

APPENDIX B

COMMUNITY LIAISON COMMITTEE (CLC)

APPENDIX B-1

Community Liaison Committee (CLC)

November, 2006



**WEST DON LANDS TRANSIT EA
COMMUNITY LIAISON COMMITTEE MEETING
AGENDA**

Project: TTC-TWRC Waterfront Transit Environmental Assessments

Date: November 28, 2006

Time: 6:00 – 8:00 pm

Location: Metro Hall, Room 310

| Item | Presenter | Time |
|---|----------------|------|
| 1. Welcome and Introductions | Pino Di Mascio | 6:00 |
| 2. CLC Terms of Reference and Code of Conduct | Pino Di Mascio | 6:05 |
| 3. Update on Terms of Reference Approval Process | Bill Dawson | 6:15 |
| 4. Presentation – Evaluation of Planning Alternatives (Corridor and Technology Options) | Scott Thorburn | 6:20 |
| 5. Facilitated Discussion | Pino Di Mascio | 7:00 |

Meeting Date: November 28, 2006
Place: TWRC Boardroom
Project Name: EAs for Transit Projects in the Eastern Waterfront

Present:

Project Team (PT)

| | |
|-----------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Tim Laspa | Toronto Transportation Planning |
| John Kelly | Toronto Transportation Services |
| Tanya Bevington | TWRC |
| Mike Bricks | Ecoplans |
| Hank Wang | MRC |
| Mark Nykoluk | URS Canada Inc. |
| Scott Thorburn | URS Canada Inc. |

Community Liaison Committee (CLC)

| | |
|-----------------|-----------------------------------|
| Julie Beddoes | Waterfront Action |
| Tom Davidson | Representing Councillor McConnell |
| Jim Hay | Port Lands Action Committee |
| Sylvia Pelman | SNLA |
| Ulla Colgrass | YGNA |
| Helen Riley | Feet on the Street |
| Steve Munro | |
| David Fisher | Rocket Riders |
| Margaret Samuel | CWNA & QQHBIA |
| Sharon Poitras | CWNA |

Copies to : All

Purpose of meeting: CLC Meeting - Evaluation of West Don Lands Planning Alternatives

The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|---|-----------|
| 1.0 | INTRODUCTION | |
| 2.0 | TERMS OF REFERENCE | |
| | PT | |
| | <ul style="list-style-type: none">Draft CLC ToR was circulated and reviewed.When minutes are issued comment. | CLC |

| Item | Discussion | Action By |
|------|---|-----------|
| 3.0 | <p>UPDATE MOE REVIEW</p> <p>PT</p> <ul style="list-style-type: none"> ▪ ToR drafted and submitted at end of July; response is pending review; ▪ MOE may provide some direction based on stakeholder comments received; ▪ It is acknowledged that proceeding without an approved ToR results in some risk; Project Team is willing to proceed; attendees agreed to proceed; ▪ Timing may be interrupted if ToR not approved by end of year. <p>CLC</p> <ul style="list-style-type: none"> ▪ Has MOE provided any clues to changes required in ToR? <p>PT Response</p> <ul style="list-style-type: none"> ▪ No significant issues have been identified to date. <p>PT</p> <ul style="list-style-type: none"> ▪ Information packages will be distributed this evening; ▪ Although it is not TWRC policy to distribute email addresses, to facilitate the discussion of information presented, we will forward an email to everyone following this meeting asking if you'd like to have your email distributed to other CLC members; please advise TWRC. | TWRC/CLC |
| | <p>PRESENTATION – West Don Lands Evaluation of Planning Alternatives – Routes</p> <ul style="list-style-type: none"> ▪ A review was provided of work conducted to date, including Terms of Reference recommendations, the process followed, and Planning Alternatives; highlights included: <ul style="list-style-type: none"> ○ network connectivity ○ ToR established criteria ○ criteria is overall objective ○ minimum requirement (screenings) ○ indicators identify strengths and weaknesses ○ Planning alternatives – corridor, technology, from ToR ○ Bus – rubber tires vs. streetcar – steel wheels ○ 4 corridors ○ “Musts” resulted in “Parliament Only” option screened out ○ when looking at table 2A, bear in mind “proxies” (i.e. for assessment of noise, would require corridor, technology, and specific location; however, as a “proxy” we look at residences within 50m - if “zero” then most likely no impacts). ▪ Note that the next step – the actual evaluation of Planning | |

| Item | Discussion | Action By |
|------|---|-----------|
| | Alternatives, hasn't been conducted yet; only the data itself is being presented tonight. | |
| | PARLIAMENT FROM WDL TO CASTLE FRANK | |
| | <ul style="list-style-type: none">▪ During peak hour <600± pph; of that, less than 10% coming from WDL;▪ Stronger travel desire along Broadview corridor (vs. Parliament);▪ Greatest demand is east-west towards Union Station and CBD. | |
| | CLC | |
| | <ul style="list-style-type: none">▪ Project Team should consider the potentially huge increase in population (i.e., Regent Park population will double) which should be factored in; range of destinations shouldn't be limited. | |
| | PT Response | |
| | <ul style="list-style-type: none">▪ The ridership numbers presented are based on future population estimates contained in the Regional network model; the model indicates the following:<ul style="list-style-type: none">○ Those heading to the north, use Yonge / University / Spadina○ Those heading west, go to Yonge / University due to speed○ Those heading east, are very east, so gravitating towards Broadview/ Danforth Line | |
| | CLC | |
| | <ul style="list-style-type: none">▪ Every time we look at travel demand we only consider the peak hour demand; during non-peak hours, there are transit riders with baby buggies and strollers, and those without cars for instance that need to be considered; | |
| | PT Response | |
| | <ul style="list-style-type: none">▪ This issue will be taken into consideration. | PT |
| | CLC | |
| | <ul style="list-style-type: none">▪ Will there be a need to tunnel under CN tracks? | |
| | PT Response | |
| | <ul style="list-style-type: none">▪ It may be possible to use existing bridge tunnels passing under the tracks but this will need to be confirmed. | |
| | CLC | |
| | <ul style="list-style-type: none">▪ Was traffic heading south due to development in the Port Lands considered? | |
| | PT Response | |
| | <ul style="list-style-type: none">▪ Travel demand numbers are based on 2021 with full build out, and based on behaviour survey how people desire to travel;▪ Based on future where people are working and living. | |

| Item | Discussion | Action By |
|------|--|-------------|
| | <p>SUMMARY OF STRENGTHS AND WEAKNESSES</p> <p>CLC</p> <ul style="list-style-type: none">Has notice of these meetings been sent to the Royal Canadian Yacht Club? <p>PT Response</p> <ul style="list-style-type: none">Yes, notices were sent to all landowners | |
| | <p>SOME INITIAL FINDINGS ON EVALUATION OF TECHNOLOGIES</p> <p>CLC</p> <ul style="list-style-type: none">Are maintenance costs included?Has an access to transit metric been included (i.e., locations of transit stops)?We want to avoid the problem with St. Clair re access <p>PT Response</p> <ul style="list-style-type: none">Distance between stops will be developed during the design stage – stop spacing not related to the vehicle type. <p>CLC</p> <ul style="list-style-type: none">Trying to plan for 2 roles for Cherry Street is resulting in the wide right-of-way. If we want Cherry Street to be a major transit route to port lands, Cherry shouldn't support other vehicles (i.e. cars) <p>PT Response</p> <ul style="list-style-type: none">We're trying to identify the transit requirements, then in design, we'll look at the number of lanes and how that fits within the transit requirements <p>CLC</p> <ul style="list-style-type: none">Can we get cost #'s (i.e. speed, reliability, etc.) Answer: YesCan we get an electronic copy of information used in evaluation? <p>PT Response</p> <ul style="list-style-type: none">Presentation and display material will be posted on the TWRC website. <p>CLC</p> <ul style="list-style-type: none">Shouldn't eliminate parliament now since it would be a WDL bypass to port lands <p>PT Response</p> <ul style="list-style-type: none">Parliament will be carried forward as part of the combined "Parliament and Cherry" solutions. <p>CLC</p> <ul style="list-style-type: none">Has the top portion of Cherry realigned to the west been considered? | <p>TWRC</p> |

| Item | Discussion | Action By |
|------|---|-----------|
| | PT Response <ul style="list-style-type: none"> ▪ Yes, it is still considered the Cherry corridor. | |
| | CLC <ul style="list-style-type: none"> ▪ Can we have text and date of council (resolution) that discusses ROW | |
| | PD <ul style="list-style-type: none"> ▪ We can provide the ROWs from the Secondary Plans ▪ We can provide summary ROW for streets existing ROW, OP ROW, Class EA Master, Council for Parliament, Front, King, Cherry. | PT |
| | CLC <ul style="list-style-type: none"> ▪ Can bike routes be considered? | |
| | PT <ul style="list-style-type: none"> ▪ Yes, they have been accounted for in planning documents and will be considered. | |
| | CLC <ul style="list-style-type: none"> ▪ Will the “do nothing” option be carried through into further analysis phases? | |
| | PT <ul style="list-style-type: none"> ▪ Project Team will consider “do nothing” taken out, but where the actual impacts are deemed to be potentially significant, benchmarks (baselines) will be provided to assess the actual impacts. | PT |
| | CLC <ul style="list-style-type: none"> ▪ Can we change “network connectivity” to “streetcar network connectivity”; ▪ There are ROW Parliament issues; ▪ Cherry has 2 clumps of buildings of built heritage significance; ▪ Cherry Street issue is of huge importance; ▪ Our neighbourhood is interested in exploring road closed to general purpose traffic; | CLC |
| | PT <ul style="list-style-type: none"> ▪ Are there other measures we should be considering? ▪ in CLC's opinions, please provide comment on the following: <ul style="list-style-type: none"> ○ Do we have all the facts ○ Have we measured in right way ○ Your strengths / weaknesses | |
| | CLC <ul style="list-style-type: none"> ▪ Is there a way to add in the capital cost of the road costs and maintenance associated with the bases to compare apples to apples ▪ Crossing distance is most important factor related to walkability ▪ Safety – design of intersection for streetcars, you widen the street and cut the corners | |

| Item | Discussion | Action By |
|------|--|-----------|
| | <ul style="list-style-type: none"> ▪ Are platforms wide enough? (reason for keeping the roads narrow). ▪ perhaps we need a measure to the technology column (i.e. the walkability) | |
| | PT | |
| | <ul style="list-style-type: none"> ▪ Important, but irrespective of corridor; (i.e., requirements similar regardless of Cherry or Parliament corridors). | |
| | CLC | |
| | <ul style="list-style-type: none"> ▪ Pedestrian flow charts should be considered; important to consider curb to curb crossing distances. | |
| | PT Response | |
| | <ul style="list-style-type: none"> ▪ Will consider adding an evaluation pertaining to "pedestrian crossing" in "technology" analysis. | PT |
| | CLC | |
| | <ul style="list-style-type: none"> ▪ There will be a school on Mill Street, need to consider the Soul Pepper Theatre Company as well (for noise and vibration). | |
| | PT Response | CLC |
| | <ul style="list-style-type: none"> ▪ Will consider all stakeholders. | |
| | CLC | TWRC |
| | <ul style="list-style-type: none"> ▪ Can background information used to conduct assessments be provided to CLC? | |
| | PT Response | |
| | <ul style="list-style-type: none"> ▪ Will provide. ▪ CLC to provide comments by December 12, 2006 ▪ Next meeting will be scheduled in second week of January; CLC members will be contacted; – refer to Draft CLC ToR for additional details. | |

| Item | Discussion | Action By |
|------|------------|-----------|
|------|------------|-----------|

SUMMARY OF ISSUES AND RESPONSES

| Issue Raised by CLC | Response by PT |
|--|--|
| <ul style="list-style-type: none"> • More weight should be given to residents living in the study area. | <ul style="list-style-type: none"> • All stakeholder issues to be considered. |
| <ul style="list-style-type: none"> • PT should consider future growth. | <ul style="list-style-type: none"> • Included in network model. |
| <ul style="list-style-type: none"> • Parliament service should be enhanced. | <ul style="list-style-type: none"> • TTC to consider in other initiatives. |
| <ul style="list-style-type: none"> • Consider non-peak travel demand. | <ul style="list-style-type: none"> • Comment to be taken into consideration. |
| <ul style="list-style-type: none"> • Each precinct should not be considered in isolation. | <ul style="list-style-type: none"> • Network connectivity is an evaluation criterion. |
| <ul style="list-style-type: none"> • Screening out "buses in mixed traffic" | <ul style="list-style-type: none"> • To be considered by Project Team. |
| <ul style="list-style-type: none"> • Service reliability is not an issue. | <ul style="list-style-type: none"> • To be considered by Project Team. |
| <ul style="list-style-type: none"> • Closing Cherry Street to through traffic. | <ul style="list-style-type: none"> • Designs for Cherry Street to be part of next phase of study. |
| <ul style="list-style-type: none"> • User accessibility. | <ul style="list-style-type: none"> • Part of evaluation of designs. |
| <ul style="list-style-type: none"> • Consider public meeting regarding Cherry St design. | <ul style="list-style-type: none"> • To be considered by Project Team. |
| <ul style="list-style-type: none"> • Technology and design for WDL should consider EBF | <ul style="list-style-type: none"> • To be considered by Project Team. |
| <ul style="list-style-type: none"> • Minimize pedestrian crossing distances. | <ul style="list-style-type: none"> • PT will consider revised evaluation criteria as part of evaluation of planning alternatives. |

SUMMARY OF ACTION ITEMS

| Action | By |
|--|--|
| <ul style="list-style-type: none"> • Comment on CLC ToR | <ul style="list-style-type: none"> • CLC |
| <ul style="list-style-type: none"> • Exchange of email addresses if desired | <ul style="list-style-type: none"> • TWRC / CLC |
| <ul style="list-style-type: none"> • Consider non-peak travel | <ul style="list-style-type: none"> • PT |
| <ul style="list-style-type: none"> • Provide presentation/display material | <ul style="list-style-type: none"> • TWRC |
| <ul style="list-style-type: none"> • Provide information used in evaluation | <ul style="list-style-type: none"> • PT |
| <ul style="list-style-type: none"> • Consider removing "Do Nothing" | <ul style="list-style-type: none"> • To be considered |
| <ul style="list-style-type: none"> • Comment on evaluation measures | <ul style="list-style-type: none"> • CLC |
| <ul style="list-style-type: none"> • Add pedestrian crossings to evaluation | <ul style="list-style-type: none"> • To be considered |
| <ul style="list-style-type: none"> • Provide comments by Dec. 12, 06. | <ul style="list-style-type: none"> • CLC |
| <ul style="list-style-type: none"> • Provide information on future meetings | <ul style="list-style-type: none"> • TWRC |

| Item | Discussion | Action By |
|------|------------|-----------|
|------|------------|-----------|

Meeting was adjourned at 8:20pm.

Minutes Prepared by: Mark Nykoluk, P.Eng.

Original Signed by

TTC-TWRC Waterfront Transit

Environmental Assessments
Transportation Workshop

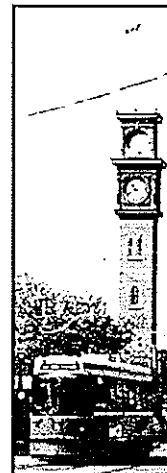
September 28th, 2006

Overview.....What We Will Cover

- 1st of 2 Workshop sessions:
 - September 28th - Transit / Road Operations
 - October 5th - Forecasting

This Session.....

- This session:
 - quick general context
 - focus upon transit and road planning / operational considerations
 - more 'micro' than macro
- Intended to provide key technical baseline information to help understanding of Terms of Reference evaluation criteria
- Note intended to debate Waterfront Transit issues



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Basics



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Basics.....

- About moving large numbers people not simply vehicles
- Use all aspects of transportation system – all modes
- Needs to provide sufficient capacity and choice
- Encourage non-auto travel
 - 'transit first'
 - provide excellent travel mode choice
 - quality of service
- Balance needs within rights-of-way
 - space often limited
 - competition for space



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Transit



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Transit

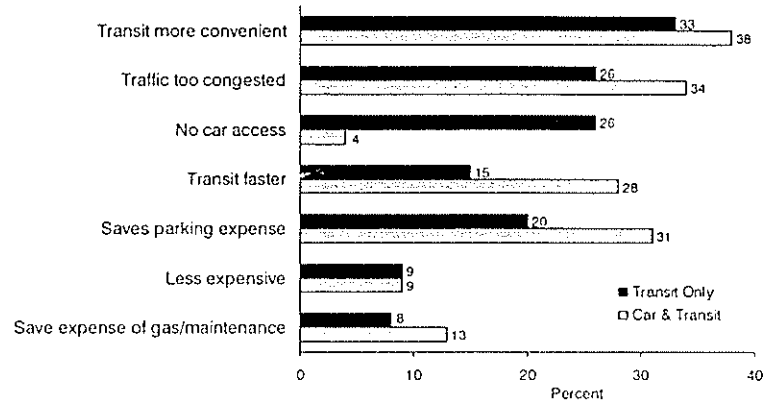
Three main topics:

- Attracting people to transit
- Capacity and technology
 - factors
 - vehicle types and capacity
 - rights-of-way and technology
- Physical design
 - platforms
 - typical intersection arrangements



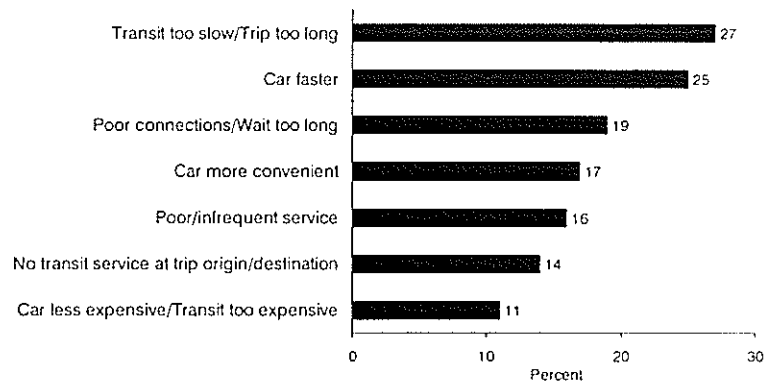
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Why People Choose Transit



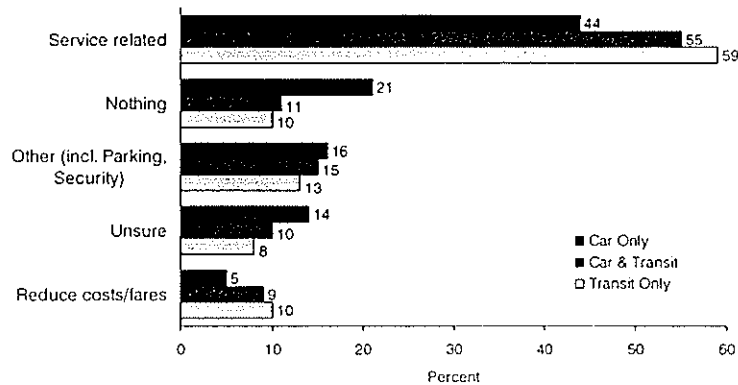
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Why People Don't Choose Transit



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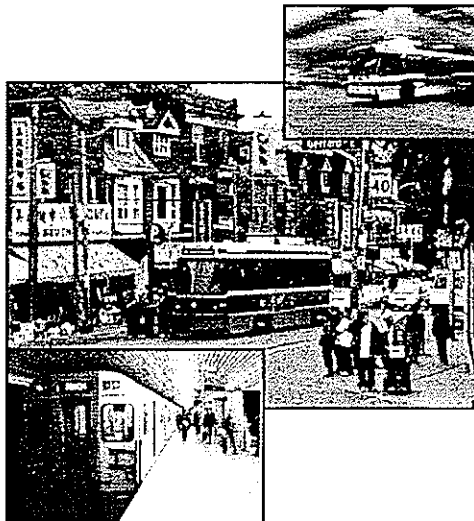
Changes Required to Increase Transit Use



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Attracting People to Transit

