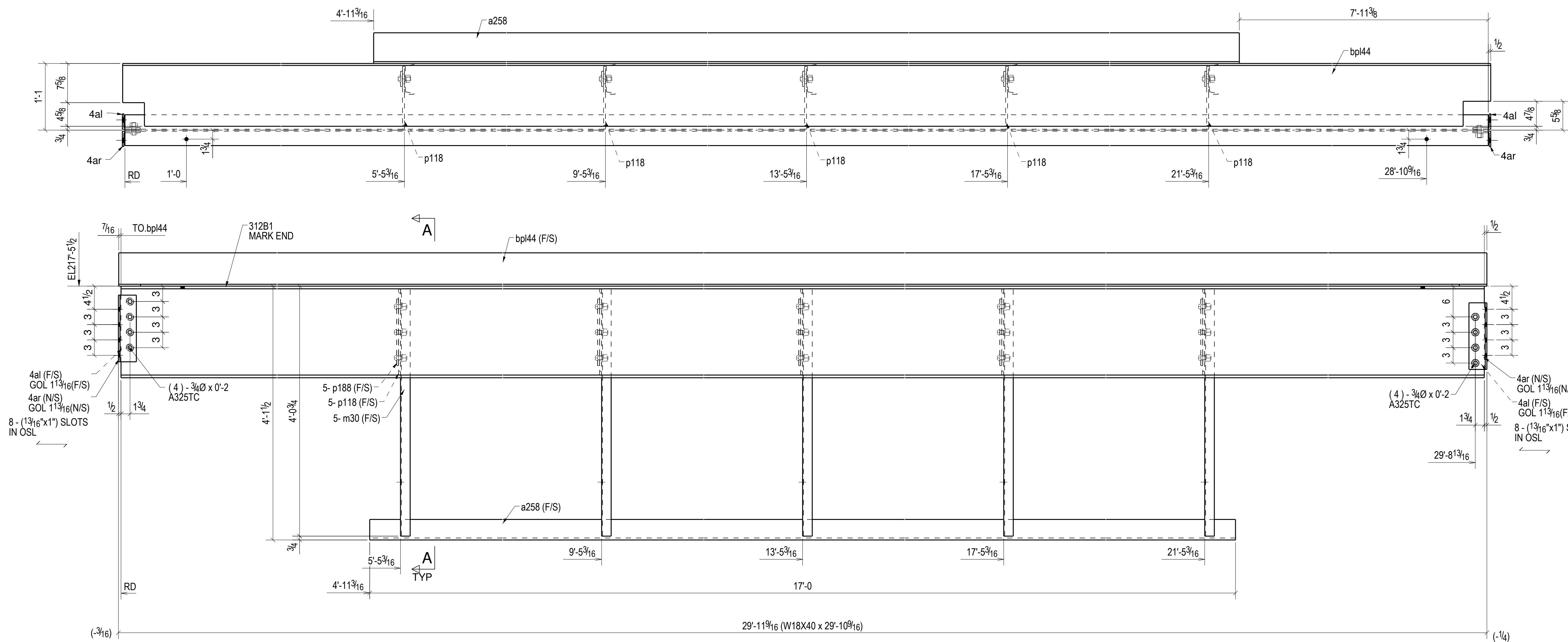
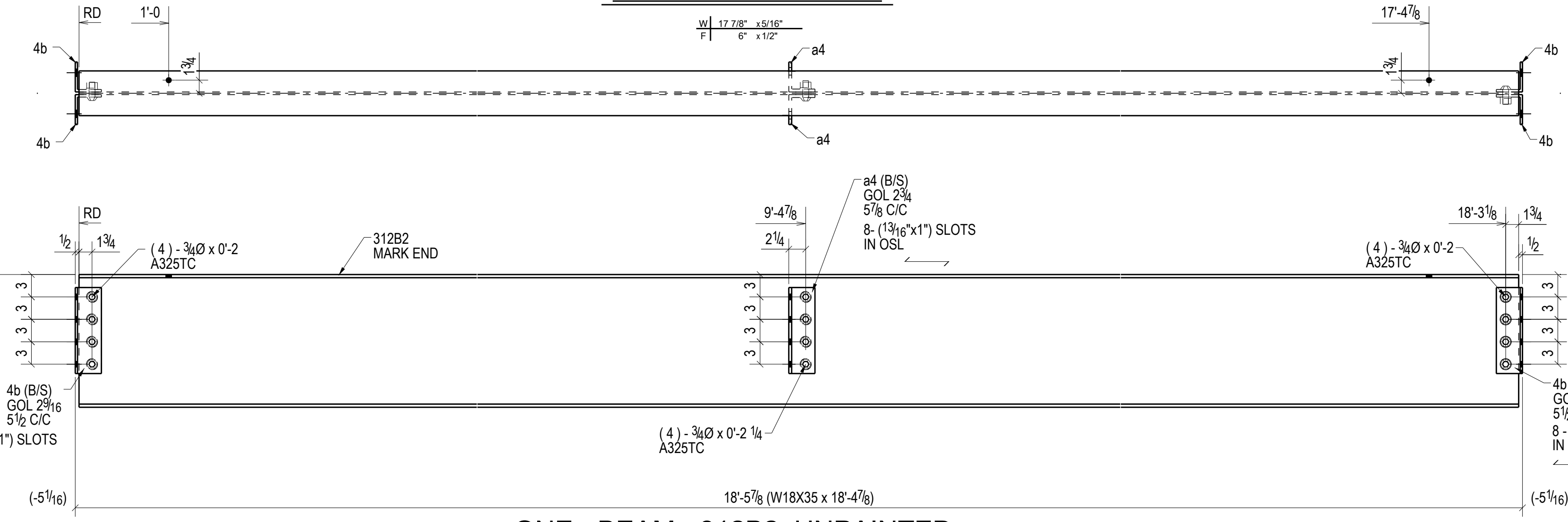


BILL OF MATERIAL

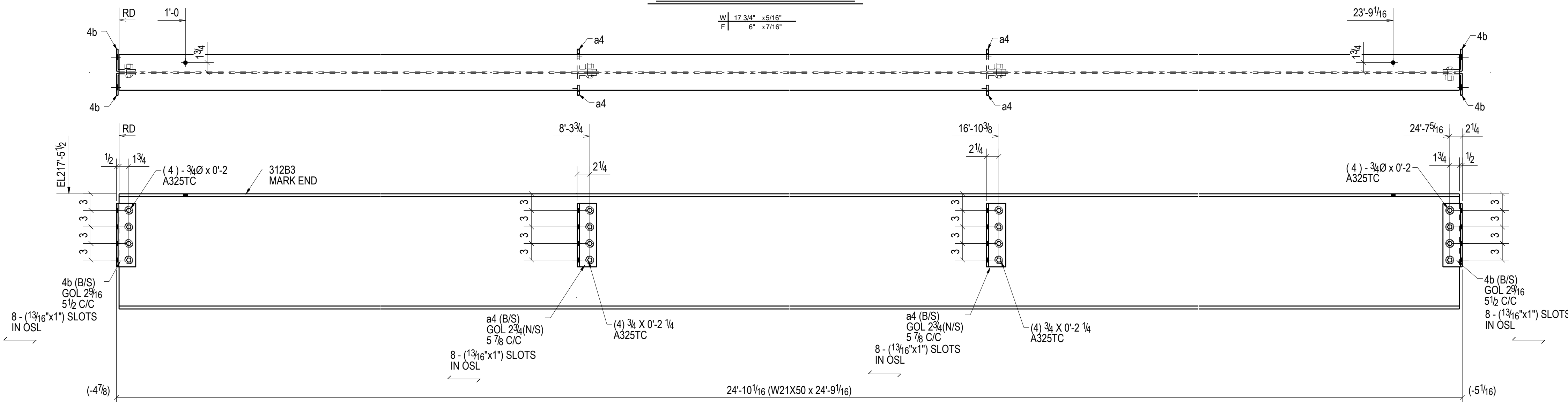
SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
312B1		1	W18X40	29'-10 9/16"	A992 UNPAINTED
	4al	2	L3-1/2X3X5/16	1'-1"	A36
	4ar	2	L3-1/2X3X5/16	1'-1"	A36
	a258	1	L6X4X3/8	17'-0"	A36 GALVANIZED
	m30	5	C6X8.2	4'-0 1/4"	A36
	bpl44	1	.PLB6 1/2"X12 1/4"X3/8"90°	29'-11 1/2"	A57250
	p118	5	PL3/8"X12 1/4"	1'-4 3/4"	A57250
	p188	5	PL3/8"X3"	1'-1"	A57250
		23	3/4"Ø A325TC BOLT	0'-2"	Workshop
		2	3/4"Ø A325TC BOLT	0'-2"	Site
		6	3/4"Ø A325TC BOLT	0'-2 1/4"	Site
		2	3/4"Ø A325TC BOLT	0'-1 3/4"	Site
312B2		1	W18X35	18'-4 7/8"	A992 UNPAINTED
	4b	4	L4X3-1/2X5/16	0'-11 1/2"	A36
	a4	2	L4X3-1/2X3/8	0'-11 1/2"	A36
		8	3/4"Ø A325TC BOLT	0'-2"	Workshop
		4	3/4"Ø A325TC BOLT	0'-2 1/4"	Workshop
		16	3/4"Ø A325TC BOLT	0'-2"	Site
312B3		1	W21X50	24'-9 1/16"	A992 UNPAINTED
	4b	4	L4X3-1/2X5/16	0'-11 1/2"	A36
	a4	4	L4X3-1/2X3/8	0'-11 1/2"	A36
		8	3/4"Ø A325TC BOLT	0'-2"	Workshop
		8	3/4"Ø A325TC BOLT	0'-2 1/4"	Workshop
		8	3/4"Ø A325TC BOLT	0'-2"	Site
		8	3/4"Ø A325TC BOLT	0'-1 3/4"	Site



