

FILL CONTROL REPORT

**EDGEWOOD GREENS – PHASE 9
FLATO DUNDALK MEADOWS INC.**

TOWNSHIP OF SOUTHGATE

PREPARED BY:

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1.0 INTRODUCTION

Flato Dundalk Meadows Inc. (Flato) is proceeding with Phase 9 of the Edgewood Greens Residential Development. Flato wishes to commence the pre-grading earthworks within Phase 9 of the Edgewood Greens Development, and thus seeking approval to do so from the Township of Southgate (Township).

This Fill Control Report is focused on the proposed earthworks program within the aforementioned phase and builds upon the Consolidated Site Alteration Agreement previously obtained from the Township and a Grand River Conservation Authority (GRCA) permit under the auspices of the Conservation Authorities Act to facilitate earthworks operations within the Dundalk Meadows Subdivision.

The proponent's consulting team includes:

- Soil Engineers Ltd. (SEL) (geotechnical)
- MHBC (planning)
- C.F. Crozier and Associates Inc. (civil engineering)

2.0 DUNDALK MEADOWS DEVELOPMENT BACKGROUND

The Edgewood Greens Subdivision is a 70-ha development located at the south end of the Village of Dundalk which is bounded by existing residential lots to the north, Highway 10 to the east, open space to the south, and a former Canadian Pacific Railway right of way (ROW) to the west. It is comprised of three separate draft plans which includes, Dundalk Meadows West, Dundalk Meadows East, and Dundalk Meadows North. The Draft Plan of Subdivision for Dundalk Meadows east is included as **Figure 1**.

All forthcoming development applications and supporting documentation will be in support of Plan of Subdivision Approvals for Phase 9 within the Edgewood Greens Development. **Table 1** details the individual developments, their legal description, and their approval/design status. A Composite Phasing Plan has been prepared by MHBC for the entire Edgewood Greens Development (April 21, 2023) and is presented on **Figure 2**.

Table 1: Edgewood Greens Development Details and Status

Development Property	Area (ha)	Units	Legal Description ¹	Phase of Development	Approval/Design Status
Dundalk Meadows West	13.1	70	Lot 18 and Part of Lots 17 and 21, Block P, Registered Plan 480 and Part of Lot 233 Concession 2	1	Built-Out
Dundalk Meadows East	40.2	470	Part of Lot 233 and Lot 234, Concession 1	2B	Built-Out
				7, 8, 10	Draft Plan Approved/ Under Construction
				11	Draft Plan Approved/ Under Construction
				9	Draft Plan Approved/ Detailed Design
Dundalk Meadows North	16.2	267	Part of Lots 232, Concession 1	2A, 3-6	Built-Out

1. Legal descriptions for all developments include "Village of Dundalk, Township of Southgate, County of Grey"

3.0 SITE DESCRIPTION

A soil investigation for Dundalk Meadows East was completed by Soil Engineers Limited. Soil Engineers Limited produced six documents summarizing the soil investigations, hydrogeological studies, and water balance for the Dundalk Meadows East site. These reports include:

- *Hydrogeological Study and Groundwater Monitoring Proposed Residential Development – 772146 Highway 10*, Soil Engineers Ltd., February 2016 (Dundalk Meadows East Hydrogeological Report).
- *A Soil Investigation for Proposed Residential Development- 772146 Highway 10*, Soil Engineers Ltd., August 2016 (Dundalk Meadows East Soil Report).
- *A Soil Investigation for Proposed Residential Development – Part of Lot 232 Concession 1 and 772146 Highway 10*, Soil Engineers Ltd., August 2016 (Dundalk Meadows North Soil Report).
- *Re: Water Balance Assessment Update Proposed Residential Development- Part Lot 232 Concession 1 and 772146 Highway 10*, Soil Engineers Ltd., September 8, 2016 (Dundalk Meadows Water Balance Letter).

These soil investigations consisted of 16 boreholes across the Dundalk Meadows East Development. These boreholes revealed that these sites are mostly topsoil underlain by layers of sandy silt fill and silty sand fill, with layers of silt above the fill deposits at some of the borehole locations (Dundalk Meadows East Soil Report, Soil Engineers Ltd., August 2016, Dundalk Meadows North Soil Report, Soil Engineers Ltd., August 2016).

Groundwater monitoring wells were installed at selected borehole locations for the hydrogeological studies. The groundwater monitoring program determined seasonally high groundwater elevations to be between 0.5 m and 3.0 m below ground surface.

4.0 FILL REQUIREMENT

Given the existing topography of the property in relation to the proposed residential development grading, the site will require fill to raise the existing grades to an elevation suitable for servicing. Additionally, area adjacent to the Foley Drain will require fill to provide floodproofing protection measures.

Based on the proposed site grading, the following earthworks operations are required. Please note the following volumes are subject to change.

- Topsoil to be stripped within Phase 9 = 3,300 m³
- Cut-to-fill material = 1,000 m³
- Engineered soil import = 11,400 m³
- Drainage layer import (0.3 m depth) = 7,900 m³

5.0 CRITERIA

5.1 Township of Southgate

The placing of fill will not be permitted on the Subject Lands unless authorized by an executed agreement between Flato and the Township.

The Township requires confirmation that the quality of the off-site material meets Ministry of Environment “Table 2” criteria for residential development lands. To this end, Soil Engineers Ltd. (SEL) has been retained by the proponent as the geotechnical engineers. Material will be sourced from a

local licensed aggregate pit. SEL will confirm that the off-site material is clean and suitable for use on the site as fill material. SEL will provide all necessary geotechnical engineering advice during the placement of the material, from the perspective of compaction and testing. Refer to **Appendix A** for the “Geoenvironmental Guidelines for Earth Fill Importation and Placement” prepared by SEL which address the New Excess Soil Management requirements.

The following sections of this report speak to areas of interest of the Township.

6.0 WORK PLAN

6.1 Access Entrance

The proposed filling operation requires fill to be placed in lifts and compacted appropriately, per the recommendations of SEL. Therefore, a construction access route is required. Direct access to the development areas of the site will be via an existing temporary access off of Highway 10, where a haul route had been previously constructed to enable vehicles and dump trucks to enter the site from the east. Refer to **Drawing 104A** for the Site Alteration Plan.

6.2 Haul Route

The proponent and the Contractor will be restricted to use the existing temporary access driveway from Highway 10 as identified on **Drawing 104A**. At the entrance of the access road, a mud mat has been constructed to minimize the tracking of material onto Highway 10 (refer to detail provided on **Drawing 104B**).

To allow construction vehicles access to the site during the Flato West works (Phase 1), a temporary roadway was constructed along the Flato East site. This existing road will be monitored during fill operations by Soil Engineers Ltd., and Crozier, and any necessary repairs to maintain the roadway will be completed by the Contractor at the direction of the Field Engineer.

6.2.1 Haul Route Staging

As illustrated on **Drawing 104A**, upon completion of servicing of the Phase 11 Lands, the Foley Drain crossing and existing construction access road are to be decommissioned. In doing so, the construction access road is to be re-routed along Millner, Morgan and Van Dusen Avenue to provide access to the Phase 9 Lands.

6.3 Spill Contingency

During fill placement activities, no on-site storage of fuels and no filling or servicing of machinery and equipment will be allowed within 30 metres of the existing ditches, identified watercourses and environmentally sensitive lands. Machinery that is present outside of these lands will also require spill contingency procedures and this will be the responsibility of the Contractor as indicated in their contract.

6.4 Proposed Pre-Grading Design

The quantities of fill material required to develop the Phase 9 lands have been determined based on the Site Grading Plans (to be provided by the Engineer during Earthworks). These grades will ensure that positive drainage is provided on the fill material and any runoff is directed towards the identified sediment and erosion control features.

The details which are provided on **Drawing 104B**, and the Site Grading Plans provide sufficient information to allow the Contractor to complete the placement of fill within the Phase 9 Lands and to meet the stringent guidelines set out within the permit.

6.5 Erosion and Sediment Control

During the pre-grading activities, the runoff generated from the disturbed areas will drain to the existing SWMF#2 in Zone 2, and outlet to the Foley Drain and the Unnamed Tributary.

The focus of the erosion and sediment control design is to ensure that drainage which outlets to the Foley Drain and Unnamed Tributary is appropriately cleaned of sediment prior to leaving the site. The erosion and sediment control designed is also intended to minimize sediment-laden runoff entering adjacent properties around the site perimeter.

All sediment and erosion controls will be installed prior to the commencement of any Earthworks operations and maintained throughout all site activities until the site is stabilized or as directed by the Engineer, GRCA and/or Township. Controls are to be reviewed regularly, after each significant rainfall, and maintained in proper working condition.

6.5.1 Interceptor Ditches and Flow Check Dams

Interceptor ditches have been specified around portions of the site perimeter to intercept and convey flow to the sediment basin, ensuring no interference with existing drainage conditions. Additional interceptor ditches have been proposed within the site to collect and convey flows to the sediment basins. These interceptor ditches will be finished with topsoil and hydroseeded to reduce erosion.

6.5.2 Silt Fencing

Silt fencing will be installed to define the limits of the disturbed area within Zone 3 including site clearing, topsoil stripping and fill operations, temporary drainage channels, as well as in areas to intercept any flows leaving the site. Silt fencing will play a crucial role in preventing sediment from migrating into the Foley Drain. Locations for the fences are shown on **Drawing 104A**, but more fencing may be added as necessary based on decisions by Crozier and the Proponent prior to and during placement of fill.

6.5.3 Dust Suppression

During earthwork activities, the Proponent, their representatives (SEL & Crozier), and the Contractor will ensure that measures for dust suppression are provided as required, such as the application of water and lime.

6.5.4 Topsoil Stockpile

Since the earthworks operations are intended to raise the existing site grades to a suitable elevation required for servicing, it will be necessary to strip topsoil prior to fill placement. Topsoil is to be temporarily stockpiled and then used during the landscaping works. It should be noted that topsoil that is not required for the proposed development will be hauled off-site to one of the Flato Dundalk sites.

6.6 Schedule of Works

The following schedule is for the fill operations required for Zone 2. The Proponent intends to acquire external fill over a period of three to four months. Placement of fill is anticipated to commence immediately upon execution of the Site Alteration Agreement with the Township, weather permitting.

