PROCESS: Overview

Following Phases 1 and 2 of the Municipal Class EA process:

- Create Problem/Opportunity Statement
- Assess existing conditions and develop guiding principles
- Develop transportation components and conduct initial screening
- Develop 4 network-wide transportation alternatives
- Analyze, and select a preferred alternative



PROCESS: Transportation Alternatives and Screening Process



PROCESS: Analyze Alternatives in Detail

- Analyze the four alternatives using the City's traffic simulation model
- Assess how well the alternatives satisfy the Principles
- Select a preferred alternative



2. Guiding Principles

PERKINS +WILL ARUP 100 PERKINS +WILL ARUP 101 Apply a Human Centric approach
 Promote Sustainable Transportation
 Support Ease of Movement
 Balance Regional and Local Access
 Reconnect Downtown with Waterfront

3. Key Issues and Opportunities (Components for Alternatives)

Principles (Shared at May 22 Meeting)

WILL ARUP 102

WILL ARUP 103

KEY ISSUE #1: Significant Peak Hour Congestion Generated from regional traffic to/from Gardiner



WILL ARUP 104

KEY OPPORTUNITY #1: Reuse space next to Gardiner Remove the Bay St on-ramp to allow a new southbound left



KEY OPPORTUNITY #1: Reuse space next to Gardiner

Remove the Bay St on-ramp and construct a new arterial connector road between Bay and Yonge St



direct traffic to Lake Shore and the Gardiner on-ramp at Jarvis St

WILL ARUP 105

KEY OPPORTUNITY #1: Reuse space next to Gardiner Remove the Bay St on-ramp, and shorten Jarvis off-ramp to end at Yonge

Street





KEY ISSUE #2: Lack of Connectivity Access impeded by Physical Barriers



KEY OPPORTUNITY #2: Connection under Gardiner New underpass between Cooper and Church Street

Benefits

- Attractive local vehicle access •
- Lower volume and more attractive bicycle and pedestrian connection



WILL ARUP 109

KEY OPPORTUNITY #2: Improve Gardiner Undercrossings

Improve pedestrian crossings at Yonge and Jarvis

Benefits

- Provide more attractive walking environment •
- Better lighting and acoustical treatments

Section A





WILL ARUP 110

KEY OPPORTUNITY #2: Leverage Investments in PATH Consider different alternatives for the PATH network

Benefits

- Provides an all-weather pedestrian connection
- Links development to other existing uses •

Potential Connections





+WILL ARUP 111

Opportunities

- Redesign around multimodal principles
- Enhance local access with twoway operation
- Divert regional . traffic from Harbour Street

KEY ISSUE #3: Auto-oriented Harbour Street Functions to serve mostly regional pass-through traffic at high speeds.



Example of potential Harbor Street configuration

4. Transportation **Alternatives**

WILL ARUP 112

PERKINS +WILL ARUP 113

TRANSPORT ALTERNATIVES FOR LOWER YONGE

Developing Transport Alternatives

- Provide a well connected pedestrian network
- Provide bicycle facilities on local streets, with improved connections between Queens Quay and Downtown
- Provide convenient connections to transit stations
- Enable adequate vehicle access and circulation



Example of potential bicycle facilities

+WILL ARUP 114

TRANSPORTION ALTERNATIVES







ALTERNATIVE 3: Closing the Gap

ALTERNATIVE 3: Closing the Gap New Eastbound Lake Shore and Two-Way Harbour Street







WILL ARUP 122





ALTERNATIVE 4: Regional Connections



TRANSPORT ALTERNATIVES







WILL ARUP 126

TRANSPORT ALTERNATIVES CONCLUSION

Alternative 4 provides the best overall performance of those tested

Benefits

- Provides adequate regional and local traffic capacity
- Provides convenient access to downtown, diverting some traffic from Harbour Street
- Provides improved local access for all modes
- Provides a better pedestrian and urban design experience



WILL ARUP 127

5. Transportation Model Development and Conclusions

ASSUMPTIONS

Future Base Model

- Includes assumed future transportation projects and population and employment forecasts
- Uses the regional model to generate traffic outside of the study area



WILL ARUP 128

ASSUMPTIONS

Lower Yonge Land Uses (11x density scenario) from City

| Density | Total Buildable Area = Area = 71,645 minus 20% minus 20% Park Land Land | Total GFA | Commercial GFA GFA | Projected Employees (1/25 sq (1/25 sq m) | Residential GFA GFA | Residential al Unit Count Count | Projected residents (1.6 per residents (1.6 per unit) unit) |
|---------------------------------|--|-----------|-----------------------|--|------------------------|---------------------------------------|---|
| 11x Net and 8.8x Gross Gross | 57,316 | 630,476 | 252,190 | 10,088 | 378,286 | 5,328 | 8,525 |

Trip Generation Rates from City

| | | Lower | Yonge Trip | Rates by L | and Use | | |
|---------------------|---------|----------|------------|------------|----------|---------|----------------------------|
| Landling | 100000 | AM | | | PM | 1 hat | |
| Land Late | Indound | Cuttound | Two-way | intround | Outbound | Two-way | Lini |
| Commercial (Office) | 0.11 | 0.01 | 0.12 | 0.04 | 0.05 | 0.09 | Trips per 100mg |
| Reskbential | 0.02 | 0.09 | 0.11 | 0.07 | 0.04 | 0.11 | Trips per residential unit |

- Total Vehicle Trip Generation for the Lower Yonge Precinct
 - AM Peak Hour: 890 vehicles
 - PM Peak Hour: 820 vehicles

WILL ARUP 130

MODELING CONCLUSIONS

- Alternatives 2 and 4 have the best traffic performance (no LOS E or F conditions).
- Alternative 3 has a few poor performing locations
- Alternative 2 provides minimal changes to the existing transportation network
- Alternatives 3 and 4 would require the highest level of infrastructure change and the highest level of connectivity
- Harbour Street extension could be reduced to 3 lanes + parking in Alternative 2 and still operate acceptably

WILL ARUP 131

TMP NEXT STEPS

- Identify Alternative 5 and the Preferred Alternative
- · Test and report results back to project team
- · incorporate model results into broader evaluation of alternative solutions;
- Evaluation of the alternative solutions using the environmental criteria and indicators previously presented at PIC 1;
- Document the results of the planning and decision-making process in a Transportation Master Plan report;
- City of Toronto staff to report to Committee and Council recommending that Council adopt the recommendations in the TMP; and
- Issue Notice of Study Completion and place TMP on the public record for a 30-day review period.



Public Meeting -October 10, 2013



TRANSPORTATION MASTER PLAN:

- 1. Transportation Master Plan Process

- Context
 Principles
 Key Issues
 Transportation Alternatives
 Transportation Modeling Development and Results

1. Transportation **Master Plan Process**

WILL ARUF .

PROCESS: Overview Assess existing conditions and develop guiding principles Develop transportation alternative concepts and evaluate Develop four transportation network solutions, analyze, and select a preferred alternative

PROCESS: Alternatives Development

- Following Phases 1 and 2 of the Municipal Class EA process
- Create Problem/Opportunity Statement
- Define evaluation criteria and screening process
- Develop full range of transportation alternatives, screen for feasibility
- Develop four transportation network solutions
- Analyse and select a preferred alternative transportation network

WILL ARUF :











Heavy regional traffic between the Gardiner and Downtown Street
Right-of-way constraints and large inefficient intersections

• WILL ARUT ,







- •
- Limited bike lanes and parking .
- Cycling conditions under the rail corridor and the Gardiner are poor

WILL ARUF 12



High traffic volumes and speeds create a poor walking environment Wide streets and intersections create long crossing distances Large block sizes impede circulation Gardiner and rail underpasses are not attractive for walking

WILL ARUP 13





5









6







WILL ARUF 20

















WILL ARUF 25















5. Transportation Alternatives





























































TRANSPORT ALTERNATIVES CONCLUSION

Alternative 4 provides the best overall performance

Benefits

- Provides adequate regional and local traffic capacity
- Provides convenient access to downtown, diverting some traffic from Harbour Street
- Provides improved local access for all modes
- Provides a better pedestrian and urban design experience
- Allows phasing (Alternative 4A)



6. Transportation Model Development and Results

WILL ARUF 4





























































| | | Future | Base | Alterna | ative 1 | Alterna | ative 2 | Alterna | ative 3 | Alternative 4 | | Alterna | tive 4a |
|----|--|--------|------|---------|---------|---------|---------|---------|---------|---------------|-----|---------|---------|
| | | A | N | A | м | A | м | A | м | A | м | A | м |
| | Study Area Intersections | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1 | Harbour / Lower Simcoe | 42.9 | D | 33.5 | С | 23.2 | С | 33.9 | С | 18.8 | в | 19.1 | в |
| 2 | Harbour / York | 34.4 | С | 35.4 | D | 35.0 | С | 47.8 | D | 27.9 | С | 27.1 | С |
| 3 | Harbour / Bay | 21.3 | С | 20.2 | С | 25.6 | С | 23.0 | С | 20.5 | С | 18.4 | В |
| 4 | Lake Shore Westbound / Yonge | 21.8 | С | 19.0 | в | 27.6 | С | 20.8 | С | 28.9 | С | 29.5 | С |
| 5 | Lake Shore Eastbound / Yonge | - | - | - | - | 14.1 | В | 19.1 | в | 39.2 | D | 36.4 | D |
| 6 | Harbour / Yonge | 10.1 | В | 9.9 | А | 18.8 | В | 19.2 | В | 26.0 | С | 24.9 | С |
| 9 | Harbour / Freeland | - | - | - | - | 13.8 | В | 17.0 | В | 13.5 | в | 14.7 | В |
| 1 | Lake Shore Eastbound / Cooper | 1.1 | A | 2.0 | Α | 3.8 | Α | 20.6 | С | 17.2 | В | 17.2 | В |
| 2 | Harbour / Cooper | - | - | - | | 20.2 | С | 18.7 | В | 12.4 | В | 18.3 | В |
| 4 | Lake Shore Eastbound / New | - | - | - | - | 2.7 | A | 40.1 | D | 9.2 | Α | 9.4 | Α |
| 5 | Harbour / New | - | - | - | - | 13.1 | в | 10.9 | в | 9.4 | Α | 13.5 | в |
| 17 | Lake Shore Westbound / Lower Jarvis | 43.1 | D | 38.2 | D | 42.2 | D | 47.7 | D | 43.3 | D | 45.7 | D |
| 8 | Lake Shore Eastbound / Lower Jarvis | 34.9 | С | 33.1 | С | 46.0 | D | 69.0 | Е | 35.6 | D | 36.5 | D |
| 9 | Harbour / Lower Jarvis | - | - | - | - | - | - | 12.0 | в | 11.4 | в | - | - |

| 1 Ha 2 Ha 3 Ha 4 Lak 5 Lak 6 Ha 9 Ha | Study Area Intersections arbour / Lower Simcoe arbour / York arbour / Bay ike Shore Westbound / Yonge | Pf Delay 16.0 32.7 15.8 | LOS B C | P Delay 15.9 | LOS B | Pl Delay 24.9 | LOS | PI Delay | LOS | Pl Delay | N LOS | Pl Delay | M LOS |
|--|---|-------------------------------------|---------------|--------------------|----------|---------------------|-----|-------------|-----|-------------|----------|-------------|----------|
| 1 Ha 2 Ha 3 Ha 4 Lak 5 Lak 6 Ha | arbour / Lower Simcoe arbour / York arbour / Bay ike Shore Westbound / Yonge | Delay 16.0 32.7 15.8 | LOS B C | Delay 15.9 | LOS B | Delay 24.9 | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1 Ha 2 Ha 3 Ha 4 La 5 La 6 Ha 9 Ha | arbour / Lower Simcoe arbour / York arbour / Bay ike Shore Westbound / Yonge | 16.0 32.7 15.8 | B C | 15.9 | В | 24.9 | C | | - | | | | |
| 2 Hai 3 Hai 4 Lai 5 Lai 6 Hai 9 Hai | arbour / York arbour / Bay ike Shore Westbound / Yonge | 32.7 15.8 | С | | | | 0 | 15.8 | В | 15.5 | в | 16.4 | В |
| 3 Ha 4 Lak 5 Lak 6 Ha | arbour / Bay ike Shore Westbound / Yonge | 15.8 | | 32.7 | С | 36.7 | D | 32.0 | С | 28.2 | С | 28.7 | С |
| 4 Lak 5 Lak 6 Ha | ke Shore Westbound / Yonge | | В | 18.0 | В | 33.4 | С | 21.0 | С | 19.6 | В | 21.9 | С |
| 5 Lak 6 Hai 9 Hai | | 23.0 | С | 23.0 | С | 34.4 | С | 26.2 | С | 52.7 | D | 54.8 | D |
| 6 Ha 9 Ha | ke Shore Eastbound / Yonge | - | - | - | - | 21.4 | С | 25.7 | С | 40.9 | D | 36.0 | D |
| 9 Ha | arbour / Yonge | 9.7 | A | 11.3 | в | 30.2 | С | 22.9 | С | 34.8 | С | 24.4 | С |
| | arbour / Freeland | - | - | | - | 13.6 | В | 13.9 | В | 15.5 | В | 16.5 | В |
| 1 Lał | ke Shore Eastbound / Cooper | 1.9 | A | 5.0 | А | 2.7 | A | 35.2 | D | 36.5 | D | 30.2 | С |
| 2 Ha | arbour / Cooper | | - | | - | 18.6 | в | 17.9 | В | 13.3 | В | 20.0 | В |
| 4 Lak | ke Shore Eastbound / New | - | - | | - | 5.5 | Α | 6.7 | A | 6.5 | Α | 5.0 | Α |
| 5 Ha | arbour / New | | - | | - | 14.0 | в | 13.8 | В | 15.8 | В | 16.8 | В |
| 7 Lak Jar | ike Shore Westbound / Lower rvis | 55.7 | Е | 56.3 | Е | 52.5 | D | 65.7 | Е | 50.2 | D | 46.7 | D |
| 8 Lak | ke Shore Eastbound / Lower rvis | 51.1 | D | 53.2 | D | 53.1 | D | 71.1 | Е | 28.2 | С | 31.2 | С |
| 9 Ha | arbour / Lower Jarvis | - | - | | - | - | - | 6.9 | A | 17.8 | В | | - |



