LOT 18, CONCESSION 7
GEOGRAPHIC TOWNSHIP OF UXBRIDGE
REGIONAL MUNICIPALITY OF DURHAM

2412 - 11 of 11

N

Site North

N

True North

A. General

1. Contour mapping provided by J.D. Barnes Limited, dated August 5, 2015. All existing features are shown to scale.
2. All contours are shown at one (1) metre intervals. All elevations are related to NAD83, UTM Zone 17.

B. Site Description

1. The site is located at the northeast corner of the intersection of Reid Road and Concession Road 7, in the Township of Uxbridge. The site is located adjacent to an existing Class "A" Pit owned by Miller Paving Ltd., and licensed under the Aggregate Resources Act, Licence No. 6578.
2. The total area under site plan control, including the fill areas, is approximately 33.4 hectares. Bearings and dimensions for the site are as noted on this plan.
3. The site is to be accessed through the existing access at Concession Road 7.

C. Fill Permit Design

1. Design of the imported Fill Permit Plans has been completed in accordance with the Corporation of the Township of Uxbridge By-law 2010-084, "A site alteration by-law to prohibit or regulate the removal of topsoil, the placing or dumping of fill and the alteration of the grade of land in areas of the Township of Uxbridge".

D. Hours of Operation

1. In accordance with the Township of Uxbridge Site Alteration By-law 2010-084, Fill operations are permitted from 7:00 AM to 7:00 PM Monday to Friday inclusive, and from 8:00 AM to 3:00 PM on Saturdays. No person shall perform a site alteration or permit the perfomance of a site alteration under the following circumstances:

   - Anytime on a Sunday or a Statutory Holiday;
   - During any period in which a wind warning for the area has been issued by Environment Canada;

E. Existing Services

1. There is an existing overhead hydro line on the site, near the west property line, running in a north-south direction.
2. There is an existing underground gas service through the approximate mid-line of the site, running in an east-west direction, at an elevation of approximately 325 masl ±, feeding the existing on-site asphalt plant.
3. There is an existing underground Bell telephone line on the site, near the south property line, running in an east-west direction.

F. Site Preparation

1. Existing trees, brush, and stumps are to be removed from the site, disposed of by burying or burning with applicable permits, or chipped and stockpiled for future use.
2. Setbacks established from the property line as part of the former limit of extraction are to remain undisturbed.
3. All swales and fill slope areas are to be topsoiled, hydroseeded, and maintained upon completion to control erosion.
4. Final grades will depend on the site design for the enclosed warehouse building.
5. Construct and install any temporary or permanent erosion and siltation control devices required by the Township prior to the commencement of any construction (i.e. fill placement).
6. All proper erosion and sediment control measures shall be in place prior to construction and maintained throughout construction.

G. Fill Importation Sequence

1. Fill importation can take place within Area #1 and Area #2 at the same time.
2. Fill Area #1, Lift #1, will proceed in the direction shown by the arrows on drawing 2412 - 2 of 11. The interim perimeter drainage swale and rip rap channels shall be constructed to an elevation of 338 masl ±, once Lift #1 is completed to an elevation of 339 masl ±, then Lift #2 can proceed.
3. Fill Area #1, Lift #2, will proceed in the direction shown by the arrows on drawing 2412 - 2 of 11. The perimeter drainage swale shall be constructed, and rip rap lined channels shall be extended from 338 masl ± to 348 masl ±, once Lift #2 is completed at 349 masl ±.
4. Fill Area #2, Lift #1, will proceed in the direction shown by the arrows on drawing 2412 - 2 of 11. The interim perimeter drainage swale and rip rap channels shall be constructed to 340 masl ± once Lift #1 is completed at 341 masl ±, and the Lift #2 will proceed.
5. Fill Area #2, Lift #2 will proceed in the direction shown by the arrows on drawing 2412 - 2 of 11. The perimeter drainage swale shall be constructed and rip rap lined channels shall be extended from 340 masl ± to 345 masl ±, once Lift #2 is completed at 346 masl ±.

