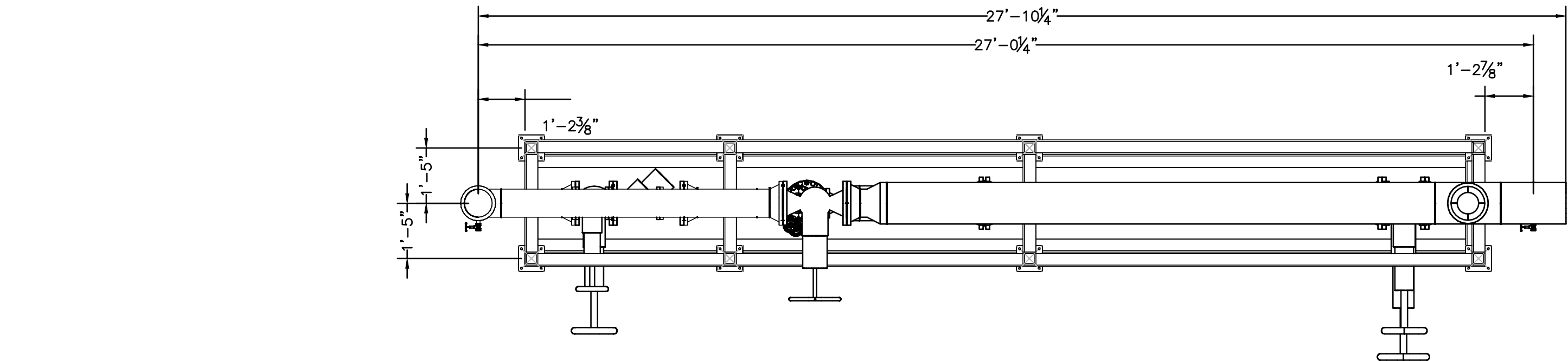


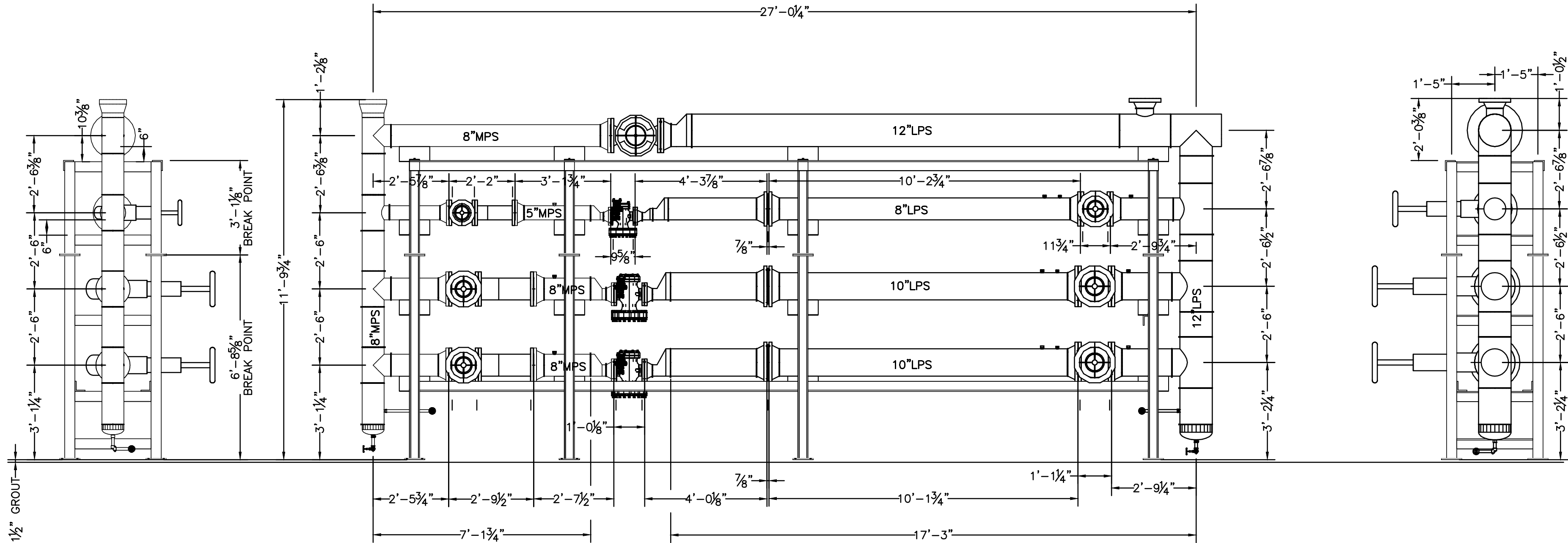
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07/01/2021 7:45am  
jmurphy

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PAIN	<input type="checkbox"/>
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GAL'V	<input type="checkbox"/>



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

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

2

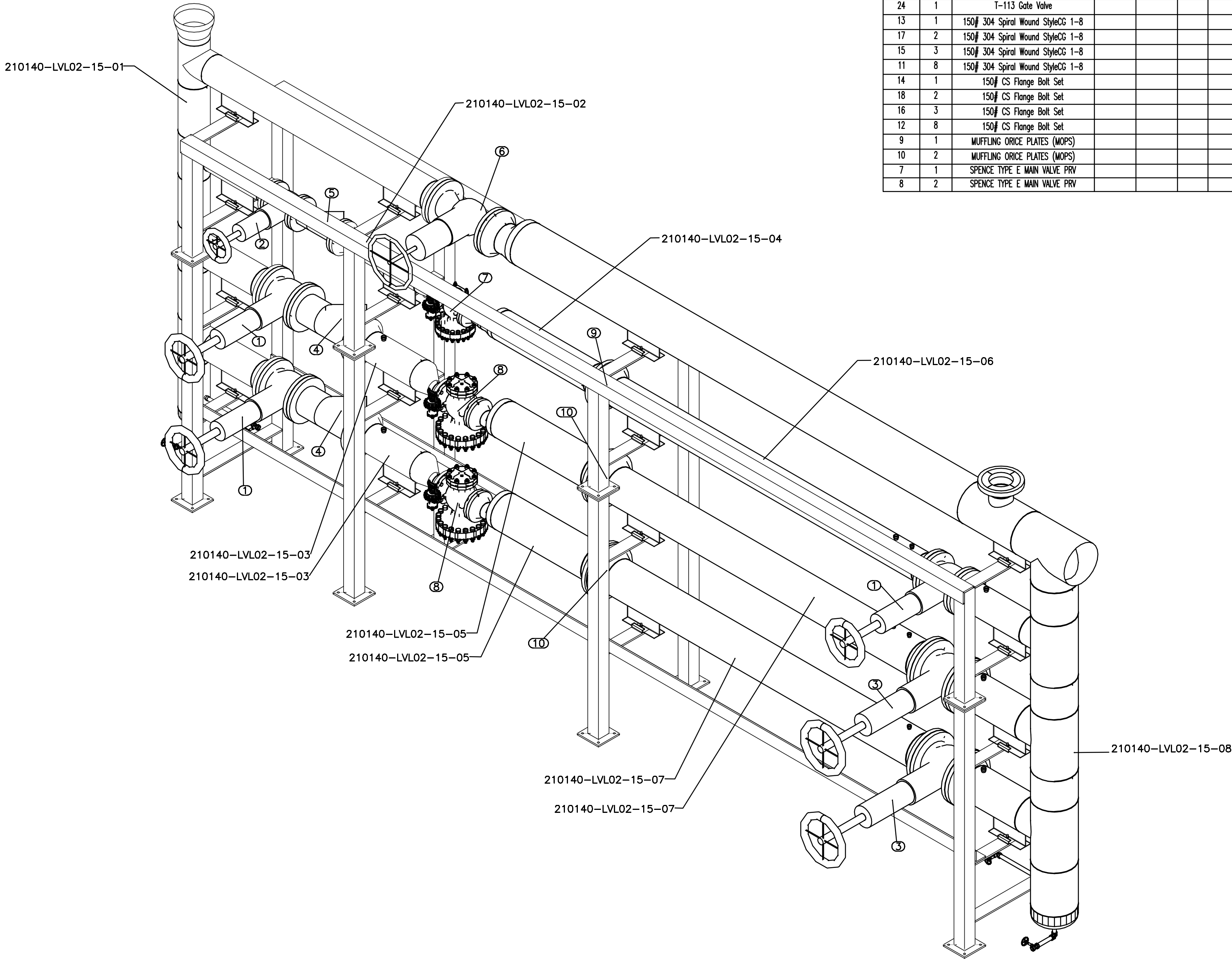
CONTRACTORS				ENGINEERS				MECHANICAL				INDUSTRIAL			
1233 N. Price Rd. St. Louis, MO 63132-2303 314-997-6600 phone BIMCAD@murphy-stl.com															

