

**THE CORPORATION OF THE
TOWNSHIP OF WAINFLEET**

BYLAW NO. 019-2010

Being a bylaw to regulate Lot Grading & Drainage in the
Township of Wainfleet.

WHEREAS Sections 10(3) and 142 (2) of the *Municipal Act, 2001*, as amended, provides that the Council of a local municipality may pass bylaws to regulate lot grading and drainage;

NOW THEREFORE the Council of the Corporation of the Township of Wainfleet **HEREBY ENACTS AS FOLLOWS:**

1. **THAT** the Lot Grading & Drainage Policy, as set out in Schedule "A" attached hereto and forming part of this bylaw, is hereby adopted;
2. **THAT** the Lot Grading & Drainage Policy shall come into effect on May 3, 2010.

BYLAW READ A FIRST TIME THIS 13TH DAY OF APRIL, 2010.

BYLAW READ A SECOND TIME THIS 13TH DAY OF APRIL, 2010.

BYLAW READ A THIRD TIME AND FINALLY PASSED THIS 13TH DAY OF APRIL, 2010.

B. Henderson, MAYOR

C. Scott Luey, DEPUTY CLERK

SCHEDULE "A" TO BYLAW NO. 019-2010

TOWNSHIP OF WAINFLEET **LOT GRADING AND DRAINAGE POLICY**

POLICY STATEMENT:

1. The Council of the Township of Wainfleet desires to ensure proper design, execution and certification of grading and drainage schemes for all development lands through this Lot Grading Control Policy and its corresponding Work Step Procedure.
2. The Council of the Township of Wainfleet desires that grading and drainage on lands developed under this policy should be congenial with nature and thus preserve the natural terrain as much as possible.
3. It shall be the land developer's responsibility to ensure that grading and drainage of development lands are in accordance with this policy.
4. The Township of Wainfleet will not be responsible in resolving drainage disputes with respect to development lands which have been accepted and approved for final grading unless otherwise determined in the subdivision agreement. On final acceptance and approval of the lot grading the municipality will have no further liability for any changes made to any lot by the developer or the land owner(s). Affected land owners must resolve their concerns with adjacent owners or proceed to take civil action through the courts. However, the Township will review whatever information is available and will attempt to encourage cooperation between the landowners through discussions and suggestions and/or alternatives to address the concerns.
5. Lots greater than one (1) hectare (2.47 acres) and re-development of existing lots greater than one (1) hectare (2.47 acres), shall be exempt from this policy, provided they are for the development of a single detached dwelling.
6. This policy does not apply to agricultural uses, buildings and structures, accessory thereto.
7. This policy does not apply to additions to buildings and to accessory buildings and structures on lots less than (1) hectare (2.47 acres) that currently do not have a lot grading conformance certificate. However, the policy will apply to new buildings, additions and to accessory building and structures where a condition of approval has been placed on an approval for an application minor variance or zoning bylaw amendment require same.

PURPOSE:

1. To ensure the establishment and certification of drainage schemes for development lands by means of good drainage practices.
2. To establish a schedule whereby the Subdivider and Lot Owner are responsible for the construction of a drainage scheme after which the maintenance of the system becomes the Owner's responsibility.
3. To ensure that good drainage practices are established for newly severed lots and existing vacant lots scheduled for new construction.

4. To ensure future maintenance of, and management of revisions to, the system by means of the building permit process.
5. To ensure that post-development surface drainage flows do not exceed pre-development surface drainage flows or adversely affect adjacent properties.

DEFINITIONS:

Council	means the Council of the Corporation of the Township of Wainfleet.
Development Lands	means lands which have been, or may be, subdivided, severed or constructed upon in any way and shall be taken to include re-development in all cases.
Grading Conformance Certificate	means an as-constructed Lot Grading Plan prepared and certified by a professional engineer or Ontario Land Surveyor and which has been accepted, certified and dated by the Township's Chief Building Official.
Lot Grading Deposit	means a deposit taken by the Township at the time of issuance of a building permit as security for carrying out the provisions of the Lot Grading Plan.
Lot Grading Plan	means a lot grading and drainage plan prepared by a professional engineer or Ontario Land Surveyor submitted to the Township's Chief Building Official at the time of application for building permit.
Owner	means the person or persons who hold legal title to development lands.
Subdivider	means an owner of development lands subject of a plan of subdivision.
Subdivision	means an agreement (and may include a development agreement) entered into between a Subdivider and the Township imposed as a condition of the approval of a plan of subdivision.
Subdivision Grade Control Plan	means a grading and drainage plan designed by a Subdivider's Consulting Engineer and prepared to control the overall drainage pattern of a plan of subdivision and approved by the Township Engineer.
Township	means the Corporation of the Township of Wainfleet.
Township Engineer	means the Township's Engineer and/or engineering consultant hired by the Township from time to time to provide engineering services.
Township Solicitor	means the solicitor hired by the Township from time to time to provide legal services.

