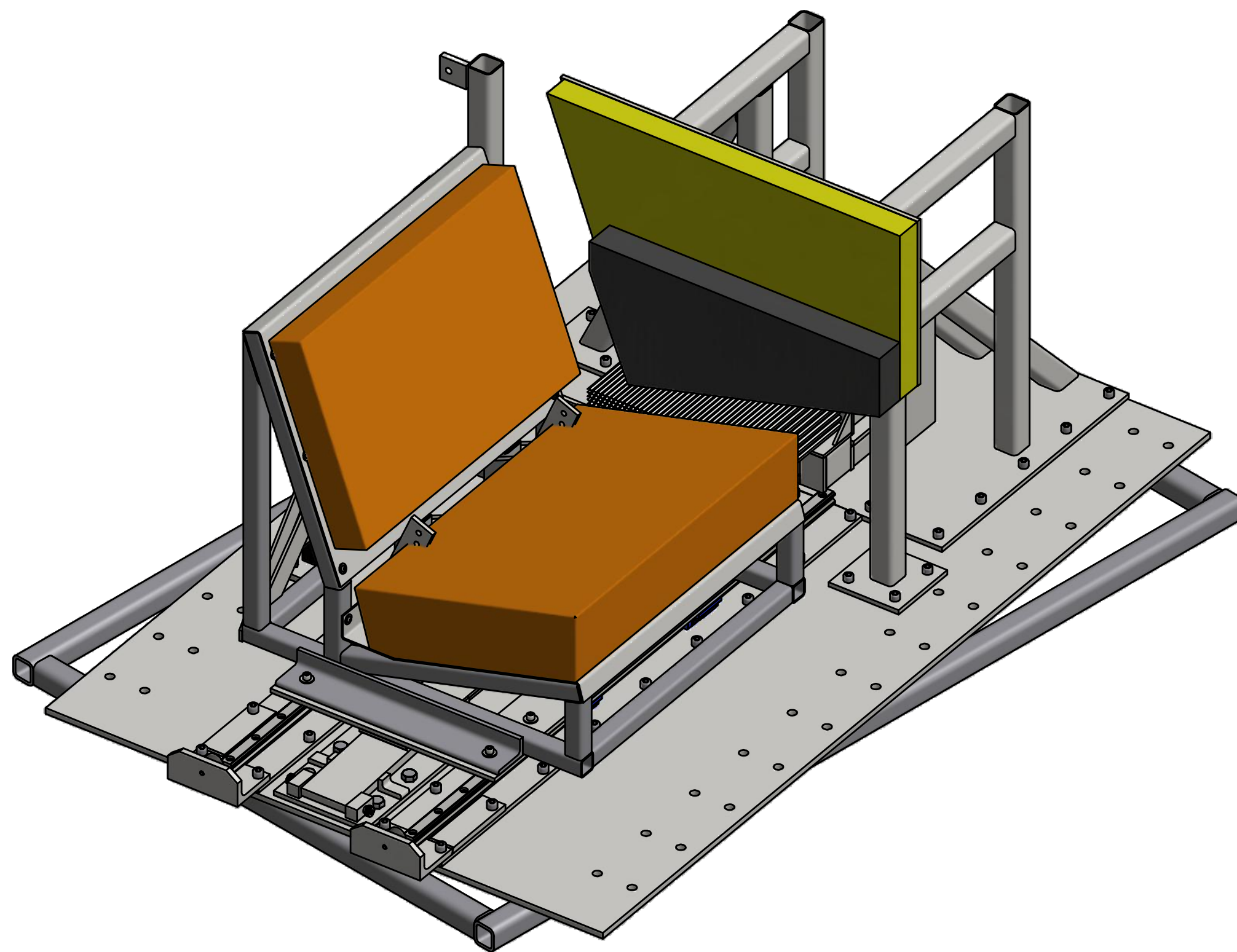
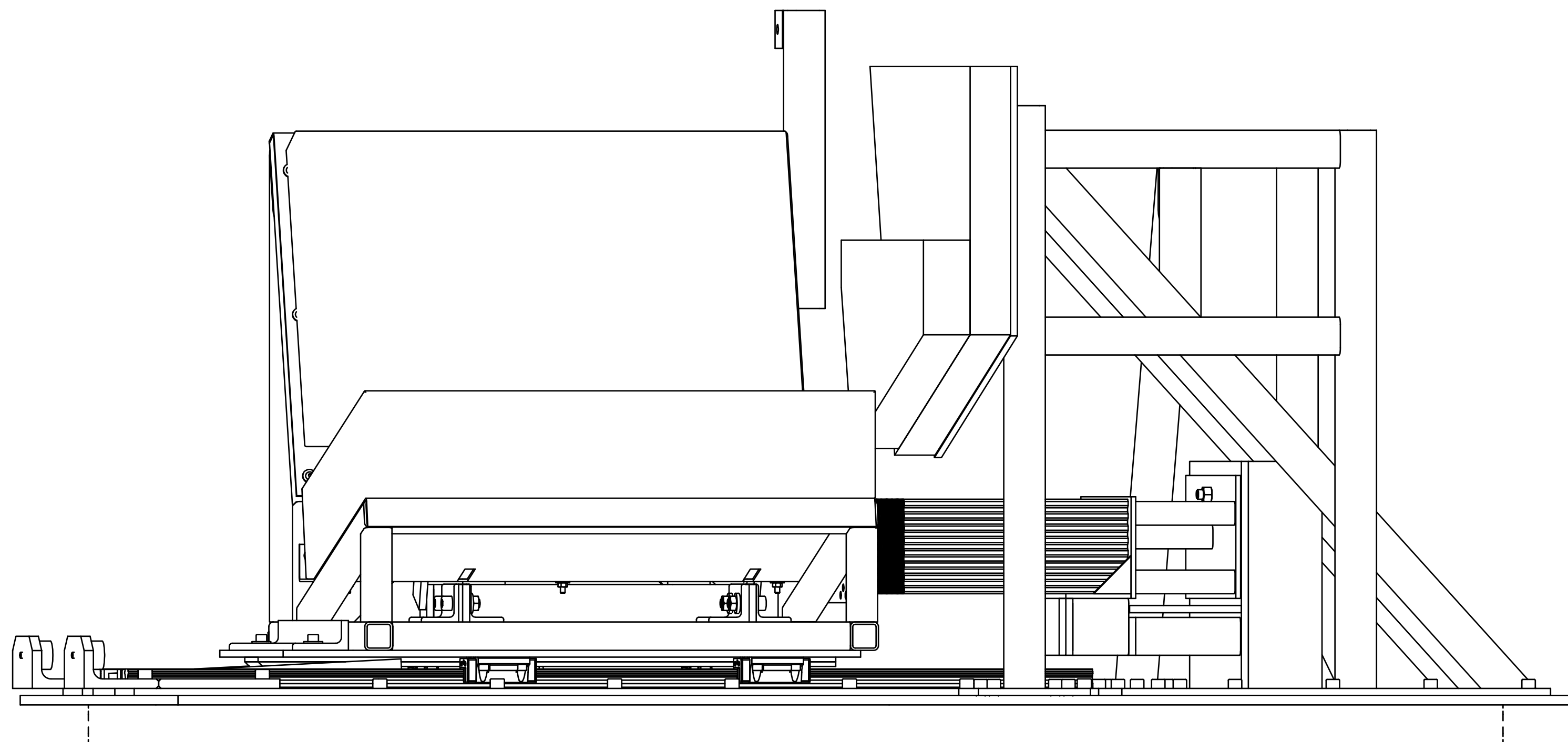
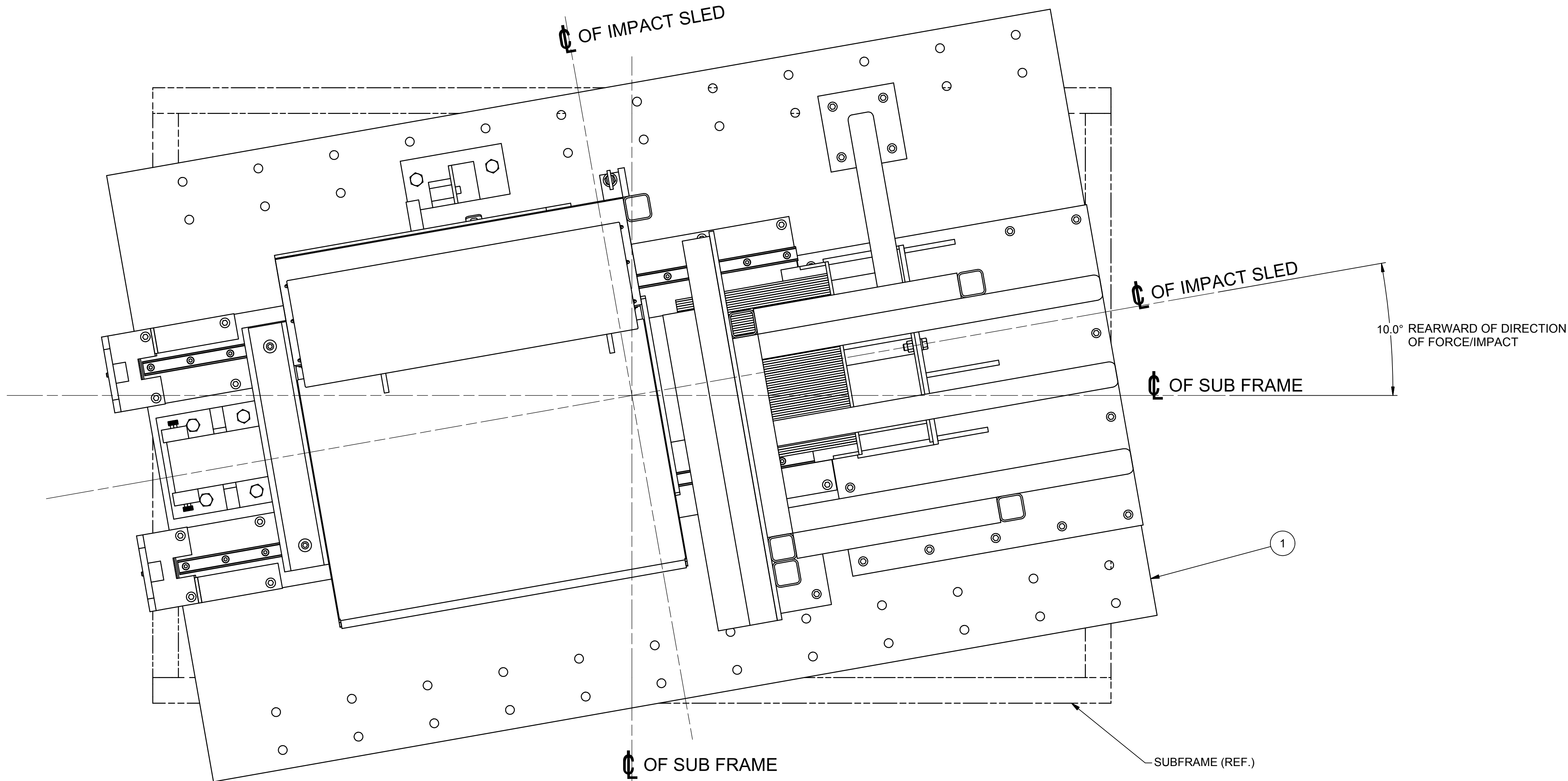
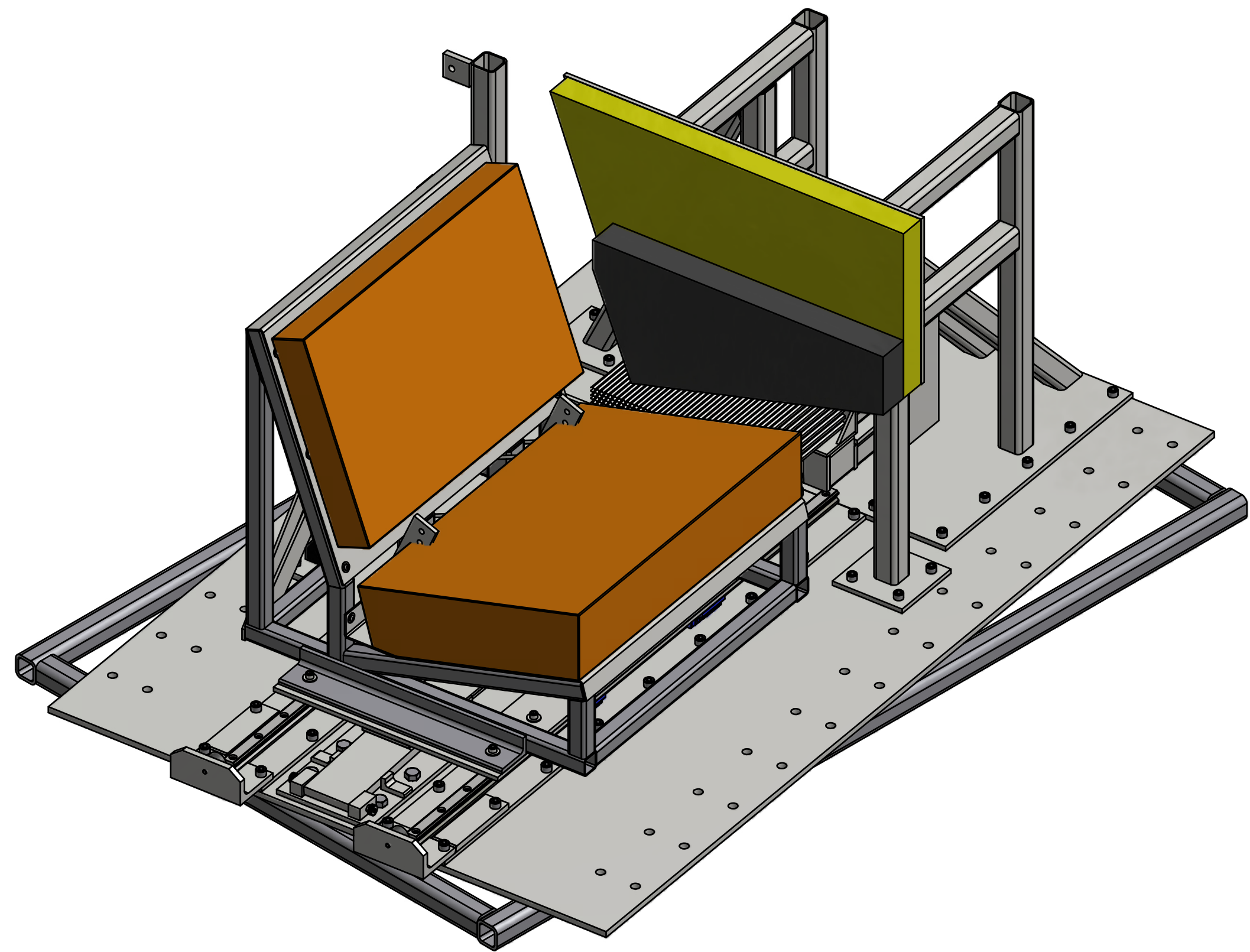


Parts List and Drawings
CHILD SIDE IMPACT SLED

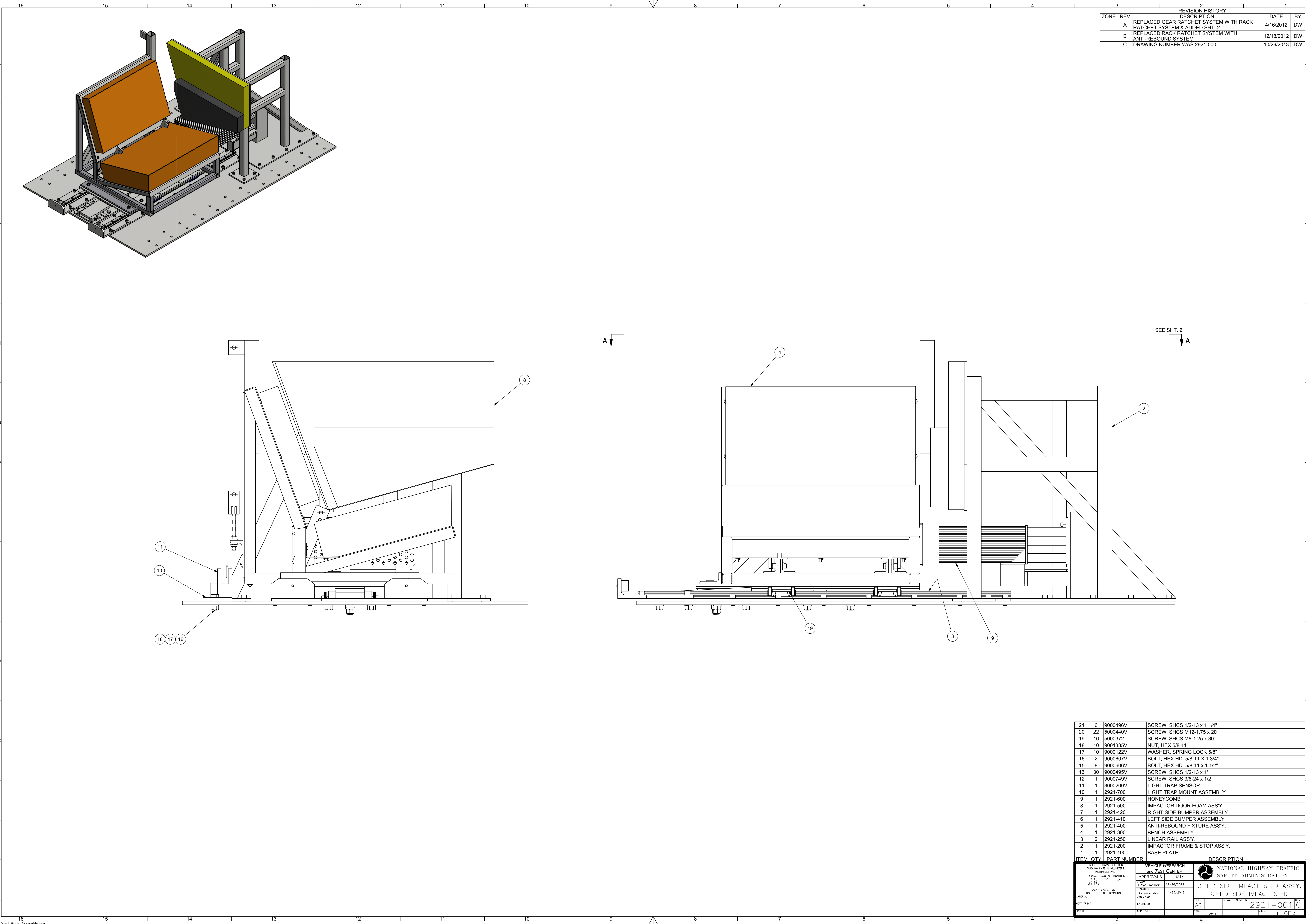


December 2013

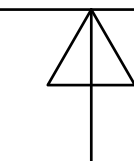
VEHICLE RESEARCH and TEST CENTER
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION



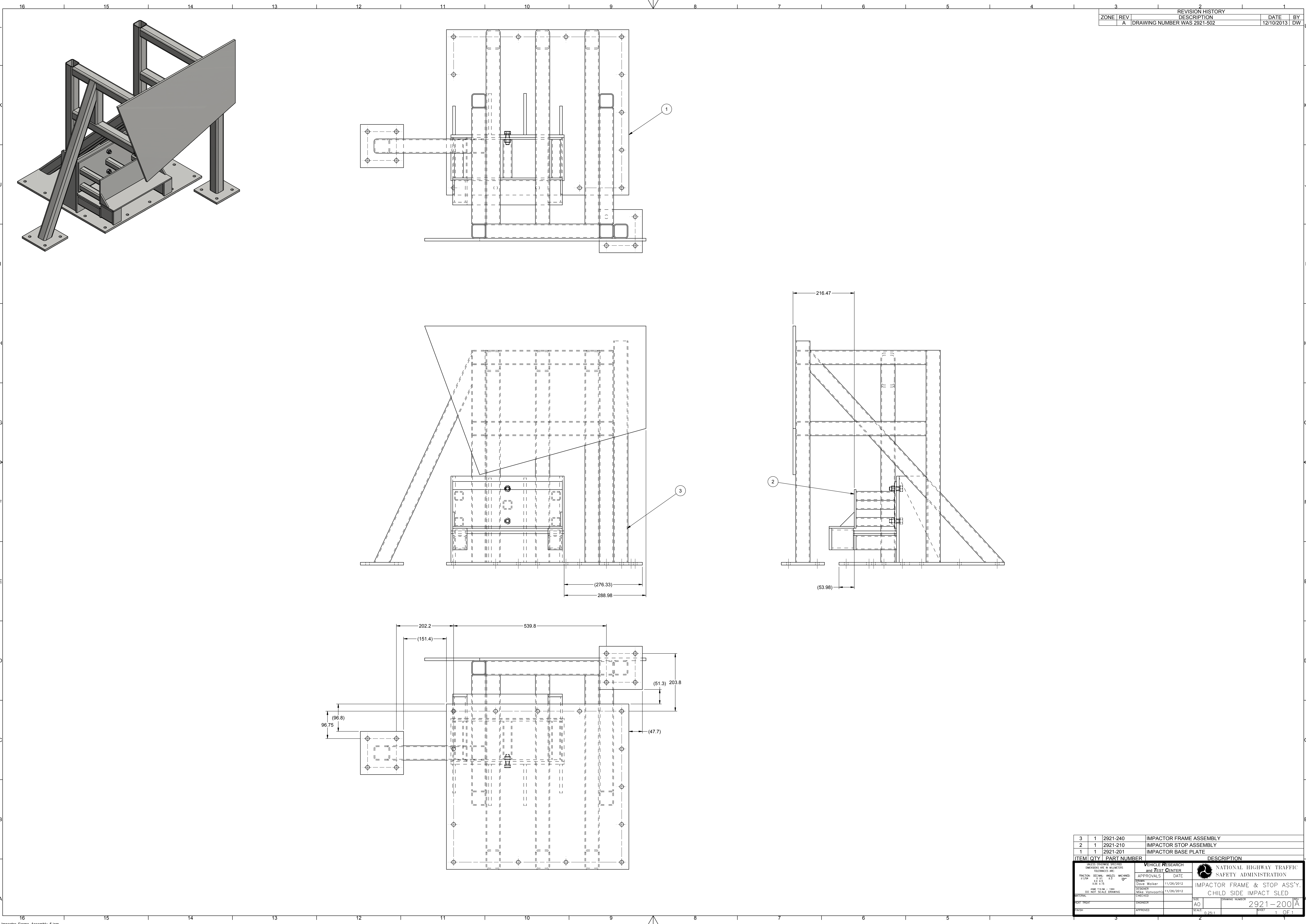
1		1	2921-001	CHILD SIDE IMPACT SLED ASSY.
ITEM		QTY		PART NUMBER
DESCRIPTION		DESCRIPTION		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTIONS DECIMALS ANGLES HATCHES 1/4 1.2 15.0 45° 1/8 0.3 1.0 15.0 1/16 0.1 0.5 15.0 HATCH 1/16 0.1 1.0 15.0 DIM. AND SCALE INDICATING		VEHICLE RESEARCH and TEST CENTER APPROVALS DATE DESIGNED BY DATE CHECKED BY DATE DATE APPROVED BY DATE DATE		
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION CHILD SIDE IMPACT SLED COMPLETE ASSY. CHILD SIDE IMPACT SLED		DATE A0 SCALE: 0.25:1 DRAWING NUMBER 2921-000 SHEET 1 OF 1		



[illegible]



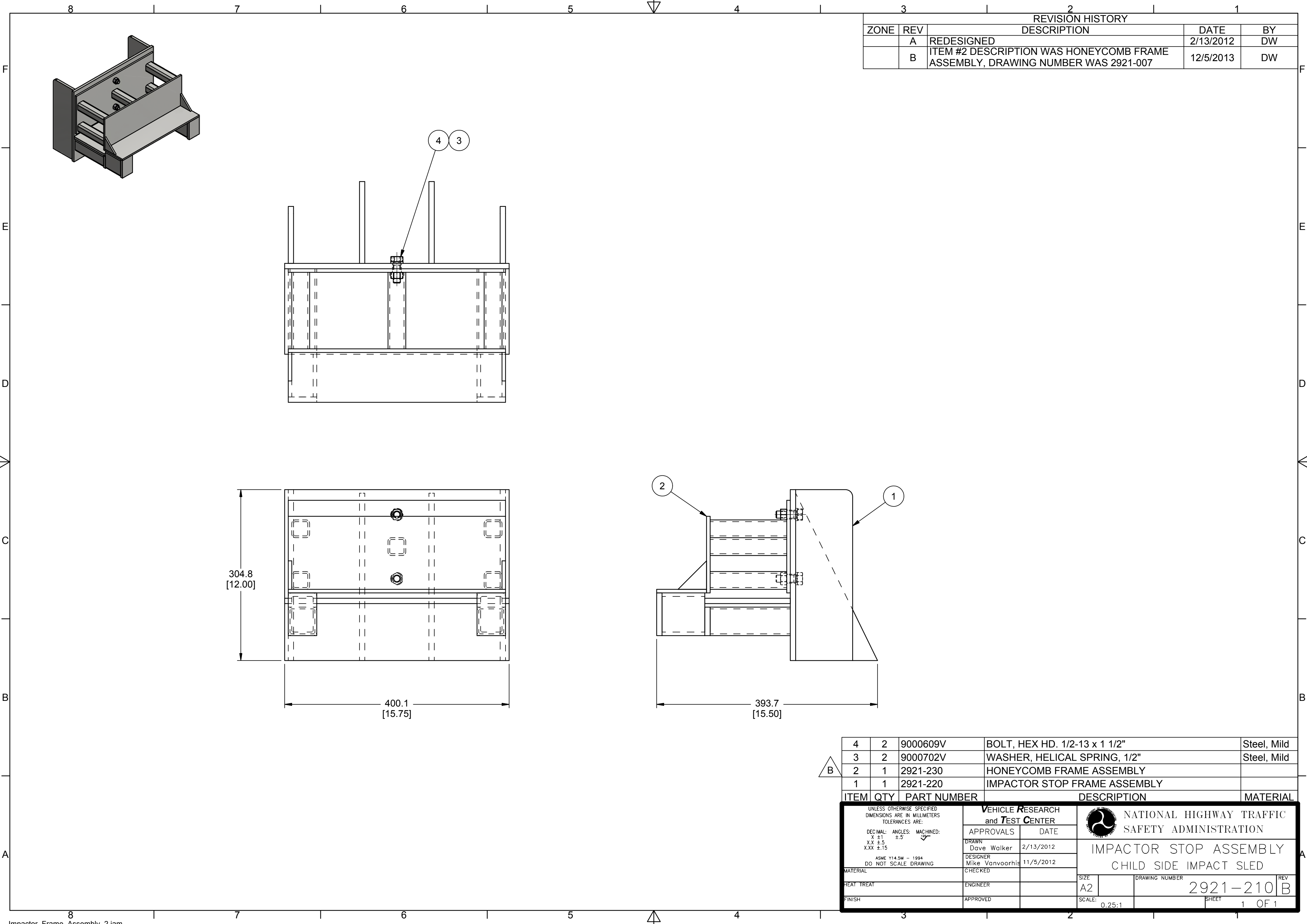
APPROVALS STICED AND BY ALL MEMBERS OF THE BOARD OF DIRECTORS OF THE STATE OF TEXAS - 1994 (SEE BACK COVER) (el)	VEHICLE RESEARCH TEST CENTER APPROVALS DATE RESIGNED Dave Walker 11/19/2012 RESIGNED Mike Vanvoornich 11/19/2012 CHIEF	 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION BASE PLATE CHAIR SIDE IMPACT SLED SIZE AO DRAWING NUMBER 2921-100B SCALE 0.25:1 SHEET 1 OF 1
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REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE
A	1	DRAWING NUMBER WAS 2921-502	12/10/2013

ITEM	QTY	PART NUMBER	DESCRIPTION
3	1	2921-240	IMPACTOR FRAME ASSEMBLY
2	1	2921-210	IMPACTOR STOP ASSEMBLY
1	1	2921-201	IMPACTOR BASE PLATE

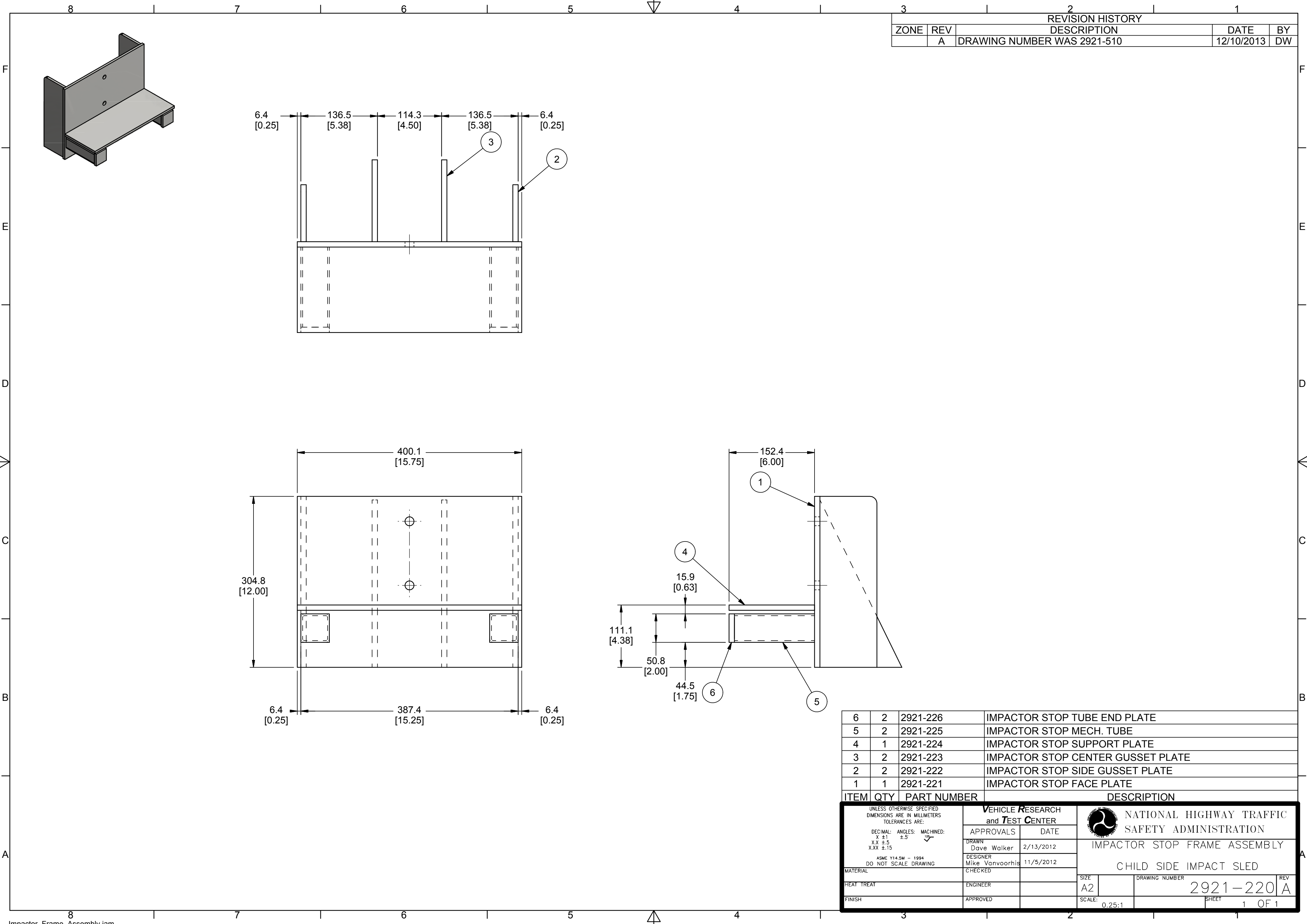
VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
APPROVALS	DATE	IMPACTOR FRAME & STOP ASS'Y. CHILD SIDE IMPACT SLED	
DESIGNED Dove Walker	11/26/2012		
CHECKED Mike Vanvorhies	11/26/2012	2921-200A	
DATE	SCALE		
11/26/2012	0.25:1	1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REDESIGNED	2/13/2012	DW
	B	ITEM #2 DESCRIPTION WAS HONEYCOMB FRAME ASSEMBLY, DRAWING NUMBER WAS 2921-007	12/5/2013	DW


4	2	9000609V	BOLT, HEX HD. 1/2-13 x 1 1/2"	Steel, Mild
3	2	9000702V	WASHER, HELICAL SPRING, 1/2"	Steel, Mild
2	1	2921-230	HONEYCOMB FRAME ASSEMBLY	
1	1	2921-220	IMPACTOR STOP FRAME ASSEMBLY	
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL

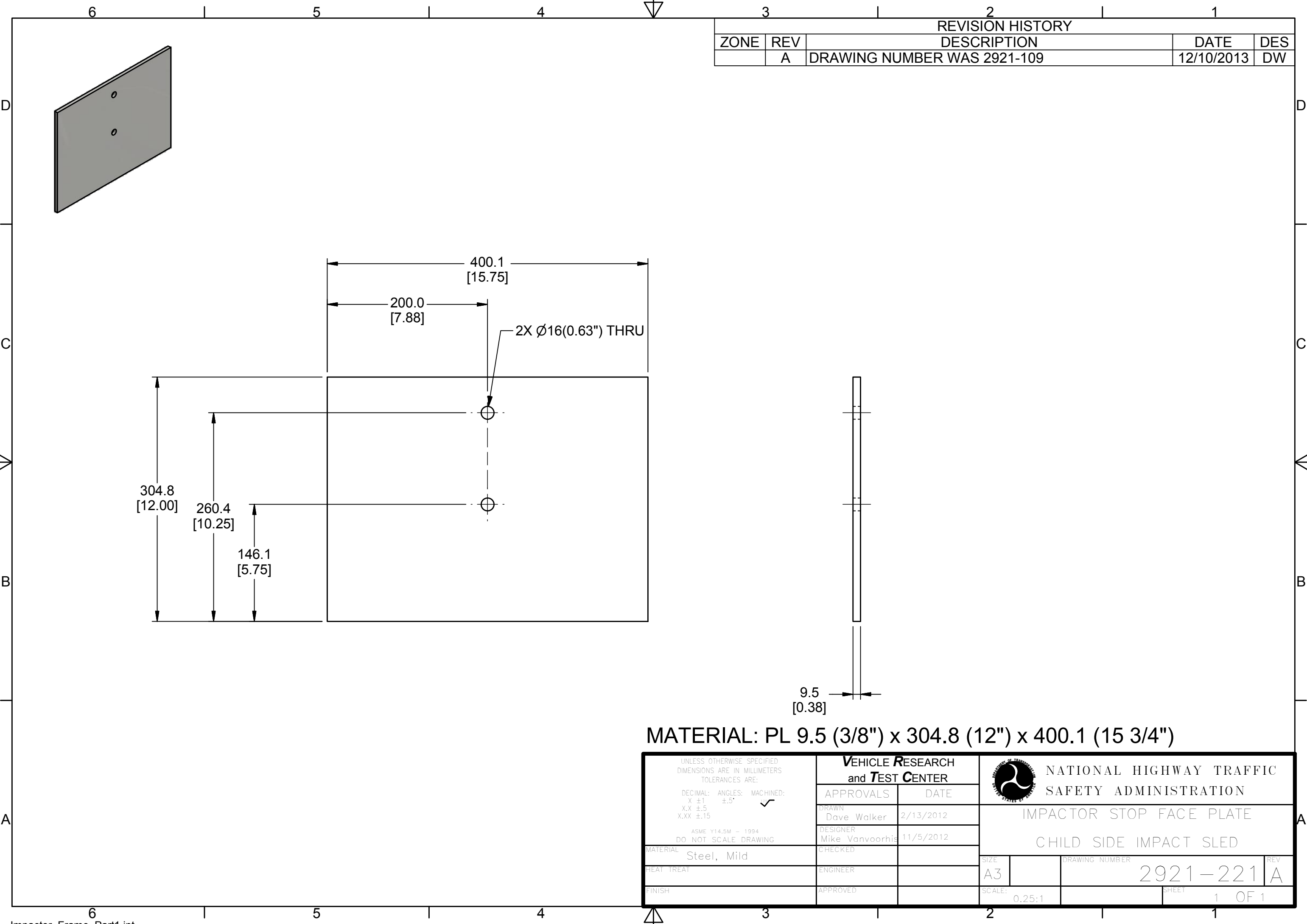
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 ° X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
		DRAWN Dave Walker	2/13/2012		
MATERIAL		DESIGNER Mike Vanvoorhis	11/5/2012	IMPACTOR STOP ASSEMBLY CHILD SIDE IMPACT SLED	
HEAT TREAT		CHECKED		SIZE A2	DRAWING NUMBER 2921-210
FINISH		ENGINEER		SCALE: 0.25:1	REV B
		APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-510	12/10/2013	DW


6	2	2921-226	IMPACTOR STOP TUBE END PLATE
5	2	2921-225	IMPACTOR STOP MECH. TUBE
4	1	2921-224	IMPACTOR STOP SUPPORT PLATE
3	2	2921-223	IMPACTOR STOP CENTER GUSSET PLATE
2	2	2921-222	IMPACTOR STOP SIDE GUSSET PLATE
1	1	2921-221	IMPACTOR STOP FACE PLATE
ITEM	QTY	PART NUMBER	DESCRIPTION

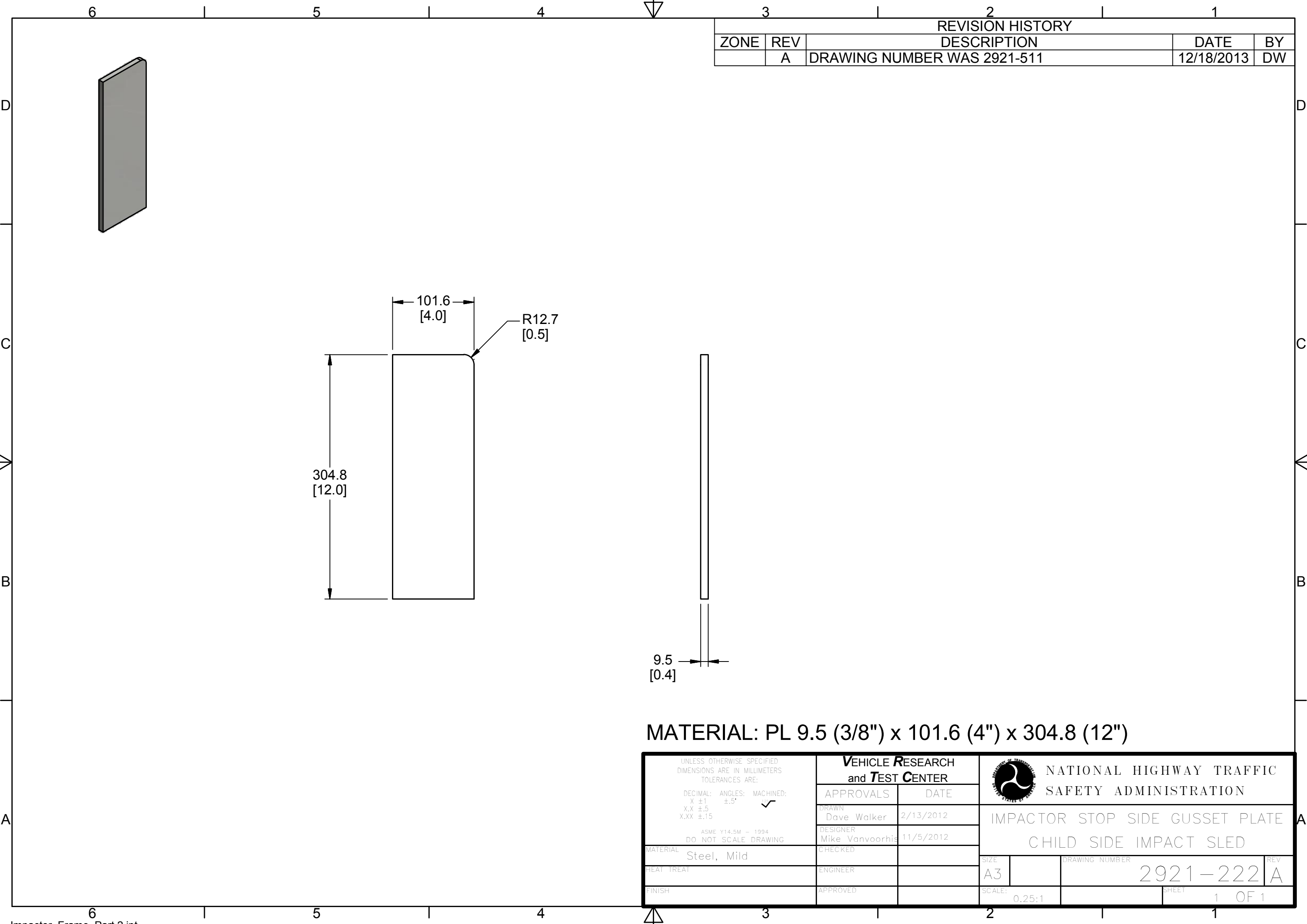
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 ✓ XX ±.5 XXX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL		DRAWN Dave Walker	2/13/2012	IMPACTOR STOP FRAME ASSEMBLY	
HEAT TREAT		DESIGNER Mike Vanvoorhis	11/5/2012	CHILD SIDE IMPACT SLED	
FINISH		CHECKED			
		ENGINEER		SIZE A2	DRAWING NUMBER 2921-220
		APPROVED		SCALE: 0.25:1	REV A
				SHEET 1	OF 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DES
	A	DRAWING NUMBER WAS 2921-109	12/10/2013	DW


MATERIAL: PL 9.5 (3/8") x 304.8 (12") x 400.1 (15 3/4")

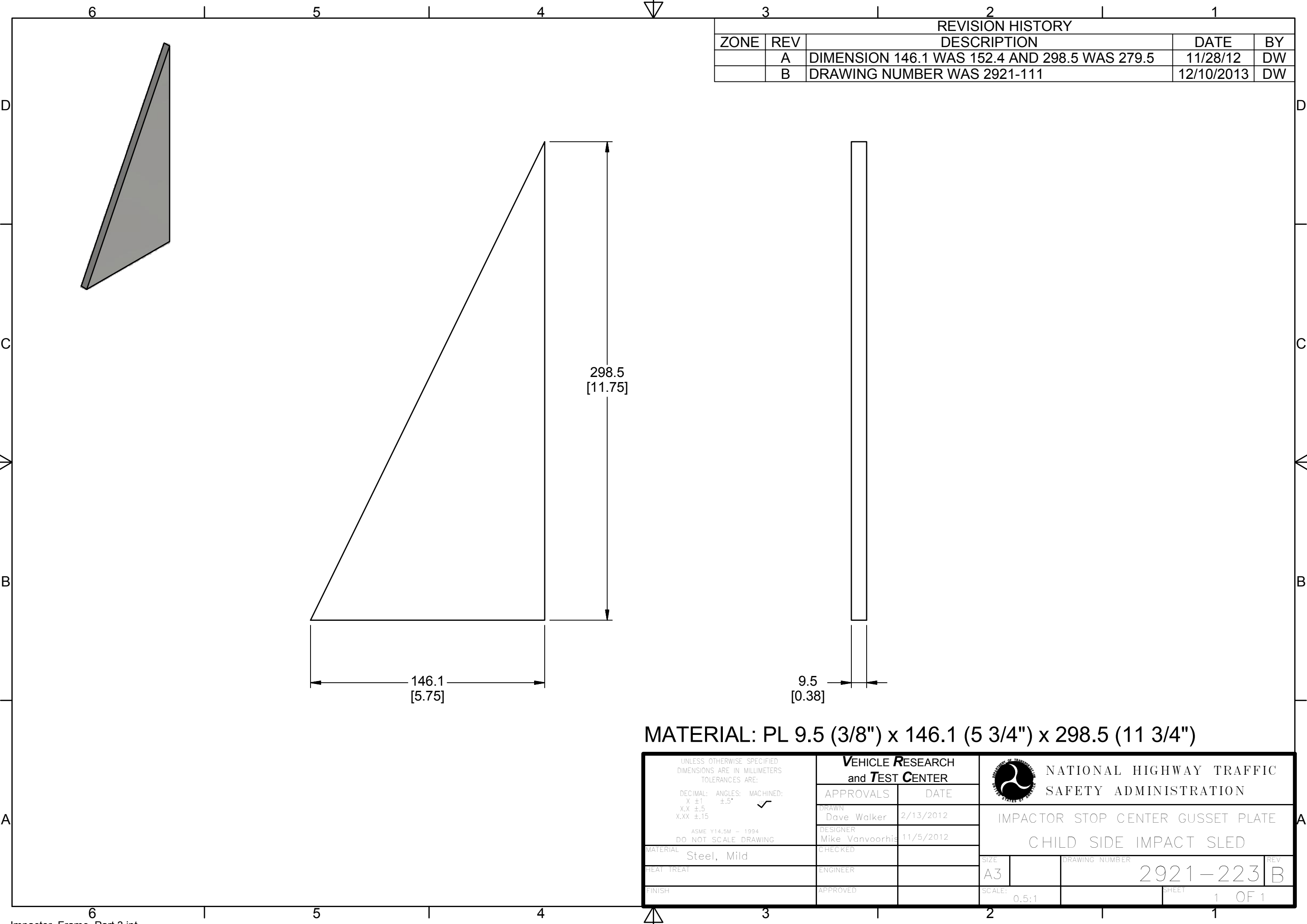
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	IMPACTOR STOP FACE PLATE	
		DRAWN Dave Walker	2/13/2012		
		DESIGNER Mike Vanvoorhis	11/5/2012	CHILD SIDE IMPACT SLED	
MATERIAL Steel, Mild		CHECKED		SIZE A3	DRAWING NUMBER 2921-221
HEAT TREAT		ENGINEER		SCALE: 0.25:1	REV A
FINISH		APPROVED		SHEET 1 OF 1	

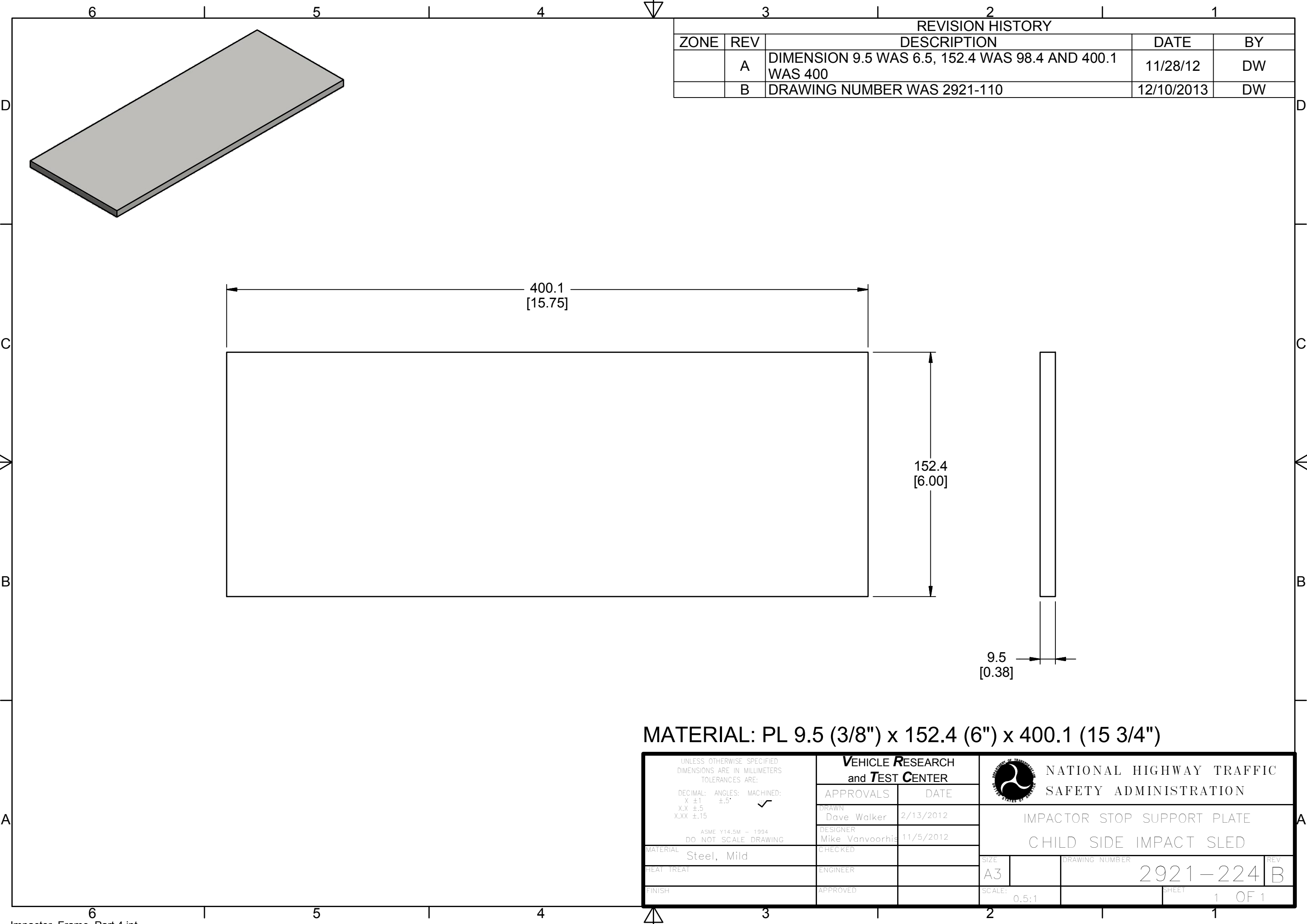


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-511	12/18/2013	DW

MATERIAL: PL 9.5 (3/8") x 101.6 (4") x 304.8 (12")


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	IMPACTOR STOP SIDE GUSSET PLATE CHILD SIDE IMPACT SLED	
		DRAWN Dave Walker	2/13/2012		
MATERIAL Steel, Mild	HEAT TREAT	DESIGNER Mike Vanvoorhis	11/5/2012	SIZE A3	
		CHECKED			
		ENGINEER			
FINISH		APPROVED		SCALE: 0.25:1	DRAWING NUMBER 2921-222
				SHEET 1 OF 1	REV A



