

**Ontario Association of  
Architects  
Site Plan Delay Analysis**

Independent Real Estate Intelligence

**July 19, 2018**



# **Ontario Association of Architects Site Plan Delay Analysis**

Prepared by:

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## EXECUTIVE SUMMARY

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Altus Group Economic Consulting was retained by the Ontario Association of Architects (OAA) to update elements of a 2013 report commissioned of Bousfields and Altus Group, *A Review of the Site Plan Approval Process in Ontario* (“2013 OAA Report”). This study updates data modelling from the 2013 OAA Report that estimated the direct and indirect costs of the site plan review process on stakeholders, as expressed on a per month basis.

### *Direct Costs of Site Plan Review*

In addition to the indirect costs, the process of site plan approval requires applicants to pay application fees to municipalities. For a 100-unit apartment building, the fees for site plan review range from \$1,500 in the City of Thunder Bay to \$90,900 in the City of Markham.

For a 50,000 square foot office building, the fees range from \$847 (or below \$0.02 per square foot) in the City of London to \$61,745 in the City of Mississauga (or \$1.23 per square foot).

These fees, although levied on the developers and/or builders, are likely to be passed on to home buyers, tenants and other end users through higher sales prices or rents.

### *Indirect Costs of Site Plan Review*

In addition to the direct costs imposed by municipalities on developers/builders related to site plan review, the time associated with site plan review can also impose numerous costs on various stakeholders involved within the development of new homes, stores, offices and other buildings.

According to the research undertaken as part of the 2013 OAA Report, it was found that timeframes for obtaining site plan approval were significant:

- Approximately half of all applications took 6 months or more to gain approval, with 35% of all applications requiring over 9 months before being approved;
- Larger development applications required longer processing times – over 40% of apartment buildings and large institutional applications required longer than 9 months;

- Applications in larger municipalities took longer to process than in medium or small municipalities.<sup>1</sup>

Based on our assumptions and modelling, we have estimated that approximately \$10.6 billion of building construction value would be subject to site plan review annually across Ontario. This includes:

- \$5.9 billion in residential permit values;
- \$781 million in industrial permit values;
- \$2.8 billion in commercial permit values; and
- \$1.1 billion in institutional permit values.

We have estimated the following indirect costs of the site plan review process:

- For developers/builders:
  - Additional taxes on the existing use and/or vacant land while site plan is being reviewed;
  - Carrying costs of loans; and
  - Exposure to construction cost and labour inflation.
- For municipalities:
  - Delayed property tax revenue gains; and
  - Lost retail spending.
- For end-users:
  - Additional development charge costs;
  - For first-time home buyers, lost mortgage equity;
  - For first-time home buyers, increased rents on existing rental unit; and
  - For office tenants – increased office rents.

In total, the indirect costs, on a monthly basis, for a 100-unit apartment building range from \$228,700 to \$278,400, or between 0.82% to 0.99% of the building's construction cost.

<sup>1</sup> Bousfields Inc. and Altus Group, *A Review of the Site Plan Approval Process in Ontario*, for the Ontario Association of Architects, October 2013, p20

For a 50,000 square foot office building, the indirect costs, on a monthly basis range from \$89,000 to \$105,100, or between 0.85% to 1.00% of the construction costs.

### ***Conclusions***

Based on the \$10.6 billion in annual building permit value subject to site plan across Ontario each year, and based on the estimates of indirect costs to stakeholders, the estimated indirect costs of site plan review amounts to roughly \$100 million per month, Ontario-wide. If the average site plan review application takes 3-9 months to process and approve, the total costs of delay each year to stakeholders would amount to somewhere in the range of \$300-\$900 million per year in Ontario.

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# 1 INTRODUCTION

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Altus Group Economic Consulting was retained by the Ontario Association of Architects (OAA) to update elements of a 2013 report commissioned of Bousfields and Altus Group, *A Review of the Site Plan Approval Process in Ontario* (“2013 OAA Report”). This study updates the analysis contained within the 2013 OAA Report which reviewed the direct and indirect costs of the site plan review process on stakeholders (applicants, municipalities, end users).

## 1.1 Overview of Site Plan Review

Section 41 of the *Planning Act, R.S.O. 1990*, sets out the regulatory framework for site plan review and provides municipalities with the power to approve development applications within site plan control areas.

Site plan review is a technical process that deals with matters relating to building layout, massing, access, parking and landscaping, to ensure development proceeds in a safe, efficient and aesthetically pleasing manner.

Municipalities implement section 41 through official plan policies and site plan control by-laws.<sup>2</sup>

## 1.2 Approach

This study will update and build upon data modelling from the 2013 OAA Report that estimated the per month cost of the site plan review process on various stakeholders in the development process: applicants, municipalities and end users.

This per month cost will be estimated for each Census Metropolitan Area (CMA) in Ontario, and then applied to the estimated value of building permits taken out by building type, in order to ultimately estimate the total cost, across Ontario, of processing time associated with site plan review.

<sup>2</sup> Bousfields Inc. and Altus Group, *A Review of the Site Plan Approval Process in Ontario*, for the Ontario Association of Architects, October 2013.

