

**SITE DESCRIPTION AND STATISTICS**  
 PT. LOTS 1 & 2, CONC. 2 & 3  
 CITY OF BURLINGTON  
 REGIONAL MUNICIPALITY OF HALTON

LICENCE NO.	LICENSED AREA (ha)
5499	202.1
5657	16.2
<b>TOTAL</b>	<b>218.3</b>
<b>TOTAL AREA TO BE EXTRACTED (both licenses)</b>	<b>215 ha</b>

**BUILDINGS WITHIN QUARRY BOUNDARY**

Letter	Description	Dimensions
A	OFFICE	40mX15mX5m
B	PORTABLE SCALE HOUSE	15mX7m
C	FUEL PUMPS	30mX10mX4m
D	LUNCH ROOM	5mX5mX5m
E	ASPHALT PLANT	120mX30mX15m
F	ASPHALT CONTROL ROOM	30mX15mX8m
G	STORAGE SHED #1	5mX10mX3m
H	STORAGE SHED #2	4mX5mX3m
I	STORAGE SHED #3	7mX5mX3m
J	PORTABLE OFFICE TRAILER	10mX5mX3m
K	PORTABLE OFFICE TRAILER	10mX5mX3m

**LEGEND OF BUILDINGS WITHIN 500m OF QUARRY BOUNDARY**

Letter	Description
H	HOUSE
B	BARN
C	COMMERCIAL BUILDING i.e. GAS BAR
R	RECREATION BUILDING i.e. GOLF CLUBHOUSE

All distances on this plan are shown in metres unless otherwise stated.

**Site Plan Amendments**

No.	Date (Y/M/D)	Description	By
11	25/02/21	INTEGRATION OF BURLINGTON QUARRY EXTENSION LICENSE # 626477	C.P.
10	19/07/14	REMOVAL/RELOCATION OF BUILDINGS/STRUCTURES ON-SITE	L.H.
9	12/01/20	REVISE FUEL STORAGE NOTE #8 ON PAGE 2 OF 4	L.H.
8	07/12/03	REVISE INTERNAL DYKE	L.H.
7	06/11/02	REDUCTION OF LICENSED BOUNDARY	L.H.
6	06/09/18	REVISE LOCATION OF SCRAP AREA	L.H.
5	08/10/08	ADDITIONAL RECYCLABLE MATERIAL STORAGE	P.C.
4	07/03/05	REVISED AS PER MINISTRY COMMENTS	P.C.
3	03/06/15	REVISED AS PER MINISTRY COMMENTS	K.C.
2	02/10/16	REVISED AS PER CLIENT COMMENTS	G.M.
1	02/10/08	REVISED PLANS AS PER MNR COMMENTS	M.H.

**WELL INFORMATION**

Key	M.O.E. No.(28-)	Elev.(m)	Static Elev.(m)	Key	M.O.E. No.(28-)	Elev.(m)	Static Elev.(m)	Key	M.O.E. No.(28-)	Elev.(m)	Static Elev.(m)
1	105	283.5	278.9	28	5572	283.5	276.8	55	488	277.4	276.5
2	99	281.9	277.4	29	124	278.0	276.6	56	496	277.4	277.4
3	101	281.9	277.4	30	5464	274.3	265.2	57	493	283.5	275.5
4	5454	286.5	277.4	31	126	274.3	271.0	58	5392	280.4	273.7
5	5461	283.5	274.3	32	125	274.3	272.8	59	5566	280.4	267.9
6	103	284.1	278.6	33	128	274.3	271.9	60	5463	280.4	272.8
7	5565	286.5	278.3	34	5110	274.3	266.4	61	4299	283.5	266.7
8	5391	288.4	280.4	35	5434	274.3	264.6	62	5480	283.5	274.3
9	5455	288.4	278.9	36	129	280.4	268.2	63	491	281.9	277.7
10	100	283.5	277.4	37	5564	283.5	270.7	64	484	283.5	278.9
11	6570	286.5	277.7	38	4172	260.4	278.3	65	465	283.5	274.6
12	5433	286.5	276.8	39	3696	280.4	269.4	66	492	283.5	274.6
13	4735	283.5	281.9	40	3646	274.3	268.8	67	3552	289.6	281.6
14	4859	282.2	278.9	41	5313	274.3	266.7	68	5738	286.5	274.3
15	102	281.0	278.0	42	137	272.2	268.5	69	5432	280.4	268.5
16	5714	286.5	279.2	42	5789	277.4	268.2	70	3143	283.5	281.3
17	5709	285.4	274.9	44	5622	277.4	273.7	71	5373	280.4	272.2
18	3015	281.9	280.7	45	5705	277.4	265.2	72	5109	278.9	268.8
19	5459	289.6	276.8	46	5569	280.4	275.2	73	497	279.8	270.4
20	115	275.0	272.8	47	490	277.4	259.1	74	2820	278.9	267.3
21	5588	280.4	272.2	48	487	277.4	275.2	75	5861	277.4	260.3
22	3115	280.4	278.0	49	486	281.0	275.6	76	3516	277.4	261.6
23	5706	283.5	276.5	50	5589	280.4	268.5	77	4229	280.4	263.7
24	5466	283.5	279.8	51	5713	280.4	269.1	78	5311	278.9	263.3
25	3230	280.4	278.8	52	4281	278.6	273.7	79	4744	278.0	263.7
26	110	281.0	279.8	53	489	277.4	275.5	80	3545	280.4	271.3
27	121	280.4	277.4	54	5550	280.4	272.8				

- LEGEND:**
- EXISTING SPOT ELEVATIONS
  - EXISTING CONTOURS
  - BOUNDARY OF LICENSED AREA
  - SETBACK LIMITS
  - EXISTING 1.2m FENCE ON BOUNDARY
  - ENTRANCE GATES
  - ACTIVE QUARRY FACE
  - TREED AREAS/WOODLOTS/SCREENS
  - HAUL ROUTES/INTERIOR ROADWAYS
  - EXISTING WATER WELL (WITH KEY No.)
  - MONITORING WELL (WITH KEY No. (10.5m) and DEPTH TO WATER AS OF MARCH 30, 1992)
  - AREA STRIPPED OF TOPSOIL/OVERBURDEN
  - SURFACE DRAINAGE
  - EARTH BERM SCREEN
  - REHABILITATED AREA
  - INTERIM REHABILITATED AREA
  - EXTENSION LIMIT OF EXTRACTION
  - FLOW DIVERSION / DISCHARGE PIPE

**Official Plan & Zoning Information:**  
 As per the Niagara Escarpment Plan, which is included as part of the Halton Official Plan, Quarry Site is designated as a Mineral Resource Extraction Area. The designation of areas adjacent to the quarry is Escarpment Rural. The Official Plan for Halton Region designates the site as Mineral Resource Extraction Area.

**Water Table Information:**  
 The water table is located approximately ±4.9m (269.0m ASL) below undisturbed grade. De-watering takes place continuously, and has been in place for approximately 50 years.

**Fencing:**  
 The licensed area is enclosed by a 1.2m fence with the exception of the area around the office which has a three rail wooden fence.

**Site Description:**  
 Part of Lots 1 and 2, Concessions 2 and 3, City of Burlington, Regional Municipality of Halton.

- Information Compiled From**
- 1990 Aerial Photography at 1:5000 Scale
  - 1988 Official Plan for the Halton Planning Area, Regional Municipality of Halton
  - 1985 Niagara Escarpment Plan
  - Ministry of Environment, Water well records
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  - Ontario Base Mapping (Air Photography 1982, Published 1983)
  - 1985 Plans by Nelson
  - 1997 Mark-Ups Provided by Nelson
  - Rehabilitation contours utilized the City of Burlington's Open Data Catalogue which contains 2017 contour data and are displayed in one metre intervals
  - Elevations shown are in metres above sea level (masl)
  - On-site haul roads, stockpile locations, buildings and structures were updated based on July, 2020 aerial photography

ORIGINAL SITE PLANS PREPARED BY:

**REINDERS**  
 F.J.Reinders and Associates Canada Limited  
 Architects, Engineers, Planners, Project Managers  
 BRAMPTON (416)457-1818

**PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE**  
 MHBC  
 113 COLLIER STREET BARRIE, ON, L4M 1H2 | P: 705 728 0043 F: 705 728 2010 | WWW.MHBCPLAN.COM

Stamp: **DRAFT**  
 Mr. Brian Zeman is authorized by the Ministry of Natural Resources and Forestry to prepare and certify site plans for license applications.

DATE: MAR.05/99 PROJECT NO.: 4792 DRAWN BY: C.G./S.B. CHECKED: T.M.J.

**PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE**  
 MHBC  
 113 COLLIER STREET BARRIE, ON, L4M 1H2 | P: 705 728 0043 F: 705 728 2010 | WWW.MHBCPLAN.COM

MHBC PLANNING DRAFTED SITE PLAN AMENDMENTS NO. 6 TO 11

**DRAFT**

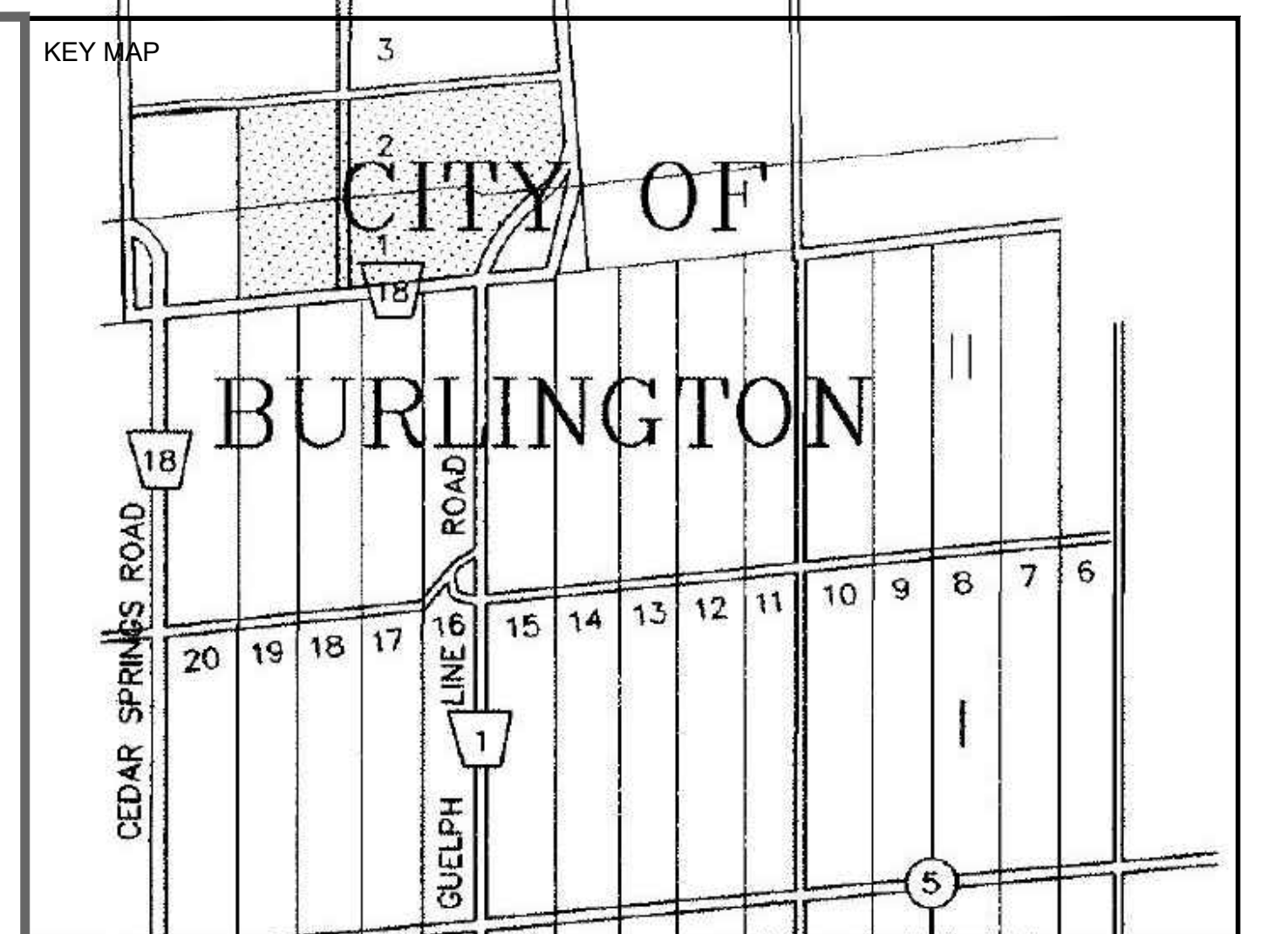
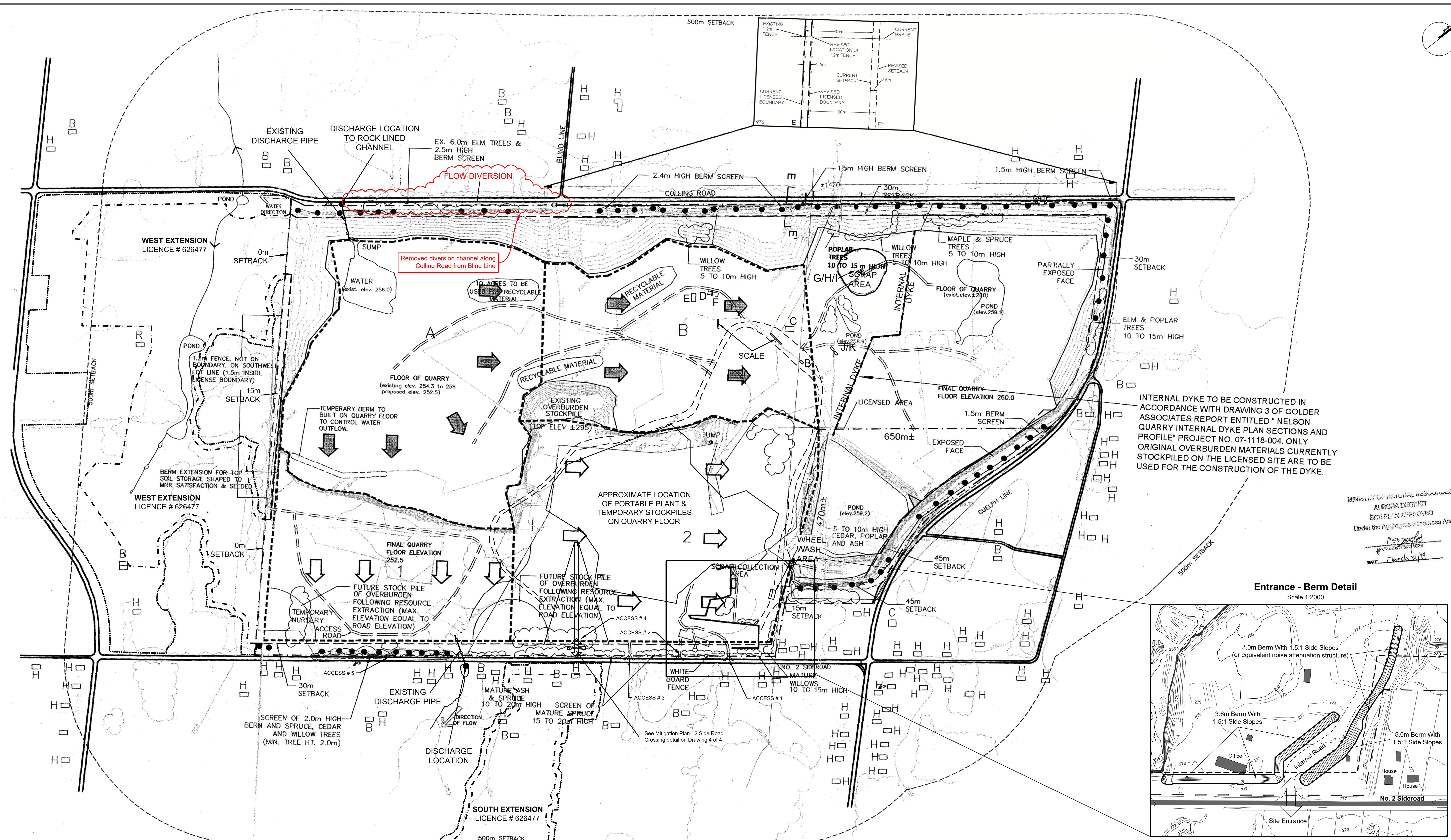
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**Burlington Quarry**  
 Part of Lots 1 & 2, Conc. 2 & 3  
 (former township of Nelson) City of Burlington, Region of Halton

**NELSON AGGREGATE CO.**  
 2433 No. 2 Sideroad  
 P.O. Box 1070 Burlington Ont. L7R 4L8  
 phone: (905) 335-5250

Scale: 1:4000  
 Drawn By: L.H./C.P. File No.: 9135N  
 Checked By: B.Z. Date: JUNE 2023

**EXISTING FEATURES**  
 1 OF 4



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<b>TOTAL</b>	<b>218.3</b>

**TOTAL AREA TO BE EXTRACTED (both licenses)** 215 ha

**BUILDINGS WITHIN QUARRY BOUNDARY**

Letter	Description	Dimensions
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**LEGEND OF BUILDINGS WITHIN 500m OF QUARRY BOUNDARY**

H HOUSE  
 B BARN  
 C COMMERCIAL BUILDING i.e. GAS BAR  
 R RECREATION BUILDING i.e. GOLF CLUBHOUSE

ORIGINAL SITE PLANS PREPARED BY:

**REINDERS**  
 J. Reinders and Associates Canada Limited  
 Architects, Engineers, Planners, Project Managers  
 (416) 907-1608

DATE	PROJECT NO.	DRAWN BY	CHECKED
MAR. 05/99	4792	C.G./S.B.	T.M.J.

**LEGEND**

- EXISTING SPOT ELEVATIONS
- EXISTING CONTOURS
- BOUNDARY OF LICENSED AREA
- SETBACK LIMITS
- EXISTING 1.2m FENCE ON BOUNDARY
- ENTRANCE GATES
- ACTIVE QUARRY FACE
- TREED AREAS/WOODLOTS/SCREENS
- HAUL ROUTES/INTERIOR ROADWAYS
- AREA STRIPPED OF TOPSOIL/OVERBURDEN
- EARTH BERM SCREEN
- AGGREGATE STOCKPILE MAXIMUM HT. 20.0m
- APPROXIMATE SEQUENCE OF EXTRACTION (UPPER LIFTS)
- APPROXIMATE SEQUENCE OF EXTRACTION (LOWER LIFTS)
- APPROXIMATE BOUNDARY BETWEEN STAGES
- DIRECTION OF EXTRACTION
- DIRECTION OF EXTRACTION 2ND. LIFT
- EXTENSION LICENCE BOUNDARY
- EXTENSION LIMIT OF EXTRACTION
- FLOW DIVERSION / DISCHARGE PIPE
- PROPOSED ENTRANCE / EXIT WITH GATE

**General Notes**

- This site plan specifies the additional storage size (10 acres) for recyclable materials.
- This site plan specifies that the storage only includes asphalt and concrete for the purpose of aggregate recycling (for this to be considered accessory to the aggregate operation, the materials should be restricted to aggregate based materials).
- This site plan specifies that this use only continues so long as the site is licensed.

