SECTION 4 –ENGINEERING POLICIES & PROCEDURES

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4.0 Engineering Policy & Procedure Letters

This section covers the submission procedures for formal letters, certifications and notices to the City on behalf of the developer lands covered under a development agreement. Examples are provided for reference.

4.1 Submission Procedure

A digital/PDF certified copy of the proposed lot grading plan(s) and one (1) certification letter is required by the Development Engineering & Construction Section of the Planning and Building Department for review and approval prior to the issuance of any building permits.

For sites covered by a development Agreement, the original design Engineering Consultant is responsible for certification of the proposed drawings. The Engineering Consultant is also responsible for the issuance of preliminary and final grading certificates.

The submission for lot grading will require the applicable/certified grading plan which is to contain the following wording:

> *I hereby certify that the proposed grading for the building, appurtenant drainage and storm water management works comply with sound engineering design, and that the proposed grading is in conformity for drainage and relative elevations with the overall grading and drainage plans for this development.*

A Professional Engineers **stamp and signature** is to be applied to the wording on the certified drawing**.**

4.1.0 Standard Grading Certification and Letters

4.1.0.0 General

There are three (3) sample letters for the certification of building and lot grading as required under the City of Mississauga Subdivision and Development agreements, for condominium certification letters see *Section 6 – Condominium Development Requirements*.

4.1.0.1 Sample Certifications

Sample A Drawing Certification – Preliminary Lot/Block Grading (see Appendix 1)

Sample B – Drawing Certification (Stamp) Preliminary Lot/Block Grading Variance (see Appendix 1)

Sample Letter C – Final Lot/Block Grading Certification Letter (see Appendix 1)

Sample Letter D - Final Lot/Block Grading Variance Certification Letter (see Appendix 1)

Sample Letter E – Retaining Wall Certification Letter (see Appendix 1)

Sample Letter F – Servicing Works Certification Letter (see Appendix 1)

Sample Letter G – Subgrade Certification Letter (see Appendix 1)

Sample Letter H – Road Construction and Municipal Site Servicing Certification Letter (see Appendix 1)

4.2 Policy Statements

4.2.0 Inspection Consultants

Prior to the preconstruction meeting, Development Construction will require the site contact information from the Civil Consultant and Geotechnical Consultants.

The Consultant must have their own site representative on site during any grading and/or construction works.

The Geotechnical Consultant must ensure that OPSS 514.07.08 regarding backfilling and compaction within road allowances and lots where fill exceeds 1.0m in thickness is strictly adhered to. The Geo-technical Consultant's certification must make reference to this.

4.2.1 Blasting or Tunnelling

No blasting or tunnelling will take place without written approval of Development Engineering & Construction Section and review by the Commissioner.

4.2.2 Construction on Existing Roads

Whenever it is necessary to cut through an existing City or Regional road, the contractor will be responsible for properly compacting the backfill and surface restoration in accordance with the Road Occupancy Permit. Existing subdrains must remain intact.

Road closure and open cut permits must be obtained prior to undertaking work within an existing road allowance/right-of-way.

Unshrinkable fill is to be utilized as the backfill material for service trench installation within all city road allowances. The unshrinkable fill is to be placed as per City Standard 2220.030. Alternate backfill material is to be approved by Development Construction.

Top asphalt cold joint must be sealed with hot-poured rubberized asphalt joint sealing compound (OPSS 1212).

Where overlaying or constructing new road works, a diagonal joint must be utilized across the travelled portion of the roadway.

4.2.3 Standards & Maintenance

Work shall be to the satisfaction of the Development Engineering & Construction Section, or their representatives.

Work shall be designed and constructed in accordance with the most recent requirements, standards, specifications and bylaws of the City of Mississauga.

Work constructed shall be guaranteed for a maintenance period as identified within the Agreement and/or in accordance with the Road Occupancy Permit.

4.2.4 Trench Backfilling on Roads

The use of excavated inorganic native subsoil is generally permissible for trench backfilling purposes by means of standard consolidation procedures subject to the following provisions:

- The use of native backfill material must be approved by Development Construction.

  - Backfilling operations are to be carried out in strict conformance with the requirements of OPSS 514.07.08 using earth compaction equipment of appropriate size and weight.
  - The minimum compacted density within 1.0 metres of final subgrade is increased to 98% Standard Proctor Density with moisture content within 2% of the optimum value.
  - Soil moisture content high of optimum value is better suited for trench backfilling below the 1.0 metre subgrade. The addition of water will be required particularly during dry summer conditions subject to the discretion of the Geotechnical Consultant and/or City inspector.

