

Draft Final Report

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#### **Preface to draft Final Report**

This report is being issued as a draft to provide time for City staff to thoroughly review the implications of the analyses, conclusions and recommendations presented herein, to enable input during the public consultation process, and to provide time for the City staff to complete their work on the 2012 Employment Survey. This report incorporates information that was still preliminary at the time this report was being prepared.

The appearance of brown font throughout this report indicates portions of text that incorporate information that has been provided in a preliminary form and may be subject to change.

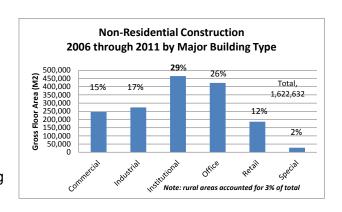
# **Executive Summary**

The purpose of the work reported here is to provide an update to the Employment Lands Study Strategy, Phase 1, completed in 2008 in support of a "comprehensive review of the supply of / demand for land for employment, housing and other purposes in the City of Ottawa to meet the requirements of the Provincial Policy Statement.

The following are the highlights extracted from this report:

Based on an examination of non-residential building permits issued 2006 through 2011. employment growth during the recent period is consistent with the employment projection embedded in the City's official plan.

Office and institutional buildings made up of 80% the employment potential of the nonresidential building program (2006 – 2011), and ten percent of the non-residential building program was accounted for by buildings intended for federal occupancy.



Industrial and office parks accounted for approximately thirty percent of the job potential of nonresidential building space constructed during the period and almost 85% of the building area construction in industrial and business parks was purposed for either office or industrial uses with very little retail use.

Approximately half of the employment potential of buildings newly constructed in industrial and business parks was accounted for by "intensification"; 85% of this intensification occurring on vacant parcels within the industrial and business park land supply monitored by the City.

Vacant Employment Lands 2011		
Urban Inside Greenbelt West	1%	
Urban Inside Greenbelt East	16%	
Urban West Urban Community	13%	
Urban South Urban Community	19%	
Urban East Urban Community	7%	
Rural West of Rideau River	27%	
Rural East of Rideau River	15%	
	100%	

Based on a recent update, the supply of vacant employment land (industrial and business parks) was approximately 2,290 hectares (net) in 2011 (approximately 60% of which was located in the urban areas of the City). The 2011 net number was estimated from preliminary gross figures provided by City staff.

The land supply was well distributed within the City with the notable exceptions of the west suburbs located inside the Greenbelt (where few opportunities exist for augmentation) and a

significantly smaller share in Orleans - highlighting caution in proceeding with consideration of employment land conversion requests in Orleans.

The following is a summary of the projected demand for vacant industrial and business park lands, 2011 through to 2031, based on three alternate projection methods.

Comparison of Three Approaches to Projecting Land Requirements				
	Total (ha) Annual (ha / y			
Sectoral Projection	by employment type	630	31.5	
Running Average	25 year average	1056	52.8	
<b>Employment Ratio</b>	4.8 ha / 1000 jobs	833	41.6	

The three approaches result in estimates for future requirement for vacant industrial and business park lands ranging from 31.5 to 52.8 net hectares per year.

The future rate of land consumption selected for the calculation of land supply adequacy was the employment ratio approach (41.6 hectares per year). The annual rate of land absorption generated by this approach lies mid-way between the other two approaches and approximates the average measured consumption over the past 20 years (44 ha / yr). This approach has the advantage that it is geared to the rate of employment growth (allowing automatic adjustment if the employment projection of the Official Plan is revised).

Of the total, 22% of the projected employment land demand was allocated to the rural area, the average share over the past 20 years.

Vacant Industrial And Business Park Land: Supply Adequacy					
	Urban	Rural	Total		
2011 VIL Supply (net ha)	1313	974	2287		
<b>Structural Vacancy (5%)</b> -66 -49 -114					
VIL Supply Adjusted (net ha) 1248 925 2173					
VIL Annual Absorption - Projected (net ha) 32.4 9.2 41.6					
Years of Supply Remaining 39 101					
2011 figure estimated from preliminary numbers supplied by City staff					

Based on the updated land supply and the projected absorption rate (after factoring in a "structural vacancy" of 5%), there is a 39 year supply of vacant lands in the urban areas of the City and just over 100 years in the rural portions of the City.

As reported in 2008, the Official Plan requirement for a minimum 20 year employment land supply is more than met.

Several themes relating to employment land conditions were examined during the course of the study. The main findings include:



Federal employment is highly concentrated inside the limits of the federal greenbelt and based on 2012 NCA Portfolio Strategy recently approved by Public Works and Government Service Canada, this pattern will prevail into the future. A majority of federal jobs will be located in the central area and at three employments nodes (Tunney's Pasture, Confederation Park, and 580 Tremblay Road), all served by the City's rapid transit system. There will be a requirement for only a minor amount of space in industrial / business parks. There are no plans to accommodate federal employees in the urban centres outside the Greenbelt or in the rural areas of the City.

Although few, if any, are predicting a return to the heady days of the high tech boom, there is capacity in the employment land system to accommodate a new wave of growth, should it materialize. The vacant employment land supply in the urban area is nearly as large as it was in 1990 which began the decade long run-up to the high tech peak and during that decade land was brought into the supply incrementally. At the very peak of high tech growth, vacant employment land consumption was only double the rate used in this report as the basis for the 20 year projection and that peak consumption lasted only two years. A survey of high tech companies during the peak (in 2000) indicated that of those companies actively seeking expansion opportunities, only a quarter of CEOs felt that finding a location would be a major problem. Today, the footprint of high tech is much smaller and the majority of high tech employment in the City is aligned to design and innovation rather than manufacturing (which has been moved largely offshore to countries like India and China). The high tech jobs the city has and can build on are, in the main, well suited to office structures located in the downtown, at transit nodes and in the higher density office and research parks. The demand for land to accommodate extensive manufacturing facilities is not expected to be great.

The need to encroach on suburban employment lands by retail development should not be pressing. Everything points to a scaling back of big box and suburban power centre development as the integration of on-line technologies takes hold and a younger (technologically savvy) generation begins to dominate purchasing. The big box format is on the wane as retailers downscale their formats and look for opportunities to better integrate their developments into the urban fabric - with more attention on sites with high transit and pedestrian traffic. We will see more "clicks" than "bricks" in the future.

Reserving lands at key urban highway interchanges for transport and logistics companies is of strategic significance to the City since highway access is critical to efficient goods movements and interchange locations intercept heavy truck movements before they penetrate deep into the urban area. In reaching a decision about the uses that should be approved for interchange locations, the two key factors are - will the location be served by transit and will the proposed use benefit from the high degree of accessibility. If the lands are (or will be) well served by transit, preference should be given to uses which benefit from and contribute to transit ridership. If the lands are not well served by transit but are well suited for logistics or transportation companies, the lands should be reserved for these purposes.

Initially set aside as areas to segregate heavy industrial users served by rail lines, employment parks have evolved to include a broad range of uses. The parks became home to workshops, wholesalers, distributors, and a range of professional offices and service suppliers taking advantage of the lower cost office and show room space provided in the parks - outpacing the central business district in terms of office space provision. No longer banished to the other side of the tracks, the parks were developed with increased attention to building materials, siting and landscaping. Developers and planners more recently have been examining the merits of completing the integration of the business park into the community through the re-incorporation of residential uses, main street retail and transit.

However, the survey of business owners completed as part of the work leading to this report indicates that a further mixing of use is not a top priority of business owners. The list of key ingredients business owners say were influencers on choosing their current location and what they will be looking for when making decisions about future locations put transit half way down the list and having access to amenities such as restaurants and commercial services and proximity to employee residences near the bottom.

This is not to say the creation of "live / work" environments is an unworthy objective. But it begs the question as to how successful it might be. In Ottawa, the experience to date with "Enterprise Areas" which permit such a mix has not been encouraging and development that has gone ahead has been predominantly conventional residential townhouse construction with no complementary development of employment. Clearly, something more is required than an accommodating "enterprise area" land use designation to spur creative live/work development and the recommendation being made here is to rescind the Enterprise Area designation in its current form.

Similarly, the results of the survey of the owners of businesses located on employment lands (industrial and business parks) located throughout the City does not provide encouragement with respect to the City meeting its employment development density targets in support of the rapid transit system.

In a ranking of factors that will be most influential in deciding where to locate or expand their businesses within the next 10 years, transit considerations fall way down the list, behind: occupancy cost, availability of space to rent, good local road accessibility, availability of affordable parking, quality of the business environment, proximity to customers, major road access, availability of land to purchase, and avoiding traffic congestion.

When asked about the importance of transit in selecting their current location on a scale of 1 to 10 where 1 was not very important and 10 was very important, approximately 40% of the business owners gave this a rating of 1 to 3 (low) whereas 30% rated this factor 8 to 10 (high).

When asked the specific question about the likelihood of selecting a location close to a transit station as a place to locate a future business or expansion, on a scale of 1 to 10 where 1 was



very unlikely and 10 was very likely, fully 50% of the business owners gave this a rating of 1 to 3 (low) whereas only 14% rated this factor 8 to 10 (high).

At this time it does not seem that a marked reduction in the share of new jobs that will locate on employment areas is in the cards and achievement of the Official Plan employment density targets cannot bank of shifting jobs from employment areas.

With a seemingly more-than-adequate supply of vacant employment lands, requests for conversion to other uses (principally residential and to a less extent retail) have come forward. Maintaining an adequate supply of well-located employment lands is a key policy of the Official Plan and preserving opportunities for employment development is a cornerstone of the Provincial Policy Statement. Paradoxically, although the urban supply is smaller in Orleans, employment lands in Orleans have been the focus of numerous requests for conversion. If conversion is not tightly disciplined, the expectation of conversion will cause price inflation and encourage other owners to withdraw their lands in anticipation of potential conversion. The decision process should be clearly biased in favour of protecting employment lands

Although there are perennial requests to extend servicing to rural employment lands (the Carp Road and Bank Street corridors in particular), the employment development rationale for doing so is not convincing. The types of enterprises locating both in urban and rural industrial and business parks are nearly indistinguishable. What distinguishes the rural parks are larger lots, fewer employees, and cheaper land costs. Conferring quasi-urban status on rural employment areas through the extension of partial or full servicing in advance of a comprehensive review of urban boundaries cannot hang its rationale on a strategic need to provide serviced rural employment lands. There are few "rural industries"; most businesses locating in the rural area are simply industries of the types found throughout the City, just located "in the rural area".

The main recommendations for alteration to the urban employment land use designation system of the City Official Plan are: (1) to rescind the Enterprise Area designation as its objectives are not being met, placing the protection of employment capacity in jeopardy and (2) providing additional protection for transportation and logistics use on the 400 series highway interchanges at the outer limit of the urban area as the proper accommodation of logistics hubs will become of increasing strategic importance to the proper structuring and functioning of the urban area.

No compelling case has been found for extending servicing to employment lands in the rural area or the designation of opportunities for employment development around rural highway interchanges (the 417 interchange at Carp Road being an exception that is already accommodated in the existing Carp Road Corridor employment designation). Accordingly no changes to the rural employment land designation system are being recommended. What is recommended is setting a minimum job / household target (of 0.75) in large villages (those with potential for more than 2,000 households) and to limit residential expansion until the employment target is met.

#### **Report Mission**

This report was developed in support of a "comprehensive review of the supply of / demand for land for employment, housing and other purposes in the City of Ottawa to meet the requirements of the Provincial Policy Statement" (PPS)<sup>1</sup>.

The portion of the review requirements being addressed through this report is the City's current supply of and future demand for land in "employment areas" with the focus largely, though not exclusively, on urban lands.

The relevant Section of the Provincial Policy Statement regarding employment areas is recited below:

- 1.3.1 Planning authorities shall promote economic development and competitiveness by:
  - 1. providing for an appropriate mix and range of employment (including industrial, commercial and institutional uses) to meet long-term needs;
  - 2. providing opportunities for a diversified economic base, including maintaining a range and choice of suitable sites for employment uses which support a wide range of economic activities and ancillary uses, and take into account the needs of existing and future businesses;
  - 3. planning for, protecting and preserving employment areas for current and future uses; and
  - 4. ensuring the necessary infrastructure is provided to support current and projected needs.
- 1.3.2 Planning authorities may permit conversion of lands within employment areas to nonemployment uses through a comprehensive review, only where it has been demonstrated that the land is not required for employment purposes over the long term and that there is a need for the conversion.

The City's Official Plan (as introduced through Amendment 76, adopted in 2009) requires a fiveyear review of the adequacy of the employment land supply to ensure there is sufficient land

<sup>&</sup>lt;sup>1</sup> Provincial Policy Statement, Ontario Ministry of Municipal Affairs and Housing, 2005.



designated to meet a 20 year forecast of requirements. The results of this examination are to be available to Council no later than June 2014<sup>2</sup>.

This report updates the main observations from the study of employment lands completed in 2008 concerning the overall adequacy of the supply of employment lands to meet future requirements and extends its scope to address several key issues, including but not limited to determining:

- > the merit of revising the extent or nature of certain employment land designations to ensure coherency with the Official Plan direction and underlying rationale for the employment land designation system of the City's Official Plan,
- > the implications for future employment security through potential conversion of employment lands in selected locations (both urban and rural; whether City or privately initiated) to other purposes, including residential, retail or mixed use, addressing broadly the requirements of the PPS and examining specifically any pending applications for conversion,
- > the implications of enhancing the focus of employment development in nodes along the rapid transit system on land requirements in traditional industrial areas,
- > the merits, if any, of extending services to industrial lands in rural areas located near the urban boundary, including the market rationale for "serviced rural employment lands".

Information from a large number of sources was brought together to inform this study (listed in the next section of this report). Some of this information was updated through a range of estimating techniques which are discussed in the report.

The overriding objective of the investigations and analyses lying behind this report is to determine if there are sufficient employment lands designated to meet the projected long term requirements of the City and to make recommendations concerning any adjustments as to amounts, location and designation of employment lands that will best meet the policy direction of the City's Official Plan.

This update projects forward to the end of the Official Plan horizon of 2031.

<sup>&</sup>lt;sup>2</sup> City Official Plan, Section 2.2.1, Policy 7: Council shall provide funding in 2012 to permit an examination of the supply of / demand for land for employment, housing and other purposes to meet the requirements of the Provincial Policy Statement with the results of such study to be submitted to Council no later than June, 2014.



#### **Information Sources**

The information drawn upon during the preparation of this report includes:

Amendment 76 to the Official Plan, City of Ottawa, 26 June 2009

Provincial Policy Statement, Ontario Ministry of Municipal Affairs and Housing, 2005

City of Ottawa Official Plan Employment Projection<sup>3</sup>

2011 Annual Development Report<sup>4</sup>

Ottawa 2008 Employment Land Study Strategy, Phase 15

Report to Committee(s) concerning employment land supply, January 2009<sup>6</sup>

Inventory of Vacant Industrial and Business Park Lands; 2008-09 Update<sup>7</sup>

Inventory of Vacant Industrial and Business Park Lands; 2010-12 Update (unpublished tables)<sup>8</sup>

2001, 2006 and 2012 Employment Surveys9

Rating of Business Park and Industrial Park Land Supply (2008)<sup>10</sup>

2005 – 2011 Non-Residential Building Permit Data 11

On-line research and consultant's archives<sup>12</sup>

<sup>&</sup>lt;sup>12</sup> The consultant's archive includes information concerning employment and development trends in Ottawa assembled and analyzed over the past 30 years. This was augmented with extensive on-line research.



<sup>&</sup>lt;sup>3</sup> Worksheet prepared by City of Ottawa, Research and Forecasting Unit, October 2008 revision

<sup>&</sup>lt;sup>4</sup> Annual Development Report, September 2011, City of Ottawa, Planning and Growth Management, Research and Forecasting Unit

<sup>&</sup>lt;sup>5</sup> City of Ottawa Employment Land Study Strategy; Phase 1 Final Report, Metropolitan Knowledge International, November 2008

<sup>&</sup>lt;sup>6</sup> Report ACS2009-ICS-EOC-0003 to the Corporate Services and Economic Development Committee and Planning and Environment Committee, 20 January 2009

 $<sup>^7</sup>$  Inventory of Vacant Industrial and Business Park Lands; 2008-09 Update, City of Ottawa, Planning and Growth Management Department, Research and Forecasting Unit, February 2011

<sup>&</sup>lt;sup>8</sup> Inventory of Vacant Industrial and Business Park Lands; 2010-12 Update (unpublished tables), City of Ottawa, Planning and Growth Management Department, Research and Forecasting Unit, January 2013

<sup>&</sup>lt;sup>9</sup> Employment in Ottawa; Results of the 2006 Employment Survey, City of Ottawa, Department of Planning, Transit and Environment, Research and Forecasting Section, November 2007 plus unpublished preliminary tables from 2012 survev.

<sup>&</sup>lt;sup>10</sup> Worksheet summarizing ratings of the available supply of vacant lands in each business park and industrial park in Ottawa by City staff and industry representatives; 2008

<sup>&</sup>lt;sup>11</sup> CANSIM Table 282-0116 and a staff worksheet providing details for all building permits approved for commercial and industrial buildings from January 2006 through to December 2011

# **Employment Lands Typology**

There are many land designations found in the City's Official Plan which generate employment.

Employment Lands, the subject of this report, occur in several of these designations. The following Table indicates the concurrence between Employment Lands, OP Designations, lands which are monitored as part of the Employment Land Surveys (the land inventory is updated on a two-year cycle), and lands included in the meaning of employment lands within the context of the Provincial Policy Statement.