The first work to be completed on the site will be the preparation of the site, including but not limited to installation of sediment erosion controls, alterations to the temporary sediment basin and construction of the interceptor swales. As stated earlier in this report, the haul route has previously been constructed (refer to Section 6.2.1 for Haul Route Staging).

Following these initial preparations on the site, the Contractor will strip and transport all the topsoil from the Phase 9 area to the proposed stockpile location. The anticipated volume of topsoil to be stripped is 3,300 m³.

Approximately 1,000 m³ of cut-to-fill material from the Subject Development, and approximately 19,300 m³ of imported fill (approximately 11,400 m³ of engineered soil import and 7900 m³ of drainage layer import) are required to complete the pre-grading activities of the Phase 9 Lands. Fill will be placed in 200 mm lifts and compacted based on recommendations from Soil Engineers Ltd. (assume 95% or 98% SPMD). The following is a short description of the possible work plan and schedule to transport and place import material on-site.

Assumptions:

Workday:	10 hours
Work Week:	5 days
Equipment:	10 haul trucks with capacity of 18-20 m ³ Bulldozer (crawler-mounted) Front End Loader Compactor

Travel cycle for haul trucks: 1 hour (subject to change based on location of the fill source)

Notes:

1. The size and type of equipment may vary depending on the Contractor's preference and the encountered soil and site conditions.
2. Construction activities are anticipated during typical working hours from Monday to Friday.

Using these assumptions, a total of 100 loads of fill will be transported to the site each day resulting in a daily total of 1800-2000 m³ of placed fill. Therefore, it should take approximately 10-11 working days to haul the fill material on-site.

6.7 Monitoring of Works

The site will be monitored to ensure that the placing of fill does not impact adjacent properties, existing watercourses and to provide temporary drainage as required to prevent standing water on-site.

Crozier will make periodic site visits to monitor operations and ensure all recommendations proposed within this report are being adhered to, such as placing of fill within identified approved areas, erosion and sedimentation controls and dust suppression.

SEL will be responsible for the oversight and certification of the material placed on the site and appropriate environmental testing. Copies of all testing results will be made available to the Township. The material source will be continuously monitored.

As noted earlier, SEL has prepared site-specific guidelines for the importation and placement of fill within the Fill Area, and a copy of these guidelines are included in **Appendix A**. This document will outline the frequency and type of testing for the fill material as per the MECP Guidelines and Ontario Regulation 153. A document outlining the Procedures and Requirements for Construction of Engineered Fill has also been provided by SEL and is included in **Appendix B**.

If the source of material changes during the project, ample notification along with supporting documentation will be provided by SEL and Crozier.

6.8 Rehabilitation of the Site

This filling application is considered an interim activity; a Subdivision Agreement to enable site servicing within the Phase 9 Lands is expected over the next 3-4 months.

Erosion/sediment controls are specified around the perimeter of the area of disturbance and adjacent to any existing conveyance routes, which will prevent the migration of sediment from the area of disturbance. The Proponent will be required to maintain these measures until the site is stabilized. The Proponent is required to post a security deposit, as this will provide the financial assurance necessary to address any potential long-term impacts from the earthworks operations.

7.0 CONCLUSIONS & RECOMMENDATIONS

The earthworks activities on the property will not have an impact on the adjacent properties or existing watercourses. The works will be monitored to ensure that the recommendations made within this report are followed.

We trust that this report is satisfactory, and the required agreements can be executed as quickly as possible.

Respectfully Submitted,

C.F. CROZIER & ASSOCIATES INC.



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APPENDIX A

Geoenvironmental Guidelines for Earth Fill Importation and Placement (SEL)



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FILL MANAGEMENT PLAN (FMP)

Flato Edgewood Greens Phase 9
Township of Southgate (Dundalk)

1. INTRODUCTION

The following Fill Management Plan (FMP) has been prepared on behalf of Flato East Development for the proposed residential development located at 771268 Highway 10, Township of Southgate (Dundalk). The purpose of the FMP is to provide support regarding the fill management program for proposed development and demonstrate the work will be conducted in accordance with the Ontario Regulation 406/19 – On-Site and Excess Soil Management; and Rules for Soil Management and Excess Soil Quality Standards. The volume of the importation operation is estimated to be a total of approximately 12,000 m³.

2. SITE DESCRIPTION & BACKGROUND

The subject site is located on the northeast of Highway 10 and County Road 9, Township of Southgate (Dundalk). The subject site mainly consists of vacant agriculture lands. The neighbouring properties consist mainly of rural residential and agricultural properties in all directions from the subject site. A watercourse traverses the central portion of the subject site.

The proposed is residential development and anticipated that the new development will be provided with municipal services meeting urban standards.

3. QUALIFIED PERSON

The role of a Qualified Person (QP) defined under Ontario Reg. 406/19 (O. Reg. 406/19), for the testing and movement of excess soils, is to design and implement an excess soil management plan. The receiving site QP (SEL's QP) will approve incoming excess soil from a source site based on the review of documentation from the source site, provided by the source's consultant's QP, which includes analysis for the quantity and quality of potential incoming soils and/or through independent testing of the source to verify acceptance.

In addition, visual inspection and environmental quality of the in-situ soils will be conducted as part of the fill management. The field inspection and collection of soil samples for analytical testing will be conducted by environmental personnel of SEL under the supervision of the QP. The SEL QP involved in this project is Mr. Ahmed Hassan, P. Eng. Mr. Ahmed Hassan will supervise and review periodic site visits as per Ontario Regulation 406/19 during the fill management.



A QA/QC audit verification program under direct supervision of QP is required as part of the FMP. Audit inspection and sampling will be conduct.

4. WORK ACTIVITIES

The fill management work at the subject site will include but not limited to the following:

- Site Preparation (permitting, utility locates, scheduling) and base-line soil quality assessment
- Source Soil Characterization, Review of Source Documentation, Oversight of Fill Management, Fill Placement and Engineering of Fill to Design Specifications
- Dust Control and Sediment Control
- Health and Safety Plan
- Site visit for random screening and chemical testing of imported soil
- Review of Record Keeping
- Written acceptance of material from source site

5. UTILITY LOCATES, PERMITTING AND SAFETY MEASURES

All utility locates and permitting required by local and provincial legislation are to be the Contractors responsibility. Any fee associated with permitting are the responsibility of the Contractor. The contractor shall provide safety fencing, where required, around the excavation to ensure worker safety. The Contractor shall follow the site health and safety plan during each work day.

6. SOURCE SOIL CHARACTERIZATION, SOIL IMPORTATION, STOCKPILING AND COMPACTION

6.1 Overview of the Fill Soil Management Plan

The purpose of the FMP is to outline provisions for soil characterization and record keeping. The implementation of the FMP will be completed by SEL.

6.2 Pre-Screening of Materials

Materials will be classified based on the environmental soil quality assessment of the source site provided by the source's consultants. Source site(s) will be only accepted if SEL can be satisfied with the information in the source sites environmental soil quality assessment report (including testing program conducted on the source) and if the fill meet the applicable site condition standards. Should the information in the source site report be deemed insufficient, SEL reserves the right to provide independent testing of the source to verify acceptance. Should these conditions not be met, SEL reserves the right to reject the source regardless of what documentation is presented. In no case will SEL accept any incoming source site materials if the materials do not meet the applicable site condition standards.



Environmental documentation (i.e. Assessment of Past Uses, Soil Analysis Plan and Soil Characterization) prepared for excess soil intended for import to the subject Site shall be provided to the QP for review, comment and approval prior to the intended date to commence the importation activities and should comply with the requirements outlined in O. Reg 406/19 and should include but not limited to the information summarizing:

- a. the rationale for the choice of parameters analyzed,
 - b. the description of the methods used to ensure uniform and representative sample collection,
 - c. the number, location and depths of soil samples collected,
 - d. the volume of each stockpile or area sampled *in situ*,
 - e. laboratory certificates of analysis for soil samples analyzed,
 - f. a comparison of the testing results to the applicable Excess Soil Quality Standards,
 - g. The opinion of the Source Site QP_{ESA} that the excess fill material to be exported is suitable for re-use at the Receiving Site and adheres to this Excess Fill Acceptance Protocol.
- Laboratory Analysis and Analytical Procedures:
 - The soil analysis must be undertaken by laboratories accredited by Standards Council of Canada (SCC) or Canadian Association for Laboratory Accreditation Inc. (CALA) in accordance with ISO/IEC 17025 – General Requirements for the Competence of Testing and Calibration Laboratories.
 - The analytical procedure must be conducted as outlines in section 47 of Ontario Regulation 153/04 and in the “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act”, dated March 9, 2004, amended as of July 1, 2011.
 - Environmentally Acceptable Fill on-site Criteria:
 - Material that does not exceed the applicable Standards.
 - Material that does not contain construction debris/rubble that is inconsistent with the soil type.
 - Material that is free of aesthetic impacts

6.2.1. Imported Materials

Soil intended to be imported and used at the Subject Site must be sampled, analyzed and deemed appropriate for reuse at the Subject Site by a Qualified Person in Environmental Site Assessment (QP_{ESA}) in accordance with the Excess Soil Rules and deemed appropriate for reuse at the Subject Site by the QP_{ESA} prior to importation.



Soil imported to the subject site must be sampled and analyzed prior to import and deemed acceptable by the QP_{ESA}. Should it be determined that additional sampling and analysis is required for approval, the proposed sampling and analysis plan is to be provided for review to the QP_{ESA} in advance of implementation. This evaluation should consist of a site visit and a records review in accordance with O. Reg. 406/19 to define the contaminants of concern associated with the source site. At a minimum, soil shall be analyzed for PHC F1-F4, metals and hydride-forming metals, SAR and EC, pH, and any other contaminant of potential concern (COPC) identified at the generating site.

The sampling program for in-situ samples shall be analyzed for each 200 m³ of soil for the first 10,000 m³ of soil being brought to the site, and at least one soil sample shall be analyzed for each 450 m³ of soil being brought after the first 10,000 m³ from the same generating site. The sampling program for stockpiled material shall be analyzed based on Table 2.1 Appendix E of O. Reg. 406/19.

