NOTES

RAIL, PICKETS & POSTS:
Pipe Rails and Pickets shall be in accordance with ASTM A53 Grade B for standard weight pipe (Schedule 40) or ASTM A536. Structural Tube Posts shall be in accordance with ASTM A500 Grade A, B, C, or D, or ASTM A506. Posts and End Rails shall be fabricated and coated in accordance with the requirements at 3-4" above the foundation. Pickets shall be fabricated parallel to the posts. Corners and changes in tangential/longitudinal alignment shall be made continuous with a 90° bend radius or terminate at an auxiliary section with mitered ends when handrails are not required. For changes in tangential/longitudinal alignment greater than 45°, posts shall be positioned at a maximum distance of 2-1/2" each side of the corner and the corner shall be located at the centerline. For curved longitudinal alignments the top and bottom rails and handrails shall slope to meet the alignment radius.

RAIL MEMBER DIMENSIONS TABLE

<table>
<thead>
<tr>
<th>MEMBER</th>
<th>DESIGNATION</th>
<th>OUTSIDE DIMENSION</th>
<th>WALL THICKNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Posts</td>
<td>2&quot; x 4&quot; Rectangular Tube</td>
<td>2.000&quot; x 4.000&quot;</td>
<td>0.250&quot;</td>
</tr>
<tr>
<td>Rolls</td>
<td>2&quot; NPS (Seam 40)</td>
<td>2.000&quot;</td>
<td>0.150&quot;</td>
</tr>
<tr>
<td>Handrail</td>
<td>2&quot; NPS (Seam 40)</td>
<td>2.000&quot;</td>
<td>0.150&quot;</td>
</tr>
<tr>
<td>Support Bar</td>
<td>2&quot; Round Bar</td>
<td>2.000&quot;</td>
<td>N/A</td>
</tr>
<tr>
<td>Pickets</td>
<td>2&quot; NPS (Seam 40)</td>
<td>2.000&quot;</td>
<td>0.100&quot;</td>
</tr>
<tr>
<td></td>
<td>3/8&quot; Round Bar</td>
<td>0.750&quot;</td>
<td>N/A</td>
</tr>
</tbody>
</table>

BASE PLATES & POST CAPS:
Base Plates and Post Cap plates shall be in accordance with ASTM A36 or ASTM A570 Grade 36.

SHIM PLATES:
Shim Plates shall be aluminum in accordance with ASTM B309, Alloy 6061 or 6063. Shim plates shall be used for foundation height adjustments greater than 1/4" and localized irregularities greater than 1/4". Field trim shim plates when necessary to match the contours of the foundation. Beveled shim plates shall be used in lieu of trimmed flat shim plates. Beveled shim plates shall be bonded together with an adhesive bonding material and limited to a maximum total thickness of 1/4".

CUTTING & SANDING:
The railing shall be hot-dip galvanized after fabrication in accordance with Section 962 of the Specifications. All nuts, bolts and washers shall be hot-dip galvanized in accordance with Section 962 of the Specifications.

ANCHOR (303):
Manufacturers seeking approval of proprietary railing systems for inclusion on the Qualified Products List of pre-approved alternate designs must submit application along with design documentation showing the proprietary railing system is designed to meet the design life, load, geometry, and other requirements specified herein. All fixed joints are to be either welded or commercially designed fixed joint systems. Each field section of railing must be identified with a permanently affixed label with the manufacturer’s name and the FDOT U.P.H. approval number. Labels must be a minimum of 1/16" thick and located at the base section of a post or rail on the protruding section of the handrail design. Labels shall be made of a corrosion-resistant material and shall be legible for 10 years. Labels are required for all approved railings, see Show Drawings.

PAYMENT:
All materials shall be paid for per linear foot (Item No. 51A-2-aa). Payment will be made in full when measured as the length along the center line of the top rail, and includes rails, posts, pickets, rail splice assembly, base plates, anchor bolts, nuts, washers, resilient or neoprene pads and all incidental materials and labor required to complete installation of the railing.

© 2010 FDOT Design Standards

STEEL PEDESTRIAN/BICYCLE PICKET RAILING
RAILING ON STEPS & STAIRS

See "Typical Railing Details" for post, rail & picket details

Concrete sidewalk to extend 6" min. behind Railing

Steel Handrail required for three or more steps (Handrail and cheekwall continuous at landings)
Handrail min. 1 5/8" NPS (Sch. 40)

Elevation
(At-Grade Steps shown, Elevated Stairs similar)

See Index No. 521 or Contract Plans for Step Details

ALTERNATE END TREATMENT DETAILS

RAILINGS ON STEPS & STAIRS

2010 FDOT Design Standards Rev. 850 01/01/08 3 of 5