MODELING CONCLUSIONS

- Alternatives 2 and 4 (and 4a) have the best traffic performance (no LOS E or F)
- Alternative 3 has a few poor performing locations
- Alternative 2 provides minimal changes to the existing transportation network
- Alternatives 3 and 4 would require the highest level of infrastructure change and the highest level of connectivity
- Harbour Street extension could be reduced to 3 lanes + parking in Alternative 2 and still operate acceptably

● WILL ARUF 67





Lower Yonge Precinct Plan:Urban Design Guidelines and Transportation Master Plan

NOTICE OF STUDY COMMENCEMENT AND PUBLIC MEETING

Waterfront Toronto and the City of Toronto are jointly undertaking two studies in the Lower Yonge Precinct Area: an Urban Design Guidelines study and a Transportation Master Plan Environmental Assessment (EA). When complete, the studies will be used to develop a Lower Yonge Precinct Plan led by the City of Toronto. The goal of this work is to establish the planning context required to guide the future development of the Lower Yonge Precinct Area.

The Lower Yonge Precinct Area encompasses about nine hectares of waterfront land located between Yonge Street and Lower Jarvis Street, south of Lake Shore Boulevard and north of Queens Quay East. The Transportation Master Plan will also assess the role of Harbour Street as far west as Lower Simcoe Street.

The Urban Design Guidelines will describe the organization of blocks, streets, parks and publicly accessible open spaces in the Lower Yonge Precinct. They will also establish expectations regarding built form including general massing and how buildings are to be arranged adjacent to streets and open spaces.

The Transportation Master Plan is being carried out in accordance with the requirements of the Municipal Class EA, which is an approved planning process under the Environmental Assessment Act. The Transportation Master Plan will identify the transportation infrastructure required to support development within the Lower Yonge Precinct.

Upcoming Public Meeting

Public consultation is a key component of the Lower Yonge studies. The consultation plan provides for public forums at multiple points in the studies. The community is invited to learn more about the Lower Yonge Urban Design Guidelines and Transportation Master Plan EA, as well as provide input and feedback, at the first public meeting:



- 510 Spadina (to Queens Quay)
- Parking: Car Park 177 10 York Street

More information about the Lower Yonge studies is available at www.waterfrontoronto.ca/loweryonge and www.toronto.ca/planning/loweryongeprecinct. If you wish to receive further information or would like to be added to the project mailing list, please contact:

Andrea Kelemen, Waterfront Toronto 20 Bay Street, Suite 1310 Toronto, ON M5J 2N8 Tel: 416-214-1344 ext. 248 Fax: 416-214-4591 Email: info@waterfrontoronto.ca Website: www.waterfrontoronto.ca



Notice first issued: May 14, 2013

During the Municipal Class EA and planning process, Waterfront Toronto and the City of Toronto will be collecting comments and information regarding this project from the public under the authority of the City of Toronto Act, 2006, s. 136(c) and the Planning Act, 1990. Personal information collected will be maintained in accordance with the Municipal Freedom of Information and Privacy Protection Act and may be used to provide updates on this file. Questions about the collection of this information can be directed to the City Planning Division, City of Toronto.

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June 6, 2013

Insert Name and Address

Dear:

Subject: Notice of Study Commencement Lower Yonge Precinct Plan: Urban Design Guidelines and Transportation Master Plan

Waterfront Toronto and the City of Toronto are jointly undertaking two studies in the Lower Yonge Precinct Area: an Urban Design Guidelines study and a Transportation Master Plan Environmental Assessment (EA). When complete, the studies will be used to develop a Lower Yonge Precinct Plan led by the City of Toronto. The goal of this work is to establish the planning context required to guide the future development of the Lower Yonge Precinct Area.

The Notice of Commencement is attached for your information.

The Lower Yonge Precinct Area encompasses about nine hectares of waterfront land located between Yonge Street and Lower Jarvis Street, south of Lake Shore Boulevard and north of Queens Quay East. The Transportation Master Plan will also assess the role of Harbour Street as far west as Lower Simcoe Street. A map of the study area is included in the attached Notice of Commencement.

The Urban Design Guidelines will describe the organization of blocks, streets, parks and publicly accessible open spaces in the Lower Yonge Precinct. They will also establish expectations regarding built form including general massing and how buildings are to be arranged adjacent to streets and open spaces.

The Transportation Master Plan is being carried out in accordance with the requirements of the Municipal Class EA, which is an approved planning process under the *Environmental Assessment Act.* The Transportation Master Plan will identify the

transportation infrastructure required to support development within the Lower Yonge Precinct.

Public Consultation

Consultation with interested persons, government agencies and Aboriginal communities is a key component of the Lower Yonge studies. The consultation plan provides opportunities for feedback at multiple points in the studies. Your input is important. If you have an interest in this project we would appreciate your participation. Information materials are available online and feedback can be submitted to the project team by email. If you would prefer, we would be pleased to hold an individual meeting with you at your earliest convenience to discuss the project in further detail.

Please let us know if you are interested in being involved with this study.

Contact:

Antonio Medeiros, Project Manager, Waterfront Toronto 416-214-1344 ext 285 <u>amedeiros@waterfrontoronto.ca</u> Jeffrey Dea, Project Manager, City of Toronto 416-392-8479 jdea@toronto.ca

On behalf of Waterfront Toronto and the City of Toronto, we look forward to hearing from you.

For further information, you may also visit our web pages:

www.waterfrontoronto.ca/explore_projects2/central_waterfront/loweryon www.toronto.ca/planning/loweryongeprecinct/

Sincerely,

Antonio Medeiros Project Manager Waterfront Toronto

Jeffrey Dea Project Manager City of Toronto

Attachment: Notice of Commencement

In addition to this email, a letter has been mailed to you





Lower Yonge Precinct Planning

NOTICE OF PUBLIC MEETING #2

Waterfront Toronto and the City of Toronto are jointly undertaking two studies in the Lower Yonge Precinct Area: an Urban Design Guidelines study and a Transportation Master Plan Environmental Assessment (EA). When complete, the studies will be used to develop the planning framework needed to guide the future development of the Lower Yonge Precinct Area.

The project team has been developing a set of draft urban design guidelines for the precinct area. These guidelines describe the organization of streets, blocks, parks and publicly accessible open spaces and set out expectations for future buildings including layout and the range of permissible heights. Alternative transportation networks have also been developed and analyzed in accordance with the requirements of the Municipal Class EA, which is an approved planning process under the *Environmental Assessment Act*.

Meeting Details

Your input is an important part of the process. We invite you to attend the second of three public forums in which we will present both the draft urban design guidelines and the alternative transportation networks that support the future development of the Lower Yonge Precinct. You will be able to ask questions, offer input and submit comments.



| Date | Thursday, September 19, 2013 |
|-----------|---|
| Time: | 6:30 to 9 p.m. |
| Location: | Metro Hall (Room 308/309), 55 John Street 🕭 |
| TTC: | St. Andrew Station |
| | 504 King (to John Street) |

Parking: Car Park 52 – 40 York Street

Learn more at www.waterfrontoronto.ca/loweryonge and www.toronto.ca/planning/loweryongeprecinct. To be added to the project mailing list, please contact:

Andrea Kelemen, Waterfront Toronto 20 Bay Street, Suite 1310, Toronto, ON M5J 2N8 Tel: 416-214-1344 ext. 248 Fax: 416-214-4591 Email: info@waterfrontoronto.ca Website: www.waterfrontoronto.ca

During the Municipal Class EA and planning process, Waterfront Toronto and the City of Toronto will be collecting comments and information regarding this project from the public under the authority of the City of Toronto Act, 2006, s. 136(c) and the Planning Act, 1990. Personal information collected will be maintained in accordance with the Municipal Freedom of Information and Privacy Protection Act and may be used to provide updates on this file. Questions about the collection of this information can be directed to the City Planning Division, City of Toronto.

building our new blue edge




August 26, 2013

Insert Name and Address

Dear:

Subject: Notice of Public Meeting No. 2 Lower Yonge Precinct Plan: Urban Design Guidelines and Transportation Master Plan Environmental Assessment

Waterfront Toronto and the City of Toronto are jointly undertaking two studies in the Lower Yonge Precinct Area: an Urban Design Guidelines study and a Transportation Master Plan Environmental Assessment (EA). When complete, the studies will be used to develop a Lower Yonge Precinct Plan led by the City of Toronto. The goal of this work is to establish the planning framework required to guide the future development of the Lower Yonge Precinct Area.

The project team has been developing a set of draft urban design guidelines for the precinct area. These guidelines describe the organization of streets, blocks, parks and publicly accessible open spaces and set out expectations for built form including the location, size and height of buildings. The team has also been analyzing alternative transportation networks for the precinct in accordance with the requirements of the Municipal Class EA, which is an approved planning process under the *Environmental Assessment Act*.

On September 19, 2013, Waterfront Toronto and the City of Toronto will hold a second public meeting to present both the draft urban design guidelines and the alternative transportation networks that have been developed for the Lower Yonge Precinct. A Notice of Public meeting is attached for your information.

Meeting Details

Your input is important and if you have an interest in this project we would appreciate your participation. We invite you to attend this public forum to learn more and share your thoughts on the guidelines and alternatives being considered. A presentation will be given and you will be able to ask questions, offer input and submit comments.

| Date: | Thursday, September 19, 2013 |
|-----------|---|
| Time: | 6:30 to 9 p.m. |
| Location: | Metro Hall (Room 308/309), 55 John Street |
| TTC: | St. Andrew Station |
| | 504 King (to John Street) |
| Parking: | Car Park 52 – 40 York Street |

Information materials are available online and feedback can be submitted to the project team by e-mail. More information about the Lower Yonge studies is available at www.waterfrontoronto.ca/loweryonge and www.toronto.ca/planning/loweryongeprecinct.

If you would prefer, we would be pleased to hold an individual meeting with you at your earliest convenience to discuss the project in further detail.

Please let us know if you are interested in being involved with this study or if you would like to hold an individual meeting to discuss the project further.

Contact:

Antonio Medeiros, Project Manager, Waterfront Toronto 416-214-1344 ext 285 <u>amedeiros@waterfrontoronto.ca</u> Jeffrey Dea, Project Manager, City of Toronto 416-392-8479 jdea@toronto.ca

On behalf of Waterfront Toronto and the City of Toronto, we look forward to hearing from you.

Sincerely,

Antonio Medeiros Project Manager Waterfront Toronto

Jeffrey Dea Project Manager City of Toronto

In addition to this email, a letter has been mailed to you

Appendix B – Central Waterfront Secondary Plan

Attachment B1: Central Waterfront Secondary Plan

Central Waterfront Secondary Plan OPA 257 Adopted by Toronto City Council on April 16, 2003 and further modified for the West Don Lands in 2005 by the OMB

SECTION ONE: CORE PRINCIPLES

Waterfront renewal will not be treated as a specific project with a defined finishing point. Rather, it will be managed as an ongoing, phased effort, part of the much larger city-wide context, that will carry on over decades. The principles of this Plan will act as a framework for the renewal activities and will be as valid 30 years from now as they are today.

The Central Waterfront Plan is built on four core principles. These are:

- A. Removing Barriers/Making Connections
- B. Building a Network of Spectacular Waterfront Parks and Public Spaces
- C. Promoting a Clean and Green Environment
- D. Creating Dynamic and Diverse New Communities

The Plan expands on these core principles. Each principle is divided into two parts: the "Big Moves" that will define the new Central Waterfront and the "Policies" that will bring the vision to life.

In describing the planning framework for the Central Waterfront, words such as "will" and "must" are used in the Plan. It is recognized that the implementation of this Plan will take place over time and the use of these words should not be construed as Council's commitment to proceed with all of these undertakings immediately. This will be done in a phased manner, subject to budgeting and program availability and the active participation of other stakeholders and all levels of government.

