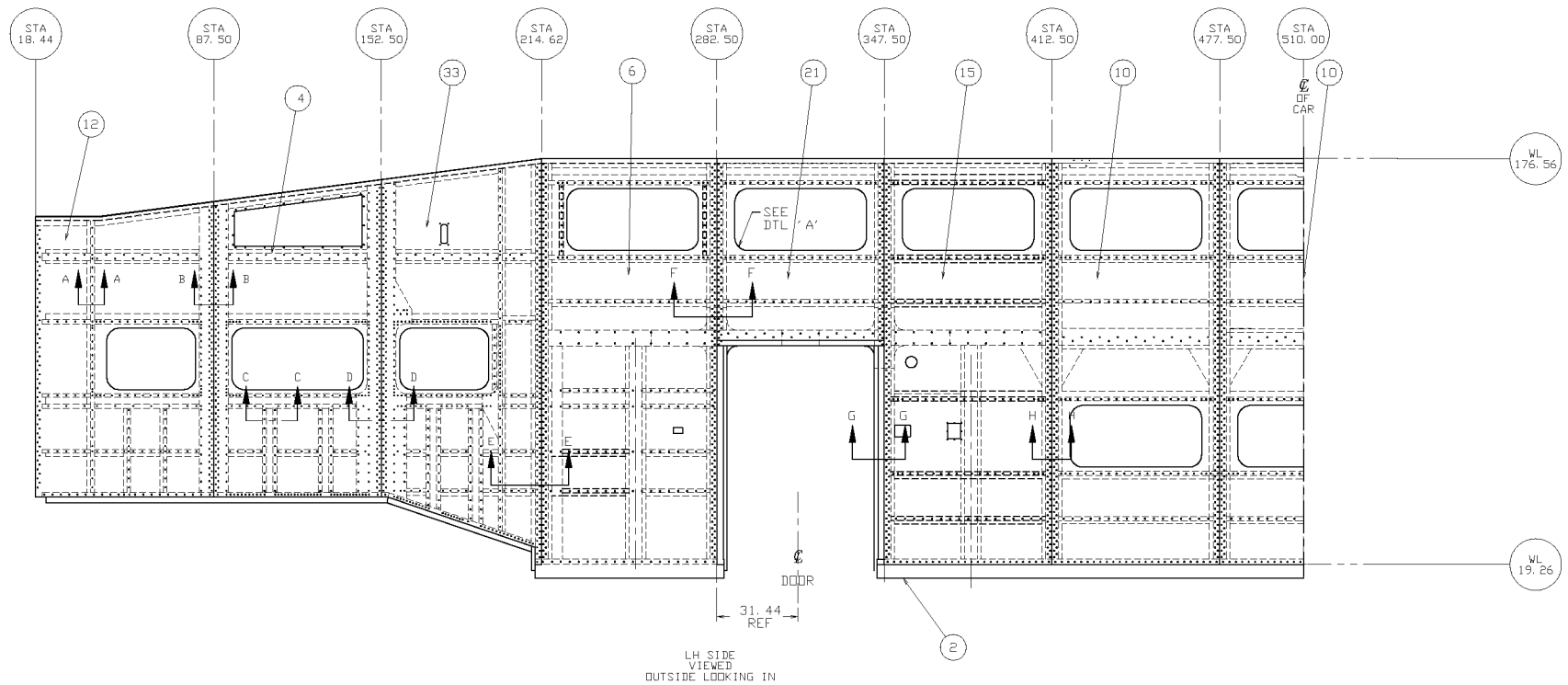
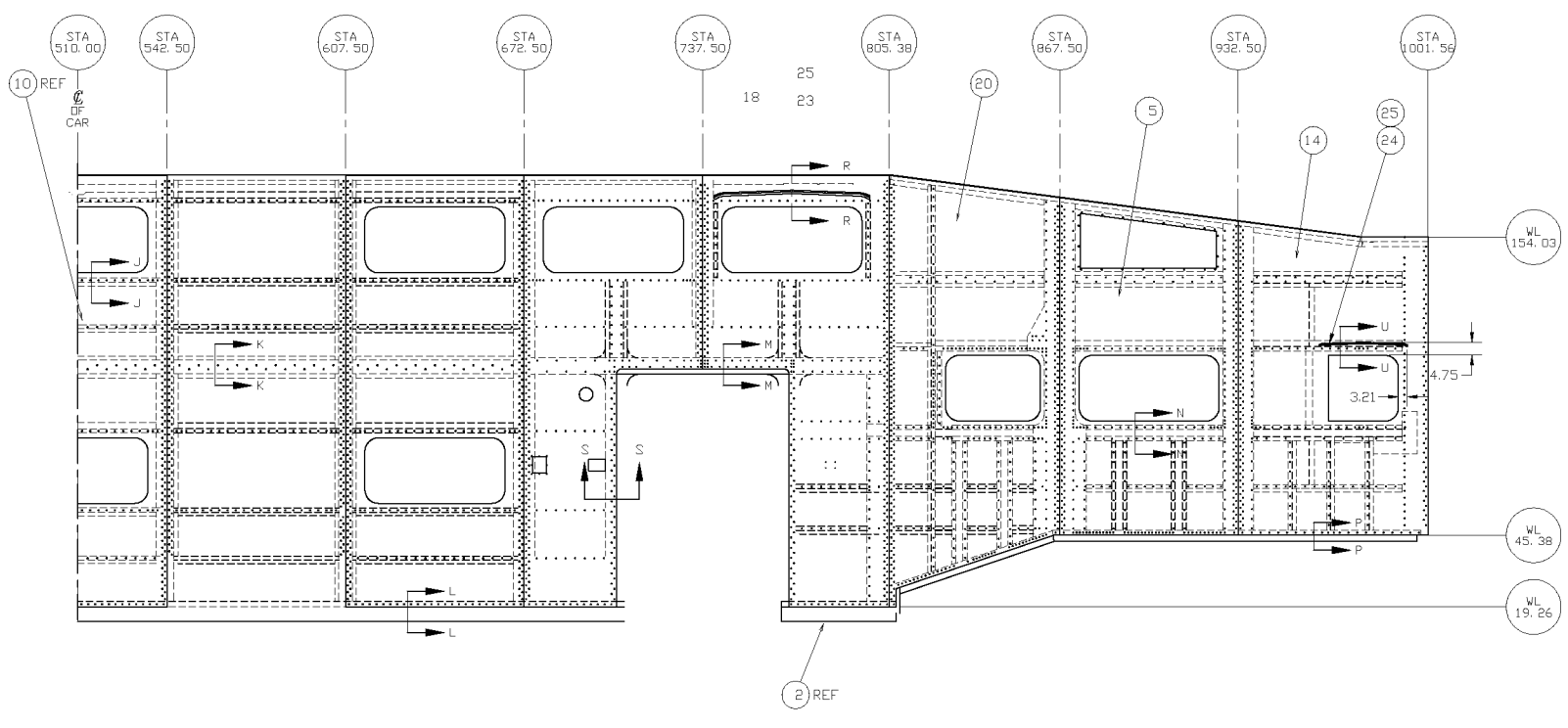
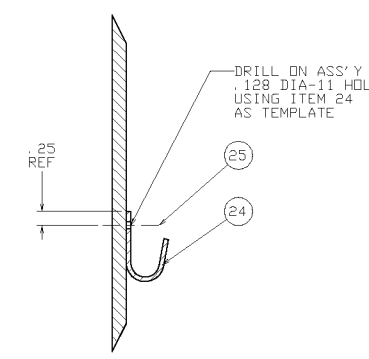
REF. DRAWING	20-020-003590	DRAWN		SIZE A0	DWG NO 20-020-003591	REV. C
TOLERANCES UNLESS OTHERWISE SPECIFIED ANGLE ± 1° .X = ± .1 .XX = ± .06 .XXX = ± .015	CAN/CSA B78.2	CHECKED STRESS SYSTEMS ELEC LEAD ENG MTHDS ENG		DRAWING TITLE	ASSY. -SKIN & SIDEWALL	
THIS DRAWING IS THE PROPERTY OF BOMBARDIER INC. AND MAY NOT, IN WHOLE OR IN PART BE DUPLICATED OR USED FOR THE DESIGN OR MANUFACTURE OF THE PART OR PARTS DISCLOSED HEREIN WITHOUT THE PRIOR WRITTEN PERMISSION OF BOMBARDIER INC.		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES		SCALE 1:20	SHEET 1/4	