**Aggregate Extraction**

- This plan depicts an operation plan for this property based upon the best information available at the time of preparation. Phases are schematic and may vary slightly with demand. Phases do not represent any specific or equal time period. Any major deviations from the operational sequence will require approval of the MNR.
- Topsoil and overburden will be removed approximately 100 to 200 metres in advance of aggregate extraction.
- Phase 1 will be excavated in a single lift of (20-25m) down to the shale layer. A slot may be advanced southward in the centre of Phase 1. Extraction will occur simultaneously from the east, west and south faces within the slot and from the south face on either side of the slot opening.
- Phase 2 will be extracted in an easterly direction in a single lift (20-25m) down to the shale layer.
- Prior to extraction in the West Extension of Licence # 626477, the berm that encroaches from Licence # 626477 into this licence in the southwest corner (as shown on the plan view) shall be constructed.
- As required, the existing processing plant will be removed and a new portable plant will be established on the quarry floor (as shown).
- A section lift (+/- 5m) in areas A and B will be extracted down to the shale layer. Extraction may begin in the northwest corner of the quarry floor and proceed simultaneously south and eastward. This lift will be undertaken at the same time as Phases 1 and 2.
- This Plan permits aggregate extracted at the Burlington Quarry Extension to be transported on-site for processing and shipping. The Burlington Quarry South Extension will transport aggregate from an at-grade crossing on No. 2 Sideroad in the location shown on this Plan. The Burlington Quarry West Extension will transport aggregate on the quarry floor within the extraction area connecting the two sites. The final area to be extracted on-site is the southeast corner of Licence No. 5499 after the completion of extraction of the Burlington Quarry Extension.
- Fuel storage tanks will be installed and maintained in accordance with the Liquid Fuels Handling Code under the Technical Standards and Safety Act.

**Aggregate Processing Equipment**

- Existing equipment includes:
  - Portable crushing plant
  - Trucks and graders
  - Loaders
  - Hydraulic shovels
  - And general equipment required to extract and ship aggregates

**Noise**

- The processing of extracted materials and drilling shall occur between 7:00 and 19:00 only.

**2) The loading and shipping of products may occur 24 hours.**

**3) The asphalt plant may operate 24 hours.**

**4) No drilling or extraction activities will occur within this quarry simultaneously with extraction activities within the Burlington Quarry Extension.**

**5) The maximum sound power level of equipment operated within the quarry will be as follows:**

Source	Sound Power Level (dBA re: 10 <sup>-12</sup> Watts)
Front-end Loader - Processing Area / Working Face	101
Front-end Loader - Asphalt Plant	102
Jaw Crusher	113
Cone Crusher (a set of two)	117
Screen Plant	123
Power Generator	109
Drill	110
Mixing Tower - Asphalt Plant	109
Burner and Dryer - Asphalt Plant	111
Baghouse - Asphalt Plant	104
Moving Haul Truck	114
Moving Highway Truck	101

**6) Up to three haul trucks will be used to transport material from the Burlington Quarry Extension to the processing area, with a posted speed limit of 35 km/hr along this route.**

**7) Up to 30 highway trucks can arrive and depart the site per hour, travelling between the No. 2 Side Road access and the processing area, with a posted speed limit of 20 km/hr along this route.**

**8) The asphalt plant will be equipped with noise control measures and operate within the conditions stipulated in the ECA issued by the MECP.**

**9) Equipment used for site preparation and rehabilitation shall satisfy the noise emission levels of the MECP guideline NPS-115, 'Noise Construction Equipment'.**

**10) Existing perimeter berms along the north, east and south property lines shall be retained and a new berm/acoustic barrier shall be constructed at the entrance/exit in the southeast corner of the site. See berm detail on this page. The southeast corner of the site to be the final area extracted. The berm/acoustic barrier at the entrance/exit shall be progressively removed as the final extraction face advances in this area.**

**Overburden and Topsoil**

The existing terrain features along the north, east, and south property lines, including perimeter berms, will be maintained. Overburden and topsoil will be stripped prior to extraction and will be used for backfilling of selected slopes to affect the rehabilitation measures outlined on dwg No. 3 - Progressive and Final Rehabilitation Plans. Overburden stockpiles along No. 2 Sideroad shall not be any higher than the existing road grade.

**Water Discharge**

Water discharge points are to remain as shown on dwg No. 1, and may also include the flow diversion in the northwest corner of this Plan. Dewatering will occur to maintain a dry quarry floor while the quarry is in operation. The southwest discharge is to a rock lined ditch adjacent to Colling Road where it drains westward, and to the southeast if the flow diversion is installed. The south discharge is to a ditch which crosses No. 2 Sideroad and proceeds southward. Discharge of water will be in accordance with permits issued by the MECP.

**Tree Planting**

Tree planting and seeding of backfilled slopes will be conducted progressively as described in note #6 on dwg No. 3 - Progressive and Final Rehabilitation Plans. Should any tree planting or seeding fail to become established, replacement of trees or seeding will be conducted and maintained to ensure proper success rates.

**Fencing**

The licensed area is enclosed by a 1.2m fence with the exception of the area around the office and main site access area which has a three rail wooden fence. No fencing is required adjacent to the Burlington Quarry West Extension.

**Aggregate Stockpiles**

Existing aggregate stockpiles will remain in the locations as shown on this plan during the extraction of areas 1, A and B. These stockpiles will be removed as required as the operation enters into these areas. The proposed stockpiles associated with the portable processing plant will be located on the quarry floor within the processing area (as shown on the plan).

Temporary aggregate stockpiles may be located on the quarry floor as required.

**Provision**

Internal roads on quarry floor are temporary and can be relocated as required.

**Traffic**

The haul truck crossing approaching on No. 2 Sideroad shall be designed and constructed to provide an approach sight distance on (i.e., visibility triangle) extending, at a minimum of 25 m on each crossing approach to a point 50 m east and west on No. 2 Side Road. See "Mitigation Plan - 2 Side Road Crossing" detail on drawing 4 of 4.

**Visual**

Tree protection fencing shall be installed in accordance with the Tree Protection Fencing detail on drawing 4 of 4 in the locations shown on the "Mitigation Plan - 2 Side Road Crossing" detail on drawing 4 of 4.

Trees shall be planted as supplementary visual screening running parallel on either side of the truck crossing entrance on No. 2 Side Road behind the sight triangle in order to reduce potential views that may open up from removal of existing vegetation. This planting will run approximately 17m from the tree protection fence back to the limit of existing extraction.

The proposed vegetation shall be laid out as prescribed in the "Planting Cell Detail for 2 Side Road Crossing" on drawing 4 of 4, with attention paid to planting density and diversity of coniferous and deciduous species. All vegetation is to be selected for wind and salt tolerance, hardiness. Where appropriate, native species that complement the existing surroundings are to be utilized wherever possible.

**Site Access**

All access points from No. 2 Sideroad are gated.

**Access # 1 - Primary entrance/exit to this Licence and Licence # 626477 for highway trucks hauling material from both licences. Access will remain throughout the life of both licences.**

**Access # 2 - Current entrance/exit to the office. Access shall be removed once the entrance berms are constructed.**

**Access # 3 - For maintenance purposes only.**

**Access # 4 - Entrance/exit for crossing Side Road No. 2 to access the South Extension of Licence # 626477. Access will remain for the life of Licence # 626477.**

**Access # 5 - For maintenance purposes only.**

**Variations from Control and Operation Standards**

Section 0.13 Standard	Variation	Rationale
(3)(a)	The west licence boundary will not be fenced.	The west licence boundary abuts adjacent Licence # 626477 and additional land which are owned by the same licensee.
(11) & (12)	Gates will not be required where haul roads cross the common boundary with the West Extension (Licence # 626477).	This will eliminate constraints to the movement of equipment between licences and access to additional lands owned by the same licensee.
(110.i)	A 0 metre setback will be provided where the licence boundary abuts the West Extension (Licence # 626477).	This will enable material to be extracted along the common boundary and for rehabilitation to transition between licences.
(119) & (111)	Excavation within the setback will occur to construct hydrological features and an access point for the South Extension.	The setbacks shall be temporarily excavated and disturbed to create diversion and discharge pipes as well as to construct an at grade roadway crossing on Side Road No. 2.
(113.i)	Topsoil and overburden may be temporarily located within 30m of the West Extension (Licence # 626477).	The adjacent Licence # 626477 is owned by the same licensee.
(117) & (118)	Topsoil and/or overburden may be transferred between this licence and the West and East Extensions (Licence # 626477).	This will allow stripped material from site preparation to be used immediately for progressive rehabilitation in other parts of this licence or the extensions.
(119.ii)	Portions of the quarry face shall remain vertical.	Vertical faces above and below the final lake level will create a more diverse habitat and visually appealing rehabilitated landform.

