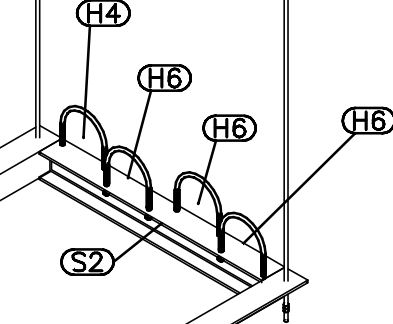
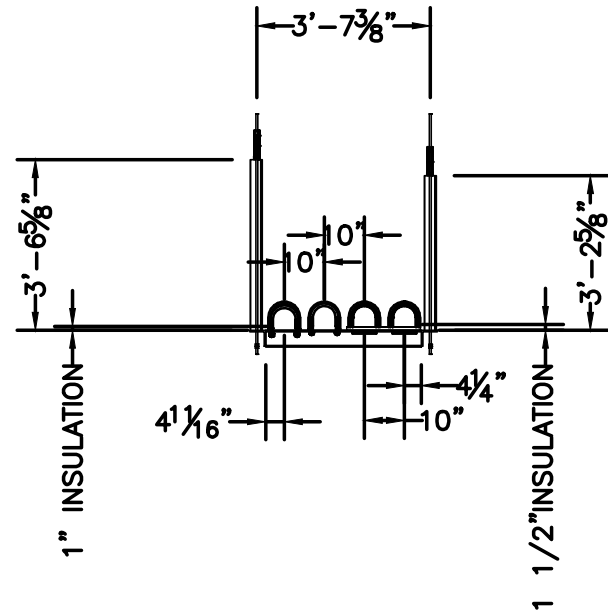


