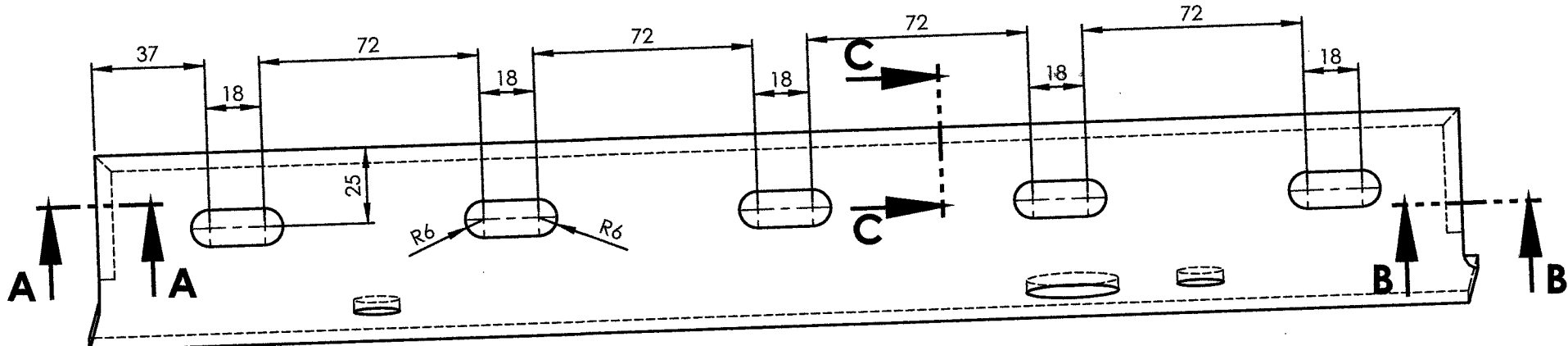
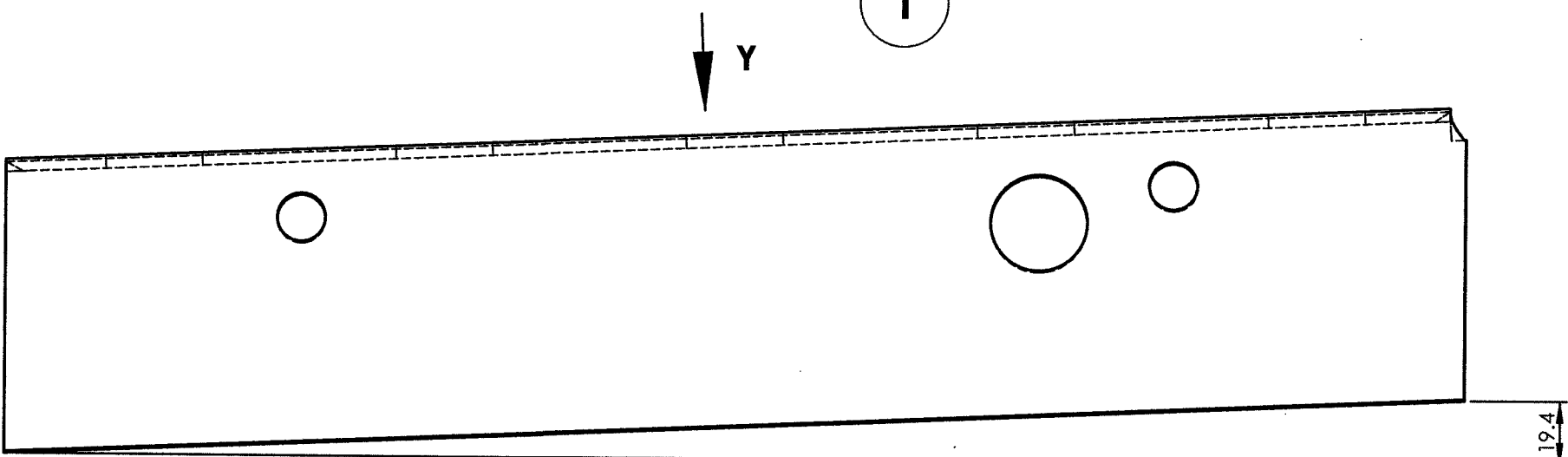
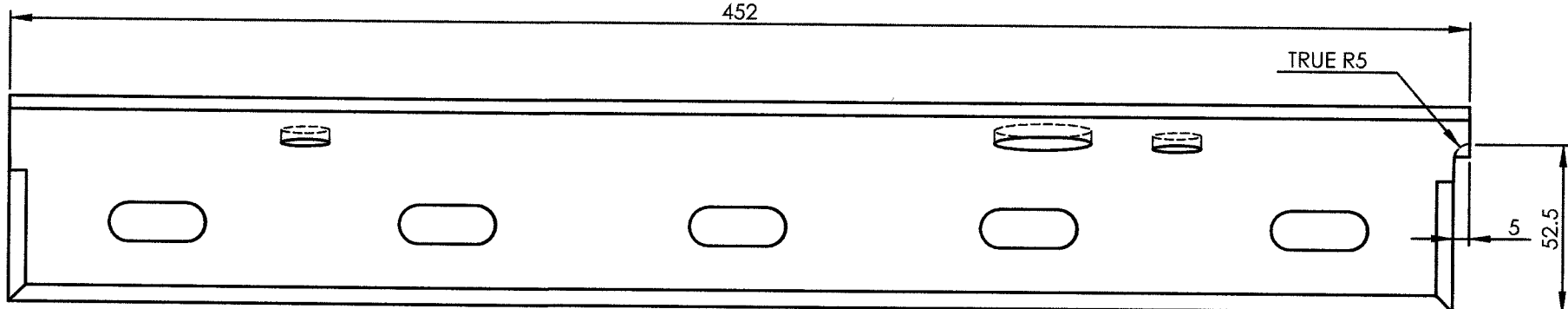
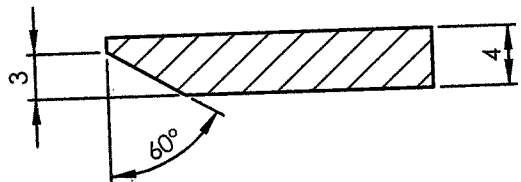


AAA16950

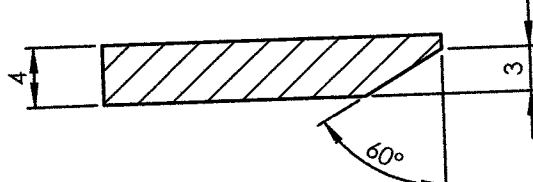
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED



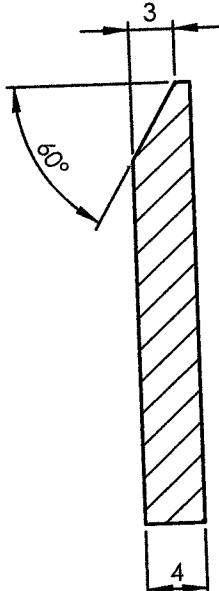
VIEW Y



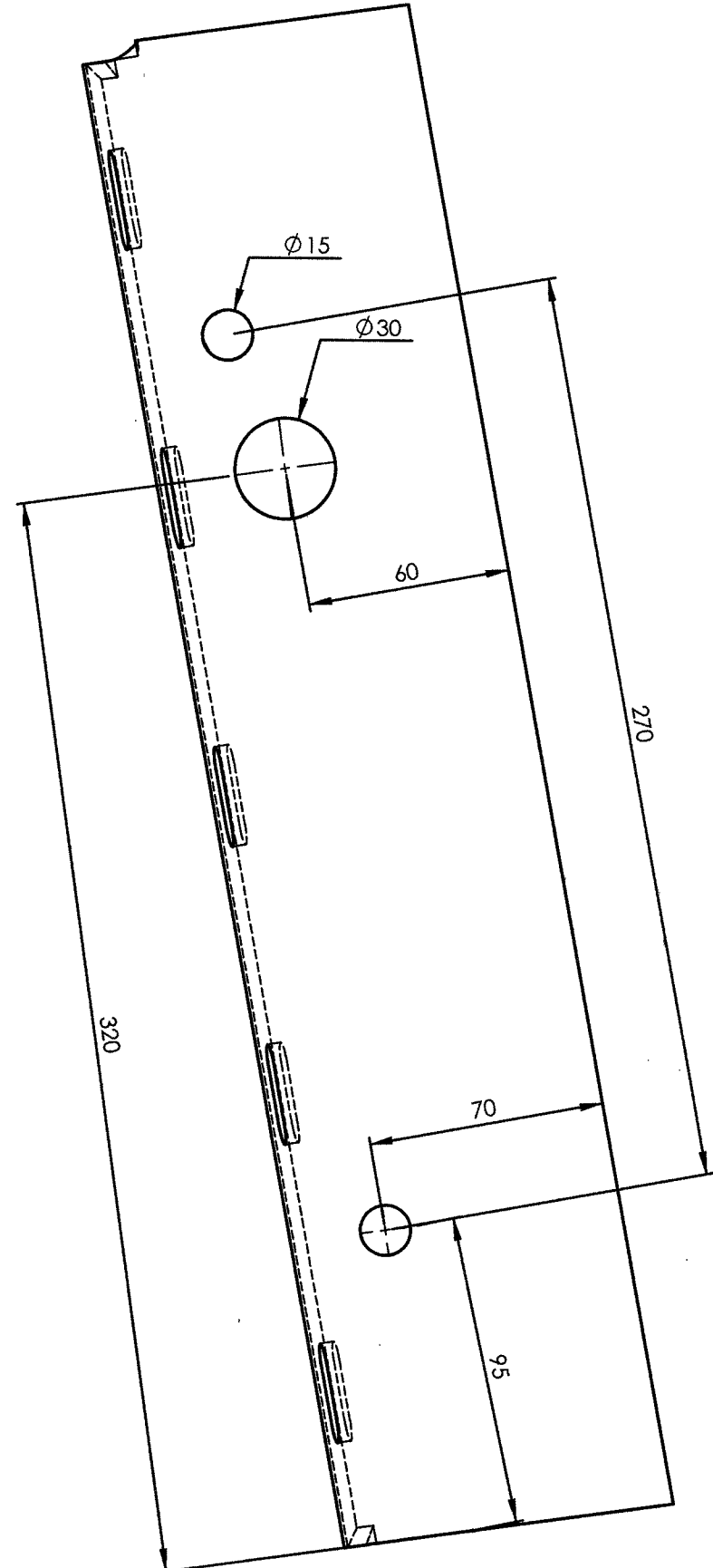
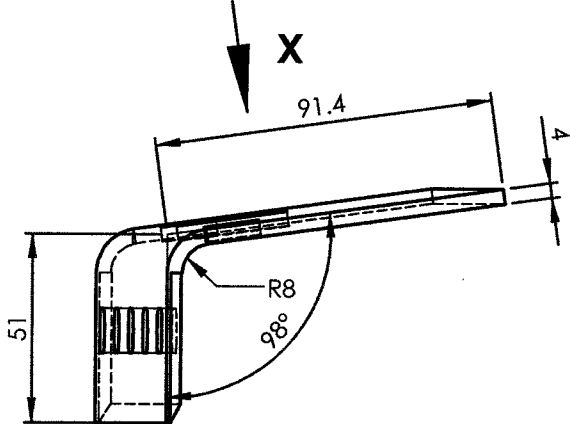
SECTION A-A
SCALE 2 : 1



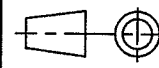
SECTION B-B
SCALE 2 : 1



SECTION C-C
SCALE 2 : 1



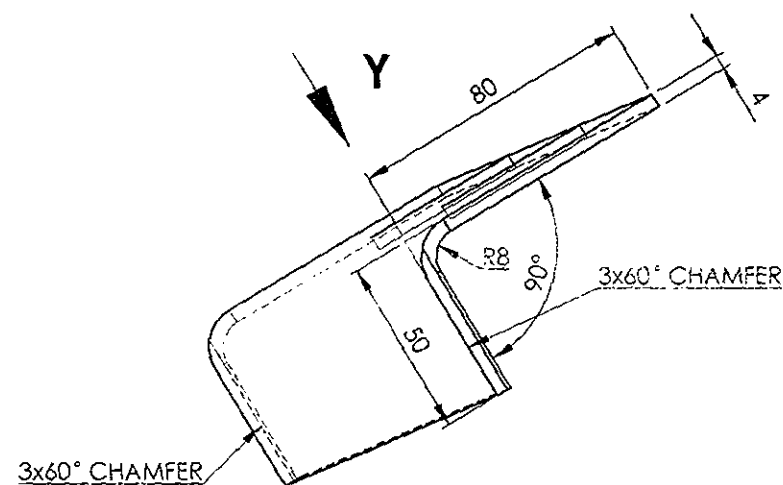
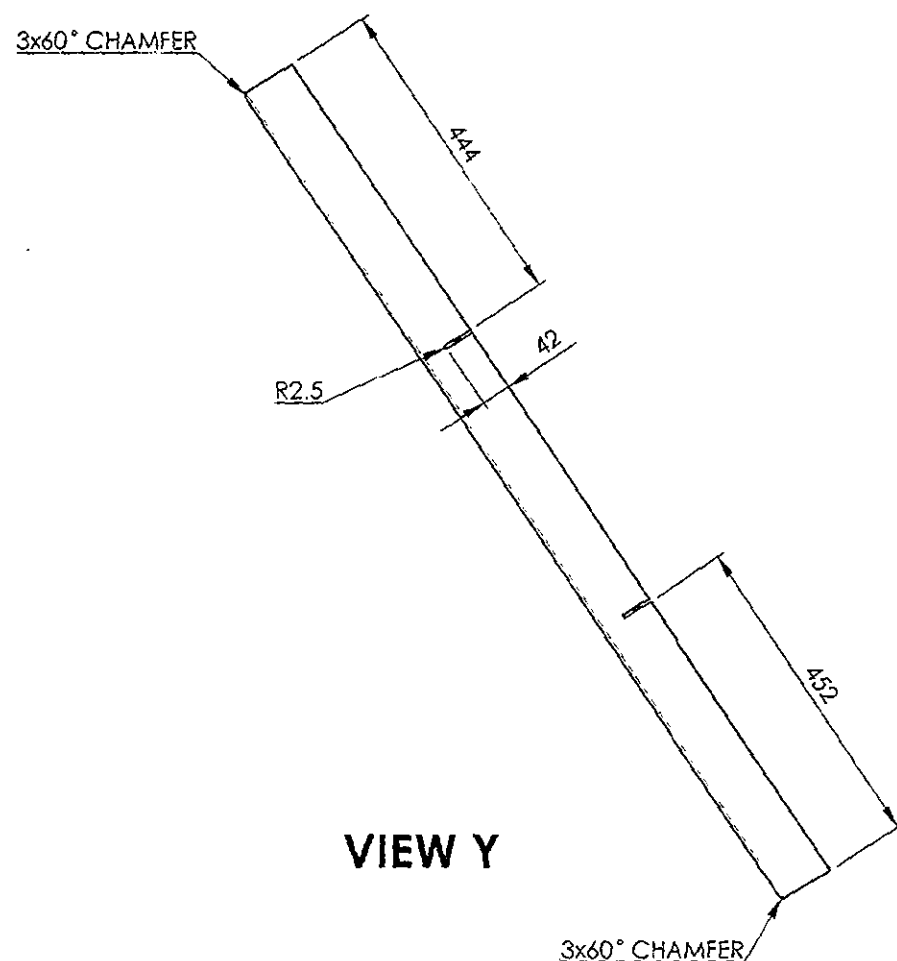
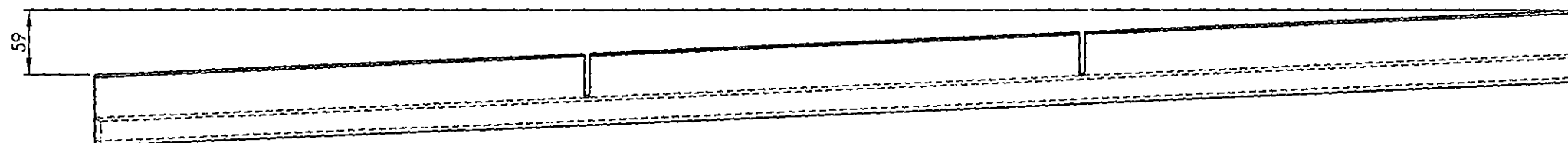
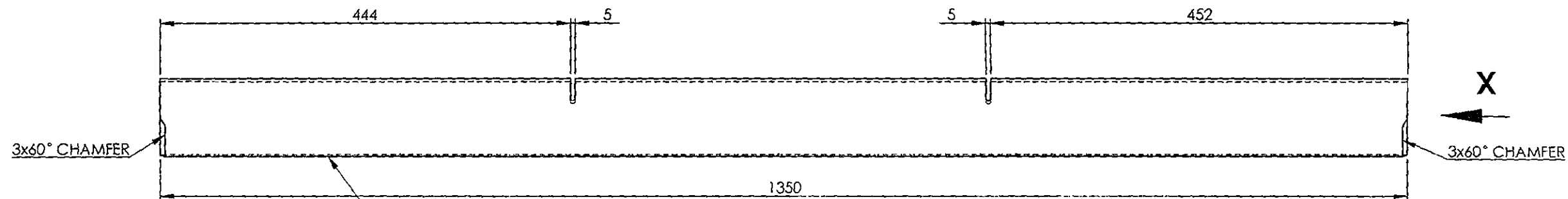
VIEW X

1	STIFFENING ANGLE	4 x 157 x 458	1		RDSO/SPEC C-K201 X2CrNi12	1.84	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.12			WT/ASSY IN Kgs:		
STIFFENING ANGLE					SCALE 1:2	SSE/D	S. Induranga
						CHD	
					ALT a	ALTD	E.SATHISH KUMAR
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16950		A2

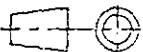
AAA16951

▽ ROUGH MACHINED	③ ROUGH CLEANED
▽▽ FINISH MACHINED	④ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑤ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			

VIEW X
SCALE 1:2

VIEW Y

1	STIFFENING ANGLE	4 x 121 x 1353	1		RDSO/SPEC C-K201 X2CrNi12	5.22	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.34			WT/ASSY IN Kgs:5.22		
STIFFENING ANGLE					SCALE	SSE/D	<i>LuSrirom</i>
					1:10	CHD	
					ALT.	ALTD	K.Srirom
						DRN	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
						AAA16951	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813:1986.

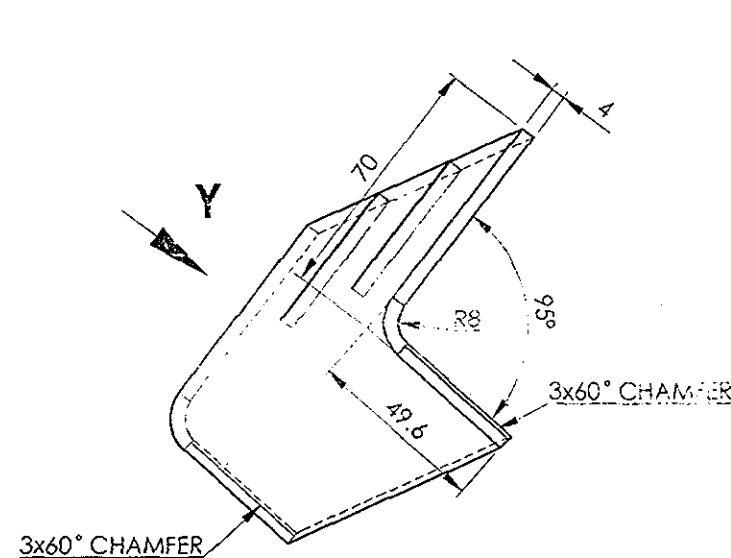
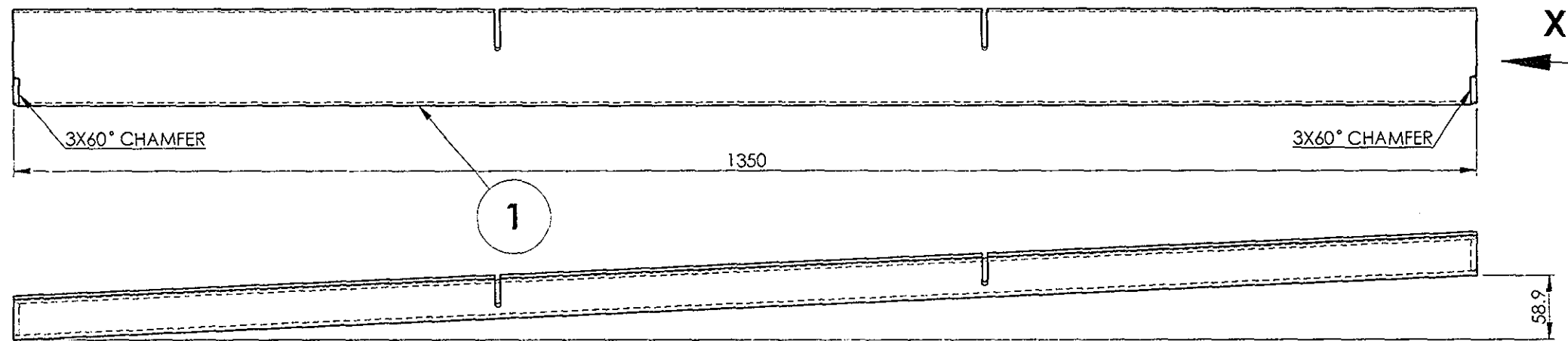
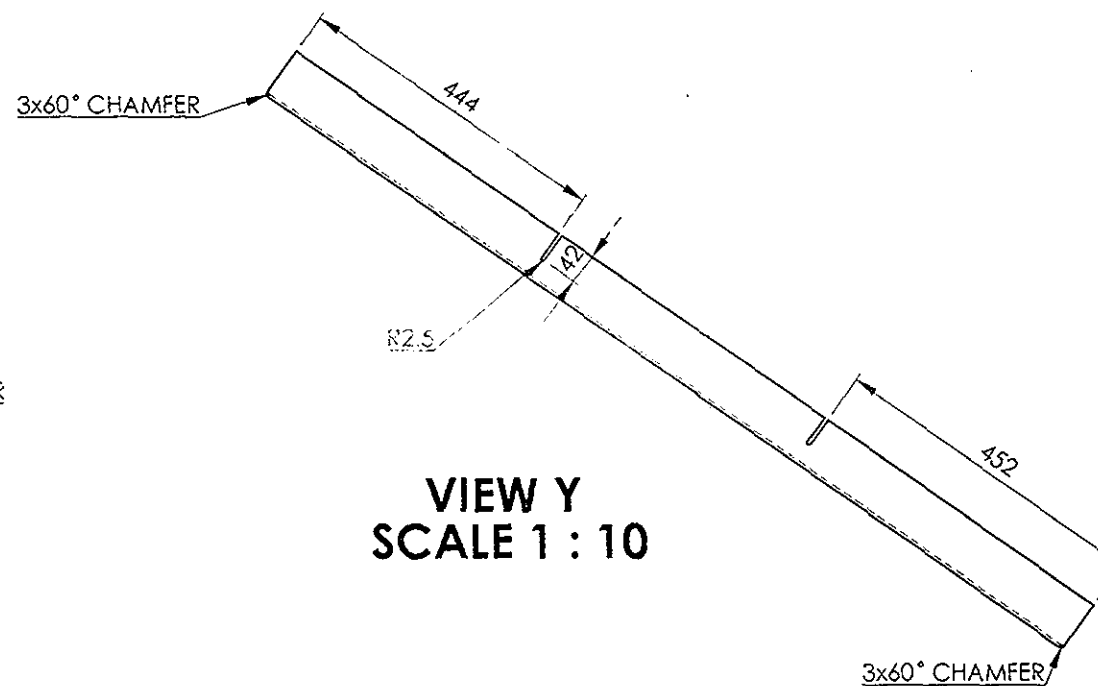
REF.DRG.NO.2 10113.0.20.200.110

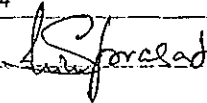
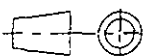
DATE OF LATEST ALT.	21-03-2013	AME/SME
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AAA16952

▽ ROUGH MACHINED	⊙ ROUGH CLEANED
▽▽ FINISH MACHINED	⊙⊙ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊙⊙⊙ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			

VIEW X
SCALE 1 : 2VIEW Y
SCALE 1 : 10

1	STIFFENING ANGLE	4 x 121 x 1350	1		RDSO/SPEC C- K201 X2CrNi12	4.84	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.32			WT/ASSY IN Kgs:4.84		
STIFFENING ANGLE					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16952

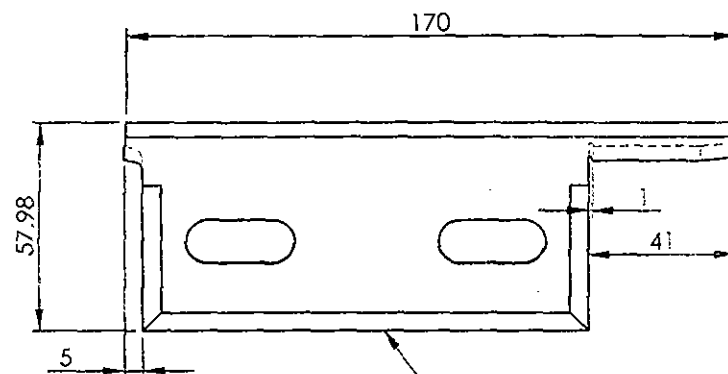
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS, AND ROUGHNESS VALUES, REFER DRAWING NO. ICI/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813:1986.

REF.DRG.NO.2 10113.0.20.200.112

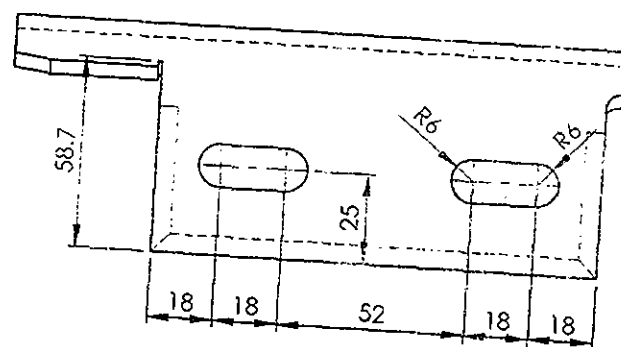
AAA16953

▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖⊖⊖ CHAMFERED

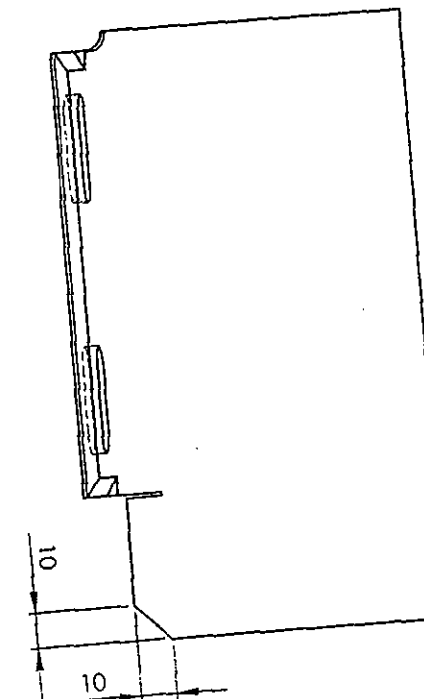
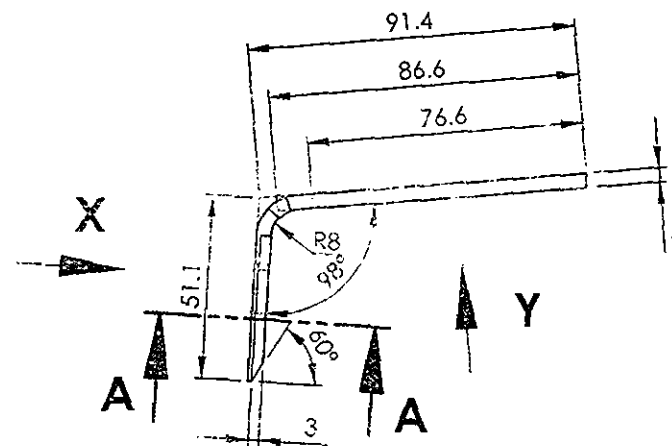
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



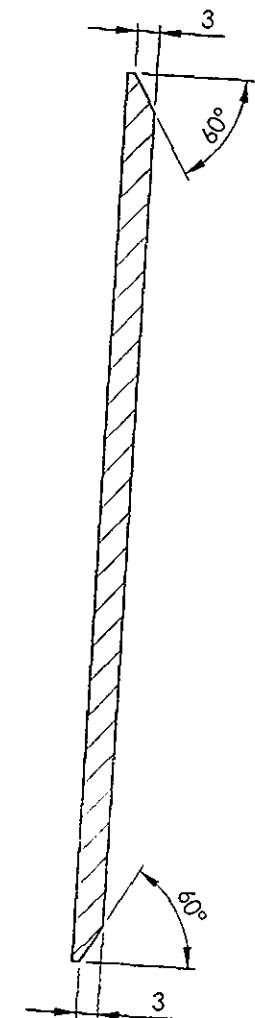
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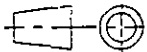


VIEW X



VIEW Y

SECTION A-A
SCALE 1:1

1	STIFFENING ANGLE	4 x 136 x 170	1		RDSO/SPEC C- K201 X2CrNi12	0.63	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.04			WT/ASSY IN Kgs:0.63		
STIFFENING ANGLE					SCALE	SSE/D	<i>K.Srirom</i>
					1:2	CHD	
					ALT.	ALTD	
						DRN	K.Srirom
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16953		A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

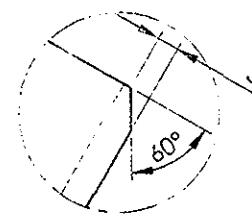
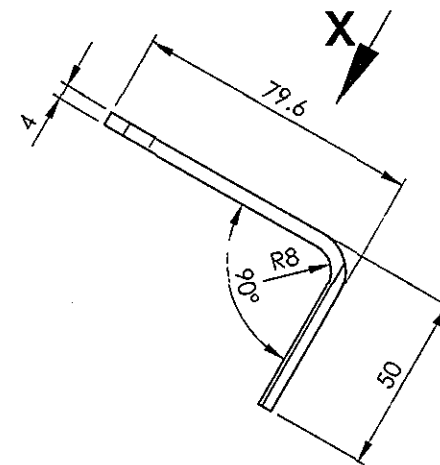
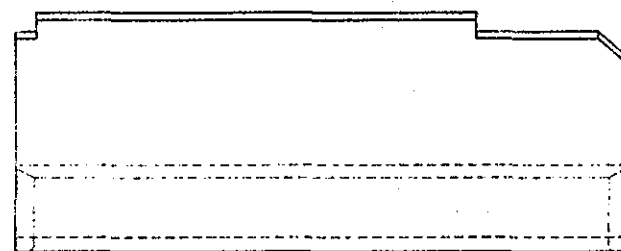
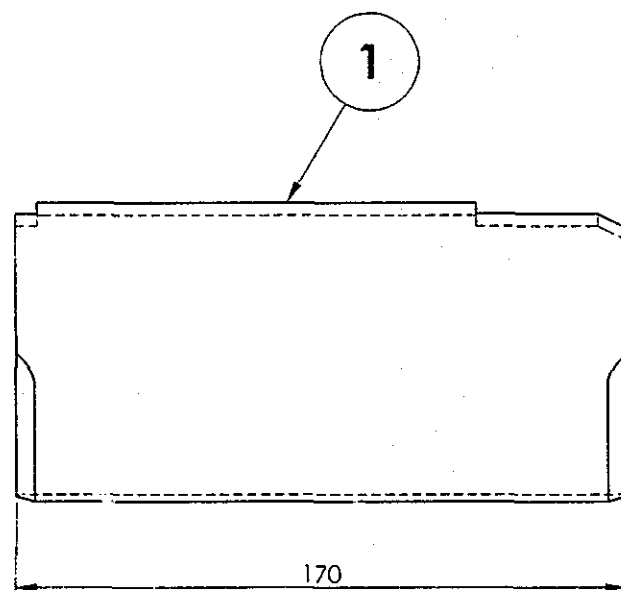
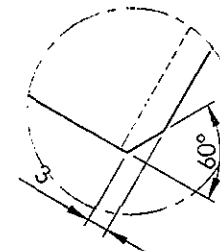
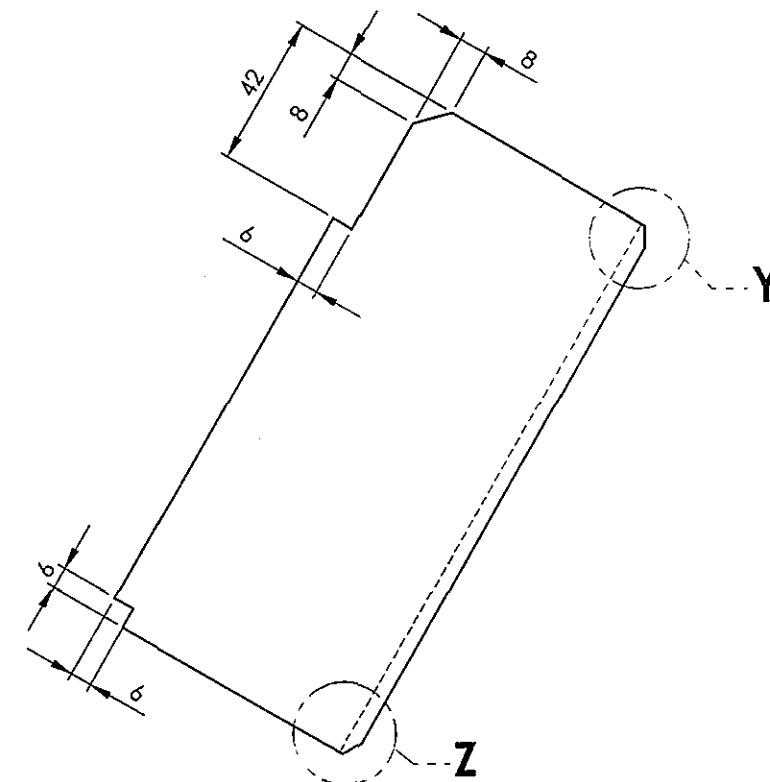
REF.DRG.NO.3 10113.C.20.200.114

	21-03-2013	10113
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA16954

▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH VAC-NEO	⊖⊖⊖ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

DETAIL Y
SCALE 1:1DETAIL Z
SCALE 1:1

VIEW X

1	STIFFENING ANGLE	4 x 121 x 170	1		RDSO/SPEC C-K201 X2CrNi12	0.64	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.04		WT/ASSY IN Kgs: 0.64	
STIFFENING ANGLE					SCALE 1:2	SSE/D CHD	<i>Inspected</i>
					ALT.	ALTD	
						DRN	K.Srirom
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038							
						AAA16954	
						A3	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813:1986.

REF.DRG.NO.3 10113.0.20.200.116

	21-03-2013	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA16955

▽ ROUGH MACHINED

⊙ ROUGH CLEANED

▽▽ FINISH MACHINED

⊙⊙ BURRS REMOVED

▽▽▽ FINISH VAC-NEED

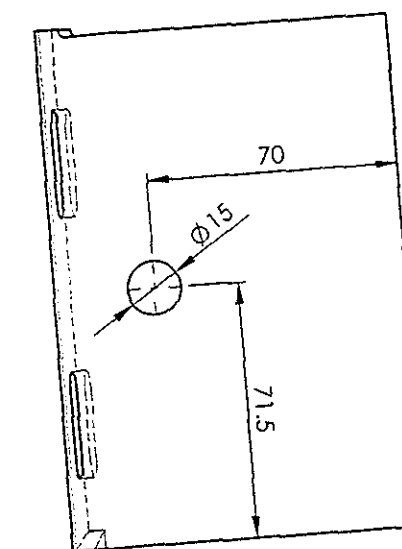
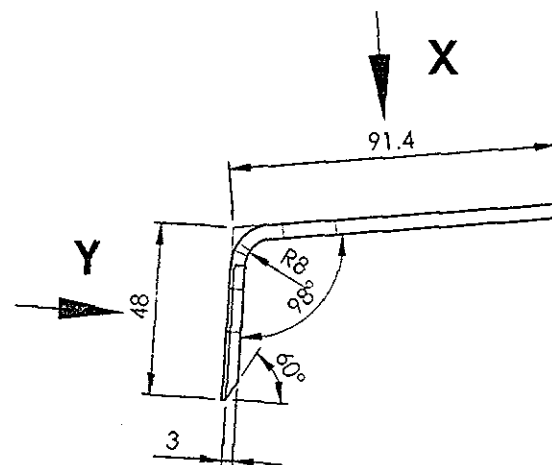
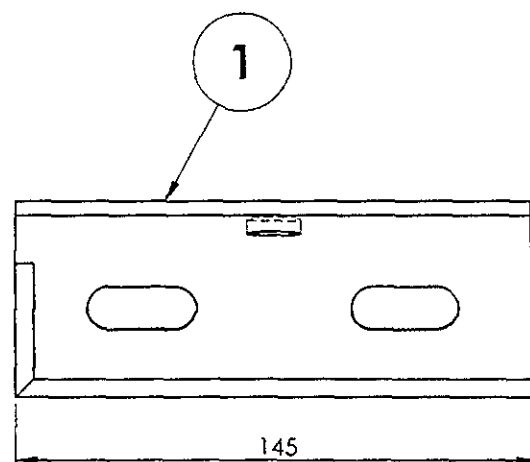
⊙⊙⊙ CHAMFERED

REVISIONS

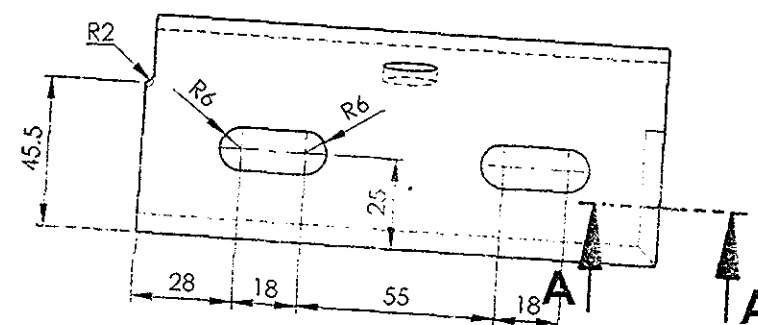
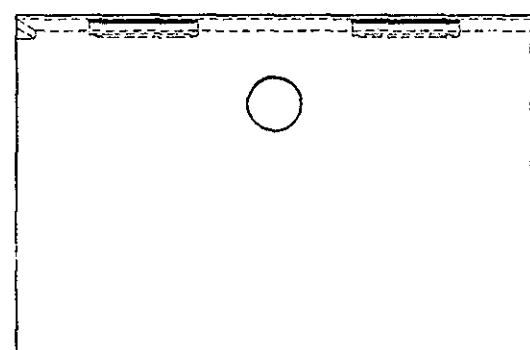
ALT.