## 2 METHODOLOGY AND MODELLING

This section summarizes the methodology used to model the amount (in terms of value) of building permits subject to site plan review across Ontario each year. The results of this analysis will be applied to estimated direct and indirect costs of site plan review to determine the overall cost of review time.

### 2.1 Building Permit Data by CMA

In order to estimate the costs associated with site plan delay across the Province, we obtained three years of building permit data by Census Metropolitan Area (CMA) for each of Ontario's 15 CMAs.

On average, over the 2014-2016 period, building permits were issued for projects with a cumulative construction value of \$33.2 billion per year, including:

- \$21.4 billion per year, on average, for residential permits;
- \$2.3 billion per year for industrial permits;
- \$6.4 billion per year for commercial permits;
- \$3.2 billion per year for institutional permits.

**Figure 1 Average Annual Value of Building Permits by Census Metropolitan Area (CMA), Ontario, 2014-2016**

Census Metropolitan Area	Residential	Industrial	Commercial	Institutional	Total
	<i>Dollars (\$Thousands)</i>				
Barrie	318,658	40,142	125,754	30,435	514,989
Brantford	125,281	38,164	38,486	7,232	209,164
Greater Sudbury	96,861	44,181	60,762	44,524	246,328
Guelph	275,526	37,935	73,036	49,123	435,620
Hamilton	981,317	63,905	270,857	232,467	1,548,546
Kingston	142,063	20,715	49,167	118,109	330,055
KW-Cambridge	950,757	117,500	217,928	184,199	1,470,385
London	771,354	61,499	172,914	183,758	1,189,525
Oshawa	739,781	60,029	147,835	78,322	1,025,967
Ottawa	1,585,173	60,338	668,502	214,040	2,528,053
Peterborough	131,434	27,008	23,657	13,061	195,160
St.Catharines-Niagara	547,905	44,370	107,458	51,285	751,018
Thunder Bay	62,716	4,504	35,252	33,316	135,788
Toronto	11,146,539	898,540	3,756,067	1,443,255	17,244,401
Windsor	341,260	41,557	60,329	71,403	514,549
Total Ontario CMAs	18,216,626	1,560,389	5,808,004	2,754,528	28,339,547
Non-CMAs	3,160,087	783,455	581,672	381,886	4,907,100
Total Ontario	21,376,713	2,343,844	6,389,676	3,136,414	33,246,647

Source: Altus Group Economic Consulting based on Statistics Canada, CANSIM, Table 026-0003



The September 2013 Bousfields/Altus report found that:

Municipalities typically exempt certain types of development from site plan approval. The types of developments exempted from the process are different in each municipality. ... In general, development typically exempted includes smaller residential buildings (e.g. single-detached, semi-detached, duplex or triplex dwellings), agricultural related buildings, small industrial buildings and small accessory buildings or additions.

Our modelling first seeks to estimate the proportion of the \$33.2 billion in annual building permit value that would be subject to the site plan review process. From this estimated reduced value of construction subject to site plan review, a subsequent section of this report then summarizes modelling undertaken to quantify the average monthly cost of delays associated with site plan review for residential and non-residential development as a share of overall construction costs.

The two metrics (the value of building in Ontario subject to site plan and the monthly cost of delays to that development) will be combined to estimate the monthly direct and indirect costs to various stakeholders of site plan review across the Province.

## **2.2 Assumptions Regarding Non-Applicability of Site Plan to Permits**

### **2.2.1 Residential**

We have obtained Statistics Canada data on number and value of residential permits in Ontario. The average annual value of residential permits is \$21.4 billion. Not all of the permit values would be for the construction of new residential homes – some proportion would be related to renovations. According to Statistics Canada data, roughly \$16.4 billion in permit values per year is related to the construction of new residential homes.

Additional consideration needs to be made to account for the exemption of certain types of units from site plan review, such as single-detached units, freehold townhouses, etc.

Based on the CMHC data regarding the tenure and type of housing starts in CMAs across the Province, we have estimated the proportion of each unit type that would be subject to site plan.

- Singles – we have estimated that 0.5% of units would be subject to site plan review, based on the proportion of singles that are condominium in tenure.
- Doubles – it is assumed for the purposes of this study that all semi-detached or duplex housing starts in Ontario are freehold, and therefore unlikely to be subject to site plan review.
- Rows – approximately 20.8% of townhouse units completed in Ontario are condominium and therefore are assumed to be subject to site plan review. It is assumed that the freehold townhouses would not be subject to site plan review.
- Apartments – we have assumed that all apartment construction in Ontario would be subject to site plan review, whether it is condominium or rental in tenure. There are a few municipalities that exempt site plan fees for developments less than a certain number of units, but this is relatively uncommon.

Of the \$16.4 billion in annual residential permit values related to new home construction, it is estimated that \$5.9 billion would be in housing forms that are subject to site plan review.

### **2.2.2 Non-Residential**

We have also made adjustments to the total value of non-residential permits by sector, to account for the following elements included in the data which need to be accounted for:

- We have assumed that permits for minor industrial, commercial and institutional projects would not trigger site plan review. Statistics Canada separates out ‘minor’ projects in classifying building permits by type; and
- We have assumed that site plan review would not be required for industrial permits related to transportation and utility works, mining and agriculture.