H. Fill Importation

1. There are two (2) areas proposed to be filled on the site. The first area is bounded to the north by the adjacent licensed pit, to the east and south by the internal haul road for the site and adjacent pit, and to the west by the existing top of bank near the west property line. The second area is bounded to the north and east by the adjacent licensed pit, to the west by the internal haul road for the site and adjacent pit, and to the south by the south property line.
2. Areas to be Filled

Area #1	11.9 ha
Area #2	4.9 ha
Total Fill Area	**16.8 ha**
Total Unfilled Area	**20.0 ha**
Total Area	**36.8 ha**

3. The volume of fill proposed for the site is approximately 1,024,000 cubic metres.
4. The site is to be accessed by the existing main access for the adjacent Class "A" Pit, which is off of Concession Road 7.
5. The existing gate at Concession Road 7 is to be kept closed and locked during hours of non-operation.

I. Drainage and Siltation Controls (Interim Lift 1 and Lift 2)

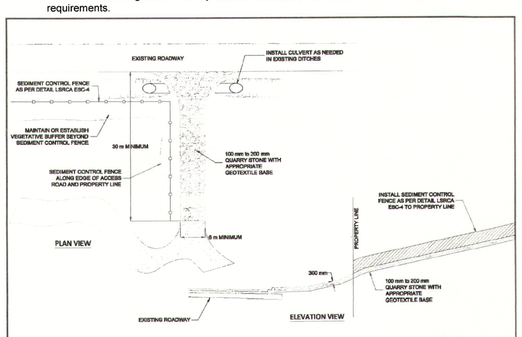
1. On site drainage will be by overland flow in the direction indicated by the arrows on the Existing Features plan, the Proposed Imported Fill Placement and Drainage Systems plan, and through infiltration.
2. Overland flow will be directed from the imported fill areas to the adjacent Class "A" pit via topsoil and sod lined perimeter drainage swales with rock check dams directing flow to rip rap lined channels on the fill slopes, to stilling basins at the base of the rip rap lined channels, prior to entering the pit.
3. Silt and petroleum (spill) controls are to be installed along the limits of Fill Area #1 and #2 as shown on drawing 9 of 11, prior to the importation of any fill material. If silt fencing is to be used, it shall be per Lake Simcoe Region Conservation Authority (LSRCA) Detail Drawing LSRCA ESC-4.
4. All silt and petroleum controls are to be inspected on a weekly basis while fill is being imported. The owner is to have a supply of additional silt and petroleum control materials on hand in order to immediately address any required maintenance.
5. Silt controls are to remain in place until fill slopes have been vegetated.
6. Internal paved roads and local area roads are to be kept clean of mud and debris being tracked onto them by sweeping or flushing them as needed, or if directed by Township of Uxbridge staff.
7. All silt controls shall be inspected on a weekly basis and after significant rainfall events.

I. Dust Control

1. Dust will be mitigated on site.
2. Water or other approved dust suppressant will be applied to existing internal haul roads and fill placement areas as required to mitigate dust.