- **Connectivity and access-**
 - can you get there from here?
 - walk access to stops
 - transfers
- **Service quality**
 - frequency
 - reliability
 - travel time
 - crowding/seat available
 - comfort (noise, A/C etc.)
- **Physical design**
 - safety
 - access with limited mobility
 - weather protection



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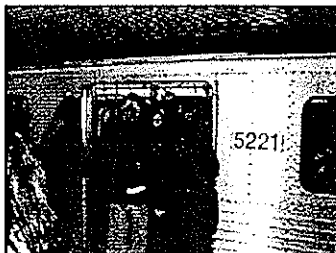
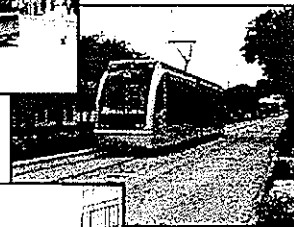
Factors Affecting Transit Capacity

- Vehicle size
 - Length of vehicle (standard, articulated)
 - Multiple unit trains
- Frequency of service
 - Number of vehicles on route and round trip time
 - Right-of-way treatment
 - Terminal capacity
- Service reliability
 - Road congestion if mixed traffic
 - Transit signal priority and spacing if surface ROW



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Transit Vehicles



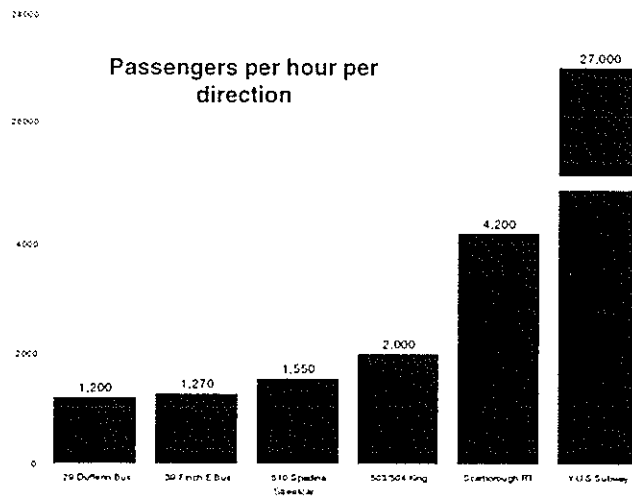
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Transit Vehicle Size and Capacity

| | Buses | | Streetcar/LRT | | | Subway Train |
|--------------------------------|----------|-------------|---------------|-------|------------|--------------|
| | Standard | Articulated | CLRV | ALRV | Modern LRT | |
| Number of Seats | 36 | 55 | 46 | 61 | 70 | 450 |
| Peak Design Load per Vehicle | 55 | 85 | 74 | 108 | 125 | 1000 |
| Frequency of service to carry: | | | | | | |
| - 1000 passengers per hour | 3'20" | 5'15" | 4'30" | 6'30" | 7'30" | 1 hour |
| - 2000 passengers per hour | 1'40" | 2'40" | 2'15" | 3'15" | 3'45" | 30' 00" |
| - 3000 passengers per hour | 1'00" | 1'45" | 1'30" | 2'10" | 2'30" | 20' 00" |

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Passenger Demand on Major TTC Routes



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Morning Peak Roadway Usage
 – peak transit load point during the busiest hour

| | Passengers | | Total | % of people carried on transit | % of roadway (transit @50% of one lane) |
|-------------|------------|----------------------|-------|--------------------------------|---|
| | Transit | Auto/Truck @ 1.1/veh | | | |
| 506 CARLTON | 1013 | 517 | 1530 | 66% | 25% |
| 505 DUNDAS | 682 | 697 | 1379 | 49% | 25% |
| 504 KING | 1340 | 433 | 1773 | 76% | 25% |
| 510 SPADINA | 1389 | 964 | 2353 | 59% | 33% |
| 501 QUEEN | 948 | 636 | 1584 | 60% | 25% |
| 29 DUFFERIN | 1009 | 910 | 1919 | 53% | 25% |

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Transit Right-of-Way Issues

- **Priority to transit affects:**
 - Maximum carrying capacity
 - Service reliability
 - Ability to attract passengers

- **Degrees of transit priority**
 - Turn and parking prohibitions
 - Traffic signal priority
 - Physical separation between intersections (partially exclusive ROW)
 - Full grade separation (tunnel or overhead)



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Transit Only Signal Phase



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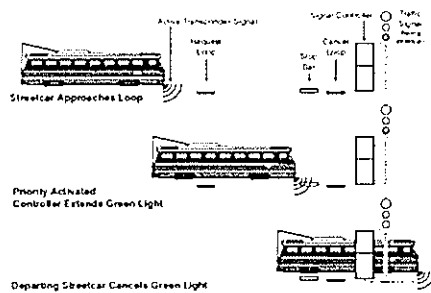
Transit Signal Priority

310 intersections equipped

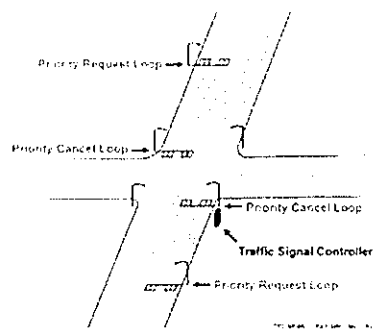
7 streetcar routes

4 bus routes

Signal Priority - Green Light Extension

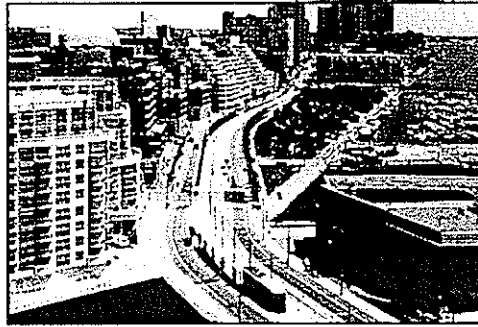
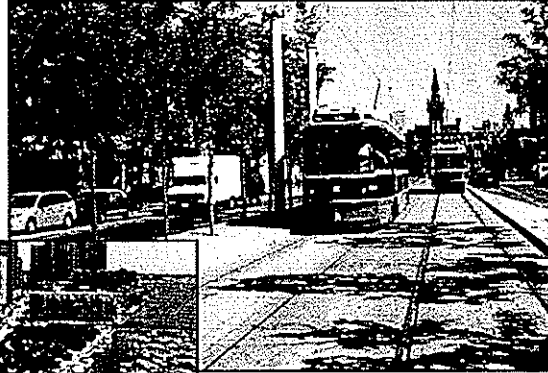


Signalized Intersection



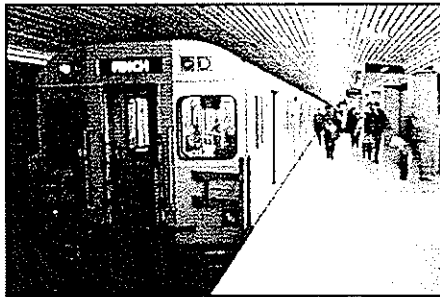
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Partially-Exclusive
ROW for Transit



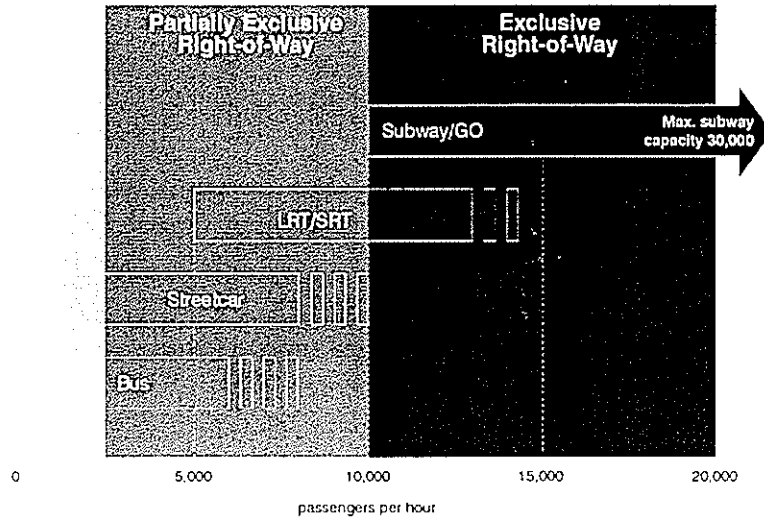
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Fully Exclusive ROW
– grade separated tunnel or elevated



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Transit ROW's and Technologies

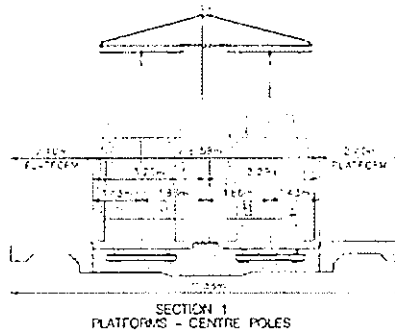


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Physical Design

Exclusive Right-of-Way

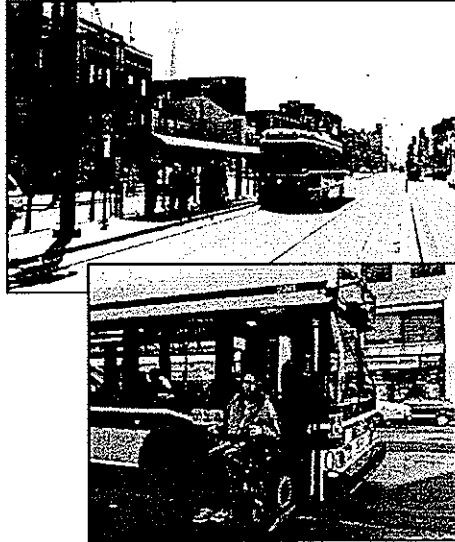
- Minimum cross-section
- Centre Pole Design
- Platforms / islands
- Crossings only at signalized intersections



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Streetcar Platforms

- Safety and accessibility
- Passengers struck by autos – boarding and alighting
- High first step from road a mobility and safety problem
- Practical requirement for wheelchair/scooter access
- No new TTC streetcar stops without platforms in 50 years

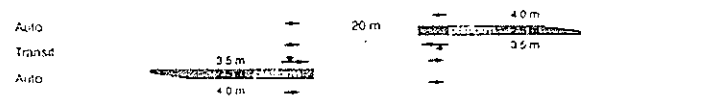


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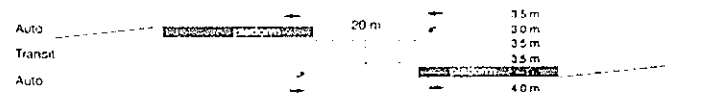
Minimum Road ROW with Streetcar Operations

- no reduction in minimum ROW width with mixed traffic configuration
- bicycle lanes would increase road width by 3m (2 x 1.5m)
- additional auto lanes would increase road width by 7m (2x3.5m)

Mixed Traffic



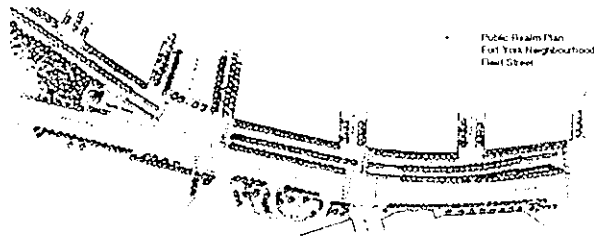
Exclusive ROW



TTC ST/ENR/EA/02/01/1/04

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Side of the Street Options – Special Considerations



- Non-traditional
- Transit safety / operational issues need to be addressed:
 - Pedestrian access control
 - Property access
 - Right turn on red
- Capacity considerations

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Urban Streets – Traffic



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Urban Street Planning

Before we start.....

- Streets are not just about auto-capacity
- Not possible, nor desirable, to design for every car:
 - system approach
 - other travel modes



But.....

- There will, inevitably, still be traffic...
- Need to maintain appropriate facilities to enable streets to meet their intended functions:
 - local access / servicing
 - through traffic
 - maximize efficiency

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Urban Street Planning - Steps

Four basic steps.....

1. Establish demands
 - today and future (City model)
 - detailed assignments
2. Street / road option development
 - physical and operational alternatives
 - developed in context of other users
3. Operational analysis
 - option testing
 - evaluate intersection operations
 - *outline / characterize relative implications*
 - *identify minimum / optimal road arrangement*
4. Decision making
 - informed operational / planning decisions
 - balance traffic needs with other considerations



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Urban Street Planning - Traffic

Focus on three main topics:

- Capacity and analysis
 - intersection operations
 - factors and measures
- What happens as roads / intersections approach capacity
- Key physical design parameters



Intend to help people better understand the evaluations we will undertake....

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Capacity and Analysis

Basics.....

- Lots of factors affect how much traffic a road can carry and how well it can do so:
 - number of lanes
 - driving environment
 - on-street parking
 - transit stops

Mainly intersection operations



So....

- Analysis is focussed on intersections
- 'Rush' hours are typical analysis periods
 - 'busiest' times / greatest volumes
 - 'better' operations at other times



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How do we Evaluate Signal Operations?

Tools

- Variety of analysis tools used to assess existing / future operating conditions

Influencing Factors:

- Traffic demands
 - crossing and turning traffic
- Number of lanes
 - turn lanes
- Signal 'green time'
 - distribution
 - pedestrian needs
- Transit
 - priority signals
 - stops



Typical Urban Through Lane Capacity:

- 500 to 650 vehicles / hour (VARIES)
OR 550 to 725 people / hour

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Signal Operations Analyses - Measures

Measures – LOS and V/C

- Range of analysis tools
 - use measures to relate 'performance'
 - overall intersection and movements
- Level of Service
 - based upon average delay / vehicle
 - LOS A to F range

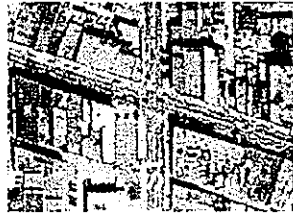
LOS A – little delay, <10 secs. / veh.
LOS F – extended delays, 80+ secs. / veh.
- Volume to Capacity
 - based upon % of theoretical capacity used
 - V/C ratio range

V/C - lower the better
V/C = 1.0 - 'at-capacity'

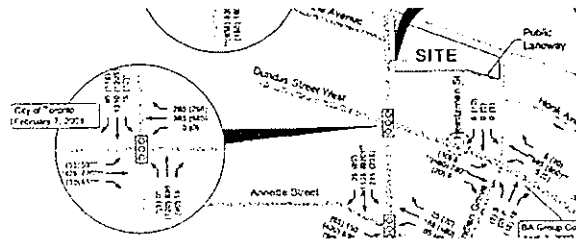


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Examples – Traffic Operations Analysis

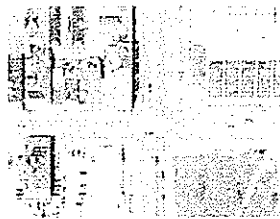


- Keele Street / Dundas Street West
- 2 lane approaches
- most left turns restricted
- 3,500 total vehicles (peak hour)
- Overall V/C = 0.84 (AM) to 0.92 (PM)
- Southbound: constrained in PM
 - 1,300 cars
 - long queues
 - V/C=0.96+

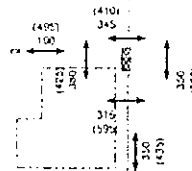
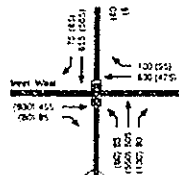


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Examples – Traffic Operations Analysis

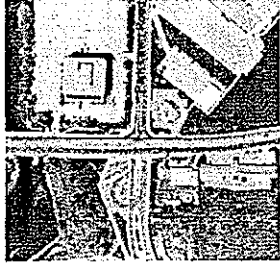


- Bay Street / Dundas Street West
- 2 lane approaches
- 3,000 total vehicles (peak hour)
- 'Clearway' and streetcars
- Most left turns restricted
- Overall V/C = 0.75 (AM) to 0.80 (PM)
- Southbound: busy in PM
 - 600 to 700 cars
 - illegal use of clearway & queues
 - V/C = 0.96

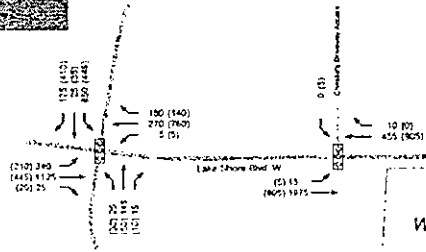


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Examples – Traffic Operations Analysis



- Park Lawn / Lake Shore Boulevard West
- 2 lane approaches + turn lanes
- 3,150 total vehicles (AM peak hour)
- Overall V/C = 0.93 (AM)
- Overall LOS D
- Southbound: heavy left turn
V/C = 0.96
LOS E



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What Happens as Road Approach Capacity?

- Only so many cars can get through an intersection
- As conditions approach 'capacity':
 - congestion
 - vehicular queues
 - vehicular delays
 - delays to transit
- *People and system MAY adapt / change – they may not*



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How People / Transportation Systems Can Respond....

What can change over time?

- Increase capacity
 - more lanes?
 - modest improvements?
- Motorists may be able to re-route
 - 'good' or 'bad'
- Travel behaviour changes
 - peak hour spreads (temporal change)
 - vehicle occupancy may increase
 - travel mode choice change



Risks / Consequences

- Travel behaviour changes don't occur or occur slowly – excessive congestion
- Motorists re-route – infiltration?
- People avoid area – won't come?
- Affects growth / redevelopment goals?

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Physical Design

Key parameters

- Lane widths
 - 3.25 to 3.5 metres
- Bicycle lanes
 - 1.5 to 1.8 metres
- Parking
 - 2.0 to 2.5 metres
 - need extra lane adjacent to cycle lanes
- Signals
 - needed for turns across exclusive right-of-way
 - provide pedestrian crossings
 - spacing: 150 to 350+ metres
- Emergency services
 - need to pass stopped vehicles



TTC – TWRC Waterfront Transit, Environmental Assessments, Transportation Workshop

Meeting Date: November 30, 2006

Place: 26th Floor Boardroom

Project Name: TTC Waterfront EA

Present:

| | |
|----------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Tim Laspa | Toronto Transportation Planning |
| Vince Alfano | Toronto Transportation Planning |
| Joanna Kervin | Toronto Transportation Planning |
| Alun Lloyd | BA Group |
| Scott Thorburn | URS Canada Inc. |

Copies to: All

Purpose of meeting: To discuss existing travel demand forecasting information

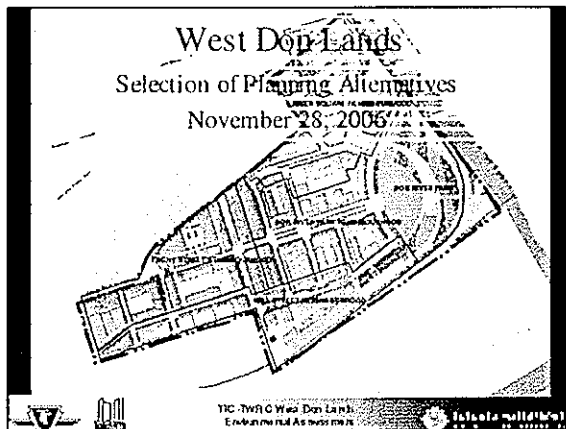
The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|--|-----------|
| 1.0 | <p>Modelling for Waterfront</p> <p>Regional Model assignments available:</p> <ul style="list-style-type: none">- Original summer modelling (Future Network)- Do Nothing assignment- Overlay of additional routes<ul style="list-style-type: none">▪ WDL loop eliminated▪ Through service for Waterfront▪ Parliament▪ Cherry / QQ / Union- Modelling will be adjusted manually – regional model is not sensitive enough to reflect technology / ROW treatments- Transit is not constrained in the model. 17km/h for streetcars in own right of way- Do Nothing – Pape bus is diverted from Esplanade to Queen's Quay. Service frequency is increased.- Regional model is insensitive to precise routing, so results from July 2006 report can be used.- Traffic volumes for Parliament and Cherry need to be reviewed and accepted by Toronto Transportation | |

Alun Lloyd to synthesize into info for distribution for CLC information.

Minutes Prepared by: Scott Thorburn, P.Eng.

