

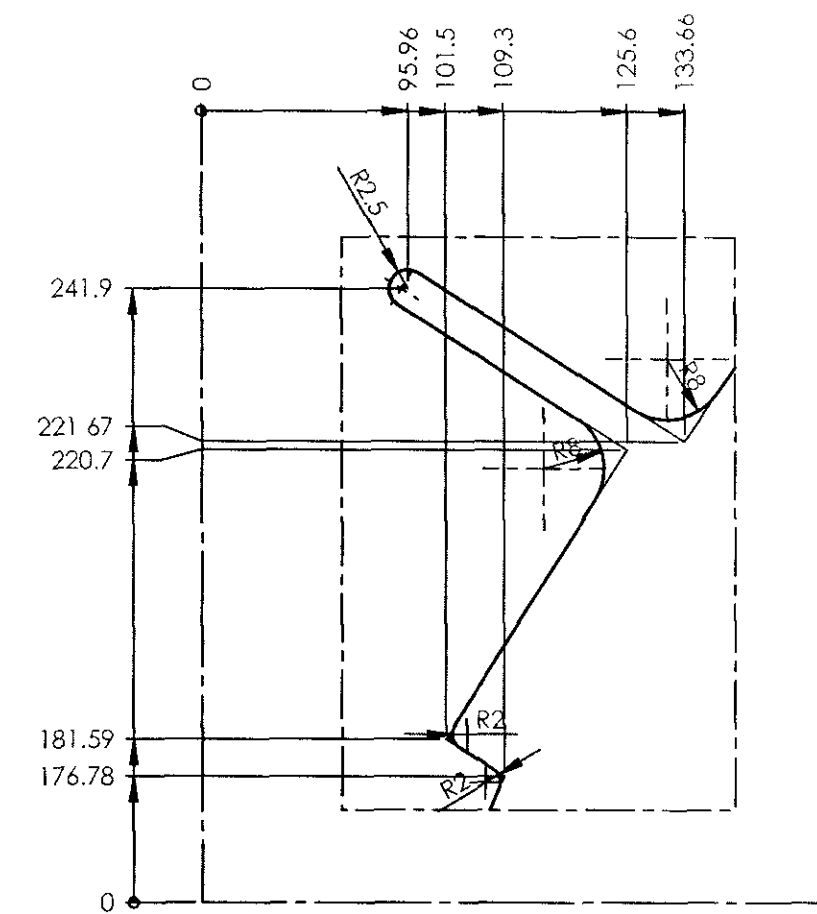
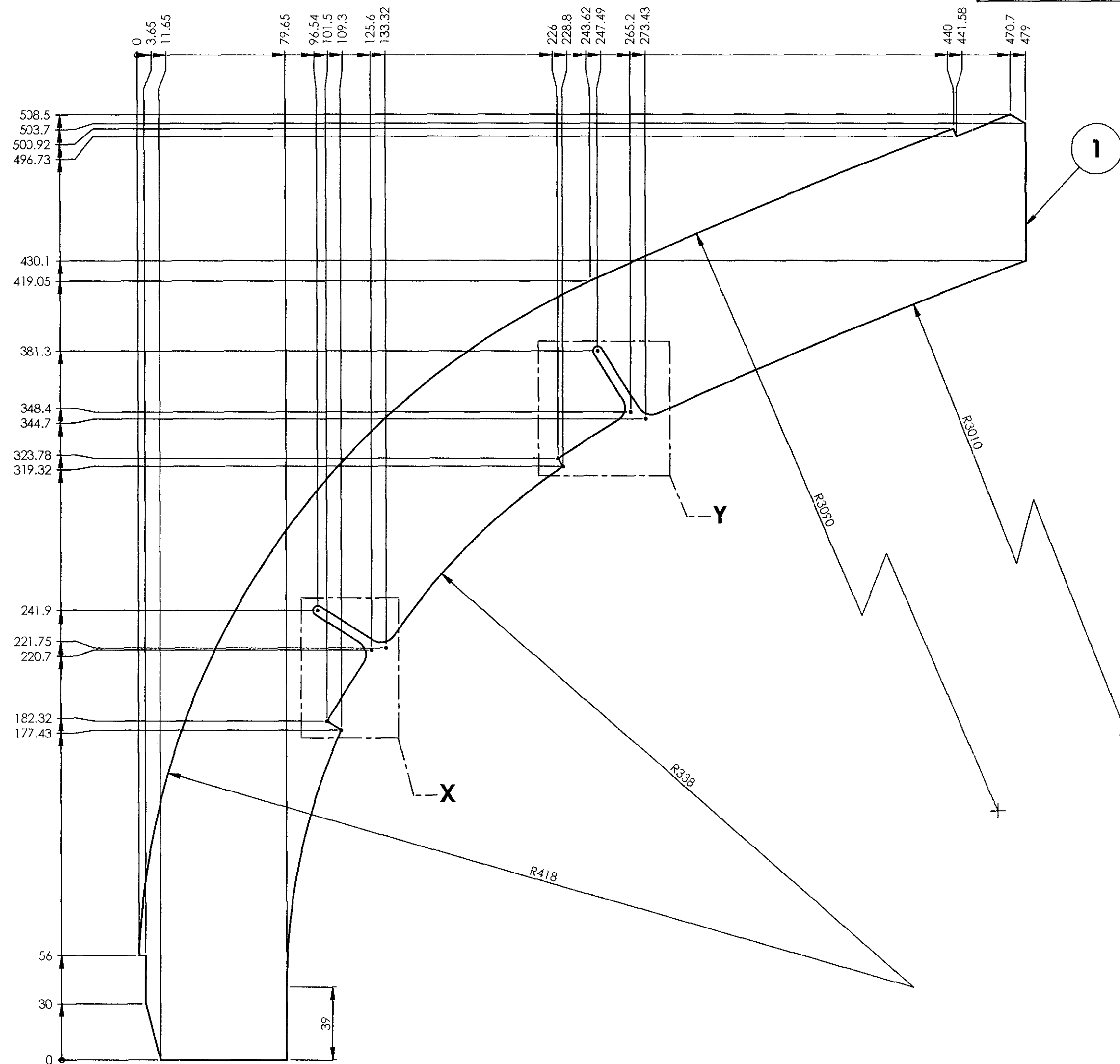
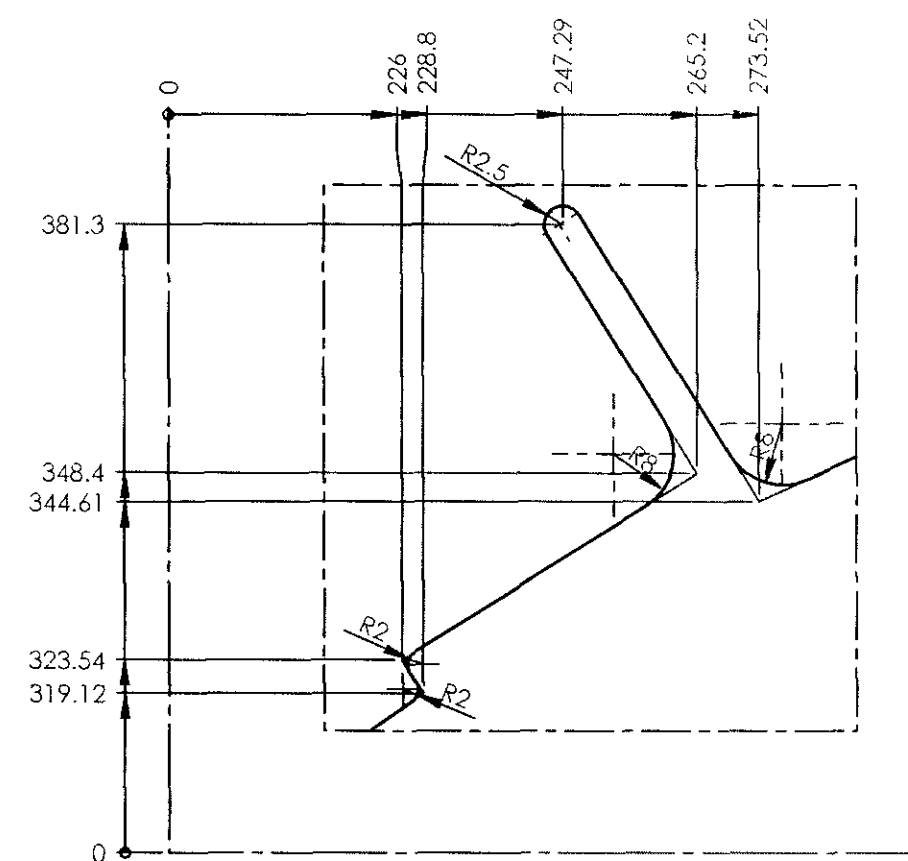
AAA16919

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

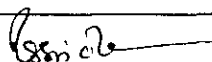
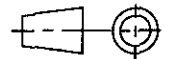
⊖ ROUGH CLEANED
⊖⊖ BURRS REMOVED
⊖⊖⊖ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION ALTERED FROM 46 TO 56. VIEWS UPDATED.	13/4/24

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

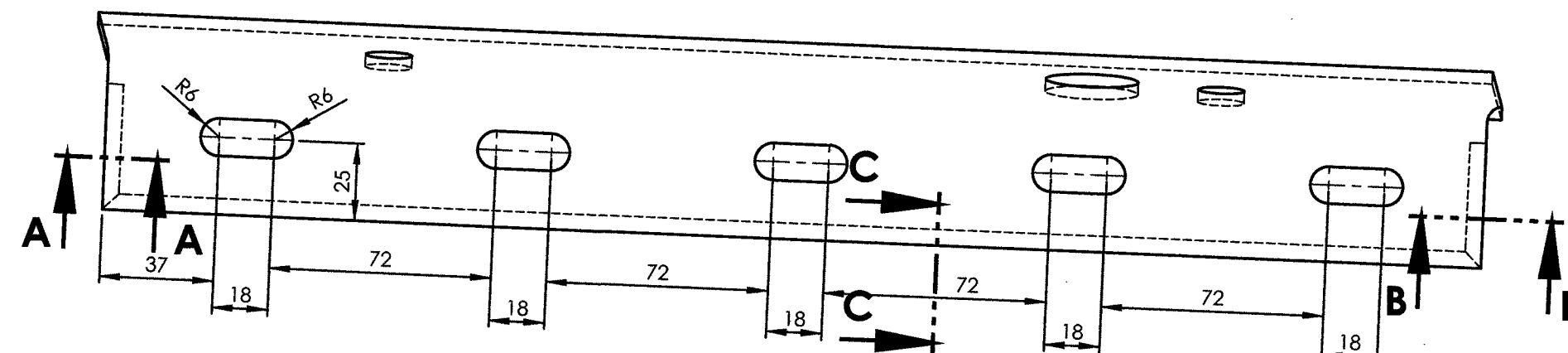
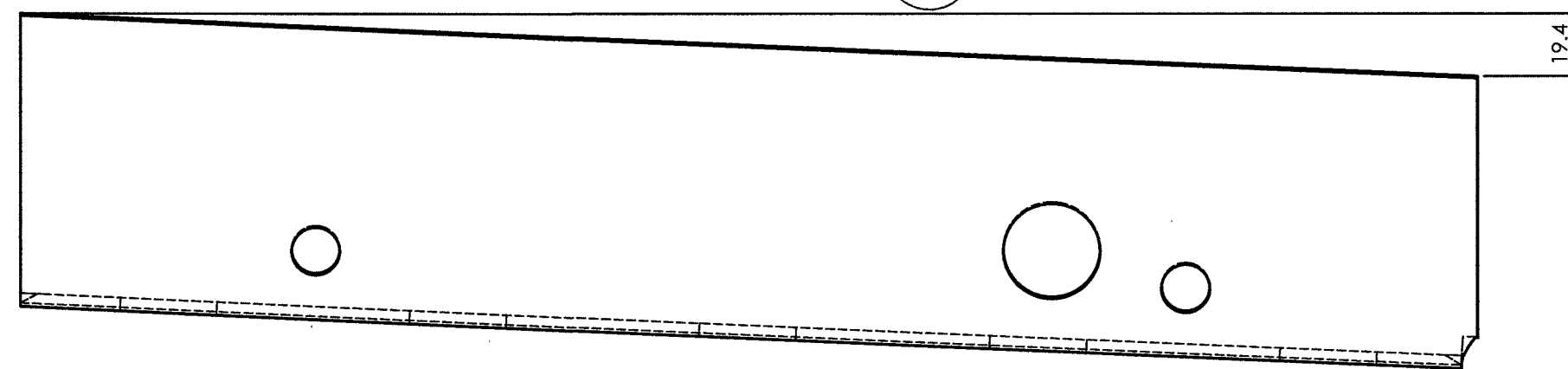
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO. ICF/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY.

i	ROOF ARCH	4 x 479 x 508.5	1		RDSO/SPEC. C-1: 201 x 2CrNi12	1.758	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY			SURFACE AREA IN Sq.m.: 0.117		WT/ASSY IN Kgs:		
ROOF ARCH					SCALE 1:2	SSE/D	
						CHD	
					ALT a	ALTD	AMAL GEORGE
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA16919	A2

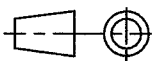
17-06-2023	21-03-2013	AME/SME
DATE OF LATEST ALT	DATE OF FIRST ISSUE	

REF.DRG.NO.2 10113.0.20.210.112

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.



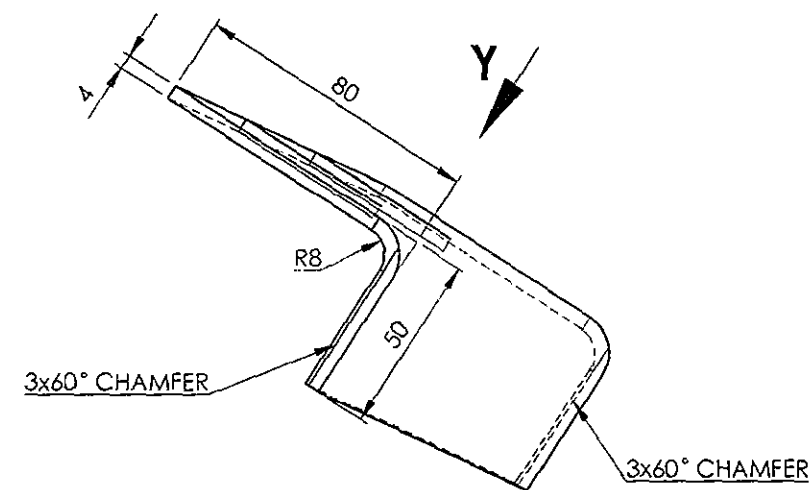
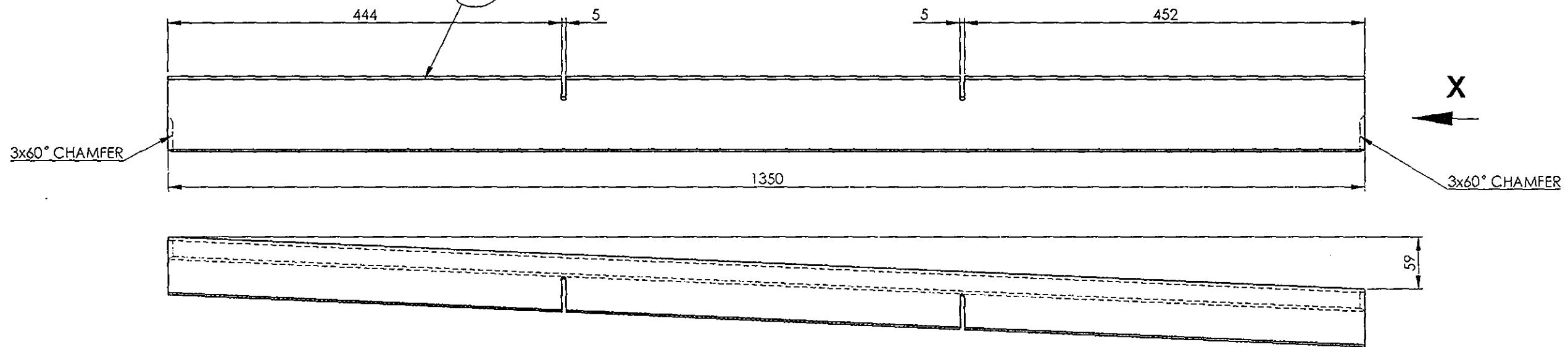
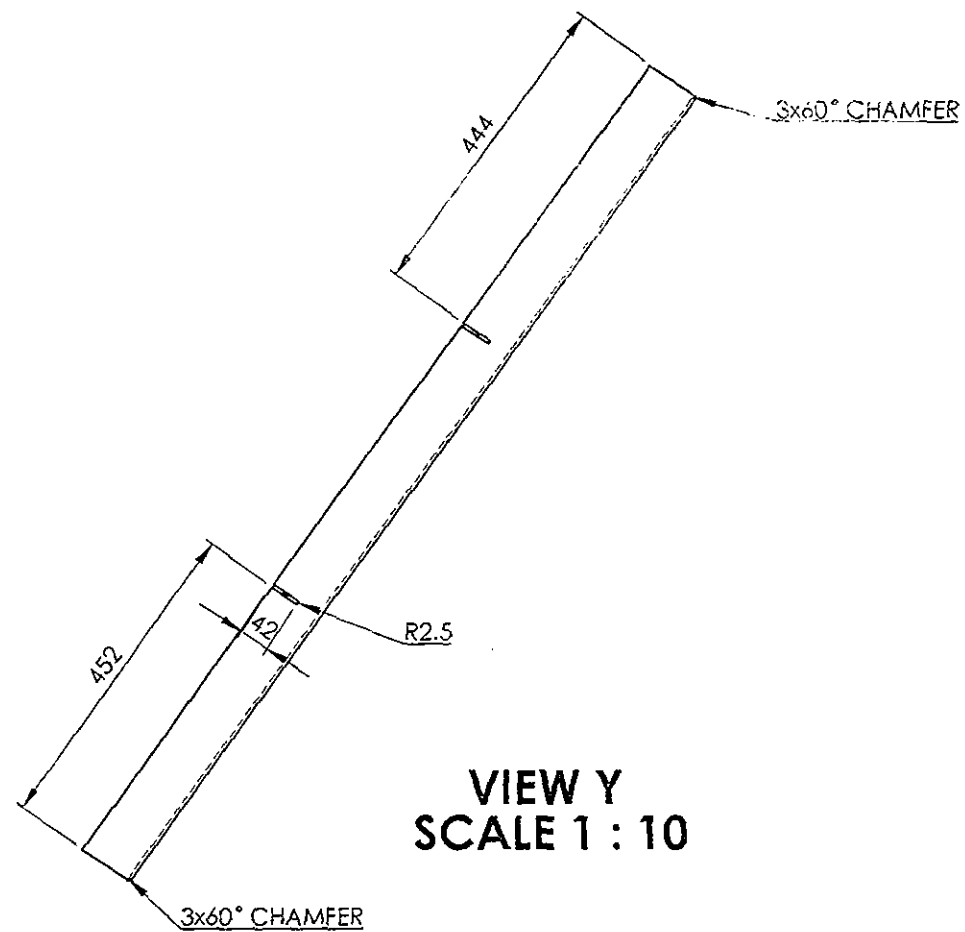
A diagram showing a shaft with a key and a 60-degree wedge. The shaft has a diameter of 3 units. The key has a width of 4 units. The wedge is 60 degrees wide and is shown in a cross-section view.

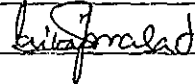
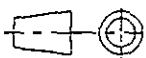
1	STIFFENING ANGLE	4 x 157 x 458	1		RDSO/SPEC. C-K201 X2CrNi12	1.838	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.123			WT/ASSY IN Kgs:		
STIFFENING ANGLE					SCALE 1:2	SSE/D CHD	<i>L. Panduranga Rao</i>
					ALT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

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

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICT/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 10113.0.20.200.109

DATE OF LATEST ALT.	21-03-2013	AME/SME
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AAA16922

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

② BURRS REMOVED

▽▽▽ FINE FINISH VACUUMED

③ CHAMFERED

REVISIONS

ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

1

3x60° CHAMFER

1350

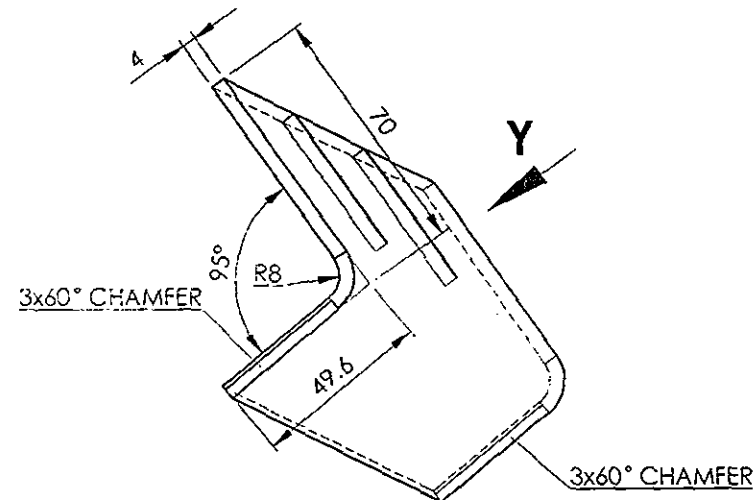
3x60° CHAMFER

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

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 10113.0.20.200.111

AAA16923

▽ ROUGH MACHINED

⊖ ROUGH CLEANED

▽▽ FINISH MACHINED

⊖⊖ BURRS REMOVED

▽▽▽ FINE FINISH MACHINED

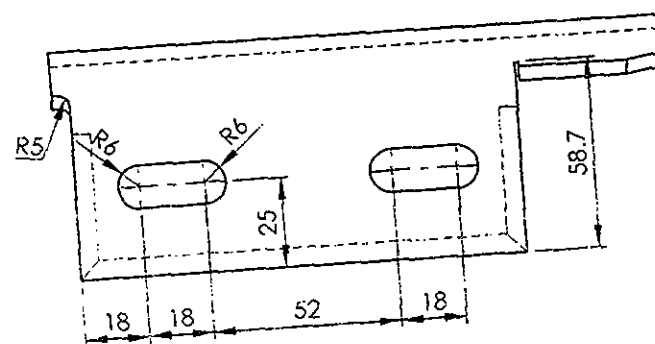
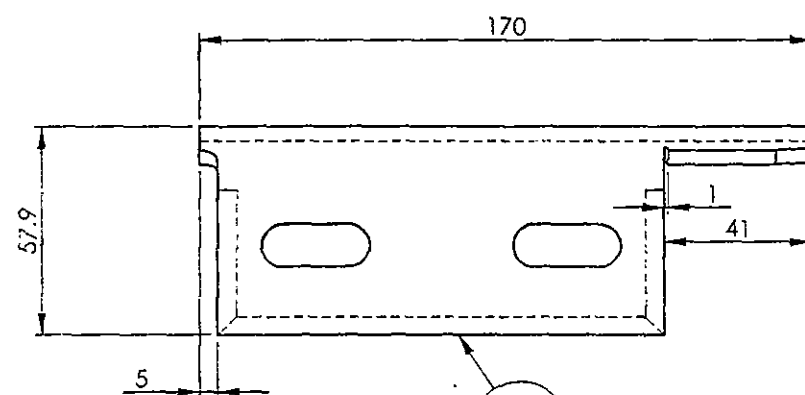
⊖⊖⊖ CHAMFERED

REVISIONS

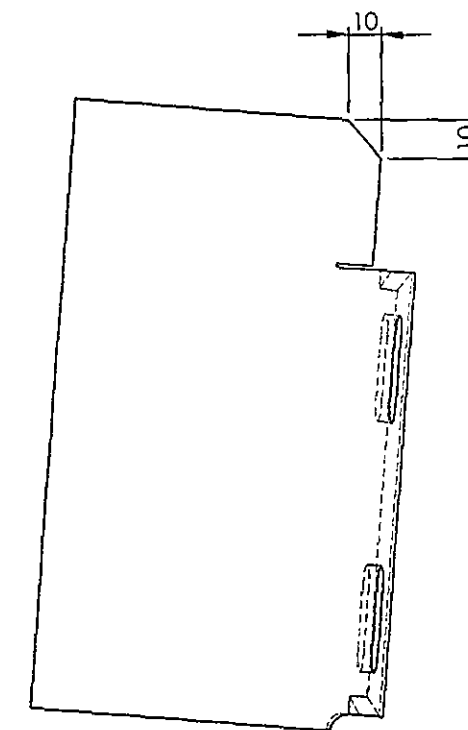
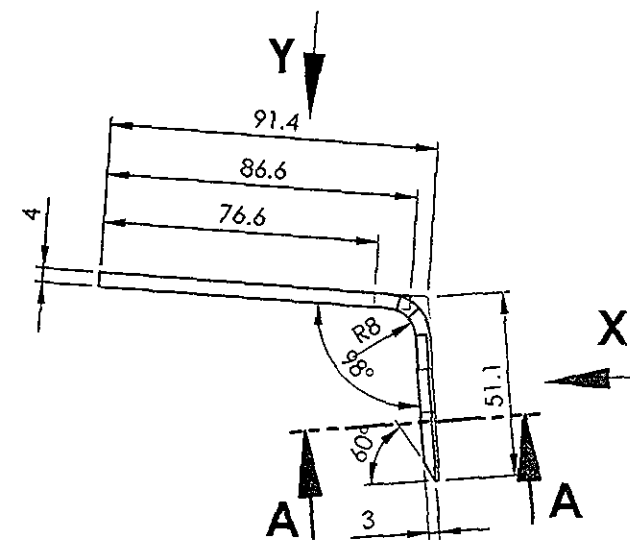
ALT.

ZONE

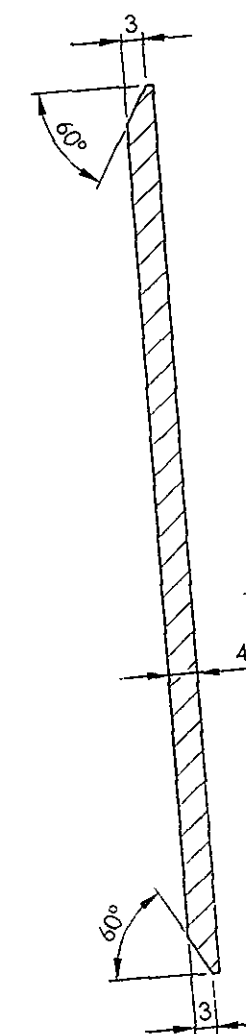
DESCRIPTION

APPROVED &
DATE

VIEW X



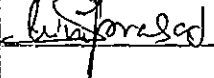
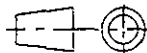
VIEW Y

SECTION A-A
SCALE 1:1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO 101/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 10113.20.200.113

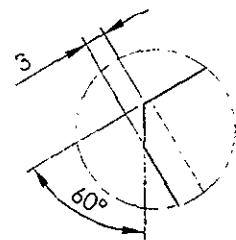
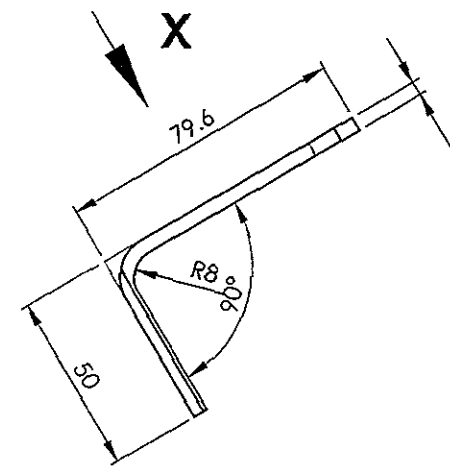
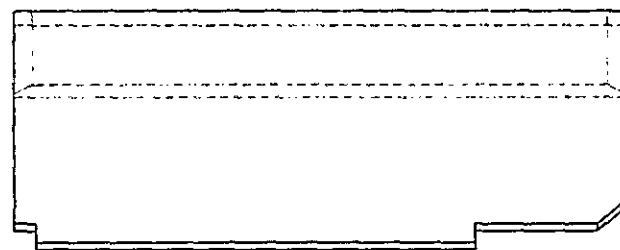
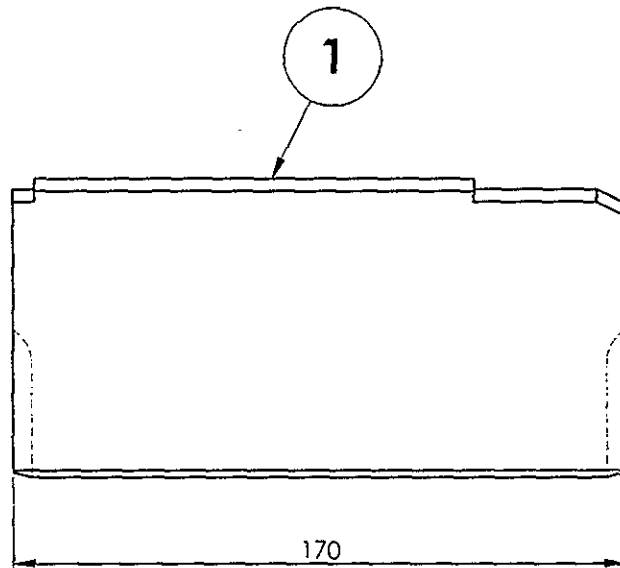
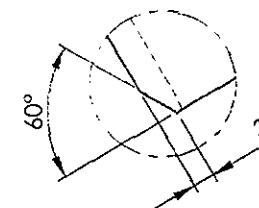
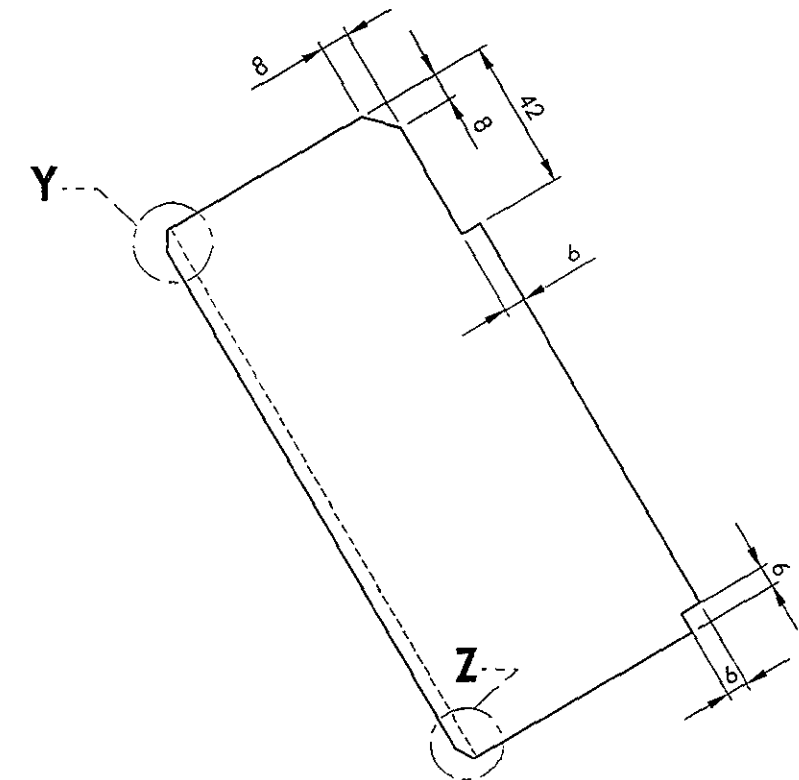
	21-03-2013	Ue 2013
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	STIFFENING ANGLE	4 x 136 x 170	1		RDSO/SPEC C-K201 X2 Cr Ti 12	0.631	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.043			WT/ASSY IN Kgs:0.631		
STIFFENING ANGLE					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16923		A3

AAA16924

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

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			

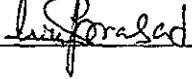
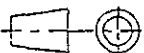
DETAIL Y
SCALE 1:1DETAIL Z
SCALE 1:1

VIEW X

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 10113.20.200.115

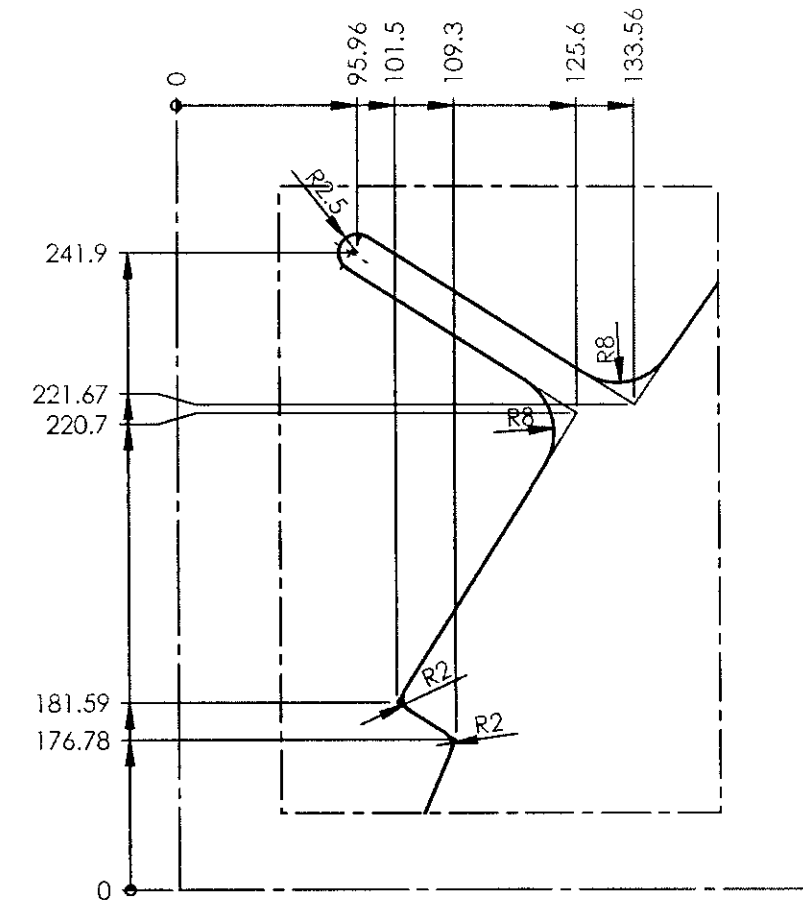
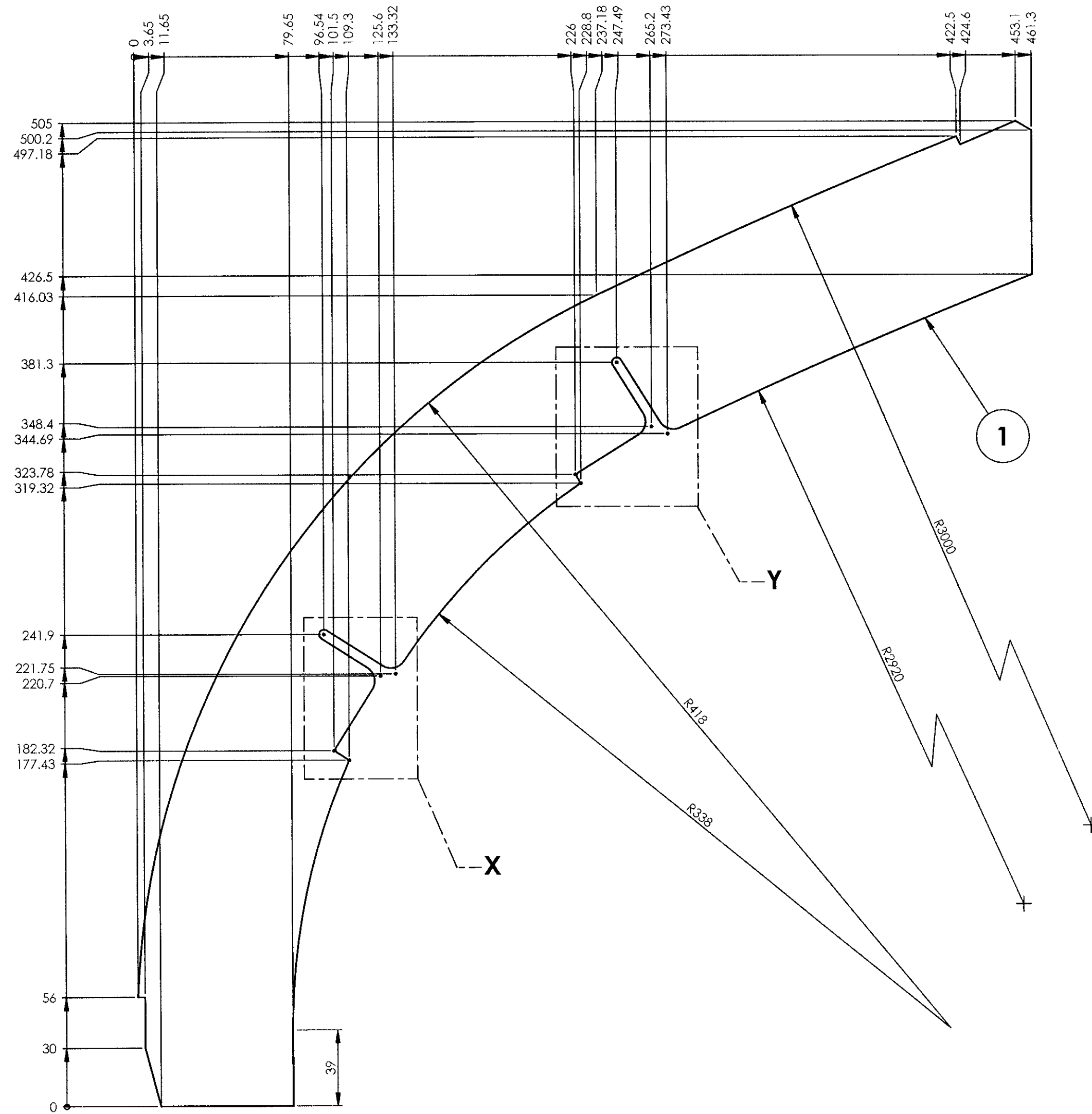
DATE OF LATEST ALT.	21-03-2013	AME/SME
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1	STIFFENING ANGLE	4 x 121 x 170	1		RDSO/SPEC C- K201 X2CrNi12	0.644	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.043			WT/ASSY IN Kgs:0.644		
STIFFENING ANGLE					SCALE	SSE/D	
					1:2	CHD	
					ALT.	ALTD	
					DRN	K.Sriram	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16924		A3

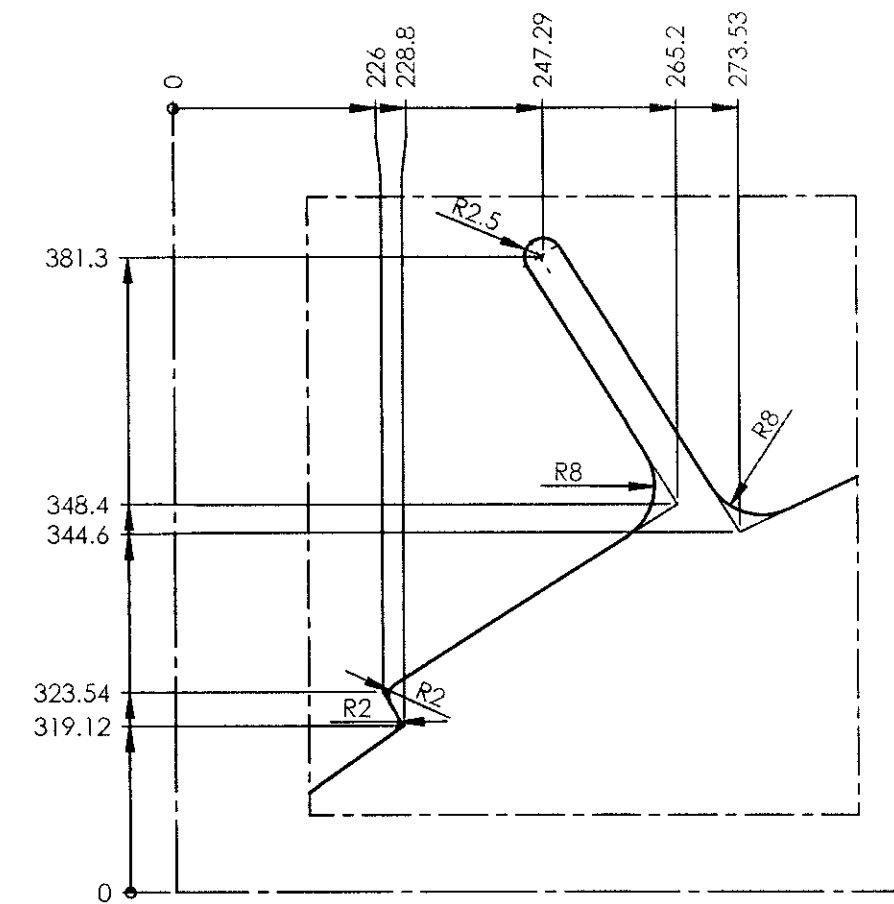
AAA16925

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION ALTERED FROM 46 TO 56. VIEWS UPDATED.	 1/12



DETAIL X
SCALE 1 : 1



DETAIL Y
SCALE 1 : 1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-001.
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 10113.0.20.210.113

17-06-2023	21-03-2013	19/6/23
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	ROOF ARCH	4 x 462 x 505	1		RDSO/SPEC C- F201 X2CrNi12	1.713	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.114		WT/ASSY IN Kgs:	
ROOF ARCH				SCALE 1:2	SSE/D	CHD	
				ALT a	ALTD		
					DRN	AMAL GEORGE	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		AAA16925	
						A2	

AAA16926

▽ ROUGH MACHINED

⑦ ROUGH CLEANED

▽▽ FINISH MACHINED

⑧ BURRS REMOVED

▽▽▽ FINISH VACUUM

⑧ CHAMFERED

REVISIONS

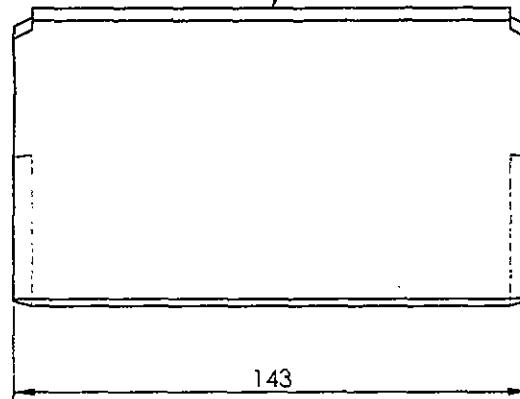
ALT.

