



**WEAVER CONSTRUCTION MANAGEMENT, INC.**  
 3679 S. Huron St., Suite 404  
 Englewood, CO 80110  
 Phone: (303) 789-4111 FAX: (303) 789-4310

**SUBMITTAL TRANSMITTAL**

January 16, 2012  
Submittal No: 05500-005.C

**PROJECT:** Harold Thompson Regional WRF  
 Birdsall Rd.  
 Fountain, CO 80817  
 Job No. 2908

**ENGINEER:** GMS, Inc.  
 611 No. Weber St., #300  
 Colorado Springs, CO 80903  
 719-475-2935 Roger Sams

**OWNER:** Lower Fountain Metropolitan  
 Sewage Disposal District  
 901 S. Santa Fe Ave.  
 Fountain, CO 80817  
 719-382-5303 James Heckman

**CONTRACTOR:** Rocky Mountain Railings  
 11839 E. 51st Ave.  
 Denver, CO 80239

**SUBJECT:** SSI - Response to review comments in submittal 05500-005.B.  
 WCM Comments letter, RMR Comments letter and Sheet D-1

**SPEC SECTION:** 05500 - Metal Fabrications

**PREVIOUS SUBMISSION DATES:** 12/15/11

**DEVIATIONS FROM SPEC:** \_\_\_ YES X NO

**CONTRACTOR'S STAMP:** This submittal has been reviewed by WCM and approved with respect to the means, methods, techniques, & safety precautions & programs incidental thereto. Weaver General Construction also warrants that this submittal complies with contracted documents and comprises on deviations thereto.

<p><b>Contractor's Stamp:</b></p> <p>Date: 1/16/12          Reviewed by: H.C. Myers  <input checked="" type="checkbox"/> Reviewed Without Comments  <input type="checkbox"/> Reviewed With Comments</p> <p><b>ENGINEER'S COMMENTS:</b> _____</p>	<p><b>Engineer's Stamp:</b></p>
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**Project: HDTWRF Project**

**Location: Fountain, CO**

**Supplier: Rocky Mountain Railings**

**Date: 1/16/12**

**Submittal Review Comments 05500-05.C Handrail**

- 1. Rocky Mountain Railing's response to 05500-05.B review comments attached.**
- 2. Rocky Mountain cannot replace the top "Tee" connection of the clarifier handrail system with a 'cross'. They are proposing a continuous rail 4' above the top rail, see attached Drawing D-1 Section E/D-1.**



## ROCKY MOUNTAIN RAILINGS

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January 16, 2012

Weaver Construction  
3679 S. Huron St. Ste. 404  
Englewood, CO. 80110

Re: Harold D. Thompson W.R.F. - Fountain, CO.  
Subject: Response Letter - R3

This is Rocky Mountain Railings response to GMS, Inc. review comments.

### Comment #1

No exception is taken to the shop submittal response; however, the following comment addresses additional requirements not previously noted.

### Response #1

Instead of just providing end caps at the top of the post at the standard 3'-6" height we can provide a post that extends 4'-0" past the top rail of the hand rail and then place the end cap so that you can achieve the protection you are needing.

### Comment #2

The Owner requests the tees placed at the top of the handrail at each post around the clarifier be replaced with a cross. The top of the cross is to be capped with a watertight plug to preclude moisture getting into the post tubing.

### Response #2

The crosses you mention is not a component that we have or can provide. The detail that we are providing shows the standard post extending 4'-0" past the top rail with an end cap on top.

### Comment #3

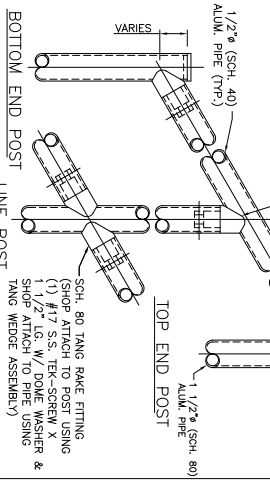
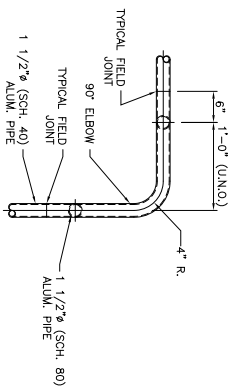
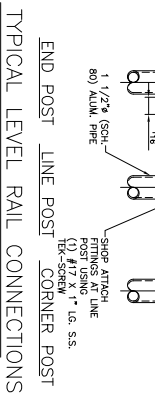
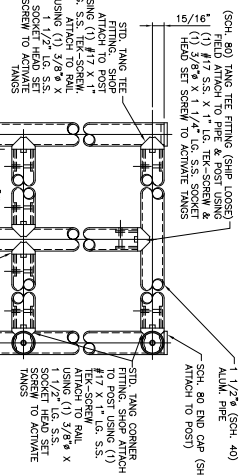
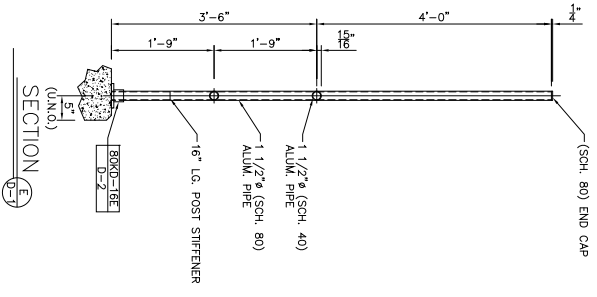
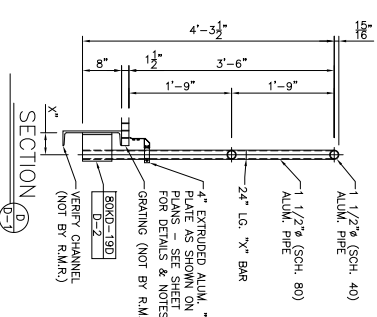
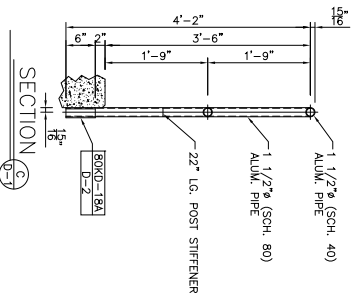
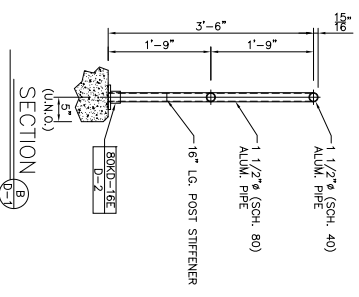
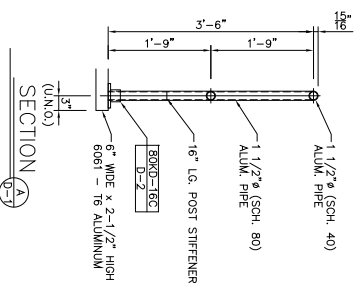
The radius of the handrail is approximately 30'-8". We request the supplier / manufacturer provide a statement indicating the deflection at each post meets the manufacturer's recommendations for installation of handrail around a 30'-8" radius and indicate whether the design calculations apply to a handrail installed in this manner.

