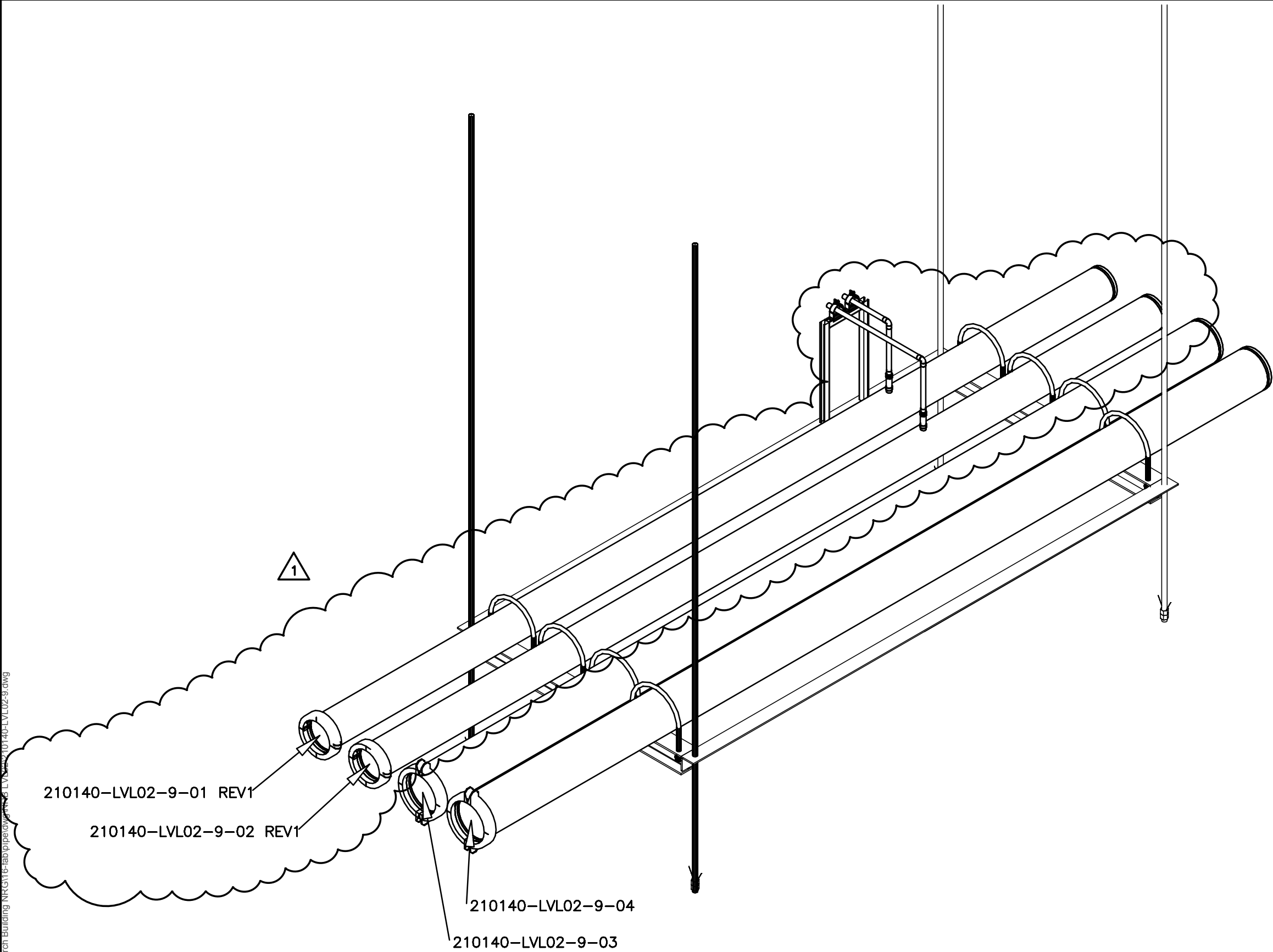


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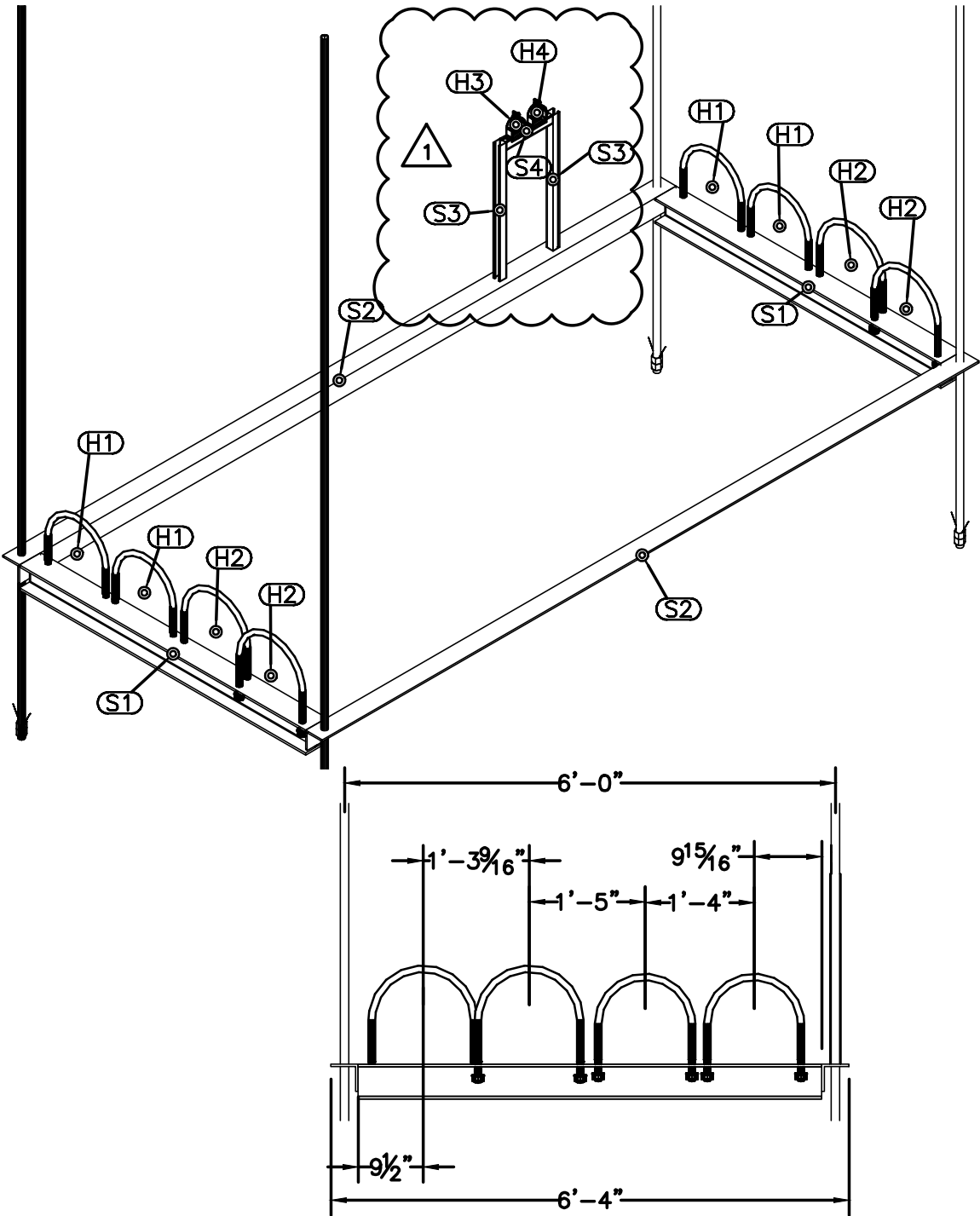
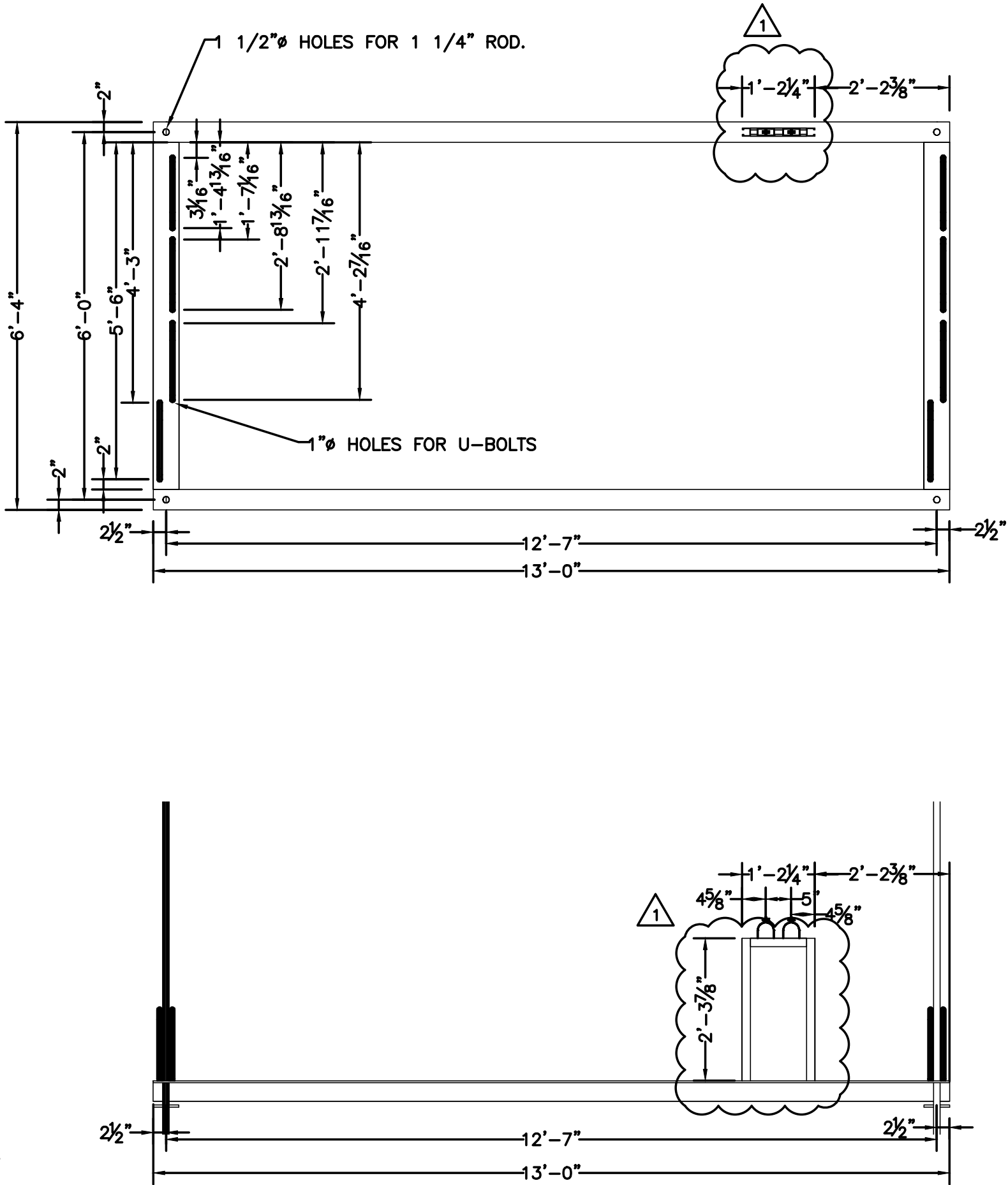
DRN JMM		6/8/2021	WUSM RESEARCH BUILDING				QA/QC ACCEPT				<input type="checkbox"/> FLANGE WEIGHT/ORIENTATION			
CHK			NRB				SPEC.				HYDRO TEST		<input type="checkbox"/> FITTING ORIENTATION	
APP			LEVEL 02 NRB RACK				NA		NA		NA		<input type="checkbox"/> BOLTS/CPLG'S/TH'D TIGHT	
JOB NO.		210140	SERVICE NAME				ASME		X-RAY		PWHT		<input type="checkbox"/> SPOOL IDENTIFICATION	
REF.DWG.							NA		NA		NA			
DRAWING NO./TRACKING NO.			QTY.		SHT/NO		REV				MURPHY WPS#			
201140-LVL02-9			1		1 of 3		1				JMM			
							REV				DESCRIPTION		DRN	
													CHK	
													APP	