The net result of the above two adjustments is that 59% of industrial permits, 11% of commercial permits and 5% institutional permits (in terms of value) need to be netted off the average annual building permit values.

A second set of adjustments have also been made to account for the proportion to which permits would be taken out for internal alterations to existing buildings, which are assumed to not require site plan review.

Based on detailed information available in some of the reviewed municipalities (Mississauga, Barrie and Hamilton), roughly 28% of industrial permit values, 46% of commercial permit values and 45% of institutional permit values relate to internal building alterations and would therefore not trigger site plan.

The combination of these two adjustments results in the following share of total building permit values estimated to be subject to site plan review:

- Industrial – 33% of \$2.3 billion, or \$781 million;
- Commercial – 44% of \$6.4 billion, or \$2.8 billion; and
- Institutional - 36% of \$3.1 billion, or \$1.1 billion

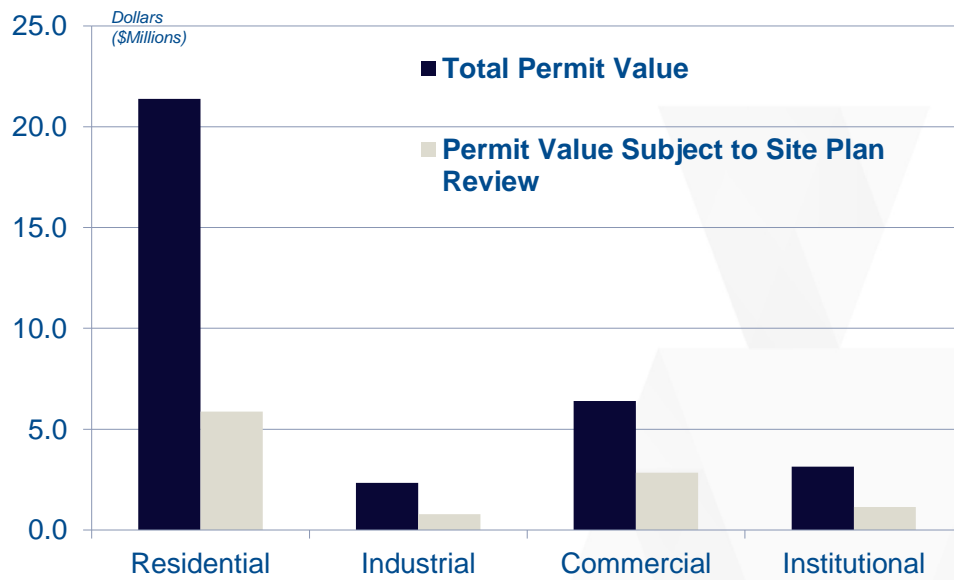
### **2.2.3 Total Value of Permits Estimated to be Subject to Site Plan**

Based on our assumptions and modelling, we have estimated that approximately \$10.6 billion of building permits value would be subject to site plan review annually across Ontario. This includes:

- \$5.9 billion in residential permit value;
- \$781 million in industrial permit value;
- \$2.8 billion in commercial permit values; and
- \$1.1 billion in institutional permit values.

Figure 2

**Annual Building Permits by Type**  
*Total and Share Subject to Site Plan Review, Ontario*



Source: Altus Group Economic Consulting based on Statistics Canada Building Permit Data 2014-2016

### 3 ANALYSIS

This section summarizes modelling undertaken to estimate the direct and indirect costs of site plan review to determine the overall cost of review time. The modelling presented in this section is largely a direct update of the analysis presented in the 2013 OAA Report.

#### 3.1 Direct Costs of Site Plan Review

##### 3.1.1 Site Plan Fees by Municipality

We have reviewed the site plan fees applicable to a hypothetical residential and non-residential development application for each of the 88 municipalities within the 15 CMAs across the Province that levy site plan review fees.

Figure 3

#### Site Plan Review Fees for Hypothetical Developments, Major Markets within Ontario Census Metropolitan Areas

Census Metropolitan Area	Average Site Plan Fees		Municipality
	Residential (100-unit Apt Bldg)	Office (50,000 sf)	
	<i>Dollars</i>		
Barrie	11,459	8,963	Barrie
Brantford	21,550	4,050	Brant County
Greater Sudbury	2,900	3,480	Sudbury
Guelph	14,230	14,230	Guelph
Hamilton	27,675	23,225	Hamilton
Kingston	15,472	10,311	Kingston
KW-Cambridge	13,708	13,434	Kitchener
London	4,800	847	London
Oshawa	39,958	9,917	Oshawa
Ottawa	26,187	26,187	Ottawa
Peterborough	3,800	3,058	Peterborough (City)
St. Catharines-Niagara	6,930	7,908	St. Catharines
Thunder Bay	1,500	1,500	Thunder Bay
Toronto	69,733	50,480	Toronto
<i>Other Centres in Toronto CMA</i>			
<i>Oakville</i>	37,845	40,590	
<i>Brampton</i>	30,937	10,990	
<i>Markham</i>	90,900	29,819	
<i>Vaughan</i>	46,997	19,235	
<i>Richmond Hill</i>	23,027	9,669	
<i>Mississauga</i>	44,274	61,745	
Windsor	9,935	9,935	Windsor

Source: Altus Group Economic Consulting based on various municipal websites, by-laws, etc.