ZONE

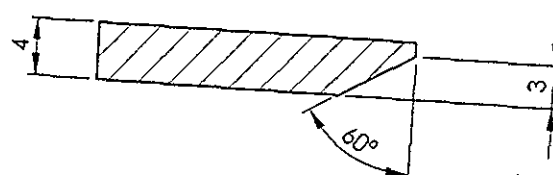
DESCRIPTION

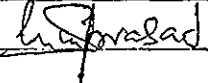
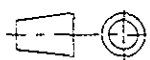
APPROVED &
DATE

VIEW X



VIEW Y

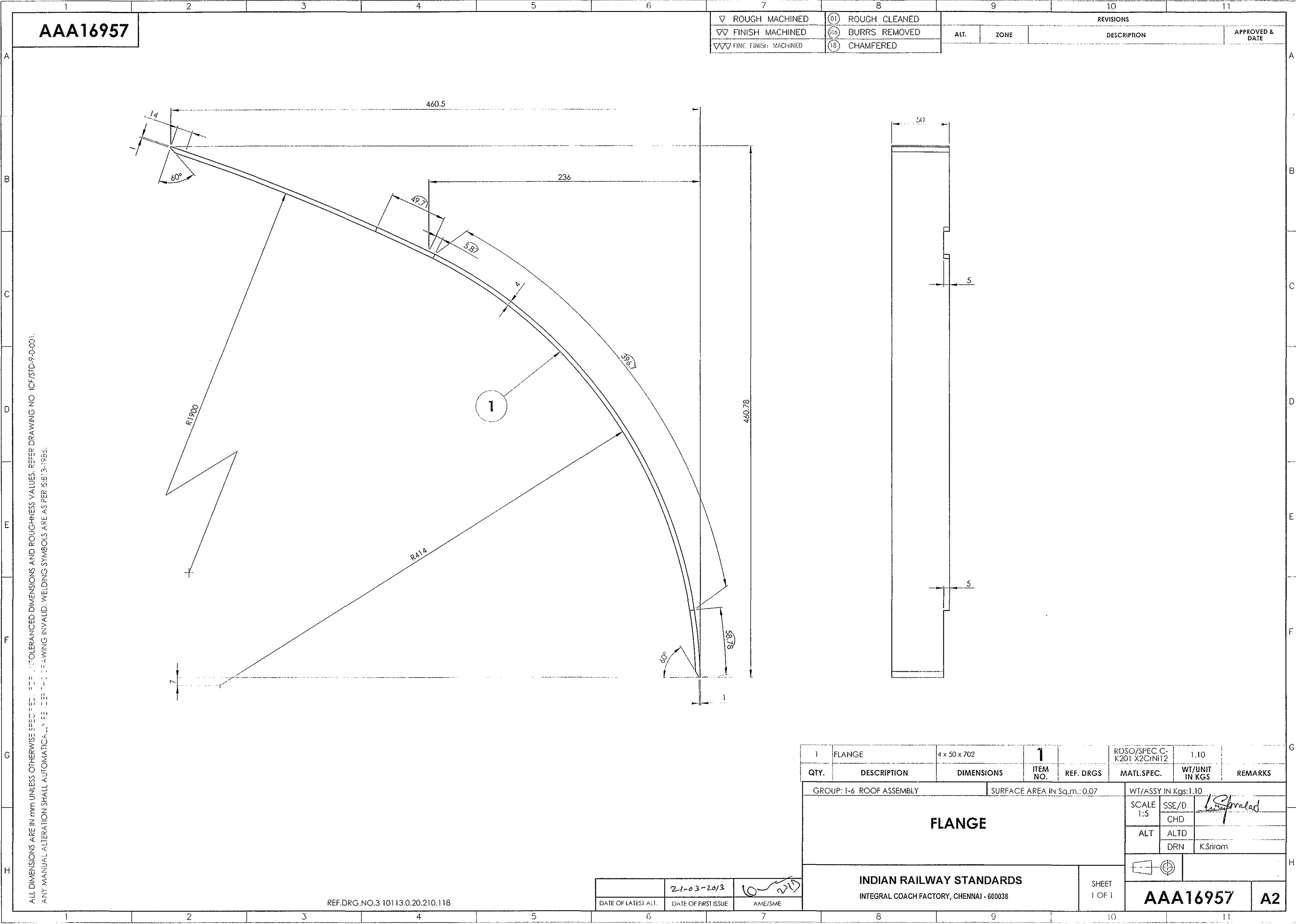
SECTION A-A
SCALE 2 : 1

1	STIFFENING ANGLE	4 x 135 x 145	1		RDSO/SPEC C- K201 X2CrNi12	0.57	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.04			WT/ASSY IN Kgs:0.57		
STIFFENING ANGLE					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	K.Srirom
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16955

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AT 10° ROUGHNESS VALUES, REFER DRAWING NO ICF/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.3 10113.0.20.200.126

	21-03-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR TOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY BE DELETED FROM THE DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1966.

REF.DRG.NO.3 10113.0.20.210.118

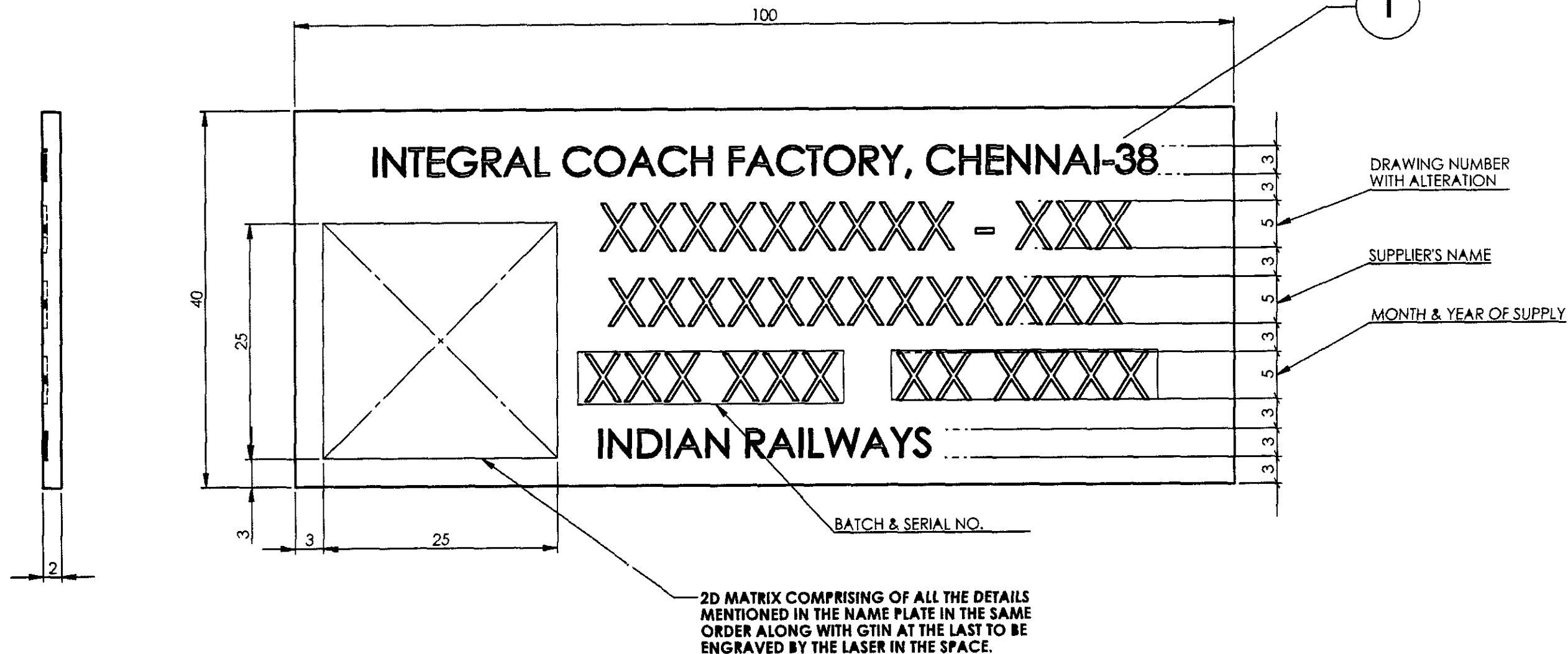
	21-03-2013	10-2113
DATE OF LATEST ALL.	DATE OF FIRST ISSUE	AME/SME

1	FLANGE	4 x 50 x 702	1		RDSO/SPEC C- K201 X2CrNi12	1.10		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.07			WT/ASSY IN Kgs: 1.10			
FLANGE					SCALE 1:5	SSE/D CHD	K. Srinivasan	
					ALT	ALTD		
							DRN	K.Sriram
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038			
AAA16957		A2						

AAA51072

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①① BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①①① CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		NAME PLATE REVISED.	-sd-
b		DESIGN REVISED.	-sd-
c		BATCH & SERIAL NO. ADDED	-sd-
d		NOTE-2 ADDED.	<i>sd</i>

**NOTE:**

1. LETTERS TO BE PUNCHED OR ENGRAVED.

2. ALTERNATIVELY AISI-304/SS-304 (X02Cr19Ni10)/IS:6911(X04Cr19Ni9) ALSO ACCEPTABLE.

1	NAME PLATE FOR SUPPLIER IDENTIFICATION	2x40x100	1		RDSO/SPEC C-K201 X2 Cr Ni 12	0.063	\$		
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS		
GROUP: 5-1 Body Side Doors		SURFACE AREA IN Sq.m.:0.009		WT/ASSY IN Kgs:					
NAME PLATE FOR SUPPLIER IDENTIFICATION					SCALE 2:1	SSE/D	<i>sd</i>		
					ALT. d	CHD			
						ALTD	KUNTI THAKUR		
INDIAN RAILWAY STANDARDS						DRN	G. NAGESWARAN		
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA51072			
					A3				

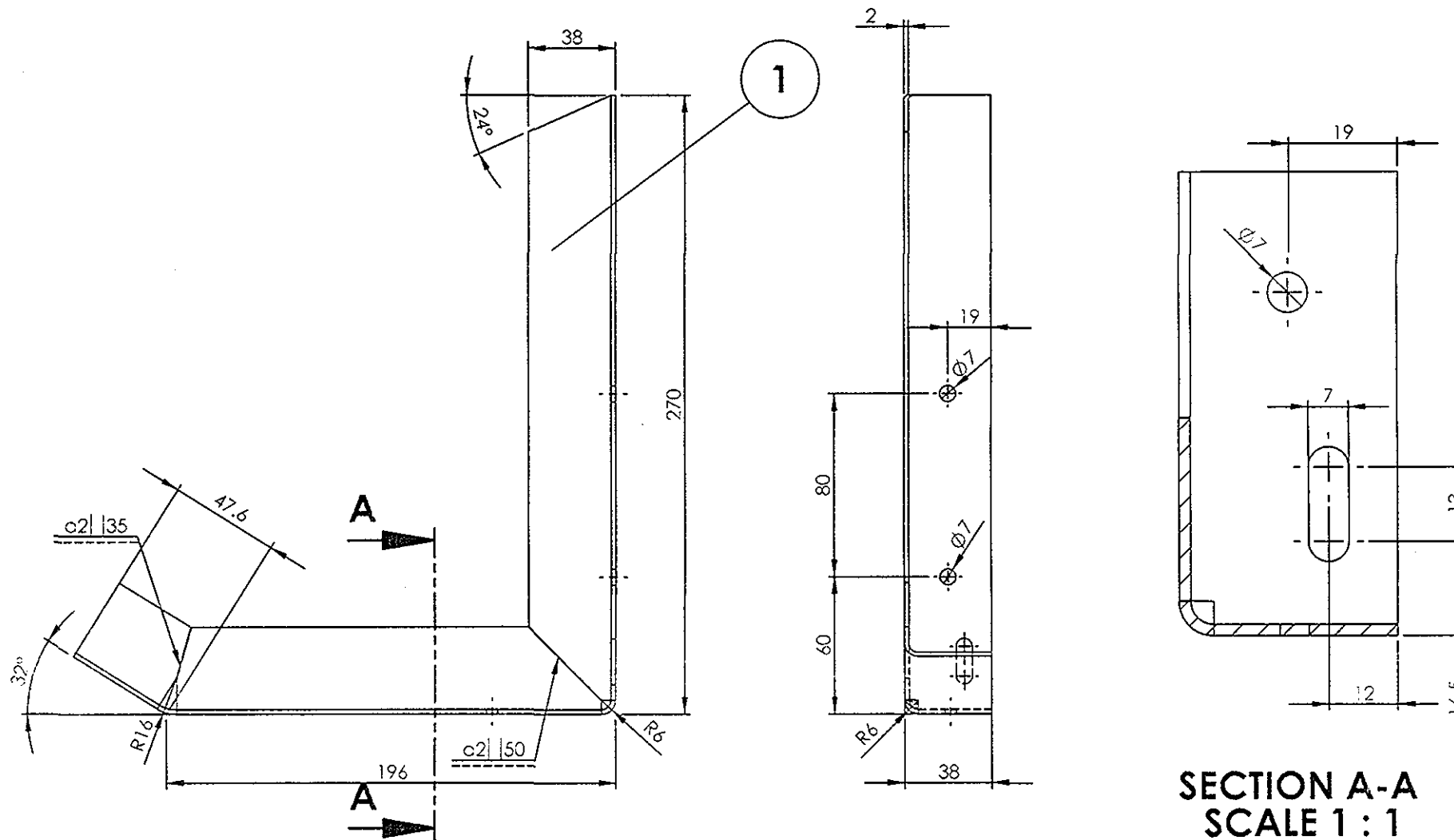
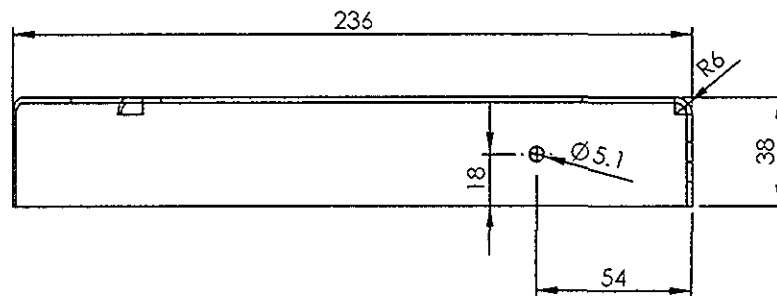
06-07-2024	02.06.2010	<i>sd</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME


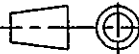
REF.DRG.NO.

AAB10005

▽ ROUGH MACHINED	① ROUGH CLEANED
▽ FINISH MACHINED	② BURRS REMOVED
▽ FINISH VACUUM	③ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A
SCALE 1 : 1

1	BRACKET	2x72x508	1		RDSO/SPEC C-K201 X2CrNi12	0.547	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-0		SURFACE AREA IN Sq.m.:0.071			WT/ASSY IN Kgs:0.547		
BRACKET					SCALE	SSE/D	
					1:2.5	CHD	
					ALT.	ALTD	
						DRN	L.PANDURANGA RAO
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAB10005	
							A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND FINISHNESS VALUES, REFER DRAWING NO IC1/STD 9.0.001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813:1986.

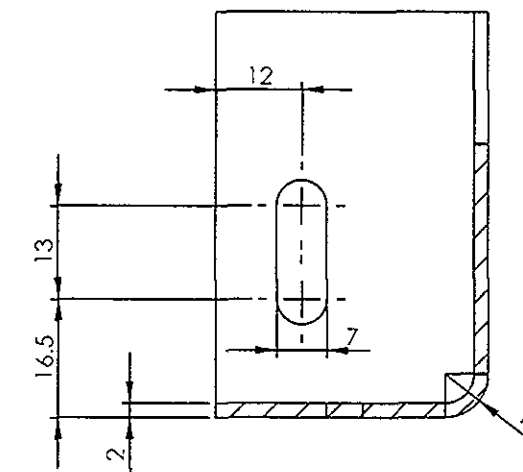
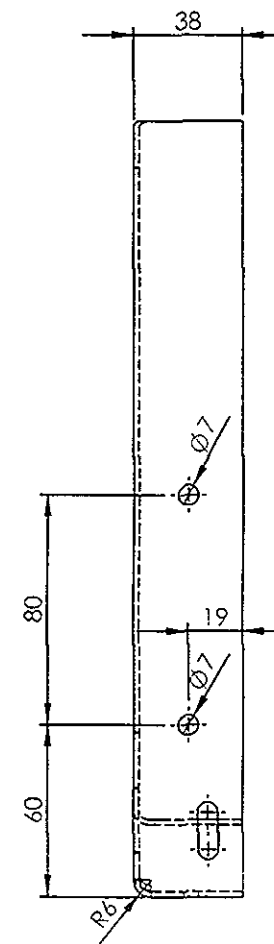
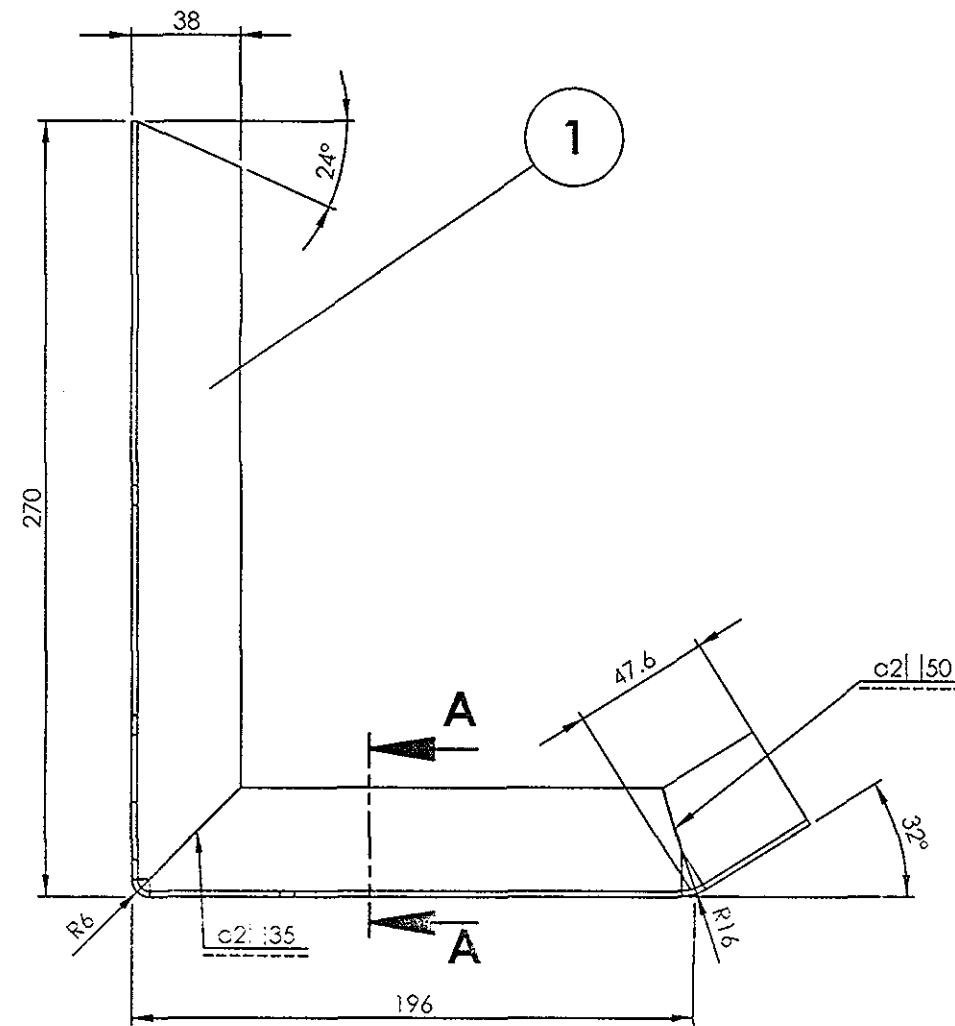
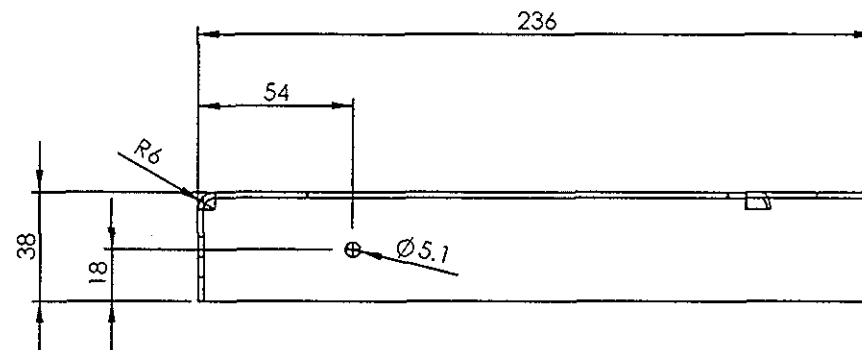
REF.DRG.NO.3 10113.0.20.095.112

DATE OF LATEST ALT.	10-04-2013	AME/SME
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AAB10006

▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖⊖⊖ CHAMFERED



REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A
SCALE 1 : 1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND SURFINISH VALUES, REFER DRAWING NO ICY/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813 1986.

REF.DRG.NO.3 10113.0.20.095.113

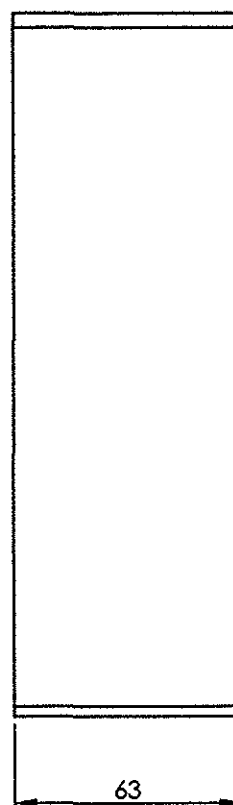
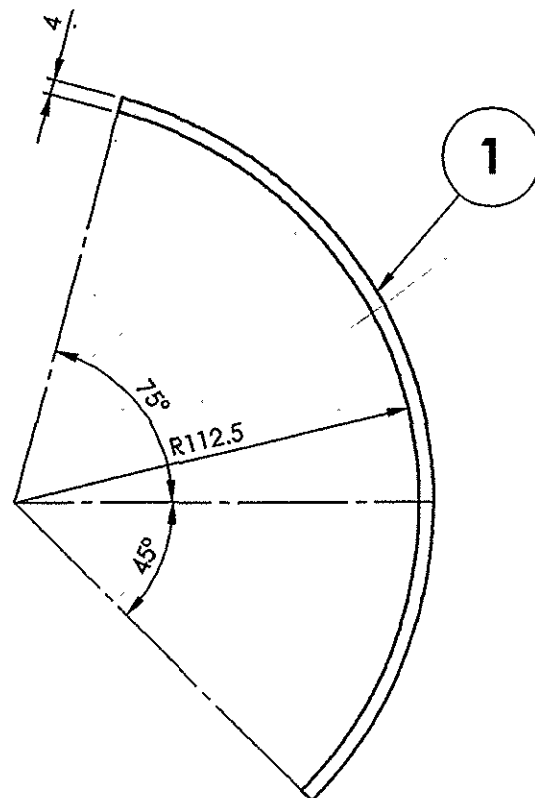
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DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

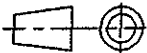
1	BRACKET	2x72x508	1		RDSO/SPEC C-K201 X2CrNi12	0.547	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-0		SURFACE AREA IN Sq.m.:0.071			WT/ASSY IN Kgs:0.547		
BRACKET					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
					DRN	L.PANDURANGA RAO	
							
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600038							
					AAB10006		A3

AAB10008

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	RING	4 x 63 x 240	1		RDSO/SPEC C- K201 X2CrNi12	0.483	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.033			WT/ASSY IN Kgs:0.483		
RING					SCALE	SSE/D	<i>W. S. Prasad</i>
					1:2	CHD	
					ALT.	ALTD	
					DRN	K.Sriram	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		
					AAB10008		A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS, VALUES, REFER DRAWING NO IC/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.-

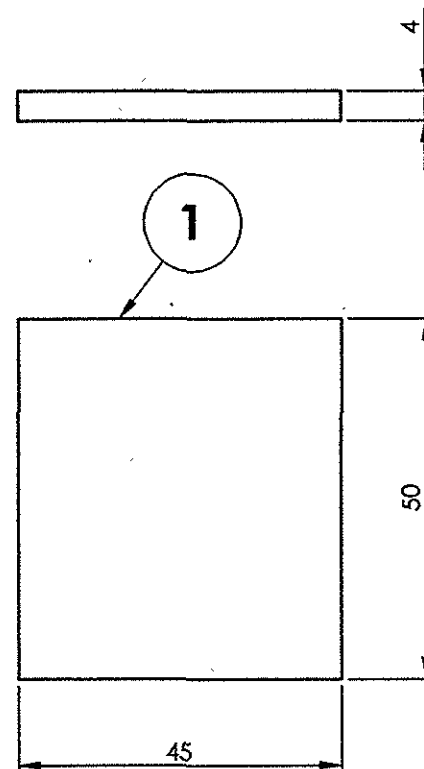
	12-06-20/3	<i>W. S. Prasad</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB10010

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑱ CHAMFERED

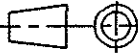
REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF:DRG.NO.-

1	PLATE	4 x 45 x 50	1		RDSO/SPEC C-K201 X2CrNi12	0.072		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.005			WT/ASSY IN Kgs:0.072			
PLATE					SCALE	SSE/D	W. S. Braend	
					1:1	CHD		
					ALT.	ALTD		
						DRN	K.Sriram	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
					SHEET 1 OF 1		AAB10010	A3

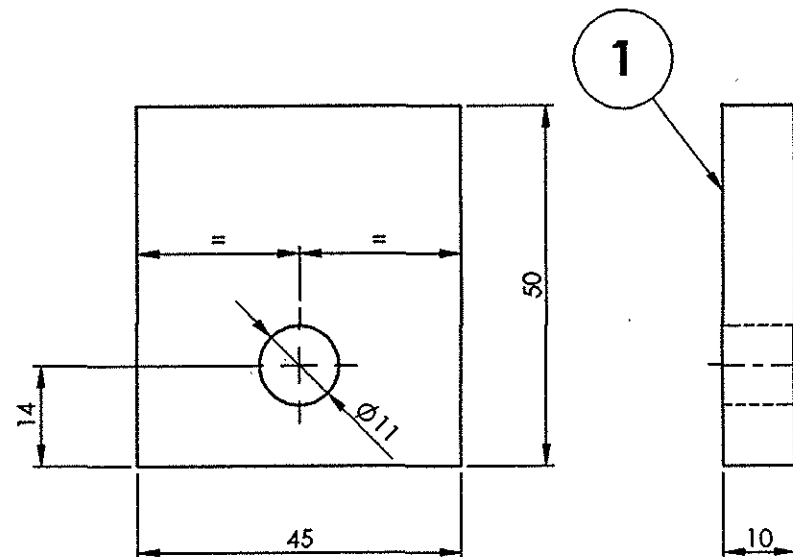
	12-06-2013	W. S. Braend
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAB10073

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

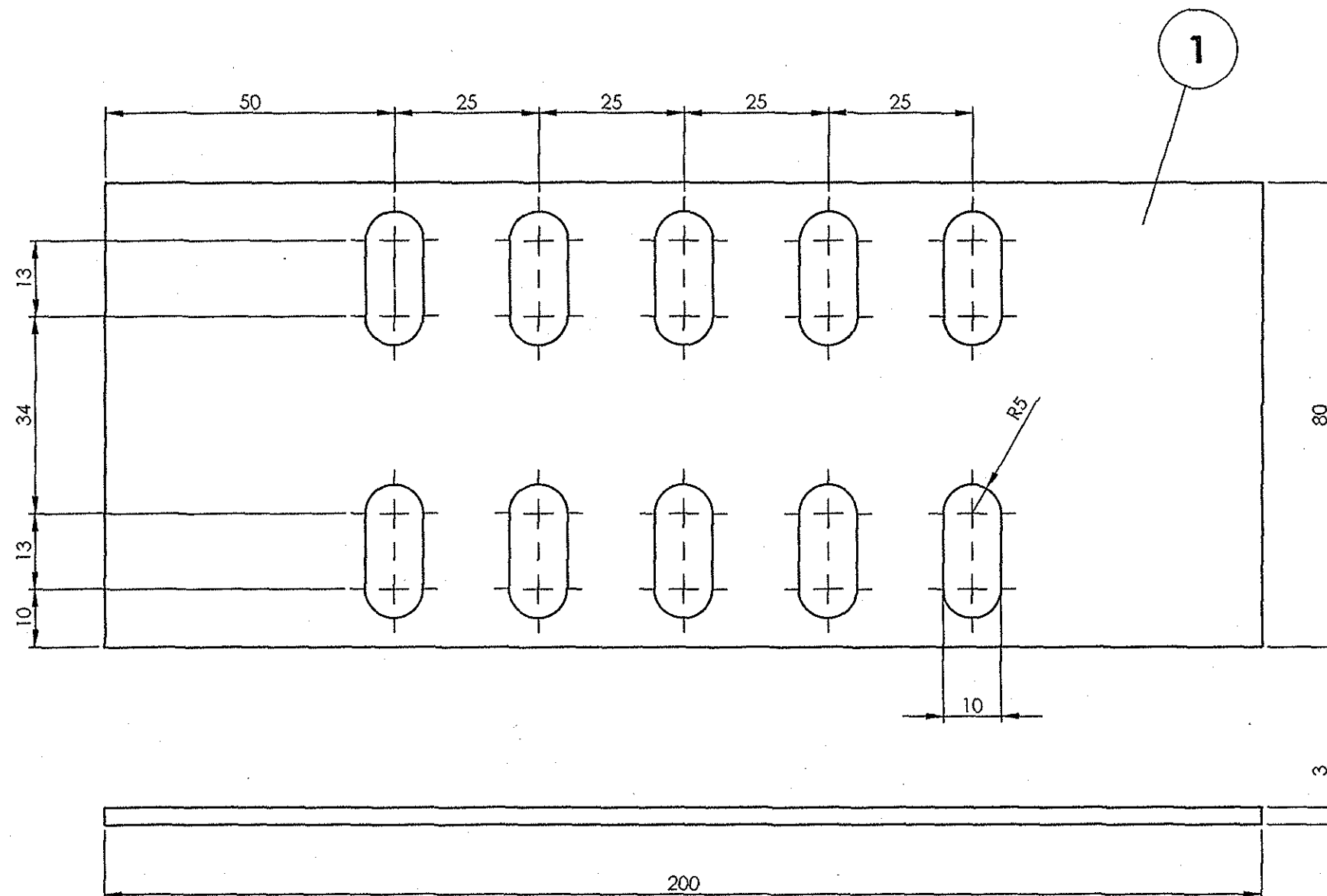
REF.DRG.NO.

