Rehabilitation Plan Pit & Quarry

AMENDMENTS/ VARIATIONS			
NO.	DESCRIPTION	DATE Approved	Approved by

1:3,500

N

0 100 200 400 Meters

Cross Section Line A-A1

Scale Horizontal 1:5000
Vertical 1:1000

1.3 PROGRESSIVE REHABILITATION NOTES

1.3.1 SEQUENCE AND DIRECTION OF PROGRESSIVE REHABILITATION
PROGRESSIVE REHABILITATION WILL OCCUR AS AREAS BECOME DEPLETED OR REACH THE EXCAVATION LIMITS.

1.3.2 DETAILS ON HOW OVERBURDEN AND TOPSOIL WILL BE USED TO FACILITATE PROGRESSIVE REHABILITATION
ALL TOPSOIL/OVERBURDEN WILL BE USED TO REHABILITATE THE SITE. SLOPES CREATED IN THAT PART OF THE PIT REMAINING ABOVE WATER, WILL BE AT LEAST 3 METRES HORIZONTAL FOR EACH METRE VERTICAL. SLOPES CREATED IN THE QUARRY WILL BE AT LEAST 2 METRES HORIZONTAL FOR EACH METRE VERTICAL. ANY AVAILABLE MATERIAL FROM THE SITE WILL BE UTILIZED TO FILL VOIDS NEAR THE SURFACE. THESE SLOPES WILL THEN BE COVERED WITH TOPSOIL/OVERBURDEN AND SEEDED. STUMPS AND OTHER WOODY MATERIAL WILL BE SPREAD OVER THE REHABILITATED SLOPE TO DETER UNAUTHORISED RECREATIONAL VEHICLES FROM DISTURBING THE SITE, CONTROL EROSION AND TO CREATE COVER FOR WILDLIFE.

1.3.3 LOCATION, DESIGN AND TYPE OF VEGETATION (E.G. GRASSES, LEGUMES, SHRUBS AND TREES, ETC.) THAT WILL BE ESTABLISHED ON SITE DURING PROGRESSIVE REHABILITATION
NATIVE TYPES OF VEGETATION WILL BE ALLOWED TO RE-ESTABLISH NATURALLY TO ENCOURAGE FULL COVERAGE, WHICH WILL INCLUDE GRASSES, SHRUBS AND TREES. AS SUPPLEMENTS, THESE AREAS SHALL BE VEGETATED WITH A GRASS/LEGUME SEED MIX.

1.3.4 HOW THE SLOPE WILL BE ESTABLISHED ON EXCAVATION FACES AND THE PIT/QUARRY FLOOR
ALL SLOPES WILL BE CREATED USING CUT/FILL OR BACKFILL METHODS, USING CLEAN MATERIAL FROM THE SITE. SLOPES AND FLOORS WILL BE COVERED WITH FILL TO DEVELOP DRAINAGE AND ROOTING ZONE SUFFICIENT TO ACCOMMODATE PLANT GROWTH.

1.3.5 DETAILS ON HOW PROGRESSIVE REHABILITATION WILL BE CONDUCTED IN RELATION TO THE OPERATIONAL SEQUENCES
EXCAVATION WILL BE DIRECTED TO FINAL DEPTH AND UPON REACHING EXCAVATION LIMITS, WHEN ROOM PERMITS, AREAS WILL BE PROGRESSIVELY REHABILITATED.

1.3.6 IF PROPOSED, DETAILS ON THE IMPORTATION OF TOPSOIL OR INERT MATERIAL TO FACILITATE REHABILITATION OF THE SITE
NO MATERIALS WILL BE IMPORTED TO ASSIST IN SITE REHABILITATION.

1.4 FINAL REHABILITATION NOTES

1.4.1 IF PROPOSED, DETAILS ON THE IMPORTATION OF TOPSOIL OR INERT MATERIAL TO FACILITATE REHABILITATION OF THE SITE
NO MATERIALS WILL BE IMPORTED FOR SITE REHABILITATION

1.4.2 HOW FINAL SLOPES WILL BE ESTABLISHED ON ALL EXCAVATION FACES AND THE PIT/QUARRY FLOOR
ALL SLOPES WILL BE CREATED USING CUT/FILL OR BACKFILL METHODS, USING CLEAN MATERIAL FROM THE SITE. SLOPES AND FLOORS, REMAINING ABOVE WATER, WILL BE COVERED WITH FILL TO DEVELOP DRAINAGE AND ROOTING ZONE SUFFICIENT TO ACCOMMODATE PLANT GROWTH.

1.4.3 LOCATION, DESIGN AND TYPE OF VEGETATION (E.G. GRASSES, LEGUMES, SHRUBS, AND TREES, ETC.) THAT WILL BE STABLISHED ON SITE DURING FINAL REHABILITATION
NATIVE TYPES OF VEGETATION WILL BE ALLOWED TO RE-ESTABLISH NATURALLY TO ENCOURAGE FULL COVERAGE, WHICH WILL INCLUDE GRASSES, SHRUBS AND TREES. AS SUPPLEMENTS, THESE AREAS SHALL BE VEGETATED WITH A GRASS/LEGUME SEED MIX.

1.4.4 ANY BUILDING (S) OR STRUCTURE (S) TO REMAIN ON THE SITE
ALL BUILDINGS, EXCEPT THOSE REQUIRED FOR PERSONAL USE, WILL BE REMOVED FROM THE SITE PRIOR TO LICENCE SURRENDER.

