compliance. Silos are constructed using advanced methods, such as hydraulic jacking systems or scaffold-built techniques, which optimize installation efficiency and minimize onsite labor.



3D VIEW NORTH ELEVATION



3D VIEW EAST ELEVATION

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BUILDING ELEVATIONS -
SILOS

Z-303

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FLEX

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SEAL



3D VIEW WEST ELEVATION LOUVERS CLOSED
SCALE: 1 1/2" = 1'-0"



3D VIEW WEST ELEVATION LOUVERS OPEN
SCALE: 1 1/2" = 1'-0"

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BUILDING ELEVATIONS -
LOUVERS

Z-304

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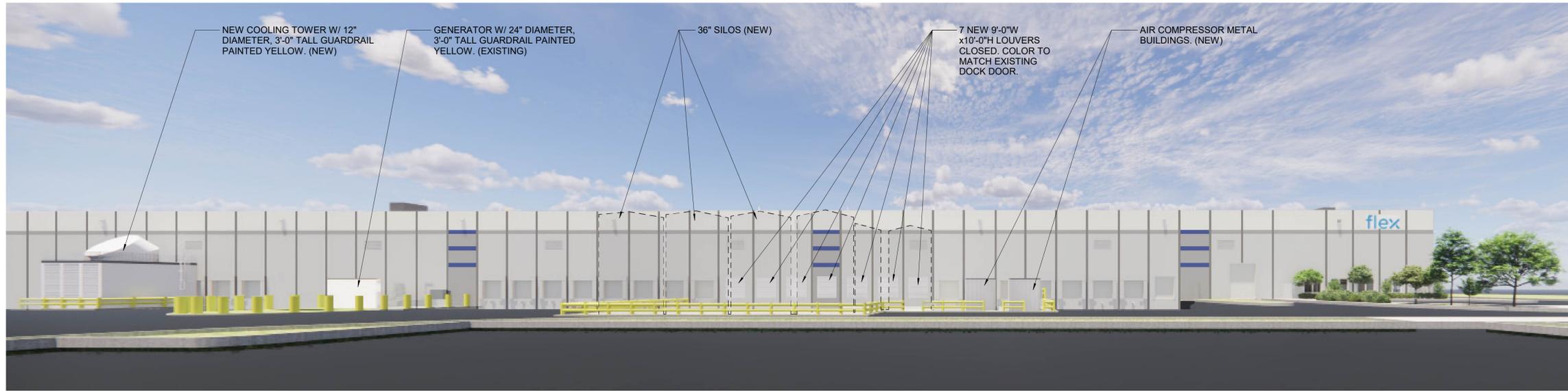
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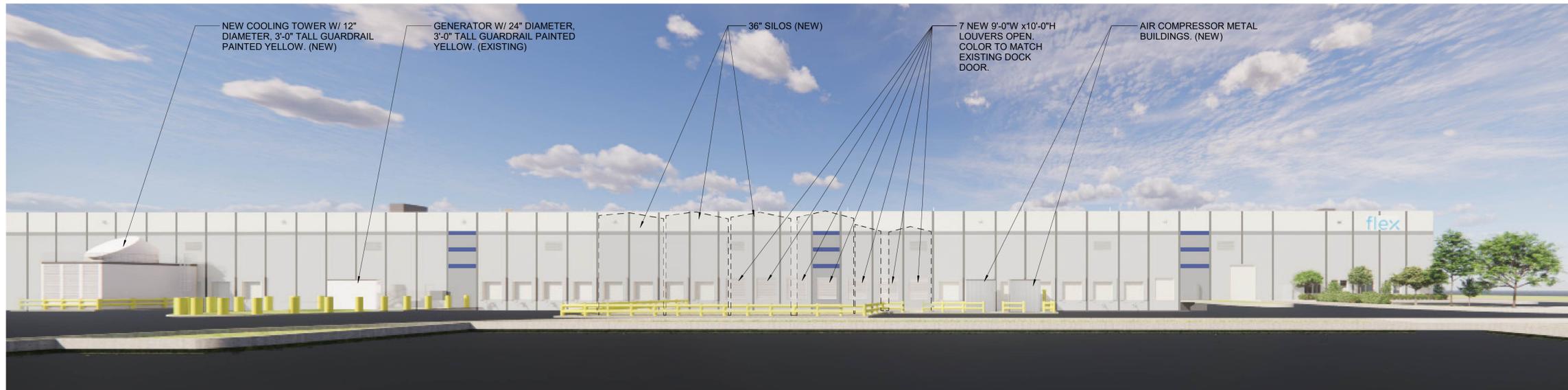