1	PLATE	10 x 45 x 50	1		RDSO/SPEC C-K201 X2CrNi12	0.172	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.007			WT/ASSY IN Kgs:0.172		
PLATE					SCALE	SSE/D	<i>K.Sriram</i>
					1:1	CHD	
					ALT.	ALTD	
					DRN	K.Sriram	
INDIAN RAILWAY STANDARDS		SHEET 1 OF 1					
INTEGRAL COACH FACTORY, CHENNAI - 600038							
					AAB10073		A3

AAB16550

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED


REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

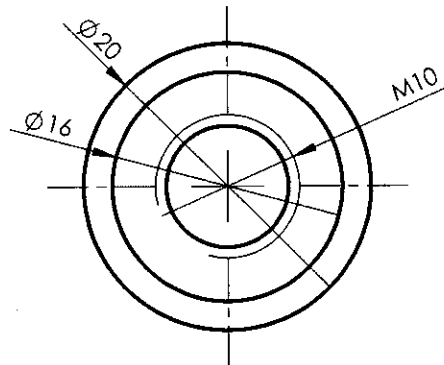
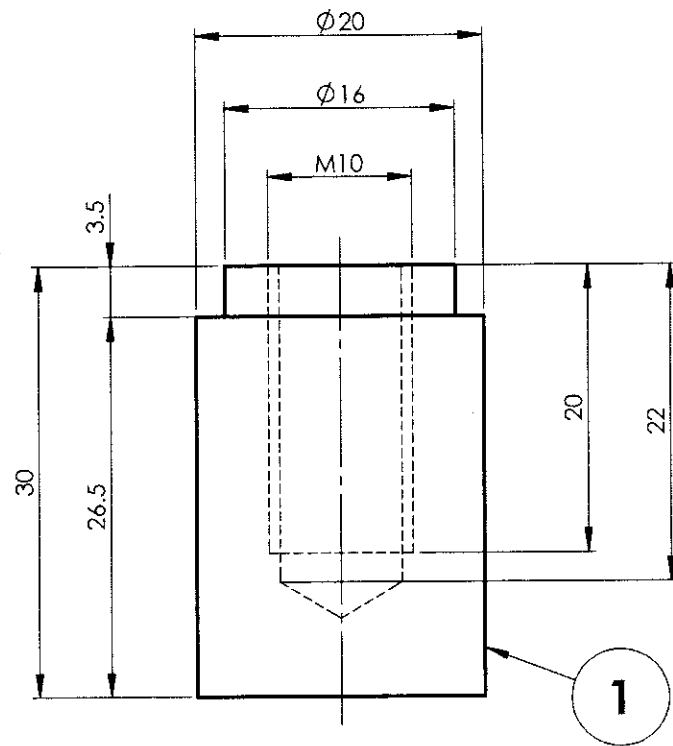
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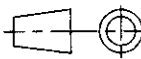
	9/2/16	A. n
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	FLAT	3x80x200	1		RDSO/SPEC C-K201 X2CrNi12	0.33		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6		SURFACE AREA IN Sq.m.:			WT/ASSY IN Kgs:			
FLAT					SCALE	SSE/D	<i>P. S. Rango</i>	
					1:1	CHD		
					ALT.	ALTD		
						DRN	P.MURUGAN	
					INDIAN RAILWAY STANDARDS			
SHEET 1 OF 1								
AAB16550								
INTEGRAL COACH FACTORY, CHENNAI - 600038					A3			

1		2		3		4		5		6		7		8																																																													
<div style="border: 1px solid black; padding: 5px; display: inline-block;"> AAD16884 </div>						<div style="display: flex; justify-content: space-between;"> <div> ▽ ROUGH MACHINED ▽▽ FINISH MACHINED ▽▽▽ FINE F.N.SH MACHINED </div> <div> (01) ROUGH CLEANED (01-02) BURRS REMOVED (18) CHAMFERED </div> </div>		<div style="display: flex; justify-content: space-between;"> <div> REVISIONS ALT. ZONE DESCRIPTION APPROVED & DATE </div> </div>																																																																			
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> </div> </div>																																																																											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY</p> </div> <div style="width: 50%;"> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>1</td> <td>SCREWING PIECE</td> <td>Ø 20 X 30</td> <td>1</td> <td></td> <td>AISI 304</td> <td>0.06</td> <td></td> </tr> <tr> <th>QTY</th> <th>DESCRIPTION</th> <th>DIMENSIONS</th> <th>ITEM NO.</th> <th>REF. DRGS</th> <th>MATL.SPEC.</th> <th>WT/UNIT IN KGS</th> <th>REMARKS</th> </tr> <tr> <td colspan="4">GROUP: 1-6 Roof Construction</td> <td colspan="2">SURFACE AREA IN Sq.m.:</td> <td colspan="2">WT/ASSY IN Kgs:</td> </tr> <tr> <td colspan="6" rowspan="4" style="text-align: center; vertical-align: middle;"> <div style="font-size: 1.2em; font-weight: bold;">SCREWING PIECE</div> </td> <td>SCALE</td> <td>SSE/D</td> <td rowspan="2" style="text-align: center; vertical-align: middle;"> </td> </tr> <tr> <td>2:1</td> <td>CHD</td> </tr> <tr> <td>ALT.</td> <td>ALTD</td> <td rowspan="2" style="text-align: center; vertical-align: middle;">S K MUTHUKUMAR</td> </tr> <tr> <td>-</td> <td>DRN</td> </tr> <tr> <td colspan="6" style="text-align: center;"> INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038 </td> <td colspan="2" style="text-align: center;"> SHEET 1 OF 1 </td> </tr> <tr> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> REF.DRG.NO. </div> </td> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> DATE OF LATEST ALT. </div> </td> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> DATE OF FIRST ISSUE </div> </td> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> AME/SME </div> </td> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> AAD16884 </div> </td> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> A3 </div> </td> </tr> </table> </div> </div>																1	SCREWING PIECE	Ø 20 X 30	1		AISI 304	0.06		QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:		<div style="font-size: 1.2em; font-weight: bold;">SCREWING PIECE</div>						SCALE	SSE/D		2:1	CHD	ALT.	ALTD	S K MUTHUKUMAR	-	DRN	INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						SHEET 1 OF 1		<div style="border: 1px solid black; padding: 2px;"> REF.DRG.NO. </div>		<div style="border: 1px solid black; padding: 2px;"> DATE OF LATEST ALT. </div>		<div style="border: 1px solid black; padding: 2px;"> DATE OF FIRST ISSUE </div>		<div style="border: 1px solid black; padding: 2px;"> AME/SME </div>		<div style="border: 1px solid black; padding: 2px;"> AAD16884 </div>		<div style="border: 1px solid black; padding: 2px;"> A3 </div>	
1	SCREWING PIECE	Ø 20 X 30	1		AISI 304	0.06																																																																					
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS																																																																				
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:																																																																					
<div style="font-size: 1.2em; font-weight: bold;">SCREWING PIECE</div>						SCALE	SSE/D																																																																				
						2:1	CHD																																																																				
						ALT.	ALTD	S K MUTHUKUMAR																																																																			
						-	DRN																																																																				
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						SHEET 1 OF 1																																																																					
<div style="border: 1px solid black; padding: 2px;"> REF.DRG.NO. </div>		<div style="border: 1px solid black; padding: 2px;"> DATE OF LATEST ALT. </div>		<div style="border: 1px solid black; padding: 2px;"> DATE OF FIRST ISSUE </div>		<div style="border: 1px solid black; padding: 2px;"> AME/SME </div>		<div style="border: 1px solid black; padding: 2px;"> AAD16884 </div>		<div style="border: 1px solid black; padding: 2px;"> A3 </div>																																																																	

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

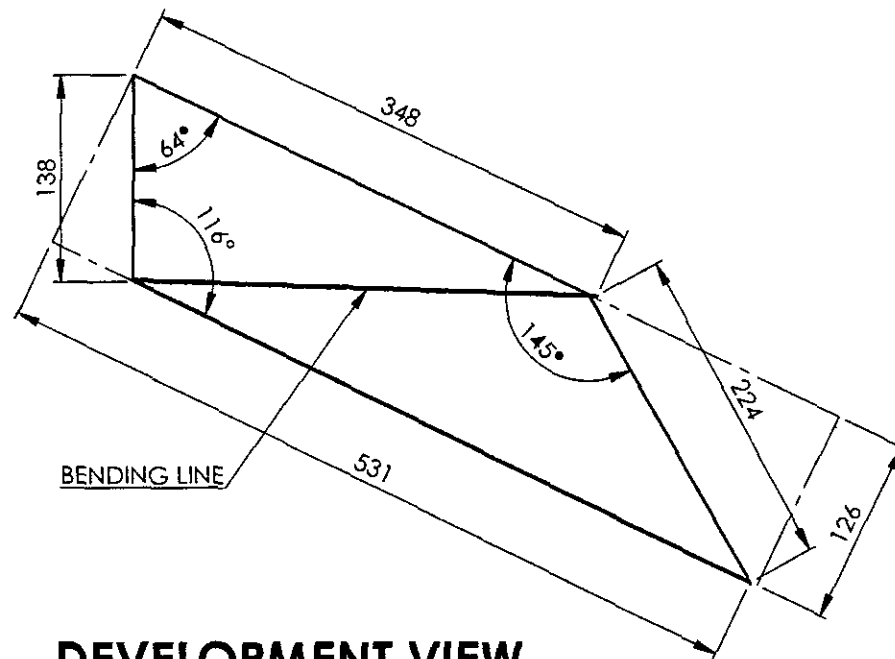
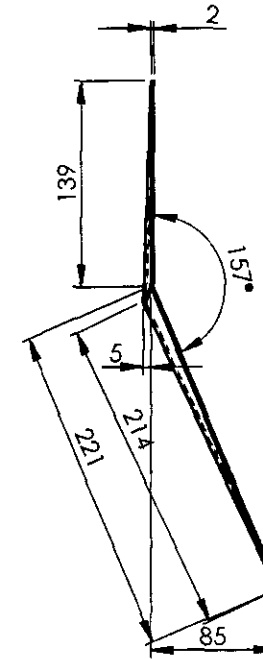
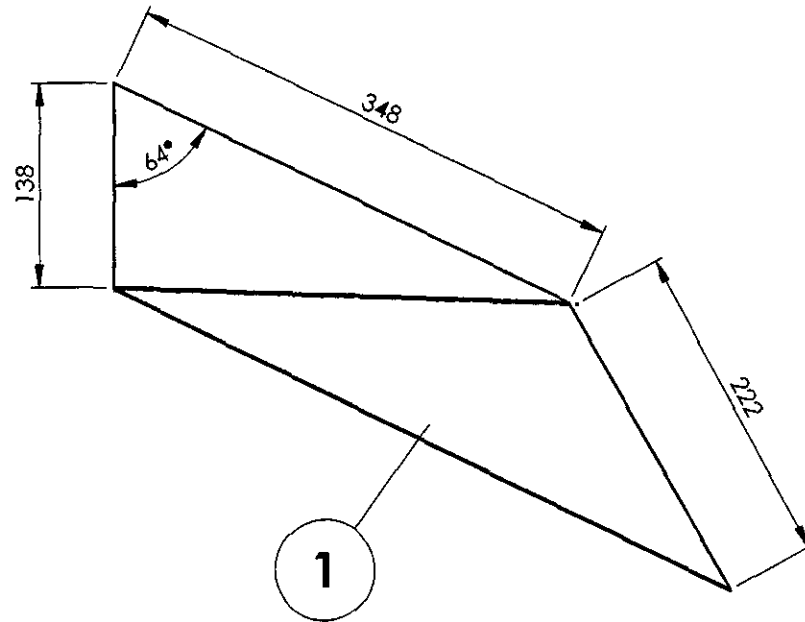


1	SCREWING PIECE	Ø 20 X 30	1		AISI 304	0.06	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:			WT/ASSY IN Kgs:		
SCREWING PIECE					SCALE	SSE/D	<i>S. Panduranga Rao</i>
					2:1	CHD	
					ALT.	ALTD	
					-	DRN	S K MUTHUKUMAR
INDIAN RAILWAY STANDARDS							
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	A3	

AAE16690

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION REVISED. VIEWS UPDATED.	V. 12/4



DEVELOPMENT VIEW

1	SIDE SHEET	2 x 126 x 531	1		RDSO SPEC C-K201 X2 Cr Ni 12	865.21	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:865.21	
SIDE SHEET					SCALE 1:5	SSE/D CHD	V. 15/3/24
					ALT. a	ALTD DRN	E.SATHISH KUMAR
							E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAE16690		A3
15-03-24	07-06-23						
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME					

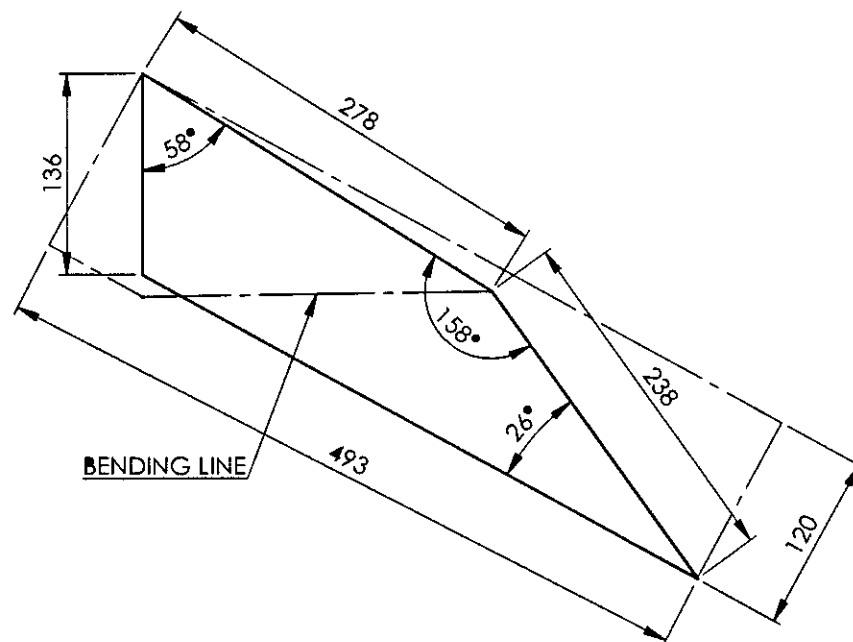
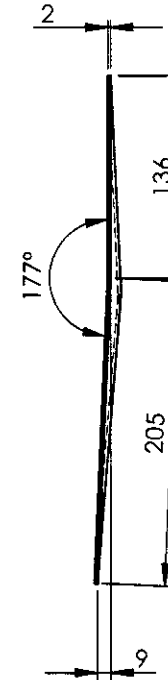
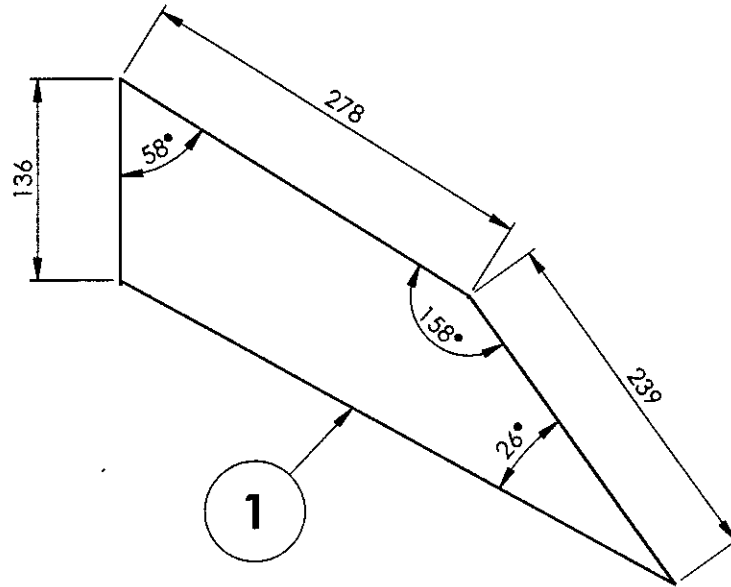
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.-

AAE16691

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①c CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION REVISED. VIEWS UPDATED.	<i>[Signature]</i> 15/3/24



DEVELOPMENT VIEW

1	SIDE SHEET	2 x 119 x 493	1		RDSO SPEC C-K201 X2 Cr Ni 12	612.89	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs: 612.89	
SIDE SHEET					SCALE 1:5	SSE/D CHD	<i>[Signature]</i>
					ALT. a	ALTD DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
SHEET 1 OF 1					AAE16691		A3

15-03-24	07-06-23	<i>[Signature]</i> 15/3/24
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
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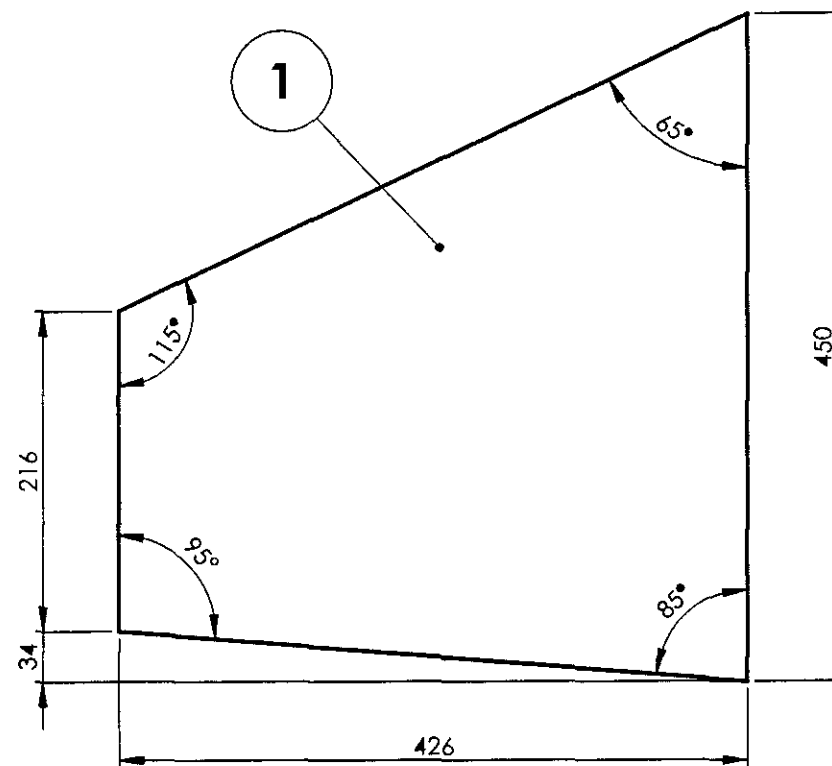
REF.DRG.NO.-

AAE16692

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
		DIMENSION REVISED. VIEWS UPDATED.	<i>V. 19/3/24</i>



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WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY


REF.DRG.NO.-

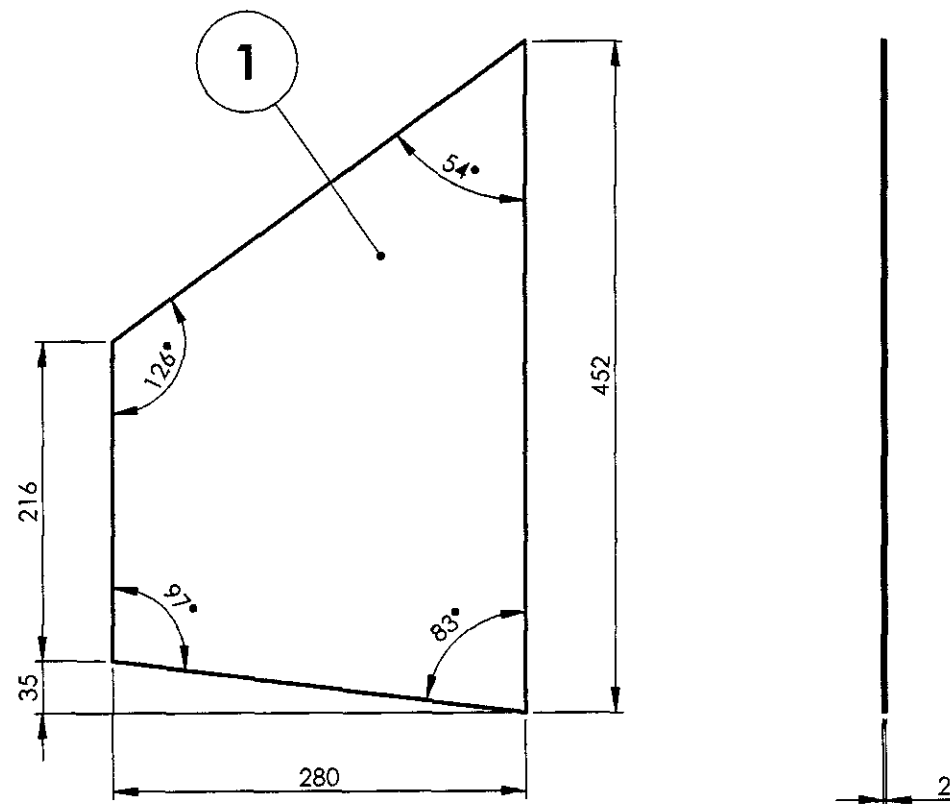
15-03-24	07-06-23	<i>V. 19/3/24</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	BOTTOM SHEET	2 x 426 x 450	1		RDSO SPEC C-K201 X2 Cr NI 12	2.27		
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:			WT/ASSY IN Kgs:			
BOTTOM SHEET					SCALE	SSE/D	L. Panduranga Rao	
					1:5	CHD		
					ALT.	ALTD	E.SATHISH KUMAR	
					2	DRN	E.SATHISH KUMAR	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		AAE16692	A3

AAE16693

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①⑥ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①⑧ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION REVISED. VIEWS UPDATED.	



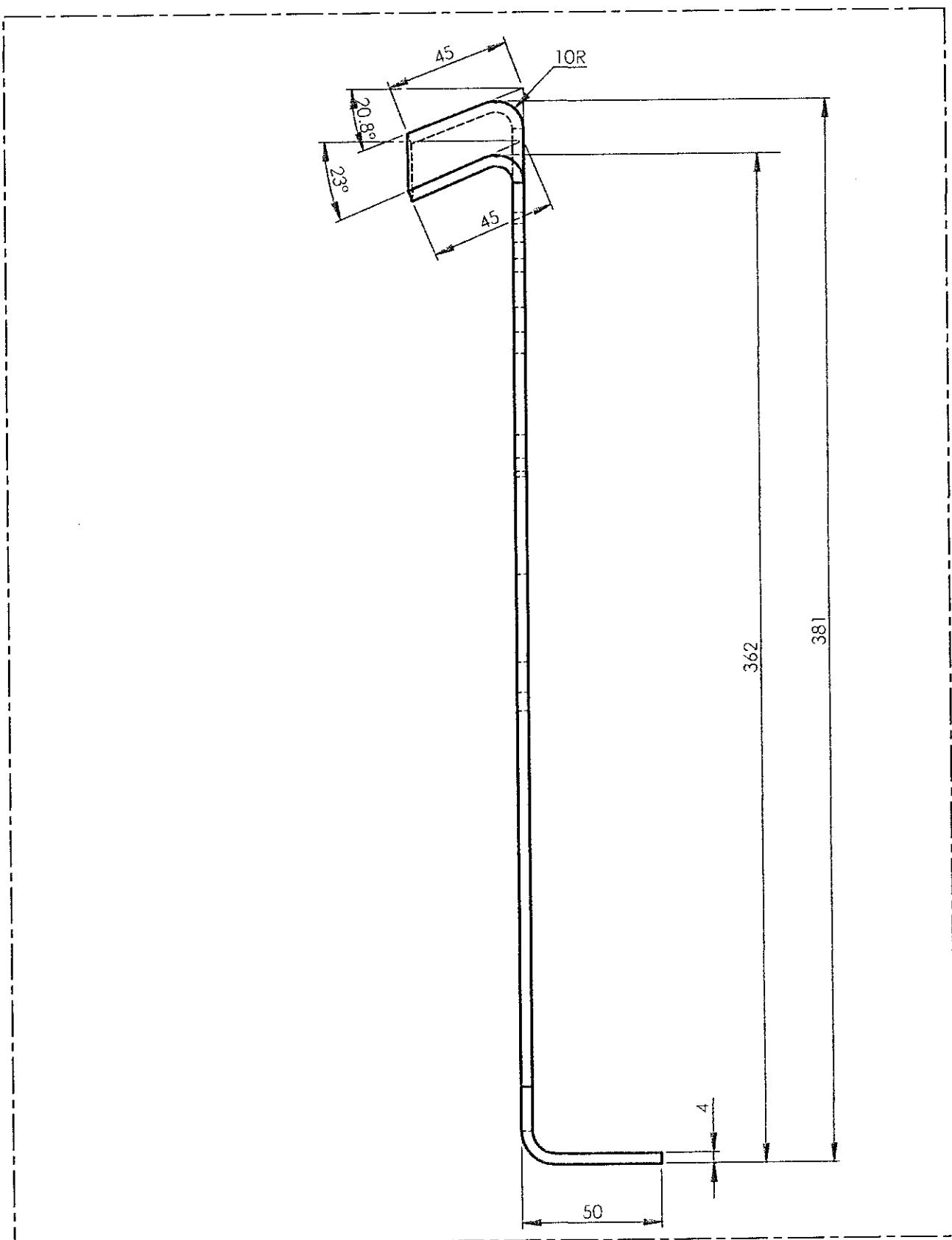
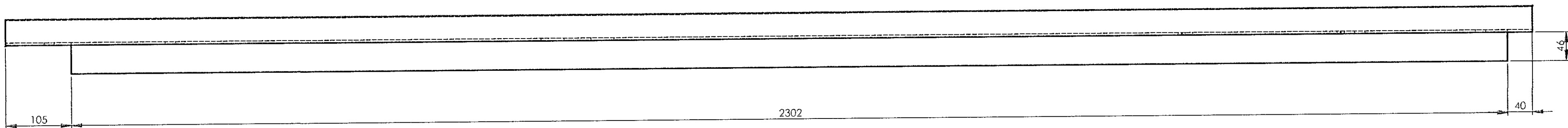
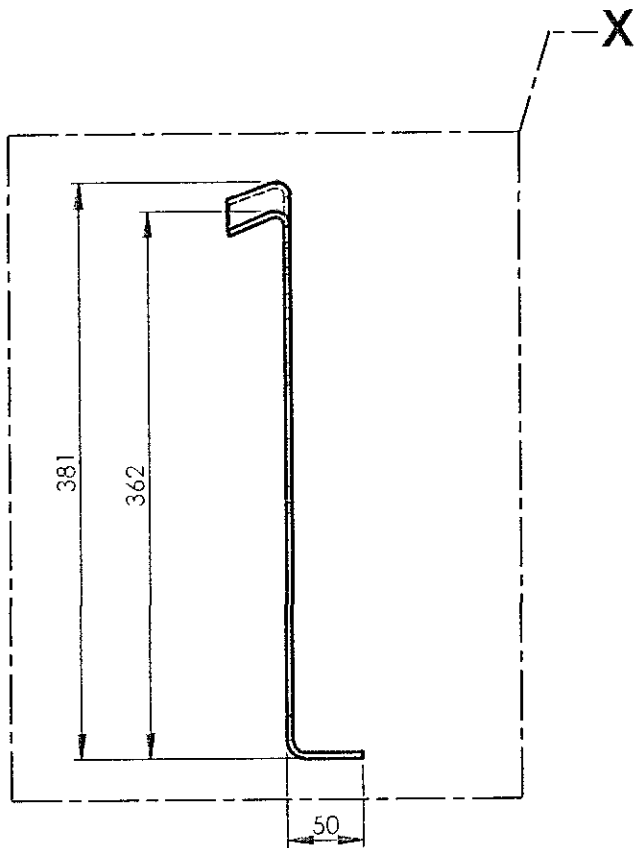
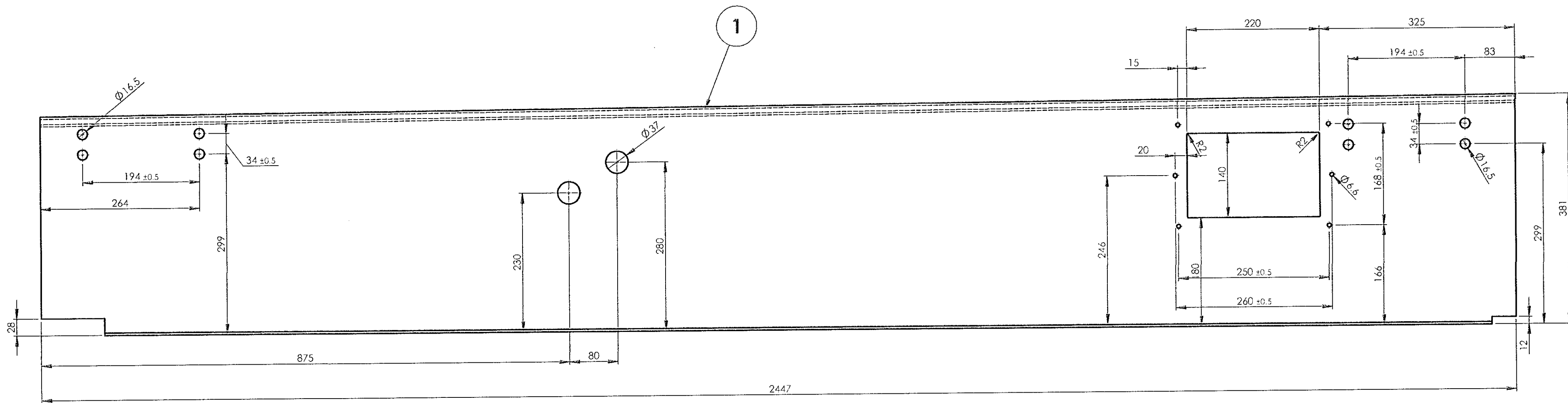
1	TOP SHEET	3 x 280 x 452	1		RDSO SPEC C-K201 X2 Cr Ni 12	1.49	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.:		WT/ASSY IN Kgs:	
TOP SHEET					SCALE 1:5	SSE/D CHD	19/3/24
					ALT. a	ALTD	E.SATHISH KUMAR
						DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAE16693		A3

15-03-24	07-06-23	19/3/24
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.-

AAF16121

12		13		14		15		16	
▽ ROUGH MACHINED		①1 ROUGH CLEANED		REVISIONS		APPROVED & DATE			
▽▽ FINISH MACHINED		①② BURRS REMOVED		ALT.	ZONE	DESCRIPTION			
▽▽▽ FINE FINISH MACHINED		①③ CHAMFERED		a		CUTAWAY ADDED AND VIEWS UPDATED.			



DETAIL X
SCALE 1 : 2

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS 813:1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

REF.DRG.NO.

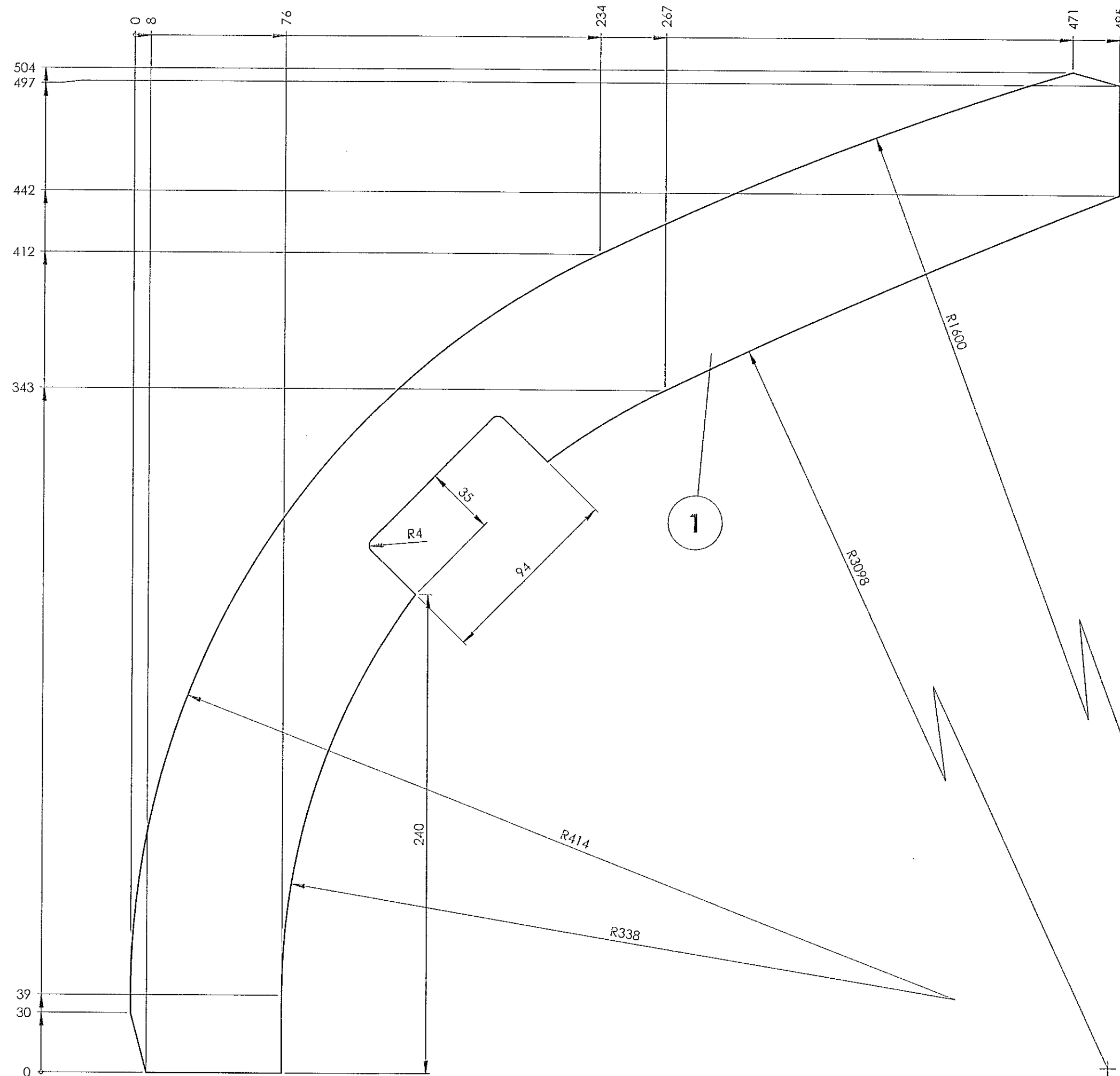
30/01/20	04/09/20	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	

1	MEMBER	4 x 459 x 2447	1		RDSO/SPEC C- K201 X2 Gy NI 12	33.764	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 2.139		WT/ASSY IN Kgs:			
MEMBER		SCALE 1:5	SSE/D	CHD	E.SATHISH KUMAR S K MUTHUKUMAR/RAVI		
		ALT. a	ALTD	DRN			
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	AAF16121 A1		

AAF16158

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①③ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.

REF.DRG.NO.2 10113.0.20.210.103

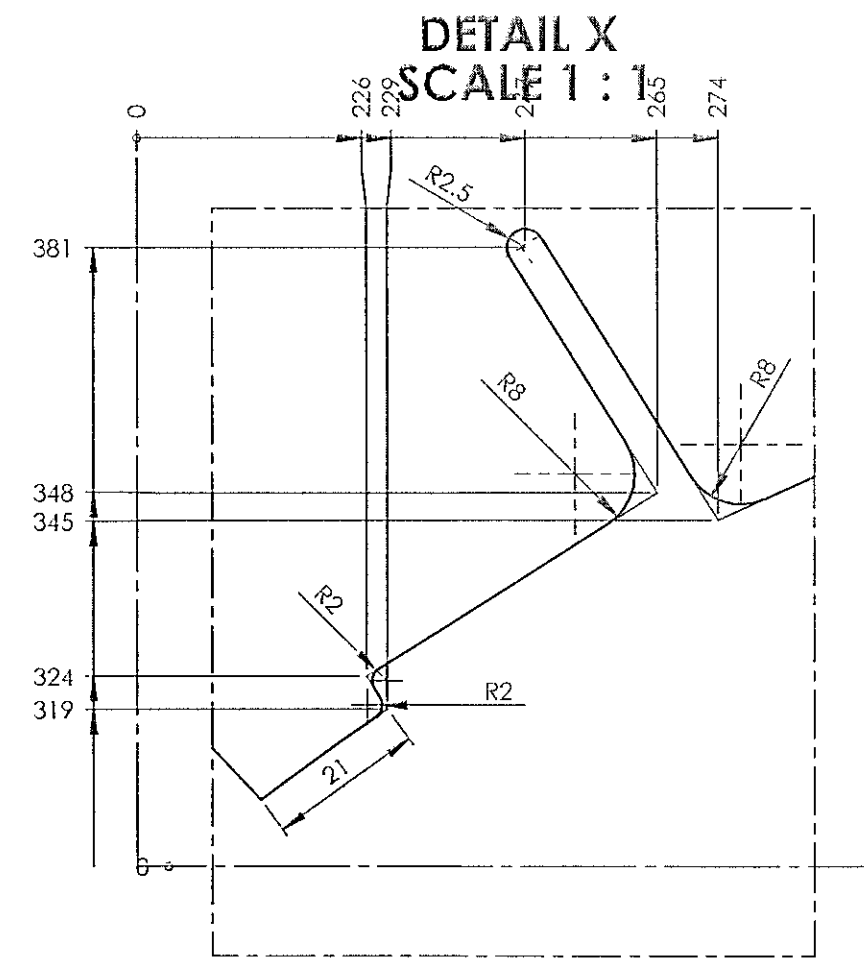
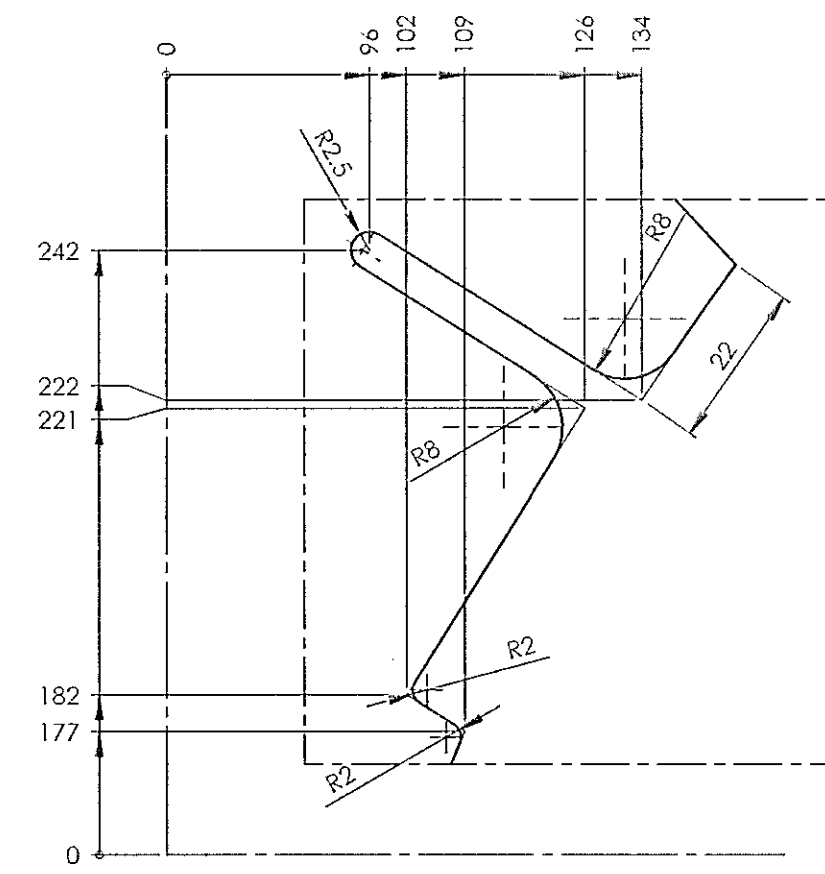
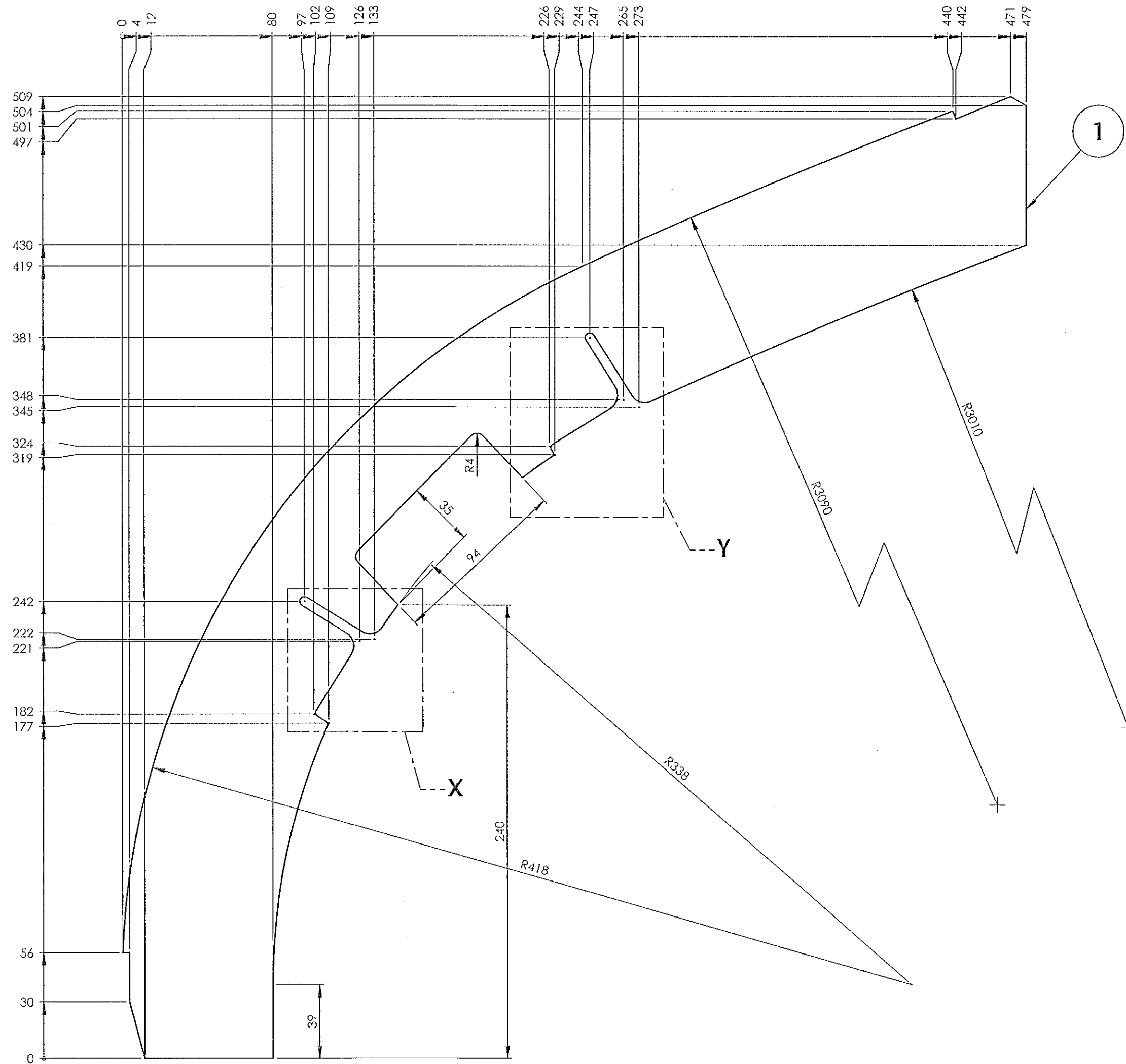
DATE OF LATEST ALT.	04/09/25	AME/SME
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1	ROOF ARCH	4 x 495 x 505	1		RDSO/SPEC C-K201 X2CrNi12	1.623	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.108		WT/ASSY IN Kgs: 1.623	
ROOF ARCH					SCALE 1:2	SSE/D CHD	E.SATHISH KUMAR
					ALT	ALTD	
						DRN	
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAF16158		
					A2		

