Welcome

Stelco’s In Person Consultation Event #2 Environmental Assessment

Environmental Assessment (EA) of the Proposed Quarry Landfill Expansion - Stelco Lake Erie Works, Nanticoke

WE WANT YOUR INPUT!

You are invited to browse the consultation material and speak to representatives present. Please fill out a comment form so that we can include your questions or comments and consider your feedback in the EA document.

STELCO

The Steel Company of Canada

Consultation Event #2

October 22, 2024

Why we are here:

- To present the Terms of Reference approval to commence the EA
- Explain the proposed EA steps
- Describe ‘Alternative Methods’ for landfill expansion
- Present criteria for comparison of ‘Alternative Methods’
- Present proposed study areas
- Listen to your feedback, answer questions, invite comments and participation, and outline next consultation activities

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WHAT IS THE ENVIRONMENTAL ASSESSMENT?

If approved the EA is the first step towards completing the planning for this Project.
It is a study, which assesses alternatives and the potential environmental effects (positive or negative) of this proposed landfill expansion.
As part of the EA Study, Stelco has:

- identified and evaluated ‘Alternatives To’ the proposed landfill expansion during the Terms of Reference

As part of the EA Study, Stelco has to:

- characterize the existing environmental conditions
- identify and develop ‘Alternative Methods’ of landfill expansion
- compared alternatives, identify the preferred ‘Alternative Method’
- identify mitigation measures and determine net environmental effects

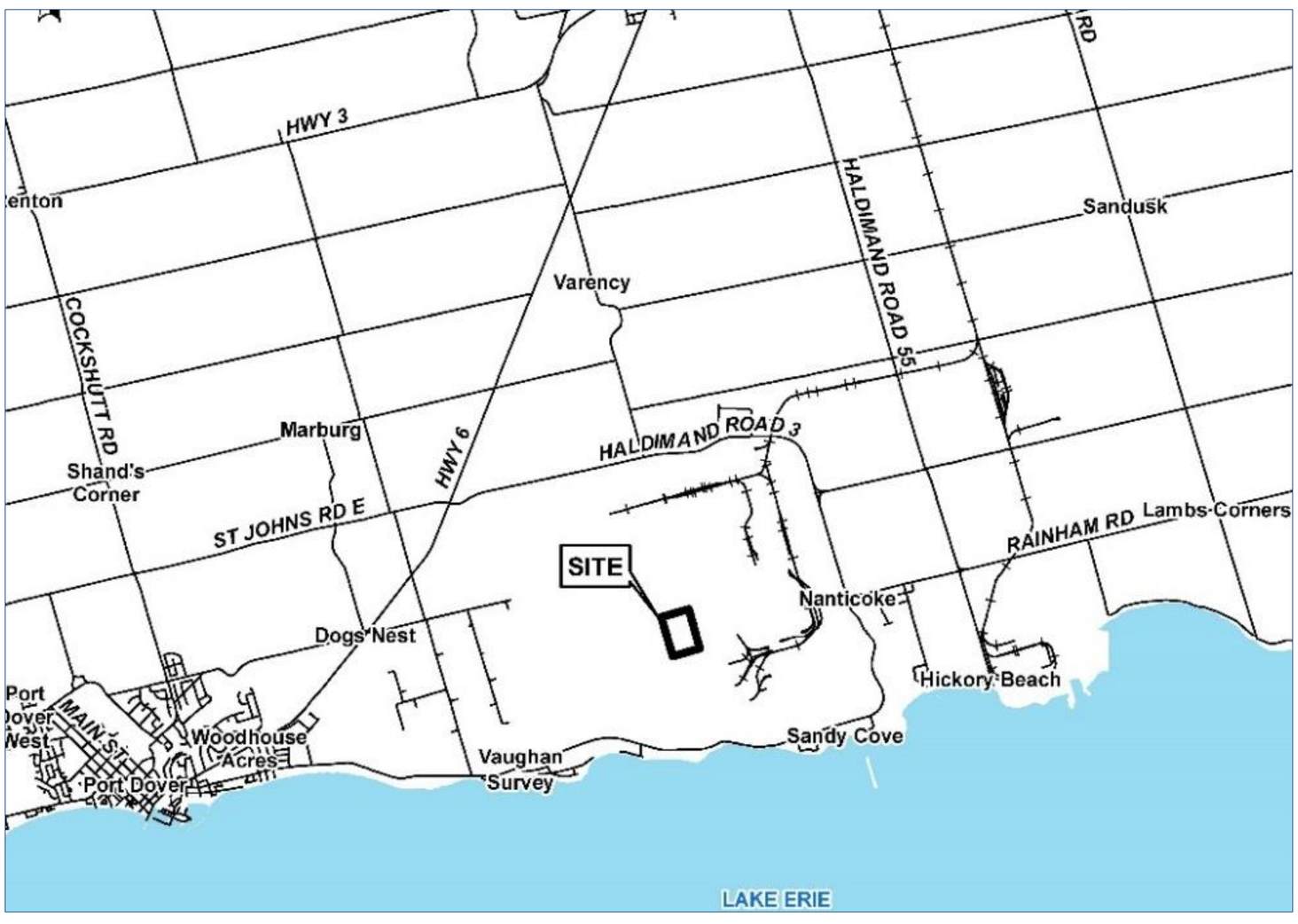
Environmental Assessment

The EA is comprised of the Terms of Reference (ToR) and the EA.

- The ToR sets out the framework for the planning and decision-making process to be followed during the preparation of the EA
- The ToR was circulated in both draft and final to the public, Indigenous Communities and the government review team, including the MECP and the final ToR was approved by the MECP on May 10, 2024.

LOCATION OF EXISTING LANDFILL

The location of the existing landfill (the Site) is shown below.



DID YOU KNOW?

The purpose of this EA is to provide environmentally safe and cost-effective long-term waste management for Stelco for a 25-year planning period.