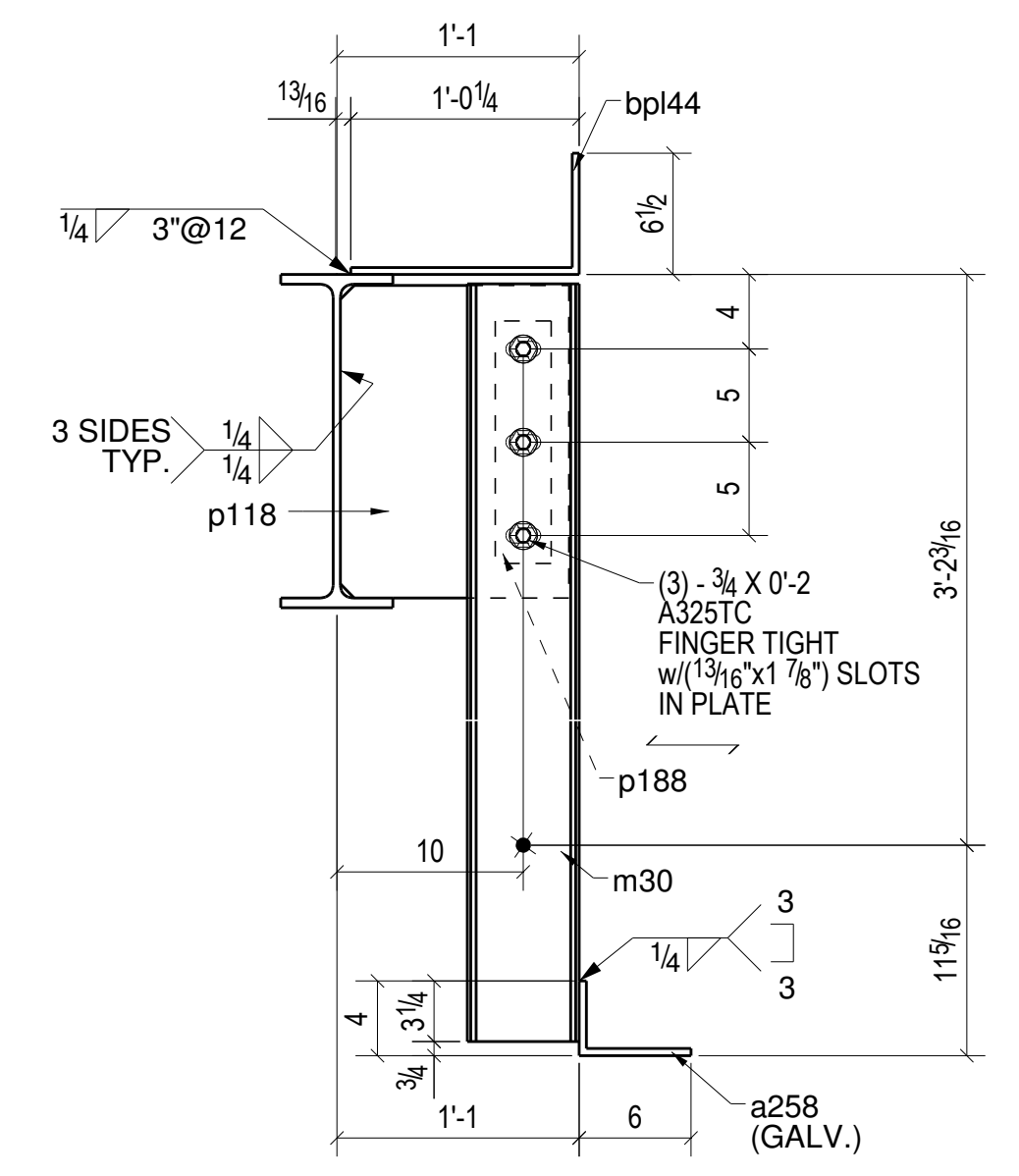
ONE - BEAM - 312B1 UNPAINTED



ONE - BEAM - 312B2 UNPAINTED



ONE - BEAM - 312B3 UNPAINTED

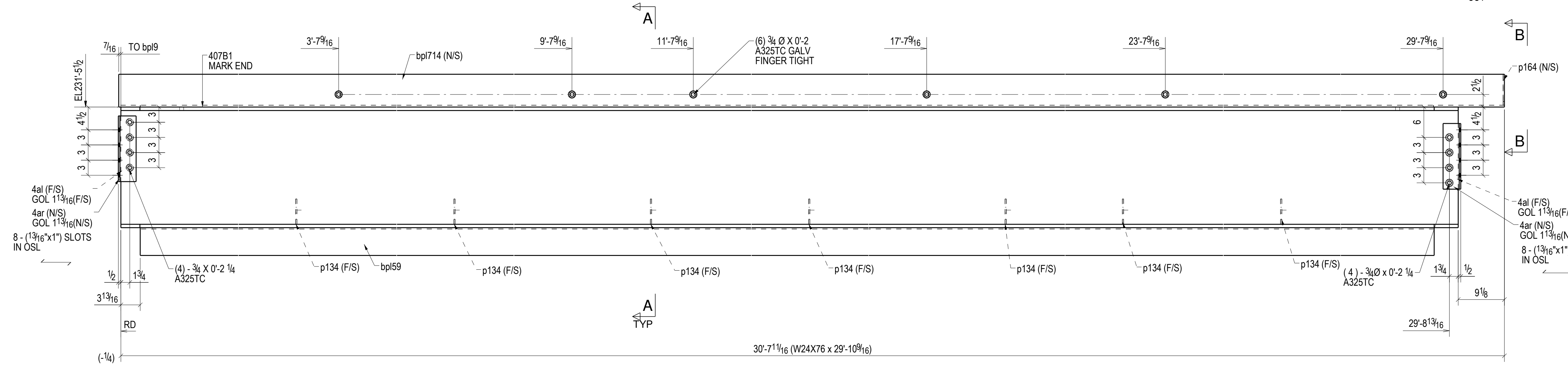
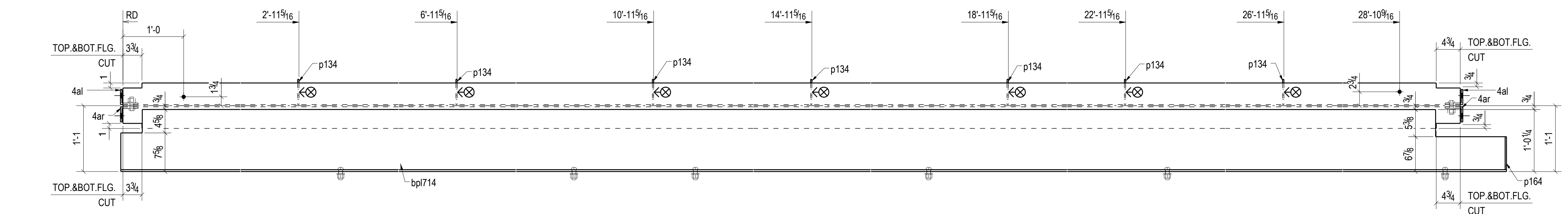


A - A

REV.	DATE	DESCRIPTION	BY	CHKD BY
OPEN HOLES	13/16 UNO			
PAIN	AS NOTED IN B.O.M			
ARCHITECT	ENGINEER			
PROJECT NAME				
LOCATION				
CONTRACTOR				
DESCRIPTION	BEAM DETAILS			
DRAWN BY				JOB No.
CHECKED BY				
APPROVED BY				DRG No. 312