AAF16159

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01a BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	01b CHAMFERED

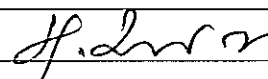
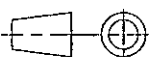
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

REF.DRG.NO.2 10113.0.20.210.112

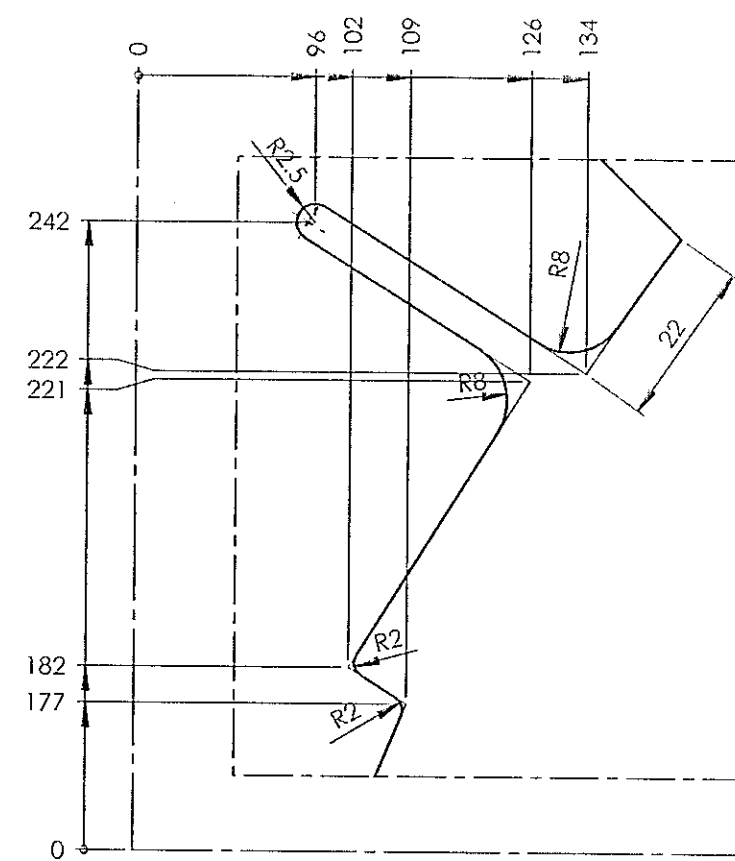
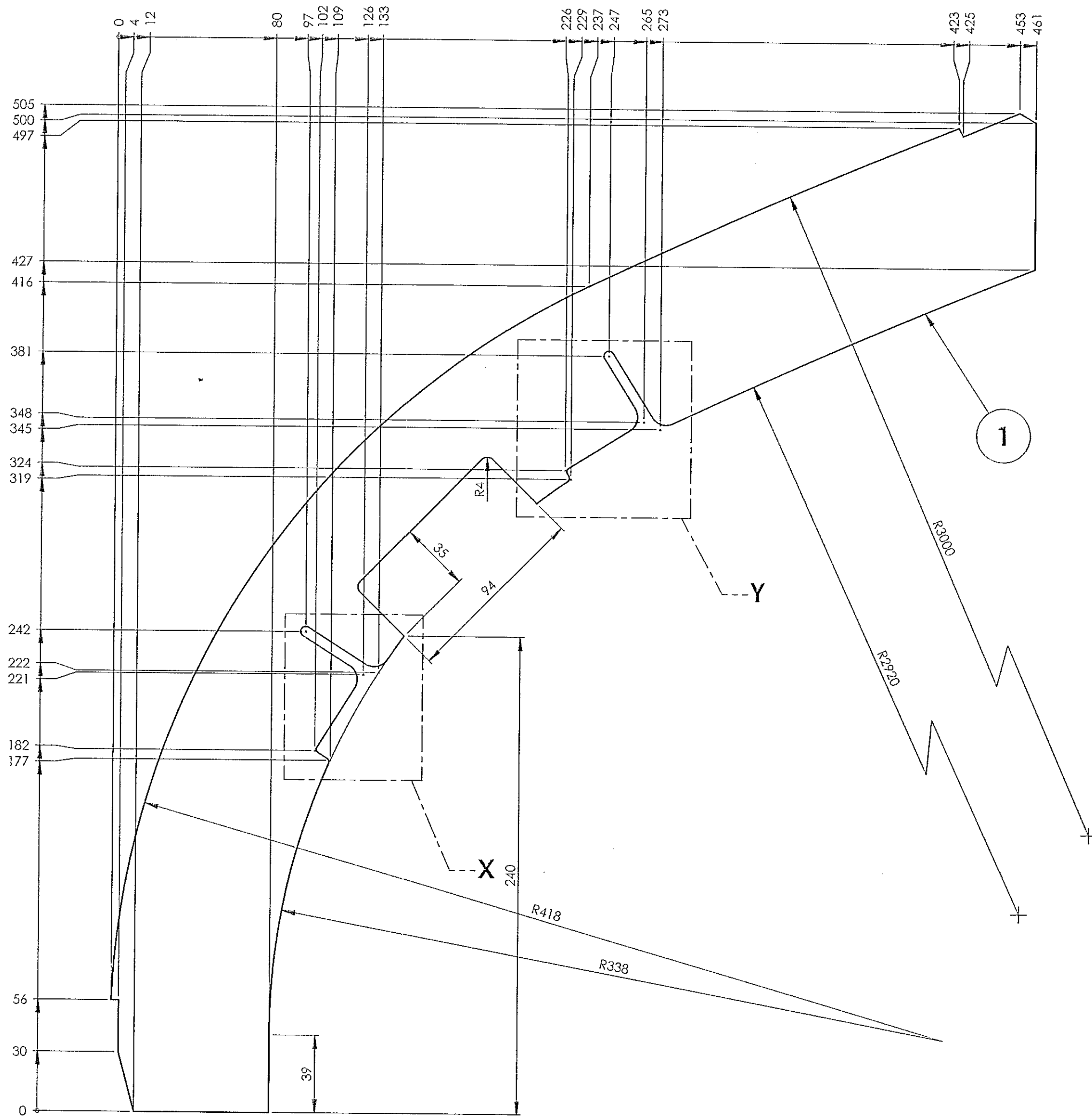
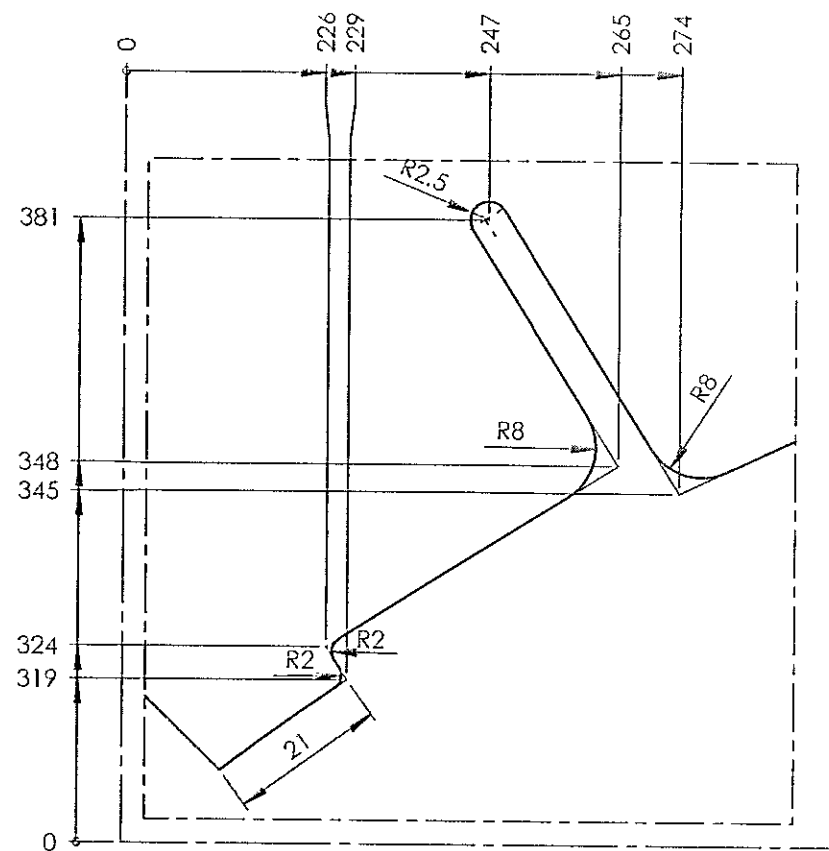
DATE OF LATEST ALT.	04/09/25	AME/SME
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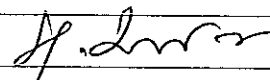
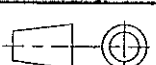
1	ROOF ARCH	4 x 479 x 508.5	1		RDSO/SPEC C- K201 X2CrNi12	1.660	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: I-6 Roof Construction		SURFACE AREA IN Sq.m.: 0.111			WT/ASSY IN Kgs:		
ROOF ARCH					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
						AAF16159	

AAFI16160

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	018 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

DETAIL X
SCALE 1 : 1DETAIL Y
SCALE 1 : 1

1	ROOF ARCH	4 x 462 x 505	1		RDSO/SPEC C-K201 X2CrNi12	1.614		
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 0.108		WT/ASSY IN Kgs:			
ROOF ARCH					SCALE 1:2	SSE/D		
						CHD		
					ALT	ALTD		
						DRN		E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
						SHEET 1 OF 1		
					AAF16160		A2	

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ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

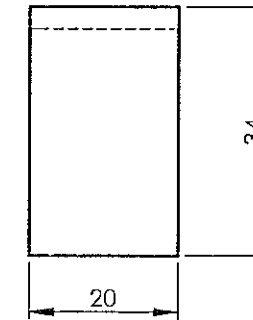
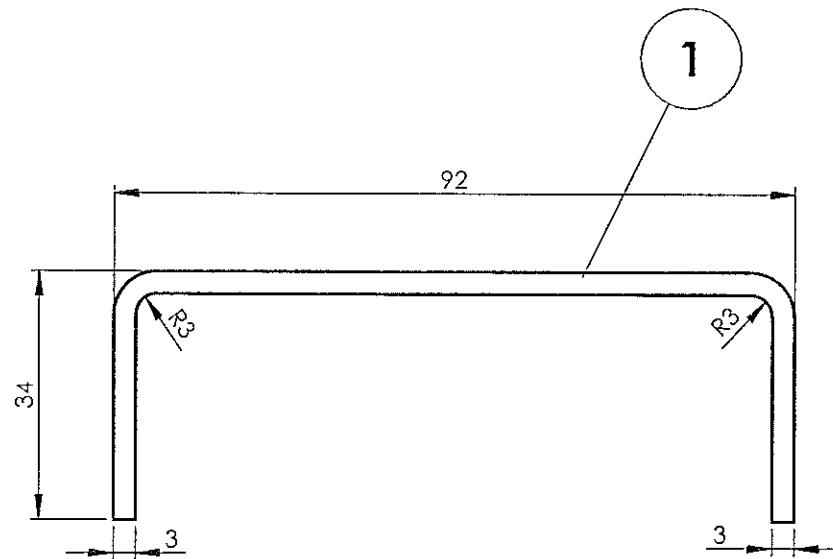
REF.DRG.NO.

DATE OF LATEST ALT.	04/09/25	AME/SME
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AAF16161

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

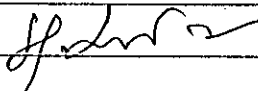
REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

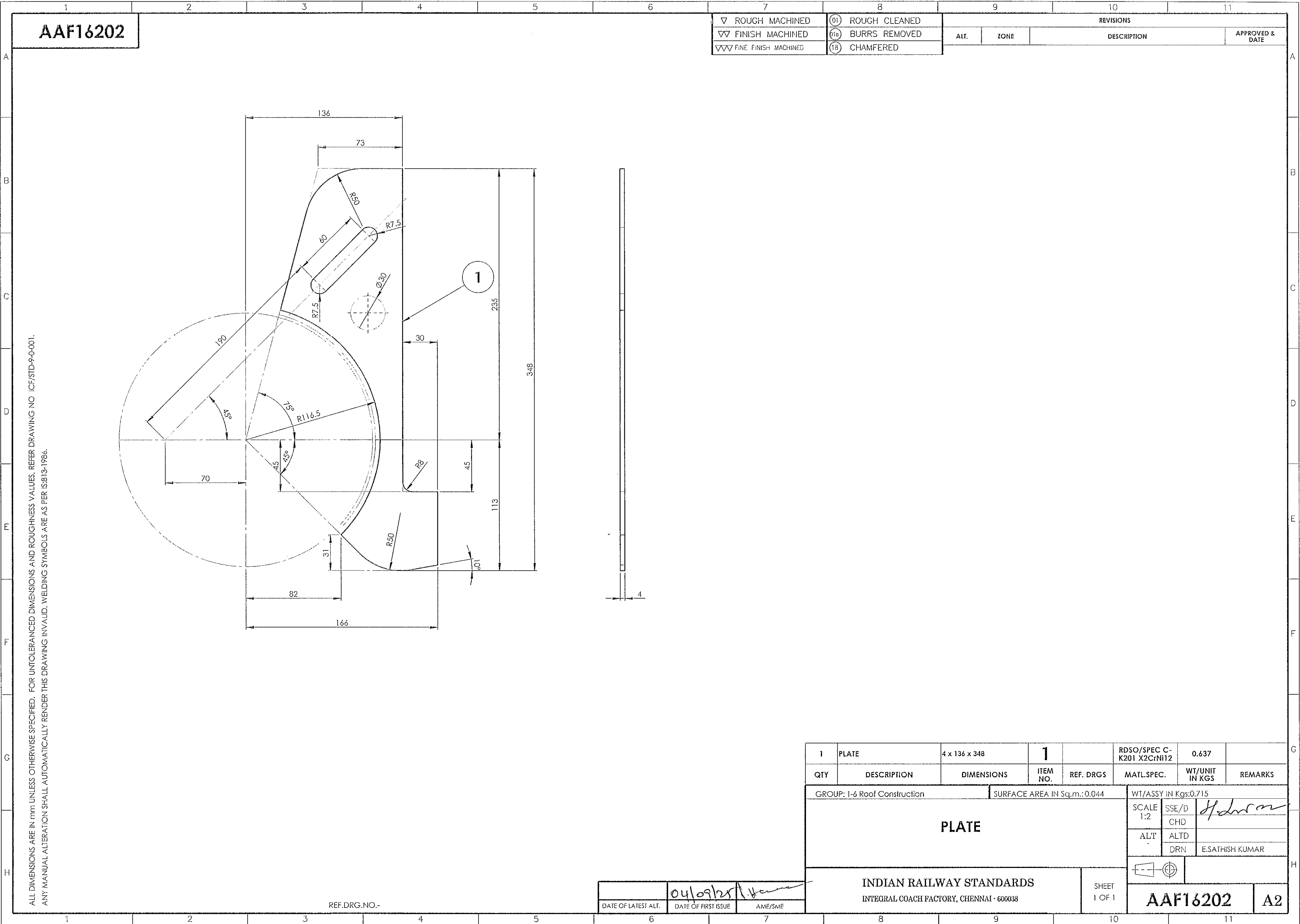
REF.DRG.NO.-

	04/09/25	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	BACK PIECE	3x20x148	1		RDSO SPEC C- K201 X2 Cr NI 12	0.07	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:			WT/ASSY IN Kgs:		
BACK PIECE					SCALE 1:1	SSE/D CHD	
					ALT.	ALTD	
						DRN	VIJAYAKUMAR R
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
					SHEET 1 OF 1	AAF16161	
						A3	


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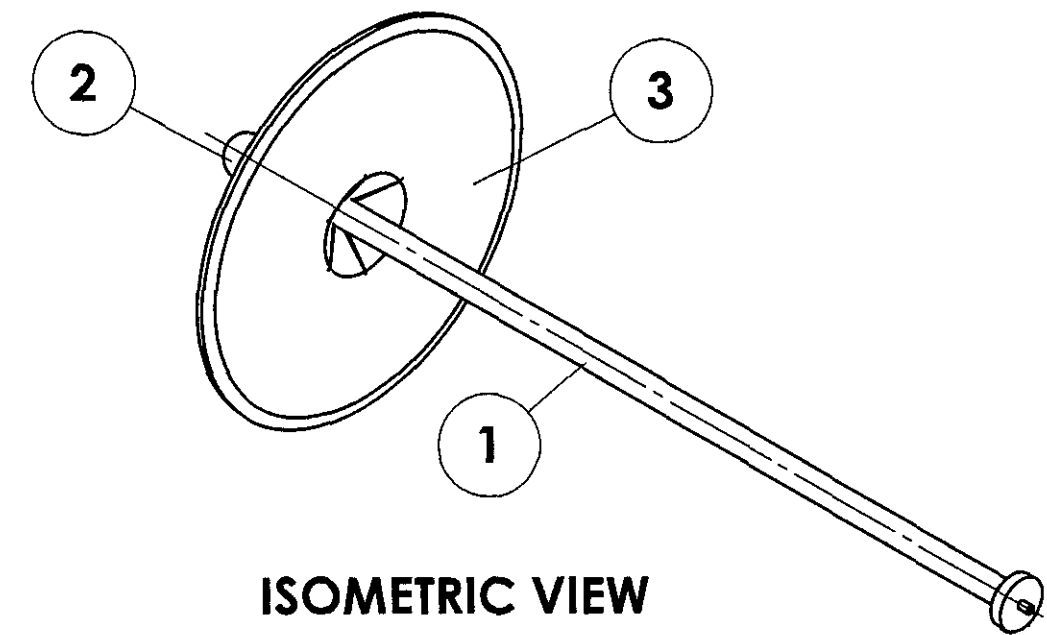
1	PLATE	4 x 136 x 348	1		RDSO/SPEC C- K201 X2CrNi12	0.610	
QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL. SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 0.043			WT/ASSY IN Kgs:		
PLATE					SCALE 1:2	SSE/D CHD	<i>H. Duran</i>
					ALT	ALTD	
						DRN	ESATHISH KUMAR
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
AAF16201		A2					



49516008

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	18 CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		NOTE REVISED. VIEWS UPDATED AS PER DETAIL.	



ISOMETRIC VIEW

NOTE:

- ITEM-1 TO BE RESISTANCE WELDED AS SHOWN IN THE RESPECTIVE DRAWING AND ITEMS-2&3 TO BE SUPPLIED IN LOOSE (TO BE ASSEMBLED IN FURNISHING AFTER INSERTING THERMAL INSULATION).
- 5% EXCESS QTY OF ITEMS-2&3 TO BE SUPPLIED AGAINST THE QTY CALLED FOR IN THE RESPECTIVE ASSEMBLY DRAWINGS.

1	SERRATED SPRING WASHER		3	AAA16495		0.003	
1	CAP		2	AAA16494		0.000	
1	WELDING PIN		1	AAA16493		0.002	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 ROOF CONSTRUCTION

SURFACE AREA IN Sq.m.:0.002

WT/ASSY IN Kgs:

WELDING PIN ASSEMBLY

SCALE
1:1

SSE/D
CHD

ALT.
a

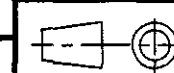
ALTD
DRN

A.Palanichamy
3D:A.Palanichamy
2D:P.Murugan

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1



LWGSCWAC2

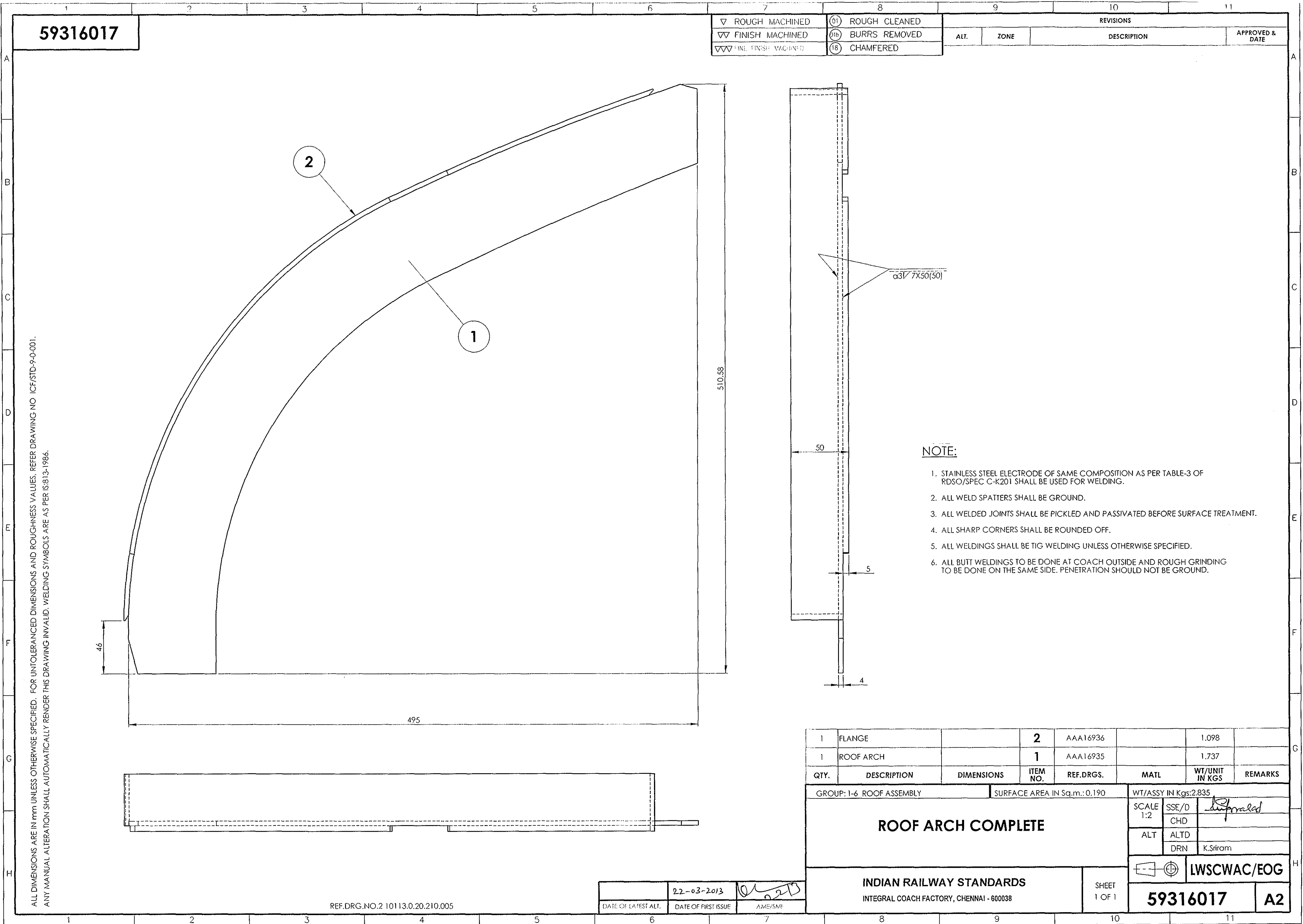
49516008

A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.mi005176

06-02-2024	19-07-2013	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME



59316017

▽ ROUGH MACHINED	(01) ROUGH CLEANED
▽▽ FINISH MACHINED	(01b) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(18) CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

1	FLANGE		2	AAA16936		1.098	
1	ROOF ARCH		1	AAA16935		1.737	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.190		WT/ASSY IN Kgs: 2.835	
ROOF ARCH COMPLETE					SCALE 1:2	SSE/D	<i>Supraled</i>
					CHD		
					ALT	ALTD	
					DRN		K.Srirom
INDIAN RAILWAY STANDARDS					LWSCWAC/EOG		
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
					59316017		
					A2		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS 813-1986.

REF.DRG.NO.2 10113.0.20.210.005

	22-03-2013	<i>22B</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SAM

59316018

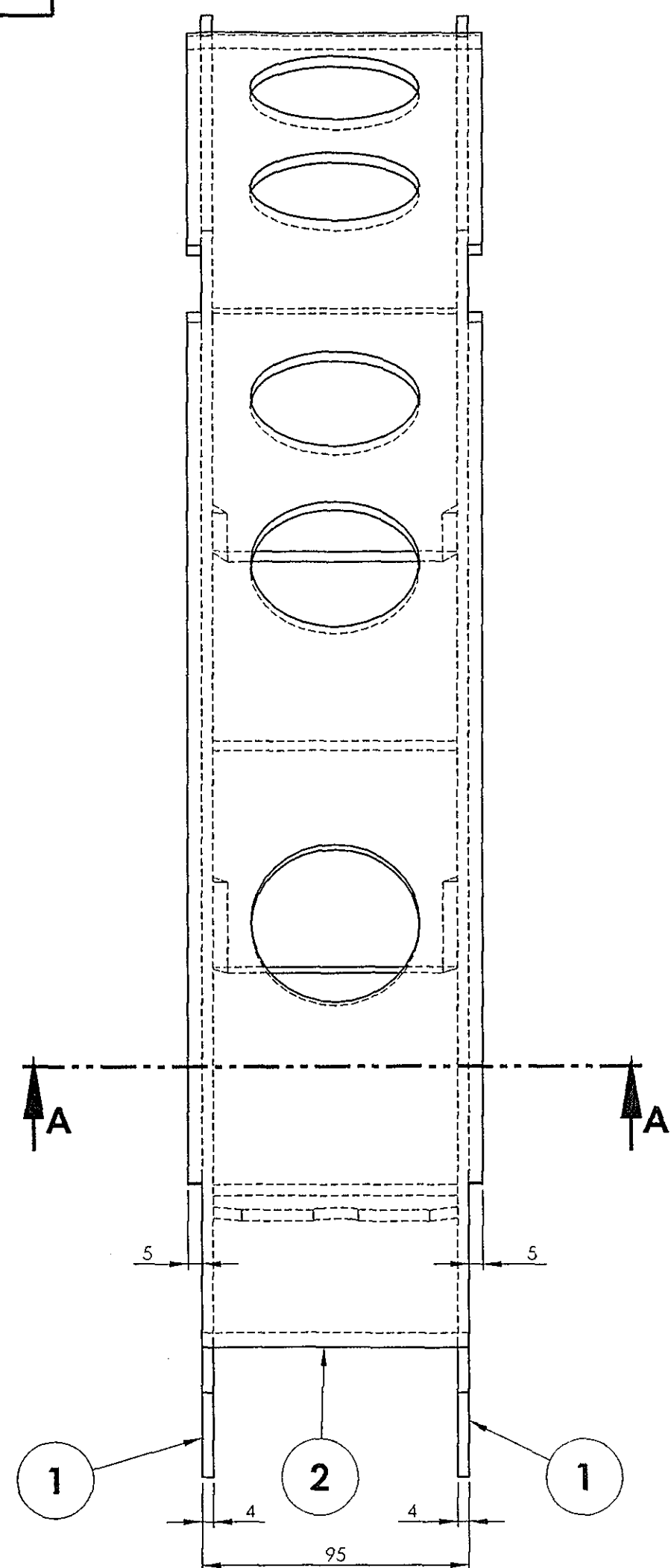
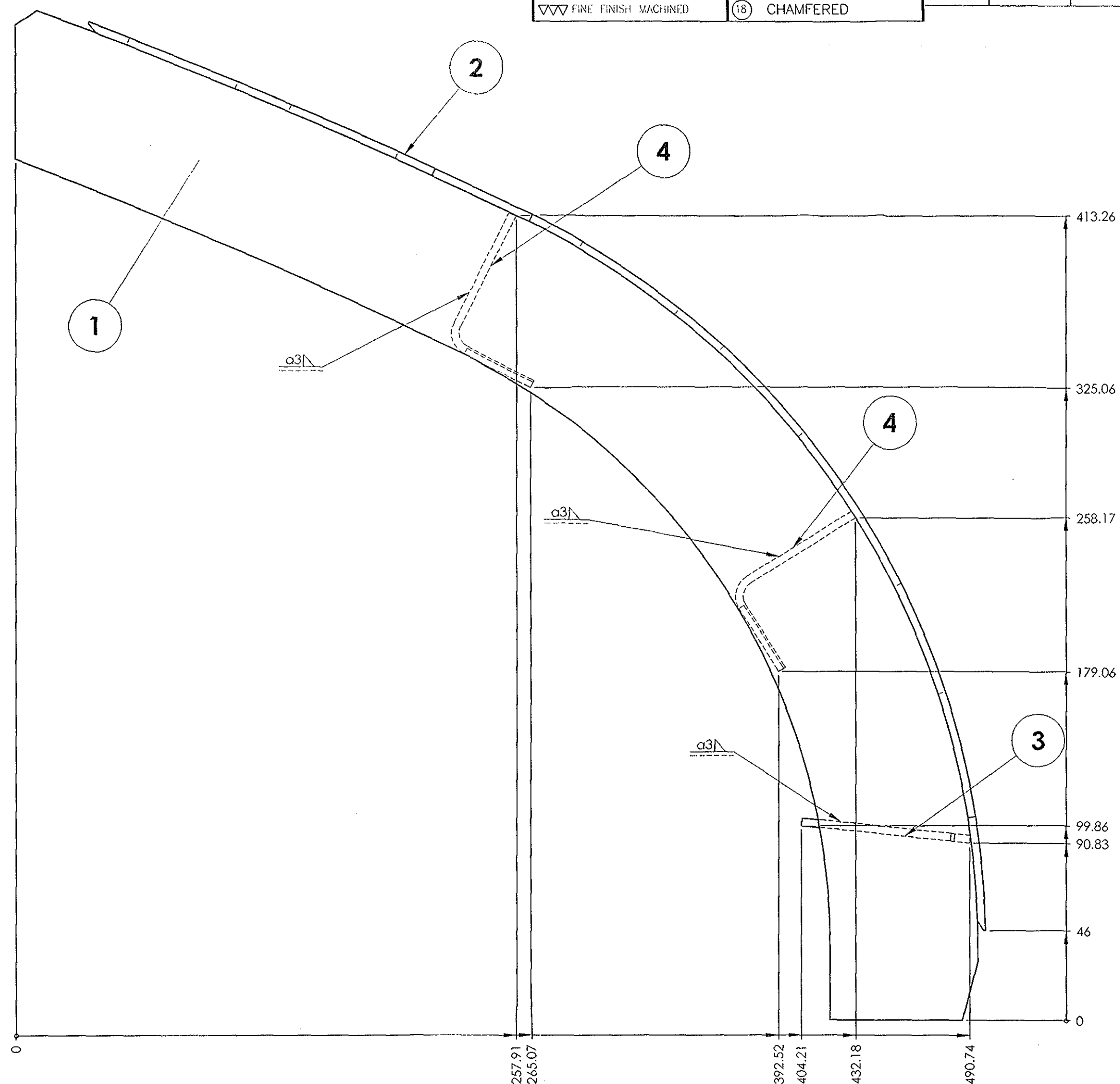
▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	18 CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATESECTION A-A
SCALE 1:2

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

2	STIFFENING ANGLE		4	AAA16940		0.322	
1	WEB		3	AAA16939		0.236	
1	FLANGE		2	AAA16938		1.864	
2	ROOF ARCH		1	AAA16937		1.758	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 ROOF ASSEMBLY

SURFACE AREA IN Sq.m.: 0.420

WT/ASSY IN Kgs: 6.260

ROOF ARCH COMPLETE

SCALE
1:5SSE/D
CHD

ALT

ALTD

DRN

K.Sriram

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

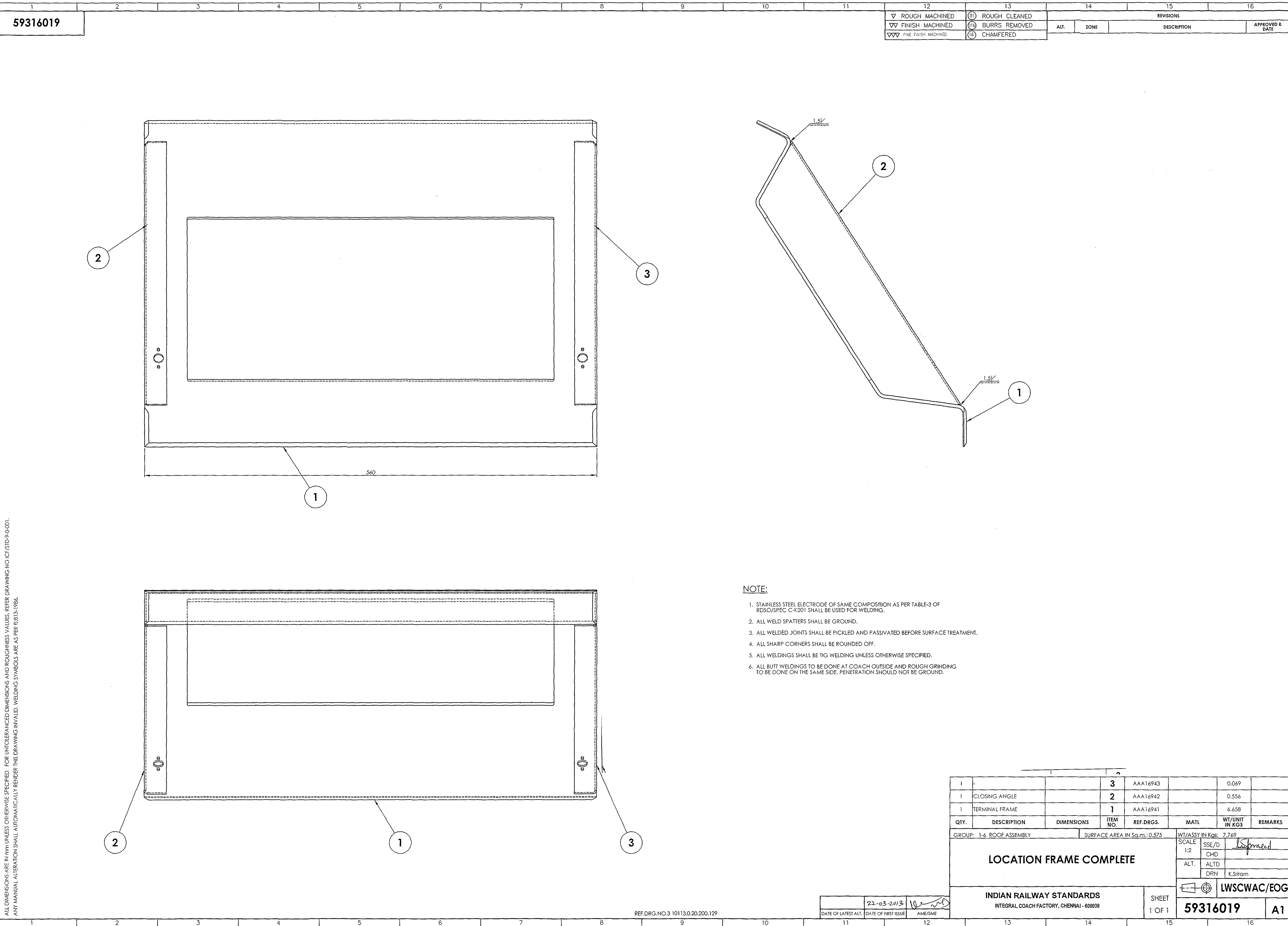
SHEET
1 OF 1

59316018

A2

DATE OF LATEST ALT.	22-03-2013	DATE OF FIRST ISSUE	10-03-2013	AMU/SME
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REF.DRG. NO. 2 10113.0.20.210.006



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-Q-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813:1986.

