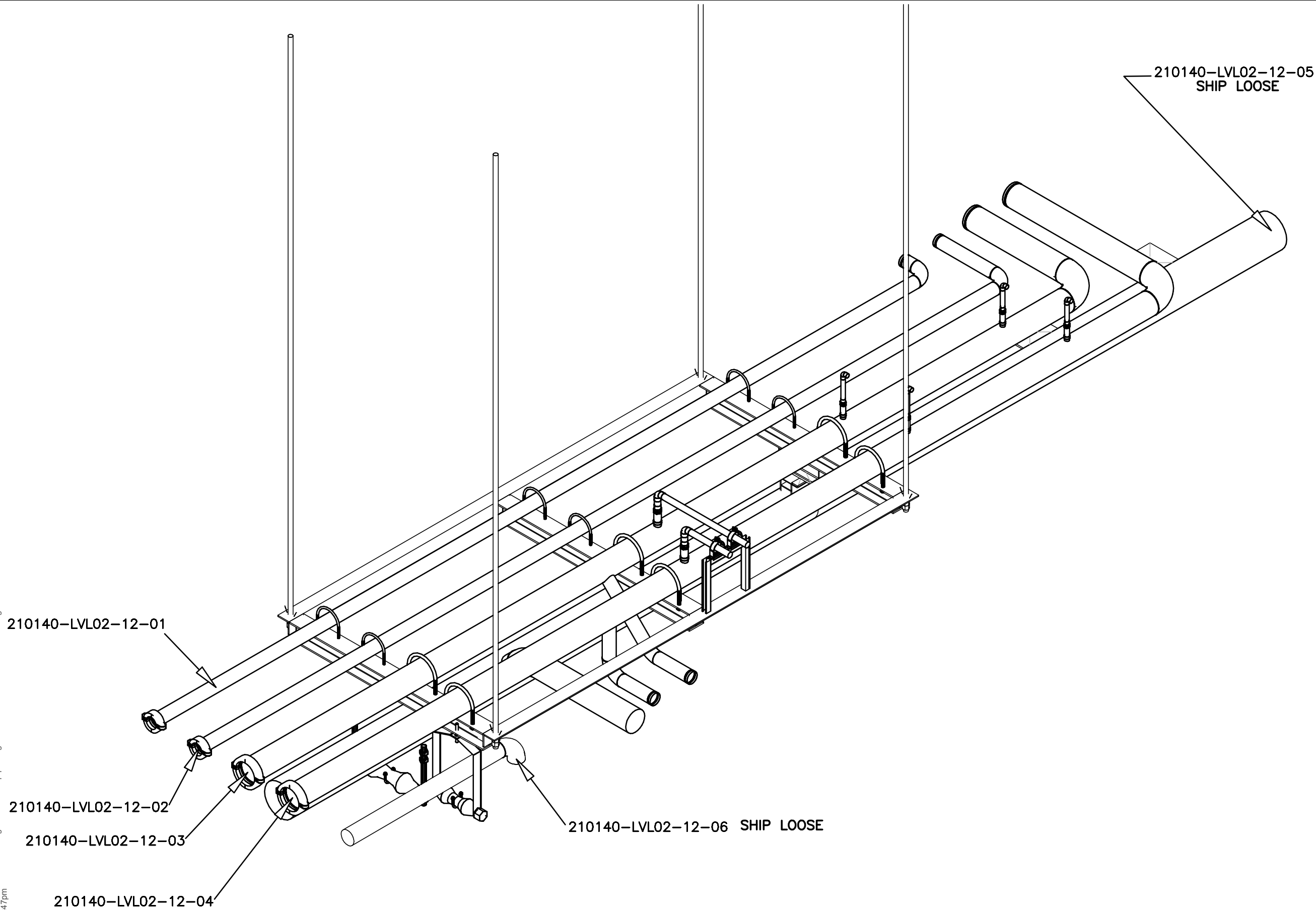


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CHK			NRB									
APP			LEVEL 02 NRB RACK									
JOB NO.		210140	SERVICE NAME									
REF.DWG.												
DRAWING NO./TRACKING NO.			QTY.	SHT/NO	REV							
201140-LVL02-12			1	1 of 3	1							
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							FITTING ORIENTATION					<input type="checkbox"/>
							BOLTS/CPLG'S/TH'D TIGHT					<input type="checkbox"/>
							SPOOL IDENTIFICATION					<input type="checkbox"/>
SPEC.		ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS						
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1		7/13/21	ADDED ANVIL GUIDE			JMM						
REV		DATE	DESCRIPTION			DRN		CHK		APP		



DRN

JMM

6/8/2021

CHK

APP

JOB NO.

210140

REF.DWG.

DRAWING NO./TRACKING NO.

201140-LVL02-12

QTY.

1

SHT/NO

2 OF 3

REV

1

WUSM RESEARCH BUILDING

NRB

LEVEL 02 NRB RACK

SERVICE NAME

QA/QC ACCEPT

FLANGE WEIGHT/ORIENTATION

☐

FITTING ORIENTATION

☐

BOLTS/CPLG'S/TH'D TIGHT

☐

SPOOL IDENTIFICATION

☐

SPEC.