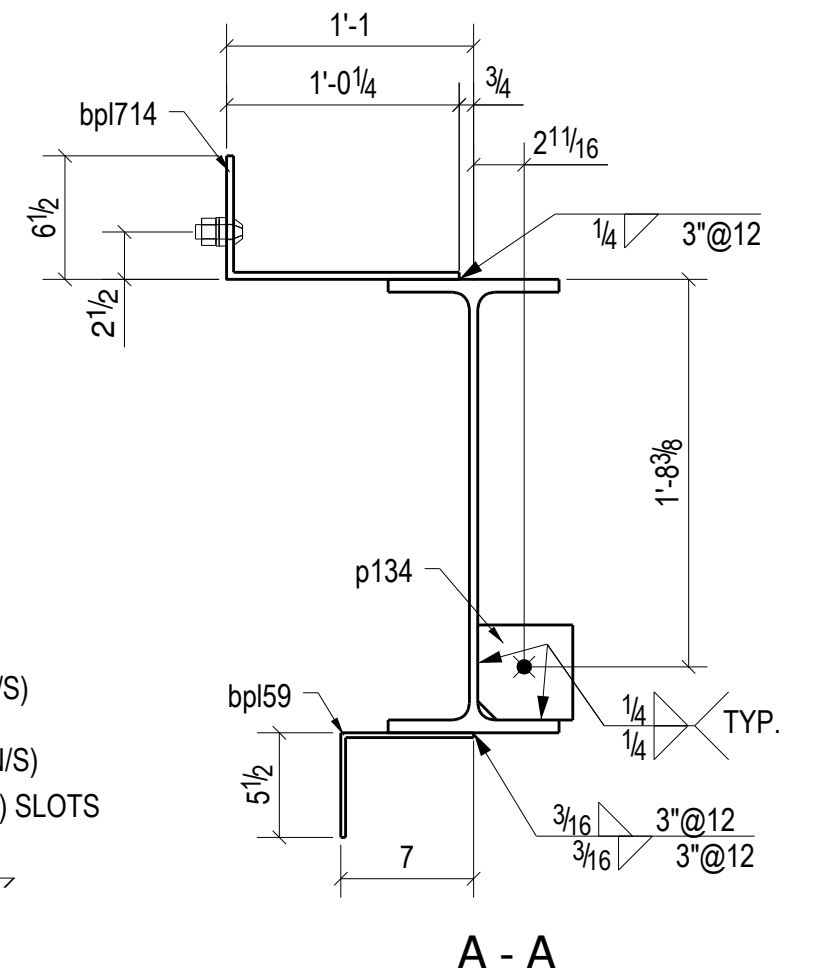
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
407B1		1	W24X76	29'-10 9/16"	A92 UNPAINTED
	4al	2	L3-1/2X3X5/16	1'-1"	A36
	4ar	2	L3-1/2X3X5/16	1'-1"	A36
	bpl59	1	.PLB5 1/2"X7"X1/4"-90"	29'-2"	A572-50
	bpl714	1	.PLB6 1/2"X12 1/4"X3/8"-90"	30'-8 1/8"	A572-50
	p134	7	PL1/4"X5"	0'-5"	A572-50
	p164	1	PL1/4"X6 1/8"	0'-6 1/2"	A572-50
		8	3/4"Ø A325TC BOLT	0'-2 1/4"	Workshop
		6	3/4"Ø A325TC GALV BOLT	0'-2"	Site
		2	3/4"Ø A325TC BOLT	0'-2"	Site
		6	3/4"Ø A325TC BOLT	0'-2 1/4"	Site
407B2		1	W14X22	25'-3 1/16"	A92 UNPAINTED
	3al	2	L3-1/2X3X5/16	0'-10"	A36
	3ar	2	L3-1/2X3X5/16	0'-10"	A36
	bpl666	1	.PLB6 1/2"X12 1/4"X3/8"-90"	24'-10 1/8"	A572-50
		6	3/4"Ø A325TC BOLT	0'-2"	Workshop
		6	3/4"Ø A325TC BOLT	0'-2"	Site

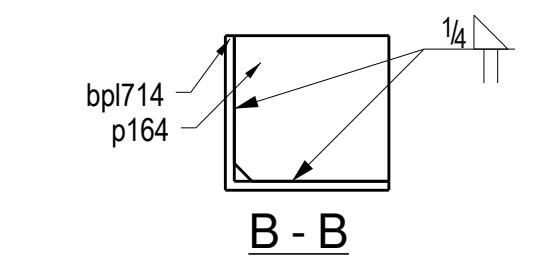


ONE - BEAM - 407B1 UNPAINTED

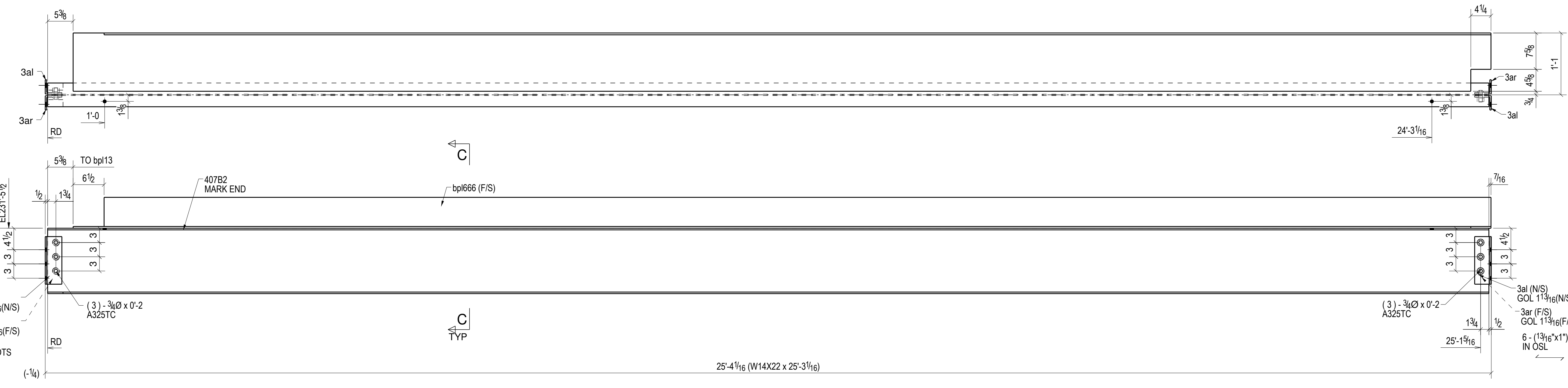
W 23 7/8" x 7 1/8"
F 9" x 1 1/16"



A - A

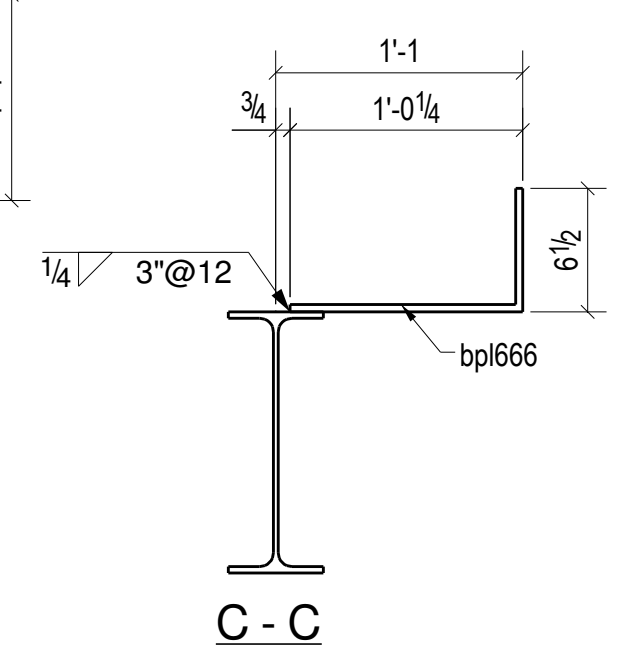


B - B



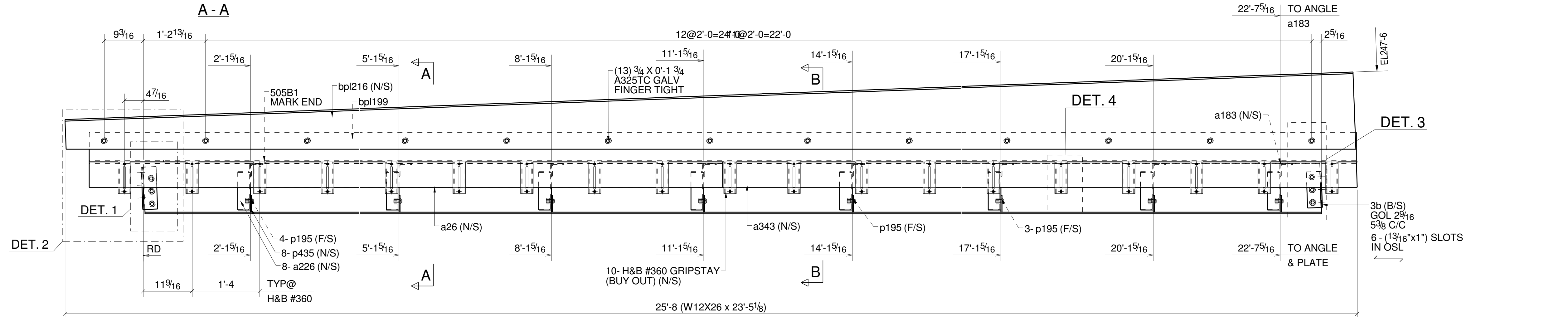
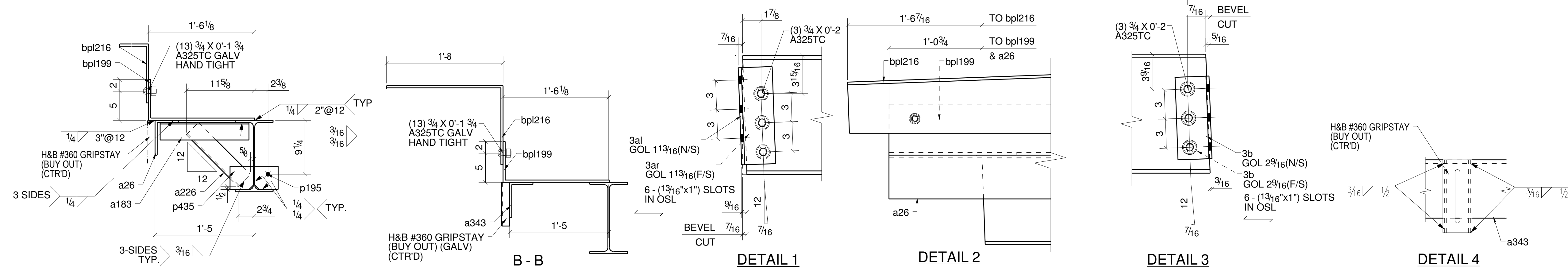
ONE - BEAM - 407B2 UNPAINTED

W 13 3/4" x 1 1/4"
F 5" x 5/16"