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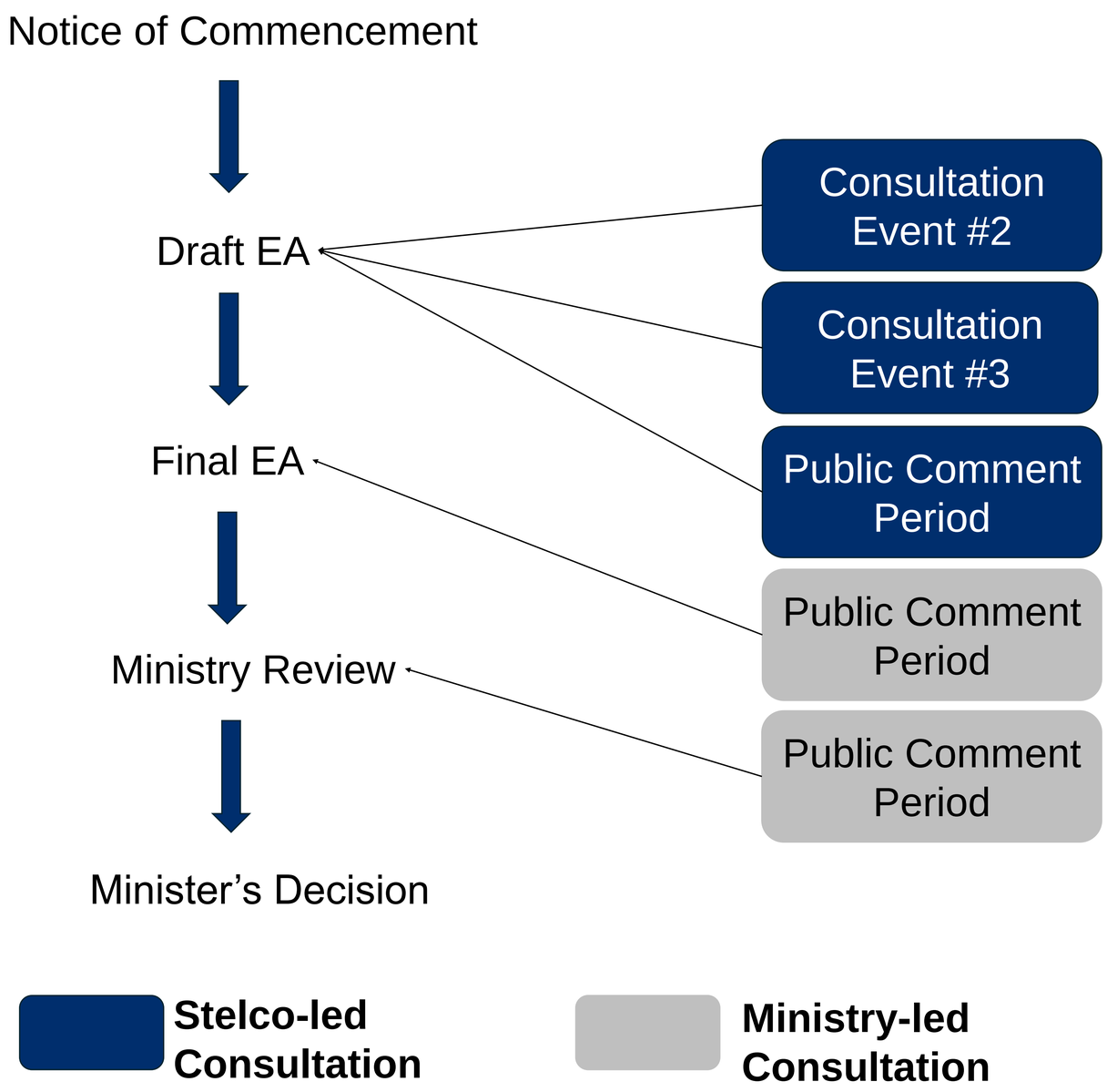
EA PROCESS AND CONSULTATION

NEED FOR LANDFILL EXPANSION

- There is limited approved disposal capacity remaining at the existing landfill.
- Stelco is proposing to expand the existing landfill at Lake Erie Works Facility (LEW) to accommodate the continued on-site disposal of non-hazardous steelmaking secondary materials generated at the facility that cannot be reused or recycled.



Environmental Assessment Consultation

This consultation is specifically related to preparation of the Environmental Assessment. An Environmental Assessment (EA) of the Proposed Quarry Landfill expansion is being undertaken under the provincial Environmental Assessment Act. The intent of the consultation is to share information with the community and receive your feedback regarding our progress to date in the EA process. Additional public consultations will take place at a later date to afford the community opportunity to comment on the Project as more of the EA studies are completed.

CONSULTATION PLAN

- A consultation plan to support this EA has been developed including identification of stakeholders (government reviewers and public) as well as interested Indigenous Communities, along with planned consultation events highlighted in the flow chart above.
- For the EA, key decision-making milestones include reviewing the developed 'Alternative Methods', considering the evaluation criteria and indicators to be applied to 'Alternative Methods', the identification of the preferred alternative of expansion through the comparative evaluation process and the review of the completed proposed EA.
- Issues identified will be reviewed by Stelco and WSP and a reasonable effort will be made to respond to concerns raised throughout the planning process. Stelco and WSP will attempt to resolve all issues or disputes to reach a resolution that is amenable. When a mutually agreeable resolution cannot be achieved, the matter will be referred to the Ministry of Environment, Conservation and Parks (MECP) for guidance.

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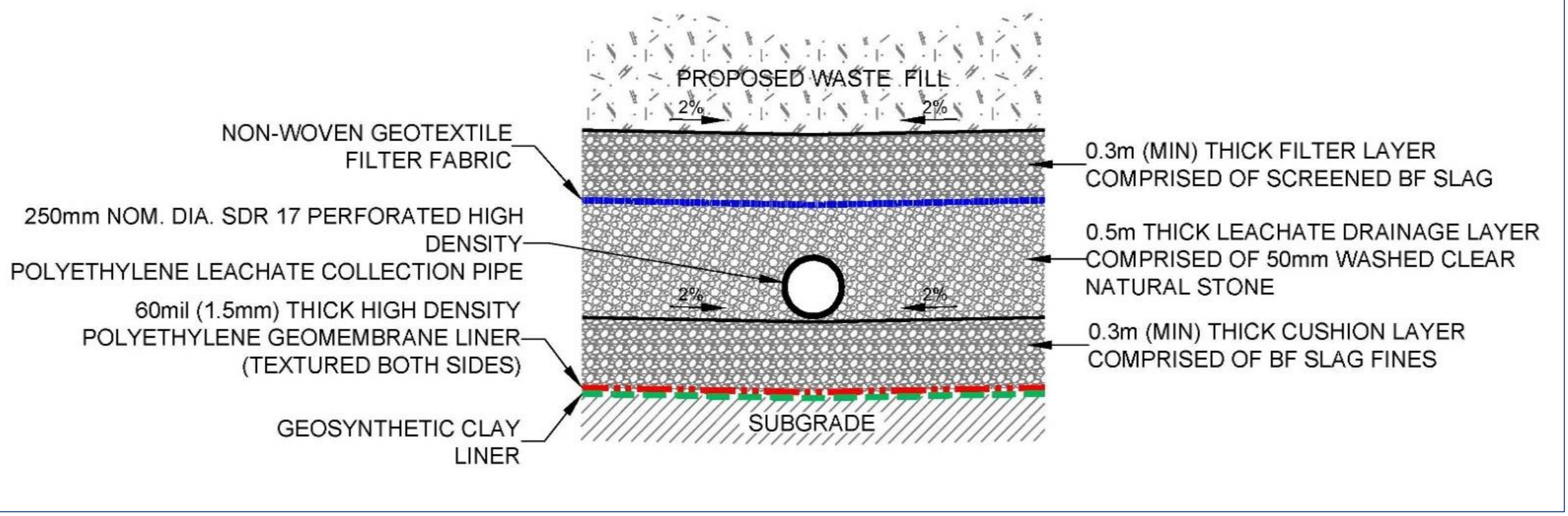
THE EXISTING LANDFILL

