

**ALMA DRIVE  
ROAD SURFACING  
STUDY**

**2007**

**PREPARED FOR:  
THE RIDGES ROAD  
COMMITTEE**

**BY: JORGE GONZALEZ, P.E.**

# **ALMA DRIVE PAVEMENT SURFACING STUDY**

## **INTRODUCTION:**

At the request of Olin van Dyck and Dave Kingston a visit was arranged to inspect the pavement at Alma Drive from US 285 for approximately 0.35 miles where the pavement shows alligator skin type cracking and some structural failure.

The scope of the study is to determine the existing condition of the pavement, maintenance provided to date and alternative options to provide a surface capable of lasting twenty years or longer without maintenance.

## **FINDINGS:**

Approximately 0.35 miles or 1850 linear feet of Alma road shows alligator shape cracking and sub-base structural failure. It appears that some portions of the road were overlaid with a second lift of asphalt over the already cracked first lift. Many of the existing cracks have been filled with a bituminous material indicating maintenance and repairs have been an ongoing task by the owner/association. In some instances the edge of the road was left with minimum thickness allowing the edges to fail.

Roadways normally have a minimum 2% slope to drain water away from its centerline in order to prevent excessive moisture from reaching the base. If the base can not drain the moisture the freezing and thawing cycle breaks the

pavement. In many instances it appears that Alma Drive is level with no crown section and some areas with cracks were subjected to ponding.

### **CONCLUSION AND RECOMMENDATIONS:**

A good asphalt job may last at least 20 years or more with no maintenance required. The asphalt pavement on portion of Alma Drive needing maintenance must have had a bad base foundation, cold asphalt mix, thin asphalt mat or a combination of these.

Every asphalt pavement contractor would have a different opinion as to the reason of the asphalt condition and the recommended solution.

Based on a visit to the site with Harry Kolenc from Armour Pavement Inc. in Albuquerque, he is of the opinion that so much asphalt would need to be removed prior to any overlay that it would be necessary to pulverize the existing asphalt into a base and installing 3" thick of new asphalt. The price for 4,450 square yards would cost \$ 106,150.00.

Harry's cost for fixing the failed portions of the asphalt , installing paving fabric and 2" of new asphalt estimates at \$ 121,854.00 using k overlay.

Am of the opinion that 2" thick is not needed while using the existing asphalt as a base. With a 1.5 " thick overlay the cost estimate is \$ 102,400.00.

These figures are from one contractor only based on his opinion. There are various options and one is leaving the road as is, and periodically fixing pot holes as needed.

In any of the selected events it is recommended the following;

- Any work being contemplated should be put out for competitive bid with detail work being requested.
- All work should take place when temperatures are at or above 60 deg. F.
- All work should be described and specified either to the New Mexico State Highway Department Specifications or New Mexico Specifications for Public Works.
- All material requiring compaction should be tested to conform to Specifications.
- Contract Documents must be prepared including insurance requirements, warranties and method of payment and retainage.

"E-MAIL FROM HARRY KOLENC TO JORGE GONZALEZ"

George

I apologize on my delay in providing you with the information that you requested. We'll, better late than never, although this saying doesn't apply to every and all things I hope that it holds true in this one.

The Estimated price for:

**Service "A" (Pulverize & Pave)**

Pulverizing, regarding, and paving a new 3" thick layer of asphalt is approximately \$ 21.54 per sq. yd plus tax.

Based on a 9,856 sq. yd area the price for this service would \$ 212,298.24 plus tax.

**Service "B" (Overlay)**

Clean, tac, install paving fabric, and install a 2" thick layer of asphalt is approximately \$ 15,74 per sq. yd plus tax.

Based on a 9,856 sq. yd area the price for this service would be \$ 155,188.44 plus tax.

**Service "C" (Overlay with Estimated Appropriate Repairs)**

Clean, tac, install paving fabric, and install a 2" thick layer of asphalt is approximately \$ 15.74 per sq. yd plus tax.

A "GUESSTIMATE" of 20% to 30% of the existing asphalt needs to be replaced prior to the fabric overlay based

20% the area(s) of repair would be 17,704 sq. ft and estimated on a \$ 5.00 per sq. ft price for the patching. The price for patching 20% of the area would be and additional \$ 88,520.00

Based on this premise the price for this service would be \$ 243,708.44 plus tax.

Based on the information listed above the Version "A" is the best choice. You are getting more bang for your buck and it will outlive both Version "B" and Version "C". I would not feel comfortable install Version "B" but I provided it for relationship between the different services and their price.

If I can be of further help please let me know.

Respectfully, Harry - 505-385-7820

PS. I've provided you an attachment regarding preparation of asphalt pavement surfaces, as recommended by the manufacturer. The picture that didn't copy well is that of alligatoring. Which is the condition which we are referencing in Version "C" as the 20% to 30% removal and replacement condition. Good Luck :& let's talk