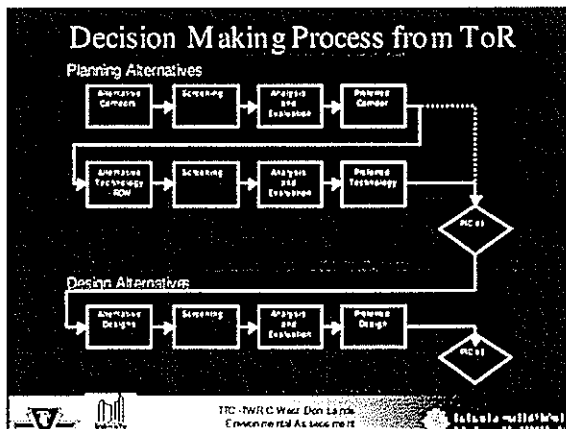
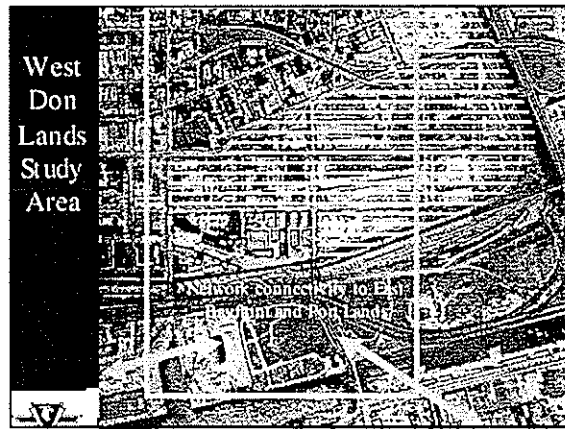
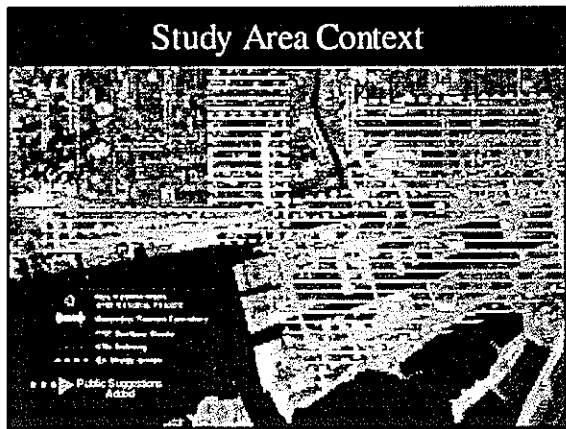
Original Signed by



Purpose of EA from the Terms of Reference

"To determine the transit facilities appropriate to serve the long term residential, employment, tourism and waterfront access needs in the study area while achieving the City's and TWRC's objectives for land use, design and environmental excellence"

TIC - TWRC West Don Lands
Environmental Assessment



Analysis Criteria

From the Term of Reference

| Criteria | Required Minimum "The alternative..." | Possible Planning Initiatives "The elements which the alternative..." |
|--|---|---|
| LAND USE | | |
| Local population employment growth in the study area | Must be capable of accommodating travel demand from forecasted development. | Supports intermodal and transit capacity requirements for forecasted development. |

TIC - TWRC West Don Lands
Environmental Assessment

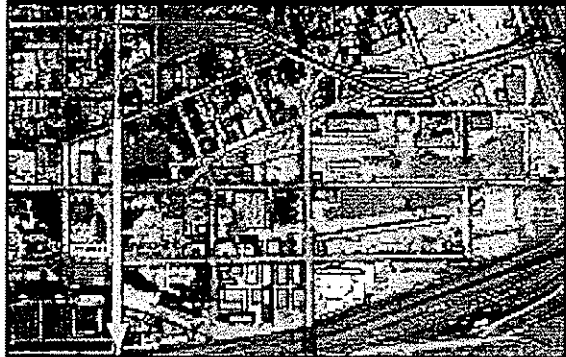
Setting Measures

| Options | Criteria | Impacts | Grade (Can Transmittable Impacts) | Value |
|----------|--------------------|---------|-----------------------------------|-------|
| Option 1 | Alternative 1: ... | ... | ... | ... |
| Option 2 | Alternative 2: ... | ... | ... | ... |
| Option 3 | Alternative 3: ... | ... | ... | ... |
| Option 4 | Alternative 4: ... | ... | ... | ... |

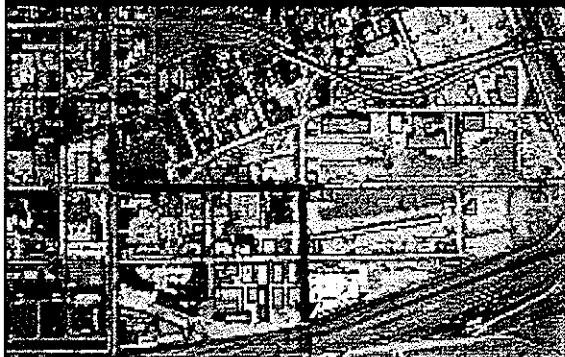
Environmental Assessment Process from the Terms of Reference

1. Planning Alternatives:
 - Corridors – King/Cherry, King/Front/Cherry, Parliament only, Parliament/Cherry
 - Technology / ROW
 - Vehicle Type – Buses or Streetcars
 - Right of Way Treatments – mixed traffic or transit only
2. Design Alternatives: – platform locations, sidewalks, bike lanes, urban design / landscape features, on street parking, general purpose traffic lanes, operational needs, etc.

Alternative Corridors – Parliament only



Alternative Corridors – Parliament/Front/Cherry



Alternative Corridors - Cherry



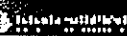
Alternative Corridors – Parliament and Cherry



Alternative Technology / ROW – Buses in Mixed Traffic



TTC - TWFC West Don Lands
Environmental Assessment



Alternative Technology / ROW – Buses in Dedicated Right of Way



TTC - TWFC West Don Lands
Environmental Assessment



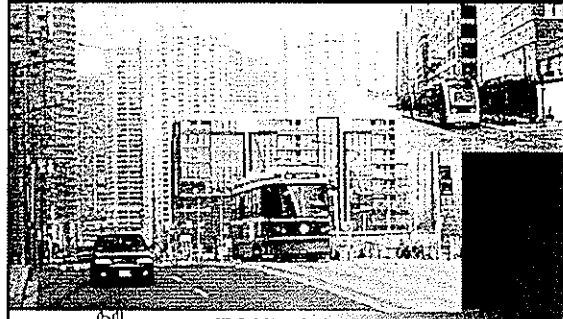
Alternative Technology / ROW – Streetcars with Platforms in Mixed Traffic



TTC - TWFC West Don Lands
Environmental Assessment



Alternative Technology / ROW – Streetcars in Dedicated Right of Way

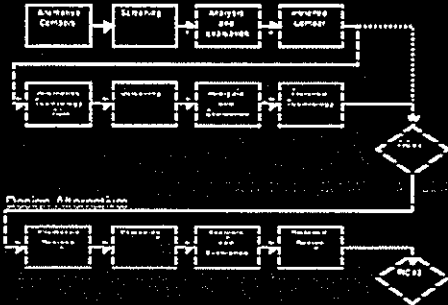


TTC - TWFC West Don Lands
Environmental Assessment



Step #1 – Screening of Corridors

Planning Alternatives



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Environmental Assessment



Screening Criteria

Required Minimums from ToR

- Accommodate travel demand
- City's Official Plan policies
- Promotes transit mode splits
- Provides Service to future inhabitants
- Connect to other Waterfront Precincts
- Accommodate people with mobility difficulties

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Environmental Assessment



Next Step – Evaluation of Corridor Alternatives

Some initial observations...

Parliament only to Castle Frank Preliminary Modeling Results

- 2021 Peak Demand (ignoring Carlton/Wellesley overlap) < 600 +/-
- WDL contribution < 10%
- Stronger travel desire along Broadview corridor
- Continue to focus on Parliament to King for the purposes of this study

Parliament and Cherry Street Corridor

Strengths

- ✓ Most coverage of West Don Lands (not necessarily more transit rides)

Weaknesses

- ✗ Most expensive
- ✗ Possible right of way constraints on Parliament

Parliament / Front /Cherry Street Corridor

Strengths

- ✓ Consistent with previous planning
- ✓ Good service to West Don Lands

Weaknesses

- ✗ Slow – many turns along route
- ✗ ROW constraints on Parliament and Front

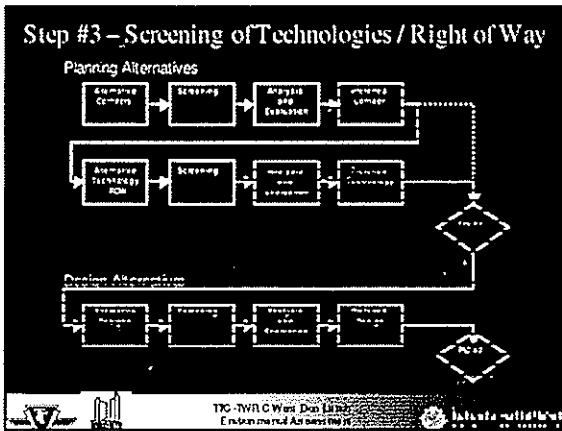
Cherry Street Corridor

Strengths

- ✓ Good service to West Don Lands
- ✓ Most Cost Effective (half the cost of Cherry and Parliament)
- ✓ Consistent with Precinct Plan

Weaknesses

- ✗ 10% less coverage of West Don (versus Cherry and Parliament Corridors)



Minimum Requirements ("Technology / ROW Musts")

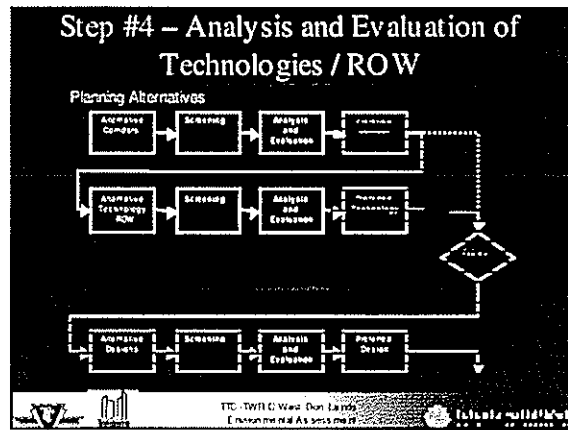
| Technology Considered / Minimum Requirement | "Do Nothing" | Streets with platforms in Mixed Traffic | Streets in Dedicated Lanes | Buses in Dedicated Lanes |
|---|--------------|---|----------------------------|--------------------------|
| Do we screen out mixed traffic streets with platforms in mixed traffic? | Yes | Yes | Yes | Yes |
| Do we screen out mixed traffic streets with platforms in dedicated lanes? | No | Yes | Yes | Yes |
| Do we screen out mixed traffic streets with platforms in dedicated lanes and dedicated lanes? | Yes | Yes | Yes | Yes |
| Do we screen out mixed traffic streets with platforms in dedicated lanes and dedicated lanes and dedicated lanes? | Yes | Yes | Yes | Yes |
| Recommendation: | | Carried | Carried | Carried |

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Environmental Assessment

Do Nothing

- Do we screen out buses in mixed traffic now?

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Environmental Assessment



Analysis of Technology / Right of Way

Table 4a – Draft

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Environmental Assessment

Reducing Analysis Tables to Decision Relevant Factors

- Table 4b – Draft
- Corridor Criteria only
- Eliminate criteria that yield same / similar results for each alternative
- Highest and best technology for environmental effects

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Environmental Assessment

**Next Step –
Evaluation of
Technology /
Right of Way
Alternatives**

Some initial observations...

Buses in Dedicated Right of Way

Strengths

- ✓ Better service reliability and speed
- ✓ Less potential for ground borne vibration
- ✓ Lower capital cost

Weaknesses

- ✗ Lack of network connectivity
- ✗ Highest Operating Cost

Streetcars in Mixed Traffic

Strengths

- ✓ Network connectivity
- ✓ Increased flexibility for local traffic

Weaknesses

- ✗ Reduced service reliability
- ✗ Higher capital cost
- ✗ Potential for ground borne vibration

Streetcars in Dedicated Right of Way

Strengths

- ✓ Network connectivity
- ✓ Better service reliability and speed
- ✓ Lowest Operating Cost

Weaknesses

- ✗ Higher capital cost
- ✗ Potential for ground borne vibration

Next Steps

- Continue to refine evaluation – CLC comments by Dec 12th
- Confirm preferred planning alternatives;
- Develop alternative Designs to be considered
- CLC meeting in Jan 2007
- Public Information Centre No.1 in January 2007

APPENDIX B-2

Community Liaison Committee (CLC)

January, 2007

Meeting Date: January 11, 2007, 6:00pm

Place: TWRC Boardroom

Project Name: EAs for Transit Projects in the Eastern Waterfront

Present:

Project Team (PT)

| | |
|-----------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Nigel Tahir | Toronto Transportation Planning |
| John Kelly | Toronto Transportation Services |
| Tanya Bevington | TWRC |
| Dennis Callan | MRC |
| Hank Wang | MRC |
| Alun Lloyd | BA Group |
| John Hillier | du Toit Allsopp Hillier |
| Mark Nykoluk | URS Canada Inc. |
| Scott Thorburn | URS Canada Inc. |

Community Liaison Committee (CLC)

| | |
|-----------------|-----------------------------------|
| Julie Beddoes | Waterfront Action |
| Tom Davidson | Representing Councillor McConnell |
| Dennis Findlay | Port Lands Action Committee |
| Sylvia Pelman | SNLA |
| Ulla Colgrass | YQNA |
| Helen Riley | Feet on the Street |
| Steve Munro | |
| David Fisher | Rocket Riders |
| Margaret Samuel | CWNA & QQHBIA |
| Cynthia Wilkey | WDLC |

Copies to : All

Purpose of meeting: CLC Working Meeting - West Don Lands Planning Alternatives

The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|---|-----------|
| 1 | STATUS UPDATE PT <ul style="list-style-type: none">ToR approval is still pending;Tonight's focus: reviewing the CLC's comments on analysis of Planning Alternatives. | |

| Item | Discussion | Action By |
|------|--|-----------|
| 2 | <p data-bbox="251 336 876 367">DISCUSSION OF PLANNING ALTERNATIVES</p> <p data-bbox="251 420 292 451">PT</p> <ul data-bbox="389 462 1282 882" style="list-style-type: none">▪ Comments provided to date can be generally categorized according to the following four groups:<ol data-bbox="535 535 1023 693" style="list-style-type: none">1. Travel demand2. Evaluation criteria3. Design considerations4. Clarifications to specific questions▪ All travel demand estimates have been provided through the City's Regional Model;▪ Alternative assignments have been investigated including additional transit lines (i.e. Parliament, Beach Express, Waterfront East-West and West Don Lands to Union Station); <p data-bbox="251 924 763 955"><u>Comment Category 1 – Travel Demand</u></p> <ul data-bbox="389 966 1282 1218" style="list-style-type: none">▪ All travel demand #'s have been derived from the City's Regional Model;▪ Alternative assignments have been investigated and include options with / without Parliament streetcar;▪ All travel demand forecasts are based on future network and future population and employment in the City, including Waterfront and Regent Park redevelopments. <p data-bbox="251 1260 803 1291"><u>Comment Category 2 – Evaluation Criteria</u></p> <ul data-bbox="389 1302 1282 1522" style="list-style-type: none">▪ Will be finalized once MOE's comments on the ToR have been received;▪ Cost is only one consideration in the selection of a recommended planning alternative;▪ More details will be provided during the next stage in the study: the identification, analysis and evaluation of design alternatives. <p data-bbox="251 1564 852 1596"><u>Comment Category 3 – Design Considerations</u></p> <ul data-bbox="389 1606 1282 1680" style="list-style-type: none">▪ On-street platforms for barrier free access will be implemented system wide by 2025. <p data-bbox="251 1690 308 1722">CLC</p> <ul data-bbox="389 1732 1282 1827" style="list-style-type: none">▪ The pedestrian realm shouldn't be left to the design stage;▪ Evaluation of corridors (specifically Cherry vs. Parliament) should be consistent. | |

| Item | Discussion | Action By |
|------|---|-----------|
| PT | <ul style="list-style-type: none"> ▪ Main objective is consistency in evaluating whether or not all required elements fit within a given corridor, or whether or not widening of the corridor is a possibility; ▪ All pedestrians (children, elderly) are being considered equally during the evaluation of planning alternatives; ▪ Universal accessibility must be provided; ▪ Precinct plans specifically focused on pedestrians including wide sidewalks, the identification of pedestrian corridors, spacing of crosswalks, etc.; ▪ Sidewalk design will initially consider a 5 metre width; ▪ Public Information Centre mapping will indicate minimum sidewalk widths per corridor; advantages / disadvantages to boarding transit at curbside, walking distances, etc. | URS |
| CLC | <ul style="list-style-type: none"> ▪ Parliament south of Queen some ROW room but north not much room. | |
| PT | <ul style="list-style-type: none"> ▪ It is not the issue of exclusive lanes that is limiting the Parliament Street corridor, it's the requirement for a passenger loading platform (universal accessibility) which is a requirement (there is no room for platforms on Parliament Street). | |

Comment Category 4 – Clarifications to Specific Questions

CLC Question / Comment 1: Travel Demand Forecast indicated low demand on Parliament. Is demand only from south of Queen? Does this account for demand across the entire waterfront?

PT Response:

- A Parliament scenario was modeled from Castle Frank Station south along Parliament Street to Union Station via Queen's Quay; results indicate that the Broadview corridor desire line is stronger.

CLC

- Can you provide model #'s for the corridors?