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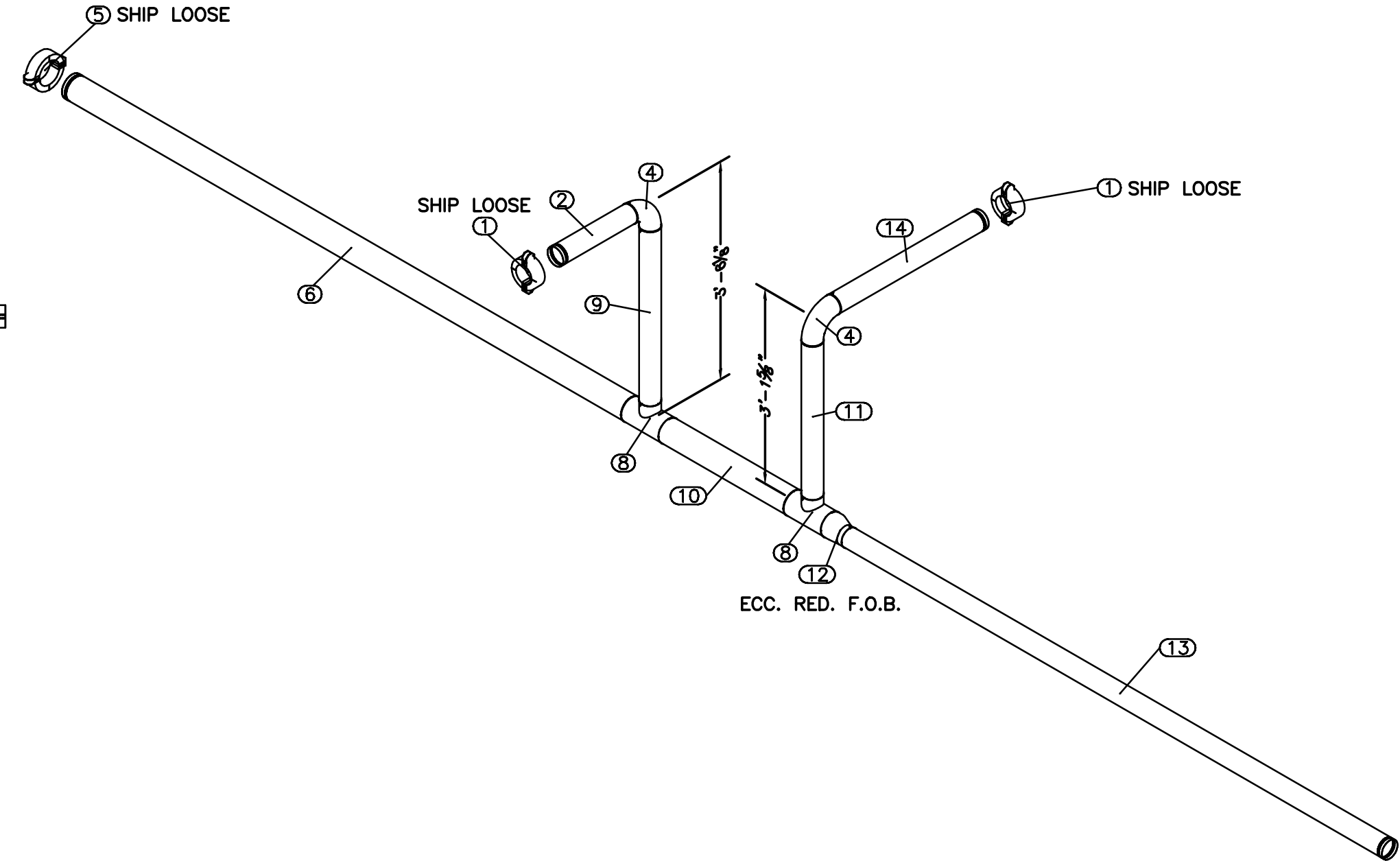
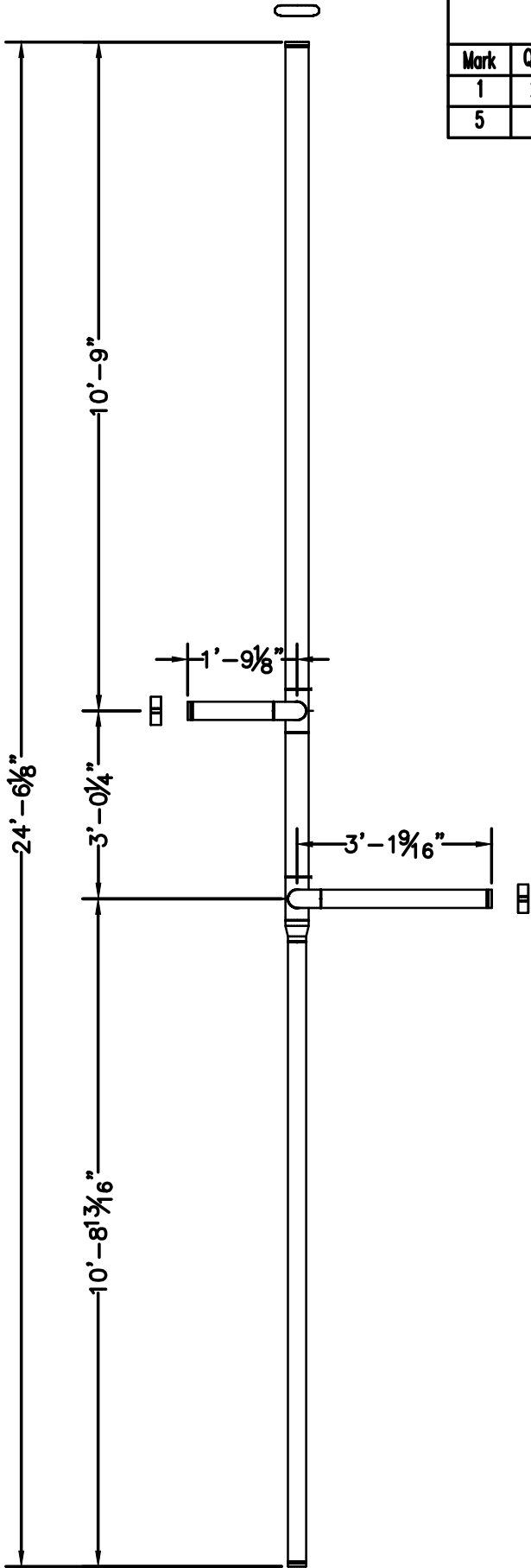
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CHK		NRB CUP						FITTING ORIENTATION				<input type="checkbox"/>
APP		PIPE RACKS						BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>
JOB NO.	210140	SERVICE NAME						SPOOL IDENTIFICATION				<input type="checkbox"/>
REF.DWG.		CUP LEVEL 02				SPEC.	ASME	X-RAY	HYDRO TEST	PWHT	COMMENTS	
DRAWING NO./TRACKING NO. 210140-A-UPL2-1C		QTY.		SHT/NO	REV	NA	NA	NA	NA	NA	MURPHY WPS#	
		1	1	1 of 2	0	0					DRN	APP

