Columbia Gas®
A NiSource Company

INSTALLATION ORDER NUMBER 24-0136951-00

PROJECT ID 21-78790
RIDGEVIEW STATION
JOB TYPE: PLANT REGULATORS - NEW (573)

PROJECT INFORMATION

FIELD ENGINEER / PROJECT MANAGER:	KAITLIN DYGERT | GREG HARPER
CONSTRUCTION FLL:	###
PERMITS:	CITY PERMIT STATE PERMIT ENVIRONMENTAL PERMIT
TCC/LOA:	1324 | COLUMBUS NORTHWEST
COUNTY:	COLUMBUS / FRANKLIN
TAX DISTRICT/TOWNSHIP ID:	0250200 | UPPER ARLINGTON
MAP/GRID NUMBER:	7324428E
24 HR. EMERGENCY LINE:	1-800-544-5606

VALVES PLANNED FOR ABANDONMENT

VALVE NO.	FACILITY ID	LOCATION DESCRIPTION	ABANDONED VALVE INSERTED?		DISPOSITION			
			YES*	NO	VALVE REMOVED (NO BOX; ABOVE GROUND VALVE)	VALVE, VALVE BOX & LID REMOVED	VALVE REMAINS IN PLACE; BOX & LID REMOVED	VALVE REMAINS IN PLACE; BOX FILLED W CONCRETE
#								
#								
#								
#								
#								

* - IF "YES," APPROVAL AND REASON ARE REQUIRED AND SHALL BE DOCUMENTED.
NOTE: IF VALVE COULD NOT BE LOCATED, MAKE APPLICABLE COMMENT IN ABOVE TABLE.

PROJECT SUMMARY TABLE

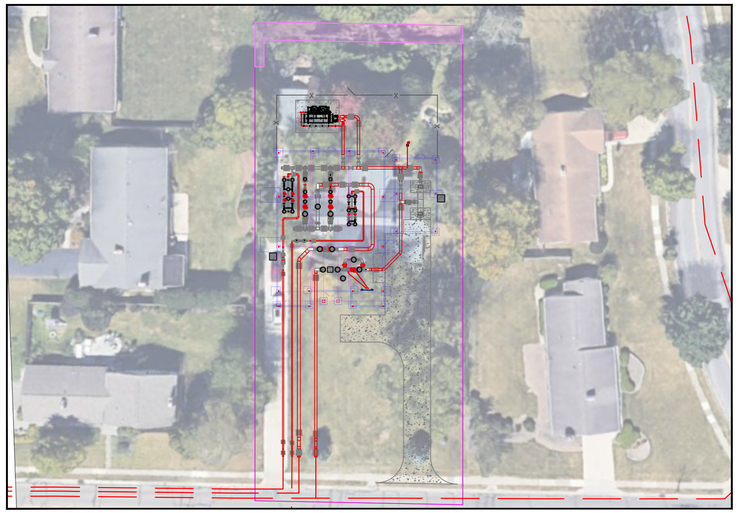
PROPOSED INSTALLATION			PROPOSED ABANDONMENT		
LENGTH (FT)	SIZE (IN)	TYPE	LENGTH (FT)	SIZE (IN)	TYPE
0'	0"		0'	0"	
0'	TOTAL INSTALLATION (FEET)		0'	TOTAL ABANDONMENT (FEET)	

PROPOSED GAS SERVICES

	REPLACEMENTS	TIE OVERS	TOTAL SERVICES	METER OUTS
ESTIMATED GAS SERVICES				

VICINITY MAP

GPS COORDINATES: XXXXX N, XXXXXW



PROJECT DESCRIPTION

NEW INSTALL OF RIDGEVIEW STATION

SHEET INDEX			
NUMBER	PROJECT ELEMENT	REVISION	REVISION DATE
0	COVER SHEET	0	6/16/2025
1	GENERAL NOTES	0	6/16/2025
2	ISOMETRIC	0	6/16/2025
3	SITE OVERVIEW	0	6/16/2025
4	PRESSURE TEST DETAILS	0	6/16/2025
5	GRAVEL LAYOUT	0	6/16/2025
6	FENCE LAYOUT	0	6/16/2025
7	FENCE DETAILS 1	0	6/16/2025
8	FENCE DETAILS 2	0	6/16/2025
9	CONCRETE LAYOUT	0	6/16/2025
10	CONCRETE DIMENSIONS	0	6/16/2025
11	CONCRETE CALLOUTS	0	6/16/2025
12	CONCRETE DETAILS	0	6/16/2025
13	ROV DETAILS	0	6/16/2025
14	TRANSMITTER PIPING DETAILS	0	6/16/2025
15	FILTER DETAILS	0	6/16/2025
16	GENERATOR DETAILS	0	6/16/2025
17	HEATER BLOCK DETAILS	0	6/16/2025
18	HEATER SUPPLY UNIT	0	6/16/2025
19	232 REGULATION	0	6/16/2025
20	232 OUTLET	0	6/16/2025
21	100 REGULATION	0	6/16/2025
22	100 OUTLET	0	6/16/2025
23	077 REGULATION	0	6/16/2025
24	077 OUTLET	0	6/16/2025
25	CORROSION LAYOUT	0	6/16/2025
26	ELECTICAL CLASSIFICATION	0	6/16/2025
27	I&C OVERVIEW	0	6/16/2025
28	BOM	0	6/16/2025
29	BOM 2	0	6/16/2025
APPENDIX A	ILLUMINATION PLAN	0	6/16/2025
APPENDIX B	PLMB-0002A	0	6/16/2025
APPENDIX C	SITE CIVIL	0	6/16/2025
APPENDIX D	SITE STRUCTURAL	0	6/16/2025
APPENDIX E	BUILDING ARCHITECTURE	0	6/16/2025
APPENDIX F	BUILDING STRUCTURAL STEEL	0	6/16/2025
APPENDIX G	BUILDING FOUNDATION	0	6/16/2025

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PROPOSED

REVISIONS		
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1	---	---
0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:
COVER SHEET

DRAWING NO:

General Notes

1. Deviation from NiSource CAD Standards is at discretion of reviewing Professional Engineer.
2. Refer to project documentation for the associated Environmental Compliance Plan (ECP) and any project-specific documentation.
3. The proposed gas facility locations shown are approximate and are subject to change.
4. Property lines, structures, street lines, etc. were compiled using the NiSource GIS and are to be considered approximate and not to scale.
5. Existing utilities, where shown, have been compiled from above ground evidence only and are to be considered approximate. NiSource does not guarantee the location of the underground utilities shown or that all existing utilities and/or subsurface structures are shown.
6. Individual service line designs for services smaller than 3 inches in diameter are not provided by Engineering. These services shall be installed using the standard design criteria and material specified in the NiSource standards. Services 3 inches and larger in diameter shall be designed, reviewed, and represented on a separate plan set as necessary.
7. This project will adhere to all applicable federal, state or local permitting requirements for abandonment and installation of natural gas pipelines. All Federal, State, and Local codes and standards will be adhered including, but not limited to, the following:
   - **Code of Federal Regulations (CFR)**
     - 49 CFR 192 Pipeline Safety Regulations
     - 29 CFR 1910 Occupational Safety and Health Administration (OSHA)
   - **American Society of Mechanical Engineers (ASME)**
     - ASME B31.8 Gas Transmission and Distribution Piping Systems
8. All NiSource design codes and standards will be adhered to as applicable.
9. Prior to beginning any excavation on site, the person responsible for earth moving shall notify utility owners of their intent to excavate and to have the exact locations of the utility lines marked by contacting the one call center in their state subject to any applicable state advance notification requirements.
10. Proposed or completed gas facility installation location references may be indicated by a combination of the following codes:

F - FRONT	CLP - CENTER OF PAVEMENT	D - DRIVEWAY EDGE
BK - BACK	CLR - CENTER OF RIGHT-OF-WAY	EP - EDGE OF PAVEMENT
L - LEFT	CEL - CENTER OF EASTBOUND LANE	ES - EDGE OF SIDEWALK
R - RIGHT	CWL - CENTER OF WESTBOUND LANE	PL - PROPERTY LINE
B - BUILDING EDGE	CNL - CENTER OF NORTHBOUND LANE	
CU - CURB	CSL - CENTER OF SOUTHBOUND LANE	

11. For transmission projects, ensure compliance of required TVC QA/QC with Gas Standard 1660.040

Drawing Revision Conditions:

1. If, during the course of project construction, anticipated changes to project plans result in complex project criteria being met as defined by NiSource Gas Standard 2810.050 "Stakeholder Reviews of Design Capital Projects," the changes shall not be implemented until revised project documentation is reviewed by the Project Engineer and approved by a Professional Engineer as necessary.
2. Any additional gas pressure containing material not listed on the project Bill of Materials must be reviewed by the Project Engineer and reviewing Professional Engineer prior to use.
3. Any significant changes to proposed primary pipeline installation methods and location must be reviewed by the Project Engineer and reviewing Professional Engineer.
4. Any significant changes to proposed project scope must be reviewed by the Project Engineer and reviewing Professional Engineer. Significant changes to project scope may include changes to proposed design pressure, change of proposed pipe size and material affecting system hydraulics, and the addition or removal of significant amounts of pipeline installation or abandonment.
5. Any significant changes to proposed tie-ins must be reviewed by the Project Engineer and reviewing Professional Engineer. Significant changes may include the following: addition or removal of a tie-in, change in proposed tie-in material, change in proposed tie-in method, and change in tie-in location if system hydraulics may be affected.
6. During the course of project construction or procurement, the availability of pipe seam type may change due to procurement issues. Any pipe seam type changes between seamless (SMLS) and electric-weld resistance (ERW)) do not require PE Field Memo Change due to both seam types having the same design factor.

Environmental Notes

1. All NiSource construction activities must be completed in accordance with the Environmental Construction Standards (HSE 4440.020) and the project Environmental Compliance Plan (ECP). Said ECP shall be provided by others.
2. The project ECP and any site-specific erosion control drawings, must be provided to the contractor with the project drawings for review and planning prior to the start of construction activities. This includes any tree clearing activities required prior to the start of facility construction activities.
3. The project ECP and any associated drawings must be reviewed with construction, the contractor, and an environmental representative prior to the start of construction activities.
4. These documents must remain on site for the duration of the construction project, and any project scope changes, with the potential to impact the requirements of the ECP or environmental drawings, must be coordinated with an environmental representative prior to completion.

DRAWING LEGEND

Gas Main Material/Pressure Label References

MATERIAL CODES

CS*	Coated Steel Gas Main
WT*	Weld Treated Gas Main
CI*	Cast Iron Gas Main
BS*	Bare Steel Gas Main
WI*	Wrought Iron Gas Main
PH*	High Density Polyethylene Gas Main
PM*	Medium Density Polyethylene Gas Main

PRESSURE CODES

*LP	Low Pressure
*IP	Intermediate Pressure
*MP	Medium Pressure
*HP	High Pressure

MISCELLANEOUS CODES

*-SER	Service
*-R	Riser
(TC)	Transmission Class

Gas Main Installation Method Label References

AT	Attached
BH	Bridge Hanger
BLGH	Building Hanger
DB	Directional Bore
IS	Inserted
OC	Open Cut
PB	Pneumatic Bore
PL	Plowed
RT	Roof Top
(E)	Existing
(P)	Proposed

W1 — Weld Location

T1 — Gas Main Tie-in Location

A1 — Gas Main Abandonment Location

Gas Facility Symbology

x"GV	Gas Valve
x"PV	Critical Gas Valve (Gate - GV, Plug - PV, PE Ball - BP, ST Ball - BV)
x"HVTT	High Volume Tapping Tee
x"SST	Pressure Control Fitting - ShortStopp Tee
x"SPH	Pressure Control Fitting - Spherical Tee
x"MF-BO	Pressure Control Fitting - Mueller Bottom-out
x"MF-SO	Pressure Control Fitting - Mueller Side-out
x"MF-FT	Pressure Control Fitting - Mueller Flange Tee
x"SS	Pressure Control Fitting - ShortStopp
x"MF	Pressure Control Fitting - Mueller Stopper
x"x x" POLYTAP	Polytapp Side Saddle Fitting
	Transition
	End Cap
	Riser
	Reducer
EM	Electronic Marker
TWS	Flush-mounted Tracer Wire Station
	Post Pipeline Marker with Tracer Wire
MM	Gas Main Marker without Tracer Wire
W	Test Well
R	Regulator Station
R	Single Customer Regulator
M	Meter
MR	Meter with Regulator
	Test Point (Station)
T	Gas Service Tie-over
R	Gas Service Replacement
MMO	Meter Move Out

Swing Tie Symbology

T	Telephone Manhole
D	Drain Manhole
E	Electric Manhole
	Catch Basis
S	Sewer Manhole
	Fire Hydrant
	Utility Pole
	Property Marker
T	Telephone Pedestal
C	Television Pedestal
U	Unknown Manhole
WB	Water Box
WG	Water Gate
E	Electric Pedestal
IP	Iron Pin
	Light Pole

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PROPOSED

REVISIONS		
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	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

GENERAL NOTES

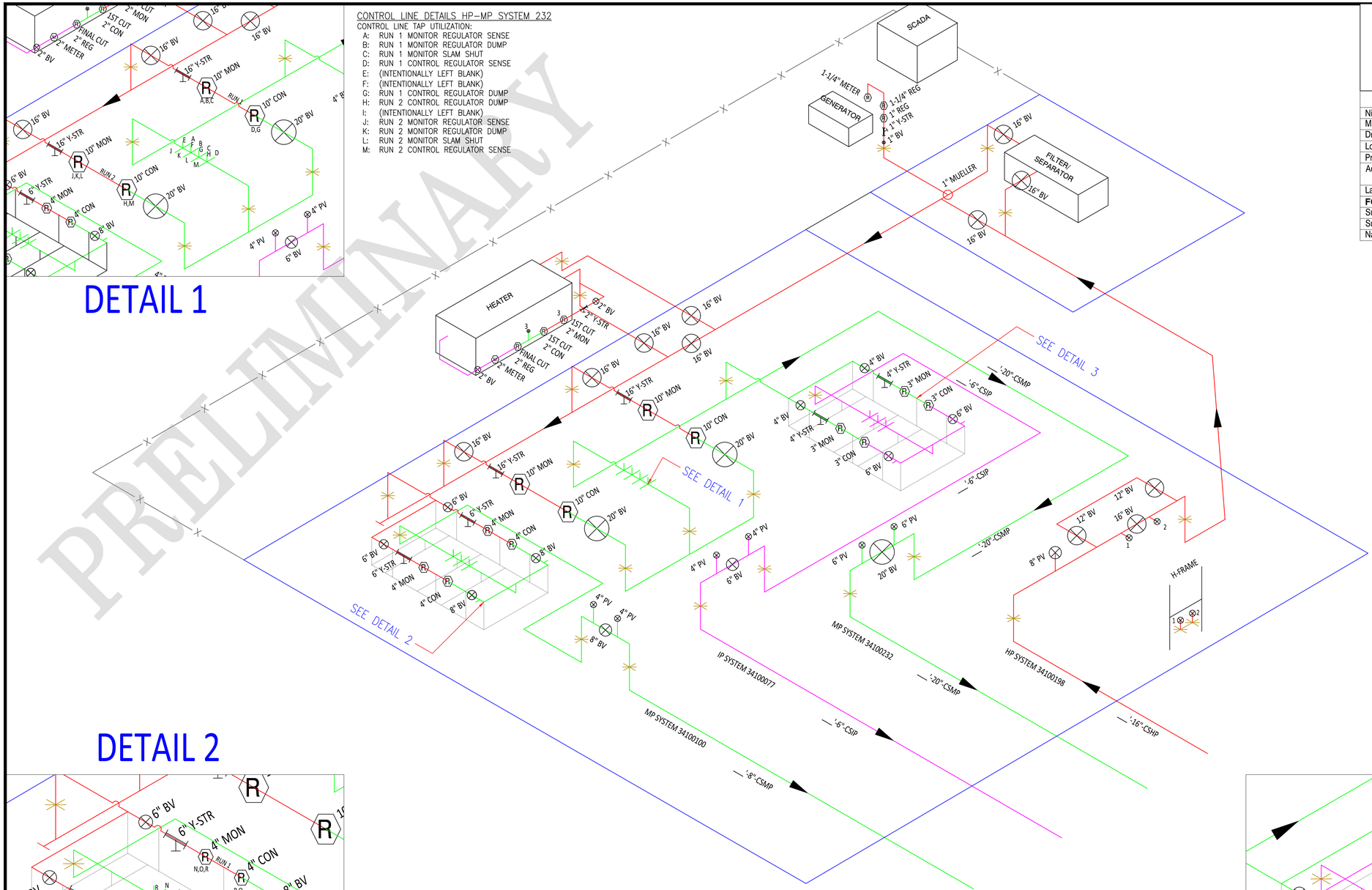
DRAWING NO:

1

DETAIL 1

CONTROL LINE DETAILS HP-MP SYSTEM 232

CONTROL LINE TAP UTILIZATION:
- A: RUN 1 MONITOR REGULATOR SENSE
- B: RUN 1 MONITOR REGULATOR DUMP
- C: RUN 1 MONITOR SLAM SHUT
- D: RUN 1 CONTROL REGULATOR SENSE
- E: (INTENTIONALLY LEFT BLANK)
- F: (INTENTIONALLY LEFT BLANK)
- G: RUN 1 CONTROL REGULATOR DUMP
- H: RUN 2 CONTROL REGULATOR DUMP
- I: (INTENTIONALLY LEFT BLANK)
- J: RUN 2 MONITOR REGULATOR SENSE
- K: RUN 2 MONITOR REGULATOR DUMP
- L: RUN 2 MONITOR SLAM SHUT
- M: RUN 2 CONTROL REGULATOR SENSE



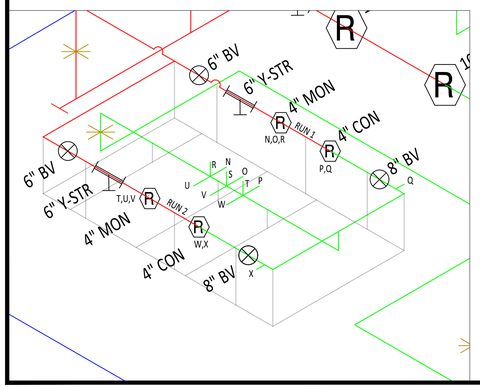
LINETYPE LEGEND - JOB/WORK ORDER STYLE
- LOW PRESSURE (LP)
- MEDIUM PRESSURE (MP)
- HIGH PRESSURE (HP)
- CONDUIT- OTHER
- BUILDING

STATION INFORMATION	
NiSource Station Name	RIDGEVIEW STATION
Measurement/Reg. Station #	
Drawing Last Updated:	
Location/TCC	1324
Premise ID	0413288
Address	1336 RIDGEVIEW ROAD UPPER ARLINGTON, OHIO
Latitude/Longitude	
FOR POINTS OF DELIVERY	
Supplier Station Name	
Supplier Station Number	
Name of Supply Company	

N

CONTROL LINE TAP UTILIZATION:
1. PRESSURE TAP
2. PRESSURE TAP
3. HSU MONITOR SENSE

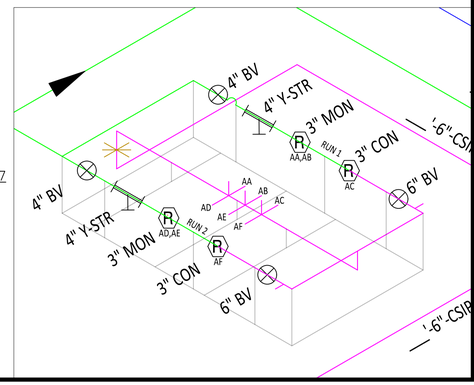
DETAIL 2



CONTROL LINE DETAILS HP-MP SYSTEM 100

CONTROL LINE TAP UTILIZATION:
- N: RUN 1 MONITOR REGULATOR SENSE
- O: RUN 1 MONITOR SLAM SHUT
- P: RUN 1 CONTROL REGULATOR SENSE
- Q: RUN 1 CONTROL REGULATOR DUMP
- R: RUN 1 MONITOR REGULATOR DUMP
- S: (INTENTIONALLY LEFT BLANK)
- T: RUN 2 MONITOR REGULATOR DUMP
- U: RUN 2 MONITOR REGULATOR SENSE
- V: RUN 2 MONITOR SLAM SHUT
- W: RUN 2 CONTROL REGULATOR SENSE
- X: RUN 2 CONTROL REGULATOR DUMP

DETAIL 3



CONTROL LINE DETAILS MP-IP SYSTEM 077

CONTROL LINE TAP UTILIZATION:
- AA: RUN 1 MONITOR REGULATOR SENSE
- AB: RUN 1 ER MONITOR
- AC: RUN 1 CONTROL REGULATOR SENSE
- AD: RUN 2 MONITOR REGULATOR SENSE
- AE: RUN 2 ER MONITOR
- AF: RUN 3 CONTROL REGULATOR SENSE

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PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
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DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

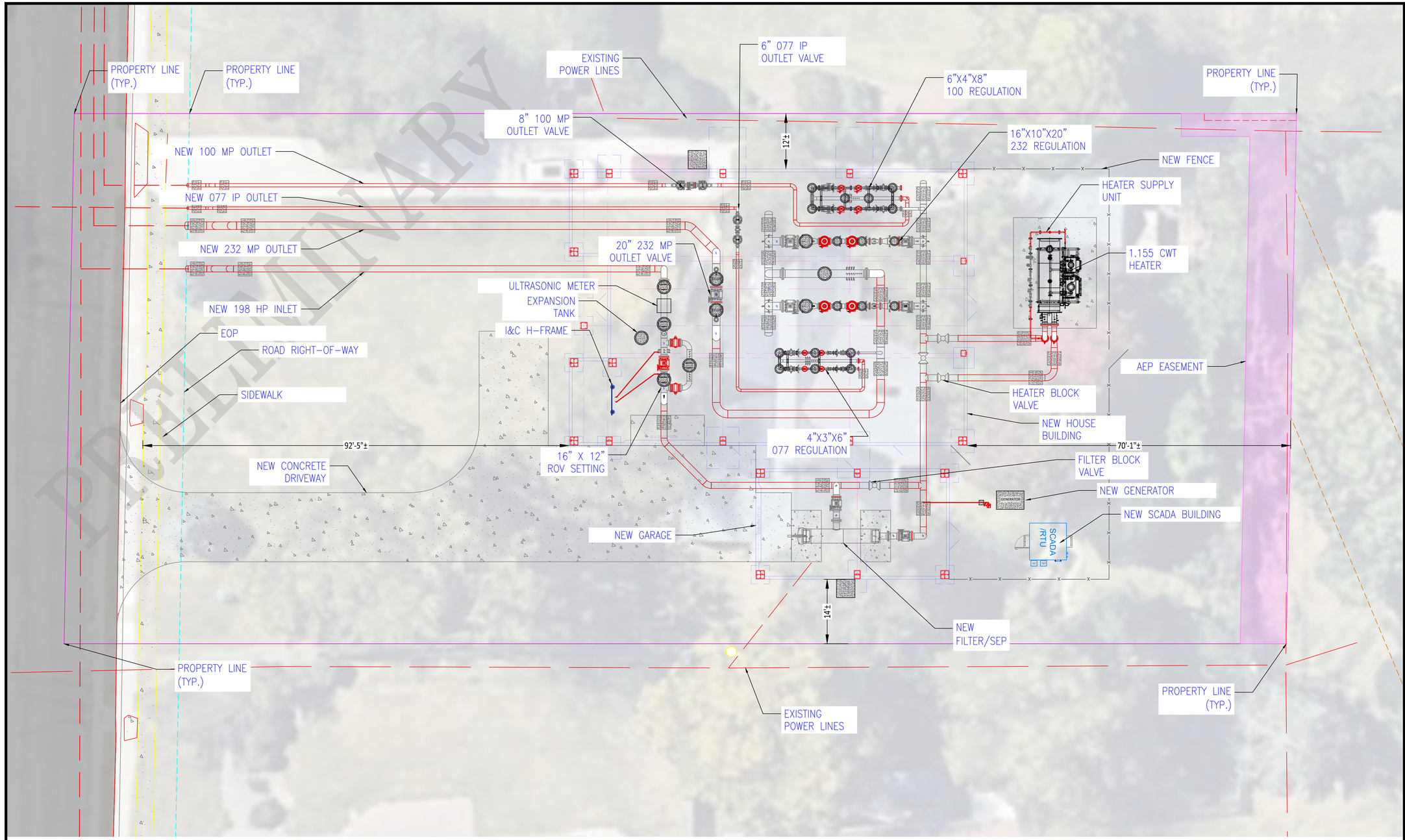
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

ISOMETRIC

DRAWING NO:

2



ALL COMPONENTS OF THIS DRAWING ARE DESIGNED PER COMPANY GAS STANDARDS. ANY CHANGES MUST BE APPROVED BY THE DESIGN ENGINEER

BENCHMARKING AND SURVEY POINTS TO BE PROVIDED BY CAMPOS

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

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SCALE: 3/32" = 1'-0"

PROPOSED

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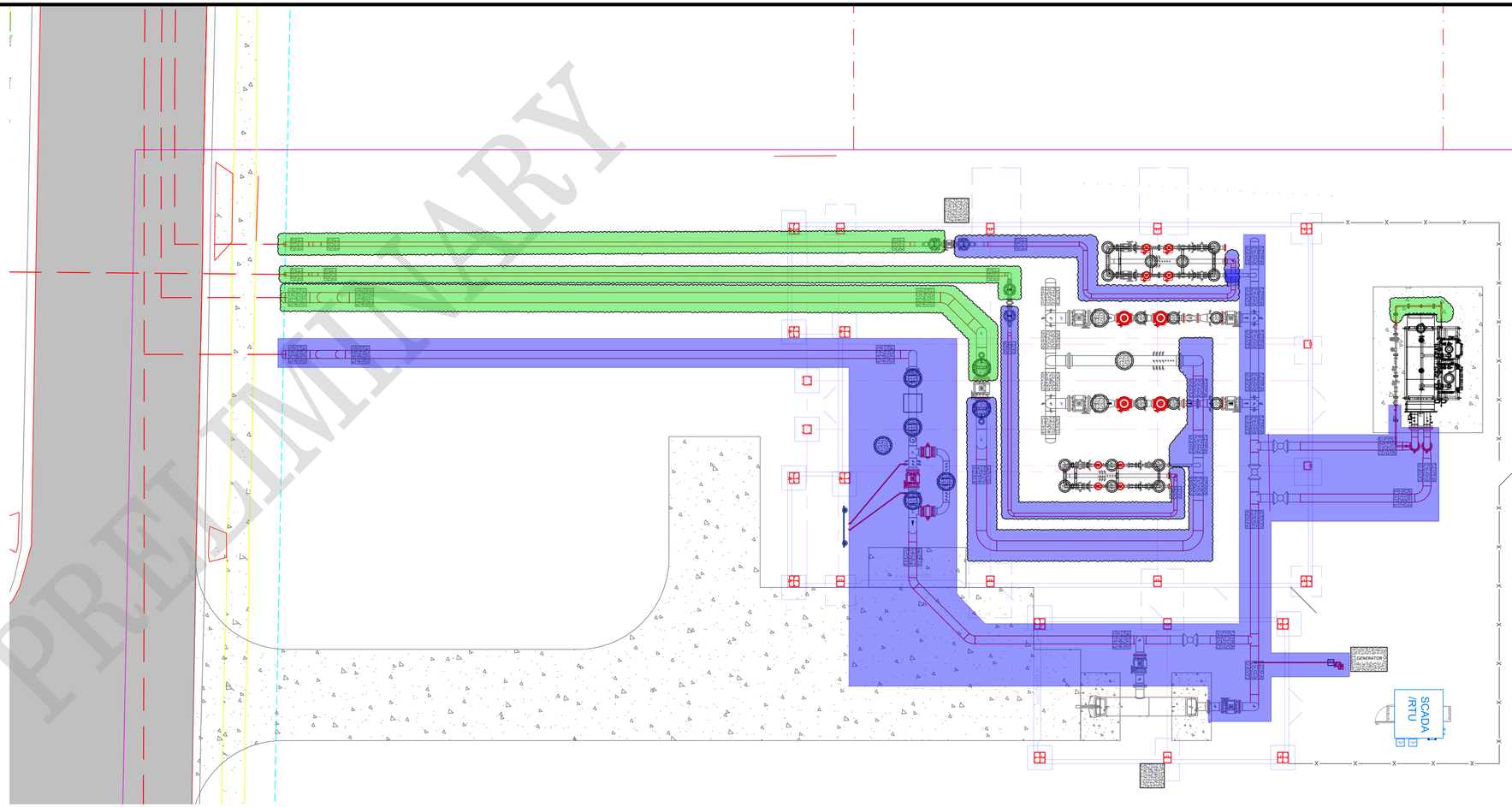
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

SITE OVERVIEW

DRAWING NO:

3



PRELIMINARY

PLAN VIEW
3/32" = 1'-0"

DESIGN NOTES:

1. DESIGN ENGINEERING IS NOT RESPONSIBLE FOR PRESSURE TEST DESIGN, OTHER THAN TO STATE THE TEST MEDIUM (AIR OR INERT GAS). PIPELINE CONTRACTOR IS RESPONSIBLE FOR PRESSURE TESTING CONFIGURATION AND ANY ADDITIONAL MATERIALS REQUIRED ARE THE RESPONSIBILITY OF PROJECT MANAGEMENT AND/OR FIELD ENGINEERING.
2. PIPING TO BE TESTED ACCORDING TO ANSI 150 PARAMETERS ACCORDING TO ASME B16.5
3. ALL INLET AND OUTLET TIE INS ARE NOT A PART OF THIS PLAN SET AND SHALL BE REPRESENTED ON PIPELINE PLAN SET.
4. DO NOT SUBJECT THE FOLLOWING COMPONENTS TO PRESSURE TESTING:
   - 4.1. KINGTOOL FILTER/SEPARATOR
   - 4.2. GENERATOR REGULATORS/METER
   - 4.3. HEATER SUPPLY UNIT
   - 4.4. 1.155 MBTU HEATER
   - 4.5. ALL REGULATORS FOR ALL SYSTEMS
   - 4.6. ANY I&C EQUIPMENT
5. ALL OUTLETS INCLUDING BOTH MP OUTLETS AND IP OUTLETS DO NOT NEED TO BE TESTED TOGETHER. ALL THREE ARE DIFFERENT SYSTEMS WITH DIFFERENT MAOPS. ALL NEED TO BE TESTED AT 90 PSIG MINIMUM
   - 5.1. 340100232 MAOP 50 PSIG
   - 5.2. 340100100 MAOP 55 PSIG
   - 5.3. 340100077 MAOP 9.5 PSIG
6. PROPERTY LINE IS THE TERMINATION OF STATION PRESSURE TESTING. CONTRACTOR TO ASSUME WELD END CAP TO BE INSTALLED AT THE ROAD RIGHT-OF-WAY LINE.

NEW HP MAINLINE/STATION INLET

DESIGN DATA		
DESIGN FACTOR:	0.4	REF. CFR 192.111
DESIGN PRESSURE:	275 PSIG	≥ MAOP
MINIMUM TEST PRESSURE:	413 PSIG	1.5 x DESIGN PRESSURE
MAXIMUM TEST PRESSURE:	450 PSIG	PER ANSI B16.5
MINIMUM TEST DURATION:	FIELD DET.	PER G.S. 1500 SERIES
PERCENT SMYS AT DESIGN PRESSURE:	14.10 %	% SMYS BASED ON:
		20", 0.375" WALL, X-52
PERCENT SMYS AT MINIMUM TEST PRESSURE:	21.18 %	% SMYS BASED ON:
		20", 0.375" WALL, X-52
PERCENT SMYS AT MAXIMUM TEST PRESSURE:	23.08 %	% SMYS BASED ON:
		20", 0.375" WALL, X-52
MAOP LIMITING ELEMENT:	PRESSURE TEST	
ASSEMBLED DESIGN PRESSURE:	275 PSIG	
TEST MEDIUM:	AIR OR INERT GAS	
PERCENT X-RAY:	100 %	

MP'S/IP OUTLETS & HEATER FINAL CUT

DESIGN DATA		
DESIGN FACTOR:	0.4	REF. CFR 192.111
DESIGN PRESSURE:	60 PSIG	≥ MAOP
MINIMUM TEST PRESSURE:	90 PSIG	1.5 x DESIGN PRESSURE
MAXIMUM TEST PRESSURE:	125 PSIG	PER ANSI B16.5
MINIMUM TEST DURATION:	FIELD DET.	PER G.S. 1500 SERIES
PERCENT SMYS AT DESIGN PRESSURE:	3.08 %	% SMYS BASED ON:
		20", 0.375" WALL, X-52
PERCENT SMYS AT MINIMUM TEST PRESSURE:	4.62 %	% SMYS BASED ON:
		20", 0.375" WALL, X-52
PERCENT SMYS AT MAXIMUM TEST PRESSURE:	6.41 %	% SMYS BASED ON:
		20", 0.375" WALL, X-52
MAOP LIMITING ELEMENT:	PRESSURE TEST	
ASSEMBLED DESIGN PRESSURE:	60 PSIG	
TEST MEDIUM:	AIR OR INERT GAS	
PERCENT X-RAY:	100 %	

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SCALE: 3/32" = 1'-0"

PROPOSED

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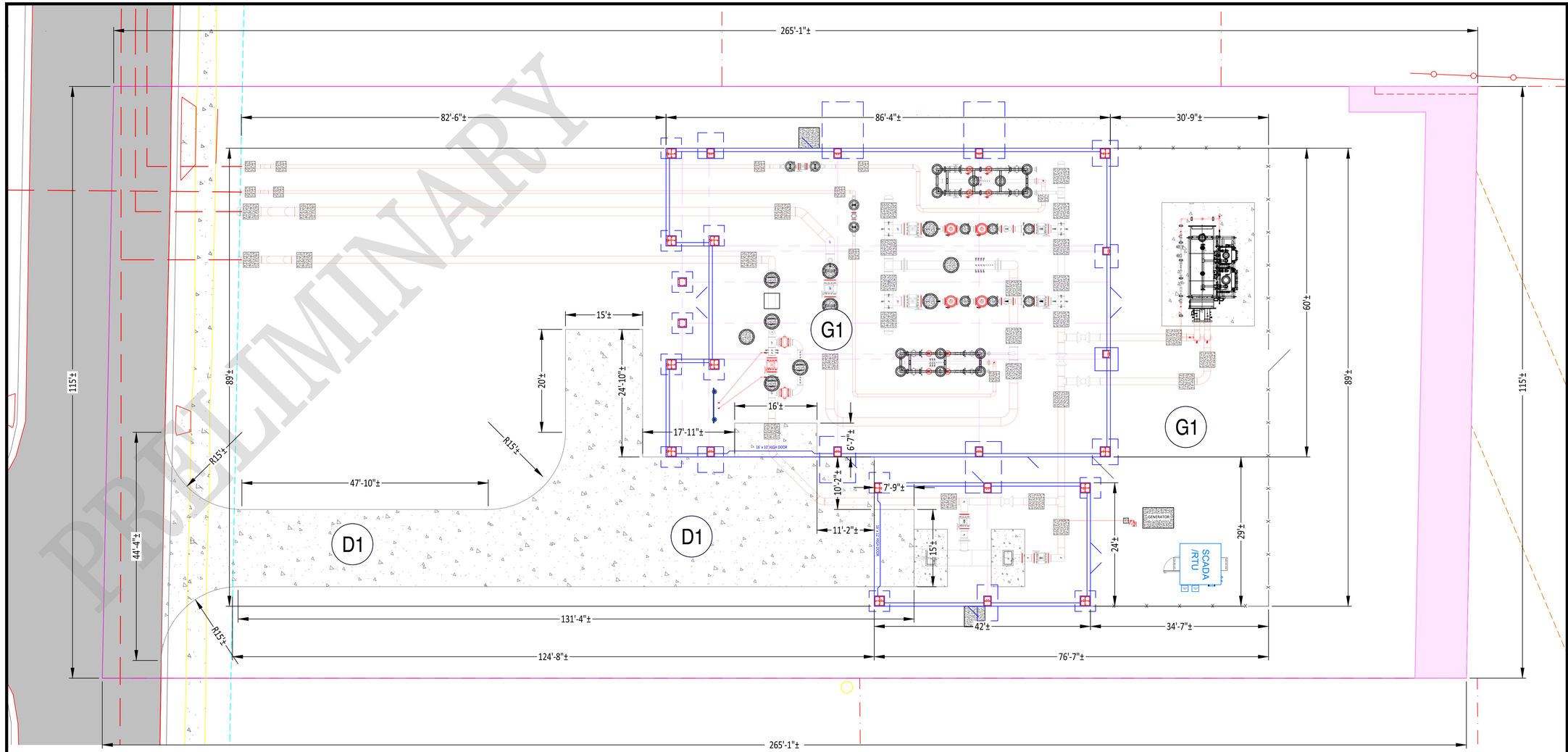
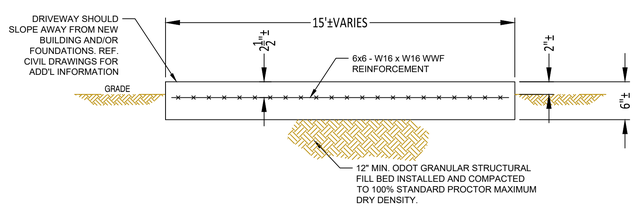
DRAWING TITLE:

PRESSURE TEST DETAILS

DRAWING NO:

4



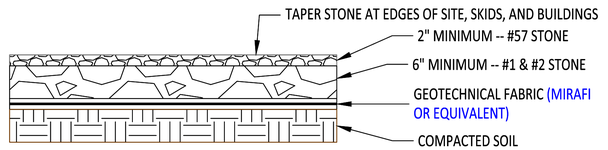


D1 TYPICAL DRIVEWAY - SLAB SETION

1" = 1'-0"

DESIGN NOTES:

1. DRIVEWAY TO BE CONCRETED PER REQUIREMENTS SET FORTH BY UPPER ARLINGTON. DESIGN ENGINEERING RECOMMENDS DRIVEWAY CORNERS BE STAKED IN FIELD BASED ON SURVEY.
2. REMAINDER OF SITE (INCLUDING INSIDE OF THE BUILDINGS, AND WITHIN FENCING BOUNDARY) TO BE GRAVELED PER THE DETAIL BELOW. .
3. CONCRETE SHOULD FOLLOW SLOPE AND GRADE AS SET FORTH PER CAMPOS CIVIL DRAWINGS. OTHERWISE, IT SHOULD FOLLOW NATURAL GRADE AND/OR SLOPE.



G1 TYPICAL SECTION -- SITE

NTS

GRADE PLAN TO BE PROVIDED BY CAMPOS

SURVEY POINTS/LOCATION TO BE MARKED BY CAMPOS

LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

NiSource

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SCALE: 3/32" = 1'-0"

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ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

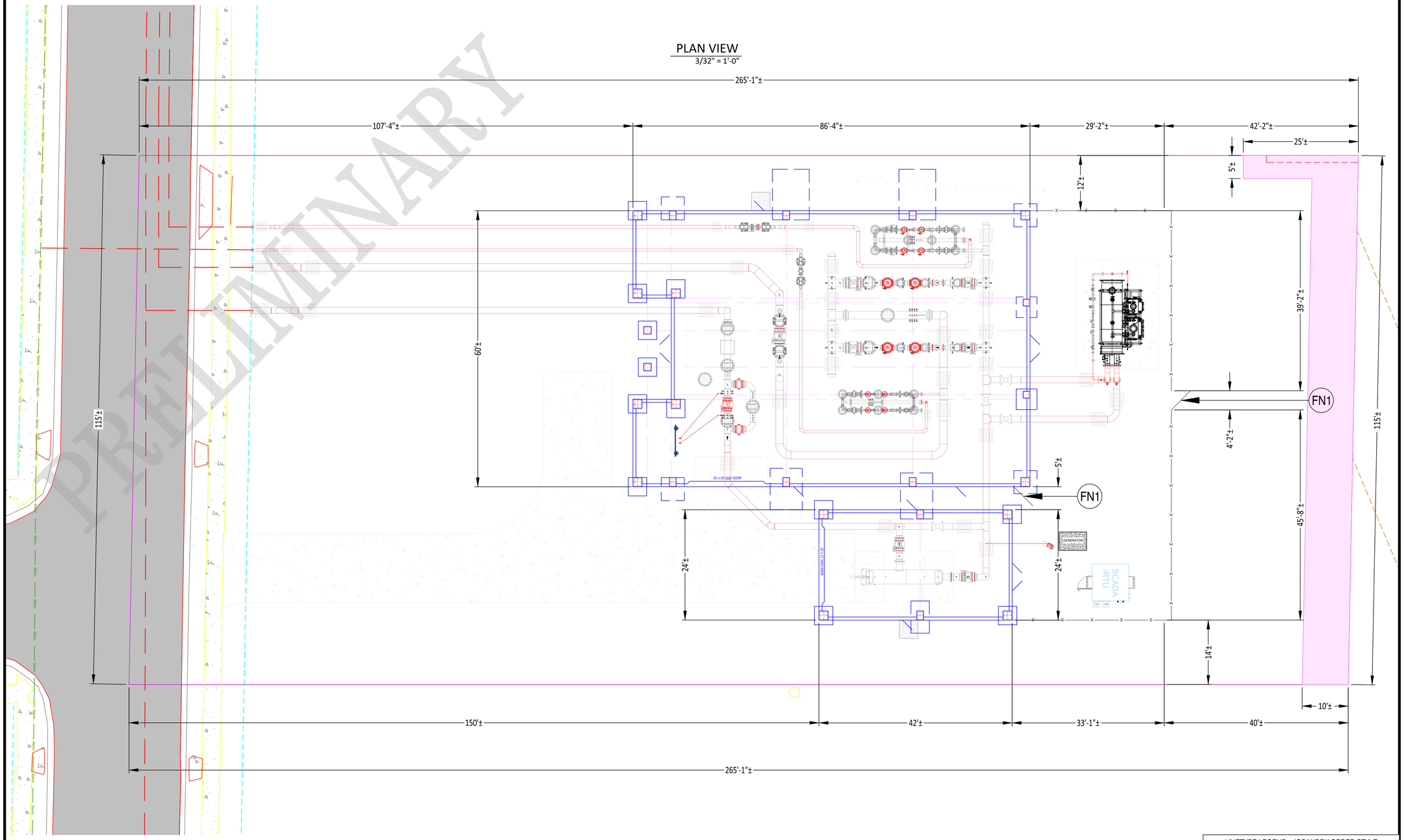
GRAVEL LAYOUT

DRAWING NO:

5

PRELIMINARY

PLAN VIEW
3/32" = 1'-0"



LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

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Ohio Utilities Protection Service
Call 811 before you dig

SCALE: 3/32" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

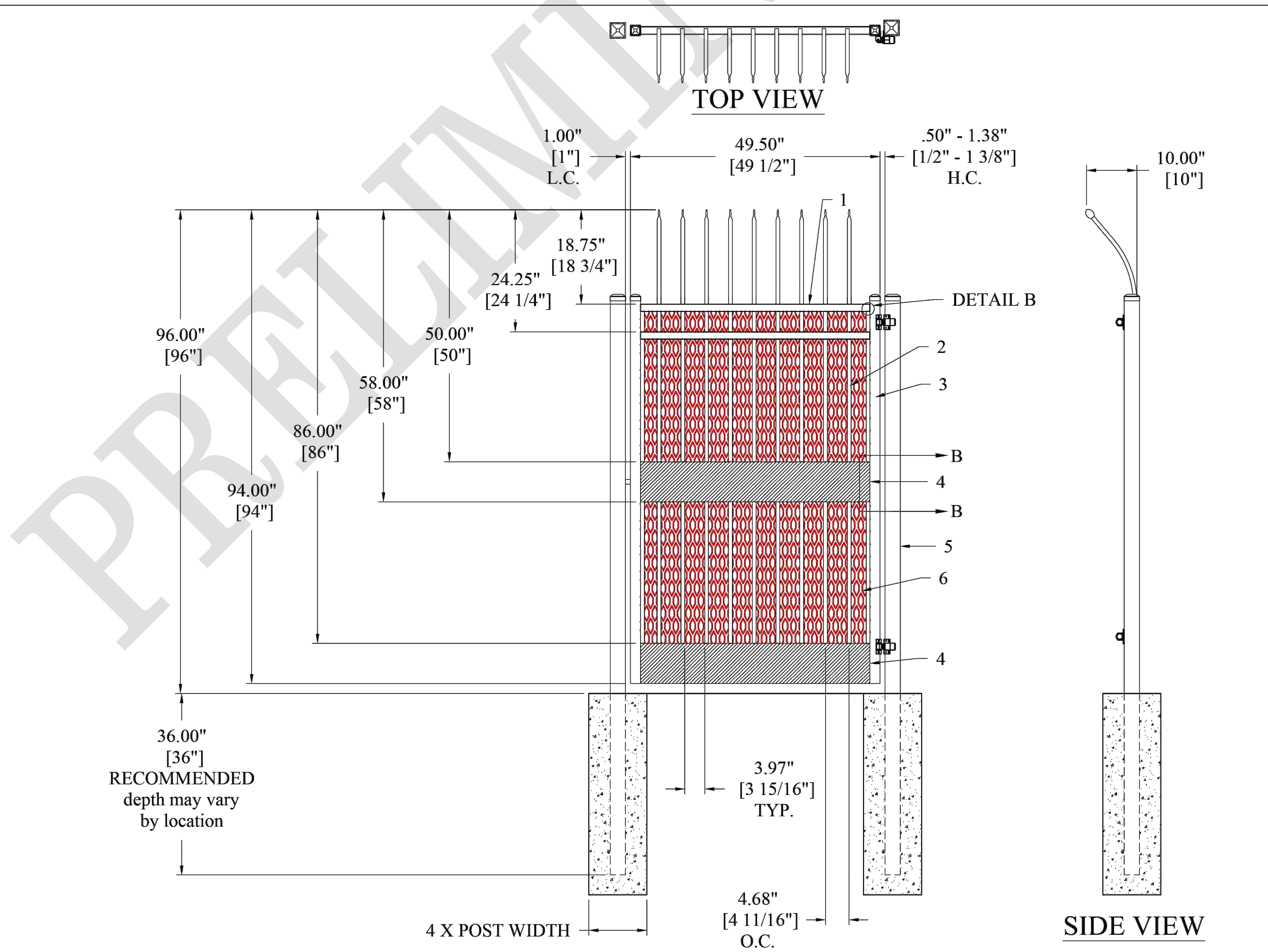
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

FENCE DETAILS

DRAWING NO:

6



#	DESCRIPTION
1	1 7/16" X 1 1/2" X 14GA CHANNEL RAIL
2	3/4" SQ X 14GA PICKET
3	2" SQ X 12GA GATE END
4	10" X 2" X 3/16" PANIC / KICK TUBE
5	3" SQ POST
6	EXPANDED METAL #16 - 1/2" DIA
	74108325T

NOTE:

- FOR DETAILS SEE PG. 2

- EXPANDED METAL PROVIDED AND INSTALLED BY AMERISTAR AFTER COATING AND BEFORE SHIPPING

- EXIT BAR KIT (NOT SHOWN) TO BE FIELD INSTALLED BY OTHERS

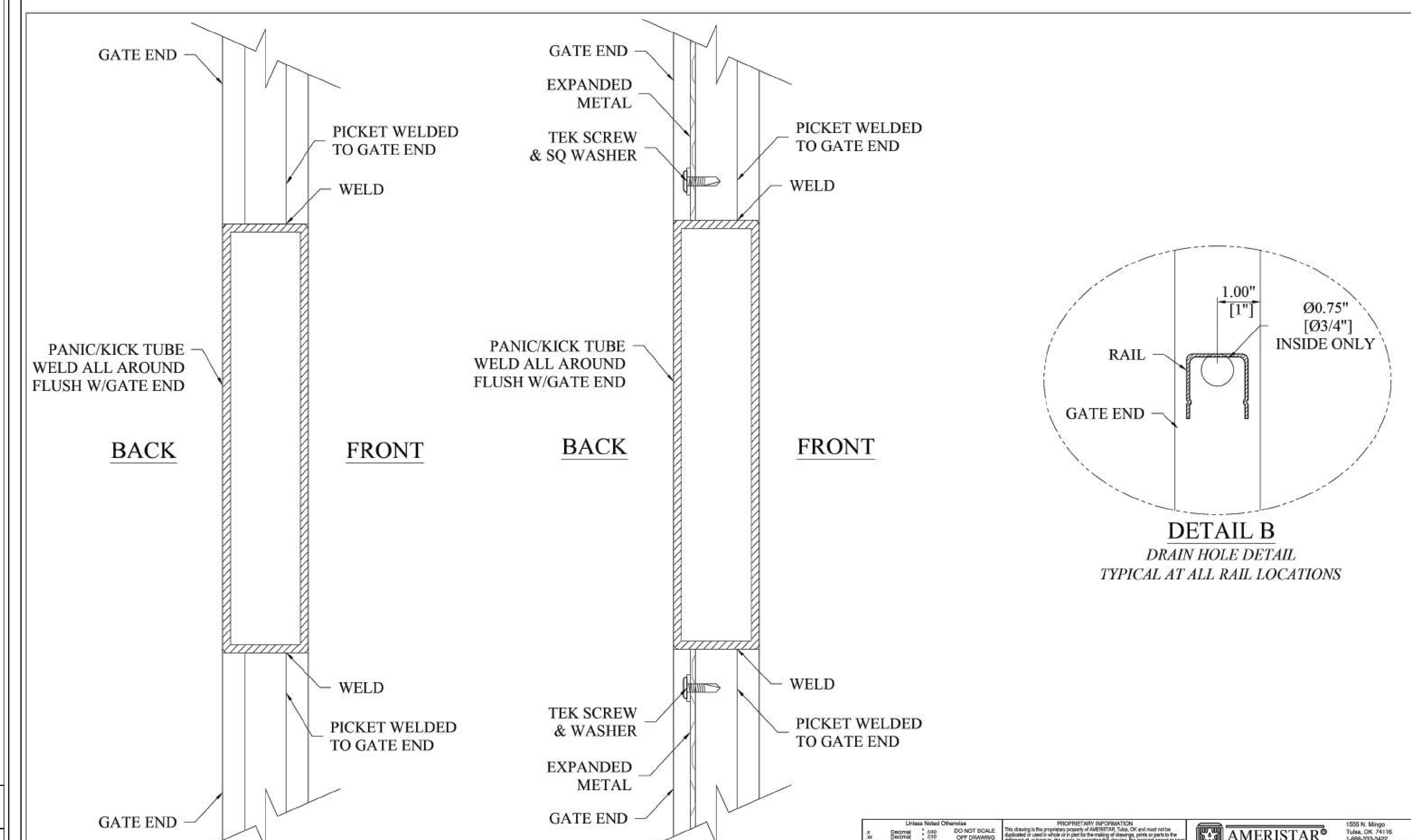
Unless Noted Otherwise			PROPRIETARY INFORMATION
.x Decimal ±.040	.xx Decimal ±.030	DO NOT SCALE OFF DRAWING	This drawing is the proprietary property of AMERISTAR, Tulsa, OK and must not be duplicated or used in whole or in part for the making of drawings, prints or parts to the detriment of, or harm to, the owner. In accepting this drawing, the recipient agrees to keep the information contained confidential.
.xxx Decimal ±.020	.xxxx Decimal ±.010	Angular ± 0.5°	

REVISION HISTORY

REV	ECN	AUTHOR	DATE	DESCRIPTION

AMERISTAR® 1555 N. Mingo, Tulsa, OK 74116, 1-888-333-3422, www.ameristarfence.com

TITLE: MONTAGE COMMERCIAL STEEL GATE - SPECIAL
DATE: 04/20/18 SHEET: 1 of 2
DRN BY: LJM REV: A
DRAWING NO: 14-200-001030



SECTIONA-A
(PANIC/KICK TUBE DETAIL TYP)

SECTION B-B
(EXP. METAL INSTALL DETAIL TYP)

DETAIL B
DRAIN HOLE DETAIL
TYPICAL AT ALL RAIL LOCATIONS

AMERISTAR® — TITLE: MONTAGE COMMERCIAL STEEL GATE DETAIL - SPECIAL; DATE: 04/20/18; SHEET: 2 of 2; DRN BY: LJM; REV: A; DRAWING NO: 14-200-001030

FN1 DETAIL

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PROPOSED

REVISIONS		
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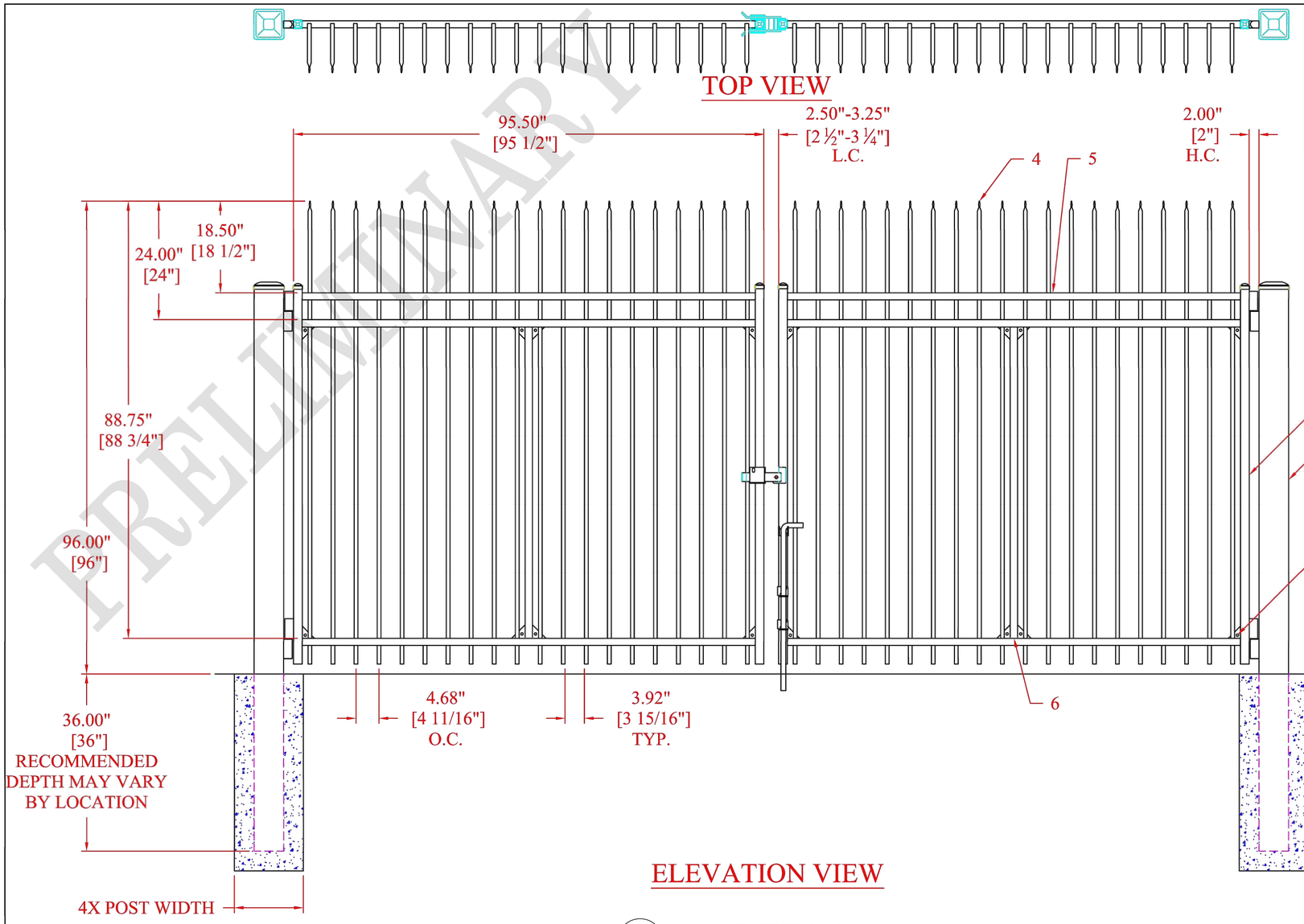
0	9/29/23	PRELIMINARY
REV. #	**DATE**	**DESCRIPTION**

	NAME	DATE	PHONE #
DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:
FENCE DETAILS

DRAWING NO:
7



#	DESCRIPTION
1	6" SQ X 7/16" POST
2	1 ¾" SQ X 14 GA GATE END
3	GG25 GATE GUSSETS
4	¾" SQ X 14 GA PICKET
5	1 ½" SQ X 14 GA FORERUNNER RAIL
6	1 ½" SQ X 16 GA MIDDLE UPRIGHT
	HU517-DSX200-DLB100

FN2

DETAIL

Unless Noted Otherwise			
.X	Decimal	± .040	DO NOT SCALE
.XX	Decimal	± .030	OFF DRAWING
.XXX	Decimal	± .020	
.XXXX	Decimal	± .010	Angular ± 0.5°

REVISION HISTORY

REV	ECN	AUTHOR	DATE	DESCRIPTION
G		KMc	07/30/2014	INITIAL RELEASE

AMERISTAR®
1555 N. Mingo
Tulsa, OK 74116
1-888-333-3422
www.ameristarfence.com

TITLE:	MONTAGE COMMERCIAL STEEL GATE		
DATE:	07/30/2014	SHEET:	1 of 2
DRN BY:	KMc	REV:	G
DRAWING NO:	1WIX394-96		

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PROPOSED

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CHECKED BY	CAMPOS	XX/XX/XX	---
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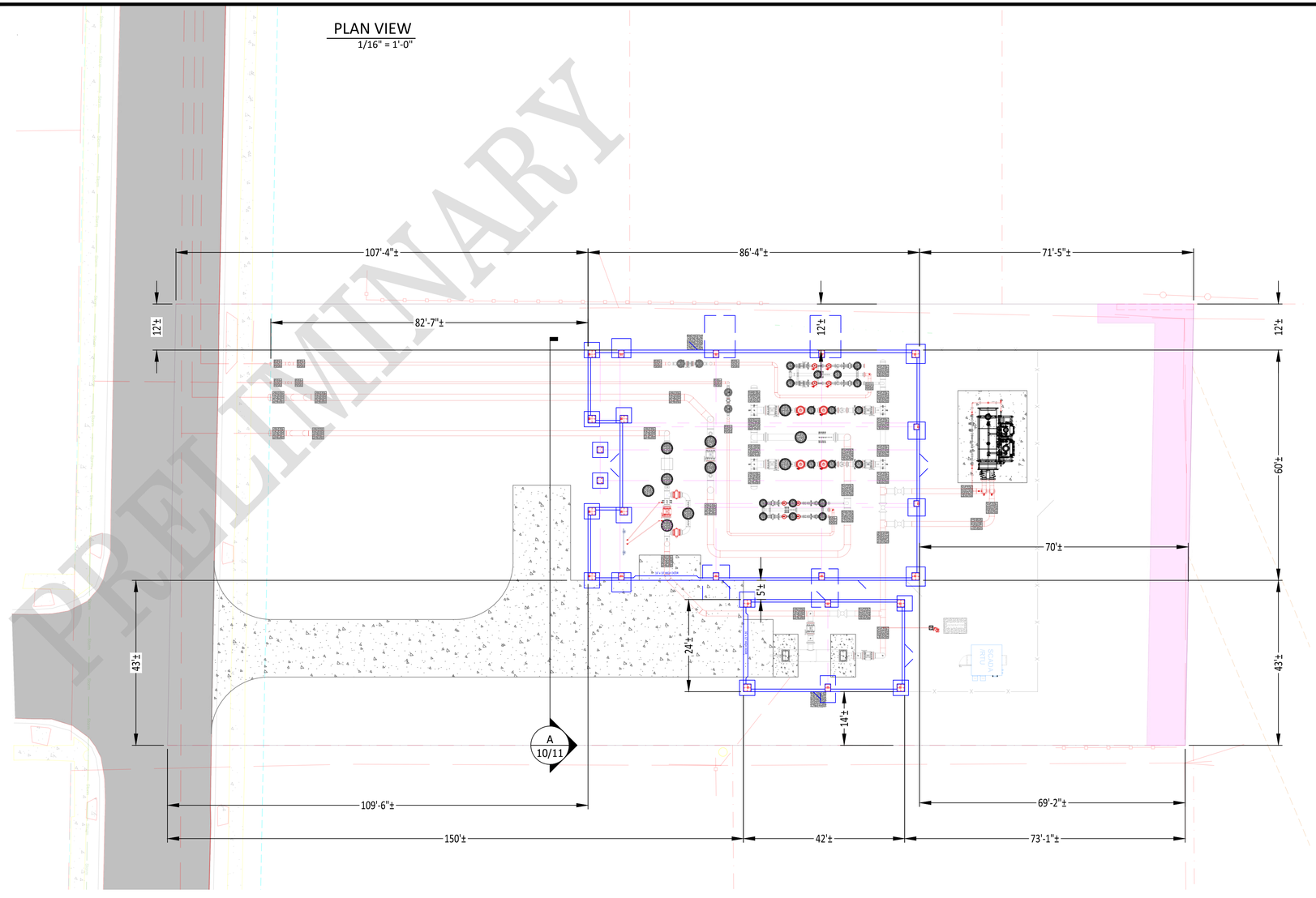
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:
FENCE DETAILS

DRAWING NO:
8

PLAN VIEW
1/16" = 1'-0"



DESIGN NOTES:

1. CONCRETE DETAILS SHOW SPECIFIC DETAILS.
2. BUILDINGS FOUNDATION ARE TO BE DESIGNED AND CERTIFIED BY OTHERS. FOUNDATION INSTALLATION TO BE COMPLETED BY CONTRACTOR.SEE SUPPORTING DOCUMENTS FOR SPECIFIC INSTALLATION DETAILS.
3. SONOTUBE DETAILS FOUND ON PAGE 12 SLEEPER AND CONCRETE NOTES AND CALLOUTS TO BE FOUND ON PAGE 12
4. ALL SONOTUBES AND SLEEPERS LOCATIONS TO BE FIELD SURVEYED.
5. COH GENERATOR AND SCADA FOUNDATION DESIGN TO BE DESIGNED BY OTHERS. CONTACT I&C GROUP FOR ADDITIONAL INFORMATION
6. SEE FILTER PIER DETAILS IN APPENDIX WHICH IS TO BE DESIGNED BY OTHERS.
7. SEE HEATER PAD DETAILS IN APPENDIX WHICH IS TO BE DESIGNED BY OTHERS.
8. GENERATOR PAD TO BE DESIGNED BY OTHERS. SEE APPENDIX FOR ADDITIONAL INFORMATION
9. MINIMUM EDGE DISTANCE SHALL BE 6D OR 4" FOR ANCHORS
10. PIPE SUPPORTS ANCHORAGE -CONTRACTOR TO UTILIZE THREADED ANCHOR RODS, HILTI, HAS-V-36 HDG WITH HILTI HIT-HY-200R EPOXY FOR THE FOLLOWING EZLINE MODELS

E-Z LINE MODEL NO.	ANCHOR ROD Ø X L	MIN ANCHOR EMBEDMENT
204	1/2" X 9"	6"
510	1/2" X 9"	6"
1218	5/8" X 9"	6"
2024	3/4" X 10"	8"

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

CONCRETE DETAILS CAN BE FOUND ON PAGE 12

SURVEY POINTS/LOCATION TO BE MARKED BY CAMPOS

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SCALE: 1/16" = 1'-0"

PROPOSED

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AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

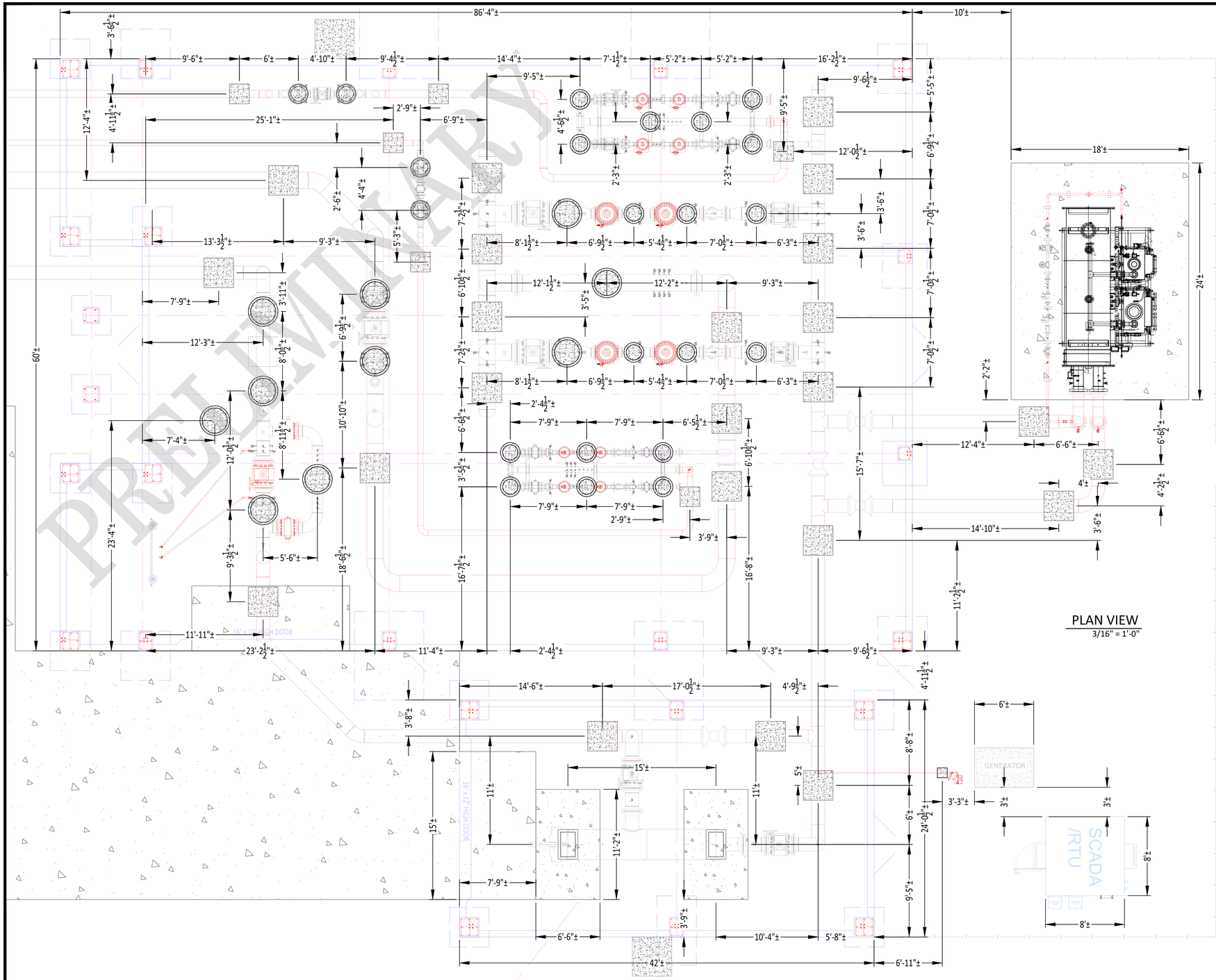
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

CONCRETE LAYOUT

DRAWING NO:

9



PLAN VIEW
3/16" = 1'-0"

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E-Z LINE MODEL NO.	ANCHOR ROD Ø X L	MIN ANCHOR EMBEDMENT
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CONCRETE DETAILS CAN BE FOUND ON PAGE 12

SURVEY POINTS/LOCATION TO BE MARKED BY CAMPOS

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SCALE: 3/16" = 1'-0"

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SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

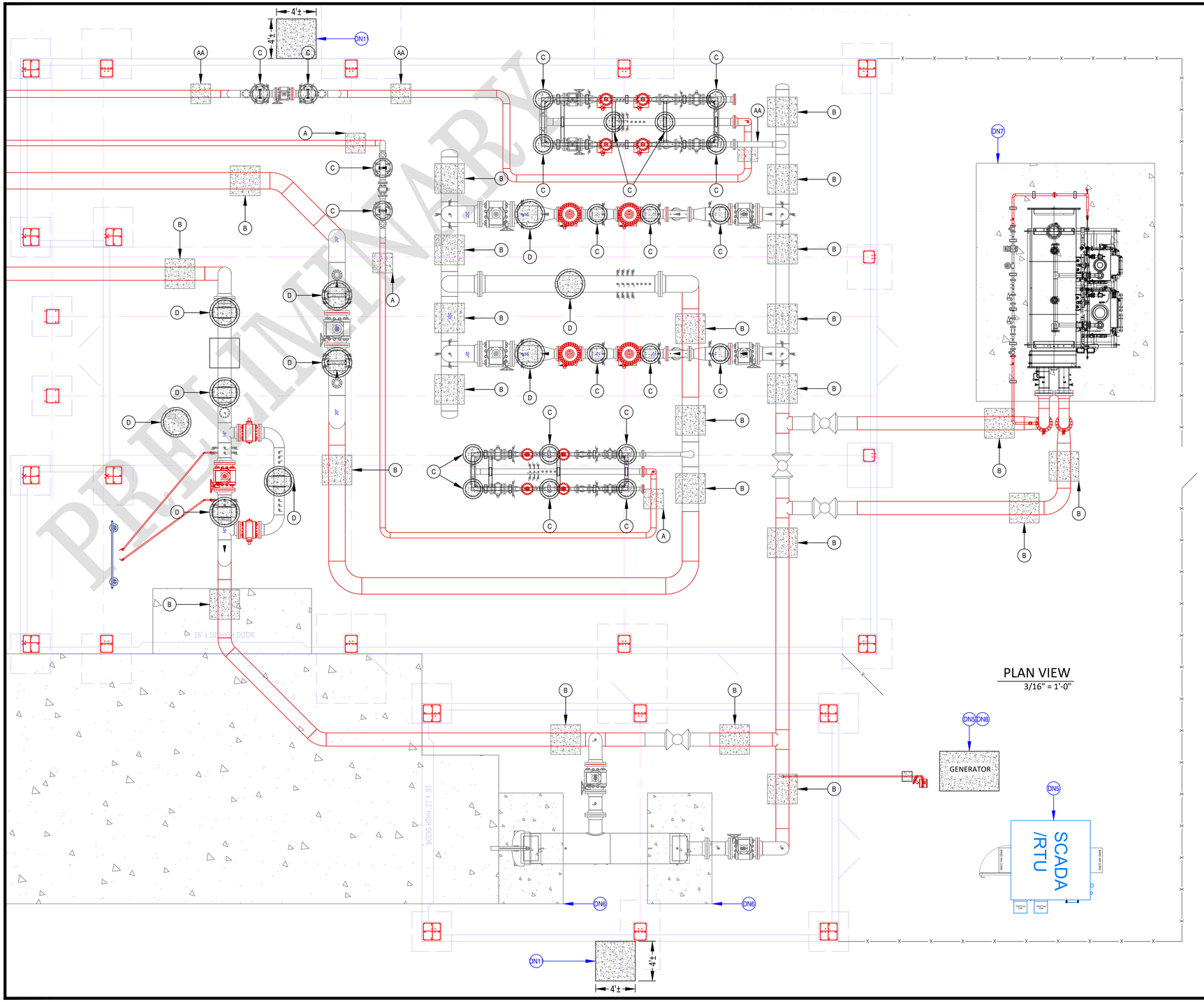
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

CONCRETE DIMENSIONS

DRAWING NO:

10



PLAN VIEW
3/16" = 1'-0"

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11. 4'X4' WALKOUT CONCRETE FOR EMERGENCY DOOR EXIT.

E-Z LINE MODEL NO.	ANCHOR ROD Ø X L	MIN ANCHOR EMBEDMENT
204	1/2" X 9"	6"
510	1/2" X 9"	6"
1218	5/8" X 9"	6"
2024	3/4" X 10"	8"

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
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- BUILDING

CONCRETE DETAILS CAN BE FOUND ON PAGE 12

SURVEY POINTS/LOCATION TO BE MARKED BY CAMPOS

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SCALE: 3/16" = 1'-0"

PROPOSED

REVISIONS		
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	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

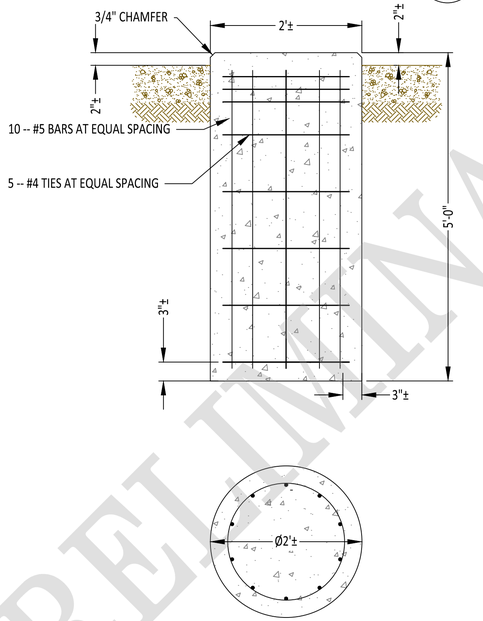
DRAWING TITLE:

CONCRETE CALLOUTS

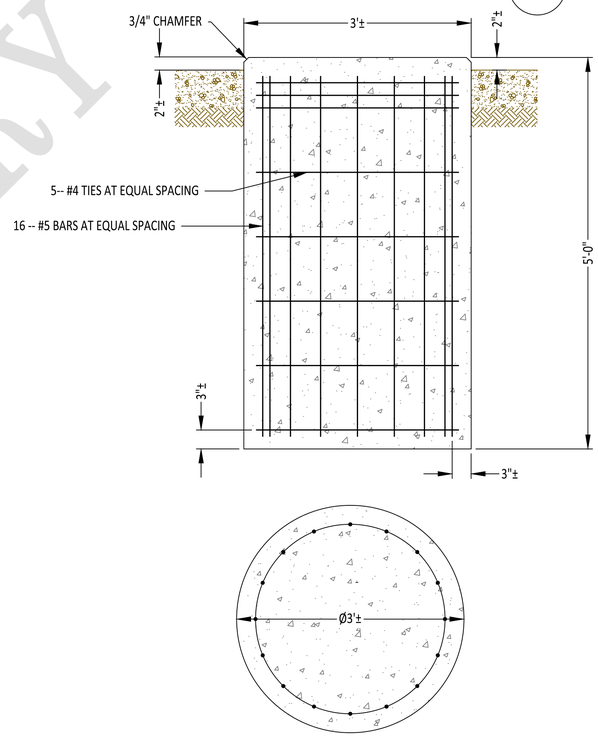
DRAWING NO:

11

SONOTUBE DETAIL C
1" = 1'-0"



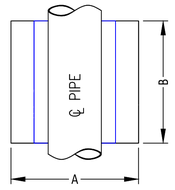
SONOTUBE DETAIL D
1" = 1'-0"



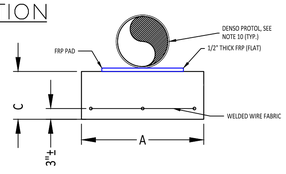
CONCRETE SLEEPER DETAILS

CALL OUT	PIPE SIZE (")	FRP SIZE (")	WIDTH 'A' (FEET)	LENGTH 'B' (FEET)	DEPTH 'C' (FEET)	CU.YARDS CONC.	WELDED WIRE FABRIC/MESH REQUIRED
	2	12x12	2	2	1	0.15 ±	4"x4"-4/4 WELD WIRE MESH
	3	12x12	2	2	1	0.15 ±	4"x4"-4/4 WELD WIRE MESH
	4	12x12	2	2	1	0.15 ±	4"x4"-4/4 WELD WIRE MESH
A	6	12x12	2	2	1	0.15 ±	4"x4"-4/4 WELD WIRE MESH
AA	8	12x12	2	2	1	0.15 ±	6"x6"-10/10 WELD WIRE MESH
	10	12x12	3	3	1	0.33 ±	6"x6"-10/10 WELD WIRE MESH
	12	12x12	3	3	1 1/2	0.50 ±	6"x6"-10/10 WELD WIRE MESH
	14	12x12	3	3	1 1/2	0.50 ±	6"x6"-10/10 WELD WIRE MESH
B	16	12x12	3	3	1 1/2	0.50 ±	6"x6"-10/10 WELD WIRE MESH
	18	12x12	3	3	1 1/2	0.50 ±	6"x6"-10/10 WELD WIRE MESH
B	20	12x12	3	3	1 1/2	0.50 ±	6"x6"-10/10 WELD WIRE MESH
	22	12x12	3	3	1 1/2	0.50 ±	6"x6"-10/10 WELD WIRE MESH
	24	12x12	4	4	1 1/2	0.89 ±	6"x6"-10/10 WELD WIRE MESH
	26	12x12	4	4	2	1.19 ±	6"x6"-10/10 WELD WIRE MESH
	30	12x12	4	4	2	1.19 ±	6"x6"-10/10 WELD WIRE MESH
	36	12x12	5	5	2 1/2	2.31 ±	6"x6"-10/10 WELD WIRE MESH
	42	12x12	5 1/2	5 1/2	2 3/4	3.08 ±	6"x6"-10/10 WELD WIRE MESH

PLAN



ELEVATION



CONCRETE NOTE (SLEEPERS)

1. CONTRACTOR TO FURNISH ALL MATERIALS
2. CONCRETE SUPPORT CONFIGURATION MAY VARY ACCORDING TO PIPE SIZE & FITTINGS.
3. DO NOT PLACE CONCRETE SUPPORTS BENEATH PIPE WELDS
   - 3.1. WELDS ARE TO ≥1D AWAY FROM CONCRETE
4. STEEL REINFORCEMENT BAR SHALL CONFORM TO ASTM A-615, GRADE 60
5. ALL REINFORCING DIMENSIONS ARE OUT TO OUT OF BAR
6. REBAR QUANTITIES SHOWN ARE FOR ONE EACH. QUANTITIES REQUIRED IS CONTRACTORS RESPONSIBILITY
7. BOTTOM OF FOOTERS AND/OR SLEEPERS SHALL EXTEND TO UNDISTURBED EARTH; BOTTOM OF CONCRETE TO BE PLACED ON SOLID FOOTING
8. WELDED WIRE MESH PER ASTM A1064
9. RIGID FORM WORK NOT REQUIRED
10. PIPING RESTING ON CONCRETE SUPPORTS SHALL BE COATED WITH DENSO PROTOL 7000/7200, OR 7125 (40MILS THICKNESS) FROM A POINT ±6" PAST THE OUTER EDGE OF THE CONCRETE SUPPORT
    - 10.1. DENSO PROTOL MAY BE INSTALLED DIRECTLY OVER EXISTING FBE COATED PIPE
    - 10.2. FIBERGLASS REINFORCED PAD (FRP) SHOULD BE INSTALLED BETWEEN THE CONCRETE & THE PIPE, TO LAY FLAT ON THE CONCRETE, NOT WRAPPED AROUND THE PIPE

STATION CONCRETE NOTES

1. THE STATION SHALL HAVE BOLLARD PROTECTION INSTALLED PER GS 2300.020 EXHIBIT A. OR AS CALLED OUT ON THIS PLAN SET.
2. THE PREPARED PLAN GIVES THE DIMENSIONS BETWEEN THE SONOTUBES. THE FIRST SONOTUBE LOCATION IS RELATIVELY FLEXIBLE AND CAN BE FIELD ADJUSTED AS NEEDED. AFTER THE FIRST TUBE IS POURED, THE REMAINING SONOTUBES MUST BE POURED SQUARE, LEVEL AND BASED ON THE DIMENSIONS FOUND ON THE PREVIOUS PAGE. ANY DEVIATION FROM THIS MUST BE APPROVED BY EITHER PROJECT MANAGEMENT OR M&R ENGINEERING.
3. COLUMBIA GAS OF OHIO WILL ACCEPT SONOCO "SONOTUBE" BRAND TUBES OR EQUIVALENT FOR THIS PROJECT.
4. EARLY SET HIGH STRENGTH CONCRETE IS ACCEPTABLE TO USE UNDER CERTAIN CONDITIONS:
   - 4.1 THE TUBES MUST BE KEPT DAMP WHILE CURING.
   - 4.2 THE TUBES MUST BE COVERED WITH BLANKETS WHILE CURING.
   - 4.3 THE BLANKETS MUST SLOWLY AND CAREFULLY BE REMOVED TO PREVENT FLASH CURING.
   - 4.4 A FINAL INSPECTION BY COLUMBIA GAS OF OHIO WILL BE PERFORMED TO ENSURE THAT NO SHRINKAGE CRACKING HAS OCCURRED.
   - 4.5 IF SHRINKAGE CRACKING OCCURS, THE TUBE WILL BE REMOVED AND RE-POURED AS DIRECTED BY COLUMBIA GAS OF OHIO.
5. IT IS **REQUIRED** THAT ALL SKID UNITS BE **GROUNDED AND ANCHORED**.
6. IT IS **REQUIRED** THAT ALL FLANGE INSULATOR KITS INSTALLED INSIDE THE BUILDING BE WIRED TO A GROUNDING CELL, PER COH CORROSION RECOMMENDATION.
7. CONCRETE & REBAR SPECIFICATIONS AS SPECIFIED BELOW UNLESS OTHERWISE NOTED:
   - 7.1. ACI-301 STD SPECIFICATIONS FOR STRUCTURAL CONCRETE
   - 7.2. ACI-318 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   - 7.3. ACI-305R HOT & COLD WEATHER CONCRETING
   - 7.4. ACI-304 GUIDE FOR MEASURING, MIXING, TRANSPORTING, AND PLACING CONCRETE
   - 7.5. PORTLAND CEMENT PER ASTM C-150 TYPE II (OR ASTM C1157 TYPE HS) W/ AIR ENTRAINING AGENT ADDED (MAY BE ELIMINATED ON FOOTERS OR SLABS BELOW GRADE).
     - 7.5.1. NON-HIGH SULFATE RESISTANCE TYPE OF CEMENT MAY BE USED IF IT IS KNOWN THAT CONCRETE WILL NOT BE SUBJECT TO SULFATE ATTACK
   - 7.6. ≥4500 PSI COMPRESSIVE STRENGTH AT OR AFTER 28 DAYS
   - 7.7. MAXIMUM WATER:CEMENT RATIO: 0.45
   - 7.8. RECOMMENDED AVERAGE TOTAL AIR CONTENT: 4.5-7.5%
   - 7.9. MAXIMUM AGGREGATE SIZE: 0.75"
   - 7.10. MAXIMUM SLUMP: 3" ± 1.25" [WALLS, COLUMNS, PILES, & BEAMS]; 2.75" ± 0.75" [ALL OTHER CONCRETE]
   - 7.11. ≤25% FLYASH CONTENT BY WEIGHT
   - 7.12. WATER -- PREFERRED POTABLE NATURAL WATER, ALTERNATIVE -- <2000 PPM TOTAL DISSOLVED SOLIDS
   - 7.13. MINIMUM CEMENT CONTENT 517 LBS (5-1/2 BAGS) PER CUBIC YARD OF CONCRETE
   - 7.14. ALL CONCRETE SHALL BE PROTECTED BY ONE OR MORE CURING MATERIALS, POLYETHYLENE SHEETING WILL BE PERMITTED AS CURING ONLY ON AREAS WHERE INTIMATE CONTACT WITH THE CONCRETE SURFACE CAN BE OBTAINED AND MAINTAINED FOR AT LEAST SEVEN DAYS. MEMBRANE FORMING CURING COMPOUND MAY BE USED IF IMMEDIATELY APPLIED AFTER ACCEPTANCE OF THE CONCRETE FINISH
   - 7.15. ALL EXPOSED CONCRETE SURFACES SHALL BE A FLOAT FINISH AND STEEL TROWELED TO PRODUCE A SMOOTH, UNIFORM SURFACE. UPON REMOVAL OF FORMS, ALL FINS AND IRREGULAR PROJECTIONS SHALL BE REMOVED. CAVITIES PRODUCED BY FORM TIES AND OTHER HOLES, HONEYCOMB SPOTS, BROKEN CORNERS OR EDGES, AND OTHER DEFECTS SHALL BE REPAIRED AND RUBBED
   - 7.16. CONTRACTOR SHALL COMPACT THE GRANULAR BASE DIRECTLY UNDER CONCRETE TO 100% SPMDD
   - 7.17. DESIGN, DETAIL, FABRICATE, AND PLACE REINFORCING STEEL PER LASTEST ACI AND CRSI SPECIFICATION WITH ASTM A-615 MATERIAL
   - 7.18. STEEL REINFORCMENT BAR SHALL CONFORM TO ASTM A-615, GRADE 60.

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PROPOSED

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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

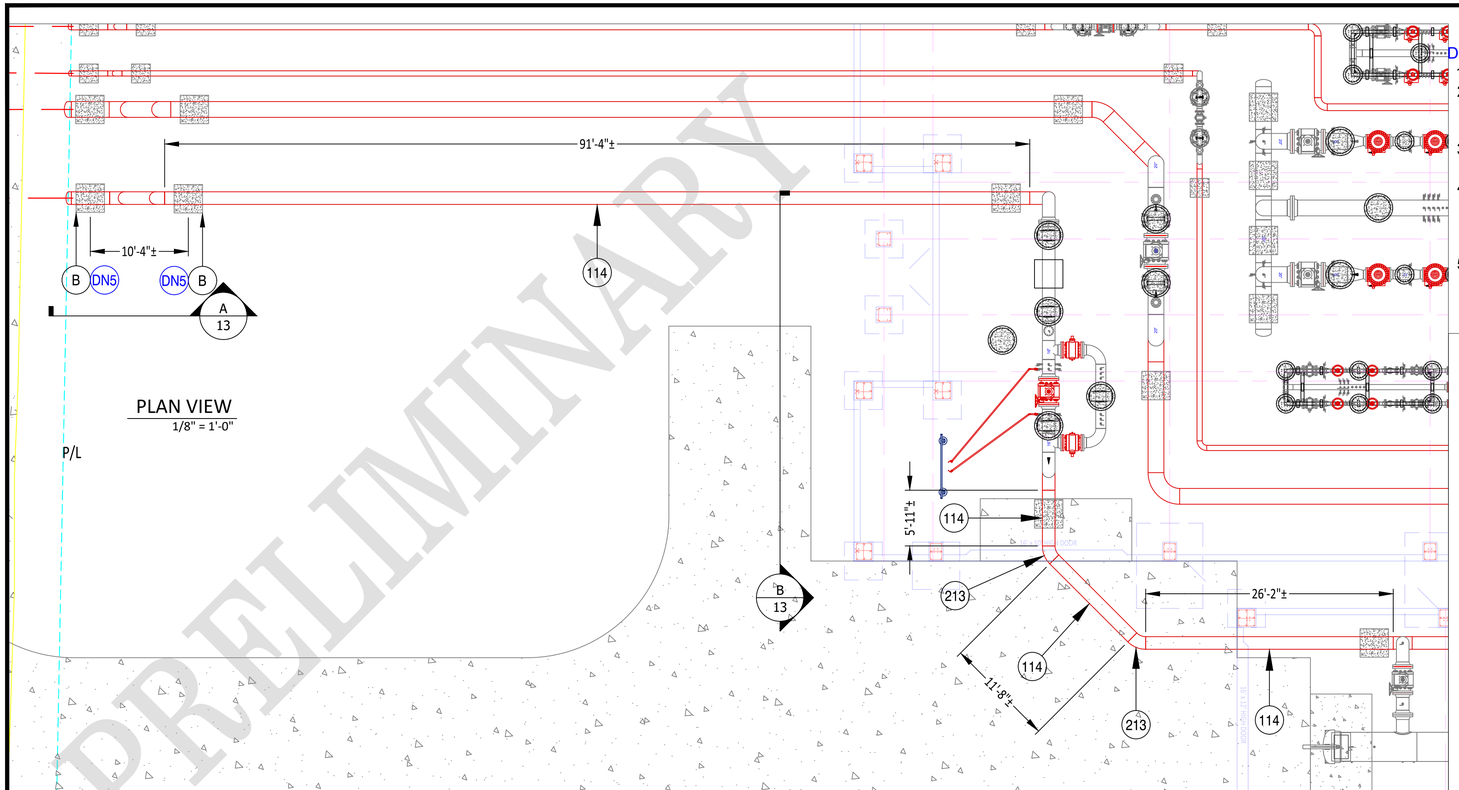
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

CONCRETE DETAILS

DRAWING NO:

12

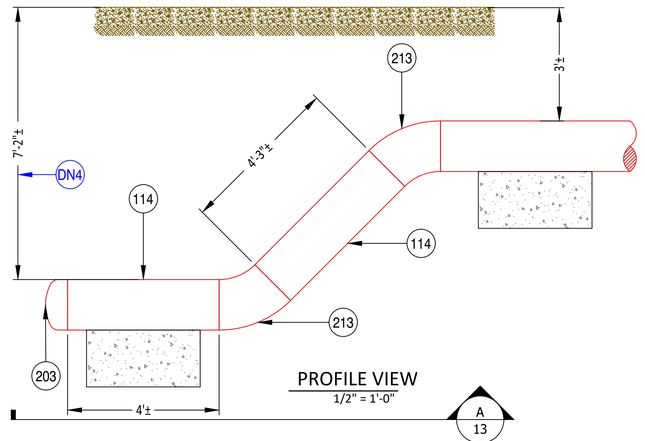


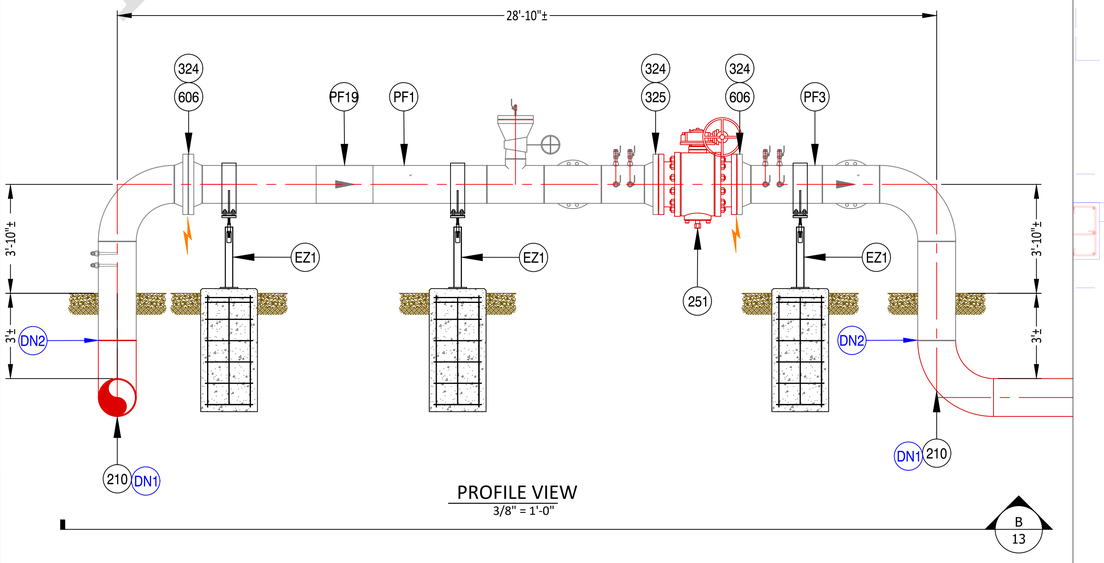
DESIGN NOTES

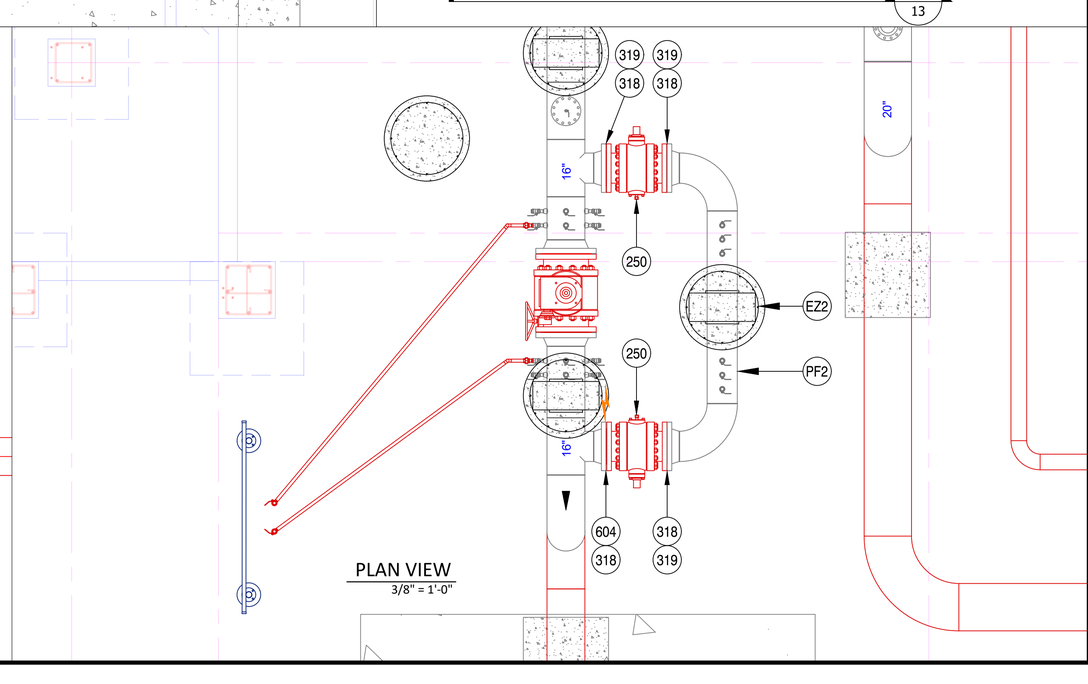
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. REFER TO CONCRETE DETAILS FOR ANCHORING AND EZLINE DETAILS.
4. DEPTH SET BY MAINLINE. VERIFY RISER HEIGHT PRIOR TO INSTALLATION. TIE IN DETAILS TO BE ON MAINLINE DRAWING PACKAGE PROVIDED BY CAMPOS
5. CONCRETE DETAILS ON PREVIOUS PAGES.

LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING







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SCALE: 1/8" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
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AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

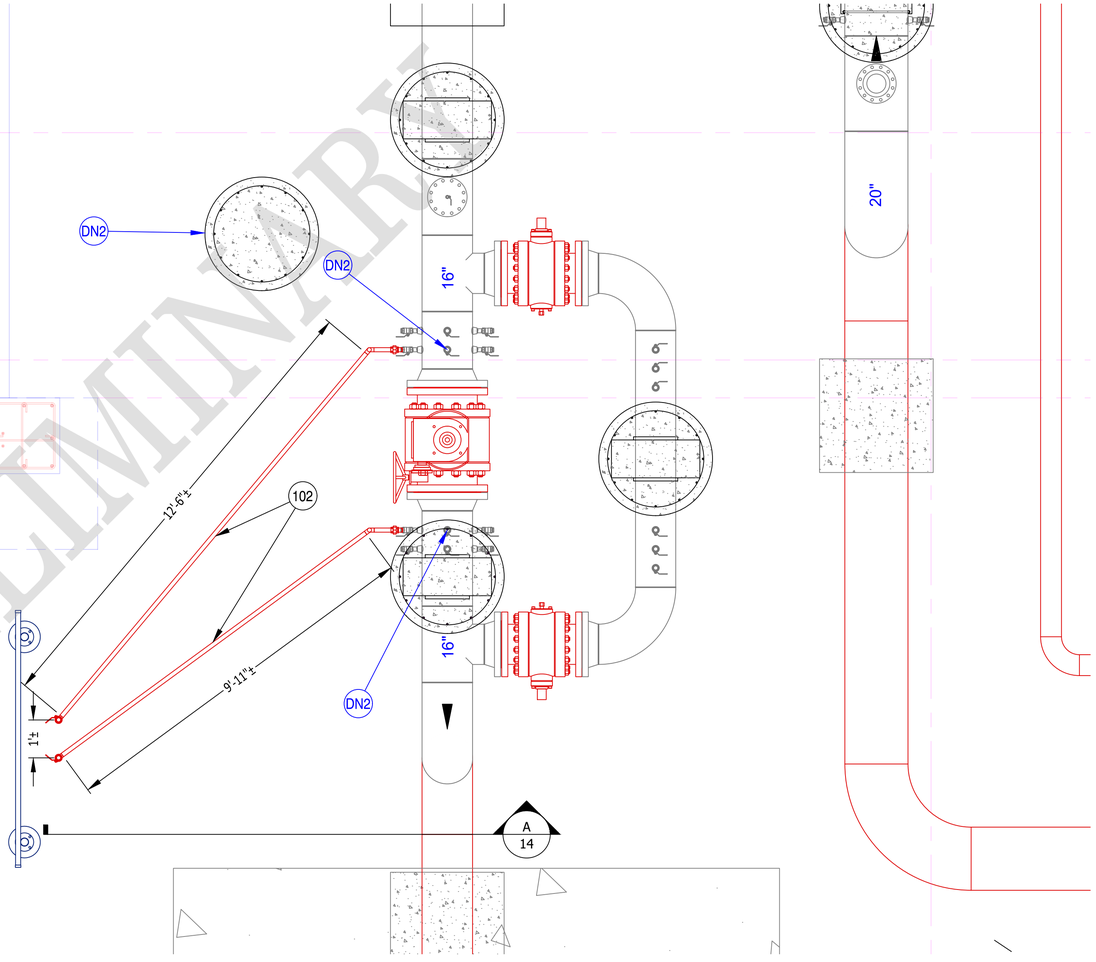
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

ROV DETAILS

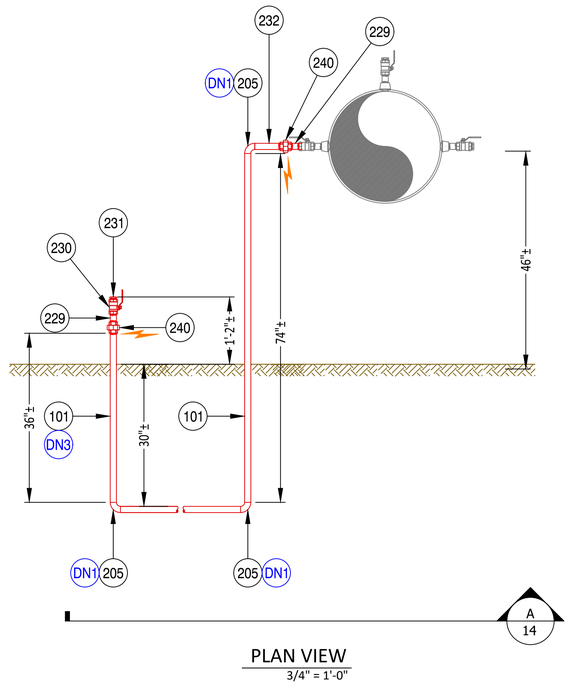
DRAWING NO:

13

PLAN VIEW
1/2" = 1'-0"



TYP. X2



PLAN VIEW
3/4" = 1'-0"

DESIGN NOTES

1. ROTATE ELBOW AS NEEDED AND WELD
2. TAP DESIGNATED FOR ACTUATOR SUPPLY GAS. ALL ACTUATOR TUBING, CHECK VALVES, AND TANK CONNNECTIONS ARE THE RESPONSIBILITY OF THE I&C GROUP. THIS MATERIAL IS NOT REPRESENTED AS PART OF THIS PLAN SET.
3. FIELD THREAD PIPE AS NECESSARY FOR CONNECTION INTO THREADED FITTINGS.
4. CONSIDER: TRANSMITTER PIPING TO BE RUN AFTER H-FRAME IS IN PLACE AND BUILDING CONCRETE IS POURED TO AVOID CONFLICTS WITH FOUNDATIONS.

LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

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SCALE: 1/2" = 1'-0"

PROPOSED

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	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

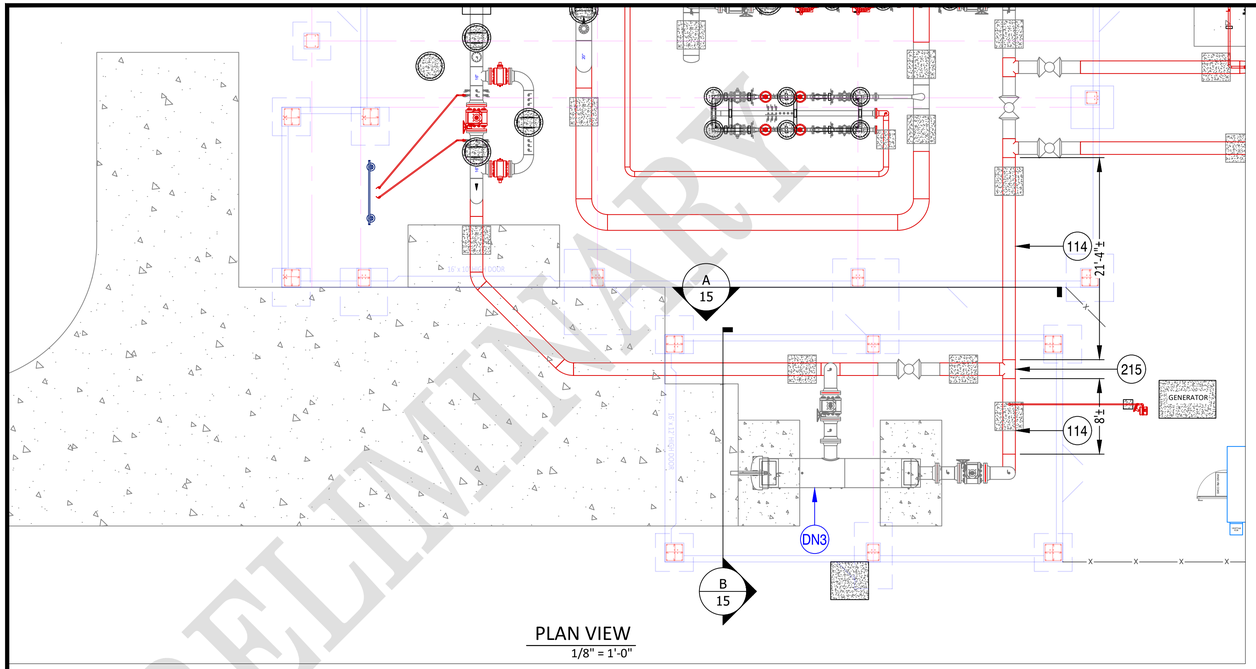
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

TRANSMITTER PIPING DETAILS

DRAWING NO:

14



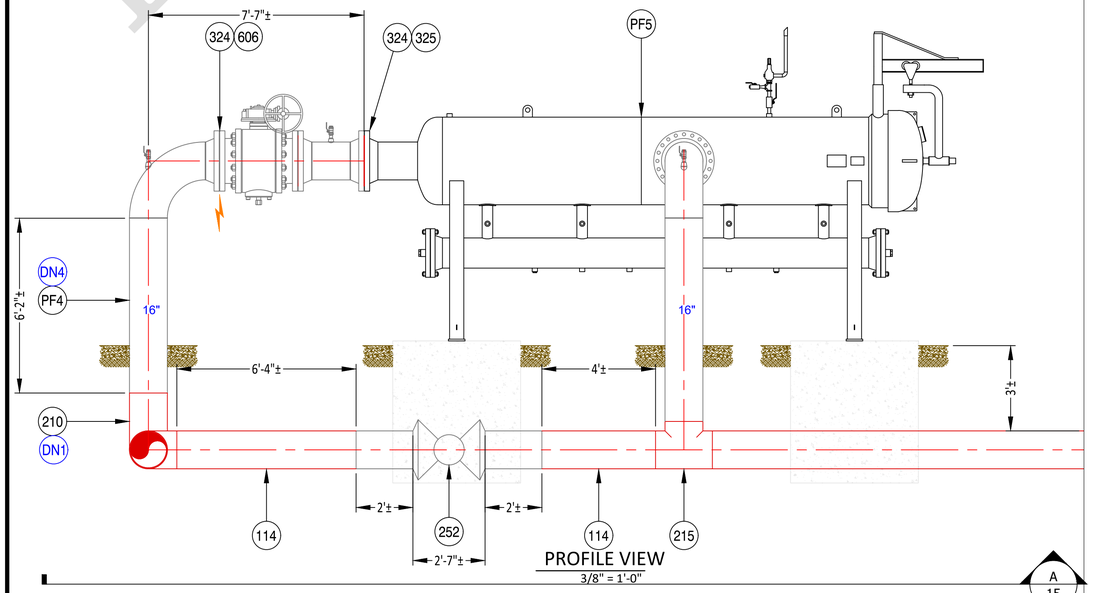
PLAN VIEW
1/8" = 1'-0"

LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

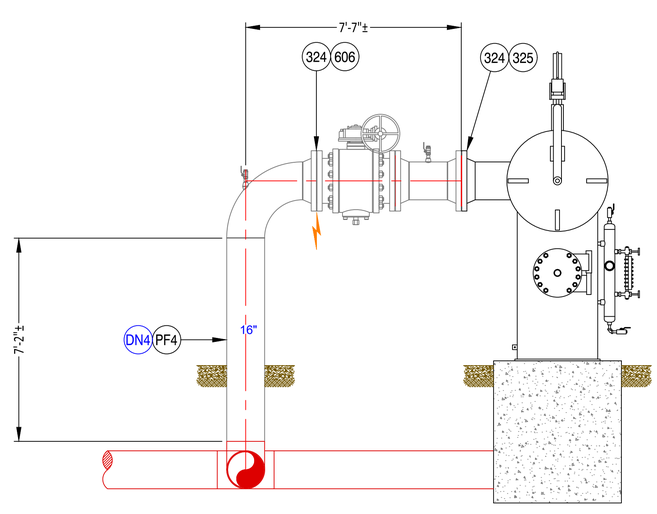
DESIGN NOTES

1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. ENSURE SUMP BRIDAL FACES OPPOSITE DIRECTION OF FILTER INLET
4. CUT PREFABRICATED RISERS TO FIT



PROFILE VIEW
3/8" = 1'-0"

A
15



PROFILE VIEW
3/8" = 1'-0"

B
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SCALE: 1/8" = 1'-0"

PROPOSED

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SITE NAME:

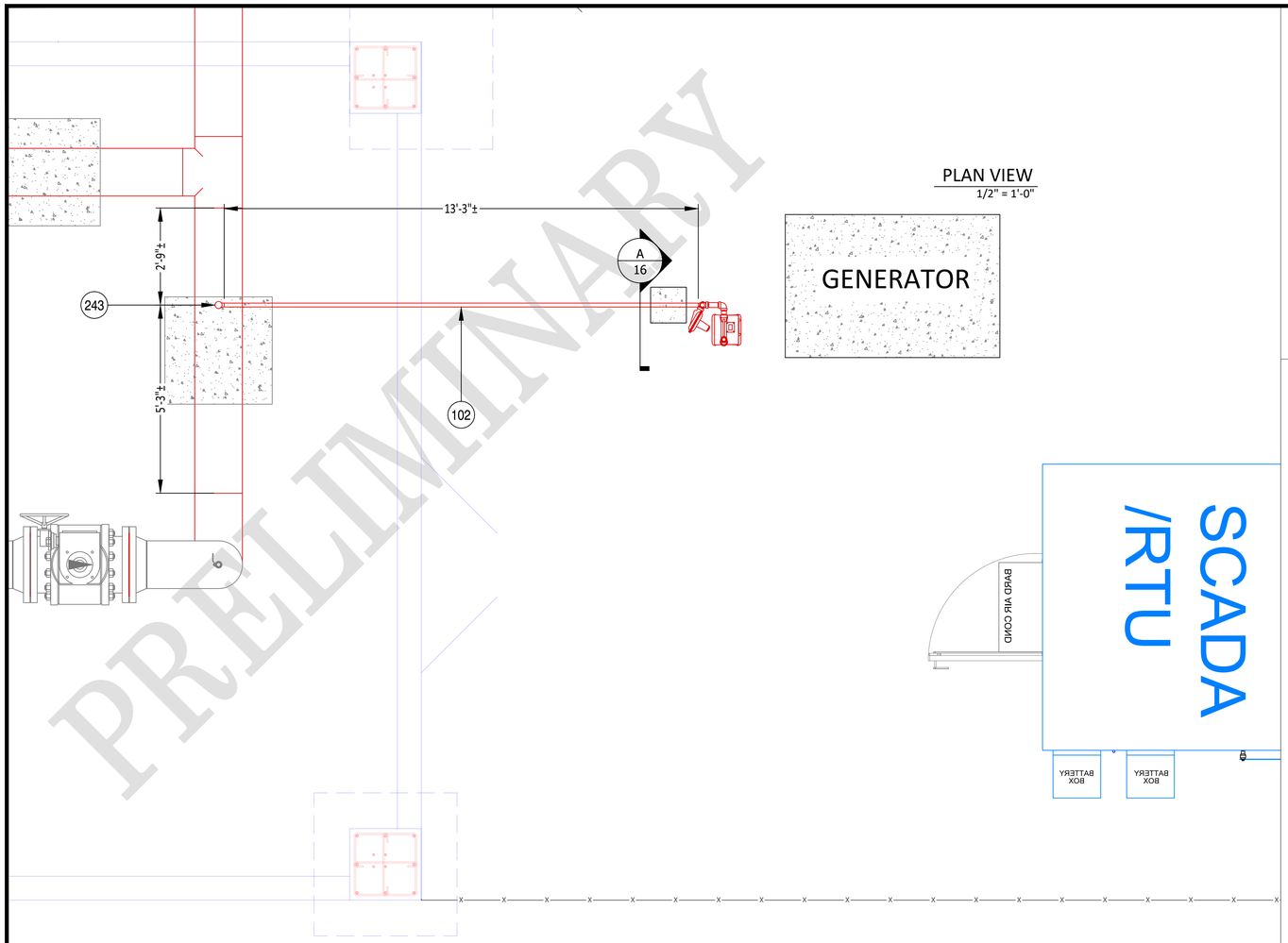
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

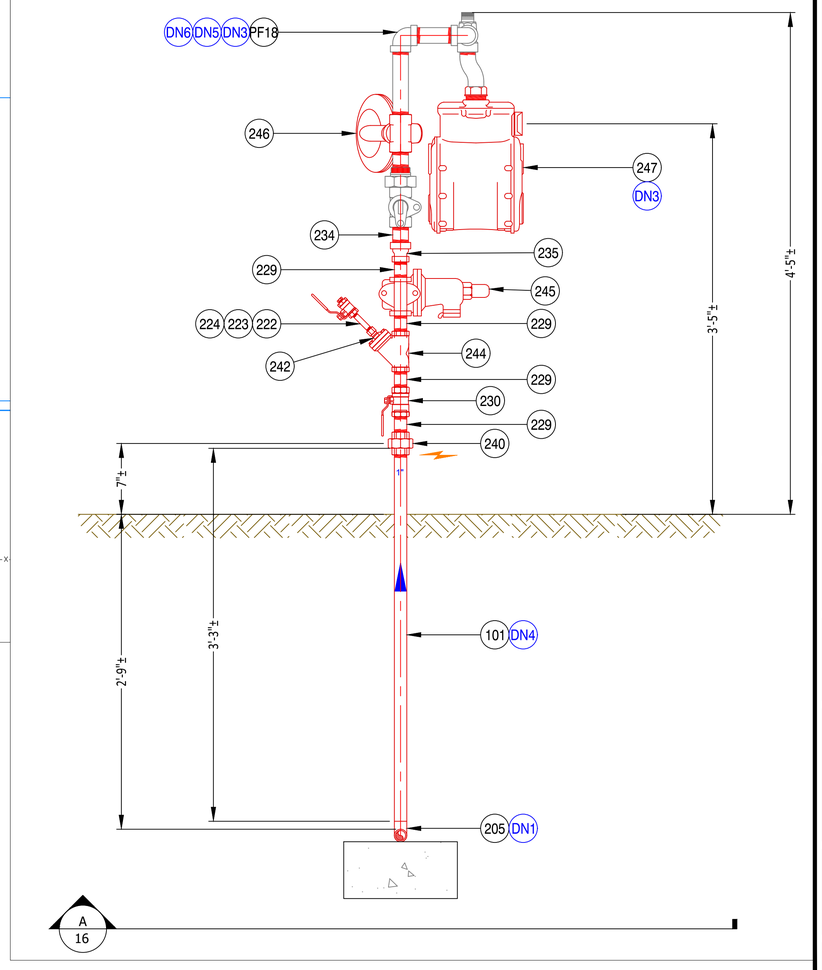
FILTER DETAILS

DRAWING NO:

15



PLAN VIEW
1/2" = 1'-0"



PROFILE VIEW
1 1/2" = 1'-0"

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

DESIGN NOTES
1. ROTATE ELBOW AS NEEDED AND WELD
2. DEPTH OF INCOMING SERVICE LINE IS DETERMINED BY DEPTH OF PROPOSED 16" PIPE. DEPTH AT THE TAP LOCATION IS ASSUMED TO BE 36" FROM GRADE TO TOP OF 16" PIPE. CUT RISER TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. HOUSE LINE PIPING DOWNSTREAM OF METER TO GENERATOR CONNECTION IS THE RESPONSIBILITY OF THE I&C GROUP. THIS MATERIAL IS NOT REPRESENTED AS PART OF THIS PLAN SET.
4. FIELD THREAD PIPE AS NECESSARY FOR CONNECTION INTO THREADED FITTINGS.
5. RISER BRACKET AS SHOWN ON PLMB-0002A DRAWING TO BE FIELD FIT AS NECESSARY. SEE APPENDIX A FOR ADDITIONAL DETAILS.
6. ENSURE SERVICE SETTING IS PROPERLY SUPPORTED.