ABBREVIATIONS:

CBO	Chief Building Official or designate
PLN	Director of Planning
SEC	Secretary to Building & Enforcement Services
INSP	Building Inspector

APPENDICES:

Appendix 'A'	Technical Requirements for Subdivision Grade Control Plans
Appendix 'B'	Design Guidelines for Subdivision Lot Grading
Appendix 'C'	Technical Requirements for Lot Grading Plans
Appendix 'D'	Lot Grading Plan Specifications "A Guide for Owners & Designers"
Appendix 'E'	Standard Form - Lot Grading Plan & Grading Conformance Certificate

RESPONSIBILITIES:

A. SUBDIVIDER

1. The Subdivider, through his Consulting Engineer, shall be responsible for the preparation of a Subdivision Grade Control Plan for the purpose of controlling the overall drainage pattern through the establishment of relative surface elevations in accordance with good drainage practices and Appendices "A" and "B".
2. At the time of execution of the Subdivision Agreement, the Subdivider shall convey to the Township, at his expense and in a form satisfactory to the Township Solicitor, easements for all rearyard catchbasins and leads. The easements will typically be adjacent to the lot line and will be minimum of three (3) metres in width.
3. The Subdivision Grade Control Plan will be reviewed and approved as part of the subdivision approval process prior to execution of the Subdivision Agreement.
4. The Subdivider shall ensure that all offers to purchase lots or blocks within the subdivision include a statement outlining the responsibility of subsequent owners to adhere to the Lot Grading Control Policy.
5. Prior to acceptance of the subdivision by the Township, any requests for revisions to the Subdivision Grade Control Plan to accommodate proposed or as-constructed deviations from the plan, shall be made by the Subdivider, to the Township's Engineer, in writing.
6. A revision will only be granted if deemed reasonable and it shall be designed by the Subdivider's consulting engineer and then approved by the Township Engineer.

7. The following grading works shall be completed prior to the issuance of any building permits:
 - a. installation, to grade, of all rearyard catchbasins including connections to the main sewers;
 - b. rough grading of all lots and blocks to generally conform to the Subdivision Grade Control Plan provided such grading has regard for any landscape or streetscape plans forming part of the Subdivision Agreement;
 - c. construction and sodding of all drainage swales and other erosion control devices deemed necessary (subject to weather conditions).

B. OWNERS:

1. Prior to the issuance of a Building Permit for each lot, the Owner of the lot shall submit to the Township, two (2) copies of a proposed Lot Grading Plan designed in accordance with Appendix 'C', on the form supplied by the Township or on an A1 sheet as specified. The plan shall conform to the applicable Subdivision Grade Control Plan, or in the case of a non-subdivision lot, to a drainage design approved by the Township CBO. The proposed Lot Grading Plan shall be prepared by a professional engineer or an Ontario Land Surveyor. The owner will also be required to pay an application fee of \$100 payable to: The Township of Wainfleet.
2. The plan must take into consideration, among other factors, the suitability of the type of building proposed for a lot or block.
3. Where a revision to the Subdivision Grade Control Plan is necessary to accommodate a proposed grading plan, which does not conform to the Subdivision Grade Control Plan, the Owner must submit to the Township CBO and the Township Engineer a written request for a revision. Written confirmation from the Subdivider's consulting engineer shall be included with such request certifying that the revision will maintain the intent of the Subdivision Grade Control Plan and not adversely affect adjacent properties.
4. Upon acceptance by the Township that the Proposed Lot Grading Plan conforms to this Policy, a copy will be returned to the applicant.
5. The grading of the lot shall be considered to be completed when the building has been erected and the lands have been graded and sodded. Sodding shall be done within two months after occupancy of the building or by the next June 1st following occupancy, should occupancy take place in the winter months or as allowed in the appropriate Subdivision Agreement.
6.
 - a. At the time of issuance of a Building Permit, the lot Owner shall deposit with the Township, as surety for carrying out the provisions of the lot grading plan, a refundable amount of \$1,000.00. The deposit shall be either cash or a Letter of Credit in a form suitable to the Township. The grading deposit shall be returned to the owner, without interest, upon issuance of the Grading Conformance Certificate and approval by the Township.

