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# SOIL-MAT ENGINEERS & CONSULTANTS LTD.

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**PROJECT No.: SM 190580-G**

February 20, 2020  
Revised: March 4, 2020

JAMES DICK CONSTRUCTION LIMITED  
14442 Regional Road 50  
Bolton, Ontario  
L7E 3E2

Attention: Leigh Mugford  
Resource Manager

**GEOTECHNICAL CONSIDERATIONS – SUPPLEMENTAL COMMENTS  
PAVEMENT STRUCTURE EVALUATION  
REID SIDEROAD – FROM GUELPH LINE TO TWISS ROAD  
CAMPBELLVILLE [MILTON], ONTARIO**

Dear Mr. Mugford,

Further to our previous Geotechnical Considerations report [SM 190580-G, dated December 6, 2019], SOIL-MAT ENGINEERS & CONSULTANTS LTD. is pleased to provide the following brief supplemental comments. These comments are intended to support the response to recent comments by Town of Milton staff.

Town staff have noted that, since the previous geotechnical report conducted for the Town in 2016, the industrial roadway pavement structure standard has been revised to the following:

- 50mm of HL1 surface course asphalt
- 100mm of HL8HS binder course asphalt
- 150mm of 19mm Limestone [OPSS Granular A]
- 550mm of Granular B Type II

This change is essentially an increase of 175mm of Granular B Type II sub-base material, and represents an appreciably more robust pavement structure from the previous Town standard. The use of HL1 surface course asphalt is good practice, and was noted as a recommendation in our previous report for future overlay rehabilitation.

Notwithstanding the current Town standard, or the present classification of the roadway, our assessment was conducted from an engineering point of view considering the existing condition of the pavement, and the current and anticipated future use, to provide comment on its expected future performance. Based on our assessment, the existing pavement structure was noted to be in good condition, adequate for support of the current and anticipated additional truck traffic in the mid-term without need for immediate

improvement or rehabilitation. Future rehabilitation would be warranted, pending maintenance and the actual truck traffic experienced, estimated as an approximate 4 to 8 year timeline. This estimated timeline is irrespective of the proposed quarry operation.

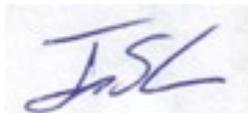
The current Town standard should be properly considered in the scope of future rehabilitation works. In this regard it is noted that, in our experience, such rehabilitation works often consider efforts based on the existing conditions and cost versus performance. That is, alternative rehabilitation options can be reasonably considered in order to be logistically and cost effective, while still providing an appropriate level of performance.

The future rehabilitation works would be subject to further review at the time based on actual traffic experienced. In this case, the subgrade soil has been noted to be in good condition and would contribute to the ongoing good performance. On a preliminary basis, it would be reasonable to anticipate that an overlay program as outlined in our previous report, would be sufficient however with consideration to an increased depth of new HL1 surface course asphalt. This approach makes good use of the existing depth of asphalt over the roadway.

Alternatively, it might be considered to undertake a partial depth reconstruction, involving the removal or pulverisation of the existing asphalt, placement of new OPSS Granular A base material, followed by the Town standard asphalt layers. It is recommended that a cost-benefit assessment of the rehabilitation options would be prudent to determine the most appropriate option at the time.

We trust that these brief supplemental geotechnical comments are sufficient for your present requirements. Should you require any additional information or clarification as to the contents of this document, please do not hesitate to contact the undersigned.

Yours very truly,  
SOIL-MAT ENGINEERS & CONSULTANTS LTD.

A handwritten signature in blue ink, appearing to read "I. Shaw".

Ian Shaw, P.Eng., QP<sub>ESA</sub>  
Senior Engineer

Distribution: James Dick Construction [1, plus pdf]