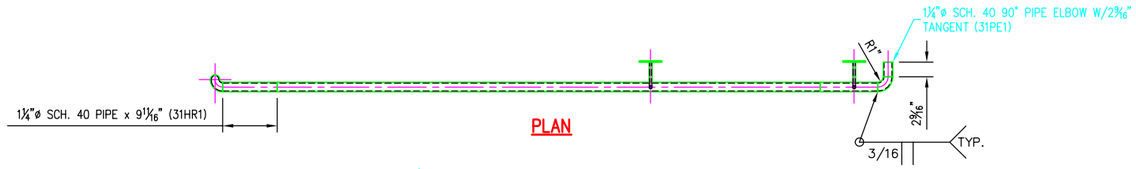
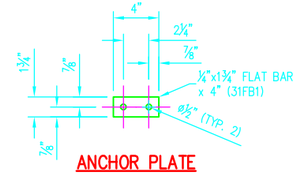
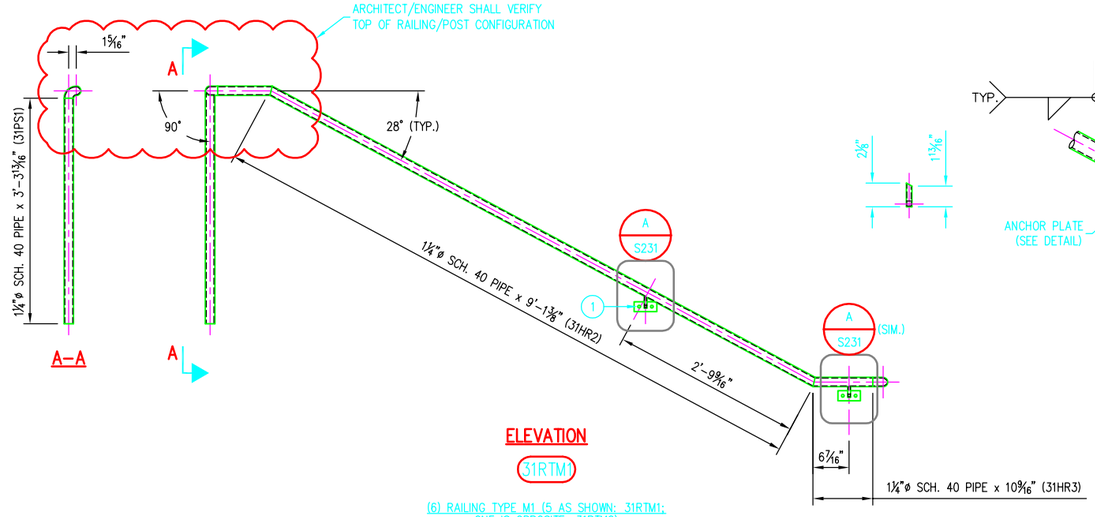


PLAN



ANCHOR PLATE



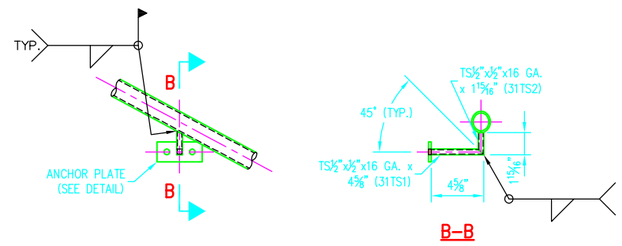
A–A

ELEVATION

31RTM1

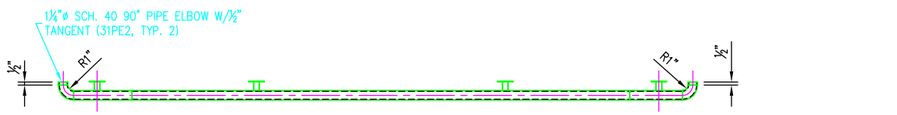
(6) RAILING TYPE M1 (5 AS SHOWN; 31RTM1; ONE IS OPPOSITE; 31RTM2)

