

MEETING DATE: June 22, 2005

SUBJECT: Spadina Subway Extension Environmental Assessment Study Phase Two Consultation Results

RECOMMENDATION

It is recommended that the Commission:

1. Receive this report for information; and
2. Forward this report to the City of Toronto Council (through Planning and Transportation Committee), the Regional Municipality of York, the City of Vaughan, GO Transit and the Ministry of Public Infrastructure Renewal for Ontario, for information.

FUNDING

While there is no funding implication associated with this report, sufficient funds have been included for work related to the Environmental Assessment in Project 3.9, under Environmental Assessment for Spadina Subway Extension to Steeles, as set out on pages 871 to 874 - Category Expansion, in the TTC 2005-2009 Capital Program as approved by City Council on February 23, 2005. The Environmental Assessment is jointly funded by the Province of Ontario, the City of Toronto and the Regional Municipality of York.

BACKGROUND

URS Canada Inc. was retained at the October 20, 2004 Commission Meeting to conduct the Environmental Assessment Study. The Study, which involves the development and evaluation of alternative alignments and station locations, is now underway. The Environmental Assessment Study is being conducted in three phases, as follows:

1. **Phase One** – Development of alternative subway routes and evaluation criteria.
2. **Phase Two** – Analysis/evaluation and selection of the preferred subway route and development of alternative subway alignments.
3. **Phase Three** – Selection and detailed Environmental Assessment of preferred alignment and study recommendations and conclusions.

Public Consultation Centres (PCC's) are held during each phase of the Study to seek public input in advance of key decision points. The PCC's consist of an open house, a staff presentation and a facilitated workshop. The Phase One PCC's were held in February 2005 and the results were reported to the Commission at its meeting of April 6, 2005.

DISCUSSION

1. The Phase Two PCC's were held at York University on May 17, 2005 and at CW Jefferys Collegiate Institute on May 18, 2005. Approximately 400 people attended the open house and 40 people attended the stakeholder agencies workshop at York University. About 100 people attended the open house and 35 people attended the public workshop at CW Jefferys. The open house and workshop presentations and interactive commenting forms were also available on-line at the TTC web site.

Overview of Presentation

During Phase Two, the study team carried out a detailed evaluation of the eight route options and selected Route 1 as the preferred route because it would achieve the following benefits:

1. The Finch West Station directly connects to the 36- Finch West bus route – one of the busiest in the City.
2. The York University Station is in the Commons area – the transit hub for the University.
3. The Sheppard West Station connects to the GO Bradford line and encourages redevelopment in the Downsview lands.
4. The route uses Keele Street, which reduces property impacts and costs.
5. The route minimizes impacts to the natural environment and avoids Black Creek and Dufferin Creek.
6. The route protects for a future extension into York Region and Vaughan Corporate Centre.

For the Route 1 corridor, the Study Team developed detailed alignments and station concepts, which would satisfy key project objectives. The four alternative southern alignments are shown in Exhibit Two and the three northern alignments are shown in Exhibit Three. All alignments would converge at Finch West Station, which would be located under the Keele Street road right-of-way in order to minimize property impacts and project costs.

Station layout options were developed based on preliminary plans for rerouting of bus services, passenger demand forecasts and availability of lands for commuter parking. Finch West Station will include an 8-10 bay TTC bus terminal, a passenger pick-up and drop-off facility and a 400-space commuter parking lot. The five Finch West Station layout options are summarized in Table One. Steeles West Station, which will be the terminus of the subway extension, will include a 30-35 bay TTC, York Region Transit/VIVA and GO Transit inter-regional bus terminal, a passenger pick-up and drop-off facility and a 3,000-space commuter parking lot. The four Steeles West Station layout options are summarized in Table Two.

The number and location of pedestrian entrances for all stations, including Sheppard West and York University Stations, will be determined during Phase Three of the EA Study.

Lastly, the Study Team developed preliminary evaluation criteria and indicators that will be used to evaluate the alignment alternatives and station layout options. These are shown in Table Three.

