





Market Demand Projections
Update

Prepared for:

Waterfront Toronto May 24, 2016



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Executive Summary

Overall Port Lands Demand Conclusions

- City high-rise growth is expected to remain strong over the forecast period. Port Lands residential demand is estimated at approximately 5,000 units over the 2023 to 2042 forecast time horizon.
- Significant office demand is also forecast, assuming higher order transit. Office demand is projected at 1.2 million to 2.6 million sf. The midpoint of this range is 1.9 million sf.
- Some extent of local serving retail is also projected, at 296,000 sf.

Scope of Work

Overview

Cushman & Wakefield – Valuation & Advisory has been retained to complete:

- An update of its 2012 Port Lands office, retail and residential condominium market demand forecast, focusing on the Villiers Island Neighbourhood and Film Studio District.
 - The 2012 projection initially covered a 20 year (2012 to 2031) period, but was expanded to 30 years (2012 to 2041), with development commencing early in that timeframe.
 - The current (2016) update covers the 20 year period between 2023 and 2042, which in turn is based upon both historic trends and projections for the 2015 to 2022 period, as well as the development pipeline as of 2016.
- An order-of-magnitude projection of the revenues potentially achievable from the disposition of City Owned lands from 2023 to 2042. This projection will be covered in a separate deliverable.
- A Development Charge Projection report was prepared by Hemson Consulting using the C&W forecast.

Results

Demand Summary (# of units)									
5 year intervals	Total	Annual Average							
2023-27	560	112							
2028-32	1,034	207							
2033-37	1,519	304							
2038-42	1,831	366							
Total	4,945	247							

Demand Summary (# of units)							
	Cumulative						
2023-27	560						
2023-32	1,594						
2023-37	3,113						
2023-42	4,945						

- Based upon demographic and housing formation trends, high-rise development within the city will remain strong over the forecast period. In addition, a constrained land supply within the city will continue to raise the price of ground related housing, encouraging buyers to seek more affordable high-rise housing alternatives.
- Demand is projected to build, commencing at 112 units per annum during 2023-2027, and ultimately 366 units per annum during 2038-42. Total demand for the 2023 – 2042 (20 year) period is projected to 4,945 units.
- The preceding compares to a projected 7,600 units (between 2022 and 2041) within our 2012 Port Lands Acceleration Initiative report. The variance between the two Reports is 15% (on 7,600 units) during this time period.
- It is more appropriate to compare the volume of demand during the first 20 years of the current (2015) and prior (2012) forecasts.
- The 2012 forecast projects 7,400 units, compared to 6,500 in the 2015 forecast. This represents a variance of 12%.

Comparison to City of Toronto (internal) Apartment Demand Projection

Toronto Apartment Demand # of Units									
	Cushman & Wakefield Projection								
2023-27	58,136	54,972							
2028-32	57,253	56,952							
2033-37	56,543	54,903							
2038-42	55,693	52,386							
Total	227,625	219,213							

Market Share of Toronto Apartment Demand (City Projection) # of units								
5 year intervals	Total	Annual Average						
2023-27	465	93						
2028-32	1,145	229						
2033-37	1,470	294						
2038-42	1,782	356						
Total	4,862	243						

For comparison and illustrative purposes only:

- We compared the City of Toronto's internal projection of Toronto Apartment Demand to Cushman & Wakefield's.
- We then allocated Cushman & Wakefield's projected demand share to the City of Toronto's internal City of Demand projection.
- The City of Toronto's and Cushman & Wakefield's projection differ by only 8,400 units over 20 years (420 units per annum), a difference of only 3.7%.
- Applying Cushman & Wakefield's projected Port Lands market share, the difference is only 83 units over 20 years (4,945 units over 20 years as concluded by Cushman & Wakefield vs 4,862 units applying market share to the City's projection).
- Accordingly, two independently prepared Portlands projections are within 1.6% of each other.

Reality Check

The projected 6,490 units of Port Lands residential condominium demand (325 units per annum) compares to:

- 6,000 units planned for the West Don Lands, which absorbed 1,287 units (215 units per annum) to date.
- 7,500 units planned for Regent Park, which absorbed 1,449 units (242 units per annum) to date.
- 7,500 units planned for CityPlace, which absorbed 1,952 units between 2005 and 2014 (587 units per annum). CityPlace has launched at total of 7,125 units between 2000 and the end of 2015, averaging at 445 units per annum.
- 6,000 planned units at Concord Park Place, which absorbed 1,952 units (244 units per annum) to date.
- 6,000 planned units within East Bayfront.
- 5,270 planned units within Humber Bay Shores.

Reality Check

Projected Port Lands multi-residential apartment demand of 325 units per annum (over 20 years, between 2023 and 2042) is considered to be reasonable and supportable, in the light of the following market statistics:

- Absorption within the West Don Lands, Regent Park, CityPlace and Concord Park Place neighbourhoods has ranged from 215 to 445 units per annum, and has averaged at 287 units per annum. Projected Port Lands demand (at 325 units per annum) is 38 units per annum (13%) above this average.
- The midpoint of the aforementioned 215 to 445 units per annum range is 344 units. Projected Port Lands demand is approximately 19 units per annum (6%) below this midpoint.
- The delta between the lowest neighbourhood demand level (242 units per annum at Regent Park) and the highest neighbourhood demand level (445 units per annum at CityPlace) is 203 units.
- Projected Port Lands demand (at 325 units per annum) is 83 units (41%) above the 242 unit low, and 120 units (59%) below the 445 unit high.

Office Demand Projections

Results

Port Land – Incremental Demand (Rounded)

AVERAGE OF MODEL 1 AND MODEL 2

	Incremental Total	Average Annual
2023-2027	273,000 - 618,000 sf	54,600 - 123,600 sf
2028-2032	272,000 - 615,000 sf	54,400 - 123,000 sf
2033-2037	306,000 - 676,000 sf	61,200 - 135,200 sf
2038-2042	304,000 - 673,000 sf	60,800 - 134,600 sf
TOTAL	1,154,000 – 2,582,000 sf	57,700 - 129,100 sf

Port Land – Cumulative Demand (Rounded)

AVERAGE OF MODEL 1 AND MODEL 2

	Cumulative Total
2023-2027	273,000 - 618,000 sf
2023-2032	545,000 - 1,233,000 sf
2023-2037	851,000 - 1,909,000 sf
2023-2042	1,155,000 - 2,582,000 sf

- The two office demand models utilized in our analysis each provide a low to high range. Each projects demand from 2023 to 2042.
- The average of the low ends of the range is 1,200,000 sf (cumulative, from 2023 to 2042). The average of the high ends of the range is 2,600,000 sf. Accordingly, demand is projected to range from 1.2 million to 2.6 million sf. The midpoint of this range is 1.9 million sf.
- The preceding equates to 58,000 to 129,000 sf (93,500 sf midpoint), although it should be noted that the model is not run on an annual straight-line basis.
- The amount of demand capture indicated in our modeling indicates that Villiers Island neighbourhood and Film Studio District would represent a 4% to 11% share of overall City of Toronto demand from 2023-2042.

Office Demand Projections

Results

Comparison to the Prior (2012) Forecast

- The "conservative" scenario of the 2012 forecast projected 1.8 million sf of office development during the first 20 years of the forecast model, which compares to the 1.2 million sf lower end of the 2015 forecast.
- The "moderate" scenario of the 2012 forecast projected 2.9 million sf, which compares to the 2.6 million sf higher end of the 2015 forecast.
- The "aggressive" scenario in the 2012 forecast indicated 4.0 million sf of demand to be captured by the Port Lands. Importantly, the 2012 forecast was prepared prior to the nearby First Gulf Unilever site being considered for future office development. The First Gulf Unilever site will now directly compete with the Port Lands for market share.
 - In 2012, we saw the Port Lands as an office campus capable of offering suburban-priced rents at a location that is in close proximity to the Downtown (and its substantial residential population/labour pool). In this respect, it had more limited competition. The First Gulf Unilever site will now directly compete with this vision.
 - Accordingly, we no longer consider the level of office demand indicated in our 2012 "aggressive" scenario (totaling 4.0 million sf over the first 20 years) to be realistic.