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SCALE: 1/2" = 1'-0"

PROPOSED

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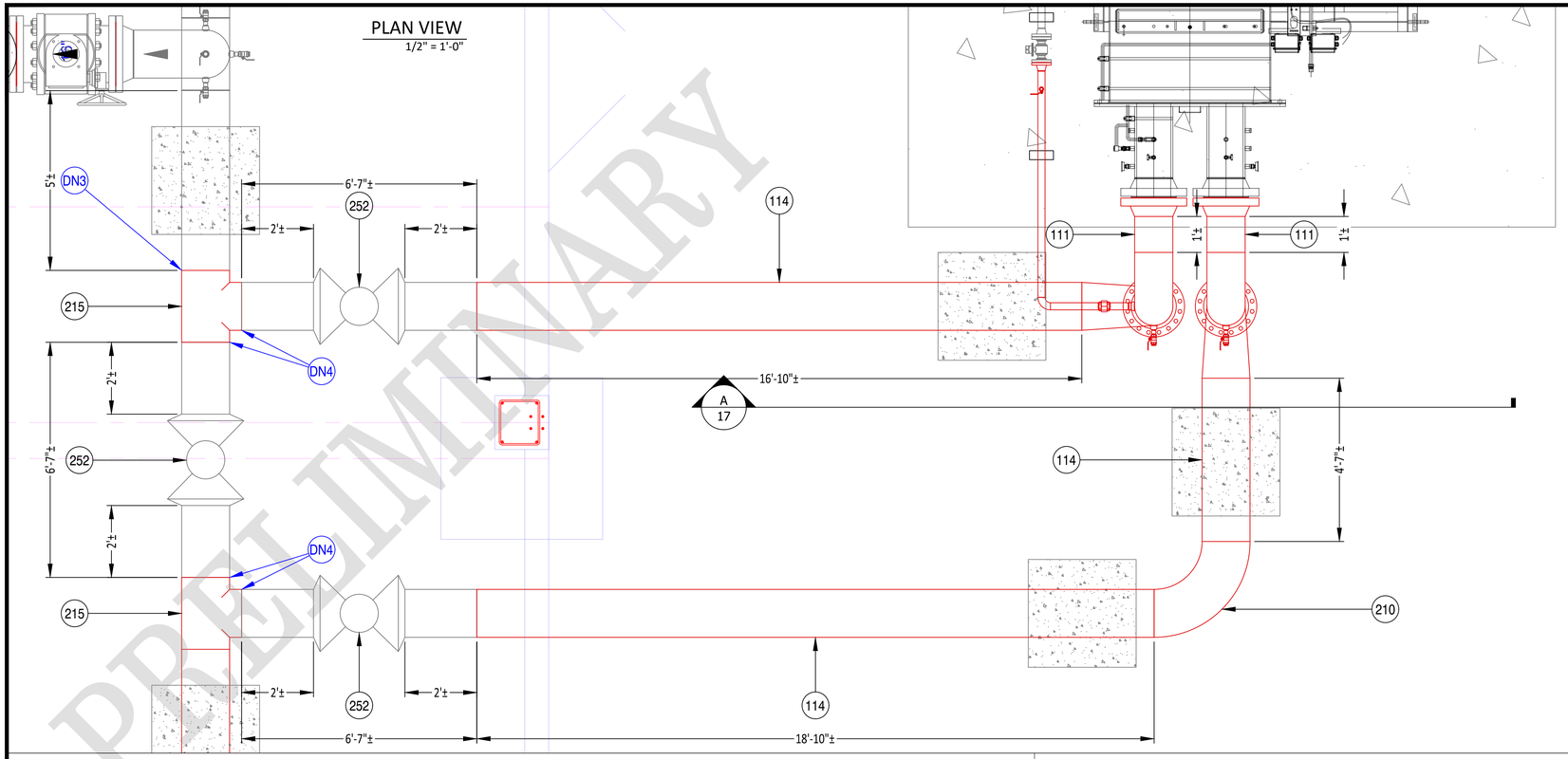
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

GENERATOR DETAILS

DRAWING NO:
16



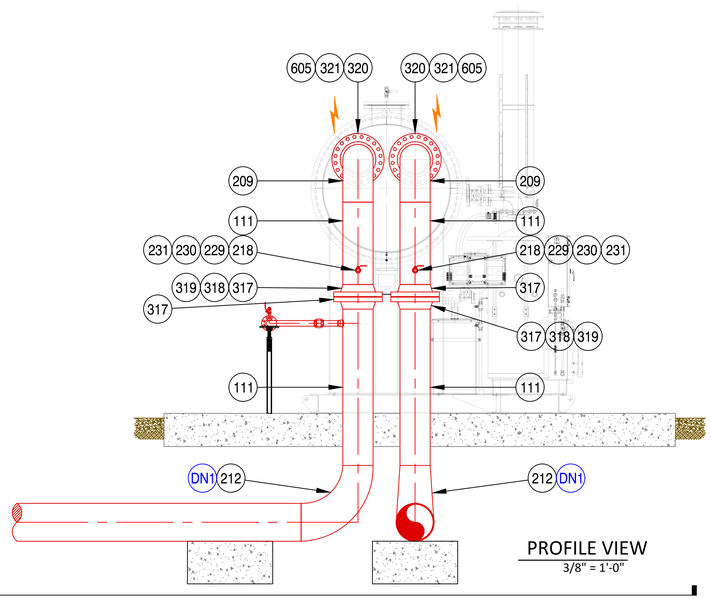
PRELIMINARY

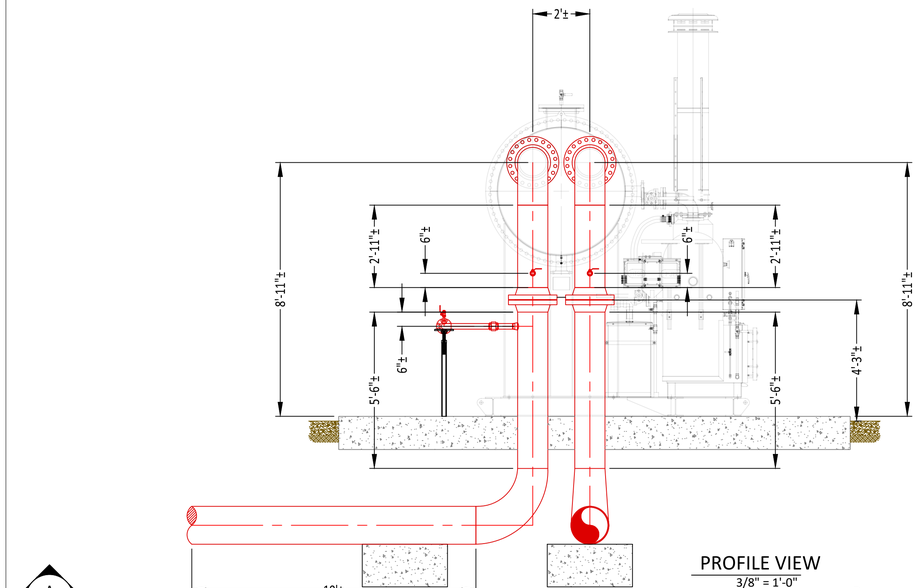
LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

DESIGN NOTES

1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. CUT PREFABRICATED INLET HEADER TO FIT.
4. 2' PUPS TO BE WELDED DIRECTLY TO THE TEES





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SCALE: 1/2" = 1'-0"

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	NAME	DATE	PHONE #

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INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

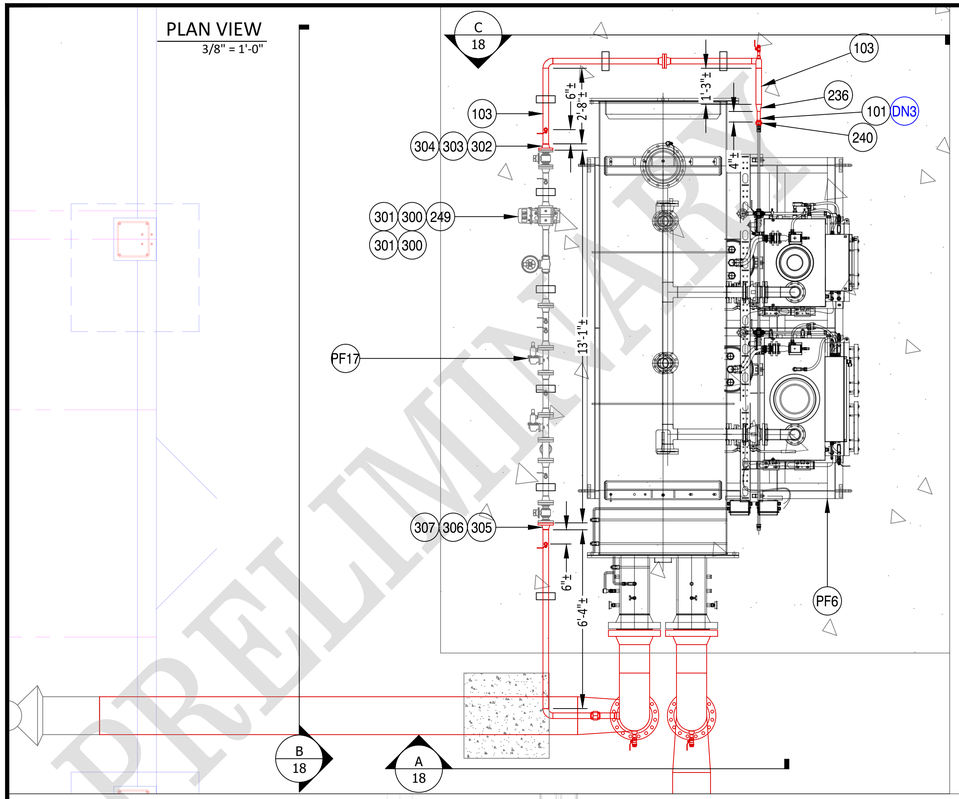
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

HEATER BLOCK DETAILS

DRAWING NO:

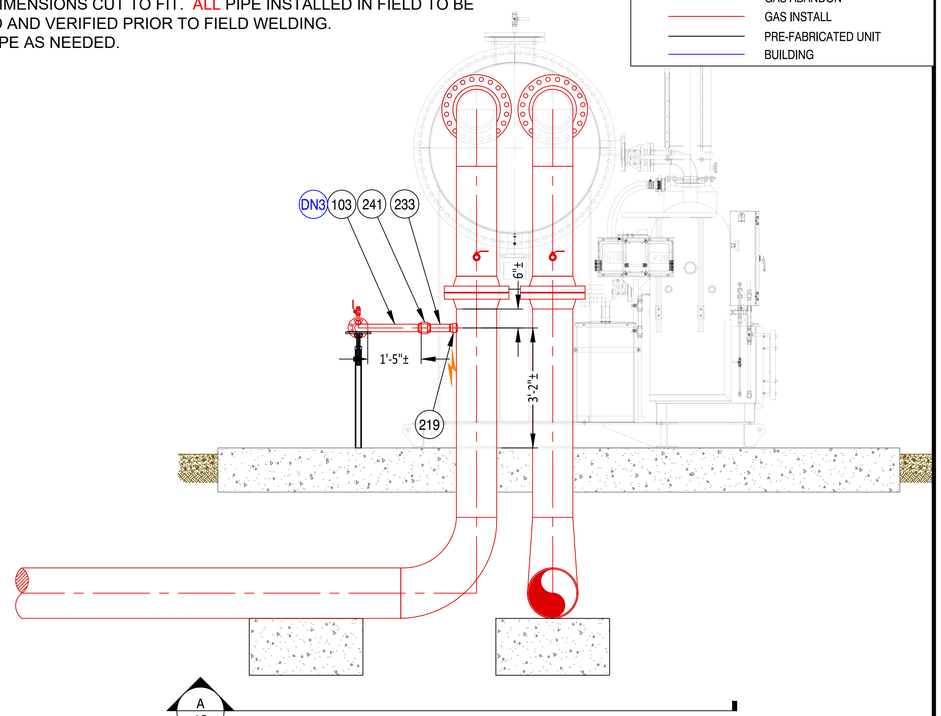
17

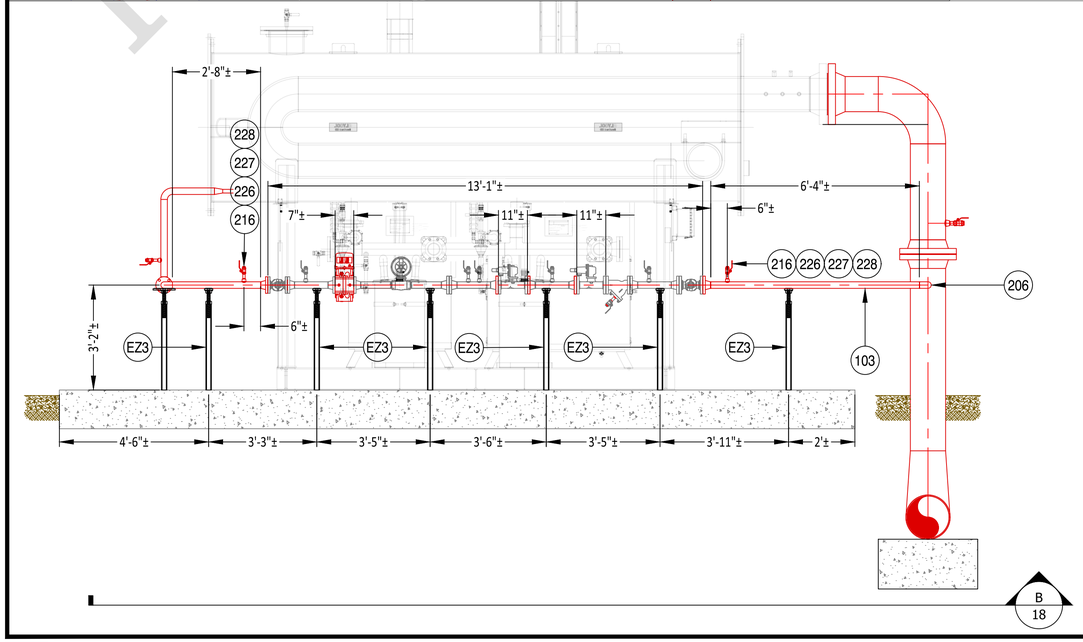
PLAN VIEW
3/8" = 1'-0"

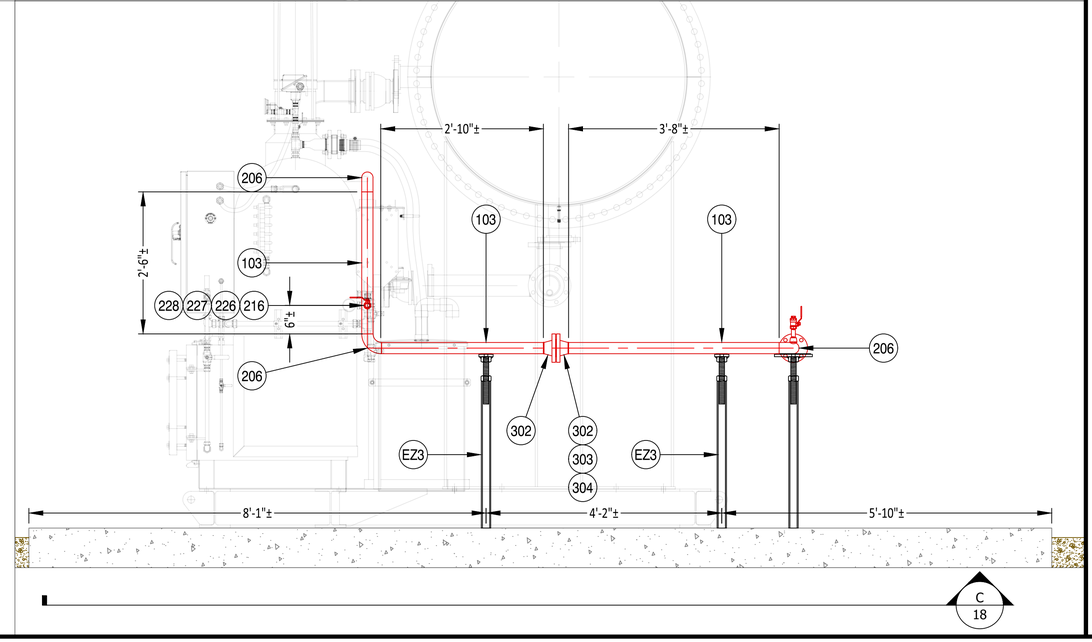


DESIGN NOTES
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. THREAD PIPE AS NEEDED.

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING







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SCALE: 3/8" = 1'-0"

PROPOSED

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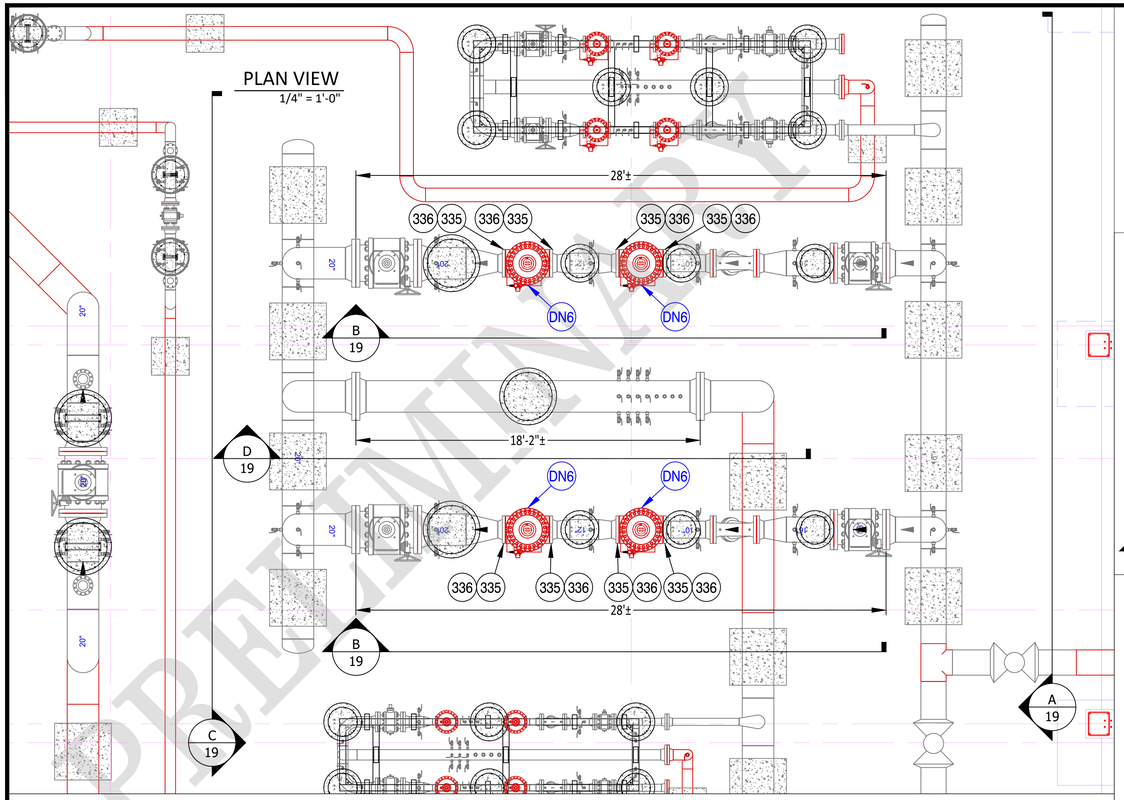
ABAN# ----
PROJECT ID# 21-78790

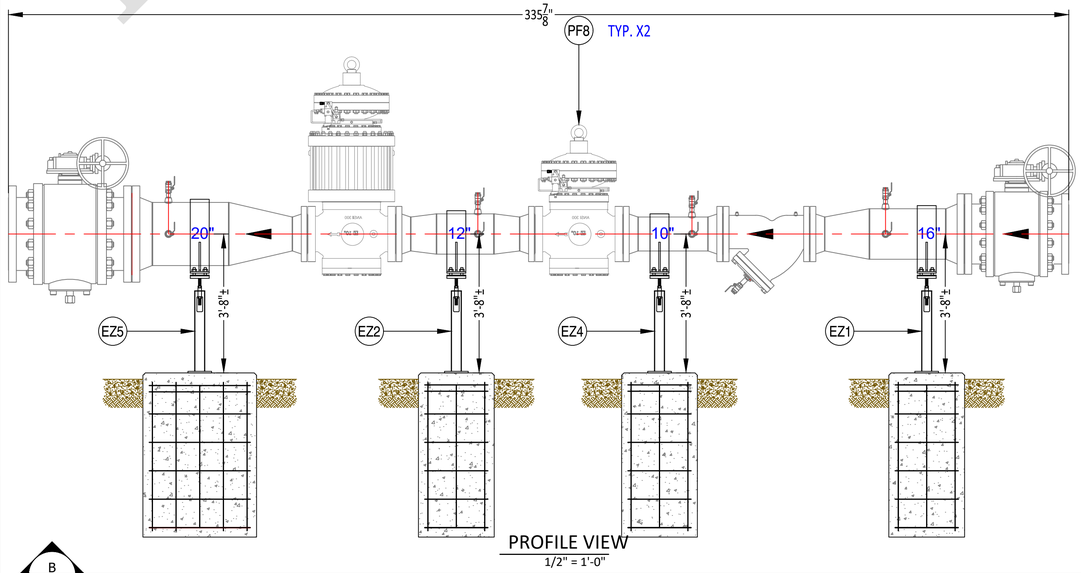
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

HEATER SUPPLY UNIT

DRAWING NO:

18



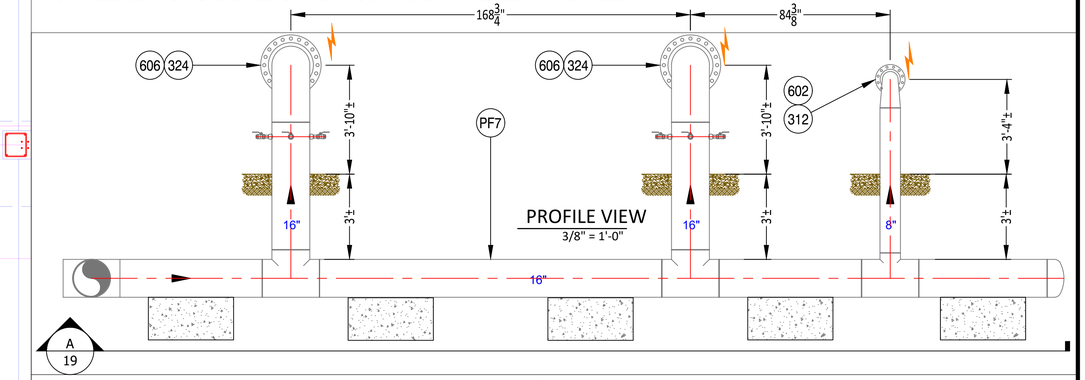


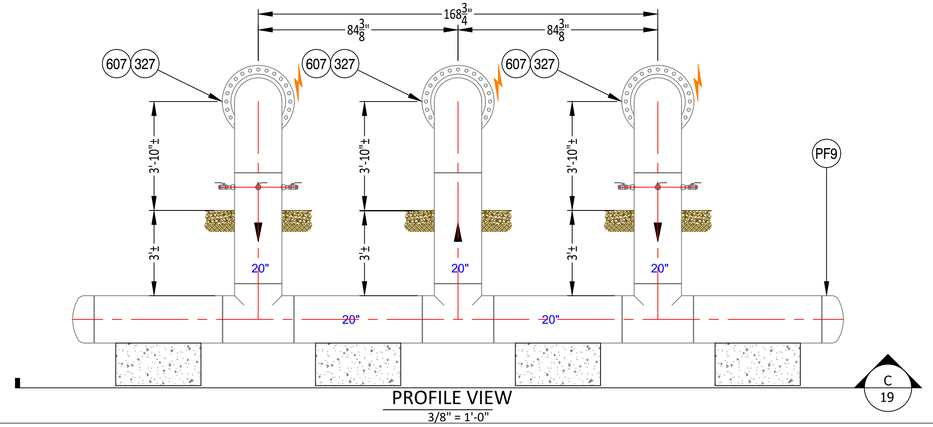
DESIGN NOTES

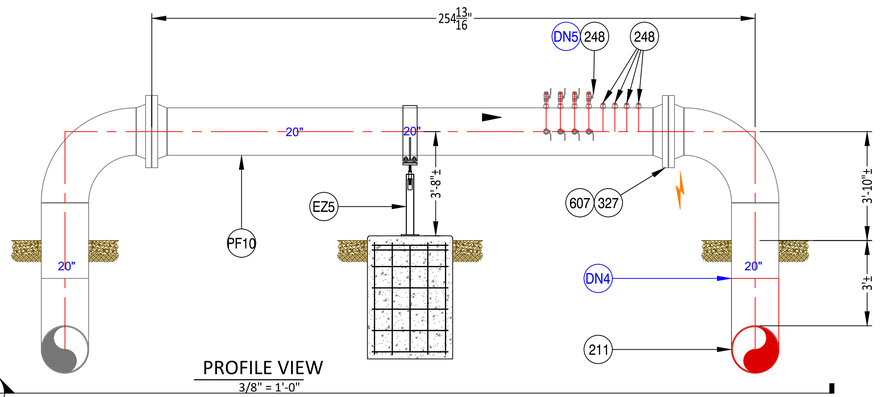
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. BOLTS AND GASKETS TO BE INSTALLED.
4. CUT PREFABRICATED RISERS TO FIT
5. REMOVE THREADED BLOWOFF AND INSTALL THERMOWELL AT THIS LOCATION. CRITICAL PRIOR TO START UP. INSTALL CWT THERMOWELLS PER MANUFACTURE RECOMMENDATION.
6. REGULATION ORDERED ON PO61185. TO BE INSTALLED IN THE FIELD.

LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING







NiSource

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Ohio Utilities Protection Service
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SCALE: 1/4" = 1'-0"

PROPOSED

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	NAME	DATE	PHONE #

SITE NAME:

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PROJECT ID# 21-78790

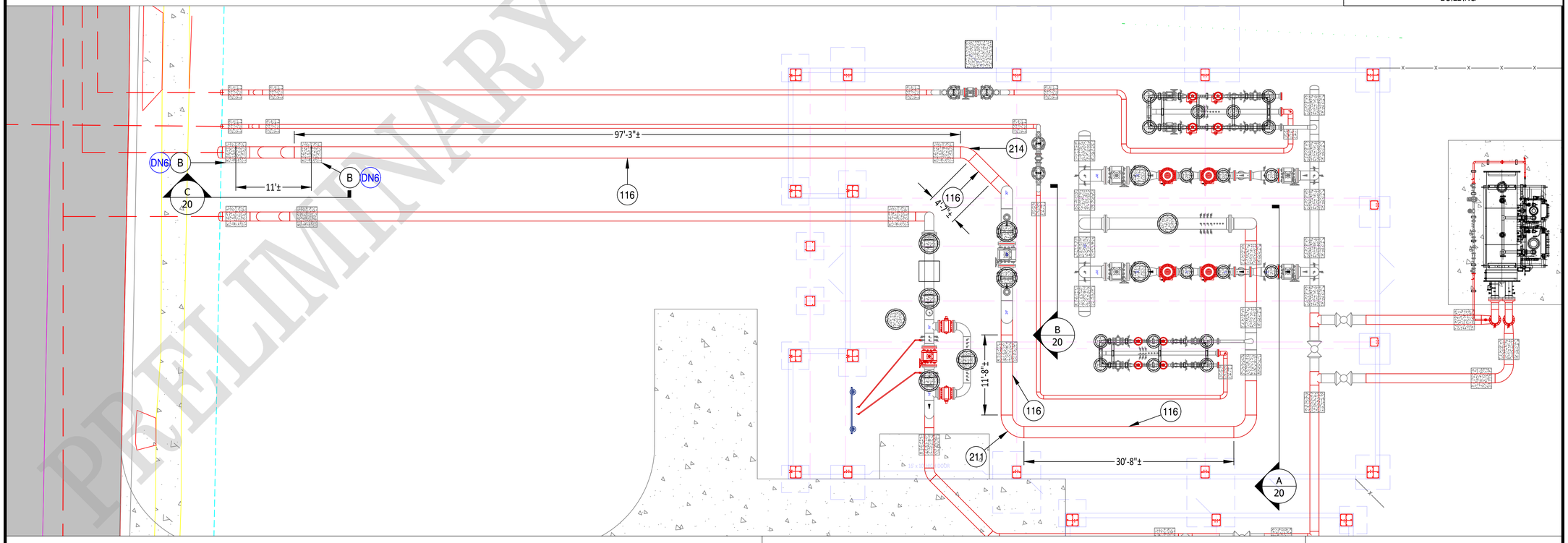
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

232 REGULATION

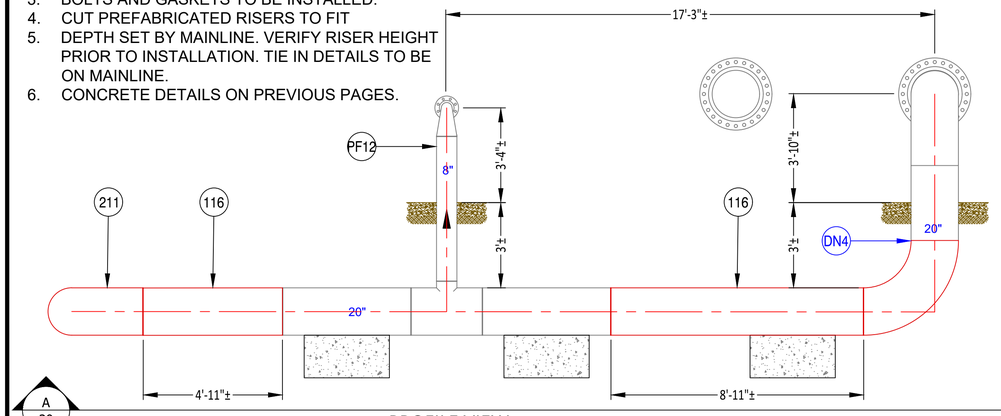
DRAWING NO:

19

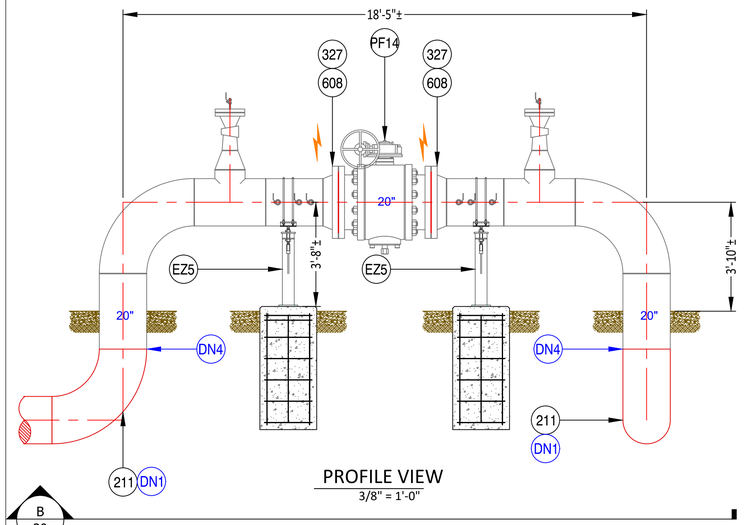
PLAN VIEW
1/8" = 1'-0"



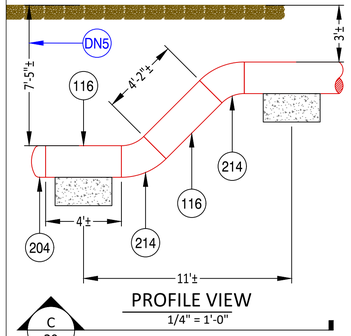
DESIGN NOTES
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. BOLTS AND GASKETS TO BE INSTALLED.
4. CUT PREFABRICATED RISERS TO FIT
5. DEPTH SET BY MAINLINE. VERIFY RISER HEIGHT PRIOR TO INSTALLATION. TIE IN DETAILS TO BE ON MAINLINE.
6. CONCRETE DETAILS ON PREVIOUS PAGES.



A 20 PROFILE VIEW
3/8" = 1'-0"



B 20 PROFILE VIEW
3/8" = 1'-0"



C 20 PROFILE VIEW
1/4" = 1'-0"

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SCALE: 1/8" = 1'-0"

PROPOSED

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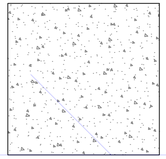
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

232 OUTLET

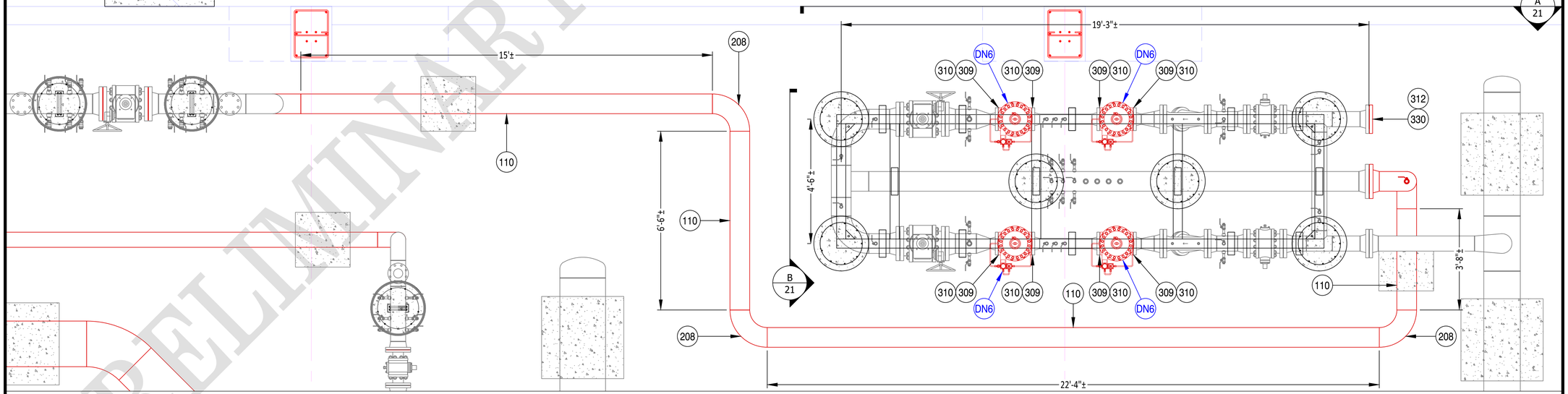
DRAWING NO:
20

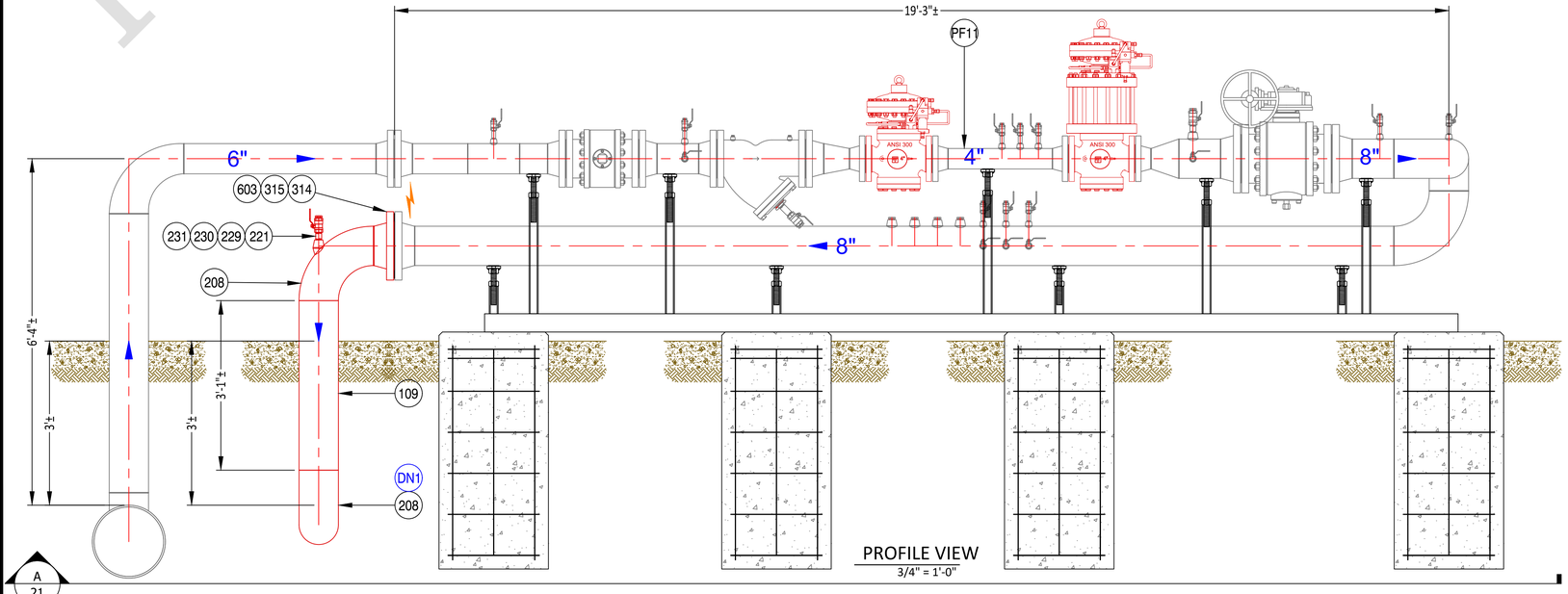


PLAN VIEW
1/2" = 1'-0"

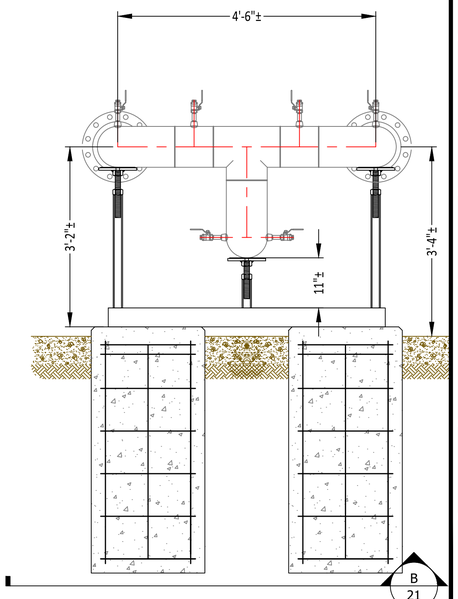
DESIGN NOTES
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. BOLTS AND GASKETS TO BE INSTALLED.
4. CUT PREFABRICATED RISERS TO FIT
5. REMOVE THREADED BLOWOFF AND INSTALL THERMOWELL AT THIS LOCATION. CRITICAL PRIOR TO START UP.
6. REGULATION ORDERED ON PO61185. TO BE FIELD INSTALLED.

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING





PROFILE VIEW
3/4" = 1'-0"



A 21

B 21

PRELIMINARY

NiSource

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Ohio Utilities Protection Service
Call 811 before you dig

SCALE: 1/2" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

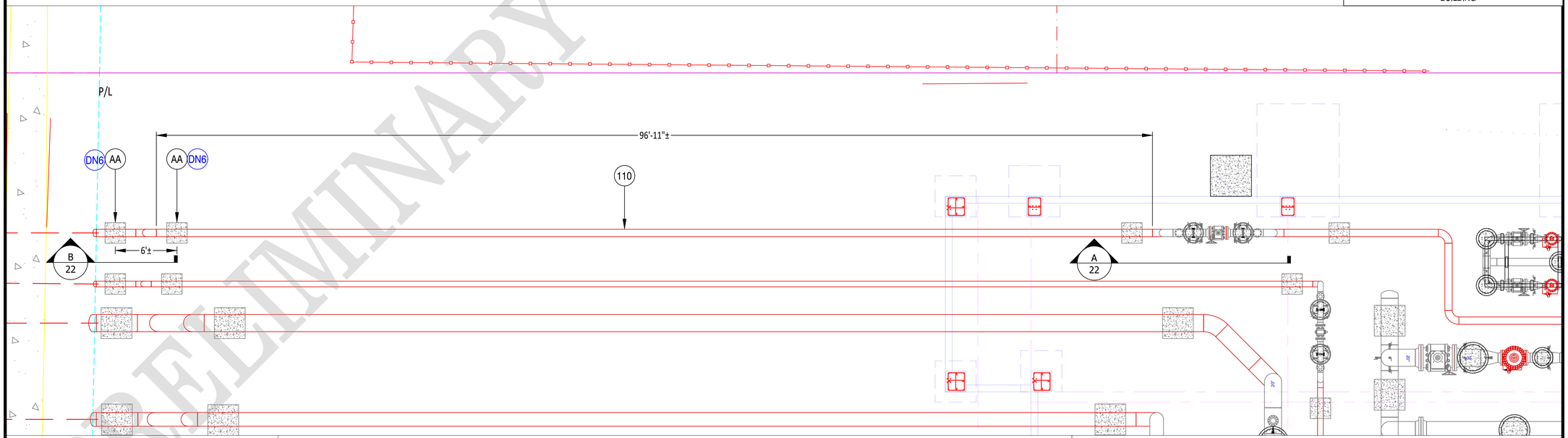
100 REGULATION

DRAWING NO:

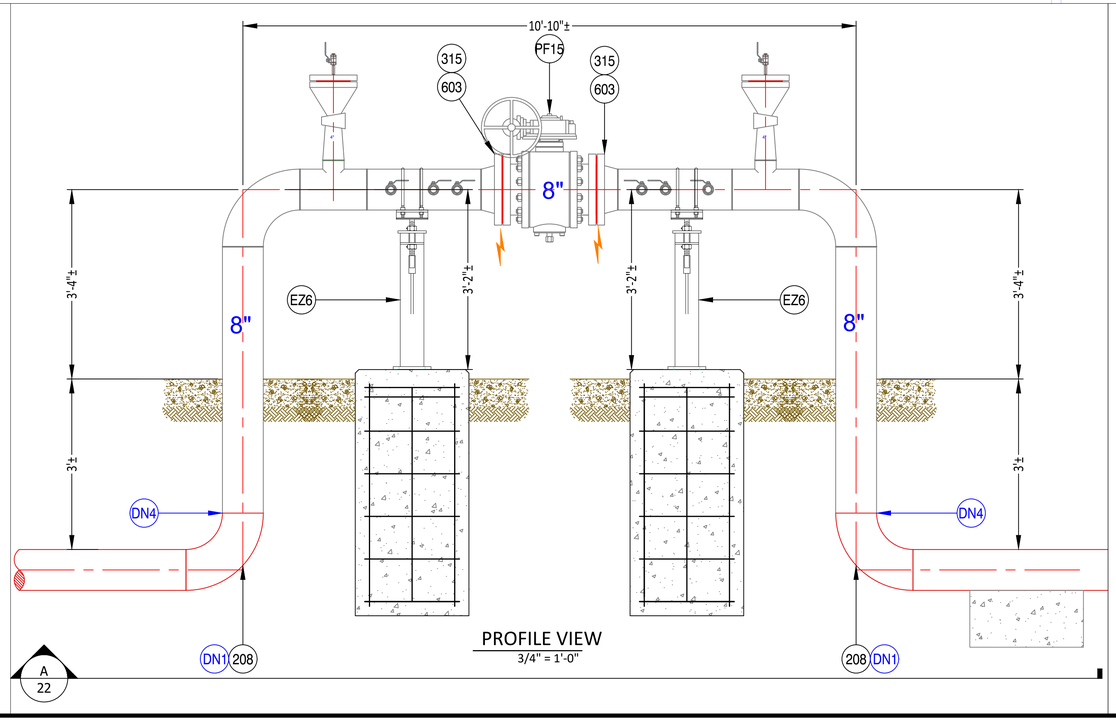
21

PLAN VIEW
3/16" = 1'-0"

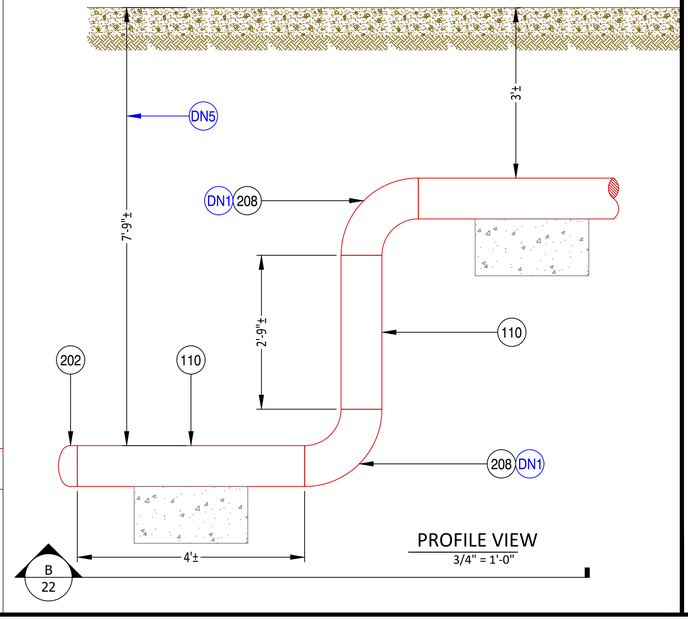
LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING



DESIGN NOTES
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. BOLTS AND GASKETS TO BE INSTALLED.
4. CUT PREFABRICATED RISERS TO FIT
5. DEPTH SET BY MAINLINE. VERIFY RISER HEIGHT PRIOR TO INSTALLATION. TIE IN DETAILS TO BE ON MAINLINE.
6. CONCRETE DETAILS ON PREVIOUS PAGES.



PROFILE VIEW
3/4" = 1'-0"



PROFILE VIEW
3/4" = 1'-0"

NiSource

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Ohio Utilities Protection Service
Call 811 before you dig

SCALE: 3/16" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

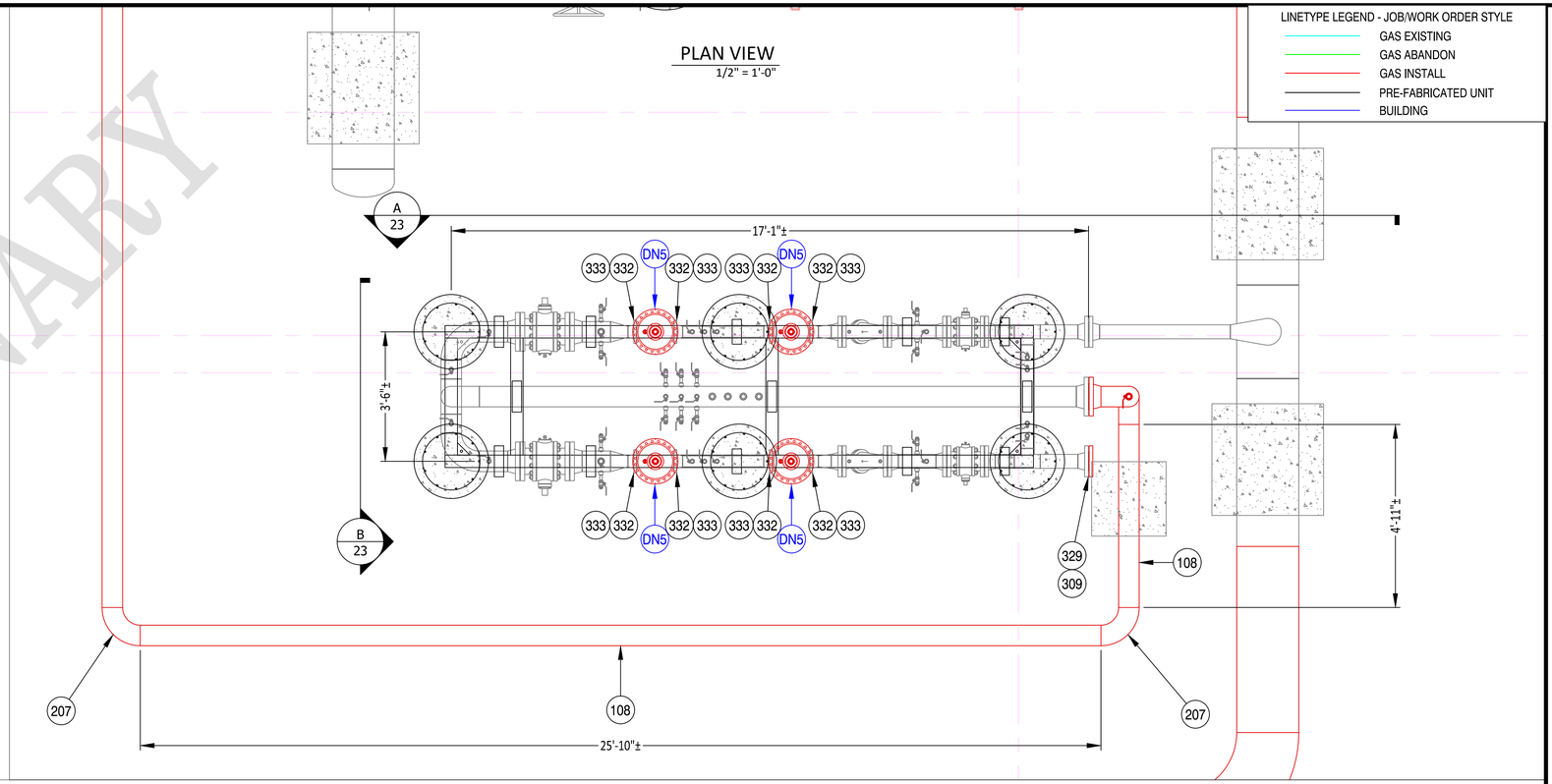
SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

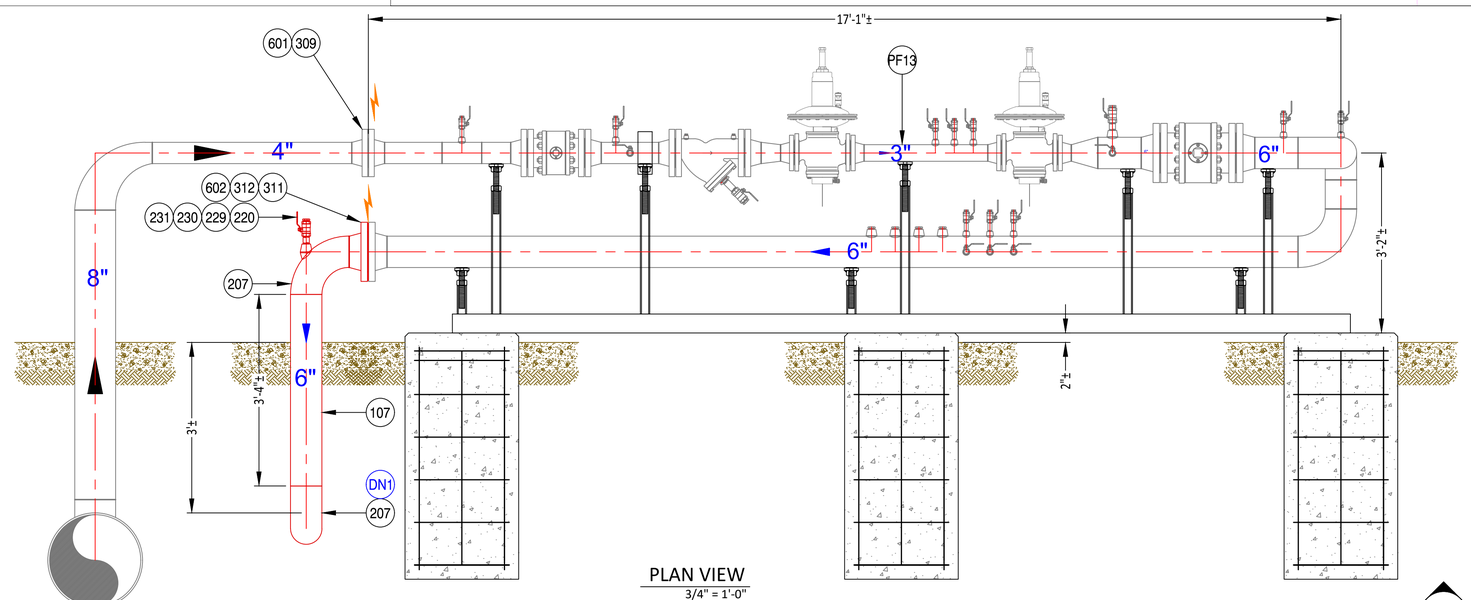
100 OUTLET

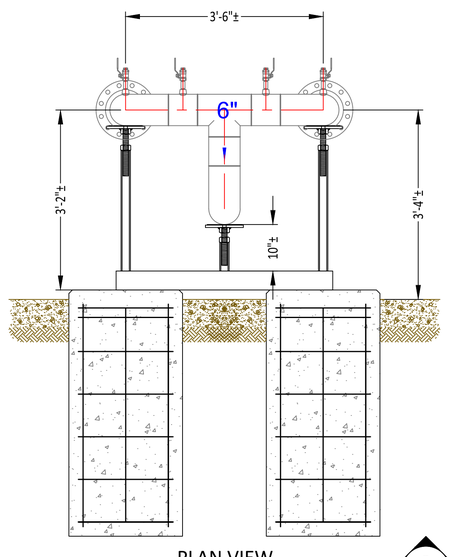
DRAWING NO:
22

DESIGN NOTES

1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. BOLTS AND GASKETS TO BE FIELD INSTALLED.
4. CUT PREFABRICATED RISERS TO FIT
5. REGULATORS ORDERED OFF PO61185. TO BE INSTALLED IN THE FIELD.







NiSource

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Ohio Utilities Protection Service
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SCALE: 1/2" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

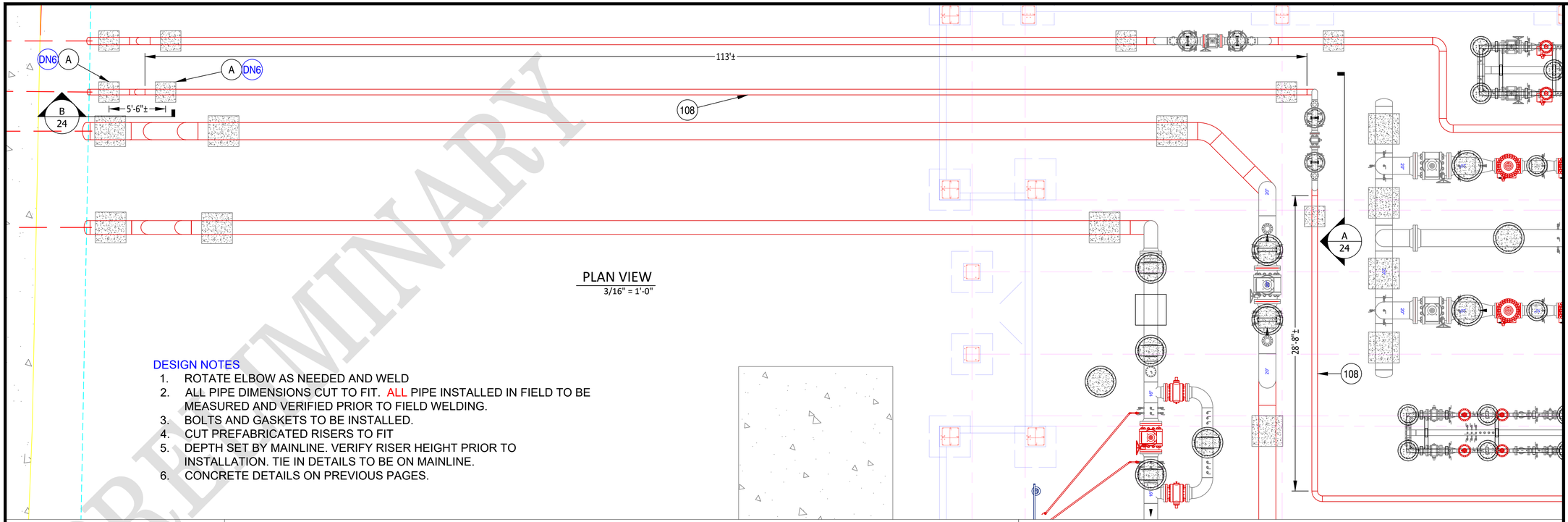
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

077 REGULATION

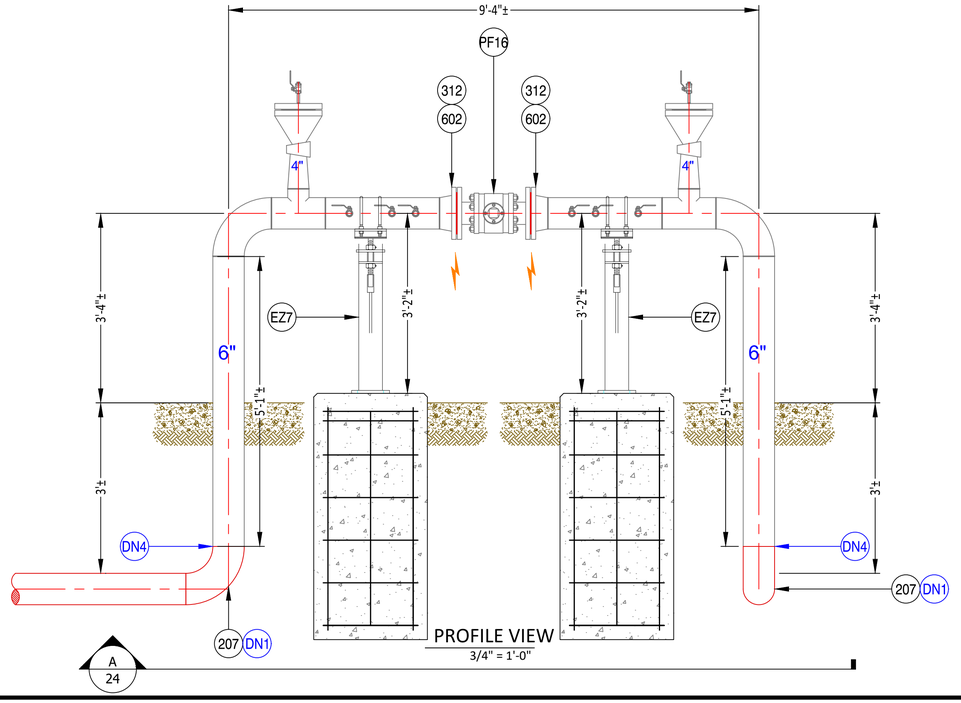
DRAWING NO:

23

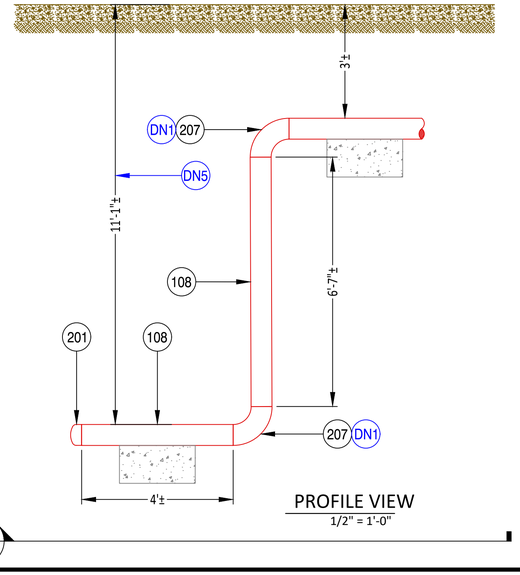


PLAN VIEW
3/16" = 1'-0"

DESIGN NOTES
1. ROTATE ELBOW AS NEEDED AND WELD
2. ALL PIPE DIMENSIONS CUT TO FIT. ALL PIPE INSTALLED IN FIELD TO BE MEASURED AND VERIFIED PRIOR TO FIELD WELDING.
3. BOLTS AND GASKETS TO BE INSTALLED.
4. CUT PREFABRICATED RISERS TO FIT
5. DEPTH SET BY MAINLINE. VERIFY RISER HEIGHT PRIOR TO INSTALLATION. TIE IN DETAILS TO BE ON MAINLINE.
6. CONCRETE DETAILS ON PREVIOUS PAGES.



PROFILE VIEW
3/4" = 1'-0"



PROFILE VIEW
1/2" = 1'-0"

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

NiSource

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Ohio Utilities Protection Service
Call 811
before you dig

SCALE: 3/16" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
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DESIGNED BY	CRDM	09/11/24	330-596-0111
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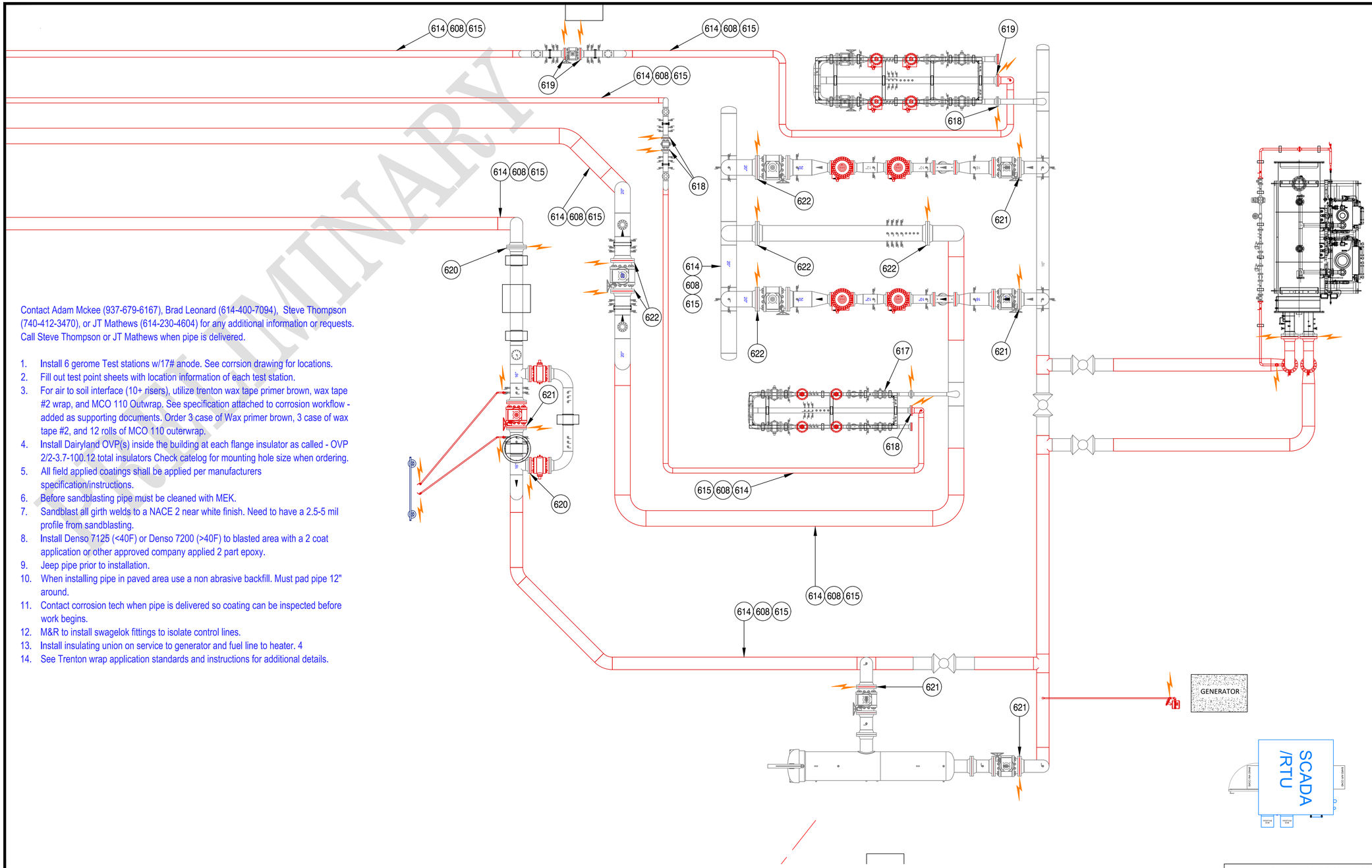
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

077 OUTLET

DRAWING NO:
24



Contact Adam Mckee (937-679-6167), Brad Leonard (614-400-7094), Steve Thompson (740-412-3470), or JT Mathews (614-230-4604) for any additional information or requests. Call Steve Thompson or JT Mathews when pipe is delivered.

1. Install 6 gerome Test stations w/17# anode. See corrsion drawing for locations.
2. Fill out test point sheets with location information of each test station.
3. For air to soil interface (10+ risers), utilize trenton wax tape primer brown, wax tape #2 wrap, and MCO 110 Outwrap. See specification attached to corrosion workflow - added as supporting documents. Order 3 case of Wax primer brown, 3 case of wax tape #2, and 12 rolls of MCO 110 outerwrap.
4. Install Dairyland OVP(s) inside the building at each flange insulator as called - OVP 2/2-3.7-100.12 total insulators Check catelog for mounting hole size when ordering.
5. All field applied coatings shall be applied per manufacturers specification/instructions.
6. Before sandblasting pipe must be cleaned with MEK.
7. Sandblast all girth welds to a NACE 2 near white finish. Need to have a 2.5-5 mil profile from sandblasting.
8. Install Denso 7125 (<40F) or Denso 7200 (>40F) to blasted area with a 2 coat application or other approved company applied 2 part epoxy.
9. Jeep pipe prior to installation.
10. When installing pipe in paved area use a non abrasive backfill. Must pad pipe 12" around.
11. Contact corrosion tech when pipe is delivered so coating can be inspected before work begins.
12. M&R to install swagelok fittings to isolate control lines.
13. Install insulating union on service to generator and fuel line to heater. 4
14. See Trenton wrap application standards and instructions for additional details.

ALL COMPONENTS OF THIS DRAWING ARE DESIGNED PER COMPANY GAS STANDARDS. ANY CHANGES MUST BE APPROVED BY THE DESIGN ENGINEER

LINETYPE LEGEND - JOB/WORK ORDER STYLE
- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

NiSource

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Ohio Utilities Protection Service
Call 811 before you dig

SCALE: 3/16" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
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AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

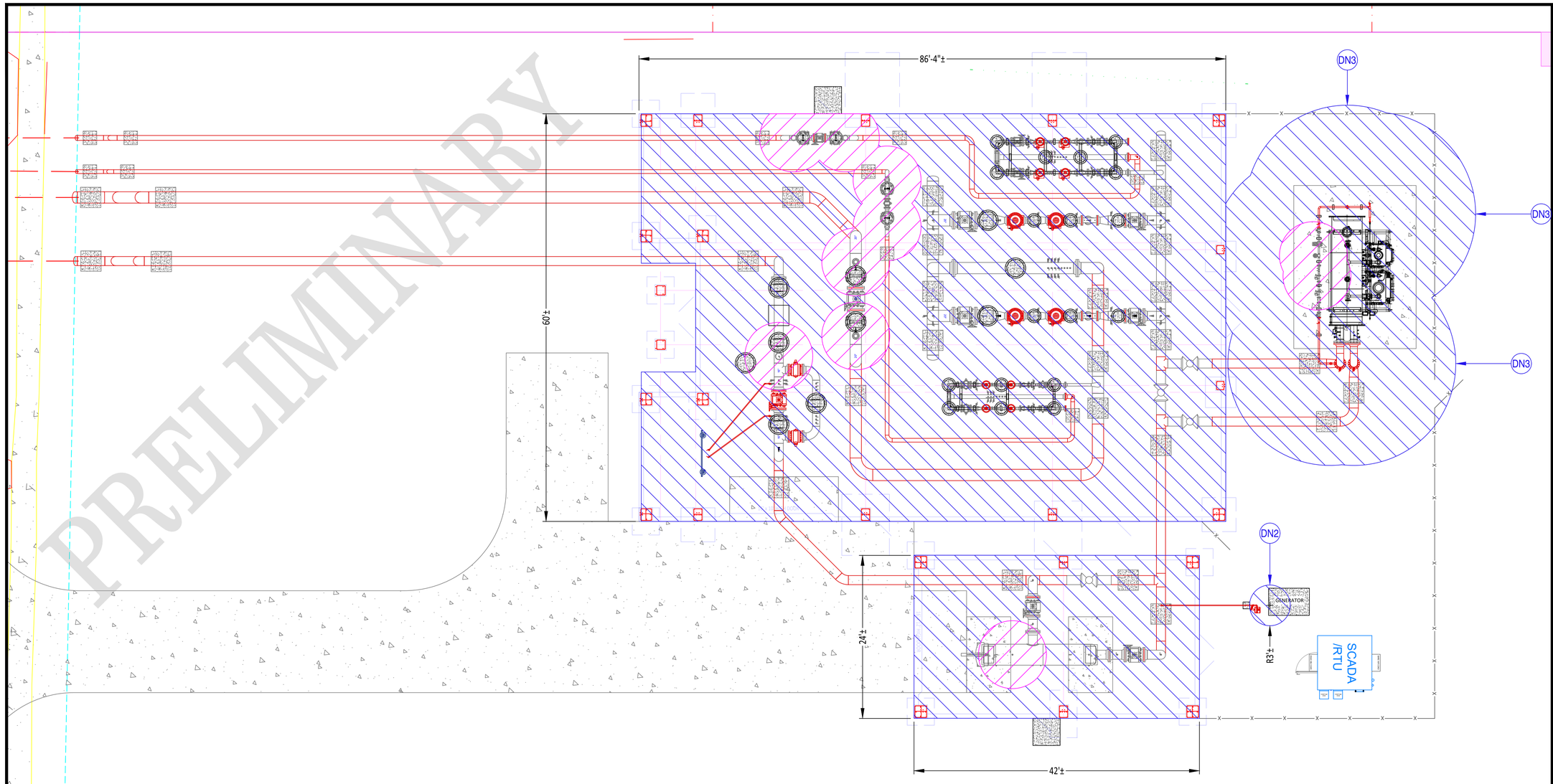
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

CORROSION LAYOUT

DRAWING NO:

25



CAUTION NOTES:

1. CONTRACTOR SHALL PLACE THE NECESSARY SIGNAGE AROUND THE SITE / FENCE FOR ANY ELECTRICAL CLASSIFICATION ZONES OUTSIDE OF THE FENCE LINE
2. CONTRACTOR SHALL PLACE THE NECESSARY ONE-CALL (CALL BEFORE YOU DIG) TO LOCATE UNDERGROUND FOREIGN UTILITIES PRIOR TO EXCAVATION.
3. CONTRACTOR AND NISOURCE REPRESENTATIVES SHALL IDENTIFY AND MARK LOCATIONS OF ALL UNDERGROUND UTILITIES IN THE CONSTRUCTION AREA PRIOR TO EXCAVATION.
4. AN AIR QUALITY TEST SHOULD BE TAKEN AT THE START OF ANY CAD WELDING OR ACTIVITIES THAT WILL RESULT IN OPEN SPARKS OR FLAMES. THESE TESTS SHOULD BE TAKEN ONCE DAILY WHILE POTENTIALLY SHOULD BE TAKEN ONCE DAILY WHILE POTENTIALLY
5. REGULATION AND BLOWDOWNS TO BE VENTED TO ATMOSPHERE, OUTSIDE OF THE BUILDING, DURING NORMAL OPERATION

LEGEND:

CLASS I, DIVISION I AREA (5' RADIUS)

CLASS I, DIVISION II AREA (15' RADIUS)

NON-CLASSIFIED AREA

NOTE - ALL REGULATOR VENT LINES SHOULD BE MADE TO VENT CONTROL GAS OUTSIDE, ABOVE THE ROOF LINE.

DESIGN NOTES:

1. ELECTRICAL CLASSIFICATION IS SHOWN FOR PROPOSED NEW FACILITIES AND IS BASED ON AGA XL1001
2. SERVICE SETTING IS BASED ON 3' MINIMUM CLEARANCE FROM GS 3020 SERIES
3. SIGNS SHALL BE ADDED AROUND STATION, ESPECIALLY AREAS WHERE C1D2 AREA EXTENDS PAST THE STATION FENCE

LINETYPE LEGEND - JOB/WORK ORDER STYLE

- GAS EXISTING
- GAS ABANDON
- GAS INSTALL
- PRE-FABRICATED UNIT
- BUILDING

NiSource

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Ohio Utilities Protection Service
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SCALE: 1/8" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

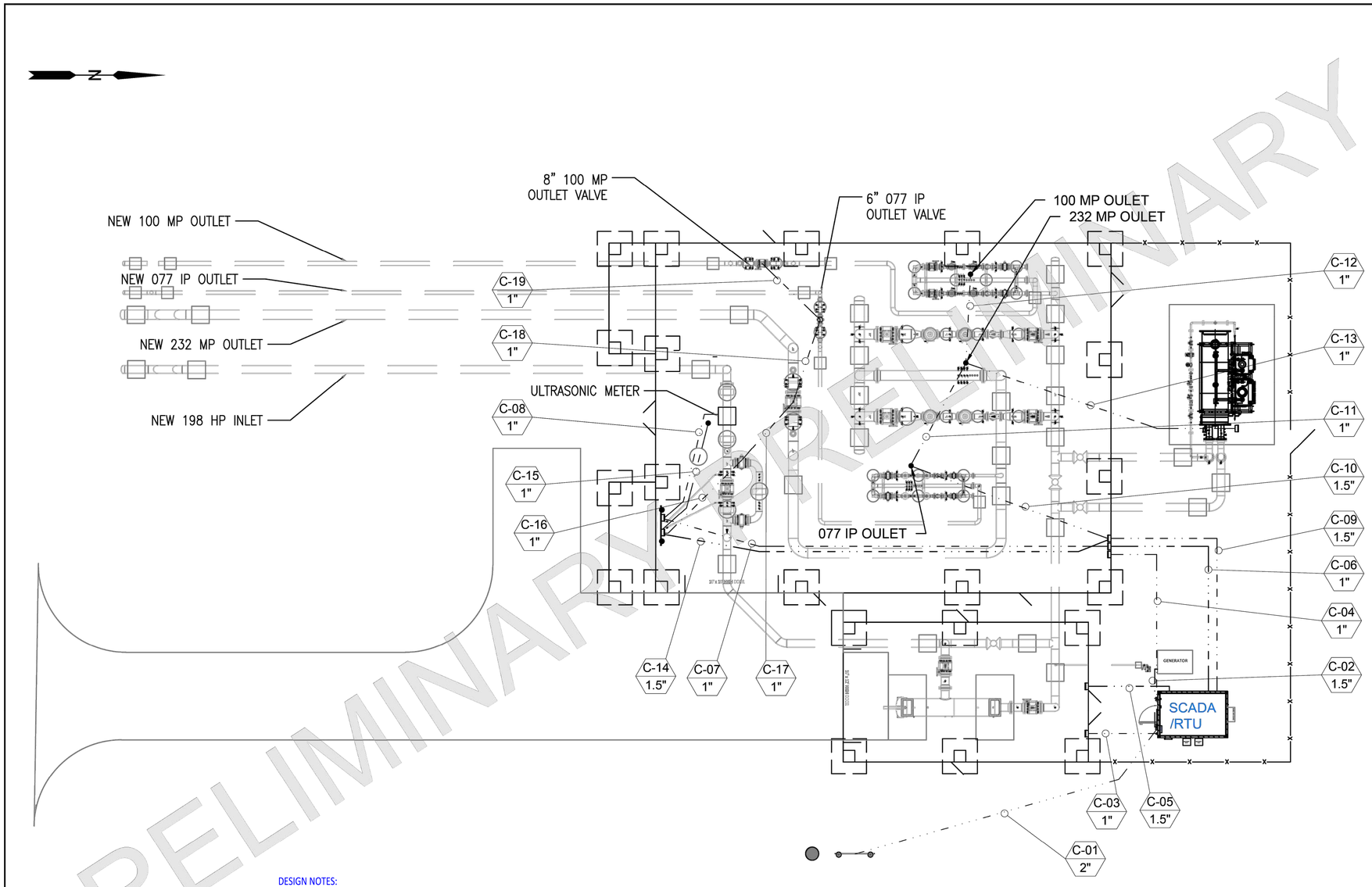
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

ELECTRICAL CLASSIFICATION

DRAWING NO:

26



DESIGN NOTES:

1. SEE ELECTRICAL DRAWING PACKAGE FOR ALL DETAILS PERTAINING TO THE ELECTRICAL PLANS.

ADVANCED CONTROL PANELS, INC.
www.advancedcontrolpanels.com

ACP JOB NO. J4219-COH

DESCRIPTION	DRAWN: RAH	DATE
TITLE	ENGINEER: CC	
LOCATION	APPROVED:	
DETAIL	DATE: 2025-05-14	
W.O./ACCT. NO.	SCALE:	

W.O.

REV.

RIDGEVIEW
ADDRESS
SITE OVERVIEW
w/ CONDUIT LAYOUT

NISOURCE DRAWING NO. XXX-1

APP'd ENG

APP'd DRAFT

DATE

REV.

FILM

Sht. 600F Cont. 600G

NiSource

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Ohio Utilities Protection Service
Call 811 before you dig

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SCALE: 3/16" = 1'-0"

PROPOSED

REVISIONS		
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0	9/29/23	PRELIMINARY
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DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
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AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:
I&C OVERVIEW

DRAWING NO:
27

BILL OF MATERIAL

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
07-42-053	101	24' MIN	1"	PIPE, 0.179" WALL, GB, BARE, SMLS, P.E., C.S., SA106 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
SPEC. ORDER	102	37' MIN	1"	PIPE, 0.179" WALL, GB, COATED, SMLS, P.E., C.S., SA106 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
SPEC. ORDER	103	24' MIN	2"	PIPE, 0.218" WALL, GB, BARE, SMLS, P.E., C.S., SA106 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
07-52-0600	107	4' MIN	6"	PIPE, 0.280" WALL, X-52, BARE, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
SPEC. ORDER	108	184' MIN	6"	PIPE, 0.280" WALL, X-52, COATED, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
07-52-0800	109	4' MIN	8"	PIPE, 0.322" WALL, X-52, BARE, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
SPEC. ORDER	110	153' MIN	8"	PIPE, 0.322" WALL, X-52, COATED, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
07-52-1200	111	20' MIN	12"	PIPE, 0.375" WALL, X-52, BARE, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
SPEC. ORDER	114	228' MIN	16"	PIPE, 0.375" WALL, X-52, COATED, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
SPEC. ORDER	116	169' MIN	20"	PIPE, 0.375" WALL, X-52, COATED, HFW, P.E., C.S., API 5L, PSL-2 SEE CORROSION RECOMMENDATIONS FOR COATING REQUIREMENTS
17-52-0645	201	1	6"	CAP, 0.280" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-52-0845	202	1	8"	CAP, 0.322" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-52-1645	203	1	16"	CAP, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-52-2045	204	1	20"	CAP, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
SPEC. ORDER	205	7	1"	ELBOW, 90°, LR, 0.179" WALL, GR-B, ASTM 234, B.W., C.S., ASME B16.9
17-15-089	206	4	2"	ELBOW, 90°, LR, 0.218" WALL, GR-B, ASTM 234, B.W., C.S., ASME B16.9
SPEC. ORDER	207	8	6"	ELBOW, 90°, LR, 0.280" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
SPEC. ORDER	208	9	8"	ELBOW, 90°, LR, 0.322" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
SPEC. ORDER	209	2	12"	ELBOW, 90°, LR, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
SPEC. ORDER	210	4	16"	ELBOW, 90°, LR, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
SPEC. ORDER	211	5	20"	ELBOW, 90°, LR, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
SPEC. ORDER	212	2	16" x 12"	ELBOW, REDUCING, 90°, LR, 0.375" x 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-52-1615	213	4	16"	ELBOW, 45°, LR, SEGMENTABLE, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-52-2015	214	3	20"	ELBOW, 45°, LR, SEGMENTABLE, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-52-1620	215	4	16"	TEE, 0.375" WALL, Y-52, MSS SP75, B.W., C.S., ASME B16.9
17-88-028	216	3	1/2"	THREDOLET, 3,000#, C.S., GR-B, 2" THRU 2-1/2" PIPE, SA105, MSS SP97, ASME B1.20.1, BONNEY FORGE
SPEC. ORDER	218	2	1"	THREDOLET, 3,000#, C.S., F-52, 12" THRU 36" PIPE, A694, MSS SP97, ASME B1.20.1, BONNEY FORGE
SPEC. ORDER	219	1	2"	THREDOLET, 3,000#, C.S., F-52, 12" THRU 18" PIPE, A694, MSS SP97, ASME B1.20.1, BONNEY FORGE
SPEC. ORDER	220	1	1"	ELBOLET, 3,000#, C.S., F-52, 2" THRU 6" PIPE, A694, MSS SP97, ASME B1.20.1, BONNEY FORGE
SPEC. ORDER	221	1	1"	ELBOLET, 3,000#, C.S., F-52, 8" THRU 36" PIPE, A694, MSS SP97, ASME B1.20.1, BONNEY FORGE
24-02-230	222	1	1/4" x 3"	NIPPLE, PIPE, XH, CS, SMLS, ASTM A106, GR-B, T.B.E., B16.11
16-05-130	223	1	1/4"	VALVE, BALL, KF, FP, THREADED, 316 SS, S8000-M3, LOCKING HANDLE, 2,000# W.O.G
26-58-410	224	1	1/4"	PLUG, HEX HEAD, 6,000#, CS, ASTM A105, GR-B, THD, B16.11
24-04-230	226	3	1/2" x 3"	NIPPLE, PIPE, XH, CS, SMLS, ASTM A106, GR-B, T.B.E., B16.11
16-05-131	227	3	1/2"	VALVE, BALL, KF, FP, THREADED, 316 SS, S8000-M3, LOCKING HANDLE, 2,000# W.O.G
26-58-420	228	3	1/2"	PLUG, HEX HEAD, 6,000#, CS, ASTM A105, GR-B, THD, B16.11
24-06-230	229	12	1" x 3"	NIPPLE, PIPE, XH, CS, SMLS, ASTM A106, GR-B, T.B.E., B16.11
16-05-132	230	7	1"	VALVE, BALL, KF, FP, THREADED, 316 SS, S8000-M3, LOCKING HANDLE, 2,000# W.O.G
26-58-430	231	6	1"	PLUG, HEX HEAD, 6,000#, CS, ASTM A105, GR-B, THD, B16.11

BILL OF MATERIAL

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
SPEC. ORDER	232	2	1" x 6"	NIPPLE, PIPE, SCH. 80, CS, SMLS, ASTM A106, GR-B, THREADED x BEVEL B16.11
SPEC. ORDER	233	1	2" x 8"	NIPPLE, PIPE, SCH. 80, CS, SMLS, ASTM A106, GR-B, T.B.E., B16.11
SPEC. ORDER	234	1	1-1/4" x 3"	NIPPLE, PIPE, SCH. 80, CS, SMLS, ASTM A106, GR-B, T.B.E., B16.11
26-64-069	235	1	1-1/4" x 1"	REDUCER, THREADED, CONC., BLK CS, 3000#, SA105, THD, B16.11
SPEC. ORDER	236	1	2" x 1"	REDUCER, CONC., 0.218" x 0.179" WALL, GR-B, ASTM 234, B.W., C.S., ASME B16.9
SPEC. ORDER	240	6	1"	INSULATED UNION, THRD, FNPT, BLK CS, SA105, 3000#, MSS SP 83
SPEC. ORDER	241	1	2"	INSULATED UNION, THRD, FNPT, BLK CS, SA105, 3000#, MSS SP 83
SPEC. ORDER	242	1	3/8" x 1/4"	BUSHING, SWAGELOK, REDUCING, 316 STAINLESS STEEL, 3/8" MALE NPT, 1/4" FEMALE NPT, PART#: SS-6-RB-4, 6,600# MWP
44-78-006	243	1	1"	SERVICE TEE, MUELLER, WELD, CS, NO BLOW CURB VALVE TEE, H17656, WELD x WELD, 1,440 PSIG WP
SPEC. ORDER	244	1	1"	Y-STRAINER, TITAN, YS81-CS, THREADED, ASME CLASS 600, 1480# MWP, STAINLESS STEEL SCREEN, 3/8" NPT BLOWDOWN, ASME B16.11, STAINLESS STEEL SPIRAL WOUND GASKET, FOR GAS APPLICATION, OVERALL LENGTH = 4-9/16"
SPEC. ORDER	245	1	1"	REGULATOR, FISHER 627-R, 1000# W.P., DUCTILE IRON THREADED BODY, NITRILE DISK, 3/32" ORIFICE, , YELLOW SPRING (5#-20# RANGE), SET POINT = 20 PSIG, TAG FIRST CUT
48-04-100	246	1	1-1/4"	REGULATOR, ITRON, B-42R, THREADED, 3/16" ORIFICE, BUNA-N VALVE SEAT, 7" w.c. SET POINT, BROWN SPRING (6"w.c - 8"w.c RANGE), 1-1/4" CAST IRON BODY, 125# W.P.
51-75-161	247	1	1-1/4"	METER, AMERICAN, AL-425TC, DIAPHRAGM, 10 PSIG MAX OPERATING PRESSURE, W/ ERT, 30 LT, C/L: 8-1/4"
SPEC. ORDER	5	248	1" x 10-1/2"	THERMOWELL, THR-STR-1-.5-.875-12-.5, 1" NPS x 1/2" CONN. x 10-1/2" U LENGTH WITH 0.5 BORE, TECVALCO SUPPLIED
SPEC. ORDER	249	1	2"	METER, DRESSER, 3M, ROTARY SER. B3, 175#, F.F., ANSI 125, F/F: 6-3/4"
SPEC. ORDER	250	2	12"	VALVE, BALL, TRUNNION, ANSI 300, FULL PORT, CS, RFFE, CAMERON T-30 SERIES, GROVE B5, WKM, OR VALBART EQUIV, DPE SEATS, W/HANDWHEEL, W/WORM GEAR, API 6D, F/F = 25-1/2", 740# W.P., SEE MRC QUOTE DEO052124-2
SPEC. ORDER	251	1	16"	VALVE, BALL, TRUNNION, ANSI 300, FULL PORT, CS, RFFE, CAMERON T-30, GROVE B5, WKM, OR VALBART EQUIVALENT, W/ BETTIS ACTUATOR, F/F = 33", W/ HYDRAULIC OVERRIDE, PROXIMITY LIMIT SWITCH, 4 WAY SOLENOID, CONFIG. FOR REMOTE OPERATION, SEE MRC QUOTE 20240047231 REV 1
SPEC. ORDER	252	4	16"	VALVE, BALL, TRUNNION, ANSI 300, FULL PORT, CS, W.E., 24" LONG PIPE PUPS ON EACH END, X52, 0.375" WALL, DPE SEATS, GEAR OPERATED W/ HANDWHEEL, API 6D, OR EQUIV VALVE, 80" STEM EXTENSION, PRIMED FOR BELOW GRADE SERVICE, SEE MRC QUOTE# DEO052124-2

BILL OF MATERIAL

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
SPEC. ORDER	300	2	2"	GASKET, FULL FACE, ANSI 150, ASME B16.21, 1/8" THICK, VSP, OPRA, EPTFE, TYPE 3, 3,000 PSIG, FINAL COMPRESSION THICKNESS=1/16"
SPEC. ORDER	301	8	5/8" X 1-1/2"	CAP SCREW, HEAVY HEX, FULL THREAD, ASTM 193, B7, PFTE COATED, 11 TPI, FOR 3M METER
SPEC. ORDER	302	3	2"	FLANGE, WELD NECK, R.F., ANSI 150, C.S., BORED TO 0.218" WALL, GB, ASME B16.5, SA105, DP=285 PSIG, 4 BOLTS PER FLANGE
SPEC. ORDER	303	8	5/8" x 3-3/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	304	2	2"	GASKET, RING, ANSI 150, ASME B16.21, 1/16" THICK, NON-GLASS/ ASBESTOS, GARLOCK, BLUEGARD STYLE 3000, 1,000 PSIG MAX
SPEC. ORDER	305	1	2"	FLANGE, WELD NECK, R.F., ANSI 300, C.S, BORED TO 0.218" WALL, GB ASME B16.5, SA105, DP =740 PSIG, 8 BOLTS PER FLANGE
SPEC. ORDER	306	8	5/8" x 4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED 2" ANSI 300 BOLT SET
SPEC. ORDER	307	1	2"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-46-036	308	0	4"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.237" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 8 BOLTS PER FLANGE
SPEC. ORDER	309	80	3/4" x 5"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	310	8	4"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-46-037	311	1	6"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.280" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 12 BOLTS PER FLANGE
SPEC. ORDER	312	36	3/4" x 5-1/2"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	313	1	6"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-46-038	314	1	8"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.322" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 12 BOLTS PER FLANGE
SPEC. ORDER	315	36	7/8" x 6-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	316	0	8"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-46-040	317	4	12"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.375" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 16 BOLTS PER FLANGE
SPEC. ORDER	318	96	1-1/8" x 7-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	319	5	12"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
SPEC. ORDER	320	2	12"	FLANGE, WELD NECK, R.F., ANSI 600, C.S., BORED TO 0.375" WALL, F-65, ASME B16.5, A694, MSS SP 44, DP= 1,480 PSIG, 20 BOLTS PER FLANGE
SPEC. ORDER	321	40	1-1/4" x 9-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	322	0	12"	GASKET, SPIRAL WOUND, ANSI 600, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-46-041	323	0	16"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.375" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 20 BOLTS PER FLANGE
SPEC. ORDER	324	180	1-1/4" x 8-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	325	3	16"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
SPEC. ORDER	326	0	20"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.375" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 24 BOLTS PER FLANGE
SPEC. ORDER	327	144	1-1/4" x 9"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	328	0	20"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-279	329	1	4"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 8 BOLTS PER FLANGE
19-14-283	330	1	6"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 12 BOLTS PER FLANGE
19-65-224	331	0	3"	FLANGE, WELD NECK, R.F., ANSI 150, C.S., BORED TO 0.216" WALL, GB, ASME B16.5, SA105, DP=285 PSIG, 4 BOLTS PER FLANGE
SPEC. ORDER	332	24	5/8" x 4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
40-73-0441	333	8	3"	GASKET, RING, ANSI 150, ASME B16.21, 1/16" THICK, NON-GLASS/ ASBESTOS, GARLOCK, BLUEGARD STYLE 3000, 1,000 PSIG MAX
19-46-039	334	0	10"	FLANGE, WELD NECK, R.F., ANSI 300, C.S., BORED TO 0.365" WALL, F-52, ASME B16.5, A694, MSS SP 44, DP= 740 PSIG, 16 BOLTS PER FLANGE
SPEC. ORDER	335	128	1" x 7"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	336	8	10"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING

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PROPOSED

REVISIONS		
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0	3/6/24	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

BOM

DRAWING NO:

28

BILL OF MATERIAL

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
SPEC. ORDER	PF1	1	16"	RMV MAIN HEADER, PREFABRICATED 16", ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF2	1	12"	RMV BYPASS, PREFABRICATED 12", ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF3	1	16"	RMV OUTLET RISER, PREFABRICATED 16", ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF4	2	16"	FILTER VALVE, PREFABRICATED 16", ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF5	1	16"	FILTER/SEPARATOR, KINGTOOL, 16" A300 FLANGES, 36" BARREL, 12" FLANGED SUMP, 285# W.P., SEE QUOTE 0524-204-R1
SPEC. ORDER	PF6	1	12"	1.155 MBTU HEATER, CWT, 12" A600 FLANGES, 12" X-52 COIL, SEE QUOTE DLH-1155-7A2L-X52-LAC150
SPEC. ORDER	PF7	1	16"	232 INLET HEADER, PREFABRICATED 16", ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF8	2	16"x10"x20"	232 TOPWORKS, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF9	1	20"	232 OUTLET HEADER, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF10	1	20"	232 CONTROL SPOOL, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF11	1	6"x4"x8"	100 MP REGULATION, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF12	1	4"	IP INLET, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF13	1	4"x3"x6"	IP REGULATION, PREFABRICATED, ANSI 300, DP = 232# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF14	1	20"	232 OUTLET VALVE, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF15	1	8"	100 OUTLET VALVE, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF16	1	6"	IP OUTLET VALVE, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF17	1	2"	HEATER FUEL TRAIN, PREFABRICATED, ANSI 300, DP = 275# SEE BANGS FABRICATION DRAWING FOR DETAILS
SPEC. ORDER	PF18	1	1-1/4"	METER SETTING, PREFABRICATED, PLMB-0002A DRAWING, SEE APPENDIX A FOR ADDITIONAL DETAILS
SPEC. ORDER	PF19	1	16"	METER, USM, FLEXIM CLAMP-ON, SEE QUOTE FOR ADDITIONAL DETAILS.
SPEC. ORDER	EZ1	5	16" PIPE	SUPPORT, EZ LINE, 16" PIPE, MODEL 1218, FIG. F, 120Ø CRADLE, W/ 4 SLOTTED HOLES, W/ 2 U-BOLTS, W/ I-CLIP LINER, 1218-F, D = 44"
SPEC. ORDER	EZ2	3	12" PIPE	SUPPORT, EZ LINE, 12" PIPE, MODEL 1218, FIG. F, 120Ø CRADLE, W/ 4 SLOTTED HOLES, W/ 2 U-BOLTS, W/ I-CLIP LINER, 1218-F, D = 44"
SPEC. ORDER	EZ3	8	2" PIPE	SUPPORT, EZ LINE, 2" PIPE, MODEL 204, FIG. F, 120Ø CRADLE, W/ 4 SLOTTED HOLES, W/ 2 U-BOLTS, W/ I-CLIP LINER, 204-F, D = 38"
SPEC. ORDER	EZ4	2	10" PIPE	SUPPORT, EZ LINE, 10" PIPE, MODEL 510, FIG. F, 120Ø CRADLE, W/ 4 SLOTTED HOLES, W/ 2 U-BOLTS, W/ I-CLIP LINER, 510-F, D = 44"
SPEC. ORDER	EZ5	5	20" PIPE	SUPPORT, EZ LINE, 20" PIPE, MODEL 2024HD, FIG. F, 120Ø CRADLE W/ 4 SLOTTED HOLES, W/2 U-BOLTS, W/ I-CLIP LINER, 2024-F , D=44"
SPEC. ORDER	EZ6	2	8" PIPE	SUPPORT, EZ LINE, 8" PIPE, MODEL 510, FIG. F, 120Ø CRADLE, W/ 4 SLOTTED HOLES, W/ 2 U-BOLTS, W/ I-CLIP LINER, 510-F, D = 38"
SPEC. ORDER	EZ7	2	6" PIPE	SUPPORT, EZ LINE, 6" PIPE, MODEL 510, FIG. F, 120Ø CRADLE, W/ 4 SLOTTED HOLES, W/ 2 U-BOLTS, W/ I-CLIP LINER, 510-F, D = 38"

BILL OF MATERIAL - CORROSION

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
SPEC. ORDER	601	1	4"	INSULATING KIT, TYPE E, ANSI 300, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
SPEC. ORDER	602	4	6"	INSULATING KIT, TYPE E, ANSI 300, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
SPEC. ORDER	603	3	8"	INSULATING KIT, TYPE E, ANSI 300, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
SPEC. ORDER	604	1	12"	INSULATING KIT, TYPE E, ANSI 300, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
SPEC. ORDER	605	2	12"	INSULATING KIT, TYPE E, ANSI 600, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
SPEC. ORDER	606	6	16"	INSULATING KIT, TYPE E, ANSI 300, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
SPEC. ORDER	607	6	20"	INSULATING KIT, TYPE E, ANSI 300, C10 GASKET W/ VITON SEAL, ASME B16.21, ONE FULLE LENGTH G10, INSULATING SLEEVE, TWO INSULATING WASHERS, & (2) ASTM F436 HARDER WASHERS P/ BOLTS, ASME B16.5, GPT, FLEXITALLIC, OR EQUIVALENT INSULATING KIT
42-31-217	608	6	17 LB	ANODE, MAGNESIUM, HI POTENTIAL, W/ 10' OF #12 RED LEAD WIRE
42-09-925	609	20	- - -	PROFILING PETROLATUM MASTIC, DENSO, 4 LB BLK
42-11-303	610	16	4" x 100'	UTILITY TAPE, ALL-PURPOSE, DENSO
42-11-106	611	30	6" x 25'	PRIMER-INTEGRATED COLOR PETROLATUM TAPE, GRAY, DENSO, 48 MILLS
42-09-971	612	30		EPOXY, DENSO 7125 PROTOL, BURSH GRADE, TWO PART EPOXY, 1L KIT
42-09-972	613	30		EPOXY, DENSO 7200 PROTOL, BURSH GRADE, TWO PART EPOXY, 1L KIT
42-32-0611	614	6	3"	TEST STATION, GEROME, #107, FOR 3" CONDUIT W/ COL. GAS EMBLEM 5 TERM
74-47-506	615	1	#12	WIRE, BLACK, SOLID, COPPER, TW WIRE, 500' SPOOL
42-09-105	616	12		DENSO PASTE S105 5.5#TUB, WET APPLCIATION PASTE
SPEC. ORDER	617	2	4"	OVP, DAIRYLAND, 2/2-3.7-100 MOUNTING BRACKET - 4" ANSI 300 FLANGE
SPEC. ORDER	618	5	6"	OVP, DAIRYLAND, 2/2-3.7-100 MOUNTING BRACKET - 6" ANSI 300 FLANGE
SPEC. ORDER	619	3	8"	OVP, DAIRYLAND, 2/2-3.7-100 MOUNTING BRACKET - 8" ANSI 300 FLANGE
SPEC. ORDER	620	3	12"	OVP, DAIRYLAND, 2/2-3.7-100 MOUNTING BRACKET - 12" ANSI 300 FLANGE
SPEC. ORDER	621	6	16"	OVP, DAIRYLAND, 2/2-3.7-100 MOUNTING BRACKET - 16" ANSI 300 FLANGE
SPEC. ORDER	622	4	20"	OVP, DAIRYLAND, 2/2-3.7-100 MOUNTING BRACKET - 20" ANSI 300 FLANGE
SPEC. ORDER	623	3 CASES	- - -	TRENTON WAX TAPE, PRIMER BROWN, SEE APPENDIX C FOR DETAILS
SPEC. ORDER	624	3 CASES	- - -	TRENTON WAX TAPE # 2 BROWN, SEE APPENDIX C FOR DETAILS
SPEC. ORDER	625	12 ROLLS	- - -	TRENTON MCO 110 OUTER WRAP, SEE APPENDIX C FOR DETAILS
SPEC. ORDER	626	3	2"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 150, SSFP-02-150, (1/4 CART./FLG)
SPEC. ORDER	627	8	2"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-02-300, (1/4 CART./FLG)
SPEC. ORDER	628	8	3"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 150, SSFP-03-150, (1/2 CART./FLG)
SPEC. ORDER	629	22	4"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-04-300, (1/2 CART./FLG)
SPEC. ORDER	630	19	6"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-06-300, (3/4 CART./FLG)
SPEC. ORDER	631	8	8"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-08-300, (1 CART./FLG)
SPEC. ORDER	632	12	10"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-10-300, (1 CART./FLG)
SPEC. ORDER	633	6	12"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-12-300, (1-1/2 CART./FLG)
SPEC. ORDER	634	2	12"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 600, SSFP-12-600, (4 CART./FLG)

BILL OF MATERIAL - CORROSION

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
SPEC. ORDER	635	13	16"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-16-300, (2 CART./FLG)
SPEC. ORDER	636	8	20"	FLANGE PROTECTOR, STAINLESS STEEL, ADVANCE PRODUCTS, SERIES 7100, 316L, ANSI 300, SSFP-20-300, (2-3/4 CART./FLG)
SPEC. ORDER	637	1	120 LB DRUM	GREASE, ADVANCED KLEERGEL, CORROSION INHIBITING

BILL OF MATERIAL - PRESSURE TESTING MATERIALS

STOCK NO.	ITEM	QTY.	SIZE	DESCRIPTION
19-14-071	T1	1	2"	FLANGE, BLIND, R.F., ANSI 150, C.S., GB, ASME B16.5, SA105, DP=285 PSIG, 4 BOLTS PER FLANGE
SPEC. ORDER	T2	8	5/8" x 3-3/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
40-73-0321	T3	3	2"	GASKET, RING, ANSI 150, ASME B16.21, 1/16" THICK, NON-GLASS/ ASBESTOS, GARLOCK, BLUEGARD STYLE 3000, 1,000 PSIG MAX
19-14-271	T4	1	2"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 8 BOLTS PER FLANGE
SPEC. ORDER	T5	16	5/8" x 4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T6	3	2"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-279	T7	1	4"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 8 BOLTS PER FLANGE
SPEC. ORDER	T8	16	3/4" x 5"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T9	3	4"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-283	T10	4	6"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 12 BOLTS PER FLANGE
SPEC. ORDER	T11	60	3/4" x 5-1/2"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T12	6	6"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-287	T13	3	8"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 12 BOLTS PER FLANGE
SPEC. ORDER	T14	48	7/8" x 6-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T15	5	8"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-531	T16	2	12"	FLANGE, BLIND, R.F., ANSI 600, C.S., GB, ASME B16.5, SA105, DP= 1,480 PSIG, 20 BOLTS PER FLANGE
SPEC. ORDER	T17	60	1-1/4" x 9-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T18	4	12"	GASKET, SPIRAL WOUND, ANSI 600, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-295	T19	4	16"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 16 BOLTS PER FLANGE
SPEC. ORDER	T20	80	1-1/4" x 8-1/4"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T21	6	16"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
19-14-299	T22	3	20"	FLANGE, BLIND, R.F., ANSI 300, C.S., GB, ASME B16.5, SA105, DP= 740 PSIG, 24 BOLTS PER FLANGE
SPEC. ORDER	T23	96	1-1/4" x 9"	STUD BOLT, A-193, GRADE B7, THREADED ENTIRE LENGTH, W 2-2H NUTS, A194, BOLTS (FTF), NUTS, AND WASHERS (IF REQ'D) TO BE PTFE COATED
SPEC. ORDER	T24	5	20"	GASKET, SPIRAL WOUND, ANSI 300, ASME B16.20, 1/8" THICK, FLEXITALLIC, STYLE CGI, OUTER RING C.S., INNER RING 316L, 316L/FLEXICARB WINDING
26-87-027	T25	1	1"	UNION, THRD, FNPT, BLK CS, SA105, 3000#, MSS SP 83
26-87-043	T26	1	1-1/4"	UNION, THRD, FNPT, BLK CS, SA105, 3000#, MSS SP 83
SPEC. ORDER	T27	2	1-1/4"	CAP, THREADED, 3000#, C.S., ASTM A105, GRADE B, THD, B16.11
26-58-430	T28	1	1"	PLUG, HEX HEAD, 6,000#, CS, ASTM A105, GR-B, THD, B16.11

NiSource

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Ohio Utilities Protection Service
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PROPOSED

REVISIONS		
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1	---	---
0	3/6/24	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

DRAWING TITLE:

BOM 2

DRAWING NO:

29

L-05xxx Columbia Gas - Ridgeview Station.AGI

Mounting Height: various
Reflectance: Outdoors
Date:6/11/2025

Workplane: n/a
Point Spacing: 5'

Dialight Corporation
Farmingdale, NJ
(732) 919-3119

Luminaire Schedule

Symbol	Qty	Label	Description	LLF	LLD	LDD	Lumens	Mnt Ht
	9	LPD3C4D2P	2' Linear	0.950	0.950	1.000	3691	9
	1	LPD3C4M2P	4' Linear	0.950	0.950	1.000	7135	13

Calculation Summary

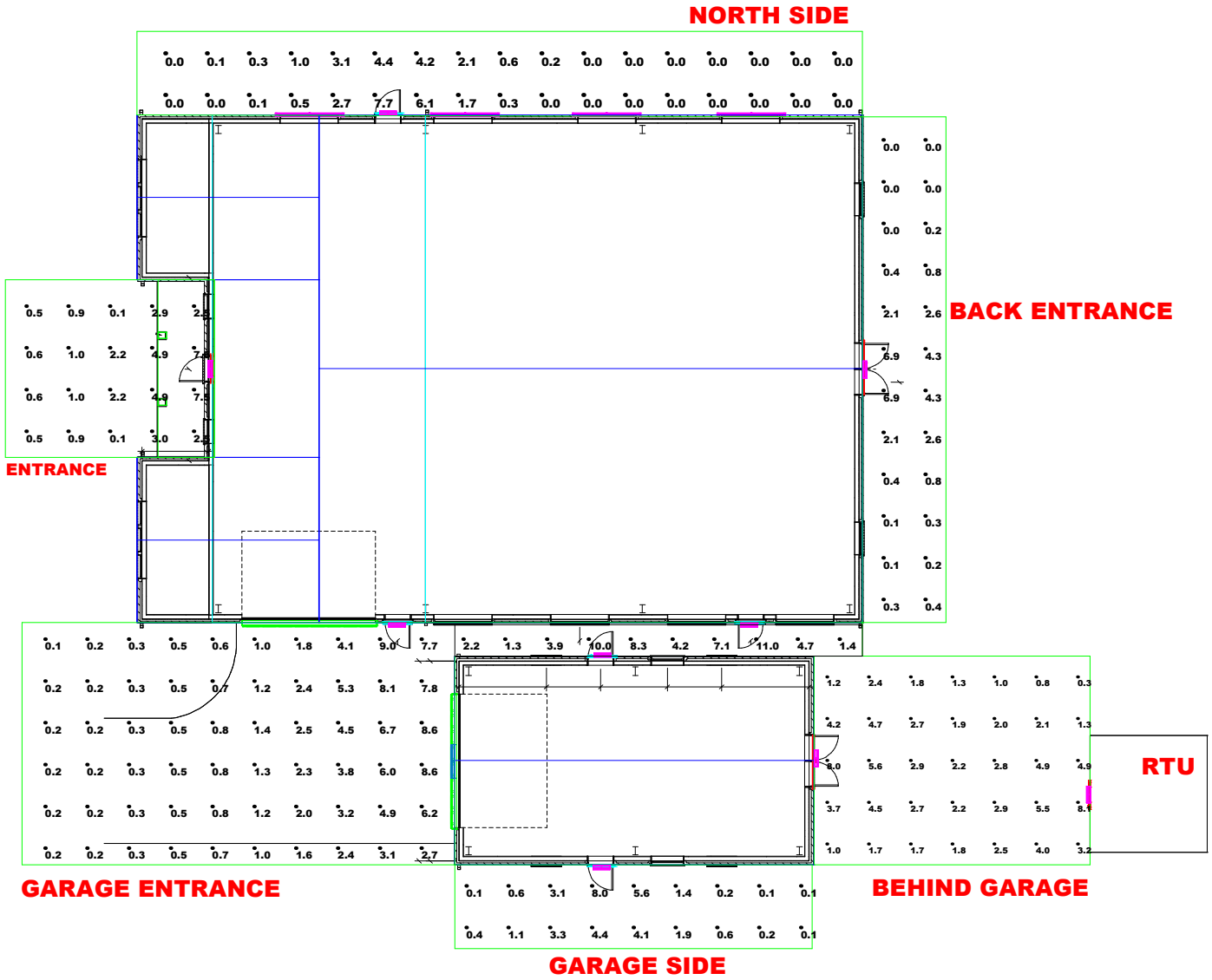
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
Back Entrance	Illuminance	Fc	1.49	6.9	0.0	N.A.	N.A.
Back of Garage	Illuminance	Fc	2.99	8.1	0.3	9.97	27.00
Entrance	Illuminance	Fc	2.32	7.5	0.1	23.20	75.00
Garage Entrance	Illuminance	Fc	2.69	11.0	0.1	26.90	110.00
Garage Side	Illuminance	Fc	1.96	8.0	0.1	19.60	80.00
North Side	Illuminance	Fc	1.03	7.7	0.0	N.A.	N.A.
Between House and Garage	Illuminance	Fc	5.41	11.0	1.3	4.16	8.46

L-05xxx Columbia Gas - Ridgeview Station.AGI

Mounting Height: various
Reflectance: Outdoors
Date:6/11/2025
Page 2 of 10

Workplane: n/a
Point Spacing: 5'

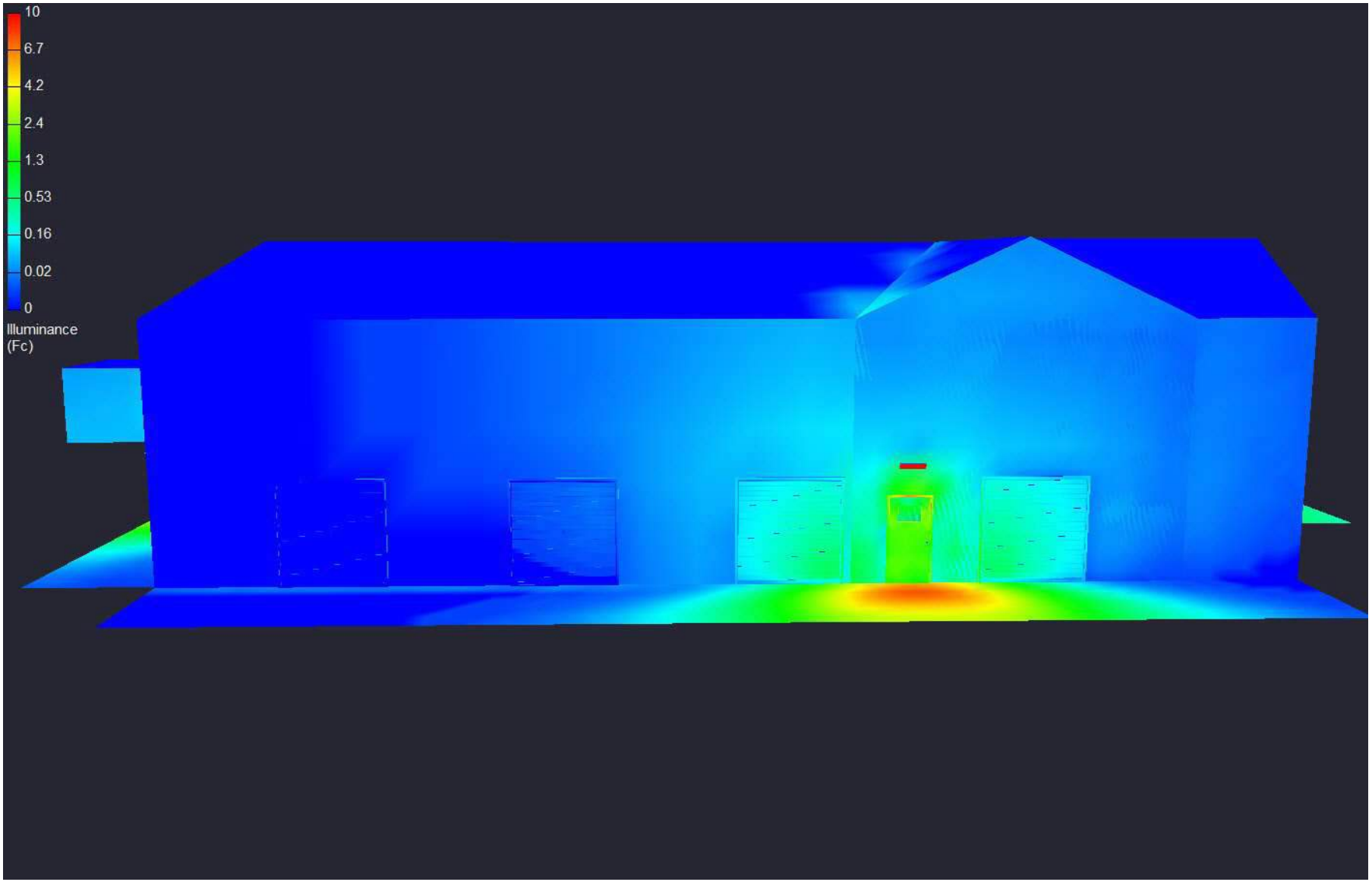
Dialight Corporation
Farmingdale, NJ
(732) 919-3119



L-05xxx Columbia Gas - Ridgeview Station.AGI
Mounting Height: various
Reflectance: Outdoors
Date:6/11/2025

Workplane: n/a
Point Spacing: 5'

Dialight
Dialight Corporation
Farmingdale, NJ
(732) 919-3119



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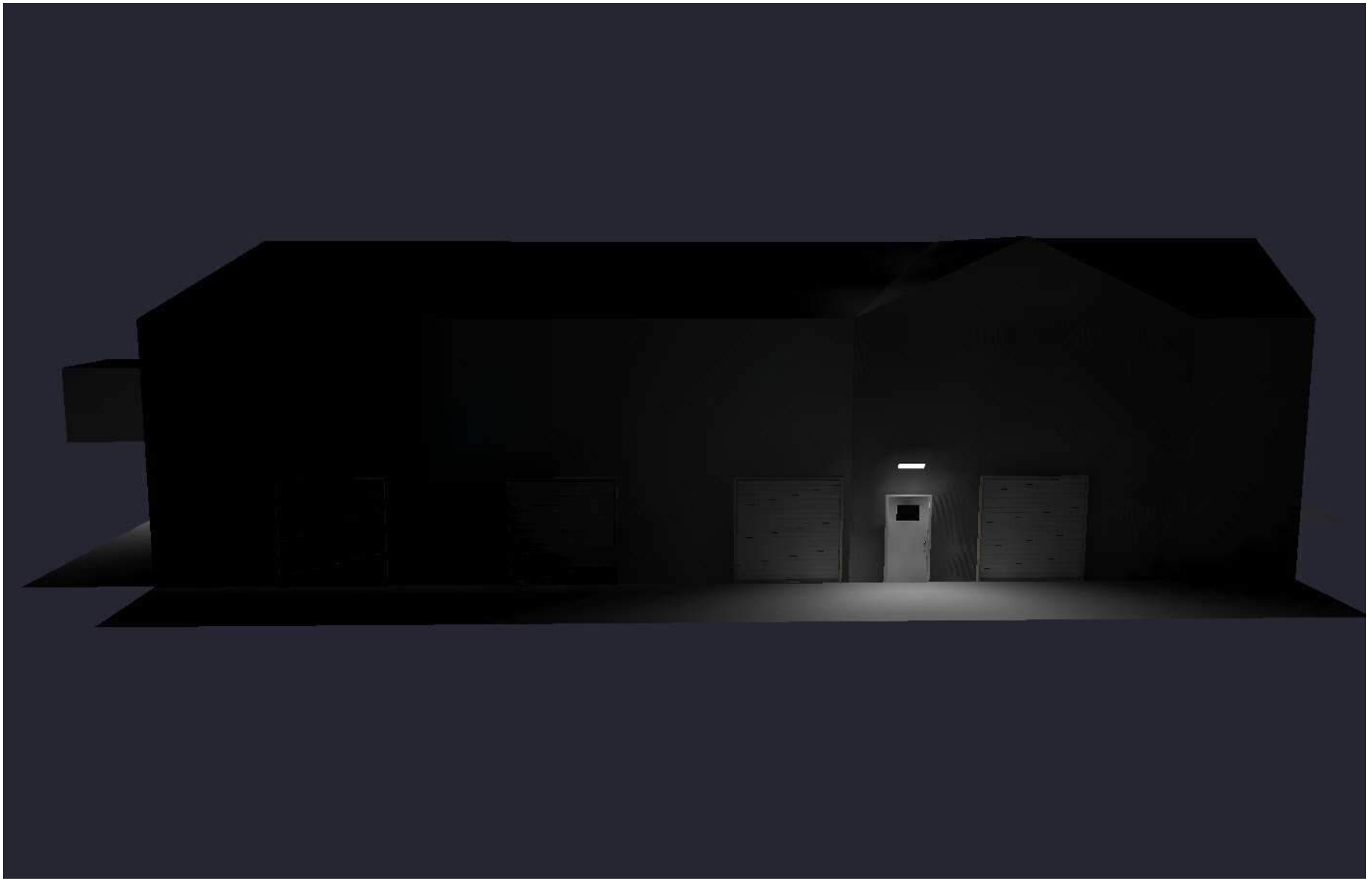