[illegible]

Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	7	CS Sch40 Butt Weld Joint					3
7	4	CS Sch40 Butt Weld Joint					4
9	2	Std Wt SA234 WPB CS BW RED TEE					4x3
12	1	Std Wt SA234 WPB CS BW ECC RED					4x3
4	2	Std Wt SA234 WPB CS BW LR 90 Deg El					3
8	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-9 1/2"	33.500	3
11	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-5 1/2"	29.500	3
13	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	9'-3 7/16"	111.452	3
14	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	BEV	3'-6 15/16"	42.934	3
10	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-4 3/4"	28.759	4
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	6 1/2"	6.505	3
6	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	11'-0 13/16"	132.783	4

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### Murphy-PFFS-Ship Loose BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	2	Style 107 EHP Pnt QuickVic Rigid Coupling					3
5	1	Style 107 EHP Pnt QuickVic Rigid Coupling					4

### Murphy-PFFS-SPOOL-BOM

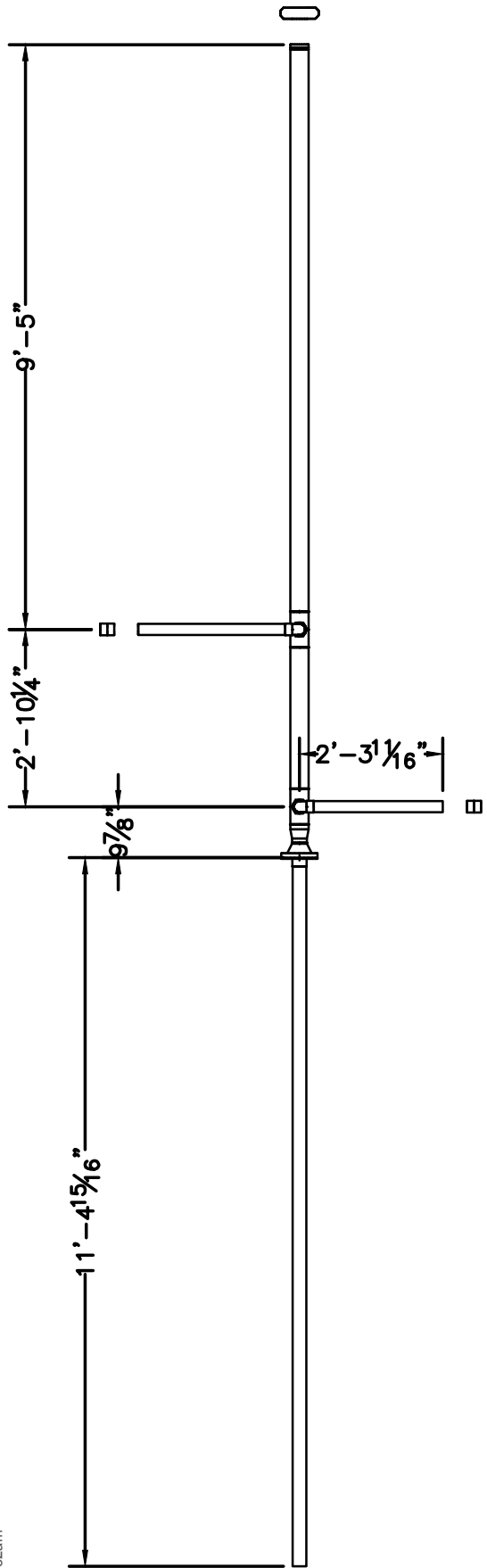
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
8	2	Std Wt SA234 WPB CS BW RED TEE					4x3
12	1	Std Wt SA234 WPB CS BW ECC RED					4x3
4	2	Std Wt SA234 WPB CS BW LR 90 Deg El					3
9	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-9 1/2"	33.500	3
11	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-5 1/2"	29.500	3
10	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-3 3/4"	27.759	4
2	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	1'-4 1/2"	16.505	3
13	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	10'-0 7/16"	120.452	3
14	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	2'-8 15/16"	32.934	3
6	1	Sch 40 SA-53B CS ERW Pipe GRV	Grooved Pipe End	BEV	10'-4 13/16"	124.783	4