Bombardier Inc.
Groupe matériel de transport
Transportation Equipment Group

	QTY. REQ'D	ZONE	ITEM	PART NUMBER	DESCRIPTION	MATERIAL SPEC.	FIN. CODE
	X		1	20-020-003591-001	ASSY-SKIN & S/W		F####. #
	1		2	20-020-003586-001	WLDT-S/W. STRUCT.		
	1		3	20-020-003587-001	WLDT-S/W. STRUCT.		
	2		4	20-020-003513-001	SKIN-SIDE		
	2		5	20-020-003513-002	SKIN-SIDE		
	1		6	20-020-003754-001	SKIN-SIDE		
	1		7	20-020-003754-002	SKIN-SIDE		
	1		8	20-020-003515-001	SKIN-SIDE		
	1		9	20-020-003515-002	SKIN-SIDE		
	8		10	20-020-003518-001	SKIN-SIDE		
	–		11				
	1		12	20-020-003520-001	SKIN-SIDE		
	1		13	20-020-003520-002	SKIN-SIDE		
	1		14	20-020-003536-001	SKIN-SIDE		
	1		15	20-020-003755-001	SKIN-SIDE		
	1		16	20-020-003755-002	SKIN-SIDE		
	1		17	20-020-003522-001	SKIN-SIDE		
	1		18	20-020-003522-002	SKIN-SIDE		
	1		19	20-020-003526-001	SKIN-SIDE		
	1		20	20-020-003526-002	SKIN-SIDE		
	2		21	20-020-003756-001	SKIN-SIDE		
	1		22	20-020-003535-001	SKIN-SIDE		
	2		23	20-020-003527-001	GUTTER-RAIN		
	1		24	20-020-003539-001	GUTTER-RAIN		
	45		25	01-390-240408	RIVET		
C	.8344		26	01-390-241012	RIVET		
C	.4184		27	01-390-241016	RIVET		
	88		28	01-390-241212	RIVET		
C	340		29	01-396-810808	RIVET		
	~~A/R~~		~~30~~	~~01-500-020102~~	~~SEALANT~~	~~MANUS 12-A~~	
	~~A/R~~		~~31~~	~~01-500-020106~~	~~SEALANT~~	~~MANUS 52-A~~	
	A/R		32	01-500-440000	SEALANT	ONE-COMPONENT POLYURETHANE	
	1		33	20-020-003768-001	SKIN-SIDE		
	1		34	20-020-003768-002	SKIN-SIDE		







SECTION U-U
SCALE 1:1

NOTE:

2. ALL CREVICES AT THE SKIN SHALL BE SEALED WITH ITEM 32.

4. CREVICES AT THE BUTTING EDGES OF SIDE SKINS AND COVE EXTRUSION SHALL BE SEALED WITH ITEM 32.

BL319007SE

REV	REVISION
C	SEE R.B. (JSR 93.05.17)

