

Existing Features

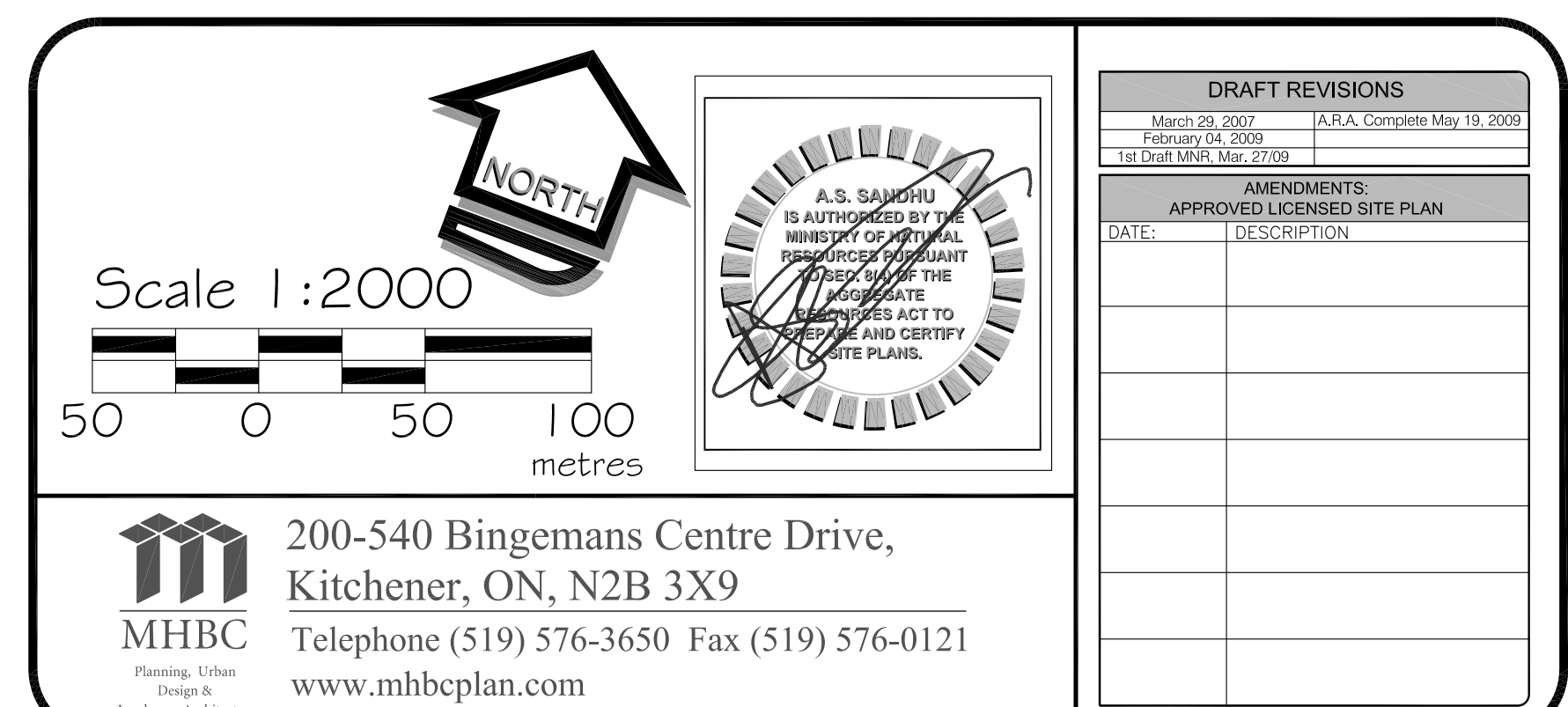
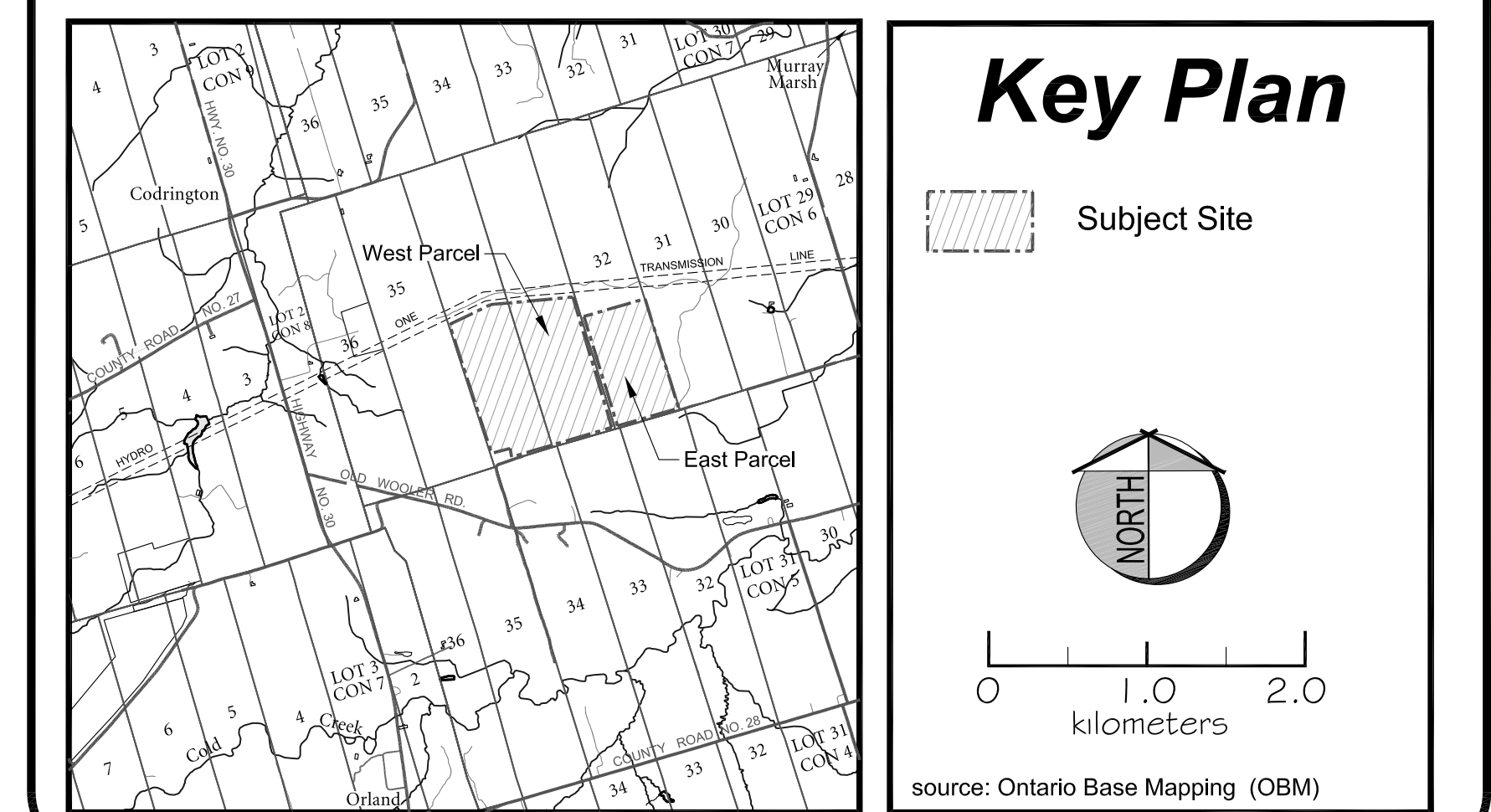
1 of 4

Legend

- Boundary of Area to be Licensed
- Limit of Extraction
ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES.
- Direction of Surface Drainage
(if any)
- Elevation, Contour
- Building/Structure
SEE PAGE 4 OF 4 FOR LOCATION AND USE FOR BUILDINGS ON SITE AND WITHIN 120M ARE SHOWN ON THIS PLAN
- Field Entrance
- Hydrogeological Monitoring/Borehole
MONITORING WELL
BOREHOLE
PRIVATE WELL
- Cross Sections
A1
EXISTING AND REHABILITATED CROSS SECTIONS
- Hydro Easement & Transmission Tower
- Existing Vegetation
- Existing Fence
LOCATION AND USE FOR FENCES ON SITE UNLESS OTHERWISE NOTED
- Existing Water Feature
AS INDICATED
- Surface Drainage Feature
ARROW INDICATES DIRECTION OF FLOW IF ANY
- Travelled Laneway
AS INDICATED
ROAD ALLOWANCES BETWEEN LOTS 32 & 33 AND CONC. 5 & 6 CONTAIN UNPAVED TRAVELLED PORTIONS PROVIDING ACCESS TO TRANSMISSION CORRIDOR.
- Archaeological Site
[Site Name]