PT

- Can provide. Desire lines are based on employment locations; i.e. not big demand between residential nodes in the east to those in the west; most desire lines are directed to the CBD.

| Item | Discussion | Action By |
|--|---|-----------|
| CLC | <ul style="list-style-type: none"> ▪ What about Parliament to Lake Ontario Park? Should consider how habits change when routes are provided; ▪ Also special events are big attractors of crowds; ▪ Does Parliament model consider those who wish to avoid Union Station? | |
| PT | <ul style="list-style-type: none"> ▪ Yes, the model assigns travel based on travel time (shortest), and considers transfer time. | |
| PT | <ul style="list-style-type: none"> ▪ Predominant travel in the WDL is east-west, not north-south. What are advantages to Parliament north-south line? | |
| CLC | <ul style="list-style-type: none"> ▪ CLC members will provide what they feel are advantages. | CLC |
| <p>CLC Question / Comment 2: How will all these services converge at Union Station (i.e., at Broadview Station, the streetcars line up on the street); so the issue of convergence and service at stations is very important.</p> | | |
| <p>PT Response:</p> | | |
| | <ul style="list-style-type: none"> ▪ Terminals are the "choke" points; ▪ From Secondary Plan analysis (3 years ago) we realized there would be 4000 from each direction = 8000; ▪ TTC's current view is that the Union Station streetcar loop is at capacity; ▪ Also developed an expansion plan for the loop, with space to the outside, which may provide space for new expanded platforms; ▪ We will send copy of drawings for potential expanded Union Station streetcar loop; ▪ In summary, for any solution to work, it must work at the terminals; ▪ To help with Broadview Station, some King cars may turn into the West Don Lands. | TTC |
| <p>CLC Comment 3: Reliability and Frequency most important issues. Transit line is only as good as it's weakest link.</p> | | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <p>CLC Comment 4: Please include comments pertaining to “technologies” from CWNA letter (specifically pages 4 – 7) and provide back-up information.</p> | URS |
| | <p>PT Response:</p> <ul style="list-style-type: none"> ▪ Will provide. | |
| | <p>CLC Question / Comment 5: What assumptions are made in the City’s Regional model – both present day and in the future? Should maintain flexibility and an over building of the facility.</p> | |
| | <p>PT Response:</p> <ul style="list-style-type: none"> ▪ Evaluation criteria includes evaluation of “network connectivity”; ▪ “Transit First” is being considered, i.e. we’re over-building at an early stage; | |
| | <p>CLC Question / Comment 6: How does QQ East design impact on WDL?</p> | |
| | <p>PT Response:</p> <ul style="list-style-type: none"> ▪ Current plans call for higher capacity transit corridor on Queens Quay. The two areas must connect as identified in the ToR. | |
| | <p>CLC Question / Comment 7: We are interested in the Parliament route because we believe people will use it over the Yonge subway line to go to the waterfront. Is this being evaluated (as an alternative to Union Station)?</p> | |
| | <p>PT Response:</p> <ul style="list-style-type: none"> ▪ Beyond the scope of this EA, but we’re not precluding future service on Parliament Street. | |
| | <p>CLC</p> <ul style="list-style-type: none"> ▪ Why wouldn’t we get approvals for both routes (Parliament and Cherry as separate corridors)? | |
| | <p>PT</p> <ul style="list-style-type: none"> ▪ Need and justification relates to purpose of this study to “serve West Don Precinct”; ▪ Must also bear in mind the previous work (i.e. the Secondary Plan which didn’t include Parliament Street). | |
| | <p>CLC</p> <ul style="list-style-type: none"> ▪ Why are we basing decisions on past travel patterns on such a small scale? | |

| Item | Discussion | Action By |
|------|---|-----------|
| PT | <ul style="list-style-type: none">The travel demand model is regional and incorporates areas well beyond Queen Street. | |
| | <p>CLC Question / Comment 8: People would prefer to walk. Could the TTC's mandate be to improve walking from Queens Quay to Union Station?</p> | |
| | PT Response: | |
| | <ul style="list-style-type: none">This is an EBF issue and it's being reviewed. | |
| | <p>CLC Question / Comment 9: Regarding Cherry and Parliament streets, are both corridors being considered?</p> | |
| | PT Response: | |
| | <ul style="list-style-type: none">The Cherry Street corridor is being considered, as well as the combined Cherry / Parliament Street corridor; The Parliament only option has been screened out as it fails to meet the minimum requirement of providing transit service to the majority of future WDL inhabitants within 500m. | |
| | <p>CLC Question / Comment 10: Can you do a postal drop to the 5000 condo owners for WDL & EBF (to every single owner) i.e. from York Street to Parliament or Queens Quay?</p> | |
| | PT | |
| | <ul style="list-style-type: none">Request will be taken under consideration. | |
| | NEXT STEPS | |
| | <ul style="list-style-type: none">Public Information Centre target date: March 07 (pending ToR approval);Next CLC Meeting target date: Mid to late Feb 07 (pending ToR approval). | |

Item

Discussion

Action By

SUMMARY OF ACTION ITEMS

Action

By

The following will be provided to CLC members

- | | |
|---|------------|
| • Responses to CLC comments | • URS |
| • Travel Demand (TD) Model traffic volumes | • TTC/City |
| • TD Model assumptions between corridors | • TTC/City |
| • TD Model travel times | • TTC/City |
| • Union Station drawings | • TTC |
| • Consider postal drop to 5000 condo owners | • TWRC |

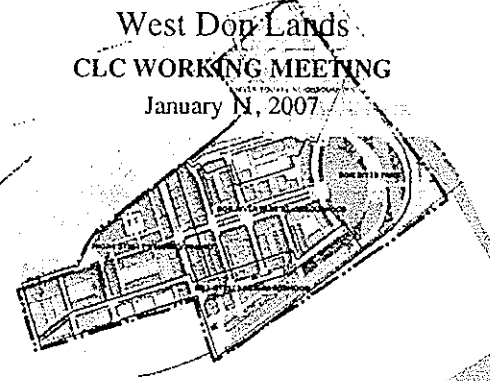
Meeting was adjourned at 8:10pm.

Minutes Prepared by: Mark Nykoluk, P.Eng.

Original signed by

West Don Lands CLC WORKING MEETING

January 11, 2007



TTC-TWRC West Don Lands
Environmental Assessment

TORONTO WATERFRONT
REDEVELOPMENT CORPORATION

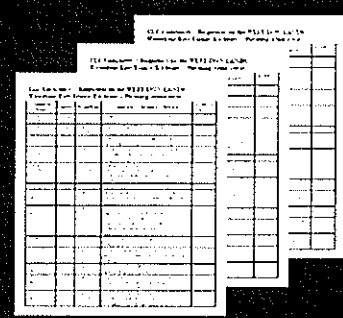
Tonight's agenda

- ToR MOE Approval Status
- Summary of Comments
- Other Business

TTC-TWRC West Don Lands
Environmental Assessment

TORONTO WATERFRONT
REDEVELOPMENT CORPORATION

Summary of comments



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Major themes for comments



Criteria

TTC-TWRC West Don Lands
Environmental Assessment

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Travel Demand / Network Issues

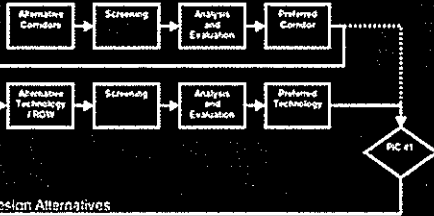
- All travel demand is based on City's Regional Model:
 - Considers waterfront as a network
 - Tests alternatives for networks

Comments on Indicators / Criteria

- To be considered and finalized once ToR is approved
- Cost is only one consideration

Detailed Design Characteristics

Planning Alternatives



Design Alternatives



APPENDIX B-3

Community Liaison Committee (CLC)

March, 2007

Meeting Date: March 1, 2007, 6:00pm

Place: TWRC Boardroom

Project Name: EAs for Transit Projects in the Eastern Waterfront

Present:

Project Team (PT)

| | |
|-----------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Mike Ronson | TTC Service Planning |
| Nigel Tahir | Toronto Transportation Planning |
| John Kelly | Toronto Transportation Services |
| Tanya Bevington | TWRC |
| Pino DiMascio | TWRC |
| Dennis Callan | MRC |
| Hank Wang | MRC |
| Alun Lloyd | BA Group |
| Brent Raymond | du Toit Allsopp Hillier |
| Mark Nykoluk | URS Canada Inc. |
| Scott Thorburn | URS Canada Inc. |

Community Liaison Committee (CLC)

| | |
|-----------------|-----------------------------|
| Julie Beddoes | Waterfront Action |
| Dennis Findlay | Port Lands Action Committee |
| Braz Menezes | YQNA / QQBIA |
| Steve Munro | |
| David Fisher | Rocket Riders |
| Margaret Samuel | CWNA & QQHBIA |
| Sharon Poitras | CWNA |
| Cynthia Wilkey | WDLC |

Regrets:

| | |
|---------------|-----------------------------------|
| Tom Davidson | Representing Councillor McConnell |
| Sylvia Pelman | SNLA |
| Helen Riley | Feet on the Street |
| Ulla Colgrass | YGNA |

Copies to : All

Purpose of meeting: CLC Working Meeting - West Don Lands Planning Alternatives

The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|--|-----------|
| 1 | Review of Minutes CLC <ul style="list-style-type: none">Please clarify bullet 4 from previous minutes: "To help with Broadview Station, some King cars may turn into the West Don Lands" | |

| Item | Discussion | Action By |
|------|---|-----------|
| 2 | <p data-bbox="256 296 293 327">PT</p> <ul data-bbox="326 338 1289 537" style="list-style-type: none"><li data-bbox="326 338 1289 537">▪ One approach would have the King 504 Streetcar diverted into the West Don Lands where it would, in the interim, run to/from the turnaround loop at the CN Overpass on its way to/from the Broadview Station; this approach would help reduce future congestion at the Broadview Station since fewer transit vehicles would need to be introduced to the system. | |
| 3 | <p data-bbox="256 632 672 663">Update of Terms of Reference</p> <p data-bbox="256 716 293 747">PT</p> <ul data-bbox="326 758 1289 863" style="list-style-type: none"><li data-bbox="326 758 1289 789">▪ The Terms of Reference was approved January 25, 2007<li data-bbox="326 800 1289 863">▪ The approved ToR can be viewed on TWRC's website: www.towaterfront.ca | |
| 4 | <p data-bbox="256 953 493 984">Public Facilitator</p> <p data-bbox="256 1037 293 1068">PT</p> <ul data-bbox="326 1079 1289 1184" style="list-style-type: none"><li data-bbox="326 1079 1289 1184">▪ Glen Pothier will be introduced to CLC members at the upcoming EBF CLC meeting March 5, 07; he will be the facilitator for the upcoming Public Workshops for both WDL and EBF projects. | |
| 5 | <p data-bbox="256 1268 802 1299">Public Workshop Dry-Run Presentation</p> <p data-bbox="256 1352 293 1383">PT</p> <ul data-bbox="326 1394 1289 1520" style="list-style-type: none"><li data-bbox="326 1394 1289 1520">▪ A dry-run was presented of the March 21, 07 Public Workshop Presentation including the analysis and evaluation of planning alternatives, as well as responses to comments received to date from the CLC. Discussion followed. | |
| 5 | <p data-bbox="256 1619 586 1650">Discussion / Comments</p> <p data-bbox="256 1703 472 1734">CLC Comment 1</p> <ul data-bbox="326 1745 1289 1839" style="list-style-type: none"><li data-bbox="326 1745 1289 1839">▪ If it is assumed that WDL utilizes the King Streetcar, what effect does this have on the 8000 transit travellers using the tunnel to Union Station? | |
| | PT | |

| Item | Discussion | Action By |
|------|--|-----------|
| | <ul style="list-style-type: none">▪ The 8000 transit volume includes travellers from the WDL, EBF and Portlands. | |
| | <p>CLC Comment 2</p> <ul style="list-style-type: none">▪ The transit priority slide might make people upset, since the example used is at a location where transit priority is perceived as less effective than it could be. | |
| | <p>PT</p> <ul style="list-style-type: none">▪ The image will be replaced with one representing operations at King and Bathurst. | |
| | <p>CLC Comment 3</p> <ul style="list-style-type: none">▪ What is considered in the City's demand forecasting model? | |
| | <p>PT</p> <ul style="list-style-type: none">▪ Population and employment is based on full build-out (2031). | |
| | <p>CLC Comment 4</p> <ul style="list-style-type: none">▪ Can the material contained in the model be provided to the CLC? | |
| | <p>PT</p> <ul style="list-style-type: none">▪ This material will be made available. | |
| | <p>CLC Comment 5</p> <ul style="list-style-type: none">▪ Who is priority order of public policy? | |
| | <p>PT</p> <ul style="list-style-type: none">▪ City Council is decision-making authority. | |
| | <p>CLC Comment 6 (a)</p> <ul style="list-style-type: none">▪ CT4 question meant how much headroom in winter do you need for those cyclists from the summer (i.e. transit use goes up in good weather)? | |
| | <p>PT</p> <ul style="list-style-type: none">▪ Point noted. A.L. to respond. | |
| | <p>CLC Comment 6 (b)</p> <ul style="list-style-type: none">▪ CT10: How reduced is reduced (i.e. what is % reduction)? | |
| | <p>PT</p> <ul style="list-style-type: none">▪ That is why we're leaving streetcars in mixed traffic is carried forward. | |
| | <p>General Comment</p> <ul style="list-style-type: none">▪ CT26: Some _____ are just answers only, not action items. | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <p>PT</p> <ul style="list-style-type: none">Will add. 4 – answer provided. | |
| | <p>CLC Comment 7</p> <ul style="list-style-type: none">Analysis of 4 technologies – question the use of dots especially considering a 4 block corridor (i.e. need to provide significance of the issues). | |
| | <p>PT</p> <ul style="list-style-type: none">Will discuss the per lane capacity of mixed vs. dedicated. The next phase needs to carry forward. | |
| | <p>CLC Comment 8</p> <ul style="list-style-type: none">Make titles larger | |
| | <p>PT</p> <ul style="list-style-type: none">Will do. | |
| | <p>CLC Comment 9</p> <ul style="list-style-type: none">Turn at top of _____ is a constraint. | |
| | <p>PT</p> <ul style="list-style-type: none">Will be added to list of considerations. | |
| | <p>CLC Comment 10</p> <ul style="list-style-type: none">Traffic projections for Cherry Street are there existing peak traffic loads (i.e. if we build it, they will come). | |
| | <p>PT</p> <ul style="list-style-type: none">??? | |
| | <p>CLC Comment 11</p> <ul style="list-style-type: none">Transit priority is effective is not working, can it be identified? | |
| | <p>PT</p> <ul style="list-style-type: none">??? | |
| | <p>CLC Comment 12</p> <ul style="list-style-type: none">Where is connection from WDL to EBF and where is the loop? | |
| | <p>PT</p> <ul style="list-style-type: none">This is a location specific need, i.e. south of the CN tracks.The _____ plan has identified the loop location.Other locations will be investigated.Scope of this EA is a design that connects onto Cherry / Queens Quay. | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <ul style="list-style-type: none">▪ May need an amending formula in this EA. | |
| | CLC Comment 13 | |
| | <ul style="list-style-type: none">▪ Pg. 15 – add comment # CT79B regarding Parliament St. | |
| | PT | |
| | <ul style="list-style-type: none">▪ Don Mills Transit EA will address Parliament | |
| | CLC Comment 14 | |
| | <ul style="list-style-type: none">▪ Seems unfair to downgrade mixed traffic on 3 blocks.▪ Is traffic from the north (King) or from the re-routed Bayview extension?▪ Can imagine if Cherry is closed that it would cause great disruption | |
| | PT | |
| | <ul style="list-style-type: none">▪ Alun: will provide “who” is using Cherry and why they need to use Cherry and where are they going (the 1300 – 1600 car vehicles). | |
| | CLC Comment 15 | |
| | <ul style="list-style-type: none">▪ Can we have capital cost #'s? | |
| | PT | |
| | <ul style="list-style-type: none">▪ We recognize there's a trade off but didn't think it's a determining factor | |
| | CLC Comment 16 | |
| | <ul style="list-style-type: none">▪ Hydrogen buses not considered. | |
| | PT | |
| | <ul style="list-style-type: none">▪ C36, D11 were considered. | |
| | CLC Comment 17 | |
| | <ul style="list-style-type: none">▪ Buses in dedicated ROW eliminated not clear. | |
| | PT | |
| | <ul style="list-style-type: none">▪ Dedicated gets a point▪ Anything that doesn't incur a transfer gets a point as well▪ Buses in mixed – “0”, buses in dedicated – “1”▪ The summary tables go in details. | |
| | CLC Comment 18 | |
| | <ul style="list-style-type: none">▪ There are a number of issues that I'd like to discuss. I'd prefer to have everyone hear my comments. | |
| | PT | |
| | <ul style="list-style-type: none">▪ We can arrange to meet and discuss. | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <p>CLC Comment 19</p> <ul style="list-style-type: none">CT50: barriers <p>PT</p> <ul style="list-style-type: none">I will change. | |
| | <p>CLC Comment 20</p> <ul style="list-style-type: none">CT51: My comment not addressed <p>PT</p> <ul style="list-style-type: none">New track makes a huge difference. <p>Our comment is that buses are better.</p> | |
| | <p>CLC Comment 21</p> <ul style="list-style-type: none">CT52: disagree with response. | |
| | <p>CLC Comment 22</p> <ul style="list-style-type: none">CT53: disagree with response. <p>PT</p> <ul style="list-style-type: none">We're comparing hydrogen buses to best technologies. | |
| | <p>CLC Comment 23</p> <ul style="list-style-type: none">CT54: We're talking about re-fueling. <p>PT</p> <ul style="list-style-type: none">Key elements (maintenance is re-fueling).Want to do the maintenance. | |
| 6 | <p>Next Steps</p> <ul style="list-style-type: none">March 21, 07 Public Workshop No. 1;CLC to provide comments on material presented tonight;The second Public Workshop is tentatively scheduled for June. | CLC |

Meeting was adjourned at 8:30pm.

Minutes Prepared by: Mark Nykoluk, P.Eng.

Original signed by

APPENDIX B-4

Community Liaison Committee (CLC)

May, 2007



**WEST DON LANDS TRANSIT EA
COMMUNITY LIAISON COMMITTEE MEETING
AGENDA**

Project: TTC-TWRC Waterfront Transit Environmental Assessments

Date: May 1, 2007

Time: 6:00 – 8:00 pm

Location: TWRC Board Room, 20 Bay Street

Item

1. Review of Minutes

2. CWNA Change in Representative to Daniel Belanger

3. Update Project Status and Future Meetings

4. Presentation of Consultant Team on Initial Work on Design Alternatives for Cherry Street and Assessment Criteria

5. CLC Comments on Design Alternatives

6. CLC Comments on Assessment Criteria

Meeting Date: May 1, 2007, 6:00pm

Place: TWRC Boardroom

Project Name: EAs for Transit Projects in the Eastern Waterfront

Present:

Project Team (PT)

| | |
|-----------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Mike Ronson | TTC Service Planning |
| Nigel Tahir | Toronto Transportation Planning |
| John Kelly | Toronto Transportation Services |
| Dennis Callan | MRC |
| Hank Wang | MRC |
| Brent Raymond | du Toit Allsopp Hillier |
| Scott Thorburn | URS Canada Inc. |
| John Hillier | du Toit Allsopp Hillier |
| Tanya Bevington | TWRC |
| Alun Lloyd | BA Group |

Community Liaison Committee (CLC)

| | |
|----------------|-----------------------------------|
| Steve Munro | |
| David Fisher | Rocket Riders |
| Cynthia Wilkey | WDLC |
| Tom Davidson | Representing Councillor McConnell |

Regrets:

| | |
|-----------------|-----------------------------|
| Julie Beddoes | Waterfront Action |
| Sylvia Pelman | SNLA |
| Helen Riley | Feet on the Street |
| Ulla Colgrass | YGNA |
| Dennis Findlay | Port Lands Action Committee |
| Braz Menezes | YQNA / QQBIA |
| Margaret Samuel | CWNA / QQHBIA |
| Sharon Poitras | CWNA |
| Pino DiMascio | TWRC |
| Moderator | |

Copies to : All

Purpose of meeting: CLC Working Meeting - West Don Lands Design Alternatives and PIC recap