Retail Demand Projections

Results

Port Land – Incremental Demand (Rounded)

AVERAGE OF MODEL 1 + 2 + 3

	Total	Average Annual
2023-2027	57,000	11,400
2028-2032	68,000	13,600
2033-2037	79,000	15,800
2038-2042	92,000	18,400
TOTAL	296,000	14,800

Port Land – Cumulative Demand (Rounded) AVERAGE OF MODEL 1 + 2 + 3

	Total
2023-2027	57,000
2023-2032	125,000
2023-2037	204,000
2023-2042	296,000

- Port Lands retail demand is projected at 296,000 cumulative, from 2023 to 2042.
- The preceding forecast represents average annual absorption of approximately 14,800 sf (although the model is not run on an annual straight-line basis).
- The modeling completed during the initial Port Lands Acceleration Initiative work (2012) indicated demand for 172,000 to 407,000 sf of retail space in the Port Lands during the initial 20 years of the forecast model, which is in line with our current forecast.
- Comparing the first 20 years of each of the 2012 and 2015 Forecasts:
 - The 2012 forecast projects 172,000 sf ("conservative"), 278,000 ("moderate") and 407,000 sf ("aggressive").
 - The 2015 forecast projects 296,000 sf



Scope of Work and Background

Scope of Work

Background

Scope of Work

Overview

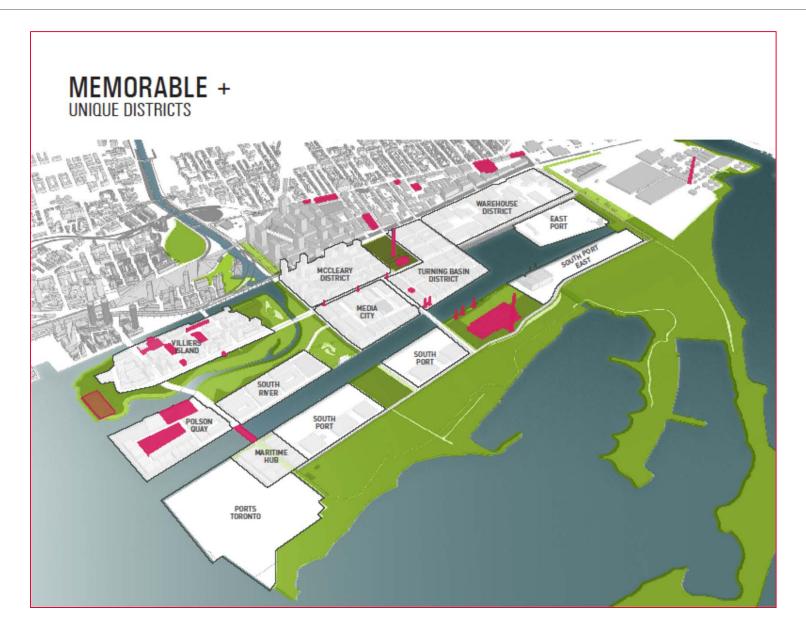
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General

- Waterfront Toronto (and its stakeholders) have jurisdiction over approximately 218.1 acres of Port Lands, inclusive of 35.5 acres within the Villiers Island Neighbourhood and 56.8 acres within the Film Studio District.
- This Report focuses on the Villiers Island Neighbourhood and Film Studio District.
- Villiers Island Neighbourhood has approximately 5.6 million sf of development density, including
 4.5 million sf of residential (4,820 units) and 1.1 million sf of non-residential density.
- The Film Studio District has approximately 5,424 residential units and 4.6 million sf nonresidential development potential.
- The map and table that follows this page provides a breakdown of development potential, by land use and neighbourhood.

Port Lands Districts



Villiers Island and Film Studio Land Use Capacity Context

Development Density Breakdown (square feet unless otherwise indicated)										
Lower Don Lands	Acres	Residential Units	Retail	Office	Other Non-Res GFA	Total Employment GFA				
Villiers Island	35.5	4,820	169,275	788,033	171,643	1,128,950				
Film Studio District	56.8	5,424	519,664	930,935	3,169,256	4,619,855				

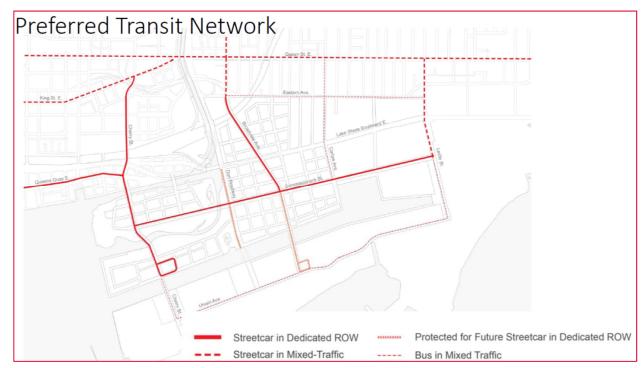
Source: City Planning Division / Waterfront Toronto

Higher Order Transit Access

- We have assumed that Villiers Island Neighbourhood will have BRT during the first 10 years of the projection period (2023-2032), and will transition to LRT during the next 10 years (2033-2042).
- As illustrated in the following map, over the longer term our projections assume that the Villiers Island Neighbourhood and the Film Studio District will have access to a Streetcar that functions within a dedicated ROW, connecting to Downtown Toronto via Queens Quay East.

 We have further presumed that a single SmartTrack and/or GO Transit Regional Express Rail station will be located along the rail corridor, somewhere between Parliament Street and Queen

Street East.





Port Lands Demand Results

Residential Demand Projections Methodology Comparative Condominium Neighbourhoods/Precincts Method A – Build Out Projection Method B – Market Share of Population Based City of Toronto Demand Projection Port Lands Demand Projections

Methodology

We used two (2) approaches:

- **Method A Build-Out Projection** We projected Villiers Island Neighbourhood and Film Studio District residential demand by modeling a series of condominium building developments over time. The pace of development is assumed to increase as the neighbourhood gains market acceptance. Accordingly, the model assumes gradually improving monthly presales absorption rates and the simultaneous completion of an increasing number of condominium buildings, all resulting in an increasing pace of condominium development and absorption. Occupancy occurs later, once the building is constructed, but is not relevant to our projections. We assumed that development would occur through 250 and/or 400 unit condominium building typologies (building sizes that are common to the condominium neighbourhoods that we reviewed). Each building is thereby presumed to be either 235,000 sq.ft. or 375,000 sq.ft. in size, based on an average 936 sq.ft. unit size (the average unit size in the development block plan).
- Method B Market Share of Population-Based City of Toronto Demand Projection We projected City of Toronto condominium starts, as a proportion of total housing starts, based upon population projections provided by the City of Toronto and persons per household trends. The Port Lands are allocated a share of this demand, based upon the demonstrated market shares of other high density neighbourhoods in the City of Toronto.

Our residential condominium demand projection for 2023 to 2042 (20 years) uses the average of the above two approaches.

Both Method A and B were informed by the following analysis of the historic performance of other residential condominium neighbourhoods and Neighbourhoods across the City of Toronto. The Waterfront Toronto | Cushman & Wakefield

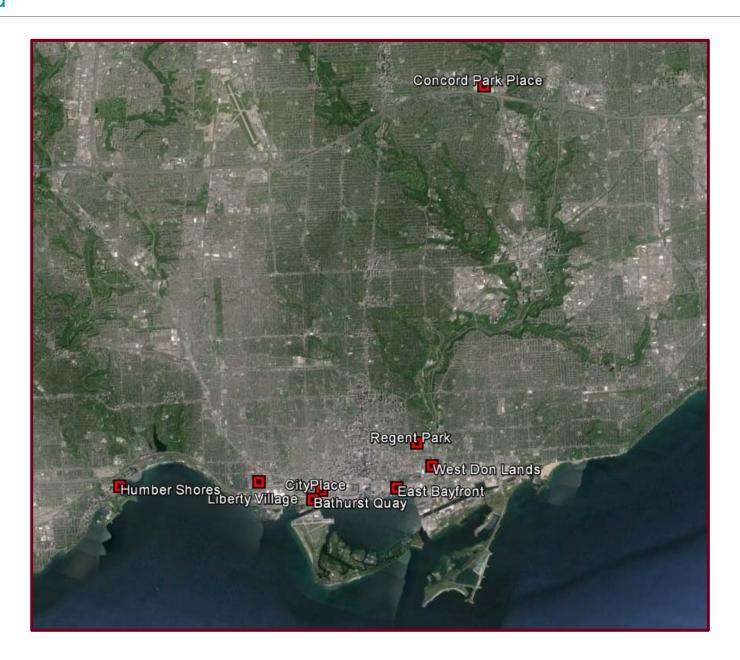
Market Performance Analysis

We reviewed the historic market performance of the following neighbourhoods/precincts.