**Information Compiled From**

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- 1988 Official Plan for the Halton Planning Area, Regional Municipality of Halton
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**Site Plan Amendments**

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12	23/06/21	INTEGRATION OF BURLINGTON QUARRY EXTENSION (LICENCE # 626477)	C.P.
11	22/07/19	ADD BERM DETAIL & NOISE NOTES I.E. UPDATE OVERBURDEN/TOPSOIL NOTE	C.P.
10	19/07/14	REMOVAL/RELOCATION OF BUILDING/STRUCTURES ON-SITE	L.H.
9	12/01/20	REVISE FUEL STORAGE NOTE #8 ON PAGE 2 OF 4	L.H.
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3	93/06/15	REVISED AS PER MINISTRY COMMENTS	K.C.
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1	92/10/08	REVISED PLANS AS PER MNR COMMENTS	REINDERS

**PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE**

MHBC  
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MHBC PLANNING DRAFTED SITE PLAN AMENDMENTS NO. 6 TO 12

**DRAFT**

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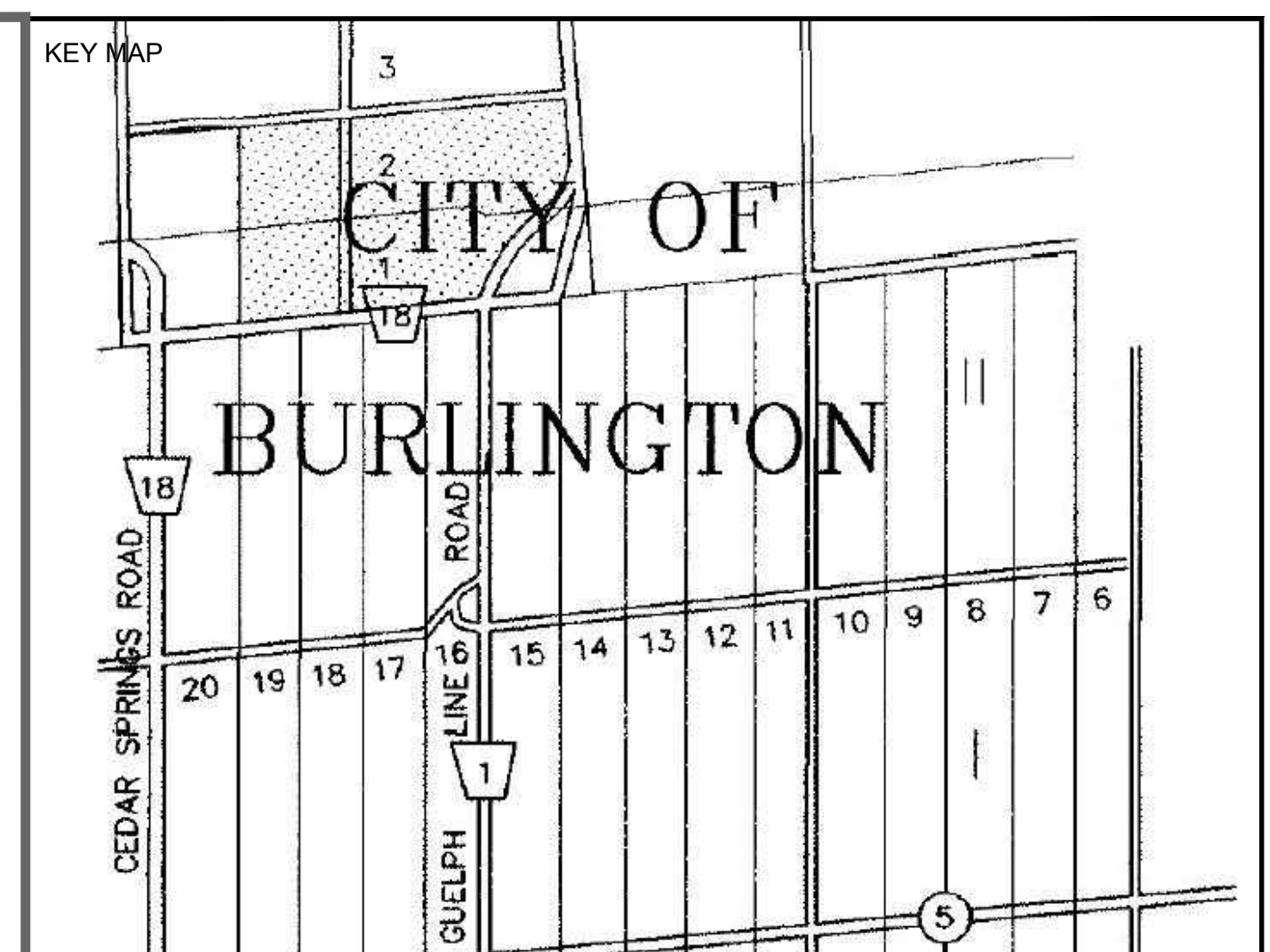
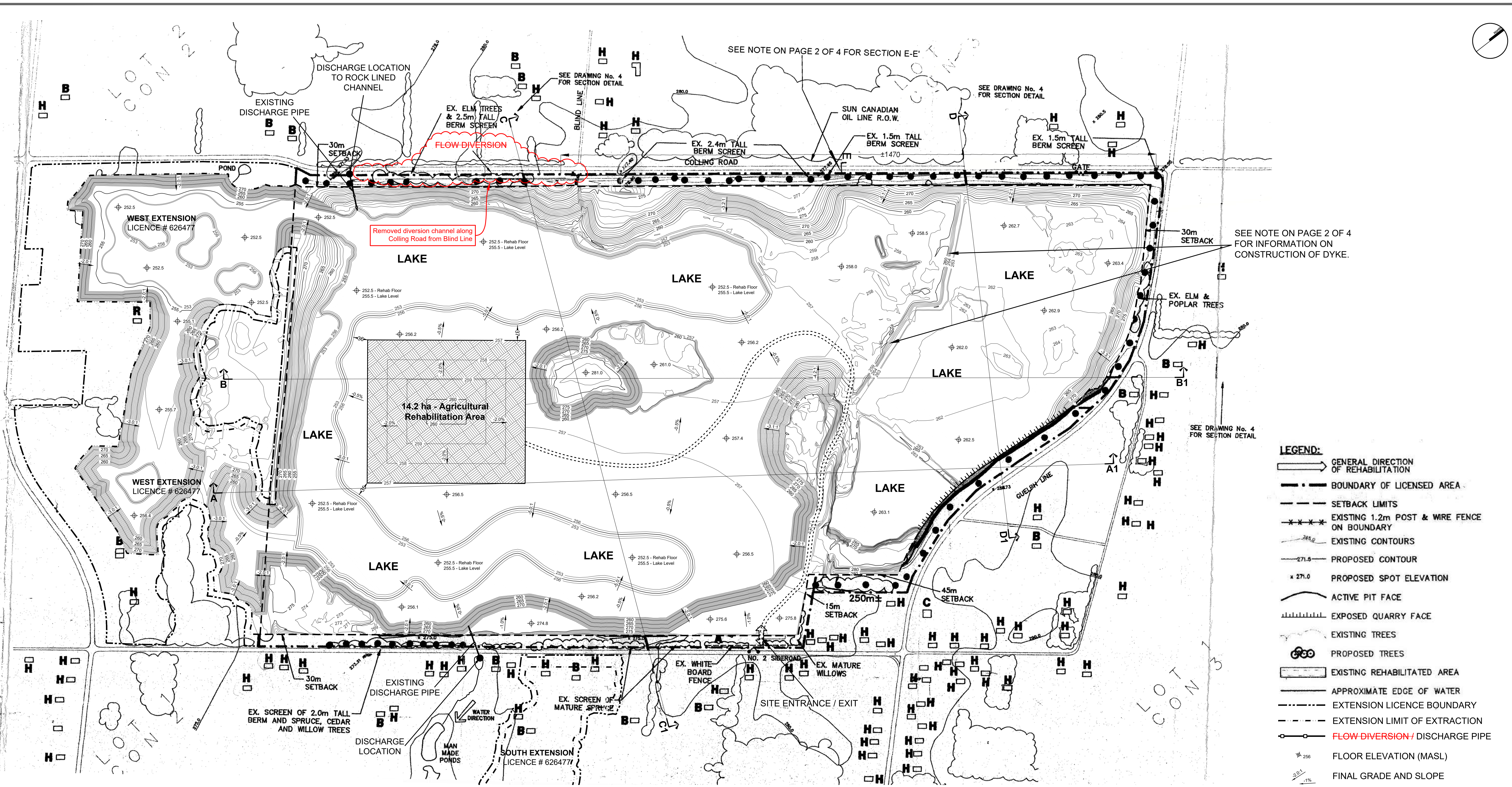
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**NELSON AGGREGATE CO.**  
 2433 No. 2 Sideroad  
 P.O. Box 1070 Burlington Ont. L7R 4L8  
 phone: (905) 335-5250

Drawn By: L.H./C.P. File No: **9135N**  
 Checked By: B.Z. Date: **JUNE 2023**

File Name: **OPERATIONAL PLAN**  
 Drawing No. **2 OF 4**

N:\Shared\1502\_Nelson - Project Working\Drawings\Area Site Plans\Existing Site Plan\CAD\19130\_Existing\_2 of 4 - Operational Plan.dwg



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- LEGEND:**
- GENERAL DIRECTION OF REHABILITATION
  - BOUNDARY OF LICENSED AREA
  - SETBACK LIMITS
  - EXISTING 1.2m POST & WIRE FENCE ON BOUNDARY
  - EXISTING CONTOURS
  - PROPOSED CONTOUR
  - PROPOSED SPOT ELEVATION
  - ACTIVE PIT FACE
  - EXPOSED QUARRY FACE
  - EXISTING TREES
  - PROPOSED TREES
  - EXISTING REHABILITATED AREA
  - APPROXIMATE EDGE OF WATER
  - EXTENSION LICENCE BOUNDARY
  - EXTENSION LIMIT OF EXTRACTION
  - FLOW DIVERSION / DISCHARGE PIPE
  - FLOOR ELEVATION (MASL)
  - FINAL GRADE AND SLOPE
  - ENTRANCE / EXIT
  - AGRICULTURAL REHABILITATION AREA
  - INTERNAL ROAD

- Information Compiled From**
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  - Elevations shown are in metres above sea level (masl)
  - On-site haul roads, stockpile locations, buildings and structures were updated based on July, 2020 aerial photography

**LEGEND OF BUILDINGS WITHIN 500m OF QUARRY BOUNDARY**

H HOUSE  
 B BARN  
 C COMMERCIAL BUILDING i.e. GAS BAR  
 R RECREATION BUILDING i.e. GOLF CLUBHOUSE

All distances on this plan are shown in metres unless otherwise stated.

