



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 the standard. The values given in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

- A 82 Specification for Steel Wire, Plain, for Concrete Reinforcement²
- A 185 Specification for Steel Welded Wire, Fabric, Plain, for Concrete Reinforcement²
- A 416/A416M Specification for Steel Strand Uncoated Seven-Wire for Prestressed Concrete²
- A 421 Specification for Uncoated Stress-Relieved Steel Wire for Prestressed Concrete²
- A 496 Specification for Steel Wire, Deformed, for Concrete Reinforcement²
- A 497 Specification for Steel Welded Wire Fabric, Deformed, for Concrete Reinforcement²
- A 615/A615M Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement²
- A 616/A616M Specification for Rail-Steel Deformed and Plain Bars for Concrete Reinforcement²
- A 617/A617M Specification for Axle-Steel Deformed and Plain Bars for Concrete Reinforcement²
- C 31 Practice for Making and Curing Concrete Test Specimens in the Field³
- C 33 Specification for Concrete Aggregates³
- C 39 Test Method for Compressive Strength of Cylindrical Concrete Specimens³
- C 42 Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete³
- C 150 Specification for Portland Cement⁴
- C 173 Test Method for Air Content of Freshly Mixed

Concrete by the Volumetric Method³

C 231 Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method³

C 260 Specification for Air-Entraining Admixtures for Concrete³

C 309 Specification for Liquid Membrane-Forming Compounds for Curing Concrete³

C 330 Specification for Lightweight Aggregates for Structural Concrete³

C 494 Specification for Chemical Admixtures for Concrete³

C 595/C595M Specification for Blended Hydraulic Cements⁴

C 618 Specification for Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete³

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 C 150 or shall be portland blast-furnace slag cement or portland-pozzolan cement conforming to the requirements of Specification C 595.

5.2 *Aggregates*—Aggregates shall conform to Specification C 33 or C 330.

¹ This specification is under the jurisdiction of ASTM Committee C-27 on Precast Concrete Products and is the direct responsibility of Subcommittee C27.20 on Architectural and Structural Products.

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² *Annual Book of ASTM Standards*, Vol 01.04.

³ *Annual Book of ASTM Standards*, Vol 04.02.

⁴ *Annual Book of ASTM Standards*, Vol 04.01.