A) REMOVING BARRIERS/MAKING CONNECTIONS

If waterfront renewal is to be truly successful, the waterfront will have to feel like and function as part of the city fabric. The first principle of the Plan is to remove barriers and reconnect the city with Lake Ontario and the lake with the city. This is the key to unlocking the unrealized potential of Toronto's waterfront. The new connections will be north/south and east/west. They are functional, thematic and symbolic in nature. The following "Big Moves" will support the removal of barriers and the creation of new connections across the Central Waterfront:

A1_REDESIGNING THE GARDINER CORRIDOR

The elevated Gardiner Expressway is a major physical barrier that cuts off the city from the waterfront. To ensure the success of a redesigned Gardiner Corridor, funding for major improvements to the road system and GO Transit/TTC services including Union Station must be in place. The final configuration of the Gardiner/Lake Shore Corridor will depend on the outcome of detailed study.

A2_A NEW WATERFRONT TRANSIT NETWORK

Public transit will be a top priority for connecting people and places to and within the renewed waterfront. An extended Waterfront Light Rapid Transit line will stretch across the Central Waterfront from Exhibition Place to the Port Lands with excellent connections into the city as generally illustrated on Map B. Expanding GO Transit rail services and upgrading Union Station will be critical elements of the new waterfront transit plan.

A3_LAKE SHORE BOULEVARD, AN URBAN WATERFRONT AVENUE

Lake Shore Boulevard will be transformed into an urban avenue through the Central Waterfront to accommodate its function as an arterial road. The new boulevard will be generously landscaped; will maximize the opportunities for pedestrian crossings through frequent intersections with streets connecting into the downtown core; and will provide ample room for commuter cycling and pedestrians.

A4_QUEENS QUAY, TORONTO'S WATER VIEW DRIVE

Queens Quay will become a scenic water view drive and an important component of the Toronto street network from Bathurst Street to Cherry Street providing ready access to the public activities on the waterfront and pedestrian connections to the water's edge. It will be designed to meet the diverse needs of motorists, transit users, cyclists and pedestrians as well as providing opportunities for vistas to the harbour and lake.

A5_COMPLETING THE WATERFRONT TRAIL

The Martin Goodman/Waterfront Trail will be completed through the Central Waterfront and connected to the city-wide trail or pathway system, including the Garrison Creek, Humber Valley and Don Valley trails as generally illustrated on Map C. Upgrades to various parts of the trails or pathways will ensure a high standard throughout. Floating boardwalks may provide public access along the head of slips and water's edge in areas where access cannot be achieved in other ways.

A6_WATERFRONT CULTURAL AND HERITAGE CORRIDORS

Key cultural and heritage corridors will link the assets of the city with the water's edge. Central Waterfront corridors extend north/south and east/west to form a waterfront cultural grid. Each of these corridors has a unique identity that will be promoted and reinforced.

POLICIES

(P1) The redesign of the Gardiner Expressway Corridor with a modified road network is one of the most important ingredients in revitalizing the Central Waterfront. Modifications to the road and transit infrastructure outside this corridor will be required to ensure the success of any

expressway redesign. These modifications will have to be identified and substantially in place prior to reconfiguring the corridor.

(P2) Required rights-of-way to accommodate the proposed waterfront road and transit network over time appear on Schedule A of this Plan. The rights-of-way will be sufficient to accommodate travel lanes, transit, pedestrian and cycling requirements as well as landscaping and other urban design elements. The exact location of road alignments will be refined through further detailed study.

(P3) Union Station will be redeveloped to maximize its capacity as a transportation centre and restore its historic grandeur. The rail corridors will be upgraded to provide more GO Transit rail service and a possible rail link to Pearson Airport. As a separate, but related project, Union Subway Station will be enlarged by adding a new platform.

(P4) New streetcar and some bus routes will operate in exclusive rights-of-way on existing and proposed streets to ensure efficient transit movement.

(P5) Waterfront streets will be remade as "places" with distinct identities. Streets will act as lively urban connections as well as traffic arteries. The needs of motorists will be balanced with efficient transit service and high-quality amenities for pedestrians and cyclists.

(P6) A water-based transportation system utilizing water taxis and ferries will become another way of moving people from one end of the waterfront to the other. The Ferry Docks will be revitalized as the hub of water-based transportation activities.

(P7) Physical connections between the Central Waterfront, the downtown core and adjacent neighbourhoods will be enhanced through high-quality urban design and landscaping on the north/south connector streets.

(P8) Railway underpasses will be transformed into more pedestrian-friendly corridors.

(P9) Streets that extend to the water's edge will create opportunities to see the lake from the city and the city from the lake. The design of buildings and public and private spaces that frame these streets will be of high architectural quality and take advantage of these views. New streets will be laid out to reinforce visual connections between the city and the water. Among these, Basin Street would be extended with minor modification to its current alignment, as the main street of the new Port Lands community from the eastern side of the inner harbour to the turning basin.

B) BUILDING A NETWORK OF SPECTACULAR WATERFRONT PARKS AND PUBLIC SPACES

The second principle of the Plan recognizes the significance of the public realm in transforming the Central Waterfront into a destination for international tourism, national celebration and local enjoyment. The Plan promotes the remaking of the Central Waterfront as a special place imbued

with spectacular waterfront parks and plazas and inviting natural settings that pleases the eye and captures the spirit. The following "Big Moves" will help transform the Central Waterfront into an area renowned for its outstanding waterfront parks and public spaces (see Map C):

B7_RESERVING THE WATER'S EDGE FOR PUBLIC USE

As renewal takes place, a continuous and highly accessible public water's edge promenade will connect a series of parks, open spaces, squares and plazas, at times intimate and at times generous, which are linked back to the city along existing and extended street corridors. The public promenade will be of varying width and design such that a variety of primarily pedestrian activities can be accommodated and be integrated with a range of parks and public spaces which would allow for outdoor cafes, areas of respite, play areas, public art, gatherings and celebrations. Key objectives in designing the public water's edge promenade will include: the creation of a diversity of spaces in scale, form and character, that respond to their distinct context; the creation of a cessible and marvelous places designed to encourage year round use and the creation of a remarkable public realm. This band of public space will be reserved as an amenity and legacy for future generations. To this end, the Plan designates a series of Inner Harbour Special Places.

B8_FOOT OF YONGE - SPECIAL STUDY AREA

The foot of Yonge Street should be treated as a special place on the waterfront, as the place where Yonge Street meets the lake, and be designed to include major public amenities of high quality containing distinctive cultural buildings, appropriate tourist facilities and a range of public uses and other development that will contribute to the special nature of this area. A dramatic new pier should be built at the foot of Toronto's historic main street, recognizing and celebrating this area as the centre of Toronto's waterfront. The Yonge Street Slip, a new public plaza and the pier will draw residents, tourists, boaters and cruise ships to the Central Waterfront and become a waterfront icon, visible from both land and water. This distinctive gateway to the city will accommodate a major cultural, entertainment and tourist destination, possibly including ancillary hotel uses. Further detailed study will be required as a special study at the precinct implementation stage to review the lands available and the relationship between the proposed uses.

B9_HARBOURFRONT CENTRE, AN EVEN STRONGER DRAW

Harbourfront Centre will continue to be recognized as an area for the arts, education, recreation and entertainment in a magnificent waterfront setting. New public squares will be created between Queens Quay Terminal and York Quay Centre removing surface parking lots and replacing them with underground parking. The public water's edge will be improved and expanded. New year-round pavilion structures will be introduced in a number of locations expanding the range of cultural and commercial uses. An integrated nautical centre for marine activities may be established.

B10_CREATING NEW EAST BAYFRONT PARKS AND PUBLIC SPACES

A bold new system of connected waterfront parks and public spaces will be developed, reflecting the industrial heritage and dockwall legacy of the area and anticipating its extraordinary future. Public spaces at the foot of Jarvis, Sherbourne and Parliament Streets will include both intimate and active public plazas, designed to preserve views towards the lake. The reuse of the existing Marine Terminal buildings should be investigated as a link to the industrial heritage of the area.

B11_THE DON GREENWAY, A NATURAL HERITAGE CORRIDOR

A new green, Natural Heritage corridor will be created in the centre of the Port Lands, functioning as an important open space connection linking the Don Valley, Tommy Thompson Park and Lake Ontario. The corridor will be a key component of the Centre for Creativity and Innovation offering a unique amenity attractive to knowledge-based industries of all types. In addition to providing local open space and subject to its Natural Heritage designation in the Official Plan, the corridor will be able to fulfill a variety of functions, including neighbourhood recreation, compatible community uses, multi-use pathways, a wildlife corridor and habitat, and a receptor for stormwater from adjacent communities.

B12_A NEW LAKE ONTARIO PARK

A new Lake Ontario Park will give Toronto a much enhanced continuous urban park system in the tradition of the city's great parks like High Park and Edwards Gardens. Extending from Clarke (Cherry) Beach to Balmy Beach, the new park will encompass a considerably improved North Shore Park, Tommy Thompson Park and the Base Lands, and will incorporate upgrades to the Martin Goodman/Waterfront Trail system in this area. Through judicious lakefilling, new parkland may be created south of the Ashbridges Bay Treatment Plant and on the shores of the Outer Harbour, subject to an environmental assessment and taking into consideration comments from interested parties, including the recreational boating community. The parks will be designed to serve the diverse recreational needs of the emerging waterfront communities. The lakefilling will help stabilize the Lake Ontario shoreline, reduce siltation and establish new aquatic and terrestrial habitats. The requirements of recreational boating will continue to be met within the new park system.

B13_THE SHIP CHANNEL, A UNIQUE URBAN WATERFRONT AMENITY

The Ship Channel, which extends from the Inner Harbour to the east end of the Port Lands, will become a powerful focal point around which new mixed-use communities will be built. The needs of existing industries for dockwall space and use of the channel will be balanced with the opportunity to capitalize on the channel as a unique amenity. New north/south canals could expand the use of the channel for activities such as boating or skating.

B14_A NEW FORT YORK PARK

A new park of national prominence (Fort York Park) will be created with a larger and more visible public space, thereby regaining the Fort's status as Toronto's most significant heritage resource. The new Fort York Park will be a national, regional and local draw for public events and for the celebration of its military history central to the story of Toronto.

B15_AN EXPANDED MARILYN BELL PARK

Almost three hectares will be added to Marilyn Bell Park by carefully consolidating the road network at the west end of Exhibition Place. This will allow the park to be redesigned and improved as a gateway to the waterfront. The expanded park will be much more accessible to South Parkdale residents as well as to visitors, workers and new residents at Exhibition Place.

B16_ONTARIO PLACE, A WATERFRONT DESTINATION

Ontario Place will be woven into the waterfront park system with better access for the public to enjoy its facilities and paid attractions. A new trail system, with connections to the north, east and west, will bring pedestrians and cyclists to Ontario Place. With improved public access, Ontario Place will be reaffirmed as an important waterfront destination for major festivals and tourism events and for the celebration of innovative architecture and landscape design.

B17_CANADA MALTING, A LANDMARK SITE AND SPECIAL PLACE

The Canada Malting Silos, a landmark and important heritage feature on the Central Waterfront, will be retained and improved. The City will pursue innovative proposals for a mix of public and private activities and uses that can successfully transform the silos building into a unique special place on the Toronto waterfront.

B18 _ COMMISSIONERS PARK, A MAJOR NEW OPEN SPACE

A major new park will be located between Cherry Street and the Don Roadway to the north of Commissioners Street to showcase urban park design and serve the needs of the new and existing neighbourhoods in the area. This park will stretch to the newly naturalized Mouth of the Don while providing both outdoor and indoor active recreation uses and complementing the newly created passive use and natural areas along the river. Smaller local parks will also be provided throughout the Port Lands. The precise configuration and function of the various parks will be determined after study of local and regional recreational needs and the preparation of a comprehensive open space framework for the Port Lands in the context of the larger Toronto Waterfront open space network.

POLICIES

DEFINING THE PUBLIC REALM

(P10) The design of the public realm will be of a standard of excellence characteristic of the great city waterfronts of the world.

(P11) The public realm will be defined by a coherent framework of streets, parks, plazas, buildings, viewing areas, walkways, boardwalks, promenades, piers, bridges and other public infrastructure and open space elements. Its design will reflect its exceptional waterfront setting and integrate and interpret the rich natural and cultural heritage of Toronto's waterfront, its industrial dockwall legacy, as well as including the historic Lake Ontario Shoreline, Taddle Creek and Garrison Creek alignments.

(P12) Parks and plazas strategically located along the water's edge will become centres of public activity – in effect, windows on the lake. The termination of each of the north-south streets within East Bayfront and other streets within the Port Lands, or on the Quays, adjacent to the early 20th Century dockwall, will be celebrated by the creation of a series of unique public places (Inner Harbour Special Places) to reflect their history and the character of the surrounding community. They will provide a focal point for their neighbourhood.

(P13) A unifying approach to landscaping and wayfinding (e.g., signs, kiosks) that is evocative of the Central Waterfront will tie together its various components.

(P14) There will be a coordinated Central Waterfront public art program for both public and private developments.