Public Comments and Study Team Response

Open house attendees were requested to provide their remarks using general comment forms. Workshop and on-line participants provided more detailed comments by answering questions provided in a 21-page work book. The main comments received and the follow-up actions by the Study Team are summarized below:

1. **Selection of Route 1** – The vast majority of respondents (more than 80%) were in support of the Study Team’s analysis and selection of Route 1 (Exhibit 1) as the preferred route. The limited number of respondents not in favour of Route 1, indicated support for alternate subway expansion projects or for alternative Routes (3, 4, 6 and 8) which would have located the York University Station at Sentinel Road, instead of the “Commons”, as recommended for Route 1.

The strong public and stakeholder agency support for Route 1, indicates broad acceptance of the Study Team’s analysis and evaluation of the eight candidate routes.

2. **Review of Alternative Alignments** (Exhibits Two and Three) – Respondents were requested to review and comment on alternative alignments (located within the Route 1 corridor), which will be analyzed during the next Phase of the Environmental Assessment Study. These comments, which are summarized in the attached Table Four, will be used as input for the analysis of the alternative alignments by the Study Team.

3. **Review of Station Layouts** - Respondents were also asked to comment on station layout options for Finch West (Table One) and Steeles West (Table Two) Stations. Comments, which are summarized in Table Five, will be used to assist the Study Team in analyzing the station layouts.

4. **Review of Evaluation Criteria and Indicators** – Respondents were requested to comment on the evaluation criteria and indicators to be used by Study Team to select the preferred alignment and station layouts. Suggested revisions to existing indicators or new indicators and the Study Team’s response are summarized in Table Six.

Respondents were also asked to identify the evaluation criteria, which they felt were the most important considerations for selecting the preferred alignment and station options. The highest-ranking criteria included:

- Speed and comfort for subway passengers (A2),
- Convenience for transfers from bus and train (B1),
- Potential for riders to walk to local stations (A1),

- Convenience for other travel modes (taxi, bicycle, pedestrians, Wheel-Trans, passenger pick-up and drop-off, commuter parking, and ambulatory and non-ambulatory disabled persons) (B2), and
- Maximize redevelopment potential in support of the subway extension (C1).

1. The Study Team will take these rankings into consideration when developing weightings for the evaluation criteria to be used during the analysis.

Next Steps

During Phase Three, the Study Team will:

1. Evaluate and recommend the preferred alignment and station layouts;
2. Research and analyse construction issues;
3. Identify possible locations for auxiliary facilities (such as ventilation shafts and emergency exit buildings); and
4. Identify potential environmental impacts and mitigating measures

The results of Phase Three of the Study will be presented to the public and stakeholder agencies for review and comment during PCC #3, which is scheduled for Fall 2005.

JUSTIFICATION

A comprehensive public consultation program is required during the Environmental Assessment Study in order to satisfy the requirements of the Ontario Environmental Assessment Act.

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Attachments

EXHIBIT ONE – Route 1 (Preferred)

EXHIBIT TWO – Alternative Alignments – South Section

EXHIBIT THREE – Alternative Alignments – North Section

TABLE ONE – Finch West Station Layout Options

Option	Bus Terminal	Possible Pedestrian Entrance Locations	Commuter Parking	Passenger Pick-up and Drop-off
1	East side of Keele Street, south of Finch Hydro corridor	<ul style="list-style-type: none">• North-west corner,• North-east corner,• South-east corner and/or• South-west corner of Keele/Finch intersection	Finch Hydro Corridor, east of Keele Street	Finch Hydro Corridor, west of Keele Street
2	North and east of Keele/Finch intersection	Same as Option 1	Same as Option 1	Same as Option 1
3	South-east corner of Keele/Finch intersection	<ul style="list-style-type: none">• North-west corner,• North-east corner, and/or• South-west corner of Keele/Finch intersection	Same as Option 1	Same as Option 1
4	North-east corner of Keele/Finch intersection	<ul style="list-style-type: none">• North-west corner,• North-east corner,• South-east corner and/or• south-west corner of Keele/Finch intersection	Same as Option 1	Same as Option 1
5	South and east of Keele/Finch intersection	Same as Option 1	Same as Option 1	Same as Option 1