- b. An Owner, or Owner who may be a builder, may deposit \$10,000 cash or Letter of Credit in a form suitable to the Township as a one-time Lot Grading Deposit in lieu of the individual Lot Grading Deposits collected at the time of the issuance of Building Permits. Such deposit shall be known as a Frequent Builder's Lot Grading Deposit and shall be held by the Township as surety for carrying out the provisions of any lot grading plans related to all building permits issued to the said Owner, or Owner who may be a builder.
7. Should drainage problems arise which are as a result of non-compliance to the requirements of this Policy, the Township CBO will give the Owner 14 days notice to correct the problems. Upon failure of the Owner to rectify the problems, the Township CBO may use the grading deposit to cover the costs of any remedial works deemed necessary. Any costs of these remedial works in excess of the amount of the grading deposit shall be the responsibility of the Owner.
8. Upon completion of the lot grading, the Owner shall be required to submit to the Township CBO one copy of the as-constructed Lot Grading Plan which shall indicate the finished elevation of the grade control points on the proposed Lot Grading Plan.
9. The as-constructed Lot Grading Plan shall be prepared and certified by a professional engineer or an Ontario Land Surveyor (Appendix 'E').
10. Once the as-constructed grading of a lot has been inspected and accepted by the Township CBO, the Lot Grading Plan shall be certified and dated, by the Town as a Grading Conformance Certificate. (Appendix 'E').
11. The date on the Grading Conformance Certificate shall mark the end of the Township's and Owner's responsibility to establish the lot grading and the beginning of the Owner's responsibility to maintain the grading and drainage scheme.

C. REVISIONS TO GRADING AFTER ISSUANCE OF A GRADING CONFORMANCE CERTIFICATE:

As stated previously in this policy, the maintenance of the grading after issuance of the Grading Conformance Certificate is the responsibility of the Owner. Therefore, any revisions to the grading and drainage scheme established on the lands developed under this policy will be subject to the following requirements:

1. Prior to the issuance of a building permit for any works which necessitate excavation (garages, swimming pools, building additions, etc.), the Owner shall submit to the municipality a proposed Lot Grading Plan which shall indicate proposed grade changes and/or effect on drainage flows, if any, as a result of the proposed construction and if requested by the C.B.O., shall be prepared by an Ontario Land Surveyor or Professional Engineer.
2. If changes are proposed to the grading which will affect the established drainage:
 - a. Submission of the proposed Lot Grading Plan shall be accompanied with a Lot Grading Deposit in the amount of \$300.00.

- b. Upon completion of the works and grading, including restoration (sodding or preparation of seeding) the Owner shall submit to the Township CBO an as-constructed Lot Grading Plan prepared by a professional engineer or an Ontario Land Surveyor, which indicates the finished grades in accordance with this Policy.
- c. Upon site inspection and acceptance by the Township CBO that the grading conforms to the Subdivision Grade Control Plan, the as-built Lot Grading Plan shall be certified by the Township CBO as the revised Grading Conformance Certificate and the Lot Grading Deposit, without interest, shall be returned to the Owner.
- d. Upon failure of the Owner to rectify drainage problems which are as a result of non-compliance to the requirements of this Policy within 14 days of receiving written notice from the Township CBO, the Township CBO will use the Lot Grading Deposit to cover the cost of any remedial works deemed necessary by the Township CBO. Any cost of these remedial works in excess of the amount of the Lot Grading Deposit shall be the responsibility of the Owner.

D. PROCEDURES

<u>Job Title</u>	<u>Work Steps</u>
PLN	<ul style="list-style-type: none"> 1. Receives application for Subdivision Agreement from an Owner or agent of an owner of Development Lands and coordinates the processing of such application in accordance with Townships procedure for processing Subdivision Agreements. 2. Ensures the production of an approved Subdivision Grade Control Plan for the Development Lands which has been designed in accordance with Appendix 'B' - "Design Guidelines for Subdivision Lot Grading" and that such plan meets the specifications of Appendix 'A' - "Technical Requirements for Subdivision Grade Control Plans". 3. Provides a copy of the approved Subdivision Grade Control Plan to the CBO.
CBO	<ul style="list-style-type: none"> 4. Files approved Subdivision Grade Control Plan for future reference respecting building permit application review.
SEC	<ul style="list-style-type: none"> 5. Checks that a Proposed Lot Grading Plan prepared in the standard form "Lot Grading Plan & Grading Conformance Certificate" illustrated in Appendix 'E' has been included in application for building permit. 6. Provides copies of Appendix 'D' - "Lot Grading Plan Specifications - A Guide for Owners & Designers" as necessary.
CBO/SEC/INSP	<ul style="list-style-type: none"> 7. Follow Work Step Procedure for Issuance of Permits.

