

SECTION S609 - CURB

S609-1 DESCRIPTION

Work consists of installation of new curb, and resetting, salvaging or modifying existing curb as required in Contract Documents and as directed by Project Manager.

References to NYSDOT specifications are to be in accordance with latest edition of *NYSDOT Standard Specifications (US Customary Units)*.

S609-2 MATERIALS

S609-2.01 General

Materials are to be in accordance with NYSDOT Section 700 Materials Details:

Concrete Repair Material	701-04
Concrete Grouting Material	701-05
Anchoring Material – Chemically Curing	701-07
Premoulded Resilient Joint Filler	705-07
Masonry Mortar	705-21
Bar Reinforcement, Grade 60	709-01
Stone Curb Anchor Bars	709-07
Quilted Covers (for Curing)	711-02
Plastic Coated Fiber Blankets (for Curing)	711-03
Polyethylene Curing Covers (White Opaque)	711-04
Membrane Curing Compound	711-05
Precast Concrete Curb	714-04
Structural Steel	715-01
Galvanized Coatings and Repair Methods	719-01
Epoxy Resin System	721-01

S609-2.02 Concrete Cradle and Backing

Concrete cradle and backing is to be Class L in accordance with Section S504 Portland Cement Concrete.

S609-2.03 Stone Curb

A. General

City is standardized on stone curb with top width of 4 and 5 inches, and following dimensional requirements are based on 4 and 5 inch width. Dimensional requirements for other width stone curb will be as required in Contract Documents.

Stone curb is to be either sandstone, bluestone or granite, and is to come from approved quarries. Stone is to be sound and durable, free from seams which impair its structural integrity and of smooth splitting and machining character. Natural color variations that are characteristic of overall deposit will be permitted. Acceptance of any curb containing discoloration other than cleanable surface stains is subject to approval by Project Manager.

B. Dimensional Requirements

1. *General.* Stone curb is to be cut to conform to shape and size required in Contract Documents.
2. *Length.* Stone curb is to be furnished in minimum lengths of 3 feet.

3. *Width.* Bottom width of 4 and 5 inch wide stone curb is to be 4 inches minimum for 2/3's of length of individual piece of curb.

4. *Depth.* Depth of 4 and 5 inch wide stone curb is to be 16 inches, plus or minus 1 inch.

Depth of 4 and 5 inch wide header stone curb is to be 12 inches, plus or minus 1 inch.

5. *Radius Stone Curb.* Radius stone curb with radius of 100 feet or less is to be shaped to required curvature with ends cut on radial lines.

Radius stone curb with radius of 2 feet or less is to be shaped from solid block cut to required arc with radial joints.

6. *Bridge Stone Curb.* Depth of 4 and 5 inch wide bridge stone curb is to be 12 inches, plus or minus 1 inch. Bridge stone curb is to have two 3/4 inch diameter anchor holes drilled into back of curb, pitched downward at 45° angle, 3 inches deep. Anchor holes are to be 12 inches from each end and 5 inches down from top of curb. Anchor bars are to be 12 inch long, 1/2 inch diameter galvanized bent steel bar.

7. *Mountable Stone Curb.* Overall top width of mountable curb is to match top width of curb being set on project.

Depth of 4 and 5 inch wide mountable stone curb is to be 14 inches, plus or minus 1 inch.

C. General Finish Requirements

1. *Top Surface.* Top surface is to be finished to approximately true planes. When sawed, hammered or thermal finishes are applied, no projection or depression is to be greater than 3/16 inch. Saw marks normal to sawing process will be permitted if within 3/16 inch tolerance.

2. *Arris Lines.* Top front arris line is to be straight and true with no variations greater than 1/8 inch as measured from 2 foot straightedge placed along arris line. Exposed arris lines at joints are not to project beyond plane of split face, and are not to fall under plane of split face more than 1/8 inch.

3. *Front Exposed Face.* Front exposed face of straight curb, when split, is to have no projection greater than 3/4 inch or depression greater than 1/2 inch as measured from vertical plane passing through top front arris line at top of split face for distance of 8 inches down from top.

Front exposed face of radius curb, when split, is to have no projection greater than 1-1/4 inches as measured from vertical plane passing through top front arris line at top of split face for distance of 8 inches down from top.

Front face of curb below 8 inches down from top is to have no projection or depression greater than 1 inch as measured in same manner.

