



Standard Specification for Precast Concrete Barriers¹

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1. Scope

1.1 This specification covers precast concrete barriers, intended to be used adjacent to a roadway or as a median, to redirect vehicles unintentionally leaving the roadway.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

2. Referenced Documents

2.1 ASTM Standards:²

A82/A82M Specification for Steel Wire, Plain, for Concrete Reinforcement (Withdrawn 2013)³

A185/A185M Specification for Steel Welded Wire Reinforcement, Plain, for Concrete (Withdrawn 2013)³

A416/A416M Specification for Steel Strand, Uncoated Seven-Wire for Prestressed Concrete

A421/A421M Specification for Uncoated Stress-Relieved Steel Wire for Prestressed Concrete

A496/A496M Specification for Steel Wire, Deformed, for Concrete Reinforcement (Withdrawn 2013)³

A497/A497M Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete (Withdrawn 2013)³

A615/A615M Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement

A996/A996M Specification for Rail-Steel and Axle-Steel Deformed Bars for Concrete Reinforcement

C31/C31M Practice for Making and Curing Concrete Test Specimens in the Field

C33 Specification for Concrete Aggregates

C39/C39M Test Method for Compressive Strength of Cylin-

drical Concrete Specimens

C42/C42M Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete

C150 Specification for Portland Cement

C173/C173M Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method

C231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method

C260 Specification for Air-Entraining Admixtures for Concrete

C330 Specification for Lightweight Aggregates for Structural Concrete

C494/C494M Specification for Chemical Admixtures for Concrete

C595 Specification for Blended Hydraulic Cements

C618 Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete

3. Classification

3.1 Precast concrete barriers manufactured in accordance with this specification shall be as shown in either Fig. 1 or Fig. 2.

4. Basis of Acceptance

4.1 Precast barrier shall comply with all of the provisions of this specification and shall be tested as prescribed in 8.3 and 8.4.

4.1.1 *Acceptance as to Strength Properties*—Concrete barrier shall be acceptable under the strength tests when the sections have met the requirements of Section 8.

4.1.2 *Acceptance as to Dimensional Properties*—Concrete barrier shall meet the dimensional tolerances of Section 9.

4.1.3 *Acceptance as to End Result*—The concrete barrier sections shall be finally acceptable to the purchaser at the designated point of delivery with no significant cracking. Significant cracking is defined as fractures or cracks passing through the section or any continuous structural crack extending for a length of 12 in. (305 mm) or more, regardless of position in the section.

5. Materials

5.1 *Cement*—Portland cement shall conform to the requirements of Specification C150 or shall be portland blast-furnace

¹ This specification is under the jurisdiction of ASTM Committee C27 on Precast Concrete Products and is the direct responsibility of Subcommittee C27.20 on Architectural and Structural Products.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.