1.4.5 ANTICIPATED ELEVATION OF THE GROUNDWATER TABLE.
THE GROUNDWATER TABLE IN THE SURFICIAL MATERIAL IS AT 377.0 MASL.

1.4.6 ANY INTERNAL HAUL ROADS THAT WILL REMAIN ON THE SITE
SOME ROADS FOR ACCESS WILL REMAIN ON THE SITE.

1.4.7 FINAL SURFACE WATER DRAINAGE AND DRAINAGE FACILITIES ON THE SITE
DRAINAGE WILL NATURALLY OCCUR BY PERCOLATION AND EVAPORATION.

1.4.8 FINAL ELEVATIONS OF REHABILITATED AREAS OF THE SITE ILLUSTRATED BY FIVE METRE CONTOUR INTERVAL, EXPRESSED AS METRES ABOVE MEAN SEA LEVEL
REFER TO THE PLAN

1.4.9 LOCATION OF CROSS-SECTION (S)
TWO CROSS SECTION LINES (A-A1 AND B-B1) RUN THROUGH THE SITE.

1.5 CROSS-SECTIONS

1.5.1 ONE OR MORE CROSS-SECTIONS OF EXISTING CONDITIONS AND THE REHABILITATION OF THE SITE
TWO CROSS-SECTION LINES RUN THROUGH THE SITE. SEE DIAGRAM FOR EACH ON PAGE 1 OF 3.

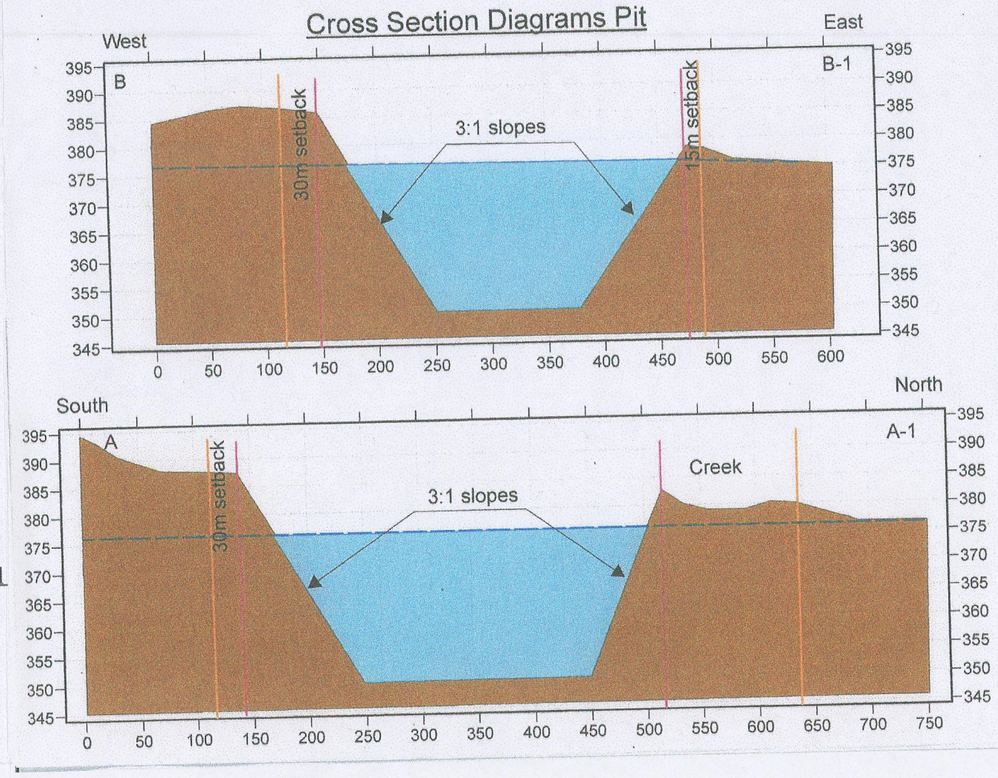
1.5.2 FINAL SLOPE GRADIENT THAT WILL BE ESTABLISHED
3:1 ON PIT AND 2:1 ON QUARRY.

1.5.3 CROSS-SECTION OF A TYPICAL BERM DESIGN THAT WILL BE CONSTRUCTED ON SITE
NO BERMS ARE PROPOSED

1.5.4 APPROPRIATE HORIZONTAL AND VERTICAL SCALES
SEE CROSS SECTIONS

APPROVED
Sept 25, 2012
Aggregate Inspector — Date
Ontario Ministry of Natural Resources

Cross Section Diagrams Pit



Legend

- 120m Information Area
- Licence Boundary
- Extractable Area
- Corner Posts
- Entrance/ Exit
- Final Elevation Pit
- Final Elevations Quarry
- Buildings
- Final Contours
- Cross Section Line A-A1
- Cross Section Line B-B1
- Utility Lines
- Zoning
- Streams

Lakes

- Waterbody Segment
- Wetland Area, Permanent
- Lots_Concessions
- Forested Areas

DECLARATION OF PURPOSE
THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE, CATEGORY 1&4

Part LOT 16
CONCESSION 4
TOWNSHIP OF BRUNEL
MUNICIPALITY OF HUNTSVILLE

Applicant: Newbolm Aggregates
2638 Brunel Road
RR#2 Huntsville, ON
Signature

Site Plan Prepared by Danny Benson
Timber Craft Consultation Inc. who is qualified person under section 8(4) of the Aggregate Resources Act to prepare and certify A Licence site plans.
Signature

Rehabilitated Plan

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