PARK DESIGN

(P15) Parks in the Central Waterfront will be diverse, well maintained, animated and safe, accommodating a full range of recreational experiences from areas for active play, enjoyment of sports and entertainment to areas for quiet solitude and relaxation. These experiences will be provided in a comfortable setting during all seasons of the year.

(P16) Public community, cultural and entertainment facilities will form part of the fabric of the waterfront park system. A limited number of private cultural, restaurant and entertainment facilities may also be located in the park system provided their associated open spaces remain publicly accessible.

(P17) Sustainable management practices and design and construction techniques that have minimal environmental impacts and return the greatest ecological rewards will be utilized in waterfront parks.

C) PROMOTING A CLEAN AND GREEN ENVIRONMENT

The third principle of the Plan is aimed at achieving a high level of environmental health in the Central Waterfront. A wide variety of environmental strategies will be employed to create

sustainable waterfront communities. The following "Big Moves" will showcase the City's commitment to a clean and green waterfront that is safe and healthy and contributes to a better environment for the city as a whole:

C19_PRIORITY FOR SUSTAINABLE MODES OF TRANSPORTATION

A sustainable transportation system that gives priority to transit, cycling, walking and water transport and reduces the need for car use will form the basis for transportation planning in the Central Waterfront. Future travel demand will be mainly met by non-auto means. Road capacity will be added only to meet local traffic needs.

C20_PROTECTING THE WEST DON LANDS FROM FLOODING

A flood protection berm will be built along the Don River to assist in eliminating flooding problems in the West Don Lands and surrounding neighbourhoods to the west. It will also provide naturalized open space and active parkland along its edge for use by the emerging West Don Lands communities and fulfill a crucial stormwater management function. The adjacent King-Parliament and St. Lawrence neighbourhoods will benefit from this increase in active parkland.

C21_RENATURALIZING THE MOUTH OF THE DON RIVER

The mouth of the Don River will be rerouted through lands south of the rail corridor. This will improve the ecological function of the river, provide flood protection for the Port Lands and East Bayfront and attract new wildlife to the area. The renaturalized mouth of the river will also become a key open space and recreational link to the Don Valley, West Don Lands, Port Lands and waterfront park system. This enhanced river setting will provide a gateway to the new urban communities in the Port Lands. Pedestrian and cyclist's bridges over the river mouth will be designed as signature entrances of beauty and inspiration.

POLICIES

(P18) As part of the strategy to reduce car dependence and shape people's travel patterns early, a comprehensive range of efficient and competitive transportation alternatives will be provided in tandem with the development of new waterfront communities. These include a new transit system as generally illustrated on Map B, as well as pedestrian, cycling and water transportation opportunities as generally illustrated on Map D.

(P19) New waterfront communities will offer opportunities to live and work close together, leading to fewer and shorter commuter trips.

(P20) New traffic management approaches will be pursued to accommodate non-auto modes of transportation, make more efficient use of existing roads (i.e., "smart" technology) and discourage the use of single-occupant vehicles.

(P21) Pedestrian and cycling routes will be safe, attractive, comfortable and generously landscaped.

(P22) The health and biodiversity of the Central Waterfront will be enhanced and restored by protecting and regenerating wetlands, fish and wildlife habitats, rare plant and animal species, shorelines, beach areas, woodlots and lands designated "Natural Heritage Areas" (in the Official Plan) and "Natural Areas" (see Map C).

(P23) Development will contribute to the improvement of water quality in Toronto's rivers and streams, as well as in Toronto Bay, the Outer Harbour and Lake Ontario.

(P24) Stormwater will be managed as close to its source as possible.

(P25) Combined sewer outfalls that discharge into Lake Ontario, Toronto Harbour and the Don River will be progressively reduced consistent with the City's environmental policies.

(P26) The Central Waterfront will be a model of leading-edge environmental technologies. Alternative sources of generating electricity, including co-generation, anaerobic digestion, wind turbines and solar power, will be pursued as well as district heating and cooling.

(P27) The Central Waterfront will showcase successful redevelopment of brownfield sites into sustainable residential and employment areas. Where applicable, remediation requirements will be balanced by the need to protect environmentally sensitive areas. Development in Regeneration Areas will have regard to current Provincial guidelines and legislation with lands being appropriately buffered and mitigated to prevent adverse effects from odour, noise and other contaminants.

(P28) Lakefilling will be considered only for stabilizing shorelines, improving open spaces, creating trail connections, preventing siltation and improving natural habitats and is subject to Provincial and Federal Environmental Assessment processes. Consideration will be given to the impact of such lakefilling on recreational uses.

(P29) The creation of parkland south of the Ashbridges Bay Treatment Plant will be compatible with, and closely co-ordinated with, any future plans to expand the facility.

D) CREATING DYNAMIC AND DIVERSE NEW COMMUNITIES

The fourth and final principle of the Plan is focused on the creation of dynamic and diverse waterfront communities – unique places of beauty, quality and opportunity for all citizens. New water's edge communities will accommodate a range of development forms and be of sufficient scale to establish a "critical mass" of people both living and working in a neighbourhood setting. These new waterfront neighbourhoods will be acclaimed for their high degree of social, economic, natural and environmental health and cultural vibrancy, which collectively will contribute to the long-term sustainability of the area and the entire city. The following "Big Moves" implement this principle:

D22_OPENING UP THE PORT LANDS TO URBAN DEVELOPMENT

The vast Port Lands, an area more than 14 times the size of London's Canary Wharf, will be cleaned up and opened to a range of urban development opportunities. The Port Lands will become Toronto's springboard to the future, a place for wealth creation, originality and creativity in all aspects of living, working and having fun. The Port Lands will be transformed into a number of new urban districts set amid the hustle and bustle of Toronto's port activities. An enticing environment conducive to the creation of an international Centre for Creativity and Innovation for knowledge-based industries, film and new media activities will be nurtured. It will be a part of the city where "green" industries can be incubated and thrive. The new Port districts will be supported by a rich infrastructure of recreational, cultural and tourist amenities.

Entrepreneurs and creative people in knowledge-based industries will find a variety of choices for both living and working – innovative housing including live/work, lofts, and workplaces that appeal to a range of needs. Businesses will be presented with building and location choices that satisfy all sizes and types of businesses from start-ups to mature international operations. The Hearn Plant will be an asset to this area with many potential reuse options.

The Port Lands will be developed to become several major new neighbourhoods containing many of the elements characteristic of the best existing Toronto neighbourhoods. They should generally be developed at medium scale, with some lower elements and higher buildings at appropriate locations. Retail and community activities should be concentrated at accessible locations to form a focus for the area. Cherry Street and the new extension of Basin Street connecting Polson slip and the Turning Basin will be important components of this new centre. The alignment of Unwin Avenue from Hearn to Leslie will require further detailed study including assessment of environmental conditions and urban development requirements.

D23_A NEW BEGINNING FOR THE WEST DON LANDS

With the construction of the flood protection berm and the naturalization of the mouth of the Don River, the West Don Lands will be redeveloped into diverse mixed-use communities. These communities will capitalize on their strategic downtown location, the synergy created by the simultaneous development of the Port Lands and their historic roots as part of the original town of York, as well as the Don River's new environmental health.

D24_THE EAST BAYFRONT, A PROMINENT NEW NEIGHBOURHOOD

The East Bayfront will become a prominent waterfront address for working and living amid the energy and abundance of waterfront activities, including a new water's edge promenade and other public activities in the series of new East Bayfront public spaces. Development adjacent to the water's edge promenade shall consist of low and medium scale buildings that will reinforce the safety and usability of the public spaces.

D25_EXHIBITION PLACE, A PLACE FOR WORK, CELEBRATION AND LIVING

Exhibition Place, historically a place for celebration and exhibition, will expand into a dynamic area where people work, visit and live. Housing at select peripheral locations will not detract from Exhibition Place's primary role. The proposed realignment of Lake Shore Boulevard will add to the land available for development and make it easier to integrate Exhibition Place with Ontario Place.

The National Trade Centre will continue to function as a magnet to attract new businesses and support facilities. Synergies may also be created by the presence of the new media businesses of Liberty Village.

The remade Exhibition Place will feature a significant open plaza capable of hosting large gatherings and festivals.

New development will respect and celebrate Exhibition Place's existing heritage architecture and views of heritage buildings from the water. Opportunities for adaptive reuse of heritage buildings will be explored.

POLICIES

DESIGNING THE BUILT ENVIRONMENT

(P30) Development of the Central Waterfront will maintain Toronto's successful tradition of city building at a compact scale combining the best of urban living, amenities and built form. The treatment of the development sites abutting the water's edge, public promenade along the traditional urban dockwall will require particular sensitivity to create a front of publicly accessible and marvelous buildings of appropriate low to moderate scale to complement the character of the neighbourhoods and in keeping with good planning principles. The precinct implementation strategies will specifically address these design issues while defining their scale, range of uses and ensuring that the individual building design meets high standards of excellence through peer review, or a Design Review Board.

(P31) Excellence in the design of public and private buildings, infrastructure (streets, bridges, promenades, etc.), parks and public spaces will be promoted to achieve quality, beauty and worldwide recognition.

(P32) New development will be located, organized and massed to protect view corridors, frame and support the adjacent public realm and discourage privatization of public spaces. Built form will result in comfortable micro-climates on streets, plazas and other parts of the public realm.

NURTURING A HIGH STANDARD OF COMMUNITY LIVING

(P33) A balance of places to live and work will contribute to the morning-to-evening vitality of new waterfront communities.

(P34) Schools and other community services and facilities (including places of worship) will be integral components of new waterfront communities and will be provided in conjunction with new development (Appendix I).

(P35) Local parks will enrich new waterfront communities. Parks planning will take into account such factors as park size, land availability, neighbourhood accessibility, safety and quality of experience in park spaces (Appendix I).

(P36) Innovative approaches for providing the necessary community infrastructure will be explored, including shared use of schools, community services and facilities and local parks as well as integrating community facilities into private developments.

(P37) Public spaces, parks, transportation facilities and other public and private buildings in the Central Waterfront will be designed to ensure accessibility to persons with disabilities.

HOUSING OPTIONS*

(P38) A mix of housing types, densities and tenures will accommodate a broad range of household sizes, composition, ages and incomes contributing to the vitality of the Central Waterfront as well as the opportunity for residents to remain in their communities throughout their lives.

(P39) The overall goal for the Central Waterfront is that *affordable rental housing* and *low-end-of-market housing* comprise 25 per cent of all housing units (see Definitions in Schedule B). To the extent possible, and subject to the availability of funding programs and development cross-subsidization, the greatest proportion of this housing will be affordable rental with at least one-quarter in the form of two-bedroom units or larger. Senior government funding programs to assist in the delivery of *affordable rental housing* will be aggressively pursued, and appropriate opportunities identified to take advantage of such programs.

*APPROVAL OF POLICIES 38 AND 39 WITHHELD BY ONTARIO MUNICIPAL BOARD DECISION ON WEST DON LANDS

CREATING SPECIAL PLACES TO WORK

(P40) The Central Waterfront will accommodate a variety of maritime activities, including cargo shipping, cross-lake ferry service, local ferry and water taxi terminals, excursion boats, cruise ships, berthing areas and marinas, maritime support services and the Port of Toronto.

(P41) Land, dockwall and rail service will be sufficient to meet the needs of cargo shipping, passenger cruise ships, ferries, excursion boats, recreational boating and other water-dependent activities.

(P42) The Port Lands will be developed with new media and knowledge-based businesses and "green" industries in addition to maintaining their important role in the city's economy as a location for downtown-serving and marine-related industries and the Port of Toronto. Large tracts of vacant land, the proximity to downtown, the existing base of film and new media activities, and strategic marketing and planning to attract these businesses will support the emergence of a convergence district in the Port Lands. Entertainment industries such as music, film and television production will operate alongside the communications, software development, biotechnology and publishing sectors.

In the interim, until redevelopment proceeds, existing business operations will continue in the Port Lands. As redevelopment proceeds, Performance Standards may be established to ensure new and existing uses (which do not need to be relocated) can comfortably co-exist, without negatively impacting their operation. A relocation strategy will be developed to accommodate appropriate city-serving businesses that need to be close to the downtown as well as other businesses that dependent on water/rail access.

(P43) Large scale, stand-alone retail stores and/or "power centres" are not part of the vision for the Central Waterfront. New retail development will only be considered within the context of the City's urban planning principles and must be supportive of the other core principles and policies of this Plan. Retail and other uses which require large areas of unscreened surface parking will not be permitted. In regards to the lands within the West Don Lands, this policy does not supersede S. 10.2 and S. 5.3 of the King Parliament Secondary Plan.

(P44) Companies that rely on lake access for their operations will remain important maritime industries on the waterfront to the extent that they can be accommodated within emerging communities.

CREATING SPECIAL PLACES TO VISIT, RELAX, PLAY AND LEARN

(P45) The Central Waterfront will become the face of Toronto to the world, with a quality of experience and environment comparable to that of other international cities, a place to express the future of the city with confidence and imagination.