Notes:

- THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'X' LICENCE (CATEGORY 3).
- TOPOGRAPHIC INFORMATION OBTAINED FROM FIRST BASE SOLUTIONS "MAP" MAPPING SERVICE. ADDITIONAL HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED ON SITE BY 43 DEGREES NORTH SURVEY 4 MAPPING SOLUTIONS IN MARCH 2007. RECTIFYING JAGGER HIMS MONITORING WELLS: BH05-2, BH05-16, BH05-19, BH05-20 & BH06-1 WITH EXISTING ELEVATIONS. CONTOUR INTERVAL IS 1.0 METRE. ALL ELEVATIONS ARE GEODETIC.
- PROPERTY BOUNDARY DESCRIPTION WAS TAKEN FROM PLAN OF SURVEY, 399/1/088 DATED JANUARY 04, 2006 PREPARED BY KERRY BOEHME O.L.S.
- SUBJECT SITE IS ZONED "RURAL" (RU & RU-1). ZONING INFORMATION OBTAINED FROM SCHEDULE 'X' OF THE MUNICIPALITY OF BRIGHTON ZONING BY-LAW NO. 140-2002 (DEC. 16, 2002).
- LAND USE INFORMATION COMPILED FROM (i) 2002 DIGITAL ORTHO AERIAL PHOTOGRAPHY, AND (ii) FIELD SURVEYS DATED AUG. -NOV. 2005.
- AREA TO BE LICENSED: ± 104.9 ha. (± 259 ac.)
AREA TO BE EXTRACTED: ± 60.1 ha. (± 139 ac.)
[WEST PARCEL, ± 25.7 ha. (± 64 ac.) EAST PARCEL, ± 34.4 ha. (± 85 ac.)]
- HYDROGEOLOGICAL INFORMATION TAKEN FROM HYDROGEOLOGICAL STUDY, ST. MARYS CEMENT INC. (CANADA), CODRINGTON PROPERTY (SOURCE: JAGGER HIMS LIMITED, MARCH 2009) IDENTIFIES A MAY 2006 GROUNDWATER TABLE MONITORING WITH AN ELEVATION OF ± 172m ABOVE SEA LEVEL (ASL) CENTRALLY LOCATED IN LOTS 33 & 34 PAULING OFF TO BELOW ± 150m ASL IN THE NORTHWEST, ± 155m ASL IN THE NORTHEAST, ± 165m ASL IN THE SOUTHEAST AND ± 160m ASL IN THE SOUTHWEST.
- ALL MEASUREMENTS SHOWN ON THIS PLAN ARE IN METRES.

