

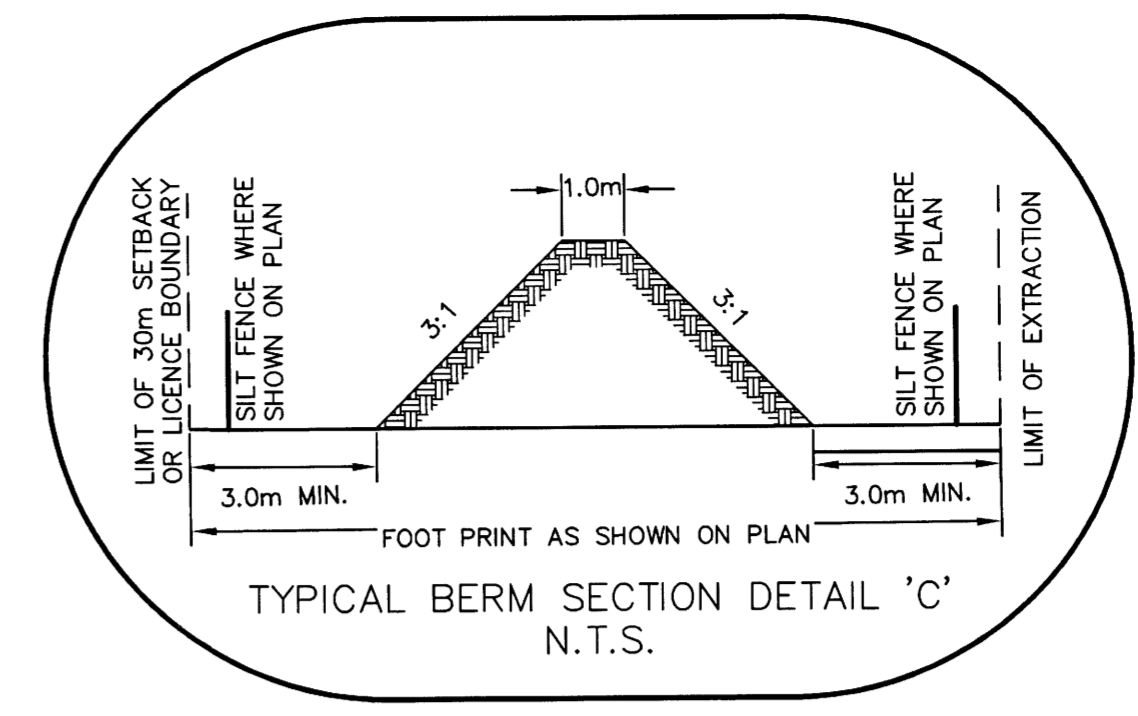
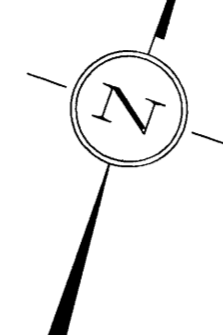
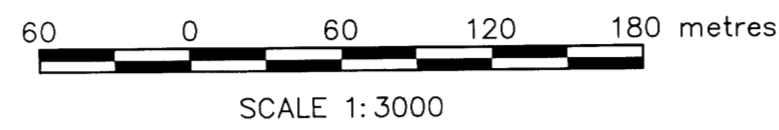
1993-2

DECLARATION OF PURPOSE
THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, CATEGORY 1.

PART OF LOTS 10 & 11 AND PART OF ROAD ALLOWANCE BETWEEN LOTS 10 & 11 CONCESSION IV, TOWNSHIP OF UXBRIDGE REGIONAL MUNICIPALITY OF DURHAM