- West Don Lands
- Regent Park
- East Bayfront
- Bathurst Quay
- Humber Shores
- CityPlace
- Concord Park Place
- Liberty Village

These neighbourhoods/precincts are mapped and described in the following pages.

Mapped



West Don Lands

Description: A mixed—use district covering approx. 79 acres.

Boundaries

North: King St East

South: Rail Corridor

West: Parliament St.

East: Don River



Planning Context

- The neighbourhood plan was completed in May 2005. A phased approach to development was taken with the total area being divided into 4 districts.
- Development began in 2008, active marketing commenced in 2009 and the first phase achieved occupancy in 2014.
- Approx. 6,000 residential units are planned (20% of which are affordable).

- Annual sales have ranged from 109 to 461 units per annum, averaging at 215 units per annum.
- Market share (of the City of Toronto) has ranged from 0.8% to 2.9%, averaging at 1.5%.

Regent Park

Description: A mixed – use district covering approx. 69 acres.

Boundaries

North: Gerrard St. East

South: Queen St. East

West: Parliament St.

East: River St.



Planning Context

- The neighbourhood plan was approved in 2003. The project has 3 phases.
- Phase 1 commenced development in 2005 and was completed in 2012. Phase 2 began in 2009 and is expected to be completed by 2017. Phase 3 is yet to begin.
- The plan provides for 7,483 units, including 5,400 market residential units and 2,083 community housing units.

- Annual sales have ranged from 179 to 295 units per annum, averaging at 242 units per annum.
- Market share (of the City of Toronto) has ranged from 1.1% to 2.5%, averaging at 1.8%.

East Bayfront

- Description: A mixed-use eastward extension of the waterfront.
 - Boundaries
 - North: Lakeshore Blvd. East
 - South: Lake Ontario
 - West: Lower Jarvis St.
 - East: Parliament St.



Planning Context

- The neighbourhood plan was approved in 2006.
- Approximately 6,000 residential units (20% of which are affordable) are planned, of which 1,141 have been completed and/or are now actively being marketing.
- Development is expected to unfold in phases over the next 10 years.

Bathurst Quay

Description: A Mixed – Use district along Toronto's
 Central Waterfront covering approx. 74 acres.

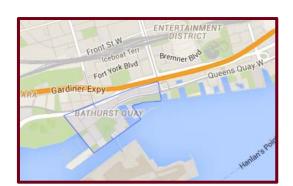
Boundaries

North: Lakeshore Blvd. West

South: Western Channel of Billy Bishop Airport

West: HMCS York property

East: Spadina Ave.



Planning Context

- Major mid-rise redevelopment took place in 2000. The latest building was completed in 2011 (Quay West by Monarch).
- A preliminary neighbourhood plan (the Bathurst Quay Neighbourhood Plan Preliminary Directions) was adopted by council in 2015. This plan provides for approximately 1,651 residential units. The final Bathurst Quay Neighbourhood Plan is still under development.
- Going forward, several areas are expected to be redeveloped including the Canadian Malting Silos property.

Humber Bay Shores

 Description: A mixed-use neighbourhood with mid-rise buildings and towers located north of Humber Bay Shores Parks, covering an area of approx. 20 acres.



Boundaries

North: Lakeshore Blvd. West

South: Marine Park Drive

West: Marine Park Drive

East: Brookers Lane

Planning Context

- The first phase of development began in 2003 with occupancy taking place in 2006. Several buildings are currently under construction.
- The neighbourhood plan was ultimately approved in June 2010.
- The plan includes 5,270 residential units.

CityPlace

 Description: A mixed-use high-rise residential neighbourhood, covering an area of approx. 45 acres.

Boundaries

North: Front St. West

South: Lakeshore Blvd. West

West: Bathurst St.

East: Blue Jays Way

Planning Context

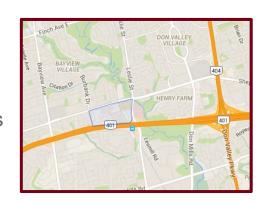
- The first phase of development began in 2000.
- The community will consist of 29 condominium buildings with 7,500 residential units.
- The latest tower will be completed in Spring 2019.

- Annual sales have ranged from 244 to 1,096 units per annum, averaging at 587 units per annum.
- Market share (of the City of Toronto) has ranged from 2.1% to 10.0%, averaging at 4.5%.



Concord Park Place

 Description: A multi-tower residential neighbourhood covering approx. 45 acres. While Concord Park Place is not located in central area it is nonetheless a large development neighbourhood in the city of Toronto and is thereby worthy of consideration.



Boundaries

North: Sheppard Ave. East

South: Highway 401

West: Bessarion Rd.

East: Leslie St.

Planning Context

- The first phase of development began in 2007.
- Upon completion, Concord Park Place will be home to 5,000 condominium units in 20 buildings.

- Annual sales have ranged from 45 to 568 units per annum, averaging at 244 units per annum.
- Market share (of the City of Toronto) has ranged from 0.4% to 3.5%, averaging at 1.7%.

Liberty Village

 Description: A 43 acre master planned community combining residential, office and retail uses.

Boundaries

North: King Street West

South: Gardiner Expressway

West: Dufferin Street

East: Strachan Avenue



Planning Context

- The first phase of development began in 2003.
- The plan includes approx. 5,000 residential units.

- Annual sales have ranged from 60 to 1,197 units per annum, averaging at 402 units per annum.
- Market share (of the City of Toronto) has ranged from 0.4% to 10.2%, averaging at 3.0%.

GTA and City of Toronto Market Performance

- The following table provides City of Toronto condominium market activity from 2005 to 2014, which was used to determine neighbourhood market share, for the neighbourhoods identified on the previous slides.
- Annual City of Toronto condominium sales have ranged from 10,018 to 20,042 units per annum, and have averaged at 13,520 units per annum over the past 10 years.

City of Toronto Condominium Market											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
City of Toronto Total Units	38,347	35,317	44.070	51,030	50.673	58,796	64,310	67.673	71.247	79,881	
Annual Sales	11,714	10,972	16,195	10,018	11,793	15,876	20,042	11,896	10,555	16,146	
% Sold Unsold Sold (psf)	73% n/a	73% n/a	75% n/a	70% n/a	79% \$533	79% \$571	79% \$585	80% \$614	81% \$606	84% \$616	

Source: Urbanation Inc.

Condominium Market Performance

- Annual per project absorption rates have ranged from a low of 12 units per annum (1 unit per month) to a high of 283 units per annum (24 units per month) and have averaged at 87 units per annum (7 units per month).
- The number of concurrent actively marketing projects within a neighbourhood has ranged from a low of 1 to a high of 10, and has averaged at 5.

Annual Neighbourhood Market Performance – By Project													
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Min.	Max.	Avg.
CityPlace													
# of active proj.	6	7	7	6	7	8	7	5	6	7	5	8	7
Annual Sales/project	138	157	119	49	76	89	96	62	41	50	41	157	88
Concord Park Place													
# of active proj.			3	4	4	3	5	2	3	3	0	5	3
Annual Sales/project	-	-	189	32	66	153	42	23	75	19	19	189	75
Liberty Village													
# of active proj.	3	3	6	7	10	10	10	7	6	5	3	10	7
Annual Sales/project	56	69	109	55	120	65	50	18	12	12	12	120	57
Regent Park													
# of active proj.					1	2	2	2	2	2	1	2	2
Annual Sales/project	-	-	-	-	283	90	142	148	109	96	90	283	144
West Don Lands													
# of active proj.					1	1	2	3	3	5	1	5	3
Annual Sales/project	-	-	-	-	109	165	79	103	28	92	28	165	96

Condominium Market Share

• Each neighbourhood's share of the City of Toronto market has ranged from a low of 0.4% to a high of 10.2%, and has averaged at 2.7%. Neighbourhood market share is of course influenced by the number of units available for sale, both locally and Citywide.