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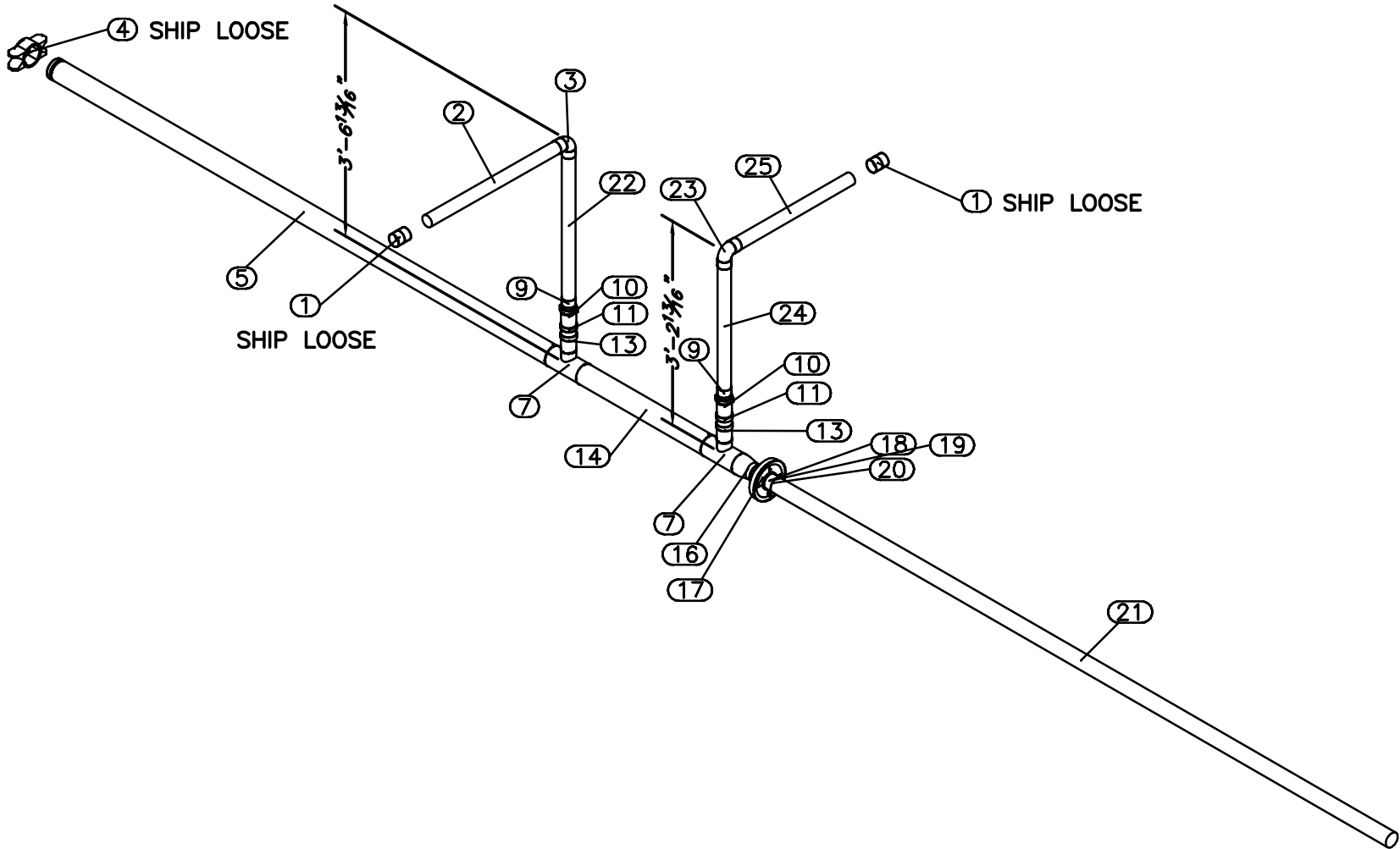
DRN JMM CHK APP JOB NO. 210140 REF.DWG. DRAWING NO./TRACKING NO. 210140-A-UPL2-1C-02	3/29/2021	WUSM RESEARCH BUILDING				UPL2-1C					
		NRB CUP				PIPE RACKS					
		SERVICE NAME				UPL2-1C					
		QTY. 1				SHT/NO 1 of 1					
REV 0		DATE		DESCRIPTION		DRN		CHK		APP	