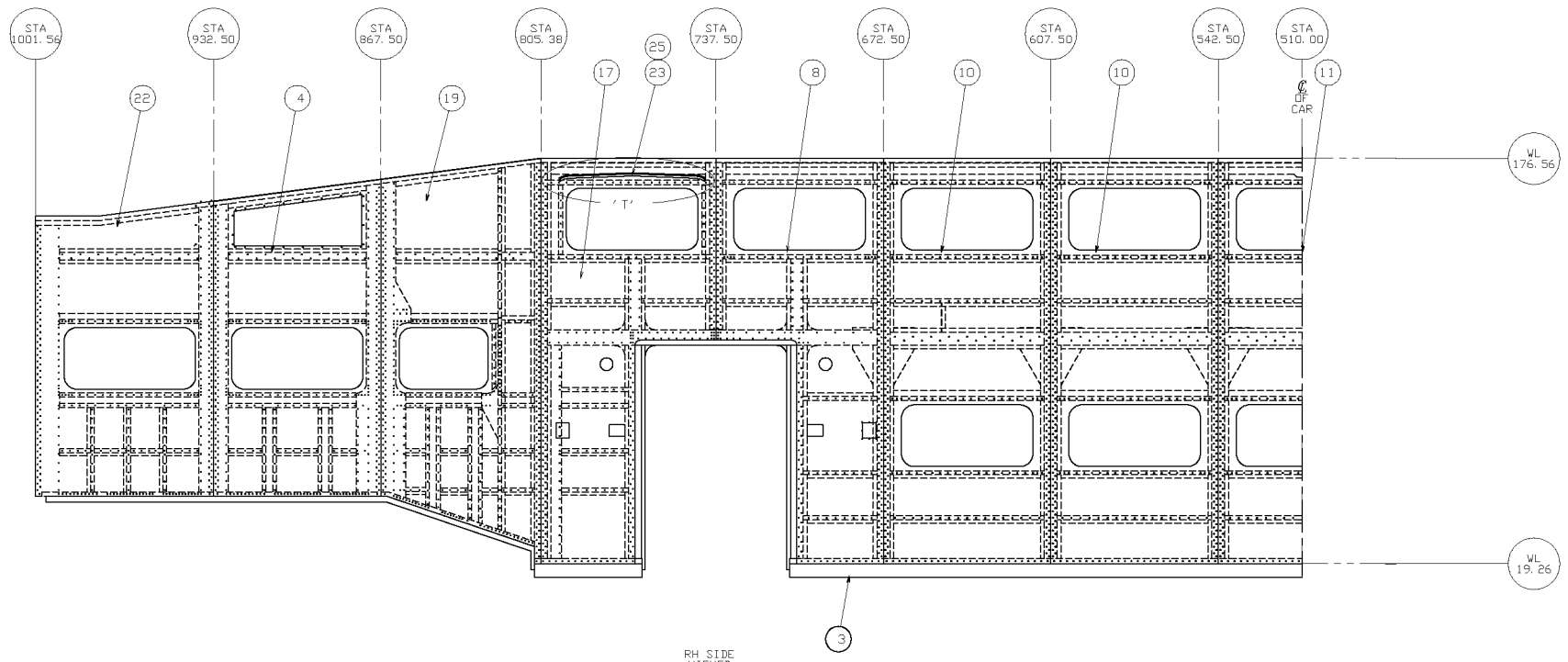
AO SIZE | DWG NO 20-020-003591 | REV. C

CAD DRAWING DO NOT SCALE OR ALTER MANUALLY

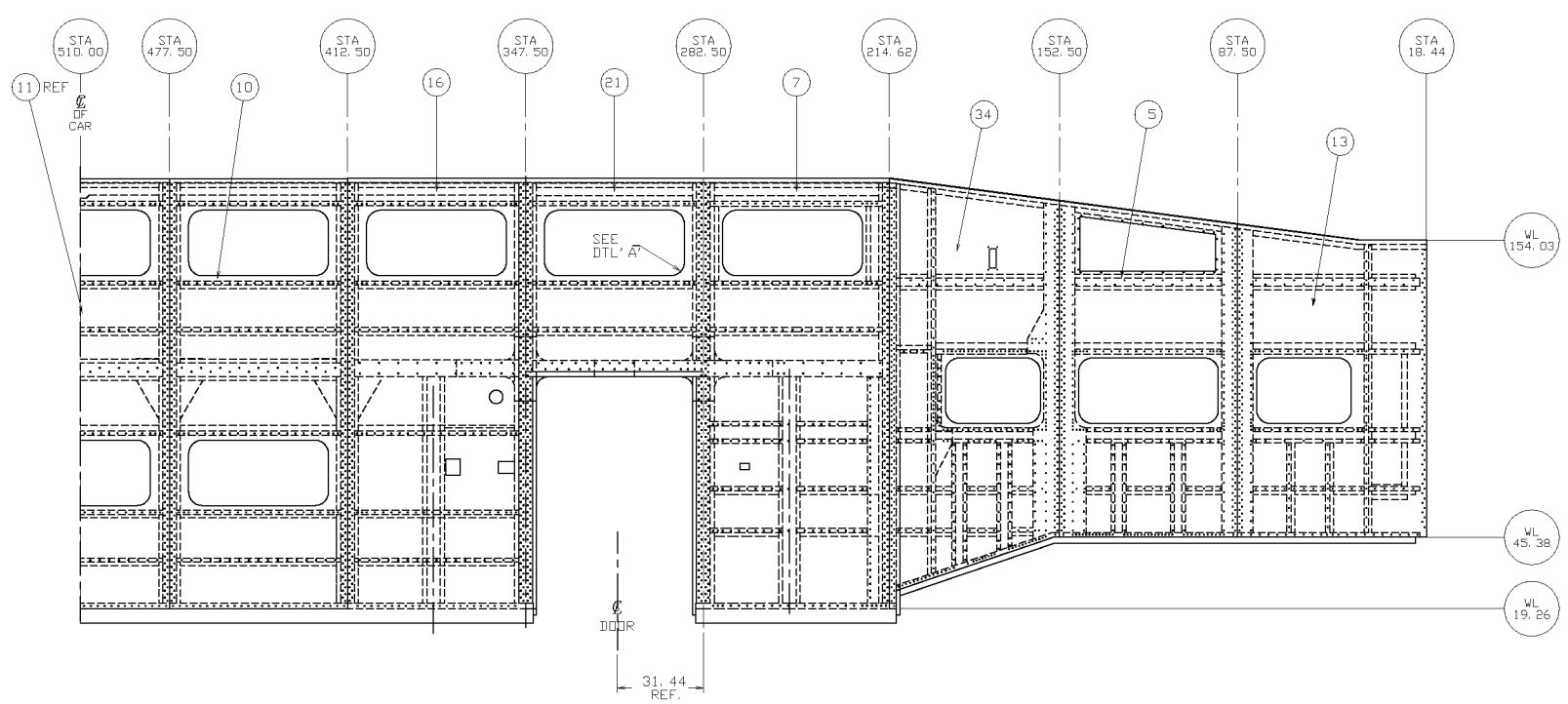
REF. DRAWING	20-020-003529	DRAWN	DEW 91-03-01	SIZE A0	DWG NO	20-020-003591	REV. B
TOLERANCES UNLESS OTHERWISE SPECIFIED ANGLE ± 1° .X = ± .1 .XX = ± .06 .XXX = ± .015	CAN/CSA B78.2	CHECKED STRESS SYSTEMS ELEC LEAD ENG MTHDS ENG		DRAWING TITLE	ASSY. -SKIN & SIDEWALL		
THIS DRAWING IS THE PROPERTY OF BOMBARDIER INC. AND MAY NOT, IN WHOLE OR IN PART BE DUPLICATED OR USED FOR THE MANUFACTURE OF THE PART OR PARTS DISCLOSED HEREIN WITHOUT THE PRIOR WRITTEN PERMISSION OF BOMBARDIER INC.		UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES		SCALE 1:20		SHEET 2/4	

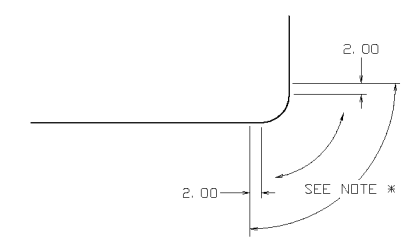
Bombardier Inc.
Groupe matériel de transport
Transportation Equipment Group

QTY. REQ'D	ZONE	ITEM	PART NUMBER	DESCRIPTION	MATERIAL SPEC.	FIN. CODE



RH SIDE
VIEWED
OUTSIDE LOOKING IN





(B) DETAIL 'A' (ONE LOCATION ONLY) (PER SIDE)

* NOTE

DRAW FILE IN DIRECTION SHOWN BY ARROW
TO REMOVE ALL TRANSVERSE PLASMA ARC MARKS.
REMOVE ANY NICKS.