The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|---|-----------|
| 1. | Review of Minutes No minutes were issued for last meeting as the agenda was dedicated to a dry run of the PIC#1 presentation. | |
| 2. | CWNA Change in Representative to Daniel Belanger | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <p>Daniel was introduced to the CLC. A petition requesting that both projects consider Hydrogen powered buses only as the preferred technology was provided (attached to minutes).</p> <p>PT received the petition, though noted that WDL has gone past point of planning alternatives stage.</p> | |
| 3. | <p>Update Project Status and Future Meetings</p> <p>Next CLC Meeting – May 24th, 2007 (tentative). The purpose will be to review analysis and evaluation of the alternative designs.</p> <p>PIC #2 – June 21, 2007 (tentative).</p> <p>Report to Commission and Council in the fall of 2007.</p> | |
| 4. | <p>Presentation of Consultant Team on Initial Work on Design Alternatives for Cherry Street and Assessment Criteria</p> <ul style="list-style-type: none">• 6 design alternatives were developed during Cherry Street Community Design Charrette.• ST provided rationale behind screening out of the “median operation / median platform” alternative from the Charrette (see presentation slides attached).• ST provided an overview of summary of comments received at the public workshop and a summary of key design criteria of the transit components of the ROW at Cherry including:<ul style="list-style-type: none">▪ platforms▪ clearance to any obstruction▪ geometry• Discussion of design criteria included:<ul style="list-style-type: none"><i>Q: Why are curb lanes wider than through lane?</i>A: Curb lane includes gutter which is not driveable. Also a wider curb lane is “bike friendly” (where no on-street bike lanes are provided).<i>Q: Do the design criteria set a minimum?</i>A: They represent a “starting point” for the development of the alternatives. As we move forward, we can revisit in light of specific locations.A: A CLC member suggested that these standards are overly generous. In Europe, small roads, results in lower speeds.A: It was noted that the presentation provided an incorrect dimension for a curb lane with no bike lane (should be 4m, not 4.5m).A: BD noted that Toronto Fire Services are comfortable with these criteria. Consultation with Fire Services has been ongoing.<i>Q: Why do we need bike lane on Cherry?</i>A: Based on City's bike master plan, Cherry is designated as bike path, as it provides the most direct connection to Port Lands. Ability to accommodate bike lanes will come out in the evaluation.<i>Q: Why not Parliament instead? How does that affect Cherry as a bike lane?</i> | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <p>A: Parliament north of King can't fit bike lanes.</p> <p>A: There are issues with curb-side parking as well.</p> <p>Q: <i>Why can't a median bike lane be considered?</i></p> <p>A: Cross / conflict with traffic, requires addition phase in signal cycle to separate it from traffic. Safety issue.</p> <p>Screening criteria / design criteria for pedestrian realm includes a 1.7m clear space that provides adequate space for pedestrian movement. However, there are other things, other than clear path, that must be considered. Space required for poles, hydrants, trees, snow storage, this is another 1.6m.</p> <p>These standards help guide the development of alternatives. TWRC has also been working on a lot of design work for projects such as WDL.</p> <p>In summary, the project team is considering 7 design alternatives:</p> <ul style="list-style-type: none">▪ 5 from Cherry Street Charrette▪ 1 "mirror image" of 1 at Charrette design▪ 1 from WDL master plan (original base line) <p>For the 5 alternatives that were developed by the community, a number of issues were identified by the project team. The options therefore have been refined. Each modification was discussed. In general, the community in attendance agreed that the intent from the Charrette options has been preserved. Specific discussion of each option is described below:</p> <p><u>Option 1 – Transit in mixed lanes (one per direction)</u></p> <p>Q: <i>Question about possible use of continuous centre lane for fire trucks to park and raise ladders.</i></p> <p>A: Yes, this is usable by fire. Overhead power is cut if in the way (as per King Street).</p> <p><u>Option 2 – Transit in mixed lanes (two per direction)</u></p> <ul style="list-style-type: none">• curb lane can be diamond lane or mixed use• parking laybys were eliminated to provide priority operations for transit• haven't shown median bike lane as proposed at Charrette• median space can be eliminated to provide more space for sidewalk instead <p><u>Option 3 – Transit on east side</u></p> <ul style="list-style-type: none">• close local road connection to Cherry due to operation constraint – too close to intersection and transit R.O.W.• clockwise loop operation<ul style="list-style-type: none">▪ not feasible to put transit in one rail bridge portal opening▪ 18m radii is desirable due to minimizing noise, but can go down lower (i.e. 15m for Union loop). This is a possible refinement of the preferred at a later stage. | |

| Item | Discussion | Action By |
|------|--|-----------|
| | <p><u>Option 4 – Transit on west side</u></p> <ul style="list-style-type: none"> • mirror of Option 3 • possible connection alternative at top end of Cherry / King are illustrated. However, these types of options can be explored for all alternatives. <p><u>Option 5 – Transit in median (one lane per direction)</u></p> <ul style="list-style-type: none"> • can accommodate through lane with bike lane • wide median between transit tracks can be reduced to allocate space to pedestrian realm <p><u>Option 6 – Transit Mall</u></p> <ul style="list-style-type: none"> • Front only cross street • Mill is a T intersection • traffic volume within study area is considered to be constant, therefore traffic reassigned elsewhere in the local road network • Bollards to delineate streetcar operation zone • platform location for consistency with other options – potential to introduce at other locations • combining pedestrian and cyclists is not considered a good idea <p><u>Option 7 – Precinct Plan</u></p> <ul style="list-style-type: none"> • not assessed by community • from WDL master plan | |
| 5. | <p>CLC Comments on Design Alternatives</p> <p>The general consensus was that the modifications by URS to the Community Design Charrette’s alternatives are consistent with the original intent of each alternative.</p> <p>URS to forward digital versions of plans to CLC members.</p> | URS |
| 6. | <p>CLC Comments on Assessment Criteria</p> <p>Draft assessment / evaluation measures for analysis of design alternatives were distributed for CLC’s review and comment. Comments from CLC on measures should be forwarded to the project team by May 8th.</p> | CLC |
| | <p>Meeting was adjourned at 8:00pm.</p> | |
| | <p>Minutes Prepared by: Scott Thorburn, P.Eng.</p> | |

West Don Lands

CLC Meeting

May 1, 2007

RIVER SQUARE NEIGHBOURHOOD

DON RIVER PARK

DON RIVER PARK NEIGHBOURHOOD

FRONT STREET NEIGHBOURHOOD

MILL STREET NEIGHBOURHOOD



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TTC-TWRC West Don Lands
Environmental Assessment



TORONTO WATERFRONT
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Agenda

- Review Technical Recommendations and Public Responses for Planning Alternatives
- Confirm Preferred Planning Alternative
- Comments on Design Alternatives
- Design Criteria
- Alternative Designs to be considered
- Analysis measures used in assessing alternative designs
- Other Business



TTC-TWRC West Don Lands
Environmental Assessment



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EA Public Workshop No. 1

March 21, 2007

45 of attendees
5 groups during workshop



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Topics discussed

- Overview of approved Terms of Reference
- Planning analysis and preliminary recommendations
- Issues to be considered in the development of alternative designs



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Analysis of Planning Alternatives

Corridor



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Corridor evaluation

| Objectives | Cherry Street | Cherry / Front / Parliament | Cherry and Parliament |
|----------------|---------------|-----------------------------|-----------------------|
| Land Use | ● | ◐ | ○ |
| Transportation | ◐ | ○ | ● |
| Socio-Economic | ● | ◐ | ○ |
| Natural | ● | ● | ● |
| Cultural | ● | ◐ | ◐ |
| Cost | ● | ◐ | ○ |
| OVERALL | ● | ◐ | ○ |



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Comments Received on Cherry as Preferred Corridor

- 4 out of 5 groups agreed
 - Centre of neighbourhood
 - Ability to expand in future
 - Most cost effective plan



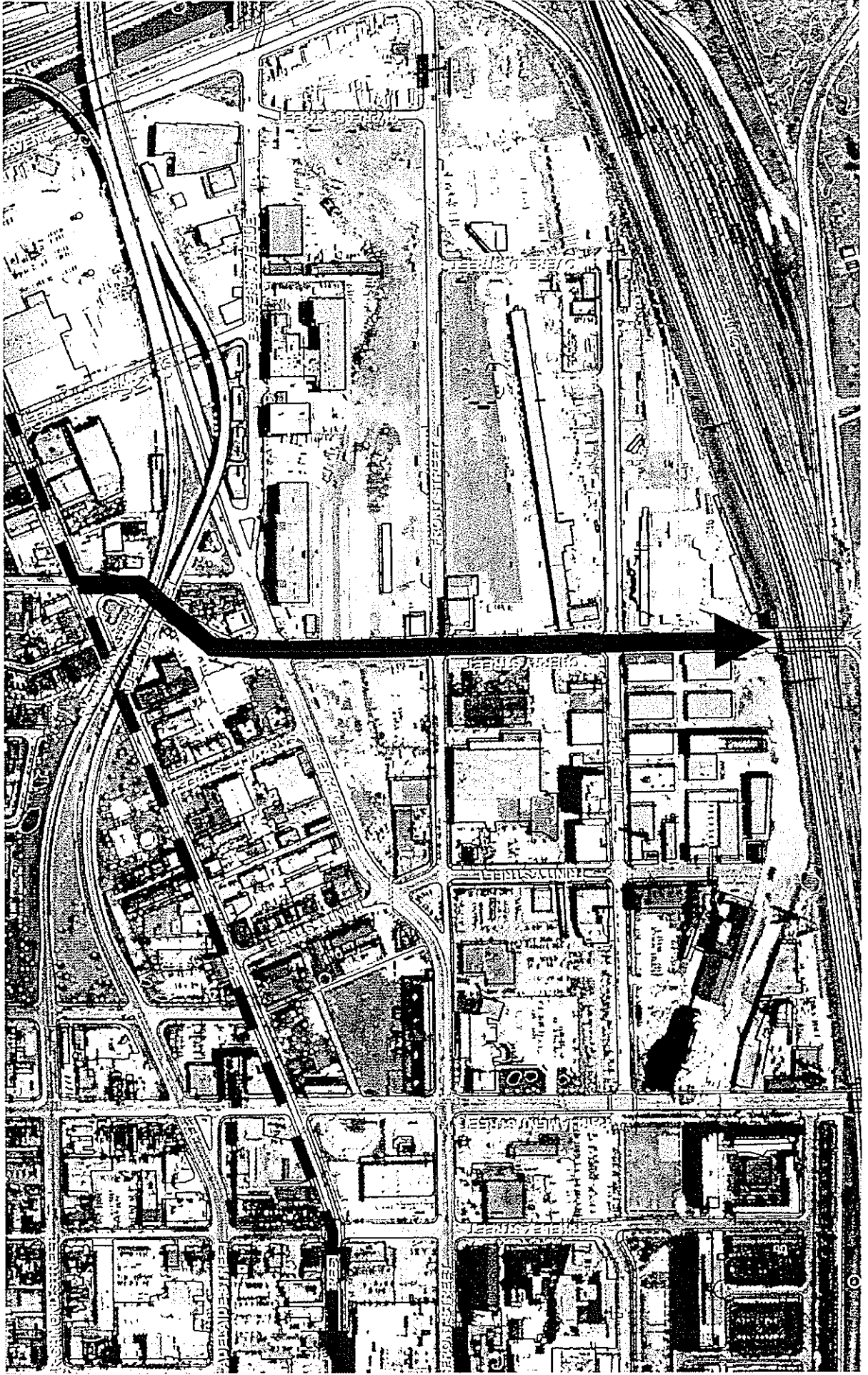
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Technically Preferred Corridor - Cherry



Analysis of Planning Alternatives

Technology / ROW



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Technology / R.O.W. Evaluation

| Objectives | Bus Mixed Traffic | Streetcar Mixed Traffic | Streetcar Dedicated ROW | Bus Dedicated ROW |
|----------------|-------------------|-------------------------|-------------------------|-------------------|
| Land Use | | | | |
| Transportation | | | | |
| Socio-Economic | | | | |
| Natural | | | | |
| Cultural | | | | |
| Cost | | | | |
| OVERALL | | | | |



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Comments Received on Streetcar as Technology

- 3 out of 5 groups agreed
 - Rider comfort
 - No local emissions
 - Connects well with existing network
 - Dedicated right of way a good idea
 - Consider transit in mixed traffic



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Preferred Technology and Right of Way

- Preferred Technology: Streetcar
- Preferred Right of Way: Transit Priority,
*either through dedicated right of way or by
other means*



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Development of Design Alternatives



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Public Comments on Design Issues

- Provide adequate vehicle access for residents
- Curb to curb should be minimized
- Pedestrians should have priority



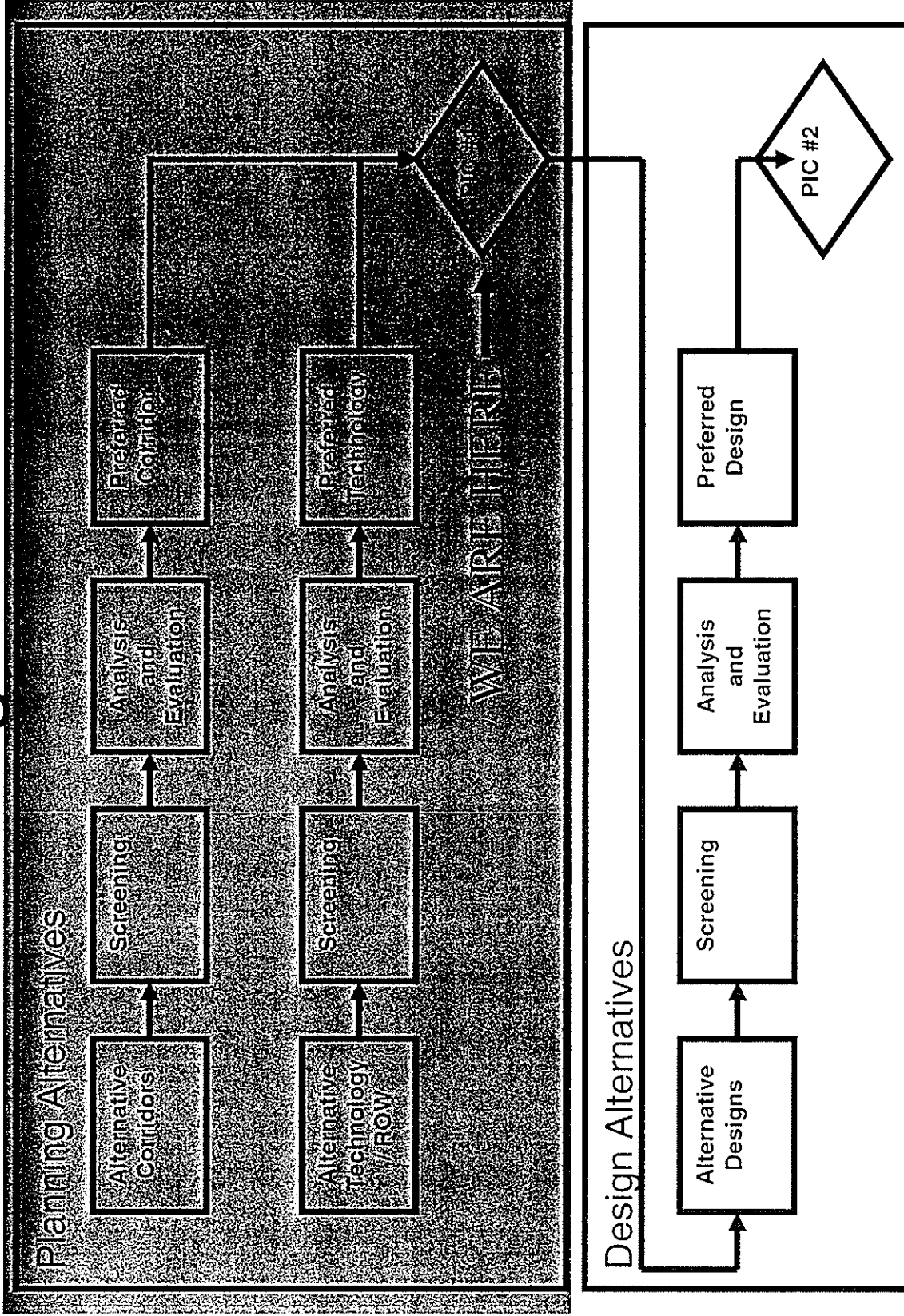
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Decision Making Process from ToR



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Screening / Design Criteria

- Transit
- Road (vehicles and bicycles)
- Pedestrian Realm



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Screening / Design Criteria

Transit Components

Platforms

| | |
|-------------|-------------------------|
| width | 2.4 m |
| length | 30.0 m |
| location | right side of vehicle |
| safety zone | no stopping within 15 m |

Clearance to any obstruction

| | |
|----------|--------|
| Inside | 1.53 m |
| Outside | 1.8 m |
| Vertical | 4.0 m |

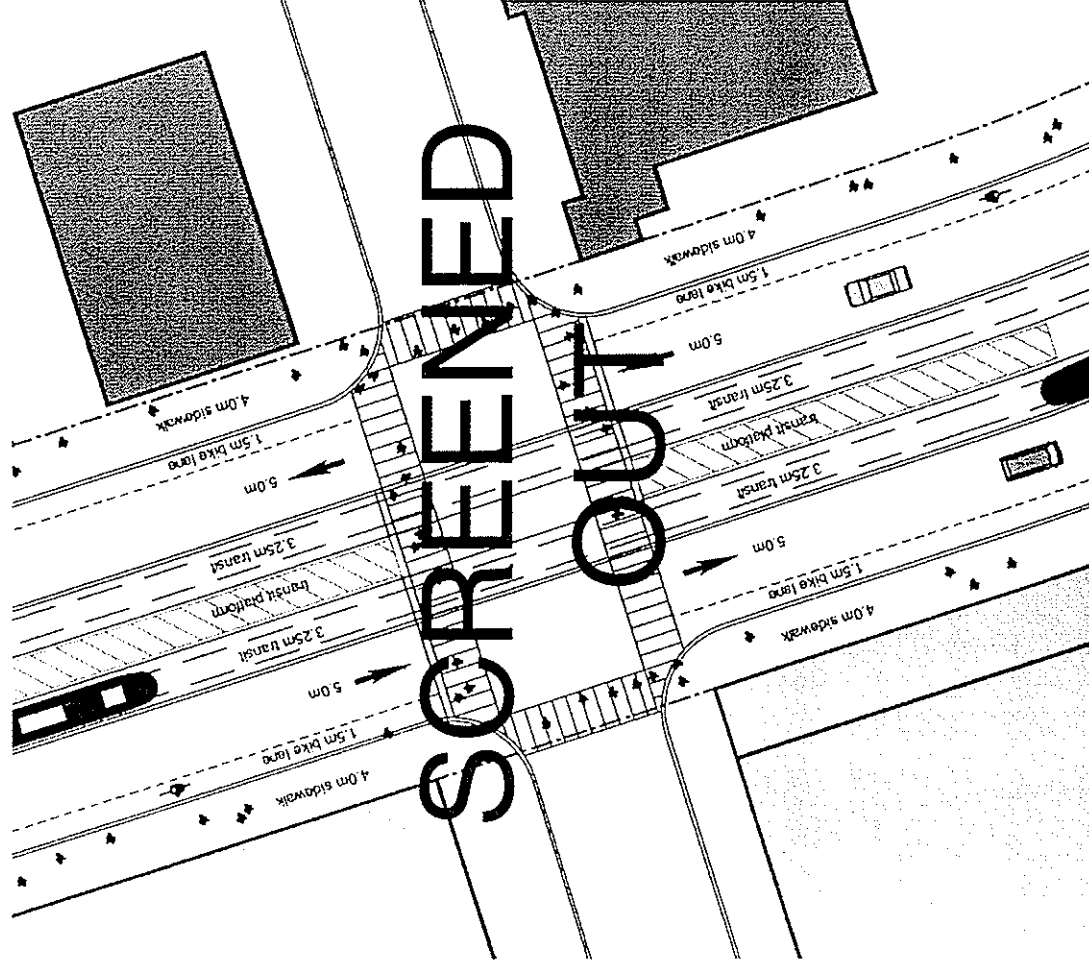
Geometry

| | |
|----------------|--------|
| Curve Radii | 18 m |
| Tangent (min.) | 12 m |
| Track Centres | 3.12 m |
| Centre Pole | 0.6 m |



Median operation / Median platform

- Shared middle platform will need to be wider – reduces space saving
- Right side doors requires contra-flow operation:
 - Atypical for pedestrians and motorists – safety
 - Atypical for transit riders
 - Non-standard track cross overs at King Street
- Limited Community Support



TTC-TWRC West Don Lands
Environmental Assessment



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Screening / Design Criteria

Road Components

| | |
|--|-------|
| Through Lanes | |
| curb lane, with no bike lane | 4.5 m |
| curb lane with bike lane | 3.5 m |
| additional lanes | 3.3 m |
| <i>Distance between any curbs must be greater than 5.0 m</i> | |
| Turn Lanes | |
| median (if provided) | 1.5 m |
| left turn lane | 3.2 m |
| right turn lanes | 3.2 m |
| Taper ratios (for turn lanes) | 10:1 |
| Bike Lane | 1.8 m |
| Lay-by parking | 2.5 m |



URS

Screening / Design Criteria

Pedestrian Realm

| | |
|---------------------|-------|
| Sidewalk clear zone | 1.7 m |
| Tree pit opening | 1.6 m |



URS

Design alternatives

- **Option 1: Mixed Traffic**
- **Option 2: Mixed Transit Outside Lane**
- **Option 3: Dedicated Transit East Side**
- **Option 4: Dedicated Transit West Side**
- **Option 5: Dedicated Transit Median, 1 traffic lane per direction**
- **Option 6: Transit Mall**
- **Option 7: Dedicated Transit Median, 2 traffic lanes per direction (WDL Master Plan)**



URS

TTC-TWRC West Don Lands
Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

SEE PLANS ON WALL



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Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Analysis Measures

- Table as hand out



URS

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Environmental Assessment



TORONTO WATERFRONT
REVITALIZATION CORPORATION

Next Steps

- Next CLC Meeting – **May 29th, 2007**
 - Review analysis and evaluation
- PIC #2 – June 21, 2007
- Commission and Council in the fall of 2007