NA

ASME

NA

X-RAY

NA

HYDRO TEST

NA

PWHT

NA

COMMENTS

REV

1

DATE

7/13/21

ADDED

ANVIL GUIDE

DESCRIPTION

JMM

DRN

CHK

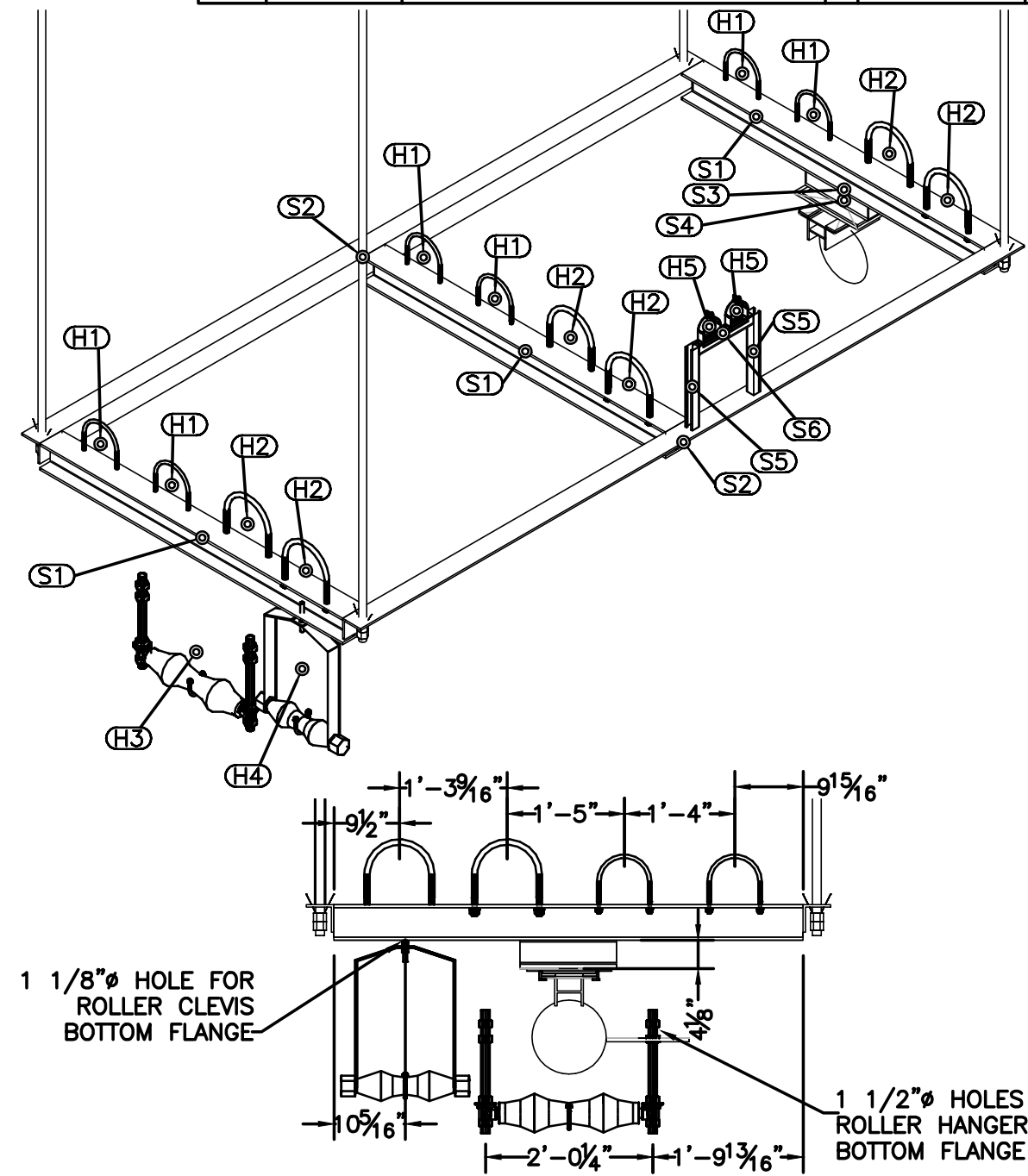
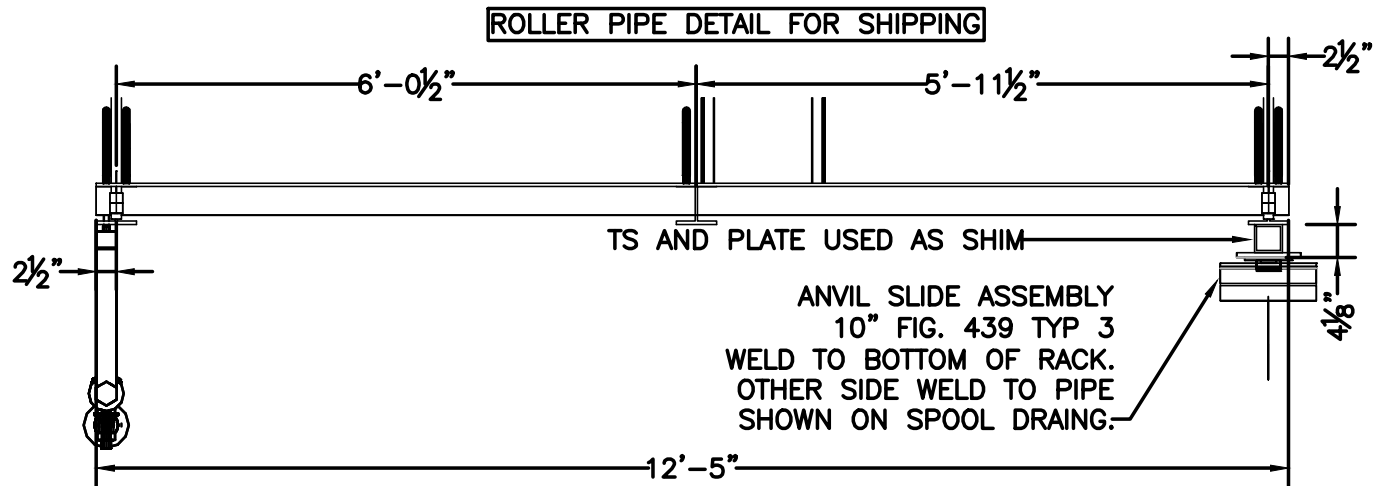
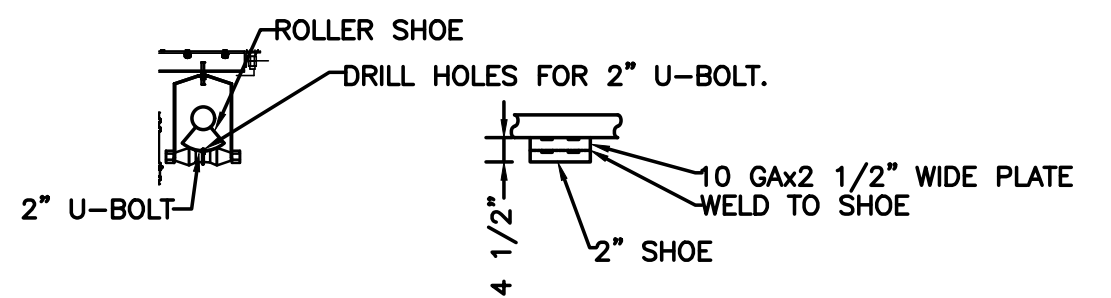
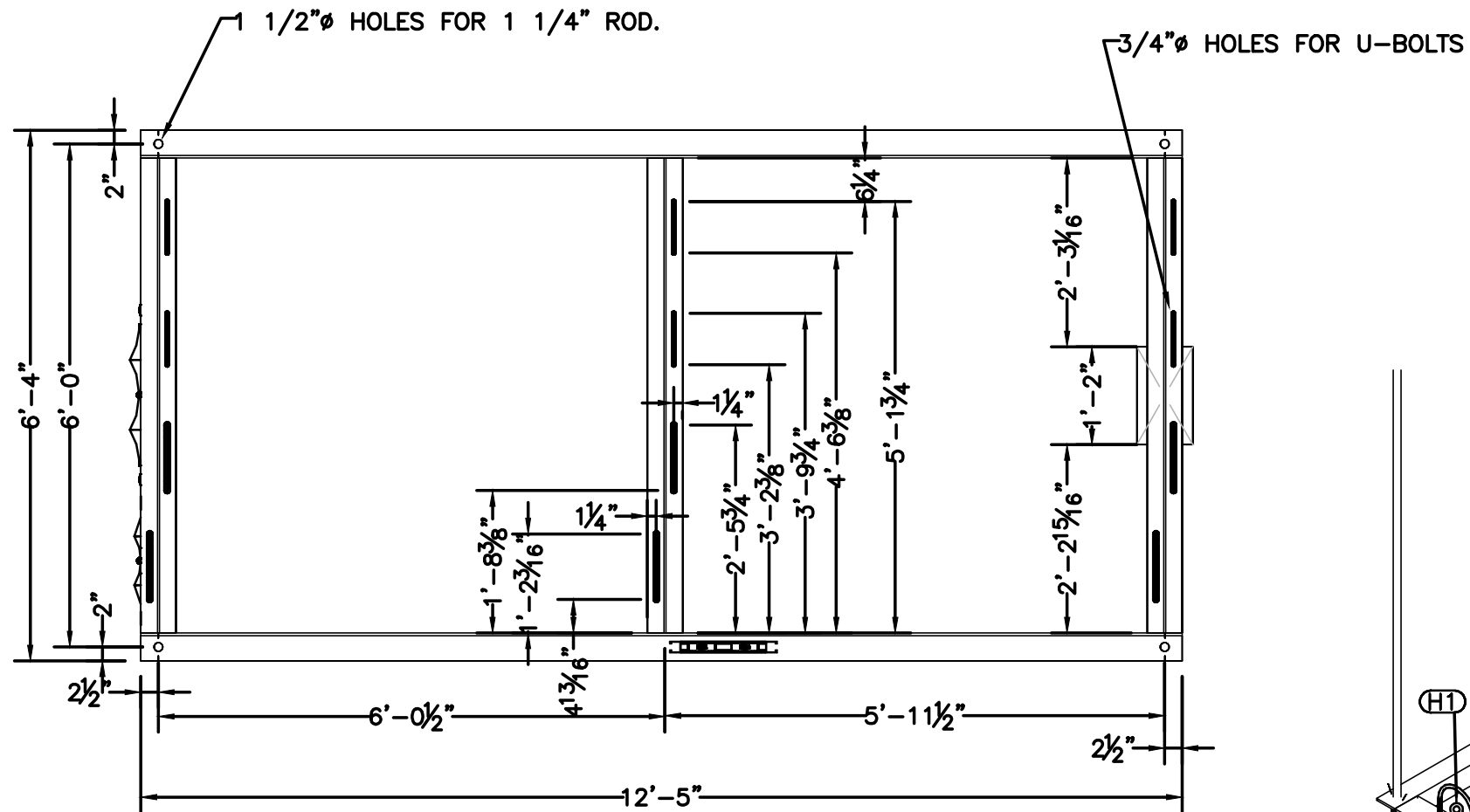
APP