Official Plan Designation	Employment Areas / Nodes	Employment	Employment
	Found Within OP Designations	Lands Survey	Lands in the PPS
General Urban Area	Hospital		
	Major Education Area (e.g. Carleton University)		
	Office Concentration (e.g. Carling/Churchill)		
	Shopping Centre (e.g. Bayshore) + stand alone retail		
	Museum		
	Other Areas		
	Business Park / Industrial Area (identified by zoning)	Yes	
Central Area			
Mixed-Use Centre			
Town Centre			
Traditional Mainstreets			
Arterial Mainstreets			
Enterprise Area	Business Parks and Industrial Areas	Yes	Yes
Employment Area	Business Parks and Industrial Areas	Yes	Yes
International Airport	Business Parks and Industrial Areas	Yes	
Greenbelt Employment			
General Rural Area	Rural Industrial Area / Business Parks	Yes	
Carp Road Corridor	Rural Industrial Area / Business Parks	Yes	Yes
Carp Airport	Rural Industrial Area / Business Parks	Yes	
Village			Yes *
Agricultural Area			
Sand and Gravel Resource			
Limestone Resource Area			
* where introduced through a Seco	ondary Plan		

Approximately one quarter of all jobs in the City are located in buildings located on "employment lands" as identified in the regular employment surveys prepared by the City. Unpublished data from the 2012 employment survey indicates that the share of new jobs recently locating in employment areas has increased marginally.

To create context for an analysis of employment lands, trends for employment distribution among all designations are examined briefly in this report.

# **Employment Land Analysis - an Overview**

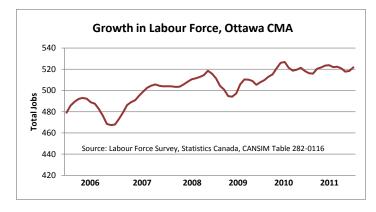
#### Recap of Main Findings from the 2008 Employment Lands Study

The adequacy of the City's employment lands was most recently reviewed in a comprehensive study completed in 2008<sup>13</sup>.

The main conclusions from that review were: (1) overall, the supply of vacant lands in the City's industrial and business parks was more than adequate to meet projected demands to 2031, (2) the lack of servicing placed a degree of constraint on the available land supply to meet projected demand (in particular, lands in urban centres located beyond the Greenbelt), (3) attention should be paid to ensuring the adequacy of sites for urban office development and (4) the City was experiencing significant job intensification.

This report picks up where the previous study left off; examining the degree to which demand and supply conditions have changed and identifying challenges that may need to be addressed during the planning horizon of the City's official plan.

## **Recent Employment Growth Trend**



Job growth measured in Ottawa for the period 2001 to 2006<sup>14</sup> was a net gain of 39,900 jobs (representing just under 1.7 % growth per annum during that five year period).

The Labour Force Survey estimates published by Statistics Canada indicate that growth in employment may have slowed since 2006.

The preliminary results of the 2012 Employment Survey suggest the rate did indeed cool.

Based on the labour force survey estimates, employment growth was not even during this period, declining sharply at the end of 2006 (with the onset in the pullback in the world

<sup>&</sup>lt;sup>14</sup> City of Ottawa Employment Surveys (2001 and 2006), City of Ottawa, Department of Planning, Transit and Environment, Research and Forecasting Section. High level preliminary data from 2012 were reviewed.



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<sup>&</sup>lt;sup>13</sup> City of Ottawa Employment Land Study Strategy; Phase 1 Final Report, Metropolitan Knowledge International,

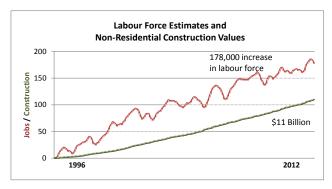
economy), and then rebounding strongly in 2007. Job growth was then weak 2008 through 2011.

The City Official Plan projects employment growth at an average rate of 1.8 % for the period 2006 through 2011 followed by a slowing of the rate to 1.3% for the period 2011 through 2031.

The projection of employment growth embedded in the City's Official Plan has been adopted as the basis for this employment lands study update. The Official Plan projection is slightly higher than the C4SE reference projection<sup>15</sup> that formed the basis of the 2008 employment land study.

#### **Composition of Recent Employment Growth by Sector and Location**

Although the estimates of employment growth provided by the Labour Force Survey are useful for tracking purposes at the metropolitan level, that survey is based on a small sample and is not particularly useful for detailed geographic or sectoral analysis. To provide for a more detailed analysis, an examination was made of the amount and distribution on non-residential construction, as provided through building permits. But first, to establish the degree of correspondence between building permits and job growth, the two data files were compared.



The chart opposite shows the growth in labour force<sup>16</sup> (red line) compared to the cumulative value of non-residential construction based on building permits (green line)<sup>17</sup>. The period covered by this data is mid 1996 through mid 2012. The slope of both lines is similar, indicating a predictable correspondence between these two employment growth indicators.

During the period covered by the data (1996 through 2012), the labour force grew by approximately 178,000 and the value of new non-residential construction amounted to approximately \$11 Billion. Assuming relative stability in the unemployment rate the growth in labour force serves as a proxy for employment growth (in the absence of annual employment survey data).

Having demonstrated a correspondence between building permits and labour force, the examination of building permits was then refined, looking at just the recent permits (2006) through 2011 – the period since the most recent comprehensive employment survey). The

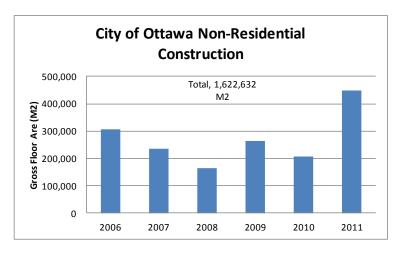
<sup>&</sup>lt;sup>17</sup> Non-residential building permit data (construction value) extracted from Statistics Canada, Table 026-0006.



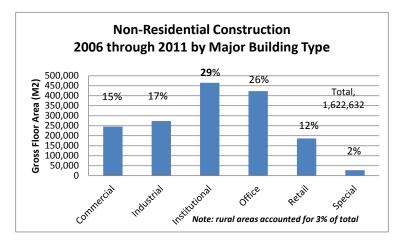
<sup>&</sup>lt;sup>15</sup> City of Ottawa Employment Land Study Strategy; Phase 1 Final Report, Metropolitan Knowledge International, November 2008

<sup>&</sup>lt;sup>16</sup> Employment growth data extracted from Labour Force Survey, Statistics Canada Table 282-0116.

City<sup>18</sup> maintains a file of all non-residential building permits with each record providing the size of building being constructed, an estimate of construction value, an indication of its intended use and the building location. This building permit dataset was used to examine recent trends in the location and type of non-residential construction in the City (2006 through mid 2011).



Non-residential building permits issued 2006 to 2011 totalled 1.6 million square meters of gross floor area (the City of Ottawa total). This figure is net of all building space that was demolished during construction. Based on the permit records, construction activity declined from 2006 to 2008 and then rebounded.



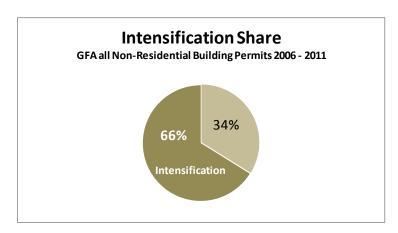
The building permit records were coded to highlight several themes: buildings constructed for federal government occupancy; buildings constructed in one of the City's established business and employment parks; buildings constructed in rural portions of the City; and buildings that resulted in the "intensification" of already developed areas.

- Of the total space constructed from 2006 through 2011, 10% was accounted for by buildings intended for occupancy by the federal government (departments and agencies).
- One guarter of all space constructed was accounted for by buildings constructed in one of the City's business or employment parks.
- Construction in the rural portions of the City (2006 through 2011) accounted for just under 5% of the total.

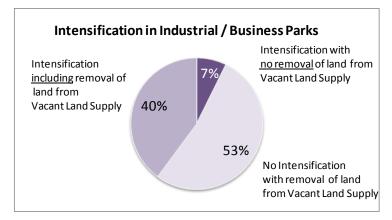
<sup>&</sup>lt;sup>18</sup> City of Ottawa staff file (Excel) listing all non-residential building permits (2006 through 2011).



By structure type, floor space in institutional and office buildings accounted for over half (55%) of all non-residential construction completed 2006 through 2011 with industrial and commercial buildings accounting for 32% of the total. The balance was principally retail and exhibition.



Of the total floor space of nonresidential buildings constructed 2006 through 2011 in the City of Ottawa, two-thirds was accounted for by sites considered "intensification" as defined in the Provincial Policy Statement<sup>19</sup>, as recited in the footnote below.



Looking just at new buildings constructed in business and industrial parks (2006 through 2011), approximately half (47%) would be considered "intensification". Of direct importance to this update, the majority of this intensification (85%) occurred on vacant sites within industrial and business parks.

The building permit file was also used to generate estimates of employment growth (2006 through 2011) broken down by sector and location. This was accomplished by translating the

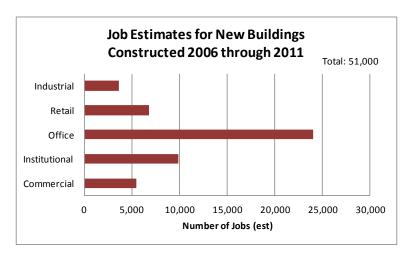
Intensification: means the development of a property, site or area at a higher density than currently exists through:

- a) redevelopment, including the reuse of brownfield sites;
- b) the development of vacant and/or underutilized lots within previously developed areas;
- c) infill development; and
- d) the expansion or conversion of existing buildings.



gross floor area recorded on each building permit to the potential number of employees that could be accommodated in those buildings.

Conversion factors to translate floor area to employment potential were developed based on a City staff survey<sup>20</sup> of employment in buildings of different types in mixed use centres and along arterial mainstreets and through reference to job yield tables published from studies across North America (accessed on-line). The estimates developed for this work assume all structures were occupied by the end of 2011 with a vacancy allowance of 5% in all structures. Applying the conversion factors to the amount of space built (2006 through 2011) resulted in an employment potential of 51,000 jobs.



Bearing in mind the assumptions built into the estimating procedures, what the estimates suggest is that jobs in office buildings represent almost half of the job potential of the nonresidential construction program (2006 through 2011). Institutional plus retail buildings accounted for another third of the job potential. Commercial<sup>21</sup> accounted for approximately 11%.

The estimate of job potential based on building permits for new construction (2006 through 2011) is almost 20% higher than the estimate of labour force growth provided by the Labour Force Survey. While the building permit file assists with estimating employment potential of newly constructed buildings, what the estimating procedure does not do is provide a way of also accounting for employment growth or decline in the remainder of the building stock (which represents the majority). The main utility of estimates created from building permit records is to indicate the direction of growth trends (by building type, employment sector and location) until the detailed results of the next comprehensive employment survey are available<sup>22</sup>.

Of particular interest to this report is the share of job potential in buildings located in business and industrial parks and the composition of those jobs by category. Just under 30 percent of the total estimate of jobs (14,250 of 51,000) can be accounted for by buildings in business and industrial parks - overwhelmingly dominated by office jobs (almost three-quarters of the total).

<sup>&</sup>lt;sup>22</sup> It is expected that the results of the 2012 employment survey will be released in the Summer of 2013.



<sup>&</sup>lt;sup>20</sup> City staff provided conversion ratios developed from an analysis undertaken in 2011-12.

<sup>&</sup>lt;sup>21</sup> Commercial includes non-office, non-retail buildings such as hotels.

In fact, based on the preliminary employment survey results, exactly 30% of all new jobs created 2006 through 2012 were created on employment lands.

#### Distribution of Employment Growth by Official Plan Designation

The distribution of the Gross Floor Area of the constructed space (based on building permits issued 2006 through 2011) and the job estimates derived therefrom are shown below – by Official Plan designation. In those designations - typically built to higher densities (such as the Central Area and the office components of Employment / Enterprise Areas) - it can be expected that the percentage of jobs will be higher than the corresponding percentage of floor space.

Measured in terms of estimated jobs, the employment areas which are monitored for potential land supply constraints (including industrial and business park lands in Employment Areas, Enterprise Areas and lands near the Airport) attracted the greatest amount of employment development 2006 through 2011. This was followed by the General Urban Area (which contains large employment nodes such as hospitals, universities, shopping centres and museums), the Central Area, Mixed-Use Centres and the Arterial Mainstreets.

Distribution of GFA	(Permits)	by OP Des	ignation
General Urban Area			27.0%
Central Area			11.0%
Mixed Use Centre			15.0%
Urban Employment /	Enterprise /	Areas	26.5%
Traditional Mainstreet			0.9%
Arterial Mainstreet			11.4%
Carp Road Employme	ent Area		1.4%
Rural Villages			0.3%
Other Rural			2.6%
Greenbelt Employme	nt		2.3%
All Other Including Gr	eenbelt		1.8%
			100.0%

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Distribution of Jobs (Estimates) by OP I	Designation
General Urban Area	21.6%
Central Area	16.9%
Mixed Use Centre	12.7%
Employment / Enterprise / Airport	29.0%
Traditional Mainstreet	1.0%
Arterial Mainstreet	10.4%
Carp Road Employment Area	0.7%
Rural Villages	0.2%
Other Rural	1.6%
Greenbelt Employment	4.4%
All Other	1.5%
	100.0%

Distribution of Jobs (Estimates	s) 2006-11 est	2001-06
General Urban Area	21.6%	31.2%
Central Area	16.9%	11.4%
Mixed Use Centre	12.7%	25.2%
Employment / Enterprise / Airpor	t 29.0%	21.6%
Traditional Mainstreet	1.0%	2.1%
Arterial Mainstreet	10.4%	-0.7%
Carp Road Employment Area	0.7%	2.1%
Rural Villages	0.2%	7.8%
Other Rural	1.6%	7.0%
Greenbelt Employment	4.4%	-0.2%
All Other	1.5%	-0.5%
	100.0%	100.0%

The chart opposite compares the estimate of new jobs based on building permits (2006 through 2011) to the job growth measured 2001 to 2006<sup>23</sup> - distributed by OP designation. The main differences are the sharp increase in the proportion of jobs going to the Arterial Mainstreets and the drop off in the Mixed Use Centres and the rural area in the period 2006 through 2011.

These estimates, based on non-residential building permits, will be replaced once the full results of the 2011 employment survey are available. What has been confirmed through an examination of the preliminary employment survey results is that the portions of jobs directed to employment areas, both urban and rural, are very close to the estimates provided above and the results of the survey business owners conducted as part of this work suggests this will not be shifting very much in the future.

#### **Summary of Employment Growth Directions (2006 through 2011)**

The foregoing analysis of employment growth during the period 2006 through 2011 was based on estimates derived from an examination of non-residential building permits<sup>24</sup>. Although not as definitive as the comprehensive surveys of employment and industrial land uptake completed periodically by the City, this examination of building permits points to the following directions of employment development in the period 2006 through 2011:

- > The employment growth rate during the period is consistent with the employment projection embedded in the City's official plan,
- > office and institutional buildings made up of 80% the employment potential of the recent non-residential building program,
- > the rural portions of the City accounted for under 5% of total non-residential construction. a significant decline from the previous five-year period,
- > ten percent of the non-residential building program was accounted for by buildings intended for federal occupancy,
- industrial and office parks (employment lands) accounted for approximately 30% of the job potential of non-residential building space constructed during the period.

<sup>&</sup>lt;sup>24</sup> The detailed results of the 2012 Employment Survey were not available during the preparation of this report.



<sup>&</sup>lt;sup>23</sup> Employment in Ottawa: results of the 2006 Employment Survey, City of Ottawa, Department of Planning, Transit and Environment, Research and Forecasting Section, November 2007.

- almost 85% of the building area construction in industrial and business parks was purposed for either office or industrial uses with very little retail use, and
- > approximately half of the employment potential of buildings newly constructed in industrial and business parks was accounted for by "intensification" - of which 85% occurred on vacant parcels industrial or business park land supply monitored by the City.

The Table presented below provides a summary of employee counts based on the Employment surveys, with the 2012 numbers being based on preliminary results from the most recent survey.

2001	2006	2012	2001-06	2006-12
146,456	153,940	161,877	7,484	7,937
131,875	141,610	157,882	9,735	16,272
127,532	133,007	136,013	5,475	3,006
9,583	11,152	14,961	1,569	3,809
35,920	43,670	49,103	7,750	5,433
7,678	9,769	15,207	2,091	5,438
14,458	17,898	21,240	3,440	3,342
17,813	21,749	25,944	3,936	4,195
5,517	5,821	6,914	304	1,093
481,732	521,643	567,266	39,911	45,623
			1.5%	1.3%
110,373	119,767	132,060	9,394	12,293
4,698	6,416	7,886	1,718	1,470
1,039	1,557	1,811	518	254
	131,875 127,532 9,583 35,920 7,678 14,458 17,813 5,517 481,732 110,373 4,698 1,039	131,875     141,610       127,532     133,007       9,583     11,152       35,920     43,670       7,678     9,769       14,458     17,898       17,813     21,749       5,517     5,821       481,732     521,643       110,373     119,767       4,698     6,416	131,875       141,610       157,882         127,532       133,007       136,013         9,583       11,152       14,961         35,920       43,670       49,103         7,678       9,769       15,207         14,458       17,898       21,240         17,813       21,749       25,944         5,517       5,821       6,914         481,732       521,643       567,266         110,373       119,767       132,060         4,698       6,416       7,886         1,039       1,557       1,811	131,875       141,610       157,882       9,735         127,532       133,007       136,013       5,475         9,583       11,152       14,961       1,569         35,920       43,670       49,103       7,750         7,678       9,769       15,207       2,091         14,458       17,898       21,240       3,440         17,813       21,749       25,944       3,936         5,517       5,821       6,914       304         481,732       521,643       567,266       39,911         1.5%         110,373       119,767       132,060       9,394         4,698       6,416       7,886       1,718         1,039       1,557       1,811       518

Based on the preliminary numbers for the 2012 employment survey, the share of all **new** jobs in the City locating on employment lands increased marginally from 29% in the period 2001 to 2006 to 30% in the more recent period 2007- 2012.