▽ ROUGH MACHINED	① ROUGH CLEANED	REVISIONS			
▽▽ FINISH MACHINED	①① BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
▽▽▽ FINE FINISH MACHINED	①①① CHAMFERED				

- NOTE:
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
 2. ALL WELD SPATTERS SHALL BE GROUND.
 3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
 4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
 5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
 6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

1	-		3	AAA16943		0.069	
1	CLOSING ANGLE		2	AAA16942		0.556	
1	TERMINAL FRAME		1	AAA16941		6.658	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY			SURFACE AREA IN Sq.m.: 0.575		WT/ASSY IN Kgs: 7.769		
LOCATION FRAME COMPLETE					SCALE 1:2	SSE/D	<i>K. Srinivas</i>
						CHD	
					ALT.	ALTD	
						DRN	K. Srinivas
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1	LWSCWAC/EOG		
					59316019	A1	

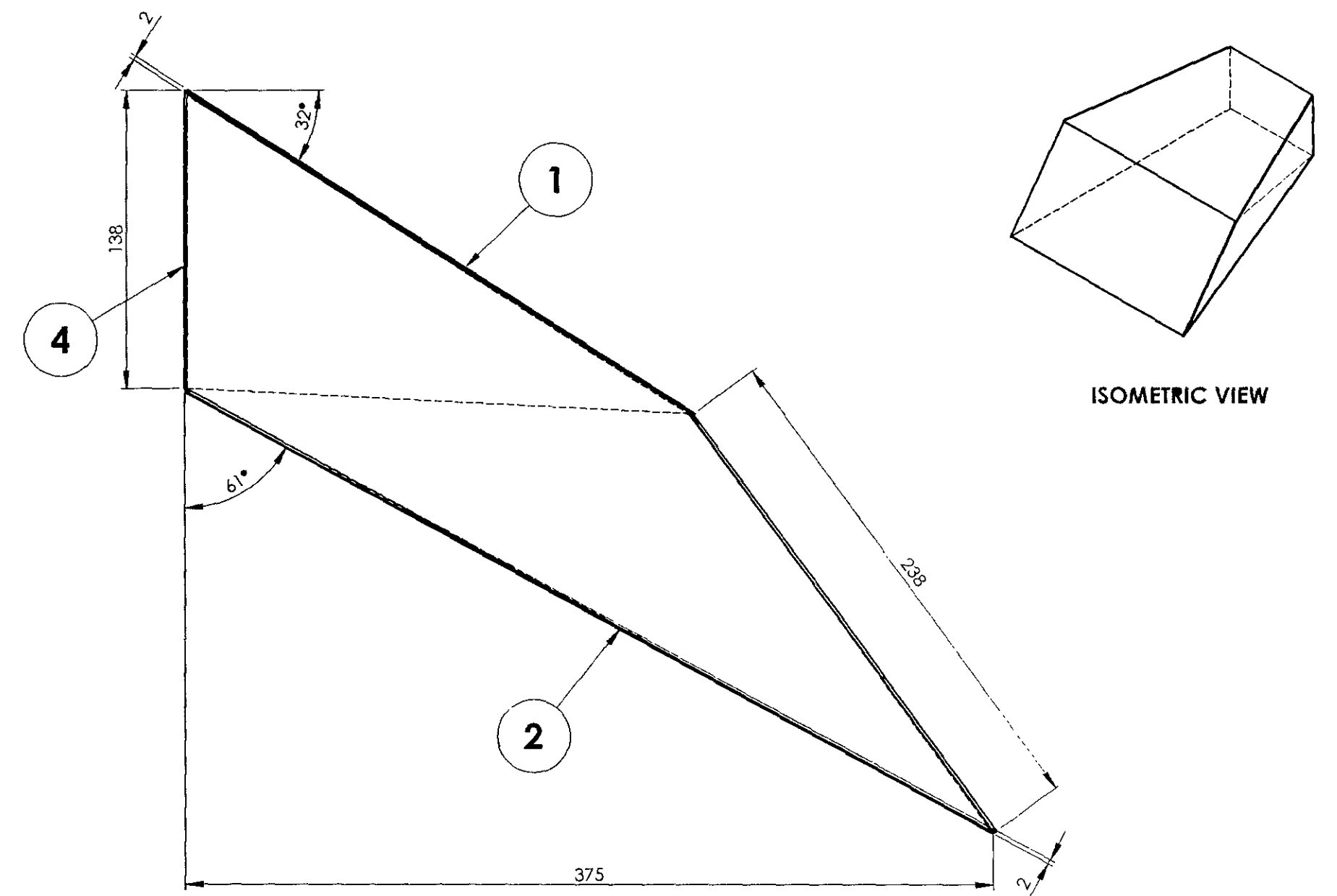
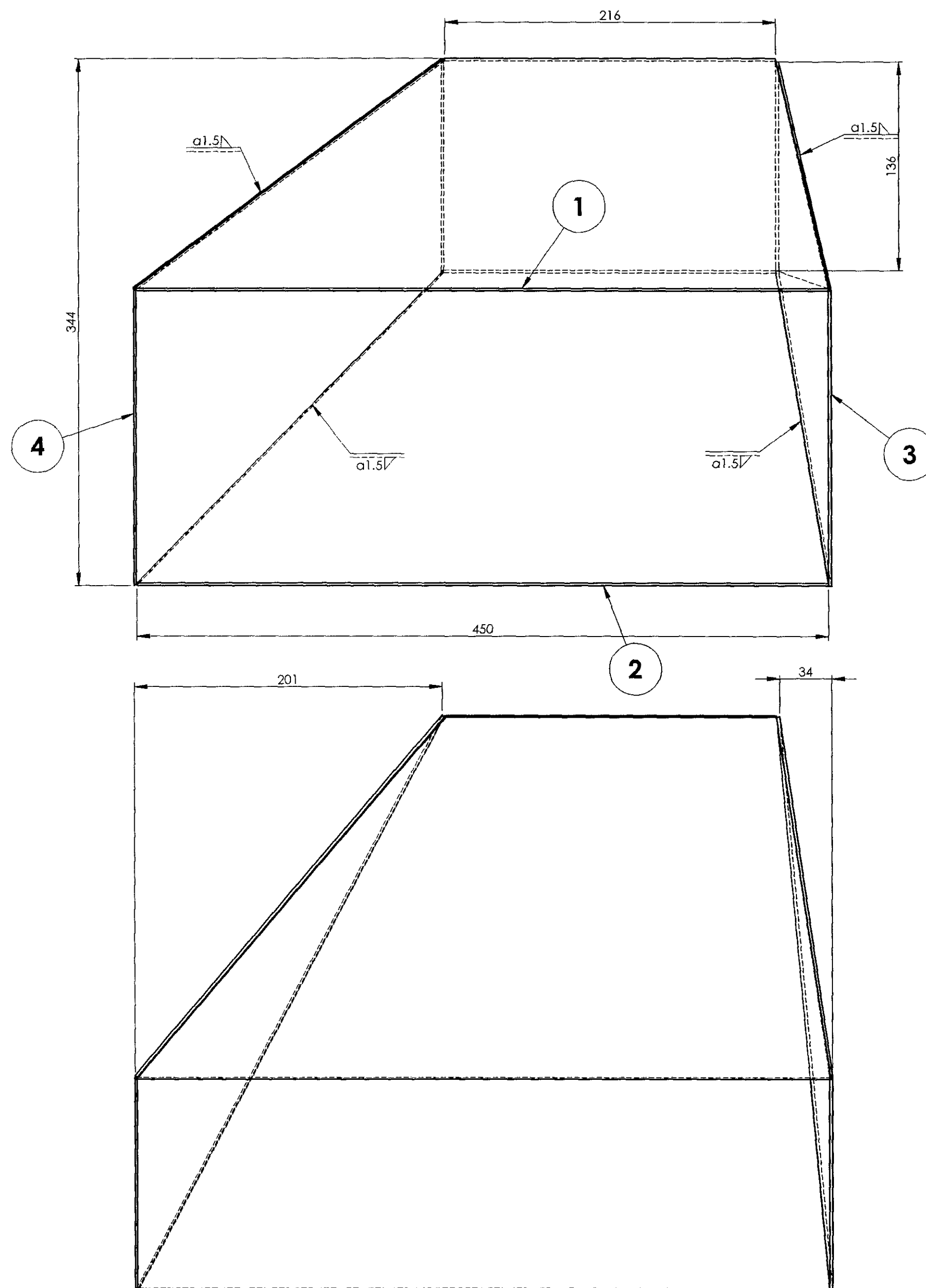
59316056

▽ ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

① ROUGH CLEANED
② BURRS REMOVED
③ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		SUCTION PIPE MODIFIED AND VIEWS UPDATED.	V. 14/6/24



ISOMETRIC VIEW

NOTE:-

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC. CK-201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
4. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
5. ALL WELDING SHALL BE OF TIG UNLESS OTHERWISE SPECIFIED.
6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.

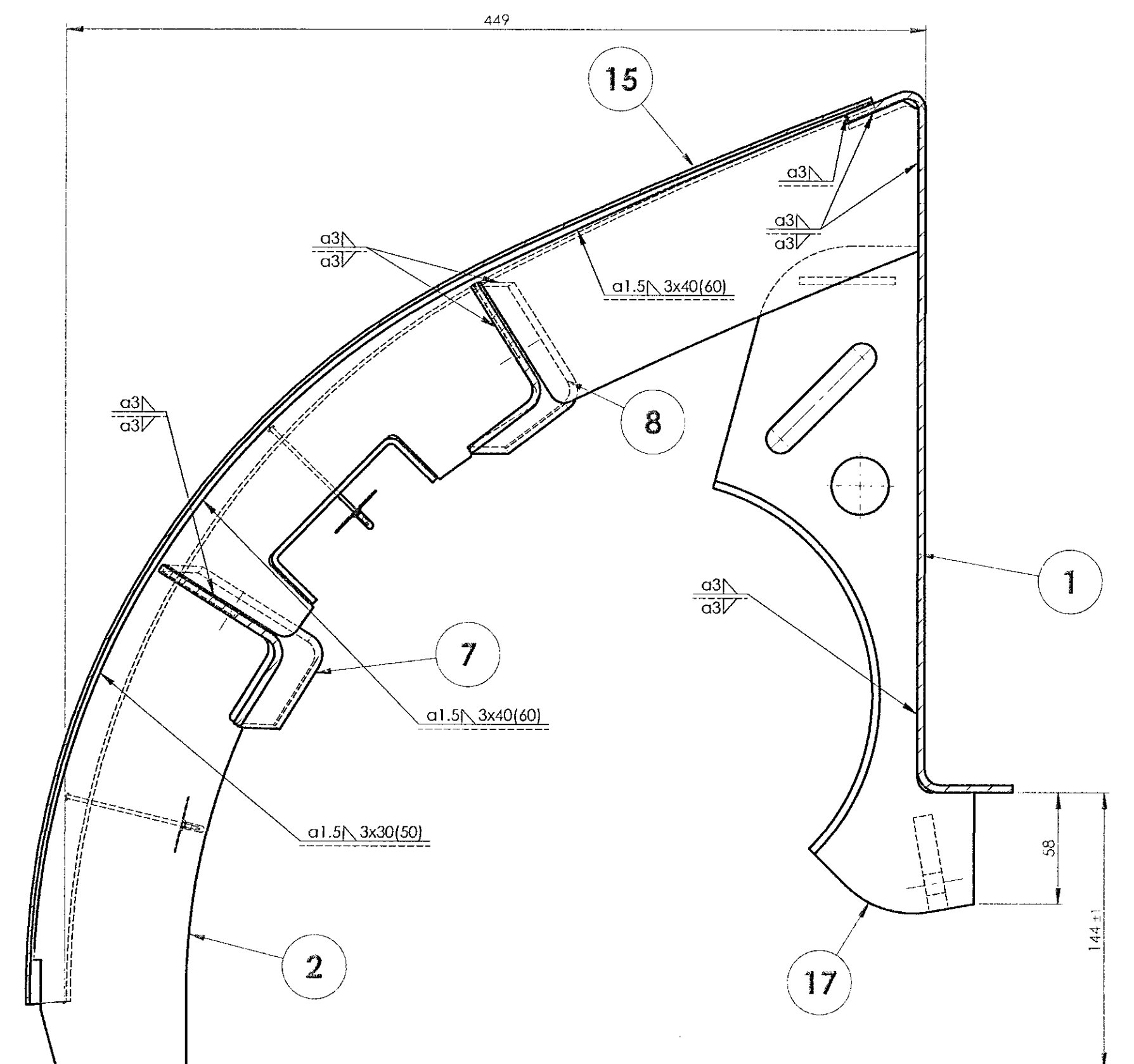
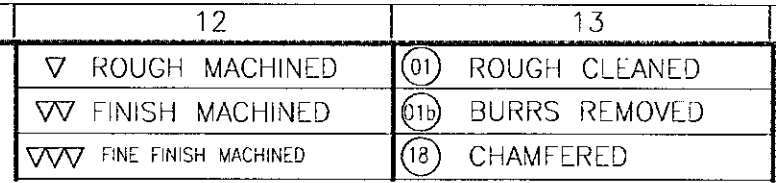
1	SIDE SHEET		4	AAE16686		0.845	
1	SIDE SHEET		3	AAE16687		0.613	
1	BOTTOM SHEET		2	AAE16688		2.269	
1	TOP SHEET		1	AAE16689		1.492	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: I-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.665		WT/ASSY IN Kgs: 5.239	
SUCTION PIPE COMPLETE				SCALE 1:2.5	SSE/D	A. Pankarajee	
				CHD	CHD		
				ALT	ALT	E.SATHISH KUMAR	
				DRN	DRN	E.SATHISH KUMAR	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		59316056	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A2	

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.

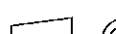
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15-03-24	07-06-23	V. 14/6/24
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO TCF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:913-1986.

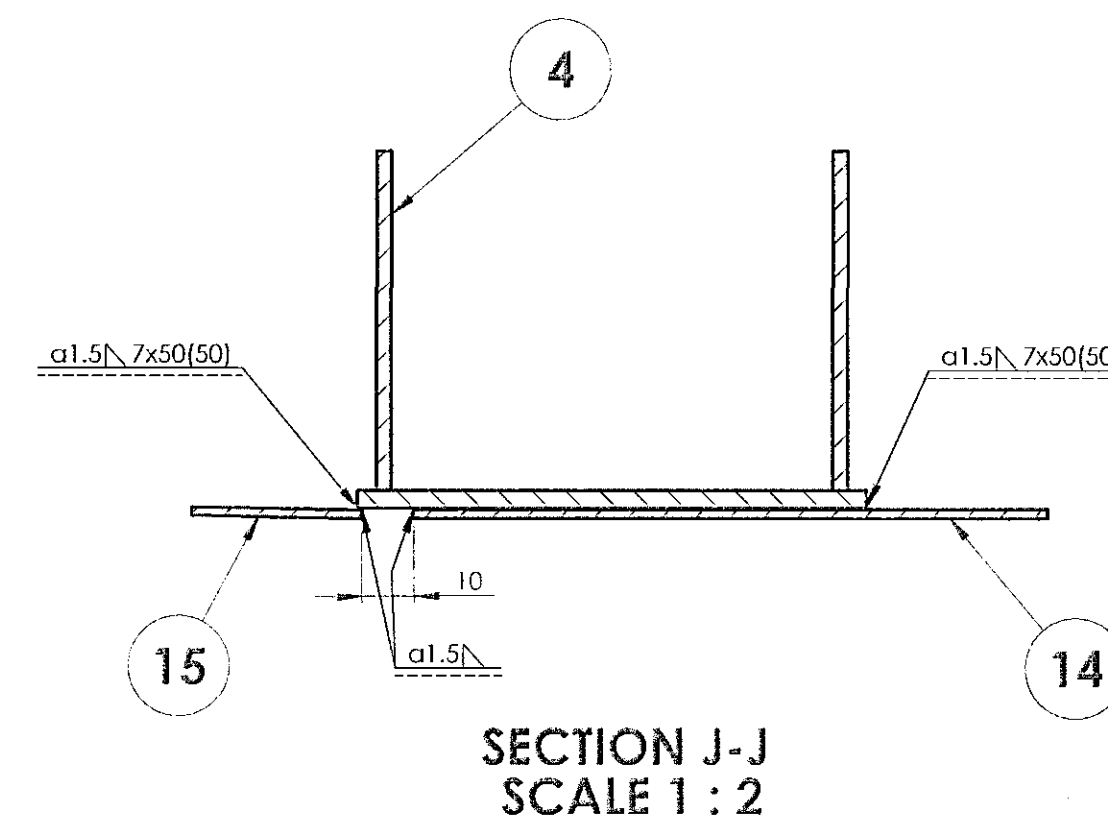
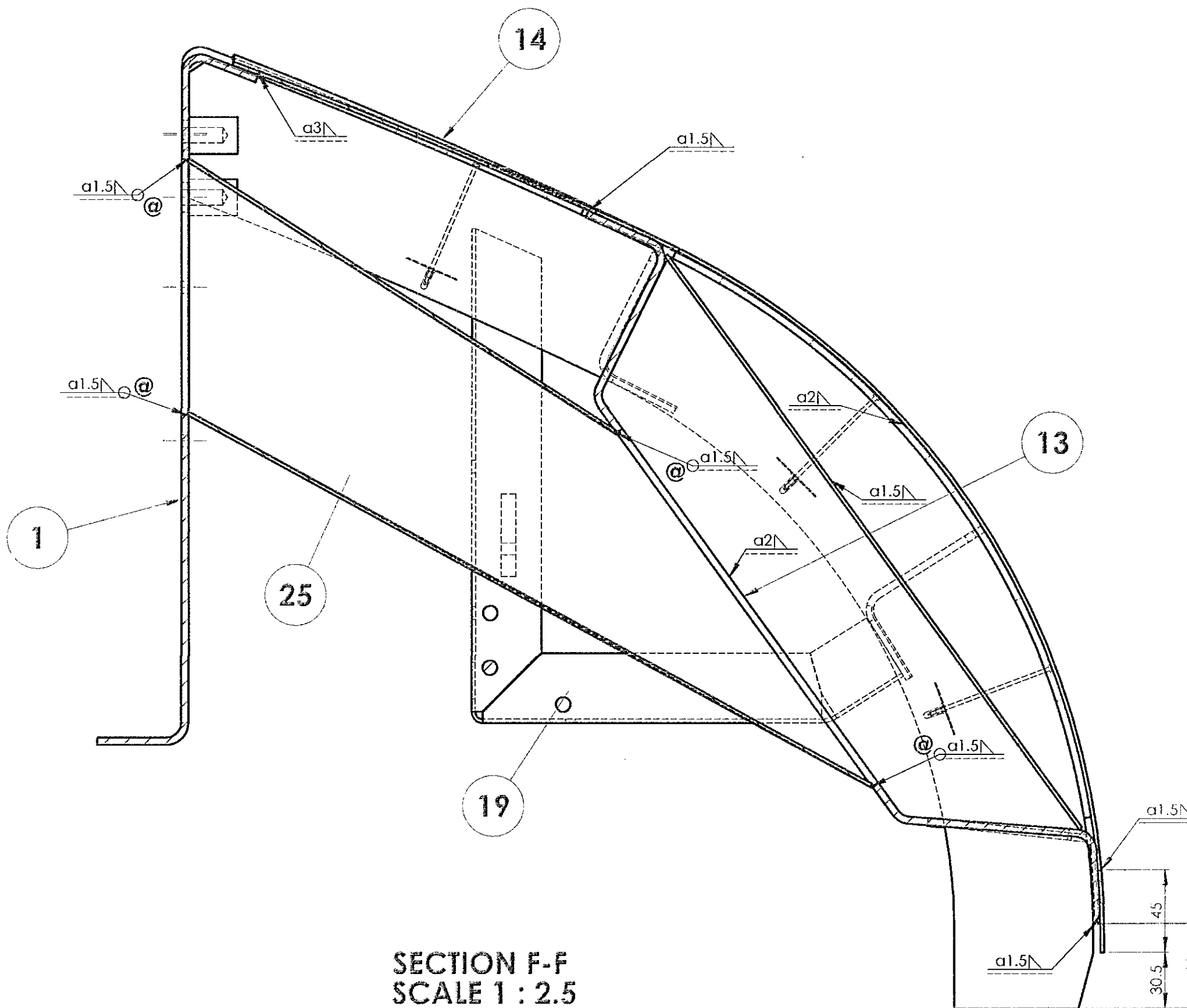
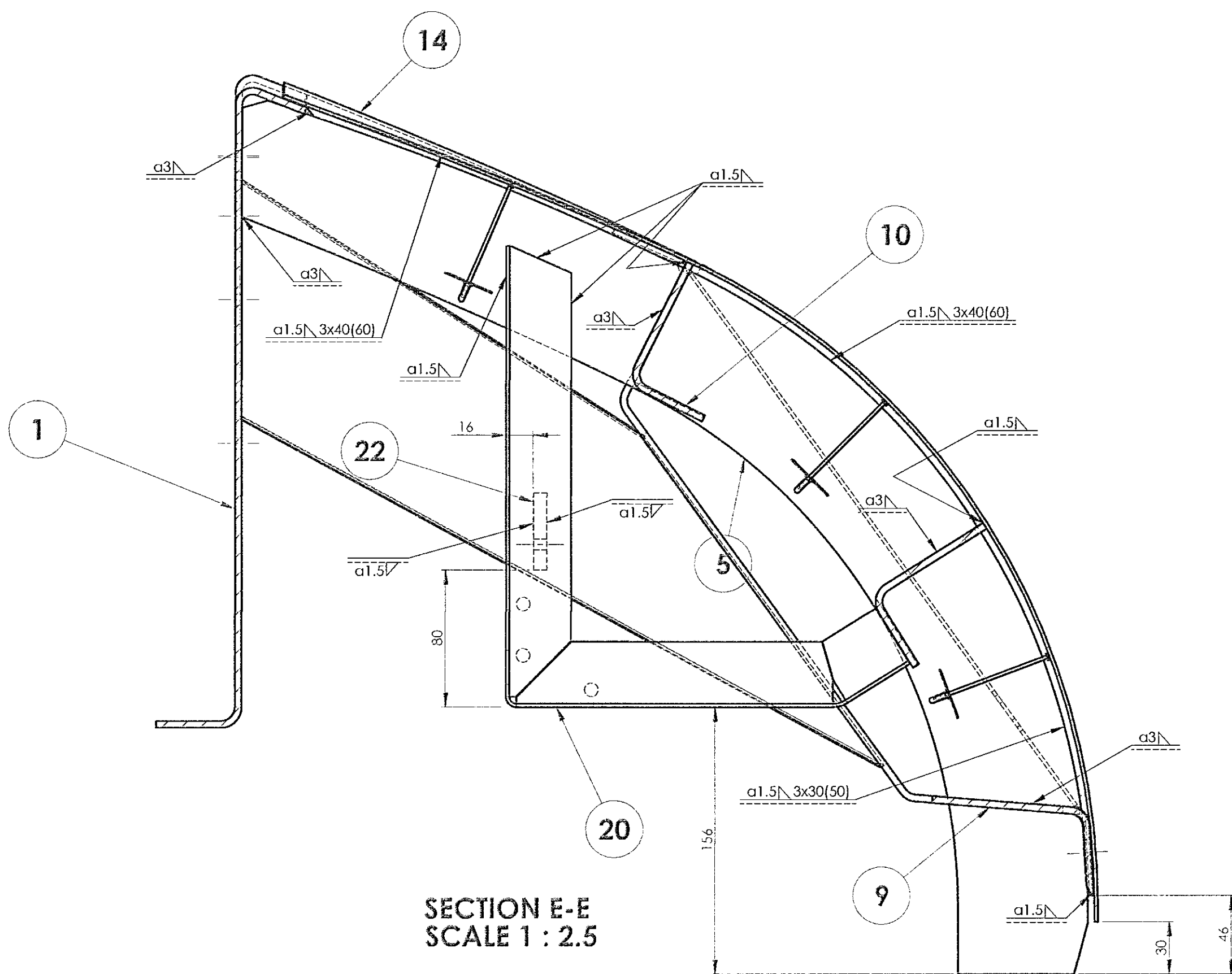
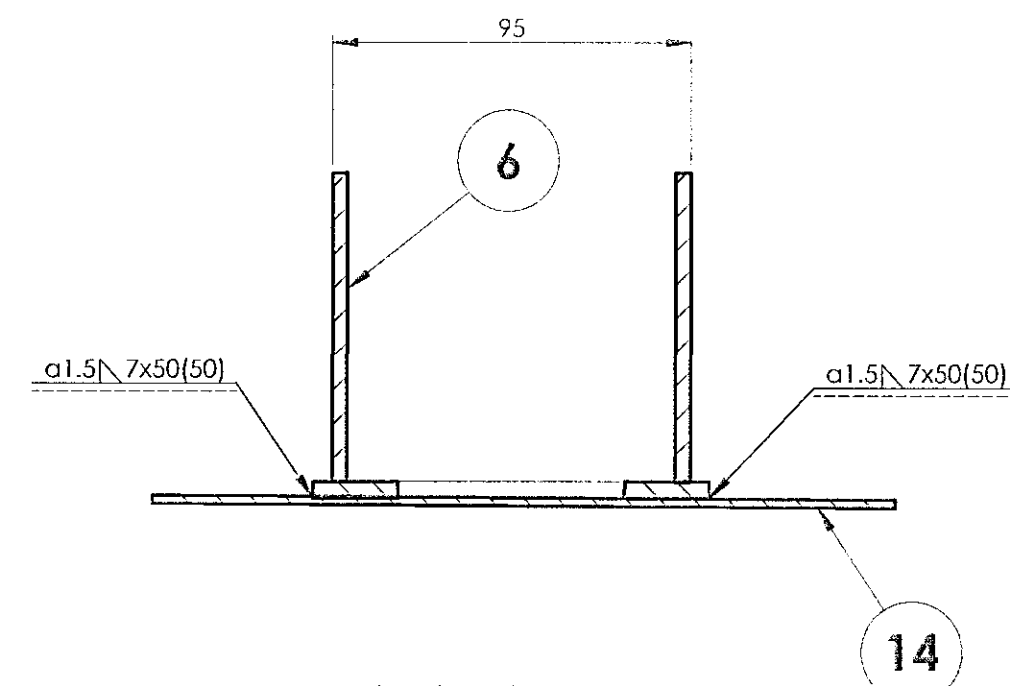
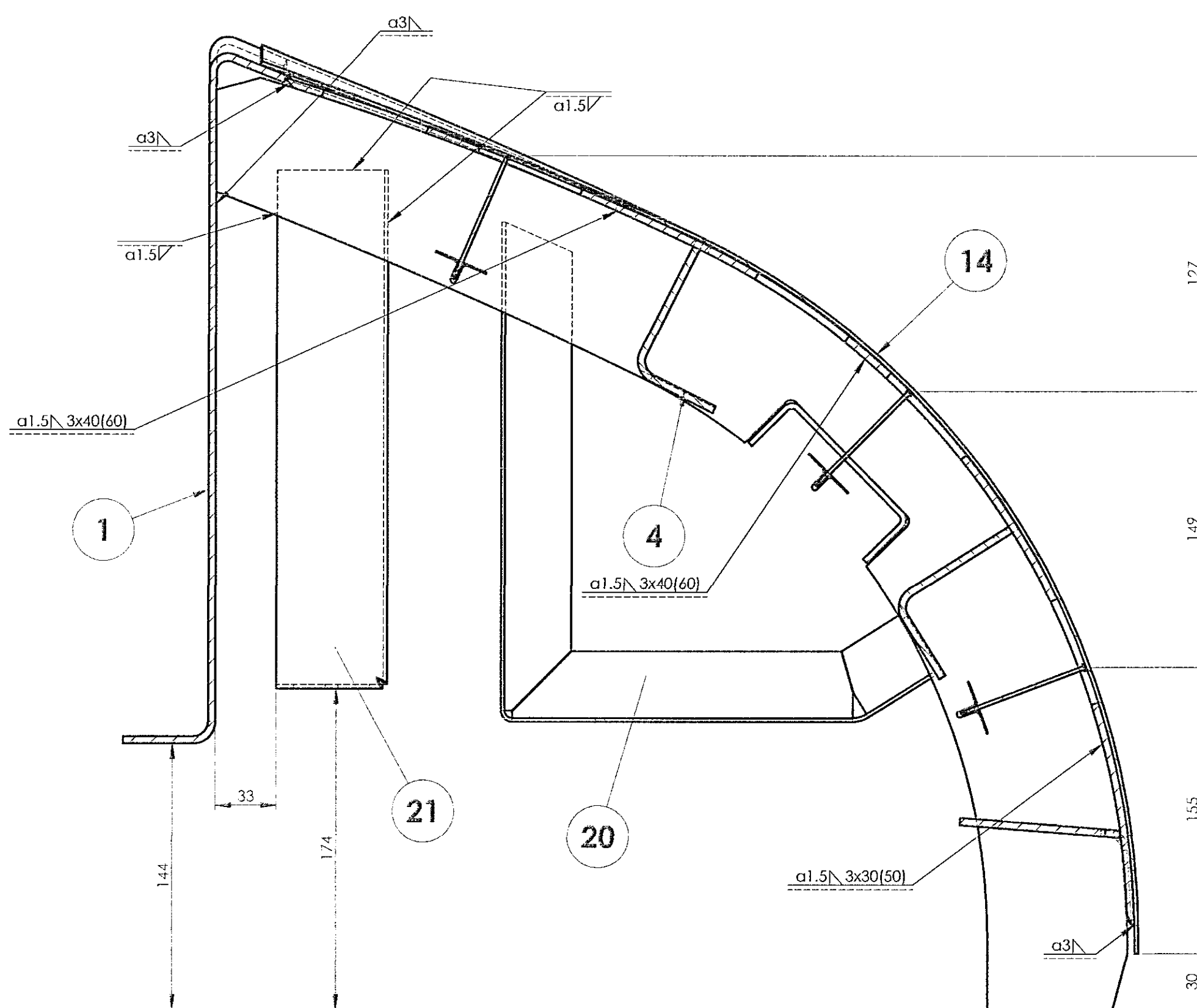
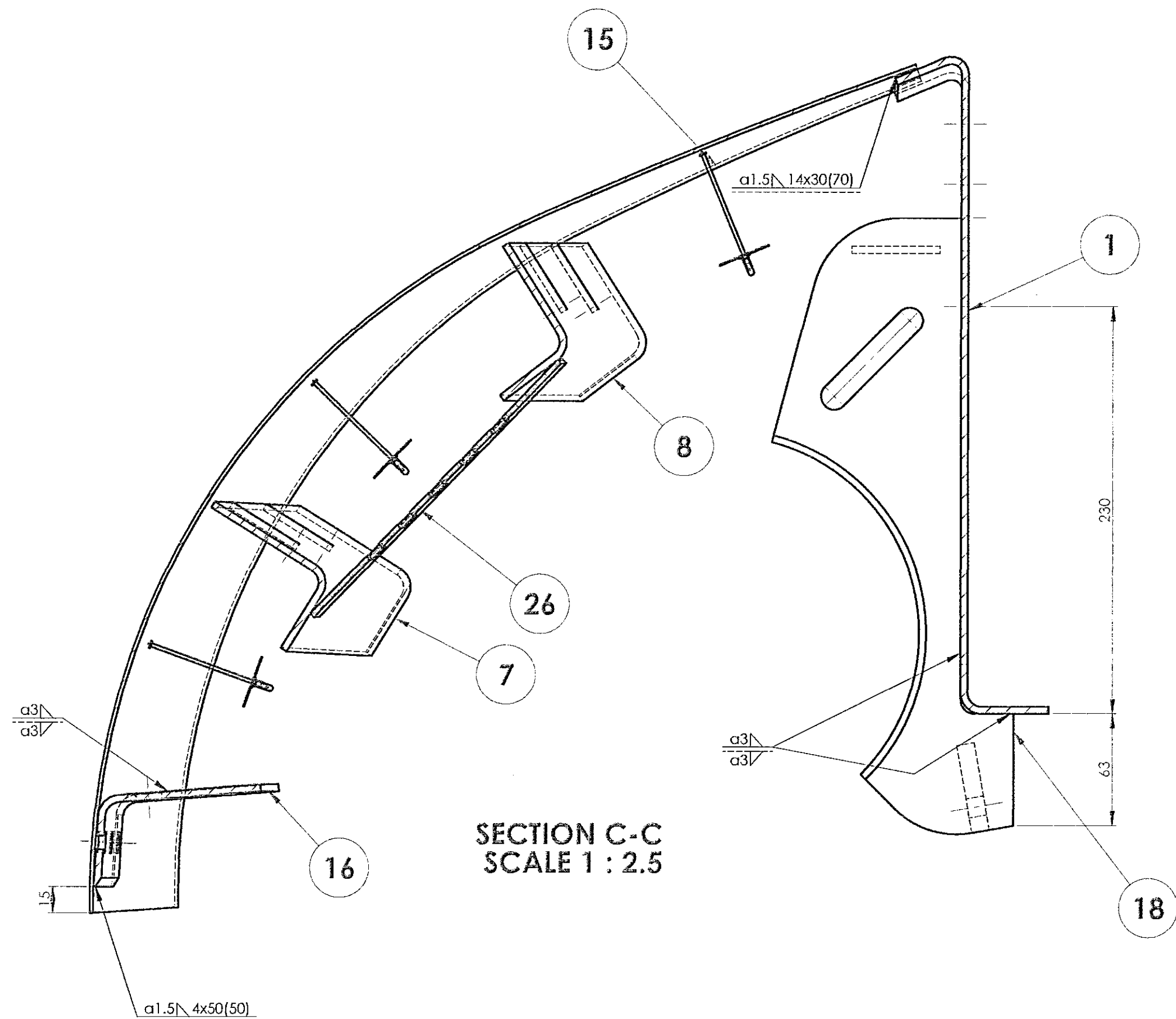


SECTION B-B
SCALE 1 : 2.5



GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m: 9.517		WT/ASSY IN Kgs: 101.872	
FINAL ROOF ELEMENT COMPLETE				SCALE	SSE/D <i>H. L. N.</i>
				1:5	CHD
				AL. b	ALT D E.SATHISH KUMAR
				DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					WLFAC/PP2
SHEET 1 OF 3		82716011		A1	