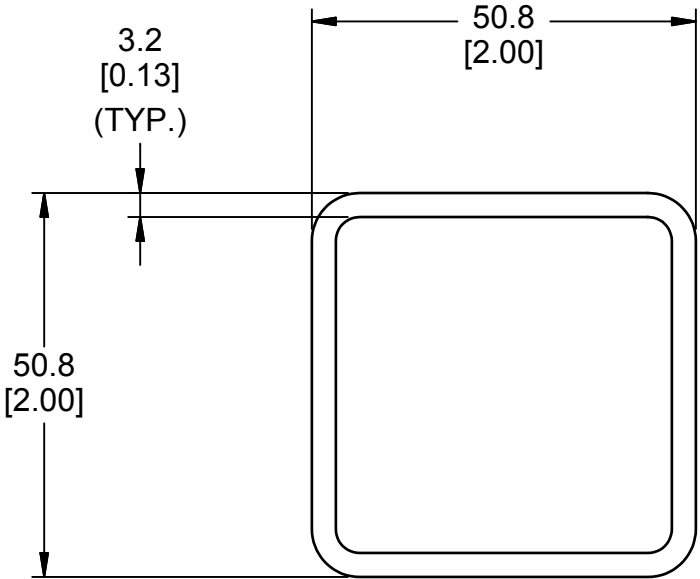
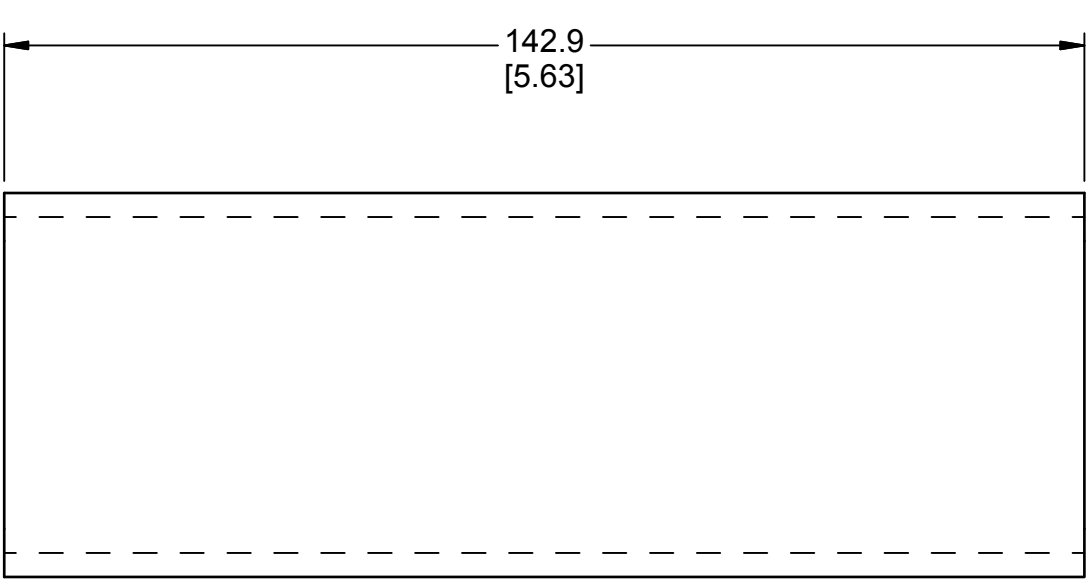
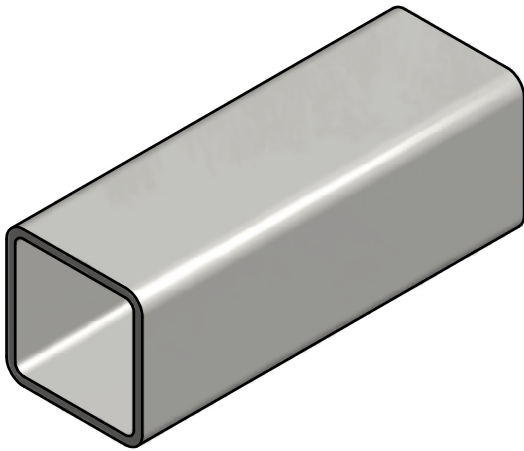


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 9.5 WAS 6.5, 152.4 WAS 98.4 AND 400.1 WAS 400	11/28/12	DW
	B	DRAWING NUMBER WAS 2921-110	12/10/2013	DW


MATERIAL: PL 9.5 (3/8") x 152.4 (6") x 400.1 (15 3/4")

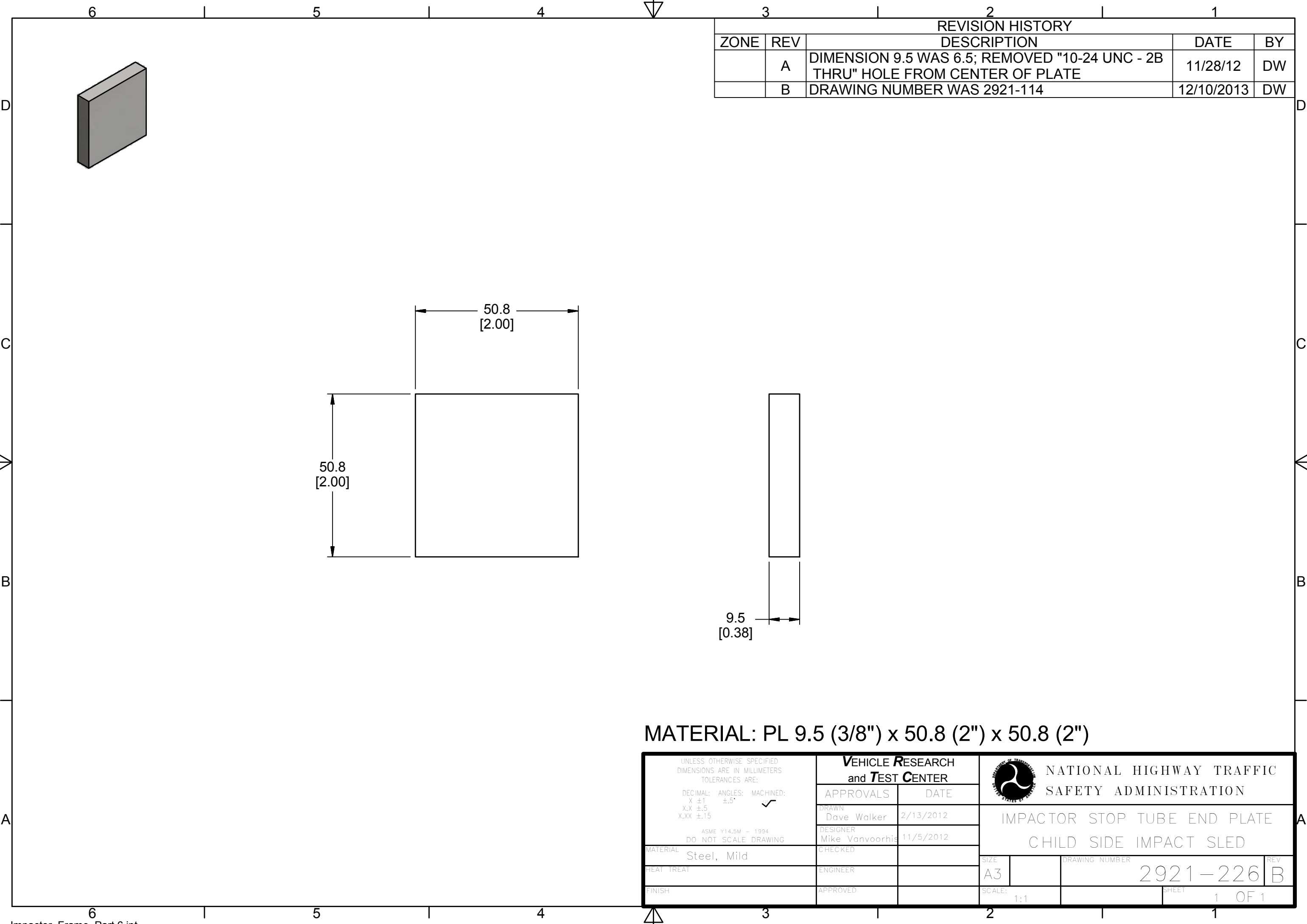
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5' ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M – 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>		
	APPROVALS	DATE			
	DRAWN Dave Walker	2/13/2012	IMPACTOR STOP SUPPORT PLATE CHILD SIDE IMPACT SLED		
	DESIGNER Mike Vanvoorhis	11/5/2012			
MATERIAL Steel, Mild	CHECKED		SIZE	DRAWING NUMBER	REV
HEAT TREAT	ENGINEER		A3		2921-224 B
FINISH	APPROVED		SCALE: 0.5:1	SHEET	1 OF 1

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 142.9 WAS 85.9	11/28/12	DW
	B	DRAWING NUMBER WAS 2921-113	12/10/2013	DW




MATERIAL: T.S. 2"(50.8mm) x 2"(50.8mm) x 1/8"(3.2mm) x 0'-6"(149.9mm)

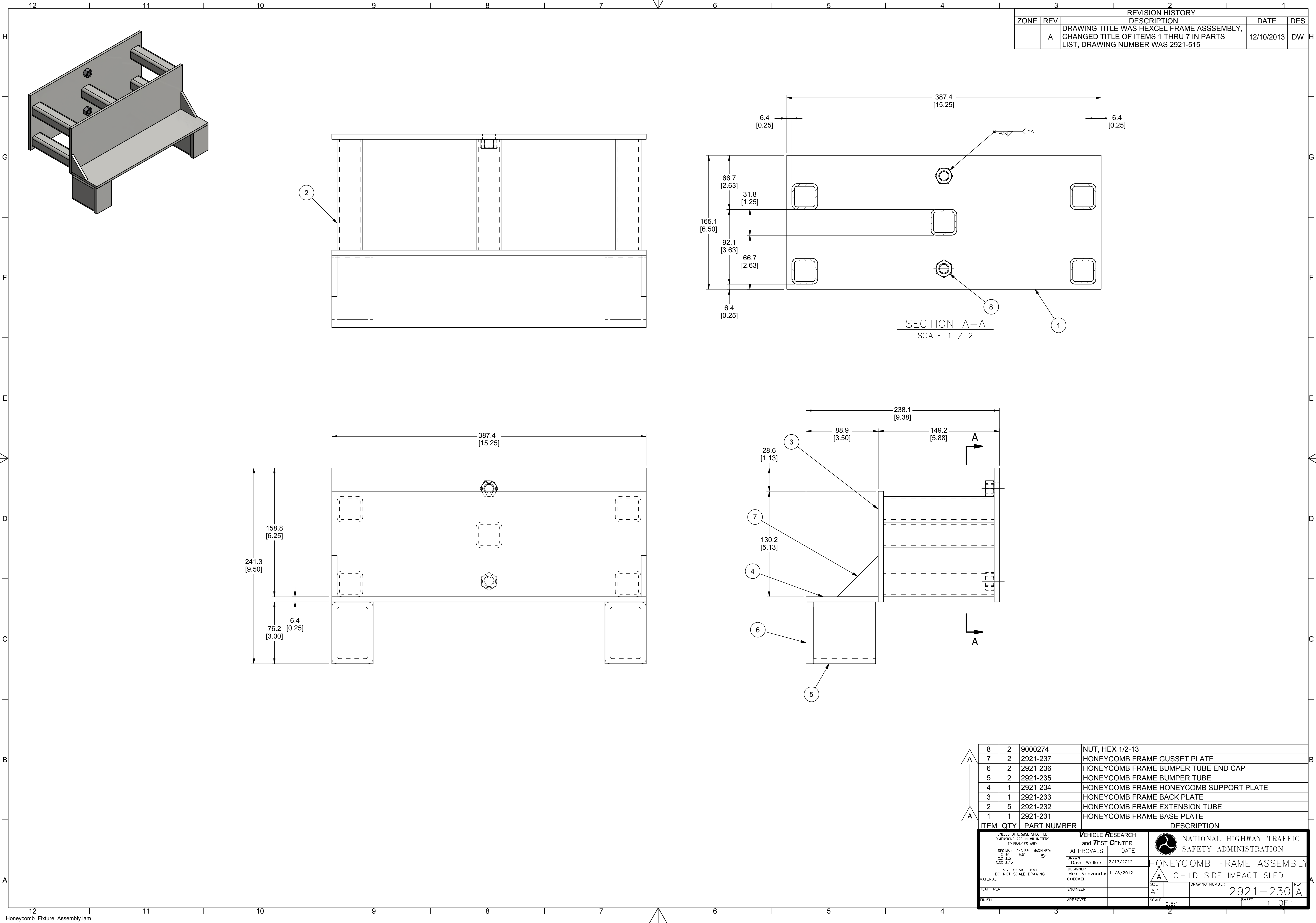
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	IMPACTOR STOP MECH. TUBE CHILD SIDE IMPACT SLED	
MATERIAL Steel, Mild		DRAWN Dave Walker	2/13/2012		
HEAT TREAT		DESIGNER Mike Vanvoorhis	11/5/2012		
FINISH		CHECKED		SIZE A3	DRAWING NUMBER 2921-225
		ENGINEER		SCALE: 1:1	REV B
		APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 9.5 WAS 6.5; REMOVED "10-24 UNC - 2B THRU" HOLE FROM CENTER OF PLATE	11/28/12	DW
	B	DRAWING NUMBER WAS 2921-114	12/10/2013	DW

MATERIAL: PL 9.5 (3/8") x 50.8 (2") x 50.8 (2")

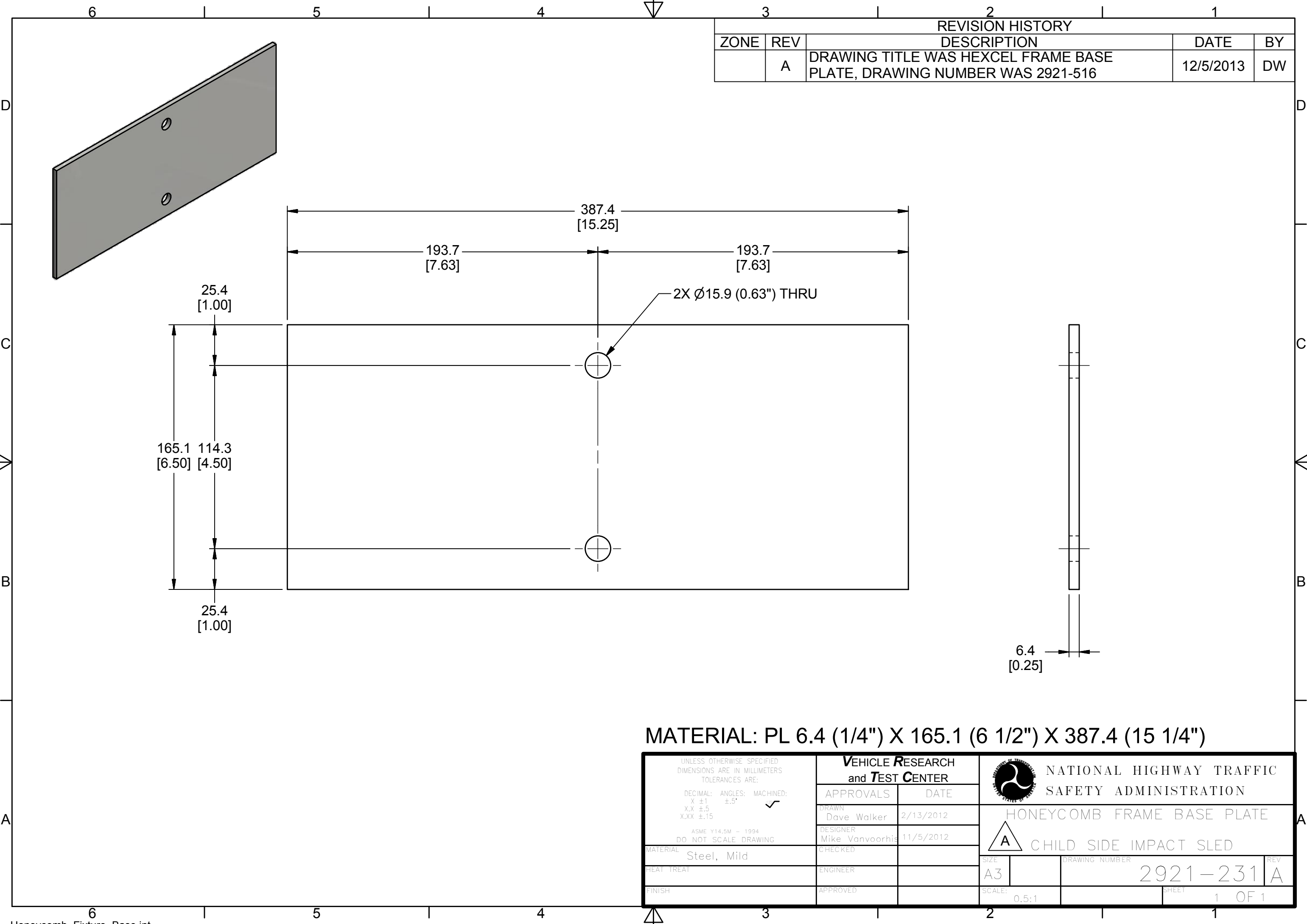
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
		DRAWN Dave Walker	2/13/2012	IMPACTOR STOP TUBE END PLATE CHILD SIDE IMPACT SLED	
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild		CHECKED		SIZE A3	DRAWING NUMBER 2921-226
HEAT TREAT		ENGINEER			REV B
FINISH		APPROVED		SCALE: 1:1	SHEET 1 OF 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DES
	A	DRAWING TITLE WAS HEXCEL FRAME ASSEMBLY, CHANGED TITLE OF ITEMS 1 THRU 7 IN PARTS LIST, DRAWING NUMBER WAS 2921-515	12/10/2013	DW

ITEM	QTY	PART NUMBER	DESCRIPTION
8	2	9000274	NUT, HEX 1/2-13
7	2	2921-237	HONEYCOMB FRAME GUSSET PLATE
6	2	2921-236	HONEYCOMB FRAME BUMPER TUBE END CAP
5	2	2921-235	HONEYCOMB FRAME BUMPER TUBE
4	1	2921-234	HONEYCOMB FRAME HONEYCOMB SUPPORT PLATE
3	1	2921-233	HONEYCOMB FRAME BACK PLATE
2	5	2921-232	HONEYCOMB FRAME EXTENSION TUBE
1	1	2921-231	HONEYCOMB FRAME BASE PLATE

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE:		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DECIMAL: X ±.1 X.X ±.5 X.XX ±.15	ANGLES: MACHINED: ±.5	APPROVALS	DATE	SIZE	DRAWING NUMBER
DO NOT SCALE DRAWING		DRAWN Dave Walker	2/13/2012	A1	2921-230
MATERIAL		DESIGNER Mike Vanvoorhis	11/5/2012	SCALE: 0.5:1	REV A
HEAT TREAT		CHECKED		SHEET 1 OF 1	
FINISH		ENGINEER			
		APPROVED			




UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE:

DECIMAL: ANGLES: MACHINED:
X ±1 ±.5° ✓
X.X ±.5
X.XX ±.15


ASME Y14.5M - 1994
DO NOT SCALE DRAWING

**VEHICLE RESEARCH
and TEST CENTER**

APPROVALS	DATE
DRAWN Dave Walker	2/13/2012
DESIGNER Mike Vanvoorhis	11/5/2012
CHECKED	
ENGINEER	
APPROVED	

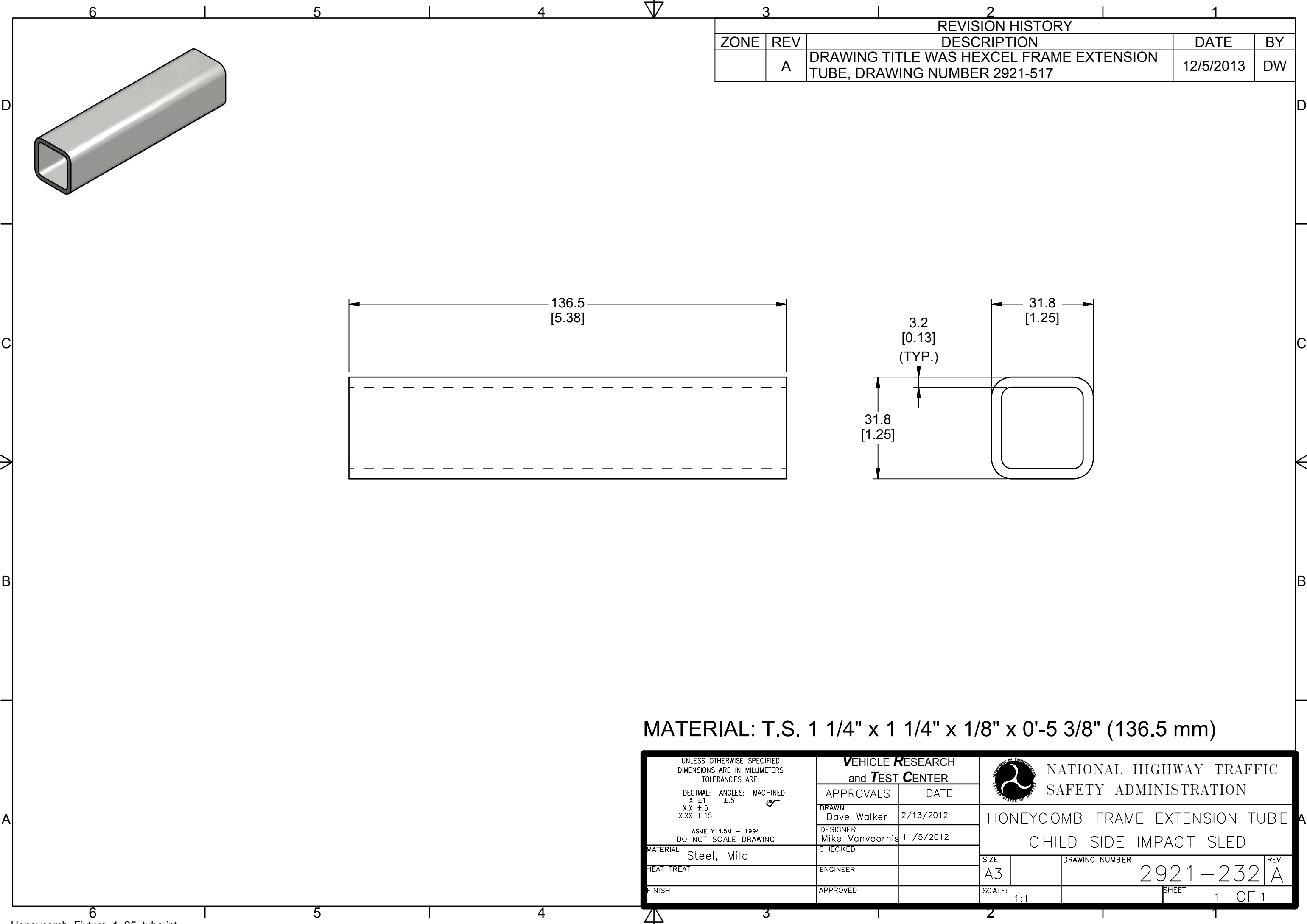


NATIONAL HIGHWAY TRAFFIC
SAFETY ADMINISTRATION




CHILD SIDE IMPACT SLED

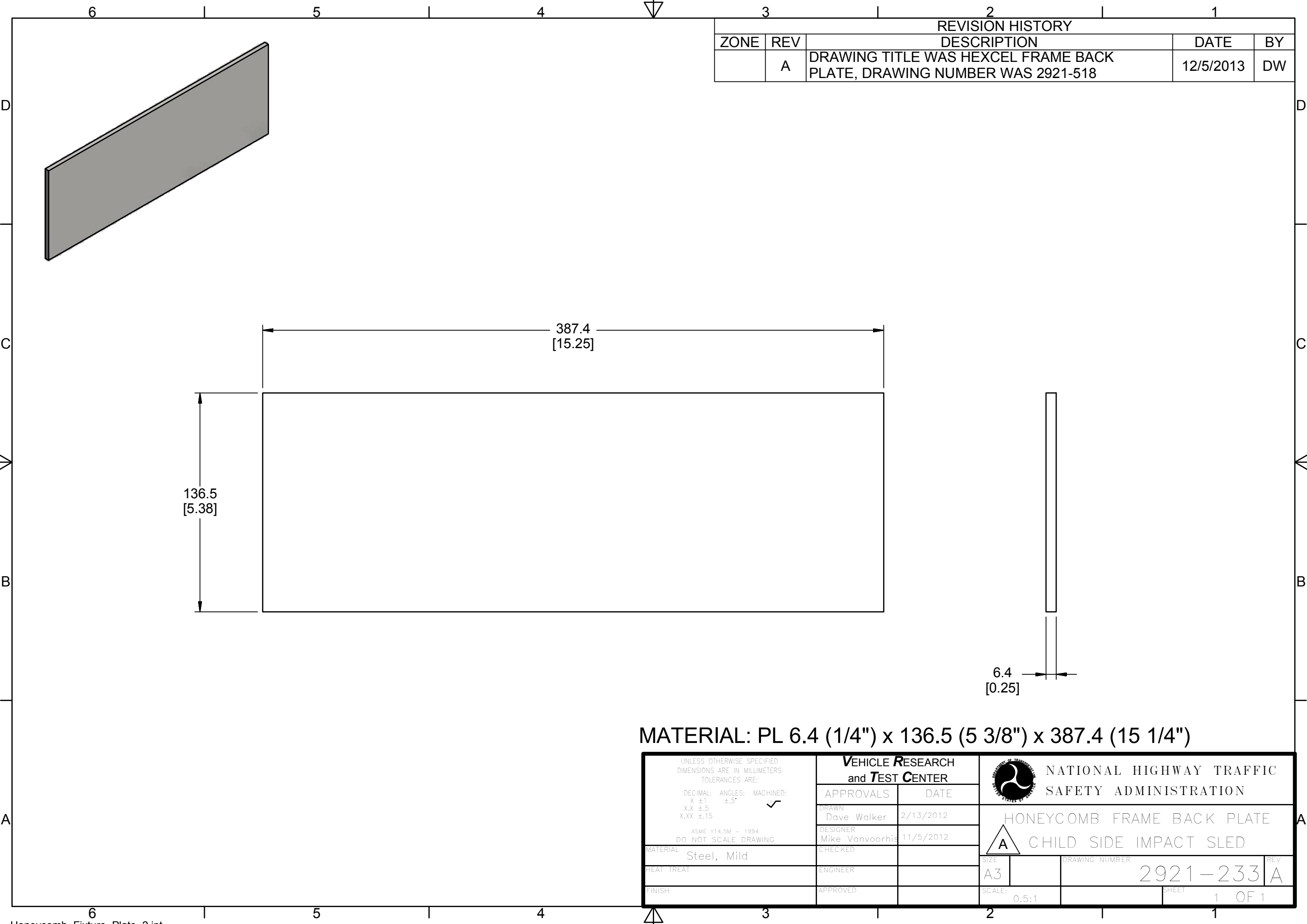
SIZE A3	DRAWING NUMBER 2921-231	REV A
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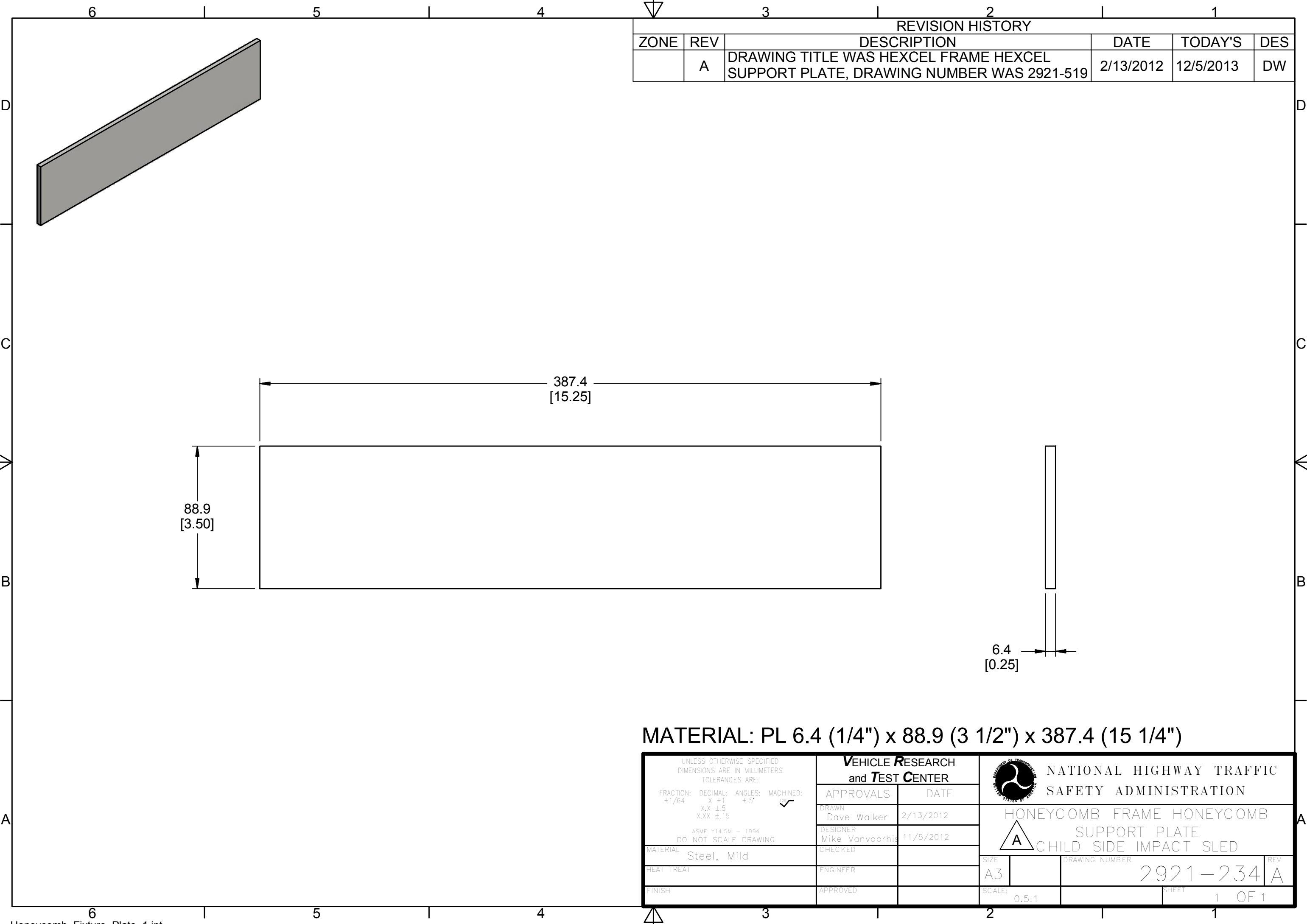
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS HEXCEL FRAME EXTENSION TUBE, DRAWING NUMBER 2921-517	12/5/2013	DW

MATERIAL: T.S. 1 1/4" x 1 1/4" x 1/8" x 0'-5 3/8" (136.5 mm)


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 125 X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE			
	DRAWN Dave Walker	2/13/2012	HONEYCOMB FRAME EXTENSION TUBE CHILD SIDE IMPACT SLED		
	DESIGNER Mike Vanvoorhis	11/5/2012			
MATERIAL Steel, Mild	CHECKED		SIZE A3	DRAWING NUMBER 2921-232	REV A
HEAT TREAT	ENGINEER		SCALE: 1:1	SHEET 1 OF 1	
FINISH	APPROVED				

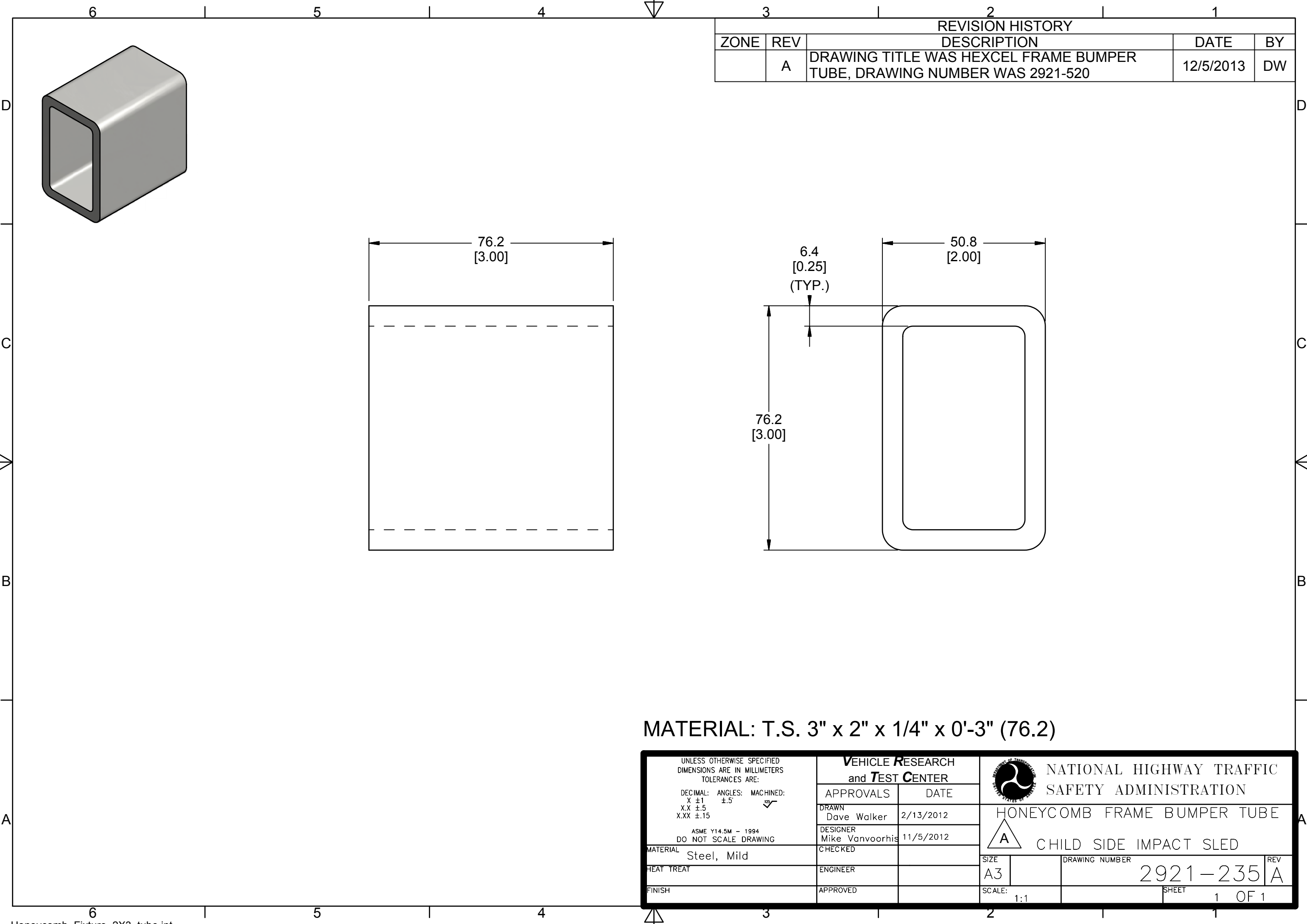


<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE	HONEYCOMB FRAME BACK PLATE CHILD SIDE IMPACT SLED	
	DRAWN Dave Walker	2/13/2012		
	DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild	CHECKED			DRAWING NUMBER 2921-233
HEAT TREAT	ENGINEER			
FINISH	APPROVED		SCALE: 0.5:1	SHEET 1 OF 1





REVISION HISTORY					
ZONE	REV	DESCRIPTION	DATE	TODAY'S	DES
	A	DRAWING TITLE WAS HEXCEL FRAME HEXCEL SUPPORT PLATE, DRAWING NUMBER WAS 2921-519	2/13/2012	12/5/2013	DW

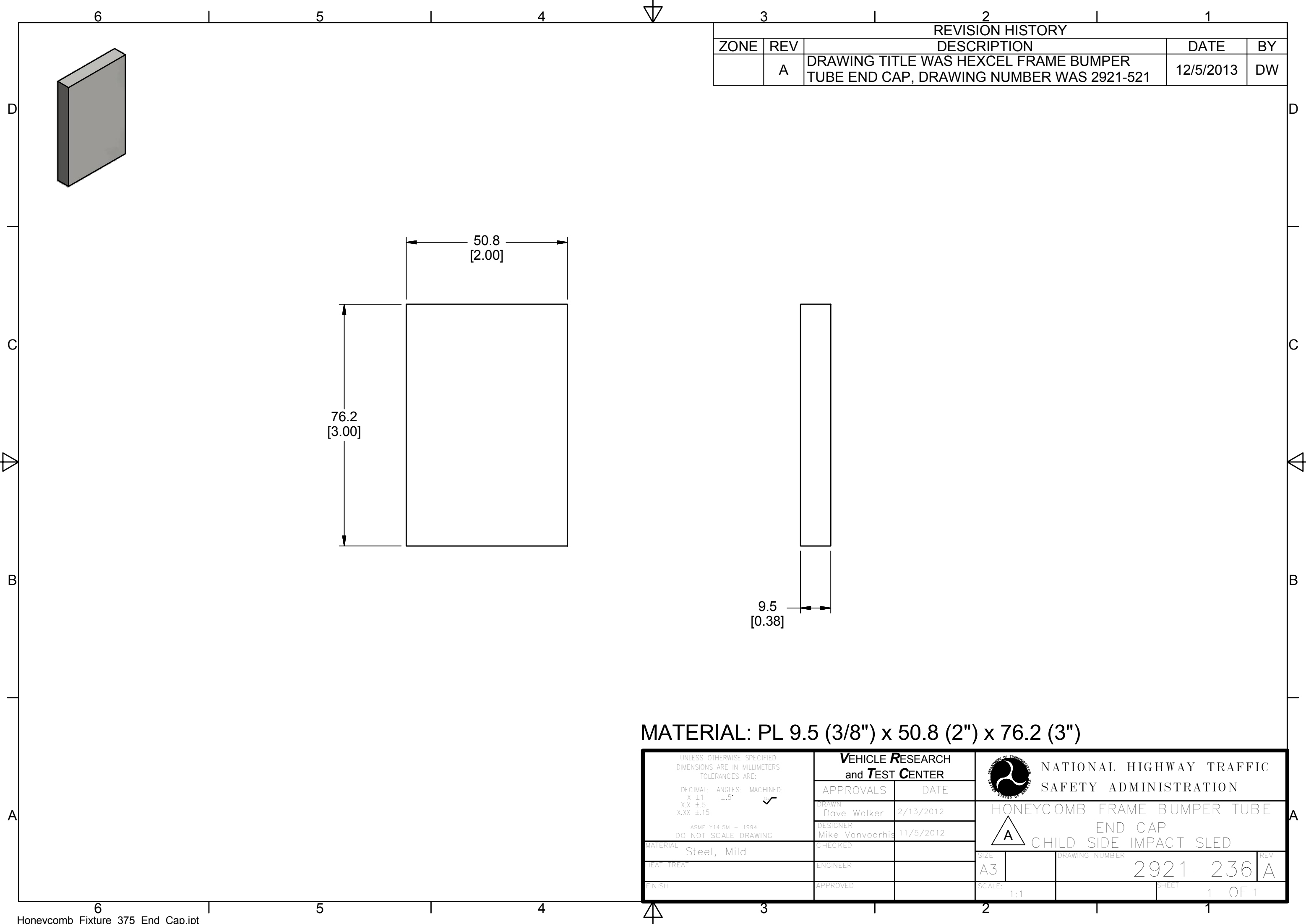
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	HONEYCOMB FRAME HONEYCOMB	
		DRAWN Dave Walker	2/13/2012	SUPPORT PLATE	
		DESIGNER Mike Vanvoorhis	11/5/2012	CHILD SIDE IMPACT SLED	
MATERIAL Steel, Mild		CHECKED		SIZE A3	DRAWING NUMBER 2921-234
HEAT TREAT		ENGINEER		SCALE: 0.5:1	REV A
FINISH		APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS HEXCEL FRAME BUMPER TUBE, DRAWING NUMBER WAS 2921-520	12/5/2013	DW



MATERIAL: T.S. 3" x 2" x 1/4" x 0'-3" (76.2)

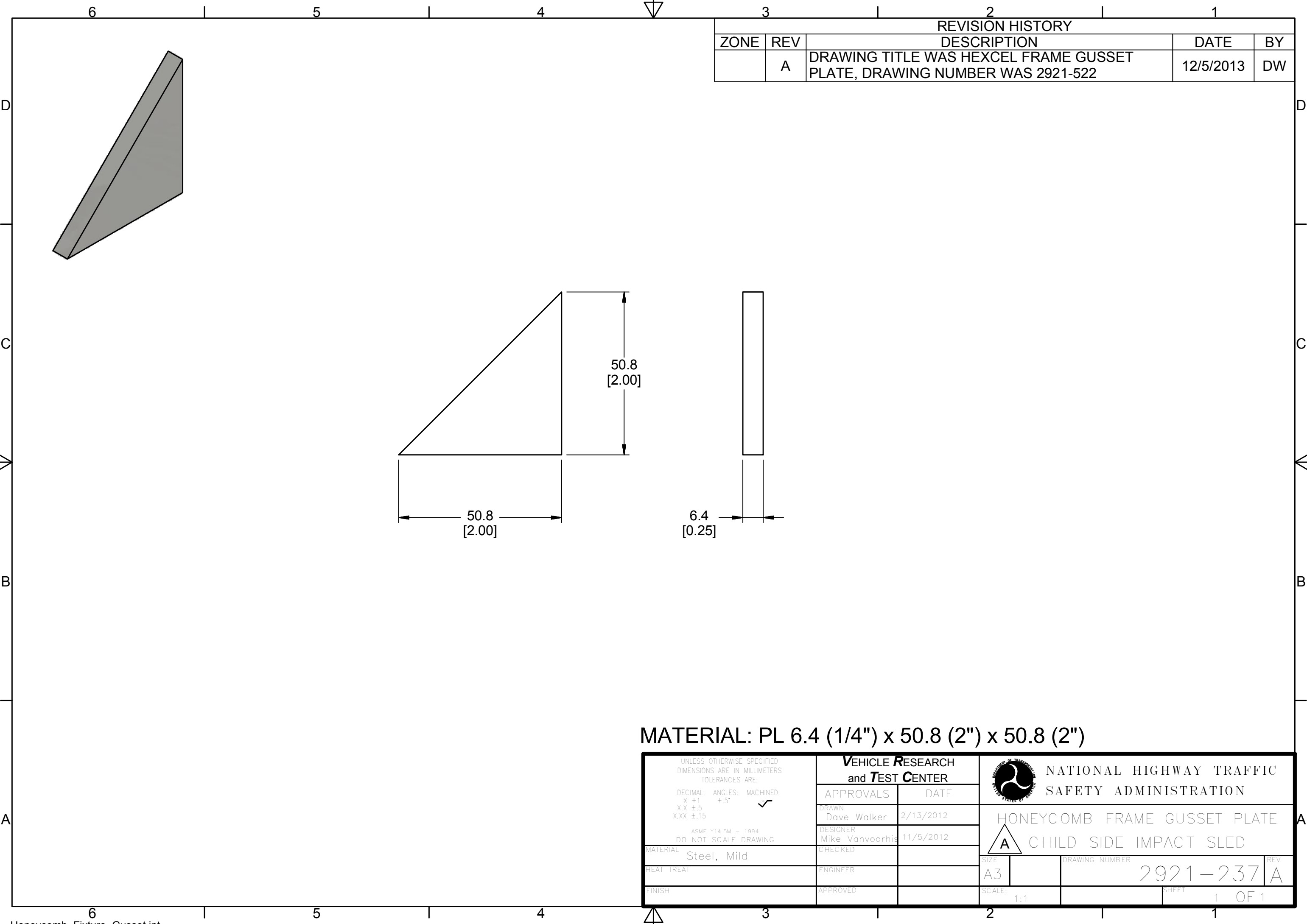
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 XX ±.5 XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	HONEYCOMB FRAME BUMPER TUBE	
		DRAWN Dave Walker	2/13/2012	 CHILD SIDE IMPACT SLED	
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL	Steel, Mild	CHECKED		SIZE	DRAWING NUMBER
HEAT TREAT		ENGINEER		A3	2921-235
FINISH		APPROVED		SCALE: 1:1	REV A
				SHEET	1 OF 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS HEXCEL FRAME BUMPER TUBE END CAP, DRAWING NUMBER WAS 2921-521	12/5/2013	DW



MATERIAL: PL 9.5 (3/8") x 50.8 (2") x 76.2 (3")

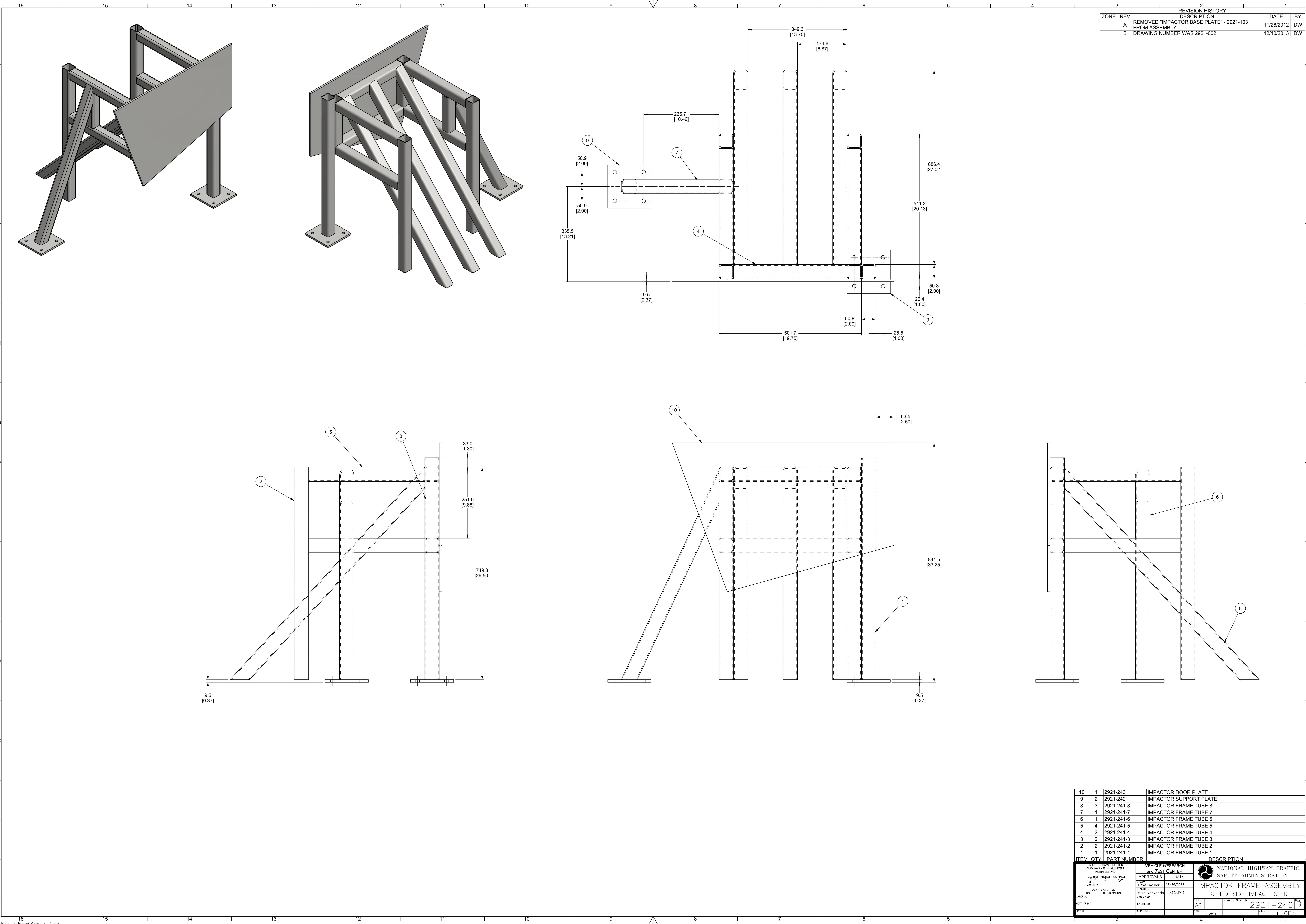
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±5° ✓ XX ±.5 XXX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER	 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE	 HONEYCOMB FRAME BUMPER TUBE END CAP CHILD SIDE IMPACT SLED	
	DRAWN Dave Walker	2/13/2012		
	DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild	CHECKED		SIZE A3	DRAWING NUMBER 2921-236
HEAT TREAT	ENGINEER		SCALE: 1:1	REV A
FINISH	APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS HEXCEL FRAME GUSSET PLATE, DRAWING NUMBER WAS 2921-522	12/5/2013	DW

MATERIAL: PL 6.4 (1/4") x 50.8 (2") x 50.8 (2")