COATINGS	
PRIMER	<input checked="" type="checkbox"/>
color	GRAY
PAIN	<input type="checkbox"/>
color	N/A
GAL'V	<input type="checkbox"/>

Murphy-PFFS-SPOOL-BOM								
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size	
5	1	125# CI Flg Y-Strainer YS 58-CI					5	
4	2	125# CI Flg Y-Strainer YS 58-CI					8	
6	1	Fig 143 Globe Valve					8	
2	1	F-617-0 Gate Valve					5	
1	3	F-617-0 Gate Valve					8	
3	2	F-617-0 Gate Valve					10	
19	1	T-113 Gate Valve					3/4	
24	1	T-113 Gate Valve					3/4	
13	1	150# 304 Spiral Wound StyleCG 1-8					2-1/2	
17	2	150# 304 Spiral Wound StyleCG 1-8					4	
15	3	150# 304 Spiral Wound StyleCG 1-8					5	
11	8	150# 304 Spiral Wound StyleCG 1-8					8	
14	1	150# CS Flange Bolt Set					2-1/2 (5/8x3)	
18	2	150# CS Flange Bolt Set					4 (5/8x3-1/4)	
16	3	150# CS Flange Bolt Set					5 (3/4x3-1/4)	
12	8	150# CS Flange Bolt Set					8 (3/4x3-3/4)	
9	1	MUFFLING ORICE PLATES (MOPS)					8	
10	2	MUFFLING ORICE PLATES (MOPS)					10	
7	1	SPENCE TYPE E MAIN VALVE PRV					SP-ED-2	
8	2	SPENCE TYPE E MAIN VALVE PRV					SP-ED-4	

MURPHY

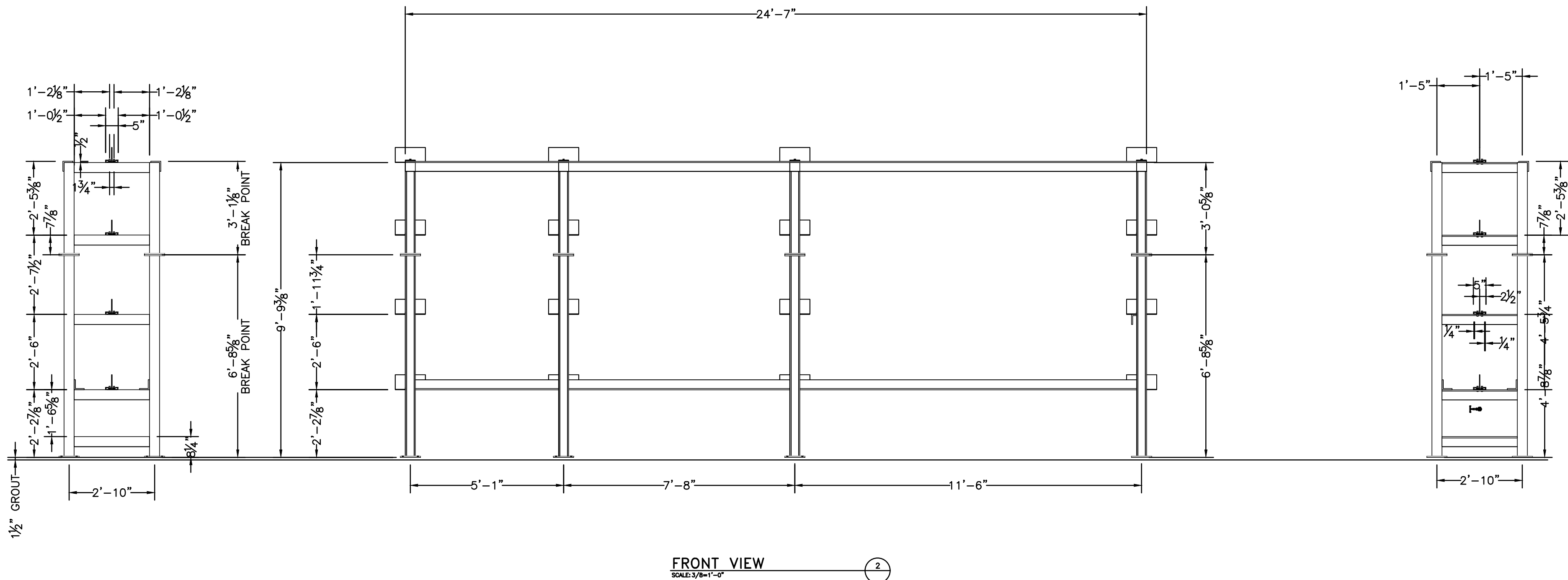
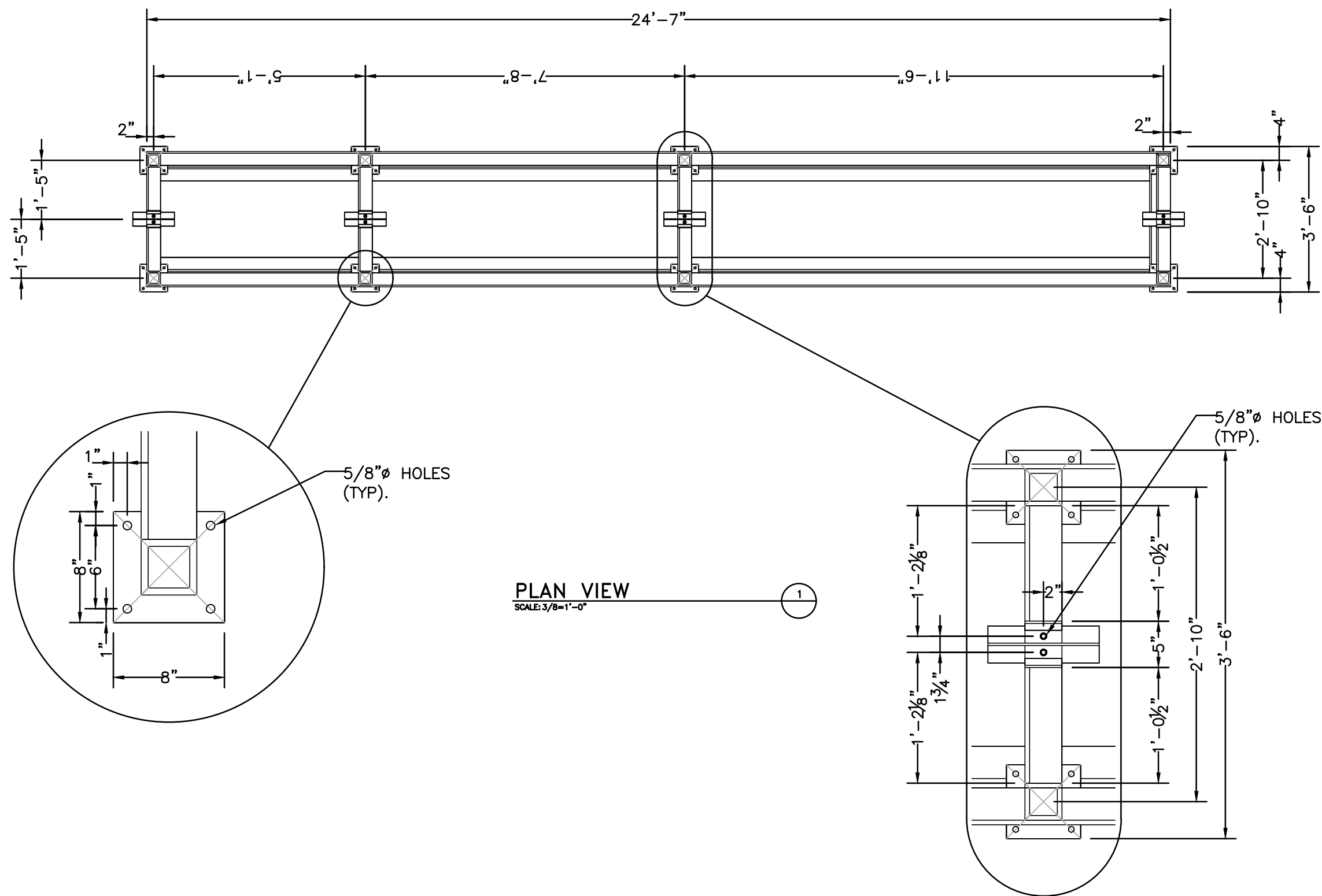
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DUE DATE		QC	WELD MAP	TACK	CUT	DRN		CHK	APP
WELD INCHES		SPECIAL NDE		SHIP LOOSE MATERIAL		COMPLETION DATE		MURPHY WPS#	
SPOOL WEIGHT		VT		PWHT		NA		NA	
WELD GAP		X-RAY		HYDRO TEST		NA		NA	
SPEC.		ASME	NA	NA	NA	NA		NA	
REV		0	DATE	DESCRIPTION		REV		0	
WUSM RESEARCH BUILDING		NRB LVLO2 MECH ROOM		PRV-3		MPS/LPS		2 of 4	
6/30/21		210140		1		ISO		210140-LVL02-15	
REF.DWG.		JQM		JMM		JMM		JMM	
DRAWING NO./TRACKING NO.		210140-LVL02-15		ISO		1		2 of 4	