TABLE TWO – Steeles West Station Layout Options

Option	Bus Terminal(s)	Possible Pedestrian Entrance Locations	Commuter Parking	Passenger Pick-up and Drop-off
1a	North of Steeles Avenue between proposed Streets B and C AND south-east corner of North-West Gate/Steeles intersection	<ul style="list-style-type: none"> • North side of Steeles Avenue, • South side of Steeles Avenue, and/or • Steeles Hydro Corridor. 	Clairville-Cherrywood Hydro Corridor	Steeles Hydro Corridor
1b	North of Steeles Avenue, east and west of proposed Street C AND south-east corner of North-West Gate/Steeles intersection	<ul style="list-style-type: none"> • South side of Steeles Avenue and/or • Steeles Hydro Corridor. 	Same as Option 1A	Same as Option 1A
2	North of Steeles Avenue, east of proposed Street C AND Clairville-Cherrywod Hydro Corridor	<ul style="list-style-type: none"> • South side of Steeles, east side of North-West Gate, • South side of Steeles, west side of North-West Gate, and/or • Steeles Hydro Corridor. 	Same as Option 1A	South-west corner of North-West Gate/Steeles intersection
3	Two-Level facility, north of Steeles Avenue, east of proposed Street C	<ul style="list-style-type: none"> • South side of Steeles, west side of North-West Gate, and/or • Steeles Hydro Corridor. 	Same as Option 1A	Same as Option 1A

TABLE THREE – Proposed Alignment Evaluation Criteria and Indicators

Objectives	Criteria	Indicators
A Provide subway service to the Keele/Finch area, York University and a new inter-regional transit terminal at Steeles Avenue.	A1 Potential for riders to walk to local stations.	A1.1Existing population and employment within 500 m walking distance of stations. A1.2Future population and employment within 500 m walking distance of stations. A1.3Student/Faculty/Staff within 500m distance of York University station.
	A2 Speed and comfort for subway passengers.	A2.1Travel time from Downsview Station to Steeles West Station. A2.2Number and type of curves.
B Provide improved connections between the TTC subway and GO Transit, York Region Transit and TTC buses.	B1 Convenience for transfers from bus and train (including Wheel-Trans).	B1.1Transfer time from bus to subway at Steeles West Station and Finch West Station. B1.2Transfer time from GO Rail to subway at Sheppard West Station. B1.3Delay time for passengers on the 36-Finch West and 41-Keele bus routes.
	B2 Convenience for other travel modes (Taxi, bicycle, pedestrians, Wheel-Trans, passenger pick up and drop off, commuter parking, ambulatory/non-ambulatory disabled persons).	B2.1Connections to the City of Toronto and City of Vaughan cycling network. B2.2Transfer time from other travel modes. B2.3Quality of walking environment for other travel modes.
	B3 Ability to accommodate future subway extension into York Region.	B3.1Environmental factors which could be affected by a future subway extension into York Region. B3.2Number and type of curves.
C Support local population and employment growth.	C1 Maximize redevelopment potential in support of the subway extension.	C1.1Ability to combine stations with the existing and future built forms.
	C2 Maximize the potential to create a high quality urban/ pedestrian environment.	C2.1Potential to enhance the existing and future built form and create a safe pedestrian, cyclist and transit rider environment.
D Minimize adverse environmental effects.	D1 Potential effects on natural heritage features.	D1.1Direct effects on aquatic and terrestrial landscapes, ecosystem/ communities, and population/ species. D1.2Indirect effects on aquatic and terrestrial landscapes, ecosystem/ communities, and