ZONE

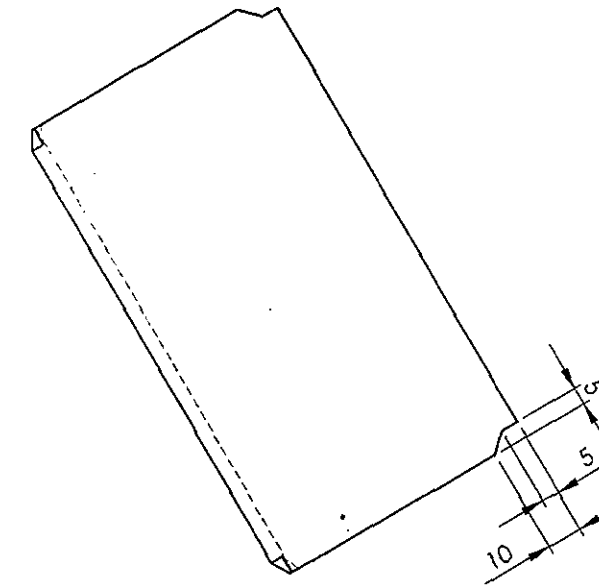
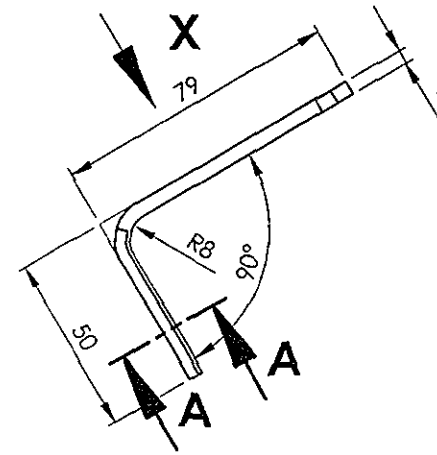
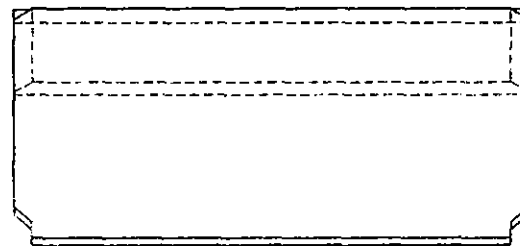
DESCRIPTION

APPROVED &
DATE

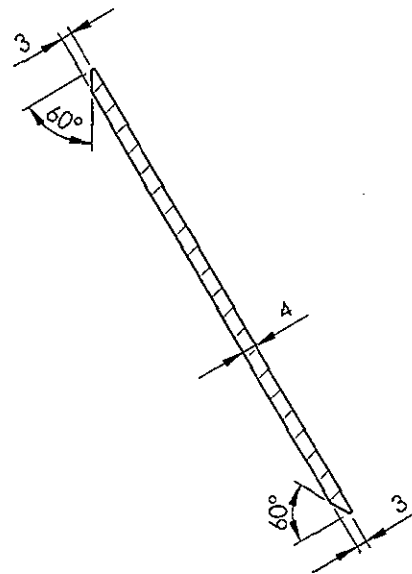
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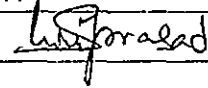
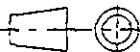
143



VIEW X



SECTION A-A

1	STIFFENING ANGLE	4 x 121 x 143	1		RDSO/SPEC C- K201 X2CrNi12	0.544	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.036			WT/ASSY IN Kgs:0.544		
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		AAA16926

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

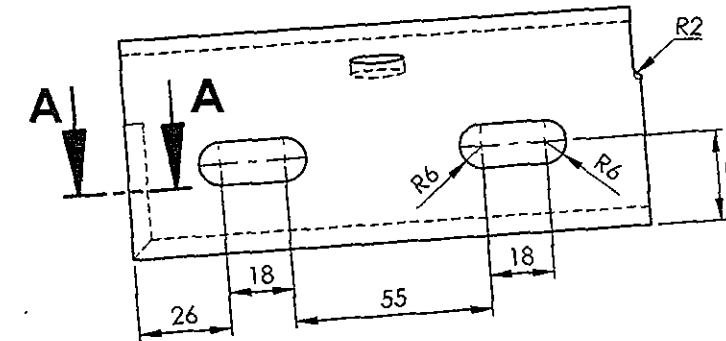
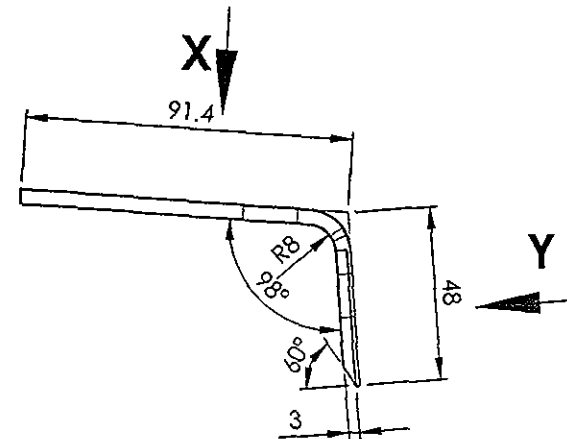
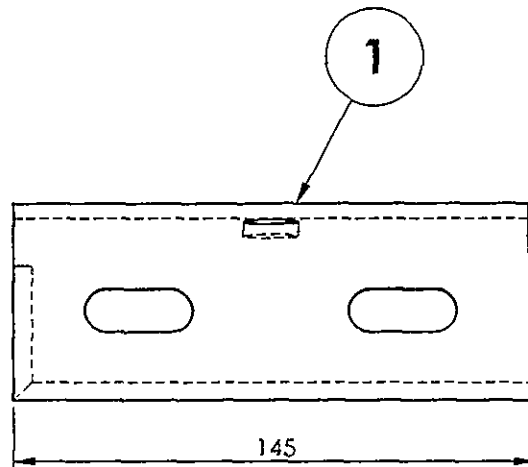
REF.DRG.NO.3 10113.0.20.200.123

AAA16927

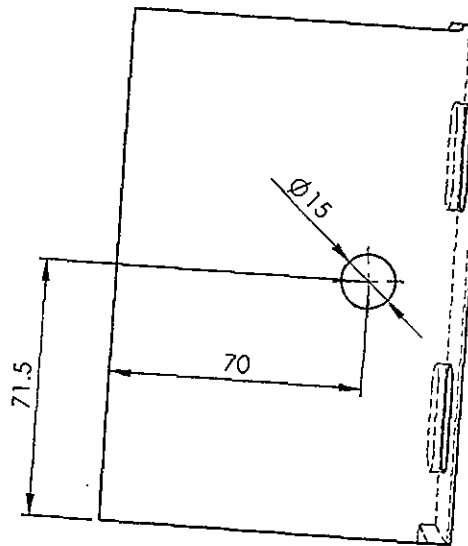
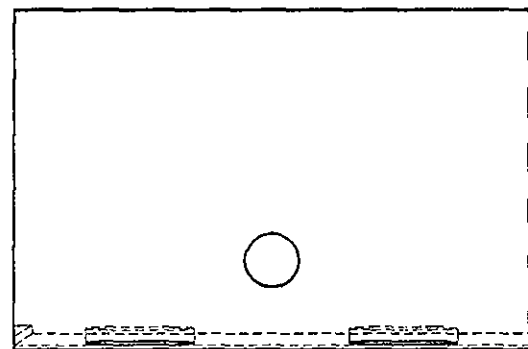
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

REVISIONS

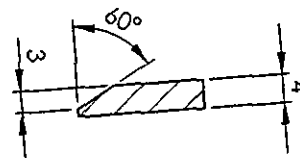
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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VIEW Y



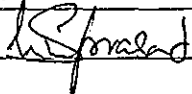
VIEW X

SECTION A-A
SCALE 1:1

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

REF.DRG.NO.3 10113.0.20.200.125

DATE OF LATEST ALT.	21-03-2013	AME/SME
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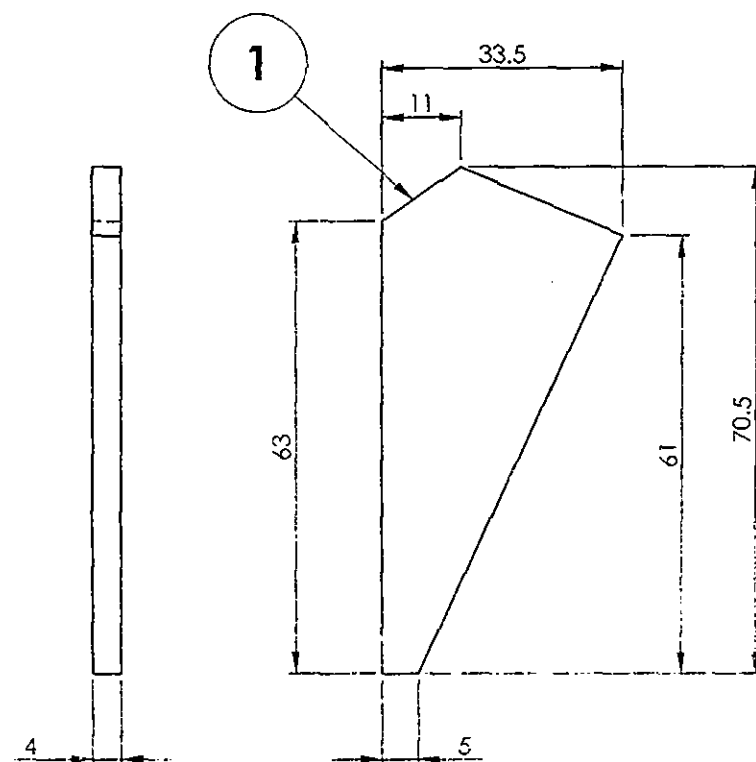
1	STIFFENING ANGLE	4 x 135 x 145	1		RDSO/SPEC C- K201 X2CrNi12	0.573		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.039			WT/ASSY IN Kgs:0.573			
STIFFENING ANGLE					SCALE 1:2	SSE/D CHD		
					ALT.	ALTD		
						DRN	K.Sriram	
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038			

AAA16929

▽ ROUGH MACHINED	③ ROUGH CLEANED
▽▽ FINISH MACHINED	④ BURRS REMOVED
▽▽▽ - AS - VAC - SED	⑤ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
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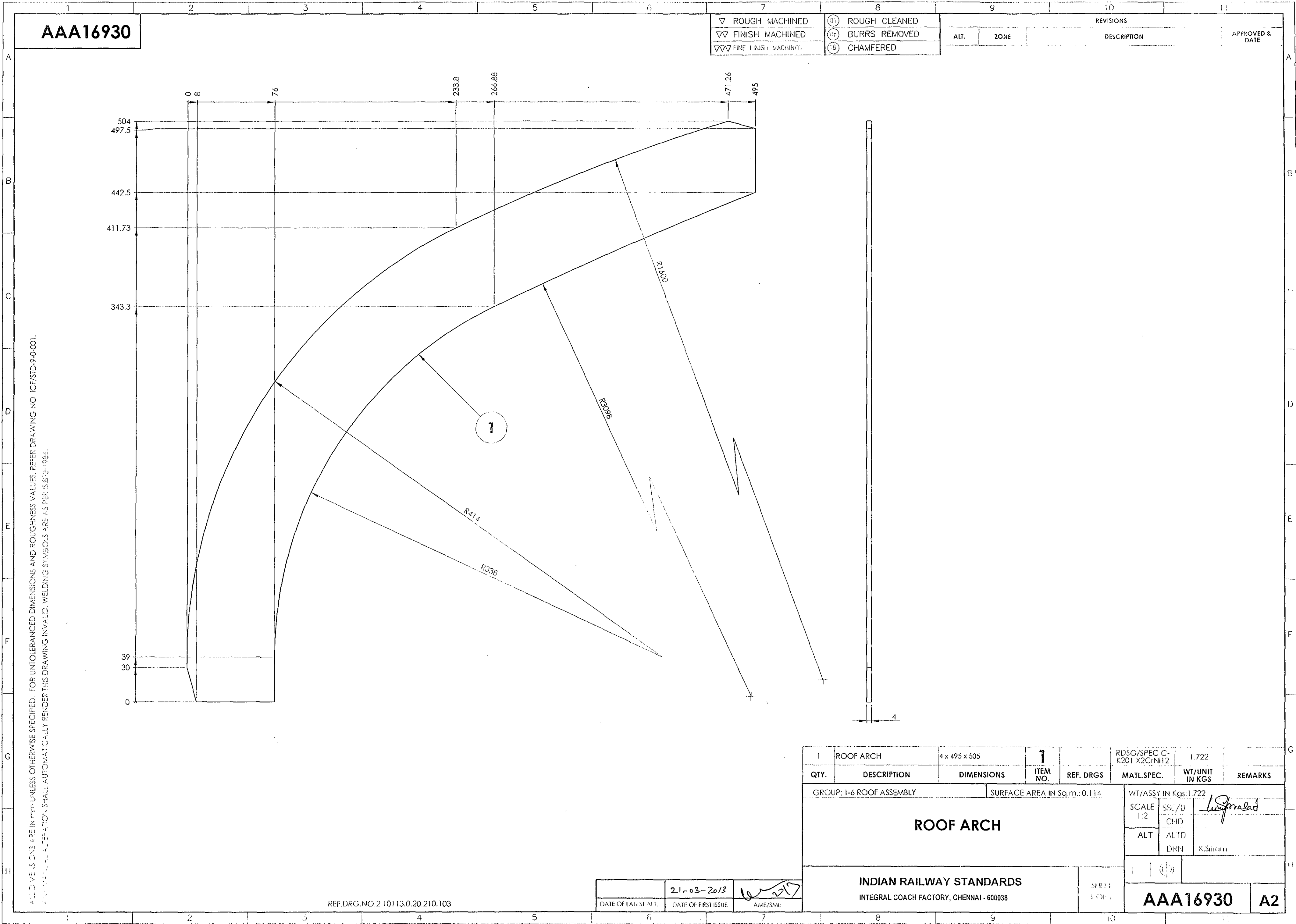


ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD 9 0 001.
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REF.DRG.NO.4 10113.0.20.200.138

DATE OF LATEST ALT.	21-03-2013	AME/SME
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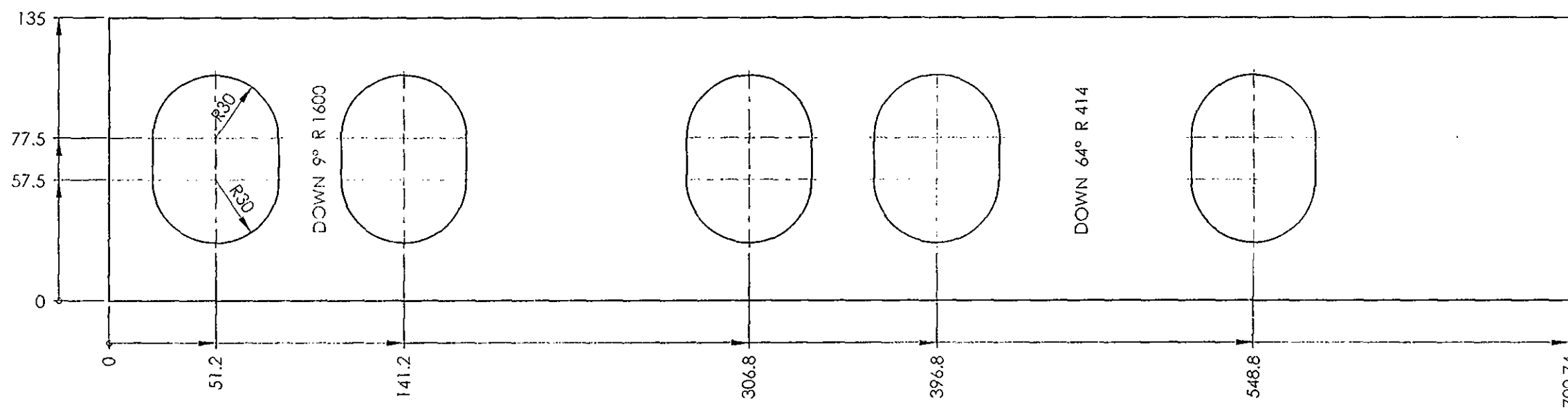
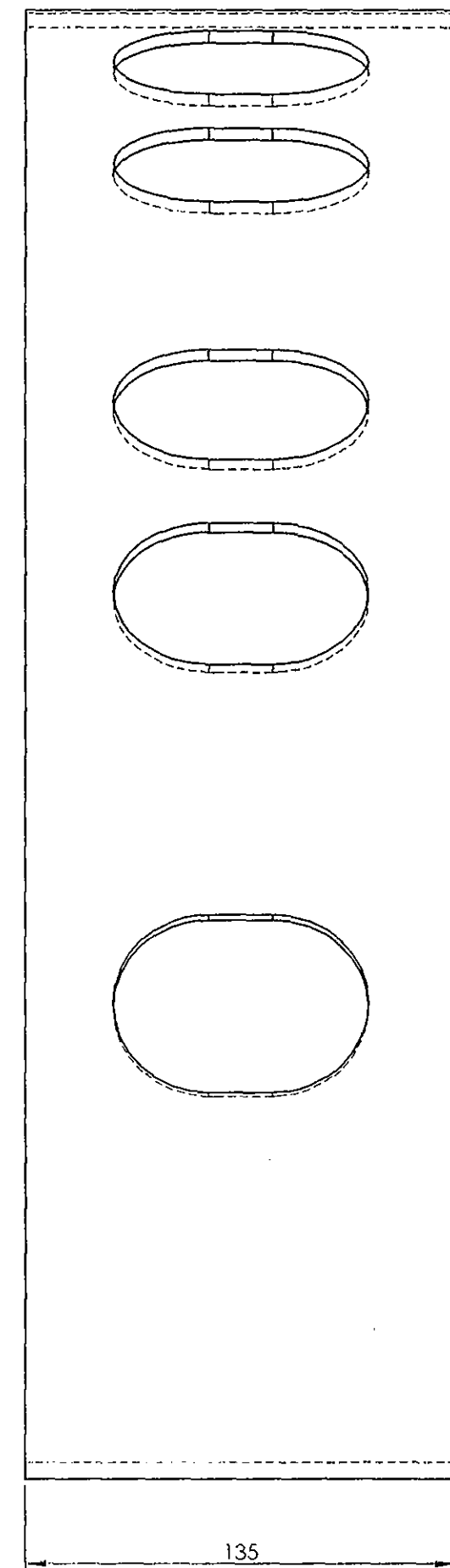
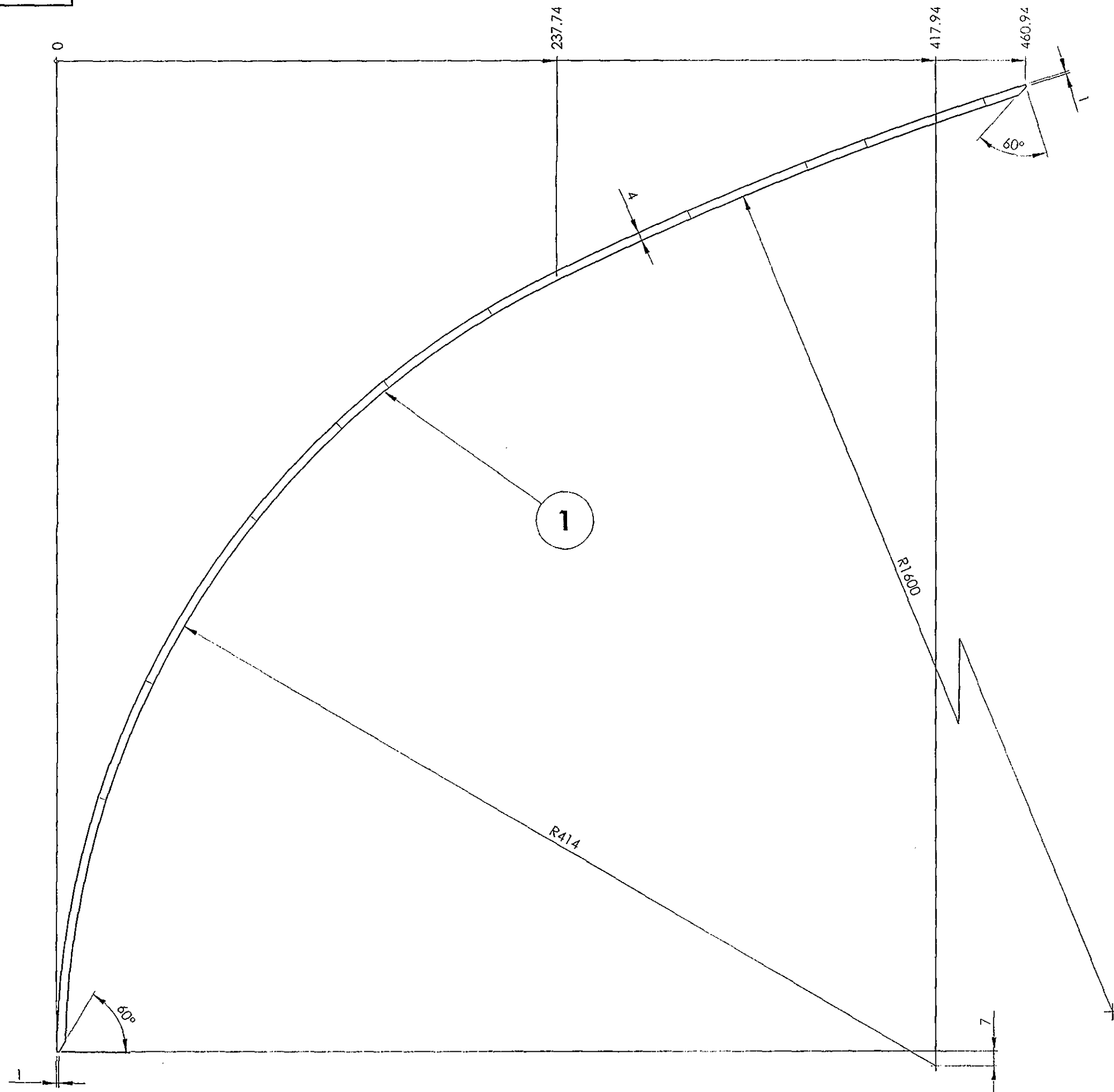
1	RIB	4 x 33.5 x 70.5	1		RDSO/SPEC C- K201 X2 Cr Ni 12	0.043	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.003			WT/ASSY IN Kgs:0.043		
RIB					SCALE	SSE/D	K. S. Prasad
					1:1	CHD	
					ALT.	ALTD	
						DRN	K. Sri ram.
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16929



AAA16932

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

REVISIONS			APPROVED & DATE
ALT.	ZONE	DESCRIPTION	



DEVELOPMENT VIEW

REF.DRG.NO.3 10113.0.20.210.117

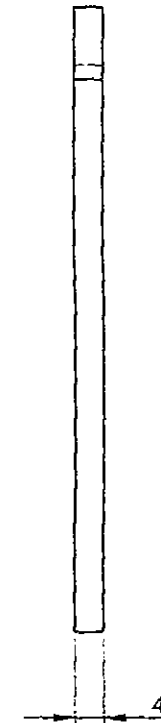
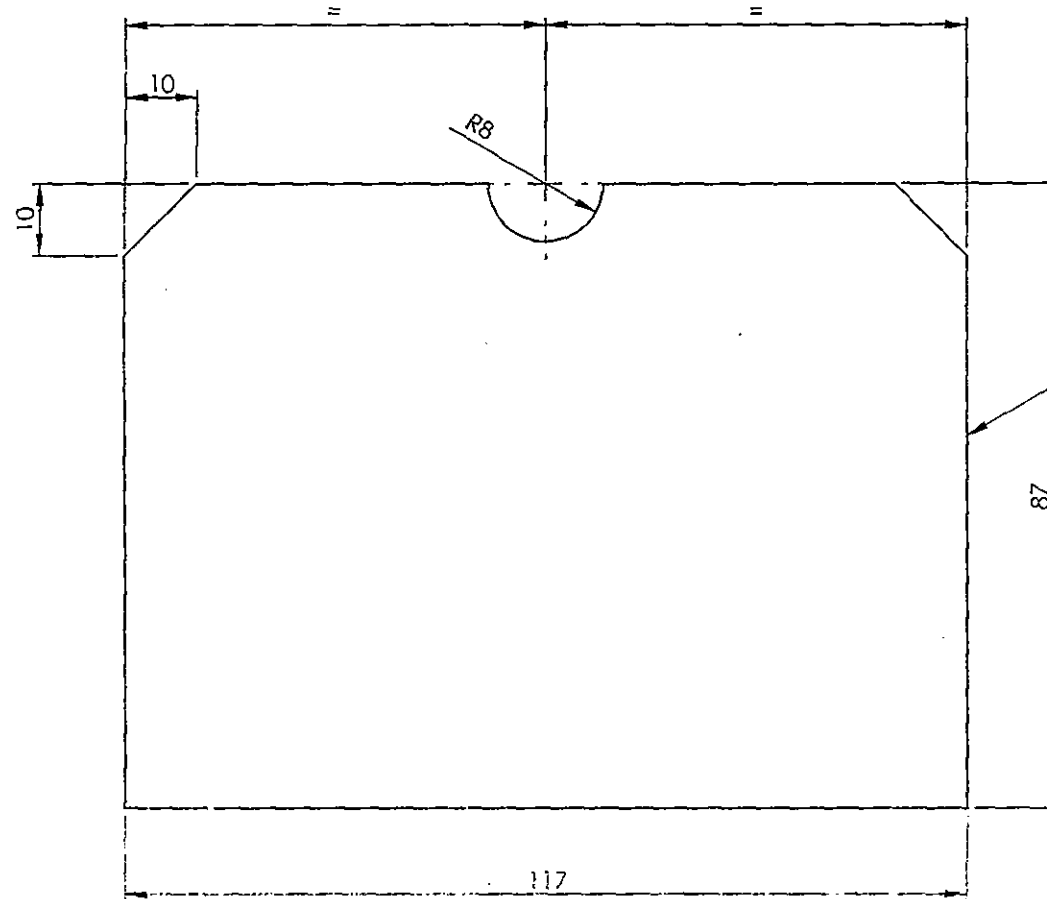
DATE OF LATEST ALT.	21-03-2013	AME/SME
DATE OF FIRST ISSUE		

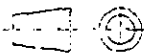
QTY.	FLANGE	4 x 135 x 701	ITEM NO. 1	REF. DRGS.	MATL. SPEC. KDSO/SPEC C 1-01 X2Cn112	WT/UNIT IN KGS 2.367	RE MARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m: 0.160		WT/ASSY IN Kgs: 2.367	
FLANGE				SCALE 1:2	SSE/D CHD		
				ALT	ALTD		
				DRN	K.Sriam		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16932	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A2	

AAA16933

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	WEB	4 x 87 x 117	1		RDSO/SPEC C- K201 X2CrNi12	0.319	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.022			WT/ASSY IN Kgs:0.319		
WEB					SCALE	SSE/D	K.Sriram
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16933

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICE/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 10113.0.20.200.122

AAA16934

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

② BURRS REMOVED

▽▽▽ FINE FINISH VAC-NEED

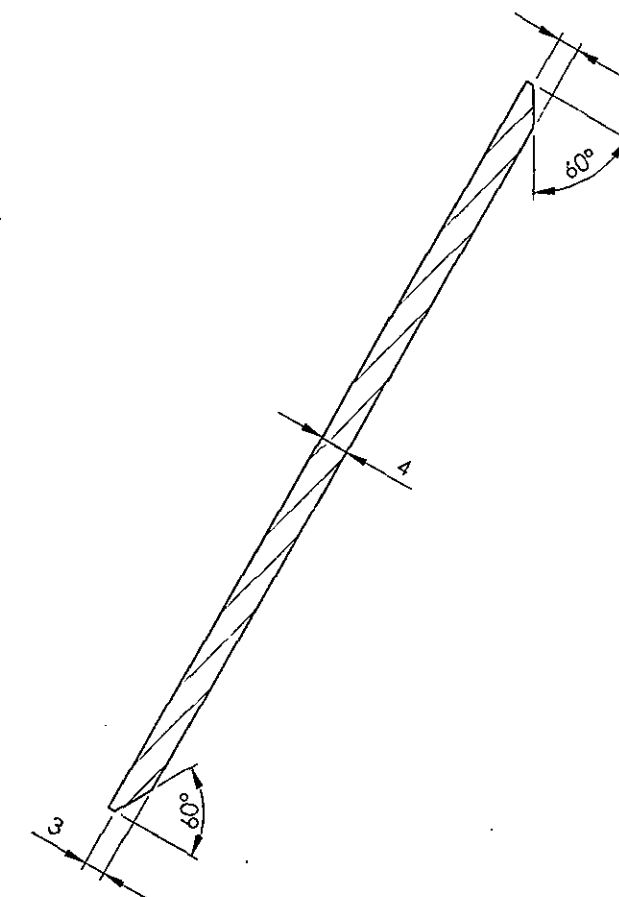
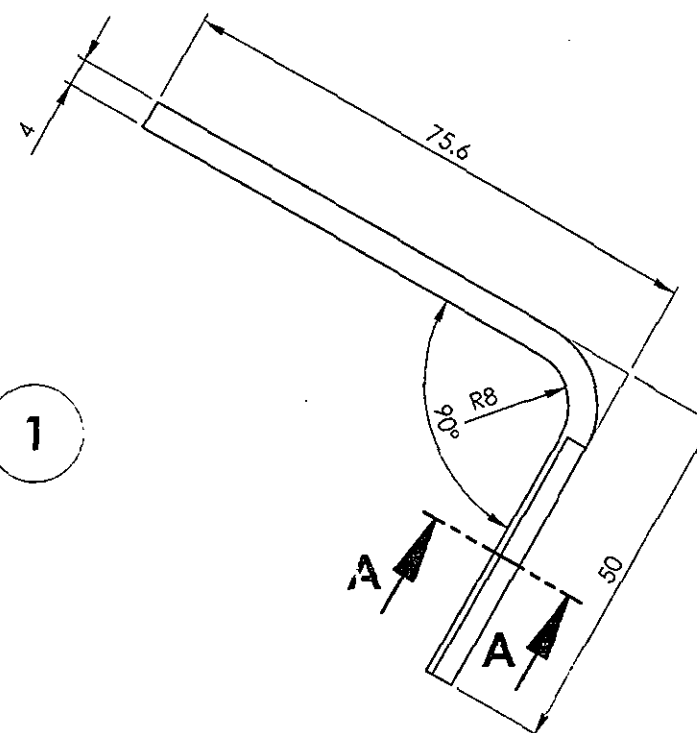
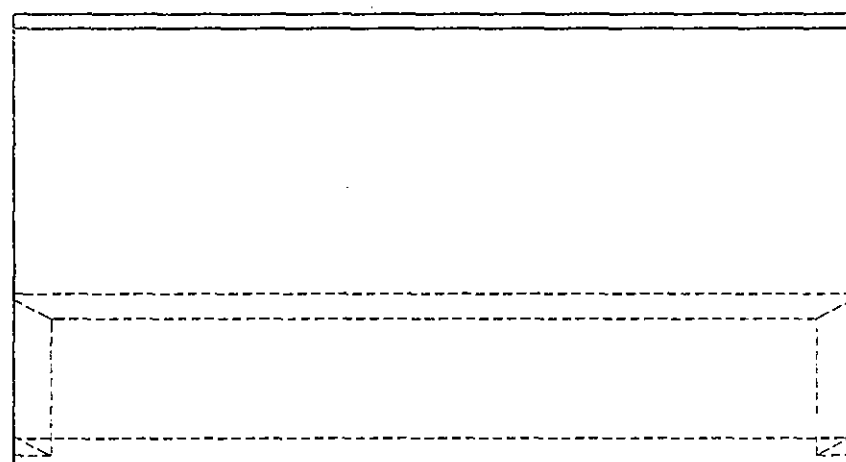
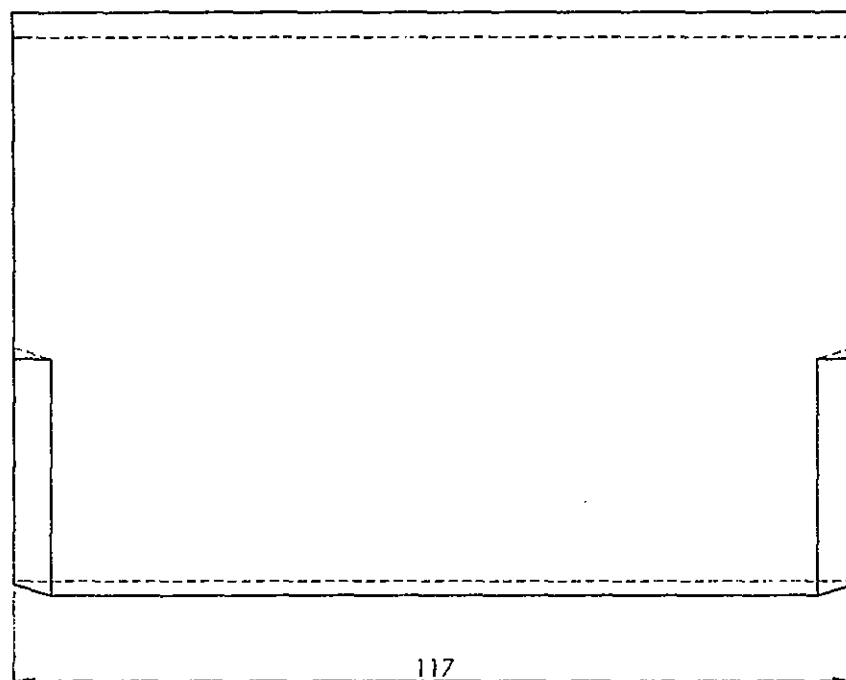
③ CHAMFERED

REVISIONS

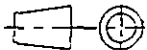
ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

SECTION A-A

1	STIFFENING ANGLE	4 x 117 x 118	1		RDSO/SPEC C- K201 X2CrNi12	0.434	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.029			WT/ASSY IN Kgs:0.434		
STIFFENING ANGLE					SCALE	SSE/D	<i>hansforas ad</i>
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16934		A3

AAA16935

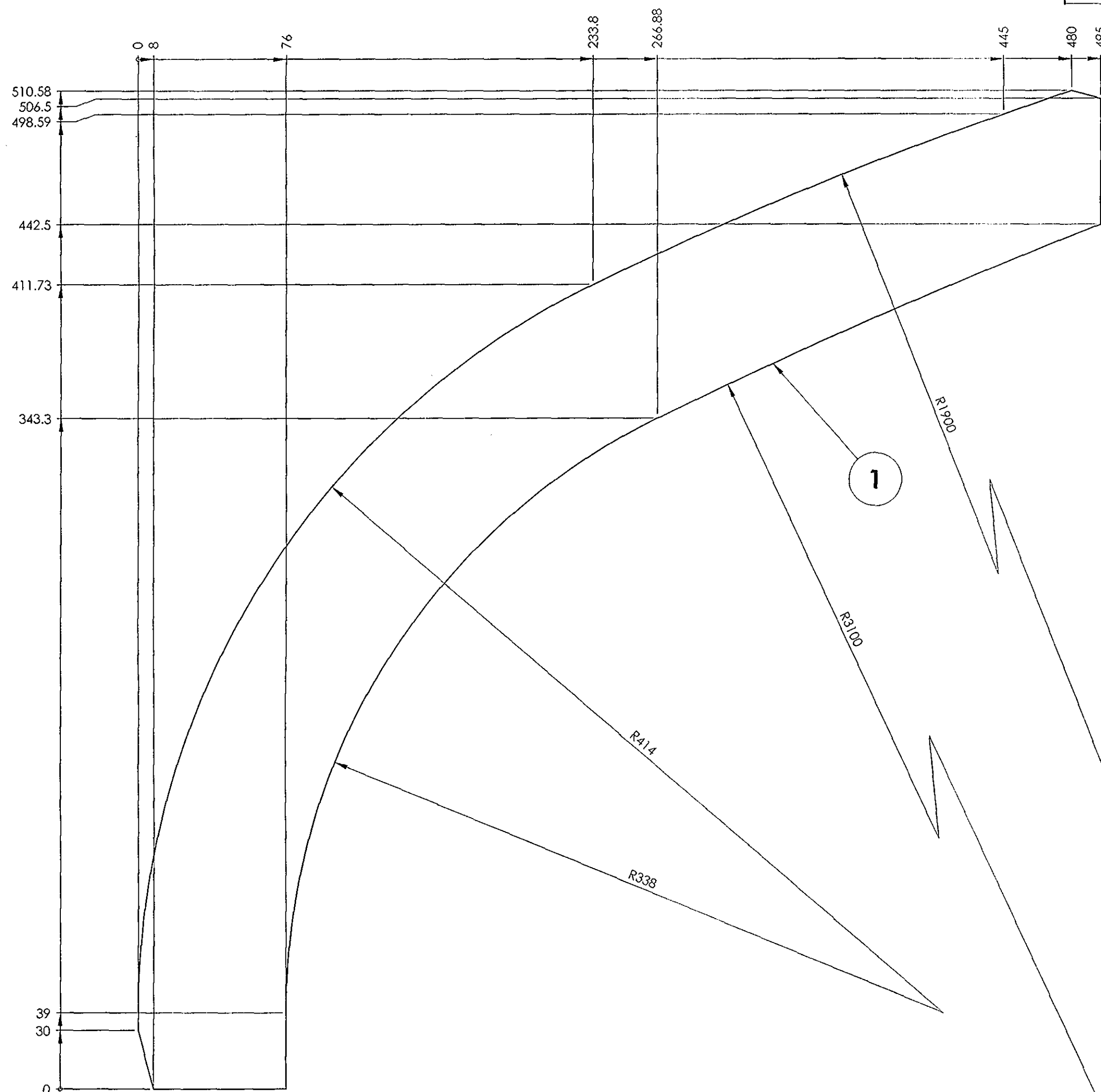
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

ALT.