The findings are summarized in Figure 3, which shows the site plan review fees applicable for the major market in each CMA, for a 100-unit apartment building and a 50,000 square foot office building (the fees for which would also apply to most other non-residential buildings of the same size).

For a 100-unit apartment building, the fees for site plan review range from \$1,500 in the City of Thunder Bay to \$90,900 in the City of Markham.

For a 50,000 square foot office building, the fees range from \$847 (or below \$0.02 per square foot) in the City of London to \$61,745 in the City of Mississauga (or \$1.23 per square foot).

These fees, although levied on the developers and/or builders, are likely to be passed on to home buyers, tenants and other end users through higher sales prices or rents.

### 3.2 Indirect Costs of Site Plan Review

In addition to the direct costs imposed by municipalities on developers/builders related to site plan review, the time associated with site plan review can also impose numerous costs on various stakeholders involved within the development of new homes, stores, offices and other buildings.

According to the research undertaken as part of the 2013 OAA Report, it was found that timeframes for obtaining site plan approval were significant:

- Approximately half of all applications took 6 months or more to gain approval, with 35% of all applications requiring over 9 months before being approved;
- Larger development applications required longer processing times – over 40% of apartment buildings and large institutional applications required longer than 9 months;
- Applications in larger municipalities took longer to process than in medium or small municipalities.<sup>3</sup>

<sup>3</sup> Bousfields Inc. and Altus Group, *A Review of the Site Plan Approval Process in Ontario*, for the Ontario Association of Architects, October 2013, p20

### 3.2.1 *As Borne by Developers/Builders*

#### 3.2.1.1 *Additional Property Taxes*

For applicants, each additional month spent in the site plan review process pushes back the time that the landowner can turn over their building to the eventual owner. The additional time spent in the site plan review process means that the landowner/developer must pay additional taxes on the existing use and/or vacant land.

In estimating the additional taxes paid by a developer, we have estimated the costs on a 'per acre' basis, to control for the range of densities our hypothetical buildings would have in different parts of Ontario.

Once a development is otherwise approved and entering the site plan review process, the land would typically be re-appraised based on highest and best use. For a residential condominium development, the taxes payable on the land would reflect a residential condominium land value. Based on the average value of recent high-density land sales in select municipalities<sup>4</sup> and the applicable tax rates for each municipality, we have estimated the cost per acre, per month, of the taxes payable on the vacant land.

Based on our hypothetical site size of one acre, the additional taxes are estimated to range between \$2,100 and \$9,100 per month.

Figure 4

#### **Estimated Property Tax Impact to Applicants of Monthly Site Plan Review Process**

	High Density Land Value per Acre	2017 Tax Rates	Additional Taxes per Month
	<i>Dollars / Acre</i>	<i>Percent</i>	<i>Dollars / Month</i>
Toronto	16,460,000	0.661647%	9,076
Barrie	2,510,000	1.313163%	2,747
Brantford	2,220,000	1.389174%	2,570
Guelph	4,650,000	1.433518%	5,555
Hamilton	4,830,000	1.201948%	4,838
Kitchener-Waterloo	4,280,000	1.312168%	4,680
Oshawa	1,830,000	1.378788%	2,103
St.Catharines-Niagara	2,820,000	1.115259%	2,621
Minimum			2,103
Maximum			9,076

Source: Altus Group Economic Consulting based on municipal tax rates

<sup>4</sup> Based on Altus Data Solutions data on high-density land sales.

### ***3.2.1.2 Carrying Costs of Loans***

During the approvals process, applicants will have typically obtained financing for their project and will pay interest on the construction loan until all proceeds from sales have been received. For a 100-unit condominium apartment building, each additional month would add on average \$91,200 per month in costs related to the construction loan, including \$38,700 for additional interest related to the construction loan and \$52,500 for the opportunity cost of the equity.<sup>5</sup> This equates to \$912 per unit in additional costs, which would likely be passed onto eventual home buyers. As these costs are not specific to any municipality, these costs would be roughly the same in most of the municipalities reviewed.

For a 50,000 square foot office building, each additional month would add approximately \$34,200 in carrying costs, including \$14,500 in additional interest and \$19,700 for the opportunity cost of the equity. The additional carrying costs amount to \$0.68 per square foot, and would likely be passed on to future tenants of office building through increased rents.

### ***3.2.1.3 Exposure to Construction Cost and Labour Inflation***

When a development is in the site plan review process the costs associated with the construction of the building can increase. This includes the costs of both materials and labour.

The construction costs of building typically increase over time. Figure 5 shows the recent increases in construction costs for apartment and office buildings. Since the end of 2011, construction costs have increased from between 10.8% and 11.9%. This translates to an average monthly increase in construction costs of 0.14% for apartment buildings and 0.16% for office buildings.

