

NOTE: HWS/R NOT SHOWN ON SIDE VIEW.

**MURPHY**  
MURPHY SINCE 1907

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

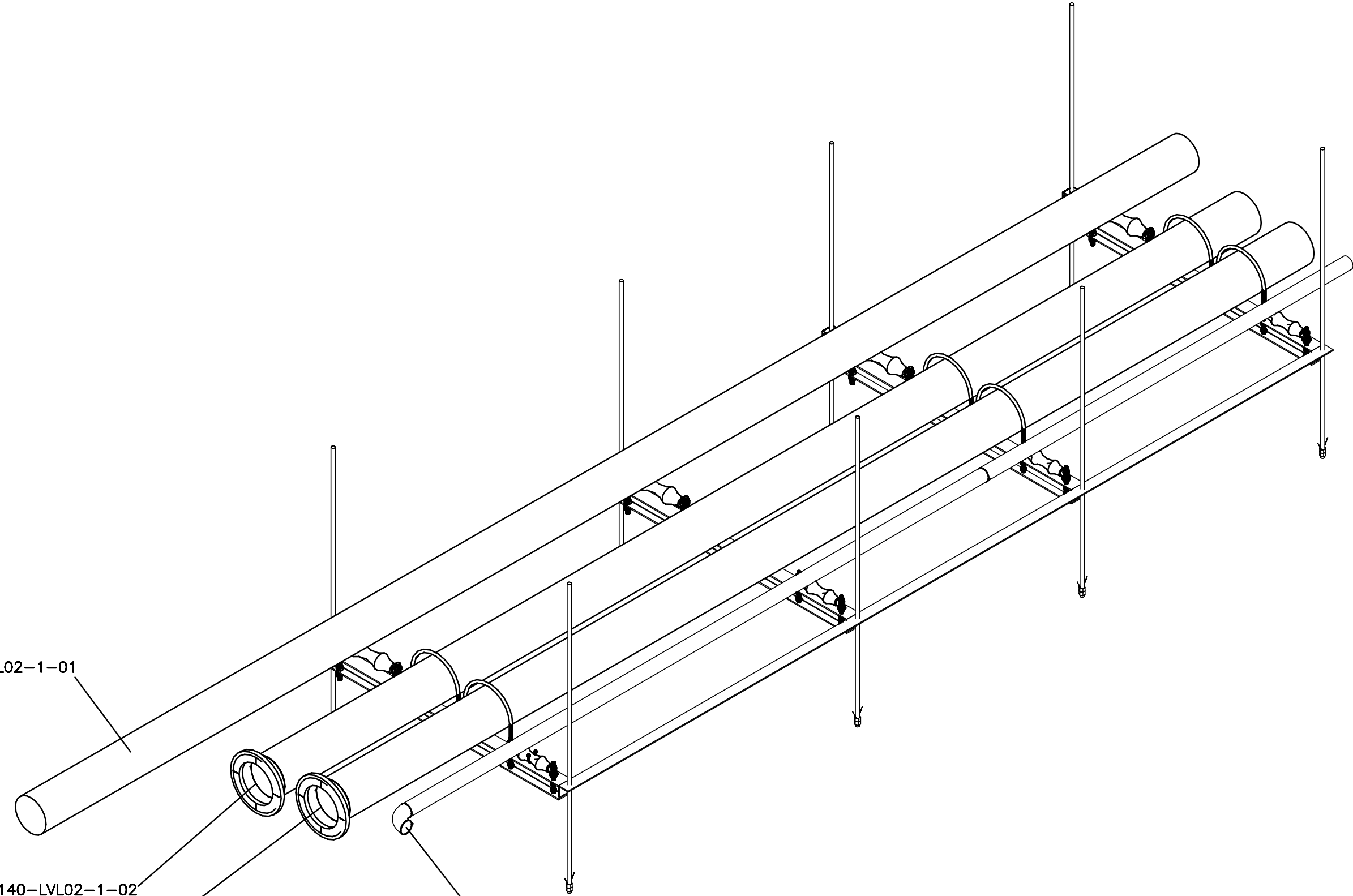
DRN JMM		5/24/2021		WUSM RESEARCH BUILDING					QA/QC ACCEPT					FLANGE WEIGHT/ORIENTATION				<input type="checkbox"/>		
CHK				NRB										FITTING ORIENTATION				<input type="checkbox"/>		
APP				LEVEL 02 NRB RACK										BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>		
JOB NO.		210140		SERVICE NAME										SPOOL IDENTIFICATION				<input type="checkbox"/>		
REF.DWG.									SPEC.		ASME		X-RAY		HYDRO TEST		PWHT		COMMENTS	
									NA		NA		NA		NA		NA		MURPHY WPS#	
DRAWING NO./TRACKING NO. 201140-LVL02-1		QTY.		SHT/NO		REV		0												
REV		DATE		DESCRIPTION		DRN		CHK		APP										