- Situated in a 5.5 hectare, 34 metre deep former limestone quarry at the west end of the Lake Erie Works Facility (LEW).
- Landfilling commenced in 1984 with permission from the Ministry of Environment and consisted of blast furnace slag only until the end of 2011.
- In 2012 a new engineered landfill cell was designed within the northern portion of the landfill.
- The engineered landfill cell was designed with a liner and leachate collection system. Leachate is the liquid that is generated from the waste as rainwater travels through the waste or if groundwater enters the landfilled waste.
- Waste in the new cell consists of various steel making secondary materials from the Lake Erie Works Facility that has limited reuse potential, such as ironmaking and steelmaking sludges, and baghouse dusts.
- The design of the new engineered cell is in accordance with the requirements of the MECP, 2012 Landfill Standards as shown below.



- Existing approved landfilling capacity is 1,300,000 cubic metres.
- Annual fill rate in recent years is approximately 18,200 to 54,800 cubic metres per year.

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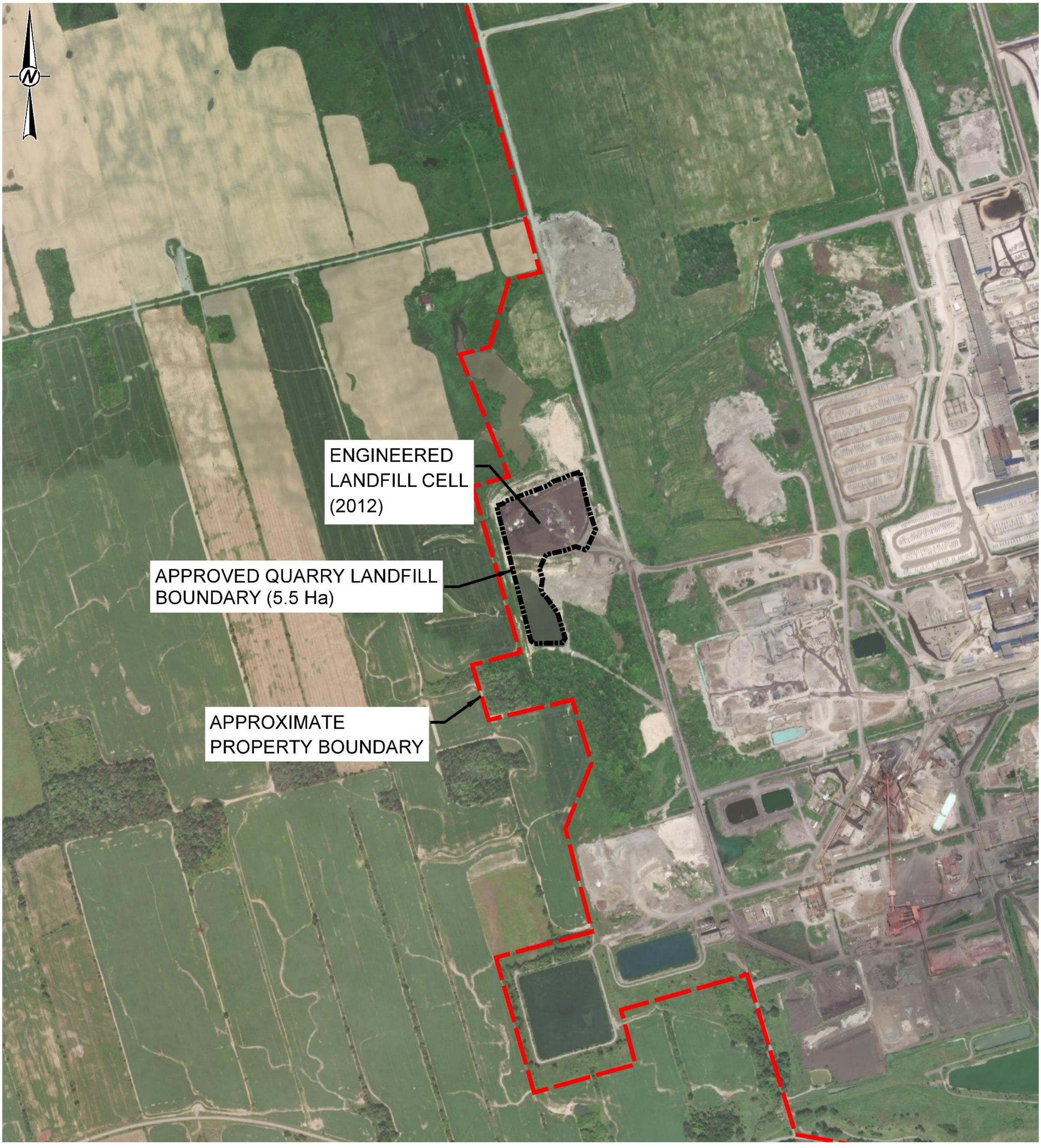
THE EXISTING LANDFILL



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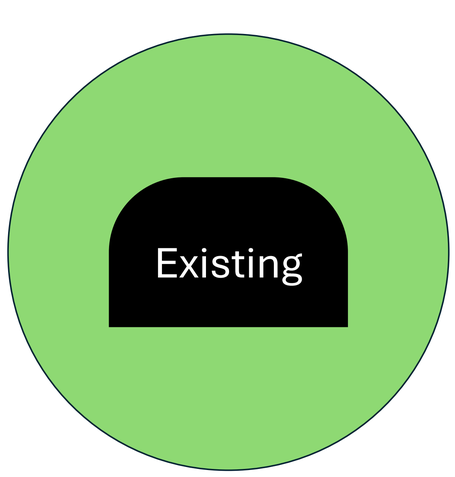
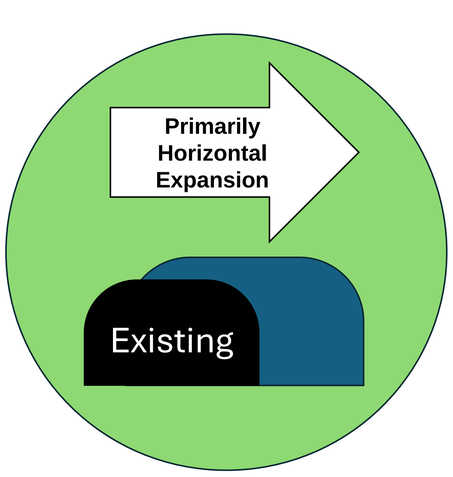
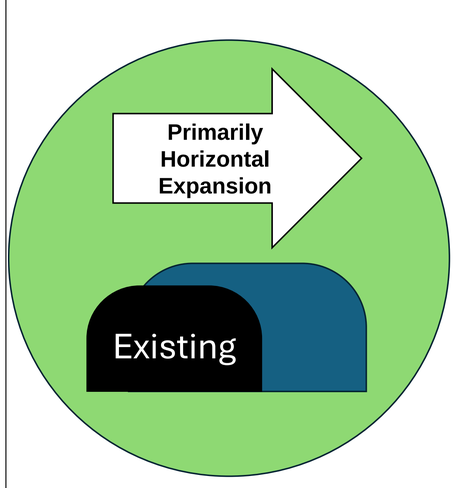
In EA terminology, ‘Alternative Methods’ are different ways of doing the same activity, in this case landfill expansion.