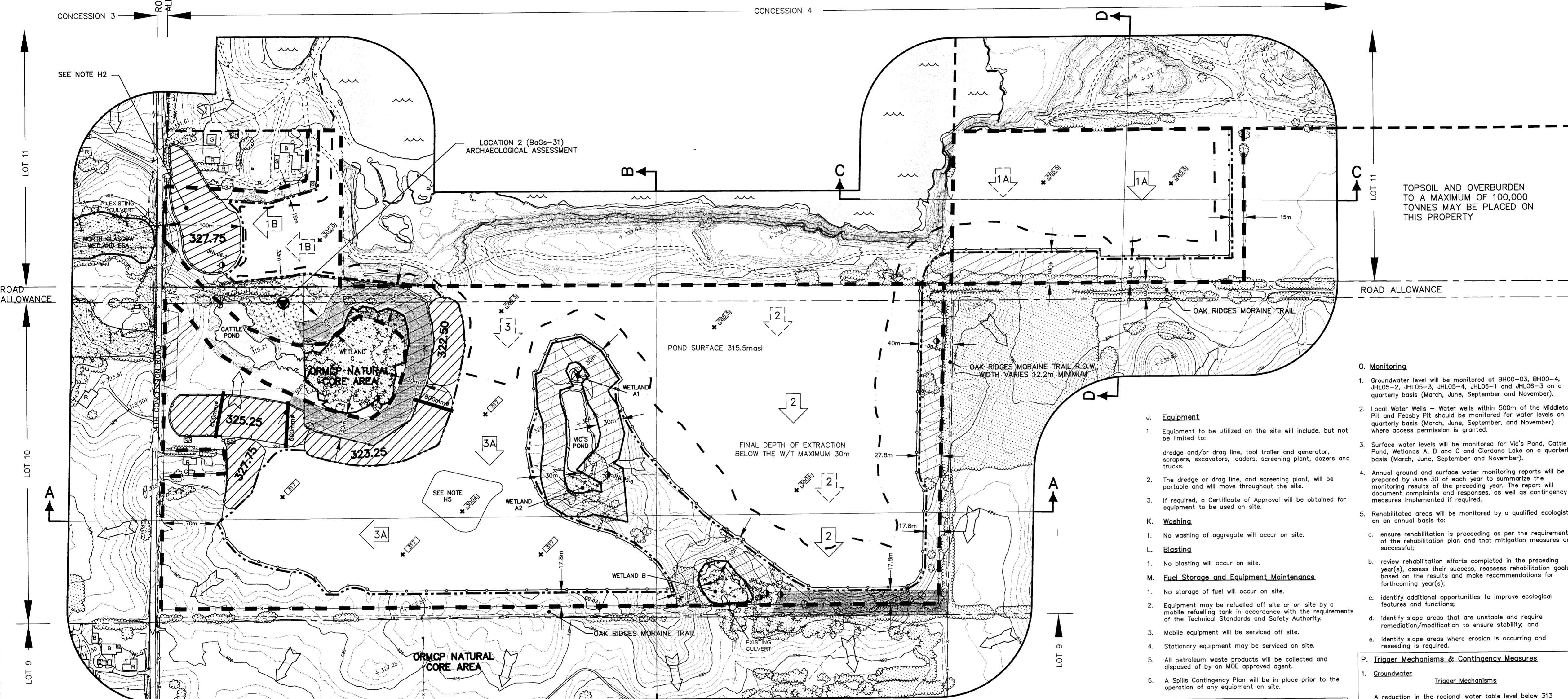
BUILDING LEGEND:

R	RESIDENCE
S	SHED
SA	SHED - ABANDONED
G	GARAGE
CH	CHALET
B	BARN
BA	BARN - ABANDONED
CS	CATTLE SHELTER
T	TRAILER



LEGEND

- LICENSED BOUNDARY
- - - LICENSED BOUNDARY (ADJACENT PIT)
- LINE INDICATING ALL POINTS WITHIN 120m (MIN.) OF LICENSED BOUNDARY.
- TOWNSHIP LOT LINE
- LIMIT OF EXTRACTION: ABOVE WATER TABLE
- LIMIT OF EXTRACTION: BELOW WATER TABLE
- x- POST & WIRE FENCE - UNLESS OTHERWISE NOTED
- == PUBLIC ROAD
- INTERNAL ROAD
- SILT FENCE
- TRAIL
- STRUCTURES AND BUILDINGS
- BUILDING FOUNDATION
- CONTOURS & SPOT ELEVATIONS
- GENERAL DIRECTION OF DRAINAGE
- TREES/BUSH
- POND/SURFACE WATER
- WETLAND (STAKED AND SURVEYED WITH MNR APPROVAL)
- DIRECTION/SEQUENCE OF EXTRACTION BELOW WATER TABLE
- DIRECTION/SEQUENCE OF EXTRACTION ABOVE WATER TABLE
- SECTION ARROWS
- KEY NATURAL HERITAGE FEATURE AND VEGETATED PROTECTION ZONE(30m MIN) NO DEVELOPMENT/SITE ALTERATION
- SETBACK FROM NATURAL CORE AREA WITH KNHF (30m MIN) NO DISTURBANCE/NO STORAGE OF TOPSOIL/BERMS PERMITTED
- TOPSOIL AND/OR OVERBURDEN BERM (MINIMUM ELEVATION)
- MAXIMUM DEPTH OF EXCAVATION ABOVE WATER TABLE (EXCEPT ADJACENT TO LAKE)
- MAXIMUM DEPTH OF EXCAVATION BELOW WATER TABLE
- CULVERT
- GIORDANO LAKE
- LOCATION 2 (BaGs-31) AND NO DISTURBANCE AREA (ARCHAEOLOGICAL ASSESSMENT)
- MONITORING WELL