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210140-LVL02-15-01.dwg  
07/01/2021 7:43am  
jmm

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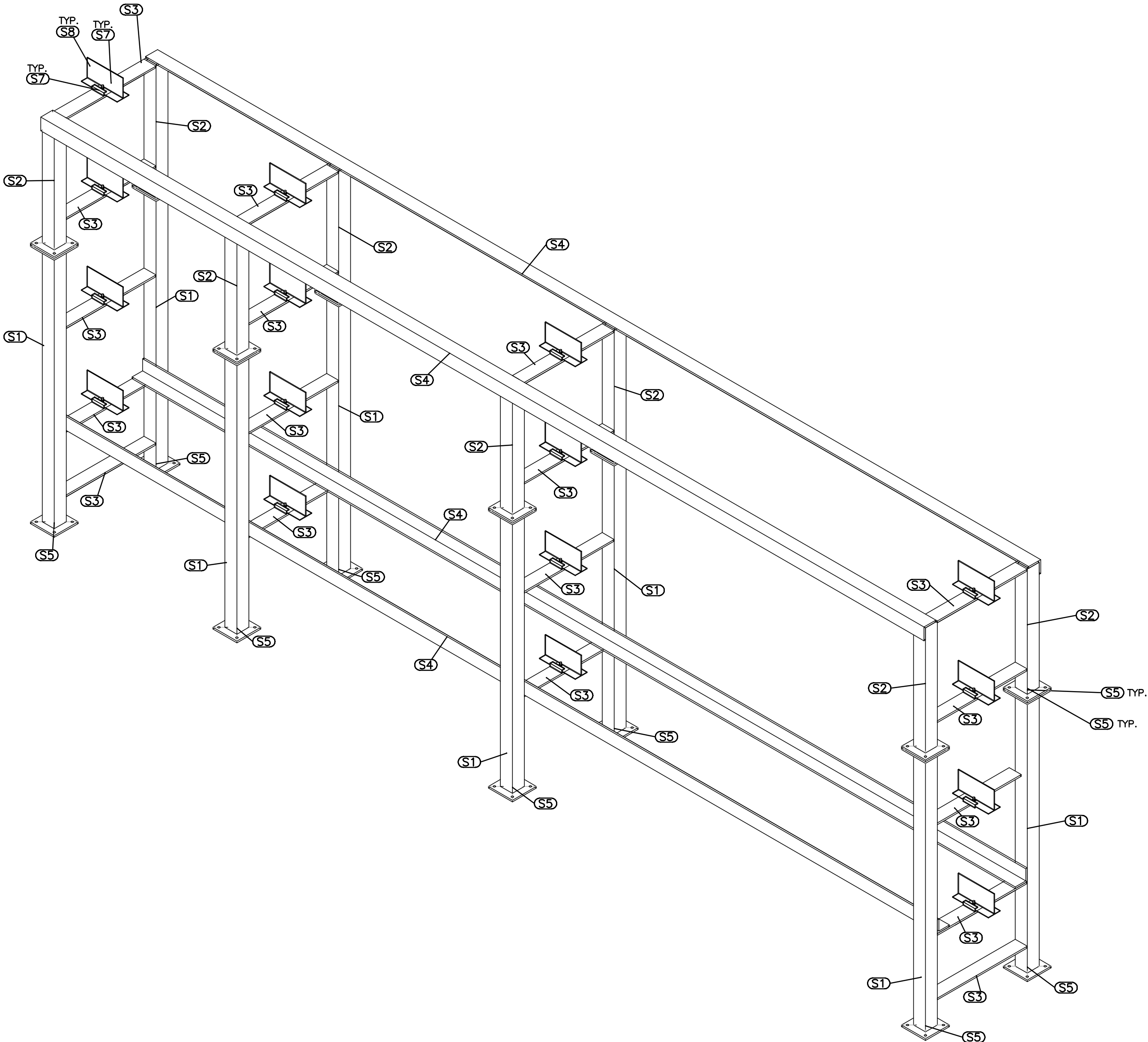


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CHK			NRB LVLO2 MECH ROOM									
APP			PRV-3									
JOB NO.		210140	SERVICE NAME									
REF DWG.			MPS/LPS									
DRAWING NO./TRACKING NO.			QTY.	SHT/NO	REV							
210140-LVLO2-15			1	3 of 4	0							

WELD INCHES		QC		TACK		CUT	
SPOOL WEIGHT		WELD MAP					
WELD GAP		SPECIAL		SHIP LOOSE		MATERIAL	
SPEC.		ASME		X-RAY		HYDRO TEST	
NA		NA		NA		NA	
PWHT		COMPLETION DATE		COMMENTS		MURPHY WPS#	
0		REV		DATE		DESCRIPTION	
DRN		CHK		APP			