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Environmental Assessment



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West Don Lands
CLC Meeting
May 1, 2007

URS
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 Environmental Assessment
 TORONTO WATERFRONT
 REHABILITATION CORPORATION

EA Public Workshop No. 1
March 21, 2007

45 of attendees
 5 groups during workshop

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 Environmental Assessment
 TORONTO WATERFRONT
 REHABILITATION CORPORATION

Agenda

- Review Technical Recommendations and Public Responses for Planning Alternatives
- Confirm Preferred Planning Alternative
- Comments on Design Alternatives
- Design Criteria
- Alternative Designs to be considered
- Analysis measures used in assessing alternative designs
- Other Business

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 TORONTO WATERFRONT
 REHABILITATION CORPORATION

Topics discussed

- Overview of approved Terms of Reference
- Planning analysis and preliminary recommendations
- Issues to be considered in the development of alternative designs

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 Environmental Assessment
 TORONTO WATERFRONT
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Analysis of Planning Alternatives

Corridor

Comments Received on Cherry as Preferred Corridor

- 4 out of 5 groups agreed
 - Centre of neighbourhood
 - Ability to expand in future
 - Most cost effective plan

Corridor evaluation

| Objectives | Cherry Street | Cherry / Front / Parliament | Cherry and Parliament |
|----------------|---------------|-----------------------------|-----------------------|
| Land Use | ● | ○ | ○ |
| Transportation | ● | ○ | ● |
| Socio-Economic | ● | ○ | ○ |
| Natural | ● | ● | ● |
| Cultural | ● | ○ | ○ |
| Cost | ● | ○ | ○ |
| OVERALL | ● | ○ | ○ |

Technically Preferred Corridor - Cherry



Analysis of Planning Alternatives

Technology / ROW

Comments Received on Streetcar as Technology

- 3 out of 5 groups agreed
 - Rider comfort
 - No local emissions
 - Connects well with existing network
- Dedicated right of way a good idea
- Consider transit in mixed traffic

Technology / R.O.W. Evaluation

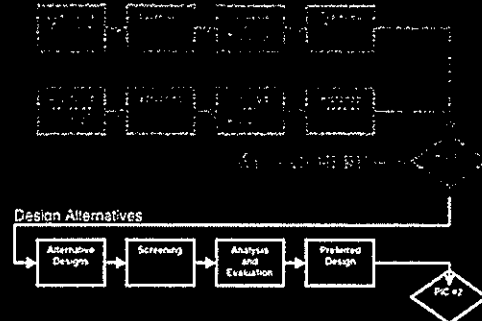
| Objectives | Bus Mixed Traffic | Streetcar Mixed Traffic | Streetcar Dedicated ROW | Bus Dedicated ROW |
|----------------|-------------------|-------------------------|-------------------------|-------------------|
| Land Use | ● | ● | ● | ● |
| Transportation | ● | ● | ● | ● |
| Socio-Economic | ● | ● | ● | ● |
| Natural | ● | ● | ● | ● |
| Cultural | ● | ● | ● | ● |
| Cost | ● | ● | ● | ● |
| OVERALL | ● | ● | ● | ● |

Preferred Technology and Right of Way

- Preferred Technology: Streetcar
- Preferred Right of Way: Transit Priority, *either through dedicated right of way or by other means*

Development of Design Alternatives

Decision Making Process from ToR



Public Comments on Design Issues

- Provide adequate vehicle access for residents
- Curb to curb should be minimized
- Pedestrians should have priority

Screening / Design Criteria

- Transit
- Road (vehicles and bicycles)
- Pedestrian Realm

Screening / Design Criteria Transit Components

Platforms

| | |
|-------------|-------------------------|
| width | 2.4 m |
| length | 30.0 m |
| location | right side of vehicle |
| safety zone | no stopping within 15 m |

Clearance to any obstruction

| | |
|----------|--------|
| Inside | 1.53 m |
| Outside | 1.8 m |
| Vertical | 4.0 m |

Geometry

| | |
|----------------|--------|
| Curve Radii | 18 m |
| Tangent (min.) | 12 m |
| Track Centres | 3.12 m |
| Centre Pole | 0.6 m |



Screening / Design Criteria Road Components

Through Lanes

| | |
|------------------------------|-------|
| curb lane, with no bike lane | 4.5 m |
| curb lane with bike lane | 3.5 m |
| additional lanes | 3.3 m |

Distance between any curbs must be greater than 5.0 m

Turn Lanes

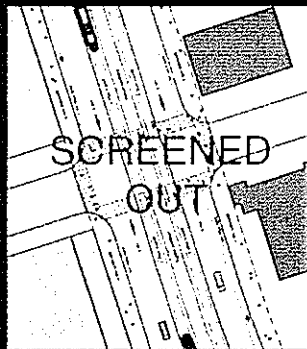
| | |
|-------------------------------|-------|
| median (if provided) | 1.5 m |
| left turn lane | 3.2 m |
| right turn lanes | 3.2 m |
| Taper ratios (for turn lanes) | 10:1 |

| | |
|----------------|-------|
| Bike Lane | 1.8 m |
| Lay-by parking | 2.5 m |



Median operation / Median platform

- Shared middle platform will need to be wider – reduces space saving
- Right side doors requires contra-flow operation:
 - Atypical for pedestrians and motorists – safety
 - Atypical for transit riders
 - Non-standard track cross overs at King Street
- Limited Community Support



TTC-TWRC Wood Don Latta
Environmental Agreement



Screening / Design Criteria Pedestrian Realm

| | |
|---------------------|-------|
| Sidewalk clear zone | 1.7 m |
| Tree pit opening | 1.6 m |



Design alternatives

- Option 1: Mixed Traffic
- Option 2: Mixed Transit Outside Lane
- Option 3: Dedicated Transit East Side
- Option 4: Dedicated Transit West Side
- Option 5: Dedicated Transit Median, 1 traffic lane per direction
- Option 6: Transit Mall
- Option 7: Dedicated Transit Median, 2 traffic lanes per direction (WDL Master Plan)



Analysis Measures

- Table as hand out



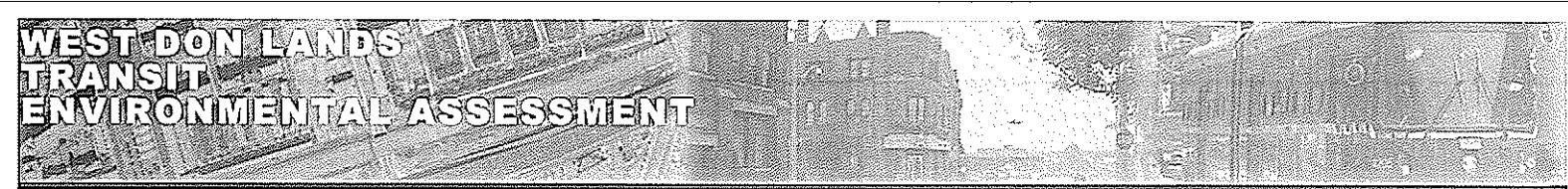
SEE PLANS ON WALL



Next Steps

- Next CLC Meeting – May 29th, 2007
– Review analysis and evaluation
- PIC #2 – June 21, 2007
- Commission and Council in the fall of 2007





APPENDIX B-5

Community Liaison Committee (CLC)

June, 2007



**CHERRY STREET
WATERFRONT TORONTO BRIEFING
JUNE 19, 2007**

Presentation agenda

- Progress to date
- Design alternatives considered
- Screening Process – Long List to Short List
- Short list of alternatives
- Next actions

Progress to Date

Analysis of Planning Alternatives

Corridor

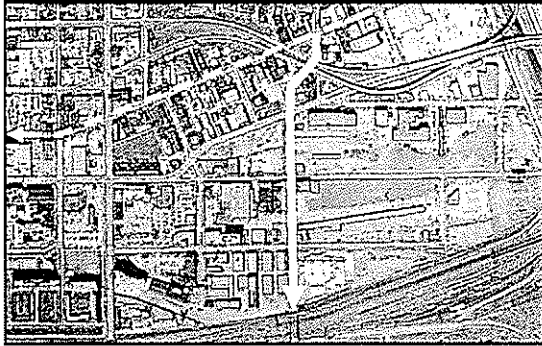
Corridor evaluation

| Objectives | Cherry Street | Cherry / Front / Parliament | Cherry and Parliament |
|----------------|---------------|-----------------------------|-----------------------|
| Land Use | ● | ○ | ○ |
| Transportation | ○ | ○ | ● |
| Socio-Economic | ● | ○ | ○ |
| Natural | ● | ● | ● |
| Cultural | ● | ○ | ○ |
| Cost | ● | ○ | ○ |
| OVERALL | ● | ○ | ○ |

Comments Received on Cherry as Preferred Corridor

- 4 out of 5 groups agreed
 - Centre of neighbourhood
 - Ability to expand in future
 - Most cost effective plan

Technically Preferred Corridor - Cherry



Analysis of Planning Alternatives

Technology / ROW

Technology / R.O.W. Evaluation

| Objectives | Bus Mixed Traffic | Streetcar Mixed Traffic | Streetcar Dedicated ROW | Bus Dedicated ROW |
|----------------|-------------------|-------------------------|-------------------------|-------------------|
| Land Use | ● | ● | ● | ● |
| Transportation | ● | ● | ● | ● |
| Socio-Economic | ● | ● | ● | ● |
| Natural | ● | ● | ● | ● |
| Cultural | ● | ● | ● | ● |
| Cost | ● | ● | ● | ● |
| OVERALL | ● | ● | ● | ● |

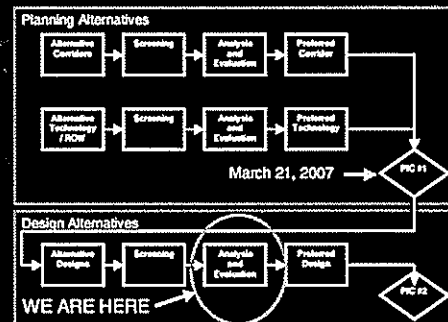
Comments Received on Streetcar as Technology

- 3 out of 5 groups agreed
 - Rider comfort
 - No local emissions
 - Connects well with existing network
- Dedicated right of way a good idea
- Consider transit in mixed traffic

Recommendations for Planning Alternatives

- Preferred Corridor: Cherry Street
- Preferred Technology: Streetcar
- Preferred Right of Way: Transit Priority, *either through dedicated right of way or by other means*

Decision Making Process from ToR



Design Alternatives

A Recap: the Master Plan

- Transit in Median
- 2 traffic lanes per direction
- Bike Lanes south of Mill only
- 35m to 37m right of way
- 3.65 m to 4.85 m pedestrian realm / boulevard



Updates since Master Plan

- Updated traffic analysis
- Toronto Bike Plan
- Community Design Charrette

Accommodating Traffic

- Future Cherry Street
Traffic Demand 1,300 to 1,600 vehicles per hour
= one lane per direction
- Special turn lanes



Accommodating Cyclists along Cherry Street



St. George Street

Right of Way

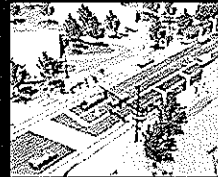
- Master Plan - 35m to 37m right of way
- Community Design Charrette (TWRC sponsored):
 - Explore opportunities to reduce overall right of way width
 - Developed 6 concepts
- Integration into EA

Streetcar Platforms

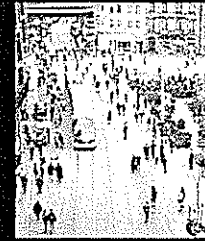
- Make streetcars accessible and improve pedestrian safety.



Design Alternatives



Transit Mixed with Traffic



Transit Mall

Design Alternatives



Dedicated Transit In Middle



Dedicated Transit at Side

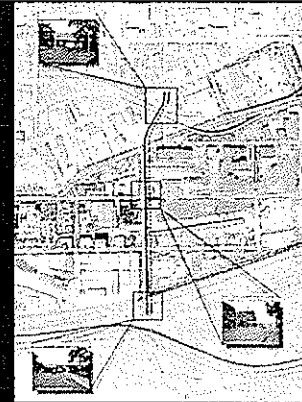


Dedicated Transit on Other Side

Constraints

- *Sumach under Richmond Adelaide*
- *CN Police and Canary Restaurant*
- *Distillery District*
- *Existing and proposed intersecting streets*
- *Rail underpass*

Develop alignment around constraints



EA Analysis Criteria

- | | | |
|---------------------------------------|------------------------------|------------------|
| | - Land Use | Priorities |
| | - Urban Design | Public Realm |
| | - Transportation | Transit Priority |
| | - Socio-Economic Environment | |
| Avoiding constraints minimizes issues | - Natural Environment | |
| | - Cultural Environment | |
| | - Cost | |

Long List of Alternatives Considered (a recap)

- Mixed Traffic
- Dedicated Transit Outside Lane
- Dedicated Transit East Side
- Dedicated Transit West side
- Dedicated Transit in Median – 2 lanes
- Transit Mall
- Dedicated Transit In Median – 4 lanes (from the WDL Master Plan)

Long List to Short List Screening Process

- Alternative must provide Transit Priority
- Results in a ROW significantly less than the WDL EA Master Plan
- Provides Connections and Accessibility
- Roads should remain opened

| CRITERIA | Alternative | | | | | | | DISCUSSION |
|---|-------------|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| 1. Transit Priority | X | □ | □ | □ | □ | □ | □ | Mixed traffic does not provide transit priority. |
| 2. ROW narrower than Master Plan | □ | □ | □ | □ | □ | □ | X | Master Plan ROW too wide. |
| 3. Provides Connections and Accessibility | □ | □ | □ | □ | □ | □ | □ | All options pass. |
| 4. Roads Should Remain Open | □ | □ | □ | X | □ | X | □ | Transit Mall closes Cherry Street; Transit on West Side closes local roads. |
| Summary: | X | □ | □ | X | □ | X | X | Options 2, 3 and 5 pass. |

Short Listed Options

- Transit on both sides
- Transit on East Side
- Transit in Median

Standardized approach to Alternative Design Development

- One lane per direction plus a turn lane at intersections
- Transit operating in a dedicated right of way at the same time as north south traffic
- Pedestrian Realm

URBAN DESIGN PRIORITY

Designing for spatial comfort; human scale

Making a place; not a thoroughfare

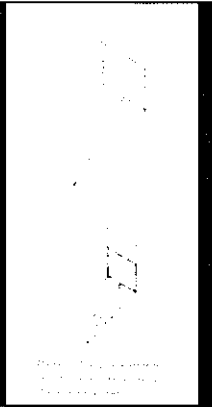
Pedestrian orientation

DIMENSIONAL DETERMINANTS OF STREET FRAME

- Human Scale across a street
- In scale with family of streets in the neighbourhood
- Ratio of width to height
- Proportion of soft to hard surfaces
- Comfortable space for walking, street-crossing

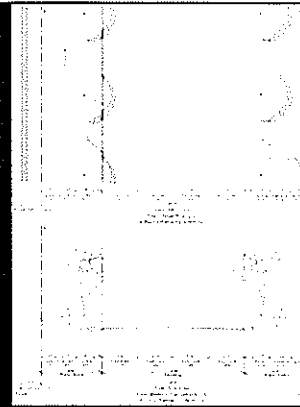
HUMAN SCALE ACROSS A STREET

- Intimate – 11m
- General – 22m



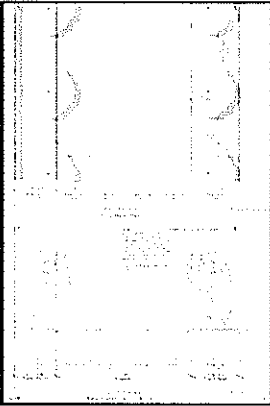
WEST DON LANDS FAMILY OF STREETS

- Front Street
 - 26.0m Public ROW
 - 6.0m Pedestrian Boulevard



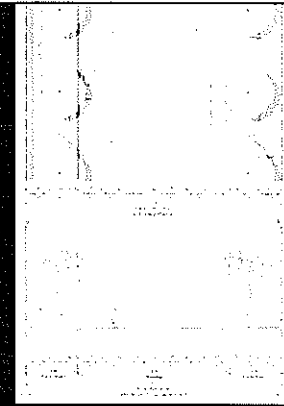
WEST DON LANDS FAMILY OF STREETS

- King Street
 - 21.1m Public ROW
 - 3.50 to 4.40m Pedestrian Boulevard



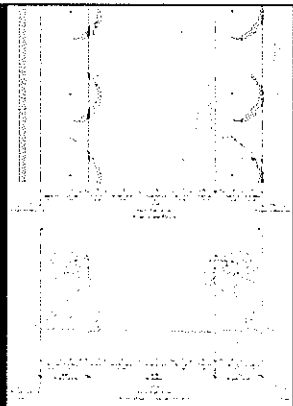
WEST DON LANDS FAMILY OF STREETS

- Mill Street
 - 25.0m Public ROW
 - 5.10m Pedestrian Boulevard



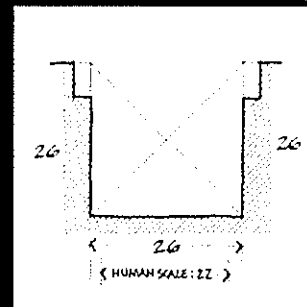
WEST DON LANDS FAMILY OF STREETS

- River Street
 - 21.6m Public ROW
 - 4.6m Pedestrian Boulevard



WIDTH:HEIGHT RATIO

- Flanking buildings are 26 m high



HARD : SOFT RATIO

| WDL Streets: Public Realm Strategy (US) | ROW (m) | Sidewalk Width Range | | PR % |
|---|--------------|----------------------|-------------|--------------|
| | | Lower | Upper | |
| Parliament | 21.6 | 3 | 4.6 | 35.2% |
| Bayview A | 30 | 2.7 | 8 | 35.7% |
| King | 21.1 | 3.5 | 4.6 | 38.4% |
| Mid | 25 | 6.1 | 5.1 | 40.8% |
| River | 21.6 | 4.6 | 4.6 | 42.6% |
| Front C | 28 | 6 | 6 | 46.2% |
| Front B | 21.72 | 4.6 | 6.55 | 51.3% |
| Local | 18 | 4.75 | 4.75 | 52.8% |
| Eastern | 20.12 | 6.56 | 6.56 | 56.3% |
| St. Lawrence | 20.1 | 6 | 6.6 | 57.7% |
| Trinity | 20.1 | 5.2 | 6.4 | 57.7% |
| AVG | 24.41 | 4.92 | 5.95 | 46.7% |

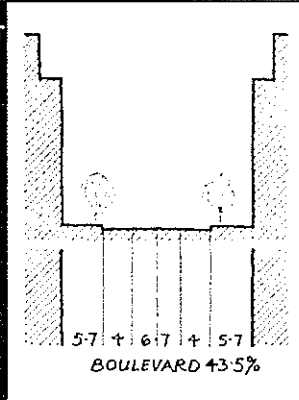
HARD : SOFT RATIO

| Existing Toronto Streets | | | | |
|--------------------------|------------------------|------------------------|------------------------|------------------------|
| Existing Walkway Width | Existing Walkway Range | Existing Walkway Range | Existing Walkway Range | Existing Walkway Range |
| Existing Walkway Width | Existing Walkway Range | Existing Walkway Range | Existing Walkway Range | Existing Walkway Range |
| Parliament | 21.6 | 3 | 3 | 27.8% |
| King East | 20.1 | 3.5 | 3.5 | 34.8% |
| Church | 20 | 4 | 4 | 40.0% |
| York | 20.4 | 3.8 | 4.4 | 40.2% |
| King West (of Spadina) | 23 | 5 | 5 | 43.5% |
| AVG | | | | 37.3% |



