

# Aggregate Resources of Ontario: Site Plan Standards

August 2020

**ISBN 978-1-4868-4707-5 (PRINT)**

**ISBN 978-1-4868-4708-2 (HTML)**

**ISBN 978-1-4868-4709-9 (PDF)**

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## Recommended References

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When applying for a licence, aggregate permit or wayside permit and depending on the location of the proposed site, the applicant may wish to pre-consult with agencies that will be circulated the application for review.

The following is a list of references that applicants may find useful when preparing the information described in the above standards:

- a. Provincial Policy Statement and associated technical guidance material (e.g. the natural heritage reference manual);
- b. Endangered Species Act, 2007
- c. Federal Species at Risk Act
- d. Federal Fisheries Act and Associated Guidelines;
- e. Oak Ridges Moraine Conservation Plan (e.g., Oak Ridges Moraine Conservation Plan and Technical Paper)
- f. The Greenbelt Plan, (e.g., Greenbelt Technical Paper)
- g. A Place to Grow: Growth Plan for the Greater Golden Horseshoe
- h. Niagara Escarpment Planning and Development Act and Niagara Escarpment Plan
- i. Lake Simcoe Protection Act, and Lake Simcoe Protection Plan
- j. Growth Plan for Northern Ontario
- k. Parkway Belt West Plan
- l. Central Pickering Development Plan
- m. Northern Ontario Growth Plan
- n. Zoning by-law(s);
- o. Official Plan(s);
- p. Crown Land Use Planning Atlas and associated land use direction/plans (e.g., Community Based Land Use Plans)
- q. Applicable Resource Management Plans (e.g., Forest Management Plans (FMP))
- r. Ontario Heritage Act, associated regulations, standards, guidelines and guidance documents

- s. Association of Professional Geoscientists of Ontario Professional Practices Guidelines for Groundwater Resources
- t. Ontario Water Resources Act;
- u. Conservation Authorities Act;
- v. Clean Water Act, 2006
- w. Environmental Protection Act and technical guidelines, including for noise, dust and blasting;
- x. Environmental Assessment Act

The above list serves only as a guide and should not be interpreted as all-inclusive.

For additional information please visit Ontario's website:

[Aggregate resources | Ontario.ca](https://www.ontario.ca/aggregate-resources)

Or

**Ministry of Natural Resources and Forestry**

**Natural Resources Information and Support Centre (NRISC)**

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Peterborough, Ontario

K9J 8M5

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## Aggregate Resources of Ontario: Site Plan Standards

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The site plan must be submitted electronically in PDF format using metric units of measurement.

**For applications for a Class A licence or an aggregate permit proposing to excavate or remove more than 20,000 tonnes annually:** the site plan must consist of a minimum of three (3) separate drawings.

The site plan notes must be comprised of clear unambiguous language. The site plan must be readable digitally and when printed.

The site plan must include any of the following measures, programs, or areas that must be undertaken as identified in the Technical Reports and Information that are required to be prepared for an application:

- mitigation measures
- monitoring programs
- avoidance areas
- temporary avoidance and protection areas
- and refer to an adaptive management plan(s)

Each drawing included on the site plan must be numbered and indicate the total number of drawings included (e.g., 1 of 4)

All site plans must be prepared according to the following minimum information requirements:

1. a key map showing the location of the proposed site
2. a general description of the geographic location of the site including, where applicable: lot; concession; geographic township; local municipality; upper tier municipality; and territorial district. In unsurveyed areas of the province Universal Transverse Mercator (UTM) easting and northing coordinates must be provided in lieu of lot and concession.
3. UTM easting and northing coordinates, measured using a Global Positioning System receiver, for every corner of the proposed site boundary and the centre point of every entrance and exit where it intersects the site boundary.

If the boundary does not follow straight lines, a digital shapefile that includes metadata and projection files for each shapefile may be provided.

