

SECTION 02617

PRECAST REINFORCED CONCRETE BOX SEWERS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Precast reinforced concrete box sewers.

1.02 UNIT PRICES

- A. No separate payment will be made for precast reinforced concrete box sewer under this Section. Include payment in unit price for Section 02720 – Storm Sewers.

1.03 REFERENCES

- A. ASTM C 1433 – Standard Specifications for Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers.

1.04 SUBMITTALS

- A. Conform to requirements of all sections and provisions of these specifications.
- B. Submit shop drawings and data on box sections, fittings, and appurtenances for approval. Indicate conformance to reference standards.

PART 2 PRODUCTS

2.01 PRECAST REINFORCED CONCRETE BOX SEWERS

- A. All box sewer sections shall conform to ASTM C 1433, as indicated on the Drawings.
- B. All pipe and boxes shall be machine-made or cast by a process, which will provide for uniform placement of concrete in the forms and compaction by mechanical devices which will assure a dense, structurally sound concrete.
- C. Joint Wrap
 1. Box joints shall be wrapped with 4-ounce geotextile with 36-inch width wrapped around the pipe perimeter with 18-inch overlap at end.
 2. Geotextile should be applied per manufacturer's instructions.
 3. Approved manufacturers include Mirafi 140NC or equal.

2.02 CONCRETE

- A. Conform to requirements of Section 03305.
- B. Concrete shall be mixed in a central batch plant or other batching facility from which the quality and uniformity of the concrete can be assured. Transit-mixed concrete is not acceptable.

2.03 SOURCE QUALITY CONTROL

- A. Owner Representative will inspect manufacturer's plant and casting operations as deemed necessary.
- B. The Contractor shall provide bi-weekly reports certified by the box manufacturer's representative that the installation is being performed by the Contractor per the manufacturer's recommendations and guidelines.

PART 3 EXECUTION

3.01 BEDDING

- A. Box sections shall be bedded on a foundation of firm and stable material accurately shaped to conform to their bases. When required by the Drawings, special bedding material shall be provided. When single-cell box sections are placed in parallel for multi-cell installation they shall be placed in conformance with the details shown on the Drawings.

3.02 PLACEMENT

- A. All box sections shall be carefully lowered to the bottom of the trench and shall be laid accurately in line and grade, with the spigot end downstream entering the bell or groove end to full depth and in such manner as not to drag foreign material into the annular space.

3.03 JOINTING

- A. Box sections shall be joined together and matched so that they will form a continuous smooth and uniform invert. The joint opening at any point where two box sections are fitted together shall not exceed two (2) inches. This opening is not considered an average.
- B. Joint repair shall be performed on sections of the joint that exceed 2". If more than half the joint exceed 2" then this whole joint shall be repaired.

3.04 BACKFILLING

- A. After the box has been properly jointed and bedded, backfilling shall commence.
- B. Backfilling shall be in accordance with Section 02227.

END OF SECTION