<sup>5</sup> Based on a CMHC model



Figure 5

**Construction Cost Index, Apartment, Office and Institutional Structures, 2008-2012**

Year	Apartment Building	Office Building
	<i>Index (2002=100)</i>	
Q4 2011	143.0	145.8
Q3 2017	158.5	163.1
<i>Percent</i>		
% Increase (Q42011-Q32017)	10.8%	11.9%
Average Monthly % Increase	0.14%	0.16%

Source: Altus Group Economic Consulting based on Statistics Canada

Based on the hard construction costs of each hypothetical building, we were able to model the average monthly increase in construction costs as a result of site plan processing time. For the apartment building, each additional month would add approximately \$40,000 in increased construction costs, or approximately \$400 per unit, which would likely get passed on to the new home buyer.

For the office building, each additional month would see construction costs increase by just over \$16,400. On a per square foot basis, this amounts to \$0.32 per square foot, which can be expected to get passed on to future office tenants through increased rents.

Figure 6

**Estimate of Monthly Construction Cost Escalation**

	Apartment Building (100-units)	Office Building (50,000 SF)
	<i>Dollars</i>	
Construction Costs	28,000,000	10,500,000
<i>Percent / Month</i>		
Average Monthly Construction Cost Escalation	0.14%	0.16%
<i>Dollars / Month</i>		
Construction Cost Escalation / Month	40,049	16,365

Source: Altus Group Economic Consulting based on CANSIM, Table 327-0044

Based on Statistics Canada data, the hourly wage of various contractors involved in the construction of a building increase by an average of \$1.15 per hour, per year. On a per month basis, this would be a \$0.10 per hour increase for each contractor involved in the project.

**Figure 7 Average Hourly Wage, Select Construction Trades, 2011-2017**

Year	Carpenter	Crane Operator	Cement Finisher	Electrician	Plumber	Total / Average
<b>Average - Ontario CMAs</b>						
Q4 2011	46.96	49.04	42.38	54.43	52.82	49.13
Q3 2017	52.74	56.43	47.92	63.11	60.06	56.05
Increase: 2011-2017	5.77	7.39	5.54	8.68	7.23	6.93
Average Monthly \$ Increase	0.08	0.10	0.08	0.12	0.10	0.10
Average Monthly % Increase	0.16%	0.20%	0.17%	0.21%	0.18%	0.19%

Source: Altus Group Economic Consulting based on CANSIM, Table 327-0003

Based on Altus Group modelling of the amount of construction-related employment, a 100-unit apartment building would generate 295 person-years of employment, which is equivalent to 295 persons working for one year each. Assuming each of these workers would be subject to a similar increase in wages, each month of delay would add, on average, roughly \$50,000 per month in additional labour costs, or \$500 per unit. The wage inflation is roughly comparable for all Ontario CMAs, ranging from \$44,600 to \$54,800.

For the office building, approximately 122 person-years of employment would be generated by the construction of the building and in industries supplying materials to the construction industry. Based on this estimate, each additional month of delay would add approximately \$20,600 in additional labour costs, or approximately \$0.41 per square foot. The wage inflation for office buildings in Ontario CMAs is roughly comparable in each of the Ontario CMAs, ranging from \$18,400 to \$22,600.

Figure 8

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**Estimate of Additional Wage Costs per Month**

	Apartment Building	Office Building
	<i>Person-Years</i>	
Person-Years	295	122
	<i>Days per Year</i>	
Average Working Days per Year	220	220
	<i>Hours per Day</i>	
Average Hours per Day	8	8
	<i>Person-Hours</i>	
Total Person Hours	519,708	214,322
	<i>Dollars per Hour</i>	
Average Monthly Increase in Hourly Wages - Ontario CMAs	0.10	0.10
	<i>Dollars per Month</i>	
Total Monthly Increase in Wage Costs	49,988	20,615

Source: Altus Group Economic Consulting based on Statistics Canada

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### 3.2.2 As Borne by Municipalities

#### 3.2.2.1 Delayed Increase in Property Tax Revenue by Municipalities

While municipalities will still receive tax revenue before a building is completed on what was in place on a given site before a development is undertaken, a site with a completed building will typically provide more tax revenue than it does prior to development.

We have estimated that the net costs to the municipality in terms of delays to the increased tax revenue received by development, per month, range from:

- \$22,800 to \$43,900 per month for the residential condominium apartment building, or between \$228 and \$439 per unit;
- \$12,200 to \$17,400 per month for the office building, or between \$0.24 and \$0.35 per square foot.

#### 3.2.2.2 Lost Retail Spending

A delay in development of the 100-unit condominium building means that those prospective new residents are not spending money in local retail shops and services.

The 2013 OAA report quantified the impact of the lost spending on selected municipalities, based on the assumption that prospective new residents are not spending money in local retail shops and services. However, as this update to the 2013 OAA Report focuses on Ontario-wide impacts, the site plan delay is unlikely to generate a net impact on the Province as a whole.

Rather, residents who are waiting for their homes to be constructed will be able to spend money on goods and services in their existing location, and so while one municipality may see less spending as a result of delayed development, another municipality would see increased spending while those residents stay in place longer, making the net effect nil.

### **3.2.3 *As Borne by End Users***

#### **3.2.3.1 *Additional Development Charge Costs***

A development charge (DC) by-law, once passed, expires after five years. Before a DC by-law expires, a municipality will calculate new DC rates based on the capital needs associated with the new residential and non-residential growth over a certain planning horizon.

