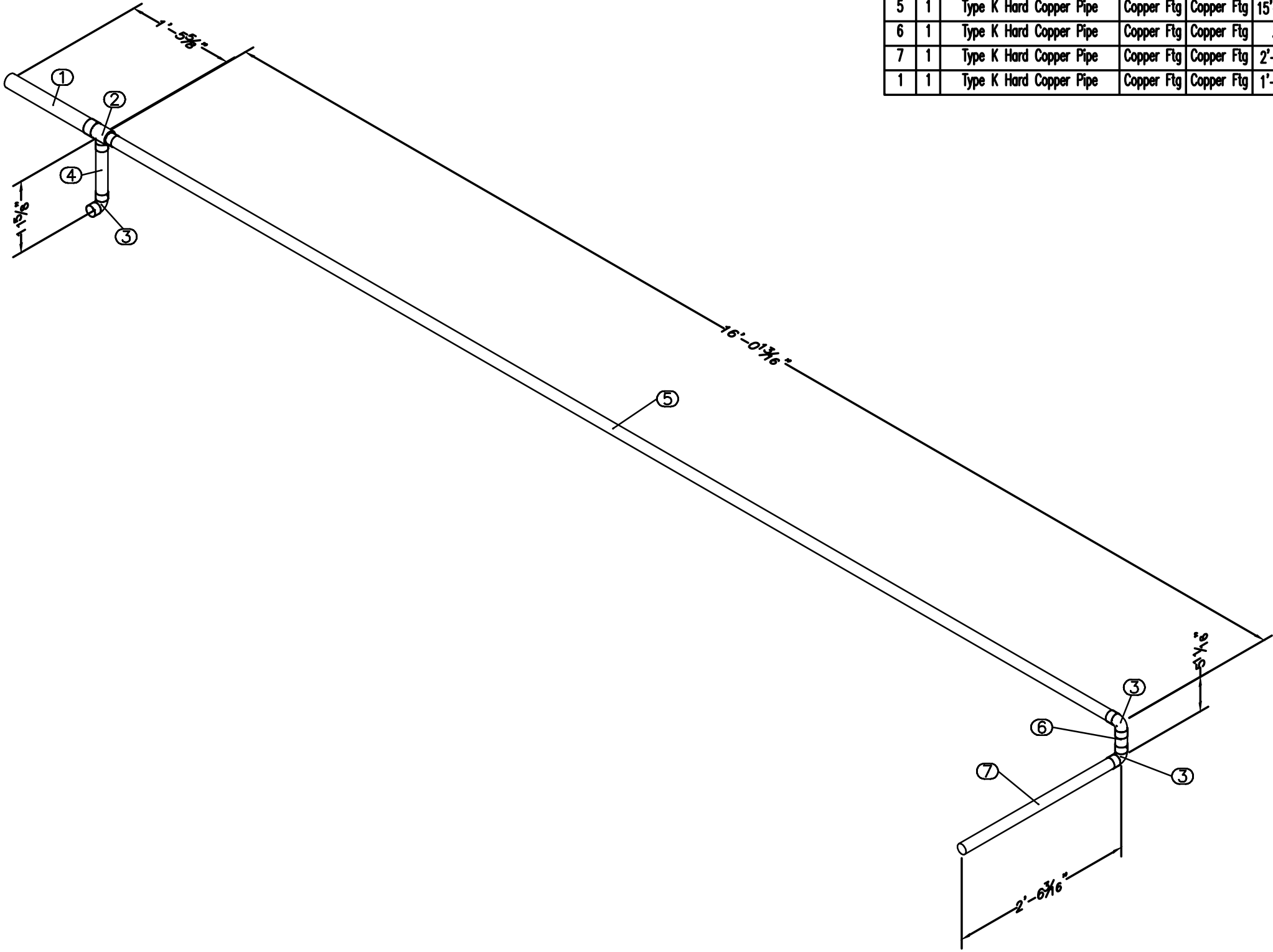


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St. Louis, MO 63132-2303
314-997-6600 phone
BIMCAD@murphy-stl.com