#### **Estimation of Employment Land Requirements and Adequacy of Land Supply**

Having examined recent trends in employment growth and its pattern of distribution, the next section of this report updates the industrial and business park lands supply, the projection of land requirements and provides an opinion on the adequacy of the vacant land supply.

#### **Update to Vacant Employment Land Supply**

Based on the most recent survey of vacant industrial and business park lands<sup>25</sup>, in 2011 there were 1,492 hectares of vacant land (gross) in the City's 43 urban industrial and business parks and 1,106 hectares (gross) of vacant land in the City's 14 rural industrial areas.

In all but nine of the past twenty-eight years, the vacant employment land supply has ranged from 2,000 to 3,000 hectares, fluctuating up and down as land is absorbed for construction and new supply is brought on stream.

Vacant Employment Lands 2011		
Urban Inside Greenbelt West	1%	
Urban Inside Greenbelt East	16%	
Urban West Urban Community	13%	
Urban South Urban Community	19%	
Urban East Urban Community	7%	
Rural West of Rideau River	27%	
Rural East of Rideau River	15%	
	100%	

The supply of vacant employment land (industrial and business parks) has been estimated to be approximately 2,290 hectares (net) in 2011 (approximately 60% of which was located in the urban areas of the City).

The 2011 land supply (net) was estimated from preliminary gross figures provided by City staff and adjusted to net.

Based on the 2011 update, the vacant employment land supply was well distributed with the notable exception of the west suburbs located inside the Greenbelt and a significantly smaller share in Orleans. The potential to augment the vacant land supply on areas inside the Greenbelt is very limited. The smaller supply in Orleans highlights the need for caution in considering requests for conversion to other uses.

The update is based on unpublished tables from the 2011 employment land survey provided by City staff (the detailed update results were not available at the time of preparing this draft report).

<sup>&</sup>lt;sup>25</sup> Inventory of Vacant Industrial and Business Park Lands; 2010-11 Update, City of Ottawa, Planning and Growth Management Department, Research and Forecasting Unit, February 2013 – unpublished tables.



#### **Update to Employment Land Demand**

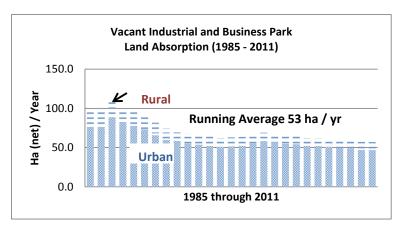
There are several ways to project the future demand for industrial and business park land.

Summary of Sectoral Projection (2011- 2031)				
<b>Employment Land Segment</b>	PS	MO	E	
Employment Projection (job increase) 83,883		51,804	37,834	
Land Requirement 2011 - 2031 (net ha) 1425.1		575.6	635.1	
VIL Absorption as Percent n/a		10.0%	90.0%	
VIL Absorption		57.6	571.6	
VIL Absorption 2011 - 2031	63	30		
VIL Average Annual Absorption		31	.5	
PS = Population Serving; MO = Major Office; EL = Employment Lands				

The first, a "sectoral approach", uses a projection of future employment in the City by employment category and estimates the land requirement for each category, summarized into "Population Serving" (PS), "Major

Office" (MO), and "Employment Lands" (EL).

This method was used in the 2008 Employment Lands Study. This method requires not only a sectoral projection of employment but also requires assumptions to be made about the degree to which each category of job may locate on industrial and business parks lands and at what built density.





A second approach relies on the previous history of land absorption. This is the approach taken in the studies of vacant industrial and business park lands published every few years by the City. A running average of absorption (both urban and rural) is used as the basis for projecting future requirements.

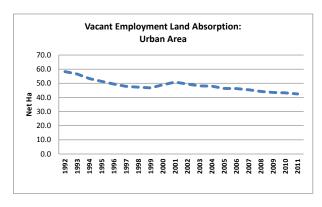
A third approach is to project on the basis of the average amount of industrial and business park lands that has been absorbed in relation to past increases in employed labour force. The chart opposite shows the rate of land absorption for the past 15 years (averaging 4.8 ha per 1,000 increase in employed labour force).

The following is a summary of the projected demand for vacant industrial and business park lands, 2011 through to 2031 (20 years), based on the three methods.

Comparison of Three Approaches to Projecting Land Requirements			
		Total (ha)	Annual (ha / yr)
Sectoral Projection	by employment type	630	31.5
<b>Running Average</b>	25 year average	1056	52.8
<b>Employment Ratio</b>	4.8 ha / 1000 jobs	833	41.6

The three approaches result in estimates for future requirements for vacant industrial and business park lands ranging from 31.5 to 52.8 net hectares per year.

Sectoral Projection: Although theoretically elegant, this method requires a very large number of assumptions: projected employment by job category; allocation of proportions of each job category to PS, MO, EL; job densities; intensification rates etc. There is very little empirical evidence to substantiate any of the assumptions. And, over the past 25 years, actual consumption of vacant industrial and business park land in the City has, on average, exceeded the rate projected by this method – and by a wide margin (53 vs. 32 ha / year).

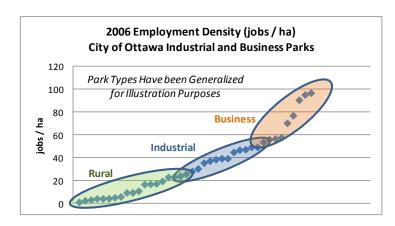


Running Average: This approach has the advantage of being based on direct measurement and there is a long historical trend line to support it. The weakness is that the historical tendency has been for a declining rate of land absorption in the City. This declining tendency would not be reflected in employment projection that looks 20 years forward - since the forward projection is tied to a land absorption rate fixed in the past.

Employment Ratio: This approach has the advantage of being geared to changes in projected employment levels so it "self-adjust" should the projection of employment be changed. It also has the advantage of having a unit rate (ha per 1,000 increase in jobs) that has been remarkably stable over time – chart on previous page refers. The annual rate of land absorption generated by this approach lies mid-way between the other two approaches and closely approximates the average measured consumption over the past 20 years (42 ha vs. the 20 year average of 44 ha / year).

The projection of land consumption selected for the calculation of land supply adequacy in the next section of this report is based on the rate generated by the employment ratio approach (i.e. 41.6 hectares per year). Of this, 22% is allocated to the rural area (approximating the average share over the past 20 years). It can be noted that the rural share of employment land

consumption is much higher than the rural share of job creation due to the much lower development densities achieved in the rural, un-serviced industrial parks.



The chart opposite provides an illustration of the employment density of industrial and business parks in the City. In general terms, there are three types of parks and their corresponding employment densities. Rural industrial parks generally have densities of less than 30 jobs per hectare. Urban industrial parks have densities ranging from 30 to 50 jobs per hectare.

Urban Business Parks are a mixture of employment uses. Densities in these parks typically range from 50 to 100 jobs per hectare – with technology / research and science parks even higher. The higher densities of these parks reflect the increased proportion of office buildings.

#### **Update to Statement of Employment Lands Adequacy**

The chart below illustrates the adequacy of the City's vacant industrial and business park land supply based on the update of the land inventory (presented earlier) and the projected rate of future land requirements (discussed immediately above).

Vacant Industrial And Business Park Land: Supply Adequacy			
	Urban	Rural	Total
2011 VIL Supply (net ha)	1313	974	2287
Structural Vacancy (5%)	-66	-49	-114
VIL Supply Adjusted (net ha)	1248	925	2173
VIL Annual Absorption - Projected (net ha)	32.4	9.2	41.6
Years of Supply Remaining	39	101	52
2011 figure estimated from preliminary numbers supplied by City staff			

Based on the updated land supply and projected absorption rate (after factoring in a "structural vacancy" of 5%), there is a projected 39 year supply of vacant lands in the urban areas of the City (based on an average absorption of 32.4 net ha per year) and just over 100 years in the rural portions of the City (based on an average absorption of 9.2 net ha per year).

The rate of land absorption, particularly in the urban industrial and business parks, has been on a decline for over a decade and, increasingly, job creation is occurring in office type environments built to higher densities – and requiring less land. The concentration of jobs into office environments also provides an opportunity to attract an increasing proportion of jobs to locations along the City's rapid transit system. The likelihood of this happening is discussed later in this report.

The rate of land absorption in the rural area has been trending upwards recently although the rate of rural job creation has not. This suggests that the built densities in rural industrial parks may be falling.

By way of conclusion, there is no evidence of an overall shortage of designated employment lands in relation to projected requirements. The urban land supply is well distributed and the supply falls well within the Official Plan target of a minimum supply to meet a 20 year requirement<sup>26</sup>. The one weakness is the smaller employment land supply in Orleans.

It is recognized that not all parcels within the inventory are yet serviced, not all landowners are equally motivated to develop, and not all parcels have equal attractiveness from a market perspective. Therefore it should be understood that at any given time, the "effective supply" will be less than the total supply listed in the vacant land inventory. This is not an unusual situation. As new servicing investments are made and market dynamics shift, parcels "mature". Through this process disadvantaged parcels are promoted into the effective supply as time marches on. The 5% structural vacancy factored into the table presented above provides an allowance for "friction" in the employment land development process (i.e. providing an allowance for the time it takes to bring parcels into the effective supply through servicing, land assembly, or changes in market conditions including ownership).

Having concluded the examination of the overall adequacy in the employment land supply, the next section of this report lowers the microscope to examine several issues and influences related to the future employment land supply.

<sup>&</sup>lt;sup>26</sup> Sufficient land will be provided in the urban area to meet the city's 20-year requirement for housing, employment and other purposes; [Amendment #76, OMB File # PL100206]



## **Tendencies in Employment Land Requirements**

In this section of the report, seven themes are examined, including:

- the impact of the federal footprint on employment lands;
- > the trajectory of advanced technology and its future land requirements;
- the evolving retail landscape and its potential impact on employment lands;
- the best use of employment lands served by 400 series highway interchanges;
- > the future of traditional employment parks:
- > the prospects for success in achieving policy driven employment concentrations (locations served by rapid transit) and the impact of this on employment land requirements; and
- > the requirement for rural industrial lands including the implications of extending services to rural locations close to the urban boundary.

What is presented below is a high level examination of each of these topics to scope out the potential impact on future employment land requirements and to identify any adjustments to the City's Official Plan that may be warranted.

Many of the observations within each of the themes are supported by research that was accessed on-line. Citations to key research findings are provided in the footnotes.

#### The Federal Footprint

The questions examined under this theme are: (1) what is known about the likely trajectory of federal government employment in the City of Ottawa in terms of the number and location of federal jobs; (2) how well aligned is the "federal footprint" with Official Plan policy, especially as it relates to providing support for transit; and (3) to what degree will federal government jobs impact the vacant employment land supply.

The federal government has been, is now, and will most likely remain the dominant employer in the City.

As recently as March 2011, the size of the federal workforce in the capital region was expanding - to 25.9 per cent of the capital region's employees, the highest such proportion in decades, and far higher than the 18.5 per cent recorded in the late 1990s<sup>27</sup> and the City's share of all federal employees across Canada continues to increase. Both of these tendencies run counter to the Conservative government's professed predisposition towards a smaller government with more regional representation. The numbers speak for themselves.

<sup>&</sup>lt;sup>27</sup> As reported in the Ottawa Citizen, 11 March 2011, based on a media release from Statistics Canada.



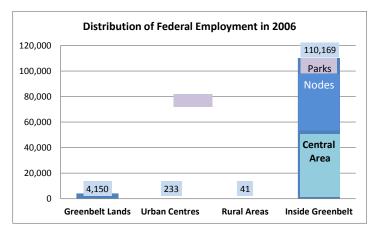
Regardless, there still remains the need to wrestle the federal budget deficit to the ground, a hangover from federal program expansion and the economic stimulus applied to dampen the fallout from the global financial crisis of 2008.

By March of 2012, as part of the presentation on its budget, the federal government announced the elimination of 19,200 jobs across Canada, one third of which is to come from the capital region<sup>28</sup> as part of a spending review aimed at cutting \$5.2 billion over three years from government departments and agencies. Two-thirds of the anticipated cuts are expected to come from the elimination of positions and the remainder from attrition (retirement and voluntary departures). The government indicated the cuts would be much less severe that that instituted (by the Liberal government) in the 1990s when 44,000 federal jobs were trimmed across Canada. The preliminary estimate of federal employment provided from the most recent employment survey indicates a 17% increase in federal employment level in the City from 2006 to 2012. The effects of the announced cuts will take hold over the next few years, not likely become apparent until 2013 through 2015.

There is no bankable long term projection for federal government job numbers; the government of the day needs to remain responsive to changing program demands which are shaped by the evolving definition of the federal government's role in Canadian society and by world-wide economic influences. All that can be counted on is fluctuation.

The City has experienced many cycles of federal government expansions and contractions – some severe or as the most recent case, relatively mild. But compared to other cities and towns dominated by a single industry, Ottawa is blessed. The federal government provides the stable bedrock underpinning the local economy.

Although the ups and downs of the federal cycle will impact the rate at which the local economy expands and contracts, the more important question as it relates to employment lands in the City of Ottawa is the distribution of those jobs – the subject which is tackled next.



The distribution of federal employees in the City is highly concentrated. Based on 2006 employment survey data, fully 96% of all federal jobs were located inside the inner limits of the Greenbelt and of that share, 90% were concentrated in the Central Area and a handful of federal employment nodes (Tunney's Pasture, Confederation Heights, NRC, Booth Street, CSIS).

<sup>&</sup>lt;sup>28</sup> As reported by CBC News, online, 29 March 2012.



draft Final Report 11 March 2013

Examination of the preliminary results of the 2012 employment survey confirms that this general distribution has changed very little. In 2012, 94% of federal jobs were located inside the inner limits of the Greenbelt. The small decline in share was principally the result of the RCMP moving from the Vanier Parkway to their complex located on Merivale Road, just south of the Greenbelt.

And. looking to the future this pattern of distribution is not likely to change very much<sup>29</sup>.

The distribution of federal jobs in the City is controlled by two main policy instruments. The first is the federal Cabinet directive that requires jobs in the National Capital Region to reflect the population distribution, Ottawa vs. Outaouais, which is currently interpreted to mean a 75/25 split.

The second is the 2012 National Capital Area Portfolio Strategy which guides decisions with respect to federal employee office accommodation for 110 federal departments and agencies and (currently) 135,000 employees.

The Strategy (approved by PWGSC in October 2012) is subject to review on a five year cycle.

The 2012 NCA Portfolio Strategy includes the following elements:

- federal office employment will be concentrated inside the limits of the federal greenbelt and, for the most part, in areas served by rapid transit
- the principle concentrations will be the central area, Tunney's Pasture (west), Confederation Park (south) and 580 Tremblay (east)
- the number of federal employees in the central area will be reduced, over time, by approximately 10%, with these jobs redistributed (in the most part) to the three main nodes (Tunney's Pasture, Confederation Park and 580 Tremblay Road)
- incrementally, the capacity of Tunney's pasture will be expanded (10 to 20 years) and the new node at 580 Tremblay will be brought on stream (5 to 10 years)
- the DND campus (formerly occupied by Nortel) and the RCMP campus (formerly occupied by JDS) will be used to provide for more specialized, secure environments
- the urban centres outside the Greenbelt and the rural areas will not be selected for accommodation requirements
- the requirement for processing space such as that required by CRA for managing tax returns (typically accommodated in industrial parks) is a relatively minor portion of the federal portfolio and will not likely expand greatly
- portfolio adjustments will concentrate on an upgraded portfolio of long term positions, consolidating federal employees into fewer locations and providing flexibility for future changes in program structure and modest program expansion

<sup>&</sup>lt;sup>29</sup> Based on an interview with David Brannan, Director, Public Works Government Service Canada, NCA Portfolio Management.



It can be taken from this that the federal portfolio strategy is highly supportive of the Official Plan policy directions relating to sustainable development and support for transit inside the Greenbelt but not at all supportive of achieving the employment targets for the urban areas outside the limits of the Greenbelt.

A second take away is that the federal footprint will have little impact on the City's employment land supply since the focus is clearly on the central area and concentration within large office nodes. Processing space in industrial areas is and will remain a small part of the portfolio.

Based on an examination of the preliminary numbers from the employment survey, although the number of federal jobs locating on employment lands increased marginally, the share of all new federal jobs locating on employment lands dropped from 15% in the period 2001 to 2006 to 12% in the most recent period (2007 to 2012).

#### **Advanced Technology and Its Land Requirements**

The questions examined under this theme are: (1) what is the current thinking on the future size of the high tech sector in Ottawa; (2) is the employment land supply sufficient to accommodate reasonable expectations of future growth of this sector – and if not, is the land supply likely to be an impediment if the City were to experience a high tech renaissance.

First, a potted history, excerpted from CBC News Online<sup>30</sup>, 29 June 2009.

"In 2000, Nortel Networks Corp. had 17,000 employees in Ottawa at its main research and development centre and a short distance away another 15,000 employees worked for JDS Uniphase Corp, a competitor in the same sector. Surrounding them were smaller but significant players like Corel Corp. and Mitel Networks Corp as well as large branch offices of foreign companies such as the French telecommunications company Alcatel which employed 2,250 people in Ottawa. Technology executives in both Ottawa and San Jose even began lobbying for non-stop flights between the two "Silicon Valleys" to boost their cross-border business links.

Then in 2001, the technology bubble burst and the value of Silicon Valley North crashed along with the stock market. By then, Corel Corp. had already slashed hundreds of Ottawa jobs during restructuring the year before. But that was just the beginning. Alcatel cut around 800 local jobs over less than two years. JDS's worldwide workforce shrank from 30,000 to 5,000 and the company moved its headquarters to California. Nortel slashed its workforce in half, carrying out more cuts over the years as its sales sagged and it struggled through a 2004 accounting scandal.

