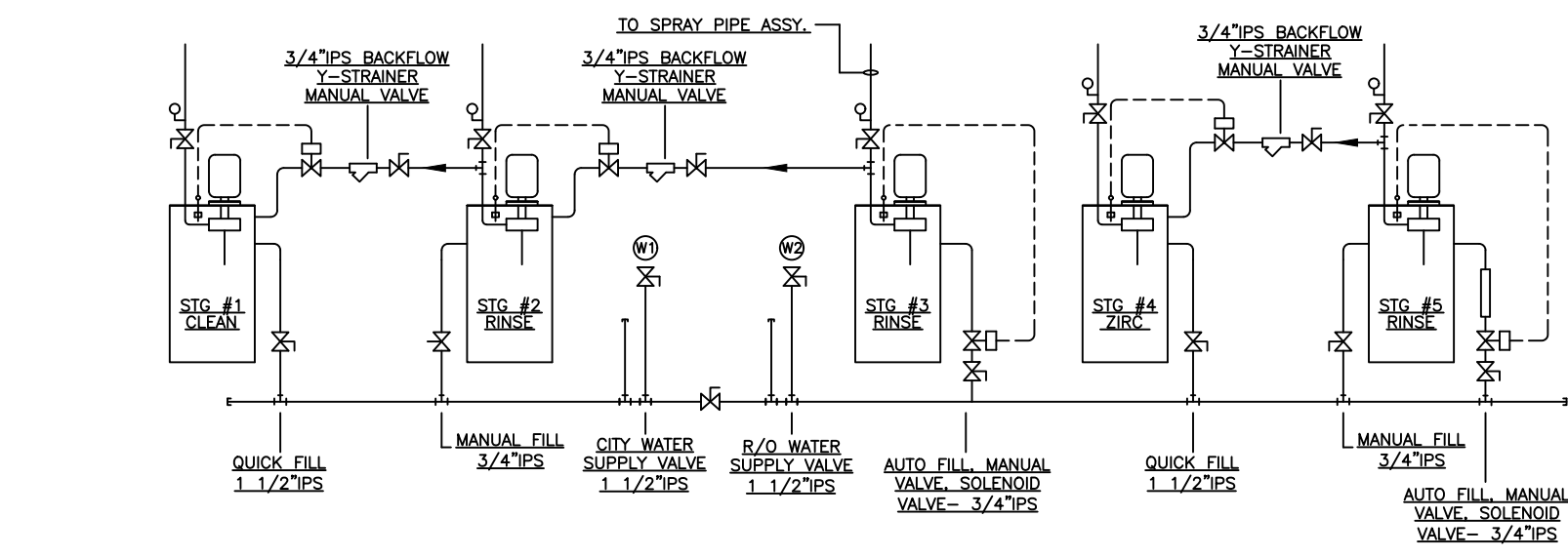


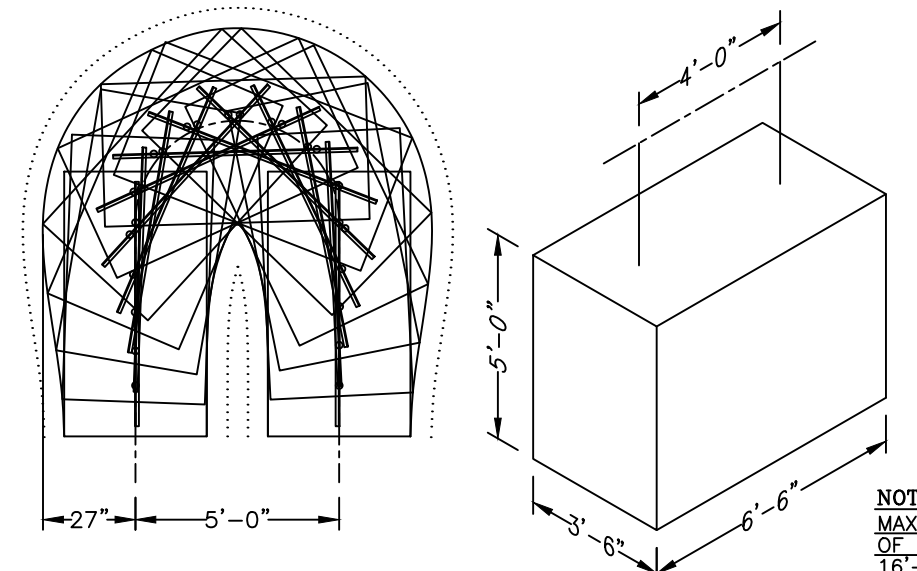
- PRETREATMENT SYSTEM - 5 STAGE**
- Stage 1 - Clean** 1344 gal Net Capacity 90 sec 140F
 2 ea. - 7.5 hp Spray Pump #316 SS 216 gpm ea. @ 60° wc
 144 ea. -65/40 Flat V Spray Nozzles
 Automatic Water Make-up from Stage #2
 Manual Quick Water Fill - 1 1/2"
 1 ea. - 2.4 MBTU Burner with #304 SS in Tank Heat Exchanger
- Stage 2 - Rinse** 474 gal Net Capacity 30 sec Ambient
 1 ea. - 5 hp Spray Pump #316 SS 144 gpm ea. @ 60° wc
 48 ea. -65/40 Flat V Spray Nozzles
 Automatic Water Make-up from Stage #3
 Manual Quick Water Fill - 3/4"
- Stage 3 - Rinse** 474 gal Net Capacity 30 sec Ambient
 1 ea. - 5 hp Spray Pump #316 SS 144 gpm ea. @ 60° wc
 48 ea. -65/40 Flat V Spray Nozzles
 Automatic Water Make-up from City Water
 Manual Quick Water Fill - 3/4"
- Stage 4 - Zinc Dip** 947 gal Net Capacity 60 sec Ambient
 1 ea. - 7.5 hp Spray Pump #316 SS 288 gpm ea. @ 60° wc
 96 ea. -65/40 Flat V Spray Nozzles
 Automatic Water Make-up from Stage #5
 Manual Quick Water Fill - 1 1/2"
 Iron Depletion Filter
- Stage 5 - Rinse** 474 gal Net Capacity 30 sec Ambient
 1 ea. - 5 hp Spray Pump #316 SS 144 gpm ea. @ 60° wc
 48 ea. -65/40 Flat V Spray Nozzles
 Automatic Water Make-up from City Water
 Manual Quick Water Fill - 3/4"
- General**
 Tanks - 10 ga #304 SS
 Drainboards - 12 ga #304 SS
 Catwalks - 12 ga #304 SS
 Sump Covers - 12 ga #304 SS
 #1 1/4 DWI Vent Fans #304 SS - 5,816 cfm ea. - 3 hp