Annual Market Performance – by Neighbourhood											
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	
CityPlace											
Annual Sales	827	1096	834	293	531	715	669	310	244	347	
% of Toronto	7.1%	10.0%	5.1%	2.9%	4.5%	4.5%	3.3%	2.6%	2.3%	2.1%	
Concord Park Place											
Annual Sales			568	127	264	458	208	45	225	57	
% of Toronto			3.5%	1.3%	2.2%	2.9%	1.0%	0.4%	2.1%	0.4%	
Liberty Village											
Annual Sales	168	207	655	384	1197	645	503	125	74	60	
% of Toronto	1.4%	1.9%	4.0%	3.8%	10.2%	4.1%	2.5%	1.1%	0.7%	0.4%	
Regent Park											
Annual Sales					283	179	283	295	217	192	
% of Toronto					2.4%	1.1%	1.4%	2.5%	2.1%	1.2%	
West Don Lands											
Annual Sales					109	165	157	310	85	461	
% of Toronto	_	_	_	_	0.9%	1.0%	0.8%	2.6%	0.8%	2.9%	

Market Analysis Conclusions

- Each neighbourhood's share of the City of Toronto market has ranged from a low of 0.4% to a high of 10.2%, and has averaged at 2.7%.
- The number of concurrent actively marketing projects within an individual neighbourhood has ranged from a low of 1 to a high of 10, and has averaged at 5.
- Pre-sales rates within actively marketing projects (within the comparative condominium neighbourhoods/precincts) has ranged from 4 units to 36 units per month, and have averaged at 18 units per month.
- Given the preceding, it is reasonable to presume that pre-sales rates within the Villiers Island Neighbourhood will commence at 9 units per month, gradually building towards 19 units per month over a period of 20 years.
- Sales rates during construction are typically lower, as most (typically 70%) of the sales occur prior to the commencement of construction, with the balance occurring over an 18 to 30 month construction period. A sales rate of 3 units per month during construction is typical.
- It is reasonable to presume that the pace of development within Villiers Island Neighbourhood will grow, from an initial 2 simultaneously active projects during years 1 to 5 to an eventual 5 simultaneously active projects during years 16 to 20. This momentum will overflow into the Film Studio District.
- It is reasonable to presume that the Villiers Island/Film Studio market share will build from 1% during years 1 to 5 to an eventual 4% during years 16 to 20, which will overflow into the Film Studio District

Method A – Build Out Projection

Methodology

- We projected Villiers Island Neighbourhood and Film Studio District residential build-out, by modeling a series of condominium building developments over time.
- The pace of development is assumed to increase as the neighbourhood gains market acceptance.
- Accordingly, the model assumes gradually improving monthly presales absorption rates and the simultaneous completion of an increasing number of condominium buildings, all resulting in an increasing pace of condominium development and absorption.
- We assumed that development would occur through 250 and/or 400 unit condominium building typologies. Each building is thereby presumed to be either 235,000 sq.ft. or 375,000 sq.ft. in size, based on an average 936 sq.ft. unit size.

Method A – Build Out Projection

Key Assumptions

 The following table provides key condominium absorption assumptions for the build out projection.

Port Lands Condominium Absorption Assumptions				
Year	2023-27	2028-32	2033-37	2038-42
Year #	1 TO 5	6 TO 10	11 TO 15	16 TO 20
Pre-sales (per month)	9	11	14	19
During construction (per month)	3	3	3	3
# of simultaneously active projects	2	3	4	5

Methodology

- 1. We utilized a population project provided by City of Toronto.
- 2. We projected the proportion (percentage) of multi-family (both condominium and rental apartment) housing starts of total starts. Total starts include multi-family apartment starts, other multi-family starts (that are not apartments) and ground related housing starts.
- 3. We further projected the percentage of the yearly population increase (new population) that will likely reside in multi-family apartments, based upon persons per household norms and the proportion (percentage) determined in Step 2.
- 4. The preceding allowed us to project high-rise development (5+ stories) housing starts.

Key Assumptions

- The population projections are sourced from the SmartTrack Status Update, as provided the City Planning Division, City of Toronto.
- Multi-family apartment housing starts, as a percentage of total housing starts, are projected to increase from 88% in 2011 to 91% in 2020, and then remain at that level.
- This percentage is already high (within the City of Toronto), as the City had some time ago
 implemented densification policies under Places to Grow (and the City of Toronto Official Plan).
 While SmartTrack, Regional Express Rail and other significant higher order transit initiatives will
 support continued densification, we do not foresee a dramatic change in this already high multifamily apartment proportion.
- High-rise apartment dwellings generally have a relatively lower number of persons per household than ground-oriented dwellings; 1.8 persons per multi-family household and 3.5 persons per ground-oriented household are current norms.
- The mathematical projection of the above parameters results in an average of 2.50 persons per household in 2011, declining to 2.47 by 2015 and 2.32 by 2042.
- C&W has assumed that 80% of the unit capacity within the Villiers Island Precinct and the Film Studio District will be allocated to market-based housing. Accordingly, 20% of demand is assumed to be allocated to affordable housing. Our projections of market based housing demand are thereby proportionately reduced.

Key Assumptions

• The Port Lands are projected to receive the following market share (of total City of Toronto multifamily (apartment) housing demand:

Port Lands Market Share of City of Toronto Multi-Family Housing Demand						
Year 2023-27 2028-32 2033-37 2038-42						
Year # 1 TO 5 6 TO 10 11 TO 15 16 TO 20						
Market Share		1.0%	2.0%	3.0%	4.0%	

- We note that the West Don Lands market share has ranged from 0.8% to 2.9% of City of Toronto condominium demand, averaging at 1.5%.
- The market share within the redevelopment of Regent Park has ranged from 1.1% to 2.5% and averaged at 1.8%
- The market share of Liberty Village has fluctuated between 0.4% and 4.1%, with the exception of an unusual 10.2% peak in 2009. Its average market share was 3.0%.

Key Assumptions

- It must be recognized that residential development within the Port Lands will not only complete
 with large neighbourhoods that will be coming on stream during the 2023 2042 time horizon
 (such as the First Gulf lands and Keating North) but also with condominium development sites
 and neighbourhoods throughout the City of Toronto.
- Given all of the preceding, our projected 2.5% market share is considered to be supportable.

Port Lands Demand Projections

Method A – Build-out Approach

Method A - Buildout Approach - Demand Summary (# of units)				
5 year intervals	Total	Annual Average		
2023-27	720	144		
2028-32	1,032	206		
2033-37	1,739	348		
2038-42	2,137	427		
Total	5,628	281		

- Demand is projected to build over time, commencing at 144 units per annum during 2023-2027, ultimately reaching 427 units per annum during 2038-42.
- Total demand for the 2023 2042 (20 year) period is projected to be 5,628 units.

Method A - Buildout Approach - Demand Summary (# of units)		
	Cumulative	
2023-27	720	
2023-32	1,752	
2023-37	3,491	
2023-42	5,628	

Port Lands Demand Projections

Method B – Market Share of Population Based City of Toronto Demand Projection

Method B - Share of Toronto (population projection based) Demand Summary - # of units				
5 year intervals Total Annual Average				
2023-27	400	80		
2028-32	1,037	207		
2033-37	1,299	260		
2038-42 1,525 305				
Total 4,261 213				

- Demand is projected to build over time, commencing at 80 units per annum during 2023-2027, ultimately reaching 305 units per annum during 2038-42.
- Total demand for the 2023 2042 (20 year) period is projected to be 4,261 units.

Method B - Share of Toronto (population projection based) Demand Summary - # of units			
Cumulative			
2023-27	400		
2023-32	1,437		
2023-37	2,736		
2023-42	4,261		

Port Lands Demand Results

Average of Method A and B - Demand Summary (# of units)				
5 year intervals	Total	Annual Average		
2023-27	560	112		
2028-32	1,034	207		
2033-37	1,519	304		
2038-42	1,831	366		
Total	4,945	247		

Average of Method A and B - Demand Summary (# of units)			
Cumulative			
2023-27	560		
2023-32	1,594		
2023-37	3,113		
2023-42	4,945		

- We utilized the average of the two approaches (Method A and B) to project overall demand.
- Demand is projected to build, commencing at 112 units per annum during 2023-2027, and ultimately 366 units per annum during 2038-42.
- Total demand for the 2023 2042 (20 year) period is projected to 4,945 units.