(P46) Strategies to attract high-value tourism to the Central Waterfront will receive top priority in order to strengthen Toronto's role as the cultural capital of the nation. The Central Waterfront will be the future location of major international-calibre cultural, entertainment and other tourist attractions.

(P47) A wide variety of year-round experiences for visitors will be offered. Emphasis will be placed on developing new facilities that are enduring, creative and unique to Toronto and its waterfront. Winter conditions will be an important consideration in developing the Central Waterfront's tourism infrastructure.

(P48) Boating opportunities will be expanded to draw city residents, workers and tourists to the waterfront. The Central Waterfront offers an opportunity to provide internationally acclaimed boating facilities, particularly in the Outer Harbour. The design, location and viability of such facilities will be developed further in the Precinct Implementation Strategies, in consultation with the appropriate stakeholders.

(P49) Toronto's story will be told by preserving the waterfront's cultural and natural heritage in the development of new private and public spaces, some of which are designated as the Inner Harbour Special Places.

(P50) Heritage properties listed on the City's Inventory of Heritage Property will be protected and improved where feasible. Designated heritage buildings will be conserved for creative reuse in their original locations.

SECTION FIVE: MAKING IT HAPPEN

1) A SIMPLIFIED APPROACH TO LAND USE REGULATION

The Central Waterfront will have three types of land use designations (Map E):

• <u>Parks and Open Space Areas</u> are areas for use as parks, open spaces, natural areas and plazas, and can include compatible community, recreation, cultural, restaurant and entertainment facilities. Lands designated Parks and Open Space Areas in the vicinity of Regeneration Areas may be subject to Precinct Implementation Strategies.

• <u>Regeneration Areas</u> are blocks of land that may be subdivided into smaller areas for a wide variety of mixed-use development ranging from industries to housing to community services and parks; from offices to stores to hotels and restaurants. Regeneration Areas will generally be subject to Precinct Implementation Strategies. The water's edge development sites located adjacent to the water's edge promenade and along the urban dockwall will be subject to the highest quality of design excellence. Development within water's edge sites should be designed to create a wonderful juncture of the city and the Inner Harbour or Ship Channel. Development along the Public Promenade (Dockwall/Water's edge) should be generally of low to moderate scale and views of the lake from the city protected in accordance with good planning principles. This new development can incorporate a wide mix of uses both public and private, including residential, and should be designed at ground floor level to complement the activities anticipated in adjacent public spaces. These sites will be subject to particular attention in the precinct implementation strategies to ensure that they achieve the highest quality of built form and design expected. The precinct implementation strategies will specifically address these design issues while defining their scale, range of uses and ensuring that the individual building design meets high standards of excellence through peer review.

• <u>Existing Use Areas</u> are areas currently covered by planning controls that are consistent with the direction put forward in this Plan. These lands will continue to be governed by existing Official Plan and zoning controls and related Planning Act processes and will not be subject to Precinct Implementation Strategies.

2) IMPLEMENTATION

The implementation of the principles and policies contained in this Plan will rely on a wide array of planning and financing tools. Planning tools may include the adoption of zoning by-laws, use of holding provisions, temporary use by-laws, agreements under Section 37 of the Planning Act, site plan control and various means of subdividing land. In addition, the City of Toronto has been granted the opportunity to apply a Development Permit System in the Central Waterfront area as an alternative zoning and development control process.

2.1 Planning at a Precinct Level

The precinct implementation strategies are intended to provide for comprehensive and orderly development and to implement the policies of this Plan. This review process will also deal with issues of soil cleanup, flood control and servicing, urban design, community improvement, heritage and environmental performance standards. Approval of new zoning for lands within the Regeneration Areas will generally take place at a precinct level. Prior to the preparation of zoning by-laws or development permit by-laws of lands not designated Existing Use Areas, Precinct Implementation Strategies will be prepared in accordance with the policies contained in Section 2.2 below. The boundaries of each precinct will be determined as part of the preparation of the Precinct Implementation Strategies and the related zoning by-laws(s) or development permit by-law(s). Elements of the precinct implementation strategies may be incorporated into the Secondary Plan for the Central Waterfront by way of Official Plan Amendment.

Rezoning of individual sites within Regeneration Areas will generally only be entertained once a context has been established for the evaluation of specific rezoning applications, through the Precinct Implementation Strategies. In addition, area-wide infrastructure requirements will have to have been determined, including a fair and equitable means for ensuring appropriate financial contributions for their provision, prior to the approval of rezoning applications.

Because of the area-wide, integrated, nature of developing an effective transit network, transit implementation must be managed on a broader area-planning basis. It cannot be managed effectively through precinct planning, or a sub-area planning process. To achieve the objectives of the Central Waterfront Plan, a high level of transit use is required in each of the four development areas, and it is essential that transit-oriented travel patterns be established from the outset. For this reason, the implementation of transit improvements will require a separate financial planning and approval process.

For each of the four development areas, a staged implementation schedule and accompanying financial plan for the construction and operation of transit facilities, will be required before development can proceed in that development area. This will ensure that high-order transit

services are constructed at an early stage in the development process and that the transit-oriented objectives of the plan are achieved from the outset.

2.2 Precinct Implementation Strategies

Precinct Implementation Strategies will include, but not be limited to, the following elements

- (i) a streets and blocks structure that supports a broad range of development and provides appropriate connections to adjacent communities;
- (ii) minimum and/or maximum standards regarding the height and massing of buildings and the provision of parking;
- (iii) strategies to ensure a balance between residential and employment-based development;
- (iv) strategies by which affordable housing targets can be achieved;*

*APPROVAL OF THIS POLICY WITHHELD BY ONTARIO MUNICIPAL BOARD DECISION ON WEST DON LANDS

- (v) the location and phasing of local and regional parks, open spaces, public use areas, trails and access linkages;
- (vi) the location and phasing of elementary schools and high schools, libraries, community and recreation centres, day care centres, emergency services, places of worship and other community facilities and services;
- (vii) a comprehensive set of environmental performance standards for public and private infrastructure, buildings, and activities including, but not limited to, energy efficiency, reduction of CO₂ emissions, water conservation, clean air and waste (reduction, reuse and recycling);
- (viii) provisions for securing the retention of heritage buildings within new developments and an archaeological resource assessment, as identified in the Archaeological Master Plan for the Central Waterfront, of high-potential sites prior to development;
- (ix) urban design provisions dealing with the unique microclimatic conditions of the waterfront, quality of waterfront streets, the public realm, urban plazas, parks, schools, other community services and facilities, and signage;
- (x) public art and urban design standards and guidelines;
- (xi) provisions for protecting and securing necessary road, transit, trails and bicycle route alignments; and

(xii) mechanisms, financial and otherwise, to ensure the above matters are implemented.

2.3 The Central Waterfront as a Development Permit Area

The City of Toronto has been granted the authority to implement a Development Permit System in the Central Waterfront. This system allows a streamlined municipal approval process by consolidating the zoning by-law, minor variance and site plan approval processes into one through the enactment of development permit by-laws.

- 2.3.1 The Central Waterfront Secondary Plan area, as delineated on Map E, is designated a Development Permit Area. Within this area, City Council may enact development permit by-laws based on the following objectives:
 - to enable the revitalization of the Central Waterfront to move forward in a timely and strategic fashion;
 - to provide certainty for matters of public concern and the achievement of city building objectives, while providing flexibility in the means to achieve these objectives; and
 - to streamline the approval process while providing the opportunity for public input into development.
- 2.3.2 When determining whether any class, or classes of development, or use of land may be permitted, several types of criteria may be used in the development permit by-law in order to ensure high quality urban development. These criteria relate to built-form, use, intensity of use, compatibility with adjacent uses and other uses within the precinct, parking requirements, relationship to parks, open spaces and the water's edge, proximity and availability of supporting hard and soft services, location relative to public transit and consistency with the policies of the Secondary Plan.

In addition, the by-law may permit the continued use, enlargement or extension of a legal non-conforming use or a change in use of a legal non-conforming use, provided that the proposal is desirable, avoids hardship, will have no unacceptable impacts on adjoining properties, and is consistent with the policies of this Plan.

- 2.3.3 The following types of conditions may be included in a development permit by-law and may be imposed prior to the issuance of a development permit.
 - requirements for the provision of bicycle trails, walkways, protecting and securing necessary road widenings and transit rights-of-way, parking, parkland, land grading or filling, storm water management and/or any other types of conditions permitted under s.40, 41, or 42 of the Planning Act;

- environmental conditions related to air quality, water and sewers, flood protection, soil cleanup, groundwater protection, storm water management, natural heritage features and functions, and construction-phase environmental impacts, for defined uses or classes of development in areas including hazard lands, contaminated lands, significant natural feature areas and/or any other types of environmentally sensitive areas listed in s.34(3)(3.1) and (3.2) of the Planning Act; and
- the execution of agreements respecting site alteration, grading, filling and/or the removal of vegetation.
- 2.3.4 As with Site Plan Approval, when enacting a development permit by-law Council may delegate its authority to an employee of the municipality, to:
 - (a) approve or refuse an application for a development permit;
 - (b) issue a development permit;
 - (c) attach conditions to the approval of a development permit; and/or
 - (d) enter into agreements with respect to a development permit.

2.4 Contributions to Infrastructure and Community Facilities

The creation of new communities will necessitate major investment in roads, transit, servicing, flood proofing measures, soil remediation, parks and public spaces, and community facilities and services.

Prior to enacting a zoning by-law or development permit by-law on lands designated as Regeneration Areas, arrangements will be made whereby benefiting landowners will be required to pay a fair and equitable share of the costs of any new infrastructure and community facilities required for such development, through one or more of the following means:

- (i) the payment of an area-specific development charge pursuant to the Development Charges Act;
- (ii) a contribution made pursuant to an agreement under Section 37 of the Planning Act;
- (iii) a cost sharing agreement involving landowners; and/or
- (iv) such other arrangements as may be appropriate.
- 2.5 Increases in Height and/or Density

In order to assist in the achievement of the full implementation of the policies of this Plan, contributions to one or more community benefits, facilities, or services may be requested in exchange for a height and/or density increase above the existing height and/or density limits, pursuant to Section 37 of the Planning Act, provided that the increase in height and/or density is appropriate, and enhances the Central Waterfront. The benefit will be secured through an appropriate legal agreement that will be registered on title to the lands. Increases are to be measured from the height and/or density for the use permitted in the zoning by-law.

2.6 Holding By-laws

In order to provide for the orderly development of lands in the Central Waterfront, to resolve the issues of soil remediation, flood control, infrastructure requirements and servicing as well as to ensure an equitable sharing of associated costs, Council may enact zoning by-laws pursuant to Sections 34 and 36 of the Planning Act with an "H" holding symbol. This holding symbol may be removed after the necessary studies and plans have been provided and secured through an agreement or agreements entered into pursuant to Section 37 and/or Section 51 of the Planning Act.

3) SUBDIVISION OF LANDS

The subdivision of lands within precincts may occur through a simplified Plan of Subdivision and the lifting of Part Lot Control, or the taking of public streets directly and lifting Part Lot Control where an underlying Plan of Subdivision already exists. Severance of lots in Regeneration Areas by application to the Committee of Adjustment generally will only be considered upon completion of the Precinct Implementation Strategies.

4) ENCOURAGING EXCELLENCE IN DESIGN

Excellence in design will be promoted through design competitions and design review panels. These processes will encourage the participation of both the local and international design community.

A Design Review Board will be established to review and advise the City on all design aspects of all development applications on lands adjacent to the Public Promenade (Dockwall/ Water's Edge). The objective of this process will be to ensure the excellence in design of new public and private buildings, infrastructure, parks and public spaces adjacent to Toronto's waterfront.

5) DESIGNATING THE CENTRAL WATERFRONT AS A COMMUNITY IMPROVEMENT PROJECT AREA

The Central Waterfront is proposed to be designated a Community Improvement Project Area under Section 28 of the Planning Act. In order to expedite revitalization efforts, Community Improvement Plans will be developed to identify specific revitalization projects.

The Community Improvement Project Area designation allows the City to provide grants or loans for rehabilitating land or buildings. Under the Municipal Act, the City may include tax incentives to encourage development in a Community Improvement Project Area. It also helps focus government funding and investment on well-defined, pre-approved community improvement projects and initiatives such as brownfield redevelopment, heritage restoration, affordable housing,* soil and groundwater remediation, infrastructure, parkland acquisition, façade improvements and/or general community beautification projects.

*APPROVAL OF THE WORDS "AFFORDABLE HOUSING" IN THIS POLICY WITHHELD BY ONTARIO MUNICIPAL BOARD DECISION ON WEST DON LANDS

6) TIMELY IMPLEMENTATION AND ENVIRONMENTAL ASSESSMENT

6.1_Environmental remediation, flood protection measures, early construction of transit infrastructure, and the timely provision of community services and facilities will be essential to achieving the revitalization of the Central Waterfront.

6.2_Where applicable under provincial or federal legislation, environmental assessments of Central Waterfront projects will be undertaken. The Environment Assessment process will be an opportunity to integrate Toronto's environmental and sustainability goals into project design and implementation.