A developer will typically place an assumed DC rate in its pro-forma, which flows into the pricing for available homes. However, if DC rates increase after a home is sold, but prior to the time when a building permit is obtained, the DC rate cannot be recovered through higher home prices. Instead, either the developer accepts reduced profit to pay for the higher DCs, or passes along the costs of the higher DCs directly onto home buyers through a clause in the agreement of purchase and sale.

The increase in DC rates as a result of a by-law review can be significant. For example, the City of Toronto has recently proposed that its DC rates for large apartments (2-bedroom or larger) increase from \$25,366 per unit to \$46,963 per unit, an increase of \$21,597, or 85%.

We have found that the average monthly increase in apartment development charges over the past few years has been \$66 per unit per month, ranging from \$6 to \$145 per month.

For office buildings, the average DC rates have increased recently by an average of \$0.05 per square foot per month.

It should be noted that since DC rate increases tend to occur in either small amount each year (via annual or semi-annual indexing), or in large amounts at each DC by-law review prior to expiry every five years, meaning that for some end users, the impact will be greater than others.

### ***3.2.3.2 Lost Mortgage Equity for First Time Home Buyers***

For many first-time home buyers, additional months of site plan review time are costly due to the inability to begin paying their mortgage sooner. For each month an application spends in the site plan review process, these prospective new home buyers are not paying their mortgage and are not building equity in a new home, but are likely continuing to rent their existing home.

Assuming a first-time home buyer is still renting, and is able to rent up until the month they are able to occupy their new home, the first month not being able to pay their mortgage results in a loss of equity of somewhere between \$380 and \$900, depending on the municipality. The amount of lost equity per month would increase with each additional month that they are not able to begin mortgage repayment, as a greater proportion of each subsequent monthly payment consists of principal repayment.

### ***3.2.3.3 Increased Rents Incurred for First Time Home Buyers***

In addition to the equity lost by first-time home buyers from not being able to begin mortgage payments, for those first-time home buyers who are still renting their dwelling, additional time spent in a rental contract may cause the rental rate to increase.

Over the 2013-2017 period, monthly rents have changed an average of \$2.90 per month across the CMAs surveyed, ranging from a low of \$1.58 per month to a high of \$4.10 per month.

### ***3.2.3.4 Increased Office Rents***

Over the 2013-2017 period, gross office rents for Class A office space (including net rent and operating costs) in Ontario have increased by an average of 1.1% per year, from \$29.37 per square foot to \$31.62 per square foot. This equates to an average increase of \$0.45 per square foot per year. On a per month basis, this would mean that rents would increase by approximately \$0.04 per square foot per month. For the 50,000 square foot office building, each additional month spent in the site plan process, would on average increase total gross rents payable by tenants by \$1,875 per month.

Further, although it is difficult to quantify, the delay in completing a given building may exacerbate any existing office space supply shortages, and as a result, increase the rents for other existing office space in an office market.

When there are office space supply shortages, prospective tenants looking to occupy space in a city may need to bid up the asking price for the existing space that is available in order to secure that space.

### **3.3 Summary**

In total, the indirect costs on a monthly basis for a 100-unit apartment building range from \$228,700 to \$278,400, or 0.82% to 0.99% of the building's construction cost.

For a 50,000 square foot office building, the indirect costs range from \$89,000 to \$105,100 a month, or between 0.85% to 1.00% of the construction cost. These findings are summarized in the appendix to this report.

## 4 CONCLUSIONS

In summary, we have estimated that roughly \$10.6 billion in annual building permit value is subject to site plan review each year across Ontario.

We have also estimated that the monthly indirect costs of the time associated with site plan review amount to 0.82% to 0.99% per month for residential construction and 0.85% to 1.00% for non-residential construction.

Therefore, we estimate that the monthly indirect costs of site plan review to municipalities, developers, builders and building end-users amount to be \$100 million per month. If the average site plan review application takes 3-9 months to process and approve, the total costs of delay to stakeholders would amount to somewhere in the range of \$300-\$900 million in Ontario per year.

Figure 9

**Estimated Monthly Costs for Stakeholders from Each Month of Delay in Gaining Site Plan Approval**

	Permit Value Subject to Site Plan		Indirect Costs per Month Due to Site Plan Review Time (as % of Construction Cost)		Indirect Costs per Month Due to Site Plan Review Time		
	Residential	Non-Residential	Residential Share	Non-Residential Share	Residential	Non-Residential	Total
	<i>Dollars (\$Thousands)</i>		<i>Percent</i>		<i>Dollars (\$Thousands)</i>		
<b>CMA</b>							
Barrie	56,540	80,293	0.98%	0.88%	556	711	1,267
Brantford	23,034	32,444	0.94%	0.89%	215	290	505
Greater Sudbury	17,974	57,888	0.86%	0.85%	155	491	646
Guelph	103,172	62,928	0.94%	0.89%	967	562	1,529
Hamilton	201,450	226,039	0.95%	0.88%	1,913	1,998	3,911
Kingston	25,264	71,639	0.83%	0.88%	210	633	843
KW-Cambridge	373,270	202,867	0.90%	0.91%	3,362	1,843	5,205
London	311,254	164,043	0.82%	0.85%	2,542	1,394	3,936
Oshawa	114,211	114,122	0.96%	0.90%	1,095	1,024	2,120
Ottawa	354,651	394,783	0.88%	0.90%	3,119	3,545	6,664
Peterborough	16,772	24,255	0.90%	0.91%	150	220	371
St.Catharines-Niagara	60,096	81,148	0.99%	0.86%	598	700	1,298
Thunder Bay	9,132	29,259	0.87%	0.87%	79	256	335
Toronto	3,437,633	2,492,069	0.96%	1.00%	32,941	24,955	57,896
Windsor	13,025	66,583	0.90%	0.96%	117	642	759
Total Ontario CMAs	5,117,479	4,100,360			48,021	39,264	87,285
Non-CMAs	750,834	658,242	0.91%	0.90%	6,844	5,902	12,746
Total Ontario	5,868,312	4,758,602			54,865	45,166	100,031

