EXPECTED IMPLEMENTATION JANUARY 2014

DRAFT

534 CONCRETE SOUND BARRIERS – CONSTRUCTION METHODS.
(REV 8-6-13) (FA 8-15-13) (1-14)

Article 534-5 (Pages 696 – 697) is deleted and the following substituted:

534-5 Construction Methods.

A. Prior to beginning earthwork on the project, stake the wall location in the field and establish the final ground line elevations at the base of the walls. Use these elevations to develop the shop drawings, including a complete elevation view of each wall indicating top and bottom elevations as well as the roadway grade. Protect the final ground elevations established in the field for the duration of the project, and do not adjust without prior approval of the Engineer. Keep to a minimum the clearing and grubbing, and trimming of trees as necessary to construct the walls.

B. All posts shall be held plumb in auger cast piles with an installation template. The template shall be such that the installation tolerances can be maintained. The template shall remain in place for a minimum of 12 hours after post installation.

C. Shimming of wall panels above the pile collar and beneath the bearing pads is permitted, up to a maximum of 1-1/2 inches. Shims must be either stainless steel (Type 304 or 316) or engineered copolymer plastic. Plastic shims must have a minimum compressive strength of 8,000 psi, without any fractures. Stacked shim plates must be bonded together with a compatible epoxy adhesive. Stacking of shims is permitted as follows:

1. for shimming heights of one inch or less, provide up to four 1/4 inch shims
2. for shimming heights greater than one inch, use a minimum of one 3/4 inch shim.

D. Install the walls in accordance with the Plans, and with the shop drawings submitted to and approved by the Engineer. Secure joints and connections in such a manner as to be structurally sound and without visible openings in the system allowing sound transmission.

E. Repair marred, chipped, scratched, or spalled areas of walls at no expense to the Department in accordance with the manufacturer's recommendations or at the Engineer's direction.

F. Place trench backfill for wall construction in accordance with 125-8. Use select materials for the trench backfill.

If, in the opinion of the Engineer, the trench is too narrow to compact, backfill the trench excavation with flowable fill meeting the requirements of Section 121 or concrete meeting the requirements of Section 346 or 347 to the satisfaction of the Engineer and at no expense to the Department.

G. Dispose of all excess excavation in a manner satisfactory to the Engineer.

H. Keep right of way fence that is scheduled to be salvaged in place until completing the wall or, in the opinion of the Engineer, as long as possible.

I. After erecting the wall, leave the disturbed area in a finished condition at the direction of the Engineer, and grass or sod the area as indicated in the Plans.

J. Erection Tolerances:

1. Variation from plumb: plus or minus 1/4 inch per10 feet
2. Panel alignment: plus or minus 1/4 inch
3. Top of panel elevation: plus or minus 3/4 inch
4. Elevation difference of adjacent panels: plus or minus 1/2 inch

5. Joint taper over panel length: plus or minus 1/2 inch
6. Top of collar elevation: plus or minus 3/4 inch
7. Post placement:
    a. variation from specified location plus or minus 1 inch
    b. variation from specified elevation plus or minus 1/4 inch
8. Continuity of graphics, fracture fins, etc across joints: 1/4 inch

K. When building sound barriers on top of earth berms, construct the berms of fill material compacted to 95% of the maximum density as determined by AASHTO T99.

L. Provide the concrete wall with a uniform color, pattern, and texture as shown in the Plans.