During construction, the owner is to retain the original geo-technical consultant to supervise the installation of bedding and the backfilling of all trenches within road allowances and easements. The Geotechnical Consultant shall be present during any trench backfilling and consolidation operations ensuring that OPSS 514.07.08 is strictly adhered to. The Geotechnical Consultant's is to certify that he or his designate has conducted a sufficient number of tests to obtain a comprehensive summary of the degree of compaction and has witnessed **all** backfill and compaction operations including lot service and that all works were constructed in accordance with OPSS 514.07.08. Compaction reports are to be provided to Development Construction.

Only experienced Geotechnical Consultant personnel who have demonstrated their competence to the satisfaction of the Development Engineering and Construction are permitted to conduct field testing. All field technicians shall be CSA certified in concrete testing. All field technicians must have excellent oral and written communication skills. Geotechnical consultant’s personnel *must be on site at all times* for mainline and service construction crews under the direct

supervision of one Geotechnical Consultants technician. Where there are more than two crews, additional personnel may be required.

The City of Mississauga requires a compaction test on every layer and every 50m^2 for mainline work and a compaction test every layer on lateral service trenches as minimum. Plot field density test on plan and profile drawings.

The final subgrade certification is to confirm that the final subgrade conditions are equal to or better than those anticipated in the preparation of the pavement design. The above certification(s) are to display the Professional Engineer Stamp for the Geotechnical Consultant. The certification is to include the following wording:

"This certification has been made to the best of the Geotechnical Consultant's knowledge and information. This certification, however does not relieve the Contractor, the Owner or any other parties of their respective responsibilities pertaining to maintenance or otherwise."

The findings of the compaction reports together with certification, in a form acceptable to the City, are to be forwarded to and acknowledged by the City prior to placement of the granular road material. The Geotechnical consultant shall also confirm that the final subgrade conditions are at least equal to those anticipated in his preparation of the pavement design. If these conditions are less than what was anticipated, the owner and the City are to be **immediately** advised with a new pavement design recommendation.

Adequate trench widths must be maintained to give compaction equipment being utilized sufficient space to adequately compact the material, i.e. the minimum width of the trench must be at least the width of the compaction equipment plus 0.5m.

- Backfill with shale will be allowed provided a proper mix of shale and filler material, i.e. sand or clay is integrated into the backfill material to eliminate voids. The Geotechnical Consultant **must** carefully monitor the backfilling operation to ensure this mix is maintained and that OPSS 514.07.08 is complied with. **Maximum** dimension of any shale backfill is 150mm.

- Granular backfill will be used around the perimeter of all mainline service structures (i.e. Manholes and Catchbasins). Granular backfill is to extend 1.0m out from the outside edge of the manhole and is to be compacted using a vibratory means or approved alternatives. OPSS 514.07.08 and OPSS 516 must still apply

- Each service connection and trench must be monitored and certified to ensure that OPSS 514.07.08 is complied with.

- Trench widths for lateral connections must be sufficient to accommodate compaction equipment without bridging of the compactor drum, i.e. width of equipment plus 0.5m.

- Narrow trenches for water service connections may be prone to settlement. The Contractor must defer backfilling of the upper 1.0 metre subgrade zone until completion of all sewer and water service connections to promote uniformity of backfilling and compaction in the subgrade zone.

The Geotechnical Consultant must maintain a plan and profile drawing indicating the location of each compaction test to ensure compliance with OPSS 514.07.08. Both failed and satisfactory results are to be indicated along with consolidation layer thickness. A compaction test list or legend may be required to keep the drawing legible. These drawings and other pertinent data must be kept on site within the consultant's trailer and available for City review at all times.

If, in the opinion of the City, excessive trench settlements have occurred at base course or top course asphalt levels, a road review will be required to determine the structural integrity of the road. The cost of this testing will be borne by the Developer. A review of the condition of the roads determines whether the maintenance period of the road should be extended or if **reconstruction is required**.

Road construction will not be permitted until trenches have been backfilled and compacted in accordance with the most recent City of Mississauga requirements and specifications. Proof rolling at the subgrade level must be completed and certified by the Geotechnical Consultant. Certificate must indicate structural integrity of the subgrade and the adequacy of the structural road design. Subgrade cross-fall is to be 3%.

The following actions are required prior to the placement of granulars:

- A formal proof-rolling test by means of a loaded tandem truck or equipment of equivalent wheel loading must be carried out for approval of the completed subgrade and prior to placement of granular materials. The subgrade must exhibit a firm and stable behaviour without rutting and/or flexing under wheel travel.

- Additional granular depth may be required to compensate for subgrade which does not pass the proof rolling test and/or the removal and re-compaction of any 'soft-spots'.

Placement of granulars prior to the City issuing approvals may result in **complete removal** of all granulars.

Special conditions such as winter construction or construction in wet conditions, etc. may require full depth granular backfill and/or crusher run limestone for road granulars at the discretion of the City.

