

LEGEND BOUNDARY OF EXISTING LICENCE AREA BOUNDARY OF LICENCE EXTENSION · · · · · · · · · · · · · · · · · · REGULATORY SETBACK LINE PROPERTY LINE ----- CONSESSION/ LOT LINE

EXISTING SURFACE WATER 1m CONTOUR LINE _273.5 SPOT ELEVATION PROPOSED 5m CONTOUR LINE PROPOSED 1m CONTOUR LINE 273.5 PROPOSED SPOT ELEVATION

EXISTING VEGETATION

DIRECTION OF SURFACE WATER DRAINAGE SMALL STREAM, AGRICULTURAL DITCH/ SWALE -X X FENCE

PROPOSED VEGETATION PROPOSED POND

(PHOTO DECEMBER 2001).

NOTES

- TOPOGRAPHIC INFORMATION WAS PREPARED THROUGH (AIR PHOTO INTERPRETATION BY PHOTOMAP AIR SURVYEYS, LIMITED, ETOBICOKE ON, DATED FEBRUARY 5, 1997, WITH GROUND CONTROL PROVIDED BY VAN HARTEN SURVEYING LTD. GEODEDIC ELEVATIONS ARE REFERENCED TO THE CORNER OF COUNTY ROADS 34 AND 32. INFORMATION UPDATED BY BASE MAPPING COMPANY APRIL, 2002 THROUGH AIR PHOTO INTERPRETATION
 - REFER TO DRAWING 1 OF 5 FOR EXISTING FEATURES. REFER TO DRAWING 2 OF 5 FOR OPERATIONS PLAN, PHASING DIAGRAMS AND NOTES REFER TO DRAWING 3 OF 5 FOR TECHNICAL RECOMMENDATIONS AND DETAILS.
 - REFER TO DRAWING 4 OF 5 FOR SECTIONS. REFER TO DRAWING 5 OF 5 FOR REHABILITATION PLAN AND NOTES.
- REHABILITATION OF THE PROPERTY INCLUDES THE CREATION OF FOUR PONDS, FORESTED CORRIDORS, AGRICULTURAL LAND, AND WILDLIFE HABITAT.

AREA CALCULATIONS	EXISTING LICENCE	LICENCE EXTENSION	TOTAL
AREA OF LICENCE TO BE REHABILITATED	±68.16 Ha	±27.59 Ha	±95.75 Ha
AREA OF LICENCE TO BE REHABILITATED TO AGRICULTURAL LAND	±55.81 Ha	±27.59 Ha	±83.40 Ho
AREA OF LICENCE TO BE REHABILITATED TO PONDS (PONDS NOT TO EXCEED 8.22 Ha)	±4.75 Ha	121	±4.75 Ha
AREA OF LICENCE TO BE REHABILITATED TO FORESTED CORRIDORS AND WILDLIFE HABITAT	±7.60 Ha	±0.32 Ha	±7.92 Ha
TREE PLANTINGS OUTSIDE OF LICENCE BOUNDARIES	122	4 :	±0.89 Ha

REHABILITATION OF SLOPES SHALL BE BY USING OVERBURDEN AND TOPSOIL FROM WITHIN THE LICENCED BOUNDARY. OVERBURDEN ON SIDE SLOPES AND RECREATIONAL AREAS SHALL BE A MINIMUM OF 200mm THICK AND TOPSOIL SHALL BE A MINIMUM OF 150mm THICK. SIDESLOPES AND RECREATIONAL AREAS SHALL BE SEEDED WITH THE FOLLOWING AT A RATE OF 125 KG/Ha;

> 15% BUCKWHEAT 15% ALFALFA 15% CREEPING RED FESCUE 15% WHITE CLOVER 15% PERENNIAL RYE 10% ANNUAL RYE

PLEASE REFER TO DRAWING 3 OF 5, DETAILS, FOR MORE INFORMATION ON BACKFILLING AND CREATION OF REHABILITATED SIDESLOPES.

- 6. AGRICULTURAL AREA MAY BE REHABILITATED AS FOLLOWS:
- DEEP RIPPING TO ELIMINATE COMPACTION - SPREADING OVERBURDEN AND ROUGH GRADING.
- REMOVAL OF STONES LARGER THAN 100mm
- SPREADING A MINIMUM OF 200mm OF TOPSOIL AND FINE GRADING. UPON COMPLETION OF THE TOPSOIL INSTALLATION AND FINE GRADING THE LAND OWNER SHALL SEED AREAS TO A CROP APPROPRIATE TO THEIR INDIVIDUAL AGRICULTURAL OPERATIONS.
- TOPSOIL OR OVERBURDEN (INERT MATERIAL) MAY BE IMPORTED TO IMPROVE REHABILITATION BY AUGMENTING TOPSOIL THICKNESS OR BY MAKING SIDE SLOPES GENTLER
- REHABILITATION OF PONDS SHALL INCLUDE SHALLOW AREAS FOR WEED GROWTH AND PRODUCTIVITY, AND DEEP CELLS TO CREATE COLD WATER ZONES. UNDERWATER HABITAT ENHANCEMENT WILL USE LOGS, STUMPS, AND WASTE ROCK. REFER TO SHORELINE HABITAT DETAIL DRAWING 3 OF 5, DETAILS. THE PONDS WILL BE SEEDED WITH SUBMERGED AND EMERGED VEGETATION IN SHALLOW AREAS.
- 8. ALL SURFACE DRAINAGE WILL BE DIRECTED TOWARDS THE PONDS OR INFILTRATION AREAS. THERE WILL BE NO OFFSITE SURFACE DRAINAGE.
- 9. THE FOLLOWING VEGETATION WILL BE PLANTED ON SIDE SLOPES:

WOODY VEGETATION: PLANTED IN CLUSTERS AS SHOWN SHALL INCLUDE: 3 YEAR OLD SEEDLINGS - WHITE PINE, RED PINE, WHITE CEDAR & LARCH 10mm CALIPER, ±1.5m HIGH - BALSAM POPLAR, BLACK ASH, SILVER MAPLE, WILLOW & BLACK CHERRY

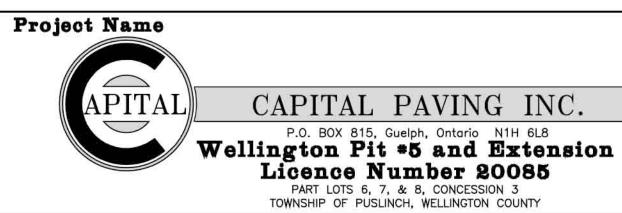
3 YEAR OLD PLANTS, SPACED AT 2.1m (7ft) O.C. - DOGWOOD, SUMAC AND ALDER WEEDBEDS/EMERGENT VEGETATION: -SEEDED WITHIN THE SHALLOW ZONE (0 TO 0.5m DEEP) -NARROWLEAF CATTAIL, SWEET FLAG AND NORTHERN ARROWHEAD. SUBMERGENT VEGETATION: -SEEDED WITHIN THE DEEP WATER ZONE (0.5 TO 1.0m DEEP)

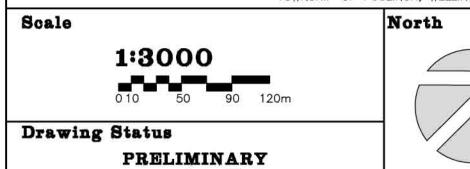
ALL VEGETATION PLANTED DURING THE OPERATION OF THIS LICENCE WILL BE MAINTAINED IN A HEALTHY VIGOROUS GROWING CONDITION. DEAD PLANTS WITHIN THE TREE SCREEN WILL BE REPLACED WITHIN TWO YEARS. PLANT SPECIES AND SPACING ARE SUBJECT TO MODIFICATION DUE TO AVAILABILITY AND SITE CONDITIONS.

-NORTHERN WATERLILY, COONTAIL AND BLUNTLEAF PONDWEED.

- 10. ALL BUILDINGS, EQUIPMENT AND MACHINERY ASSOCIATED WITH THE EXTRACTION OPERATIONS WILL BE REMOVED UPON COMPLETION OF EXTRACTION. RESIDENTIAL AND FARM BUILDINGS AND FARMING EQUIPMENT WILL REMAIN.
- 11. A PIEZOMETER SHALL BE INSTALLED DURING PHASE 'A' OPERATIONS (AS SHOWN) AT ±319m a.s.l. FINAL REHABILITATED GRADE IN THE ADJACENT EXTRACTION AREA SHALL BE A MINIMUM OF 0.5m ABOVE THE ESTABLISHED WATER TABLE (INFILTRATION AREA).
- 12. IT IS ANTICIPATED THAT THE GROUNDWATER ELEVATIONS ACROSS THE EXISTING LICENCE AND EXPANSION AREA WILL REMAIN RELATIVELY UNCHANGED. INFORMATION WAS OBTAINED FROM HYDROGEOLOGICAL ASSESSMENTS COMPLETED BY TERRAQUA INVESTIGATIONS DATED AUGUST 1997, MAY 4, 1998 AND MAY 20, 1998 AND BY BLACKPORT HYDROGEOLOGY INC. DECEMBER 2002.

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NO.	DATE	REVISIONS	OWNER	н.н.	o.M.N.R.	NO.	DATE	REVISIONS	OWNER	н.н.	o.M.N.R
1.	FEB. '03	AS PER OMNR COMMENTS									-
2.	MAR. '03	AS PER OMNR COMMENTS									





G.D.H./ B.J.

FOR DISCUSSION Drawn Checked

Issue Date

Project Number

02-06

Drawing Title REHABILITATION **PLAN**