7) INTERPRETATION OF THE PLAN

7.1_The Central Waterfront Secondary Plan consists of Sections Four and Five, Maps A to E and Schedules A and B.

7. 2_Maps A, B and D cover an area beyond the boundary of the Central Waterfront and will prevail over the Official Plan and any Secondary Plans for the matters covered in these maps.

7. 3_Appendix I is part of the Plan for the purpose of illustration only and is not to be interpreted as prescriptive.

7. 4_The Toronto City Centre Airport and Toronto Islands are not part of the Plan.

7. 5_The transportation alignments, Parks and Open Space Areas and Regeneration Areas shown in this Plan are intended to provide a basic framework for the Central Waterfront. Minor adjustments and additions to any of these elements may be made without amendment, including the detailed configuration of Commissioners Park, the Queens Quay East alignment at its current

intersection with Cherry Street and Lake Shore Boulevard East, as well as the location of the associated bridge(s) over the new Mouth of the Don River.

7. 6_The text and maps of the Official Plan of the former City of Toronto continue to apply except in cases where the text and maps are in conflict with this Secondary Plan, in which case the text and maps of this Secondary Plan shall prevail.

7.7 _For further clarification, the land use designation of "Regeneration Area" in the area to the south of Mill Street as set out in the Central Waterfront Secondary Plan shall prevail over the King Parliament Plan.

7.8 _ Notwithstanding Section 7.6, in cases where the text and maps of the Fort York Neighbourhood Part II Plan are in conflict with this Secondary Plan, or where this Secondary Plan would impose additional financial obligations or Section 37 contributions on the blocks identified on Map B to the Fort York Neighbourhood Part II Plan beyond those obligations or contributions imposed by the Fort York Neighbourhood Part II Plan, the text and maps of the Fort York Neighbourhood Part II Plan shall prevail.

7.9 _ Section 2.6 of this Secondary Plan does not apply to the lands in the Fort York Neighbourhood.

SCHEDULE A

| DDUDUCEU | DICHTS OF | WAV | | FOP | MATOR | DUVDS |
|------------|-------------|-----|--------------------------------------|-----|-------|-------|
| I KOI OSED | KIOIII S-OI | | $(\mathbf{K} \mathbf{O} \mathbf{W})$ | TOK | MAJOK | KOADS |

| | | | | Streetcar |
|--|----------------------|-----------------------|--------|------------|
| Roadway ⁽¹⁾ | From | То | ROW | in own ROW |
| Bayview Av Mill St | | Queen St E | 30 m | No |
| Basin St (new) | Cherry St | Carlaw Av (new) | 26 m | No |
| Broadview Av (new) | Commissioners St | Eastern Av | 32 m | Yes |
| Carlaw Av (new) | Unwin Av | Commissioners St | 26 m | No |
| Cherry St | Eastern Av | Front St E | 36 m | Yes |
| Cherry St | Front St E | Mill Street | 35 m | Yes |
| Cherry St | Mill St | CN Railway Corridor | varies | Yes |
| Cherry St CN Railway Corridor Unwin Av | | Unwin Av | 40 m | Yes |
| Commissioners St | Cherry St | Leslie St | 40 m | Yes |
| Don Roadway | Lake Shore Blvd E | Commissioners St | 30 m | No |
| Don Roadway (new) | Commissioners St | Unwin Av | 40 m | Yes |
| Dufferin St (new) | Front St W (new) | Lake Shore Blvd W | 30 m | Yes |
| Front St E | Trinity St | Cherry St | 30 m | Yes |
| Front St E | Cherry St | a point 70 m east of | 20 m | No |
| | | Cherry St | | |
| Front St E | a point 70 m east of | Bayview Av (new) | 42 m | No |
| | Cherry St | | | |
| Front St W (new) | Bathurst St | a point 170 m east of | 33 m | No |

| | | | | Streetcar |
|------------------------|-----------------------|-------------------|----------------------|------------|
| Roadway ⁽¹⁾ | From | То | ROW | in own ROW |
| | | Strachan Av | | |
| Front St W (new) | a point 170 m east of | Dufferin St | 27 m | No |
| | Strachan Av | | | |
| Leslie St | Commissioners St | Lake Shore Blvd E | 40 m | Yes |
| Manitoba Dr (new) | Strachan Av | Fraser Av (new) | Varies | Yes |
| Mill St | Cherry St | Bayview Av (new) | 25 m | No |
| Parliament St | King St E | Front St E | Varies | Yes |
| Parliament St (new) | Lake Shore Blvd E | Queens Quay E | 24 m | No |
| Princes' Blvd (new) | Saskatchewan Rd | Manitoba Dr | 45+ m | No |
| Queens Quay E | Yonge St | Cherry St | $40 \text{ m}^{(2)}$ | Yes |
| Strachan Av | Lake Shore Blvd W | Front St W (new) | 30 m | No |
| Unwin Av (new) | Cherry St | Leslie St | 40 m | Yes |
| Yonge St | Queens Quay | Lake Shore Blvd | 30 m | No |

- (1) Existing or currently planned roads (e.g. Bremner Boulevard) that are not listed in this schedule will maintain current right-of-way designation.
- (2) Does not include the existing rail spur line.

Notes:

- (a) Rights-of-way will be protected to accommodate road, transit, pedestrian and cycling requirements, as well as landscaping and other urban design elements.
- (b) The rights-of-way of local streets not listed above are to be addressed in conjunction with the subdivision planning process.
- (c) Council may require additional right-of-way widenings (e.g. at intersection locations) in order to accommodate appropriate design geometry.
- (d) Rights-of-way requirements may be amended in the future to take into account environmental assessments, detailed design work, plans of subdivision, as well as traffic and development needs.

Schedule B** Housing Definitions*

Affordable Housing: Rental and Ownership

Affordable rental housing means housing where the total monthly shelter cost (gross monthly rent including utilities – heat, hydro and hot water – but excluding parking and cable television charges) is at or below one times the average City of Toronto rent, by unit type (number of bedrooms), as reported annually by the Canada Mortgage and Housing Corporation.

Affordable ownership housing is housing which is priced at or below an amount where the total monthly shelter cost (mortgage principle and interest – based on a 25-year amortization, 10% down payment and the chartered bank administered mortgage rate for a conventional 5-year mortgage as reported by the Bank of Canada at the time of application – plus property taxes calculated on a monthly basis) equals the average City of Toronto rent, by unit type, as reported annually by the Canada Mortgage and Housing Corporation. Affordable ownership price includes GST and any other mandatory costs associated with purchasing the unit.

Rental Housing

The term *rental housing* means a building or related group of buildings containing one or more rented residential units, but does not include a condominium, registered life lease, or other ownership forms.

Low-End-Of-Market Housing

The term *low-end-of-market housing* means small private ownership housing units suitable for households of various sizes and composition, the price of which would not be monitored or controlled, but which, by virtue of their modest size relative to other market housing units, would be priced for households up to the 60th percentile of the income distribution for all households in the Toronto CMA, where *total annual housing costs* do not exceed 30 per cent of gross annual household income.

*To be read in conjunction with Policy (P39). **APPROVAL OF SCHEDULE B WITHHELD BY ONTARIO MUNICIPAL BOARD PURSUANT TO DECISION ON WEST DON LANDS

Appendix 1

Community Services, Facilities and Local Parks

Based on full build-out of approximately 40,000 new residential units and 900,000 sq. m. of non-residential development

GENERAL CRITERIA

Facility/site requirements

- shared use and/or multi-purpose facilities
- capacity to adapt to changing needs of the community over time
- all of the community facilities could be integrated as part of a mixed-use development site Location criteria
- accessible by public transit
- barrier-free
- grade-related
- good visibility from the street

Guidelines

- timely provision of social infrastructure facilities as development proceeds within each community precinct
- monitoring and review of adequacy of the community facilities shall occur once one-third of the potential development is achieved in each community

ELEMENTARY SCHOOLS

(6 to 10 at full build-out)

Facility/site requirements

- 1.2 hectares if a single elementary school is located next to a public park
- 1.82 hectares if a joint TDSB/TCDSB elementary school is located next to a public park Location criteria
- pupils should travel no more than 1.6 km to school
- minimize children crossing arterial roads

Guidelines

- optimal facility must be sufficient to accommodate between 400 and 500 students
- pupil generation rates should be monitored in coordination with both the TDSB and TCDSB

SECONDARY SCHOOLS

(one at full build-out)

Facility/site requirements

- stand alone requires four hectares, or two hectares if located next to a public park with adultsized ball field and soccer pitch

Location criteria

- locations on arterial roads with direct transit access are preferable

Guidelines

- facility size will be determined by pupil generation rates within the Waterfront
- pupil generation rates should be monitored in coordination with both the TDSB and TCDSB

LOCAL PARKLAND

Facility/site requirements

- neighbourhood oriented passive and active recreational opportunities
- size and shape will vary depending on community size and facility requirements
- each residential community shall contain at least one local park a minimum two hectares in size

Location criteria

- intended to serve communities within a reasonable walking distance
- where appropriate, regional parkland can also meet local parkland needs
- barrier free, grade-related and good visibility from streets

Guidelines

- distribution, size and facility mix should be relative to population distribution and demographics
- capacity to adapt to changing needs of the community over time

DAYCARE CENTRES

(10 to 12 at full build-out)

Facility/site requirements

- licensed capacities of 72 children each, with 735 m² of interior space and 401 m² of contiguous outdoor space

Location criteria

- grade location is preferable
- compliance with appropriate provincial regulation and city policies
- sun, air and noise studies must be completed prior to final selection of sites

Guidelines

- Daycare demand will be assessed as follows:

number of children up to 4 years of age, multiplied by the labour participation rate for women aged 20 to 45 years, reduced to 50-70% to reflect patterns of parental choice with respect to licensed care

LIBRARIES

(one to three at full build-out)

Facility/site requirements

- 650 m^2 to 1,115 m² preferably located at grade

Location criteria

- good pedestrian and public transit access
- highly visible from the street

Guidelines

- one library for every community with a population of at least 25,000 residents or a comparable combined residential and office worker population
- residents should have access to a library within 1.6 km

RECREATION CENTRES

(four to six at full build-out) Facility/site requirements

- size is dependent demand

Location criteria

- good pedestrian and public transit access
- highly visible from the street
- ready access to outdoor playing fields and playgrounds (preferably a public park)

Guidelines

- one recreation centre for every 21,000 residents or a comparable combined residential and office worker population
- Community service/human service space

Facility/site requirements

- 929 m^2 to 1,858 m² of space

Location criteria

- good pedestrian and public transit access
- highly visible from the street

Guidelines

- one facility for each community

Appendix C – Traffic Model and Analysis

Attachment C1: Lower Yonge TMP: Traffic Modeling Assumptions

| То | Antonio Medeiros, Waterfront Toronto | Date September 16, 2013 |
|---------|--|-----------------------------|
| Copies | | Reference number 224692/MVI |
| From | Mike Iswalt and Brian Huey | File reference 4-05 |
| Subject | Lower Yonge TMP: Traffic Modeling Assumptions - DRAF | T |

1 Introduction

This memo provides an overview of Arup's traffic analysis for the Lower Yonge Transportation Master Plan (TMP). This memo summarizes the development of the Paramics traffic model, the methodology and assumptions used to develop the Future Base Model scenario, the assumptions used to forecast future traffic within the study area, and the results of the alternatives traffic analysis that were presented at the September 9th stakeholders meeting at Waterfront Toronto. The Paramics model and the analysis contained in this memo are still considered a "draft" version. These results should be considered confidential until the City has been able to review the alternatives analysis materials and has approved the work as "final". Until then, these materials are intended for distribution to City staff and local stakeholders only and not for distribution to the general public.

2 **Review of DTOS Paramics Traffic Model**

Arup received the City of Toronto DTOS model on April 22, 2013. Figure 1 shows the extents of the overall model area. The DTOS model consists of two existing conditions scenarios:

- AM peak hour conditions (8:00-9:00 AM)
- PM peak hour conditions (4:30-5:30 PM)

The traffic counts used to develop these existing conditions scenarios were collected from various sources between 2010 and 2011. Arup reviewed the AM and PM models as well as the DTOS Base Model Calibration Report published by Braidwood Associates¹. Both AM and PM scenarios were visually reviewed by running the models and observing traffic patterns and comparing them to site observations and existing traffic counts. Both models function without any major issues, such as gridlocked traffic or unreasonable vehicle behavior and routing choices.

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¹ Braidwood Associates "DTOS Base Model Calibration Report" Prepared for City of Toronto, March 2013.

2.1 DTOS Paramics Traffic Model Area

The DTOS model area extends from Bathurst Street in the west to Woodbine Avene in the east and Dundas Street in the north to Queens Quay in the south. Figure 1 below shows the extents of the model area and the location of the Lower Yonge Precinct and other nearby planning areas.



Figure 1 - Study Extent

Arup is using the Paramics model, with the extents shown in Figure 1, to test the alternatives for the Lower Yonge Transportation Master Plan. While the model area is significantly larger than the Lower Yonge Precinct, the larger area allows for a more realistic modeling of route choices by drivers as they travel through the Downtown transportation network.