4. *Back Surface.* Back surface is to have no projection or depression which exceeds batter of 1 inch in 3 inches for distance of 3 inches down from top.

5. *Ends.* Ends are to be approximately square with plane of exposed curb surface. Ends are to be finished so that when curb is set no space less than 1/8 inch or more than 1/2 inch is to show in joints for full length of exposed joint. Curb ends below pavement surface are not to break over 6 inches from joint plane.

6. *Drill Holes.* Drill holes will not be permitted in exposed portion of curb surface.

D. Mountable Stone Curb Exceptions to Finish Requirements

1. *Arris Lines.* Arris lines at joints are not to project beyond plane of split face, and are not to fall more than 1/4 inch under plane of split face.

2. *Front Exposed Face.* Front exposed face is to be smooth and quarry split to an approximately true plane, having no projection or depression greater than 1 inch as measured from 2 foot straightedge placed as closely as possible to plane of curb face. Top front edge is to be quarry cut at 45° angle, so as to have consistent 3 inch by 3 inch beveled edge.

3. *Ends.* Ends are to be approximately square with plane of exposed curb surface. Ends are to be finished so that when curb is set no space less than 1/8 inch or greater than 7/8 inch is to show in joints for full length of joint.

4. *Drill Holes.* Drill holes will be permitted along bottom edge of curb, and are not to be more than 3-1/2 inches long and 1/2 inch deep.

E. Driveway Transition and Header Stone Curb Finish Requirements

Top front edge of transition and header stone curb to be used for driveways is to be machine rounded with 1/2 inch radius. Radius is to present continuous smooth transition between top and front surface of curb without any evidence of lip, depressions, projections, or sharp edges.

Only transition and header stone curb pieces that are to be used for driveways are to be provided with top front edge rounded. All other lengths of curb including transition and header stone curb to be used for sidewalk access ramps are not to be rounded.

F. Basis of Acceptance

Stone curb will be inspected by Project Manager for compliance with material requirements upon arrival at Project site. Stone curb not in compliance with material requirements will be rejected.

S609-2.04 Concrete Curb

A. Conventionally Formed

Conventionally formed concrete curb is to be Class K concrete in accordance with Section S504 Portland Cement Concrete.

B. Machine Formed

Machine formed concrete curb is to be Class J concrete in accordance with NYSDOT Section 501 Portland Cement Concrete - General.

S609-2.05 Steel Curb

Steel plate and channel is to be in accordance with *New York State Steel Construction Manual* and NYSDOT Section 715-01 Structural Steel.

Steel plate is to be 22 inches high, 3/8 inch thick, with width matching top width of adjacent curb. Steel plate is to be provided with 3/4 inch diameter hole, located 4 inches down from top, centered on plate.

Steel channel is to be C9X15, with maximum length of 10 feet. Actual length of steel channel will be as required in Contract Documents.

S609-2.06 Saw Cutting

Saw cutting for pavement is to be in accordance with Section R622 Saw Cutting.

S609-2.07 Pavement Restoration Materials

Materials to be used are:

- Subbase material Type 1 and Type 2 in accordance with NYSDOT Section 304 Subbase Course

- Asphalt pavement courses in accordance with NYSDOT Section 402 Hot Mix Asphalt (HMA) Pavements, for following mixes: 37.5 F9 base course HMA 80 series compaction, 19 F9 binder course HMA 80 series compaction, and 9.5 F2 top course HMA 80 series compaction
- Concrete foundation for pavement, Class C in accordance with NYSDOT Section 503 Portland Cement Concrete Foundation for Pavement
- Tack coat is to be diluted or straight tack coat in accordance with Section S407 Tack Coat

S609-3 CONSTRUCTION DETAILS

S609-3.01 General

Prior to excavation, existing pavement is to be saw cut full depth in accordance with Section R622 Saw Cutting.

Trench for installation of curb is to be as narrow as possible to accomplish work and to minimize disruption to existing tree root systems. Where it is necessary to cut existing tree roots for installation of curb, tree roots are to be cut with sharp cutting tools, and according to current arboricultural standards. Cut tree roots are to be removed and disposed of off-site.

Remaining tree roots that are exposed are to be re-buried as soon as possible. Until tree roots can be re-buried, exposed tree roots are to be covered with wet burlap to keep tree roots from drying out. Burlap is to be kept wet until tree roots can be re-buried.

