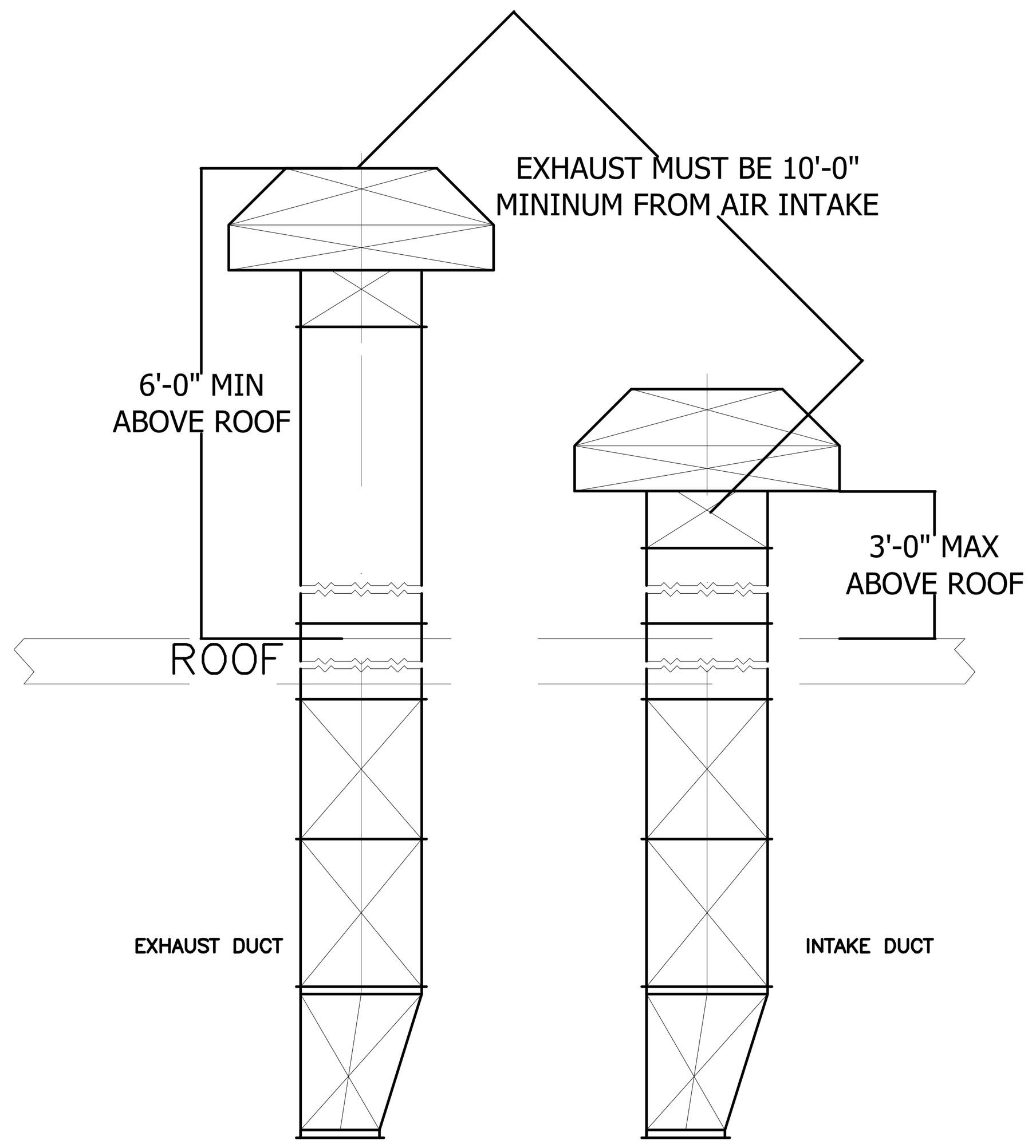
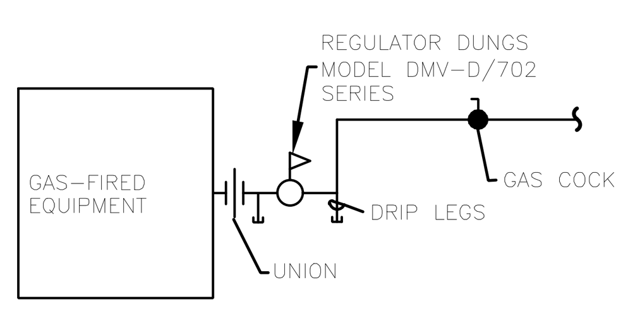
Joe Frogge

Digitally signed by Joe Frogge
DN: CN=Joe Frogge, OU=Development, OU=LS Users, DC=COLS, DC=LOC
Date: 2023.06.26 14:51:39-05'00'

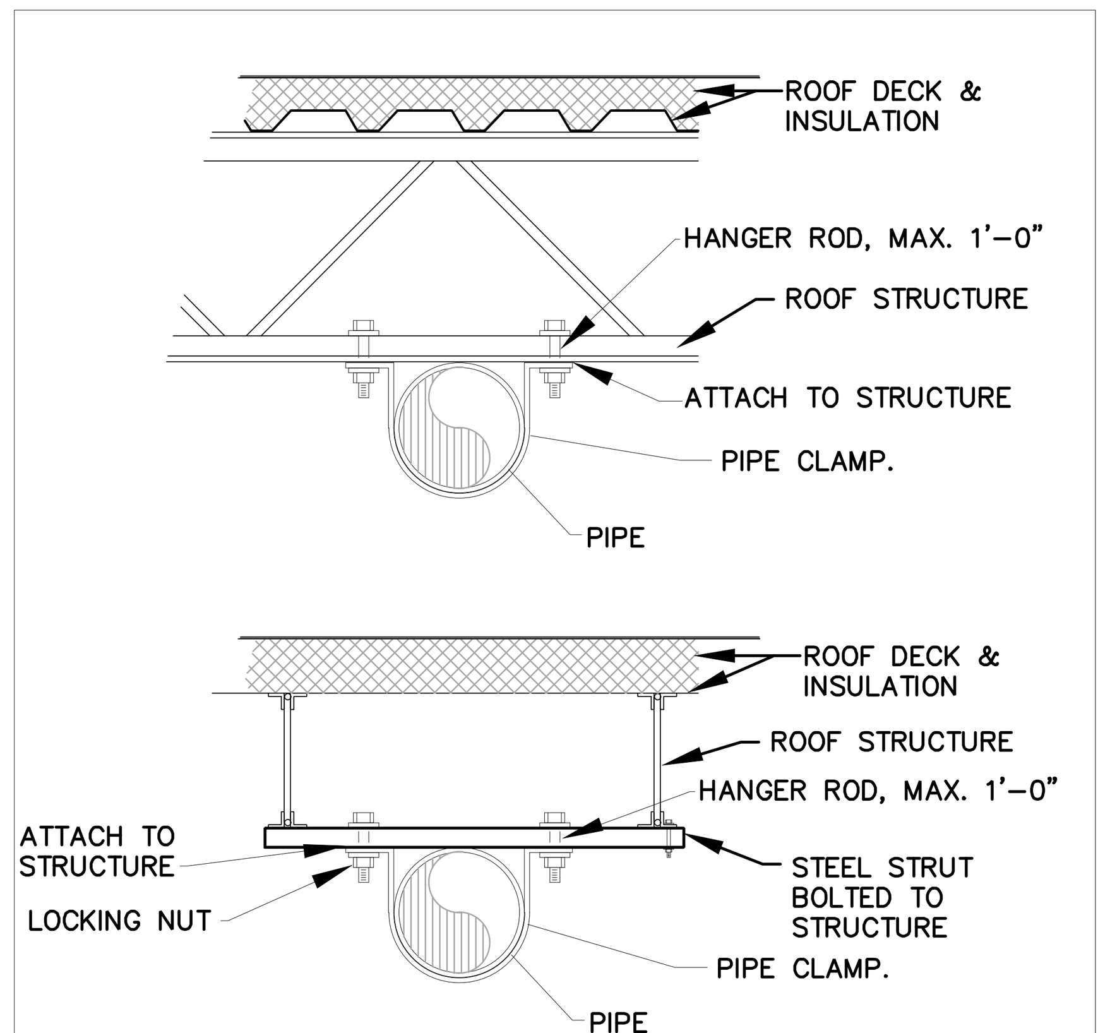
RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
06/26/2023