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	MURPHY WPS#



Murphy-PFFS-Ship Loose BOM						
Mark	Qty	Description	End 1	End 2	Lft	LDec
1	2	101 Wrot Coupling without Stop				2
4	1	Style 107N QuickVic EHP Pnt Rigid Cpl				3

Murphy-PFFS-SPOOL-BOM						
Mark	Qty	Description	End 1	End 2	Lft	LDec
7	2	Std Wt SA234 WPB CS BW RED TEE				3x2
17	1	150lb RF Sch 40 Bore SA105 CS WN Flg				2-1/2
20	1	150 lb 771 Cast Copper Companion Flg C				2-1/2
16	1	Std Wt SA234 WPB CS BW CONC RED				3x2-1/2
18	1	150# CS Flange Bolt Set				2-1/2 (5/8x3)
19	1	150# RF Garlock Gasket 1/16 Thick				2-1/2
10	2	No.647 TT Dielectric Transition Fitting				2
9	2	103 Wrot Female Adapter CxFPT				2
3	1	Wrot 607 90 Deg Ell CxC				2
23	1	Wrot 607 90 Deg Ell CxC				2
14	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-3 1/4"	27.249
2	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-5 3/4"	29.728
22	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-5 3/4"	29.775
24	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-1 7/8"	25.861
25	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-2 5/16"	26.300
21	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	11'-4 3/4"	136.760
5	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	9'-1 1/2"	109.528
13	2	Std SA-53B CS Smls Pipe NIP x 3	BEV	MPT	3"	3.000
11	2	Fig 1121 MI RH Cplg				2



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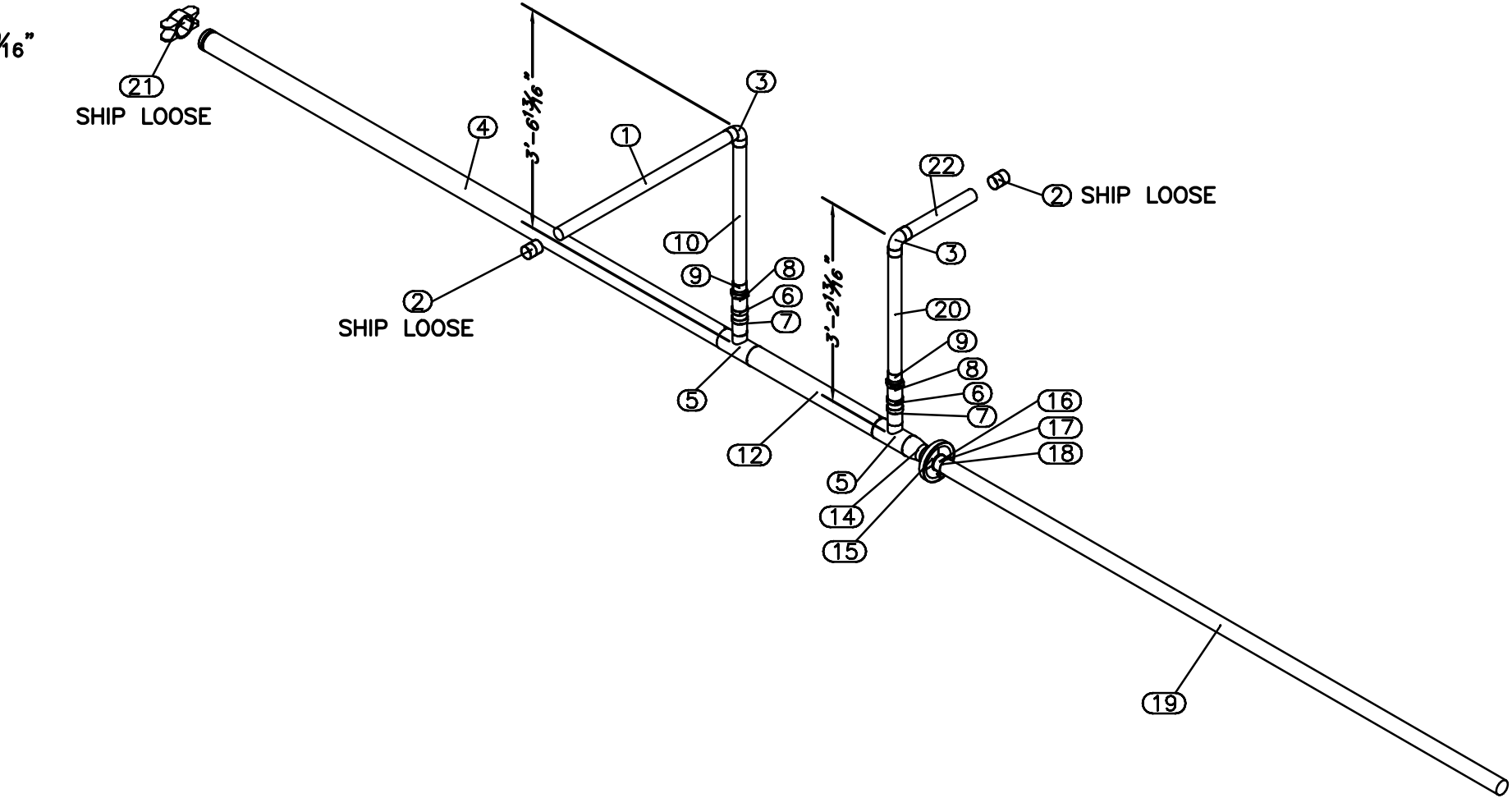
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<input type="checkbox"/>	FITTING ORIENTATION				
<input type="checkbox"/>	BOLTS/CPLGS/TH'D TIGHT				
<input type="checkbox"/>	SPOOL IDENTIFICATION				
QA/QC ACCEPT					
SPEC.	ASME	X-RAY	HYDRO TEST	PMHT	COMMENTS
NA	NA	NA	NA	NA	MURPHY WPS#
0	REV	DATE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