- CBO/INSP 8. Reviews Lot Grading Plan to ensure conformance with Appendix 'C' - "Technical Requirements for Lot Grading Plans" and with the appropriate Subdivision Grade Control Plan as part of the Issuance of Permits.
- CBO 9. Assesses the following deposits on the Schedule of Permit Fees for each application for permit:
- a. where the application is for construction on a vacant lot, a refundable amount of \$1,000.00 per dwelling unit shall be held in deposit by the Township as security for carrying out the provisions of the Lot Grading Plan;
 - b. where the application is for re-development works such as swimming pools, garages and building additions on lands, a refundable amount of \$300.00 per dwelling unit shall be held in deposit by the Township as security for carrying out the provisions of the Lot Grading Plan when revisions to such plan are necessary.
- CBO/SEC/INSP 10. Proceed to Township procedure for Permit Inspections until final inspection and project completion.
- CBO/INSP 11. Receives as-constructed Lot Grading Plan from Owner or agent at completion of the project.
12. Reviews as-constructed Lot Grading Plan for conformance with this policy comparing it with the proposed Lot Grading Plan accepted with the building permit issuance.
13. Notifies the owner or agent by phone or in writing if any required information is missing from the as-constructed Lot Grading Plan or if the plan does not conform to this policy or the proposed Lot Grading Plan approved for building permit issuance.
14. Waits for Owner or agent to take appropriate action to make the lot conform to this policy and the Lot Grading Plan or, alternatively, to have a revision to the Subdivision Grade Control Plan approved by the Subdivider's consulting engineer and Township Engineer at the Owner's expense and amend the Subdivision Agreement where deemed appropriate at the Owner's expense.
15. Performs site inspection and accepts only an as-constructed Lot Grading Plan which is found to conform to this policy and the proposed Lot Grading Plan previously accepted for building permit issuance, dates and certifies such as-constructed Lot Grading Plan as a Grading Conformance Certificate and returns one copy so certified to the Owner or agent.
16. Instructs the Financial Services Department to return, without interest, any deposits taken once the Grading Conformance Certificate is issued and all requirements and responsibilities of this work step procedure have been met.

17. May arrange to have Township employees or a contractor to do any works necessary to rectify drainage problems which are a result of non-compliance with this policy where the Owner or agent, upon written notice, has not complied with this policy within the time specified in such notice, and the CBO may use the deposit held by the Township as surety for carrying out the provisions of the Lot Grading Plan to cover the cost of any remedial works deemed necessary by the CBO. Any costs of these remedial works in excess of the amount of the deposit shall be the responsibility of the Owner.

APPENDIX 'A'

TECHNICAL REQUIREMENTS FOR SUBDIVISION GRADE CONTROL PLANS

Subdivision Grade Control Plans shall be prepared in conformance with this part, and with regard to the Design Guidelines set out in this policy.

The Subdivision Grade Control Plan shall be prepared at a scale of 1:500, be on a Standard A1 (596 mm x 841 mm) size sheet, and clearly illustrate the following:

1. Legend, north direction, name of subdivision, geodetic bench mark(s), date of preparation of plan and any subsequent revisions clearly identified in the revision column.
2. Property boundaries and lot and block numbers or designations.
3. Existing contours and existing and proposed elevations at a maximum 15m intervals.
4. (A) Existing elevations and drainage from lands adjacent to the subdivision sufficient to determine the drainage patterns beyond the development lands and if the drainage from these lands is towards the proposed subdivision, the existing information shall be obtained to the high point of this drainage or at least to the adjacent street.