EXHAUST/INTAKE DUCTS
NO SCALE



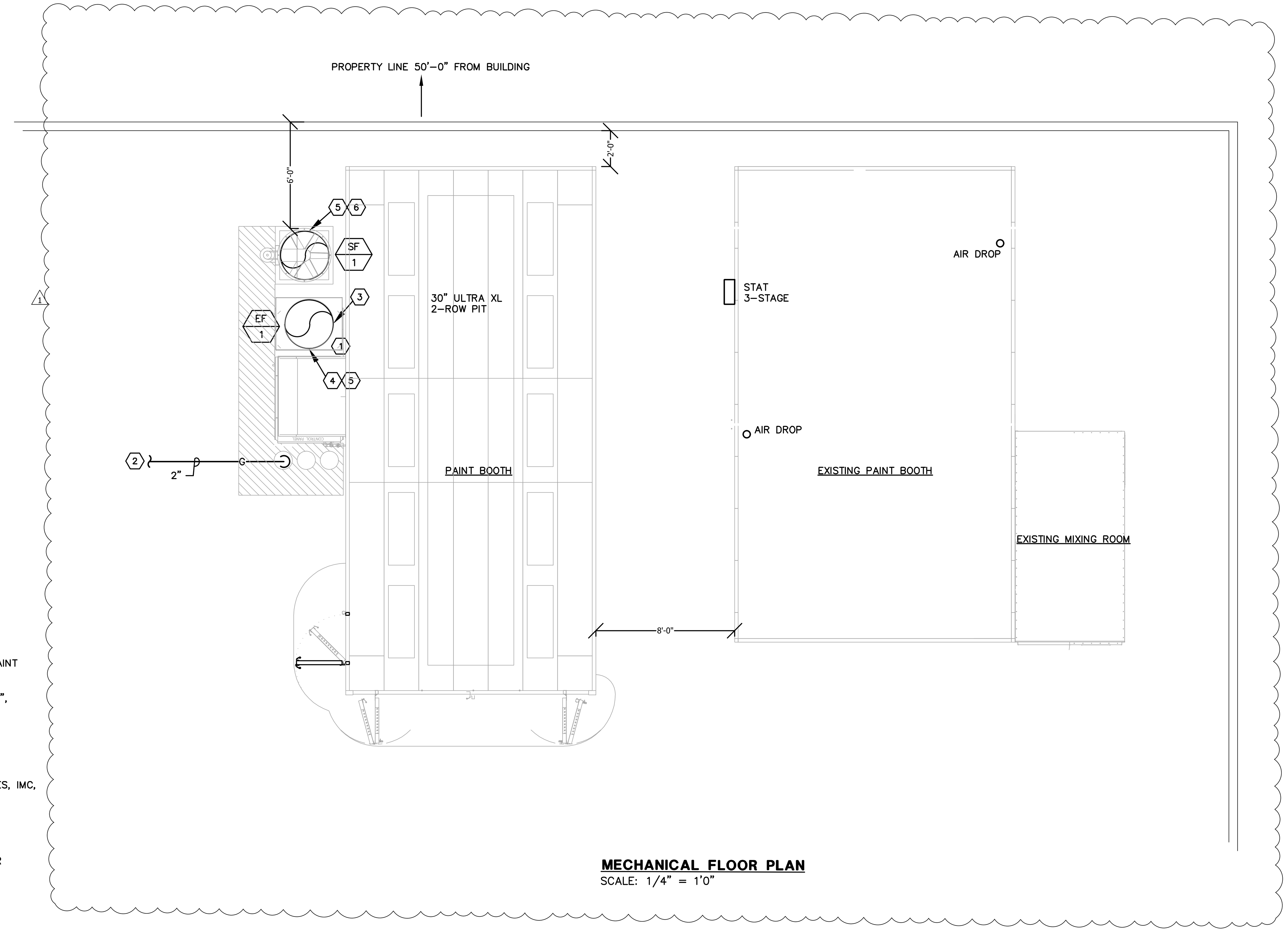
GAS-FIRED EQUIPMENT PIPING DETAIL
SCALE: NONE



PIPE HANGING DETAIL
NO SCALE

GENERAL NOTES

1. DOWNDRAFT BOOTH TO BE GLOBAL FINISHING SOLUTIONS.
2. PAINT BOOTH AND PRODUCT DOOR MEETS NFPA CODE 33.
3. EXHAUST FAN TO BE UL AND CSA CERTIFIED.
4. AIR VOLUME OF 4 CHANGES PER MIN @ 12,000 CFM FOR PAINT BOOTH. INTAKE FILTER POCKET STYLE, 95% AVERAGE ARRESTANCE. PLENUM FILTER 20"x48", 99% EFFICIENT AT REMOVING 10 MICRONS OR LARGER. EXHAUST FILER 20"x25", 99.6% AVERAGE ARRESTANCE.
5. FIRE SUPPRESSION SYSTEM BY OTHERS.
6. CONTRACTOR TO INSTALL NEW AIR SOLENOID VALVE AND ELECTRICALLY INTERLOCK VALVE IN THE PAINT BOOTH.
7. ALL INSTALLATION TO BE IN ACCORDANCE WITH LOCAL CODES, IMC, AND NFPA REGULATIONS.
8. VALVE TO PAINT BOOTH BY USE OF 3 PROXIMITY SWITCHES.
9. MIXING ROOM AND PRODUCT DOOR MEETS NFPA CODE 33.
10. AIR VOLUME OF 1 TO 2 CHANGES PER MIN @ 1150 CFM FOR MIXING ROOM.
11. SUPPLY AIR IS FILTERED THROUGH VILIDON 5606.