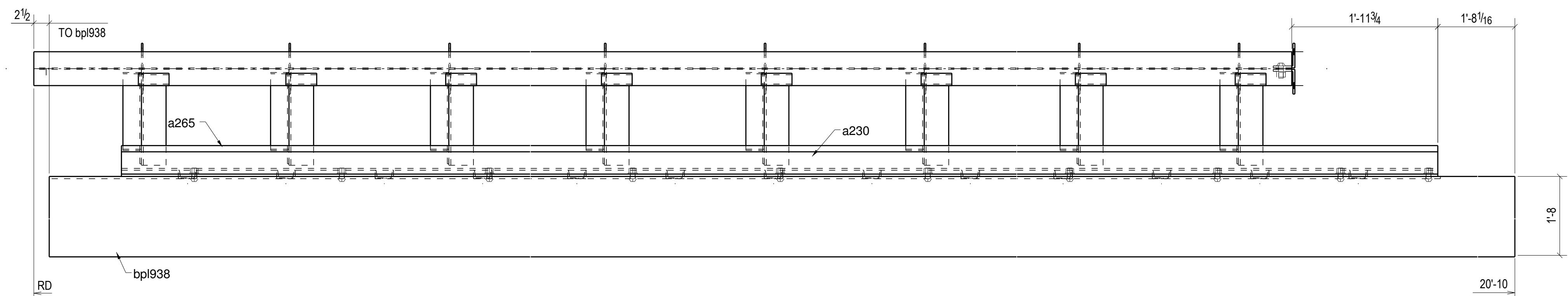
C - C

REV.	DATE	DESCRIPTION	BY	CHKD BY
OPEN HOLES	13/16 UNO			
PAINT AS NOTED IN B.O.M				
ARCHITECT ENGINEER				
PROJECT NAME				
LOCATION				
CONTRACTOR				
DESCRIPTION BEAM DETAILS				
DRAWN BY				JOB No.
CHECKED BY				
APPROVED BY				DRG No. 407



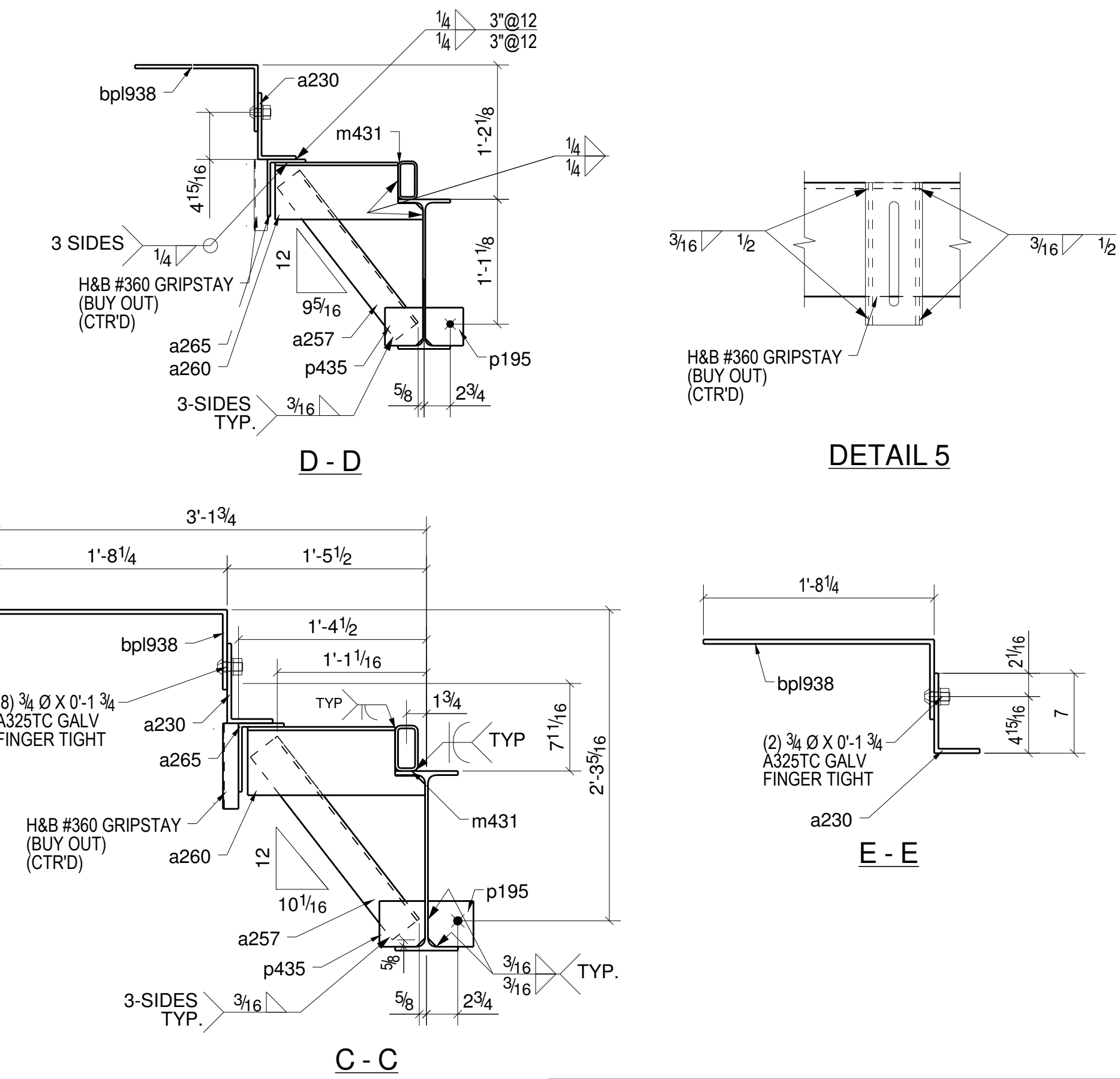
ONE - BEAM - 505B1 UNPAINTED

$$\frac{W}{F} = \frac{12 \cdot 14'' \cdot x \cdot 14''}{6 \cdot 1/2'' \cdot x \cdot 3/8''}$$



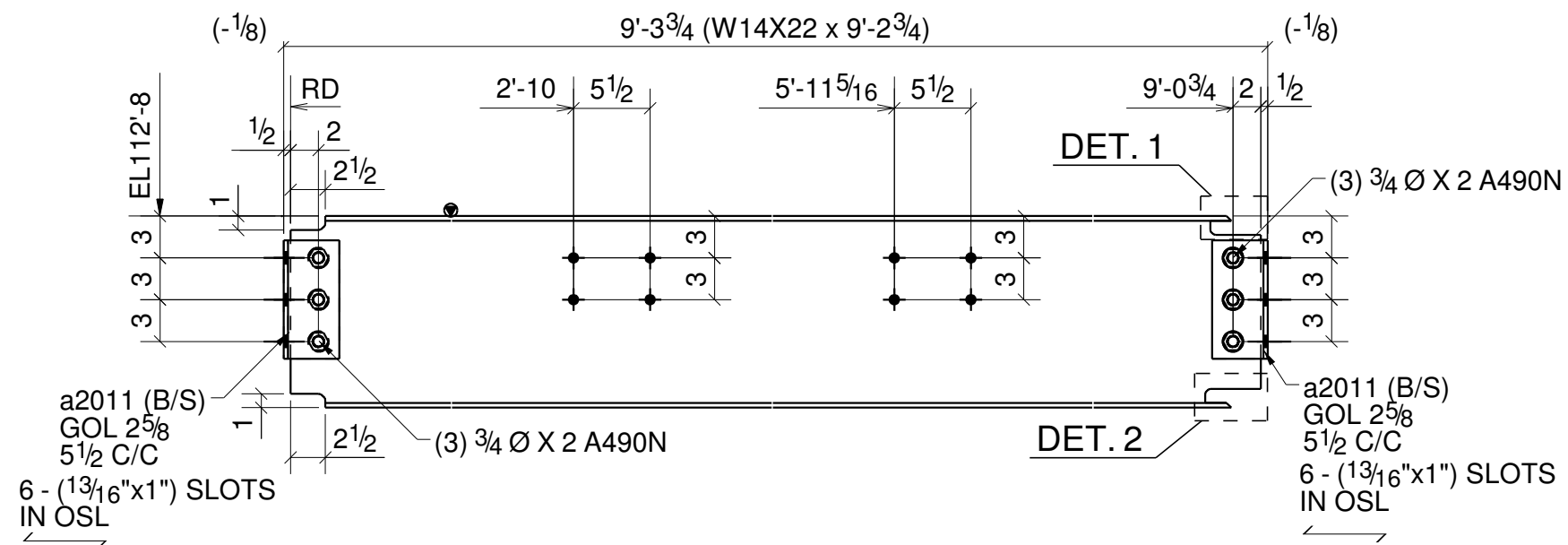
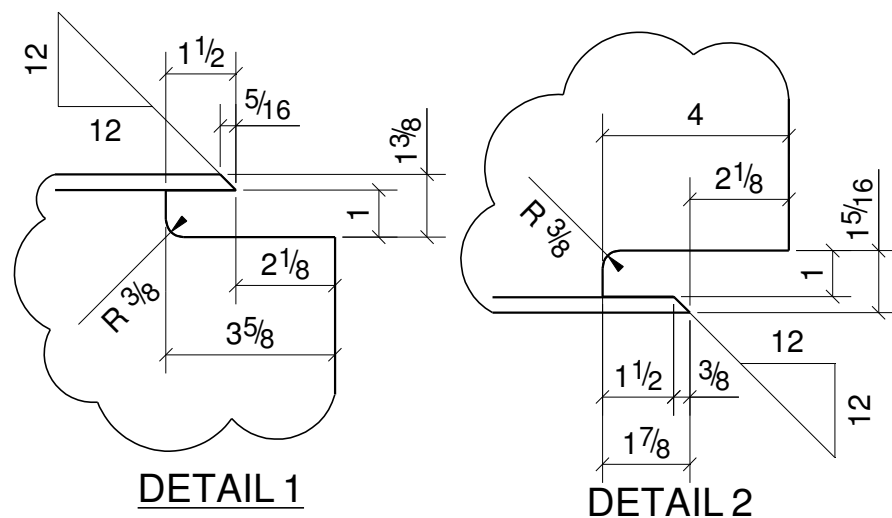
ONE - BEAM - 505B2 UNPAINTED

$$\frac{W}{F} = \frac{16 \cdot 3/4'' \cdot x \cdot 14''}{5 \cdot 1/2'' \cdot x \cdot 3/8''}$$