J. Monitoring Imported Fill

1. Fill monitoring practices described below are based on the Ministry of the Environment and Climate Change "Management of Excess Soil - A Guide for Best Management Practices".
2. The owner should retain a Qualified Person (Q.P.) as defined under Section 5 of Ontario Regulation (O. Reg.) 153/04, being either a Professional Engineer (P. Eng.) or Professional Geoscientist (P. Geo.) to establish baseline soil and groundwater conditions on the site, prior to the importation of any fill.
3. Prior to placing any fill, samples are to be taken by a Q.P. at the fill source site and tested to ensure they will not cause adverse impact on the receiving site.
4. All incoming fill loads are to be accompanied by representative testing documentation indicating that the load is suitable for placement at the receiving site.
5. Soil testing is to be undertaken at laboratories bearing accreditation from either Standards Council of Canada (SCC), or Canadian Association for Laboratory Accreditation (CALA), and that have been accredited in accordance with International Standard ISO/IEC 17025 - General Requirement for the Competence of Testing and Calibration Laboratories.
6. All incoming fill loads should be visually and olfactory inspected by the receiving site owner, or their representative, to screen for visible staining of the soil, odour, or debris.
7. Documentation is to be kept for all incoming fill loads, including (but not limited to) the following:
   - Date and time or arrival of the load;
   - Name and location of the source site;
   - Volume of fill received;
   - Documentation from the source site signed by a Q.P. including representative soil testing results;
   - Confirmation by the receiving site Q.P. acknowledging the acceptability of the fill;
   - Any details pertaining to loads that are rejected for placement at the receiving site.
8. A soil placement plan is to be kept at the receiving site indicating the approximate location that fill was placed on the site, as well as the approximate volume of fill that was placed, from each source site.
9. The owner of the receiving site, or their representative, reserves the right to reject any load of imported fill brought onto the site. If a load is rejected prior to its placement, the load is to be immediately removed from the receiving site and returned to the source site. If the load is rejected upon its placement, it is to be excavated and removed from the receiving site, and returned to the source site, at the expense of the owner of the source site.
10. Refer to Fill Management Plan by Golder Associates for further fill monitoring requirements.



NO.	REVISION	DATE
1	SWM GUIDELINES UPDATE	06.2016

CONSTRUCTION ACCESS MAT — DATE: 06.2016 — SCALE: NTS — LSRCA ESC-3

TREE PLANTING NOTES

Site Preparation

This section applies to all enhanced grass swales, slopes, infiltration basins, and filter strips.

1. Topsoil should be spread to a minimum depth of 150mm following the completion of grading. Add amendments if necessary and till to ensure adequate mixing.
2. All infiltration, swale, and filter strip areas should be clearly demarcated prior and during construction. To protect infiltration capacity, construction traffic and storage of materials shall not occur in these areas. If compaction of some areas from construction is unavoidable, the compacted areas should be tilled to a depth of 300mm to break up any hard soil pan.
3. Final grading and planting should not occur in the swale until the areas draining into the swale are stabilized.
4. If possible, flow should not be directed into the swale once the banks are stabilized.

Seeding

1. Seeding shall occur immediately after final grading is complete. Hydroseeding is the preferred method to reduce the chance of erosion and maximize germination. Hydroseeding should occur in the spring and fall of every importation season as lifts are graded to minimize the amount of unstabilized soil.
2. Seed Mix 1 and Seed Mix 2 shall both be sown at a rate of between 35 and 45 kg/ha.
3. Seed Mix 1 shall be applied only to enhanced vegetated swales. The remaining slopes, infiltration basins, and filter strips shall be planted with Seed Mix 2.
4. A cover crop of *Avena sativa* shall be added to both Seed Mix 1 and 2. The cover crop application rate shall be 22 kg/ha in addition to the 35 to 45 kg/ha for Seed Mix 1 and 2 (total application 57 to 67 kg/ha).
5. Irrigation may be required while vegetation is becoming established during dry periods, depending on rainfall.
6. An approximately 1/3, 1/3, 1/3 mix of burr oak (*Quercus macrocarpa*), shagbark hickory (*Carya ovata*), and common hackberry (*Celtis occidentalis*) seeds should be hand sown during late autumn in the year following the seeding of grasses. The seeds should only be sown on slope areas and should be sown at a rate of roughly 1000 viable seeds per hectare.