Design Concept	Existing Landfill	Alternative 1	Alternative 2
Description		 Horizontal Expansion South and East	 Horizontal Expansion East
Total Waste Footprint Area (hectares)	5.5	5.8 and 5.6 + 5.5 = 16.9	7.5 + 5.5 = 13.0
Peak Waste Elevation (metres above sea level)	202.0	197.0 and 212.0	212.0
Height of Peak above Average Ground Elevation (metres)	14.0 +/-	16.9 and 23.6 +/-	22.9 +/-
Volume of Excavation (cubic metres)	0	142,790	140,031
Total Additional Volumetric Capacity (cubic metres)	-	1,267,786	1,210,051

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ALTERNATIVE 1, SOUTHERN EXPANSION AREA

LEGEND

- TOPOGRAPHIC GROUND SURFACE CONTOUR (1.0m INTERVAL)
- PROPOSED FINAL WASTE FILL CONTOUR (1.0m INTERVAL)
- EXISTING ACCESS ROAD
- EXISTING DITCH
- PROPOSED DRAINAGE DITCH
- PRE-FABRICATED CONCRETE HAZMAT STORAGE SHED FOR LEACHATE COLLECTION SYSTEM PUMPING STATION
- FM — HDPE FORCEMAIN PIPE FROM PUMP DISCHARGE HOSE TO TREATMENT PLANT
- APPROXIMATE LIMIT OF 5.5 Ha QUARRY LANDFILL CORRESPONDING TO ROCK WALL OF FORMER LIMESTONE QUARRY (BASED ON MAY 2010 TOPOGRAPHIC SURVEY AND LAKE ERIE STEEL SITE DEVELOPMENT PLAN DATED MARCH 30, 1983.

NOTE(S)

1. EASTING, NORTHING AND ELEVATIONS WERE BASED ON STELCO, LAKE ERIE SITE LOCAL GRID SYSTEM. SITE BENCH MARK AT NORTHEAST CORNER OF QUARRY HAVING THE FOLLOWING COORDINATES:

   EASTING: 10,016.050 m
   NORTHING: 11,950.770 m
   ELEVATION: 193.310 m

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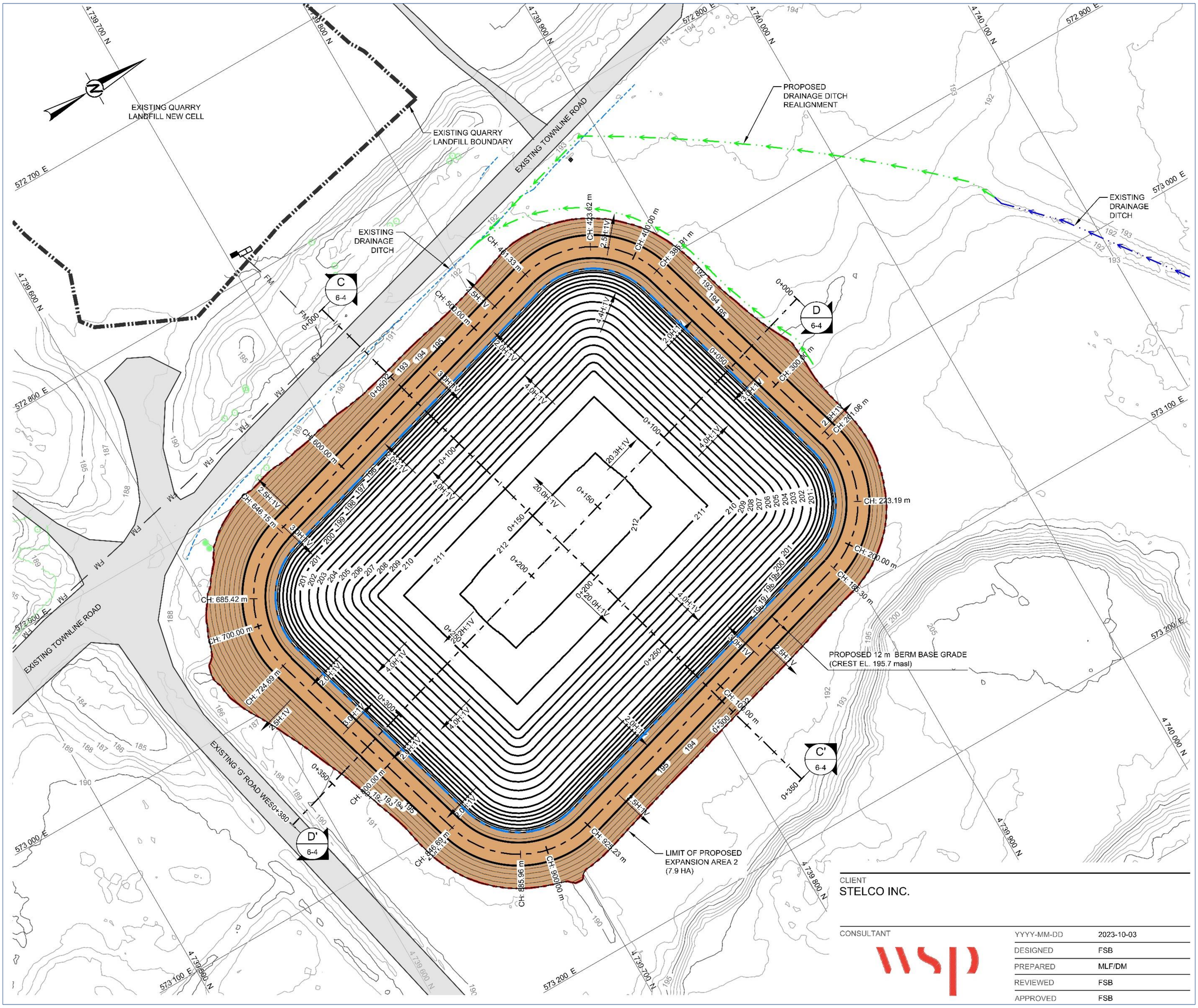
ALTERNATIVE 1, EASTERN EXPANSION AREA



CLIENT
STELCO INC.