RE: SHT. A4.02, ELEV. 8
RE: SHT. A3.41, DETAIL 12

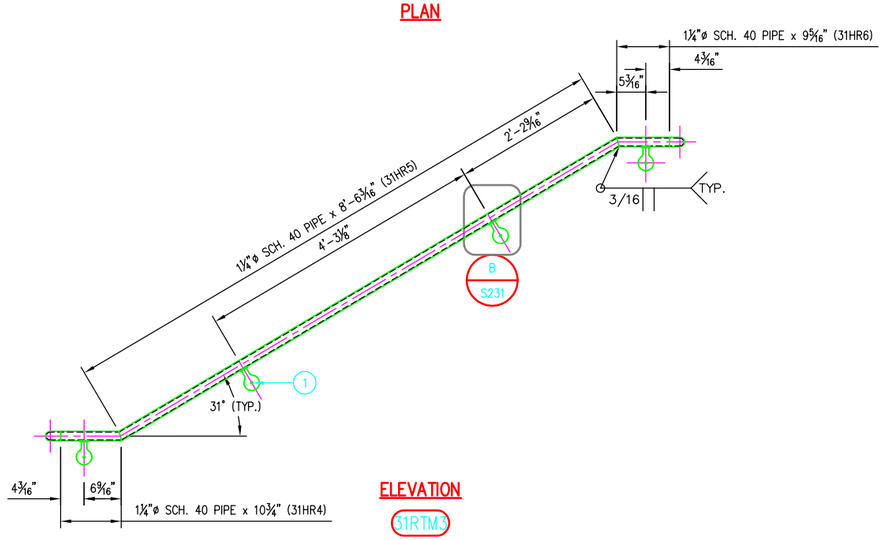


DETAIL A

B–B



PLAN

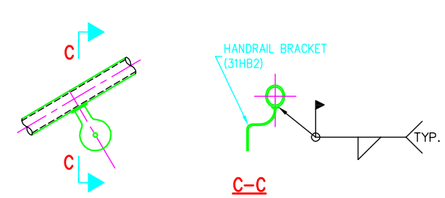


ELEVATION

31RTM3

(1) RAILING TYPE M3

RE: SHT. A4.02, DETAIL 1 & SECT. 2
RE: SHT. A3.41, DETAIL 12



DETAIL B
(TYP. 4)

C–C

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	FT	IN	REMARKS
31RTM1	5	RAILING TYPE M1			
31HR1	5	1¼"ø SCH. 40 PIPE	0	9 15⁄16	
31HR2	5	1¼"ø SCH. 40 PIPE	9	1⅝	
31HR3	5	1¼"ø SCH. 40 PIPE	10	1 3⁄16	
31PS1	5	1¼"ø SCH. 40 PIPE	3	4 1⁄16	
31FB1	10	¼"x1¾" FLAT BAR	0	4⅛	
31TS1	10	TS½"x½"x16 GA.	0	4¾	
31TS2	10	TS½"x½"x16 GA.	0	2 1⁄16	
31PE1	5	1¼"ø SCH. 40 PIPE 90° ELBOW			2 9⁄16" TANGENT
1	20	⅜"øx3" LG. EXPANSION ANCHOR (SSTL); HILTI KB-TZ OR EQUAL			
31RTM2	1	RAILING TYPE M2			OPPOSITE OF 31RTM1
31HR1	1	1¼"ø SCH. 40 PIPE	0	9 15⁄16	
31HR2	1	1¼"ø SCH. 40 PIPE	9	1⅝	
31HR3	1	1¼"ø SCH. 40 PIPE	10	1 3⁄16	
31PS1	1	1¼"ø SCH. 40 PIPE	3	4 1⁄16	
31FB1	2	¼"x1¾" FLAT BAR	0	4⅛	
31TS1	2	TS½"x½"x16 GA.	0	4¾	
31TS2	2	TS½"x½"x16 GA.	0	2 1⁄16	
31PE1	1	1¼"ø SCH. 40 PIPE 90° ELBOW			2 9⁄16" TANGENT
1	4	⅜"øx3" LG. EXPANSION ANCHOR (SSTL); HILTI KB-TZ OR EQUAL			
31RTM3	1	RAILING TYPE M3			
31HR4	1	1¼"ø SCH. 40 PIPE	0	11	
31HR5	1	1¼"ø SCH. 40 PIPE	8	6 7⁄16	
31HR6	1	1¼"ø SCH. 40 PIPE	0	9 9⁄16	
31PE2	2	1¼"ø SCH. 40 PIPE 90° ELBOW			½" TANGENT
31HB2	4	HANDRAIL BRACKET			PURCHASED
1	4	⅜"øx3" LG. EXPANSION ANCHOR (SSTL); HILTI KB-TZ OR EQUAL			