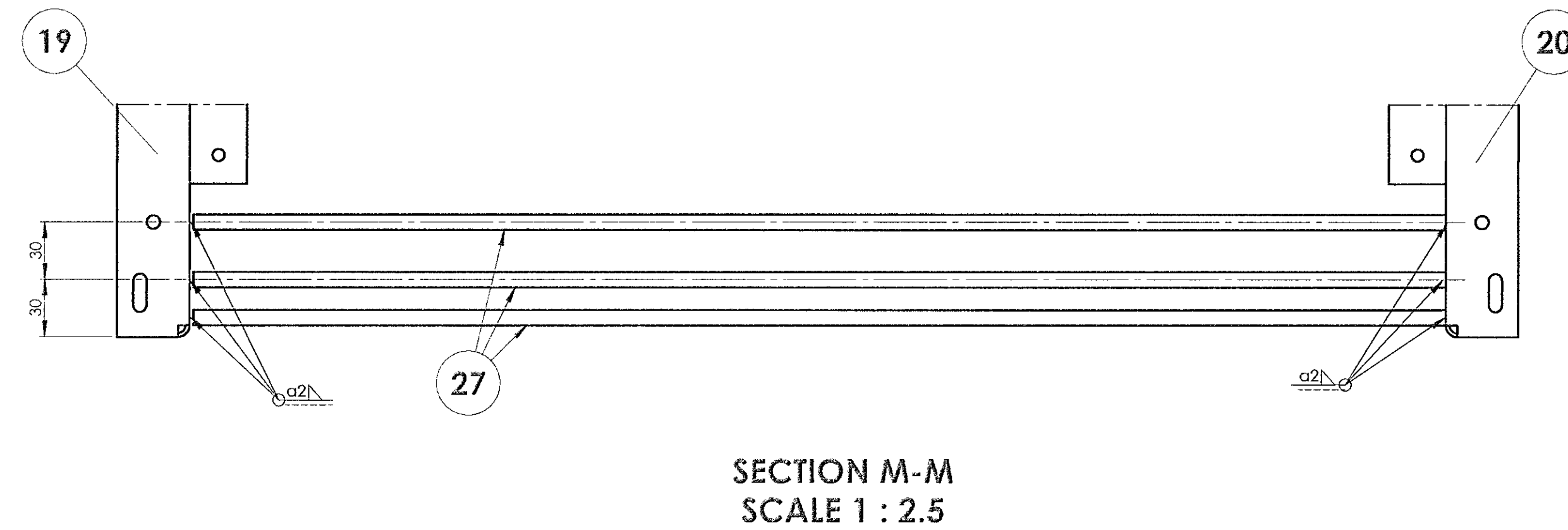
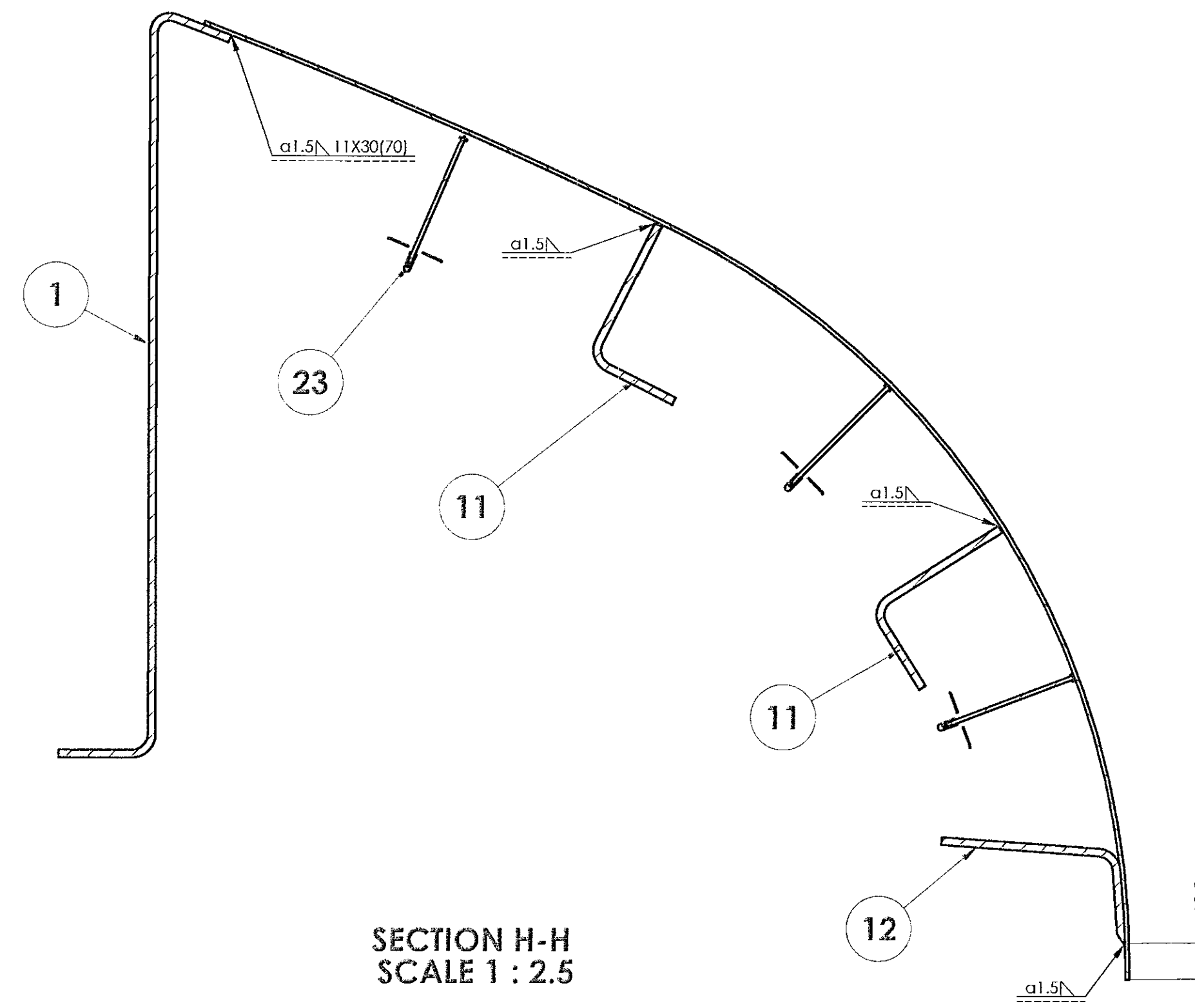
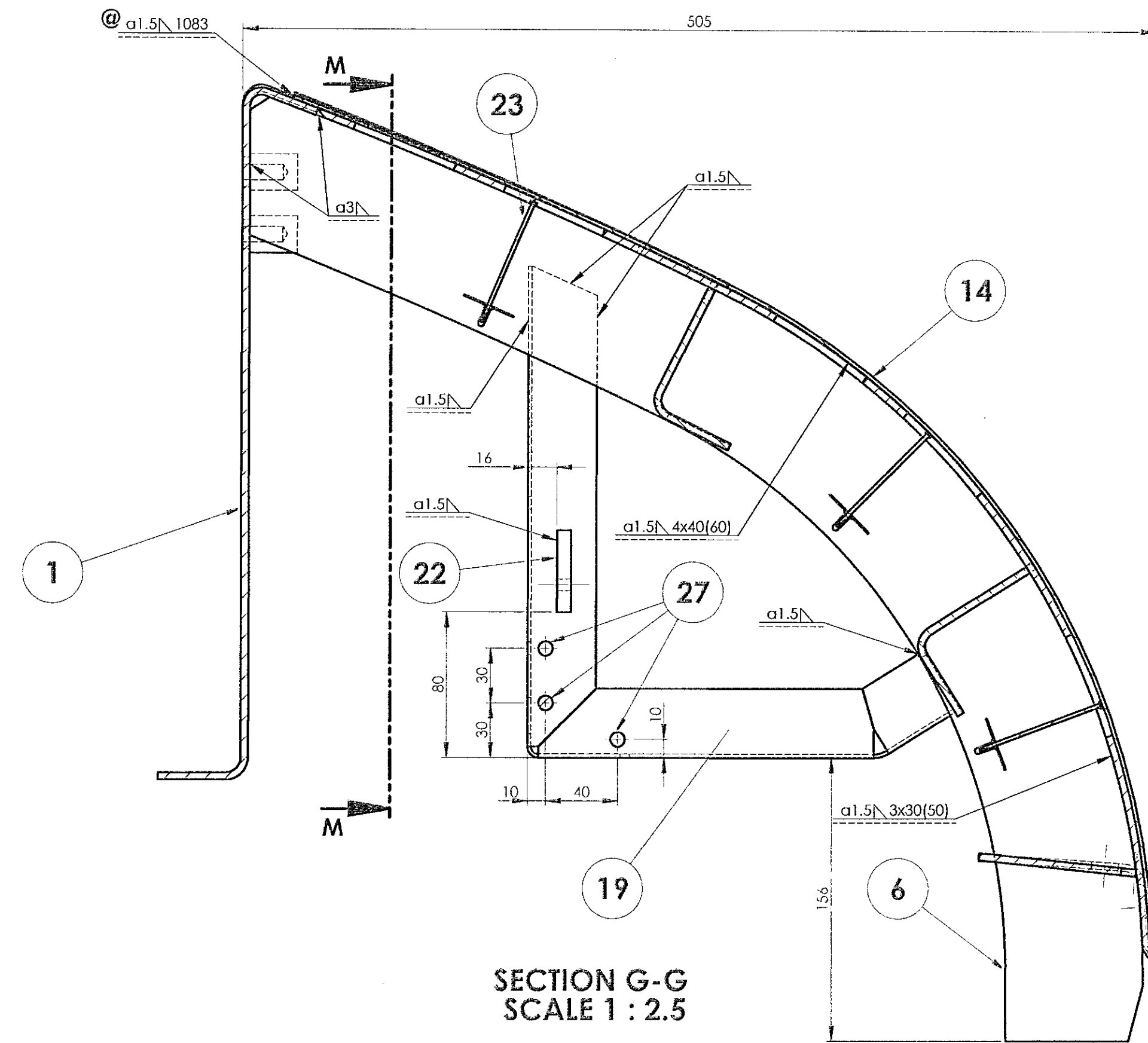
82716011

▽ ROUGH MACHINED	①1 ROUGH CLEANED
▽▽ FINISH MACHINED	①1B BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①1C CHAMFERED



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO CF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:13-1986.

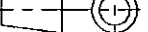
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 9.517		WT/ASSY IN Kgs: 101.872		
FINAL ROOF ELEMENT COMPLETE				SCALE		
				1:5		SSE/D
						CHD
				ALT.		ALT
b	DRN	E.SATHISH KUMAR				
				DRN		E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600088						LWFAC/PP2
				SHEET		82716011
2 OF 3						



NOTE:-

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RD50/SPEC. CK-201 SHALL BE USED FOR WELDING.
 2. ALL WELDED JOINTS SPATERS SHALL BE GROUND.
 3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
 4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
 5. ALL WELDING SHALL BE OF TIG UNLESS OTHERWISE SPECIFIED.
 6. ALL WELD PERFORMANCE CLASS SHALL BE CP C2 UNLESS OTHERWISE SPECIFIED.
 7. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-99B.
 8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999
 9. SCHEDULE OF REQUIREMENTS OF MANUFACTURE OF SIDEWALL/ ROOF ASSEMBLY SHALL COMPLY TO ICF/M/D/SPC-200 LATEST REVISION.
 10. ITEM-24 (NAME PLATE) SHALL BE WELDED OR RIVETED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
 11. ALL THE THREADED HOLES SHALL BE PROVIDED WITH SUITABLE DUMMY BOLTS TO SAFEGUARD THE THREADS.
- @ 12. LEAK PROOF WELDING SHALL BE ENSURED.
13. FINAL ROOF ELEMENT COMPLETE SHALL BE MANUFACTURED USING PROPER FIXTURE.
 14. MASKING SHOULD BE DONE AT ALL EARTHING LUG/BOSS/GROUNDING FLAPS WITH SUITABLE MASKING TAPE'S BEFORE PAINTING TO ENSURE PAINLESS EARTHING SURFACE AND THE MASKING TAPE'S SHALL BE REMOVED AT FURNISHING STAGE DURING EARTHING CONNECTION OF ELECTRIC EQUIPMENTS.

3	TIE ROD	Ø8 x 657	27		SS-304	0.26	
3	FLAT		26	AAB16550		0.33	
1	SUCTION PIPE COMPLETE		25	59316056		5.239	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		24	AAA51072		0.063	
30	WELDING PIN ASSEMBLY		23	49516008		0.005	
2	GROUNDING FLAP		22	AAA16900		0.084	
1	BRACKET		21	AAA10962		0.615	
1	BRACKET		20	AAB10006		0.547	
1	BRACKET		19	AAB10005		0.547	
1	AUX. WATER TANK FIXING BRACKET		18	82716017		2.003	
1	AUX. WATER TANK FIXING BRACKET		17	82716016		1.948	
1	STIFFENING ANGLE		16	AAA16920		1.838	
1	ROOF SHEET		15	AAA16918		15.180	
1	ROOF SHEET		14	AAA16917		8.879	
1	LOCATION FRAME COMPLETE		13	59316019		7.283	
1	STIFFENING ANGLE		12	AAA16927		0.573	
2	STIFFENING ANGLE		11	AAA16926		0.544	
2	STIFFENING ANGLE		10	AAA16924		0.644	
1	STIFFENING ANGLE		9	AAA16923		0.631	
1	STIFFENING ANGLE		8	AAA16922		4.841	
1	STIFFENING ANGLE		7	AAA16921		5.224	
1	ROOF ARCH COMPLETE		6	59316018		6.260	
1	ROOF ARCH COMPLETE		5	59316017		2.835	
1	ROOF ARCH COMPLETE		4	82716015		6.945	
1	ROOF ARCH COMPLETE		3	82716019		1.73	
1	ROOF ARCH COMPLETE		2	82716020		1.69	
1	MEMBER COMPLETE		1	82716013		34.324	
QTY.	DESCRIPTION	DIMENSIONS	ITEM	REF.DRGS.	MATL	WT/UNIT	REMARKS

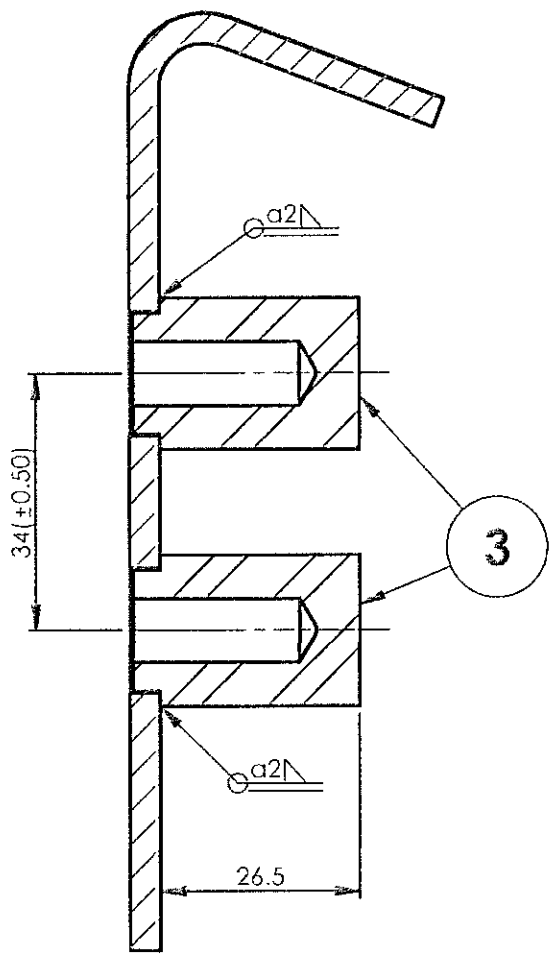
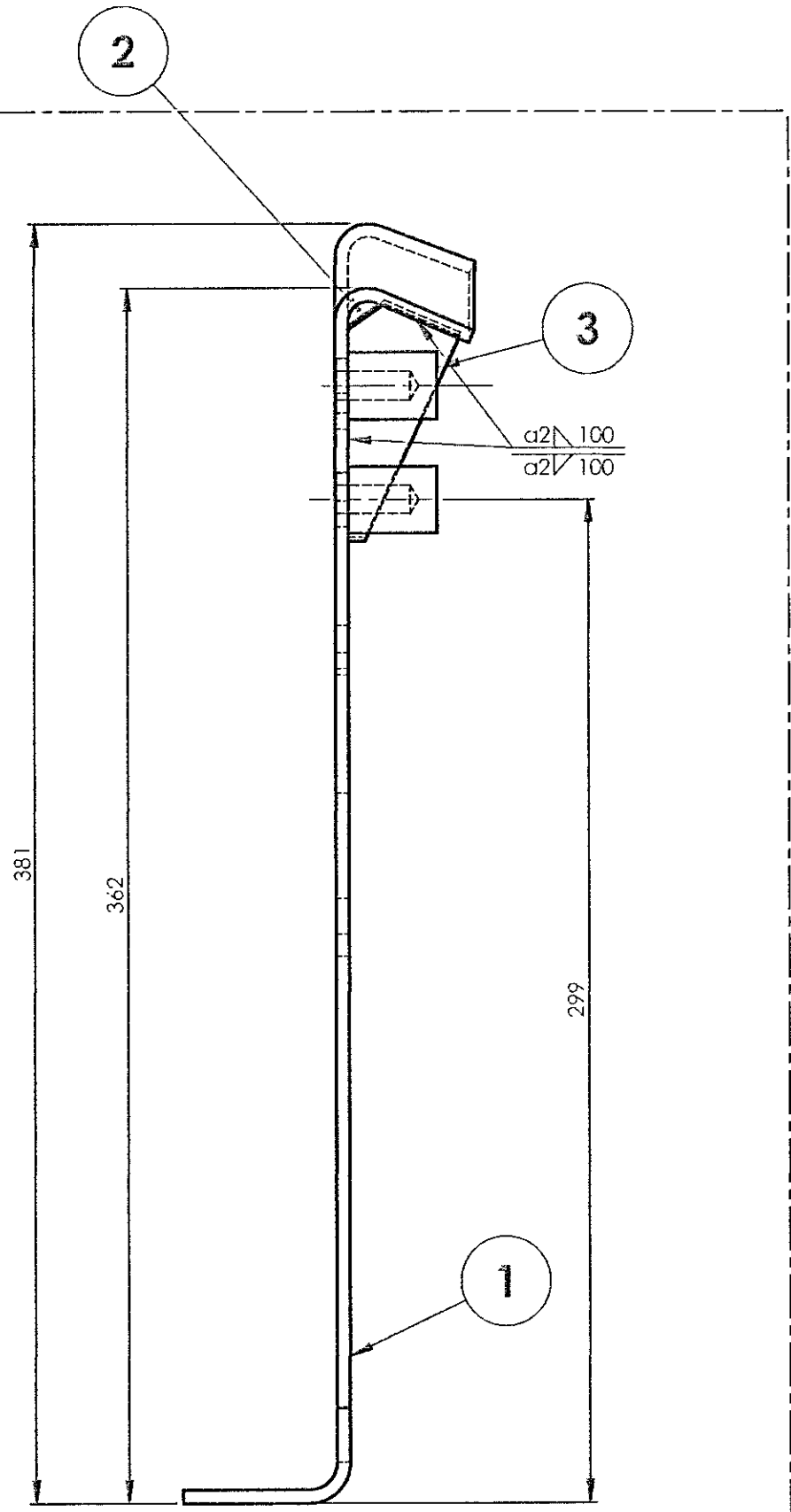
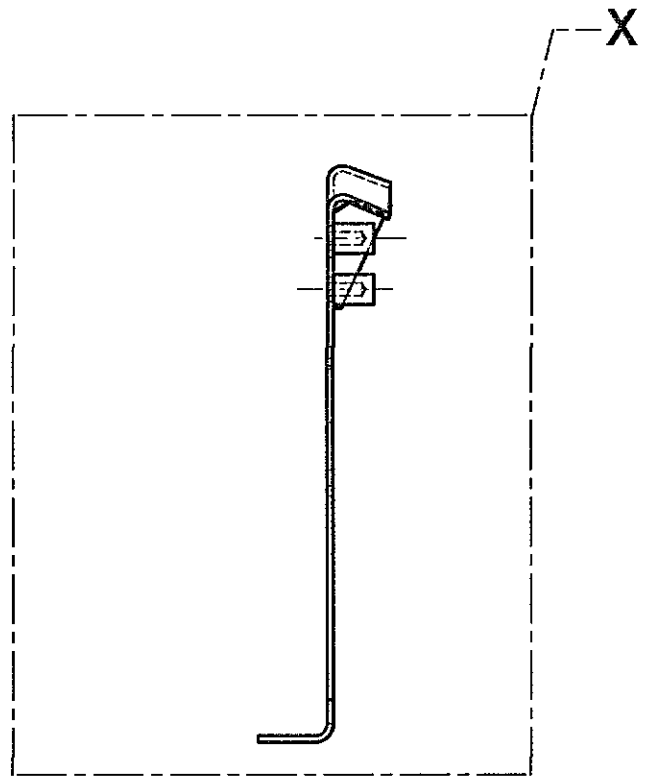
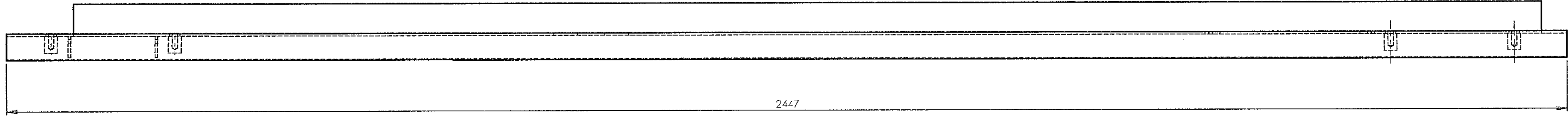
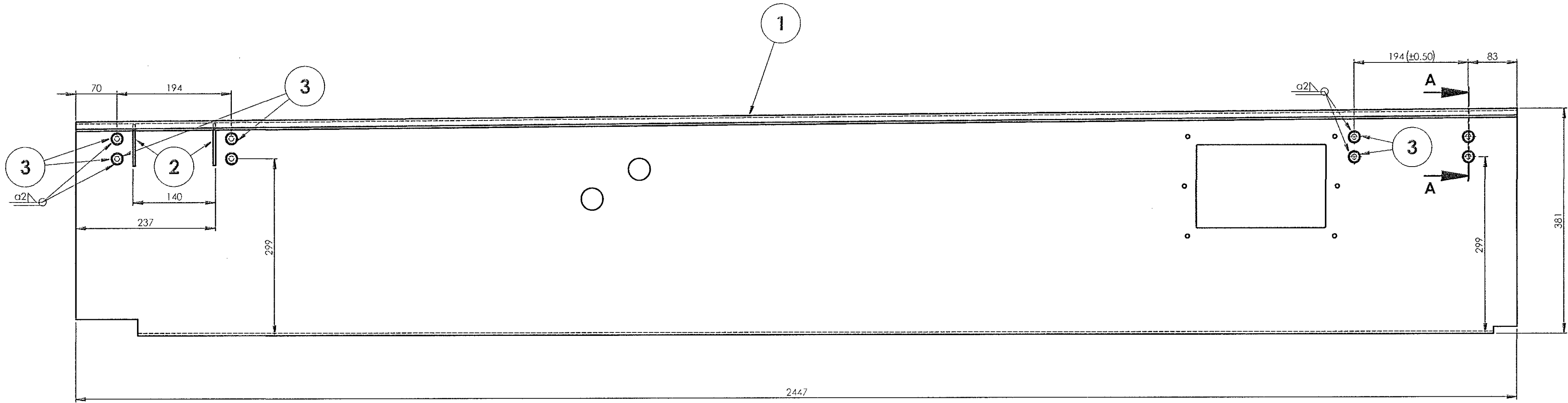
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 9.517		WT/ASSY IN Kgs:	
FINAL ROOF ELEMENT COMPLETE		SCALE:		SSE/D <i>[Signature]</i>	
		1:5		CHD	
		ALT.		E.SATHISH KUMAR	
		b		DRN E.SATHISH KUMAR	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		SHEET 3 OF 3		 LWFAC/PP2	
				82716011 A1	

82716013

▽ ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

①1 ROUGH CLEANED
①1b BURRS REMOVED
①8 CHAMFERED

ALT.		ZONE	REVISIONS	DESCRIPTION	APPROVED & DATE
a			ITEM-1 REVISED VIEWS UPDATED.		




SECTION A-A
SCALE 1 : 1

DETAIL X
SCALE 1 : 2

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.
8. ITEM - 3 SHOULD BE WELDED WITH ITEM - 1 USING SUITABLE FIXTURE

8	SCREWING PIECE		3	AAD16884		0.06				
2	RIB		2	AAA16929		0.043				
1	MEMBER		1	AAF16122		33.743				
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS			
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 2.170			WT/ASSY IN Kgs:					
MEMBER COMPLETE					SCALE 1:5	SSE/D CHD				
					ALT. α	ALT.D DRN		E.SATHISH KUMAR E.SATHISH KUMAR		
					INDIAN RAILWAY STANDARDS			SHEET 1 OF 1	LWFAC/PP2	
					INTEGRAL COACH FACTORY, CHENNAI - 600038				82716013	A1

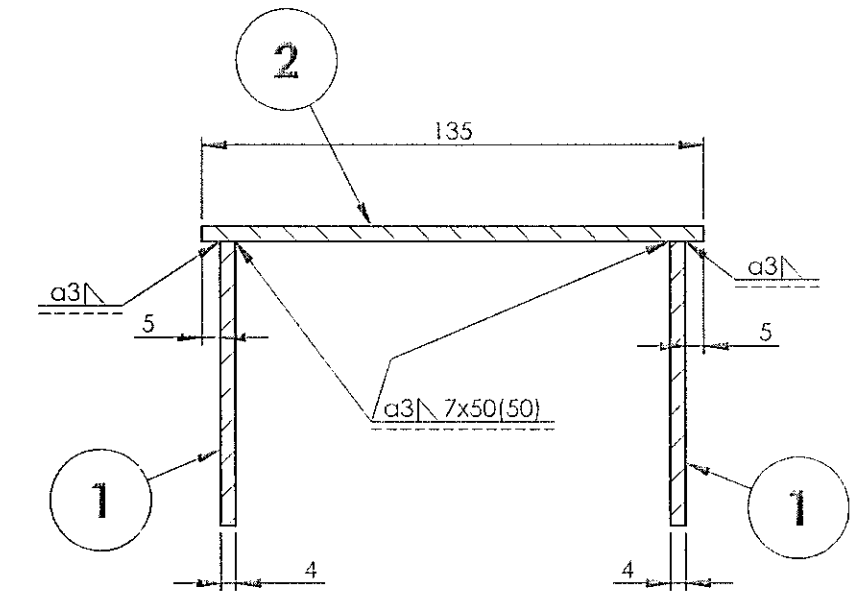
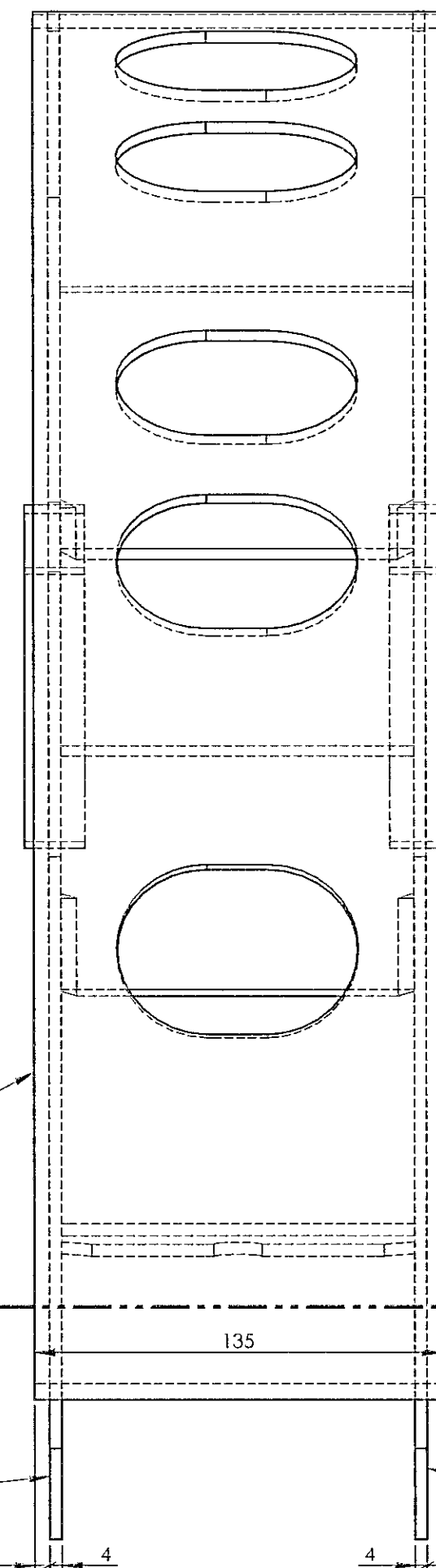
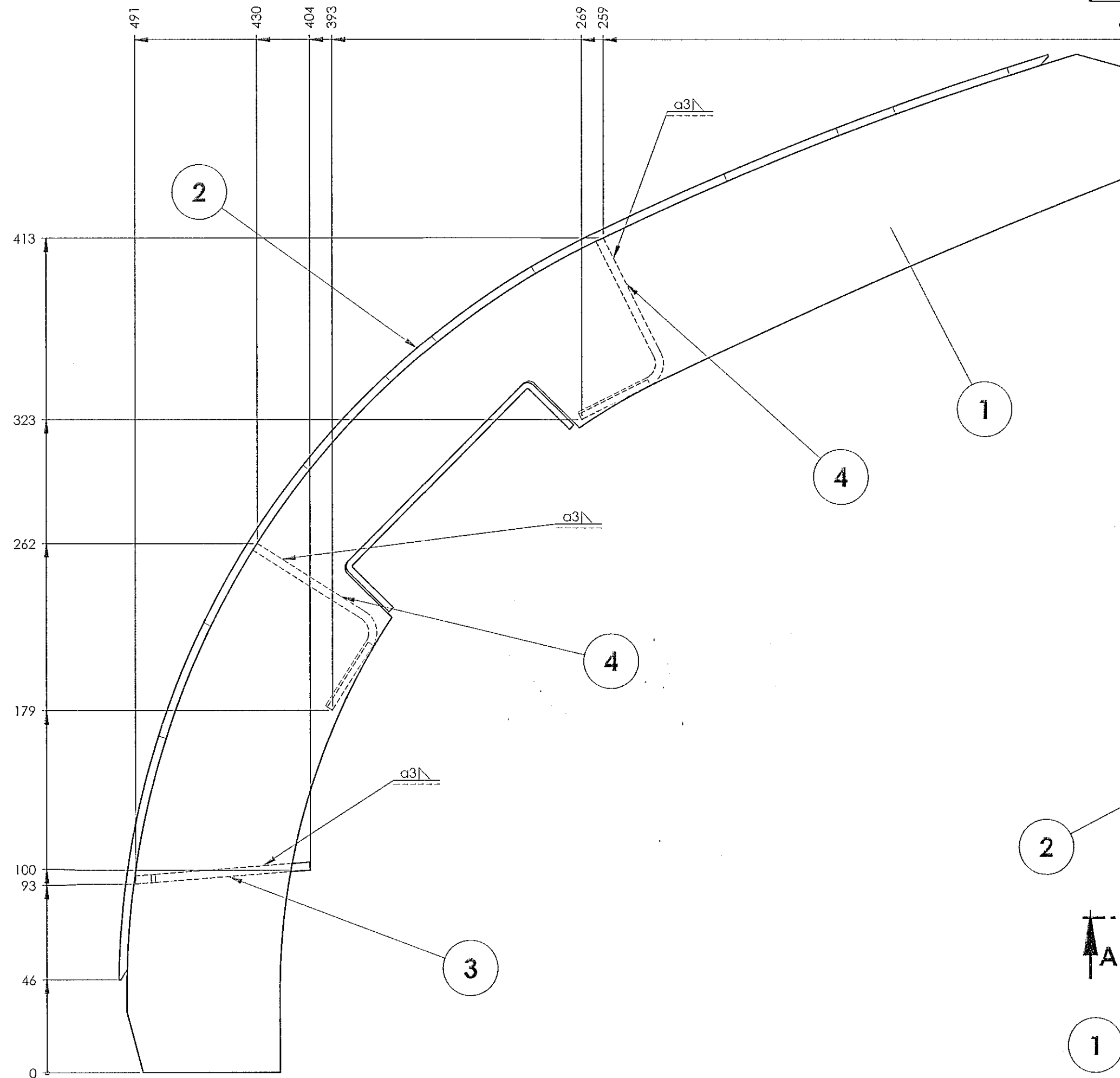
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11/01/26	04/09/25	11/01/26
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

82716015

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A
SCALE 1 : 2

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. ALL BUTT WELDINGS TO BE DONE AT COACH OUTSIDE AND ROUGH GRINDING TO BE DONE ON THE SAME SIDE. PENETRATION SHOULD NOT BE GROUND.

2	STIFFENING ANGLE		4	AAA16934		0.434	
1	WEB		3	AAA16933		0.319	
1	FLANGE		2	AAA16932		2.367	
2	ROOF ARCH COMPLETE		1	82716018		1681.75	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 Roof Construction SURFACE AREA IN Sq.m.: 0.469 WT/ASSY IN Kgs: 6.918

ROOF ARCH COMPLETE

SCALE 1:5	SSE/D CHD	E.SATHISH KUMAR
ALT	ALTD DRN	

LWFAC/PP2

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET 1 OF 1

82716015

A2

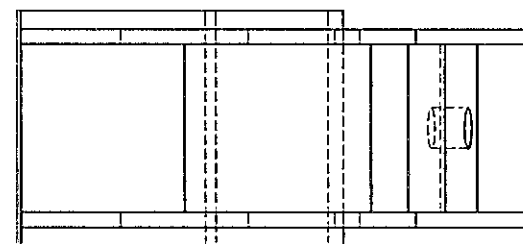
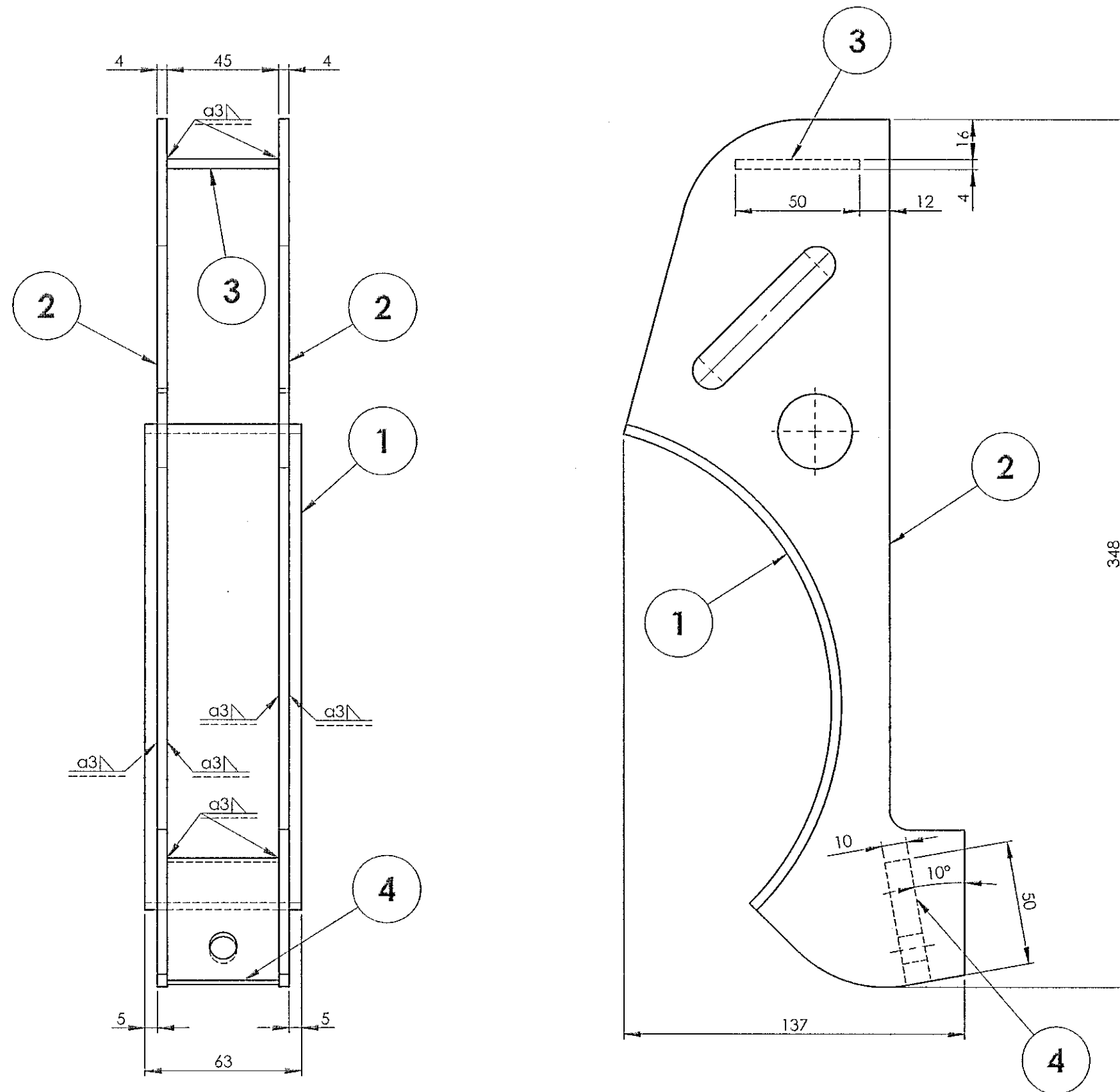
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REF.DRG.NO.

DATE OF LATEST ALT.	04/09/25	AME/SME
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82716016

▽ ROUGH MACHINED	① ROUGH CLEANED	REVISIONS			
▽▽ FINISH MACHINED	①a BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
▽▽▽ FINE FINISH MACHINED	①b CHAMFERED				



NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERENCES REFER DRG.NO.ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999.