Objectives	Criteria	Indicators
		population/species.
D Minimize adverse environmental effects.(continued)	D2 Potential effects on hydrogeology and geology.	D2.1Groundwater impacts. D2.2Potential for erosion.
	D3 Potential effects on hydrology.	D3.1Area of flood storage capacity removed. D3.2Length/area of watercourses/ waterbodies altered. D3.3Ease and effectiveness of stormwater management at subway facilities.
	D4 Potential effects on socio-economic features.	D4.1Direct effects on residences, businesses and community/ recreational/ institutional facilities. D4.2Indirect effects on residences, businesses and community/ recreational/ institutional facilities.
	D5 Potential effects on pedestrian and traffic access/flow.	D5.1Number of permanent road closures or access modifications. D5.2Traffic impacts from station facilities. D5.3Impact on safety.
	D6 Effects on freight and rail passenger service and its signal systems at the Sheppard West subway station.	D6.1Impacts on operation of the CN Newmarket/GO Bradford rail line.
	D7 Potential effects on cultural heritage resources.	D7.1Direct effects on archaeological sites, built heritage features and cultural landscapes. D7.2Indirect effects on archaeological sites, built heritage features and cultural landscapes.
	E Achieve reasonable capital and operating costs.	E1 Minimize the capital costs.
E2 Minimize the property costs.		E2.1Total property cost. E2.2Potential environmental cleanup costs.
E3 Minimize the net operating costs.		E3.1The dollar value of net fare and other revenues (including commuter parking). E3.2Operations and maintenance cost of subway extension including feeder bus operations.

TABLE FOUR – Summary of Public and Stakeholder Agency Comments on Advantages and Disadvantages of Southern and Northern Alignments

Advantages (Pros)		Disadvantages (Cons)
Southern Alignments		
S1	<ul style="list-style-type: none"> Minimizes impacts on developed lands. Maximizes alignment within Keele Street right-of-way. 	<ul style="list-style-type: none"> Sheppard West Station too far south of Sheppard Avenue. Sharp curve out of Downsview Station. Future development at Downsview Park could impact construction.
S2	<ul style="list-style-type: none"> Convenient for transfers to/ from Sheppard Avenue buses and Downsview Park lands. Minimizes impacts developed lands and traffic. 	<ul style="list-style-type: none"> Significant curves = decreased speed. Traffic impacts during construction. Far from future GO Station platform. Construction/ maintenance may interfere with military training.
S3	<ul style="list-style-type: none"> Proximity to Sheppard Avenue is important. Convenient for transfers to/ from Sheppard Avenue buses. Station under future GO Station platform. 	<ul style="list-style-type: none"> Disruption to private properties. Does not support development on Downsview Park lands.
S4	<ul style="list-style-type: none"> Shortest route with the least curves. Good access to existing development in Keele Industrial Area. 	<ul style="list-style-type: none"> Too remote to Sheppard Avenue and Downsview Park lands. Disruption to private properties. More impact on traffic/ residential/ commercial.
Northern Alignments		
N1	<ul style="list-style-type: none"> Proximity to “Commons” area. Least impact on York University campus buildings. Follows road rights-of-way on York University campus. 	<ul style="list-style-type: none"> More curves. Impacts on York University campus buildings. Avoids wood lots on York University. Additional curve to extend Subway to Vaughan Corporate Centre.
N2	<ul style="list-style-type: none"> Proximity to “Commons” area. Maximizes use of Keele Street right-of-way. 	<ul style="list-style-type: none"> Impact on “Commons” for station construction. Alignment passes under existing Schulich Building and wood lots on York University lands.
N3	<ul style="list-style-type: none"> Appears to have least impact on existing York University buildings. Maximizes use of Keele Street right-of-way. 	<ul style="list-style-type: none"> More curves. York University Station located too far from “Commons”. Alignment passes under wood lots on York University lands.