- A. General**
- Licensed Area: 48.7 ha. Area to be extracted: 30.97 ha. Area to be extracted below the water table: 15.40 ha.
 - The established maximum regional groundwater table is at an elevation of 315.5 masl on the site based on the Hydrogeologic Assessment.
 - This application does not increase tonnage. The amalgamated pit will have a maximum annual tonnage of 2,165,000 comprised of the existing maximum tonnage of the Brock Road Pit of 1,815,000 tonnes and the Regan Pit of 350,000 tonnes.
 - No disturbance will take place in proximity to Location 2 (BaGs-31) as shown.
 - All processing and shipping of aggregate extracted from the site will occur in the adjacent pit to the north.
 - Should deeply buried archaeological material be found on the property during excavation activities, the Ministry of Culture should be notified immediately at (416) 314-7174. In the event that human remains are encountered during excavation, the proponent should immediately contact both the Ministry of Culture and the Registrar or Deputy Registrar of the Cemeteries Regulation Unit of the Ministry of Consumer and Commercial Relations, (416) 326-3392.
- B. Hours of Operation**
- General operations, maintenance, screening, site preparation and shipping are permitted between 5 am to 5 pm Monday to Saturday except on public holidays as defined by the Employment Standards Act.
 - Extraction is permitted between 6 am to 9 pm Monday to Saturday except on public holidays as defined by the Employment Standards Act.
- C. Protection of Key Natural Heritage Features**
- Silt fencing will be installed as shown prior to stripping or construction of berms to prevent siltation of Key Natural Heritage Features, berms and adjacent lands, and to prevent wildlife from entering the extraction area.
 - Silt fence will be monitored after storm events and maintained

- until the site is rehabilitated and operations have ceased or until the adjacent areas have been extracted to an elevation below the base of the silt fence and the fencing is replaced with alternate fencing to prevent amphibians and small mammals from entering the extraction area.
 - Clearing and stripping will be staged to maintain existing vegetation as long as possible to minimize disturbed area and reduce the potential for erosion.
 - Existing wetland hydrology is to be maintained to the extent feasible through monitoring, and appropriate implementation of contingency measures as described in Section O Monitoring Mechanisms and Contingency Measures.
 - Sufficient depth of water will be maintained in Vic's Pond to prevent its freezing solid in winter months by utilizing the contingency measures described in Section P. Trigger Mechanisms and Contingency Measures.
 - No access lanes or roads will be constructed within the Key Natural Heritage Features, the related buffers, or in areas that have been rehabilitated.
- D. Drainage**
- Drainage of undisturbed areas will continue as shown and described on the Existing Conditions Plan.
 - Drainage of extracted areas will be contained on-site or will drain toward the lake created by the extraction.
- E. Fencing and Tree Screens**
- Post and wire fencing, minimum height 1.2 m, will be installed along the licensed boundary, and/or existing fencing will be upgraded where necessary, except as described in Notes N1 and N2. Variations from Provincial Standards, within 6 months of licensing.
 - The entrance to the site is located on the adjacent pit to the north. The entrance has a gate that is kept closed during hours of non-operation.
 - Marker posts will be installed along the Licence boundary adjacent to the Natural Core Designation. Marker posts will be clearly visible from one to the next. Maximum distance apart shall be no greater than 30m.
 - All existing trees within the setbacks will be maintained except where removal is necessary for fence or berm installation.

- Fencing and marker posts where required along the licensed boundary, and trees within the setbacks will be maintained and/or replaced as necessary until the licence is surrendered.
- F. Site Preparation**
- Trees within the area of extraction will be cleared in accordance with good forestry practices to ensure that damage to remaining trees is minimized.
 - Trees, brush and stumps will be removed from site, disposed of by burning with applicable permits, or stockpiled within the disturbed area, but not within 30 meters of the Licensed Boundary or any body of water, for use in rehabilitation. Trees may also be transplanted to areas being rehabilitated or along the edge of the woodland.
 - Within the limit of extraction, all trees will be removed within 5 m of the excavation face.
 - Topsoil and overburden from Phase 1B, 2 and 3 will be stripped sequentially and used separately for construction of berms for mitigation of sound impacts in the north west area of the site.
 - Topsoil and overburden from Phase 1 A will be moved to the adjacent licensed pit and/or unlicensed lands as shown. Maximum volume of material utilized on unlicensed lands will be 100,000 tonnes. See Note N5 Variations from Provincial Standards.
 - Topsoil and overburden from any Phase not required for berm construction will be utilized as much as possible for progressive rehabilitation of the site or adjacent licensed area. If necessary, topsoil and overburden may be stockpiled in the disturbed area of the site or adjacent licensed areas, but not within 60 meters of any wetland KNHF.
 - Berms and stockpiles will be seeded and maintained to control erosion.
 - Prior to the construction of the berm west of Phase 1A/1B, monitoring well JHL06-1 will be decommissioned and a new well constructed in this vicinity of a location to be identified by Geonor.
- G. Dust Control**
- Dust will be mitigated on site.

