NOTES:

1. The box beam stiffener and hardware as shown on this sheet shall replace the use of the 1½" anchor bolts shown on STD-2-1. The box beam stiffener shall be galvanized and ASTM A36 grade A cold-formed welded carbon steel structural tubing, and shall be in accordance with Section 602 of the standard specifications.

2. The interconnected portable barrier rail (IPBR) shall be in accordance with STD-2-1.

3. IPBR with box beam stiffener shall begin at least 50'-0" prior to being continuous. Vertical and horizontal extensions are permitted, and extensions beyond the area requiring limited deflections may be extended for extensions. The first and the last IPBR segment shall be pinned to a pin on the construction side.

4. Box beam stiffener may be used with IPBR segments 14'-0" or longer.

5. IPBR may only be installed to the following minimum radii:
   - 14'-0" segment - 164'-0" radius
   - 16'-0" segment - 184'-0" radius
   - 18'-0" segment - 207'-0" radius
   - 20'-0" segment - 230'-0" radius

6. Where IPBR are placed on a radius, the resulting gaps between the box beam and concrete barriers shall be shimmed.

7. The shimming shall consist of 8" x 8" x ¾" square plate and spacers as needed to shim the box beam stiffener to the IPBR. All plates shall be galvanized and ASTM A36.

8. Spacers shall be galvanized and conform to ASTM A36.

9. Threaded rods shall be galvanized and ASTM A36 grade A.

10. The box beam and other hardware need to be new, but the galvanizing may not be necessary. The remaining shall be sufficient to ensure that the steel is structurally intact.

11. Cost of box beam stiffeners, hardware, galvanization, and installation shall be included in the unit cost for Item No. 712-02.47 (L.F.).