MECHANICAL FLOOR PLAN
SCALE: 1/4" = 1'0"

SUPPLY UNIT SCHEDULE

MARK	MFR	EQUIPMENT SERVING	CFM	O.A. CFM	ESP	HP	GAS HTG MBH IN	GAS HTG MBH OUT	ELECTRICAL VOLT/PHASE	REMARKS
SF-1	GLOBAL FINISHING SOLUTIONS	PAINT BOOTH	15,205	15,205	1.0	15	1512.6	1323.5	208/3	1,2,3

1. SERVES PAINT BOOTH
2. VERIFY ELECTRICAL VOLTAGE AND PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING UNIT.
3. SEE SHEET M2 FOR MANUFACTURER'S DRAWINGS.

EXHAUST FAN SCHEDULE

	MANUFACTURER	EQUIPMENT SERVING	CFM	SP	HP	VOLTS/PH	REMARKS
EF-1	GLOBAL FINISHING SOLUTIONS	PAINT BOOTH	15,205	.75	7.5	208/3	1,2,3,4,5

1. SERVES PAINT BOOTHS.
2. VERIFY ELECTRICAL VOLTAGE AND PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING UNIT.
4. SEE SHEET M2 THROUGH M3 FOR MANUFACTURER'S DRAWINGS.
5. FANS TO BE NON-SPARKING.

MECHANICAL KEYED NOTES

1. 34"ø SUPPLY AIR DUCT UP THROUGH ROOF.
2. CONNECT 2" GAS LINE TO EXISTING 2" GAS IN CEILING SPACE. VERIFY EXACT LOCATION IN FIELD.
3. 34"ø EXHAUST AIR DUCT UP THROUGH ROOF.
4. FURNISH AND INSTALL NEW BOOTH MOUNTED EXHAUST FAN (EF-1), 7.5 HP. VERIFY VOLTAGE WITH OWNER REPRESENTATIVE. DUCT AND RAIN CAP TO TERMINATE ABOVE ROOF LINE.
5. ALL AIR INTAKES AND EXHAUSTS NEED TO BE SEPARATED BY A MINIMUM OF 10'-0".
6. FURNISH AND INSTALL NEW BOOTH MOUNTED SUPPLY FAN (SF-1), 15 HP. VERIFY VOLTAGE WITH OWNER REPRESENTATIVE. DUCT AND RAIN CAP TO TERMINATE ABOVE ROOF LINE.

FIRE PROTECTION MUST COMPLY WITH SECTION 2404.4 OF INTERNATIONAL FIRE CODE. UNDER DEFERRED SUBMITTAL.

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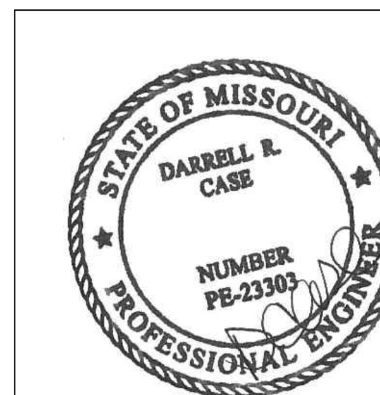

06/07/23

CARSTAR OF LEE SUMMIT
PAINT BOOTH
2509 NE INDEPENDENCE
LEE SUMMIT, MO 64064

REVISIONS

No.	Description	Date
1	CITY COMMENTS	06/07/23

PAINT BOOTH LOCATION

Project #
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Checked by

M1

Scale

THIS PAINT BOOTH IS ETL LISTED, REFERENCE ETL REPORT NUMBER 101579520CRT-001.
IT HAS BEEN REVIEWED AND FOUND TO CONFORM TO THE REQUIREMENTS OF THE FOLLOWING STANDARDS BY INTERTEK TESTING LABORATORIES.

- NFPA 33 STANDARD FOR SPRAY APPLICATION USING FLAMMABLE OR COMBUSTIBLE MATERIALS
- CSA C22.1 CANADIAN ELECTRICAL CODE PART 1: SAFETY STANDARD FOR ELECTRICAL INSTALLATOINS

IN ADDITION TO THE ABOVE CONFORMANCES, THE PAINT BOOTH ALSO CONFORMS TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING CODES AND STANDARDS.

- NFPA 70 NATIONAL ELECTRIC CODE
- NFPA 86 STANDARD FOR OVENS AND FURNACES
- NFPA 91 STANDARD FOR EXHAUST SYSTEMS FOR AIR CONVEYING OF VAPORS, GASES, MISTS AND NONCOMBUSTIBLE PARTICULATE SOLIDS, PAINT SPRAY BOOTHS AND DRYING OVENS
- NFPA 101 LIFE SAFETY CODE
- ~~OSHA SAFETY AND HEALTH STANDARDS (29CFR 110, 1910.107)~~
- 2018 INTERNATIONAL BUILDING CODE
- 2018 INTERNATIONAL FIRE CODE CHAPTER 24 (1)

PAINT BOOTH CONSTRUCTION NOTE:

1. GAS SUPPLY REQUIRED (BY OTHERS) TO GAS CONNECTION POINT (G).
   MINIMUM GAS PRESSURE IS REQUIRED AT MAXIMUM VOLUME CONSUMED.
   MINIMUM CIRCUIT CAPACITY IS REQUIRED (BY OTHERS) TO CONNECTION POINT (E).
   LIGHTING CIRCUIT IS REQUIRED (BY OTHERS) TO CONNECTION POINT (L).

2. PAINT BOOTH IS FABRICATED FROM 18/20 GAGE WHITE PRECOAT SHEET STEEL.

3. DUCTWORK IS FABRICATED FROM 18 GAGE G90 GALVANIZED STEEL.

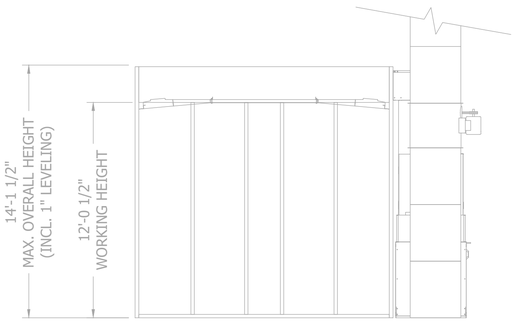
4. GLASS USED IN THE PAINT BOOTH MEETS AND EXCEEDS ANSI Z-97.1 STANDARD.