Maintenance

1. Inspect for vegetation density (density should be at least 80%), quarterly for the first two years and twice annually thereafter.
2. Regularly inspect swales for erosion and rills, regrade and replant if necessary. Any damage due to sediment removal or erosion must be repaired and requires immediate re-seeding.
3. Scrape out and remove sediment when deposits exceed 25mm in depth and revegetate as required.
4. Mowing within swales is necessary to maintain optimal function. Mowing should be done frequently enough to maintain grasses at an appropriate height (75 to 150mm), and to promote vigorous growth and pollutant uptake. Grass clippings should be removed offsite to remove nutrients and pollutants.
5. Mowing is not recommended in filter strip, slope, and infiltration pit areas.
6. Remove trash and debris from all areas as needed.

Planting

1. All plant material installed must meet Canadian Standards for Nursery Stock, Ninth Edition.
2. All specified woody plant material should be container grown and between 60 and 80 cm in height at the time of installation.
3. Woody plant material shall be planted the year following seeding of the slopes. Nodes of approximately 5 to 6 m in diameter consisting of 3 of each of the 6 listed woody plants (18 plants in total per node) shall be planted on the slopes. Approximately 25 - 30 nodes should be evenly distributed throughout the slopes, avoiding the rip-rap channels and enhanced vegetation swales.

Enhanced Vegetated Swale (Seed Mix 1)

Approximate coverage area: 13,000 m²

Genus composition	species	common name	mix
Danthonia	*spicata*	poverty oatgrass	35%
Sorghastrum	*nutans*	yellow Indian grass	35%
Andropogon	*gerardii*	big bluestem	10%
Carex	*pensylvanica*	Pennsylvania sedge	10%
Elymus	*canadensis*	Canada wild-rye	10%

Slopes, Filter Strips, & Infiltration (Seed Mix 2)

Approximate coverage area: 61,700m²

Genus composition	species	common name	mix
Schizachyrium	*scoparium*	little bluestem	25%
Sorghastrum	*nutans*	yellow Indian grass	22.5%
Sporobolus	*neglectus*	small dropseed	22.5%
Andropogon	*gerardii*	big bluestem	10%
Elymus	*canadensis*	Canada wild-rye	10%
Monarda	*fistulosa*	wild bergamot	3%
Coreopsis	*lanceolata*	lance-leaved coreopsis	3%
Rudbeckia	*hirta*	black-eyed Susan	4%

Woody Plants (potted)

Genus	species	common name	quantity
Juniperus	*communis*	common juniper	~ 90
Myrica	*pensylvanica*	bayberry	~ 90
Prunus	*pumila var. pumila*	sand cherry	~ 90
Rhus	*typhina*	stag horn sumac	~ 90
Shepherdia	*canadensis*	buffalo-berry	~ 90
Viburnum	*rafinesquianum*	downy arrowwood	~ 90

Cover Crop

Approximate coverage area: 74,700m²

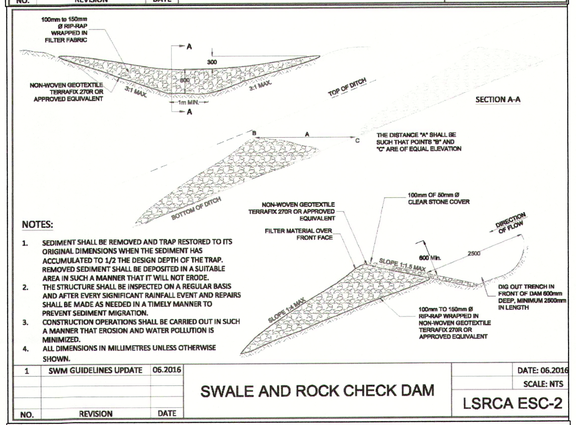
Genus composition	species	common name	mix
Avena	*sativa*	cultivated oats	100%