 #7/8 SWSI Exhaust Fan - 1,969 cfm - 2 hp
 All Spray Pumps to be VFD Controlled
 One GFCI at Each Stage to Supply Power for Chemical Feed Pumps
 All Spray Risers - 18 Nozzles - Side/Side/Over/Under
 2" Tank Drain and Overflows
 Insurance Standard - FM Global
 Conveyor Rail to be #316 SS Thru Washer
 6 GPM R/O Unit with 2,000 Gal. Storage Tank
 Blow Off Knife at Exit of Washer

- CONVEYOR**
 Rapid x458 1' Beam Conveyor - Floor Supported - 710 ft Running Length
 Trolleys w/Full Compliment Ball Bearings, No Seals, "H" Attachment &
 Carrier Pins on 24" Centers
 Line Speed- 6 FPM Design Speed (3-9 FPM Range)
 Average Line Loading- 41.66 lbs/ft.
 All 90° Turns to be 30" Radius
 Cat Drive- #0-2200-4, 50DVX, 800:1 Reducer, 1 HP
 Air Operated Automatic Take-up, 24" Travel
 Oven Expansion Joints as Required
 Automatic Chain Lubricator
 Start/Stop Locations
- GENERAL NOTES**
 1. All Specifications are subject to completion of System Engineering.
 2. Utility Requirements are approximate. Actual requirements should not be greater than those stated and may be less.
 3. Installation shall not be implemented based on approval drawing. This includes stack locations. Refer to installation drawings for engineering details and locations.
- IMPORTANT**
 Per NFPA 86 (2015), Section 5.4.1, "A quantity of makeup air shall be admitted to oven rooms and buildings to provide the air volume required for oven safety ventilation and combustion air."