Port Lands Demand Results

Average of Method A and B - Demand Summary (# of units)				
5 year intervals	Total	Annual Average		
2023-27	560	112		
2028-32	1,034	207		
2033-37	1,519	304		
2038-42 1,831 366				
Total 4,945 247				

Average of Method A and B - Demand Summary (# of units)		
Cumulative		
2023-27	560	
2023-32	1,594	
2023-37	3,113	
2023-42	4,945	

- The preceding compares to a projected 7,600 units (between 2022 and 2041) within our 2012 Port Lands Acceleration Initiative report. The variance between the two Reports is 15% (on 7,600 units) during this time period.
- It is more appropriate to compare the magnitude of demand during the first 20 years of the current (2015) and prior (2012) forecasts.
- The 2012 forecast projects 7,400 units, compared to 6,500 in the 2015 forecast. This represents a variance of 12%

Port Lands Demand Projections

Comparison to City of Toronto (internal) Apartment Demand Projection

Toronto Apartment Demand # of Units				
	City Projection	Cushman & Wakefield Projection		
2023-27	58,136	54,972		
2028-32	57,253	56,952		
2033-37	56,543	54,903		
2038-42	55,693	52,386		
Total	227,625	219,213		

Market Share of Toronto Apartment Demand (City Projection) # of units				
5 year intervals	Total	Annual Average		
2023-27	465	93		
2028-32	1,145	229		
2033-37	1,470	294		
2038-42	1,782	356		
Total 4,862 243				

For comparison and illustrative purposes only:

- We compared the City of Toronto's internal projection of high-rise apartment (5+ stories) to Cushman & Wakefield's.
- We then allocated Cushman & Wakefield's projected demand share to the City of Toronto's internal City of Demand projection.
- The City of Toronto's and Cushman & Wakefield's projection differ by only 8,400 units over 20 years (420 units per annum), a difference of only 3.7%.
- Applying Cushman & Wakefield's projected Port Lands market share, the difference is only 83 units over 20 years (4,945 units over 20 years as concluded by Cushman & Wakefield vs 4,862 units applying market share to the City's projection).
- Accordingly, two independently prepared
 Portlands projections are within 1.6% of each other.

Port Lands Demand Results

Reality Check

The projected 6,490 units of Port Lands residential condominium demand (325 units per annum) compares to:

- 6,000 units planned for the West Don Lands, which absorbed 1,287 units (215 units per annum) to date.
- 7,500 units planned for Regent Park, which absorbed 1,449 units (242 units per annum) to date.
- 7,500 units planned for CityPlace, which absorbed 1,952 units between 2005 and 2014 (587 units per annum). CityPlace has launched at total of 7,125 units between 2000 and the end of 2015, averaging at 445 units per annum.
- 6,000 planned units at Concord Park Place, which absorbed 1,952 units (244 units per annum) to date.
- 6,000 planned units within East Bayfront.
- 5,270 planned units within Humber Bay Shores.

Port Lands Demand Results

Reality Check

Projected Port Lands multi-residential apartment demand of 325 units per annum (over 20 years, between 2023 and 2042) is considered to be reasonable and supportable, in the light of the following market statistics:

- Absorption within the West Don Lands, Regent Park, CityPlace and Concord Park Place neighbourhoods has ranged from 215 to 445 units per annum, and has averaged at 287 units per annum. Projected Port Lands demand (at 325 units per annum) is 38 units per annum (13%) above this average.
- The midpoint of the aforementioned 215 to 445 units per annum range is 344 units. Projected Port Lands demand is approximately 19 units per annum (6%) below this midpoint.
- The delta between the lowest neighbourhood demand level (242 units per annum at Regent Park) and the highest neighbourhood demand level (445 units per annum at CityPlace) is 203 units.
- Projected Port Lands demand (at 325 units per annum) is 83 units (41%) above the 242 unit low, and 120 units (59%) below the 445 unit high.



Methodology

Key Model Assumptions



Introduction

Introduction

The following section provides an overview of the **Methodology and Approach** utilized in developing the office demand projection. The subsequent section details the **Key Model Assumptions** utilized in the projection model. The final section illustrates the **Results** of our analysis.

Methodology

The office demand modeling begins by translating the GTA-level office employment forecast provided by the City of Toronto into a space requirement on a per employee basis, using a benchmark density. Recent absorption and new supply trends by submarket are considered, along with the impact of declining office space per worker. Active and proposed new office developments are considered. Finally, the potential capture of tenants whose leases are expiring is considered. The preceding form the key inputs into the office demand forecast model.

Two models have been prepared, utilizing different assumptions regarding office demand. A low and high scenario is developed for each of the two models. The following section explores this overall methodology in greater detail.

Methodology and Approach

Modeling Approach

- 1. Translate office employment growth into office space demand using employment density benchmarks.
- Utilize the City of Toronto's GTA-level office employment growth forecast (provided by City staff) from 2011-2041 (and extend to 2042).
- The office employment projection assumes that SmartTrack is introduced.
- Office employment growth of almost 359,000 jobs is anticipated from 2011-2042, GTA-wide.
- Apply benchmark office space occupancy per worker to determine office space requirements (and adjust for future years, as further compression of office space per worker occurs).
- 2. Consider recent share of absorption and new supply by office submarket.
- Review annual office space absorption and new supply for various geographies (GTA, Downtown, Downtown South, Downtown East).
- Downtown South + Downtown East together are considered to be the competitive local submarket for the Port Lands.

- Determine Downtown South + Downtown East as a share of GTA.
 - Downtown South + Downtown East have accounted for a 16% share of the GTA's new office supply and absorption since 2000.
 - Downtown South + Downtown East have accounted for 54% of Downtown Toronto's new office supply since 2000, and 43% of the absorption.
- Consider Port Lands market share capture potential of Downtown South + Downtown East.
- 3. Consider impact of declining office space per worker on existing (built) inventory.
- Determine the current Class A office inventory in the GTA (which is considered the overall competitive market for future new supply additions).
- Estimate the number of office workers in current inventory, based on the office space per employee benchmark and Cushman & Wakefield's office inventory.
- Determine the extent of annual lease expiries to model the impact of space compression over time (due to declining space per worker).
 - Space compression is accomplished by reducing the amount of enclosed offices, and utilizing a more open space configuration with cubicles or other furniture arrangements. Multi-purpose meeting/collaborative spaces may replace some traditional "boardroom" space.

- This typically requires upgrades to the HVAC system to supply adequate air flow/circulation to create a
 comfortable environment for a larger number of workers. It may also necessitate retrofits to elevators to
 accommodate the increase in utilization.
- The layout of the physical building "shell" from column spacing to elevator and stairwells may limit the
 extent of possible space compression per worker.
- Assess the impact of declining office space per worker on overall inventory more workers
 can fit into same inventory, which lessens the requirement for new construction to
 accommodate future office-type employment growth.
- Reduce the amount of new supply required annually (as a result of office employment growth)
 by the amount of vacant space brought to market (as a result of office space per worker
 compression within the exiting inventory).
 - The amount of office space within existing buildings that is "freed up" by the compression of office space per employee is roughly 0.9 million sf annually during the early years of the model, and grows to close to 1.3 million sf annually as increased space compression occurs over time.
 - From 2016-2042, a total of 31.9 million sf of space within the existing GTA Class A inventory is assumed to be "freed up" for additional occupancy as a result of office space per employee compression.
- 4. Review new office supply pipeline and recent office development applications.
- Review new office supply currently under construction, and assess the amount of pre-leased versus available space.

- Since the absorption of office space in the Port Lands commences in 2023 (in our model), all of the office space currently under construction is considered to be absorbed well before this time horizon.
- Of the 3.9 million sf of office space currently under construction in the Downtown market (within 6 buildings), 2.7 million sf has been pre-leased (70%), and roughly 0.5 million sf (30%) is available for lease.
- Consider development applications and "firmly proposed" projects (incl. The Well and First Gulf Unilever site).
 - Cushman & Wakefield is tracking 18 office projects that are considered firmly proposed, which total 6.3 million sf. Of this, 4.6 million sf is located in either the Downtown East or Downtown South submarket (which accounts for a 72% share of the total).
 - Much of this firmly proposed office development pipeline will have been absorbed prior to 2023, based on the projected near-term absorption rate. At a recent rate (2000-2014) of just over 0.5 million sf of absorption annually, these 18 projects represent a roughly 12 year supply of product, which will thereby likely be fully leased by 2027.
 - This firmly proposed inventory includes The Well (just over 1 million sf at 410 Front St. W.), but excludes
 the First Gulf Unilever site, because it is longer term in nature (anticipated to come on stream by 2022).
 The Well (firmly proposed) is anticipated to be fully absorbed prior to 2027; the impact of the First Gulf
 Unilever site is separately addressed within the model.