4.2.5 Development Winterization

To minimize repairs to new roads and snow ploughing equipment, the City requires the following works to be carried out prior to November 15 of each year:

- Manhole tops, catch basin frames and valves on roads with base asphalt shall be set at the level of the base course asphalt.
- Settlements in roadways shall be repaired, particularly adjacent to manhole tops and catch basin frames.
- Sidewalk bays which have settled and created a lip greater than 10mm shall be repaired.
- Asphalt roads shall be cleared of mud and debris and maintained in this manner throughout the maintenance period.
- Inlet manholes, catch basins, ditches or channel shall be cleared of debris to prevent blockages during winter and spring thaws.

4.2.6 Stormwater Management

If the post development runoff could adversely affect downstream lands, on site storm water detention may be required.

The City, in conjunction with the conservation authorities, may restrict some development of land in or near natural flood plain areas to maintain sufficient storage capacity to avert downstream flooding.

See City of Mississauga *Development Requirements Manual Section 8 - Storm Drainage Design Requirements* for additional stormwater management details.

4.2.7 Geotechnical Engineering

In new developments, the owner shall engage a licensed geotechnical engineering consultant to prepare a report on the existing soil conditions which is to include:

- The identification, description and limits of the existing soil strata, including the extent of topsoil and its suitability for reuse.
- The suitability of native materials for trench backfill.
- The conditions under which the native material may be used as trench backfill.
- The procedures to be used for high moisture contents and water table levels which may affect the proposed servicing or structural works of the area as well as the surrounding lands.

- The extent of native material which is unsuitable for trench backfill. A procedure for dealing with the unsuitable native material should be provided in order that the structural stability of the proposed municipal services will not be compromised.
- The limit of areas where blasting may be required. Due consideration is to be given to the surrounding structures and services. The report should include sufficient information to determine blasting procedures.
- The road material depths and material types for pavement design.
- Recommendations for infrastructure placement and road construction.
- Potential chemical issues that may affect services or structures (e.g. high sulphates) and the method of resolving such issues.
- Recommendations in dealing with filling procedures within; the road allowances, building lands and berm construction.
- Identifying potential areas of slope instability as well as the extent of the unstable soil and/or conditions. The report shall also provide procedures to stabilize the slope.
- Any recommendations regarding the design and construction of building foundations.
- The engineering properties of the native material including frost susceptibility, natural moisture content, compaction characteristics, relative density and structural integrity.
- Recommendations for achieving proper compaction
- A sufficient number of environmental tests to determine the likelihood of any soil contamination. The Geotechnical Consultant must supply procedures to dispose of, or reclaim, any contaminated soil.
- Recommendations for dealing with deep excavation of trenches
- Recommendations in dealing with septic or well systems that may be affected by the proposed building and servicing works.
- Sufficient boreholes to establish definite requirements and recommendations for the servicing and building works. Maximum spacing between boreholes along the proposed roadway is to be 150m. The soils report must identify minimum bearing capacity of the native soil, preferably on a hole-by-hole basis. Boreholes located in the area of proposed underground municipal services are to be taken to a depth of at least one (1) metre below the bottom of the deepest trench.

Requirements and recommendations contained within this report along with borehole logs and grain size analysis of the native soils are to be incorporated by the engineering consultant into his first submission to the Development Engineering & Construction Section. Any such requirements and recommendations that are not so incorporated are to be drawn to the City's attention with specific reasons. See other City of Mississauga *Development Requirements Manual* sections for additional geotechnical requirements/ guidelines.

Where grading operations require the placement of "engineered fill" the Geotechnical Consultant must certify that the fill located at 1.0m below finished grade and deeper has been sufficiently

compacted to assure a minimum bearing capacity of 75 MPa and a 98% Standard Proctor Density.

The material testing of any major structure, as determined by the City, is to be carried out by an independent testing firm retained by the owner. Such testing is to be carried out in accordance with the latest revision of the OPSS and CSA requirements. All test results are to be forwarded to the owner, the engineering consultant, and the City, with the appropriate comments and recommendations. Upon completion of the material testing, the testing firm is to certify to the owner and the City that the Engineering Agreement material requirements for the concerned structure have been achieved.

4.2.8 Policy for Holiday Work by Contractors

No work will be permitted in Mississauga on the following days: NEW YEARS DAY; FAMILY DAY; GOOD FRIDAY; VICTORIA DAY; CANADA DAY; CIVIC HOLIDAY; LABOUR DAY; TRUTH AND RECONCILLIATION DAY; THANKSGIVING DAY; CHRISTMAS DAY; BOXING DAY.

Permission to work on the holiday will be considered upon receipt of a written request from the contractor at least two (2) business days (minimum 48 hours) in advance of the holiday.

