

**SECTION 26 - COLD PLANE ASPHALT CONCRETE PAVEMENT**  
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## **SECTION 26 COLD PLANE ASPHALT CONCRETE PAVEMENT**

### **26-1 GENERAL**

Existing asphalt concrete pavement must be cold planed at the locations shown or specified in the Contract and in accordance with these Specifications, unless directed otherwise by the Agency.

Cold planing machines must have a cutter head at least 30 inches wide and must not produce fumes or smoke. The cold planing machine must be capable of planing the pavement without requiring the use of a heating device to soften the pavement during or prior to the planing operation.

The depth, width, and shape of the cut must be as shown or specified in the Contract or as directed by the Agency. The final cut must result in a uniform surface conforming to the details shown or specified in the Contract. The outside lines of the planed area must be neat and uniform.

The Contractor must remove existing asphalt concrete from the top of the gutter pan and from the face of gutter lip as directed by the Agency. The Contractor must not damage the surfacing to remain in place or the gutter lips during the planing operation. The Contractor must replace damaged gutter lips with spalls in excess of 1 inch deep by 5 inches long at the Contractor's expense.

Streets being planed must be swept with a mechanical pickup machine throughout the course of planing operations and must be left clean of all planing debris at the end of each work day. Planing debris must not be spilled into drain inlets and or onto rail tracks, and the Contractor must clean up any spillage immediately. All vegetation must be removed from the gutter lip and other street areas to be resurfaced.

The planed material is the property of the Contractor, unless otherwise specified in the Contract. If specified in the Contract, the Contractor must transport the material to the Agency's stockpile at the County yard at the intersection of Roseville Road and Watt Avenue. The Contractor must coordinate deliveries of the material to the County's stockpile location through the Agency. The Contractor must notify the Agency a minimum of 2 Working Days prior to the proposed transport and delivery.

At the option of the Contractor, planed material may be used as fill material within the balance of the project and will be considered as included in the price paid for Imported Borrow.

### **26-2 PAVEMENT KEYCUTTING**

Pavement keycutting is the cold planing of asphalt concrete pavement adjacent to the lip of gutters and across street intersections, as shown on the Plans. Cold planing for pavement keycutting must be to a depth of at least 1-1/2 inches adjacent to the gutter lip and must be tapered to the existing pavement grade over a distance of approximately 12 feet from the gutter lip, as shown or specified in the Contract or as otherwise directed by the Agency.

At cross-streets within the limits of the Work, pavement keycutting must continue in a straight line from curb line to curb line parallel to the direction of work. Elevation differences between the pavement keycutting and cross-streets must be lessened with temporary asphalt concrete tapers. The slope of the temporary asphalt concrete tapers cannot be greater than 1 inch vertical in 12 inches horizontal. Asphalt concrete for tapers must be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers and all loose material from the underlying surface must be completely removed before placing permanent surfacing.

A planed pavement conform must be constructed at the beginning and ending limits of the planing work, as specified in Section 26-4, "Planed Pavement Conforms", of these Specifications.

### **26-3 PAVEMENT PLANING**

Pavement planing is the cold planing of a continuous width of asphalt concrete pavement to the limits shown or specified in the Contract. The depth of planing below gutter lips must equal the specified thickness of asphalt concrete overlay as shown or specified in the Contract. The depth of

planing at the street centerline must equal the specified thickness of asphalt concrete to be placed on the street, and must slope smoothly from the lip of gutter to the street centerline. Planed widths of pavement must be continuous except for special treatment at traffic signal detector loops and at manhole rims as shown or specified in the Contract or as directed by the Agency. In areas where full width planing is not possible because of traffic signal detector loops, separation must be maintained from traffic signal detector saw cuts and loops. Pavement planing must be to within 1 foot horizontally of manhole rims on all sides, unless width of grinding falls below 5 feet wide. The planing may be omitted in the areas where a 5-foot width cannot be obtained.

At cross streets with traffic signals, the planing must be carried around the corner to the center crosswalk and limit line of the adjacent intersection, unless otherwise directed by the Agency.

At cross streets without traffic signals, the planing must be carried around the corner to the mid-point of the curb radius of the adjacent side street, unless otherwise directed by the Agency.

At the end of each work day there must not be any elevation difference between planed and unplaned pavement in the traveled vehicle lanes. Any differences that parallel the centerline of the street must be sloped either by temporary asphalt concrete tapers or additional planing to produce a bevel within the planed pavement. The slope of either the temporary asphalt concrete tapers or the bevel must not be greater than 1 inch vertical in 12 inches horizontal. When temporary asphalt concrete tapers are used, asphalt concrete for tapers must be commercial quality and may be spread and compacted by any method that will produce a smooth riding surface. Temporary asphalt concrete tapers and all loose material from the underlying surface must be completely removed before placing the permanent surfacing. Elevation differences between planed pavement and lips of gutters are not required to be sloped.

Elevation differences perpendicular to the centerline of the street or elevation differences between the planed street and cross-streets must be lessened with temporary asphalt concrete tapers, as specified above. Temporary asphalt concrete tapers and loose material from the underlying surface must be completely removed before placing the permanent surfacing.

At the limits of the planing work, a planed pavement conform must be constructed as specified in Section 26-4, "Planed Pavement Conforms", of these Specifications, or as directed by Agency.

Contractor must provide a means for temporary lane delineation, including centerline (yellow) and lane lines (white), between the time of planing operations and roadway paving, as specified in Section 12-3, "Public Safety and Traffic Control", of these Specifications.

#### **26-4 PLANED PAVEMENT CONFORMS**

Planed pavement conforms must be constructed at the limits of the Work as shown or specified in the Contract and as directed by the Agency.

