

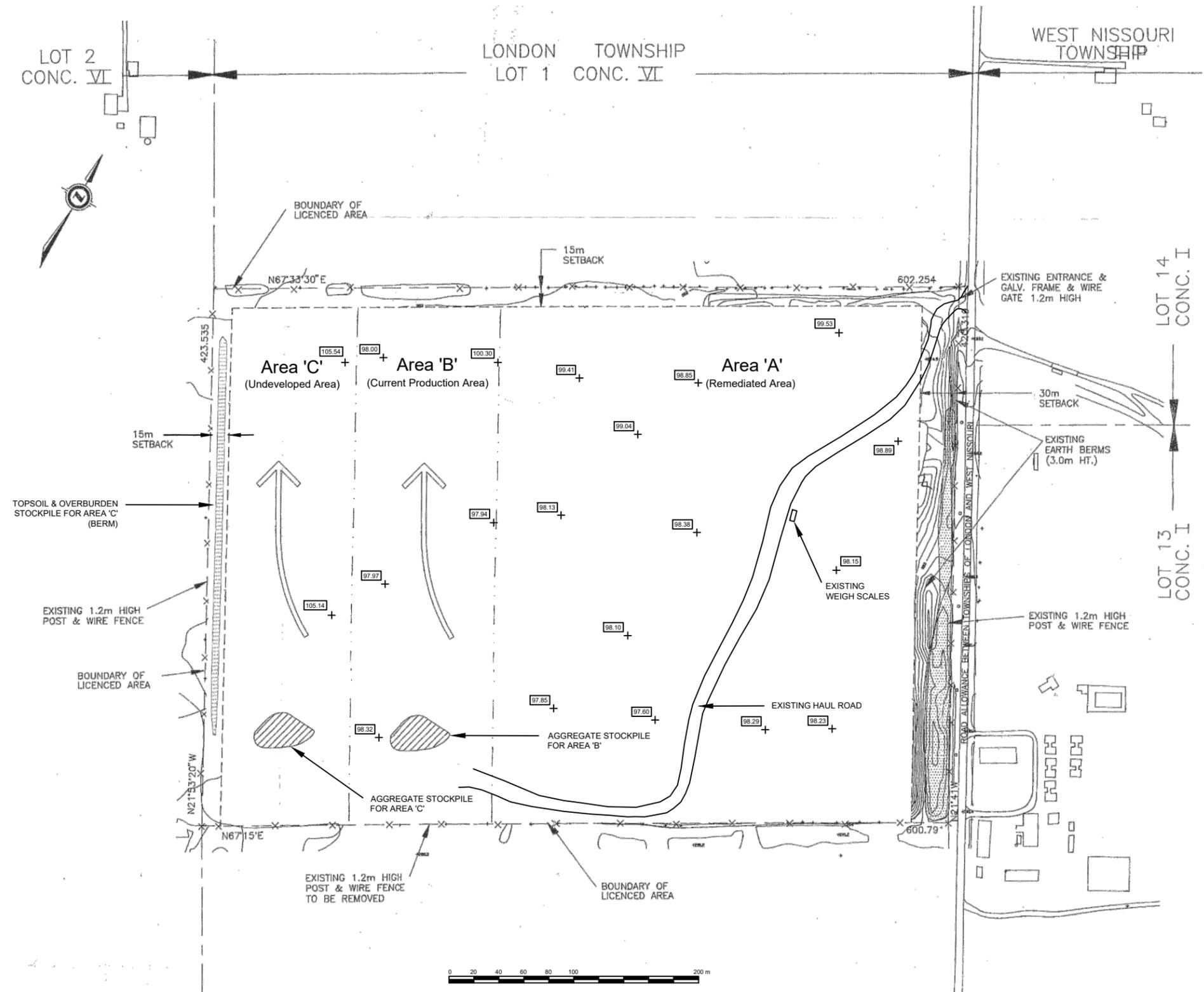
LOT 2
CONC. VI

LONDON TOWNSHIP
LOT 1 CONC. VI

WEST NISSOURI
TOWNSHIP



KEY PLAN



GENERAL NOTES

- SETBACKS: SETBACKS ARE 15 METRES ON ALL LICENCE BOUNDARIES EXCEPT FOR THE EAST BOUNDARY ADJACENT TO TOWNSHIP ROAD WHERE THE SETBACK IS 30 METRES AND THE SOUTH BOUNDARY WHERE THE SETBACK IS 0.0 METRES (SEE SITE PLAN OVERRIDE).
- MAXIMUM DEPTH OF EXTRACTION: MAXIMUM DEPTH OF EXTRACTION ON THE SITE SHALL BE TO 0.3 METRES ABOVE SILTY CLAY TILL AS NOTED IN OPERATIONAL NOTES.
- SIDESLOPES: SIDESLOPES SHALL BE CREATED BY BACKFILLING TO A 3:1 GRADE.
- ENTRANCE/EXIT/GATE: ALL EXISTING ENTRANCE/EXITS ADJACENT TO THE TOWNSHIP ROAD HAVE BEEN APPROVED BY THE MUNICIPALITY. 1.2 METRE IRON PIPE GATES SHALL BE MAINTAINED AT ENTRANCE/EXIT. GATE SHALL BE KEPT LOCKED WHEN THE PIT IS NOT IN OPERATION.
- FENCING: 1.2 METRE PAGE WIRE FENCING SHALL BE MAINTAINED ON ALL LICENCE BOUNDARIES WITH THE EXCEPTION OF THE SOUTH BOUNDARY. (SEE SITE PLAN OVERRIDE) ALL UNFENCED BOUNDARIES SHALL BE DELINEATED WITH A SERIES OF 1.2 METRE CEDAR POSTS INSTALLED AT 100 METRE INTERVALS WITHIN ONE YEAR OF SITE PLAN APPROVAL.
- TOPSOIL/SUBSOIL/OVERBURDEN STORAGE: ALL TOPSOIL, SUBSOIL AND OVERBURDEN SHALL BE SEPARATELY STRIPPED AND USED EITHER FOR THE CONSTRUCTION OF BERMS ON THE SETBACK AREAS OR STORED A MINIMUM OF 30 METRES FROM ANY LICENCE BOUNDARY (EXCEPT AS PROVIDED FOR BY SITE PLAN OVERRIDE). ALL TOPSOIL, SUBSOIL AND OVERBURDEN