BOULEVARD TARGET

- 26m ROW
- 40-45% Boulevard

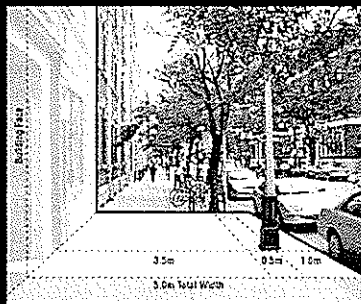


WALKING, STREET CROSSING SPACE



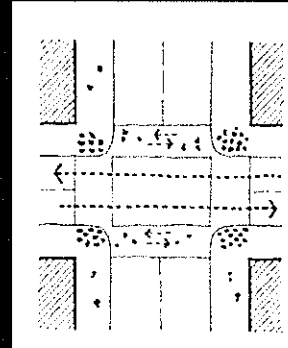
WALKING, STREET CROSSING SPACE

- Clear and open sidewalk
- Street Tree buffer to road

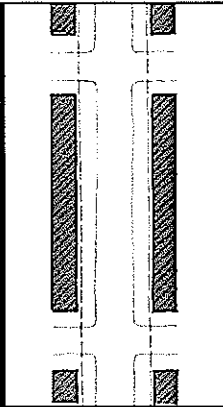


WALKING, STREET CROSSING SPACE

- Clear and open sidewalk at crossings

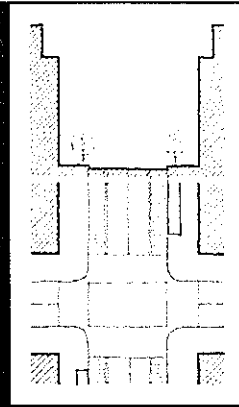


CONTINUITY OF STREET EDGE



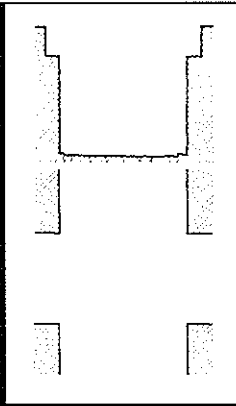
AN URBAN DESIGN PRIORITY STREET

- Human Scale across a street
- In scale with family of streets
- Ratio of width to height
- Soft to hard proportion
- Comfortable space for walking & street-crossing



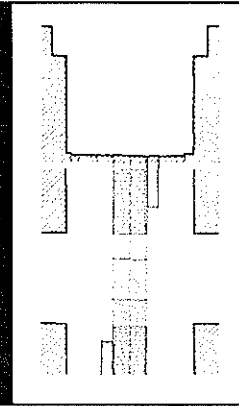
VEHICULAR MOVEMENT PRIORITY

Within urban design frame



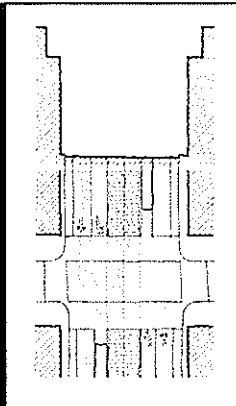
VEHICULAR MOVEMENT PRIORITY

Transit - 7.3m (with centre pole)
Platform - 2.5m



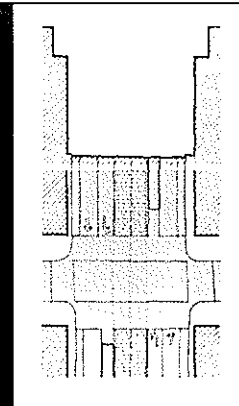
VEHICULAR MOVEMENT PRIORITY

Transit 7.3m
(with centre pole)
Platform 2.5m
Cars + Trucks 10.2m
(2 through at 3.5m,
1 turn at 3.2m)
Bicycles 3.6m
(2 at 1.8m)



VEHICULAR MOVEMENT PRIORITY

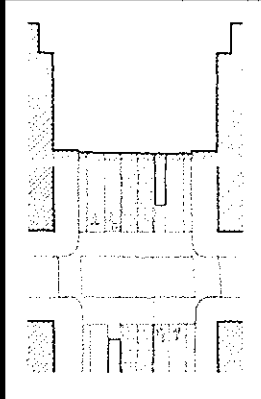
Transit 7.3m
(with centre pole)
Platform 2.5m
Cars + Trucks 10.2m
(2 through at 3.5m,
1 turn at 3.2m)
Bicycles 3.6m
(2 at 1.8m)
Total 23.6m
Remainder 2.4m
(1.2m each side)



EXPAND THE FRAME?

5 m sidewalks; 33.6 m ROW

- Provides walking/crossing space
- Not human scale
- Fails family of streets
- Fails height: width ratio
- Fails hard/soft ratio



THE GREAT CANADIAN COMPROMISE: Techniques for dimension reduction or overlap

TRANSIT

- Overlap platforms and poles on sidewalk?
- Reduce platform width in street?
- Overlap door of dynamic envelope at platform?

TRAFFIC

- Reduce lanes widths at intersections?
- Eliminate turning lanes?

BICYCLES

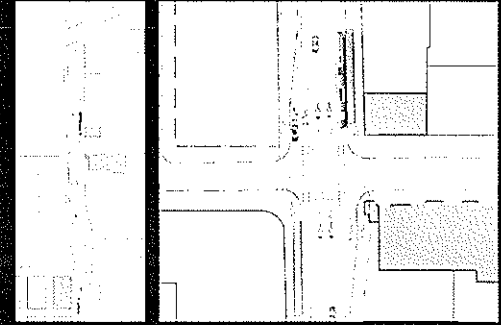
- Use 4 m "sharo" lanes?

THE GREAT CANADIAN COMPROMISE: Techniques for dimension reduction or overlap

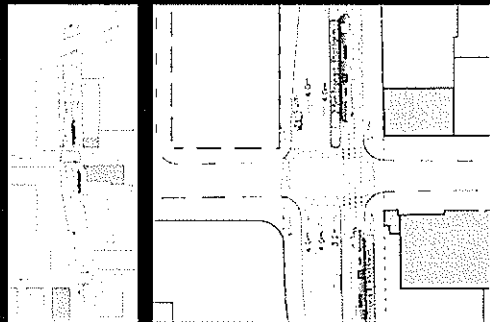
SPATIAL COMFORT

- Compromise human scale?
- Use lower width:height ratio?
- Reduce width:height ratio at intersections?
- Use lower soft:hard ratio?
- Reduce R.O.W. continuity?

OPTION 2B: EASTERN TO MILL AND FRONT INTERSECTION



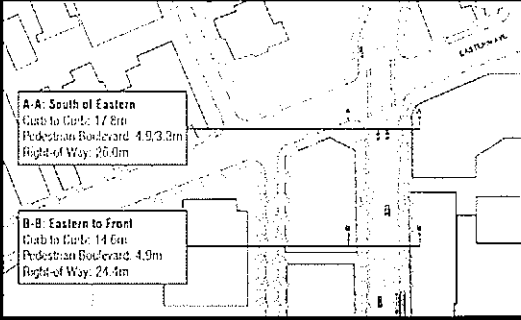
OPTION 3B: EASTERN TO MILL AND FRONT INTERSECTION



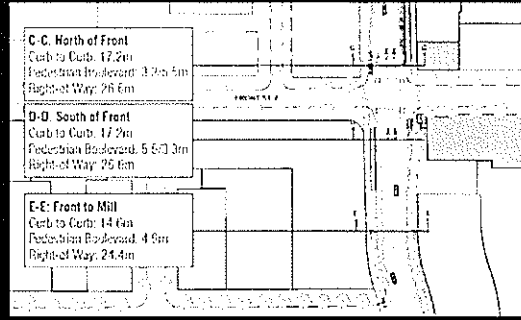
OPTION 5B: EASTERN TO MILL AND FRONT INTERSECTION



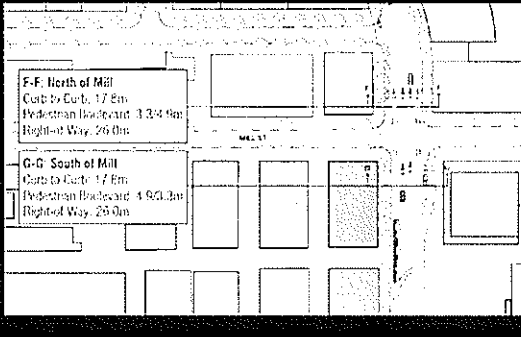
2B: TRANSIT IN OUTSIDE LANES



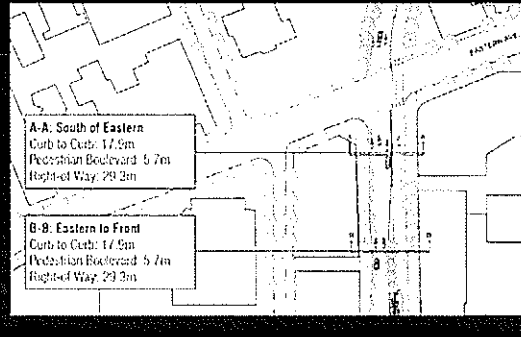
2B: TRANSIT IN OUTSIDE LANES



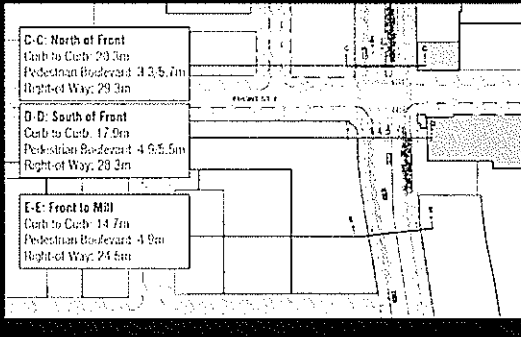
2B: TRANSIT IN OUTSIDE LANES



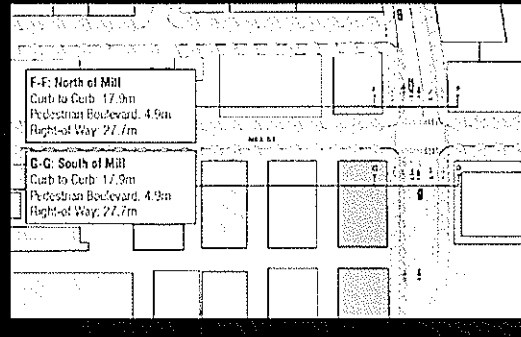
3B: DEDICATED TRANSIT EAST SIDE



3B: DEDICATED TRANSIT EAST SIDE



3B: DEDICATED TRANSIT EAST SIDE



Decision: **Table 20/00/00**

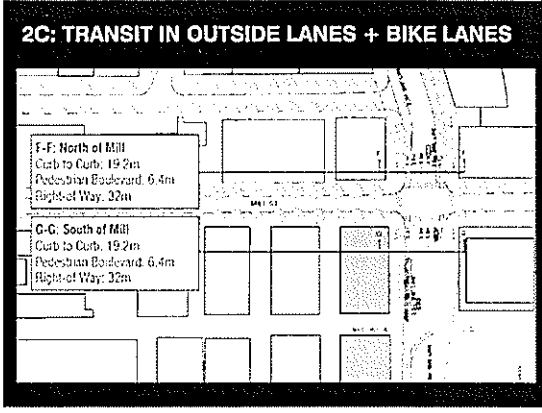
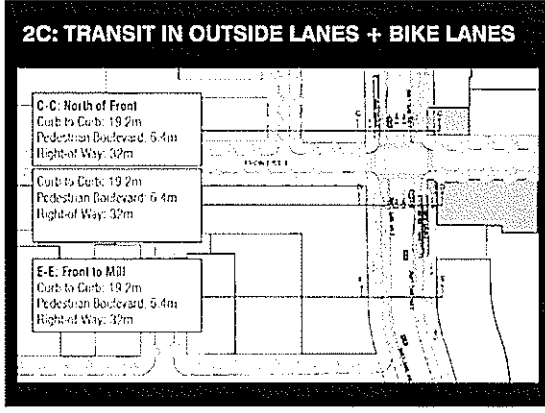
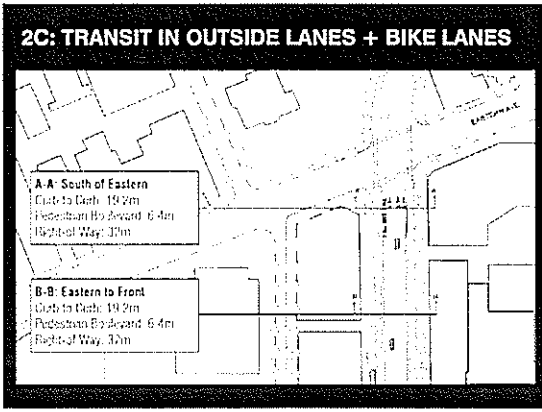
WEST DON LANDS TRANSIT EA- ANALYSIS OF DESIGN ALTERNATIVES
Alternative Designs for Right-of-Way

| Section | Curb | Substation | Element | Prop. Street Location | Right of Way Lane | Right of Way | | Remarks |
|---------|------|------------|---------|-----------------------|-------------------|--------------|----------|---------|
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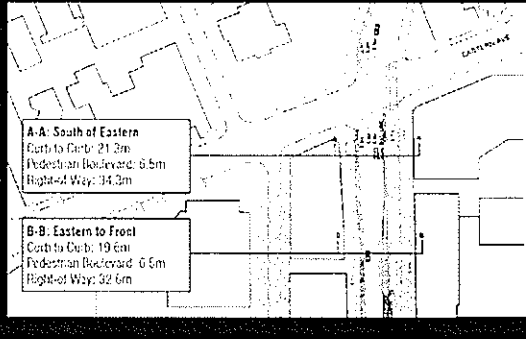
- ### Next Steps
- Finalize short list of alternatives
 - Analyze and evaluate
 - Select preferred design
 - Design refinement

Thank you

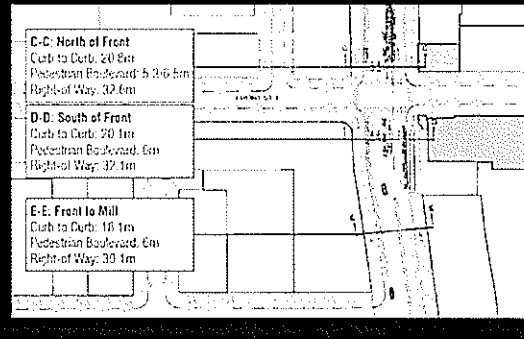
- Questions / Comments



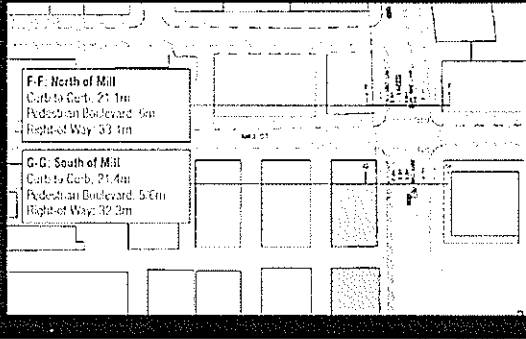
3C: DEDICATED TRANSIT EAST SIDE + BIKE LANES



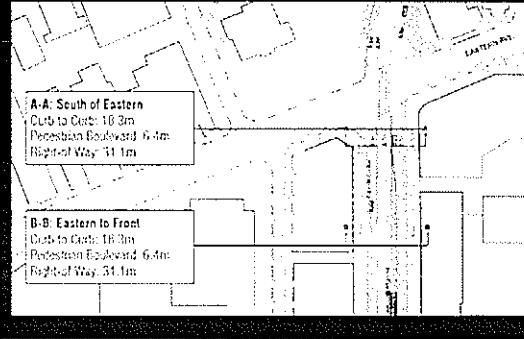
3C: DEDICATED TRANSIT EAST SIDE + BIKE LANES



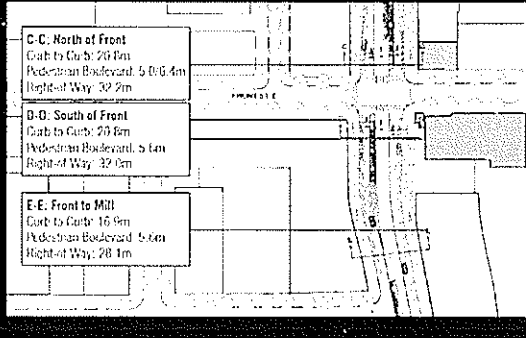
3C: DEDICATED TRANSIT EAST SIDE + BIKE LANES



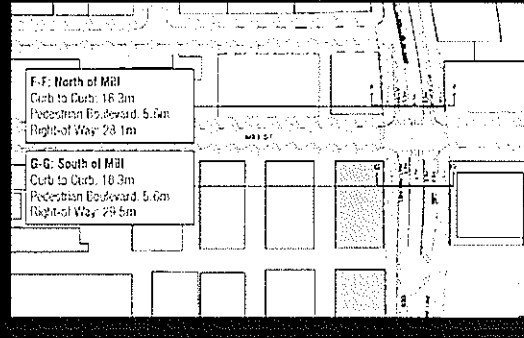
5C: DEDICATED TRANSIT MEDIAN + BIKE LANES



5C: DEDICATED TRANSIT MEDIAN + BIKE LANES

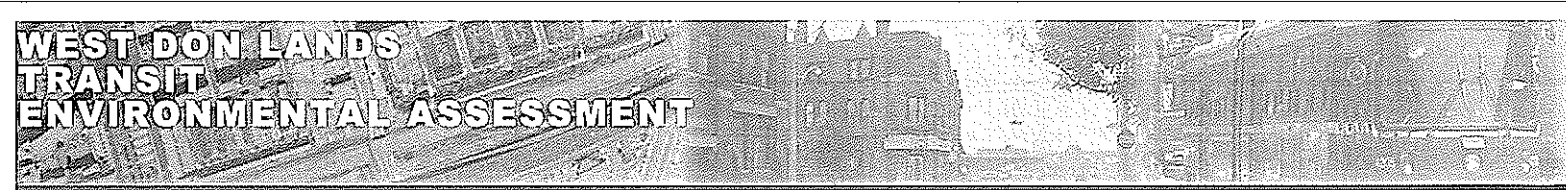


5C: DEDICATED TRANSIT MEDIAN + BIKE LANES



West Don Lands EA Study Area





APPENDIX B-6

Community Liaison Committee (CLC)

July, 2007





WEST DON LANDS TRANSIT EA COMMUNITY LIAISON COMMITTEE MEETING AGENDA

Project: TTC-TWRC Waterfront Transit Environmental Assessments

Date: July 4, 2007

Time: 6:00 – 8:00 pm

Location: TWRC Board Room, 20 Bay Street

Item

1. Review of Minutes
2. Update Project Status
3. Presentation of Consultation Team on recommendations
 - Overview of Long List of Design Alternatives
 - Analysis for determining a Short List of Design Alternatives
 - Details of the Short List of Design Alternatives
4. Discussion - CLC Comments
5. Next Meeting

Meeting Date: July 4, 2007, 6:00pm

Place: TWRC Boardroom

Project Name: EAs for Transit Projects in the Eastern Waterfront

Present:

Project Team (PT)

| | |
|-----------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Mike Ronson | TTC Service Planning |
| Nigel Tahir | Toronto Transportation Planning |
| John Kelly | Toronto Transportation Services |
| Dennis Callan | MRC |
| Hank Wang | MRC |
| Brent Raymond | du Toit Allsopp Hillier |
| Scott Thorburn | URS Canada Inc. |
| John Hillier | du Toit Allsopp Hillier |
| Tanya Bevington | TWRC |
| Alun Lloyd | BA Group |

Community Liaison Committee (CLC)

| | |
|----------------|-----------------------------------|
| Steve Munro | |
| David Fisher | Rocket Riders |
| Cynthia Wilkey | WDLC |
| Tom Davidson | Representing Councillor McConnell |

Regrets:

| | |
|-----------------|-----------------------------|
| Julie Beddoes | Waterfront Action |
| Sylvia Pelman | SNLA |
| Helen Riley | Feet on the Street |
| Ulla Colgrass | YGNA |
| Dennis Findlay | Port Lands Action Committee |
| Braz Menezes | YQNA / QQBIA |
| Margaret Samuel | CWNA / QQHBIA |
| Sharon Poitras | CWNA |
| Pino DiMascio | TWRC |
| Moderator | |