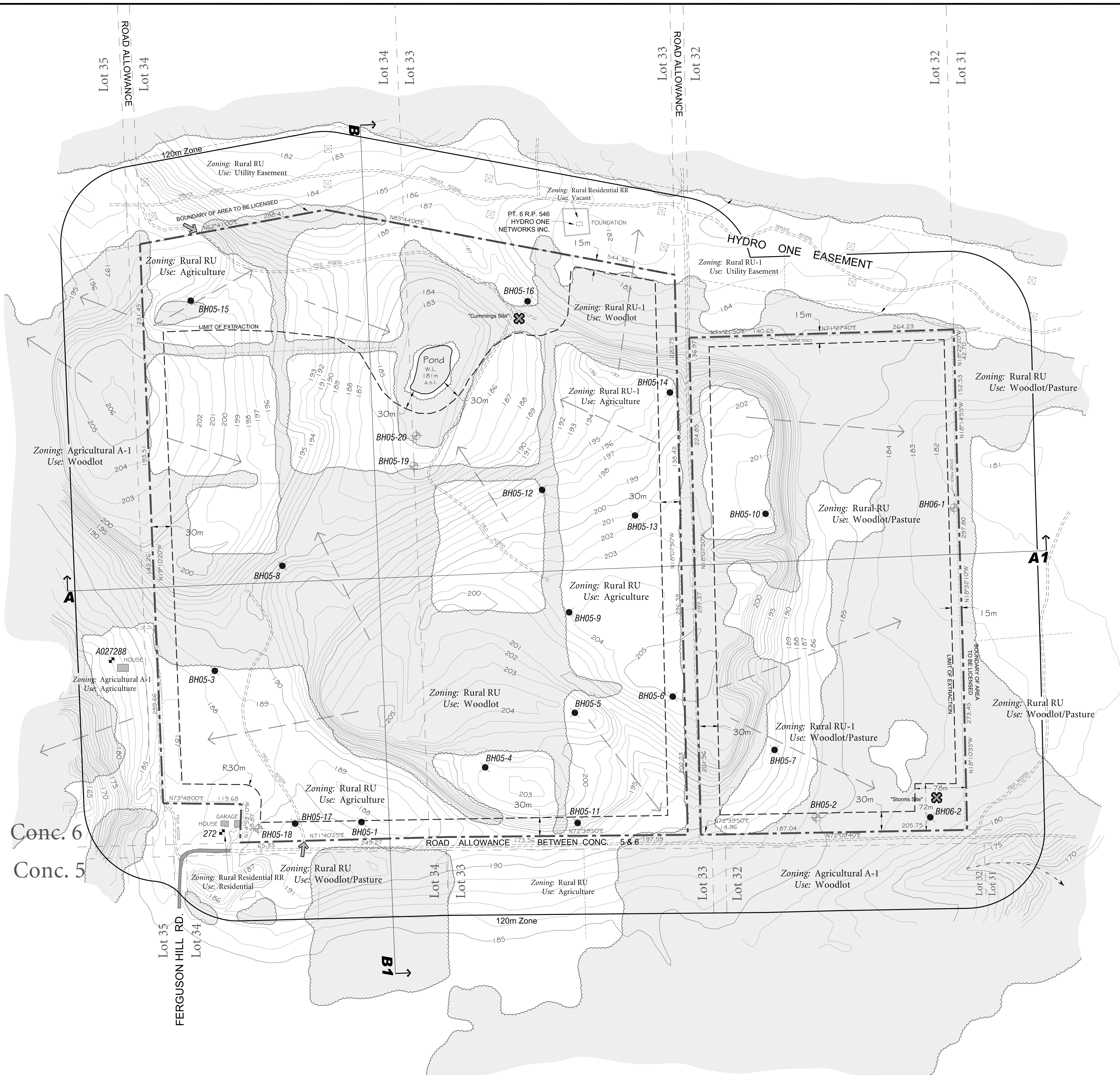


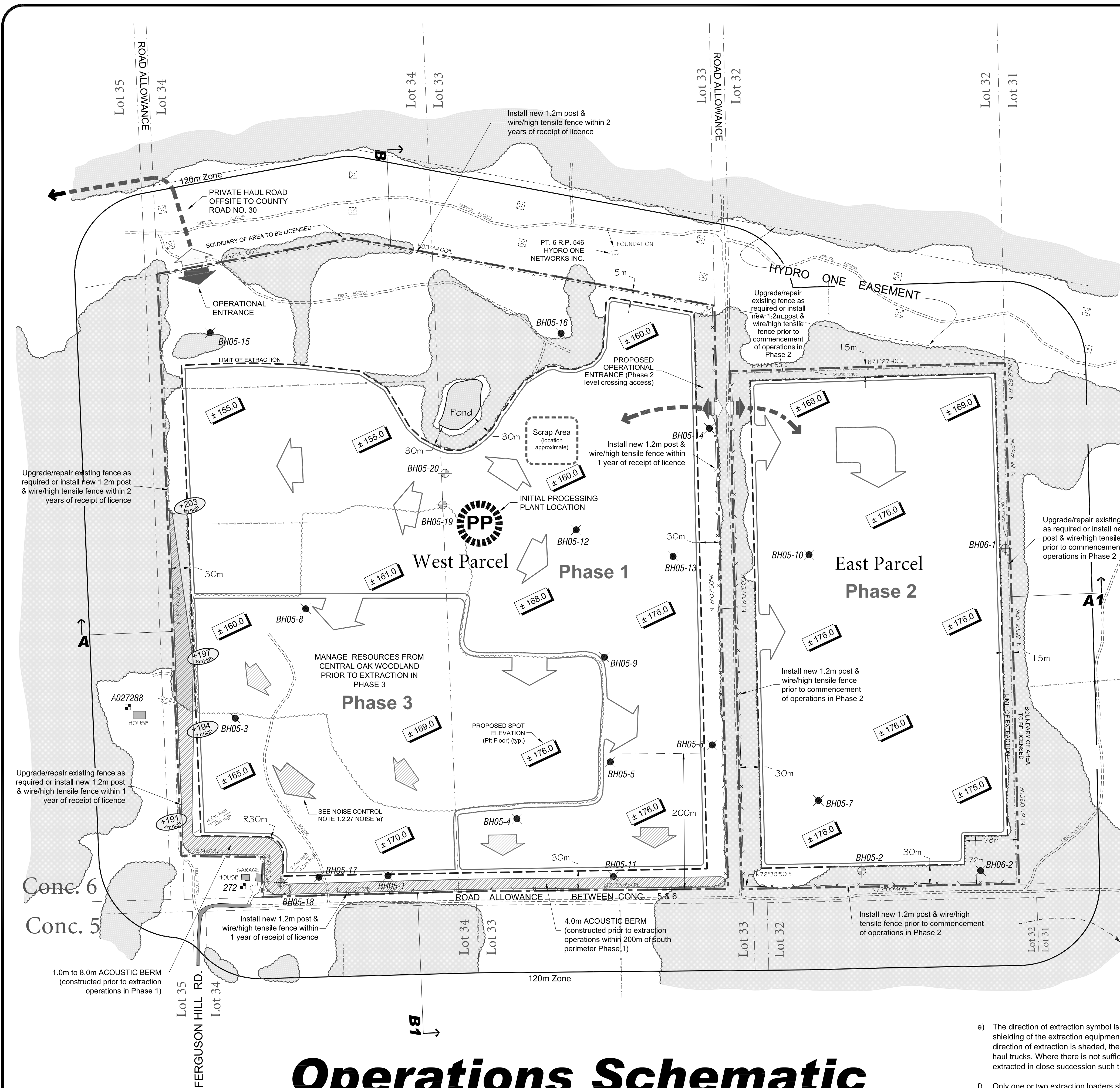
PROJECT NAME:
Codrington Pit

Part Lots 32 -34
Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland

ST MARYS **CBM**

St Marys Cement Inc. (Canada)
55 Industrial St. Toronto, Ontario
M4G 3W9 Telephone (416) 423-1300





Operations Schematic

Notes cont'd:

- Water Diversions**
12.7 No water diversion or offsite discharge is proposed for this site.
- Fencing**
12.8 All proposed fencing will be as indicated on the "Operations Schematic" diagram. Fencing for the East Parcel will be installed prior to the commencement of operations in Phase 2. Fencing for the West Parcel (lots 33 & 34) will be completed in stages within 2 years of the commencement of the licence as indicated on "Operations Schematic" diagram.
- Proposed Buildings and Structures**
12.9 There are no proposed permanent buildings and/or structures. A portable processing plant will be initially located on site in the approximate location shown and will move throughout the life of operations subject to restrictions outlined on the "Noise Control Detail". Small temporary structures (e.g. trailers, quonset huts) may be located on-site subject to applicable approvals and will be removed at the end of the life of the pit.
- Topsoil and Overburden Stockpiles**
12.10 Overburden and topsoil not required for immediate use in berm construction or progressive rehabilitation of this site may be temporarily stockpiled at grade or on the active pit floor.
- Aggregate Stockpiles and Recyclable Material**
12.11 Stockpiles of aggregate material will be located on the active pit floor adjacent to the portable plant. Importation of aggregate product for crushing/blending with onsite material will occur. Imported aggregate material will be stockpiled adjacent to the portable plant. Recyclable materials will not be imported.
- Temporary Scrap Storage**
12.12 A scrap storage area will be located in the general vicinity shown, northeast of the initial portable plant location. Scrap will be removed/relocated on an ongoing basis.
- Fuel Storage**
12.13 No permanent fuel storage is proposed on site. A permanent tank will be located off site adjacent to the scale/stele house. A temporary portable tank(s) in compliance with the TSSA/Liquid Fuels Handling Code may be brought onsite to refuel equipment.
- Area to be Extracted**
12.14 The area to be extracted is ± 80.1 ha. (± 198.0 ac).
- Setbacks**
12.15 Setbacks will be as shown and labeled on the "Operations Schematic" diagram.
- Extraction Depth**
12.16 The proposed maximum depth of extraction is indicated by the proposed spot elevations on the "Operations Schematic" Diagram this page. The maximum depth of extraction ranges from approximately 23m to 46m. The maximum depth of extraction will remain a minimum of 1.5m above the May 2008 identified ground water table.
- Processing Equipment**
12.17 An initial processing plant will be located on site in the approximate location shown and will move throughout the life of the operations subject to restrictions as shown on the Noise Control Detail, this page.
- Berms**
12.18 Locations, heights and details on phased installation and removal for all berms is provided on the "Operations Schematic" diagram.
- 12.19 All berms will be constructed in accordance with the "Typical Acoustic Berm Detail" and will be vegetated and maintained to control erosion. Temporary erosion control will be implemented as required. Additional berms may be constructed within the area to be extracted as required to provide for temporary storage or mitigation measures.
- Equipment**
12.20 Main equipment on site may include, but is not limited to: earth scrapers, bulldozers, excavators, extraction and shipping loaders, processing plant (crushing, screening, washing), pit trucks, highway trucks, conveyors and service vehicles for general operations and maintenance. When a wash plant is installed during Phase 1, it will be situated in accordance with a Certificate of Approval.

