

**JOHN EMERY GEOTECHNICAL ENGINEERING LIMITED  
CONSULTING ENGINEERS**

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**E-MAIL MEMORANDUM**

**TO:** **JEGEL:** 106088  
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**FROM:** Keith Foster

**DATE:** June 26, 2006

**RE:** Streetprint Asphalt – Frictional Properties

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Scott,

As requested, John Emery Geotechnical Engineering completed frictional properties testing on June 21, 2006 of Streetprint Asphalt (impressed coloured asphalt concrete) installed at the intersection of Grandravine and Sentinel and Grandravine and Arleta in the North York District of Toronto.

The frictional property testing was carried out in accordance with ASTM E 303 – 93 (Reapproved 2003) Standard Test Method for Measuring Surface Frictional Properties Using the British Pendulum Tester. The British Pendulum Tester is a dynamic pendulum impact type tester used to measure the energy loss when rubber slider edge is propelled over a test surface. The tester is suitable for laboratory as well as field tests on flat surfaces, and for polish values measurements on curved laboratory specimens from accelerating polishing-wheel tests. This test method provides a measure of a frictional property (microtexture of surfaces) either in the field or the laboratory.

The results of the frictional properties testing are summarized in the following table.

Intersection	Pavement Type	Location	British Pendulum Number (BPN)		Remarks
			Dry	Wet	
Grandravine/Sentinel	Streetprint Asphalt	2.8 m south of curb	85	52	
		4.2 m south of curb	83	55	
		3.1 m south of curb	87	59	
	Conventional Asphalt		84	47	Mean results of tests at 3 locations
Grandravine/Arleta	Streetprint Asphalt	1.6 m south of curb	80	50	
		3.1 m south of curb	77	44	
		3.2 m south of curb	77	48	
	Conventional Asphalt		75	38	Mean results of tests at 3 locations

At the intersection of Granravine and Sentinel, the BPN test results for the Streetprint asphalt pavement (wet surface) averaged 55 compared to only 47 for the conventional asphalt adjacent to the stop bar.

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At the intersection of Granravine and Arleta, the BPN test results for the Streetprint asphalt pavement (wet surface) averaged 47 compared to only 38 for the conventional asphalt adjacent to the stop bar.

In summary, the test results (as measured with the British Pendulum) indicate that the frictional properties of the Streetprint asphalt pavement are at least comparable to conventional municipal asphalt at the two intersections. It should be noted that a minimum BPN of 45 has been used as criteria on other pavement projects in Ontario.

If you have any questions or concerns, please do not hesitate to contact me,