



November 28, 2017

Village of Scarsdale  
1001 Post Road  
Scarsdale, New York 10583

Attn: David A. Goessl, P.E.  
Village Engineer

RE: Pavement Management Study

Dear Mr. Goessl

As directed by the Village, we conducted a visual survey to quantify pavement distress on each block of Village streets. The street network in Scarsdale currently consists of approximately 589 segments (a village block or a street link between two intersections) totaling 78.8 directional miles. All of the roadway sections are Asphalt pavements.

We evaluated and updated the Village's pavement and roadside asset management study using Microsoft Excel spreadsheet. The collected surface condition data were analyzed and were assigned a Pavement Condition Rating (PCR) on a scale of 1 to 100 based on severity and extent of surface distress observed either from digitally recorded surface video of selected Village streets or visual observation while surveying the road.

The purpose of this pavement management study was to update or replace village's existing Excel spreadsheet. The spreadsheet identifies feasible maintenance and rehabilitation strategies, condition levels and costs. One of the benefits of using a pavement management study is to provide a more efficient means of allocating funds, such as Life Cycle cost analysis techniques to determine annual costs for 5/10/15/20 year analysis period. Thus giving the Village the ability to justify and secure funding, based on more accurate and accessible information and a quantified condition of the road network.

After this program is implemented for several years, the Village will be able to track the performance of the treatments, to show the impact of funding decisions and track the condition of the road sections.

The Pavement Condition Rating (PCR) is an indicator of the health of the segment on a scale of 1 to 100 (91 to 100 being the best condition road and 1 to 25 being the worst condition road). The PCR can be used to project the future condition and establish the rate of deterioration, measure the impact of treatments and determine the maintenance and rehabilitation needs.

Streets receiving a PCR rating between 91 and 100 were newly surfaced and considered in excellent condition, those rated between 76 and 90 were considered good condition, those rated between 60 to 75 were considered fair condition, those less than 60 were considered as poor condition streets.

Excellent condition streets require little or no maintenance. Village segments with a PCR between 76 and 90 require either routine maintenance (i.e. slurry seal) or resurfacing with a 2" HMA overlay in field selected spots. Routine maintenance may be postponed since the Village does not have any such rehab program.

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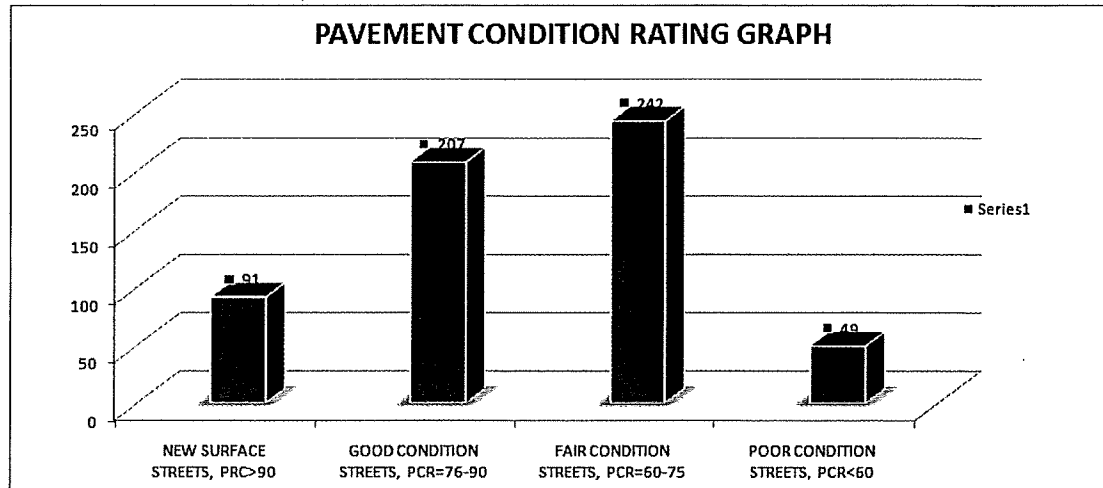
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Village segments with a PCR rating between 60 and 75 require major maintenance in alligator cracked areas (deep patching contract, 4" base course + 1 1/2" surface course) or resurfacing with a 2" HMA overlay in field selected spots.

Pothole patching indicated on the spreadsheet involves removing debris, cleaning, adding new material if needed, and applying a temporary asphalt material. These patches are usually repaired at a later date with a permanent fix or are repaired during the next rehabilitation or preservation project.

Village segments with a PCR rating between 35 and 59 are considered poor roads and require



**Figure-1**

major maintenance such as furnishing & placing NYSDOT 402.3779 base course, 4" in depth after compaction including excavation, and preparation of sub-grade and furnishing & placing asphalt concrete wedge course, Type 402.1279, 1 1/2" depth after compaction, as directed.

The above suggestions are based upon engineering judgment and the Village's current maintenance practices. The criteria for selecting what treatment to apply and when to apply it should be based upon the Village standards and funding availability.

Below please find the percentage of Village street segments for each condition rating:

- 15% percent of Scarsdale streets or 91 Village segments are in excellent condition.
- 35 % percent of Scarsdale streets or 207 Village segments are in good condition
- 41 % percent of Scarsdale streets or 242 Village segments are in fair condition.
- 8% percent of Scarsdale streets or 49 Village segments are in poor condition.