Curb is to be set true to line and grade, kept clean and in its alignment, and protected from damage until completion of Contract.

After curb has been installed, remaining portion of excavation behind curb is to be backfilled with either embankment in place, or granular backfill material, and material thoroughly compacted. Embankment in place is to be locally excavated material determined by Project Manager to be suitable for use as backfill, and may consist of hard durable materials and soil, free of organic material, debris, clay, frozen material and stone having any dimension greater than 4 inches. Granular backfill material is to be in accordance with any subbase course material being utilized for pavement restoration.

Care is to be taken so as not to disturb or damage any adjacent existing features that are to remain. Any adjacent existing features that are damaged by Contractor's operations are to be repaired at no additional cost.

S609-3.02 Stone Curb

A. General

Curb is to be set true to line and grade, and within continuous concrete cradle. Use dry mix concrete for portion of concrete cradle located under bottom of curb, wet mix concrete for portion of concrete cradle located behind curb. Subbase materials beneath curb cradle are to be thoroughly compacted to provide firm and uniform bearing.

Joints between individual pieces of curb are to be filled with cement mortar for minimum of 12 inches down from top of curb. Top and exposed front face of joint are to be neatly pointed, flush with curb surfaces, and cleaned of all excess mortar.

Where curb butts up to driveway transition curb that has top front edge rounded, top corner of curb is to be redressed by grinding to eliminate any sharp protuberance.

B. Sidewalk Access Ramps

When establishing curb elevations at sidewalk access ramp, elevations may be adjusted so as to eliminate any low point and to minimize as much as possible ponding of water within area of sidewalk access ramp, as ponding water within sidewalk access ramp area is detrimental to its intended usage.

C. Bridge Curb

Prior to placement of concrete backing, implant anchor bars into pre-drilled anchor holes. Protruding portion of anchor bars are to be encased within concrete backing.

D. Stone Curb at Mountable Curb

Where curb butts up to mountable curb, top front edge of curb is to be beveled to provide smooth transition between different shapes of curb and mountable curb. Beveled edge is to be minimum of 5 feet long, can be either quarry cut or field cut, and is to have smooth even finish without any cut marks or chips.

E. Resetting Existing Curb

Existing curb that is in good condition and is approved by Project Manager as acceptable is to be salvaged and reset. Existing curb is to be solid, without being cracked, chipped, or show any other forms of deterioration.

Carefully excavate and remove existing curb to avoid any unnecessary breakage. Extraneous materials, including concrete, are to be removed from curb in such manner as to be non-deleterious to curb.

Removed curb is to be stored at location that is safe and secure from damage by Contractor's ongoing operations, and from vandalism, theft or other mishap. Curb is to be placed on level ground to provide even bearing across curb surface. Curb broken during excavation or salvage operations, or found to be unacceptable for reuse by Project Manager, is to be properly disposed of.

If necessary, top and ends of curb are to be redressed to provide for good fit with adjacent curb pieces.

Top front edge of transition and header curb to be used for driveways is to be machine rounded with 1/2 inch radius. Radius is to present continuous smooth transition between top and front surface of curb without any evidence of lip, depressions, projections, or sharp edges.

S609-3.03 Salvage Existing Stone Curb

Existing stone curb that is in good condition and is approved by Project Manager as acceptable may be salvaged. Existing curb is to be solid, without being cracked, chipped, or show any other forms of deterioration. Existing curb to be salvaged may be sandstone, bluestone, granite or medina stone.

Carefully excavate and remove existing curb to avoid any unnecessary breakage. Extraneous materials, including concrete, are to be removed from curb in such manner as to be non-deleterious to curb.

Removed curb is to be stored at location that is safe and secure from damage by Contractor's ongoing operations, and from vandalism, theft or other mishap. Curb is to be placed on level ground to provide even bearing across curb surface. Curb that is broken during excavation or salvage operations, or found to be unacceptable for reuse by Project Manager, is to be properly disposed of.

Each individual piece of salvaged curb is to be labeled on top surface with yellow marking paint, indicating top width and running length. Radius curb pieces are to be marked with radius size.