ZONE

REVISIONS

DESCRIPTION

APPROVED &
DATE

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REF.DRG.NO.2 10113.0.20.210.104

DATE OF LATEST ALT.	21-03-2013	AME/SME
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1	ROOF ARCH	4 x 495 x 511	1	RDSO/SPEC C- K201 X2CIN12	1.737		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.115		WT/ASSY IN Kgs: 1.737			
ROOF ARCH				SCALE 1:2	SSE/D CHD	<i>K. Sriram</i>	
				ALT	ALTD		
				DRN	K. Sriram		
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		AAA16935 A2	

AAA16936

▽ ROUGH MACHINED	(11) ROUGH CLEANED
▽▽ FINISH MACHINED	(12) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(13) CHAMFERED

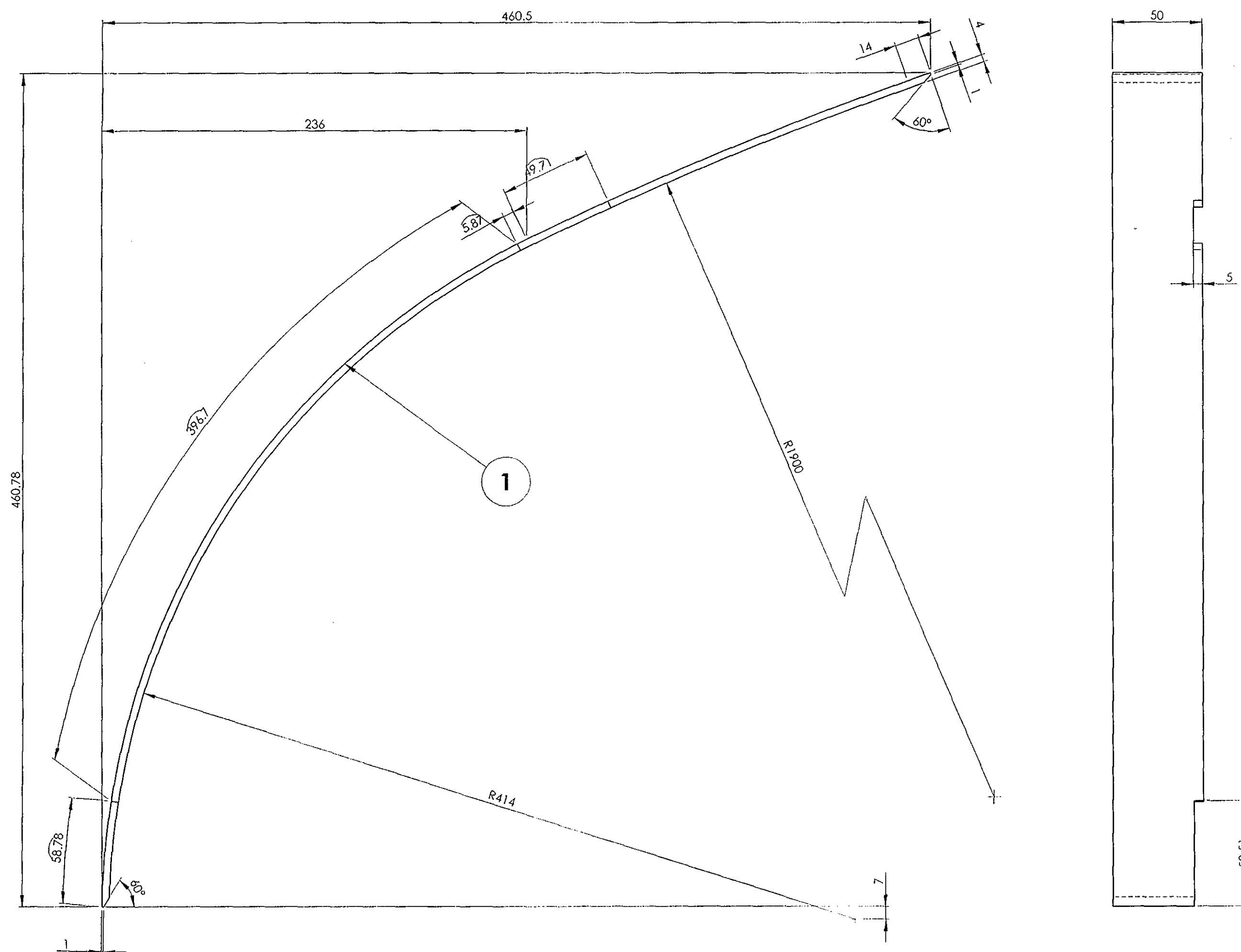
REVISIONS

DESCRIPTION

APPROVED &
DATE

ALT.

ZONE



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.

REF.DRG.NO.3 10113.0.20.210.119

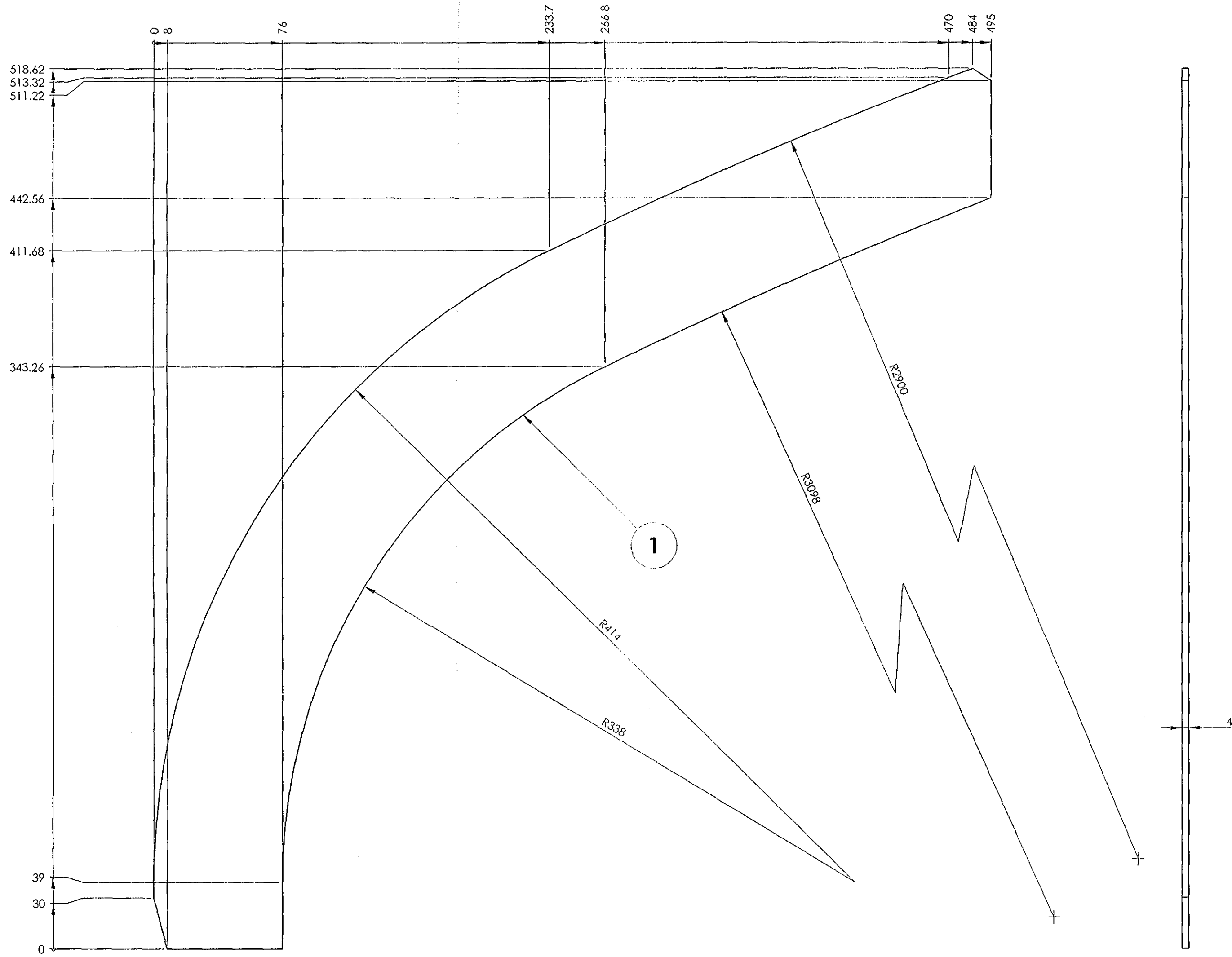
DATE OF LATEST ALI.	21-03-2013	AME/SME
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I	FLANGE	4 x 50 x 702	1	REF. DRGS	RDSO/SPEC C- K201 X2Cn12	1.098	REMARKS
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.075			WT/ASSY IN Kgs: 1.098		
FLANGE					SCALE 1:2	SSE/1 CHD	K.Sriram
					ALT	ALT DRN	
					K.Sriram		
					K.Sriram		
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA16936		
					A2		

AAA16937

▽ ROUGH MACHINED	⊕ ROUGH CLEANED
▽▽ FINISH MACHINED	⊕b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊕8 CHAMFERED

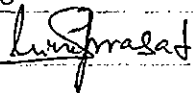
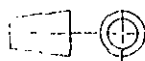
REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO IC/STD-9-0-001.
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REF.DRG.NO.2 10113.0.20.210.105

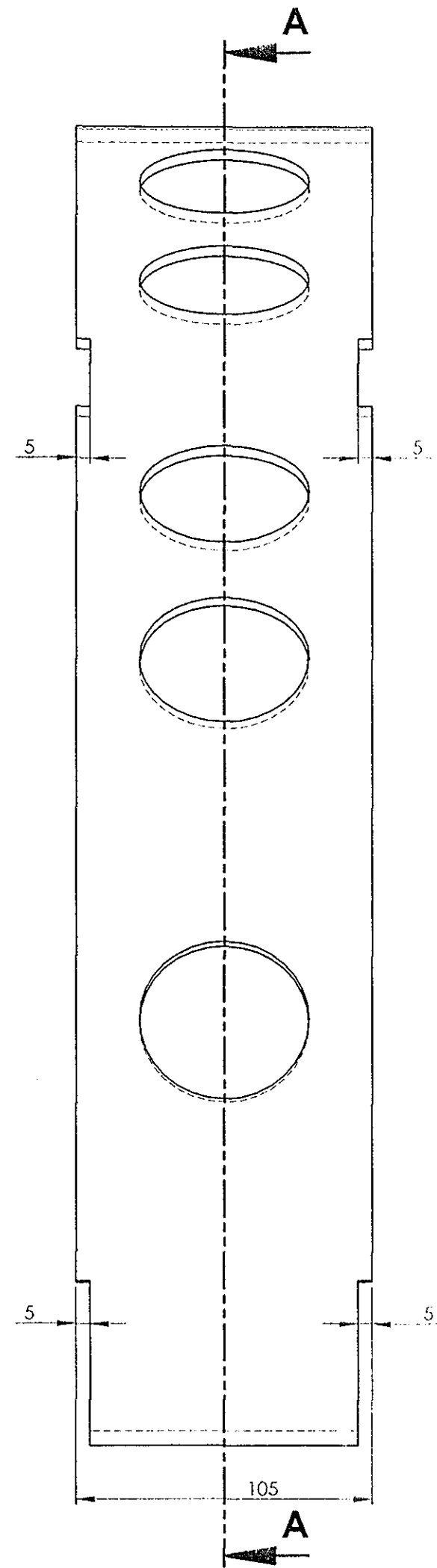
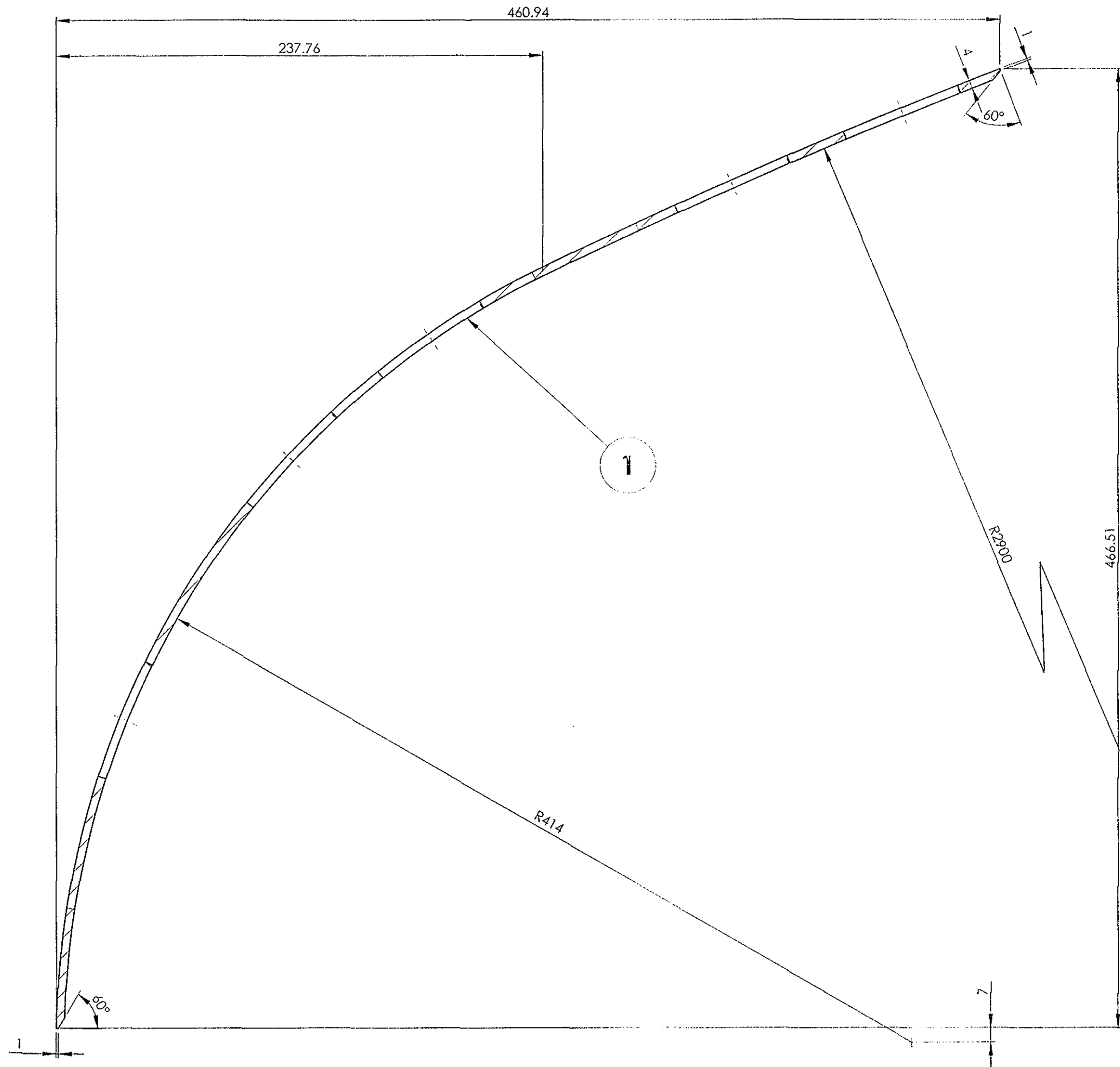
DATE OF LATEST ALT.	21-03-2013	AME/SME
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1	ROOF ARCH	4 x 495 x 519	1		RDSO/SPEC C-K201 X2CIN12	1.758	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.116			WT/ASSY IN Kgs: 1.758		
ROOF ARCH					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 Of 1			
					AAA16937		
					A2		

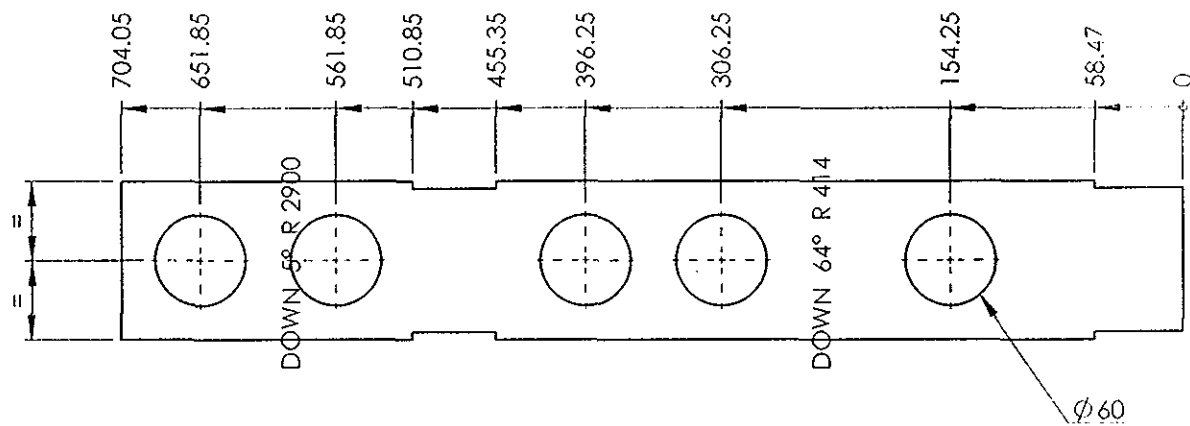
AAA16938

▽ ROUGH MACHINED	⑪ ROUGH CLEANED
▽▽ FINISH MACHINED	⑫ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑬ CHAMFERED

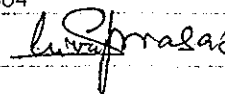
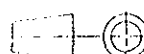
REVISIONS		APPROVED & DATE	
ALT.	ZONE	DESCRIPTION	



SECTION A-A



DEVELOPMENT VIEW

1	FLANGE	4 x 105 x 705	1		RDSO/SPEC C-K201 X2CrNi12	1.864	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: I-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.127			WT/ASSY IN Kgs: 1.864		
FLANGE					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA16938	A2

DATE OF LATEST ALL.	21-03-2013	AME/SME
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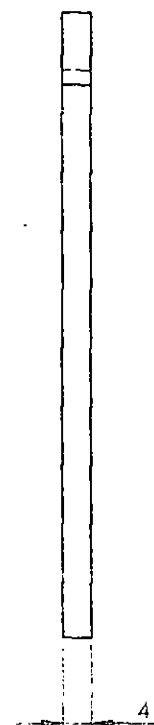
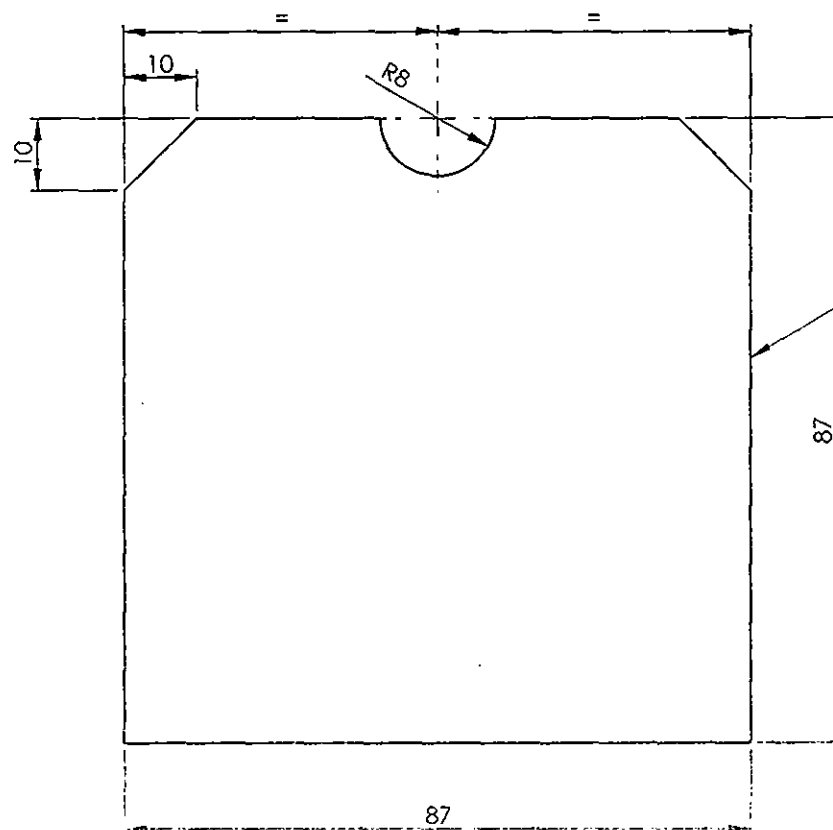
REF.DRG.NO.3 10113.0.20.210.121

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.

AAA16939

▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ V.E. - V.S. - VAC - V.D.	⊖⊖⊖ CHAMFERED

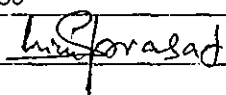
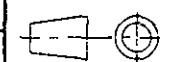
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



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 10113.0.20.200.121

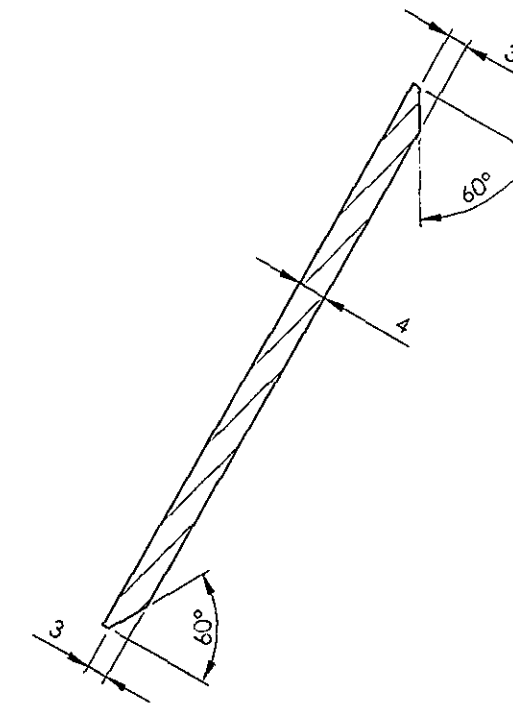
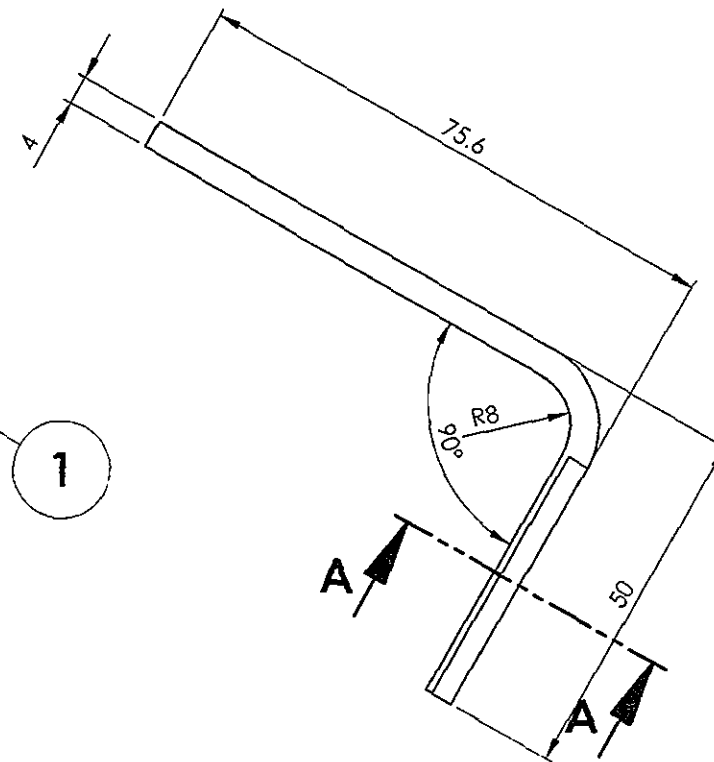
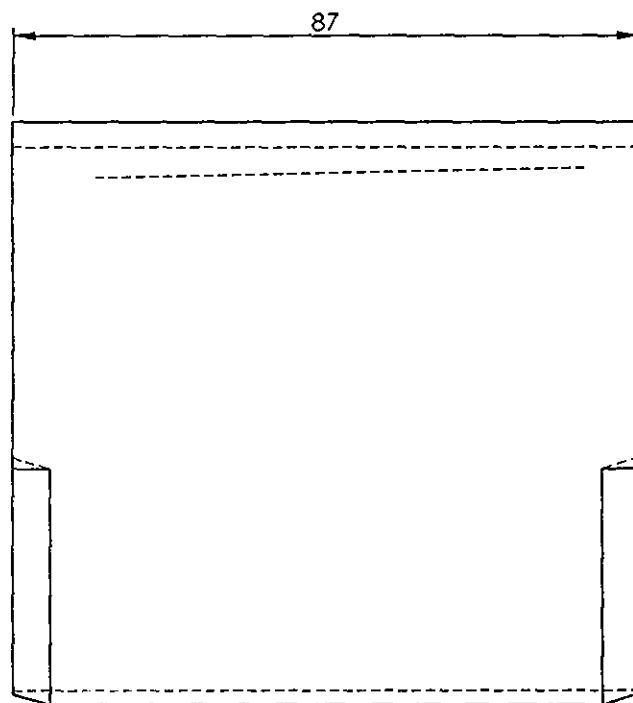
	21-03-2013	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	WEB	4 x 87 x 87	1		RDSO/SPEC C-K201 X2CrNi12	0.236	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.016			WT/ASSY IN Kgs:0.236		
WEB					SCALE	SSE/D	
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Srirom
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16939
							A3

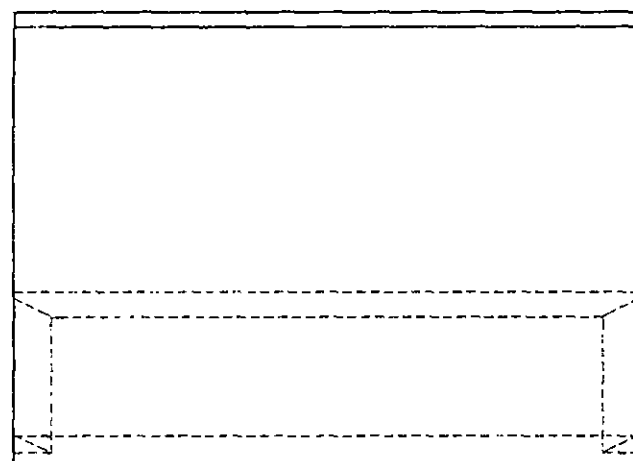
AAA16940

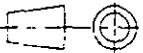
▽ ROUGH MACHINED	⊖ ROUGH CLEANED
▽▽ FINISH MACHINED	⊖⊖ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⊖⊖⊖ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			



SECTION A-A



1	STIFFENING ANGLE	4 x 87 x 118	1		RDSO/SPEC C- K201 X2CrNi12	0.322	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.022			WT/ASSY IN Kgs:0.322		
STIFFENING ANGLE					SCALE	SSE/D	<i>K.Sriram</i>
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1	AAA16940	
						A3	

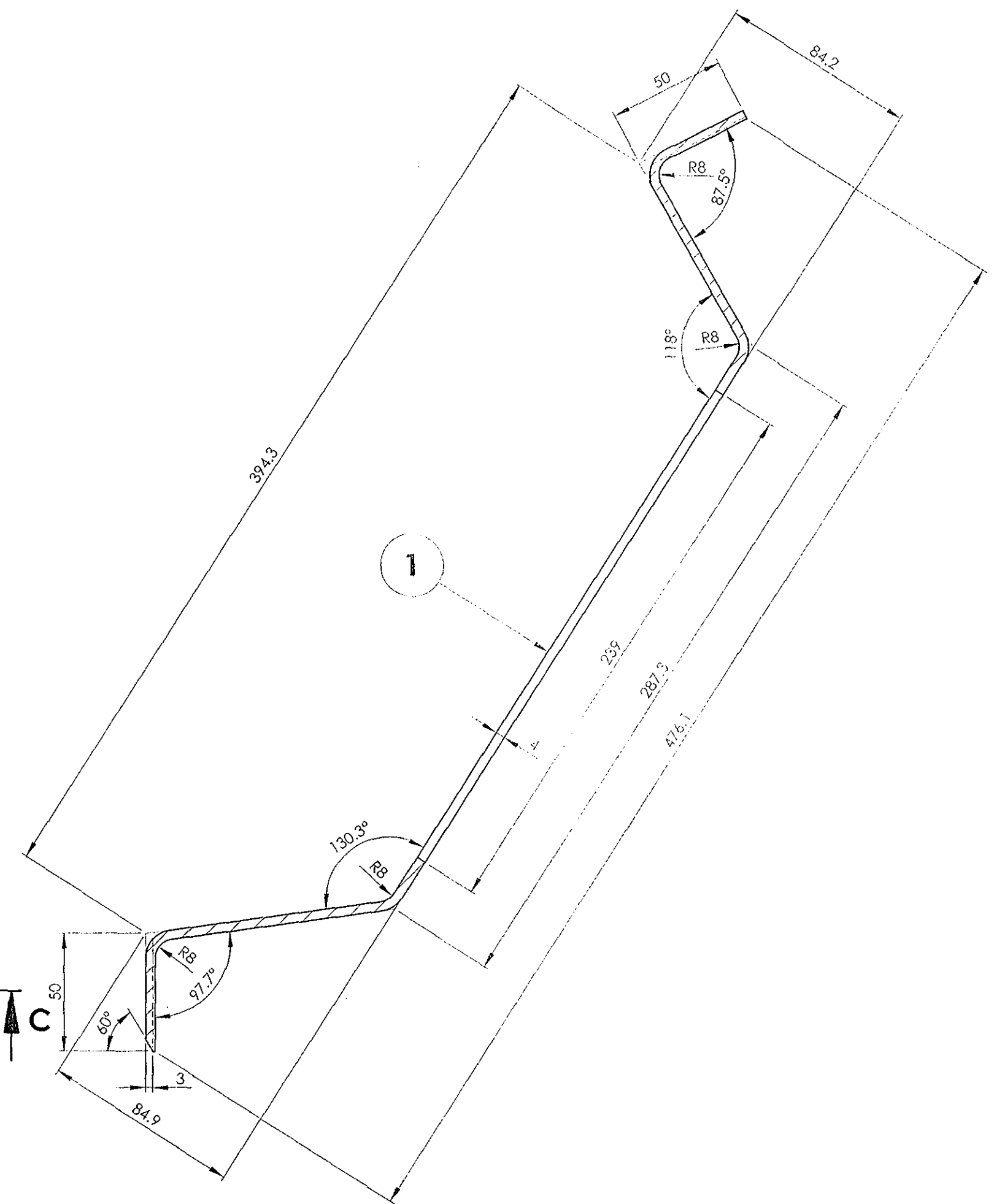
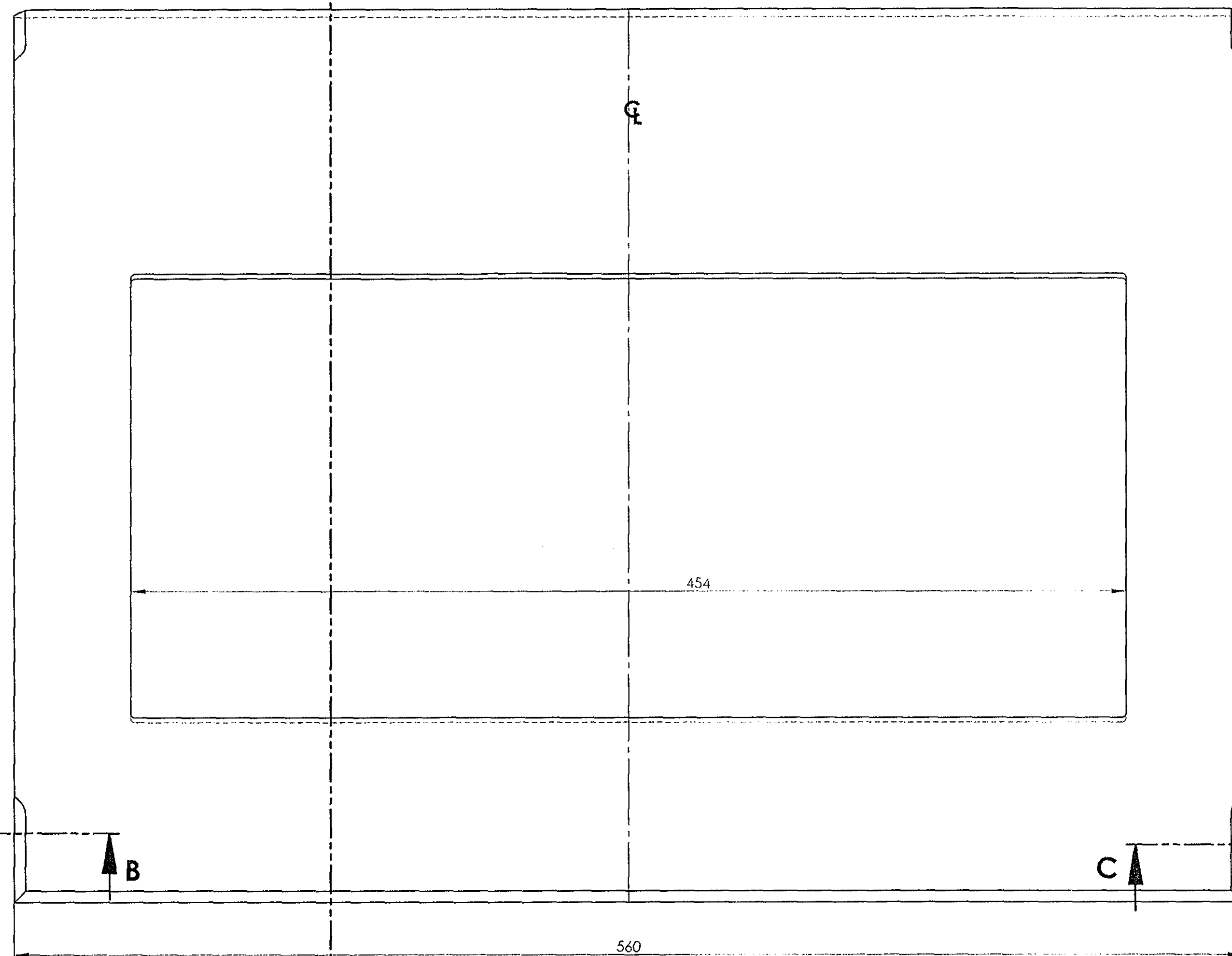
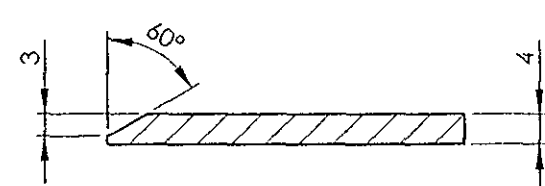
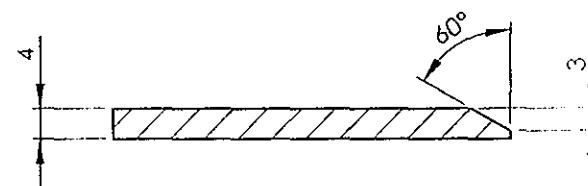
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICT/STD-9-0-001.
ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813 1986.