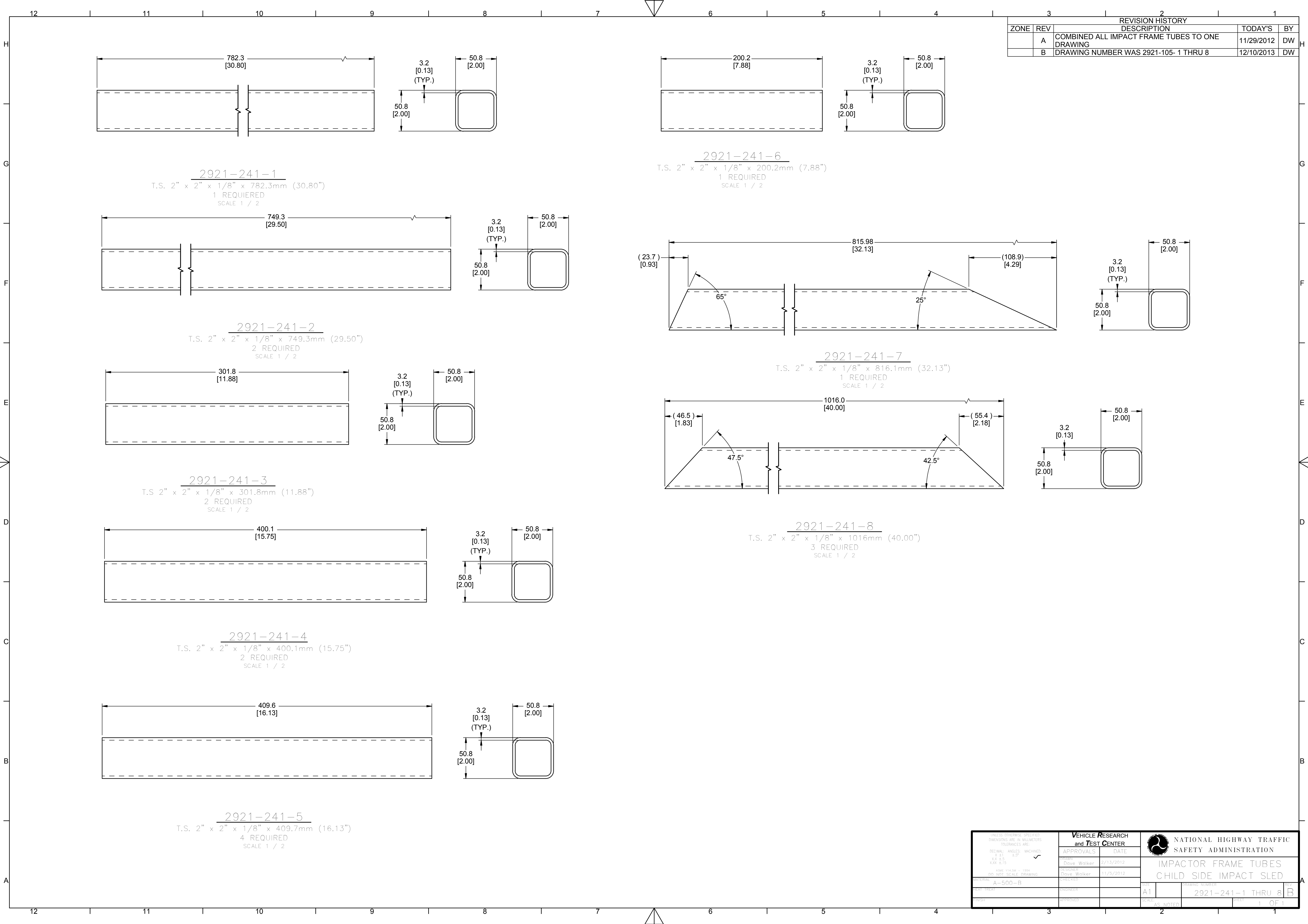
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	 HONEYCOMB FRAME GUSSET PLATE CHILD SIDE IMPACT SLED	
		DRAWN Dave Walker	2/13/2012		
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild		CHECKED		SIZE A3	DRAWING NUMBER 2921-237
HEAT TREAT		ENGINEER		SCALE: 1:1	REV A
FINISH		APPROVED		SHEET 1 OF 1	



REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE
	A	REMOVED "IMPACTOR BASE PLATE" - 2921-103	11/26/2012
	B	DRAWING NUMBER WAS 2921-002	12/10/2013

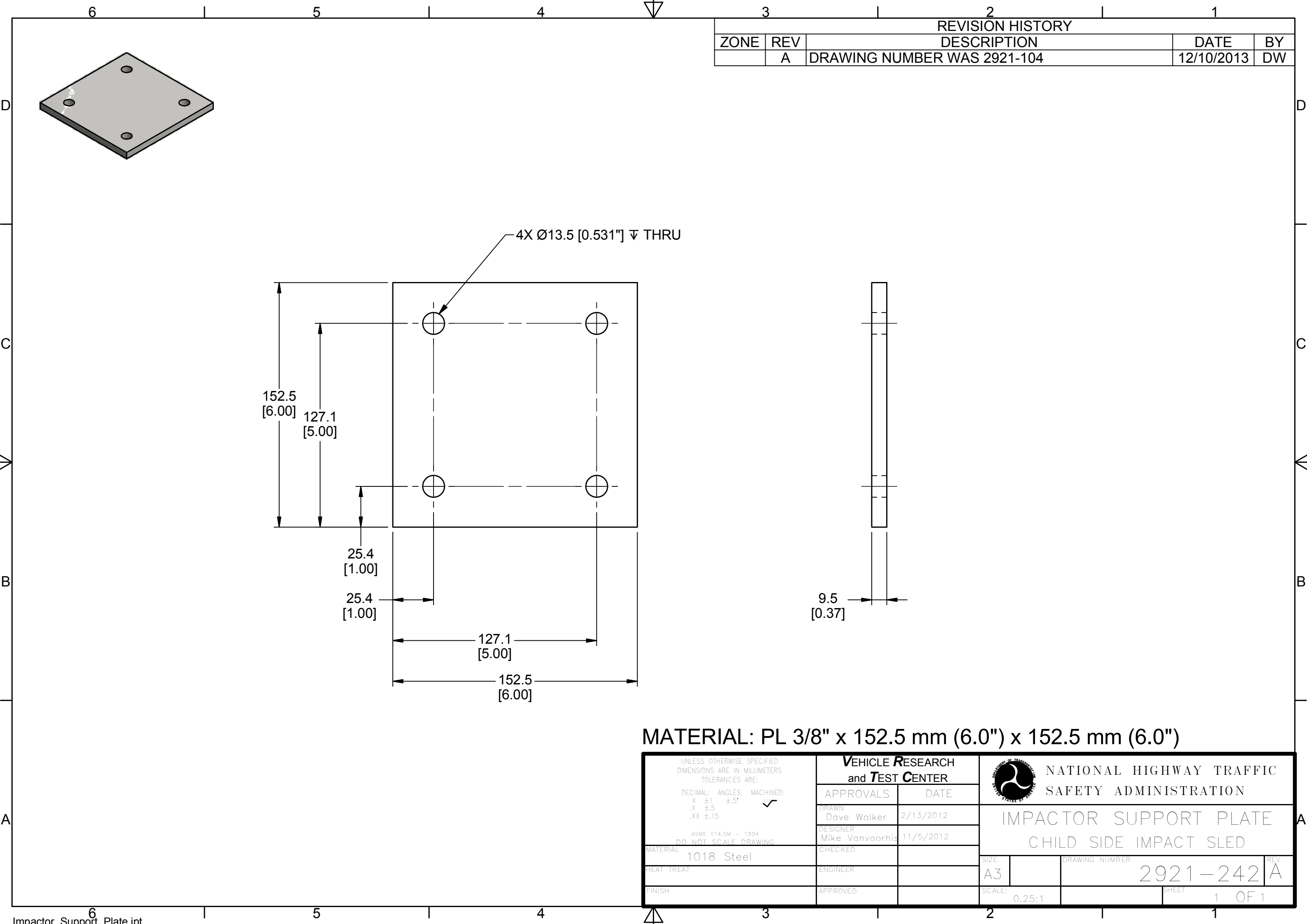
10	1	2921-243	IMPACTOR DOOR PLATE
9	2	2921-242	IMPACTOR SUPPORT PLATE
8	3	2921-241-8	IMPACTOR FRAME TUBE 8
7	1	2921-241-7	IMPACTOR FRAME TUBE 7
6	1	2921-241-6	IMPACTOR FRAME TUBE 6
5	4	2921-241-5	IMPACTOR FRAME TUBE 5
4	2	2921-241-4	IMPACTOR FRAME TUBE 4
3	2	2921-241-3	IMPACTOR FRAME TUBE 3
2	2	2921-241-2	IMPACTOR FRAME TUBE 2
1	1	2921-241-1	IMPACTOR FRAME TUBE 1

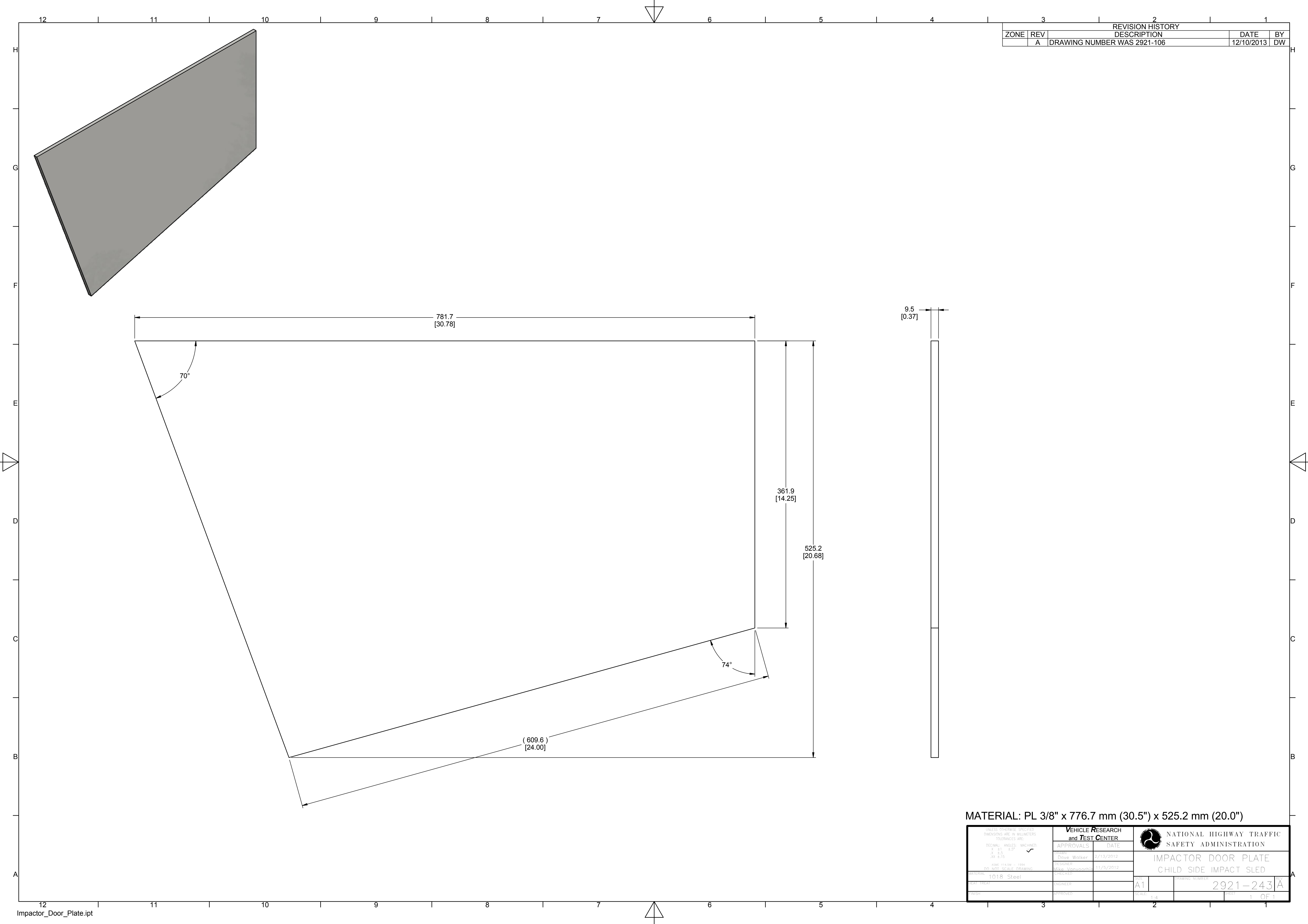
ITEM	QTY	PART NUMBER	DESCRIPTION
VEHICLE RESEARCH and TEST CENTER			
APPROVALS		DATE	
DESIGNED BY: Mike Walker		11/28/2012	
CHECKED BY: Mike Vanvooris		11/28/2012	
DATE: AO		DRAWING NUMBER: 2921-240	
SCALE: 0.25:1		SHEET: 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	TODAY'S	BY
	A	COMBINED ALL IMPACT FRAME TUBES TO ONE DRAWING	11/29/2012	DW
	B	DRAWING NUMBER WAS 2921-105- 1 THRU 8	12/10/2013	DW

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL ANGLES: MACHINED: X .1 XX .5 XXX .15		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
APPROVALS:		DATE		IMPACTOR FRAME TUBES CHILD SIDE IMPACT SLED	
DESIGNER Dave Walker		11/5/2012		DRAWING NUMBER 2921-241-1 THRU 8	
ENGINEER				1 OF 1	
FINISH		SCALE: AS NOTED			

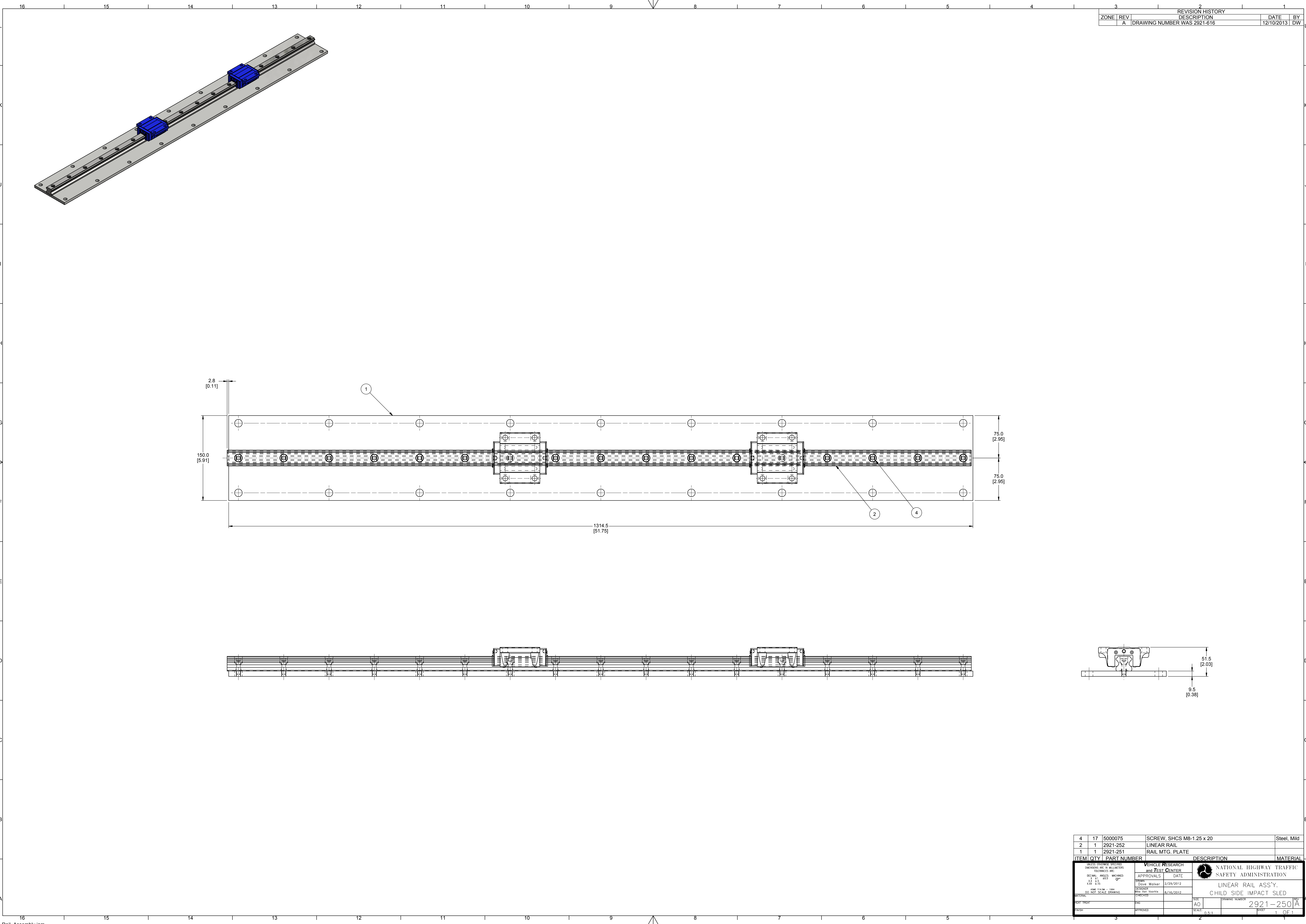




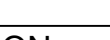
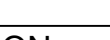
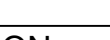
REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE
	A	DRAWING NUMBER WAS 2921-106	12/10/2013
			BY DW

MATERIAL: PL 3/8" x 776.7 mm (30.5") x 525.2 mm (20.0")

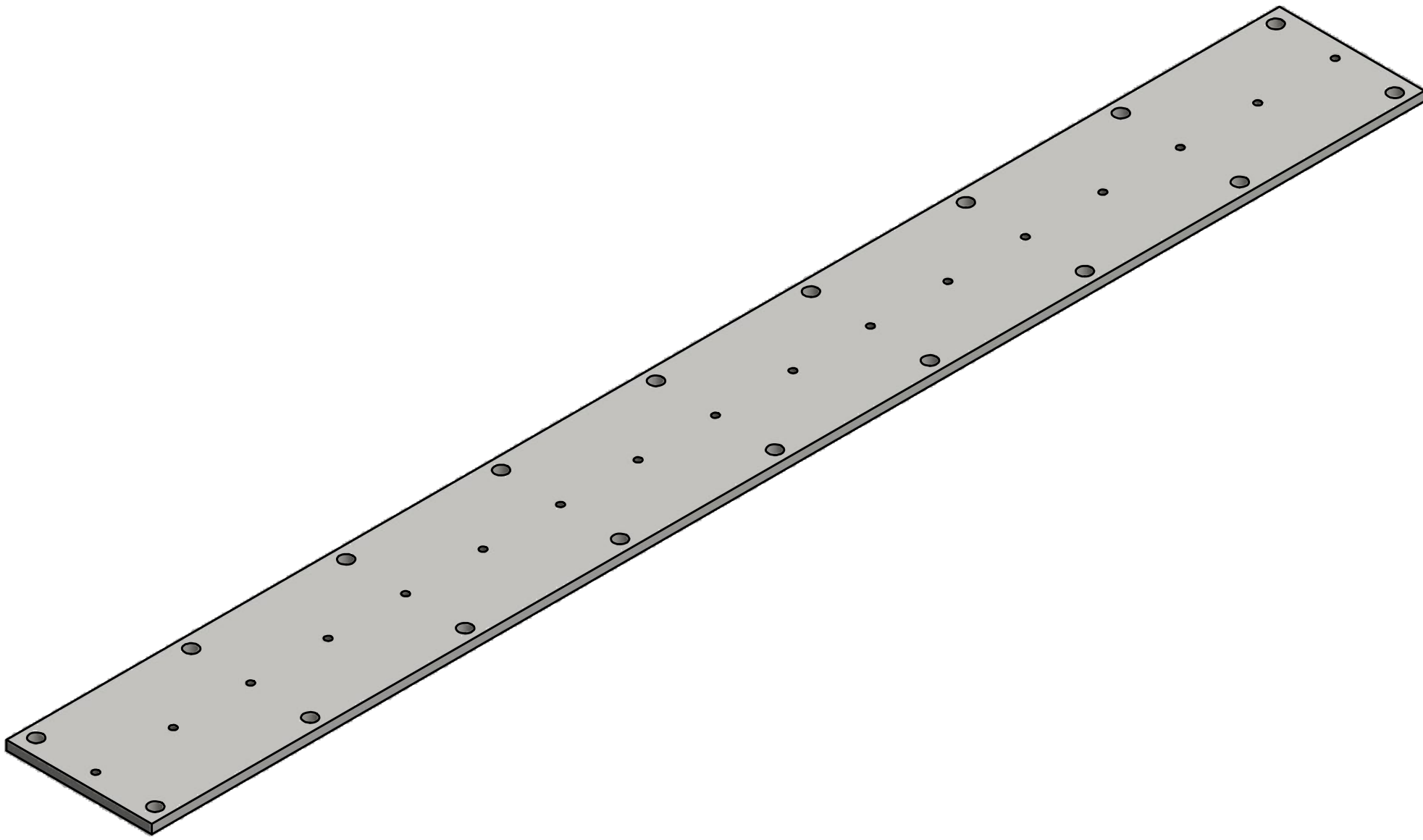
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL ANGLES MACHINED: X .11 .5° X .15 XX .15		VEHICLE RESEARCH and TEST CENTER		APPROVALS: DATE		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
DESIGNER: Mike Vanvorachit		CHECKER:		DATE: 11/5/2012		IMPACTOR DOOR PLATE CHILD SIDE IMPACT SLED	
MATERIAL: 1018 Steel		FINISH:		ENGINEER:		SCALE: 1:1	1 OF 1
						SIZE: A1	DRAWING NUMBER: 2921-243



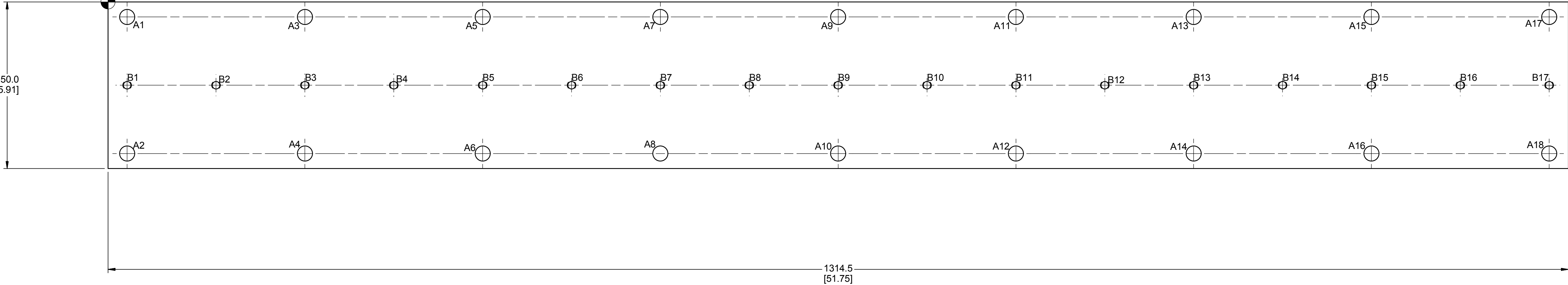
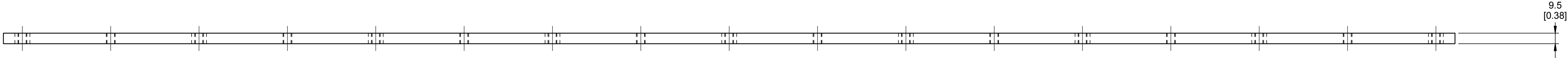
REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE
A	1	DRAWING NUMBER WAS 2921-616	12/10/2013

4	17	5000075	SCREW, SHCS M8-1.25 x 20	Steel, Mild																	
2	1	2921-252	LINEAR RAIL																		
1	1	2921-251	RAIL MTG. PLATE																		
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL																	
<table><tr><td colspan="2">UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ROUNDED 1/16 0.031 0° 0° 1/8 0.062 1/16 0.062 1/4 0.125 1/8 0.125 1/2 0.250 1/4 0.250 1 0.500 1/2 0.500 2 1.000 1 1.000 DO NOT SCALE DRAWING</td><td colspan="2"> VEHICLE RESEARCH AND TEST CENTER APPROVALS DATE TYPED NAME DATE Dave Walker 2/29/2012 CHECKED Mike Van Vleet 8/16/2012</td><td rowspan="4">NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION LINEAR RAIL ASS'Y. CHILD SIDE IMPACT SLED 2921-250A SCALE: 0.5:1 SHEET 1 OF 1</td></tr><tr><td colspan="2">NATIONAL</td><td colspan="2">DATE</td></tr><tr><td colspan="2">TEXT TREAT</td><td colspan="2">DWG</td></tr><tr><td colspan="2">BY</td><td colspan="2">APPROVED</td></tr></table>					UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ROUNDED 1/16 0.031 0° 0° 1/8 0.062 1/16 0.062 1/4 0.125 1/8 0.125 1/2 0.250 1/4 0.250 1 0.500 1/2 0.500 2 1.000 1 1.000 DO NOT SCALE DRAWING		 VEHICLE RESEARCH AND TEST CENTER APPROVALS DATE TYPED NAME DATE Dave Walker 2/29/2012 CHECKED Mike Van Vleet 8/16/2012		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION LINEAR RAIL ASS'Y. CHILD SIDE IMPACT SLED 2921-250A SCALE: 0.5:1 SHEET 1 OF 1	NATIONAL		DATE		TEXT TREAT		DWG		BY		APPROVED	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTIONS DECIMALS ANGLES ROUNDED 1/16 0.031 0° 0° 1/8 0.062 1/16 0.062 1/4 0.125 1/8 0.125 1/2 0.250 1/4 0.250 1 0.500 1/2 0.500 2 1.000 1 1.000 DO NOT SCALE DRAWING		 VEHICLE RESEARCH AND TEST CENTER APPROVALS DATE TYPED NAME DATE Dave Walker 2/29/2012 CHECKED Mike Van Vleet 8/16/2012		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION LINEAR RAIL ASS'Y. CHILD SIDE IMPACT SLED 2921-250A SCALE: 0.5:1 SHEET 1 OF 1																	
NATIONAL		DATE																			
TEXT TREAT		DWG																			
BY		APPROVED																			


Hole Table			
HOLE	XDIM	YDIM	DESCRIPTION
A1	17.2	-13.5	Ø13.5 THRU
A2	17.2	-136.5	Ø13.5 THRU
A3	177.2	-13.5	Ø13.5 THRU
A4	177.2	-136.5	Ø13.5 THRU
A5	337.2	-13.5	Ø13.5 THRU
A6	337.2	-136.5	Ø13.5 THRU
A7	497.2	-13.5	Ø13.5 THRU
A8	497.2	-136.5	Ø13.5 THRU
A9	657.2	-13.5	Ø.13.5 THRU
A10	657.2	-136.5	Ø13.5 THRU
A11	817.2	-13.5	Ø13.5 THRU
A12	817.2	-136.5	Ø13.5 THRU
A13	977.2	-13.5	Ø13.5 THRU
A14	977.2	-136.5	Ø13.5 THRU
A15	1137.2	-13.5	Ø13.5 THRU
A16	1137.2	-136.5	Ø13.5 THRU
A17	1297.2	-13.5	Ø13.5 THRU
A18	1297.2	-136.5	Ø13.5 THRU
B1	17.2	-75.0	M8x1.25 - 6H
B2	97.2	-75.0	M8x1.25 - 6H
B3	177.2	-75.0	M8x1.25 - 6H
B4	257.2	-75.0	M8x1.25 - 6H
B5	337.2	-75.0	M8x1.25 - 6H
B6	417.2	-75.0	M8x1.25 - 6H
B7	497.2	-75.0	M8x1.25 - 6H
B8	577.2	-75.0	M8x1.25 - 6H
B9	657.2	-75.0	M8x1.25 - 6H
B10	737.2	-75.0	M8x1.25 - 6H
B11	817.2	-75.0	M8x1.25 - 6H
B12	897.2	-75.0	M8x1.25 - 6H
B13	977.2	-75.0	M8x1.25 - 6H
B14	1057.2	-75.0	M8x1.25 - 6H
B15	1137.2	-75.0	M8x1.25 - 6H
B16	1217.2	-75.0	M8x1.25 - 6H
B17	1297.2	-75.0	M8x1.25 - 6H



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 1314.5 WAS 1790	11/28/2012	DW
	B	DRAWING NUMBER WAS 2921-616	12/10/2013	DW

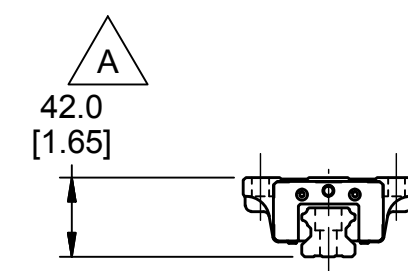
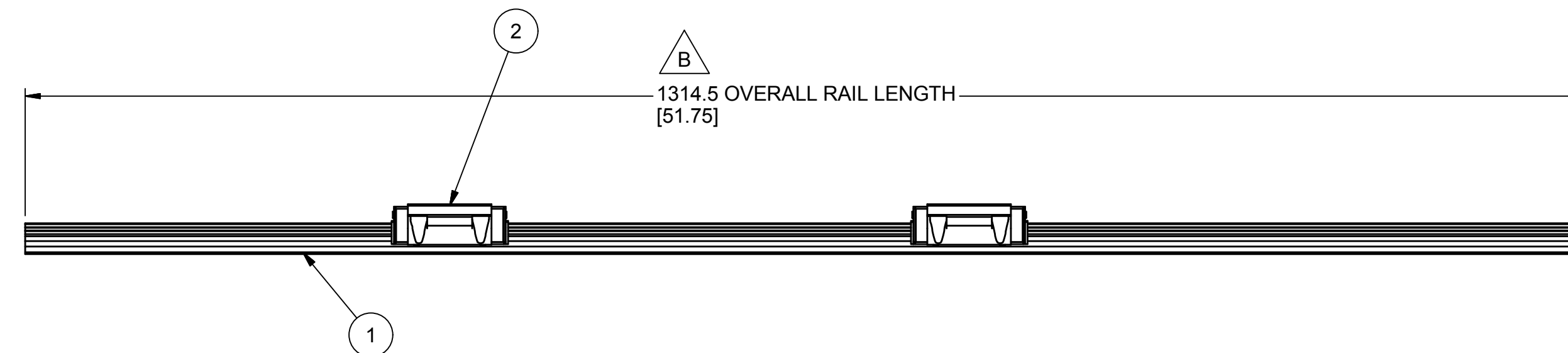
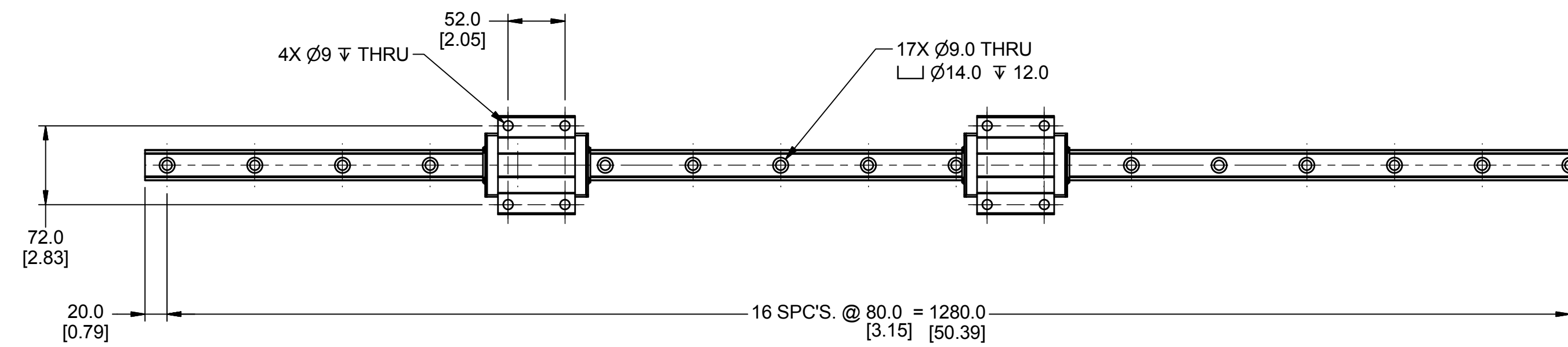
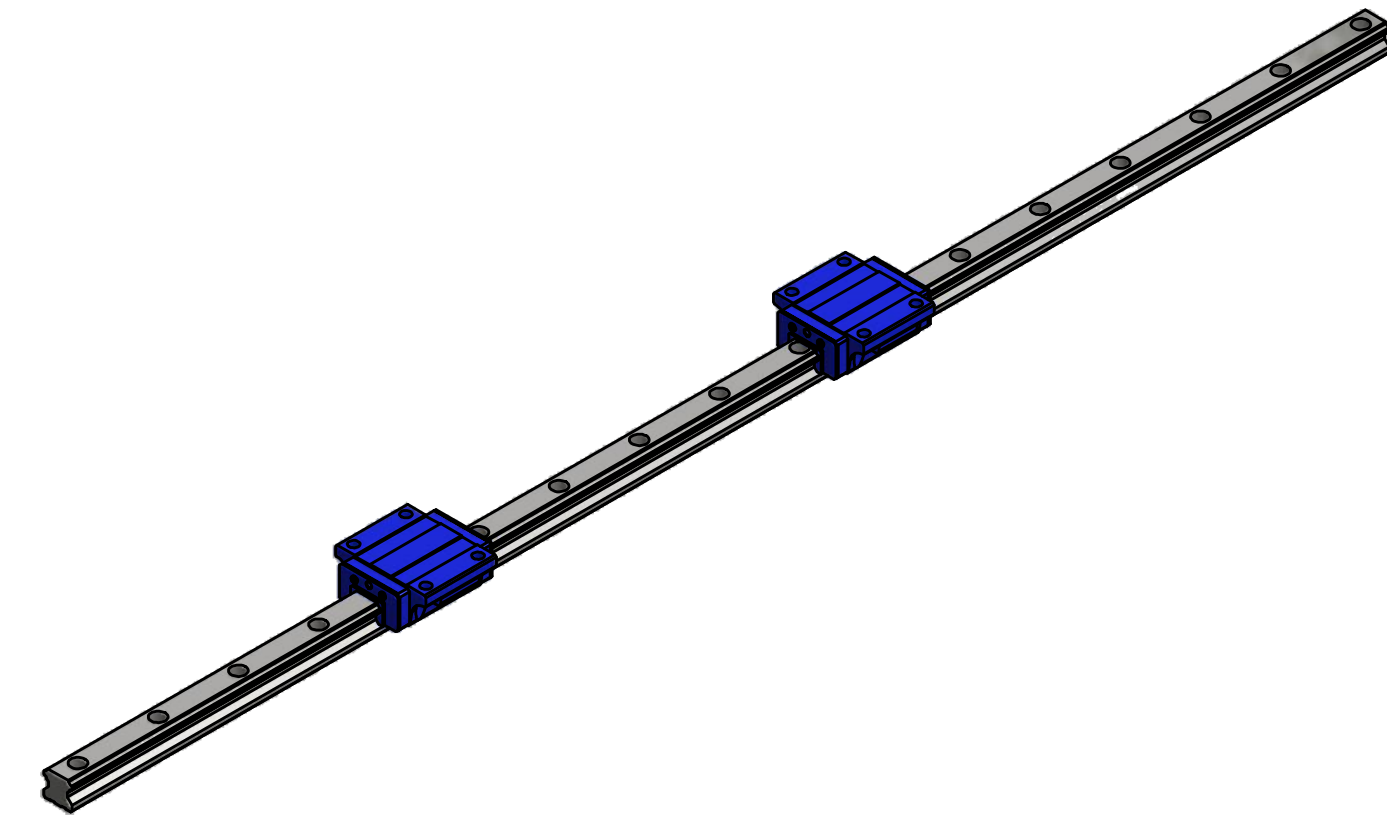


MATERIAL: PL 9.5(3/8") x 150.0(5 7/8") x 1314.5(4'-3 3/4")


UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINES: X ±.1 0.5° XX ±.5 XXX ±1.5 ASM 114.3M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS:	DATE		
	DESIGNER	DATE		
	CHECKER	DATE		
MATERIAL	1018 Steel		SCALE	0.5:1
HEAT TREAT				
FINISH				

RAIL MTG. PLATE	
CHILD SIDE IMPACT SLED	
FIG. A1	DRAWING NUMBER
	2921-251
	1 OF 1

3		2		1	
REVISION HISTORY					
ZONE	REV	DESCRIPTION	DATE	BY	
	A	ADDED ASSEMBLY HEIGHT DIMENSION	2/14/2012	DW	
	B	DIMENSION 1314.5 WAS 1800	11/29/2012	DW	
	C	DRAWING NUMBER WAS 2921-116	12/10/2013	DW	



NOTE:
THK LINEAR MOTION GUIDE MODEL HSR-30B, OR EQUIVALENT

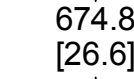
2	2	3000010V	FLANGE TYPE - HEAVY LOAD SLIDER	
1	1	3000001V	LINEAR RAIL - RAIL	
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL
<div style="display: flex; justify-content: space-between;"> <div style="width: 28%;"> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL ANGLES MACHINED X ±1 .05° ✓ X ±1.5 .05° X ±1.5 .1°</p> <p>A496 F14-EM - 1924 DO NOT SCALE DRAWING</p> </div> <div style="width: 28%; text-align: center;"> <p>VEHICLE RESEARCH and TEST CENTER</p> <p>APPROVAL DATE Dave Walker 5/14/2012 Designer Mike Vancornelis 11/5/2012 CHECKED DRAWN INCHES FRESH</p> </div> <div style="width: 30%; text-align: right;">  <p>NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</p> <p>LINEAR RAIL CHILD SIDE IMPACT SLED</p> <p>A1 SCALE: 0.25:1 PART: 1 OF 1</p> </div> </div>				



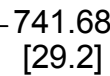
A — B — C

A vertical scale from 0 to 100. The number 0 is at the bottom, and 100 is at the top. A horizontal tick mark is drawn at the 50 position. The letter 'C' is at the top of the scale, and the letter 'B' is at the bottom. The scale is represented by a vertical line with small tick marks every 10 units.


1

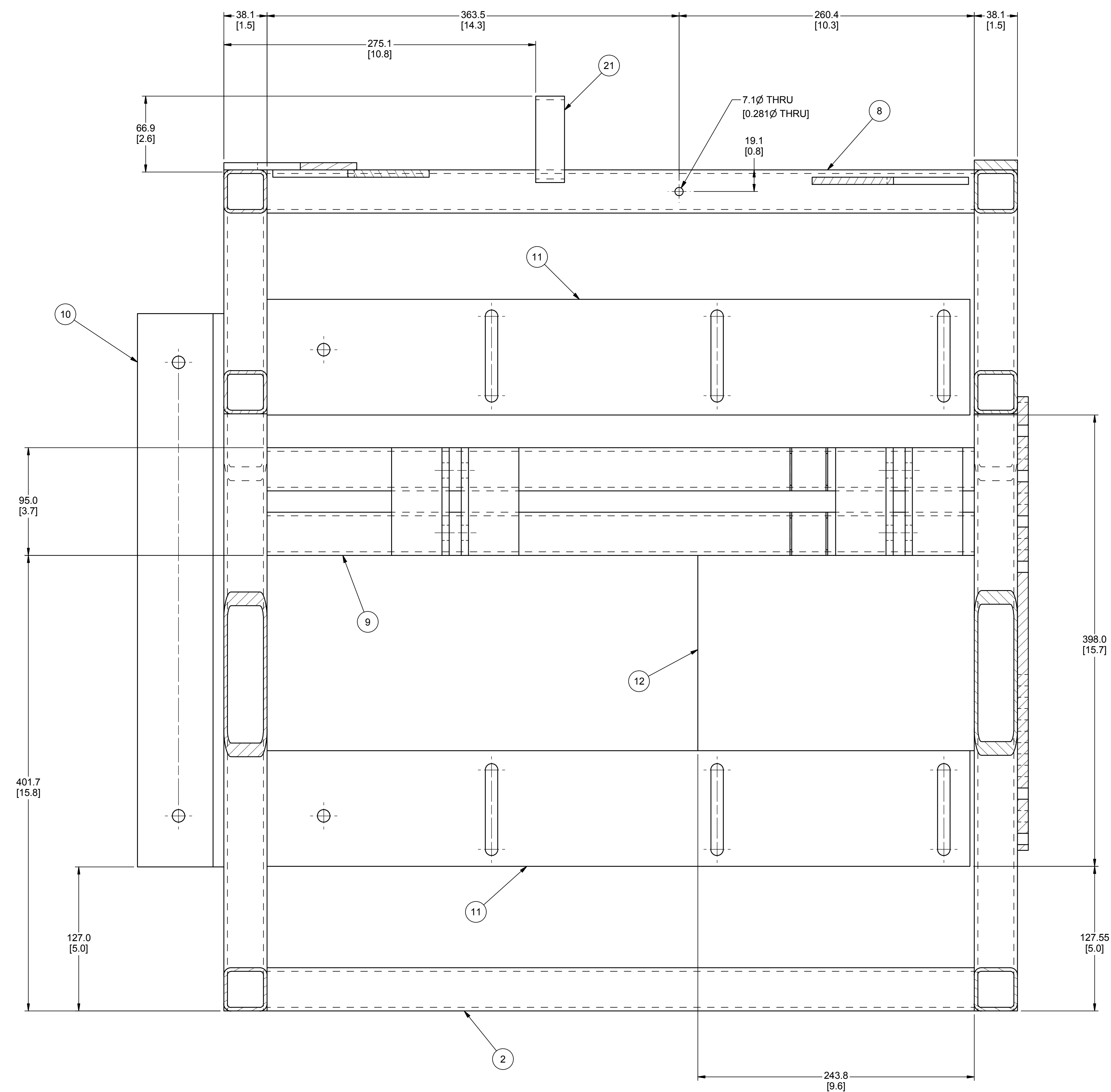


REAR VIEW

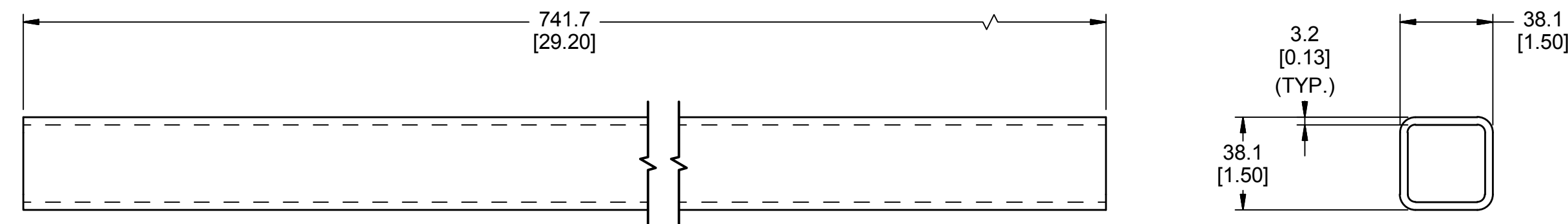


LEFT SIDE VIEW

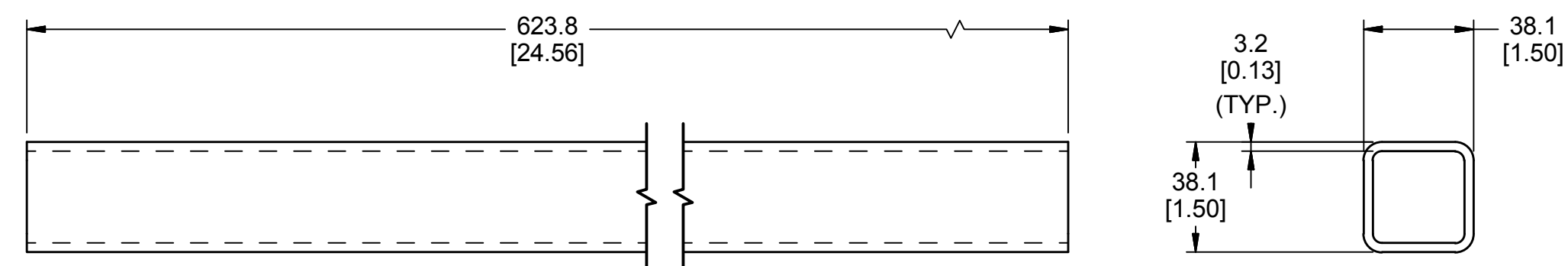
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION 400 NORTH ZEEB ROAD LANSING, MI 48206-1346 (800) 424-9093 FAX (313) 234-6534		VEHICLE RESEARCH AND TEST CENTER APPROVAL NO. DATE Dave Winkler 2/27/2012 Dave Winkler 11/5/2012		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION BENCH FRAME ASSEMBLY CHILD SIDE IMPACT SLED	
TEST NO.	TEST DATE	TEST NO.	TEST DATE	TEST NO.	TEST DATE
101	10/1/2011	102	10/1/2011	103	10/1/2011
104	10/1/2011	105	10/1/2011	106	10/1/2011
107	10/1/2011	108	10/1/2011	109	10/1/2011
110	10/1/2011	111	10/1/2011	112	10/1/2011
113	10/1/2011	114	10/1/2011	115	10/1/2011
116	10/1/2011	117	10/1/2011	118	10/1/2011
119	10/1/2011	120	10/1/2011	121	10/1/2011
122	10/1/2011	123	10/1/2011	124	10/1/2011
125	10/1/2011	126	10/1/2011	127	10/1/2011
128	10/1/2011	129	10/1/2011	130	10/1/2011
131	10/1/2011	132	10/1/2011	133	10/1/2011
134	10/1/2011	135	10/1/2011	136	10/1/2011
137	10/1/2011	138	10/1/2011	139	10/1/2011
140	10/1/2011	141	10/1/2011	142	10/1/2011
143	10/1/2011	144	10/1/2011	145	10/1/2011
146	10/1/2011	147	10/1/2011	148	10/1/2011
149	10/1/2011	150	10/1/2011	151	10/1/2011
152	10/1/2011	153	10/1/2011	154	10/1/2011
155	10/1/2011	156	10/1/2011	157	10/1/2011
158	10/1/2011	159	10/1/2011	160	10/1/2011
161	10/1/2011	162	10/1/2011	163	10/1/2011
164	10/1/2011	165	10/1/2011	166	10/1/2011
167	10/1/2011	168	10/1/2011	169	10/1/2011
170	10/1/2011	171	10/1/2011	172	10/1/2011
173	10/1/2011	174	10/1/2011	175	10/1/2011
176	10/1/2011	177	10/1/2011	178	10/1/2011
179	10/1/2011	180	10/1/2011	181	10/1/2011
182	10/1/2011	183	10/1/2011	184	10/1/2011
185	10/1/2011	186	10/1/2011	187	10/1/2011
188	10/1/2011	189	10/1/2011	190	10/1/2011
191	10/1/2011	192	10/1/2011	193	10/1/2011
194	10/1/2011	195	10/1/2011	196	10/1/2011
197	10/1/2011	198	10/1/2011	199	10/1/2011
200	10/1/2011	201	10/1/2011	202	10/1/2011
203	10/1/2011	204	10/1/2011	205	10/1/2011
206	10/1/2011	207	10/1/2011	208	10/1/2011
209	10/1/2011	210	10/1/2011	211	10/1/2011
212	10/1/2011	213	10/1/2011	214	10/1/2011
215	10/1/2011	216	10/1/2011	217	10/1/2011
218	10/1/2011	219	10/1/2011	220	10/1/2011
221	10/1/2011	222	10/1/2011	223	10/1/2011
224	10/1/2011	225	10/1/2011	226	10/1/2011
227	10/1/2011	228	10/1/2011	229	10/1/2011
230	10/1/2011	231	10/1/2011	232	10/1/2011
233	10/1/2011	234	10/1/2011	235	10/1/2011
236	10/1/2011	237	10/1/2011	238	10/1/2011
239	10/1/2011	240	10/1/2011	241	10/1/2011
242	10/1/2011	243	10/1/2011	244	10/1/2011

[illegible]

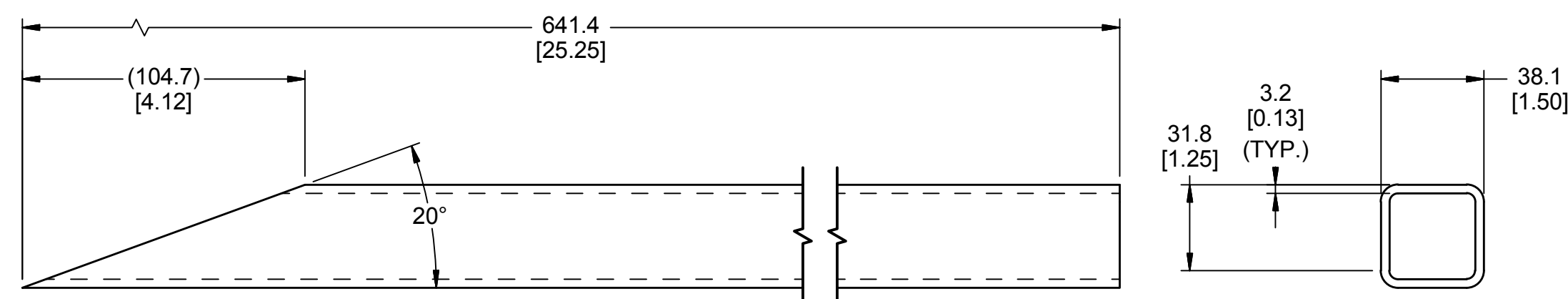
3		2		1	
ZONE	REV	REVISION HISTORY DESCRIPTION	TODAY'S	BY	
	A	COMBINED BENCH FRAME TUBES 2921-200-1 THRU 2921-200-7 INTO ONE DRAWING	11/30/2012	DW	
	B	DRAWING NUMBER WAS 2921-200-1 THRU 7, ADDED 2921-311-8	12/10/2013	DW	



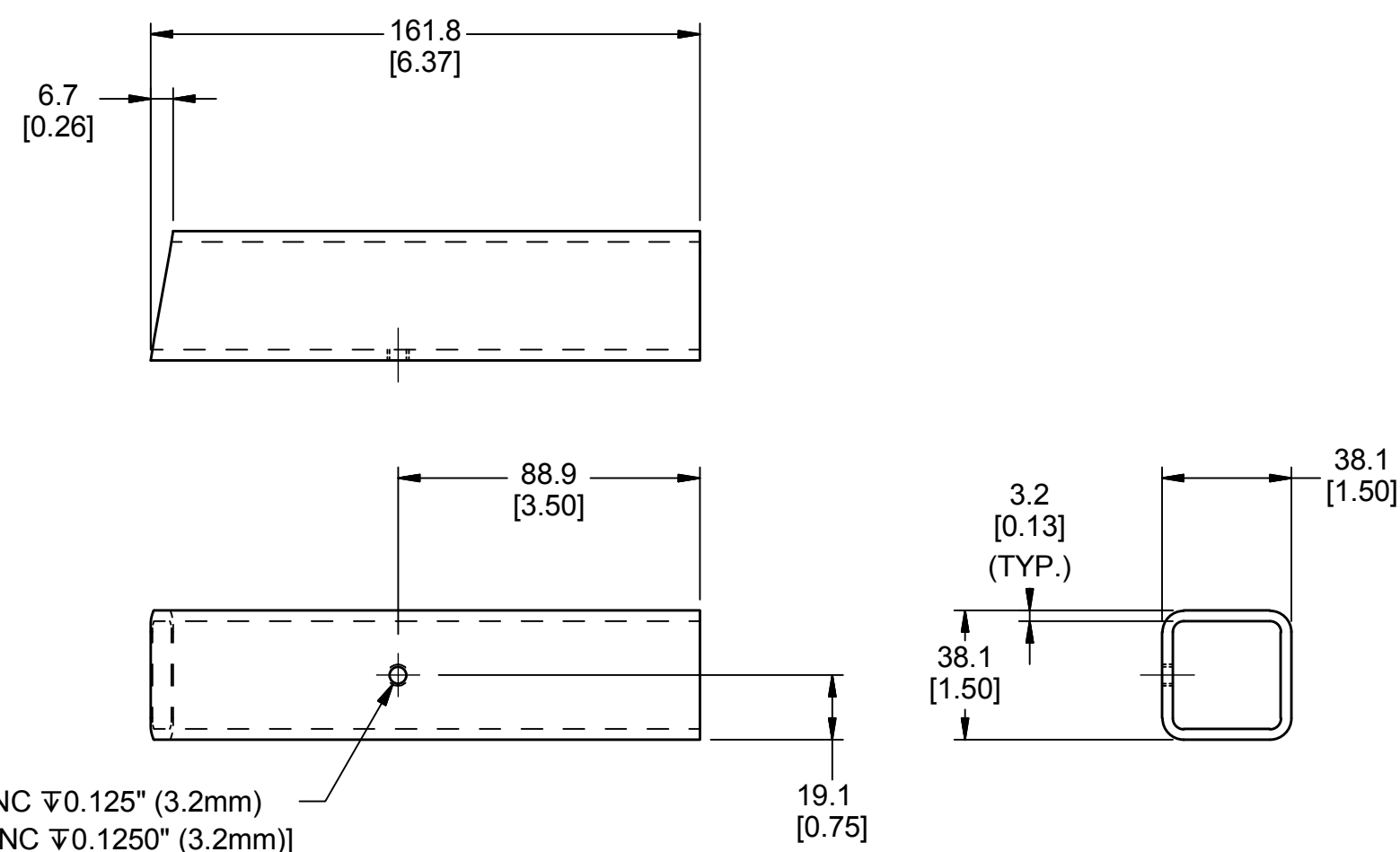
2921-311-1
T.S. 1 1/2 x 1 1/2 x 1/8 x 741.7mm (29.20")
2 REQUIRED
SCALE 1 / 2