Salvaged curb is to be delivered to City's Street Maintenance Division, 945 Mt. Read Boulevard, Rochester, New York, Monday through Friday, between hours of 8:00AM and 3:00PM, (585) 428-7479. Street Maintenance Division requires minimum of 2 working days advance notice to make arrangements for delivery of salvaged materials.

When delivered, curb is to be stacked neatly and orderly, according to width, type and style, at location designated by City's Street Maintenance Division. Stacked curb is to be separated into layers using 2x2 wooden sticker strips.

S609-3.04 Reshape Existing Stone Curb

Reshaping top of existing stone curb is generally done to cut driveway or sidewalk access ramp into existing curb, and is to be done using power saw.

Power saw with diamond or abrasive blades are to be those designed for such work. Power saw is to be capable of saw cutting curb horizontally, and if necessary at varying degrees of pitch to match required slopes of driveway or sidewalk access ramp.

After excavating area behind existing stone curb, saw cut top of curb horizontally to reshape top to required configuration. Saw cutting is to be done for full width of curb, and along neat, straight lines. Cut pieces are to be immediately removed and properly disposed of.

Saw cut portion of curb is to be milled or ground finished to smooth level surface free from burrs, nicks, or other markings or damage from saw cutting operation. Existing joints are to be re-pointed with masonry mortar mix.

Top front edge of transition and header curb to be used for driveways is to be machine rounded with 1/2 inch radius. Radius is to present continuous smooth transition between top and front surface of curb without any evidence of lip, depressions, projections, or sharp edges.

Temporarily backfill and maintain excavated area with gravel until construction of driveway or sidewalk ramp begins.

S609-3.05 Reset Existing Medina Stone Curb

On streets where existing medina stone curb is predominately in good condition, medina stone curb may be installed to replace pieces of existing medina stone curb that are in poor condition, or to fill-in areas where curb is missing. Medina stone curb is to be either as excavated from other areas of Project site, or salvaged and imported from another location. Medina stone curb that is imported from another location is to conform in size and color to existing medina stone curb that is being replaced.

Existing medina stone curb that is in good condition and is approved by Project Manager as acceptable is to be salvaged and reset. Existing medina stone curb is to be solid, without being cracked, chipped, or show any other forms of deterioration.

Carefully excavate and remove existing medina stone curb to avoid any unnecessary breakage. Extraneous materials, including concrete, are to be removed from curb in such manner as to be non-deleterious to curb.

Removed medina stone curb is to be stored at location that is safe and secure from damage by Contractor's ongoing operations, and from vandalism, theft or other mishap. Curb is to be placed on level ground to provide even bearing across curb surface. Curb broken during excavation or salvage operations, or found to be unacceptable for reuse by Project Manager, is to be properly disposed of.

If necessary, top and ends of curb are to be redressed to provide for good fit with adjacent curb pieces.

Medina stone curb is to be set in accordance with Subsection S609-3.02 Stone Curb.

S609-3.06 Concrete Curb

A. General

Concrete curb is to be either conventionally formed or machine formed to required size and shape.

Curing is to be in accordance with NYSDOT Subsection 502-3.11 Curing.

Expansion joints are to be 3/4 inch in width, provided at 20 feet intervals, and formed with premoulded resilient joint filler. Premoulded resilient joint filler material is to be cut to conform to cross section of concrete curb. Additional expansion joints are to be provided at all immovable objects, and at expansion joints in concrete pavement.

B. Conventionally Formed Concrete Curb

Concrete curb is to be cast in segments having uniform length of approximately 10 feet. Segments are to be separated by construction joints, with provisions made at each joint for 1/4 inch expansion. When concrete curb is constructed next to concrete pavement, concrete curb construction joint is to line up with pavement joint.

Forms are to be steel or wood, straight, free from warp, and of such construction that there will be no interference to inspection for grade or alignment. All forms are to extend for full curb depth and are to be braced and adequately secured so that no displacement from alignment will occur during placing of concrete.

Concrete is to be placed in forms in accordance with NYSDOT Subsection 555-3.04 Handling and Placing Concrete, and are to be compacted with an approved, immersion type mechanical vibrator. Vibrator is to be of size and weight capable of thoroughly vibrating entire mass without damaging or misaligning forms. Forms are to be left in place until concrete has hardened sufficiently to permit removal without damaging concrete curb. Upon removal of forms, exposed face of concrete curb is to be immediately rubbed to uniform surface. No plastering will be permitted.