STOCKPILES SHALL BE MAXIMUM 3 METRES IN HEIGHT, GRADED TO STABLE SLOPES AND SEEDED TO PREVENT EROSION. ALL TOPSOIL AND SUBSOIL STRIPPED IN THE OPERATION OF THE SITE SHALL BE USED IN THE REHABILITATION OF THE PROPERTY.
- FUNCTIONAL BERMS: A FUNCTIONAL BERM SHALL BE MAINTAINED ON THE EAST SETBACK FROM STRIPPED TOPSOIL, SUBSOIL AND OVERBURDEN ON THE SITE. THE BERM SHALL BE 3.0 METRES IN HEIGHT WITH 3:1 SIDESLOPES AND SEEDED WITH A MIXTURE OF 50% CREEPING RED FESCUE, 27% KENTUCKY BLUE GRASS, 15% PERENNIAL RYE GRASS AND 3% WHITE CLOVER AT A RATE OF 150 kg/HECTARE.
- MAINTENANCE OF VEGETATION: VEGETATION SHALL BE MAINTAINED ON ALL REHABILITATED AREAS, BERMS AND TOPSOIL & TOPSOIL STOCKPILES. ANY VEGETATION THAT DIES OR IS OTHERWISE DAMAGED SHALL BE REPLANTED IN ORDER TO PREVENT EROSION.
- AGGREGATE STOCKPILES/PROCESSING EQUIPMENT: NO AGGREGATE STOCKPILES OR PROCESSING EQUIPMENT SHALL BE LOCATED WITHIN 30 METRES OF ANY LICENCE BOUNDARY, EXCEPT AS PROVIDED FOR BY SITE PLAN OVERRIDES. AGGREGATE STOCKPILES SHALL FOLLOW THE ACTIVE EXTRACTION FACE AND BE A MAXIMUM OF 20 METRES IN HEIGHT.
- PROCESSING EQUIPMENT: PROCESSING EQUIPMENT TO BE UTILIZED ON THE SITE SHALL CONSIST OF LOADERS, TANDEM DUMP TRUCKS AND PORTABLE CRUSHING AND SCREENING PLANTS.
- NOISE, DUST OR GROUNDWATER INTERFERENCE PROBLEMS: SHOULD NOISE, DUST OR GROUND WATER INTERFERENCE COMPLAINTS BE RECEIVED, THE LICENSEE SHALL TAKE APPROPRIATE MEASURES AS DEEMED NECESSARY BY THE MINISTRY OF ENVIRONMENT AND ENERGY TO RECTIFY THE PROBLEM(S).