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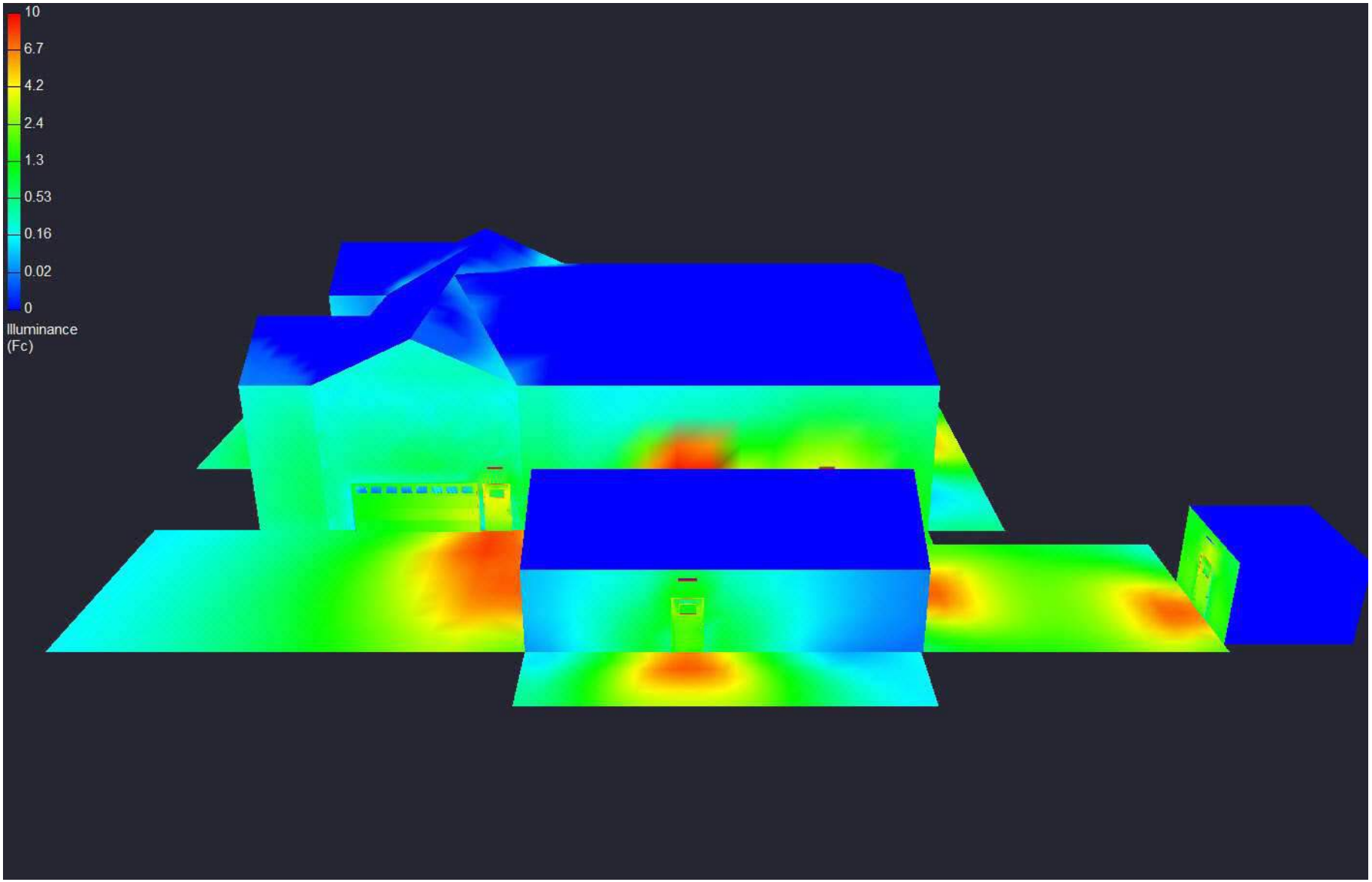

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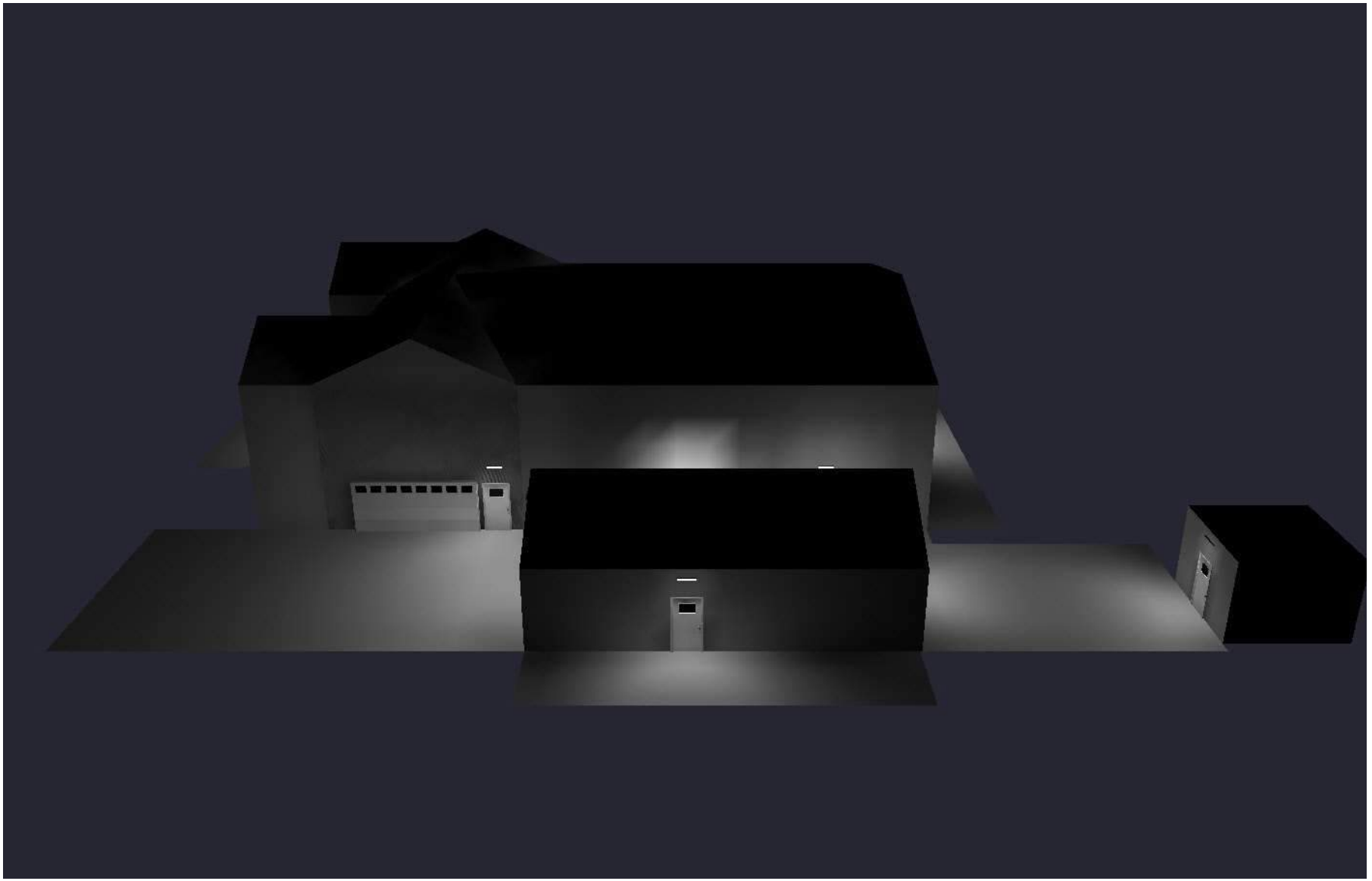

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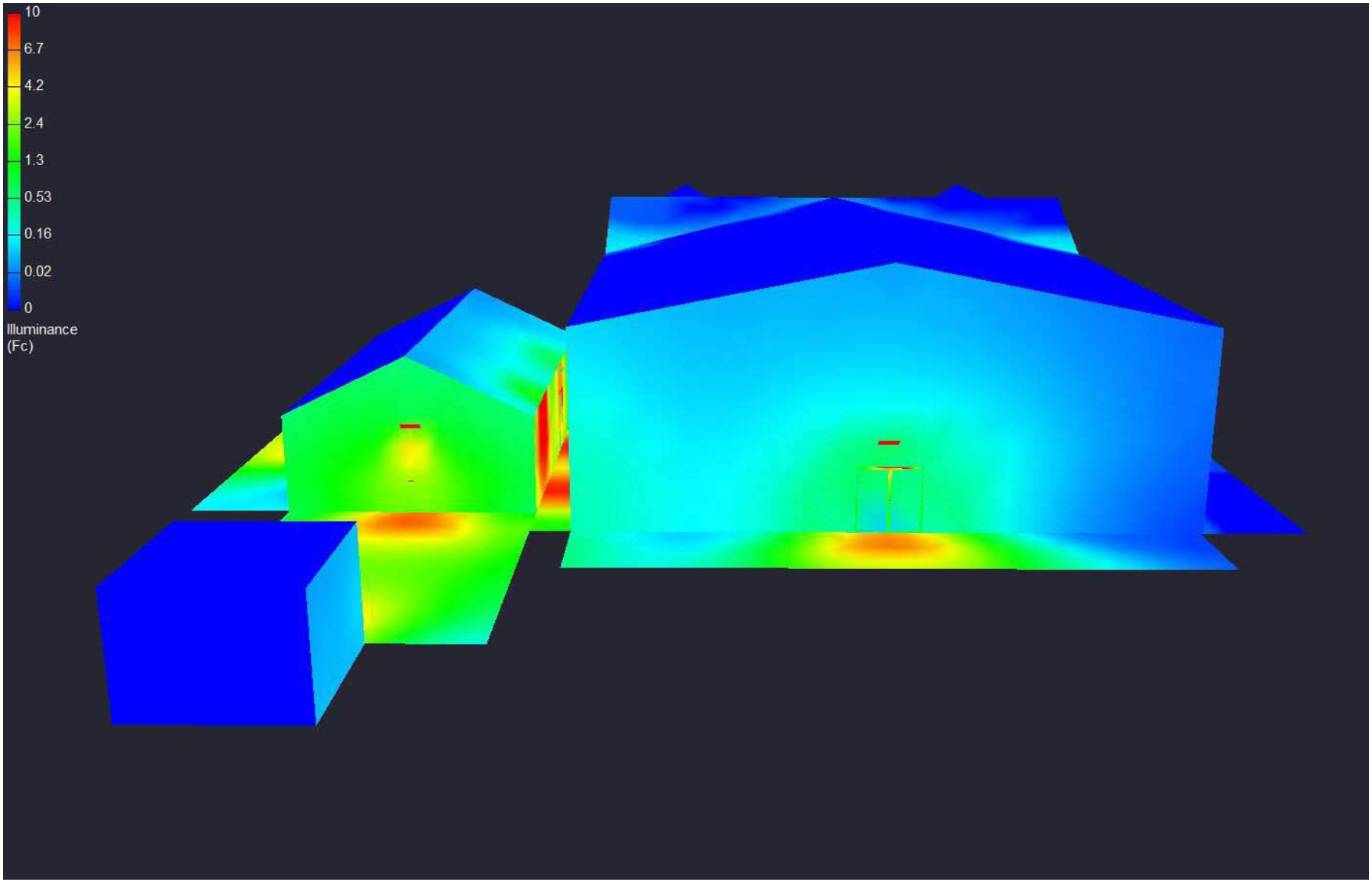

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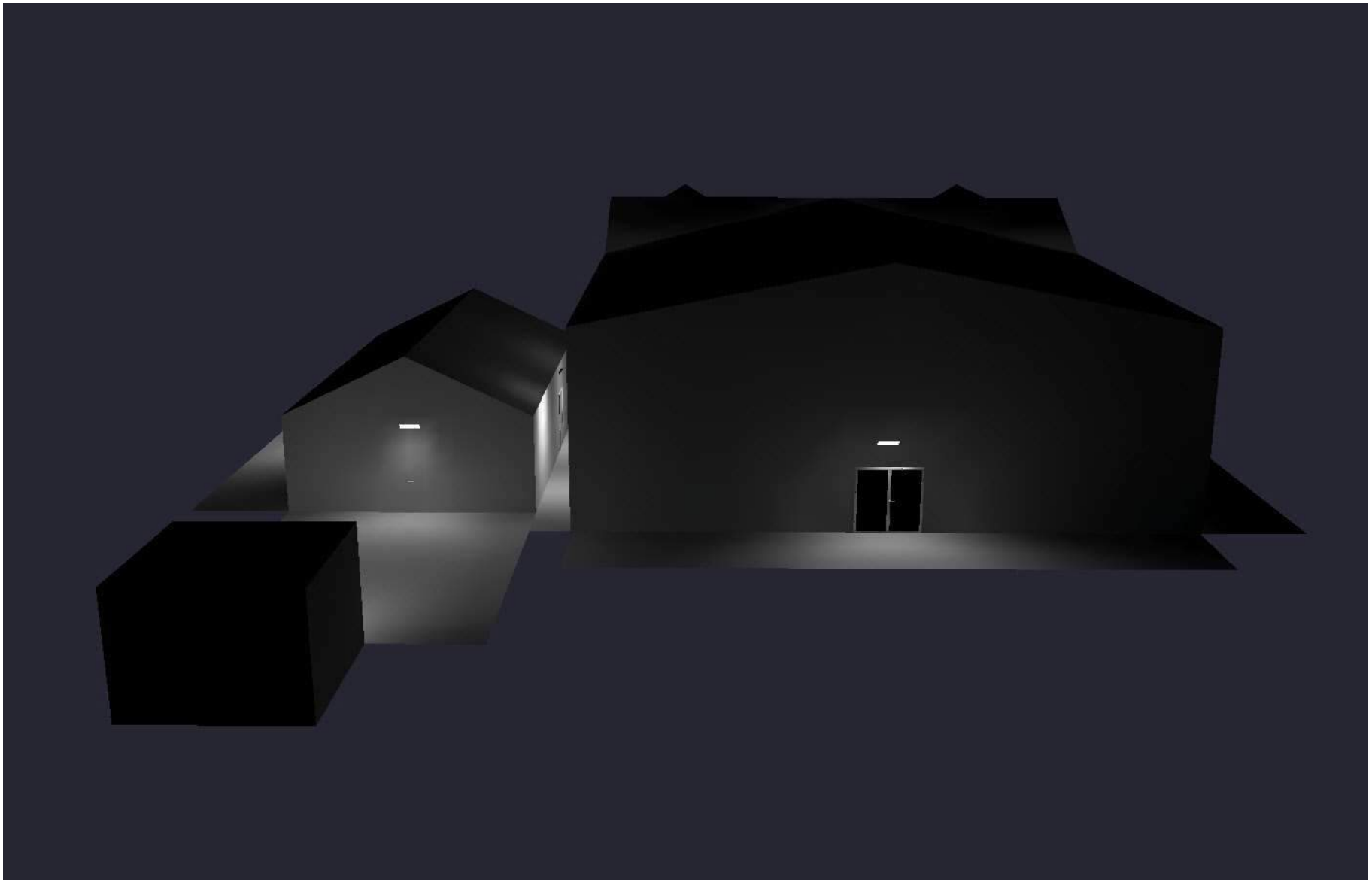

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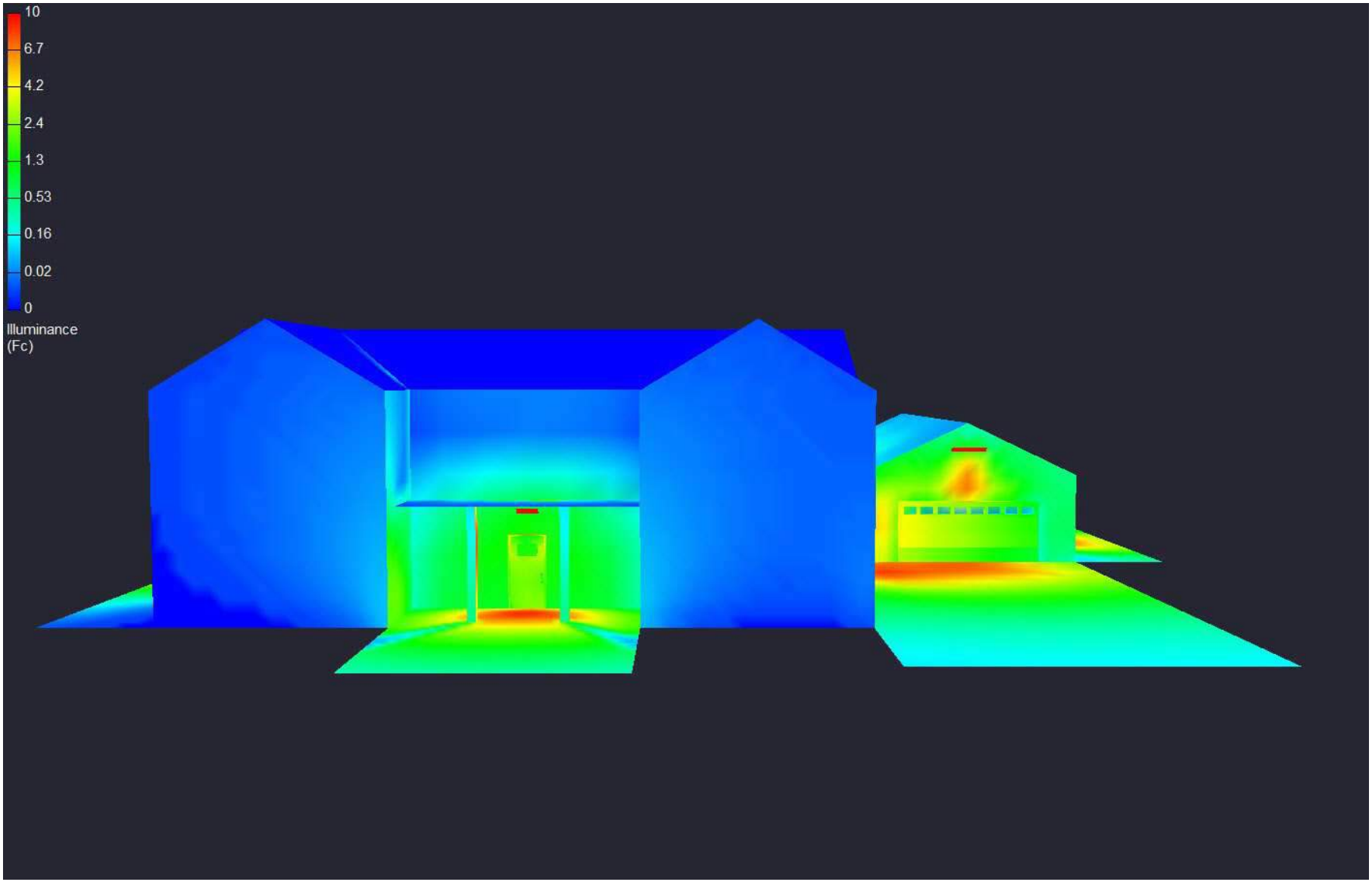

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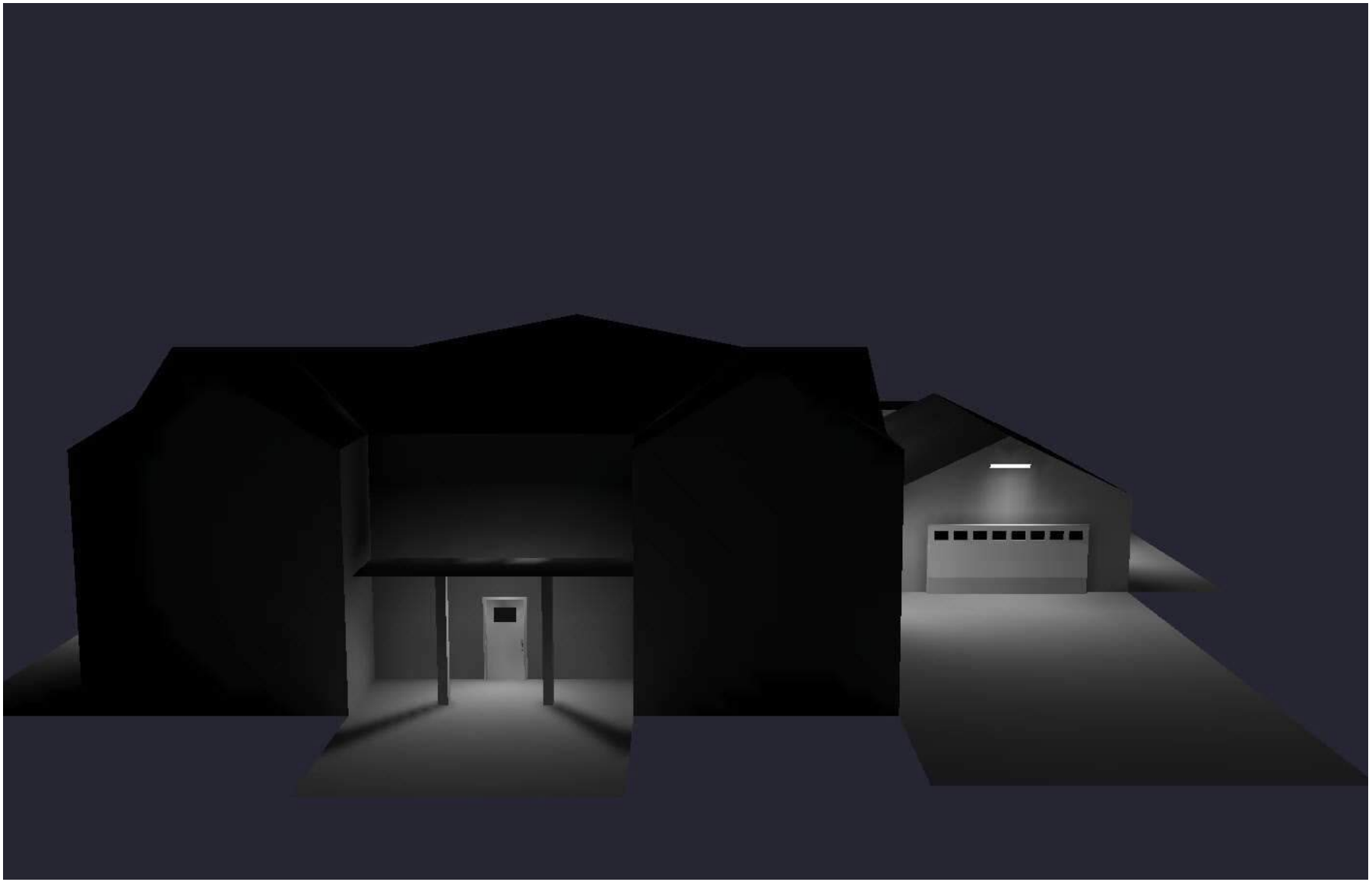
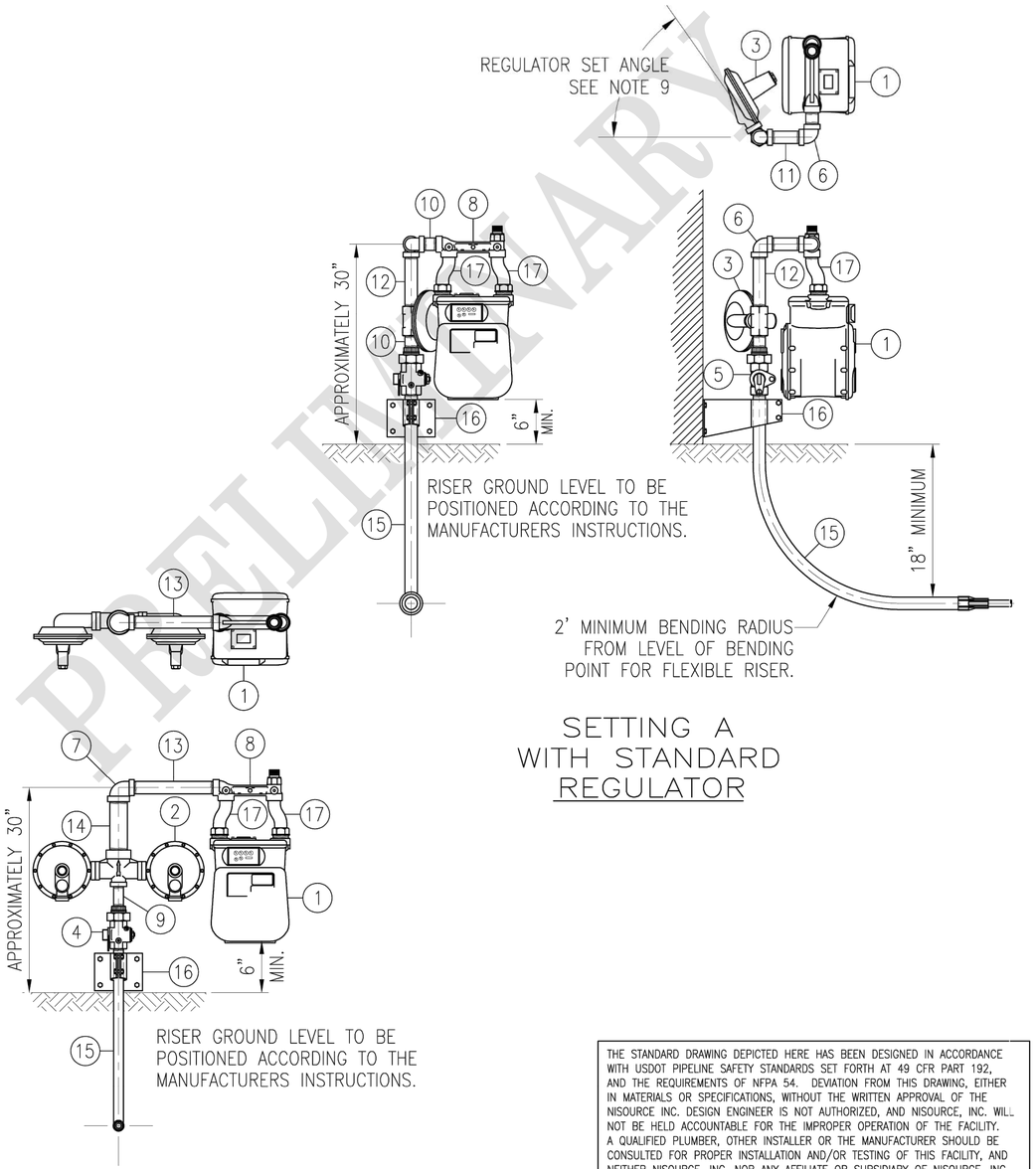
(732) 919-3119





SETTING A
WITH STANDARD
REGULATOR

SETTING B
WITH 1" X 2"
REGULATOR

THE STANDARD DRAWING DEPICTED HERE HAS BEEN DESIGNED IN ACCORDANCE WITH USDOT PIPELINE SAFETY STANDARDS SET FORTH AT 49 CFR PART 192, AND THE REQUIREMENTS OF NFPA 54. DEVIATION FROM THIS DRAWING, EITHER IN MATERIALS OR SPECIFICATIONS, WITHOUT THE WRITTEN APPROVAL OF THE NISOURCE INC. DESIGN ENGINEER IS NOT AUTHORIZED, AND NISOURCE, INC. WILL NOT BE HELD ACCOUNTABLE FOR THE IMPROPER OPERATION OF THE FACILITY. A QUALIFIED PLUMBER, OTHER INSTALLER OR THE MANUFACTURER SHOULD BE CONSULTED FOR PROPER INSTALLATION AND/OR TESTING OF THIS FACILITY, AND NEITHER NISOURCE, INC. NOR ANY AFFILIATE OR SUBSIDIARY OF NISOURCE, INC. SHALL BE RESPONSIBLE FOR THE INSTALLATION AND/OR TESTING OF THE FACILITY.

NiSource℠
NiSource Energy Distribution

DRAWING TITLE
OUTSIDE METER SETTING USING 400 AND 630 CLASS METERS

DRAWN	DATE	DRAWING NO.	ISSUE NO.
L.HARTLEY–CLARK	5–25–05	PLMB–0002	3
CHECKED	DATE	SHEET NO. 1 of 2	

BILL OF MATERIAL

ITEM	SET & QTY A	SET & QTY B	SIZE	DESCRIPTION
1	1	1	1 1/4"	METER, DIAPHRAM, TO BE PROVIDED BY COLUMBIA GAS (METER BAR: 44–11–080)
2		1	1" X 2"	REGULATOR, INTERNAL MONITOR, TO BE PROVIDED BY COLUMBIA GAS
3	1		1 1/4"	REGULATOR, INTERNAL RELIEF, TO BE PROVIDED BY COLUMBIA GAS
4		1	1"	VALVE, METER STOP, INSULATED UNION, LOCKWING, USE ONLY APPROVED MFG.
5	1		1 1/4"	VALVE, METER STOP, INSULATED UNION, LOCKWING, USE ONLY APPROVED MFG.
6	2		1 1/4"	ELBOW, 90 DEG., THREADED, MALLEABLE IRON, STANDARD, CLASS 150
7		1	2" X 1 1/4"	ELBOW, REDUCING, 90 DEG., THREADED, MALLEABLE IRON, STANDARD, CLASS 150
8	1	1	1 1/4"	METER BAR, WITH INSULATED UNION OUTLET, USE ONLY APPROVED MANUFACTURERS
9		1	1" X 4"	NIPPLE, PIPE, STEEL, GRADE B, EX. HVY., THREAD BOTH ENDS
10	2		1 1/4" X 3"	NIPPLE, PIPE, STEEL, GRADE B, EX. HVY., THREAD BOTH ENDS
11	1		1 1/4" X 5"	NIPPLE, PIPE, STEEL, GRADE B, EX. HVY., THREAD BOTH ENDS
12	1		1 1/4" X 8"	NIPPLE, PIPE, STEEL, GRADE B, EX. HVY., THREAD BOTH ENDS
13		1	1 1/4" X 12"	NIPPLE, PIPE, STEEL, GRADE B, EX. HVY., THREAD BOTH ENDS
14		1	2" X 8"	NIPPLE, PIPE, STEEL, GRADE B, THREAD BOTH ENDS
15	1	1	SEE NOTE 7	RISER, APPROVED ANODELESS, STUB OR ENCASED OR FLEX CASING PRE–BENT STEEL
16	1	1	SEE NOTE 7	RISER BRACKET
17	2	2	1 1/4"	SWIVEL, METER OFFSET, MALLEABLE IRON WITH 30LT NUT

WHEN SPECIFYING THE 2" B–34–IMR, USE SETTING "A" BILL OF MATERIALS, AND SUBSITUTE (1) ITEM 10 & (1) ITEM 12 WITH THE FOLLOWING ITEMS

1C	1	1" X 2"	NIPPLE, PIPE, STEEL, GRADE B, EX. HEAVY, THREAD BOTH ENDS
2C	2	2" X 4"	NIPPLE, PIPE, STEEL, GRADE B, THREAD BOTH ENDS
3C	1	2" X 1"	REDUCER, THREADED, MALLEABLE IRON, STANDARD, CLASS 150

NOTES

1. REFER TO COLUMBIA GAS STANDARDS FOR CUSTOMER SERVICE LINES, METERS, AND SERVICE REGULATORS (PLUMBER'S GUIDE) FOR PROPER METER SET INSTALLATION INSTRUCTIONS.
2. APPROVED METER SUPPORT MUST BE USED.
3. IF THE SERVICE LINE IS STEEL, CONTACT COLUMBIA GAS PERSONNEL FOR SPECIFIC INSTALLATION INSTRUCTIONS.
4. PREFABRICATED RISERS AND BRACKETS MUST BE INSTALLED AND SECURED ACCORDING TO THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
5. THE METER MUST BE INSTALLED IN A LEVEL POSITION.
6. NO SCREW FITTINGS ARE TO BE USED BELOW GROUND.
7. THESE ITEMS MUST BE APPROPRIATELY SIZED FOR THE SPECIFIC CONDITIONS.
8. WHEN MEASURING FROM A LOW PRESSURE SYSTEM, THE REGULATOR (ITEM 3) & 2 PIPE NIPPLES (ITEMS 11 & 13) ARE REPLACED WITH A SINGLE PIPE NIPPLE 13 5/8" LONG.
9. REGULATOR ASSEMBLY SET ANGLE IS 60° FOR 4" DIAPHRAGM AND 70° FOR 6" DIAPHRAGM.

DRAWN	DATE	DRAWING NO.	ISSUE NO.
L.HARTLEY–CLARK	5–25–05	PLMB–0002	3
CHECKED	DATE	SHEET NO. 2 OF 2	

NiSource

△0

Ohio Utilities Protection Service
Call 811 before you dig

N

SCALE:
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PROPOSED

REVISIONS		
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1	---	---
0	9/29/23	PRELIMINARY
REV. #	DATE	DESCRIPTION

DESIGNED BY	CRDM	09/11/24	330-596-0111
DRAWN BY	CRDM	09/11/24	330-596-0111
CHECKED BY	CAMPOS	XX/XX/XX	---
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
COLUMBUS / FRANKLIN, OH

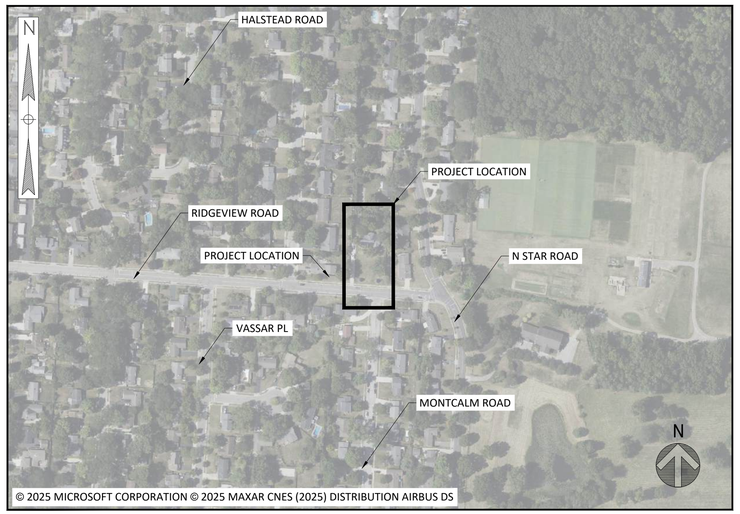
DRAWING TITLE:
PLMB-0002A

DRAWING NO:
APPENDIX B

Columbia Gas®
A NiSource Company

INSTALLATION ORDER NUMBER 24-0136951-00
PROJECT ID 21-78790
SITE IMPROVEMENT
JOB TYPE: 000

VICINITY MAP



VICINITY MAP (NTS)

0' 250' 500'

SCALE = 1" = 250'

SHEET INDEX

NiSource

Ohio Utilities Protection Service
Call 811 before you dig

CAMPOS EPC
401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

ISSUED FOR PERMIT

REVISIONS		
0	06/18/25	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

	NAME	DATE	PHONE #
INTERNAL ENG.	C. MCCULLOUGH	06/18/25	330-596-0111
DESIGNED BY	J. ANDERSON	06/18/25	303-623-3345
CHECKED BY	D. BORCHERDING	06/18/25	303-623-3345
AS-BUILT BY			

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
TITLE SHEET

DRAWING NO:
T-01

CIVIL / GRADING NOTES

GENERAL

1. CAMPOS EPC ISSUES THESE DRAWINGS FOR CONSTRUCTION UNDER THE ASSUMPTION THAT ALL REQUIRED FEDERAL, STATE, AND LOCAL PERMITS HAVE BEEN ACQUIRED BY THE OWNER/CONTRACTOR PRIOR ANY CONSTRUCTION ACTIVITIES UNLESS EXPLICITLY APPROVED OTHERWISE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR JOB SITE SAFETY OF HIS OWN PERSONNEL, ALL VISITORS TO THE SITE AND THE GENERAL PUBLIC.
3. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER OF RECORD.
4. CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS WITH ALL CHANGES IDENTIFIED TO BE SUBMITTED TO THE ENGINEER OR RECORD AT PROJECT COMPLETION.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL 811 OR APPLICABLE UTILITY MARKING SERVICE PRIOR TO CONSTRUCTION AS REQUIRED BY LAW TO ENSURE SAFE DIGGING CONDITIONS.
6. UTILITY LOCATIONS SHOWN ON PLANS SHOULD BE FIELD VERIFIED AND MARKED PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE NOTED TO THE ENGINEER OF RECORD.
7. THERE SHALL BE NO EARTH DISTURBING ACTIVITY OUTSIDE THE LIMITS DESIGNATED ON THESE PLANS.
8. FIELD VERIFY PROPERTY BOUNDARIES, LEASE BOUNDARIES, EASEMENT LIMITS, AND ALL OTHER DIMENSIONS PRIOR TO STARTING CONSTRUCTION. BRING ANY DISCREPANCIES TO THE INSPECTOR'S ATTENTION AND RECONCILE WITH THE ENGINEER PRIOR TO CONSTRUCTION. ALL DIMENSIONS ARE DECIMAL-FEET AND OR FEET-INCHES AND ALL ELEVATIONS ARE IN FEET UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR SHALL REPAIR ALL EXISTING DISTURBED AREAS, FENCES, WALLS, SHEDS OR OTHER STRUCTURES DAMAGED DURING CONSTRUCTION ACTIVITIES TO EQUAL OR BETTER CONDITIONS.
10. THE FINISHED GRADE SURFACE AND DRAINAGE PATTERN SHALL ROUGHLY MAINTAIN THE EXISTING NATURAL GRADE EXCEPT WHERE INDICATED WITHIN THESE PLANS.

SUBSURFACE INVESTIGATION

11. SITE SPECIFIC GEOTECHNICAL INVESTIGATION WAS NOT PERFORMED FOR THIS SITE. THE OWNER WILL PROVIDE THE CONTRACTOR WITH A COPY OF THE GEOTECHNICAL ENGINEERING REPORT WHICH INCLUDES BORING AND SOILS DATA. THE OWNER DOES NOT REPRESENT THAT THE BORING LOGS AND OTHER TEST DATA INDICATE THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED THROUGHOUT THE SITES. THE BORING LOGS AND TEST DATA ONLY INDICATE THE CONDITIONS AT THE PARTICULAR LOCATIONS OF THE BORINGS OR TESTING LOCATIONS. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY INTERPRETATION AND CONCLUSIONS WHICH MAY BE MADE AS TO THE NATURE OF THE MATERIALS TO BE ENCOUNTERED AND THE DIFFICULTY OF PERFORMING THE WORK.

SURVEY

12. SURVEY LOCATION DATA DEPICTED IN THIS DRAWING PACKAGE IS FOR INFORMATIONAL PURPOSES ONLY AND SHOULD BE VERIFIED PRIOR TO CONSTRUCTION. SURVEY LOCATION DATA, BENCHMARKS, AND ALL LINEWORK (EASEMENTS, ROW, U/G) DEPICTED ON THESE PLANS PROVIDED BY PUBLICLY AVAILABLE SOURCES ONLINE OR SITE RECONNAISSANCE.

BASIS OF COORDINATES AND BEARINGS

13. THE HORIZONTAL DATUM FOR COORDINATE DATA DEPICTED IN THIS DRAWING PACKAGE IS THE OHIO, STATE PLANE SOUTH ZONE, US SURVEY FOOT, NAD83 (OH83-SF) AS DETERMINED LOCALLY BY ONLINE POSITIONING USE SYSTEM (OPUS) DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY (NGS).
14. THE VERTICAL DATUM FOR COORDINATE DATA DEPICTED IN THIS DRAWING PACKAGE IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AS DETERMINED LOCALLY BY ONLINE POSITIONING USE SYSTEM (OPUS) AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE NATIONAL GEODETIC SURVEY (NGS).

WEATHER

15. UNLESS APPROVED COMPENSATORY MEASURES ARE IN PLACE, NO EXCAVATION, GRADING OR OTHER WORK SHALL BE PERFORMED IN INCLEMENT WEATHER CONDITIONS WHICH PREVENT ATTAINING SATISFACTORY CONSTRUCTION AS SPECIFIED HEREIN.

ENVIRONMENTAL PROTECTION

GENERAL

16. THE CONTROL OF ENVIRONMENTAL POLLUTION WHICH COULD RESULT FROM CONSTRUCTION OPERATIONS UNDER THIS CONTRACT REQUIRES CONSIDERATION OF LAND, WATER AND AIR QUALITY AT THE SITE.
17. EROSION CONTROL PLANS ARE BY OTHERS. ALL PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY OTHER EARTH DISTURBING ACTIVITY. ALL OTHER STRUCTURAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS SOON AS THE CONSTRUCTION ACTIVITIES, AROUND WHICH THEY ARE BASED, COMMENCE AND MAINTAINED BY OTHERS UNTIL PROJECT ACCEPTANCE AND FINAL COMPLETION OCCURS.
18. THE CONTRACTOR AND SUBCONTRACTORS SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS CONCERNING ENVIRONMENTAL POLLUTION CONTROL OR ABATEMENT. THE CONTRACTOR SHALL OBTAIN THE NECESSARY PERMITS AND COMPLY WITH SUCH PERMITS CONCERNING ENVIRONMENTAL PROTECTION.
19. THE OWNER AND THE CONTRACTOR SHALL ESTABLISH THE CRITERIA FOR COMPLIANCE AND ADMINISTRATION OF THE ENVIRONMENTAL POLLUTION CONTROL PROGRAM PRIOR TO COMMENCEMENT OF WORK.
20. THE OWNER WILL NOTIFY THE CONTRACTOR IN WRITING OF ANY NONCOMPLIANCE WITH THIS SPECIFICATION AND THE ACTION TO BE TAKEN. THE CONTRACTOR SHALL IMMEDIATELY TAKE CORRECTIVE ACTION

PROTECTION OF LAND RESOURCES

21. LAND RESOURCES ADJACENT TO THE PROJECT BOUNDARIES SHALL BE PRESERVED IN THEIR PRESENT CONDITION OR RESTORED TO A NATURAL APPEARANCE PRIOR TO FINAL ACCEPTANCE OF PROJECT.
22. THE CONTRACTOR SHALL NOT INJURE OR DESTROY TREES OR SHRUBS ADJACENT TO THE PROJECT SITE. CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO THE AREA SHOWN ON THE PLANS.
23. THE CONTRACTOR SHALL OBTAIN ALL APPROPRIATE PERMITS AND APPROVAL PRIOR TO REMOVAL OF ANY TREES REQUIRED BY THE PROPOSED WORK SHOWN IN THESE PLANS.
24. TEMPORARY ROADS, EMBANKMENTS OR EXCAVATIONS SHALL BE RESTORED TO NATURAL GRADE AND SEEDED PRIOR TO COMPLETION OF CONSTRUCTION. VEGETATION MUST BE ESTABLISHED ON ALL EXPOSED SOILS PRIOR TO FINAL ACCEPTANCE OF PROJECT.

PROTECTION OF WATER RESOURCES

25. THE CONTRACTOR SHALL NOT ADVERSELY AFFECT THE EXISTING WATER QUALITY WITHIN OR ADJACENT TO THE PROJECT SITE. NO CONSTRUCTION WASTES OR OTHER HARMFUL MATERIALS WILL BE PERMITTED TO ENTER THESE WATER RESOURCES.
26. SURFACE DRAINAGE FROM CUTS AND FILLS SHALL BE PROTECTED BY AN EFFECTIVE EROSION AND SEDIMENT CONTROL PLAN OR SHALL BE GRADED TO CONTROL EROSION WITHIN ACCEPTABLE LIMITS. THESE MEASURES SHALL BE DESIGNED AND MAINTAINED BY OTHERS AND SHALL BE MAINTAINED UNTIL PERMANENT DRAINAGE AND EROSION CONTROL FACILITIES ARE COMPLETED.

CONTROL OF AIR POLLUTANTS

27. NO FIRES SHALL BE ALLOWED TO DISPOSE OF DEBRIS.
28. THE CONTRACTOR SHALL MAINTAIN THE PROJECT SITE AND ACCESS ROADS FREE FROM DUST WHICH WOULD CAUSE A HAZARD OR NUISANCE TO OTHERS. REFER TO JURISDICTIONAL REQUIREMENTS FOR DUST CONTROL MEASURES.
29. THE CONTRACTOR SHALL OBTAIN DUST PERMIT FROM AUTHORITY HAVING JURISDICTION AND PAY ALL ASSOCIATED FEES PRIOR TO STARTING WORK.

PRODUCTS

GENERAL

30. ALL PRODUCTS/MATERIALS USED DURING THE CONSTRUCTION OF THESE PLANS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO PURCHASING, DELIVERY, AND INSTALLATION.

GEOTEXTILE

31. SEPARATION AND REINFORCEMENT GEOSYNTHETIC SHALL BE TENCATE MIRAFI RS380I OR APPROVED EQUAL, UNLESS NOTED OTHERWISE. EQUIVALENT GEOSYNTHETICS SHALL MEET STRENGTH AND FILTRATION CHARACTERISTICS OF SPECIFIED PRODUCTS. WHERE STRICTLY SEPARATION GEOSYNTHETIC IS CALLED FOR, THE CONTRACTOR MAY UTILIZE TENCATE MIRAFI 180N, UNLESS NOTED OTHERWISE. PROVIDE GEOSYNTHETIC ROLLS WITH SUITABLE WRAPPING FOR PROTECTION AGAINST MOISTURE, AND EXTENDED ULTRAVIOLET EXPOSURE PRIOR TO PLACEMENT. EACH ROLL SHALL BE LABELED TO PROVIDE PRODUCT IDENTIFICATION SUFFICIENT FOR INVENTORY AND QUALITY CONTROL PURPOSES. STORE ROLLS IN A MANNER, WHICH PROTECTS THEM FROM THE ELEMENTS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. ELEVATE GEOSYNTHETICS STORED OUTDOORS AND PROTECT WITH WATERPROOF COVER.
32. GEOSYNTHETICS SHALL BE INSTALLED AS INDICATED ON THE PLANS AND OUTLINED HEREIN. THE MATERIALS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS INCLUDING, BUT NOT LIMITED TO, SPLICE LENGTHS/LAP WIDTHS, TENSIONING, AND ORIENTATION. THE GEOSYNTHETICS SHALL BE INSTALLED TO MINIMIZE CUTTING AND WASTAGE. CARE SHALL BE TAKEN TO NOT RIP THE GEOSYNTHETIC MATERIALS. TEARS SHALL BE COVERED WITH PIECES OF GEOSYNTHETIC MATERIAL WITH AT LEAST 12 INCHES OF OVERLAP OR PER MANUFACTURER'S SPECIFIED INSTRUCTIONS. THE GEOSYNTHETIC MATERIALS SHALL NOT REMAIN EXPOSED LONGER THAN 24 HOURS, OR AS OTHERWISE SPECIFIED IN THE MANUFACTURER'S WRITTEN INSTRUCTIONS.

FILL

33. THE NATIVE SOILS ON SITE SHALL BE TESTED FOR COMPLIANCE OR DETERMINED TO BE COMPLIANT BY A COMPETENT INDIVIDUAL WITH THE GENERAL BACKFILL OR ENGINEERED FILL CRITERIA BELOW PRIOR TO USE.
34. EACH UNIQUE FILL SOURCE (ON-SITE BORROW OR IMPORT LOCATION) AND/OR IF A CHANGE IN MATERIAL TYPE OCCURS, LABORATORY TESTING INCLUDING MOISTURE CONTENT (ASTM D2216), GRAIN SIZE DISTRIBUTION (ASTM D6193), ATTERBERG LIMITS (ASTM D4318), AND MODIFIED PROCTOR (ASTM D1557) SHOULD BE PERFORMED. THE RESULTS SHOULD BE EVALUATED TO CONFIRM THE SUITABILITY OF THE FILL SOURCE PRIOR TO BEING USED ONSITE.
35. NATIVE SOILS MAY BE APPROVED FOR USE AS GENERAL FILL PROVIDED THE MATERIALS ARE FREE OF DEBRIS, SIGNIFICANT ORGANICS, OR OTHER DELETERIOUS MATERIALS AND COMPLY WITH THE SPECIFICATIONS IN THE TABLE BELOW.
36. PROJECT FILL AND BACKFILL MATERIALS SHALL MEET THE REQUIREMENTS NOTED IN THE FOLLOWING TABLE:

MATERIAL	PROJECT LOCATION FOR SPECIFIED SOIL	GRAIN SIZE		OTHER REQUIREMENTS
		SIEVE	PERCENT FINER	
GENERAL BACKFILL - (IMPORTED SOILS OR CRITERIA FOR APPROVAL OF NATIVE SOILS AS GENERAL BACKFILL)	GENERAL BACKFILL WHERE APPROVED FOR USE	3" NO. 4 NO. 200	100 30-100 0-30	PI LESS THAN OR EQUAL TO 30; LL OF 50 OR LESS. NO ORGANICS
ENGINEERED FILL - (IMPORTED SOILS OR CRITERIA FOR APPROVAL OF NATIVE SOILS AS ENGINEERED FILL)	AS INDICATED ON PLANS	3" NO. 4 N. 200	100 20-65 0-8	PI LESS THAN OR EQUAL TO 15; LL OF 40 OR LESS. SAND EQUIVALENT VALUE NO LESS THAN 20. RESISTIVITY SUBMITTED FOR CORROSION REVIEW.
AGGREGATE BASE COURSE - (#4 LIMESTONE)	ROADWAYS OR AREAS SUBJECT TO VEHICLE TRAFFIC	1 1/2" 1" 1/2" NO. 4 NO. 200	100 80-100 55-80 35-60 5-10	THE LL SHALL NOT EXCEED 25 (35 IF SLAG) AND THE PI SHALL NOT EXCEED 5. THE LL SHALL BE DETERMINED IN ACCORDANCE WITH AASHTO T-89 AND THE PI IN ACCORDANCE WITH AASHTO T-90.
CRUSHED ROCK (#57) - (#57 STONE ASTM D448 PER AASHTO M43)	BARRIER BENEATH PADS - TRENCH BEDDING & BACKFILL	1-1/2" 1" 1/2" NO. 4	100 95-100 25-60 0-10	RESISTIVITY SUBMITTED FOR CORROSION REVIEW
TRENCH BEDDING/SHADING - (AASHTO M-6 SAND)	UTILITY CORRIDOR BEDDING/SHADING	1/2" NO. 4 NO. 200	100 40-75 0-10	RESISTIVITY SUBMITTED FOR CORROSION REVIEW
WASHED STONE (#8 WASHED)	BACKFILL FOR UNDERGROUND DETENTION STORAGE VOLUME, UNDER DRAINS, AND EROSION CONTROL BMP'S	1" 3/4" 1/2" NO. 4 NO. 8	100 75-95 40-70 0-15 0-10	RESISTIVITY SUBMITTED FOR CORROSION REVIEW-

OPERATIONS:

CLEARING AND GRUBBING

37. ALL PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED AND FUNCTIONAL PRIOR TO ANY OTHER EARTH DISTURBING ACTIVITY. ALL OTHER STRUCTURAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS SOON AS THE CONSTRUCTION ACTIVITIES, AROUND WHICH THEY ARE BASED, COMMENCE.
38. ALL AREAS REQUIRING NEW CUT AND FILL OPERATIONS SHALL BE GRUBBED TO REMOVE ANY GRASS, ROOTS, ORGANIC MATERIAL, EXISTING FILL, OR OTHER DEBRIS. STRIPPED MATERIAL SHALL BE DISPOSED OF OUTSIDE THE SITE AT AN APPROPRIATE DISPOSAL FACILITY OR STOCKPILED ON SITE FOR USE DURING RESTORATION ACTIVITIES PER THE ENGINEER'S DIRECTION. MANAGEMENT AND COSTS OF MATERIAL DISPOSAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PROOF-ROLLING

39. ALL OPERATIONS SHALL BE PERMORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE SPECIFIED GEOTECHNICAL REPORT IF AVAILABLE, FOR SITUATIONS NOT SPECIFIED WITHIN THE REPORT OR IF NO REPORT IS PROVIDED, REFER TO THE FOLLOWING SPECIFICATIONS.
40. PROOF-ROLLING SHALL BE PERFORMED AT AREAS OF PROPOSED FILL PLACEMENT, PROPOSED STRUCTURE FOOTPRINTS, PROPOSED ACCESS OR SERVICE ROADS SUBJECT TO VEHICLE LOADING, AND SLAB SUBGRADES FOR THE PROJECT.
41. PRIOR TO PLACEMENT OF FILL, SUBGRADE SURFACES SHALL BE CLEANED OF DEBRIS, ORGANIC MATTER, MUD, LOOSE SOIL AND OTHER UNSUITABLE MATERIAL. AFTER THE AREAS OF THE SITE HAVE BEEN STRIPPED AND UNSUITABLE MATERIALS HAVE BEEN REMOVED, AT-GRADE AREAS, AND AREAS THAT ARE TO RECEIVE FILL SHALL BE PROOF-ROLLED WITH A LOADED DUMP TRUCK OR SIMILAR PNEUMATIC-TIRED VEHICLE WITH A MINIMUM LOADED WEIGHT OF 10 TONS. PROOF-ROLLING CONSISTS OF APPLYING REPEATED PASSES TO THE SUBGRADE WITH THIS EQUIPMENT. SUBGRADES IN AREAS OF CUT SHOULD BE SIMILARLY PROOF-ROLLED SUBSEQUENT TO EXCAVATION. THE PROOF-ROLLING OPERATION SHALL BE PERFORMED UNDER THE OBSERVATION OF THE OWNER'S DESIGNATED REPRESENTATIVE. ANY AREAS WHICH DEFLECT, RUT, OR PUMP UNDER THE PROOF-ROLLING, AND FAIL TO BE REMEDIED WITH SUCCESSIVE PASSES AS DETERMINED BY THE OWNER, SHALL BE STABILIZED OR UNDERCUT TO MORE STABLE SOILS DEPENDING ON THE SITE CONDITIONS AT THE TIME OF CONSTRUCTION. ALL MATERIAL UNDERCUT SHALL BE REPLACED AND COMPACTED WITH AN APPROVED FILL.

SUBGRADE STABILIZATION

42. WET AND UNSTABLE EXPOSED SUBGRADE SOILS, IF ENCOUNTERED, MAY BE STABILIZED IN LIEU OF UNDERCUTTING AND SOIL REPLACEMENT WHEN DIRECTED BY THE ENGINEER.

PREPARATION

43. AFTER PROOF-ROLLING AND BEFORE PLACING FILL MATERIAL, THE SUBGRADE SOIL SURFACE SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 8 INCHES, WETTED OR DRIED TO PRODUCE 2% HIGHER MOISTURE CONTENT THAN OPTIMUM MOISTURE CONTENT, AND RECOMPACTED TO AT LEAST 90% OF M.D.D. PER ASTM D-1557 FOR GRANULAR SOILS OR TO AT LEAST 95% OF M.D.D. PER D-698 FOR COHESIVE, FINE-GRAINED SOILS.

COMPACTION

44. COMPACTION SHALL BE PERFORMED BY ROLLING WITH APPROVED TAMPING ROLLERS, PNEUMATIC-TIRED ROLLERS, THREE-WHEEL POWER ROLLERS OR OTHER APPROVED EQUIPMENT SUITABLE FOR THE SOIL AND COMPACTION SPECIFIED. MATERIAL SHALL BE MOISTENED OR AERATED AS NECESSARY TO PROVIDE THE MOISTURE CONTENT THAT WILL READILY FACILITATE OBTAINING THE SPECIFIED COMPACTION WITH THE EQUIPMENT USED. EACH LAYER SHALL BE COMPACTED TO NOT LESS THAN THE PERCENTAGE OF MAXIMUM DENSITY AND SHOULD BE MOISTURE CONDITIONED AS NOTED BELOW.

MATERIAL	COMPACTION REQUIREMENT	MAX LIFT THICKNESS
GENERAL BACKFILL	90% OF MDD BY MODIFIED PROCTOR (ASTM D-1557) OR 95% OF MDD BY STD. PROCTOR (ASTM D-698) M.C. ±2% OF OPTIMUM M.C.	8" LOOSE LIFT MAX IF USING LARGE COMPACTION EQUIPMENT. 6" LOOSE LIFT MAX IF USING WALK BEHIND OR HAND OPERATED EQUIPMENT
ENGINEERED FILL	90% OF MDD BY MODIFIED PROCTOR (ASTM D-1557) OR 95% OF MDD BY STD. PROCTOR (ASTM D-698) M.C. ±2% OF OPTIMUM M.C.	8" LOOSE LIFT MAX IF USING LARGE COMPACTION EQUIPMENT. 6" LOOSE LIFT MAX IF USING WALK BEHIND OR HAND OPERATED EQUIPMENT
AGGREGATE BASE COURSE	90% OF MDD BY MODIFIED PROCTOR (ASTM D-1557) OR 95% OF MDD BY STD. PROCTOR (ASTM D-698) M.C. ±2% OF OPTIMUM M.C.	8" LOOSE LIFT MAX IF USING LARGE COMPACTION EQUIPMENT. 6" LOOSE LIFT MAX IF USING WALK BEHIND OR HAND OPERATED EQUIPMENT
CRUSHED ROCK (#57)	90% OF MDD BY MODIFIED PROCTOR (ASTM D-1557) OR 95% OF MDD BY STD. PROCTOR (ASTM D-698) M.C. ±2% OF OPTIMUM M.C.	8" LOOSE LIFT MAX IF USING LARGE COMPACTION EQUIPMENT. 6" LOOSE LIFT MAX IF USING WALK BEHIND OR HAND OPERATED EQUIPMENT
TRENCH BEDDING/SHADING	90% OF MDD BY MODIFIED PROCTOR (ASTM D-1557) OR 95% OF MDD BY STD. PROCTOR (ASTM D-698) M.C. ±2% OF OPTIMUM M.C.	8" LOOSE LIFT MAX IF USING LARGE COMPACTION EQUIPMENT. 6" LOOSE LIFT MAX IF USING WALK BEHIND OR HAND OPERATED EQUIPMENT
WASHED STONE	90% OF MDD BY MODIFIED PROCTOR (ASTM D-1557) OR 95% OF MDD BY STD. PROCTOR (ASTM D-698) M.C. ±2% OF OPTIMUM M.C.	8" LOOSE LIFT MAX IF USING LARGE COMPACTION EQUIPMENT. 6" LOOSE LIFT MAX IF USING WALK BEHIND OR HAND OPERATED EQUIPMENT

SLOPED SURFACES

45. PLACEMENT OF FILL AGAINST SLOPED SURFACES STEEPER THAN 4 HORIZONTAL-TO-1 VERTICAL SHALL BE STEPPED OR BENCHED INTO COMPETENT SUBGRADE MATERIAL AS DETERMINED BY THE ONSITE GEOTECHNICAL ENGINEER, SCARIFIED AND COMPACTED AS DESCRIBED ABOVE.
46. AN 18" MIN. DEPTH BY 5' MIN. WIDTH KEYWAY SHALL BE EXCAVATED INTO COMPETENT NATIVE SOILS AT THE BASE OF THE EXISTING SLOPE.
47. VERTICAL SIDES FOR EACH BENCH SHALL BE APPROXIMATELY 3' IN HEIGHT WITH A 4' MAXIMUM HEIGHT. EACH HORIZONTAL CUT SHALL BEGIN AT THE INTERSECTION OF THE EXISTING GROUND AND THE VERTICAL SIDES OF THE PREVIOUS BENCH.
48. THE BENCHING SHALL COMPLY WITH MAXIMUM ALLOWABLE SLOPES FOR THE SITE SPECIFIC SOIL TYPE PER OSHA GUIDANCE AND RECOMMENDATIONS WITHIN THE GEOTECHNICAL REPORT IF AVAILABLE.

PLACEMENT

49. FILL SHALL NOT BE PLACED UNTIL THE EXCAVATION AND SUBGRADE PREPARATION (OR PORTIONS THEREOF) HAVE BEEN COMPLETED, INSPECTED, AND APPROVED BY THE ENGINEER. FILL SHALL BE PLACED ON A SCARIFIED AND RECOMPACTED SURFACE IN HORIZONTAL LIFTS NOT EXCEEDING THE LIFT THICKNESS INDICATED IN THE COMPACTION TABLE AND THEN COMPACTED TO RELATIVE COMPACTION AS NOTED IN THE TABLE TO BRING THE AREA UP TO GRADE ELEVATION. MATERIALS PLACED BY DUMPING IN PILES OR WINDROWS SHALL BE SPREAD UNIFORMLY BEFORE BEING COMPACTED. NO MATERIAL SHALL BE PLACED ON SURFACES THAT ARE MUDDY, FROZEN OR CONTAIN FROST.
50. MAINTAIN POSITIVE DRAINAGE ACROSS THE SITE THROUGHOUT THE PROJECT. PROVIDE LOCALIZED GRADING AROUND ALL EXISTING AND PROPOSED FOUNDATIONS/FLATWORK TO ENSURE RUNOFF IS NOT DIRECTED TOWARD FOUNDATIONS/FLATWORK AND PONDING IS PREVENTED. NOTIFY ENGINEER OF RECORD OF ANY DISCREPANCIES.

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(380) 799-8503

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REVISIONS		
0	06/18/25	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

	NAME	DATE	PHONE #
INTERNAL ENG.	C. MCCULLOUGH	06/18/25	330-596-0111
DESIGNED BY	J. ANDERSON	06/18/25	303-623-3345
CHECKED BY	D. BORCHERDING	06/18/25	303-623-3345
AS-BUILT BY			

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:

GENERAL NOTES

DRAWING NO:

C-01

CIVIL / GRADING NOTES

OPERATIONS (CONTINUED):

INSPECTION- GENERAL COMPACTION TESTING REQUIREMENTS

51. ALL REQUIRED INSPECTIONS SHALL BE PERFORMED, RECORDED, AND APPROVED PRIOR TO PROCEEDING TO A SUBSEQUENT TASK. INSPECTIONS SHALL BE PERFORMED AT A MINIMUM FOR SUBGRADE PREPARATION, COMPACTION, BACKFILL, FINISHED GRADES OF ALL FEATURES, AND TEMPORARY AND PERMANENT DRAINAGE BMP'S. INSPECTIONS ARE PERMITTED TO BE PERFORMED BY A THIRD PARTY PROVIDED INSPECTION REPORTS ARE SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO ACCEPTANCE.
52. THE ON-SITE FIELD GEOTECHNICAL ENGINEER SHALL HAVE AUTHORITY TO MODIFY THE TESTING FREQUENCIES BELOW AS FIELD CONDITIONS WARRANT. VALUES LISTED BELOW ARE MINIMUM CRITERIA RECOMMENDED BY CAMPOS EPC.
53. IN-SITU DENSITY TESTING OF THE SOILS SHOULD BE TESTED WITH EITHER THE SAND CONE (ASTM D1556) OR NUCLEAR DENSITY TEST (ASTM D6938).
54. COMPACTION TESTING FREQUENCIES FOR ALL ROADS AND UTILITY TRENCHES TO BE ONE (1) TEST PER 150 FT OF OF LENGTH, OR FRACTION THEREOF PER 8" LIFT.
55. COMPACTION TESTING FREQUENCIES FOR ALL AREAS SCHEDULED FOR FOUNDATIONS OR ANY OTHER ITEM SENSITIVE TO LOCALIZED SETTLEMENT TO BE ONE (1) TEST PER 500 SF OR FRACTION THEREOF PER 8" LIFT.
56. COMPACTION TESTING FREQUENCIES FOR ALL FILL EMBANKMENTS TO BE ONE (1) TEST PER 1,000 SF OR FRACTION THEREOF PER 8" LIFT.
57. COMPACTION TESTING FREQUENCIES FOR ALL REMAINING AREAS TO BE ONE (1) TEST PER 5,000 SF, OR FRACTION THEREOF PER 8" LIFT.

CONCRETE

58. GENERAL USE CONCRETE SHALL HAVE A 4000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS.
59. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE SPECIFICATIONS AND DETAILS.

CRACK CONTROL JOINTS

60. SAW CUT CONTROL JOINTS 1/8" TO 1/4" WIDE AS SOON AS PRACTICAL TO AVOID RAVELING EDGE.
61. CONTROL JOINTS TO BE CUT TO A QUARTER OF THE PLACED CONCRETE THICKNESS IN DEPTH.
62. SPACING OF JOINTS SHALL BE BETWEEN 24 TO 30 TIMES THE PLACED CONCRETE THICKNESS. THE ASPECT RATIO FOR UNREINFORCED PANELS OR UNLESS NOTED OTHERWISE SHALL BE A MAXIMUM OF 1.5 TO 1. IRREGULAR SHAPES SUCH AS "L'S" OR "T'S" SHALL BE AVOIDED.

ROLLED EROSION CONTROL PRODUCTS (RECP)

63. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECP'S), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
64. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP x 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF GREEN STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAKING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF GREEN STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
65. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. RECP'S WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING GREEN STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAKING PATTERN GUIDE. STAKING PATTERNS SHALL FOLOW THE INSTALLATION DETAIL IN THESE PLANS.
66. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" - 5' OVERLAP DEPENDING ON RECP'S TYPE.
67. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.
NOTE: IN LOOSE SOIL CONDITIONS, THE USE OF STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.
68. ALL EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN (NAG) SC150 BN BIODEGRADABLE BLANKET OR ENGINEER APPROVED EQUIVALENT.

EARTHWORK CALCULATIONS:

a. ASSUMPTIONS:
- TOPSOIL THICKNESS OF XX" TO BE CLEARED FROM LIMITS OF GRADING & STOCKPILED.
- VOLUMES NOT MODIFIED FOR SHRINKAGE, SWELLING, NOR COMPACTION OF SOIL.

b. SOIL QUANTITIES:
- TOPSOIL STRIPPED & STOCKPILED ..... 550 C.Y.
- TOPSOIL VOLUME SPOILED OR DISPERSED OUTSIDE OF GRADING LIMITS ..... 500 C.Y.
- USABLE TOPSOIL VOLUME ON BANKS & SWALES ..... 50 C.Y.
- AGGREGATE BASE COURSE..... 335 C.Y.
- CRUSHED ROCK (#57) ..... 165 C.Y.

c. OTHER MATERIAL QUANTITIES:
- CONCRETE ..... 60 C.Y.
- GEOTEXTILE..... AS REQUIRED
- STATION FENCING..... 159 L.F.

d. MODEL VOLUMES
- MODEL CUT VOLUME ..... 70 C.Y.
- MODEL FILL VOLUME ..... 680 C.Y.
- MODEL NET (FILL) ..... 610 C.Y.

e. SUMMARY
- TOTAL EXPORT..... 500 C.Y.
  DELETERIOUS CUT MATERIAL ..... 500 C.Y.
- TOTAL IMPORT..... 560 C.Y.
  AGGREGATE BASE COURSE..... 335 C.Y.
  CRUSHED ROCK (#57) ..... 165 C.Y.
  ENGINEERED FILL ..... 60 C.Y.

EXAMPLE: MODEL CUT - MODEL FILL + TOTAL IMPORT =ADDITIONAL IMPORT (NEG) OR LEFTOVER USABLE CUT (POS)

ABBREVIATION LIST:

N:	NORTHING
E:	EASTING
FC:	FENCE CORNER
GB:	GRADE BREAK
TOC:	TOP OF CONCRETE
TOP:	TOP OF POND
BOP:	BOTTOM OF POND
PC:	POINT OF CURVATURE
PT:	POINT OF TANGENCY
PU:	EXISTING GRADE
PG:	PROPOSED GRADE
FES:	FLARED END SECTION
FFE:	FINISHED FLOOR ELEVATION
BW:	BACK OF WALK
TBC:	TOP BACK OF CURB
FL:	FLOW LINE
TOW:	TOP OF WALL
BOW:	BOTTOM OF WALL

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0	06/18/25	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	C. MCCULLOUGH	06/18/25	330-596-0111
DESIGNED BY	J. ANDERSON	06/18/25	303-623-3345
CHECKED BY	D. BORCHERDING	06/18/25	303-623-3345
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

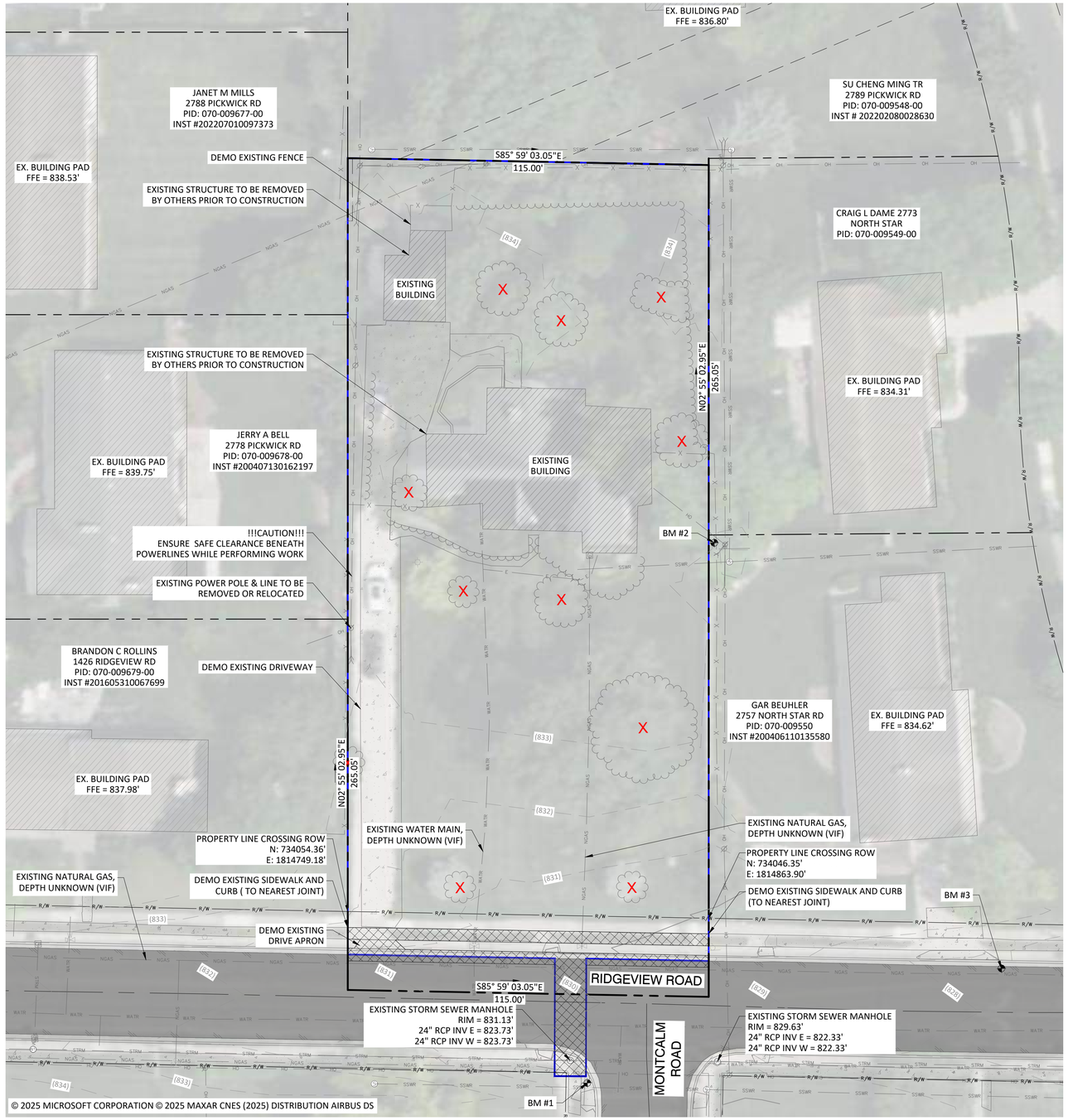
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:

GENERAL NOTES

DRAWING NO:

C-02



EXISTING CONDITIONS & DEMO PLAN

SCALE: 1" = 20'

SURVEY LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING ROAD CENTERLINE
- EXISTING ROAD RIGHT OF WAY LINE
- EXISTING EASEMENT
- EXISTING FENCE LINE
- EXISTING EDGE OF ROAD
- EXISTING OVERHEAD WIRE
- EXISTING ELECTRIC
- EXISTING NATURAL GAS
- EXISTING SEWER
- EXISTING STORM
- EXISTING TELEPHONE LINE
- EXISTING WATER
- EXISTING VEGETATION
- EXISTING MAJOR CONTOUR (5' INTERVALS)
- EXISTING MINOR CONTOUR (1' INTERVALS)
- LIMITS OF GRADING (0.67 AC)
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING BUILDING
- PAVEMENT AND SIDEWALK DEMOLITION
- EXISTING LIGHT
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING STREET SIGN
- EXISTING GUY WIRE
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN
- BENCHMARK
- TREE REMOVAL

BENCHMARK TABLE				
POINT #	DESCRIPTION	ELEV	NORTHING	EASTING
BENCHMARK 1	CPT	829.99'	733995.91'	1814822.59'
BENCHMARK 2	FIP PINCH 3/4" (+0.40')	833.41'	734165.74'	1814871.74'
BENCHMARK 3	CPT	827.61'	734025.63'	1814956.21'

20' 0' 20' 40'

SCALE: 1"=20'

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PE-91143
2025.06.18
REGISTERED
PROFESSIONAL ENGINEER

CAMPOS EPC

401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

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REVISIONS		
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SITE NAME:

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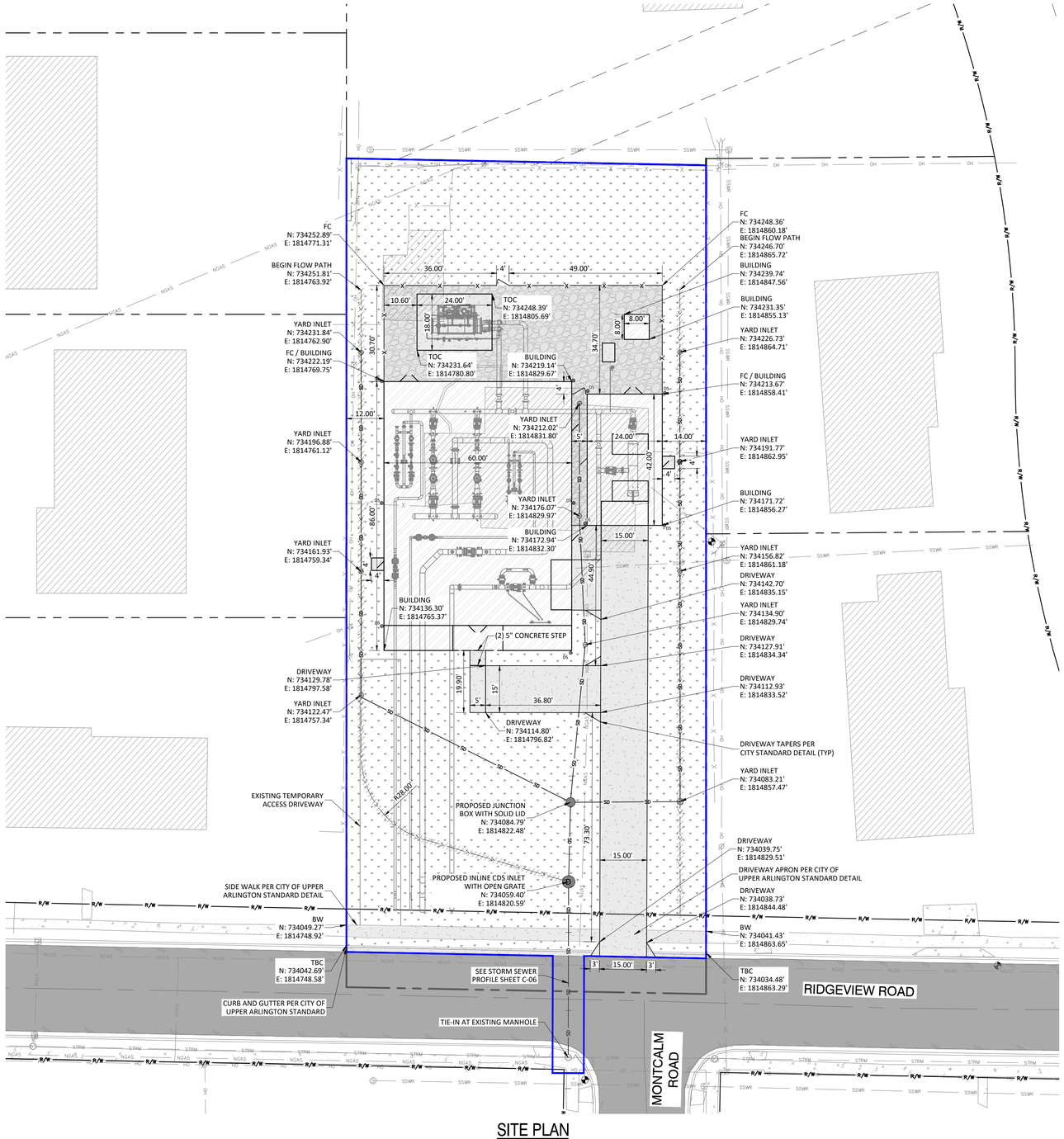
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
EXISTING CONDITIONS & DEMO PLAN

DRAWING NO:
C-03



SITE PLAN
SCALE: 1" = 20'

SURVEY LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING ROAD CENTERLINE
- EXISTING ROAD RIGHT OF WAY LINE
- EXISTING EASEMENT
- EXISTING FENCE LINE
- EXISTING EDGE OF ROAD
- EXISTING OVERHEAD WIRE
- EXISTING ELECTRIC
- EXISTING NATURAL GAS
- EXISTING SEWER
- EXISTING STORM
- EXISTING TELEPHONE LINE
- EXISTING WATER
- EXISTING VEGETATION
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING BUILDING
- EXISTING LIGHT
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING STREET SIGN
- EXISTING GUY WIRE
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN

SITE PLAN LEGEND:

- PROPOSED FENCE LINE
- PROPOSED DRAINAGE CENTERLINE
- LIMITS OF GRADING (0.67 AC)
- PROPOSED STORM SEWER
- PROPOSED CONCRETE
- PROPOSED GRAVEL
- PROPOSED VEGETATION
- PROPOSED BUILDING
- PROPOSED TURF MAT
- PROPOSED YARD DRAIN INLET
- PROPOSED DOWN SPOUTS
- PROPOSED STORM SEWER MANHOLE
- PROPOSED JUNCTION BOX
- PROPOSED PERSONNEL GATE

SCALE: 1"=20'

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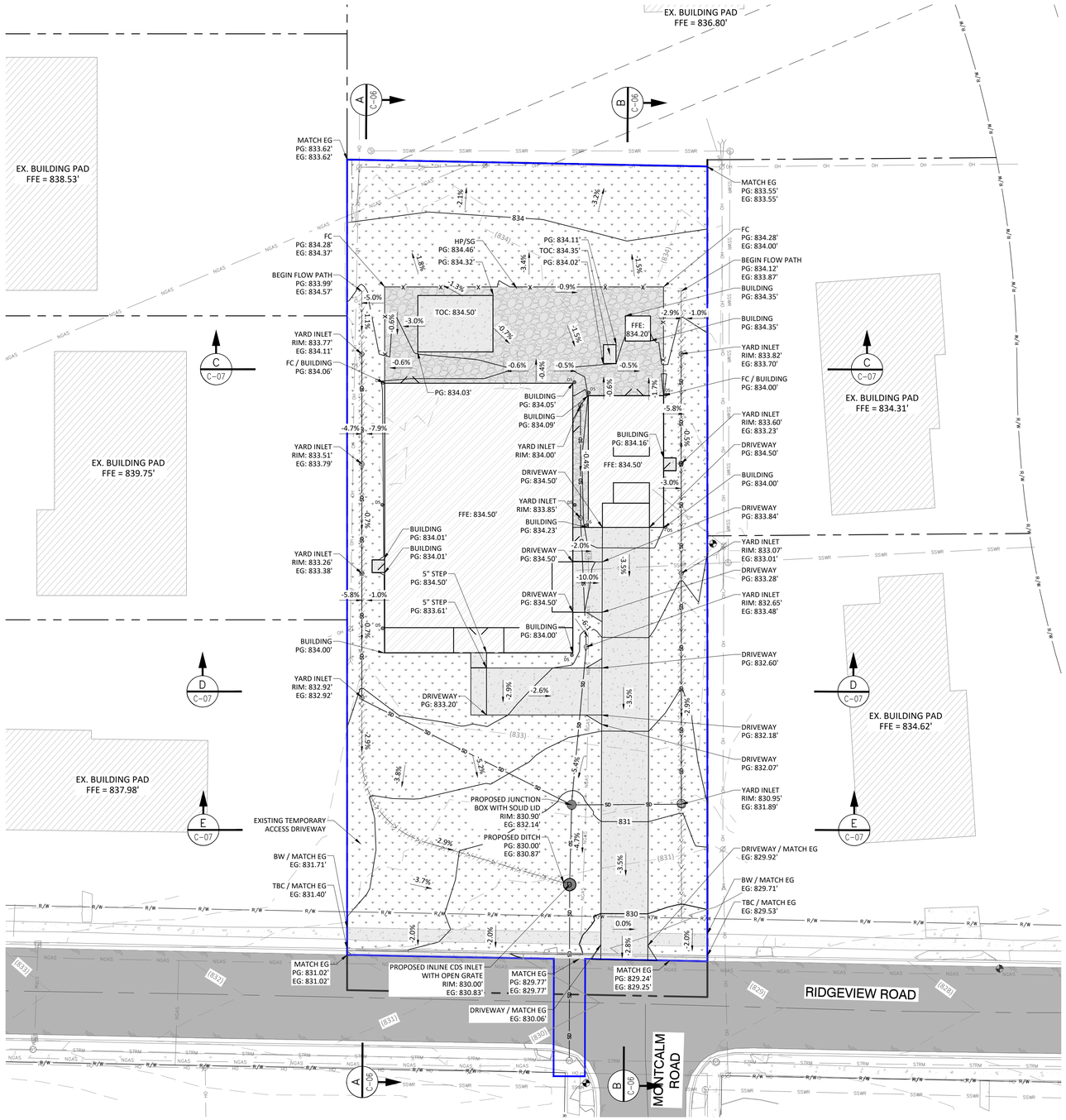
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
SITE PLAN

DRAWING NO:
C-04



GRADING PLAN
SCALE: 1" = 20'

GRADING PLAN LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING ROAD CENTERLINE
- EXISTING ROAD RIGHT OF WAY LINE
- EXISTING EASEMENT
- EXISTING FENCE LINE
- EXISTING EDGE OF ROAD
- EXISTING OVERHEAD WIRE
- EXISTING ELECTRIC
- EXISTING NATURAL GAS
- EXISTING SEWER
- EXISTING STORM
- EXISTING TELEPHONE LINE
- EXISTING WATER
- EXISTING VEGETATION
- EXISTING MAJOR CONTOUR (5' INTERVALS)
- EXISTING MINOR CONTOUR (1' INTERVALS)
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING BUILDING
- EXISTING LIGHT
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING STREET SIGN
- EXISTING GUY WIRE
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN

GRADING LEGEND:

- PROPOSED FENCE LINE
- PROPOSED DRAINAGE CENTERLINE
- LIMITS OF GRADING (0.67 AC)
- PROPOSED STORM SEWER
- PROPOSED MAJOR CONTOUR (5' INTERVALS)
- PROPOSED MINOR CONTOUR (1' INTERVALS)
- PROPOSED CONCRETE
- PROPOSED GRAVEL SURFACING
- PROPOSED VEGETATION
- PROPOSED BUILDING
- PROPOSED TURF MAT
- PROPOSED YARD INLET
- PROPOSED DOWN SPOUTS
- PROPOSED STORM SEWER MANHOLE
- PROPOSED JUNCTION BOX
- PROPOSED PERSONNEL GATE

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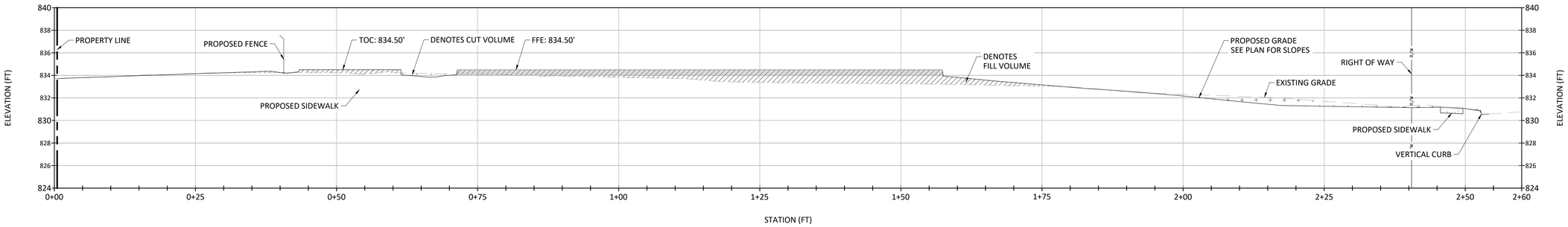
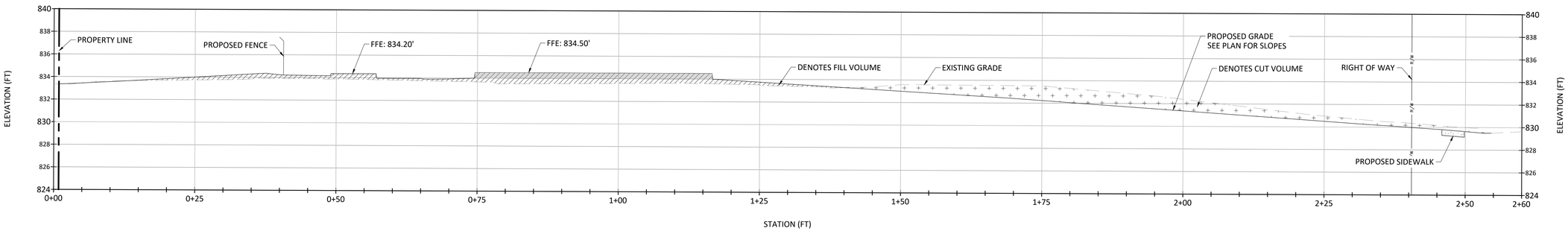
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
GRADING PLAN

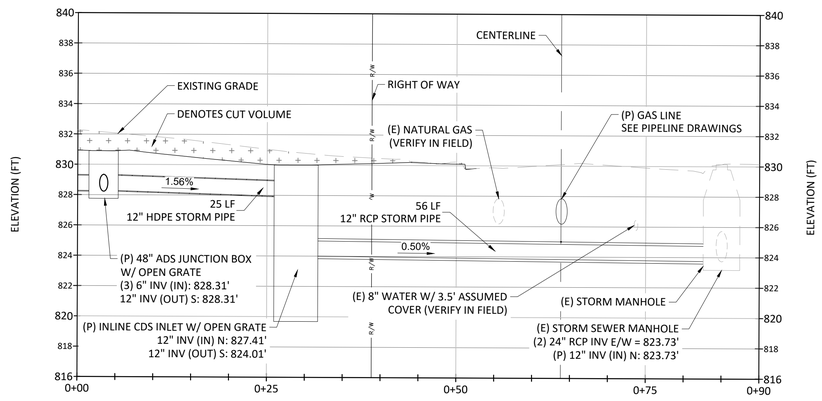
DRAWING NO:
C-05



PROFILE (A)
SCALE H: 1"=10'
SCALE V: 1"=5'
C-05



PROFILE (B)
SCALE H: 1"=10'
SCALE V: 1"=5'
C-05



STORM SEWER (SS)
SCALE H: 1"=10'
SCALE V: 1"=5'
C-05

NOTES:

1. MINIMUM VERTICAL SEPARATION REQUIREMENTS TO BE DETERMINED DURING PERMITTING.

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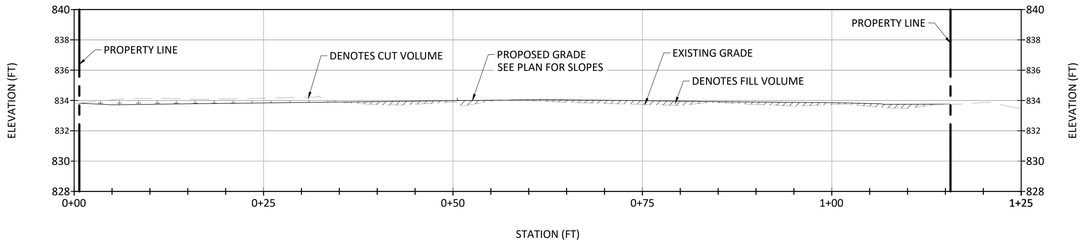
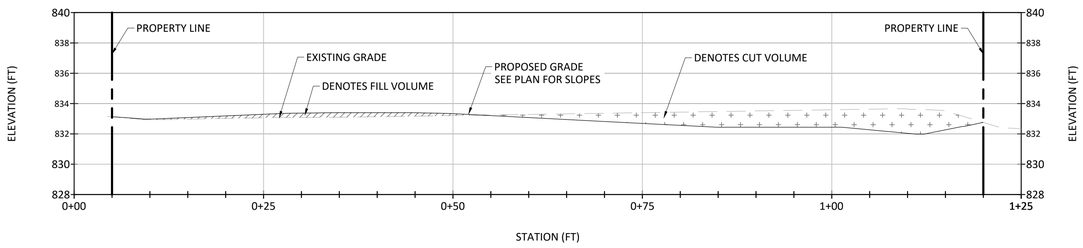
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
PROFILES & DETAILS

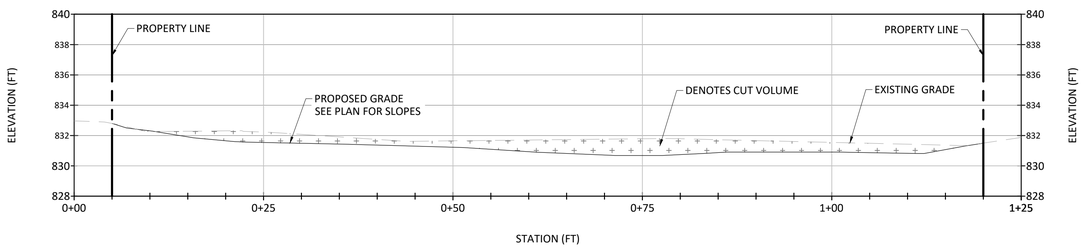
DRAWING NO:
C-06



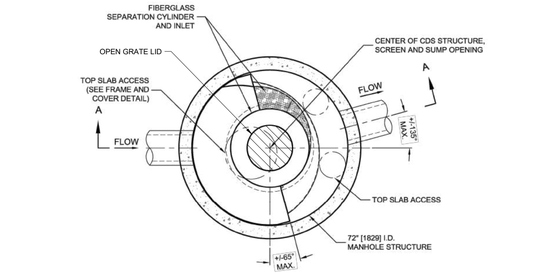
PROFILE C
SCALE H: 1"=10'
SCALE V: 1"=5'
C-05



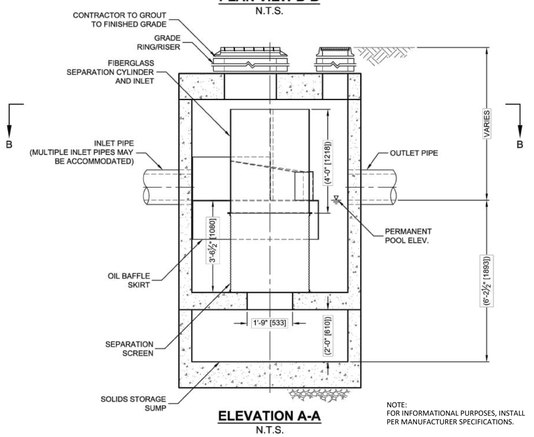
PROFILE D
SCALE H: 1"=10'
SCALE V: 1"=5'
C-05



PROFILE E
SCALE H: 1"=10'
SCALE V: 1"=5'
C-05



PLAN VIEW B-B
N.T.S.

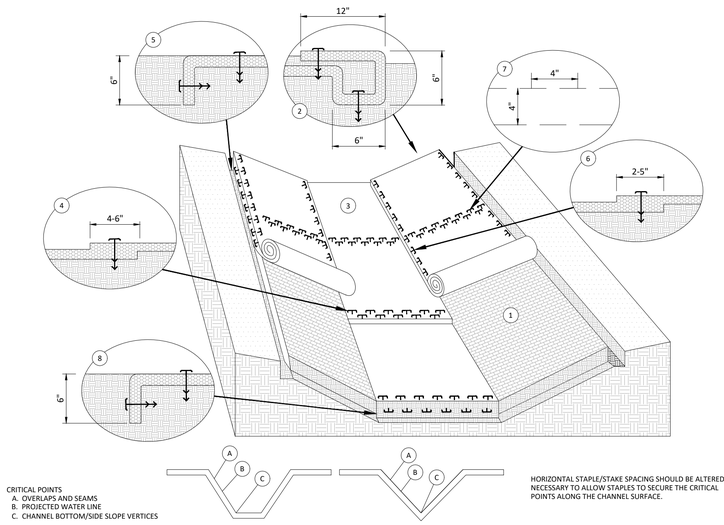


ELEVATION A-A
N.T.S.

NOTE:
FOR INFORMATIONAL PURPOSES, INSTALL
PER MANUFACTURER SPECIFICATIONS.

CONTECH INLINE CDS STANDARD DETAIL

SCALE: NOT TO SCALE



CRITICAL POINTS
A. OVERLAPS AND SEAMS
B. PROJECTED WATER LINE
C. CHANNEL BOTTOM/SIDE SLOPE VERTICES

HORIZONTAL STAPLE/STAKE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE.

ROLLED EROSION CONTROL PRODUCTS (RECP) TURF REINFORCEMENT MAT (FOR CHANNELS AND SWALES)

SCALE: NOT TO SCALE

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DAVID BORCHERDING PE-91143 REGISTERED
2025.06.18
PROFESSIONAL ENGINEER

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(380) 799-8503

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SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
PROFILES & DETAILS

DRAWING NO:
C-07

EROSION AND SEDIMENT CONTROL GENERAL NOTES

1. ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED E&S PLAN. A COPY OF THE APPROVED DRAWINGS MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
2. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PLAN PREPARER, PCSM PLAN PREPARER, AND A REPRESENTATIVE FROM THE CITY OF COLUMBUS TO AN ON-SITE PRE-CONSTRUCTION MEETING.
3. AT LEAST 48 HOURS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE OHIO UTILITIES PROTECTION SERVICE SHALL BE NOTIFIED AT 1-800-362-2764 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
4. IT IS THE RESPONSIBILITY OF THE SITE OWNER TO NOTIFY THE CITY OF COLUMBUS TWO WORKING DAYS PRIOR TO COMMENCEMENT OF INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING, AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL PRACTICES ARE MANDATED BY REGULATION TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION ACTIVITY. PLEASE CONTACT THE STORMWATER AND REGULATORY MANAGEMENT SECTION AT (614)-654-6311. DETAILS OF THIS REQUIREMENT MAY BE FOUND IN THE REGULATION FOR CONTROL OF STORMWATER POLLUTION FROM LAND DISTURBANCE. FAILURE TO COMPLY MAY RESULT IN ENFORCEMENT ACTION.
5. ALL EARTH DISTURBANCE SHOULD PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED ON THE PLAN DRAWINGS. THE SEQUENCE MAY CHANGE.
6. AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL TO REMOVE VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
7. CLEARING, GRUBBING, AND TOPSOIL STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING, GRUBBING AND TOPSOIL STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE E&S BMPS SPECIFIED BY THE BMP SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS E&S PLAN.
8. AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED AND FENCED OFF BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
9. TOPSOIL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH
10. GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL BE PROTECTED IN THE MANNER SHOWN ON THE PLAN DRAWINGS. STOCKPILE HEIGHTS SHALL NOT EXCEED 35 FEET. STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
11. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION.
12. ALL OFF-SITE WASTE AND BORROW AREAS MUST HAVE AN E&S PLAN AND FULLY IMPLEMENTED PRIOR TO BEING ACTIVATED.
13. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL.
14. ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN, OVER UNDISTURBED VEGETATED AREAS.
15. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT BMPS SHALL BE MAINTAINED PROPERLY. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPS AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY. IF THE E&S BMPS FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPS, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
16. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
17. SEDIMENT TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEPT INTO ANY ROADSIDE DITCH, STORMSEWER, OR SURFACE WATER.
18. ALL SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
19. AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES-6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL. EROSION AND SEDIMENT CONTROL GENERAL NOTES
20. ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENTS SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC. SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
21. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
22. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
23. FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
24. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
25. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD
26. ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE: CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
27. STABILIZATION OF DISTURBED AREAS MUST BE INITIATED WITHIN SEVEN DAYS OF REACHING FINAL GRADE. TEMPORARY STABILIZATION OF DISTURBED AREAS THAT WILL BE REWORKED, BUT NOT FOR 14 DAYS OR MORE FROM THE DATE THEY WERE LAST DISTURBED, MUST BE INITIATED WITHIN SEVEN DAYS OF LAST DISTURBANCE.
28. PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
29. E&S BMPS SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE DEPARTMENT.
30. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPS SHALL BE STABILIZED IMMEDIATELY. IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON.
31. WHEN POSSIBLE, CLEAN ALL CONSTRUCTION EQUIPMENT AND VEHICLES THOROUGHLY BEFORE THEY ARE BROUGHT ON SITE TO REMOVE POTENTIAL INVASIVE PLANT SEEDS THAT MAY HAVE BEEN PICKED UP AT OTHER SITES.
32. IF TEMPORARY CONSTRUCTION ENTRANCES (TCES) ARE NEEDED FOR THE PROJECT, THE LOCATION WILL BE DETERMINED AT THE TIME OF CONSTRUCTION. SEE DETAILS IN SECTION 2.5.5 AND FIGURE 16 OF THE NISOURCE ENVIRONMENTAL CONSTRUCTION STANDARDS.
33. THE CITY OF COLUMBUS CONSTRUCTION AND MATERIALS SPECIFICATIONS (CMSC), 2018 EDITION, REVISION (03/01/2018), INCLUDING ALL REVISIONS AND SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN UNLESS NOTED OTHERWISE. [NOTE REVISION AS PER DPU ADMINISTRATOR 10/3/2018]
34. THE CONTRACTOR SHALL NOTIFY THE FOLLOWING DIVISIONS AT LEAST 24-HOURS IN ADVANCE OF ANTICIPATED START OF CONSTRUCTION:

DIVISION OF SEWERAGE AND DRAINAGE (614) 645-7102
DIVISION OF DESIGN AND CONSTRUCTION (CONSTRUCTION SECTION) (614) 645-0433

35. THE CONTRACTOR IS RESPONSIBLE FOR THE INVESTIGATION, LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL EXPOSE ALL UTILITIES OR STRUCTURES PRIOR TO CONSTRUCTION TO VERIFY THE VERTICAL AND HORIZONTAL EFFECT ON THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL CALL, TOLL FREE, THE OHIO UTILITIES PROTECTION SERVICE (1-800-362-2764) 48 HOURS PRIOR TO CONSTRUCTION AND SHALL NOTIFY ALL UTILITY COMPANIES AT LEASE 48 HOURS TO WORK IN THE VICINITY OF THEIR UNDERGROUND LINES.
36. CONSTRUCTION OF THIS PROJECT MAY NOT BEGIN UNTIL THE EASEMENTS INDICATED HAVE BEEN RECORDED BY THE CITY.
37. THE DEVELOPER/OWNER SHALL, PRIOR TO ANY CONSTRUCTION OPERATION, DEPOSIT WITH THE CITY THE TOTAL ESTIMATED COSTS FOR INSPECTION AND WHERE REQUIRED A REPAVING GUARANTEE.
38. ANY MODIFICATION TO THE WORK AS SHOWN ON THESE DRAWINGS MUST HAVE PRIOR WRITTEN APPROVAL BY THE ADMINISTRATOR OF THE DIVISION OF SEWERAGE AND DRAINAGE.
39. EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED AS PART OF THIS PROJECT. EROSION AND SEDIMENT CONTROL MEASURES SPECIFIC TO THIS SITE MAY BE FOUND ON SHEET NO. EC-01 OF THIS PLAN. LAND-DISTURBING ACTIVITIES MUST COMPLY WITH ALL PROVISIONS OF THE DIVISION OF SEWERAGE AND DRAINAGE EROSION AND SEDIMENT CONTROL REGULATION. ALL LAND-DISTURBING ACTIVITIES SHALL BE SUBJECT TO INSPECTION AND SITE INVESTIGATION BY THE CITY OF COLUMBUS AND/OR THE OHIO EPA. 40. IT IS THE RESPONSIBILITY OF THE SITE OWNER TO NOTIFY THE CITY OF COLUMBUS A MINIMUM OF TWO WORKING DAYS PRIOR TO COMMENCEMENT OF INITIAL SITE LAND DISTURBANCE ON ANY SITE OF ONE OR MORE ACRES. THIS INCLUDES SITE CLEARING, GRUBBING AND ANY EARTH MOVING. PRIMARY EROSION AND SEDIMENT CONTROL PRACTICES ARE MANDATED BY REGULATION TO BE IN PLACE FROM THE BEGINNING OF THE CONSTRUCTION ACTIVITY. PLEASE CONTACT THE STORMWATER MANAGEMENT OFFICE AT (614) 645-6700, OR FAX AT (614) 645-1506. DETAILS OF THIS REQUIREMENT MAY BE FOUND IN THE EROSION AND SEDIMENT POLLUTION CONTROL REGULATION (ADOPTED JUNE 1, 1994). FAILURE TO COMPLY MAY RESULT IN ENFOREMENT ACTION AS DETAILED IN THE COLUMBUS CITY CODES SECTION 1145.80.
41. THE AMOUNT OF FILL WITHIN DESIGNATED FEMA FLOODPLAIN AREAS ONSITE IS O C.Y. THE AMOUNT OF FILL COMPENSATED WITHIN DESIGNATED FEMA FLOODPLAIN AREAS ONSITE IS 0 C.Y.
42. THE PONDING OR DETENTION AREAS ON THE PLANS ARE A PART OF THE STORM SEWER FACILITIES. THE DEVELOPER/OWNER WILL ASSUME THE RESPONSIBILITY TO MAINTAIN THE PONDING OR DETENTION AREAS SO AS NOT TO REDUCE THE WATER STORAGE AREAS. IF THE OWNER DOES NOT MAINTAIN THE PONDING AND DETENTION AREAS, THE PLAN WILL BECOME VOID AND THE CITY WILL PLUG THE SEWER AT THE OUTLET.
43. AS A CONDITION OF FINAL ACCEPTANCE, THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR PROVIDING AS-BUILT SURVEYS TO TO VERIFY THE FINAL GRADES AND ELEVATIONS OF STORM WATER DETENTION BASINS AND WETLANDS THAT ARE TO BE OWNED AND OPERATED BY THE CITY. AT THE COMPLETION OF HOME CONSTRUCTION, THE OWNER/DEVELOPER SHALL FIELD SURVEY THE STORM WATER DETENTION FACILITY TO VERIFY THAT THE FACILITIES ARE CONSTRUCTED ACCORDING TO APPROVED PLANS. SHOULD A DISCREPANCY BETWEEN THE PLANS AND CONSTRUCTED GRADES EXIST, THE DESIGN STORAGE OF THE DETENTION FACILITY SHALL BE RESTORED BY THE OWNER/DEVELOPER AS DIRECTED BY THE CITY OF COLUMBUS.
44. IMMEDIATELY AFTER PLACEMENT OF ANY CONDUITS, THE CONTRACTOR SHALL CONSTRUCT THE END TREATMENTS REQUIRED BY THE PLANS AT BOTH THE OUTLET AND INLET ENDS. THIS SHALL INCLUDE HEADWALLS, CONCRETE, RIP RAP, ROCK CHANNEL PROTECTION, SODDING, POURING BOTTOMS, MUDDING LIFT HOLES, ETC.

INSPECTION AND MAINTENANCE

1. NO SOLID OR LIQUID WASTE, INCLUDING BUILDING MATERIALS OR THEIR PACKAGING, SHALL BE DISCHARGED IN STORMWATER RUNOFF.
2. CONCRETE TRUCKS ARE NOT PERMITTED TO WASH OUT DIRECTLY INTO STORM SEWERS, STREAMS OR DRAINAGE CHANNELS.
3. WASTE DISPOSAL VIA OPEN BURNING IS PROHIBITED WHERE NOT PERMITTED UNDER THE STATE OF OHIO OPEN BURNING LAWS.
4. CONTAMINATED SOILS OR SOILS WHERE CONSTRUCTION SITE CHEMICALS HAVE BEEN SPILLED MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
5. STORMWATER THAT COMES IN CONTACT WITH CONTAMINATED SOILS, OR SOLID AND INDUSTRIAL WASTE MUST BE COLLECTED AND DISPOSED OF AS A WASTEWATER.
6. FUEL TANKS AND DRUMS OR OTHER CONTAINERS HOLDING CONSTRUCTION SITE CHEMICALS MUST BE STORED WITHIN A DIKED AREA
7. SEDIMENT-LADEN TRENCH OR GROUNDWATER MUST PASS THROUGH A SEDIMENT-SETTLING POND, OR BE DEWATERED IN PLACE USING A SUMP PIT, FILTER BAG OR OTHER COMPARABLE METHOD, PRIOR TO BEING DISCHARGED FROM THE SITE.
8. GROUND WATER FREE FROM SEDIMENT OR OTHER POLLUTANTS MAY BE DISCHARGED WITHOUT TREATMENT, PROVIDED THIS WATER DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

REQUIREMENTS FOR CONTROLS OF OTHER WASTES

1. ALL BMPS MUST BE MAINTAINED IN A FUNCTIONAL CONDITION UNTIL ALL UPSLOPE AREAS THEY CONTROL ARE PERMANENTLY RESTABILIZED.
2. QUALIFIED PERSONNEL (PROVIDED BY THE OWNER) MUST INSPECT ALL BMPS AT LEAST ONCE EVERY 7 DAYS AND PRIOR TO AND BY THE END OF THE NEXT CALENDAR DAY (EXCLUDING WEEKENDS AND HOLIDAYS) FOR ANY STORM EVENT WITH GREATER THAN 0.5 INCHES OF RAIN PER 24 HOURS AND DETERMINE IF THE SWP3 HAS BEEN PROPERLY IMPLEMENTED.
3. WRITTEN REPORTS SUMMARIZING INSPECTION RESULTS MUST BE MADE AVAILABLE UPON REQUEST. REPORTS MUST INCLUDE: DATE OF INSPECTION, NAME AND QUALIFICATIONS OF THE INSPECTOR, WEATHER CONDITIONS, LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION WAS OBSERVED, LOCATIONS OF BMPS NEEDING MAINTENANCE, LOCATIONS OF BMPS FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION, OR LOCATION OF AREAS IN NEED OF ADDITIONAL BMPS NOT IN PLACE AT THE TIME OF INSPECTION.
4. THE REPORTS MUST IDENTIFY INCIDENCES OF NON-COMPLIANCE WITH THE NPDES PERMIT. WHERE A REPORT DOES NOT IDENTIFY INCIDENCES OF NON-COMPLIANCE, THE REPORT MUST CONTAIN A CERTIFICATION THAT THE SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION.
5. MAINTENANCE OR REPAIR OF BMPS MUST BE COMPLETED WITHIN 3 DAYS OF THE DATE OF THE INSPECTION THAT REVEALED THEY WERE DEFICIENT. FOR SEDIMENT PONDS, REPAIR OR MAINTENANCE IS REQUIRED WITHIN 10 DAYS OF THE DATE OF THE INSPECTION.
6. WHEN INSPECTIONS REVEAL THAT A BMP IS NOT EFFECTIVE AND THAT ANOTHER, MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 MUST BE AMENDED AND THE MORE APPROPRIATE BMP MUST BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION THAT REVEALED THE DEFICIENCY.
7. WHEN THE INSPECTION REVEALS THAT A BMP DEPICTED ON THE SWP3 HAS NOT BEEN INSTALLED, BUT IS REQUIRED TO PROVIDE ADEQUATE CONTROL AT THE SITE, IT MUST BE INSTALLED PRIOR TO THE NEXT STORM EVENT, WHICH PRODUCES RUNOFF, BUT IN NO CASE LATER THAN 10 DAYS FROM THE DATE OF INSPECTION, WHICH REVEALED THE DEFICIENCY.
8. THE REPORTS MUST BE MAINTAINED FOR THREE (3) YEARS FOLLOWING THE SUBMITTAL OF A NOTICE OF TERMINATION.

PAVEMENT CUTTING, SAWING AND EXCAVATION OPERATIONS NOTE:

ALL PUBLIC AGENCIES AND PRIVATE CONTRACTORS PERFORMING PAVEMENT-CUTTING OPERATIONS ON CITY OF COLUMBUS STREETS AND ROADWAYS SHALL PROTECT THE ENVIRONMENT FROM DISCHARGES CREATED BY THEIR PAVEMENT CUTTING OPERATIONS. NOTE THAT COLUMBUS CITY CODE 1145 PROHIBITS NON-STORMWATER DISCHARGE INTO THE CITY OF COLUMBUS SEWER SYSTEM, CURB INLETS AND ANY PART OF ITS MS4 (MUNICIPAL SEPARATE STORM SEWER SYSTEM). THE REQUIREMENT INCLUDES BUT IS NOT LIMITED TO WET OR DRY SAW-CUTTING, JACK HAMMERING, EXCAVATION EQUIPMENT USE, ETC. THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR WORK CREWS SHALL RECOVER AND DISPOSE OF DETRITUS, POLLUTED WATERS, OR OTHER SUCH DISCHARGES RESULTING FROM THEIR PAVEMENT CUTTING OPERATIONS AND PROTECT ALL STORM SEWER INLETS FROM RECEIVING ANY DISCHARGES FROM THE CONSTRUCTION OPERATIONS. THE AGENCY OR CONTRACTOR RESPONSIBLE FOR EACH PAVEMENT CUTTING ACTIVITY SHALL BE SOLELY LIABLE FOR NOTICE OF VIOLATIONS (NOV/S) AND FINES ISSUED BY CITY OF COLUMBUS AND/OR STATE OF OHIO AUTHORITIES. EQUIPMENT, MATERIALS AND METHODS SHALL BE PROVIDED BY THE RESPONSIBLE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR TO WORK CREWS PERFORMING THE PAVEMENT CUTTING ACTIVITY AND MADE AVAILABLE TO WORK CREWS FOR USE IN CLEANING UP DISCHARGES RESULTING FROM SUCH CUTTING ACTIVITIES AND PREVENTING RUNOFF. ALL WORK CREWS SHALL BE TRAINED TO EXERCISE AND EMPLOY EQUIPMENT, MATERIALS, AND ENVIRONMENTAL PROTECTIVE MEASURES TO PREVENT POLLUTED DISCHARGES FROM ENTERING THE CITY OF COLUMBUS STORM SEWER SYSTEM AND WATERS OF THE STATE OF OHIO. THE PUBLIC AGENCY AND/OR PRIVATE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THAT THE INLET PROTECTION IS ADEQUATE. THE MOST STRINGENT PROJECT PLANS, NOTES AND/OR DRAWINGS INCLUDING STORMWATER POLLUTION PREVENTION PLAN (SWP3) OR SPILL PREVENTION/REMEDIATION PLAN SHALL APPLY TO ALL PAVEMENT CUTTING, SAWING OR EXCAVATION OPERATIONS.

TEMPORARY MAINTENANCE

TEMPORARY GRASSES

IMMEDIATELY SEED DISTURBED AREAS UPON COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR STAGE. UPON TEMPORARY CESSATION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE A CESSATION OF EARTH DISTURBANCE ACTIVITIES WILL EXCEED SEVEN DAYS, THE SITE SHALL BE IMMEDIATELY SEEDED, MULCHED, OR OTHERWISE PROTECTED FROM ACCELERATED EROSION AND SEDIMENTATION PENDING FUTURE EARTH DISTURBANCE ACTIVITIES. SEED TOPSOIL STORAGE AREAS AND STOCKPILES. REFER TO OHIO E&S STANDARDS FOR STORMWATER MANAGEMENT LAND DEVELOPMENT AND URBAN STREAM PROTECTION FOR GUIDANCE TO INCREASE SOIL SUPPLEMENTS BEYOND THE AMOUNTS ESTABLISHED IN THIS PLAN.

INLET FILTER PROTECTION

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

PERMANENT MAINTENANCE

PERMANENT GRASSES

1. PLANT PERMANENT SEED MIXTURES ONLY DURING THE CALENDAR PERIODS IDENTIFIED FOR SEEDING.
2. RESEED AREAS THAT DO NOT SHOW ESTABLISHED GROWTH AFTER THIRTY (30) DAYS OF PLANTING.