<div><div>MURPHY</div><div>SINCE 1907</div></div>			CONSTRUCTORS • ENGINEERS • MECHANICAL • INDUSTRIAL												
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DRN JMM		6/7/2021	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.			QTY.	SHT/NO	REV	LINE SIZE CHANGE									
201140-LVL02-9			1	2 OF 3	1	JMM									
						REV		DATE	DESCRIPTION				DRN	CHK	APP

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BOM-STEEL					
Item No	Order	Description	Qty	Size	Steel L
H1	Fig137	Fig.137 U-Bolt (4)-Nut Black	4	12	
H2	Fig137	Fig.137 U-Bolt (4)-Nut Black	4	14	
H3	928062	Klo-Shure Strut Clamp 1in Insul Cplg - Fiberglass_CTS	1	1	
H4	928062	Klo-Shure Strut Clamp 1in Insul Cplg - Fiberglass_CTS	1	1	
S1	W5x19	ASTM A36 CS Wide Flange	2	W5x19	68"
S2	L4x4x3/8	ASTM A36 CS Equal Angle	2	L4x4x3/8	156"
S3	B22 GRN	1-5/8 GRN 12GA 2in Slotted Unistrut	2	1-5/8x1-5/8	27 7/8"
S4	B22 GRN	1-5/8 GRN 12GA 2in Slotted Unistrut	1	1-5/8x1-5/8	11"

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FLANGE WEIGHT/ORIENTATION				COMMENTS			
FITTING ORIENTATION				MURPHY WPS#			
BOLTS/CPLG'S/TH'D TIGHT				JMM			
SPOOL IDENTIFICATION				DRN			
QA/QC ACCEPT				DESCRIPTION			
SPEC.				REV			
NA				DATE			
ASME				LINE SIZE CHANGE			
NA				REV			
X-RAY				DATE			
NA				REV			
HYDRO TEST				DATE			
NA				REV			
PWHT				DATE			
NA				REV			
6/28/21				DATE			
1				REV			

WUSM RESEARCH BUILDING

NRB

LEVEL 02 NRB RACK

SERVICE NAME

6/7/2021

210140

REF.DWG.

DRAWING NO./TRACKING NO.

201140-LVL02-9

QTY.

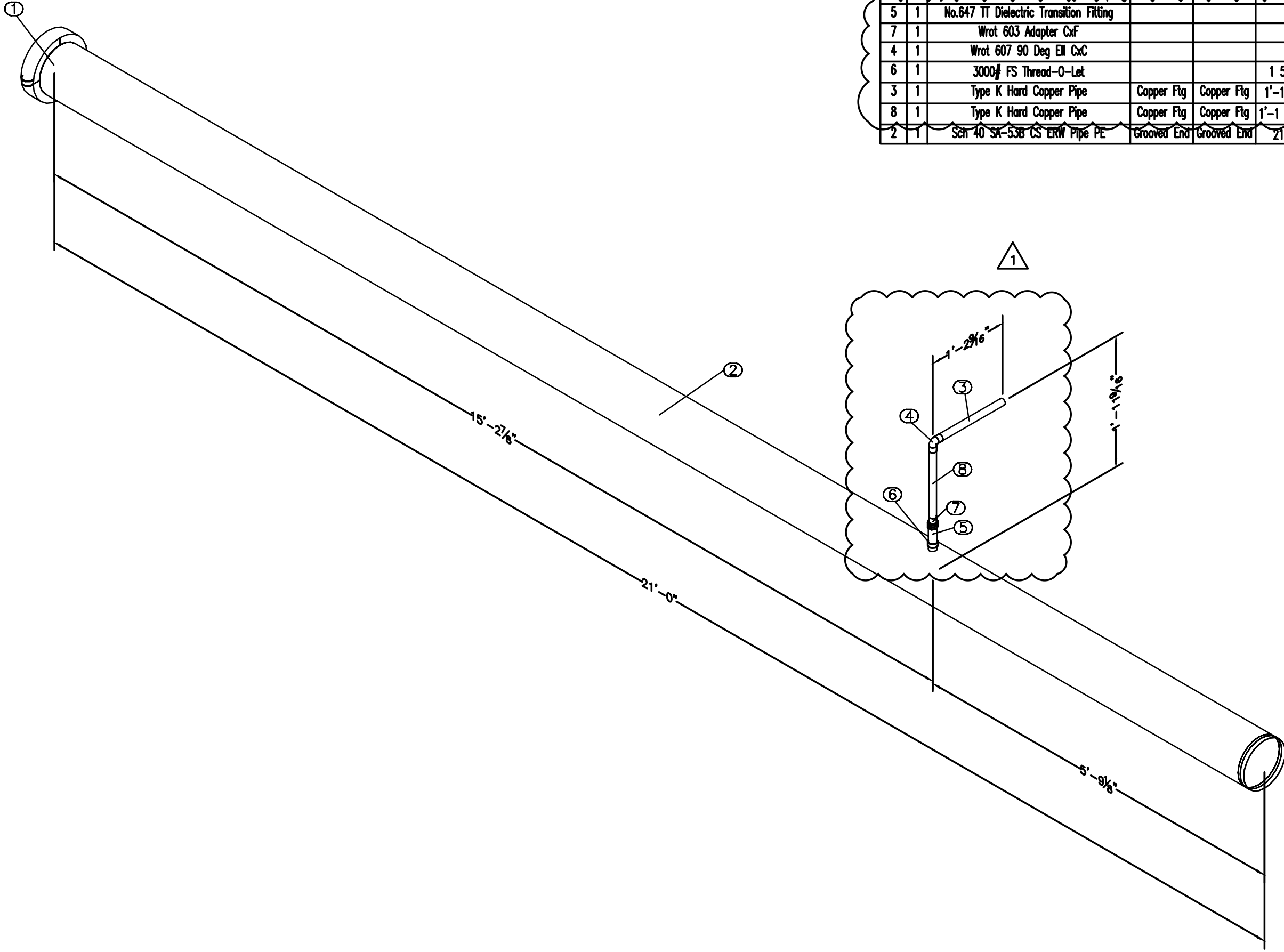
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SHT/NO

