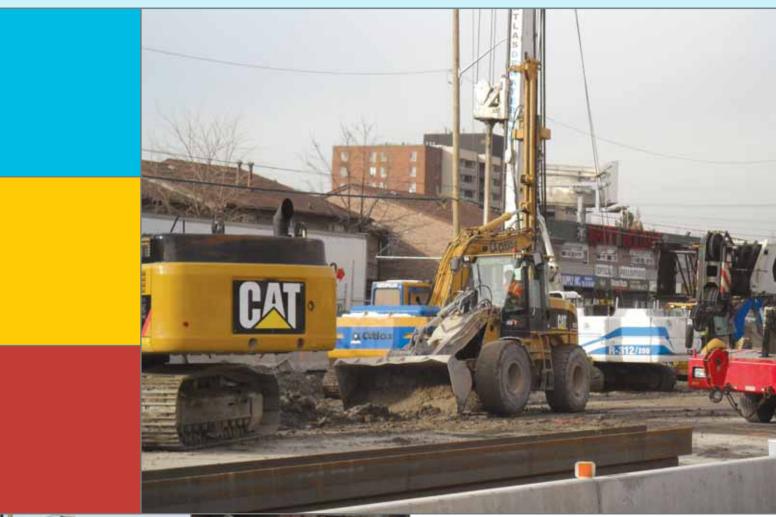
An Independent Study Commissioned by



RESIDENTIAL AND CIVIL CONSTRUCTION ALLIANCE OF ONTARIO

Constructing Ontario's Future





Municipal Class Environmental Assessments

Categorization Review Study

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An Independent Study Commissioned by the RESIDENTIAL AND CIVIL CONSTRUCTION ALLIANCE OF ONTARIO

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1.0 Executive Summary

his review included the environmental assessment ("EA") laws and procedures of more than 20 other jurisdictions outside of Canada as they relate to municipal infrastructure projects such as roads, water and wastewater systems. The review included countries on every continent with the exception of South America and Antarctica and more than a dozen separate U.S. states.

The original purpose of this study was to conduct a review of cost parameters and the potential use of indexing in selected jurisdictions. Surprisingly, none of the other jurisdictions reviewed used capital cost of the construction project as a determining factor with respect to the level or intensity of environmental assessment for such projects.

Whether it relates to road improvements or expansions to wastewater treatment plants, every other jurisdiction that was reviewed requires some form of environmental assessment for such projects. Those other jurisdictions, however, use physical measurements such as length of the road, width of the road allowance, or quantity of wastewater to determine whether certain projects are subject to a less intense environmental scrutiny or an exemption.

Ontario should continue to review from time to time the types of projects that require some form of environmental assessment. The Province should also review the criteria that distinguish projects that are likely to have fewer environmental impacts from ones that are likely to have more environmental impacts.

In conclusion, the use of capital cost of a construction project or improvement was not used in any other jurisdiction to determine the intensity of environmental assessment. Therefore, the primary recommendation is to discontinue the use of "capital cost" of a municipal infrastructure project under the Municipal Class EA process. Instead, the use of physical parameters for Class EA projects will improve predictability and certainty with respect to the regulatory oversight embedded in the schedule scheme already in place for those projects. The Municipal Class Environmental Assessment process is firmly entrenched in Ontario as a mandatory screening procedure for the planning and construction of core municipal infrastructure such as roads, water, sewer, and transit facilities. While the right and need for public scrutiny and input is recognized by most construction industry stakeholders, the current process of undertaking a Municipal Class Environmental Assessment study can have a dramatic impact on smaller and urgent needs projects¹.

Many municipal infrastructure projects are distinguished as either subject to a more intensive Schedule 'C' scrutiny or a simpler Schedule 'B' or Schedule 'A+' evaluation on the basis of the descriptive elements of the infrastructure project, e.g. "intersection improvements." A number of municipal project types, however, (see Appendix A) are ranked on the basis of capital cost of the specific project.

In an economy with even very modest inflation, fixed threshold values will, over time, capture a growing number of projects as the costs for labour and material increase. While it is possible to index those thresholds to annual inflation rates, there may be variables that may have an impact on the estimated capital cost, such as whether some services such as design or inspection are done by the municipality or contracted to a third party, whether the project cost is much higher due to a remote location, etc.