(B) Where drainage patterns from development lands flow onto adjacent lands there shall be due consideration given to the effect the development will have by way of increased flows to these adjacent lands and the impact that any increased flows could have on these adjacent lands.
5. Location of sewer manholes, hydrants, sidewalks, catchbasins and rearyard catchbasins and swales.
6. Proposed elevations at the centre line of the finished road and relative data showing distances and slopes between these elevations.
7. Existing and proposed ground elevations at the corner of each lot or block, elevations at grade changes with suitable intermediate elevations as required.
8. Existing and proposed ground elevations at the house.
9. Location, elevation, and longitudinal slopes at the invert of swales together with rearyard catchbasin elevations and drainage arrows showing the direction of swale drainage.
10. The lot grading type (e.g. split, back to front) of each lot or block with arrows to indicate the direction of surface drainage.
11. Any drainage obstruction(s) such as berms, retaining walls, sound barriers, silt traps, vegetation, etc.
12. Artificial or natural impoundments.

13. Existing trees and vegetation as they affect proposed drainage and catchbasin schemes and which are to be saved.
14. Sump pump discharge location (if required).
15. Rain water leader discharge considerations (if any).
16. If any lots or blocks are not suitable for the construction of certain types of buildings or features (i.e. split-levels, walkout basements, etc.) because of the grading and drainage pattern, this should be clearly indicated on the plan.

APPENDIX 'B'

DESIGN GUIDELINES

FOR SUBDIVISION GRADE CONTROL PLANS

The following guidelines should be considered when designing the grading and drainage of development lands.

1. All surface drainage, including downspout discharge, shall be directed away from the building(s), including adjacent existing or future buildings.
2. Unless otherwise stipulated and approved, the lot shall have a minimum slope of 2% and a maximum slope of 6%.
3. The maximum slope between the dwelling unit and side property line shall be 6%. Otherwise, appropriate steps or retaining structures shall be required.
4. Terraces between lots shall be located on the lower lot with the top of the terrace slope at the lot line.
5. Drainage flows shall be confined to defined swales which shall be located as far from the dwelling units as possible.
6. Swales shall have a desirable minimum grade of 2%, an absolute minimum of 1.0% and a maximum grade of 6%.
7. The swale depth shall not be less than 150 mm and shall not exceed 600 mm. A desirable swale depth shall be 300 mm.
8. The side slope of swales shall not be steeper than 3 to 1.
9. The alignment of swales shall not change more than 45 degrees unless otherwise approved.
10. Rearyard swales shall be located:
 - a. shared over the rear lot line of abutting lots within the same subdivision;
 - b. entirely on the subject lot if the adjoining land is outside the subdivision.
11. The maximum length of a rearyard swale from the high point to the outlet (rearyard catchbasin or other suitable outlet) shall be 70 metres unless otherwise approved. This maximum length of swale may be varied at the discretion of the Township Engineer depending on lot size, topography, and drainage area.
12. The maximum flow allowed in a sideyard swale shall be that from two backyards. If backyards are of an unusually large size, the Township Engineer may require that drainage be directed by rearyard.
13. Generally speaking, all semi-detached and minimum sized lots shall have rear lot drainage schemes. Sideyard swales shall only be permitted with approval of the Township Engineer if the construction of such swales could be accommodated properly.

14. The minimum grade on driveways shall be 1.5%. The maximum grade on driveways shall be 6%.
15. Depressed driveways sloping toward the dwelling units are not permitted.
16. Side and back entrances and stairwells shall not be located adjacent to main swales.
17. Window-wells should preferably be avoided but where they are required, special care shall be taken to ensure that surface water from overland flow and from other sources such as downspouts shall not enter these wells. The edge of the window-well shall be higher than the adjacent ground.
18. Downspouts must discharge via splash pads (concrete or other suitable material) to grass surfaces. These splash pads shall extend a distance at least 1 metre away from the building.
19. Downspouts must direct the flow away from the building, not onto walks or driveways and not towards adjacent property.

APPENDIX 'C'
TECHNICAL REQUIREMENTS
FOR LOT GRADING PLANS
(Example: Appendix 'E')

Lot Grading Plans for individual lots shall be prepared in conformance with this part, with regard to the Design Guidelines set out in this policy.