2.2 Model Validation

Arup reviewed the validation results presented in the Base Model Calibration Report. Validation is the process of comparing the observed turning volumes with the modeled turning volumes at selected locations. The model's assumptions and parameters are adjusted or "calibrated" until the model generates results that reasonably replicate observed conditions. When this occurs, the model is considered "validated" and should be considered suitable for use.

The DTOS Base Model Calibration Report is focused on a smaller sub-area between Bathurst Street in the west to Jarvis Street in the east, Dundas Street in the north to Queens Quay in the south. The large area to the east of Jarvis Street was not included in the validation. Therefore, we are not able to assess the accuracy of the model's performance in this area.

Arup performed a focused validation of the model within the Lower Yonge Precinct study area. While recalibrating the model was outside of the scope of the Lower Yonge TMP analysis, Arup did make a few adjustments to the network and the demand assumptions to improve the overall validation results from the DTOS study.

The differences in the validation statistics between the DTOS Base Model Calibration Report and Arup's revised version are rather small and do not pose a major issue for the development and evaluation of the Future Base model or the alternative scenarios. The model adequately represents the relative changes in vehicle routing associated with varying levels of land use intensity and congestion.

2.3 Existing Conditions Traffic Analysis

Arup used the validated existing conditions Paramics model to analyze AM and PM peak hour traffic operations at the following signalized study intersections:

- 1. Simcoe St / Lake Shore Blvd
- 2. Simcoe St / Harbour St
- 3. Simcoe St / Queens Quay
- 4. York St / Lake Shore Blvd
- 5. York Street / Harbour St
- 6. York Street / Queens Quay
- 7. Bay St / Lake Shore Blvd
- 8. Bay St / Harbour St
- 9. Bay St / Queens Quay
- 10. Yonge St / Lake Shore Blvd
- 11. Yonge St / Harbour St
- 12. Yonge St / Queens Quay
- 13. Jarvis St / Lake Shore (Westbound)
- 14. Jarvis St / Lake Shore (Eastbound)
- 15. Jarvis St / Queens Quay

The Paramics model was used to generate delay measures for the study intersections. The delay measures were used to assign a traffic "level of service" (LOS) rating to each intersection. LOS is a qualitative rating that captures overall operating conditions for automobile traffic. Six LOS are defined for each type of facility that has analysis procedures available. Letters designate each level, from A to F, with LOS A representing the best operating conditions and LOS F the worst. Each level of service represents a range of operating conditions and the driver's perception of those conditions.

The City does not have published delay thresholds for assigning traffic LOS. Therefore, thresholds published in the Highway Capacity Manual (HCM)² were applied.

Table 1 presents the LOS delay thresholds for signalized and unsignalized intersections.

| Level of Service | Signalized Intersection Delay (seconds / veh) ¹ | Unsignalized Intersection Delay (seconds / veh) ¹ | General Description |
|---------------------|--|--|--|
| А | 0 - 10.0 | 0 - 10.0 | Free flow conditions |
| В | 10.1 - 20.0 | 10.1 - 15.0 | Limited congestion and short delays |
| С | 20.1 - 35.0 | 15.1 - 25.0 | Some congestion with average delays |
| D | 35.1 - 55.0 | 25.1 - 35.0 | Significant congestion and delays |
| Е | 55.1 - 80.0 | 35.1 - 50.0 | Severe congestion and delays develop as intersection demand nears capacity. |
| F | > 80.0 | > 50.0 | Intersection capacity is exceeded. Extreme delays and queues result. |
| Notes: | | | |

Table 1 – HCM Intersection LOS Thresholds

(1) HCM delay estimates and LOS thresholds are expressed as the average control delay (seconds per vehicle). Control delay includes the delay at the intersection that is attributable to the traffic control (initial deceleration delay, queue move-up time, stopped delay, and acceleration delay).

Source: 2010 Highway Capacity Manual (Transportation Research Board, 2010)

Table 2 presents the Paramics intersection traffic delay results and the LOS rating for AM and PM peak hour conditions.

² 2010 Highway Capacity Manual, Transportation Research Board (2010)

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| | AM Peak Hour | | PM Peak Hour | |
|--|--------------------|-----|--------------|-----|
| Intersection | Delay ¹ | LOS | Delay | LOS |
| 1. Simcoe St / Lake Shore Blvd | 32.4 | С | 33.5 | С |
| 2. Simcoe St / Harbour St | 28.9 | С | 25.3 | С |
| 3. Simcoe St / Queens Quay | 27.0 | С | 17.9 | В |
| 4. York St / Lake Shore Blvd | 22.5 | С | 25.0 | С |
| 5. York Street / Harbour St | 23.4 | С | 27.3 | С |
| 6. York Street / Queens Quay | 42.6 | D | 29.9 | С |
| 7. Bay St / Lake Shore Blvd | 20.3 | С | 22.0 | С |
| 8. Bay St / Harbour St | 19.8 | В | 22.8 | С |
| 9. Bay St / Queens Quay | 27.5 | С | 24.5 | С |
| 10. Yonge St / Lake Shore Blvd | 24.8 | С | 21.9 | С |
| 11. Yonge St / Harbour St | 8.5 | А | 7.7 | А |
| 12. Yonge St / Queens Quay | 10.9 | В | 10.8 | В |
| 13. Jarvis St / Lake Shore (Westbound) | 16.7 | В | 25.7 | С |
| 14. Jarvis St / Lake Shore (Eastbound) | 17.9 | В | 16.9 | В |
| 15. Jarvis St / Queens Quay | 32.4 | С | 33.5 | С |
| Notes: | | | | |

Table 2 – Existing (2010) Traffic Operations and LOS

(1) Delay is measured in seconds. All delay metrics are the average of ten simulation runs

Source: Arup, 2013

The Paramics traffic analysis indicates that all of the study area intersections would operate well within generally accepted operating thresholds. These findings might appear counterintuitive with current observed operating conditions in the study area. There are several reasons for this discrepancy between the observed conditions and the modeling results for the study intersections:

- The DTOS Paramics model was not calibrated to queuing and travel times on the ramps between York and Jarvis Streets. While the traffic volumes in the model approximate the observed counts, the model does not appear to be accurately reflecting queuing along the north-south streets and Lake Shore and Harbour.
- Recent field observations indicate ongoing construction activity on Queens Quay, at Union Station, and at other locations near the Study Areas. This construction is likely exacerbating the congestion in the study area.
- Traffic conditions can vary significantly from day to day. While the modeling results indicate better operations, it is likely that traffic conditions could vary from relatively smooth traffic conditions to the typical congested conditions.

3 Future Base Model Development

The Future Base Model for AM and PM peak hour conditions was developed using the following process:

- 1. The validated existing conditions AM and PM peak hour models were used as a starting point.
- 2. At the City's request, the following 2031 transportation projects, described in more detail in the next section, were incorporated into the Future Base Model Paramics network:
 - Queens Quay light rail reconfiguration from Bathurst to Parliament
 - Downtown Relief Line
 - York-Bay-Yonge ramp reconfiguration
 - Simcoe Street underpass
- 3. Future background traffic forecasts for traffic analysis zones (TAZs) within the Paramics model were developed based on a 2031 run of the City's regional travel demand forecasting model ("travel demand model"). This run was provided by the City. The travel demand model incorporates future year 2031 population and employment projections across the region. For TAZs within the Lower Precinct, the population and employment projections reflect existing uses and do not show any significant traffic growth.

3.1 Future Network Changes

3.1.1 Queens Quay Light Rail Reconfiguration

The Queens Quay Light Rail Reconfiguration, from Bathurst Street to Parliament Street relocates the existing shared median vehicle/LRT lane to its own right-of-way, south of Queens Quay. Currently, light rail routes 509 and 510 operate in both directions along Queens Quay, between Bathurst and Bay Street on a shared LRT/automobile lane at the median. The future configuration moves the rail to an exclusive right-of-way directly along the south side of Queens Quay and extends the 509 route east of Bay Street to Parliament Street, where eastbound vehicles will turn around. In addition the following associated changes were made to the model:

- Bus stop addition/relocation
- Signal timing/phasing/offsets

3.1.2 Downtown Relief Line

The Downtown Relief Line is a proposed subway line that would run east-west through Downtown. This project has been coded and assumed in the 2031 travel demand model run. Therefore, the demand effects are reflected in the traffic forecasts used in the Paramics model but there is no impact on the atgrade street network.
3.1.3 York-Bay-Yonge Ramp Reconfiguration

The York-Bay-Yonge ramp study evaluated options to reconfigure the eastbound off-ramp from the Gardiner Expressway to York, Bay and Yonge Streets and to review the proposal to remove the Bay Street on-ramp to the eastbound Gardiner Expressway. The Future Base model incorporates the preferred street and ramp reconfigurations along Harbour Street at York, Bay and Yonge Streets³. Figure 2 shows the roadway configuration included in the Future Base Paramics model. Signal timing, phasing, and offsets were also updated in the model.



Figure 2 - Preferred York-Bay-Yonge Ramp Configuration

3.1.4 Simcoe Street Underpass

The Simcoe Street underpass, between Bremner Boulevard and Front Street was already coded in the existing conditions DTOS model.

3.2 Future Land Use Changes

The City of Toronto provided population and employment projections associated with future residential and non-residential land uses. These population and employment projections were added into the regional travel demand model to generate future vehicle trip origins and destinations. Table 3 summarizes the vehicle trip origins and destinations for the TAZs in the vicinity of the Lower Yonge Precinct.

³ City of Toronto, Environmental Study Report Gardiner Expressway York/Bay/Yonge Ramps Study, April 2013.

| TAZ | AM Peak Hour | | | |
|-------|--------------|------|--|--|
| | In | Out | | |
| 224 | 770 | 466 | | |
| 241 | 373 | 157 | | |
| 242 | 1729 | 1962 | | |
| 253 | 3397 | 2407 | | |
| Total | 6269 | 4992 | | |

Table 3 - Total Vehicle Trips from the City's Travel Demand Model

All of the land use and travel demand data provided by the City's travel demand model corresponds to this TAZ structure. However, the Paramics model zone structure has greater detail and requires that the vehicle trips should be distributed over a larger number of zones.

4 Lower Yonge Precinct TMP Trip Generation Rates

The City of Toronto provided vehicle trip rates for calculating the traffic generation for the Lower Yonge Precinct, along with a recommended development program and the assumed level of density. Table 4 shows the assumed trip generation rates for the land uses in the Precinct. Table 5 presents the assumed development program for the Precinct.

| Table 4 – Trip Generation Rates, | Source: City of | of Toronto, | June 21, | 2013 |
|----------------------------------|-----------------|-------------|----------|------|
|----------------------------------|-----------------|-------------|----------|------|

| Trip Generation Rates | AM | | PM | | |
|------------------------|------|------|------|------|--|
| | In | Out | In | Out | |
| Commercial (per 100m2) | 0.11 | 0.01 | 0.04 | 0.05 | |
| Residential (per unit) | 0.02 | 0.09 | 0.07 | 0.04 | |

Table 5 – Development Program, Source: City of Toronto, June 10th, 2013

| Density | Total Buildable Area = 71,645 minus 20% Park Land | Total GFA | Commercial GFA | Projected Employees (1 per 25 sq m) | Residential GFA | Residential Unit Count | Projected residents (1.6 per unit) | | |
|--|--|--------------|-------------------|--|--------------------|---------------------------|---|--|--|
| 11x Net and 8.8x Gross | 57,316 | 630,476 | 252,190 | 10,088 | 378,286 | 5,328 | 8,525 | | |
| (Consistent with the average development density between Yonge and Lower Simcoe, and 33 Bay) | | | | | | | | | |

Arup used these trip rates and land uses to project the estimated AM and PM peak hour trip generation for the Lower Yonge Precinct:

• AM Peak Hour: 890 vehicles (total vehicles in/out)

• PM Peak Hour: 820 vehicles (total vehicles in/out)

These vehicle trip generation estimates were assumed in the four alternatives analyzed with the Paramics model (and described in the next section).

Figure 3 shows the combined effect on future traffic volumes in the Paramics model. This figure shows total AM peak hour traffic in the validated existing conditions model, shows the increase attributed to the background land use changes accounted for in the Future Base scenario, and the increase in traffic with the proposed Lower Yonge Precinct land use program shown in Table 6.



Figure 3: Total AM Traffic Assumed in the Paramics Model

5 Transportation Alternatives

Arup developed a series of potential transportation projects that address various circulation and access issues within the study area. These improvements were screened and then grouped into four network-wide transportation packages for analysis in the Paramics traffic operations model. Each of the four alternatives assumes the Future Base scenario traffic forecasts and the Lower Yonge Precinct vehicle trip generation described above.