REV.	DATE	DESCRIPTION	BY	CHKD BY
OPEN HOLES	13/16 UNO			
PAINT AS NOTED IN B.O.M				
ARCHITECT ENGINEER				
PROJECT NAME				
LOCATION				
CONTRACTOR				
DESCRIPTION BEAM DETAILS				
DRAWN BY				
CHECKED BY				
APPROVED BY				

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
505B1		1	W12X26	23'-5 1/8"	A992 UNPAINTED
	3al	1	L3-1/2X3X5/16	0'-10"	A36
	3ar	1	L3-1/2X3X5/16	0'-10"	A36
	3b	2	L4X3-1/2X5/16	0'-8 1/2"	A36
	a26	1	L6X4X3/8	12'-6 9/16"	A36
	a183	8	L3X3X1/4	1'-3 1/4"	A36
	a226	8	L3X3X1/4	1'-0 9/16"	A36
	a343	1	L6X4X3/8	12'-7 1/16"	A36
	bpl199	1	PL7"x18 1/4"x3/8"-90"	25'-2 1/16"	A572-50
	bpl216	1	PLB18 1/4"x20"x3/8"-90"	25'-7 3/16"	A572-50 GALVANIZED
	p195	8	PL1/4"x4"	0'-4"	A572-50
	p435	8	PL1/4"x4"	0'-4"	A572-50
	2	19	H&B#360 GRIPSTAY	BOI	12GA GALVANIZED
		13	3/4"Ø A325TC GALV BOLT	0'-1 3/4"	Workshop
		6	3/4"Ø A325TC BOLT	0'-2"	Workshop
		6	3/4"Ø A325TC BOLT	0'-2"	Site
		6	3/4"Ø A325TC BOLT	0'-1 3/4"	Site
505B2		1	W16X26	17'-2 3/16"	A992 UNPAINTED
	3b	2	L4X3-1/2X5/16	0'-8 1/2"	A36
	a230	1	L7X4X3/8	17'-11 1/16"	A36
	a257	8	L3X3X1/4	1'-8 5/16"	A36
	a260	1	L6X4X5/16	1'-3 9/16"	A36
	a265	1	L6X4X5/16	17'-11 1/16"	A36
	m431	8	HSS4X2X1/4	0'-5"	A500B
	bpl938	1	PLB7"x20 1/4"x3/8"-90"	20'-7 1/2"	A572-50 GALVANIZED
	p195	8	PL1/4"x4"	0'-4"	A572-50
	p435	8	PL1/4"x4"	0'-4"	A572-50
	2	13	H&B#360 GRIPSTAY	BOI	12GA GALVANIZED
		10	3/4"Ø A325TC GALV BOLT	0'-1 3/4"	Workshop
		3	3/4"Ø A325TC BOLT	0'-2"	Workshop
		6	3/4"Ø A325TC BOLT	0'-2 1/4"	Site
		3	3/4"Ø A325TC BOLT	0'-1 3/4"	Site
		8	3/4"Ø A325TC BOLT	0'-1 1/2"	Site



ONE - BEAM - 2018

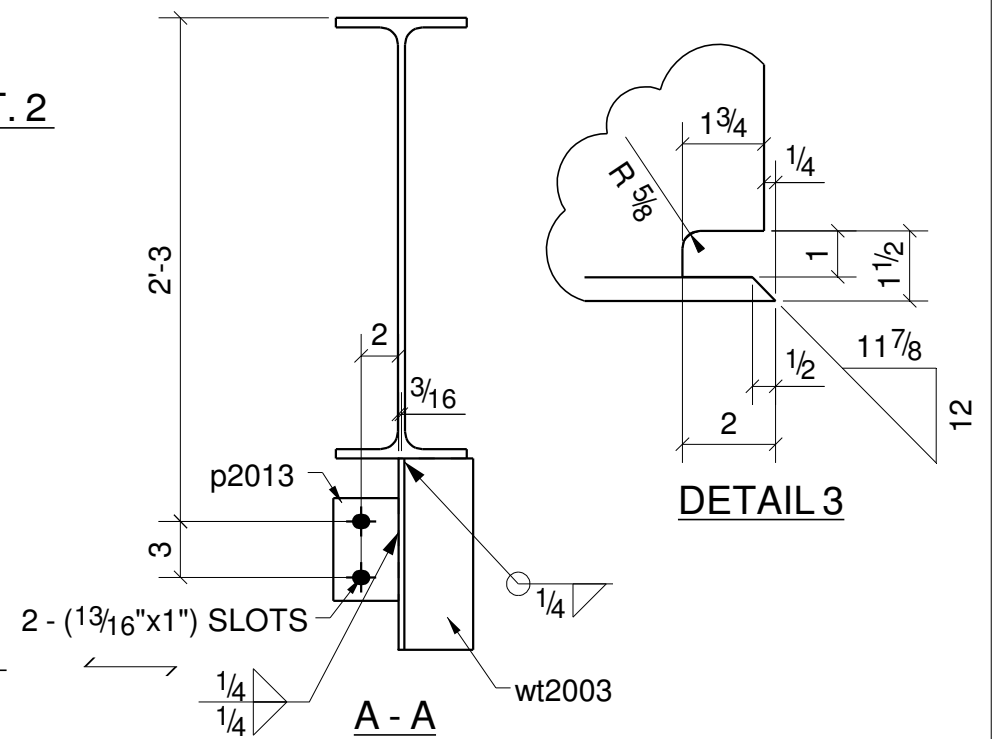
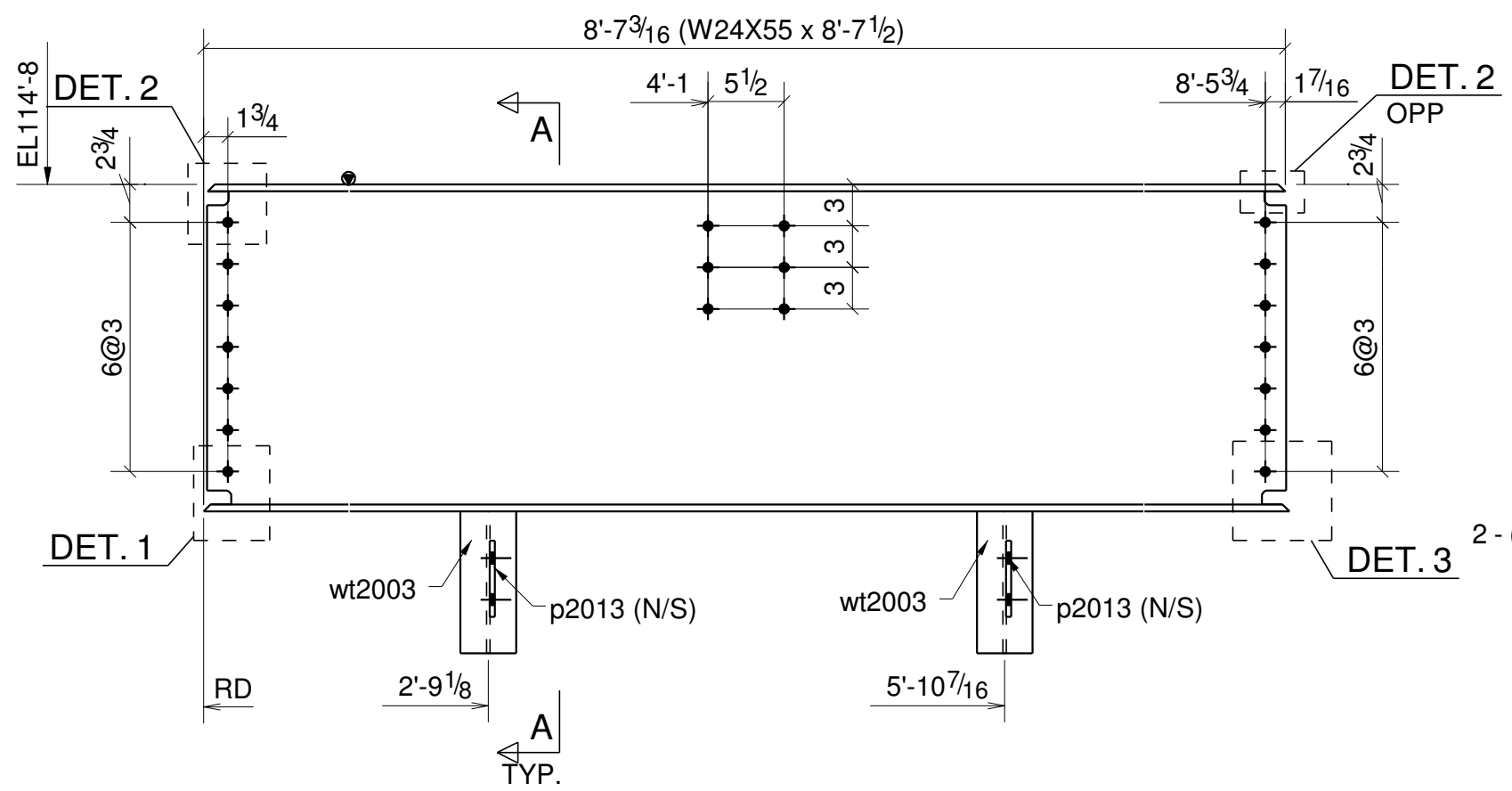
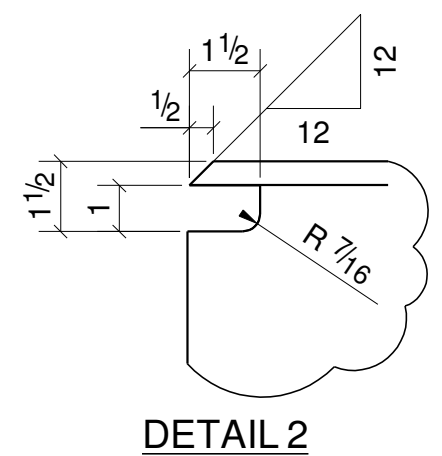
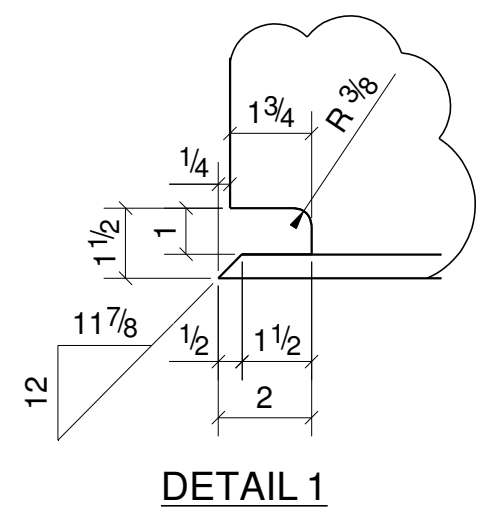
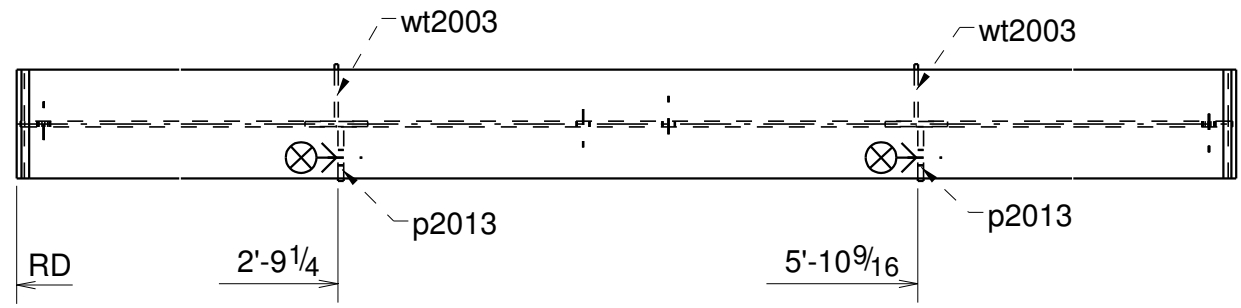
BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	2018	BEAM					
1	1		W14X22	9'-2 3/4"	204	SQ2		A992
4	4	a2011	L4X4X5/16	0'-8 1/2"	23			A36
6	6		3/4" O A490N BOLT	0'-2"	4	Workshop		