3 OF 3

REV

1



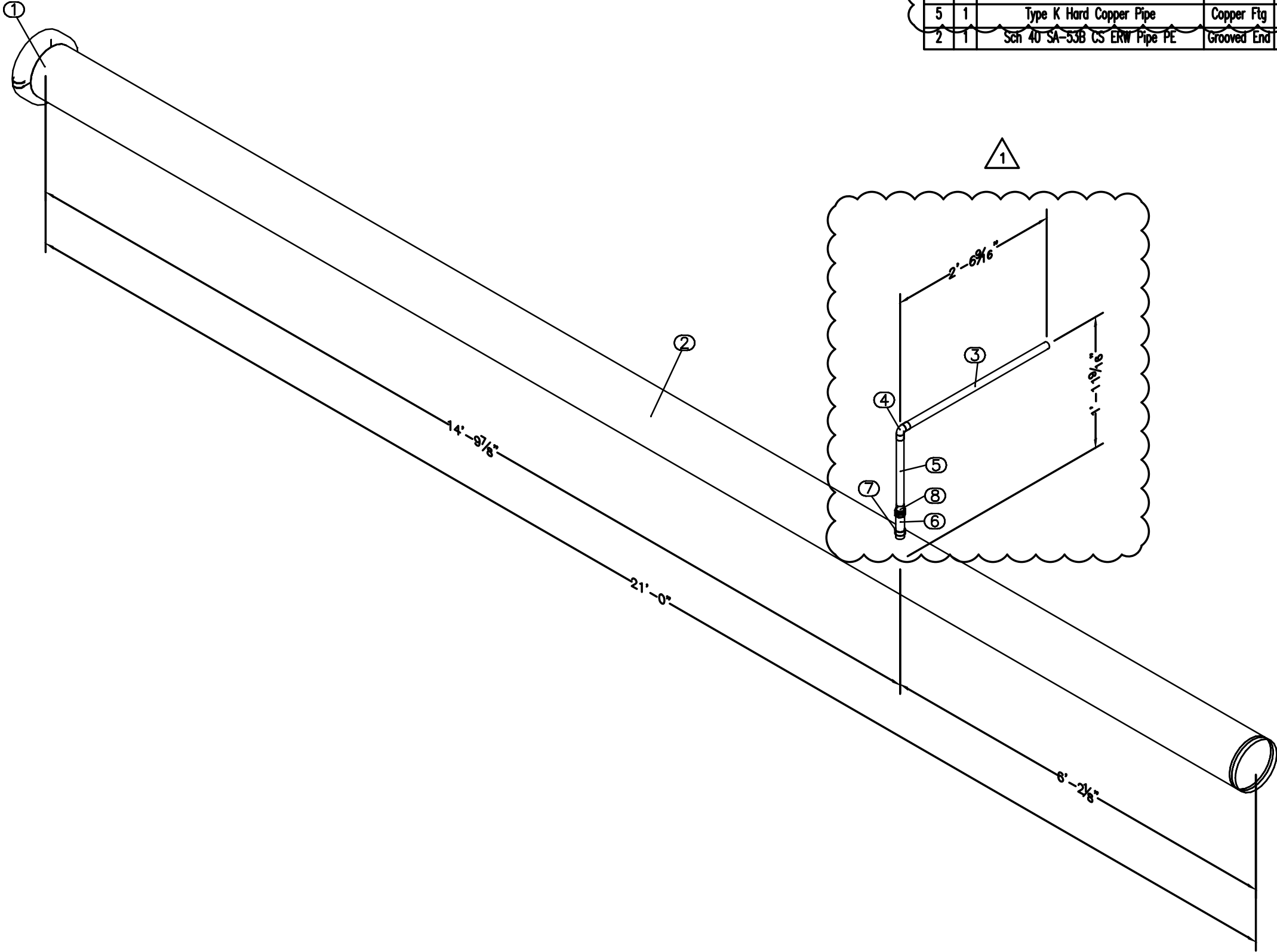
Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Style 107 FHP Pnt QuickVic Rigid Coupling					8
5	1	No.647 TT Dielectric Transition Fitting					1
7	1	Wrot 603 Adapter CxF					1
4	1	Wrot 607 90 Deg Ell CxC					1
6	1	3000# FS Thread-O-Let			1 5/16"	1.313	1x8
3	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-1 7/8"	13.885	1
8	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-1 11/16"	13.681	1
2	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	Grooved End	21'-0"	252.000	8