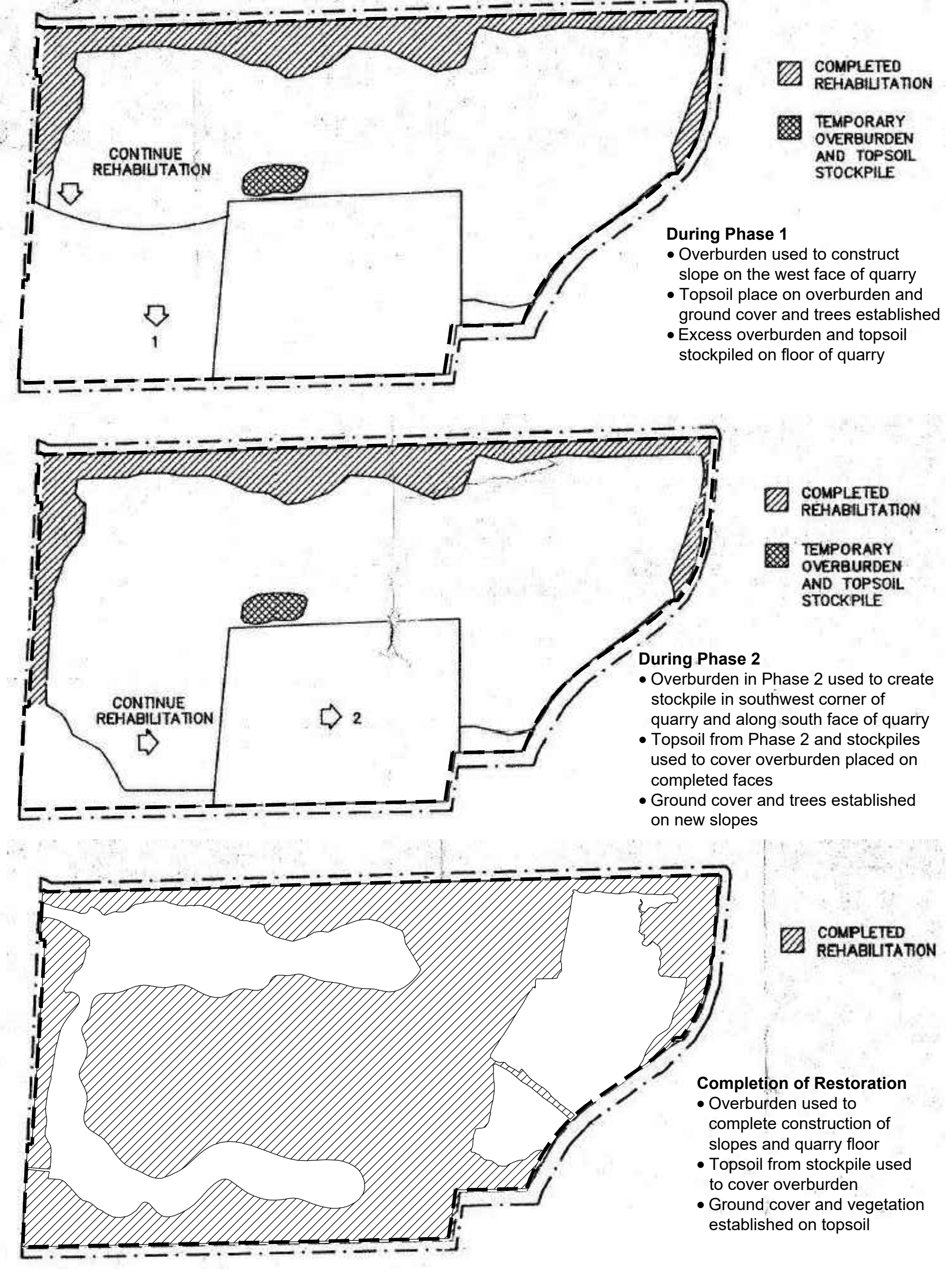
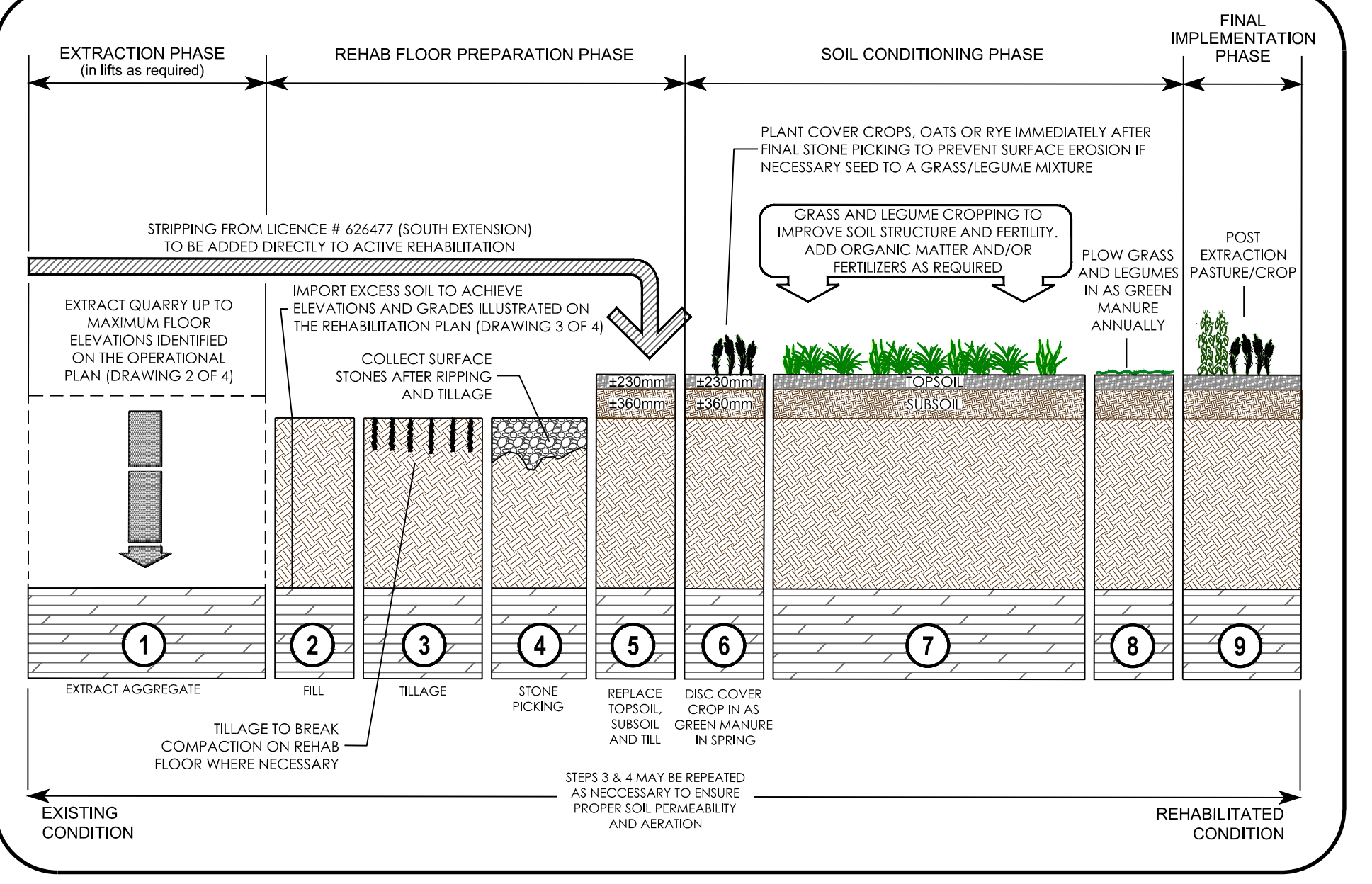
**Site Plan Amendments**

No.	Date (YY/MM/DD)	Description	By
11	23/08/21	INTEGRATION OF BURLINGTON QUARRY EXTENSION LICENCE # 626477	C.P.
10	19/07/14	REMOVAL/LOCATION OF BUILDINGS/STRUCTURES ON-SITE	L.H.
9	12/01/20	REVISE FUEL STORAGE NOTE #8 ON PAGE 2 OF 4	L.H.
8	07/12/03	REVISE INTERNAL DYKE	L.H.
7	06/11/02	REDUCTION OF LICENSED QUARRY AREA	L.H.
6	06/08/16	REVISE LOCATION OF SCRAP AREA	L.H.
5	08/10/08	ADDITIONAL RECYCLABLE MATERIAL STORAGE	P.C.
4	07/03/05	REVISED AS PER MINISTRY COMMENTS	K.C.
3	03/06/15	REVISED AS PER MINISTRY COMMENTS	K.C.
2	02/10/16	REVISED AS PER CLIENT COMMENTS	G.M.
1	02/10/08	REVISED PLANS AS PER MNR COMMENTS	AMENDMENTS

- Rehabilitation Notes**
- Final rehabilitation of the site is for a lake, ponds, wetlands and agricultural area (see agricultural rehabilitation notes for additional detail) with vegetated slopes and quarry floor. The final rehabilitated landform may also include an access road from the entrance to the rehabilitated quarry floor and access roads on the quarry floor to provide access to the sump locations.
  - Notwithstanding a) above, the owner reserves the right to develop the site for other uses, including estate residential, public and/or private recreational uses (e.g. sports fishing, swimming and boating). Depending on the final ownership of the rehabilitated site, these shall be subject to all applicable legislation and by-laws.
  - In accordance with b) above, the licensee has committed to conveying the site into public ownership and to maintain this quarry in a dewatered state by maintaining the pumping regime to provide long-term public water management benefits and mitigate impacts on natural heritage features which depend on quarry discharge from this licence.