Imported soil is to meet the Ministry of the Environment Conservation and Parks (MECP) (2020), and adopted by reference in O.Reg.406/19 (On-Site and Excess Soil Management) made under the Environmental Protection Act, R.S.O. 1990:

- Table 2.1 RPI: Full Depth Excess Soil Quality Standards in a Potable Ground Water Condition for Residential/Parkland/Institutional Property uses (hereinafter referred to as “Table 2.1 ESQS RPI Standards”).

Imported soil must be geotechnically suitable and cannot contain any deleterious materials, organic materials (except in the case of topsoil imports), construction debris, etc. Geotechnical Engineer will review the available documents and visit the potential source site to inspect the geotechnical suitability of the material prior to importation to the site.

Further environmental quality testing of the incoming fill will be conducted at the receiving site. Soil sampling, a random field screening (visual and olfactory examination, and soil vapour measurement using a combustible gas detector) will be conducted and representative soil samples for chemical analysis will be submitted for appropriate parameters based on the source site(s) history and results of the random field screening. Imported soil cannot exhibit any staining or odours associated with petroleum hydrocarbons or other contaminants. Materials found to have exceeded the applicable Site Condition Standards will be removed from the property to an appropriate off-site location.

Soil shall not be imported to the Subject Site without prior written approval from the QP_{ESA} overseeing this Soil Management Plan and written authorization for the material having been provided from the Project Leader to the Receiving Site authorities.



Surface water and sediment runoff shall be handled by silt fencing installed on the inside of the fencing surrounding the perimeter of the subject site. All water pumped from within the excavation of the storm water management pond shall be properly handled, tested and discharged in accordance with the municipal requirements. Any potential storm sewer and manhole cover shall be protected as an entry point. Sealing manholes and constructing sediment trap at all catch basins shall be required. Sediment traps shall be straw bales placed end-to-end limiting the direct discharge of run-off to the sewer and/or swale.

6.2.2. Tracking, Environmental Screening

Upon arrival of a load of imported soil that has met the requirements of Section 6.2.2 at the Subject Site; the following inspections will be conducted by designated Subject Site Representative:

- a. The Hauling Record, or equivalent tracking sheet, for the load shall be inspected by the QP_{ESA}, for completeness and to ensure the time at which the load left the source site is consistent with the time of arrival at the Subject Site given the distance from the source site. If discrepancies are identified with respect to timing of departure from the source site and arrival at the Site, the Project Leader shall be notified prior to accepting the material at the Subject Site.
- b. A visual inspection of each incoming load for evidence of deleterious materials, chemical odors or staining is to be documented and the findings are to be summarized in the Daily Inspection Report.
- c. If the imported soil is deemed suitable for receipt based on Section 6.2.2, the soil may be placed on-site or stockpiled for later use.
- d. If the imported soil is considered suspect the soil shall either be rejected or segregated pending further testing/investigation by the QP_{ESA}.
- e. The final placement of imported soil from each source site shall be recorded, including areas of placement on-site, depths and volumes. This documentation and records shall be provided to Project Leader.

Monitoring of soil export and import shall be conducted by the Contractor in compliance with this Soil Management Plan and O.Reg 406/19. In addition to the recordkeeping requirements in this Soil Management Plan, the contractor shall maintain the Daily Inspection Report. At a minimum, records will be kept documenting:

- The dates and duration of excavation work on site
- Weather and site conditions during excavation
- Name of the Qualified Person overseeing the work
- The location and depth of excavation, and on-site soil tracking
- Results of all field screening and laboratory analytical results
- Contractors and/or haulers working on the site



7.0 DUST CONTROL AND SEDIMENT CONTROL

There is potential for nuisance dust from exposed soil to be carried off-site by vehicles and/or equipment, via airborne dust or in the form of surface runoff. Therefore, the following measures shall be implemented at the Site during earthworks:

- a. Erosion and sediment control and installation of storm water management features shall be conducted in conformance with the site-specific plans approved by the appropriate government and conservation authorities;
- b. To minimize on-site traffic, workers' vehicles will be parked in a designated area.
- c. Vehicular speed shall be limited within the construction area to minimize excessive generation of dust;
- d. The Site Supervisor will ensure that off-site roadways used by construction-related vehicles are maintained such that debris, dust and dirt are minimized to the extent reasonably practicable. Maintenance and control measures may include road sweeping, cleaning and wetting with potable water.
- e. Construction entrances equipped with a decontamination pad and/or mud mat at the Subject Site gate in conformance with site-specific erosion and sediment control plans.
- f. All equipment/vehicles shall be inspected prior to departure off-site.
- g. The Site Supervisor shall be responsible for control of dust emissions, generated from on-site vehicular traffic or other construction activities. Dust suppression techniques may include misting with potable water or use of dust suppressant.
- h. In the event of high wind conditions that cannot be addressed through the foregoing measures, work shall be restricted during high wind events until conditions are less likely to generate visible dust.
- i. Stockpiles shall be surrounded by erosion and sediment control barriers in accordance with site-specific plans to prevent storm water runoff. If necessary, soil stockpiles shall be covered to minimize dust production.
- j. Trucks transporting soil off-site shall be covered prior to leaving the Site and during transport.



Dust emissions shall be monitored daily during site work by the Site Supervisor, or designated personnel, and observations should be recorded.

Surface water and sediment runoff shall be handled by temporary Storm Water Management (SWM) ponds and silt fencing installed on the perimeter of the site. All water pumped within the excavation is to be properly handled, tested and discharged in accordance with municipal requirements. Storm sewers and manhole covers, if present, shall be protected at entry points by the Contractor. Sealing manholes and constructing sediment traps at all catch basins shall be constructed by the Contractor.

8.0 CONTINGENCY PLAN AND UNKNOWN CONDITIONS

In the event unexpected site conditions arise including inclement weather conditions and/or traffic issues, the following procedures may be required:

- Alternate trucking routes in the event of road construction
- Alternate groundwater and sediment control measures during inclement weather
- Alternate dust suppression during winter months when suitable water access is restricted
- Alternate disposal sites in the event hazardous or contaminated waste is identified

Proper procedures are to be in place to facilitate the contingency plan in the event unknown conditions are encountered.

9.0 REGULATORY PERMITTING & AUTHORIZATIONS

Activities relating to soil excavation and disposal can require various permits including:

- Permit to take Water in the event dewatering exceeds 50,000L per day, if required
- Environmental Compliance Approvals (ECAs) for air and noise emissions relating to generators, if required
- Sewer discharge permits for the Municipality or City, if required

Regulatory permits and authorizations are to be filed and approved before the aforementioned work is to take place, except in the LSRCA regulations area.



10.0 HEALTH & SAFETY PLAN

A health and safety plan must be prepared taking into consideration the type of labour, the machines to be used, and the activities on the site. The contractor will be responsible for the production and enforcement of the plan. SEL will be available for assistance and input, if required. The Ministry of Labour office will be notified through the Notice of Project of proposed activities by the contractor prior to commencement of work.

11.0 RECORD KEEPING AND VOLUME TRACKING FOR IMPORTING FILL MATERIAL FROM APPROVED SOURCE SITE(S)

- Record keeping and volumes tracking system will be in place for bringing acceptable fill material to the receiving site.
- Hauling company from approved source site(s) will obtain tickets and each ticket represents one (1) loaded truck (+/- 10m³).
- There will be full time personnel at the receiving site to keep daily records and collect all tickets from the hauling company.
- At the completion of each fill importation exercise, SEL will receive a summary of the record keeping and volume tracking system.
- Written acceptance from the receiving site in regards to any material shipped from this project.

If there are any questions regarding this Fill Management Plan, please do not hesitate to contact our office.

Yours very truly,
SOIL ENGINEERS LTD.

Ahmed Hassan, P. Eng., QP_{ESA}
AH:ah

Appendix 'A': Site Plan

Appendix 'B': Records Keeping and Volume Tracking System

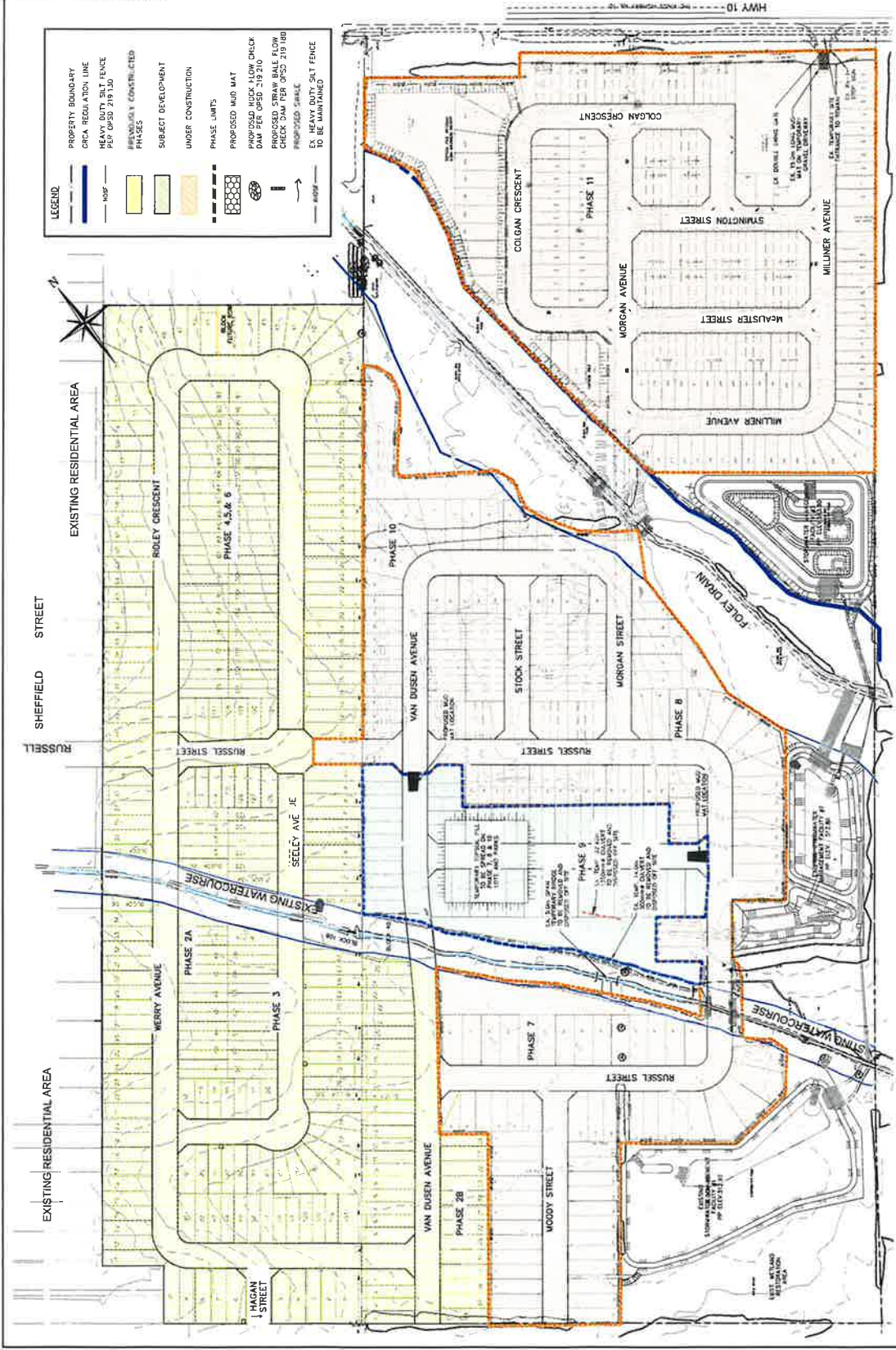
Appendix 'A'