C. Machine Formed Concrete Curb

Concrete curb is to be machine formed to proper line and grade. Project Manager may require demonstration be performed of specific equipment proposed to be used, to ensure that such equipment is capable of satisfactorily placing and forming concrete mix.

Contraction joints are to be formed or saw cut every 10 feet, to depths slightly below surface of adjacent pavement, and are to be left unfilled. When concrete curb is constructed next to concrete pavement, concrete curb construction joint is to line up with pavement joint.

S609-3.07 Steel Curb

Steel curb is to be installed in front of selected trees to minimize disruption of tree root system. An opening is to be left in curb line large enough to accommodate installation of steel curb. Piece of steel curb is to be centered on tree as much as practical, making allowances and adjustments as necessary to accommodate any adjacent driveway. Maximum length of opening and steel curb section will be 10 feet.

Steel plates are to be anchored to end of stone curb by use of rebar and epoxy resin system, installed thru steel plate and into end of stone curb. Adjacent pieces of stone curb are to be pre-drilled with 3/4 inch hole to align with hole drilled in steel plate. After installation, steel plate is to abut tightly with stone curb. Bottom of steel plate is to be encased minimum of 6 inches with same wet mix concrete cradle material used for stone curb backing. Wet mix concrete cradle is not to be placed adjacent to cut tree roots.

Steel channel section is to be welded to steel plate, and is to be set true to line and grade. Galvanized areas damaged by welding operation are to be repaired.

Additional granular backfill material is to be used to fill in spaces beneath and behind steel curb, and thoroughly compacted.

S609-3.08 Reset Existing Steel Curb

Existing steel curb that is in good condition and is approved by Project Manager as acceptable is to be salvaged and reset. Existing steel curb is to be solid, without being cracked, or show any other forms of deterioration.

Steel curb is to be carefully excavated and removed. Extraneous materials including concrete, are to be removed from steel curb. Steel curb is to be stored at location that is safe and secure from damage by Contractor's ongoing operations, and from vandalism, theft or other mishap.

Steel Curb is to be reset in accordance with Subsection S609-3.07 Steel Curb.

S609-3.09 Curb (CR Curb)

A. General

This section covers work to install CR curb along an existing street to re-define pavement edge. Existing street pavement edge may already consist of curb or concrete gutters, or may be unimproved without any definition.

CR curb items include all work necessary to layout and install curb, complete with full pavement restoration section. Overall pay limits of CR curb items and pavement restoration section will be as required in Contract Documents.

CR stone curb and CR steel curb are to be installed in accordance with Subsection S609-3 Construction Details.

B. Layout

City will pre-set alignment points, such as PK nails/tacks, along centerline of existing pavement. Alignment points will be set approximately every 50 feet and at any critical break points. Alignment points will be used to establish center of proposed improvements, with new curb line generally being equidistant from centerline of pavement. Initial curb alignment will be based on offsets from alignment points, and existing pavement crown line.

Stake curb alignment with iron pins and string line to initial offsets and existing pavement elevations, to establish preliminary grade and top of curb elevations. In establishing top of curb elevations, Contractor is to take into account that City is standardized on basic curb reveal of 0.60 feet (7-1/4 inches). Deviations from this standard may be made, but only to accommodate existing elevations and drainage, and only as approved of by Project Manager. Stakeout is to be done minimum of 24 hours prior to installation of curb, and may be done either before or after excavation for curb is done. Stakeout is to be done in accordance with NYSDOT Subsection 625-3.01 Survey Operations.

Iron pins are to be set at maximum intervals of 25 feet and at any critical break points. After installation of iron pins and string line, Contractor is to work with Project Manager to make adjustments to basic curb grade line to fit existing conditions and elevations. Adjust string line as necessary and excavate or fill excavated curb subgrade to establish required curb grade. Maintain final curb grade line alignment and elevations until curb installation, if necessary re-stake curb alignment for actual installation. String line between iron pins should not be left in place overnight.

Loss of alignment information will not be cause for claim or for delay to re-establish alignment during curb installation.

C. Pavement Restoration

Pavement restoration section may consist of either concrete or asphalt base, as required in Contract Documents. Pavement restoration section will be complete, including subbase courses; either class C concrete foundation or asphalt base course; asphalt binder course; asphalt top course; and asphalt tack coat.