REF.DRG.NO.3 10113.0.20.200.117

AAA16941

▽ ROUGH MACHINED	⑥1 ROUGH CLEANED
▽▽ FINISH MACHINED	⑥1b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑥1c CHAMFERED

REVISIONS				APPROVED & DATE
ALT.	ZONE	DESCRIPTION		

SECTION A-A
SCALE 1 : 2SECTION B-B
SCALE 1 : 1SECTION C-C
SCALE 1 : 1

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.1 10113.0.20.200.127

DATE OF LATEST ALT.	21-03-2013	AME/SME
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1	TERMINAL FRAME	4 x 560 x 568	1	REF. DRGS	RDSO/SPEC C- K201 X2CIN12	6.658	REMARKS
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.432		WT/ASSY IN Kgs: 6.658	
TERMINAL FRAME					SCALE 1:2	SSE/D CHD	<i>Surfaced</i>
					ALT	ALTD	
					DRN	DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1	AAA16941 A2	

AAA16942

1	2	3	4	5	6	7	8	
			▽ ROUGH MACHINED	⊙ ROUGH CLEANED	REVISIONS			
			▽▽ FINISH MACHINED	⊙⊙ BURRS REMOVED	ALT.	ZONE	DESCRIPTION	APPROVED & DATE
			▽▽▽ FINE FINISH MACHINED	⊙⊙⊙ CHAMFERED				

SECTION A-A
SCALE 1 : 1

1	2	3	4	5	6	7	8
1	CLOSING ANGLE	2 x 101 x 387	1		RDSO/SPEC C- K201 X2CrNi12	0.556	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.071		WT/ASSY IN Kgs:0.556			
CLOSING ANGLE					SCALE	SSE/D	<i>K. Sriram</i>
					1:2	CHD	
					ALT.	ALTD	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					DRN	K.Sriram	
					SHEET 1 OF 1		
					AAA16942		A3

REF.DRG.NO.3 10113.0.20.200.128

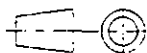
DATE OF LATEST ALT. 21-03-2013

DATE OF FIRST ISSUE

AME/SME

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

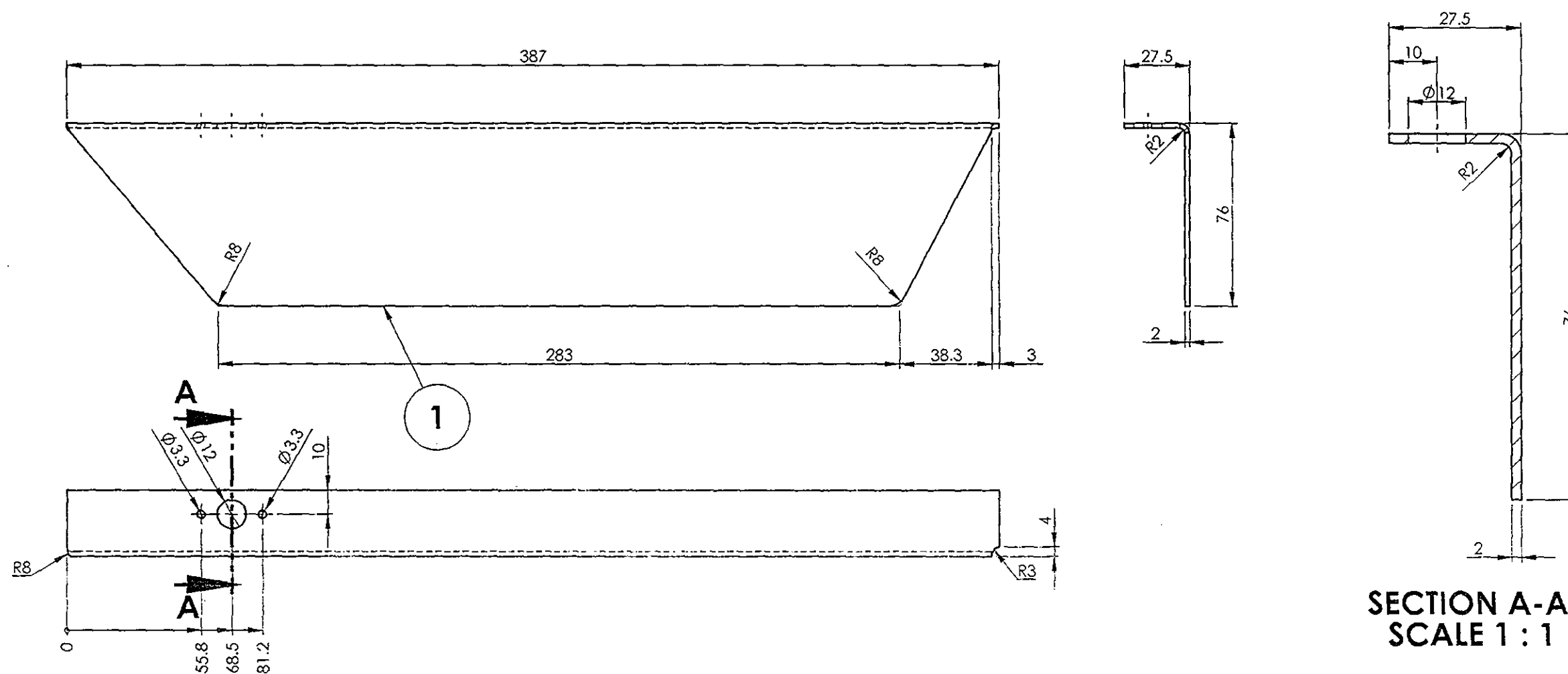


1	CLOSING ANGLE	2 x 101 x 387	1		RDSO/SPEC C- K201 X2CrNi12	0.556	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.071			WT/ASSY IN Kgs:0.556		
CLOSING ANGLE					SCALE	SSE/D	<i>h. a. prasad</i>
					1:2	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			A3

AAA16943

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE

SECTION A-A
SCALE 1:1

1	CLOSING ANGLE	2 x 101 x 387	1		RDSO/SPEC C-K201 X2CrNi12	0.069	
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:0.56	
CLOSING ANGLE					SCALE 1:2	SSE/D	Signature
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038					AAA16943		
					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.

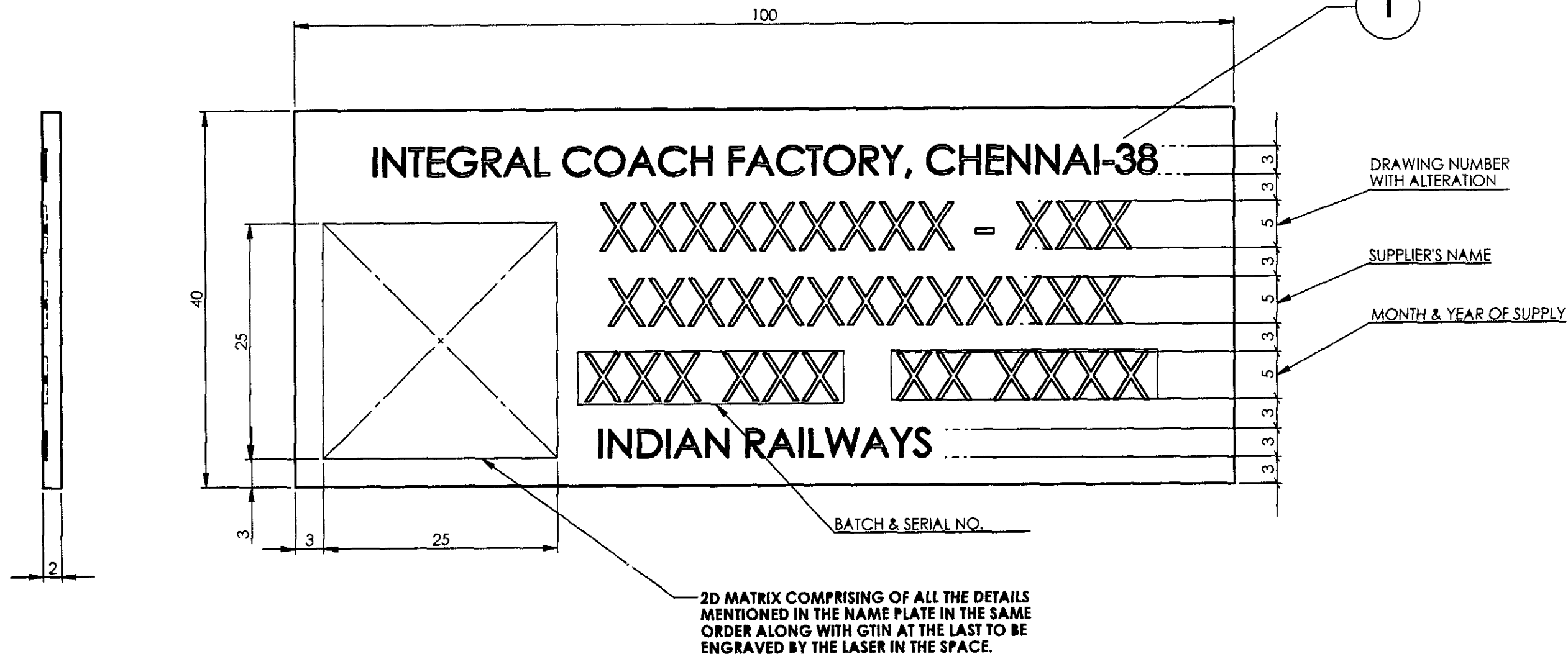
REF.DRG.NO.3 10113.0.20.200.129

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

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		
INDIAN RAILWAY STANDARDS				ALT. d	ALTD	KUNTI THAKUR	
				ALT. d	DRN	G. NAGESWARAN	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA51072 A3	
INTEGRAL COACH FACTORY, CHENNAI - 600038							

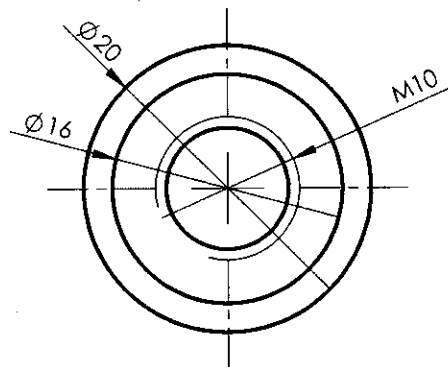
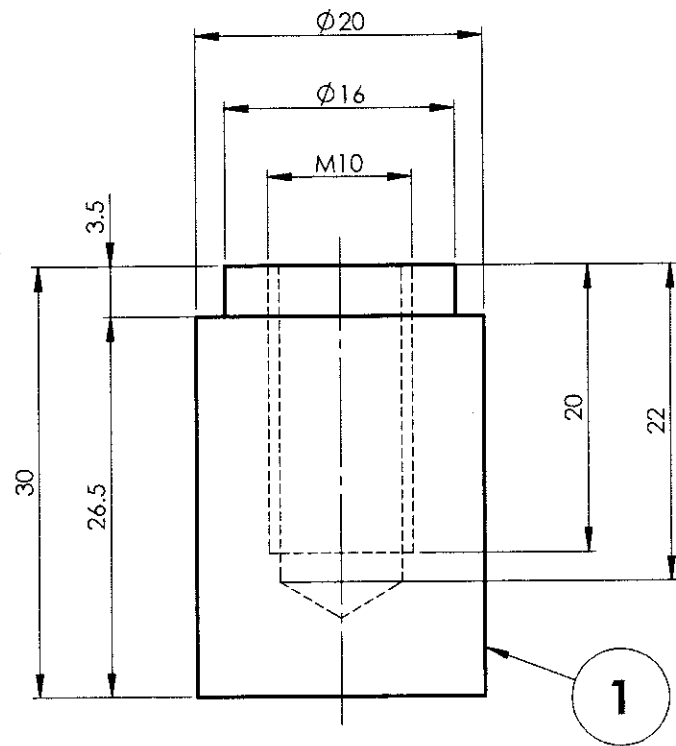
06-07-2024	02.06.2010	<i>sd</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

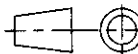
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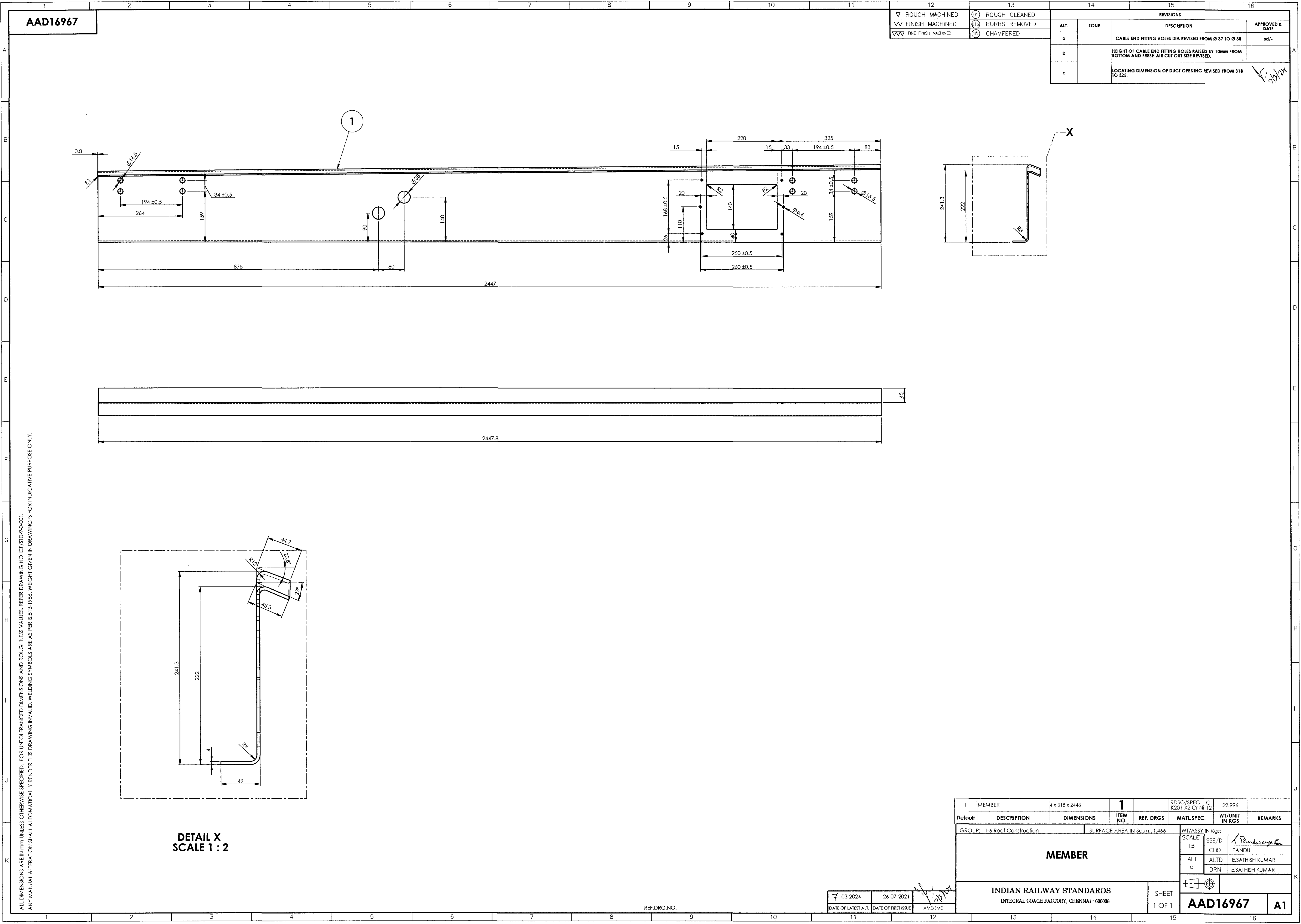
1		2		3		4		5		6		7		8																																																																			
AAD16738				▽ ROUGH MACHINED		⑩1 ROUGH CLEANED		REVISIONS																																																																									
				▽▽ FINISH MACHINED		⑩1b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE																																																																			
				▽▽▽ FINE FINISH MACHINED		⑩8 CHAMFERED																																																																											
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<table><tr><td>1</td><td>TIE ROD</td><td>Ø8x232</td><td>1</td><td></td><td>AISI-304</td><td>0.09</td><td></td></tr><tr><td>Default</td><td>DESCRIPTION</td><td>DIMENSIONS</td><td>ITEM NO</td><td>REF. DRGS</td><td>MATL.SPEC.</td><td>WT/UNIT IN KGS</td><td>REMARKS</td></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="5" rowspan="3">TIE ROD</td><td>SCALE</td><td>SSE/D</td><td rowspan="2">P.MURUGAN</td></tr><tr><td>1:1</td><td>CHD</td></tr><tr><td>ALT.</td><td>ALTD</td><td></td></tr><tr><td colspan="5" rowspan="2">INDIAN RAILWAY STANDARDS</td><td>DRN</td><td></td><td></td></tr><tr><td colspan="3">INTEGRAL COACH FACTORY, CHENNAI - 600038</td><td colspan="2">SHEET 1 OF 1</td></tr><tr><td colspan="2">REF.DRG.NO.</td><td colspan="2">-06-2020</td><td colspan="2">N.K.X</td><td colspan="2">AAD16738</td></tr><tr><td colspan="2">DATE OF LATEST ALT.</td><td colspan="2">DATE OF FIRST ISSUE</td><td colspan="2">AME/SME</td><td colspan="2">A3</td></tr></table>																1	TIE ROD	Ø8x232	1		AISI-304	0.09		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:		TIE ROD					SCALE	SSE/D	P.MURUGAN	1:1	CHD	ALT.	ALTD		INDIAN RAILWAY STANDARDS					DRN			INTEGRAL COACH FACTORY, CHENNAI - 600038			SHEET 1 OF 1		REF.DRG.NO.		-06-2020		N.K.X		AAD16738		DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME		A3	
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<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> ALT. ZONE DESCRIPTION APPROVED & DATE </div> </div>																																																																					
<div style="display: flex; align-items: center;"> <div style="flex: 1;"> <p style="font-size: 0.8em; margin: 0;">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="flex: 2;"> </div> </div>																																																																													
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%;">1</td> <td style="width: 45%;">SCREWING PIECE</td> <td style="width: 20%;">Ø 20 X 30</td> <td style="width: 5%;">1</td> <td style="width: 10%;">REF. DRGS</td> <td style="width: 10%;">AISI 304</td> <td style="width: 10%;">0.06</td> <td style="width: 15%;">REMARKS</td> </tr> <tr> <td>QTY</td> <td>DESCRIPTION</td> <td>DIMENSIONS</td> <td>ITEM NO.</td> <td>REF. DRGS</td> <td>MATL.SPEC.</td> <td>WT/UNIT IN KGS</td> <td></td> </tr> <tr> <td colspan="5">GROUP: 1-6 Roof Construction</td> <td colspan="2">SURFACE AREA IN Sq.m.:</td> <td>WT/ASSY IN Kgs:</td> </tr> <tr> <td colspan="5" rowspan="3" 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="3" 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> </tr> <tr> <td colspan="5" rowspan="2" style="text-align: center; vertical-align: middle;"> <div style="font-weight: bold;">INDIAN RAILWAY STANDARDS</div> <div style="font-size: 0.8em;">INTEGRAL COACH FACTORY, CHENNAI - 600038</div> </td> <td>DRN</td> <td>S K MUTHUKUMAR</td> </tr> <tr> <td colspan="2" style="text-align: center;"> </td> <td></td> </tr> <tr> <td colspan="4" 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> </tr> <tr> <td colspan="4" 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;"> SHEET 1 OF 1 </div> </td> <td colspan="2" style="text-align: center;"> <div style="border: 1px solid black; padding: 2px;"> AAD16884 </div> </td> </tr> </table>																1	SCREWING PIECE	Ø 20 X 30	1	REF. DRGS	AISI 304	0.06	REMARKS	QTY	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS		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	<div style="font-weight: bold;">INDIAN RAILWAY STANDARDS</div> <div style="font-size: 0.8em;">INTEGRAL COACH FACTORY, CHENNAI - 600038</div>					DRN	S K MUTHUKUMAR				<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;"> REF.DRG.NO. </div>				<div style="border: 1px solid black; padding: 2px;"> SHEET 1 OF 1 </div>		<div style="border: 1px solid black; padding: 2px;"> AAD16884 </div>	
1	SCREWING PIECE	Ø 20 X 30	1	REF. DRGS	AISI 304	0.06	REMARKS																																																																						
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REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	SCREWING PIECE	Ø 20 X 30	1		AIISI 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			
					AAD16884		A3



AAD16967

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		CABLE END FITTING HOLES DIA REVISED FROM Ø 37 TO Ø 38	sd/-
b		HEIGHT OF CABLE END FITTING HOLES RAISED BY 10MM FROM BOTTOM AND FRESH AIR CUT OUT SIZE REVISED.	
c		LOCATING DIMENSION OF DUCT OPENING REVISED FROM 318 TO 325.	V. Sathish Kumar

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DETAIL X
SCALE 1 : 2

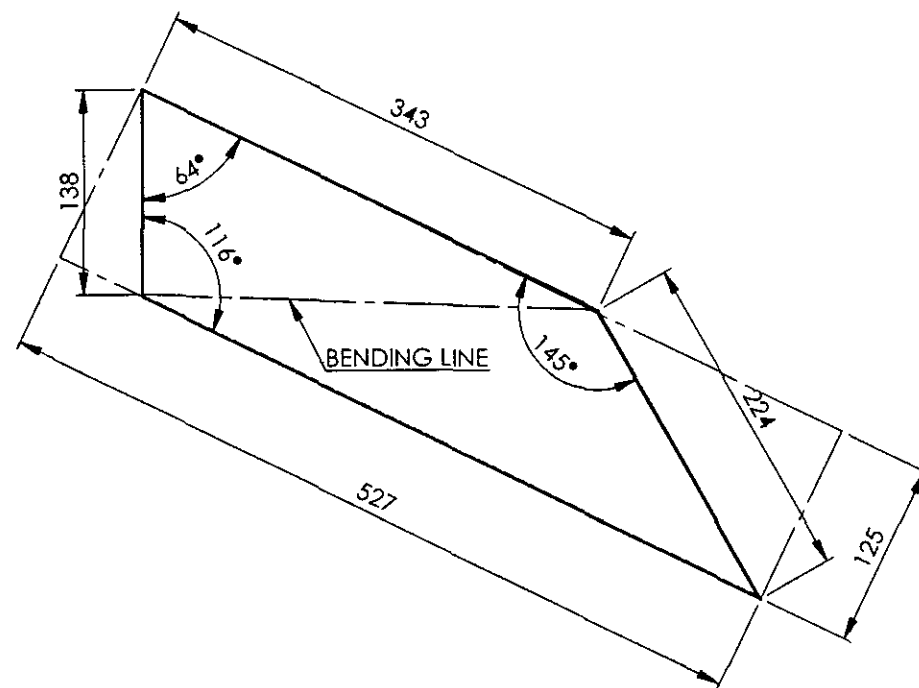
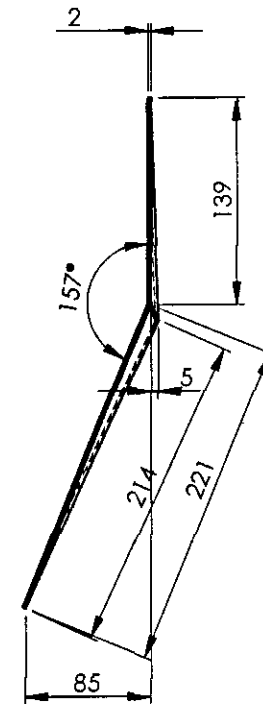
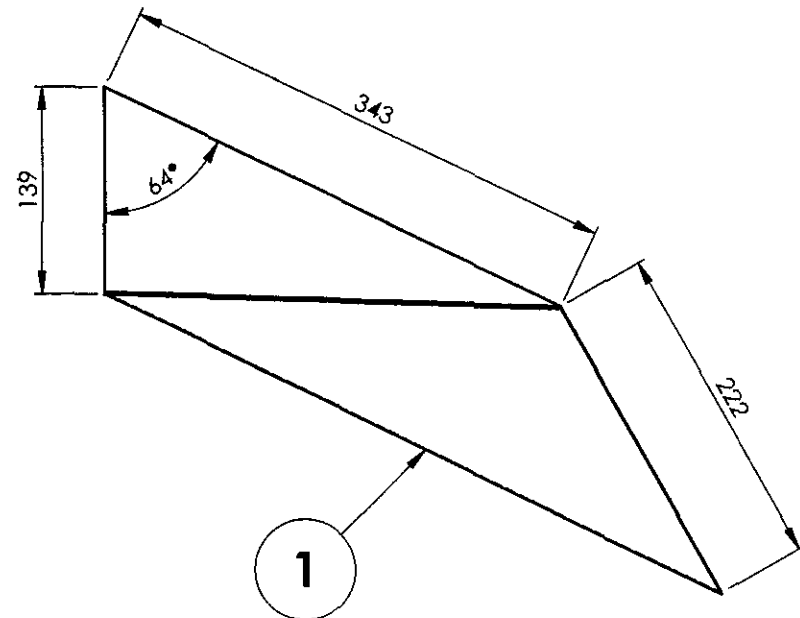
7-03-2024	26-07-2021	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

INDIAN RAILWAY STANDARDS	SHEET 1 OF 1	AAD16967	A1
INTEGRAL COACH FACTORY, CHENNAI - 600088			

AAE16686

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

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



DEVELOPMENT VIEW

1	SIDE SHEET	2 x 126 x 531	1		RDSO/SPEC C-K201 X2CrNi12	0.865	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.111			WT/ASSY IN Kgs:0.865		
SIDE SHEET					SCALE	SSE/D	<i>[Signature]</i>
					1:5	CHD	
					ALT.	ALTD	E.SATHISH KUMAR
					a	DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAE16686

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ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER IS: 813-1986.

REF.DRG.NO.3 10113.0.20.200.140

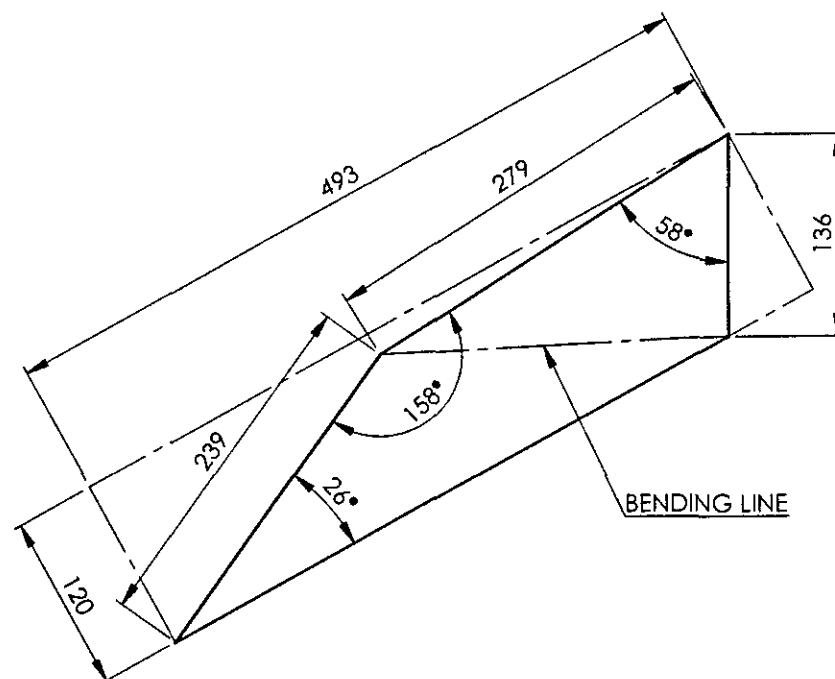
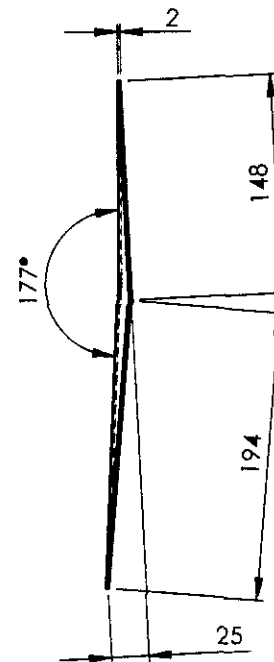
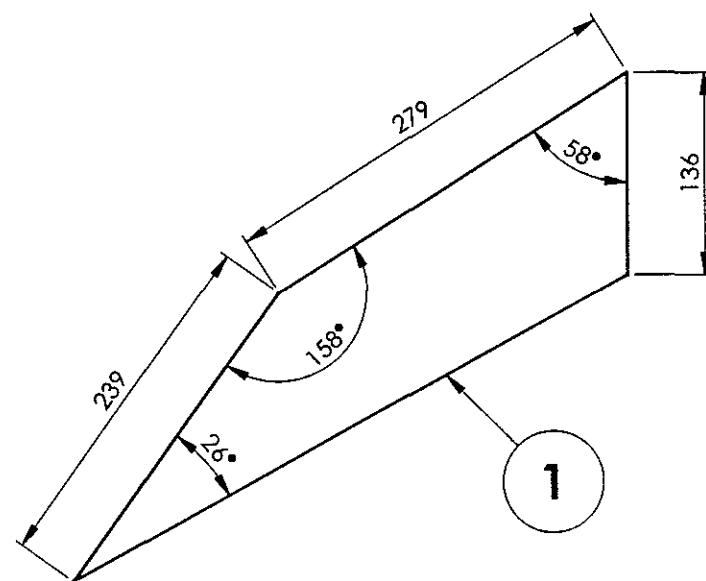
15-03-24	07-06-23	<i>[Signature]</i>
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

AAE16687

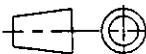
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	①b BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	①8 CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION REVISED. VIEWS UPDATED.	<i>[Signature]</i> 19/3/24



DEVELOPMENT VIEW

1	SIDE SHEET	2 x 119 x 493	1		RDSO/SPEC C-K201 X2CrNi12	0.613	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.079			WT/ASSY IN Kgs:0.613		
SIDE SHEET					SCALE	SSE/D	<i>Pandurangam</i>
					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		AAE16687

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REF.DRG.NO.3 10113.0.20.200.144

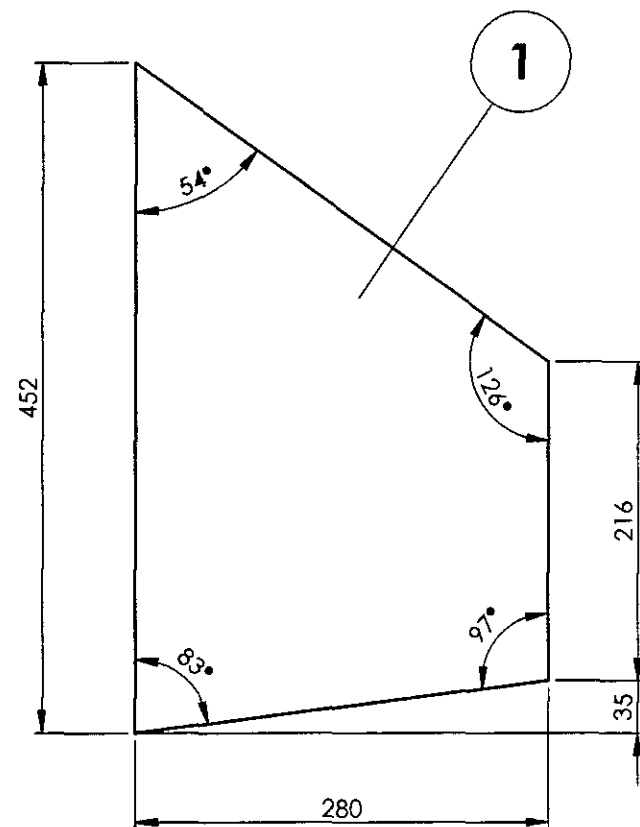
15-03-24	07-06-23	<i>[Signature]</i> 19/3/24
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME


1		2		3		4		5		6		7		8	
AAE16688				▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS							
				▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE	
				▽▽▽ FINE FINISH MACHINED		①8 CHAMFERED		a				DIMENSION REVISED. VIEWS UPDATED.		V. 15/04	
A															
B															
C															
D															
E															
F															
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.															
15-03-24 07-06-23															
DATE OF LATEST ALT. DATE OF FIRST ISSUE AAE/SME															
GROUP: 1-6 Roof Construction SURFACE AREA IN Sq.m.: 0.287 WT/ASSY IN Kgs: 2.269															
BOTTOM SHEET															
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038															
SHEET 1 OF 1															
AAE16688 A3															

AAE16689

▽ 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.	 8/3/24



1	TOP SHEET	2 x 280x 452	1		RDSO/SPEC C-K201 X2CrNi12	1.492	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.:0.189			WT/ASSY IN Kgs: 1.492		
TOP SHEET					SCALE	SSE/D	L. Dandirajulu
					1:5	CHD	
					ALT. a	ALTD	E.SATHISH KUMAR
						DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1			A3
INTEGRAL COACH FACTORY, CHENNAI - 600038							
					AAE16689		


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.

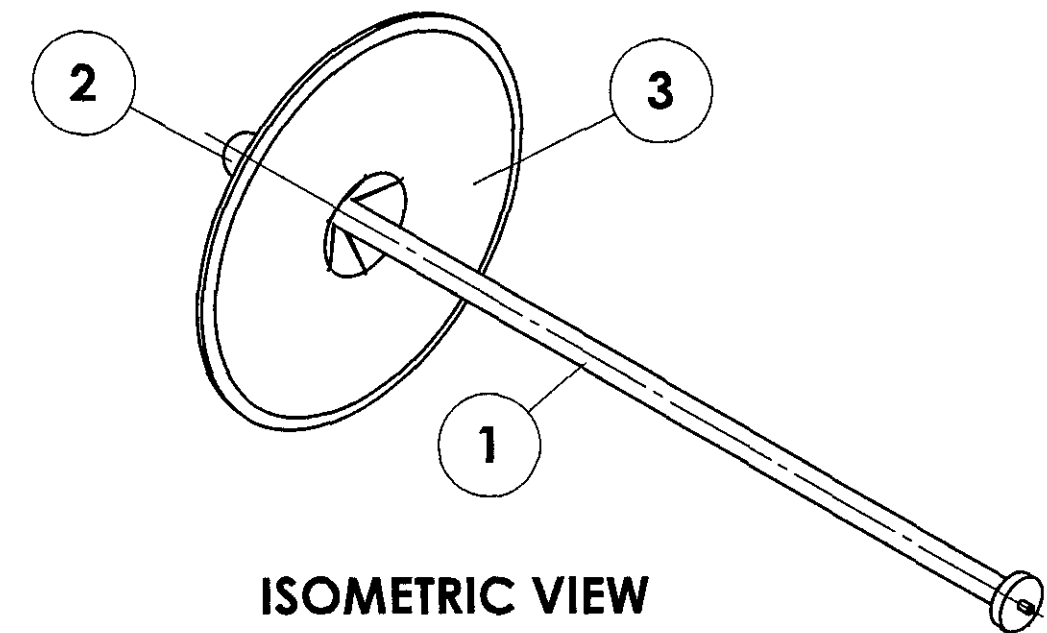
REF.DRG.NO.3 10113.0.20.200.139

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

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

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

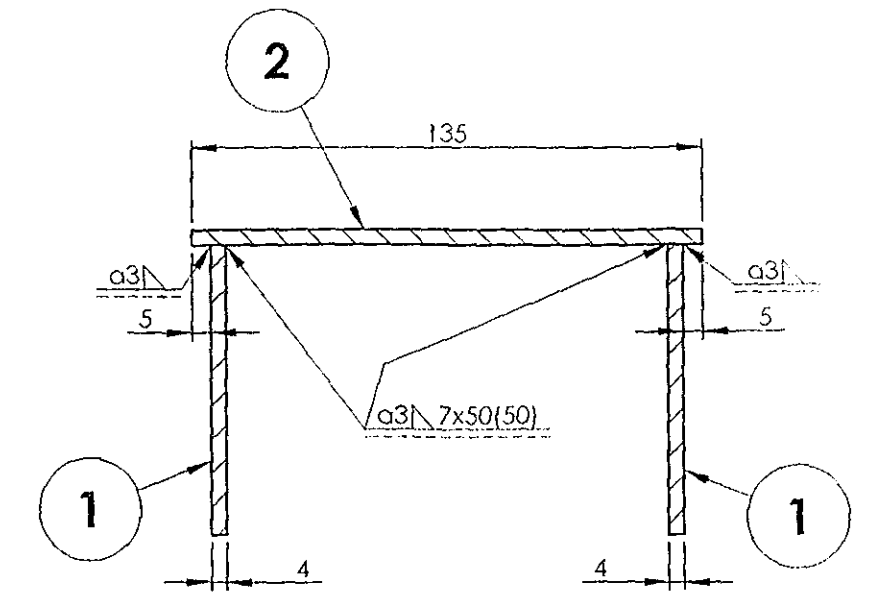
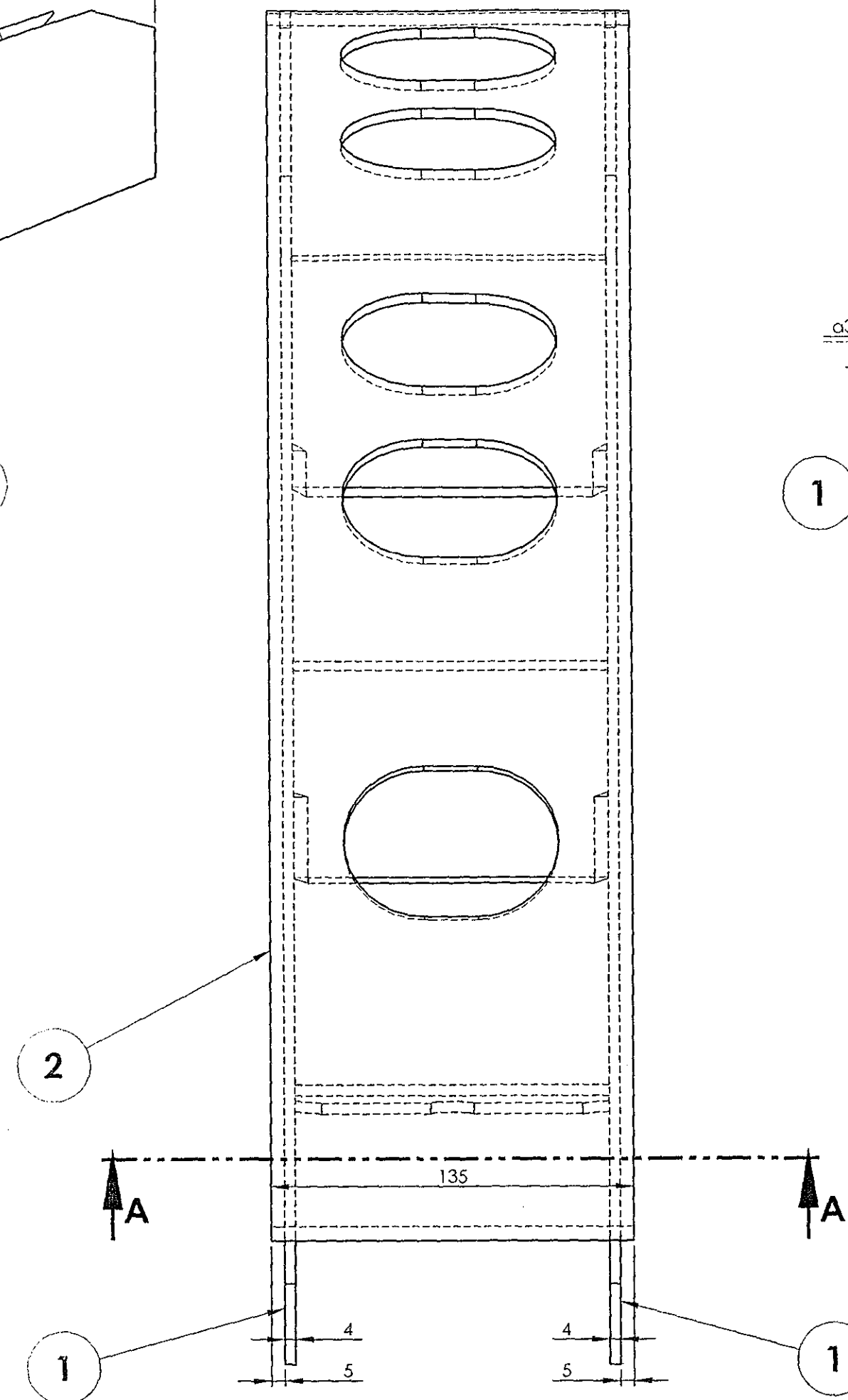
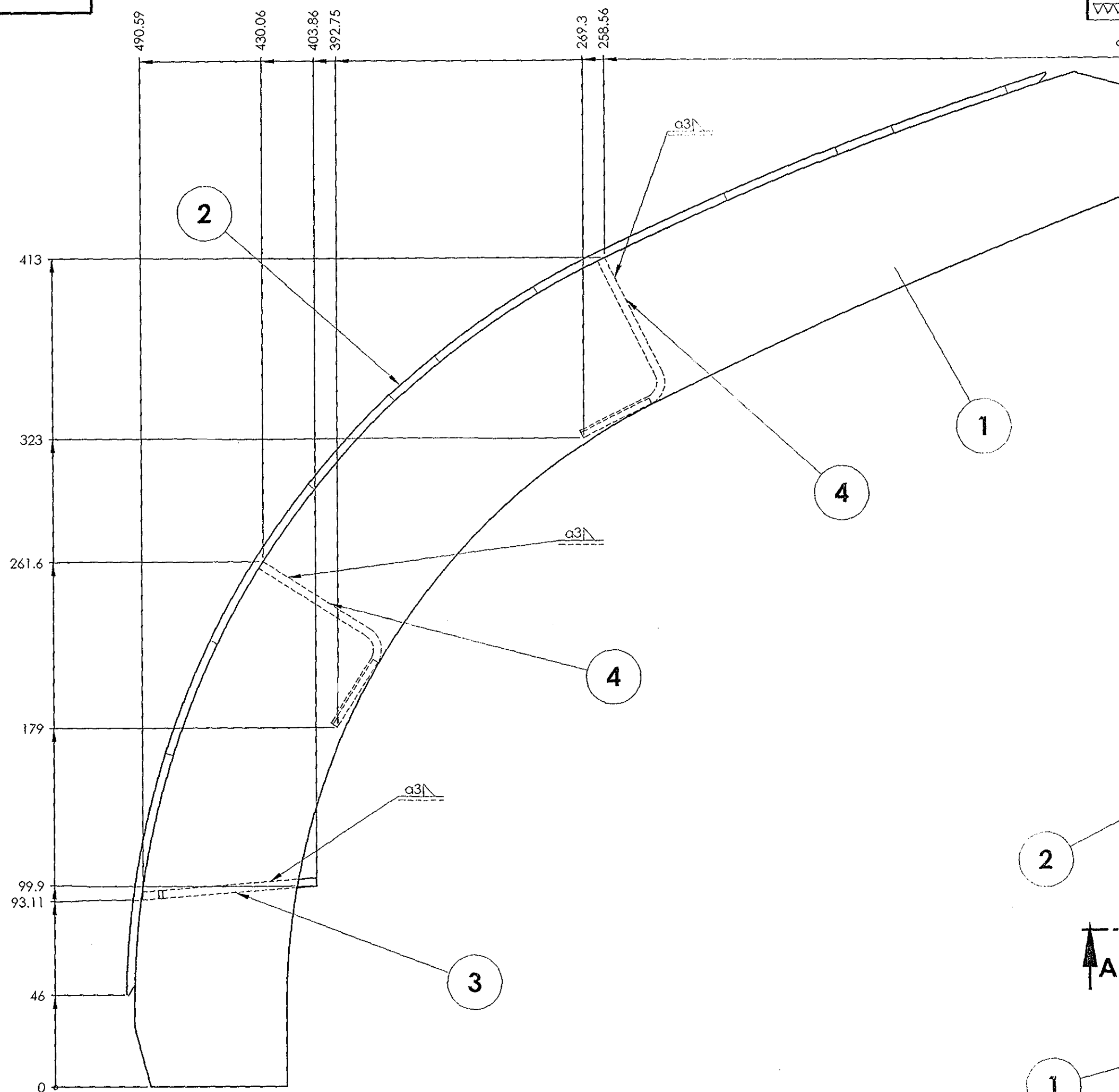
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ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553.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