TRENCH PLUGS

1. INSTALL PERMANENT TRENCH PLUGS AT THE LOCATIONS INDICATED ON THE PLANS.
2. FILL BAGS WITH APPROVED MATERIAL. DO NOT USE TOPSOIL TO FILL BAGS. IMPERVIOUS TRENCH PLUGS ARE REQUIRED FOR ALL STREAM, RIVER, WETLAND, OR OTHER WATER BODY CROSSINGS.
3. THE PROPERTY OWNER, ITS ADMINISTRATORS, EXECUTORS, SUCCESSORS, HEIRS OR ASSIGNS SHALL MAINTAIN THE STORMWATER CONTROL FACILITY OR FACILITIES IN GOOD WORKING CONDITION ACCEPTABLE TO THE CITY AND IN ACCORDANCE WITH THE SCHEDULE OF LONG-TERM MAINTENANCE ACTIVITIES IN THE STORMWATER CONTROL FACILITY MAINTENANCE PLAN. THE PROPERTY OWNER SHALL MAINTAIN COPIES OF COMPLETE, DATED AND SIGNED INSPECTION CHECKLISTS IN A MAINTENANCE INSPECTION LOG, ALONG WITH RECORDED DATES AND DESCRIPTIONS OF MAINTENANCE ACTIVITIES PERFORMED BY THE PROPERTY OWNER TO REMEDY THE DEFICIENCIES OBSERVED DURING PRIOR INSPECTIONS. THE MAINTENANCE INSPECTION LOG SHALL BE KEPT ON THE PROPERTY AND SHALL BE MADE AVAILABLE TO THE CITY UPON REQUEST. A COPY OF THE MAINTENANCE INSPECTION LOG SHALL BE SUBMITTED ANNUALLY BY DECEMBER 31ST OF EACH YEAR; MAINTENANCE INSPECTION LOGS SHALL BE SUBMITTED TO:
CITY OF COLUMBUS DIVISION OF SEWERAGE AND DRAINAGE,
STORMWATER AND REGULATORY MANAGEMENT SECTION 1250 FAIRWOOD AVENUE,
COLUMBUS, OHIO 43206

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STATE OF OHIO
NOT FOR PERMIT OR CONSTRUCTION
DAVID BORCHERDING
PE-91143
2025.06.18
REGISTERED
PROFESSIONAL ENGINEER

CAMPOS EPC
401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

ISSUED FOR PERMIT

REVISIONS		
0	06/18/25	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	C. MCCULLOUGH	06/18/25	330-596-0111
DESIGNED BY	J. ANDERSON	06/18/25	303-623-3345
CHECKED BY	D. BORCHERDING	06/18/25	303-623-3345
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:
INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
EROSION CONTROL PLAN NOTES

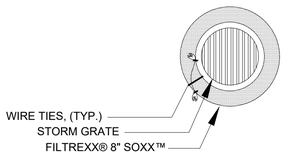
DRAWING NO:
C-08

EROSION AND SEDIMENT CONTROL NARRATIVE

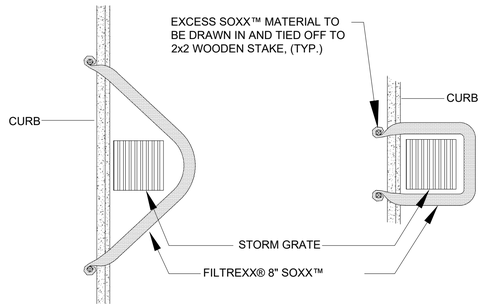
PLAN DESIGNER	CAMPOS EPC 401N. FRONT ST. COLUMBUS, OHIO 43215 CONTACT: LIZ ROCKOW EMAIL: ELIZABETH.ROCKOW@CAMPOSEPC.COM PHONE: 815-641-9294
SITE OWNER	NISOURCE CONTACT INFORMATION: MICHAEL ULKOKO PHONE: 614-981-0661
SITE CONTRACT	BEN LONG BLONG@NISOURCE.COM/ 574.286.6234
PROJECT DESCRIPTION	NISOURCE HAS PURCHASED 214 W WEBER RD, COLUMBUS, OH 43202 AND THE VACANT LOT DIRECTLY TO ITS WEST. IN ADDITION, NISOURCE WILL BE INSTALLING PIPING IN THE CITY OF COLUMBUS' RIGHT OF WAY ON DORRIS AVE., WEST WEBER ROAD, NEIL AVE., AND WEST TULANE ROAD. THE LIMIT OF DISTURBANCE IS 1.58 ACRES. ACTIVITIES WILL INCLUDE DEMOLITION OF CURRENT PROPERTIES ON PARCELS, CLEARING, GRUBBING, GRADING, CONSTRUCTION OF NEW STATIONS, PIPELINE INSTALLATION, ROAD RESTORATION, SEEDING AND STABILIZATION. THE PURPOSE OF THIS SITE IS TO IMPROVE THE NATURAL GAS INFRASTRUCTURE IN THE CITY OF COLUMBUS. PERMANENT INSTALLATION IS EXPECTED DURING THIS PROJECT IN THE FORM OF PIPING, GRAVEL, AND ACCESS DRIVES.
ADJACENT AREA	THE SITE IS SURROUNDED RESIDENTIAL AREA TO THE NORTH, SOUTH, EAST AND WEST
PROJECT SITE AREA	SITE AREA: 0.67 AC TOTAL DISTURBED AREA: 0.67 AC PRE-DEVELOPED IMPERVIOUS AREA: 0.14 AC POST DEVELOPMENT IMPERVIOUS AREA: 0.21 AC
EXISTING SITE CONDITIONS	SITE HAS EXISTING RESIDENTIAL STRUCTURE, LOT TO THE DIRECT WEST IS VACANT AND SEEDED WITH GRASS. ROW AREA IS PAVED WITH SEEDED GRASS ON EITHER SIDE.
SOILS	BENNINGTON-URBAN LAND COMPLEX
RECEIVING STREAM	OLENTANGY RIVER
EROSION AND SEDIMENT CONTROL MEASURES	SEDIMENT FENCE, SEDIMENT SOCK, CONCRETE WASHOUT, CONSTRUCTION ENTRANCE, AND INLET PROTECTIONS WILL BE USED. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE SUBJECT TO CHANGE BASED OF FIELD CONDITIONS
PERMANENT STABILIZATION	THE SITE WILL BE STABILIZED BY THE USE OF SEEDING IN GRASS AREAS, GRAVEL WILL BE USED TO PERMANENTLY STABILIZE THE SITE.
POST-CONSTRUCTION STORM WATER MANAGEMENT	SITE WILL BE PERMANENTLY STABILIZED AND RESEEDED AS NEEDED.
CONSTRUCTION RUNOFF DESTINATION	DRAINAGE AREA IS GOING TO EXISTING INLETS WITHIN ROW. INLET PROTECTION WILL USED FOR ALL INLET IN THE VICINITY OF THE PROJECT. EACH INLET WILL HAVE LESS THAN 1 ACRE OF DRAINAGE AREA.
CONSTRUCTION SEQUENCE	DEMOLITION OF EXISTING STRUCTURE WILL TAKE PLACE; SITE WILL HAVE A NATURAL GAS STATION INSTALLED. NATURAL GAS STATION WILL HAVE PIPING AND ASSOCIATED SUPPORT STRUCTURES AND ACCESS DRIVE INSTALLED. SITE WILL BE REGRADED AND PERMANENTLY STABILIZED. BEFORE DISTURBANCE, SILT FENCE, CONSTRUCTION ENTRANCE, CONCRETE WASHOUT, AND INLET PROTECTION WILL BE INSTALLED. THE VEGETATION WILL BE CLEARED, EROSION CONTROL BLANKETS WILL BE PLACED AS NEEDED, CONSTRUCTION WILL BEGIN. POST-CONSTRUCTION THE SITE WILL BE PERMANENTLY STABILIZED. ACTIVITIES ON THIS SITE WILL BE INSTALLATION OF A PERIMETER FENCE, SEDIMENT BASINS, SILT FENCE, CONCRETE WASHOUT AND A CONSTRUCTION ENTRANCE UTILIZING THE EXISTING TURN OFF. AFTER STATION IS CONSTRUCTED PIPELINE INSTALLATION IN THE RIGHT OF WAY WILL BEGIN. BEFORE DISTURBANCE, INLET PROTECTION AND SOCK FILTER WILL BE PLACED. DURING CONSTRUCTION, BMP'S WILL BE REGULARLY EVALUATED, MAINTAINED, AND REPLACED AS NEEDED. AFTER INSTALLATION, AREA WILL BE REPAVED/RESEEDED DEPENDING ON THE AREA. BMP'S WILL BE REMOVED FOLLOWING STABILIZATION OF ROW. THE SEQUENCE OF EVENTS: · THE CONTRACTOR SHALL PLACE THE REQUIRED FENCE, CONSTRUCTION ENTRANCE, AND SEDIMENT FENCE PRIOR TO ANY CONSTRUCTION ACTIVITY IN ACCORDANCE WITH THE PLAN DETAILS. · THE CONTRACTOR SHALL PERFORM CLEARING AND STOCKPILING MATERIAL AS DETAILED IN THIS PLAN. · THE CONTRACTOR SHALL PROPERLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL AT ALL TIMES DURING CONSTRUCTION OPERATIONS. · THE CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION DEVICES ONLY AFTER ALL AREAS HAVE BEEN STABILIZED AND RESEEDED. THE CONTRACTOR SHALL CLEAN ALL EXISTING INLETS AND STORM SEWER INLETS.THE CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION DEVICES ONLY AFTER ALL AREAS HAVE BEEN STABILIZED AND RESEEDED. THE CONTRACTOR SHALL CLEAN ALL EXISTING INLETS AND STORM SEWER INLETS.
OEPANPDES PERMIT	OHC000006

NOTES:

1. DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO THE CITY'S SEWER SYSTEM OR A RECEIVING STREAM IS A VIOLATION OF OHIO EPA AND CITY OF COLUMBUS REGULATIONS. THE CONTRACTOR WILL BE HELD LIABLE FOR THE VIOLATION AND SUBSEQUENT FINES.
2. THE EXACT LOCATION OF THE CONCRETE WASHOUT(S) MAY BE FIELD LOCATED BY THE ON-SITE PROJECT ENGINEER/CONTACT. APPLIES TO ALL SWP3 PLAN REVIEW PAGES.
3. THE USE OF PORTABLE CONCRETE WASHOUT UNITS IS APPROVED (AND ENCOURAGED) FOR ALL CONSTRUCTION AREAS IN THE CITY OF COLUMBUS.
4. UPPER BANK ABOVE NORMAL WATER ELEVATION SHOULD BE STABILIZED QUICKLY WITH STRAW BLANKETS, JUTTE MATTING OR SIMILAR GEO-TEXTILE.
5. ALL EROSION AND SEDIMENT CONTROL PRACTICES ARE SUBJECT TO FIELD MODIFICATION AT THE DISCRETION OF THE CITY OF COLUMBUS AND/OR THE OHIO EPA.
6. ANY EXISTING STORM INLETS IMPACTED BY THE NEW CONSTRUCTION ACTIVITY WILL NEED THE APPROPRIATE INLET PROTECTION FOR SEDIMENT CONTROL.
7. STREET CLEANING (ON AN AS-NEEDED BASIS) IS REQUIRED THROUGH THE DURATION OF THIS CONSTRUCTION PROJECT THIS INCLUDES SWEEPING, POWER CLEANING AND (IF NECESSARY) MANUAL REMOVAL OF DIRT OR MUD IN THE STREET GUTTERS.
8. THIS PLAN MUST BE POSTED ON-SITE. A COPY OF THE SWPPP PLAN AND THE APPROVED EPA STORMWATER PERMIT (WITH THE SITE-SPECIFIC NOI NUMBER) SHALL BE KEPT ON-SITE AT ALL TIMES.
9. THE USE OF STRAW WATTLES HAS PROVEN TO BE A VERSATILE AND EFFECTIVE ESC BMP, ESPECIALLY IN RESIDENTIAL SETTINGS. STRAW WATTLES MAY BE SUBSTITUTED FOR SILT FENCE. ADDITIONALLY: THE USE OF COMPOST FILTER SOCKS AND COMPOST BLANKETS ARE GAINING WIDER ACCEPTANCE NATIONWIDE, THEY ARE NOW APPROVED FOR USE ON ALL COLUMBUS SWP3 PLANS AND CONSTRUCTION SITES.
10. STRAW WATTLES OR COMPOST ROLLS HAVE TO BE A MINIMUM OF 12 INCHES IN DIAMETER NOW (OEPA).

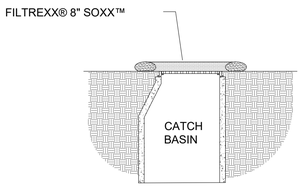


DRAIN INLET PLAN

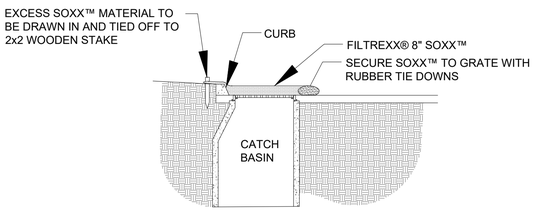


CURBSIDE OPTION "A" PLAN

CURBSIDE OPTION "B" PLAN



DRAIN INLET SECTION



CURBSIDE SECTION

NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. FILTER MEDIA™ FILL TO MEET APPLICATION REQUIREMENTS.
3. COMPOST MATERIAL TO BE DISPERSED ON SITE, AS DETERMINED BY ENGINEER.

FILTREXX® INLET PROTECTION

NTS

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STATE OF OHIO
DAVID BORCHERDING
PE-91143
2025.06.18
REGISTERED
PROFESSIONAL ENGINEER
NOT FOR PERMIT OR CONSTRUCTION

CAMPOS EPC

401 N Front St, Suite 380, Columbus, OH 43215
(380) 799-8503

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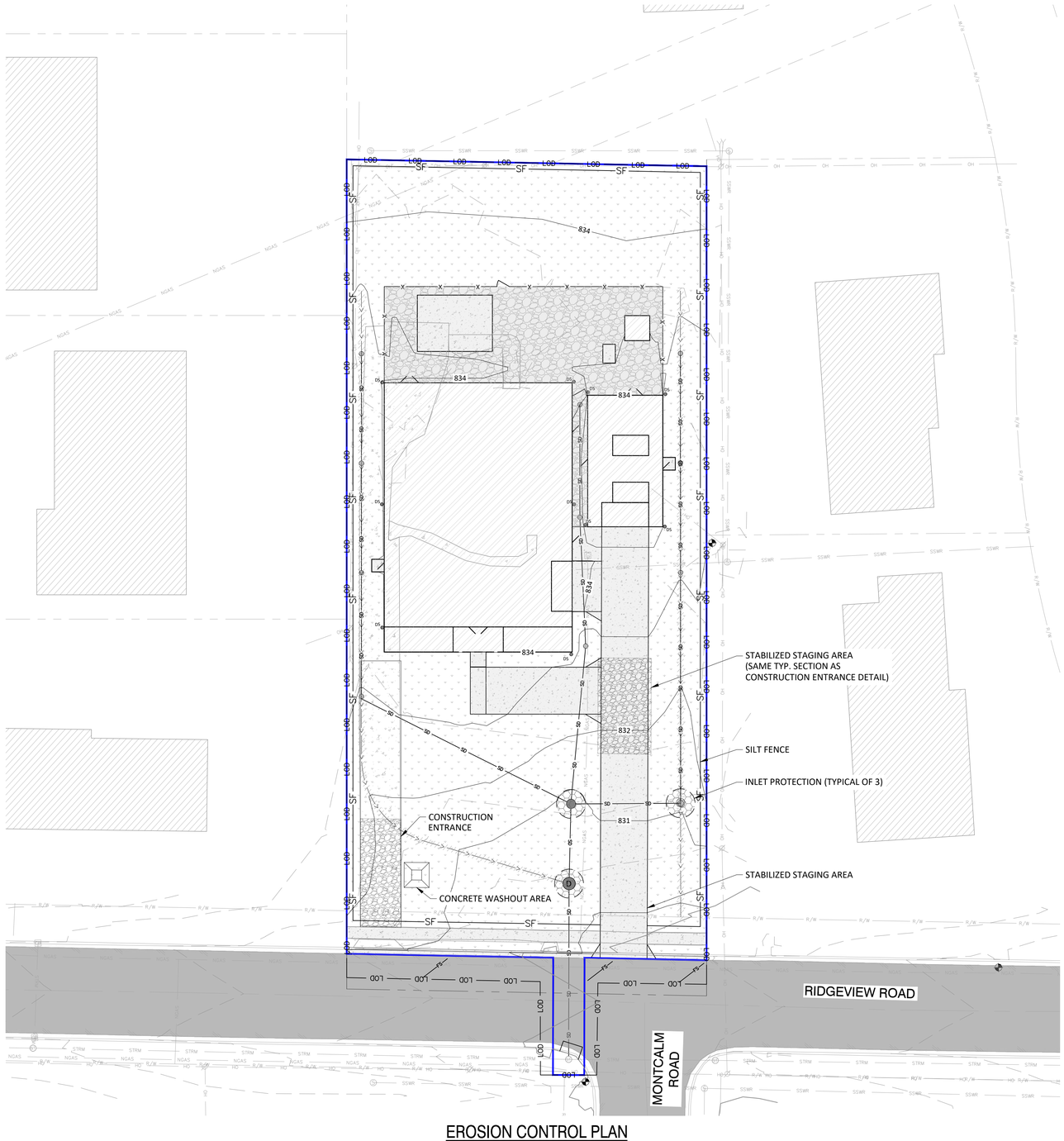
ABAN# ----
PROJECT ID# 21-78790
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
EROSION CONTROL PLAN NOTES

DRAWING NO:
C-09



EROSION CONTROL PLAN

SCALE: 1" = 20'

GRADING PLAN LEGEND:

- PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXISTING ROAD CENTERLINE
- EXISTING ROAD RIGHT OF WAY LINE
- EXISTING EASEMENT
- EXISTING FENCE LINE
- EXISTING EDGE OF ROAD
- EXISTING OVERHEAD WIRE
- EXISTING ELECTRIC
- EXISTING NATURAL GAS
- EXISTING SEWER
- EXISTING STORM
- EXISTING TELEPHONE LINE
- EXISTING WATER
- EXISTING VEGETATION
- EXISTING MAJOR CONTOUR (5' INTERVALS)
- EXISTING MINOR CONTOUR (1' INTERVALS)
- EXISTING CONCRETE
- EXISTING ASPHALT
- EXISTING BUILDING
- EXISTING LIGHT
- EXISTING POWER POLE
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING UTILITY POLE
- EXISTING STREET SIGN
- EXISTING GUY WIRE
- EXISTING SEWER MANHOLE
- EXISTING STORM MANHOLE
- EXISTING CATCH BASIN

SWPPP LEGEND:

- LIMITS OF GRADING (0.66 AC)
- LIMITS OF DISTURBANCE
- SILT FENCE
- FILTER SOCK
- CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT PIT
- INLET PROTECTION
- CONCRETE WASHOUT AREA

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DAVID BORCHERDING
PE-91143
2025.06.18
REGISTERED
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ISSUED FOR PERMIT

REVISIONS		
0	06/18/25	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	C. MCCULLOUGH	06/18/25	330-596-0111
DESIGNED BY	J. ANDERSON	06/18/25	303-623-3345
CHECKED BY	D. BORCHERDING	06/18/25	303-623-3345
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

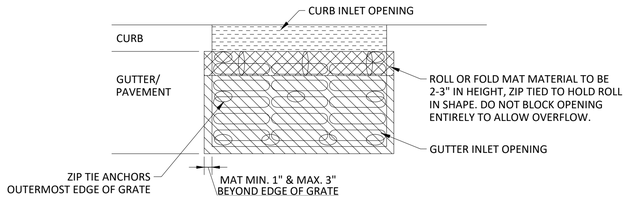
RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:

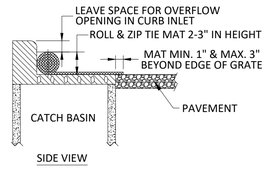
EROSION CONTROL PLAN

DRAWING NO:

C-10



TOP VIEW



SIDE VIEW

NOTES:

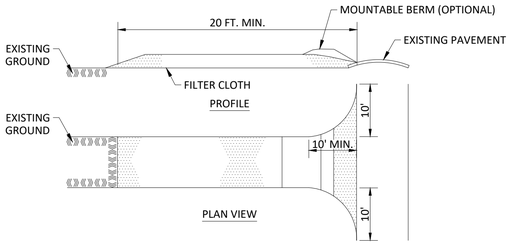
1. THE NUMBER OF ZIP TIES REQUIRED VARIES DEPENDING ON SIZE OF GRATE. FOLLOW MFG. INSTRUCTIONS FOR QUANTITY AND/OR SPACING OF TIES.

2. THE ROLLED OR FOLDED PORTION OF MAT PROTECTING THE CURB OPENING MUST BE AS TIGHT AGAINST THE CURB AS POSSIBLE TO PREVENT RUN-OFF FROM FLOWING BEHIND OR UNDER FILTER MEDIA

3. DO NOT COMPLETELY OBSTRUCT THE CURB INLET WITH ROLLED OR FOLDED PORTION OF MAT TO ALLOW FOR OVERFLOW.

4. WHERE FREQUENT STREET FLOODING OCCURS OR IS A CONCERN, AN OVERFLOW HOLE MAY BE CUT INTO THE CENTER OF THE MAT WITH WRITTEN APPROVAL OF MS4 & NISOURCE ENVIRONMENTAL.

5. USE OF MATS WITH OVERFLOW HOLES MANUFACTURED AND INTEGRAL TO THE DESIGN OF THE MAT ARE APPROVED FOR USE.



CONSTRUCTION SPECIFICATIONS

1. STONE SIZE - USE 2 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. LENGTH - AS REQUIRED.

2. THICKNESS - NOT LESS THAN SIX (6) INCHES.

3. WIDTH - TWENTY (20) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.

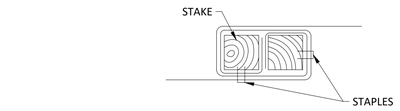
4. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.

5. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

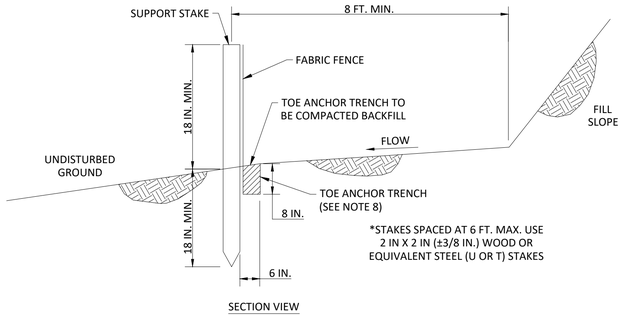
6. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

7. WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAYS. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.

8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.



JOINING FENCE SECTIONS



SECTION VIEW

MAXIMUM SLOPE LENGTH FOR SILT FENCE

SLOPE - PERCENT	MAXIMUM SLOPE LENGTH (FT.) ABOVE FENCE
	STANDARD (18" HIGH) SILT FENCE
2 (OR LESS)	100
5-10	50
10-20	25
20-40	15
40-50	10

NOTES:

1. FABRIC SHALL HAVE THE MINIMUM PROPERTIES AS REQUIRED BY STATE SPECIFIC SPECIFICATIONS. FABRIC SHALL BE IN USE NO LONGER THAN THE MANUFACTURERS RECOMMENDED LIFE SPAN AND SHALL BE REPLACED WITH NEW FABRIC AFTER THE LIFE SPAN HAS BEEN EXCEEDED.

2. FABRIC WIDTH SHALL BE 30 IN. MINIMUM. STAKES SHALL BE HARDWOOD OR EQUIVALENT STEEL (U OR T) STAKES.

3. SILT FENCE SHALL BE PLACED AT LEVEL EXISTING GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT.

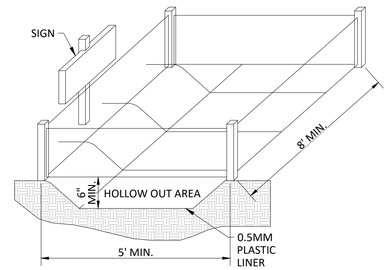
4. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVE GROUND HEIGHT OF THE FENCE.

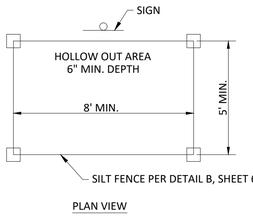
5. ANY SECTION OF SILT FENCE WHICH HAS BEEN UNDERMINED OR TOPPED SHALL BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET (FIGURE 18).

6. FENCE SHALL BE REMOVED AND PROPERLY DISPOSED OF WHEN TRIBUTARY AREA IS PERMANENTLY STABILIZED.

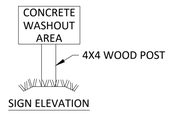
7. SILT FENCE THAT HAS BECOME CLOGGED WITH SEDIMENT AND CAN NO LONGER BE CLEANED SHALL BE REPLACED.

8. TOE ANCHOR TRENCH MEASUREMENTS MAY BE REDUCED IN STATE SPECIFIC INSTANCES:
VIRGINIA = 4" VERT. x 4" HORZ.
PENNSYLVANIA & KENTUCKY = 6" VERT. x 6" HORZ.
INDIANA = 8" VERT. x 4" HORZ.
OHIO, MASSACHUSETTS & MARYLAND = 8" VERT.





PLAN VIEW



SIGN ELEVATION

NOTES:

1. CONCRETE TRUCKS SHALL UTILIZE AREAS TO WASHOUT TRUCKS.

2. ACCUMULATED CONCRETE SHALL BE REMOVED FROM THE SITE AND DISPOSED PROPERLY.

3. PLACE PLASTIC LINER OVER THE ENTIRE HOLLOW OUT AREA PRIOR TO USE.

4. PROVIDE ITEMS NOTED ABOVE INCLUDING REMOVAL OF CONCRETE WASHOUT UPON COMPLETION OF THE PROJECT AS NOTED IN THE BID PRICE FOR THE PROJECT.

5. FILL HOLLOW AREA TO A DEPTH OF 4 TO 6 INCHES WITH CMSC ITEM 703 AGGREGATE, SIZE #57, #2, OR #4.

6. USE OF ROLL AWAY OR OTHER PORTABLE CONTAINERS IS AN ACCEPTABLE ALTERNATIVE (AND HIGHLY ENCOURAGED) PROVIDED THEY ARE USED IN ACCORDANCE WITH NPDES GUIDELINES ON CONCRETE WASHOUT.

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DAVID BORCHERDING
PE-91143
2025.06.18
REGISTERED
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ISSUED FOR PERMIT

REVISIONS		
0	06/18/25	ISSUED FOR PERMIT
REV. #	DATE	DESCRIPTION

INTERNAL ENG.	C. MCCULLOUGH	06/18/25	330-596-0111
DESIGNED BY	J. ANDERSON	06/18/25	303-623-3345
CHECKED BY	D. BORCHERDING	06/18/25	303-623-3345
AS-BUILT BY			
	NAME	DATE	PHONE #

SITE NAME:

INST# 24-0136951-00
ABAN# ----
PROJECT ID# 21-78790

RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:

EROSION CONTROL DETAILS

DRAWING NO:

C-11

APPENDIX D - STRUCTURAL DRAWINGS

STRUCTURAL DRAWING INDEX		
DWG No.	REV	DRAWING TITLE
D-01	0	STRUCTURAL DRAWING INDEX
D-02	0	STRUCTURAL GENERAL NOTES
D-03	0	STRUCTURAL BILL OF MATERIAL
D-04	0	OVERALL STRUCTURAL PLAN
D-05	0	DRIVEWAY AND SIDEWALK ENLARGED DETAILED PLAN
D-06	0	STRUCTURAL SECTIONS AND DETAILS - FILTER SEPARATOR SUPPORT
D-07	0	STRUCTURAL SECTIONS AND DETAILS - BOILER/HEATER
D-08	0	STRUCTURAL SECTIONS AND DETAILS - SCADA BUILDING PAD
D-09	0	STRUCTURAL SECTIONS AND DETAILS - GENERATOR PAD

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PROPOSED

REVISIONS		
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REV. #	DATE	DESCRIPTION

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DESIGNED BY	H.ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

SITE NAME:
INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
STRUCTURAL DRAWING INDEX

DRAWING NO:
D-01

EARTHWORK AND CONCRETE CONSTRUCTION NOTES / SPECIFICATIONS

A. GENERAL SITE INFORMATION

1. DESIGN CODE = 2024 OHIO BUILDING CODE, RISK CATEGORY = IV. FRANKLIN COUNTY, OH.
2. SNOW LOAD = 20 PSF
3. WIND SPEED = V = 119 MPH; EXPOSURE = "C" (CONSERVATIVE) ULT
4. SITE CLASS = "D"
5. SEISMIC DESIGN ENVELOPE PARAMETERS; S_S: 0.119 F_a: 1.6 S_{D1}: 0.096; S_1: 0.06 F_V: 2.4 S_{DS}: 0.127 } SEISMIC DESIGN CATEGORY (SDC) = C; I_E = 1.50

B. EARTHWORK AND FOUNDATION CONSTRUCTION

1. FOUNDATION CONSTRUCTION AND SITE PREPARATION METHODS SHALL FOLLOW RECOMMENDATIONS OUTLINED IN THE 2024 OHIO BUILDING CODE. SPECIFIC REQUIREMENTS ARE AS FOLLOWS:
   a. FOUNDATION SYSTEM: SHALLOW SPREAD FOOTINGS.
   b. FROST DEPTH: 32 IN.
   c. SOIL ENGINEERING DESIGN PARAMETERS: NO SITE SPECIFIC GEOTECH REPORT EXISTS. IT IS POSSIBLE THE SITE NATIVE SOILS MAY EXHIBIT SHRINKAGE/SWELLING DEPENDING ON WATER LEVEL ON SOIL. CONTRACTOR SHALL NOTIFY ENGINEERING OF SOILS ENCOUNTERED DURING EXCAVATION ACTIVITIES FOR FOOTERS TO DETERMINE IF ADDITIONAL EXCAVATION AND BACKFILL IS REQUIRED TO MITIGATE SHRINK/SWELL POTENTIAL.
   d. PRESUMPTIVE CLAY AS PER TABLE IBC 1806.2 CLASS 5 (1,500 psf.). CONTRACTER SHALL NOTIFY ENGINEERING OF SITE SOIL CONDITIONS THAT MAY AFFECT FOUNDATION PERFORMANCE NEGATIVELY SUCH AS BUT NOT LIMITED TO: MUDDY OR SATURATED SOIL, FROZEN SOIL, ORGANICS, PEAT OR UNPREPARED FILL.
   e. COMPACTION CRITERIA FOR FOUNDATIONS: UNLESS OTHERWISE DICTATED BY ONSITE GEOTECHNICAL PERSONNEL, MINIMUM COMPACTION CRITERIA FOR PREPARED SUBGRADE SHALL BE 100% STANDARD PROCTOR MAXIMUM DRY DENSITY. FOOTINGS SHALL BEAR ON A 12" THICK MIN. LAYER OF ODOT ITEM 304 GRANULAR MATERIAL FILL UNLESS NOTED OTHERWISE.
2. EXCAVATION AND BACKFILL:
   a. ALL EXCAVATION AND GRADING WORK FOR FOUNDATIONS SHALL CONFORM TO THE SPECIFICATIONS HEREIN AND ALL LOCAL, COUNTY, STATE, AND FEDERAL LAWS AND REGULATIONS. ENTIRE AREA AROUND EACH FOUNDATION MUST BE THOROUGHLY PROBED FOR UNDERGROUND PIPE, CONDUIT, HIGH PRESSURE LINES, ETC. BEFORE ANY EXCAVATION BEGINS.
   b. WHENEVER POSSIBLE, EXCAVATION FOR CONCRETE FOUNDATION SHALL BE NEATLY CUT TO THE EXACT SIZE SPECIFIED.
   c. IF THE GROUND WATER LEVEL IS FOUND TO BE ABOVE THE BOTTOM OF THE FOUNDATION EXCAVATION, THE FOLLOWING PROCEDURE SHALL BE FOLLOWED:
      I. EXCAVATE THE FOUNDATION 1' BELOW THE BOTTOM OF THE CONCRETE FOUNDATION AND 1' BEYOND THE FOUNDATION BASE ON EACH SIDE.
      II. THE WATER SHALL BE REMOVED FROM THE EXCAVATED FOUNDATION. CONTRACTOR SHALL KEEP EXCAVATED FOUNDATION FREE OF WATER AT ALL TIMES UNTIL THE BASE HAS BEEN PREPARED TO THE FINISHED ELEVATION OF THE FOUNDATION BASE.
      III. PLACE WOVEN GEOTEXTILE FABRIC MIRAFI 600X OR EQUAL 1' BEYOND THE FOUNDATION BASE ON EACH SIDE.
      IV. PLACE 12" OF CLASS II AGGREGATE BASE IN TWO SEPARATE 6" LIFTS, COMPACT TO 95% OF THE MAX DRY DENSITY PER ASTM D1557.
      V. BEFORE PLACING THE FORMS, REBAR AND CONCRETE POUR, THE CONTRACTOR SHALL KEEP THE EXCAVATED FOUNDATION FREE OF WATER.
   d. DURING AND UPON COMPLETION OF THE INSTALLATION OF ANY FOUNDATION, THE WORK SHALL BE INSPECTED AND APPROVED BY THE OWNER OR THEIR REPRESENTATIVE BEFORE THE EXCAVATION IS BACKFILLED. AFTER SUCH APPROVAL, THE EXCAVATION, UNLESS REQUIRED TO BE LEFT OPEN FOR GOOD CAUSE, SHALL BE PROMPTLY BACKFILLED IN A SATISFACTORY MANNER PROVIDED THE FOUNDATION HAS ATTAINED SUFFICIENT STRENGTH.
   e. FORMS SHALL NOT BE STRIPPED UNTIL 3 DAYS AFTER THE POUR OR CONCRETE STRENGTH REACHES 75% F'C, WHICHEVER OCCURS LATER.
   f. STRUCTURAL BACKFILL SHALL CONSIST OF GRANULAR NON-EXPANSIVE SAND, GRAVEL AND SAND-GRAVEL MIXTURES, WITH PLASTICITY INDEX OF 15% OR LESS, WITH 100% LESS THAN 4" SIZE ROCK AND MAX. 30% PASSING NO. 200 SIEVE. IT SHALL BE PLACED IN 8" MAX. LIFTS.
3. SUBGRADE CONDITIONS SHOULD BE INSPECTED BY A GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF ANY CONCRETE. STRUCTURAL FILL SHALL BE INSPECTED AND TESTED.

EXPOSURE CATEGORY & CLASS				f 'c AT 28 DAYS	CEMENT TYPE	W/C RATIO (MAX.)	AIR CONTENT	MAX SLUMP		OTHER PROVISIONS
F FREEZING THAWING	C CORROSION PROTECTION	S SULFATE EXPOSURE	P PERMEABILITY					ALL CONC.	DRILLED PIERS	
F2	C1	S0	P0 TO P1	4500 psi	II	0.45	4.5% TO 7.5%	4	6"	N/A

LEAN CONCRETE SHALL BE (F'C) <1500 psi

4. AGGREGATES SHALL BE CRUSHED STONE CONFORMING TO "SPECIFICATION FOR CONCRETE AGGREGATES" ASTM C33.
5. WATER USED IN MIXING CONCRETE SHALL CONFORM TO ASTM C1602.
6. REINFORCING BARS SHALL BE DEFORMED, INTERMEDIATE GRADE NEW BILLET STEEL CONFORMING TO ASTM A615 (ASTM A706 OR ASTM A615 MEETING THE REQUIREMENTS OF ACI-318, SECTION 21.1.5.2) GRADE 60. FIELD SPLICES AND DEVELOPMENT LENGTH SHALL COMPLY WITH THE FOLLOWING SCHEDULE, UNLESS NOTED OTHERWISE:

BAR SIZE	BAR DIA	TOP BAR	OTHER
#3	.375"	15"	12"
#4	.500"	20"	15"
#5	.625"	26"	20"
#6	.750"	29"	23"
#7	.875"	47"	36"
#8	1.00"	61"	47"
#9	1.125"	77"	59"
#10	1.27"	97"	75"
#11	1.41"	120"	92"

REINFORCEMENT SHALL BE INSPECTED BEFORE CONCRETE IS PLACED

7. CONCRETE PROTECTION FOR REINFORCEMENT - CLEAR DISTANCE FROM FACE OF CONCRETE TO BAR SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.
   a. CONCRETE DEPOSITED AGAINST GROUND OR VOID FORM: 3" .
   b. CONCRETE SURFACES EXPOSED TO WEATHER OR IN CONTACT WITH GROUND AFTER REMOVAL OF FORMS: 1 1/2" FOR #5 BARS AND SMALLER, 2" FOR #6 THROUGH #18.
   c. SURFACES NOT EXPOSED TO GROUND OR WEATHER: 3/4" FOR SLABS AND WALLS WITH #11 AND SMALLER BARS, 1 5/8" FOR BEAMS AND COLUMNS.
8. EXPANSION JOINT MATERIAL FOR EXPANSION OR ISOLATION JOINTS SHALL BE PREMOLDED, BITUMINOUS IMPREGNATED FIBERBOARD.CONFORMING TO ASTM D994. JOINT THICKNESS SHALL BE 1/2" UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS.
9. JOINT SEALANT FOR ALL CONCRETE CONTROL, CONSTRUCTION AND ISOLATION JOINTS SHALL BE SIKAFLEX-1A BY SIKA CORP., OR APPROVED EQUAL.
10. GROUT USED FOR VARIOUS APPLICATIONS SHALL BE AS FOLLOWS:
    a. GROUT USED FOR STRUCTURAL STEEL COLUMN BASE PLATES SHALL BE PREPACKED, HIGH-FLUIDITY NON-SHRINK, NATURAL AGGREGATE GROUT SUCH AS "MASTERFLOW 713 PLUS" BY BASF (FORMERLY MASTER BUILDERS) OR APPROVED EQUAL. FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION. SPACE BETWEEN THE ANCHOR RODS AND OVERSIZED HOLES IN THE BASE PLATE SHALL BE FULLY GROUTED WITH NON-SHRINK GROUT TO ASSURE PROPER SHEAR TRANSFER. GROUTING SHALL BE PERFORMED ONE BOLT AT A TIME, WHILE OTHER BASE PLATE RODS ARE FULLY TIGHTENED.
    b. GROUT USED FOR GROUTING COMPRESSORS, TURBINES, LARGE PUMPS, AND OTHER RECIPROCATING OR ROTATING EQUIPMENT THAT REQUIRES EPOXY GROUTING AS SHOWN ON DESIGN DRAWINGS SHALL BE "FIVE STAR HP" EPOXY GROUT BY FIVE STAR PRODUCTS, INC. OR APPROVED EQUAL, FOLLOW MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION.
    c. GROUT USED FOR DRILLED AND EPOXY-GROUTED REBARS SHALL BE HILTI HIT-RE-500-SD EPOXY OR APPROVED EQUAL.
11. COLUMN BASE PLATE GROUT PROCEDURE:
    a. SELECT A NON-SHRINK, NON-METALLIC GROUT DESIGNED FOR DAMP PACKING, BASF CONSTRUCTION GROUT OR OWNER APPROVED EQUAL, FOLLOW ALL MFGR.'S INSTRUCTIONS. APPLY GROUT BETWEEN THE TEMPERATURE RANGE OF 50 TO 90 DEG. F.
    b. BUSH HAMMER AND CLEAN CONCRETE SURFACE WHERE GROUT WILL BE APPLIED.
    c. CLEAN ALL SURFACES TO BE GROUTED.
    d. SATURATE CONCRETE SURFACES WITH CLEAN WATER 24 HOURS BEFORE GROUTING, REMOVE WATER IMMEDIATELY BEFORE APPLICATION.
    e. PLACE TIGHT AND SECURE FORMS ON ALL SIDES EXCEPT THE SIDE WHERE THE GROUT WILL BE APPLIED.
    f. MIX THE GROUT FOLLOWING MFGR.'S INSTRUCTIONS, THE GROUT SHOULD BE DAMP ENOUGH THAT IT CAN BE MOLDED INTO A BALL, THE BALL SHOULD NEITHER SLUMP NOR CRUMBLE DUE TO LACK OF MOISTURE.
    g. PLACE GROUT IMMEDIATELY AFTER MIXING, RAMMING UNDER THE BASE PLATE WITH A WOODEN DOWEL, WORKING AT AN ANGLE TO THE CORNERS TO ENSURE EVEN COMPACTION.
    h. REMOVE FORMS, SHAPE 45 DEG. BEVEL TO CONCRETE SURFACE ALL SIDES.
    i. CURE 8 HOURS KEEPING MOIST WITH BURLAP, ETC.
12. VOID FORM MATERIAL SHALL BE "SURE VOID" OR APPROVED EQUAL. KEEP VOID FROM MATERIAL DRY DURING PLACEMENT AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.VOID FORM SHALL BE BIODEGRADABLE AND CAPABLE OF SUPPORTING THE FLUID WEIGHT OF THE CONCRETE.
13. ALL WELDING PROCEDURES, INCLUDING STUD WELDING, AND QUALIFICATIONS SHALL BE IN ACCORDANCE WITH AWS D1.1.
14. ALL WALKS AND EXTERIOR SLABS SHALL BE LIGHT BROOM FINISHED AFTER CONCRETE HAS RECEIVED A FLOAT FINISH. FOLLOW ACI 301 PROCEDURES.
15. EXPOSED CORNERS SHALL BE CHAMFERED 3/4" UNLESS NOTED.
16. CHECK ALL ELECTRICAL, MECHANICAL AND PIPING DRAWINGS FOR EMBEDDED ITEMS (PIPE, CONDUIT, ETC.) AND BLOCKOUTS BEFORE PLACING CONCRETE.
17. IF REINFORCING OR MESH IS FIELD CUT FOR SMALL OPENINGS, CONDUIT, ELECTRICAL BOXES, ETC. CUT REINFORCING SHALL BE REPLACED WITH AN EQUIVALENT AREA OF STEEL. ALL SUCH BARS SHALL EXTEND 24" MINIMUM (OR MESH LAP 2") BEYOND CORNER OR EDGE OF OPENING IF NECESSARY. REINFORCING SHALL BE BENT TO PROVIDE THIS MINIMUM EMBEDMENT. MAKE ALL BARS CONTINUOUS AROUND CORNERS.
18. THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT ANCHOR ROD DIMENSIONS AGAINST THE CERTIFIED EQUIPMENT DRAWINGS BEFORE PLACING CONCRETE. TOLERANCES FOR ANCHOR ROD LOCATIONS AND ELEVATIONS SHALL BE AS DEFINED IN THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) CODE OF STANDARD PRACTICE.
19. ALL WATER STOP SHALL BE BENTONITE FLEXIBLE STRIP WATERSTOP BY VOLCLAY OR APPROVED EQUAL
20. CONCRETE MIX DESIGN AND REBAR SHOP DRAWINGS SHALL BE SUBMITTED TO ENGINEER-OF-RECORD FOR APPROVAL PRIOR TO CONSTRUCTION.

C. CONTRACTOR'S MEANS AND METHODS.

1. THE STRUCTURAL DRAWINGS AND NOTES REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. FOR THIS REASON, DURING ERECTION OF THE STRUCTURE AND/OR THE DEMOLITION OF THE STRUCTURE OR PORTIONS OF THE STRUCTURE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING LATERAL LOADS, EXCAVATIONS, SHORING, STOCKPILES OF MATERIALS AND EQUIPMENT, IN ADDITION TO ANY WORKER SAFETY REQUIREMENTS. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS IT MAY BE REQUIRED FOR SAFETY AND UNTIL ALL STRUCTURAL FRAMING AND DIAPHRAGMS ARE IN PLACE WITH CONNECTIONS COMPLETED DISCOVERY.
2. DURING CONSTRUCTION, THE CONTRACTOR MAY ENCOUNTER EXISTING CONDITIONS OR AS BUILT DIMENSIONS WHICH ARE NOT WHICH NOW KNOWN OR ARE AT VARIANCE WITH PROJECT DOCUMENTATION (DISCOVERY). SUCH CONDITIONS MAY INTERFERE WITH CONSTRUCTION OR REQUIRE PROTECTION AND / OR SUPPORT OF EXISTING WORK DURING CONSTRUCTION, OR MAY CONSIST OF DAMAGE OR DETERIORATION TO THE STRUCTURAL MATERIALS OR COMPONENTS WHICH COULD JEOPARDIZE THE INTEGRITY OF THE STRUCTURE(S) RELATED TO SUCH DISCOVERIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMMEDIATELY NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCOVERY HE OR SHE IDENTIFIES THAT MAY INTERFERE WITH THE PROPER EXECUTION OF THE WORK OR JEOPARDIZE THE INTEGRITY OF THE STRUCTURE(S) PRIOR TO PROCEEDING WITH WORK RELATED TO SUCH DISCOVERIES.

D. CONTRACTOR'S COORDINATION

1. THE CONTRACTOR SHALL VERIFY AND COORDINATE ALL DIMENSIONS AND DETAILS BETWEEN ALL TRADES, SUBCONTRACTORS AND VENDOR SUPPLIED EQUIPMENT PRIOR TO COMMENCING ANY CONSTRUCTION. THE STRUCTURAL ENGINEER SHALL BE IMMEDIATELY NOTIFIED OF ANY INCONSISTENCIES RELATING TO THE STRUCTURE. FAILURE TO DO SO SHALL RELIEVE THE STRUCTURAL ENGINEER OF ALL CONSEQUENCES RELATED TO THE INCONSISTENCY.
2. SEE MECHANICAL, ELECTRICAL AND OTHER DISCIPLINE'S DRAWINGS FOR ADDITIONAL INFORMATION RELATING TO THE STRUCTURE.

E. DRAWING CONVENTIONS

1. T.O.C. EL. INDICATES TOP OF CONCRETE ELEVATION.
2. B.O.C. EL. INDICATES BOTTOM OF CONCRETE ELEVATION.
3. SCALES NOTED ON DRAWINGS ARE ACCURATE FOR FULL-SIZE (24x 36)DRAWINGS ONLY.

SCHEDULE OF CIVIL INSPECTIONS / SPECIAL INSPECTIONS (AS APPLICABLE)

INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. IF A TASK IS TO TAKE LONGER THAN THREE (3) DAYS, PROVIDE REPORTS FOR EACH DAY. PROVIDE COPIES OF REPORTS TO: CONTRACTOR, OWNER, AND THE ENGINEER OF RECORD. INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING APPROVED CONSTRUCTION DOCUMENTS AND WHEN/HOW RESOLVED.

CIVIL INSPECTIONS ARE DEFINED HEREIN AS INSPECTIONS OF EARTHWORK, FOUNDATION CONSTRUCTION AND CONCRETE CONSTRUCTION.

INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION

INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCED STANDARD
Y	1. INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT.	---	X	ACI 318: 3.5, 26.6
N	2. INSPECTION OF REINFORCING STEEL WELDING IN ACCORDANCE WITH TABLE 1705.2.2, ITEM 2b.	---	X	AWS D1.4 ACI 318: 26.6.4
Y	3. INSPECTION OF ANCHORS CAST IN CONCRETE WHERE ALLOWABLE LOADS HAVE BEEN INCREASED OR WHERE STRENGTH DESIGN IS USED.	---	X	ACI 318: 26.7
Y	4. INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS.	---	X	ACI 318: 26.7
Y	5. VERIFICATION OF ANCHOR MATERIAL CERTIFICATIONS.	---	X	AISC 360
Y	6. VERIFYING USE OF REQUIRED DESIGN MIX.	---	X	ACI 318: 26.4
Y	7. AT THE TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---	ASTM C 172 ASTM C 31 ACI 318: 26.12,26.13
Y	8. INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---	ACI 318: 26.5
Y	9. INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X	ACI 318: 26.5.3
Y	10. VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORING AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	---	X	ACI 318: 26.11
Y	11. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X	ACI 318: 26.11

INSPECTION AND VERIFICATION OF SOILS

INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED
Y	1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE DESIRED BEARING CAPACITY.	---	X
Y	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
Y	3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
Y	4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
Y	5. PRIOR TO PLACEMENT OF COMPACTED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X

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REVISIONS

REV. #	DATE	DESCRIPTION
0	06/18/2025	ISSUED FOR BID

	NAME	DATE	PHONE #
INTERNAL ENG.	H. ROQUE	09/13/24	470-322-4636
DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

SITE NAME:
INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
STRUCTURAL GENERAL NOTES

DRAWING NO:
D-02

PIPE SUPPORT BILL OF MATERIALS

ITEM	QTY	UNIT	SIZE	DESCRIPTION	MECH. B.O.M ITEM
400	AS REQ'D	CY	4,500 PSI	CONCRETE, 4,500 PSI MINIMUM 28 DAY COMPRESSIVE STRENGTH	-
401	AS REQ'D	LB	#4	REBAR, ASTM A615, GR60	-
402	AS REQ'D	LB	#5	REBAR, ASTM A615, GR60	-
403	AS REQ'D	LB	#6	REBAR, ASTM A615, GR60	-
404	8	EA	2"	E-Z LINE, MODEL NO. 204 ADJUSTABLE PIPE SUPPORT; REF. MECH. B.O.M.	-
405	36	EA	1/2"x8"	HILTI HAS-V-36, HOT DIP GALVANIZED, ANCHOR ROD W/ HILTI HIT-RE-500 V3	-
406	72	EA	1/2"	HEAVY HEX NUT, ASTM A563 GR C	-
407	36	EA	1/2"	WASHER, ASTM F436	-
408	12	EA	5/8"x12"	HILTI HAS-V-36, HOT DIP GALVANIZED, ANCHOR ROD W/ HILTI HIT-RE-500 V3	
409	24	EA	5/8"	HEAVY HEX NUT, ASTM A563 GR C	-
410	12	EA	5/8"	WASHER, ASTM F436	-
411	4	EA	1"x14"	HILTI HAS-V-36, HOT DIP GALVANIZED, ANCHOR ROD W/ HILTI HIT-RE-500 V3	-
412	8	EA	1"	HEAVY HEX NUT, ASTM A563 GR C	-
413	4	EA	1"	WASHER, ASTM F436	-

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DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

SITE NAME:

INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791

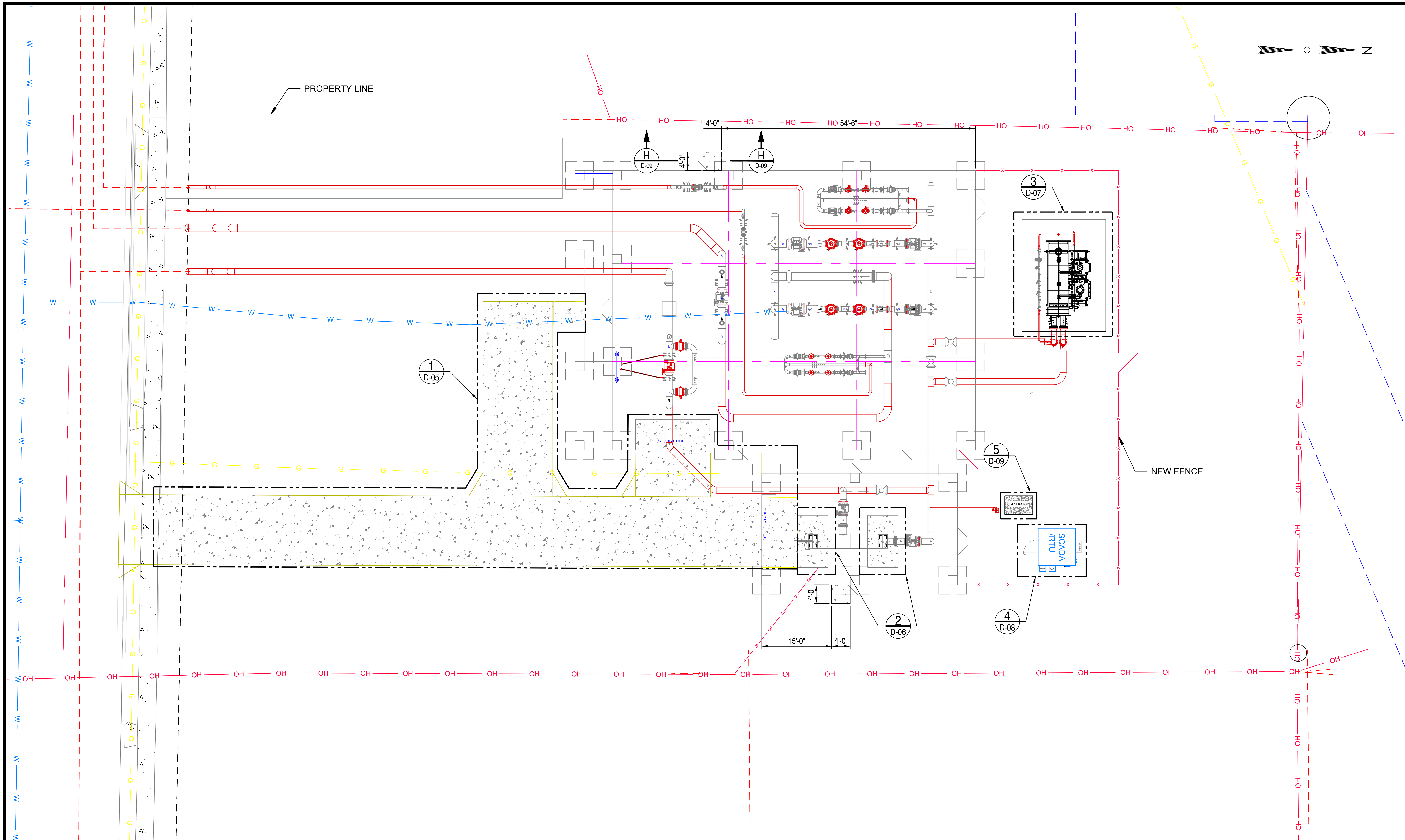
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:

STRUCTURAL
BILL OF MATERIALS

DRAWING NO:

D-03



PLAN VIEW

SCALE: 3/32" = 1'-0"

NOTE:

1. REF. NISOURCE CONCRETE LAYOUT AND DETAILS DRAWINGS FOR PIERS AND SLEEPERS SIZES, DIMENSION, SPACING, ETC.
2. REF. NISOURCE SHEETS FOR LEGEND.

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DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

SITE NAME:

INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791

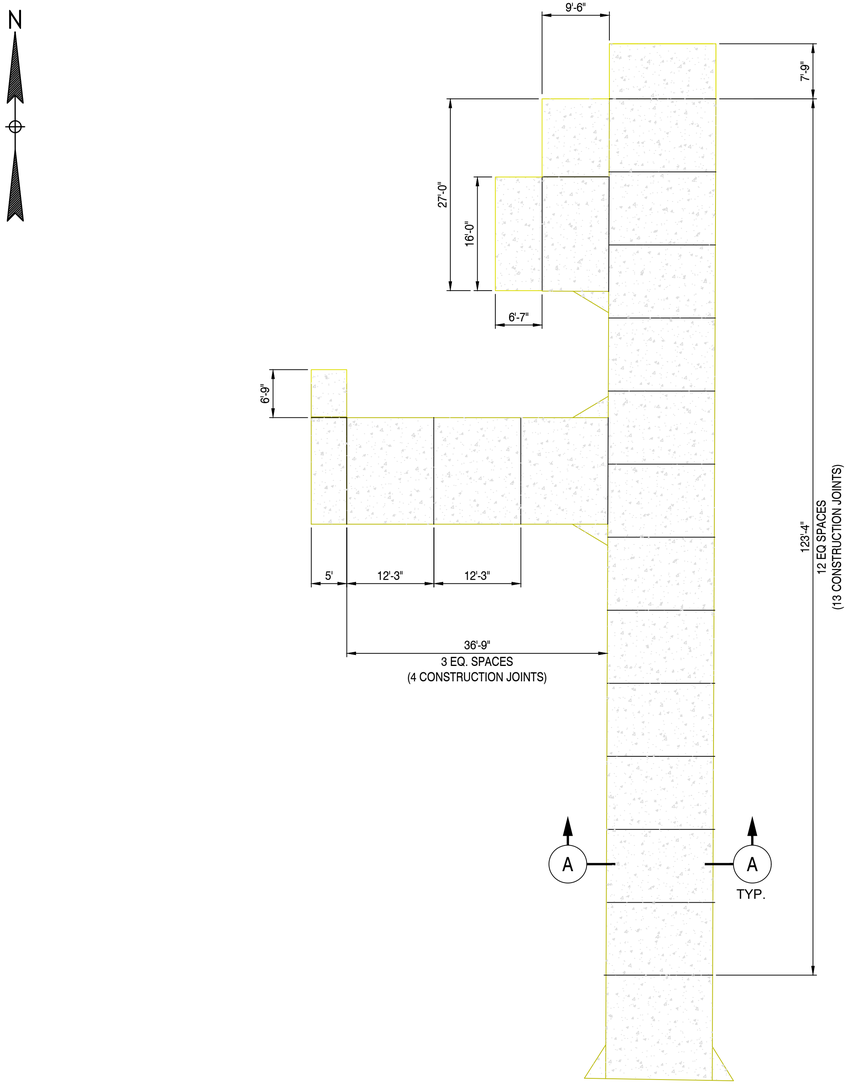
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:

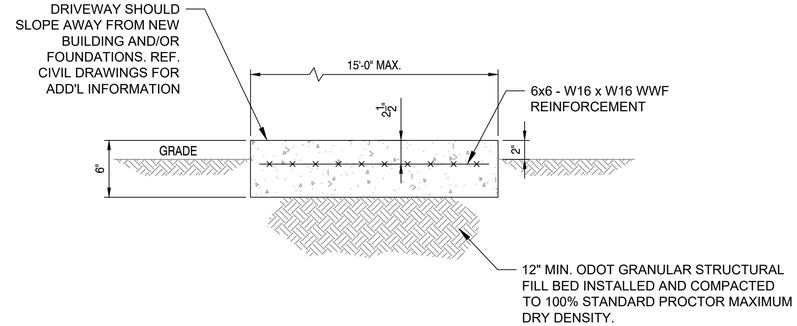
OVERALL STRUCTURAL PLAN

DRAWING NO:

D-04



DRIVEWAY AND SIDEWALK ENLARGED DETAIL (1 / D-04)
SCALE: 3/32" = 1'-0"



TYP. DRIVEWAY SLAB SECTION (A)
SCALE: 1-1/2" = 1'-0"
SEE NOTE 1

NOTE:

1. CONCRETE SHOULD FOLLOW SLOPE AND GRADES AS SET FORTH PER CIVIL DRAWINGS. OTHERWISE, IT SHOULD FOLLOW NATURAL GRADE AND/OR SLOPE AWAY FROM STRUCTURE.

2/9/2021 - 22 x 34

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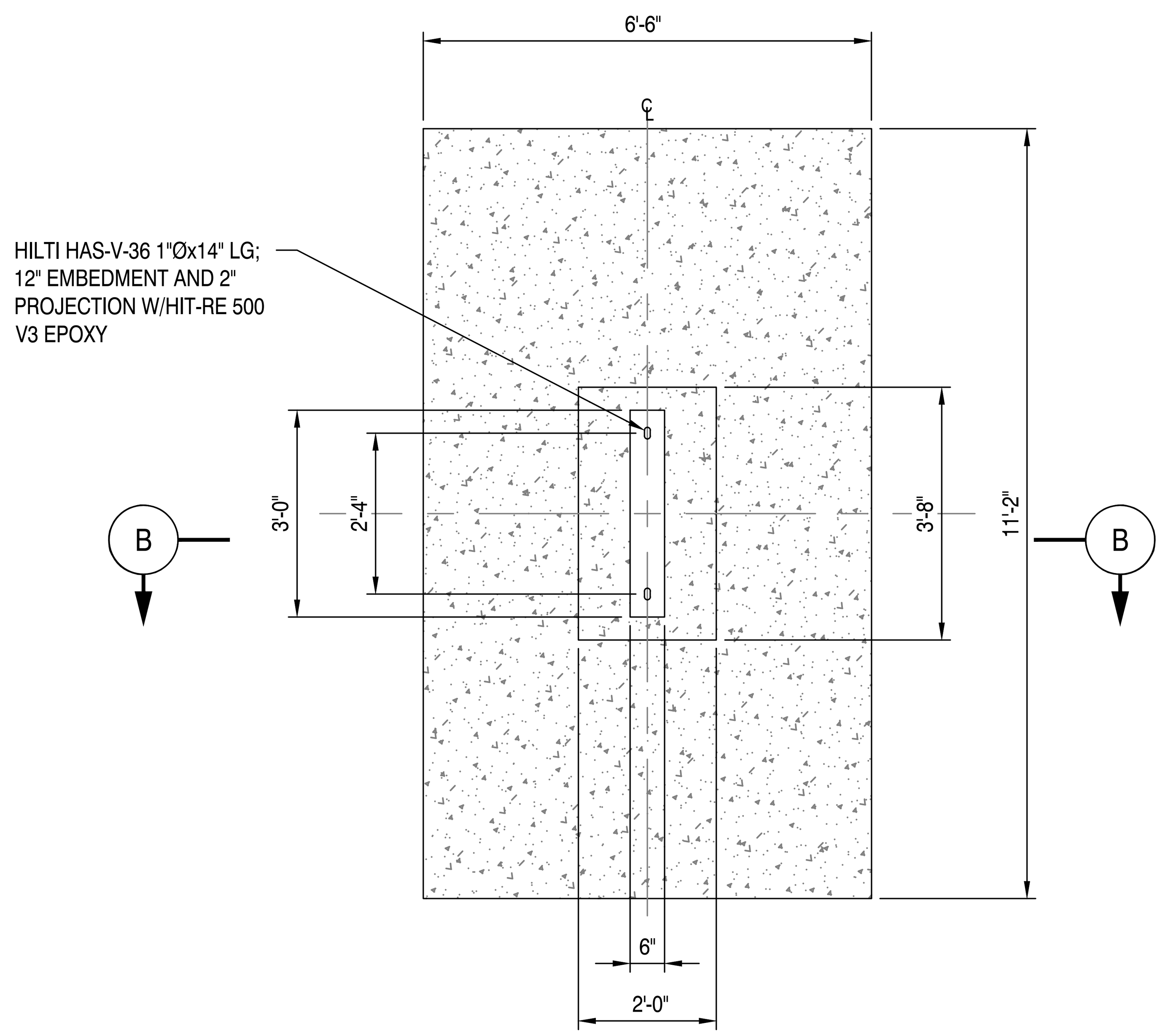
DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

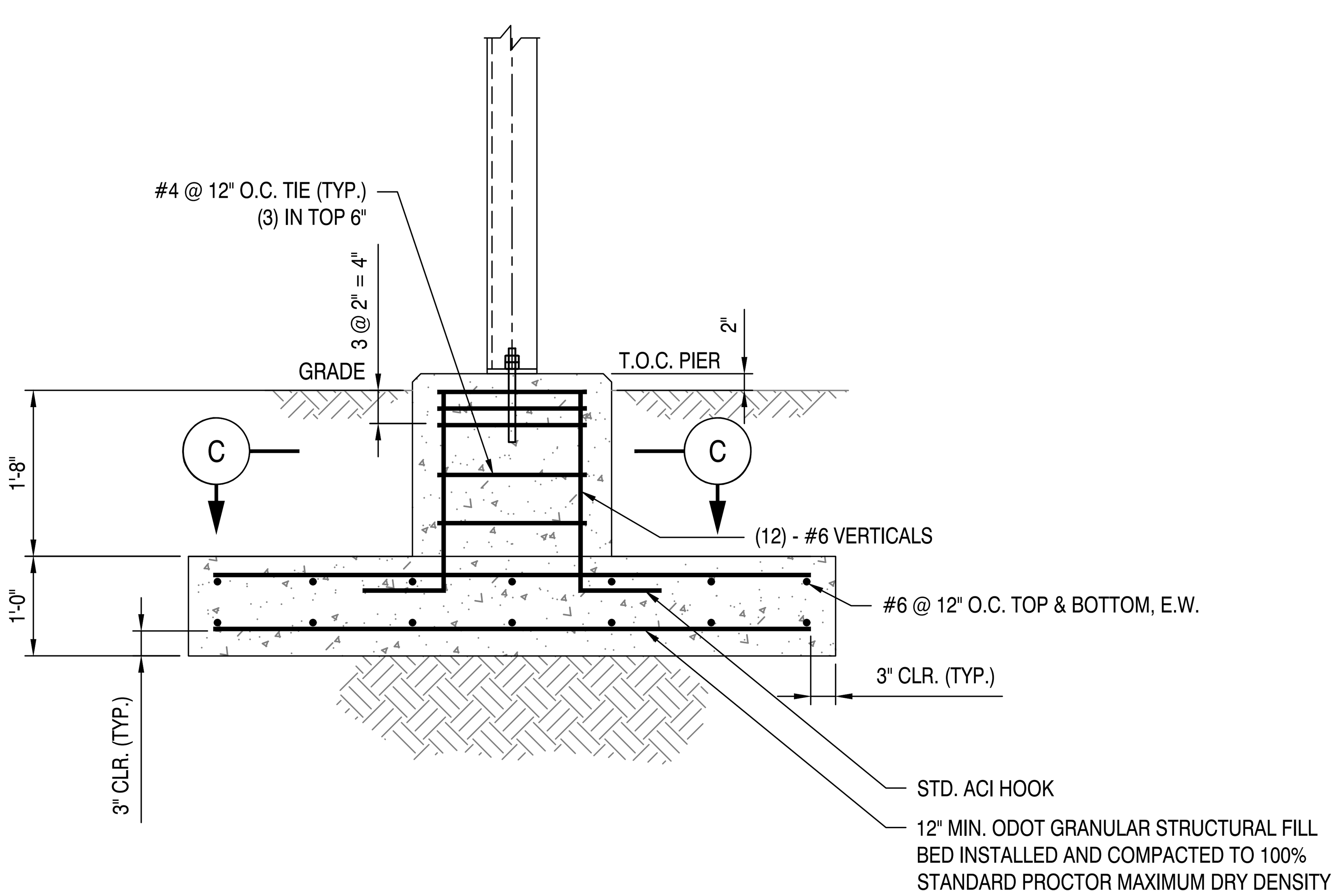
SITE NAME:
INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
DRIVEWAY AND SIDEWALK ENLARGED DETAILED PLAN

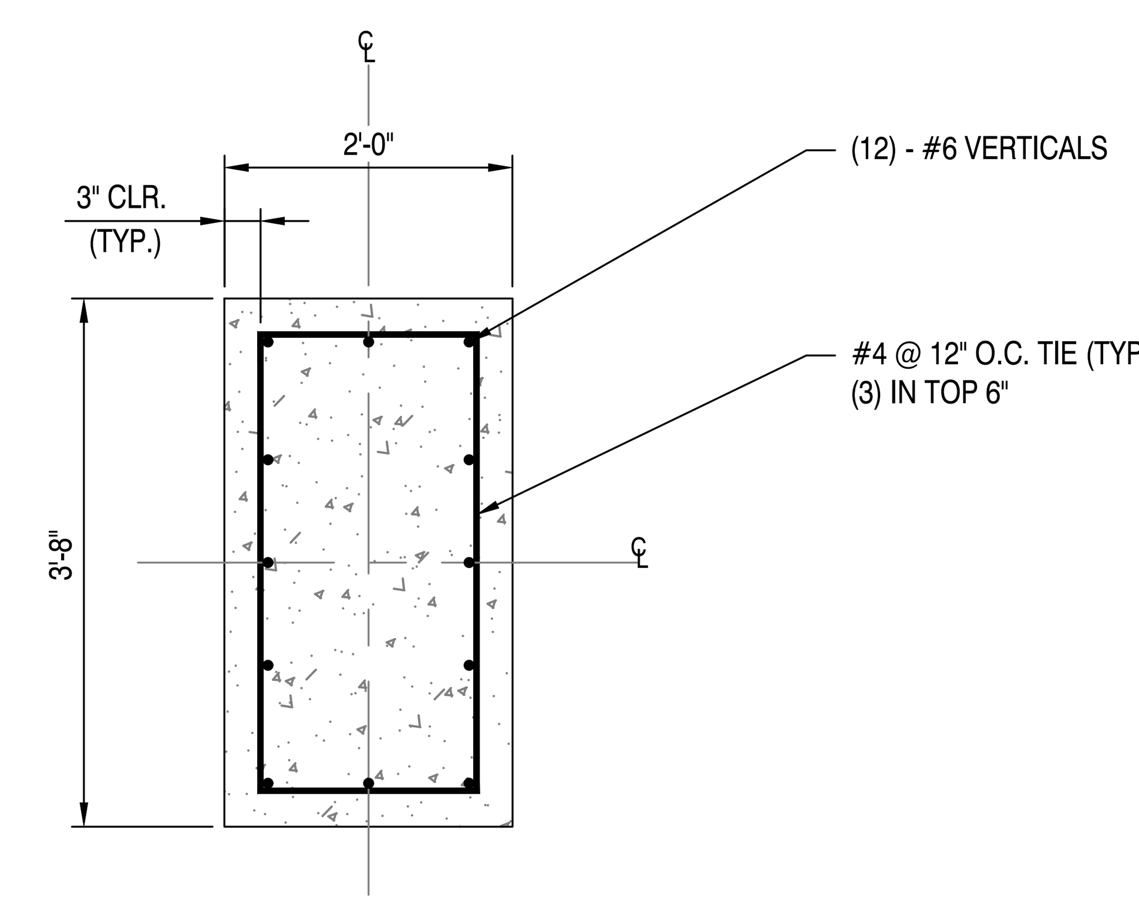
DRAWING NO:
D-05



FILTER SEPARATOR SUPPORT (2 / D-04)
SCALE: 1/2" = 1'-0"
(TYP. 2 LOCATIONS)



FILTER SEPARATOR SUPPORT SECTION (B)
SCALE: 3/4" = 1'-0"



FILTER SEPARATOR PEDESTAL SECTION (C)
SCALE: 3/4" = 1'-0"

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DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

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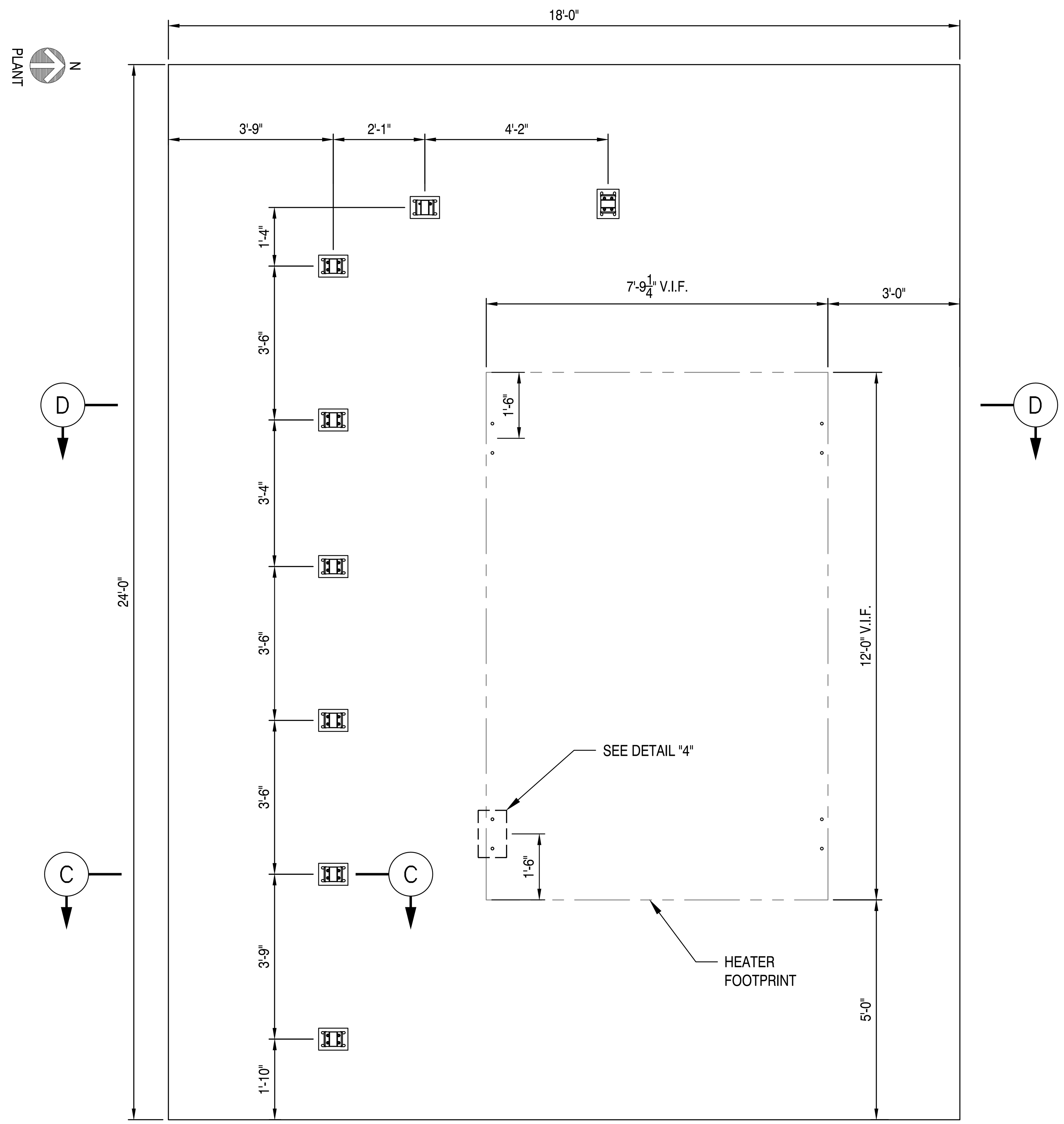
INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

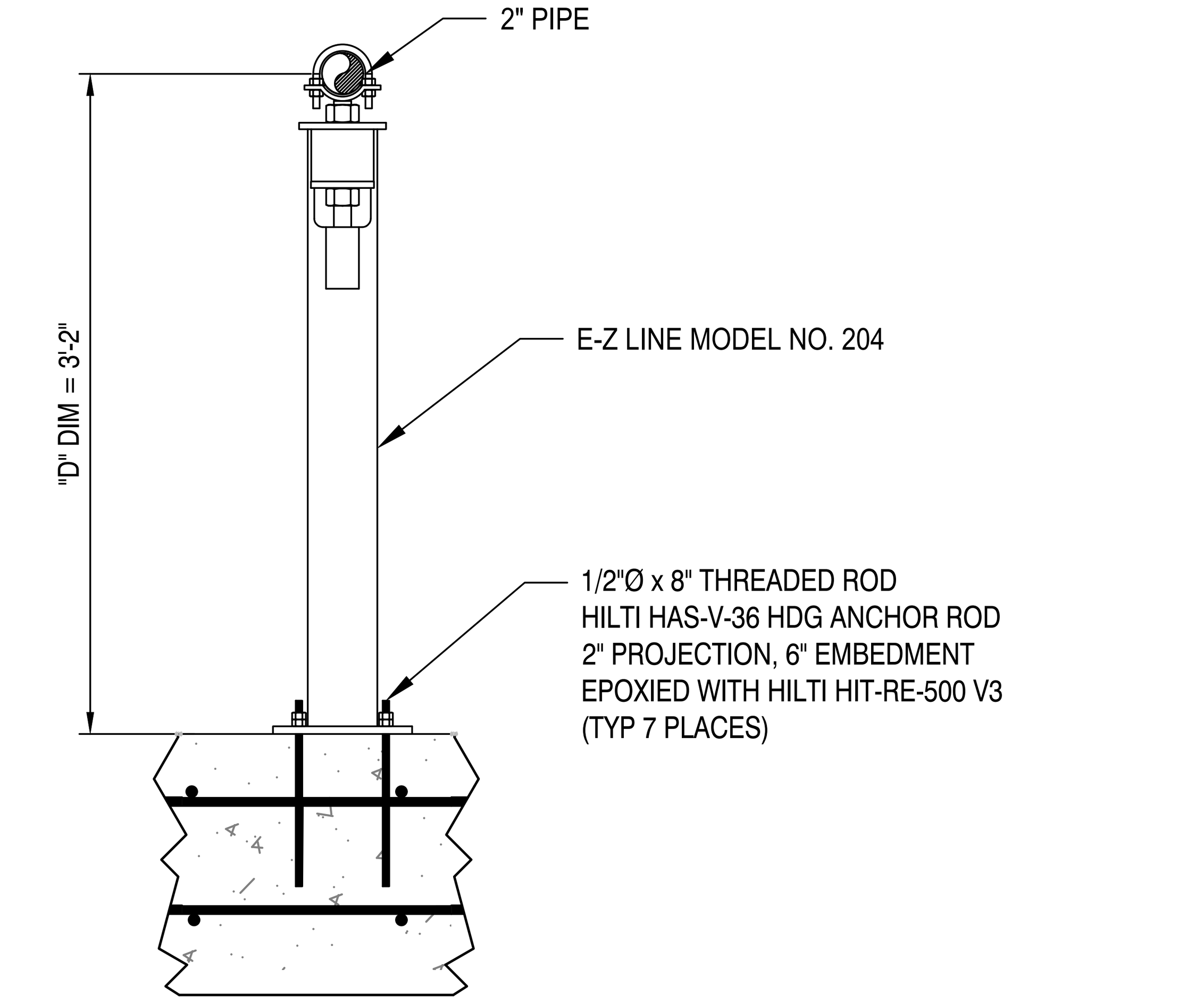
DRAWING TITLE:
STRUCTURAL SECTION AND DETAILS - FILTER SEPARATOR SUPPORT

DRAWING NO:
D-06

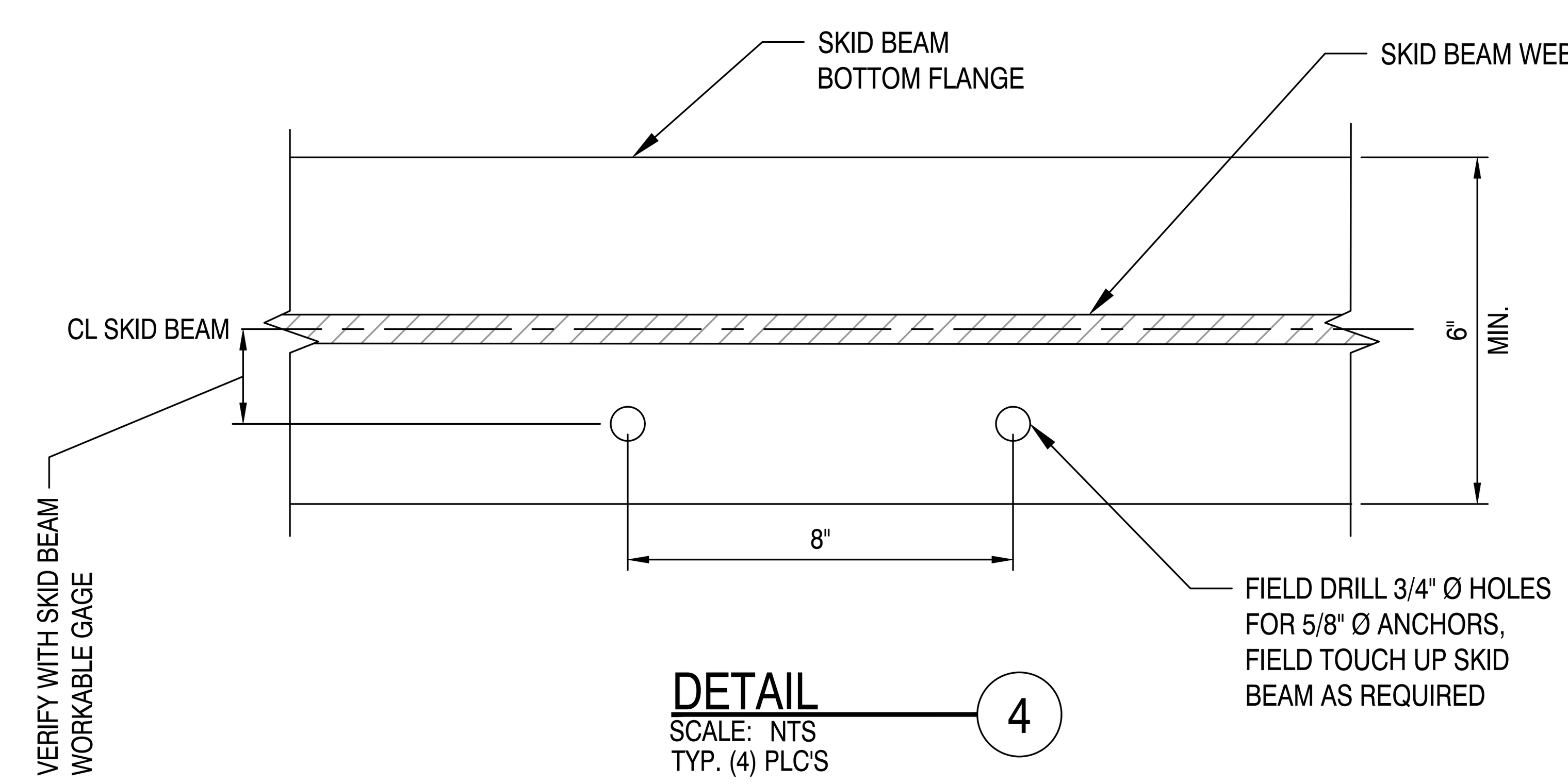
2/9/2021 - 22 x 34



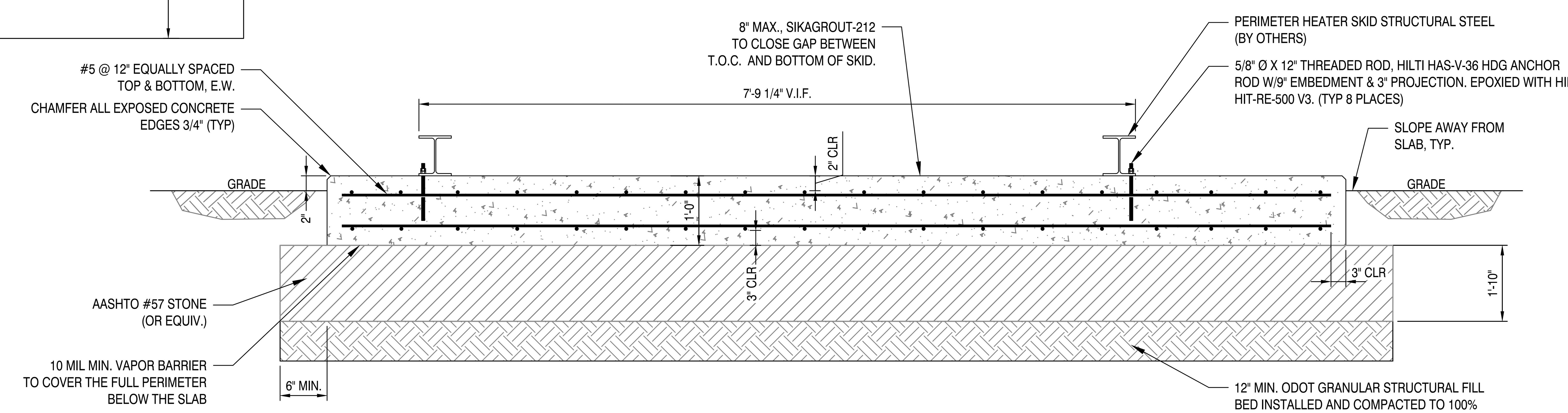
HEATER SUPPORT DETAIL 3 D-04
SCALE: 1/2" = 1'-0"



PIPE SUPPORT SECTION C
SCALE: NTS



DETAIL 4
SCALE: NTS
TYP. (4) PLC'S



SECTION D
SCALE: 3/4" = 1'-0"

NOTE:

1. HEATER DIMENSIONS TO BE CONFIRMED/ VERIFIED AGAINST VENDOR DRAWINGS.

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CHECKED BY	A. TOMBO	09/13/24	772-801-9684
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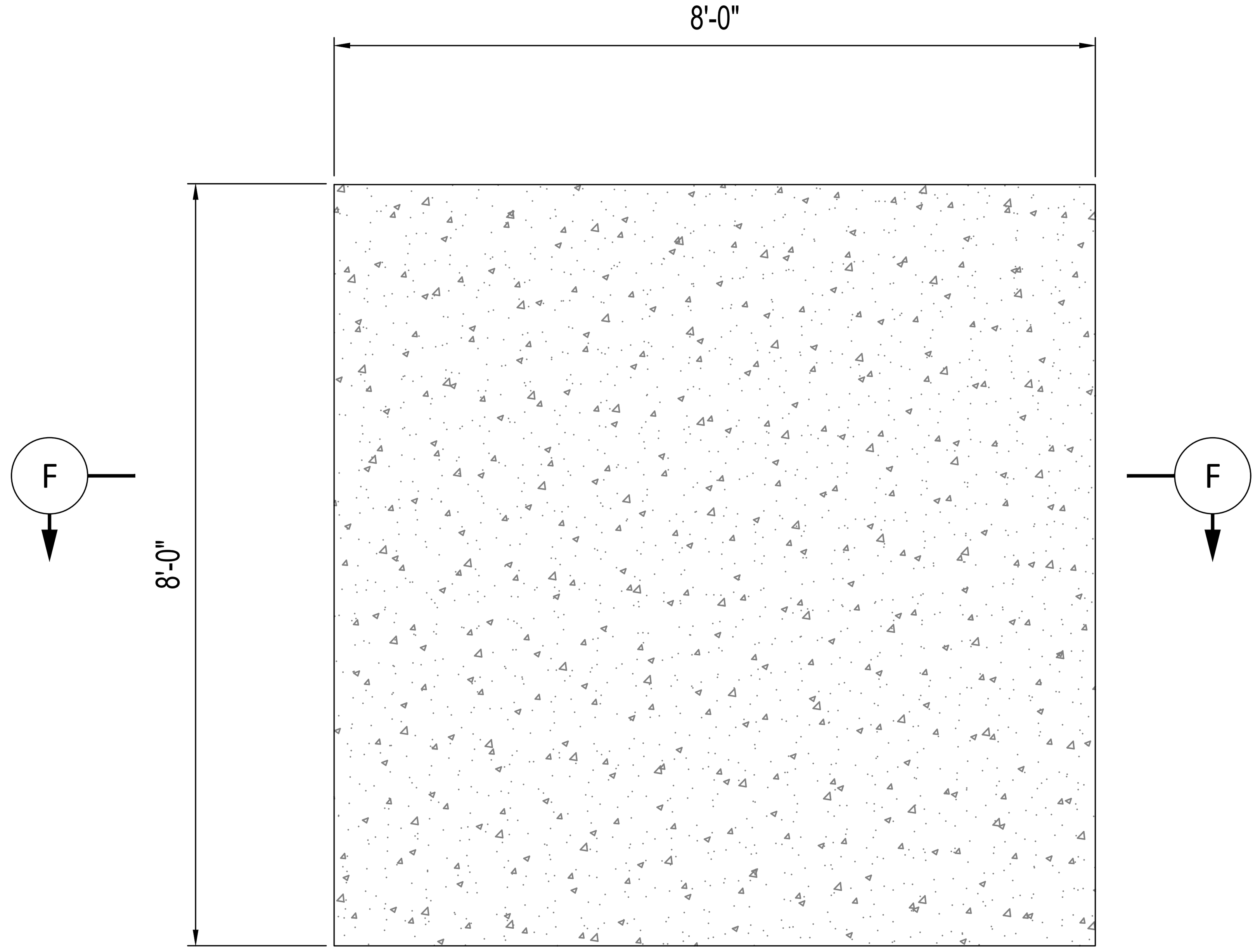
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

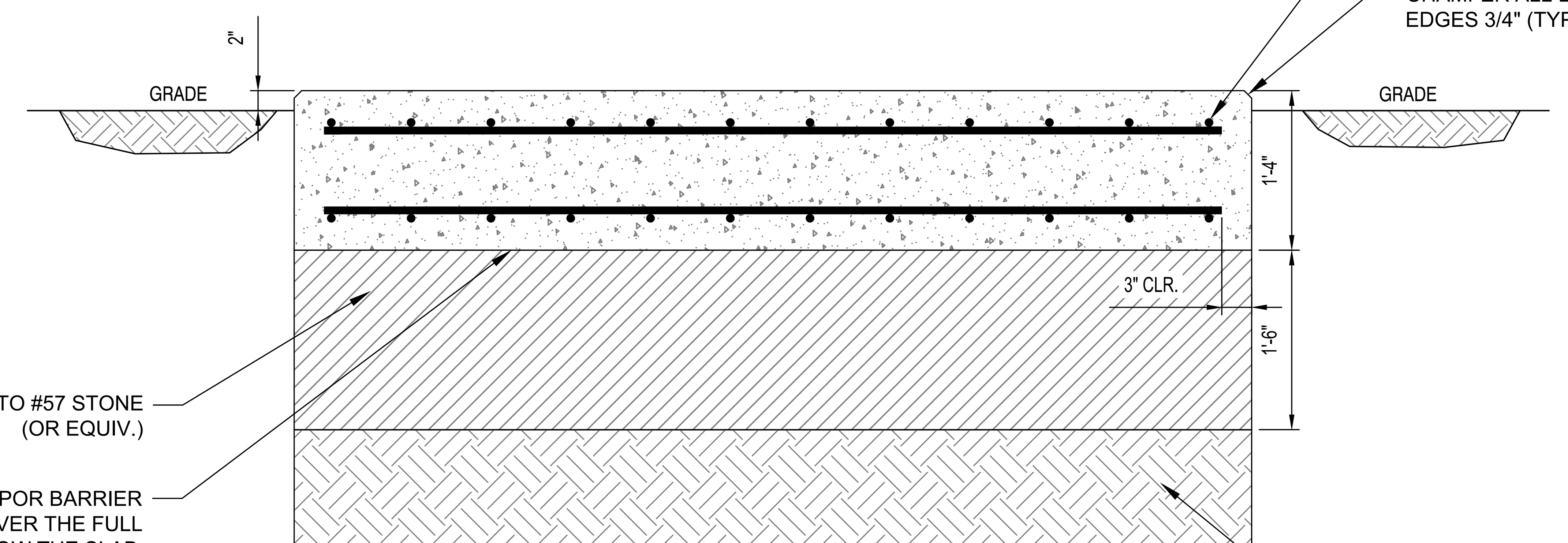
DRAWING TITLE:
STRUCTURAL SECTION & DETAILS
BOILER/HEATER

DRAWING NO:
D-07

N
PLANT



SCADA PAD DETAIL 4
SCALE: 3/4" = 1'-0" D-04



SECTION F
SCALE 1" = 1'-0"

NOTES:

1. BUILDING NOT SHOWN FOR CLARITY
2. BUILDING DIMENSIONS (8'-0" x 8'-0") TO BE FIELD VERIFIED/CONFIRMED.
3. BUILDING ANCHOR TO BE SETFORTH BY OTHERS (BUILDING DESIGNER/CONTRACTOR)

2/9/2021 - 22 x 34

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DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
AS-BUILT BY			

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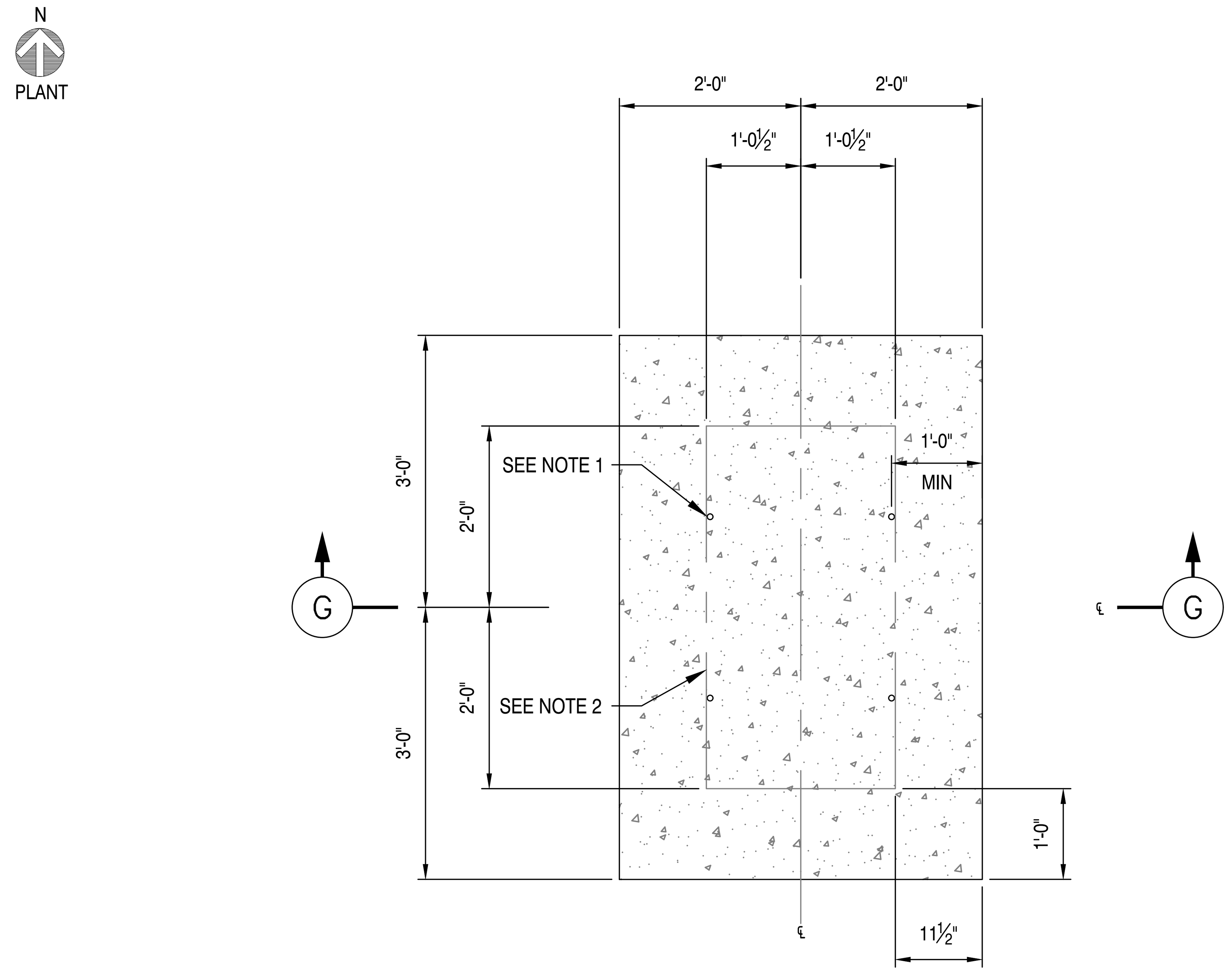
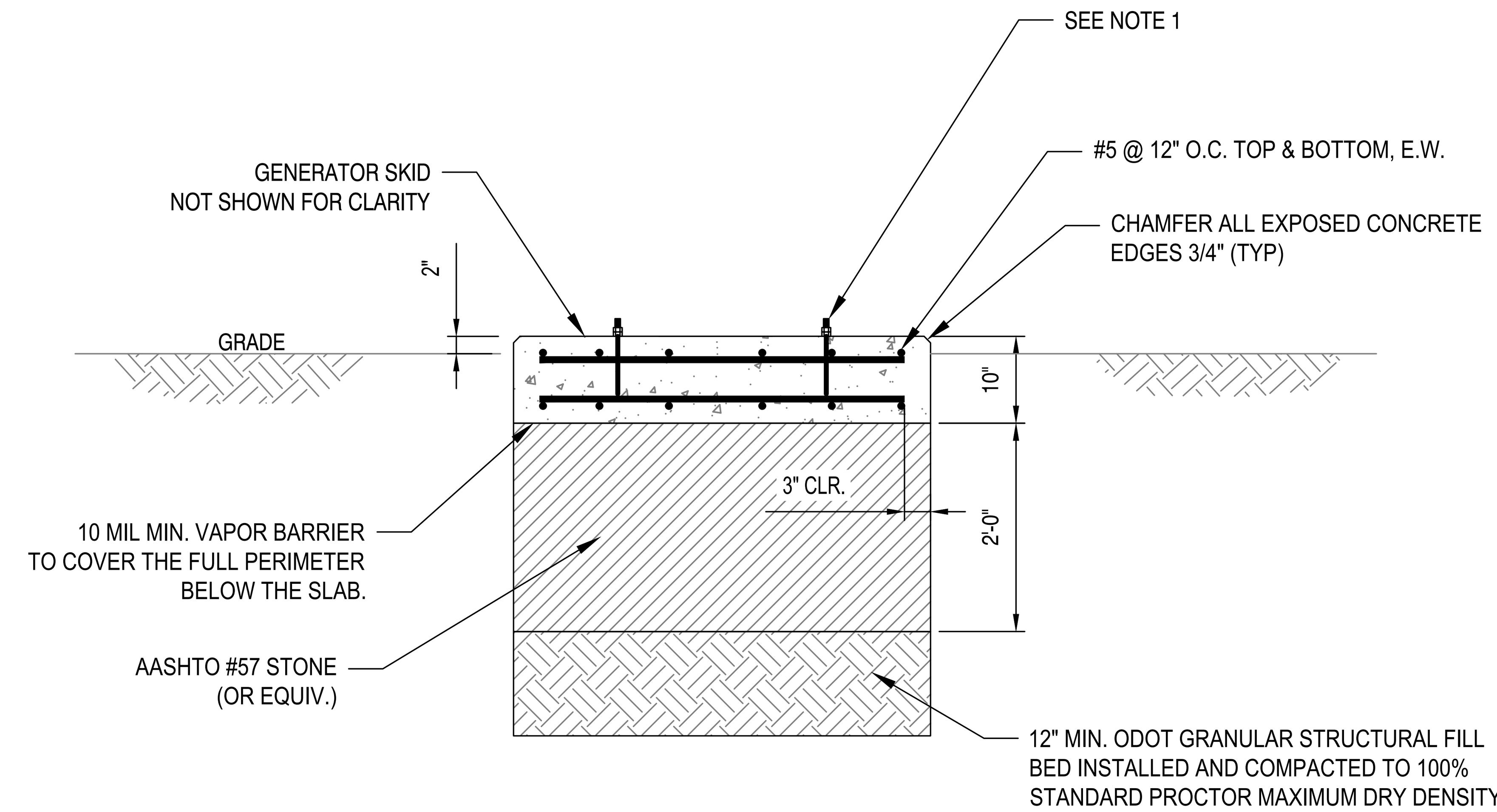
INST# 24-0136951-00
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
STRUCTURAL SECTIONS AND DETAILS
SCADA BUILDING PAD

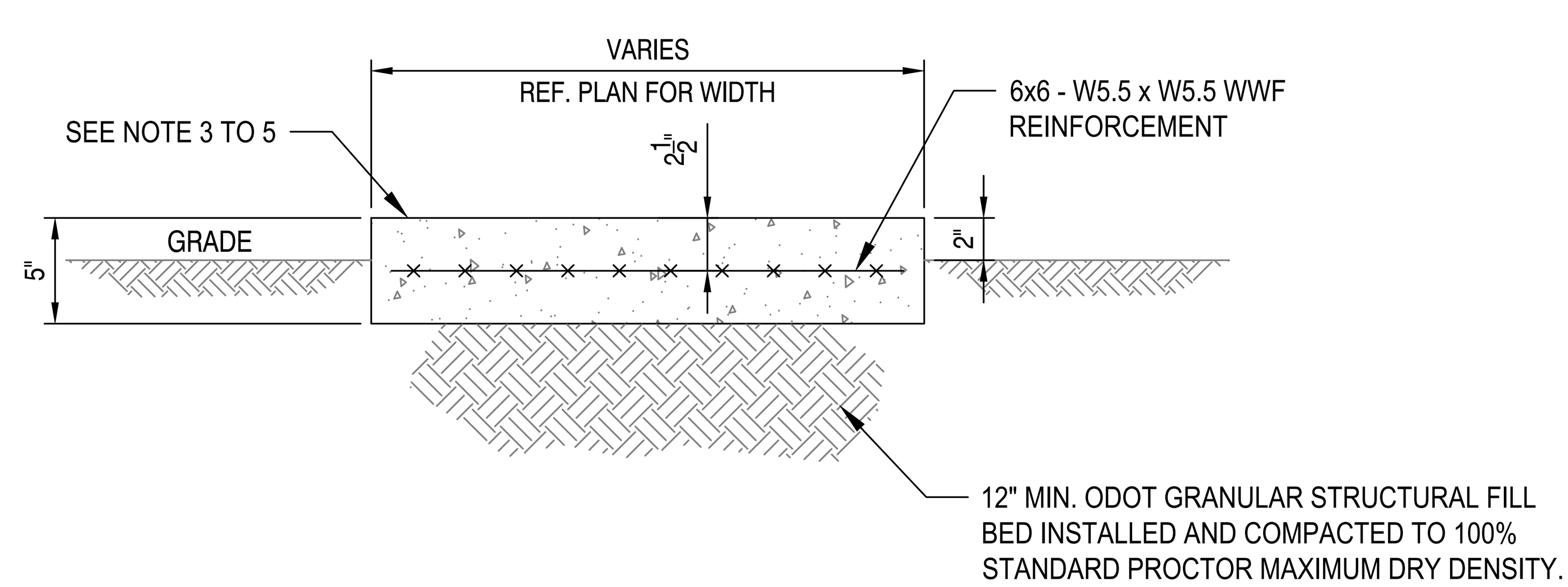
DRAWING NO:
D-08



GENERATOR PAD DETAIL 5 D-04
SCALE: 3/4" = 1'-0"



SECTION G
SCALE: 3/4" = 1'-0"



TYP. SIDEWALK AND LANDING PAD SECTION H D-04
SCALE: 1-1/2" = 1'-0"

NOTES:

1. ANCHOR INSTALLATION PER MANUFACTURER RECOMMENDATION, CONTACT EOR, SHALL CONNECTION NEED ADDITIONAL DESIGN.
2. GENERAC GENERATOR, CENTERED IN SLAB, REF. MECHANICAL DRAWINGS OR CONTRACT DOCUMENTS FOR ADDITIONAL MODEL INFO.
3. SIDEWALK SHOULD SLOPE AWAY FROM NEW BUILDING AND/OR FOUNDATIONS.
4. MAX. LENGTH TO BE AS NECESSARY PER FIELD CONDITIONS. MAX. DISTANCE BETWEEN CONSTRUCTION/CONTROL JOINT SHOULD NOT EXCEED 12 FT.
5. USE 1/2" EXPANSION JOINT WHEN POURING ADJACENT TO NEW BUILDING (BY OTHERS).

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DESIGNED BY	H. ROQUE	09/13/24	470-322-4636
CHECKED BY	A. TOMBO	09/13/24	772-801-9684
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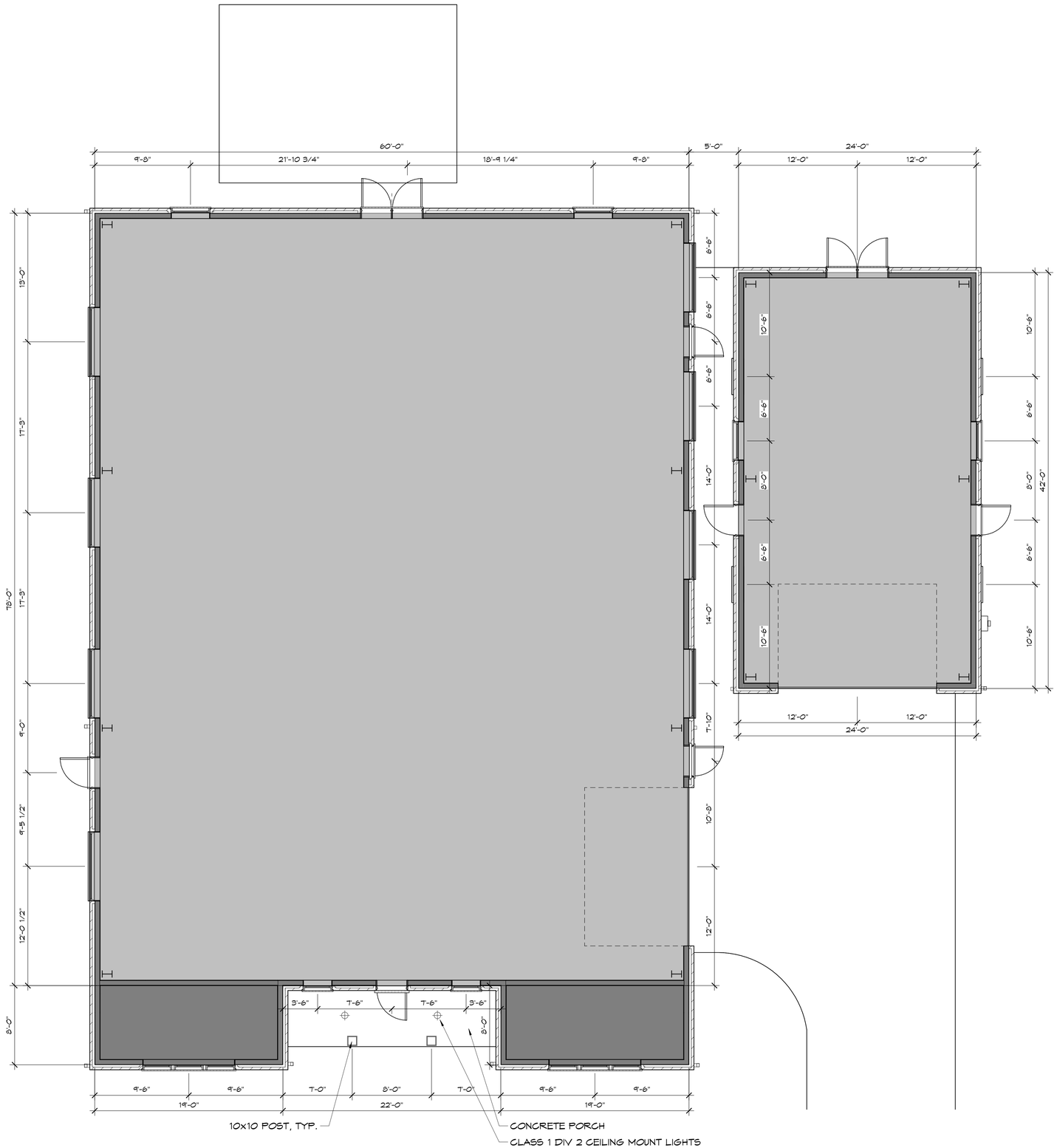
ABAN# XX-XXXXXXX-XX
PROJECT ID# 21-78791
NEW BRANDON ROAD, RIDGEVIEW STATION
UPPER ARLINGTON, FRANKLIN COUNTY, OHIO

DRAWING TITLE:
STRUCTURAL SECTIONS AND DETAILS
GENERATOR PAD

DRAWING NO:
D-09



FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"

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DESIGN SET : 06/11/2025

Columbia Gas/
NiSource Utility Building
Architectural Design Consulting

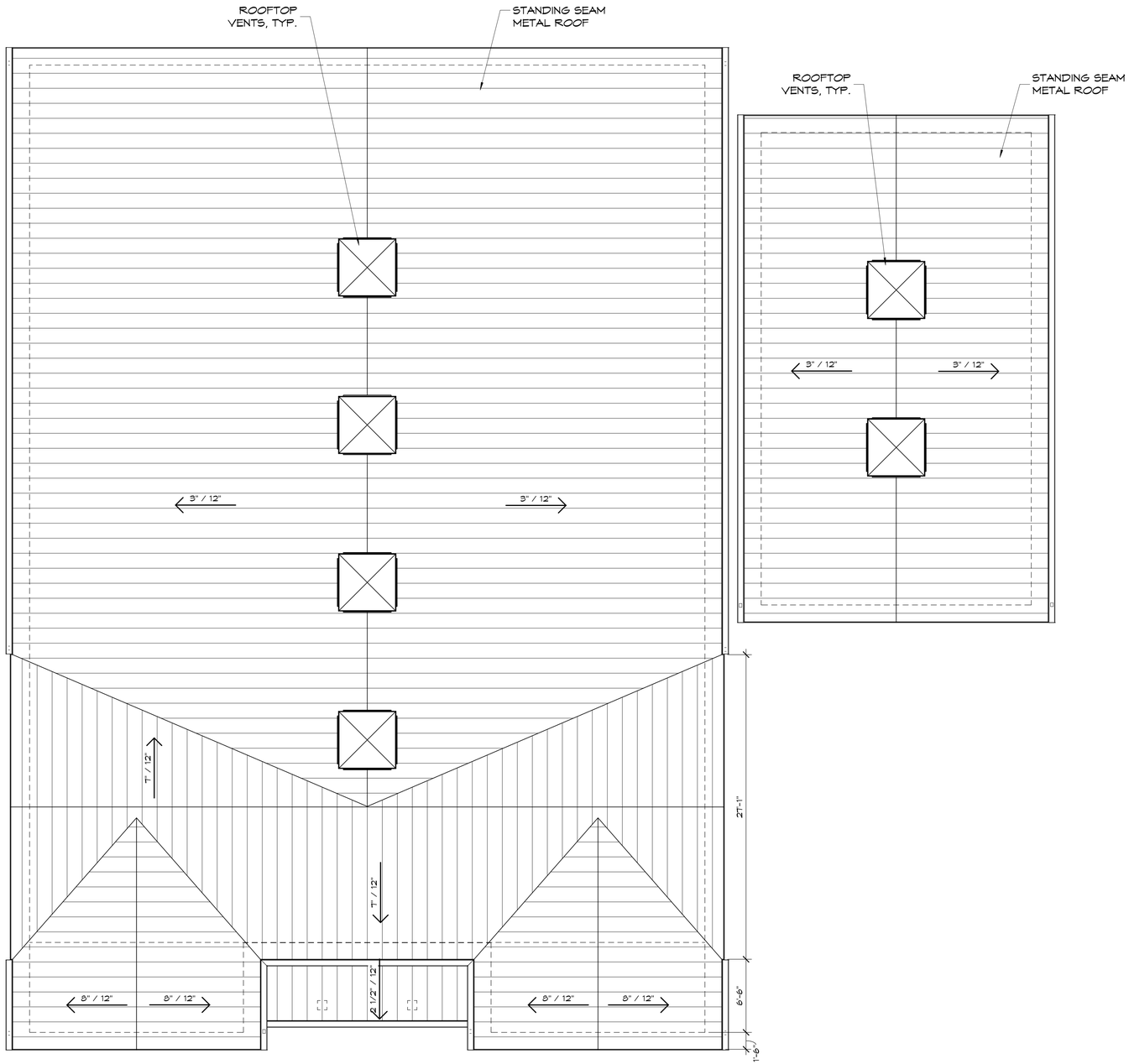
1336 Ridgeview Road
Upper Arlington, Ohio

NOT FOR CONSTRUCTION

Project No: 25-0014

FIRST FLOOR PLAN

A1.1



ROOF PLAN

SCALE: 3/16" = 1'-0"

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ROOF PLAN

A1.2

RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

FRONT ELEVATION

SCALE: 1/4" = 1'-0"

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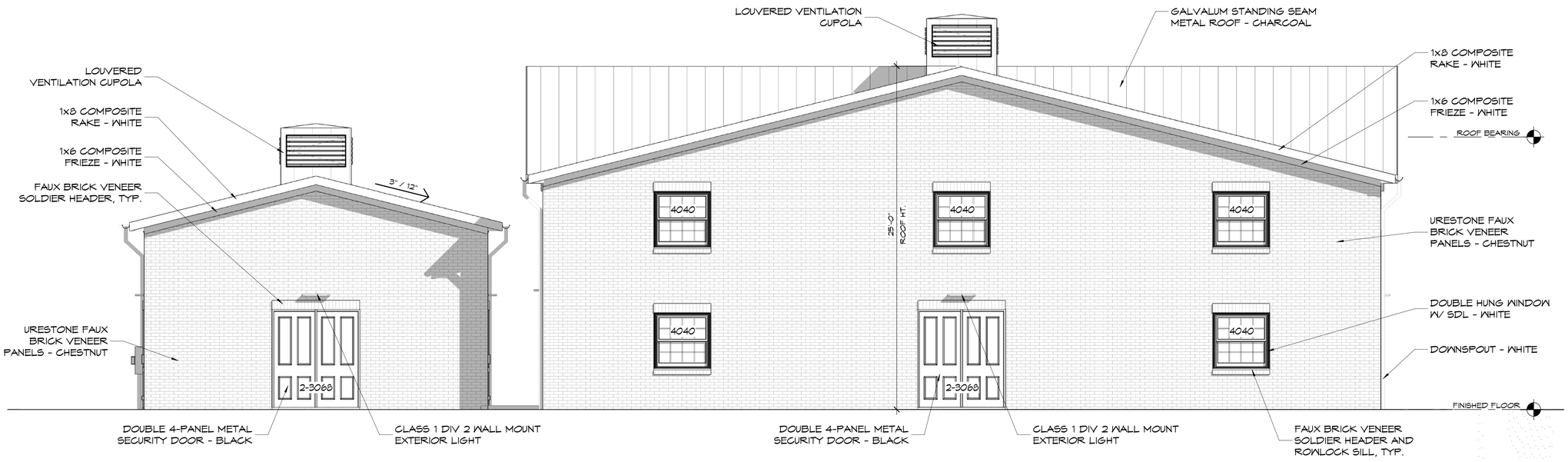
EXTERIOR ELEVATIONS

A5.1

LEFT SIDE ELEVATION

SCALE: 1/4" = 1'-0"



REAR ELEVATION

SCALE: 1/4" = 1'-0"

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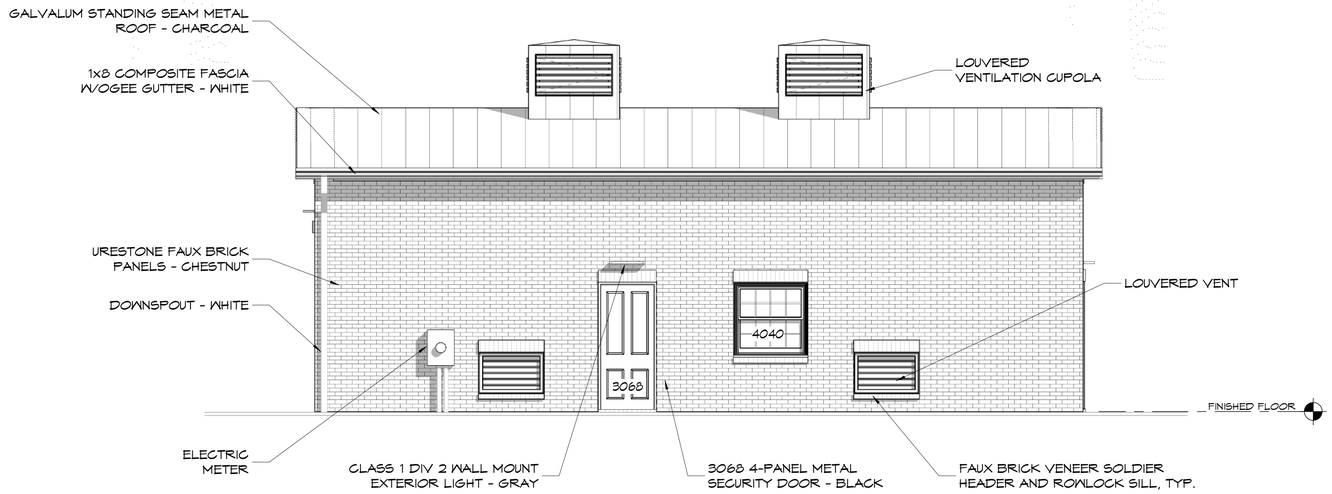
Project No: 25-0014

EXTERIOR ELEVATIONS

A5.2

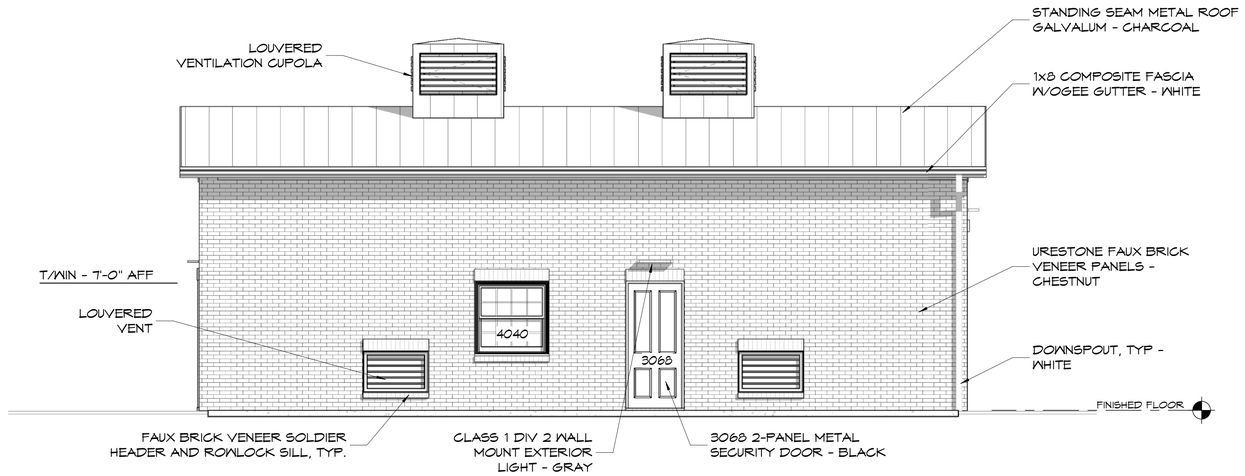
6/11/2025 12:20:39 PM

Z:\Production\Clients\Industrial\CAMPOS EPC\UA Columbus Gas Projects\Ridgeview Road_Revit\Ridgeview_2023_Brick.rvt



GARAGE LEFT ELEVATION

SCALE: 1/4" = 1'-0"



GARAGE RIGHT ELEVATION

SCALE: 1/4" = 1'-0"

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GARAGE ELEVATIONS

A5.3

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DESIGN SET : 06/11/2025

Columbia Gas/
NiSource Utility Building
Architectural Design Consulting

1336 Ridgeview Road
Upper Arlington, Ohio

NOT FOR CONSTRUCTION

Project No: 25-0014

3D VIEWS

A15.1

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Z:\Production\Clients\Industrial\CAMPOS EPC\UA Columbus Gas Projects\Ridgeview Road_Revit\Ridgeview_2023_Brick.rvt

NEW AVENUE
architects • engineers
4740 REED ROAD, SUITE 201
UPPER ARLINGTON, OHIO 43220

RIDGEVIEW STATION

PERSPECTIVE RENDERING

Project No: 25-0014
Date: 2025-06-11

R1

NEW AVENUE
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RIDGEVIEW STATION

PERSPECTIVE RENDERING

Project No: 25-0014
Date: 2025-06-11

R2

GENERAL NOTES

1.1 Fabrication shall be in accordance with R.G.B. standard practices in compliance with the applicable sections, relating to design requirements and allowable stresses of the latest edition of the "AWS Structural Welding Code D1.1 and D1.3". R.G.B. manufacturing procedures are certified by:

Reference	Certification numbers
Houston	R.G.B. #456

1.2 MATERIALS

	ASTM DESIGNATION	MIN. YIELD STRENGTH
Hot Rolled Steel Shapes (W, S, C & L)	A572/A529	Fy = 50 KSI
Hot Rolled Steel Shapes (W)	A992	Fy = 50 KSI
Round Structural Tubing (HSS)	A500	Fy = 42 KSI
Square/Rect. Structural Tubing (HSS)	A500	Fy = 46 KSI
Structural Steel Web Plate	A572/A1011	Fy = 55 KSI
Structural Steel Flange Plates/Bars	A529/A572	Fy = 55 KSI
Cold Formed Light Gage	A653/A1011	Fy = 55 KSI
Roof and Wall Sheets	A792/A653	Fy = 50, 80 KSI
Cable Brace	A475	Extra High Strength
Rod Brace	A36	Fy = 36 KSI
		MIN. TENSILE STRENGTH
Machine Bolts & Nuts	A307	Fu = 60 KSI
High Strength Bolts (1"ø and less)	F3125/Gr. A325–TYPE 1	Fu = 120 KSI
High Strength Bolts (>1"ø to 1 1/2"ø)	F3125/Gr. A325–TYPE 1	Fu = 105 KSI
Anchor Bolts (if supplied)	A36/A307/F1554 Gr.36	Fu = 58–80 KSI

1.3 PRIMER
Shop primer paint is a rust inhibitive primer which meets the end performance of Federal Specification SSPC No. 15 and is R.G.B. Red or Gray Oxide color. This paint is not intended for long term exposure to the elements. R.G.B. is not responsible for any deterioration of the shop primer paint as a result of improper handling and/or jobsite storage. R.G.B. shall not be responsible for any field applied paint and/or coatings. (Section 6.5 AISC Code of Standard Practice, 16th Edition). Nominal thickness of primer will be 1 mil unless otherwise specified in contract documents.