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J:\210140 WUSM Research Building NRB\16-tab\pipe\dwg\NRB LVL02-12.dwg  
06/08/2021 - 3:03pm  
jmcnamely



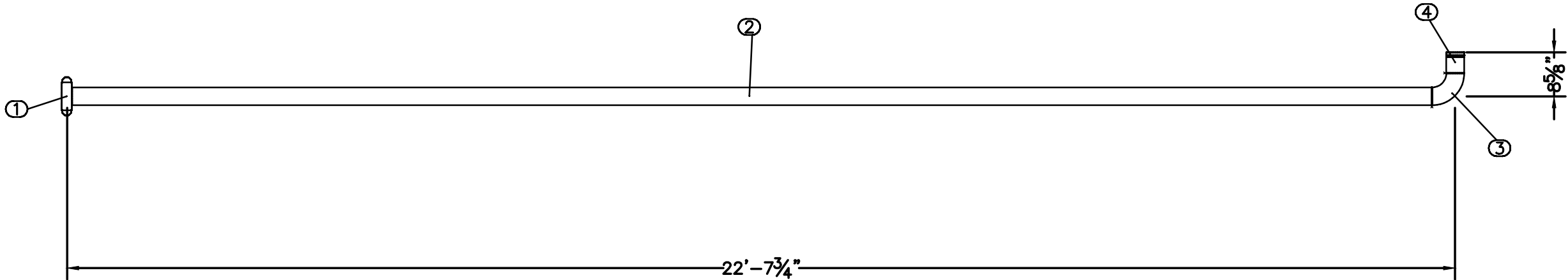
NOTE: LENGTHEN ROLLER RODS AS NEEDED.

BOM-STEEL					
Item No	Order	Description	Qty	Size	Steel L
H1	Fig137	Fig.137 U-Bolt (4)-Nut Black	6	6	
H2	Fig137	Fig.137 U-Bolt (4)-Nut Black	6	8	
H3	B3122-20 PLN	B3122 Adjustable Roller Support - PLN	1	20	
H4	B3110	B3110 Adjustable Steel Yoke Pipe Roll - PLN	1	14	
H5	928137	Klo-Shure Strut Clamp 1in Insul Cplg - Fiberglass_CTS	2	1-1/4	
S1	W5x19	ASTM A36 CS Wide Flange	3	W5x19	68"
S2	L4x4x3/8	ASTM A36 CS Equal Angle	2	L4x4x3/8	149"
S3	CS SQ Tube	ASTM A36 CS Square Tube	1	SQ3-1/2x3-1/2x1/4	14"
S4		ASTM A36 CS Plate 5/8" Thick	1	8x14x5/8	0"
S5	B22 GRN	1-5/8 GRN 12GA 2in Slotted Unistrut	2	1-5/8x1-5/8	15 1/2"
S6	B22 GRN	1-5/8 GRN 12GA 2in Slotted Unistrut	1	1-5/8x1-5/8	12 1/4"