- 5. Include capture of lease renewals.
- Capturing office tenants from existing buildings upon expiry of their leases is another prospective source of demand for Port Land office space.
- Determine the competitive office market to capture from (the overall GTA Class A inventory).
- Consider the average lease term of office tenants (estimated 7.5 years), and how much space is renewed upon lease expiry versus is vacated (75% probability that a tenant renews, as opposed to relocates).
- Consider Port Lands capture share of lease renewals.
- 6. Generate Office Space Demand Model
- Compile the above-noted analysis and assumptions into a demand forecast model.
- Consider "low" and "high" sensitivity analysis parameters.

Key Model Assumptions

- Office space per worker.
- The historic and continuing trend of declining (compressing) office space per worker is well
 accepted, due to a desire by firms to control rising occupancy costs; through more efficient
 building design; and workplace changes such as telecommuting and hoteling.
 - The existing inventory is assumed to have an occupied space per employee figure of 200 sf.
 - New occupancies are assumed to have a dramatically lower occupied space per employee figure of 150 sf, which will compress further over time.
 - These space per employee figures presented above need to be adjusted upwards to reflect the overall impact on the office space market. Three adjustments are made:
 - » A 7% vacancy factor is added to reflect a stabilized level of vacant space in the overall market.
 - » A 4% construction/renovation factor is added to reflect renovations that landlords are making to existing premises that are not occupied (to prepare space for occupancy, or to retrofit spaces to a more modern standard).
 - » A 5% surplus space factor is added to reflect space that is leased by tenants in anticipation of future growth (space which is either unoccupied today, or is "under-occupied").
 - » Together, the preceding three adjustments account for a 16% increase to the amount of "occupied" space per worker. Therefore, the amount of office space presently required in modern office environments in our model is 174 sf per employee (adjusted upwards from 150 sf).
- The model has a rate of 174 sf per worker until 2022, a further 10% compression from 2022-2031 (157 sf/worker), and further 5% compression from 2032 onwards (149 sf) phased in.

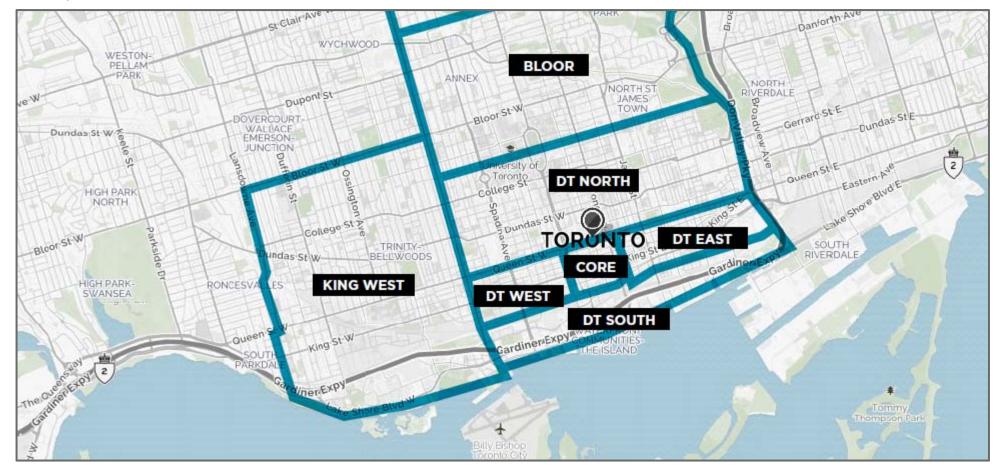
Key Model Assumptions

- Downtown South + Downtown East share of GTA.
- Downtown South + Downtown East has accounted for a 15.7% share of new office space GTA-wide since 2000.
 - In Office Demand Model 1, this current share is held static.
 - In Office Demand Model 2, this share is` increased by 5 percentage points in 2023, by 7.5 percentage points in 2028, and by 10 percentage points in 2033 (ending at a 25.7% share of the GTA).
 - » As illustrated on the exhibit on the following page, from 1985-1994, the GTA Suburbs accounted for 64% of all new development; from 1995-2008, this share increased to 89%; however, since 2009, the Suburbs have only accounted for a 42% share of overall GTA new supply (including buildings currently under construction).

There has been a notable trend towards Downtown new office construction, away from the Suburbs. Downtown South + Downtown East (including the First Gulf Unilever site and the Port Lands) will introduce substantial new land supply to the market, which will be well located and transit-accessible.

Key Model Assumptions

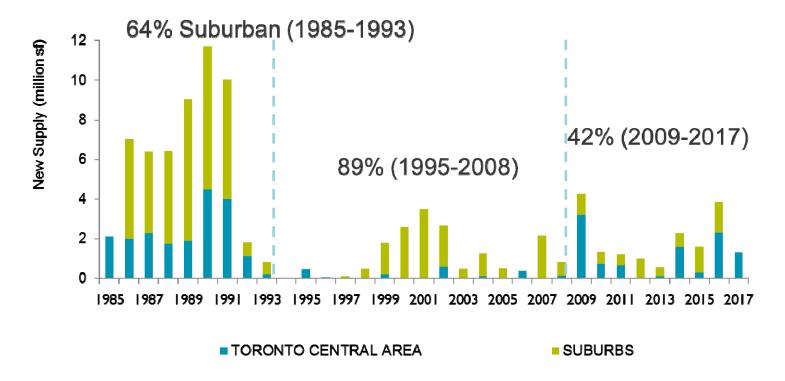
Map of Downtown Office Concentrations



Key Model Assumptions

GTA Office Market

Historic New Supply, and Construction Pipeline



» From 1985-1994, the Suburbs accounted for 64% of all new development; from 1995-2008, this share increased to 89%; however, since 2009, the Suburbs have only accounted for a 42% share of overall GTA new supply (including buildings currently under construction).

Key Model Assumptions

- 3. Port Lands share of Downtown South + Downtown East.
- Consider competitive office development environment Downtown new supply pipeline, development applications, and First Gulf Unilever site potential.
- Guiding principles in developing our market share assumptions are as follows:
 - The First Gulf Unilever site is generally anticipated to outperform the Port Lands, given its (assumed) proximity to a SmartTrack station, and therefore superior accessibility, as well as likely superior visibility/corporate signage potential (from Don Valley Parkway and Lakeshore Boulevard). It will be a master planned neighbourhood by a single developer (First Gulf).
 - The Port Lands is anticipated to capture an equal or greater market share than the remaining Downtown South + Downtown East submarket (which are unidentified, fragmented sites – excluding the First Gulf Unilever site).
 - Based on these prior assumptions, the following market share percentages were considered:

Downtown South + Downtown East

Market Share Percentages

	First Gulf Unilever Site	Port Lands	Other	Total
Scenario 1	65%	25%	10%	100%
Scenario 2	50%	45%	5%	100%
Scenario 3	40%	40%	20%	100%
Scenario 4	40%	30%	30%	100%
Consensus	40%-65%	25%-45%	5%-30%	100%

Key Model Assumptions

- The following describes the rationale for developing each Scenario (in no particular order):
 - » Scenario 1: The First Gulf Unilever site is envisioned as the dominant development opportunity, capturing 65% of demand in the Downtown South + Downtown East market. The Port Lands is relatively less successful, and other fragmented sites in the area see little demand.
 - » **Scenario 2:** The First Gulf Unilever site and the Port Lands see similar levels of success, at the expense of other remaining sites in the local market.
 - » **Scenario 3:** The First Gulf Unilever site and the Port Lands see similar levels of success (each 40%), but remaining sites in the local market capture a meaningful share of overall demand (20%).
 - » **Scenario 4:** In this scenario which we consider least probable the fragmented sites achieve a 30% market share, while the First Gulf Unilever site exceeds Port Lands demand by a modest margin.
- Conclusion: Port Lands share assumed to be 25% (low) to 45% (high) of overall Downtown South + Downtown East, in our sensitivity testing.