1.4 GALVANIZED OR SPECIAL COATINGS:
See Contract Documents

1.5 ALL BOLTS ARE 1/2"ø x 0'–1" A307 (snug–tightened) EXCEPT :
a) Eave strut connection – 1/2"ø x 0'–1 1/4" A307 without washer (unless noted otherwise)
b) Endwall rafter splice – 5/8"ø x 0'–1 3/4" F3125/Gr. A325–N with washer
c) Endwall column to rafter connection – 1/2"ø x 0'–1 1/4" F3125/Gr. A325–N without washer
d) Main frame moment splice connections – F3125/Gr. A325–N with washer,
SEE CROSS SECTION for dimensions.
NOTE: One (01) washer is supplied on main frame moment splice and to A325 bolts unless noted otherwise on drawing

1.6 F3125/Gr. A325 BOLT TIGHTENING REQUIREMENTS
All high strength bolts are F3125/Gr. A325–N unless specifically noted otherwise. Structural bolts shall be tightened by the turn–of–the–nut or calibrated wrench methods in accordance with the 16th Edition AISC/RCSC "Specification For Structural Joints using ASTM F3125/Gr. A325 or A490 Bolts". Washers are supplied separately from High Strength Bolts, however, assembly with washers are required before erection. Installation inspection is recommended and be based on Section 9.1 and 9.2 of AISC/RCSC.
Snug–tight is permitted EXCEPT for the following conditions:
a) Building located in high seismic areas; Seismic Design Categories D, E, F
b) Building supporting cranes
c) Building supporting machinery that creates vibration, impact or stress reversal
d) Connections using ASTM A490
e) Connections using slip–critical condition
f) or as prohibited in the contracts/specifications

1.7 CLOSURE STRIPS ARE FURNISHED FOR APPLICATION:
INSIDE– Under roof panels at eave
OUTSIDE – Between endwall panels and rake trim
– Under continuous ridge vent skirts

1.8 ERECTION NOTE:
All bracing, strapping, & bridging shown and provided by R.G.B. for this building is required and shall be installed by the erector as a permanent part of the structure. If additional bracing is required for stability during erection, it shall be the erector's responsibility to determine the amount of such bracing and to procure and install as needed.

1.9 ERECTION AND UNLOADING NOT BY R.G.B.

1.10 SHORTAGES
Any claims or shortages by buyer must be made to R.G.B. within five (5) working days after delivery, or such claims will be considered to have been waived by the customer and disallowed.

1.11 CORRECTIONS OF ERRORS AND REPAIRS (MBMA 6.10)
Claims for correction of alleged misfits will be disallowed unless R.G.B. shall have received prior notice thereof and allowed reasonable inspection of such misfits. The correction of minor misfits by the use of drift pins to draw the components into line, moderate amounts of reaming, chipping and cutting, and the replacement of minor shortages of material are a normal part of erection and are not subject to claim. No part of the Building may be returned for alleged misfits without the prior approval of R.G.B.

BUYER/END USE CUSTOMER RESPONSIBILITIES

2.1 It is the responsibility of the BUYER/END USE CUSTOMER to obtain appropriate approvals and secure necessary permits from City, County, State, or Federal Agencies as required, and to advise/release R.G.B. to fabricate upon receiving such.

2.2 Rigid Global Buildings (hereafter referred to as R.G.B.) standard specifications apply unless stipulated otherwise in the Contract Documents. R.G.B. design, fabrication, quality criteria, standards, practice, methods and tolerances shall govern the work with any other interpretations to the contrary notwithstanding. It is understood by both Parties that the BUYER/END USE CUSTOMER is responsible for clarification of inclusions or exclusions from the architectural plans and/or specifications.

2.3 In case of discrepancies between R.G.B. structural steel plans and plans for other trades, R.G.B. plans shall govern. (Section. 3 AISC Code of Standard Practices, 16th Edition)

2.4 Approval of R.G.B. drawings and calculations indicates that R.G.B. has correctly interpreted and applied the Contract Documents. This approval constitutes the contractor/owners acceptance of the R.G.B. design concepts, assumptions, and loading. (Section 4 AISC Code 15th Edition and MBMA 3.3.3)

2.5 Once the BUYER/END USE CUSTOMER has signed R.G.B. Approval Package and the project is released for fabrication, changes shall be billed to the BUYER/ END USE CUSTOMER including material, engineering and other costs. An additional fee may be charged if the project must be moved from the fabrication and shipping schedule.

STEELNATION
100 SOUTHPOINTE SQUARE LANE ✦ CANONSBURG, PA 15317
PH: 724.225.2202 ✦ INFO@STEELNATION.COM

SN # 1471
RIDGEVIEW STATION HOUSE (NISOURCE CG UTILITY BUILDING

SALES NO.	82361	JOB NO.	173424	BUILDING	A (Utility Building)
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)				
END USE	UTILITY BUILDING				
STREET	1336 RIDGEVIEW ROAD				
CITY ST ZIP	UPPER ARLINGTON, OH 43221				
COUNTY	FRANKLIN				

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING AS INDICATED:

DESIGN LOADS:

Design Code		: IBC 21
Dead Load (psf)		: Metal building structure only by RGB
Collateral Load (psf)		: 5.00
Wind Load		
Basic Design Wind Speed		: V (3 sec. gust) = 115 mph mph
Allowable Stress Design Wind Speed		: Vasd (3 sec. gust) = 89.08 mph
Risk Category		: II - Normal
Wind Exposure		: C
Internal Pressure Coefficient, GCPi		: 0.18 / -0.18
Design Wind Pressure For Wall		: Based on Allowable Stress Design Wind Speed
Components Wind Pressure	(psf)	: 14.48
Components Wind Suction	(psf)	: -16.00
Claddings Wind Pressure	(psf)	: 17.98
Claddings Wind Suction	(psf)	: -19.51
Live Load		
Primary Framing (psf)		: 20.00
Trib. Area Reduction		: No
Secondary Framing (psf)		: 20.00
Snow Load		
Ground Snow Load, Pg (psf)		: 20.0000
Roof Snow Load, Pf (psf)		: 20.00
Sloped Roof Snow Load, Ps (psf)		: 20.00
Snow Exposure Factor, Ce		: 1.0000
Snow Importance Factor, Is		: 1.0000
Thermal Factor, Ct		: 1.00
Sloped Factor, Cs		: 1.0000
Seismic Load		
Seismic Importance Factor, Ie		: 1.00
Seismic Occupancy Category		: II - Normal
Site Class		: d
Mapped Spectral Response Acceleration		: Ss = 0.1195 :S1 = 0.0600
Spectral Response Coefficients		: Sds = 0.1275 :Sd1 = 0.0960
Seismic Design Category		: B
Basic Force Resisting Systems Used		: Steel System Not Specifically Detailed For Seismic Resistance
		: Rigid Frames
		: Braced Frames
Total Design Base Shear, V (kips)		: Longitudinal = 4.90 Transverse= 4.94
Response Modification Factors, R		: Rigid Frames = 3.00
		: SW Wind Bent = 3.00
Seismic Response Coefficient, Cs		: Rigid Frames = 0.043
		: SW Wind Bent = 0.043
Analysis Procedure Used		: Equivalent Lateral Force Procedure
Rainfall Intensity		: 6.06 (in/hr)
DESIGN and DETAIL REQUIREMENTS		: UNBALANCED SNOW LOAD
		: SNOW DRIFT LOAD AT BLDG.-C
		: SLIDING SNOW LOAD AT BLDG.-C
		: BLDG-B&B1 (GABLE/HIPPED BUMP-OUT) LOADS

BUILDING DESCRIPTION:

Width (ft)	: 60
Length (ft)	: 78
Eave Ht. at BSW (ft)	: 17.5
Eave Ht. at FSW (ft)	: 17.5
Roof Slope at BSW	: 3.0:12
Roof Slope at FSW	: 3.0:12
Bay Spacing FROM LEFT TO RGHT (ft)	: 1 at 25 1 at 27.5 1 at 25.5

COVERING AND TRIMS:

Roof Panels & Trims	
Panel Type	: 24 Ga. Platinum (16" Wide) SSR
Panel Color	: S3000 Kynar
Trim Colors	
Eave Trim	: Glvm.Plus
Eave Gutter	: Sculptured Gutter
Gable Trim	: S3000 Standard
Wall Panel & Trims	
Panel Type	: 26 Ga. RPBM
Panel Color	: Glvm.Plus
Trim Colors	
Corner Trims	: Glvm.Plus
Opening Trims	: S3000 Standard
Downspouts	: Box Downspout
Base Trim	: None
Mas. Flash	: N/A
Special Requirements	: NONE

CONT.
: BLDG.-C (PORCH CANOPY) LOADS
: TOP RUNNING CRANE LOAD
- (1) 3T (CMAA Class C)
: DEFLECTION LIMIT:
Rafter - L/240 (LL), L/180 (DL+LL)
Purlins - L/240 (LL), L/180 (DL+LL)
Girts - L/240
Endwall Column - L/240
Lateral Drift - H/200
Crane Beam:
Vertical - L/600
Lateral - L/400
: EAVE AND GABLE EXTENTION-2'-0"
: (4) CUPOLA (BY OTHERS) - 350 LB EA
: ROOF IS 24 Ga PLATINUM-16 WITH QUAD-LOK

Before erecting your building, please see the Rigid Erection & Safety Manual at rigidbuilding.com/document–library

2.6 The BUYER/END USE CUSTOMER is responsible for overall project coordination. All interface, compatibility, and design considerations concerning any materials not furnished by R.G.B. and R.G.B. steel system are to be considered and coordinated by the BUYER/END USE CUSTOMER. Specific design criteria concerning this interface between materials must be furnished before release for fabrication or R.G.B. assumptions will govern (Section 4 and Commentary, AISC Code of Standard Practice, 16th Edition)

2.7 It is the responsibility of the BUYER/END USE CUSTOMER to ensure that R.G.B. plans comply with the applicable requirements of any governing building authorities. The supplying of sealed engineering data and drawings for the metal building system does not imply or constitute an agreement that R.G.B. or its design engineers are acting as the engineer of record or design professional for a construction project. These drawings are sealed only to certify the design of the structural components furnished by R.G.B.

2.8 The BUYER/END USE CUSTOMER is responsible for setting of anchor bolts and erection of steel in accordance with R.G.B. "For Construction" drawings only. Temporary supports such as guys, braces, falsework, cribbing or other elements required for the erection operation shall be determined furnished and installed by the erector. No items should be purchased from a preliminary set of drawings, including anchor bolts. Use only final "FOR CONSTRUCTION DRAWINGS" for this use. (Section 7 AISC Code of Standard Practice, 16th Edition.)

2.9 Rigid Global Buildings is responsible for the design of the anchor bolt to permit the transfer of forces between the base plate and the anchor bolt in shear, bearing and tension, but is not responsible for the transfer of anchor bolt forces to the concrete, anchor bolt embedment or the adequacy of the anchor bolt in relation to the concrete.
Unless otherwise provided in the Order Documents, R.G.B. does not design and is not responsible for the design, material and construction of the foundation or foundation embedments. The END USE CUSTOMER should assure himself that adequate provisions are made in the foundation design for loads imposed by column reactions of the building, other imposed loads, and bearing capacity of the soil and other conditions of the building site.
It is recommended that the anchorage/anchor bolt embedment and foundation of the building be designed by a Registered Professional Engineer experienced in the design of such structures. (Chapter IV Section 3.2.2 Metal Building Systems Manual 2021 Edition)

2.10 Normal erection operations include the corrections of minor misfits by moderate amounts of reaming, chipping, welding or cutting, and the drawing of elements into line through the use of drift pins. Errors which cannot be corrected by the foregoing means or which require major changes in member configuration are to be reported immediately to R.G.B. by the BUYER/END USE CUSTOMER, to enable whoever is responsible either to correct the error or to approve the most efficient and economic method of correction to be used by others. (Section 7 AISC Code of Standard Practice, 16th Edition)

2.11 Neither the fabricator nor the BUYER/END USE CUSTOMER will cut, drill or otherwise alter his work, or the work of other trades, to accommodate other trades, unless such work is clearly specified in the contract documents. Whenever such work is specified, the BUYER/END USE CUSTOMER is responsible for furnishing complete information as to materials, size, location and number of alterations prior to preparation of shop drawings. (Section 7 AISC Code of Standard Practice, 16th Edition)

2.12 WARNING In no case should Galvalume steel panels be used in conjunction with lead or copper. Both lead and copper have harmful corrosive effects on the Galvalume alloy coating when they are in contact with Galvalume steel panels. Even run–off from copper flashing, wiring, or tubing onto Galvalume should be avoided.

2.13 SAFETY COMMITMENT Rigid Global Buildings has a commitment to manufacture quality building components that can be safely erected. However, the safety commitment and job site practices of the erector are beyond the control of R.G.B.
It is strongly recommended that safe working conditions and accident prevention practices be the top priority of any job site. Local, State, and Federal safety and health standards should always be followed to help insure workers safety. Make certain all employees know the safest and most productive way of erecting a building. Emergency procedures should be known to all employees.
Daily meetings highlighting safety procedures are also recommended. The use of hard hats, rubber sole shoes for roof work, proper equipment for handling material, and safety nets where applicable, are recommended.

2.14 Roof drainage systems (gutter, downspouts, etc.) must be free of any obstruction to ensure smooth operation at any given time.

2.15 It is recommended by Factory Mutual (Reference: B2.44) that roofs be cleared of snow when half of the maximum snow depth is reached. The maximum snow depth can be estimated based on the design snow load and the density of snow and/or ice buildup. See Chart below.

ROOF SNOW LOAD (IN PSF)	EQUIVALENT SNOW HEIGHT AT ROOF (IN INCHES)	RECOMMENDED SNOW HEIGHT WHEN SNOW REMOVAL SHOULD START (IN INCHES)
20	16.60	8.30
30	17.90	8.95
40	19.20	9.60
50	20.50	10.25
60	21.80	10.90
70	23.10	11.55
80	24.40	12.20

NOTE:
For Snow/Ice Removal Procedure, Refer to Metal Building System Manual 2021 Edition Section A9.4, Page A–59

FOR PERMIT

5/29/2025

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

SEALING OF THIS DRAWING DOES NOT IMPLY OR CONSTITUTE THAT RIGID GLOBAL ENGINEER IS THE ENGINEER OF RECORD OR THE DESIGN PROFESSIONAL FOR THIS PROJECT. ONLY THE DESIGN OF THE METAL BUILDING SYSTEM AS FURNISHED BY RIGID IS INCLUDED. FOUNDATION ANALYSIS, ELECTRICAL, AND MECHANICAL SYSTEMS, AND/OR OTHER PARTS SUPPLIED BY ANYONE OTHER THAN RIGID ARE SPECIFICALLY EXCLUDED. NO INSPECTION OR SUPERVISION IS IMPLIED.

CUSTOMER: STEEL NATION BUILDINGS, INC.

SALES NO.	JOB NO.	BUILDING	DWG. NO.	ISSUED
82361	173424	A (Utility Building)	C01 OF 4	A

LEGENDS & ABBREVIATIONS

DESIGN:

Accel.	Acceleration
Coeff.	Coefficient
CL, Collat	Collateral Load
DL, Dead	Dead Load
H, Horz, Horiz	Horizontal
L	Left
LL, Live	Live Load
LnWnd, LnWind, LWIND	Longitudinal Wind Load
Min, min	Minimum
Max, max	Maximum
R	Right
SL	Snow Load
Slide	Sliding Snow Load
SEIS, Seis	Seismic Load
U_Snow	Unbalance Snow Load
V, Vert	Vertical
WL, Wind_L	Wind Load Left
WR, Wind_R	Wind Load Right
WP, Wind_P	Wind Pressure
WS, Wind_S	Wind Suction

ENGLISH UNITS

Acre	Acres
FT, ft	Feet
GA, Ga, ga	Gage
Gal	Gallons
IN, in	Inches
K, k	Kips
KSI, ksi	Kips Per Square-Inches
lb, #	Pounds
MPH, mph	Miles Per Hour
PLF, plf, lb/ft	Pounds Per Linear-Foot
PSF, psf, lb/ft^2	Pounds Per Square-Feet
TON, ton	Tons
Yd	Yard

METRIC UNITS

cm	Centimeters
Hec	Hectares
liter	Liters
m	Meters
mm	Millimeters
N	Newtons
km	Kilometers
kN	Kilonewtons
kN/m^2	Kilonewtons Per Square-meter
kPa	Kilopascals
kph	Kilometers Per Hour
Pa	Pascals

USEFUL CONVERSION

English	To	English	Metric	To	Metric
1 mile		1760 Yd	1 km		1000 m
1 Yd		3 Ft	1 m		100 cm
1 Ft		12 in	1 cm		10 mm
1 in		16/16 in	1 kN		1000 N
1 Ton (English)		2 Kips	1 kg		9.8066 N
1 Kip		1000 lb	1 Ton (Metric)		1000 kg
1 lb		16 ounces	1 Hec		10,000 m^2
1 Acre		43560 Ft^2	1 m^3		1000 liter
1 Ft^3		7.4805 Gal	1 kPa		1 kN/m^2

English	To	Metric	Metric	To	English
1 in		2.54 cm	1 cm		0.3937 in
1 ft		0.3048 m	1 m		3.2808 ft
1 lb		0.4536 kg	1 kg		2.2046 lb
1 Ton (English)		907.18 kg	1 Ton (Metric)		2204.6 lb
1 Kip		4.4482 kN	1 kN		0.2248 kip
1 mile		1.6093 km	1 km		0.6213 mile
1 Acre		0.4046 Hec	1 Hec		2.4715 Acres
1 lb/ft^2		0.0478 kPa	1 kPa		20.8854 lb/ft^2

Fraction	To	Decimal	Fraction	To	Decimal
1/16		0.0625	9/16		0.5625
1/8		0.1250	5/8		0.6250
3/16		0.1875	11/16		0.6875
1/4		0.2500	3/4		0.7500
5/16		0.3125	13/16		0.8125
3/8		0.3750	7/8		0.8750
7/16		0.4375	15/16		0.9375
1/2		0.5000	16/16		1.0000

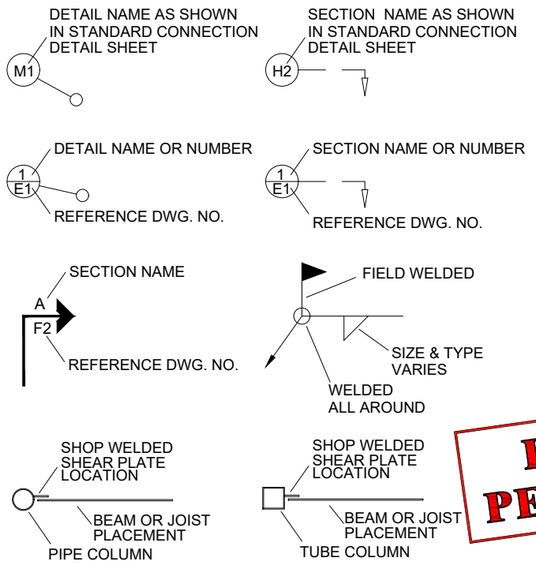
DRAWINGS:

AB, A.B.	Anchor Bolt
AS, As Shown	As Shown
Aux.	Auxiliary
BLDG., Bldg.	Building
B.P., Base PL	Base Plate
BOTT., Bott.	Bottom
Bott. Base PL, B.O.B.P	Bottom Of Base Plate
B.O.S.	Bottom Of Steel
BSW	Back Sidewall
BY OTHERS	By Other Supplier or Not By Rigid
C/C	Center to Center
C.I.P.	Cast-In-Place
CL, ℄	Center Line
CLR.	Clear, Clearance
CMU	Concrete Masonry Unit
COL., Col.	Column
CONC., Conc.	Concrete
CONT.	Continuous, Continuation
DET.	Detail
DIA., Dia., Ø	Diameter
DIM., Dim.	Dimension
DWG., Dwg.	Drawing
EH, E.H.	Eave Height
EJ, Exp. Jt.	Expansion Joint
EL, Elev.	Elevation
EP	End Plate
ES, E.S.	Eave Strut
EW	Endwall
EW COL, EC	Endwall Column
EW RAF	Endwall Rafter
Exp. Bolt	Expansion Bolt
FFL, Fin. Flr.	Finish Floor Line
FLG., FLGE., Flg., Flge.	Flange
FNB, F.N.B.	Fin Neck Bolt
FO, F.O.	Framed Opening
FRM., Frm.	Frame
FSW	Front Sidewall
GA, Ga.	Gage
GALV., Galv.	Galvanized
G.O.L.	Gage of Outstanding Leg
H, Ht.	Height
HED,HEDS	High Eave Double Slope
HES,HESS	High Eave Single Slope
Horz, Horiz	Horizontal
HSB, H.S.B.	High Strength Bolt
HSS	Hollow Structural Section
INT., Int.	Interior, Intermediate
I/S	Inside
LED,LEDS	Low Eave Double Slope
LES,LESS	Low Eave Single Slope
LEW	Left Endwall
LHI	Left Hand In
LHO	Left Hand Out
LL	Long Life
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LT	Lean-To
LT COL	Lean-To Column
LT RAF	Lean-To Rafter
LG., Lg.	Long
L, Lt.	Length
L x W x H	Length x Width x Height
MAX., max.	Maximum
MIN., min.	Minimum
MKD., MK'D.	Marked
MB, M.B.	Machine Bolt
MEZZ., Mezz.	Mezzanine
N.A., N/A	Not Applicable
NO., No.	Number
NS/FS, NS&FS	Near Side and Far Side
O.C.	On Center
O/S	Outside
OH, Opp Hand	Opposite Hand (Mirror Image)
OHD, O.H.D.	Over-Head Door
O/O	Out to Out
PF COL	Portal Frame Column (Wind Bent Column)
PF RAF	Portal Frame Rafter (Wind Bent Rafter)
PL, ℙ	Plate
QTY., Qty.	Quantity
REF., Ref.	Refer, Reference
REW	Right Endwall

DRAWINGS:

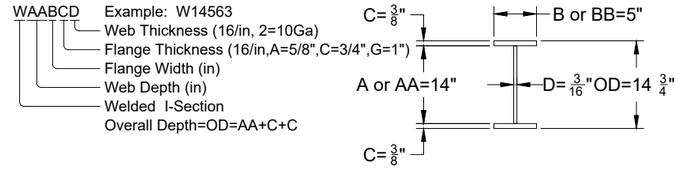
RHB	Round Head Bolt
RHI	Right Hand In
RHO	Right Hand Out
REINF.	Reinforced
REQ'D., REQD.,	Required
REV., Rev.	Revised, Revision
RF, R.F.	Rigid Frame
RF COL	Rigid Frame Column
RF RAF	Rigid Frame Rafter
RUD, R.U.D.	Roll-Up Door
SC	Slip Critical
SDS	Self-Drilling Screws
SECT., Sect.	Section
SHTG., Shtg.	Sheeting
Sol Col	Soldier Column
SP	Splice Plate
SSR	Standing Seam Roof
SST	Stainless Steel
ST COL	Straight Column
STIFF.	Stiffener
STD.	Standard
STS	Self-Tapping Screws
SW	Sidewall
SYM., Sym., SYMM., Symm.	Symmetry, Symmetrical
TBE	To Be Established
TBD	To Be Determined
TC	Tension Control
THK., Thk.	Thick
TOC, T.O.C.	Top Of Concrete
TOS, T.O.S.	Top Of Steel
T & B, TOP & BOTT	Top and Bottom
TYP., Typ., typ.	Typical
UN, U.N.O.	Unless Noted, Unless Noted Otherwise
Vert.	Vertical
WD	Walk Door
W, Wd.	Width
W.P.	Work Point, Working Point

SECTIONS AND DETAILS:

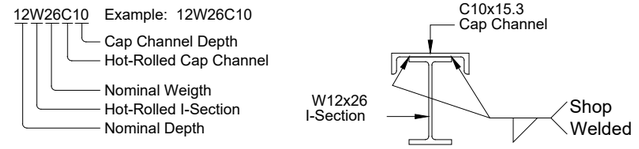


FOR PERMIT

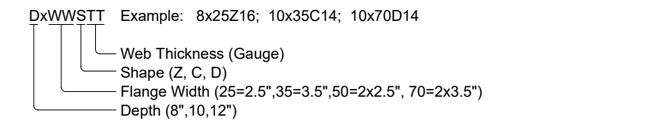
BUILT-UP SECTIONS: USED FOR FRAMES, BEAMS, COLUMNS

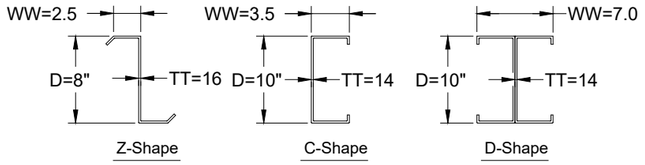


CRANE BEAM SECTIONS: USED FOR RUNWAY BEAMS, MONORAILS

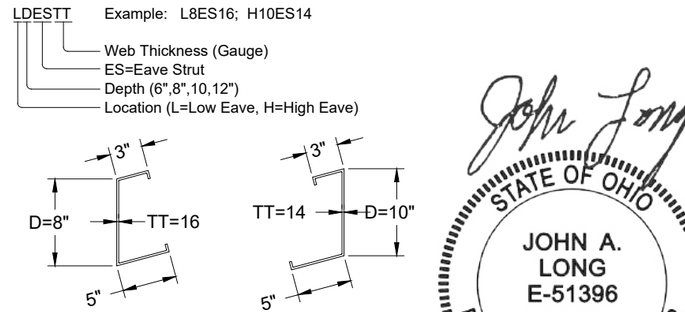


COLD-FORMED SECTIONS Z,C,D: USED FOR PURLINS,GIRTS,JAMBS,JOISTS

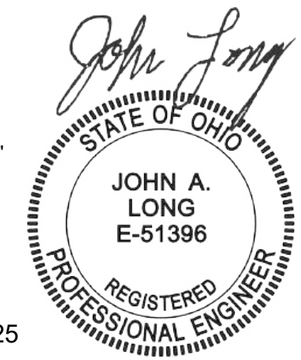




COLD-FORMED SECTION ES: USED FOR EAVE STRUTS



5/29/2025



ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/00/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2282 ◆ INFO@STEELNATION.COM

DESCRIPTION	LEGENDS & ABBREVIATIONS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
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C02	A	LEGENDS AND ABBREVIATIONS
C03	A	DRAWING INDEX
C04	A	UNLOADING HANDLING AND STORING OF MATERIALS
F01	A	COLUMN LAYOUT PLAN
F02	A	ANCHOR BOLT DETAILS
F03	A	ANCHOR BOLT REACTIONS
F04	A	ANCHOR BOLT REACTIONS
F05	A	ANCHOR BOLT REACTIONS
F06	A	ANCHOR BOLT REACTIONS
F07	A	ANCHOR BOLT REACTIONS
F08	A	ANCHOR BOLT REACTIONS
E01	A	ROOF FRAMING PLAN
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E03	A	SIDEWALL FRAMING & SHEETING ELEVATION-LINE A
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E05	A	ENDWALL FRAMING & SHEETING ELEVATION-LINE 1
E06	A	ENDWALL FRAMING & SHEETING ELEVATION-LINE 5
E07	A	SIDEWALL FRAMING & SHEETING ELEVATION-LINE G & B
E08	A	SIDEWALL FRAMING & SHEETING ELEVATION-LINE 2 / B & G
E09	A	CRANE BEAM LAYOUT
E10	A	CRANE DETAILS
E11	A	RIGID FRAME ELEVATION: FRAME LINE -3 & 4
E12	A	RIGID FRAME ELEVATION: FRAME LINE -5
E13	A	RIGID FRAME ELEVATION: FRAME LINE - H A / 3-2
E14	A	RIGID FRAME ELEVATION: FRAME LINE -H G - 1
E15	A	RIGID FRAME ELEVATION: FRAME LINE -H G - 2
E16	A	RIGID FRAME ELEVATION: FRAME LINE -B A -1
E17	A	RIGID FRAME ELEVATION: FRAME LINE -B A -2
E18	A	RIGID FRAME ELEVATION: FRAME LINE -D E /1.1-2
E19	A	WIND FRAME ELEVATION: FRAME LINE -A H /4-5
E20	A	DETAIL DRAWINGS
E21	A	DETAIL DRAWINGS
E22	A	DETAIL DRAWINGS
E23	A	DETAIL DRAWINGS
E24	A	DETAIL DRAWINGS
E25	A	DETAIL DRAWINGS

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

SEALING OF THIS DRAWING DOES NOT IMPLY OR CONSTITUTE THAT RIGID GLOBAL ENGINEER IS THE ENGINEER OF RECORD OR THE DESIGN PROFESSIONAL FOR THIS PROJECT. ONLY THE DESIGN OF THE METAL BUILDING SYSTEM AS FURNISHED BY RIGID IS INCLUDED. FOUNDATION ANALYSIS, ELECTRICAL, AND MECHANICAL SYSTEMS, AND/OR OTHER PARTS SUPPLIED BY ANYONE OTHER THAN RIGID ARE SPECIFICALLY EXCLUDED. NO INSPECTION OR SUPERVISION IS IMPLIED.

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STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2200 INFO@STEELNATION.COM
STACK BUILDING NO.:

DESCRIPTION	DRAWING INDEX		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

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UNLOADING, HANDLING AND STORING OF MATERIALS

STRUCTURAL

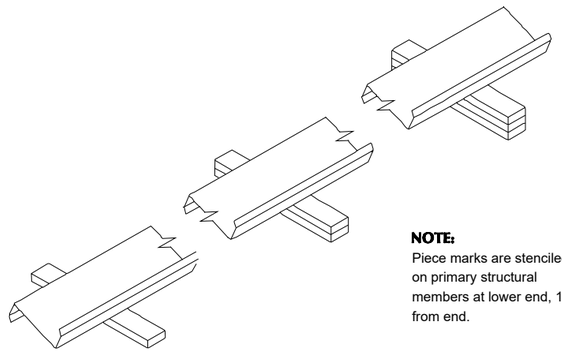
A great amount of time and trouble can be saved if the building site is according to a pre-arranged plan. Proper location and handling of components will eliminate unnecessary handling.

Inspect all shipments prior to releasing the tie-downs for loads that may have shifted during transit, **REMEMBER, SAFETY FIRST!**

Blocking under the columns and rafters protects the splice plates and the slab from damage during the unloading process. It also facilitates the placing of slings or cables around the members for later lifting and allows members to be bolted together into sub-assemblies while on the ground. Extra care should always be exercised in the unloading operations to prevent injuries from handling the steel and to prevent damage to materials and the concrete slabs.

If water is allowed to remain for extended periods in bundles of primed parts such as girts, purlins etc., the pigment will fade and the paint will gradually soften, reducing the bond to the steel. Therefore, upon receipt of a job, all bundles of primed parts should be stored at an angle to allow any trapped water to drain away and permit air circulation for drying. Puddles of water should not be allowed to collect and remain on columns, rafters or beams for the same reason.

All Primer should be touched up as required before erection!



NOTE:
Piece marks are stenciled on primary structural members at lower end, 1'-0" from end.

WALLS AND ROOF PANELS

RIGID's wall and roof panels including color coated, galvalume and galvanized, provide excellent service under widely varied conditions. All unloading and erection personnel should fully understand that these panels are quality merchandise which merit cautious care in handling.

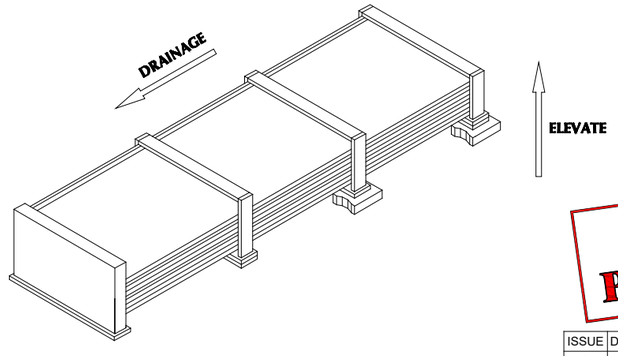
Under no circumstances should panels be handled roughly. Packages of sheets should be lifted off the truck with extreme care taken to insure that no damage occurs to ends of the sheets or to side ribs. The packages should be stored off the ground sufficiently high to allow air circulation underneath the packages. This avoids ground moisture and deters people from walking on the packages. One end of the package should always be elevated to encourage drainage in case of rain.

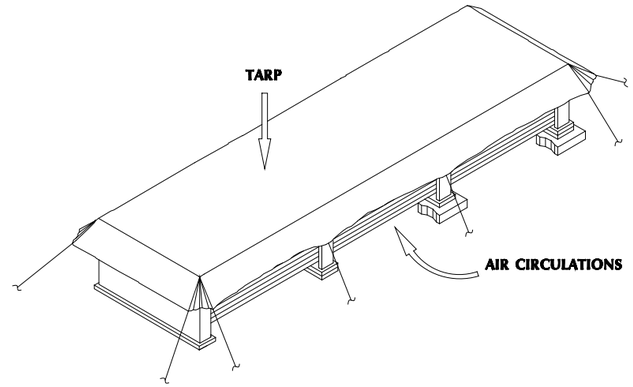
All stacked metal panels are subject, to some degree, to localized discoloration or stain when water is trapped between their closely nested surfaces. RIGID exercises extreme caution during fabricating and shipping operations to insure that all panel stock is kept dry. However, due to climatic conditions, water formed by condensation of humid air can be trapped between stacked sheets. Water can also be trapped between stacked sheets when exposed to rain. This discoloration caused by trapped moisture is often called wet storage stain.

The stain is usually superficial and has little effect on the appearance or service life of the panels as long as it is not permitted to remain on the panels. However, moisture in contact with the surface of the panels over an extended period can severely attack the finish and reduce the effective service life. Therefore, it is imperative that all panels be inspected for moisture upon receipt of the order. If moisture is present, dry the panels at once and store in a dry, warm place.

CAUTION: Care should always be taken when walking on panels. Use saftey lines and nets when necessary! Panels are slippery. Oil or wax applied to the roof and wall panels for protection against weather damage will make them a very slippery surface. Wipe dry any oil that has puddled from bundles stored on a slope. Dew, frost, or other forms of moisture greatly increase the slipperiness of the panels. Always assume panel surface is slippery and act accordingly. **Think safety!!**

Use wood blocking to elevate and slope the panels in a manner that will allow moisture to drain. Wood blocking placed between bundles will provide additional air circulation. Cover the stacked bundles with a tarp or plastic cover leaving enough opening at the bottom for air to circulate.





When handling or uncrating the panels, lift, rather than slide, them apart. Burred edges may scratch the coated surfaces when sheets are slid over one another. Never allow panels to be walked on while on the ground.

Rough and improper handling of a panel is inexcusable and a prime example of poor job supervision.

NOTE:
Use gloves when handling metal panels to prevent hand injuries. Be aware, of the dangers of handling panels on a windy day. A large panel can catch enough wind to knock a worker off his feet, even at ground level!! **Safety first!**

GENERAL NOTE:
1. OIL CANNING OF PANELS IS NOT A CAUSE OF REJECTION.
2. EXTREME CARE MUST BE EXERCISED DURING THE ERECTION OF ROOF PANELS AND TRIMS. FOOT TRAFFIC MAY RESULT IN PERMANENT PANEL DISTORTION AND FINISH ABRASION.

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/29/2025

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STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	LEGENDS & ABBREVIATIONS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
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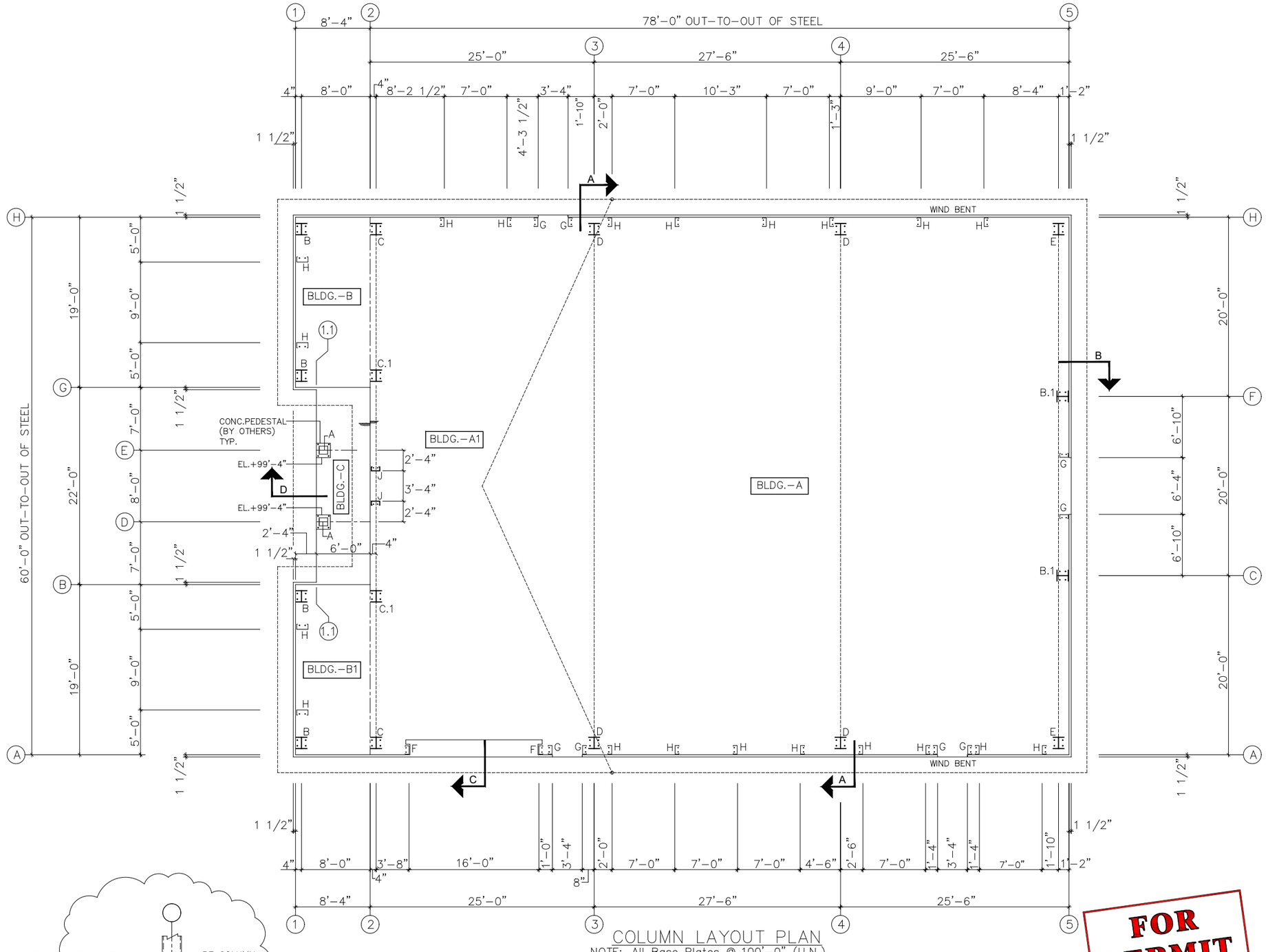
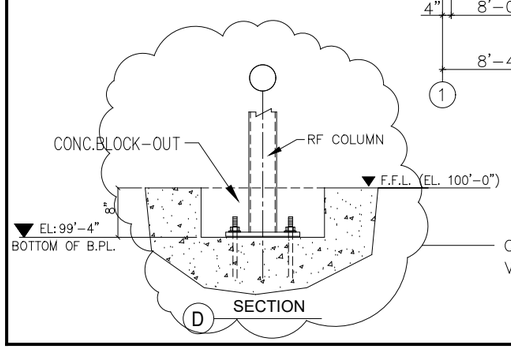
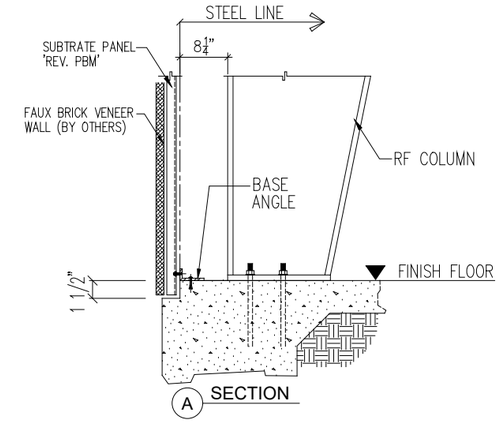


COLUMN LAYOUT PLAN

NOTE: All Base Plates @ 100'-0" (U.N.)



D SECTION



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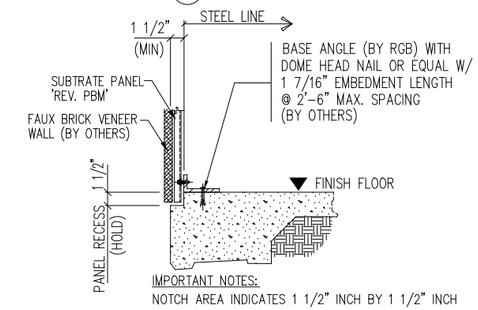
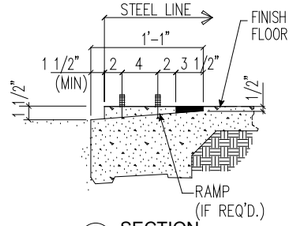


IMPORTANT NOTES:
NOTCH AREA INDICATES 1 1/2" INCH BY 1 1/2" INCH RECESS FOR METAL WALL SHEETS. THE SHEETS SHOULD NOT TOUCH THE BOTTOM OF THE NOTCH, WHICH WOULD VOID THE WARRANTY!

B SECTION



C SECTION

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STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/29/2025

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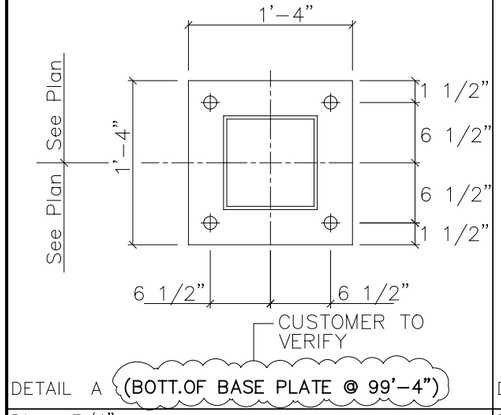
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.222.2260 ◆ INFO@STEELNATION.COM

DESCRIPTION	COLUMN LAYOUT PLAN		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

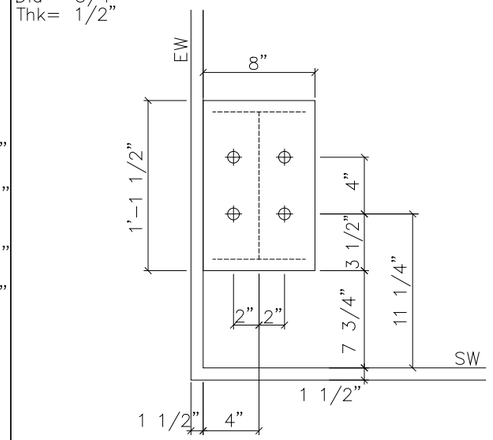
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE
82361	173424	3/16"	F01 OF 8	A

Dia= 3/4"
Thk= 1/2"



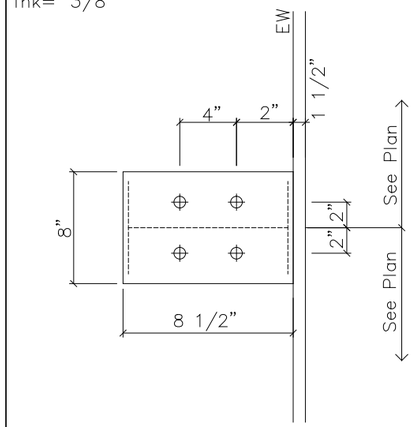
DETAIL A

Dia= 3/4"
Thk= 1/2"



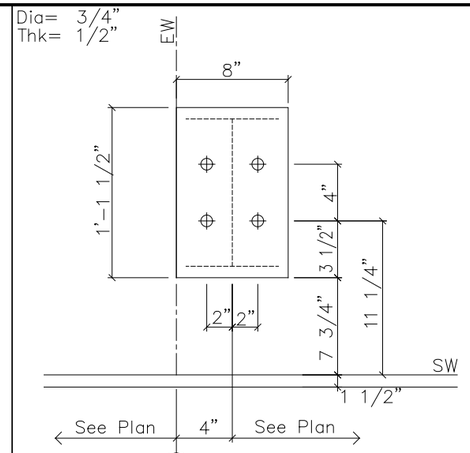
DETAIL B

Dia= 3/4"
Thk= 3/8"



DETAIL B.1

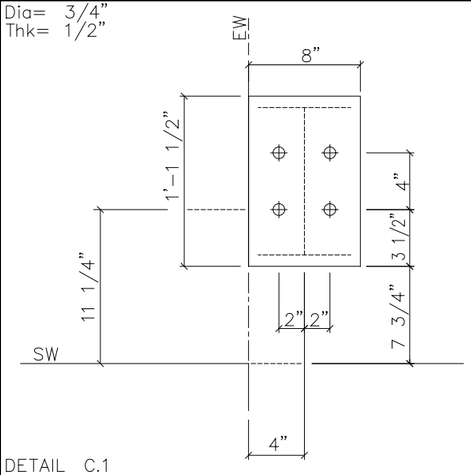
Dia= 3/4"
Thk= 1/2"



DETAIL C

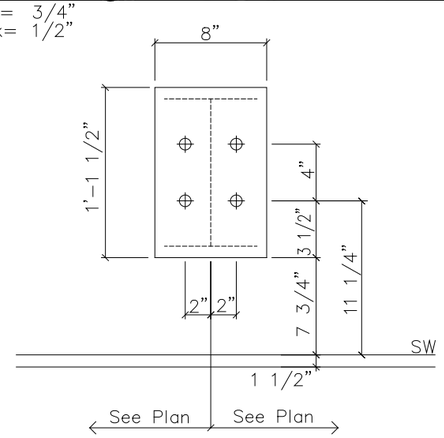
(2)

Dia= 3/4"
Thk= 1/2"



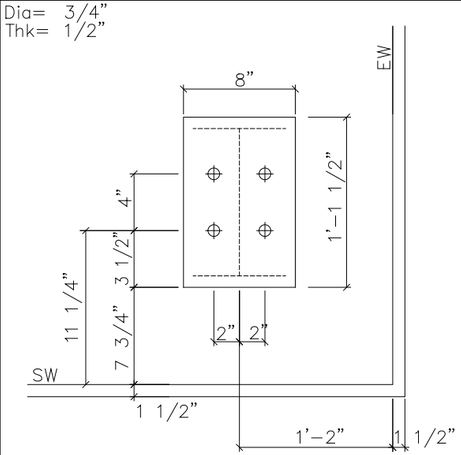
DETAIL C.1

Dia= 3/4"
Thk= 1/2"



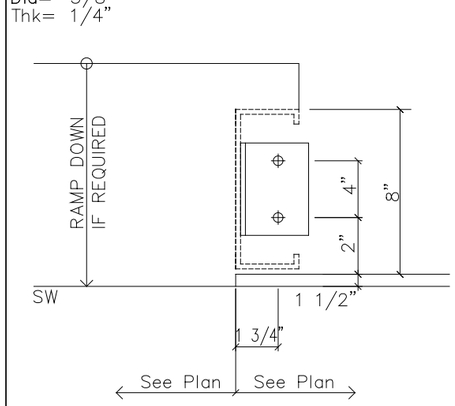
DETAIL D

Dia= 3/4"
Thk= 1/2"



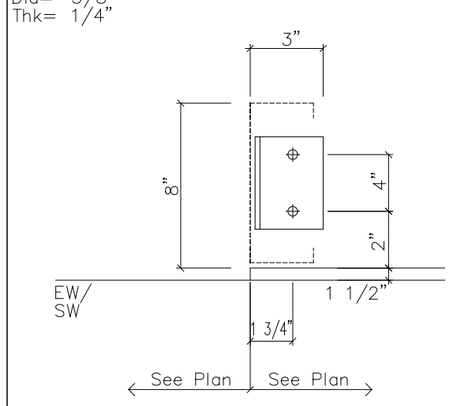
DETAIL E

Dia= 5/8"
Thk= 1/4"



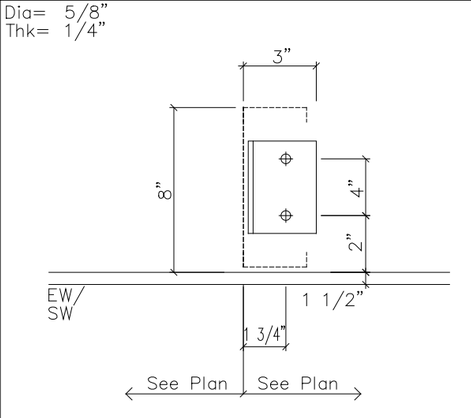
DETAIL F

Dia= 5/8"
Thk= 1/4"



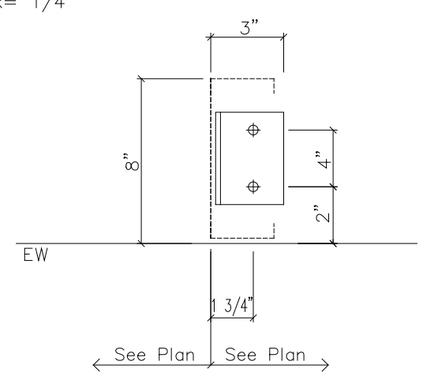
DETAIL G

Dia= 5/8"
Thk= 1/4"



DETAIL H

Dia= 5/8"
Thk= 1/4"



DETAIL J

GENERAL NOTES:

1. THE ANCHOR BOLT DETAILS SHOWN ON THIS DRAWING LOCATE THE ANCHOR BOLTS IN REFERENCE TO BOTH THE BUILDING STEEL LINE AND THE OUTSIDE OF RIGID'S SUGGESTED PANEL RECESS OF 1-1/2".
2. THE ANCHOR BOLT SETTING PLAN LOCATES ANCHOR BOLTS IN REFERENCE TO THE OUTSIDE OF THE PANEL RECESS SHOWN. IF THE ACTUAL PANEL RECESS IS DIFFERENT FROM WHAT IS SHOWN ON THE ANCHOR BOLT SETTING PLAN, THEN ALL REFERENCE DIMENSIONS FROM THE OUTSIDE OF THE PANEL RECESS MUST BE DETERMINED BY THE CUSTOMER.
3. BOTTOM OF ALL BASE PLATES ARE AT THE SAME ELEVATION. (UNLESS NOTED)

NOTE:

ONLY ANCHOR BOLTS SETTING PLAN ISSUED & STAMPED "FOR CONSTRUCTION" SHALL BE USED IN SETTING ANCHOR BOLTS. 'RIGID GLOBAL BUILDINGS' SHALL NOT BE RESPONSIBLE FOR ERROR OR DISCREPANCY IF THE DRAWING USED IS NOT VALID FOR CONSTRUCTION.

QTY.	SYMBOL	DIA.	PROJ.
0	⌖	1/2"	1"
64	⊕	5/8"	2"
72	⊕	3/4"	2 1/2"
0	⊕	7/8"	2 3/4"
0	⊕	1"	3"
0	⊕	1 1/8"	3 1/2"
0	⊕	1 1/2"	3 1/2"

ANCHOR BOLT DETAIL

ANCHOR BOLT PROJECTION "PROJ." IS MEASURED FROM BOTTOM OF BASE PLATE

LENGTH OF "PROJ." SHOWN IS FOR ONE NUT + ONE WASHER

DETAIL OF ANCHOR BOLT AS PER THE SUPPLIER

NUTS & WASHERS BY SUPPLIER

ANCHOR BOLTS NOT BY RIGID GLOBAL BUILDINGS

FOR PERMIT

John Long

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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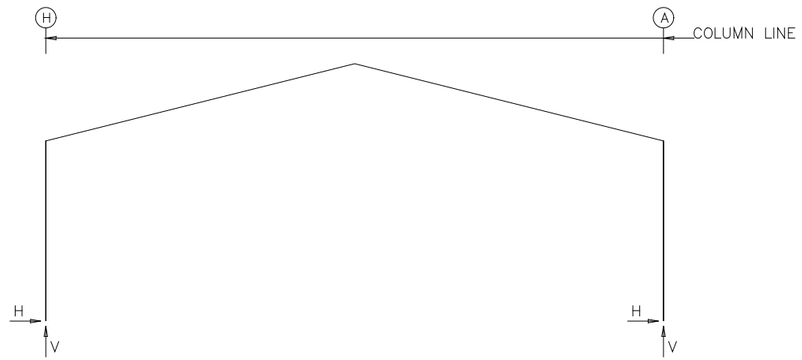
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.228.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT DETAILS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	N.T.S.	F02 OF 8	A

FRAME LINES: 3 4 5



RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
3*	H	1.5	3.8	2.3	4.4	7.8	17.0	7.8	17.0	−11.1	−19.6	−1.1	−12.8
3*	A	−1.5	3.8	−2.3	4.4	−7.8	17.0	−7.8	17.0	1.1	−12.8	11.1	−19.6

Frame Line	Column Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert
3*	H	−10.1	−12.3	−0.1	−5.5	−1.9	−20.6	−3.6	−18.4	−0.7	−0.4	0.7	0.4
3*	A	0.1	−5.5	10.1	−12.3	3.6	−18.4	1.9	−20.6	−0.7	0.4	0.7	−0.4

Frame Line	Column Line	Seismic_Long Horz	Seismic_Long Vert	MIN_SNOW Horz	MIN_SNOW Vert	F2CRNA_1 Horz	F2CRNA_1 Vert	F2CRNA_2 Horz	F2CRNA_2 Vert	F2CRNA_3 Horz	F2CRNA_3 Vert	F2CRNA_4 Horz	F2CRNA_4 Vert
3*	H	0.0	−1.1	7.8	17.0	0.5	10.1	1.6	10.5	0.5	5.0	1.6	5.5
3*	A	0.0	−2.1	−7.8	17.0	−1.6	5.5	−0.5	5.0	−1.6	10.5	−0.5	10.1

Frame Line	Column Line	F2UNB_SL_L Horz	F2UNB_SL_L Vert	F2UNB_SL_R Horz	F2UNB_SL_R Vert
3*	H	6.3	16.4	6.3	9.2
3*	A	−6.3	9.2	−6.3	16.4

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
5	H	0.9	2.5	1.2	2.4	4.4	9.8	4.4	9.8	−7.9	−14.4	−1.4	−9.6
5	A	−0.9	2.5	−1.2	2.4	−4.4	9.8	−4.4	9.8	1.4	−9.6	7.9	−14.4

Frame Line	Column Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert
5	H	−7.3	−10.2	−0.8	−5.4	−1.8	−16.7	−3.2	−14.9	−0.6	−0.3	0.6	0.3
5	A	0.8	−5.4	7.3	−10.2	3.2	−14.9	1.8	−16.7	−0.6	0.3	0.6	−0.3

Frame Line	Column Line	Seismic_Long Horz	Seismic_Long Vert	MIN_SNOW Horz	MIN_SNOW Vert	F3CRNA_1 Horz	F3CRNA_1 Vert	F3CRNA_2 Horz	F3CRNA_2 Vert	F3CRNA_3 Horz	F3CRNA_3 Vert	F3CRNA_4 Horz	F3CRNA_4 Vert
5	H	0.0	−1.1	4.4	9.8	0.4	9.1	1.5	9.5	0.4	4.1	1.5	4.6
5	A	0.0	−2.1	−4.4	9.8	−1.5	4.6	−0.4	4.1	−1.5	9.5	−0.4	9.1

Frame Line	Column Line	F3UNB_SL_L Horz	F3UNB_SL_L Vert	F3UNB_SL_R Horz	F3UNB_SL_R Vert
5	H	3.5	9.5	3.5	5.3
5	A	−3.5	5.3	−3.5	9.5

3* Frame lines: 3 4

a – Out–Of–Plane Horizontal Load

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Bolt(in) Dia	Base_Plate(in) Width	Base_Plate(in) Length	Base_Plate(in) Thick	Grout (in)
3*	H	1	11.6	25.2	6	−5.7	−9.5	4	0.750	8.000	13.50	0.500	0.0
		21	10.9	28.8	10	−0.2	−10.1						
3*	A	7	5.7	−9.5	1	−11.6	25.2	4	0.750	8.000	13.50	0.500	0.0
		22	−10.9	28.8	12	0.2	−10.1						

3* Frame lines: 3 4

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Bolt(in) Dia	Base_Plate(in) Width	Base_Plate(in) Length	Base_Plate(in) Thick	Grout (in)
5	H	26	6.5	15.7	6	−4.2	−7.1	4	0.750	8.000	13.50	0.500	0.0
		24	6.5	19.4	10	−0.5	−8.5						
5	A	7	4.2	−7.1	23	−6.5	15.7	4	0.750	8.000	13.50	0.500	0.0
		25	−6.5	19.4	12	0.5	−8.5						

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Wind Press Horz	Wind Suct Horz	Seis Long Horz
5	C	0.3	−5.2	5.8	0.1
5	F	0.3	−5.2	5.8	0.1

ENDWALL COLUMN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Bolt(in) Dia	Base_Plate(in) Width	Base_Plate(in) Length	Base_Plate(in) Thick	Grout (in)
5	C	31	3.5	0.2	30	−3.1	0.2	4	0.750	8.000	8.500	0.375	0.0
		14	−0.1	0.3									
5	F	31	3.5	0.2	30	−3.1	0.2	4	0.750	8.000	8.500	0.375	0.0
		14	−0.1	0.3									

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.222.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT REACTIONS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUED
82361	173424	N.T.S.	F03 OF 8	A

ENDWALL COLUMN: BASIC COLUMN REACTIONS (k)

Frm Line	Col Line	Dead Vert	Wind Press Horz	Wind Suct Horz	Seis Long Horz
5	C	0.3	−5.2	5.8	0.1
5	F	0.3	−5.2	5.8	0.1

ENDWALL COLUMN: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Bolt(in) Dia	Base_Plate(in) Width	Base_Plate(in) Length	Base_Plate(in) Thick	Grout (in)
5	C	31	3.5	0.2	30	−3.1	0.2	4	0.750	8.000	8.500	0.375	0.0
		14	−0.1	0.3									
5	F	31	3.5	0.2	30	−3.1	0.2	4	0.750	8.000	8.500	0.375	0.0
		14	−0.1	0.3									

BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Panel_Shear (lb/ft) Seis	Note
L_EW	2								(h)
F_SW	A	4,5	4.0	5.2	1.6	2.1			(b)
R_EW	5								(h)
B_SW	H	4,5	4.0	5.2	0.8	1.1			(b)

(b)Wind bent in bay, base above finish floor
(h)Rigid frame at endwall

CRANE BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions(k) Crane Horz	Crane Vert
F_SW	A	4 ,5	1.0	0.4
B_SW	H	5 ,4	1.0	0.4

Reactions for seismic represent shear force, Eh
Reaction values shown are unfactored

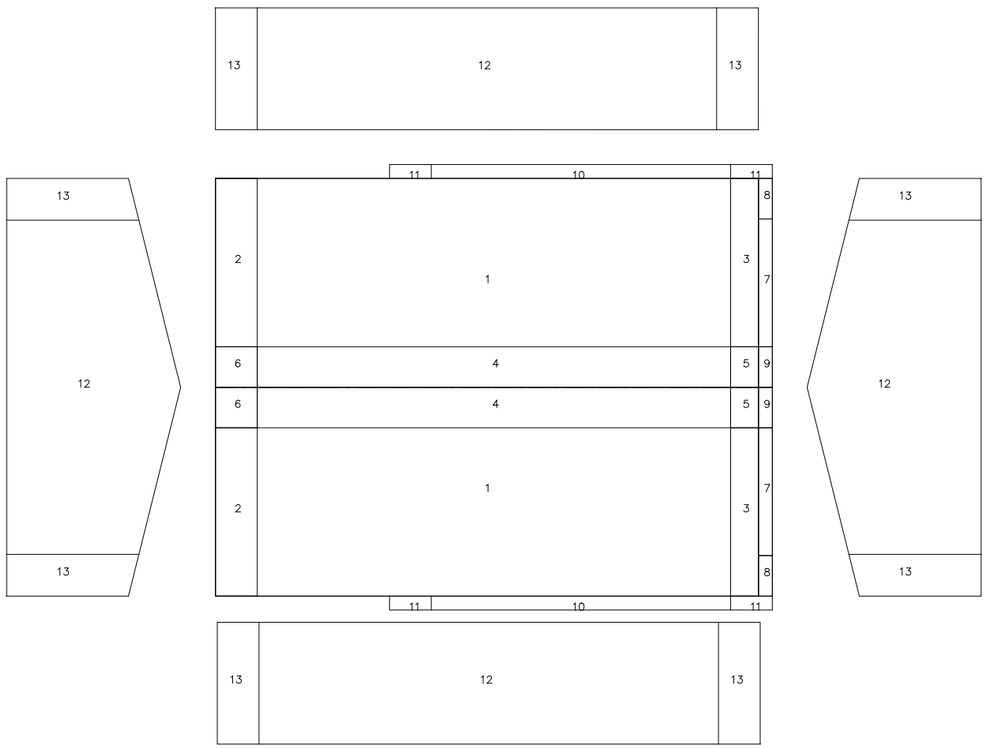
NOTES FOR REACTIONS

1. All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
2. Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

Width		(ft)	= 60.0
Length		(ft)	= 78.0
Eave Height		(ft)	= 17.5/ 17.5
Roof Slope	(rise/12)		= 3.00/ 3.00
Roof Dead Load		(psf)	= 3.0
Live Load		(psf)	= 20.0
Collateral Load		(psf)	= 5.0
Snow Load		(psf)	= 20.0
Wind Speed		(mph)	=115.0
Wind Code			=OBC 24 (IBC 21)
Exposure			=C
Closure			=Enclosed
Internal Wind Coeff			=−0.18, +0.18
Risk Category			=II − Normal
Importance − Wind			= 1.00
Importance − Seismic			= 1.00
Seismic Design Category			=B
Seismic Coeff	(Sms)		= 0.19

5. Loading conditions are:

1 Dead+Collateral+Snow+Slide_Snow
2 Dead+Collateral+0.75Live+0.45Wind_Long1R
3 Dead+Collateral+0.75Live+0.45Wind_Long2L
4 Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Snow_Drift
5 Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Slide_Snow
6 0.6Dead+0.6Wind_Left1
7 0.6Dead+0.6Wind_Right1
8 0.6Dead+0.6Wind_Left2
9 0.6Dead+0.6Wind_Right2
10 0.6Dead+0.6Wind_Long1L
11 0.6Dead+0.6Wind_Long1R
12 0.6Dead+0.6Wind_Long2L
13 0.6Dead+0.6Wind_Long2R
14 1.02Dead+1.02Collateral+0.7Seismic_LongR
15 Dead+Collateral+F1CRNA_2
16 Dead+Collateral+F1CRNA_3
17 Dead+0.75Snow+0.3Wind_Left1+0.75F1CRNA_1
18 Dead+0.75Snow+0.3Wind_Right1+0.75F1CRNA_4
19 Dead+Collateral+F1UNB_SL_L
20 Dead+Collateral+F1UNB_SL_R
21 Dead+Collateral+0.75Snow+0.75Slide_Snow+0.75F2CRNA_2
22 Dead+Collateral+0.75Snow+0.75Slide_Snow+0.75F2CRNA_3
23 Dead+Collateral+0.75Snow+0.75Slide_Snow+0.75F3CRNA_1
24 Dead+Collateral+0.75Snow+0.75Slide_Snow+0.75F3CRNA_2
25 Dead+Collateral+0.75Snow+0.75Slide_Snow+0.75F3CRNA_3
26 Dead+Collateral+0.75Snow+0.75Slide_Snow+0.75F3CRNA_4
27 0.6Dead+0.6Wind_Left1+0.6Wind_Suction
28 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1L
29 0.6Dead+0.6Wind_Right1+0.6Wind_Suction
30 0.6Dead+0.6Wind_Pressure+0.6Wind_Long2L
31 0.6Dead+0.6Wind_Right2+0.6Wind_Suction



Zone	Width (ft)	Length (ft)	Components & Cladding (Factored) Pressure(psf) Member	Pressure(psf) Panel	Suction(psf) Member	Suction(psf) Panel
1			10.08	11.45	−10.36	−33.22
2		6.00	10.08	11.45	−20.10	−48.50
3		4.00	10.08	11.45	−20.10	−48.50
4	6.00		10.08	11.45	−20.10	−48.50
5	6.00	4.00	10.08	11.45	−30.15	−57.47
6	6.00	6.00	10.08	11.45	−30.15	−57.47
7	18.92	2.00	10.08	11.45	−48.39	−53.49
8	6.00	2.00	10.08	11.45	−53.99	−62.46
9	6.00	2.00	10.08	11.45	−60.62	−71.76
10	2.06	43.00	10.08	10.08	−22.86	−38.10
11	2.06	6.00	10.08	10.08	−25.60	−62.48
12			14.48	17.98	−16.00	−19.51
13	6.00		14.48	17.98	−17.12	−23.99

(+) wind towards surface
(−) wind away from surface

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

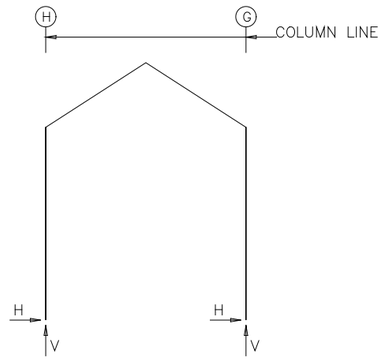
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.222.2262 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT REACTIONS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	N.T.S.	F04 OF 8	A

DESIGN CALCULATION WIND
82361A1

FRAME LINES: 1 2



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
1	H	2	1.2	1.7	5	−1.4	−1.0	4	0.750	8.000	13.50	0.500	0.0
		3	0.4	4.8	7	0.6	−4.4						
1	G	6	1.4	−1.0	1	−1.2	1.7	4	0.750	8.000	13.50	0.500	0.0
		3	−0.4	4.8	7	−0.6	−4.4						

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
2	H	2	2.3	2.9	5	−2.6	−2.1	4	0.750	8.000	13.50	0.500	0.0
		8	1.7	10.0	4	−1.9	−2.8						
2	G	6	2.6	−2.1	1	−2.3	2.9	4	0.750	8.000	13.50	0.500	0.0
		3	−0.8	6.2	7	−1.2	−5.0						

BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	1								(h)
F_SW	G	1,2	2.9	6.1	0.2	0.5			
R_EW	2.1	**Braced to Bldg.−A**							
B_SW	H	**Braced to Bldg.−A**							

(h)Rigid frame at endwall

Reactions for seismic represent shear force, Eh
Reaction values shown are unfactored

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
1	H	0.0	0.6	0.0	0.4	0.1	1.5	0.1	1.5	−1.6	−3.0	1.8	0.9
1	G	0.0	0.6	0.0	0.4	−0.1	1.5	−0.1	1.5	−1.8	0.9	1.6	−3.0

Frame Line	Column Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert
1	H	−2.1	−2.5	1.3	1.5	1.0	−7.9	0.6	−6.0	−0.1	−0.1	0.1	0.1
1	G	−1.3	1.5	2.1	−2.5	−1.0	−7.9	−0.6	−6.0	−0.1	0.1	0.1	−0.1

Frame Line	Column Line	Seismic_Long Horz	Seismic_Long Vert	Wind_Left3 Horz	Wind_Left3 Vert	Wind_Right3 Horz	Wind_Right3 Vert	Wind_Left4 Horz	Wind_Left4 Vert	Wind_Right4 Horz	Wind_Right4 Vert	MIN_SNOW Horz	MIN_SNOW Vert
1	H	0.0	−0.5	−1.8	−2.8	2.0	1.8	−2.3	−2.3	1.5	2.3	0.1	1.5
1	G	0.0	−0.5	−2.0	1.8	1.8	−2.8	−1.5	2.3	2.3	−2.3	−0.1	1.5

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
2	H	0.1	0.9	0.1	0.7	0.2	2.5	0.2	2.5	−3.2	−5.6	3.4	2.1
2	G	−0.1	0.9	−0.1	0.7	−0.2	2.5	−0.2	2.5	−3.4	2.1	3.2	−5.6

Frame Line	Column Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert
2	H	−4.1	−4.5	2.5	3.1	1.9	−3.1	1.2	0.1	−0.2	−0.5	0.2	0.5
2	G	−2.5	3.1	4.1	−4.5	−1.9	−9.2	−1.2	−6.0	−0.2	0.5	0.2	−0.5

Frame Line	Column Line	Seismic_Long Horz	Seismic_Long Vert	Wind_Left3 Horz	Wind_Left3 Vert	Wind_Right3 Horz	Wind_Right3 Vert	Wind_Left4 Horz	Wind_Left4 Vert	Wind_Right4 Horz	Wind_Right4 Vert	MIN_SNOW Horz	MIN_SNOW Vert
2	H	0.0	0.0	−3.5	−5.5	3.8	3.4	−4.5	−4.4	2.9	4.5	0.2	2.5
2	G	0.0	−0.5	−3.8	3.4	3.5	−5.5	−2.9	4.5	4.5	−4.4	−0.2	2.5

Frame Line	Column Line	F2CRNA_1 Horz	F2CRNA_1 Vert	F2CRNA_2 Horz	F2CRNA_2 Vert	F2CRNA_3 Horz	F2CRNA_3 Vert	F2CRNA_4 Horz	F2CRNA_4 Vert
2	H	0.3	7.6	1.0	8.3	−0.1	3.0	0.6	3.8
2	G	−0.8	2.0	−0.5	1.2	−0.5	1.1	−0.1	0.3

NOTES FOR REACTIONS

1. All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
2. Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

Width	(ft)	=	19.0
Length	(ft)	=	19.4
Eave Height	(ft)	=	18.3/ 18.3
Roof Slope	(rise/12)	=	7.74/ 7.74
Roof Dead Load	(psf)	=	2.7
Live Load	(psf)	=	20.0
Collateral Load	(psf)	=	5.0
Snow Load	(psf)	=	20.0
Wind Speed	(mph)	=	115.0
Wind Code		=	OBC 24 (IBC 21)
Exposure		=	C
Closure		=	Enclosed
Internal Wind Coeff		=	−0.18, +0.18
Risk Category		=	II − Normal
Importance − Wind		=	1.00
Importance − Seismic		=	1.00
Seismic Design Category		=	B
Seismic Coeff	(Sms)	=	0.19

5. Loading conditions are:
   1 Dead+0.6Wind_Left3
   2 Dead+0.6Wind_Right3
   3 Dead+Collateral+0.75Snow+0.45Wind_Long2R+0.75Slide_Snow
   4 0.6Dead+0.6Wind_Left1
   5 0.6Dead+0.6Wind_Left4
   6 0.6Dead+0.6Wind_Right4
   7 0.6Dead+0.6Wind_Long1L
   8 Dead+0.75Snow+0.3Wind_Right2+0.75Slide_Snow+0.75F2CRNA_2
   9 0.6Dead+0.6Wind_Suction+0.6Wind_Long1L
   10 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1L
   11 Dead+Collateral+CRANEA1

John Long

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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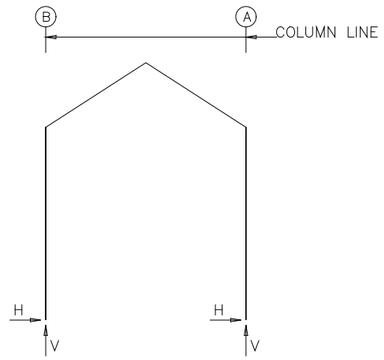
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT REACTIONS
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUED
82361	173424	N.T.S.	F05 OF 8	A

FRAME LINES: 1 2



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
1	B	2	1.2	1.7	5	−1.4	−1.0	4	0.750	8.000	13.50	0.500	0.0
		3	0.4	4.8	7	0.6	−4.4						
1	A	6	1.4	−1.0	1	−1.2	1.7	4	0.750	8.000	13.50	0.500	0.0
		3	−0.4	4.8	7	−0.6	−4.4						

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
2	B	2	2.3	2.9	5	−2.6	−2.1	4	0.750	8.000	13.50	0.500	0.0
		3	0.8	6.2	7	1.2	−5.0						
2	A	6	2.6	−2.1	1	−2.3	2.9	4	0.750	8.000	13.50	0.500	0.0
		8	−1.7	10.0	4	1.9	−2.8						

BUILDING BRACING REACTIONS

Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	1								(h)
F_SW	A	**Braced to Bldg.−A**							
R_EW	2.1	**Braced to Bldg.−A**							
B_SW	B	2,1	2.9	6.1	0.2	0.5			

(h)Rigid frame at endwall

Reactions for seismic represent shear force, Eh
Reaction values shown are unfactored

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
1	B	0.0	0.6	0.0	0.4	0.1	1.5	0.1	1.5	−1.6	−3.0	1.8	0.9
1	A	0.0	0.6	0.0	0.4	−0.1	1.5	−0.1	1.5	−1.8	0.9	1.6	−3.0

Frame Line	Column Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert
1	B	−2.1	−2.5	1.3	1.5	1.0	−7.9	0.6	−6.0	−0.1	−0.1	0.1	0.1
1	A	−1.3	1.5	2.1	−2.5	−1.0	−7.9	−0.6	−6.0	−0.1	0.1	0.1	−0.1

Frame Line	Column Line	Seismic_Long Horz	Seismic_Long Vert	Wind_Left3 Horz	Wind_Left3 Vert	Wind_Right3 Horz	Wind_Right3 Vert	Wind_Left4 Horz	Wind_Left4 Vert	Wind_Right4 Horz	Wind_Right4 Vert	MIN_SNOW Horz	MIN_SNOW Vert
1	B	0.0	−0.5	−1.8	−2.8	2.0	1.8	−2.3	−2.3	1.5	2.3	0.1	1.5
1	A	0.0	−0.5	−2.0	1.8	1.8	−2.8	−1.5	2.3	2.3	−2.3	−0.1	1.5

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Wind_Left1 Horz	Wind_Left1 Vert	Wind_Right1 Horz	Wind_Right1 Vert
2	B	0.1	0.9	0.1	0.7	0.2	2.5	0.2	2.5	−3.2	−5.6	3.4	2.1
2	A	−0.1	0.9	−0.1	0.7	−0.2	2.5	−0.2	2.5	−3.4	2.1	3.2	−5.6

Frame Line	Column Line	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert	Seismic_Right Horz	Seismic_Right Vert
2	B	−4.1	−4.5	2.5	3.1	1.9	−9.2	1.2	−6.0	−0.2	−0.5	0.2	0.5
2	A	−2.5	3.1	4.1	−4.5	−1.9	−3.1	−1.2	0.1	−0.2	0.5	0.2	−0.5

Frame Line	Column Line	Seismic_Long Horz	Seismic_Long Vert	Wind_Left3 Horz	Wind_Left3 Vert	Wind_Right3 Horz	Wind_Right3 Vert	Wind_Left4 Horz	Wind_Left4 Vert	Wind_Right4 Horz	Wind_Right4 Vert	MIN_SNOW Horz	MIN_SNOW Vert
2	B	0.0	−0.5	−3.5	−5.5	3.8	3.4	−4.5	−4.4	2.9	4.5	0.2	2.5
2	A	0.0	0.0	−3.8	3.4	3.5	−5.5	−2.9	4.5	4.5	−4.4	−0.2	2.5

Frame Line	Column Line	F2CRNA_1 Horz	F2CRNA_1 Vert	F2CRNA_2 Horz	F2CRNA_2 Vert	F2CRNA_3 Horz	F2CRNA_3 Vert	F2CRNA_4 Horz	F2CRNA_4 Vert
2	B	0.1	0.3	0.5	1.1	0.5	1.2	0.8	2.0
2	A	−0.6	3.8	0.1	3.0	−1.0	8.3	−0.3	7.6

NOTES FOR REACTIONS

1. All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
2. Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

Width	(ft)	=	19.0
Length	(ft)	=	19.4
Eave Height	(ft)	=	18.3/ 18.3
Roof Slope	(rise/12)	=	7.74/ 7.74
Roof Dead Load	(psf)	=	2.7
Live Load	(psf)	=	20.0
Collateral Load	(psf)	=	5.0
Snow Load	(psf)	=	20.0
Wind Speed	(mph)	=	115.0
Wind Code		=	OBC 24 (IBC 21)
Exposure		=	C
Closure		=	Enclosed
Internal Wind Coeff		=	−0.18, +0.18
Risk Category		=	II − Normal
Importance − Wind		=	1.00
Importance − Seismic		=	1.00
Seismic Design Category		=	B
Seismic Coeff	(Sms)	=	0.19

5. Loading conditions are:
   1 Dead+0.6Wind_Left3
   2 Dead+0.6Wind_Right3
   3 Dead+Collateral+0.75Snow+0.45Wind_Long2R+0.75Slide_Snow
   4 0.6Dead+0.6Wind_Right1
   5 0.6Dead+0.6Wind_Left4
   6 0.6Dead+0.6Wind_Right4
   7 0.6Dead+0.6Wind_Long1L
   8 Dead+0.75Snow+0.3Wind_Left2+0.75Slide_Snow+0.75F2CRNA_3
   9 0.6Dead+0.6Wind_Suction+0.6Wind_Long1L
   10 0.6Dead+0.6Wind_Pressure+0.6Wind_Long1L
   11 Dead+Collateral+CRANEA1

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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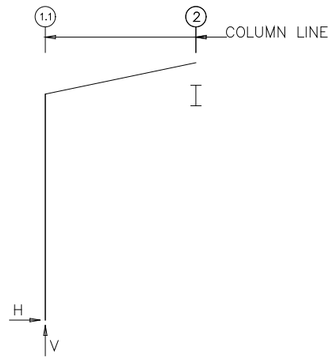
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT REACTIONS
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	N.T.S.	F06 OF 8	A

FRAME LINES: D E



RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Line	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Snow_Drift Horz	Snow_Drift Vert	Wind_Left1 Horz	Wind_Left1 Vert
D*	1.1	0.0	0.3	0.1	0.2	0.2	0.9	0.2	0.9	0.5	1.9	−0.5	−1.6

Frame Line	Column Line	Wind_Right1 Horz	Wind_Right1 Vert	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Long Horz	Seismic_Long Vert
D*	1.1	0.6	−1.2	−1.2	−0.4	−0.1	0.0	0.7	−1.6	0.1	0.1	0.0	0.0

Frame Line	Column Line	Wind_Left3 Horz	Wind_Left3 Vert	Wind_Right3 Horz	Wind_Right3 Vert	Wind_Left4 Horz	Wind_Left4 Vert	Wind_Right4 Horz	Wind_Right4 Vert	MIN_SNOW Horz	MIN_SNOW Vert
D*	1.1	−0.3	−0.7	0.6	−1.2	−1.0	0.5	−0.1	0.0	0.2	0.9

D* Frame lines: D E

BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	B	Braced to Bldg.−B1&B2							
F_SW	2	Braced to Bldg.−B1&B2							
R_EW	G	Braced to Bldg.−B1&B2							
B_SW	1.1	Braced to Bldg.−B1&B2							

Reactions for seismic represent shear force, Eh
Reaction values shown are unfactored

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Line	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Bolt(in) Dia	Base_Plate(in) Width	Base_Plate(in) Length	Base_Plate(in) Thick	Grout (in)
D*	1.1	3	0.9	1.9	5	−0.7	0.0	4	0.750	16.00	16.00	0.500	0.0
		1	0.8	3.3	6	0.5	−0.8						

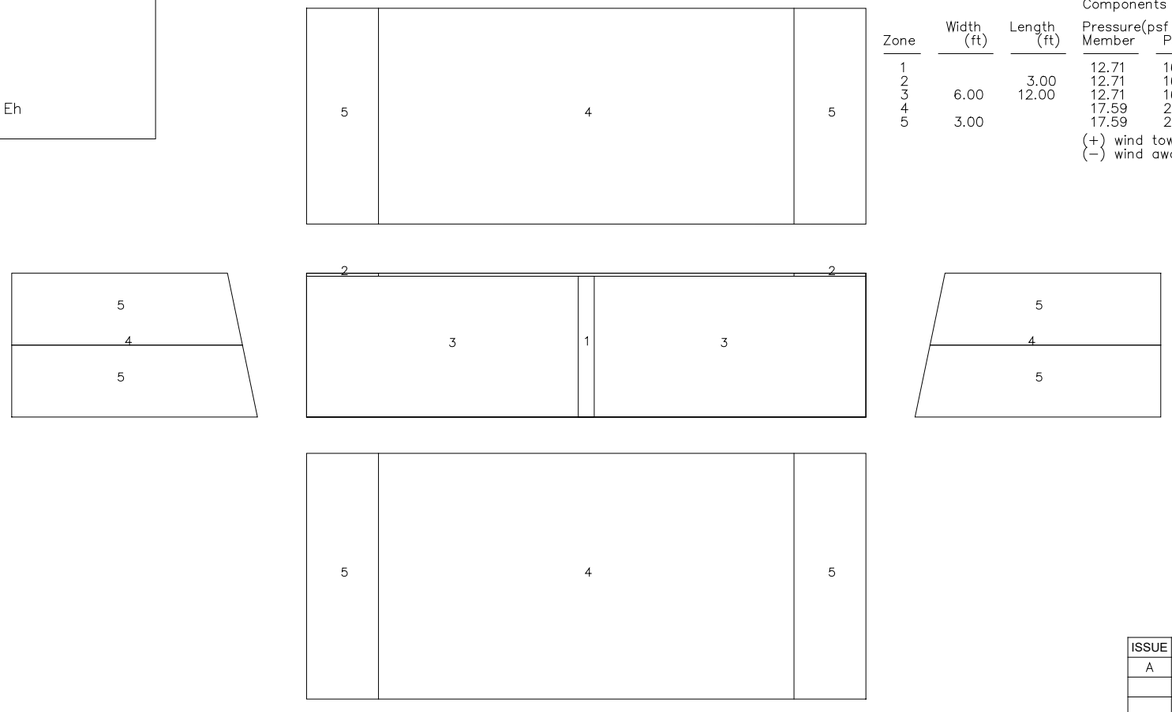
D* Frame lines: D E

NOTES FOR REACTIONS

1. All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
2. Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

Width	(ft)	=	6.0
Length	(ft)	=	23.3
Eave Height	(ft)	=	9.0/ 10.3
Roof Slope	(rise/12)	=	2.50
Roof Dead Load	(psf)	=	2.5
Live Load	(psf)	=	20.0
Collateral Load	(psf)	=	5.0
Snow Load	(psf)	=	20.0
Wind Speed	(mph)	=	115.0
Wind Code		=	OBC 24 (IBC 21)
Exposure		=	C
Closure		=	Partially Enclosed
Internal Wind Coeff		=	−0.55, +0.55
Risk Category		=	II − Normal
Importance − Wind		=	1.00
Importance − Seismic		=	1.00
Seismic Design Category		=	B
Seismic Coeff	(Sms)	=	0.19

5. Loading conditions are:
   1 Dead+Collateral+Snow+Snow_Drift
   2 Dead+Collateral+0.75Snow+0.75Snow_Drift+0.45Wind_Left4
   3 Dead+Collateral+0.75Snow+0.45Wind_Long1L+0.75Snow_Drift
   4 0.6Dead+0.6Wind_Left1
   5 0.6Dead+0.6Wind_Left2
   6 0.6Dead+0.6Wind_Long1L
   7 0.6Dead+0.6Wind_Long1R



Components & Cladding (Factored)

Zone	Width (ft)	Length (ft)	Pressure(psf) Member	Pressure(psf) Panel	Suction(psf) Member	Suction(psf) Panel
1			12.71	16.22	−15.84	−42.11
2		3.00	12.71	16.22	−15.84	−42.11
3	6.00	12.00	12.71	16.22	−23.17	−67.52
4			17.59	20.64	−18.61	−20.64
5	3.00		17.59	20.64	−25.30	−33.44

(+) wind towards surface
(−) wind away from surface

DESIGN CALCULATION WIND
82361C

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

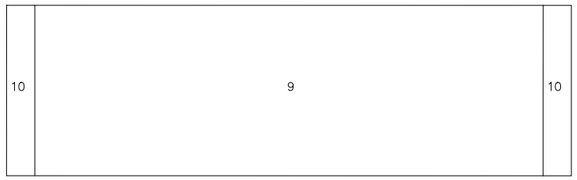
DESCRIPTION	ANCHOR BOLT REACTIONS
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

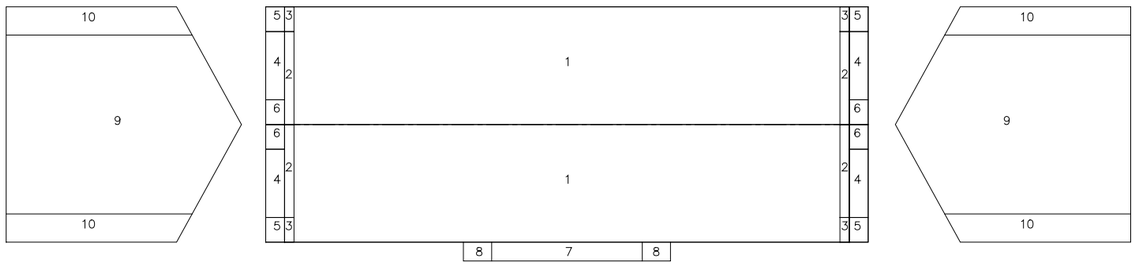
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	N.T.S.	F07 OF 8	A

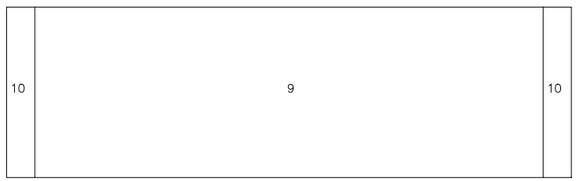
Components & Cladding (Factored)

Zone	Width (ft)	Length (ft)	Pressure(psf) Member	Pressure(psf) Panel	Suction(psf) Member	Suction(psf) Panel
1			10.91	17.33	−14.98	−30.25
2		1.00	10.91	17.33	−17.97	−33.28
3	3.00	1.00	10.91	17.33	−20.82	−40.84
4	8.28	2.00	12.55	17.33	−39.24	−42.66
5	3.00	2.00	12.55	17.33	−45.68	−50.22
6	3.00	2.00	12.55	17.33	−39.24	−42.66
7	2.28	16.00	10.08	14.44	−24.45	−39.73
8	2.28	3.00	10.08	14.44	−30.32	−50.45
9			14.52	18.03	−16.05	−19.56
10	3.00		14.52	18.03	−17.17	−24.06

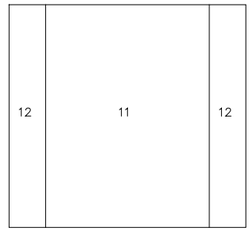
(+) wind towards surface
(−) wind away from surface







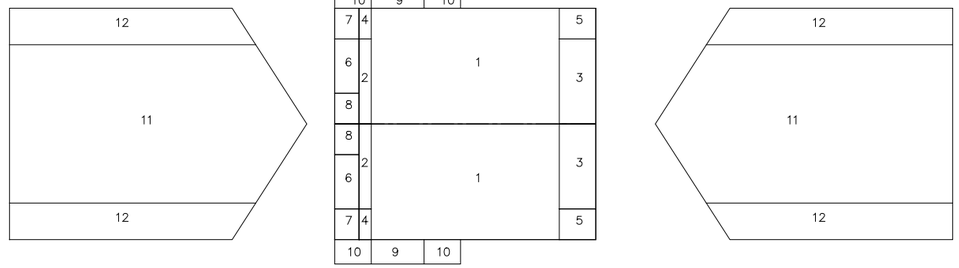
DESIGN CALCULATION WIND
82361A1

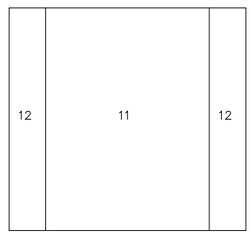


Components & Cladding (Factored)

Zone	Width (ft)	Length (ft)	Pressure(psf) Member	Pressure(psf) Panel	Suction(psf) Member	Suction(psf) Panel
1			10.89	17.30	−14.95	−30.20
2		1.00	10.89	17.30	−17.94	−33.22
3		3.00	10.89	17.30	−17.94	−33.22
4	3.00	1.00	10.89	17.30	−20.77	−40.77
5	3.00	3.00	10.89	17.30	−20.77	−40.77
6	5.30	2.00	10.13	17.30	−39.16	−42.58
7	3.00	2.00	10.13	17.30	−45.59	−50.13
8	3.00	2.00	10.13	17.30	−39.16	−42.58
9	2.38	4.33	10.08	14.41	−24.40	−39.66
10	2.38	3.00	10.08	14.41	−30.26	−50.37
11			13.20	16.48	−14.29	−16.48
12	3.00		13.20	16.48	−21.44	−30.15

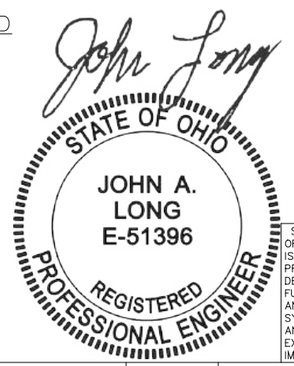
(+) wind towards surface
(−) wind away from surface





DESIGN CALCULATION WIND
82361B

FOR PERMIT



5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/16/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT REACTIONS
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CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	N.T.S.	F08 OF 8	A

MEMBER TABLE ROOF PLAN	
MARK	PART
EB-1	8x35C14
EB-2	W8x10
EB-3	8x35C14
P-1	8x25Z16
P-2	8x25Z16
P-3	8x25Z16
E-1	L10ES14
E-2	L10ES14
E-3	L10ES14
E-4	8x25C16
E-5	8x25C16
E-6	L10ES14
CB-4	CB0250
CB-5	CB0250

EXTENSION/CANOPY BOLTS ROOF PLAN(BLDG.B & B1)				
MARK	QUAN	TYPE	DIA	LENGTH
EB-2	4	A325	5/8"	1 1/2"

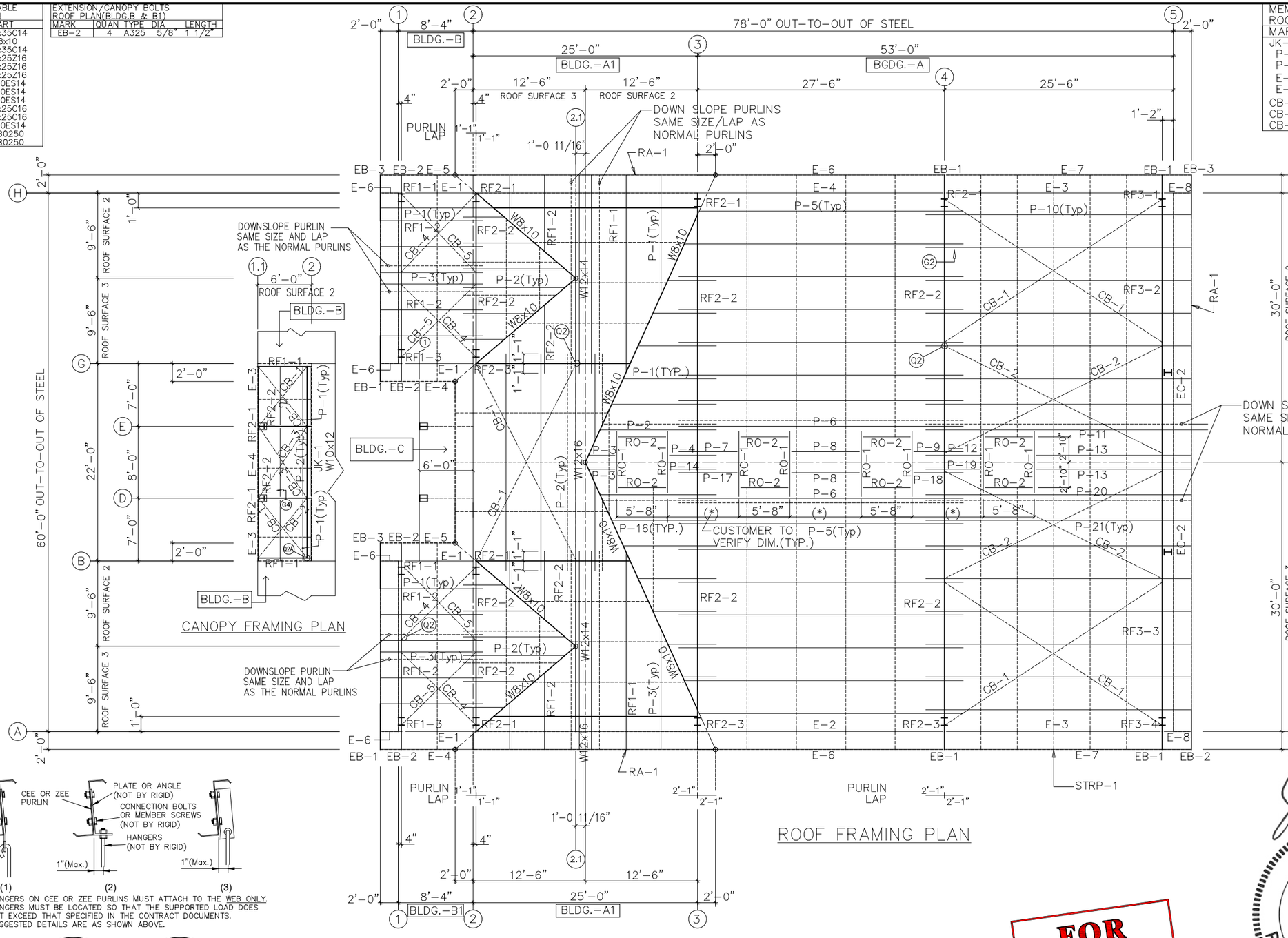
MEMBER TABLE ROOF PLAN(BLDG.C)	
MARK	PART
JK-1	W8x12
P-1	8x25Z16
P-2	8x25Z16
E-3	L8ES16
E-4	L8ES16
CB-1	CB0250
CB-2	CB0250
CB-3	CB0250

EXTENSION/CANOPY BOLTS ROOF PLAN (BLDG.A)				
MARK	QUAN	TYPE	DIA	LENGTH
EB-1	4	A325	5/8"	1 1/2"

MEMBER TABLE ROOF PLAN	
MARK	PART
EB-1	W8x10
EB-2	8x35C14
EB-3	8x35C14
RO-1	8x25C16
RO-2	8x25C16
P-1	8x30Z14
P-2	8x30Z12
P-3	8x30Z14
P-4	8x30Z14
P-5	8x30Z14
P-6	8x30Z12
P-7	8x30Z14
P-8	8x30Z14
P-9	8x30Z14
P-10	8x30Z14
P-11	8x30Z12
P-12	8x30Z14
P-13	8x30Z14
P-14	8x30Z14
P-15	8x30Z12
P-16	8x30Z14
P-17	8x30Z14
P-18	8x30Z14
P-19	8x30Z14
P-20	8x30Z12
P-21	8x30Z14
E-1	L8ES16
E-2	L8ES16
E-3	L8ES16
E-4	L8ES16
E-5	L8ES16
E-6	8x25C12
E-7	8x25C16
E-8	L8ES16
CB-1	CB0250
CB-2	CB0250

EXTENSION/CANOPY BOLTS ROOF PLAN(BLDG.A1)				
MARK	QUAN	TYPE	DIA	LENGTH
EB-1	4	A325	5/8"	1 1/2"

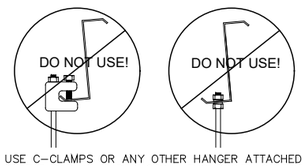
MEMBER TABLE ROOF PLAN	
MARK	PART
EB-1	W8x10
P-1	8x25Z16
P-2	8x25Z16
P-3	8x25Z16
E-1	L10ES14
E-2	L10ES14
E-6	8x25C16
CB-1	CB0250



CANOPY FRAMING PLAN

ROOF FRAMING PLAN

HANGERS ON CEE OR ZEE PURLINS MUST ATTACH TO THE WEB ONLY. HANGERS MUST BE LOCATED SO THAT THE SUPPORTED LOAD DOES NOT EXCEED THAT SPECIFIED IN THE CONTRACT DOCUMENTS. SUGGESTED DETAILS ARE AS SHOWN ABOVE.



DO NOT USE C-CLAMPS OR ANY OTHER HANGER ATTACHED TO THE FLANGE OF THE PURLIN. IT REDUCES THE CAPACITY OF THE PURLIN AND PRODUCE SECONDARY STRESSES.

1 SF38 TYP. COLLATERAL LOAD CONNECTION DETAIL

IMPORTANT NOTES:

High R-value roof insulation systems require two layers of insulation. The sag straps that prevent purlin roll may conflict with faced roof insulation between purlins. Rigid Global Buildings recommends an unfaced layer between the purlins that can be cut around the required framing.

FOR PERMIT

John Long
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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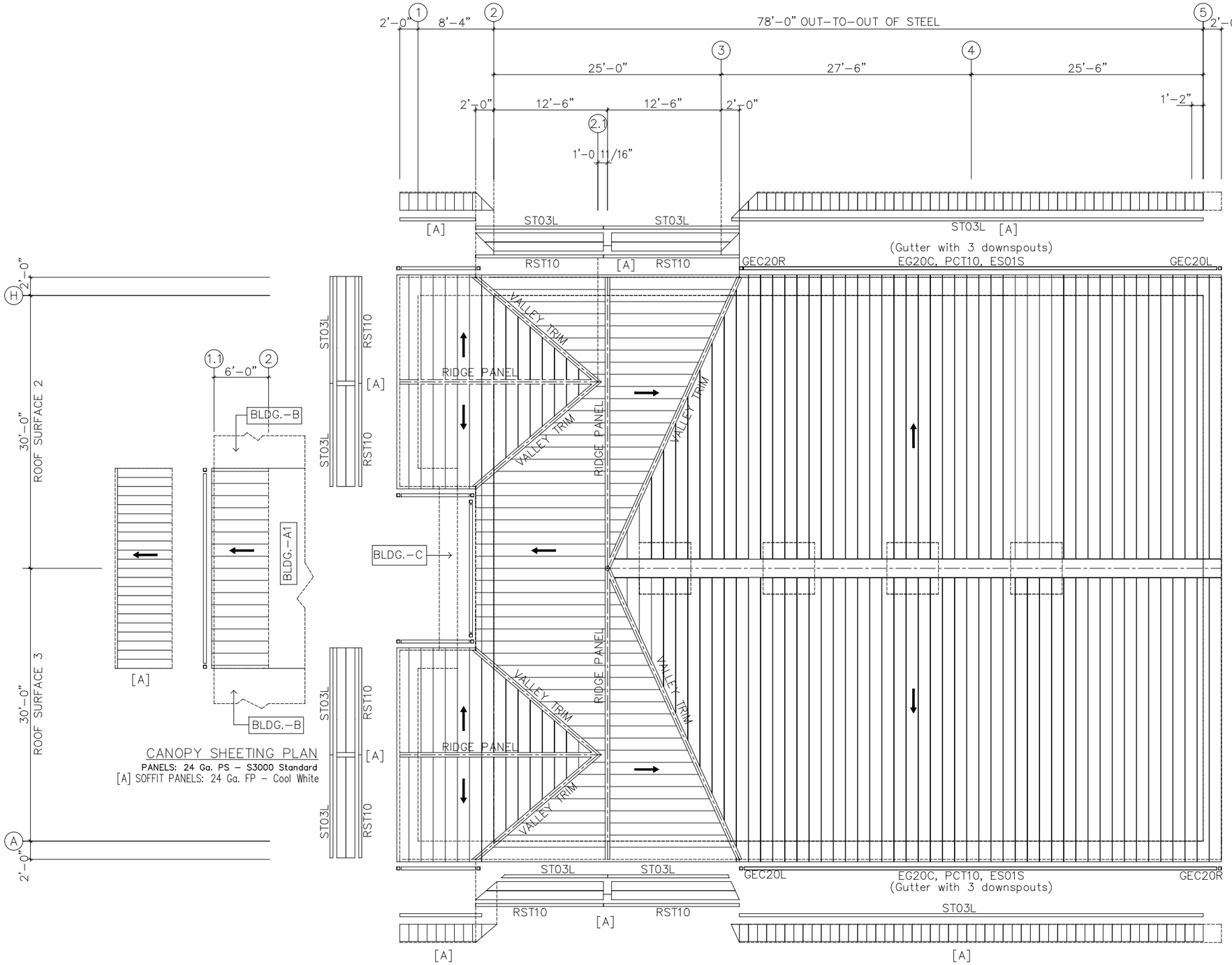
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	ROOF FRAMING PLAN
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING — BUILDING — A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE
82361	173424	3/16"	E01 OF 25	A



CANOPY SHEETING PLAN

PANELS: 24 Ga. PS – S3000 Standard
[A] SOFFIT PANELS: 24 Ga. FP – Cool White

ROOF SHEETING PLAN

PANELS: 24 Ga. PS – S3000 Standard
[A] SOFFIT PANELS: 24 Ga. FP – Cool White

IMPORTANT NOTES:

Additional Panel Information

Roof Panel: Platinum (16" Wide) SSR
Roof Insulation Thickness (in.) Above Purlin: 3
SSR Clip Type: High Floating System
SSR Seam Type: Quad-Lok

1. OIL CANNING OF PANELS IS NOT A CAUSE OF REJECTION.
2. EXTREME CARE MUST BE EXERCISED DURING ERECTION OF ROOF PANELS AND TRIMS. FOOT TRAFFIC MAY RESULT IN PERMANENT PANEL DISTORTION AND FINISH ABRASION.

ERECTOR'S NOTE

1. INSTALLER OF STANDING SEAM ROOF PANEL MUST STUDY THE INSTALLATION MANUALS PRIOR TO INSTALLATION. MANUALS ARE PROVIDED WITH THE MATERIALS SHIPMENT BUT CAN BE REQUESTED OR DOWNLOADED FROM THE RIGID GLOBAL BUILDINGS WEBSITE AT www.rigidbuilding.com
2. FAILURE TO INSTALL THE ROOF SHEETS IN ACCORDANCE WITH THE SHEETING DIRECTIONAL ARROWS SHOWN ON THESE PLANS MAY RESULT IN IMPROPER FIT-UP OF THE OUTSIDE CLOSURES (END DAMS) AND POSSIBLY OTHER TRIM COMPONENTS WHICH COULD AFFECT THE OVERALL APPEARANCE AND WEATHER TIGHTNESS OF THE BUILDING. RIGID WILL NOT BE HELD REPONSIBLE FOR THE CHARGES OR ADDITIONAL FIELD WORK DUE TO NOT FOLLOWING SHEETING DIRECTIONAL ARROWS AND OTHER PROCEDURES OUTLINED IN THE ERECTION MANUAL.
3. IN THE EVENT THAT A DISCREPANCY OR ERROR ARISES WITH MATERIALS SHIPPED FOR THIS PROJECT OR ON THESE ERECTION DRAWINGS, THE ERECTOR/INSTALLER MUST NOTIFY RGB PRIOR TO CORRECTING. IF RGB IS NOT NOTIFIED, RGB WILL NOT HONOR BACKCHARGES BY ANY PARTY INVOLVED.
4. MEMBER SCREW AND STITCH SCREW PATTERNS AND LOCATIONS SHALL BE IN ACCORDANCE WITH ROOF AND WALL DETAILS SHOWN ON DWG.# E_
5. RGB SUPPLIES 5% FOR OVERAGE AND ANY CLAIM ON SHORTAGE BECAUSE OF NON-COMPLIANCE WITH THE DRAWINGS SHALL NOT BE RGB'S RESPONSIBLITY.