59316016

▽ 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		1	AAA16930		1.722	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 ROOF ASSEMBLY SURFACE AREA IN Sq.m.: 0.467 WT/ASSY IN Kgs: 6.998

ROOF ARCH COMPLETE

SCALE 1:5	SSE/D	CHD	DRN	K.Sriram
ALT	ALTD	DRN		

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038SHEET
1 OF 1

LWSCWAC/EOG

59316016

A2

DATE OF LATEST A.D.	22-03-2013	DATE OF PRELIMINARY ISSUE	22-03-2013	AMP/SMF
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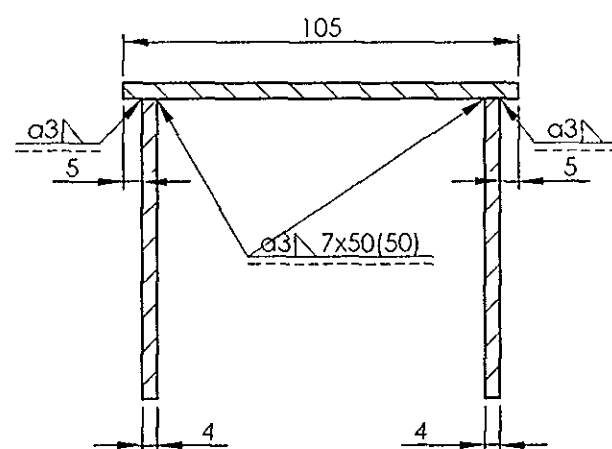
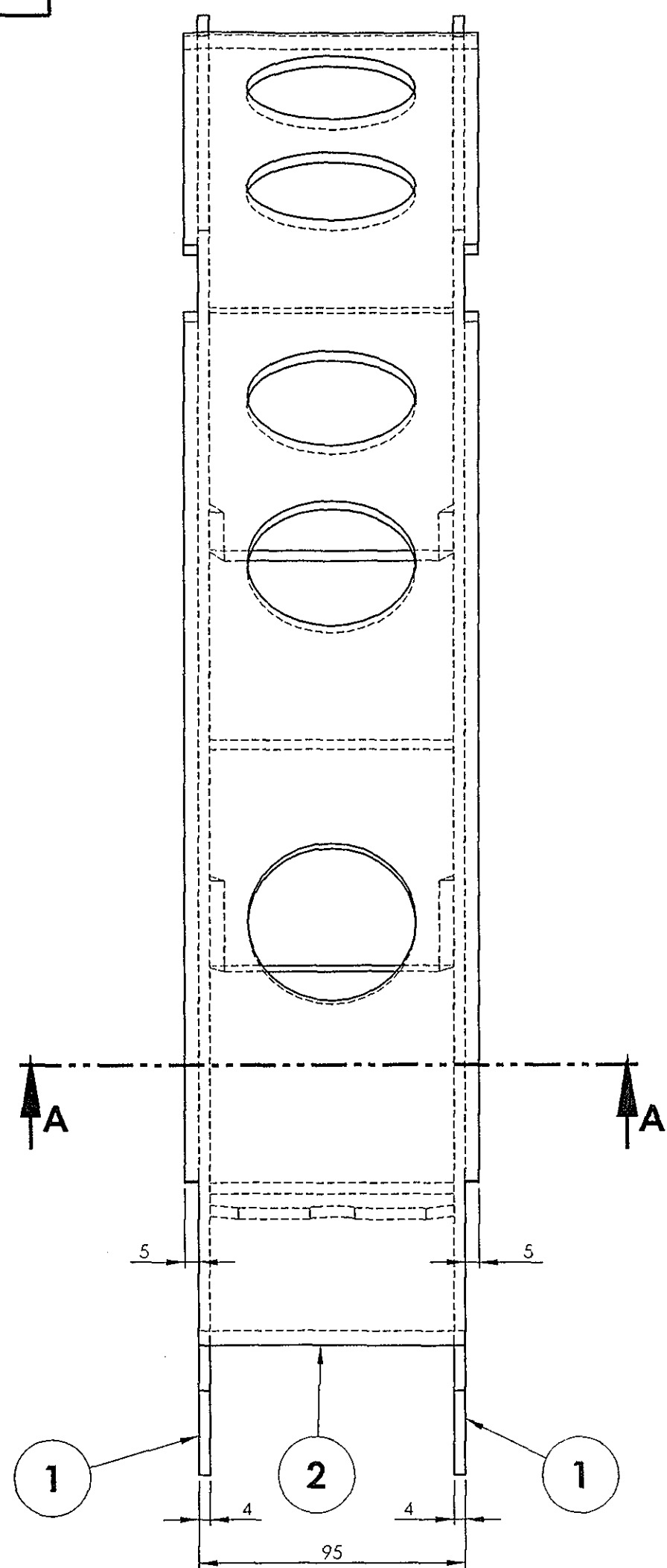
REF.DRG. NO. 2 10113.0.20.210.004

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.

59316018

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

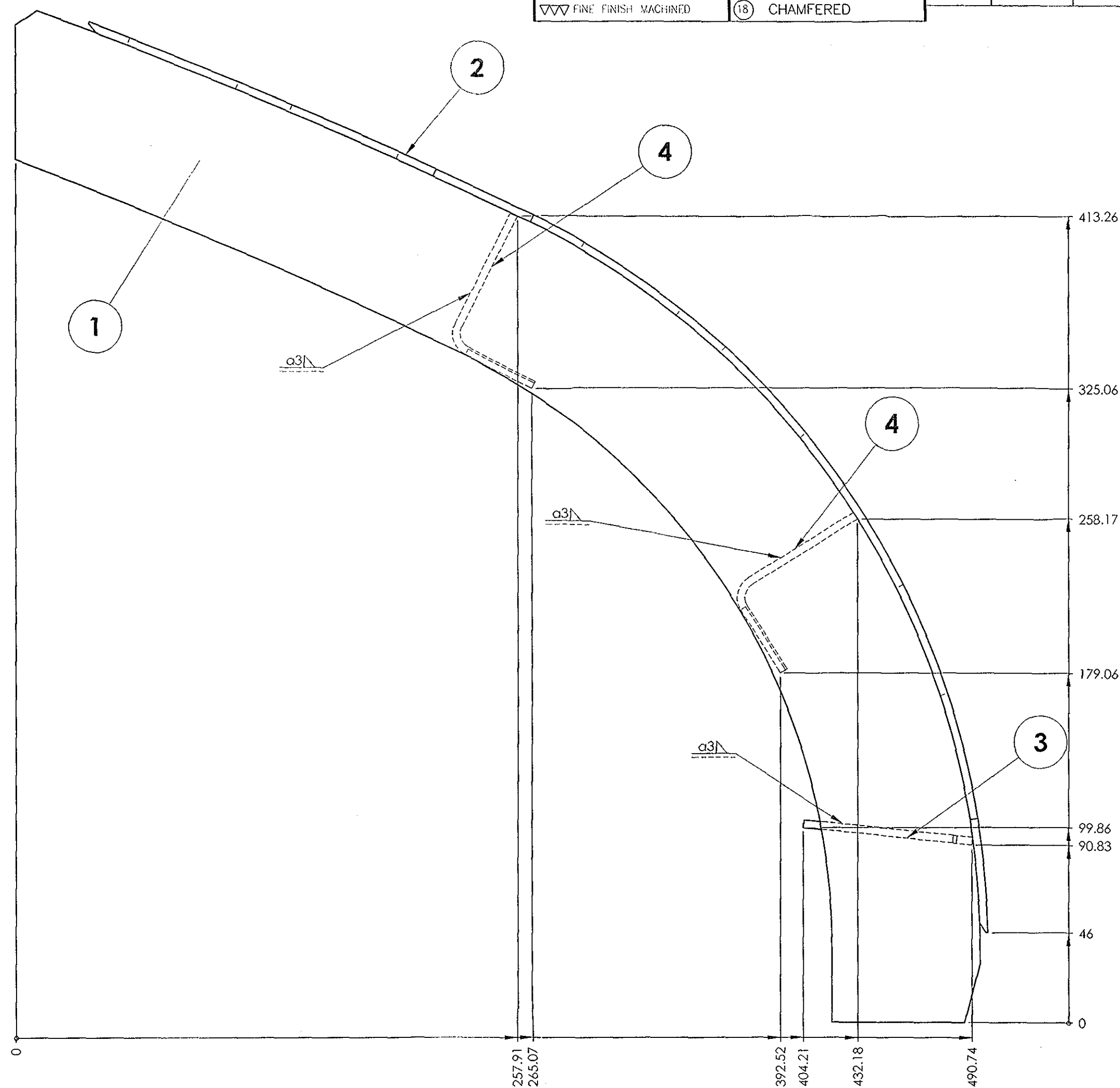
REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



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	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 1:5	SSE/D CHD	
				ALT	ALTD	
						DRN

INDIAN RAILWAY STANDARDS
INTEGRAL COACH FACTORY, CHENNAI - 600038

SHEET
1 OF 1

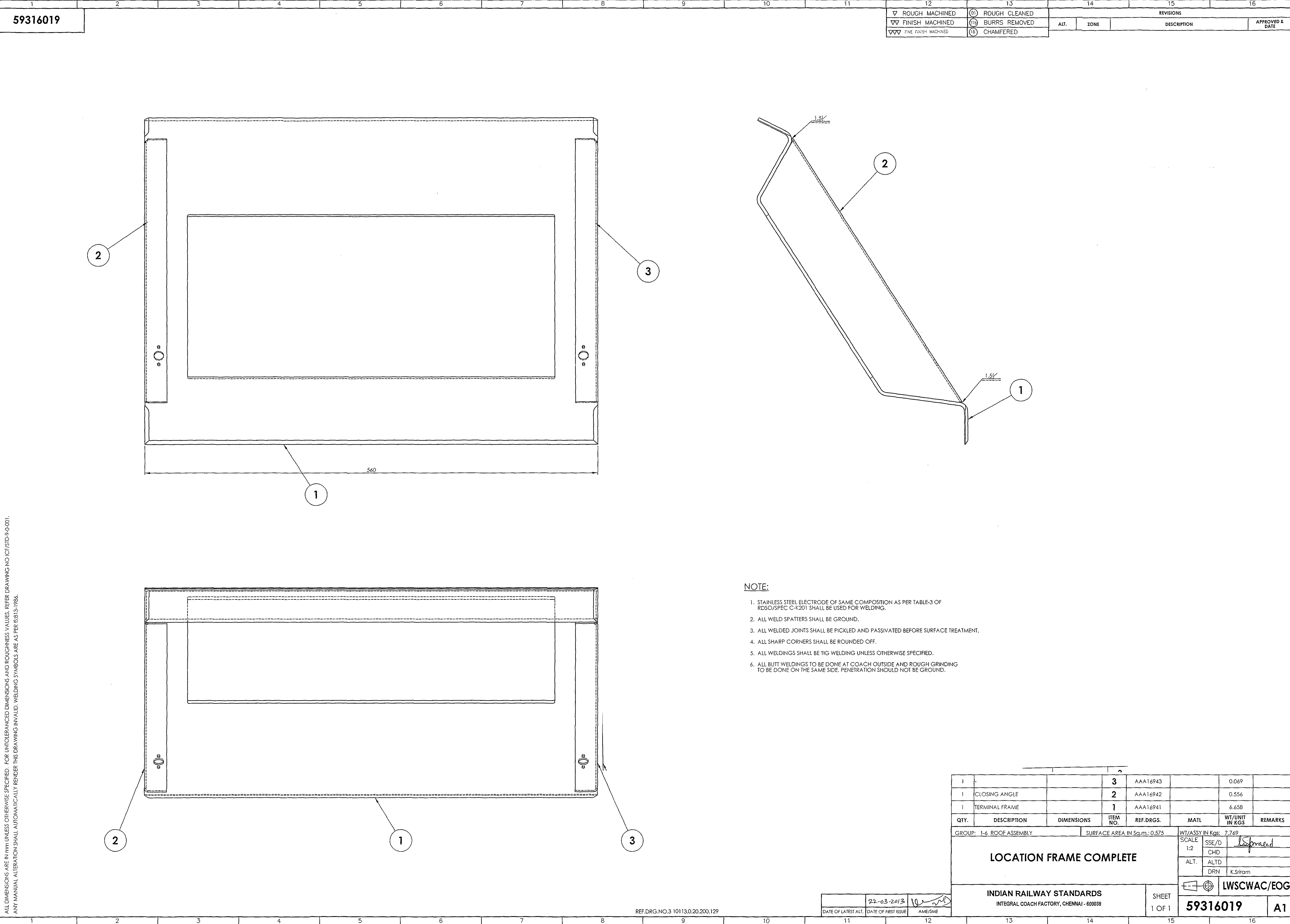
59316018

A2

REF.DRG.NO.2 10113.0.20.210.006

DATE OF LATEST ALT.	22-03-2013	DATE OF FIRST ISSUE	10-03-2013	AMU/SME
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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.



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.

12		13		14		15		16	
▽ ROUGH MACHINED		① ROUGH CLEANED		REVISIONS					
▽▽ FINISH MACHINED		①b BURRS REMOVED		ALT.	ZONE	DESCRIPTION	APPROVED & DATE		
▽▽▽ FINE FINISH MACHINED		①① 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	K. Srinivas	
				CHD	ALTD		
				DRN	DRN	K. Srinivas	
				LWSCWAC/EOG			
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		59316019	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A1	

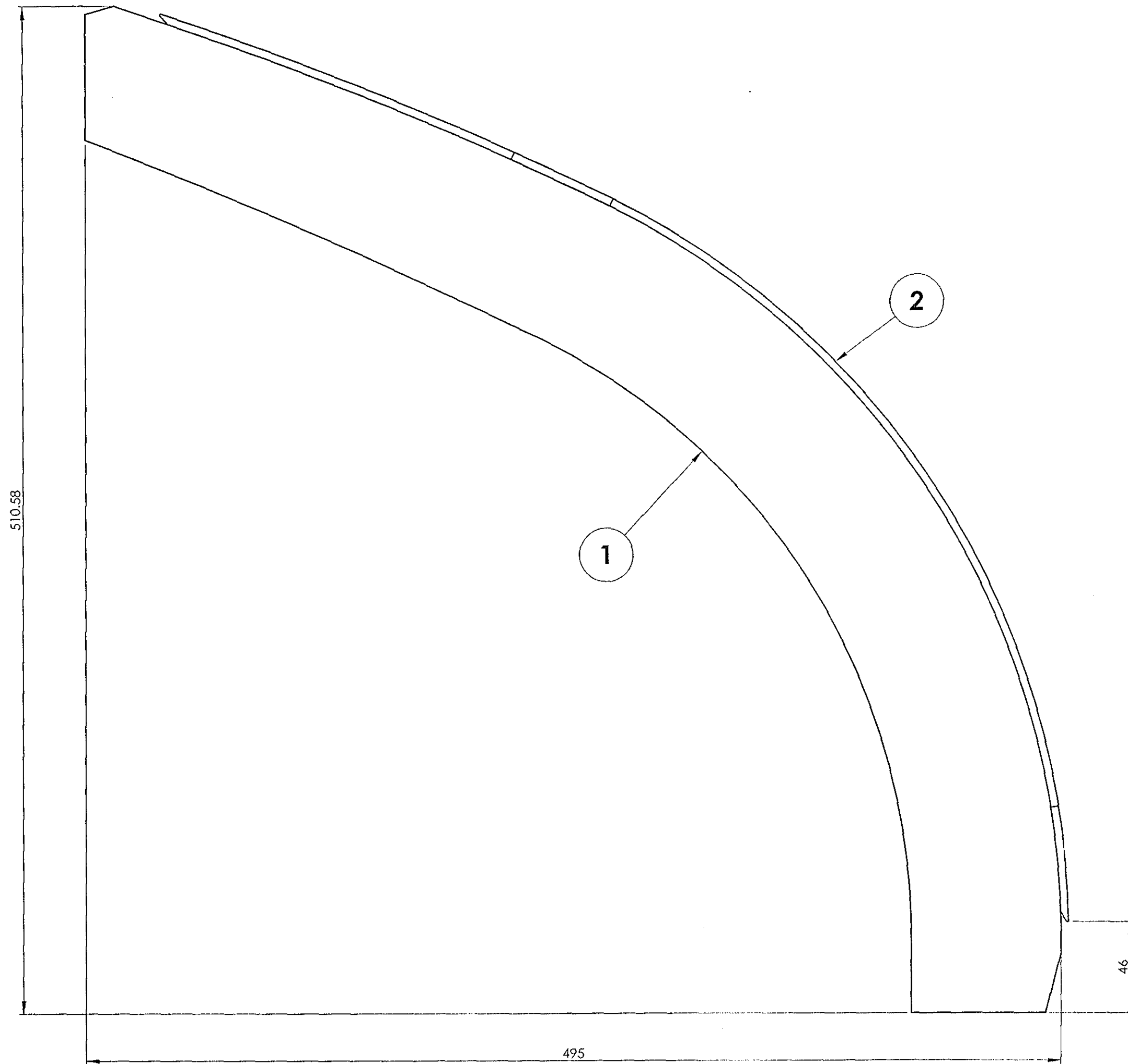
22-03-2013	22-03-2013	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.3 10113.0.20.200.129

59316022

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



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	AAA16957		1.10	
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.: 0.19		WT/ASSY IN Kgs: 2.83	
ROOF ARCH COMPLETE					SCALE 1:5	SSE/D	K. Sriram
					ALT	CHD	
					ALT	ALTD	
					DRN	DRN	K. Sriram
INDIAN RAILWAY STANDARDS					LWSCWAC/EOG		
INTEGRAL COACH FACTORY, CHENNAI - 600038					SHEET 1 OF 1		
					59316022		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.


REF.DRG.NO.2 10113.0.20.210.008

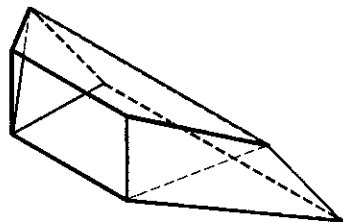
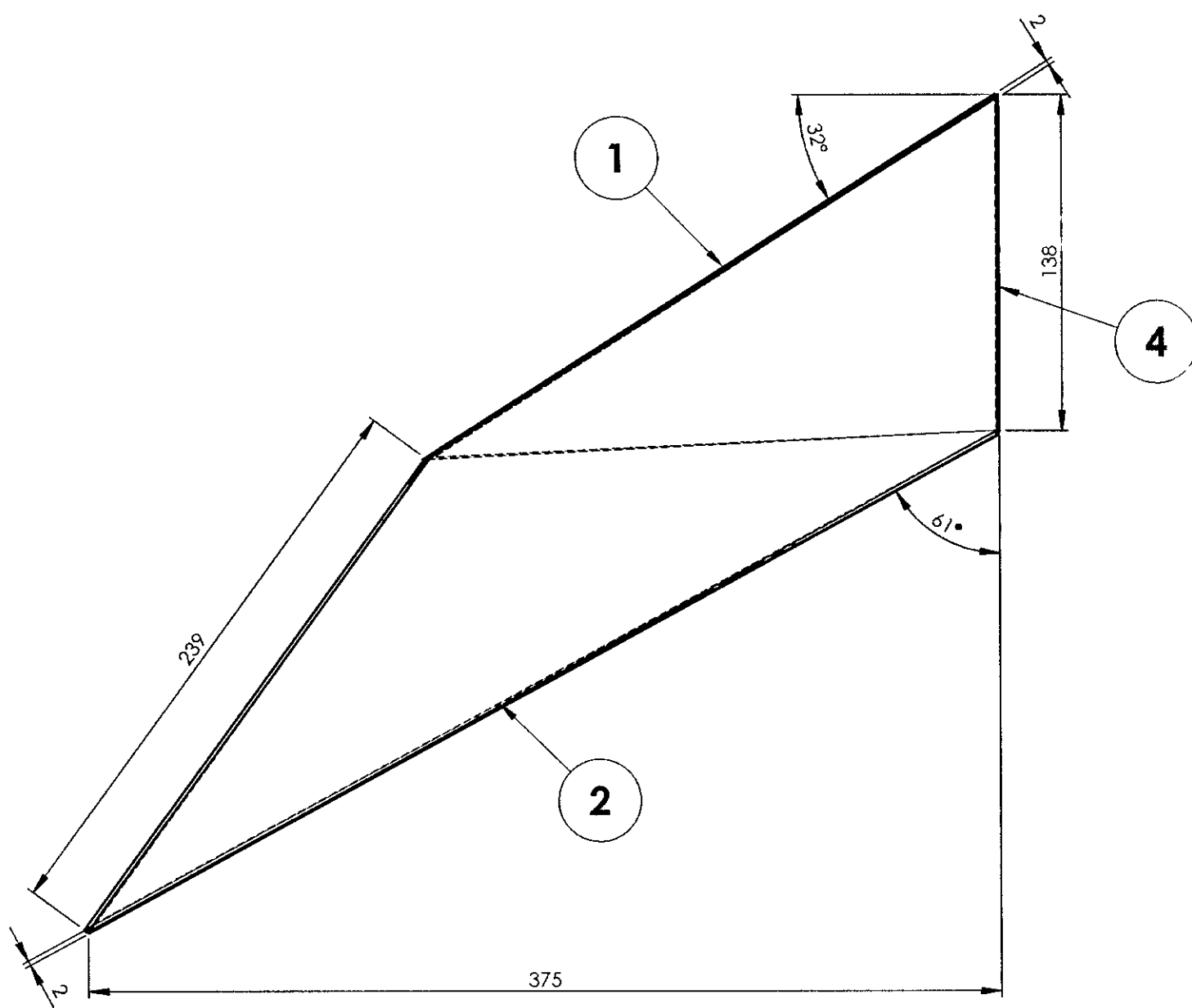
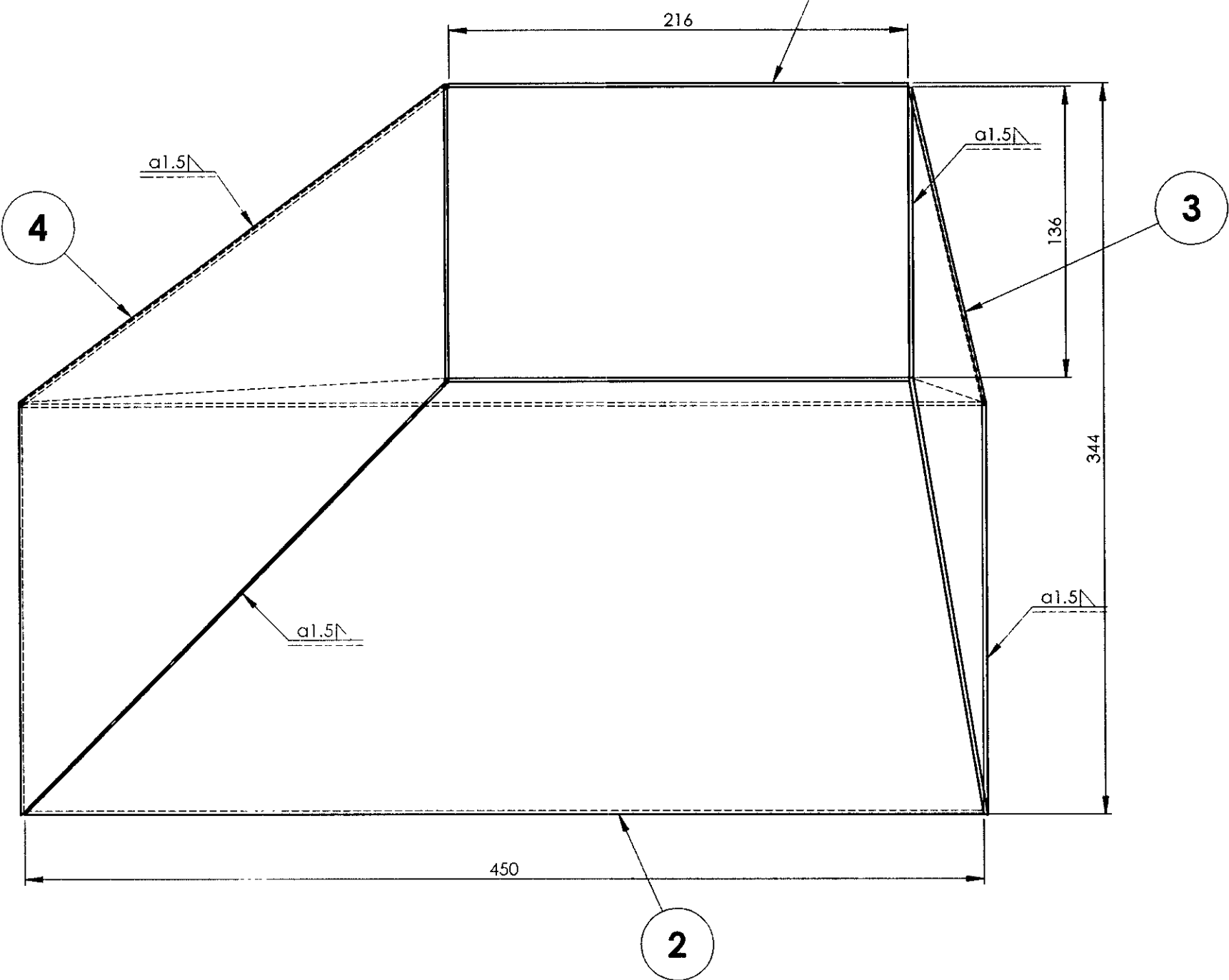
DATE OF LATEST A.C.	22-03-2013	DATE OF FIRST ISSUE	AMF/SME
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59316057

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

① ROUGH CLEANED
①b BURRS REMOVED
①c CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		SUCTION PIPE MODIFIED AND VIEWS UPDATED.	



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 PREFERANCES REFER DRG. No. ICF/STD-9-0-998.
8. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/STD-9-0-999.

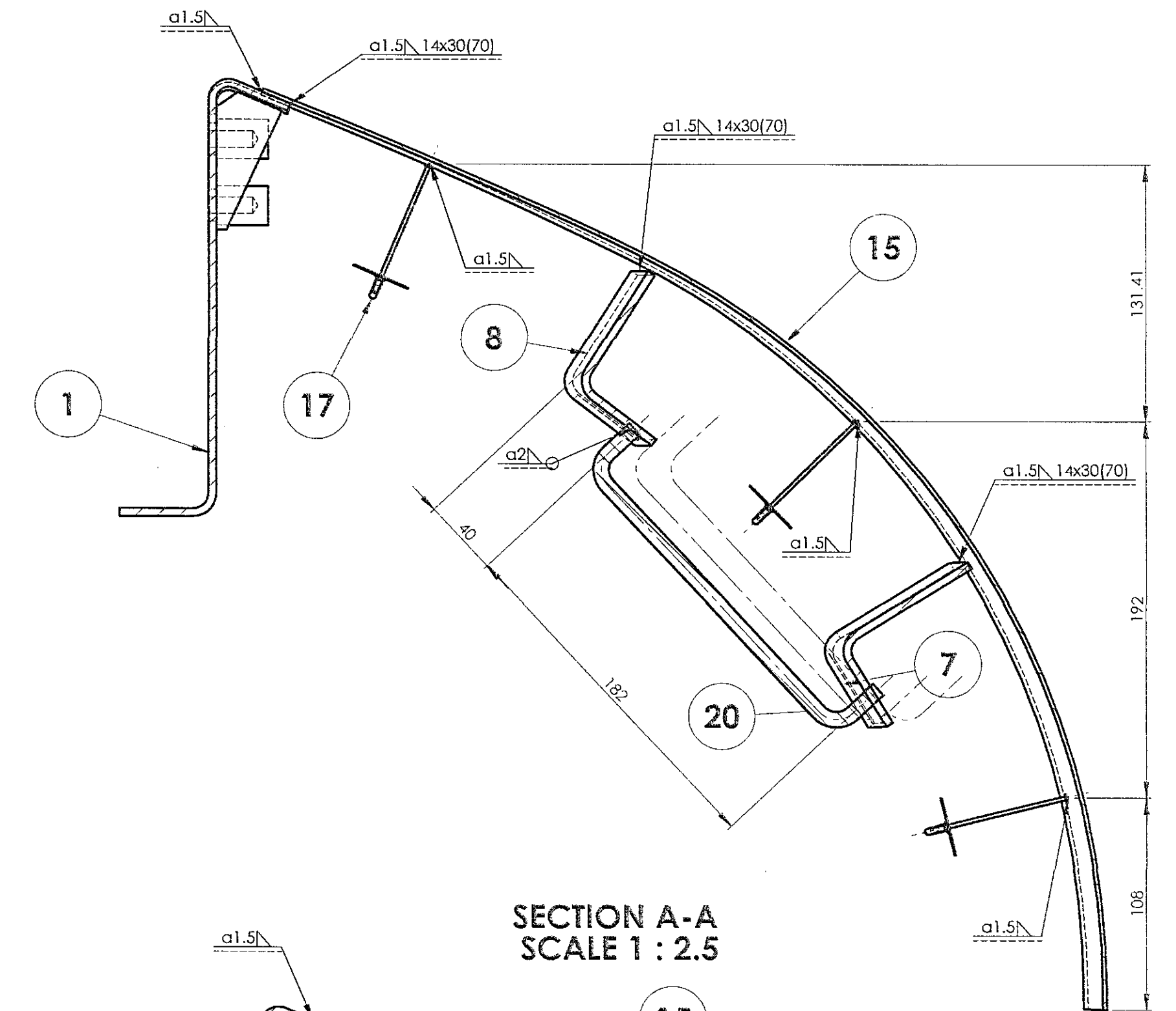
1	SIDE SHEET		4	AAE16690		0.865	
1	SIDE SHEET		3	AAE16691		0.613	
1	BOTTOM SHEET		2	AAE16692		2.269	
1	TOP SHEET		1	AAE16693		1.49	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction				SURFACE AREA IN Sq.m.: 0.665		WT/ASSY IN Kgs: 5.239	
SUCTION PIPE COMPLETE					SCALE 1:2.5	SSE/D CHD	<i>[Signature]</i>
					ALT a	ALTD DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038					LWSCWAC/EOG		
					SHEET 1 OF 1	59316057	A2

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

REF.DRG.NO.2 10113.0.20.200.007

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.