DRN	JMM	3/29/2021	WUSM RESEARCH BUILDING		
CHK			NRB CUP		
APP			PIPE RACKS		
JOB NO.	210140	SERVICE NAME	UPL2-1C		
REF.DWG.					
DRAWING NO./TRACKING NO.	210140-A-UPL2-1C-03	QTY.	1	SHT/NO	1 OF 1
		REV	0		



Murphy-PFFS-Ship Loose BOM						
Mark	Qty	Description	End 1	End 2	Lft	LDec
2	2	101 Wrot Coupling without Stop				2
21	1	Style 107N QuickVic EHP Pnt Rigid Cpl				3

Murphy-PFFS-SPOOL-BOM						
Mark	Qty	Description	End 1	End 2	Lft	LDec
5	2	Std Wt SA234 WPB CS BW RED TEE				3x2
15	1	150lb RF Sch 40 Bore SA105 CS WN Flg				2-1/2
18	1	150 lb 771 Cast Copper Companion Flg C				2-1/2
14	1	Std Wt SA234 WPB CS BW CONC RED				3x2-1/2
17	1	150# RF Garlock Gasket 1/16 Thick				2-1/2
16	1	150lb CS Flange Cap Screw Set				2-1/2 (5/8x1-1/2)
8	2	No.647 TT Dielectric Transition Fitting				2
9	2	103 Wrot Female Adapter CxFPT				2
3	2	Wrot 607 90 Deg Ell CxC				2
12	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	BEV	2'-4 1/4"	28.237
1	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	3'-3 3/4"	39.721
10	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-4 3/8"	28.399
20	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-2 11/16"	26.685
22	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-4 1/8"	16.150
19	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	10'-7 3/4"	127.759
4	1	Sch 40 SA-53B CS ERW Pipe PE	BEV	Grooved End	9'-9 9/16"	117.541
7	2	Std SA-53B CS Smls Pipe NIP x 3	BEV	MPT	3"	3.000
6	2	Fig 1121 MI RH Cplg				2



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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	ASME	X-RAY	HYDRO TEST	PMHT	COMMENTS
	NA	NA	NA	NA	MURPHY WPS#

0	REV	DATE	DESCRIPTION	DRN	CHK	APP

WUSM RESEARCH BUILDING	3/29/2021	DRN	JMM
NRB CUP		CHK	
PIPE RACKS		APP	
SERVICE NAME	210140	JOB NO.	
UPL2-1C		REF.DWG.	
QTY. 1	SHT/NO 1 of 1	DRAWING NO./TRACKING NO.	
210140-A-UPL2-1C-04			