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FLANGE WEIGHT/ORIENTATION		FITTING ORIENTATION		BOLTS/CPLG'S/TH'D TIGHT		SPOOL IDENTIFICATION	
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SPEC.				ASME	X-RAY	HYDRO TEST	PMHT
NA				NA	NA	NA	NA
REV				DATE	DESCRIPTION		APP
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WUSM RESEARCH BUILDING				LEVEL 02 NRB RACK			
NRB				SERVICE NAME			
6/8/2021				210140			
REF.DWG.				DRAWING NO./TRACKING NO.			
201140-LVL02-12				QTY. 1			
SHT/NO 3 OF 3				REV 0			



Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Style 107 EHP Pnt QuickVic Rigid Coupling					3
3	1	Std Wt SA234 WPB CS BW LR 90 Deg El					3
4	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	4"	4.000	3
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	22'-3 1/8"	267.124	3

DRN

JMM

CHK

APP

JOB NO.

210140

REF.DWG.

DRAWING NO./TRACKING NO.

210140-LVL02-12-01

6/8/2021

SERVICE NAME

LVL02-12 RACK

QTY.

1

SHT/NO

1 of 1

REV

0

WUSM RESEARCH BUILDING

NRB

LEVEL 02 NRB RACKS

QA/QC ACCEPT

FLANGE WEIGHT/ORIENTATION

☐

FITTING ORIENTATION

☐

BOLTS/CPLG'S/TH'D TIGHT

☐

SPOOL IDENTIFICATION

☐

SPEC.

NA

ASME

NA

X-RAY

NA

HYDRO TEST

NA

FWHT

NA

COMMENTS

MURPHY WPS#

REV

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DATE

DESCRIPTION

DRN

CHK

APP

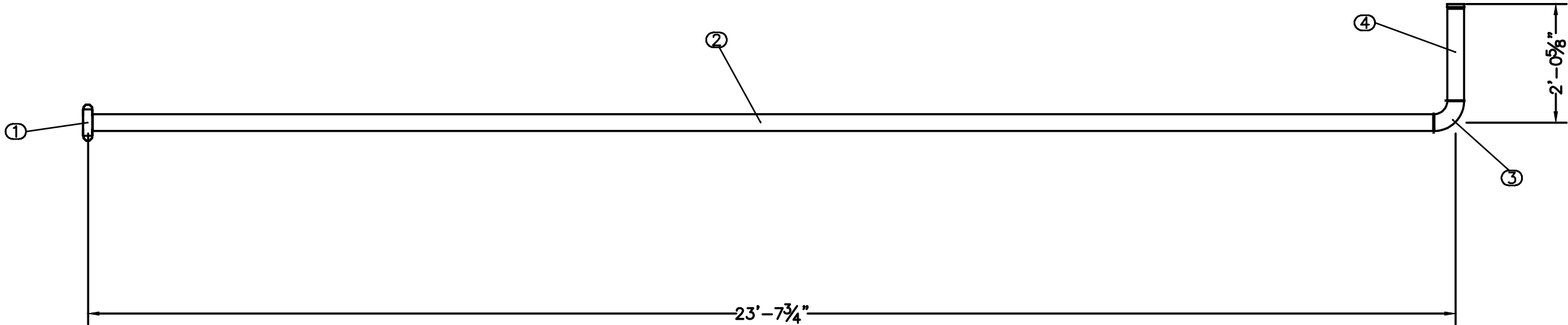
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Murphy—PFFS—SPOOL—BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Style 107 EHP Pnt QuickVic Rigid Coupling					3
3	1	Std Wt SA234 WPB CS BW LR 90 Deg El					3
4	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	1'-8"	20.000	3
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	23'-3 1/8"	279.124	3