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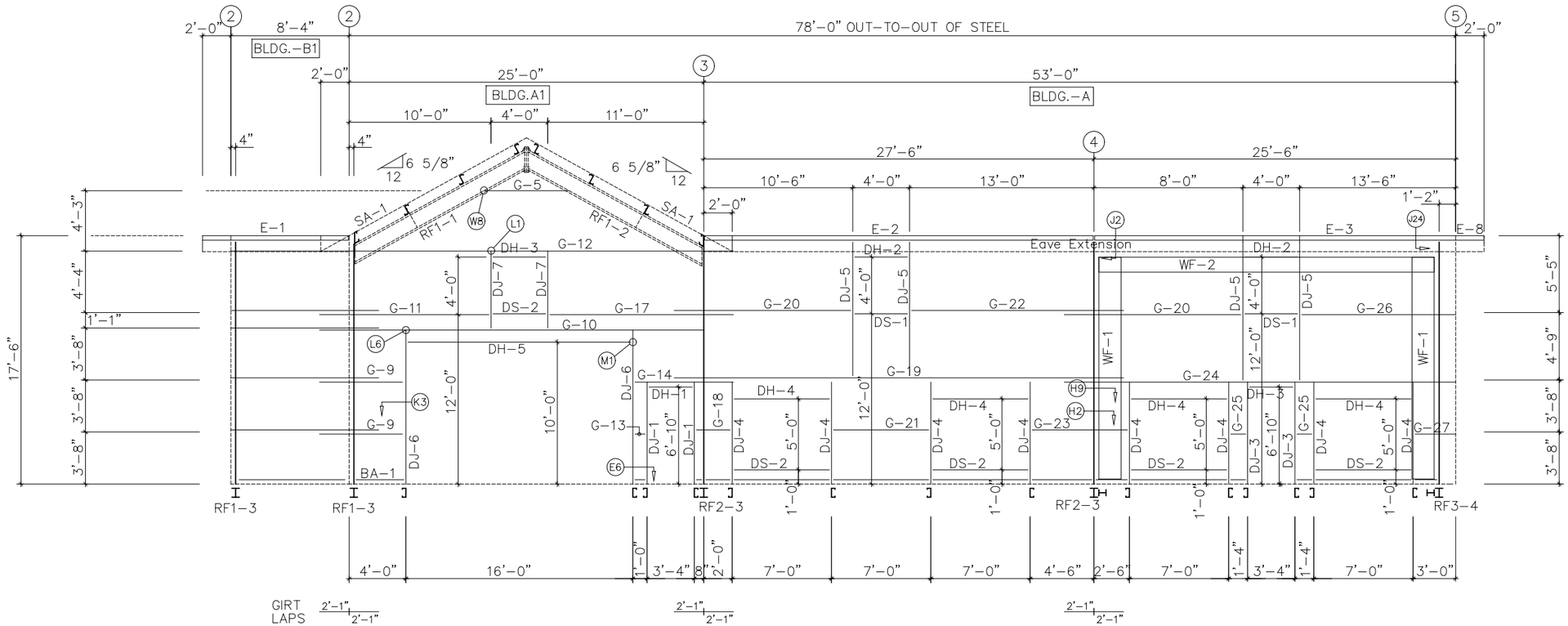
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	ROOF SHEETING PLAN		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

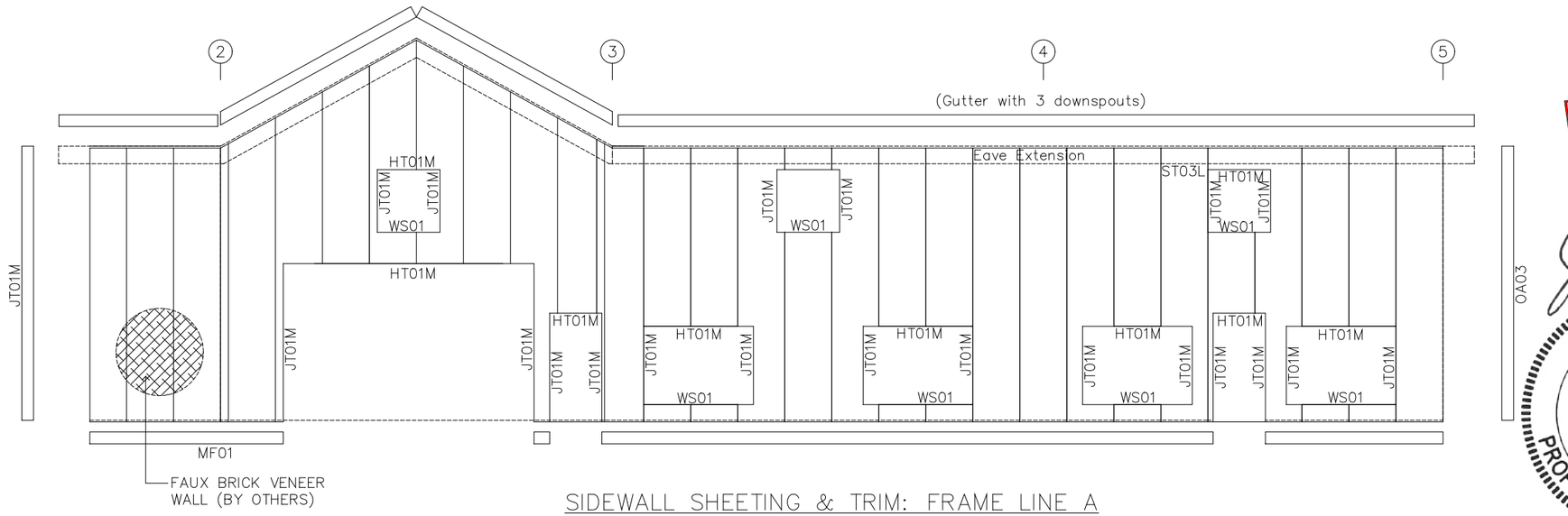
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE
82361	173424	3/16"	E02 OF 25	A

BOLT TABLE FRAME LINE A				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 – WF-2	8	A325	5/8"	2"
WF-1 – RF2-3	8	A325	5/8"	1 1/2"
WF-1 – RF3-4	8	A325	5/8"	1 1/2"

MEMBER TABLE FRAME LINE A	
MARK	PART
WF-1	W18662
WF-2	W12652
DJ-1	8x35C16
DJ-2	8x25C16
DJ-3	8x25C16
DJ-4	8x25C16
DJ-5	8x25C16
DH-1	8x25C16
DH-2	8x25C16
DH-3	8x25C16
DH-4	8x25C16
DS-1	8x25C16
DS-2	8x25C16
E-2	L8ES16
E-3	L8ES16
E-8	L8ES16
G-12	8x25Z16
G-13	8x25Z14
G-14	8x25Z16
G-15	8x25Z16
G-16	8x25Z14
G-17	8x25Z16
G-18	8x25Z16
G-19	8x25Z14
G-20	8x25Z16
G-21	8x25Z16
G-22	8x25Z16
G-23	8x25Z16
G-24	8x25Z12
G-25	8x25Z16
G-26	8x25Z16
G-27	8x25Z16



SIDEWALL FRAMING: FRAME LINE A



SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS : 26 Ga. RPBM – Glvm.Plus

FOR PERMIT

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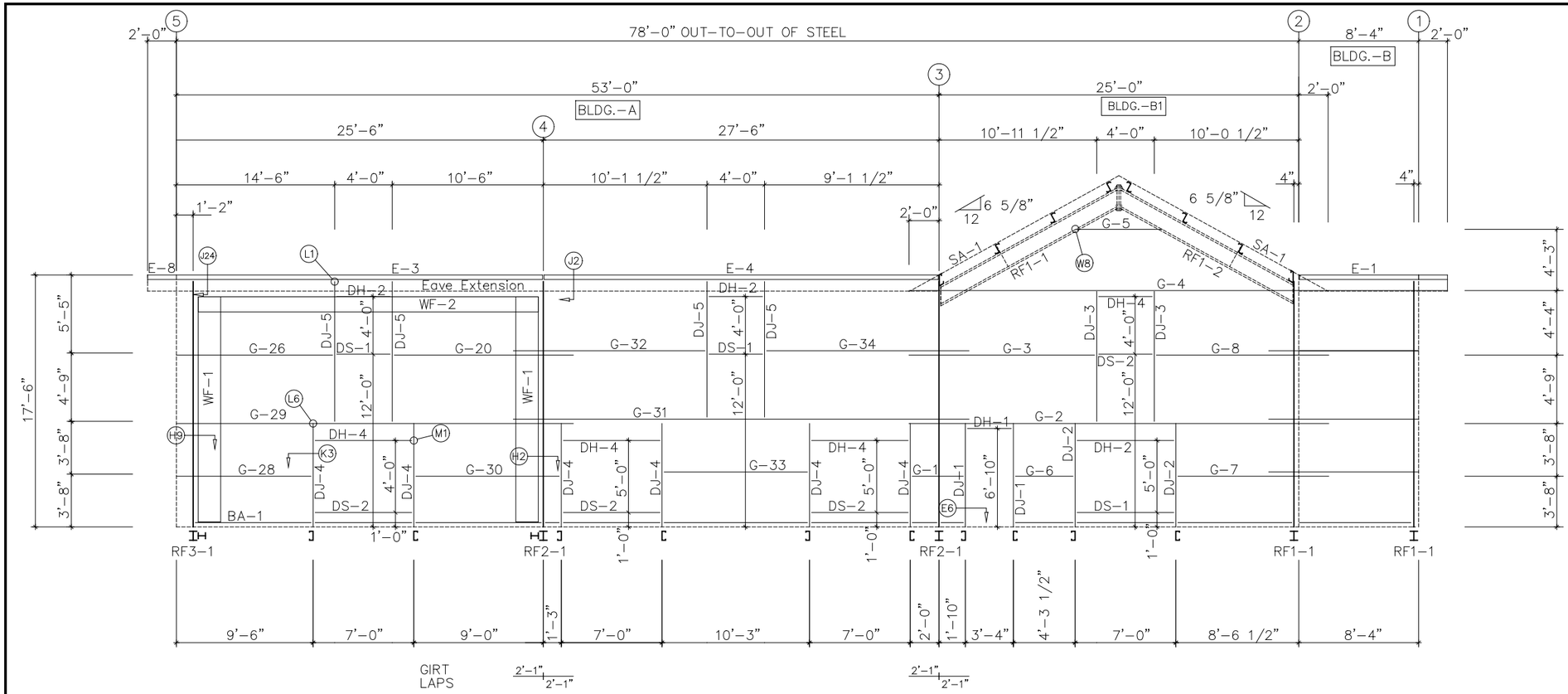
STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2292 INFO@STEELNATION.COM

DESCRIPTION	SIDEWALL FRAMING & SHEETING ELEVATION-LINE A
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

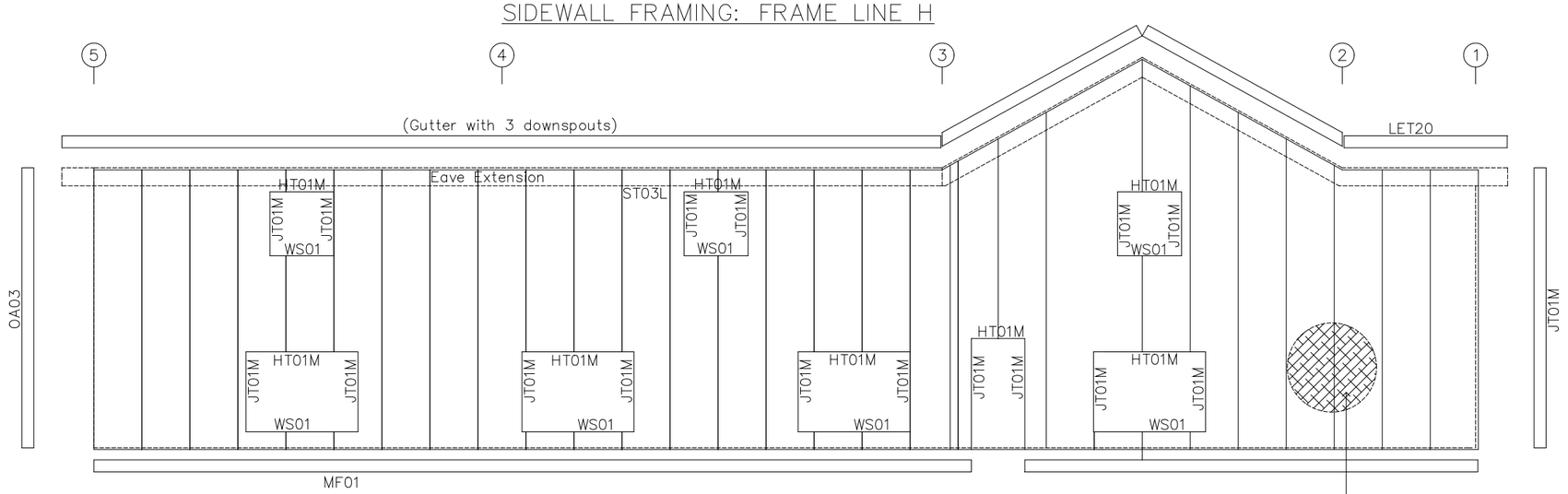
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E03 OF 25	A

BOLT TABLE FRAME LINE H				
LOCATION	QUAN	TYPE	DIA	LENGTH
WF-1 – WF-2	8	A325	5/8"	2"
WF-1 – RF3-1	8	A325	5/8"	1 1/2"
WF-1 – RF2-1	8	A325	5/8"	1 1/2"

MEMBER TABLE FRAME LINE H	
MARK	PART
WF-1	W18662
WF-2	W12652
DJ-3	8x25C16
DJ-4	8x25C16
DJ-5	8x25C16
DH-2	8x25C16
DH-3	8x25C16
DH-4	8x25C16
DS-1	8x25C16
DS-2	8x25C16
E-3	L8ES16
E-4	L8ES16
E-8	L8ES16
G-20	8x25Z16
G-26	8x25Z16
G-28	8x25Z16
G-29	8x25Z12
G-30	8x25Z16
G-31	8x25Z12
G-32	8x25Z16
G-33	8x25Z16
G-34	8x25Z16
G-35	8x25Z16
G-36	8x25Z12
G-37	8x25Z16
G-38	8x25Z16
G-39	8x25Z16
G-40	8x25Z16



SIDEWALL FRAMING: FRAME LINE H



SIDEWALL SHEETING & TRIM: FRAME LINE H

PANELS : 26 Ga. RPBM – Glvm.Plus

FOR PERMIT

STATE OF OHIO
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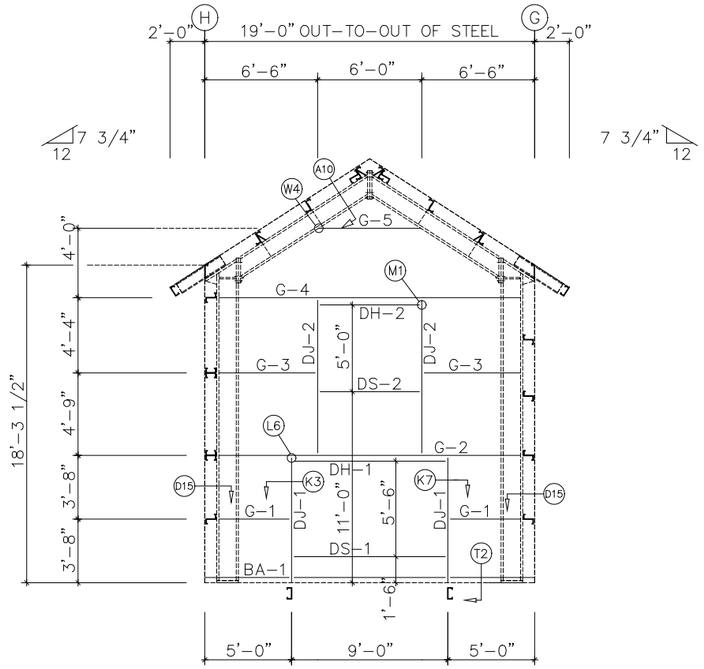
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

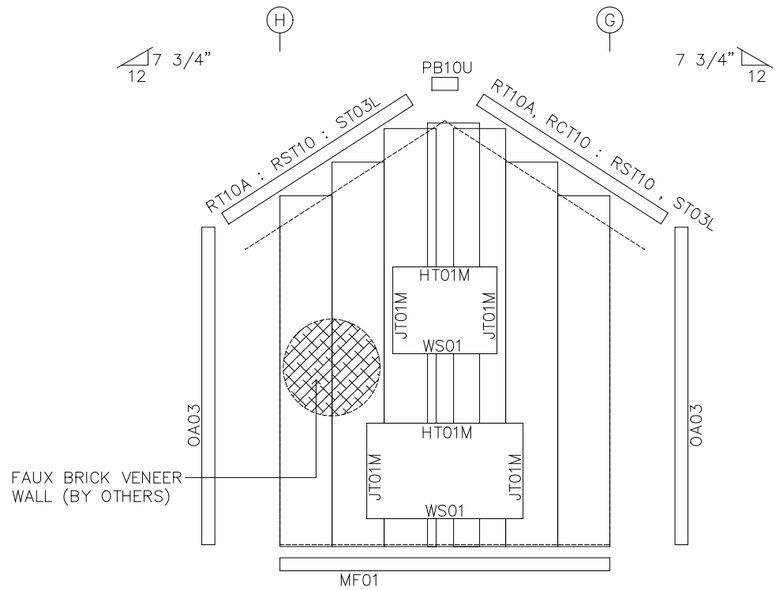
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	SIDEWALL FRAMING & SHEETING ELEVATION-LINE H		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		
SALES NO.: 82361	JOB NO.: 173424	SCALE: 1/4"	DWG. NO.: E04 OF 25 ISSUE: A

MEMBER TABLE FRAME LINE 1(H-G)	
MARK	PART
DJ-1	8x25C16
DJ-2	8x25C16
DH-1	8x25C16
DH-2	8x25C16
DS-1	8x25C16
DS-2	8x25C16
G-1	8x25Z16
G-2	8x25Z16
G-3	8x25Z16
G-4	8x25Z16
G-5	8x25Z16

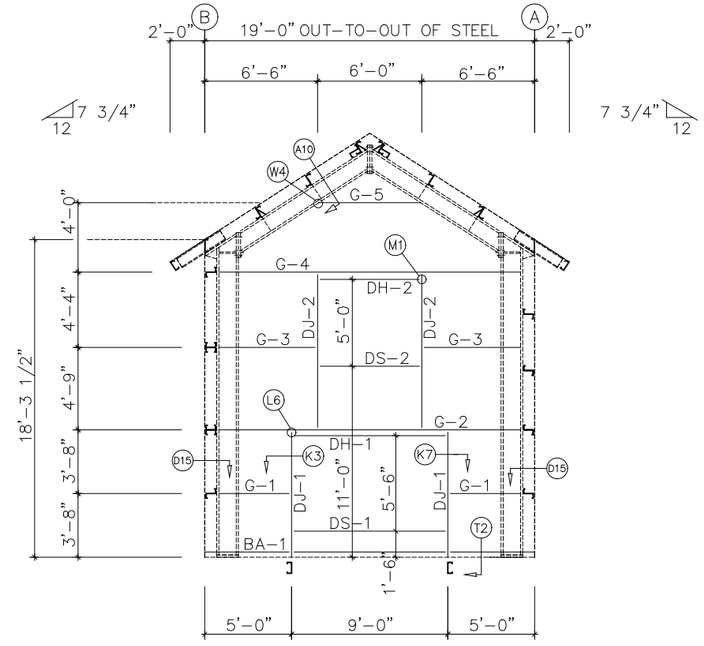


ENDWALL FRAMING: FRAME LINE 1

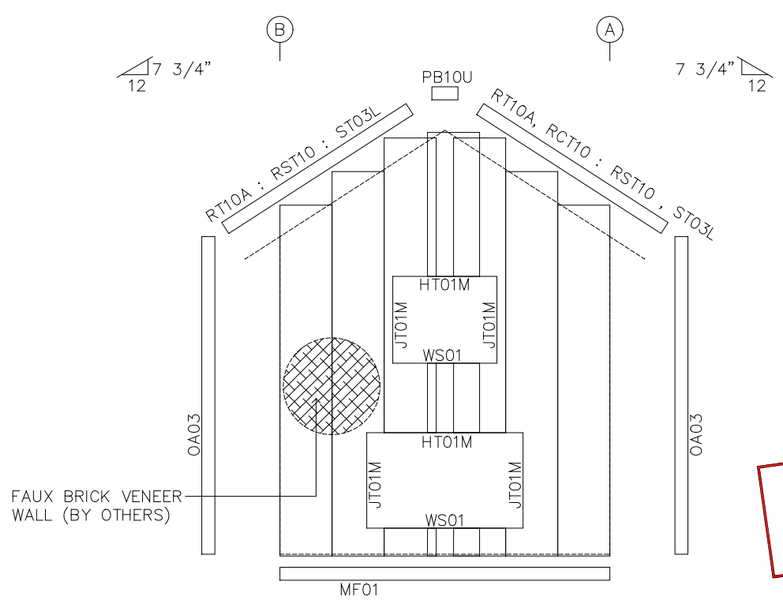


ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. RPBM – Glvm.Plus



ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. RPBM – Glvm.Plus

NOTE:
FIELD CUT PANEL TO SUIT ROOF SLOPE:

FOR PERMIT

5/29/2025

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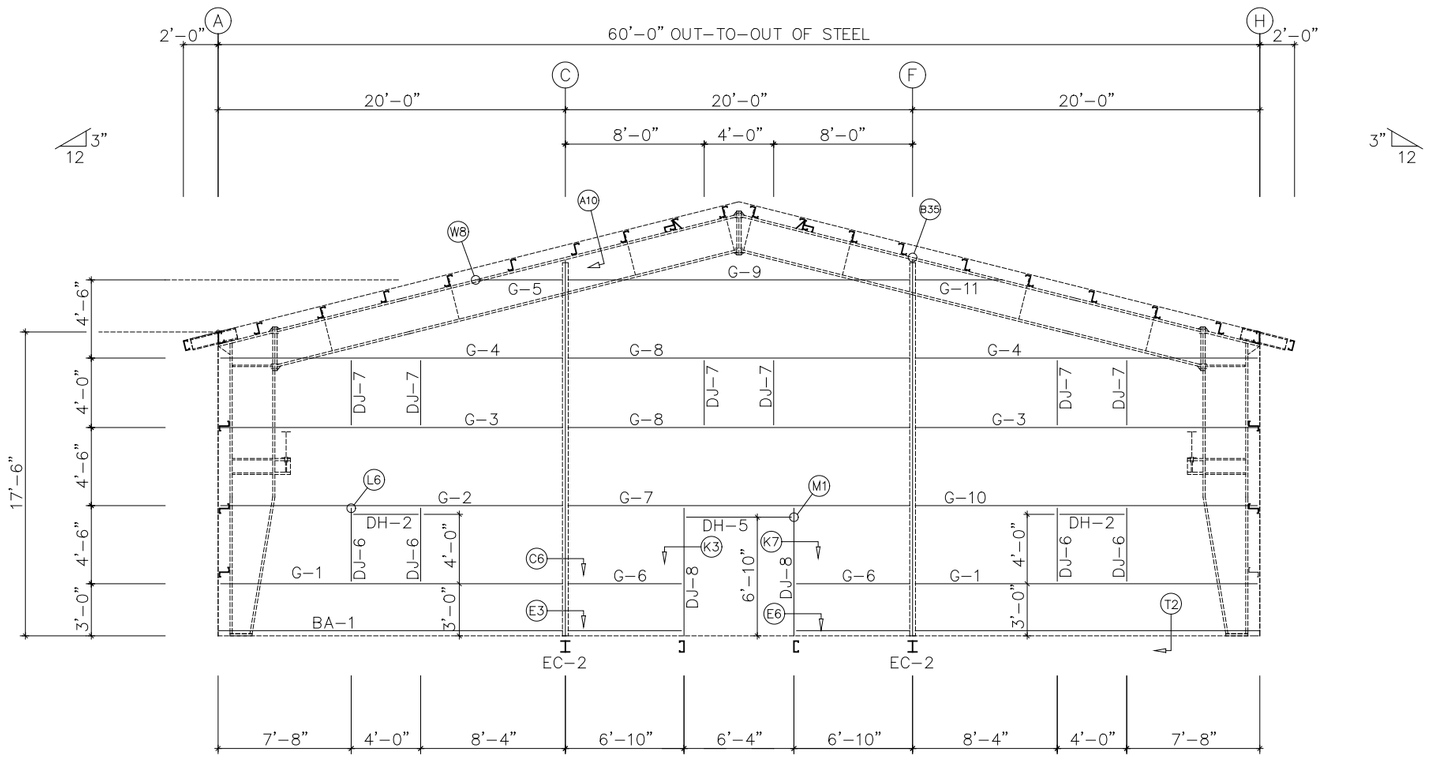
STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2260 INFO@STEELNATION.COM

DESCRIPTION	ENDWALL FRAMING & SHEETING ELEVATION- LINE 1		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

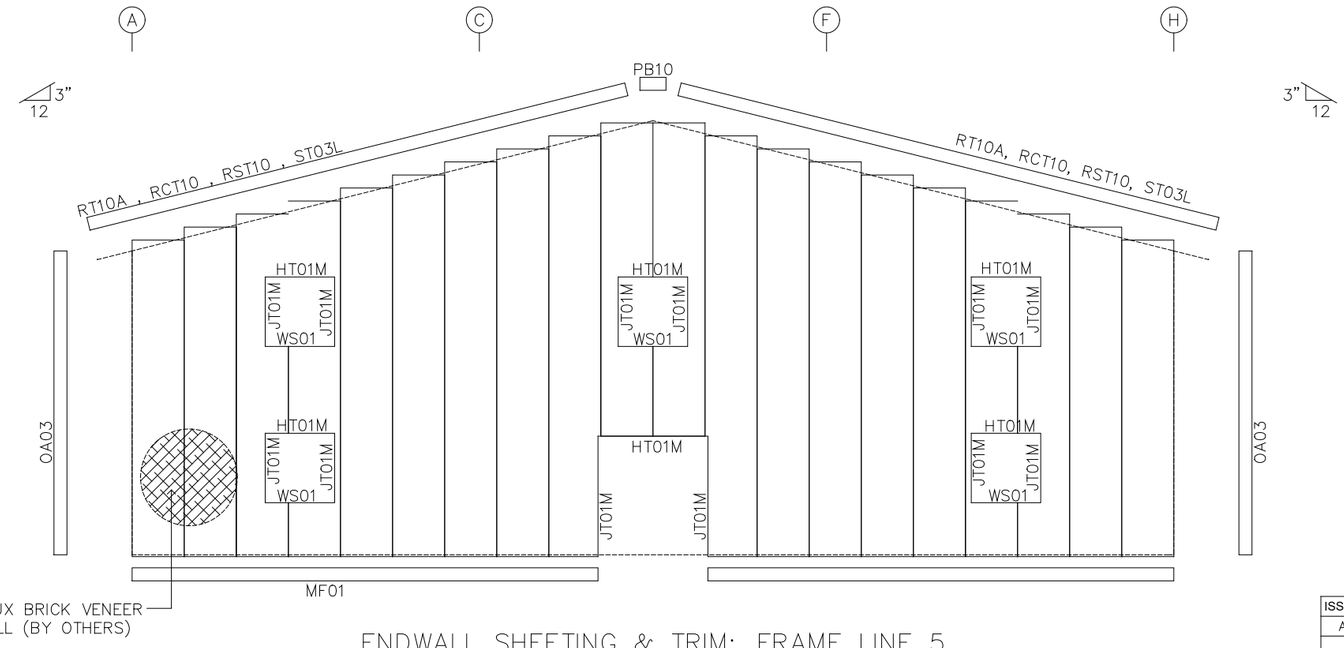
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E05 OF 25	A

BOLT TABLE FRAME LINE 5				
LOCATION	QUAN	TYPE	DIA	LENGTH
Columns/Raf	2	A325	1/2"	1 1/4"

MEMBER TABLE FRAME LINE 5	
MARK	PART
EC-2	W8x13
DJ-6	8x25C16
DJ-7	8x25C16
DJ-8	8x25C16
DH-2	8x25C16
DH-5	8x25C16
G-1	8x25C16
G-2	8x25Z16
G-3	8x25C12
G-4	8x25C12
G-5	8x25Z16
G-6	8x25Z16
G-7	8x25Z14
G-8	8x25C12
G-9	8x35Z14
G-10	8x25Z16
G-11	8x25Z16



ENDWALL FRAMING: FRAME LINE 5



ENDWALL SHEETING & TRIM: FRAME LINE 5

PANELS: 26 Ga. RPBM – Glvm.Plus

NOTE:
FIELD CUT PANEL TO SUIT ROOF SLOPE:

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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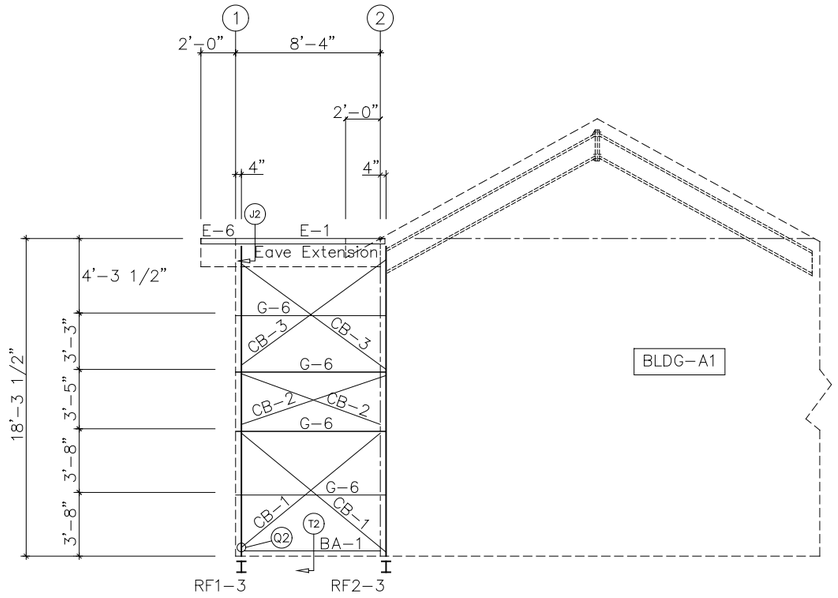
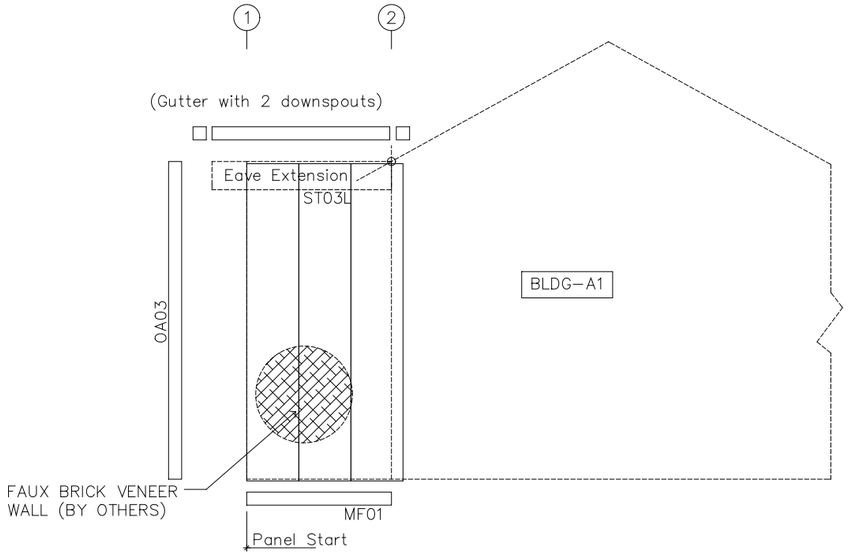
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	ENDWALL FRAMING & SHEETING ELEVATION-LINE 5
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E06 OF 25	A



SIDEWALL FRAMING: FRAME LINE G

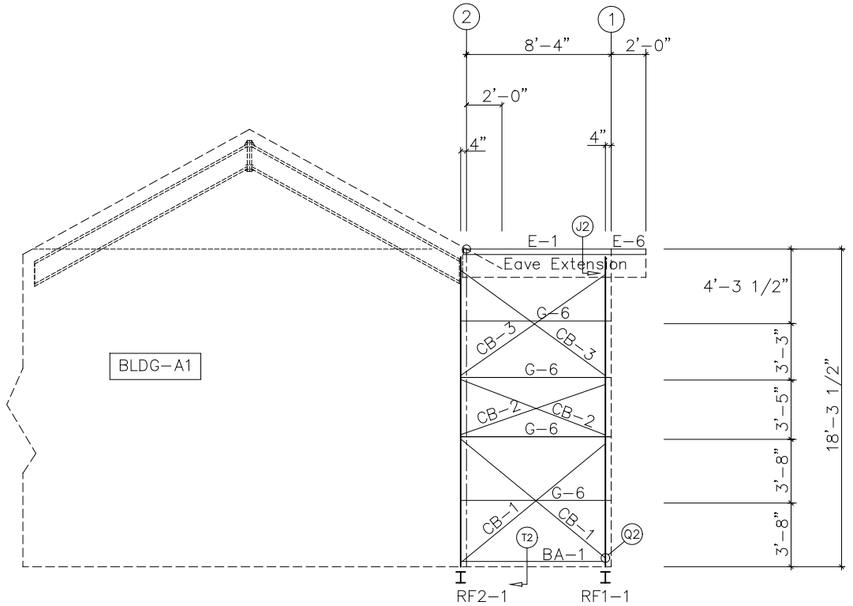


SIDEWALL SHEETING & TRIM: FRAME LINE G

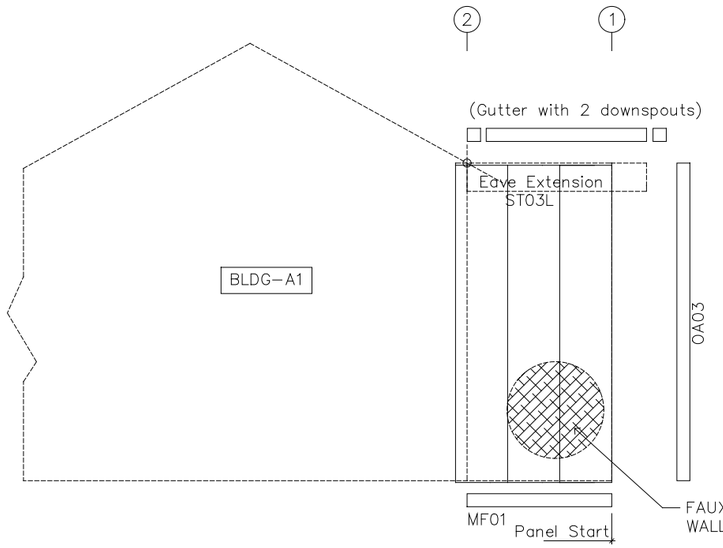
PANELS: 26 Ga. RPBM – Glvm.Plus

MEMBER TABLE FRAME LINE G	
MARK	PART
E-1	L10ES14
E-2	L10ES14
E-6	L10ES14
G-6	8x25Z16
G-7	8x25Z16
CB-1	CB0250
CB-2	CB0250
CB-3	CB0250

MEMBER TABLE FRAME LINE B	
MARK	PART
E-1	L10ES14
E-3	L10ES14
E-6	L10ES14
G-6	8x25Z16
G-7	8x25Z16
CB-1	CB0250
CB-2	CB0250
CB-3	CB0250



SIDEWALL FRAMING: FRAME LINE B



SIDEWALL SHEETING & TRIM: FRAME LINE B

PANELS: 26 Ga. RPBM – Glvm.Plus

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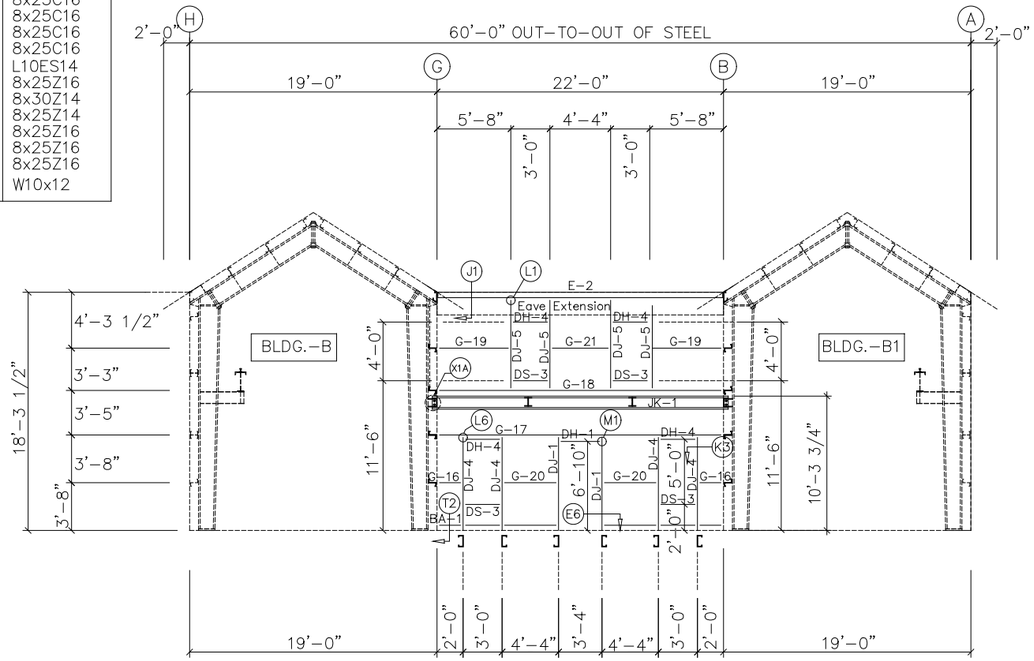
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

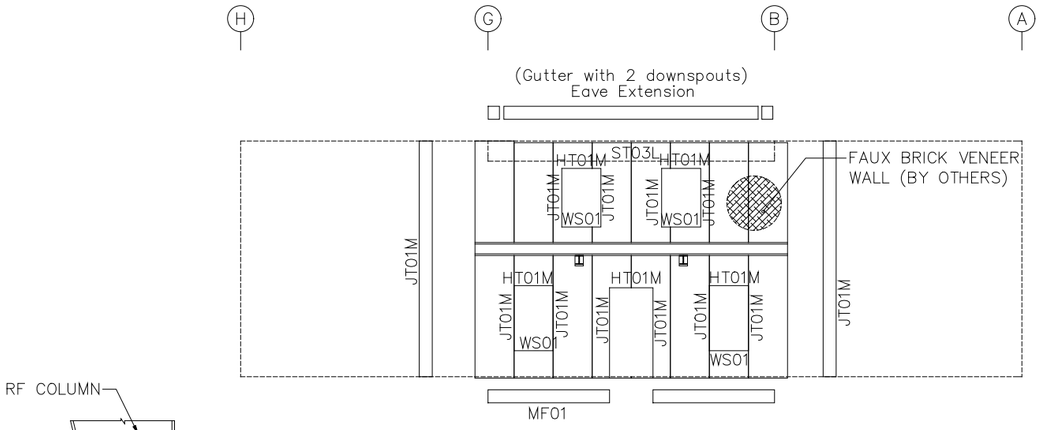
DESCRIPTION	SIDEWALL FRAMING & SHEETING ELEVATION-LINE G B		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E07 OF 25	A

MEMBER TABLE FRAME LINE 2	
MARK	PART
DJ-1	8x25C16
DJ-4	8x25C16
DJ-5	8x25C16
DH-1	8x25C16
DH-4	8x25C16
DS-3	8x25C16
E-2	L10ES14
G-16	8x25Z16
G-17	8x30Z14
G-18	8x25Z14
G-19	8x25Z16
G-20	8x25Z16
G-21	8x25Z16
JK-1	W10x12

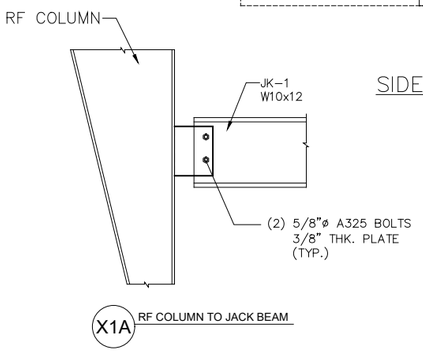


SIDEWALL FRAMING: FRAME LINE 2



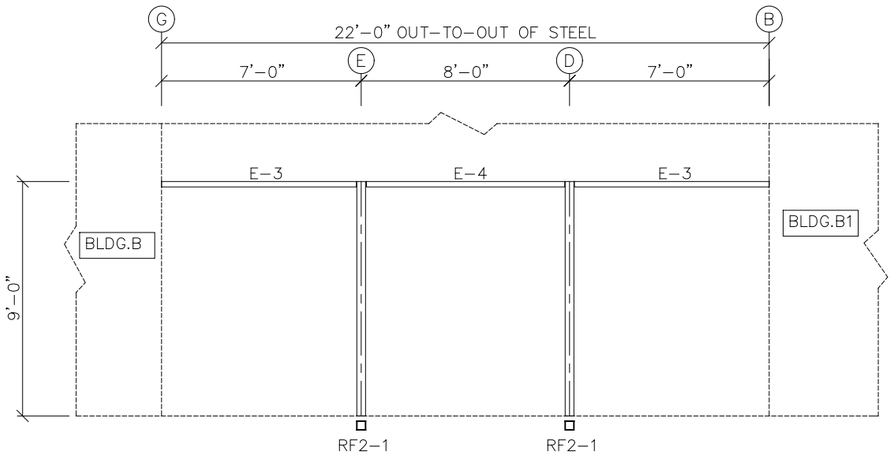
SIDEWALL SHEETING & TRIM: FRAME LINE 2

PANELS: 26 Ga. RPBM – Glvm.Plus

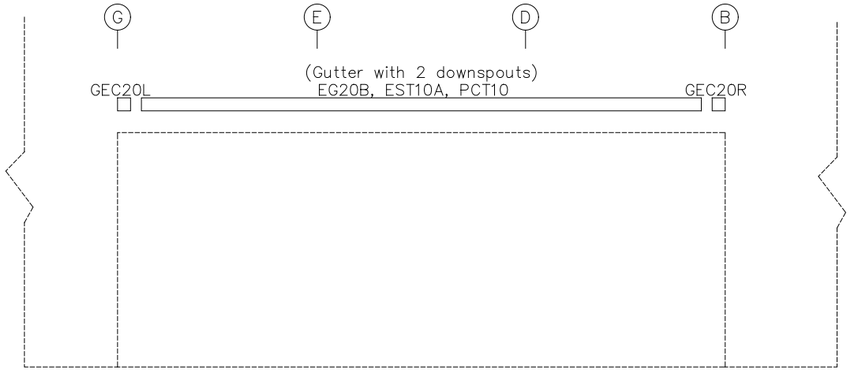


SPECIAL BOLTS					
◇ ID	QUAN	TYPE	DIA	LENGTH	WASH
1	2	A307	1/2"	1 1/4"	0

MEMBER TABLE FRAME LINE 1.1	
MARK	PART
E-3	L8ES16
E-4	L8ES16



SIDEWALL FRAMING: FRAME LINE 1.1



SIDEWALL SHEETING & TRIM: FRAME LINE 1.1

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5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

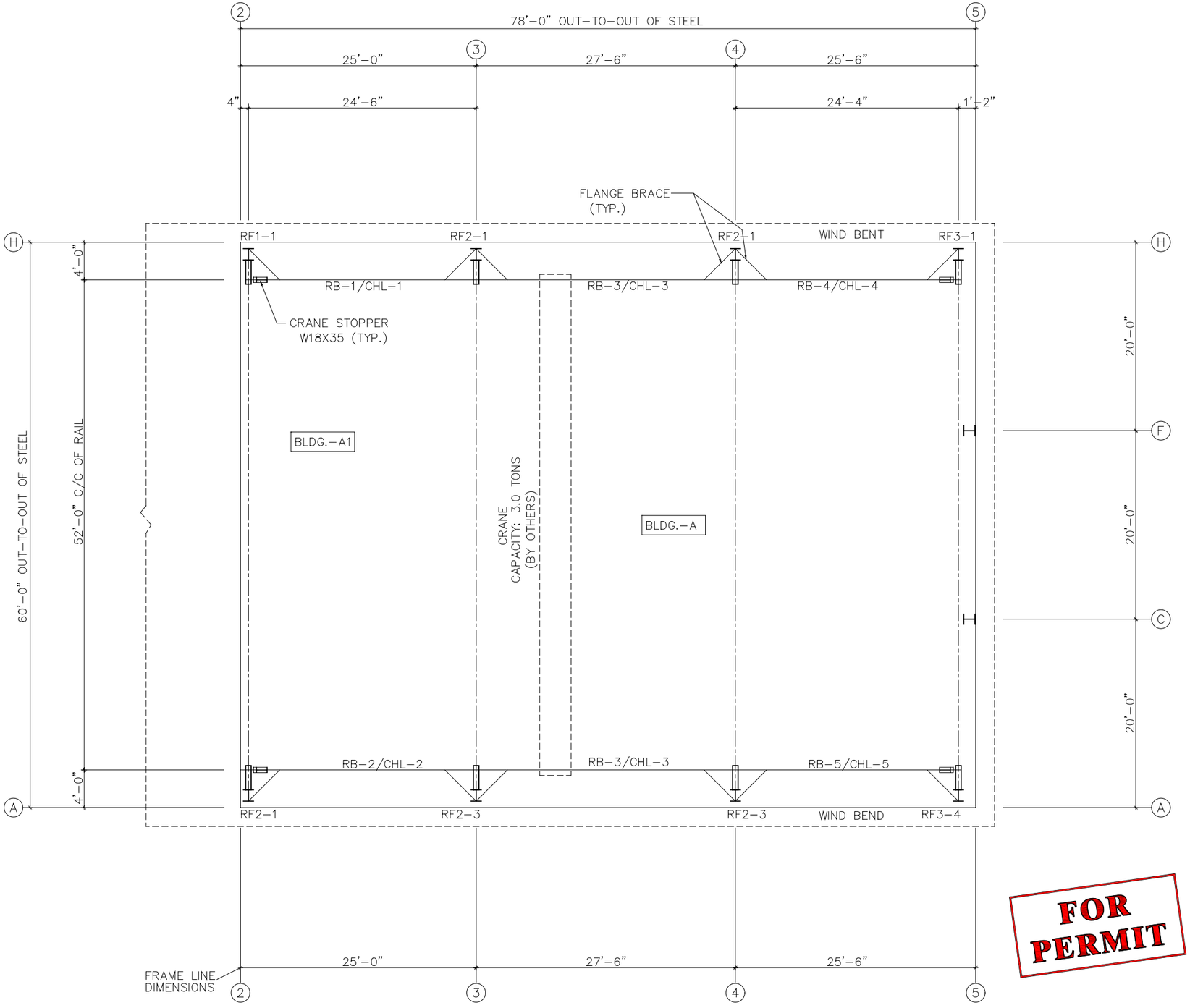
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	SIDEWALL FRAMING & SHEETING ELEV.LINE- G & B		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	3/16"	E08 OF 25	A

MEMBER TABLE	
MARK	PART
RB-1	W18x35
RB-2	W18x35
RB-3	W18x35
RB-4	W18x35
RB-5	W18x35
CHL-1	C10x15.3
CHL-2	C10x15.3
CHL-3	C10x15.3
CHL-4	C10x15.3
CHL-5	C10x15.3

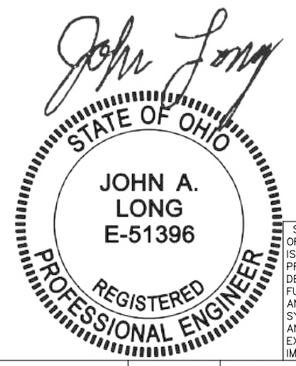
CRANE DATA	: PER CONTRACT
CAPACITY (TON)	: 3.0
BRIDGE WT. (K)	: 7.9 K
HOIST WT. (K)	: 0.17 K
WHEEL BASE (FT)	: 7.5
WHEEL LOAD (K)	: 5.2 K NO IMPACT (MAX)
WHEEL DIST. (FT)	: N/A BET. CRANES (MIN)
CONTROL TYPE	: PENDANT
CMAA CLASS.	: C
CRANE BEAM	: W18x35
CAP CHANNEL	: C10x15.3
CRANE BRACKET	: W18x35
ASCE RAIL SIZE	: 30#/YD (BY OTHERS)
RAIL CONNECTION	: BY OTHERS



CRANE BEAM LAY-OUT PLAN

NOTE: 1. RAILS ARE BY OTHERS.
2. TOP OF CRANE BEAM @ ELEV. = 11'-9"

FOR PERMIT



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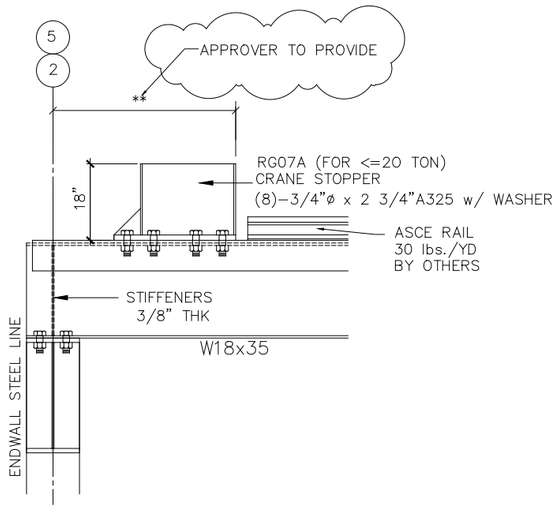
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

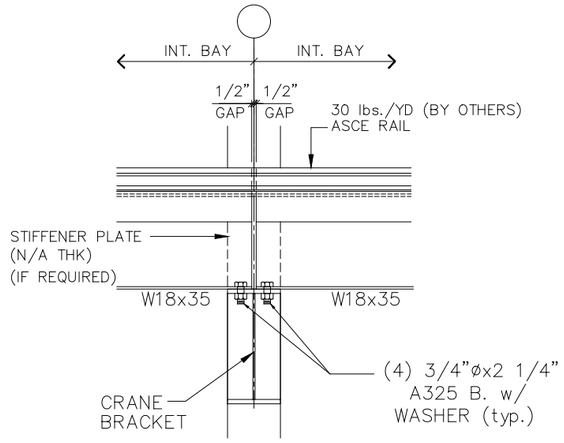
STEELNATION
100 SOUTHPOINTE SQUARE LANE • CANONSBURG, PA 15317
PH: 724.225.2260 • INFO@STEELNATION.COM

DESCRIPTION	CRANE PLAN		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

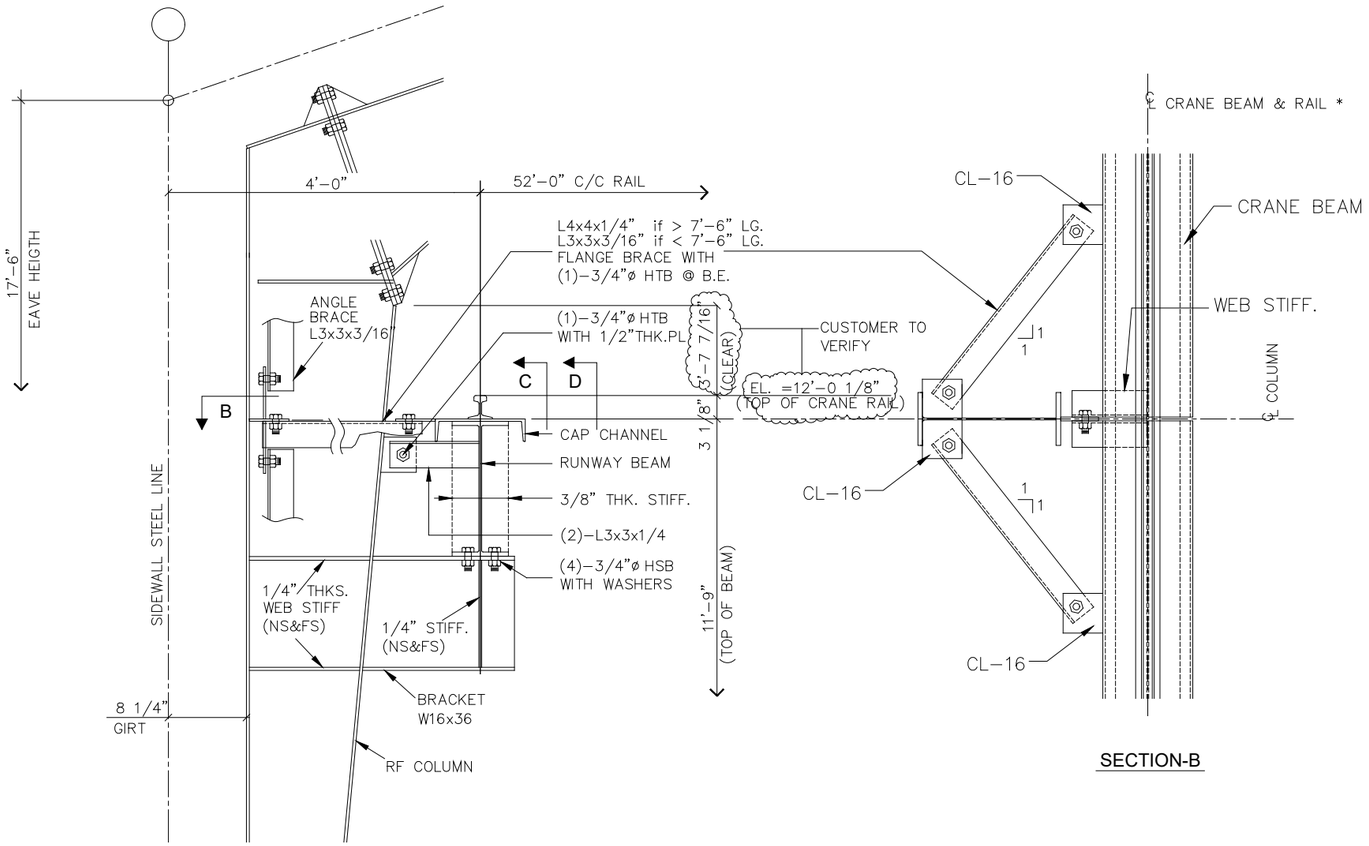
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	3/16"	E09 OF 25	A



SECTION-C



SECTION-D



DETAIL-A

SECTION-B

FOR PERMIT

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2292 ◆ INFO@STEELNATION.COM

DESCRIPTION	CRANE DETAILS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	3/16"	E10 OF 25	A

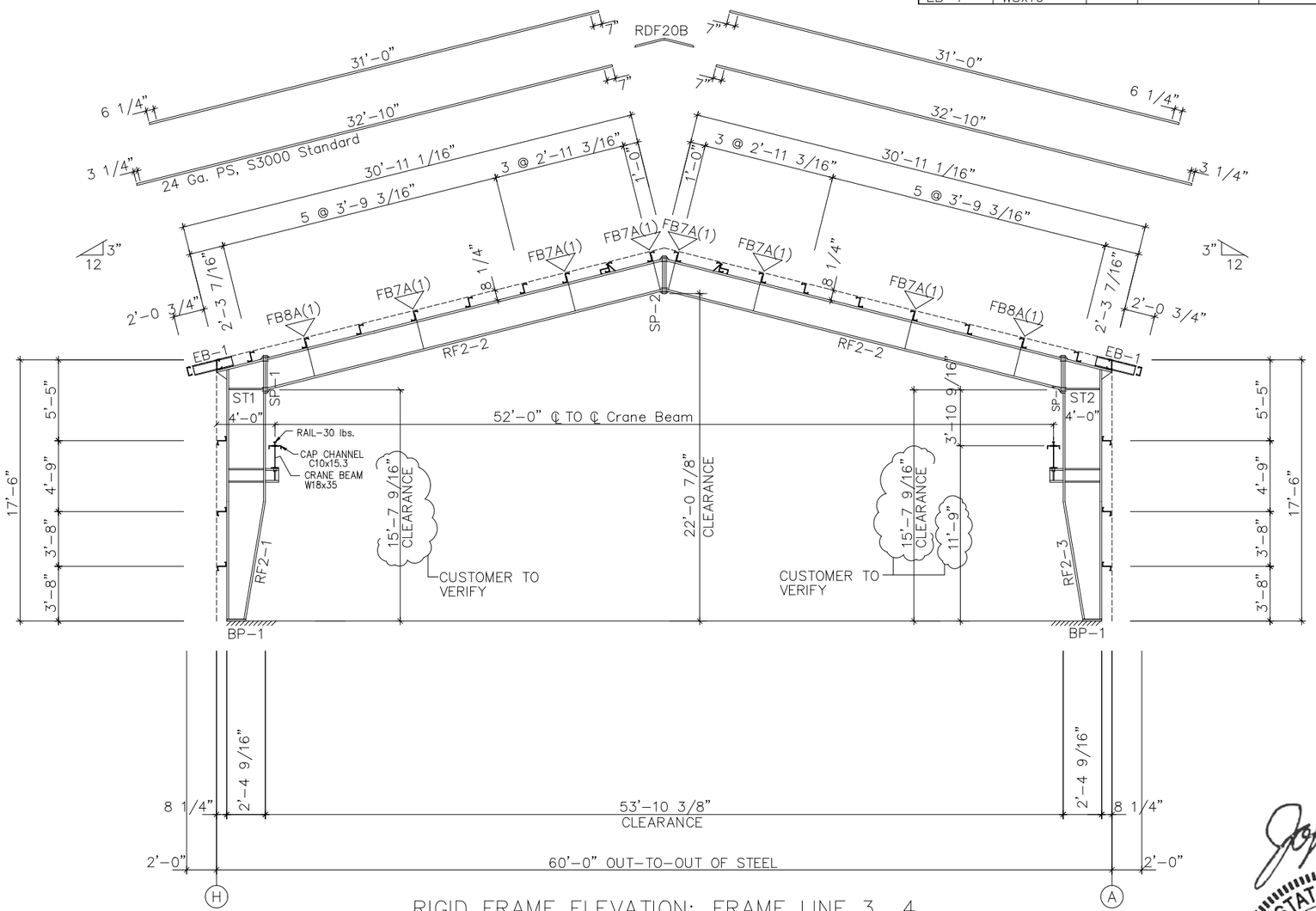
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	0.875	2.50	6"	5/8"	2'-6"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	2'-5 15/16"

STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF2-1	ST1	2.500	0.250	19.75
RF2-1	ST2	2.500	0.250	28.00
RF2-1	ST3	2.500	0.250	28.00
RF2-1	ST4	2.500	0.250	27.50
RF2-3	ST5	2.500	0.250	27.50
RF2-3	ST6	2.500	0.250	28.00
RF2-3	ST7	2.500	0.250	28.00
RF2-3	ST8	2.500	0.250	19.75

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	1'-1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	12.0/28.0	0.188	95.5	6 x 1/4" x 95.5	6 x 1/4" x 96.8
	28.0/28.0	0.188	88.1	6 x 5/16" x 107.2	6 x 5/16" x 88.1
	28.0/28.0	0.250	26.2	6 x 5/16" x 37.5	
RF2-2	22.0/22.0	0.188	97.2	6 x 5/16" x 91.6	6 x 3/8" x 97.2
	22.0/22.0	0.135	240.0	6 x 1/4" x 240.0	6 x 1/4" x 234.4
RF2-3	28.0/28.0	0.250	26.2	6 x 5/16" x 37.5	6 x 5/16" x 88.1
	28.0/28.0	0.188	88.1	6 x 5/16" x 107.2	6 x 1/4" x 96.8
	28.0/12.0	0.188	95.5	6 x 1/4" x 95.5	
EB-1	W8x10				



RIGID FRAME ELEVATION: FRAME LINE 3 4

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	RIGID FRAME ELEVATION			
CUSTOMER	STEEL NATION BUILDINGS, INC.			
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)			
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)	
STREET	1336 RIDGEVIEW ROAD			
CITY ST ZIP	UPPER ARLINGTON, OH 43221			
SALES NO.: 82361	JOB NO.: 173424	SCALE: 1/4"	DWG. NO.: E11 OF 25	ISSUED: A

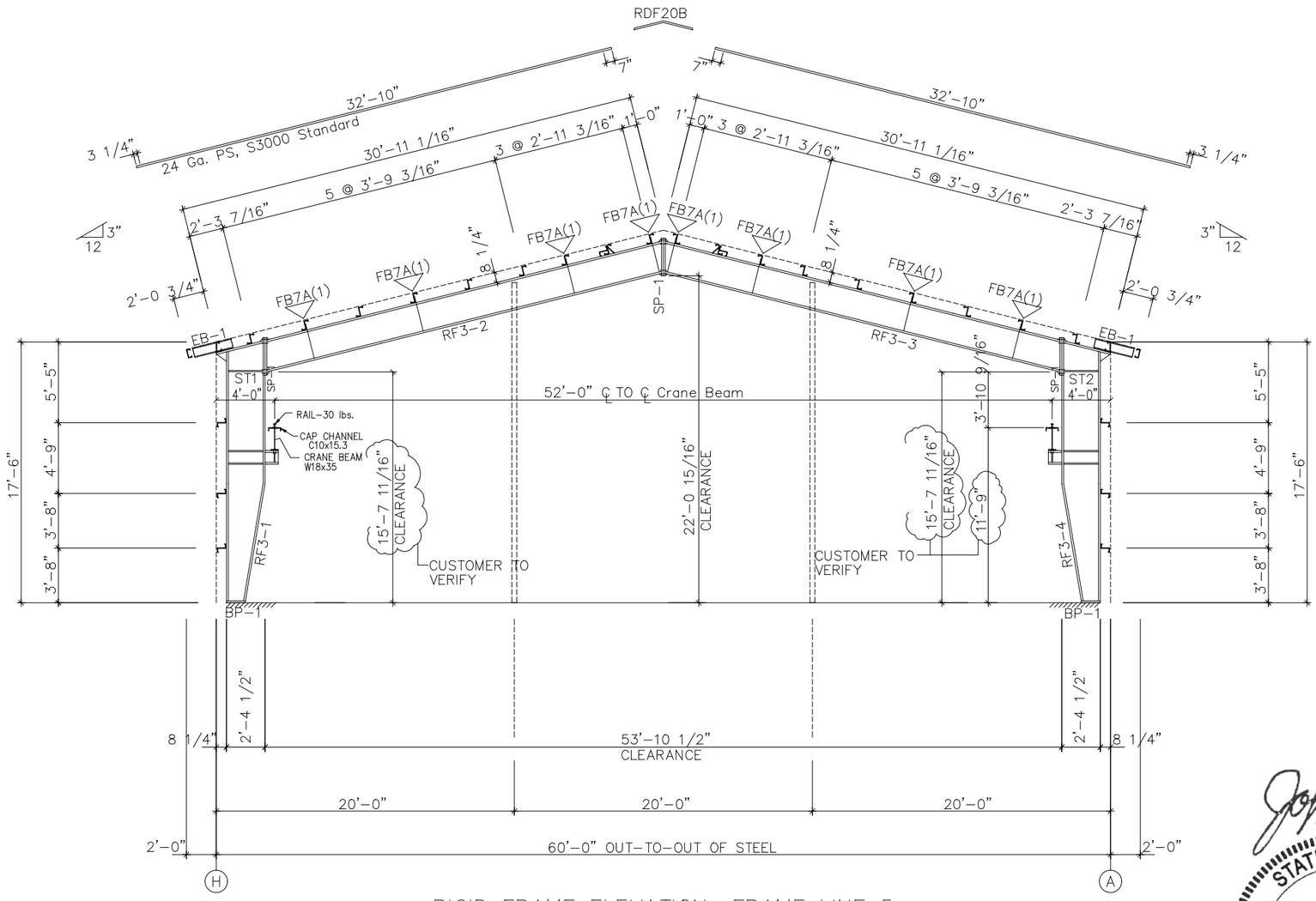
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP–1	4	4	0	A325	0.625	2.00	6"	1/2"	2'–5 15/16"

STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF3–1	ST1	2.500	0.250	19.75
RF3–1	ST2	2.500	0.250	28.00
RF3–1	ST3	2.500	0.250	28.00
RF3–1	ST4	2.500	0.250	27.50
RF3–2	ST5	3.500	0.375	17.01
RF3–3	ST6	3.500	0.375	17.01
RF3–4	ST7	2.500	0.250	27.50
RF3–4	ST8	2.500	0.250	28.00
RF3–4	ST9	2.500	0.250	28.00
RF3–4	ST10	2.500	0.250	19.75

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP–1	8"	1/2"	1'–1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A – L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF3–1	12.0/28.0	0.188	95.5	6 x 1/4" x 202.8	6 x 1/4" x 96.8
	28.0/28.0	0.188	114.4	6 x 1/4" x 37.6	6 x 1/4" x 88.2
RF3–2	22.0/22.0	0.135	240.0	5 x 1/4" x 331.8	5 x 1/4" x 331.8
	22.0/22.0	0.135	97.4		
RF3–3	22.0/22.0	0.135	97.4	5 x 1/4" x 331.8	5 x 1/4" x 331.8
	22.0/22.0	0.135	240.0		
RF3–4	28.0/28.0	0.188	114.4	6 x 1/4" x 37.6	6 x 1/4" x 88.2
	28.0/12.0	0.188	95.5	6 x 1/4" x 202.8	6 x 1/4" x 96.8
EB–1	W8x10				



RIGID FRAME ELEVATION: FRAME LINE 5

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.
1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2220 ◆ INFO@STEELNATION.COM

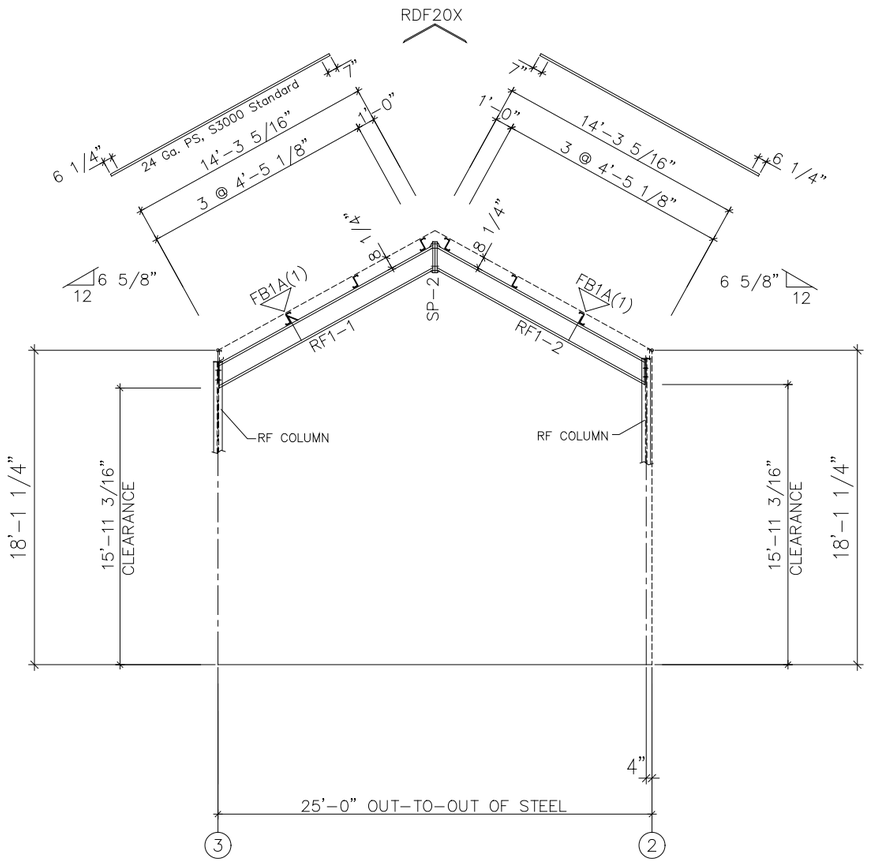
DESCRIPTION	RIGID FRAME ELEVATION		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E12 OF 25	A

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	2	2	0	A325	0.625	1.00	"	"	1'-1 11/16"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	1'-10"

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Web Plate Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	12.0/12.0	0.135	177.4	6 x 1/4" x 170.6	6 x 1/4" x 170.6
RF1-2	12.0/12.0	0.135	177.4	6 x 1/4" x 170.6	6 x 1/4" x 170.6

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14



RIGID FRAME ELEVATION: FRAME LINE H A

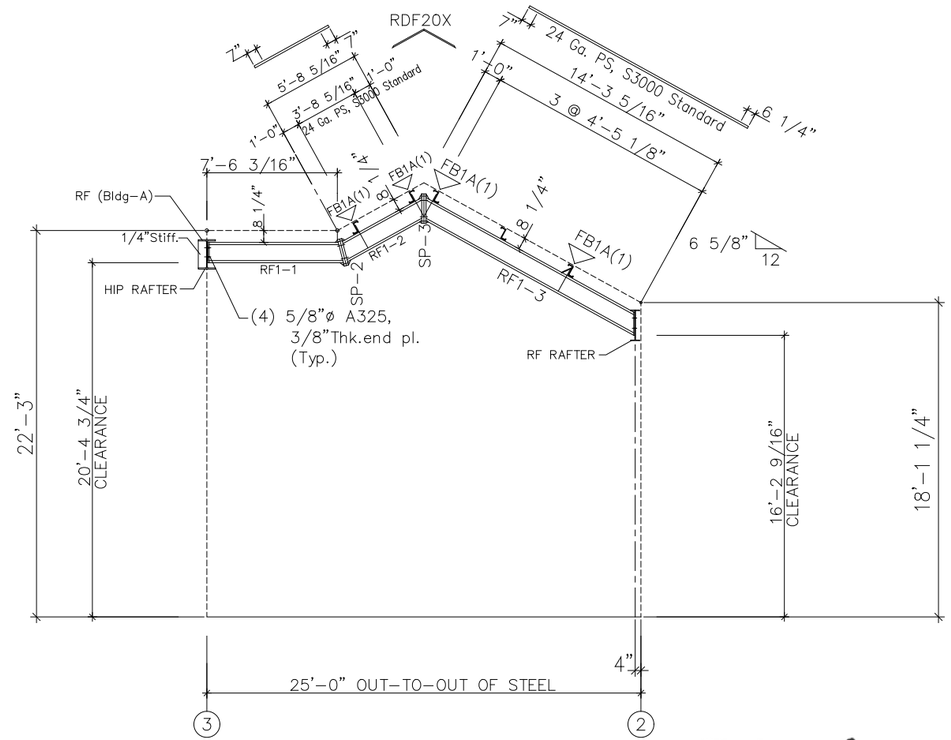
GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.
1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	2	0	A325	0.625	1.00	"	"	1'-1 11/16"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	1'-10"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Web Plate Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	12.0/12.0	0.135	177.4	6 x 1/4" x 170.6	6 x 1/4" x 170.6
RF1-2	12.0/12.0	0.135	177.4	6 x 1/4" x 170.6	6 x 1/4" x 170.6



RIGID FRAME ELEVATION: FRAME LINE G B

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2200 INFO@STEELNATION.COM

DESCRIPTION	RIGID FRAME ELEVATION FRAME LINE-H A & G B/3-2		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E13 OF 25	A

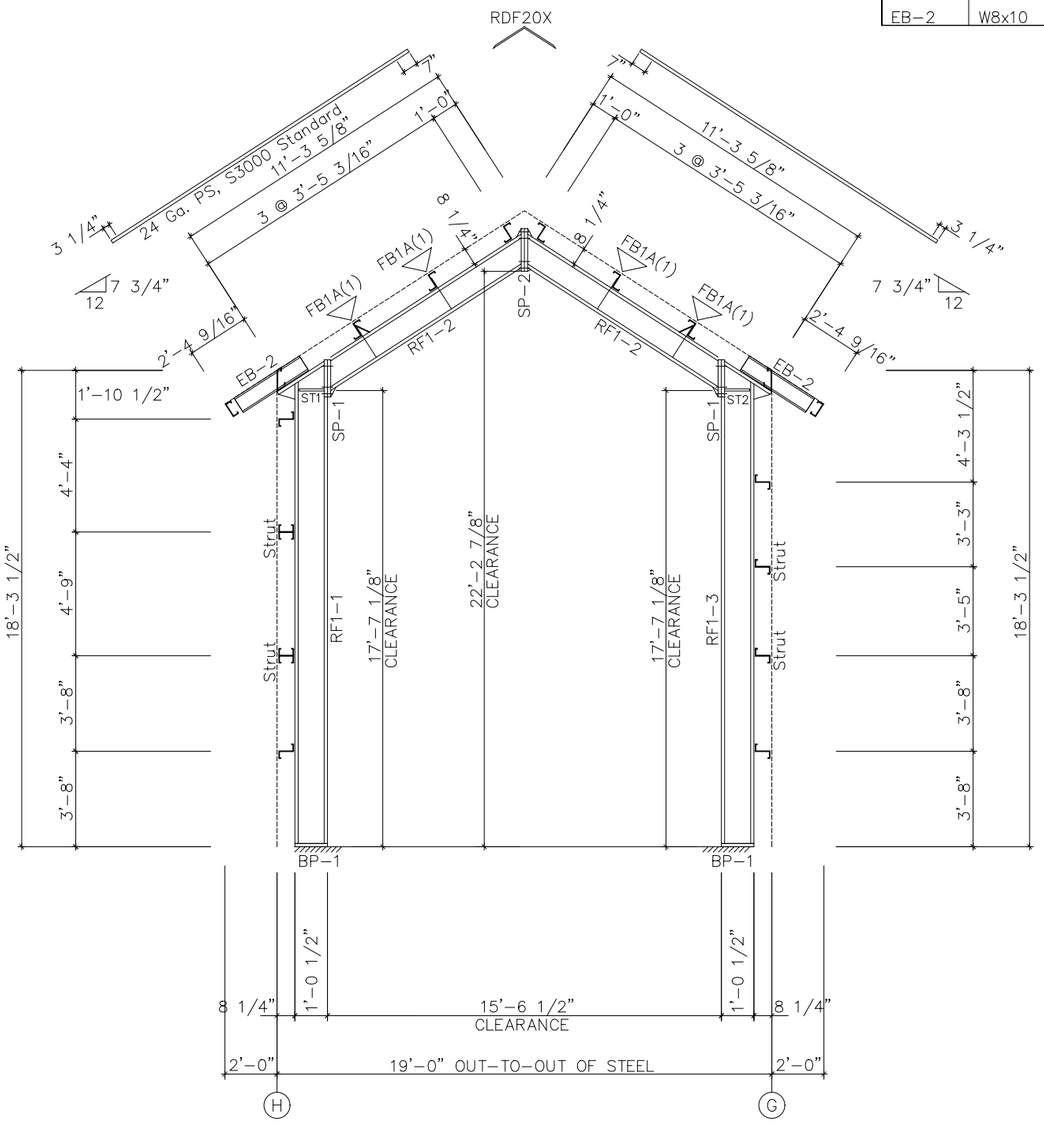
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	2	4	0	A325	0.625	2.00	6"	1/2"	1'-5 3/16"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	1'-8 3/16"

STIFFENER TABLE					
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF1-1	ST1	2.410	0.313	11.50
RF1-3	ST2	2.410	0.313	11.50

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	1'-1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	12.0/12.0	0.135	222.1	5 x 1/4" x 214.2 6 x 1/4" x 24.2	5 x 1/4" x 206.4
RF1-2	10.0/10.0	0.135	115.9	5 x 1/4" x 109.3	5 x 1/4" x 109.3
RF1-3	12.0/12.0	0.135	222.1	6 x 1/4" x 24.2 5 x 1/4" x 214.2	5 x 1/4" x 206.4
EB-2	W8x10				



RIGID FRAME ELEVATION: FRAME LINE 1

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

FOR PERMIT

John Long
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

SEALING OF THIS DRAWING DOES NOT IMPLY OR CONSTITUTE THAT RIGID GLOBAL ENGINEER IS THE ENGINEER OF RECORD OR THE DESIGN PROFESSIONAL FOR THIS PROJECT. ONLY THE DESIGN OF THE METAL BUILDING SYSTEM AS FURNISHED BY RIGID IS INCLUDED. FOUNDATION ANALYSIS, ELECTRICAL, AND MECHANICAL SYSTEMS, AND/OR OTHER PARTS SUPPLIED BY ANYONE OTHER THAN RIGID ARE SPECIFICALLY EXCLUDED. NO INSPECTION OR SUPERVISION IS IMPLIED.

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2200 INFO@STEELNATION.COM

DESCRIPTION	RIGID FRAME ELEVATION: FRAME LINE-H G /1		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	3/8"	E14 OF 25	A

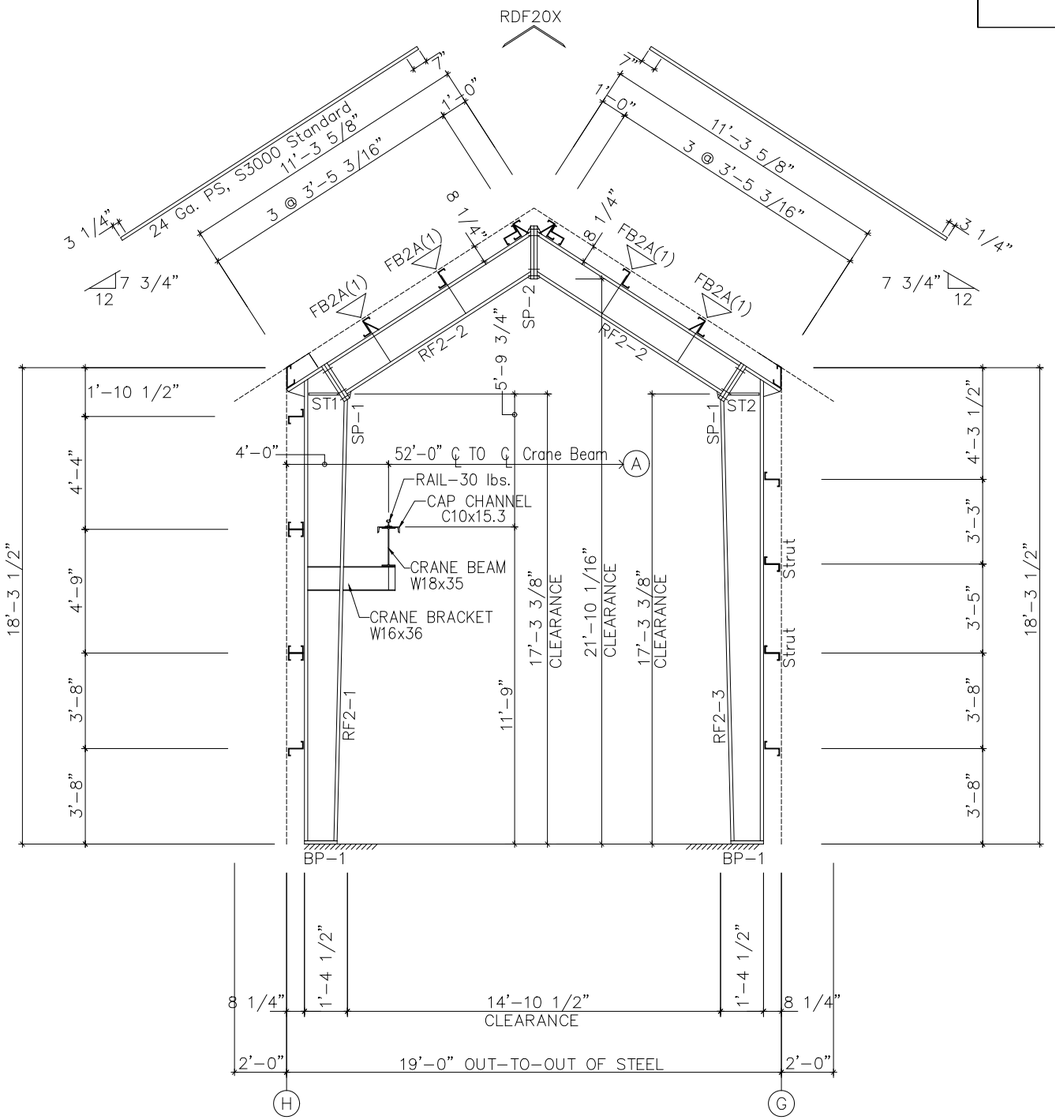
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	2	4	0	A325	0.625	2.00	6"	1/2"	1'-6 7/8"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	2'-0 15/16"

STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF2-1	ST1	2.500	0.250	13.33
RF2-1	ST2	2.500	0.250	14.18
RF2-1	ST3	2.500	0.250	14.53
RF2-1	ST4	2.500	0.250	14.27
RF2-3	ST5	2.500	0.250	14.27
RF2-3	ST6	2.500	0.250	13.33

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	1'-1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	12.0/16.0	0.188	218.3	6 x 1/4" x 214.2 6 x 1/4" x 17.3	6 x 1/4" x 203.1
RF2-2	14.0/14.0	0.135	116.6	5 x 1/4" x 116.6	5 x 1/4" x 107.4
RF2-3	16.0/12.0	0.188	218.3	6 x 1/4" x 17.3 6 x 1/4" x 214.2	6 x 1/4" x 203.1



RIGID FRAME ELEVATION: FRAME LINE 2

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2250 INFO@STEELNATION.COM

DESCRIPTION	RIGID FRAME ELEVATION		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	3/8"	E15 OF 25	A

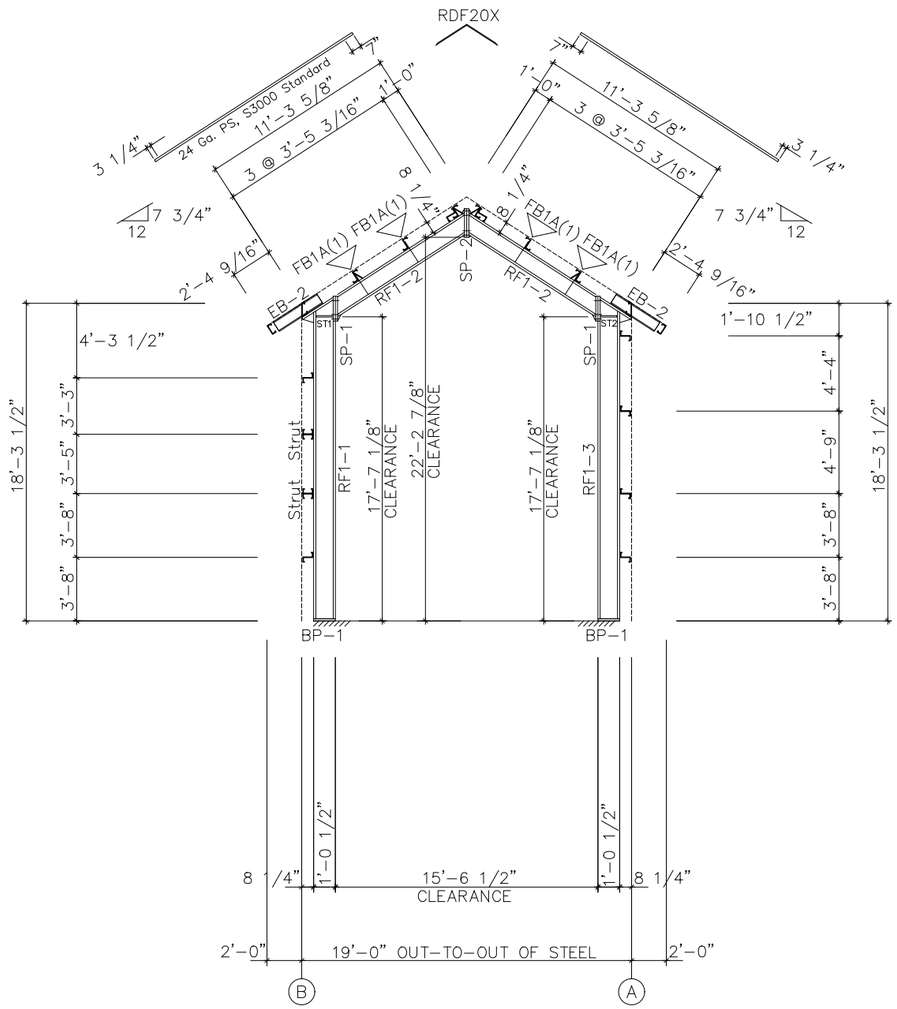
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	2	4	0	A325	0.625	2.00	6"	1/2"	1'-5 3/16"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	1'-8 3/16"

STIFFENER TABLE					
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF1-1	ST1	2.410	0.313	11.50
RF1-3	ST2	2.410	0.313	11.50

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	1'-1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Web Plate Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	12.0/12.0	0.135	222.1	5 x 1/4" x 214.2 6 x 1/4" x 24.2	5 x 1/4" x 206.4
RF1-2	10.0/10.0	0.135	115.9	5 x 1/4" x 109.3	5 x 1/4" x 109.3
RF1-3	12.0/12.0	0.135	222.1	6 x 1/4" x 24.2 5 x 1/4" x 214.2	5 x 1/4" x 206.4
EB-2	W8x10				



RIGID FRAME ELEVATION: FRAME LINE 1

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
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5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

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STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	RIGID FRAME ELEVATION : FRAME LINE-B A / 1
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	1/4"	E16 OF 25	A

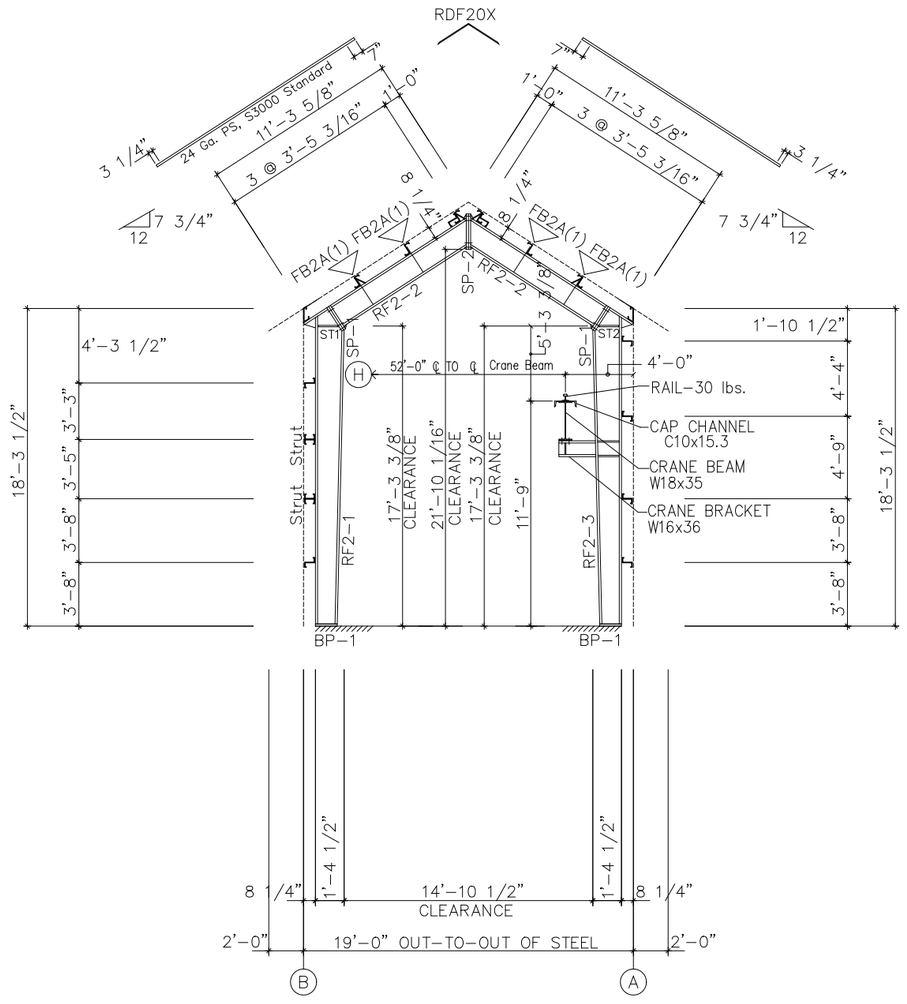
SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	2	4	0	A325	0.625	2.00	6"	1/2"	1'-6 7/8"
SP-2	4	4	0	A325	0.625	2.00	6"	1/2"	2'-0 15/16"

STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF2-1	ST1	2.500	0.250	13.33
RF2-1	ST2	2.500	0.250	14.27
RF2-3	ST3	2.500	0.250	14.27
RF2-3	ST4	2.500	0.250	14.53
RF2-3	ST5	2.500	0.250	14.18
RF2-3	ST6	2.500	0.250	13.33

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	1'-1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	12.0/16.0	0.188	218.3	6 x 1/4" x 214.2 6 x 1/4" x 17.3	6 x 1/4" x 203.1
RF2-2	14.0/14.0	0.135	116.6	5 x 1/4" x 116.6	5 x 1/4" x 107.4
RF2-3	16.0/12.0	0.188	218.3	6 x 1/4" x 17.3 6 x 1/4" x 214.2	6 x 1/4" x 203.1
EB-2	W8x10				



RIGID FRAME ELEVATION: FRAME LINE 2

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2260 INFO@STEELNATION.COM

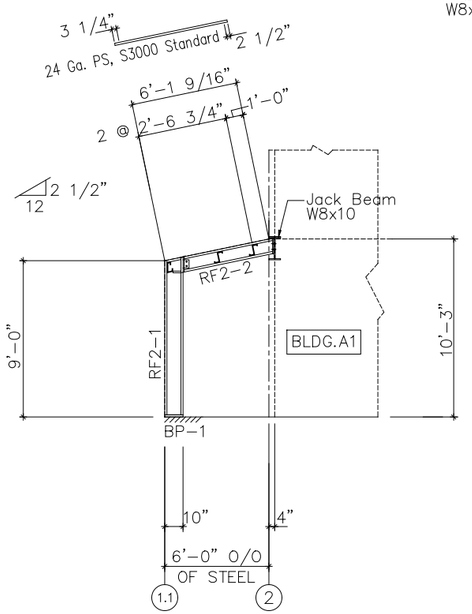
DESCRIPTION	RIGID FRAME ELEVATION : FRAME LINE- B A / 2		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	1/4"	E17 OF 25	A

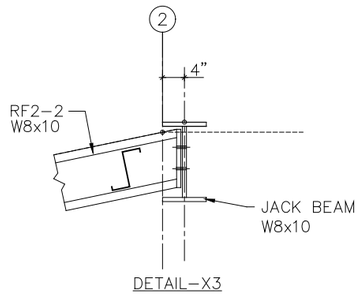
STIFFENER TABLE					
Mark	Stiff Mark	Plate Size Width	Thick	Length	
RF2–1	ST1	4.880	0.313	9.152	

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP–1	1'–2"	1/2"	1'–5"

MEMBER SIZE TABLE		
MARK	MEMBER	LENGTH
RF2–1	HSS10x10x316	9'–0"
RF2–2	W8x10	5'–2 13/16"



RIGID FRAME ELEVATION: FRAME LINE D E



DETAIL–X3

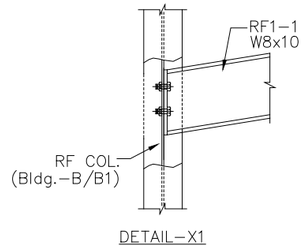
GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

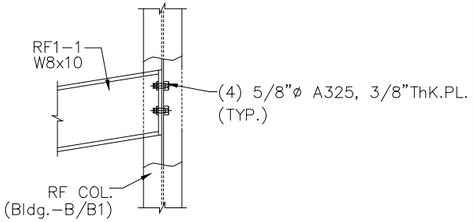
1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP–1	4	2	0	A325	0.625	1.00	"	"	7 5/8"

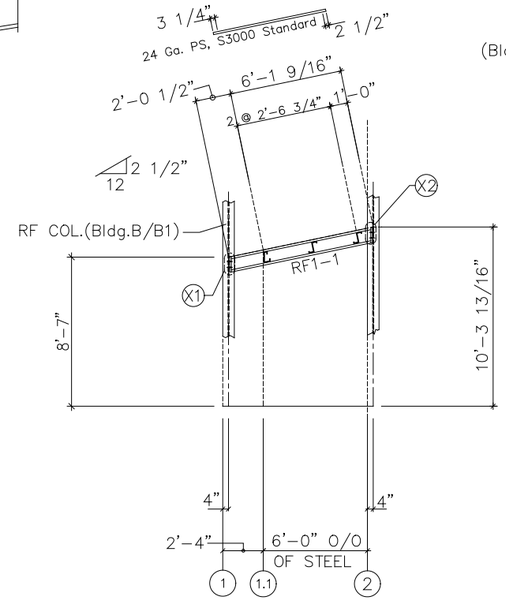
MEMBER SIZE TABLE		
MARK	MEMBER	LENGTH
RF1–1	W8x10	6'–1 9/16"



DETAIL–X1



DETAIL–X2



RIGID FRAME ELEVATION: FRAME LINE B G

FOR PERMIT

5/29/2025

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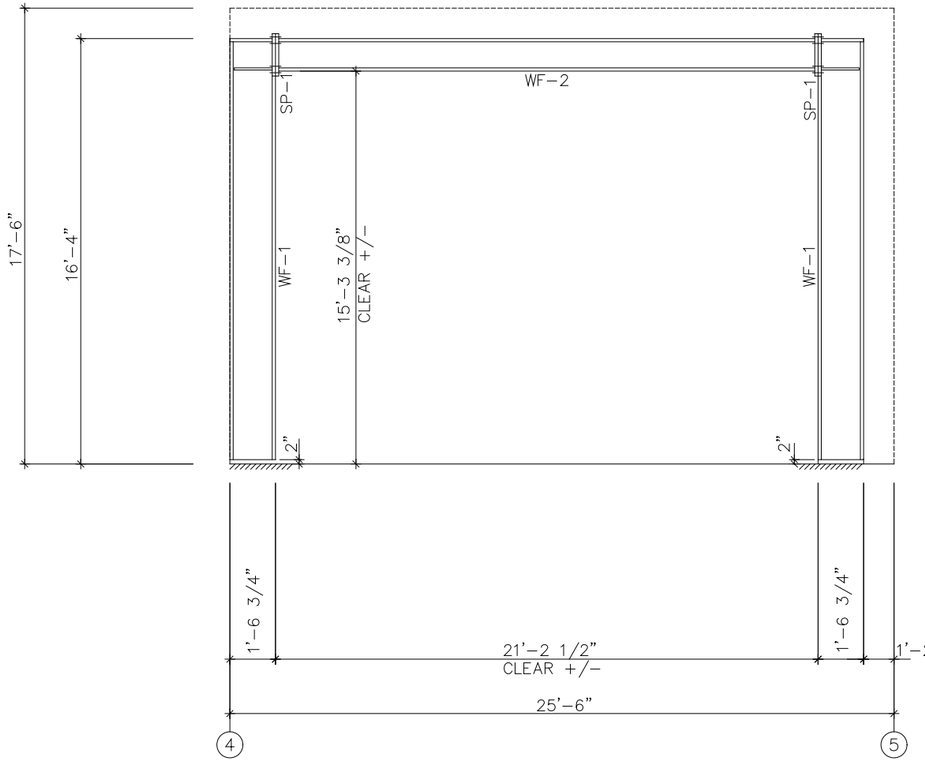
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

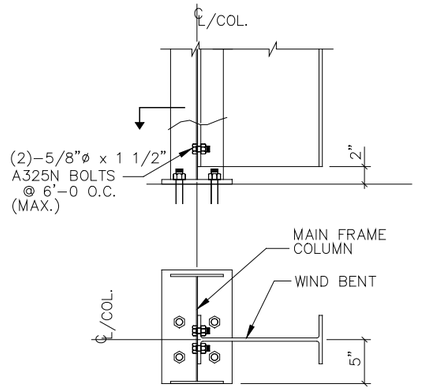
DESCRIPTION	RIGID FRAME ELEVATION : FRAME LINE- D E / 1.1-2			
CUSTOMER	STEEL NATION BUILDINGS, INC.			
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)			
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)	
STREET	1336 RIDGEVIEW ROAD			
CITY ST ZIP	UPPER ARLINGTON, OH 43221			
SALES NO.: 82361	JOB NO.: 173424	SCALE: 1/4"	DWG. NO.: E18 OF 25	ISSUE: A

SPLICE BOLTS					
Splice Mark	Quan Top/Bot		Bolt Type	Dia	Length
SP– 1	4	4	A325	0.625	2.00

MEMBER SIZE TABLE		
MARK	MEMBER	LENGTH
WF–2	W12652	21'–2 1/4"
WF–1	W18662	16'–2"



WIND BENT ELEVATION: FRAME LINE A H



H9 WIND BENT TO MAIN FRAME COLUMN

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

FOR PERMIT

5/29/2025

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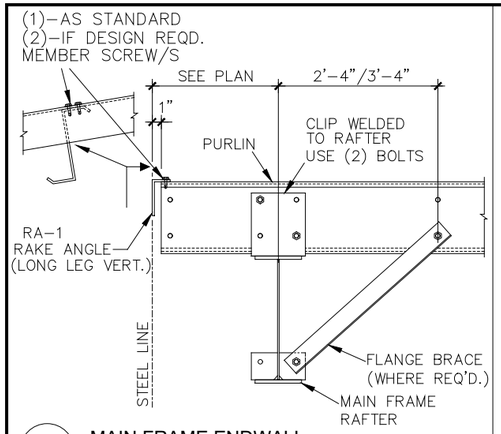
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2282 INFO@STEELNATION.COM

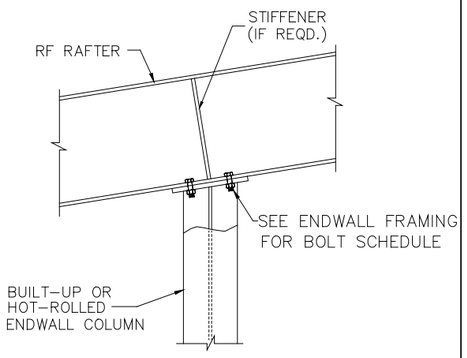
DESCRIPTION	WIND FRAME ELEVATION		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82361	173424	1/4"	E19 OF 25	A

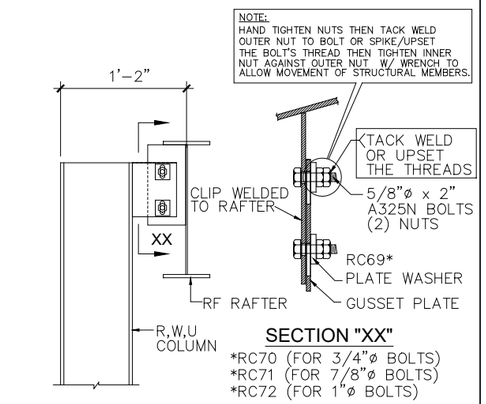


A10 **MAIN FRAME ENDWALL**

ALL BOLTS ARE 1/2"ø x 1" A307 U.N.

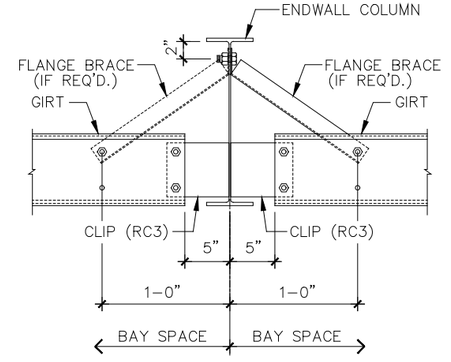


B20 **RF RAFTER TO EW COLUMN**



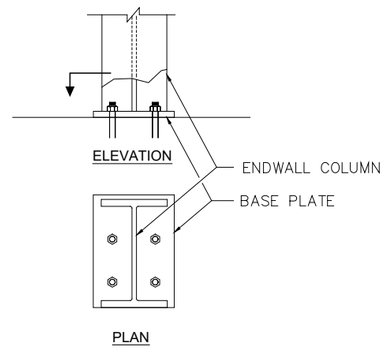
B35 **ENDWALL COLUMN TO RF RAFTER**

ALL BOLTS ARE 1/2"ø x 1 1/2" A325 U.N.



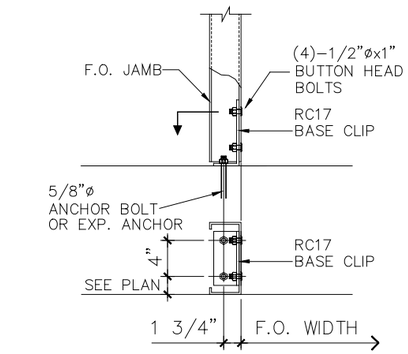
C6 **FLUSH GIRT TO ENDWALL COLUMN WITH WELDED CLIP**

ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



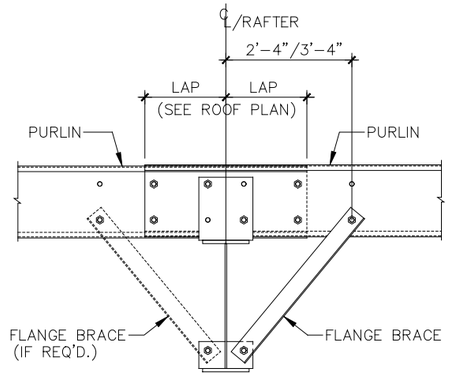
E3 **BASE PLATE FOR ENDWALL COLUMN**

SEE ANCHOR BOLT PLAN & DETAILS



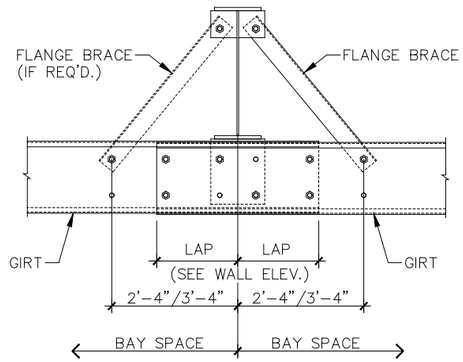
E6 **"FO" JAMB BASE DETAIL**

WITH BOLTED BASE CLIP



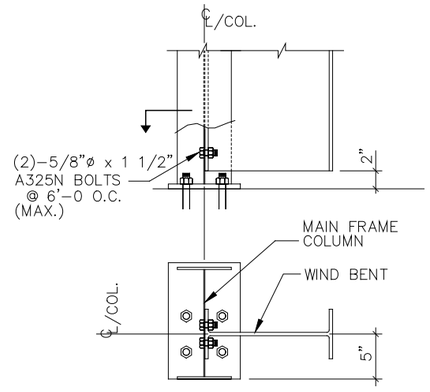
G2 **BY-PASS PURLIN TO RAFTER DETAIL**

ALL BOLTS ARE 1/2"ø x 1" A307 U.N.

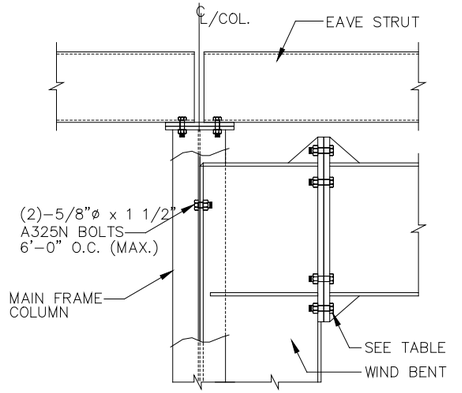


H2 **WALL GIRT TO RF COLUMN**

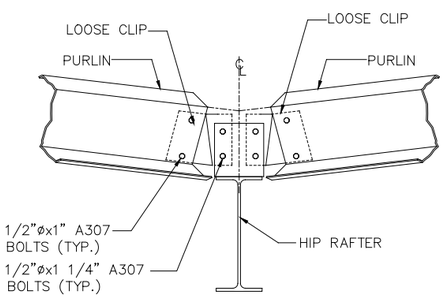
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



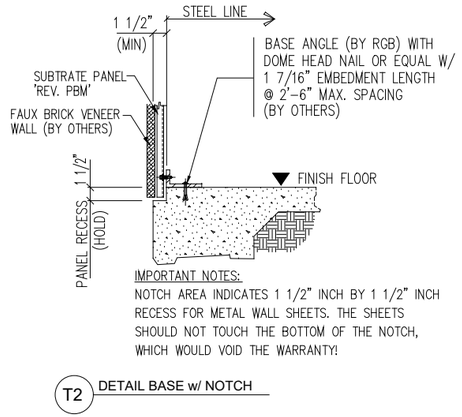
H9 **WIND BENT TO MAIN FRAME COLUMN**



H10 **WIND BENT SPLICE DETAIL**



2 SF41 **PURLIN TO VALLEY RAFTER CONNECTION**



T2 **DETAIL BASE w/ NOTCH**

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5/29/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

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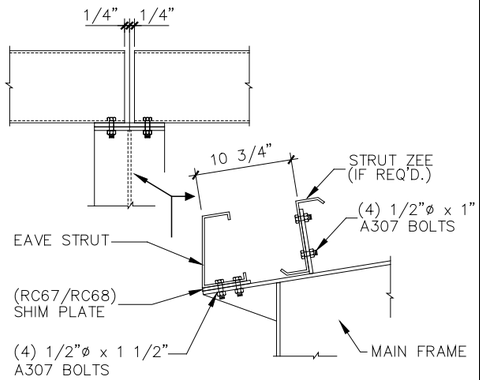
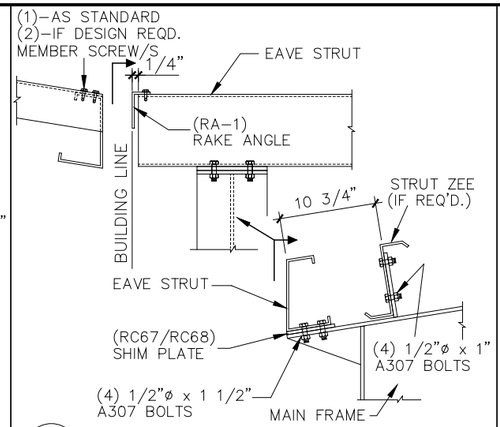
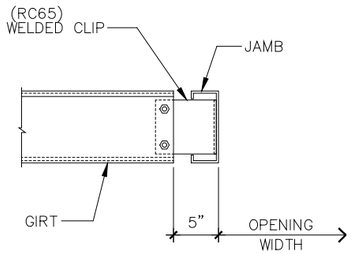
82361	173424	N.T.S.	E020 OF 25	A



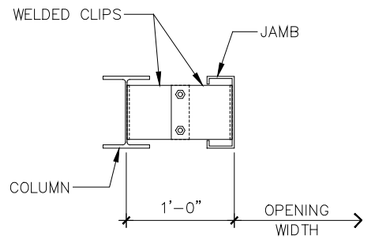
J2 LOW EAVE DETAIL (BY-PASS CONDITION)
AT INTERIOR FRAME



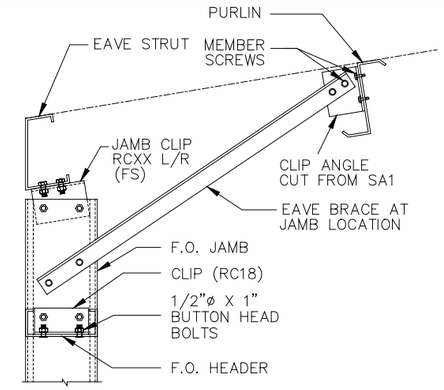
J24 LOW EAVE DETAIL (BY-PASS CONDITION)
AT END FRAME



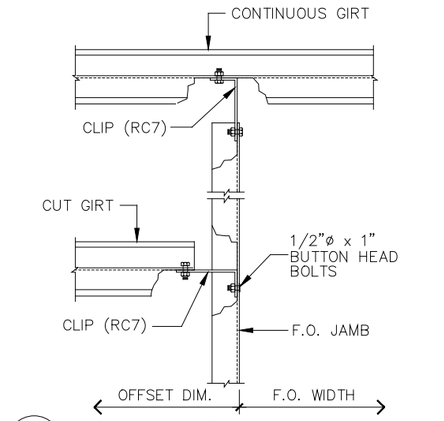
K3 GIRT TO FRAMED OPENING JAMB
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



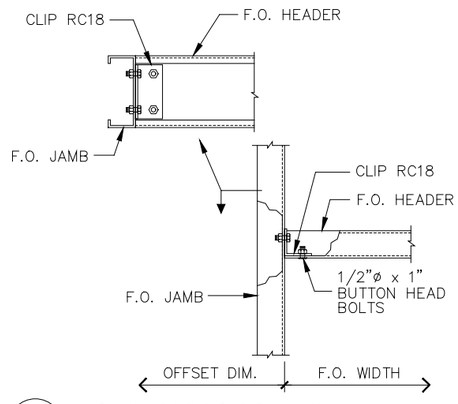
K7 COLUMN TO FRAMED OPENING JAMB
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



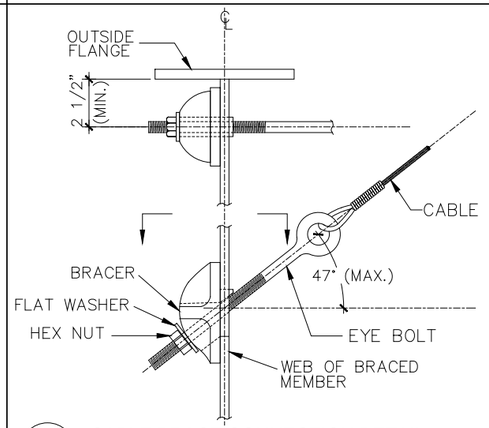
L1 F.O. JAMB TO EAVE STRUT CONNECTION FOR OVERHEAD DOOR, ROLL-UP DOOR
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



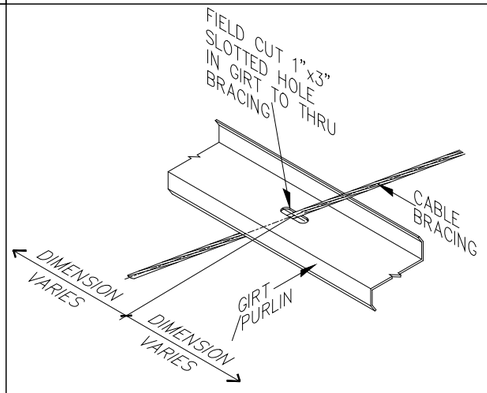
L6 F.O. JAMB TO GIRT
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



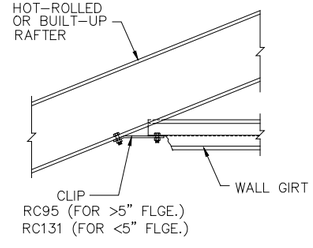
M1 F.O. HEADER TO F.O. JAMB
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



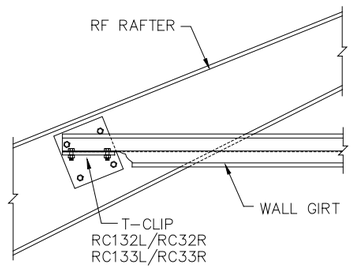
Q2 CABLE BRACE CONNECTION DETAIL



Q2A CABLE BRACING THRU PURLIN/ GIRT



W4 ENDWALL GIRT TO RAFTER CONECTION
ALL BOLTS ARE 1/2"ø x 1" A307 BOLTS



W8 ENDWALL GIRT TO RAFTER CONECTION
ALL BOLTS ARE 1/2"ø x 1" A307

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2202 INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

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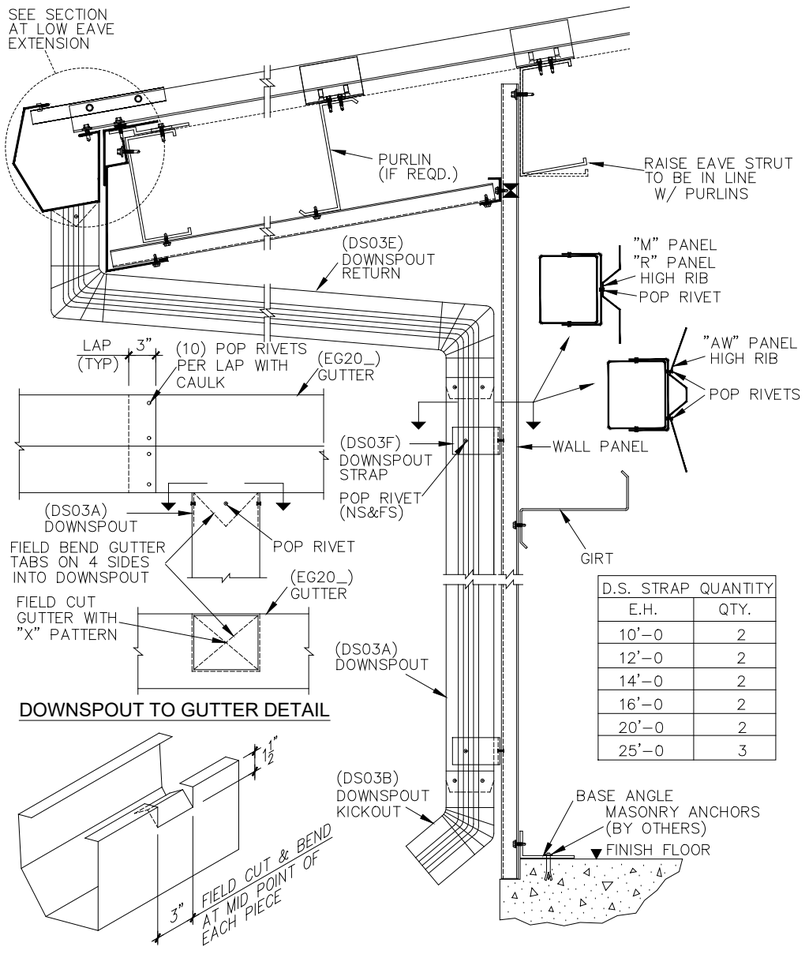
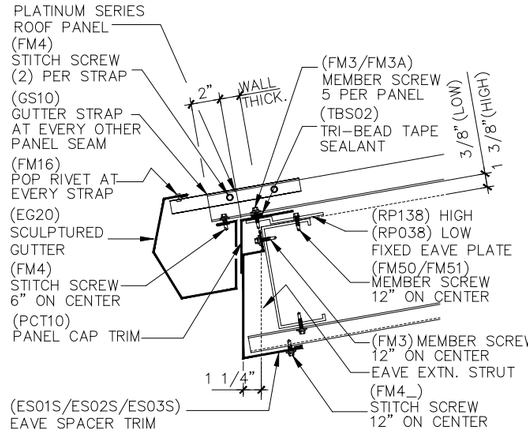


D.S. STRAP QUANTITY	
E.H.	QTY.
10'–0	2
12'–0	2
14'–0	2
16'–0	2
20'–0	2
25'–0	3

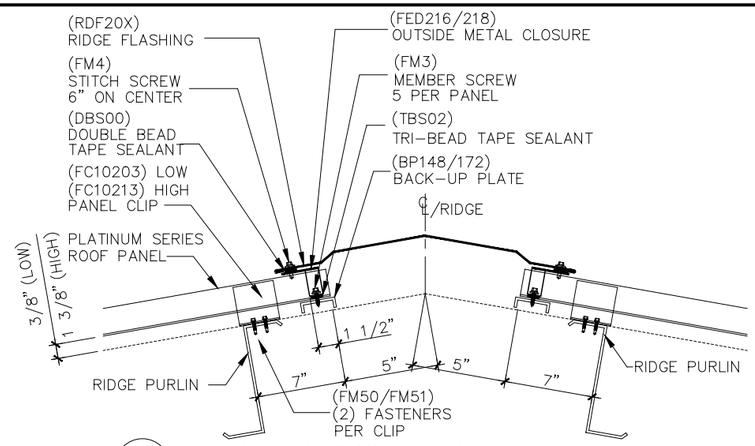
DOWNSPOUT TO GUTTER DETAIL

GUTTER OVERFLOW RELIEF

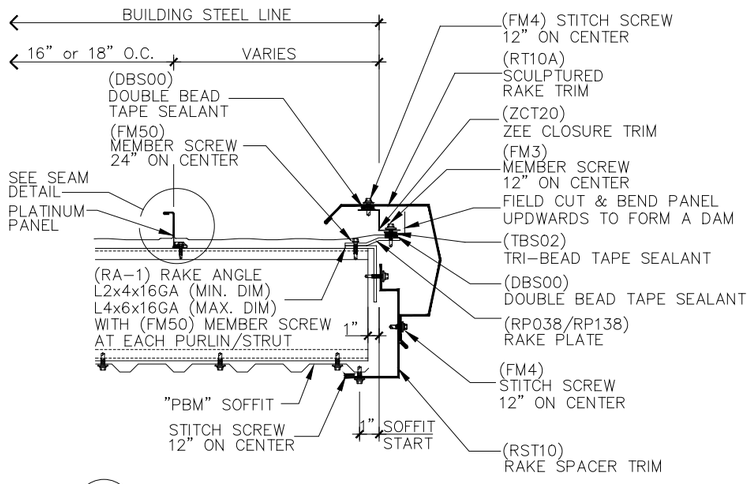
1 / DG33 DOWNSPOUT & GUTTER DETAIL-FULLY SHEETED WITH EAVE EXTENSION WITH SOFFIT



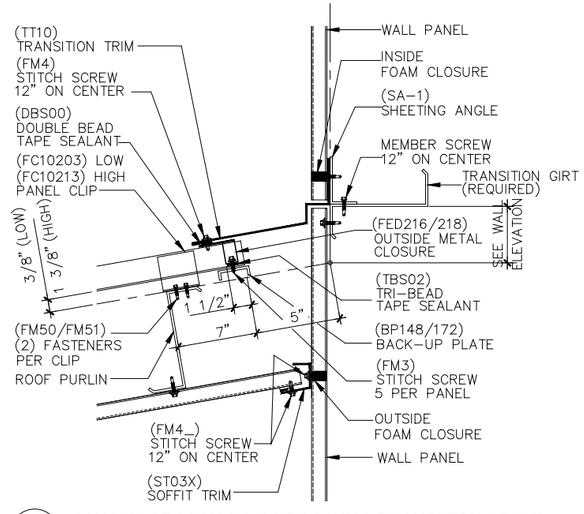
1 / LE23 SECTION THRU LOW EAVE - FIXED WITH SCULPTURED GUTTER



1 / PL04 SECTION THRU RIDGE - FIXED STANDARD CLIP



1 / RE35 SECTION THRU RAKE END - FIXED OFF MODULE - PANEL FIELD CUT REQUIRED



1 / RW03 CANOPY OR LEAN-TO ROOF & WALL TRANSITION DETAIL WITH SOFFIT

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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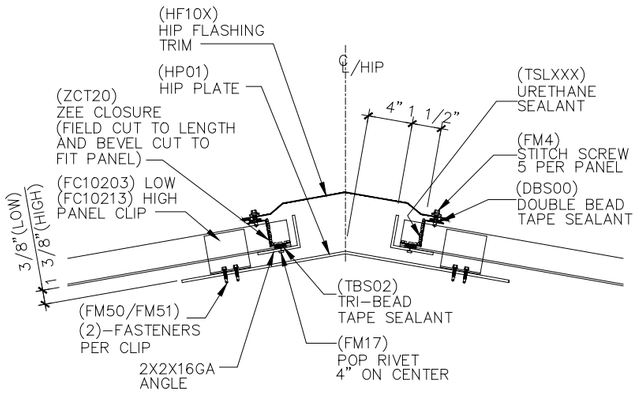
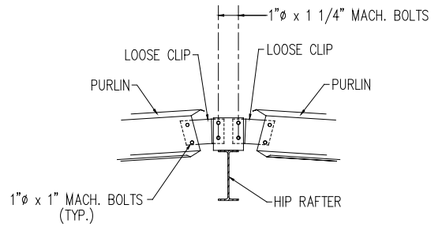
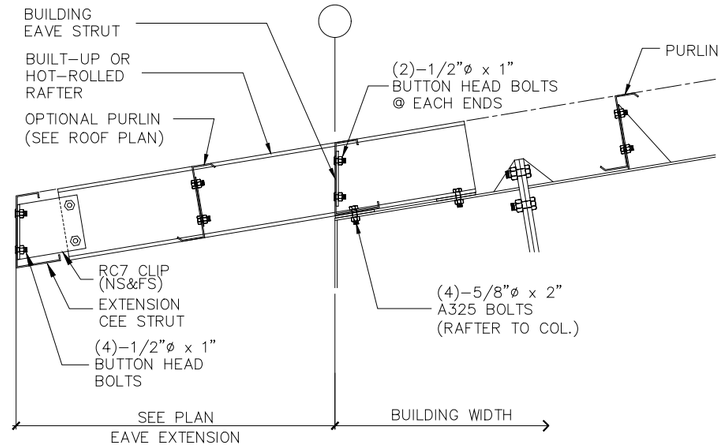


2 HV01 SECTION THRU HIP - FIXED

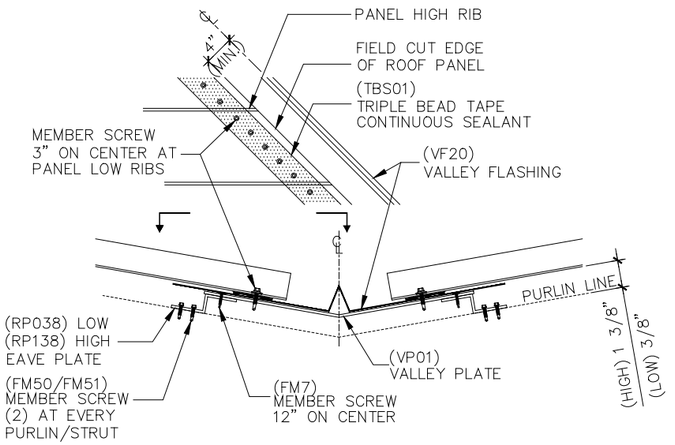


SECTION THRU HIP RAFTER

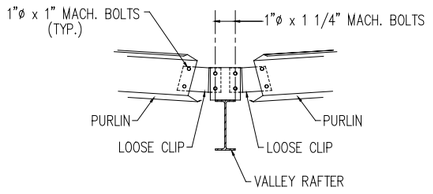


\- - BUILT-UP/HOT-ROLLED EAVE EXTENSION DETAIL

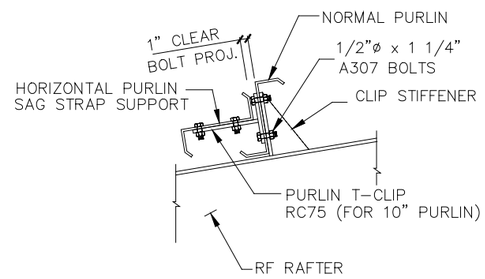
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



1 HV02 SECTION THRU VALLEY - STANDARD

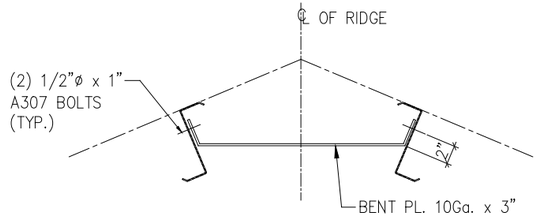


SECTION THRU VALLEY RAFTER

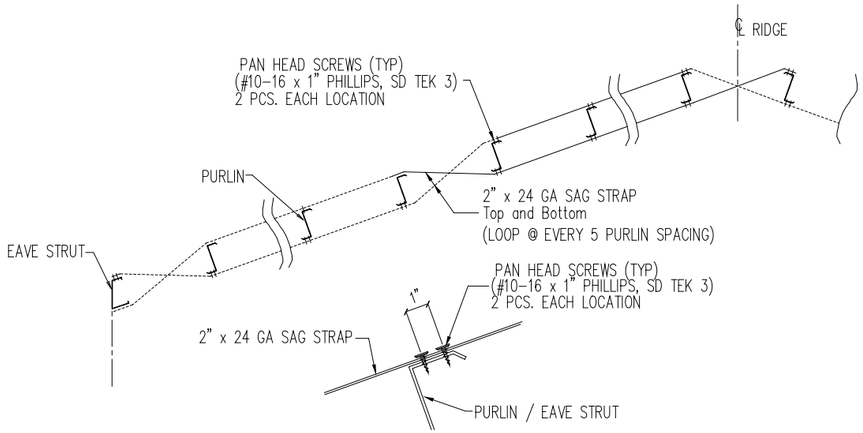


\- - HORIZONTAL PURLIN CONNECTION TO RF RAFTER

ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



TYPICAL RIDGE TIE DETAIL



TYPICAL SAG STRAP CONNECTION DETAIL
(BRACED AT TOP & BOTTOM OF PURLINS / SIDE BY SIDE)

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/29/2025

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STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2250 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
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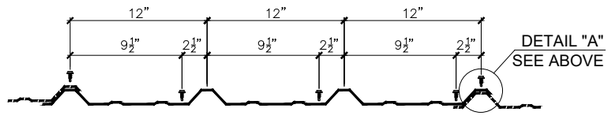
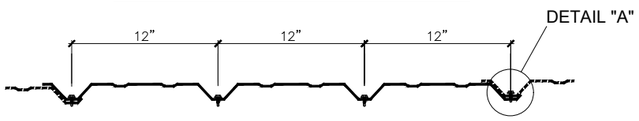
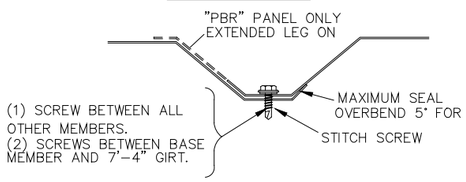


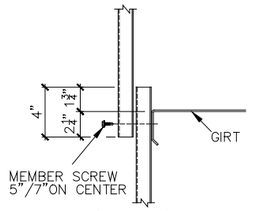
MEMBER SCREW LOCATION
FOR ALL MEMBERS UNLESS NOTED OTHERWISE
"PBR" BACK PANEL SCREW LAYOUT



MEMBER SCREW LOCATION
ALL MEMBERS

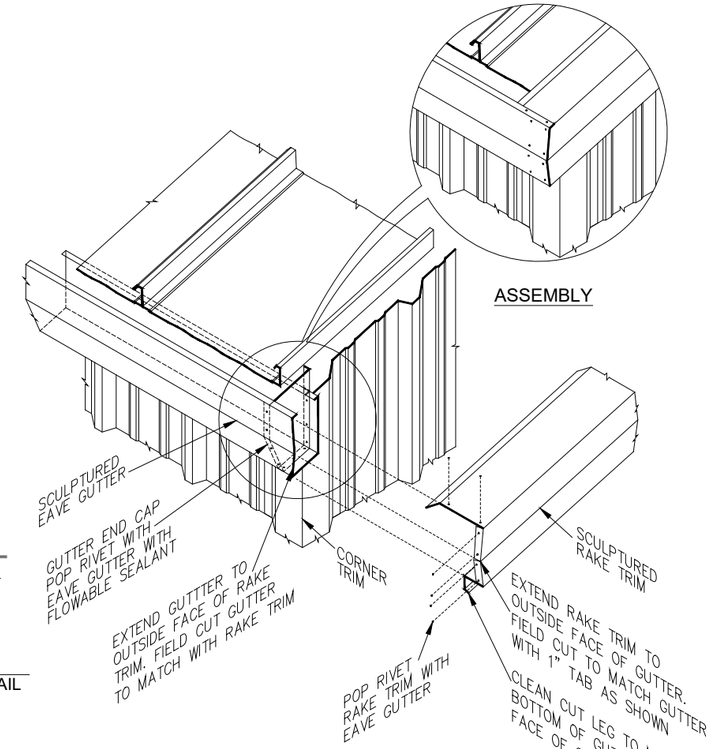


DETAIL "A"
TYP. SIDE LAP DETAIL



DETAIL "B"
TYP. PANEL END LAP DETAIL

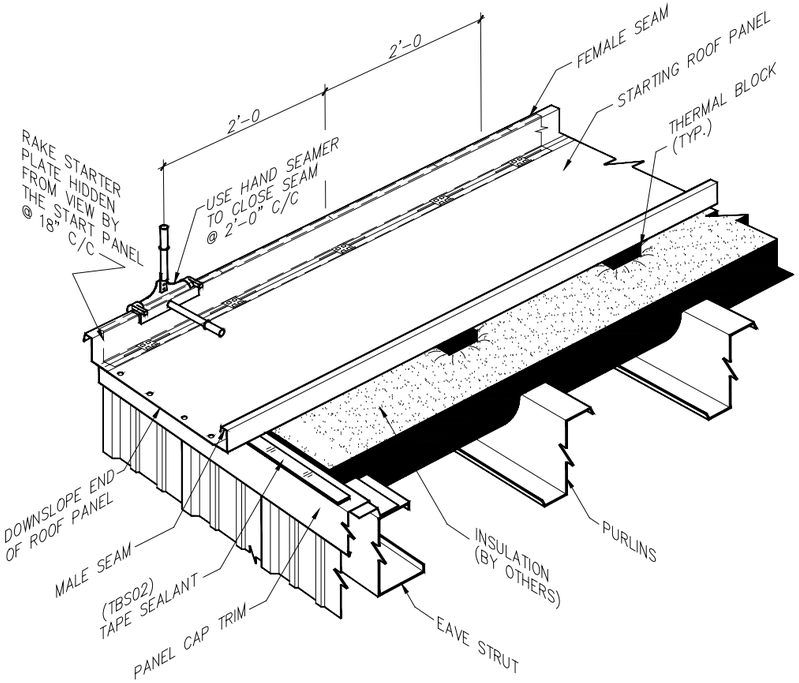
REVERSE "PBR" WALL PANEL SCREW LAYOUT



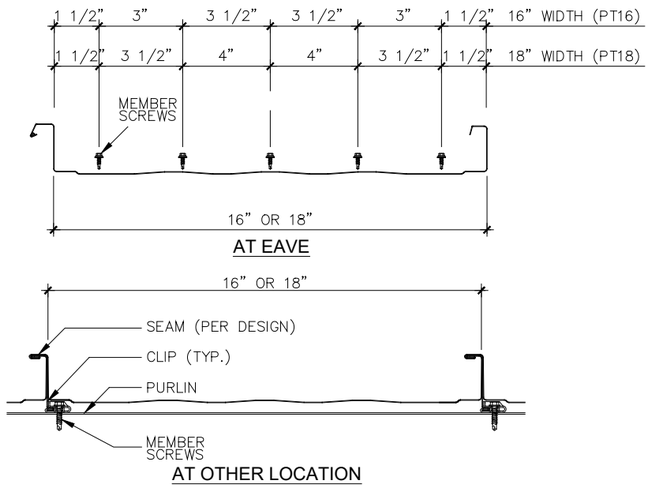
1 PT02 SCULPTURED GUTTER & RAKE TRIM JOINT DETAIL
WITH "PLATINUM" ROOF PANEL

NOTE:
SEAM STARTING ROOF PANEL WITH MANUAL SEAMING TOOL AT
RAKE STARTER PLATE (2'-0" C/C).