DRN JMM	3/11/2021	WUSM RESEARCH BUILDING		
CHK		NRB		
APP				
JOB NO.	210140			
		SERVICE NAME		
REF.DWG.				
DRAWING NO./TRACKING NO.		QTY.	SHT/NO	REV
210140-A-UPL1-4G		1	1 of 1	0



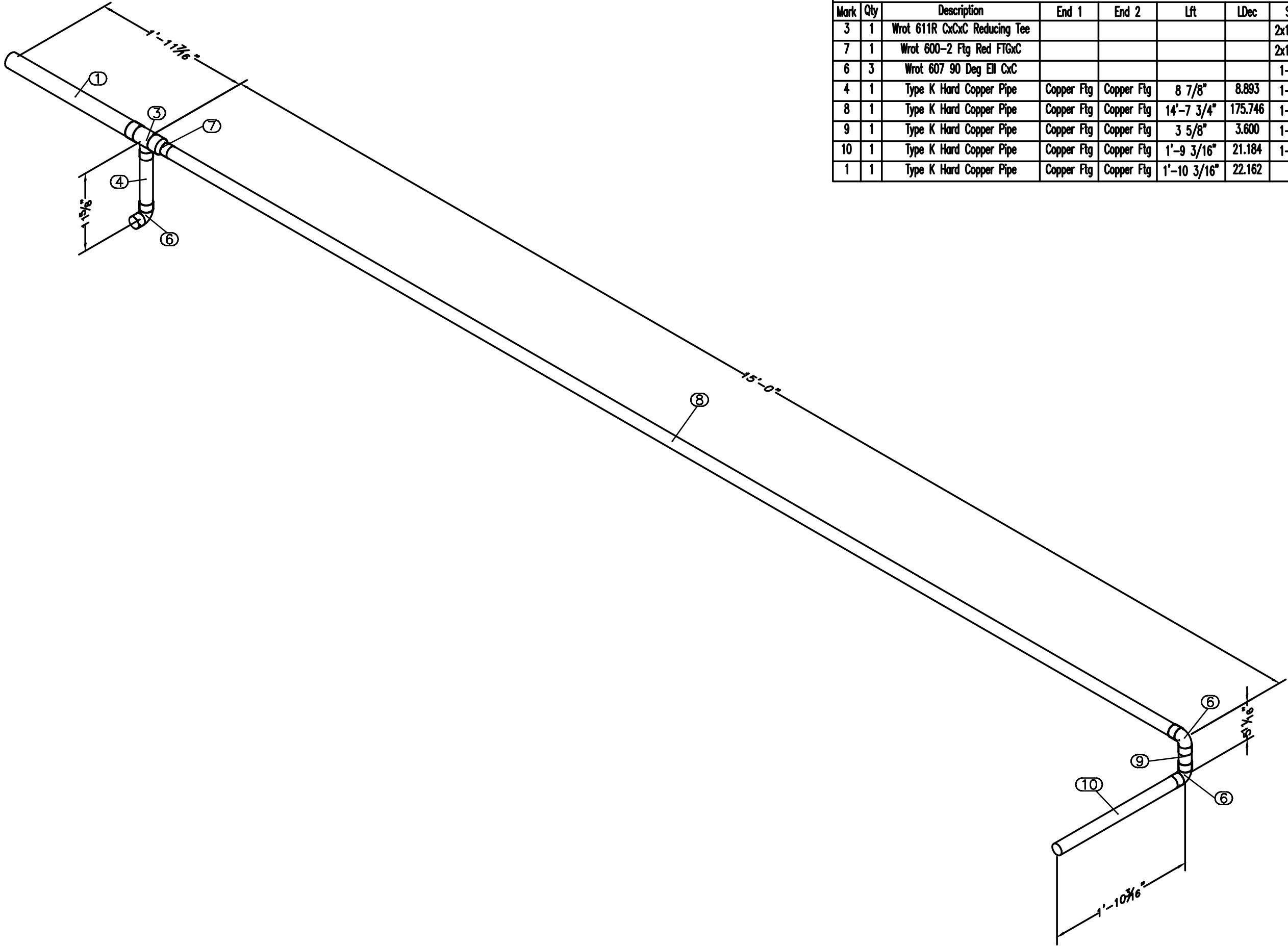
Murphy-PFFS-SPOOL-BOM

Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	Wrot 611R CxCxC Reducing Tee					2x1-1/2x1-1/2
3	3	Wrot 607 90 Deg Ell CxC					1-1/2
4	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	9 1/4"	9.268	1-1/2
5	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	15'-10 1/2"	190.497	1-1/2
6	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	3 5/8"	3.599	1-1/2
7	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-5 3/16"	29.179	1-1/2
1	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-4 5/16"	16.323	2



QA/QC ACCEPT						<input type="checkbox"/>	FLANGE WEIGHT/ORIENTATION
						<input type="checkbox"/>	FITTING ORIENTATION
						<input type="checkbox"/>	BOLTS/CPLG'S/TH'D TIGHT
<hr/>						<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

WUSM RESEARCH BUILDING	
NRB	
DRN JMM	3/15/2021