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color	GRAY
PAIN	<input type="checkbox"/>
color	N/A
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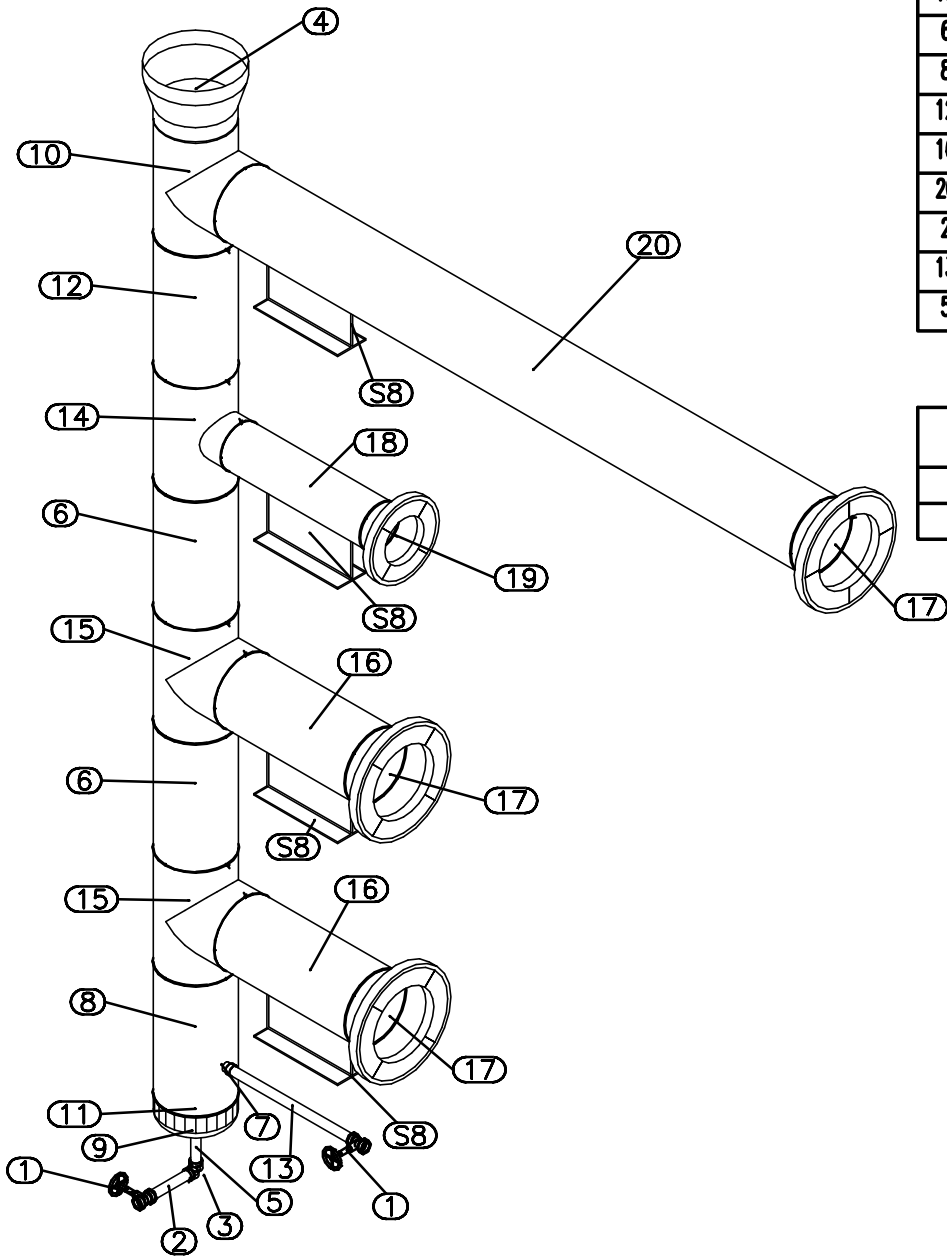
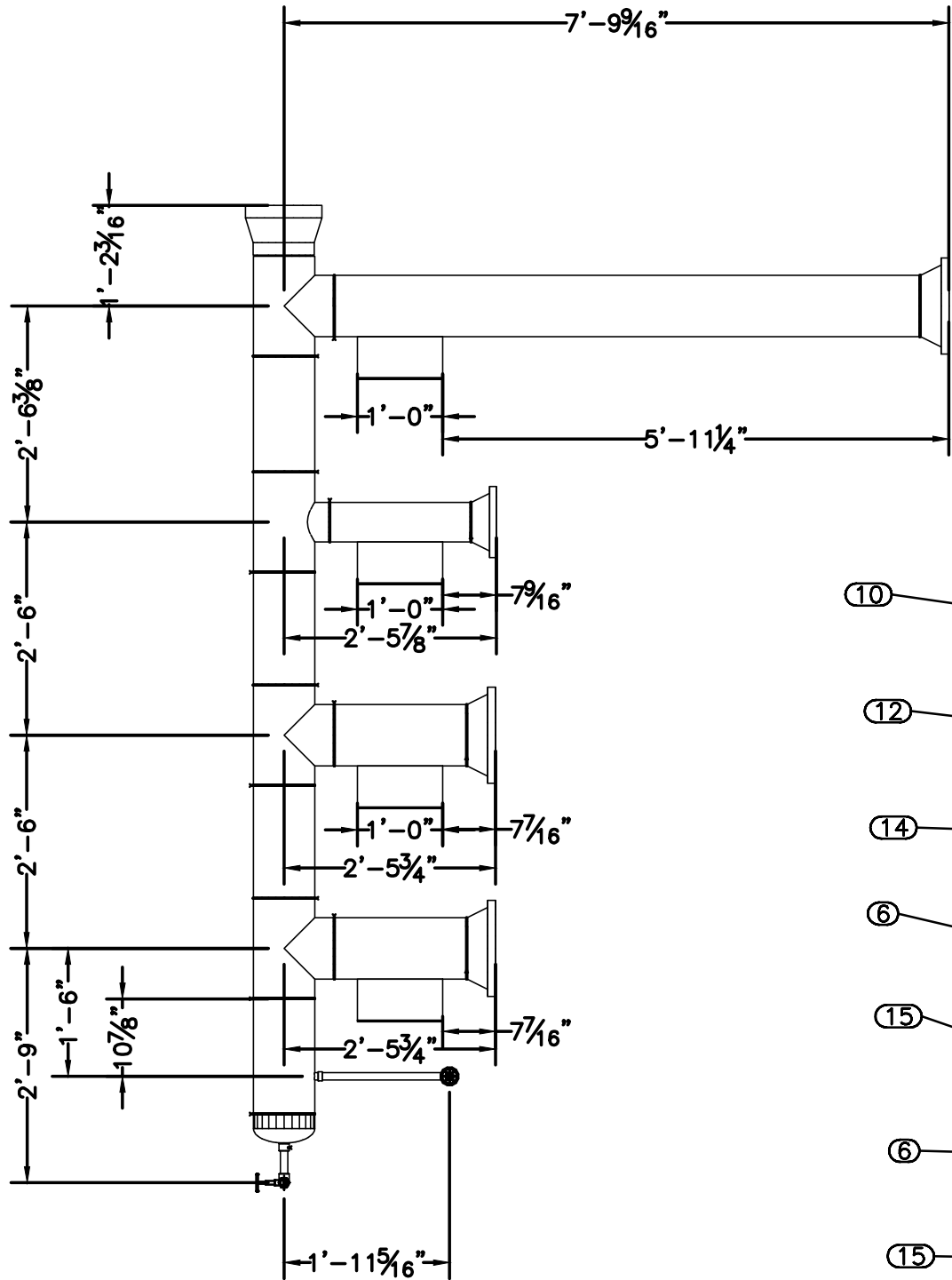
BOM-STEEL					
Item No	Order	Description	Qty	Size	Steel L
S1	CS SQ Tube	ASTM A36 CS Square Tube	8	SQ4x4x1/2	79 3/4"
S2	CS SQ Tube	ASTM A36 CS Square Tube	8	SQ4x4x1/2	36 1/4"
S3	L4x4x1/2	ASTM A36 CS Equal Angle	18	L4x4x1/2	30"
S4	L4x4x1/2	ASTM A36 CS Equal Angle	4	L4x4x1/2	295"
S5		ASTM A36 CS Plate 1/2" Thick	24	1/2	8x8x1/2
S7	L1x1x1/4	ASTM A36 CS Equal Angle	32	L1x1x1/4	4"
S8	WT6x7		16		12"