4.3 Procedures

4.3.0 Beginning of Construction

Construction of services shall not commence until the Developer has entered into the necessary agreements with the City of Mississauga and the Region of Peel. The Developer must also have obtained any required approvals from the Ministry of Transportation Ontario, the Ministry of Environment, or any other organization which may be affected by the plan of subdivision.

Construction may not commence until:

1. The Development Agreement has been registered in the Land Titles Office of the Region of Peel
   OR
2. As provided by the City of Mississauga's Subdivision preservicing policy.
3. Clearance by Development Engineering must be given prior to a preconstruction meeting being held.

Following the preconstruction meeting being held, Development Construction of the City of Mississauga and the Public Works Department of the Region of Peel must be given forty-eight (48) hours notification prior to the commencement of construction. Should there be a cessation of construction of more than a week, notification must again be provided forty-eight (48) hours before recommencing the work. Notification to commence work shall be sent to the Development Construction (devcon@mississauga.ca). Failure to comply with any portion of the requirement will lead the City to action being taken and increase in maintenance timelines.

4.3.1 Lot Grading and Sodding

It is the Developer's responsibility to correct any drainage problems during the term of the Development Agreement. The Developer is also responsible for certification of each lot's grading and sodding as required by the City of Mississauga.

Development Construction will not accept a Lot Grading Certificate from a Consulting Engineer without the following having taken place:

- After the Consulting Engineer has visited the site to assure themselves that the lots which they've proposed to certify have been graded and sodded in accordance with the grading plan, the Consulting Engineer may arrange a site inspection by emailing devcon@mississauga.ca.
- The Consulting Engineer will then arrange a site inspection with the builder and/or his representative, and a representative from Development Construction to visit the site and review each lot in the plan which is to be certified, and to agree on those lots which can be certified by a visual inspection. Further, this inspection is also to reveal those lots which may require confirmation of grades by surveying or additional works to meet

the requirements for certification. The Consulting Engineer will immediately certify all lots where an agreement has been reached by the parties in the field.

- The Consulting Engineer will resurvey those lots which cannot be certified by a visual inspection, or, if necessary, require the builder to do further work in order that such lots can be made certifiable. It should be noted that if the builder will not correct the work as instructed by the Consulting Engineer, this responsibility will fall directly upon the developer.
- Lots which cannot be certified due to poor grading or due to changes in the type of building, which was built on the lot, will be brought to the attention of the Development Engineering & Construction Section, via email to devcon@mississauga.ca by the Consulting Engineer. The Consulting Engineer, on behalf of the Developer, will prepare a new grading plan(s) for the lots which have not been built according to plan and will submit the revised plan to the City with the *required current fee and charges bylaw*.
- Prior to assumption, if a homeowner modifies the grades within their own lot, causing adverse effects to neighbouring lands, the Developer may be required to make necessary arrangement to rectify the grading infraction to the satisfaction of the Development Engineering & Construction Section.

The site grading plans are to show underside of footing elevations and top of foundation wall elevations. Where multilevel footings and/or foundation walls are intended, all levels are to be shown.

4.3.2 Block Grading

The Developer is responsible for the correction of all drainage problems on the blocks during the term of the Development Agreement and for sodding/seeding undeveloped blocks prior to assumption.

4.3.3 Security Reduction

- The City will review the request of a Security Reduction of the Letter of Credit/ Surety Bond/ Bank Draft or certified cheque to the amount of the actual remaining works, plus 10% of the work already completed, plus the required Schedule ‘G’ holdbacks.

- The Consultant is to submit the request in Draft Security Reduction format (see Appendix 2B) which is to include completed/uncompleted quantities, in the approved Schedule ‘G’ of the Development Agreement.

- The Consultant, with each request shall include a Statutory Declaration (see Appendix 2C).

- When all work is completed, the City shall hold a minimum of 10% of the completed works until Final Acceptance/Assumption has been issued or as to be determined by Development Construction.

- Prior to the release of securities for any noise wall, the City must receive certification from the Consultant that the walls are structurally sound and constructed in

accordance with the approved engineering drawings. In addition to the structural certification, an OLS must certify that the locations of the noise walls are in accordance with the approved engineering drawings. The location of all fences adjacent to municipal lands shall be verified in accordance with the approved engineering drawings.

- The City will reduce the Letter of Credit/ Surety Bond/ Bank Draft and certified cheque for retaining walls once the City has received certification of the walls structural integrity and confirmation from an OLS that the wall is in the correct location as designed (see also 4.1.0.1. of this section).

4.3.4 Security Reduction Request

Instructions For Use Of This Letter

This form shall be used in requesting reductions of securities.