210140-LVL02-1-01

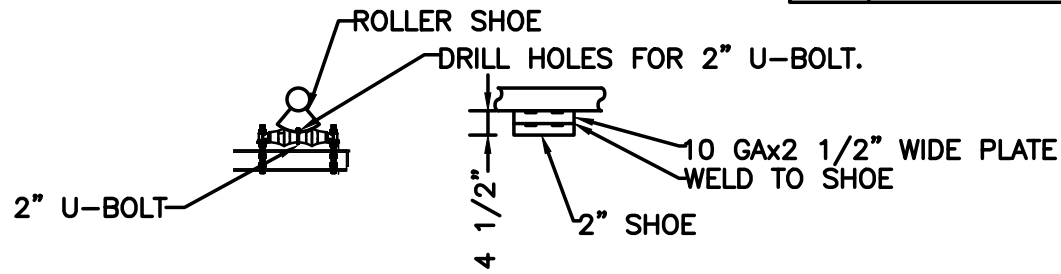
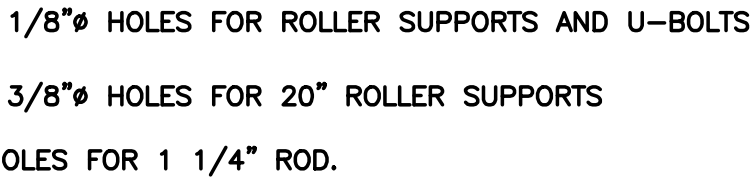
210140-LVL02-1-02

210140-LVL02-1-03

210140-LVL02-1-04



DRN JMM		5/24/2021	WUSM RESEARCH BUILDING				QA/QC ACCEPT				<input type="checkbox"/> FLANGE WEIGHT/ORIENTATION				REF.DWG.		DRAWING NO./TRACKING NO.				MURPHY			
CHK			NRB								<input type="checkbox"/> FITTING ORIENTATION						CONSTRUCTORS • ENGINEERS • MECHANICAL • INDUSTRIAL							
APP			LEVEL 02 NRB RACK				_____				<input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT						1233 N. Price Rd.							
JOB NO.		210140	SERVICE NAME								<input type="checkbox"/> SPOOL IDENTIFICATION						St. Louis, MO 63132-2303							
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																	BIMCAD@murphy-stl.com							