SURFACE PREPARATION: SSPC SP3

STEEL ASTM	A36	UNO
ELECTRODES	E70XX	UNO
WELDS	1/4" FILLET	UNO
OPEN HOLES	13/16 O	UNO
BOLTS	A325N	UNO
PAINT	ONE COAT OF SHOP PRIMER	UNO

DATE	NO.	DESCRIPTION	BY



ONE - BEAM - 2019

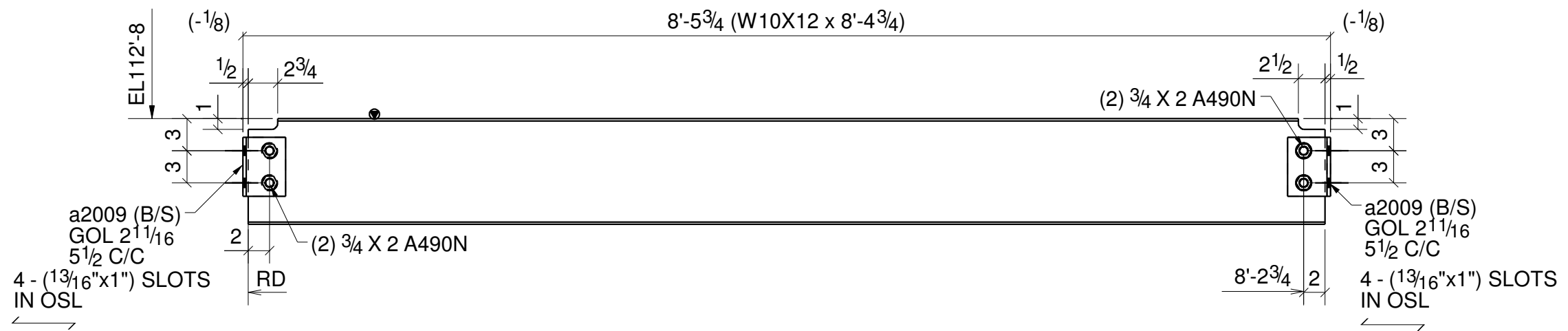
BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	2019	BEAM					
1	1		W24X55	8'-7 1/2"	476	SQ2		A992
2	2	p2013	PL3/8"X3 1/2"	0'-5 1/2"	4			A36
2	2	wt2003	WT4X7.5	0'-10 1/4"	13			A992

SURFACE PREPARATION : SSPC SP3

STEEL	ASTM A36	UNO
ELECTRODES	E70XX	UNO
WELDS	1/4" FILLET	UNO
OPEN HOLES	13/16Ø	UNO
BOLTS	A325N	UNO
PAINT	ONE COAT OF SHOP PRIMER	UNO

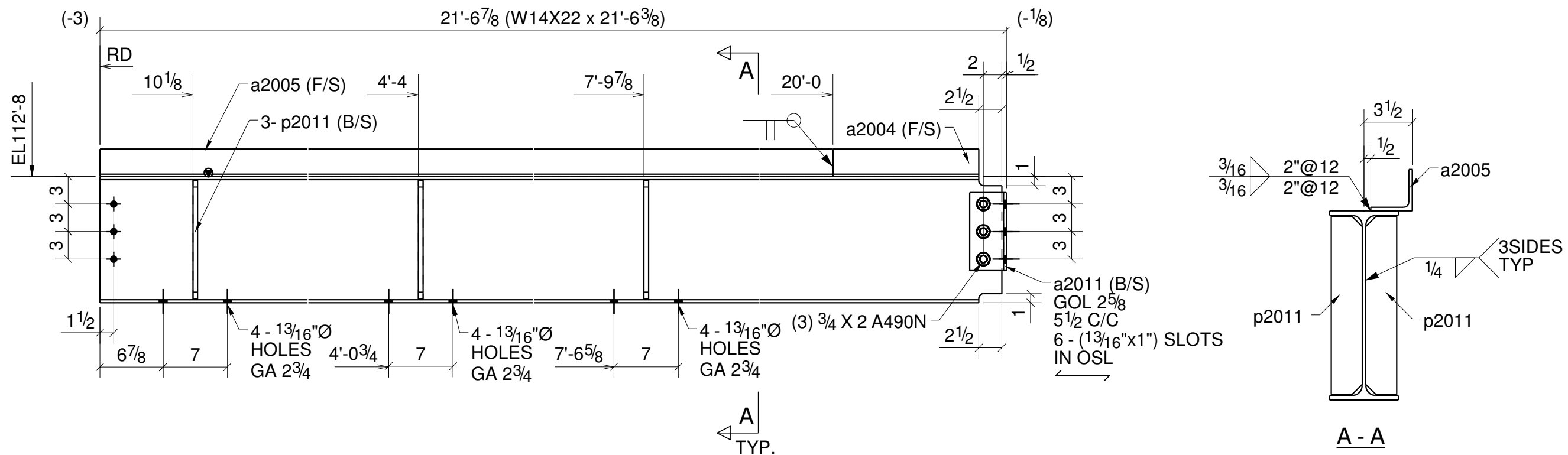
DATE	NO.	DESCRIPTION	BY



2 - BEAMS - 2015

BILL OF MATERIAL

BILL OF MATERIAL									SURFACE PREPARATION : SSPC SP3			DATE	NO.	DESCRIPTION	BY
Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade	STEEL ASTM	A36	UNO				
	2	2015	BEAMS						ELECTRODES	E70XX	UNO				
2	2		W10X12	8'-4 3/4"	202	SQ2		A992	WELDS	1/4" FILLET	UNO				
4	8	a2009	L4X4X5/16	0'-5 1/2"	30			A36	OPEN HOLES	13/16Ø	UNO				
4	8		3/4"Ø A490N BOLT	0'-2"	5	Workshop			BOLTS	A325N	UNO				
									PAINT	ONE COAT OF SHOP PRIMER	UNO				