CONSULTANT

YYYY-MM-DD	2023-10-03
DESIGNED	FSB
PREPARED	MLF/DM
REVIEWED	FSB
APPROVED	FSB

LEGEND

- 187 — EXISTING GROUND SURFACE CONTOUR (1.0m INTERVAL)
- 201 — PROPOSED FINAL GRADE CONTOURS AND ELEVATION (1.0m INTERVAL)
- ACCESS ROADS
- EXISTING DRAINAGE DITCH
- PROPOSED DRAINAGE DITCH REALIGNMENT
- PROPOSED BERM CENTRELINE

NOTE(S)

1. PROJECTION: UTM NAD83 ZONE 17. ELEVATIONS ARE GEODETIC (masl).
2. FINAL GRADE CONTOURS ARE TOP OF FINAL COVER FOR LANDFILL SURFACE AND FINISHED BASE GRADE FOR PERIMETER ROAD. PRIOR TO PLACEMENT OF GRAVEL.

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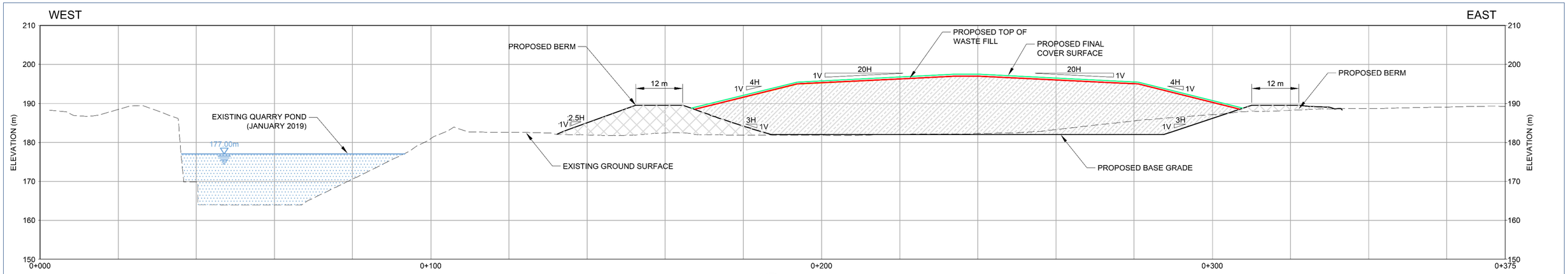
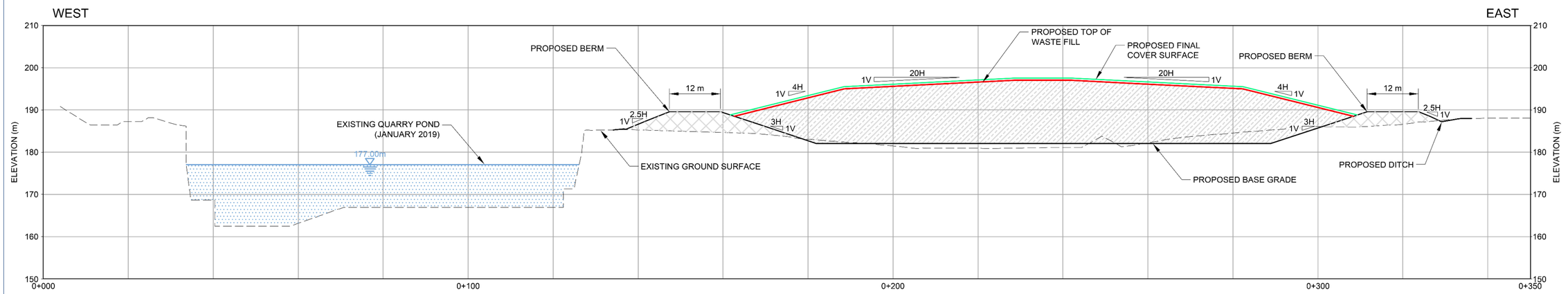
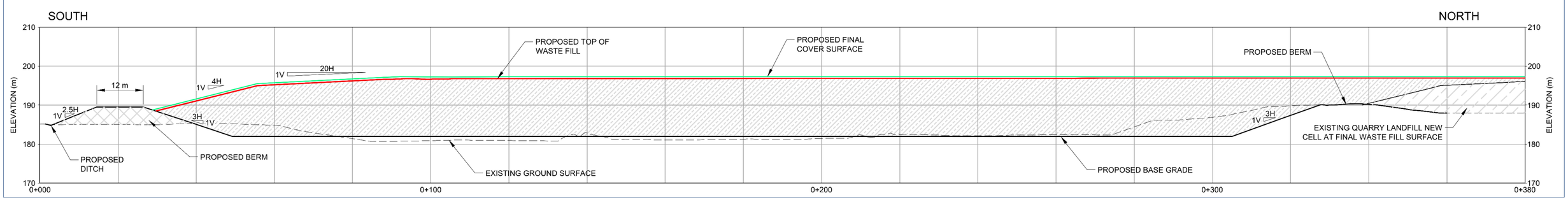
ALTERNATIVE 1, SOUTHERN EXPANSION AREA



A 6-1 PROFILE A



B 6-1 PROFILE B



NOTE(S)

EASTING, NORTHING AND ELEVATIONS WERE BASED ON STELCO, LAKE ERIE SITE LOCAL GRID SYSTEM. SITE BENCH MARK AT NORTHEAST CORNER OF QUARRY HAVING THE FOLLOWING COORDINATES:

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LEGEND

- PROPOSED FINAL COVER SURFACE
- PROPOSED TOP OF WASTE FILL
- PROPOSED WASTE FILL MATERIAL
- PROPOSED BERM MATERIAL
- EXISTING NORTH QUARRY LANDFILL MATERIAL
- EXISTING QUARRY POND