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




SECTION B-B
SCALE 1 : 2.5

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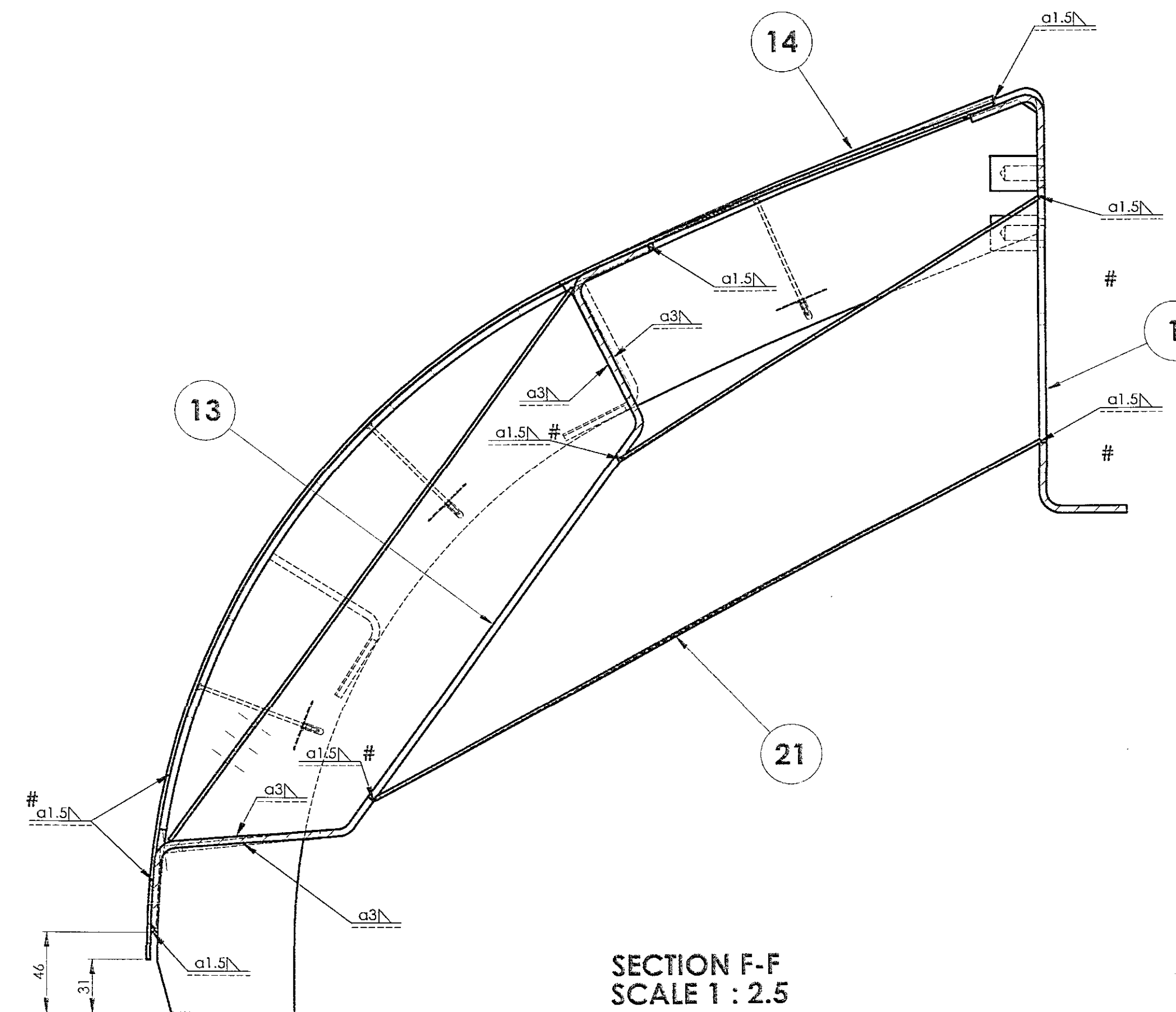
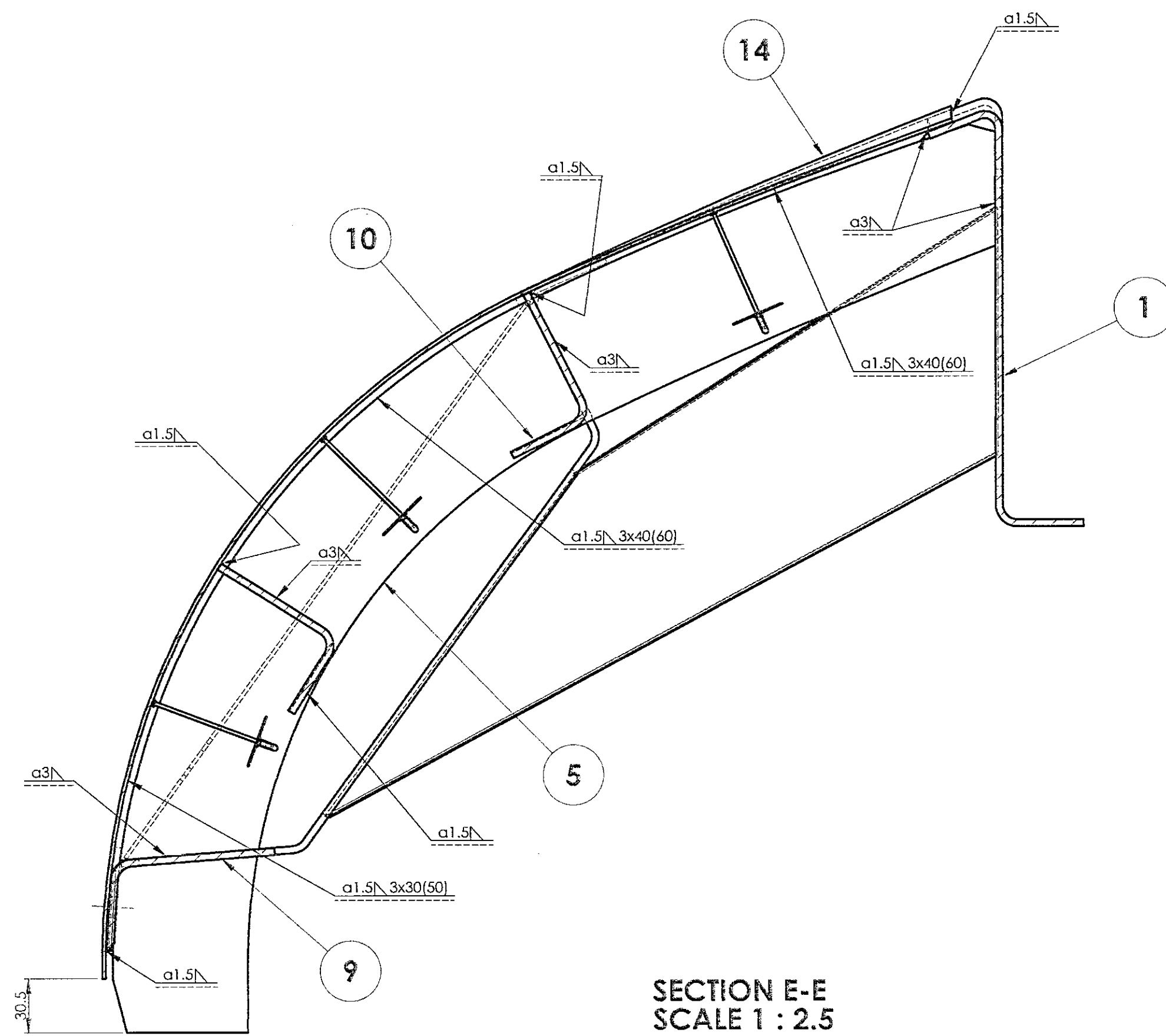
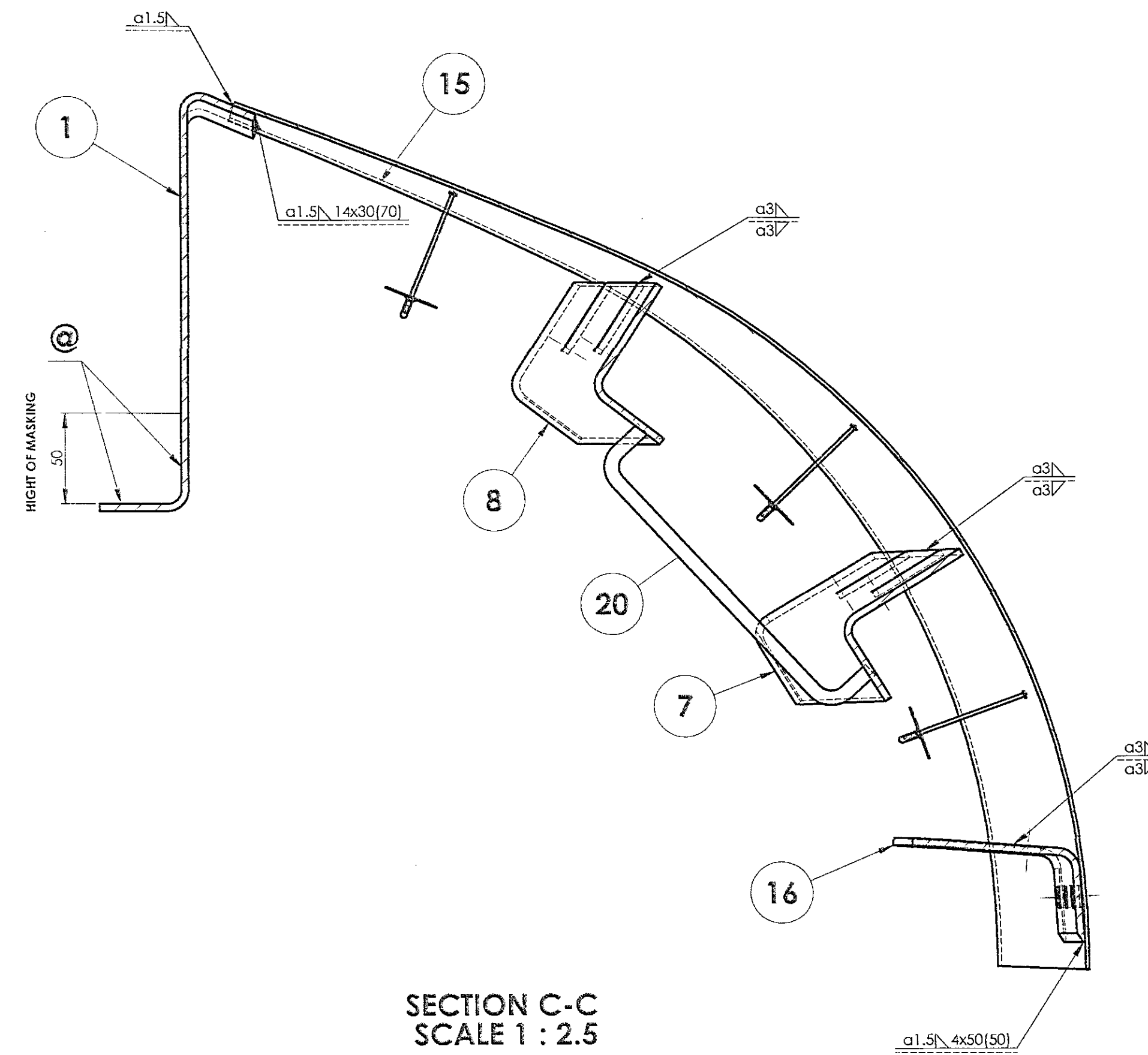
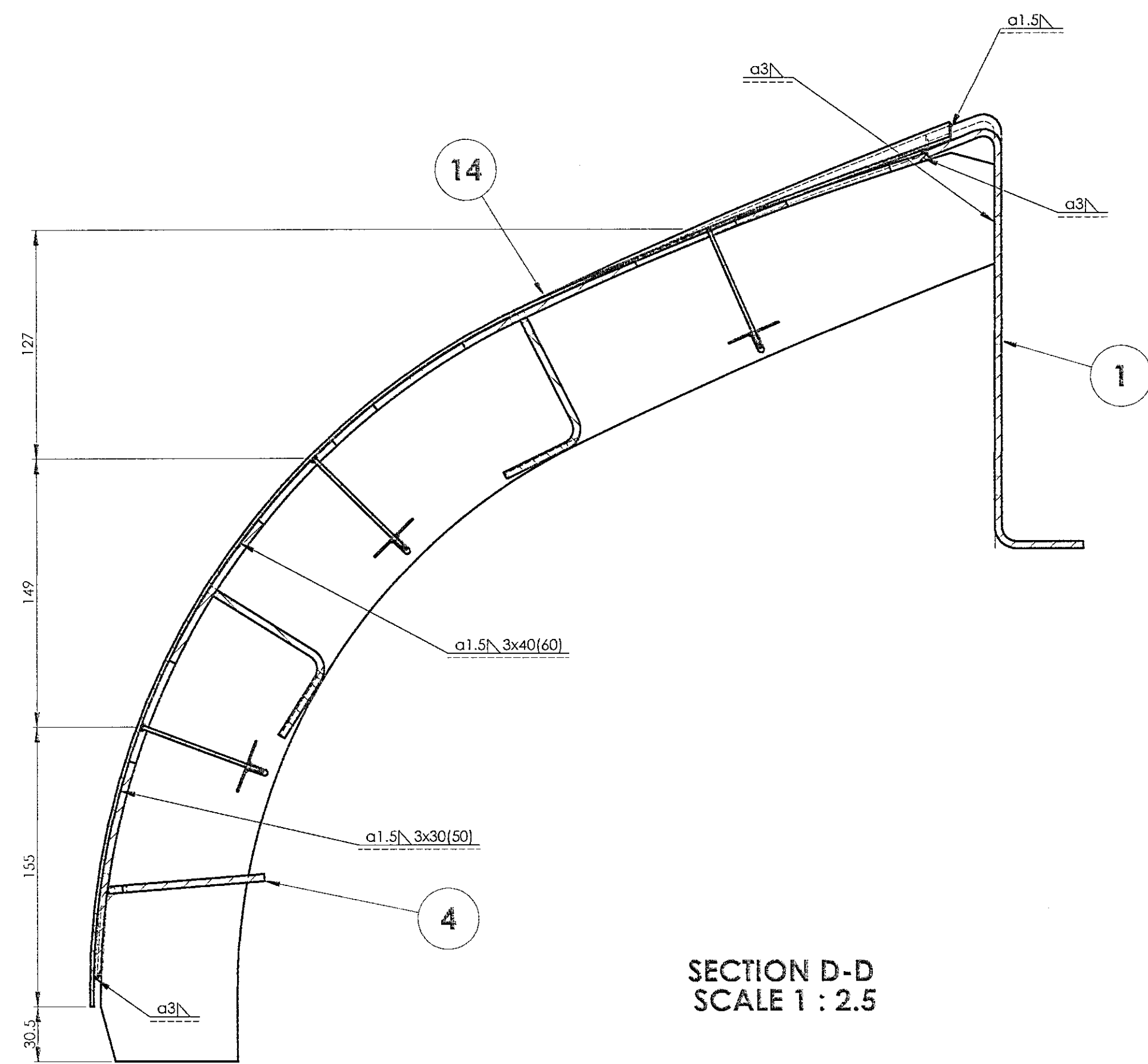
REF.DRG.NO.1 10113.0.20.200.003

20-02-2026	13-11-2021	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 8.22		WT/ASSY IN Kgs:		
FINAL ROOF ELEMENT COMPLETE (FOR METAL RMPU TROUGH)				SCALE	SSE/D	<i>B. Senthil</i>
				1:10	CHD	
				ALT.	ALTD	AMAL GEORGE
				b	DRN	Amal George
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 3	 LRAAC	
				83416017	A1	

83416017

▽ ROUGH MACHINED	(01) ROUGH, CLEANED
▽▽ FINISH MACHINED	(010) BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	(16) CHAMFERED



ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLENCED DIMENSIONS AND POUCHNESS VALUES, REFER DRAWING NO. C/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.

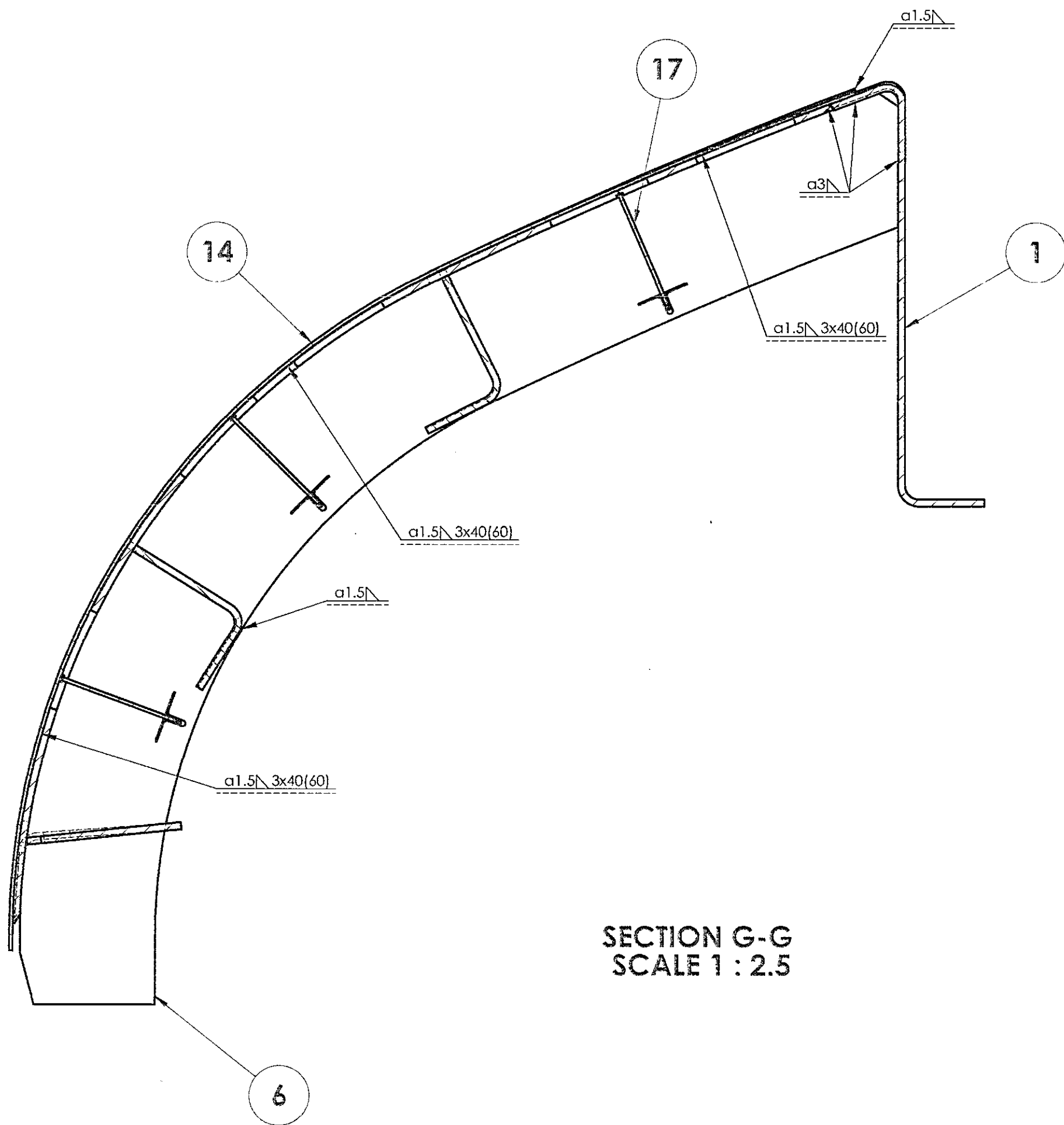
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20-02-2026	13-11-2021
DATE OF LATEST ALT.	DATE OF FIRST ISSUE

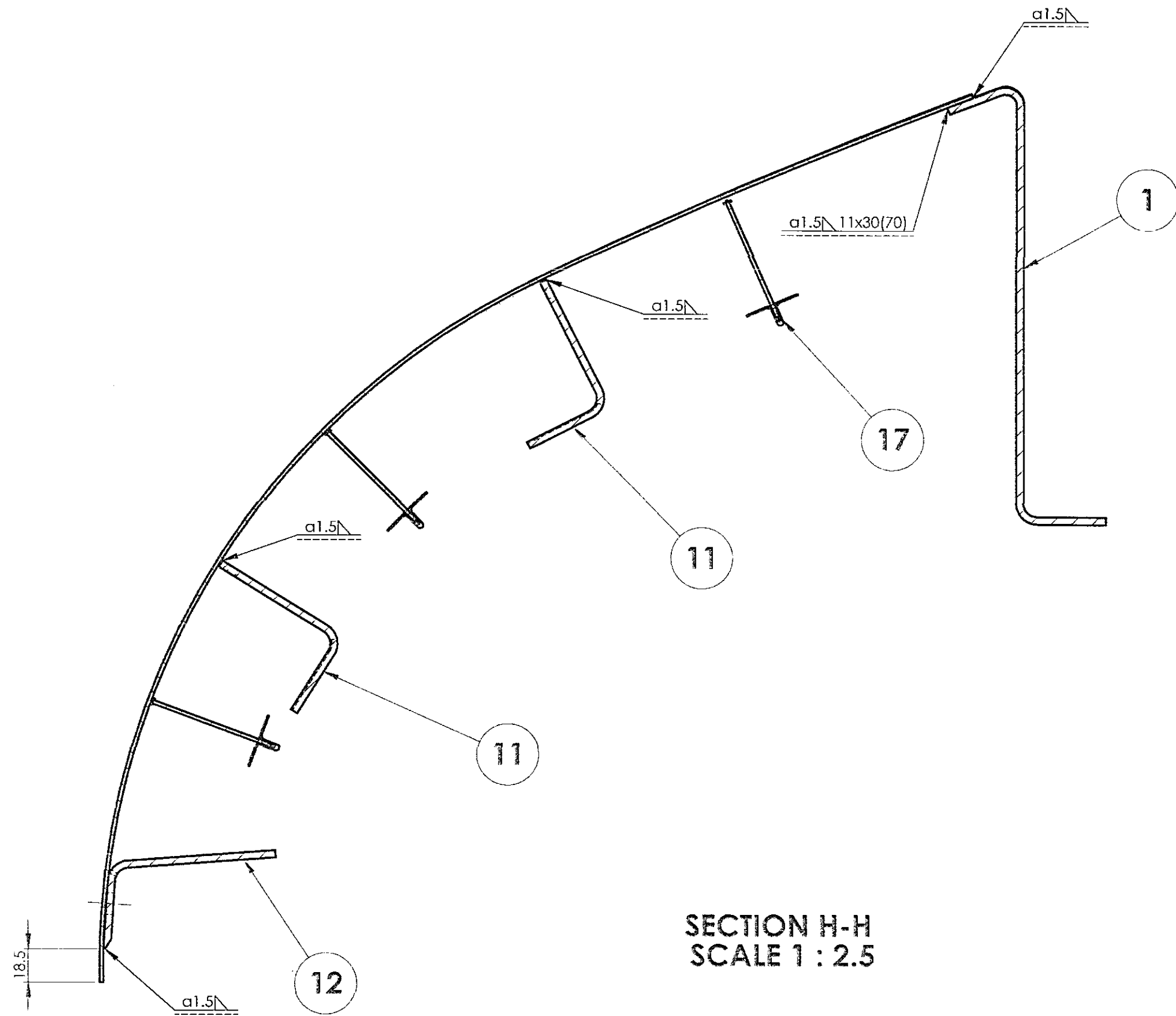
GROUP: 1-6 Roof Construction	SURFACE AREA IN Sq.m.: 8.22	WT/ASSY IN Kgs:
SCALE 1:10		SSE/D
CH/D		CH/D
ALT. b	ALT/D	AMAL GEORGE
DRN	DRN	Amal George
INDIAN RAILWAY STANDARDS		SHEET 2 OF 3
INTEGRAL COACH FACTORY, CHENNAI - 600038		83416017
		A1

83416017

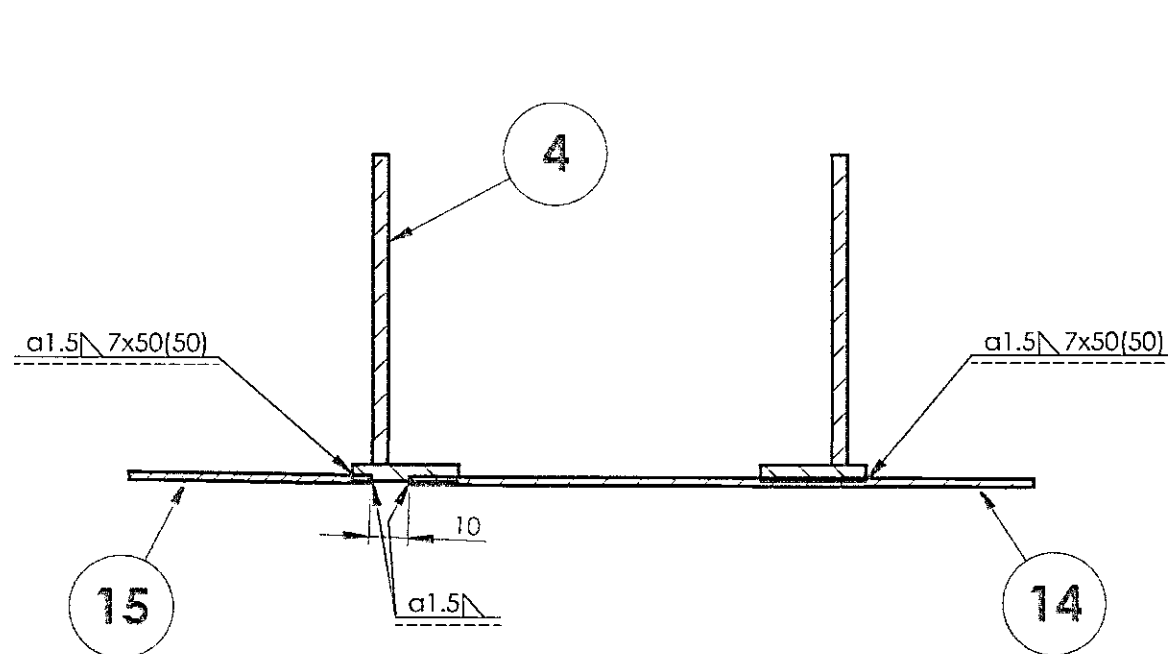
12		13	14	15	16
▽	ROUGH MACHINED	①	ROUGH CLEANED	REVISIONS	
▽▽	FINISH MACHINED	②	BURRS REMOVED	DESCRIPTION	
▽▽▽	FINE FINISH MACHINED	③	CHAMFERED	APPROVED & DATE	
a		ITEM-19 & NOTE-6 DELETED, ITEM-21 & NOTE-15 ADDED.		sd-	
b		SECTION F-F REVISED, VIEWS UPDATED.		VIEWS UPDATED AS PER CHANGE IN THE DESIGN OF ITEM-14	



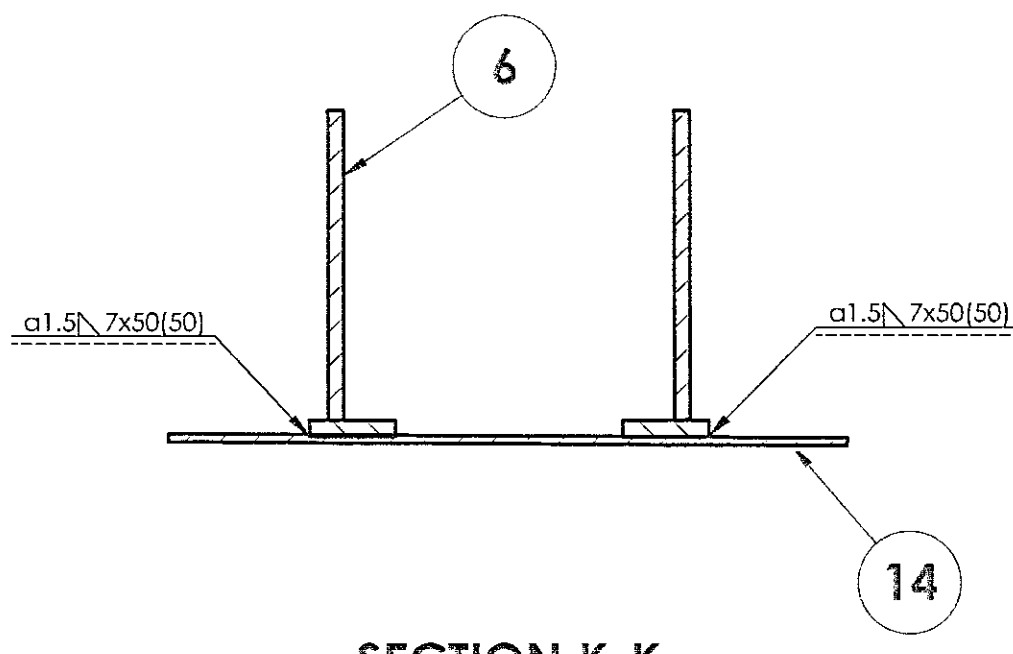
SECTION G-G
SCALE 1 : 2.5



SECTION H-H
SCALE 1 : 2.5



SECTION J-J
SCALE 1 : 2



SECTION K-K
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.
7. FINISHED ASSEMBLY SHALL BE SUPPLIED WITHOUT PAINTING. THE SAME SHALL BE APPLIED WITH (AIRLESS SPRAY) ECO FRIENDLY WATER BASED MODIFIED EPOXY ZINC PHOSPHATE ETCH PRIMER TO ICF/MD/SPEC-231 AFTER BODY SHELL ASSEMBLY STAGE AT ICF.
8. ITEM-18 (NAME PLATE) SHALL BE WELDED OR RIVETTED AT SUITABLE LOCATION AS SHOWN IN THE DRAWING IF PROCURED FROM TRADE.
9. ALL THE THREADED HOLES SHALL BE PROVIDED WITH SUITABLE DUMMY BOLTS TO SAFEGUARD THE THREADS.
10. BEFORE APPLYING PRIMER, SUITABLE MASKING TO BE DONE AT PLACES MARKED @
11. SCHEDULE OF REQUIREMENTS OF MANUFACTURE OF SIDEWALL/ ROOF ASSEMBLY SHALL COMPLY TO ICF/MD/SPEC-200 LATEST REVISION.
12. ALL WELD PERFORMANCE CLASS SHALL BE AS PER CP C2 UNLESS SPECIFIED OTHERWISE.
13. FOR WELD TESTING PREFERENCES REFER DRG. No. ICF/STD-9-0-998.
14. FOR WELD PROCEDURE SPECIFICATION REFER DRG. No. ICF/SID-9-0-999.
- # 15. LEAK PROOF WELDING SHALL BE ENSURED.

1	SUCTION PIPE COMPLETE		21	59316057		5.239	
3	TIE ROD		20	AAD16738		0.09	
3	SUCTION PIPE COMPLETE		19	59316023		5.446	
1	NAME PLATE FOR SUPPLIER IDENTIFICATION		18	AAA51072		0.063	
30	WELDING PIN ASSEMBLY		17	49516008		0.005	
1	STIFFENING ANGLE		16	AAA16950		1.84	
1	ROOF SHEET		15	AAA16949		15.18	
1	ROOF SHEET		14	AAA16948		8.88	
1	LOCATION FRAME COMPLETE		13	59316019		7.283	
1	STIFFENING ANGLE		12	AAA16955		0.57	
2	STIFFENING ANGLE		11	AAA16926		0.544	
2	STIFFENING ANGLE		10	AAA16954		0.64	
1	STIFFENING ANGLE		9	AAA16953		0.63	
1	STIFFENING ANGLE		8	AAA16952		4.84	
1	STIFFENING ANGLE		7	AAA16951		5.22	
1	ROOF ARCH COMPLETE		6	59316018		6.260	
1	ROOF ARCH COMPLETE		5	59316022		2.83	
1	ROOF ARCH COMPLETE		4	59316016		6.998	
1	ROOF ARCH		3	AAA16919		1.758	
1	ROOF ARCH		2	AAA16925		1.713	
1	MEMBER COMPLETE		1	87716017		23.58	
	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS

GROUP: 1-6 Roof Construction		SURFACE AREA IN Sq.m.: 8.22		WT/ASSY IN Kgs:	
SCALE 1:10		SSE/D		R. S.	
ALT. b		CHD		AMAL GEORGE	
ALT. b		DRN		Amal George	
INDIAN RAILWAY STANDARDS		SHEET 3 OF 3		LRAAC	
INTEGRAL COACH FACTORY, CHENNAI - 600098		83416017		A1	

REF.DRG.NO.1 10113.0.20.200.003

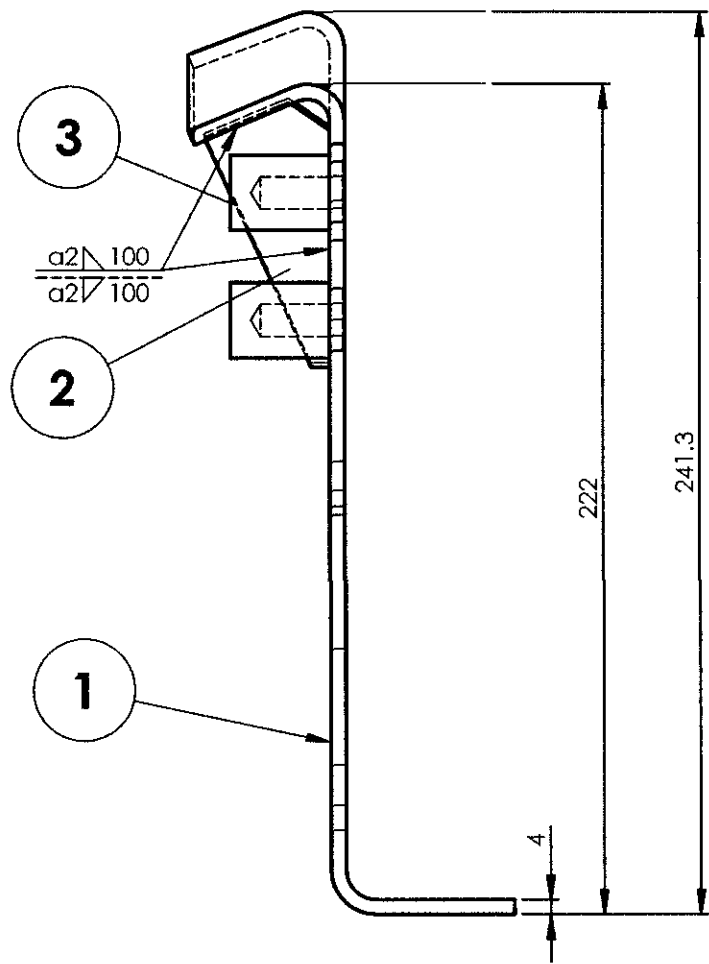
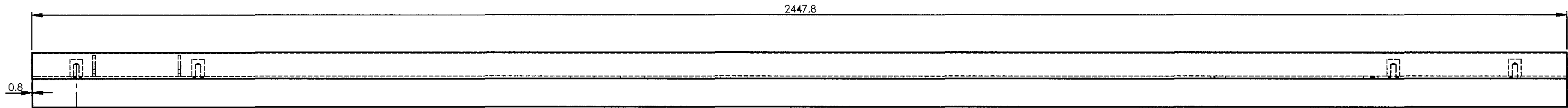
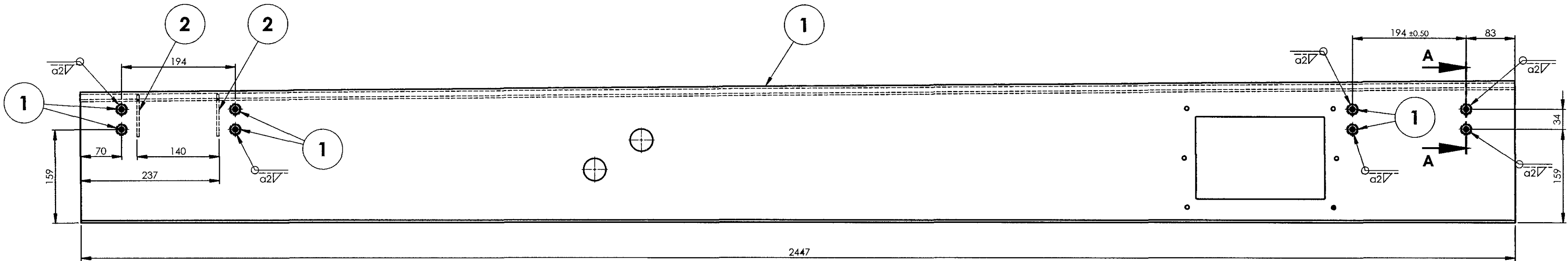
20-02-2026	13-11-2021	AME/SME
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	

87716017

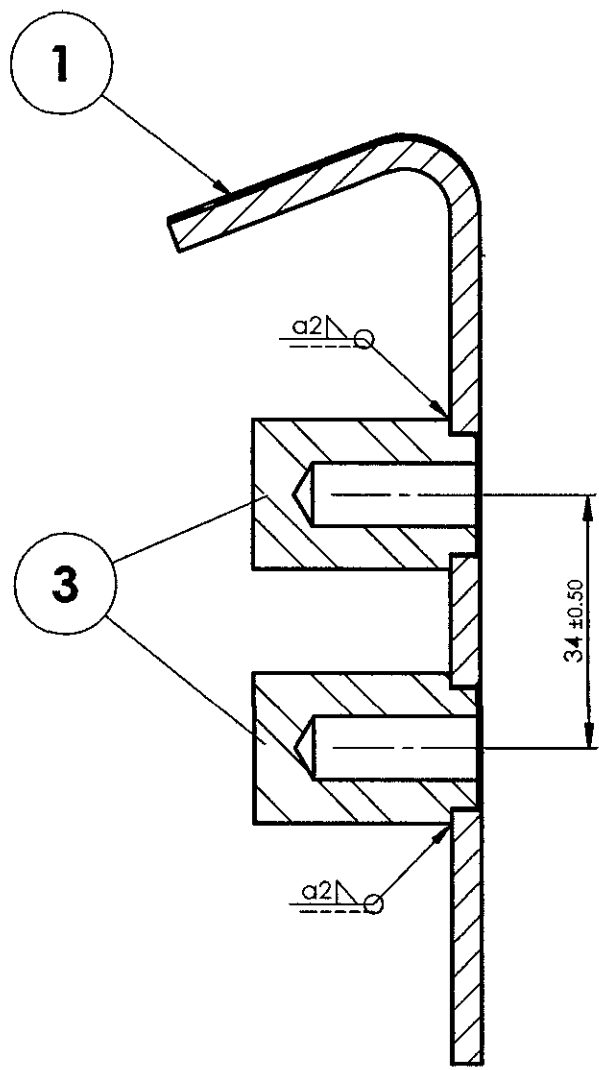
▽ ROUGH MACHINED
▽▽ FINISH MACHINED
▽▽▽ FINE FINISH MACHINED

⑪ ROUGH CLEANED
⑪⑩ BURRS REMOVED
⑪⑩ CHAMFERED

REVISIONS				APPROVED & DATE	
ALT.	ZONE	DESCRIPTION			
a		DUCT OPENING LOCATION IN ITEM-1 REVISED.		P. 27/24	



DETAIL X
SCALE 1 : 2



SECTION A-A
SCALE 1 : 1

NOTE:-

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

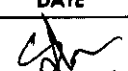
5	SCREWING PIECE		3	AAD16884		0.06	
2	RIB		2	AAA16929		0.043	
1	MEMBER		1	AAD16968		23.00	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF.DRGS.	MATL	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 Roof Construction			SURFACE AREA IN Sq.m.: 1.50			WT/ASSY IN Kgs:	
MEMBER COMPLETE					SCALE	SSE/D	
					1:5	CHD	PANDU
					ALT.	ALTD	E.SATHISH KUMAR
					a	DRN	E.SATHISH KUMAR
INDIAN RAILWAY STANDARDS					SHEET 1 OF 1	LOMAC	
INTEGRAL COACH FACTORY, CHENNAI - 600038						87716017	
							A1

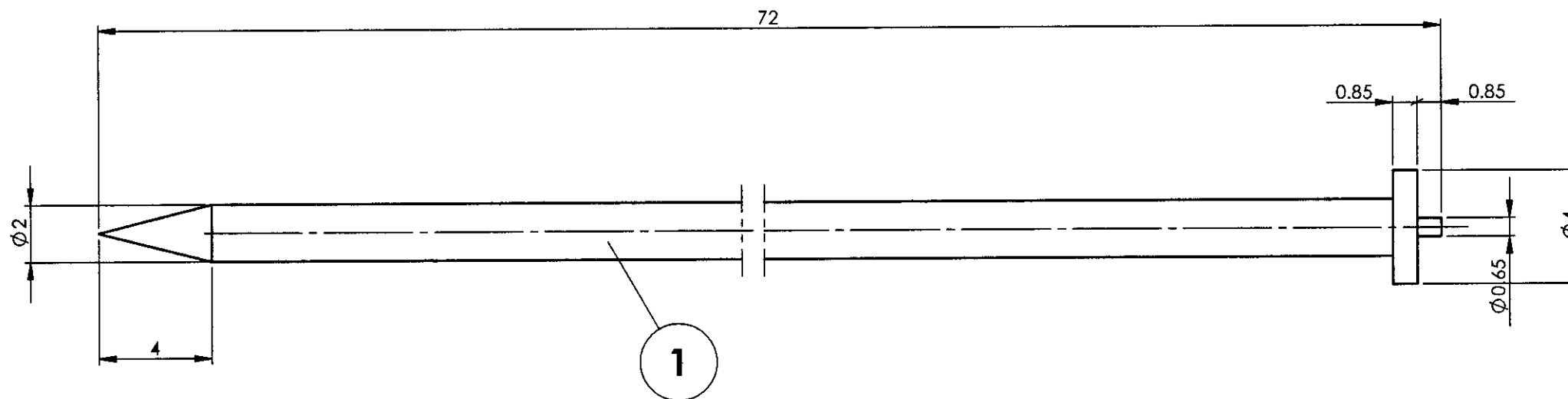
07/03/2024	26-07-2021	
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

REF.DRG.NO.