Please note the last line of this letter and be advised that all requests for these reductions must be accompanied with the Developer's Statutory Declaration with respect to outstanding accounts, or the request will be directly returned. See Appendix 2A.

4.4 Surveyor Certificate

Prior to the Final Acceptance/Assumption by the City of the services constructed in a development, it is required that the Developer reestablish all Control Standard Iron Bars (S.I.B.). Where Control Standard Iron Bars cannot be established/reestablished cross cut into concrete is permissible. Confirmation of reestablishing these iron bars must be made to Development Engineering & Construction Section by a Registered Ontario Land Surveyor via email to devcon@mississauga.ca (see also *Development Requirements Manual Section 3 – Appendix B*).

Where SIB cannot be established/reestablished cross cut into concrete.

- Where registered lots of both the subject land and an existing registered plan are abutting and where these lots have been occupied and fenced, it shall not be a requirement to have these S.I.B's replaced.

- Where the boundaries of the plan involve either sewer or watermain easements, City owned lands, Region owned lands, Public or Separate School Board lands, Hydro lands, etc., S.I.B.'s shall be required.

- If it is not possible along the road allowances within a development to place S.I.B.'s, because of above ground works, (i.e. paved driveways), it will be satisfactory to have the closest lot corner monumented with a S.I.B. when such a situation arises at the beginning or at the end of a curvilinear section, it is required that the closest lot corner on a straight street line portion be monumented.

The planting of Standard Iron Bars is to be done after the preliminary acceptance of roads and at least six months before final acceptance of the subdivision.

The Surveyor's certificate is required prior to the Final Acceptance/Assumption of the subdivision shall confirm that the Surveyor has either found in its original position or replaced each S.I.B. shown on the registered plan. The Certificate shall also confirm that the limits of all sewer and watermain easements have been barred, and that the tops of all S.I.B.'s are within 150mm of final grade.

The Certification shall state the date of field verification which shall be no earlier than one month prior to the end of the above ground maintenance period.

4.5 Easements

Easement requirements to be addressed through the development review process.

Appendix 1 – Drawing Certifications

SAMPLE A DRAWING CERTIFICATION – PRELIMINARY LOT/BLOCK GRADING

The following certification is to be applied to all drawings for site grading review and approval:

"I hereby certify that the proposed grading for the building, appurtenant drainage and storm water management works comply with sound engineering design, and that the proposed grading is in conformity for drainage and relative elevations with the overall grading and drainage plans for this development.

We also hereby certify compliance with the Agreement conditions associated with City file no._____".

SAMPLE B DRAWING CERTIFICATION – PRELIMINARY LOT/BLOCK GRADING VARIANCE

The following certification is to be applied to all drawings for site grading review and approval:

"I do hereby advise that the proposed site grading of the subject lands is not in accordance with the overall grading plan. However, I am able to certify that the variance of grades for the building comply with sound engineering design, appurtenant drainage and storm water management works.

Purpose of variance: _____

We also hereby certify compliance with the Agreement conditions associated with City file no._____."

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE LETTER C - FINAL LOT/BLOCK GRADING CERTIFICATION LETTER

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction

Date: Enter Date

Re: Final Lot/Block Grading Certification
Site Address
City File Number
Registered Plan Number (if applicable)
Lot/Block No.

Certification of Final Lot/Block Grading

I have conducted a site inspection on Enter Date with respect to the final grading of the subject lands and have viewed the finished lot grading and building thereon.

I hereby certify that the building(s) constructed with relationship to the elevations and the grading of the lands are in general conformity with the **Enter Date** *(*)* certification of the "Proposed Building and Grading" previously submitted.

We also hereby certify compliance with the Agreement conditions under Schedule "C-2" Item 1 (confirm in agreement).

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SAMPLE

SIGNED and STAMPED Certificate to be E-mailed to: DEVCON@mississauga.ca

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE LETTER D - FINAL LOT/BLOCK GRADING CERTIFICATION LETTER VARIANCE

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction

Date: Enter Date

Re: Final Lot/Block Grading Certification
Site Address
City File Number
Registered Plan Number (if applicable)
Lot/Block No.

Certification of Final Lot/Block Grading Variance

I have conducted a site inspection on **Enter Date** with respect to the final grading of the subject lands and have viewed the finished lot grading and building thereon.

I hereby advise that the building(s) constructed with relationship to the elevations and the grading of the lands varies/not in accordance with the approved "Proposed Building and Grading" certification dated **Enter Date**. However, I am able to certify that the variance of grades for the building comply with sound engineering design, appurtenant drainage and storm water management works.

We also hereby certify compliance with the Agreement conditions under Schedule "C-2" Item 1 (confirm in agreement).