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3D VIEW EAST ELEVATION LOUVERS CLOSED
SCALE: 1 1/2" = 1'-0"



3D VIEW EAST ELEVATION LOUVERS OPEN
SCALE: 1 1/2" = 1'-0"

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BUILDING ELEVATIONS - LOUVERS

Z-305

MEP / FP Engineer

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Job Name:

System Reference:

Date:

460V OUTDOOR VRF HEAT PUMP SYSTEM



UNIT OPTION

Standard Model.....PUHY-EP192YNU-A1

ACCESSORIES

- Big Foot Stand.....for details see Big Foot Stands submittals
- Header Kit.....for details see Pipe Accessories Submittal
- Joint Kit.....for details see Pipe Accessories Submittal
- Low Ambient Kit.....for details see Low Ambient Kit Submittal
- Panel Heater Kit.....for details see Panel Heater Kit Submittal
- Snow/Hail Guards Kit.....for details see Snow/Hail Guards Kit Submittal

Specifications		System	
Unit Type		PUHY-EP192YNU-A1	
Cooling Capacity (Nominal)		BTU/H	192,000
Heating Capacity (Nominal)		BTU/H	215,000
Guaranteed Operating Range	Cooling	°F [°C]	23~126 [-5.0~52.0]
	Heating	°F [°C]	-13~60 [-25.0~15.5]
Extended Operating Range	Heating	°F [°C]	-27.4~60 [-33.0~15.5]
External Dimensions (H x W x D)		In. [mm]	71-5/8 x 68-15/16 x 29-3/16 [1,818 x 1,750 x 740]
Net Weight		Lbs. [kg]	788 [357]
External Finish			Pre-coated galvanized steel sheet (+powder coating for -BS type) [MUNSELL 3Y 7.8/1.1 or similar]
Electrical Power Requirements	Voltage, Phase, Hertz, Power Tolerance		460V, 3-phase, 60 Hz, ±10%
Minimum Circuit Ampacity		A	37.0
Maximum Overcurrent Protection		A	60
Recommended Fuse Size		A	40
Recommended Minimum Wire Size		AWG [mm]	8 [8.4]
SCCR		kA	5
Refrigerant Piping Diameter	Liquid (High Pressure)	In. [mm]	5/8 [15.88] Brazed
	Gas (Low Pressure)	In. [mm]	1-1/8 [28.58] Brazed
Max. Total Refrigerant Line Length		Ft.	3,280 [1,000]
Max. Refrigerant Line Length (Between ODU & IDU)		Ft.	541 [165]
Max. Control Wiring Length		Ft.	1,640 [500]
Indoor Unit Connectable	Total Capacity		50.0~130.0% of outdoor unit capacity
	Model/Quantity		P04~P96/1.0~48.0
Sound Pressure Levels		dB(A)	61.5/63.5
Sound Power Levels		dB(A)	81.0/80.5
FAN ⁴	Type x Quantity		Propeller fan x 2
	Fan Motor Output	kW	0.92+0.92
	Airflow Rate	CFM	12,700
	External Static Pressure	In. WG	Selectable; 0.00, 0.12, 0.24, 0.32, In. WG; factory set to 0 In. WG
Compressor Operating Range			15.0% to 100.0%
Compressor	Type x Quantity		Inverter scroll hermetic compressor x 1
Refrigerant	Type x Original Charge		R410A x 26.0 lbs + 1.0 oz [11.8 kg]
Protection Devices	High Pressure Protection		High pressure sensor, High pressure switch at 4.15 MPa (601 psi)
	Inverter Circuit (Comp./Fan)		Over-current protection
AHRI Ratings (Ducted/Non-ducted)	EER		10.2/10.3
	IEER		21.0/22.4
	COP		3.51/4.04

NOTES:

Nominal cooling conditions (Test conditions are based on AHRI 1230-2023)
 Indoor: 80°F D.B./67°F W.B. (26.7°C D.B./19.4°C W.B.), Outdoor: 95°F D.B. (35°C D.B.)
 Nominal heating conditions (Test conditions are based on AHRI 1230-2023)
 Indoor: 70°F D.B. (21.1°C D.B.), Outdoor: 47°F D.B./43°F W.B. (8.3°C D.B./6.1°C W.B.)