S609-3.10 Pavement Restoration and Cleanup

After completion of curb work, existing pavement areas removed and/or disturbed by work are to be restored.

Use asphalt cement joint filler material to cap seam asphalt pavement joints.

After completion of work, and as directed by Project Manager, clean street and all other areas disturbed by work. All debris, unused materials and equipment is to be removed and properly disposed.

S609-4 METHOD OF MEASUREMENT

Quantity to be measured for payment will be number of linear feet of curb installed, reset, salvaged or reshaped as measured along top front arris line of curb, to nearest tenth (0.10) of foot.

Curb radii with radius of 100 feet or less, including transition and header curb which falls within confines of curb radii, will be measured and paid as radius curb.

Curb radii with radius of more than 100 feet, will be measured and paid under general curb items.

S609-5 BASIS OF PAYMENT

S609-5.01 General all Items

Unit price bid for all items includes cost of: trimming and maintaining tree root systems; gravel necessary to adjust subgrade elevation; select backfill material; granular backfill material; cleanup including removing and disposing all debris and unused materials; and furnishing all labor, material and equipment necessary to complete work.

Where bid item includes cost of excavation, unit price bid also includes cost of: pavement saw cutting.

Overall pay limits will be as required in Contract Documents.

Payment will be made only after all curb joints have been properly pointed.

S609-5.02 Stone Curb

Unit price bid also includes cost of: furnishing and installing stone curb; bridge curb; steel anchor rods for bridge curb; grinding corner of radius curb that butts up to rounded edge of driveway transition curb; concrete cradle; cement mortar; and pointing of joints.

Unit price bid also includes cost of: beveling top front edge of stone curb to provide smooth transition between different shapes of curb and mountable curb.

Transition and header curb to be used for driveways will be paid for under separate bid items.

S609-5.03 Radius Stone Curb

Unit price bid also includes cost of: furnishing and installing radius stone curb; bridge radius curb; steel anchor rods for bridge curb; grinding corner of radius curb that butts up to rounded edge of driveway transition curb; concrete cradle; cement mortar; and pointing of joints.

Unit price bid also includes cost of: rounding top front edge of any transition and header curb to be used for driveway that falls within limits of radius curb.

Unit price bid also includes cost of: beveling top front edge of radius stone curb to provide smooth transition between different shapes of curb and mountable curb.

S609-5.04 Driveway Transition and Header Stone Curb

Unit price bid also includes cost of: furnishing and installing transition and header stone curb to be used for driveways; rounding top front edge of transition and header stone curb; concrete cradle; cement mortar; and pointing of joints.

Transition and header stone curb to be used for driveways that falls within radius curb, will be paid for under radius curb bid items.

S609-5.05 Reset Existing Stone Curb

Unit price bid also includes cost of: removing, cleaning, redressing, storing and reinstalling existing stone curb; steel anchor rods for bridge curb; grinding corner of curb that butts up to rounded edge of driveway transition curb; concrete cradle; cement mortar; and pointing of joints.

Unit price bid also includes cost of: rounding top front edge of any transition and header stone curb to be used for driveway.

Unit price bid also includes cost of: beveling top front edge of radius stone curb to provide smooth transition between different shapes of curb and mountable curb.

S609-5.06 Salvage Existing Stone Curb

Unit price bid also includes cost of: removing, cleaning, redressing, storing, delivering, and stacking salvaged stone curb; disposing unsalvageable curb; handling; stockpiling; labeling; and wooden sticker strips.

S609-5.07 Reshape Existing Stone Curb

Unit price bid also includes cost of: horizontal saw cut; removal and disposal of curb cuttings; refinishing saw cut portion of curb; cement mortar; repointing existing joints; and furnishing and placing temporary gravel backfill.

Unit price bid also includes cost of: rounding top front edge of transition and header stone curb to be used for driveway.

S609-5.08 Reset Existing Medina Stone Curb

Unit price bid also includes cost of: removing, cleaning, redressing, storing and resetting existing medina stone curb; salvaging and importing existing medina stone curb from other locations; concrete cradle; cement mortar; and pointing of joints.

S609-5.09 Concrete Curb

Unit price bid also includes cost of: furnishing and installing new concrete curb; joint dowels; expansion joints; bituminous joint filler; forms; and finishing of concrete surface including rubbing and curing materials.