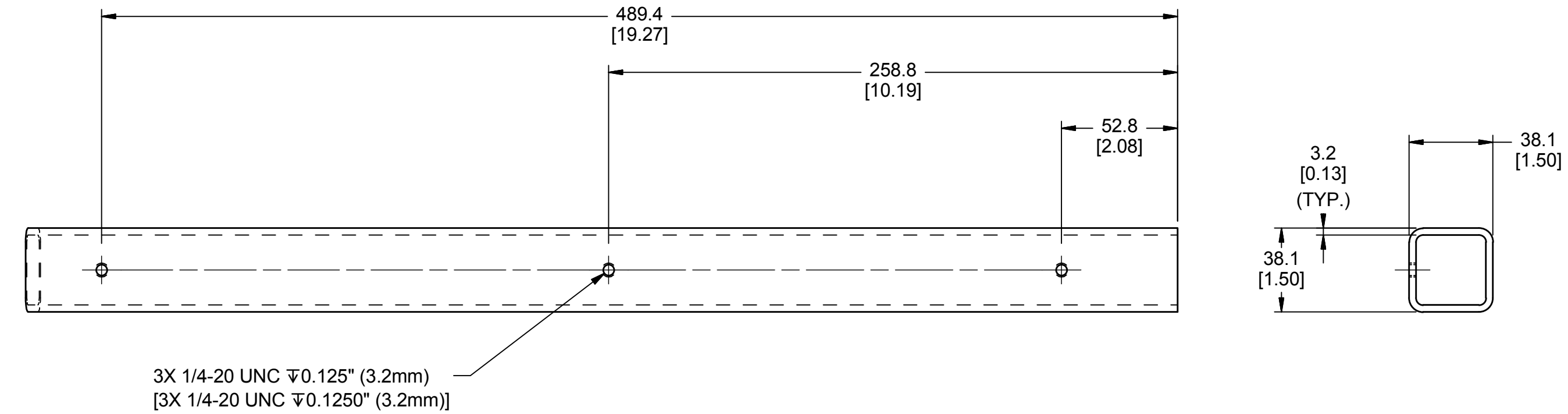
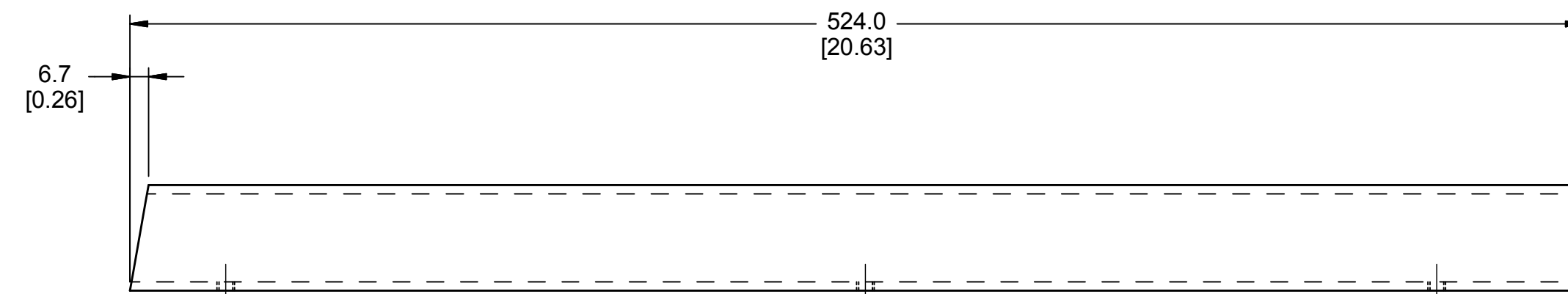
2921-311-2
T.S. 1 1/2 x 1 1/2 x 1/8 x 623.8mm (24.56")
3 REQUIRED
SCALE 1 / 2



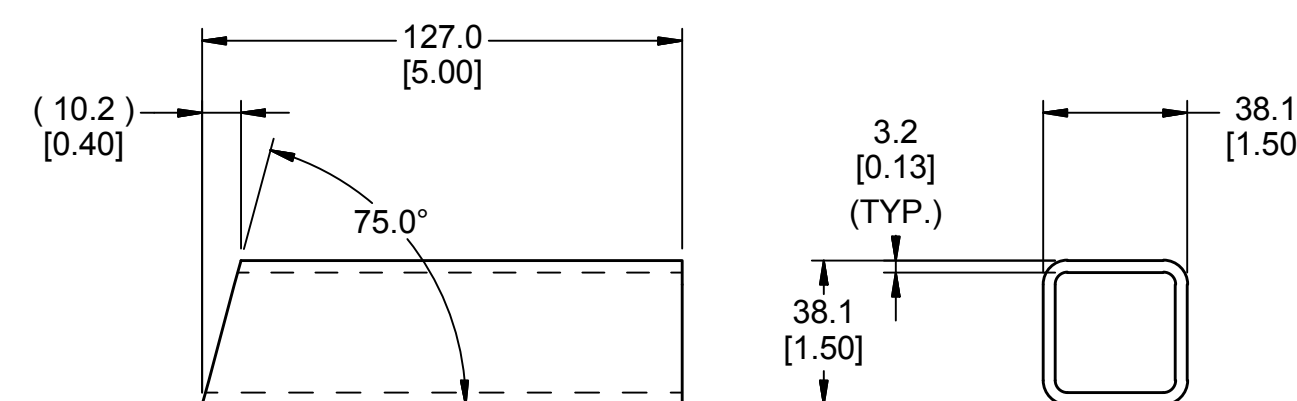
2921-311-3
T.S. 1 1/2 x 1 1/2 x 1/8 x 641.4mm (25.25")
2 REQUIRED
SCALE 1 / 2



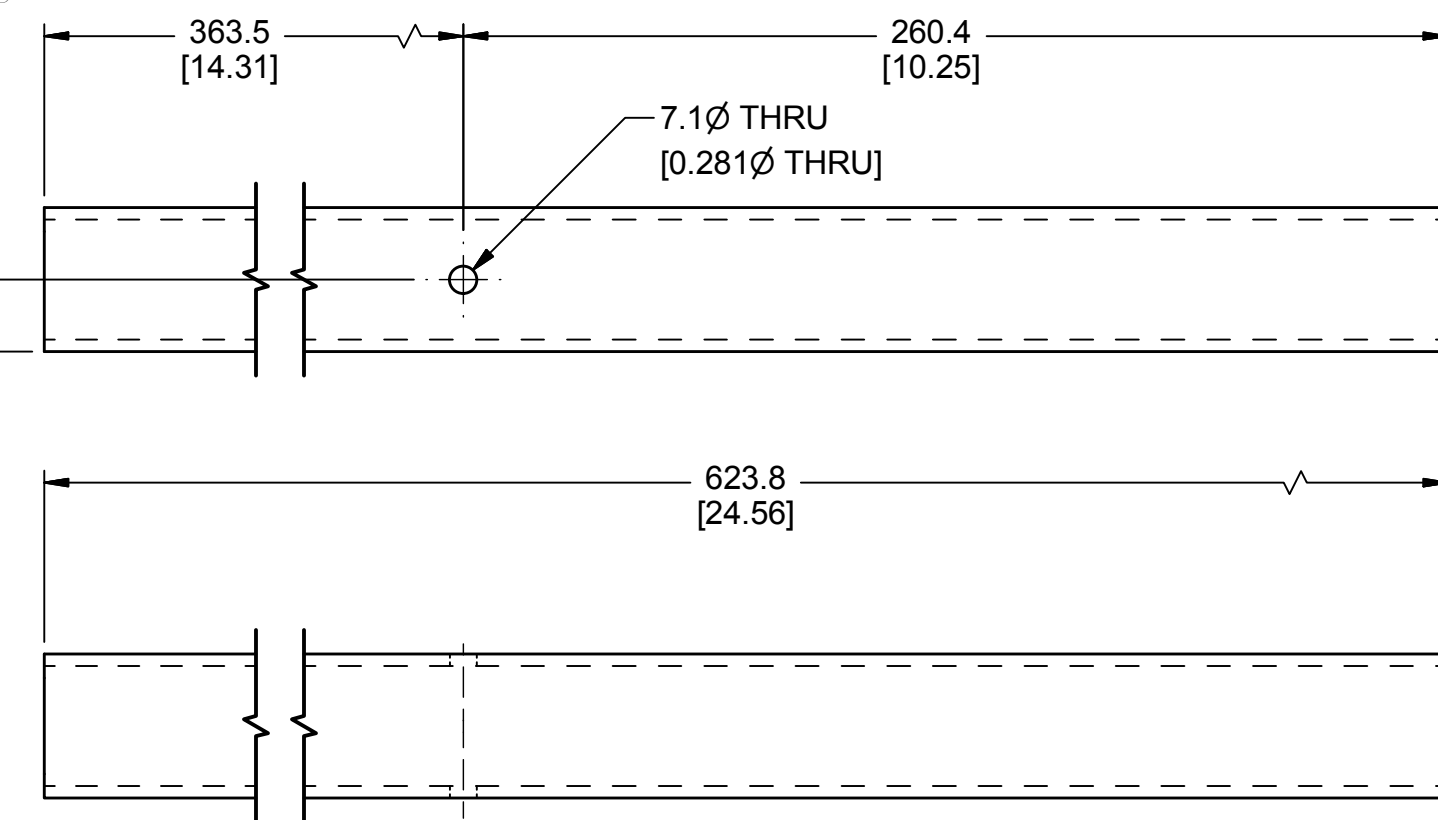
BENCH FRAME TUBE #4
T.S. 1 1/2 x 1 1/2 x 1/8 x 11.8mm (6.37")
2 REQUIRED
SCALE 1 / 2



2921-311-5
T.S. 1 1/2 x 1 1/2 x 1/8 x 524.0mm (20.63")
2 REQUIRED
SCALE 1 / 2



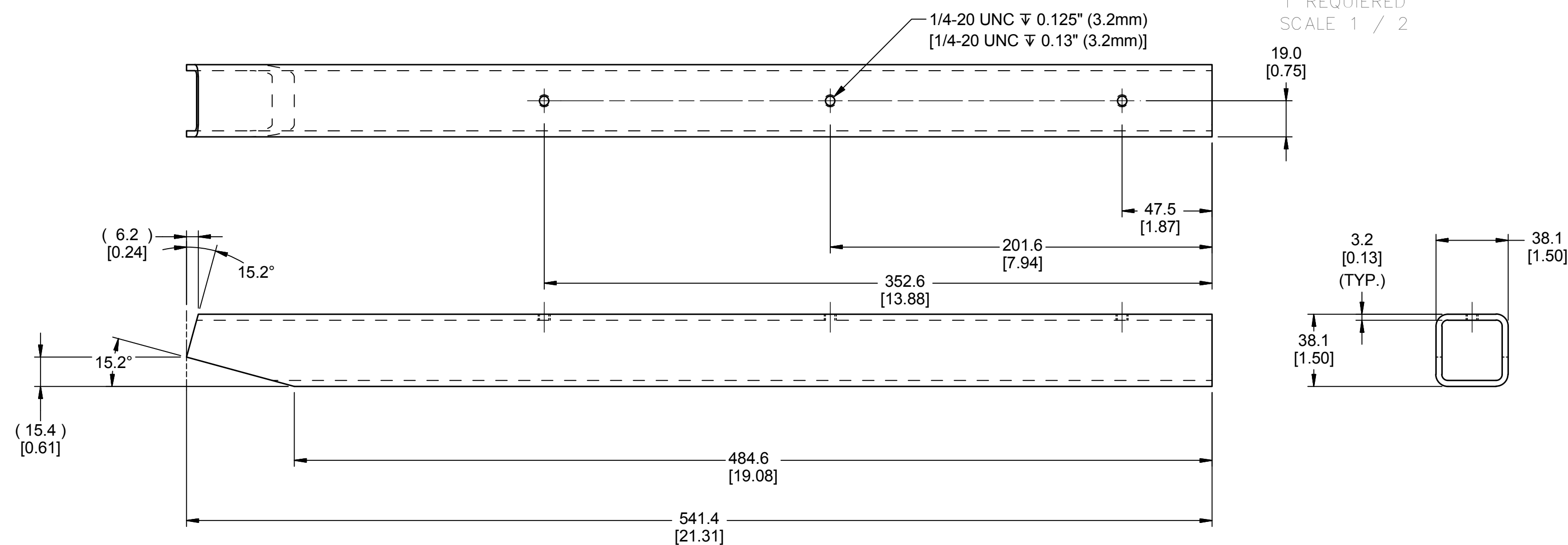
2921-311-6
T.S. 1 1/2 x 1 1/2 x 1/8 x 127.0mm (5.0")
2 REQUIRED
SCALE 1 / 2



2921-311-8

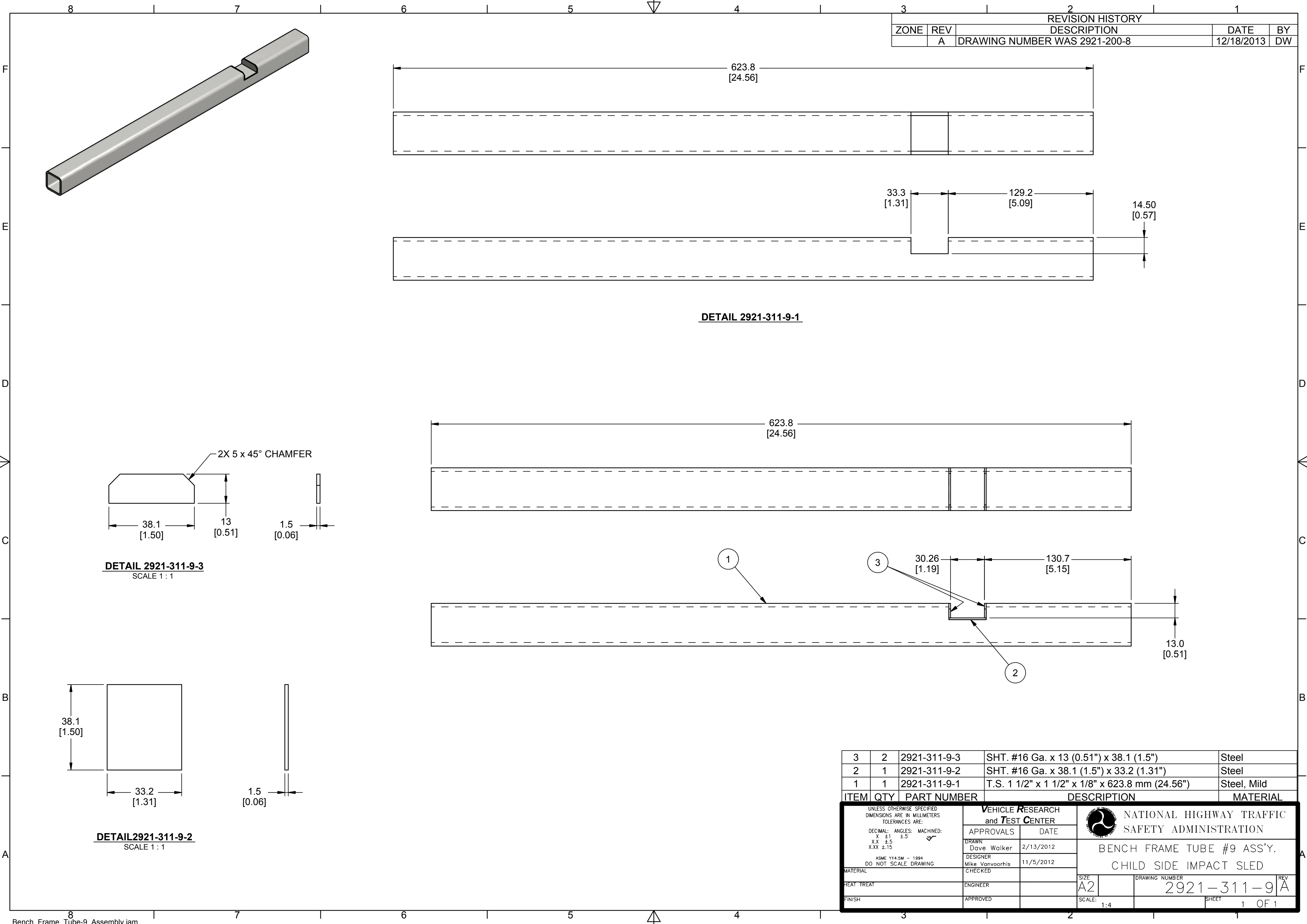
T.S. 1 1/2 x 1 1/2 x 1/8 x 623.8mm (24.56")
1 REQUIRED
SCALE 1 / 2

"(3.2mm)



2921-311-7
T.S. 1 1/2 x 1 1/2 x 1/8 x 545.6mm (21.31")
2 REQUIRED
SCALE 1 / 2

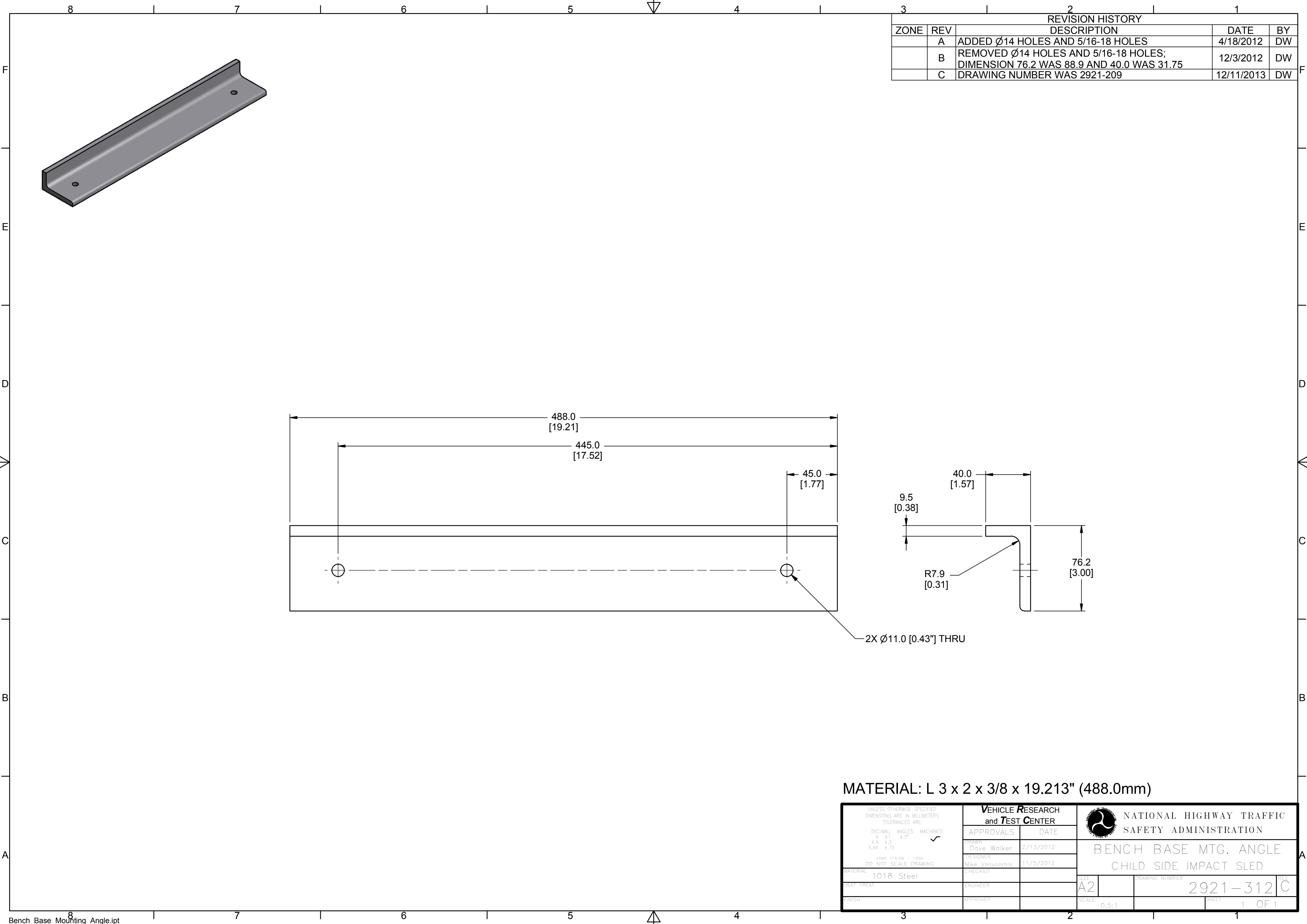
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTIONS DECIMALS ANGLES MICRONS .01 .1 .15 .05 .02 .2 .25 .05 .03 .3 .35 .05 .04 .4 .45 .05 .05 .5 .55 .05 .06 .6 .65 .05 .07 .7 .75 .05 .08 .8 .85 .05 .09 .9 .95 .05 .10 1.0 1.05 .05 .12 1.2 1.25 .05 .15 1.5 1.55 .05 .20 2.0 2.05 .05 .25 2.5 2.55 .05 .30 3.0 3.05 .05 .35 3.5 3.55 .05 .40 4.0 4.05 .05 .45 4.5 4.55 .05 .50 5.0 5.05 .05 .55 5.5 5.55 .05 .60 6.0 6.05 .05 .65 6.5 6.55 .05 .70 7.0 7.05 .05 .75 7.5 7.55 .05 .80 8.0 8.05 .05 .85 8.5 8.55 .05 .90 9.0 9.05 .05 .95 9.5 9.55 .05 1.0 10.0 10.05 .05 1.2 12.0 12.05 .05 1.5 15.0 15.05 .05 2.0 20.0 20.05 .05 2.5 25.0 25.05 .05 3.0 30.0 30.05 .05 3.5 35.0 35.05 .05 4.0 40.0 40.05 .05 4.5 45.0 45.05 .05 5.0 50.0 50.05 .05 5.5 55.0 55.05 .05 6.0 60.0 60.05 .05 6.5 65.0 65.05 .05 7.0 70.0 70.05 .05 7.5 75.0 75.05 .05 8.0 80.0 80.05 .05 8.5 85.0 85.05 .05 9.0 90.0 90.05 .05 9.5 95.0 95.05 .05 10.0 100.0 100.05 .05 12.0 120.0 120.05 .05 15.0 150.0 150.05 .05 20.0 200.0 200.05 .05 25.0 250.0 250.05 .05 30.0 300.0 300.05 .05 35.0 350.0 350.05 .05 40.0 400.0 400.05 .05 45.0 450.0 450.05 .05 50.0 500.0 500.05 .05 55.0 550.0 550.05 .05 60.0 600.0 600.05 .05 65.0 650.0 650.05 .05 70.0 700.0 700.05 .05 75.0 750.0 750.05 .05 80.0 800.0 800.05 .05 85.0 850.0 850.05 .05 90.0 900.0 900.05 .05 95.0 950.0 950.05 .05 100.0 1000.0 1000.05 .05 120.0 1200.0 1200.05 .05 150.0 1500.0 1500.05 .05 200.0 2000.0 2000.05 .05 250.0 2500.0 2500.05 .05 300.0 3000.0 3000.05 .05 350.0 3500.0 3500.05 .05 400.0 4000.0 4000.05 .05 450.0 4500.0 4500.05 .05 500.0 5000.0 5000.05 .05 550.0 5500.0 5500.05 .05 600.0 6000.0 6000.05 .05 650.0 6500.0 6500.05 .05 700.0 7000.0 7000.05 .05 750.0 7500.0 7500.05 .05 800.0 8000.0 8000.05 .05 850.0 8500.0 8500.05 .05 900.0 9000.0 9000.05 .05 950.0 9500.0 9500.05 .05 1000.0 10000.0 10000.05 .05 1200.0 12000.0 12000.05 .05 1500.0 15000.0 15000.05 .05 2000.0 20000.0 20000.05 .05 2500.0 25000.0 25000.05 .05 3000.0 30000.0 30000.05 .05 3500.0 35000.0 35000.05 .05 4000.0 40000.0 40000.05 .05 4500.0 45000.0 45000.05 .05 5000.0 50000.0 50000.05 .05 5500.0 55000.0 55000.05 .05 6000.0 60000.0 60000.05 .05 6500.0 65000.0 65000.05 .05 7000.0 70000.0 70000.05 .05 7500.0 75000.0 75000.05 .05 8000.0 80000.0 80000.05 .05 8500.0 85000.0 85000.05 .05 9000.0 90000.0 90000.05 .05 9500.0 95000.0 95000.05 .05 10000.0 100000.0 100000.05 .05 12000.0 120000.0 120000.05 .05 15000.0 150000.0 150000.05 .05 20000.0 200000.0 200000.05 .05 25000.0 250000.0 250000.05 .05 30000.0 300000.0 300000.05 .05 35000.0 350000.0 350000.05 .05 40000.0 400000.0 400000.05 .05 45000.0 450000.0 450000.05 .05 50000.0 500000.0 500000.05 .05 55000.0 550000.0 550000.05 .05 60000.0 600000.0 600000.05 .05 65000.0 650000.0 650000.05 .05 70000.0 700000.0 700000.05 .05 75000.0 750000.0 750000.05 .05 80000.0 800000.0 800000.05 .05 85000.0 850000.0 850000.05 .05 90000.0 900000.0 900000.05 .05 95000.0 950000.0 950000.05 .05 100000.0 1000000.0 1000000.05 .05 120000.0 1200000.0 1200000.05 .05 150000.0 1500000.0 1500000.05 .05 200000.0 2000000.0 2000000.05 .05 250000.0 2500000.0 2500000.05 .05 300000.0 3000000.0 3000000.05 .05 350000.0 3500000.0 3500000.05 .05 400000.0 4000000.0 4000000.05 .05 450000.0 4500000.0 4500000.05 .05 500000.0 5000000.0 5000000.05 .05 550000.0 5500000.0 5500000.05 .05 600000.0 6000000.0 6000000.05 .05 650000.0 6500000.0 6500000.05 .05 700000.0 7000000.0 7000000.05 .05 750000.0 7500000.0 7500000.05 .05 800000.0 8000000.0 8000000.05 .05 850000.0 8500000.0 8500000.05 .05 900000.0 9000000.0 9000000.05 .05 950000.0 9500000.0 9500000.05 .05 1000000.0 10000000.0 10000000.05 .05 1200000.0 12000000.0 12000000.05 .05 1500000.0 15000000.0 15000000.05 .05 2000000.0 20000000.0 20000000.05 .05 2500000.0 250000	
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REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-200-8	12/18/2013	DW


3	2	2921-311-9-3	SHT. #16 Ga. x 13 (0.51") x 38.1 (1.5")	Steel
2	1	2921-311-9-2	SHT. #16 Ga. x 38.1 (1.5") x 33.2 (1.31")	Steel
1	1	2921-311-9-1	T.S. 1 1/2" x 1 1/2" x 1/8" x 623.8 mm (24.56")	Steel, Mild
ITEM	QTY	PART NUMBER	DESCRIPTION	MATERIAL

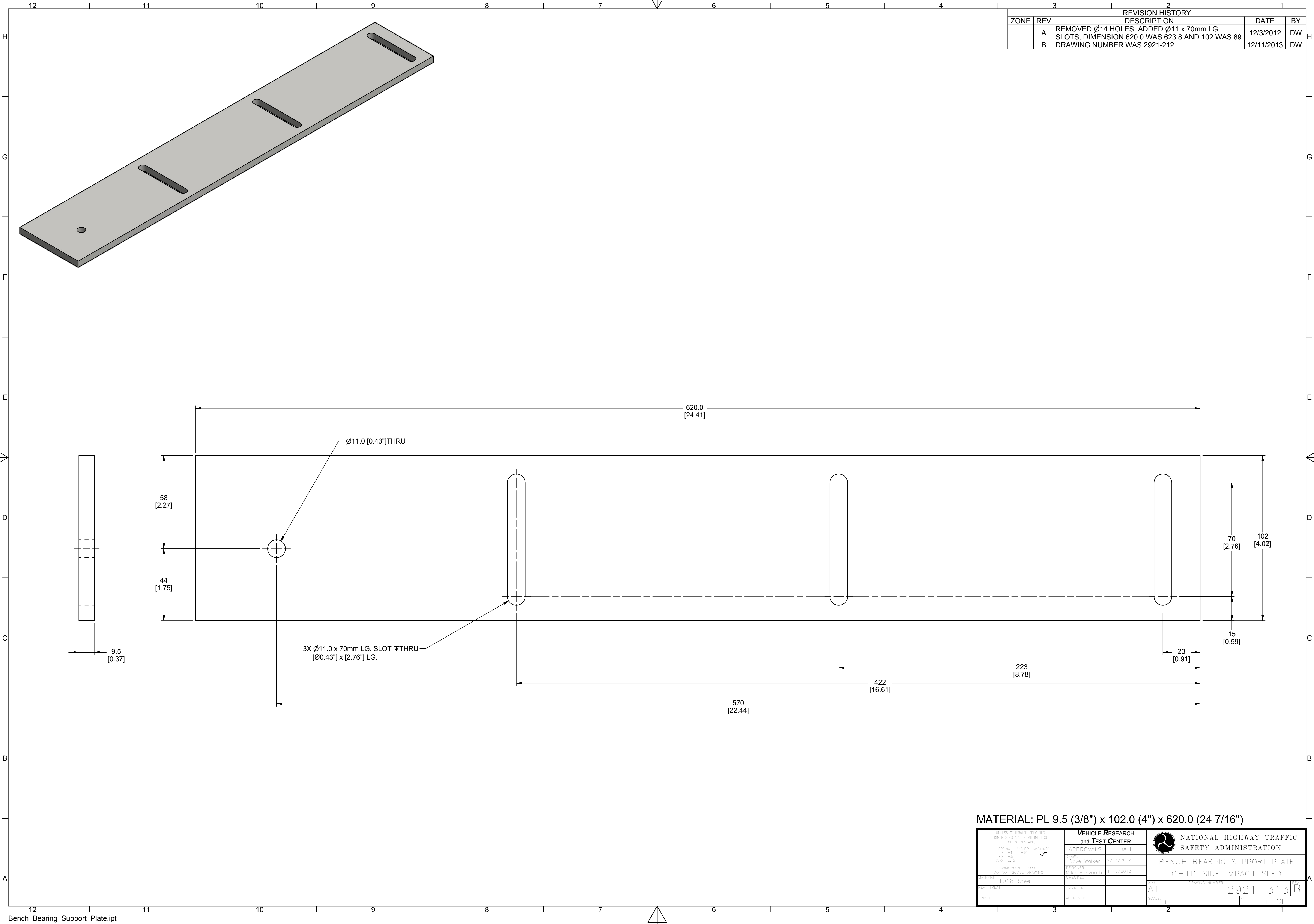
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL		DRAWN Dave Walker	2/13/2012	BENCH FRAME TUBE #9 ASS'Y. CHILD SIDE IMPACT SLED	
HEAT TREAT		DESIGNER Mike Vanvoorhis	11/5/2012		
FINISH		CHECKED		SIZE A2	
		ENGINEER		DRAWING NUMBER 2921-311-9	
		APPROVED		SCALE: 1:4	
				SHEET 1 OF 1	

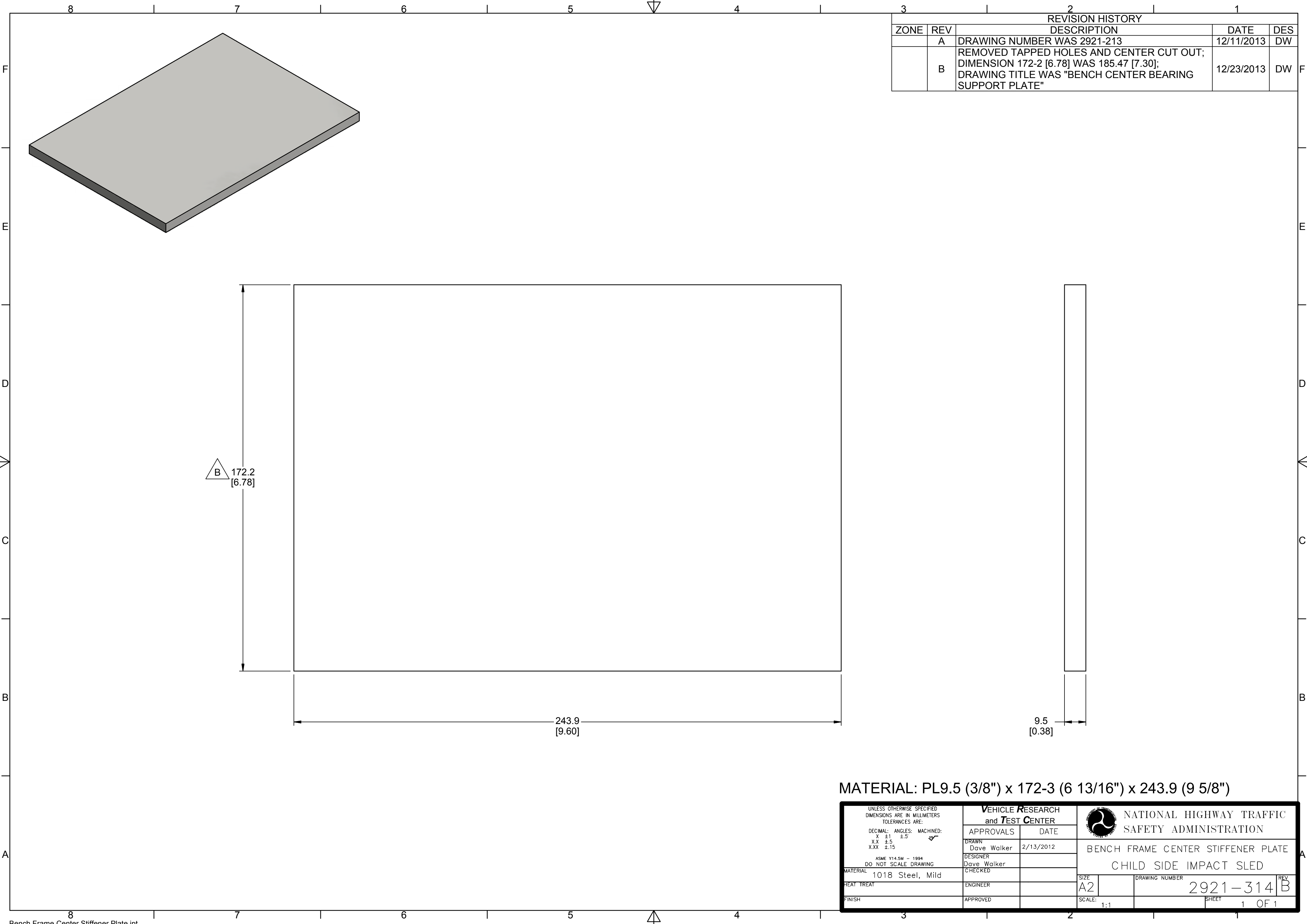


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	ADDED Ø14 HOLES AND 5/16-18 HOLES	4/18/2012	DW
	B	REMOVED Ø14 HOLES AND 5/16-18 HOLES; DIMENSION 76.2 WAS 88.9 AND 40.0 WAS 31.75	12/3/2012	DW
	C	DRAWING NUMBER WAS 2921-209	12/11/2013	DW

MATERIAL: L 3 x 2 x 3/8 x 19.213" (488.0mm)


UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
		DRAWN Dave Walker	2/13/2012	BENCH BASE MTG. ANGLE	
		DESIGNER Mike Vanvoorhis	11/5/2012	CHILD SIDE IMPACT SLED	
MATERIAL 1018 Steel	HEAT TREAT	ENGINEER	APPROVED	SIZE A2	DRAWING NUMBER 2921-312
FINISH				SCALE: 0.5:1	REV C
				SHEET 1 OF 1	

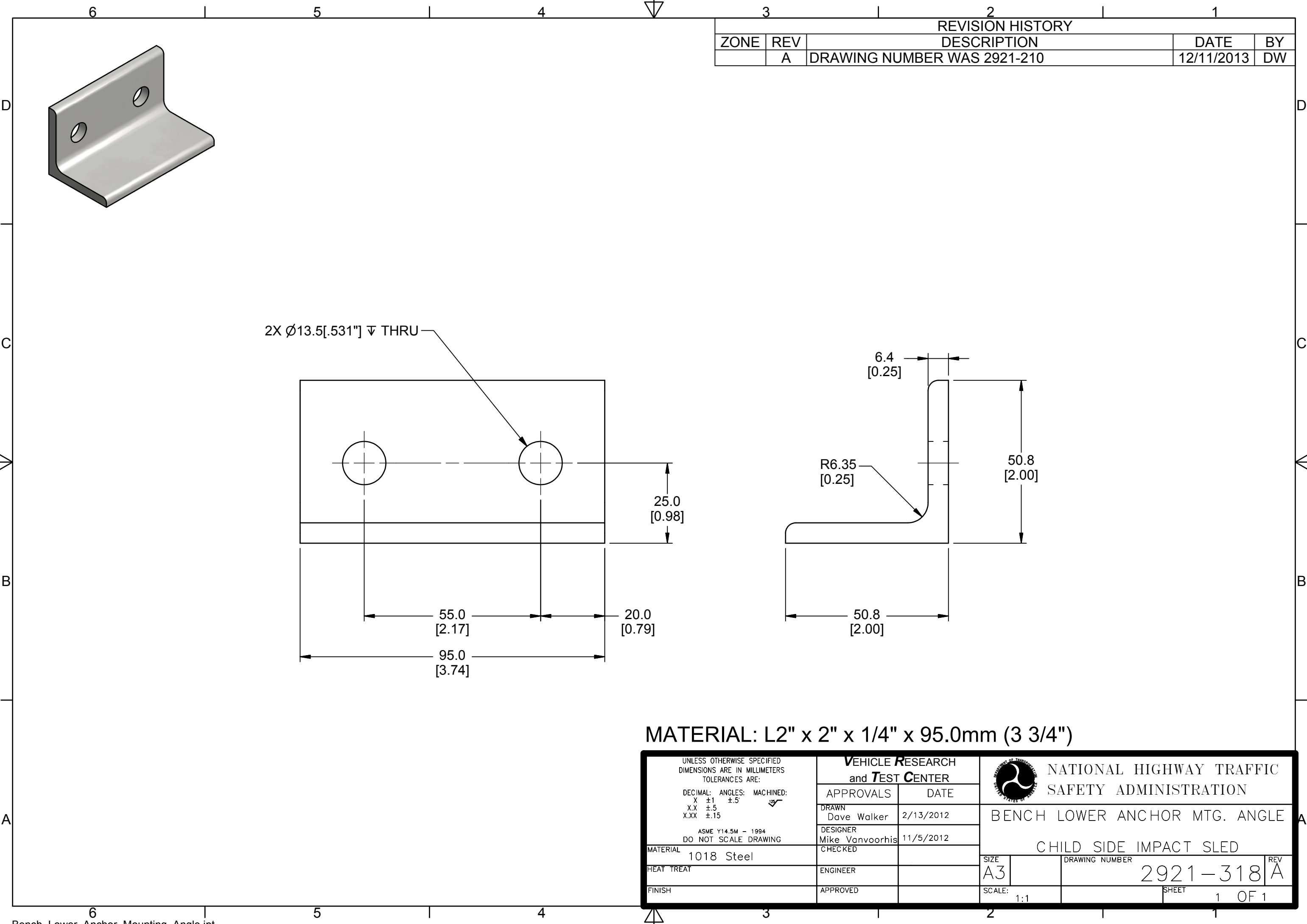




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DES
	A	DRAWING NUMBER WAS 2921-213	12/11/2013	DW
	B	REMOVED TAPPED HOLES AND CENTER CUT OUT; DIMENSION 172-2 [6.78] WAS 185.47 [7.30]; DRAWING TITLE WAS "BENCH CENTER BEARING SUPPORT PLATE"	12/23/2013	DW


MATERIAL: PL9.5 (3/8") x 172-3 (6 13/16") x 243.9 (9 5/8")

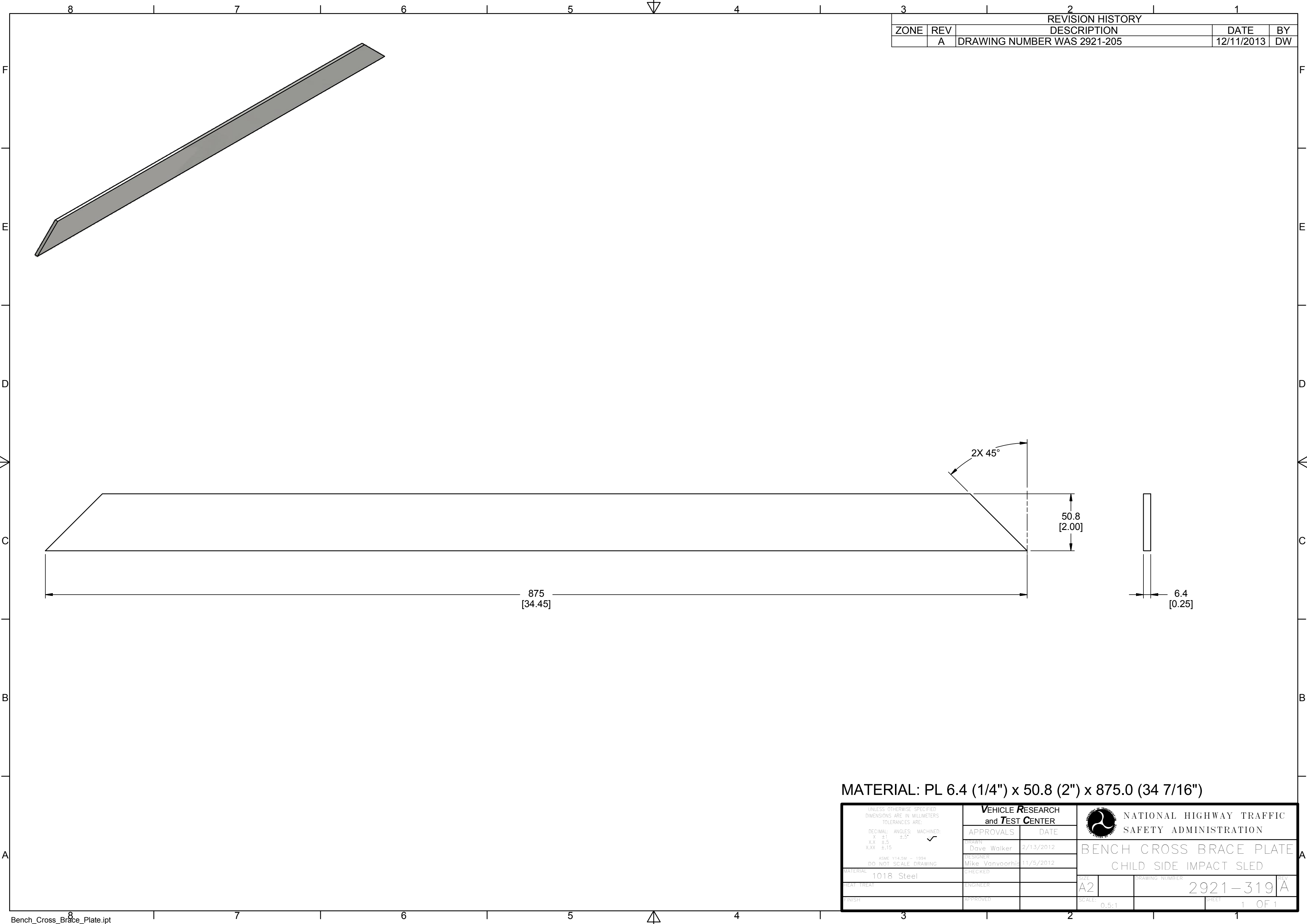
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING			VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
			APPROVALS	DATE		
MATERIAL 1018 Steel, Mild			DRAWN Dave Walker	2/13/2012	BENCH FRAME CENTER STIFFENER PLATE CHILD SIDE IMPACT SLED	
HEAT TREAT			DESIGNER Dave Walker			
FINISH			CHECKED		SIZE A2	DRAWING NUMBER 2921-314
			ENGINEER		SCALE: 1:1	REV B
			APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-210	12/11/2013	DW


MATERIAL: L2" x 2" x 1/4" x 95.0mm (3 3/4")

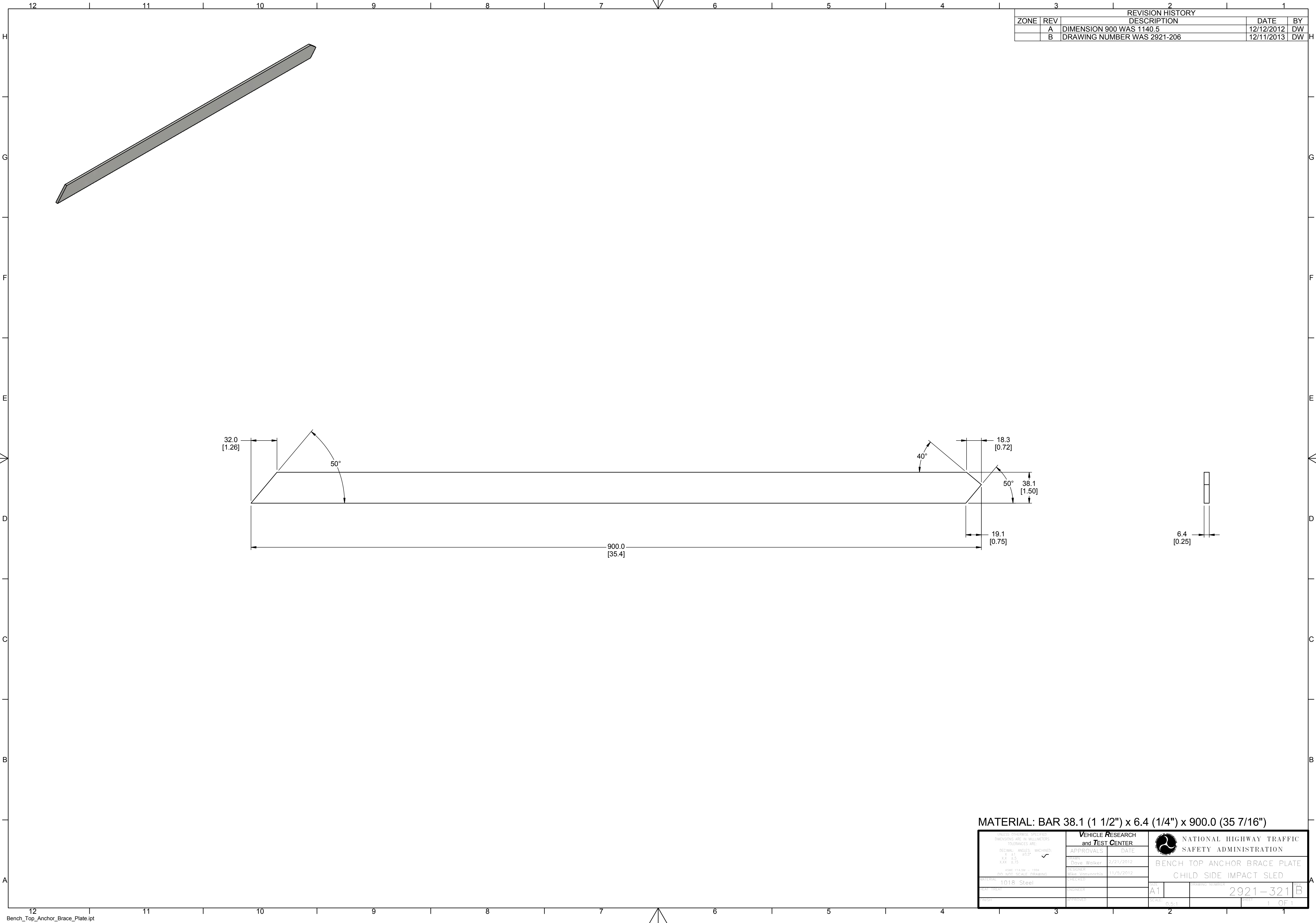
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5 X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	BENCH LOWER ANCHOR MTG. ANGLE	
		DRAWN Dave Walker	2/13/2012		
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL	1018 Steel	CHECKED		CHILD SIDE IMPACT SLED	
HEAT TREAT		ENGINEER		SIZE A3	DRAWING NUMBER 2921-318
FINISH		APPROVED		SCALE: 1:1	REV A
				SHEET	1 OF 1