5. FIRE SUPPRESSION SYSTEM IS NOT INCLUDED WITH THE STANDARD PAINT BOOTH BUT IS REQUIRED BY NFPA-33.

6. DUCT SUPPORT NOT SUPPLIED OR DESIGNED BY GFS. EQUIPMENT IS NOT DESIGNED TO SUPPORT DUCT. DUCT SUPPORTS SHALL BE DESIGNED TO RELIEVE THE EQUIPMENT OF ALL DUCT LOAD.

7. EXHAUST TERMINATION POINT. PER THE INTERNATIONAL FIRE CODE, THE TERMINATION POINT FOR EXHAUST DUCTS DISCHARGING TO THE ATMOSPHERE SHALL NOT BE THE LESS THAN THE FOLLOWING DISTANCES:
   1. 30 FEET FROM THE LOT LINE;
   2. 10 FEET FROM OPENINGS INTO THE BUILDING;
   3. 6 FEET FROM EXTERIOR WALLS AND ROOFS;
   4. 30 FEET FROM COMBUSTIBLE WALLS OR OPENINGS INTO THE BUILDING THAT ARE IN THE DIRECTION OF THE EXHAUST DISCHARGE;
   5. 10 FEET ABOVE ADJOINING GRADE.

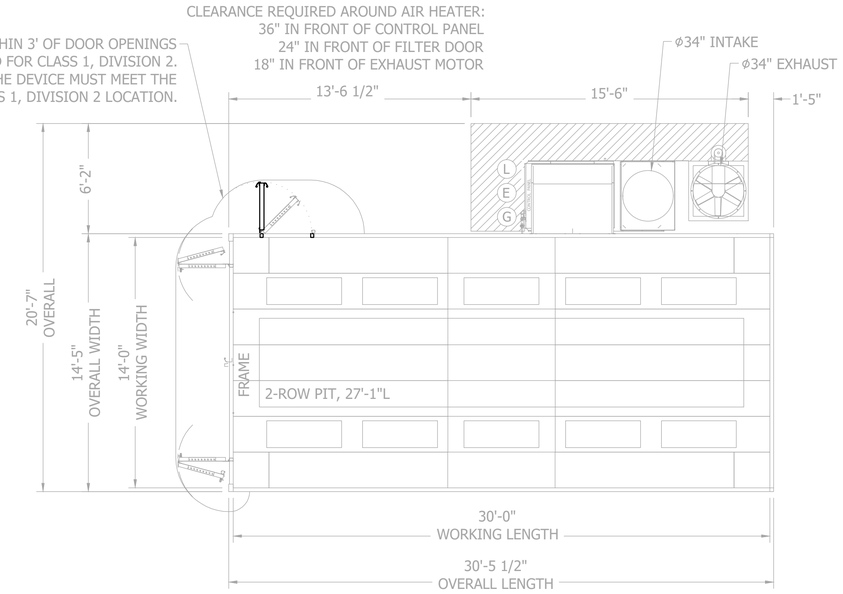
8. INCLUDED BUT NOT SHOWN:
   (2) Ø34" ROOF FLANGE
   (4) Ø34" 22.5° ELBOW



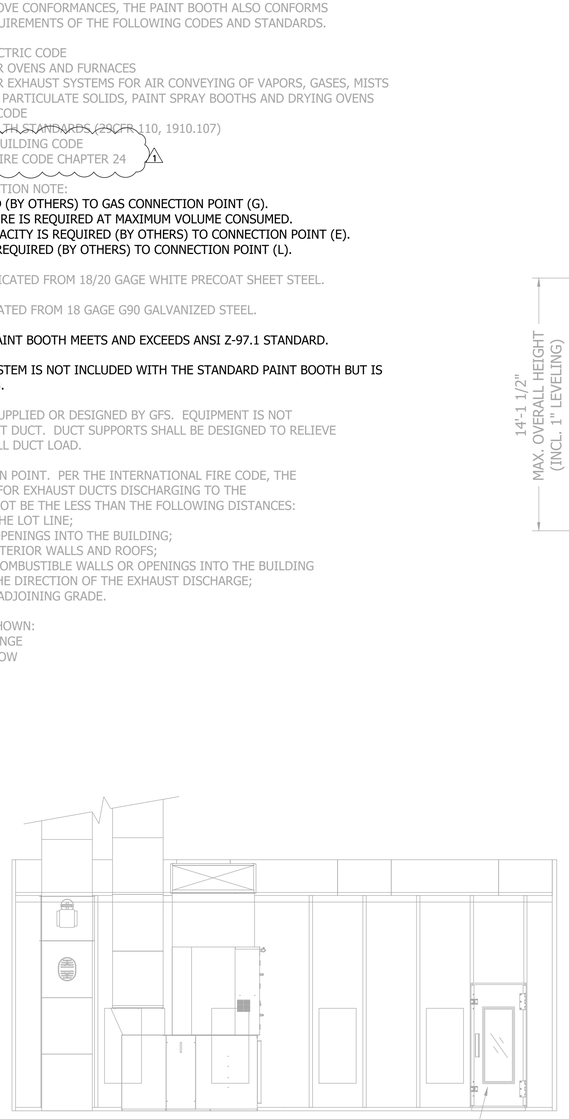
REAR ELEVATION

ANY DEVICE LOCATED WITHIN 3' OF DOOR OPENINGS MUST BE LISTED FOR CLASS 1, DIVISION 2. WIRING INSTALLATION TO THE DEVICE MUST MEET THE REQUIREMENTS FOR A CLASS 1, DIVISION 2 LOCATION.

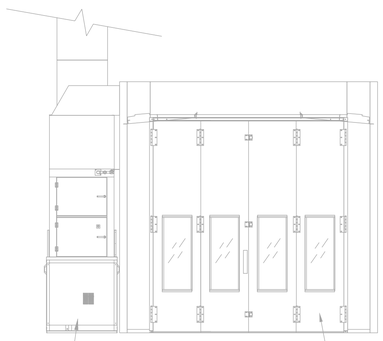
CLEARANCE REQUIRED AROUND AIR HEATER:
36" IN FRONT OF CONTROL PANEL
24" IN FRONT OF FILTER DOOR
18" IN FRONT OF EXHAUST MOTOR