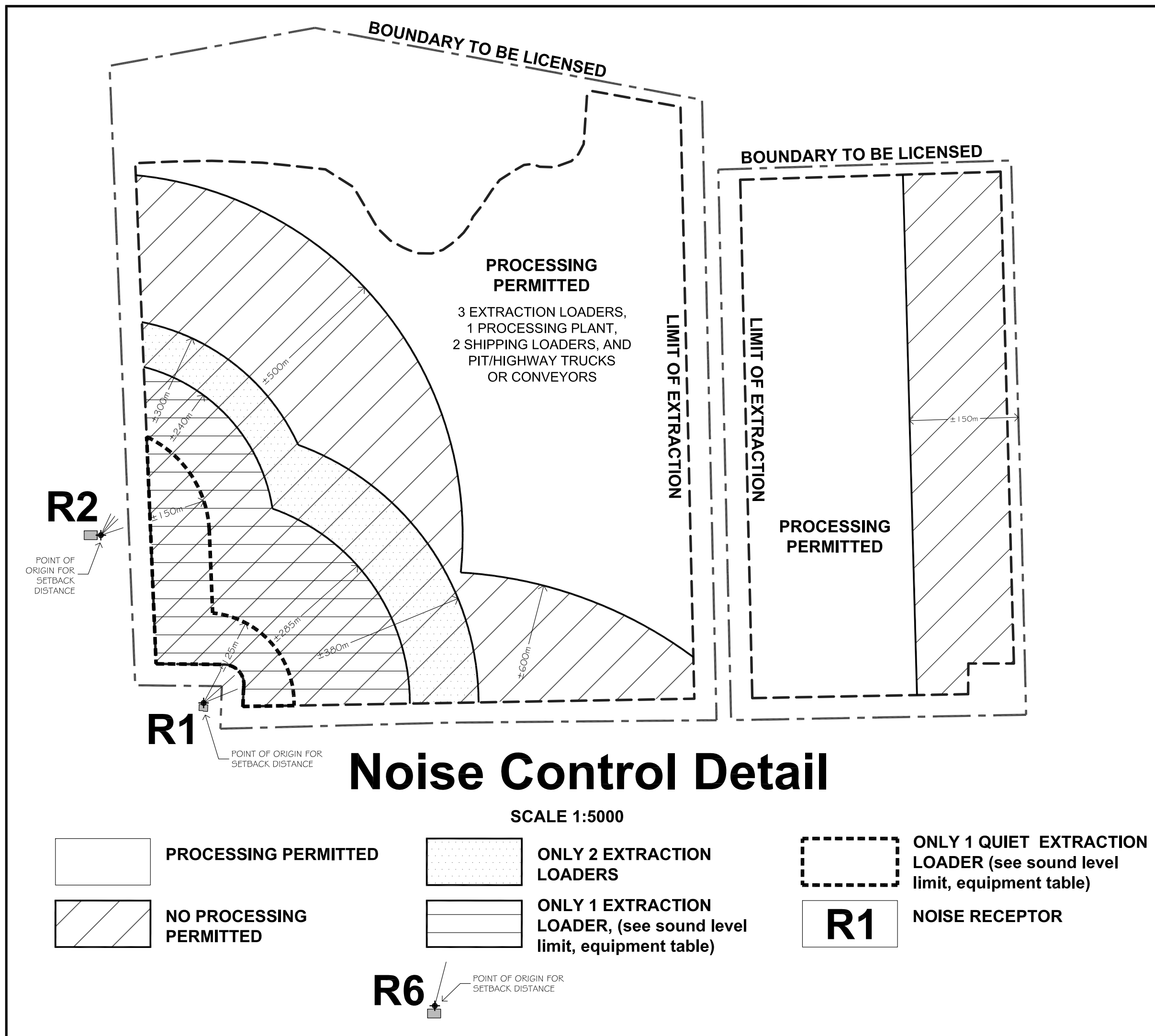
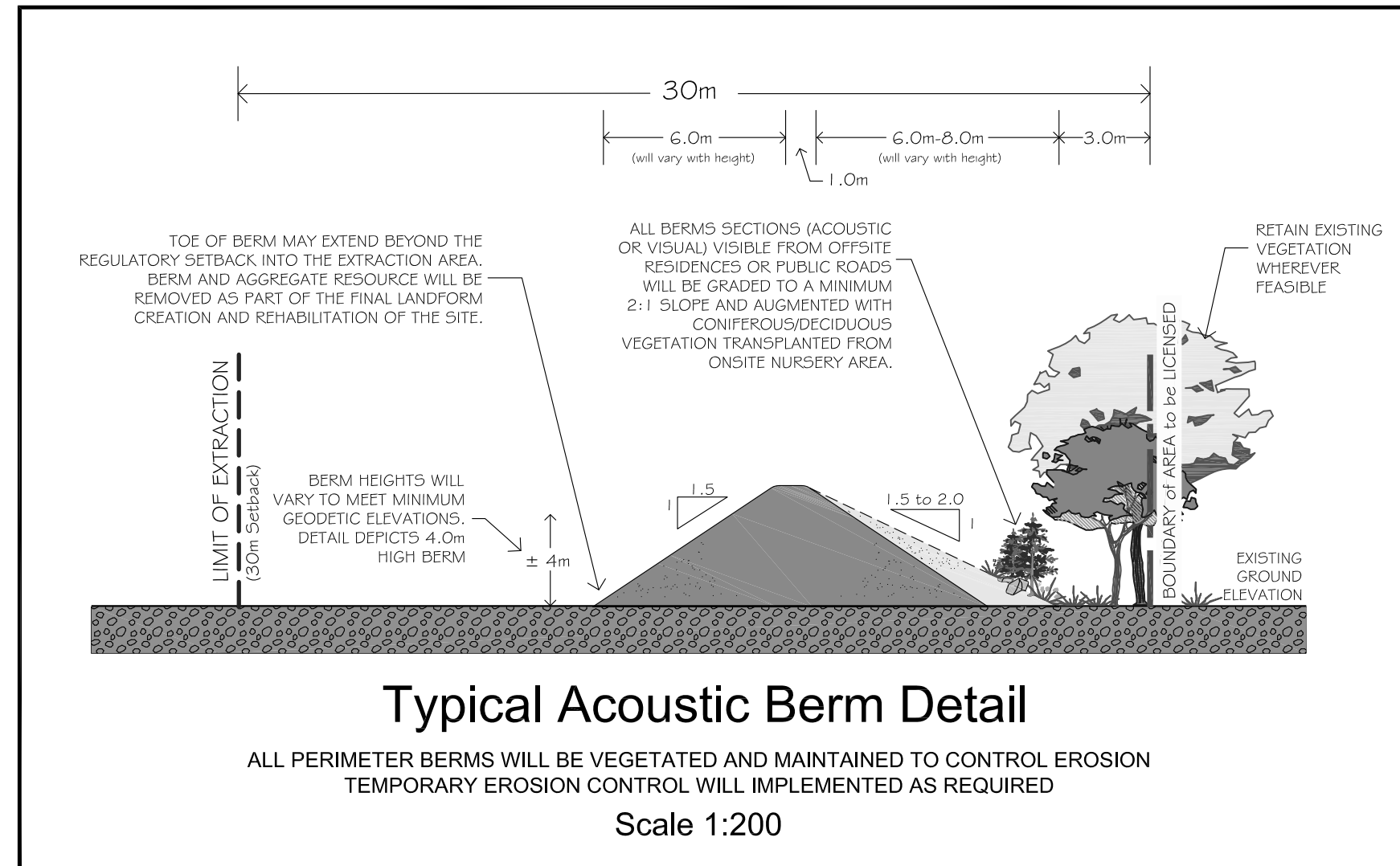
- Tree Screens**
12.21 No additional tree screen planting (at boundary of site) beyond that which is indicated on the "Typical Acoustic Berm Detail" is proposed for this site.
- Hours of Operation**
12.22 Shipping operations are restricted to the hours 06:00-19:00. Only one shipping loader shall operate prior to 07:00. Extraction operations in the pit shall be restricted to the daytime hours (07:00 to 19:00). Processing may occur 24 hours. Only one loader shall be used to feed material to the processing plant during the evening/nighttime period (19:00-07:00).
- Tree and Stump Disposal**
12.23 Timber resources will be salvaged for use as saw logs, fence posts and fuel wood where appropriate. Stumps and brush remaining after site preparation will be burned (subject to necessary local approvals), used for habitat enhancement or mulched for use in the progressive rehabilitation of the site.
- Cross Sections**
12.24 Location of cross sections are as shown. Cross sections are provided on page 4 of 4.
- Variations to Operational Standards**
12.25 The following Operational Standards (Section 5.0 of ARA Provincial Standards) will be varied by this site plan.
- 5.1 fencing of site will be delayed as detailed on the "Operations Schematic" diagram and note 1.2.8 this page.
- 5.22 In addition to the proposed identification sign located at the scale house along the private haul road linking this site to County Rd. 30, signs will also be located at the at grade crossing between Phase 2 and Phase 3 when established and at the former field access (West Parcel, south boundary) located at the terminus of Ferguson Hill Rd.
- Tonnage Limit**
12.26 The total tonnage to be excavated annually from this site is 750,000 tonnes.
- 12.27 Technical Recommendations**
Noise: "An Assessment of the Potential Noise associated with Aggregate Extraction and Processing at the Proposed Codrington Pit" (Source: Aerocoustics Engineering Ltd. May 14, 2009).
- a) Except where further restrictions apply as outlined below, the extraction and processing equipment operating in the pit shall not exceed 3 extraction loaders, one crushing/screening/washing plant, 2 shipping loaders, and the pit trucks (or highway trucks) or conveyors required to haul the material from the working face to the processing area. The reference sound levels of the equipment shall not exceed those listed in the table below.
- | Equipment | Sound Level Limit (dBA) | |
|-------------------------------|-------------------------|----------|
| | One hour | One hour |
| loader (each) | 74 | 69 |
| loader (quiet) | 74 | 69 |
| crushing/screening/wash plant | 87 | 87 |
| pit truck (each) | 74 | 74 |
- b) Extraction operations in the pit shall be restricted to the daytime hours (07:00-19:00). Shipping operations are restricted to the hours 06:00-19:00. Only one shipping loader shall operate prior to 07:00. Aggregate processing may occur 24 hours. Only one loader shall be used to feed material to the processing plant during the evening/nighttime period (19:00-07:00).
- c) The property line berms/requirements are specified on the "Operations Schematic". The berms along the west and south property lines (Phases 1 & 3) shielding receptors R1 and R2 shall be constructed prior to commencement of extraction and processing operations at the site. The remainder of the berming along the south perimeter of Phases 1 & 3 shall be constructed prior to extraction operations within 200 metres of the south perimeter of the site.
- d) The 1st and subsequent lifts shall be of a minimum depth of ± 8 metres where the depth of the resource makes this possible.

Receptor	Processing Plant Local Shielding Requirements	
	Daytime Operation	Nighttime Operation
R1	10 m high @ 30 m (8 m high @ 50 m if SB > 500 m)	12 m high @ 30 m (8 m high @ 50 m if SB > 500 m)
R2	10 m high @ 30 m (8 m high @ 50 m if SB > 700 m)	11 m high @ 30 m (8 m high @ 50 m if SB > 700 m)
R4-R7	9 m high @ 50 m (8 m high @ 50 m if SB > 650 m)	11 m high @ 50 m (8 m high @ 50 m if SB > 650 m)
R8	10 m high @ 50 m (8 m high @ 50 m if SB > 1200 m)	10 m high @ 50 m (8 m high @ 50 m if SB > 1200 m)
R9-R10	10 m high @ 50 m (8 m high @ 50 m if SB > 800 m)	10 m high @ 50 m (8 m high @ 50 m if SB > 800 m)

- h) The sound emissions of all construction equipment involved in site preparation and rehabilitation activities shall comply with the sound level limits specified in MOE publication NPC-115 "Construction Equipment".
- i) Any proposed changes to the aspects of the extraction and processing operations dealt with above as relating to noise control shall be reviewed by a qualified acoustical consultant for compliance with the relevant noise criteria.