Site Plan



LEGEND

- PROPERTY BOUNDARY
- CRCA REGULATION LINE
- HEAVY DUTY BIT FENCE PER QSD 219.1A
- IMMEDIATELY CONSTRUCTED PHASES
- SUBJECT DEVELOPMENT
- UNDER CONSTRUCTION
- PHASE LIMITS
- PROPOSED MUD MAT
- PROPOSED ROCK FLOW CHECK DAM PER QSD 219.210
- PROPOSED ROCK FLOW CHECK DAM PER QSD 219.210
- PROPOSED SABLE
- EX. HEAVY DUTY BIT FENCE TO BE MAINTAINED



CROZIER CONSULTING ENGINEERS

ADAM L. KALOSKI
 C.E. PROFESSIONAL ENGINEER
 LICENSE NO. 10044-03107
 1000 N. 1500th Street
 Suite 100
 Lincoln, NE 68502
 Phone: 402.441.1500
 Fax: 402.441.1501
 Email: adam@crozier.com

FLATO EDGEWOOD GREENS
 PHASE 9
 TOWNSHIP OF SOUTHGATE
 SITE ALTERATION PLAN ZONE 1 & 2

NO.	DATE	DESCRIPTION
1	10/14/2022	ISSUED FOR THE SUBMITTAL
2	11/14/2022	ISSUED FOR THE SUBMITTAL
3	12/14/2022	ISSUED FOR THE SUBMITTAL

TEMPORARY BENCHMARKS

1. THE SHOWN ON THE SURVEY, MONUMENT OF C.C. CONYER
 2. ABOUT 100 FEET WEST OF THE OFFICE OF THE TOWNSHIP ENGINEER
 3. THE CONSTRUCTION SHALL VERIFY ALL BENCHMARKS, LEVELS OR
 4. ELEVATIONS TO BE USED IN THE CONSTRUCTION OF THE PROJECT
 5. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING ALL BENCHMARKS
 6. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING ALL BENCHMARKS
 7. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING ALL BENCHMARKS
 8. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING ALL BENCHMARKS
 9. CONSTRUCTION SHALL BE RESPONSIBLE FOR MAINTAINING ALL BENCHMARKS

DATE: 10/14/2022
 TIME: 10:00 AM
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 SCALE: AS SHOWN

Appendix 'B'

Records Keeping and Volume Tracking System

Appendix C : Records Keeping and Volume Tracking System

- Load tickets should include:

Ticket Number, source site address, truck type (tri-axle, trailer, etc.), truck license number, size of the load, time of departure from source site and time of arrival at subject site.

- Source site and subject site must separately document the departure and arrival times of each load respectively and maintain a record with them. The load ticket numbers must be documented sequentially.
- Daily tally of load tickets must be prepared by the contractor and provided to SEL. In addition, weekly summary of numbers of truck loads, volumes and status of imported material (whether environmentally acceptable, screened, suspect, etc.) should be provided to SEL for review.
- An appropriate tracking system should be prepared for the imported material to relate the source site and location of use at the subject site. The tracking system should include a site plan of the subject site identifying the location(s) where imported materials from various source sites were used. Please note that this location will only be general in nature.
- A soil importation and management report should be prepared at the completion of the FMP to document the record of the site activities. The report should include all pertinent information regarding imported fill, filling locations, load tracking, quality control, and chemical testing.
- Details of all source sites including site address, past and present uses, scope of environmental soil quality assessment, type of soil encountered, chemical testing details and volumes of soil imported must be recorded and included as an appendix in the final soil importation and management report.

APPENDIX B

Procedures and Requirements for Construction of Engineering Fill



6.2 Earth Fill

The permanent groundwater level on the site is shallow, generally less than 1.0 m below the prevailing ground surface. Accordingly, it is understood that the grade of the site will be raised by approximately 2 m above the existing grade.

Due to the high water table, a water-break will be required to prevent groundwater from wicking into the fill. The water-break should be a 30 cm thick layer of Granular 'B' or pit-run granular material with a silt content of 15% or less and a permeability coefficient (k) of 10^{-3} cm/sec or greater. The remainder of the fill should consist of compactable inorganic soil.

The fill should be compacted in layers 20 cm thick to 95% or + of its Standard Proctor dry density. In areas where ground settlement is tolerable, the lift thickness can be increased to 30 cm. The presence of boulders will prevent transmission of the compactive energy into the underlying material to be compacted. We recommend that the fill be screened to remove boulders greater than 150 mm in diameter.

Where underground services, roads or structures will be supported on the fill, the recommendations in Sections 6.3 'Engineered Fill' and 6.7 'Backfilling in Trenches and Excavated Areas' apply.

6.3 Engineered Fill

In areas where earth fill is required to raise the site, or where extended footings are necessary, it is generally more economical to place engineered fill for normal footing, underground services and pavement construction. The engineering requirements for a certifiable fill for pavement construction, municipal services, slab-on-grade, and footings designed with a Maximum Allowable Soil Pressure (SLS) of 150 kPa and a Factored Ultimate Soil Bearing Pressure (ULS) of 250 kPa are presented below:



1. All of the topsoil and organics must be removed, and the subgrade must be inspected and proof-rolled prior to any fill placement. The badly weathered soil and existing earth fill must be subexcavated, sorted free of topsoil inclusions and deleterious materials, if any, aerated and properly compacted.
2. Inorganic soils must be used, and they must be uniformly compacted in lifts 20 cm thick to 98% or + of their maximum Standard Proctor dry density up to the proposed finished grade and/or slab-on-grade subgrade. The soil moisture must be properly controlled on the wet side of the optimum. If the house foundations are to be built soon after the fill placement, the densification process for the engineered fill must be increased to 100% of the maximum Standard Proctor compaction.
3. If imported fill is to be used, the hauler is responsible for its environmental quality and must provide a document to certify that the material is free of hazardous contaminants.
4. If the engineered fill is to be left over the winter months, adequate earth cover, or equivalent, must be provided for protection against frost action.
5. The engineered fill must extend over the entire graded area; the engineered fill envelope and the finished elevations must be clearly and accurately defined in the field, and they must be precisely documented by qualified surveyors.
6. Foundations partially on engineered fill must be reinforced by two 15-mm steel reinforcing bars in the footings and upper section of the foundation walls, or be designed by a structural engineer, to properly distribute the stress induced by the abrupt differential settlement (estimated to be $15 \pm$ mm) between the natural soils and engineered fill.
7. The engineered fill must not be placed during the period from late November to early April, when freezing ambient temperatures occur either persistently or intermittently. This is to ensure that the fill is free of frozen soils, ice or snow.
8. Where the ground is wet due to subsurface water seepage, an appropriate subdrain scheme must be implemented prior to the fill placement.



9. Where the fill is to be placed on sloping ground steeper than 1 vertical: 3 horizontal, the face of the sloping ground must be flattened to 3 + so that it is suitable for safe operation of the compactor and the required compaction can be obtained.
10. The fill operation must be inspected on a full-time basis by a technician under the direction of a geotechnical engineer.
11. The footing and underground services subgrade must be inspected by the geotechnical consulting firm that inspected the engineered fill placement. This is to ensure that the foundations are placed within the engineered fill envelope, and the integrity of the fill has not been compromised by interim construction, environmental degradation and/or disturbance by the footing excavation.
12. Any excavation carried out in certified engineered fill must be reported to the geotechnical consultant who supervised the fill placement in order to document the locations of the excavation and/or to supervise reinstatement of the excavated areas to engineered fill status. If construction on the engineered fill does not commence within a period of 2 years from the date of certification, the condition of the engineered fill must be assessed for re-certification.
13. Despite stringent control in the placement of the engineered fill, variations in soil type and density may occur in the engineered fill. Therefore, the strip footings and the upper section of the foundation walls constructed on the engineered fill will require continuous reinforcement with steel bars, depending on the uniformity of the soils in the engineered fill and the thickness of the engineered fill underlying the foundations. Should the footings and/or walls require reinforcement, the required number and size of reinforcing bars must be assessed by considering the uniformity as well as the thickness of the engineered fill beneath the foundations. In sewer construction, the engineered fill is considered to have the same structural proficiency as a natural inorganic soil.