Key Model Assumptions

- 4. Port Lands share of tenant relocations (upon lease expiry).
- Determine competitive market environment (Class A office inventory in Downtown, Midtown, and Suburbs).
- Average lease term set to 7.5 years (blend of typical 5 year and 10 year lease terms).
- Lease renewal probability set at 75%.
 - Therefore 3.3% of the GTA's Class A office space expires annually, does not renew a lease, and instead relocates to a new location.
- Port Lands capture of this space relocation assumed to be 1% (low) to 2.5% (high) share.
- 5. First Gulf Unilever site and The Well.
- The Well is included in our assessment of the "firmly proposed" office development sites, which are assumed to be largely built-out and absorbed prior to the introduction of the Port Lands in 2023.
- The First Gulf Unilever site is the primary competitor in the Downtown South + Downtown East submarket, and is addressed in the market share capture discussion presented above.

Key Model Assumptions

Key Model Assumptions Summary Table

	Metric	Comment
Occupied space per worker	200 sf/worker	Existing inventory – occupied space per worker
Occupied space per worker	150 sf/worker	New occupancies – occupied space per worker
Vacancy factor	7%	Upward adjustment to occupied space per worker
Construction/renovation factor	4%	Upward adjustment to occupied space per worker
Surplus space factor	5%	Upward adjustment to occupied space per worker
Total upwards adjustment	16%	Total upwards adjust to occupied space per worker
Total space per employee	174 sf/worker	2016-2021
Total space per employee	157 sf/worker	2022-2031
Total space per employee	149 sf/worker	2032-onward
Downtown South + Downtown East	15.7%	Market share of GTA (used in Model 1)
Downtown South + Downtown East	20.7%	Market share of GTA (increase used in Model 2 - in 2023)
Downtown South + Downtown East	23.2%	Market share of GTA (increase used in Model 2 - in 2028)
Downtown South + Downtown East	25.7%	Market share of GTA (increase used in Model 2 - in 2033)
Port Lands Share	25% (low) – 45% (high)	Share of Downtown South + Downtown East
Annual lease expiries	3.3%	Percent of space with expiring leases that relocate annually

- In Office Demand Model 1, Downtown South + Downtown East account for a 15.7% share of GTA-wide demand for the duration of the model. The Port Lands capture 25% (low) - 45% (high) of the Downtown South + Downtown East submarket potential, plus a share of expiring leases across the GTA Class A office market.
- In Office Demand Model 2, Downtown South + Downtown East account for a 20.7% share of GTA-wide demand in 2023, a 23.2% share in 2028, and a 25.7% in 2033 reflecting the increasing attractiveness of the Downtown office market compared to the Suburbs, in terms of capturing new supply. All other model assumptions remain unchanged.
- The attraction of tenants from other buildings (relocations from expiring leases) is a significant component of the projected demand (roughly 60% to 75% of total demand).
- The two Office Demand Models indicate potential demand for between 1.06 and 2.74 million sf of new office space from 2023-2042 in the Port Lands, representing 3.2% to 8.2% of GTA-wide demand (before adjusting for space contraction in the existing inventory).
 - For comparison, other office markets have developed as follows:
 - » Since 2000, the Downtown office market has added an annual average of approximately 480,000 sf.
 - » The Airport Corporate Centre office node (8 million sf) developed from 1989 to today (although the peak development occurred between 1989 and 2005). Over this 27 years, the ACC has held an overall 11.4% market share of new development activity GTA-wide.
 - » The Meadowvale office node (5.8 million sf) developed from 1987 to today (although the peak periods of development occurred between 1987-1990 and then from 1999-2014). Over this overall 29 year time frame (since 1987), Meadowvale has held an overall 6.9% share of new development activity GTA-wide.

Results

Port Land – Incremental Demand (Rounded)

MODEL 1

	Total (Low – High)	Average Annual (Low – High)
2023-2027	260,000 - 595-000 sf	52,000 - 119,000 sf
2028-2032	254,000 - 584,000 sf	50,800 - 116,800 sf
2033-2037	275,000 - 622,000 sf	55,000 - 124,400 sf
2038-2042	274,000 - 620,000 sf	54,800 - 124,000 sf
TOTAL	1,064,000 - 2,420,000 sf	53,200 - 121,000 sf

Port Land – Cumulative Demand (Rounded) MODEL 1

	Total	
2023-2027	260,000 - 595,000 sf	
2023-2032	514,000 - 1,178,000 sf	
2023-2037	790,000 - 1,801,000 sf	
2023-2042	1,064,000 - 2,420,000 sf	

Port Land – Incremental Demand (Rounded) MODEL 2

	Total (Low – High)	Average Annual (Low – High)
2023-2027	285,000 - 640,000 sf	57,000 - 128,000 sf
2028-2032	289,000 - 647,000 sf	57,800 - 129,400 sf
2033-2037	336,000 - 731,000 sf	67,200 - 146,200 sf
2038-2042	333,000 - 726,000 sf	66,600 – 145,200 sf
TOTAL	1,244,000 – 2,744,000 sf	62,200 – 137,200 sf

Port Land – Cumulative Demand (Rounded) MODEL 2

	Total	
2023-2027	285,000 - 640,000 sf	
2023-2032	575,000 - 1,287,000 sf	
2023-2037	910,000 - 2,018,000 sf	
2023-2042	1,244,000 - 2,744,000 sf	

Results

Port Land – Incremental Demand (Rounded)

AVERAGE OF MODEL 1 AND MODEL 2

	Incremental Total	Average Annual
2023-2027	273,000 - 618,000 sf	54,600 - 123,600 sf
2028-2032	272,000 – 615,000 sf	54,400 - 123,000 sf
2033-2037	306,000 - 676,000 sf	61,200 - 135,200 sf
2038-2042	304,000 - 673,000 sf	60,800 - 134,600 sf
TOTAL	1,154,000 – 2,582,000 sf	57,700 - 129,100 sf

Port Land – Cumulative Demand (Rounded)

AVERAGE OF MODEL 1 AND MODEL 2

	Cumulative Total	
2023-2027	273,000 - 618,000 sf	
2023-2032	545,000 – 1,233,000 sf	
2023-2037	851,000 - 1,909,000 sf	
2023-2042	1,155,000 - 2,582,000 sf	

- The two Office Demand Models indicate a potential range of demand for between 1.06 and 2.74 million sf of new office space from 2023-2042 in the Port Lands (averaged to 1.16 to 2.58 million sf).
 - The average figures from the two models represents annual absorption of between approximately 58,000
 129,000 sf (although it should be noted that the model is *not* run on a straight-line basis annually).
- The amount of demand capture indicated in our modeling indicates that Villiers Island Neighbourhood and Film Studio District would represent a 4%-11% share of overall City of Toronto demand from 2023-2042.
 - This is based upon office employment in the City of Toronto accounting for a roughly 70% share of GTA-wide office employment growth during the 2011-2041 forecast horizon.

Results

Comparison with Prior Forecast

- The "conservative" scenario of the 2012 forecast projected 1.8 million sf of office development during the first 20 years of the forecast model, which compares to the 1.2 million sf lower end of the 2015 forecast.
- The "moderate" scenario of the 2012 forecast projected 2.9 million sf, which compares to the 2.6 million sf higher end of the 2015 forecast.
- The "aggressive" scenario in the 2012 forecast indicated 4.0 million sf of demand to be captured by the Port Lands. Importantly, the 2012 forecast was prepared prior to the nearby First Gulf Unilever site being considered for future office development. The First Gulf Unilever site will directly compete with the Port Lands for market share.
 - In 2012, we saw the Port Lands as an office campus capable of offering suburban-priced rents at a location that is in close proximity to the Downtown (and its substantial residential population/labour pool). In this respect, it had more limited competition. The First Gulf Unilever site will now directly compete with this vision.
 - Accordingly, we no longer consider the level of office demand indicated in our 2012
 "aggressive" scenario (totaling 4.0 million sf over the first 20 years) as being realistic.



Methodology

Key Model Assumptions



Introduction

Introduction

The following section provides an overview of the **Methodology and Approach** utilized in developing the retail demand projection. The subsequent section details the **Key Model Assumptions** utilized in the projection model. The final section illustrates the **Results** of our analysis.