¹Harsh weather environments may demand performance enhancing equipment. Ask your Mitsubishi Electric representative for more details about your region

²For details on extended cooling operation range down to -10° F DB, see Low Ambient Kit Submittal

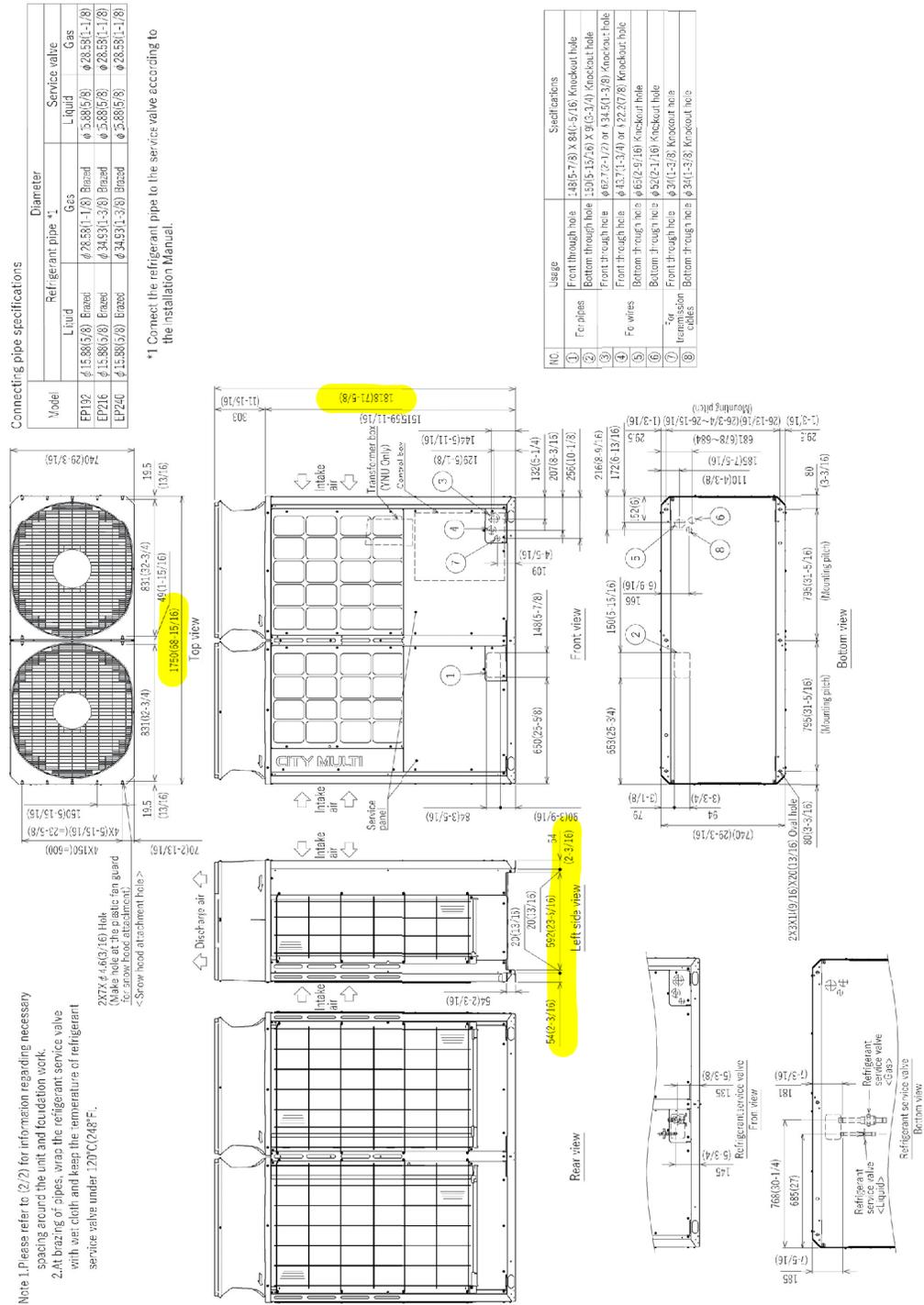
³When applying product below -4°F, consult your design engineer for cold climate application best practices, including the use of a backup source for heating

⁴Unit will continue to operate in extended operating range, but capacity is not guaranteed

OUTDOOR UNIT: PUHY-EP192YNU-A1 – DIMENSIONS

PUHY-EP192, 216, 240T/YNU-A1

Unit: mm (in.)



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