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL SEDIMENT CONTROL MEASURES SUCH AS SEDIMENT CONTROL FENCE, TEMPORARY PONDS, CONSTRUCTION ACCESS MATS, SEDIMENT TRAPS, SWALES AND CHECK DAMS MUST BE INSTALLED PRIOR TO THE COMMENCEMENT OF SITE WORKS.
2. SEDIMENT CONTROLS SHOULD BE INSPECTED ON A REGULAR BASIS AND AFTER EVERY SIGNIFICANT RAINFALL EVENT. REPAIRS TO ESC MEASURES MUST BE COMPLETED IN A TIMELY MANNER TO PREVENT SEDIMENT MIGRATION.
3. ADDITIONAL MATERIALS SUCH AS CLEAR STONE, FILTER FABRIC, PUMPS, HOSES AND SILTSOXX TO BE KEPT ONSITE AT ALL TIMES FOR CONDUCTING REPAIRS TO SEDIMENT CONTROL MEASURES.
4. ALL DISTURBED AREAS LEFT INACTIVE FOR MORE THAN THIRTY DAYS ARE TO BE STABILIZED.
5. THE STABILIZATION SEED MIXTURE IS TO BE AS SPECIFIED ON THE EROSION AND SEDIMENT CONTROL PLAN.
6. THE STABILIZATION SEED MIXTURE IS TO BE APPLIED AT A MINIMUM RATE OF 25 kg/ha.
7. ENGINEERED CHANGES TO THE ESC MEASURES MAY BE NEEDED AS SITE CONDITIONS CHANGE THROUGHOUT THE CONSTRUCTION PROCESS. THESE UPDATES MUST REFLECT BEST MANAGEMENT PRACTICES TO CONTROL SEDIMENT AND EROSION ONSITE AND SHOULD BE COMPLETED BASED ON DIRECTION FROM THE SITE ENGINEER. ADDITIONAL MEASURES MAY BE REQUIRED AS DIRECTED BY AN ENGINEER THROUGHOUT THE CONSTRUCTION PROCESS.
8. THE CONSTRUCTION ENTRANCE MAT IS TO BE INSTALLED AS THE FIRST STEP IN THE SITE ALTERATION PROCESS.
9. SEDIMENT CONTROL FENCE IS TO BE INSTALLED DOWNSLOPE OF ALL DISTURBED AREAS. A DOUBLE ROW OF SEDIMENT CONTROL FENCE IS TO BE INSTALLED SURROUNDING ALL NATURAL HERITAGE FEATURES AND AS DIRECTED BY THE SITE ENGINEER. SEDIMENT CONTROL FENCE IS TO BE AS PER LSRCA STANDARD ESC-4 or ESC-5 AS A MINIMUM. LIGHT DUTY SEDIMENT CONTROL FENCE IS NOT ACCEPTABLE.
10. CUT-OFF SWALES OR DITCHES ARE TO BE INSTALLED AS SHOWN ON THE ESC PLANS AND AS NECESSARY BASED ON CHANGING SITE CONDITIONS TO DIRECT OVERLAND FLOW TO THE APPROPRIATE SEDIMENT TRAP OR TEMPORARY SEDIMENT POND.
11. CHECK DAMS ARE TO BE INSTALLED IN ALL SWALES AND DITCHES IN ACCORDANCE WITH DRAWING LSRCA ESC-2, AS A MINIMUM