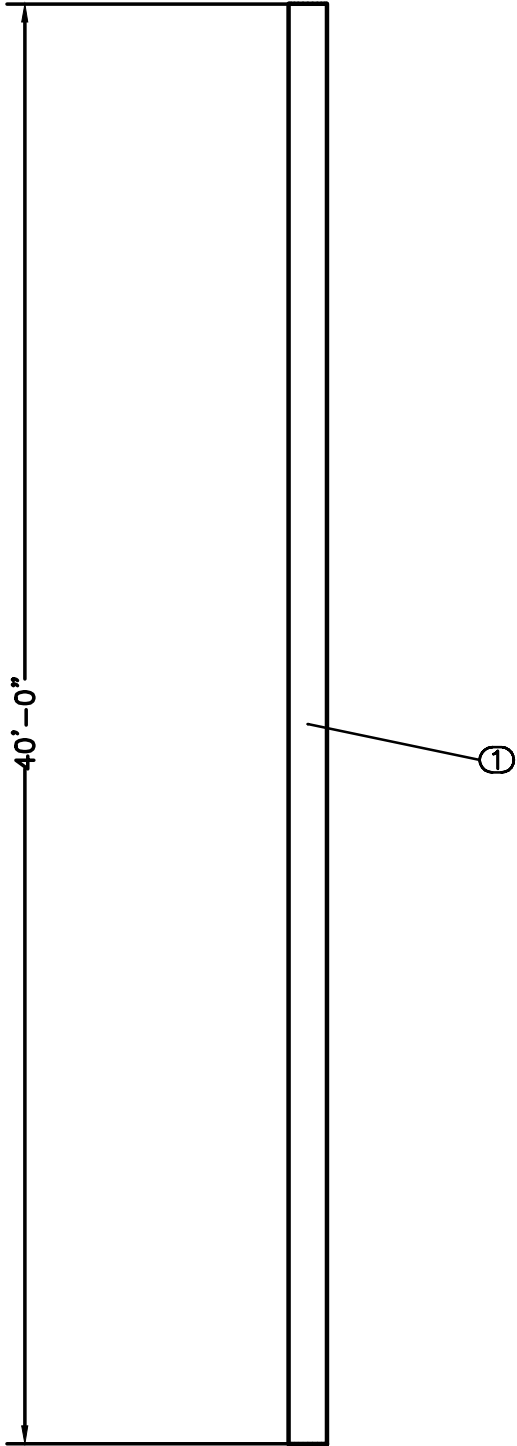


A perspective view of a rectangular frame structure. The structure consists of four diagonal members labeled S1, S2, S3, and S4, which form the sides of a rectangle. At each of the four corners, there is a joint labeled H1, H2, H3, and H4 respectively. These joints are connected by curved members (H1, H2, H3, H4) and straight members (S1, S2, S3, S4). The structure is supported by vertical rods with downward arrows, indicating a load or gravity.

Item No	Order	Description	Qty	Size	Steel L
H1	B3122-20 PLN	B3122 Adjustable Roller Support – PLN	4	20	
H2	Fig137	Fig.137 U-Bolt (4)-Nut Black	6	18	
H3	B3122-14 PLN	B3122 Adjustable Roller Support – PLN	4	14	
H4	Fig66 No-Bolt – PLN, Fig137	Fig.66 Weld Beam Attach BLK, Fig.137 U-Bolt	3	1-1/4, 2	
S1	W5x19	ASTM A36 CS Wide Flange	2	W5x19	94 1/4"
S2	W5x19	ASTM A36 CS Wide Flange	2	W5x19	104 1/4"
S3	L4x4x3/8	ASTM A36 CS Equal Angle	1	L4x4x3/8	215 3/4"
S4	L4x4x3/8	ASTM A36 CS Equal Angle	1	L4x4x3/8	318 1/2"
S5	L4x4x3/8	ASTM A36 CS Equal Angle	1	L4x4x3/8	105"



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CHK		NRB								FITTING ORIENTATION				<input type="checkbox"/>	
APP		LEVEL 02 NRB RACK								BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>	
JOB NO.	210140	SERVICE NAME								SPOOL IDENTIFICATION				<input type="checkbox"/>	
REF.DWG.						SPEC.		ASME	X-RAY	HYDRO	TEST	PWHT		COMMENTS	
						NA		NA	NA	NA		NA		MURPHY WPS#	
						0									
DRAWING NO./TRACKING NO.		QTY.	SHT/NO	REV		REV		DATE	DESCRIPTION				DRN	CHK	APP
201140-LVL02-1		1	3 OF 3	0											



Murphy–PFFS–SPOOL–BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Sch 40 SA-53B CS Smls Pipe PE	BEV	BEV	40'-0"	480.000	12