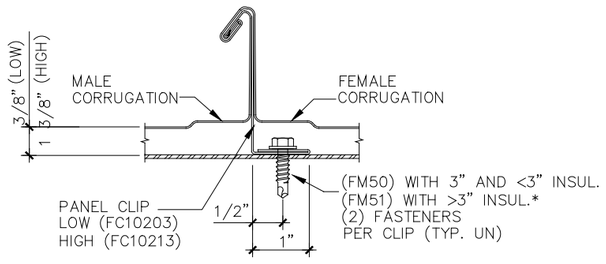
* REFER TO SECTION 9.3.4 OF THE PLATINUM ROOF SYSTEM
INSTALLATION GUIDE FOR MORE DETAILS.



1 PT06 SEAMING DETAIL (HC) @ RAKE START
WITH "PLATINUM" STARTING ROOF PANEL



1 PT01 PLATINUM PANEL FASTENER LOCATION



2 SL01 QUAD-LOK SEAM WITH FIXED CLIP
* SUPPLY SPECIAL LENGHT FASTENER FOR >6" THICK INSULATION

FOR PERMIT

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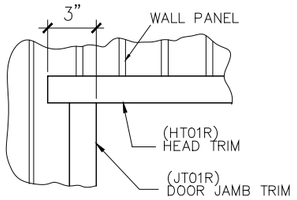
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)
END USE	UTILITY BUILDING / BUILDING / A (Utility Building)
STREET	1336 RIDGEVIEW ROAD
CITY ST ZIP	UPPER ARLINGTON, OH 43221

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	N.T.S.	E024 OF 25	A

NOTES:
1. FOR 3070, 4070, 6070 WALK DOORS ONLY
2. ALL DOORS ARE FIELD LOCATED UNLESS SHOWN IN A.B. PLAN
3. * - DIMENSION VARIES. SEE WALL ELEVATION IF REQUIRED.

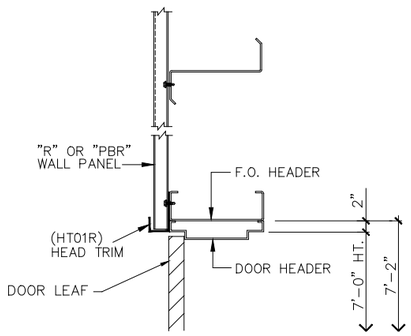


DETAIL "E"
HEAD/JAMB TRIMS CORNER DETAIL

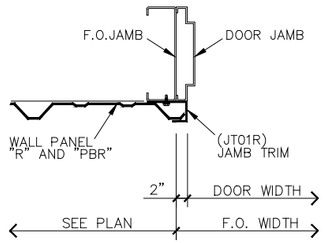
INSTALLATION PROCEDURE

1. Place head section and jambs on flat surface (floor) with door side up. Install bolts and nuts connecting head to jambs. Be sure that head is tight to jambs so that the proper door opening is obtained.
2. Install door leaf in frame, check for 1/8" clearance at head and 3/32" clearance at stricker jamb.
3. Tilt up the entire assembly and anchor hinge jamb to floor. Plumb hinge jamb and assembly. Field cut girts if required.
4. Anchor head and striker jamb to building structure, floor and entire frame to panel skins (field cut). Install optional threshold anchor if desired. Install jamb extensions (if req'd).
5. Install lockset. Install (optional) weatherstrip, head member first. Adjust so that vinyl just contacts door when in the closed position. Do not force vinyl against door as this will interfere with the latching and will not improve the weather seal.
6. Refer also to Door Manufacturer Installation Manual for more details.

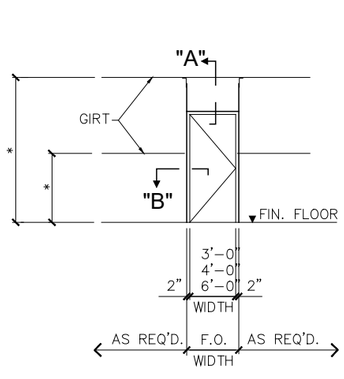
DOOR TRIM TABLE		
SIZE	HT01R	JT01R
3070	3'–6"	7'–5"
4070	4'–6"	7'–5"
6070	6'–6"	7'–5"

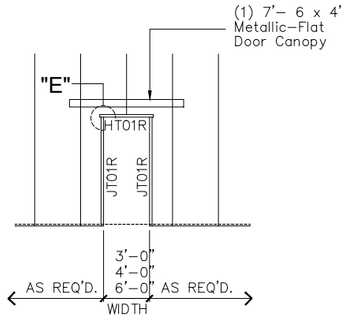


SECTION "A"

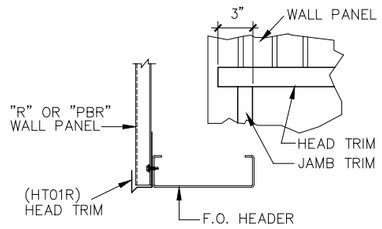


SECTION "B"

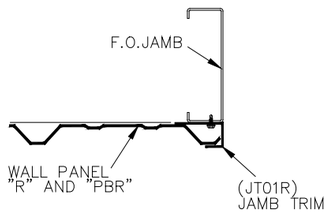




- TYPICAL WALK DOOR DETAIL WITH FRAMED OPENING : REQUIRED QUANTITY = 0

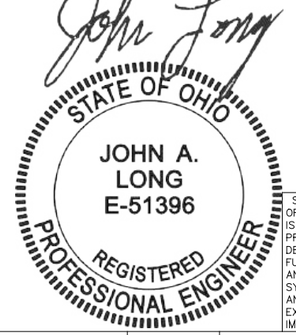


4 - F.O. HEADER TRIM DETAIL



5 ST78 F.O. JAMB TRIM DETAIL

FOR PERMIT



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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/30/25	LNT	FFF	RDL

STEELNATION
100 SOUTHPOINTE SQUARE LANE CANONSBURG, PA 15317
PH: 724.225.2202 INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	COLUMBIA GAS (NiSOURCE UTILITY BUILDING)		
END USE	UTILITY BUILDING	BUILDING	A (Utility Building)
STREET	1336 RIDGEVIEW ROAD		
CITY ST ZIP	UPPER ARLINGTON, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82361	173424	N.T.S.	E025 OF 25	A

GENERAL NOTES

1.1 Fabrication shall be in accordance with S.N. standard practices in compliance with the applicable sections, relating to design requirements and allowable stresses of the latest edition of the "AWS Structural Welding Code D1.1 and D1.3". S.N. manufacturing procedures are certified by:

Reference	Certification numbers
Houston	S.N. #456

1.2 MATERIALS

	ASTM DESIGNATION	MIN. YIELD STRENGTH
Hot Rolled Steel Shapes (W, S, C & L)	A572/A529	Fy = 50 KSI
Hot Rolled Steel Shapes (W)	A992	Fy = 50 KSI
Round Structural Tubing (HSS)	A500	Fy = 42 KSI
Square/Rect. Structural Tubing (HSS)	A500	Fy = 46 KSI
Structural Steel Web Plate	A572/A1011	Fy = 55 KSI
Structural Steel Flange Plates/Bars	A529/A572	Fy = 55 KSI
Cold Formed Light Gage	A653/A1011	Fy = 55 KSI
Roof and Wall Sheets	A792/A653	Fy = 50, 80 KSI
Cable Brace	A475	Extra High Strength
Rod Brace	A36	Fy = 36 KSI
		MIN. TENSILE STRENGTH
Machine Bolts & Nuts	A307	Fu = 60 KSI
High Strength Bolts (1"Ø and less)	F3125/Gr. A325-TYPE 1	Fu = 120 KSI
High Strength Bolts (>1"Ø to 1 1/2"Ø)	F3125/Gr. A325-TYPE 1	Fu = 105 KSI
Anchor Bolts (if supplied)	A36/A307/F1554 Gr.36	Fu = 58-80 KSI

1.3 PRIMER
Shop primer paint is a rust inhibitive primer which meets the end performance of Federal Specification SSPC No. 15 and is S.N. Red or Gray Oxide color. This paint is not intended for long term exposure to the elements. S.N. is not responsible for any deterioration of the shop primer paint as a result of improper handling and/or jobsite storage. S.N. shall not be responsible for any field applied paint and/or coatings. (Section 6.5 AISC Code of Standard Practice, 16th Edition). Nominal thickness of primer will be 1 mil unless otherwise specified in contract documents.

1.4 GALVANIZED OR SPECIAL COATINGS:
See Contract Documents

1.5 ALL BOLTS ARE 1/2"Ø x 0'-1" A307 (snug-tightened) EXCEPT :
a) Eave strut connection - 1/2"Ø x 0'-1 1/4" A307 without washer (unless noted otherwise)
b) Endwall rafter splice - 5/8"Ø x 0'-1 3/4" F3125/Gr. A325-N with washer
c) Endwall column to rafter connection - 1/2"Ø x 0'-1 1/4" F3125/Gr. A325-N without washer
d) Main frame moment splice connections - F3125/Gr. A325-N with washer, SEE CROSS SECTION for dimensions.
NOTE: One (01) washer is supplied on main frame moment splice and to A325 bolts unless noted otherwise on drawing

1.6 F3125/Gr. A325 BOLT TIGHTENING REQUIREMENTS
All high strength bolts are F3125/Gr. A325-N unless specifically noted otherwise. Structural bolts shall be tightened by the turn-of-the-nut or calibrated wrench methods in accordance with the 16th Edition AISC/RCSC "Specification For Structural Joints using ASTM F3125/Gr. A325 or A490 Bolts". Washers are supplied separately from High Strength Bolts, however, assembly with washers are required before erection. Installation inspection is recommended and be based on Section 9.1 and 9.2 of AISC/RCSC.

Snug-tight is permitted EXCEPT for the following conditions:
a) Building located in high seismic areas; Seismic Design Categories D, E, F
b) Building supporting cranes
c) Building supporting machinery that creates vibration, impact or stress reversal
d) Connections using ASTM A490
e) Connections using slip-critical condition
f) or as prohibited in the contracts/specifications

1.7 CLOSURE STRIPS ARE FURNISHED FOR APPLICATION:
INSIDE- Under roof panels at eave
OUTSIDE - Between endwall panels and rake trim
- Under continuous ridge vent skirts

1.8 ERECTION NOTE:
All bracing, strapping, & bridging shown and provided by S.N. for this building is required and shall be installed by the erector as a permanent part of the structure. If additional bracing is required for stability during erection, it shall be the erector's responsibility to determine the amount of such bracing and to procure and install as needed.

1.9 ERECTION AND UNLOADING NOT BY S.N.

1.10 SHORTAGES
Any claims or shortages by buyer must be made to S.N. within five (5) working days after delivery, or such claims will be considered to have been waived by the customer and disallowed.

1.11 CORRECTIONS OF ERRORS AND REPAIRS (MBMA 6.10)
Claims for correction of alleged misfits will be disallowed unless S.N. shall have received prior notice thereof and allowed reasonable inspection of such misfits. The correction of minor misfits by the use of drift pins to draw the components into line, moderate amounts of reaming, chipping and cutting, and the replacement of minor shortages of material are a normal part of erection and are not subject to claim. No part of the Building may be returned for alleged misfits without the prior approval of S.N.

BUYER/END USE CUSTOMER RESPONSIBILITIES

2.1 It is the responsibility of the BUYER/END USE CUSTOMER to obtain appropriate approvals and secure necessary permits from City, County, State, or Federal Agencies as required, and to advise/release S.N. to fabricate upon receiving such.

2.2 Steel Nation (hereafter referred to as S.N.) standard specifications apply unless stipulated otherwise in the Contract Documents. S.N. design, fabrication, quality criteria, standards, practice, methods and tolerances shall govern the work with any other interpretations to the contrary notwithstanding. It is understood by both Parties that the BUYER/END USE CUSTOMER is responsible for clarification of inclusions or exclusions from the architectural plans and/or specifications.

2.3 In case of discrepancies between S.N. structural steel plans and plans for other trades, S.N. plans shall govern. (Section. 3 AISC Code of Standard Practices, 16th Edition)

2.4 Approval of S.N. drawings and calculations indicates that S.N. has correctly interpreted and applied the Contract Documents. This approval constitutes the contractor/owners acceptance of the S.N. design concepts, assumptions, and loading. (Section 4 AISC Code 16th Edition and MBMA 3.3.3)

2.5 Once the BUYER/END USE CUSTOMER has signed S.N. Approval Package and the project is released for fabrication, changes shall be billed to the BUYER/ END USE CUSTOMER including material, engineering and other costs. An additional fee may be charged if the project must be moved from the fabrication and shipping schedule.

STEELNATION
100 SOUTHPOINTE SQUARE LANE ✦ CANONSBURG, PA 15317
PH: 724.225.2202 ✦ INFO@STEELNATION.COM

FOR PERMIT

SN # 1472
Ridgeview Station Garage (NiSource CG Garage Building)

SALES NO.	82397	JOB NO.	173430	BUILDING	A
CUSTOMER	Steel Nation Buildings, Inc.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building				
STREET	1336 Ridgeview Road (40.014367, -83.048681)				
CITY ST ZIP	Upper Arlington, OH 43221				
COUNTY	Franklin				

THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE FOLLOWING AS INDICATED:

DESIGN LOADS:

Design Code	: IBC 21
Dead Load (psf)	: Metal building structure only by Steel Nation
Collateral Load (psf)	: 5.00
Wind Load	
Basic Design Wind Speed	: Vult (3 sec. gust) = 115 mph
Allowable Stress Design Wind Speed	: Vasd (3 sec. gust) = 89.08 mph
Risk Category	: II - Normal
Wind Exposure	: C
Internal Pressure Coefficient, GCPi	: 0.18 / -0.18
Design Wind Pressure For Wall	: Based on Allowable Stress Design Wind Speed
Components Wind Pressure (psf) asd	: 13.61
Components Wind Suction (psf) asd	: -15.04
Claddings Wind Pressure (psf) asd	: 16.89
Claddings Wind Suction (psf) asd	: -18.33
Enclosure	: Enclosed
Live Load	
Primary Framing (psf)	: 20.00
Trib. Area Reduction	: Yes
Secondary Framing (psf)	: 20.00
Snow Load	
Ground Snow Load, Pg (psf)	: 20.00
Roof Snow Load, Pf (psf)	: 20.00
Sloped Roof Snow Load, Ps (psf)	: 20.00
Snow Exposure Factor, Ce	: 1.00
Snow Importance Factor, Is	: 1.00
Thermal Factor, Ct	: 1.00
Sloped Factor, Cs	: 1.00
Seismic Load	
Seismic Importance Factor, Ie	: 1.00
Seismic Occupancy Category	: II - Normal
Site Class	: D
Mapped Spectral Response Acceleration	: Ss = 0.1200 :S1 = 0.0620
Spectral Response Coefficients	: Sds = 0.1280 :Sd1 = 0.0992
Seismic Design Category	: B
Basic Force Resisting Systems Used	: Steel System Not Specifically Detailed For Seismic Resistance : Rigid Frames : Braced Frames
Total Design Base Shear, V (kips)	: Longitudinal= 3.09 Transverse=3.42
Response Modification Factors, R	: Rigid Frames = 3.00 : SW X-Bracing = 3.00
Seismic Response Coefficient, Cs	: Rigid Frames = 0.043 : SW X-Bracing = 0.043
Analysis Procedure Used	: Equivalent Lateral Force Procedure
Rainfall Intensity (in/hr)	: 6.0600

BUILDING DESCRIPTION:

Width (ft)	: 24
Length (ft)	: 42
Eave Ht. at BSW (ft)	: 14
Eave Ht. at FSW (ft)	: 14
Roof Slope at BSW	: 3.0:12
Roof Slope at FSW	: 3.0:12
Bay Spacing (ft)	: 1 at 22 1 at 20

COVERING AND TRIMS:

Roof Panels & Trims	
Panel Type	: 24 Ga. Platinum (16" Wideï¼+ SSR
Pan Type	: Striated
Clips Type	: 3 3/8" High Floating
Thermal Blocks	: 3/8" Thk.
Lok Seam	: Quad-Lok
Panel Color	: S3000 Standard (KYNAR)
Trim Colors	
Eave Trim	: S3000 Standard
Eave Gutter	: S3000 Standard
Gable Trim	: S3000 Standard
Wall Panel & Trims	
Panel Type	: 26 Ga. Rev. PBM (36" Wide) Screw Down
Panel Color	: Glvm.Plus
Trim Colors	
Corner Trims	: Glvm.Plus
Opening Trims	: S3000 Standard
Box Downspouts	: S3000 Standard
Base Trim	: --
Mas. Flash	: --
Special Requirements	: NONE

Before erecting your building, please see the Rigid Erection & Safety Manual at rigidbuilding.com/document-library

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2.6 The BUYER/END USE CUSTOMER is responsible for overall project coordination. All interface, compatibility, and design considerations concerning any materials not furnished by S.N. and S.N. steel system are to be considered and coordinated by the BUYER/END USE CUSTOMER. Specific design criteria concerning this interface between materials must be furnished before release for fabrication or S.N. assumptions will govern (Section 4 and Commentary, AISC Code of Standard Practice, 16th Edition)

2.7 It is the responsibility of the BUYER/END USE CUSTOMER to ensure that S.N. plans comply with the applicable requirements of any governing building authorities. The supplying of sealed engineering data and drawings for the metal building system does not imply or constitute an agreement that S.N. or its design engineers are acting as the engineer of record or design professional for a construction project. These drawings are sealed only to certify the design of the structural components furnished by S.N.

2.8 The BUYER/END USE CUSTOMER is responsible for setting of anchor bolts and erection of steel in accordance with S.N. "For Construction" drawings only. Temporary supports such as guys, braces, falsework, cribbing or other elements required for the erection operation shall be determined furnished and installed by the erector. No items should be purchased from a preliminary set of drawings, including anchor bolts. Use only final "FOR CONSTRUCTION DRAWINGS" for this use. (Section 7 AISC Code of Standard Practice, 16th Edition.)

2.9 Steel Nation is responsible for the design of the anchor bolt to permit the transfer of forces between the base plate and the anchor bolt in shear, bearing and tension, but is not responsible for the transfer of anchor bolt forces to the concrete, anchor bolt embedment or the adequacy of the anchor bolt in relation to the concrete.
Unless otherwise provided in the Order Documents, S.N. does not design and is not responsible for the design, material and construction of the foundation or foundation embedments. The END USE CUSTOMER should assure himself that adequate provisions are made in the foundation design for loads imposed by column reactions of the building, other imposed loads, and bearing capacity of the soil and other conditions of the building site.
It is recommended that the anchorage/anchor bolt embedment and foundation of the building be designed by a Registered Professional Engineer experienced in the design of such structures. (Chapter IV Section 3.2.2 Metal Building Systems Manual 2018 Edition)

2.10 Normal erection operations include the corrections of minor misfits by moderate amounts of reaming, chipping, welding or cutting, and the drawing of elements into line through the use of drift pins. Errors which cannot be corrected by the foregoing means or which require major changes in member configuration are to be reported immediately to S.N. by the BUYER/END USE CUSTOMER, to enable whoever is responsible either to correct the error or to approve the most efficient and economic method of correction to be used by others. (Section 7 AISC Code of Standard Practice, 16th Edition)

2.11 Neither the fabricator nor the BUYER/END USE CUSTOMER will cut, drill or otherwise alter his work, or the work of other trades, to accommodate other trades, unless such work is clearly specified in the contract documents. Whenever such work is specified, the BUYER/END USE CUSTOMER is responsible for furnishing complete information as to materials, size, location and number of alterations prior to preparation of shop drawings. (Section 7 AISC Code of Standard Practice, 16th Edition)

2.12 WARNING In no case should Galvalume steel panels be used in conjunction with lead or copper. Both lead and copper have harmful corrosive effects on the Galvalume alloy coating when they are in contact with Galvalume steel panels. Even run-off from copper flashing, wiring, or tubing onto Galvalume should be avoided.

2.13 SAFETY COMMITMENT Steel Nation has a commitment to manufacture quality building components that can be safely erected. However, the safety commitment and job site practices of the erector are beyond the control of S.N.
It is strongly recommended that safe working conditions and accident prevention practices be the top priority of any job site. Local, State, and Federal safety and health standards should always be followed to help insure workers safety. Make certain all employees know the safest and most productive way of erecting a building. Emergency procedures should be known to all employees.
Daily meetings highlighting safety procedures are also recommended. The use of hard hats, rubber sole shoes for roof work, proper equipment for handling material, and safety nets where applicable, are recommended.

2.14 Roof drainage systems (gutter, downspouts, etc.) must be free of any obstruction to ensure smooth operation at any given time.

2.15 It is recommended by Factory Mutual (Reference: B2.44) that roofs be cleared of snow when half of the maximum snow depth is reached. The maximum snow depth can be estimated based on the design snow load and the density of snow and/or ice buildup. See Chart below.

ROOF SNOW LOAD (IN PSF)	EQUIVALENT SNOW HEIGHT AT ROOF (IN INCHES)	RECOMMENDED SNOW HEIGHT WHEN SNOW REMOVAL SHOULD START (IN INCHES)
20	16.60	8.30
30	17.90	8.95
40	19.20	9.60
50	20.50	10.25
60	21.80	10.90
70	23.10	11.55
80	24.40	12.20

NOTE: For Snow/Ice Removal Procedure, Refer to Metal Building System Manual 2018 Edition, Section A9.4

5/15/2025

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

CUSTOMER: STEEL NATION BUILDINGS, INC.

SALES NO.:	JOB NO.:	BUILDING:	DWG. NO.:	ISSUE:
82397	173430	A	C001	A

UNLOADING, HANDLING AND STORING OF MATERIALS

FOR PERMIT

STRUCTURAL

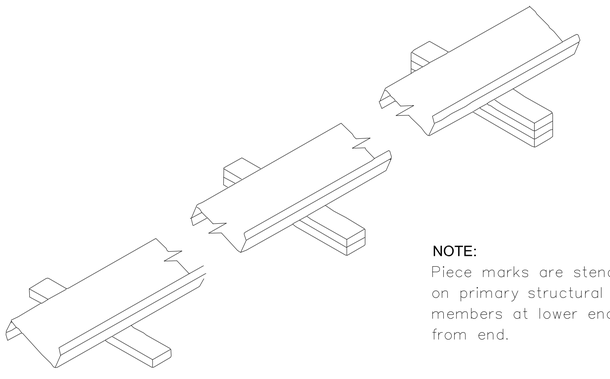
A great amount of time and trouble can be saved if the building site is according to a pre–arranged plan. Proper location and handling of components will eliminate unnecessary handling.

Inspect all shipments prior to releasing the tie–downs for loads that may have shifted during transit, REMEMBER, SAFETY FIRST!

Blocking under the columns and rafters protects the splice plates and the slab from damage during the unloading process. It also facilitates the placing of slings or cables around the members for later lifting and allows members to be bolted together into sub–assemblies while on the ground. Extra care should always be exercised in the unloading operations to prevent injuries from handling the steel and to prevent damage to materials and the concrete slabs.

If water is allowed to remain for extended periods in bundles of primed parts such as girts, purlins etc., the pigment will fade and the paint will gradually soften, reducing the bond to the steel. Therefore, upon receipt of a job, all bundles of primed parts should be stored at an angle to allow any trapped water to drain away and permit air circulation for drying. Puddles of water should not be allowed to collect and remain on columns, rafters or beams for the same reason.

All Primer should be touched up as required before erection!



NOTE:
Piece marks are stenciled on primary structural members at lower end, 1'–0" from end.

WALLS AND ROOF PANELS

RIGID's wall and roof panels including color coated, galvalume and galvanized, provide excellent service under widely varied conditions. All unloading and erection personnel should fully understand that these panels are quality merchandise which merit cautious care in handling.

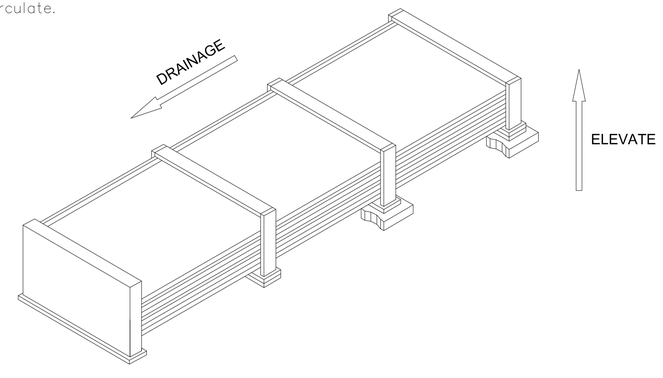
Under no circumstances should panels be handled roughly. Packages of sheets should be lifted off the truck with extreme care taken to insure that no damage occurs to ends of the sheets or to side ribs. The packages should be stored off the ground sufficiently high to allow air circulation underneath the packages. This avoids ground moisture and deters people from walking on the packages. One end of the package should always be elevated to encourage drainage in case of rain.

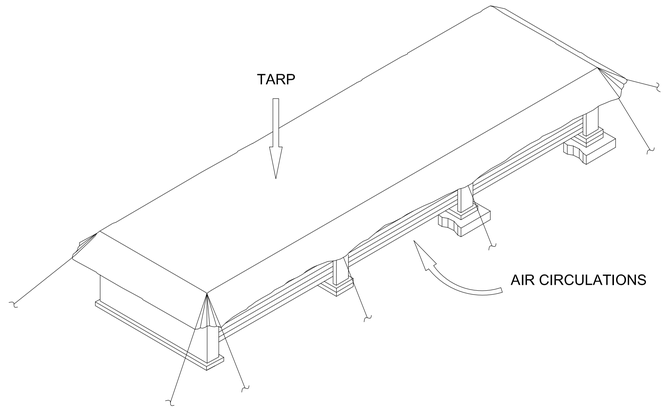
All stacked metal panels are subject, to some degree, to localized discoloration or stain when water is trapped between their closely nested surfaces. RGB exercises extreme caution during fabricating and shipping operations to insure that all panel stock is kept dry. However, due to climatic conditions, water formed by condensation of humid air can be trapped between stacked sheets. Water can also be trapped between stacked sheets when exposed to rain. This discoloration caused by trapped moisture is often called wet storage stain.

The stain is usually superficial and has little effect on the apperance or service life of the panels as long as it is not permitted to remain on the panels. However, moisture in contact with the surface of the panels over an extended period can severely attack the finish and reduce the effective service life. Therefore, it is imperative that all panels be inspected for moisture upon receipt of the order. If moisture is present, dry the panels at once and store in a dry, warm place.

CAUTION: Care should always be taken when walking on panels. Use saftey lines and nets when necessary! Panels are slippery. Oil or wax applied to the roof and wall panels for protection against weather damage will make them a very slippery surface. Wipe dry any oil that has puddled from bundles stored on a slope. Dew, frost, or other forms of moisture greatly increase the slipperiness of the panels. Always assume panel surface is slippery and act accordingly. Think safety!!

Use wood blocking to elevate and slope the panels in a manner that will allow moisture to drain. Wood blocking placed between bundles will provide additional air circulation. Cover the stacked bundles with a tarp or plastic cover leaving enough opening at the bottom for air to circulate.





When handling or uncrating the panels, lift, rather than slide, them apart. Burred edges may scratch the coated surfaces when sheets are slid over one another. Never allow panels to be walked on while on the ground.

Rough and improper handling of a panel is inexcusable and a prime example of poor job supervision.

NOTE:
Use gloves when handling metal panels to prevent hand injuries. Be aware, of the dangers of handling panels on a windy day. A large panel can catch enough wind to knock a worker off his feet, even at ground level!! Safety first!

GENERAL NOTE:
1. OIL CANNING OF PANELS IS NOT A CAUSE OF REJECTION.
2. EXTREME CARE MUST BE EXERCISED DURING THE ERECTION OF ROOF PANELS AND TRIMS. FOOT TRAFFIC MAY RESULT IN PERMANENT PANEL DISTORTION AND FINISH ABRASION.

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/15/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	UNLOADING, HANDLING AND STORING OF MATERIALS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.	JOB NO.:	SCALE	DWG. NO.:	ISSUE
82397	173430	N.T.S.	C002	A

LEGENDS & ABBREVIATIONS

FOR PERMIT

DESIGN:

Accel.	Acceleration
Coeff.	Coefficient
CL, Collat	Collateral Load
DL, Dead	Dead Load
H, Horz, Horiz	Horizontal
L	Left
LL, Live	Live Load
LnWnd, LnWind, LWIND	Longitudinal Wind Load
Min, min	Minimum
Max, max	Maximum
R	Right
SL	Snow Load
Slide	Sliding Snow Load
SEIS, Seis	Seismic Load
U_Snow	Unbalance Snow Load
V, Vert	Vertical
WL, Wind_L	Wind Load Left
WR, Wind_R	Wind Load Right
WP, Wind_P	Wind Pressure
WS, Wind_S	Wind Suction

ENGLISH UNITS

Acre	Acres
FT, ft	Feet
GA, Ga, ga	Gage
Gal	Gallons
IN, in	Inches
K, k	Kips
KSI, ksi	Kips Per Square-Inches
lb, #	Pounds
MPH, mph	Miles Per Hour
PLF, plf, lb/ft	Pounds Per Linear-Foot
PSF, psf, lb/ft^2	Pounds Per Square-Feet
TON, ton	Tons
Yd	Yard

METRIC UNITS

cm	Centimeters
Hec	Hectares
liter	Liters
m	Meters
mm	Millimeters
N	Newtons
km	Kilometers
kN	Kilonewtons
kN/m^2	Kilonewtons Per Square-meter
kPa	Kilopascals
kph	Kilometers Per Hour
Pa	Pascals

USEFUL CONVERSION

English	To	English	Metric	To	Metric
1 mile		1760 Yd	1 km		1000 m
1 Yd		3 Ft	1 m		100 cm
1 Ft		12 in	1 cm		10 mm
1 in		16/16 in	1 kN		1000 N
1 Ton (English)		2 Kips	1 kg		9.8066 N
1 Kip		1000 lb	1 Ton (Metric)		1000 kg
1 lb		16 ounces	1 Hec		10,000 m^2
1 Acre		43560 Ft^2	1 m^3		1000 liter
1 Ft^3		7.4805 Gal	1 kPa		1 kN/m^2

English	To	Metric	Metric	To	English
1 in		2.54 cm	1 cm		0.3937 in
1 ft		0.3048 m	1 m		3.2808 ft
1 lb		0.4536 kg	1 kg		2.2046 lb
1 Ton (English)		907.18 kg	1 Ton (Metric)		2204.6 lb
1 Kip		4.4482 kN	1 kN		0.2248 kip
1 mile		1.6093 km	1 km		0.6213 mile
1 Acre		0.4046 Hec	1 Hec		2.4715 Acres
1 lb/ft^2		0.0478 kPa	1 kPa		20.8854 lb/ft^2

Fraction	To	Decimal	Fraction	To	Decimal
1/16		0.0625	9/16		0.5625
1/8		0.1250	5/8		0.6250
3/16		0.1875	11/16		0.6875
1/4		0.2500	3/4		0.7500
5/16		0.3125	13/16		0.8125
3/8		0.3750	7/8		0.8750
7/16		0.4375	15/16		0.9375
1/2		0.5000	16/16		1.0000

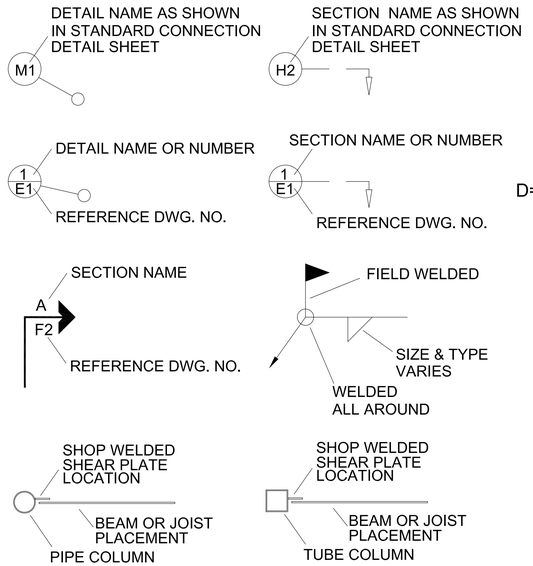
DRAWINGS:

AB, A.B.	Anchor Bolt
AS, As Shown	As Shown
Aux.	Auxiliary
BLDG., Bldg.	Building
B.P., Base PL	Base Plate
BOTT., Bott.	Bottom
Bott. Base PL, B.O.B.P	Bottom Of Base Plate
B.O.S.	Bottom Of Steel
BSW	Back Sidewall
BY OTHERS	By Other Supplier or Not By Rigid
C/C	Center to Center
C.I.P.	Cast-In-Place
CL, ℄	Center Line
CLR.	Clear, Clearance
CMU	Concrete Masonry Unit
COL., Col.	Column
CONC., Conc.	Concrete
CONT.	Continuous, Continuation
DET.	Detail
DIA., Dia., Ø	Diameter
DIM., Dim.	Dimension
DWG., Dwg.	Drawing
EH, E.H.	Eave Height
EJ, Exp. Jt.	Expansion Joint
EL, Elev.	Elevation
EP	End Plate
ES, E.S.	Eave Strut
EW	Endwall
EW COL, EC	Endwall Column
EW RAF	Endwall Rafter
Exp. Bolt	Expansion Bolt
FFL, Fin. Flr.	Finish Floor Line
FLG., FLGE., Flg., Flge.	Flange
FNB, F.N.B.	Fin Neck Bolt
FO, F.O.	Framed Opening
FRM., Frm.	Frame
FSW	Front Sidewall
GA, Ga.	Gage
GALV., Galv.	Galvanized
G.O.L.	Gage of Outstanding Leg
H, Ht.	Height
HED,HEDS	High Eave Double Slope
HES,HESS	High Eave Single Slope
Horz, Horiz	Horizontal
HSB, H.S.B.	High Strength Bolt
HSS	Hollow Structural Section
INT., Int.	Interior, Intermediate
I/S	Inside
LED,LEDS	Low Eave Double Slope
LES,LESS	Low Eave Single Slope
LEW	Left Endwall
LHI	Left Hand In
LHO	Left Hand Out
LL	Long Life
LLH	Long Leg Horizontal
LLV	Long Leg Vertical
LT	Lean-To
LT COL	Lean-To Column
LT RAF	Lean-To Rafter
LG., Lg.	Long
L, Lt.	Length
L x W x H	Length x Width x Height
MAX., max.	Maximum
MIN., min.	Minimum
MKD., MK'D.	Marked
MB, M.B.	Machine Bolt
MEZZ., Mezz.	Mezzanine
N.A., N/A	Not Applicable
NO., No.	Number
NS/FS, NS&FS	Near Side and Far Side
O.C.	On Center
O/S	Outside
OH, Opp Hand	Opposite Hand (Mirror Image)
OHD, O.H.D.	Over-Head Door
O/O	Out to Out
PF COL	Portal Frame Column (Wind Bent Column)
PF RAF	Portal Frame Rafter (Wind Bent Rafter)
PL, ℄	Plate
QTY., Qty.	Quantity
REF., Ref.	Refer, Reference
REW	Right Endwall

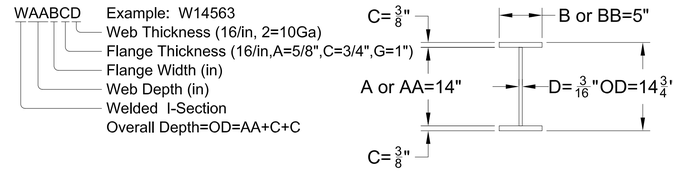
DRAWINGS:

RHB	Round Head Bolt
RHI	Right Hand In
RHO	Right Hand Out
REINF.	Reinforced
REQ'D., REQD.,	Required
REV., Rev.	Revised, Revision
RF, R.F.	Rigid Frame
RF COL	Rigid Frame Column
RF RAF	Rigid Frame Rafter
RUD, R.U.D.	Roll-Up Door
SC	Slip Critical
SDS	Self-Drilling Screws
SECT., Sect.	Section
SHTG., Shtg.	Sheeting
Sol Col	Soldier Column
SP	Splice Plate
SSR	Standing Seam Roof
SST	Stainless Steel
ST COL	Straight Column
STIFF.	Stiffener
STD.	Standard
STS	Self-Tapping Screws
SW	Sidewall
SYM., Sym., SYMM., Symm.	Symmetry, Symmetrical
TBE	To Be Established
TBD	To Be Determined
TC	Tension Control
THK., Thk.	Thick
TOC, T.O.C.	Top Of Concrete
TOS, T.O.S.	Top Of Steel
T & B, TOP & BOTT	Top and Bottom
TYP., Typ., typ.	Typical
UN, U.N.O.	Unless Noted, Unless Noted Otherwise
Vert.	Vertical
WD	Walk Door
W, Wd.	Width
W.P.	Work Point, Working Point

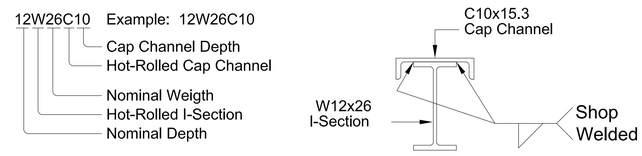
SECTIONS AND DETAILS:



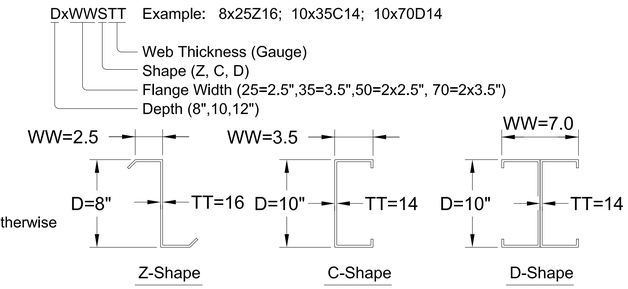
BUILT-UP SECTIONS: USED FOR FRAMES, BEAMS, COLUMNS



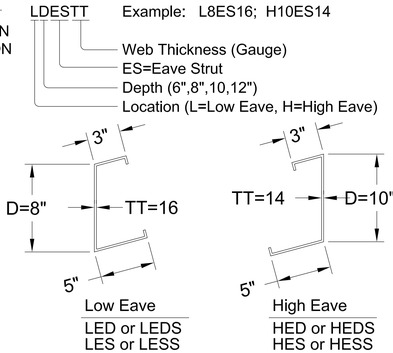
CRANE BEAM SECTIONS: USED FOR RUNWAY BEAMS, MONORAILS

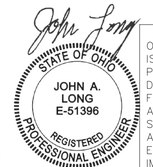


COLD-FORMED SECTIONS Z,C,D: USED FOR PURLINS,GIRTS,JAMBS,JOISTS



COLD-FORMED SECTION ES: USED FOR EAVE STRUTS





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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	LEGENDS & ABBREVIATIONS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82397	173430	N.T.S.	C003	A

DRAWING INDEX

DWG. NO.	ISSUE	DRAWING TITLE	DWG. NO.	ISSUE	DRAWING TITLE
C001	A	COVER SHEET			
C002	A	UNLOADING, HANDLING AND STORING OF MATERIALS			
C003	A	LEGENDS AND ABBREVIATIONS			
C004	A	DRAWING INDEX			
C005	A	BUILDING ISOMETRIC VIEW			
F001	A	COLUMN LAYOUT PLAN			
F002	A	ANCHOR BOLT DETAILS			
F003	A	ANCHOR BOLT REACTIONS			
F004	A	WIND LOAD DIAGRAM			
E001	A	ROOF FRAMING PLAN			
E002	A	ROOF SHEETING PLAN			
E003	A	RIGID FRAME ELEVATION			
E004	A	RIGID FRAME ELEVATION			
E005	A	ENDWALL FRAMING & SHEETING ELEVATION			
E006	A	ENDWALL FRAMING & SHEETING ELEVATION			
E007	A	SIDEWALL FRAMING & SHEETING ELEVATION			
E008	A	SIDEWALL FRAMING & SHEETING ELEVATION			
E009	A	DETAIL DRAWINGS			
E010	A	DETAIL DRAWINGS			
E011	A	DETAIL DRAWINGS			
E012	A	DETAIL DRAWINGS			
E013	A	DETAIL DRAWINGS			
E014	A	DETAIL DRAWINGS			
E015	A	DETAIL DRAWINGS			

FOR PERMIT

John Long
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/15/2025

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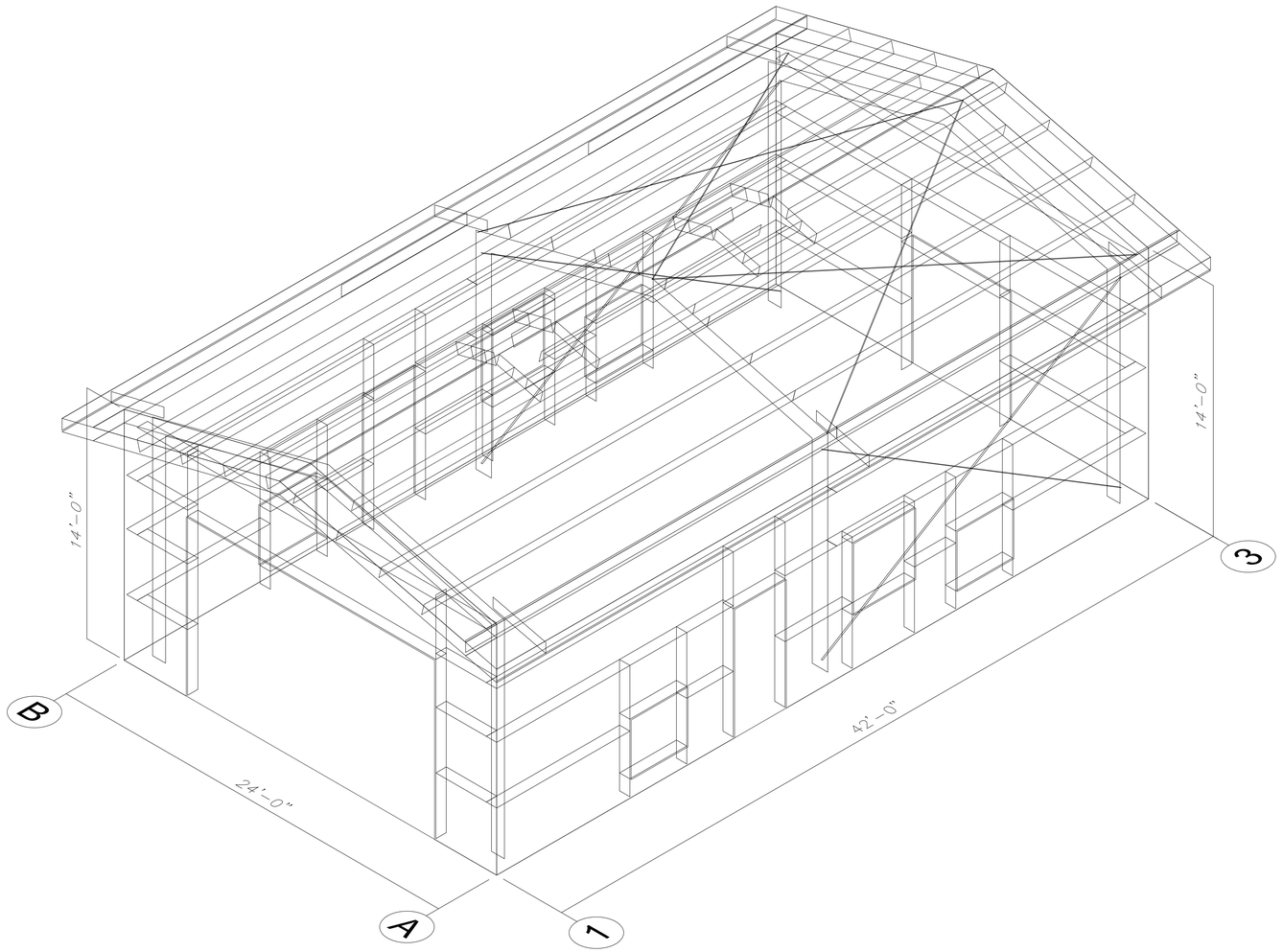

BUILDING ISOMETRIC VIEW

FOR GENERAL OVERVIEW ONLY
SEE ROOF FRAMING, WALL ELEVATION, AND RIGID FRAME CROSS SECTION FOR DETAILS

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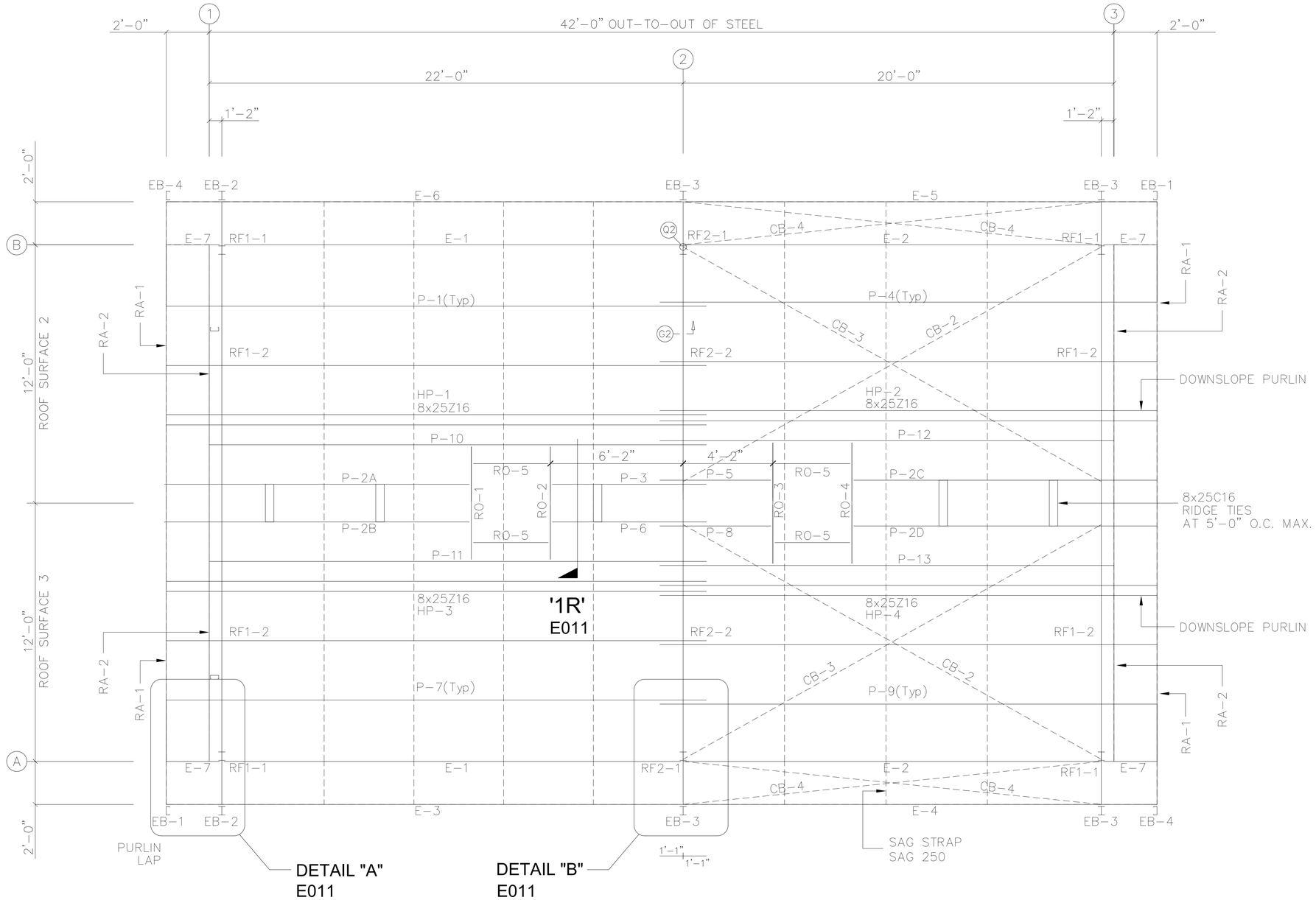


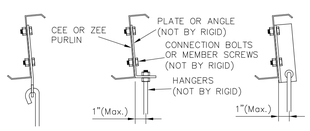
ROOF FRAMING PLAN

IMPORTANT NOTES:

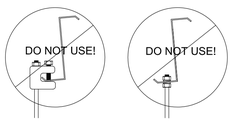
High R-value roof insulation systems require two layers of insulation. The sag straps that prevent purlin roll may conflict with faced roof insulation between purlins. Rigid Global Buildings recommends an unfaced layer between the purlins that can be cut around the required framing.

FOR PERMIT

MEMBER TABLE ROOF PLAN	
MARK	PART
EB-1	8x35C14
EB-2	W8x10
EB-3	W8x10
EB-4	8x35C14
RO-1	8x35C14
RO-2	8x35C14
RO-3	8x35C14
RO-4	8x35C14
RO-5	8x25C16
P-1	8x25Z16
P-2A	8x25Z16
P-2B	8x25Z16
P-2C	8x25Z16
P-2D	8x25Z16
P-3	8x25Z16
P-4	8x25Z16
P-5	8x25Z16
P-6	8x25Z16
P-7	8x25Z16
P-8	8x25Z16
P-9	8x25Z16
P-10	8x35Z14
P-11	8x35Z14
P-12	8x35Z14
P-13	8x35Z14
HP-1	8x25Z16
HP-2	8x25Z16
HP-3	8x25Z16
HP-4	8x25Z16
E-1	L8ES16
E-2	L8ES16
E-3	8x35C16
E-4	8x35C16
E-5	8x35C16
E-6	8x35C16
E-7	L8ES16
CB-2	CB0250
CB-3	CB0250
CB-4	CB0250



HANGERS ON CEE OR ZEE PURLINS MUST ATTACH TO THE WEB ONLY. HANGERS MUST BE LOCATED SO THAT THE SUPPORTED LOAD DOES NOT EXCEED THAT SPECIFIED IN THE CONTRACT DOCUMENTS. SUGGESTED DETAILS ARE AS SHOWN ABOVE.



DO NOT USE C-CLAMPS OR ANY OTHER HANGER ATTACHED TO THE FLANGE OF THE PURLIN. IT REDUCES THE CAPACITY OF THE PURLIN AND PRODUCE SECONDARY STRESSES.

1 SF38 TYP. COLLATERAL LOAD CONNECTION DETAIL

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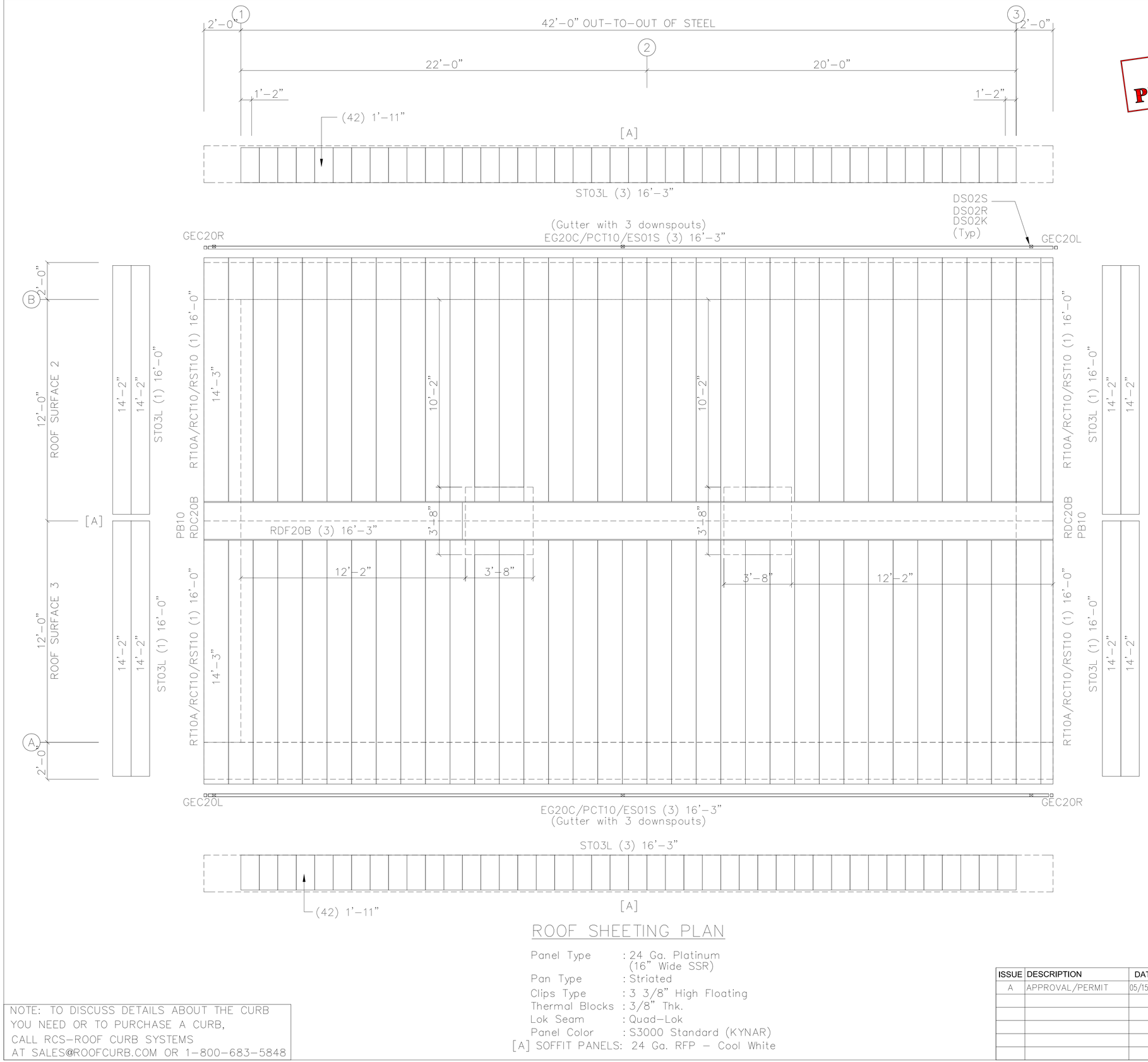
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E001	ISSUE: A	



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IMPORTANT NOTES:

Additional Panel Information

Roof Panel: Platinum (16" Wide) SSR
Roof Insulation Thickness (in.) Above Purlin:
SSR Clip Type: High Floating System
SSR Seam Type: Quad-Lok

1. OIL CANNING OF PANELS IS NOT A CAUSE OF REJECTION.
2. EXTREME CARE MUST BE EXERCISED DURING ERECTION OF ROOF PANELS AND TRIMS. FOOT TRAFFIC MAY RESULT IN PERMANENT PANEL DISTORTION AND FINISH ABRASION.

ERECTOR'S NOTE

1. INSTALLER OF STANDING SEAM ROOF PANEL MUST STUDY THE INSTALLATION MANUALS PRIOR TO INSTALLATION. MANUALS ARE PROVIDED WITH THE MATERIALS SHIPMENT BUT CAN BE REQUESTED OR DOWNLOADED FROM THE WEBSITE AT www.rigidbuilding.com
2. FAILURE TO INSTALL THE ROOF SHEETS IN ACCORDANCE WITH THE SHEETING DIRECTIONAL ARROWS SHOWN ON THESE PLANS MAY RESULT IN IMPROPER FIT-UP OF THE OUTSIDE CLOSURES (END DAMS) AND POSSIBLY OTHER TRIM COMPONENTS WHICH COULD AFFECT THE OVERALL APPEARANCE AND WEATHER TIGHTNESS OF THE BUILDING. S.N. WILL NOT BE HELD RESPONSIBLE FOR THE CHARGES OR ADDITIONAL FIELD WORK DUE TO NOT FOLLOWING SHEETING DIRECTIONAL ARROWS AND OTHER PROCEDURES OUTLINED IN THE ERECTION MANUAL.
3. IN THE EVENT THAT A DISCREPANCY OR ERROR ARISES WITH MATERIALS SHIPPED FOR THIS PROJECT OR ON THESE ERECTION DRAWINGS, THE ERECTOR/INSTALLER MUST NOTIFY S.N. PRIOR TO CORRECTING. IF RGB IS NOT NOTIFIED, S.N. WILL NOT HONOR BACKCHARGES BY ANY PARTY INVOLVED.
4. MEMBER SCREW AND STITCH SCREW PATTERNS AND LOCATIONS SHALL BE IN ACCORDANCE WITH ROOF AND WALL DETAILS SHOWN ON DWG. # E012
5. S.N. SUPPLIES 5% OVERAGE FOR SCREWS AND ANY CLAIM ON SHORTAGE BECAUSE OF NON-COMPLIANCE WITH THE DRAWINGS SHALL NOT BE S.N.'S RESPONSIBLITY.

NOTE: TO DISCUSS DETAILS ABOUT THE CURB YOU NEED OR TO PURCHASE A CURB, CALL RCS-ROOF CURB SYSTEMS AT SALES@ROOFCURB.COM OR 1-800-683-5848

ROOF SHEETING PLAN

Panel Type	: 24 Ga. Platinum (16" Wide SSR)
Pan Type	: Striated
Clips Type	: 3 3/8" High Floating
Thermal Blocks	: 3/8" Thk.
Lok Seam	: Quad-Lok
Panel Color	: S3000 Standard (KYNAR)

[A] SOFFIT PANELS: 24 Ga. RFP - Cool White

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SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	0.625	2.00	6"	1/2"	1'-5 9/16"

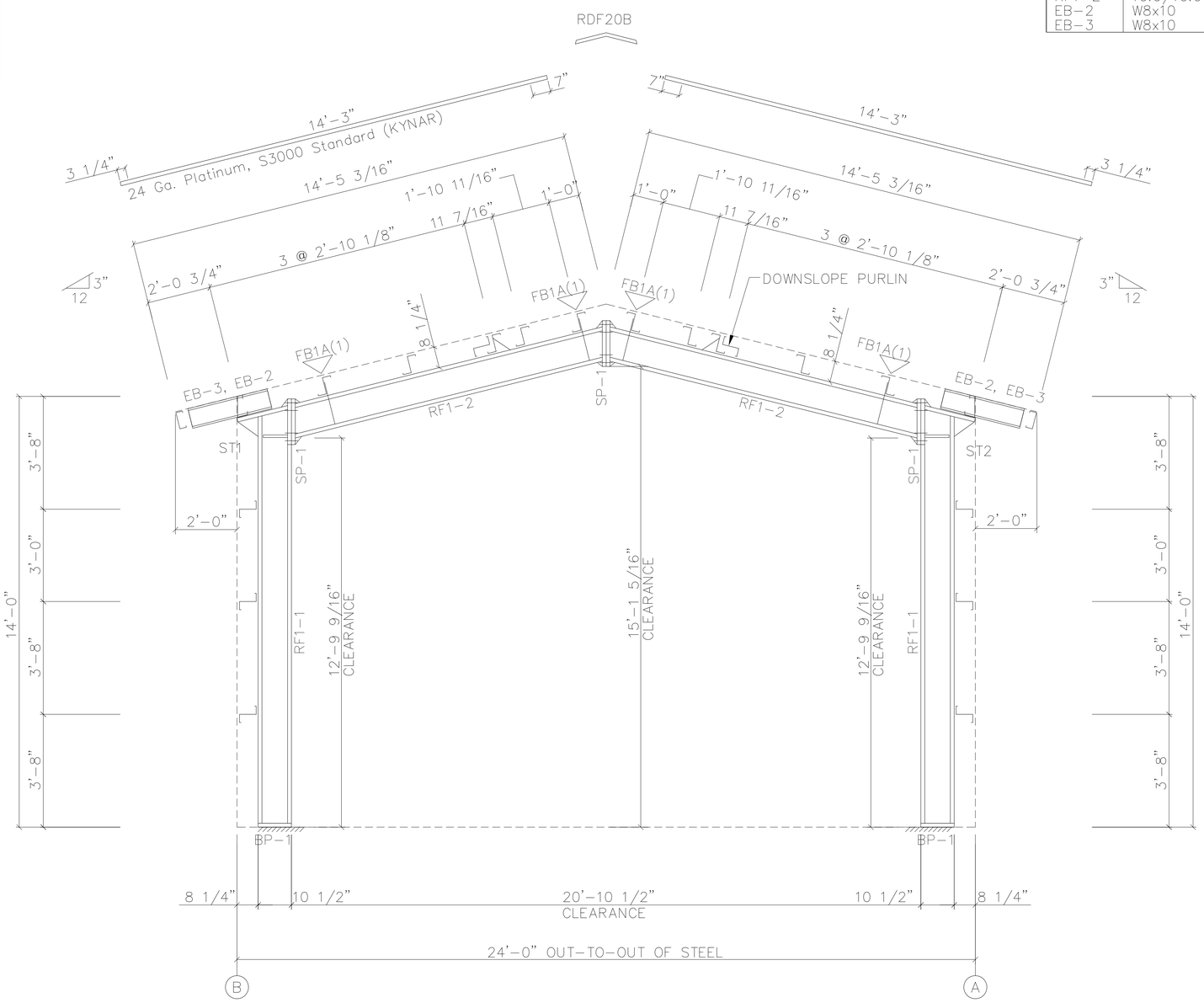
FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Web Plate Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF1-1	10.0/10.0	0.135	163.4	6 x 1/4" x 160.8 6 x 1/4" x 19.0	6 x 1/4" x 149.6
RF1-2	10.0/10.0	0.135	130.3	6 x 1/4" x 127.8	6 x 1/4" x 127.8
EB-2	W8x10				
EB-3	W8x10				

STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF1-1	ST1	2.500	0.250	9.500

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	11 1/2"

FOR PERMIT



RIGID FRAME ELEVATION: FRAME LINE 1 3

NOTE: REFER TO ROOF FRAMING PLAN FOR COLUMN & RAFTER PC. MARKS.

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

John Long
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/15/2025

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ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	RIGID FRAME ELEVATION
CUSTOMER	STEEL NATION BUILDINGS, INC.
END USER	Columbia Gas (NiSource CG Utility Building)
END USE	Garage Building / BUILDING / A
STREET	1336 Ridgeview Road (40.014367, -83.048681)
CITY ST ZIP	Upper Arlington, OH 43221

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82397	173430	N.T.S.	E003	A

SPLICE PLATE & BOLT TABLE									
Mark	Qty Top	Bot	Int	Type	Dia	Length	Width	Thick	Length
SP-1	4	4	0	A325	0.625	2.00	6"	1/2"	1'-7 5/8"

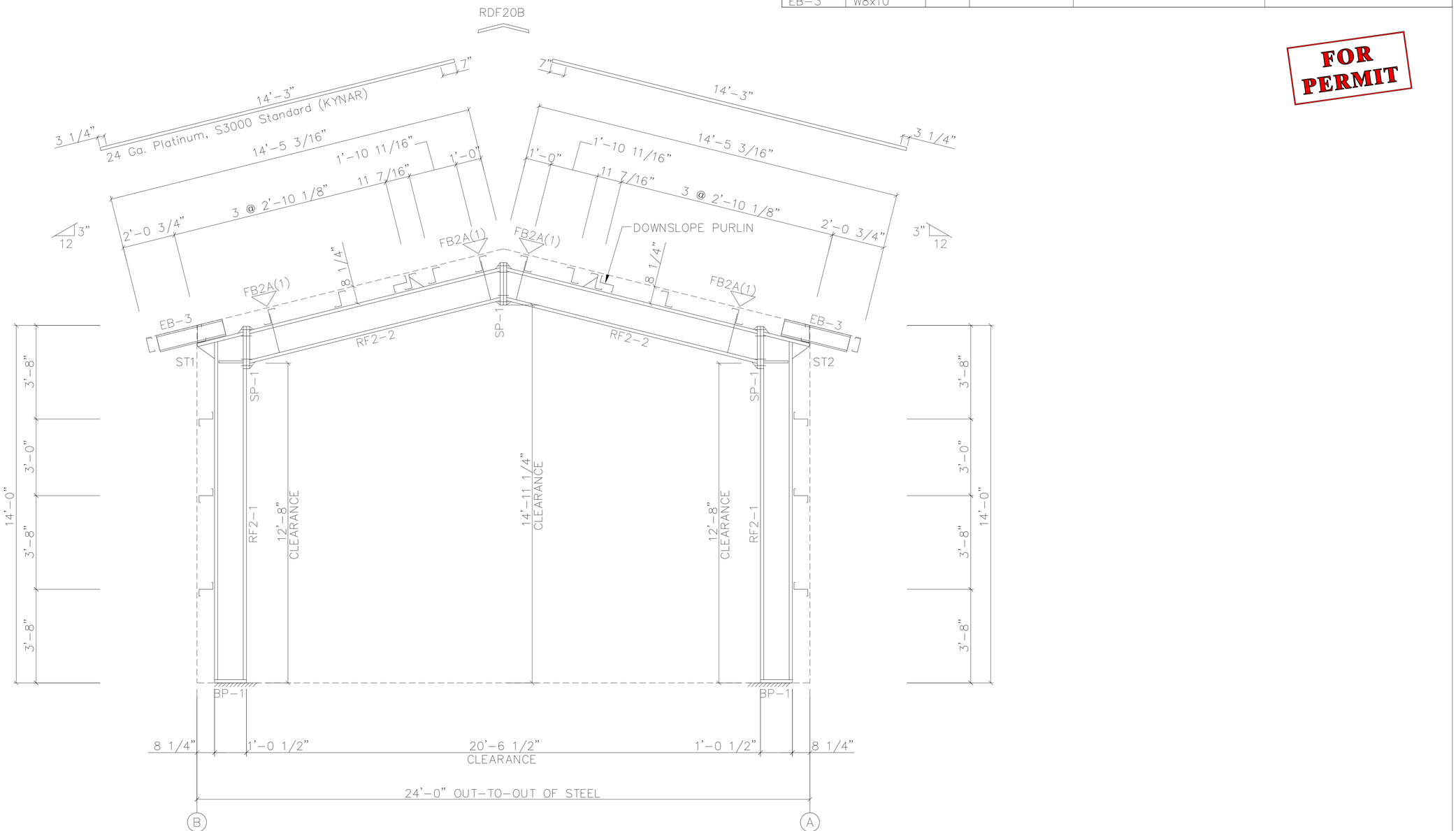
STIFFENER TABLE				
Mark	Stiff Mark	Plate Size Width	Thick	Length
RF2-1	ST1	2.500	0.250	11.50

BASE PLATE TABLE			
Col Mark	Plate Size Width	Thick	Length
BP-1	8"	1/2"	1'-1 1/2"

FBXXA(1)=FLANGE BRACE AT ONE SIDE ONLY
FBXXA(2)=FLANGE BRACE AT BOTH SIDES
A - L2x2x14

MEMBER TABLE					
Mark	Web Depth Start/End	Web Plate Thick	Length	Outside Flange W x Thk x Length	Inside Flange W x Thk x Length
RF2-1	12.0/12.0	0.135	163.9	6 x 1/4" x 160.8 6 x 1/4" x 21.1	6 x 1/4" x 148.0
RF2-2 EB-3	12.0/12.0 W8x10	0.135	128.8	6 x 1/4" x 125.7	6 x 1/4" x 125.7

FOR PERMIT



RIGID FRAME ELEVATION: FRAME LINE 2

NOTE: REFER TO ROOF FRAMING PLAN FOR COLUMN & RAFTER PC. MARKS.

GENERAL NOTES:

CONSTRUCTION NOTES FOR THE RIGID FRAMES.

1. ALL PRIMARY STRUCTURAL STEEL SHALL BE FABRICATED FROM 50 OR 55 KSI STEEL.
2. ALL FIELD CONNECTIONS OF PRIMARY FRAMING MEMBERS SHALL BE BOLTED WITH A325 H. S. BOLTS.
3. ALL FIELD CONNECTIONS OF SECONDARY FRAMING SHALL BE BOLTED WITH A307 MACHINE BOLTS.
4. WELDING PROCESSES USED BY MANUFACTURER ARE IN ACCORDANCE WITH SEC. 1.3 OF AWS D 1.1.
5. A325 High Strength bolt shall be tightened with one washer. Refer to General Notes 1.5 and 1.6 on cover sheet for tightening methods and installation inspections.

John Long
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/15/2025

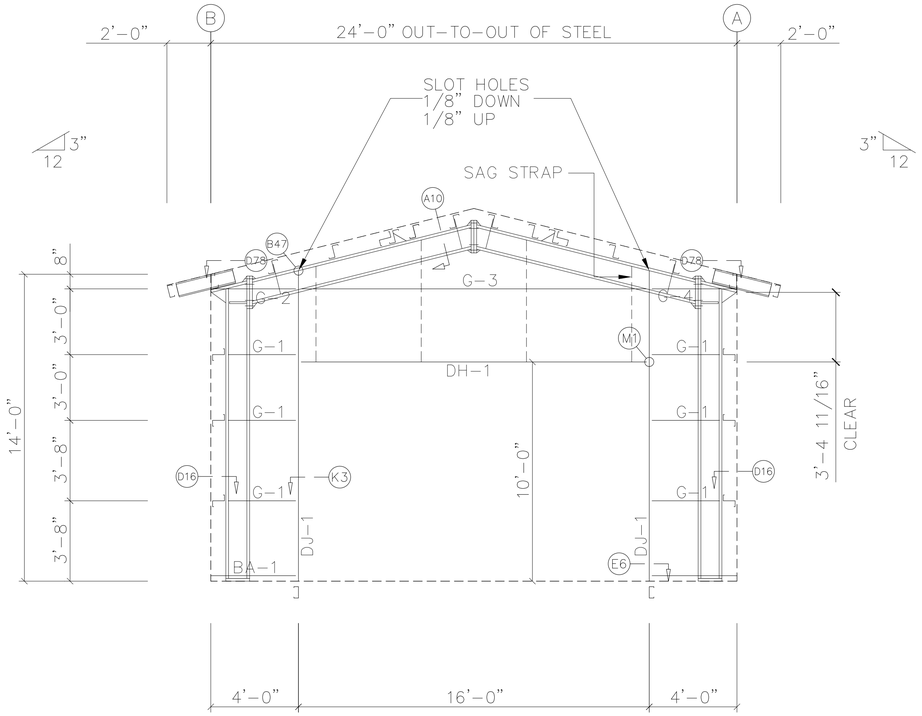
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2250 ◆ INFO@STEELNATION.COM

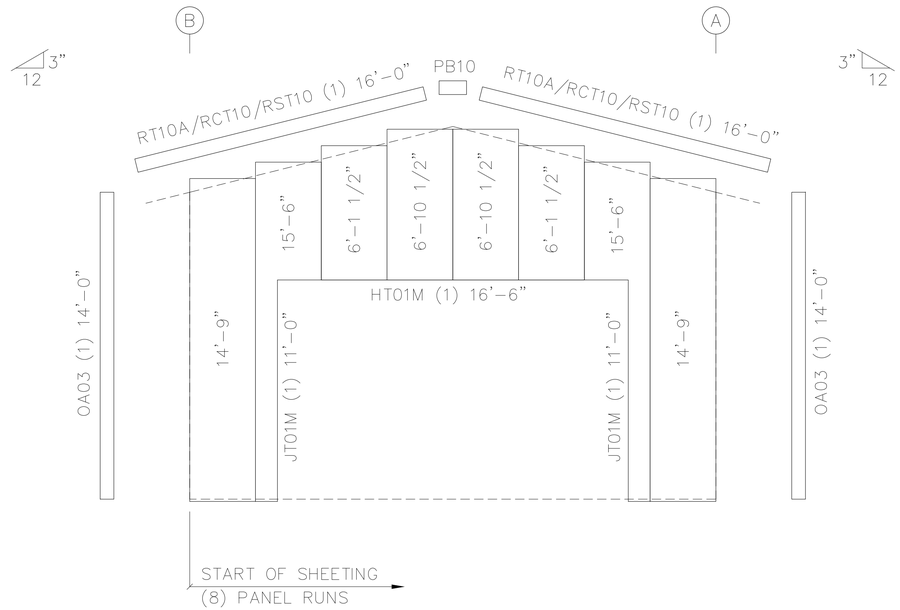
DESCRIPTION	RIGID FRAME ELEVATION			
CUSTOMER	STEEL NATION BUILDINGS, INC.			
END USER	Columbia Gas (NiSource CG Utility Building)			
END USE	Garage Building	BUILDING	A	
STREET	1336 Ridgeview Road (40.014367, -83.048681)			
CITY ST ZIP	Upper Arlington, OH 43221			
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E004	ISSUE: A

MEMBER TABLE FRAME LINE 1	
MARK	PART
DJ-1	8x25C16
DH-1	8x25C16
G-1	8x25Z16
G-2	8x25Z16
G-3	8x25Z16
G-4	8x25Z16

FOR PERMIT



ENDWALL FRAMING: FRAME LINE 1



ENDWALL SHEETING & TRIM: FRAME LINE 1

PANELS: 26 Ga. Rev. PBM – Glvm.Plus

5/15/2025

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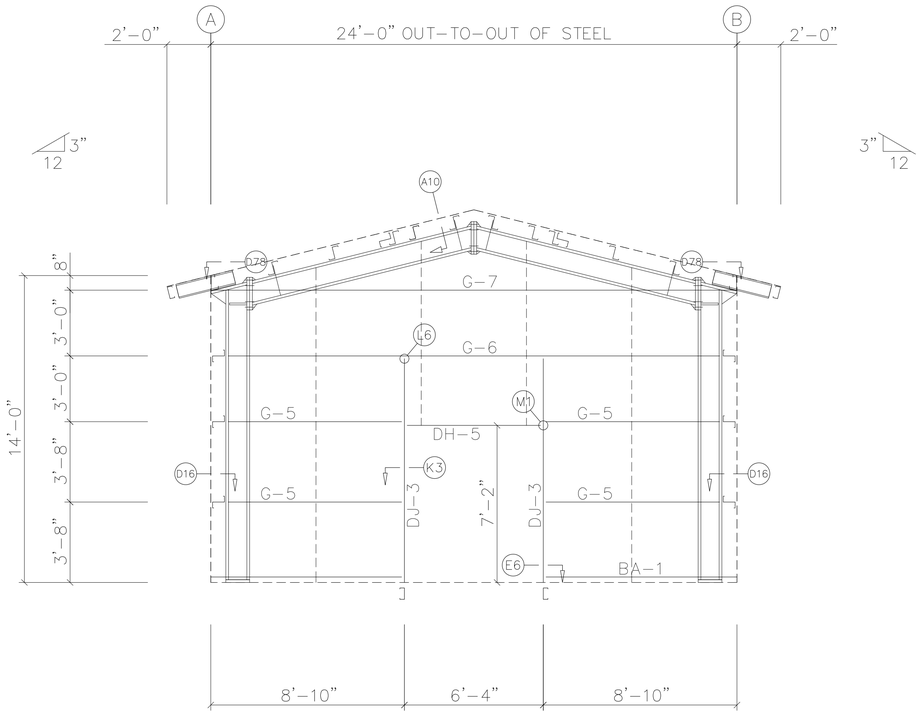
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

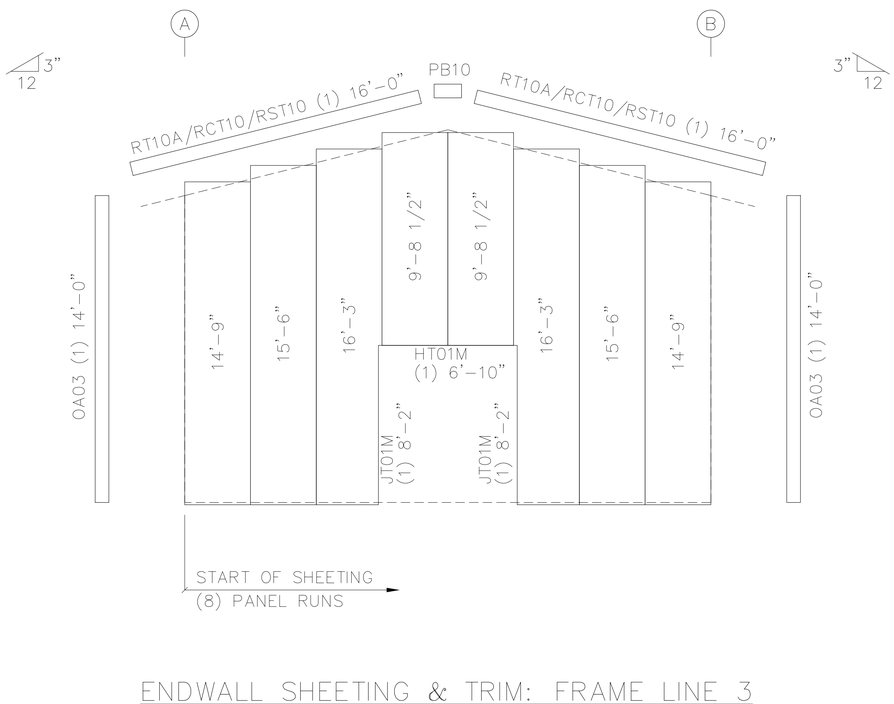
DESCRIPTION	ENDWALL FRAMING & SHEETING ELEVATION				
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building	BUILDING	A		
STREET	1336 Ridgeview Road (40.014367, -83.048681)				
CITY ST ZIP	Upper Arlington, OH 43221				
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E005	ISSUE: A	

MEMBER TABLE FRAME LINE 3	
MARK	PART
DJ-3	8x25C16
DH-5	8x25C16
G-5	8x25Z16
G-6	8x25Z26
G-7	8x35Z16

FOR PERMIT



ENDWALL FRAMING: FRAME LINE 3



ENDWALL SHEETING & TRIM: FRAME LINE 3

PANELS: 26 Ga. Rev. PBM – Glvm.Plus

5/15/2025

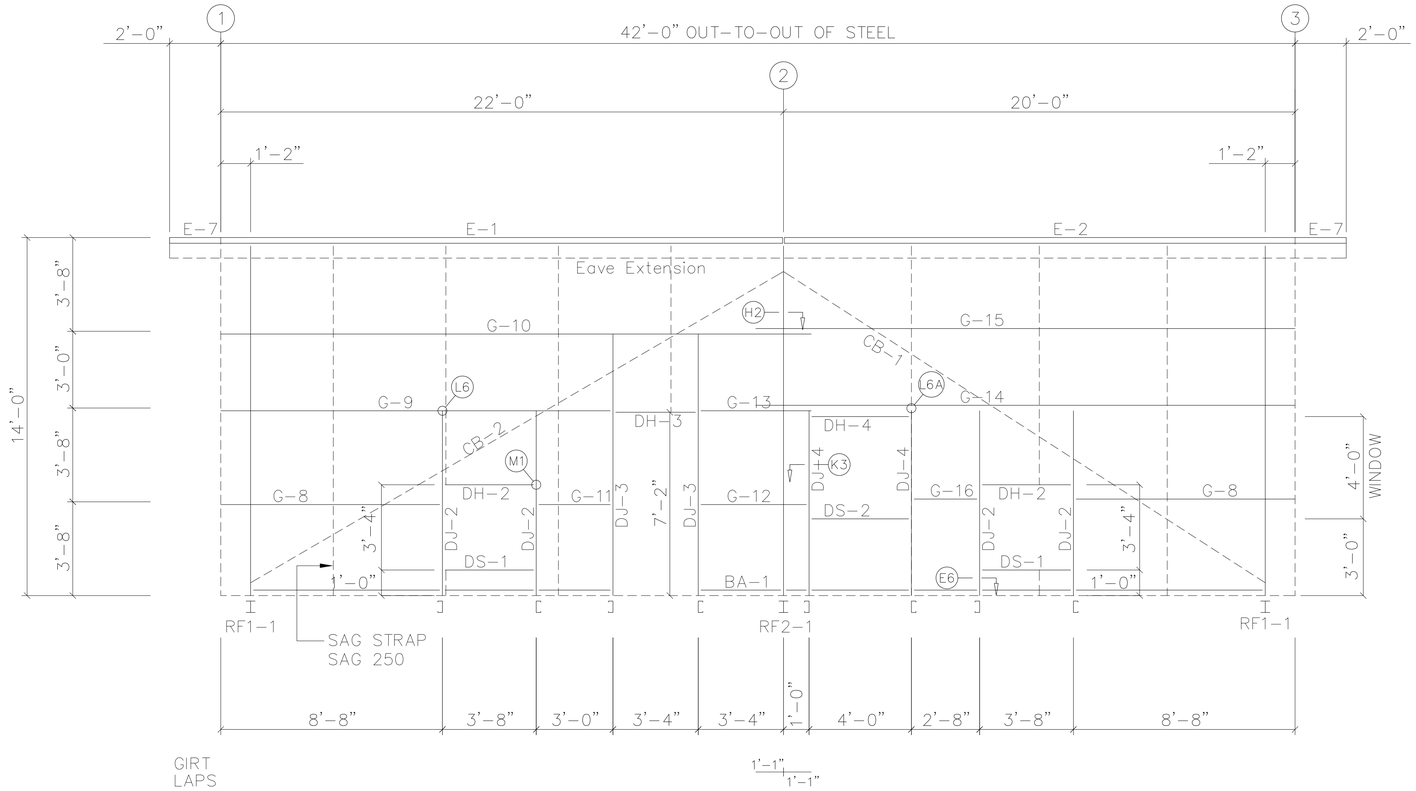
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

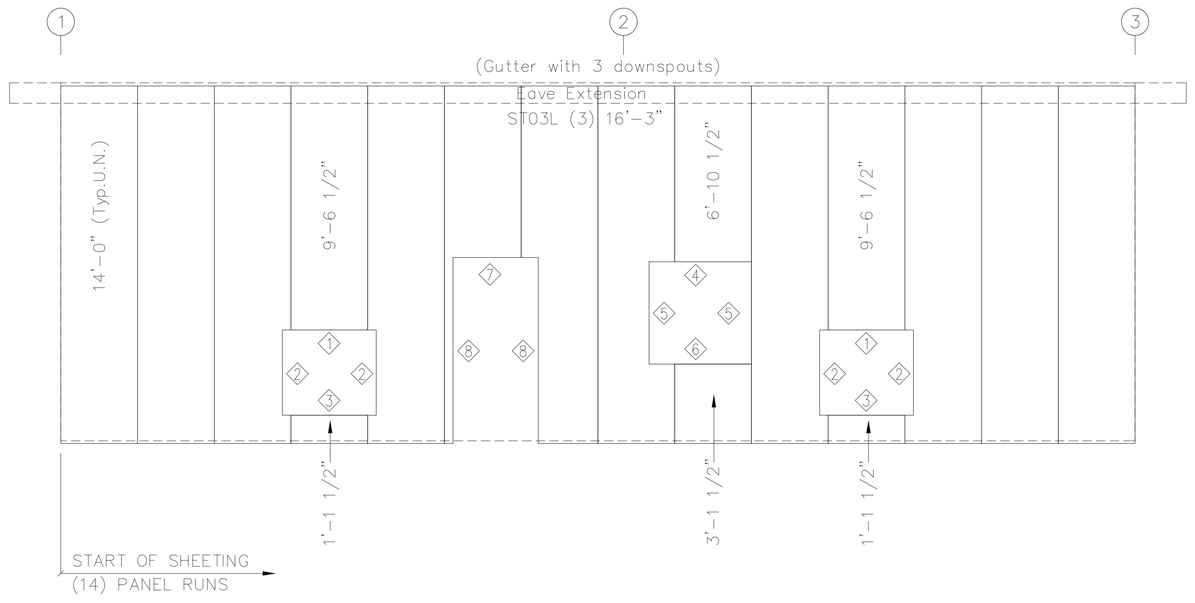
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

DESCRIPTION	ENDWALL FRAMING & SHEETING ELEVATION		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82397	173430	N.T.S.	E006	A



SIDEWALL FRAMING: FRAME LINE A



SIDEWALL SHEETING & TRIM: FRAME LINE A

PANELS: 26 Ga. Rev. PBM – Glvm.Plus

FOR PERMIT

MEMBER TABLE
FRAME LINE A

MARK	PART
DJ-2	8x25C16
DJ-3	8x25C16
DJ-4	8x25C16
DH-2	8x25C16
DH-3	8x25C16
DH-4	8x4C16 OPEN CEE
DS-1	8x25C16
DS-2	8x25C16
E-1	L8ES16
E-2	L8ES16
E-7	L8ES16
G-8	8x25Z16
G-9	8x25Z16
G-10	8x25Z16
G-11	8x25Z16
G-12	8x25Z16
G-13	8x25Z16
G-14	8x25Z16
G-15	8x25Z16
G-16	8x25Z16
CB-1	CB0313
CB-2	CB0313

TRIM TABLE
FRAME LINE A

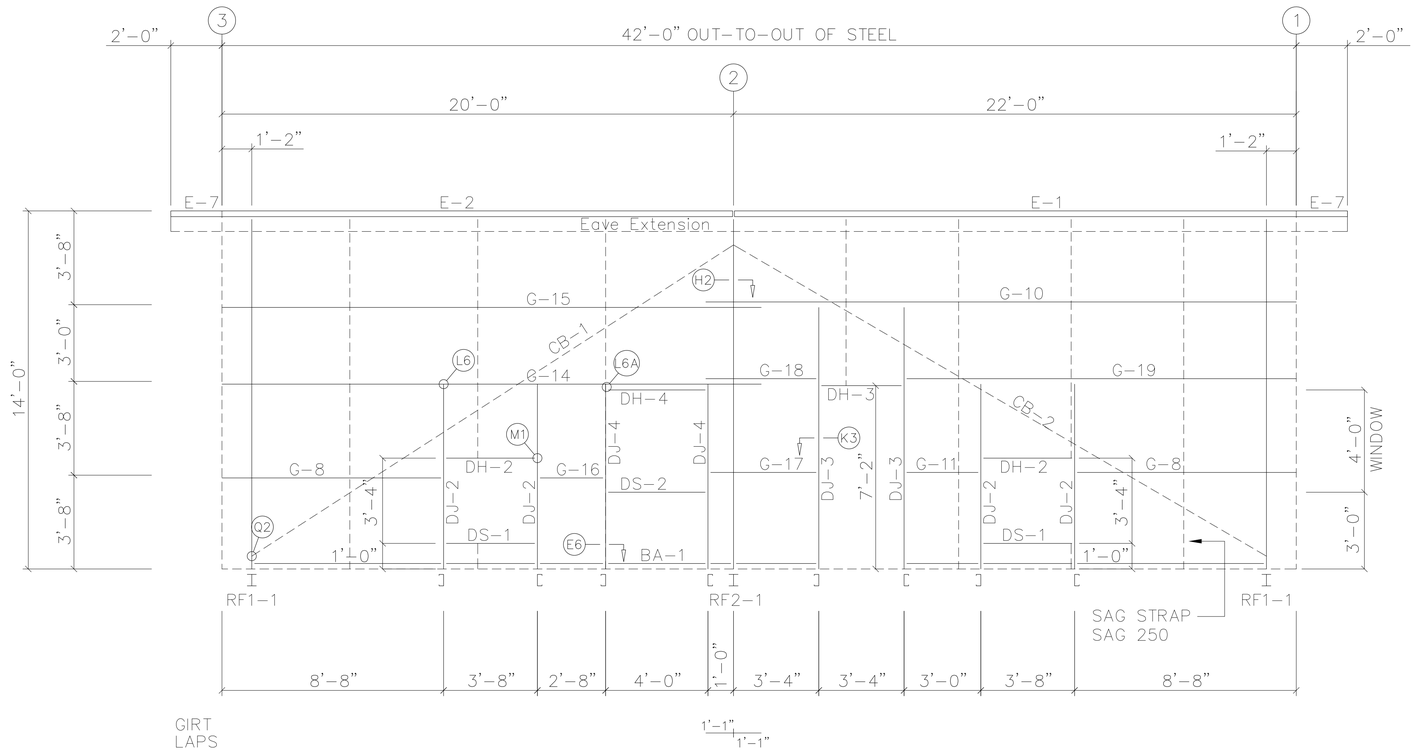
◇ID	MARK	LENGTH
1	HT01M	4'-2"
2	JT01M	3'-7"
3	WS01	3'-11"
4	HT01M	4'-2"
5	JT01M	3'-7"
6	WS01	3'-11"
7	HT01M	3'-10"
8	JT01M	7'-5"

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

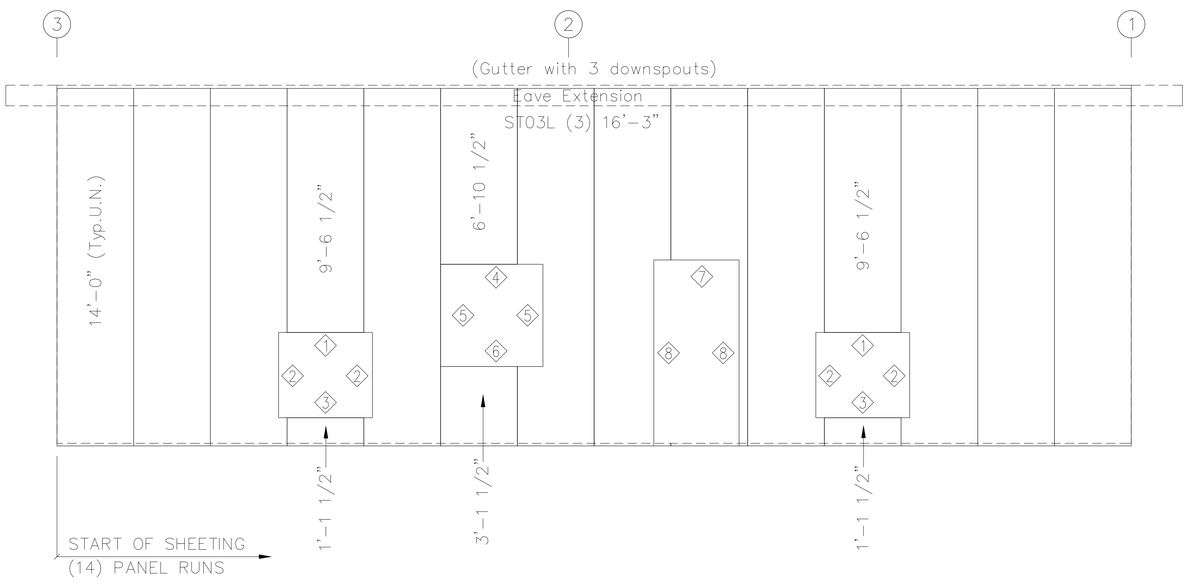
STEELNATION
100 SOUTHPOINTE SQUARE LANE ✦ CANONSBURG, PA 15317
PH: 724.225.2202 ✦ INFO@STEELNATION.COM

DESCRIPTION	SIDEWALL FRAMING & SHEETING ELEVATION		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.	JOB NO.:	SCALE:	DWG. NO.:	ISSUE
82397	173430	N.T.S.	E007	A



SIDEWALL FRAMING: FRAME LINE B



SIDEWALL SHEETING & TRIM: FRAME LINE B

PANELS: 26 Ga. Rev. PBM – Glvm.Plus

FOR PERMIT

MEMBER TABLE
FRAME LINE B

MARK	PART
DJ-2	8x25C16
DJ-3	8x25C16
DJ-4	8x25C16
DH-2	8x25C16
DH-3	8x25C16
DH-4	8x4⊏16 OPEN CEE
DS-1	8x25C16
DS-2	8x25C16
E-1	L8ES16
E-2	L8ES16
E-7	L8ES16
G-8	8x25Z16
G-10	8x25Z16
G-11	8x25Z16
G-14	8x25Z16
G-15	8x25Z16
G-16	8x25Z16
G-17	8x25Z16
G-18	8x25Z16
G-19	8x25Z16
CB-1	CB0313
CB-2	CB0313

TRIM TABLE
FRAME LINE B

◇ID	MARK	LENGTH
1	HT01M	4'-2"
2	JT01M	3'-7"
3	WS01	3'-11"
4	HT01M	4'-2"
5	JT01M	3'-7"
6	WS01	3'-11"
7	HT01M	3'-10"
8	JT01M	7'-5"

5/15/2025

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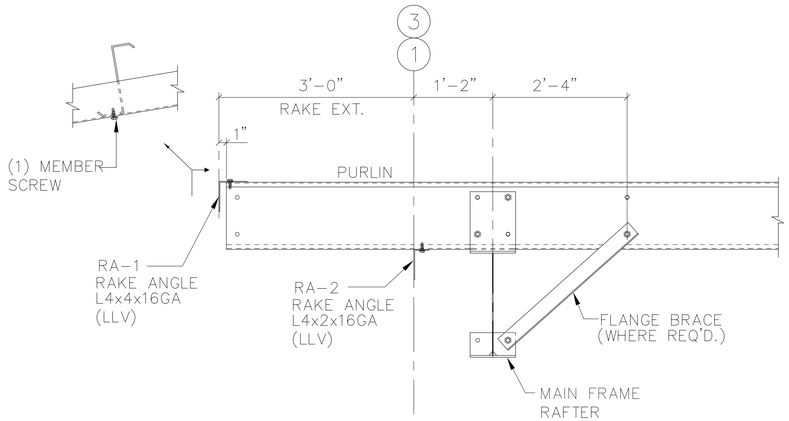
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

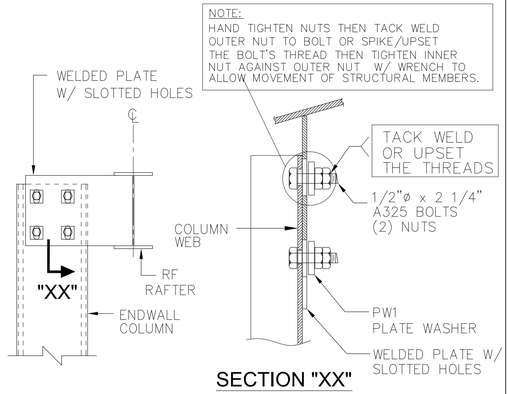
STEELNATION
100 SOUTHPOINTE SQUARE LANE ✦ CANONSBURG, PA 15317
PH: 724.225.2202 ✦ INFO@STEELNATION.COM

DESCRIPTION	SIDEWALL FRAMING & SHEETING ELEVATION		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

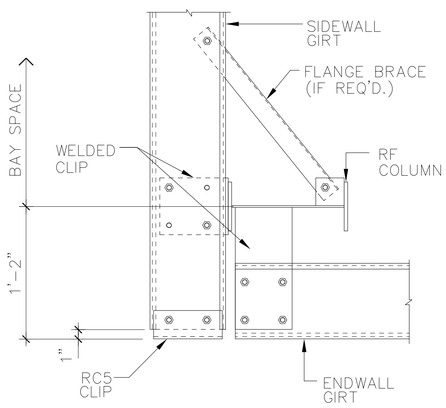
SALES NO.	JOB NO.:	SCALE:	DWG. NO.:	ISSUE
82397	173430	N.T.S.	E008	A



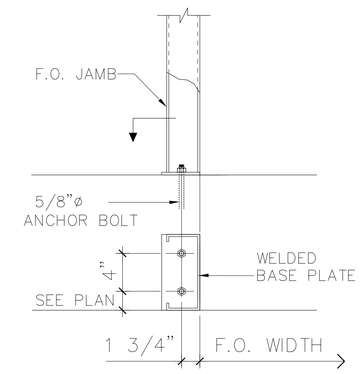
A10 **MAIN FRAME ENDWALL WITH ROOF EXTENSION**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



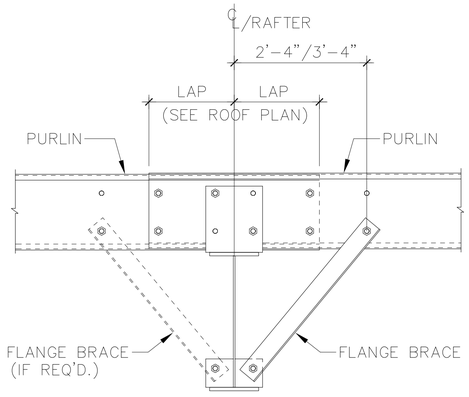
B47 **COLUMN OR JAMB TO RF RAFTER**



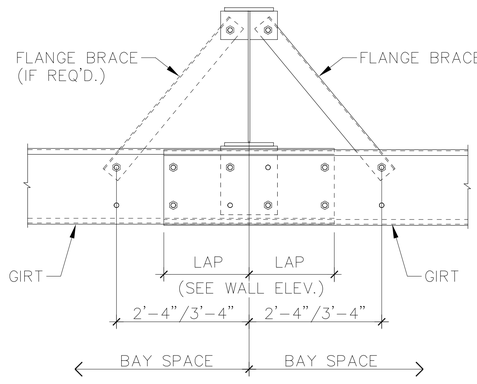
D16 **RF CORNER COLUMN TO WALL GIRT**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



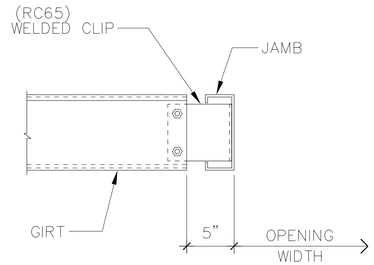
E6 **"FO" JAMB BASE DETAIL**
WITH WELDED BASE PLATE



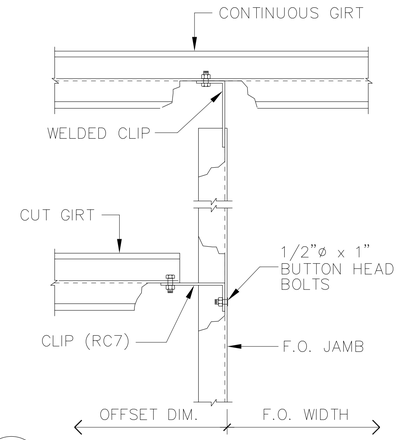
G2 **BY-PASS PURLIN TO RAFTER DETAIL**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



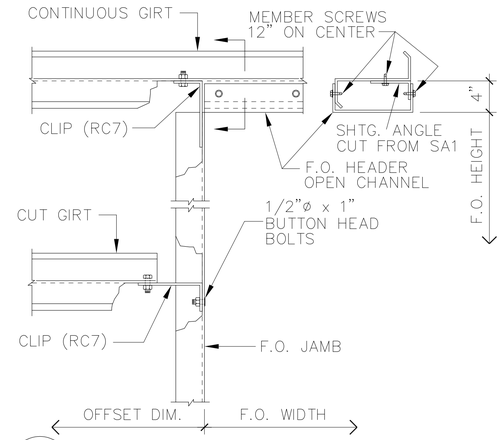
H2 **WALL GIRT TO RF COLUMN**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



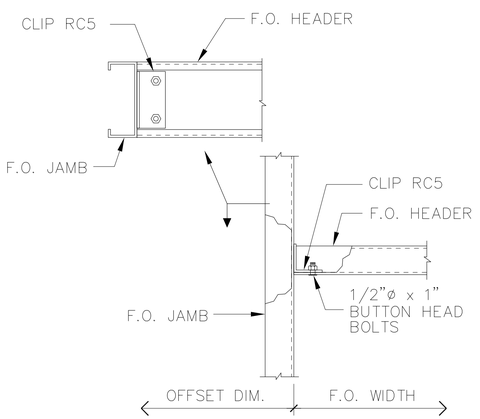
K3 **GIRT TO FRAMED OPENING JAMB**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



L6 **F.O. JAMB TO GIRT**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



L6A **F.O. JAMB TO GIRT**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.



M1 **F.O. HEADER TO F.O. JAMB**
ALL BOLTS ARE 1/2"ø x 1" A307 U.N.

FOR PERMIT

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/15/2025

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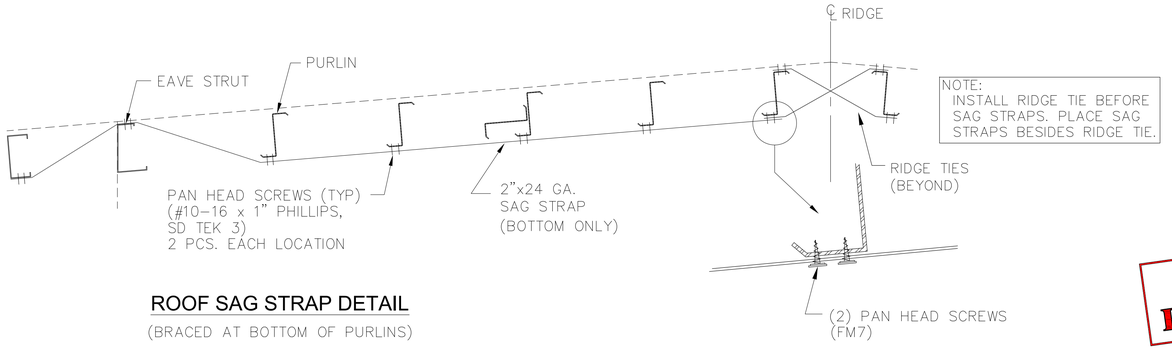
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

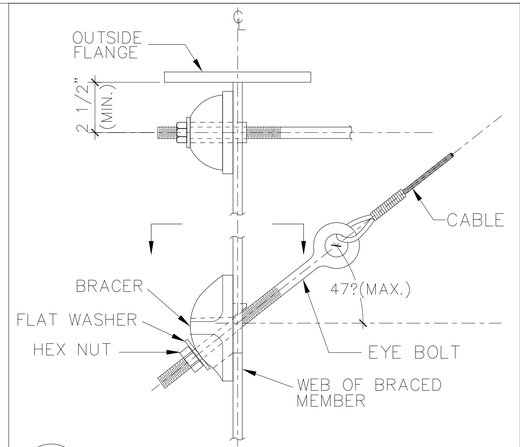
SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82397	173430	N.T.S.	E009	A



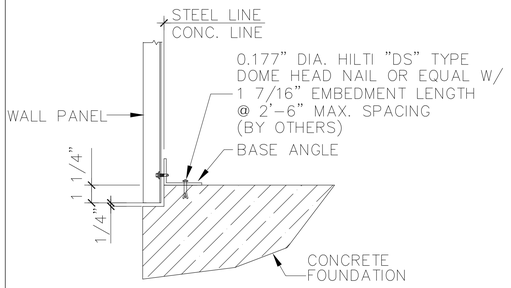
ROOF SAG STRAP DETAIL

(BRACED AT BOTTOM OF PURLINS)

FOR PERMIT



Q2 CABLE BRACE CONNECTION DETAIL

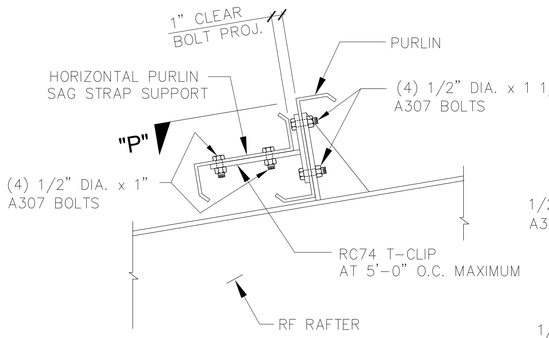


NOTE:

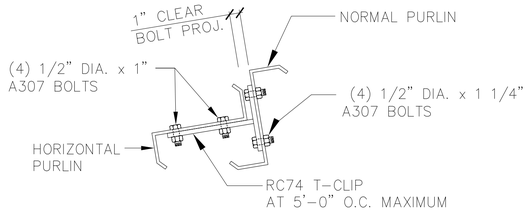
METAL WALL SHEETS SHALL BE SET 1/4" ABOVE CONC. NOTCH. METAL SHEETS SHOULD NOT TOUCH THE CONC. NOTCH, WHICH WOULD VOID THE WARRANTY.

DETAIL BASE w/ NOTCH

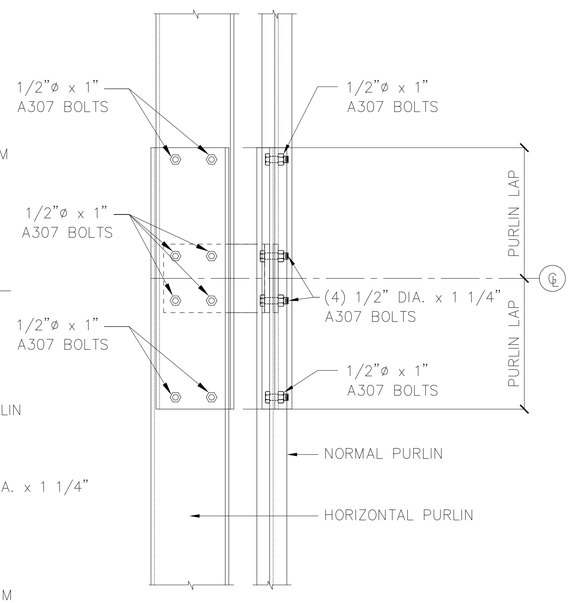
ID 1303-R0; T3_NOTCH; NO TRIM-ANGLE-NOTCH



HORIZONTAL PURLIN CONNECTION TO RF RAFTER



HORIZONTAL PURLIN CONNECTION BETWEEN BAYS



SECTION "P"

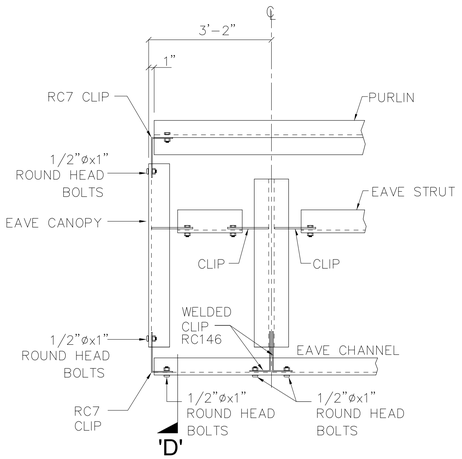
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED
PROFESSIONAL ENGINEER

5/15/2025

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

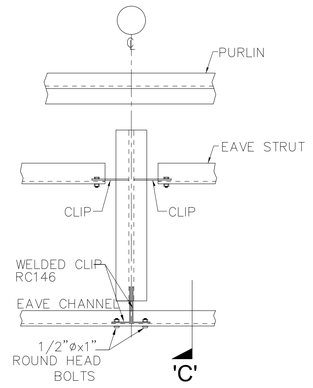
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS				
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building	BUILDING	A		
STREET	1336 Ridgeview Road (40.014367, -83.046681)				
CITY ST ZIP	Upper Arlington, OH 43221				
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E010	ISSUE: A	



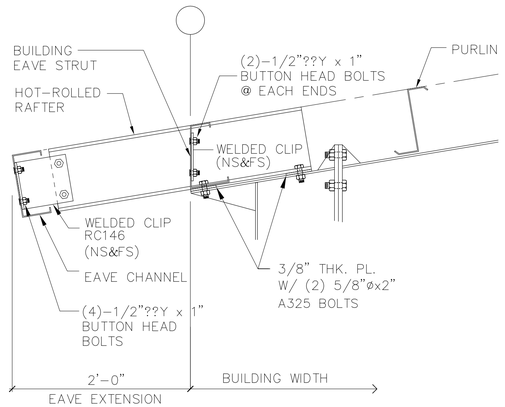
DETAIL 'A'

* ALL BOLTS ARE 1/2"ø x1" ROUND HEAD BOLTS U.N.