Source: Altus Group Economic Consulting

**Appendix A**  
**Detailed Tables**



Figure A- 1

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**Number of Permits by Type in Ontario CMAs**

Building Permits by Type	Singles	Doubles	Row s	Apartments	Other	Total	Value of Permits
	Number of Permits					Dollars (\$Thousands)	
Barrie	666	12	153	181	78	1,090	288,757
Brantford	258	11	123	131	17	540	116,021
Greater Sudbury	177	16	-	120	31	343	65,151
Guelph	277	37	318	490	173	1,295	236,378
Hamilton	1,079	80	911	923	165	3,159	855,576
Kingston	341	18	78	215	79	731	116,051
KW-Cambridge	1,179	51	776	2,029	138	4,173	871,880
London	1,141	23	504	976	25	2,668	697,586
Oshaw a	1,178	92	502	432	124	2,329	708,280
Ottaw a	1,992	220	1,848	2,123	239	6,423	1,456,702
Peterborough	310	-	50	122	38	520	112,347
St.Catharines-Niagara	1,180	117	369	241	55	1,961	486,895
Thunder Bay	176	9	4	70	22	282	50,864
Toronto	10,774	1,255	5,820	17,968	1,076	36,892	10,013,108
Windsor	728	126	150	67	26	1,097	308,899
Total Ontario CMAs	21,456	2,067	11,606	26,088	2,286	63,503	16,384,495
Estimated Share Subject to Site Plan	0.5%	0.0%	20.8%	100.0%	0.0%	45.0%	
Barrie	-	-	62	181	-	243	56,540
Brantford	5	-	20	131	-	156	23,034
Greater Sudbury	-	-	-	120	-	120	17,974
Guelph	9	-	121	490	-	619	103,172
Hamilton	5	-	86	923	-	1,013	201,450
Kingston	-	-	3	215	-	219	25,264
KW-Cambridge	1	-	325	2,029	-	2,355	373,270
London	43	-	448	976	-	1,467	311,254
Oshaw a	0	-	205	432	-	637	114,211
Ottaw a	-	-	81	2,123	-	2,204	354,651
Peterborough	2	-	18	122	-	142	16,772
St.Catharines-Niagara	13	-	84	241	-	338	60,096
Thunder Bay	-	-	2	70	-	72	9,132
Toronto	30	-	942	17,968	-	18,940	3,437,633
Windsor	-	-	12	67	-	79	13,025
Total Ontario CMAs	106	-	2,409	26,088	-	28,603	5,117,479

Source: Altus Group Economic Consulting based on Statistics Canada building permit data, table 026-0001

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**Figure A- 2 Value of Permits and Estimated Proportions Subject to Site Plan Review**

	Residential	Industrial	Commercial	Institutional	Total
<u>Total Value of Permits</u>			<i>Dollars (\$Thousands)</i>		
Barrie	318,658	40,142	125,754	30,435	514,989
Brantford	125,281	38,164	38,486	7,232	209,164
Greater Sudbury	96,861	44,181	60,762	44,524	246,328
Guelph	275,526	37,935	73,036	49,123	435,620
Hamilton	981,317	63,905	270,857	232,467	1,548,546
Kingston	142,063	20,715	49,167	118,109	330,055
KW-Cambridge	950,757	117,500	217,928	184,199	1,470,385
London	771,354	61,499	172,914	183,758	1,189,525
Oshawa	739,781	60,029	147,835	78,322	1,025,967
Ottawa	1,585,173	60,338	668,502	214,040	2,528,053
Peterborough	131,434	27,008	23,657	13,061	195,160
St.Catharines-Niagara	547,905	44,370	107,458	51,285	751,018
Thunder Bay	62,716	4,504	35,252	33,316	135,788
Toronto	11,146,539	898,540	3,756,067	1,443,255	17,244,401
Windsor	341,260	41,557	60,329	71,403	514,549
Total Ontario CMAs	18,216,626	1,560,389	5,808,004	2,754,528	28,339,547
Non-CMAs	3,160,087	783,455	581,672	381,886	4,907,100
Total Ontario	21,376,713	2,343,844	6,389,676	3,136,414	33,246,647
<u>Estimated Value of Permits - Subject to Site Plan</u>					
Barrie	56,540	13,382	55,857	11,053	136,833
Brantford	23,034	12,723	17,095	2,626	55,479
Greater Sudbury	17,974	14,729	26,989	16,170	75,862
Guelph	103,172	12,647	32,441	17,840	166,100
Hamilton	201,450	21,304	120,309	84,426	427,489
Kingston	25,264	6,906	21,839	42,894	96,903
KW-Cambridge	373,270	39,172	96,799	66,896	576,137
London	311,254	20,502	76,805	66,736	475,297
Oshawa	114,211	20,012	65,665	28,445	228,333
Ottawa	354,651	20,115	296,934	77,734	749,435
Peterborough	16,772	9,004	10,508	4,744	41,027
St.Catharines-Niagara	60,096	14,792	47,731	18,625	141,244
Thunder Bay	9,132	1,502	15,658	12,099	38,391
Toronto	3,437,633	299,551	1,668,366	524,152	5,929,702
Windsor	13,025	13,854	26,797	25,932	79,608
Total Ontario CMAs	5,117,479	520,194	2,579,794	1,000,372	9,217,839
Non-CMAs	750,834	261,184	258,367	138,691	1,409,075
Total Ontario	5,868,312	781,378	2,838,161	1,139,063	10,626,914