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DRN	JMM	6/30/21	WUSM RESEARCH BUILDING									
CHK			NRB LVLO2 MECH ROOM									
APP			PRV-3									
JOB NO.	210140		SERVICE NAME									
REF.DWG.			MPS/LPS									
DRAWING NO./TRACKING NO.			QTY.	SHT/NO		REV						
210140-LVLO2-15			1	4 of 4		0						



Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
14	1	Std Wt SA234 WPB CS BW RED TEE					8x5
10	1	Std Wt SA234 WPB CS BW TEE					8
15	2	Std Wt SA234 WPB CS BW TEE					8
4	1	Std Wt SA234 WPB CS BW CONC RED					10x8
1	2	T-113 Gate Valve					3/4
19	1	150lb RF Sch 40 Bore SA105 CS WN Flg					5
17	3	150lb RF Sch 40 Bore SA105 CS WN Flg					8
11	1	Std Wt SA234 WPB CS BW Cap					8
3	1	3M A105 FS SW 90 Deg Ell					3/4
9	1	3000# FS Soc-O-Let			1 1/16"	1.063	3/4x8
7	1	3000# FS Thread-O-Let			1 1/16"	1.063	3/4x8
18	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-7 3/4"	19.745	5
6	2	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-3 3/4"	15.750	8
8	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-4 1/8"	16.125	8
12	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-4 1/8"	16.155	8
16	2	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-6 1/2"	18.513	8
20	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	6'-10 5/16"	82.325	8
2	1	Sch 80 A106B CS SMLS Pipe	SW	MPT	6"	6.000	3/4
13	1	Sch 80 A106B CS SMLS Pipe	MPT	MPT	1'-6"	18.000	3/4
5	1	Sch 80 A106B CS SMLS Pipe	SW	SW	4"	4.000	3/4

BOM-STEEL

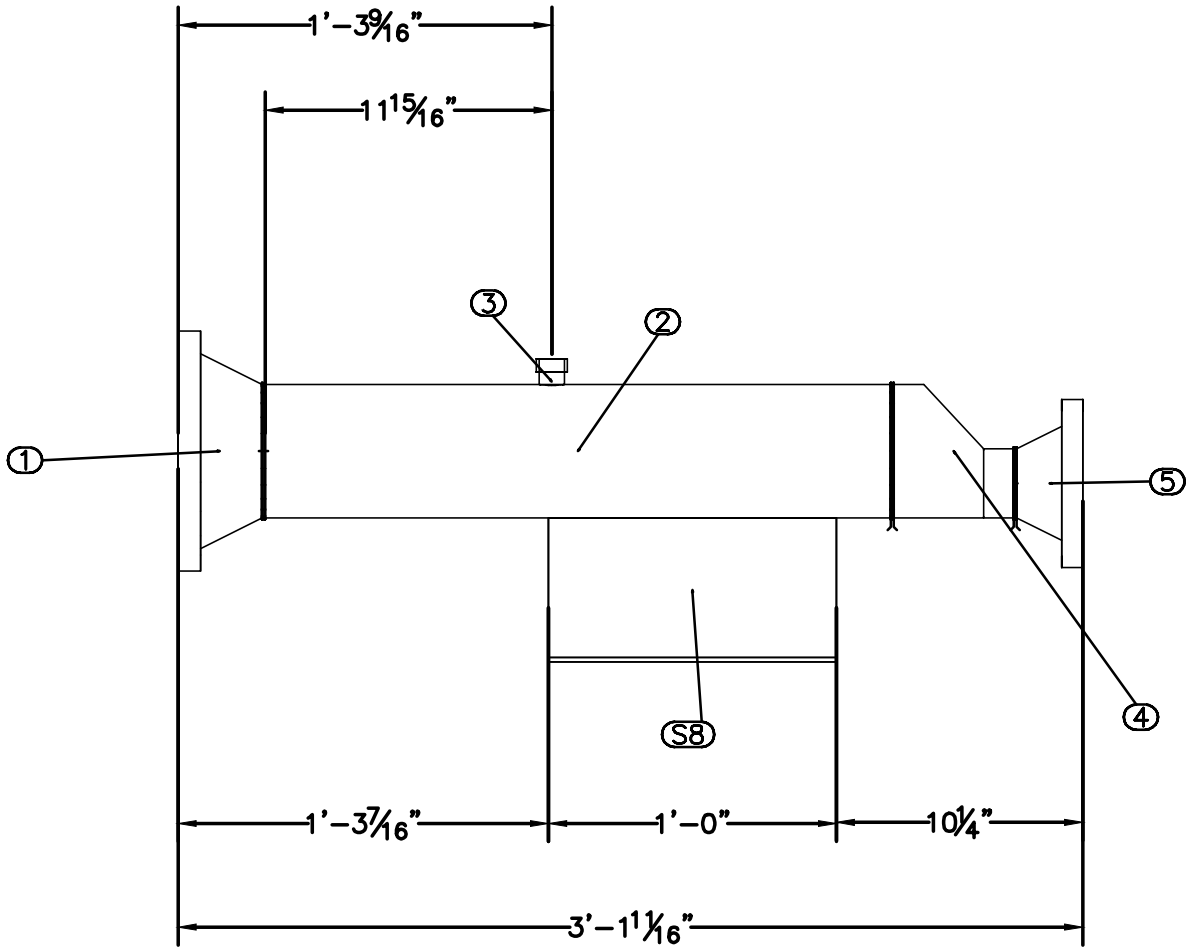
Item No	Order	Description	Qty	Size	Steel L
S8	WT6x7		4		12"

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QA/QC ACCEPT		X-RAY		ASME		COMMENTS	
SPEC.		NA		NA		MURPHY WPS#	
REV		DATE		DESCRIPTION		DRN	
0						APP	

WUSM RESEARCH BUILDING		7/1/2021	
NRB		CHK	
LVLO2 MECH ROOM		APP	
SERVICE NAME		JOB NO. 210140	
210140-15 PRV-3		REF.DWG.	
DRAWING NO./TRACKING NO.		QTY.	
210140-LVL02-15-01		1	
SHT/NO		REV	
1 of 1		0	



# Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
5	1	150lb RF Sch 40 Bore SA105 CS WN Flg					2-1/2
1	1	150lb RF Sch 40 Bore SA105 CS WN Flg					5
4	1	Std Wt SA234 WPB CS BW ECC RED					5x2-1/2
3	1	3000# FS Thread-0-Let			1 1/16"	1.063	3/4x5
2	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	2'-2 1/16"	26.072	5

# BOM-STEEL

Item No	Order	Description	Qty	Size	Steel L
S8	WT6x7		1		12"

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☐ FITTING ORIENTATION

☐ BOLTS/CPLG'S/TH'D TIGHT

☐ SPOOL IDENTIFICATION

QA/QC ACCEPT

SPEC.

NA

0

ASME

NA

REV

X-RAY

NA

DATE

HYDRO TEST

NA

PWHT

NA

COMMENTS

MURPHY WPS#

DESCRIPTION

DRN

CHK

APP

WUSM RESEARCH BUILDING

NRB

LVLO2 MECH ROOM

SERVICE NAME

210140-15

PRV-3

REF.DWG.

210140

DRAWING NO./TRACKING NO.

210140-LVL02-15-02

QTY.