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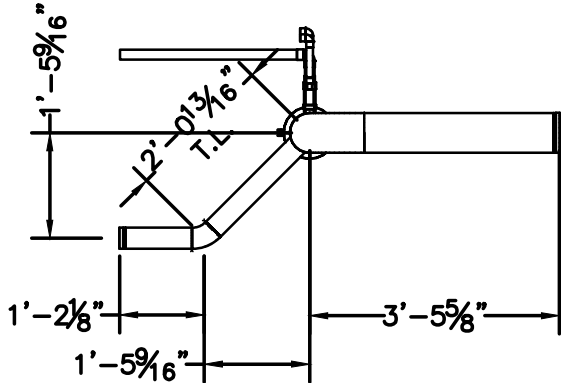
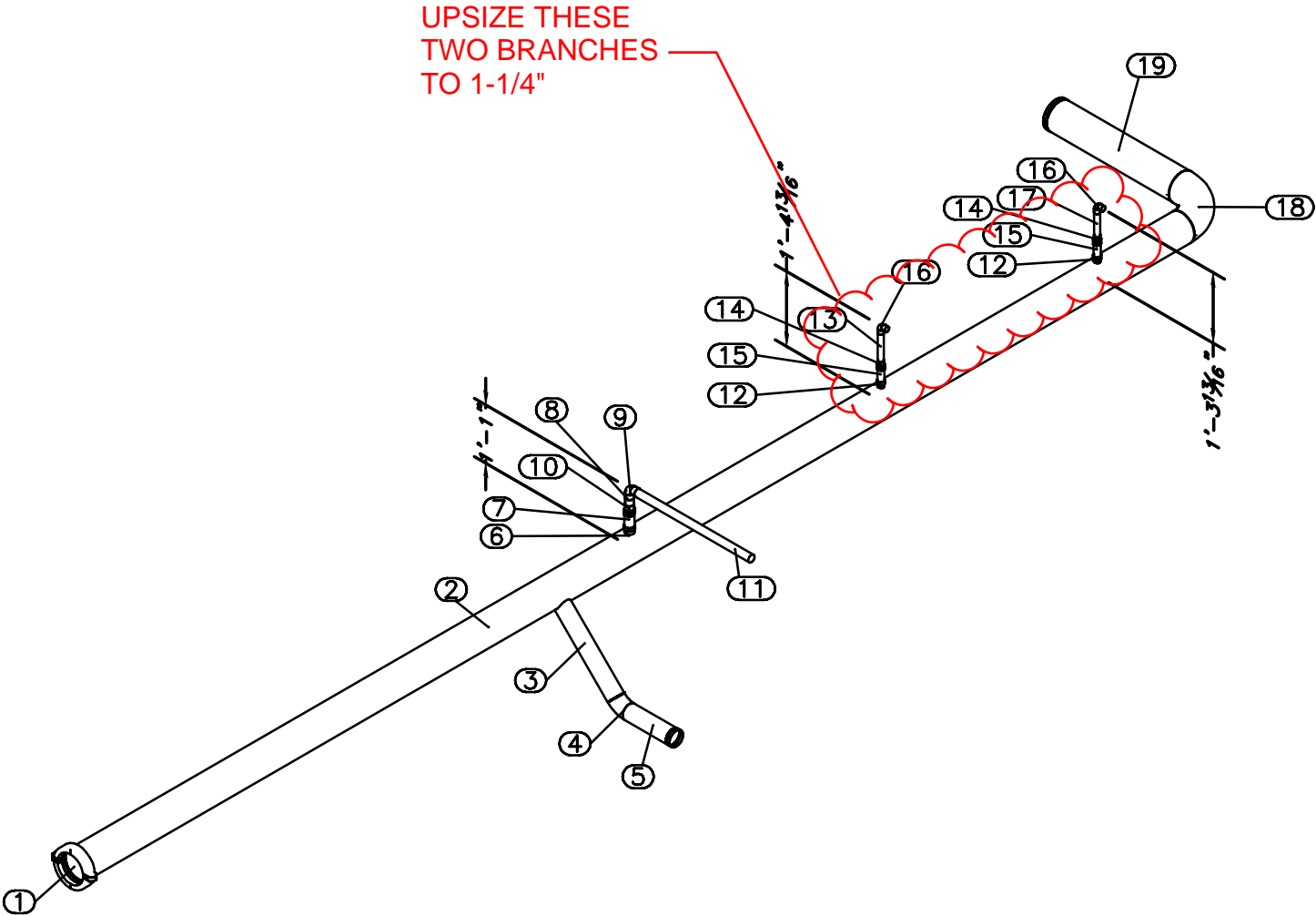
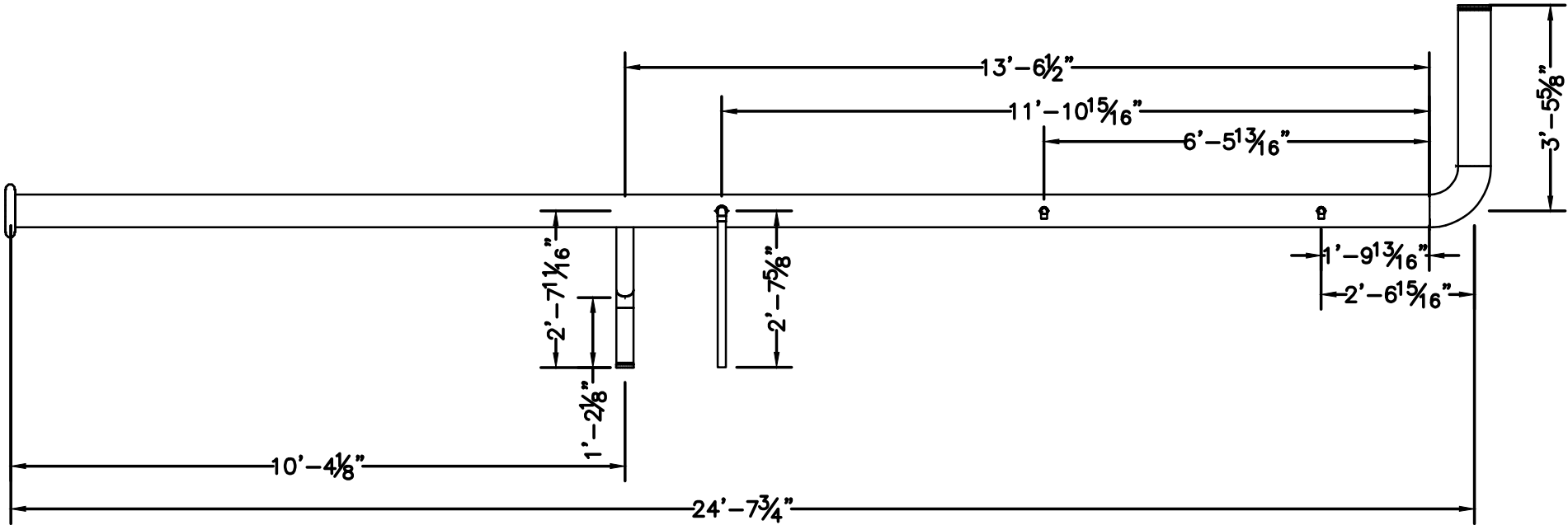
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<input type="checkbox"/>	FLANGE WEIGHT/ORIENTATION
<input type="checkbox"/>	FITTING ORIENTATION
<input type="checkbox"/>	BOLTS/CPLG'S/TH'D TIGHT
<input type="checkbox"/>	SPOOL IDENTIFICATION

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

DRN JMM	6/8/2021	WUSM RESEARCH BUILDING		
CHK		NRB		
APP		LEVEL 02 NRB RACKS		
JOB NO.	210140	SERVICE NAME	LVL02-12 RACK	
REF.DWG.		QTY.	SHT/NO	REV
DRAWING NO./TRACKING NO.		1	1 of 1	0
210140-LVL02-12-02				



# Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	1	Sch 40 SA-53B CS ERW Pipe Saddle			1'-7 3/8"	19.375	6x3
1	1	Style 107 EHP Pnt QuickVic Rigid Coupling					6
15	2	No.647 TT Dielectric Transition Fitting					1
7	1	No.647 TT Dielectric Transition Fitting					1-1/2
14	2	Wrot 603 Adapter CxF					1
10	1	Wrot 603 Adapter CxF					1-1/2
18	1	Std Wt SA234 WPB CS BW LR 90 Deg EI					6
16	2	Wrot 607 90 Deg EI CxC					1
9	1	Wrot 607 90 Deg EI CxC					1-1/2
4	1	Std Wt SA234 WPB CS BW 45 Deg EI					3
6	1	3000# FS Thread-O-Let			1 3/8"	1.375	1-1/2x6
12	2	3000# FS Thread-O-Let			1 5/16"	1.313	1x6
2	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	23'-10 5/8"	286.624	6
19	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	2'-8 1/2"	32.500	6
13	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	7 15/16"	7.931	1
17	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	6 15/16"	6.931	1
8	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	3 9/16"	3.580	1-1/2
11	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-6 9/16"	30.586	1-1/2
5	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	1'-0"	12.000	3

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☐ FLANGE WEIGHT/ORIENTATION

☐ FITTING ORIENTATION

☐ BOLTS/CPLG'S/TH'D TIGHT

☐ SPOOL IDENTIFICATION

QA/QC ACCEPT

WUSM RESEARCH BUILDING

NRB

LEVEL 02 NRB RACKS

SERVICE NAME

LVLO2-12 RACK

DRN JMM

CHK

APP

JOB NO. 210140

REF.DWG.