C 4 5 PROFILE C

Consultation Event #2

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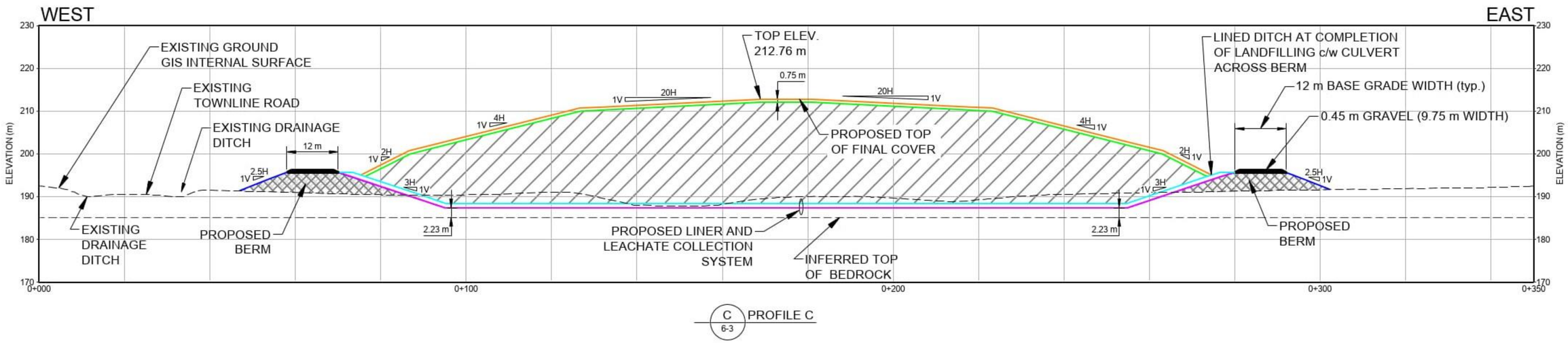
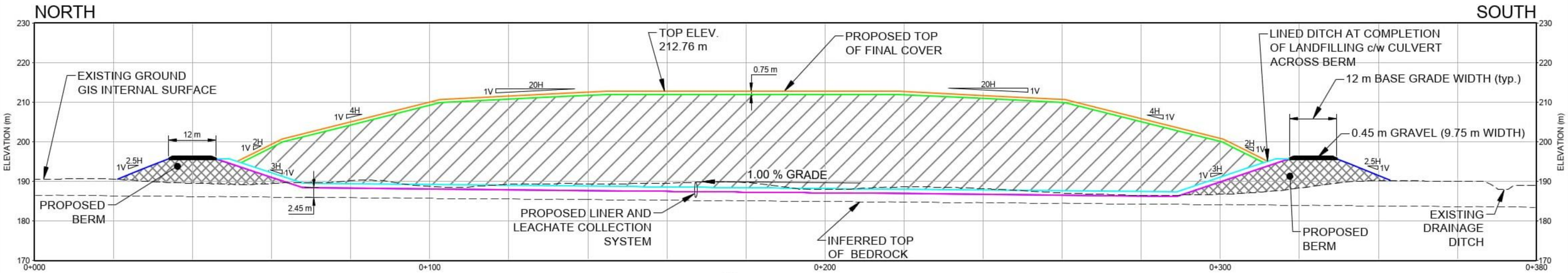
ALTERNATIVE 1, EASTERN EXPANSION AREA



C 6-3 PROFILE C



D 6-3 PROFILE D

LEGEND

- PROPOSED TOP OF FINAL COVER
- PROPOSED TOP OF WASTE FILL
- PROPOSED TOP OF LINER AND LEACHATE COLLECTION SYSTEM
- PROPOSED BASE GRADE

NOTE(S)

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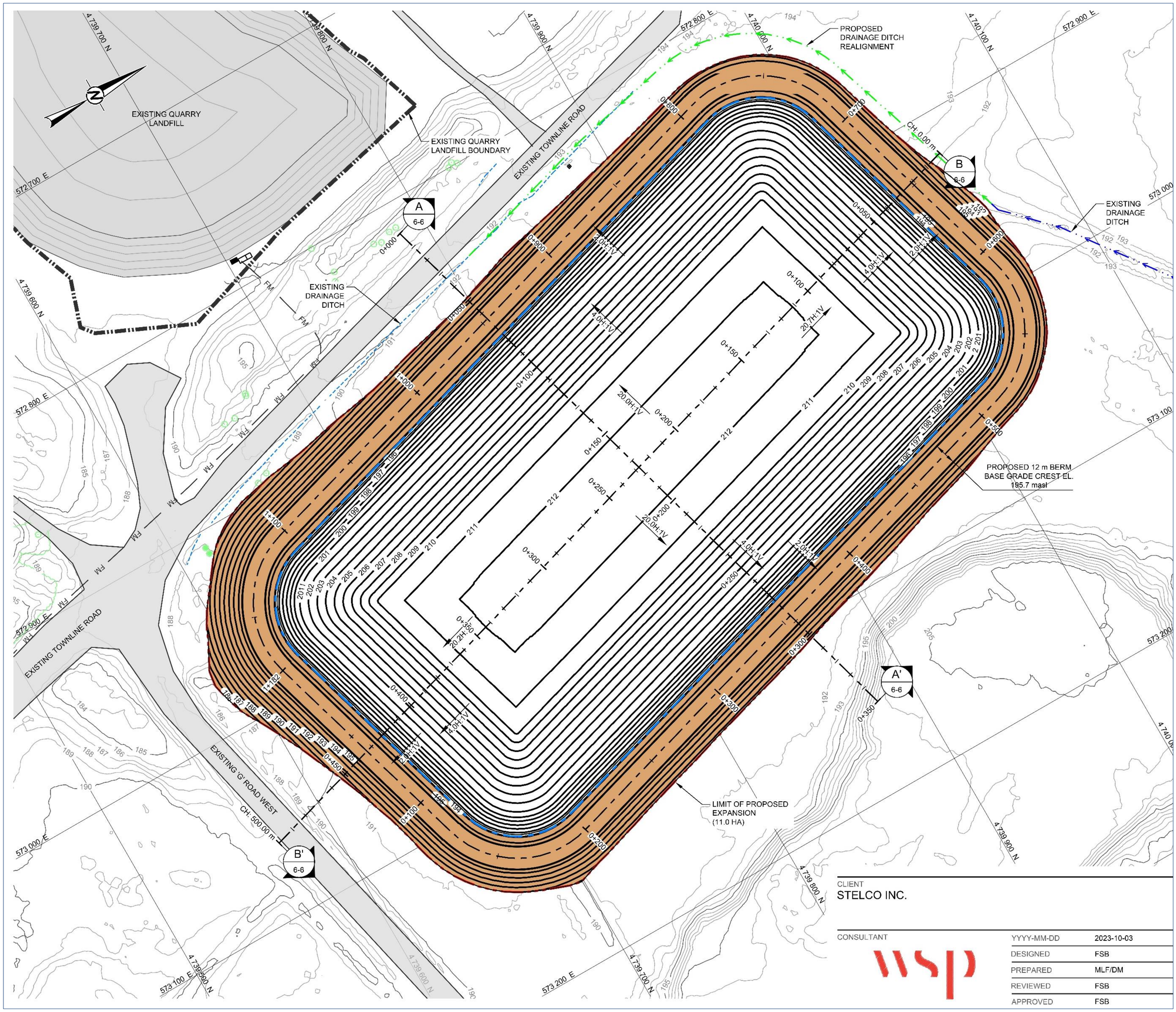
ALTERNATIVE 2