Natural Environment: "Level 1 and Level 2 Natural Environment Technical Report - Codrington Property" (source: AECOM Ltd., February 2009)

- a) implementation under the supervision of a qualified ecologist of the specialized Preservation/Reforestation/Regeneration plan as explained in this report in section 8.5.1 and 8.5.3 and as listed in Appendix E;
- b) tree protection fencing to be placed at a distance of 12 m from trunks of buttressed trees in the south setback by a qualified ecologist prior to berm construction (as discussed in section 6.1). No disturbance will be permitted within the tree protection zone
- c) edges of candidate Significant Woodland which are not to be excavated (i.e., along the buffers) shall be planted with conifers (e.g., native spruce species) which will help to minimize dust and noise disturbance into the woodlands;
- d) topsoil and overburden shall be stripped and stored separately where sufficient soil horizons exist. Topsoil and overburden may be stored in berms; used during progressive rehabilitation; and/or stored in temporary berms/stockpiles at the perimeter of the area to be extracted until needed for rehabilitation;
- e) surface drainage from any disturbed areas shall be directed into the pit excavation. Site fencing, straw bales, ditches etc. shall be used as required to prevent sedimentation from leaving the site, until vegetation is established; and
- f) all berms shall be graded to a maximum of 1:5:1 slopes. Berms, overburden stockpiles, and all areas progressively rehabilitated shall be vegetated with a perennial native grass mixture planted in the fall or spring season and shall be maintained and reseeded until self sustaining cover is established.



Noise Control Detail

- Scale 1:5000**
- PROCESSING PERMITTED**
NO PROCESSING PERMITTED
- ONLY 2 EXTRACTION LOADERS**
ONLY 1 EXTRACTION LOADER, (see sound level limit, equipment table)
- ONLY 1 QUIET EXTRACTION LOADER (see sound level limit, equipment table)**
R1 NOISE RECEPTOR

Hydrogeology: "Hydrogeological Study, St. Marys Cement Inc. (Canada), Codrington Property" (Source: Jagger Hims Limited, March 2009)

- a) Development of the pit as an above the water table operation will not have a negative effect on local groundwater or surface water resources. However, it is recommended that the following performance monitoring program be implemented to confirm acceptable conditions and to provide input to contingency measures, if required.
- b) Considering the proposed extraction area, monitoring wells BH05-19 and BH05-20 should be decommissioned in accordance with the regulatory requirements. The performance monitoring program should include the following.
- Groundwater Level Monitoring - Complete at BH05-2, BH05-18, and BH06-1 on a quarterly basis over the calendar year.
 - Baseline Groundwater Quality Monitoring - Complete one monitoring event at BH05-2, BH05-18, and BH06-1 prior to extraction for the following parameters: pH, conductivity, turbidity, temperature, and total dissolved solids.
 - Annual Reporting - Prepare an annual monitoring report by March 31st of each year to summarize the monitoring results of the preceding year. The report should document complaints and responses.
 - Groundwater quality sampling should be completed once, prior to commencement of pit operations. The groundwater level monitoring should be completed annually on a quarterly basis.
- c) It is predicted that an above the water table pit operation will have no negative effects on groundwater and surface water resources.
- d) If groundwater levels at BH05-2, BH05-18, and BH06-1 decrease by 2 m relative to baseline conditions, a detailed review of data collected for the site to determine the cause should be completed. If the water level decrease is a result of site operations, increase the scope of the performance monitoring program to include residential wells within 100 m of the site and the watercourse southeast of the site. Monitoring should include annual quality tests for the baseline parameters and quarterly levels.
- e) If pit operations are determined to negatively affect groundwater or surface water resources, the following contingency measures should be implemented.

- Interference with acceptable quality or quantity of water in a water well should result in provision of an acceptable water supply by either installation of a new water well or a suitable alternative.
- Negative effects on the watercourse should be remediated by changes in site operations or through site rehabilitation.

Addendum to "Hydrogeological Study, St. Marys Cement Inc. (Canada), Codrington Property", March 2009 (Source: Jagger Hims Limited, May 15, 2009)

- a) Based on discussions between the MNR representative and CBM, which was held on May 8, 2009, it is understood that the groundwater performance monitoring program will be implemented as outlined in Section 4.0 of Jagger Hims Limited report during the Codrington Pit development.

Archaeology: "Stage I and Stage II Archaeological Assessment of the Proposed Hilton Pit" (Source: C.R. Murphy Archaeology, November 2006)

- a) Two historic archaeological sites were discovered during the Stage II investigation. Both sites are also partially within mandatory setbacks, and avoidance of the sites is the preferred mitigation strategy of the CBM management personnel. Five metre buffer zones have also been added beyond the site limits to further insure permanent protection of these sites.
- b) In the event that these sites are to be adversely affected by gravel extraction or any other activity that may cause damage to cultural resources, Stage III archaeological investigations are required, and possible Stage IV archaeological salvage excavation will also be required.
- c) Significant pre-contact or historic archaeological sites were not found at any other location within the currently proposed extraction zone. Therefore, there are no immediate archaeological concerns associated with the remainder of this project.
- d) In the event that deeply buried archaeological material is found during extraction, the office of the Archaeology and Heritage Planning Unit, Ministry of Culture, (MCUL) [(519)675-7742] will be notified immediately.
- e) In the event that human remains are encountered during extraction, the proponent should immediately contact both the Ministry of Culture, (MCUL), and the Registrar or the Deputy Registrar of the Cemeteries Regulation Unit of the Ontario Ministry of Government Services (MGS) (416) 326-8404 as well as the appropriate municipal police, the local Medical Officer of Health and Archaeologic Inc.
- f) all berms shall be graded to a maximum of 1:5:1 slopes. Berms, overburden stockpiles, and all areas progressively rehabilitated shall be vegetated with a perennial native grass mixture planted in the fall or spring season and shall be maintained and reseeded until self sustaining cover is established.

Operational 2 of 4 Plan

Legend

- Boundary of Area to be Licensed**
Field Entrance
Surface Drainage Feature
Building/Structure
Proposed Spot Elevation
Direction of Excavation
Hydrogeological Monitoring /Borehole
Proposed Berms
Berm Elevation & Height
- Limit of Extraction**
Hydro Easement & Transmission Tower
Existing Vegetation
Existing Fence
Proposed Fence
Operational Entrance
Existing Water Feature
Travelled Laneway
Cross Sections
- 1.2m POST & WIRE FARM FENCE**
1.2m POST & PAGE WIRE OR HIGH TENSILE
MAINTAINED BY A GATE WHICH WILL BE CLOSED WHEN PIT IS NOT IN OPERATION
AS INDICATED
AS INDICATED
SEE PAGE 4 OF 4 FOR EXISTING AND REHABILITATED CROSS SECTIONS
MINIMUM GEODETIC ELEVATION (m, ± 0.1) AND APPROXIMATE NOMINAL BERM HEIGHT

Notes:

NUMBERING SCHEME USED FOR OPERATIONAL NOTES REFERS TO AGGREGATE RESOURCES ACT PROVINCIAL STANDARDS FOR A CLASS "A" LICENCE CATEGORY 3 APPLICATION.

Sequence and Direction
1.2.1 The Operations Schematic (this page) is based on the best information available at the time of preparation. Extraction will commence in the central portion of Phase 1 and proceed outwards towards the extraction limits. Given the depth, quality and variability of the deposit ($\pm 50m$ maximum), extraction within each phase(s) may occur concurrently on multiple lifts subject to the operational restrictions shown on the "Noise Control Detail" (this page). Phases do not represent any specific or equal time period. Overlap or concurrent operations between Phases 1, 2 and 3 will be required due to resource variability and to allow a smooth/consistent transition from one area to another. The direction of extraction will generally be as indicated on the schematic.

Topsoil and Overburden Stripping and Stockpiling
1.2.2 Within the limit of extraction, the site will be stripped of topsoil and subsoil in stages. Topsoil and subsoil removed from areas to be extracted will be used for berm construction, stored and/or used directly in rehabilitation of this site. Where there is a distinguishable layer, the topsoil will be stripped, handled and replaced as a separate layer. Topsoil from Phases 1 and 3 (wooded areas) will be transferred directly to reforestation areas whenever feasible to minimize storage and accelerate reforestation. See notes 1.3.2, 1.3.3 & 1.4.3 on page 3 of 4 for additional information. Topsoil and overburden from forested areas will be stored separately from other topsoil and overburden sources (e.g. field). Topsoil and overburden stripped from forested areas will be replaced in areas identified for reforestation/replanting.

