19-3.05 Restoration of Surfaces

For excavations located in existing paved areas not to be reconstructed as part of the work, final pavement replacement shall be accomplished as soon as possible and practicable, but in no case less than the time limits specified in the Contract Specifications.

Restoration of surfaces shall consist of restoring the surfaces (resurfacing) of all ~~trenches~~ pavement cuts and surfaces at or around structure sites, or any other surfaces damaged or disturbed by the work. Surfaces shall include pavement of any kind including asphalt concrete, Portland cement concrete, paving stones, grass, shrubbery or other landscaping, gravel, treated or untreated soil, etc. All work shall be done in accordance with the Plans, Standard Drawing, and the Specifications.

Temporary ~~trench~~ pavement resurfacing shall comply with the applicable Standard Drawing for Trench Backfill and Resurfacing and placed and diligently maintained by the Contractor until permanent ~~trench~~ pavement resurfacing is installed. Temporary surfacing shall be placed at all street and alley crossings, and such other locations as specified or shown on the Plans, or directed by the Engineer. Temporary surfacing shall be removed by the Contractor prior to placing final resurfacing.

Infrared pavement repair will be required for all cuts in pavement generally 5 years and younger or as directed by the engineer. The purpose of the infrared pavement repair process is to restore the integrity of the existing pavement by eliminating the cuts in new paved streets. When infrared pavement repair is required for pavement repair, all cuts 2' or less in width shall receive the infrared pavement repair treatment across the entire pavement cut.

Prior to beginning the infrared pavement repair, the area shall be swept clean of dirt, loose aggregate, temporary asphalt repair materials, and any standing water. The infrared chamber is to be lowered over the repair area as to allow a minimum of 6"-12" of heated area beyond the edge of the pavement cut line. To ensure proper heating, the contractor shall check the temperature of the asphalt using an infrared thermometer as often as needed to ensure the surface temperature does not exceed 350 deg. Fahrenheit. The area shall be scarified as needed during the heating process to allow a more consistent heat throughout the asphalt. After the appropriate heating time, the asphalt surface shall be softened to a minimum depth of 2"-2.5Z". The backside of a steel rake (or other similar tool) is then used to neatly square off the repair. The area inside the repair is then deeply scarified, taking special care to eliminate the original seam between the repair and the road. An asphalt rejuvenating agent, such as Reclamite, is to be applied per manufacturer's recommendation to the repair area and surrounding heated asphalt surface. Additional plant mix asphalt is then added to the area to bring it to proper grade and raked smooth. The area is then to be properly compacted, being sure to roll the edges first to fuse the hot repair to the heated, but untouched, surrounding asphalt.

Final replacement of pavement shall be performed in a manner consistent with good construction practices and methods which, when completed, shall leave all areas requiring replacement of pavement with as neat an appearance as possible. Areas to receive final pavement replacement shall be completely cleaned of all debris, rubbish, dirt, temporary paving, or any other deleterious material which might affect the quality of the work in any way. Cleaning shall be accomplished to a minimum of 6 feet outside the edges of ~~trenches~~ pavement cuts or other areas to receive pavement replacement. This distance may be increased by the Engineer as necessary to prevent contamination of the new work.

Where sawcutting of existing pavement edges is not shown on the standard drawing or specified, all damaged existing pavement shall be removed and the edges trimmed to neat lines as directed by the Engineer and by a method approved by the Engineer.

Where sawcutting of existing pavement edges is shown on the standard drawing or is specified, the cut shall be made on a straight line along both sides of trenches/pavement excavation, and to neat lines around

structures or other locations requiring pavement replacement. The cut shall be made a minimum of 3 inches in depth, and shall encompass all pavement damaged by the work or specified to be removed or replaced.

All edges of existing pavement, whether trimmed or sawcut, shall be protected from damage. Any edges damaged from any cause prior to or during paving operations, shall be re-cut or re-trimmed as directed by the Engineer. No additional payment will be made therefor.

Where Aggregate Base is specified to be used as part of the resurfacing structural section or backfill, it shall be furnished and placed in conformance with Section 26, "Aggregate Bases," of the State Standard Specifications.

Where Portland Cement Concrete is specified to be used as part of the resurfacing structural section or backfill, unless otherwise specified on the Plans or in the Contract Specifications, it shall be Class 1, 2, 3, or 4 with 1 inch maximum aggregate, conforming to the requirements of Section 90**, "**Portland Cement Concrete," of the State Standard Specifications. The top surface of the concrete shall be given a rough rake finish while the mix is still workable with the corrugations parallel with the ~~trench~~ pavement cut. Where called for on the Plans or Specifications or directed by the Engineer, calcium chloride of up to 2 percent by weight of the cement shall be added to the concrete mix.

A paint binder of asphaltic emulsion shall be furnished and applied, in conformance with Section 39-4.02, "Prime Coat and Paint Binder (Tack Coat)," of the State Standard Specifications, to all vertical or other surfaces of existing pavement, curbs, gutters, or other surfaces against which asphalt-concrete pavement is to be placed. Paint binder shall also be applied to the top surface of the initial layer of asphalt-concrete if the pavement is to be replaced in lifts.

Asphalt concrete shall be furnished and placed in conformance with Section 39, "Asphalt Concrete," of the State Standard Specifications. When replacing pavement in existing paved areas, the new pavement shall be placed in accordance with the Standard Drawings therefor which shall apply to replacing pavement around structures as well as within ~~trenches~~ pavement cuts. The Contractor shall not commence surface paving until the subbase and/or base have been inspected and approved. Violation of this requirement shall be cause for rejection of that portion of paving involved.

When compacted, the new pavement edge shall be flush with the existing pavement and edge of adjacent concrete improvements where applicable. The surface shall be smooth, without humps or depressions. Except where the ~~trench~~ pavement cut is located in the crown of the road, the top of the finished surfacing shall deviate no more than ¾ inch higher, and in no case lower, than a line struck off from two points on the existing road surface, one on each side of the ~~trench~~ pavement cut. Deviation from this tolerance shall be cause for rejection of the surfacing.

Restoration of miscellaneous surfaces shall consist of replacing or restoring in-kind any surface damaged or disturbed by the work, including but not limited to, grass, landscaping of any kind, gravel, oiled dirt, concrete, or soil, all as directed by the Engineer. The surfaces of all trenches, excavations or other areas damaged or disturbed by the work, upon completion of miscellaneous surface restoration, shall conform to the elevations and character of the areas which existed before work commenced.

In all cases regardless of surface material or type, all existing or new facilities shall be brought to the finish grade of that surface in compliance with Section 15-2.05(A), "Frames, Covers, Grates, and Manholes." The interior of the existing or new facilities, including water valve barrels, shall be thoroughly cleaned of all debris or dirt, regardless of whether the debris or dirt was present before construction began.

Restoration of surfaces shall comply with Sections 4-13, "Interim Cleanup," 5-20, "Surface Restoration," and 5-21, "Final Cleanup."