PAINT SYSTEM FOR RTM3 ONLY

SURFACES EMBEDDED IN CONCRETE SHALL NOT BE PAINTED.

SURFACES TO BE FIELD WELDED SHALL NOT BE PAINTED.

PRIMER: ONE COAT, MIN. 3.0 MILS DFT, OF TNEMEC, SERIES 90-97 TNEME-ZINC, ZINC-RICH PRIMER.

INTER. COAT: ONE COAT, MIN. 3.0 MILS DFT, OF TNEMEC, SERIES N69-1255.

TOP COAT: ONE COAT, MIN. 3.0 MILS DFT, OF TNEMEC, SERIES 1077 ENDURALUME. TOP COAT SHALL BE DU STANDARD COLOR CRANBERRY.

FABRICATION NOTES

1. REMOVE ALL BURRS FROM EXPOSED CUT EDGES.
2. EASE EXPOSED EDGES TO AN APPROXIMATE 1⁄32" RADIUS.

MATERIAL, COATING & FABRICATION SPECIFICATIONS

MATERIALS & FABRICATION	COATINGS
ALL TUBE SECTIONS: A500 GR. B	SURFACES EMBEDDED IN CONCRETE SHALL NOT BE GALVANIZED.
ALL PIPES: A53, GR. B, SCH. 40	
PLATES: A36	RAILINGS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123.
WF, WT: A992	
OTHER SHAPES: A36	RAILINGS RTM1 AND RTM2 SHALL BE GALVANIZED.
HEADED ANCHOR STUDS: A108	RAILING RTM3 SHALL BE PRIMED AND PAINTED (SEE ABOVE).
DEFORMED ANCHOR STUDS: A496	
ALL WELDING: AWS D1.1, E70 ELECTRODES	
SURFACE PREP: SSPC-SP10	

REV.	REVISION DESCRIPTION:	DATE:

ANDY'S BEST CAD
9715 S. MERIMBULA ST.
LITTLETON, CO 80130
303-791-1622
WWW.ANDYSBESTCAD.COM

DRAWN: A.LANDT
DESIGNED: A.LANDT
CLIENT:
DATE: 05/04/09
SCALE: 1"=1'-0"

PROJECT: UNIVERSITY ATHLETIC STADIUM STRUCTURAL STEEL HANDRAILS AND RAILINGS

DRAWING TITLE: RAILING TYPE M1, M2 & M3

DRAWING NO.: S231
OF

© 2009 ANDY'S BEST CAD. ALL RIGHTS RESERVED. THIS DRAWING IS THE PROPERTY OF ANDY'S BEST CAD AND IS PROTECTED BY COPYRIGHT LAWS OF THE UNITED STATES OF AMERICA. ANY UNAUTHORIZED USE OF THE INFORMATION CONTAINED HEREIN OR PART THEREOF IS STRICTLY PROHIBITED. RECEIPT OR POSSESSION THEREOF DOES NOT CONFER OR TRANSFER ANY RIGHT TO MAKE, COPY MANUFACTURE AND/OR SELL EITHER THE DRAWING OR THE ITEMS SHOWN THEREIN.