While the Municipal Engineers Association ("MEA") has instituted annual adjustments of the cost indices, there have been wide variances in the results during the period 2007 to 2011 (see table in Appendix C). Even though the annual adjustments are intended to add stability and predictability as to which projects fall within which schedules, the recent economic dynamics have moved certain projects into and then out of Schedule classes and these variances have eliminated the predicted stability of which projects are characterized as a Schedule 'A+', Schedule 'B' or Schedule 'C' class.

The original purpose of this study was to conduct a review of cost parameters and the potential use of indexing in selected jurisdictions. Based on a review of how infrastructure construction projects are distinguished in those other jurisdictions, this study recommends potential alternatives to capital costs as a means to distinguish smaller projects from larger ones to determine the appropriate Ontario Municipal Class Environmental Assessment schedules.

3.0 Jurisdictions Examined

n order to provide a broad yet relevant spectrum of jurisdictions for comparison to Ontario, this review included several states in the USA, at least five European countries and the balance would be other jurisdictions outside of the United States and Europe. Other provinces across Canada require an Environmental Assessment Study for certain types of undertakings such as new mines in New Brunswick², oil refineries or chemical plants in Prince Edward Island³. In Nova Scotia, no environmental assessment is required for a new road unless it is designed for four or more lanes of traffic and is longer than two kilometres (km), or is designed for two or three lanes of traffic and is longer than 10 km⁴. In B.C., road projects requiring an environmental assessment are paved public roads of at least 20 km that involve the construction of at least two or more lanes⁵. There are no statutes or regulations in any other Province that require environmental assessments of municipal infrastructure projects such as intersection improvements, grade separations or road widening.

The following is a list of the jurisdictions that were reviewed:

National Governments: Australia, Austria, Germany, India, Ireland, Israel, Japan, Netherlands, New Zealand, South Africa, Sweden, the United Kingdom and the United States of America.

U.S. State Governments: Arizona, California, Colorado, Connecticut, Florida, Georgia, Illinois, Massachusetts, Michigan, Mississippi, New Mexico, Oregon, Pennsylvania, Tennessee, Vermont and Wyoming.

Most of the European nations have adopted European Union (EU) guidelines⁶ for identifying which industrial, commercial, and infrastructure projects are subject to various types of environmental assessments. Every national government that was researched had some form of environmental assessment legislation; however the screening, scoping, and other assessment requirements were as diverse as the languages and the cultures of the surveyed countries.

With respect to the United States, while all states have some form of environmental protection legislation, many jurisdictions do not appear to have a separate statute or code dealing with or mandating environmental assessments for infrastructure construction projects.

4.0 Alternative Measuring Criteria For Various Road Related Projects

4.A New Roads, Realignments or Additional Lanes

Under Ontario's MEA Guideline⁷, construction of new roads, realignments, or the construction of additional traffic lanes will require either a Schedule B or a Schedule C review depending on capital costs. Minor and major environmental assessments for new roads, realignments or new lanes can be distinguished other than costs as outlined in the examples listed below.

IRELAND⁸

- minor review if construction or realignment of a new road of four or more lanes, or the widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be less than eight kilometres in a rural area.
- minor review if construction or realignment of a new road of four or more lanes, or the widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be less than 500 metres in length in an urban area.

INDIA⁹

- minor review if construction of highway other than a road designated as a national or state highway.
- minor review if expansion of national or state highway less than 30 km in length and not requiring more than 20 metres of additional right of way width.

JAPAN¹⁰

- minor review if right of way was previously designated as a national road, it is four lanes or more but less than 7.5 km in length.
- minor review if in area designated as national forest road, is two lanes or more but less than 20 km in length.

SOUTH AFRICA¹¹

- minor review if road outside urban areas, has a reserve less than 13.5 metres wide, or where no reserve exists, the roadway surface is less than eight metres wide or the routing was pre-approved in prescribed planning notices.
- no review required if the widening of a road by less than six metres, or if the lengthening of a road is less than 1 kilometre.

(England)¹²

• minor review for construction of a road that is not designated as a motorways and express roads, but is a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road would be less than 10 kilometres in length.