LIST OF FIGURES & DRAWINGS

Figure 1:	Site Location Plan
Figure 2:	Draft Plan of Subdivision (Flato East)
Figure 3:	Edgewood Greens Composite Phasing Plan
Drawing 104A:	Site Alteration Plan
Drawing 104B:	Site Alteration Details



DUNDALK MEADOWS

Legend


 = SUBJECT LANDS

Project

**FLATO EDGEWOOD GREENS
TOWNSHIP OF SOUTHGATE**

Drawing

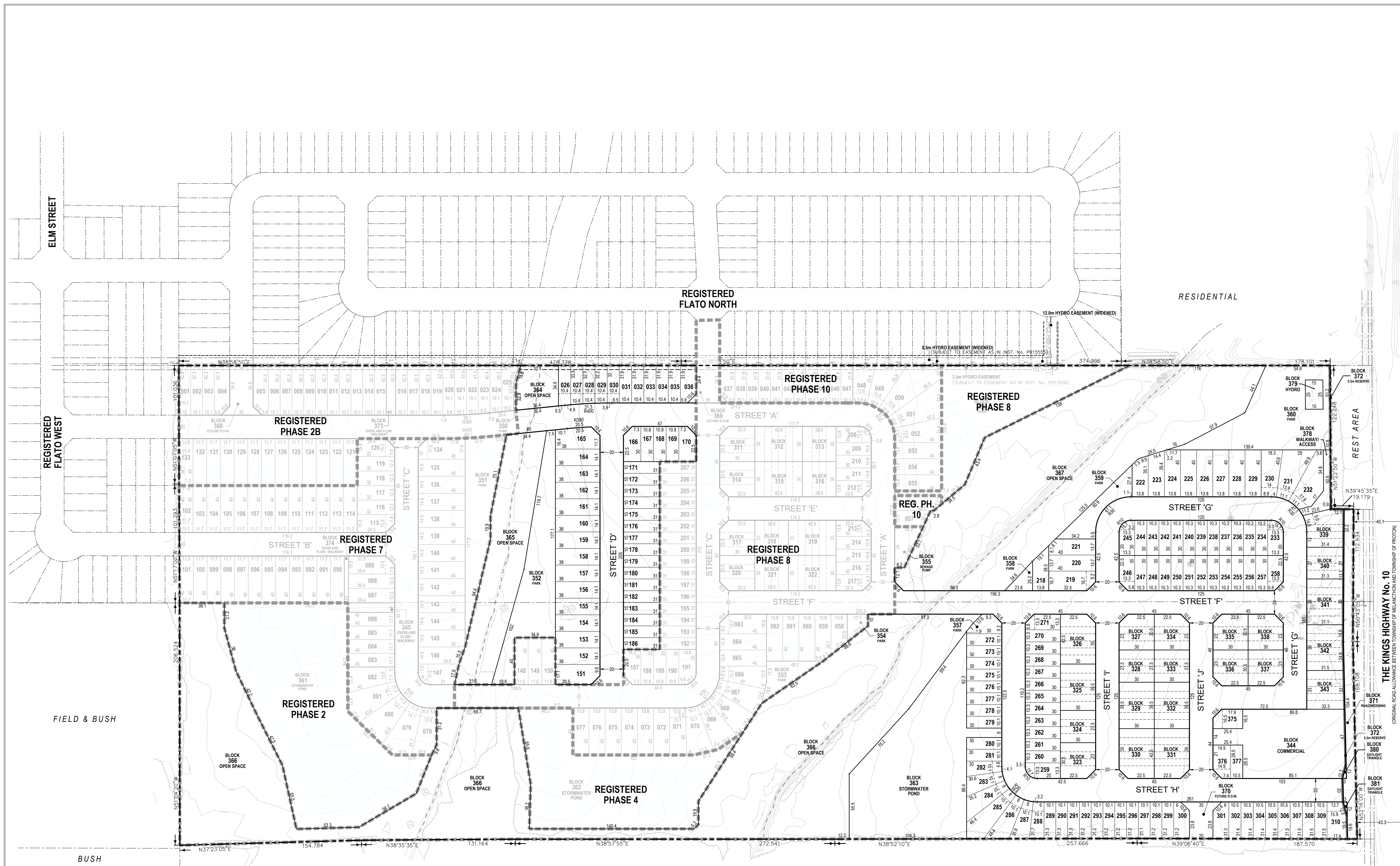
SITE LOCATION PLAN

 **CROZIER**
CONSULTING ENGINEERS

ADMIRAL BUILDING
1 FIRST STREET, SUITE 200
COLLINGWOOD, ON, L9Y 1A1
705 446-3510 T
705 446-3520 F
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

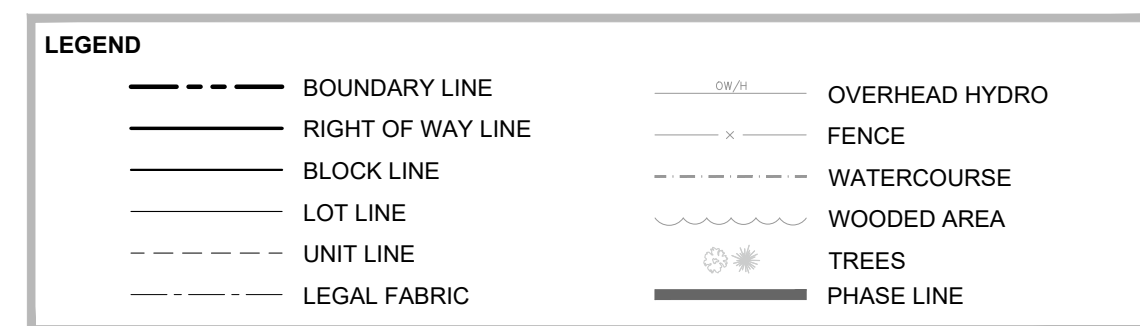
Drawn By	C.W.	Design By	C.W.	Project	1060-5734
Scale	N.T.S.	Date	03/10/2016	Check By	B.H.

FIG. 1



LAND USE SUMMARY

LAND USE	LOTS / BLOCKS	UNITS	AREA
SINGLE DETACHED - 10.0m LOTS	001-047, 166-217, 233-310, 377	178	6.17ha
SINGLE DETACHED - 11.6m LOTS	056, 083-133, 148-150, 376	56	2.60ha
SINGLE DETACHED - 13.7m LOTS	048-055, 057-082, 134-147, 151-165, 219-232	78	4.65ha
SINGLE DETACHED - WIDE SHALLOW	375	1	0.04ha
TOWNHOUSE - 4 UNITS	311, 313-314, 316-318, 320-321, 323-324, 327-328, 333-340	80	1.74ha
TOWNHOUSE - 5 UNITS	343	5	0.10ha
TOWNHOUSE - 6 UNITS	312, 315, 319, 322, 325-326, 329-332, 341-342	72	1.46ha
COMMERCIAL	344		0.55ha
PARK	350-354, 356-360		2.39ha
SEWAGE PUMP	355		0.09ha
STORMWATER POND	361-363		4.19ha
OPEN SPACE	364-367		8.39ha
FUTURE RIGHT OF WAY	368-370		0.22ha
ROAD WIDENING	371		0.22ha
0.3m RESERVE	372		0.01ha
OVERLAND FLOW / WALKWAY	345, 373-374		0.07ha
ACCESS / WALKWAY	378		0.05ha
HYDRO	379		0.03ha
DAYLIGHT TRIANGLE	380-381		<0.01ha
RIGHT OF WAY			7.27ha
TOTALS		470	40.22ha



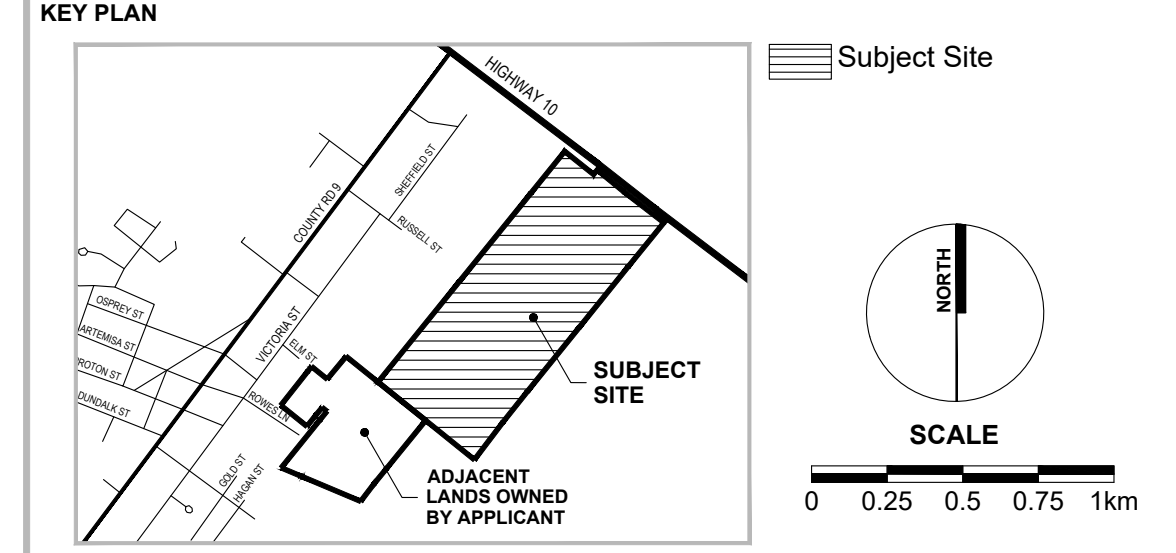
**PART OF LOTS 233 AND 234
CONCESSION 1, SOUTHWEST OF THE TORONTO AND SYDENHAM ROAD
GEOGRAPHIC TOWNSHIP OF PRON
TOWNSHIP OF SOUTHGATE
COUNTY OF GREY**

OWNER'S CERTIFICATE
I HEREBY AUTHORIZE MACNAUGHTON HERMSEN BRITTON CLARKSON PLANNING LIMITED TO SUBMIT THIS PLAN FOR APPROVAL.

DATE: _____ SHAKIR REHMATULLAH - PRESIDENT
FLATO DUNDALK MEADOWS INC.

SURVEYOR'S CERTIFICATE
I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LAND TO BE SUBDIVIDED ON THIS PLAN AND THEIR RELATIONSHIP TO THE ADJACENT LANDS ARE ACCURATELY AND CORRECTLY SHOWN.