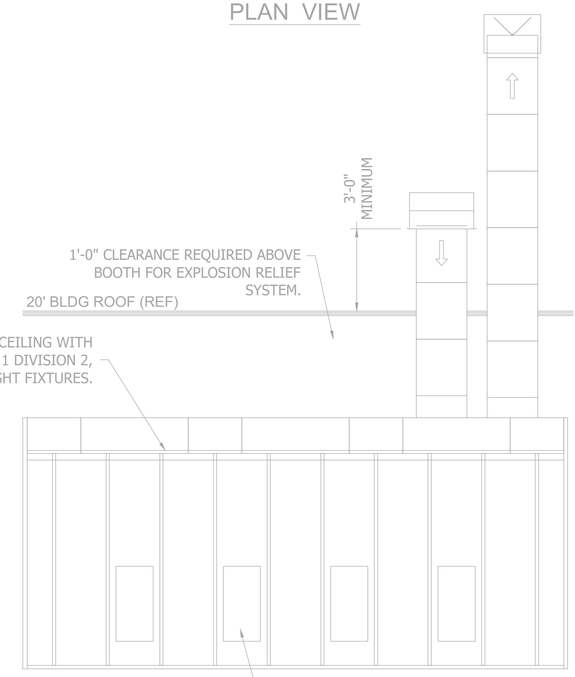
PLAN VIEW



LH SIDE ELEVATION



FRONT ELEVATION



RH SIDE ELEVATION

AIR HEATER								MOTOR MINIMUM CIRCUIT CAPACITY						LIGHTING CIRCUIT		
MAX AIR FLOW RATE (CFM)	INTAKE / EXHAUST MOTOR (HP)	FUEL	MAX FIRING RATE (BTU/HR)	MIN INLET PRESS. AT MAX FIRING RATE (INWC)	MAX INLET PRESS. (PSI)	TEMP. RISE (°F)	INLET PIPE SIZE NPT (IN)	MOTOR SPECIFICATIONS	FULL LOAD AMP DRAW /MINIMUM CIRCUIT CAPACITY					QUANTITY OF LIGHT FIXTURES (4-TUBE, 6-TUBE, STD OR LED)	SINGLE PHASE MINIMUM CIRCUIT CAPACITY (AMPS)	
								15HP INTAKE, 7.5HP EXHAUST	230V 1PH	208V 3PH	230V 3PH	480V 3PH	575V 3PH		120V	277V
15205	15 / 7.5	NATURAL GAS	1512605	13.0	5.0	91	1 1/4	NO ADVANCE CURE		73.4 / 92.0				18	45	20
		PROPANE	1323529	5.0		80										

ø34" STACK WEIGHTS		
DUCT	21.97	LBS/LF
FAN	198	LBS
MOTOR	150	LBS
RINGS	45	LBS/PAIR OF RINGS
SILENCER		LBS
NO-LOSS		LBS
ARV	105	LBS
HOOD	115	LBS

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STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2330
PROFESSIONAL ENGINEER
06/07/23

CARSTAR OF LEE SUMMIT
PAINT BOOTH
2509 NE INDEPENDENCE
LEE SUMMIT, MO 64064

REVISIONS

No.	Description	Date
1	CITY COMMENTS	06/07/23

PAINT BOOTH SPECIFICATIONS

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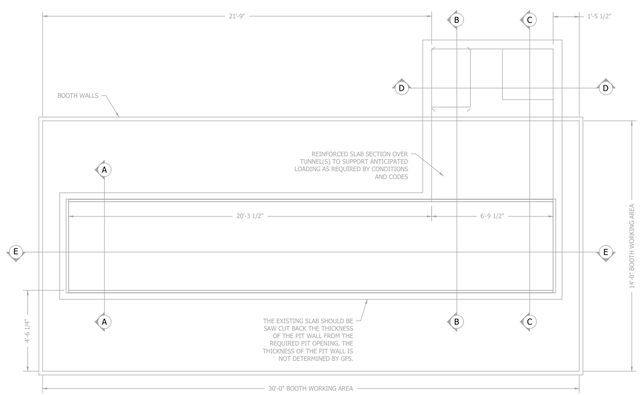
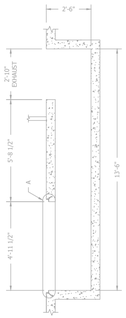
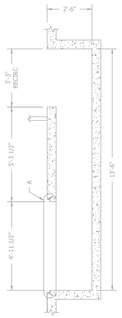


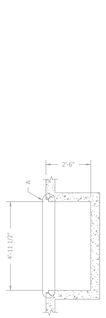
PLAN VIEW



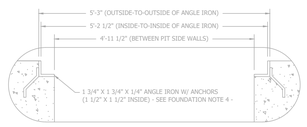
SECTION C - C



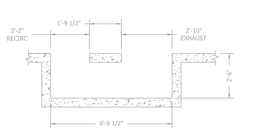
SECTION B - B



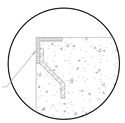
SECTION A - A



DETAIL A



SECTION D - D



DETAIL B

SECTION E - E

BAR GRATING SPECIFICATION	
BAR SIZE (in)	1 - $\frac{1}{2}$ x $\frac{3}{16}$
TYPE	LIGHT DUTY
MAX WHEEL LOAD (lbs)	1,850
W SERIES	19-W-4
* BASED ON A CONTACT LENGTH OF 9" (IE 11 BARS/FT OF GRATING WIDTH) AND A MAXIMUM CLEAR SPAN OF 2'-4 1/2"	

FOUNDATION NOTES

1. CONTRACTOR SHALL VERIFY THAT THERE ARE NO INTERFERENCES BETWEEN EXISTING FOUNDATION (FTG. PADS, CON. FTGS, GRADE BEAM, TIES, ETC) AND PROPOSED PIT FOUNDATION.
2. DO NOT PLACE BACKFILL AGAINST WALL UNTIL THE WALL HAS BEEN ADEQUATELY SHORED.
3. WALL LOCATIONS TO BE WITHIN 1/4" OF DIMENSIONS SHOWN.
4. ALL ANGLE IRON HAS BEEN SHOWN AS A REFERENCE, SHOULD BE IN THE SCOPE OF THE FOUNDATION DESIGN, AND PROVIDED BY OTHERS. ADJUSTMENTS MUST BE MADE FOR ANGLE THICKNESS THAT VARY FROM ¼" AS SHOWN IN DETAIL A.
5. THE DESIGN OF THE PIT GRATING AND ITS CAPACITY HAS BEEN PROVIDED IN A TABLE. DO NOT EXCEED THE WHEEL LOAD CAPACITY OF THE GRATING AS PROVIDED BY GFS. WHEELED VEHICLES WITH URETHANE TIRES SHOULD NEVER BE USED.
6. GRATINGS MUST BE INSTALLED WITH CROSS BARS ON TOP SIDE.
7. NOTCHING OF BEARING BARS AT SUPPORTS TO MAINTAIN PROPER ELEVATION IS GENERALLY NOT RECOMMENDED. IF NOTCHING IS REQUIRED FOR INSTALLATION, MANUFACTURER SHOULD BE CONSULTED.
8. METAL SHOULD ALWAYS BE USED FOR ALL GRATING SUPPORTS.
9. A MINIMUM OF 1" BEARING SHALL BE PROVIDED FOR ALUMINUM AND LIGHT DUTY STEEL GRATING. FOR HEAVY DUTY STEEL GRATING, 1" MINIMUM BEARING SHALL BE PROVIDED FOR BEARING BAR DEPTHS UP TO 2-1/4", AND 2" MINIMUM BEARING SHALL BE PROVIDED FOR DEPTHS OF 2-1/2" AND OVER. THIS BEARING SURFACE DOES NOT INCLUDE THE SUPPORT ANGLE FILLET RADIUS.
10. ALL DIMENSIONS ARE APPROXIMATE AND SUBJECT TO CHANGE. CUSTOMER MUST CHECK EQUIPMENT SIZE, LOCATION IN BUILDING AND ALL CLEARANCES TO BUILDING AND CONTENTS.
11. DEPTH DIMENSIONS ARE BASED ON HAVING A 6" SLAB OVER THE EXHAUST TUNNEL. IF STRUCTURAL ANALYSIS INDICATES THAT A THICKER SLAB IS REQUIRED, PIT DEPTH SHOULD BE INCREASED ACCORDINGLY AND GFS NOTIFIED SO TALLER PIT RAILS CAN BE PROVIDED.