Lifts
1.2.3 Above water extraction will occur in up to 6 lifts. The number and height of lifts will be adjusted as necessary to account for the material variability and onsite equipment and will be in accordance with noise recommendations (note 1.2.27, noise 'd' & 'e') and Ministry of Labour, requirements. Where extraction occurs in 3 or more lifts an operational bench during active extraction and a swale/bench incorporated into the final rehabilitated 3:1 slope will be constructed in accordance with the "Typical Site Slope Scale Detail" page 3 of 4.

Main Internal Haul Roads and Entrance/Exit
1.2.41 2.5 All trucks will enter and exit the site at the northwest corner of the West Parcel, and at the described locations along the road allowance between the East and West Parcels. The main internal haul routes will be located between the extraction/processing/stockpile areas and the entrance/exit. Locations may vary depending on face locations and extent of rehabilitation/backfilling. Truck access onto the public travelled roadway will occur at the Archer Pit haul road at County Road #30.

Ground Water Table
1.2.6 The base of excavation will be 1.5 m above the May 2008 groundwater table. (source: "Hydrogeological Study, St. Marys Cement Inc. (Canada), Codrington Property", Jagger Hims Limited, March 2009) which had an elevation of ± 175 m above sea level (asl) within the central portion of Lots 33 and 32, falling off to below ± 150 m asl in the northwest, ± 155 m asl in the northeast, ± 165 m asl in the southeast, and ± 160 m asl in the southwest."

DRAFT REVISIONS

REVISION NO.	DESCRIPTION	DATE
1	APPROVED REVISIONS	

APPROVED REVISIONS

REVISION NO.	DESCRIPTION	DATE
1	APPROVED REVISIONS	

Scale 1:3000

50 0 50 100 metres

North

St. Marys Cement Inc. (Canada), Codrington Property

200-540 Bingemans Centre Drive, Kitchener, ON, N2B 3X9

Telephone (519) 576-3650 Fax (519) 576-0121

www.mhbcplan.com

PROJECT NAME:

Codrington Pit

Part Lots 32 -34
Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland

St.Marys Cement Inc. (Canada)
55 Industrial St. Toronto, Ontario
M4G 3W9 Telephone (416) 423-1300

Legend

Boundary of Area to be Licensed

Building/Structure
LOCATION AND USE FOR BUILDINGS ON SITE AND WITHIN 120m ARE SHOWN ON THIS PLAN

Elevation, Contour
195
196

Proposed Contour
170
171

Existing Fence
1.2m POST & WIRE FENCE UNLESS OTHERWISE NOTED

Field/Residential Entrance

Travelled Laneway
ROAD ALLOWANCES BETWEEN LOTS 32 & 33 AND CONC. 5 & 6 CONTAIN UNIMPAVED TRAVELLED PORTIONS PROVIDING ACCESS TO TRANSMISSION CORRIDOR

Cross Sections
SEE PAGE 4 OF 4 FOR EXISTING AND REHABILITATED CROSS SECTIONS

Limit of Extraction
ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES.

Hydro Easement & Transmission Tower

Existing Vegetation

Proposed Reforestation
PLANTED WITH SUPPLIED STOCK

Proposed Revegetation
PLANTED WITH SALVAGED/TRANSPLANTED STOCK FROM ONSITE AREAS WITHIN EXTRACTION LIMITS OR SUPPLIED STOCK

Meadow Thicket
NATURAL REGENERATION, SEEDING WITH MEADOW PLANTS, SOME ADDITIONAL SHRUB PLANTINGS

Existing Water Feature
AS INDICATED

Surface Drainage Feature
ARROW INDICATES DIRECTION OF FLOW IF ANY

General Notes:

- THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CLASS 'A' LICENCE (CATEGORY 3).
- TOPOGRAPHIC INFORMATION OBTAINED FROM FIRST BASE SOLUTIONS "MAP" MAPPING SERVICE. ADDITIONAL HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED ON SITE BY A.S. SURVEY NORTH, SURVEY & MAPPING SOLUTIONS IN MARCH 2007. RECTIFYING JAGGER HIPS, MONITORING WELLS, BHOS-2, BHOS-10, BHOS-19, BHOS-20 & BHOS-1 WITH EXISTING ELEVATIONS. CONTOUR INTERVAL IS 1.0 METRE. ALL ELEVATIONS ARE GEODETIC.
- PROPERTY BOUNDARY DESCRIPTION WAS TAKEN FROM PLAN OF SURVEY, 39R/11088 DATED JANUARY 04, 2006 PREPARED BY KERRY BOEHME O.L.S.

Rehabilitation Notes:

Numbering scheme used for operations notes refers to Aggregate Resources Act Provincial Standards for a Class 'A' licence (Category 3) application.

1.3.1 Rehabilitation will be progressive and proceed as limits of extraction are reached. The sequence of rehabilitation will follow the operational phasing sequence (note 1.2.1.1) and "Operations Schematic" diagram located on page 2 of 4.

1.3.2 Topsoil and overburden where present will be stripped, stored and replaced separately wherever there are distinguishable layers and sufficient thickness to allow handling in this manner. Topsoil from Phases 1 and 3 (wooded areas) will be transferred directly to reforestation areas whenever feasible to minimize storage and accelerate reforestation of northwest corner including those areas identified on this page as "Proposed Revegetation" outside the limit of extraction. Topsoil and overburden from forested areas will be stored separately from other topsoil and overburden sources (e.g. field) and only replaced in areas identified for reforestation/replanting. Overburden material will be used to backfill pit faces to desired finished grades (i.e. 3:1 slope). Where extraction occurs in 3 or more lifts a swale/bench, designed in accordance with the "Typical Side Slope Swale Detail" page 3 of 4, will be incorporated into the final rehabilitated 3:1 slope. Topsoil and organic material will be placed on these backfilled side slope areas.

1.3.3 & 1.4.3 The overall objectives are to minimize the effects of forest removals, and to return the site after extraction to land use proportions which maintain and enhance the function of the natural habitat which is currently existing. These objectives will be met by:

- Preservation
- Reforestation
- Regeneration; and
- Maintaining Existing Land Uses (agriculture).

Final pit landform will be generally in accordance with the drawing as shown on this page. The objective is to create a similar proportion of natural land use as exists now. Current proportions are approximately 39% pasture/agriculture, 38% forested, 21% cultural vegetation communities (thicket, meadow and hedgerow) and 2% wetland. At the same time the wildlife habitat conditions would ultimately be improved due to a changed woodland configuration and improved connectivity.