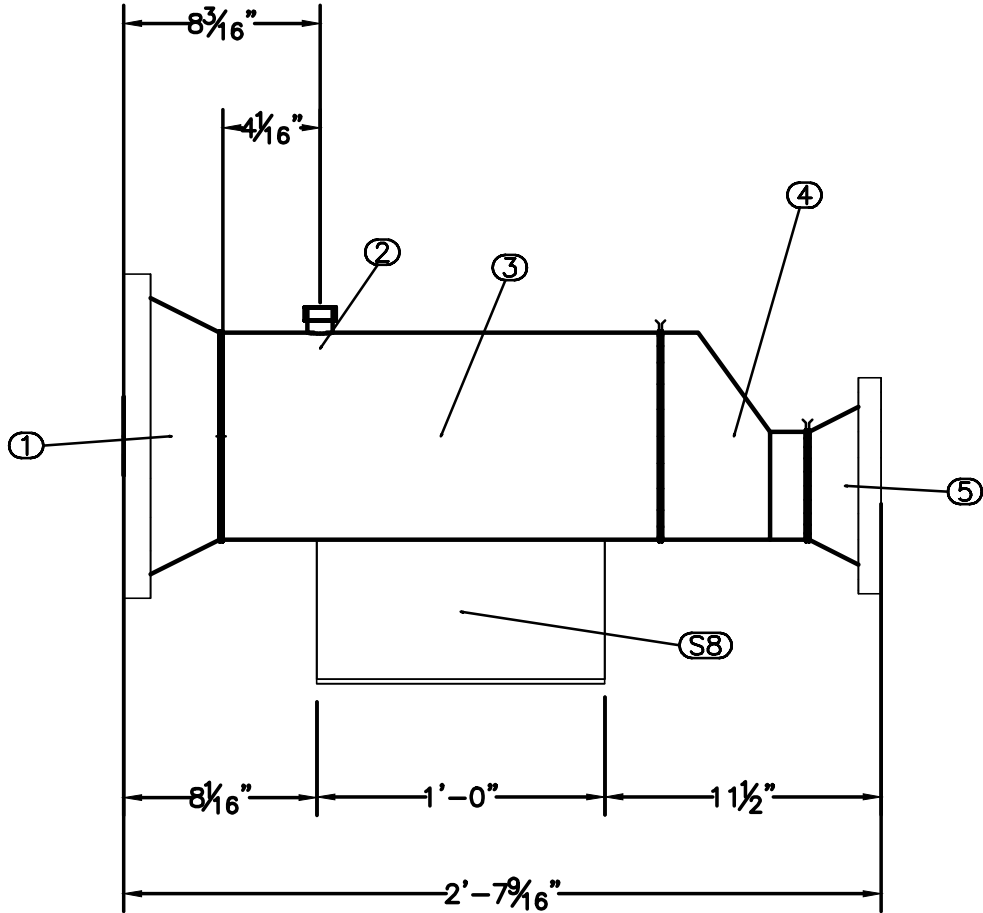
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SHT/NO

1 of 1

REV

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## Murphy—PFFS—SPOOL—BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
5	2	150lb RF Sch 40 Bore SA105 CS WN Flg					4
1	2	150lb RF Sch 40 Bore SA105 CS WN Flg					8
4	2	Std Wt SA234 WPB CS BW ECC RED					8x4
2	2	3000# FS Thread—0—Let			1 1/16"	1.063	3/4x8
3	2	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-6 3/16"	18.183	8

## BOM—STEEL

Item No	Order	Description	Qty	Size	Steel L
S8	WT6x7		2		12"

QTY 2

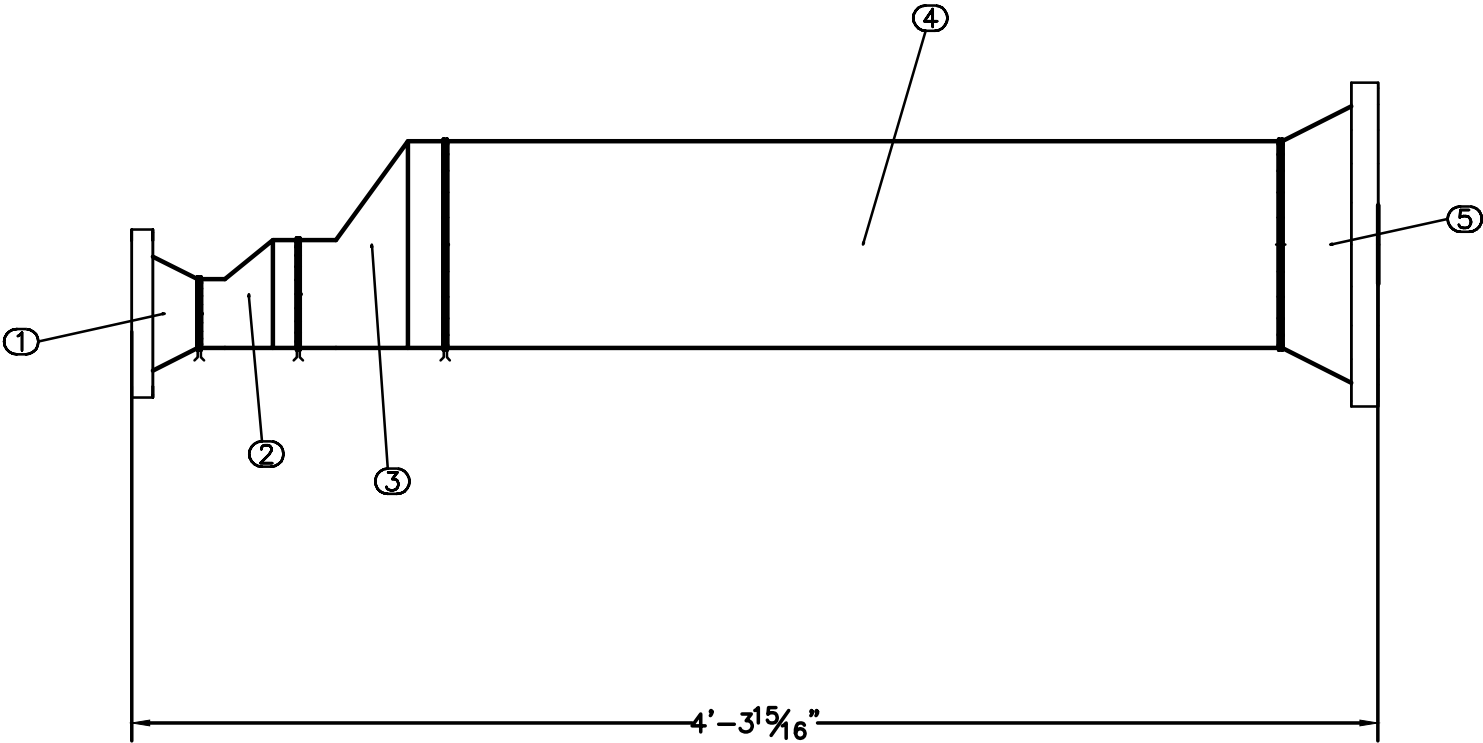
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<input type="checkbox"/>	FITTING ORIENTATION
<input type="checkbox"/>	BOLTS/CPLG'S/TH'D TIGHT
<input type="checkbox"/>	SPOOL IDENTIFICATION

QA/QC ACCEPT	ASME	NA	NA	NA	NA	COMMENTS
	SPEC.	NA	NA	NA	NA	MURPHY WPS#
0	REV	DATE	DESCRIPTION			
			DRN	CHK	APP	

DRN JMM	7/1/2021	WUSM RESEARCH BUILDING			
CHK		NRB			
APP		LVL02 MECH ROOM			
JOB NO.	210140	SERVICE NAME	210140-15 PRV-3		
REF.DWG.		QTY.	SHT/NO	REV	
DRAWING NO./TRACKING NO.		2	1 of 1	0	
210140-LVL02-15-03					