DRAWING NO./TRACKING NO.

210140-LVLO2-12-03

6/8/2021

QTY. 1

SHT/NO 1 OF 1

REV 0

REV 0

DATE

DESCRIPTION

REV

DATE

DESCRIPTION

REV

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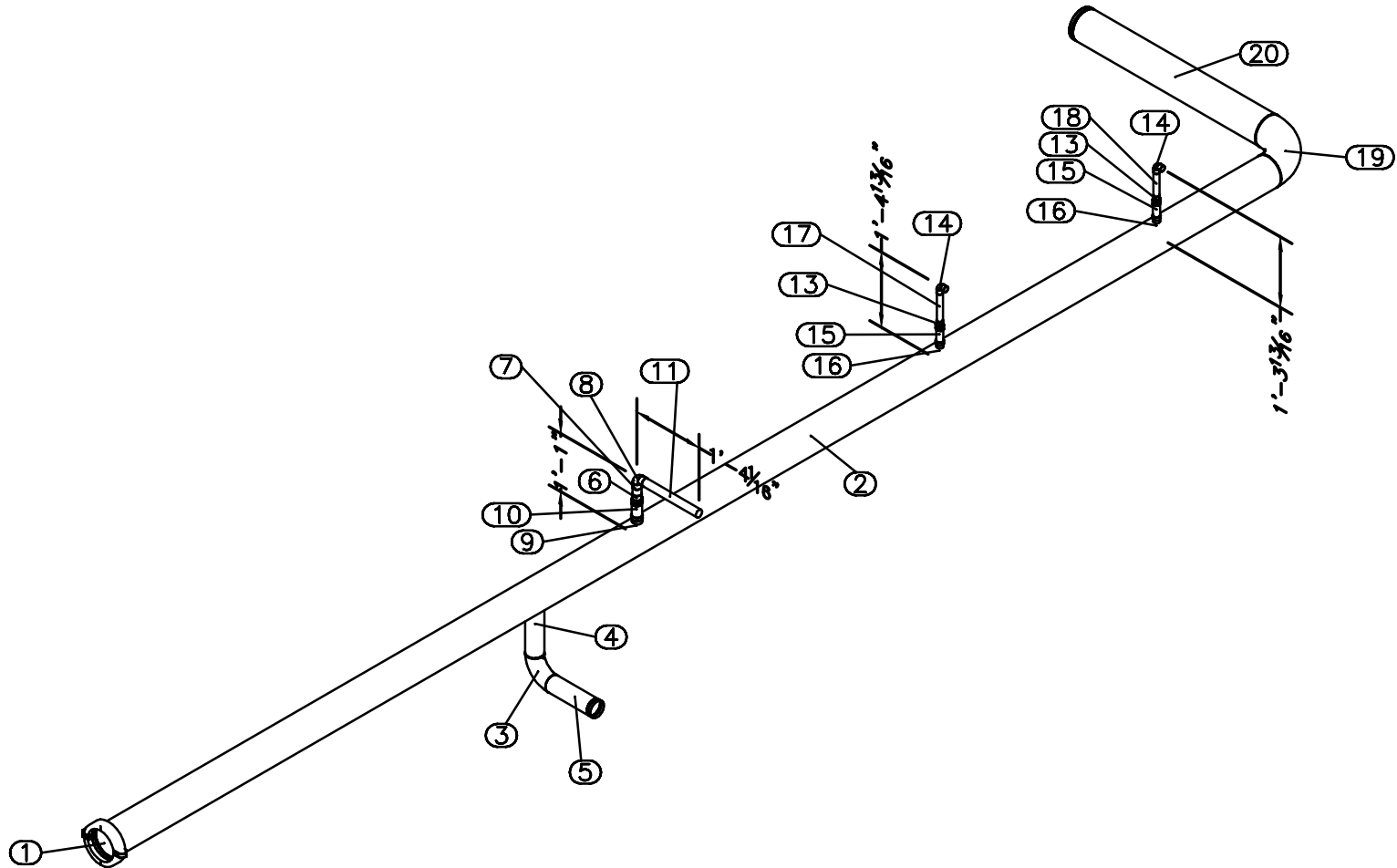
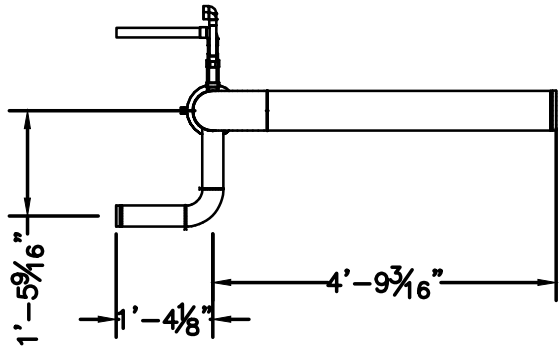
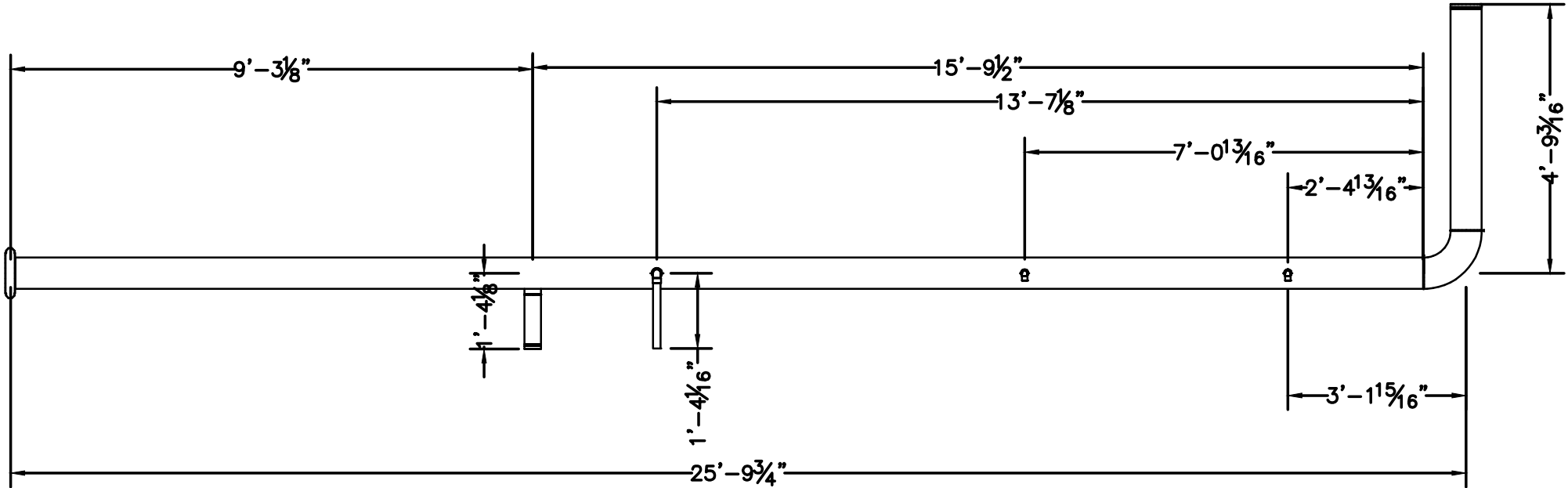
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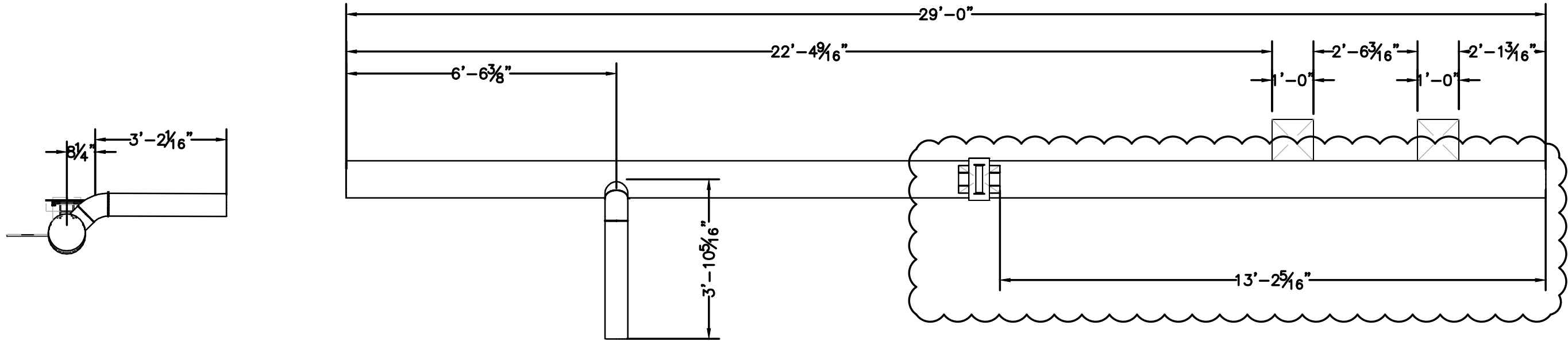
## Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
4	1	Sch 40 SA-53B CS ERW Pipe Saddle			9 5/8"	9.625	6x3
1	1	Style 107 EHP Pnt QuickVic Rigid Coupling					6
15	2	No.647 TT Dielectric Transition Fitting					1
10	1	No.647 TT Dielectric Transition Fitting					1-1/2
13	2	Wrot 603 Adapter CxF					1
6	1	Wrot 603 Adapter CxF					1-1/2
3	1	Std Wt SA234 WPB CS BW LR 90 Deg El					3
19	1	Std Wt SA234 WPB CS BW LR 90 Deg El					6
14	2	Wrot 607 90 Deg El CxC					1
8	1	Wrot 607 90 Deg El CxC					1-1/2
9	1	3000# FS Thread-0-Let			1 3/8"	1.375	1-1/2x6
16	2	3000# FS Thread-0-Let			1 5/16"	1.313	1x6
2	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	25'-0 5/8"	300.624	6
17	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	7 15/16"	7.931	1
18	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	6 15/16"	6.931	1
7	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	3 9/16"	3.580	1-1/2
11	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-3"	15.000	1-1/2
12	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	0"	0.014	1-1/2
5	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	11 1/2"	11.477	3
20	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	4'-0 1/16"	48.086	6