AAA16493

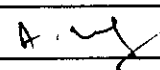
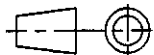
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

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

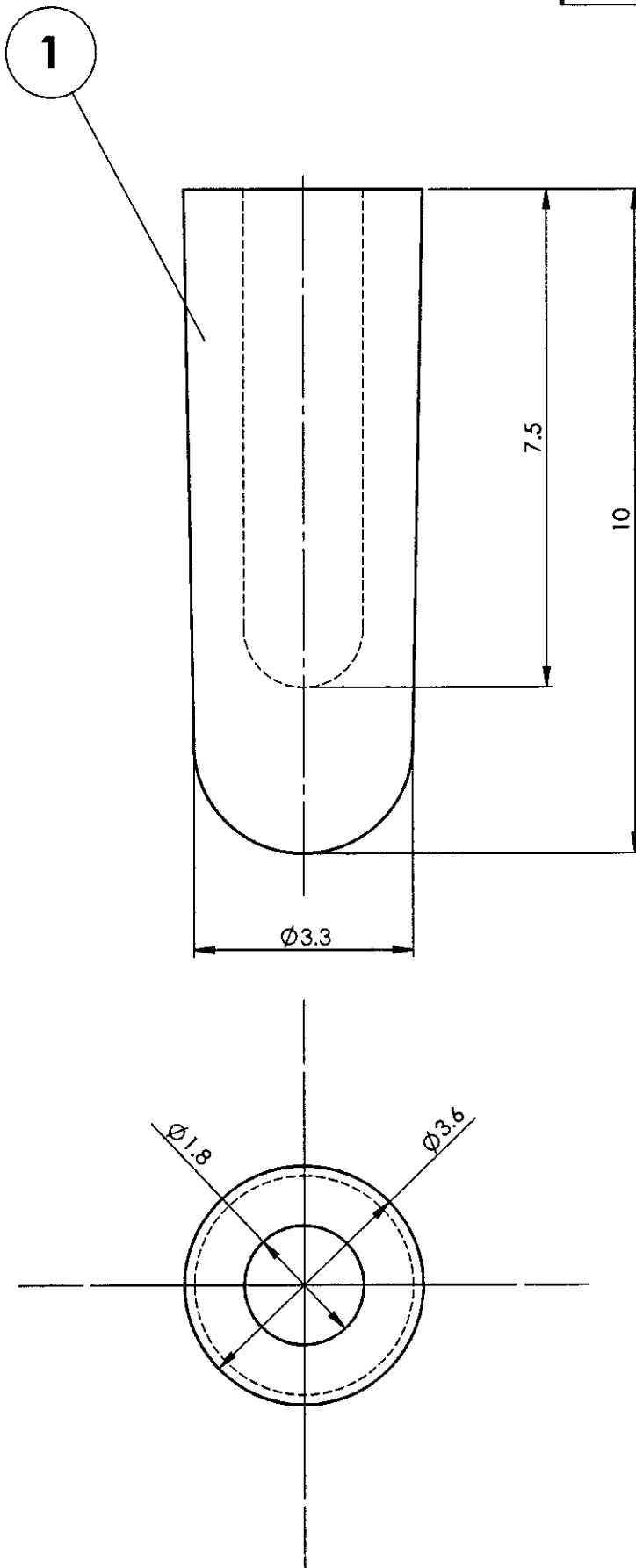
REF.DRG.NO.mi001576, ITEM-1


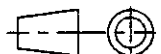
1	WELDING PIN	Ø 4 x 72	1		IS:6528 X04Cr18Ni10	0.002		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF CONSTRUCTION		SURFACE AREA IN Sq.m.:0.000			WT/ASSY IN Kgs:			
WELDING PIN					SCALE	SSE/D		
					5:1	CHD		
					ALT. a	ALTD	A.Palanichamy	
						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				SHEET 1 OF 1			
INTEGRAL COACH FACTORY, CHENNAI - 600036					AAA16494		A3

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


REF.DRG.NO.mi001576, ITEM-2

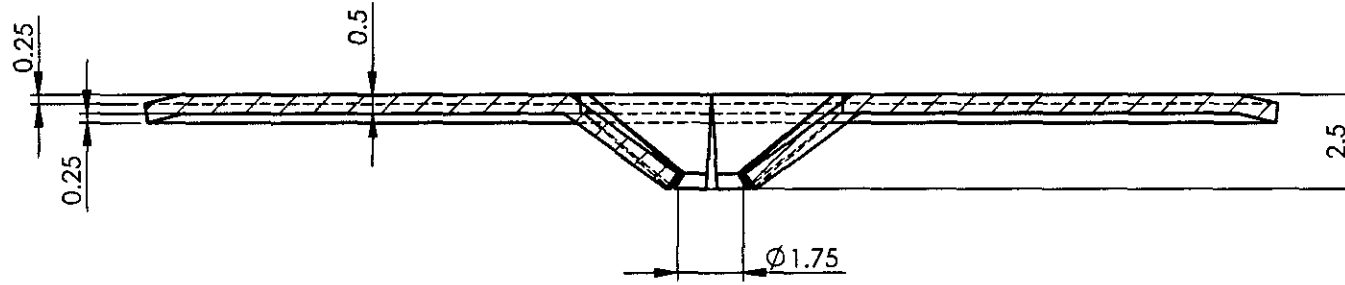
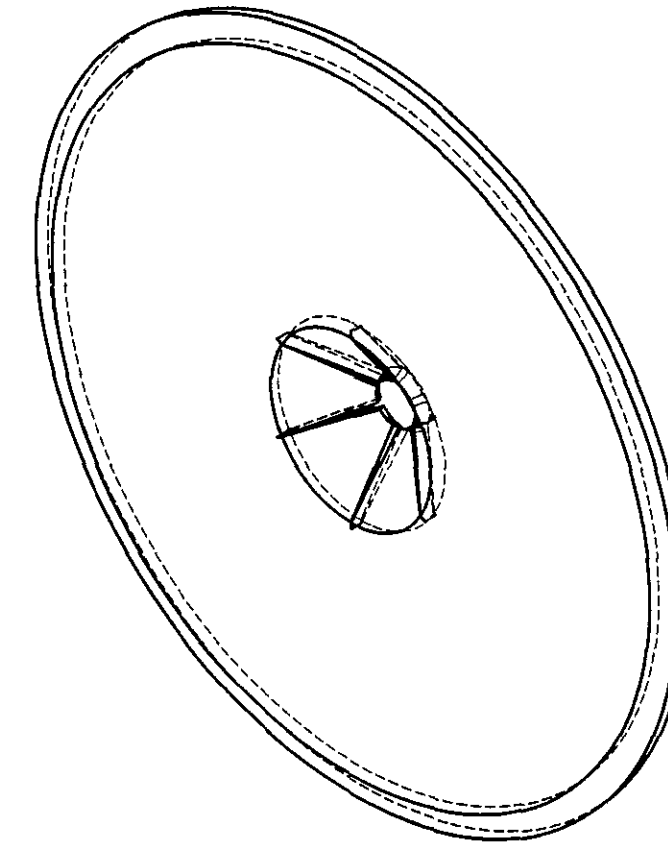
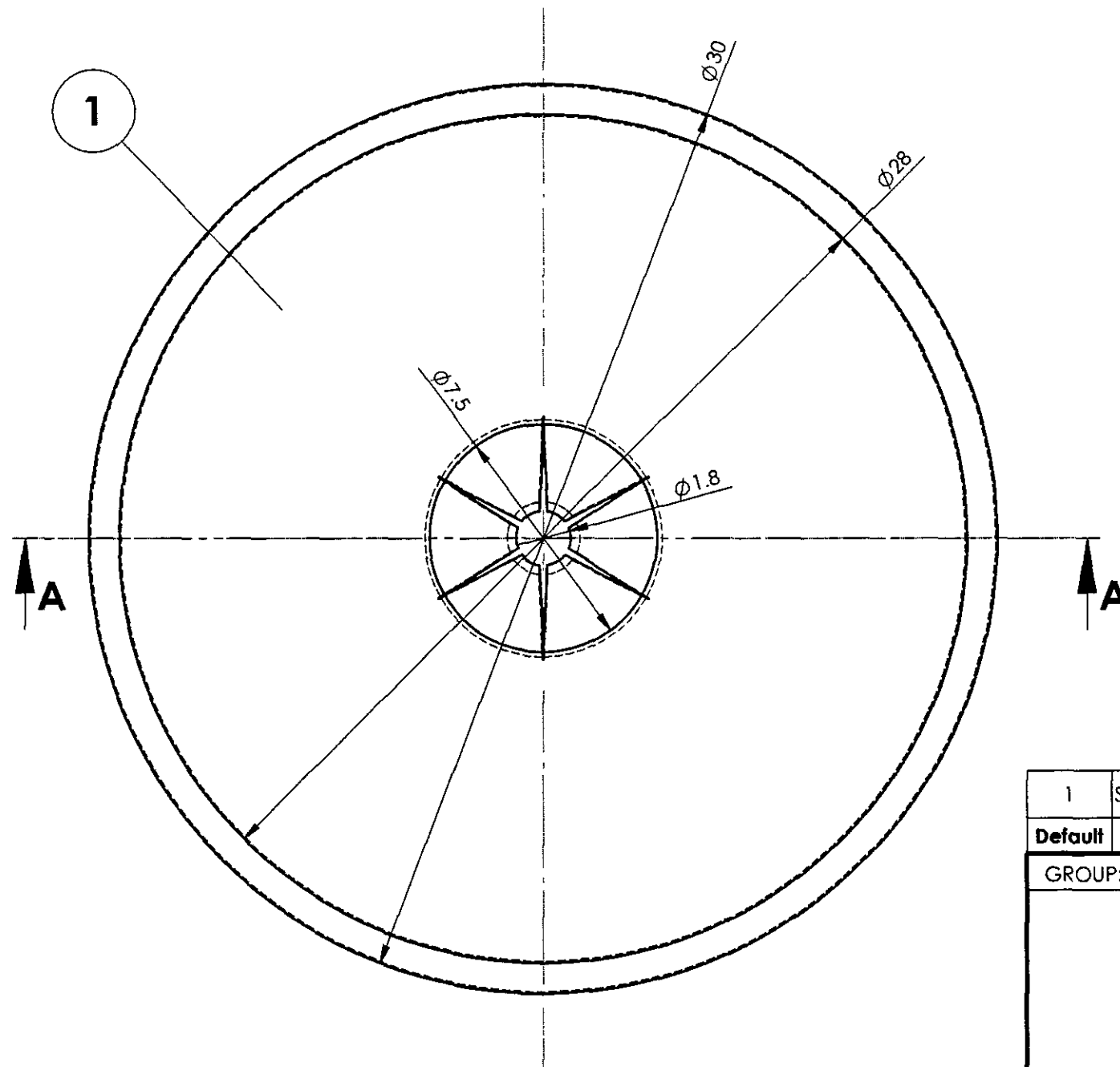
ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-0-001. ANY MANUAL ALTERATION SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER EN ISO 2553. WEIGHT GIVEN IN DRAWING IS FOR INDICATIVE PURPOSE ONLY

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.	


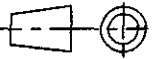
SECTION A-A
SCALE 5 : 1

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 MDTS057	
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	SSE/D	
						2:1	CHD	
						ALT.	ALTD	A.Palanichamy
						a	DRN	3D:A.Palanichamy 2D:P.Murugan
INDIAN RAILWAY STANDARDS								
INTEGRAL COACH FACTORY, CHENNAI - 600038						SHEET 1 OF 1	AAA16495	A3

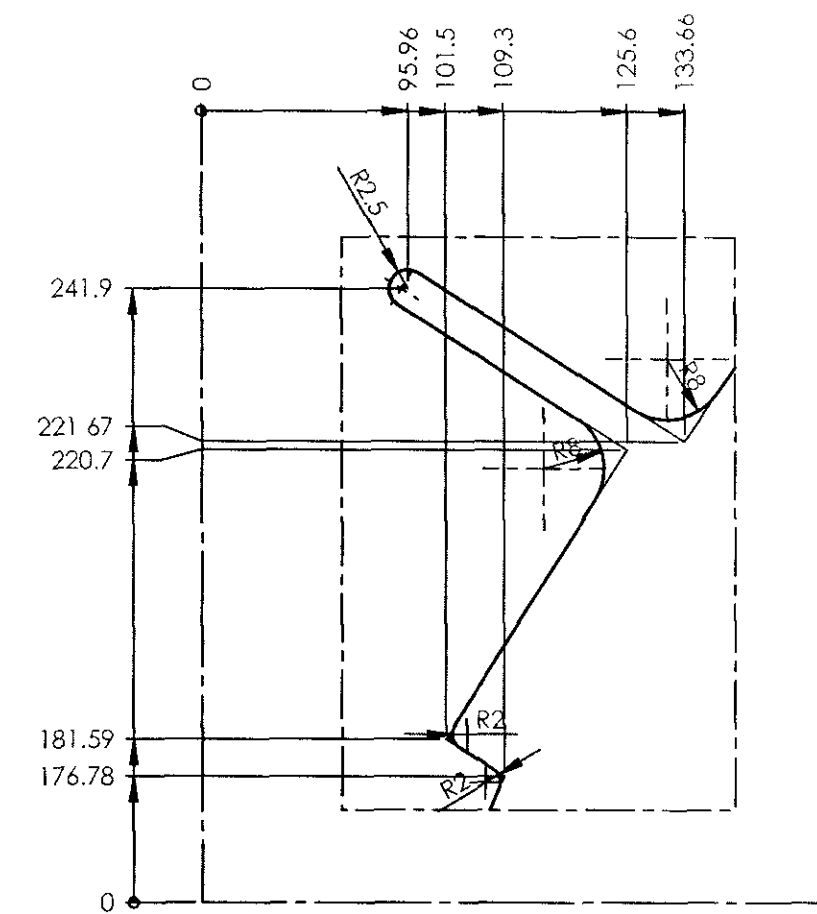
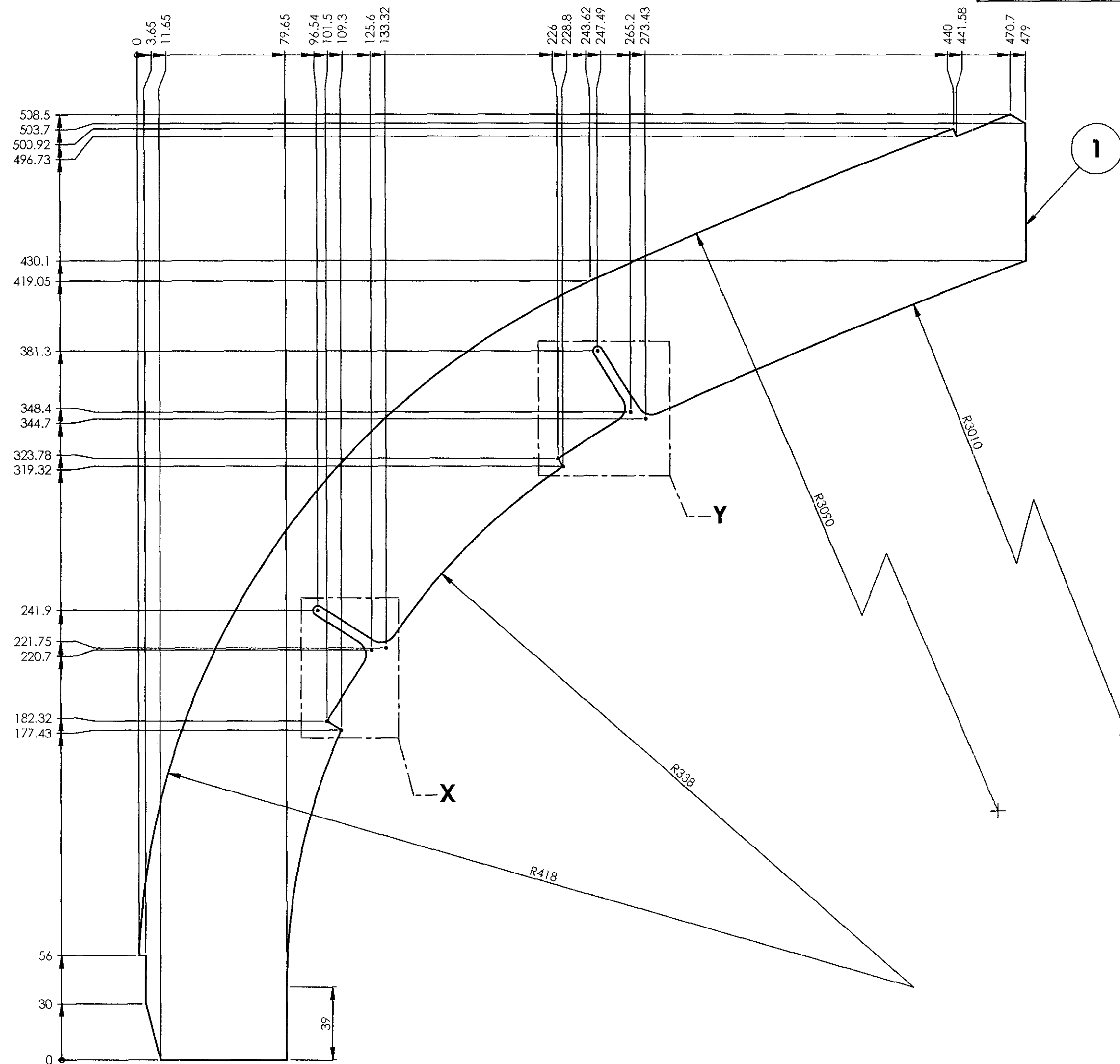
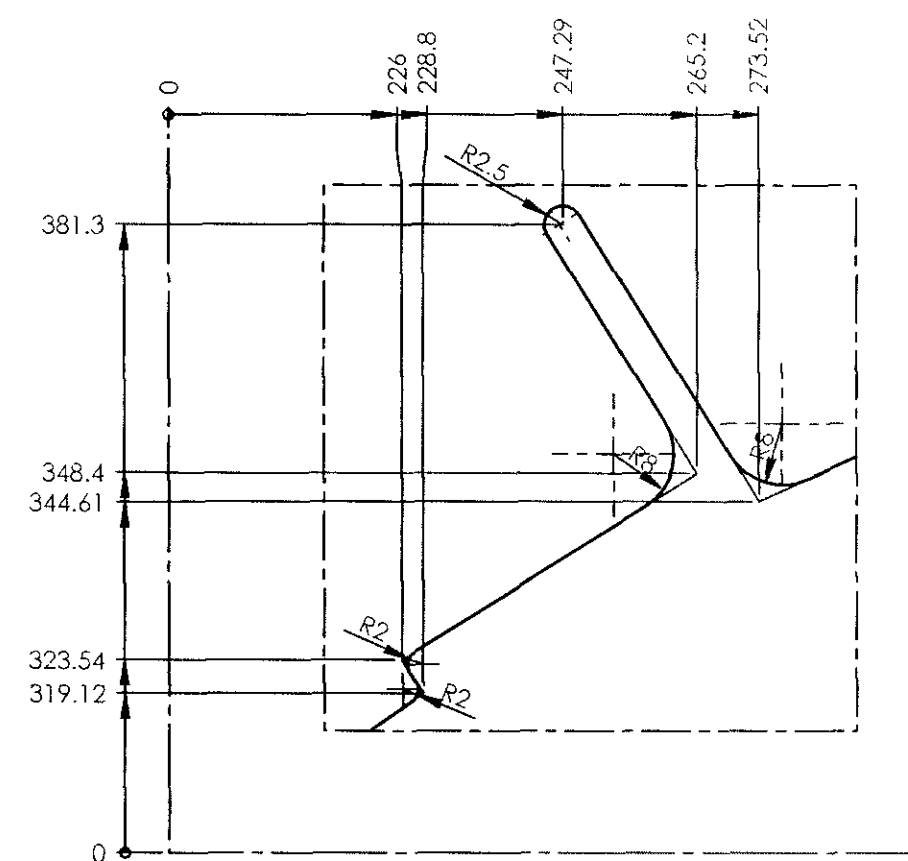
AAA16919

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

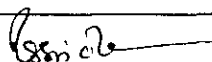
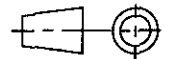
⊖ ROUGH CLEANED
⊖⊖ BURRS REMOVED
⊖⊖⊖ CHAMFERED

REVISIONS

ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION ALTERED FROM 46 TO 56. VIEWS UPDATED.	13/4/24

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


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.

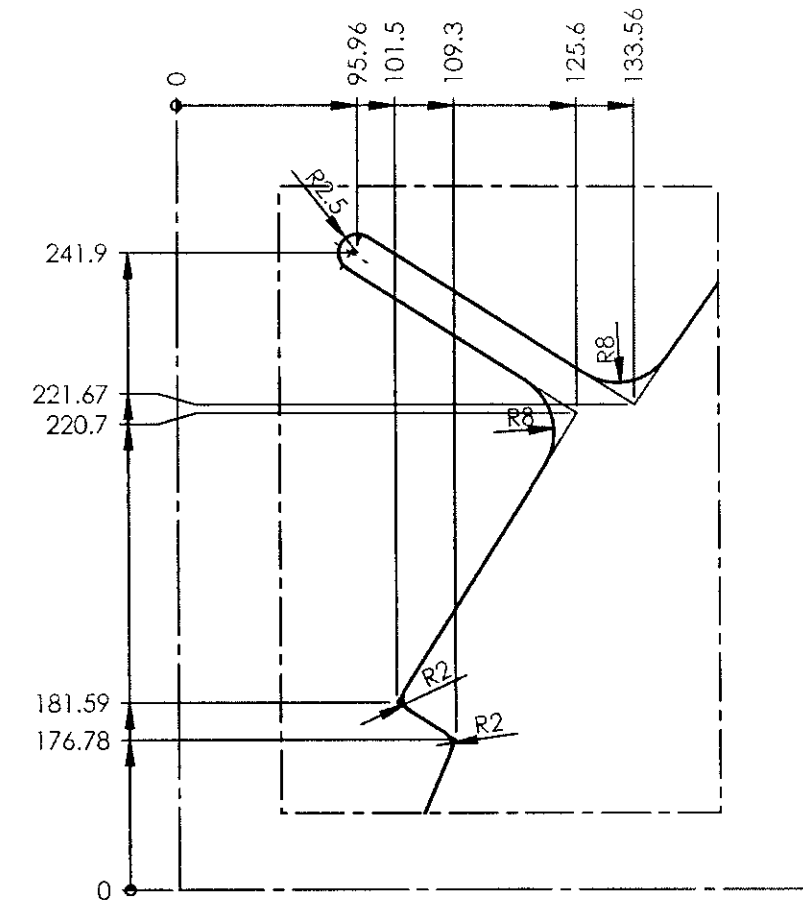
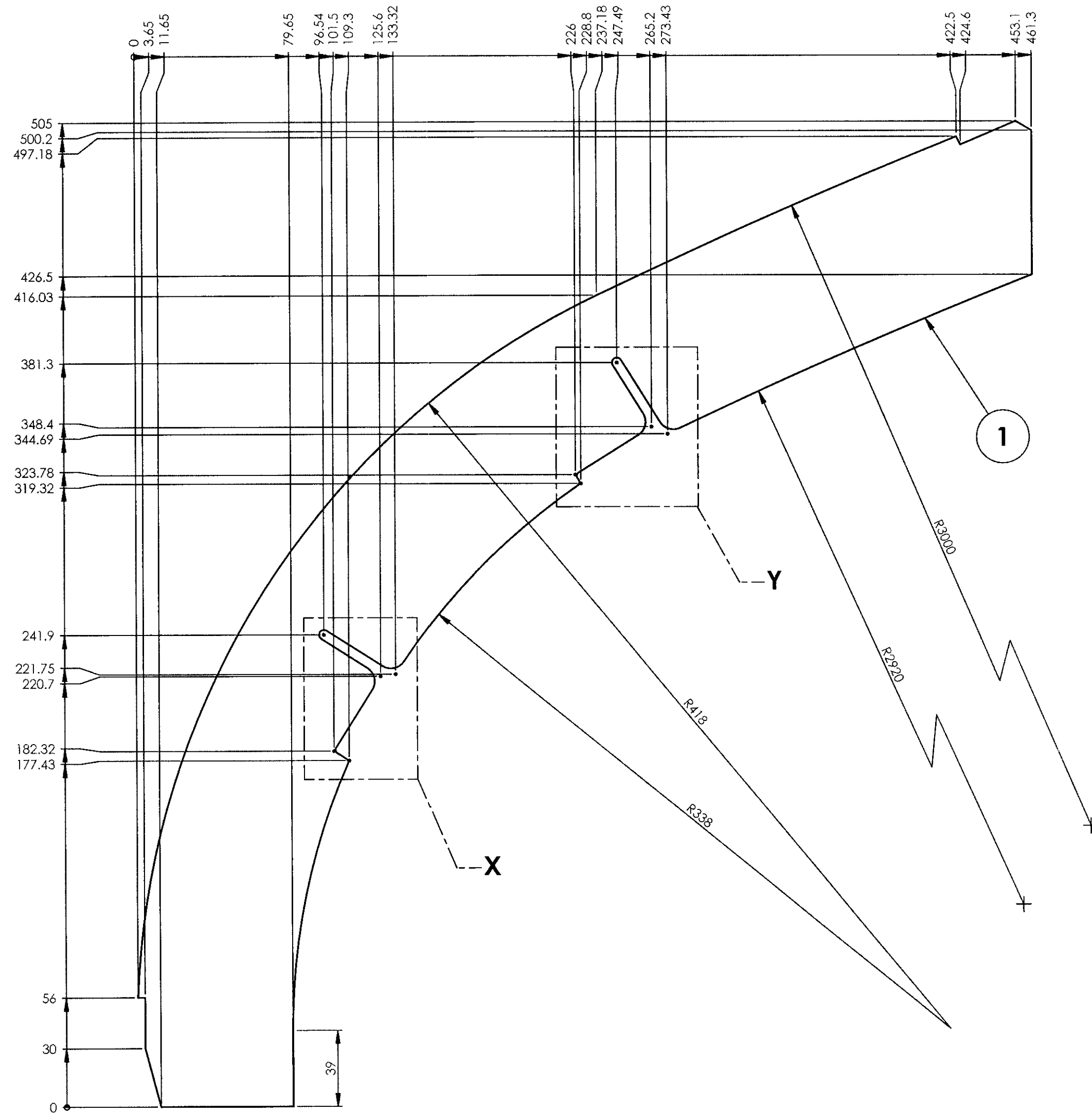
i	ROOF ARCH	4 x 479 x 508.5	1		RDSO/SPEC. C-1: 201 x 2CrNi12	1.758		
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF ASSEMBLY			SURFACE AREA IN Sq.m.: 0.117		WT/ASSY IN Kgs:			
ROOF ARCH					SCALE 1:2	SSE/D		
						CHD		
					ALT a	ALTD	AMAL GEORGE	
						DRN	K.Sriram	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038								
					SHEET 1 OF 1	AAA16919	A2	

REF.DRG.NO.2 10113.0.20.210.112

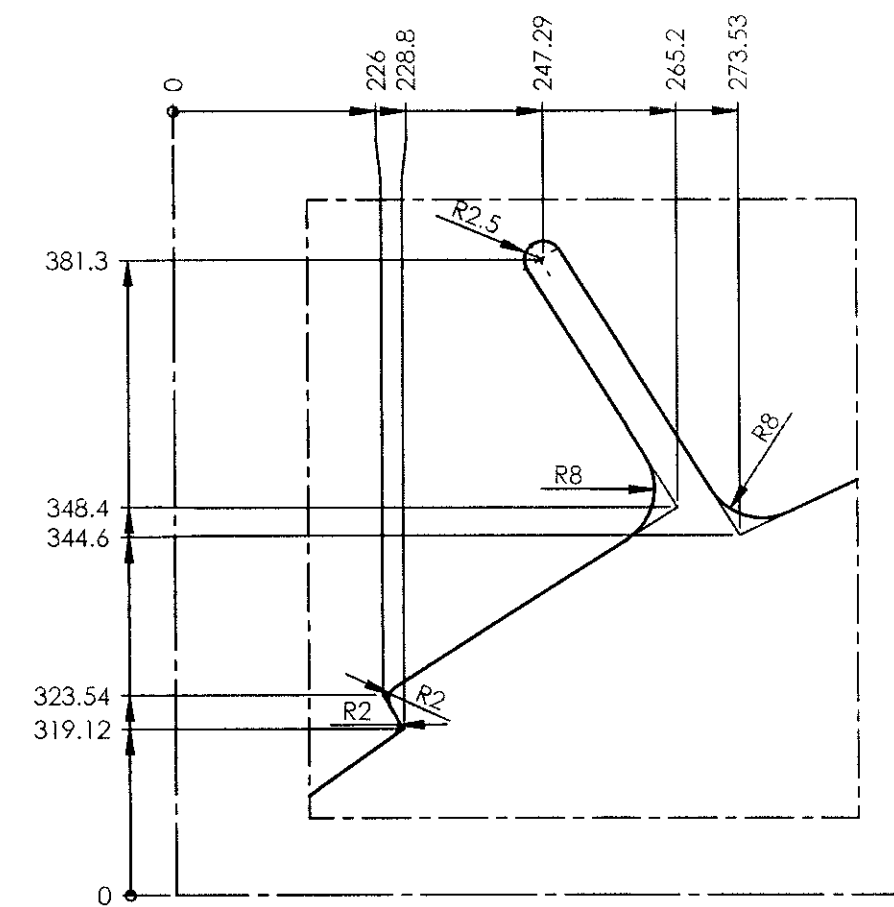
AAA16925

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE
a		DIMENSION ALTERED FROM 46 TO 56. VIEWS UPDATED.	 1/12



DETAIL X
SCALE 1 : 1



DETAIL Y
SCALE 1 : 1

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICF/STD-9-001.
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 10113.0.20.210.113

17-06-2023	21-03-2013	19/6/23
DATE OF LATEST ALT.	DATE OF FIRST ISSUE	AME/SME

1	ROOF ARCH	4 x 462 x 505	1		RDSO/SPEC C- F201 X2CrNi12	1.713	
Default	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m.: 0.114		WT/ASSY IN Kgs:	
ROOF ARCH				SCALE 1:2	SSE/D	CHD	
				ALT a	ALTD		
					DRN	AMAL GEORGE	
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		AAA16925	
						A2	

AAA16926

▽ ROUGH MACHINED

⑦ ROUGH CLEANED

▽▽ FINISH MACHINED

⑧ BURRS REMOVED

▽▽▽ FINISH VACUUM

⑧ CHAMFERED

REVISIONS

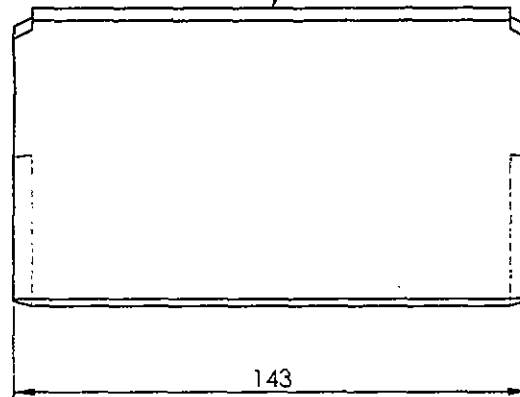
ALT.

ZONE

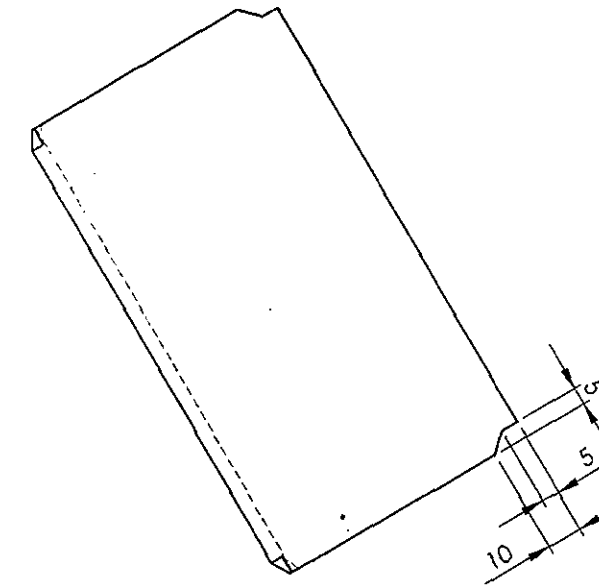
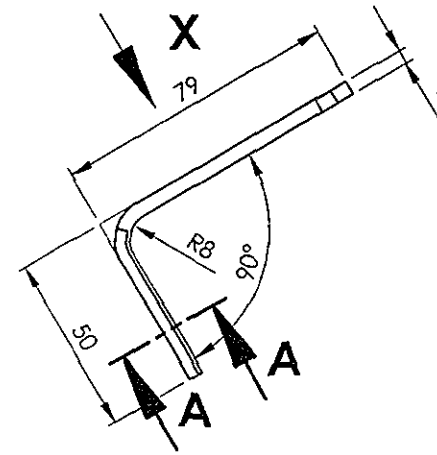
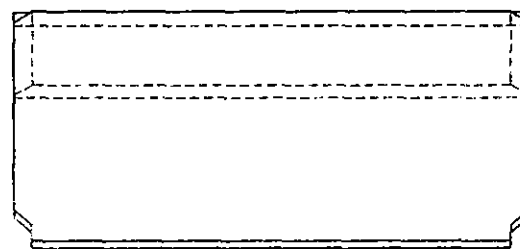
DESCRIPTION

APPROVED &
DATE

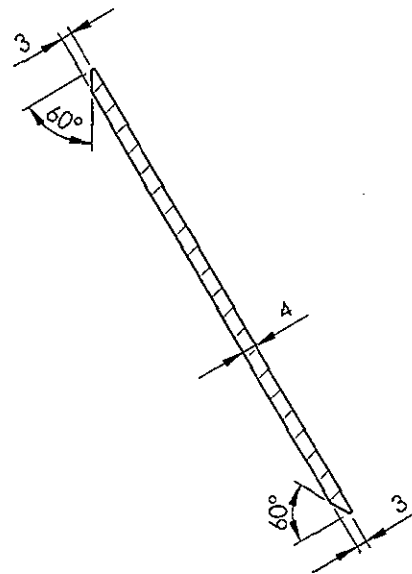
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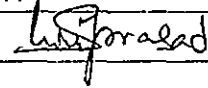
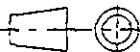
143



VIEW X



SECTION A-A

1	STIFFENING ANGLE	4 x 121 x 143	1		RDSO/SPEC C- K201 X2CrNi12	0.544		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS	
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.036			WT/ASSY IN Kgs:0.544			
STIFFENING ANGLE					SCALE	SSE/D		
					1:2	CHD		
					ALT.	ALTD	K.Srirom	
						DRN		
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			AAA16926	A3

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

REF.DRG.NO.3 10113.0.20.200.123

1		2		3		4		5		6		7		8	
AAA16929				▽ ROUGH MACHINED		② ROUGH CLEANED		REVISIONS							
				▽▽ FINISH MACHINED		③ BURRS REMOVED		ALT.		ZONE		DESCRIPTION		APPROVED & DATE	
				▽▽▽ - AS - VAC - NEJ		④ CHAMFERED									

1	RIB	4 x 33.5 x 70.5	1	RDSO/SPEC C- K201 X2 Cr Ni 12	0.043	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.003		WT/ASSY IN Kgs:0.043		
RIB				SCALE	SSE/D	
				1:1	CHD	
				ALT.	ALTD	
					DRN	
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		
INTEGRAL COACH FACTORY, CHENNAI - 600038						
DATE OF LATEST ALT.		DATE OF FIRST ISSUE		AME/SME		
		21-03-2013				

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. WEIDING SYMBOLS ARE AS PER IS: 813:1986.

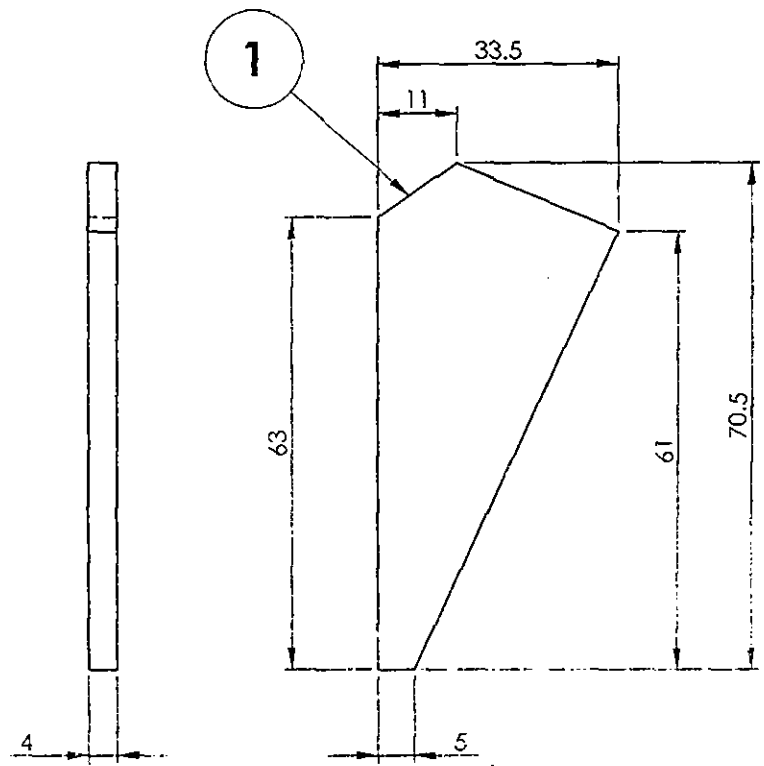
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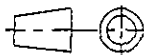
AAA16929

A3

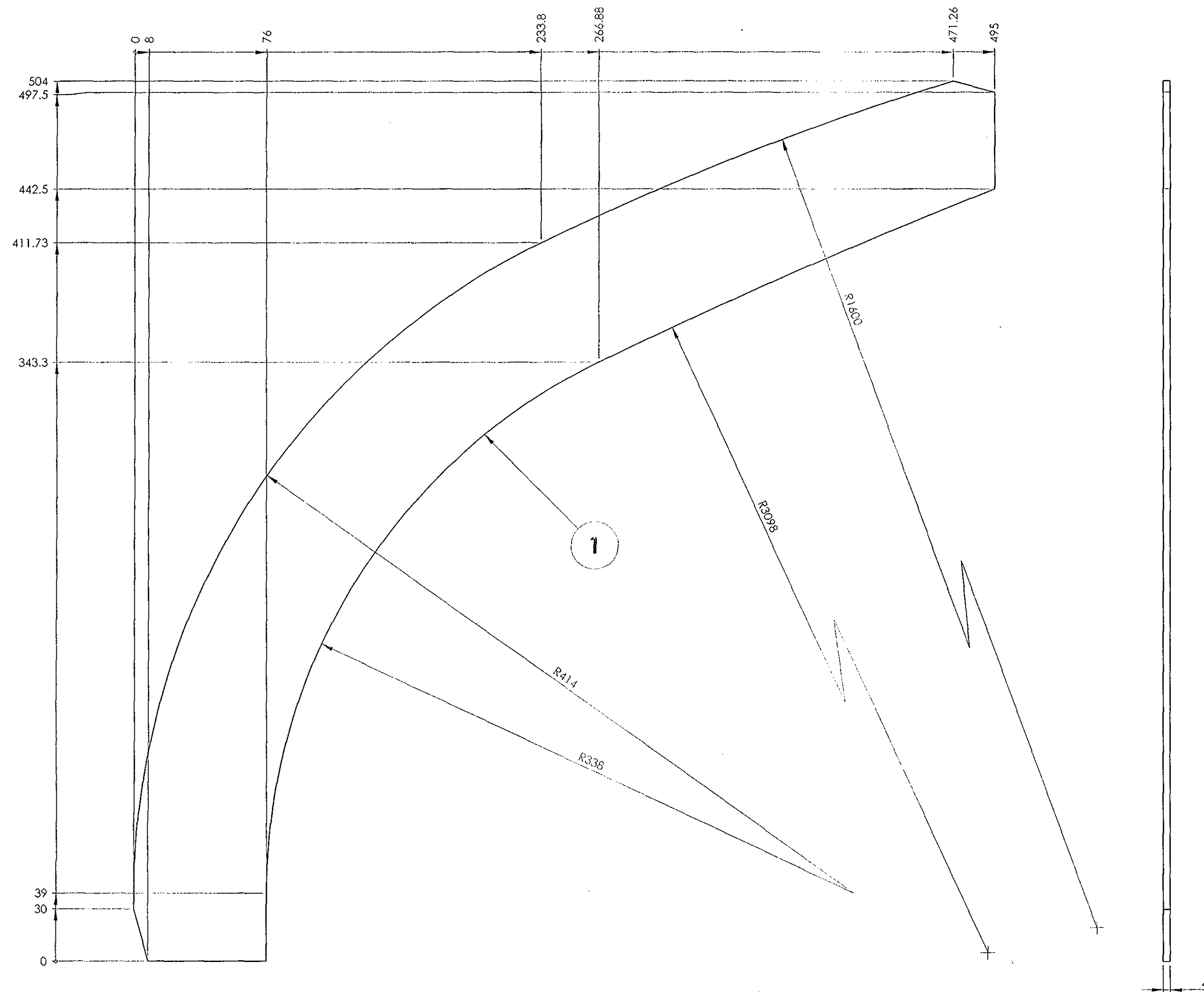
▽ ROUGH MACHINED	② ROUGH CLEANED
▽▽ FINISH MACHINED	③ BURRS REMOVED
▽▽▽ H-S-VAC-NEO	⑤ CHAMFERED

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	RIB	4 x 33.5 x 70.5	1		RDSO/SPEC C- K201 X2 Cr Ni 12	0.043	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.003			WT/ASSY IN Kgs:0.043		
RIB					SCALE	SSE/D	<i>Li. Srinivasan</i>
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Srinam
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16929		A3

ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER TO DRAWING NO. ICF/STD-9-00303. ALL DIMENSIONS SHALL AUTOMATICALLY RENDER THIS DRAWING INVALID. WELDING SYMBOLS ARE AS PER S613-1984.

