



CITY of NOVI CITY COUNCIL

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Agenda Item E
October 8, 2007

SUBJECT Approval to purchase Joint Crack Sealant Material from National Highway Maintenance System Ltd, in the amount of \$25,000.00.

SUBMITTING DEPARTMENT: Public Works

CITY MANAGER APPROVAL

EXPENDITURE REQUIRED	\$ 25,000
AMOUNT BUDGETED	Funds available in both Major and Local Streets Routine Maintenance Accounts
LINE ITEM NUMBER	202-202-00-866.000 (Major Streets - Routine Maintenance) 203-203-00-866.000 (Local Streets - Routine Maintenance)

BACKGROUND INFORMATION:

The department's crack sealing machine was purchased in December 1990 for \$16,395. The life expectancy of this equipment is 10 - 15 years. On July 20, 2007, the fluid pump containing the sealant exploded inside the fire box and caused the machine to catch on fire. As a result, the machine is no longer operable.

In the interim, we are utilizing a program offered by National Highway Maintenance System (NHMS). NHMS provides the use of a new crack sealing machine, with no daily rental fee and a one-time machine delivery (\$475) and pick-up cost (\$475), to its customers when sealant material is purchased from them.

Company	Sealant Cost per pound	Machine Delivery/Pick-up Cost
NHMS	\$0.78	\$950
DJL Material & Supply	\$0.98	\$945

NHMS has a limited number of machines and customers must reserve a machine well in advance or risk waiting for a machine to be returned before the end of the season. We have utilized the crack sealant material we previously purchased, and while we have the machine and the weather is still conducive, we would like to purchase more material and continue joint repairs on Novi Road, Taft Road, Wixom Road, and West Park Drive.

The Department will likely propose a new crack sealing machine (approximately \$40,000) in the 2008-2009 budget.

2007 Completed Joint Sealed Roads	
Road	Between
Meadowbrook Road	Grand River Avenue and 12 Mile Road
Meadowbrook Road	12 Mile Road and 13 Mile Road
13 Mile Road	Novi Road and Old Novi Road
Novi Road	12 Mile Road and 13 Mile Road
Recently paved subdivision streets	
Subdivision streets not included in the 2007 concrete road rehab program	

RECOMMENDED ACTION: Approval to purchase Joint Crack Sealant Material from National Highway Maintenance System Ltd, in the amount of \$25,000.00.

	1	2	Y	N
Mayor Landry				
Mayor Pro Tem Capello				
Council Member Gatt				
Council Member Margolis				

	1	2	Y	N
Council Member Mutch				
Council Member Nagy				
Council Member Paul				

PAVEMENT CRACK SEALING EXTENDS PAVEMENT LIFE

In recent years, pavement preservation has become the main goal of preventive maintenance work for this Department of Transportation. By using asphalt-rubber repair techniques this DOT has been able to add life to existing pavement and expects to save money on repairs and labor.

"Rather than having major 'surgery' later on, we're doing this minor preservation work," says a managing engineer for research, technology and development. "Preservation activities usually take place on roads that are five to 10 years old", he explains.

This DOT regularly examines roads to determine if they are cracking or showing signs of other minor deterioration. When treatment is deemed necessary, one of the first options is to put in a crack seal. Workers dry the area and remove particles, then apply a soft rubber sealant.

Treatments that do not involve a lot of time or effort, such as crack seals, are encouraged by the Federal Highway Administration (FHWA), Washington, D.C. A spokesman says, "We have got to start doing more preventive maintenance. Preservation techniques help to extend the life of roads. States, cities and counties spend \$120 billion on highway work each year. If we dedicate more funds to preservation, we could double the money [for other projects]. In addition to saving money for materials, asphalt-rubber treatments save labor costs because they do not take long to apply."

FHWA has been working with state DOTs for the past five years to educate them about preventive maintenance techniques. Those methods can extend pavement life by five to six years and make highway funding stretch further.