S609-5.10 Steel Curb

Unit price bid also includes cost of: furnishing and installing galvanized steel plate and channel; rebar; epoxy resin system; field galvanizing; welding; and concrete cradle.

S609-5.11 Reset Existing Steel Curb

Unit price bid also includes cost of: removing, cleaning, storing and resetting existing galvanized steel plate and channel; rebar; epoxy resin system; field galvanizing; welding; and concrete cradle.

S609-5.12 General all CR Curb Items

Unit price bid for all CR curb items also includes cost of: survey work necessary to establish, re-establish, adjust and maintain curb alignment and elevations; pavement saw cutting; excavation; backfill; removing and disposing existing material; concrete cradle; embankment in place; asphalt cement joint filler; and pavement restoration.

Overall pay limits will be as required in Contract Documents.

Payment will be made only after curb installation and pavement restoration work have been satisfactorily completed, and all curb joints properly pointed.

Underdrain will be paid for under separate bid item.

S609-5.13 Excavation, Backfill, Pavement Base Restoration and Pavement Restoration – all Items

Excavation, backfill and either pavement base or pavement restoration, will be paid for under separate bid items or included in unit price bid for item as indicated in item description.

Excavation that is included in bid item does not include rock excavation. Rock excavation will be paid for under separate bid item.

Where bid item includes cost of pavement base restoration, pavement base may consist of either concrete base or asphalt base course, as required in Contract Documents. Unit price bid will be same regardless of which type of pavement base is used, and bid items will include cost of: subbase courses type 1 and type 2; either Class C concrete foundation or asphalt base course.

Where bid item includes cost of pavement restoration, pavement base may consist of either concrete base or asphalt base course, as required in Contract Documents. Unit price bid will be same regardless of which type of pavement base is used, and bid items will include cost of: subbase courses type 1 and type 2; either Class C concrete foundation or asphalt base course; asphalt binder course; asphalt top course; and asphalt tack coat.

Payment will be made under:

*Note: XX in bid item number and X" in item description represents new curb top width.
i.e.: 5 inch curb would be bid as S609.2305 5" Stone Curb.*

ITEM NO.	ITEM	PAY UNIT
S609.23XX	X" Stone Curb	Linear Foot
S609.24XX	X" Radius Stone Curb	Linear Foot
S609.25XXXX	X" Mountable Stone Curb	Linear Foot
S609.26XXXX	X" Mountable Radius Stone Curb	Linear Foot
S609.27	Reset Existing Stone Curb	Linear Foot
S609.30XX	X" Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.31XX	X" Radius Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.32XXXX	X" Mountable Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.33XXXX	X" Mountable Radius Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.340101	Reset Existing Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.3501	Salvage Existing Curb	Linear Foot
S609.3502	Salvage Existing Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.36	Concrete Curb	Linear Foot
S609.37	Precast Concrete Curb	Linear Foot
S609.380101	Concrete Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.4001	Reshape Existing Curb	Linear Foot
S609.410201	Reset Existing Medina Stone Curb	Linear Foot
S609.410301	Reset Existing Medina Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.51	Steel Curb	Linear Foot
S609.52	Reset Existing Steel Curb	Linear Foot
S609.5301	Steel Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.5401	Reset Existing Steel Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot

ITEM NO.	ITEM	PAY UNIT
S609.5501XX	X" Driveway Transition Stone Curb	Linear Foot
S609.5502XX	X" Driveway Header Stone Curb for Driveway	Linear Foot
S609.5601XX	X" Driveway Transition Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.5602XX	X" Driveway Header Stone Curb (Including Excavation, Backfill and Pavement Base Restoration)	Linear Foot
S609.60XXCR	X" Stone Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.61XXCR	X" Radius Stone Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.62XXXXCR	X" Mountable Stone Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.63XXXXCR	X" Mountable Radius Stone Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.6401CR	Reset Existing Stone Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.7001CR	Steel Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.7101CR	Reset Existing Steel Curb (CR Curb) (Including Excavation, Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.74XXCR	X" Driveway Transition Stone Curb (CR Curb) (Including Excavation, Backfill and Pavement Restoration)	Linear Foot
S609.75XXCR	X" Driveway Header Stone (CR Curb) (Including Excavation, Excavation, Backfill and Pavement Restoration)	Linear Foot

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