UNITED STATES OF AMERICA (Massachusetts)¹³

• minor review for construction of a road that is less than two miles in length or widening or realignment of an existing roadway by one or more travel lanes for less than two miles.

UNITED STATES OF AMERICA (Tennessee)¹⁴

- no review for construction of a state industrial access (SIA) road that has no more than two 12-foot lanes with four foot shoulders, and does not become a part of the state route highway system; instead, the local government assumes full responsibility for its maintenance.
- no review for new two lane or four lane roadway sections or highway widening or realignment if such project is listed in a State Transportation Improvement Plan (STIP).

EUROPEAN UNION (AUSTRIA, GERMANY, NETHERLANDS, SWEDEN, FINLAND)¹⁵

• minor review for road that is not designated as a motorway or express road, but is a new road of four or more lanes, or realignment and/or widening of an existing road of two lanes or less so as to provide four or more lanes, where such new road, or realigned and/or widened section of road would be less than 10 kilometres in length.

4.B Intersection Improvements, Parking Lots or Grade Separations

Under the Ontario MEA Guideline, intersection improvements, parking lots or grade separations will require a Schedule A, a Schedule B or a Schedule C review depending on capital costs. Minor and major environmental assessments for road realignments, intersection improvements or grade separations can be distinguished by means other than costs as outlined in the examples listed below.

IRELAND

• the construction of a tunnel or elevated section more than 100 metres in length is subject to an environmental assessment.

UNITED KINGDOM

(England)

• motorway service areas of less than 0.5 hectare are exempted from the environmental impact assessment regulations, all other parking lots and motorway service areas require an environmental impact assessment.

EUROPEAN UNION

(AUSTRIA, GERMANY, NETHERLANDS, SWEDEN, FINLAND)

• the EU guidelines stipulate that there is a lower level environmental assessment review for car parks, there was no discriminator as to the size of the car park.

UNITED STATES OF AMERICA

(California)¹⁶

- railroad grade separation projects are exempted for any railroad grade separation project which eliminates an existing grade crossing or which reconstructs an existing grade separation.
- grading on land with less than 10% slope or where the total cut and fill is less than 1,500 cubic yards is exempted from a mandatory environmental impact review.

UNITED STATES OF AMERICA

(Massachusetts)

- parking lots that can hold not more than 999 motor vehicles are exempted from an environmental impact assessment.
- EIA required for widening or maintenance of a roadway or its right-of-way that will:
 - a. alter the bank or terrain located ten more feet from the existing roadway for one-half or more miles, unless necessary to install a structure or equipment;

b. cut five or more living public shade trees of 14 or more inches in diameter at breast height; or

c. eliminate 300 or more feet of stone wall.

UNITED STATES OF AMERICA (Tennessee)

• safety improvements such as installation or replacement of guardrail, signing, signalization, intersection improvements, flashing signs, roadside obstacle removal, shoulder improvements and sidewalks require a Tennessee Environmental Evaluation Report (TEER) if the State is providing funding, however no TEER is required if the improvements are funded from sources other than U.S. federal or Tennessee State funds.

4.C Bridges

Under the Ontario MEA Guideline, reconstruction of certain structures or adjacent gradings, e.g. bridges will require a Schedule B or a Schedule C review depending on capital costs. Minor and major environmental assessments for such structures and adjacent gradings can be distinguished by means other than costs as outlined in the examples listed below.

IRELAND

• the construction of a bridge for motor vehicles that is more than 100 metres in length is subject to an environmental assessment.

SOUTH AFRICA

 all bridges for motor vehicles, new or replacement, within 32 metres of a watercourse require an environmental assessment – 'watercourse' is defined as any temporary or permanent channel, river, lake or water body – since almost all bridges cover some form of water body or depression that has an intermittent flow of water, there are very few bridges for motor vehicles that do not require an environmental assessment.

INDIA

• minor environmental impact assessment for those bridges that are 'aerial ropeways.'

UNITED STATES OF AMERICA (Tennessee)

• bridges – the replacement of bridges requires a minor Tennessee Environmental Evaluation Report ('TEER') if no right of way is required, but a major TEER if additional right of way is required for the replacement bridge.