12. TEMPORARY SEDIMENT TRAP(S) ARE TO BE CONSTRUCTED AT THE BEGINNING OF SITE GRADING AND IF THE SITE DRAINAGE CHANGES DURING CONSTRUCTION. IT MAY BE NECESSARY FOR TEMPORARY SWALES TO BE CONSTRUCTED TO DIRECT SITE FLOWS TO THE TEMPORARY SEDIMENT TRAP(S) DURING ROUGH GRADING AND AS CONSTRUCTION PROGRESSES.
13. TEMPORARY SEDIMENT POND(S) ARE TO BE CONSTRUCTED AT THE BEGINNING OF SITE GRADING AND IF THE SITE DRAINAGE CHANGES DURING CONSTRUCTION. IT MAY BE NECESSARY FOR TEMPORARY SWALES TO BE CONSTRUCTED TO DIRECT SITE FLOWS TO THE TEMPORARY SEDIMENT POND(S) DURING ROUGH GRADING AND AS CONSTRUCTION PROGRESSES.
14. FILTREXX SILTSOXX OR APPROVED EQUIVALENT TO BE INSTALLED DOWNSTREAM FROM SEDIMENT TRAP AND TEMPORARY SEDIMENT POND OUTLETS TO A MINIMUM HEIGHT OF 300mm.
15. IF STOCKPILES ARE USED ON-SITE FOR THE STORAGE OF EXCESS MATERIAL, THEY ARE TO BE IN ACCORDANCE WITH DETAIL DRAWING LSRCA ESC-6 OR BETTER.
16. ANY DEWATERING OCCURRING ONSITE MUST BE IN ACCORDANCE WITH AN APPROVED DEWATERING PLAN. ADDITIONAL DEWATERING REQUIREMENTS MAY BE DEEMED NECESSARY AND SHALL BE IMPLEMENTED AS DIRECTED BY THE ENGINEER, CONTRACT ADMINISTRATOR OR LOCAL MUNICIPALITY.
17. THE SITE TRAILER IS TO BE LOCATED ONLY AT THE DESIGNATED LOCATION SHOWN ON THE PLANS.
18. EQUIPMENT AND HYDROCARBON STORAGE IS TO OCCUR ONLY WITHIN THE DESIGNATED AREA SHOWN ON THE PLANS.
19. REFUELING IS TO TAKE PLACE ONLY WITHIN THE DESIGNATED AREA SHOWN ON THE PLANS AND SHALL BE A MINIMUM OF THIRTY METRES FROM ANY WATERCOURSE OR ENVIRONMENTALLY SENSITIVE AREA.
20. AN APPROVED SPILLS MANAGEMENT PLAN IS TO BE KEPT ONSITE.
21. SPILL CLEANUP EQUIPMENT SUCH AS ABSORPTIVE MEDIA IS TO BE MAINTAINED ONSITE FOR IMMEDIATE USE IN THE EVENT OF A SPILL.
22. SPILLS ARE TO BE REPORTED IMMEDIATELY TO THE MOECC SPILLS ACTION CENTRE AT 1-800-268-6060.
23. THE CONTRACTOR WILL BE RESPONSIBLE FOR CLEAN-UP AND RESTORATION, INCLUDING ALL COSTS, DUE TO THE RELEASE OF SEDIMENT FROM THE SITE.
24. LOW IMPACT DEVELOPMENT (LID) MEASURES ARE NOT TO BE USED AS SEDIMENT CONTROL DEVICES.
25. ADDITIONAL SEDIMENT CONTROL DEVICES MAY BE DEEMED NECESSARY AND AS SITE CONDITIONS CHANGE AND SHALL BE INSTALLED AS DIRECTED BY THE SITE ENGINEER, CONTRACT ADMINISTRATOR OR LOCAL MUNICIPALITY.