CHK	
APP	
JOB NO.	210140
SERVICE NAME	
UPL1-4G RACK	
REF.DWG.	
DRAWING NO./TRACKING NO.	REV
210140-A-UPL1-4G-1	0
QTY.	SHT/NO
1	1 of 1



Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
3	1	Wrot 611R CxCxC Reducing Tee					2x1-1/2
7	1	Wrot 600-2 Ftg Red FTGxC					2x1-1/2
6	3	Wrot 607 90 Deg Ell CxC					1-1/2
4	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	8 7/8"	8.893	1-1/2
8	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	14'-7 3/4"	175.746	1-1/2
9	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	3 5/8"	3.600	1-1/2
10	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-9 3/16"	21.184	1-1/2
1	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-10 3/16"	22.162	2

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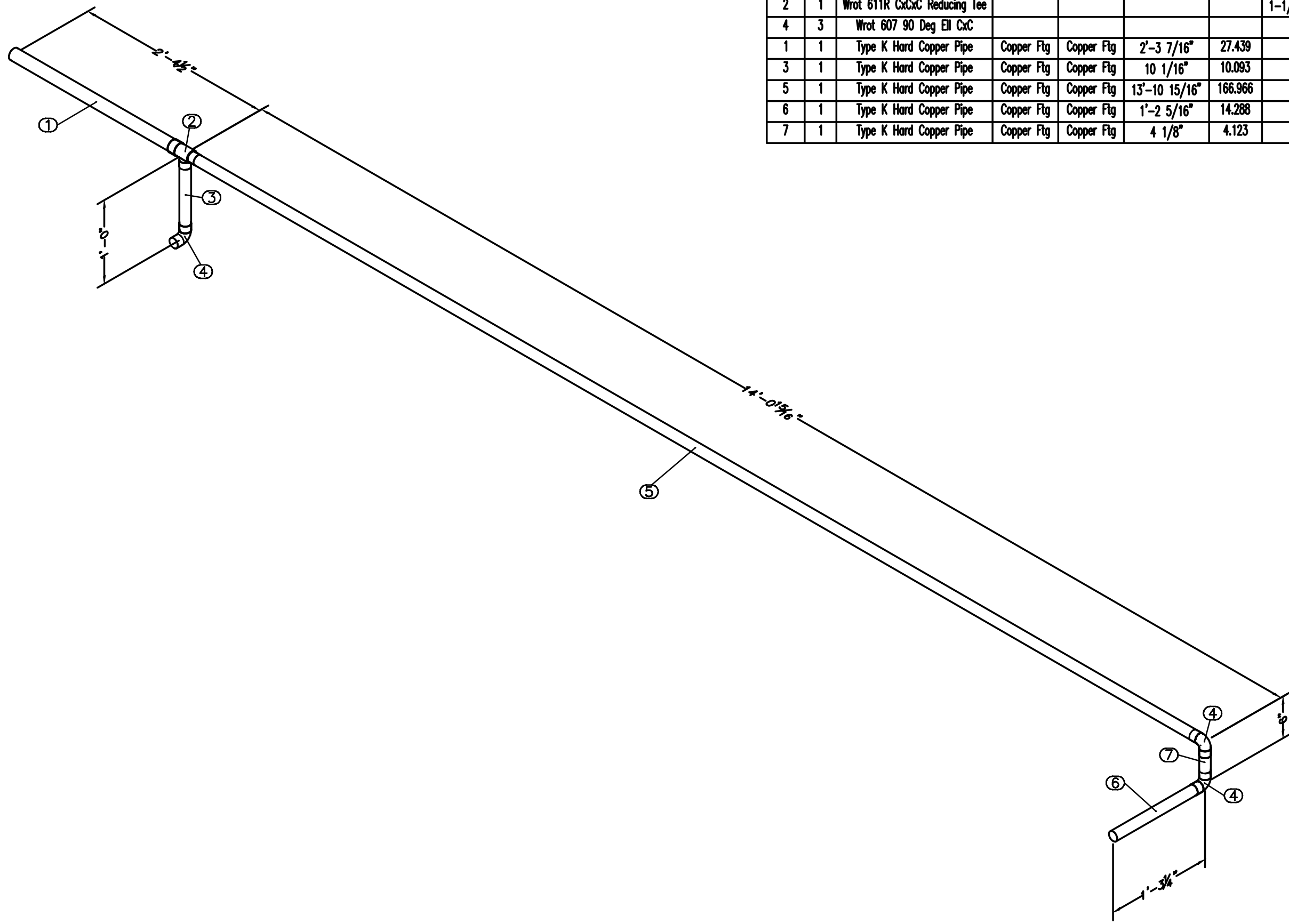
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<input type="checkbox"/> FLANGE WEIGHT/ORIENTATION				
<input type="checkbox"/> FITTING ORIENTATION				
<input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT				
<input type="checkbox"/> SPOOL IDENTIFICATION				