4.D Streetscaping, Bike Lanes, Pedestrian Crossings and Other Road Improvements

Under the Ontario MEA Guideline, municipal road patrol yards and maintenance facilities, pedestrian over or under passes and streetscaping will require a Schedule A+, a Schedule B or a Schedule C review depending on capital costs. Minor and major environmental assessments for these improvements can be distinguished by means other than capital costs, however in most of the jurisdictions reviewed such improvements are either all exempted or all included for mandatory environmental assessments. For instance, bicycle lanes in urban areas of South Africa or Indonesia are subject to a full EA.

UNITED STATES OF AMERICA (California)

- a project for restriping streets or highways to relieve traffic congestion is expressly exempted from the requirement for any environmental impact assessment.
- while the addition of bike lanes onto roadways within existing right of ways is expressly
 exempted from environmental assessment by the CEQA Section 15304, the California
 Supreme Court ruled that where the project also involved the removal of some 34 separate
 left turn lanes for motor vehicles to accommodate the additional bike lanes, the project was
 subject to a mandatory environmental impact review.

5.0 Alternative Measuring Criteria For Various Water and Wastewater Related Projects

5.A Expansions to Wastewater Systems and Wastewater Treatment Plants

Under Ontario's MEA Guideline, expansions or the addition of certain components to a wastewater treatment plant or sewage piping system will require a Schedule A+, Schedule B, or Schedule C review depending on whether the new capacity exceeds the rated capacity or whether the new works are situated in existing structures or lands. Minor and major environmental assessments for wastewater treatment plant and sewage system expansions can be distinguished by other criteria as outlined in the examples listed below.

AUSTRALIA¹⁷

• minor environmental assessment review if intended processing capacity is for less than 2,500 persons equivalent capacity or 750 kilolitres per day, full environmental assessment review if either of those capacities are exceeded.

EUROPEAN UNION (AUSTRIA, GERMANY, NETHERLANDS, SWEDEN, FINLAND)

• minor environmental assessment review for wastewater treatment plants that service a population of less than 150,000 population equivalent as defined in Article 2 point (6) of Directive 91/271/EEC, full environmental assessment review if that capacity is exceeded.

SOUTH AFRICA

- expansions of wastewater treatment plants are exempted from an environmental impact assessment if it is for not more than 10% of existing system capacity.
- expansions of wastewater piping systems are exempted from an environmental impact assessment if it does not require more than 1,000 metres of additional pipe outside of a road allowance.

UNITED KINGDOM

• expansions of wastewater treatment plants are subject to a reduced level of environmental assessment if they will service a population of less than 150,000 equivalent or if the additional works occupy an area of less than 1,000 square metres.

UNITED STATES OF AMERICA

(Massachusetts)

- the construction of a new or expanded wastewater treatment and/or disposal facility with a capacity of 2,500,000 or more gallons per day requires a full environmental impact report.
- the expansion of a sewer system requires a mandatory environmental impact report if it includes new sewer mains ten or more miles in length.

5.B Expansions to Water Mains and Water Treatment Plants

Under Ontario's MEA Guideline, expansions or the addition of certain components to a water treatment plant or watermain system will require a Schedule A+, Schedule B, or Schedule C review depending on whether the new capacity exceeds the rated capacity or whether the new works are situated in existing structures or lands. Minor and major environmental assessments for water treatment plant and watermain expansions can be distinguished by other criteria as outlined in the examples listed below.

SOUTH AFRICA

• the construction of facilities for the desalination of sea water with a design capacity to produce more than 100 cubic metres of treated water per day requires an environmental impact assessment.

UNITED KINGDOM

• groundwater abstraction or artificial groundwater recharge schemes where the annual volume of water abstracted or recharged is equivalent to or exceeds 10 million cubic metres requires a Schedule 1 Environmental Assessment, all other groundwater abstraction or artificial groundwater recharge schemes require a Schedule 2 Environmental Assessment.

UNITED STATES OF AMERICA

(Massachusetts)

- the construction of one or more new water mains ten or more miles in length requires a mandatory environmental assessment review.
- the Secretary of the Environment has the option of requiring an environmental assessment review for the following water projects:
 - construction of a new drinking water treatment plant with a capacity of 1,000,000 or more gallons per day;
 - expansion of an existing drinking water treatment plant by the greater of 1,000,000 gallons per day or 10% of existing capacity.