BL319007SE

REV	REVISION
B	SEE SHEET 1
	ADDED (PER SIDE) DET A

AO SIZE	DWG NO	20-020-003591	REV. B

CAD DRAWING DO NOT SCALE OR ALTER MANUALLY

REF. DRAWING	20-020-003501-1NIL.	DRAWN	M. M. 91-03-04	SIZE A0	DWG NO 20-020-003587	REV. C
TOLERANCES UNLESS OTHERWISE SPECIFIED ANGLE ± 1° .X = ± .1 .XX = ± .06 .XXX = ± .015	CAN/CSA B78.2	CHECKED STRESS SYSTEMS ELEC LEAD ENG MTHDS ENG		DRAWING TITLE	WLDT-SIDEWALL STRUCTURE	
				SCALE 1:20	SHEET 1/4	

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UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES

Bombardier Inc.
Groupe matériel de transport
Transportation Equipment Group

QTY. REQ'D		ZONE	ITEM	PART NUMBER	DESCRIPTION	MATERIAL SPEC.	FIN. CODE
	X		1	20-020-003587-001	WLDT-SIDEWALL		F#### #
,	1,	,	2,	20-020-003500-001,	WLDT SIDEWALL		
,	1,	,	3,	20-020-003494-001,	WLDT SIDEWALL		
,	1,	,	4,	20-020-003760-001,	WLDT SIDEWALL		
,	1,	,	5,	20-020-003752-002,	WLDT SIDEWALL		
,	1,	,	6,	20-020-003496-001,	WLDT SIDEWALL		
,	1,	,	7,	20-020-003348-001,	PLATE-MTG		
,	2,	,	8,	20-020-003349-001,	PLATE-MTG		
,	2,	,	9,	20-020-003351-001,	PLATE-MTG		
,	2,	,	10,	20-020-003357-001,	STRIP-TRIM		
,	2,	,	11,	20-020-003358-001,	STRIP		
,	1,	,	12,	20-020-003678-001,	EXT-SIDE RAIL		
,	4,	,	13,	20-020-003365-001,	EXT-HORIZ STIF		
,	4,	,	14,	20-020-003366-001,	EXT-HORIZ STIF		
,	1,	,	15,	20-020-003368-001,	GUSSET		
,	2,	,	16,	20-020-003369-001,	EXT-HORIZ STIF		
,	3,	,	17,	20-020-003370-001,	PLATE-GUSSET		
,	1,	,	18,	20-020-003373-001,	ANGLE		
~~,~~	~~1,~~	~~,~~	~~19,~~	~~20-020-003375-001,~~	~~SHIM~~		
,	1,	,	20,	20-020-003378-002,	EXT-SIDE R TOP		
,	4,	,	21,	20-020-003379-001,	SHIM		
,	4,	,	22,	20-020-003380-001,	SHIM		
,	1,	,	23,	20-020-003396-001,	SHIM		
,	2,	,	24,	20-020-003402-001,	EXT-HORIZ STIF		
,	2,	,	25,	20-020-003402-002,	EXT-HORIZ STIF		
A,	2,	,	26,	20-020-003429-001,	PLATE		
~~,~~	~~1,~~	~~,~~	~~27,~~	~~20-020-003429-002,~~	~~PLATE~~		
,	1,	,	28,	20-020-003449-001,	WLDT-POST		
,	1,	,	29,	20-020-003449-002,	WLDT-POST		
,	1,	,	30,	20-020-003452-001,	EXT-HORIZ STIF		
,	1,	,	31,	20-020-003452-002,	EXT-HORIZ STIF		
,	2,	,	32,	20-020-003453-001,	WLDT-POST		
,	74,	,	33,	01-390-140812	RIVET		
,	30,	,	34,	01-390-440812	RIVET		
,	4,	,	35,	01-396-240606	RIVET		
,	16,	,	36,	01-396-810810	RIVET		
~~,~~	~~2,~~	~~,~~	~~37,~~	~~01-396-830810,~~	~~RIVET~~		
,	A/R	,	38,	01-500-050001	SEALANT		
~~,~~	~~1,~~	~~,~~	~~39,~~	~~20-020-003762-001,~~	~~SHIM~~		
,	1,	,	40,	20-020-003368-002,	GUSSET		
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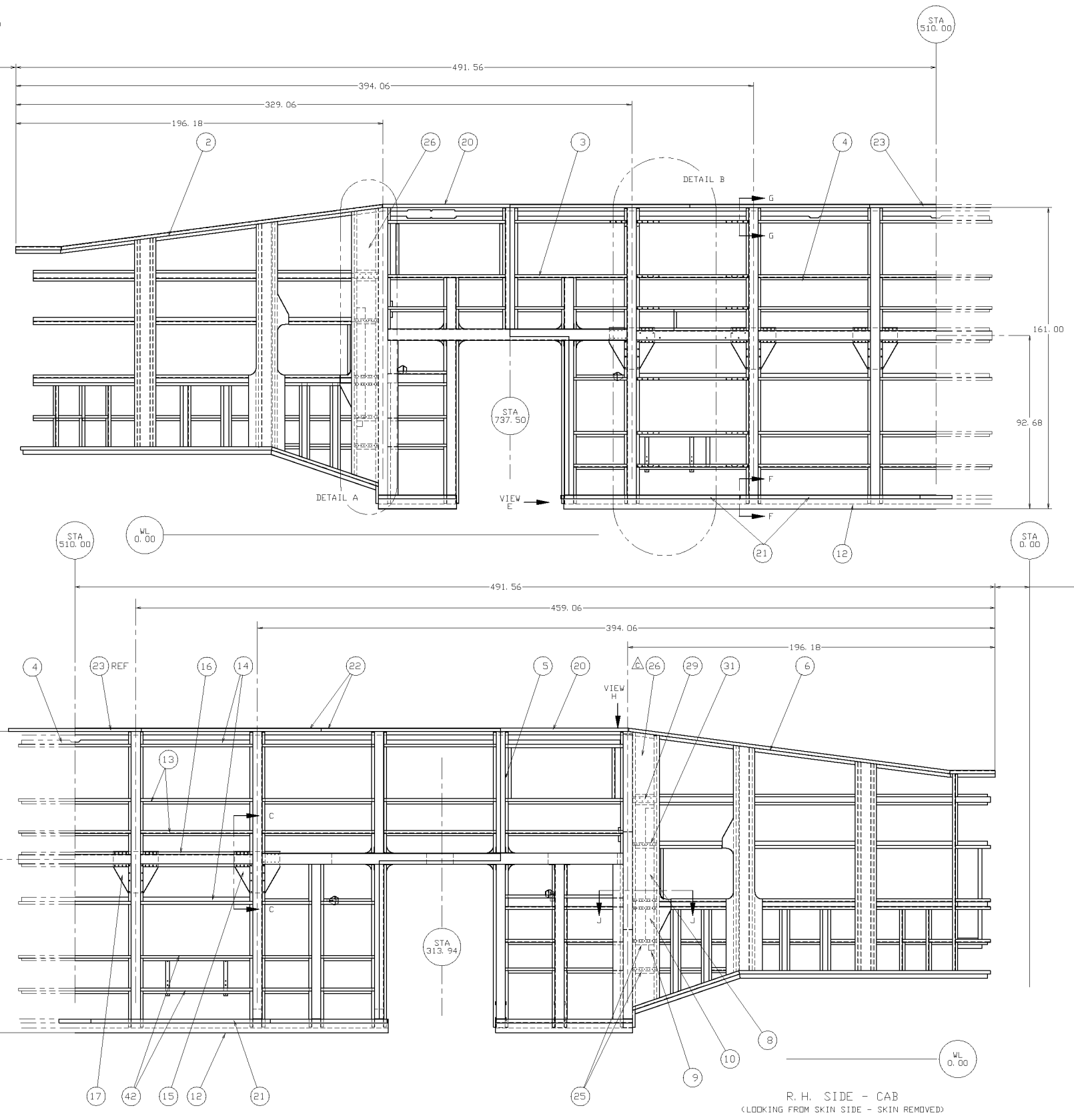

