

Bracketed section numbers refer to the 2006 *Standard Specifications*.

Section 58 Sound Walls

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4-5801 General

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This section covers items related to constructing sound walls. Sound wall types include masonry block, precast concrete panels, and alternative sound wall systems. Specifications for constructing sound walls are covered in Section 58, “Sound Walls,” of the *Standard Specifications*.

Although this section has guidance specific to constructing sound walls, also use applicable guidance from the following and other relevant sections in this manual:

- Section 4-15, “Existing Facilities”
- Section 4-16, “Clearing and Grubbing”
- Section 4-21, “Erosion Control”
- Section 4-48, “Temporary Structures”
- Section 4-49, “Piling”
- Section 4-51, “Concrete Structures”
- Section 4-52, “Reinforcement”

4-5802 Before Work Begins

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Before work begins, do the following:

- Review the plans and specifications covering sound walls. Ensure that all required submittals are provided by the contractor and processed as specified. Ensure that all specified preconstruction sampling, testing, and inspection are performed. 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. Before allowing the work to commence, discuss any obvious shortages of workers, equipment, or material that may prevent completion of the sound walls. 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 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.
- For masonry block sound walls, ensure 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 perform the

inspections required in Section 1704.5, "Masonry Construction," of the 2007 California Building Code (CBC). The authorized laboratory must be capable of performing the preconstruction testing. Review results of preconstruction testing of prepackaged mortar and grout strength before work begins.

- 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 ensure 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

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- 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. Ensure concrete is placed in accordance with the plans and specifications. Ensure uniform backfill compaction.
- For masonry block sound walls, ensure that the special inspector is performing the inspections required in Section 1704.5, "Masonry Construction," of the 2007 CBC. The special inspector must perform the specified quality control work inspection and preparation of daily reports.
- Ensure 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, ensure that the defect is corrected. Section 6-3.06, "Guarantee," of the *Standard Specifications* covers requirements regarding the repair or replacement of defective work after construction contract acceptance.

4-5804 Measurement and 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.

4-5804 Measurement and Payment