1. The Plan shall be at a scale of 1:200 or British system equivalent.
2. The Plan shall be on an L.G.-1 or L.G.-2 sheet issued by the Township, or a standard A1 size sheet, if required.
3. The Plan shall include the identification and certification information shown in Appendix 'E'.
4. The Plan shall clearly illustrate the following:
 - a. General Information:
 - i. shape and dimensions of lot or block;
 - ii. building location, setbacks from property lines and shape (type);
 - iii. abutting street name(s);
 - iv. existing or proposed curbs, catchbasins, sidewalks, utility plant, hydrants, driveway location(s) within the municipal road allowance;
 - v. proposed walkways, patios, decks, porches, chimneys, environmental control units (air-conditioners, heat pumps, etc.) swimming pools, etc.;
 - vi. existing trees to be saved;
 - vii. location of proposed entrances, outside stairwells and window-wells;
 - viii. location of easements for rearyard catchbasins and leads or other utilities;
 - ix. septic bed location and elevations.
 - b. Drainage and Grading Information:
 - i. specific lot grading with drainage arrows to indicate direction of surface drainage flow;
 - ii. location and direction of surface drainage flow;
 - iii. existing or proposed geodetic ground elevations at each corner of the lot, at high and low points, at changes in slope of ground, where a change in the direction of flow occurs, at the corners of the house, and at entrances to outside stairwells;
 - iv. existing or proposed elevation of the centre line of road, sidewalk or top of ditch abutting the subject lands;
 - v. elevations of top of footing, top of the foundation wall, and ground floor;
 - vi. elevation for finished garage floor and entrance elevations if different from floor elevations;
 - vii. elevation of rim of any rearyard or on site catchbasin(s) to which flow from the lot or block is directed;
 - viii. ground elevations on adjacent lands if drainage is to cross these lands to a catchbasin or other outlet on these lands;
 - ix. location of downspouts and direction of discharge. (NOTE: No downspouts shall be directed so as to adversely affect adjacent property);

- x. location of terraces and retaining walls;
- xi. any slope which exceeds three horizontal to one vertical, including side slopes of swales;
- xii. elevation of top step of outside stairwells (to be minimum of 150 mm above the adjacent ground).

APPENDIX 'D'
LOT GRADING PLAN SPECIFICATIONS
"A GUIDE FOR OWNERS & DESIGNERS"

A. LOT GRADING REQUIREMENTS

1. Prior to the issuance of a Building Permit for each lot or block, Owner shall submit to the Township two (2) copies of a proposed Lot Grading Plan, prepared by a professional engineer or and Ontario Land Surveyor, on the form supplied by the Township which conforms to a Subdivision Grade Control Plan where such lot is in a subdivision or which conforms to approved grading and drainage practices where such lot is not in a subdivision.
2. The plan must take into consideration, among other factors, the suitability of the type of building proposed for a lot or block.
3. Where a revision to the Subdivision Grade Control Plan is necessary to accommodate a proposed grading plan, which does not conform to the Subdivision Grade Control Plan, the Owner must submit a written request for a revision.
4. Upon acceptance by the Township CBO that the Proposed Lot Grading Plan conforms to this Policy, a copy will be returned to the applicant with the building permit.
5. The grading of the lot or block shall be considered to be completed when the building has been erected and the lands have been graded and sodded. Sodding shall be done within two months after occupancy of the building or by the next June 1st following occupancy, should occupancy take place in the winter months or in accordance with the appropriate Subdivision Agreement.