Except on residential streets or where shown or specified in the Contract, where the beginning or ending limit is a cross street, a 50-foot planed conform extending to the round corner of the cross street must be constructed to the dimensions and depths of cut shown or specified in the Contract. On residential streets, an 18-foot planed pavement conform must be constructed. The slope of the temporary asphalt concrete tapers at the limits must not be greater than 1 inch vertical to 36 inches horizontal.

Where the beginning or ending limit is not at a cross street, or where a cross street or other feature that is not to be resurfaced causes a discontinuity in the Work, a planed pavement conform must be constructed. The conform must span the full width of the street for a distance of 50 feet back from the limit line or feature causing the discontinuity in the work. At bridge decks the conform must span the full width of the street for a distance of 50 feet. The depth of cut must be 1-1/2 inches at the limit of work and must be progressively decreased to 0 inches over the conform length.

Planed pavement conforms must also be constructed at freeway entrance and exit ramps and at right and left long-radius turn lanes that diverge from or converge onto the street to be resurfaced. These conforms must span the full width of the ramp or turn lane for a distance of 18 feet and must be constructed where shown on the Plans or directed by the Agency.

#### **26-4.01 Cold Plane Asphalt Concrete Pavement**

Planed material shall become the property of the Contractor. The material planed from the roadway surface, including material deposited in existing gutters or on the adjacent traveled way, shall be immediately removed from the site of the work and disposed of at an appropriate disposal facility. The removal crew shall follow within fifty feet (50') of the planer unless otherwise directed by the Engineer.

All manhole rims, drain inlets, vaults, valve boxes and any other roadway appurtenances located in the planing area, will be lowered and referenced by the contractor. Following planing operations, no drop-off will be allowed at any time adjacent to driveways or around the edges of manhole rims, drain inlets, vaults, valve boxes, and any other roadway appurtenances. Where transverse joints are planned in the pavement at conform lines, no drop-off shall remain between the existing pavement and the planed area when the pavement is open to public traffic.

Any damage, as a result of the Contractor's operations, to the existing asphalt concrete pavement, Portland Cement Concrete curbs and gutters, signal cable conductors, traffic signal loop detectors, and other existing improvements that are to remain shall be repaired or replaced by the Contractor at his expense to the satisfaction of the Engineer.

The contract unit price paid per SQUARE FOOT for Cold Plane Asphalt Concrete Pavement Grinding shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in pavement planing and grinding for pavement conforms and pavement repairs, irrespective of the number of passes required to obtain the planing depth, as shown on the plans, complete and in place, including disposal of planed material, installation and removal of temporary HMA tapers, as shown or specified in the plans, as specified in these Special Provisions, and as directed by the Engineer and no additional compensation will be allowed therefor.

#### **26-5 PAVEMENT REINFORCING FABRIC**

Pavement reinforcing fabric must be installed in conformance with the State Specifications, the manufacturer's recommendations, and the Contract.

Pavement fabric must be used in pavement overlay areas where shown or specified in the Contract and must extend at least 2 feet beyond any joints between the new pavement and overlay sections. The fabric must be installed at least 24 inches from the lip of gutter and the edge of pavement.

After thoroughly cleaning the surface to receive fabric, all cracks greater than 1/4 inch wide must be filled with a hot asphaltic crack filler and allowed to cure. Crack filler must not extend above the existing pavement surface. Crack filler material will be paid for under the unit price bid per pound for crack filler and no additional payment will be made. If a leveling course is used, crack sealing is not required. A Type "A" 3/8 inch maximum gradation leveling course must be placed prior to placing pavement reinforcing fabric. Leveling course material must be placed as shown on the Plans and will be paid for under the unit price bid per ton for asphalt concrete and no additional payment will be made.

Pavement fabric binder must be PG64-10. The asphalt binder must be at least 290 degrees F, with a distributor tank temperature less than 324 degrees F. The asphalt binder must be placed at a rate of 0.25 gallon per square yard, or as directed by the Agency.

If mechanical laydown equipment is used, it must be capable of handling full rolls of fabric and be capable of laying the fabric smoothly without excessive wrinkles and/or folds.

#### **26-6 MEASUREMENT**

Cold planning asphalt concrete for pavement planning and keycutting of concrete pavement will be measured by the square foot. The quantity paid for will be the actual area of pavement cold planed. Planed pavement conforms will be measured by the square foot. The quantity to be paid for will be the actual area of pavement conforms planed.

Quantities of pavement reinforcing fabric, including binder, will be measured by the area of roadway covered with pavement fabric. Placement of pavement fabric beyond the limits shown or specified in the Contract, without written direction from the Agency, is not allowed and no payment will be made.

#### **26-7 PAYMENT**

The price paid per linear foot for pavement keycutting for the width shown on the Plans includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in pavement keycutting, complete in place, including disposal or transport of planed material, as shown or specified in the Contract, specified in these Specifications, and directed by the Agency.

The price paid per square foot for pavement planing includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in pavement planing, complete in place, including disposal or transport of planed material, as shown or specified in the Contract, specified in these Specifications, and directed by the Agency.

The price paid per square foot for planed pavement conforms includes full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work involved in planed pavement conforms, complete in place, including disposal or transport, and processing for fill of planed material, as shown or specified in the Contract, specified in these Specifications, and directed by the Agency.

Full compensation for furnishing asphalt concrete for temporary tapers and for constructing, maintaining, removing, and disposing of the tapers is included in the prices paid for the various items of work involved in cold planning asphalt concrete pavement, and no additional compensation will be paid.

Full compensation for furnishing and applying the pavement reinforcing fabric, the binder, and for furnishing and spreading sand to cover exposed binder material, as necessary, or as directed by Agency, and all preparation activities, including, but not limited to, street cleaning and crack sealing, is incidental and included in the unit price paid for reinforcing fabric and no additional compensation will be paid.