DATE: _____



REV. No.	DATE	ISSUED / REVISION	BY
No. 7	May 9, 2023	• Add single detached lots to Block 344 • Turned Easement along Lot 232 into Walkway / Access Block • Add hydro block • Add 0.3m Reserve against Rest Area • Create blocks for Highway 10 Daylighting Triangles	M.M.
No. 6	Jul. 13, 2021	• Shift lots 090-098 to accommodate overland flow / walkway Block 374 • Convert Block 355 from park to sewage pumping station and expand • Add 6m water service easement between Lot 232 and Block 339 by shifting Blocks 339-343 the commercial Block 344	M.M.
No. 5	Jan. 28, 2020	• Removed townhouses along Streets J & G • Added Commercial block • Reassigned Street G • Added registered phases • Added surrounding registered subdivisions	M.M.
No. 4	Nov. 1, 2019	• Moved walkway from between lots 051 & 052 to between lots 055 & 056 • Widened walkway from 3m to 4m • Narrowed lot 056 from 13.8m to 12.7m	M.M.
No. 3	Mar. 13, 2019	• Widened Block 362 street frontage • Revised lots backing on to Block 362 • Shifted Street D west by 2m and adjust lots to fit	M.M.
No. 2	Feb. 9, 2017	• Widened Hydro Easement • Added daylighting triangles to Future R.O.W. • Added Overland Flow/Walkway Block 372 • Added Park Block 350 • Remove one Lot • Rearrange Lots to fit • Revised labels and dimensions	M.M.
No. 1	Jul. 5, 2016	• Revised as per MTO comments March 17, 2016 • Added road widening, 0.3m reserve, and daylighting triangles • Relocated Highway 10 entrance and future right of ways • Reorganized subdivision layout along Highway 10 • Added walkways to Open Space	M.M.
No. 0	Dec. 11, 2015	Draft Plan Application Submission	M.M.

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51(17) OF THE PLANNING ACT R.S.O. 1990 C.P.13 AS AMENDED

A. AS SHOWN	F. AS SHOWN	K. MUNICIPAL WATER AND SANITARY SERVICES, ALL MUNICIPAL SERVICES AS REQUIRED.
B. AS SHOWN	G. AS SHOWN	H. MUNICIPAL WATER SUPPLY
C. AS SHOWN	I. SILT LOAM	J. AS SHOWN
D. RESIDENTIAL / COMMERCIAL	L. AS SHOWN	

PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
MHBC PLANNING

113 COLLIER STREET
BARRIE, ON, L4M 1H2
P: 705 728 0045 F: 705 728 2010
WWW.MHBCPLAN.COM

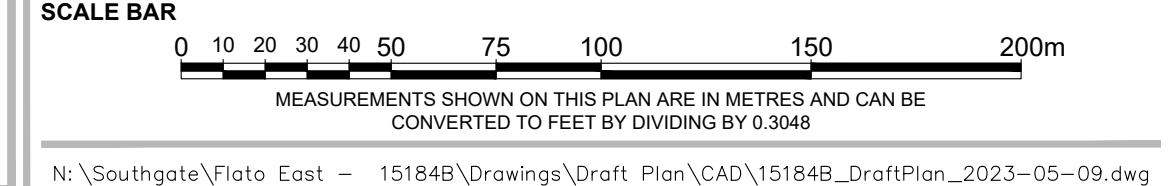
STAMP

DATE	DEC. 11, 2015
FILE No.	15184B
SCALE	1:1,800 (ARCH D)
DRAWN BY	M.M.
CHECKED BY	K.M.

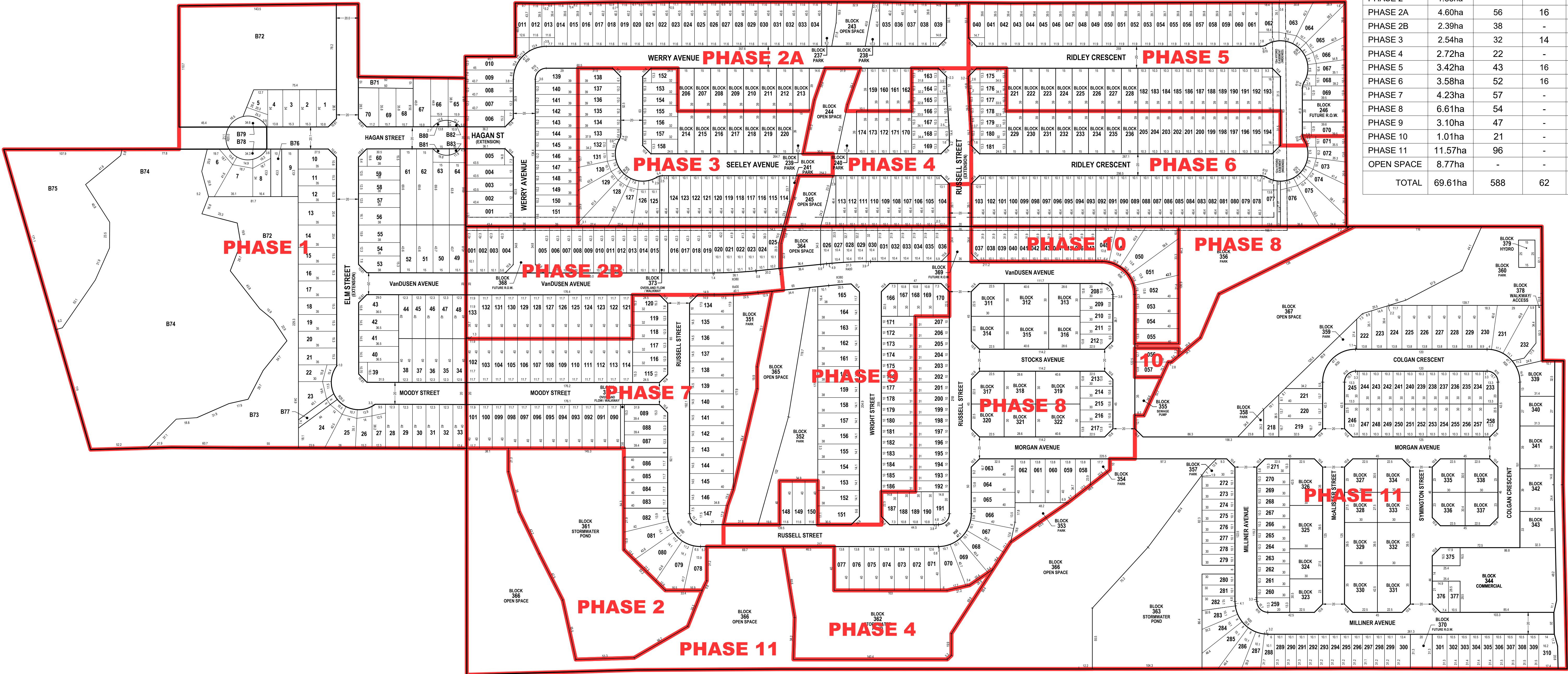
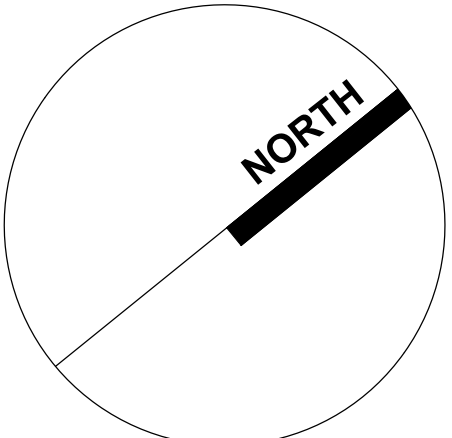
PROJECT
FLATO EAST
FLATO GROUP INC.
3621 HIGHWAY 7 EAST, SUITE 503
MARKHAM, ON L3R 0G6
P:(905) 479-9292 F:(905) 429-9165
WWW.FLATOGROUP.COM

FILE NAME
DRAFT PLAN OF SUBDIVISION

DWG No.
1 of 1



EDGEWOOD GREENS COMPOSITE PHASING PLAN



PHASE	AREA	SINGLES	SEMIS	TOWNS	TOTAL
PHASE 1	13.22ha	70	-	-	70
PHASE 2	1.85ha	-	-	-	-
PHASE 2A	4.60ha	56	16	-	72
PHASE 2B	2.39ha	38	-	-	38
PHASE 3	2.54ha	32	14	-	46
PHASE 4	2.72ha	22	-	-	22
PHASE 5	3.42ha	43	16	-	59
PHASE 6	3.58ha	52	16	-	68
PHASE 7	4.23ha	57	-	-	57
PHASE 8	6.61ha	54	-	56	110
PHASE 9	3.10ha	47	-	-	47
PHASE 10	1.01ha	21	-	-	21
PHASE 11	11.57ha	96	-	101	197
OPEN SPACE	8.77ha	-	-	-	-
TOTAL	69.61ha	588	62	157	807

GENERAL NOTES:

- CONSTRUCTION EQUIPMENT TO USE EXISTING ACCESS POINT, LOCATED AT HWY 10, AS INDICATED ON THIS DRAWING. MUD MAT TO BE MAINTAINED AT ACCESS POINT.
- ALL WORKS SHALL BE COMPLETED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT. THE GENERAL CONTRACTOR SHALL BE DEEMED TO BE THE "CONSTRUCTOR" AS DEFINED IN THE ACT.
- ALL SEDIMENT AND EROSION CONTROL FACILITIES AND WORKS ARE TO BE CONSTRUCTED AND IN PLACE TO THE APPROVAL OF THE SITE ENGINEER PRIOR TO ANY GRADING OPERATIONS COMMENCING. TYPICAL WORKS INCLUDE SILT FENCES, INTERCEPTOR SWALES, STRAW BALE CHECK DAMS AND SEDIMENT TRAPS.
- ALL TEMPORARY TOPSOIL STOCKPILES ARE TO BE PROVIDED WITH THE NECESSARY SEDIMENT AND EROSION CONTROL FEATURES.
- ALL INTERCEPTOR SWALES ARE TO BE SEEDED TO STABILIZE THEIR BANKS IMMEDIATELY FOLLOWING CONSTRUCTION.
- REFER TO APPLICATION FORM FOR GRUBBING OF TREES WITHIN LIMITS OF FILL AREA.
- NO GRADING OF LANDS WILL OCCUR WITHIN SPECIFIED BUFFERS ALONG PROPERTY LINES AND INTERNAL TO SITE.
- THE LOCATION OF ALL UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE LOCATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.
- TEMPORARY DRAINAGE CHANNEL AND CULVERTS TO BE DECOMMISSIONED.