NOTES:
1. AWS D1-2 DEFINES WELDING REQUIREMENTS.
2. ITEMS 21,22,23 (SHIMS) TO BE TACK WELDED INTO PLACE.

BL311007SE

REV	REVISION
C	SEE B.D.R. (RTG 93/06/28)

AO SIZE | DWG NO 20-020-003587 | REV. C

CAD DRAWING DO NOT SCALE OR ALTER MANUALLY

REF. DRAWING	20-020-003499-1NIL.	DRAWN	M. M. 91-03-02
TOLERANCES UNLESS OTHERWISE SPECIFIED		CHECKED	
ANGLE ± 1°	CAN/CSA	STRESS	
.X = ± .1		SYSTEMS	
.XX = ± .06	B78.2	ELEC	
.XXX = ± .015		LEAD ENG	
		MTHDS ENG	

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UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES

SIZE A0 | DWG NO 20-020-003586 | REV. D

DRAWING TITLE: WLDT-SIDEWALL STRUCTURE

SCALE 1:20 | SHEET 1/4

Bombardier Inc.
Groupe matériel de transport
Transportation Equipment Group

QTY. REQ'D		ZONE	ITEM	PART NUMBER	DESCRIPTION	MATERIAL SPEC.	FIN. CODE
	X		1	20-020-003586-001	WLDT SIDEWALL		F####. #
,	1,	,	2,	20-020-003774-001,	WLDT SIDEWALL		
,	1,	,	3,	20-020-003752-001,	WLDT SIDEWALL		
,	1,	,	4,	20-020-003760-001,	WLDT SIDEWALL		
,	1,	,	5,	20-020-003491-001,	WLDT SIDEWALL		
,	1,	,	6,	20-020-003498-001,	WLDT SIDEWALL		
,	1,	,	7,	20-020-003348-001,	PLATE-MTG		
,	2,	,	8,	20-020-003349-001,	PLATE-MTG		
,	2,	,	9,	20-020-003351-001,	PLATE-MTG		
,	2,	,	10,	20-020-003357-001,	STRIP-TRIM		
,	2,	,	11,	20-020-003358-001,	STRIP		
,	1,	,	12,	20-020-003678-002,	EXT-SIDE RAIL		
,	6,	,	13,	20-020-003365-001,	EXT-HORIZ STIF		
,	4,	,	14,	20-020-003366-001,	EXT-HORIZ STIF		
,	1,	,	15,	20-020-003368-001,	GUSSET		
,	2,	,	16,	20-020-003369-001,	EXT-HORIZ STIF		
,	3,	,	17,	20-020-003370-001,	PLATE-GUSSET		
,	1,	,	18,	20-020-003761-001,	ANGLE		
~~,~~	~~1,~~	~~,~~	~~19,~~	~~20-020-003375-001,~~	~~SHIM~~		
,	1,	,	20,	20-020-003378-001,	EXT-SIDE R TOP		
,	4,	,	21,	20-020-003379-001,	SHIM		
,	4,	,	22,	20-020-003380-001,	SHIM		
,	1,	,	23,	20-020-003396-001,	SHIM		
,	2,	,	24,	20-020-003402-001,	EXT-HORIZ STIF		
,	2,	,	25,	20-020-003402-002,	EXT-HORIZ STIF		
2	2,	,	26,	20-020-003429-001,	PLATE		
2	~~1,~~	~~,~~	~~27,~~	~~20-020-003429-002,~~	~~PLATE~~		
,	1,	,	28,	20-020-003449-001,	WLDT-POST		
,	1,	,	29,	20-020-003449-002,	WLDT-POST		
,	1,	,	30,	20-020-003452-001,	EXT-HORIZ STIF		
,	1,	,	31,	20-020-003452-002,	EXT-HORIZ STIF		
,	2,	,	32,	20-020-003453-001,	WLDT-POST		
,	74,	,	33,	01-390-140812	RIVET		
,	30,	,	34,	01-390-440812	RIVET		
,	4,	,	35,	01-396-240606	RIVET		
,	16,	,	36,	01-396-810810	RIVET		
~~,~~	~~2,~~	~~,~~	~~37,~~	~~01-396-830810~~	~~RIVET~~		
,	A/R	,	38,	01-500-050001	SEALANT		
~~,~~	~~1,~~	~~,~~	~~39,~~	~~20-020-003762-001,~~	~~SHIM~~		
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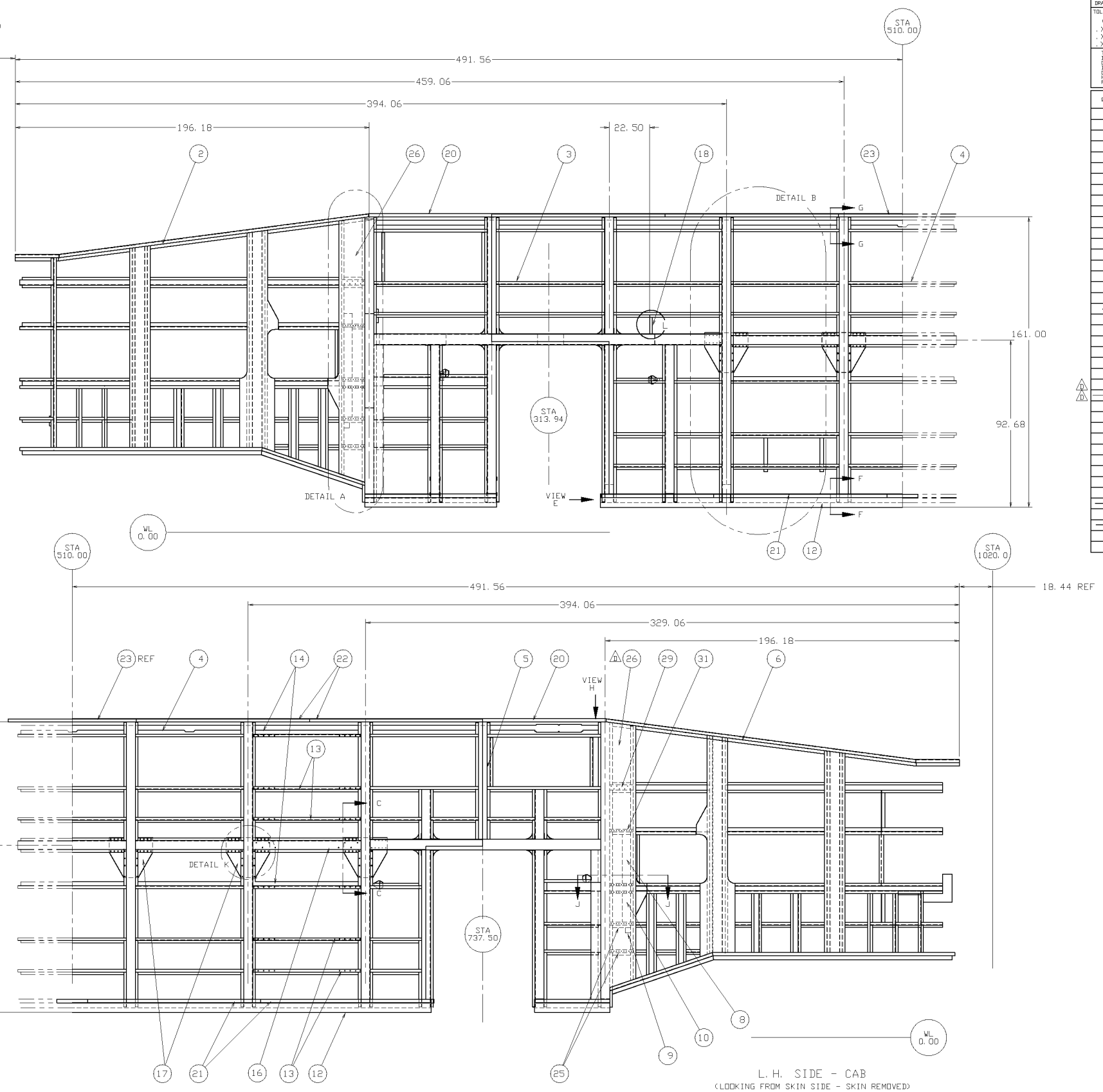