- A speed limit of 20 km/h will be strictly enforced on all internal haul roads.
 - Water will be applied to internal haul roads and processing areas as often as required to mitigate dust. In dry conditions water will be applied on the entire internal pit truck haul routes every 2 hours. The operator will ensure that the water supply is capable of providing up to 120,000 litres/day in worst case conditions.
 - When winds are directed toward the nearest residences at a speed greater than 30 km/h, or otherwise sufficient to cause wide-spread viable erosion of the open face, extraction should be suspended and water sprays or chemical binder used to stabilize the face as quickly as possible.
 - Water spray cannons will be available to stabilize exposed pit faces or stockpiles when required.
 - An implementation plan will be put in place that addresses the chain of responsibility for dust control, staff training, inspection and maintenance of dust control equipment, visual inspection of dust sources, record keeping and complaint response.
- H. Extraction Sequence**
- Extraction above the water table will commence in the existing pit to the north and proceed through Phases 1A, 1B and 2 to the horizontal limit of extraction.
 - Prior to extraction in Phase 1B, 2 or 3 all berms required for sound mitigation will be constructed using topsoil and overburden stripped from Phase 1 or 2 or from the adjacent pit. The northern part of the berm adjacent to the 4th Concession may be replaced with a noise attenuation structure designed by a qualified professional with prior approval of MNR. Prior to construction of this berm, it will be determined whether a culvert is required to maintain drainage through the area.
 - Prior to extraction in Phase 3, progressive rehabilitation of the area above the water table in Phases 1A, 1B and 2 will be completed.
 - Prior to extraction below the water table in Phase 1A, 1B, or 2, progressive rehabilitation of the slopes above the water table will be completed in the same phase, except in areas required for operations related to extraction below the water table.

- Within the area identified on the plan in Phase 3A an area may be extracted below the water table to take advantage of high quality aggregate deposits. This area will be backfilled with material from the site to create a pond a maximum of 2 metres deep, no less than 20 square metres and no more than 0.5 ha in area. The area may be relocated with prior approval of MNR based on known geology.
 - As the horizontal limit of extraction and/or maximum depth of extraction is reached in any part of each phase, progressive rehabilitation will commence as shown on the progressive and final rehabilitation plan.
- I. Extraction Details**
- The maximum height of each lift above the water table will be 8.0 m.
 - The highest elevation within the limit of extraction is 341.7 masl extracted to a pit floor elevation 1.5 m above the water table at 317.0 masl establishes an approximate maximum depth of excavation above the water table of approximately 24.7 m. The maximum number of lifts will be 4.
 - Extraction below the water table will be by dredge or drag line.
 - Aggregate stockpiles will generally be located in the processing area on the adjacent licence, but may be located in close proximity to the working face, or adjacent to below water extraction areas on the site.
 - As the limit of extraction is reached, the operator will utilize one of the lift extraction options as outlined in Detail 'D' on the progressive and final rehabilitation plan.
 - All excavation faces will be stabilized to prevent erosion into the setback area.
 - Where the quality of material does not meet the operator's market requirements, the horizontal extent or depth of extraction may be reduced.
 - The location of internal haul roads will vary as the operation progresses. In some locations haul roads may be established along the edge of the ponds and may be left in place at final rehabilitation.
 - No scrap will be stored on site. See Note F.2. regarding stumps and brush.