BILL OF MATERIAL

ONE - BEAM - 2012

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	2012	BEAM					
1	1		W14X22	21'-6 3/8"	476	SQ-2		A992
1	1	a2004	L3X3X1/4	1'-3 7/8"	6			A36
1	1	a2005	L3X3X1/4	20'-0"	98			A36
2	2	a2011	L4X4X5/16	0'-8 1/2"	12			A36
6	6	p2011	PL1/2"X2 1/4"	1'-0 15/16"	24			A36
3	3		3/4" Ø A490N BOLT	0'-2"	2	Workshop		

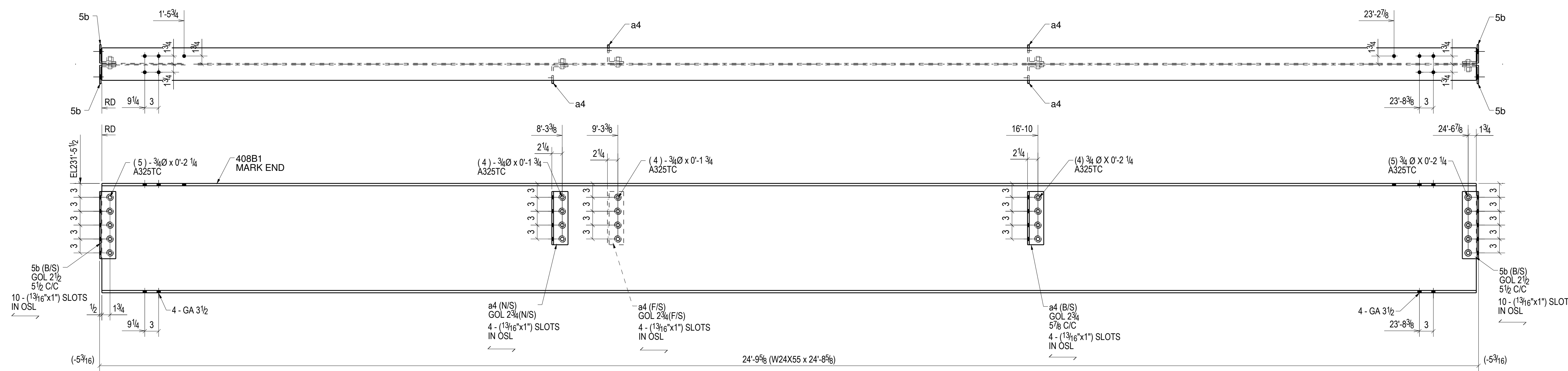
SURFACE PREPARATION : SSPC SP3

STEEL ASTM	A36	UNO
ELECTRODES	E70XX	UNO
WELDS	1/4" FILLET	UNO
OPEN HOLES	13/16 Ø	UNO
BOLTS	A325N	UNO
PAINT	ONE COAT OF SHOP PRIMER	UNO

DATE	NO.	DESCRIPTION	BY

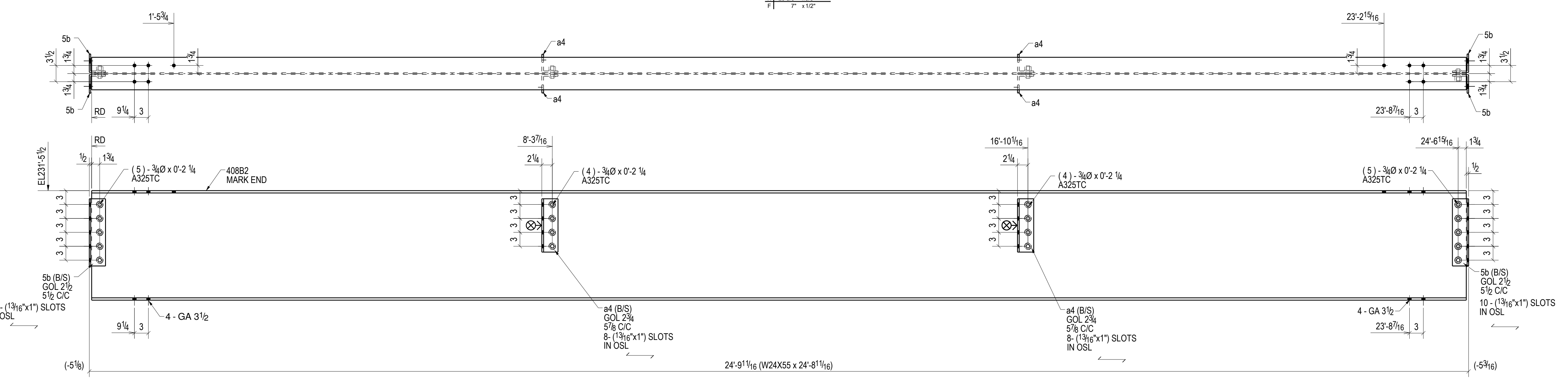
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
408B1		1	W24X55	24'-8 5/8"	A92 UNPAINTED
	5b	4	L4X3-1/2X5/16	1'-2 1/2"	A38
	a4	4	L4X3-1/2X3/8	0'-11 1/2"	A38
		14	3/4"Ø A325TC BOLT	0'-2 1/4"	Workshop
		8	3/4"Ø A325TC BOLT	0'-1 3/4"	Workshop
		28	3/4"Ø A325TC BOLT	0'-2 1/4"	Site
		8	3/4"Ø A325TC BOLT	0'-1 3/4"	Site
408B2		1	W24X55	24'-8 11/16"	A92 UNPAINTED
	5b	4	L4X3-1/2X5/16	1'-2 1/2"	A38
	a4	4	L4X3-1/2X3/8	0'-11 1/2"	A38
		18	3/4"Ø A325TC BOLT	0'-2 1/4"	Workshop
		10	3/4"Ø A325TC BOLT	0'-2"	Site
		18	3/4"Ø A325TC BOLT	0'-2 1/4"	Site
		8	3/4"Ø A325TC BOLT	0'-1 3/4"	Site
408B3		4	W16X26	25'-3 1/8"	A92 UNPAINTED
		32	3/4"Ø A325TC BOLT	0'-1 3/4"	Site



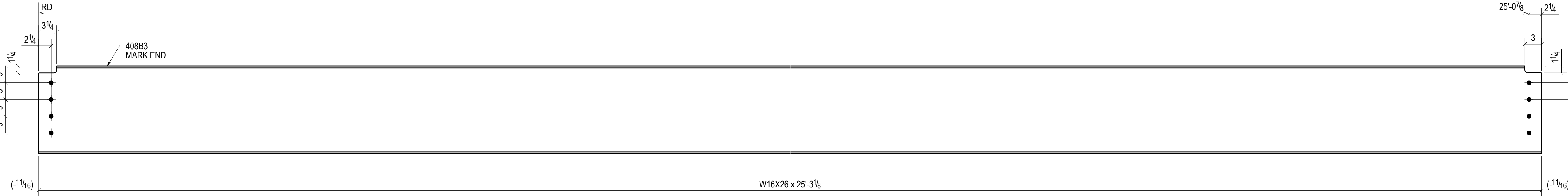
ONE - BEAM - 408B1 UNPAINTED

W 23 5/8" x 38"
F 7" x 1/2"



ONE - BEAM - 408B2 UNPAINTED

W 23 5/8" x 38"
F 7" x 1/2"



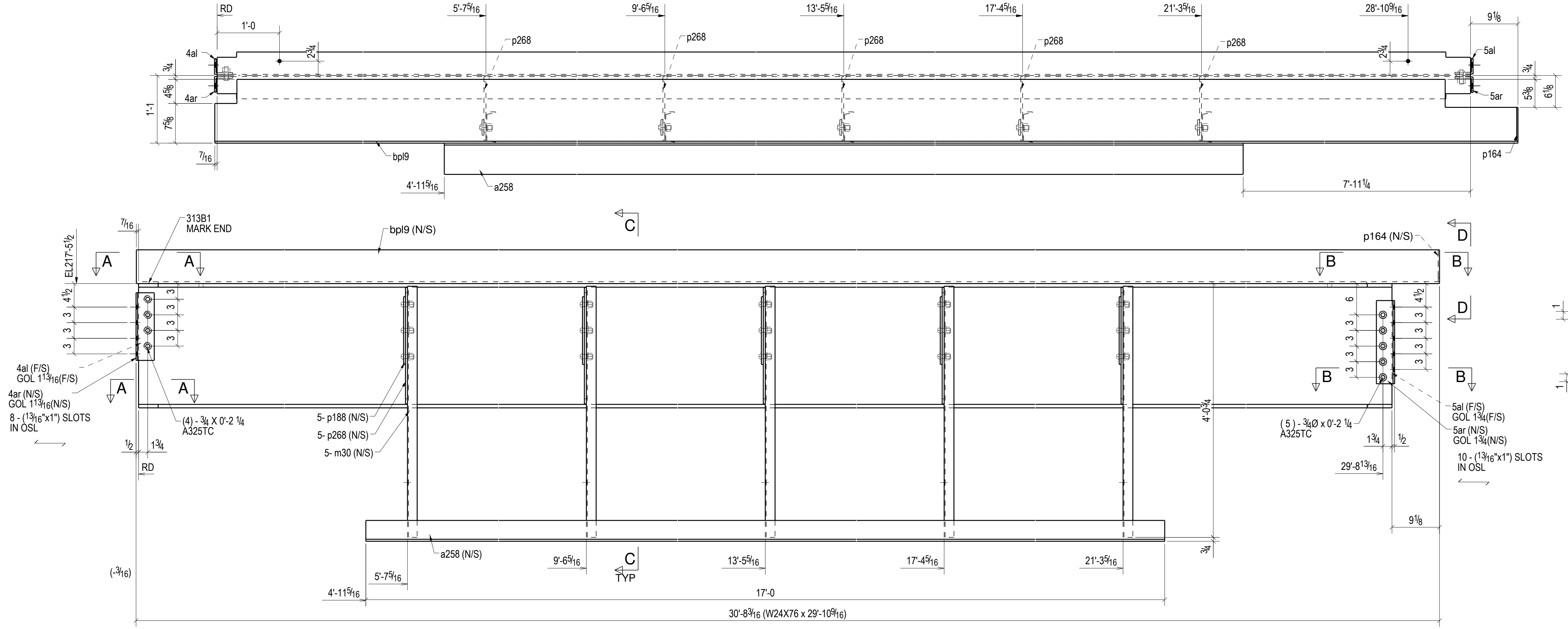
4 - BEAMS - 408B3 UNPAINTED

W 15 3/4" x 14"
F 5 1/2" x 3/8"