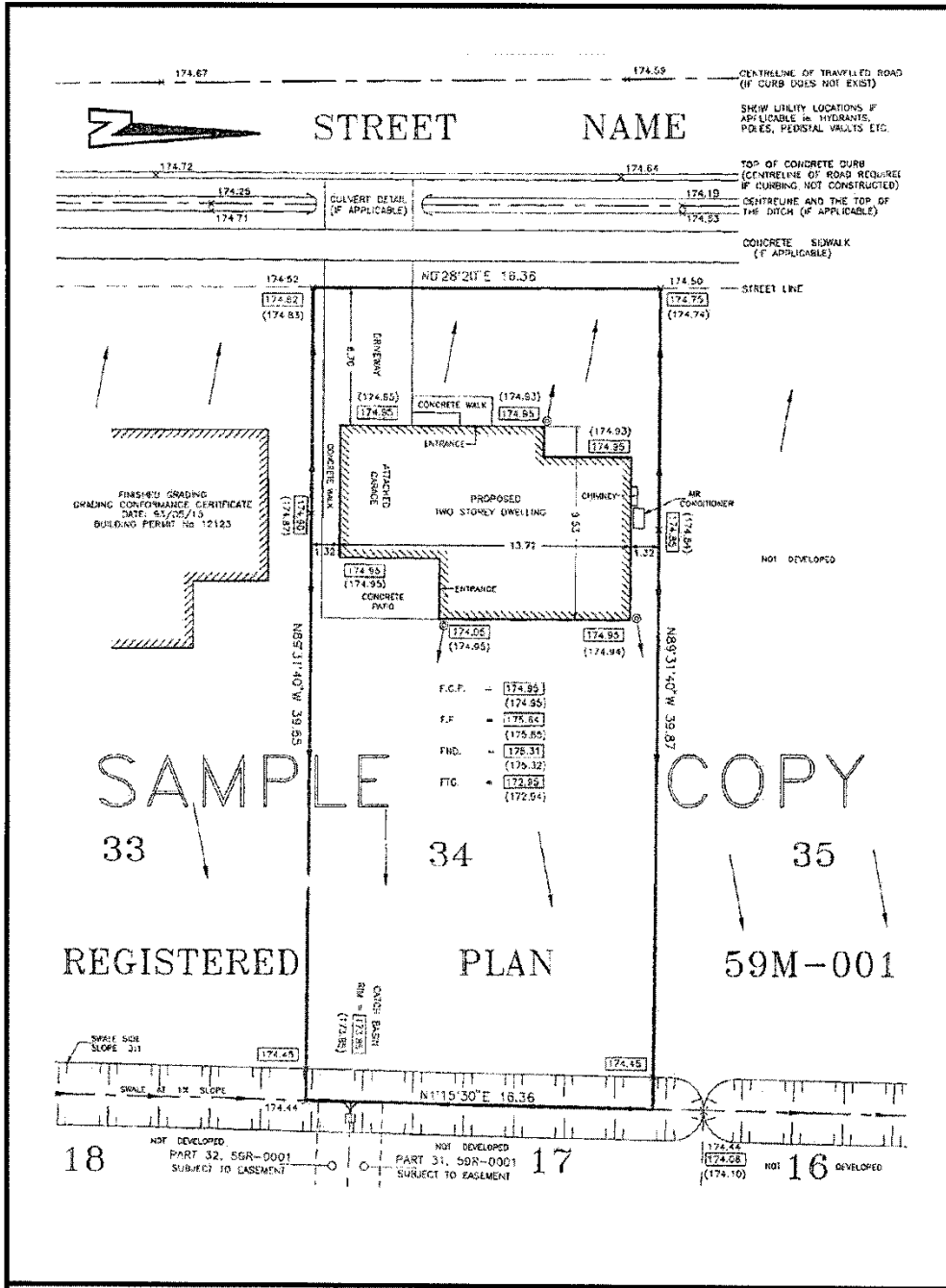
B. AS-CONSTRUCTED LOT GRADING PLAN

1. Upon completion of the lot grading, the Owner shall be required to submit to the Township CBO one copy of the Lot Grading Plan which shall indicate the finished elevation of the grade control points on the proposed Lot Grading Plan.
2. The as-constructed Lot Grading Plan shall be prepared and certified by a professional engineer or an Ontario Land Surveyor (Appendix 'E').
3. Once the as-constructed grading of a lot has been inspected and accepted by the Township CBO, the Lot Grading Plan shall be certified and dated, by the Township CBO as a Grading Conformance Certificate.
4. The date on the Grading Conformance Certificate shall mark the end of the Town's and Owner's responsibility to establish the lot grading and the beginning of the Owner's responsibility to maintain the grading and drainage scheme.

TECHNICAL REQUIREMENTS FOR LOT GRADING PLANS

1. The Plan shall be at a scale of 1:200 or British system equivalent.
2. The Plan shall be on an L.G.-1 or L.G.-2 sheet issued by the Township, or a standard A1 size sheet, if required.
3. The Plan shall include the identification and certification information shown on the Township's standard form for Lot Grading.
4. The Plan shall clearly illustrate the following:
 - a. General Information:
 - i. shape and dimensions of lot or block;
 - ii. building location, setbacks from lot lines and shape (type);
 - iii. abutting street name(s);
 - iv. existing or proposed curbs, catchbasins, sidewalks, utility plant, hydrants, driveway location(s) within the municipal road allowance;
 - v. proposed walkways, patios, decks, porches, chimneys, environmental control units (air-conditioners, heat pumps, etc.) swimming pools, etc.;
 - vi. existing trees to be saved;
 - vii. location of proposed entrances, outside stairwells and window-wells;
 - viii. location of easements for rearyard catchbasins and leads or other utilities.
 - ix. septic bed location and elevations
 - b. Drainage and Grading Information:
 - i. specific lot grading with drainage arrows to indicate direction of surface drainage flow;
 - ii. location and direction of flow of swales;
 - iii. existing or proposed geodetic ground elevations at each corner of the lot or block, at high and low points, at changes in slope of ground, where a change in the direction of flow occurs, at the corners of the house, and at entrances to outside stairwells;
 - iv. existing or proposed elevation of the centre line of road, sidewalk or top of ditch abutting the subject lands;
 - v. elevations of top of footing, top of the foundation wall, and ground floor;
 - vi. elevation for finished garage floor and entrance elevations if different from floor elevations;
 - vii. elevation of rim of any rearyard or on site catchbasin(s) to which flow from the lot is directed;
 - viii. ground elevations on adjacent lands if drainage is to cross these lands to a catchbasin or other outlet on these lands;
 - ix. location of downspouts and direction of discharge. (NOTE: No downspouts shall be directed so as to adversely affect adjacent property);
 - x. location of terraces and retaining walls;
 - xi. any slope which exceeds three horizontal to one vertical, including side slopes of swales;
 - xii. elevation of top step of outside stairwells (to be minimum of 150 mm above the adjacent ground).