L.H. SIDE - CAB
(LOOKING FROM SKIN SIDE - SKIN REMOVED)

NOTES:
1. AWS D1-2 DEFINES WELDING REQUIREMENTS.
2. ITEMS 21,22,23 (SHIMS) TO BE TACK WELDED INTO PLACE.

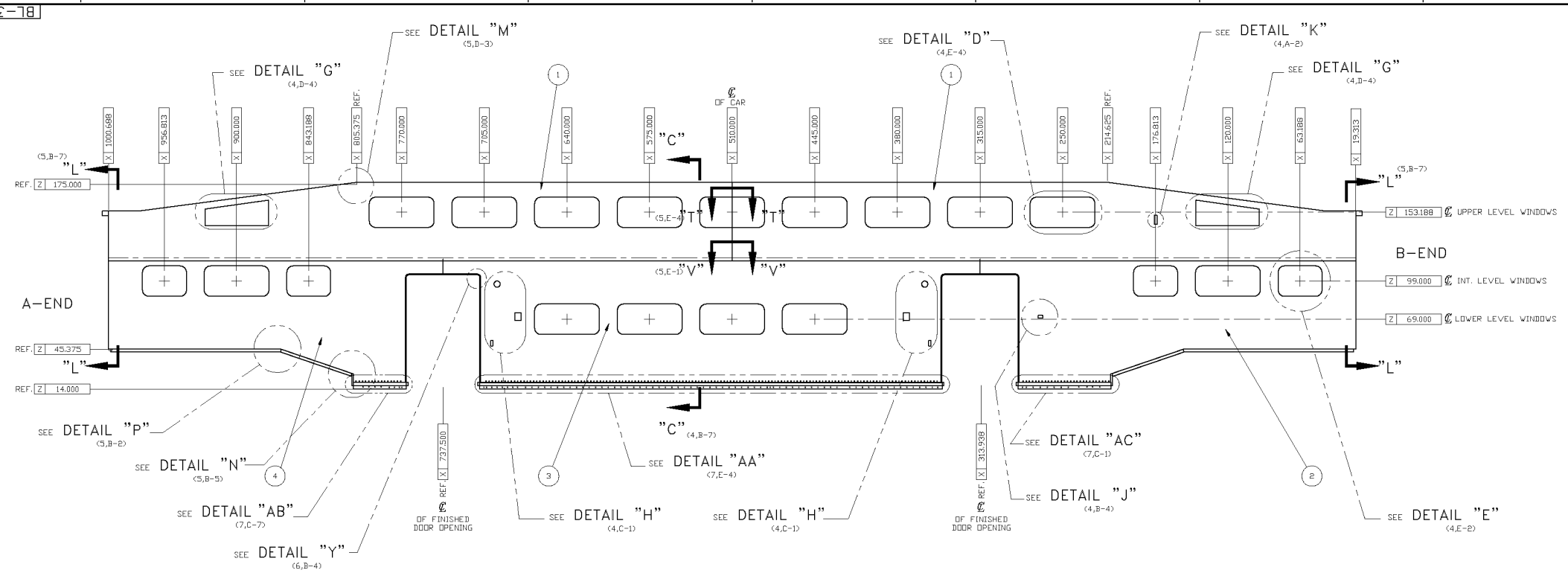
BL311009SE

REV	REVISION
D	SEE B.D.R. (RTG 93/06/28)