TABLE FIVE – Summary of Public and Stakeholder Agency Comments on Advantages and Disadvantages of Finch West and Steeles West Station Layout Options

Advantages (Pros)		Disadvantages (Cons)
Finch West Station		
1	<ul style="list-style-type: none"> • Location of bus terminal at Keele/ Finch intersection. • Proximity of bus terminal to passenger pick-up and drop-off and commuter parking. 	<ul style="list-style-type: none"> • Passenger pick-up and drop-off and commuter parking far from station entrances. • Reduces Keele Street frontage available for development. • More disruption to traffic on Keele Street.
2	<ul style="list-style-type: none"> • Less disruption to traffic at Keele/ Finch intersection. • Connection between bus terminal and subway platform. 	<ul style="list-style-type: none"> • Distance from bus terminal to subway platform. • Distance between pedestrian entrances/ bus terminal and commuter parking lot.
3	<ul style="list-style-type: none"> • Good access between Keele/ Finch intersection and bus terminal. • Distance between bus terminal and subway platform. 	<ul style="list-style-type: none"> • Distance between pedestrian entrances/ bus terminal and commuter parking lot. • Location of bus terminal disruptive to traffic at Keele/ Finch intersection.
4	<ul style="list-style-type: none"> • Good access between Keele/ Finch intersection and bus terminal. • Relationship between bus terminal and subway platform. • Proximity of bus terminal to commuter parking. 	<ul style="list-style-type: none"> • Traffic congestion. • Bus terminal further from commuter parking and passenger pick-up and drop-off.
5	<ul style="list-style-type: none"> • Bus terminal located away from Keele/ Finch intersection. • Supports redevelopment at Keele/ Finch intersection. 	<ul style="list-style-type: none"> • Distance from bus terminal to subway platform. • Bus terminal far from commuter parking to passenger pick-up and drop-off.
Steeles West Station		
1A	<ul style="list-style-type: none"> • Entrances close to passenger pick-up and drop-off and commuter parking. 	<ul style="list-style-type: none"> • Lack of integration of bus terminals would result in poor bus-to-bus transfers. • Increased land costs.
1B	<ul style="list-style-type: none"> • Entrances close to passenger pick-up and drop-off and commuter parking. 	<ul style="list-style-type: none"> • Lack of integration of bus terminals would result in poor bus-to-bus transfers. • Increased land costs.
2	<ul style="list-style-type: none"> • Best for redevelopment. • Maximizes use of public lands (hydro corridor). • Easy to downsize bus terminal when Subway is extended to York Region. 	<ul style="list-style-type: none"> • Location of passenger pick-up and drop-off on York University campus.
3	<ul style="list-style-type: none"> • Uses York Region’s existing property for bus terminal. • Less impacts on developable land. 	<ul style="list-style-type: none"> • High capital costs.

TABLE SIX – Suggested Revisions to Existing Indicators or New Indicators

Indicator	Suggested Revisions to Existing Indicators or New Indicators	Study Team Response
B2 – Convenience for other modes	Add - Length and location of pedestrian walkways.	This will be measured by indicators B2.2 (transfer time for other travel modes) and B2.3 (Quality of walking environment for other travel modes). No change required.
New	Add - Access for emergency services (i.e. Fire, Police, Ambulance).	New indicator to be added.
New	Add - Support for GO/TTC fare integration.	All alignment and station layout options would have the ability to accommodate enhanced fare and service integration. Therefore, introducing this indicator would not result in any measurable differences between the options. No change required.
New	Avoid use of Steeles West Station commuter parking lot by York University staff and students.	Protecting the lot for exclusive use by transit users commuters will require the implementation of special policies. Because all Steeles West station layout options include commuter parking at the same location in the hydro corridor, the policies would not be affected by the layout or location of commuter parking. Therefore, the Study Team recommends no additional indicator. However, preliminary planning is underway to determine the operating strategy for the Steeles West Station commuter parking lot.
New	Impacts on operation of pipelines located in Finch Hydro corridor.	New indicator to be added.