APPENDIX 'E' LOT GRADING PLAN AND GRADING CONFORMANCE CERTIFICATE



<p>TOWNSHIP OF WAINFLEET INDIVIDUAL LOT GRADING PLAN LOT REGISTERED PLAN 59M-</p> <p>SCALE: 1:200 GRADE PLAN NO. REVISION DATE:</p> <p>BENCHMARK: LOCATION, DESCRIPTION AND ELEVATION OF GEODETIC OR ASSUMED BENCHMARK TO WHICH THE ILLUSTRATED ELEVATIONS ARE RELATED TO.</p> <p>BUILDER: _____ PHONE: _____ OWNER: _____ PHONE: _____</p>	<p>PROPOSED GRADING I HEREBY CERTIFY THAT THE PROPOSED GRADING SHOWN CONFORMS TO THE LATEST REVISION OF THE SUBDIVISION DRAINAGE PLAN FOR THIS SUBDIVISION.</p> <p>NAME: _____ FIRM: _____ SIGNATURE: _____ DATE: _____ ACCEPTED BY TOWN: _____</p> <p>LEGEND</p> <table style="font-size: small;"> <tr><td>173.75</td><td>DENOTES</td><td>PROPOSED ELEVATION</td></tr> <tr><td>173.75</td><td>-</td><td>EXISTING GROUND ELEVATION</td></tr> <tr><td>173.75</td><td>-</td><td>FINISHED ELEVATION</td></tr> <tr><td>-</td><td>-</td><td>DRAINAGE DIRECTION</td></tr> <tr><td>F.F.</td><td>-</td><td>FINISHED FLOOR ELEVATION</td></tr> <tr><td>F.C.F.</td><td>-</td><td>FINISHED GARAGE FLOOR ELEVATION</td></tr> <tr><td>F.N.D.</td><td>-</td><td>TOP OF FOUNDATION ELEVATION</td></tr> <tr><td>F.T.S.</td><td>-</td><td>TOP OF FOOTING ELEVATION</td></tr> <tr><td>-</td><td>-</td><td>DOWNSPOUT & DIRECTION</td></tr> </table>	173.75	DENOTES	PROPOSED ELEVATION	173.75	-	EXISTING GROUND ELEVATION	173.75	-	FINISHED ELEVATION	-	-	DRAINAGE DIRECTION	F.F.	-	FINISHED FLOOR ELEVATION	F.C.F.	-	FINISHED GARAGE FLOOR ELEVATION	F.N.D.	-	TOP OF FOUNDATION ELEVATION	F.T.S.	-	TOP OF FOOTING ELEVATION	-	-	DOWNSPOUT & DIRECTION	<p>AS CONSTRUCTED GRADING I HEREBY CERTIFY THAT I HAVE TAKEN THE FINISHED GRADE SHOWN AND THAT THE GRADING OF THIS LOT GENERALLY CONFORMS TO THE LATEST REVISION OF THE SUBDIVISION DRAINAGE PLAN FOR THIS SUBDIVISION.</p> <p>NAME: _____ FIRM: _____ SIGNATURE: _____ DATE: _____ ACCEPTED BY TOWN: _____ DATE: _____</p> <p style="text-align: center;">COMPANY NAME</p> <p style="text-align: center;">STREET ADDRESS TOWN - PROVINCE TELEPHONE NUMBER</p> <p>DWG _____ FILE _____</p>
173.75	DENOTES	PROPOSED ELEVATION																											
173.75	-	EXISTING GROUND ELEVATION																											
173.75	-	FINISHED ELEVATION																											
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