### Response #3

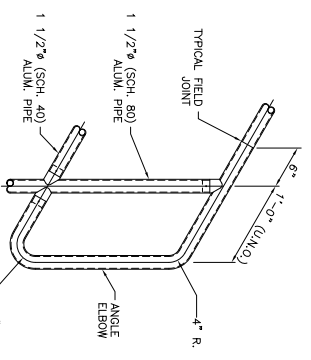
Radius or not the calculations are done based on post height / anchors / and design loads. The calculations that we submitted to you were exactly what your specifications called for regarding rail height / appropriate anchors / and proper design loads. The calculations clearly show a maximum of 6'-0" c/c post spacing which is larger than the approximate max of 5'-10" that we are showing on the drawings.

Sincerely,  
Daniel Brown  
Rocky Mountain Railings  
dbrown@rockymountainrailings.com

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TYPICAL RAKE RAIL CONNECTIONS



BOTTOM RAKE P-END

GENERAL NOTES:

- 1) ALL RAIL TO BE OF MECHANICAL CONSTRUCTION U.N.O.
- 2) ALL RAILS TO BE FABRICATED FROM 1 1/2" SCH. 40 ALUMINUM PIPE (6105-15 ALLOY).
- 3) ALL POSTS TO BE FABRICATED FROM 1 1/2" SCH. 80 ALUMINUM PIPE (6105-15 ALLOY).
- 4) ALL COMPONENTS TO BE 6105-15 ALLOY.
- 5) ALL FASTENERS (SELF TAPPING SCREWS, MACHINE BOLTS, EXPANSION ANCHORS, ETC.) TO BE STAINLESS STEEL (TYPE 304)
- 6) ALL RAILING SURFACES IN CONTACT WITH CONCRETE OR DISSIMILAR METALS SHALL RECEIVE ONE SHOP APPLIED COAT OF THEMEC SERIES 46-465.
- 7) ALL BOLTS USED TO MOUNT RAILINGS TO FLOORS, WALLS, STEEL, ETC. ARE BY RAILING MFR.
- 8) ALL KICK PLATES (7" TYPE TOE BOARD) SHALL BE SHIPPED LOOSE IN 24"-0" LG. STOCK LENGTHS FOR FIELD CUTTING & DRILLING AS REQ'D.
- 9) ALL POSTS ARE FURNISHED CUT TO LENGTH WITH FITTINGS ATTACHED (EXCEPT FOR TOP FITTING AT LEVEL & RAKE LINE POSIS).
- 10) PIPE FOR STRAIGHT RAIL IS FURNISHED IN 24"-0" STOCK LENGTHS FOR CUTTING & DRILLING AS REQ'D.
- 11) ELBOWS W/ A 4" C/L RADUS ARE FURNISHED AS REQ'D & MUST BE FIELD CUT TO FIT FIELD CONDITIONS.
- 12) ALL RAILS WHEN PROPERLY INSTALLED SHALL MEET OR EXCEED OSHA REQUIREMENTS.
- 13) MAX. POST SPACING TO BE 6'-0" C/C.
- 14) ALL CURVED RAIL SHALL BE FABRICATED USING CURVED TOP & INTERMEDIATE RAILS.
- 15) ALL RAIL IS TO BE FINISHED IN ACCORDANCE WITH THE ALUMINUM ASSOCIATION'S DESIGNATION M10022A41.



**ROCKY MOUNTAIN RAININGS**  
 1800 FISH LAKE DRIVE, CO #8020  
 HAROLD D. THOMPSON W.R.F.  
 FOUNTAIN, CO.  
 (303) 800 KNOCK DOWN  
 (303) 800 KNOCK DOWN  
 WEAVER CONSTRUCTION  
 R2027  
 D-1

REVISIONS PER EXTENDED POST	DATE	BY	NO.	DESCRIPTION
1	11/16/11	AS	1	ISSUE FOR CONSTRUCTION
2	11/16/11	NOTED	2	REVISIONS TO OTHERS
3	04/20/12	NOTED	3	REVISIONS TO OTHERS