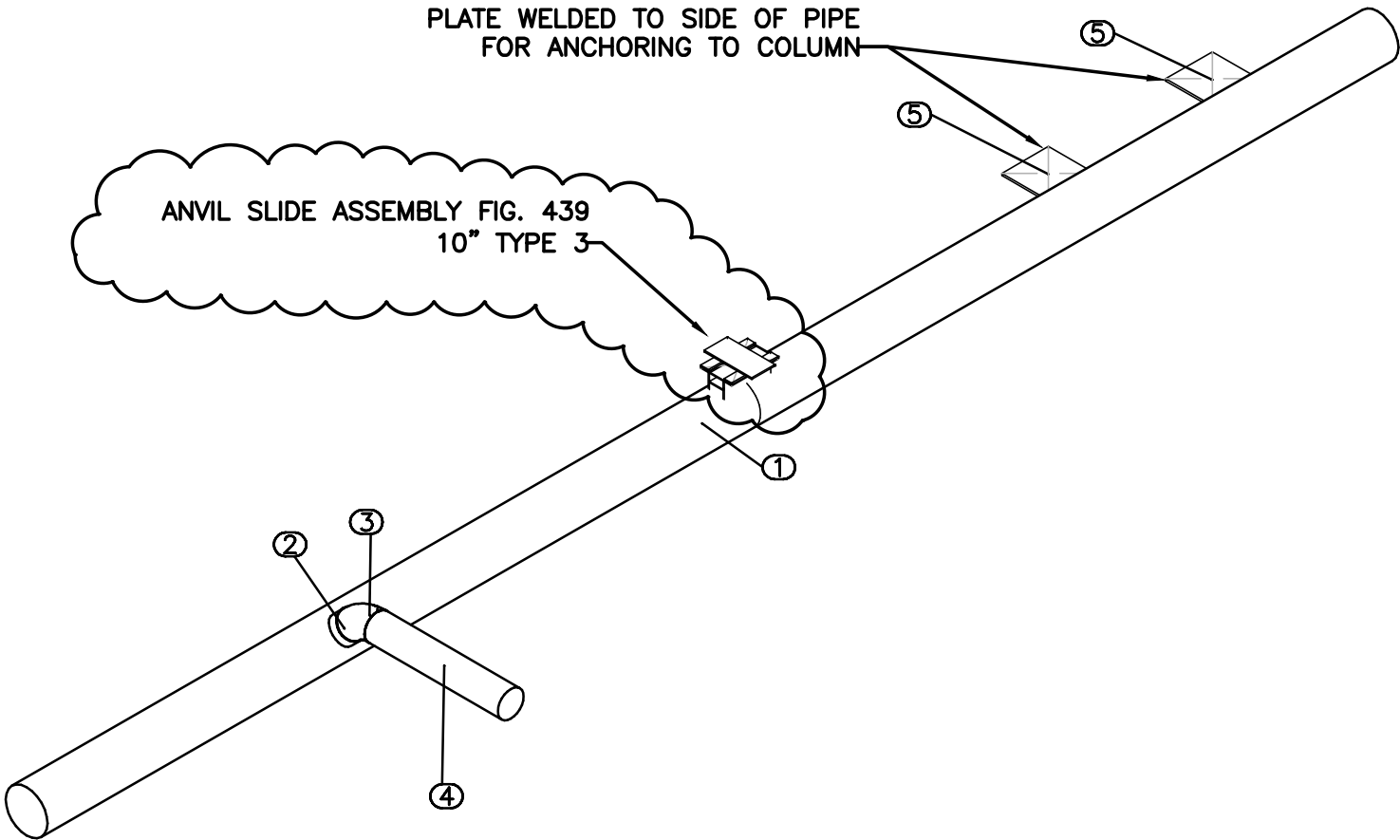
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<input type="checkbox"/>	BOLTS/CPLG'S/TH'D TIGHT														
<input type="checkbox"/>	SPOOL IDENTIFICATION														
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	DRN	CHK													APP