1	PLATE		4	AAB10073		0.172	
1	PLATE		3	AAB10010		0.072	
2	PLATE		2	AAF16201		0.610	
1	RING		1	AAB10008		0.483	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.130		WT/ASSY IN Kgs:	
AUX. WATER TANK FIXING BRACKET					SCALE 1:2	SSE/D	E.SATHISH KUMAR
					CHD	CHD	
					ALT	ALTD	
					DRN	DRN	
INDIAN RAILWAY STANDARDS					LWFAC/PP2		
INTEGRAL COACH FACTORY, CHENNAI - 600038					82716016		
SHEET 1 OF 1					A2		

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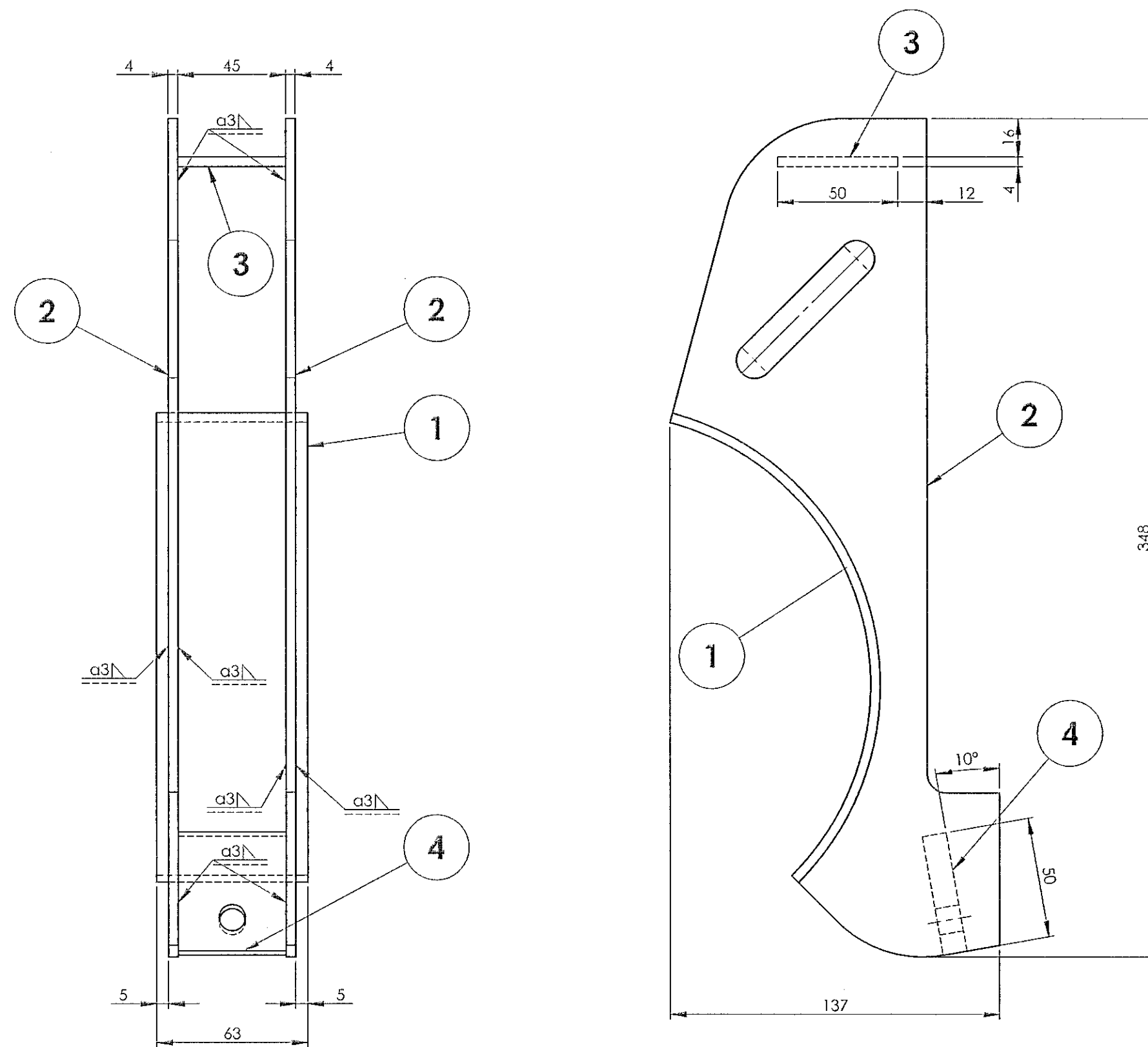
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DATE OF LATEST ALT.	04/09/25	AME/SME
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82716017

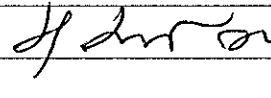
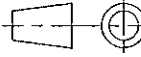
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



NOTE:

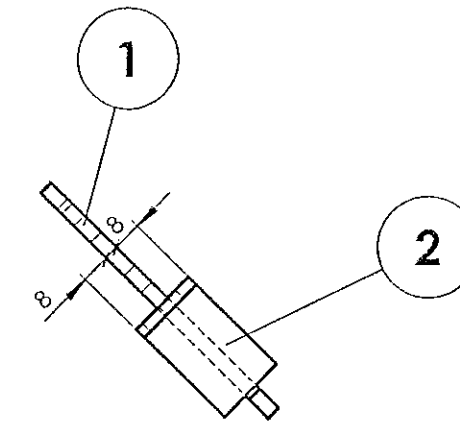
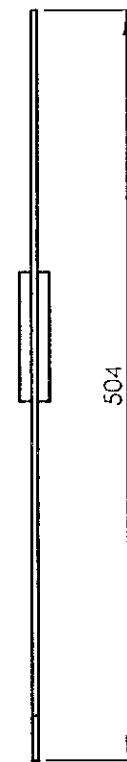
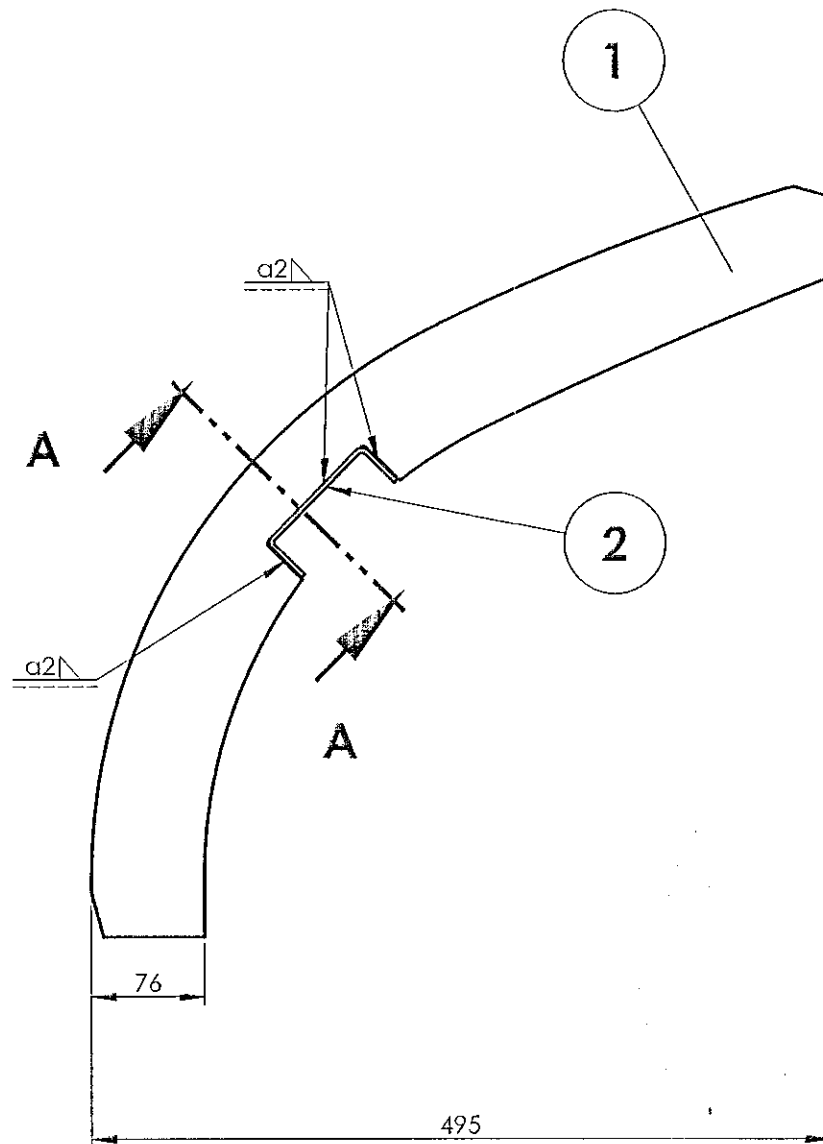
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERANCES REFER DRG.NO.ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999.

1	PLATE		4	AAB10073		0.172	
1	PLATE		3	AAB10010		0.072	
2	PLATE		2	AAF16202		0.637	
1	RING		1	AAB10008		0.483	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 0.133		WT/ASSY IN Kgs:2.159		
AUX. WATER TANK FIXING BRACKET					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	E.SATHISH KUMAR
						DRN	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWFAC/PP2	
						SHEET 1 OF 1	
					82716017		A2

82716018

▽ ROUGH MACHINED	01 ROUGH CLEANED
▽▽ FINISH MACHINED	01b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	018 CHAMFERED

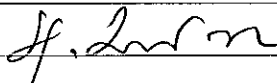
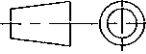
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 2

NOTE:

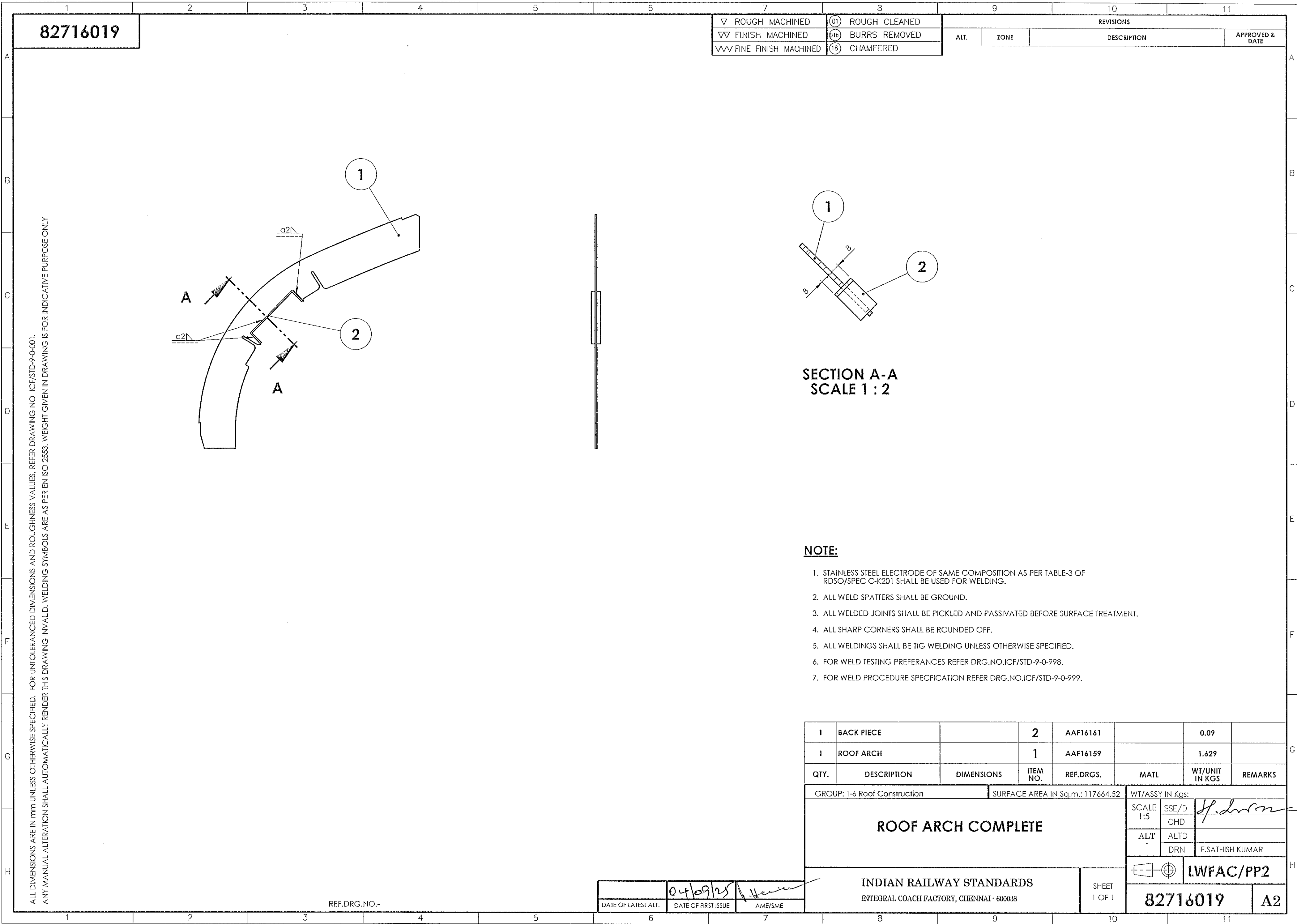
1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERENCES REFER DRG.NO.ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999.

1	BACK PIECE		2	AAF16161		0.07		
1	ROOF ARCH		1	AAF16158		1.623		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: -			SURFACE AREA IN Sq.m.: 114996.21		WT/ASSY IN Kgs:			
ROOF ARCH COMPLETE					SCALE 1:5	SSE/D		
						CHD		
					ALT	ALTD		
						DRN		SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038						LWFAC/PP2		
						82716018		
					SHEET 1 OF 1	A2		

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REF.DRG.NO.-

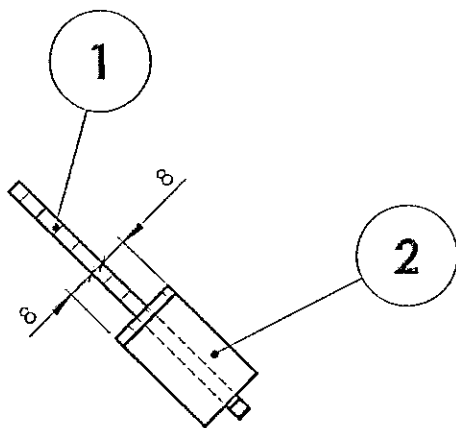
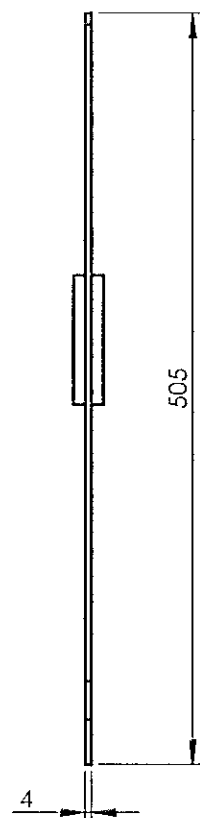
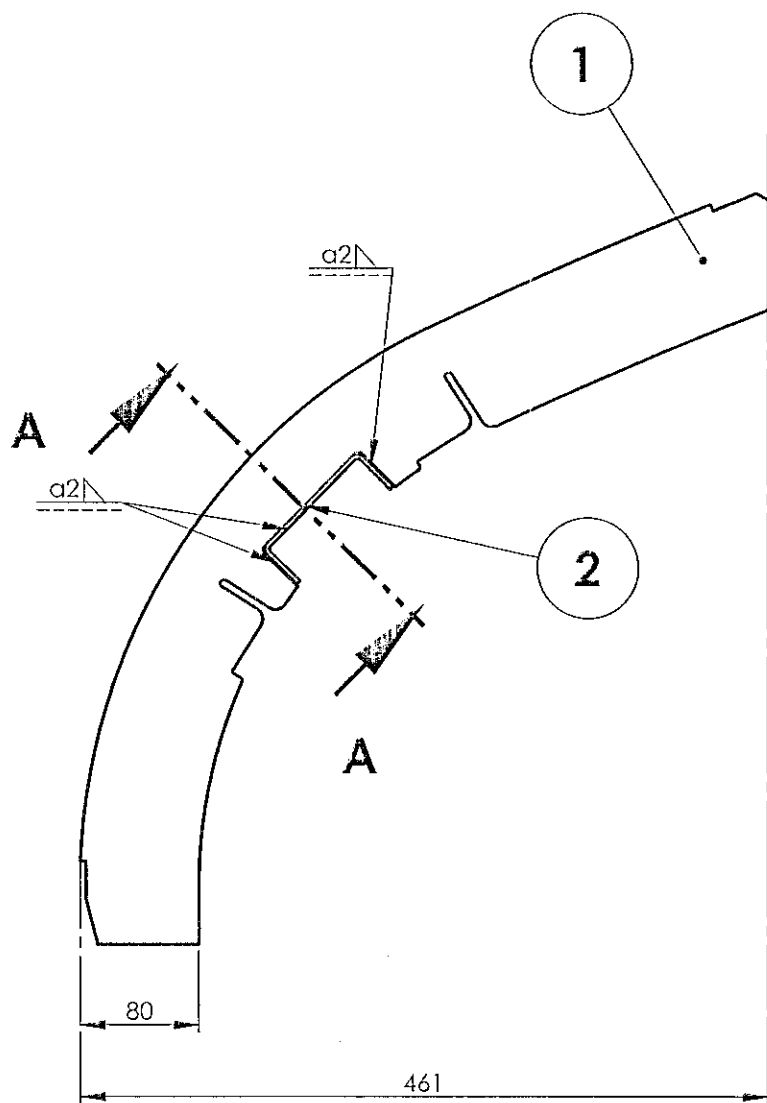
DATE OF LATEST ALT.	04/09/25	AME/SME
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82716020

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①b CHAMFERED

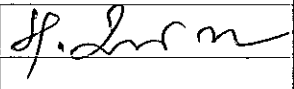
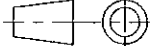
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



SECTION A-A
SCALE 1 : 2

NOTE:

1. STAINLESS STEEL ELECTRODE OF SAME COMPOSITION AS PER TABLE-3 OF RDSO/SPEC C-K201 SHALL BE USED FOR WELDING.
2. ALL WELD SPATTERS SHALL BE GROUND.
3. ALL WELDED JOINTS SHALL BE PICKLED AND PASSIVATED BEFORE SURFACE TREATMENT.
4. ALL SHARP CORNERS SHALL BE ROUNDED OFF.
5. ALL WELDINGS SHALL BE TIG WELDING UNLESS OTHERWISE SPECIFIED.
6. FOR WELD TESTING PREFERANCES REFER DRG.NO.ICF/STD-9-0-998.
7. FOR WELD PROCEDURE SPECIFICATION REFER DRG.NO.ICF/STD-9-0-999.

1	BACK PIECE		2	AAF16161		0.07		
1	ROOF ARCH		1	AAF16160		1.614		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGs.	MATL	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 114918.25			WT/ASSY IN Kgs:			
ROOF ARCH COMPLETE					SCALE 1:5	SSE/D		
						CHD		
					ALT	ALTD		
						DRN		E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		LWFAC/PP2		
						82716020		
						A2		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

REF.DRG.NO.-

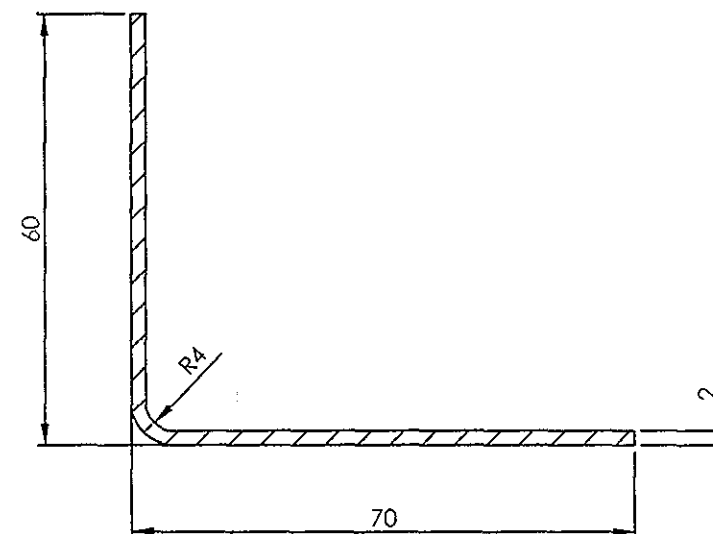
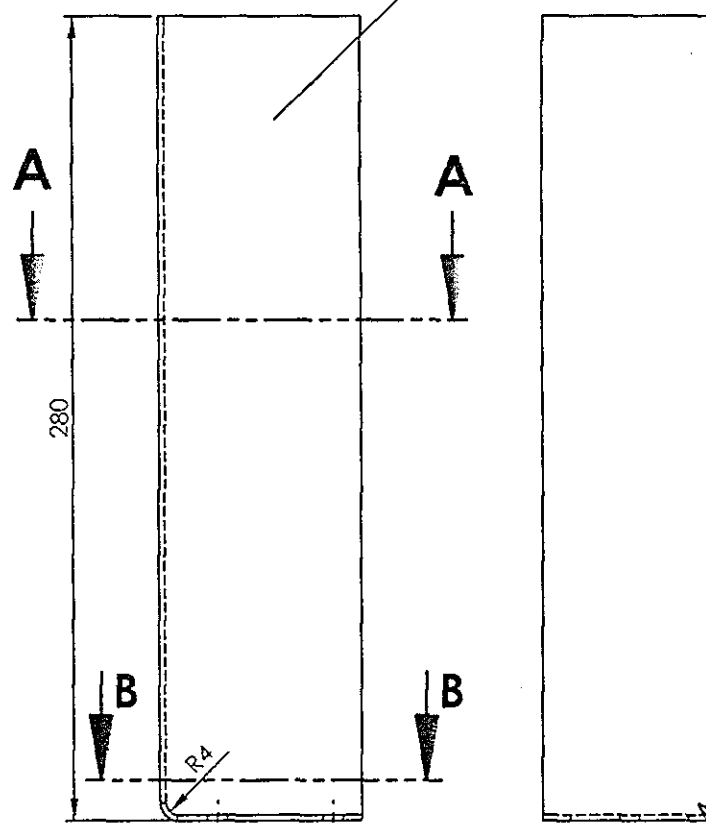
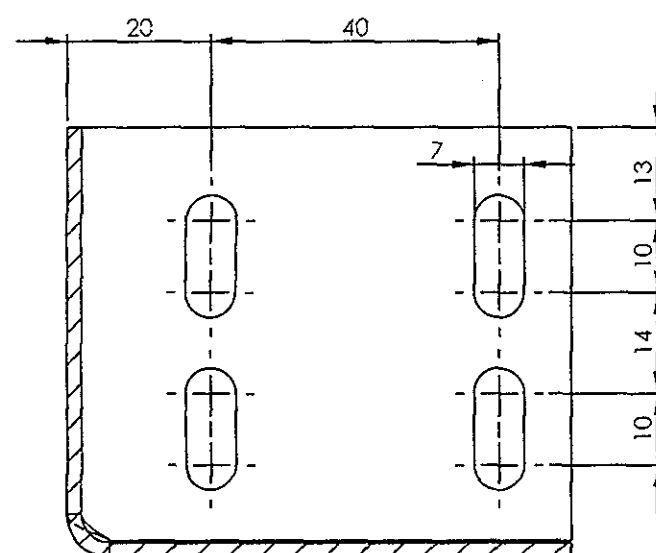
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME
	04/09/25	

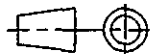
AAA10962

▽ ROUGH MACHINED	⊙ ROUGH CLEANED
▽▽ FINISH MACHINED	⊙⊙ BURRS REMOVED
▽▽▽ NE FINISH MACHINED	⊙⊙ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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SECTION A-A
SCALE 1 : 1SECTION B-B
SCALE 1 : 1

1	BRACKET	2x126x346	1		RDSO/SPEC C-K201 X2CrNi12	0.615	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-0		SURFACE AREA IN Sq.m.:0.079			WT/ASSY IN Kgs:0.615		
BRACKET					SCALE	SSE/D	L.Panduranga Rao
					1:2.5	CHD	
					ALT.	ALTD	
						DRN	L.PANDURANGA RAO
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA10962		A3


ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC/STD 9 0 001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813 1986.

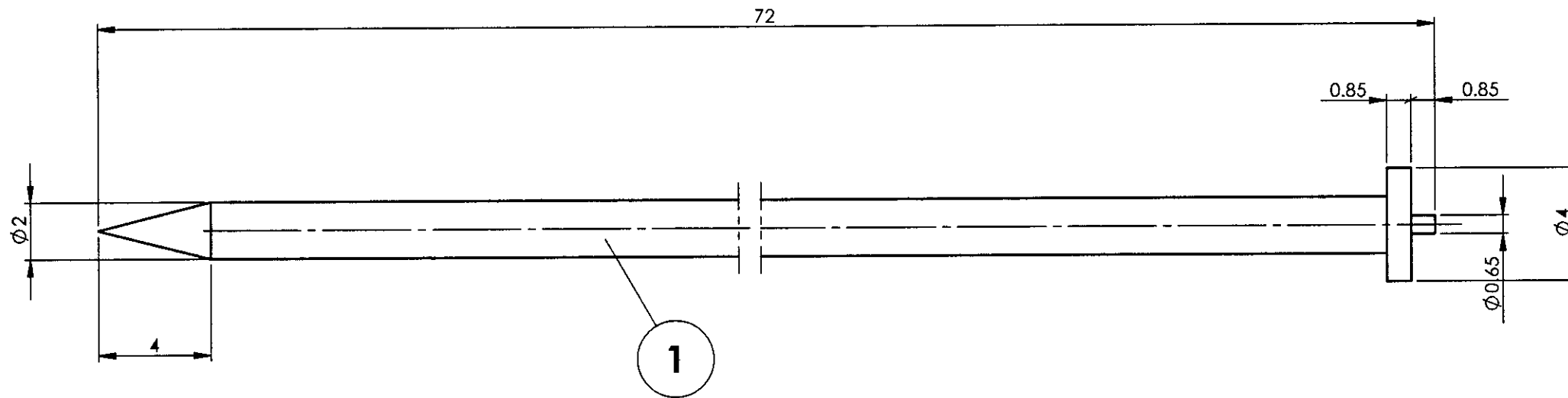
REF.DRG.NO.3 10113.0.20.095.119

DATE OF LATEST ALT.	10-04-2013	AME/SME
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AAA16493

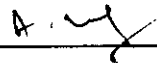
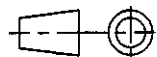
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DRAWING REVISED.	




ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

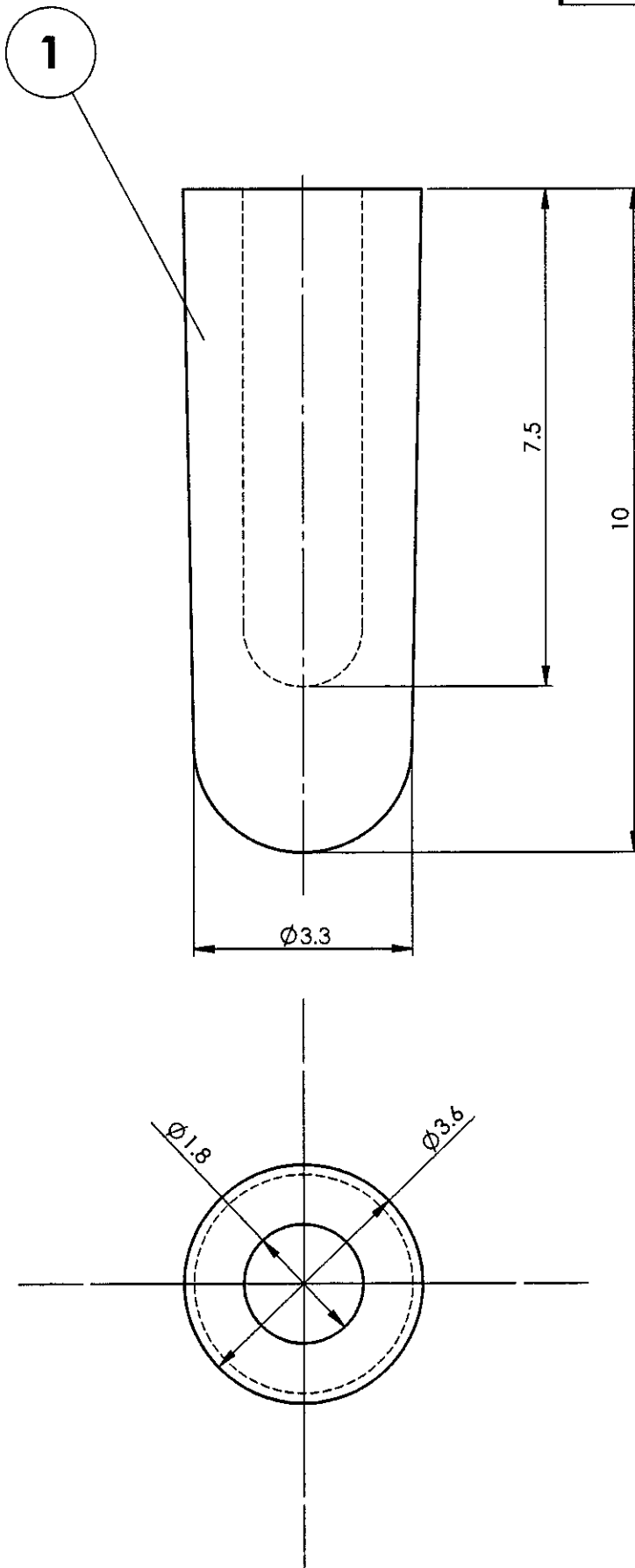
REF.DRG.NO.mi001576, ITEM-1


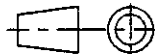
1	WELDING PIN	Ø 4 x 72	1		IS:6528 X04Cr18Ni10	0.002		
Default	DESCRIPTION	DIMENSIONS	ITEM NO	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF CONSTRUCTION		SURFACE AREA IN Sq.m.: 0.000			WT/ASSY IN Kgs:			
WELDING PIN					SCALE	SSE/D		
					5:1	CHD		
					ALT. a	ALTD	A.Palanichamy	
						DRN	3D:A.Palanichamy 2D:P.Murugan	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			AAA16493	A3


AAA16494

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		
a		DRAWING REVISED.		



1	CAP	Ø3.6x10	1		IS:5831	0.000	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF CONSTRUCTION		SURFACE AREA IN Sq.m.:0.000			WT/ASSY IN Kgs:		
CAP					SCALE	SSE/D	
					10:1	CHD	
					ALT.	ALTD	A.Palanichamy
					a	DRN	3D:A.Palanichamy 2D:P.Murugan
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600036				SHEET 1 OF 1			
					AAA16494		A3

06-02-2024	19-07-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME


REF.DRG.NO.mi001576, ITEM-2

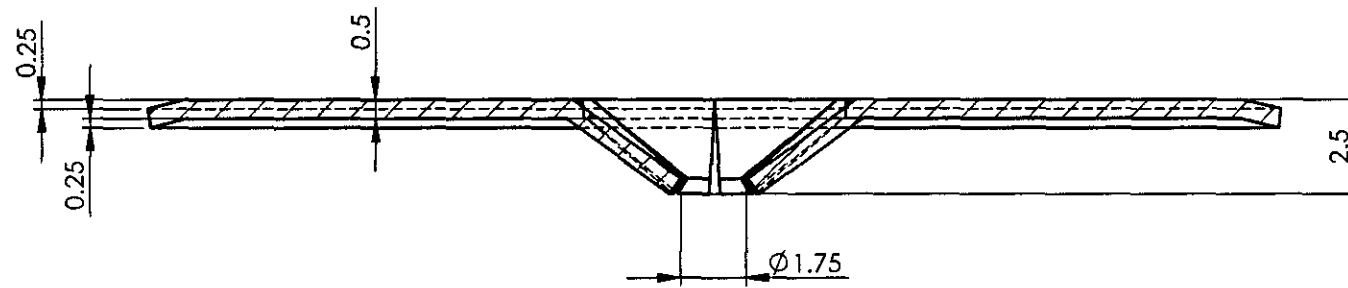
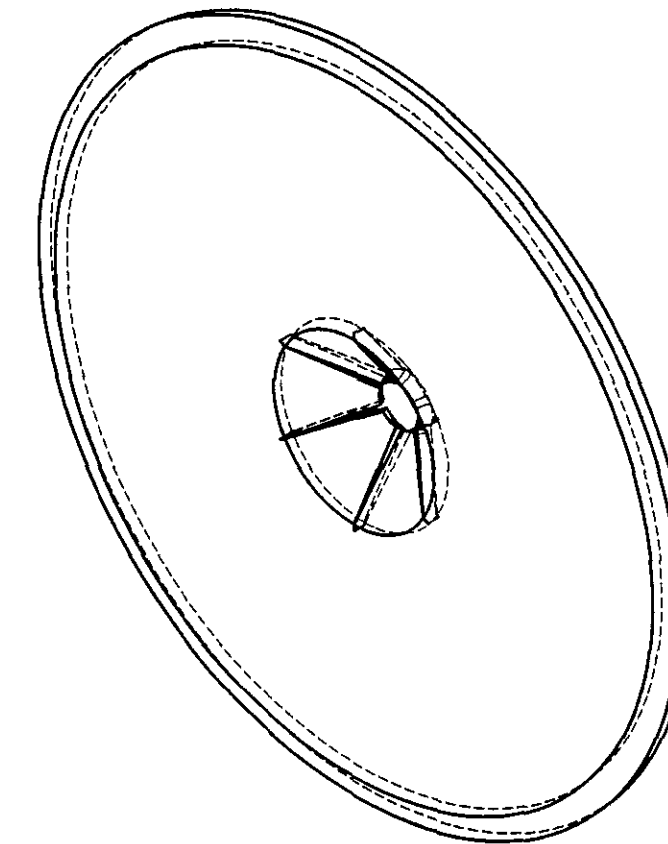
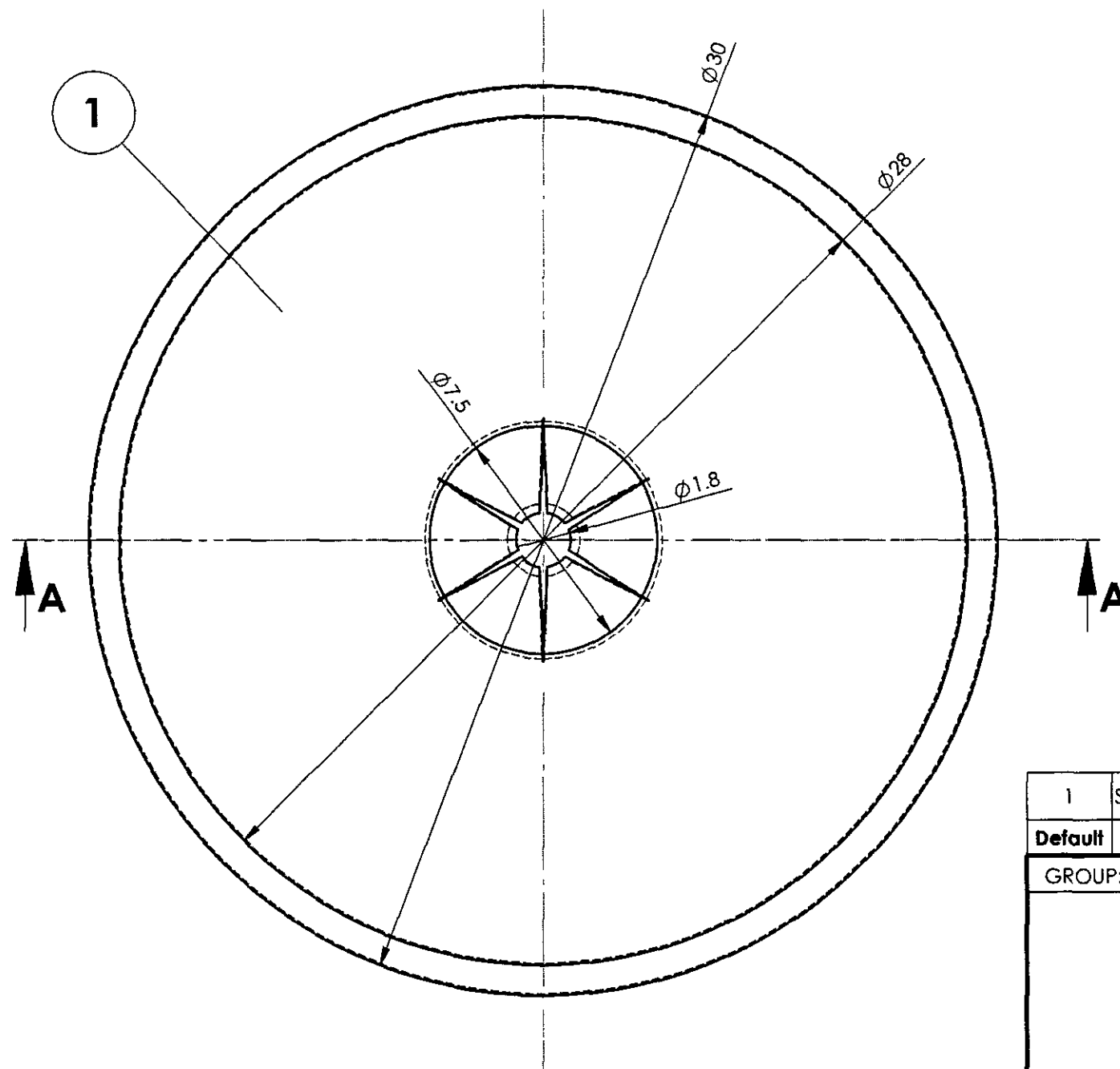
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

AAA16495

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①B CHAMFERED

REVISIONS


ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DRAWING REVISED.	