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Q/A/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	PWHT	COMMENTS			
NA		NA	NA		NA	NA	MURPHY WPS#			
1	6/28/21	LINE SIZE CHANGE					JMM			
REV	DATE	DESCRIPTION					DRN	CHK	APP	

DRN JMM	6/7/2021	WUSM RESEARCH BUILDING		
CHK		NRB		
APP		LEVEL 02 NRB RACK		
JOB NO.	210140	SERVICE NAME		
REF.DWG.		LVL02- 9 RACK		
DRAWING NO./TRACKING NO.		QTY.	SHT/NO	REV
210140-LVL02-9-01		1	1 OF 1	1



Murphy-PFFS-SPOOL-BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Style 107 FHP Pnt QuickVic Rigid Coupling					8
6	1	No.647 TT Dielectric Transition Fitting					1
8	1	Wrot 603 Adapter CxF					1
4	1	Wrot 607 90 Deg Ell CxC					1
7	1	3000# FS Thread-O-Let			1 5/16"	1.313	1x8
3	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	2'-5 7/8"	29.885	1
5	1	Type K Hard Copper Pipe	Copper Ftg	Copper Ftg	1'-1 11/16"	13.683	1
2	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	Grooved End	21'-0"	252.000	8

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FLANGE WEIGHT/ORIENTATION

FITTING ORIENTATION

BOLTS/CPLG'S/TH'D TIGHT

SPOOL IDENTIFICATION

QA/QC ACCEPT

FLANGE WEIGHT/ORIENTATION

FITTING ORIENTATION

BOLTS/CPLG'S/TH'D TIGHT

SPOOL IDENTIFICATION

REV 1

DATE 6/28/21

ASME NA

X-RAY NA

HYDRO TEST NA

PWHT NA

COMMENTS

MURPHY WPS#

JMM

DRN

CHK

APP

WUSM RESEARCH BUILDING

NRB

LEVEL 02 NRB RACK