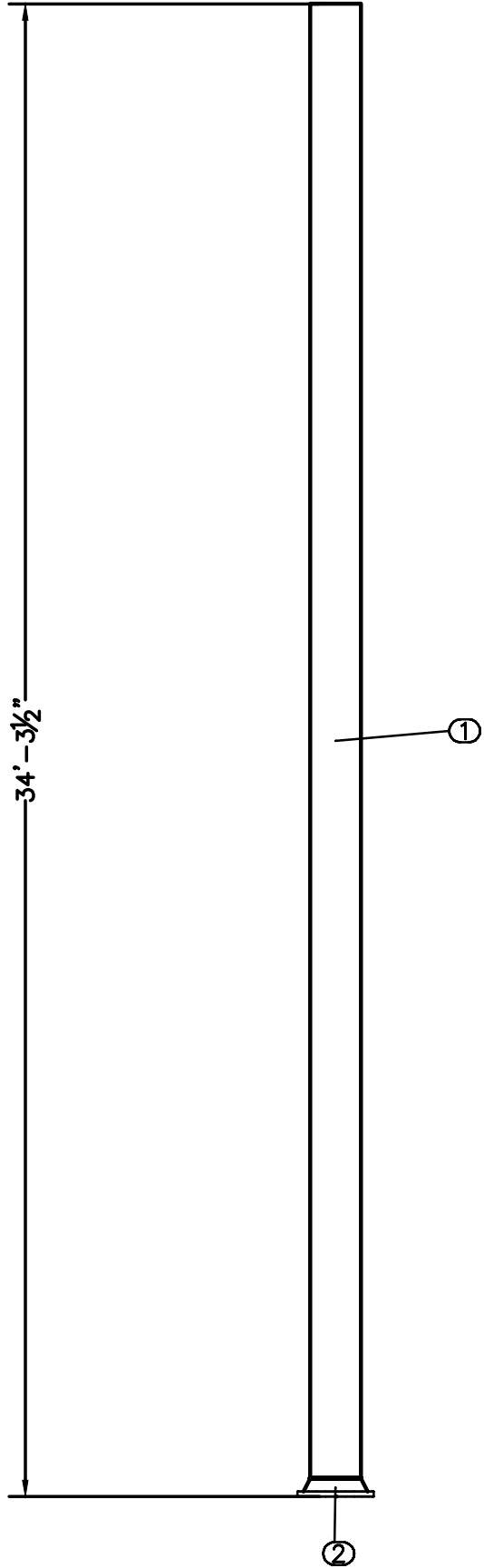
MED. PRESSURE STEAM

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DRN JMM CHK APP JOB NO. 210140 REF.DWG. DRAWING NO./TRACKING NO. 210140-LVL02-1-01	WUSM RESEARCH BUILDING				QA/QC ACCEPT				FLANGE WEIGHT/ORIENTATION				<input type="checkbox"/>	
	NRB								FITTING ORIENTATION				<input type="checkbox"/>	
	LVL02 RACKS								BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>	
									SPOOL IDENTIFICATION				<input type="checkbox"/>	
	SERVICE NAME				SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS				
RACK LVL02-1				NA	NA	NA	NA	NA	MURPHY WPS#					
QTY. 1				SHT/NO 1 of 1	REV 0	REV 0	DATE	DESCRIPTION				DRN	CHK	APP



HWS

Murphy—PFFS—SPOOL—BOM						
Mark	Qty	Description	End 1	End 2	Lft	Size
2	1	150lb RF Sch 40 Bore SA105 CS WN Flg				14
1	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	33'-10 3/8"	14

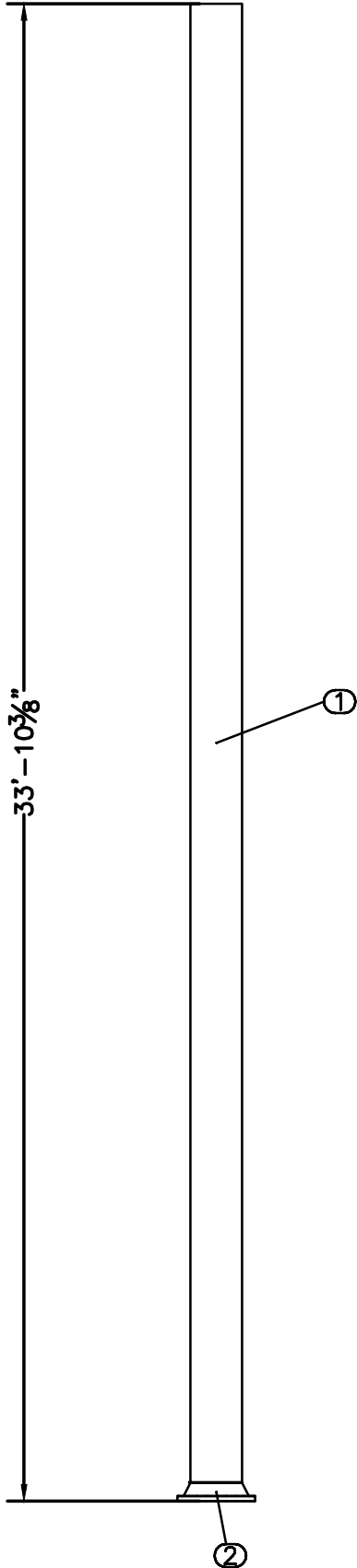
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		FITTING ORIENTATION				<input type="checkbox"/>
		BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>
		SPOOL IDENTIFICATION				<input type="checkbox"/>
SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS	
NA	NA	NA	NA	NA	MURPHY WPS#	
0						
REV	DATE	DESCRIPTION		DRN	CHK	APP