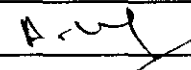
SECTION A-A
SCALE 5 : 1

ISOMETRIC VIEW

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.
WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

REF.DRG.NO.mi001576, ITEM-3

06-02-2024	19-07-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	SERRATED SPRING WASHER	DIA 30 x 0.5 THICK	1		IS:4072 Gr.65C6	0.003	COATING TO MDT5057
Default	DESCRIPTION	DIMENSIONS	ITEM NO	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF CONSTRUCTION				SURFACE AREA IN Sq.m.:0.001		WT/ASSY IN Kgs:	
SERRATED SPRING WASHER					SCALE 2:1	SSE/D	
						CHD	
					ALT. a	ALTD	A.Palanichamy
						DRN	3D:A.Palanichamy 2D:P.Murugan
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16495	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A3	

1		2		3		4		5		6		7		8	
AAA16900				▽ ROUGH MACHINED		⊖ ROUGH CLEANED		REVISIONS							
				▽▽ FINISH MACHINED		⊖⊖ BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE	
				▽▽▽ FINE FINISH MACHINED		⊖⊖⊖ CHAMFERED									
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YY															
YZ															
ZA															
ZB															
ZC															
ZD															
ZE															
ZF															
ZG															
ZH															
ZI															
ZJ															
ZK															
ZL															
ZM															
ZN															
ZO															
ZP															
ZQ															
ZR															
ZS															
ZT															
ZU															
ZV															
ZW															
ZX															
ZY															
ZZ															

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS ADD TOLERANCES AS VALUES. REFER DRAWING NO IC/STD 9 0 001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.4.10113.0.20.095.138

21-03-2013

DATE OF LATEST ALT. DATE OF FIRST ISSUE NAME/SME

GROUNDING FLAP

8 x 30 x 45

1

ITEM NO.

REF. DRGS

MATL.SPEC.

WT/UNIT IN KGS

REMARKS

GROUP: 1-6 ROOF ASSEMBLY

SURFACE AREA IN Sq.m.:0.004

WT/ASSY IN Kgs:0.083

SCALE 1:1

SSE/D CHD

ALT. ALTD

DRN K.Sriram

INDIAN RAILWAY STANDARDS

INTEGRAL COACH FACTORY, CHENNAI - 600038

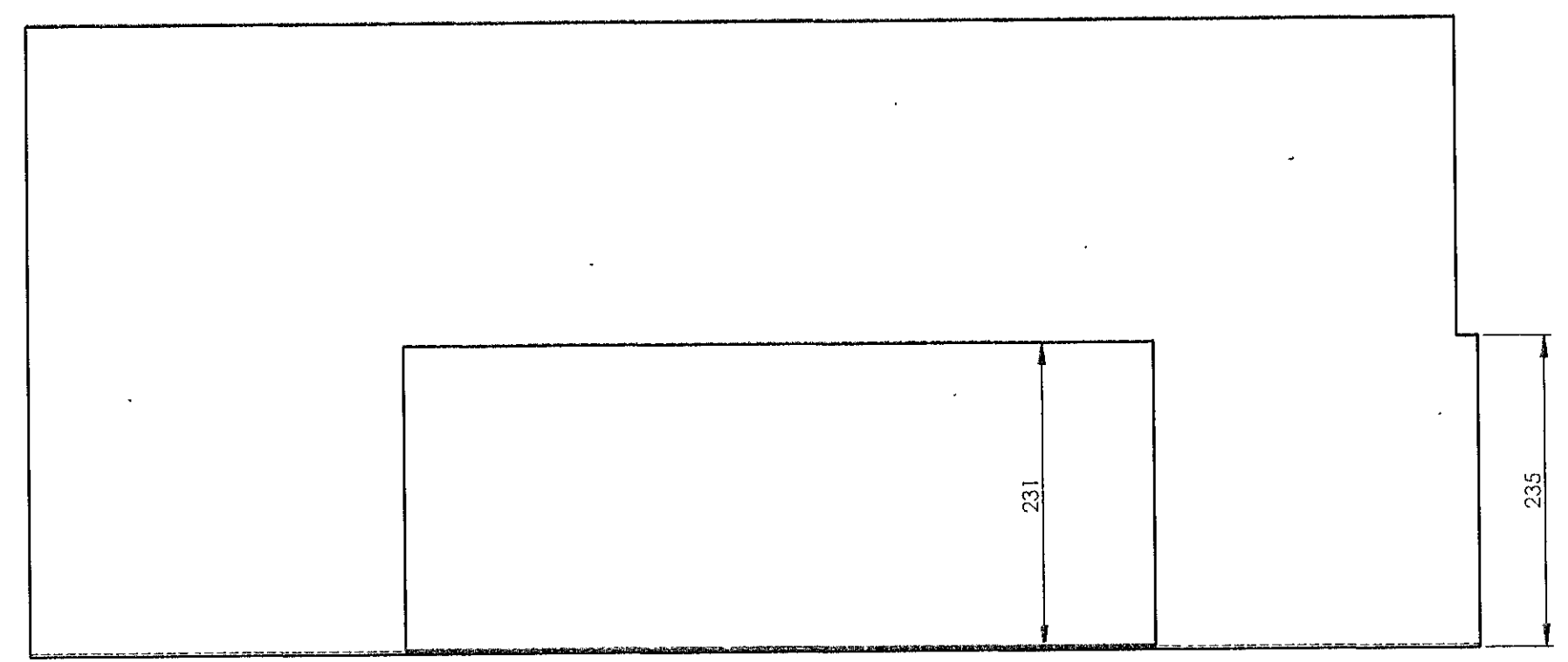
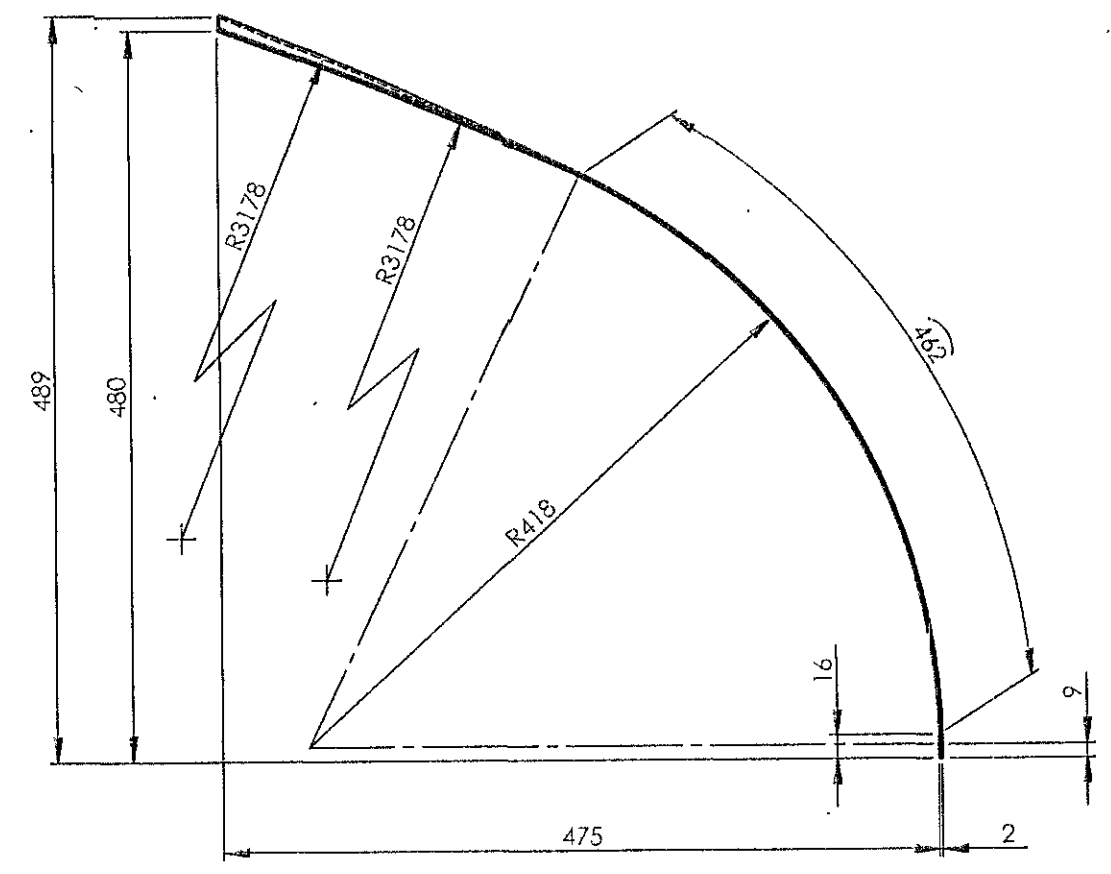
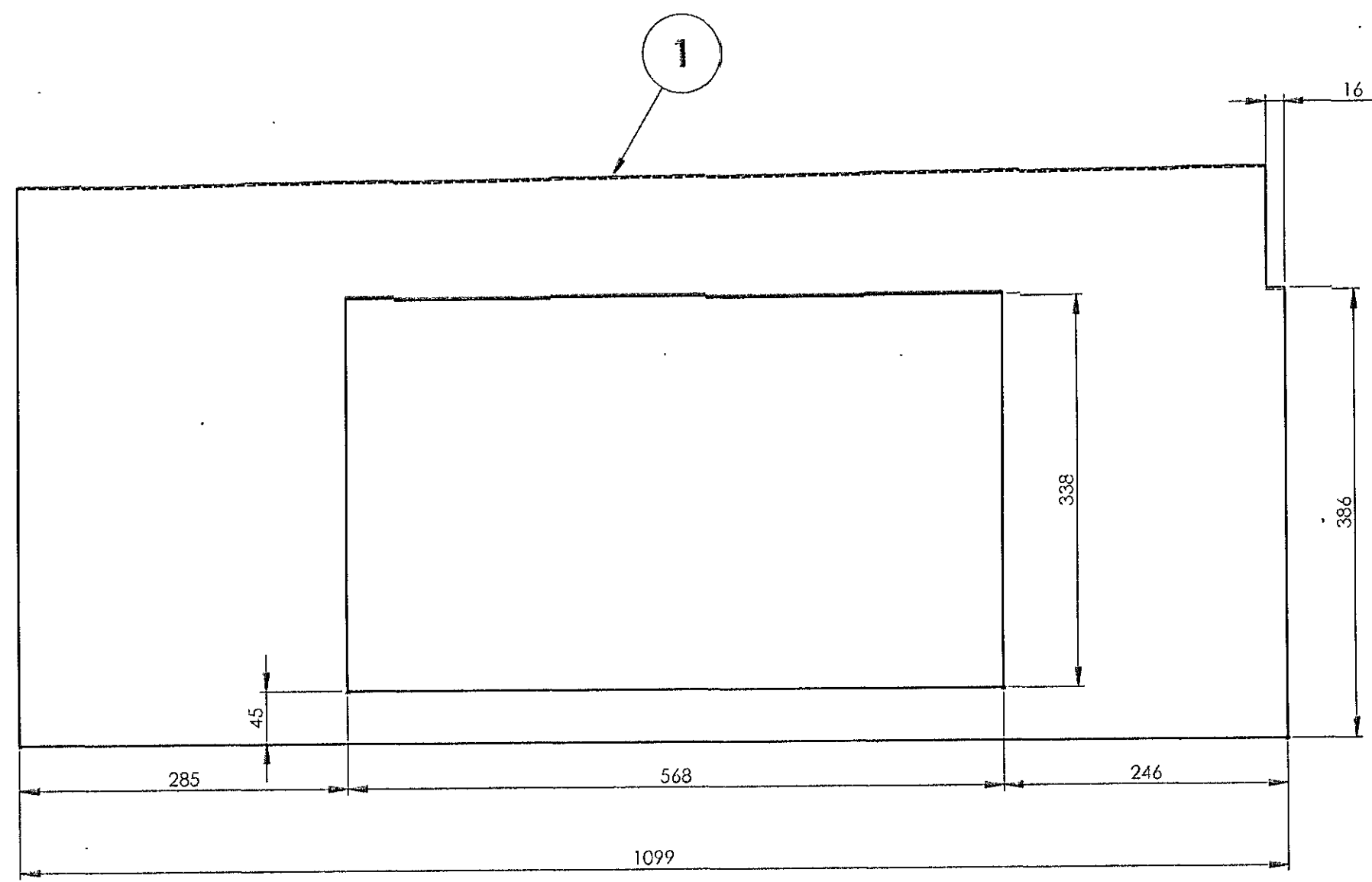
SHEET 1 OF 1

AAA16900

A3

▽ ROUGH MACHINED		⑧1 ROUGH CLEANED		REVISIONS				APPROVED & DATE	
▽▽ FINISH MACHINED		⑧1b BURRS REMOVED		ALT.	ZONE	DESCRIPTION		DATE	
▽▽▽ FINE FINISH MACHINED		⑧18 CHAMFERED		a		ITEM-1 CUTAWAY REVISED. VIEWS UPDATED.		1.4	

AAA16917

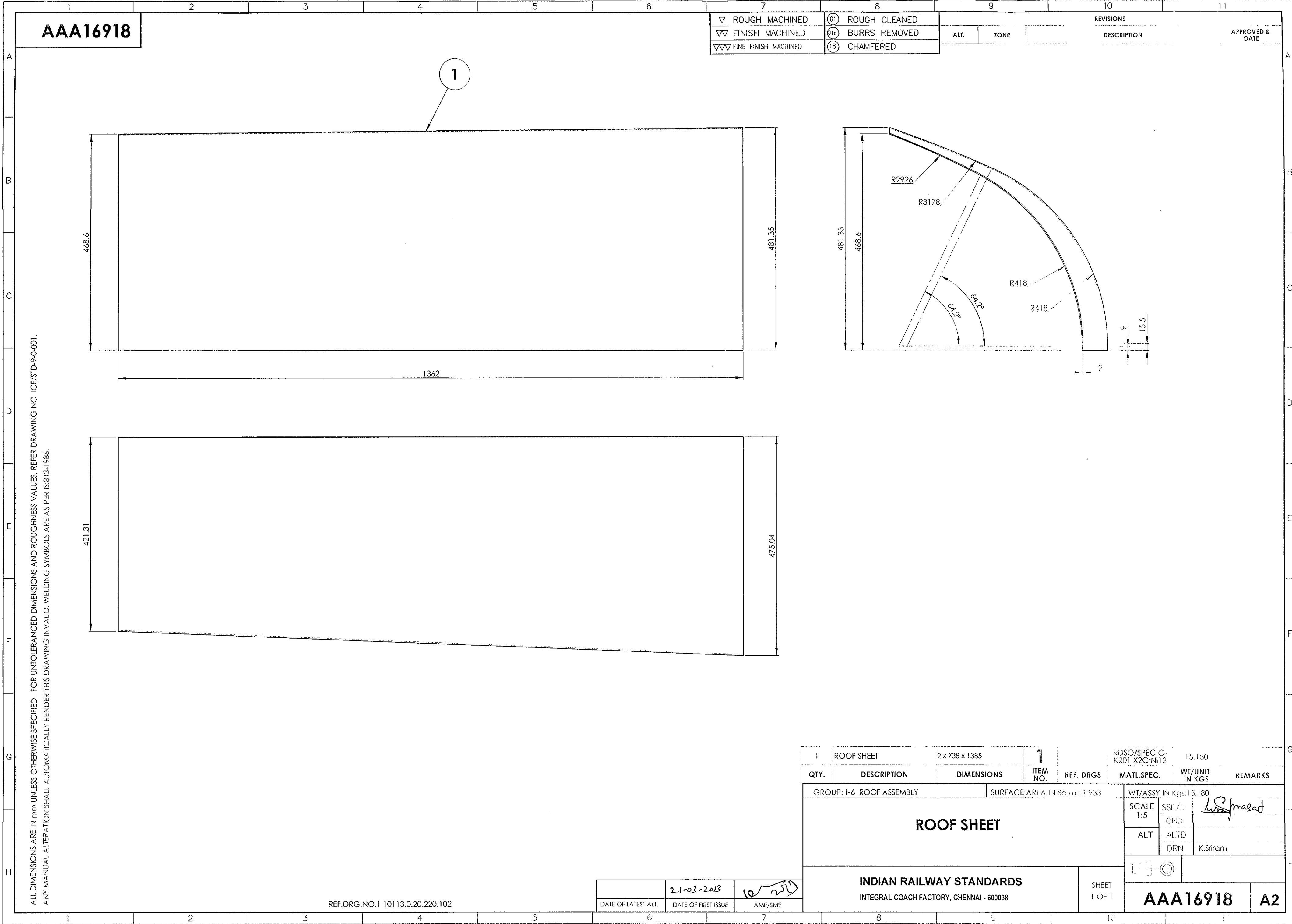


ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.

REF.DRG.NO.1 10113.20.220.101

12/2/26	21-03-2013	
DATE OF LATEST ALT	DATE OF FIRST ISSUE	AME/SME


1	ROOF SHEET	2 x 740 x 1099	1		RDSO/SPEC C-K201 X2CrNi12	8.879	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m : 1.137			WT/ASSY IN Kgs:8.879		
ROOF SHEET					SCALE 1:5	SSE/D	<i>[Signature]</i>
						CHD	
					ALT a	ALTD	E.SATHISH KUMAR
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
						AAA16917	

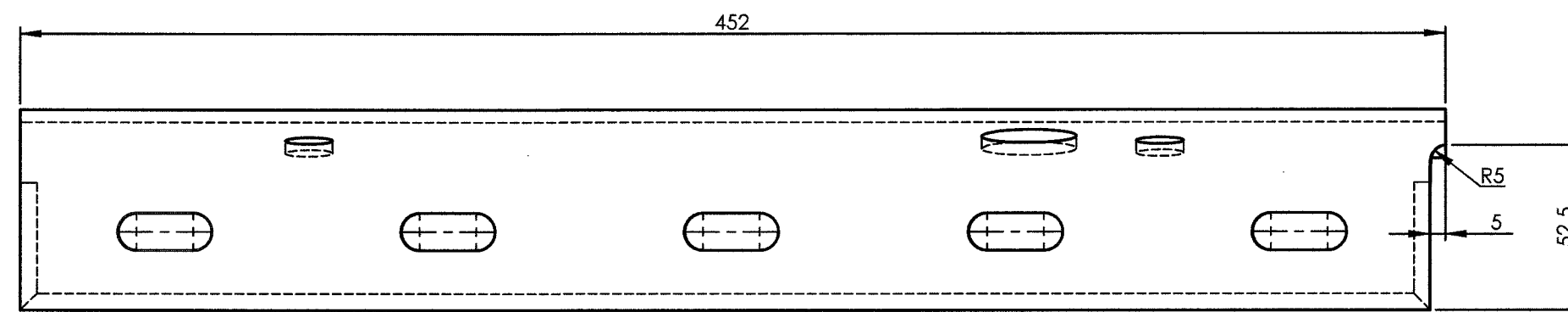


ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS:813-1986.

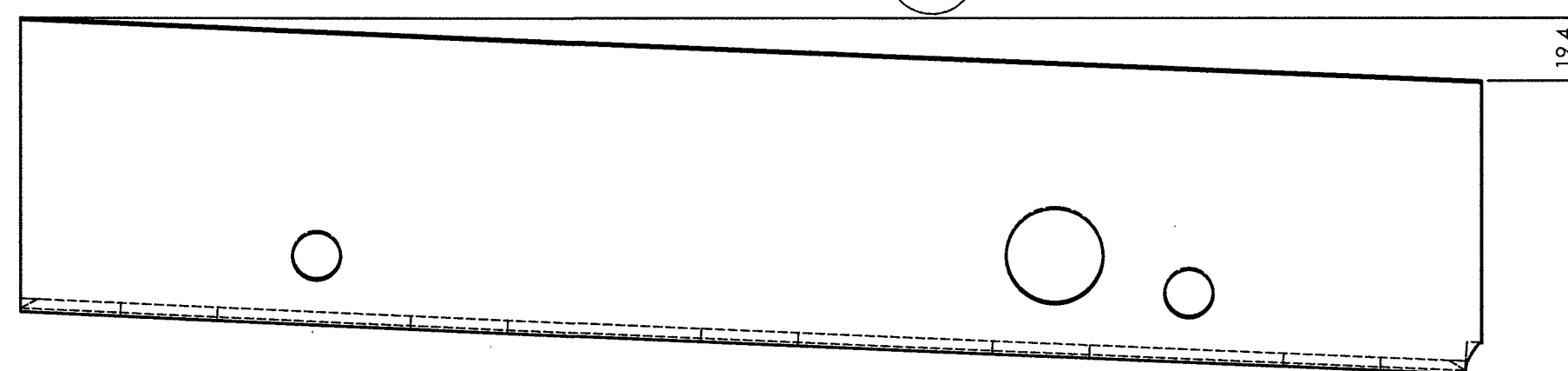
AAA16920

▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	⑥ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑮ CHAMFERED

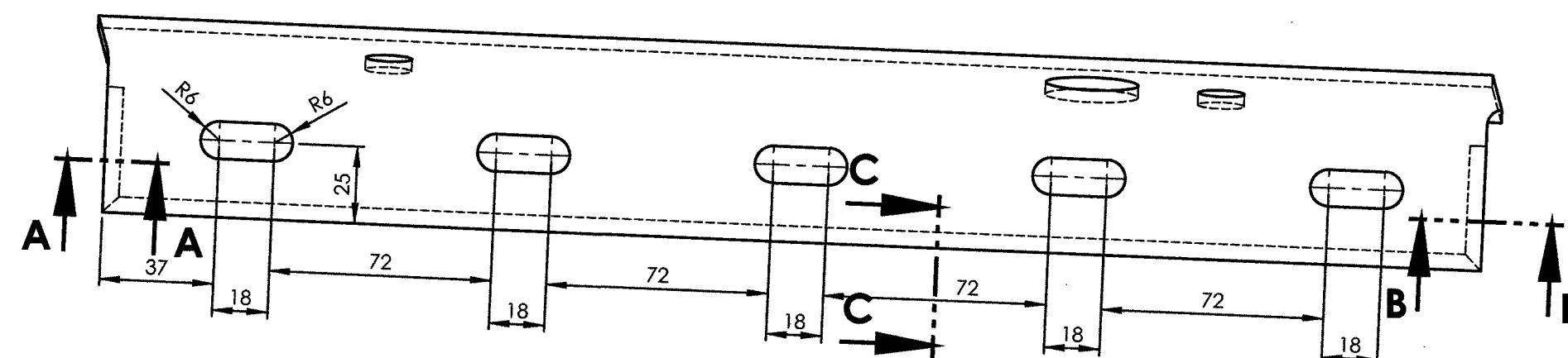
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		Ø 30 HOLES ADDED .	



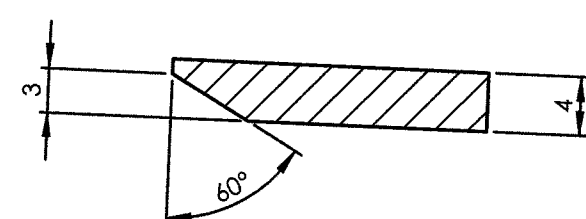
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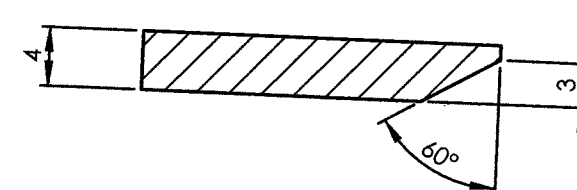
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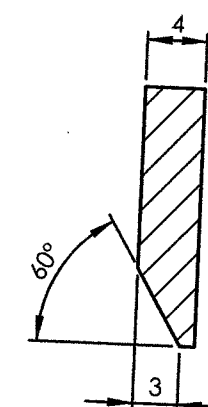
VIEW Y



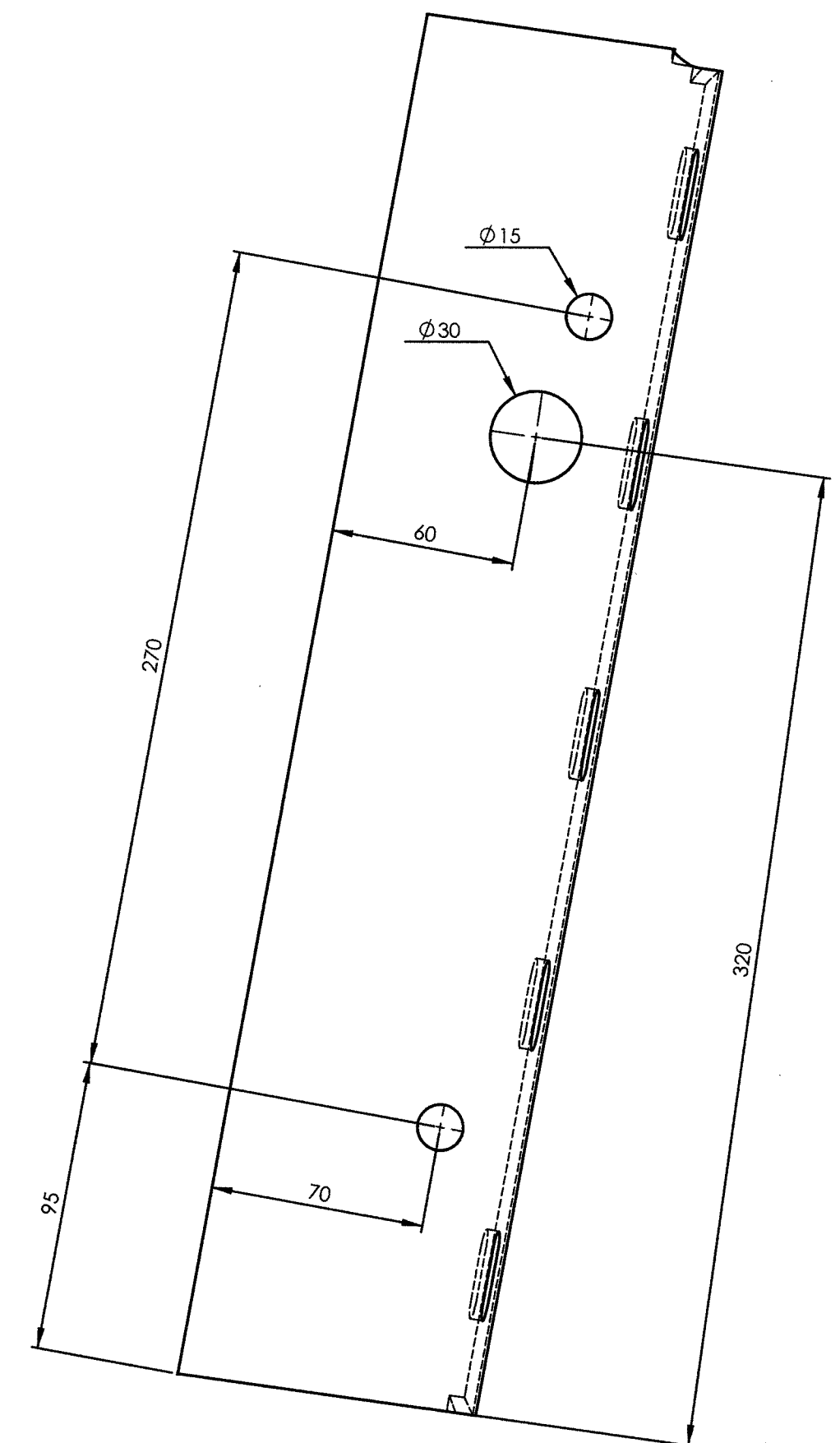
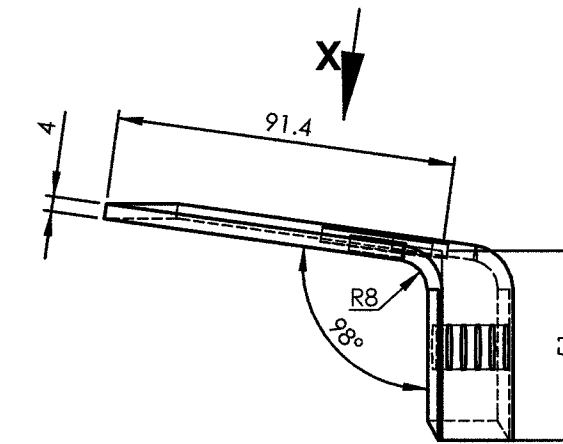
SECTION A-A
SCALE 2 : 1



SECTION B-B
SCALE 2 : 1



SECTION C-C
SCALE 2 : 1



VIEW X

1	STIFFENING ANGLE	4 x 157 x 458	1		RDSO/SPEC C-K201 X2CrNi12	1.838	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.123		WT/ASSY IN Kgs:	
STIFFENING ANGLE					SCALE 1:2	SSE/D	
					ALT a	CHD	
					DRN	E.SATHISH KUMAR	
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA16920		
					A2		

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS813-1986. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

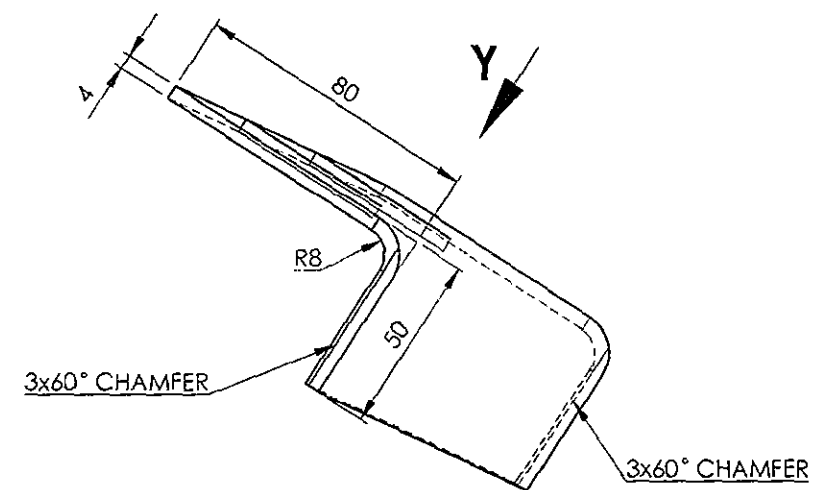
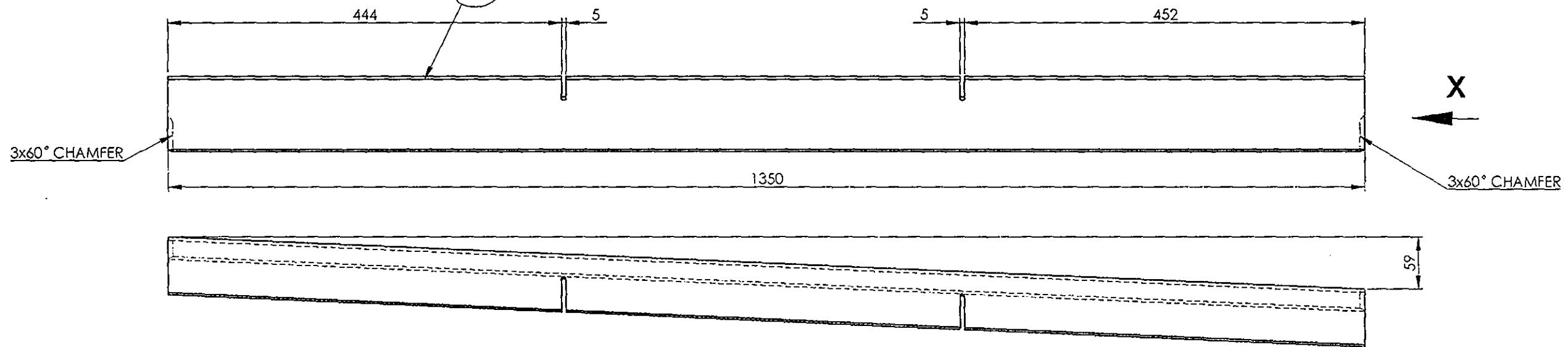
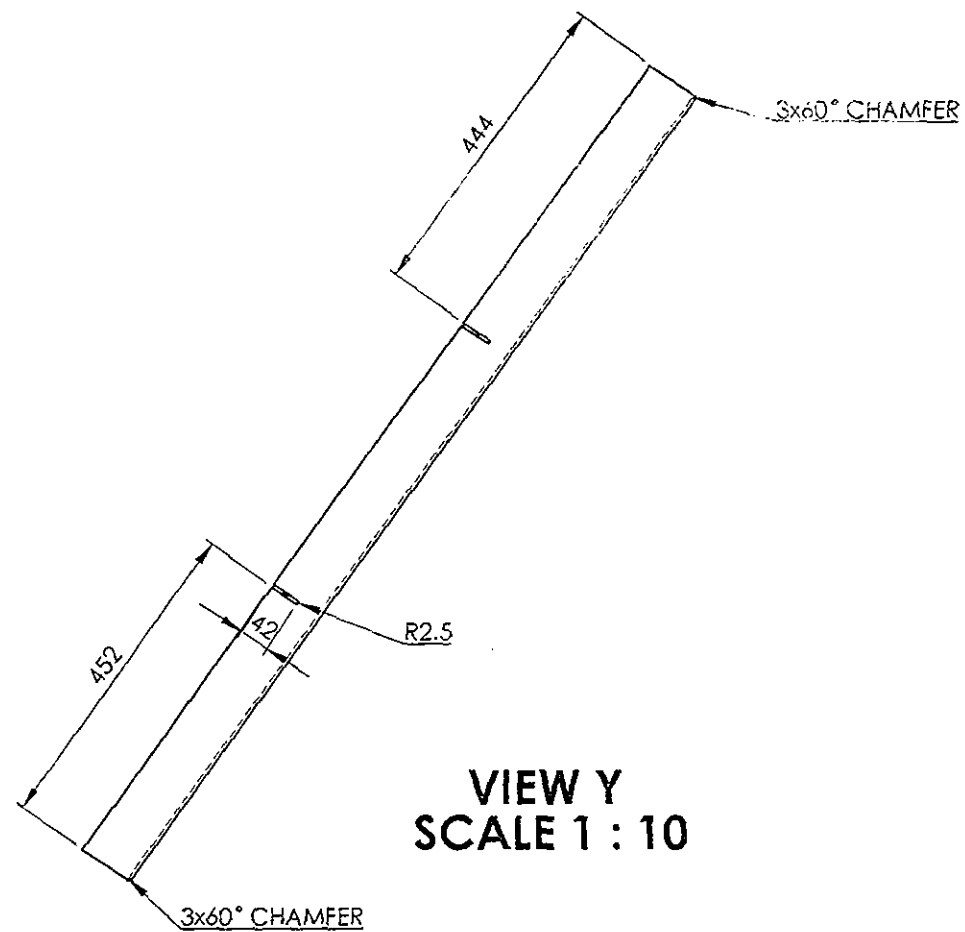
REF.DRG.NO.3 10113.0.20.200.119

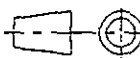
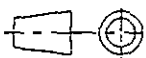
26-2-2019	21-3-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAA16921

▽ ROUGH MACHINED	③ ROUGH CLEANED
▽▽ FINISH MACHINED	④ BURRS REMOVED
▽▽▽ FINE FINISH- VACUUM	⑤ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			

VIEW X
SCALE 1 : 2VIEW Y
SCALE 1 : 10

1	STIFFENING ANGLE	4 x 121 x 1355	1		RDSO/SPEC C- K201 X2CrNi12	5.224	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.339			WT/ASSY IN Kgs:5.224		
STIFFENING ANGLE					SCALE	SSE/D	
					1:5	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		
					AAA16921		A3

REF.DRG.NO.2 10113.0.20.200.109

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AAA16922

▽ ROUGH MACHINED

▽▽ FINISH MACHINED

▽▽▽ FINE FINISH MACHINED

⊙ ROUGH CLEANED

⊙⊙ BURRS REMOVED

⊙⊙⊙ CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

1

3x60° CHAMFER

1350

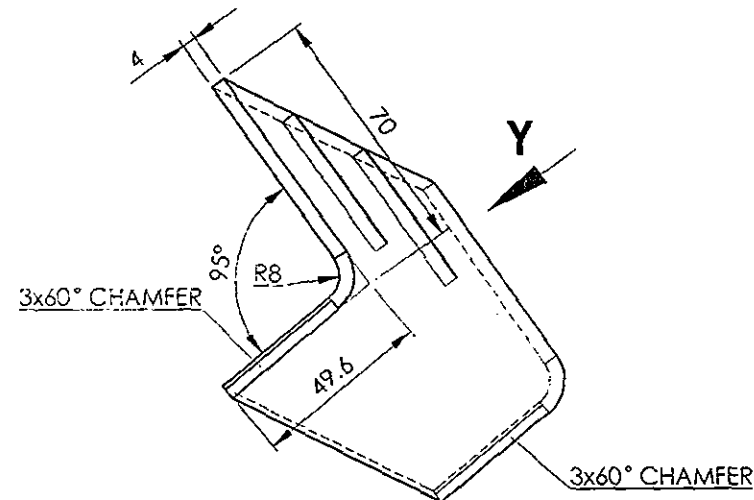
3x60° CHAMFER

X



58.9

3x60° CHAMFER

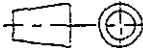
VIEW X
SCALE 1 : 2

VIEW Y

3x60° CHAMFER

452

R2.5

1	STIFFENING ANGLE	4 x121 x 1350	1		RDSO/SPEC C- K201 X2CrNi12	4.841	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.315			WT/ASSY IN Kgs:4.841		
STIFFENING ANGLE					SCALE	SSE/D	<i>K. Sriram</i>
					1:5	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA16922	A3

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD. 9.0.001.
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REF.DRG.NO.2 10113.0.20.200.111