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STATE OF MISSOURI
DARRELL R. CASE
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PROFESSIONAL ENGINEER
04/24/23

CARSTAR OF LEE SUMMIT
PAINT BOOTH
2509 NE INDEPENDENCE
LEE SUMMIT, MO 64064

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PAINT BOOTH SPECIFICATIONS

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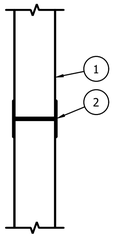
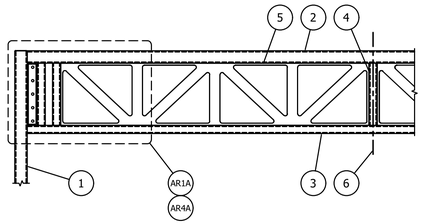


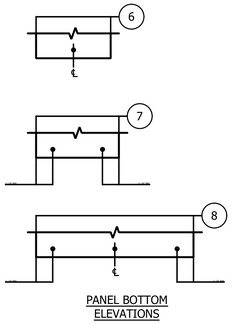
SCALE
3" = 1'-0"

1. DUAL SKIN INSULATED PANEL.
2. 20GA H-CHANNEL.



1. STEEL COLUMN - HSS5x3x5/16.
2. TRUSS TOP CHORD - HSS3x2x1/8.
3. TRUSS BOTTOM CHORD - HSS2x2x1/8.
4. VERTICAL TUBE WEB MEMBER - HSS2x2x1/4.
5. 3/8" STEEL WEB CUT OUT PLATE.
6. SYMMETRICAL ABOUT CENTERLINE.

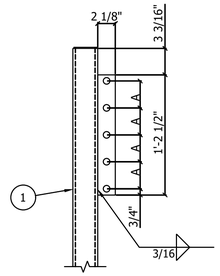
AR6A PANEL TO PANEL CONNECTION

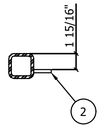


PANEL BOTTOM ELEVATIONS

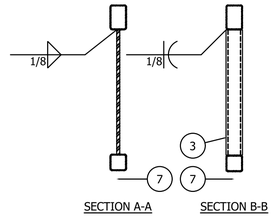
1. SEE 1/4"ø SCREW ANCHOR NOTES ON GSN.
2. EXIST SLAB ON GRADE. 4" MIN CONC THICKNESS. VERIFICATION OF SLAB NOT BY GFS.
3. #10 x 3/4" TEK SCREW.SEE PANEL BOTTOM ELEVATION FOR SPACING INFORMATION.
4. DUAL SKIN INSULATED PANEL.
5. 1/2" MIN - 3/4" MAX
6. 0" - 9" PANEL WIDTH.
7. 10" - 18" PANEL WIDTH.
8. 19" - 36" PANEL WIDTH.

AR8A 12' TO 16' LONG FRAME ELEVATION





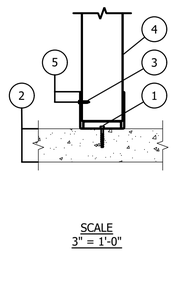
1. STEEL COLUMN - SEE FRAME ELEVATION FOR SIZE.
2. 3/8" SHEAR TAB.
3. "A" DIMENSION IS 3 1/4".



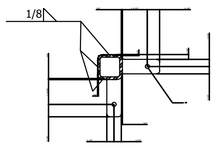
SECTION A-A SECTION B-B

1. FRAME TOP CHORD - SEE FRAME ELEVATION FOR SIZE.
2. FRAME BOTTOM CHORD - SEE FRAME ELEVATION FOR SIZE.
3. VERTICAL WEB MEMBER - HSS2x2x1/4.
4. 3/8" PLATE WITH (5) 1/2"ø A325 BOLTS.
5. FRAME WEB PLATE - SEE FRAME ELEVATION FOR THICKNESS.
6. 2" LONG HORIZONTALLY FROM FRAME WEB PLATE TO CHORD AND 2" VERTICALLY FROM FRAME WEB PLATE TO VERTICAL WEB MEMBER - CONTINUOUS THROUGH CORNER.
7. SEE BOTTOM CHORD ATTACHMENT DETAIL (AR2C), IF OCCURS, FOR CONNECTION INFORMATION.
8. SEE COLUMN SHEAR TAB DETAIL (AR4A) FOR COLUMN AND SHEAR TAB INFORMATION.

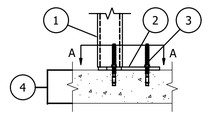
AR4A COLUMN SHEAR TAB



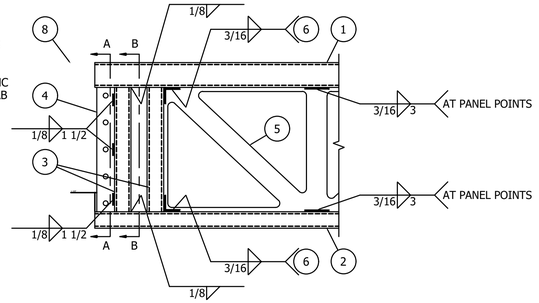
SCALE
3" = 1'-0"



SECTION A-A

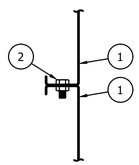


1. STEEL HSS COLUMN PER FRAME ELEVATION (AR8A).
2. 3/8" BASE PLATE.
3. SEE 3/8"ø WEDGE ANCHOR NOTES ON GSN.
4. EXIST SLAB ON GRADE 4" MIN CONC THICKNESS. VERIFICATION OF SLAB NOT BY GFS.