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


DRN	JMM	3/15/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP					
JOB NO.	210140	SERVICE NAME			
REF.DWG.		UPL1-4G RACK			
DRAWING NO./TRACKING NO.	210140-A-UPL1-4G-2	QTY.	1	SHT/NO	1 OF 1
				REV	0



Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	Wrot 611R CxCxC Reducing Tee					1-1/2x1-1/4x1-1/4
4	3	Wrot 607 90 Deg Ell CxC					1-1/4
1	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-3 7/16"	27.439	1-1/2
3	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	10 1/16"	10.093	1-1/4
5	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	13'-10 15/16"	166.966	1-1/4
6	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-2 5/16"	14.288	1-1/4
7	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	4 1/8"	4.123	1-1/4

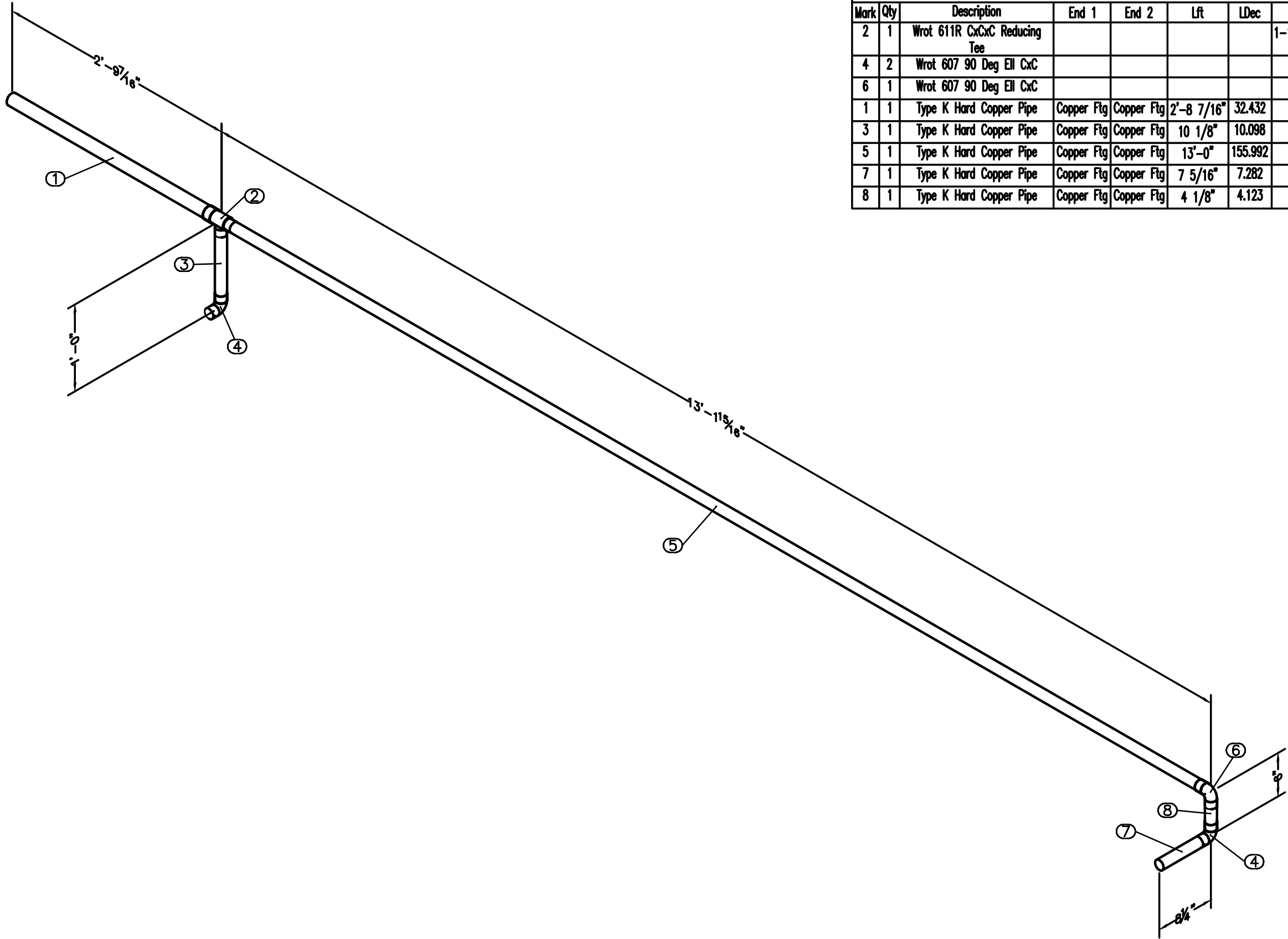
DRN JMM		3/15/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP					
JOB NO.		210140			
REF.DWG.			SERVICE NAME		
			UPL1-4G RACK		
DRAWING NO./TRACKING NO.			QTY.	SHT/NO	REV
210140-A-UPL1-4G-3		1	1	OF 1	0

QA/QC ACCEPT		FLANGE WEIGHT/ORIENTATION		<input type="checkbox"/>
		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	COMMENTS
NA	NA	NA	NA	MURPHY WPS#
0				
REV	DATE	DESCRIPTION		DRN
				CHK
				APP



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Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
2	1	Wrot 611R CxCxC Reducing Tee					1-1/2x1-1/4x1-1/4
4	2	Wrot 607 90 Deg Ell CxC					1-1/4
6	1	Wrot 607 90 Deg Ell CxC					1-1/4
1	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-8 7/16"	32.432	1-1/2
3	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	10 1/8"	10.098	1-1/4
5	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	13'-0"	155.992	1-1/4
7	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	7 5/16"	7.282	1-1/4
8	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	4 1/8"	4.123	1-1/4

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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	PWHT	COMMENTS
NA	NA	NA	NA	NA	MURPHY WPS#
0					
REV	DATE	DESCRIPTION			
		DRN	CHK	APP	

DRN	JMM	3/15/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP					
JOB NO.	210140	SERVICE NAME			
REF.DWG.		UPL1-4G RACK			
DRAWING NO./TRACKING NO.	210140-A-UPL1-4G-4	QTY.	1	SHT/NO	1 OF 1
				REV	0