<sup>&</sup>lt;sup>30</sup> CBCNews: Technology & Science, Is Ottawa Still Silicon Valley North?, accessed on-line 5 February 2013, http://www.cbc.ca/news/technology/story/2009/06/26/t-tech-silicon-valley-north-ottawa.html



In 2006, Dell Inc. set up a call centre in Ottawa, promising \$11 million in tax credits in exchange for 1,100 jobs. Two years later Dell announced that it would be shutting its Ottawa call centre. Meanwhile, Nortel's struggles went from bad to worse, eventually filing for bankruptcy protection".

In 2000 the Council of the Regional Municipality of Ottawa-Carleton commissioned a study to look at the needs of high tech companies based on the rapid expansion that was then underway, the lobbying by high tech advocates projecting sustained rapid growth, and a specific request to amend the Official Plan to create a high tech employment park around the Corel Centre stadium (since renamed Scotiabank Place). 31

High tech executives were crowing about soon eclipsing government as the largest employment sector in the City. However, the bubble was soon to burst and high tech employment fell from a high of about 71,000 jobs in 2001 to reach its nadir 40,700 in December, 2004 before rising to 70,400 in October, 2007. That was just before Nortel Networks, once the region's biggest private-sector employer, began (what the Ottawa Citizen reported) its "painful slide into oblivion"32.

Ironically, the large amount of high quality accommodation built by the high tech companies during the boom is now largely occupied by (and mostly in the control of) the governments they had hoped to surpass. The Nortel Skyline campus along Baseline Road is now occupied by Agriculture Canada, Nortel's Moodie Drive campus is being occupied by the Department of National Defence, the JDS campus on Merivale Road is occupied by the RCMP and the Nortel office complex in Centrepointe is now home to City of Ottawa employees.

The extraordinarily rapid run-up to the high tech boom caught many off guard and the bust came as even a greater shock. And while the sector still has champions, there are very few making brave predictions about a return of the glory days in "Silicon Valley North".

In terms of what high tech companies were looking for in 2000 when selecting locations, the factors making it to the top of the list based on a survey of over 100 high tech companies<sup>33</sup>, included: affordability and expansion potential, availability of parking, a location close to "home base"; access to the Queensway corridor, proximity to employees and customers, access to public transit and locating in an area with high design standards. This ranking of factors is very

<sup>&</sup>lt;sup>32</sup> Reported in the Ottawa Citizen, 7 November 2012, based on a media release by Statistics Canada (labour force survey results for November 2012). [Principal researcher and report author was Daniel Nixey, author of this study].  $^{33}$  Corel Centre Land, Justification of Need - as part of the study in 2000, 8 large and 100 small high tech firms were surveys to determine locational factors and accommodation needs.



<sup>&</sup>lt;sup>31</sup> Corel Centre Lands, Justification of Need, May 2000. This work was undertaken to determine if there was justification for the re-designation of lands around the Corel Centre stadium to meet the needs of high tech companies and to determine the degree to which the stadium would act as a development catalyst.

similar to that provided from a survey of business owners located in employment parks throughout the City (completed as part of this work) - although high tech companies in 2000 indicated an increased emphasis on being located along the Queensway corridor. Also picked up through the survey in 2000 was the fact that high tech executives were not looking to locate near each other or to locate in Kanata per se. What the companies were focused on was a preference for "western" locations (meaning west of Bank Street) with expansion potential "close to home". The companies indicated very little interest in locating close to suppliers or customers - in other words, the purported desire to "congregate in Kanata" was more a construct of landlords and real estate agents rather than of the high tech CEOs. What was also apparent at the time was the effectiveness of developers in Kanata who were prepared to build facilities to meet the needs of high tech companies. In short, high tech companies were not insisting on a Kanata address; Kanata developers were very successful in bringing them there.

Based on the most recent employment survey results (provided by City staff as a preliminary number), high tech employment has again retrenched in the City with the number of jobs in 2012 under 60,000 jobs, a retreat of over 10,000 jobs from 2006. While the number of high tech jobs in Kanata increased marginally from 2006 to 2012, there were more than two thousand fewer high tech jobs in the Central Area and more than eight thousand fewer high tech jobs inside the limits of the Greenbelt (outside the Central Area).

Interestingly, although high tech numbers retreated by just over 10,000 jobs, less than 7% of this came from the urban employment lands designated in the Official Plan. In 2006 urban employment lands accounted for 52% of all high tech jobs. By 2012 the share of high tech jobs on employment lands had increased to 60%. This raises the very interesting question – if so many high tech jobs were lost from areas inside the inner limits of the Greenbelt and relatively few losses came from urban employment lands, which areas / buildings sustained the big losses? The answer will need to wait until the detailed results of the 2012 employment survey become available.

In terms of the questions being examined here, the adequacy of the employment land supply to meet the needs of high tech, there is every reason to remain optimistic. The City is blessed with all the core attributes of innovation (institutions of higher learning, a wealth of cultural facilities, a population welcoming of newcomers and ideas, centres of research and innovation, and a very livable environment). None of that is likely to change.

But rather than attempt to predict the possibility of and the size and duration of the next boom, the more important question is whether the City could accommodate a high tech renaissance should it occur. The answer is most likely yes. The vacant land supply (urban areas) as measured most recently (2011) is approximately 85% the size of the vacant land supply in 1990 at the beginning of the decade long run-up to the high tech peak and all through that decade land was brought into the supply incrementally.

At the very peak of high tech growth, vacant employment land consumption was only double the rate used in this report as the basis for the 20 year projection and that peak consumption lasted only two years. And high tech companies were willing to look at a range of locations, not just Kanata. Even during that extraordinary time, only one quarter of high tech firms looking to expand (of the 100+ firms surveyed in 2000) indicated that finding suitable accommodation would be a major problem. The point being, the boom – as large as it was - was accommodated. It was not land supply constraints that brought the high tech party to an end.

Today, the majority of high tech employment in the City is more related to design and innovation than to manufacturing (which has been largely moved offshore to countries like India and China). The future demand for land to accommodate extensive manufacturing facilities is not expected to be great. Many of the high tech jobs that the City has retained and will most likely build on are well suited to office structures located in the downtown, the employment parks, and at transit nodes.

In short, although no one is predicting a return to the heady days of the high tech boom, there is substantial capacity in the employment land system to accommodate a new wave of growth, should it materialize.

The more challenging question facing the City is to attract a good portion of high tech jobs to nodes along the transit system to increase efficiency in the use of lands and the transportation network.

#### The Evolving Retail Landscape

The questions examined under this theme are: (1) is the rate of per capita retail space expanding (or contracting); (2) are big box stores and suburban power centres likely to continue dominating new retail development proposals; (3) to what degree will on-line retail channels impact the need for retail (and other) space; and (4) how will these tendencies impact retail structure in the City of Ottawa and demands on the employment land supply.

The following observations have been extracted from research of available on-line literature related to retailing trends, principally in North America. The main sources are cited in the footnotes.

It is often pointed out that the amount of retail space provision in the United States far exceeds that of Canada and this is occasionally used to bolster an argument for the approval of more retail centres here at home. But rather than Canadian cities having too little retail space, it would appear that perhaps the US has too much. According to research from the Harvard Business School, the value of retail properties in the United States has been in decline since the

start of the recession in 2007<sup>34</sup> with the expectation that this trend will accelerate. Not only did sales decline sharply with the onset of the recession, the decline in store financial performance was made worse by the significant growth in store square footage in the period leading up to the recession —retail square footage in the United States grew from 18.45 square feet per capita in 1999 to 23.06 square feet per capita in 2009. This produced a glut of space just as retail sales declined. For comparison, in Canada, the per capita provision is closer to 14.5 sq. feet with the smaller footprint generating much higher sales productivity. In this instance, less is more.

Looking forward, according to Deloitte<sup>35</sup>, retail space requirements could continue to shrink significantly due to the expansion of e-marketing retail channels (as much as 30 to 40% in some categories). The main impact of technology is that stores will become multi-channel showrooms, with less space required for inventory display and stockrooms. According to Deloitte research, less than ten per cent of customers now expect the full range of inventory to be available in the store. Customers become exposed to the merchant's broader assortment of goods (and service) through integration of electronic channels. The research indicates that over a third of customers now expect to use their mobile phones while in a store to scan barcodes on products on the shelves and seek out additional product information on-line. The integration of support technologies collapses the need for physical space, physical inventory and sales staff.

According to researchers at the Harvard Business School, as consumer behavior evolved over the last decade and as supply chains improved, it became apparent that the danger to retail stores from online shopping could leave the big-box stores in a very precarious situation. While sales in stores declined dramatically during the economic downturn, sales on the Internet continued upward. The first casualties were the music, video, and book retailers—these categories are now virtually non-existent outside the Internet channel. In the US, Barnes & Noble is having to scramble to find alternative uses for its retail space, as many areas of its stores fall below critical levels of retail productivity. Gap Inc. announced it will shut a fifth of its stores in North America over the next two years. Best Buy, once considered a monopolist in the electronics segment, is struggling to reinvent itself in the face of lost sales and declining productivity, announcing (in January 2013) the closure of nine stores across Canada.<sup>36</sup>

As consumers become more comfortable with Internet shopping, the number of categories with significant e-commerce penetration increases. Electronics, toys, and baby products categories already have a near 20 percent online market share. Apparel, greeting cards, party supplies, and office products have reached double-digit penetration with sporting goods and cosmetics not far behind. Pet products and health and beauty products are also increasingly moving to the web.

<sup>&</sup>lt;sup>36</sup> 15 Future Shop and Best Buy stores closing in Canada, Straight.com Vancouver On-line News Source, accessed on-line 31 January 2013, www.straight.com



<sup>&</sup>lt;sup>34</sup> Retailing Revolution: Category Killers on the Brink (October 2011), Working Knowledge, Harvard Business School, accessed online http://hbswk.hbs.edu/item/6813.html , 19 January 2013.

<sup>35</sup> The Changing Face of Retail, Deloitte, 2011

It seems no category of retail is immune to challenge from the web – even groceries. By leveraging smartphones and relatively inexpensive advertising space, some retailers are creating the virtual equivalent of supermarket shelves in subway tunnels<sup>37</sup>.

The British supermarket chain Tesco, the second largest in South Korea (trading as Home Plus), found it did not have enough stores to capture the number one position. So Home Plus plastered subway stations with full-sized images of supermarket shelves: meat, dairy and beverage sections materialized all around the platforms, and every product was labelled with a barcode. Commuters browse the "shelves" just as they would in a real store, and fill a virtual cart by snapping pictures on their smartphone with same day delivery to the customer's home. Rather than navigating a website interface, Home Plus discovered that customers preferred the familiarity of walking down the "aisles" of the subway platform, browsing and filling their (electronic) cart as they would in a physical store.

In the United States, online grocer Peapod recently opened a store in a Chicago train station and then expanded the program to 17 Chicago-area stations. It also just bought ad space in 15 Philadelphia stations for ads in "stores" that feature an assortment of products commuters can scan.

China's biggest food e-commerce merchant, Yihaodian, announced plans to open 1,000 supermarkets, each a fraction of the size of a standard American supermarkets, supported by browsing technology. It also launched 1,000 virtual stores right outside the bricks and mortar stores of their competitors. Customers simply point their phones outside the competitor's stores to find Yihadian's coupons and gift vouchers and arrange for home delivery.

Nor will fashion retailers escape the challenge. Two approaches are being followed to coax clothing purchasers on-line<sup>38</sup>.

First are the companies that offer custom, tailored clothing online which is being used by men's clothing companies. Startups like J. Hilburn, Indochino and Blank Label sell tailored suits and shirts on-line at a discount. The appeal is the accessibility of tailored clothing, both in terms of price and convenience.

Five Trends Driving Traditional Retail Towards Extinction, Forbes Magazine, December 2012, accessed online 17 January 2013, http://www.forbes.com/sites/jjcolao/2012/12/13/five-trends-driving-traditional-retail-towardsextinction/



<sup>&</sup>lt;sup>37</sup> Clever retailers beat high rent with paper-thin stores, October 2012, Digital Trends, October 2012, accessed online 16 January 2013, http://www.digitaltrends.com/cool-tech/clever-retailers-beat-high-rent-with-paper-thinstores/

The second approach relies on new technologies to guide customers to a better fit. Companies like Clothes Horse and True Fit ask shoppers for their measurements, along with a tally of their best-fitting clothes, to match them with the right sizes. Taking this up a notch companies like Acustom Apparel use 3D body scanners along with pattern-making software to create customfitted clothing at an attractive price point. It is now speculated that at some point, data about a customer's body type will be saved along with their credit card information - the customer need never visit a fitting room again.

Younger consumers are increasingly comfortable buying online in categories that older shoppers might believe a trip to the store is required. Younger shoppers are willing to buy highfashion clothes and designer shoes on the web, given the liberal return policies of many sites. Instant access to the opinions of on-line "friends" creates a surrogate for a collegial shopping trip to the mall.

Traditional store retailers must now compete against the compelling economics of the web-only retail business model. Amazon, a successful on-line retailer, delivers up to 20 per cent cost savings to the consumer by leveraging its higher inventory turnover, lower investments in physical assets, and faster cash conversion cycle (there is no physical cash to manage). With technology making both pricing and assortment choices transparent to the consumer, there is little need to buy from a physical store, especially when a better price can be found online<sup>39</sup>. The change in shopping habits will only speed up as the younger generation becomes a dominant force in retail shopping.

The researchers at the Harvard Business School conclude: "given that the forecast for total retail sales over the next several years is flat to minimal growth after inflation, any sales that occur online will be at the expense of in-store sales... Just as category killers led to the demise of mom-and-pop shops, e-tailers are leading to the death of the big-box category killer. The economics of the Internet and its attractiveness to shoppers (a large and deep selection, onestop shopping, low prices, and the ultimate in shop-at-home convenience) is giving online retailers the upper hand".

One of the responses to these challenges (in addition to the integration of e-commerce into retail stores) has been to reduce store size. In addition to reducing inventory and operating costs, these smaller formats are more conducive to inclusion in urban redevelopment projects where customer traffic is high (both pedestrian and transit).

Target is now using smaller footprint locations in Boston, New York, Philadelphia, Baltimore and Washington<sup>40.</sup> Wal-Mart Express stores are significantly smaller than their typical supercenters.

<sup>&</sup>lt;sup>40</sup> Top five retail trends for 2012, SASCom Magazine, Q1 2912, Mathew Sahy, accessed on-line 17, January 2013, http://www.sas.com/news/sascom/2012q1/industry\_spotlight.html



Danix Management Limited draft Final Report 11 March 2013

<sup>&</sup>lt;sup>39</sup> Harvard Business School, op. cit.

Retailers are adapting to urban settings and optimizing their real estate portfolios, which create an opportunity for businesses to connect with the people in their stores on a daily basis.

The Source electronics<sup>41</sup> chain announced it will open 20 new stores in 2013, expecting its "small-store strategy" with popular products, including cell phones, to attract consumers. According to The Source President, Charles Brown, "The beauty of our model with the small store is you can go into a fairly small market and have that store be profitable. You don't need a massive market for a 2,000-square-foot store".

Best Buy Canada says it plans to open new Future Shop small-concept "web stores" and Best Buy Mobile locations over the next three years. 42

In the US, Macy's (the 150 year old retail chain) is transforming nearly 300 of its stores into distribution centres to speed up shipping for online consumers. Nordstrom, (another US retailer that has been in existence for over 100 years) is taking an aggressive approach to technology integration. With free shipping and free returns in its online store, Nordstrom is integrating its online and in-store strategies by introducing mobile point-of-sale systems - modified iPod touches - that eliminate lines while helping sales clerks sell customers out-of-stock items. According to Barron's, the company plans to invest \$1 billion (one third of its capital expenditures) into online efforts over the next five years.

The online practices of these high profile, veteran players validate e-commerce in the minds of older consumers while accelerating the industry's growth. These tendencies suggest the era of the "big box" may be over, bringing to a close the rapid expansion of suburban "power centre" retail development.

A key element of the success of on-line sales has been perfection of goods delivery and no fault return policies. Tony Hsieh (formerly CEO of Zappos, an on-line clothing retailer later sold to Amazon) figured out the key to overcoming customer resistance to on-line shopping was free shipping and free returns<sup>43</sup>. This policy is now standard. According to Amanda Bower, a business professor at Washington and Lee University, online shoppers given free returns increase their spending on the same site by 50 to 350 per cent in later purchases.

Forbes Magazine, op. cit.



<sup>&</sup>lt;sup>41</sup> Retailer The Source to open 20 small box stores based on key consumer spending, Ottawa Citizen, accessed online 2 February 2013

http://www.ottawacitizen.com/technology/BCEs+Source+open+stores+this+year+rival+Best+pulls+back/7904917/ story.html

<sup>&</sup>lt;sup>42</sup> 15 Future Shop and Best Buy stores closing in Canada, Straight.com Vancouver On-line News Source, accessed on-line 31 January 2013

A second (and perhaps less heralded) tendency is the reinforcement of the regional shopping mall. According to Mathew Shay, President of the National Retail Federation, prior to the economic downturn the consensus in the real estate industry was that the days of the traditional regional mall were over<sup>44</sup>. But that didn't happen. Regional malls emerged from the downturn in relatively good shape. In the United States, in the first guarter of 2010, regional malls posted average vacancy rates one half that of specialty centres and one third the vacancy rate for retail space overall. Darrell Pattison, director of design with ka architecture, a Cleveland-based firm, says this led the industry to look at regional malls with renewed respect. It's not really the physical aspects of a regional mall that make it so enduring, Pattison points out. The regional malls developed 20, 30, 40 years ago were built in markets with the right demographics which still pull in a steady stream of traffic. In the City, the large malls are blessed with great locations.