AR7 BASE CHANNEL

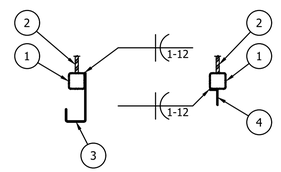
AR5A CORNER COLUMN



SCALE
3" = 1'-0"

1. SINGLE SKIN PANEL.
2. 8MM CLASS 8.8 BOLTS AT 6" O.C. TYP.

AR1A TRUSS CONNECTION TO COLUMN



1. FRAME BOTTOM CHORD.
2. FRAME WEB PLATE.
3. 14GA "J"
4. 14GA "L"

AR6C PANEL TO PANEL CONNECTION

AR2C BOTTOM CHORD ATTACHMENT DETAIL

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STATE OF MISSOURI
DARRELL R. CASE
NUMBER PE-2339
PROFESSIONAL ENGINEER
04/24/23

CARSTAR OF LEE SUMMIT
PAINT BOOTH
2509 NE INDEPENDENCE
LEE SUMMIT, M0 64064

REVISIONS

No.	Description	Date

PAINT BOOTH SPECIFICATIONS

Project #	
Issue Date	
Drawn by	
Checked by	

M4

Scale

GENERAL STRUCTURAL NOTES

APPLY UNLESS NOTED ON DRAWINGS. IN CASE OF CONFLICT BETWEEN GSN, DETAILS AND PLANS, THE GREATER REQUIREMENTS GOVERN.

- **DESIGN INFORMATION:**

  BOOTH AND EQUIPMENT HAS BEEN DESIGNED BASED ON THE CURRENT EDITION OF THE INTERNATIONAL BUILDING CODE

  RISK CATEGORY: II
  SEISMIC IMPORTANCE FACTOR: IE=1
  MAPPED SPECTRAL RESPONSE ACCELERATION:
  S_s =0.099
  S_1 =0.068
  SITE CLASS: D (ASSUMED)
  SPECTRAL RESPONSE COEFFICIENT:
  S_{DS}=0.106
  S_{D1}=0.109
  SEISMIC DESIGN CATEGORY: B
  SEISMIC-FORCE-RESISTING SYSTEMS:
  STEEL SYSTEMS NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE, EXCLUDING CANTILEVER COLUMN SYSTEMS
  RESPONSE MODIFICATION FACTOR: R=3.00
  SEISMIC RESPONSE COEFFICIENT: C_S=0.036
  ALL OTHER SELF-SUPPORTING STRUCTURES, TANKS, OR VESSELS NOT COVERED ELSEWHERE IN TABLE 15.4-2
  RESPONSE MODIFICATION FACTOR: R=1.25
  SEISMIC RESPONSE COEFFICIENT: C_S=0.085
  ANALYSIS PROCEDURE USED:
  EQUIVALENT LATERAL FORCE PROCEDURE
  BASIC WIND SPEED: N/A MPH
  (PORTIONS OF EQUIPMENT THAT ARE OUTDOOR ONLY - IE STACKS AND STANDS)
  BUILDING CATEGORY: INDOOR
  EXPOSURE: C
  DEAD LOADS: SELF-WEIGHT OF STRUCTURAL STEEL IN ADDITION TO THE LOADS LISTED BELOW
  - **5.0 PSF (ROOF)**
  - **5.0 PSF (WALLS)**
  - **3.5 PSF (PLENUM)**

  BOOTH ROOF LIVE LOADS: N/A PSF
  LIVE LOADS: 300 LBS AT MIDPOINT OF FRAME BEAM
  GROUND SNOW LOAD: N/A PSF

- **FDN INFORMATION:**

  CAPACITY OF THE FDN/SLAB TO SUPPORT GFS BOOTHS AND EQUIPMENT IS NOT THE RESPONSIBILITY OF GFS.

- **ANCHORS INDICATED ARE BASED ON ASSUMPTIONS OF EXIST CONDITIONS (LISTED BELOW). THESE ASSUMPTIONS ARE MADE IN ORDER FOR GFS TO PROVIDE ANCHOR BOLT HOLES IN THE BASE PLATES AND PANELS. EXIST CONDITIONS SHOULD BE VERIFIED BY THE OWNER AND ANY DEVIATIONS SHOULD BE CONVEYED TO GFS PRIOR TO FABRICATION.**

  1/4"ø SCREW ANCHOR - 1/4"ø POWERS (DEWALT) SCREW-BOLT+ SCREW ANCHORS EMBEDDED 1 15/16" PER ICC ESR-3889 TO SECURE PANELS TO CONC. IN LIEU OF THE POWERS (DEWALT) ANCHOR, 1/4"ø HILTI KWIK HUS-EZ SCREW ANCHORS EMBEDDED 1 15/16" PER ICC ESR-3027 MAY BE USED. EACH WALL/BAY IS REQUIRED TO HAVE ANCHORS AT 18" O.C. MAX, U.N.O. EACH WALL SHALL HAVE (1) ANCHOR 3" MAX FROM END OR CORNER AND A MIN OF (2) ANCHOR PER WALL/BAY. INSTALL ANCHORS PER MFR'S RECOMMENDATION. SEE DETAILS FOR ADDITIONAL INFORMATION. A PREAPPROVED ANCHOR WITH A CAPACITY EQUAL TO OR GREATER THAN THE SPECIFIED ANCHOR AND WITH A CURRENT ICC REPORT MAY BE USED IN LIEU OF THE ANCHOR SPECIFIED. ALL OTHER RESTRICTIONS (INCLUDING BUT NOT LIMITED TO EDGE DISTANCE AND EMBEDMENT) SHALL BE CONSIDERED.

  3/8"ø WEDGE ANCHOR - 3/8"ø POWERS (DEWALT) POWER-STUD+ SD1 WEDGE ANCHORS EMBEDDED 2" MIN PER ICC ESR-2818. IN LIEU OF THE POWERS (DEWALT) ANCHOR, 3/8"ø HILTI KWIK BOLT TZ2 WEDGE ANCHORS EMBEDDED 2" MIN PER ICC ESR-4266 MAY BE USED. SEE DETAILS FOR NUMBER OF ANCHORS REQUIRED AND ADDITIONAL INFORMATION. INSTALL ANCHORS PER MFR'S RECOMMENDATION. A PREAPPROVED ANCHOR WITH A CAPACITY EQUAL TO OR GREATER THAN THE SPECIFIED ANCHOR AND WITH A CURRENT ICC REPORT MAY BE USED IN LIEU OF THE ANCHOR SPECIFIED. ALL OTHER RESTRICTIONS (INCLUDING BUT NOT LIMITED TO EDGE DISTANCE AND EMBEDMENT) SHALL BE CONSIDERED.