The four alternatives are:

- 1. Alternative 1 No Change assumes no changes to the transportation system beyond what is assumed in the Future Base model.
- 2. Alternative 2 Neighborhood Streets assumes modifications to the Bay Street on-ramp to allow only southbound left turns and the extension of Harbour Street between Yonge Street and New Street.
- 3. Alternative 3 Closing the Gap assumes an extension of eastbound Lake Shore Boulevard between Bay and Yonge Streets, the extension of Cooper Street to connect with Church Street and the extension of Harbour Street between Yonge Street and Lower Jarvis Street.
- 4. Alternative 4 Regional Connections assumes many of the changes of Alternative 3, but replaces the Lake Shore Boulevard extension with a new Gardiner off-ramp to Yonge Street. This new Yonge off-ramp would replace the existing off-ramp that currently connects to Jarvis Street.

The following sections describe each alternative in detail and explain the rationale for including certain transportation improvements.



Figure 4: Four Transportation Network Alternatives

Figures 5 through 8 attached at the end of the report show detailed drawings of each alternative and it's proposed roadway improvements.

5.1 Alternative 1 – No Change

Alternative 1 assumes no changes to the transportation system. This alternative measures the impact of the Lower Yonge land use program compared to the Future Base scenario. By keeping the transportation network constant with the Future Base scenario, the only change is due to the additional trips generated of the proposed Lower Yonge land use program. Because Alternative 1 maintains the existing "S-curve" transition from Harbour Street to Lake Shore Boulevard it will help to evaluate the effectiveness of this intersection treatment.



5.2 Alternative 2 – Neighbourhood Streets

Alternative 2 tests interventions that divert regional traffic to the periphery of the site while still utilizing the existing ramp locations serving the Gardiner Expressway. This alternative tests a reconfiguration of the Bay Street on-ramp. The Bay Street on-ramp is modified to allow southbound left-turns from Bay Street, while closing the northbound right-turn. This would likely require relocating one of the Gardiner columns. This change addresses two issues: 1) it provides an outlet for traffic exiting downtown in the afternoon, which will divert some regional traffic from the using Harbour and the Lower Yonge streets to access the Jarvis on-ramp, and 2) a safety concern associated with a conflict between pedestrians and the existing right-turn movement.

Alternative 2 also tests the impact of extending Harbour Street, which currently transitions at Yonge Street northward to Lake Shore Boulevard in an "S-curve." In Alternative 2, the "S-curve" is removed and replaced with a four-way intersection at Harbour Street and Yonge Street. Harbour Street will

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continue with two-way operations along a similar east-west alignment terminating at New Street. This alternative assumes that Harbour Street does not extend through the Loblaws property to Lower Jarvis Street. By extending Harbour Street eastward to New Street, overall connectivity into the precinct is improved by reducing the block size. In addition, removing the "S-curve" and creating a normalized four-way intersection at Harbour Street and Yonge Street will reduce pedestrian crossing times and the number of conflict points.

A new three-leg intersection at Lake Shore Boulevard and Yonge Street will be created; vehicles that currently use the "S-curve" to transition from Harbour Street to Lake Shore Boulevard will now have the option of making a left turn on to Yonge Street and a right turn on to Lake Shore Boulevard, or continuing east on Harbour Street to turn left at Freeman Street, Cooper Street or New Street to travel eastward. This configuration is expected to distribute traffic along these streets, although the majority of pass through traffic is expected to turn left on Yonge Street and right on Lake Shore Boulevard since it would be the fastest route based on expected street types and signal phasing.



5.3 Alternative 3 – Closing the Gap

Alternative 3 further expands on the additional connectivity introduced in Alternative 2 by including two significant road network additions that should improve local connectivity. It also takes a different approach to addressing pass-through traffic by extending eastbound Lake Shore Boulevard between Yonge Street and Bay Street. This requires the complete removal of the Bay Street on-ramp to the Gardiner Expressway, as the new extension will use the space vacated by the on-ramp. This connector would also require the relocation of at least two Gardiner columns. This extension diverts more traffic to Lake Shore Boulevard and reduces the role of Harbour Street as a regional route. It is expected that

the impact of removing the Bay Street on-ramp will be offset by allowing northbound right turns and southbound left turns from Bay Street on to the new Lake Shore connector.

Alternative 3 also tests the impact of connecting Cooper Street and Church Street by creating an atgrade crossing at Lake Shore Boulevard and a tunnel beneath the rail corridor. This extension provides a north-south link from the center of the precinct to the Financial District to the north. It is expected that this connection will redistribute some local north-south traffic that currently uses Yonge Street and Lower Jarvis Street to Cooper Street.

Alternative 3 also tests the impact of converting Harbour Street between York and Yonge Streets to a two-way road, where it currently operates as a one-way eastbound road. Two westbound lanes would be provided between Bay Street and Yonge Street, and one westbound lane would be provided between York Street and Bay Street. The rationale for making Harbour Street two-way in this section is to provide more convenient routes for precinct traffic to access destinations to the northwest of the project along Bay Street and York Street.

Alternative 3 also evaluates extending Harbour Street to Lower Jarvis Street. By extending Harbour Street eastward, overall connectivity to the site is improved by reducing the sizes of the precinct's blocks by half their current areas. The extension of Harbour Street creates a new intersection along Lower Jarvis Street approximately 100 meters south of the existing intersection at Lake Shore Boulevard and Lower Jarvis Street. The intersection spacing is not expected to impact traffic operations along Lower Jarvis Street.



5.4 Alternative 4

Alternative 4 assumes the same general network as Alternative 3, but evaluates a new Gardiner offramp connecting to Yonge Street instead of the at-grade eastbound Lake Shore connector between Bay and Yonge. Similar to the Lake Shore connector, this proposed Yonge off-ramp would require the removal of the existing Bay Street on-ramp. Also, the existing structure for the Jarvis off-ramp would be removed to provide the necessary right-of-way. The new Yonge off-ramp would replace the existing Jarvis off-ramp. The rationale for this is to allow eastbound Gardiner traffic destined to the north to use Yonge Street rather than Lake Shore and Jarvis Street.



5.4.1 Alternative 4A – Phase 1

A sensitivity test of Alternative 4 was conducted to understand the traffic impacts of an interim phase of development, where the current Loblaw's site is not disrupted by the extension of Harbour Street between New Street and Lower Jarvis Street. The rationale behind testing this variation is to understand whether the Harbour Street connection at Lower Jarvis Street changes the Alternative 4 traffic results. The remaining intersections and links in the network are unchanged from the original Alternative 4 scenario.

The traffic model results for Alternative 4A did display any significant differences from the Alternative 4 results, indicating that a phased development approach would be acceptable.



6 Transportation Alternatives Analysis

Traffic operations for the Future Base and the four alternatives were evaluated with the Paramics model. Tables 7 and 8 present the results of the intersection LOS analysis. Locations with a LOS result of E or F are shown in red font.

Table 6: AM Peak Hour Traffic Analysis

| | | Future | e Base | Altern | ative 1 | Altern | ative 2 | Altern | ative 3 | Altern | ative 4 |
|----|--|--------|--------|--------|---------|--------|---------|--------|---------|--------|---------|
| | | AM | | AM | | AM | | AM | | AM | |
| | Study Area Intersections | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1 | Harbour / Lower Simcoe | 42.9 | D | 33.5 | С | 20.9 | С | 31.1 | С | 18.5 | В |
| 2 | Harbour / York | 34.4 | С | 35.4 | D | 33.0 | С | 45.3 | D | 27.5 | С |
| 3 | Harbour / Bay | 21.3 | С | 20.2 | С | 22.4 | С | 22.0 | С | 20.2 | С |
| 4 | Lake Shore Westbound / Yonge | 21.8 | С | 19.0 | В | 27.5 | С | 21.3 | С | 27.4 | С |
| 5 | Lake Shore Eastbound / Yonge | - | - | - | - | 13.9 | В | 19.6 | В | 41.3 | D |
| 6 | Harbour / Yonge | 10.1 | В | 9.9 | А | 17.4 | В | 19.5 | В | 27.0 | С |
| 9 | Harbour / Freeland | - | - | - | - | 16.1 | В | 29.4 | С | 14.0 | В |
| 11 | Lake Shore Eastbound / Cooper | 1.1 | А | 2.0 | А | 4.0 | А | 19.9 | В | 17.6 | В |
| 12 | Harbour / Cooper | - | - | - | - | 23.0 | С | 19.8 | В | 17.8 | В |
| 14 | Lake Shore Eastbound / New | - | - | - | - | 3.3 | А | 40.9 | D | 10.3 | В |
| 15 | Harbour / New | - | - | - | - | 13.8 | В | 17.5 | В | 18.9 | В |
| 17 | Lake Shore Westbound / Lower Jarvis | 43.1 | D | 38.2 | D | 42.9 | D | 46.5 | D | 46.8 | D |
| 18 | Lake Shore Eastbound / Lower Jarvis | 34.9 | С | 33.1 | С | 46.6 | D | 70.4 | Е | 35.9 | D |
| 19 | Harbour / Lower Jarvis | - | - | - | - | - | - | 10.5 | В | 5.2 | А |

| | | Future Base | | Future Base Alternative 1 | | Alternative 2 | | Alternative 3 | | Alternative 4 | |
|----|--|-------------|-----|-----------------------------------|-----|---------------|-----|---------------|-----|---------------|-----|
| | Standar Amon Interno attors | PM | | PM | | PM | | PM | | PM | |
| | Study Area Intersections | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS | Delay | LOS |
| 1 | Harbour / Lower Simcoe | 16.0 | В | 15.9 | В | 23.2 | С | 17.1 | В | 16.0 | В |
| 2 | Harbour / York | 32.7 | С | 32.7 | С | 38.1 | D | 32.0 | С | 29.1 | С |
| 3 | Harbour / Bay | 15.8 | В | 18.0 | В | 36.6 | D | 21.9 | С | 28.1 | С |
| 4 | Lake Shore Westbound / Yonge | 23.0 | С | 23.0 | С | 33.3 | С | 26.5 | С | 49.2 | D |
| 5 | Lake Shore Eastbound / Yonge | - | - | - | - | 20.5 | С | 25.5 | С | 34.7 | С |
| 6 | Harbour / Yonge | 9.7 | А | 11.3 | В | 30.3 | С | 23.7 | С | 29.0 | С |
| 9 | Harbour / Freeland | - | - | - | - | 17.1 | В | 20.3 | С | 15.6 | В |
| 11 | Lake Shore Eastbound / Cooper | 1.9 | А | 5.0 | А | 2.5 | А | 33.6 | С | 29.3 | С |
| 12 | Harbour / Cooper | - | - | - | - | 22.9 | С | 20.3 | С | 19.4 | В |
| 14 | Lake Shore Eastbound / New | - | - | - | - | 5.2 | А | 6.4 | А | 5.7 | А |
| 15 | Harbour / New | - | - | - | - | 12.9 | В | 12.2 | В | 18.0 | В |
| 17 | Lake Shore Westbound / Lower Jarvis | 55.7 | E | 56.3 | E | 48.5 | D | 65.8 | Е | 48.0 | D |
| 18 | Lake Shore Eastbound / Lower Jarvis | 51.1 | D | 53.2 | D | 53.6 | D | 71.0 | Е | 26.6 | С |
| 19 | Harbour / Lower Jarvis | - | - | - | - | - | - | 10.6 | В | 15.7 | В |

Table 7: PM Peak Hour Traffic Analysis

6.1.1 Alternative 4A Results

The following results represent the first phase of Alternative 4, with Loblaws remaining in its current location. The results are similar to Alternative 4, indicating that the vehicle traffic network is not dependent upon extending Harbour Street to Lower Jarvis Street.

| | | Alternative 4A | | | | | |
|----|--|----------------|-----|-------|-----|--|--|
| | | A | М | PM | | | |
| | Study Area Intersections | Delay | LOS | Delay | LOS | | |
| 1 | Harbour / Lower Simcoe | 19.1 | В | 16.4 | В | | |
| 2 | Harbour / York | 27.1 | С | 28.7 | С | | |
| 3 | Harbour / Bay | 18.4 | В | 21.9 | С | | |
| 4 | Lake Shore Westbound / Yonge | 29.5 | С | 54.8 | D | | |
| 5 | Lake Shore Eastbound / Yonge | 36.4 | D | 36.0 | D | | |
| 6 | Harbour / Yonge | 24.9 | С | 24.4 | С | | |
| 9 | Harbour / Freeland | 14.7 | В | 16.5 | В | | |
| 11 | Lake Shore Eastbound / Cooper | 17.2 | В | 30.2 | С | | |
| 12 | Harbour / Cooper | 18.3 | В | 20.0 | В | | |
| 14 | Lake Shore Eastbound / New | 9.4 | А | 5.0 | А | | |
| 15 | Harbour / New | 13.5 | В | 16.8 | В | | |
| 17 | Lake Shore Westbound / Lower Jarvis | 45.7 | D | 46.7 | D | | |
| 18 | Lake Shore Eastbound / Lower Jarvis | 36.5 | D | 31.2 | С | | |
| 19 | Harbour / Lower Jarvis | - | - | - | - | | |



Figure 5 - Alternative 1: No Change

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Figure 6 - Alternative 2: Neighborhood Streets

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Figure 7 - Alternative 3: Closing the Gap

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Figure 8 - Alternative 4: Regional Connections

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