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PROJECT NO.: SM 156461-G

October 9, 2019
Revised: December 12, 2019

LOSANI HOMES LTD.
430 McNeilly Road, Suite 203
Stoney Creek, Ontario
L8E 5E3

Attention: Brandon Almeida
Land Development Coordinator

SUPPLEMENTAL EARTHEN EMBANKMENT STABILTIY COMMENTS
PROPOSED RESIDENTIAL DEVELOPMENT
398 NORTH SERVICE ROAD
GRIMSBY, ONTARIO

Dear Mr. Almeida,

As requested, SOIL-MAT ENGINEERS has prepared this supplemental letter report with respect to soil stability at the above noted development. These comments are in addition to our initial geotechnical investigation and consideration reports.

It is understood that the proposed development will involve the reconstruction of the drainage channel between North Service Road and Lake Ontario to the North. SOIL-MAT ENGINEERS was provided with the Plan and Profile Drawings prepared by RJ Burnside & Associates Ltd. (Drawing No. C203). This drawing indicates the channel to be constructed via cuts of between roughly 1 to 3 metres, regrading the channel banks to 3 horizontal to 1 vertical, or flatter. Based on our experience on the site during previous geotechnical investigations and site remediation activities, the subsurface soils at the proposed grades are anticipated to consist of native silty clay, however some localised areas of fill material may be encountered.

Slopes through native soils at inclinations of 3 horizontal to 1 vertical are considered to be inherently stable. Given the channel embankments are proposed to be 3 horizontal to 1 vertical or flatter, based on our experience on site and with the on-site soil conditions, the proposed channel sections would be considered stable in both the short and long term. It is anticipated that any fill materials required as part of the embankment construction will be placed in a controlled manner. As such it is expected that embankments through any existing fill would also remain stable in the long-term at the proposed inclinations, however further assessment of any fill materials encountered may

be warranted. It is understood that the channel embankments will be provided with vegetation upon completion of regrading, which would serve to increase stability and prevent deterioration from erosion.

It is also noted that the proposed channel section includes a multi-use pedestrian trail along the west bank. With the trail located uphill of the crest of the embankment, noted above as being inherently stable at a 3 horizontal to 1 vertical inclination, there would be no stability concern with respect to the trail. The trial is indicated to be within the 7 metre buffer from the crest of the embankment to the proposed roadway, however this would not present any concern with respect to stability of the embankment, from a geotechnical point of view. As noted, the embankment slope and the grade on either side of the proposed trial is to be suitably vegetated, which will prevent any concern with respect to potential erosion.

We trust that these 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.

Ian Shaw, P.Eng., QP_{ESA}
Senior Engineer

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