  ANCHOR SPECIFICATION IS BASED ON THE FOLLOWING ASSUMPTIONS OF EXIST CONDITIONS:
  - **-- MIN CONC COMPRESSIVE STRENGTH IS 2500 PSI.**
  - **-- MIN SLAB DEPTH IS 4".**
  - **-- MIN SLAB DEPTH FOR PAINT KITCHEN IS 6".**

- **COLD-FORMED STEEL:**

  ALL COLD-FORMED STEEL MEETS THE REQUIREMENTS OF THE LATEST EDITION OF THE AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. ALL COLD-FORMED STEEL IS COMMERCIAL GRADE WITH A YIELD STRENGTH OF 32KSI AND A TENSILE STRENGTH OF 40KSI. 304 AND 316 STAINLESS STEEL PER ASTM A240 HAS A YIELD STRENGTH OF 25KSI AND A TENSILE STRENGTH OF 70KSI.

- **STRUCTURAL STEEL:**

  ALL STRUCTURAL STEEL FABRICATION AND CONSTRUCTION COMPLY WITH THE LATEST AISC HANDBOOKS AND CODES.
  ALL STEEL IS ASTM A36, EXCEPT AS FOLLOWS:
  - **-- WIDE FLANGE SECTIONS - ASTM A992,**
  - **-- PIPE SECTIONS - ASTM A53 GRADE B,**
  - **-- HSS SECTIONS - ASTM A500 GRADE B**
  - **-- BOLTS ARE A325-N AND SHALL BE SNUG-TIGHTENED.**

- **WELDING:**

  WELDERS HOLD CURRENT VALID CERTIFICATES AND HAVE CURRENT EXPERIENCE IN TYPE OF WELD CALLED FOR. STRUCTURAL STEEL WELDING WITH LOW HYDROGEN TYPE, E70 AND E60 FOR LIGHT GAUGE STEEL. STRUCTURAL STEEL WELDING CONFORMS TO THE "STRUCTURAL WELDING CODES-STEEL" AWS D1.1, CURRENT EDITION.

- **ROOF ACCESS RESTRICTIONS:**

  THE ROOFS OF GFS EQUIPMENT ARE NOT DESIGNED OR INTENDED TO BE WALKED UPON OR TO SUPPORT WEIGHT OF ANY KIND. AS DESIGNED AND MANUFACTURED, THE EQUIPMENT ROOFS DO NOT MEET THE MINIMUM REQUIREMENTS OF A SAFE WALKING AND/OR WORKING SURFACE UNDER OSHA 1910.22. UNDER NO CIRCUMSTANCES SHOULD THE ROOF BE USED BY MAINTENANCE PERSONNEL OR OTHERS FOR WALKING, STANDING, OR STORAGE OF ANY KIND.

  WHEN NECESSARY, ROOF ACCESS SHOULD BE SECURED THROUGH THE USE OF A PROPERLY SUPPORTED PLATFORM THAT SATISFIES THE MINIMUM LOAD REQUIREMENTS SPECIFIED BY ASCE 7 (MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES) AND ASCE 37 (DESIGN LOADS ON STRUCTURES DURING CONSTRUCTION).

  ADDITIONALLY, PERSONNEL SHOULD ALWAYS UTILIZE APPROPRIATE FALL SAFETY PROTOCOLS WHEN USING AN ELEVATED PLATFORM. USE OF THE ROOF IN A CONTRARY MANNER MAY RESULT IN INJURY AND/OR DEATH.

- **SPECIAL INSPECTION INFORMATION:**

  SPECIAL INSPECTION SHALL BE REQUIRED FOR THE FOLLOWING TYPES OF WORK AND SHALL BE IN COMPLIANCE WITH IBC SECTION 1705:
  1. **POST-INSTALLED ANCHORS INTO HARDENED CONCRETE.**
  2. **HIGH STRENGTH BOLTING.**
  3. **FIELD WELDING.**
  4. **STRUCTURAL STEEL IN THE SEISMIC FORCE-RESISTING SYSTEMS**

  STATEMENT OF SPECIAL INSPECTION:
  - **A. THIS STATEMENT OF SPECIAL INSPECTIONS SHALL BE SUBMITTED IN ACCORDANCE WITH SECTION 1704.3 OF THE IBC.**
  - **B. THIS STATEMENT SHALL INCLUDE A SCHEDULE OF SPECIAL INSPECTION SERVICES APPLICABLE TO THIS PROJECT.**

  THE SPECIAL INSPECTOR(S) SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH INTERIM INSPECTION REPORTS TO THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ON A BI-WEEKLY BASIS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THE DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE PRIOR TO COMPLETION OF THAT PHASE OF WORK. A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING REQUIRED SPECIAL INSPECTIONS AND CORRECTIONS OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AT THE CONCLUSION OF THE PROJECT.

  THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO COMPLY WITH THE CONTRACT DOCUMENTS. JOBSITE SAFETY AND MEANS AND METHOD OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

- **OUTDOOR USE:**

  THE EQUIPMENT IN THESE DOCUMENTS ARE NOT DESIGNED FOR OUTDOOR USE. IN THE EVENT THAT SUCH APPLICATIONS AND/OR USES ARE CONTEMPLATED (IE ANY PORTION OF THE EQUIPMENT IS EXPOSED TO THE ELEMENTS, NOT INCLUDING STACKS), THE PURCHASER OF THE EQUIPMENT IS RESPONSIBLE FOR NOTIFYING GFS SO THAT ADDITIONAL STRUCTURAL ANALYSIS CAN BE PERFORMED AND THE NECESSARY MODIFICATIONS CAN BE MADE.

ABBREVIATIONS:

A.F.G.	-	ABOVE FINISH GRADE
AMU	-	AIR MAKE-UP UNIT
BLDG	-	BUILDING
CONC	-	CONCRETE
ESOW	-	EACH SIDE OF WEB
EXIST	-	EXISTING
FDN	-	FOUNDATION
GA	-	GAUGE
GR5	-	GRADE 5
IBC	-	INTERNATIONAL BUILDING CODE
LBS	-	POUNDS
MAX	-	MAXIMUM
MFR	-	MANUFACTURER
MIN	-	MINIMUM
NS/FS	-	NEAR SIDE AND FAR SIDE
O.C.	-	ON CENTER
OSHA	-	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PLF	-	POUNDS PER LINEAR FOOT
PSF	-	POUNDS PER SQUARE FOOT
T/B	-	TOP AND BOTTOM
TYP	-	TYPICAL
U.N.O. OR UNO	-	UNLESS NOTED OTHERWISE
WF	-	WIDE FLANGE

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