6.0 Analysis

6.A New Roads, Realignments or Additional Lanes

Every jurisdiction reviewed provides more than one level of environmental assessment for the construction of new roads, road alignments, or additional lanes. Most of the criteria were based on the length of the road, lane or re-alignment and in some cases if such construction was close to an environmentally sensitive area such as coastal waters or a forest reserve. Other areas focused on width of the right of way and whether or not additional right of way was required.

In Ontario, construction costs will vary significantly based on the physical location of the project, e.g. in and around the golden horseshoe vs. areas north of Kingston or west of Ottawa. Construction costs will also vary based on what time of year the projects are carried out and the relative strength or weakness of the provincial economy.

It is submitted that criteria such as length of roadway or width of right of way are much more stable, predictable, and appropriate criteria for determining the appropriate intensity of Municipal Class Environmental Assessment for the respective projects.

6.B Intersection Improvements, Grade Separations, Parking Lots, Bridges, and Non-Expansion Improvements to Roads

Every jurisdiction reviewed provides more than one level of environmental assessment for the construction intersection improvements, grade separations, bridge replacements, and other road improvements that do not add length or width to the road. Many jurisdictions require a higher level of scrutiny for water crossings or works near water bodies. In most cases other jurisdictions use physical measurements such as the length or area of the improvement. In the United States, safety related improvements such as elimination of level rail crossings in favour of over or under passes, often has a lower intensity of environmental assessment.

6.C Road Improvements for Pedestrians and Cyclists

In many jurisdictions pedestrian bridges over roadways, streetscaping, and the addition of bicycle lanes are exempted from an environmental assessment provided that such improvements do not require additional lands beyond the existing road allowances. If the addition resulted in a reduction of any motor vehicle lanes, the project generally requires an environmental assessment.

Surprisingly, there was no differentiation for environmental assessment purposes about the physical size of the structure, e.g. length or width of a bike pass, length of a pedestrian crossing, or whether the improvement included a hard surface such as concrete or asphalt instead of a porous surface such as earth or crushed stone.

6.D Wastewater Treatment Plants and Sewer Systems

Almost every jurisdiction reviewed provides more than one level of environmental assessment for the construction or expansion of wastewater treatment plants or sewer systems. The criteria are often measured in terms of plant capacity, either measured in terms of the absolute value of wastewater that can be handled over a given period or the size of the population that the plant or system services.

Although most jurisdictions will require an environmental assessment for wastewater treatment plant expansions that require additional lands, no jurisdiction reviewed imposed an environmental assessment requirement for standby electrical power generators on an existing site.

6.E Water Treatment Plants and Water Main Systems

Almost every jurisdiction reviewed provides more than one level of environmental assessment for the construction or expansion of wastewater treatment plants or sewer systems. Treatment plants and delivery systems for drinking water were often exempt from the requirement to undertake an environmental assessment. The criteria for water treatment plants and water mains were physical plant capacity, e.g. the quantity of water that can be treated or the length of additional water mains that must be constructed.

7.0 Conclusion

- A. None of the other jurisdictions reviewed used capital cost of the construction project as a discriminating factor to determine the level or intensity of environmental assessment for such projects. In Ontario, construction costs will vary significantly based on the physical location of the project, or the strength of weakness of the provincial economy (vis-à-vis inflationary impacts). Broad economic performance and proximity to construction labour and resources are not recognized in any jurisdiction for determining whether a road related project or any other form of infrastructure should be subject to more or less environmental assessment scrutiny. Ontario should use objective and predictable criteria such as physical size of the structure or proximity to certain sensitive geographic features instead of capital cost for determining the intensity of environmental assessment under the Municipal Class EA process.
- B. In many jurisdictions, improvements to the roadway that did not require additional lands outside of the road allowance or result in the removal of any motor vehicle traffic lanes faced a reduced level or full exemption for environmental assessment purposes. Where such improvements did require an environmental assessment, the physical size or proximity of the improvement often dictated whether the project was exempted or determined the level of review.
- C. While almost every jurisdiction reviewed requires a form of environmental assessment for the construction or expansion of wastewater treatment plants or sewer systems, most of these had a physical screening criteria below which a lesser or no environmental assessment was required. Only a few of the jurisdictions reviewed in this study require an environmental assessment for the construction or expansion of drinking water treatment plants or watermains to deliver drinking water through road allowances or other public rights of way. Based on this jurisdiction review, Ontario is unique in not having a reduced level of environmental assessment for small wastewater treatment plants and sewer systems. Ontario also appears to be the only jurisdiction that did not have some form of environmental assessment exemption for small drinking water treatment plants or watermain systems. No other jurisdiction imposed an environmental assessment review for the installation of standby electrical power generating facilities within an existing water or wastewater treatment plant.