Murphy–PFFS–SPOOL–BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	150lb RF Sch 40 Bore SA105 CS WN Flg					2-1/2
5	1	150lb RF Sch 40 Bore SA105 CS WN Flg					8
2	1	Std Wt SA234 WPB CS BW ECC RED					4x2-1/2
3	1	Std Wt SA234 WPB CS BW ECC RED					8x4
4	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	2'-10 11/16"	34.679	8

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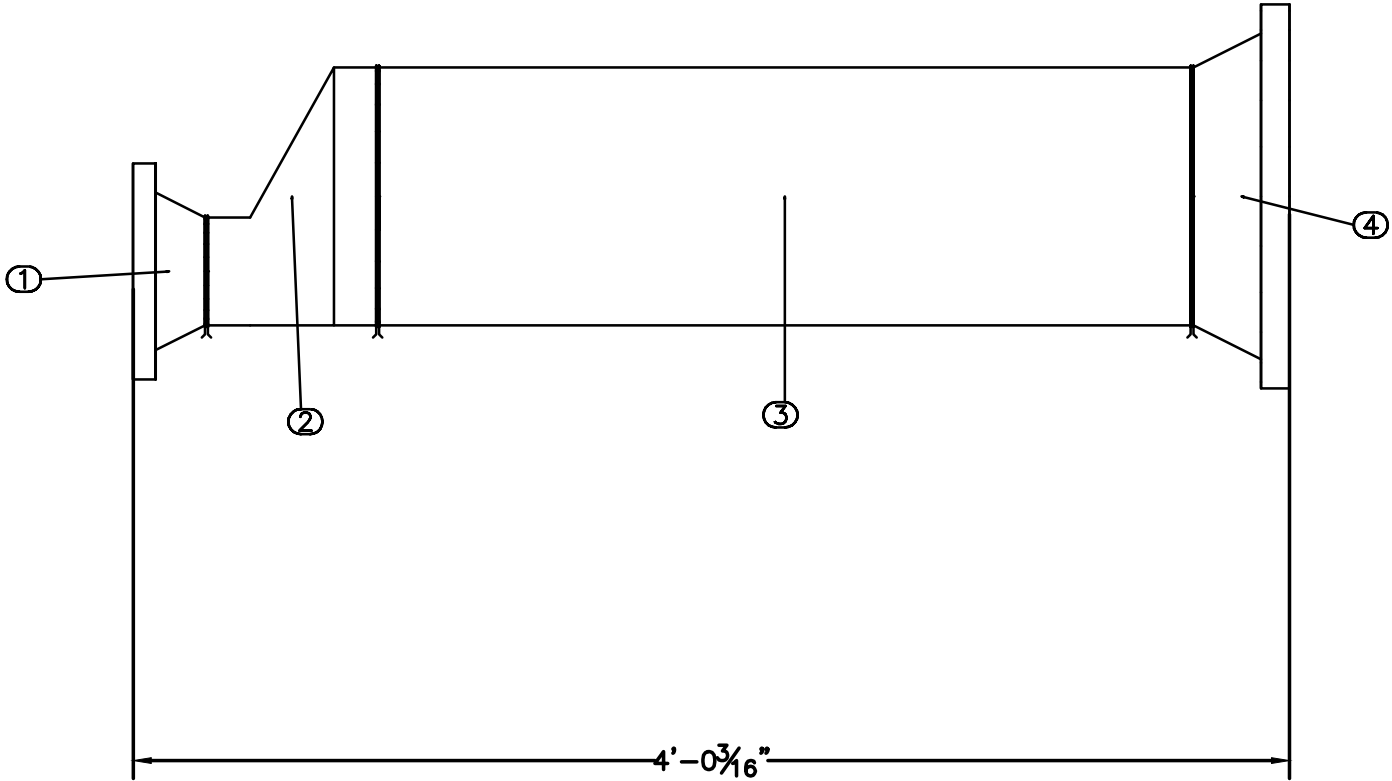
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QA/QC ACCEPT			

SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS
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REV	DATE	DESCRIPTION		DRN	CHK APP

DRN JMM	7/1/2021	WUSM RESEARCH BUILDING			
CHK		NRB			
APP		LVL02 MECH ROOM			
JOB NO.	210140	SERVICE NAME	210140-15 PRV-3		
REF.DWG.					
DRAWING NO./TRACKING NO.	QTY.	SHT/NO	REV		
210140-LVL02-15-04	1	1 of 1	0		





QTY 2

Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
4	2	150lb FF Sch 40 Bore SA105 CS WN Flg					10
1	2	150lb RF Sch 40 Bore SA105 CS WN Flg					4
2	2	Std Wt SA234 WPB CS BW ECC RED					10x4
3	2	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	2'-9 13/16"	33.809	10

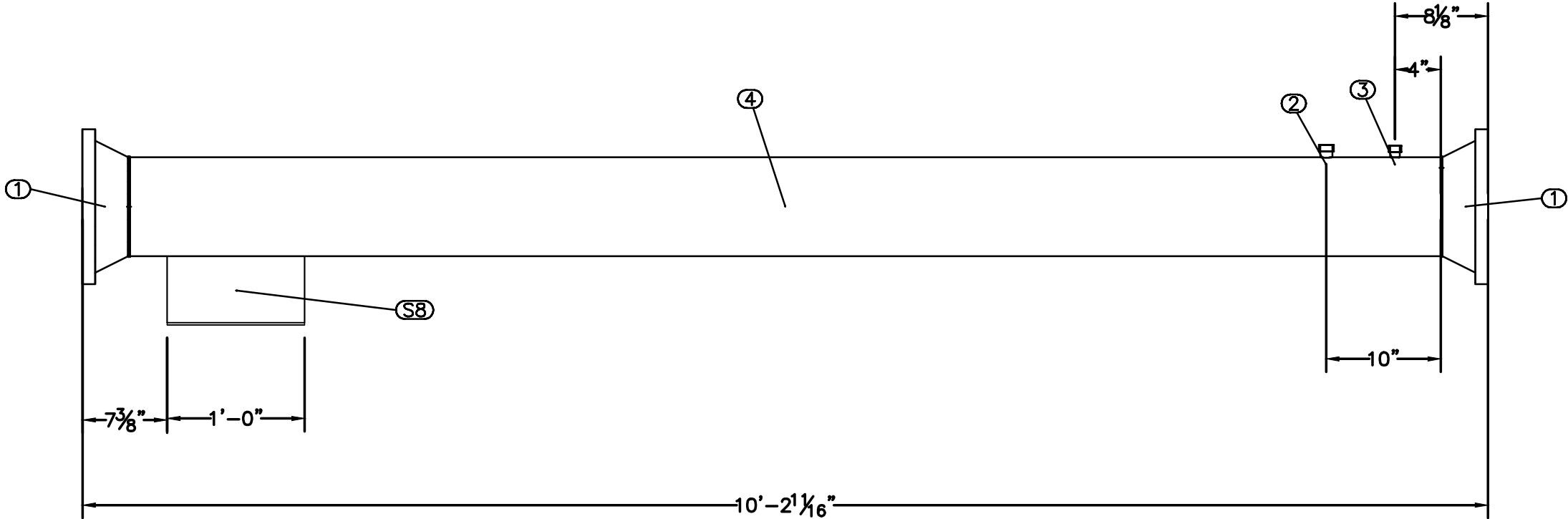
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0	REV	DATE	DESCRIPTION		DRN	CHK	APP	

