

CITY OF SAN ANGELO**ITEM 529****CONCRETE CURB, GUTTER AND COMBINED CURB AND GUTTER****529.1. DESCRIPTION.**

This Item shall govern for construction of concrete curb, gutter and combined curb and gutter, with or without reinforcing steel, composed of Portland Cement concrete on approved subgrade, foundation material or finished surface in accordance with the lines and grades established by the City and in conformance with the details shown on the Plans.

As used in this Item, the word “curb” refers to concrete curb, concrete gutter and combined concrete curb and gutter.

529.2. MATERIALS.

All materials shall conform to the pertinent requirements of the following Item:

Item 421, “Portland Cement Concrete”

Concrete used in conventionally formed and slipformed construction shall be Class “A” concrete or concrete as specified for concrete pavement. Unless otherwise shown on the Plans, concrete for extruded construction shall be Class “A”, except that the coarse aggregates shall meet the requirements of Grade 8. Other grades of coarse aggregate may be substituted, if approved by the City.

529.3. CONSTRUCTION METHODS.

(1) Conventionally Formed Concrete. Prior to curb construction, the subgrade, foundation or pavement surface shall be shaped to the line, grade and cross section shown on the Plans and, if considered necessary by the City, hand tamped and sprinkled. When directed by the City, the subgrade or foundation material shall be sprinkled. When directed by the City, the subgrade or foundation material shall be sprinkled lightly immediately before concrete is deposited thereon.

Forms shall be of wood, metal or other approved material, of a section satisfactory to the City, straight, free of warp and of the depth required. They shall be securely staked to line and grade, and maintained in a true position during the placing of concrete.

The reinforcing steel, if required, shall be placed as shown on the Plans. Care shall be exercised to keep all steel in its proper location during concrete placement.

Unless other methods are shown on the Plans or approved by the City, the concrete shall be placed into the forms and then struck off with a template, which is approximately 1/4” to 3/8” less than the dimension of the finished curb. After the concrete has been struck off and after it has become sufficiently set, the surface shall be plastered with a mortar consisting of one part of Portland Cement

and two (2) parts fine aggregate. The mortar shall be applied with a template made to conform to the finished curb dimensions as shown on the Plans. Exposed edges shall be rounded by the use of an edging tool to the radius shown on the Plans. All exposed surfaces shall be brushed to a smooth and uniform surface.

Curbs, gutters and combined curb and gutters shall be placed in sections of 50-foot maximum length unless otherwise approved by the City.

Joints shall be of the type and spacing shown on the Plans. Preferably on ten (10) foot spaces if not shown on Plans.

Hand finishing will be permitted.

The completed work shall be cured with an approved curing compound.

(2) Extruded or Slipformed Concrete. The concrete shall be placed with self-propelled equipment approved by the City. When placement is directly on subgrade or foundation materials, the foundation shall be hand-tamped and sprinkled if considered necessary by the City. If the concrete is placed directly on the surface material or pavement, such surface shall be thoroughly cleaned. If required by Plan details, the cleaned surface shall then be coated with an approved adhesive or other coating as specified at the rate of application shown.

The reinforcing steel, if required, shall be placed as shown on the Plans. Care shall be exercised to keep all steel in its proper location during concrete placement.

The line shall be maintained from a guideline set by the Contractor based on the alignment data shown on the Plans. The outline shall strictly conform to the details shown on the Plans. The forming tube of the extrusion machine or the form of the slipform machine shall be readily adjustable vertically during the forward motion of the machine to provide required variable heights necessary to conform to the established grade line. To provide a continual check on the grade, a pointer or gauge shall be attached to the machine in such a manner that a comparison can be made between the extruded or slipform work and the guideline. Other methods may be used, if approved in writing by the City.

Concrete shall be fed into the machine in such a manner and at such consistency that the finished work will present a well-compacted mass with a surface free from voids and honeycomb, and true to the required shape, line and grade.

Any additional surface finishing specified and/or required shall be performed immediately after extrusion or slipforming. Expansion joints shall be at the beginning and ending of radius and every 100' between radii.

Hand finishing will be permitted.

All exposed surfaces shall be cured with an approved curing compound.

529.4. MEASUREMENT.

This Item will be measured by the linear foot, complete in place.

529.5. PAYMENT.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Concrete Curb", "Concrete Gutter" or "Concrete Curb and Gutter" of the type specified. This price shall be full compensation for furnishing all materials required; for surface preparation of base; and for all manipulations, labor, tools, equipment, and incidentals necessary to complete the work.