LEGEND

- 188 — EXISTING GROUND SURFACE CONTOUR (1.0m INTERVAL)
- 209 — PROPOSED FINAL GRADE CONTOURS AND ELEVATION (1.0m INTERVAL)
- ACCESS ROADS
- EXISTING DRAINAGE DITCH
- PROPOSED DRAINAGE DITCH REALIGNMENT
- PROPOSED BERM CENTRELINE

NOTE(S)

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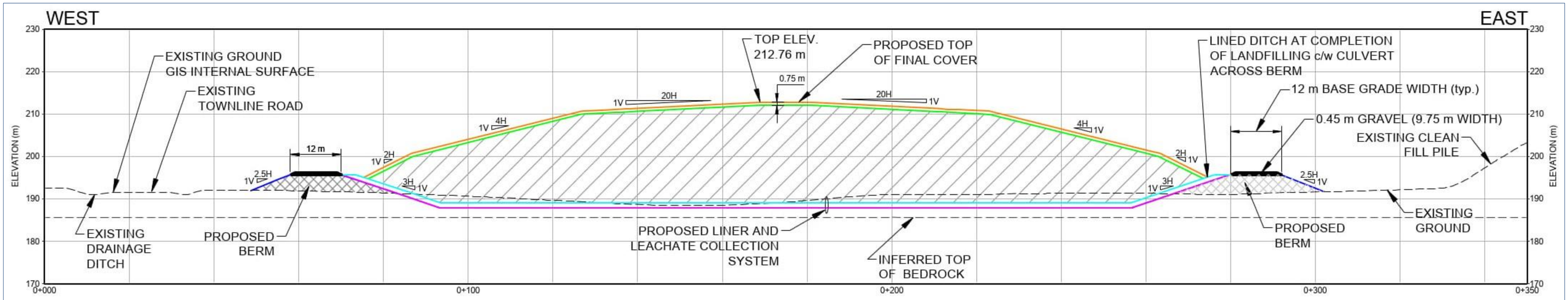
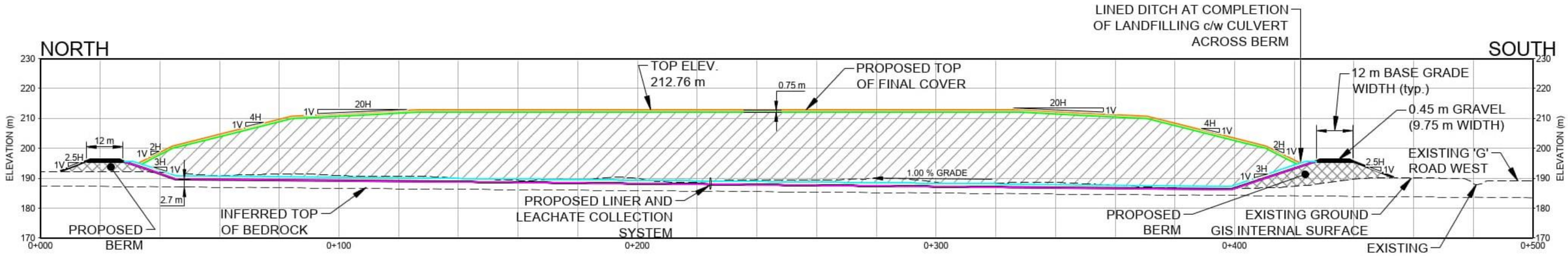
ALTERNATIVE 2



A 6-5 PROFILE A



B 6-5 PROFILE B

LEGEND

- PROPOSED TOP OF FINAL COVER
- PROPOSED TOP OF WASTE FILL
- PROPOSED TOP OF LINER AND LEACHATE COLLECTION SYSTEM
- PROPOSED BASE GRADE

NOTE(S)

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WHAT ENVIRONMENTAL COMPONENTS ARE RELEVANT TO ‘ALTERNATIVE METHODS’?

Environmental components are used to assess potential effects of alternative ways that the landfill expansion Project could be implemented. Environmental components comprising the natural, social, economic / financial and technical environment are proposed as follows:

- Atmosphere (air quality and green house gas (GHG))
- Atmosphere (noise)
- Geology and hydrogeology (groundwater quality)
- Surface water (surface water quality)
- Surface water (surface water quantity)
- Biology (aquatic ecosystems)
- Biology (terrestrial ecosystem)
- Agriculture
- Cultural heritage (archaeological resources)
- Cultural heritage (heritage landscapes)
- Cultural heritage (built heritage resources)
- Land use (current and planned future land uses)
- Socio-economic (local economy)
- Socio-economic (residents and community)
- Socio-economic (visual)
- Design and operations (engineered containment)
- Design and operations (financial)

This is a photo of the 2012 engineered landfill cell under construction.

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A comparison of 'Alternative Methods' will be required and the following environmental components, evaluation criteria and indicators are proposed.

Environmental Component/ Sub-component	Evaluation Criteria	Indicator(s)
Atmosphere/ Air Quality and GHG	• Potential effects on air quality (including dust and greenhouse gas)	• Expected maximum landfill expansion concentrations of air quality indicator compounds (selected regulated air contaminants to represent this type of project), including dust, at the property boundary and nearby sensitive receptors. • Expected GHG emissions.
Atmosphere/ Noise	• Potential effects on noise	• Noise Levels at neighbouring noise sensitive existing receptors or vacant lots (with appropriate zoning) for landfill expansion.
Geology and Hydrogeology/ Groundwater Quality	• Potential effects on groundwater resources	• Expected effect on groundwater quality at the landfill site property boundary.
Surface Water/ Surface Water Quality	•Potential effects on surface water resources	• Expected effect on surface water quality in Centre Creek and within the Site-vicinity Study Area.
Surface Water/ Surface Water Quantity	•Potential effects on surface water resources	• Expected change in runoff to the drainage features and expected change in peak flows to the drainage features • Expected degree of off-site effects on surface water quantity within the Site-vicinity Study Area.
Biology/ Aquatic Ecosystems	•Potential effects on natural environment features (aquatic and terrestrial ecosystems)	• Expected change in surface water quality and/or quantity within the Site Study Area and the Site-vicinity Study Area. • Expected impact on aquatic habitat and biota, including rare, threatened, or endangered species within the Site Study Area and the Site-vicinity Study Area

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Environmental Component/ Sub-component	Evaluation Criteria	Indicator(s)
Biology/ Terrestrial Ecosystems	•Potential effects on natural environment features (aquatic and terrestrial ecosystems)	• Expected impact on terrestrial vegetation communities, wildlife habitat, and wildlife, including rare, threatened or endangered species within the Site and Site-vicinity Study Areas.
Agriculture	• Potential effects on existing agriculture	• Expected effect on agricultural land base and agricultural operations within the Site and Site-vicinity Study Areas.
Cultural Heritage Resources / Archaeological Resources	• Potential effects on archaeological resources and areas of archaeological potential	•Expected impacts to archaeological resources on-site.
Cultural Heritage Resources / Cultural Heritage Landscapes	• Potential effects on known (previously recognized) and/or potential cultural heritage landscapes	• Expected impact on identified known and/or potential cultural heritage landscapes within the Site-vicinity Study Area.
Cultural Heritage Resources / Built Heritage Resources	• Potential effects on known (previously recognized) and/or potential built heritage resources	• Expected impact to identified known (previously recognized) or potential built heritage resources within the Site-vicinity Study Area.
Land Use Planning/ Current and Planned Future Land Uses	• Potential effects on existing land use	• Expected incompatibility with existing or known future land use.
Socio-economic/ Local Economy	• Relative potential changes in employment, impacts to local commercial businesses and capital costs	• Expected effect on local employment. • Expected effects on local businesses and commercial activity.