Scale 1:2000

North Arrow

DRAFT REVISIONS

DATE	DESCRIPTION
2007-04-04	ISSUED FOR PERMIT
2007-04-04	ISSUED FOR PERMIT
2007-04-04	ISSUED FOR PERMIT

APPROVED/REVISED PLAN

DATE

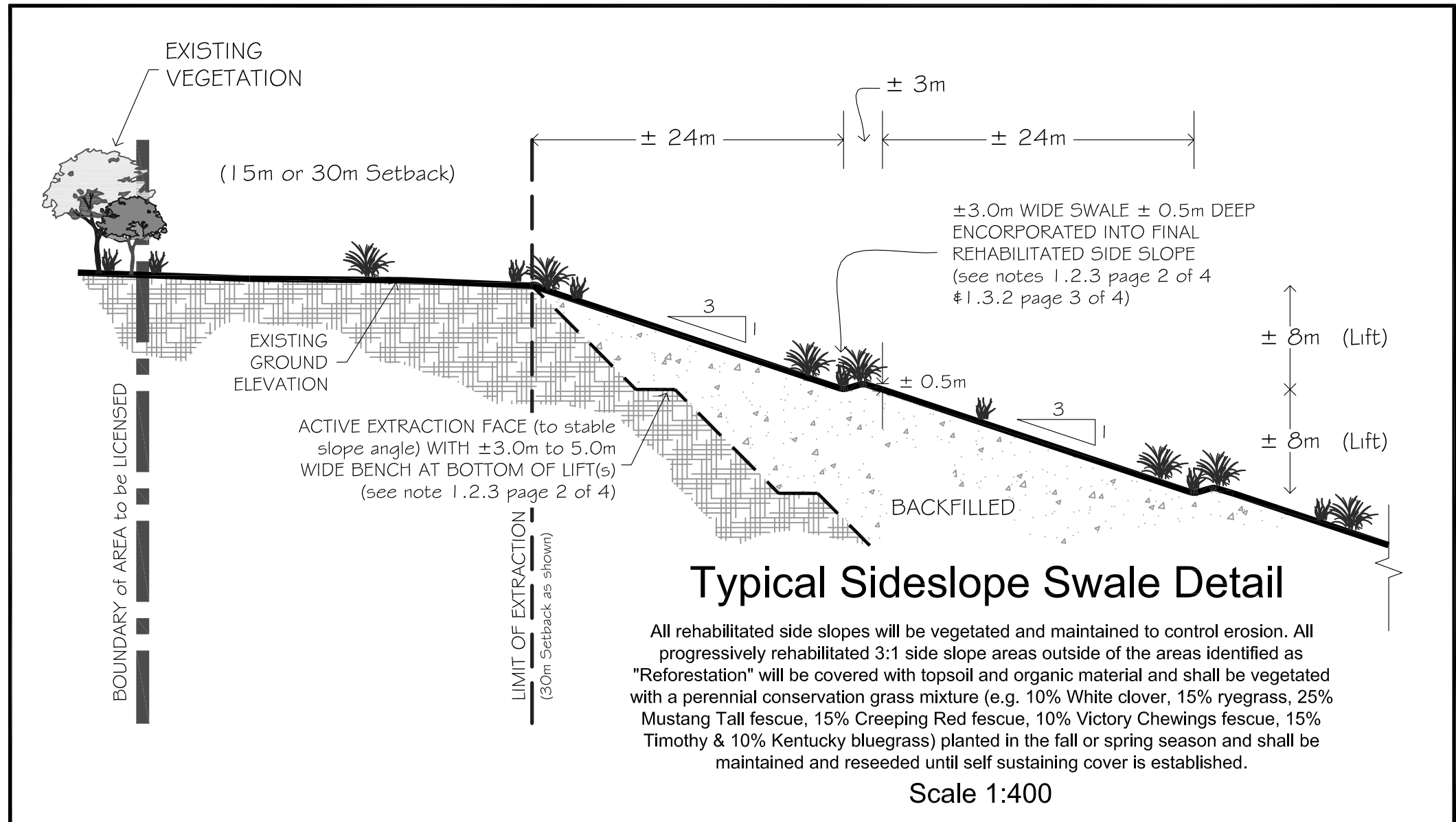
DESCRIPTION

MHBC 200-540 Bingham Centre Drive, Kitchener, ON, N2B 3X9
Telephone (519) 576-3650 Fax (519) 576-0121
www.mhbcplan.com

PROJECT NAME:
Codrington Pit

Part Lots 32-34
Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland

St. Marys Cement Inc. (Canada)
55 Industrial St. Toronto, Ontario
M4G 3W9 Telephone (416) 423-1300



Rehabilitation Notes cont'd:

Preservation

Roughly 1.0 ha of the site along the northwest edge will be retained in a natural or restored state. This area will contain the pond, small patches of deciduous forest, hedgerows as well as some agricultural lands that will be revegetated early in the life of the pit. The revegetation of the agricultural lands could occur with salvaged vegetation from the woodland area which will be removed for extraction purposes, or it could be re-planted with nursery stock. If salvaging is used it would mean that the existing seed bank, ground cover, shrubs and small trees on site would be moved from the woodlands on site and placed in the agricultural area to be revegetated. This will ensure that an ideal mix of species, already suited to the area will become established.

Reforestation

There is an opportunity, through pit excavation and planned woodland rehabilitation, to ultimately enhance the function of the woodlands by changing the shape and size of the forest once excavation is concluded. Planting would occur in the north-west corner (Lot 34) and south-east corner (Lot 32) of the extraction areas such that the woodland could be reconfigured larger than its original size, with a significantly increased quantity of interior woodland. The woodland areas would also be connected to the small pond, which would enhance the wildlife function of both features.

In addition to the species listed for reforestation planting Bittersweet Hickory and American Beech do not transplant well and may be regenerated using nuts planted over parts of the reforestation area in the fall at a density simulating natural conditions subject to availability at time of rehabilitation.

Native upland shrub species such as Chokecherry, Rough-leaved Dogwood, Maple-leaved Viburnum and Downy Arrow-wood would also be planted.

The following is a list of native tree species to be planted with the approximate percentages of each species:

- Red Oak (*Quercus rubra*) 35%
- Large-toothed Aspen (*Populus grandidentata*) 20%
- Sugar Maple (*Acer saccharum*) 10%
- White Oak (*Quercus alba*) 10%
- White Pine (*Pinus strobus*) 10%
- Red Maple (*Acer rubrum*) 10%
- Black Cherry (*Prunus serotina*) 5%

Trees will be planted in clusters in approximately three (or more) sizes/grades, e.g. 60 mm caliper (perhaps 10% of stock), 30 mm caliper (30%), and whips (1 to 2 m tall, 60%). Stock will range in age from about 2 years to 10 years old. Large-toothed Aspen and Black Cherry are good candidates for younger planting stock. Red Oak and White Pine are good species to plant in both smaller and larger sizes. Precise numbers and sizes and spacing will be determined through a detailed planting plan created by a professional arborist, forester and/or biologist and subject to plant availability.

Regeneration

The remainder of the site in Lot 32, and the northeast portion of the site in Lot 33 will be left to return to meadow and thicket habitat. Some of this area could also be seeded with meadow plants and planted with shrubs. The large block of meadow and thicket area would be connected to the thickets along the hydro line and would together support a diverse community of thicket wildlife such as exists on-site now.

Maintain Existing Land Uses

Rehabilitation of the remainder of the pit floor in Lots 33 & 34 returning to pasture/agriculture uses in a quality/quantity similar to existing conditions will consist of the following:

- i) tilling to alleviate compaction where required,
- ii) replace topsoil & subsoil to a similar depth as existing conditions (min. depth of 300mm for both soil horizons combined),
- iii) seed to a grass/legume cover crop,
- iv) manage & fertilize as required until self sustaining

Monitoring and maintenance of newly planted trees and shrubs will occur over a two year period. Site preparation would include mulching (with seed-free straw, not hay, or wood chips) to a depth of three to five cm, in a 50 cm 'donut' around each tree. Trees will not need to be staked. Staking is not generally needed. Trees establish more quickly and develop stronger roots and trunks if un-staked. Survivorship monitoring will occur up until 12 months after planting with replacement of dead trees occurring if there is less than 90% survival rate.

1.3.4 & 1.4.2 Pit faces will be established at a minimum slope of 3:1 using available onsite overburden and non marketable material. All progressively rehabilitated 3:1 side slope areas outside of the areas identified as "Reforestation" will be covered with topsoil and organic material and shall be vegetated with a perennial conservation grass mixture (e.g., 10% White clover, 15% ryegrass, 25% Mustang Tall fescue, 15% Creeping Red fescue, 10% Victory Chewings fescue, 15% Timothy & 10% Kentucky bluegrass) planted in the fall or spring season and shall be maintained and reseeded until self sustaining cover is established.

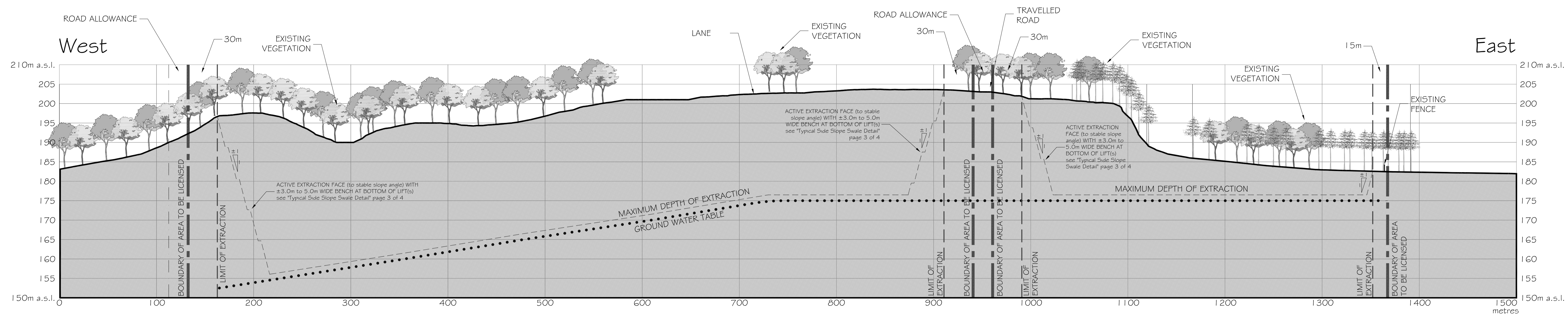
1.3.5 Rehabilitation will be progressive and proceed as limits of extraction are reached. The sequence of rehabilitation will follow the operational phasing sequence, see "Operations Schematic" diagram and notes on page 2 of 4 for details on progressive pit development.