Purpose of Variance:

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SIGNED and STAMPED Certificate to be E-mailed to: DEVCON@mississauga.ca

SAMPLE

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE LETTER E - RETAINING WALL CERTIFICATION LETTER

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction

Date: Enter Date

Re: (Name of Subdivision)
Lots/Block No.
City File No.
Registered Plan No.
Retaining Wall Constructed of Maximum Height _____ m

This letter is to certify that the above described retaining wall was adequately designed, and subsequently constructed, in accordance with the design to support the dead and live loads applied on the structure.

This is also to certify that the above retaining wall has been designed and constructed in accordance with all the applicable standards and regulations.

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SAMPLE

SIGNED and STAMPED Certificate to be E-mailed to: DEVCON@mississauga.ca

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE LETTER F – AGREEMENT SERVICING WORKS CERTIFICATION LETTER

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction

Date: Enter Date
File: (Registered Plan No.)

Re: Certification of Agreement Servicing Works
Municipal Address and Property Description
City File Number
Registered Plan Number (if applicable)

This letter is to certify that all/current Servicing Works have been completed in accordance with the drawings and specifications, as may be amended from time to time under City approval and authority and which form part of the Agreement for City file _____.

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SAMPLE

SIGNED and STAMPED Certificate to be E-mailed to: DEVCON@mississauga.ca

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE LETTER G – ROADWAY SUBGRADE CERTIFICATION LETTER

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction

Date: Enter Date

Re: Certification of Roadway Subgrade
Site Address
City File Number
Registered Plan Number (if applicable)

This letter is to certify that the roadway subgrade has been inspected, and proof rolled on the following date(s)_____. I can certify that any required remediation of the subgrade has taken place and is deemed acceptable for the placement of roadway granulars.

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SAMPLE

SIGNED and STAMPED Certificate to be E-mailed to: DEVCON@mississauga.ca

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE LETTER H – ROAD CONSTRUCTION & MUNICIPAL SITE SERVICING CERTIFICATION LETTER

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction

Date: Enter Date

Re: Certification of Road Construction and Municipal Site Servicing
Site Address
City File Number
Registered Plan Number (if applicable)

Insert company name has served as the geotechnical consultant for the above noted development, encompassing inspection, compaction and testing of sewer trench backfilling, road construction. This letter will confirm that we have monitored the quality and placement of all materials during municipal site servicing and roadway construction for the above noted development.

I hereby certify that the 'as constructed' **final pavement structure** has been completed to top course asphalt and has met or exceeded the City of Mississauga's minimum design standard for developments and has been provided as follows:

As-Constructed Pavement Structure

Municipal Roadway (Name Roadway)	Driveways (as applicable)

Should you have any questions or concerns regarding the letter please do not hesitate to contact this office at .

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SIGNED and STAMPED Certificate to be E-mailed to: DEVCON@mississauga.ca

SAMPLE

Appendix 2A – Sample Security Reduction Letter

COMPANY LETTERHEAD
(ENGINEERING FIRM)

SAMPLE – SECURITY REDUCTION REQUEST LETTER

To: City of Mississauga
Development Engineering & Construction
300 City Centre Drive
Mississauga, ON L5B 3C1
Attn: Development Construction (DEVCON@mississauga.ca)

Date: Enter Date

Re: Development Name
Site Address
City File Number
Registered Plan Number (if applicable)

On behalf of the owners of the above development, we would appreciate your consideration and approval of the attached Reduction Request of the Agreement Security currently held by the City.

Also attached is a Statutory Declaration that all outstanding accounts relative to the work in this development have been paid.

Sincerely,

Stamp and **Signature** of Professional Engineer

c: Developer

SIGNED and STAMPED letter to be E-mailed to: DEVCON@mississauga.ca

SAMPLE

Appendix 2B – Draft Security Reduction Format

Security Reduction Summary Sheet

City File:		Developer:		Security #:	
Region File:		Agreement Date:		Original Security Amount:	

Reduction #	Date	Retained Securities	Securities Reduced	New Retained Securities
1		$ -		
2		$ -		
3	-	$ -		$ -
4	-	$ -		$ -
5	-	$ -		$ -
6	-	$ -		$ -

Notes & Remarks:

City File: Developer: Reduction No.
Region File: Agreement Date: Date:

NO.	Item	Original Securities (incl 10%)	Value of Work Completed - Sch 'G' Markup	10% of Work Completed	Value of Work Outstanding	Required Securities (Based on Clearance)
		A	B	C = (B x 10%)	D = (A-B)	F = (C + D)
	STREET NAME					
1	Sanitary Sewers					
2	Watermains					
3	Storm Sewer					
4	Roads					
	Sub Total	$ -				$ -
	CITY OF MISSISSAUGA					
45	Miscellaneous					$ -
46	Parks					$ -
47	Landscaping					$ -
48	Environmental					$ -
49	Streetlighting					$ -
	Sub Total City	$ -				$ -
	REGION AND CITY TOTAL SECURITY	$ -				
	HOLDBACKS					
50			*Holdbacks do not require 10%. Check agreement in all situations.			
	TOTAL HOLDBACKS	$ -				

Required Securities = F + Holdbacks Value of Reduction = Original Securities - Required Securities	ORIGINAL RETAINED SECURITIES	$ -
	SECURITIES REDUCED	$ -
	NEW RETAINED SECURITIES	$ -

Project Name
City Project No.
Region Project No.

