

Section 58 Sound Walls

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Section 58 Sound Walls

4-5801 General

This section provides guidelines for inspecting construction of sound walls for work specified under Section 58, “Sound Walls,” of the *Standard Specifications*. Sound wall types include masonry block, precast concrete panels, and alternative sound wall systems.

4-5802 Before Work Begins

Before work begins, do the following:

- Review the plans and specifications covering sound walls. Verify that all required submittals are provided by the contractor and processed as specified. Determine the compressive strength requirements of materials such as masonry block and grout.
- Review and discuss with the contractor plans for placing sound wall components. Also discuss and evaluate project specific conditions for safely placing sound wall components, such as the handling of public traffic and avoiding conflicts with utilities.
- Verify that Form DOT CEM-3101, “Notice of Materials to Be Used,” includes sound wall materials. Refer to Section 6-202, “Responsibilities for Acceptance of Manufactured or Fabricated Materials and Products,” of this manual for additional information.
- Verify that aesthetic requirements described in the plans and specifications are adhered to. For example, concrete masonry units must have a uniform color and texture, and must be supplied from a single source and a single manufacturer. Mortar ingredients, such as cement, lime, and aggregate, must have a uniform quality, including color, and must be supplied from a single source, producer, or manufacturer. If there are questions regarding proposed materials, colors, patterns, or designs complying with aesthetic requirements, contact the district landscape architect.
- Upon delivery of sound wall materials, note whether they are identified by inspection tags. Inspection and release of sound wall materials by Materials Engineering and Testing Services will assure that materials intended for use in the work meet specifications.
- Inspect the material in accordance with Table 6-2.1, “Inspection of Fabricated and Manufactured Materials,” in Section 6-2, “Acceptance of Manufactured or Fabricated Materials and Products,” of this manual.
- Verify and document that planned sound wall width, length, and height are correct for the field conditions, and that the foundation will be uniform.
- Verify that all environmental permit conditions will be met, and that erosion and sediment control devices are installed before excavation begins.

4-5803 During the Course of Work

During the course of work, do the following:

- Before placement of bedding and forms, check foundation and grades for conformance with the plans and specifications. If the foundation is questionable, contact the district materials engineer.
- Inspect and document any pile driving or drilling operations. Verify that proper splicing methods are being used.
- Before placement of concrete, check and document line, grade, elevation, dimensions, condition of forms, bracing, ties, and location of reinforcement. Make sure concrete is placed in accordance with the plans and specifications. Check for uniform backfill compaction.
- Verify that construction of sound walls and sound wall barriers conforms to contract documents and authorized shop drawings.
- Verify and document alignment, height, and spacing of posts and panels. If any sound wall settlement or misalignment occurs during or after construction, make sure that the defect is corrected.

4-5804 Quality Control

Make sure that all specified preconstruction sampling, testing, and inspection are performed. Verify that preconstruction testing is done at an authorized laboratory qualified to perform the tests and that material test results comply with the specifications.

For masonry block sound walls, verify that the contractor has a certified special inspector and authorized laboratory to do required sampling, testing, and inspection. The special inspector must be an International Code Council certified structural masonry special inspector. The special inspector must prepare daily reports and perform the inspections required in Section 1705A.4, "Masonry Construction," of the 2016 California Building Code.

4-5805 Payment

Refer to appropriate sections of the special provisions and *Standard Specifications* for the basis of measurement and payment. Depending on the unit basis for payment, you may need to keep records of the installation of sound wall components, such as piles and reinforcement. Also, calculate any changes that result in increases or decreases in quantities.