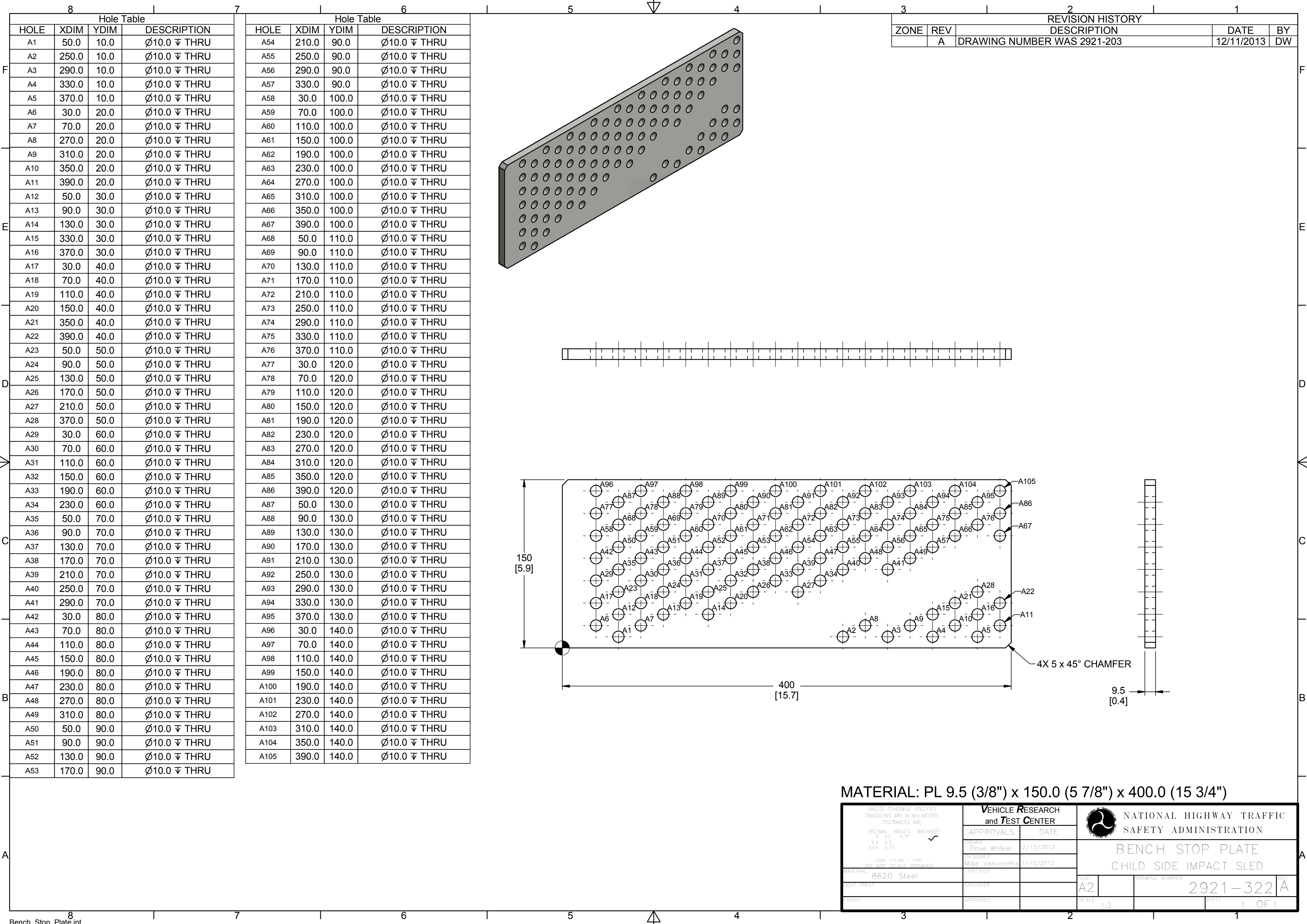


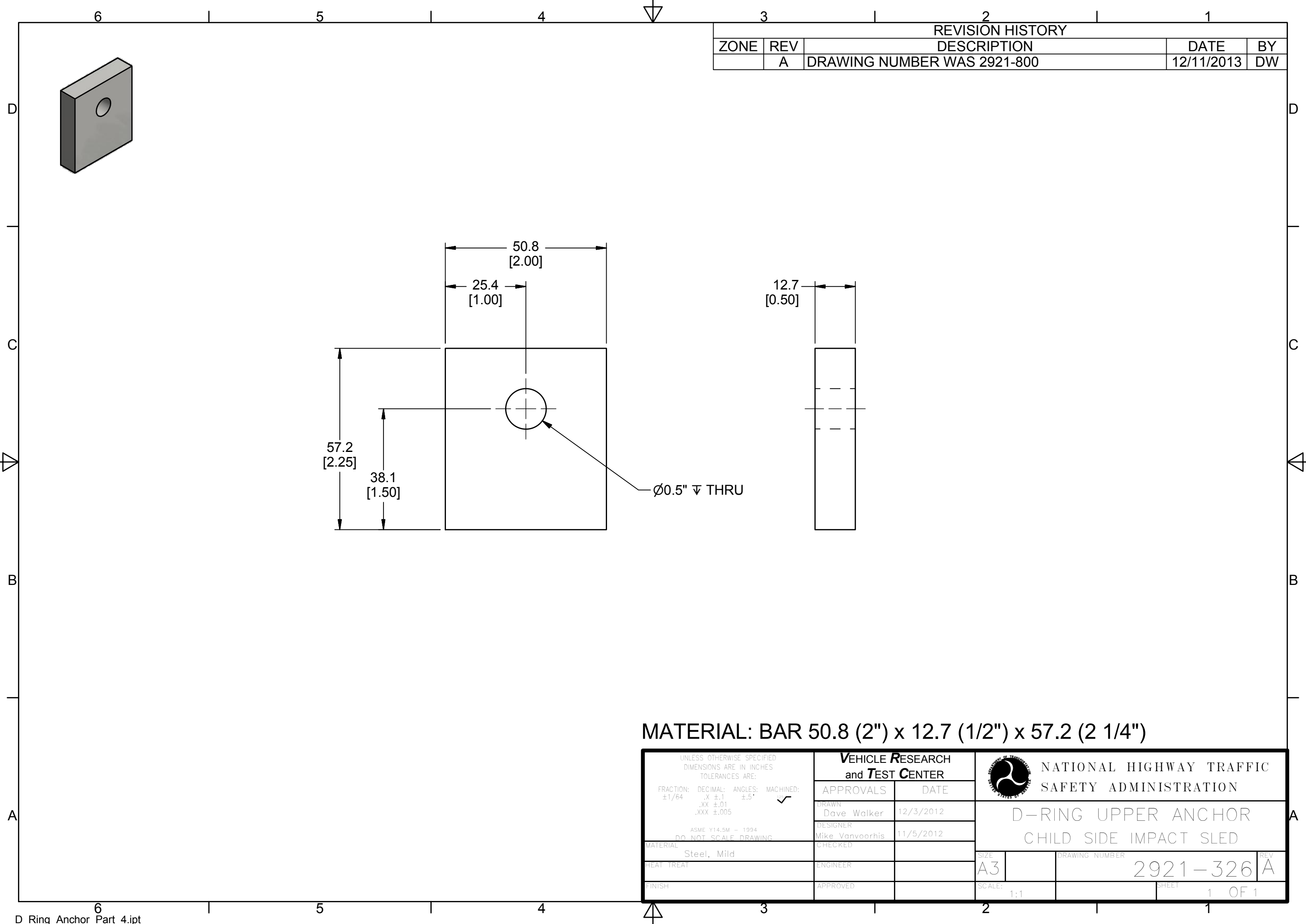
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-205	12/11/2013	DW

MATERIAL: PL 6.4 (1/4") x 50.8 (2") x 875.0 (34 7/16")

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE			
	DRAWN Dave Walker	2/13/2012			
	DESIGNER Mike Vanvoorhis	11/5/2012			
MATERIAL 1018 Steel	CHECKED		BENCH CROSS BRACE PLATE CHILD SIDE IMPACT SLED		
HEAT TREAT	ENGINEER		SIZE A2	DRAWING NUMBER 2921-319	REV A
FINISH	APPROVED		SCALE: 0.5:1	SHEET 1	OF 1




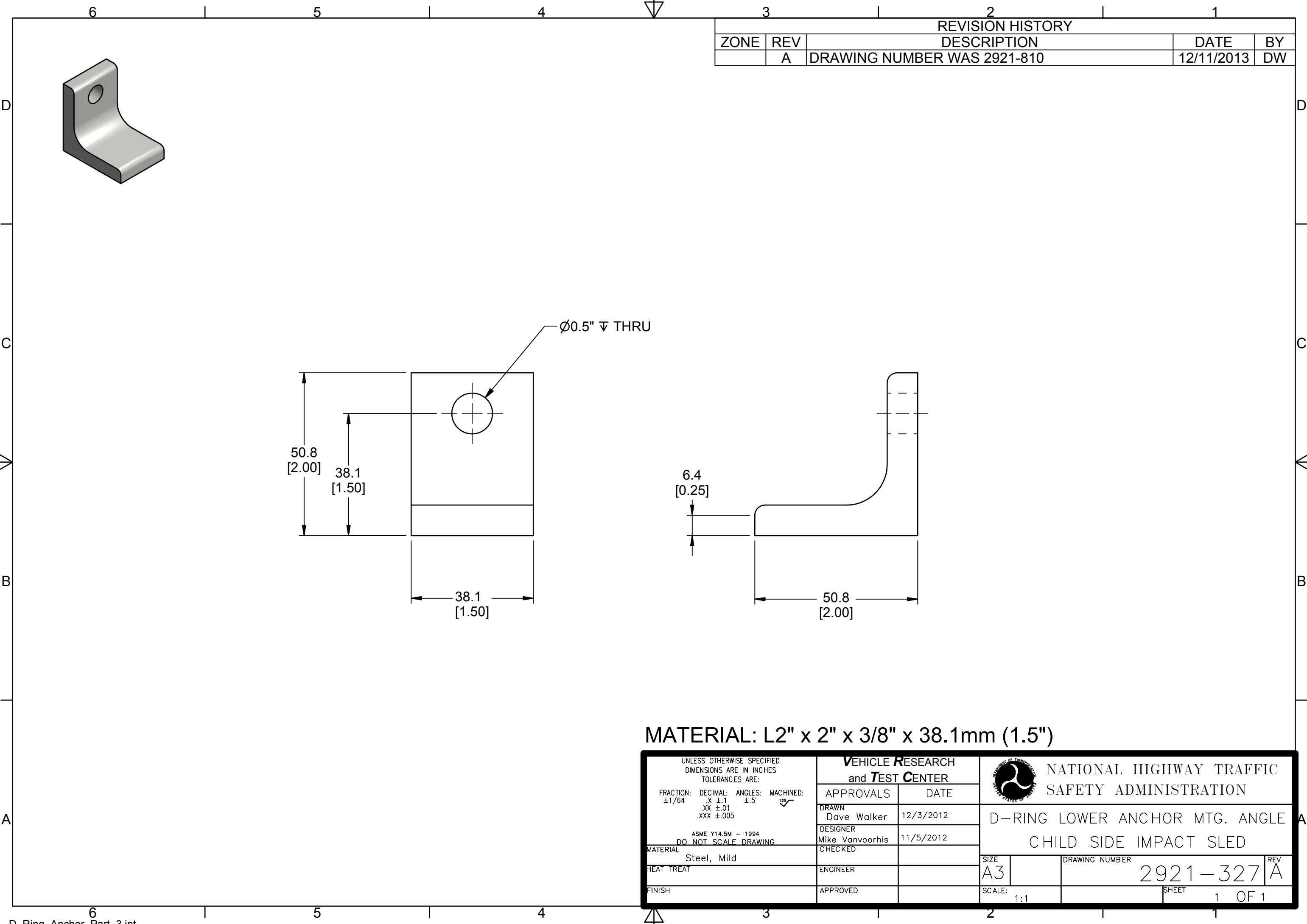




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-800	12/11/2013	DW

MATERIAL: BAR 50.8 (2") x 12.7 (1/2") x 57.2 (2 1/4")

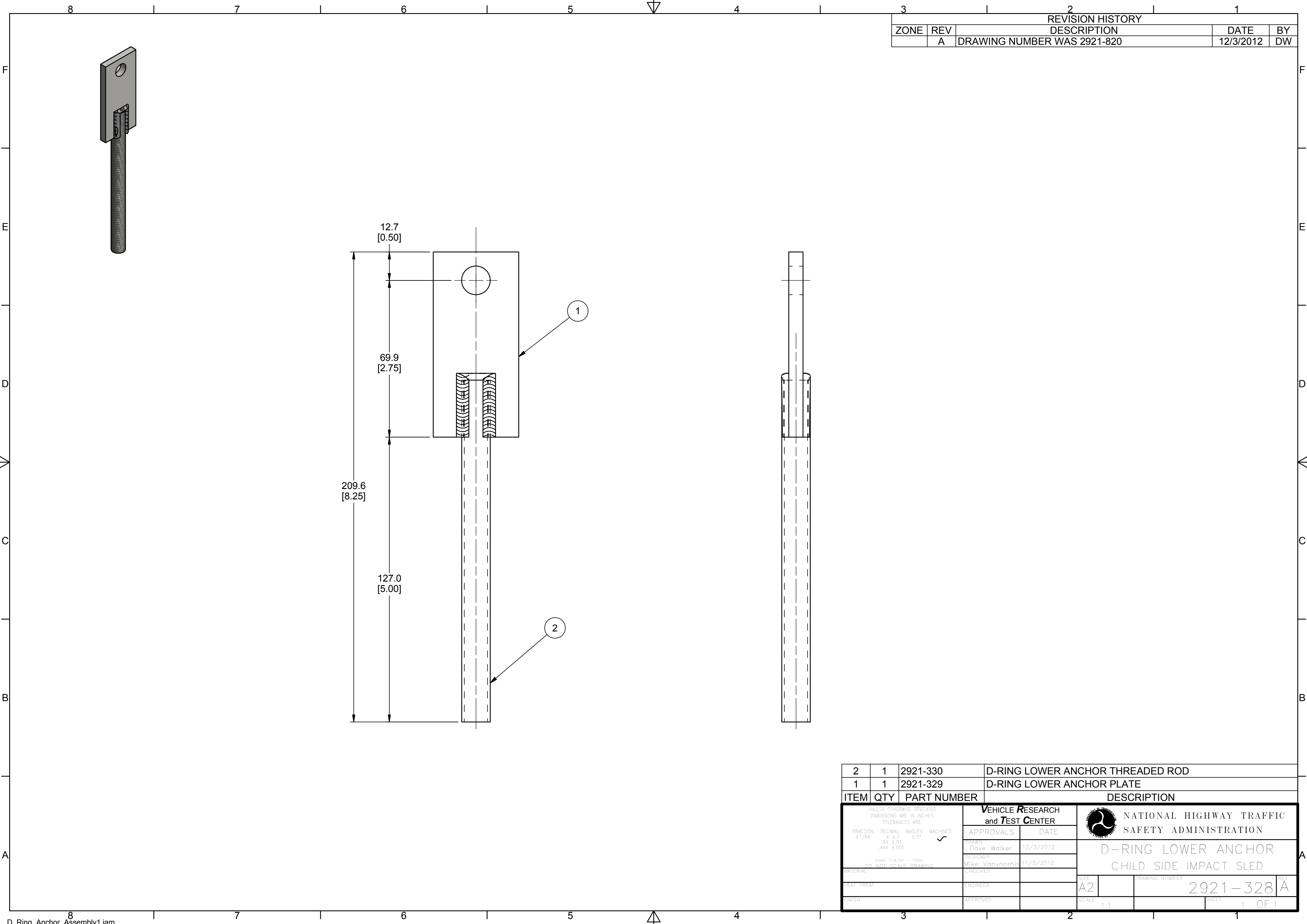
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° ✓ .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER	 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE	
	DRAWN Dave Walker	12/3/2012	
	DESIGNER Mike Vanvoorhis	11/5/2012	
MATERIAL Steel, Mild	CHECKED		
HEAT TREAT	ENGINEER		
FINISH	APPROVED		
		SIZE A3	DRAWING NUMBER 2921-326
		SCALE: 1:1	REV A
		SHEET 1 OF 1	




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-810	12/11/2013	DW

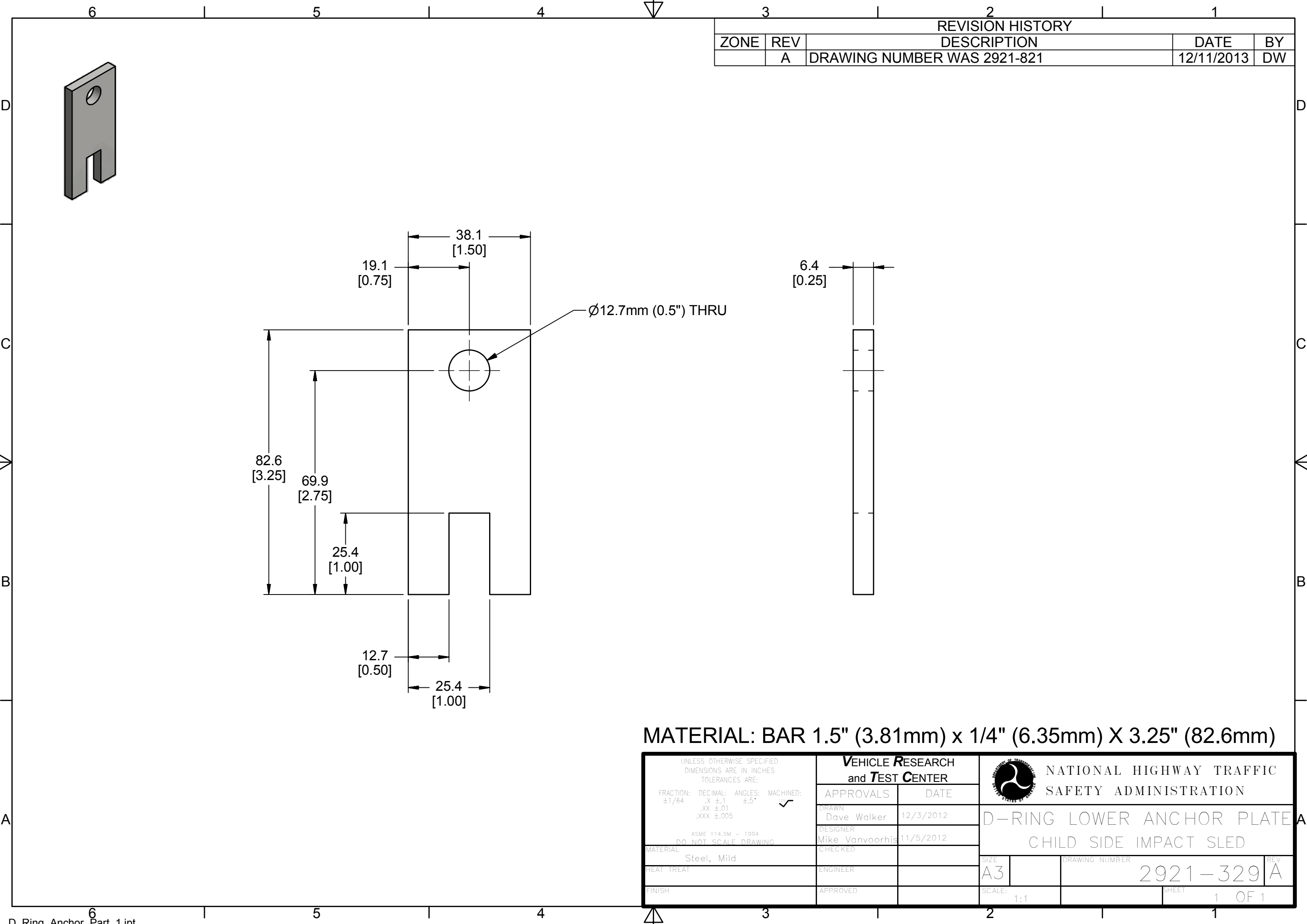
MATERIAL: L2" x 2" x 3/8" x 38.1mm (1.5")

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° 125 .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
		DRAWN Dave Walker	12/3/2012	D-RING LOWER ANCHOR MTG. ANGLE CHILD SIDE IMPACT SLED	
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild	HEAT TREAT	CHECKED		SIZE A3	DRAWING NUMBER 2921-327
FINISH		ENGINEER		SCALE: 1:1	REV A
		APPROVED		SHEET 1 OF 1	




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-820	12/3/2012	DW

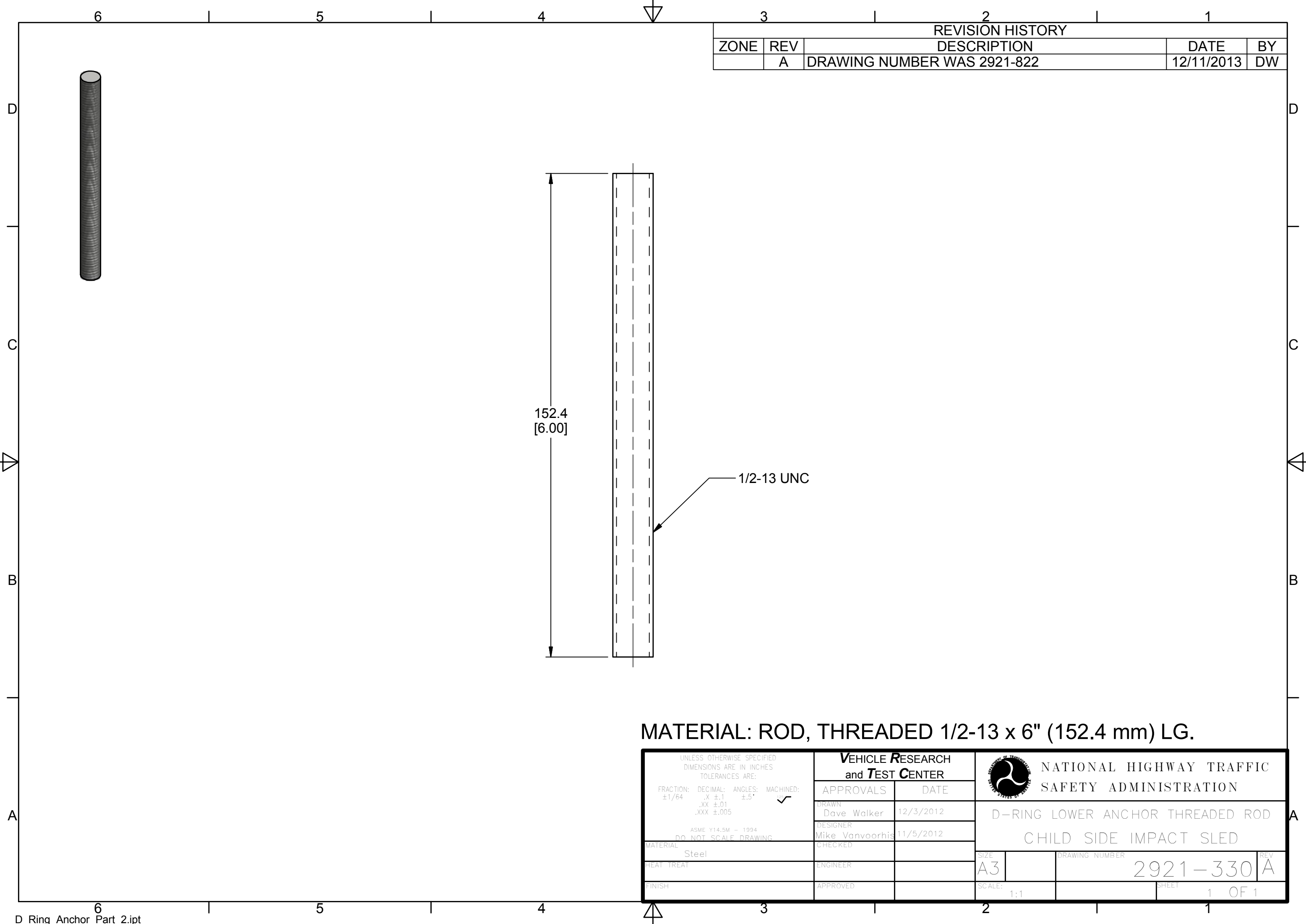
2	1	2921-330	D-RING LOWER ANCHOR THREADED ROD	
1	1	2921-329	D-RING LOWER ANCHOR PLATE	
ITEM	QTY	PART NUMBER	DESCRIPTION	
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° ✓ .XX ±.01 .XXX ±.005</div>		VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div> <div>D-RING LOWER ANCHOR CHILD SIDE IMPACT SLED</div>
		APPROVALS	DATE	
		DRAWN Dave Walker	12/3/2012	
		DESIGNER Mike Vanvoorthuis	11/5/2012	
MATERIAL		CHECKED		SIZE A2
HEAT TREAT		ENGINEER		DRAWING NUMBER 2921-328
FINISH		APPROVED		REV A
		SCALE: 1:1		SHEET 1 OF 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-821	12/11/2013	DW


MATERIAL: BAR 1.5" (3.81mm) x 1/4" (6.35mm) X 3.25" (82.6mm)

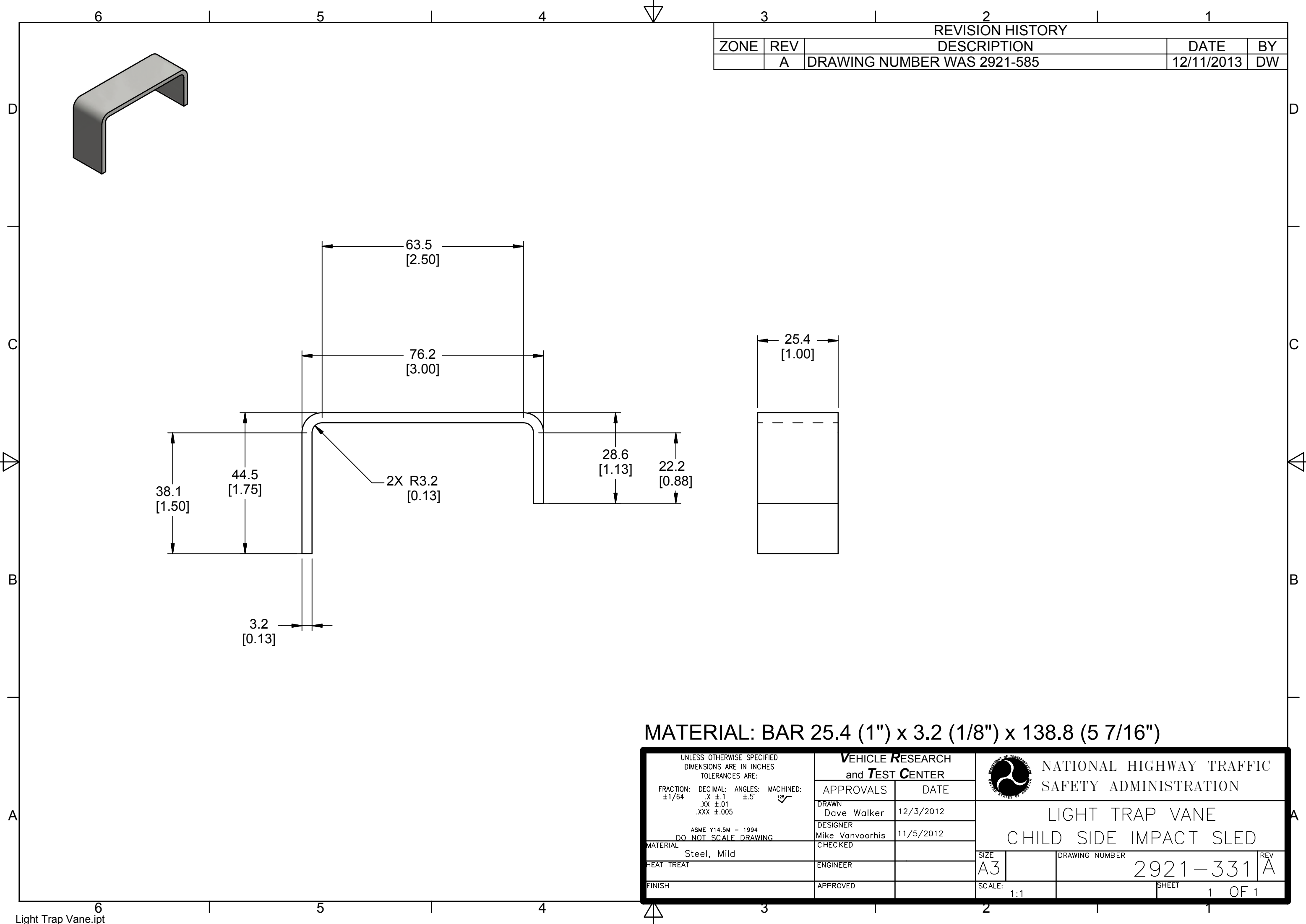
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>		
	APPROVALS	DATE	D-RING LOWER ANCHOR PLATE CHILD SIDE IMPACT SLED		
	DRAWN Dave Walker	12/3/2012			
	DESIGNER Mike Vanvoorhis	11/5/2012			
MATERIAL Steel, Mild	CHECKED		SIZE A3	DRAWING NUMBER 2921-329	REV A
HEAT TREAT	ENGINEER		SCALE: 1:1		
FINISH	APPROVED		SHEET 1 OF 1		



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-822	12/11/2013	DW


MATERIAL: ROD, THREADED 1/2-13 x 6" (152.4 mm) LG.

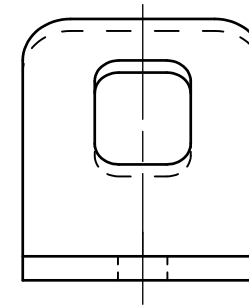
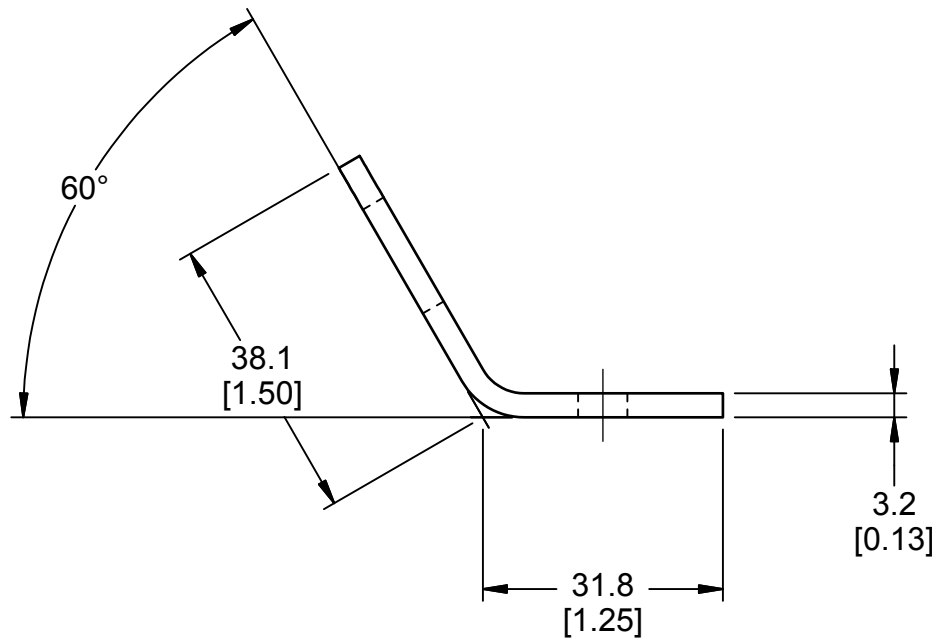
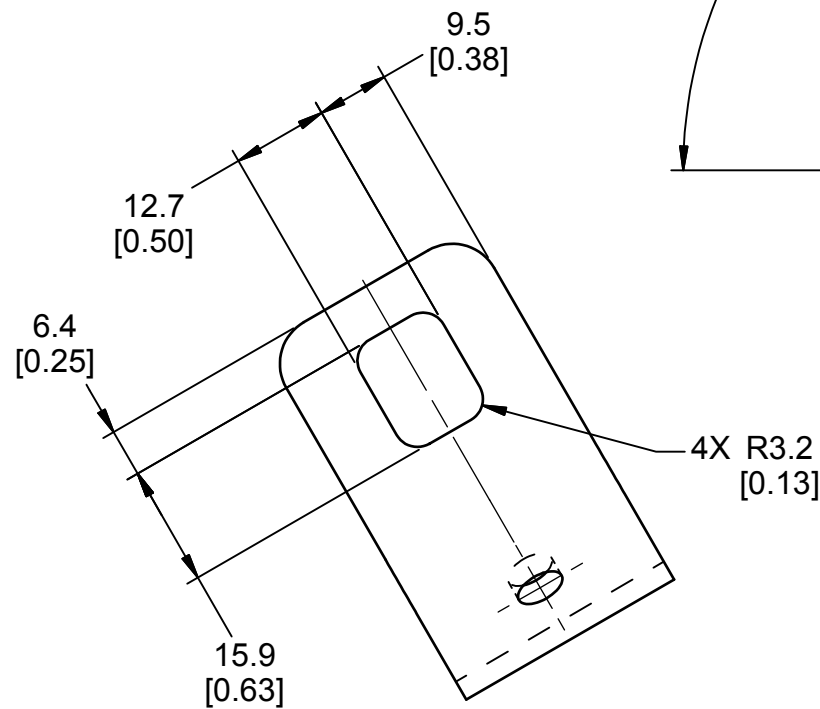
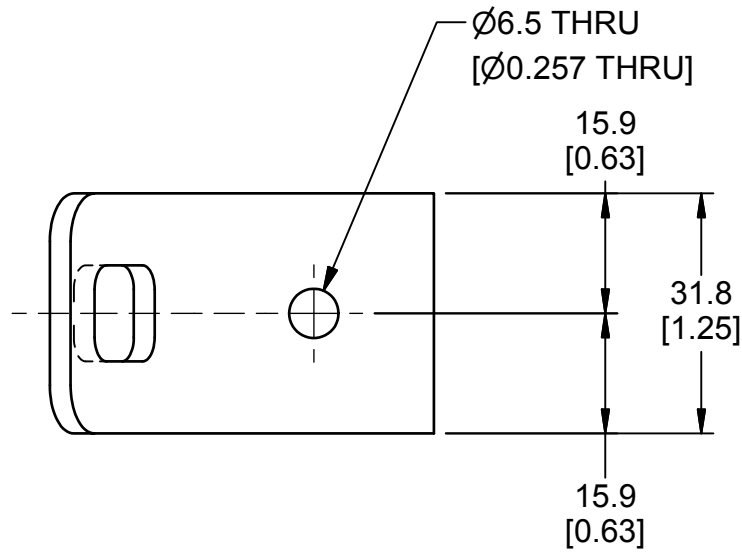
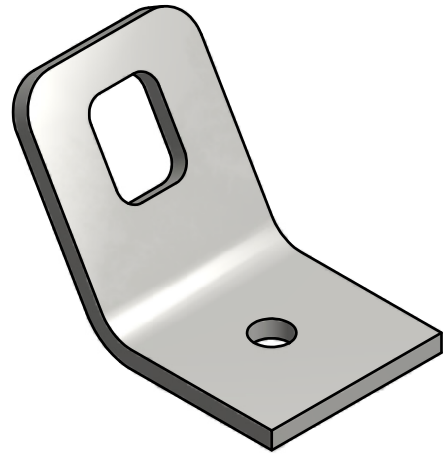
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° ✓ .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	D-RING LOWER ANCHOR THREADED ROD CHILD SIDE IMPACT SLED	
MATERIAL		DRAWN Dave Walker	12/3/2012		
HEAT TREAT		DESIGNER Mike Vanvoorhis	11/5/2012	SIZE A3	
FINISH		CHECKED			
		ENGINEER		DRAWING NUMBER 2921-330	
		APPROVED		SHEET 1 OF 1	





REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-585	12/11/2013	DW

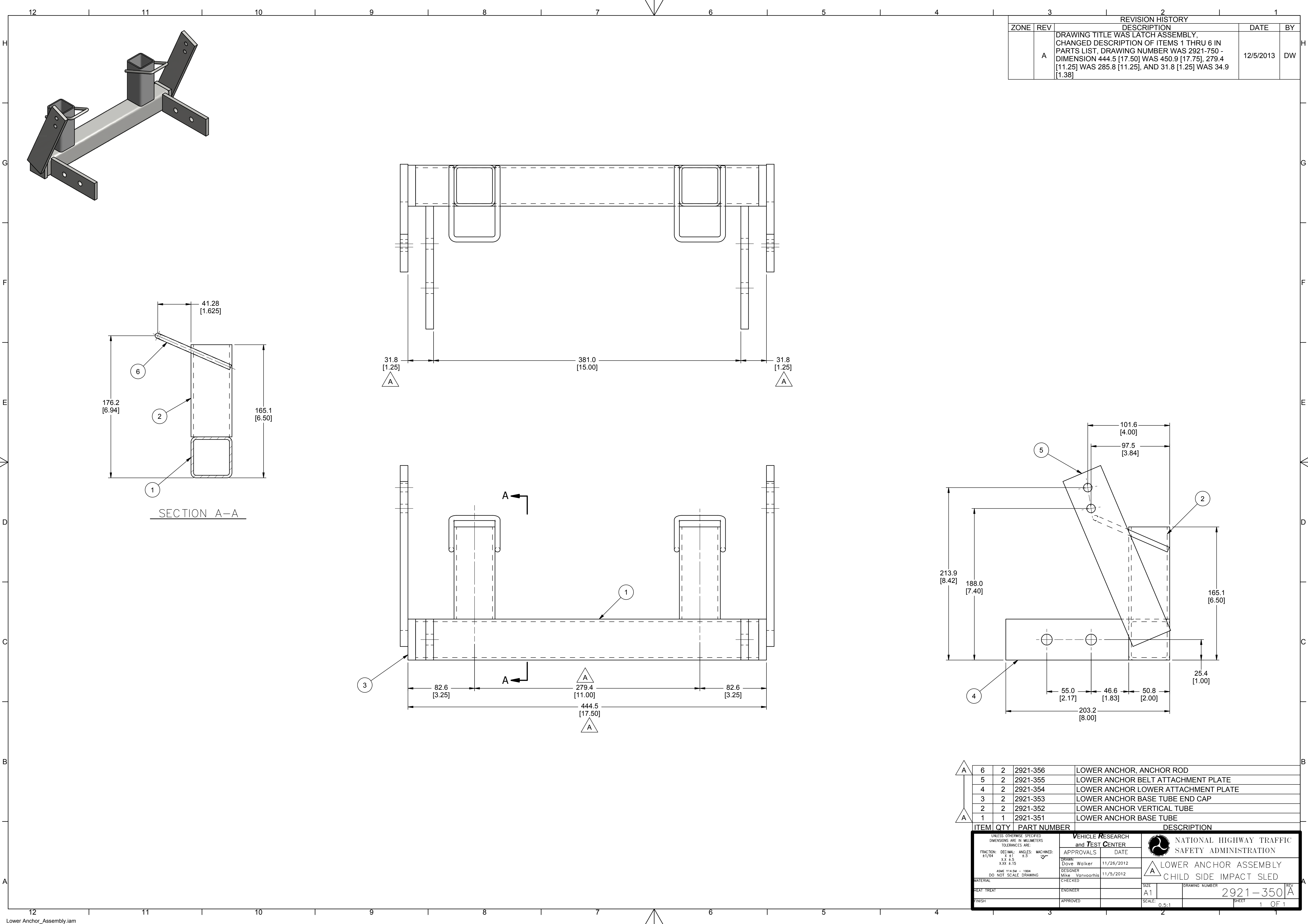
MATERIAL: BAR 25.4 (1") x 3.2 (1/8") x 138.8 (5 7/16")

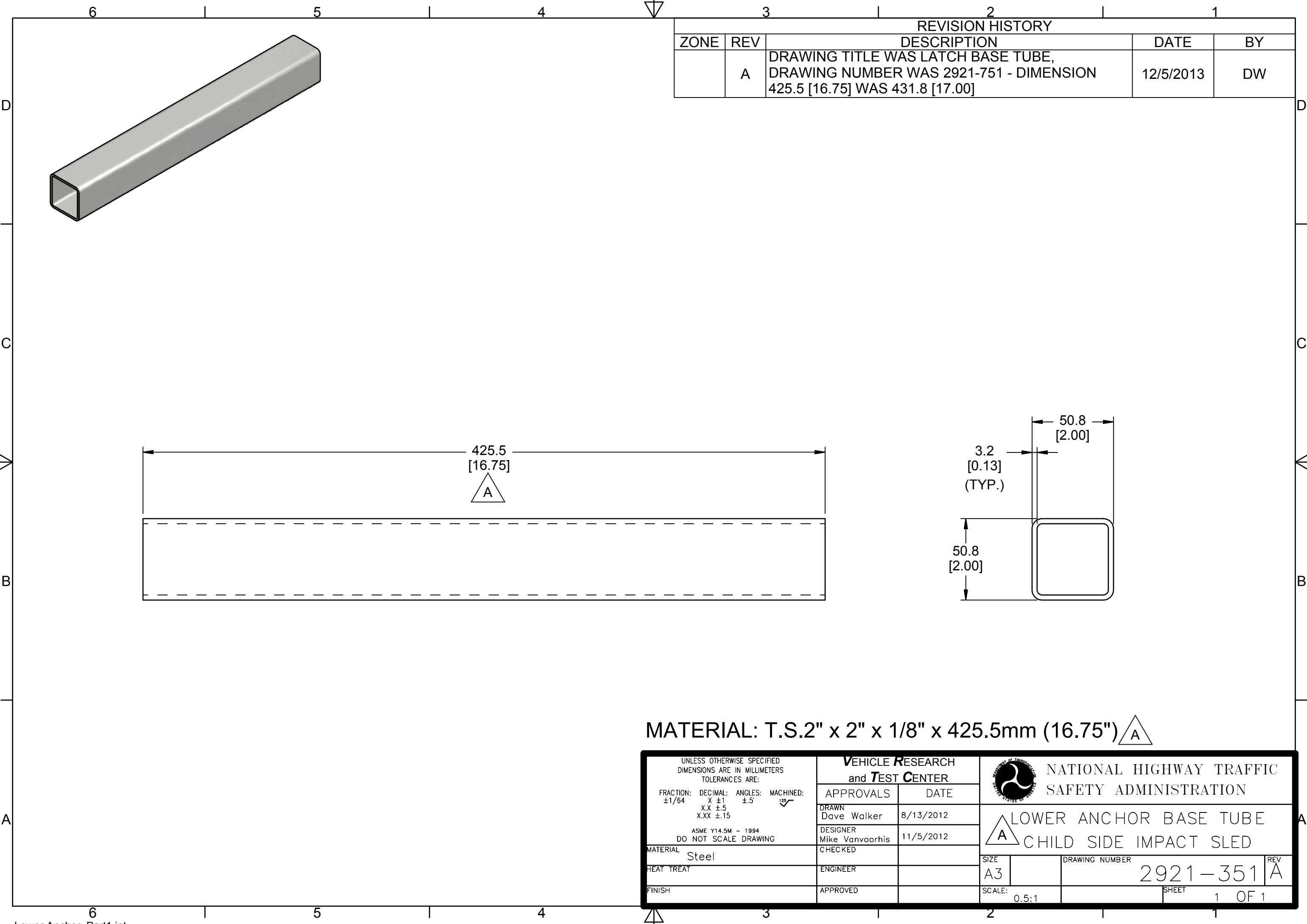
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° 125° .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL Steel, Mild		DRAWN Dave Walker	12/3/2012	LIGHT TRAP VANE CHILD SIDE IMPACT SLED	
HEAT TREAT		DESIGNER Mike Vanvoorhis	11/5/2012		
FINISH		CHECKED		SIZE A3	DRAWING NUMBER 2921-331
		ENGINEER		SCALE: 1:1	REV A
		APPROVED		SHEET 1 OF 1	



MATERIAL: PL 3.2 (1/8") x 31.8 (1 1/4") x 67.2 (2 5/8")


<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±.5 ±.5  X.X ±.2 X.XX ±.1 X.XXX ±.01 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS	DATE		
	DRAWN Dave Walker	12/20/2013	TOP TETHER ANCHOR	
	CHECKED			
	MATERIAL Steel, Mild	ENG	CHILD SIDE IMPACT SLED	
HEAT TREAT	APPROVED			
FINISH		SIZE A3	DRAWING NUMBER 2921-340	REV
		SCALE: 1:1	SHEET 1	OF 1

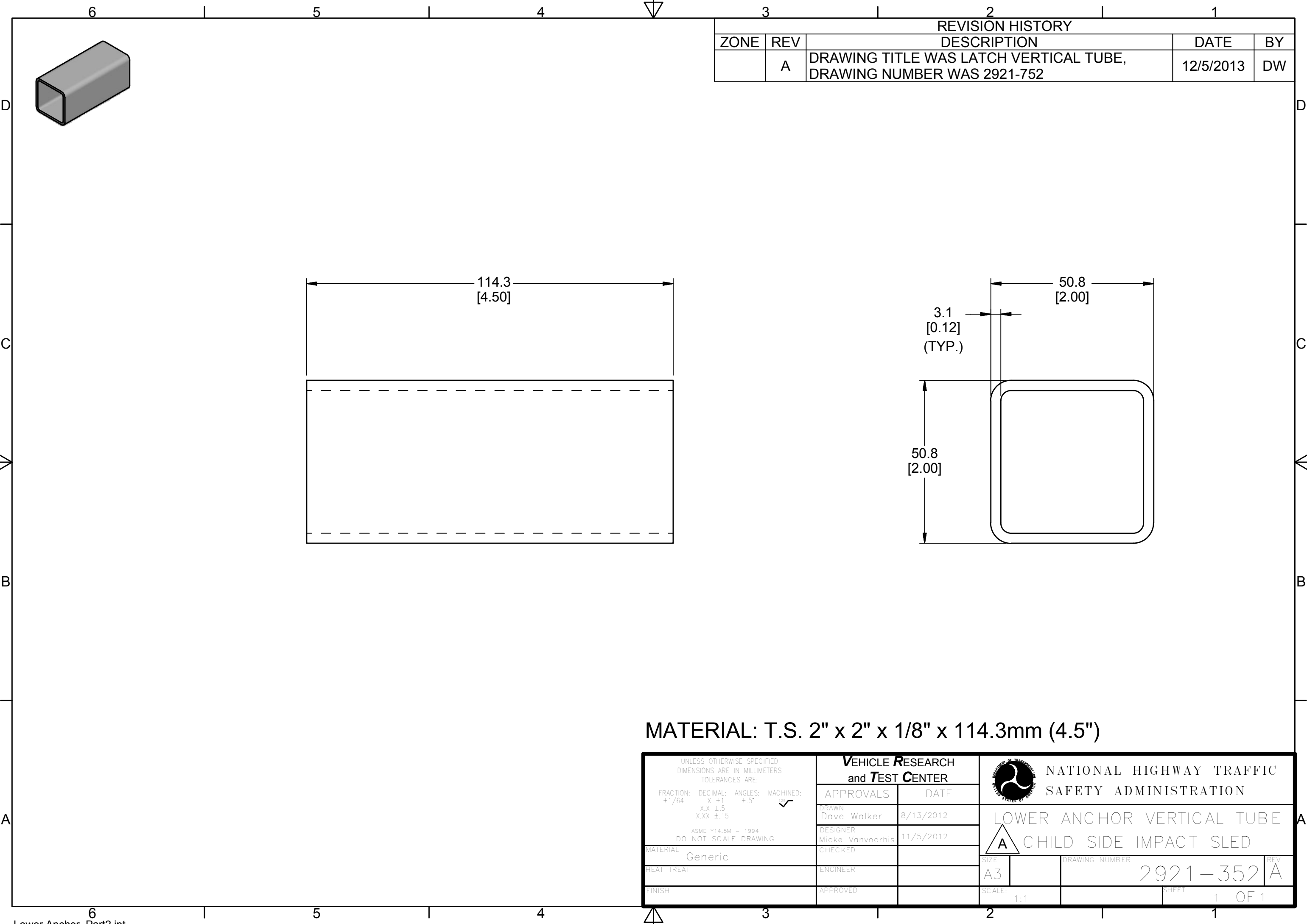




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS LATCH BASE TUBE, DRAWING NUMBER WAS 2921-751 - DIMENSION 425.5 [16.75] WAS 431.8 [17.00]	12/5/2013	DW



MATERIAL: T.S.2" x 2" x 1/8" x 425.5mm (16.75")A

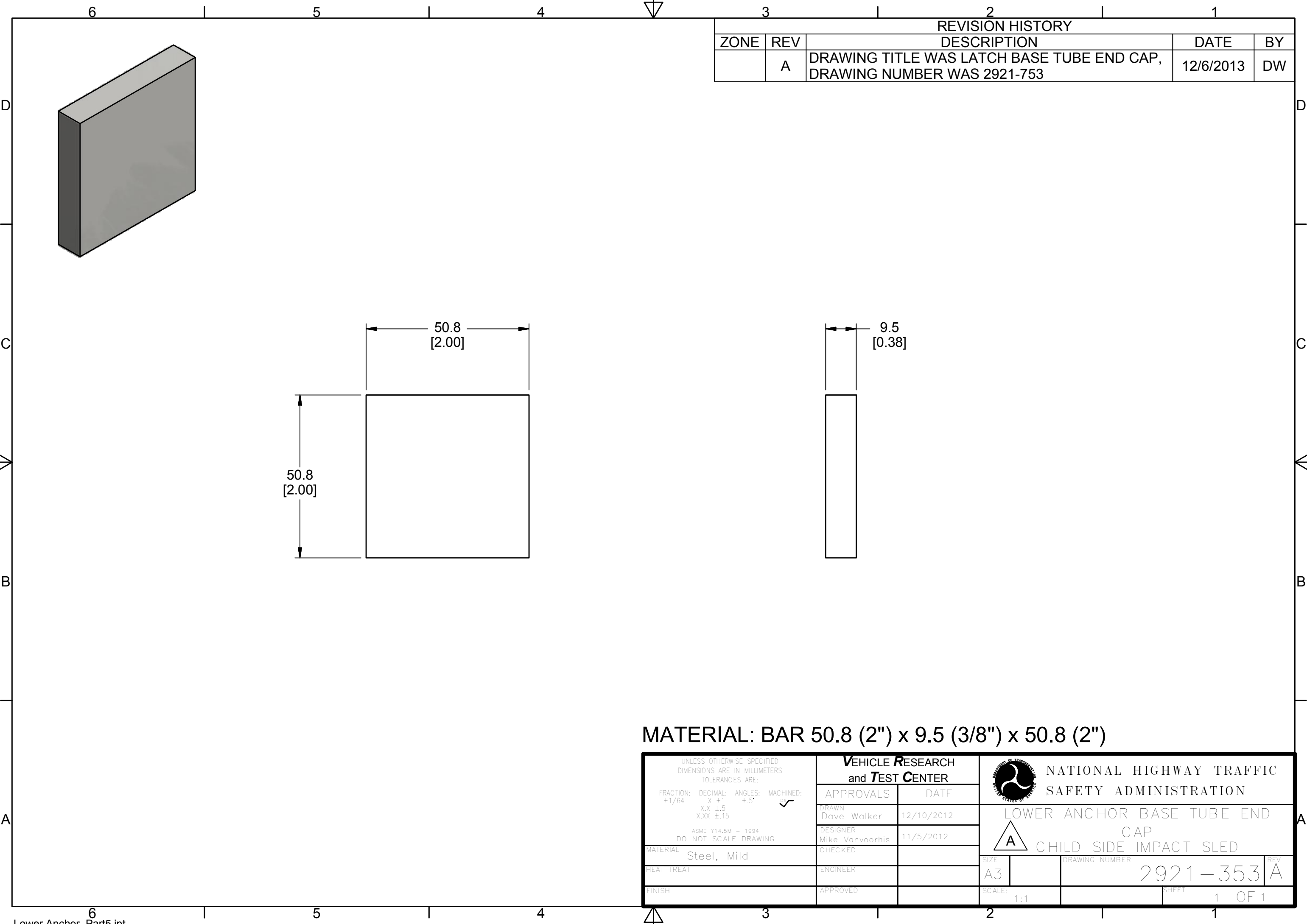
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 X ±1 ±.5° 125✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL Steel		DRAWN Dave Walker	8/13/2012	A LOWER ANCHOR BASE TUBE CHILD SIDE IMPACT SLED	
HEAT TREAT		DESIGNER Mike Vanvoorhis	11/5/2012		
FINISH		CHECKED		SIZE A3	DRAWING NUMBER 2921-351
		ENGINEER		SCALE: 0.5:1	REV A
		APPROVED		SHEET 1 OF 1	





REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS LATCH VERTICAL TUBE, DRAWING NUMBER WAS 2921-752	12/5/2013	DW

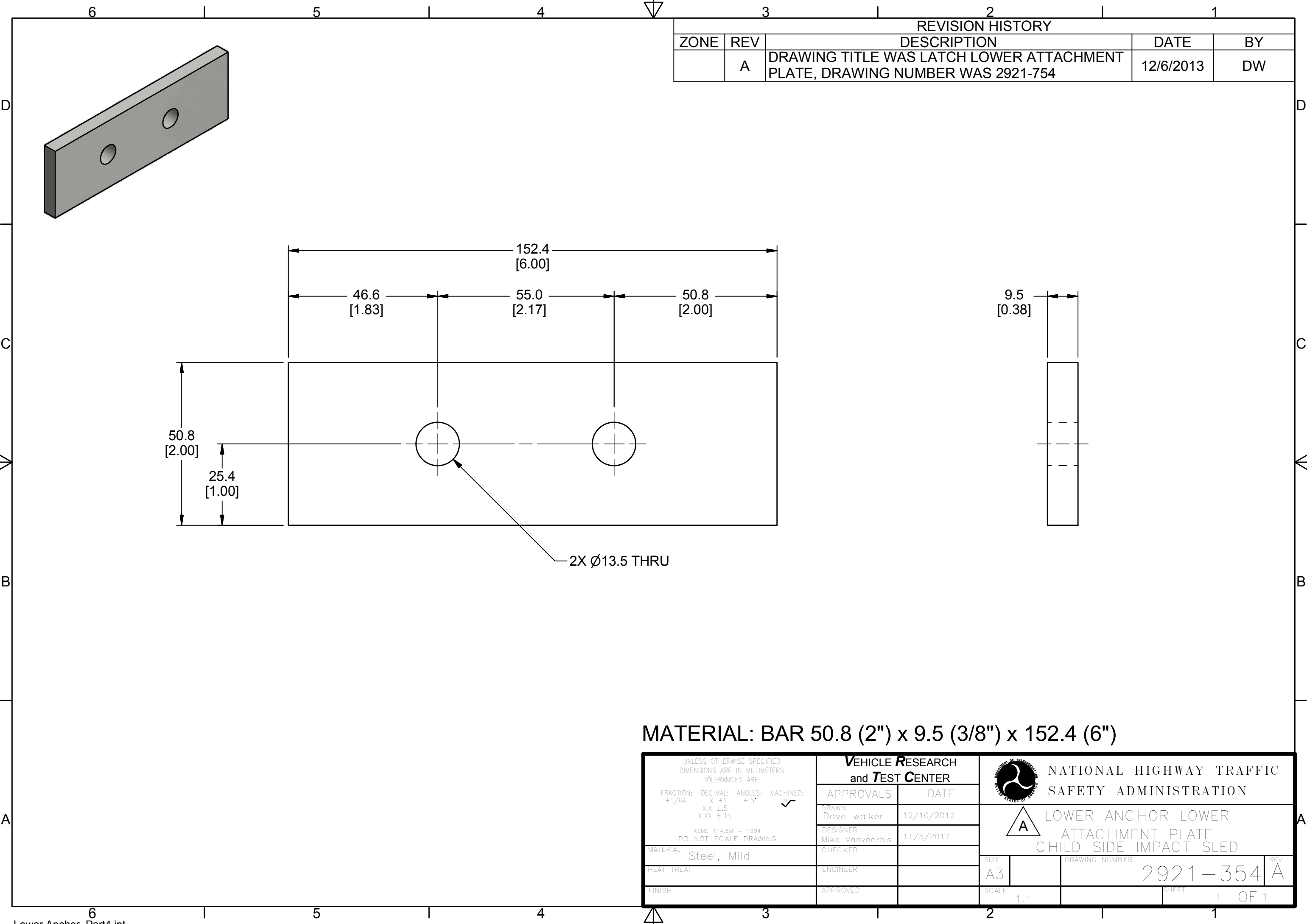
MATERIAL: T.S. 2" x 2" x 1/8" x 114.3mm (4.5")

<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 X ±1 ±.5° 13° X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE	LOWER ANCHOR VERTICAL TUBE CHILD SIDE IMPACT SLED	
		DRAWN Dave Walker	8/13/2012		
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Generic		CHECKED			
HEAT TREAT		ENGINEER		SIZE A3	DRAWING NUMBER 2921-352
FINISH		APPROVED		SCALE: 1:1	SHEET 1 OF 1





MATERIAL: BAR 50.8 (2") x 9.5 (3/8") x 50.8 (2")

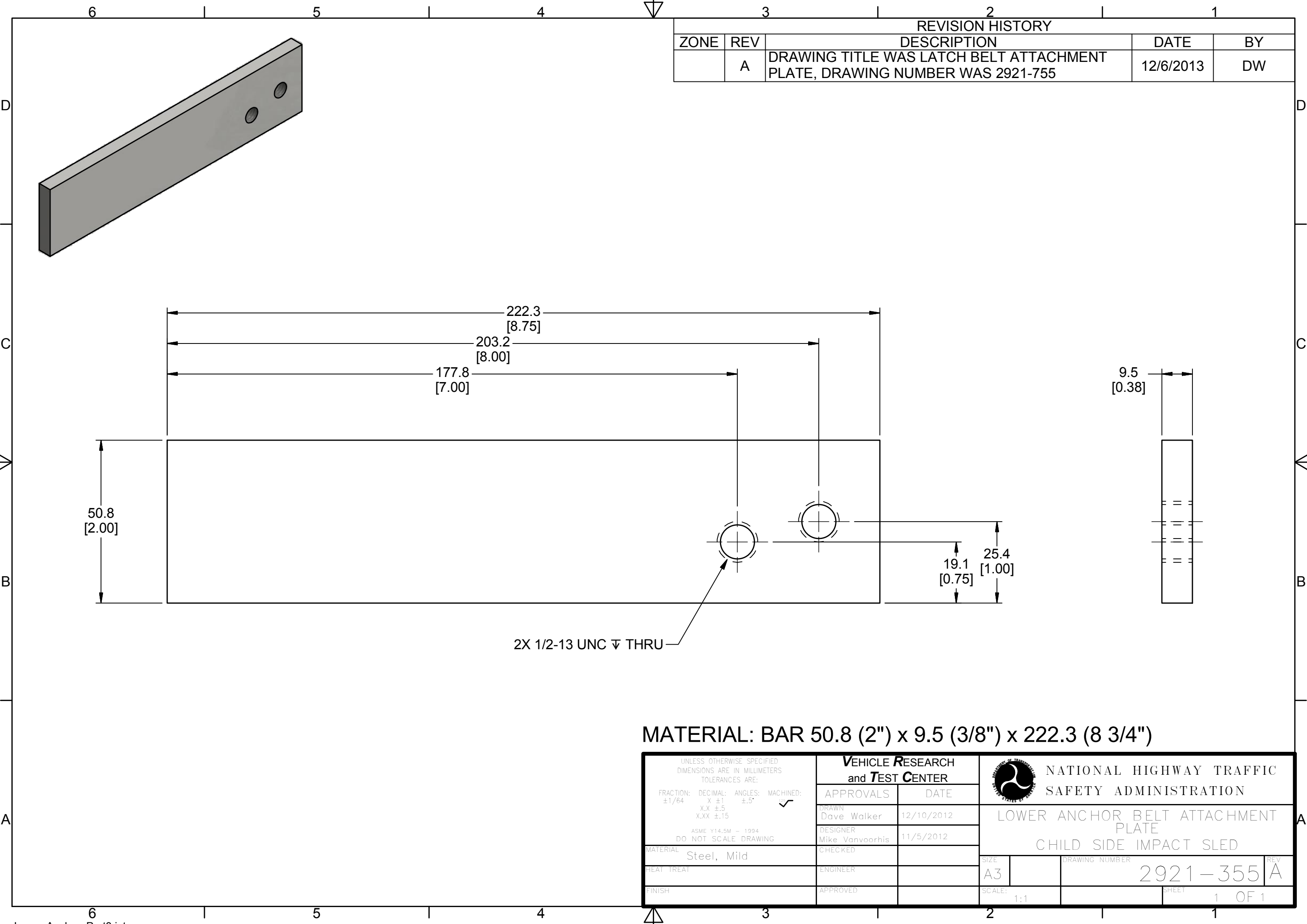
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 X ±1 ±.5° ✓ X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>		VEHICLE RESEARCH and TEST CENTER		<div>NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>	
		APPROVALS	DATE		
		DRAWN Dave Walker	12/10/2012	<div>LOWER ANCHOR BASE TUBE END CAP CHILD SIDE IMPACT SLED</div>	
		DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild		CHECKED		SIZE A3	DRAWING NUMBER 2921-353
HEAT TREAT		ENGINEER		SCALE: 1:1	REV A
FINISH		APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS LATCH LOWER ATTACHMENT PLATE, DRAWING NUMBER WAS 2921-754	12/6/2013	DW


MATERIAL: BAR 50.8 (2") x 9.5 (3/8") x 152.4 (6")

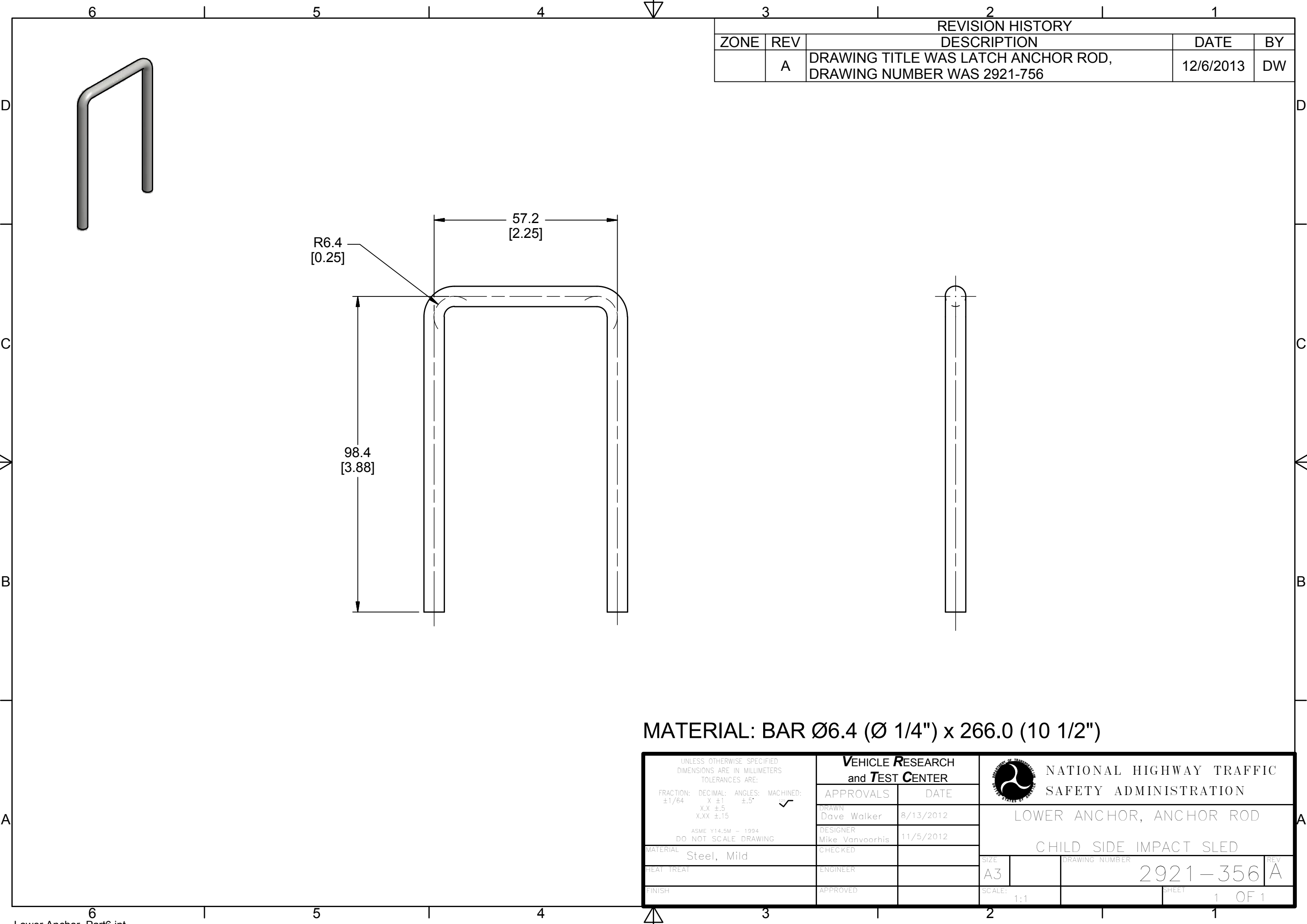
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 X ±1 ±.5° X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>	
	APPROVALS	DATE		
	DRAWN Dave walker	12/10/2012	<div> LOWER ANCHOR LOWER ATTACHMENT PLATE CHILD SIDE IMPACT SLED</div>	
	DESIGNER Mike Vanvoorhis	11/5/2012		
MATERIAL Steel, Mild	CHECKED	SIZE A3	DRAWING NUMBER 2921-354	REV A
HEAT TREAT	ENGINEER	SCALE: 1:1	SHEET 1	OF 1
FINISH	APPROVED			

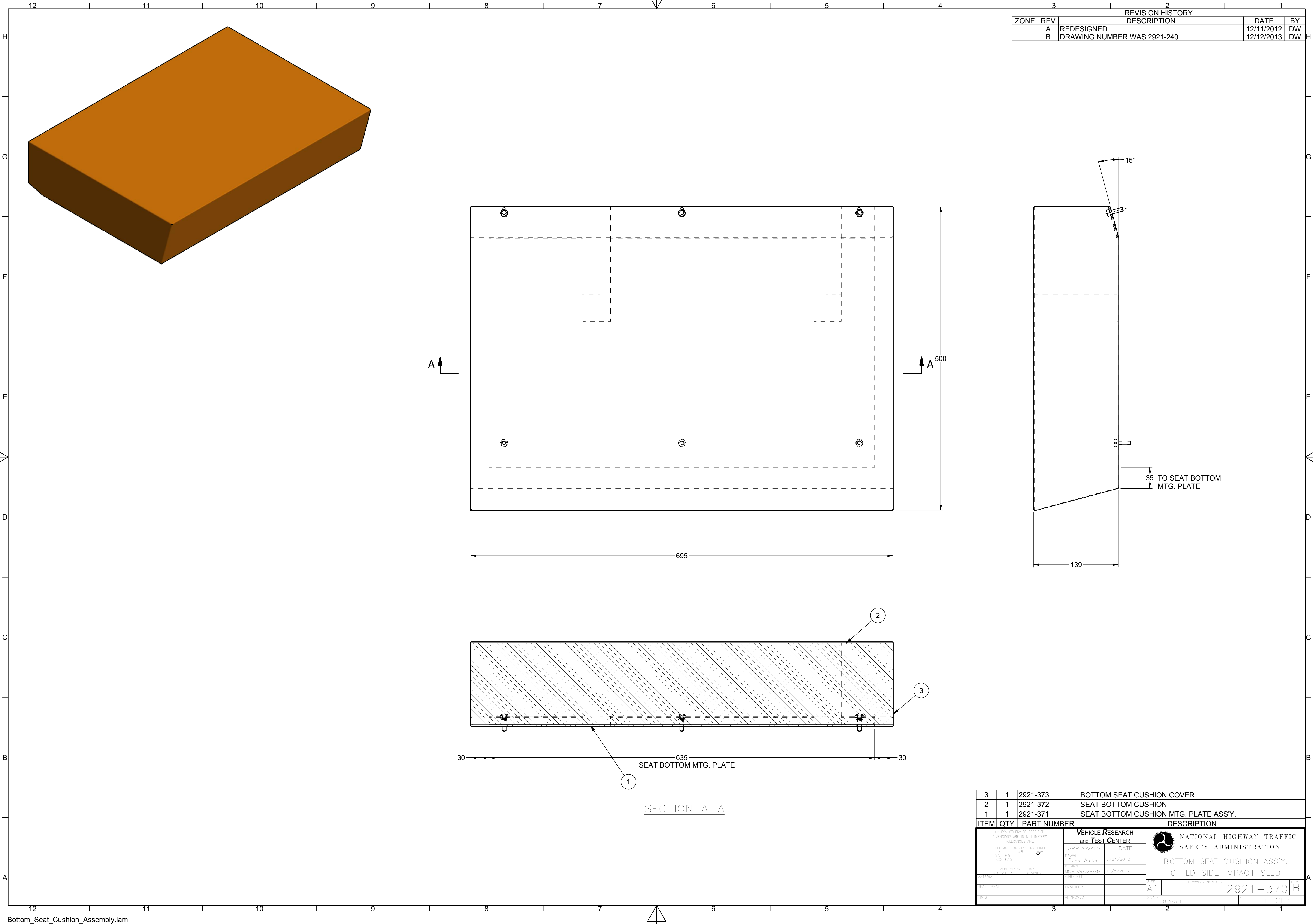


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING TITLE WAS LATCH BELT ATTACHMENT PLATE, DRAWING NUMBER WAS 2921-755	12/6/2013	DW

MATERIAL: BAR 50.8 (2") x 9.5 (3/8") x 222.3 (8 3/4")

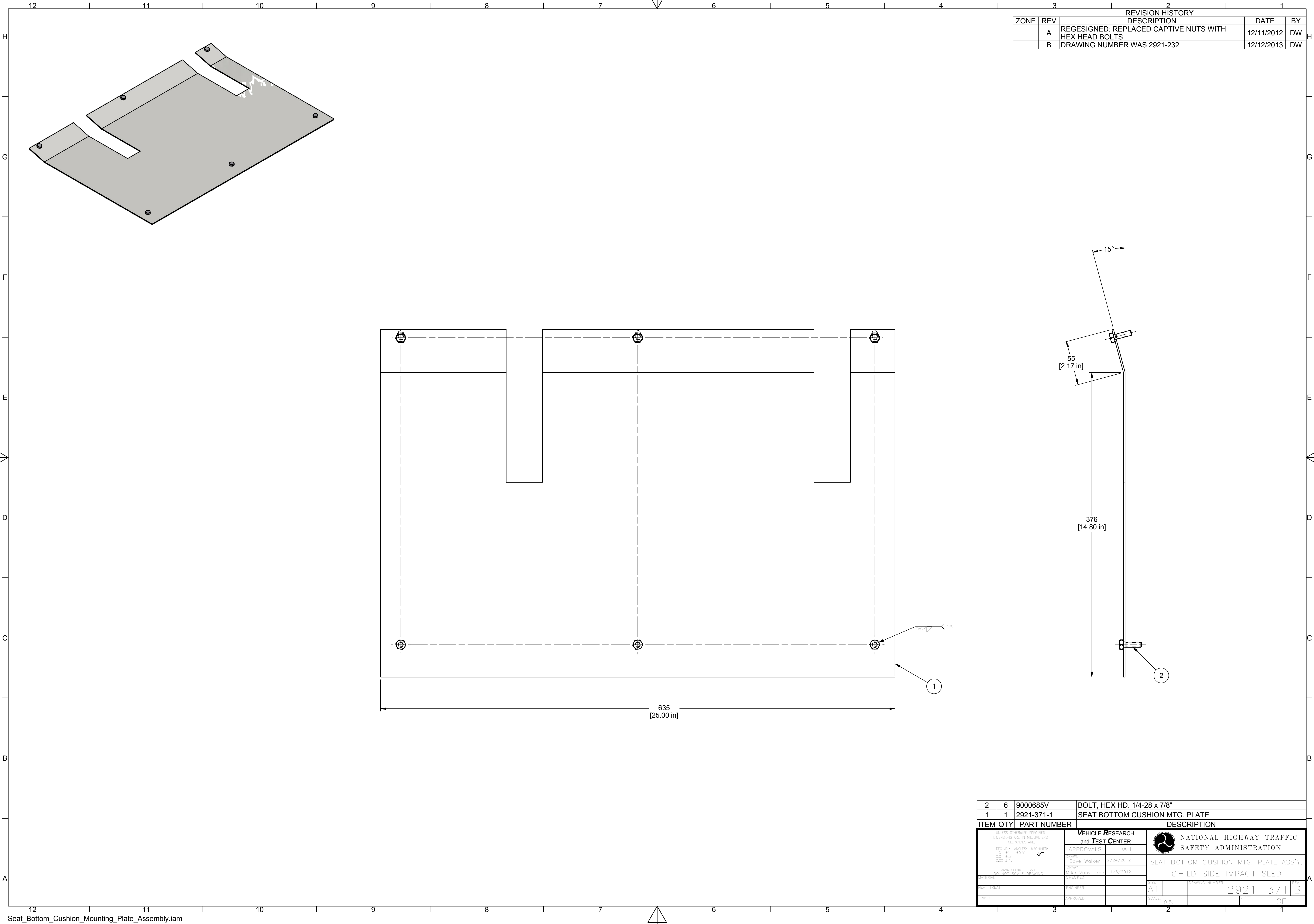
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 X ±1 ±.5° ±.5° X.X ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>		
	APPROVALS	DATE			
	DRAWN Dave Walker	12/10/2012			
	DESIGNER Mike Vanvoorhis	11/5/2012			
MATERIAL Steel, Mild	CHECKED		LOWER ANCHOR BELT ATTACHMENT PLATE CHILD SIDE IMPACT SLED		
HEAT TREAT	ENGINEER				
FINISH	APPROVED		SIZE A3	DRAWING NUMBER 2921-355	REV A
		SCALE: 1:1	SHEET 1 OF 1		





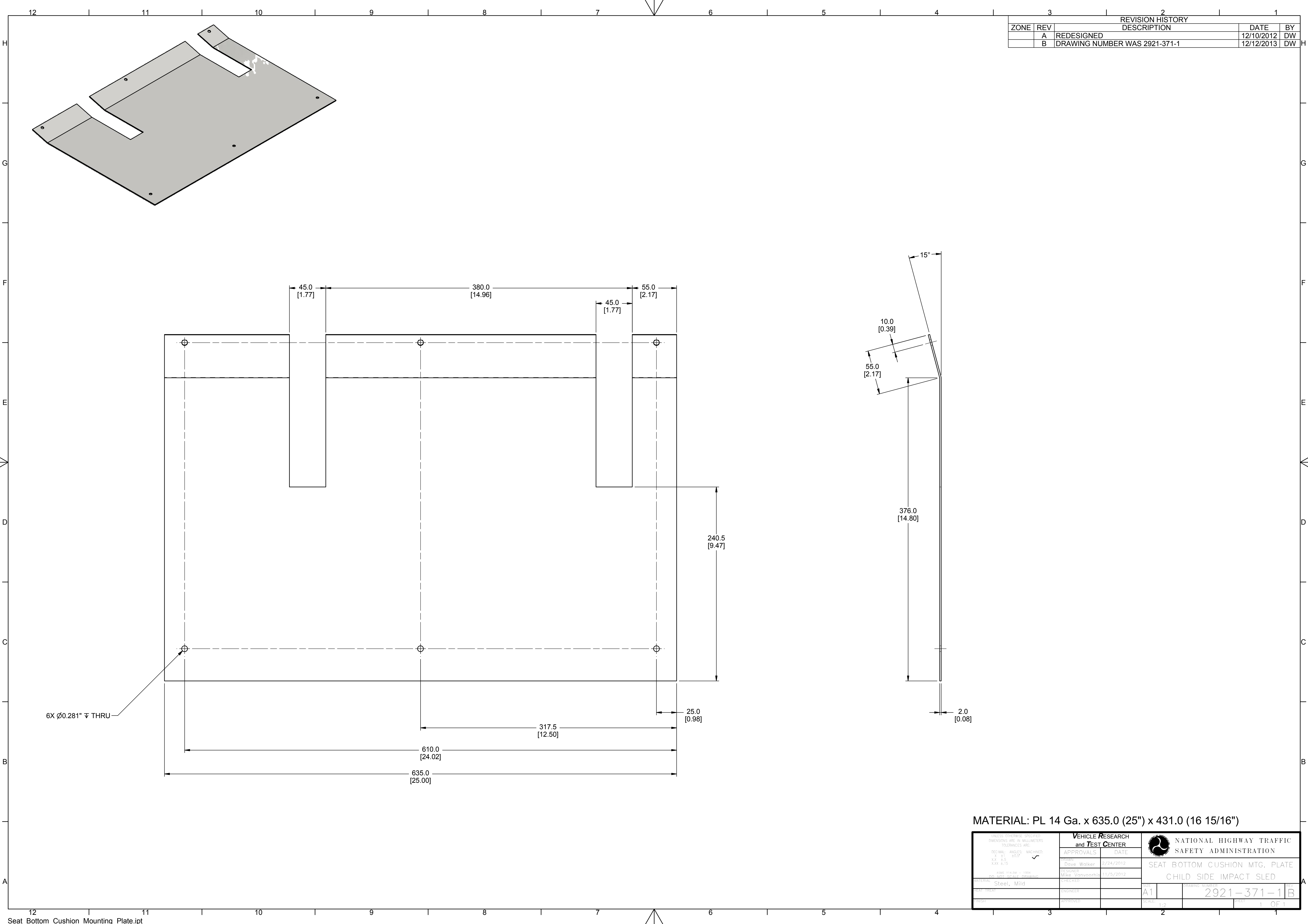
		REVISION HISTORY			
ZONE	REV	DESCRIPTION		DATE	BY
	A	REDESIGNED		12/11/2012	DW
	B	DRAWING NUMBER WAS 2921-240		12/12/2013	DW

ITEM	QTY	PART NUMBER	DESCRIPTION		
3	1	2921-373	BOTTOM SEAT CUSHION COVER		
2	1	2921-372	SEAT BOTTOM CUSHION		
1	1	2921-371	SEAT BOTTOM CUSHION MTG. PLATE ASS'Y.		
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 0.5° XX ±1.5 XXX ±1.5			VEHICLE RESEARCH and TEST CENTER		
APPROVALS:			DATE		
DESIGN: Dave Walker			2/24/2012		
CHECKED: Mike Vorpachis			11/5/2012		
MATERIAL: KSW Y14.5M - 1984 NO. NOT SCALE DRAWING			NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
FINISH:			BOTTOM SEAT CUSHION ASS'Y. CHILD SIDE IMPACT SLED		
ENGINEER:			SCALE: 0.375:1	SHEET: 1 OF 1	DRAWING NUMBER: 2921-370



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REGESIGNED: REPLACED CAPTIVE NUTS WITH HEX HEAD BOLTS	12/11/2012	DW
	B	DRAWING NUMBER WAS 2921-232	12/12/2013	DW

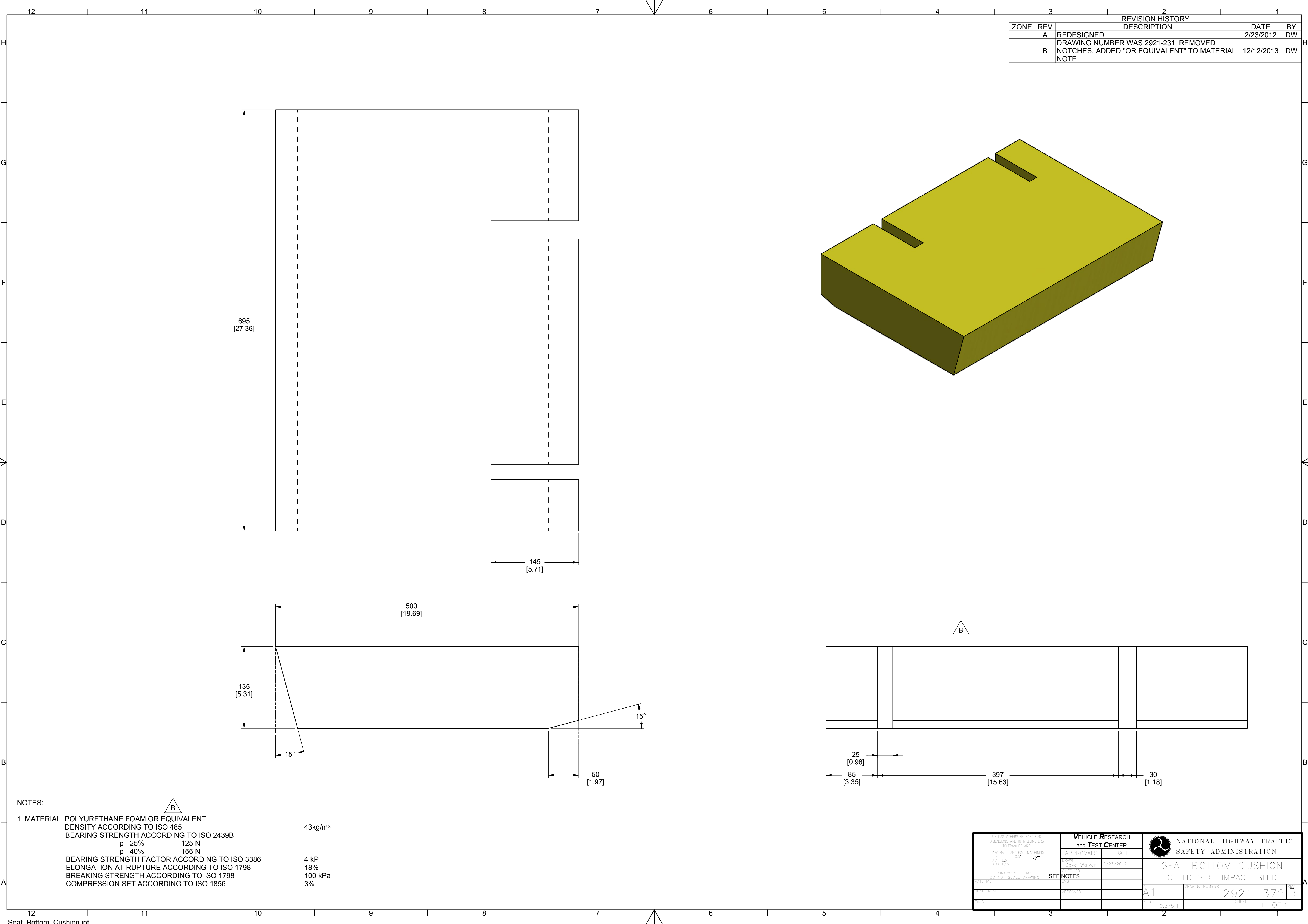
2	6	9000685V	BOLT, HEX HD. 1/4-28 x 7/8"	
1	1	2921-371-1	SEAT BOTTOM CUSHION MTG. PLATE	
ITEM	QTY	PART NUMBER	DESCRIPTION	
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 0.5° XX ±.5 XXX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>			<div>VEHICLE RESEARCH and TEST CENTER</div>	
			APPROVALS:	DATE
			DRAWN: Dave Walker	2/24/2012
			CHECKED: Mike Vanvoorst	11/5/2012
			<div>NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>	
			SEAT BOTTOM CUSHION MTG. PLATE ASSY.	
			CHILD SIDE IMPACT SLED	
MATERIAL: PLAT			SCALE: 0.5:1	DRAWING NUMBER: 2921-371
FINISH:			ENGINEER:	DATE: 1 OF 1
			APPROVER:	

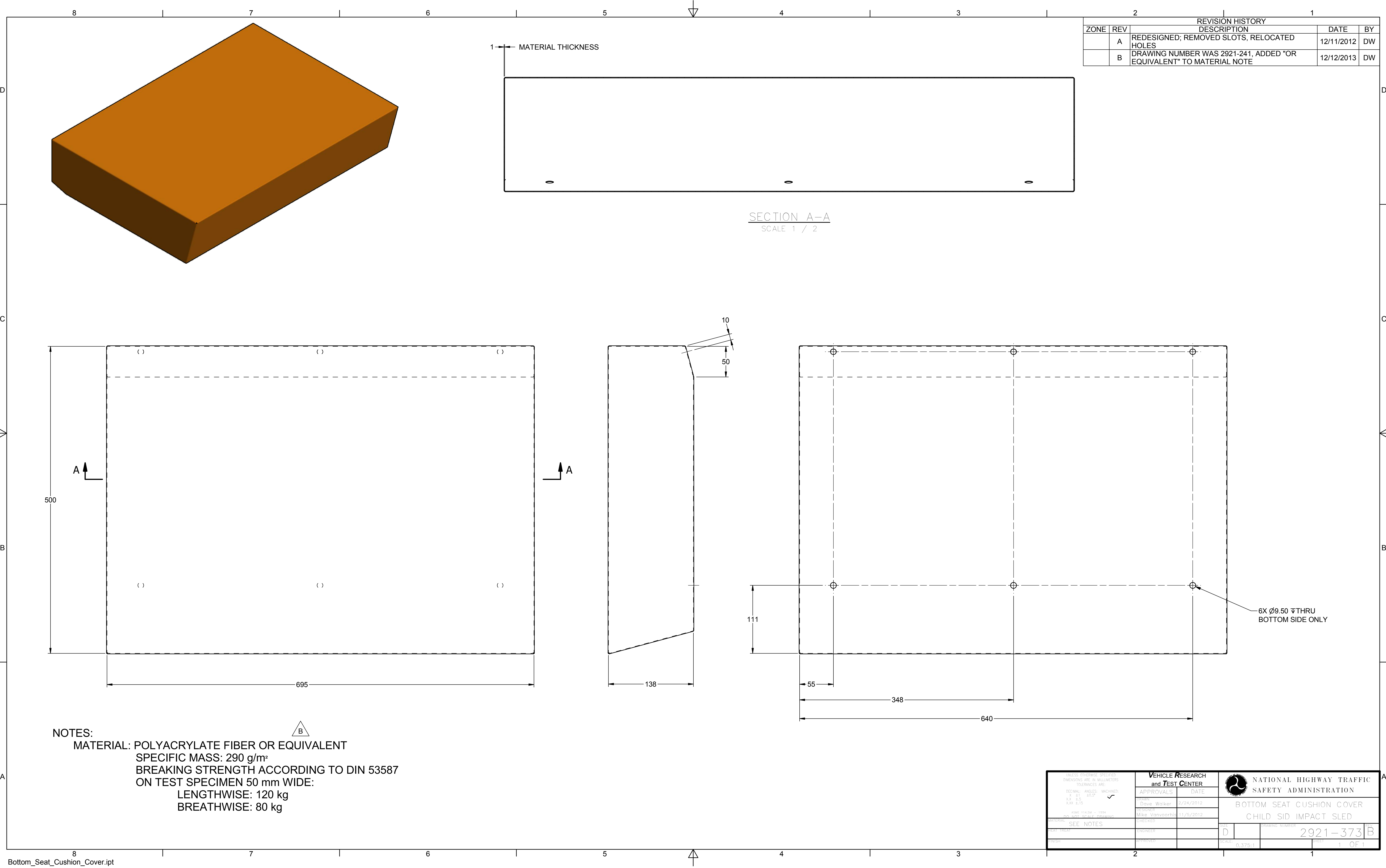


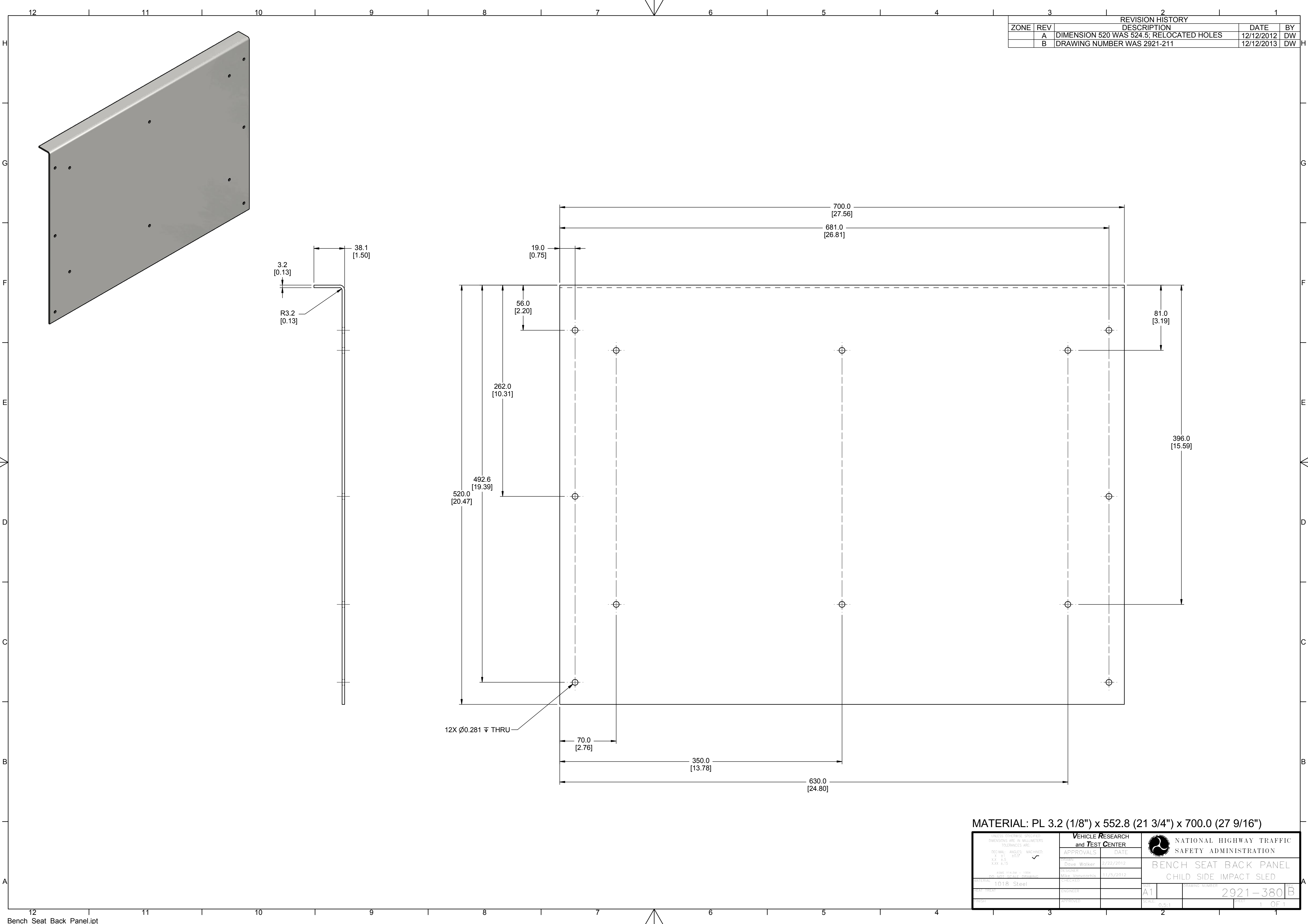
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	REDESIGNED	12/10/2012	DW
	B	DRAWING NUMBER WAS 2921-371-1	12/12/2013	DW

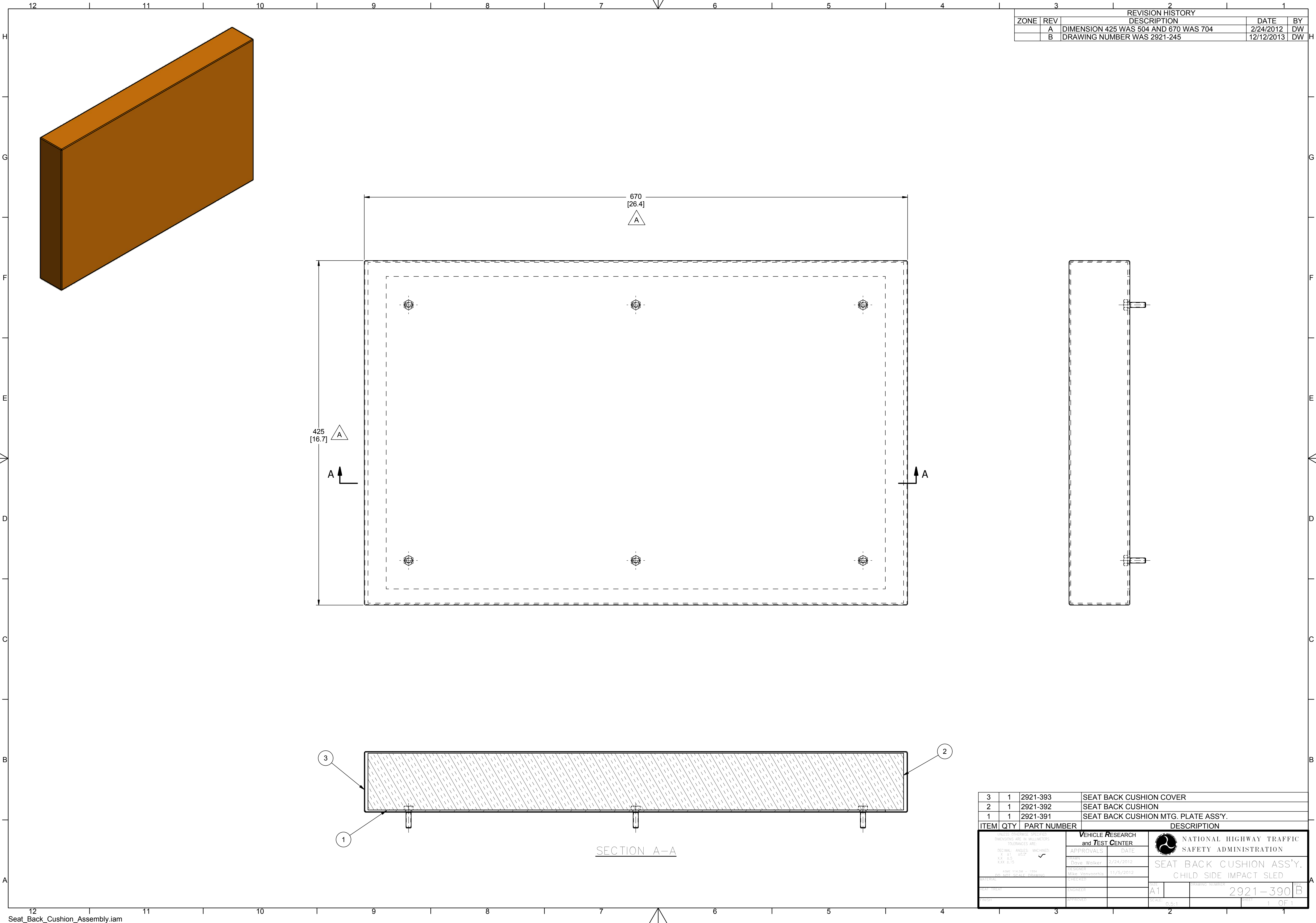
MATERIAL: PL 14 Ga. x 635.0 (25") x 431.0 (16 15/16")

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINES: X ±1 0.5° XX ±0.5 XXX ±1.5 K&W #14-5M - 1994 NO. NOT TO SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
	APPROVALS:	DATE		
	DESIGNER	DATE	SEAT BOTTOM CUSHION MTG. PLATE	
	CHECKED BY	DATE	CHILD SIDE IMPACT SLED	
MATERIAL: Steel, Mild	ENGINEER		SIZE: A1	DRAWING NUMBER: 2921-371-1
FINISH	APPROVER		SCALE: 1:1	SHEET: 1 OF 1



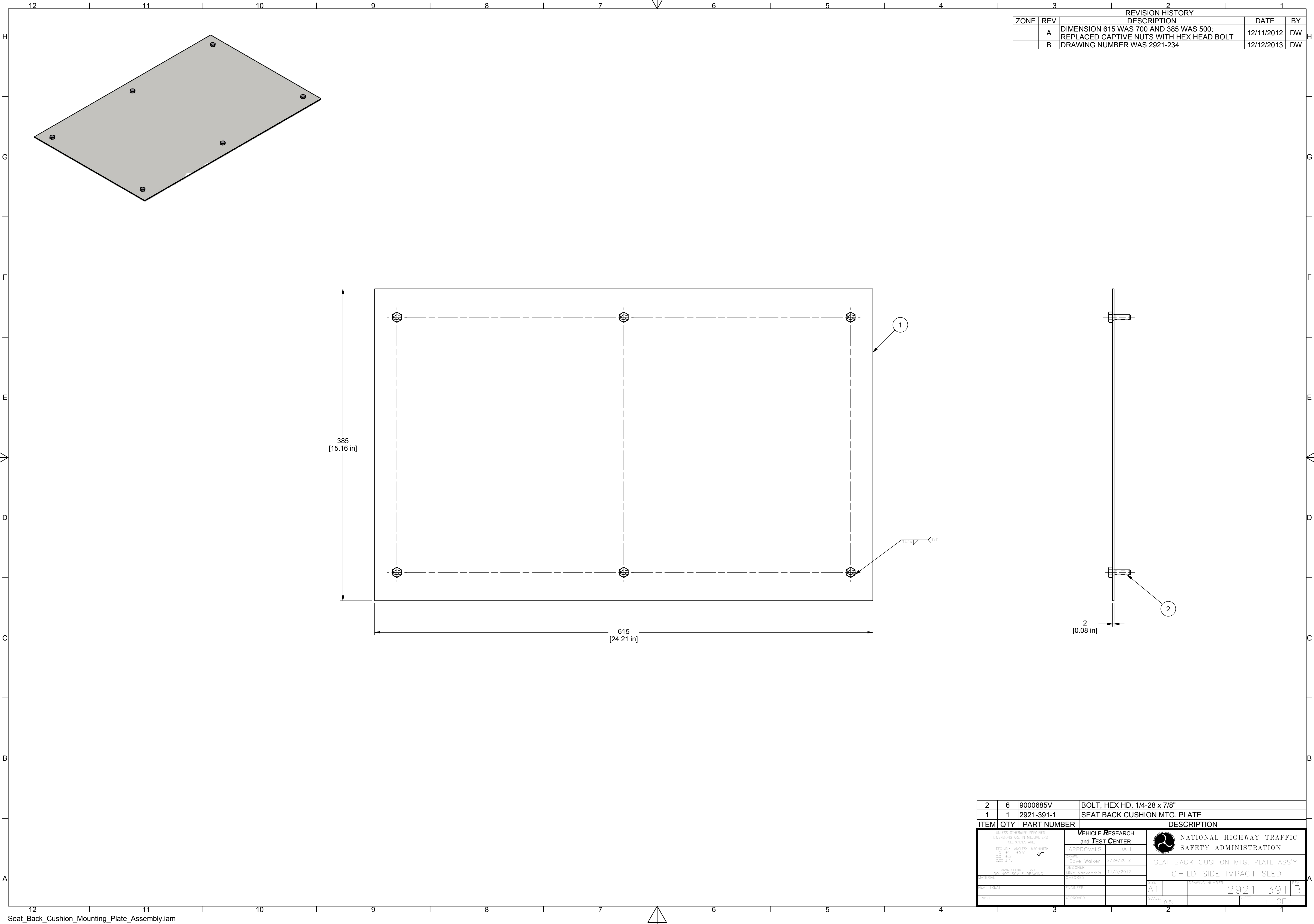







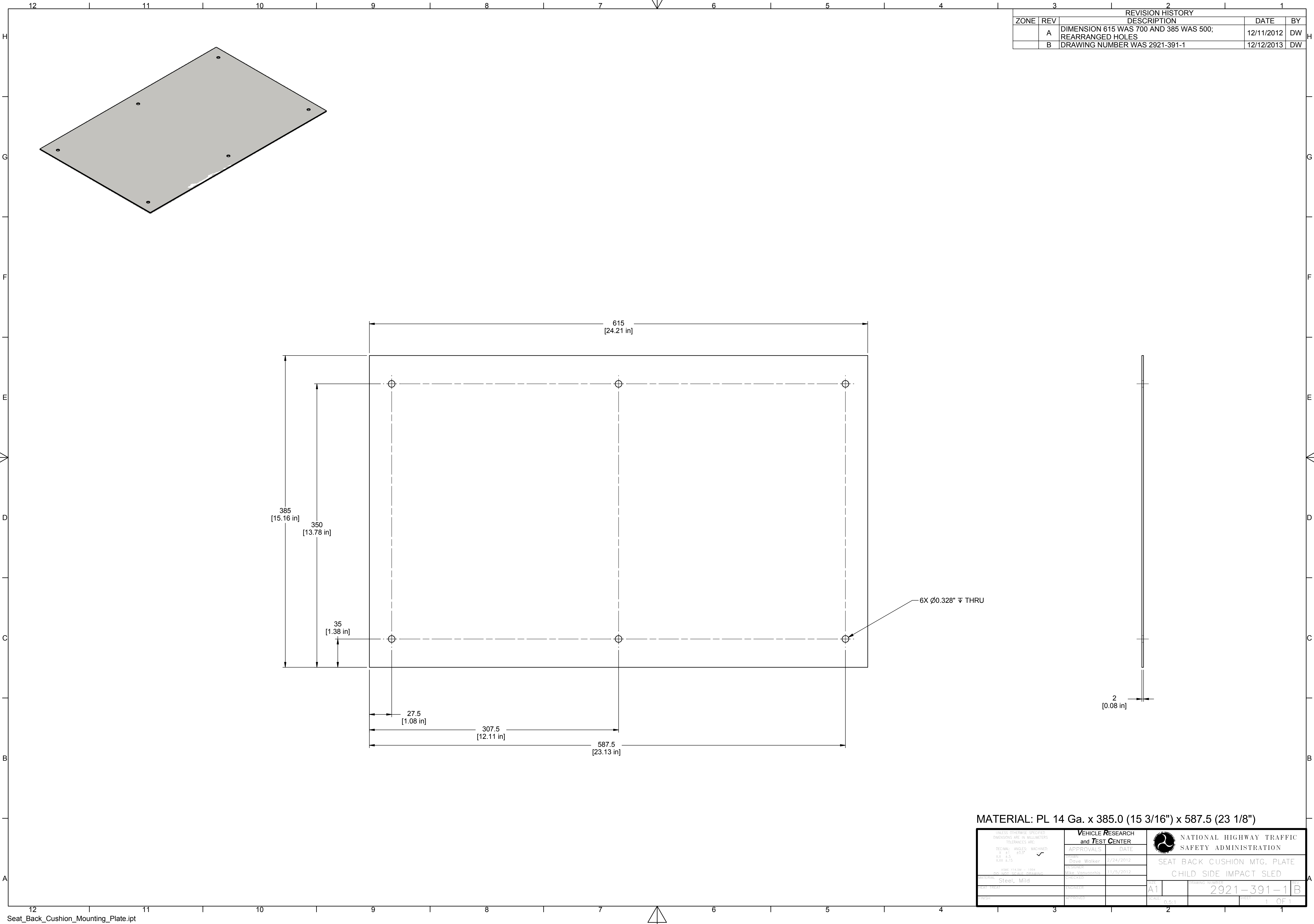
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 425 WAS 504 AND 670 WAS 704	2/24/2012	DW
	B	DRAWING NUMBER WAS 2921-245	12/12/2013	DW