[illegible]

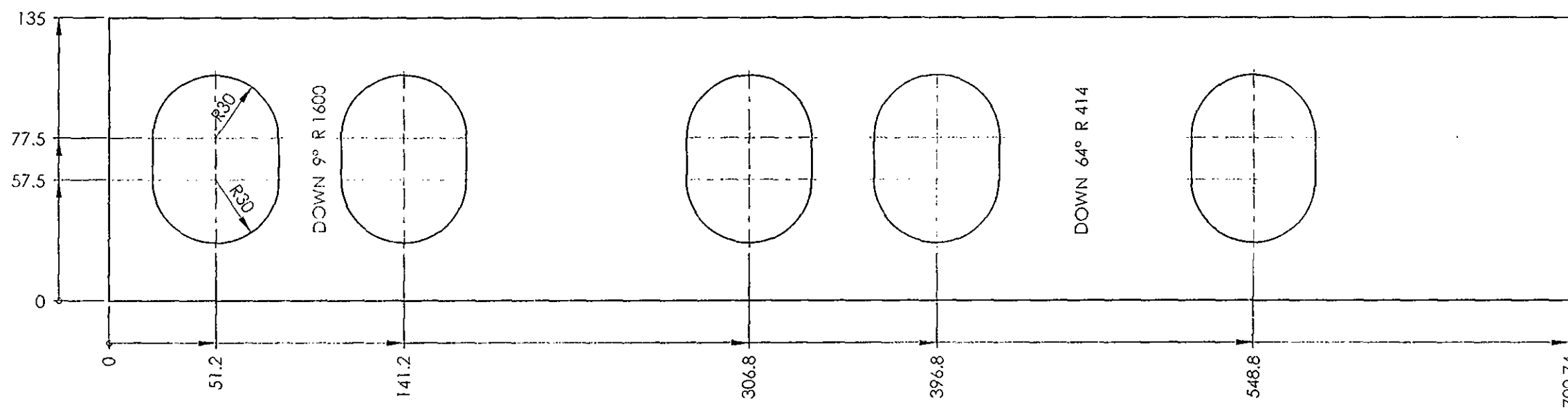
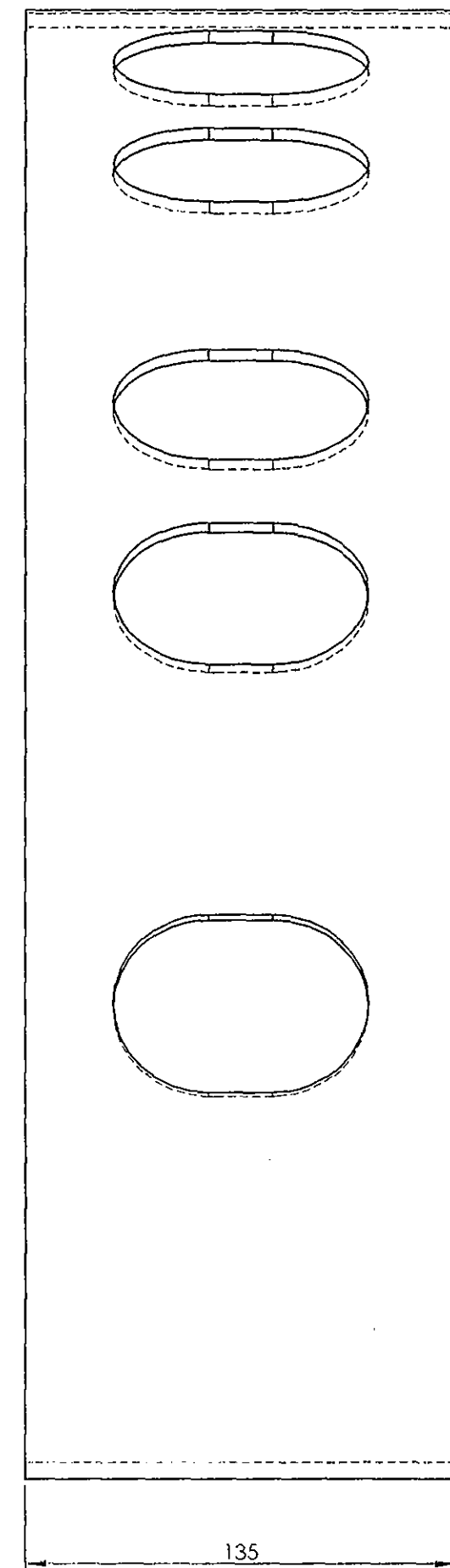
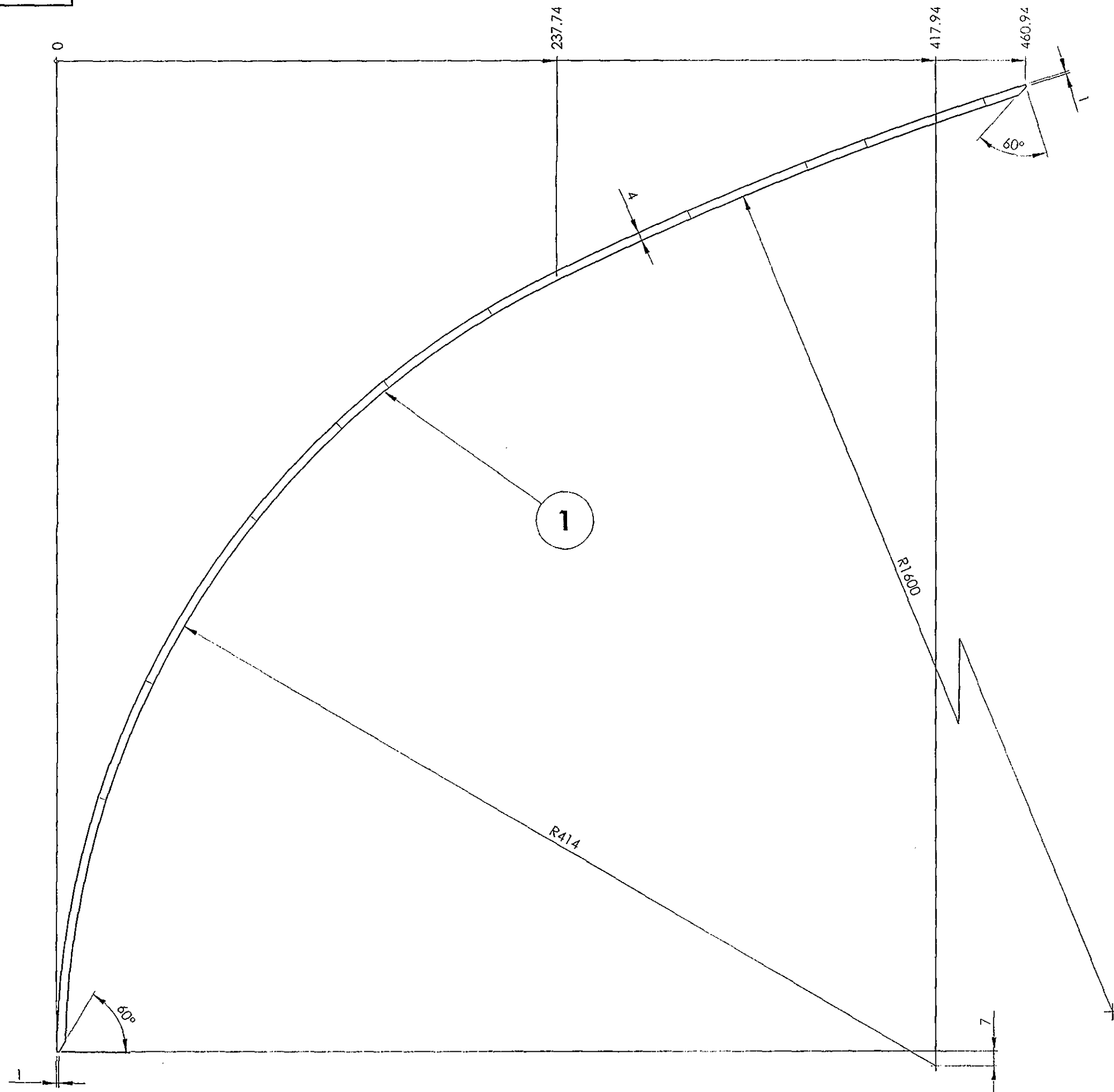
REF.DRG.NO.2 10113.0.20.210.103

	21-03-2013	<i>[Signature]</i>
DATE OF LAST SALE	DATE OF FIRST ISSUE	AME/SME

AAA16932

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

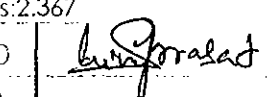
REVISIONS			APPROVED & DATE
ALT.	ZONE	DESCRIPTION	



DEVELOPMENT VIEW

REF.DRG.NO.3 10113.0.20.210.117

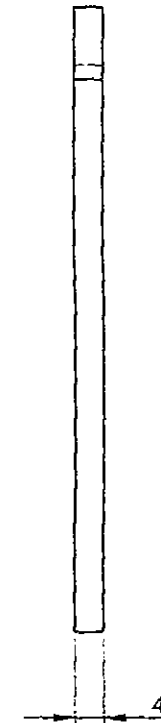
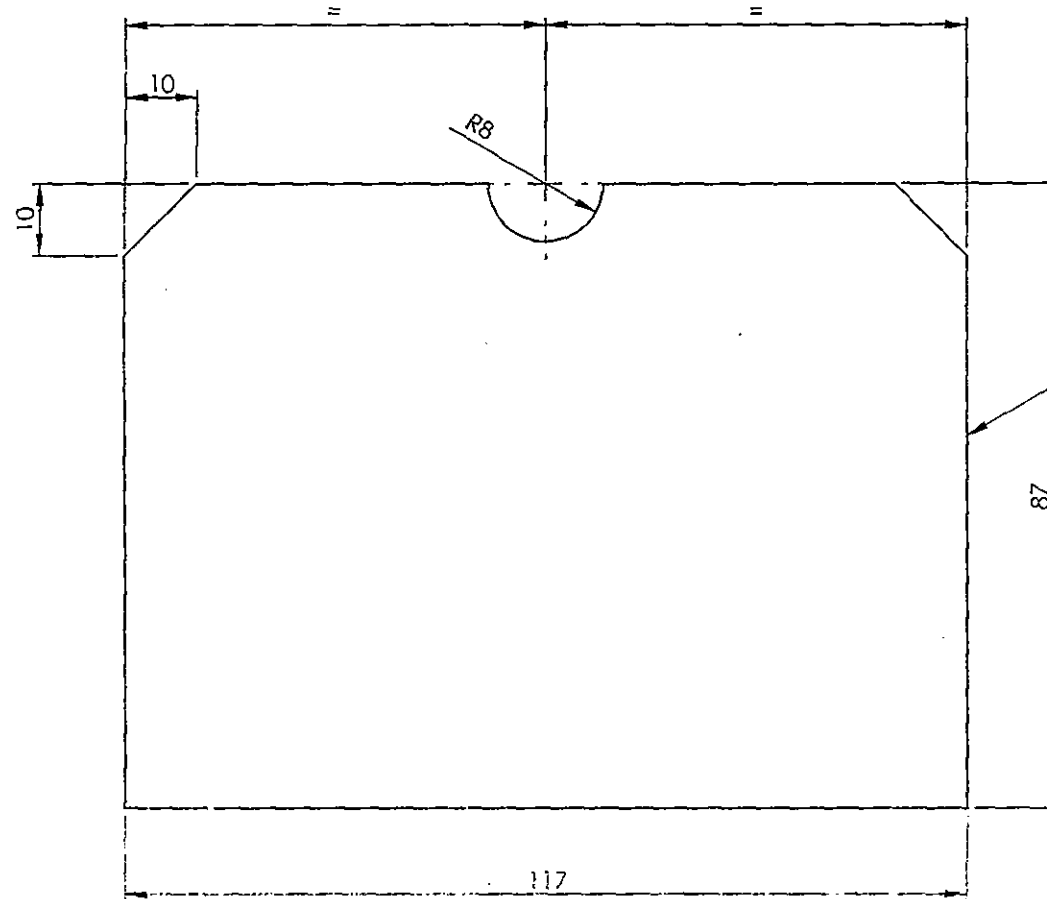
DATE OF LATEST ALT.	21-03-2013	AME/SME
DATE OF FIRST ISSUE		

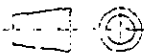
QTY.	FLANGE	4 x 135 x 701	ITEM NO. 1	REF. DRGS.	MATL. SPEC. KDSO/SPEC C 1-01 X2CIN12	WT/UNIT IN KGS 2.367	RE MARKS
GROUP: I-6 ROOF ASSEMBLY				SURFACE AREA IN Sq.m: 0.160		WT/ASSY IN Kgs: 2.367	
FLANGE				SCALE 1:2	SSE/D CHD		
				ALT	ALTD		
				DRN	K.Sriram		
INDIAN RAILWAY STANDARDS				SHEET 1 OF 1		AAA16932	
INTEGRAL COACH FACTORY, CHENNAI - 600038						A2	

AAA16933

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

REVISIONS			
ALT.	ZONE	DESCRIPTION	APPROVED & DATE



1	WEB	4 x 87 x 117	1		RDSO/SPEC C- K201 X2CrNi12	0.319	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.022			WT/ASSY IN Kgs:0.319		
WEB					SCALE	SSE/D	K.Srirom
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Srirom
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		AAA16933

ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE SPECIFIED. FOR UNTOLERANCED DIMENSIONS AND ROUGHNESS VALUES, REFER DRAWING NO ICE/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 10113.0.20.200.122

AAA16934

▽ ROUGH MACHINED

① ROUGH CLEANED

▽▽ FINISH MACHINED

② BURRS REMOVED

▽▽▽ FINE FINISH VAC-NEED

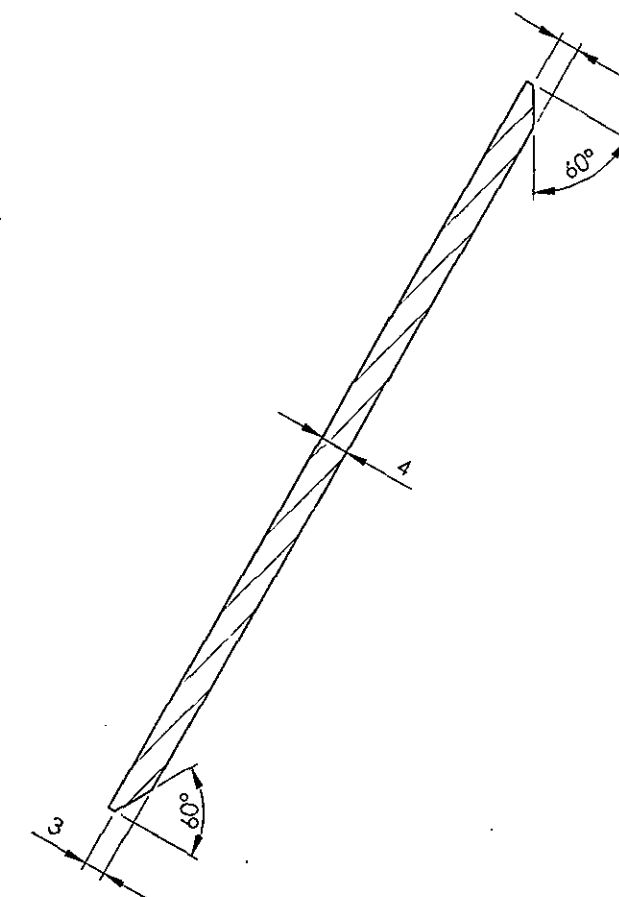
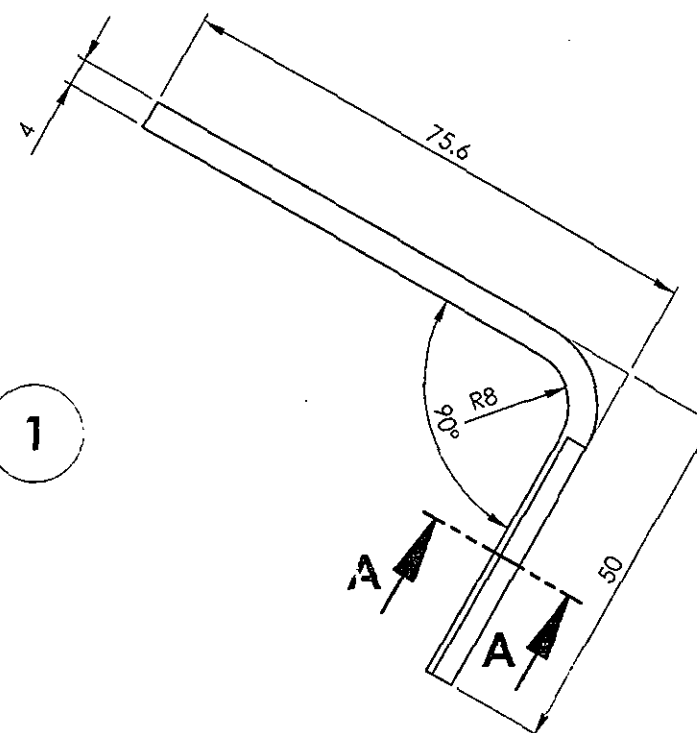
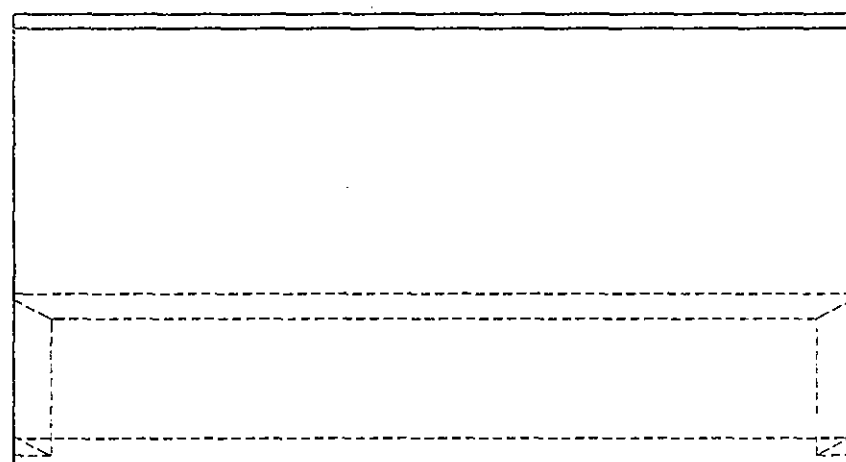
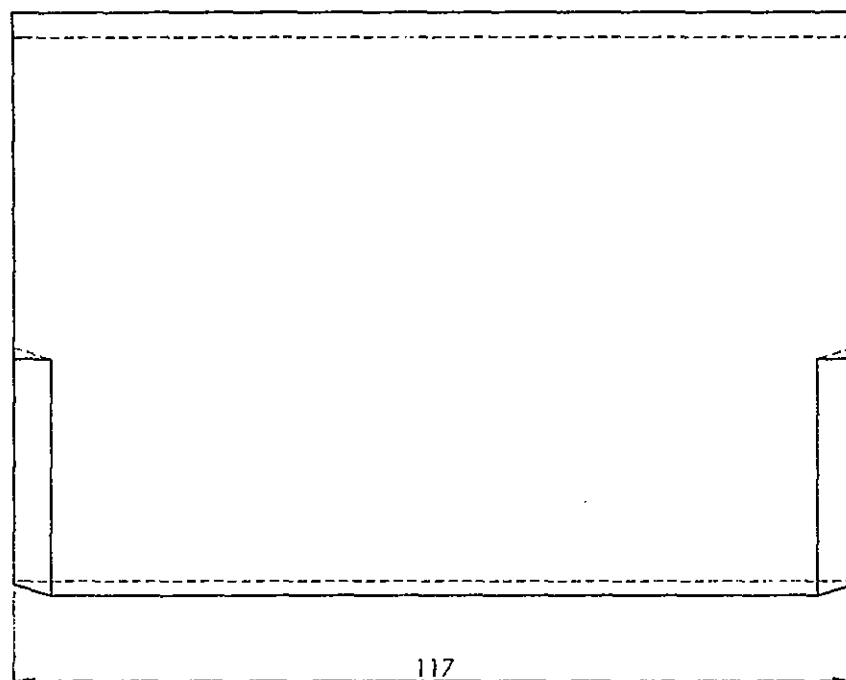
③ CHAMFERED

REVISIONS

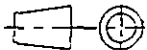
ALT.

ZONE

DESCRIPTION

APPROVED &
DATE

SECTION A-A

1	STIFFENING ANGLE	4 x 117 x 118	1		RDSO/SPEC C- K201 X2CrNi12	0.434	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.:0.029			WT/ASSY IN Kgs:0.434		
STIFFENING ANGLE					SCALE	SSE/D	<i>hussain</i>
					1:1	CHD	
					ALT.	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038							
					SHEET 1 OF 1		
					AAA16934		A3

AAA16935

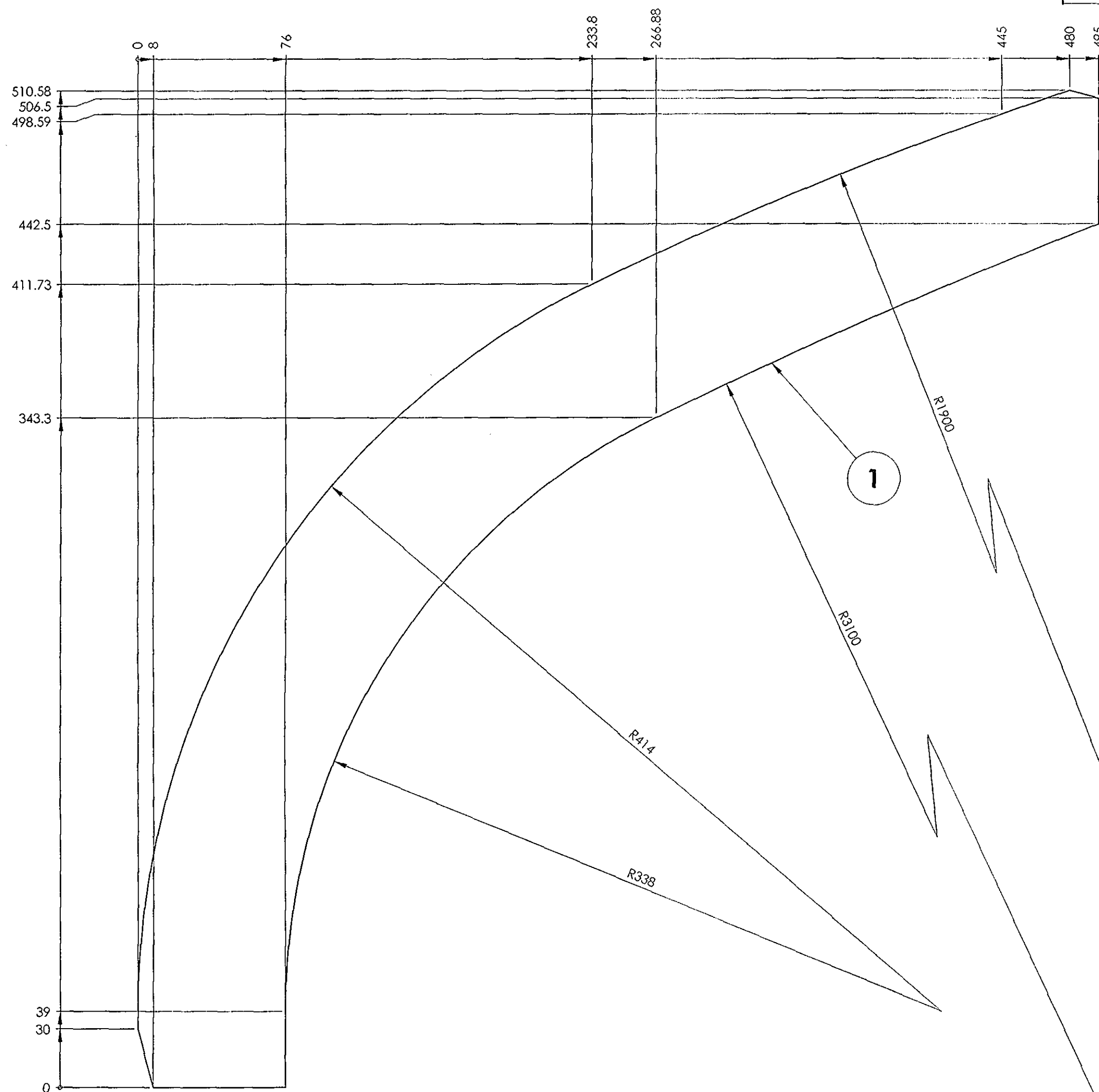
▽ ROUGH MACHINED	① ROUGH CLEANED
▽▽ FINISH MACHINED	② BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	③ CHAMFERED

ALT.

ZONE

REVISIONS

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.

REF.DRG.NO.2 10113.0.20.210.104

DATE OF LATEST ALT.	21-03-2013	AME/SME
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1	ROOF ARCH	4 x 495 x 511	1	RDSO/SPEC C- K201 X2CIN12	1.737		
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.115		WT/ASSY IN Kgs: 1.737			
ROOF ARCH				SCALE 1:2	SSE/D CHD	<i>K. Sriram</i>	
				ALT	ALTD		
				DRN	K. Sriram		
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1		AAA16935 A2	

AAA16937

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

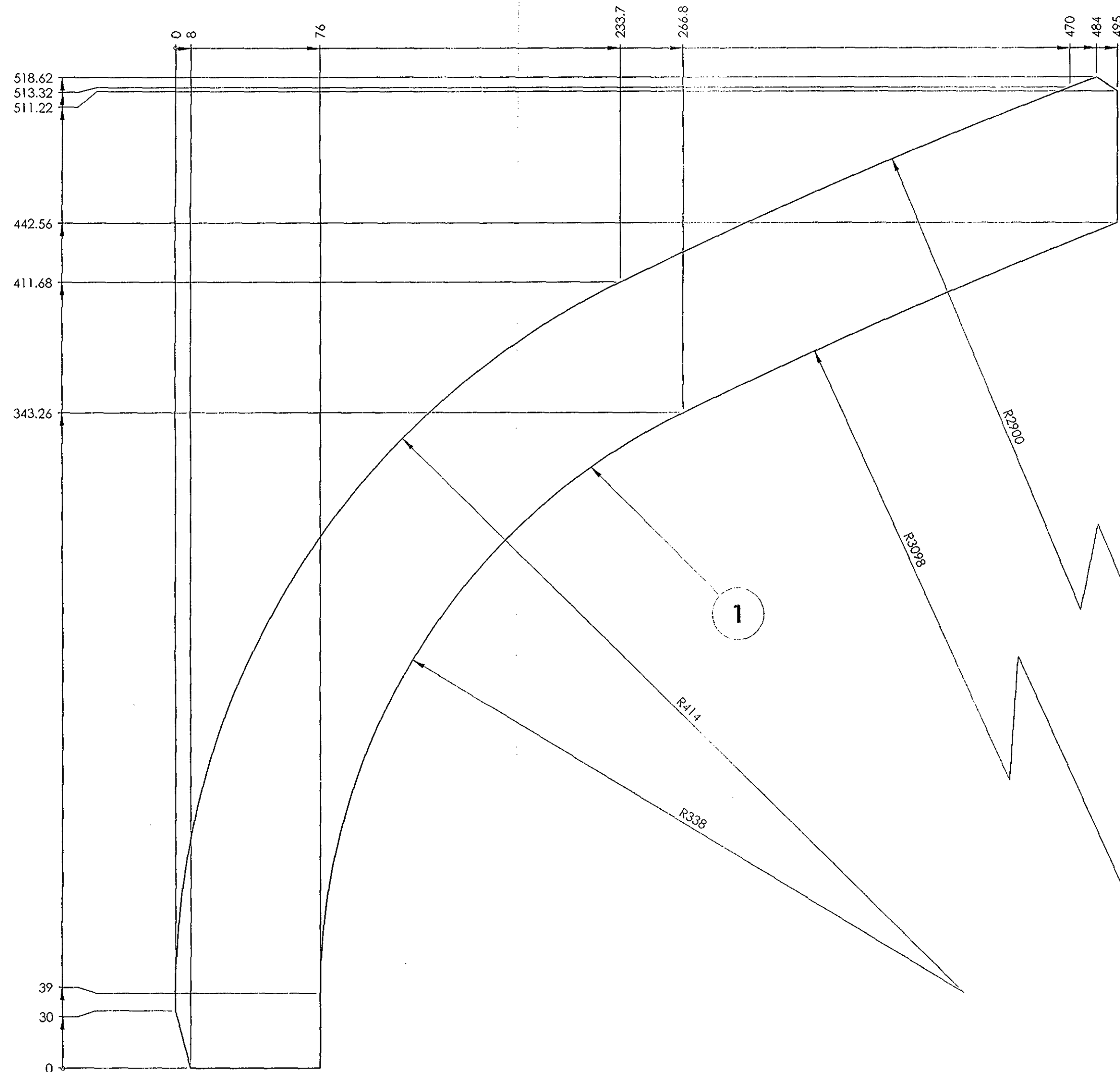
REVISIONS

ALT.

ZONE

DESCRIPTION

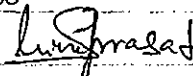
APPROVED &
DATE



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:13-1986.

REF.DRG.NO.2 10113.0.20.210.105

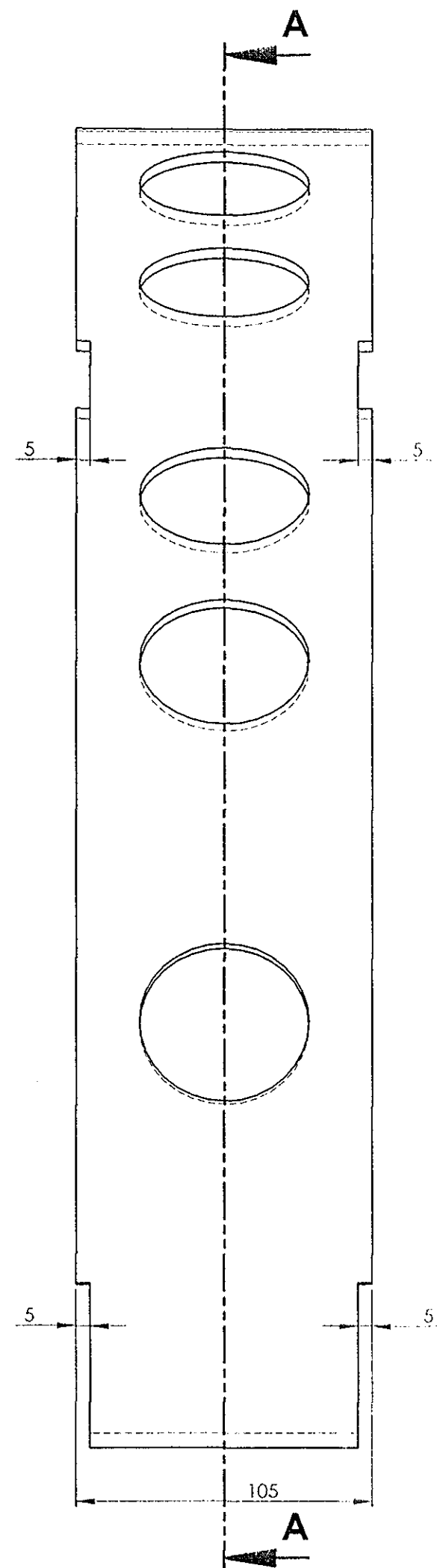
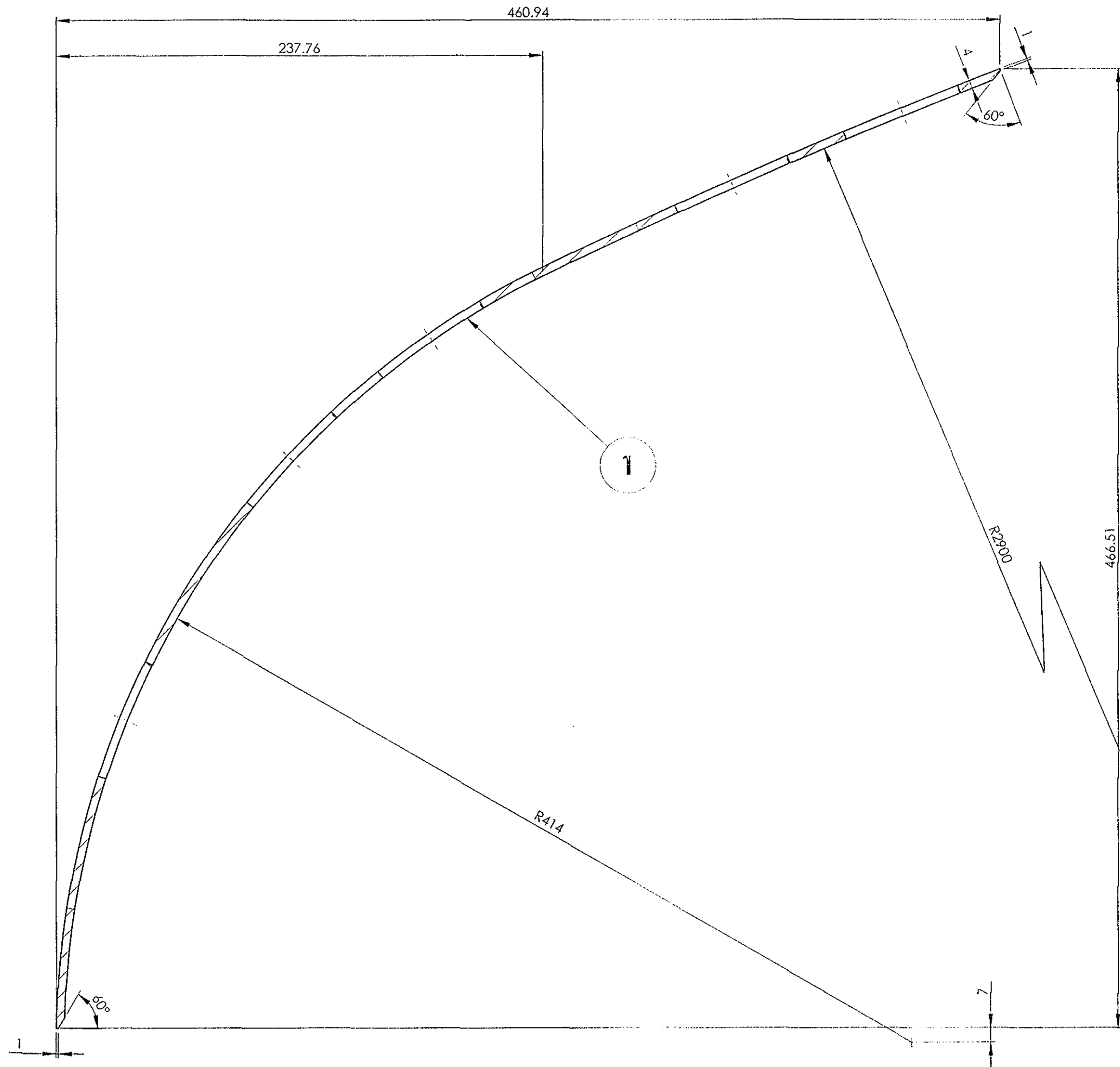
DATE OF LATEST ALT.	21-03-2013	AME/SME
DATE OF FIRST ISSUE		

1	ROOF ARCH	4 x 495 x 519	1		RDSO/SPEC C- K201 X2CIN12	1.758	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: 1-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.116			WT/ASSY IN Kgs: 1.758		
ROOF ARCH					SCALE 1:2	SSE/D CHD	
					ALT	ALTD	
						DRN	K.Sriram
					INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038		
SHEET 1 OF 1							
AAA16937		A2					

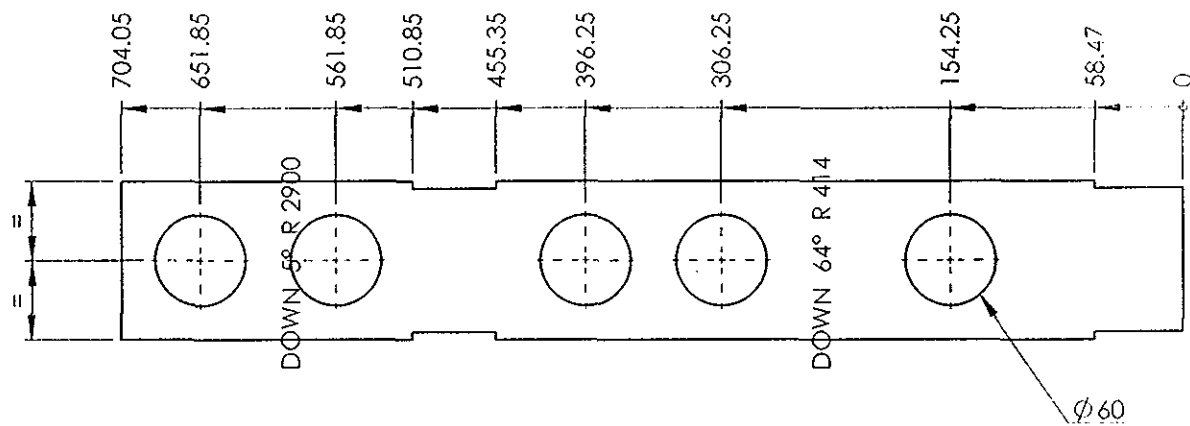
AAA16938

▽ ROUGH MACHINED	⑪ ROUGH CLEANED
▽▽ FINISH MACHINED	⑫ BURRS REMOVED
▽▽▽ FINE FINISH MACHINED	⑬ CHAMFERED

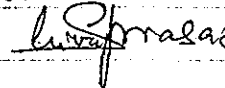

REVISIONS		APPROVED & DATE	
ALT.	ZONE	DESCRIPTION	



SECTION A-A



DEVELOPMENT VIEW

1	FLANGE	4 x 105 x 705	1		RDSO/SPEC C-K201 X2CrNi12	1.864	
QTY.	DESCRIPTION	DIMENSIONS	ITEM NO.	REF. DRGS	MATL.SPEC.	WT/UNIT IN KGS	REMARKS
GROUP: I-6 ROOF ASSEMBLY		SURFACE AREA IN Sq.m.: 0.127			WT/ASSY IN Kgs: 1.864		
FLANGE					SCALE 1:2	SSE/D	
						CHD	
					ALT	ALTD	
						DRN	K.Sriram
INDIAN RAILWAY STANDARDS INTEGRAL COACH FACTORY, CHENNAI - 600038				SHEET 1 OF 1			
					AAA16938		
					A2		

DATE OF LATEST ALL.	21-03-2013	AME/SME
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REF.DRG.NO.3 10113.0.20.210.121

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