Appendix A

Ontario Municipal Class Environmental Assessment (Roads) Schedule Differentiation Based on Capital Values

	Description of Project	Capital Value Thresholds	
11.	Streetscaping	<\$2.7m Schedule A+	>\$2.7m Schedule B
12.a)	Localized Operational Improvements such as new turning lanes at intersections	<\$2.7m Schedule A+	>\$2.7m Schedule B
13.	Traffic Control Devices	<\$10.7m Schedule A	>\$10.7m Schedule B
14.	New Parking Lots	<\$10.7m Schedule A	>\$10.7m Schedule B
15.	Traffic safety projects such as high mast lighting	<\$2.7m Schedule A	>\$2.7m Schedule B
20.	Certain new traffic lanes e.g. for left turns	<\$2.7m Schedule B	>\$2.7m Schedule C
21.	New traffic lanes	<\$2.7m Schedule B	>\$2.7m Schedule C
22.	Certain road water crossings	<\$2.7m Schedule B	>\$2.7m Schedule C
26.	New water crossings or ferry docks	<\$2.7m Schedule B	>\$2.7m Schedule C
27.	New road grade separations	<\$10.7m Schedule B	>\$10.7m Schedule C
28.	Construction of pedestrian or recreational over or under passes, etc.	<\$2.7m Schedule B	>\$2.7m Schedule C
29.	Construction of new traffic interchanges	<\$10.7m Schedule B	>\$10.7m Schedule C
30.	Reconstruction of certain structures or adjacent gradings, e.g. bridges	<\$2.7m Schedule B	>\$2.7m Schedule C
37.	Expansions, improvements to patrol yards, maintenance facilities, etc.	<\$2.7m Schedule B	>\$2.7m Schedule C
38.	Establish new patrol yards, maintenance facilities, etc.	<\$2.7m Schedule B	>\$2.7m Schedule C
41.	Other road related works	<\$2.7m Schedule B	>\$2.7m Schedule C

Appendix B

Ontario Municipal Class Environmental Assessment: Selected Examples of Schedule Differentiation (Water and Wastewater) Based on Parameters Other than Capital Values

Description of Project	Thresholds
a. Wastewater equalization additional tankage (Combined Sewer Overflow containment)	 at existing plants or pumping stations Schedule B on municipal lands but at new location Schedule C
b. Wastewater pumping station capacity increases	 at existing building, Schedule A+ in new building or structure, even if building is on wastewater treatment plant or other municipal lands, Schedule B
c. Expand wastewater treatment plant capacity	up to existing rated capacity, Schedule Bbeyond existing rated capacity, Schedule C
d. Install or replace standby power equipment at existing wastewater treatment plant	 at existing building, Schedule A+ in new building or structure, even if building is on wastewater treatment plant or other municipal lands, Schedule B
e. Expand water treatment plant capacity	up to existing rated capacity, Schedule Bbeyond existing rated capacity, Schedule C
f. Expand water distribution system	 if no land acquisition is required, Schedule A+ where system facilities are not in an existing road allowance or existing utility corridor, Schedule B
g. Install or replace standby power equipment at existing water treatment plant	 at existing building, Schedule A+ in new building or structure, even if building is on wastewater treatment plant or other municipal lands, Schedule B

Appendix C

Year	Average Annual Increase/Decrease MEA Index	MTO Tender Price Index	Cost Limits in Tables
2007	+ 5.09%	+ 5.09%	\$2.2m
2008	+10.24%	+10.24%	\$2.4m \$9.5m
2009	+12.28%	+12.28%	\$2.7m \$10.7m
2010	- 7.71%	- 7.71%	\$2.5m \$ 9.9m
2011	- 5.03%	- 4.94%	\$2.4m \$9.5m