SCHEDULE 'G'
City of Mississauga
Detailed Estimate - Summary

SCHEDULE "G" - SECURITIES

PROJECT NAME
SECURITY COST ESTIMATE
CONSULTANT NAME
CITY OF MISSISSAUGA
CITY PROJECT No.
REGION PROJECT No.

1) Cost Estimates and Security

A1 City - Right of Way(s)	Road Works	Storm Sewer	Sanitary Sewer	Watermain	ROW Total
1) Street A	$ -	$ -	$ -	$ -	$ -
2) Street B	$ -	$ -	$ -	$ -	$ -
Subtotal	$ -	$ -	$ -	$ -	$ -

A2 Region - Right of Way(s)	Road Works	Storm Sewer	Sanitary Sewer	Watermain	ROW Total
1) Region Rd. A	$ -	$ -	$ -	$ -	$ -
Region Subtotal	$ -	$ -	$ -	$ -	$ -
Total	$ -	$ -	$ -	$ -	$ -

2) Miscellaneous (City)	$ -
3) Streetlighting	$ -
4) Streetscape	$ -
5) Parks	$ -
6) Environmental	$ -
B1) Subtotal - City Municipal Works: Road Works (Item A1), Storm Sewers (Item A1), Miscellaneous (City) (Item 2), Streetlighting (Item 3), Streetcape (Item 4), Parks (Item 5), Environmental (Item 6)	$ -
B2) Subtotal - Region Municipal Works: Road Works (Item A2), Storm Sewer (Item A2), Sanitary Sewers (Item A1+A2), Watermains (Item A1+A2) ***Miscellaneous (Region) capture within Region works items*	$ -
B3) Total Amount to be secured (B1 + B2)	$ -
C1) Cash Contributions to the City of Mississauga i) Transportation & Works	$ -
Sub total Item C (i):	$ -
ii) Community Services	$ -
Sub total Item C (ii):	$ -
C2) Cash Contributions to the Region of Peel	$ -

Project Name
City Project No.
Region Project No.

SCHEDULE 'G'
City of Mississauga
Detailed Estimate - Roads (City ROW)

Street A

	Item		Units	Quantity	Unit Rate	Amount
	Road Works					
1)	0	0	0			$ -
2)	0	0	0			$ -
					Subtotal	$ -
					10% Contingency	$ -
					Total	$ -

SECURITY COST ESTIMATE - BREAKDOWN
DEVELOPER NAME
CITY OF MISSISSAUGA

ROAD WORKS

Street Name		Quantities & Unit Prices				Completed		Remaining		Reduction 1	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	Qty	Amount
a)					$ -		$ -		$ -		$ -
b)					$ -		$ -		$ -		$ -
	Subtotal Street Name				$ -		$ -		$ -		$ -
	Plus 10% Engineering & Contingency				$ -		$ -		$ -		$ -
	Total Street Name				$ -		$ -		$ -		$ -
	TOTAL ROAD WORKS				$ -		$ -		$ -		$ -

STORM SEWER

Street Name		Quantities & Unit Prices				Completed		Remaining		Reduction 1	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	Qty	Amount
a)					$ -		$ -		$ -		$ -
b)					$ -		$ -		$ -		$ -
	Subtotal Street Name				$ -		$ -		$ -		$ -
	Plus 10% Engineering & Contingency				$ -		$ -		$ -		$ -
	Total Street Name				$ -		$ -		$ -		$ -
	TOTAL STORM SEWER				$ -		$ -		$ -		$ -

SANITARY SEWER

Street Name		Quantities & Unit Prices				Completed		Remaining		Reduction 1	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	Qty	Amount
a)					$ -		$ -		$ -		$ -
b)					$ -		$ -		$ -		$ -
	Subtotal Street Name				$ -		$ -		$ -		$ -
	Plus 10% Engineering & Contingency				$ -		$ -		$ -		$ -
	Total Street Name				$ -		$ -		$ -		$ -
	TOTAL SANITARY SEWER				$ -		$ -		$ -		$ -