Although a comprehensive retail analysis was not part of the mandate for this present study, the conclusions that can be drawn from the foregoing research include:

- (1) the City of Ottawa's retail structure consisting of a strong retail presence in downtown, strong regional shopping centres, neighbourhood shopping streets, arterial road commercial strips and suburban power centres covers the spectrum with no significant change in retail structure looming on the immediate horizon. There will always be "new" retail offerings introduced to the market (for example, outlet malls common in the US were until recently virtually unrepresented in the City) but, overall, the City's retail structure is likely to remain stable.
- (2) there is no compelling case for expecting per capita retail space requirements to grow and more likely it will contract, as on-line retailing expands, accelerated by further integration of all shopping channels and led by younger consumers. Much (though not all) of future retail sales growth will be "clicks", not "bricks" and this will come at the expense of physical stores,
- (3) of all formats, the big box store (and free standing suburban power centres) is likely to come under the most pressure with many future retail developments featuring smaller stores and increased integration into neighbourhoods that offer strong pedestrian and transit traffic,
- (4) retailing in the future will require less physical retail space with smaller goods inventories and fewer employees. This suggests less potential encroachment onto designated employment areas by retail developers but an increased demand for sites to house logistics / delivery facilities (required to facilitate on-line retail fulfilment). Consideration should be given to reserving key employment sites that offer superior access to major highways or the airport, the railroad and the arterial road network for logistics and delivery companies. These sites (increasingly inter-modal) are likely to become of "strategic" importance in supporting the efficient operation of the City's retail structure.

<sup>&</sup>lt;sup>44</sup> Developers Rethink the Mall for the 21<sup>st</sup> Century, Retail Traffic, July 2010, accessed on-line 16 January 2013, http://retailtrafficmag.com/design/trends/developers rethink mall 06272010/



#### **Employment Use at Highway Interchanges**

The question examined under this theme is the strategic significance of 400 series highway interchanges (417 and 416) and the most appropriate use of the lands surrounding key interchanges.

Intersections / interchanges of 400 series highways with other highways or urban arterials are highly sought after locations for the development of a range of uses: office complexes, retail centres, hotels, sports and entertainment venues, hospitals, logistics and distribution hubs and occasionally high density residential buildings.

The 400 series interchanges confer two important benefits to adjacent lands – they provide high order access to the highway and arterial road network (which is critical for transport and logistics firms and of interest to some office occupants who are required to frequently be out on the road meeting suppliers and customers) and they provide exposure (principally of interest to retailers).

As they are limited in number, development of lands served by 400 series highway interchanges is of strategic significance to the proper structuring and functioning of the urban area.

Changes in retailing are, in part, driving the increase in trucking and logistics services. According to Frost & Sullivan, by 2025, nearly 20% of retail will happen through online channels and in leading markets with high per capita online spending, nearly 25% of retail will be online 45. And this transition to online retail is transforming the retailing mode and driving growth in urban logistics firms for parcel deliveries. Parcels will become lighter as products become smaller with increases in the average number of orders per week. Retailers have responded to this by introducing innovative supply chain services such as same-day deliveries, night-time inbound services, using their stores as collection points or neighbourhood locker boxes (a private sector version of the Canada Post Super Box<sup>46</sup>).

As an additional consideration, intermodal transportation (rail / truck) is gaining significant momentum because of the savings on trucking fuel and operator time, coupled with the environmental and safety benefits<sup>47</sup> of removing large truck movements from urban arterials. Development is underway in Europe for high speed trains devoted exclusively to parcel delivery, competing with short haul airfreight.

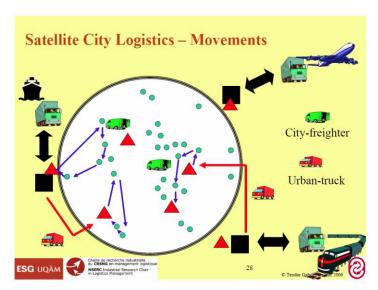
<sup>&</sup>lt;sup>46</sup> Innovative Approaches in City Logistics – Home Delivery Using Locker Boxes, March 2007, accessed on-line 12 February 2013, http://www.polisnetwork.eu/uploads/Modules/PublicDocuments/city\_logistics\_packstation.pdf <sup>47</sup> Roar News, Roar Logistics, 20 July 2011, accessed on-line 10 Feb 2013, http://www.roarlogistics.com/NewsStory.aspx?ID=24



<sup>&</sup>lt;sup>45</sup> Frost and Sullivan, Market Insight, 23 January 2013, accessed on-line 11 February 2013, http://www.frost.com/sublib/display-market-insight-top.do?id=272794509

Toronto and Montreal have served as the main overland goods movement gateways that connect Ottawa to the USA, Europe and Asia. But, there is a third gateway developing in Cornwall, serving as a distribution hub for US firms and Canadian firms. In 2000, Walmart established its main distribution centre for eastern Canada in Cornwall (currently with 1,000 employees). Shoppers Drug Mart opened its distribution centre in 2010 and Target Canada will open its facility in 2013. A half dozen other companies have recently been attracted to Cornwall, forming what is quickly becoming a distribution "epicentre" 48. These major retailers are now distributing from Cornwall to Toronto, to Montreal and to Ottawa.

In terms of major goods movement, Ottawa is too far off the beaten track to ever become a distribution epicenter like Cornwall which has both a strategic locational advantage (Highway 401 corridor, CN Rail mainline, port on the St. Lawrence Seaway and bridge to the USA) plus labour force characteristics ideally suited for logistics firms (a blue collar workforce accustomed to shift work). But, the "last mile" in a City distribution system is to move packages from the large long-haul trucks to delivery vehicles and organized logistics hubs facilitate this.



One of the models that is being advanced by logistics professionals (in an emerging discipline called "city logistics") is having City Distribution Centres located at the edge of the urban area to intercept long haul transport (air, rail and truck) and then break it down for delivery inside the city by smaller, energy efficient vehicles more suited for city streets, possibly delivering to neighbourhood satellite transfer points with integrated parcel tracking information<sup>49</sup>.

One important aspect of this concept is reserving key interchange lands at the edge of the urban area for future use by transport and logistics companies. Efficient goods movement and

<sup>&</sup>lt;sup>49</sup> City Logistics, Teodor Gabriel Crainic, Chair in Logistics Management, NSERC Industrial Research and University of Quebec, accessed online from NWPVL website 22 February 2013, http://www.chairecrsnglogistique.ugam.ca/pdf/citylogistics06.pdf



<sup>&</sup>lt;sup>48</sup> Is Cornwall, Ontario Set to Become the Next Big Canadian Distribution Epicentre, NWPVL International, accessed on-line 17 February 2013, http://www.mwpvl.com/html/cornwall ontario distribution epicenter.html

the interception of large trucks before they penetrate deep into the urban area is of strategic significance to the City.

In a competition for the use of key locations, reserving them for use by logistics companies has the higher strategic value to the City. Retailers, though they seek out the exposure offered by these locations, have many options other than a highway location to generate exposure (print, radio and television advertising, newspaper flyers and e-mail blasts for example). Major office concentrations and venues attracting crowds are better located where they can best be served by transit.

In reaching a decision about the uses that should be approved for interchange locations, the two key factors are: (1) will the location be well served by transit, and (2) will the proposed use benefit from the high degree of accessibility provided by the interchange?

If the lands are (or will be) well served by transit, preference should be given to uses which benefit from and contribute to transit ridership.

If the lands are not well served by high quality transit but are well suited for logistics or transportation companies, the lands should be reserved for these purposes.

Interchanges with the 400 series highways in Ottawa (416 and 417) are not only relatively few in number, but those close to the edge of the urban area are to a large degree either already substantially developed or are on lands largely within the limits of the federal greenbelt and not available for development. This makes it all the more important to protect the small amount of lands at these key interchanges that is available for logistics and transportation use (for practical purposes, defined as lands within about a 1 kilometre radius of the interchange).

These opportunities include:

416 (South) – urban employment lands in the 416 Business Park (416 at Fallowfield / Strandherd Road)

417 (East) – urban employment lands in the Hawthorne-Stevenage Industrial Area (417 at Hunt Club Road east extension).

417 (East) – urban employment lands in the Sheffield Industrial Area (417 at Walkley Road).

Designated employment lands within a 1 km radius of these three interchanges should be reserved for transportation and logistics use. Consideration should also be given to the augmentation of lands designated for transportation and logistics use at these interchange locations where opportunities exist.



In addition to these interchange locations, future consideration should be given to protecting, for logistics and transportation use (possibly through zoning), land at three interchange locations in the rural area closest to the urban boundary:

416 (South) – Barnsdale Road, on lands designated general rural

417 (East) - Thunder Road (Ninth Line), on lands designated general rural

417 (West) at Carp Road. The lands around this interchange are already designated for employment purposes in the Official Plan – part of the Carp Road Corridor.

Unlike the interchange locations at the boundary of the urban area that provide strategic sites for urban logistics operations, the remaining interchanges along the highways in the rural area do not confer this strategic advantage.

The Official Plan directs much of growth in the rural areas to villages and apart from true rural industries (related to agriculture, forestry, aggregate extraction etc.), other employment should, in the main, be focused on the villages which are the main population centres in the rural area.

Much of the lands around the interchanges in the rural area are currently designated: agricultural lands, mineral aggregate lands, rural natural feature or significant wetland. Large rural villages generally have good road access to the highway system and large rural employers are better served locating closer to the village population centres. Re-designating employment lands at rural highway interchanges will simply invite highway commercial uses, draw jobs away from villages and dilute achievement of the objectives of the Official Plan.

#### **Employment Distribution and Support for Transit**

Examined here is the likelihood of success in directing a high proportion of employment growth to key (transit oriented) employment nodes identified in the Official Plan and the implications of this policy direction, if achieved, on the future demand for employment lands.

As part of this examination, owners of businesses located in urban employment areas throughout the City were contacted for participation in a short telephone survey.

In total, 187 surveys were completed divided East (60), (South (66) and West (61). Just over 60% of the businesses responding were from three major employment groups: Manufacturing, Retail, and Professional / Scientific / and Technical Services. Three other employment groups each represented 5% of the total: Construction; Transportation / Warehousing, and Arts / Entertainment / Recreation. All other major employment groups were represented in the survey but in very small proportions.

The survey methodology and the questionnaire are provided at Appendix 2. The main survey findings are presented below.

Just over 40% of the respondents had been at their location for under 5 years, 50% had been at the same location for 6 to 20 years and the remainder for more than 20 years.

Importance of Factors in Deciding Choice of Current Location			
Factor Description	% Respondents Rating 8 to 10	Rank	
Price of purchase or rent	62%	1	
Availability of suitable space to rent	59%	1	
Local road access	58%	1	
The availability of free or low cost parking	56%	1	
Overall quality of area to meet business needs	56%	1	
Promixity of clients / customers	40%	2	
Major highway access	39%	2	
Availability of suitable land or building to purchase	30%	2	
Road traffic conditions (congestion)	26%	2	
Availability of transit service	24%	2	
Proximity to partners or suppliers	22%	2	
Close proximity to housing for employees	19%	3	
Proximity to similar businesses	17%	3	
Commercial services in the area (resto, bank etc)	17%	3	
The package or services or incentives offered	15%	3	
Accessibility to airport	10%	3	
Accessibility to Via Rail station	5%	3	
Recreational services or amenities	5%	3	

The factors most influencing the choice of their current location were price and availability of space, local road access and parking, and the overall quality of the area to meet their needs.

Less important were proximity to customers, access to major highways, proximity to partners and suppliers and transit services.

The least important were proximity to housing, the availability of commercial services, proximity to the airport and recreational amenities.

Features Looked for In Next Location			
Adequate Space Available	32		
Accessibility to Customers	17		
Adequate / Affordable Parking	16		
Proximity to Major Roads	12		
Proximity to Public Transit	10		
Warehousing and Storage Space	7		
Affordable Rent	5		
Building Age / Quality / Aesthetics	5		
Visibility / Exposure	4		
Loading Docks / Truck Route	4		
Lack of Traffic Congestion	4		
Internet Infastructure	3		
Proximity to Local Amenities	3		
Proximity to Suppliers	2		
Proximity to Similar Businesses	2		
Proximity to Airport	1		
Proximity to Staff Residences	1		
Other	8		
No Answer	51		
Total	187		

All respondents were asked what they would be looking for in their next location. Approximately 40% of respondents said it was not likely they would move within the next ten years. Regardless, almost three quarters of the respondents indicated what they would be looking for if they moved. The top picks: adequate space, access to customers, affordable parking and road access and proximity to public transit. Less frequently mentioned as being important were warehousing space, affordable rent, good area aesthetics, and a range of amenities.

Respondents were also asked what they wanted to avoid in their next location and to this question there was no strong pattern of response; the item most frequently mentioned was avoidance of traffic congestion.

Importance of Transit in Selecting Current Location			
Scale	Count	as %	
1 Very Low	41	22%	
2	24	13%	39%
3	8	4%	
4	7	4%	
5	33	18%	
6	9	5%	
7	11	6%	
8	23	12%	
9	6	3%	28%
10 Very High	24	13%	
dk / refused	1	1%	
	187	100%	
Survey of business owners in			
Employment Areas (Fe	eb 2013)		

Liklihood of Pick	ing Trans	it Station	
in Next Location			
Scale	Count	as %	
1 Not Very Likely	54	29%	
2	21	11%	50%
3	18	10%	
4	12	6%	
5	39	21%	
6	5	3%	
7	10	5%	
8	14	7%	
9	3	2%	14%
10 Very Likely	9	5%	
dk / refused	2	1%	
	187	100%	
Survey of business o	owners in Feb	ruary 2013	

Less than a third of respondents gave transit a high ranking (8, 9 or 10 out of ten) as an influencer in selecting their current location and it appears from the responses to the survey that the likelihood of selecting a transit station as a future business location is not promising.

Survey respondents were also asked about a list of potential barriers to locating at a transit station and asked to indicate if they thought each item might present a strong or weak barrier. The items flagged most often as a strong barrier included: poor local road access, the high cost of buying or renting, the lack of free or low cost parking, the lack of availability of space (to buy or rent), lack of major highway access and difficulties for shipping and receiving.

Less frequently mentioned as a strong barrier were: lack of proximity to clients or customers, the lack of or inconsistency of transit service, the lack of commercial services in the area, lack of visibility and incompatible mix of use.

Listed least frequently as a possible strong barrier to locating at a transit station were: lack of proximity to partners or suppliers, lack of proximity to other similar businesses, lack of weather protected connections and a lack of recreational facilities or amenities.

Barriers to Locating Business Near a Transit Station					
Barrier Description	Strong	Weak	dk / refuse	Total	% Strong
Poor local road access	160	24	3	187	86%
High cost of buying or renting	156	28	3	187	83%
Lack of free or low cost parking	155	28	4	187	83%
Lack of opportunity to buy or rent	143	40	4	187	76%
Lack of major highway access	135	48	4	187	72%
Difficulties for shipping and receiving	127	58	2	187	68%
Lack of proximity to clients / customers	115	63	9	187	61%
Lack or inconsistency in transit service	110	69	8	187	59%
Lack of commercial services in area	89	90	8	187	48%
Lack of visibility	84	94	9	187	45%
Incompatible mix of uses	76	92	19	187	41%
Lack of proximity to partners or suppliers	59	123	5	187	32%
Lack of promixity to other similar businesses	46	132	9	187	25%
Lack of weather protected connections	43	134	10	187	23%
Lack of recreational facilities or amenities	29	151	7	187	16%

In short – the barriers to locating at a transit station are the converse of what the business owners say were important to them when they selected their current location. What the business owners value most is pretty much what they enjoy in their employment park location and they apparently perceive these features will not be available to them at a transit station location.

	Firms Intentions to Move in Next 10 Years					
	Intentions to Move From ->	East	South	West	Total	as %
	East	29	3	5	37	20%
70	South	5	11	2	18	10%
βι	West	7	21	42	70	37%
Moving	Centre	8	10	2	20	11%
Š	Other		3		3	2%
	Out of the city		1	1	2	1%
	Not planning a move	11	13	8	32	17%
	Don't know/Refused		4	1	5	3%
	Grand Total	60	66	61	187	100%

Approximately 80% of all respondents indicated which part of the City they would move to -ifthey moved. Those with businesses in the West are the most fixed in their intentions to stay in the same general area (42 out of the 52 providing an answer would stay in the West).

Easterners are the next most loyal (29 out of 49 answering indicating they would stay in the East). And those with businesses in the South showed the most flexibility in terms of future locations (only 11 out of 49 providing an answer would remain in the South) - and it appears that these southern businesses, given an opportunity, are in the main heading "west" and to a lesser extent, the "centre".

Drawing on these survey results and the preliminary results of the 2012 employment survey, what can be concluded about the likelihood of the employment density targets of the Official Plan being met?

- > The federal government will continue to locate their employees within the downtown and at selected nodes, many of which are on the rapid transit system. The DND Campus off Moodie Drive and the RCMP campus on Merivale Road south of the Greenbelt are the major exceptions.
- ➤ High tech is currently on the wane but the companies / locations demonstrating the most staying power are located in the urban employment areas (in industrial and business
- > The regional retail centres will remain strong (indeed, they are all expanding) and these are already located on the transit system. Big box appears to be losing its grip as the building blocks of regional power centres and there are some promising trends pointing to smaller formats more easily incorporated into urban redevelopment (providing an opportunity to attract these retailers to stations along the rapid transit system).
- Companies currently located in the employment areas are not a natural market for a move to transit station locations – the survey results indicate little intention to select transit stations for a future business address and there are strong barriers to convincing them otherwise.

This all suggests that it is unlikely that there will be much of a shift away from the current employment structure of the City.



#### The Future of Employment Areas

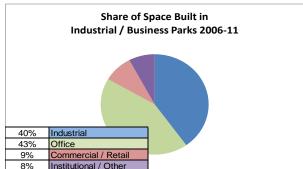
The questions examined here are: (1) the continuing relevance of employment parks in accommodating projected employment growth, (2) the success of work / live arrangements on employment areas, and (3) what principles should govern the consideration of proposals for converting employment lands to alternate uses.