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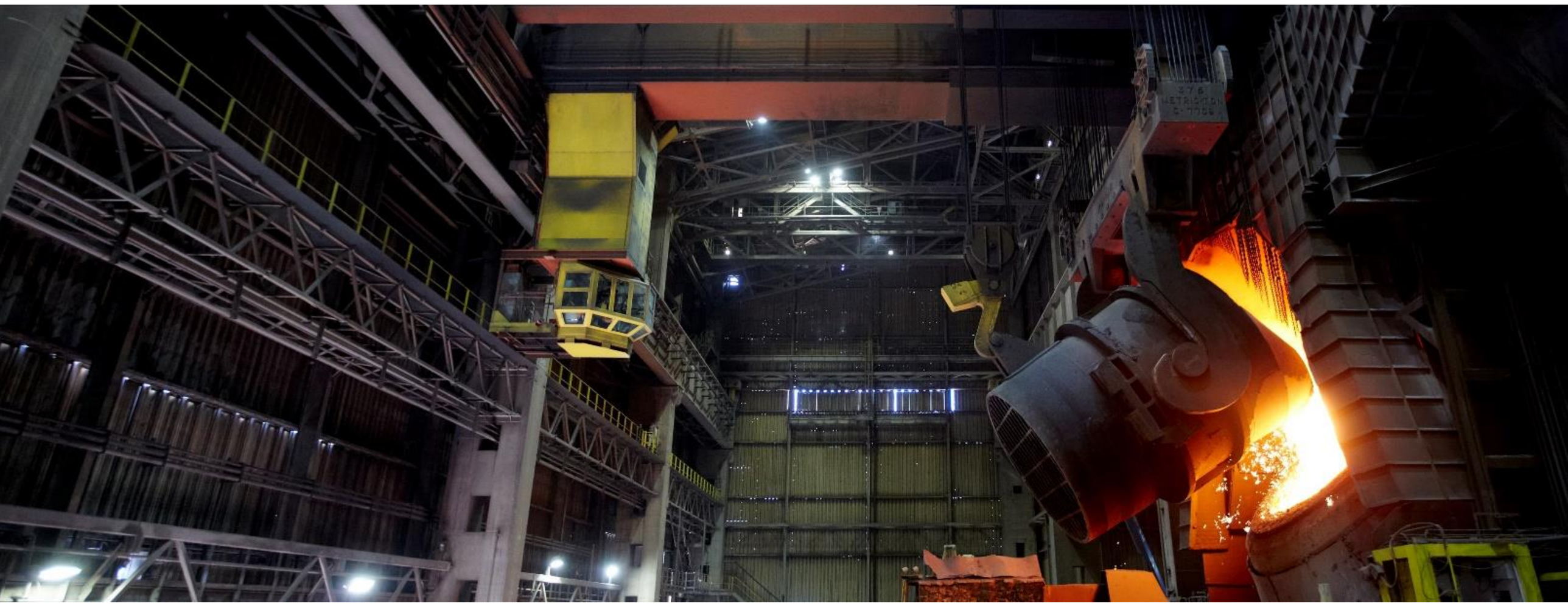
Environmental Component/ Sub-component	Evaluation Criteria	Indicator(s)
Socio-economic/ Residents and Community	• Potential site operational effects on sensitive off-site receptors (i.e., noise, litter, air quality)	• Estimated displacement of residents – if any. • Expected interference with use and enjoyment of residential properties (nuisance effects).
Socio-economic/ Visual	• Potential changes in visibility of the landfill	• Expected changes in landscape views from off-site.
Design and Operations/ Engineered Containment	• Potential requirements for engineering controls	• Expected degree of engineered containment and/or controls required.
Design and Operations/ Financial	•Potential effects on capital costs	• Estimated costs associated with implementation of expansion alternatives.



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LEGEND

- APPROVED QUARRY LANDFILL BOUNDARY (5.5 ha)
- APPROXIMATE PROPERTY BOUNDARY
- APPROXIMATE LANDFILL EXPANSION AREA AND SITE STUDY AREA
- 500 m POSSIBLE SITE-VICINITY STUDY AREA (NOT ALL ENVIRONMENTAL COMPONENTS WILL BE USING A 500 m SITE-VICINITY STUDY AREA)

0 500 1,000

1:15,000 METRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

- **Site Study Area**: The lands adjacent to the existing Quarry Landfill where landfill expansion may occur.
- **Site-vicinity Study Area**: The lands in the area immediate adjacent to the Site Study Area that have the potential to be directly or indirectly affected by the landfill expansion and activities within the Site Study Area.
- **Wider Study Area**: The lands generally beyond the Site-vicinity Study Area, which could extend to include the area of Haldimand County.

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NEXT STEPS

- Collect feedback from stakeholders from Consultation Event #2 on ‘Alternative Methods’ proposed components of the environment to consider, methods to evaluate ‘Alternative Methods’, the study areas and the consultation plan.
- Complete existing conditions study.
- Complete assessment of ‘Alternatives Methods’.
- Complete effects assessment of the preferred expansion alternative and describe mitigation measures.
- Prepare Consultation Event #3.
- Prepare the Draft EA.

NEXT CONSULTATION ACTIVITIES

Consultation Event #3: existing condition summary, final results of the ‘Alternative Methods’ assessment, description of preferred alternative, presentation of effects assessment.

Draft EA: a summary document of the proposed Project, the need or rationale, environmental components considered, the existing environment, ‘Alternative Methods’, how the ‘Alternative Methods’ were considered, preferred alternative, effects of expansion, consultation undertaken and the results, and EA commitments.

We will post information on the project website as it becomes available: **http://consultation.stelco.com**

QUESTIONS, FEEDBACK AND COMMENTS?

We encourage you to let us know your thoughts by sending your comments to consultation@stelco.com and/or using the attached comment form by **October 27, 2024**.

Or contact us at **1-905-577-4407** for any accessibility requirements.

If you would like to be notified of any Project updates, please let us know and provide either an email address or your mailing address