



Street Maintenance Guide

Many of the City's streets are paved with asphalt to help make the riding surface easier and to protect the road base. Did you ever wonder about the "life" of a street? Consider a street's youth, for example. When a pavement is new, it is really very resilient, taking the bump and grind of garbage trucks and delivery trucks. Seasonal abuse of rain, heat and cold affect the street but it doesn't show the much sign of wear. With the passage of time, the effects of traffic and weather begin to show. Cracks begin to appear and the pavement starts to deteriorate around the edges. Here and there, parts of the street may even begin to sag a bit. In spite of all that, the street is still in pretty good condition.

As still more time goes by, the street continues to lose its ability to "bounce back" from the effects of traffic and weather. After years of adequate service, it reaches a point where it begins to deteriorate more rapidly. The existing cracks become wider and potholes begin to appear. Rain and lawn watering seep through these cracks and holes, weakening the base and soil beneath the asphalt. Soon, because of weather and aging, the pavement fails.

The City of Rockdale Public Works Department has a variety of approaches to repairing streets. These approaches include patching potholes, chip sealing, resurfacing and reconstruction.

Potholes

Potholes are result of base failure underneath the asphalt. To repair a pothole, the debris in the hold is removed, a sealant sprayed into the hole and cold mix asphalt is added to fill the hole so that it is even with the rest of the street.

Chip Sealing

Chip sealing is the application of crushed rock (gravel) over an emulsified asphalt oil. The oil seals the pavement from water penetration while the gravel provides a wearing surface to protect the oil seal from traffic. A chip seal maintains the existing pavement in its present condition by delaying further aging due to rain and sun. It also changes the texture of the road for skid resistance, supplies minimal additional strength to the pavement and provides a moisture barrier and corrects existing pavement problems by sealing cracks. A double chip seal should last about 8 years.

Crack Sealing

Cracks can form in asphalt or concrete pavements through various modes of distress. Regardless of how the cracks form, they must be maintained to help protect the pavement structure. If the cracks are not maintained, the cracks can travel and increase in size. They allow water to penetrate into the structure from the pavement surface, which eventually causes potholes and further deterioration. Crack sealing is the most common maintenance option used to help protect the pavement structure. A critical step in crack preparation is cleaning and drying the crack. The cracks are then filled with hot poured rubberized joint and crack sealant. Crack sealing is often done before overlays or surface treatments to improve performance.

Resurfacing

Resurfacing is the application of 1 to 4 inches of asphalt over an existing pavement to provide a smooth surface and add strength to the road. In some cases the top layer of old asphalt is removed and replaced if it is badly broken up. Major streets have priority for resurfacing based on traffic load and volume. Resurfacing a street should last 15-20 years.

Pavement Reconstruction

When the condition of the street reaches the point where maintenance is no longer cost effective, then the street is put on the reconstruction list. Reconstruction involves removing the entire street and replacing it. Pavement reconstruction should last 20-25 years.

Repairing streets takes time and involves inconvenience to the public. We ask for your indulgence during this time. We will work as quickly as possible to minimize the inconvenience to you.

This information guide is produced, printed and distributed by the City of Rockdale, Texas.

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