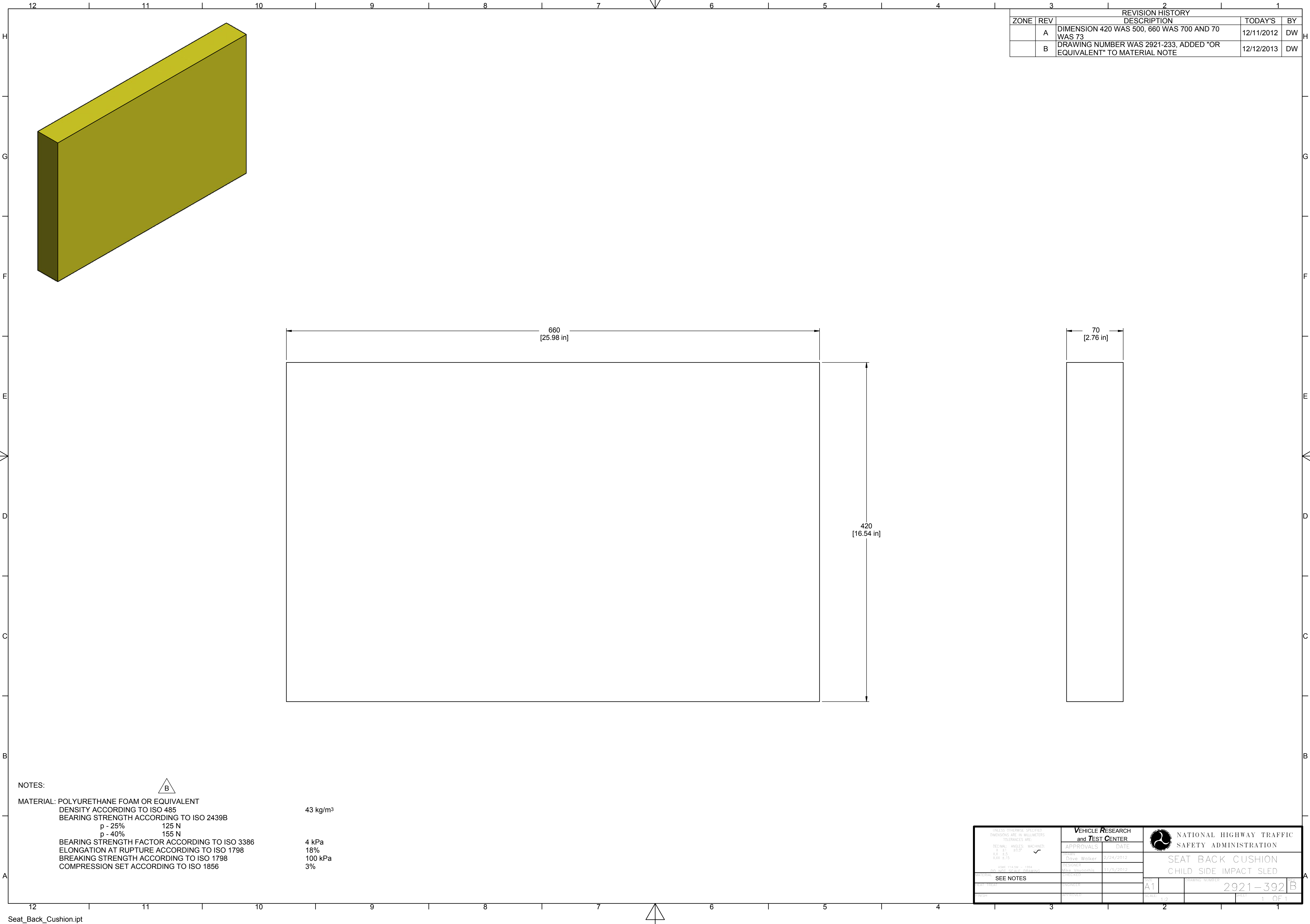
3	1	2921-393	SEAT BACK CUSHION COVER
2	1	2921-392	SEAT BACK CUSHION
1	1	2921-391	SEAT BACK CUSHION MTG. PLATE ASS'Y.
ITEM	QTY	PART NUMBER	DESCRIPTION
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 0.5° XX ±1.5 1.0° XXX ±1.5 1.5° ASME Y14.5M - 1994 NO. NOT TO SCALE DRAWING			VEHICLE RESEARCH and TEST CENTER
APPROVALS:			DATE
DRAWN: Dave Winkler			2/24/2012
DESIGNED: Mike Vonnahme			11/5/2012
CHECKED:			
ENGINEER:			
APPROVED:			
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION			SEAT BACK CUSHION ASS'Y. CHILD SIDE IMPACT SLED
SCALE: 0.5:1			SIZE: A1 DRAWING NUMBER: 2921-390 SHEET: 1 OF 1

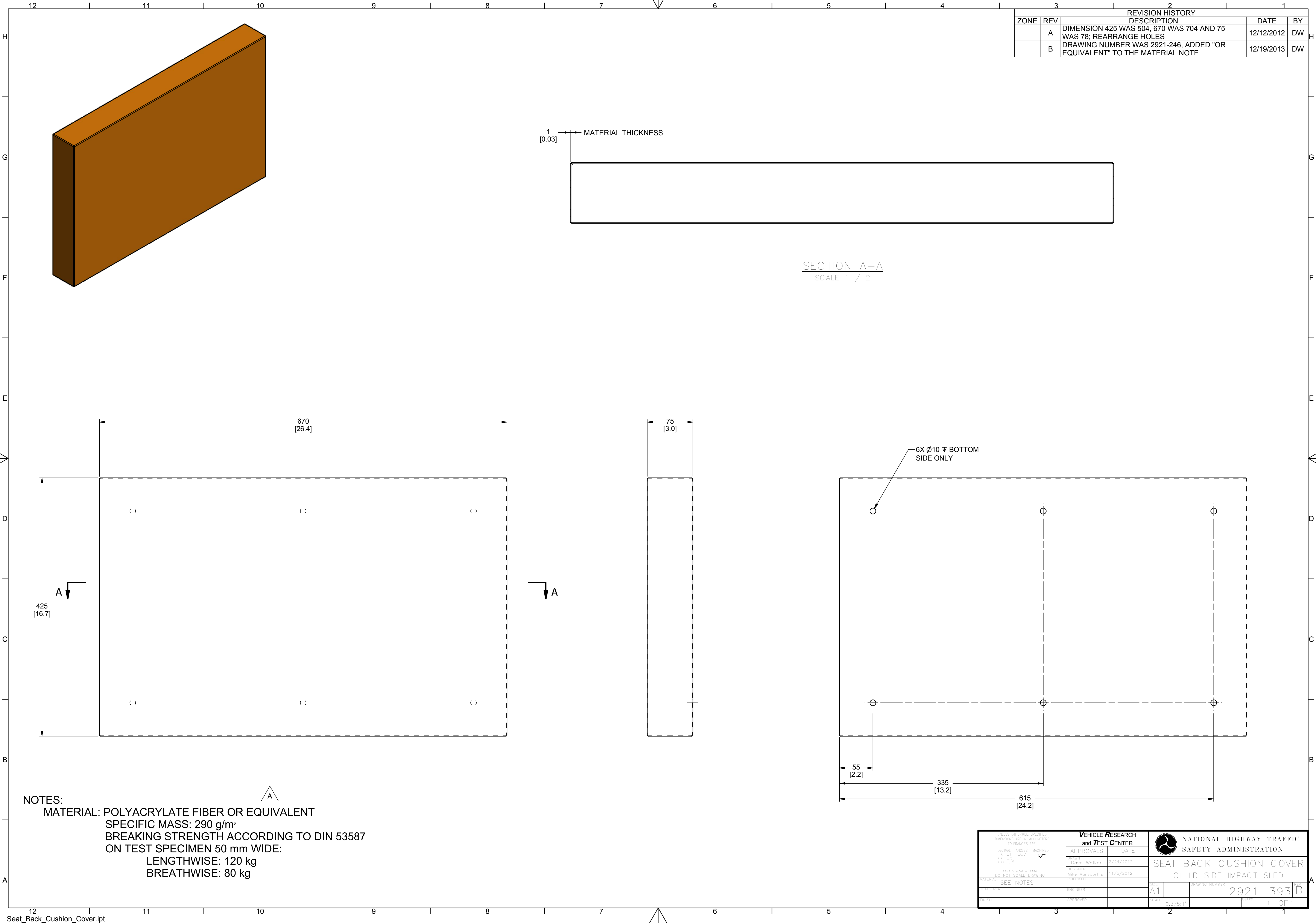


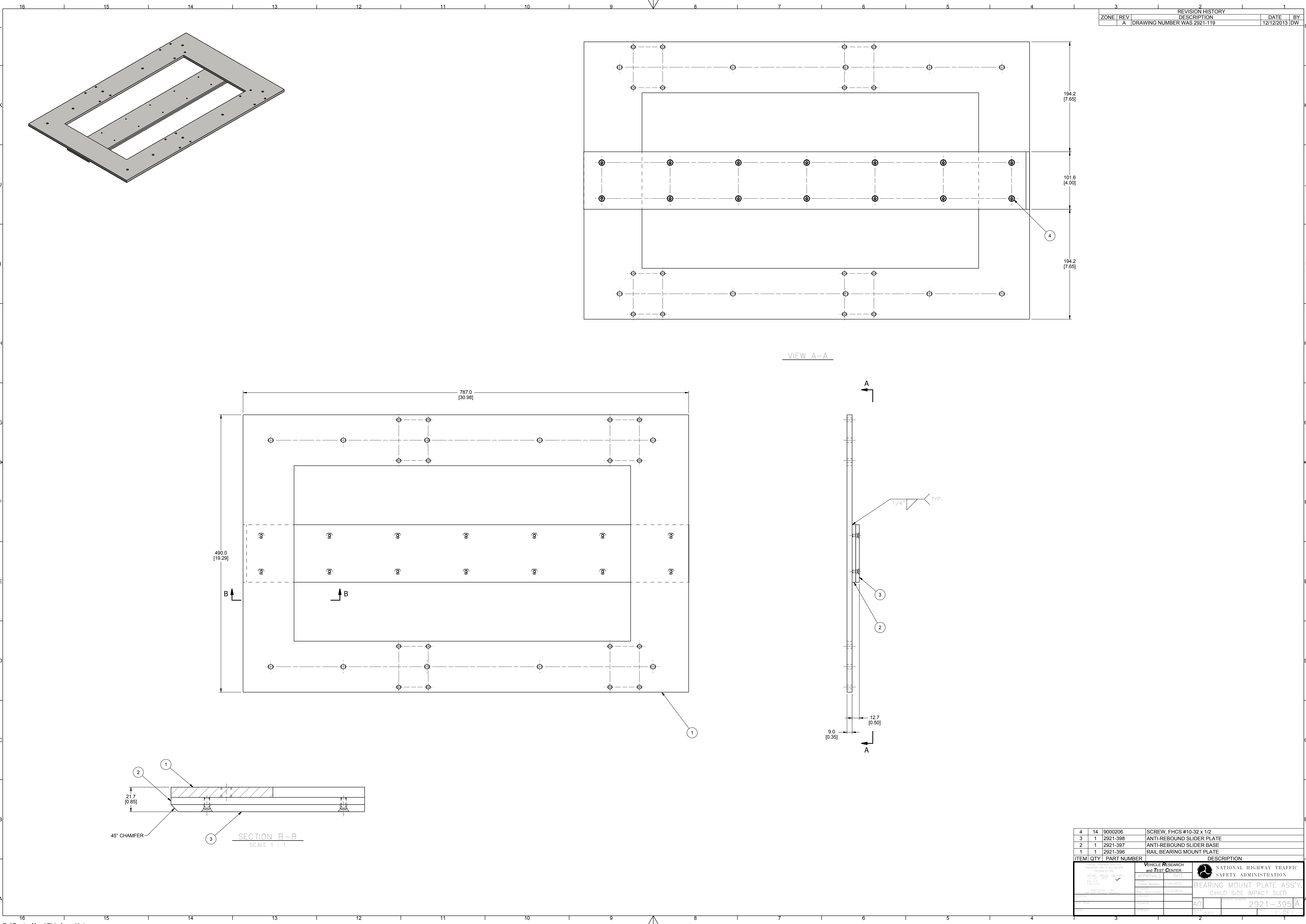
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 615 WAS 700 AND 385 WAS 500; REPLACED CAPTIVE NUTS WITH HEX HEAD BOLT	12/11/2012	DW
	B	DRAWING NUMBER WAS 2921-234	12/12/2013	DW

2	6	9000685V	BOLT, HEX HD. 1/4-28 x 7/8"			
1	1	2921-391-1	SEAT BACK CUSHION MTG. PLATE			
ITEM	QTY	PART NUMBER	DESCRIPTION			
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: X ±1 XX ±.5 XXX ±.15</div> <div>✓</div>			VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
			APPROVALS			DATE
			DESIGNER			DATE
			ENGINEER			DATE
MATERIAL			SCALE: 0.5:1		SEAT BACK CUSHION MTG. PLATE ASS'Y. CHILD SIDE IMPACT SLED	
FINISH			SCALE: 0.5:1			



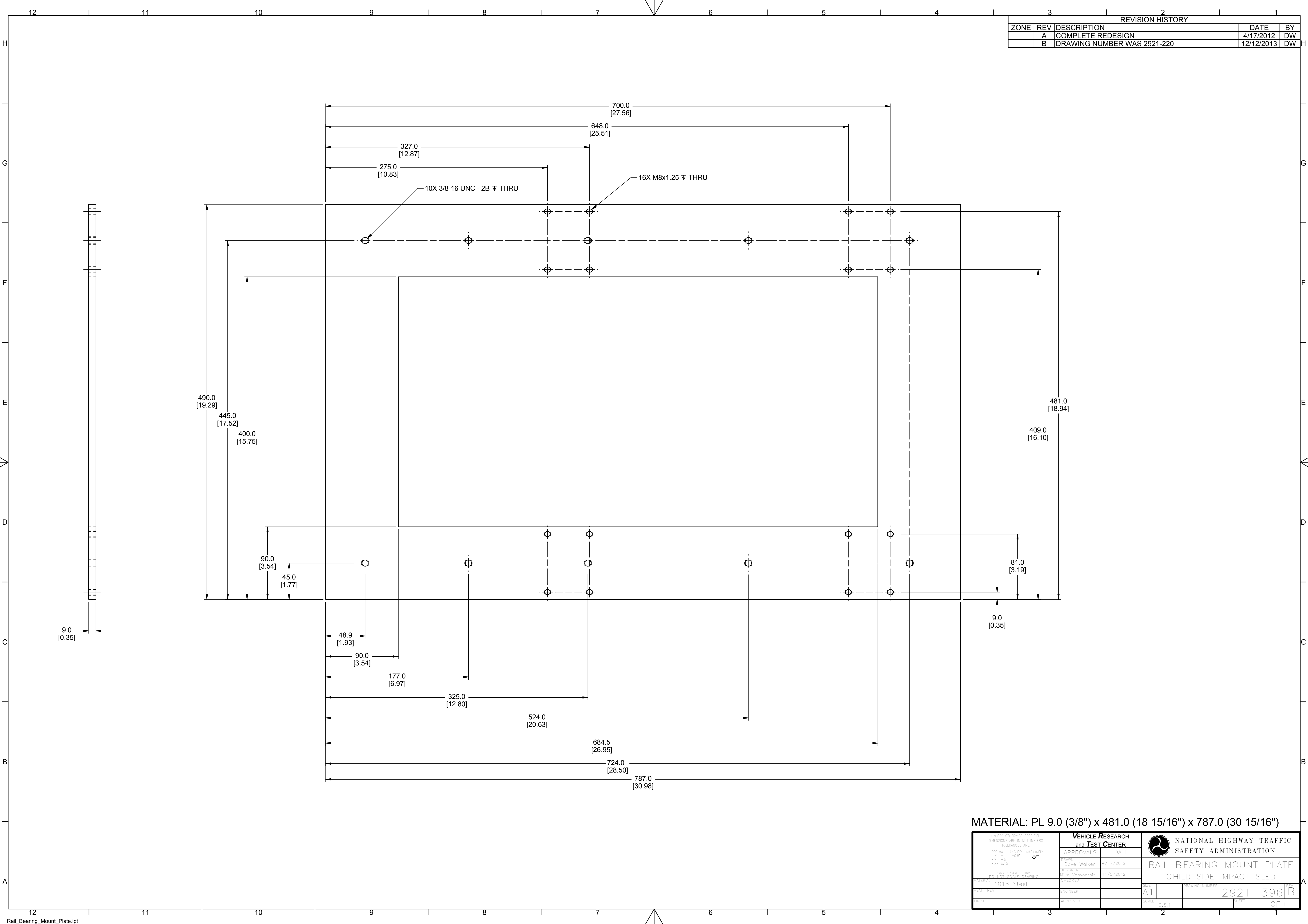


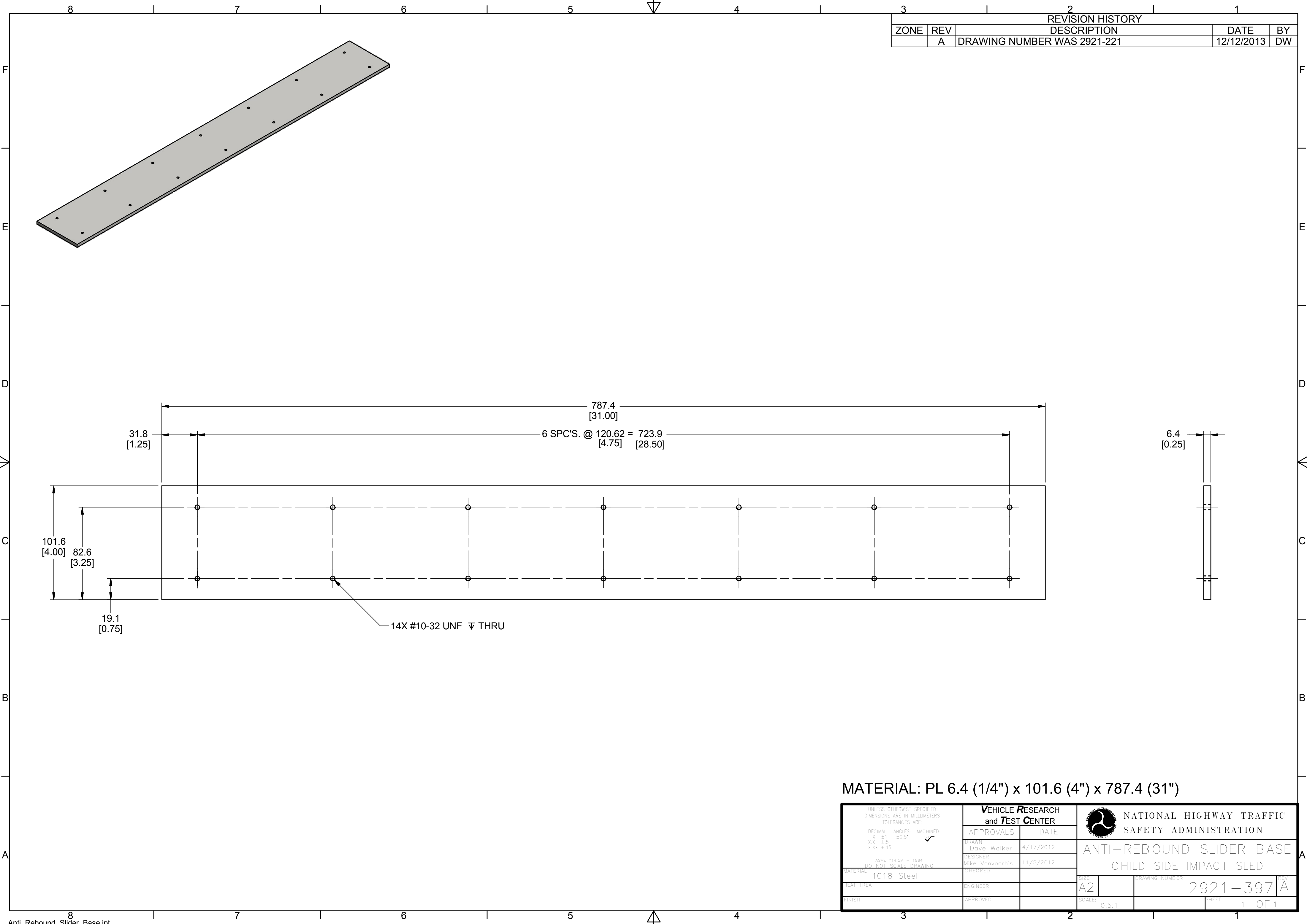




REVISION HISTORY			
ZONE	REV	DESCRIPTION	DATE BY
A	1	DRAWING NUMBER WAS 2921-119	12/12/2013 DW


4	14	9000206	SCREW, FHCS #10-32 x 1/2
3	1	2921-398	ANTI-REBOUND SLIDER PLATE
2	1	2921-397	ANTI-REBOUND SLIDER BASE
1	1	2921-396	RAIL BEARING MOUNT PLATE
ITEM QTY		PART NUMBER	DESCRIPTION
<div><div>VEHICLE RESEARCH and TEST CENTER</div><div>APPROVALS DATE</div><div>DESIGNED BY: [Signature] DATE: 1/15/2013</div><div>CHECKED BY: [Signature] DATE: 1/15/2013</div><div>DATE: 1/15/2013</div></div> <div><div>NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div><div>BEARING MOUNT PLATE ASS'Y</div><div>CHILD SIDE IMPACT SLED</div><div>2921-395 A</div></div>			
PAGE 1 OF 1		2921-395 A	

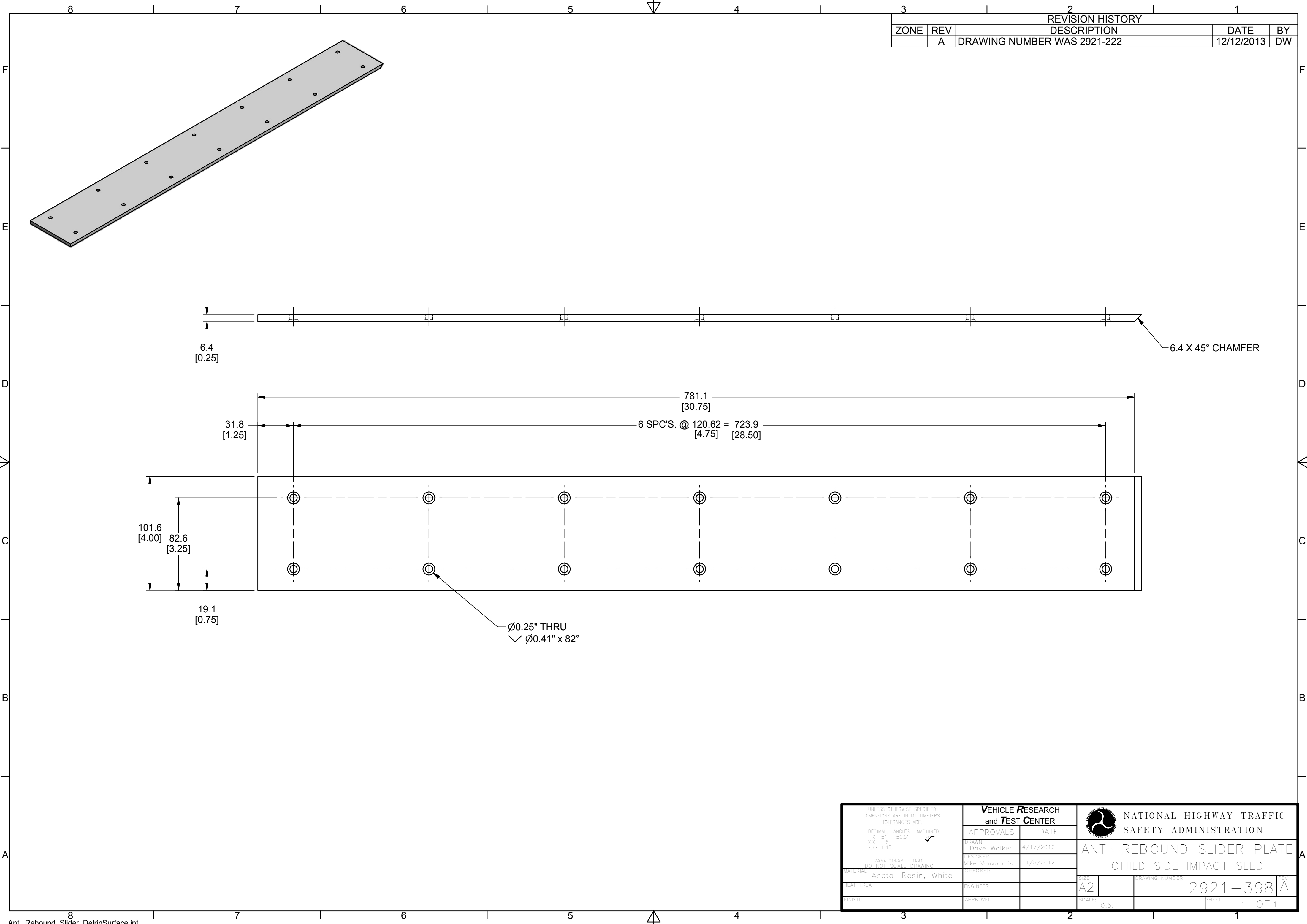




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-221	12/12/2013	DW

MATERIAL: PL 6.4 (1/4") x 101.6 (4") x 787.4 (31")

<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±0.5° ✓ XX ±.5 X.XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE	ANTI-REBOUND SLIDER BASE		
	DRAWN Dave Walker	4/17/2012	CHILD SIDE IMPACT SLED		
	DESIGNER Mike Vanvoorhis	11/5/2012			
MATERIAL 1018 Steel	CHECKED		SIZE A2	DRAWING NUMBER 2921-397	REV A
HEAT TREAT	ENGINEER		SCALE: 0.5:1	SHEET 1 OF 1	
FINISH	APPROVED				



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-222	12/12/2013	DW

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE:

DECIMAL: ANGLES: MACHINED:
X ±1 ±0.5° ✓
XX ±.5
XXX ±.15

ASME Y14.5M - 1994
DO NOT SCALE DRAWING


MATERIAL Acetal Resin, White

HEAT TREAT

FINISH

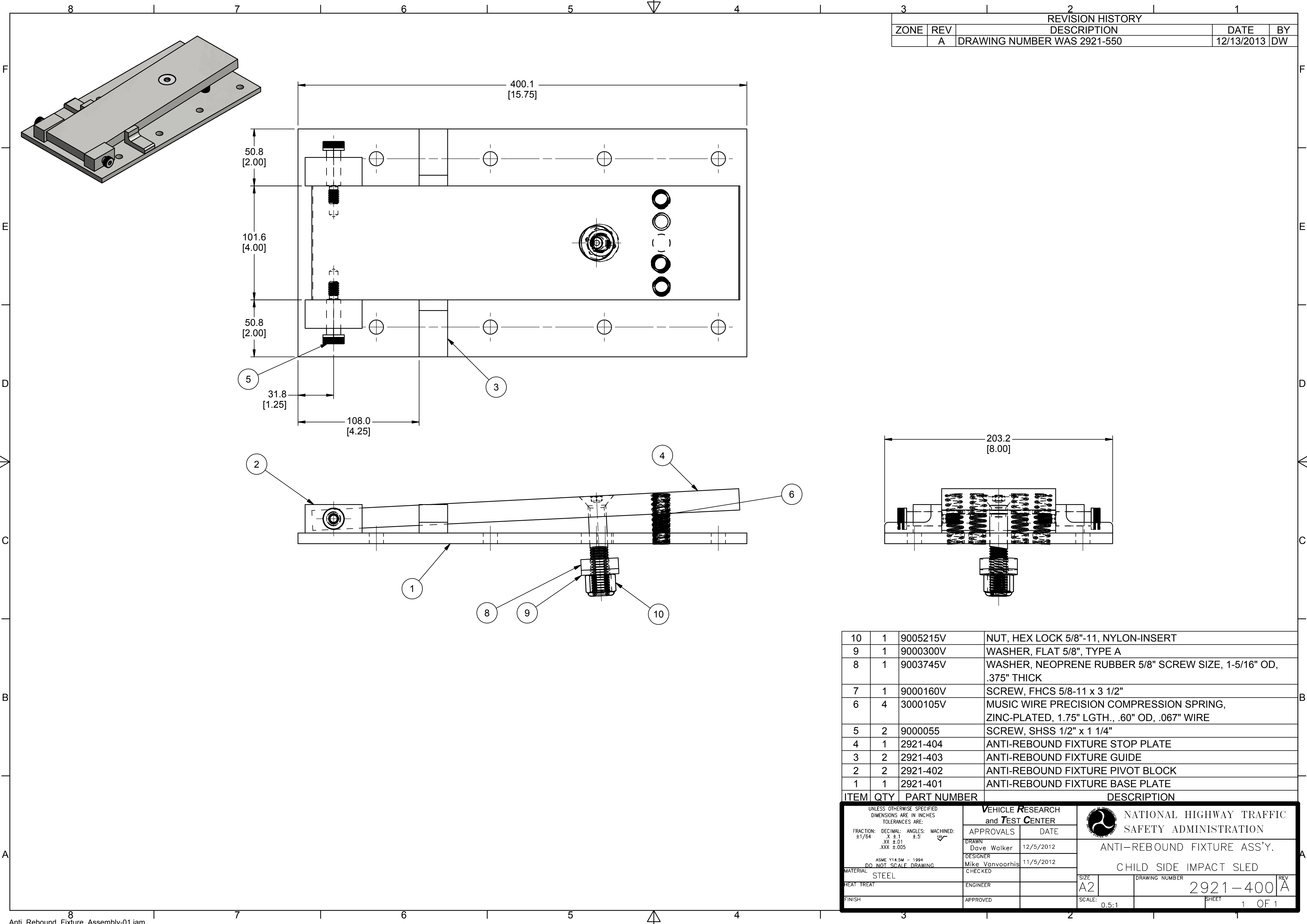
**VEHICLE RESEARCH
and TEST CENTER**

APPROVALS	DATE
DRAWN Dave Walker	4/17/2012
DESIGNER Mike Vanvoorhis	11/5/2012
CHECKED	
ENGINEER	
APPROVED	

 NATIONAL HIGHWAY TRAFFIC
SAFETY ADMINISTRATION

ANTI-REBOUND SLIDER PLATE
CHILD SIDE IMPACT SLED

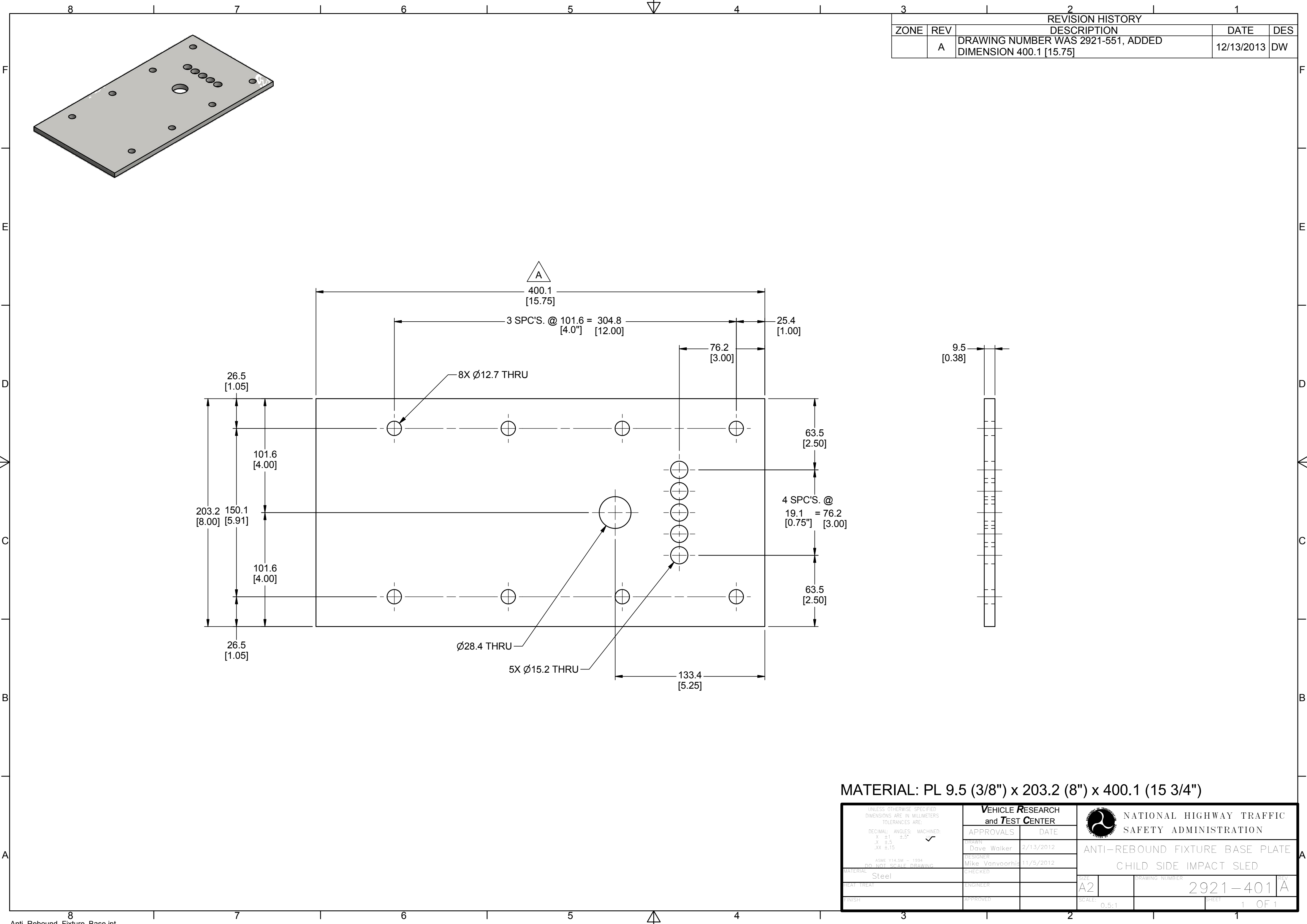
SIZE A2	DRAWING NUMBER 2921-398	REV A
SCALE: 0.5:1	SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-550	12/13/2013	DW


10	1	9005215V	NUT, HEX LOCK 5/8"-11, NYLON-INSERT
9	1	9000300V	WASHER, FLAT 5/8", TYPE A
8	1	9003745V	WASHER, NEOPRENE RUBBER 5/8" SCREW SIZE, 1-5/16" OD, .375" THICK
7	1	9000160V	SCREW, FHCS 5/8-11 x 3 1/2"
6	4	3000105V	MUSIC WIRE PRECISION COMPRESSION SPRING, ZINC-PLATED, 1.75" LGTH., .60" OD, .067" WIRE
5	2	9000055	SCREW, SHSS 1/2" x 1 1/4"
4	1	2921-404	ANTI-REBOUND FIXTURE STOP PLATE
3	2	2921-403	ANTI-REBOUND FIXTURE GUIDE
2	2	2921-402	ANTI-REBOUND FIXTURE PIVOT BLOCK
1	1	2921-401	ANTI-REBOUND FIXTURE BASE PLATE
ITEM	QTY	PART NUMBER	DESCRIPTION

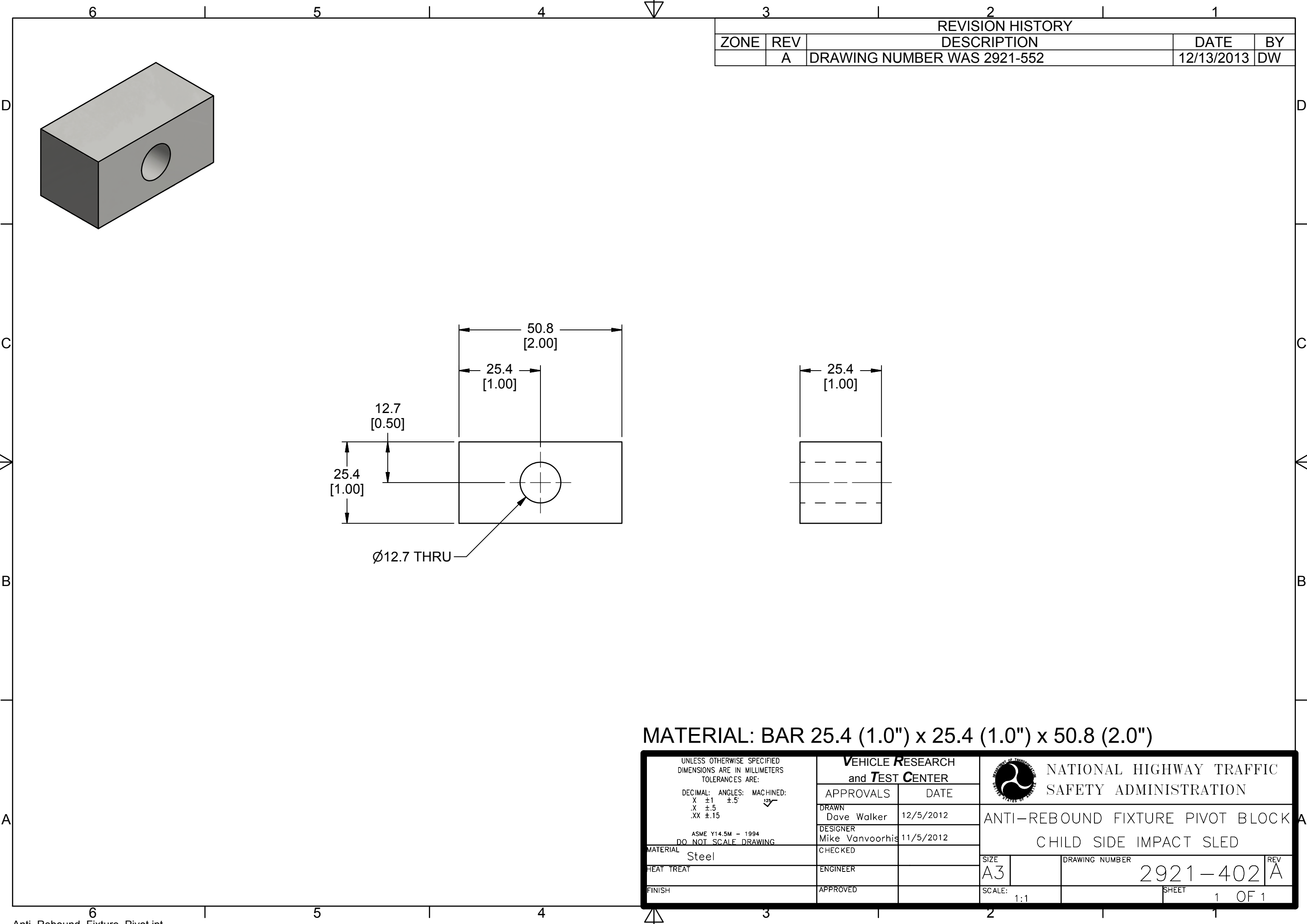
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: ±1/64 DECIMAL: .X ±.1 .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER APPROVALS DRAWN Dave Walker DESIGNER Mike Vanvoorhis CHECKED ENGINEER APPROVED		DATE 12/5/2012 11/5/2012		NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION ANTI-REBOUND FIXTURE ASS'Y. CHILD SIDE IMPACT SLED	
MATERIAL STEEL HEAT TREAT FINISH		SIZE A2 SCALE: 0.5:1		DRAWING NUMBER 2921-400		REV A SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DES
	A	DRAWING NUMBER WAS 2921-551, ADDED DIMENSION 400.1 [15.75]	12/13/2013	DW


MATERIAL: PL 9.5 (3/8") x 203.2 (8") x 400.1 (15 3/4")

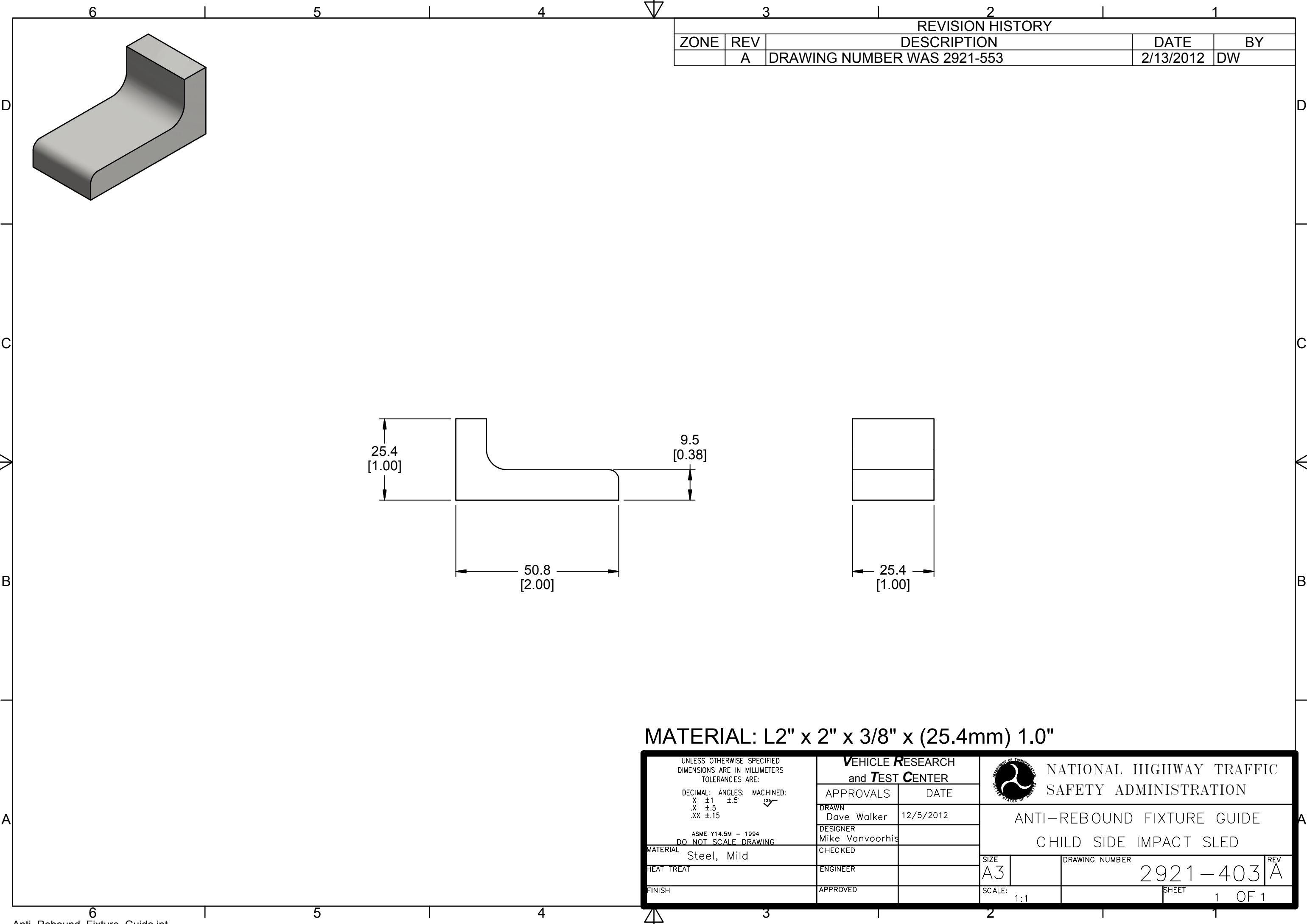
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: .X ±.1 .5° ✓ .XX ±.5 ASME Y14.5M - 1994 DO NOT SCALE DRAWING			VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
			APPROVALS	DATE		
MATERIAL Steel			DRAWN Dave Walker	2/13/2012	ANTI-REBOUND FIXTURE BASE PLATE CHILD SIDE IMPACT SLED	
HEAT TREAT			DESIGNER Mike Vanvoorhis	11/5/2012		
FINISH			CHECKED		SIZE A2	DRAWING NUMBER 2921-401
			ENGINEER		SCALE: 0.5:1	REV A
			APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-552	12/13/2013	DW


MATERIAL: BAR 25.4 (1.0") x 25.4 (1.0") x 50.8 (2.0")

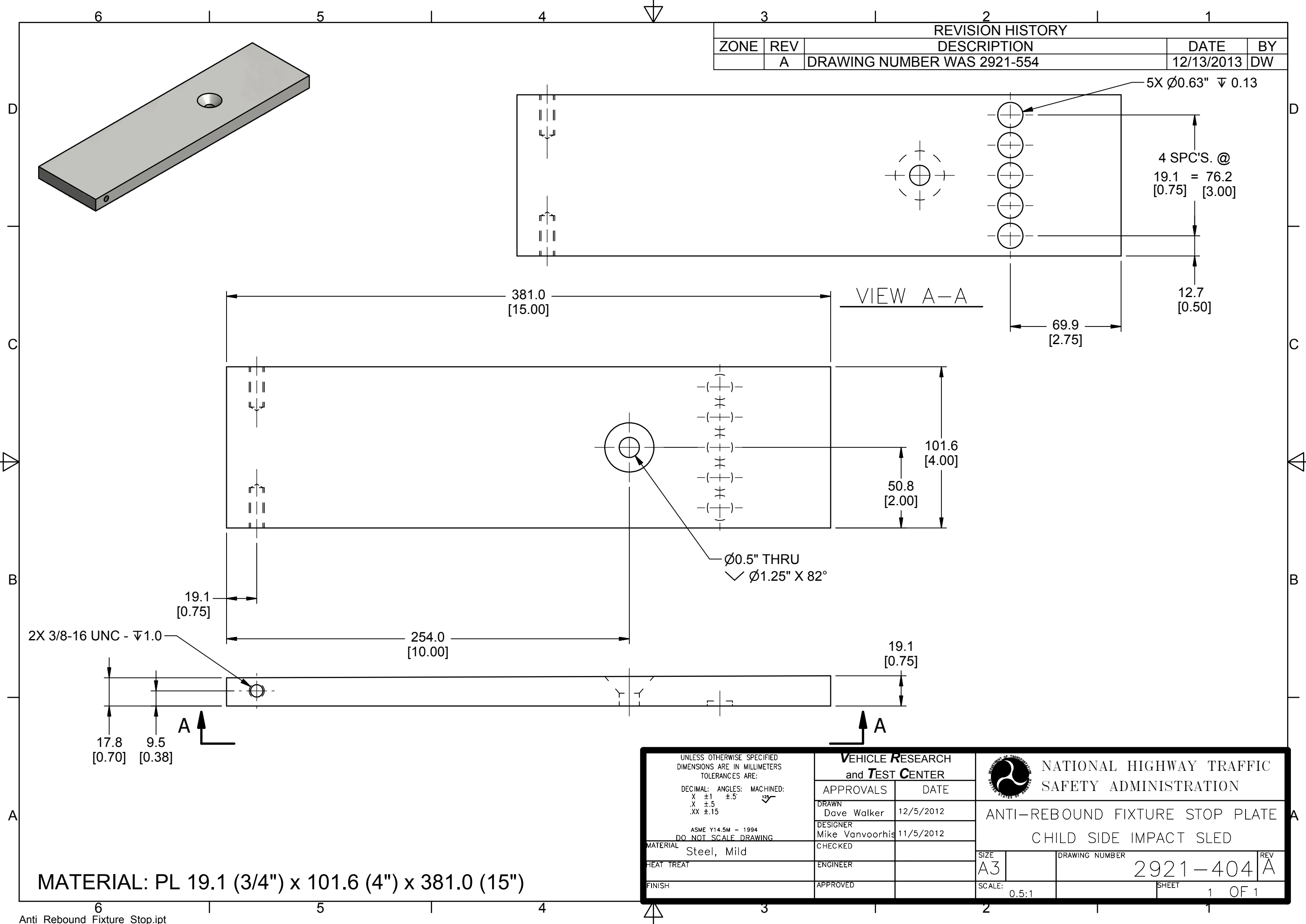
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: .X ±1 ±.5° .X ±.5 .XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL Steel	HEAT TREAT	DRAWN Dave Walker	12/5/2012	ANTI-REBOUND FIXTURE PIVOT BLOCK CHILD SIDE IMPACT SLED	
		DESIGNER Mike Vanvoorhis	11/5/2012		
		CHECKED			
FINISH		ENGINEER		SIZE A3	DRAWING NUMBER 2921-402
		APPROVED		SCALE: 1:1	REV A
				SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-553	2/13/2012	DW