- N. Variations from Provincial Standards**
- The north limit of the licensed boundary adjacent to the existing licensed pit will not be fenced. The extraction will proceed from the existing pit southerly and easterly through the expansion area as one operation (5.1).
 - The licensed boundary adjacent to the Natural Core Designation will not be fenced to avoid disturbance of the area. Marker posts will be installed so that they are clearly visible from one to the next with a maximum distance of 30 metres apart. This area is enclosed within the existing and proposed fencing for the existing pit and the expansion area. The area will be protected from the extraction operation by berms and/or enhanced setbacks to the limit of extraction (5.1).
 - There will be no setbacks between the limit of extraction and the licensed boundary where the licensed boundary abuts an existing licensed pit. This will allow optimum resource recovery and comprehensive rehabilitation (5.10.1).
 - Berms may not all be removed in Final Rehabilitation. The remaining berms will be allowed to re-vegetate with natural self sustaining vegetation (5.17).
 - Topsoil and overburden may be moved to the adjacent licensed and/or unlicensed areas as shown controlled by the licensee (5.16).
 - This will provide for construction of berms for noise attenuation and visual screening, top dressing of agricultural areas, and will facilitate comprehensive rehabilitation.
 - Slopes steeper than 3:1 may be created in some areas (5.19). Provided that the overall slope from top to toe is no steeper than 3:1. Slopes below the water table will be at the angle of repose.

- O. Monitoring**
- Groundwater level will be monitored at BH00-03, BH00-04, JHL05-2, JHL05-3, JHL05-4, JHL05-1 and JHL06-3 on a quarterly basis (March, June, September and November).
 - Local Water Wells - Water wells within 500m of the Middleton Pit and Feasby Pit should be monitored for water levels on a quarterly basis (March, June, September, and November) where access permission is granted.
 - Surface water levels will be monitored for Vic's Pond, Cattle Pond, Wetlands A, B and C and Giordano Lake on a quarterly basis (March, June, September and November).
 - Annual ground and surface water monitoring reports will be prepared by June 30 of each year to summarize the monitoring results of the preceding year. The report will document complaints and responses, as well as contingency measures implemented if required.
 - Rehabilitated areas will be monitored by a qualified ecologist on an annual basis to:
 - ensure rehabilitation is proceeding as per the requirements of the rehabilitation plan and that mitigation measures are successful;
 - review rehabilitation efforts completed in the preceding year(s), assess their success, reassess rehabilitation goals based on the results and make recommendations for forthcoming year(s);
 - identify additional opportunities to improve ecological features and functions;
 - identify slope areas that are unstable and require remediation/modification to ensure stability; and
 - identify slope areas where erosion is occurring and reseeded is required.
- P. Trigger Mechanisms & Contingency Measures**
- Groundwater:**

Trigger Mechanisms

A reduction in the regional water table level below 313 masl.

Contingency Measures

Adverse effect on local water wells as a result of the pit. Review local water table elevations to determine if the groundwater level changes are a result of extraction activities. If groundwater changes are a result of extraction activities:

 - reduce rate of extraction, or
 - increase the setback of below the water table extraction from the site boundary, and
 - increase groundwater monitoring frequency to monthly.
 If local water wells are negatively effected as a result of extraction activities, provide an alternative water supply through the installation of a deeper water well.
 - Surface Water:**

Trigger Mechanisms

A reduction in surface water level in: Wetland B below 322.8 masl during the year.

Contingency Measures

Reduce the diameter of the wetland drainage pipe, and/or raise the elevation of the drainage pipe inlet.

Trigger Mechanisms

vic's Pond and Wetland A below 322.0 masl from March 1 through June 30 of each year.

Contingency Measures

Increase the elevation of the pond outlet to provide greater water storage capacity during the spring. Pump water from the rehabilitation lake (Lake Giordano) to Vic's Pond as required.

SCHEDULE OF REVISIONS (PRE LICENCING)

NO.	DATE	DESCRIPTION	APPROVED
1.	NOVEMBER 2011	REVISIONS PER MNR COMMENTS JULY 28, 2011	[Signature]

SCHEDULE OF AMENDMENTS

NO.	DATE	DESCRIPTION	APPROVED

TRUDY P. PATERSON
IS APPROVED BY THE
MINISTRY OF NATURAL RESOURCES
PURSUANT TO SECTION 8 (4) OF THE
AGGREGATE RESOURCES ACT TO
PREPARE AND CERTIFY SITE PLANS.

Trudy P. Paterson
TRUDY P. PATERSON DATE

**VICDOM BROCK ROAD
PIT EXPANSION**
TOWNSHIP OF UXBRIDGE
APPLICANT: VICDOM SAND AND GRAVEL (ONTARIO) LIMITED
P.O. BOX 1359
UXBRIDGE, ONTARIO
L9P 1N6

OPERATIONAL PLAN

PROJECT NO. 05-1993	DRWG. NO. 1993-20F 4
DATE: NOVEMBER 2011	SCALE: 1:3000
DRAWN: CAP	CHECKED: [Signature]
APPROVED: [Signature]	

Skelton Brumwell
ASSOCIATES INC.

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