DRN	JMM	6/8/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP			LEVEL 02 NRB RACKS		
JOB NO.	210140		SERVICE NAME		
REF.DWG.			LVLO2-12 RACK		
DRAWING NO./TRACKING NO.	210140-LVLO2-12-04	1	QTY.	SHT/NO	REV
			1	1 of 1	0



SHIP LOOSE



## Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	1	Std Wt SA234 WPB CS BW 45 Deg Ell					6
2	1	FS STD WELDOLET			2 3/8"	2.375	6x10
4	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	2'-10 3/16"	34.210	6
1	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	29'-0"	348.000	10

## BOM-STEEL

Item No	Order	Description	Qty	Size	Steel L
5		ASTM A36 CS Plate 1/2" Thick	2	12x12x1/2	

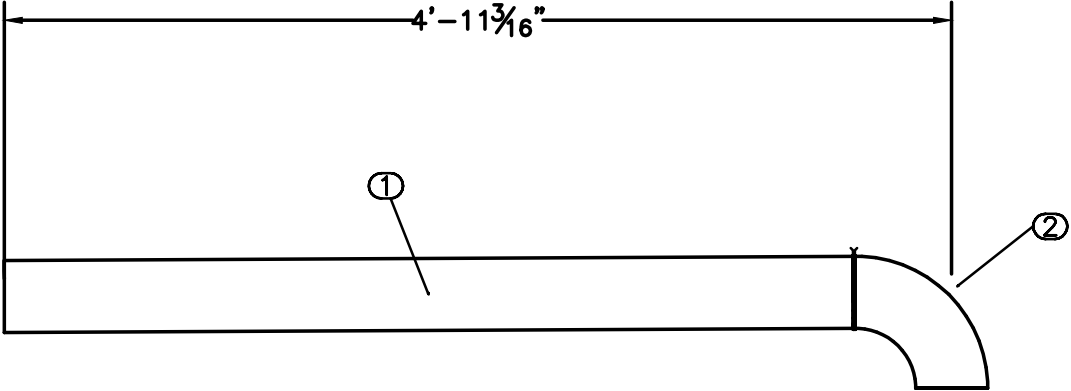
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FITTING ORIENTATION	<input type="checkbox"/>		NA	NA	NA	NA	
BOLTS/CPLG'S/TH'D TIGHT	<input type="checkbox"/>		NA	NA	NA	NA	
SPOOL IDENTIFICATION	<input type="checkbox"/>		NA	NA	NA	NA	
			1	7/13/21	ADDED ANVIL GUIDE		MURPHY WPS#
			REV	DATE	DESCRIPTION		JMM
							DRN
							CHK
							APP

DRN	JMM	6/8/2021	WUSM RESEARCH BUILDING	LEVEL 02 NRB RACKS	LVLO2-12 RACK	QTY.	1	1	1
CHK			NRB			SHT/NO	1	1	1
APP									
JOB NO.	210140		SERVICE NAME						
REF.DWG.									
DRAWING NO./TRACKING NO.	210140-LVLO2-12-05								



SHIP LOOSE



Murphy–PFFS–SPOOL–BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	XH SA234 WPB CS BW LR 90 Deg Ell					4
1	1	XH SA-53B CS SMLS Pipe	BEV	BEV	4'-5 1/16"	53.053	4

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DRN JMM CHK APP JOB NO. 210140 REF.DWG. DRAWING NO./TRACKING NO. 210140-LVL02-12-06	WUSM RESEARCH BUILDING				QA/QC ACCEPT				FLANGE WEIGHT/ORIENTATION				<input type="checkbox"/>	
	NRB				SPEC. NA				FITTING ORIENTATION				<input type="checkbox"/>	
	LEVEL 02 NRB RACKS								BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>	
	SERVICE NAME								SPOOL IDENTIFICATION				<input type="checkbox"/>	
	LVL02-12 RACK				ASME NA	X-RAY NA	HYDRO TEST NA	PWHT NA	COMMENTS					
QTY. 1				SHT/NO 1 of 1				MURPHY WPS#						
REV 0				REV DATE				DESCRIPTION				DRN	CHK	APP