MAINTENANCE & OPERATIONS OF SEDIMENT CONTROLS

SILT FENCE

- SILT FENCE MUST BE INSPECTED WEEKLY FOR RIPS OR TEARS, BROKEN STAKES, BLOW-OUTS AND ACCUMULATION OF SEDIMENT.
- SILT FENCE MUST BE INSPECTED FOLLOWING ALL 15mm OR GREATER RAIN STORM EVENT OR AS DIRECTED BY SITE ENGINEER.
- SEDIMENT MUST BE REMOVED FROM SILT FENCE WHEN ACCUMULATION REACHES 50% OF THE HEIGHT OF THE FENCE.
- ALL SILT FENCES MUST BE REMOVED ONLY WHEN THE ENTIRE SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.

STRAW BALE / ROCK CHECK DAM

- REMOVE ACCUMULATED SEDIMENT UP STREAM OF THE CHECK DAM IF GREATER THAN ONE HALF OF DAM HEIGHT.
- SILT REMOVAL MUST BE UNDERTAKEN WITH CARE TO MINIMIZE DOWN STREAM SEDIMENTATION IN SWALE OR DITCH.
- STRAW BALE CHECK DAM AND ALL ACCUMULATED SEDIMENT MUST BE REMOVED WITH CARE ONCE THE CONSTRUCTION SITE IS STABILIZED AND AS DIRECTED BY THE SITE ENGINEER.

MUD MAT MAINTENANCE

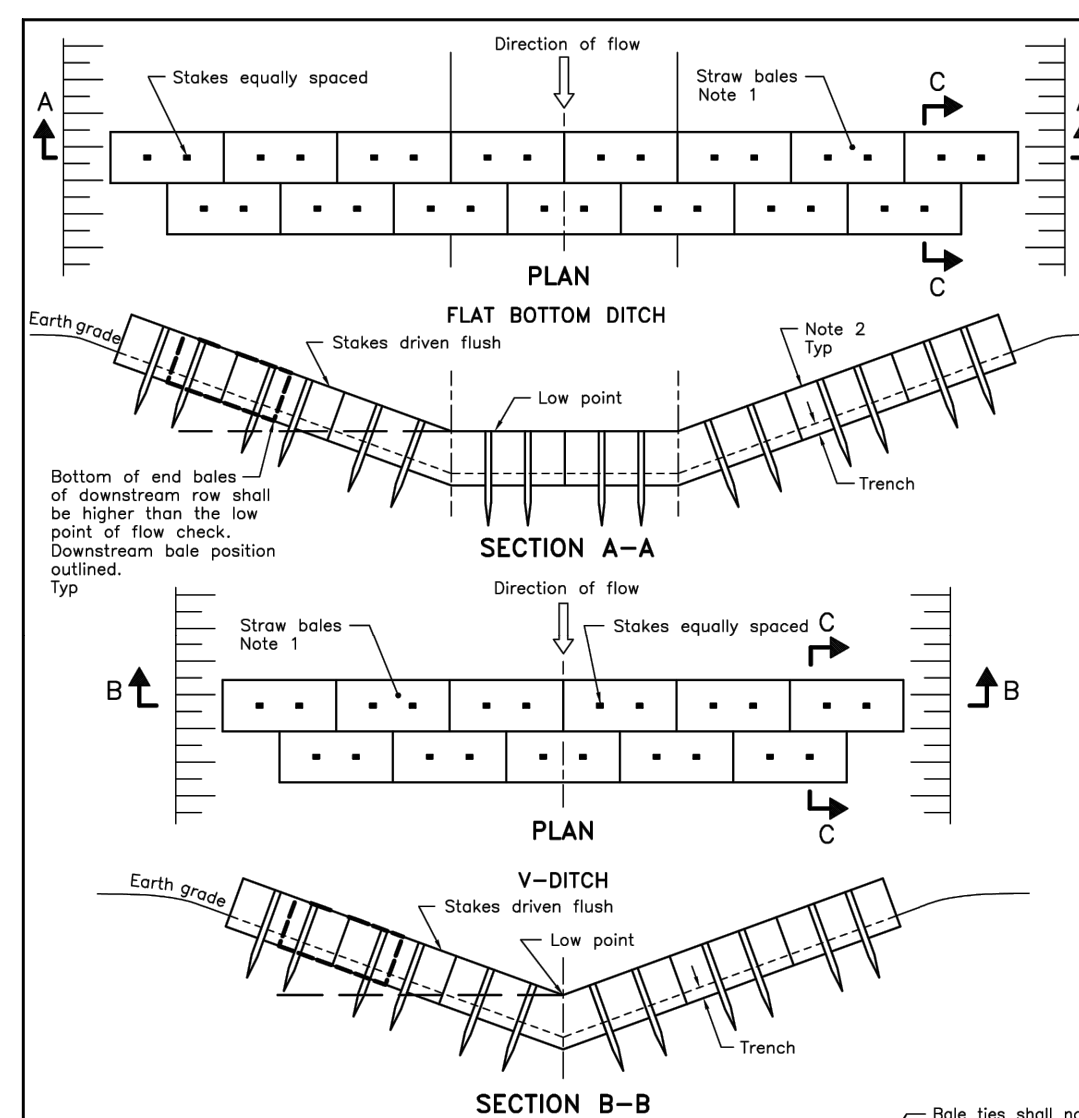
- INSPECT MUD MAT WEEKLY TO ASSESS CONDITION AND ENSURE OPERATION EFFICIENCY.
- SUPPLY AND PLACE ADDITIONAL CLEAR STONE AS DIRECTED BY SITE ENGINEER.
- MAT TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR AS DIRECTED BY SITE ENGINEER.

DECOMMISSIONING / RESTORATION

- FOLLOWING COMPLETION OF CONSTRUCTION AND AS DIRECTED BY SITE ENGINEER, ALL EROSION AND SEDIMENT CONTROL WORKS ARE TO BE REMOVED INCLUDING ANY ACCUMULATED SEDIMENT.
- ALL WORKS LOCATED ON LANDS OUTSIDE THE PROPOSED DEVELOPMENT AREA ARE TO BE GRADED TO MATCH EXISTING SURROUNDING GROUND AND HYDROSEEDED.
- ALL SEDIMENT BUILD-UP TO BE REMOVED FROM SEDIMENT BASINS. CUT AREAS AND SEDIMENT BASINS TO BE TREATED WITH 25mm OF TOPSOIL AND HYDROSEEDED AS DIRECTED BY SITE ENGINEER.
- FOLLOWING COMPLETION OF ZONE 3 CUT AREA, TOP SOIL TO BE SPREAD OUT AT 400mm DEPTH WITHIN THE CUT AREA LIMITS AND HYDROSEEDED.

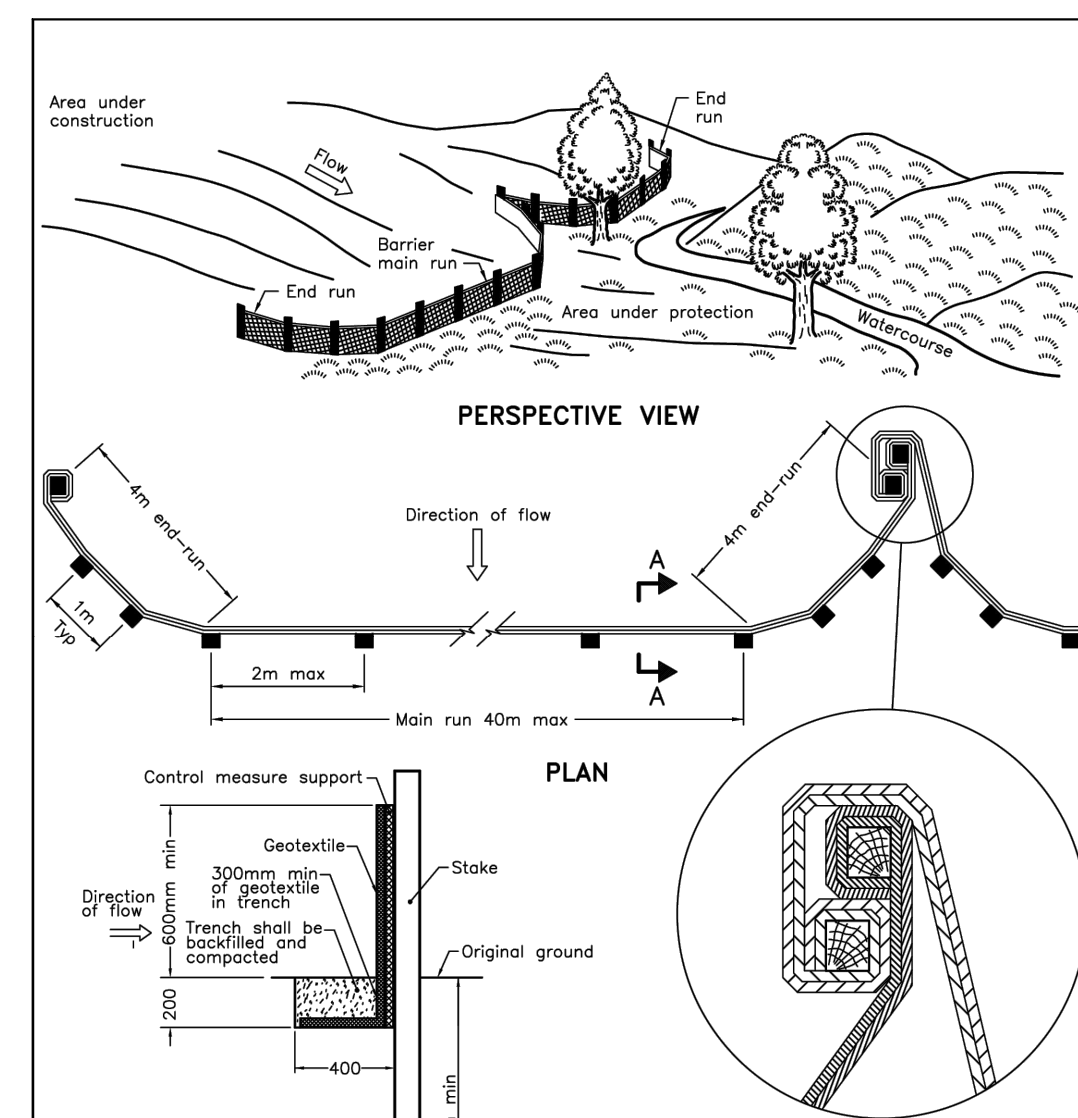
NOTES:

- RESIDENTIAL AREA TO BE PRE-GRADED BASED ON THE FOLLOWING PRE-GRADES:
 LOTS (SINGLE FAMILY) -0.8m
 LOTS (TOWNHOMES) -1.0m
 ROADS -0.6m
 PARKS -0.2m
- A PRE-GRADE DETAIL FOR WALK-OUT/LOOK-OUT UNITS WILL BE PROVIDED TO THE CONTRACTOR PRIOR TO FILLING.
- REFER TO SITE GRADING PLANS FOR PROPOSED FINAL GRADES.
- POST ROAD SERVICING WORKS, CONTRACTOR TO PROVIDE POSITIVE DRAINAGE FOR LOT TUN-OFF VIA TEMPORARY SWALES AND/OR HICKENBOTTOM C/W CONNECTION TO STORM SEWER. WHERE APPLICABLE SILT FENCE TO BE LOCATED AT THE BOTTOM OF FILL SLOPES.



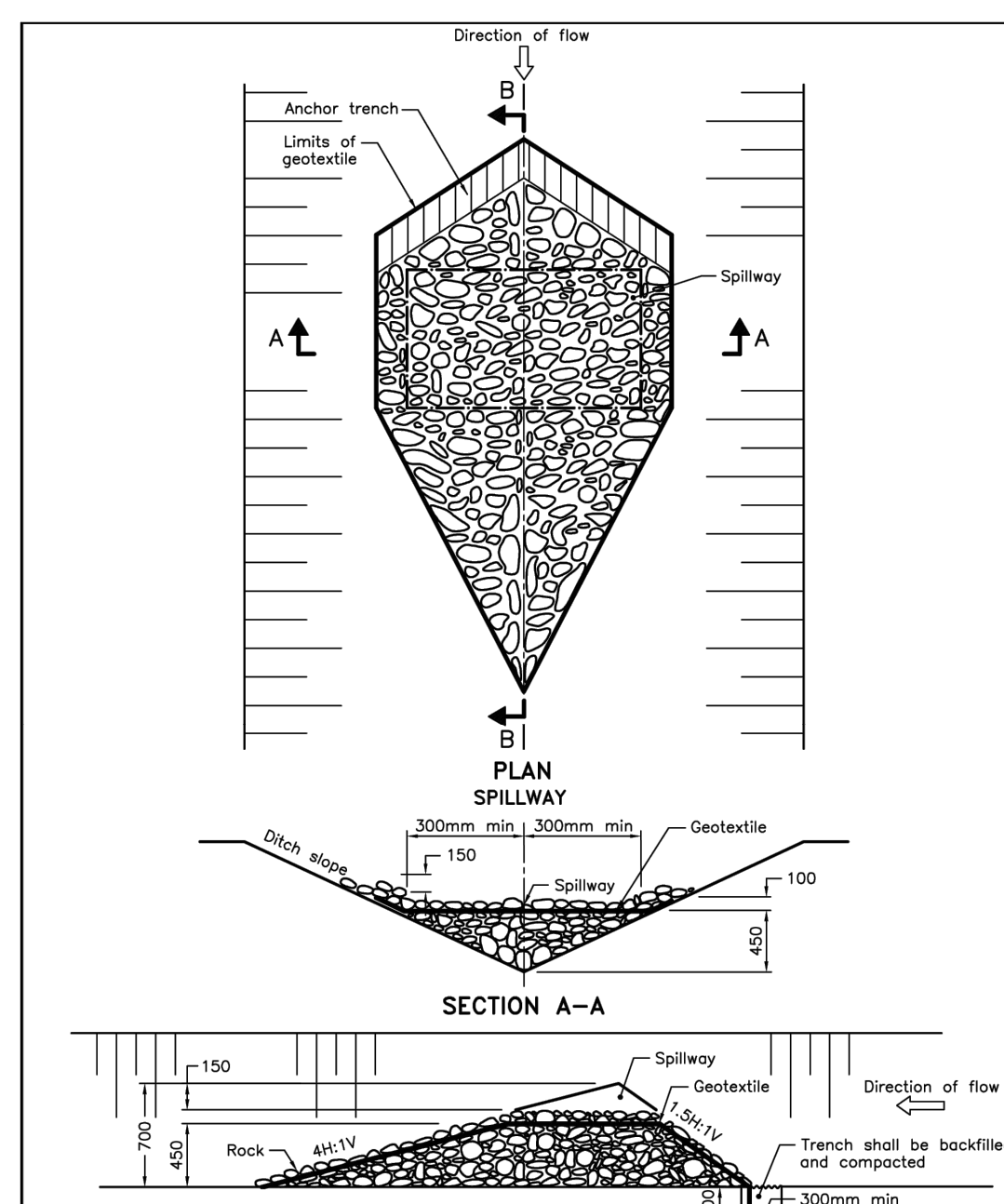
NOTES:
 1 Number of bales varies and shall suit ditch.
 2 Straw bales shall be butted tightly against adjoining bales and shaped to conform to the sides of the ditch to prevent water flow through barrier.
 A Fill and compact gaps with loose straw.
 B All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3	
STRAW BALE FLOW CHECK DAM			
	OPSD 219.180		



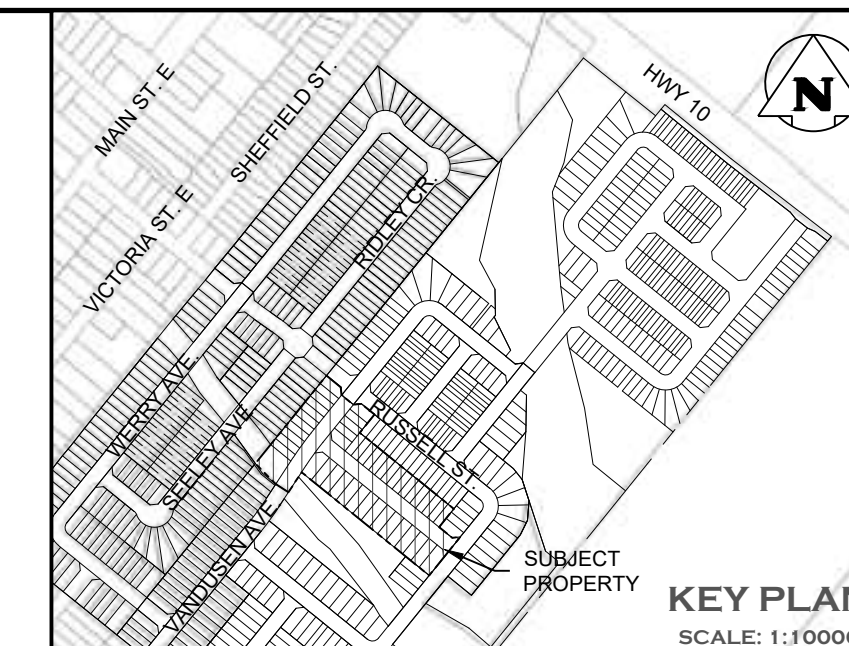
NOTE:
 A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2021	Rev 3	
HEAVY-DUTY SILT FENCE BARRIER			
	OPSD 219.130		



NOTE:
 A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2022	Rev 3	
TEMPORARY ROCK FLOW CHECK DAM V-DITCH			
	OPSD 219.210		



1. THIS DRAWING IS THE EXCLUSIVE PROPERTY OF C.F. CROZIER & ASSOCIATES INC. AND THE REPRODUCTION OF ANY PART WITHOUT PRIOR WRITTEN CONSENT OF THIS OFFICE IS STRICTLY PROHIBITED.
 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, AND DATUMS ON SITE AND REPORT ANY DISCREPANCIES OR OMISSIONS TO THIS OFFICE PRIOR TO CONSTRUCTION.
 3. THIS DRAWING IS TO BE READ AND UNDERSTOOD IN CONJUNCTION WITH ALL OTHER PLANS AND DOCUMENTS APPLICABLE TO THIS PROJECT.
 4. DO NOT SCALE THE DRAWINGS.
 5. ALL EXISTING UNDERGROUND UTILITIES TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

TEMPORARY BENCHMARKS

Town	
TBM#1 CONCRETE PIN IN ASPHALT, WEST EDGE OF PAVEMENT ON ROWES LANE LOCATED 5m NORTH OF MN.135 ELEVATION 514.870m.	
TBM#2 RUSSELL STREET CC ON CONCRETE CURB ELEVATION 520.79m.	
TBM#3 FLATO EAST PHASE 2&3 STORMWATER FACILITY CC ON CONCRETE HEADWALL ELEVATION 514.43m.	

No.	ISSUE	DATE: MM/DD/YYYY
1.	ISSUED FOR 1st SUBMISSION	11/16/2022
2.	ISSUED FOR 2nd SUBMISSION	03/03/2023
3.	ISSUED FOR 3rd SUBMISSION	05/19/2023

Engineer	Engineer	Project
		FLATO EDGEWOOD GREENS PHASE 9 TOWNSHIP OF SOUTHGATE
		SITE ALTERATION DETAILS

FOR REVIEW
NOT TO BE USED FOR CONSTRUCTION

Drawn By	RDM/AT	Design By	RDM/DE	Project	1060-5734
Check By	BH	Check By	DE	Scale	NTS
				Drawing	104B

ADMIRAL BUILDING
 1 FIRST STREET, SUITE 200
 COLLINGWOOD, ON. L9Y 1A1
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 705-446-3520 F
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 INFO@CFCROZIER.CA