MATERIAL: L2" x 2" x 3/8" x (25.4mm) 1.0"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: X ±1 ±.5° .X ±.5 .XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL	Steel, Mild	DRAWN Dave Walker	12/5/2012	ANTI-REBOUND FIXTURE GUIDE CHILD SIDE IMPACT SLED	
		DESIGNER Mike Vanvoorhis			
		CHECKED			
HEAT TREAT		ENGINEER		SIZE A3	DRAWING NUMBER 2921-403
FINISH		APPROVED		SCALE: 1:1	REV A
				SHEET	1 OF 1



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-554	12/13/2013	DW

5X Ø0.63" ∇ 0.13

4 SPC'S. @
19.1 = 76.2
[0.75] [3.00]

12.7
[0.50]

VIEW A-A

69.9
[2.75]

101.6
[4.00]

50.8
[2.00]

Ø0.5" THRU
✓ Ø1.25" X 82°

19.1
[0.75]

254.0
[10.00]

19.1
[0.75]

2X 3/8-16 UNC - ∇ 1.0


17.8
[0.70]

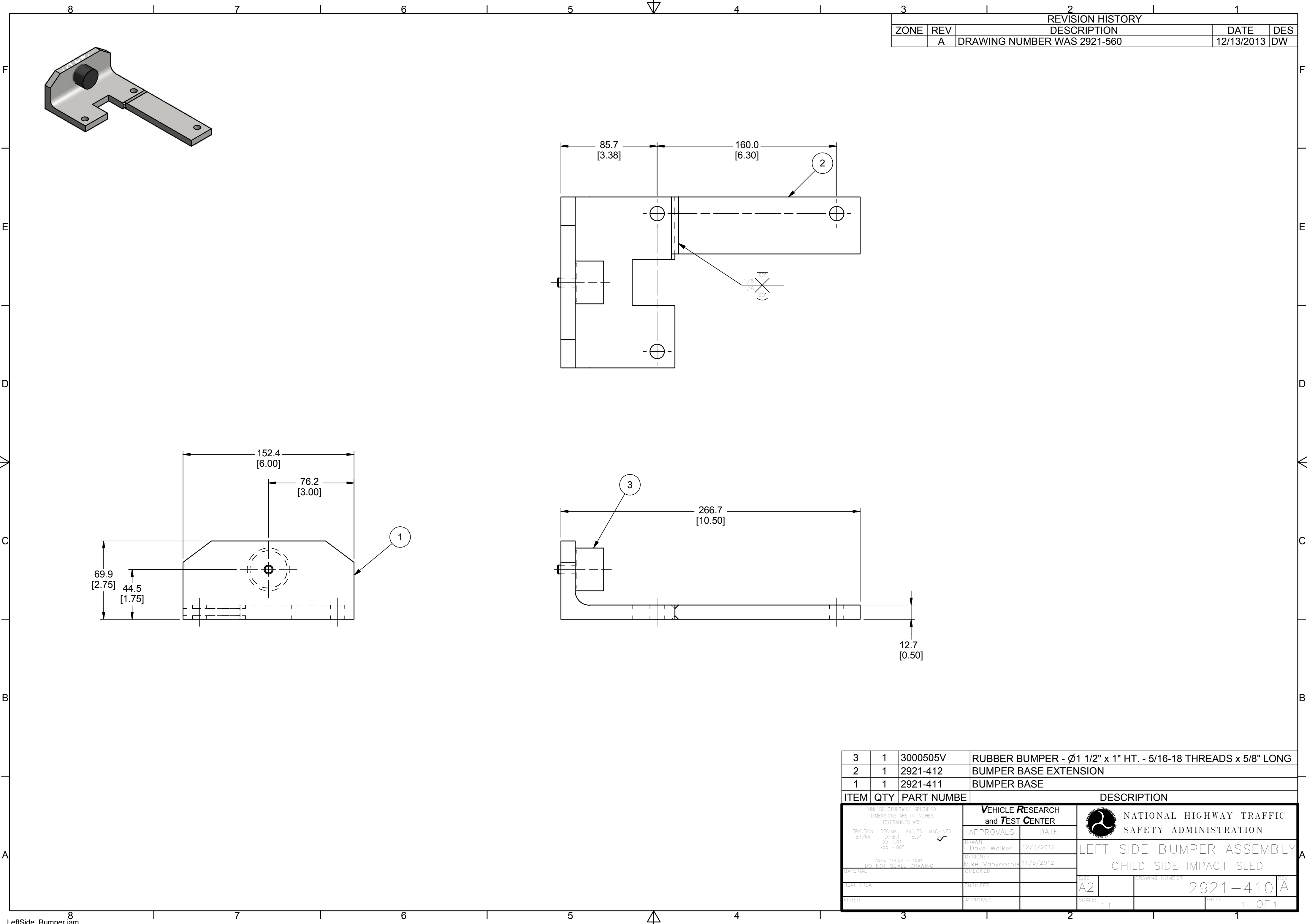
9.5
[0.38]

A

A


MATERIAL: PL 19.1 (3/4") x 101.6 (4") x 381.0 (15")

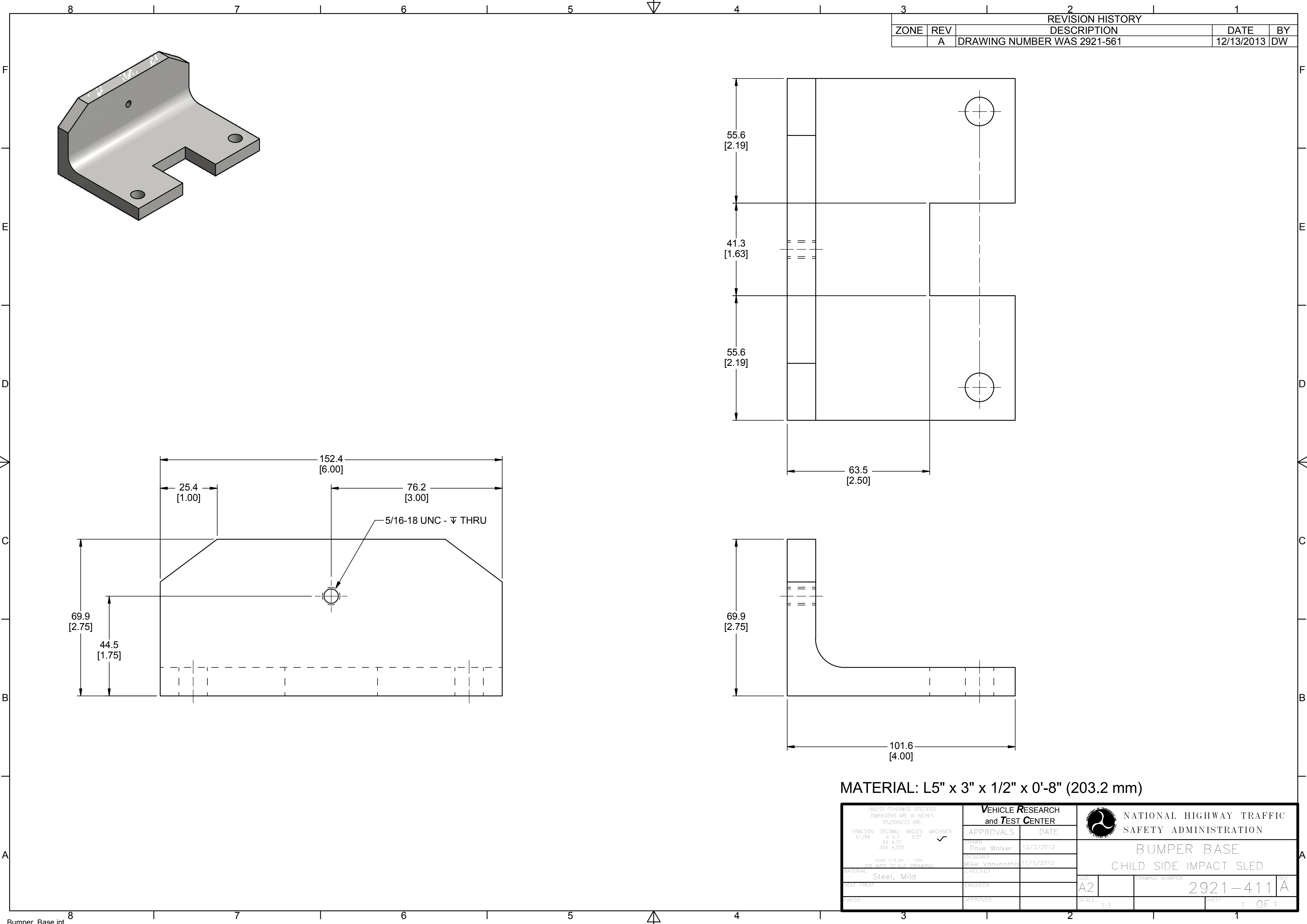
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: .X ±1 ±.5° .X ±.5 .XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING	VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
	APPROVALS	DATE			
	DRAWN Dave Walker	12/5/2012	ANTI-REBOUND FIXTURE STOP PLATE CHILD SIDE IMPACT SLED		
	DESIGNER Mike Vanvoorhis	11/5/2012			
CHECKED					
MATERIAL Steel, Mild	ENGINEER		SIZE A3	DRAWING NUMBER 2921-404	REV A
HEAT TREAT	APPROVED		SCALE: 0.5:1	SHEET 1 OF 1	
FINISH					

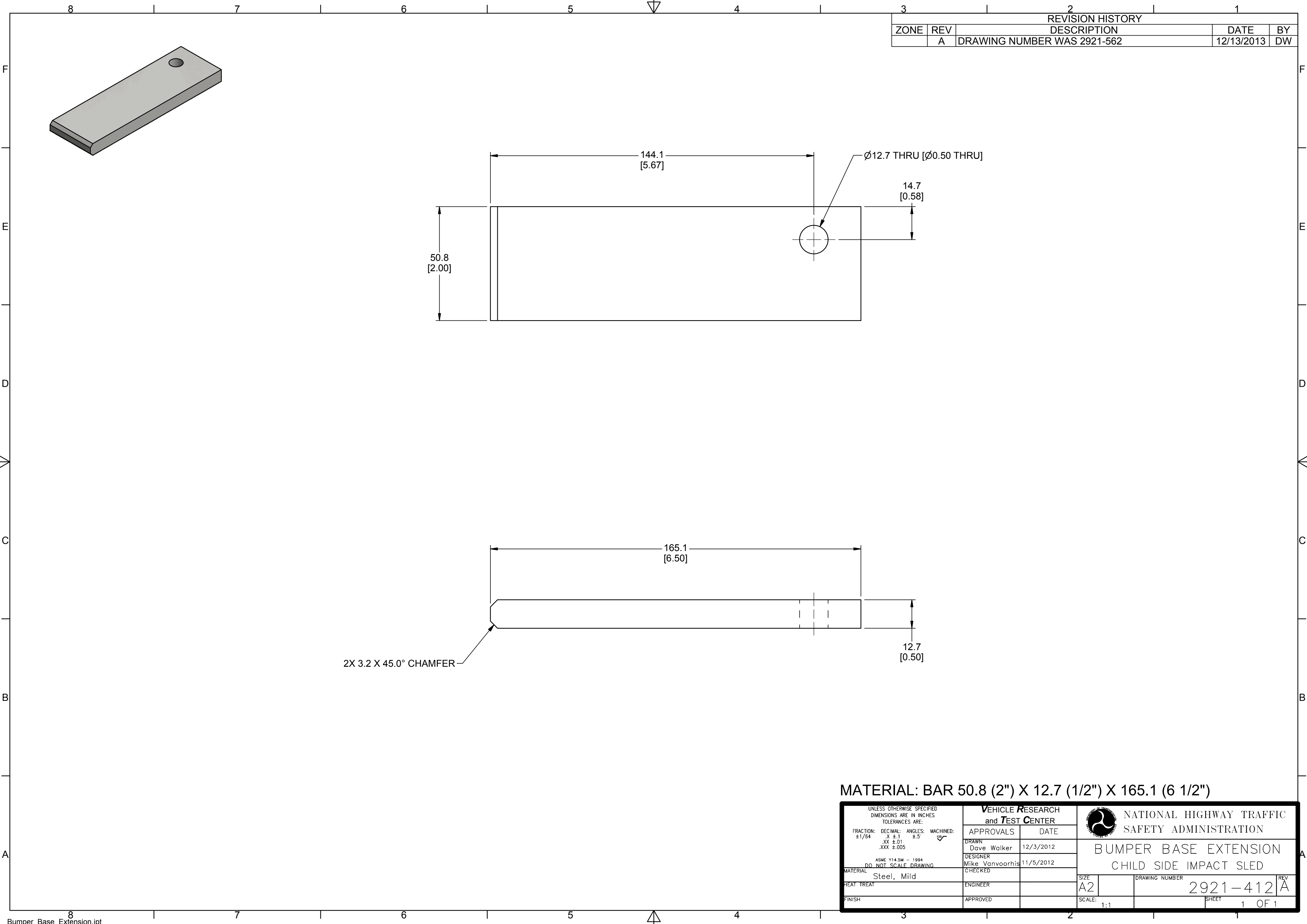


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	DES
	A	DRAWING NUMBER WAS 2921-560	12/13/2013	DW

3	1	3000505V	RUBBER BUMPER - Ø1 1/2" x 1" HT. - 5/16-18 THREADS x 5/8" LONG
2	1	2921-412	BUMPER BASE EXTENSION
1	1	2921-411	BUMPER BASE
ITEM	QTY	PART NUMBE	DESCRIPTION



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° ✓ .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
		DRAWN Dave Walker	12/3/2012		
		DESIGNER Mike Vanvooris	11/5/2012		
MATERIAL		CHECKED		SIZE A2	DRAWING NUMBER 2921-410
HEAT TREAT		ENGINEER		SCALE: 1:1	
FINISH		APPROVED		SHEET 1 OF 1	REV A

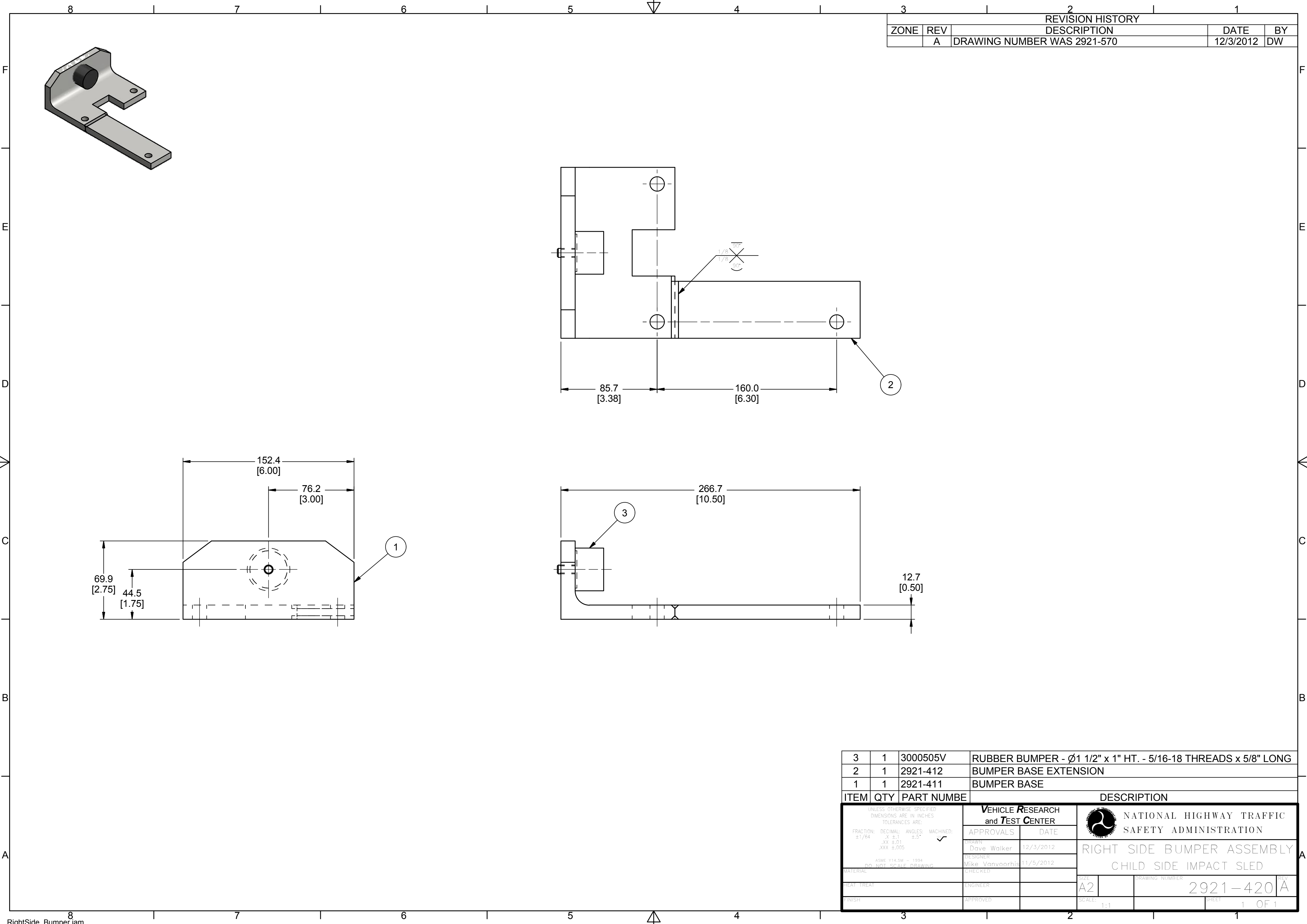





REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-562	12/13/2013	DW

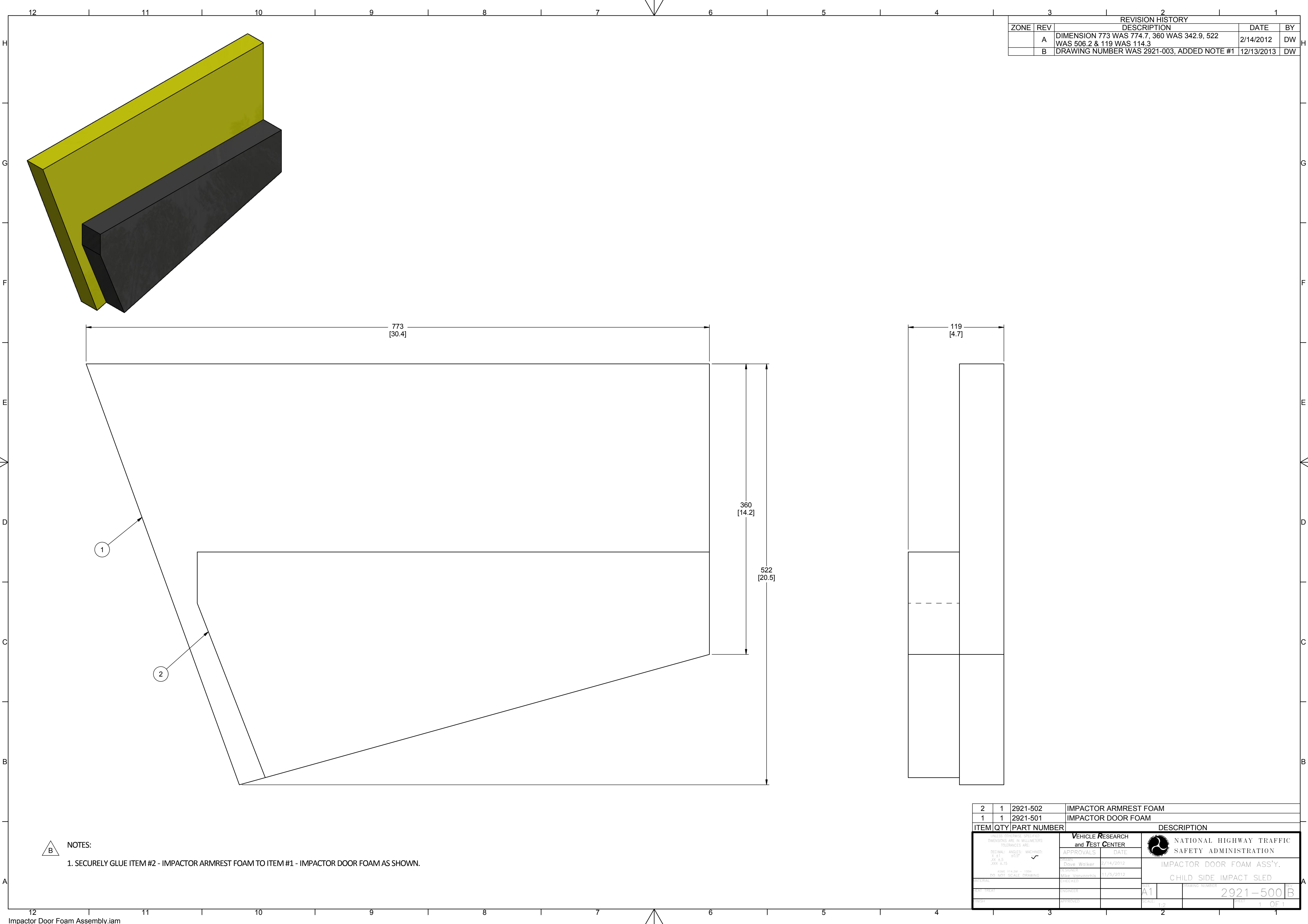
MATERIAL: BAR 50.8 (2") X 12.7 (1/2") X 165.1 (6 1/2")

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: ±1/64 DECIMAL: .X ±.1 ANGLES: ±.5° MACHINED: 		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
ASME Y14.5M - 1994 DO NOT SCALE DRAWING		DRAWN Dave Walker	12/3/2012	BUMPER BASE EXTENSION CHILD SIDE IMPACT SLED	
MATERIAL Steel, Mild		DESIGNER Mike Vanvoorhis	11/5/2012		
HEAT TREAT		CHECKED		SIZE A2	DRAWING NUMBER 2921-412
FINISH		ENGINEER		SCALE: 1:1	REV A
		APPROVED		SHEET 1 OF 1	



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-570	12/3/2012	DW

3	1	3000505V	RUBBER BUMPER - Ø1 1/2" x 1" HT. - 5/16-18 THREADS x 5/8" LONG				
2	1	2921-412	BUMPER BASE EXTENSION				
1	1	2921-411	BUMPER BASE				
ITEM	QTY	PART NUMBE	DESCRIPTION				
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° ✓ .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div> <div>MATERIAL</div> <div>HEAT TREAT</div> <div>FINISH</div>			VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div> <div>RIGHT SIDE BUMPER ASSEMBLY CHILD SIDE IMPACT SLED</div>		
			APPROVALS				DATE
			DRAWN Dave Walker				12/3/2012
			DESIGNER Mike Vanvoorthuis				11/5/2012
			CHECKED				
			ENGINEER				
APPROVED			SIZE A2	DRAWING NUMBER 2921-420	REV A		
SCALE: 1:1			SHEET 1 OF 1				



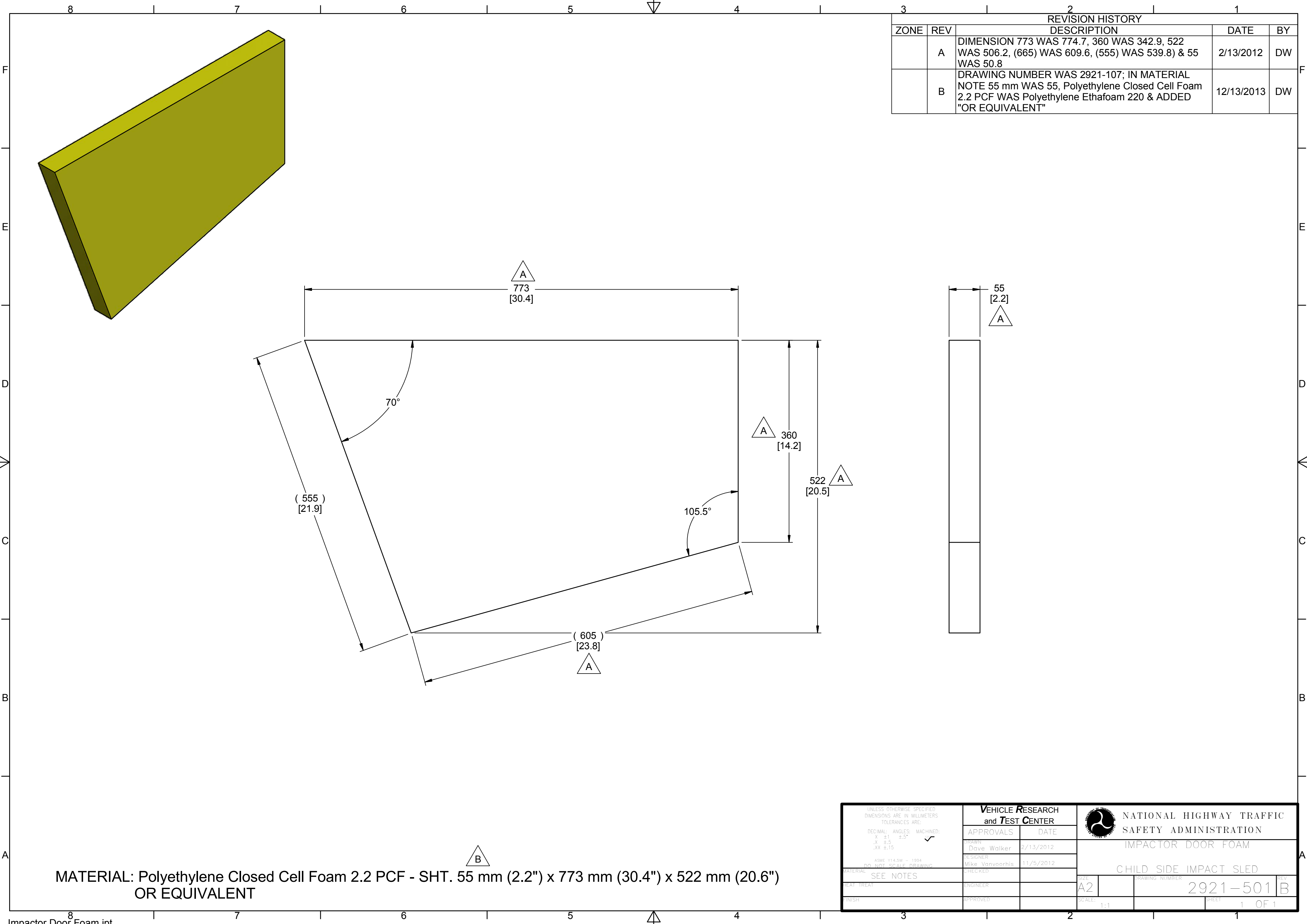
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 773 WAS 774.7, 360 WAS 342.9, 522 WAS 506.2 & 119 WAS 114.3	2/14/2012	DW
	B	DRAWING NUMBER WAS 2921-003, ADDED NOTE #1	12/13/2013	DW

B


NOTES:

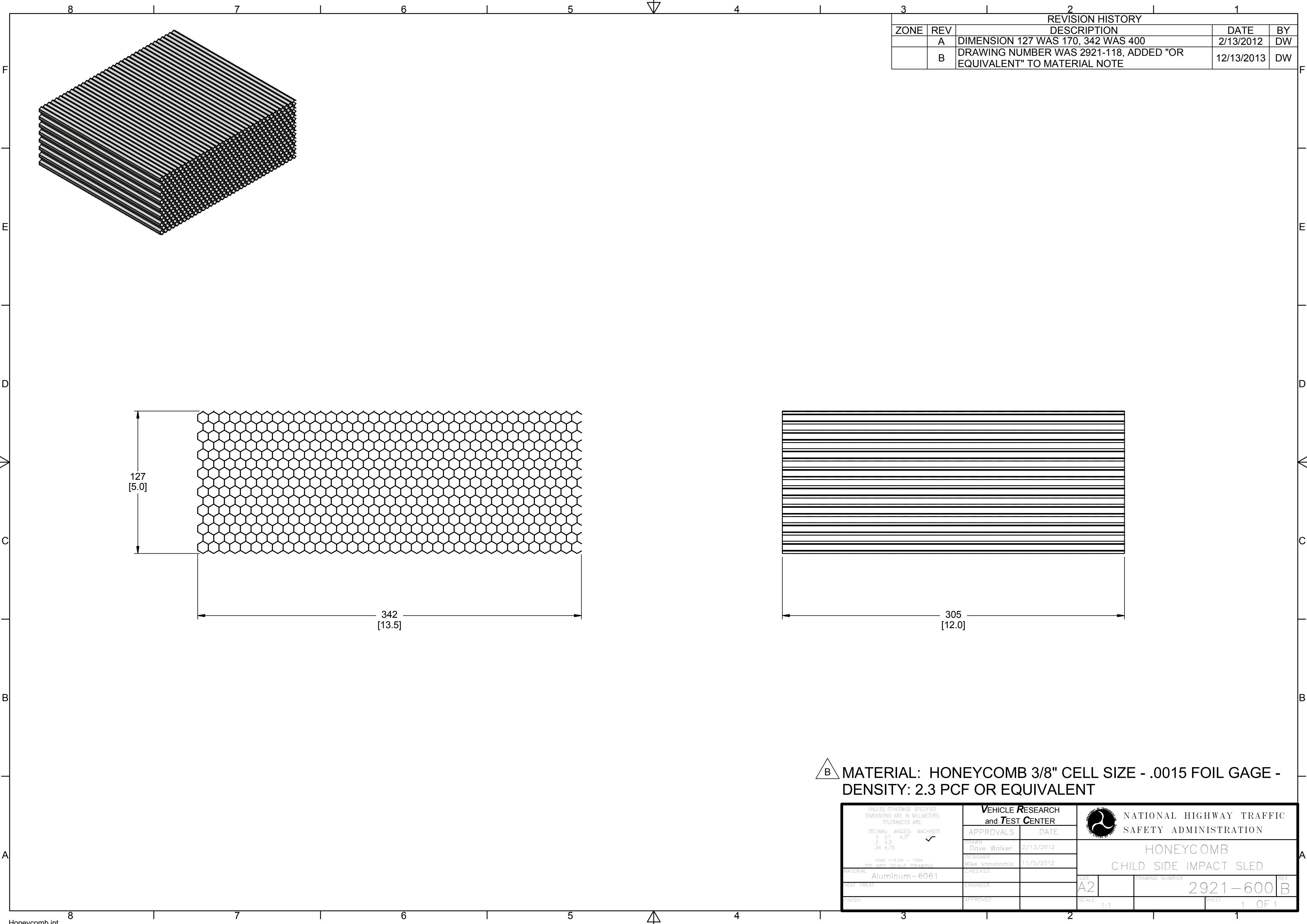
1. SECURELY GLUE ITEM #2 - IMPACTOR ARMREST FOAM TO ITEM #1 - IMPACTOR DOOR FOAM AS SHOWN.

2	1	2921-502	IMPACTOR ARMREST FOAM	
1	1	2921-501	IMPACTOR DOOR FOAM	
ITEM QTY PART NUMBER			DESCRIPTION	
<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL ANGLES: MACHINED: X .31 .005° XX .15 .005° XXX .15 .005° ASME Y14.2M - 1994 DO NOT SCALE DRAWING</div>			<div>VEHICLE RESEARCH and TEST CENTER</div>	
			<div>APPROVALS DATE</div>	
			<div>WARRANT Dave Walker 2/14/2012</div>	
			<div>DESIGNER Mike Vengouris 11/5/2012</div>	
MATERIAL			IMPACTOR DOOR FOAM ASS'Y.	
PLAT TREAT			CHILD SIDE IMPACT SLED	
FINISH			A1 DRAWING NUMBER 2921-500 B	
			SCALE: 1:2 SHEET 1 OF 1	




REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 773 WAS 774.7, 360 WAS 342.9, 522 WAS 506.2, (665) WAS 609.6, (555) WAS 539.8) & 55 WAS 50.8	2/13/2012	DW
	B	DRAWING NUMBER WAS 2921-107; IN MATERIAL NOTE 55 mm WAS 55, Polyethylene Closed Cell Foam 2.2 PCF WAS Polyethylene Ethafoam 220 & ADDED "OR EQUIVALENT"	12/13/2013	DW

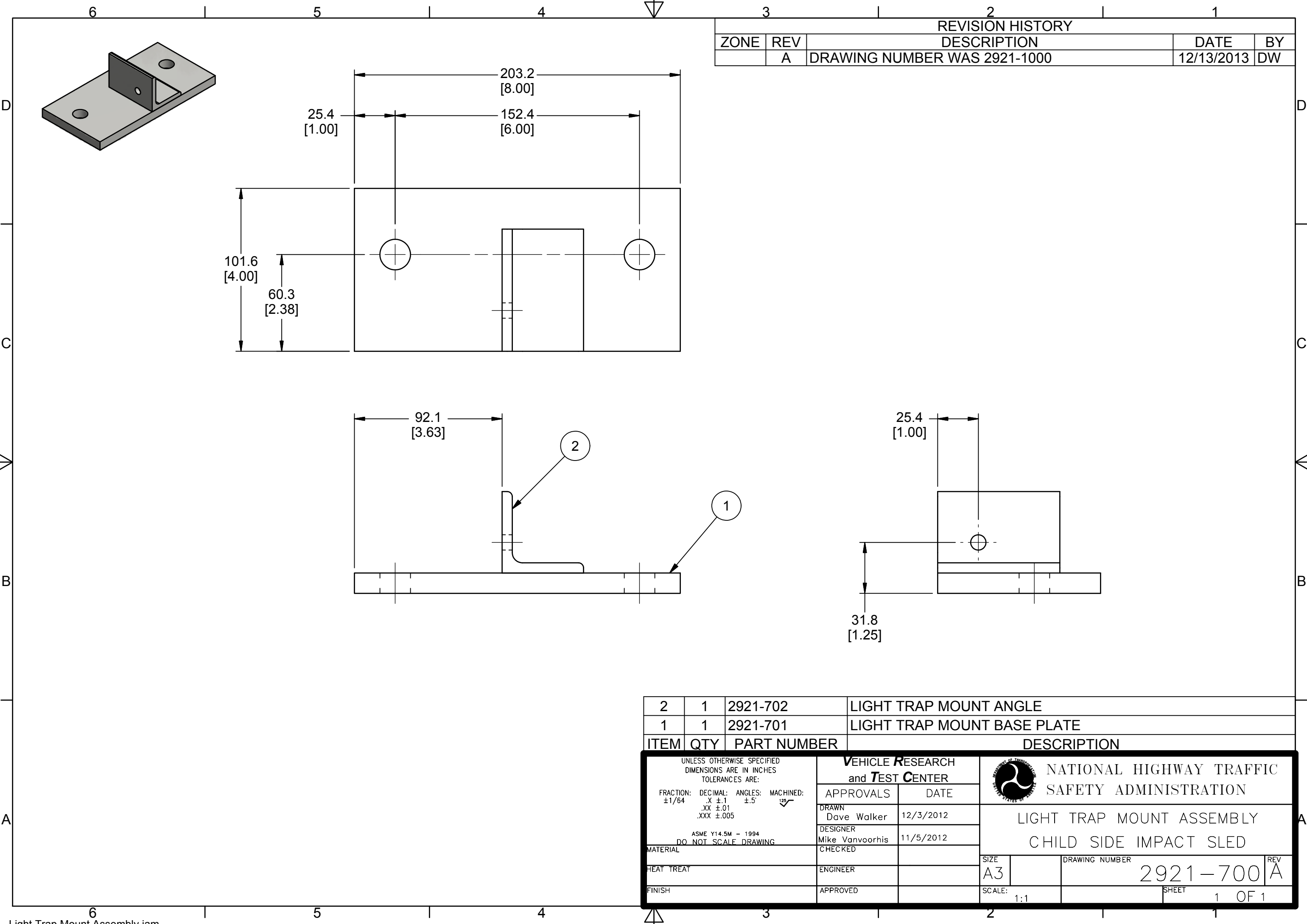
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: .X ±1 .5° ±5° .XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
DRAWN Dave Walker		2/13/2012		IMPACTOR DOOR FOAM	
DESIGNER Mike Vanvorhis		11/5/2012			
CHECKED				CHILD SIDE IMPACT SLED	
ENGINEER					
APPROVED				2921-501	
SCALE: 1:1		SHEET 1 OF 1			

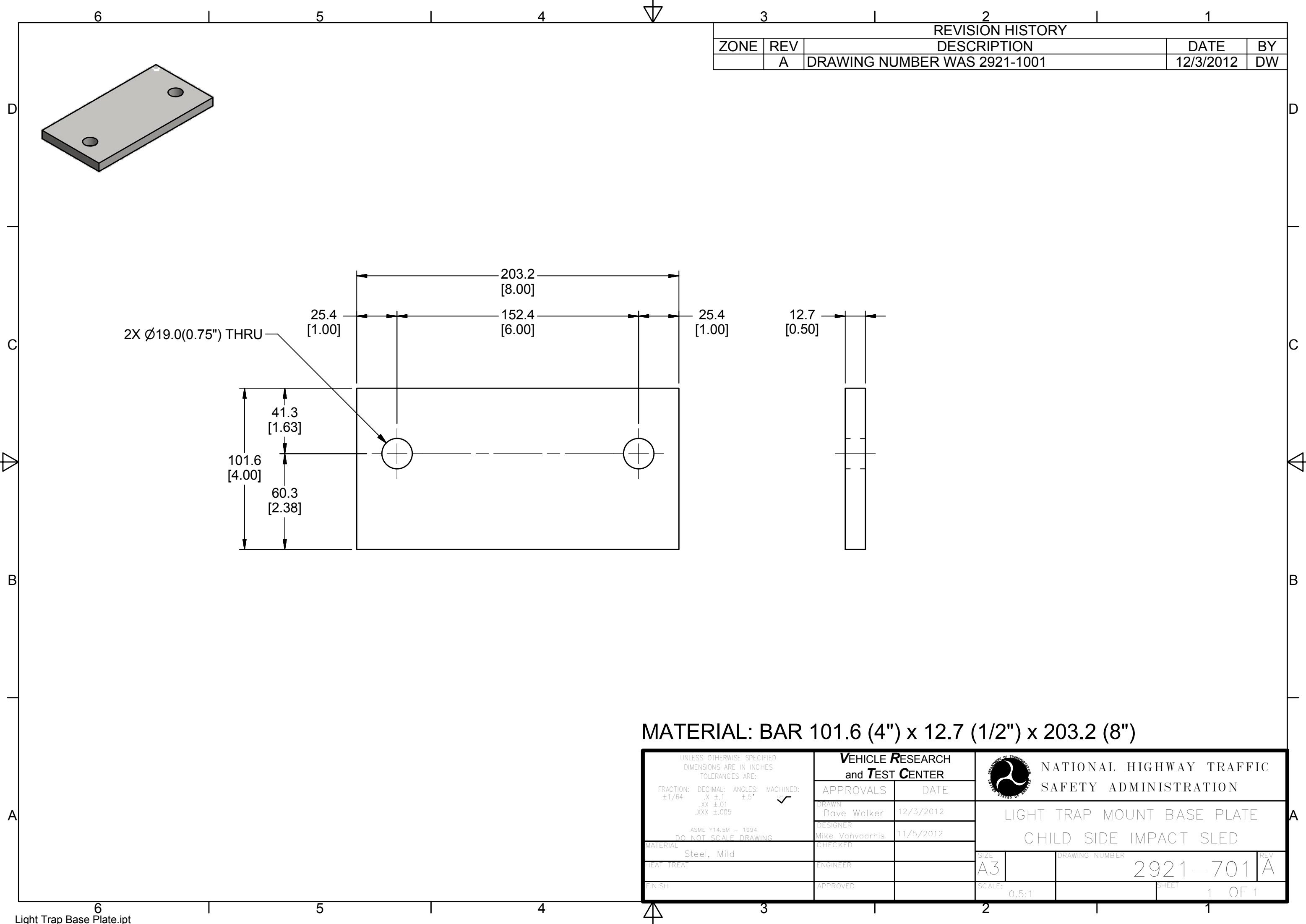



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DIMENSION 127 WAS 170, 342 WAS 400	2/13/2012	DW
	B	DRAWING NUMBER WAS 2921-118, ADDED "OR EQUIVALENT" TO MATERIAL NOTE	12/13/2013	DW

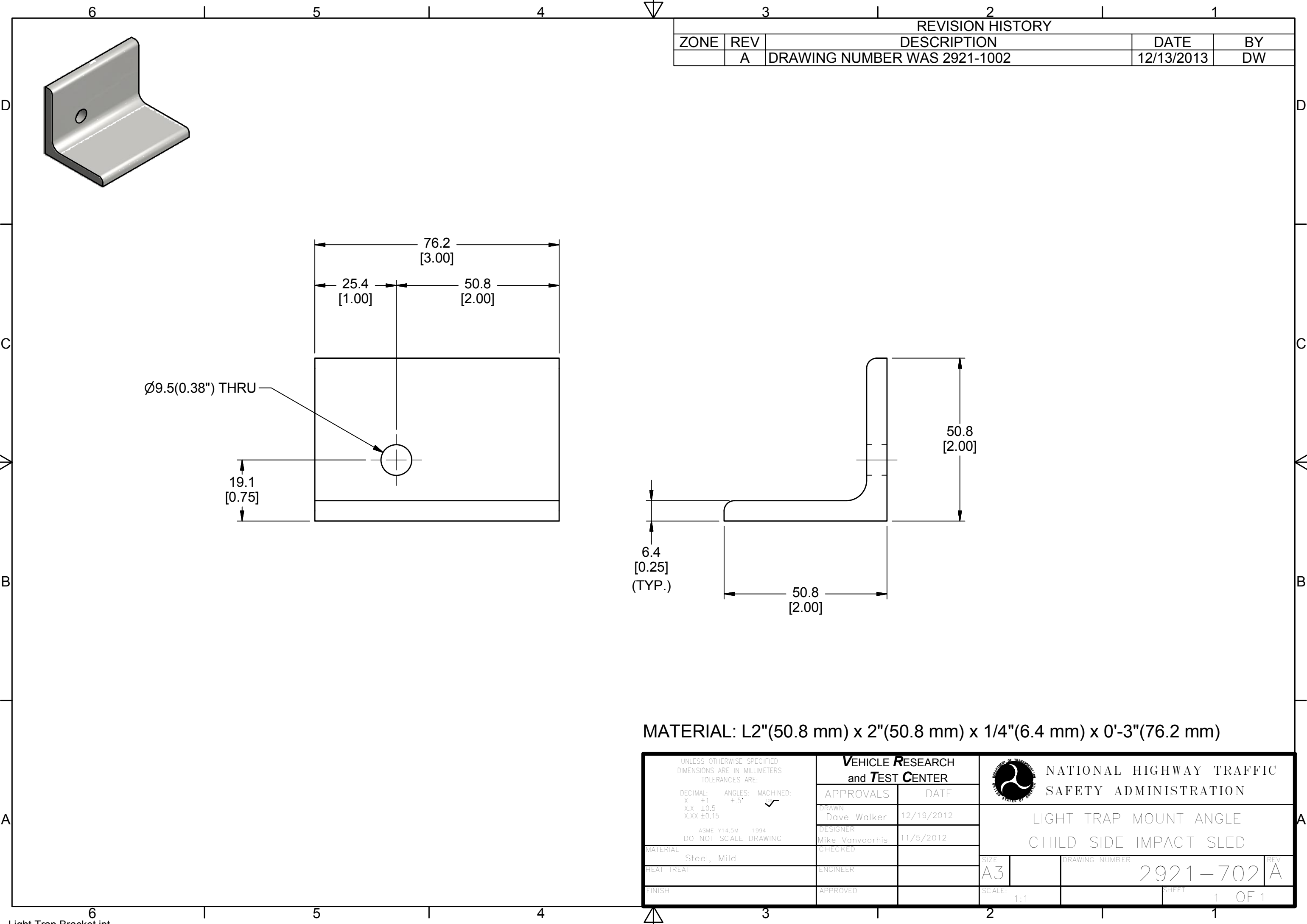
B MATERIAL: HONEYCOMB 3/8" CELL SIZE - .0015 FOIL GAGE - DENSITY: 2.3 PCF OR EQUIVALENT

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: ANGLES: MACHINED: .X ±.1 ±.5° ✓ .XX ±.5 .XX ±.15 ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION	
		APPROVALS	DATE		
MATERIAL Aluminum-6061		DRAWN Dave Walker	2/13/2012	HONEYCOMB CHILD SIDE IMPACT SLED	
HEAT TREAT		DESIGNER Mike Vanvorphis	11/5/2012		
FINISH		CHECKED		SIZE A2	REV B
		ENGINEER		DRAWING NUMBER 2921-600	
		APPROVED		SCALE: 1:1	SHEET 1 OF 1

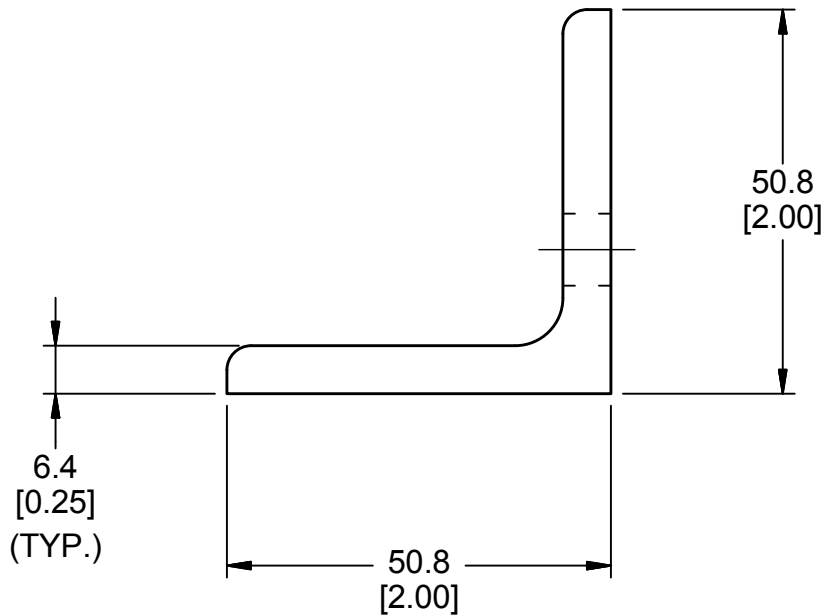
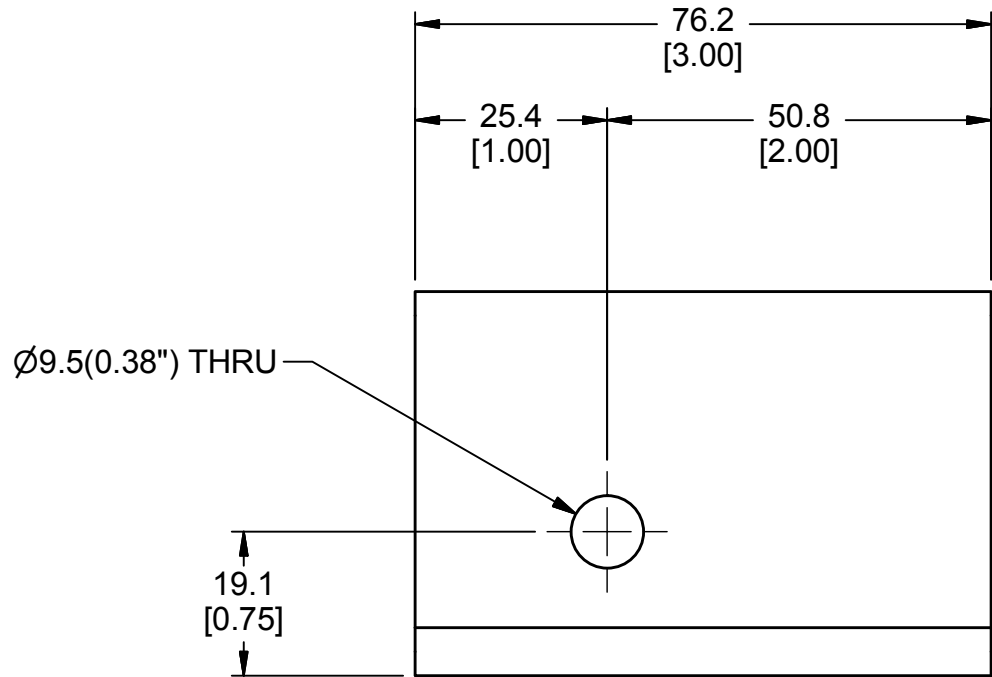





<div>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTION: DECIMAL: ANGLES: MACHINED: ±1/64 .X ±.1 ±.5° ✓ .XX ±.01 .XXX ±.005 ASME Y14.5M - 1994 DO NOT SCALE DRAWING</div>	VEHICLE RESEARCH and TEST CENTER		<div> NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION</div>		LIGHT TRAP MOUNT BASE PLATE CHILD SIDE IMPACT SLED	
	APPROVALS	DATE				
	DRAWN Dave Walker	12/3/2012				
	DESIGNER Mike Vanvoorhis	11/5/2012				
MATERIAL Steel, Mild	CHECKED		SIZE A3	DRAWING NUMBER	2921-701	REV A
HEAT TREAT	ENGINEER		SCALE: 0.5:1	SHEET	1	OF 1
FINISH	APPROVED					



REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	BY
	A	DRAWING NUMBER WAS 2921-1002	12/13/2013	DW



MATERIAL: L2"(50.8 mm) x 2"(50.8 mm) x 1/4"(6.4 mm) x 0'-3"(76.2 mm)

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN MILLIMETERS TOLERANCES ARE: DECIMAL: X ±1 X.X ±0.5 X.XX ±0.15 ANGLES: ±5° MACHINED: ✓ ASME Y14.5M - 1994 DO NOT SCALE DRAWING		VEHICLE RESEARCH and TEST CENTER		 NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION		
		APPROVALS	DATE			
MATERIAL Steel, Mild	HEAT TREAT	DRAWN Dave Walker	12/19/2012	LIGHT TRAP MOUNT ANGLE CHILD SIDE IMPACT SLED		
		DESIGNER Mike Vanvoorhis	11/5/2012			
		CHECKED				
FINISH		ENGINEER		SIZE A3	DRAWING NUMBER 2921-702	REV A
		APPROVED		SCALE: 1:1	SHEET 1 OF 1	