4. a scale of reference using both ratio and graphic methods between a scale of 1:1000 and 1:5000
5. Applicant's name, address and signature
6. **For wayside permit applications:** the public authority that is a party to the contract, the project number and the location of the project
7. Name and signature of the person that prepared the site plan if not the applicant
8. A statement that "this site plan is prepared under the *Aggregate Resources Act* for a [Class A licence/Class B licence/aggregate permit/wayside permit] for a [pit/quarry/pit and quarry] [above/below the ground water table]
9. A north arrow, normally pointing towards the top of the page
10. A schedule for recording a description of site plan amendments, including dates the amendment was made or approved
11. A legend on each page showing all symbols and acronyms used on that page
12. The proposed boundary of the site
13. The area of the site expressed in hectares
14. Lot and concession lines if in a surveyed area
15. A list of references, if any, which apply specifically to the preparation of the site plan drawing

### Existing Features:

16. The existing zoning of land on and within 120 metres of the site, where applicable
17. The use of land on and within 120 metres of the site, such as land uses and land designations
18. The maximum predicted water table (metres above sea level)
19. The location of all existing entrance(s) to and exit(s) from the site
20. Significant natural features on and within 120 metres of the site
21. Significant human-made features on and within 120 metres of the site
22. The location and use of all buildings and other structures existing on and within 120 metres of the site

23. The topography of the site, illustrated by a one or two metre contour interval, expressed as metres above mean sea level
24. Existing surface water drainage and drainage facilities on and within 120 metres of the site
25. The location of existing tree cover (i.e. wood lots and hedge rows) on site and within 120 metres of the site
26. The location and type of existing fences on the site

### Existing features for sites that have been previously excavated

27. Any existing excavation faces and rehabilitated areas
28. The location of any existing recyclable materials on the site
29. Any existing fuel storage area(s) on the site
30. The location of any existing processing area(s) for stationary and/or portable equipment
31. The location of any existing berms and their height
32. The location of any existing processing area(s), noting whether stationary or portable equipment

### Operations for all sites

33. The location of all proposed entrance(s) to and exit(s) from the site
34. The area to be excavated expressed in hectares
35. **For applications for an aggregate permit:** details about how the boundary of the site will be demarcated and details about what measures will be taken in accordance with the *Trespass to Property Act* to provide notice that unauthorized entry on the premises is prohibited
36. **For applications for a Class A or Class B licence:** the location and installation schedule or phasing for any proposed fencing around the licensed boundary of the site
37. A statement indicating if the following will be located on the site at any point during the operation of the site:
  - temporary building or structure that is incidental to the operation of the site



- scrap storage area
  - a stockpile of aggregate, topsoil, overburden, except for any such stockpiles located to mitigate noise or dust
  - internal haul roads
38. The location of any proposed stationary and/or temporary processing area(s) on the site
  39. The location of any proposed recyclable materials on the site
  40. The proposed sequence and direction of site development
  41. Details of how the stripping and stockpiling of the topsoil and overburden will be managed
  42. The maximum number of lifts and the maximum height of the lifts
  43. Any proposed surface water drainage and drainage facilities, water diversion and points of discharge to surface water on the site or within 120 metres of the site
  44. A statement indicating whether source water protection policies apply to the site, noting any associated mitigation measures
  45. Identify any fuel storage area(s)
  46. The location and labelling of all excavation setbacks from the proposed site boundary
  47. The final excavation elevation(s) of the site using spot elevations
  48. The location and minimum height of any proposed berms
  49. Details on how the berms will be vegetated and maintained
  50. Details of how the aggregate materials will be excavated, including the method(s) of extraction and a listing of the types of equipment to be used
  51. Details of proposed tree screens and how they will be maintained
  52. Details on the hours of operation of the site considering all operations that involve the physical movement of aggregate
  53. Details of how trees and stumps shall be disposed of or utilized
  54. A section recording any differences between proposed operations and the operational requirements specified in section 0.13 of Ontario Regulation 244/97

55. A statement to indicate the maximum number of tonnes of aggregate to be removed from the site in any calendar year
56. **If the proposed site is located within the Protected Countryside of the Greenbelt Plan:** a statement to indicate the maximum allowable disturbed area for the site
57. **For an application for a quarry proposing to blast:** details about frequency and timing of blasts
58. **For an application for a quarry proposing to blast:** the number of sensitive receptors that are located within 500 metres of the boundary of the site and the distance from the boundary to each sensitive receptor