DETAIL 'B'

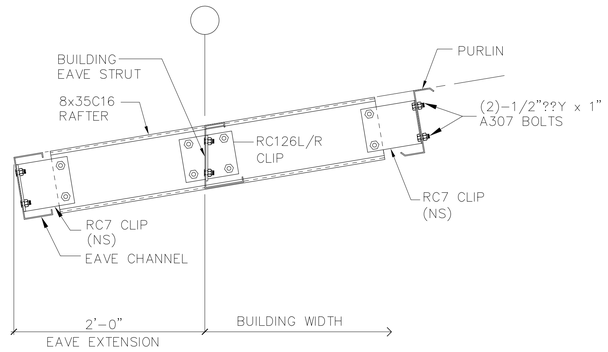
* ALL BOLTS ARE 1/2"ø x1" A307 BOLTS U.N.



SECTION 'C'

HOT-ROLLED EAVE EXTENSION DETAIL

ALL BOLTS ARE 1/2"ø x 1" A307 U.N.

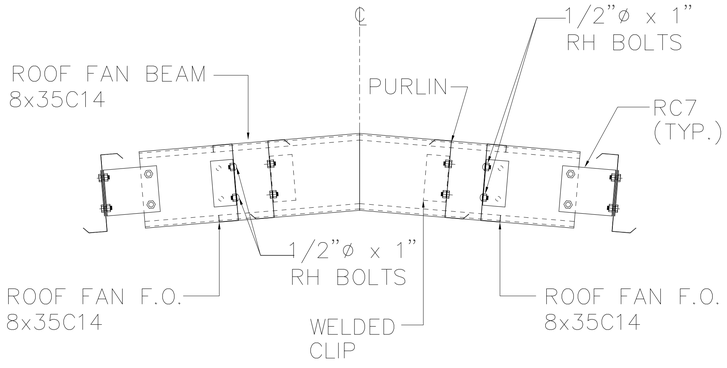


SECTION 'D'

EAVE CANOPY DETAIL

ALL BOLTS ARE 1/2"ø x 1" ROUND HEAD BOLTS U.N.

FOR PERMIT



SECTION "1R"

JOHN A. LONG E-51396 REGISTERED PROFESSIONAL ENGINEER STATE OF OHIO

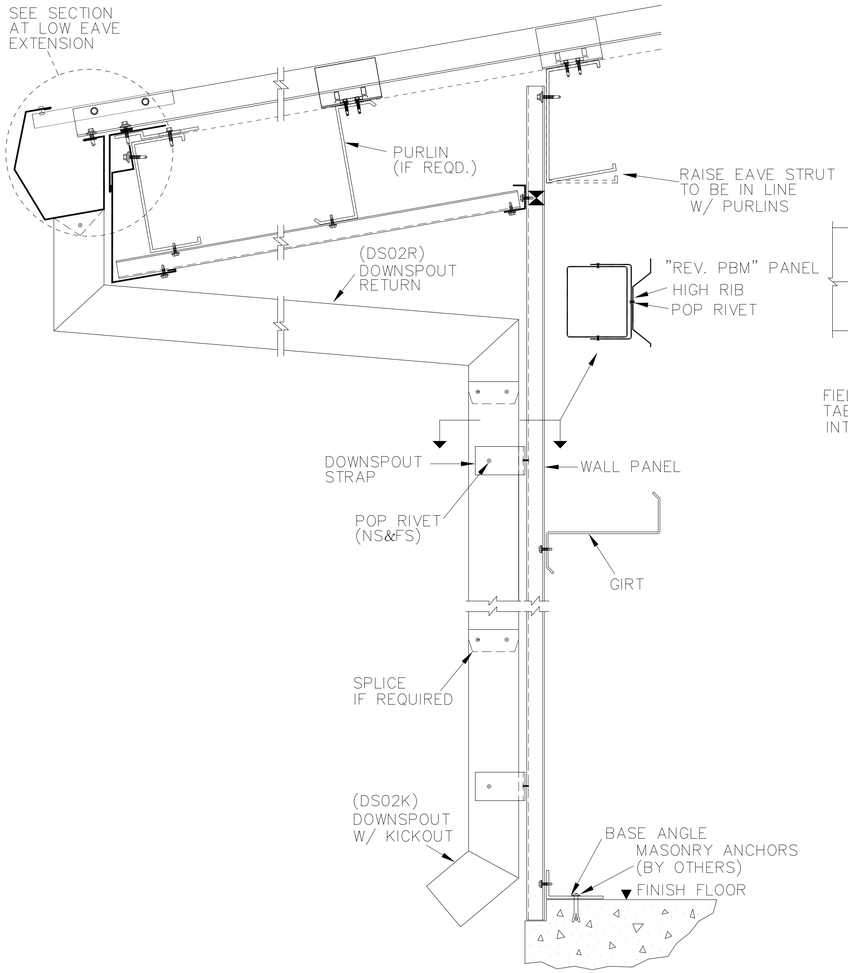
5/15/2025

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

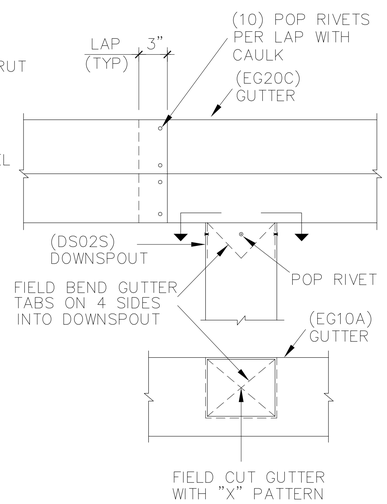
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2201 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

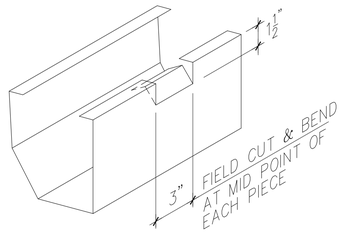
SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82397	173430	N.T.S.	E011	A



1 DOWNSPOUT & GUTTER DETAIL-FULLY SHEETED WITH EAVE EXTENSION WITH SOFFIT

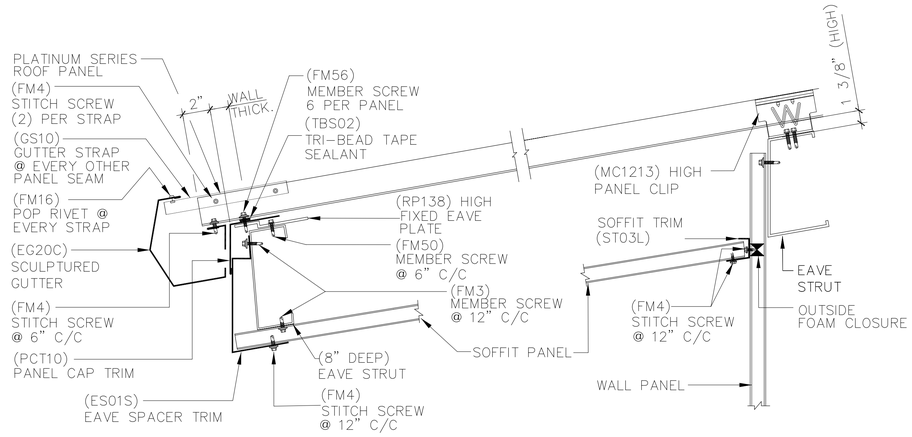


DOWNSPOUT TO GUTTER DETAIL



GUTTER OVERFLOW RELIEF

D.S. STRAP QUANTITY	
E.H.	QTY.
14'-0	2



2 DETAIL LOW EAVE EXT. w/ GUTTER w/ "PLATINUM" ROOF

ID 4872_HF_SF-R1; ST/LG-8-HF-3 (LOW EAVE EXT w/ GUTTER)

FOR PERMIT

5/15/2025

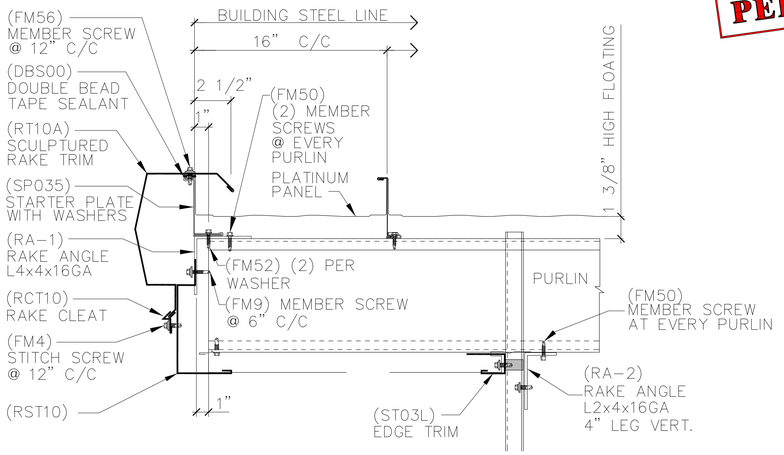
SEALING OF THIS DRAWING DOES NOT IMPLY OR CONSTITUTE THAT STEEL NATION ENGINEER IS THE ENGINEER OF RECORD OR THE DESIGN PROFESSIONAL FOR THIS PROJECT. ONLY THE DESIGN OF THE METAL BUILDING SYSTEM AS FURNISHED BY S.N. IS INCLUDED. FOUNDATION ANALYSIS, ELECTRICAL, AND MECHANICAL SYSTEMS, AND/OR OTHER PARTS SUPPLIED BY ANYONE OTHER THAN S.N. ARE SPECIFICALLY EXCLUDED. NO INSPECTION OR SUPERVISION IS IMPLIED.

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2200 ◆ INFO@STEELNATION.COM

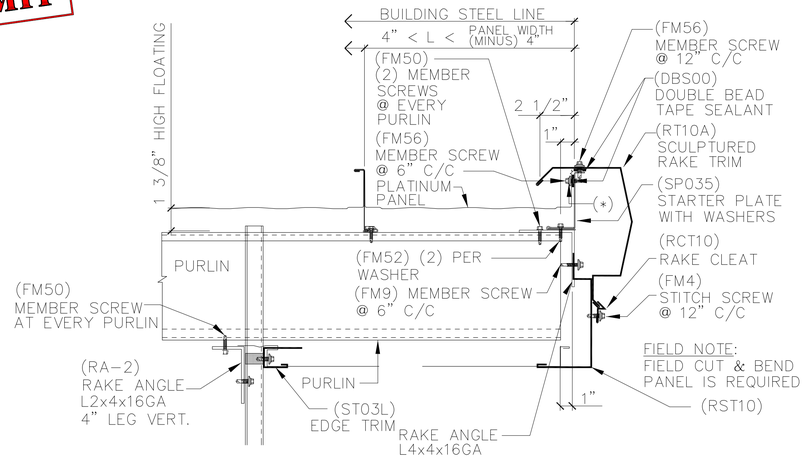
DESCRIPTION	DETAIL DRAWINGS				
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building	BUILDING	A		
STREET	1336 Ridgeview Road (40.014367, -83.048681)				
CITY ST ZIP	Upper Arlington, OH 43221				
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E012	ISSUE: A	

FOR PERMIT



4 DETAIL RAKE START w/ "PLATINUM" ROOF

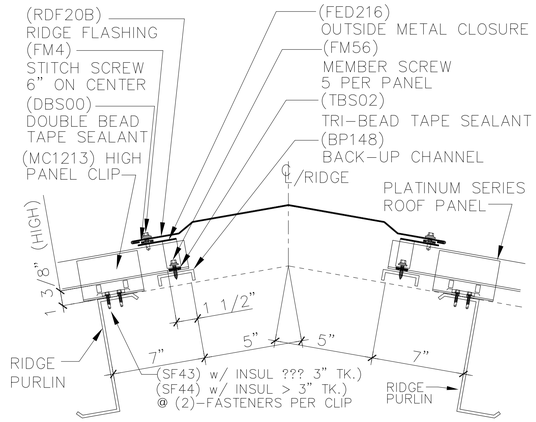
ID 6845-R0; PT-ST-HF_0 (HC) (ON MODULE)



5 DETAIL RAKE END w/ "PLATINUM" ROOF

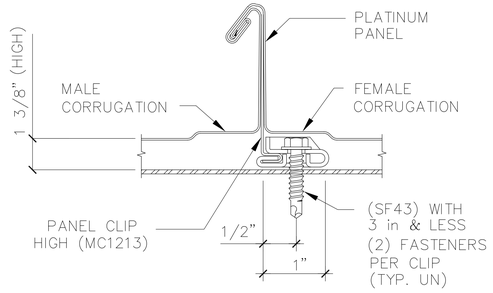
ID 7835_HF_FC-R0; PT-ST-HF_FC (HC) (OFF MODULE)

(*)-OFFSET SCREW FROM RAKE TRIM SCREW LINE

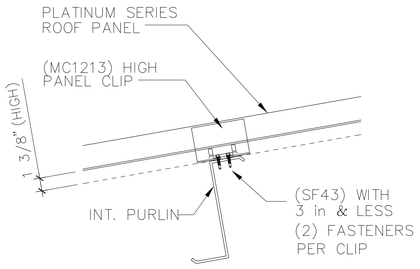


3 DETAIL PEAK w/ "PLATINUM" ROOF

ID 2906_HF-R0; PS-HF-6 (RIDGE OUT FOR GABLE)



QUAD-LOK SEAM WITH FLOATING CLIP



SECTION THRU INTERIOR PURLIN - FLOATING STANDARD CLIP

5/15/2025

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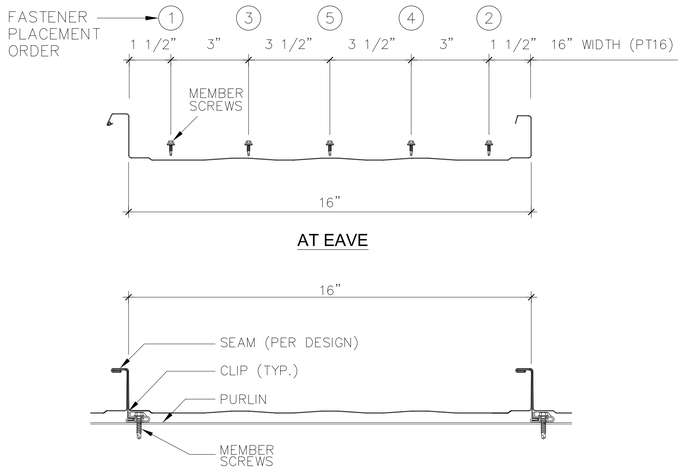
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

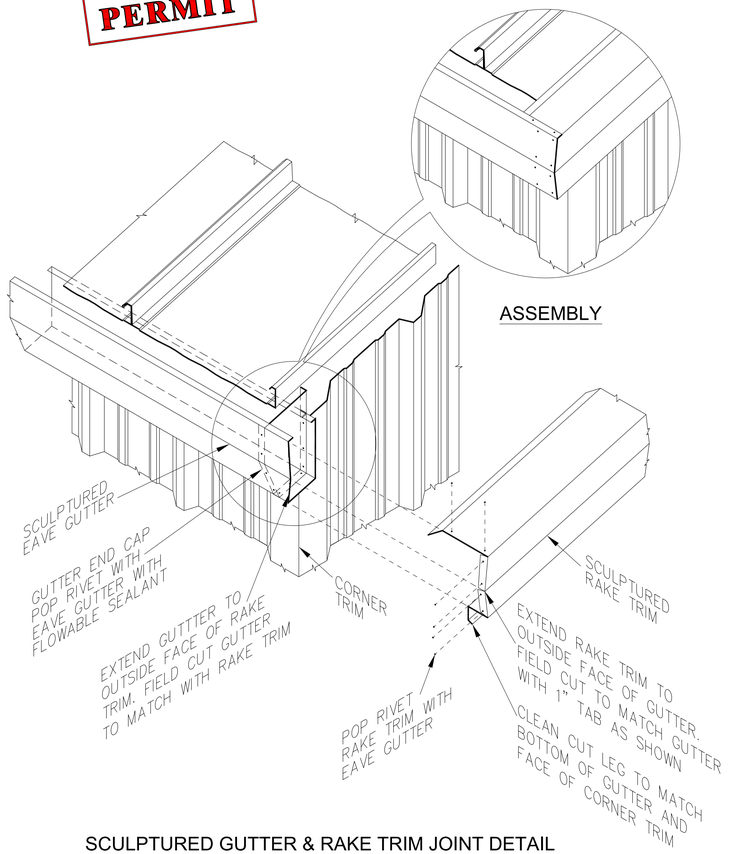
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS				
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building	BUILDING	A		
STREET	1336 Ridgeview Road (40.014367, -83.048681)				
CITY ST ZIP	Upper Arlington, OH 43221				
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E013	ISSUE: A	



PLATINUM PANEL FASTENER LOCATION

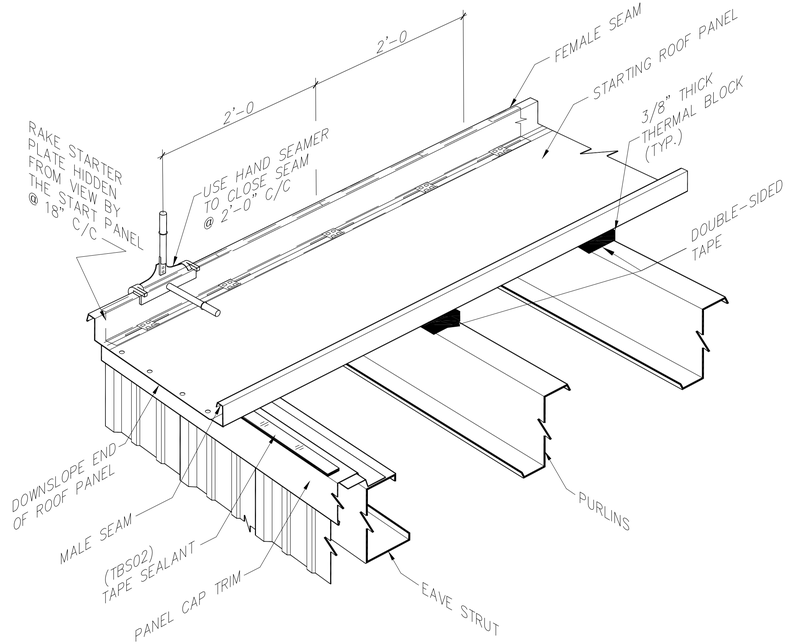
FOR PERMIT



SCULPTURED GUTTER & RAKE TRIM JOINT DETAIL
WITH "PLATINUM" ROOF PANEL

NOTE:
SEAM STARTING ROOF PANEL WITH MANUAL SEAMING TOOL AT RAKE STARTER PLATE (2'-0" C/C).

* REFER TO SECTION 9.3.4 OF THE PLATINUM ROOF SYSTEM INSTALLATION GUIDE FOR MORE DETAILS.



SEAMING DETAIL (HC) AT RAKE START
WITH "PLATINUM" STARTING ROOF PANEL

5/15/2025

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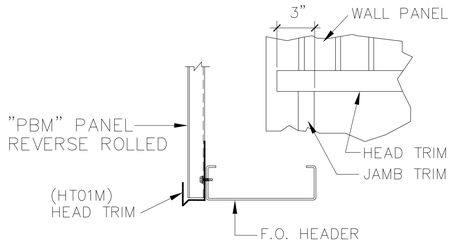
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

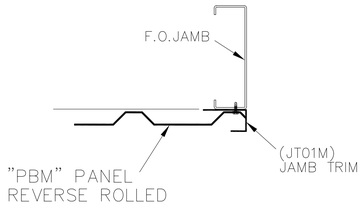
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS				
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building	BUILDING	A		
STREET	1336 Ridgeview Road (40.014367, -83.048681)				
CITY ST ZIP	Upper Arlington, OH 43221				
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: E014	ISSUE: A	

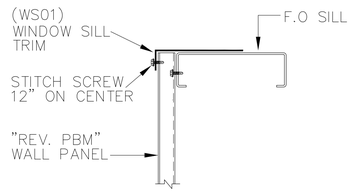
FOR PERMIT



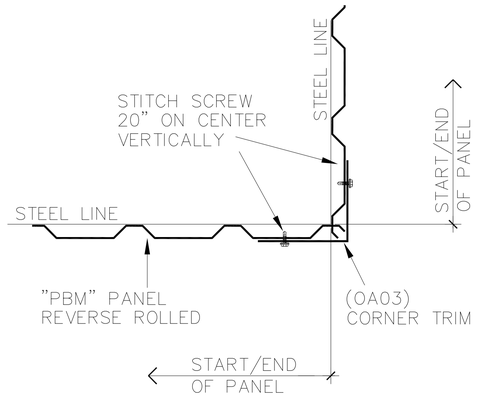
F.O. HEADER TRIM DETAIL



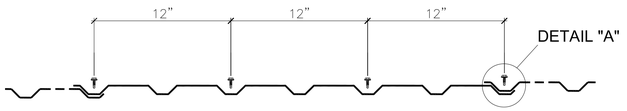
F.O. JAMB TRIM DETAIL



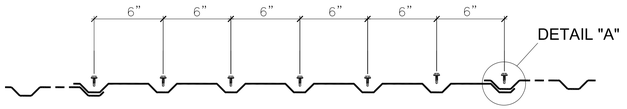
F.O. SILL TRIM DETAIL



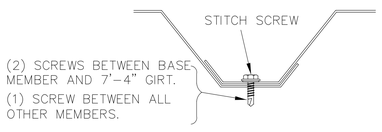
OUTSIDE CORNER DETAIL
ON MODULE



MEMBER SCREW LOCATION
FOR ALL MEMBERS UNLESS NOTED OTHERWISE

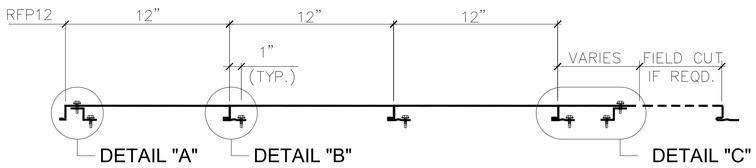


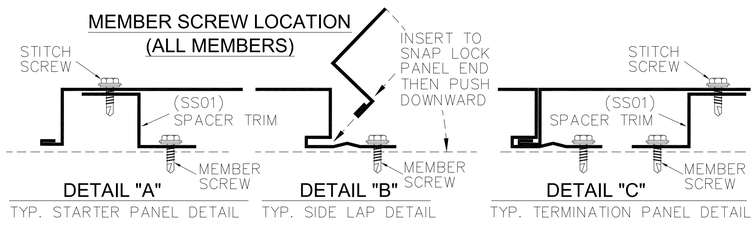
MEMBER SCREW LOCATION
FOR BASE, EAVE, RAKE, AND PANEL END LAPS ONLY



DETAIL "A"
TYP. SIDE LAP DETAIL

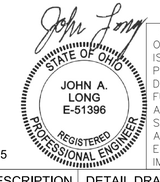
"M" AND "PBM" WALL PANEL SCREW LAYOUT
REVERSE ROLLED





DETAIL "A" TYP. STARTER PANEL DETAIL
DETAIL "B" TYP. SIDE LAP DETAIL
DETAIL "C" TYP. TERMINATION PANEL DETAIL

"RFP12" RIGID FLAT PANEL (SOFFIT) SCREW LAYOUT



5/15/2025

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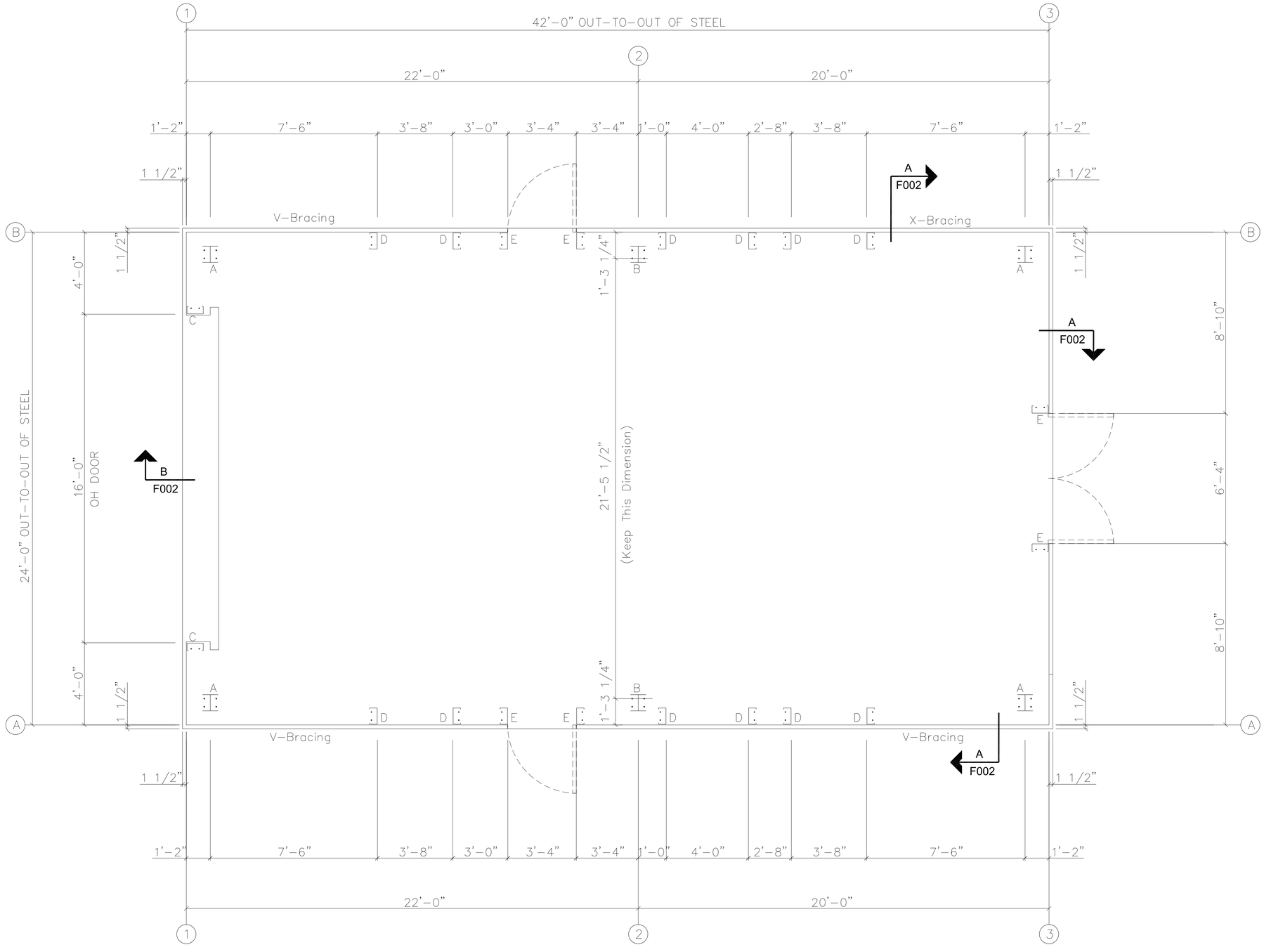
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	DETAIL DRAWINGS			
CUSTOMER	STEEL NATION BUILDINGS, INC.			
END USER	Columbia Gas (NiSource CG Utility Building)			
END USE	Garage Building	BUILDING	A	
STREET	1336 Ridgeview Road (40.014367, -83.048681)			
CITY ST ZIP	Upper Arlington, OH 43221			

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82397	173430	N.T.S.	E015	A

FOR PERMIT



COLUMN LAYOUT PLAN

NOTE: All Base Plates @ 100'-0" (U.N.)

GENERAL NOTES:

1. THE ANCHOR BOLT DETAILS SHOWN ON THIS DRAWING LOCATE THE ANCHOR BOLTS IN REFERENCE TO BOTH THE BUILDING STEEL LINE AND THE OUTSIDE OF STEEL NATION'S SUGGESTED PANEL RECESS OF 1-1/2".
2. THE ANCHOR BOLT SETTING PLAN LOCATES ANCHOR BOLTS IN REFERENCE TO THE OUTSIDE OF THE PANEL RECESS SHOWN. IF THE ACTUAL PANEL RECESS IS DIFFERENT FROM WHAT IS SHOWN ON THE ANCHOR BOLT SETTING PLAN, THEN ALL REFERENCE DIMENSIONS FROM THE OUTSIDE OF THE PANEL RECESS MUST BE DETERMINED BY THE CUSTOMER.
3. BOTTOM OF ALL BASE PLATES ARE AT THE SAME ELEVATION. (UNLESS NOTED)

NOTE:

ONLY ANCHOR BOLTS SETTING PLAN ISSUED & STAMPED "FOR CONSTRUCTION" SHALL BE USED IN SETTING ANCHOR BOLTS. 'STEEL NATION BUILDINGS' SHALL NOT BE RESPONSIBLE FOR ERROR OR DISCREPANCY IF THE DRAWING USED IS NOT VALID FOR CONSTRUCTION.

QTY.	SYMBOL	DIA.	PROJ.
–	⌖	1/2"	1"
40	⊕	5/8"	2"
24	⊕	3/4"	2 1/2"
–	⊕	7/8"	2 3/4"
–	⊕	1"	3"
–	⊕	1 1/8"	3 1/2"
–	⊕	1 1/2"	3 1/2"

ANCHOR BOLT DETAIL

ANCHOR BOLT PROJECTION "PROJ." IS MEASURED FROM BOTTOM OF BASE PLATE

LENGHT OF "PROJ." SHOWN IS FOR ONE NUT + ONE WASHER

DETAIL OF ANCHOR BOLT AS PER THE SUPPLIER

NUTS & WASHERS BY SUPPLIER

ANCHOR BOLTS NOT BY STEEL NATION BUILDINGS, INC.

ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

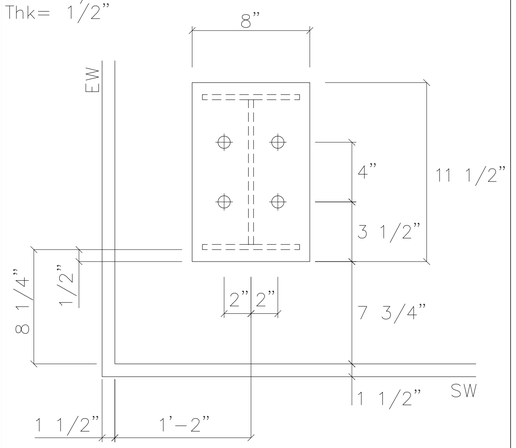
STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

John Long
STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

5/15/2025

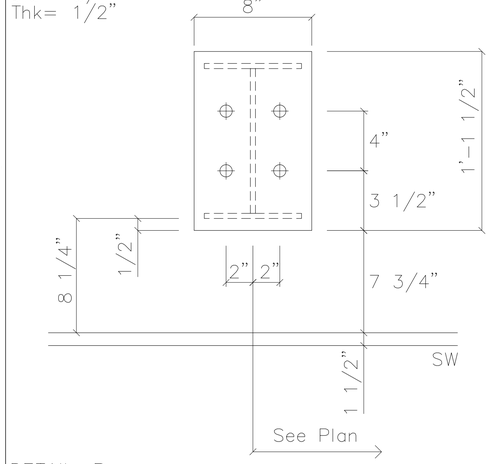
DESCRIPTION	COLUMN LAYOUT PLAN				
CUSTOMER	STEEL NATION BUILDINGS, INC.				
END USER	Columbia Gas (NiSource CG Utility Building)				
END USE	Garage Building	BUILDING	A		
STREET	1336 Ridgeview Road (40.014367, -83.048681)				
CITY ST ZIP	Upper Arlington, OH 43221				
SALES NO.: 82397	JOB NO.: 173430	SCALE: N.T.S.	DWG. NO.: F001	ISSUE: A	

Dia= 3/4"
Thk= 1/2"



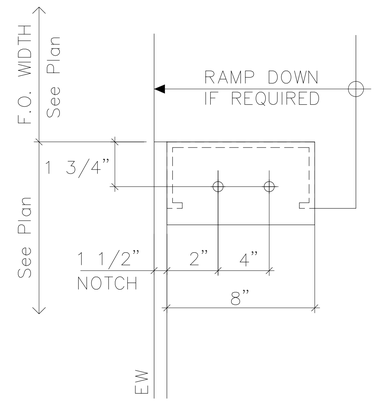
DETAIL A

Dia= 3/4"
Thk= 1/2"



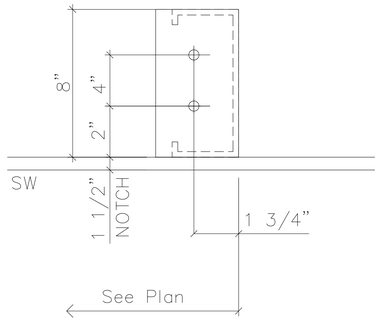
DETAIL B

Dia= 5/8"
Thk= 1/4"



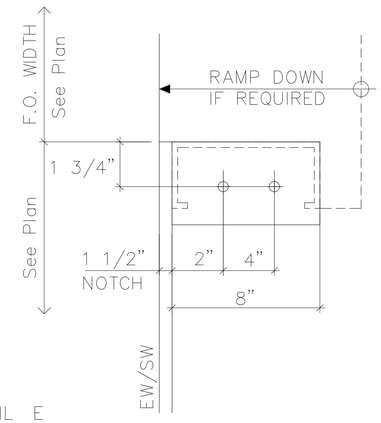
DETAIL C

Dia= 5/8"
Thk= 1/4"

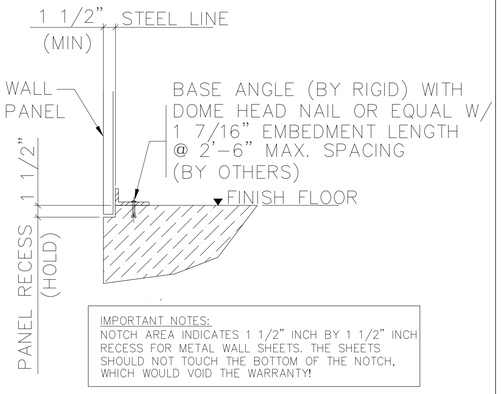


DETAIL D

Dia= 5/8"
Thk= 1/4"

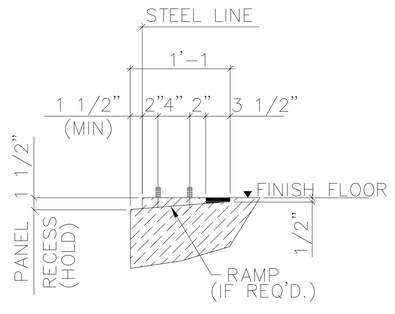


DETAIL E



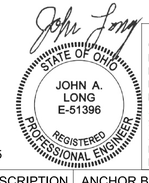
IMPORTANT NOTES:
NOTCH AREA INDICATES 1 1/2" INCH BY 1 1/2" INCH RECESS FOR METAL WALL SHEETS. THE SHEETS SHOULD NOT TOUCH THE BOTTOM OF THE NOTCH, WHICH WOULD VOID THE WARRANTY!

A TYP. SECTION THRU PANEL RECESS



B TYP. SECTION THRU FRAMED OPENING

FOR PERMIT



5/15/2025

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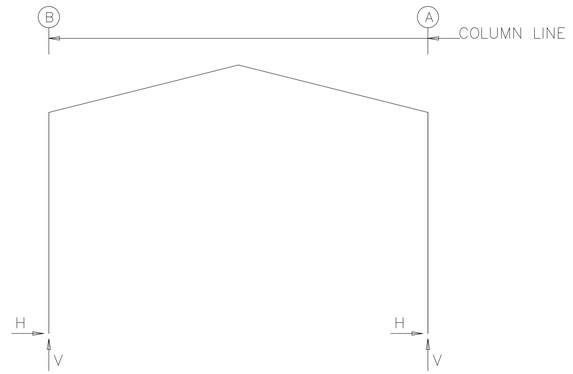
ISSUE	DESCRIPTION	DATE	DRN.	CHK.	DES.
A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT DETAILS		
CUSTOMER	STEEL NATION BUILDINGS, INC.		
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82397	173430	N.T.S.	F002	A

FRAME LINES: 1 2 3



RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Id	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
1*	B	3	1.9	5.0	6	−1.8	−2.2	4	0.750	8.000	11.50	0.500	0.0
		1	1.1	7.4	4	−1.5	−3.1						
1*	A	7	1.8	−2.2	2	−1.9	5.0	4	0.750	8.000	11.50	0.500	0.0
		8	−1.1	7.2	5	1.5	−3.1						

1* Frame lines: 1 3

RIGID FRAME: MAXIMUM REACTIONS, ANCHOR BOLTS, & BASE PLATES

Frm Id	Col Line	Column_Reactions(k) Load Id	Hmax H	V Vmax	Load Id	Hmin H	V Vmin	Bolt(in) Qty	Dia	Base_Plate(in) Width	Length	Thick	Grout (in)
2*	B	3	3.0	8.7	6	−2.5	−2.5	4	0.750	8.000	13.50	0.500	0.0
		1	2.0	12.5	4	−2.0	−4.1						
2*	A	7	2.5	−2.5	2	−3.0	8.7	4	0.750	8.000	13.50	0.500	0.0
		8	−1.9	12.1	5	2.0	−4.1						

2* Frame lines: 2

NOTES FOR REACTIONS

1. All loading conditions are examined and only maximum/minimum H or V and the corresponding H or V are reported.
2. Positive reactions are as shown in the sketch. Foundation loads are in opposite directions.
3. Bracing reactions are in the plane of the brace with the H pointing away from the braced bay. The vertical reaction is downward.
4. Building reactions are based on the following building data:

Width	(ft)	=	24.0
Length	(ft)	=	42.0
Eave Height	(ft)	=	14.0/ 14.0
Roof Slope	(rise/12)	=	3.00/ 3.00
Roof Dead Load	(psf)	=	5.0
Wall Dead Load			
Left Endwall	(psf)	=	55.0
Right Endwall	(psf)	=	55.0
Front Sidewall	(psf)	=	55.0
Back Sidewall	(psf)	=	55.0
Roof Live Load	(psf)	=	20.0
Frame Live Load			
Min	(psf)	=	13.9
Max	(psf)	=	17.0
Collateral Load	(psf)	=	5.0
Snow Load	(psf)	=	20.0
Wind Speed	(mph)	=	115.0
Wind Code		=	OBC 24 (IBC 21)
Exposure		=	C
Closure		=	Enclosed
Internal Wind Coeff		=	−0.18, +0.18
Risk Category		=	II − Normal
Importance − Wind		=	1.00
Importance − Seismic		=	1.00
Seismic Design Category		=	B
Seismic Coeff	(Sms)	=	0.19

5. Loading conditions are:

1 Dead+Collateral+Snow+Snow_Drift
2 Dead+Collateral+0.75Snow+0.45Wind_Left1+0.75Slide_Snow
3 Dead+Collateral+0.75Snow+0.45Wind_Right1+0.75Slide_Snow
4 0.6Dead+0.6Wind_Left1
5 0.6Dead+0.6Wind_Right1
6 0.6Dead+0.6Wind_Left2
7 0.6Dead+0.6Wind_Right2
8 Dead+Collateral+MIN_SNOW

RIGID FRAME: BASIC COLUMN REACTIONS (k)

Frame Id	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Snow_Drift Horz	Snow_Drift Vert	Wind_Left1 Horz	Wind_Left1 Vert
1*	B	0.2	1.6	0.4	1.6	0.5	3.5	0.6	3.9	0.0	0.3	−2.6	−6.7
1*	A	−0.2	1.6	−0.4	1.6	−0.5	3.5	−0.6	3.9	0.0	0.0	−2.0	−2.4

Frame Id	Column Line	Wind_Right1 Horz	Wind_Right1 Vert	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert
1*	B	2.0	−2.4	−3.2	−5.2	1.4	−0.9	1.1	−4.8	0.6	−4.5	−0.6	−0.7
1*	A	2.6	−6.7	−1.4	−0.9	3.2	−5.2	−0.6	−4.5	−1.1	−4.8	−0.6	0.7

Frame Id	Column Line	Seismic_Right Horz	Seismic_Right Vert	Seismic_Long Horz	Seismic_Long Vert	MIN_SNOW Horz	MIN_SNOW Vert	F1UNB_SL_L Horz	F1UNB_SL_L Vert	F1UNB_SL_R Horz	F1UNB_SL_R Vert
1*	B	0.6	0.7	0.0	−1.0	0.6	4.1	0.4	3.2	0.4	1.6
1*	A	0.6	−0.7	0.0	−1.0	−0.6	4.1	−0.4	1.6	−0.4	3.2

Frame Id	Column Line	Dead Horz	Dead Vert	Collateral Horz	Collateral Vert	Live Horz	Live Vert	Snow Horz	Snow Vert	Snow_Drift Horz	Snow_Drift Vert	Wind_Left1 Horz	Wind_Left1 Vert
2*	B	0.3	2.4	0.7	2.9	0.7	5.0	1.0	6.6	0.0	0.6	−3.5	−9.1
2*	A	−0.3	2.4	−0.7	2.9	−0.7	5.0	−1.0	6.6	0.0	0.0	−2.9	−3.3

Frame Id	Column Line	Wind_Right1 Horz	Wind_Right1 Vert	Wind_Left2 Horz	Wind_Left2 Vert	Wind_Right2 Horz	Wind_Right2 Vert	Wind_Long1 Horz	Wind_Long1 Vert	Wind_Long2 Horz	Wind_Long2 Vert	Seismic_Left Horz	Seismic_Left Vert
2*	B	2.9	−3.3	−4.5	−6.6	1.9	−0.7	1.9	−6.4	1.3	−5.9	−0.6	−0.7
2*	A	3.5	−9.1	−1.9	−0.7	4.5	−6.6	−1.3	−5.9	−1.9	−6.4	−0.6	0.7

Frame Id	Column Line	Seismic_Right Horz	Seismic_Right Vert	Seismic_Long Horz	Seismic_Long Vert	MIN_SNOW Horz	MIN_SNOW Vert	F2UNB_SL_L Horz	F2UNB_SL_L Vert	F2UNB_SL_R Horz	F2UNB_SL_R Vert
2*	B	0.6	0.7	0.0	−1.0	1.0	6.8	0.7	5.3	0.7	2.7
2*	A	0.6	−0.7	0.0	−1.0	−1.0	6.8	−0.7	2.7	−0.7	5.3

1* Frame lines: 1 3
2* Frame lines: 2

BUILDING BRACING REACTIONS

Wall Loc	Wall Line	Col Line	± Reactions(k) Wind Horz	Wind Vert	Seismic Horz	Seismic Vert	Panel_Shear (lb/ft) Wind	Seis	Note
L_EW	1								(h)
F_SW	A	2,3	1.7	1.1	1.5	1.0			
R_EW	3								(h)
B_SW	B	3,2	1.7	1.1	1.5	1.0			

(h)Rigid frame at endwall

Reactions for seismic represent shear force, Eh
Reaction values shown are unfactored

FOR PERMIT

5/15/2025

STATE OF OHIO
JOHN A. LONG
E-51396
REGISTERED PROFESSIONAL ENGINEER

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STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	ANCHOR BOLT REACTIONS		
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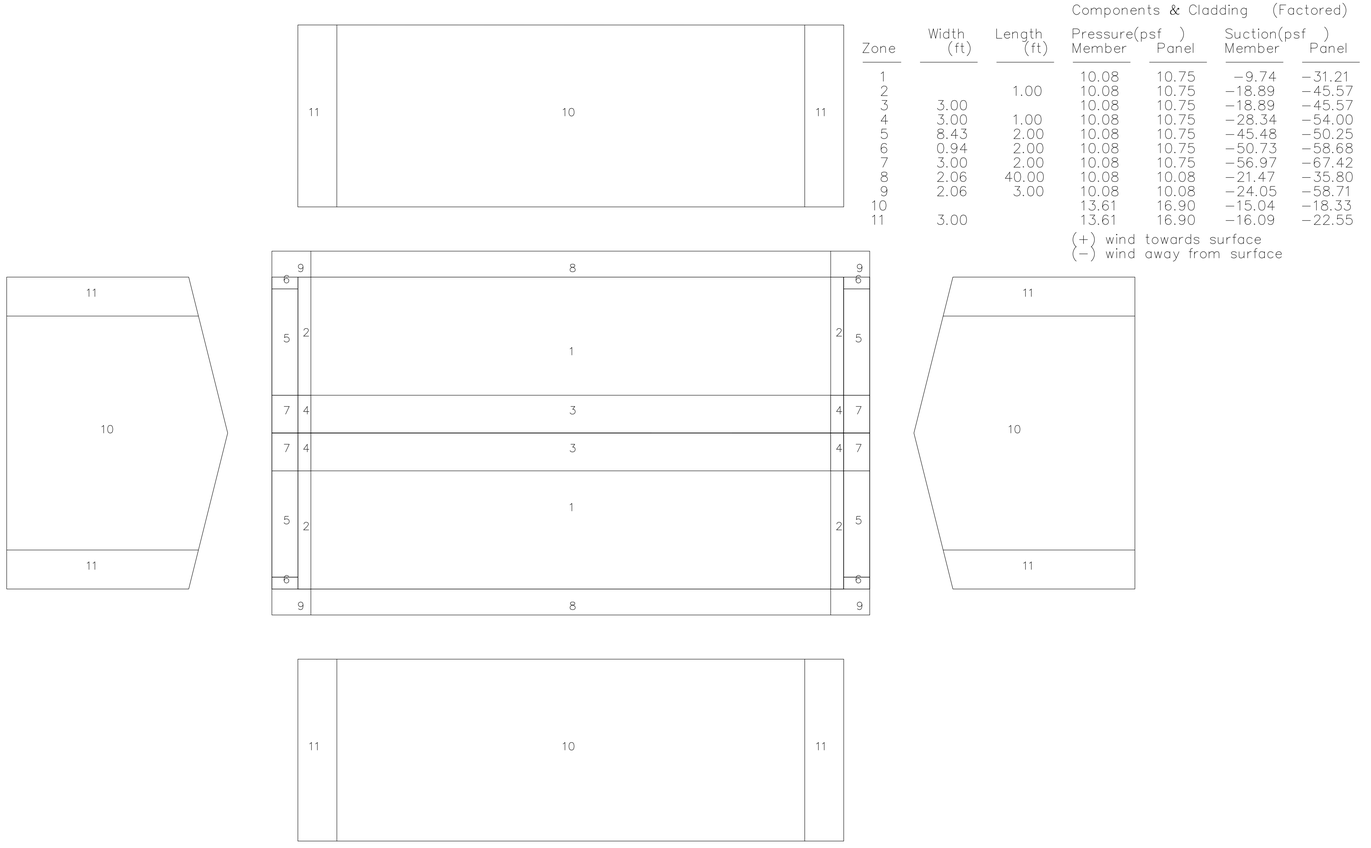
END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.	JOB NO.	SCALE	DWG. NO.	ISSUE
82397	173430	N.T.S.	F003	A

FOR PERMIT



Zone	Width (ft)	Length (ft)	Components & Cladding (Factored) Pressure(psf) Member	Panel	Suction(psf) Member	Panel
1			10.08	10.75	−9.74	−31.21
2		1.00	10.08	10.75	−18.89	−45.57
3	3.00		10.08	10.75	−18.89	−45.57
4	3.00	1.00	10.08	10.75	−28.34	−54.00
5	8.43	2.00	10.08	10.75	−45.48	−50.25
6	0.94	2.00	10.08	10.75	−50.73	−58.68
7	3.00	2.00	10.08	10.75	−56.97	−67.42
8	2.06	40.00	10.08	10.08	−21.47	−35.80
9	2.06	3.00	10.08	10.08	−24.05	−58.71
10			13.61	16.90	−15.04	−18.33
11	3.00		13.61	16.90	−16.09	−22.55

(+) wind towards surface
(−) wind away from surface

WIND LOAD DIAGRAM

5/15/2025

JOHN A. LONG E-51396 REGISTERED PROFESSIONAL ENGINEER STATE OF OHIO

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A	APPROVAL/PERMIT	05/15/25	ZGL	MDL	YHL

STEELNATION
100 SOUTHPOINTE SQUARE LANE ◆ CANONSBURG, PA 15317
PH: 724.225.2202 ◆ INFO@STEELNATION.COM

DESCRIPTION	WIND LOAD DIAGRAM		
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END USER	Columbia Gas (NiSource CG Utility Building)		
END USE	Garage Building	BUILDING	A
STREET	1336 Ridgeview Road (40.014367, -83.048681)		
CITY ST ZIP	Upper Arlington, OH 43221		

SALES NO.:	JOB NO.:	SCALE:	DWG. NO.:	ISSUE:
82397	173430	N.T.S.	F004	A

METAL BUILDING FOUNDATION PLANS

RIDGEVIEW STATION

GENERAL NOTES

BUILDING CODE/STANDARDS:

1. BUILDING CODE: OBC 24 (IBC 2021)
2. CONCRETE: ACI 318-19
3. STEEL: AISC 360-16
4. WELDING: AWS D1.1D1.4M-2011
5. MASONRY: ACI 530-13

GENERAL:

1. ALL DIMENSIONS, ELEVATIONS, AND FIELD CONDITIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE OWNER AND ENGINEER IMMEDIATELY FOR RESOLUTION BEFORE PROCEEDING.
2. JOB SITE SAFETY AND CONSTRUCTION SEQUENCING ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
3. DRAWINGS ARE NOT TO BE SCALED FOR CONSTRUCTION PURPOSES. DIMENSIONS NOTED TAKE PRECEDENCE OVER SCALE.
4. COMMENCEMENT OF WORK BY THE CONTRACTOR OR ANY SUBCONTRACTOR UNDER THESE PLANS SHALL INDICATE ACKNOWLEDGEMENT AND ACCEPTANCE OF ALL CONDITIONS DESCRIBED IN THESE CONSTRUCTION DOCUMENTS PERTAINING TO THE WORK BEING PERFORMED.
5. NO OPENING THROUGH ANY STRUCTURAL COMPONENT SHALL BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.

FOUNDATIONS:

1. FOUNDATIONS ARE DESIGNED BASED ON AN ALLOWABLE SOIL BEARING CAPACITY OF 1,500 PSF (VALUE ASSUMED) NO GEOTECHNICAL REPORT WAS AVAILABLE AT THE TIME OF FOUNDATION DESIGN. A GEOTECHNICAL REPORT IS RECOMMENDED PRIOR TO FOUNDATION CONSTRUCTION TO CONFIRM ADEQUATE SOIL CONDITIONS.
2. ALL SUB GRADE FILL WITHIN THE PROPOSED BLDG. FOOTPRINT SHALL BE GRANULAR FILL MATERIAL PLACED IN MAX. 12" LIFTS AND COMPACTED TO A MIN. 95% COMPACTION.
3. ALL FOUNDATION WALL EXTERIOR BACK-FILL SHALL BE APPROVED GENERAL FILL MATERIAL.
4. ALL FOUNDATION WALL INTERIOR BACK-FILL SHALL BE APPROVED GRANULAR FILL MATERIAL.
5. CONTRACTOR IS TO VERIFY AND COORDINATE ALL DIMENSIONS AND LAYOUT BEFORE START OF CONSTRUCTION WITH PEMB ANCHOR BOLT LAYOUT.
6. ANY WATER IN FOUNDATIONS MUST BE REMOVED AND SOILS CHECKED FOR SUITABLE BEARING. IF SOILS ARE SOFT THEN REMOVE SOFT SOILS, EXCAVATE TO 12" BELOW, AND INSTALL A NEW 12" BASE STONE AND COMPACT 95%. DO NOT POUR ON WATER LOGGED SOILS
7. FOUNDATION DESIGN IS BASED ON ANCHOR BOLT PLAN AND REACTIONS PROVIDED BY PEMB SUPPLIER. ANY CHANGES TO ANCHOR BOLT LAYOUT OR REACTIONS SHOULD BE FORWARDED IMMEDIATELY TO THE FOUNDATION ENGINEER.

CAST-IN-PLACE CONCRETE:

1. ALL CONCRETE TO BE (4,000 P.S.I.) MINIMUM 28 DAY COMPRESSIVE STRENGTH
2. SLUMP: ALL CONCRETE SLUMP SHALL NOT EXCEED 4", UNLESS NOTED ON THE DRAWINGS.
3. AIR: ALL CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED 6% ± 1 ½%. ENTRAINING ADMIXTURES SHALL COMPLY WITH C260.
4. WATER-CEMENT: ALL CONCRETE SHALL HAVE A MAXIMUM WATER-CEMENT RATIO OF 0.50
5. ALL REBAR TO BE ASTM GRADE #60 OR BETTER
6. ALL WELDED WIRE FABRIC (W.W.F.) SHALL CONFORM TO ASTM A185, GRADE 65. ALL W.W.F. SHALL BE SUPPORTED ON CHAIRS.
7. CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS (U.N.O.):
   - -CONCRETE CAST AGAINST EARTH: 3"
   - -SLAB-ON-GRADE: 2"
   - -FOOTINGS (SIDES FORMED): 3"
   - -GRADE BEAMS: 1½" TOP & SIDES
   - -WALLS 1½"
   - -PIERS AND COLUMNS: 2"
8. LAP ALL REBAR (30 x BAR Ø), ROUND UP TO THE NEAREST WHOLE NUMBER. TYPICAL ALL HORIZONTAL AND VERTICAL LAPS.
   EXAMPLE:
   #4 BAR - (30 x .5") = 15" LAP
   #5 BAR - (30 x .625" = 19" LAP
   #6 BAR - (30 x .75") = 23" LAP
   #7 BAR - (30 x .875")= 26" LAP
9. DETAILING OF CONCRETE REINFORCEMENT SHALL CONFORM TO ACI 315
10. APPLY MEASURES AS SPECIFIED BY ACI 305 FOR "HOT WEATHER CONCRETING" AND ACI 306 FOR" COLD WEATHER CONCRETING" WHEN APPLICABLE
11. ALL CONSTRUCTION SHALL CONFORM TO ACI 347 "RECOMMENDED PRACTICE FOR CONCRETE FRAMEWORK"

INDEX OF DRAWINGS:

STEELNATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
1336 RIDGEVIEW RD.
UPPER ARLINGTON, OH 43221
(FRANKLIN COUNTY)

STATE OF OHIO
TYLER B. THEURET
E-81076
REGISTERED PROFESSIONAL ENGINEER
06/05/2025

REVISIONS:

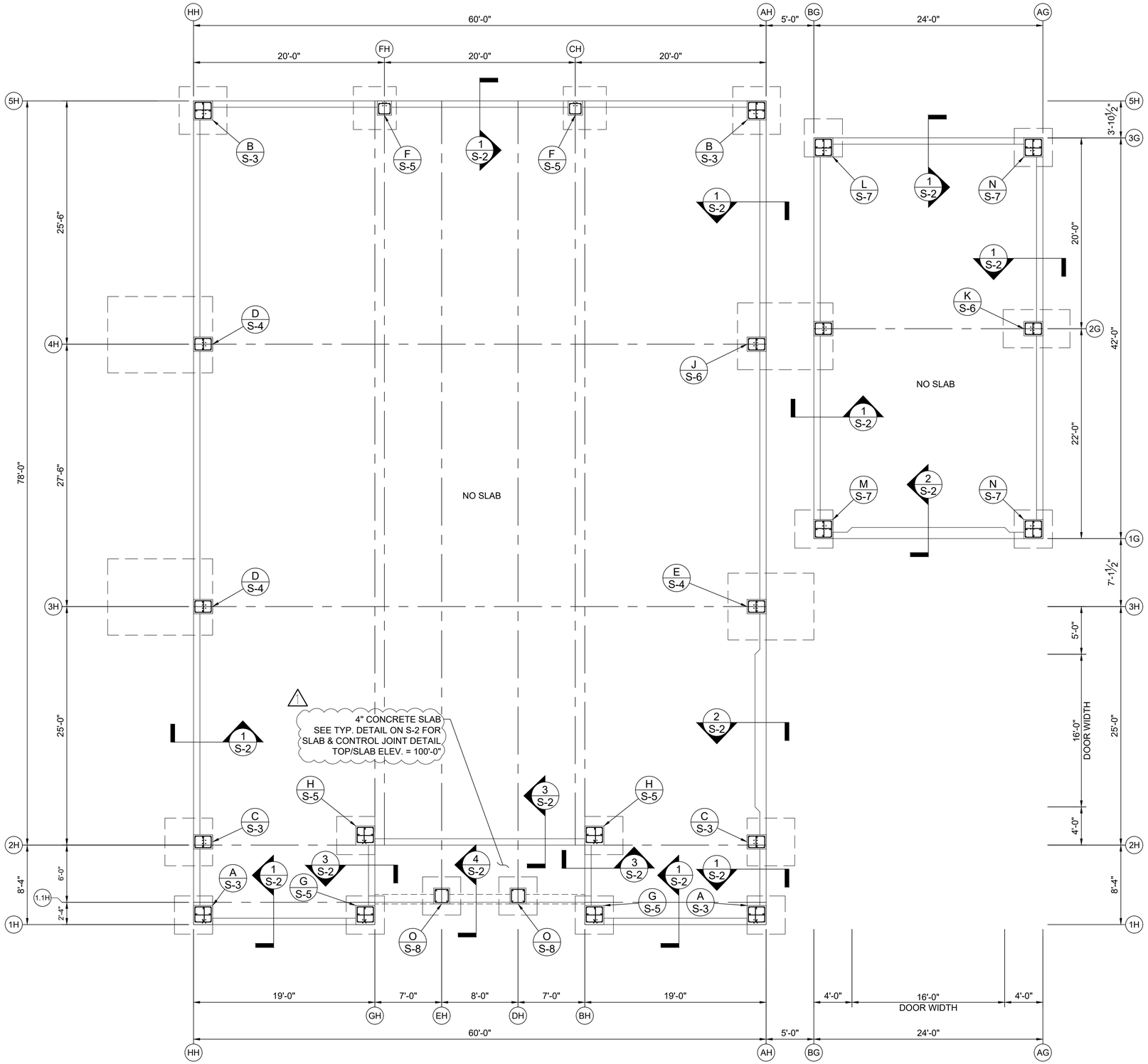
MARK	DESCRIPTION
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS

CONTRACTOR IS TO VERIFY AND CHECK ALL FIELD CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BRING ANY DISCREPANCIES TO THE ENGINEER'S ATTENTION BEFORE INSTALLING ANY EQUIPMENT OR MATERIALS.

DWG TITLE:
GENERAL NOTES

DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-0



FOUNDATION PLAN

SCALE: 3/16"= 1'-0"

STEENATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
1336 RIDGEVIEW RD.
UPPER ARLINGTON, OH 43221
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1	ADDED PORCH SLAB & ADJUSTED FOOTINGS

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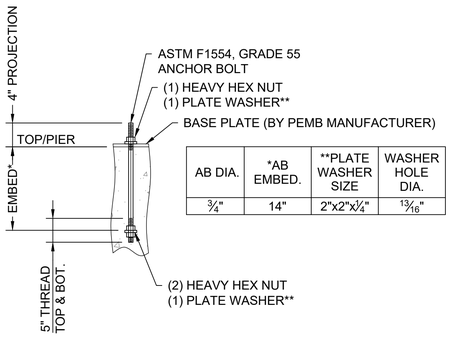
DWG TITLE:
FOUNDATION PLAN

DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

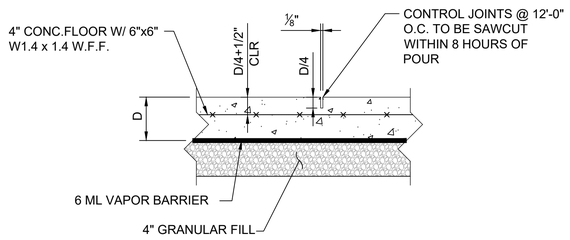
DWG NUMBER:
S-1



AB DIA.	*AB EMBED.	**PLATE WASHER SIZE	WASHER HOLE DIA.
¾"	14"	2"x2"x¼"	13/16"

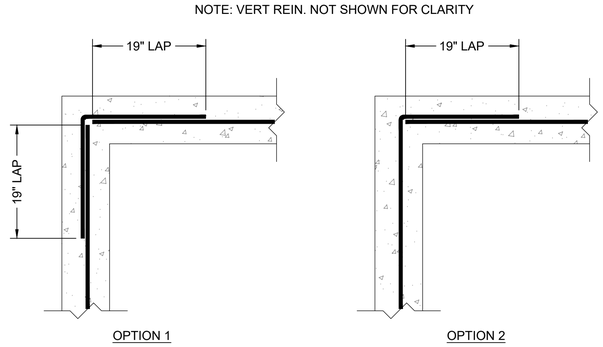
TYP. ANCHOR BOLT DETAIL

SCALE: N.T.S.



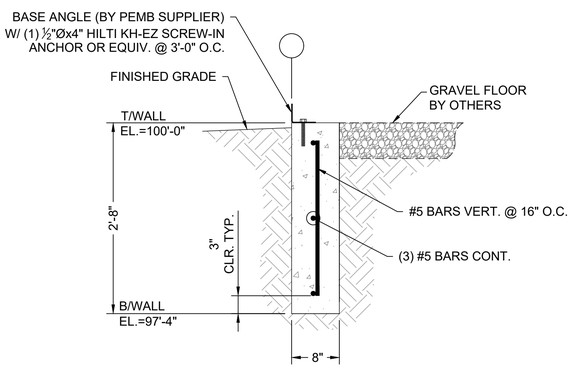
TYP. 4" SLAB DETAIL

SCALE: N.T.S.



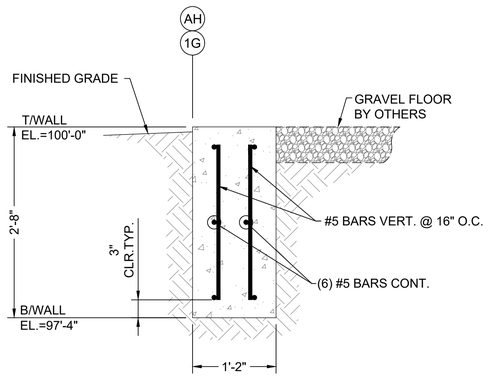
WALL CORNER LAP DETAIL

SCALE: N.T.S.



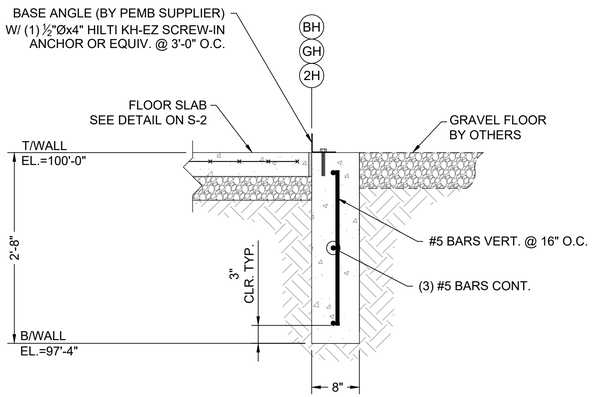
SECTION 1

SCALE: 1"= 1'-0"
(TYP. PERIMETER SECTION)



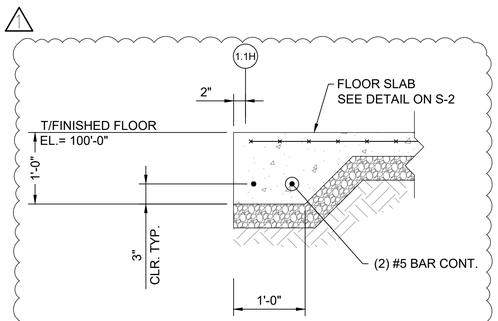
SECTION 3

SCALE: 1"= 1'-0"
(SECTION @ OVERHEAD DOORS)



SECTION 2

SCALE: 1"= 1'-0"
(TYP. PERIMETER SECTION)



SECTION 4

SCALE: 1"= 1'-0"

STEENATION
100 Southpointe Square Lane • Canonsburg, PA 15317 • 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
1336 RIDGEVIEW RD.
UPPER ARLINGTON, OH 43221
(FRANKLIN COUNTY)

STATE OF OHIO
TYLER B. THEURET
E-81076
REGISTERED PROFESSIONAL ENGINEER
06/05/2025

REVISIONS:

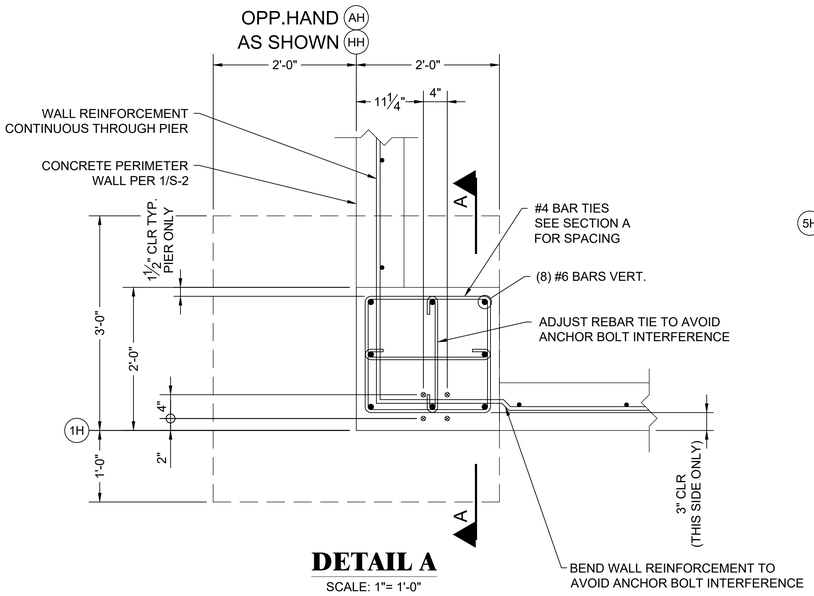
MARK	DESCRIPTION
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS

CONTRACTOR IS TO VERIFY AND CHECK ALL FIELD CONDITIONS AND DIMENSIONS PRIOR TO BEGINNING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO BRING ANY DISCREPANCIES TO THE ENGINEER'S ATTENTION BEFORE INSTALLING ANY EQUIPMENT OR MATERIALS.

DWG TITLE:
TYPICAL SECTIONS & DETAILS

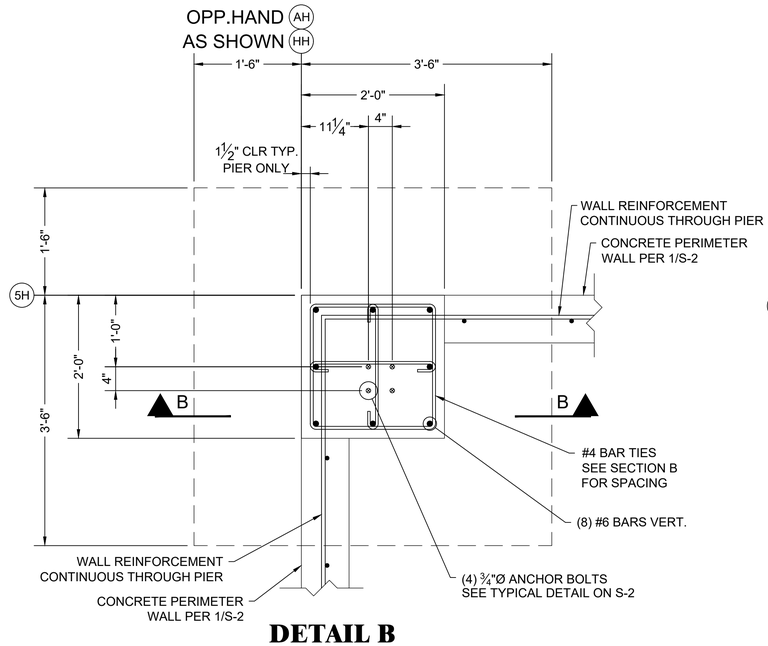
DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-2



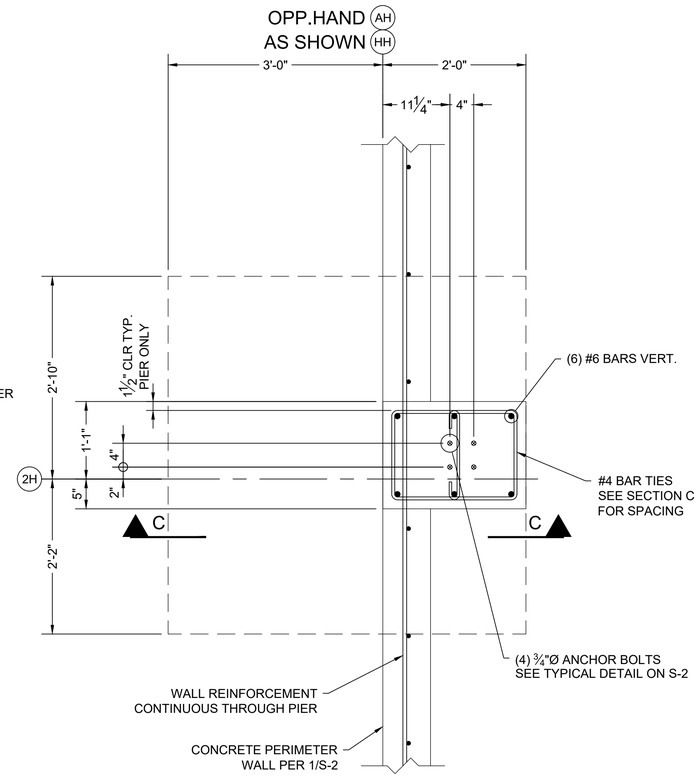
DETAIL A

SCALE: 1"= 1'-0"



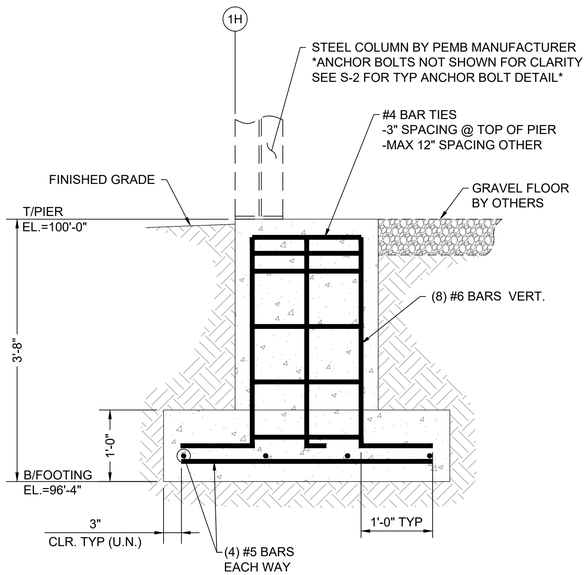
DETAIL B

SCALE: 1"= 1'-0"



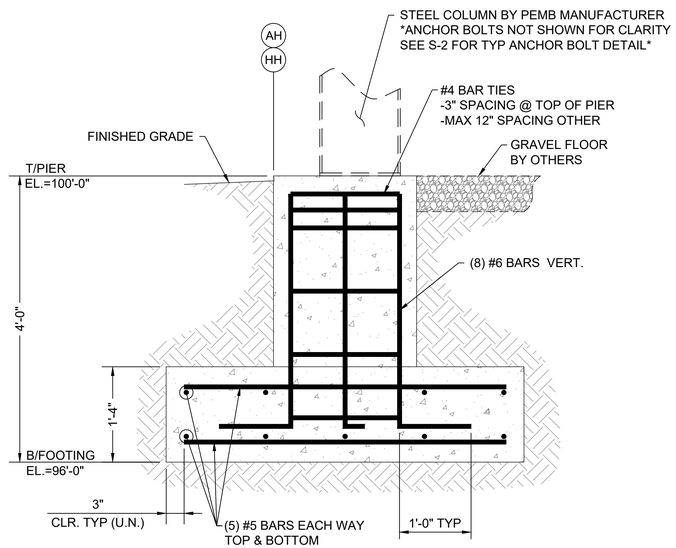
DETAIL C

SCALE: 1"= 1'-0"



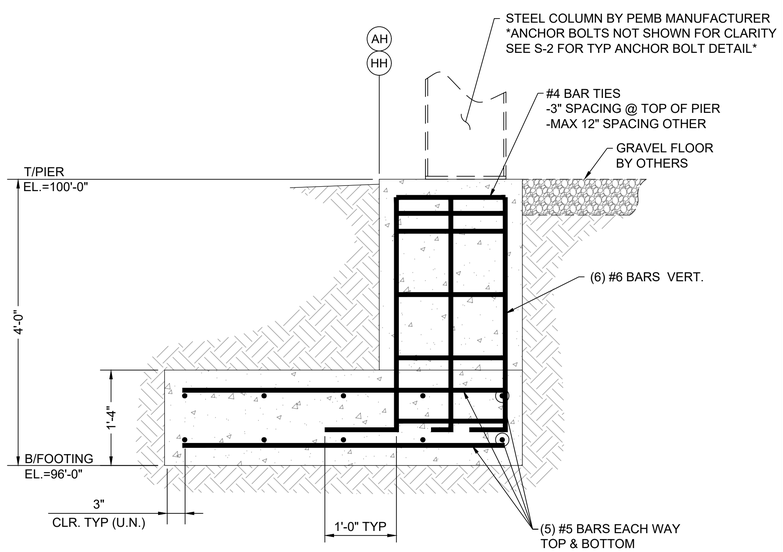
SECTION A

SCALE: 1"= 1'-0"



SECTION B

SCALE: 1"= 1'-0"



SECTION C

SCALE: 1"= 1'-0"

STEENATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
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(FRANKLIN COUNTY)

STATE OF OHIO
TYLER B. THEURET
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06/05/2025

REVISIONS:

MARK	DESCRIPTION
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS

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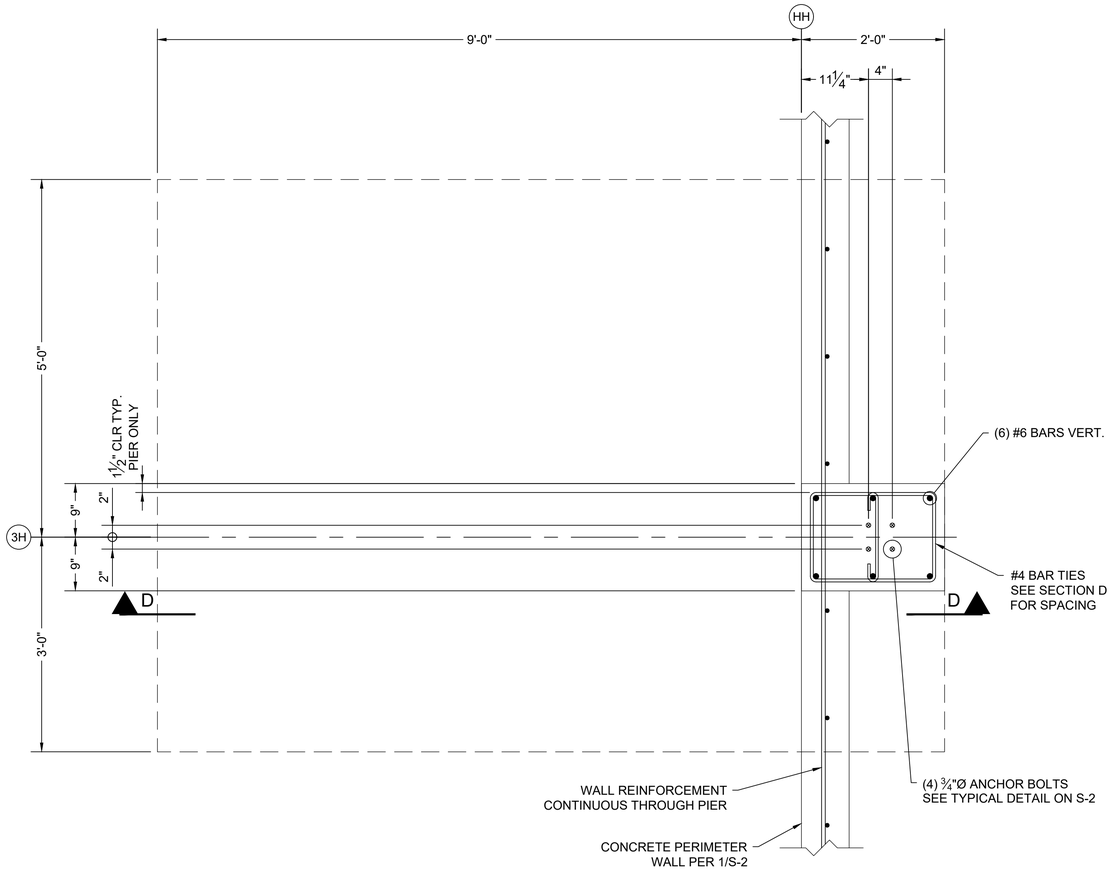
DWG TITLE:
FOUNDATION SECTIONS & DETAILS

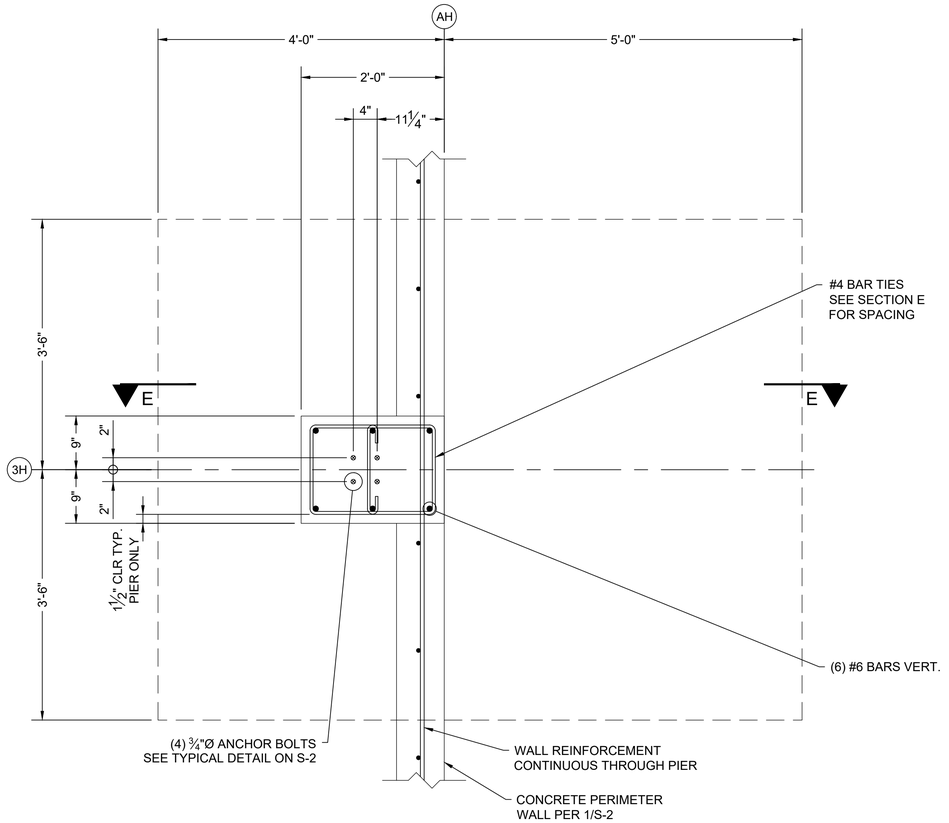
DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-3



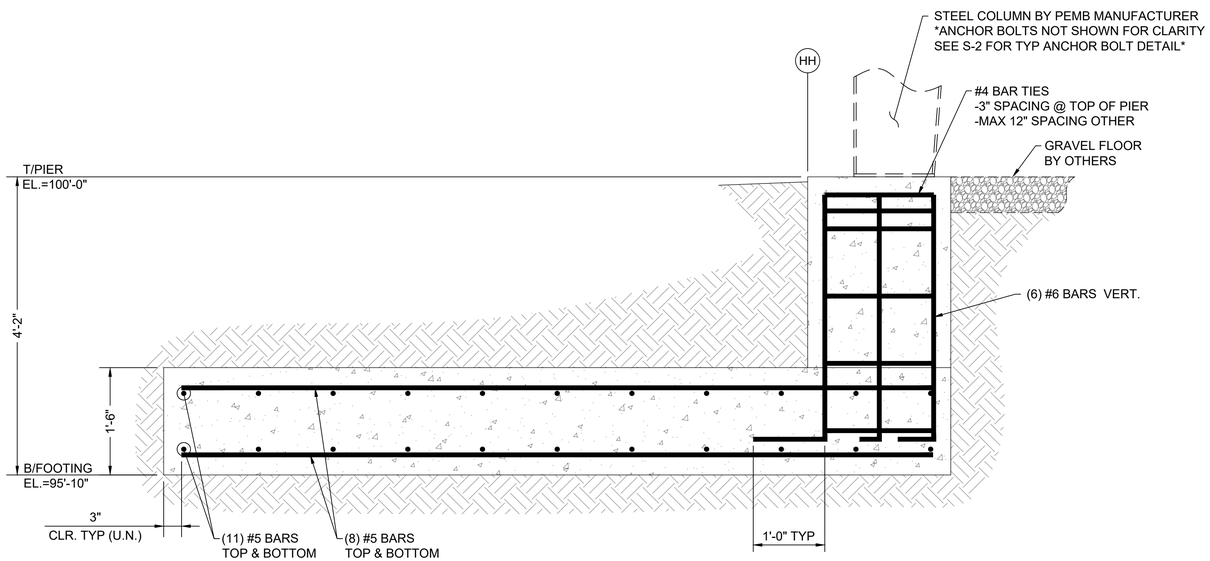
DETAIL D

SCALE: 1"= 1'-0"



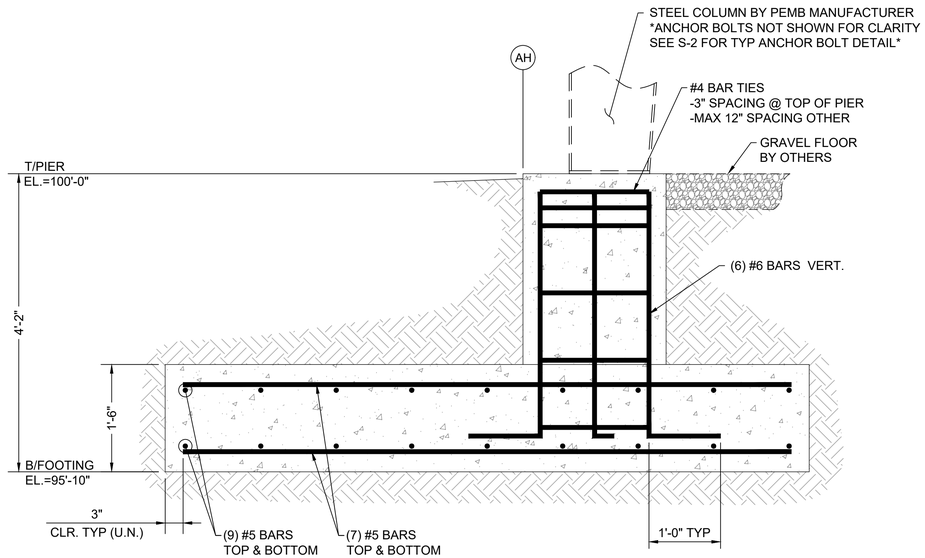
DETAIL E

SCALE: 1"= 1'-0"



SECTION D

SCALE: 1"= 1'-0"



SECTION E

SCALE: 1"= 1'-0"

STEELNATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
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UPPER ARLINGTON, OH 43221
(FRANKLIN COUNTY)

STATE OF OHIO
TYLER B. THEURET
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06/05/2025

REVISIONS:

MARK	DESCRIPTION
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS

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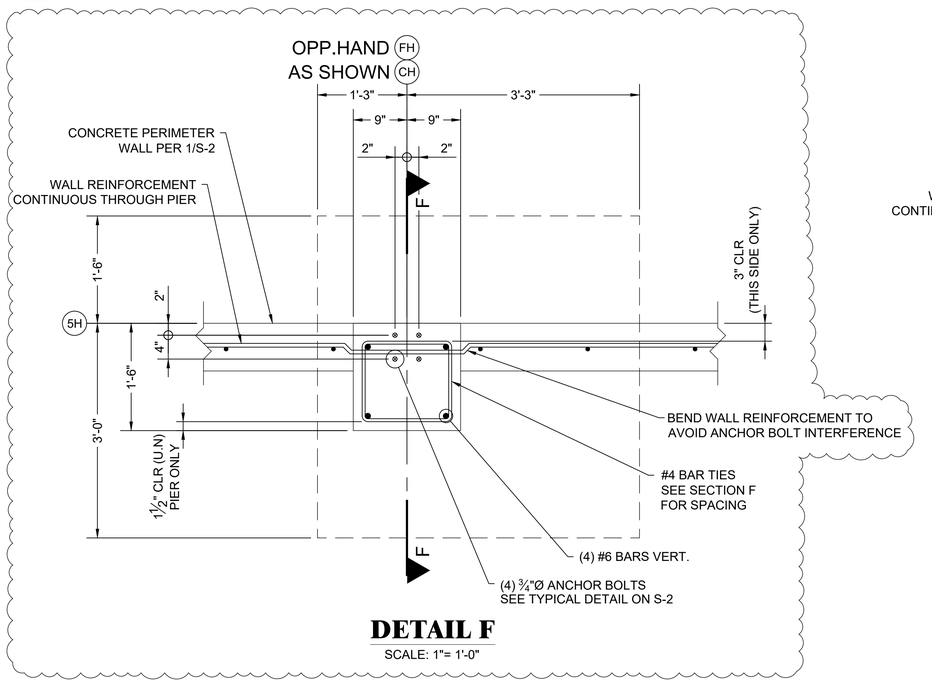
DWG TITLE:
FOUNDATION SECTIONS & DETAILS

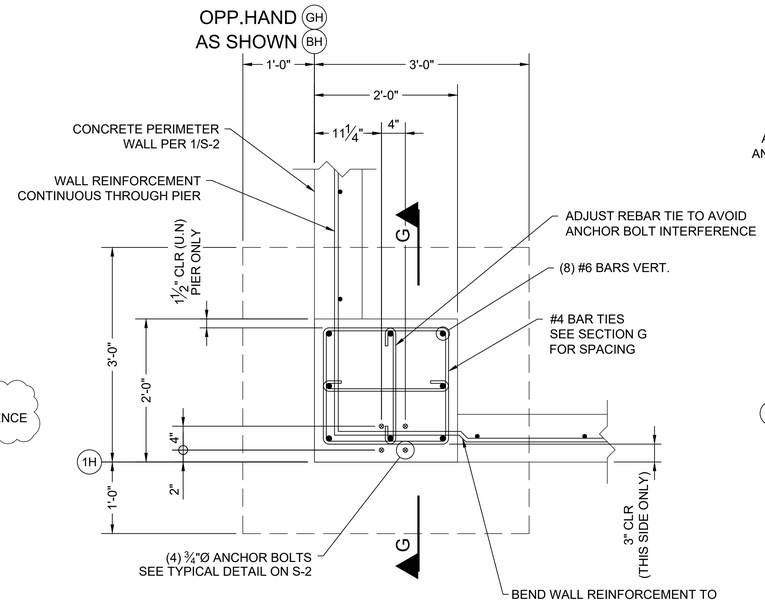
DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-4



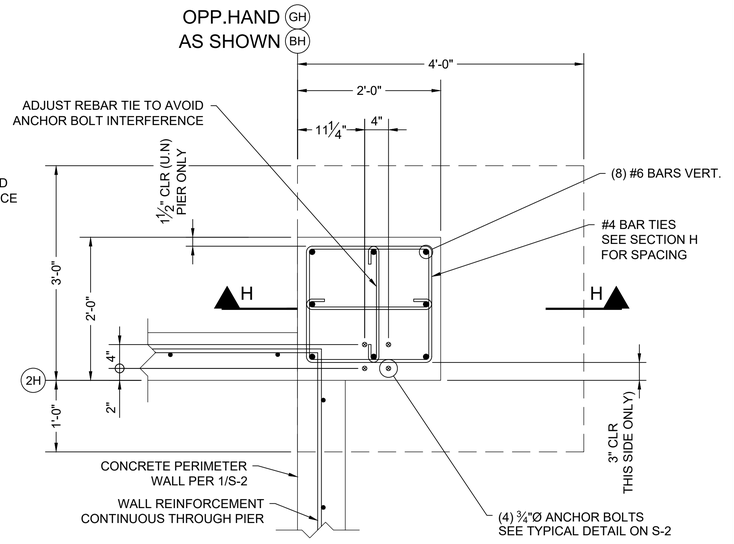
DETAIL F

SCALE: 1"= 1'-0"



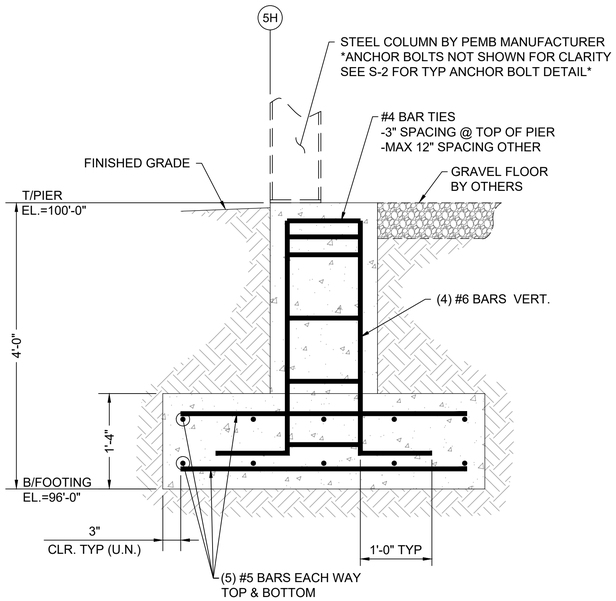
DETAIL G

SCALE: 1"= 1'-0"



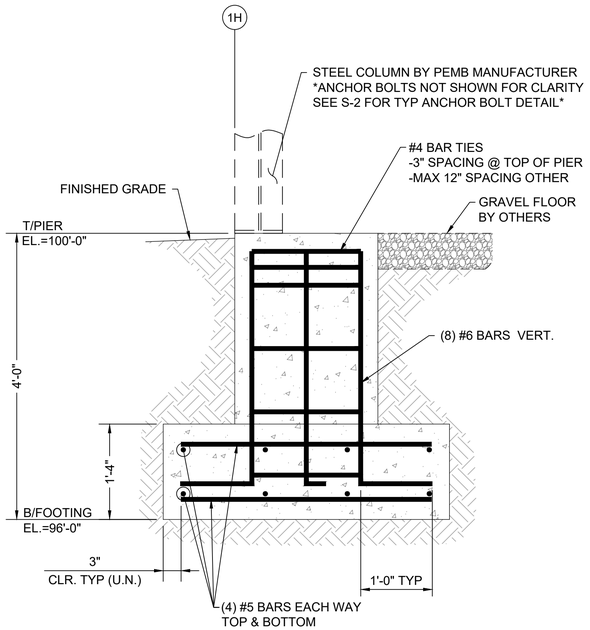
DETAIL H

SCALE: 1"= 1'-0"



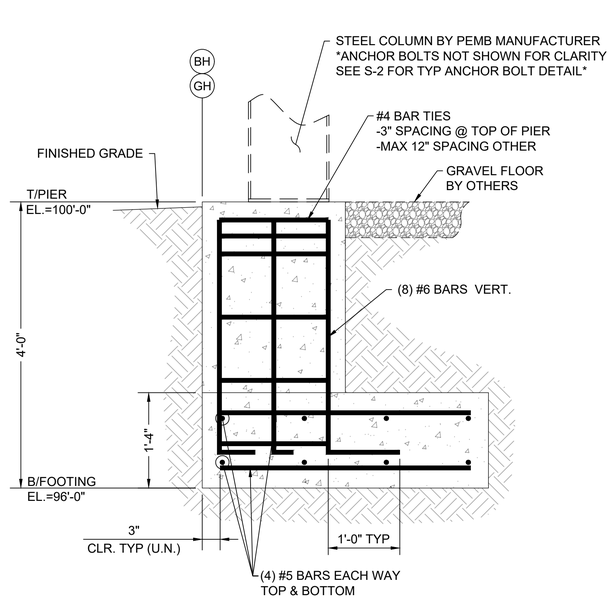
SECTION F

SCALE: 1"= 1'-0"



SECTION G

SCALE: 1"= 1'-0"



SECTION H

SCALE: 1"= 1'-0"

STEELNATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
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STATE OF OHIO
TYLER B. THEURET
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06/05/2025

REVISIONS:

MARK	DESCRIPTION
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS

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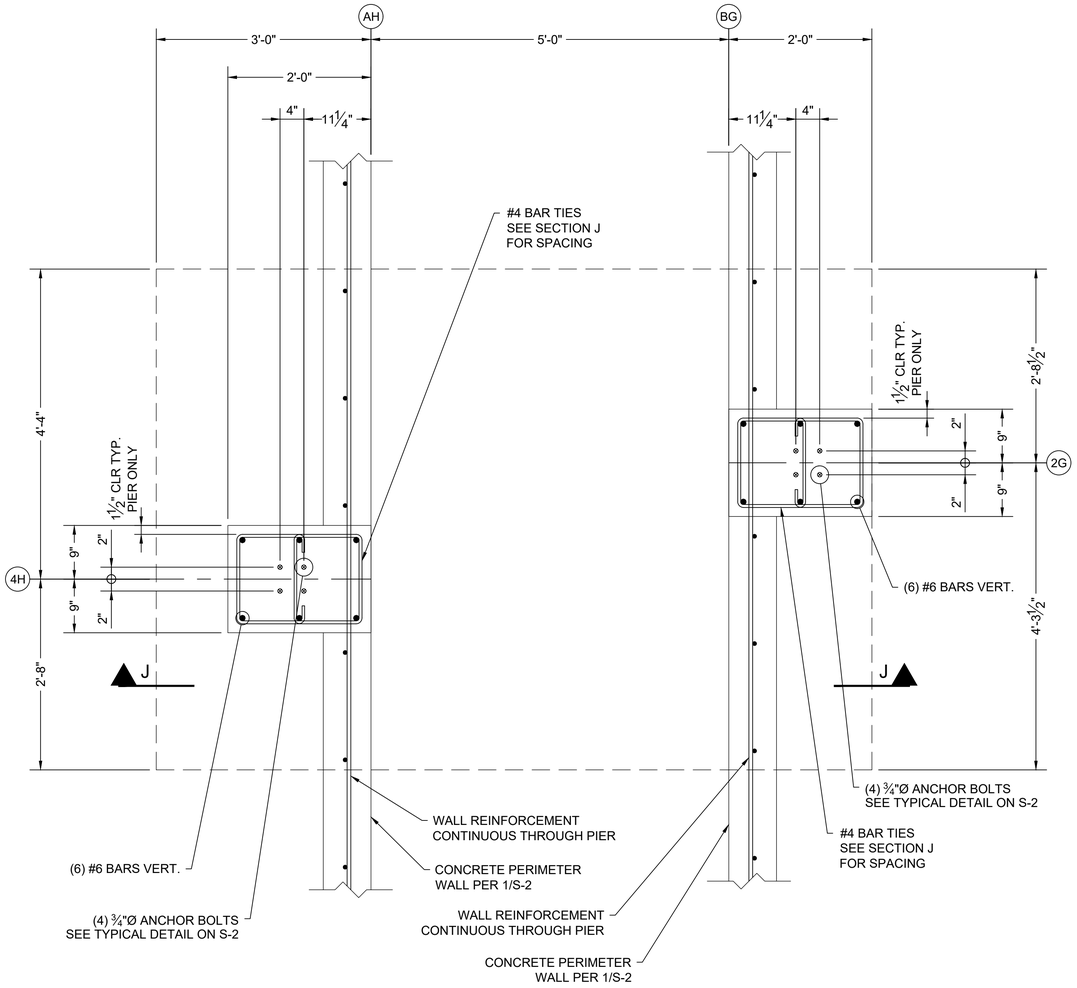
DWG TITLE:
FOUNDATION SECTIONS & DETAILS

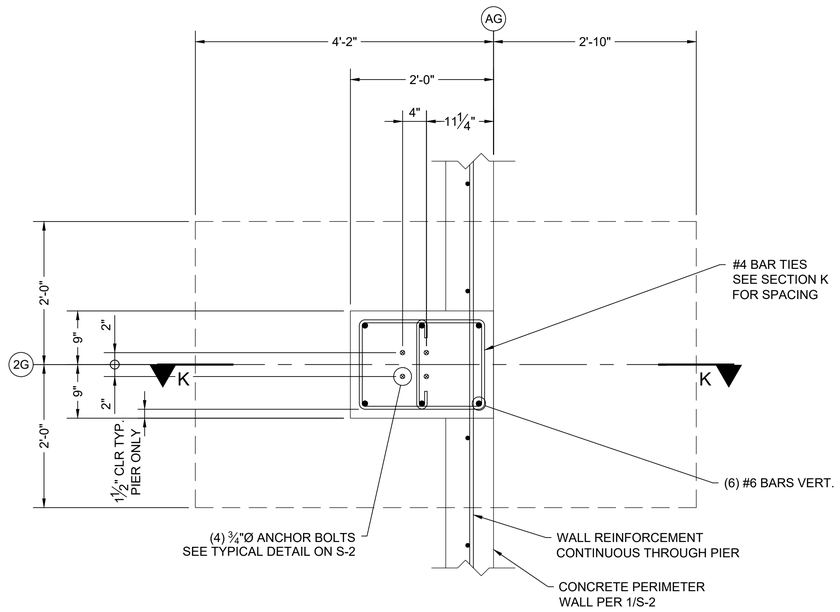
DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-5



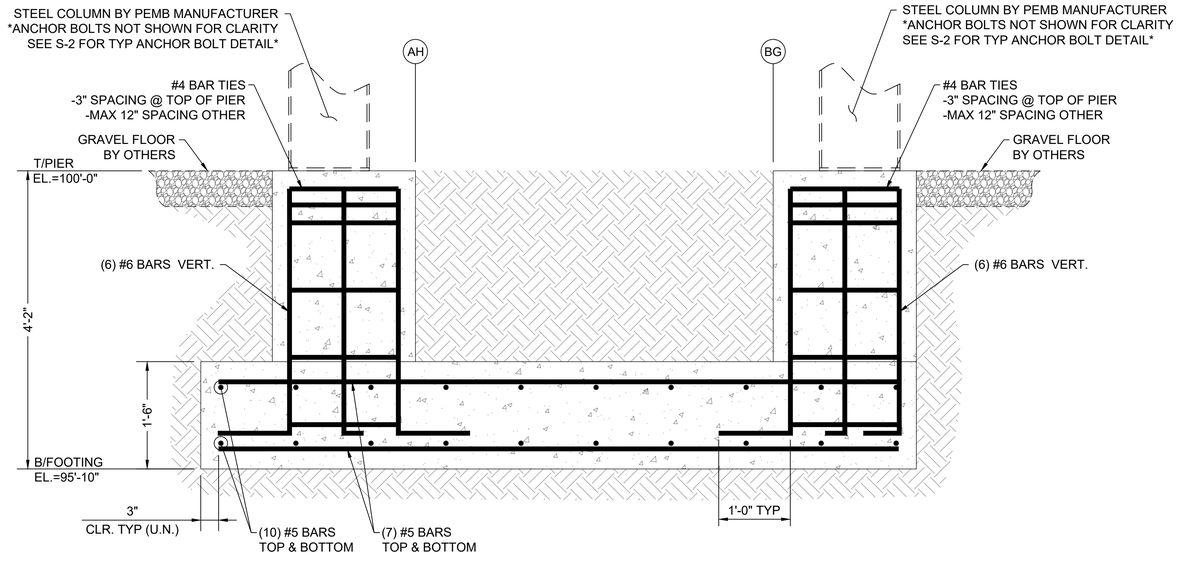
DETAIL J

SCALE: 1"= 1'-0"



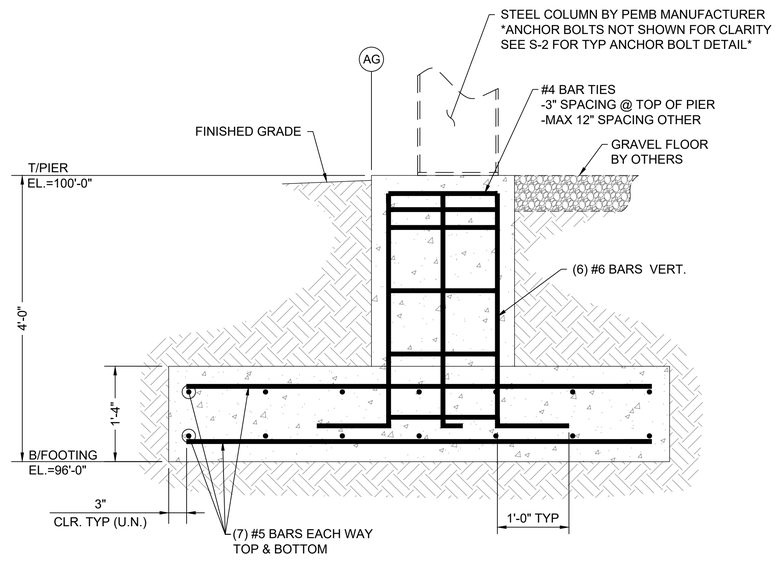
DETAIL K

SCALE: 1"= 1'-0"



SECTION J

SCALE: 1"= 1'-0"



SECTION K

SCALE: 1"= 1'-0"

STEELNATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
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LOCATION:
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STATE OF OHIO
TYLER B. THEURET
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06/05/2025

REVISIONS:		
MARK	DESCRIPTION	
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS	

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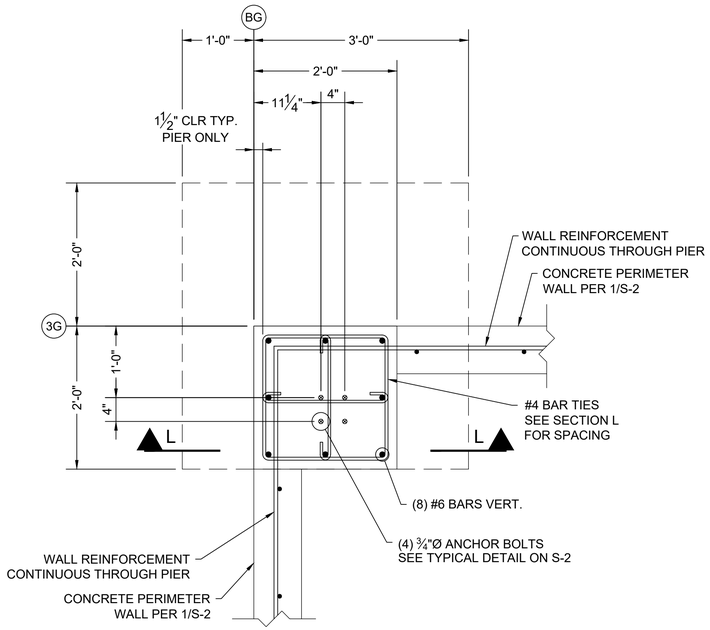
DWG TITLE:
FOUNDATION SECTIONS & DETAILS

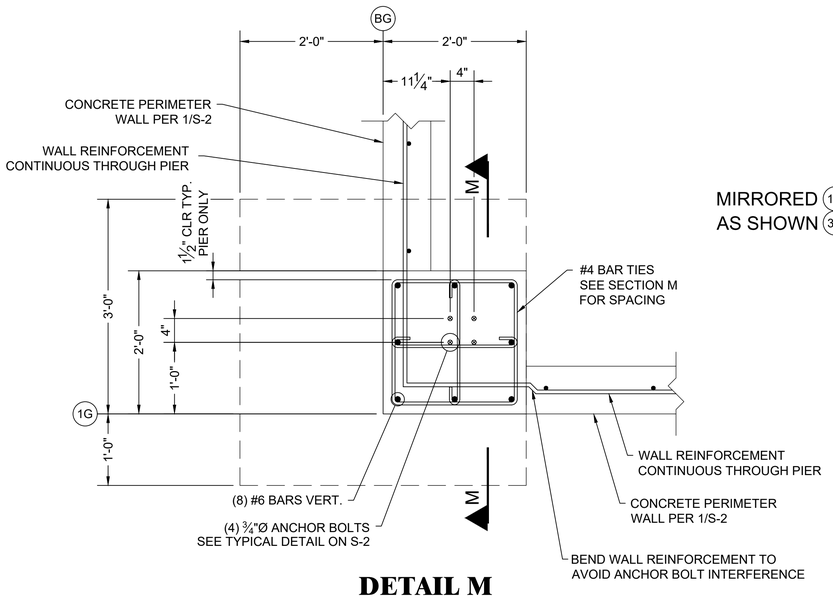
DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-6



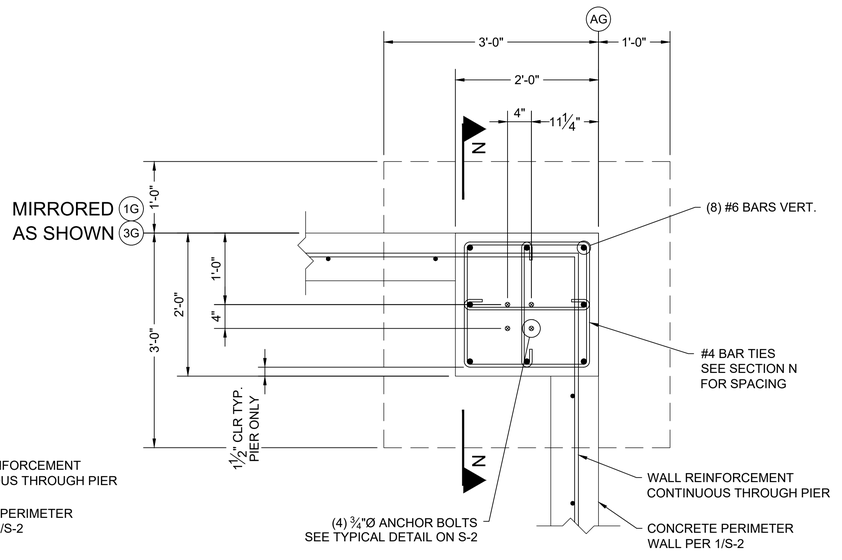
DETAIL L

SCALE: 1"= 1'-0"



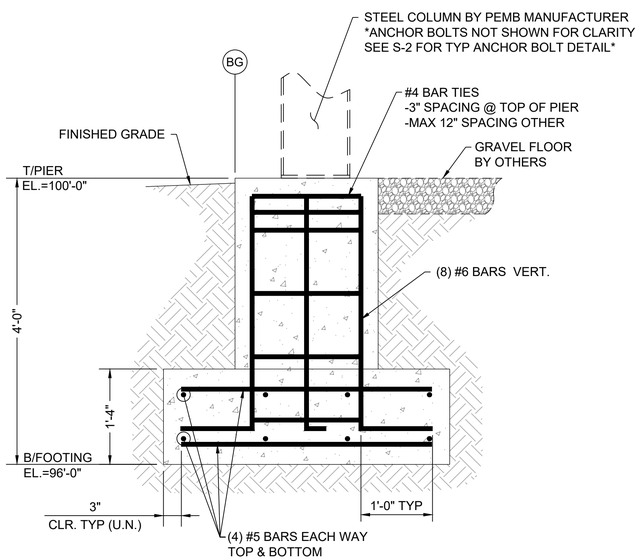
DETAIL M

SCALE: 1"= 1'-0"



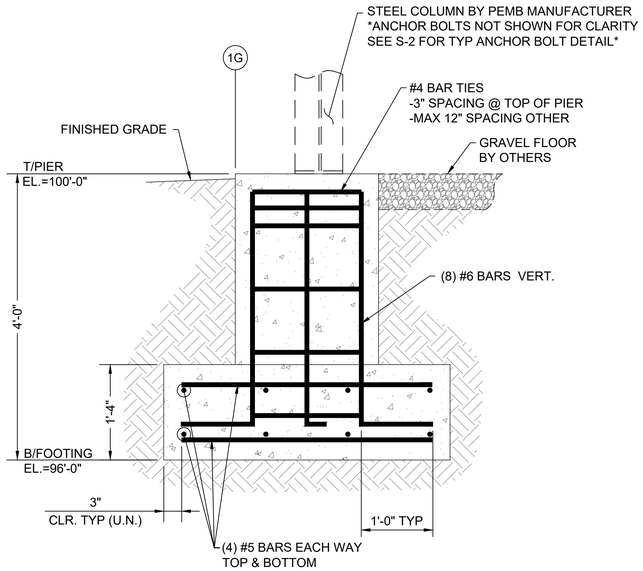
DETAIL N

SCALE: 1"= 1'-0"



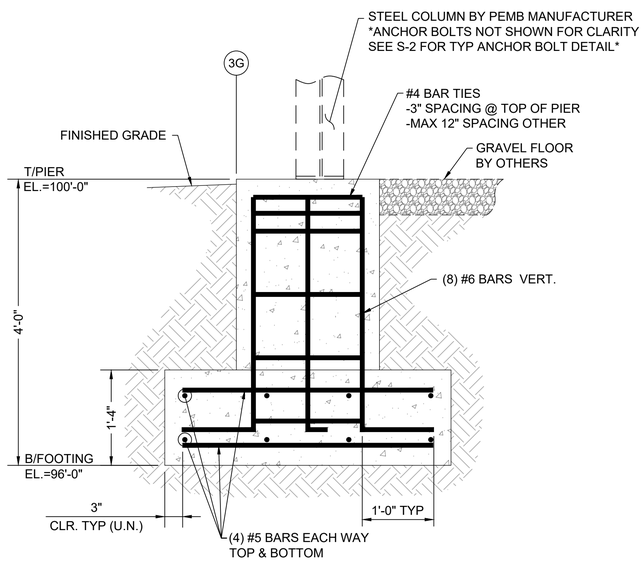
SECTION L

SCALE: 1"= 1'-0"



SECTION M

SCALE: 1"= 1'-0"



SECTION N

SCALE: 1"= 1'-0"

STEELNATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
NEW PEMB FOUNDATION PLANS

LOCATION:
1336 RIDGEVIEW RD.
UPPER ARLINGTON, OH 43221
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STATE OF OHIO
TYLER B. THEURET
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06/05/2025

REVISIONS:		
MARK	DESCRIPTION	
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS	

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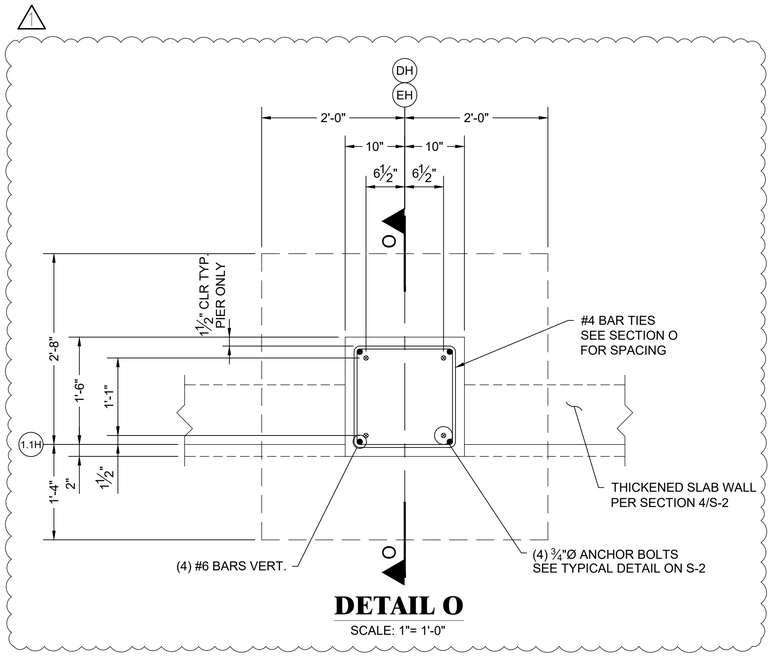
DWG TITLE:
FOUNDATION SECTIONS & DETAILS

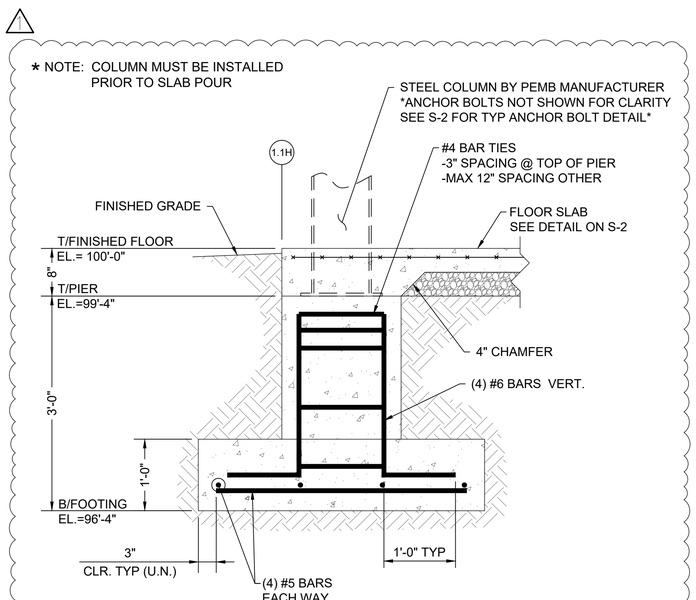
DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-7



DETAIL O

SCALE: 1"= 1'-0"



SECTION O

SCALE: 1"= 1'-0"

STEELNATION
100 Southpointe Square Lane ✦ Canonsburg, PA 15317 ✦ 724.225.2202

PROJECT:
RIDGEVIEW STATION
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REVISIONS:		
MARK	DESCRIPTION	
1	ADDED PORCH SLAB & ADJUSTED FOOTINGS	

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DWG TITLE:
FOUNDATION SECTIONS & DETAILS

DATE: 05/23/25
SCALE: AS NOTED
DRAWN BY: RLK
CHECKED BY: TBT
JOB NUMBER: 672-25

DWG NUMBER:
S-8