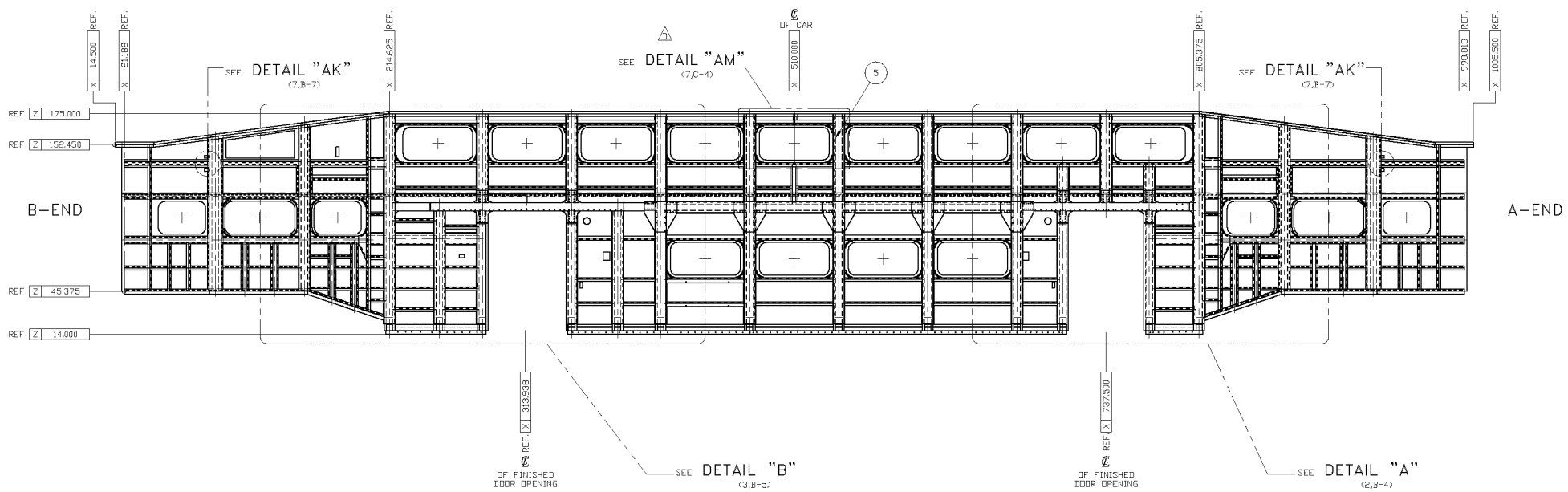
AO SIZE | DWG NO 20-020-003586 | REV. D

CAD DRAWING DO NOT SCALE OR ALTER MANUALLY

BL-319-0022-1



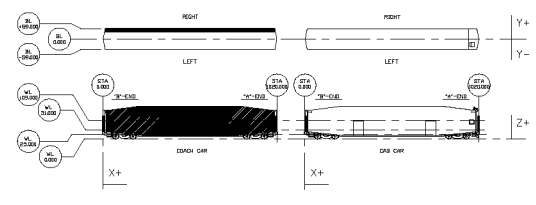
EXTERIOR VIEW



INTERIOR VIEW

NOTES:

1. SLOTS IN SKINS THAT ARE BEHIND VERTICAL POSTS ARE NOT WELDED.
2. SEAL SKIN JOINT FULL LENGTH OF CAR WITH ITEM 7 AFTER WELDING.
3. WELD CAN BE ALONG EITHER SIDE OF SLOT, ACCORDING TO ACCESSIBILITY.
4. WELD PITCH IS APPROXIMATE. LOCATE STITCH WELDS BETWEEN SLOTS IN POST.
5. MAINTAIN FLATNESS TOLERANCE OF 0.125 OVER 36.000 MEASURED HORIZONTALLY AFTER SPLICE.



REF: BL-319-0016-1

BL319025SE

DESCRIPTION DE LA REVISION / REVISION DESCRIPTION
SEE R.B.
W.O. #957 ADDED DETAIL 'AM' ZONE 1,C-5

TOLERANCES SAUF INDICATION CONTRAIRE UNLESS OTHERWISE NOTED	POLICE FACH CO	POLICE INFO FACH CO	DIMENSIONS POUCE/METRE MILLIMETRE ☐ MILLIMETRE (PROJET) MILLIMETRE (FACH) ☐
DECIMAL DECIMAL DECIMAL	DESSINE DRAWN	M.SAMORODNY	REVISION COURANTE/CURRENT REVISION: INIT. DATE
ANGLES TOUT ANGLE ±0°30' POUR APPLICABLE REF LES PIECES USINEES MACHINED PARTS	VERIFIE CHECKED	P.THIBEAULT	DESSINE DRAWN D.THATCHER
	APPROUVE APPROVED	L.O'NEILL	VERIFIE CHECKED K.SIPPOLA
	CONCEPTION DESIGN	M.SAMORODNY	APPROUVE APPROVED L.O'NEILL
	PROJET ENGINEERING	P.HAMEL	CONCEPTION DESIGN D.THATCHER
	PROJET / LAYOUT	P.HAMEL	PROJET ENGINEERING D.THATCHER
	DESSINE DRAWN	P.HAMEL	PROJET / LAYOUT P.HAMEL
	NOTE: REVISION DRAWING		REFERENCE CODE DESIGNATION BL-399-0002-1
	ORIGINAL ISSUE DATE		NEXT ASSY

CE DESSIN NE PEUT ETRE UTILISE OU REPRODUIT SANS LE CONSENTEMENT ECRIT DE BOMBARDIER INC.
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Bombardier Inc.
Division du transport en commun
Mass Transit Division

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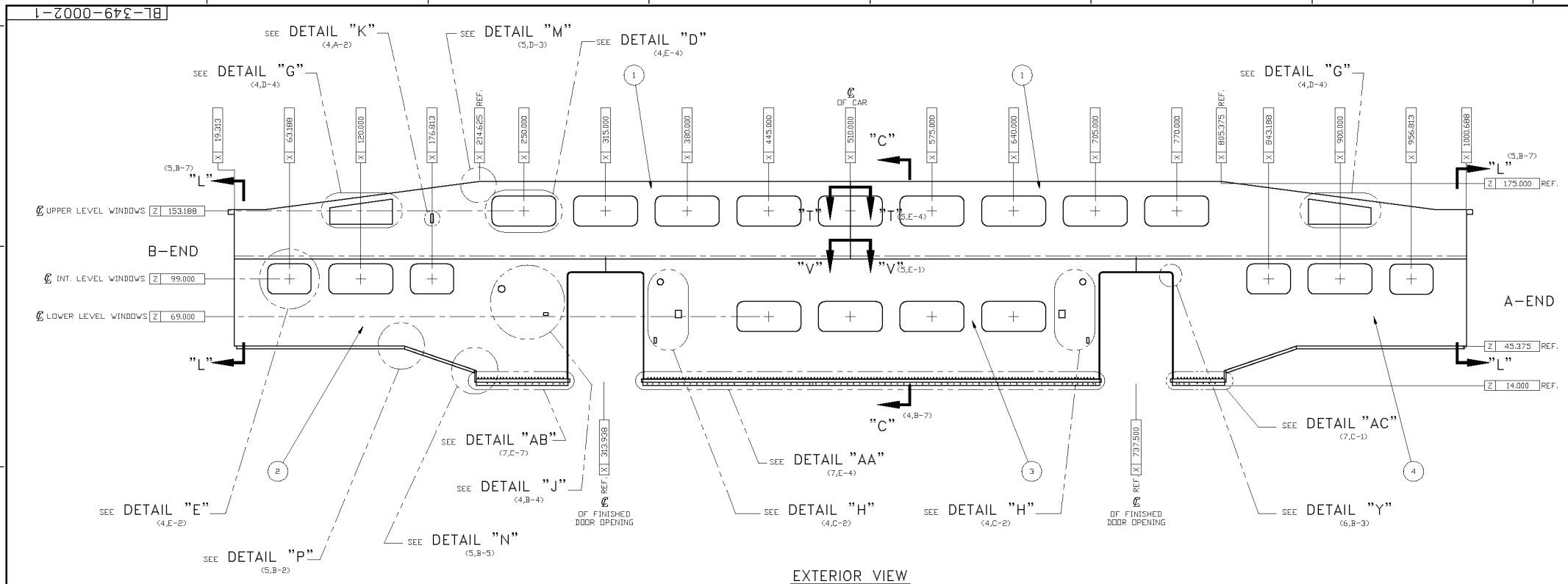
SCALE 1/32 — TITLE SIDE FRAME ASSY COACH