Suburban employment parks continue to evolve. Once dominated by "heavy" industrial users served by rail lines and carefully separated from residential areas, the first step in the evolution was towards "light" industrial parks, then business parks, and most recently research, technology and science parks. The urban arterial road network supplanted the dependency on rail and locations near airports were often preferred. In earlier days, the white collar functions of industry were mostly located in the office buildings of the central business district. Part of the evolution of the parks was the progressive integration of management and administrative functions. Bringing these functions onsite sharply increased the office component of the parks.



Later, the parks began to accommodate a greater mix of uses, becoming home to workshops, wholesalers, distributors, and a range of professional offices and service suppliers taking advantage of the lower cost office and show room space provided in the parks. Suburban parks were outpacing the CBD in terms of the amount of office space being constructed. No longer banished to the other side of the tracks, the increased attention given to building materials, siting and landscaping in the development of modern parks eventually led to the re-integration of work into community design. Developers and planners<sup>50</sup> are starting to examine the merits of completing the integration

of the business park into the community through the re-incorporation of residential, a broad range of shops, main streets and transit.



Employment Areas in the City provide for a range of uses, including service commercial to meet the day-to-day needs of employees, reducing their need to travel outside the area.

A review of building permits issued for construction in the City's industrial and business parks (2006 through 2011) reveals

<sup>&</sup>lt;sup>50</sup> The Business Park of the Future? King of Prussia District Pennsylvania website, accessed online 16 February 2013, http://www.visitkop.com/the-business-park-of-the-future



that "office" accounted for over 40% of the space recently constructed in the City's office and business parks and that "institutional and commercial / retail" space made up over 15%<sup>51</sup>.

The preliminary results of the 2012 employment survey highlight the importance of employment areas – one in every four jobs in the City in 2012 was located in employment areas, a proportion that has held rock stable for the past three employment surveys spanning the period 2001 through 2012. And, judging by the results of the survey of owners located in these areas, the qualities and factors that attracted them to locate in employment areas points strongly to them choosing similar locations next time. In short, the employment areas have been very successful in allowing a broad range of businesses to take root in the City and the industrial / business park form is an enduring part of the employment structure of the City. As is often the case, it is not always wise to tinker with success.

In 2005 the City amended the land designation system of the Official Plan to recognize "Enterprise Areas" – employment areas that in addition to a range of employment uses and complementary service commercial include residential as a permitted use (employment making up at least 50% of the land area). The concept was that Enterprise Areas would typically accommodate higher densities supported by transit as well as arterial road access, have an absence of heavy industrial users and integrate well with surrounding uses.



Given the general direction in the evolution of employment areas with respect to the increasing mix of uses, higher densities, support for transit and integration into the urban fabric, the question is, is there merit to expanding the use of this designation?

While good in theory, the practice in the City has been discouraging. For instance, despite high expectations for the Enterprise Area designation placed on lands in the south of Kanata, all that has been achieved to date is a townhouse project clearly separated from the balance of the land with little creative attempt made to generate a unique live / work neighbourhood (picture opposite). Although

the "idea" of a work/live neighbourhood is enticing, if the lands in the Enterprise Areas of the Official Plan become controlled by residential developers without experience or motivation to promote employment development, what will likely continue to occur is a repeat of the

<sup>&</sup>lt;sup>51</sup> Analysis of a City staff worksheet providing details for all building permits approved for commercial and industrial buildings from January 2006 through to December 2011



experience to date with developers following the shortest distance to profitability. This will almost always favour residential development tailored to the current market trend (most recently townhouse development).

A review of the Enterprise Area designations in the City Official Plan suggests little to no creativity has been brought to bear in the delivery of work / live neighbourhoods or the designation has been overtaken by events (e.g. the DND occupancy of the Nortel campus on Moodie Drive). This suggests that either the Enterprise Area designation should be rescinded and replaced with an Employment Area designation so the undeveloped lands can be properly protected by the Employment Area policies of the Official Plan, or performance criteria be developed to ensure employment development in Enterprise Areas occurs in advance of residential construction.

This brings us the final topic addressed here. From time to time the City receives requests to convert some of the lands currently designated for employment to alternate use - primarily residential or retail. With considerably more than a 20 year supply of employment lands available, it begs the question as to whether conversion requests should be entertained. Would the conversion of the lands serve the purpose of better integrating land uses to enhance work / live arrangements or would the conversion simply serve the interests of developers not willing to wait for employment development to happen?

The fact that the employment land supply is greater than the 20 year minimum threshold required by the Official Plan or that the uptake in a particular park has been slow does not provide sufficient rationale to support a request for conversion. Preservation of opportunities for employment development is of strategic significance to the City and well located employment lands should not be piecemealed away without very careful consideration about the impact of conversion on the remaining employment lands and how such lands might be replaced, if needed in the future.

If conversion is not tightly disciplined, the expectation of conversion will cause price inflation and encourage other owners to withdraw their lands in anticipation of potential conversion.

The guiding principles that should frame decisions concerning potential conversion of employment lands include: (1) are the employment lands being proposed for conversion currently unsuited for employment purposes?; (2) if they are unsuitable for employment purposes have all practical measures that can be taken to perfect them for employment use been considered?; (3) if there are no practical solutions to perfecting the lands for employment purposes, are the lands suitable for the uses being proposed and are the uses "needed" 52?; and (4) if the uses being proposed are suitable and were developed, would the proposed development enhance, and not detract from, the suitability of the remainder of the employment lands for employment use and further development?

<sup>&</sup>lt;sup>52</sup> A test set out in the Provincial Policy Statement



The Official Plan (Section 2.2.2, Policy 24 – subsection k) lists the various deleterious effects that the introduction of non-employment uses into an employment area can create.

A "No" to any of these four questions would provide a basis for non-consideration of the request for conversion.

Because employment lands are a strategic resource, the decision process governing employment land conversion should be clearly biased in favour of protecting employment lands - the bar to conversion should be set very high.

#### **Rural Employment Lands**

The questions examined under this theme are: (1) is there justification to extend municipal services to rural employment lands located near to the boundary of the urban area; (2) would it be useful to expand on the Rural Employment Land designation in the Official Plan (to help rationalize the amount and location of such lands); and (3) what would be the implications of permitting conversion of some rural industrial lands to other uses.

From time to time, requests are made to extend services to lands in the rural areas of the City sometimes to rectify an existing water quality issue (e.g. residents with contaminated wells), other times to facilitate the development of residential lands (at quasi-urban standards), and occasionally to facilitate the development of employment uses that require a substantial water supply (most often to meet fire protection requirements).

It is the third case that is addressed in this study – the potential need for (and implications of) extending services to rural employment lands.

To begin - how does "rural" employment differ from "urban" employment? Based on the comprehensive employment data collected by the City through employment surveys conducted every five years, the composition of businesses locating in the rural area is somewhat, but not startling, different from the urban area.

Setting the primary industries aside (farming, mining, forestry, etc.), in 2006<sup>53</sup> rural areas had proportionately more construction and arts / entertainment / recreation (principally golf courses and the Rideau Carleton Raceway) whereas taken as a whole, the City has proportionately more retail, professional services and, perhaps not surprisingly, a much bigger federal administrative presence.

Digging a little deeper to look at typical occupants of industrial parks, what, if anything, distinguishes rural construction companies, manufacturers, wholesalers and transportation /

<sup>&</sup>lt;sup>53</sup> The 2011 Employment Survey results were not finalized in time for inclusion in this analysis.



warehousing companies from their urban counterparts? Again, according to the 2006 data, not very much it would seem.

	Employment Composition by Major Group			
Group	Employment Group Definition	All City	All Rural	
1	Primary	0.8%	5.2%	
3	Utilities	0.3%	0.3%	
4	Construction	4.0%	18.8%	
5	Manufacturing	5.9%	7.2%	
6	Wholesale	1.5%	4.1%	
7	Retail	10.1%	7.7%	
8	Transportation and Warehousing	3.4%	6.3%	
9	Information and Cultural	3.7%	0.6%	
10	Finance and Insurance	2.9%	1.0%	
11	Real Estate and Rental Leasing	1.6%	1.5%	
12	Professional, Scientific & Technical Services	10.2%	4.8%	
13	Management of Companies & Enterprises	0.3%	1.5%	
14	Administrative and Support, Waste Mngt	4.3%	8.3%	
15	Education Services	6.3%	5.7%	
16	Health Care and Social Assistance	8.6%	4.0%	
17	Arts, Entertainment and Recreation	1.9%	11.0%	
18	Accommodation and Food Services	6.1%	3.0%	
19	Other Services	6.1%	6.9%	
20	Federal Public Administration	19.4%	0.0%	
21	Provincial Public Administration	0.3%	0.1%	
22	Local Public Administration	1.9%	2.0%	
23	Other Public Aministration	0.4%	0.0%	
Source:	City of Ottawa Employment Survey (2006)	100.0%	100.0%	
		% of Total .	Jobs in City	

A scan of the City's rural manufacturers (in 2006) for instance reveals the same wide array of enterprises that can be found in the City's rural industrial parks are also operating out of industrial parks in the urban area, including: sign makers, printing companies, bakeries, kitchen cabinet and countertop makers, wood working shops, pallet maker, do-it-yourself wine outlets, candle makers, door makers, ornamental iron workers etc. Similarly, a scan down the list of the City's rural wholesalers reveals: lumber suppliers, auto parts recyclers, wood pellet sales, coffee distributors, and dairies etc. all of which are also found in the urban area. And the City's rural transportation and warehousing companies include: storage companies, limousine services, moving companies, Canada Post, logistics companies and towing services.

There are very few instances of "rural industries" – the majority of enterprises with rural addresses are simply "industries located in the rural area".

In short, there does not appear to be very much that distinguishes rural enterprises from their urban counterparts – at least not in terms of the types of businesses. The main differences are that rural businesses are more dispersed, they typically occupy larger lots, and for the most part they are located on un-serviced lands, relying on wells and septic tanks. A principal feature of the rural sites, and perhaps one of their main attractions, is that the land they are located on is much cheaper to purchase and municipal taxes are lower. The lack of servicing preserves these advantages.

So what drives the request for servicing of rural employment lands? One main reason is to ensure there is sufficient water to meet the requirements for fire suppression. For example, the recent construction of Lee Valley's new distribution centre on Carp Road required the construction of a 400,000 gallon large water reservoir expressly for this purpose. Since individual enterprises employ relatively few employees (the new Lee Valley facility being an example), septic systems can typically suffice for waste water treatment.

The two areas that have been subject to strongest interest from the perspective of municipal service extensions are the Carp Road corridor (from Stittsville north to the Carp Airport) and the Bank Street corridor (from Rideau Carleton Raceway south to the Village of Greely).

	Employment Composition by Major Group				
Group	Employment Group Definition	All Rural	Carp Road		
1	Primary	5.2%	0.0%		
3	Utilities	0.3%	0.3%		
4	Construction	18.8%	26.5%		
5	Manufacturing	7.2%	21.1%		
6	Wholesale	4.1%	7.7%		
7	Retail	7.7%	4.2%		
8	Transportation and Warehousing	6.3%	8.8%		
9	Information and Cultural	0.6%	0.7%		
10	Finance and Insurance	1.0%	0.1%		
11	Real Estate and Rental Leasing	1.5%	1.1%		
12	Professional, Scientific & Technical Services	4.8%	6.4%		
13	Management of Companies & Enterprises	1.5%	0.0%		
14	Administrative and Support, Waste Mngt	8.3%	15.6%		
15	Education Services	5.7%	0.2%		
16	Health Care and Social Assistance	4.0%	0.5%		
17	Arts, Entertainment and Recreation	11.0%	0.2%		
18	Accommodation and Food Services	3.0%	3.3%		
19	Other Services	6.9%	3.1%		
20	Federal Public Administration	0.0%	0.0%		
21	Provincial Public Administration	0.1%	0.0%		
22	Local Public Administration	2.0%	0.0%		
23	Other Public Aministration	0.0%	0.0%		
Source:	City of Ottawa Employment Survey (2006)	100.0%	100.0%		
		% of To	tal Jobs		

Starting with the Carp Road corridor, six things set the Carp Road corridor apart from other rural areas. First, this corridor represented (in 2006) almost 15% of the total employment in the City's rural area - by far outstripping the employment in any of the City's twenty six rural villages and equal to half of all rural industrial areas combined.

Second, many of the business enterprises along the corridor are located within organized industrial parks.

Third, the lands along the Carp Road corridor are located in close proximity to the City's western urban boundary.

Fourth, the corridor features much higher proportions of construction, manufacturing

and waste management companies (and virtually no arts, entertainment and recreation) compared to the rural area, overall.

Fifth, lands along the corridor have a very high, and unique, level of transportation accessibility, with a regional airport located at the north and an interchange with highway 417 at the south and proximity to a second 417 interchange (March Road) at the north.

And sixth, the Carp Road corridor is recognized as a specific land designation in the City's Official Plan, which reserves the lands in the corridor for employment purposes. The corridor was also the subject of a community design plan (CDP), approved by Council in 2004.

While the logic of reserving the Carp Road Corridor for employment uses may be clear, the rationale for extending services to these lands is not. Although the extension of water services to this corridor would relieve developers and business owners the burden of investing in facilities to provide private services (for instance, to provide adequate water for fire suppression) - this would simply shift the burden of these investments to the tax base without a clear strategic reason for doing so. A wide range of business enterprises operate successfully from both urban industrial parks and from un-serviced rural areas - including the Carp Road corridor. Presumably the companies operating along the Carp Road have located there in accordance with their own business strategies which may in part have recognized the advantage of lower

land cost and taxes. It can be expected that these advantages would disappear, and certainly for new market entrants, once services became available.

Relieving business owners of the cost of servicing is not a strong rationale for considering a possible extension of servicing to the Carp Road corridor. There is no obvious impediment to employment development (beyond developers shouldering costs they might prefer the city to bear), no obvious strategic advantage to the City of servicing these lands to foster employment development which has been, to date, very successful, and no shortage of employment lands in the City (neither urban, nor rural). Creating a quasi-urban area (with services) would simply lead to land price escalation, eventually encouraging higher employment densities on lands not well served by public transit.

To determine if servicing of the corridor is warranted, a Comprehensive Review approach would be required such as those undertaken to support urban boundary adjustments - at such time as the need for additional urban lands is identified. Given its employment concentration and proximity to the current boundary, the Carp Road corridor would be a logical candidate for study during an urban boundary review if the need for additional urban employments lands was identified.

Similarly, the lands between Bank Street and Albion Road, from the Rideau Carleton Raceway south to the Village of Greely, may be another candidate for consideration during a comprehensive review when conditions warrant an urban boundary adjustment to accommodate a future need for additional employment land. However, there is no rationale from the perspective of employment development to extend services to these lands and thereby creating an area of quasi-urban status in advance of a comprehensive urban boundary review.

In the late 1990s the servicing of (then) rural industrial land in Leitrim was strongly promoted as the key to unlocking their employment development potential. Leitrim was serviced in 2003<sup>54</sup>. On the heels of that investment, employment levels actually shrank (from 2,241 in 2001 to 2,158 in 2006). Servicing, as it turns out, did not supply a magic key. Half of these lands remain vacant today. It is not obvious why extending pipes even further south towards the Village of Greely will provoke a more rewarding result.

A second subject to be examined under the rural theme is the merit of expanding the use of a rural employment land designation, such as that used to designate the Carp Road corridor or perhaps broader application of industrial zoning in rural villages. The main purpose would be to identify rural lands of strategic importance to future employment development in the City and through designation protect them from being developed for alternate uses, and to provide controls to ensure orderly development.

<sup>&</sup>lt;sup>54</sup> Water service is in place along Leitrim Road at the northern edge of the industrial lands and the trunk sewer was extended along Bank Street approximately 1km east of the industrial land.



In addition to the Carp Road Corridor, there are approximately a dozen recognized industrial parks located in the rural portions of the City, some of which remain largely vacant. In total, these parks (excluding the Carp Road corridor) accounted for just over one quarter of the City's total rural employment (in 2006) and for many, business expansion has been very slow.

Given the ample supply of rural employment lands there is little merit to applying a protective designation to the rural industrial parks. Few, if any, of these rural industrial areas are located in areas where employment development might be considered strategic. In fact, given the large supply of rural industrial lands in relation to historic rates of absorption there is little case for ensuring protection for rural employment areas for several generations to come.

The exception would be the 400 series interchange locations located close to the urban boundary - including 417 (West) at Carp Road; 416 at Brophy / Bankfield (looking north to the lands in the vicinity of the Trail Landfill Site); and 417 (East) at Thunder Road (Nine Line) / Boundary Road. Lands currently designated "General Rural Area" located close to these key interchanges could be zoned to reserve the lands for transportation and logistics uses. The remaining interchange locations are non-strategic to employment development and should not be designated.

	Employment Composition by Major Group			
Group	Employment Group Definition	All Rural	Village	
1	Primary	5.2%	0.4%	
3	Utilities	0.3%	0.1%	
4	Construction	18.8%	15.3%	
5	Manufacturing	7.2%	3.2%	
6	Wholesale	4.1%	1.6%	
7	Retail	7.7%	15.0%	
8	Transportation and Warehousing	6.3%	4.7%	
9	Information and Cultural	0.6%	1.6%	
10	Finance and Insurance	1.0%	3.1%	
11	Real Estate and Rental Leasing	1.5%	1.9%	
12	Professional, Scientific & Technical Services	4.8%	5.6%	
13	Management of Companies & Enterprises	1.5%	0.2%	
14	Administrative and Support, Waste Mngt	8.3%	4.3%	
15	Education Services	5.7%	10.4%	
16	Health Care and Social Assistance	4.0%	8.6%	
17	Arts, Entertainment and Recreation	11.0%	5.5%	
18	Accommodation and Food Services	3.0%	6.4%	
19	Other Services	6.9%	11.1%	
20	Federal Public Administration	0.0%	0.0%	
21	Provincial Public Administration	0.1%	0.0%	
22	Local Public Administration	2.0%	1.1%	
23	Other Public Aministration	0.0%	0.0%	
Source:	City of Ottawa Employment Survey (2006)	100.0%	100.0%	

The more constructive approach to ensuring rural employment opportunities close to population would be to reinforce the industrial designations in the rural villages. There are advantages to concentrating employment in these rural population centres - to reduce travel, enhance sustainability of the villages and to take advantage of any village servicing scheme that may be developed<sup>55</sup>. According to the Official Plan, at least 50% of all rural growth is to be directed to villages.