- The soils transferred from Licence #626477 for agricultural rehabilitation will be used directly for rehabilitation where feasible. If storage is required, the agricultural soils will be stored in low profile stockpiles and appropriate erosion protection will be implemented. The intent is to avoid storage of material and where storage is required, it will be minimized to the extent possible.
- Topsoil and subsoil shall be replaced at the same pre-extraction depth in Licence #626477 which is approximately 23 centimetres for topsoil and 36 centimetres for subsoil.
- Soil material for agricultural rehabilitation shall not be handled during frozen conditions. The soil will only be handled under dry conditions and a wet weather shut down procedure shall be put in place. Travel over soils and rehabilitated areas shall be minimized to reduce compaction. Ripping / tilling the soil will occur where necessary to alleviate soil compaction and shall avoid the mixing of soil materials / layers during the process.
- Vegetation cover (such as perennial crops) shall be established within the agricultural rehabilitation area in order to reduce erosion, add organic matter to the soil and improve soil structure. A grass-legume cover crop shall be established throughout rehabilitation and maintained for up to five years and incorporated under annually in order to promote and increase organic matter.
- Plantings in agricultural areas shall include an agricultural seed mix of Annual Rye (50%), Oats (23%), White Rye (23%) and White Clover (4%).
- The post-extraction land form shall be rehabilitated in a manner that alleviates compaction and minimizes the potential for erosion.
- Random soil testing shall be completed at the beginning of each growing season by a qualified professional to analyze soil conditions, using an accredited lab for any analytical testing. Soil inspections shall be conducted at a density to allow for sufficient coverage for the area. The parameters for the soil testing shall be determined by the qualified professional and shall include items such as: soil macro and micronutrients, soil chemistry (e.g. pH, etc.), organic matter, soil texture and structure and bulk density. Adjustments to cropping practices and/or soil amendments may be required based on the results of the soil testing.
- An Agricultural Rehabilitation Monitoring Program Report shall be submitted annually by a qualified professional once progressive rehabilitation efforts have commenced within the agricultural rehabilitation area and five years following completion of rehabilitation in this area. The report shall document the stages of the rehabilitation process and include details on matters such as the following:
  - Evaluate the rehabilitated agricultural condition and soil capability, relative to the baseline soil conditions documented as a requirement of Licence #626477. The baseline soil conditions shall be included as an appendix in the annual monitoring report;
  - An overview of the status of the current extraction and progressive rehabilitation phases;
  - Description of annual soil removal and storage methods;
  - Description of any land that has been progressively rehabilitated;
  - Documentation on the alleviation of any soil compaction, drainage provisions, erosion control, etc.;
  - Description of how the soil has been replaced and any amendments added (fertilizer, organic matter);
  - Description of any seeding or planting that has occurred;
  - A review of previous rehabilitation management activities and observations regarding field conditions;
  - Report of agricultural activity (crops grown, annual yields) and any anecdotal feedback from the farmer;
  - Review of drainage issues and recommended mitigation measures as necessary;
  - Summary of soil test results and post rehabilitation soil capability;
  - Summary of monitoring data; and
  - Make recommendations on future agricultural rehabilitation activities and any needed adjustments to best management practices.

**QUARRY FLOOR AGRICULTURAL REHABILITATION SEQUENCE**  
 N.T.S.



- The contour shaping of the remaining areas to be rehabilitated, will be done in a manner to create a diverse waters edge. Areas where the waters edge meets a vertical quarry face will be blended into softer slopes and areas just under the waters surface will be created to establish the potential for naturally occurring wetland areas for fish and wildlife habitat. (See typical sketch on sheet 4).
  - Waste rock, overburden topsoil and any MECOP approved excess soil will be used to develop suitable safe slope angles as shown. If insufficient overburden and topsoil exists on the site, the owner reserves the right to import excess soil from offsite sources.
  - Except for vertical faces, rehabilitated slopes of the quarry shall not exceed 2:1 and shall vary from 2:1 to 5:1 slopes. Tableland areas for development will be graded from 0.3% to 3.0% slope angles. The agricultural rehabilitation area will be graded to 2% slope angles. Where the agricultural rehabilitation area transitions back to the rehabilitated quarry floor, 15:1 slopes will be utilized to establish a smooth transition.
  - Islands may be left in the lake should sufficient material remain on the site at the completion of operations. The size of the island shown on the plan is approximate based on current earth quantities. The owner reserves the right to adjust the size depending on the final quantities.
  - In the final stages, the existing berms may be used in the final rehabilitation of the slopes.
  - Regraded slopes will be vegetated with a maintenance free ground cover (ie: trefol, crown vetch) and deciduous and coniferous trees of varieties indigenous to the area. Installed heights for deciduous trees will be 2.0 metres and for coniferous trees will be 1.0 metre. Tree fatalities will be replaced at seasonally opportune times. Trees and shrubs will be planted for slope stabilization, habitat enhancement and aesthetics.
  - The regraded quarry floor will be vegetated with a grass legume mixture except within the agricultural area which shall be vegetated in accordance with the agricultural rehabilitation notes on this drawing.
  - For safety, a post and wire fence must be installed at the top of all exposed quarry faces and shall run along the top to the point where the quarry face falls into the rehabilitated slope.
  - Phasing of rehabilitation to follow sketches shown to the left and as set out in dwg No.2.
  - If the site is to be maintained in a dewatered state, prior to the surrender of the Aggregate Resource Act Licence, the licensee shall define the transition of the site to another party and the pre-requisite for license surrender to the satisfaction of the MNRP.
- Agricultural Rehabilitation**
- The Agricultural Rehabilitation Area identified on the plan view shall be established by importing topsoil and subsoil from Licence #626477 and following the Quarry Floor Agricultural Rehabilitation Sequence detail on this drawing. The configuration of the Agricultural Rehabilitation Area, as shown on the plan, may vary slightly to support agricultural uses on the site.
  - During operations, an access road to the agricultural rehabilitation area will be maintained that avoids the processing area. Once processing has been completed, the access road to the agricultural rehabilitation area will be in the general location as shown on the plan.

- No livestock operations shall be permitted.
  - Best management practices are encouraged with respect to the storage and application of fertilizers and pesticides.
- The report shall include observational documentation, records of activity and quantitative information on soil conditions. These reports will be appended as part of annual ARA Compliance Assessment Reports. The purpose of the annual monitoring report is to ensure the site will be rehabilitated to a condition in which substantially the same area and the same average soil capability for agriculture, relative to the baseline conditions in Licence #626477, are restored.

MINISTRY OF NATURAL RESOURCES  
 NIAGARA DISTRICT  
 SITE PLAN APPROVED  
 Under the Aggregate Resources Act  
 Approved by: [Signature]  
 DATE: March 31/19

ORIGINAL SITE PLANS PREPARED BY:

**REINDERS**  
 F.J.Reinders and Associates Canada Limited  
 Architects, Engineers, Planners, Project Managers  
 (1982-1988)

DATE: MAR. 05/99 PROJECT NO.: 4792 DRAWN BY: C.G./S.B. CHECKED BY: T.M.J.

**MHBC**  
 113 COLLIER STREET BARRIE, ON. L4M 1H2 | P: 705 728 0045 F: 705 728 2010 | WWW.MHBCPLAN.COM

MHBC PLANNING DRAFTED SITE PLAN  
 AMENDMENTS NO. 6 TO 11

**DRAFT**

Mr. Brian Zeman is authorized by the Ministry of Natural Resources and Forestry to prepare and certify site plans for license applications.

**Burlington Quarry**  
 Part of Lots 1 & 2, Conc. 2 & 3  
 (former township of Nelson) City of Burlington, Region of Halton

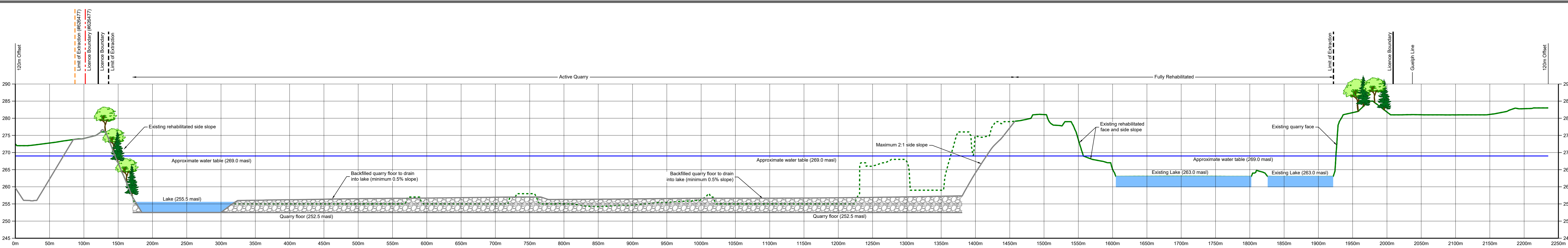
Project

**NELSON AGGREGATE CO.**  
 2433 No. 2 Side Road  
 P.O. Box 1070 Burlington Ont. L7R 4L8  
 phone: (905) 335-5250

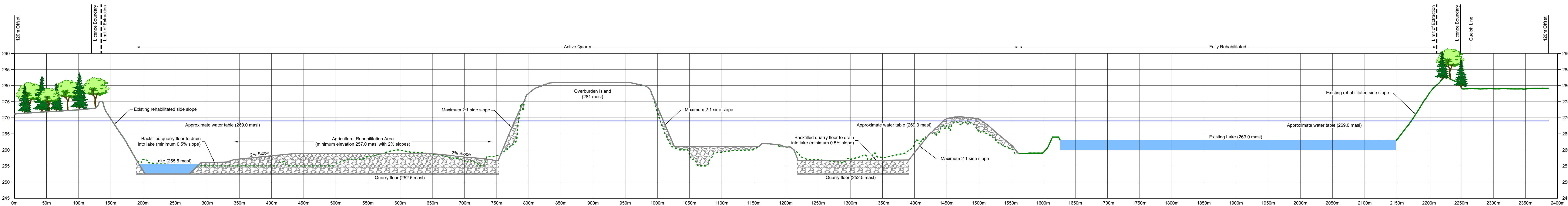
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Drawn By: L.H./C.P. File No.: 9135N  
 Checked By: B.Z. Date: JUNE 2023