WATERMAIN

Street Name		Quantities & Unit Prices				Completed		Remaining		Reduction 1	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	Qty	Amount
a)					$ -		$ -		$ -		$ -
b)					$ -		$ -		$ -		$ -
	Subtotal Street Name				$ -		$ -		$ -		$ -
	Plus 10% Engineering & Contingency				$ -		$ -		$ -		$ -
	Total Street Name				$ -		$ -		$ -		$ -
	TOTAL WATERMAIN				$ -		$ -		$ -		$ -

SECURITY COST ESTIMATE - BREAKDOWN
DEVELOPER NAME
CITY OF MISSISSAUGA

MISCELLANEOUS

		Quantities & Unit Prices				Completed		Remaining		Reduction 1	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	Qty	Amount
a)							$ -		$ -		$ -
b)											
c)											
	Total Miscellaneous:				$ -		$ -		$ -		$ -
	TOTAL MISCELLANEOUS				$ -		$ -		$ -		$ -

SECURITY COST ESTIMATE - BREAKDOWN
DEVELOPER NAME
CITY OF MISSISSAUGA

STREETLIGHTING

Streetlighting		Quantities & Unit Prices				Completed		Remaining		Reduction 1	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	Qty	Amount
a)					$ -		$ -		$ -		$ -
b)					$ -		$ -		$ -		$ -
c)					$ -		$ -		$ -		$ -
	Total Streetlighting				$ -		$ -		$ -		$ -
	TOTAL TOP WORKS				$ -		$ -		$ -		$ -

SECURITY COST ESTIMATE - BREAKDOWN
DEVELOPER NAME
CITY OF MISSISSAUGA

LANDSCAPING

Street Name		Quantities & Unit Prices				Completed		Remaining		*Reduction 1*	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	*Qty*	*Amount*
a)				$ -		$ -		$ -		$ -	
b)				$ -		$ -		$ -		$ -	
c)				$ -		$ -		$ -		$ -	
	Subtotal Street Name			$ -		$ -		$ -		$ -	
	Total Street Name			$ -		$ -		$ -		$ -	
	TOTAL LANDSCAPING			$ -		$ -		$ -		$ -	

SECURITY COST ESTIMATE - BREAKDOWN
DEVELOPER NAME
CITY OF MISSISSAUGA

PARKS

Block		Quantities & Unit Prices				Completed		Remaining		*Reduction 1*	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	*Qty*	*Amount*
a)				$ -		$ -		$ -		$ -	
b)				$ -		$ -		$ -		$ -	
c)				$ -		$ -		$ -		$ -	
	Subtotal Block			$ -		$ -		$ -		$ -	
	Total Block			$ -		$ -		$ -		$ -	
	TOTAL PARKS			$ -		$ -		$ -		$ -	

SECURITY COST ESTIMATE - BREAKDOWN
DEVELOPER NAME
CITY OF MISSISSAUGA

ENVIRONMENTAL

Environmental		Quantities & Unit Prices				Completed		Remaining		*Reduction 1*	
Item	Description	Qty	Unit	Unit Price	Amount	Qty	Amount	Qty	Amount	*Qty*	*Amount*
a)				$ -		$ -		$ -		$ -	
b)				$ -		$ -		$ -		$ -	
c)				$ -		$ -		$ -		$ -	
	Subtotal			$ -		$ -		$ -		$ -	
	Total Environmental			$ -		$ -		$ -		$ -	
	TOTAL ENVIRONMENTAL			$ -		$ -		$ -		$ -	

Appendix 2C – Statutory Declaration

STATUTORY DECLARATION

(SECURITY REDUCTION/ RELEASE)

CANADA) IN THE MATTER OF CITY FILE NUMBER _____

Province of Ontario) on REGISTERED PLAN NO. _____, CITY OF

) MISSISSAUGA in the REGIONAL MUNICIPALITY

) OF PEEL, being in the subject of an agreement

) dated _____

) between _____(**developer name**)

) and the City of Mississauga and The

) Regional Municipality of Peel

TO WIT:

I, _____of the City of _____, within

the Region of _____ , in the Province of

_____, SOLEMENLY DECLARE THAT

1. I am the _____(position) of _____

   _____(company) and as such have knowledge of the matters herein declared to.

2. There are no lien claims and that all outstanding accounts have been paid with respect to the work completed as required under the above-mentioned Agreement between the said company _____(name) and the City of Mississauga.

AND I make this solemn Declaration conscientiously believing it to be true and knowing that is of the same force and effect as if made under oath and by virtue of the CANADA EVIDENCE ACT.

DECLARED before me _____(name))

at the of **CITY** _____)

In the Region of _____)

In the Province of _____)

On this ____day of _____**(month)**_____ **(year)**)

I have the authority to bind the corporation.

_____

(name)

A Commissioner, etc.
(stamp/signature)