To provide guidance, consideration could be given to a "Large Village Employment Policy", establishing a minimum target for employment that must be met before additional lands are approved for residential development.

<sup>&</sup>lt;sup>55</sup> The City has initiated a Rural Infrastructure Master Plan which will, in part, determine the feasibility and priorities for rural servicing to villages.



The policy would apply to villages with the capacity for 2,000 or more households and the employment target would be set at 0.75 jobs per household. This provides a mild "stretch" target, as the affected villages are close to this ratio now (in fact, in 2006 Manotick had achieved this ratio).

Large Village Employment Ratio in 2006				
	Jobs 2006	Hhlds 2006	Jobs/Hhld	
Greely	845	1561	0.54	
Manotick	1338	1768	0.76	
Richmond	809	1436	0.56	

Employment in Villages (2006)				
<b>Employee Count</b>	# Firms	as %		
1 to 2	352	38.8%		
3 to 5	294	32.4%		
6 to 10	141	15.5%		
11 to 20	72	7.9%		
21 to 50	38	4.2%		
more than 50	10	1.1%		
Total	907	100.0%		

Industrial Firms in Villages (2006)				
<b>Employee Count</b>	# Firms	as %		
1 to 2	96	43.2%		
3 to 5	69	31.1%		
6 to 10	32	14.4%		
11 to 20	15	6.8%		
21 to 50	7	3.2%		
more than 50	3	1.4%		
Total	222	100.0%		

How the target ratio is achieved is less important that ensuring there is a reasonable level of jobs in relation to the village population. And in all likelihood this will be achieved through accommodating a broad range of small employers. There are very few large rural employers approximately a dozen companies located in the City's 26 villages had more than 50 employees in 2006, made up of: trucking companies, lumber yards, construction materials and fabricators, landscaping/ nursery, medical / nursing centres plus schools and government offices. The bulk of village employment is represented by employment groups that could be accommodated in both village cores and village industrial parks. Construction, manufacturing, wholesale, trucking and warehousing, the staples of industrial parks, accounted for approximately one quarter of total village employment in 2006 (and in the majority, these were small firms also).

Which brings us to the third topic, the appropriateness (or not) of converting some rural industrial lands to other purposes.

A case in point is the interest expressed by owners of industrial lands in the Village of Richmond to convert some of the lands currently zoned for industrial use (total vacant land approximately 60 ha) to residential. The Village of Richmond was subject to a Community Design Plan (CDP) exercise in 2010 at which time the preservation of the industrial lands was confirmed although ARAC directed that the situation be further reviewed. The lands remain in large block ownership with limited road access. Without the benefit of subdivision into small lots, it is perhaps not surprising that development has not occurred.

The argument in favour of subdivision of this industrial area is that average firm size for village businesses across all 26 villages in the City is small, averaging less than 7 employees per

business in 2006 (with over 70% of all businesses located in villages having five employees or less). And this small firm size is a characteristic of all major employment groups. Over 70% of the types of firms that would normally locate in industrial parks were also comprised of firms with 5 employees or less – including construction, manufacturing, wholesaling, transportation and warehousing.

What can be concluded from the review of the employment land supply and character of rural development is that while having industrial park lands in villages ensures appropriate lands for the location of industrial type uses, the amount of development to be expected will be relatively small. Given the typical size of village businesses and the slow rate of employment development in the rural area, the prudent course would be to encourage the subdivision of industrial lands into small parcels with development phased in accordance with reasonable expectations of potential uptake and to not let residential development outstrip employment development.

The industrial demonstration plan prepared as part of the Richmond CDP illustrates one approach to such a subdivision of these lands. What is not as easy to visualize is how these industrial lands could be planned to accommodate both a properly subdivided industrial park and a residential subdivision.

In conclusion, although the City's rural land supply is greater than projected requirements, and by a substantial margin, the appropriateness of conversion to alternate uses will come down to a case-by-case review of the importance of the particular lands in question in meeting the Official Plan employment objectives, especially in regards to villages which are the main focal points for future rural growth, and the practicalities of conversion.

In the case examined here, that of the Village of Richmond, some of the industrial lands should be retained to support future employment development so as to ensure that a robust job to household ratio can be achieved. The expectation of the Official Plan is that the villages are to provide opportunities for rural living - not simply become urban bedroom communities. As to the balance of the industrial lands in Richmond, it is not clear how practical a partial conversion to residential might be such that the future development of the industrial lands is not jeopardized.

Conversion to alternate uses in the rural villages should meet the same test as set out for the urban areas: (1) are the employment lands being proposed for conversion currently unsuited for employment purposes?; (2) if they are unsuitable for employment purposes have all practical measures that can be taken to perfect them for employment use (such as subdivision into smaller lots) been considered?; (3) if there are no practical solutions to perfecting the lands for employment purposes, are the lands suitable for the uses being proposed and are the uses needed?; and (4) if the uses being proposed were developed, would the proposed development enhance, and not detract from, the suitability of the remainder of the employment lands for employment use? A "No" to any of these four questions would provide a strong argument for non-consideration of the request for conversion.



#### **Recommended Adjustments to Employment Land Designations**

Based on the review of the 2008 Employment Land Study, the results of the 2011 update to the employment land inventory, the preliminary results of the 2012 employment survey and the research underpinning the various themes examined as part of this study, it is concluded that the employment land designation system of the Official Plan is generally effective and promotes the objectives of the Official Plan.

The modifications suggested for consideration include:

- 1. Rescind (where practical) the Enterprise Area designation and replace it with an Employment Area designation to better protect the employment potential of the designated lands;
- 2. Through land use designation or zoning direction, protect lands in the vicinity of key 400 series interchange locations located at the edge of the urban area for future use by transportation and logistics companies;
- 3. Establish a minimum employment target for large villages (those with capacity for 2,000 or more households) set at 0.75 jobs per household.

## **Appendix 1: Employment Distribution City of Ottawa (2001 - 20012)**

**Note 1**: employment numbers extracted from the City's comprehensive employment surveys.

Note 2: 2001 and 2006 numbers have been adjusted to reflect geographic boundaries as they were in 2012.

**Note 3**: 2012 numbers are preliminary and may be subject to adjustment by the time they are published.

Employment Tren	ds 2001	through	2012		
All Employment	2001	2006	2012	2001-06	2006-12
Central and Inner Area	146,456	153,940	161,877	7,484	7,937
Remainder Inside Greenbelt - East	131,875	141,610	157,882	9,735	16,272
Remainder Inside Greenbelt - West	127,532	133,007	136,013	5,475	3,006
On Greenbelt Lands	9,583	11,152	14,961	1,569	3,809
Kanata + Stittsville	35,920	43,670	49,103	7,750	5,433
South Nepean + Riverside South + Leitrim	7,678	9,769	15,207	2,091	5,438
Orleans	14,458	17,898	21,240	3,440	3,342
Rural Total	17,813	21,749	25,944	3,936	4,195
Rural Villages	5,517	5,821	6,914	304	1,093
TOTAL	481,732	521,643	567,266	39,911	45,623
Urban Employment Lands	110,373	119,767	132,060	9,394	12,293
Rural Employment Lands Total	4,698	6,416	7,886	1,718	1,470
in Carp Road Corridor	1,039	1,557	1,811	518	254
Federal Government Employment	2001	2006	2012	2001-06	2006-12
Central Area	43,771	50,586	61,384	6,815	10,798
Remainder Inside Greenbelt	56,359	63,733	69,992	7,374	6,259
On Greenbelt Lands	3,437	4,150	4,878	713	728
Kanata + Stittsville	43	64	107	21	43
South Nepean + Riverside South + Leitrim	14	15	2,649	1	2,634
Orleans	98	154	117	56	-37
Rural Total	4	41	60	37	19
Rural Vilages	4	41	60	37	19
TOTAL	100,289	114,593	134,309	14,304	19,716
Urban Employment Lands	14,551	17,073	19,379	19,379	2,306
Rural Employment Lands	0	0	15	15	15
High Tech Employment	2001	2006	2012	2001-06	2006-12
Central Area	9,157	8,955	6,634	-202	-2,321
Remainder Inside Greenbelt	39,312	34,721	26,457	-4,591	-8,264
On Greenbelt Lands	1,547	1,317	1,563	-230	246
Kanata + Stittsville	19,857	21,835	22,275	1,978	440
South Nepean + Riverside South + Leitrim	1,587	786	991	-801	205
Orleans	185	271	280	86	9
Rural Total	992	889	800	-103	-89
Rural Villages	70	105	72	35	-33
TOTAL	71,090	67,457	57,437	-3,633	-10,020
Urban Employment Lands	37,165	34,992	34,344	-2,173	-648
Rural Employment Lands	702	631	628	-71	-3
Source: City of Ottawa comprehensive employment survey	s. Note 2012 fi	gures prelimi	nary.		



#### **Appendix 2: Business Owner Survey Methodology**

As part of the 2012 update to the employment land study, owners of businesses located in a sample of the City's urban industrial and business parks were contacted to solicit participation in a brief telephone survey.

A survey questionnaire was prepared by the author of this report and reviewed with City staff.

The sponsorship of the survey (City of Ottawa) was revealed and the purposes of the survey were provided as part of the canvass for participation:

- > to better understand the evolving needs of business owners in relation to finding suitable environments in which to locate their business.
- > to determine the importance of transit services to their business.

A sample of approximately 1,900 business telephone numbers was provided by City staff, divided into three "pools", representing urban industrial and business parks located: "East", "South" and "West" of the inner area.

A minimum target of 50 completions from each pool was established, and in all cases exceeded (60 "East", 66 "South" and 61 "West" - a total of 187 completed surveys).

The call list was randomized and each business was called in turn with the surveyors arranging a convenient time for participating respondents to complete the survey. The focus was on reaching the business owners – persons who had direct knowledge of the factors that influenced the choice of the current business location and what would be considered in selecting a future location.

Opinion Search, a market research firm, was contracted to complete the telephone survey work. Once the survey was completed, Opinion Search provided a data file to the author of this report for the purposes of analysis.

The main findings from the survey were consolidated into tables for incorporation in this report.

The survey questionnaire, in the form implemented by Opinion Search, is provided below.



# **Telephone Survey Questionnaire as Implemented by Opinion Search**

25:	HELLO
single	
min = 1 max = 1 l = 1 2013-02-12 10:55	
Hello, my name is I am part of a team conducting research for the City	
of Ottawa. We are speaking to business owners located throughout the City. The purpose	
of this research is twofold: first, to better understand the evolving needs of business owners in relation to finding suitable places to locate their business and second, to determine the	
importance of transit services to business. Are you the right person I should speak to?	
Yes - CONTINUE	
Yes, but not available - ARRANGE CALLBACK	
No, refused - THANK AND TERMINATE	
«HELLO »	
26:	REFER
single	NEFEN
min = 1  max = 1  l = 1	
2013-02-12 10:51	
Can you suggest someone I should speak to?	
=> +1 **NOT USU 0	
if NOT HELLO = 3	
Yes, transfers - RE-INTRODUCE	2
>/INT	2
No, refused - THANK AND TERMINATE 3 => /INT	
«REFER »	
27:	QA
single	
min = 1 $max = 1$ $I = 1$	
2013-02-12 10:55  QA. Is this a convenient time for you? [IF NEEDED: I appreciate that your schedule is	
often very busy. The survey will take ten to twelve minutes. I will not be asking any	
questions related to sales, profits or competitive positioning. Is this a convenient time for	
you?] Yes - CONTINUE1	
No, not available - ARRANGE CALLBACK	
No, refused - THANK AND TERMINATE 9 => /INT	
«QA »	
30:	Q3
single	
min = 1 $max = 1$ $I = 50$	
2013-02-12 11:26 Q3. What is your name please? [INTERVIEWER NOTE: TRY TO GET BOTH A FIRST	
AND LAST NAME, BUT IF THEY REFUSE ASK FOR JUST THE FIRST NAME. IF THEY	
REFUSE ENTER 'REFUSED' AND CONTINUE.]	
«Q3 »	



31: Q4 single  $min = 1 \quad max = 1 \ I = 1$ 2013-02-12 15:47 Q4. Before we begin, I would like to confirm that your business is located on <STRET>. Is this correct? Yes....... 1 «Q4» 32: Q4B single  $min = 1 \quad max = 1 \quad I = 50$ 2013-02-11 13:58 Q4B. What is the correct street name? => +1 if NOT Q4 = 2.9«Q4B» 33: Q5 single, open  $min = 1 \quad max = 1 \ I = 2$ 2013-02-25 09:40 Q5. In a few words, could you please describe the Principal business activity at this address. HVAC/plumbing......31 «Q5» «O\_Q5»



34: Q6A single, open  $min = 1 \quad max = 1 \ l = 2$ 2013-02-25 09:40 DO NOT ASK font color = "red"DO NOT ASK/font [INTERVIEWER: Based on the owner's description, please check the bprinciple/b business activity at this address.] <Q5:O> => +1 if Q5 = 99Manufacturing ...... 10 Other (specify)......77 «Q6A» «O\_Q6A» 35: Q6B single, open  $min = 1 \quad max = 1 \ I = 2$ 



2013-02-25 09:41

#### DO NOT ASK

font color = "red"DO NOT ASK/font [INTERVIEWER: Based on the owner's description, please check the bsecondary/b business activity at this address.] <Q5:O>

=> +1 if Q5 = 99

eliminate -> 19	
according to Q6A	
Accommodation and Food	
Administrative Support + Waste Management	
Agriculture and Forestry	
Arts / Entertainment / Recreation	
Construction	
Education Services	
Finance and Insurance	
Information and Culture	
Management of Companies	
Manufacturing 10	
Mining / Oil / Gas11	
Professional / Technical Services	
Public Administration	
Real Estate / Rental	
Repair Services	
Retail	
Transportation / Warehousing17	
Utilities	
Wholesale 19	
Other (specify)77	0
DO NOT READ: No Secondary business activity	Χ
DO NOT READ: Don't know/Refused	Χ
Other	Ν
Engineering	Ν
Health/dental services	Ν
Printing 22	Ν
«Q6B»	
«O Q6B»	

36: Q7

 $min = 1 \quad max = 1 \ I = 3$ 

2013-02-11 13:14

#### RECORD NUMBER OF YEARS

Q7. How long have you operated from this location? [INTERVIEWER NOTE: PLEASE ENTER THE NUMBER OF YEARS. IF LESS THAN ONE, ENTER 1.]

\$E 1 100

«Q7»

37:

Q8

single

 $min = 1 \quad max = 1 \ I = 1$ 

2013-02-09 13:50



Q8. Was the business located somewhere else prior to this address?	
No, always located here	
Yes, we were located in another City	
DO NOT READ: Don't know/Refused	
«Q8»	
38:	Q8B
single	
min = 1 $max = 1$ $l = 50$	
2013-02-11 13:58	
Q8B. What city was the business located in prior to this address?	
=> +1	
if NOT Q8 = 2	
«Q8B »	
39:	Q8C
single	
min = 1 $max = 1$ $l = 50$	
2013-02-11 13:59	
Q8C. What street in this city was the business located at prior to this address?	
=> +1	
if NOT Q8 = $3$	
«Q8C »	
40:	PREQ9
single	
min = 1 $max = 1$ $I = 1$	
2013-02-09 13:59	
The following questions ask about the factors that led to the choice of this location. Thinking	
back to the decision to locate at your current address, I am going to have you rank the	
importance of several factors, on a scale of 1 to 10. In terms of your decision to locate at	
your current address, how important was each of the following on a scale of 1 to 10, where 1	
is Not Important at All and 10 is Very Important  PRESS TO CONTINUE	
«PREQ9 »	
"ITEGO"	
41:	Q9A
single	
min = 1 $max = 1$ $l = 2$	
permutation -> Q9R	
2013-02-11 12:51	



Q9A. Availability of suitable land or building to PURCHASE [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	09
8	
7	
6	
5	
4	
3	
2	
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9A »	

42: Q9B

single

 $min = 1 \quad max = 1 \ I = 2$ 

2013-02-11 12:52

Q9B. Availability of suitable space to RENT [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9A = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
3	
7	
3	06
5	05
4	04
3	03
2	
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9B»	

43: Q9C

sinale

 $min = 1 \quad max = 1 \ I = 2$ 



Q9C. Price of the Purchase or Rent [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9A = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
8	
7	
6	
5	
4	04
3	03
2	02
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9C »	

44: Q9D

single

 $min = 1 \quad max = 1 \ I = 2$ 

2013-02-11 12:52

Q9D. The availability of free or lost cost parking [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9A = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
8	
7	
6	06
5	05
4	04
3	03
2	
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9D »	

45: Q9E

sinale

 $min = 1 \quad max = 1 \ I = 2$ 



Q9E. The package of services or incentives you were offered [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9A = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	09
8	
7	
6	
5	
4	
3	
2	02
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9E»	

46: Q9F

single

min = 1 max = 1 l = 2 2013-02-11 12:52

Q9F. Proximity to partners or suppliers [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9A = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
8	
7	
6	06
5	05
4	04
3	03
2	
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9F»	

47: Q9G

sinale

 $min = 1 \quad max = 1 \ I = 2$ 



Q9G. Proximity to clients / customers [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9A = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	09
8	
7	07
6	
5	05
4	
3	
2	02
1 - Not Important at All	
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9G»	

48: Q9H

single

 $min = 1 \quad max = 1 \ I = 2$ 

2013-02-11 12:53

Q9H. Proximity to other businesses similar to yours [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9A = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
3	
7	
3	. 06
5	. 05
4	. 04
3	. 03
2	
1 - Not Important at All	. 01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9H »	