- UTILITY LEGEND**
- E1 - Washer 142 amps (Fused at 175 amps) 460V/3PH
 E2 - Combo Oven 76 amps (Fused at 90 amps) 460V/3PH
 E3 - R/O Unit 10 amps 460V/3PH
 E4 - A/C Air Handler 30 amps 460V/3PH
 E5 - A/C Condensate Pump 10 amps 120V/1PH (Duplex Outlet)
 E6 - A/C Condensate 90 amps 460V/3PH
 E7 - PLC Interface Screen 15 amps 120V/1PH
 E8 - Oiler 15 amps 120V/1PH (Duplex Outlet)
 E9 - 8'w x 12'h Rollup Door 10 amps 120V/1PH
 E10 - Environmental Room Lighting 20 amps 120V/1PH
- G1 - Washer Stage #1 Gas Drop, 2,400 cfm Natural Gas 2-7 psi Req'd, 1 1/2" IPS
 G2 - Combo Oven, 5,200 cfm Natural Gas 2-7 psi Req'd, 2" IPS
- NOTE!** Gas Locations Have Regulators by GAT Capable of 7 psi or less
- A1 - Conveyor Takeup Compressed Air 30 psi (No Volume)
- D1 - Washer Drain
 D2 - R/O Unit Drain
 D3 - A/C Condensate Drain
- W1 - City Water Connection - 1 1/2" IPS
 W2 - Washer Connection from R/O Unit Storage - 1 1/2" IPS
 W3 - R/O Unit City Water Connection - 1" IPS



NOTES! USE AS SCHEMATIC ONLY
ALL SPRAY PUMPS VFD CONTROLLED



- COMBO OVEN**
Dryoff Oven
 Single Pass
 Design Maximum Operating Temperature - 350° F.
 Design Maximum Product Throughput - 15,000 lbs/hr Steel
 Residence Time - 7.32 min. @ 6 fpm Conveyor Line Speed
 2 ea. - High Velocity Air Seal - 2 hp
- Cure Oven**
 Six Pass
 Design Maximum Operating Temperature - 450° F.
 Design Maximum Product Throughput - 15,000 lbs/hr Steel
 Residence Time - 25 min. @ 6 fpm Conveyor Line Speed
 2 ea. - High Velocity Air Seal - 2 hp
- General**
 Heat System - 1 ea. Req'd
 Eclipse 520TAH Combustion Burner - 5.2 MBTU @ 3/4 hp
 #2X DWI Recirculating Air Blower - 36,000 cfm - 40 hp
 5,200 cfm Natural Gas Req'd @ 2-7 PSI Supply Pressure
- B-Deck Insulated Floor
 6" Thick Oven Walls and Roof
 Exhaust Fan - 2,400 cfm (3,814 cfm Purge) - 2 hp
 Insurance Standard - FM Global

NOTE!
 ALL EQUIPMENT SPECIFICATIONS ARE SUBJECT TO CHANGE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN AS REQUIRED DURING FINAL ENGINEERING. THIS DRAWING IS NOT TO BE USED FOR LOCATING EQUIPMENT OR STACK DURING INSTALLATION. REFER TO APPROPRIATE ENGINEERED DRAWINGS.

REQUIRED CUSTOMER INFORMATION

The following information is required before detail engineering can begin. Please include the following information on the return copy of this approval drawing:

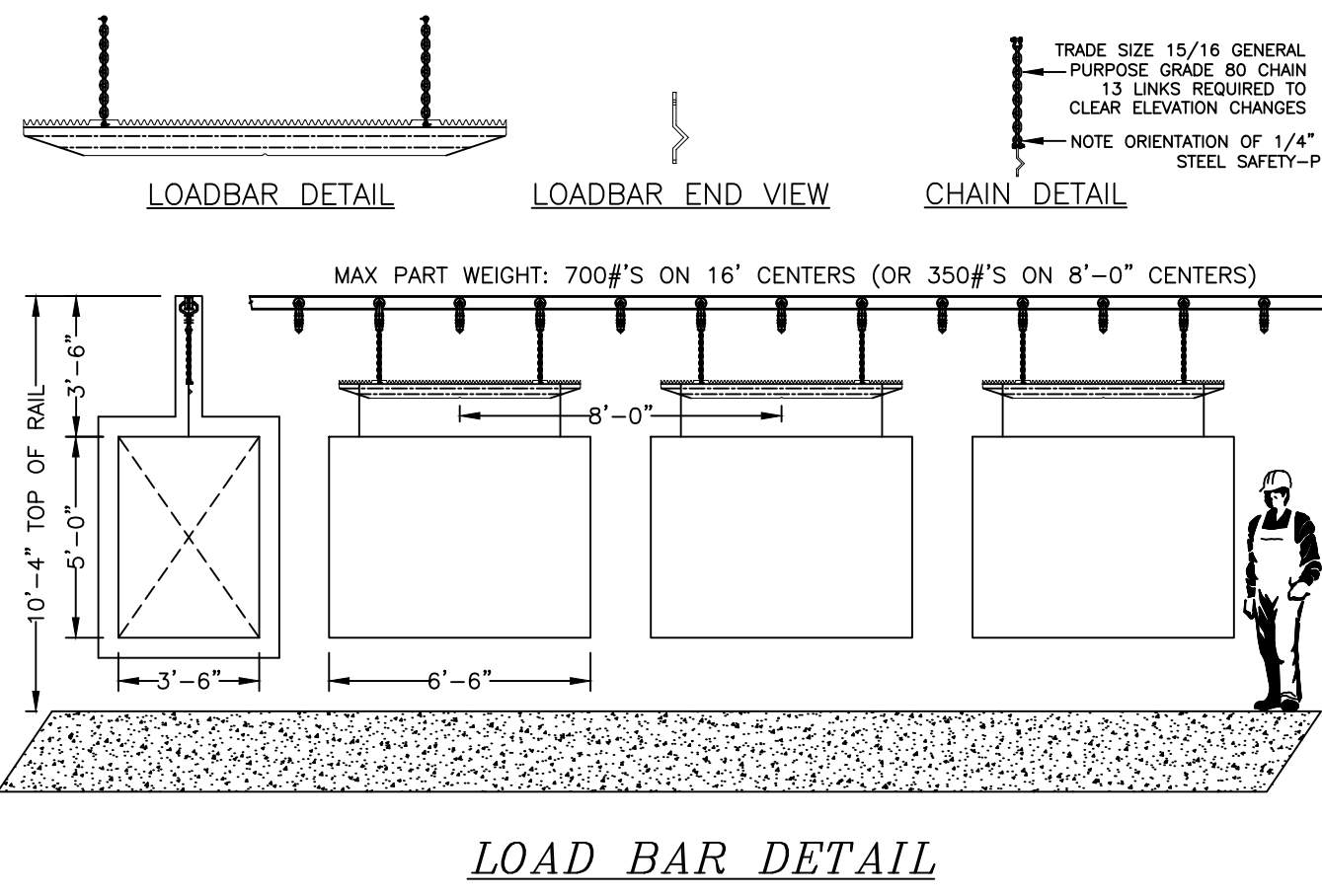
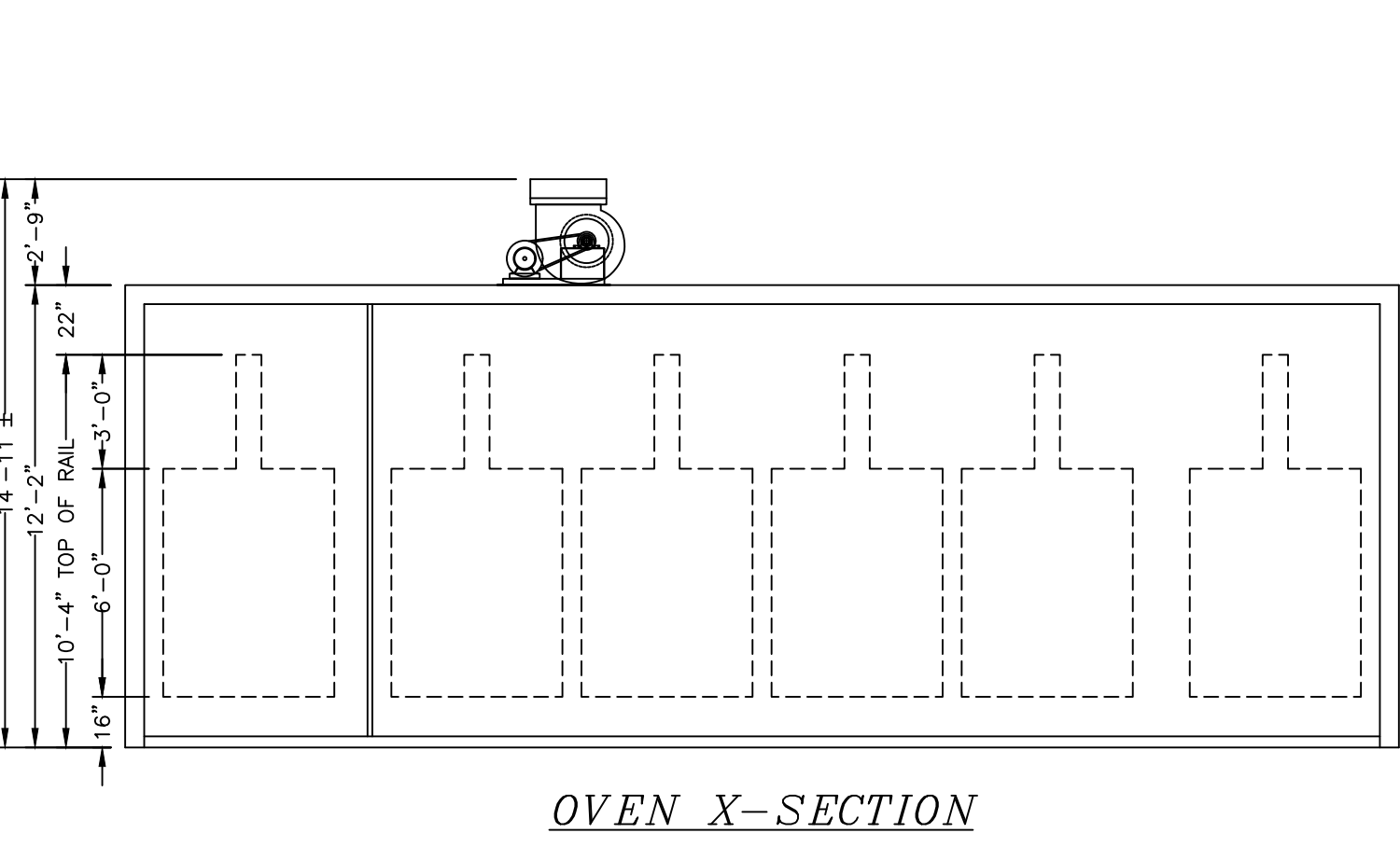
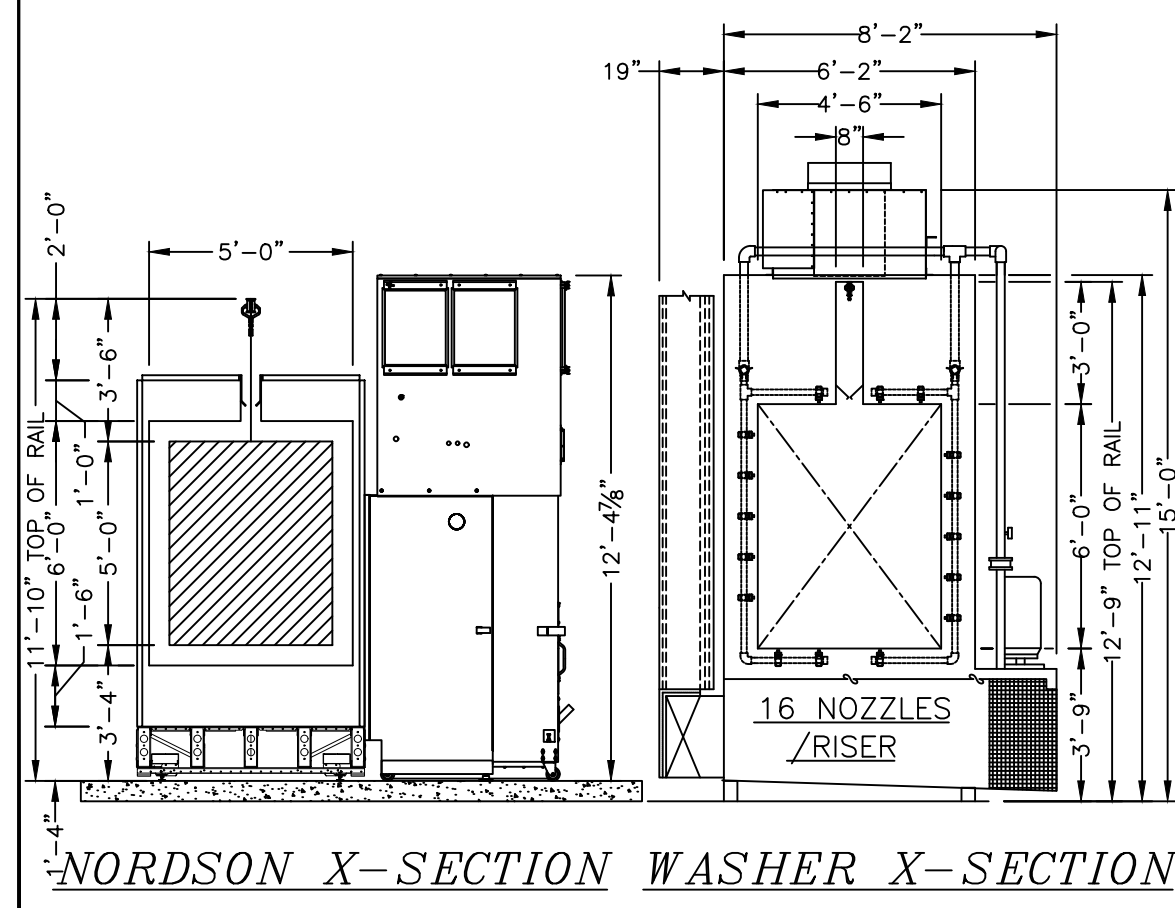
Roof Height: 17'-0" (ft-in) Outside Wall North on Page
 Clear Height: 15'-0" (ft-in) Outside Wall North on Page
 Roof Slope: FLAT Show Direction of Slope on Layout
 3 phase Voltage: 480V/3PH
 Heat Source: Natural or Propane
 Fuel Supply Pressure: 40 PSI @ Equipment (NOTE: 2 psig minimum req'd.)
 Building Access Size & Location:

CUSTOMER APPROVAL

REVIEW THIS DOCUMENT CAREFULLY. APPROVAL IS REQUIRED FOR MUTUAL PROTECTION OF PURCHASER AND SELLER.

SATISFACTORY AND APPROVED FOR FABRICATION
 APPROVED FOR FABRICATION WITH CHANGES NOTED.
 UNSATISFACTORY, REQUIRES REVISED PRINT WITH CHANGES AS INDICATED.

COMPANY _____
 SIGNATURE _____ DATE _____ TITLE _____



Revision	
No.	Note
△	FOR APPROVAL 2/5/25
△	NORDSON UPDATE /HEATER RELOCATION 2/20/25
△	BUILDING UPDATED POST SITE VISIT 3/12/25
△	FINAL WASHER & CURB 7/1/25
△	PAINT BOOTH & ELEVATION CHANGE 7/1/25
△	FINAL PAINT BOOTH DESIGN 7/25/25
△	WASHER DRAIN MOVED TO ENTRANCE END 11/10/25
△	EXTEND CURB & NEW FIT BY WASHER 11/17/25

GAT FINISHING SYSTEMS
 636-343-6370 WWW.GAT-SYSTEMS.COM ST. LOUIS, MO.

FOR:
JOB: POWDER COATING SYSTEM

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SCALE: 3/16"=1'-0" & AS NOTED
 DRAWN BY: MIKE VAN HOOSE
 DATE: 11/17/2025 DRAWING NO: 22353 SH. OF 1

