

# FORMAL REPORT

<b>To:</b>	Mayor Strathdee and Members of Council
<b>Prepared by:</b>	Jeff Wolfe, Asset Management and Engineer Specialist
<b>Date of Meeting:</b>	25 July 2017
<b>Subject:</b>	<b>PW 37-2017 Fibermat Surface Treatment Contract</b>

## PURPOSE

To present information to Council regarding the 2017 Surface Treatment program.

## RECOMMENDATION

THAT PW 37-2017 Fibermat Surface Treatment Contract report be received; and

THAT Council approve the use of the proprietary FiberMat surface treatment product on Town roads; and

THAT By-law 64-2017 authorizing the Mayor and Clerk to sign the necessary contract documents with NorJohn Contracting be approved.

## BACKGROUND

The Town has used low class bituminous surface treatment (BST), also known as “Tar and Chip” as an asphalt roadway preventative maintenance measure for many years. The process applies a thin protective wearing surface comprised of asphalt emulsion and cover aggregate to provide a waterproofing layer and improve overall road condition for 5 to 7 years.

There are many different variations of BST's, utilizing different aggregates, emulsions and application methods. The Town has historically used a high float emulsion with a 9mm crushed quarry limestone aggregate. The Town's surface treatment process is an important, cost effective component of the overall road maintenance program but has experienced varying degrees of success from year to year as a result of varying aggregate size and at times less than ideal application conditions.

A proprietary high performance BST has become more popular in recent years used by neighbouring municipal road departments. The product is called FiberMat and enhances the surface treatment product with shredded fiberglass and the use of trap rock for aggregate.

## REPORT

The Town's road maintenance program utilizes surface treatment applications to extend the useful life of its asphalt roads. Town staff have investigated the use of a high performance surface treatment product called FiberMat and received a quote from the firm that installs the product in Ontario (NorJohn Contracting). The fiberglass addition to the emulsion along with the stronger trap rock aggregate provide enhanced performance and longevity of the surface treatment application, resulting in an improved road condition for a prolonged period of time.

To the best of staff knowledge, NorJohn is the only company in the area that installs fiberglass reinforced BST. There is another reinforced BST product on the market but it uses continuous sheets of reinforcement material which would be more appropriate for rural applications where the

application does not have to contend with regular intersection curves, manholes, catch basins and valve covers.

The County of Perth along with all its lower tier municipalities are now utilizing FiberMat for their surface treatment applications with reported good results. Thames Road was somewhat of a comparative trial where the Town utilized our standard surface treatment product to Town limits and the Township of Perth South installed Fibermat starting at the Town limit northward. To date, the section of Perth South road is in much better condition with far less cracking reappearing through the treatment.

Several municipalities in Perth County have hired NorJohn to install Fibermat late this summer so mobilization costs are lower by having NorJohn install at the same time. While the typical surface treatment product cost for St. Marys has been between \$3.50-\$4.00/m<sup>2</sup>, the higher performance Fibermat product is more expensive at \$7.25/m<sup>2</sup>. Staff anticipate completing approximately 1.2km of road with the available budget. The planned road sections are shown on the attached map.

## **SUMMARY**

The Town utilizes surface treatment to extend the useful life of its asphalt roads. Varying results have been achieved in past years with the Towns standard surface treatment specification.

The Town's purchasing policy allows for single source procurement of services when there is only one known source of the goods or service. While the unit cost of FiberMat is higher than the typical BST product the Town has used in the past, staff believe that the Town will experience improved performance and longevity with the Fibermat product and therefore are recommending its use in 2017.

Fibermat is considered a high performance surface treatment product and is being recommended by staff for the Towns 2017 surface treatment program.

## **FINANCIAL IMPLICATIONS**

Council approved \$70,000 in the 2017 operating budget for surface treatment application. Staff would maximize the work area to utilize the extent of the approved budget.

## **OTHERS CONSULTED**

Ken Bettles, Director of Public Works, Township of Perth South  
Wes Kuepfer, Public Works Manager, Township of Perth East

## **ATTACHMENTS**

2017 Surface Treatment Map  
Surface Treatment Comparison Presentation

## **REVIEWED BY**

### **Recommended by the Department**



Jeff Wolfe  
Asset Management / Engineering Specialist



Jed Kelly  
Director of Public Works

### **Recommended by the CAO**



Brent Kittmer