49: Q9I

sinale

 $min = 1 \quad max = 1 \ l = 2$ 



Q9I. Availability of transit service [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9A = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	09
8	
7	07
6	
5	
4	
3	
2	
1 - Not Important at All	
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9I»	

50: Q9J

single

 $min = 1 \quad max = 1 \ l = 2$ 

2013-02-11 12:54

Q9J. Local road access [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9A = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
3	
7	
5	06
5	
4	04
3	03
2	02
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9J »	

51: Q9K

sinale

 $min = 1 \quad max = 1 \ I = 2$ 



Q9K. Road traffic conditions (congestion) [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9A = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	09
8	
7	
6	
5	05
4	
3	
2	02
1 - Not Important at All	
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9K »	

52: Q9L

single min = 1 max = 1 l = 2

2013-02-11 12:55

Q9L. Major highway access [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9A = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
3	
7	
3	06
5	05
4	04
3	03
2	02
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9L »	

53: Q9M

sinale

 $min = 1 \quad max = 1 \ I = 2$ 



Q9M. Accessibility to airport [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9A = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	09
8	
7	07
6	
5	
4	
3	
2	
1 - Not Important at All	
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9M »	

54: Q9N

single

min = 1 max = 1 l = 2 2013-02-11 12:55

Q9N. Accessibility to Via Rail station [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9A = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
3	
7	
3	06
5	
4	04
3	03
2	02
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9N »	

55: Q9O

sinale

 $min = 1 \quad max = 1 \ I = 2$ 



Q9O. Close proximity to housing for employees [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9A = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
8	
7	
6	
5	05
4	
3	
2	
1 - Not Important at All	
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9O »	

56: Q9P

single min = 1 max = 1 l = 2

2013-02-11 12:56

Q9P. Commercial services in the area (such as restaurants, banks) [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9A = 98 OR Q9Q = 98 OR Q9R = 98

10 - Very Important	10
9	
8	
7	
6	06
5	05
4	04
3	03
2	
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	99
DO NOT READ: Not involved in making the location choice	
«Q9P »	

57: Q9Q

sinale

 $min = 1 \quad max = 1 \ l = 2$ 



Q9Q. Recreational services and amenities (such as walking / biking trails, open space) [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10 if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9A = 98 OR Q9R = 98

10 - Very Important	10
9	
8	08
7	
6	
5	05
4	
3	
2	
1 - Not Important at All	
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«O9O »	
<del></del>	

58: Q9R

single

 $min = 1 \quad max = 1 \ I = 2$ 

2013-02-11 12:56

Q9R. The overall quality of the area as it related to meeting your business objectives [IF NEEDED: In terms of your decision to locate at your current address, how important was each of the following on a scale of 1 to 10, where 1 is Not Important at All and 10 is Very Important...]

=> Q10

if Q9B = 98 OR Q9C = 98 OR Q9D = 98 OR Q9E = 98 OR Q9F = 98 OR Q9G = 98 OR Q9H = 98 OR Q9I = 98 OR Q9J = 98 OR Q9K = 98 OR Q9L = 98 OR Q9M = 98 OR Q9N = 98 OR Q9O = 98 OR Q9P = 98 OR Q9Q = 98 OR Q9A = 98

10 - Very Important	10
9	09
8	08
7	
6	
5	
4	04
3	03
2	02
1 - Not Important at All	01
DO NOT READ: Don't know/Refused/Not applicable	
DO NOT READ: Not involved in making the location choice	
«Q9R »	

59: Q10

multiple, open

 $min = 1 \quad max = 5 \ l = 2$ 

2013-02-25 13:36



Q10. What key things must a location Absolutely Have to make it work for Your business?
RECORD:
DO NOT READ: Don't know/Refused
Nothing/no strengths/weaknesses
Other
Accessibility/easy to get to/close to clients (unspecified)
Access to city services (general)
Adequate/affordable parking spaces
Affordable/cheap rent
Centralization/quick access to downtown
City/property taxes
Costs/operating costs
Kitchen facilities
Leasing options/short-term leases
Loading docks
Local amenities (banks, restaurants, etc.)
Located within an industrial park
Noise levels
Ownership/being able to purchase the property and not lease
Power/power generators
Proximity to competitors/similar businesses
Proximity to major roads/highways
Proximity to public transit
Proximity to staff residences
Proximity to suppliers
Proximity to the airport
Safety/security41 N
Space/size/high ceilings
Technology/internet infrastructure/high speed/fibre optic
Telephone services
Traffic/congestion
Utility services/heat/hydro
Visibility/exposure
Warehousing/storage space
Well maintained/presentable/clean
Windows
Yard/green space
Building age/quality/style
Density/population
Located in a growing/growth area
Proximity to partners/sister businesses/facilities
Road conditions
Shipping/truck access/proximity to a trucking route
«Q10 01»
«Q10_01 » «Q10_02 »
«Q10_03 »
«Q10_03 » «Q10_04 »
«Q10_04 » «Q10_05 »
«Q10_03 » «O_Q10 »
"O_Q10 "

60: Q11

multiple, open min = 1 max = 7 l = 2 2013-02-25 09:43



READ LIST - ACCEPT ALL THAT APPLY	
Q11. Which markets are the products or services generated from your location most	
focused on?	
Ottawa / Gatineau 01	
Montreal	
Toronto	
Other places in Canada	
USA	
Other International	
Other (specify)	
DO NOT READ: Don't know/Refused	
Other	
«Q11_01 »	
«Q11_02 »	
«Q11_03 »	
«Q11 04 »	
«Q11_05 »	
«Q11_06 »	
«Q11 07 »	
«O_Q11 »	
*O_&11 **	
61:	Q12
61:	Q12
single	Q12
single $min = 1 max = 1 l = 2$	Q12
single min = 1 max = 1 I = 2 2013-02-09 14:18	Q12
single $min = 1  max = 1  l = 2$ $2013-02-09  14:18$ Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is	Q12
$single \\ min = 1  max = 1  l = 2 \\ 2013-02-09  14:18 \\ Q12.  On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?$	Q12
single  min = 1 max = 1 l = 2  2013-02-09 14:18  Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?  10 - Very high	Q12
$single \\ min = 1  max = 1  l = 2 \\ 2013-02-09  14:18 \\ Q12.  On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?$	Q12
single  min = 1 max = 1 l = 2  2013-02-09 14:18  Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?  10 - Very high	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05         4       04	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05         4       04         3       03         2       02	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05         4       04         3       03         2       02         1 = Very Low       01	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05         4       04         3       03         2       02	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05         4       04         3       03         2       02         1 = Very Low       01         DO NOT READ: Don't know/Refused       99	Q12
single         min = 1 max = 1 l = 2         2013-02-09 14:18         Q12. On a scale of 1 to 10, where 1 is Very Low and 10 is Very high, how important is having transit service to your business?         10 - Very high       10         9       09         8       08         7       07         6       06         5       05         4       04         3       03         2       02         1 = Very Low       01         DO NOT READ: Don't know/Refused       99	Q12 Q13A

min = 1 max = 5 l = 2 2013-02-25 13:36

The next question asks you to think about the Strengths and Weaknesses of the AREA your business is located in. Q13A. What would you say are the Top Strengths of your current location?

RECORD:	7 C
DO NOT READ: Don't know/Refused99	) X
Nothing/no strengths/weaknesses98	
Other	
Accessibility/easy to get to/close to clients (unspecified)	) N
Access to city services (general)21	
Adequate/affordable parking spaces22	
Affordable/cheap rent23	3 N
Centralization/quick access to downtown2	1 N
City/property taxes	
Costs/operating costs	3 N
Kitchen facilities	
Leasing options/short-term leases28	
Loading docks29	
Local amenities (banks, restaurants, etc.)	) N
Located within an industrial park	
Noise levels32	
Ownership/being able to purchase the property and not lease 33	3 N
Power/power generators	1 N
Proximity to competitors/similar businesses	
Proximity to major roads/highways	
Proximity to public transit	7 N
Proximity to staff residences	
Proximity to suppliers	
Proximity to the airport	
Safety/security41	
Space/size/high ceilings42	
Technology/internet infrastructure/high speed/fibre optic	
Telephone services	1 N
Traffic/congestion	
Utility services/heat/hydro46	3 N
Visibility/exposure	
Warehousing/storage space48	3 N
Well maintained/presentable/clean	) N
Windows	
Yard/green space51	ĺΝ
Building age/quality/style52	2 N
Density/population	
Located in a growing/growth area54	
Proximity to partners/sister businesses/facilities	
Road conditions	
Shipping/truck access/proximity to a trucking route	
«Q13A_01 »	•
«Q13A_02 »	
«Q13A 03 »	
«Q13A_04 »	
«Q13A 05 »	
«O Q13A »	

63: Q13B

multiple, open  $min = 1 \quad max = 5 \quad l = 2$  2013-02-25 13:36



Q13B. What would you say are the Main Weaknesses of your current		
RECORD:		0
DO NOT READ: Don't know/Refused	99	X
Nothing/no strengths/weaknesses		N
Other	88	N
Accessibility/easy to get to/close to clients (unspecified)	20	N
Access to city services (general)	21	N
Adequate/affordable parking spaces	22	N
Affordable/cheap rent	23	N
Centralization/quick access to downtown	24	N
City/property taxes	25	N
Costs/operating costs	26	Ν
Kitchen facilities	27	N
Leasing options/short-term leases	28	N
Loading docks	29	Ν
Local amenities (banks, restaurants, etc.)		N
Located within an industrial park	31	N
Noise levels		N
Ownership/being able to purchase the property and not lease		N
Power/power generators		N
Proximity to competitors/similar businesses		N
Proximity to major roads/highways		N
Proximity to public transit	37	N
Proximity to staff residences	38	N
Proximity to starr residences		N
Proximity to suppliers		N
Safety/security	40	N
Space/size/high ceilings		N
Technology/internet infrastructure/high speed/fibre optic	43	N
Telephone services	44	N
Traffic/congestion	45	N
Utility services/heat/hydro	46	N
Visibility/exposure		N
Warehousing/storage space		N
Well maintained/presentable/clean		N
Windows		N
Yard/green space		N
Building age/quality/style	52	N
Density/population		N
Located in a growing/growth area	54	Ν
Proximity to partners/sister businesses/facilities	55	N
Road conditions	56	N
Shipping/truck access/proximity to a trucking route		Ν
«Q13B 01 »		
«Q13B 02 »		
«Q13B_03 »		
«Q13B_04 »		
«Q13B 05 »		
«O Q13B»		
- <del></del>		

64: Q15

single min = 1 max = 1 I = 2 2013-02-09 14:33



We are getting near the end of our survey. This next section asks about future plans. Q15. On a scale of 1 to 10, how likely is it that you will move your business from this location within the next 10 years where 1 is Very Unlikely and 10 is Very Likely. 10 - Very Likely ...... 10 «Q15 » 65: Q16 multiple  $min = 1 \quad max = 4 \ l = 1$ 2013-02-12 09:41 READ LIST - ACCEPT ALL THAT APPLY Q16. If you WERE to move, what would be the principal reasons? To take advantage of desirable conditions in a different location .......... 4 «Q16 01 » «Q16\_02 » «Q16\_03 » «Q16\_04 » 66: Q17 single, open  $min = 1 \quad max = 1 \ I = 2$ 2013-02-25 09:44 Q17. If you WERE to move, what GENERAL area of the City would you most likely locate Other 88 N «Q17 » «O\_Q17 »

67: Q18

multiple, open

 $min = 1 \quad max = 5 \ l = 2$ 

2013-02-25 13:37

Q18. If you were to move, what key features would you definitely WANT to HAVE in your next location?

=> +1

if NOT Q17 = 01,02,03,04,77,99

```
Safety/security......41
Located in a growing/growth area ...... 54 N
Shipping/truck access/proximity to a trucking route ...... 57 N
«Q18 01 »
«Q18_02 »
«Q18 03 »
«Q18 04 »
```



«Q18 05 » «O\_Q18 »

Q19 68:

multiple, open

 $min = 1 \quad max = 5 \ l = 2$ 

2013-02-25 13:37

Q19. If you were to move, what aspects would you definitely WANT to AVOID in your next location?

=> +1

if NOT Q17 = 01,02,03,04,77,99

```
Access to city services (general)......21
Safety/security......41
Located in a growing/growth area ...... 54 N
«Q19 01 »
«Q19_02»
«Q19_03 »
```

**Danix Management Limited** 

<sup>«</sup>Q19\_05 »



<sup>«</sup>Q19\_04 »

«O\_Q19 »

69:		Q20
single		
$min = 1  max = 1 \mid l = 2$		
2013-02-11 13:02		
Q20. On a scale of 1 to 10 where 1 is Not Very Likely and 10 is Very Likely, if you were to		
RELOCATE your business or OPEN A NEW ONE, how likely is it you would pick a location		
near a rapid transit station? 10 - Very Likely10		
9		
8		
7		
6		
5		
4		
3		
2		
1 - Not Very Likely01		
DO NOT READ: Don't know/Refused		
«Q20 »		
70:		Q21
multiple, open		
$min = 1  max = 5 \mid l = 2$		
2013-02-25 13:37		
This is the final part of our survey. We are almost finished. Rapid transit services are being		
expanded in the City, with a portion of the bus transit system converted to light rail. Q21. In		
your OPINION, what would make the locations served by rapid transit more attractive to		
MOST business owners?		
RECORD:		
Other	20	N
Trodifficy access to transitive ingrable to get there easily/conveniently (unspecified)	20	IN
Accessibility to local amenities/shopping		
Availability of service/better/more frequent schedules		
Cost/affordability		
Faster/more efficient service/to get places		
Good/low taxes/tax incentives		
More attractive areas/green spaces		
More park and ride/drop off/depot locations		
Reliable bus service/reduce delays		
Access to light rail transit system		
Comfortable seating		
«Q21_01 »		
«Q21_02 »		
«Q21_03 » «Q21_04 »		
«Q21_04 » «Q21_05 »		
«Q21_05 » «O_Q21 »		
"O_QZ1"		



71:	PRE22
single min = 1 max = 1 l = 1  2013-02-09 14:51 I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.  PRESS TO CONTINUE	
72:	Q22A
single $min = 1  max = 1  I = 1$	
permutation -> Q220 2013-02-09 14:55 Q22A. Lack of suitable opportunities to buy or rent [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.] Strong Barrier	
73:	Q22B
single  min = 1 max = 1 l = 1  2013-02-09 14:56  Q22B. High price to own or rent [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	Q22B
single  min = 1 max = 1 l = 1  2013-02-09 14:56  Q22B. High price to own or rent [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	Q22B



75:	Q22D
single min = 1 max = 1 l = 1  2013-02-09 14:57  Q22D. Lack of proximity to partners or suppliers [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
76:	Q22E
single min = 1 max = 1 l = 1  2013-02-09 14:57  Q22E. Lack of proximity to clients / customers [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
77:	Q22F
single min = 1 max = 1 l = 1  2013-02-09 14:57  Q22F. Lack of proximity to other similar businesses [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
78: single	Q22G
min = 1  max = 1  l = 1	



79:	Q22H
single  min = 1 max = 1 l = 1  2013-02-09 14:59  Q22H. Lack of major highway access [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
80:	Q22I
single  min = 1 max = 1 l = 1  2013-02-09 14:59  Q22I. Difficulties for shipping and receiving [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
81:	Q22J
single min = 1 max = 1 l = 1  2013-02-09 14:59  Q22J. Incompatible mix of uses [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.] Strong Barrier	Q22J
single min = 1 max = 1 l = 1 2013-02-09 14:59 Q22J. Incompatible mix of uses [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.] Strong Barrier	Q22K



83:	Q22L
single min = 1 max = 1 l = 1  2013-02-09 15:00  Q22L. Lack of frequency or inconsistency of transit service [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
84:	Q22M
single min = 1 max = 1 l = 1  2013-02-09 15:00  Q22M. Lack of commercial services in the area (such as restaurants, banks) [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.]  Strong Barrier	
85:	Q22N
single min = 1 max = 1 l = 1 2013-02-09 15:01 Q22N. Lack of recreational services and amenities (such as walking / biking trails, open space) [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.] Strong Barrier	Q22N
single min = 1 max = 1 l = 1 2013-02-09 15:01 Q22N. Lack of recreational services and amenities (such as walking / biking trails, open space) [IF NEEDED: I am now going to read a list of reasons that MIGHT prevent business owners from considering locating business near transit stations. I would ask that you indicate, for each item on the list, those that you think are potentially Strong or Weak BARRIERS to locating a business near a transit station.] Strong Barrier	Q22N Q22O



87:	Q22P
multiple, open	
$min = 1  max = 5 \mid l = 2$	
2013-02-25 09:44	
Q22P. Can you think of any other strong or weak barriers?	
Yes (specify)	
No 98 X	
DO NOT READ: Don't know/Refused	
Other	
Noise levels	
Safety/security/crime	
«Q22P_01 »	
«Q22P_02 »	
«Q22P_03 »	
«Q22P_04 »	
«Q22P_05 »	
«O Q22P»	
0_4221	
88:	Q23
	420
single	
min = 1 $max = 1$ $l = 2$	
2013-02-11 13:22	
This is our final question. Q23. To what extent do you agree with this statement: "Moving	
from a BUS based to a RAIL based rapid transit system will GREATLY INCREASE the	
attractiveness of the station locations to business." Please use a scale from 1 to 10, where	
10 is Very Strongly AGREE and 1 is DON'T AGREE at all.	
10 - Very Strongly Agree	
909	
8	
707	
6	
5	
4	
3	
2	
1 - Don't agree at all	
DO NOT READ: Don't know/Refused	
«Q23 »	
90.	INT99
89:	IN 199
single	
min = 1 $max = 1$ $l = 2$	
2013-02-09 15:05	
I would like to thank you Very Much for assisting with our research. Thank you and have a	
great day.	
COMPLETED	
«INT99 »	