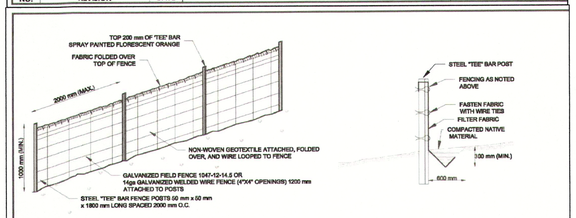
NO.	REVISION	DATE
1	SWM GUIDELINES UPDATE	06.2016

EROSION AND SEDIMENT CONTROL PLAN NOTES — DATE: 06.2016 — SCALE: NTS — LSRCA ESC-1



NO.	REVISION	DATE
1	SWM GUIDELINES UPDATE	06.2016

SWALE AND ROCK CHECK DAM — DATE: 06.2016 — SCALE: NTS — LSRCA ESC-2

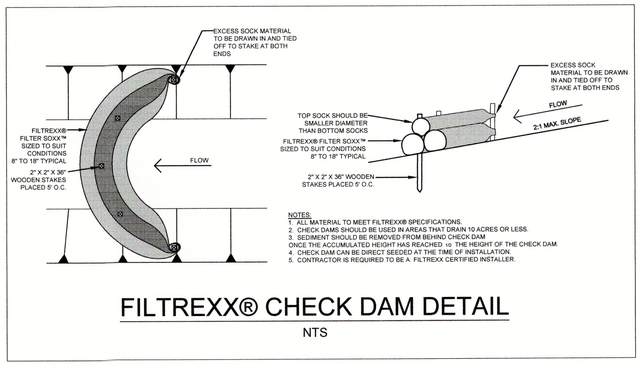


NOTES:

1. SEDIMENT CONTROL FENCE SHOULD BE ALIGNED WITH CONTOURS FOR SHEET OVERLAND FLOW.
2. SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 CHART 74-3C TOPOGRAPHIC FACTOR LS BASED ON SLOPE LENGTH AND GRADIENT.
3. SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TIED INTO THE SOIL A MINIMUM OF 300 mm BY EITHER STATIC SLICING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% STANDARD PROCTOR DENSITY.
4. STEEL "T" BAR POSTS ARE TO BE SPACED A MAXIMUM DISTANCE OF 2000 mm ON CENTER.
5. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
6. GEOTEXTILE FABRIC TO BE COMPRISED OF NON-WOVEN U.V. STABILIZED MATERIAL FABRIC TO BE FOLDED OVER TOP OF FENCE A MINIMUM OF 300 mm AND WIRE FASTENED.
7. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
8. ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SHOWN.

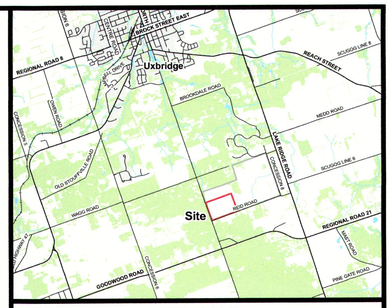
NO.	REVISION	DATE
1	SWM GUIDELINES UPDATE	06.2016

SEDIMENT CONTROL FENCE — DATE: 06.2016 — SCALE: NTS — LSRCA ESC-4



NOTES:
1. ALL MATERIAL TO MEET FILTREXX® SPECIFICATIONS.
2. CHECK DAMS SHOULD BE USED IN AREAS THAT DRAIN 10 ACRES OR LESS.
3. SEDIMENT SHOULD BE REMOVED FROM BEHIND CHECK DAM ONCE THE ACCUMULATED HEIGHT HAS REACHED ½ THE HEIGHT OF THE CHECK DAM.
4. CHECK DAM CAN BE DIRECT SEEDED AT THE TIME OF INSTALLATION.
5. CONTRACTOR IS REQUIRED TO BE A FILTREXX CERTIFIED INSTALLER.

FILTREXX® CHECK DAM DETAIL
NTS



KEY MAP
N.T.S.

LEGEND

SCHEDULE OF REVISIONS

NO.	DATE	DESCRIPTION	CHECKED
1.	November 2019	Address Peer Review comments	JAC

LICENSED PROFESSIONAL ENGINEER — M. J. BERTRAM — 100159403 — Nov 7/19 — PROVINCE OF ONTARIO

REGISTERED PROFESSIONAL ENGINEER — J.A. CLARK — NOV 7/19 — PROVINCE OF ONTARIO

MILLER PAVING LIMITED
BOYINGTON PIT #3

FILL IMPORTATION UNDER SITE PLAN CONTROL
4419 CONCESSION ROAD 7
TOWNSHIP OF UXBRIDGE

NOTES AND DETAILS

PROJECT NO.	10 - 2412	DRWG NO.	2412 - 11 of 11
DATE:	MARCH 2019	SCALE:	AS NOTED
DRAWN:	MJB/KAH	CHECKED:	MJB
		APPROVED:	JC

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