

**NUMBERING SCHEME USED FOR OPERATIONAL NOTES  
REFERS TO AGGREGATE RESOURCES ACT PROVINCIAL  
STANDARDS FOR A CLASS 'A' CATEGORY 3 LICENSE**

**1.3.1 Sequence and Direction:**  
Each phase will be stripped of topsoil and subsoil in stages. Where there is a distinguishable layer, the topsoil will be stripped, handled and replaced as a separate layer. Wherever possible, topsoil will be moved directly to a rehabilitated location. All topsoil and subsoil will be used in rehabilitation of this site and if sufficient topsoil is available excess topsoil and overburden may be moved between this site and the adjacent Licence No. 3726 to provide appropriate timing and effective progressive rehabilitation on both sites. The sequence of rehabilitation will follow the Operational Phasing sequence shown and described on page 2 of 4.

**1.3.2 Topsoil and Overburden:**  
Topsoil and overburden will be stripped, stored and replaced separately. Topsoil and subsoil shall be replaced in appropriate sequence on all pit slopes and the pit floor to a minimum depth of 0.5m, graded and cultivated in preparation for seeding. All excavation faces shall be sloped and graded to a minimum 3:1 slope. This may be accomplished by backfilling with clean fill from within the area to be excavated where the deposit is of unsuitable quality. Where there is a deficiency of fill for slope rehabilitation, clean fill may be imported.

**1.3.3 & 1.4.3 Proposed Vegetation:**  
Prior to vegetating the pit floor, compacted soils or substrates will be stripped to alleviate compaction without mixing soil layers. De-compaction will be completed to a min. depth of 15.0m (or more if sufficient quantities are available). The area will be seeded with a good hay mixture of timothy, alfalfa, and red clover. This crop will be ploughed under for two years, producing a healthy fibre content to the soil. After this, a good hay production farm should result.

**1.3.4 & 1.4.2 Slope Creation and Rehabilitated Landform:**  
Rehabilitation will be progressive and proceed as limits of excavation are reached, 3:1 slopes will be constructed. Slopes will be established by cut/fill and/or backfill methods using on-site materials. The final landform shown represents the max. extent of extraction and may be reduced if marketable resources are not encountered.

**1.3.5 Progressive Rehabilitation:**  
Progressive rehabilitation will be ongoing as stripping and extraction progresses. Side slopes and pit floor areas not being utilized as part of active operations where extraction has been completed, will be progressively rehabilitated.

**1.3.6 & 1.4.1 Importation of Fill:**  
Clean inert fill (e.g. topsoil, overburden) may be imported to facilitate pit rehabilitation. Only sufficient material to create a 3:1 grade may be imported.

**1.4.4 Buildings and Structures:**  
No buildings or structures will be on-site and none will remain on-site.

**1.4.5 Internal Haul Roads:**  
No internal haul routes will remain on-site.

**1.4.6 Surface Water Drainage and Discharge:**  
The anticipated elevation of ground water ranges from ±507 m.a.s.l and ±493 m.a.s.l. There will be no off-site drainage as the entire site will be extracted to a level below the surrounding landscape. Drainage will occur through percolation into the ground water table. Should additional drainage be necessary, tile drains will be installed.

**Natural Environment: Natural Environment Level 1 Technical Report - Birks Natural Heritage Consultant (July 2019); Natural Environment Level 2 Technical Report - Birks Natural Heritage Consultant (February 2021):**

The Rehabilitation and Compensation Plan should incorporate the following natural heritage recommendation:

- Identify buffers from the retained woodland edges, which will be allowed to renaturalized and supplemented with targeted native species plantings.
- Outline how progressive rehabilitation will be undertaken as it relates to Woodland Habitat removed.
- Increase habitat wherever possible, native plantings within the setback area could expand habitat available in the area.
- Identify any Future Offset proposed in the progressive rehabilitation for Woodland Habitat removed.
- General woodland rehabilitation recommendations are provided as follows:

- Prior to removal of the woodland, soil from the forest floor (containing seedbank) should be salvaged and moved into the selected woodland compensation areas.
- A topsoil layer of at least 20 cm deep will need to be placed prior to planting.
- Additional topsoil should be placed around the roots of all planted trees and shrubs.
- Plants should be native species that are appropriate for the site conditions.
- Tree species should be randomly mixed in a variable arrangement and not in rows to mimic a natural forest.
- Seedlings should be planted in spring or fall.
- Plant material should be watered immediately after planting and bi-weekly for the first two months, then monthly for the rest of the growing season.
- Tree guards should be placed on seedling stems to reduce impacts from mammal browsing.
- Plant material should be inspected annually for survival for the first three years. Plants should be replaced if there is less than 80% survival.

**Legend**

- Boundary of Area to be Licensed
- Limit of Extraction
- Existing Licensed Boundary  
(LICENSE NO. 3726)
- Existing Licensed Pits
- Surface Water Drainage Direction
- Existing Building / Structure
- Scale / Scale House
- Proposed Hay Planting
- Public Road
- Elevation, Contour
- Proposed Contour
- Woodlands
- Wetlands
- High Constraint Woodland Area
- Existing Fence
- Operational Entrance
- Cross-Sections

Site Plan Amendments:

No.	Date	Description	By
1	August 3, 2021	First Submission;	A.S

MNRF Approval Stamp:

Stamp:

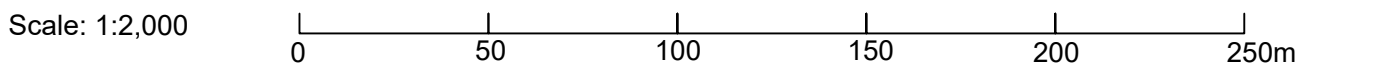
Applicant: **DUIVENVOORDEN HAULAGE LTD.**  
3425 9th Line,  
Innisfil, Ontario  
L9S 3Z6

Project: **MELANCTHON PIT EXPANSION**  
Part of East half of Lots 13 and 14,  
Con. 4 Twp of Melancthon on RR#2,  
Shelburne, Ontario

**REHABILITATION PLAN 3 of 4**

MNRF License Ref. No.:

Pre-approval Review:



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Checked By: D.V. / J.H

File No.: 18-802

Date: August 3, 2021