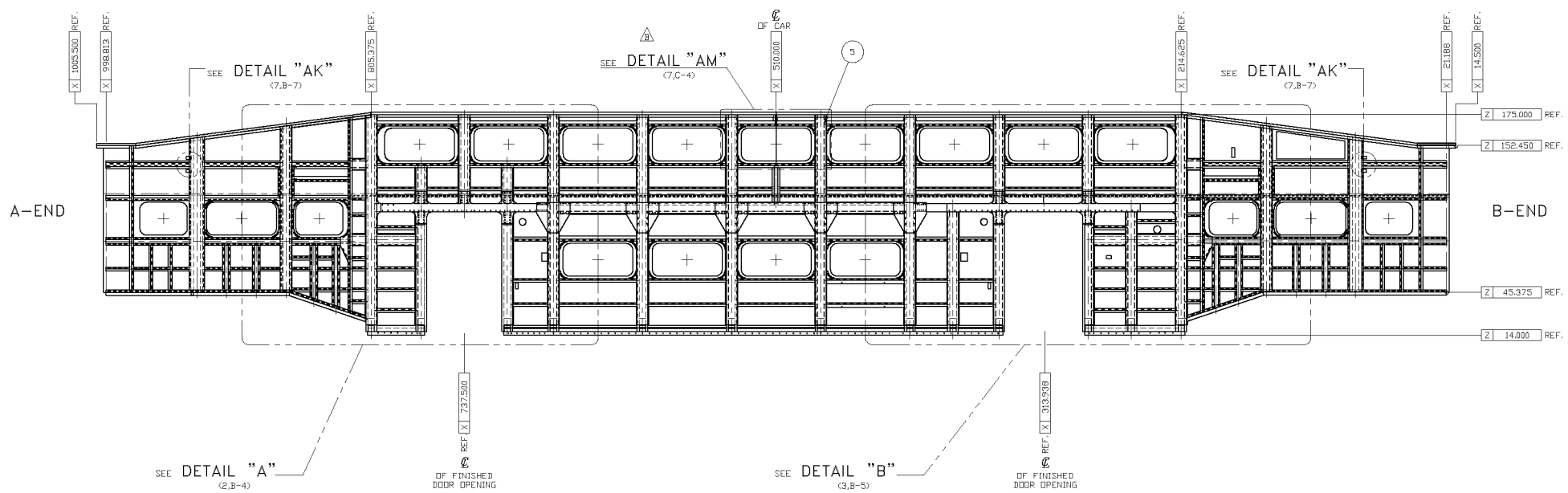
SIZE E — CODE NO. — DRAWN BY DESIGN — DRAWING NUMBER BL-319-0022-1 — SHEET 1 OF 9 — REVISION B

BL-349-0002-1



EXTERIOR VIEW

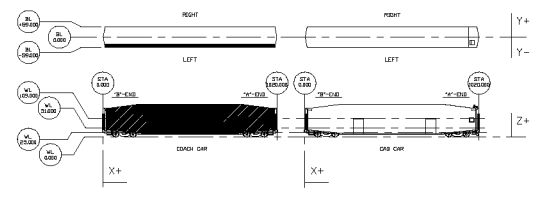
(ITEM 5 NOT SHOWN FOR CLARITY)



INTERIOR VIEW

NOTES:

1. SLOTS IN SKINS THAT ARE BEHIND VERTICAL POSTS ARE NOT WELDED.
2. SEAL SKIN JOINT FULL LENGTH OF CAR WITH ITEM 7 AFTER WELDING.
3. WELD CAN BE ALONG EITHER SIDE OF SLOT, ACCORDING TO ACCESSIBILITY.
4. WELD PITCH IS APPROXIMATE. LOCATE STITCH WELDS BETWEEN SLOTS IN POST.
5. MAINTAIN FLATNESS TOLERANCE OF 0.125 OVER 36.000 MEASURED HORIZONTALLY AFTER SPLICE.



BL349003SE

REF: BL-319-0016-1

DESCRIPTION DE LA REVISION / REVISION DESCRIPTION
SEE R-8.
W.O. #957 ADDED DETAIL 'AM' ZONE 1,C-5

TOLERANCES
SAUF INDICATION CONTRAIRE
UNLESS OTHERWISE NOTED

0-36"	±0.13"	0-300 mm ±3 mm
36-96"	±0.25"	300-1000 mm ±6 mm
96"+	±0.25"	2000 §+

ANGLES
FINISH ±1/2°
ANGLES ±1/2°
SUR APPLICABLE PLAN
LES PIECES USINEES
DOIVENT ÊTRE
MACHINED PARTS

TOLERANCES DES PERCAGES
HOLE INSPECTION TOLERANCES

0-1.250"	+0.005" -0.000"	0-6 mm	+0.05mm -0.00mm
1.251-3.500"	+0.010" -0.000"	6-12 mm	+0.10mm -0.00mm
3.501"+	+0.015" -0.000"	12 mm §+	+0.15mm -0.00mm

POUCE INCH ☒	MILLIMETRE INCH SI ☐
POUCE INCH ☐	MILLIMETRE INCH SI ☐

DIMENSIONS
POUCE MILLIMETRE
INCH MILLIMETRE

DESSINE ORIGINAL DESIGN	REVISION COURANTE/CURRENT REVISION	INITIAL	DATE
DESIGN	M.SAMORODNY	D.THATCHER	
DESSINE DRAWN	P.THIBEAULT	K.SIPPOLA	
REVUE CHECK	L.O'NEILL	L.O'NEILL	
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