- DENATURING/WASHING: NO DENATURING OR WASHING OF AGGREGATE SHALL TAKE PLACE ON THE SITE.
- SCRAP STORAGE: ALL SCRAP ON THE SITE SHALL BE COLLECTED AND STORED IN A DESIGNATED AREA ON THE SITE LOCATED A MINIMUM OF 30 METRES FROM ANY LICENCE BOUNDARY. ALL SCRAP SHALL BE REMOVED FROM THE SITE ON AN ONGOING BASIS.
- PETROLEUM STORAGE: ALL PETROLEUM STORAGE SHALL BE IN ABOVE GROUND CONTAINERS THAT MEET THE REQUIREMENTS OF THE GASOLINE HANDLING ACT. REFUELLING SHALL BE WITHIN A CONTAINMENT PAD AND ANY SPILLS SHALL BE REMOVED AND DISPOSED OF AT A FACILITY APPROVED BY THE MINISTRY OF ENVIRONMENT.
- IMPORTATION OF INERT FILL: ONLY TOPSOIL, SUBSOIL AND OVERBURDEN MEETING THE DEFINITION OF INERT FILL UNDER REGULATION 309 OF THE ENVIRONMENTAL PROTECTION ACT SHALL BE IMPORTED INTO THE PROPERTY FOR PURPOSES OF CONDUCTING REHABILITATION.
- RECYCLING ASPHALT AND CONCRETE: RECYCLING ASPHALT AND CONCRETE SHALL BE WITHIN A CONTAINMENT PAD AND ANY SPILLS SHALL BE REMOVED AND DISPOSED OF AT A FACILITY APPROVED BY THE MINISTRY OF ENVIRONMENT.
- THERE ARE NO PROPOSED WATER DIVERSIONS OR STORAGE, WASH PONDS AND DRAINAGE FACILITIES ON SITE OR POINTS OF DISCHARGE TO SURFACE WATERS.
- DISPITE APPROVALS PROVIDED BY THIS PLAN, COMPLIANCE WITH OTHER PROVINCIAL AND FEDERAL LEGISLATION IS REQUIRED.
- THIS SITE PLAN IS PREPARED UNDER THE AGGREGATE RESOURCES ACT FOR A CATEGORY 1 - CLASS A LICENCE.