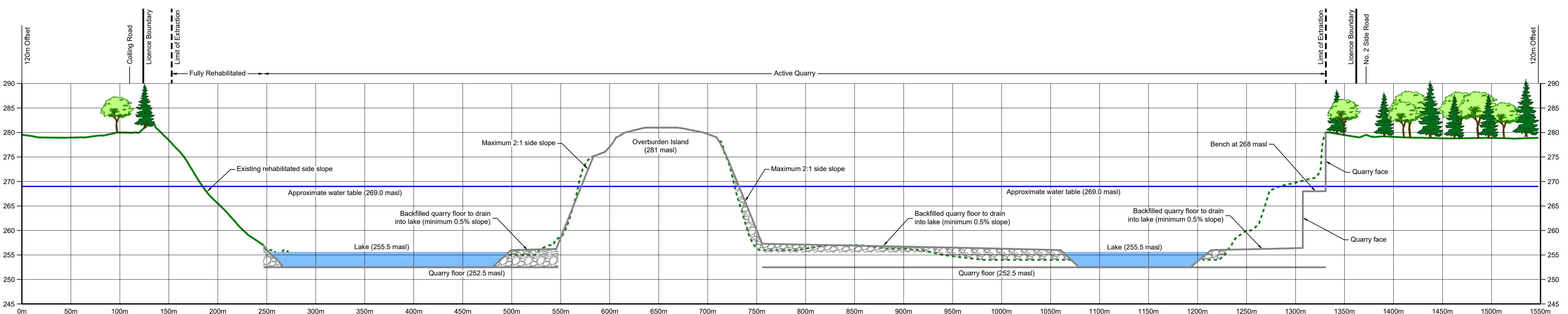
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 Drawing No.: **3 OF 4**



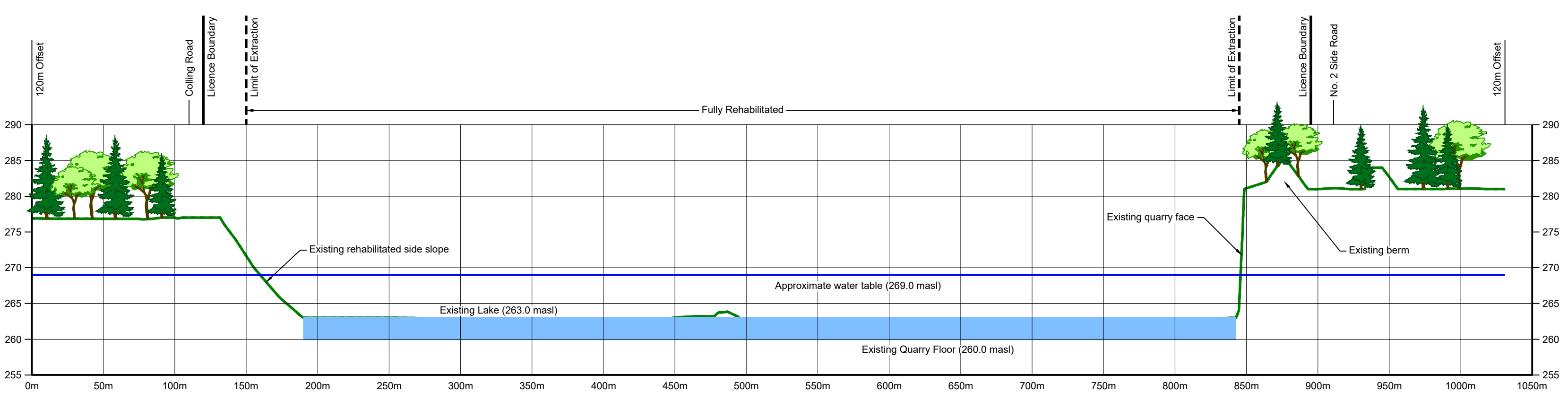
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Vertical 1:500



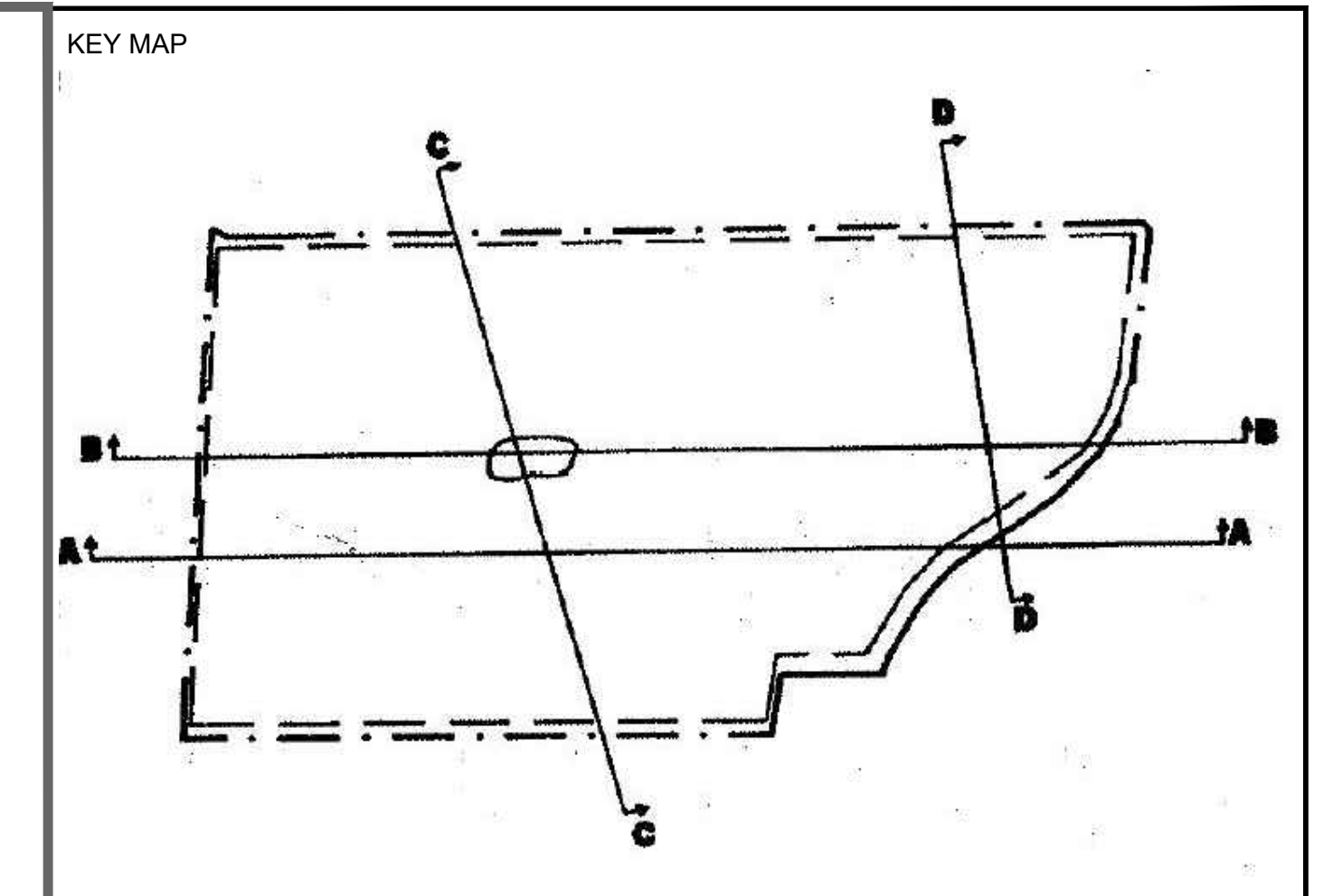
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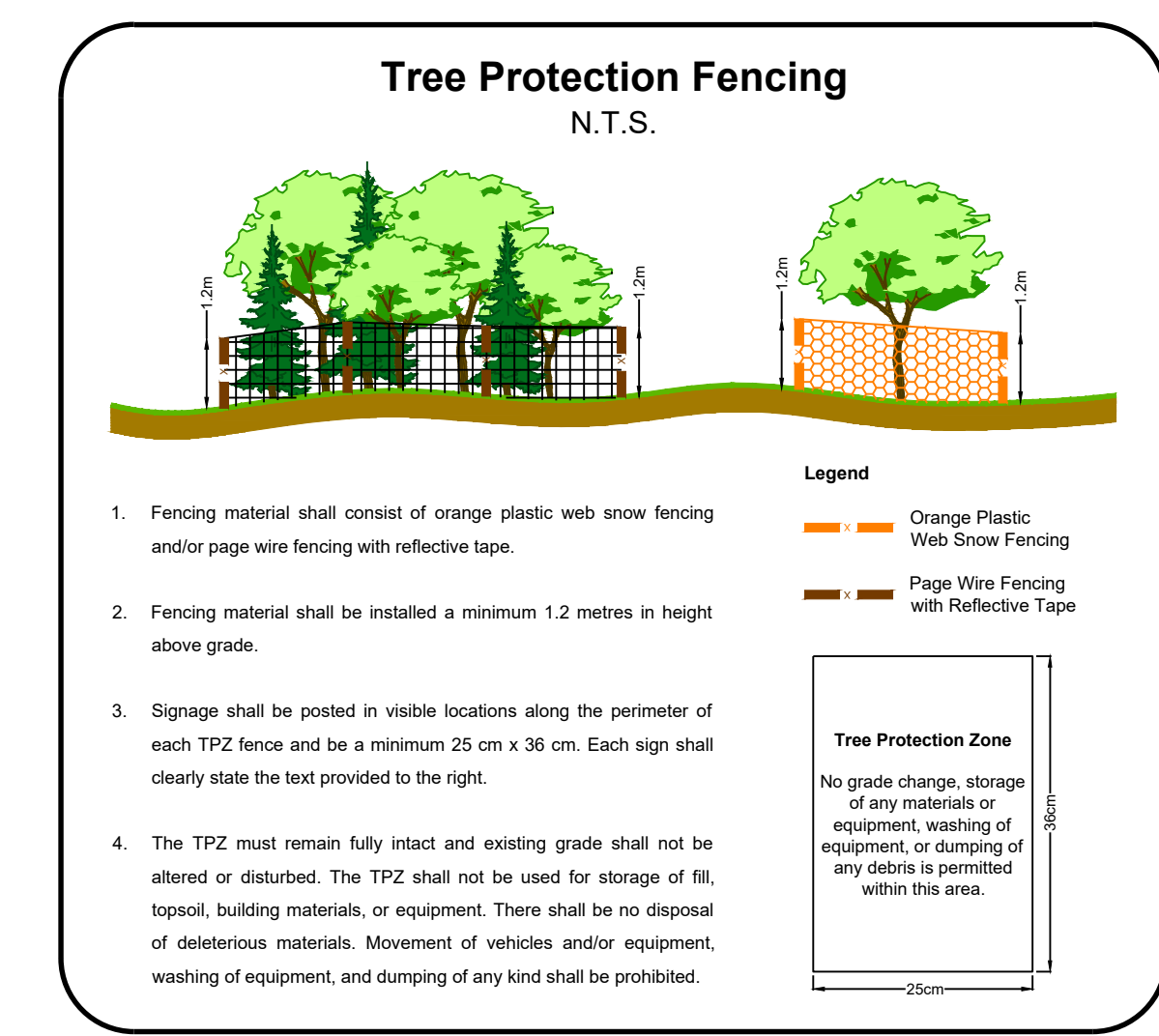
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Section D-D1  
Horizontal 1:2500  
Vertical 1:500