Overview

Our retail demand projections are based upon three separate models. The first two consider future demand driven by a share of retail inventory (using different assumptions regarding space per household). The third model is a household spending outlook that drives future retail demand per household. The following section explores this overall methodology in greater detail.

Methodology

Model 1 Approach – by Share of Inventory

- 1. Determine retail space per household.
- Utilize current retail inventory (provided by the Centre for the Study of Commercial Activity –
 CSCA) and current number of GTA households (provided by City of Toronto staff) to determine
 current retail space per household benchmark.
 - The shopping centre inventory is approximately 172 million sf (as per CSCA). This inventory includes shopping centres, retail strips, power centres and free-standing big box stores.
 - Therefore, there is currently 72 sf of shopping centre space per household across the GTA (approximately 26 sf per capita).
- 2. Determine inventory share.
- Determine "Downtown/Central" retail inventory as a proportion of GTA inventory.
 - The "Downtown/Central" (Lake Ontario to Bloor St., Bathurst St. to Victoria Park Ave.) is intended to represent the retail shopping area for Port Lands residents – the competitive market. The retail inventory for this area is approximately 10.3 million sf (as per CSCA).
 - The Downtown/Central market represents 6% of the GTA's total shopping centre inventory.

Methodology

- 3. Translate future population growth into new retail space demand.
- Using a population growth projection (provided by City staff), determine future retail space required, based on sf per household.
- Apply Downtown share of inventory to future demand.
- Consider Port Lands capture share.

Model 2 Approach – by Share of Inventory (Declining sf per Household)

- 1. Alter Model 1 by reducing the amount of sf required per household.
- Utilize the current 72 sf of shopping centre space per household for 2015-2020.
- In considering new space demand, from 2020 onward for each five-year increment reduce
 this figure by 5% to reflect the trend towards less retail space required per household resulting
 from e-commerce spending, and certain retailers downscaling their store size in response to
 market trends.

Methodology

Model 3 Approach – by Household Spending Growth

- 1. Determine current household expenditure.
- Divide current GTA total expenditure by number of GTA households.
- 2. Determine future household expenditures.
- Determine population growth (from City forecast) and resultant expenditure growth (future household spending).
- 3. Assess future retail new supply.
- Determine new supply demanded by increased retail expenditure by new households.
 - Multiply population (translated to households) growth by expenditure per household, inflated for anticipated future spending.
- Consider Downtown retail inventory growth as a proportion of GTA inventory.
- Consider Port Lands capture share.

Key Model Assumptions

- 1. Port Lands Market Share of Downtown.
- The Port Lands offer a large amount of land in proximity to Downtown Toronto's residential population and employment base.
- The Port Lands will emerge as a mixed-use environment, bringing a residential population as well as a daytime labour force for the non-residential space to be developed.
- Accordingly, the Port Lands may have the potential to become a retail destination for households in a broader trade area, and not just serve the emerging local population base.
- The Port Lands are assumed to capture 5% of the new retail space demanded in the Downtown/Central Area (Lake Ontario to Bloor St., Bathurst St. to Victoria Park Ave.) from 2020-2025, and this share capture will increase by 1 percentage point in each five-year increment until reaching a 10% share by 2045.
- 2. Household expenditure inflation.
- Current household expenditures have been inflated for future years at a "real growth" rate of 1.5% (above the anticipated rate of inflation of 2.0%). This is in line with the actual rate of expenditure growth recorded for Canada and Ontario from 2010-2013 of 3.5% and 3.1%, respectively.
 - Importantly, this household expenditure inflation will largely translate to increased sales productivity at existing retailers (as goods are more costly over time), rather than actual new retail development.

Key Model Assumptions

- 3. Competitive Downtown Supply
- It is a somewhat of challenge to identify the future retail supply potential in the Downtown/Central market. This is due to the potential for infill development, and mixed-use projects (office buildings incorporating retail uses at grade, or residential with retail). Among the known development applications incorporating significant retail space are as follows:
 - The Well (440 Front Street West Front & Spadina) has proposed approximately 480,000 sf retail space as part of a mixed-use development.
 - The StudioCentre mixed-use development (629-675 Eastern Ave.) has proposed over 151,000 sf of retail space.
 - A site at Yonge & Gerrard (363-391 Yonge Street & 3 Gerrard St. E.) that is planned to accommodate just over 100,000 sf of retail space as part of a mixed-use building.
 - 400 Front Street West has proposed almost 94,000 sf of retail space as part of a mixed-use development.
- While this potential new retail supply is substantial, there is likely pent-up demand for retail space as a result of significant residential growth in the Downtown and periphery over the past decade or more, and a limited extent of retail supply built to meet the needs of this residential population.

- In Model 1 Share of Inventory the Port Lands are projected to accommodate demand for approximately 257,000 sf of retail space from 2023-2042.
- In Model 2 Share of Inventory (Declining Space per Household) the Port Lands are
 projected to accommodate demand for approximately 207,000 sf of retail space from 20232042. The variance from Model 1 is due to the declining amount of retail space supported by
 new households.
- In Model 3 Household Spending Growth the Port Lands are projected to accommodate demand for approximately 423,000 sf although a portion of this potential growth could translate into increased sales productivity at existing retailers as the cost of goods increases, rather than new square footage being constructed.
- This retail projection does not differentiate between the type of retail space demanded –
 whether streetfront, or shopping centre-type space. Due to the anticipated mixed-use nature
 of the future development in Villiers Island Neighbourhood and Film Studio District, and
 associated land values, retail space will likely come in the form of ground floor space
 integrated within a mixed-use building.
- This amount of retail space demand indicates that the retail space will be primarily oriented to local-serving retail uses and personal services locations catering to the nearby residential population. Our assessment indicates that there is not a regional-scale amount of retail demand at this location.

Port Land – Incremental Demand (Rounded)
MODEL 1

	Total	Average Annual
2023-2027	54,000	11,000
2028-2032	61,000	12,000
2033-2037	67,000	13,000
2038-2042	75,000	15,000
TOTAL	257,000	12,850

Port Land – Incremental Demand (Rounded)
MODEL 2

	Total	Average Annual
2023-2027	47,000	9,000
2028-2032	51,000	10,000
2033-2037	53,000	11,000
2038-2042	56,000	11,000
TOTAL	207,000	10,350

Port Land – Cumulative Demand (Rounded)
MODEL 1

	Total	
2023-2027	54,000	
2023-2032	115,000	
2023-2037	182,000	
2023-2042	257,000	

Port Land – Cumulative Demand (Rounded)
MODEL 2

	Total	
2023-2027	47,000	
2023-2032	98,000	
2023-2037	151,000	
2023-2042	207,000	

Port Land – Incremental Demand (Rounded)
MODEL 3

	Total	Average Annual
2023-2027	70,000	14,000
2028-2032	91,000	18,000
2033-2037	116,000	23,000
2038-2042	146,000	29,000
TOTAL	423,000	21,150

Port Land – Incremental Demand (Rounded)

AVERAGE OF MODEL 1 + 2 + 3

	Total	Average Annual
2023-2027	57,000	11,400
2028-2032	68,000	13,600
2033-2037	79,000	15,800
2038-2042	92,000	18,400
TOTAL	296,000	14,800

Port Land – Cumulative Demand (Rounded)
MODEL 3

	Total
2023-2027	70,000
2023-2032	161,000
2023-2037	277,000
2023-2042	423,000

Port Land – Cumulative Demand (Rounded)

AVERAGE OF MODEL 1 + 2 + 3

	Total	
2023-2027	57,000	
2023-2032	125,000	
2023-2037	204,000	
2023-2042	296,000	

Conclusions

• The preceding forecast represents average annual absorption of approximately 14,800 sf (although the model is not run on a straight-line basis annually).

Comparison with Prior Forecast

- The modeling completed in the initial Port Lands Acceleration Initiative work (2012) indicated demand for 172,000 to 407,000 sf of retail space in the Port Lands during the initial 20 years of the forecast model, which is in line with our current forecast.
- Comparing the first 20 years of each of the 2012 and 2015 Forecasts:
 - The 2012 forecast projects 172,000 sf ("conservative"), 278,000 ("moderate") and 407,000 sf ("aggressive").
 - The 2015 forecast projects 296,000 sf (the average of the three modeling approaches).



Assumptions and Limiting Conditions

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Assumptions and Limiting Conditions

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