DRN JMM	7/1/2021	WUSM RESEARCH BUILDING			
CHK		NRB			
APP		LVL02 MECH ROOM			
JOB NO.	210140	SERVICE NAME			
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DRAWING NO./TRACKING NO.		QTY.	SHT/NO	REV	
210140-LVL02-15-05		2	1 of 1	0	



Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	2	150lb RF Sch 40 Bore SA105 CS WN Flg					8
3	1	3000# FS Thread-0-Let			1"	1.000	1/2x8
2	1	3000# FS Thread-0-Let			1 1/16"	1.063	3/4x8
4	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	9'-6 7/16"	114.444	8

BOM-STEEL

Item No	Order	Description	Qty	Size	Steel L
S8	WT6x7		1		12"

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☐ FITTING ORIENTATION  
☐ BOLTS/CPLG'S/TH'D TIGHT  
☐ SPOOL IDENTIFICATION

QA/QC ACCEPT

SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS
NA	NA	NA	NA	NA	MURPHY WPS#
0					
REV	DATE				DESCRIPTION
					DRN
					CHK
					APP

WUSM RESEARCH BUILDING  
NRB  
LVLO2 MECH ROOM

SERVICE NAME  
210140-15 PRV-3

REF.DWG.

DRAWING NO./TRACKING NO.  
210140-LVL02-15-06

QTY.

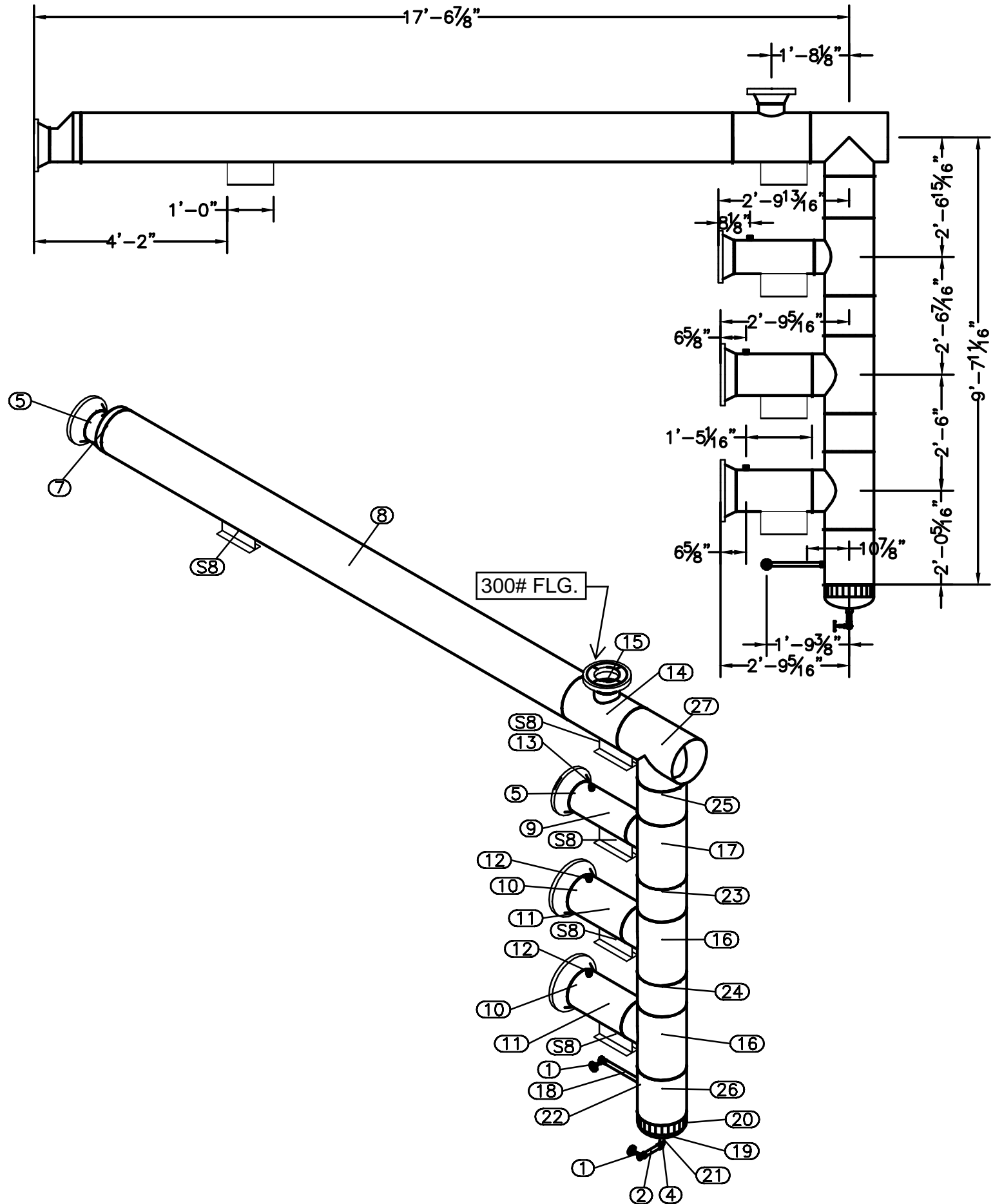
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SHT/NO

1 of 1

REV

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Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
14	1	Std Wt SA234 WPB CS BW RED TEE					12x6
17	1	Std Wt SA234 WPB CS BW RED TEE					12x8
16	2	Std Wt SA234 WPB CS BW RED TEE					12x10
27	1	Std Wt SA234 WPB CS BW TEE					12
1	2	T-113 Gate Valve					3/4
5	2	150lb RF Sch 40 Bore SA105 CS WN Flg					8
10	2	150lb RF Sch 40 Bore SA105 CS WN Flg					10
15	1	300lb RF XH Bore SA105 CS WN FLG					6
7	1	Std Wt SA234 WPB CS BW ECC RED					12x8
20	1	Std Wt SA234 WPB CS BW Cap					12
4	1	3M A105 FS SW 90 Deg Ell					3/4
19	1	3000# FS Soc-0-Let			1 1/16"	1.063	3/4x12
13	1	3000# FS Thread-0-Let			1 1/16"	1.063	3/4x8
12	2	3000# FS Thread-0-Let			1 1/16"	1.063	3/4x10
22	1	3000# FS Thread-0-Let			1 1/16"	1.063	3/4x12
9	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-8 9/16"	20.557	8
11	2	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-7 9/16"	19.554	10
8	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	14'-0 3/8"	168.375	12
23	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	10 3/16"	10.219	12
24	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	9 3/4"	9.750	12
25	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	10 11/16"	10.687	12
26	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	1'-2 3/16"	14.188	12
2	1	Sch 80 A106B CS SMLS Pipe	SW	MPT	6"	6.000	3/4
18	1	Sch 80 A106B CS SMLS Pipe	MPT	MPT	1'-2"	14.000	3/4
21	1	Sch 80 A106B CS SMLS Pipe	SW	SW	3"	3.000	3/4

BOM-STEEL

Item No	Order	Description	Qty	Size	Steel L
S8	WT6x7		5		12"

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☐ FITTING ORIENTATION

☐ BOLTS/CPLG'S/TH'D TIGHT

☐ SPOOL IDENTIFICATION

QA/QC ACCEPT

SPEC. NA

ASME NA

X-RAY NA

HYDRO TEST NA

PMHT NA

COMMENTS

0

REV

DATE

DESCRIPTION

MURPHY WPS#

DRN

CHK

APP

WUSM RESEARCH BUILDING

NRB

LVLO2 MECH ROOM

SERVICE NAME

210140-15 PRV-3

7/1/2021

210140

REF.DWG.

DRAWING NO./TRACKING NO.

210140-LVL02-15-08

QTY. 1

SHT/NO 1 of 1

REV 0