- Legend**
- Licence Boundary
  - Limit of Extraction
  - Licence Boundary (#626477)
  - Limit of Extraction (#626477)
  - 120m Offset From Licence Boundary
  - Existing Grade - Removed / Altered
  - Existing Grade - Undisturbed
  - Quarry Floor / Face
  - Backfilled
  - Lake or Pond



All distances on this plan are shown in metres unless otherwise stated.

**Site Plan Amendments**

No.	Date (YYYYMMDD)	Description	By
11	23/09/21	INTEGRATION OF BURLINGTON QUARRY EXTENSION (LICENCE # 626477)	C.P.
10	19/07/14	REMOVAL/RELOCATION OF BUILDINGS/STRUCTURES ON-SITE	L.H.
9	12/01/20	REVISE FUEL STORAGE NOTE #8 ON PAGE 2 OF 4	L.H.
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7	06/11/02	REDUCTION OF LICENSED BOUNDARY	L.H.
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3	03/06/15	REVISED AS PER MINISTRY COMMENTS	K.C.
2	82/10/16	REVISED AS PER CLIENT COMMENTS	G.M.
1	92/10/08	REVISED PLANS AS PER MNR COMMENTS	REDAK

**MHBC** PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE  
113 COLLIER STREET BARRE, ON, L4M 1H2 | P: 705 728 0045 F: 705 728 2010 | WWW.MHBCPLAN.COM

MHBC PLANNING DRAFTED SITE PLAN AMENDMENTS NO. 6 TO 11

**DRAFT**

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(former township of Nelson) City of Burlington, Region of Halton

**NELSON AGGREGATE CO.**  
2433 No. 2 Sideroad  
P.O. Box 1070 Burlington Ont. L7R 4L8  
phone: (905) 335-5250

Drawn By	L.H./C.P.	File No.	9135N
Checked By	B.Z.	Date	JUNE 2023
<b>CROSS SECTIONS</b>			
<b>4 OF 4</b>			

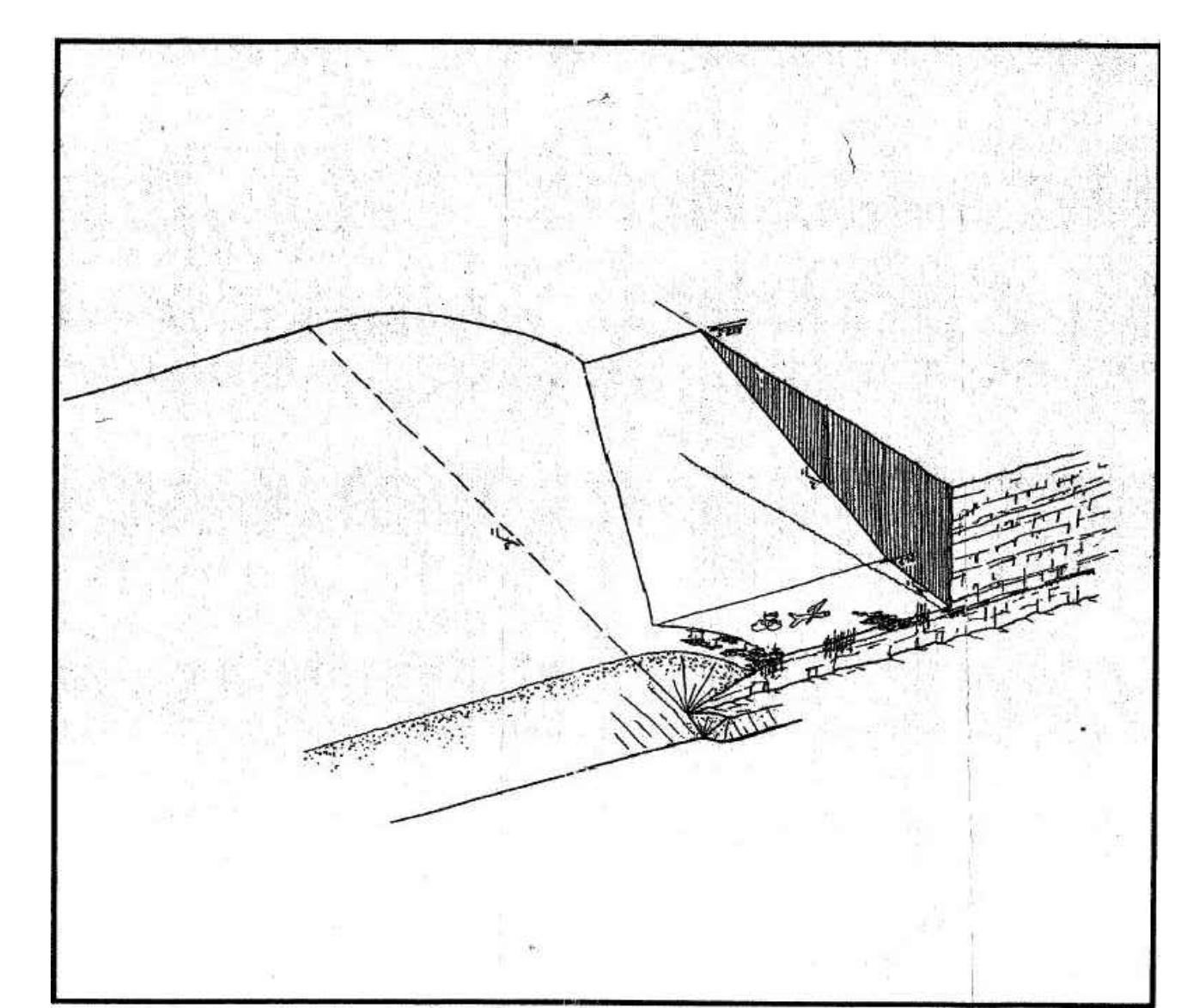
MINISTRY OF NATURAL RESOURCES  
AURORA DISTRICT  
SITE PLAN APPROVED  
Under the Aggregate Production Act  
DATE: Dec 31/19

ORIGINAL SITE PLANS PREPARED BY:

**REINDERS**  
F.J. Reinders and Associates Canada Limited  
Architects, Engineers, Planners, Project Managers  
BURLINGTON (416) 557-1618

REGISTERED PROFESSIONAL ENGINEER  
C. W. CHELSEA  
PROVINCE OF ONTARIO

DATE	PROJECT NO.	DRAWN BY	CHECKED
MAR.05/99	4792	C.G./S.B.	T.M.J.



- Information Compiled From**
- 1990 Aerial Photography at 1:5000 Scale
  - 1988 Official Plan for the Halton Planning Area, Regional Municipality of Halton
  - 1985 Niagara Escarpment Plan
  - Ministry of Environment, Water well records
  - 1991 Reinders Field Survey
  - Ontario Base Mapping (Air Photography 1982, Published 1983)
  - 1985 Plans by Nelson
  - 1997 Mark-Ups Provided by Nelson
  - Rehabilitation contours utilized the City of Burlington's Open Data Catalogue which contains 2017 contour data and are displayed in one-metre intervals
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