Recent Annual Variances of Threshold Capital Value of Infrastructure Projects

Endnotes

- 1 See Study dated March 10, 2010 "Are Ontario's Municipal Class Environmental Assessments Worth the Added Time and Costs?" accessible via the internet at http://www.rccao.com/news/files/RCCAOMarch2010ReportsLoRes.pdf
- 2 Environmental Impact Assessment Regulation Clean Environment Act N.B. Reg. 87-83
- 3 Environmental Impact Assessment Guidelines 2010 (P.E.I.)
- 4 Environmental Assessment Regulations N.S. Reg. 26/95
- 5 Reviewable Projects Regulation B.C. Reg. 370/2002 Environmental Assessment Act
- 6 Directive 85/337/EC on environmental impact assessment, as amended see http://ec.europa.eu/environment/eia/home.htm
- 7 See http://www.municipalclassea.ca/
- 8 See http://www.nra.ie/Environment/EnvironmentalPlanningGuidelines/
- 9 http://moef.nic.in/downloads/public-information/Tamil%20-%20IPZ%20-%20%202011.pdf
- 10 http://www.env.go.jp/en/policy/assess/pamph.pdf
- 11 http://www.environment.gov.za/polleg/legislation/natenvmgmtact/natenvmgmtact.htm
- 12 http://www.legislation.gov.uk/uksi/2011/1824/pdfs/uksi_20111824_en.pdf
- 13 http://www.env.state.ma.us/mepa/meparegulations.aspx
- 14 http://www.tdot.state.tn.us/sswmp/pdfs/EnviroProcMan.pdf
- 15 Directive 85/337/EC on environmental impact assessment, as amended see http://ec.europa.eu/environment/eia/home.htm
- 16 See California Environmental Quality Act at http://online.sfsu.edu/~mgriffin/CEQA%20 CA%20PRC%2021000-21177.pdf and a guidance document for assessment screening at http://ceres.ca.gov/planning/ceqa/
- 17 See Environment Protection and Biodiversity Conservation Act 1999 at http://www.environment.gov.au/epbc/assessments/index.html



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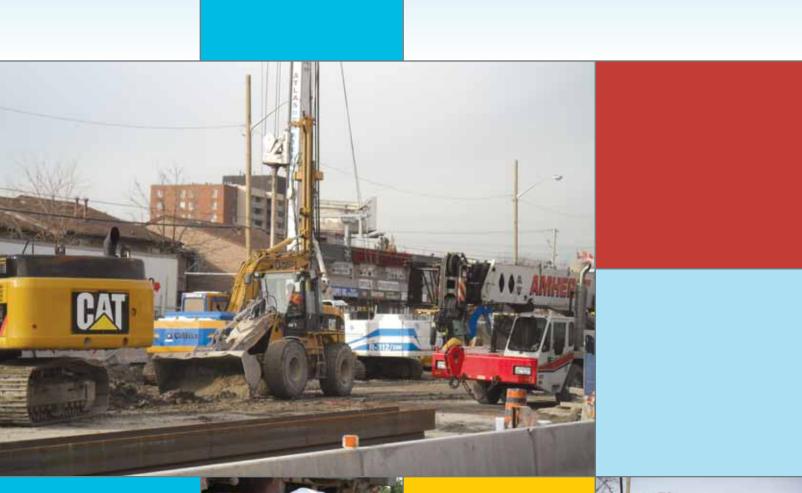
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The Residential and Civil Construction Alliance of Ontario (RCCAO) is composed of management and labour groups that represents a wide spectrum of the Ontario construction industry. The RCCAO's goal is to work in cooperation with governments and related stakeholders to offer realistic solutions to a variety of challenges facing the construction industry. For more information on the RCCAO or to view copies of other studies and submissions, please visit the RCCAO website at www.rccao.com

RCCAO members include: Carpenters' Union • Greater Toronto Sewer and Watermain Contractors Association • Heavy Construction Association of Toronto • International Union of Operating Engineers, Local 793 • International Union of Painters and Allied Trades, District Council 46 • Joint Residential Construction Council • LIUNA Local 183

Residential Carpentry Contractors Association
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