## Rehabilitation

59. Proposed final rehabilitated state of the site
60. Details on how progressive rehabilitation will be conducted in relation to the operational sequences
61. Details on how the overburden and topsoil will be used to facilitate progressive and final rehabilitation
62. A statement indicating whether any soil, topsoil or fill material will be imported to the site for rehabilitation purposes. Where rehabilitation materials are to be imported, details on the type, use, volumes and quality of those materials, as well as details on any related testing, tracking and record-keeping that will be carried out
63. The location, layout and type of vegetation that will be established on the site during progressive and final rehabilitation
64. Details about how the slopes will be established on the excavation faces and the pit/quarry floor
65. Details about any building(s) or structure(s), including any internal haul roads, that will remain on the site as part of the final rehabilitation
66. Details about the final surface water drainage and whether drainage facilities will remain on the site
67. **For an application for a Class A licence or an aggregate permit the would authorize the extraction or removal of more than 20,000 tonnes of aggregate per year:** the final elevations of the rehabilitated areas of the site

illustrated by a one or two metre contour interval(s), expressed as metres above mean sea level

68. **For an application for a Class B licence or an aggregate permit that would authorize the extraction or removal 20,000 tonnes of aggregate or less per year:** the final elevations of the rehabilitated areas of the site expressed as metres above sea level

## Cross sections

69. Identify the location of cross sections on all drawings
70. Appropriate horizontal and vertical scales must be clearly marked on all cross sections
71. One or more cross-sections of existing conditions and rehabilitation of the site, including final slope gradients and final floor elevation
72. The maximum predicted ground water table
73. **For an application for a Class A licence or an aggregate permit that would authorize the extraction or removal of more than 20,000 tonnes of aggregate per year** a cross-section of a typical berm design, if berms will be constructed on the site

## Applications for aggregate permit to extract from land under water

Applications for an aggregate permit to extract from land under water must include a site plan prepared in accordance with all requirements as noted above, with the exception that the requirements outlined in paragraphs 16 to 74 above are replaced with those in the paragraphs 75 to 100 below:

74. A key map showing the following if located within 500 metres of the proposed extraction area:
- the location of the site relative to land
  - demarcation of any boundaries including municipal, provincial, or international boundaries
75. Identify if the following is located within 500 metres of the proposed extraction area:

- geothermal systems,
- source protection zones that include drainage areas and/or dams
- any zones with contaminated sediment

76. The name of the water body from which extraction is proposed.

77. UTM easting and northing coordinates and any identified offshore tracts or other boundaries within the proposed permit site

78. A scale of 1:10,000 to 1:50,000 or using available topographic mapping and bathometric charts of a similar scale

79. Low water elevation or "chart datum" (metres above sea level);

80. If the proposed permit area is within 500 metres of any shoreline, the topography (using 2 metre contour intervals) and drainage features for all land extending 0.5 metre inland of the shoreline areas must be shown

81. The bathymetry of the water bottom within 1000 metres of the site (using 2 metre contour intervals)

82. The location and use of all shoreline, nearshore and offshore facilities and related structures (e.g. harbours, wharves, water intakes, sewage outfalls, pipelines, well heads), and navigational aids and navigational channels located within 500 metres of the proposed extraction area

83. A statement summarizing ownership of the proposed permit area (e.g. Crown or private)

84. Significant natural or human-made features within 500 metres of the proposed extraction area

85. The location, type and installation schedule of any structures to be established within the permit site (e.g. navigational aids, monitoring stations)

86. Clearly identify the sequence and direction of extraction including the area (in hectares) of each extraction area and the proposed depth of extraction below the normal water bottom

87. Details of how the aggregates are to be removed, including a listing of the types of equipment to be used (e.g. clam or suction dredge), and details of the extraction process, designed depth of extraction and discharge procedure and depth of discharge;

88. The sequence and direction of extraction including the proposed location of transects (e.g. random or grid pattern) across the proposed permit or extraction areas, particularly if a suction dredge is to be used
89. Describe the duration (seasons, months, days or hours) of extraction and any restrictions identified in the background reports
90. The bathymetry of the water bottom within the permit area using 2 metre contour levels
91. Identify the shoreline destination(s) for off-loading
92. Location and design of any remedial measures required and composition of the post extractive substrate
93. A statement to indicate the maximum number of tonnes of aggregate to be removed from the site in any calendar year
94. Location of cross sections
95. The low water elevation or "chart datum" (metres above sea level);
96. The location of natural features if applicable
97. The location of human-made features if applicable;
98. The topography of the water bottom
99. Location and design of any proposed remedial measures