1.3.6 & 1.4.1 No fill will be imported onsite.

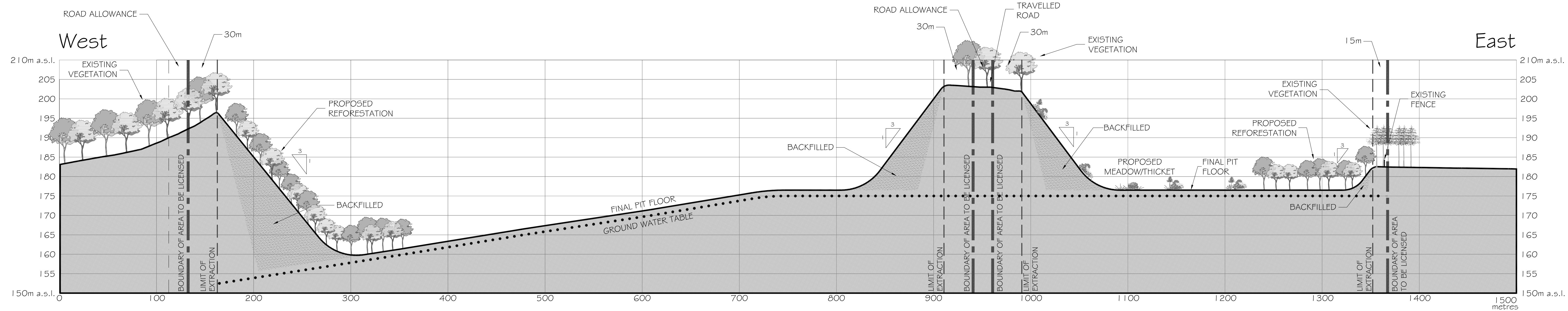
1.4.4 No buildings or structures associated with aggregate operations will remain on site.

1.4.5 No internal haul roads will remain on the site. Access road(s) serving the agricultural uses may be established as part of site rehabilitation.

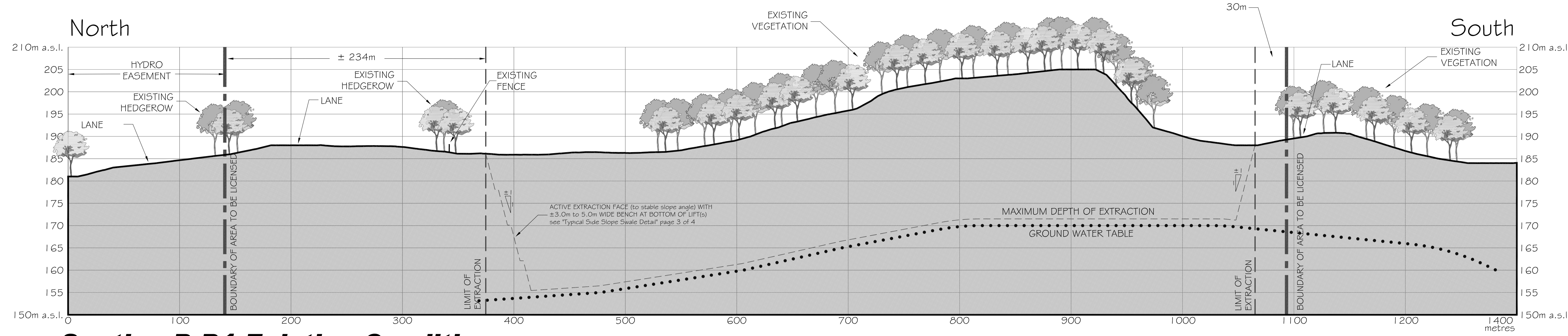
1.4.6 Final surface drainage will follow the rehabilitated contours as shown and generally be directed inwards towards the post-extraction pit floors where it will percolate vertically through the pit floor. Seasonal ponding/wet areas may occur on the pit floor at its lowest elevation in the northwest corner of the Western Parcel.



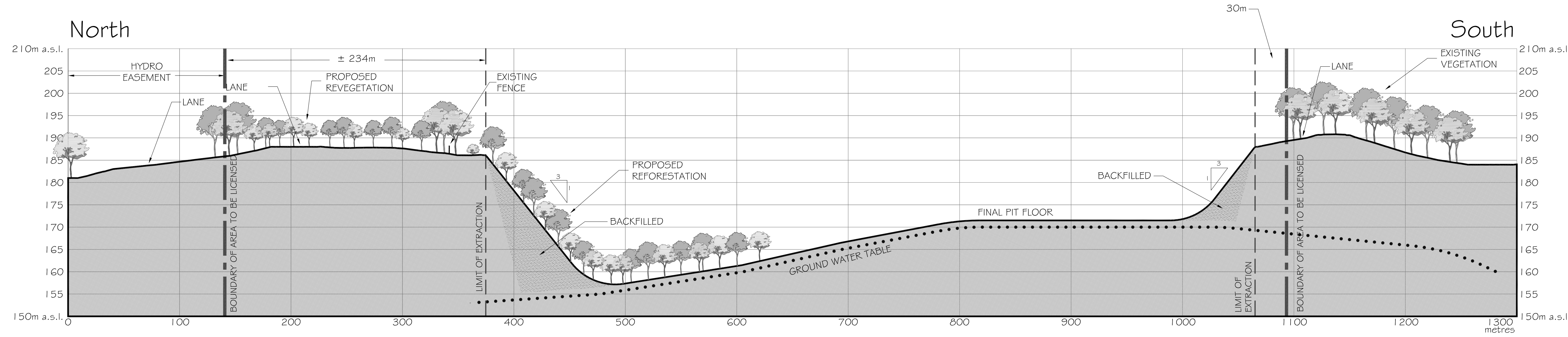
Section A-A1 Existing Conditions



Section A-A1 Rehabilitated Conditions



Section B-B1 Existing Conditions



Section B-B1 Rehabilitated Conditions

Legend

- Boundary of Area to be Licensed
- Vegetation/Trees
EXISTING OR PROPOSED AS INDICATED ON SECTIONS
- Limit of Extraction
ALL SETBACKS ARE DRAWN TO SCALE AND SHOW LABELLED DISTANCES.
- Maximum Depth of Extraction
- Groundwater Table
SEE NOTE 2 THIS PAGE
- Cross Sections

Notes:

- CROSS SECTIONS PLOTTED FROM TOPOGRAPHIC INFORMATION OBTAINED FROM FIRST BASE SOLUTIONS "iMap" MAPPING SERVICE. ADDITIONAL HORIZONTAL AND VERTICAL CONTROL WAS ESTABLISHED ONSITE BY 43 DEGREES NORTH, SURVEY & MAPPING SOLUTIONS IN MARCH 2007. RECTIFYING JAGGER TMS MONITORING WELLS: BH05-2, BH05-10, BH05-19, BH05-20 & BH06-1 WITH EXISTING ELEVATIONS. CONTOUR INTERVAL IS 1.0 METRE. ALL ELEVATIONS ARE GEODETIC.
- HYDROGEOLOGICAL INFORMATION TAKEN FROM "HYDROGEOLOGICAL STUDY, ST. MARYS CEMENT INC. (CANADA), CODRINGTON PROPERTY" SOURCE: JAGGER TMS LIMITED, MARCH 2009 IDENTIFIES A MAY 2006 GROUNDWATER TABLE MOUND WITH AN ELEVATION OF $\pm 175m$ ABOVE SEA LEVEL (ASL) CENTRALLY LOCATED IN LOTS 33 & 32 FALLING OFF TO BELOW $\pm 150m$ ASL IN THE NORTHWEST, $\pm 155m$ ASL IN THE NORTHEAST, $\pm 165m$ ASL IN THE SOUTHEAST AND $\pm 160m$ ASL IN THE SOUTHWEST.
- ALL MEASUREMENTS SHOWN ON THIS PLAN ARE IN METRES.

SCALE

Horizontal 1:2000

Vertical 1:500

4x vertical exaggeration

DRAFT REVISIONS

NO.	DATE	DESCRIPTION
1	February 04, 2010	ISSUE FOR PERMIT

APPROVED FOR PERMIT

DATE	DESCRIPTION

PROJECT NAME:

Codrington Pit

Part Lots 32-34
Concession 6
Municipality of Brighton
(geographic township of Brighton)
County of Northumberland

ST MARYS
CBM

St. Marys Cement Inc. (Canada)
55 Industrial St. Toronto, Ontario
M4G 3W9 Telephone (416) 423-1300