SERVICE NAME

LVLO2- 9 RACK

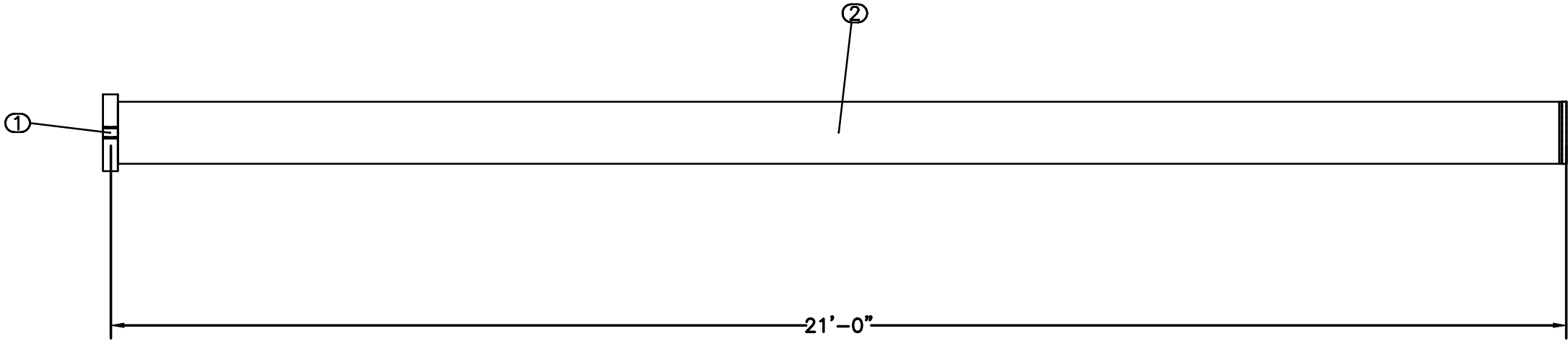
REF.DWG.

210140-LVL02-9-02

QTY. 1

SHT/NO 1 of 1

REV 1



Murphy—PFFS—SPOOL—BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Style 07 Zero-Flex Cplg					10
2	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	Grooved End	21'-0"	252.000	10

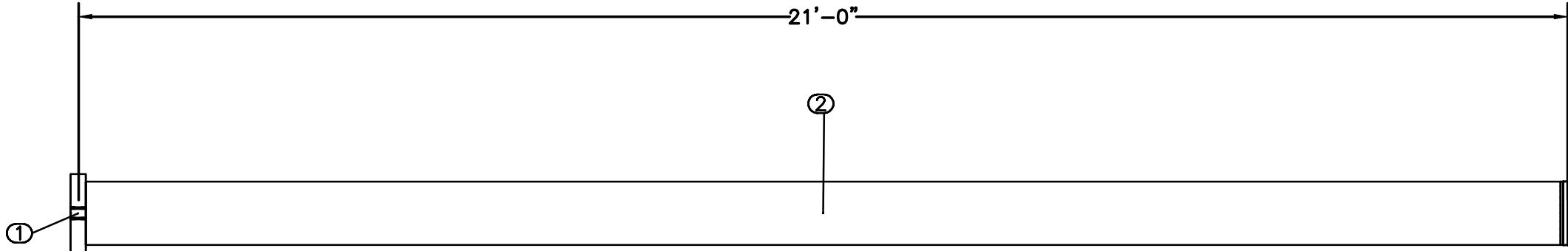
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QA/QC ACCEPT		FLANGE WEIGHT/ORIENTATION				<input type="checkbox"/>	
		FITTING ORIENTATION				<input type="checkbox"/>	
		BOLTS/CPLG'S/TH'D TIGHT				<input type="checkbox"/>	
		SPOOL IDENTIFICATION				<input type="checkbox"/>	
SPEC.	ASME	X-RAY	HYDRO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

DRN	JMM	6/7/2021	WUSM RESEARCH BUILDING		
CHK			NRB		
APP			LEVEL 02 NRB RACK		
JOB NO.	210140		SERVICE NAME	LVLO2- 9 RACK	
REF.DWG.			QTY.	SHT/NO	REV
DRAWING NO./TRACKING NO.		1	1	1	0
210140-LVL02-9-03					



Murphy—PFFS—SPOOL—BOM							
Mark	Qty	Description	End 1	End 2	Lft	LDec	Size
1	1	Style 07 Zero-Flex Cplg					10
2	1	Sch 40 SA-53B CS ERW Pipe PE	Grooved End	Grooved End	21'-0"	252.000	10

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

DRN JMM	6/7/2021	WUSM RESEARCH BUILDING			
CHK		NRB			
APP		LEVEL 02 NRB RACK			
JOB NO.	210140	SERVICE NAME			
REF.DWG.		LVL02- 9 RACK			
DRAWING NO./TRACKING NO.	QTY.	SHT/NO	REV		
210140-LVL02-9-04	1	1 of 1	0		