LEGEND

- BOUNDARY OF LICENCED AREA
- EXTRACTION SETBACK
- LOT/CONCESSION LINES
- EXISTING FENCE
- EXISTING CONTOURS
- SPOT ELEVATION AS PER GEOTECHNICAL REPORT
- LOCATION OF TREES
- TOPSOIL & OVERBURDEN STOCKPILES AND BERMS
- AGGREGATE STOCKPILE AREAS
- DIRECTION OF EXTRACTION

OPERATIONAL NOTES

- AREA 'A'
- REHABILITATION OF AREA 'A' IS COMPLETE. MINIMAL QUANTITY OF AGGREGATE STILL REMAINS AT LOCALIZED LOCATIONS AS DETERMINED BY TEST PIT AND BOREHOLE EXCAVATIONS. NO FURTHER EXTRACTION IS EXPECTED TO OCCUR IN AREA 'A'.
- AREA 'B'
- CONTINUE EXTRACTION IN AREA 'B' BELOW THE PREVIOUS LICENCE LIMIT (ELEVATION 98.0 METRES). DEPTH TO 0.3 METRES ABOVE SILTY CLAY TILL LAYER IS BETWEEN 0.2 AND 2.9 METRES BELOW CURRENT GRADE. UNDERWATER EXTRACTION WILL TAKE PLACE FROM SOUTH TO NORTH.
 - AS THE EXCAVATION APPROACHES THE NORTH END OF AREA 'B', INITIATE PROGRESSIVE REHABILITATION OF AREA 'B' BY USING STOCKPILED TOPSOIL & OVERBURDEN STRIPPED FROM AREA 'C'.
- AREA 'C'
- STRIP AREA 'C' AND USE ANY NECESSARY MATERIAL TO AID IN THE REHABILITATION OF AREA 'B'. ANY SURPLUS TOPSOIL AND OVERBURDEN SHALL BE STOCKPILED ON THE WEST SIDE OF AREA 'B' TO ALLOW FOR BERM CONSTRUCTION.
 - INITIATE EXTRACTION IN AREA 'C' IN A WESTERLY AND NORTHERLY DIRECTION DOWN TO ELEVATION 98.0 METRES (APPROXIMATELY 1.5 METRES ABOVE WATER TABLE).
 - AS THE EXCAVATION REACHES THE NORTH END OF AREA 'C', INITIATE UNDERWATER EXTRACTION BELOW ELEVATION 98.0 METRES. DEPTH TO 0.3 METRES ABOVE SILTY CLAY TILL LAYER IS MAXIMUM 0.8 METRES BELOW PREVIOUS LICENCE LIMIT. UNDERWATER EXTRACTION APPLIES TO SOUTH HALF OF AREA 'C' ONLY.
 - AS THE EXCAVATION APPROACHES THE LIMITS OF EXTRACTION AT THE NORTH END OF AREA 'C', INITIATE PROGRESSIVE REHABILITATION OF AREA 'C' BY USING STOCKPILED TOPSOIL & OVERBURDEN.
 - COMPLETE THE REHABILITATION OF AREA 'C' AND THE HAUL ROAD BY USING STOCKPILED TOPSOIL & OVERBURDEN.



SITE PLAN OVERRIDE
THE FOLLOWING CONDITIONS ILLUSTRATED ON THESE PLANS VARY FROM THE PROVINCIAL STANDARDS UNDER THE A.R.A.

ITEM	SECTIONS
1. RELIEF FROM EXTRACTION SETBACK, FENCING AND STOCKPILE REQUIREMENTS ALONG SOUTH BOUNDARY IN ACCORDANCE WITH COMMON BOUNDARY AGREEMENT BETWEEN THE CORPORATION OF THE TOWNSHIP OF LONDON & STEBBINS PAVING AND CONSTRUCTION LIMITED.	5.1 5.10.1, 5.13.1.
2. EXISTING AGGREGATE STOCKPILES LOCATED WITHIN 30 METRES OF NORTH & EAST BOUNDARIES.	5.13.1.
3. TO ALLOW FOR EXTRACTION OF THE 15m REGULATORY SETBACK AND REMOVAL OF THE FENCE DURING EXTRACTION ALONG THE NORTHERN BOUNDARY. A COMMON BOUNDARY AGREEMENT DATED SEPT. 2014 IS ON FILE WITH THE M.N.R.F.	5.1 5.10.1.

-NOTES-

- Benchmark is the northeast abutment of the weigh scales (Assumed Elevation 100.00 m).
- Groundwater elevation inferred from test holes advanced during Geotechnical Investigation (~ 96.5 m).
- Licence Limit is 1.5 m above groundwater level. Licence Limit: Elevation 98.0 m.

Olalondo Pit Underwater Extraction
21515 Olalondo Road
Middlesex Centre, Ontario

CLIENT: The Municipality of Middlesex Centre
TITLE: Extraction Plan
DRAWN BY: E.B. REVIEWED BY: B.C. DATE: June 2021
exp EXP Services Inc. 15701 Robin's Hill Road London, ON, N5V 0A5
SCALE: AS SHOWN PROJECT NO. LON-00015778-GE DWG. A2

B. M. F. CHIU
LICENSED PROFESSIONAL ENGINEER
B. M. F. CHIU
PROVINCE OF ONTARIO