REV.	DATE	DESCRIPTION	BY	CHKD BY
OPEN HOLES	13/16 UNO			
PAINT AS NOTED IN B.O.M.				
ARCHITECT ENGINEER				
PROJECT NAME				
LOCATION				
CONTRACTOR				
DESCRIPTION BEAM DETAILS				
DRAWN BY				JOB No.
CHECKED BY				
APPROVED BY				DRG No. 408

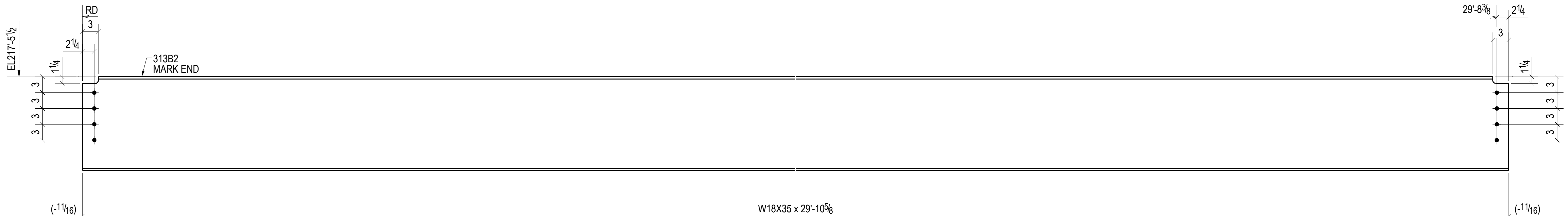
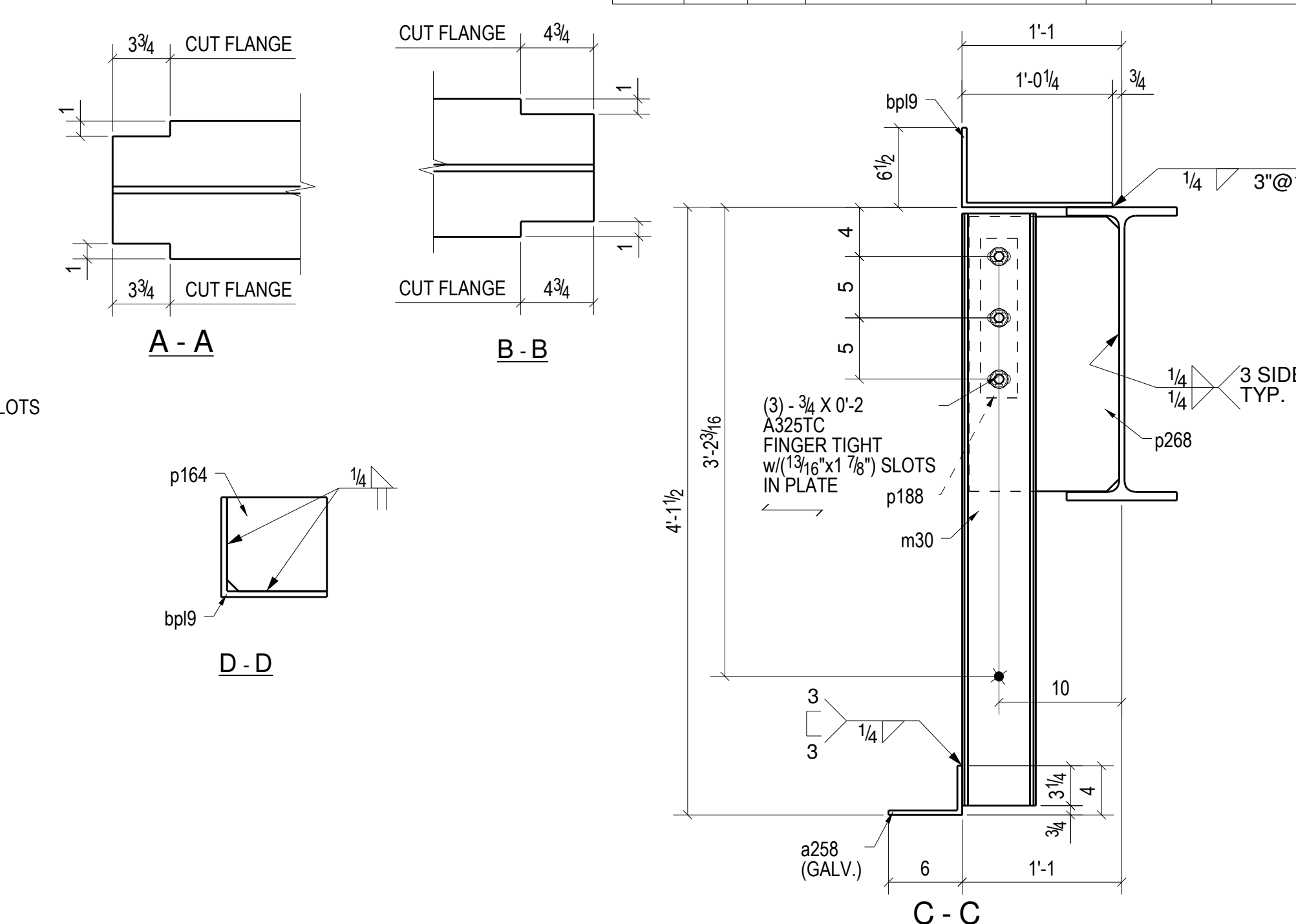
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
313B1		1	W24X76	29'-10 9/16"	A92 UNPAINTED
	4al	1	L3-1/2X3X5/16	1'-1"	A36
	4ar	1	L3-1/2X3X5/16	1'-1"	A36
	5al	1	L3-1/2X3X5/16	1'-4"	A36
	5ar	1	L3-1/2X3X5/16	1'-4"	A36
	a258	1	L6X4X3/8	17'-0"	A36 GALVANIZED
	m30	5	C6X8.2	4'-0 1/4"	A36
	bp19	1	.PLB6 1/2"x12 1/4"x3/8"-90°	30'-8 1/8"	A572-50
	p164	1	PL 1/4"x6 1/8"	0'-6 1/2"	A572-50
	p188	5	PL3/8"x3"	1'-1"	A572-50
	p268	5	PL3/8"x12 1/4"	1'-10 3/8"	A572-50
		15	3/4"Ø A325TC BOLT	0'-2"	Workshop
		9	3/4"Ø A325TC BOLT	0'-2 1/4"	Workshop
		2	3/4"Ø A325TC BOLT	0'-2"	Site
		8	3/4"Ø A325TC BOLT	0'-2 1/4"	Site
313B2		4	W18X35	29'-10 5/8"	A92 UNPAINTED
		32	3/4"Ø A325TC BOLT	0'-1 3/4"	Site
313B3		1	W18X40	29'-10 5/8"	A92 UNPAINTED
		8	3/4"Ø A325TC BOLT	0'-1 3/4"	Site



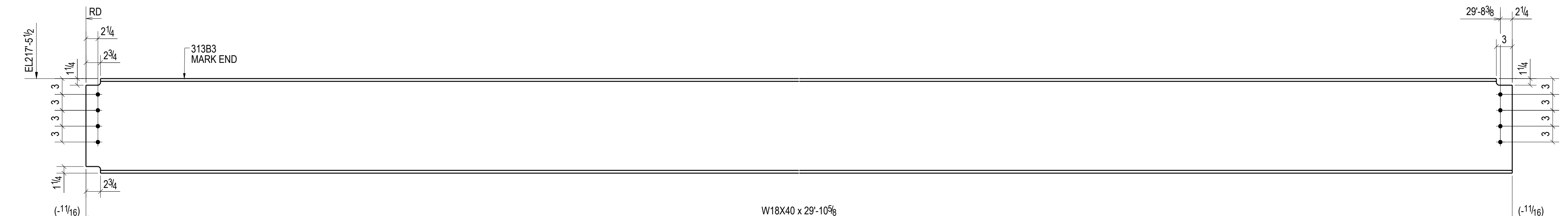
ONE - BEAM - 313B1 UNPAINTED

W	23 7/8"	x	7 1/8"
F	9"	x	11 1/8"



4 - BEAMS - 313B2 UNPAINTED

W	17 3/4"	x	9 1/8"
F	6"	x	7 1/8"



ONE - BEAM - 313B3 UNPAINTED

W	17 7/8"	x	5 1/8"
F	6"	x	1 1/2"

REV.	DATE	DESCRIPTION	BY	CHKD BY
		OPEN HOLES	13/16 UNO	
		PAINT AS NOTED IN B.O.M.		
ARCHITECT ENGINEER				
PROJECT NAME				
LOCATION				
CONTRACTOR				
DESCRIPTION BEAM DETAILS				
DRAWN BY			JOB No.	
CHECKED BY				
APPROVED BY			DRG No. 313	