DRN	JMM	5/25/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP			LVL02 RACKS		
JOB NO.	210140	SERVICE NAME	RACK LVL02-1		
REF.DWG.					
DRAWING NO./TRACKING NO.	210140-LVL02-1-02	QTY.	1	SHT/NO	1 of 1
		REV	0		



HWR

Murphy—PFFS—SPOOL—BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	150lb RF Sch 40 Bore SA105 CS WN Flg					14
1	1	Std Wt SA-53B CS ERW Pipe PE	BEV	BEV	33'-5 1/4"	401.250	14

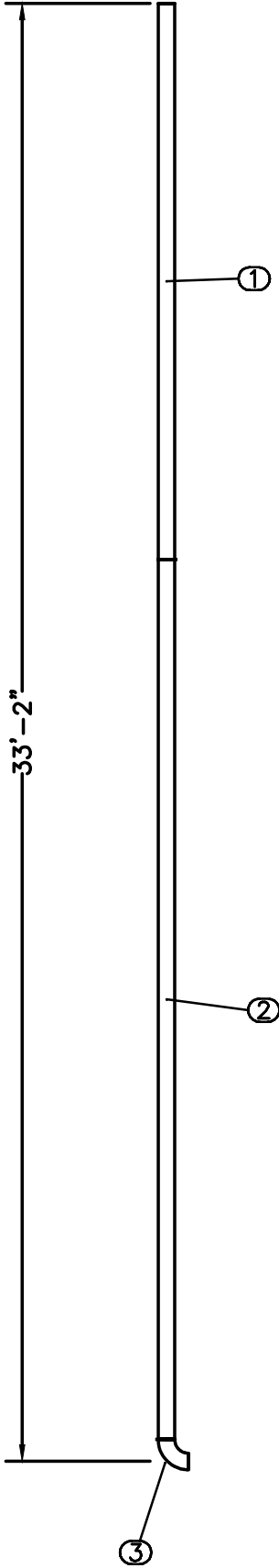
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	<input type="checkbox"/> FITTING ORIENTATION					
	<input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT					
	<input type="checkbox"/> SPOOL IDENTIFICATION					
SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS	
NA	NA	NA	NA	NA	MURPHY WPS#	
0						
REV	DATE	DESCRIPTION		DRN	CHK	APP

DRN	JMM	5/25/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP			LVL02 RACKS		
JOB NO.	210140	SERVICE NAME	RACK LVL02-1		
REF.DWG.					
DRAWING NO./TRACKING NO.	210140-LVL02-1-03	QTY.	1	SHT/NO	1 of 1
		REV	0		



CPD

Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	1	XH SA234 WPB CS BW LR 90 Deg El					4
1	1	XH SA-53B CS SMLS Pipe	BEV	BEV	12'-7 3/4"	151.733	4
2	1	XH SA-53B CS SMLS Pipe	BEV	BEV	20'-0"	240.000	4

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DRN JMM CHK APP JOB NO. 210140 REF.DWG. DRAWING NO./TRACKING NO. 210140-LVL02-1-04	5/25/2021		WUSM RESEARCH BUILDING NRB LVL02 RACKS				QA/QC ACCEPT				FLANGE WEIGHT/ORIENTATION FITTING ORIENTATION BOLTS/CPLG'S/TH'D TIGHT SPOOL IDENTIFICATION				<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
			SERVICE NAME RACK LVL02-1				SPEC. NA		ASME NA		X-RAY NA		HYDRO TEST NA		PWHT NA		COMMENTS MURPHY WPS#	
							0											
							REV		DATE				DESCRIPTION		DRN		CHK APP	
							1		1		1		1		1		1	