Source: Altus Group Economic Consulting

Figure A- 3

**Estimated Monthly Indirect Costs of Site Plan Review Process, by Ontario CMA**

	Monthly Cost of Time Associated with Site Plan Review									Total as % of Construction Costs
	Municipalities	Applicants				End Users			Total	
	Delayed Tax Revenue	Additional Taxes	Carrying Costs of Financing	Cost Inflation - Construction	Cost Inflation - Wages	Development Charges	Lost Equity	Increased Rents		
<b>Residential Apartment Building</b>										
Toronto	26,415	9,078	91,175	40,049	54,035	10,866	36,496	197	268,311	0.96%
Barrie	42,341	2,749	91,175	40,049	54,035	14,486	30,517	180	275,532	0.98%
Brantford	36,386	2,571	91,175	40,049	48,867	4,465	38,147	166	261,825	0.94%
Sudbury	36,817	3,379	91,175	40,049	49,589	1,253	19,073	147	241,482	0.86%
Guelph	41,148	4,655	91,175	40,049	54,800	642	29,754	183	262,406	0.94%
Hamilton	32,841	5,277	91,175	40,049	48,867	9,317	38,147	186	265,858	0.95%
Kingston	28,049	3,379	91,175	40,049	44,623	6,645	19,073	120	233,113	0.83%
Kitchener-Waterloo	29,751	3,982	91,175	40,049	54,800	4,069	28,228	142	252,196	0.90%
London	22,832	3,379	91,175	40,049	49,156	2,933	19,073	121	228,718	0.82%
Oshawa	43,864	2,258	91,175	40,049	54,035	6,414	30,517	205	268,517	0.96%
Ottawa	26,882	3,379	91,175	40,049	44,623	9,492	30,517	126	246,244	0.88%
Peterborough	27,667	3,379	91,175	40,049	54,035	7,843	26,703	79	250,930	0.90%
St. Catharines-Niagara	36,592	3,438	91,175	40,049	48,448	12,805	45,776	121	278,404	0.99%
Thunder Bay	38,840	3,379	91,175	40,049	50,773	-	19,073	113	243,402	0.87%
Windsor	40,220	3,379	91,175	40,049	49,603	7,961	19,073	84	251,545	0.90%
<b>Office Building</b>										
Toronto	17,391	9,078	34,191	16,365	22,284	3,962	n.a.	1,875	105,145	1.00%
Barrie	12,002	2,749	34,191	16,365	22,284	3,456	n.a.	1,875	92,920	0.88%
Brantford	16,275	2,571	34,191	16,365	20,152	2,267	n.a.	1,875	93,695	0.89%
Sudbury	12,765	3,379	34,191	16,365	20,450	-	n.a.	1,875	89,024	0.85%
Guelph	14,030	4,655	34,191	16,365	22,599	-	n.a.	1,875	93,714	0.89%
Hamilton	14,946	5,277	34,191	16,365	20,152	-	n.a.	1,875	92,806	0.88%
Kingston	12,949	3,379	34,191	16,365	18,402	5,631	n.a.	1,875	92,791	0.88%
Kitchener-Waterloo	14,589	3,982	34,191	16,365	22,599	1,809	n.a.	1,875	95,410	0.91%
London	12,795	3,379	34,191	16,365	20,271	338	n.a.	1,875	89,213	0.85%
Oshawa	12,202	2,258	34,191	16,365	22,284	5,085	n.a.	1,875	94,258	0.90%
Ottawa	14,424	3,379	34,191	16,365	18,402	5,663	n.a.	1,875	94,299	0.90%
Peterborough	15,271	3,379	34,191	16,365	22,284	2,067	n.a.	1,875	95,431	0.91%
St. Catharines-Niagara	14,768	3,438	34,191	16,365	19,980	-	n.a.	1,875	90,615	0.86%
Thunder Bay	14,959	3,379	34,191	16,365	20,938	-	n.a.	1,875	91,707	0.87%
Windsor	16,426	3,379	34,191	16,365	20,456	8,536	n.a.	1,875	101,227	0.96%

Source: Altus Group Economic Consulting