Copies to : All

Purpose of meeting: 8 options discussion, screening process, short list

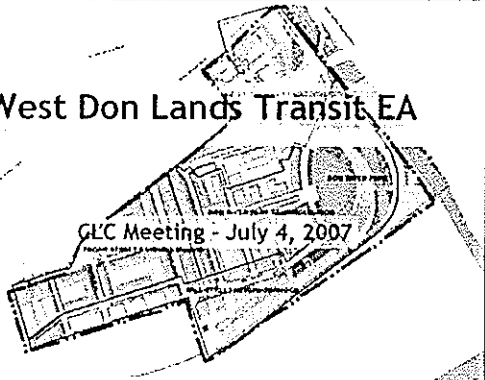
The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|-----------------------|-----------|
| 1. | Review of Minutes | |
| 2. | Update Project Status | |

| Item | Discussion | Action By |
|------|--|-----------|
| 3. | <p>Presentation of Consultation Team on recommendations</p> <p>A technical presentation was provided by S. Thorburn. Highlights: 8 options, Screening process. Comments during presentation:</p> <p>Q: Why mixed traffic eliminated so quickly?</p> <p>A: Connect to Portlands, TTC proposes improvements to King Street – don't want to build a weak link</p> | |
| 3.1 | <p>Discussion on Transit Mall</p> <p>C/Q: Transit Mall appeal:</p> <ul style="list-style-type: none">▪ pedestrians / transit most important▪ kids can cross street not be driven▪ experiment that might work <p>A: A paper provided by City outlining the issues and policies regarding transit / pedestrian malls was provided.</p> <p>C/Q: Buffalo: transit issues weren't the reason why it failed</p> <p>C/Q: Real issue is failure in core of City</p> <p>C: Conclusion doesn't follow. Cherry Street small streets, Regent Park a large area</p> <ul style="list-style-type: none">▪ Should not use Regent Park in future presentation. <p>Comment: Will there be turns for bikes? ie: Option 3</p> <p>During refinement bike lanes will be investigated as well as transit stops.</p> <p>C: add curb to curb widths to short listed table</p> <p>Q: Will building face to face be narrowed given savings on curb-to-curb width?</p> <p>A: Yes</p> <p>C/Q: in park settings – transit on one side and seems to work well</p> <ul style="list-style-type: none">▪ every 200m the streets change▪ Cherry doesn't need to be like King▪ in future, transit mall may be less shocking▪ suit immediate needs without precluding future configuration <p>A: All options could be converted either temporarily or permanently</p> <p>C/Q: Do stops have to be at corners or can they be midblock</p> <p>A: It's flexible.</p> <p>C/Q: Eastern to King – what's happening, work needs to be done with the people there, particularly with noise and how it will look. A walk-about would be good.</p> <p>A: Final design must address King to Eastern and at CN overpass as well.</p> <p>C/Q: Lower Don competition should be considered as well – when will that fit into</p> | |

| Item | Discussion | Action By |
|------|--|-----------|
| | <p>this discussion, as well on Queens Quay.</p> <p>A: Design is now under way. Will tie into Lower Don. Will be part of east Bayfront connection</p> <p>C/Q:</p> <ul style="list-style-type: none">▪ Shouldn't write off transit mall▪ also option 8 will be tough tying into King <p>A: Layering of traffic</p> <ul style="list-style-type: none">▪ existing; some from Lakeshore▪ will be development from Lakeshore <p>Q: Where is stop location once loop is gone?</p> <p>A: We will have to assess as part of this EA.</p> <p>C/Q: Will cars back up at railway tracks?</p> <p>A: Traffic not the priority. We think the street needs to be open. Turn lanes are provided, some queues may occur.</p> <p>C/Q: Bikes should be same level as sidewalks.</p> <p>C/Q: Concerned with narrow crossing under CN Rail. Cautionary note should look at it sooner than later. We need more detail down there.</p> <p>Meeting was adjourned at 8:30pm</p> <p>Minutes Prepared by: Mark Nykoluk</p> | |

West Don Lands Transit EA



GLC Meeting - July 4, 2007

TTC-TWRG West Don Lands Environmental Assessment

URS

Presentation agenda

- Design alternatives considered
- Screening Process – Long List to Short List
- Short list of alternatives
- Next actions

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Design alternatives considered

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Design Alternatives



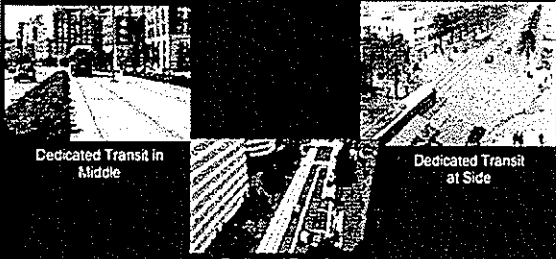
Transit Mixed with Traffic

Transit Mall

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Design Alternatives



Dedicated Transit in Middle

Dedicated Transit at Side

Dedicated Transit on Outside Lanes

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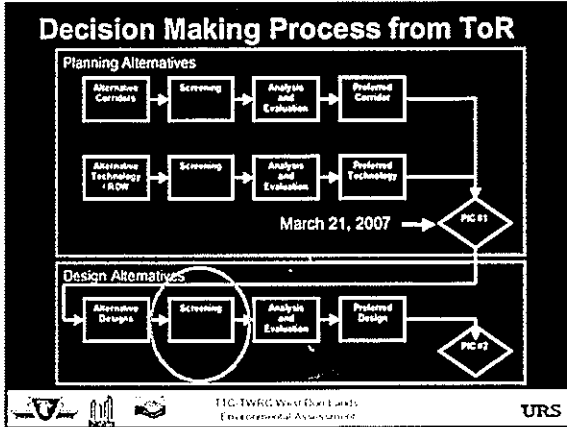
URS

Long List of Alternatives

- 1: Mixed Traffic
- 2: Transit Outside Lane (Dedicated through Mid-block)
- 3: Dedicated Transit East Side
- 4: Dedicated Transit West side
- 5: Dedicated Transit in Median – 2 lanes
- 6: Transit Mall
- 7: Dedicated Transit in Median – 4 lanes (from the WDL Master Plan)
- 8: Dedicated Transit Outside Lane (Dedicated Throughout)

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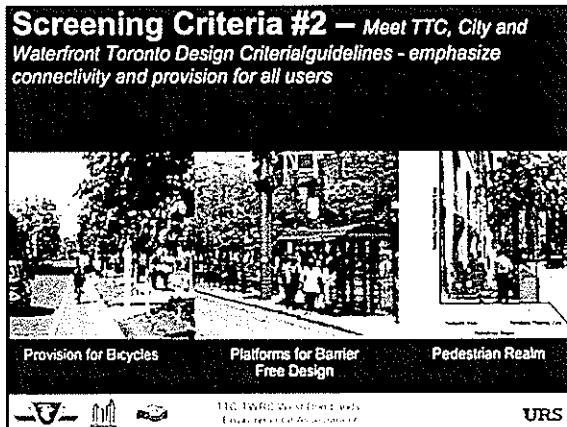
Screening Process

"In Accordance with Design Standards"

Logos for TTC, TWRC, and URS are at the bottom.

- ### What are the Design Standards for this project?
- From the Terms of Reference - fundamental considerations will be applied to the development of transit infrastructure alternatives:
 - Encourage transit use and reduce auto dependence
 - Meet TTC, City and Waterfront Toronto Design Criteria/guidelines
 - Fully accessible - barrier free
 - Minimize right-of-way width
 - provide transit services within 5 minute walk
 - Establish network connections / integrated systems plan with existing transit system
 - Take advantage of existing transportation corridors
 - Avoid impacts to the natural systems
 - Green transit technology (electricity, fuel cells, etc.)
- Logos for TTC, TWRC, and URS are at the bottom.

- ### Screening Criteria #1 – Encourage Transit Use / Reduce Auto Dependence
- Alternative must provide Transit Priority:
 - North / south transit operations must be given at least as much "green time" at signals as north south traffic
 - Designs should not create situations where vehicles have the potential to block streetcar operations.
- Logos for TTC, TWRC, and URS are at the bottom.



....and vehicles

Cherry as a primary north south corridor for the West Don Lands

- Future Cherry Street Traffic Demand 1,300 to 1,400 vehicles per hour
- One lane per direction, not two as in Master Plan

Logos for TTC, TWRC, and URS are at the bottom.

Screening Criteria #3 – Right of Way narrower than EA Master Plan

- Master Plan - 35m to 37m

Screening Criteria #4 – Network Integration

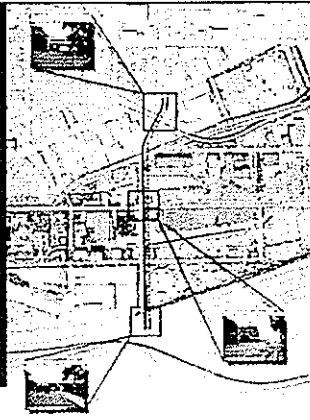
- Connect to King Street tracks
- Protect for connection to East Bayfront and the Port Lands



Screening Criteria #5 – Avoid impacts

- Sumach under Richmond Adelaide
- CN Police and Canary Restaurant
- Distillery District
- Existing and proposed intersecting streets
- Rail underpass

Alignments can be developed around constraints



Screening of Design Alternatives

Alternatives that fail to encourage transit use / reduce auto dependence

- ✗ 1: Mixed Traffic
- ✗ 2: Transit Outside Lane (Dedicated through Mid-block)
- 3: Dedicated Transit East Side
- 4: Dedicated Transit West side
- 5: Dedicated Transit in Median – 2 lanes
- 6: Transit Mall
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- 8: Dedicated Transit Outside Lane (Dedicated Throughout)

Alternatives that fail to meet TTC, City and Waterfront Toronto Design Criteria/guidelines

- ✗ 1: Mixed Traffic
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Cherry Street Transit Mall Discussion

- Experience in other jurisdictions;
- Experience in Toronto, and;
- Transit Mall suitability to Cherry Street.



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Environmental Assessment

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Transit Mall Experience Elsewhere

Failures

- Chicago – State Street
 - Failed to revitalize local retail
 - Reopened to traffic 10 years later
- Buffalo – Main Street
 - Shops closed
 - Sense of Abandonment
 - Planning to reintroduce traffic
- Ottawa – Rideau Street
 - Adverse effect on retail

Successes

- European Experience
 - Older, denser cities that predate the automobile
 - Much higher fuel prices
 - Narrow historic streets
- Portland - 5th and 6th Aves
 - in centre of city
- Calgary – 7th Avenue
 - Multiple routes carrying the equivalent of 16 lanes of traffic

• Vancouver – Granville Mall

– Busiest surface transit route (three times projections for Cherry)



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Mall Experience in Toronto

- Regent Park
 - Created as “garden city”
 - Lack of through streets cut neighbourhood off from city
 - An isolated and unsafe environment
- Kensington Market
 - Sundays only
 - Expanded retail space
 - Goods delivery is a challenge
- Pedestrian malls are most successful when:
 - implemented as a temporary condition
 - takes advantage of periods when large volumes of pedestrians can be expected



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Traffic Implications

- Future Cherry Street Traffic Demand 1,300 to 1,400 vehicles per hour
- Up to 50% more traffic on Mill Street – local road with schools, parks

Cherry Street should remain open to traffic

Cherry as a primary north south corridor for the West Don Lands



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Suitability of Cherry Street for a Transit Mall

- Ridership levels:
 - Important local service but not high enough – One third of Vancouver’s Granville Mall
- Healthy street life at all times
 - Compete with historical streets of Yonge, Queen and King?
- Connectivity with other routes
 - Cherry not a main hub – unlike 7th Avenue in Calgary
- Traffic Implications
 - 1,300 to 1,400 vehicles peak hour
 - 50% more traffic on Mill Street – local road with schools, parks

Screen out Transit Mall



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Alternatives that fail to provide a right of way narrower than EA Master Plan

- 1: Mixed Traffic
- 2: Transit Outside Lane (Dedicated through Mid-block)
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- 4: Dedicated Transit West side
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Alternatives that fail to provide Network Integration

- 1: Mixed Traffic
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Environmental Assessment

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Alternatives that fail to avoid impacts

- 1: Mixed Traffic
- 2: Transit Outside Lane (Dedicated through Mid-block)
- 3: Dedicated Transit East Side
- ✗ 4: Dedicated Transit West side
- 5: Dedicated Transit in Median – 2 lanes
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- 7: Dedicated Transit in Median – 4 lanes (from the WDL Master Plan)
- 8: Dedicated Transit Outside Lane (Dedicated Throughout)



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Short Listed Options

- Dedicated transit on east side
- Dedicated transit in median
- Dedicated transit on both sides



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Standardized approach to Alternative Design Development

- One lane per direction plus one turn lane at intersections
- Transit operating in a dedicated right of way at the same time as north south traffic
- Pedestrian Realm – Urban Design Priority



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URBAN DESIGN INTENTIONS

Designing for spatial comfort;
human scale

Making a place; not a
thoroughfare

Pedestrian orientation



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ELEMENTS OF COMFORTABLE STREET WIDTH

- Human Scale across a street
- Ratio of width to height (Spatial definition)
- In scale with family of streets in the neighbourhood
- Proportion of sidewalk to vehicular surfaces
- Comfortable space for walking, street-crossing
- Street trees and furniture design



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HUMAN SCALE ACROSS A STREET

H. Maertens / Hans Blumenfeld:
Intimate – 14 m (faces recognized)
Human – 22 m (people recognized)

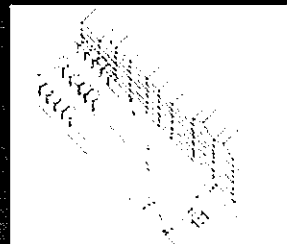


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Environmental Assessment

SPATIAL DEFINITION ACROSS A STREET

Alan Jacobs in Great
Streets:

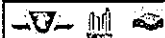
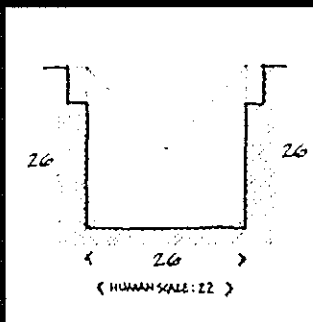
- 1:1 Strong definition
- 1:1.65 Moderate
definition
- 1:4 Weak definition



TIC TWRC W
Environmental

WIDTH:HEIGHT RATIO

Flanking buildings are
26 m high

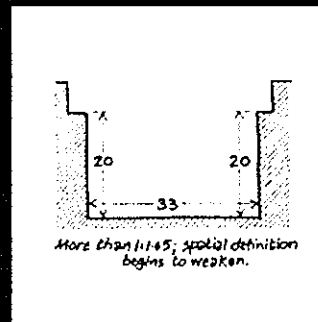


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SPATIAL DEFINITION ACROSS A STREET

1:1.65 definition



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WEST DON LANDS FAMILY OF STREETS

Front Street

- 26.0m Public ROW
- 6.0m Pedestrian Boulevard

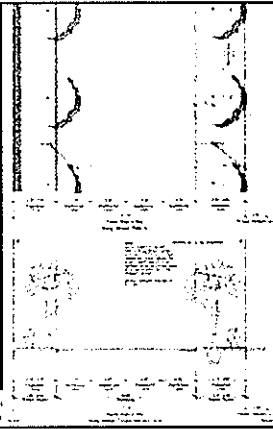


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WEST DON LANDS FAMILY OF STREETS

King Street

- 21.1m Public ROW
- 3.50 to 4.40m Pedestrian Boulevard

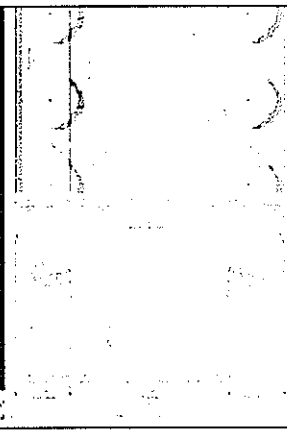


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Envision

WEST DON LANDS FAMILY OF STREETS

Mill Street

- 25.0m Public ROW
- 5.10m Pedestrian Boulevard

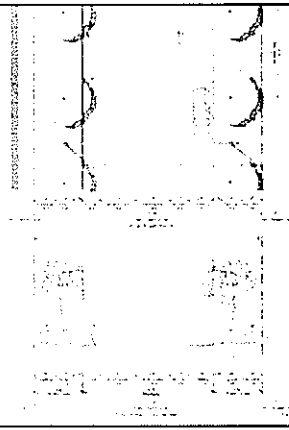


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WEST DON LANDS FAMILY OF STREETS

River Street

- 21.6m Public ROW
- 4.6m Pedestrian Boulevard



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ROAD:SIDEWALK RATIO

WDL Streets: Public Realm Strategy (US)

| | ROW (m) | Sidewalk Width Range | | PR % |
|--------------|--------------|----------------------|-------------|--------------|
| | | Lower | Upper | |
| Parliament | 21.6 | 3 | 4.5 | 35.2% |
| Bayview A | 30 | 2.7 | 8 | 35.7% |
| King | 21.1 | 3.5 | 4.6 | 38.4% |
| Mill | 25 | 5.1 | 5.1 | 40.6% |
| River | 21.6 | 4.6 | 4.6 | 42.6% |
| Front C | 26 | 6 | 6 | 46.2% |
| Front B | 21.72 | 4.6 | 6.55 | 51.3% |
| Local | 18 | 4.75 | 4.75 | 52.6% |
| Eastern | 20.12 | 5.56 | 5.56 | 55.3% |
| St. Lawrence | 20.1 | 5 | 6.5 | 57.7% |
| Tracy | 20.1 | 5.2 | 6.4 | 57.7% |
| AVG | 24.41 | 4.92 | 5.95 | 46.7% |


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Environmental Assessment

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ROAD:SIDEWALK RATIO

Existing Toronto Streets

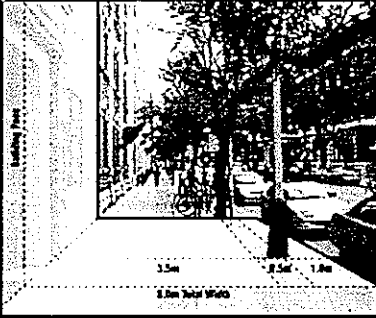
| | | | | |
|--|------|------|------|--------------|
| St. Clair West at Yonge (new construction) | 24.2 | 3.15 | 3.15 | 41.5% |
| St. Clair West at Spadina (new construction) | 20.5 | 3.7 | 3.7 | 24.5% |
| Parliament | 21.6 | 3 | 3 | 27.8% |
| King East | 20.1 | 3.5 | 3.5 | 34.8% |
| Church | 20 | 4 | 4 | 40.0% |
| York | 20.4 | 3.8 | 4.4 | 40.2% |
| King West (of Spadina) | 23 | 5 | 5 | 43.5% |
| AVG | | | | 37.3% |



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WALKING, STREET CROSSING SPACE

- Clear and open sidewalk
- Street tree buffer to road

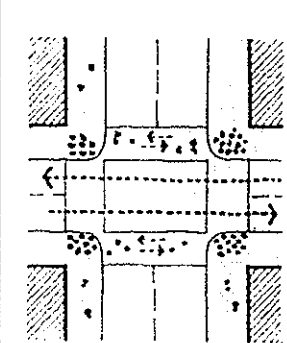


3.5m 2.5m 1.8m
3.0m Total Width

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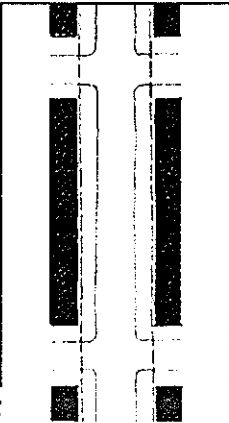
WALKING, STREET CROSSING SPACE

Clear and open sidewalk at crossings



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CONTINUITY OF STREET EDGE



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AN URBAN DESIGN PRIORITY STREET


- Human scale across a street
- In scale with family of streets
- Spatial definition/comfort
- Sidewalk/roadway proportion
- Comfortable space for walking & street-crossing



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VEHICULAR MOVEMENT

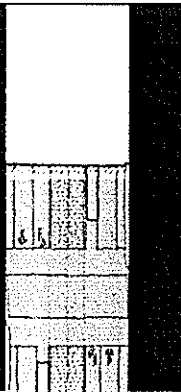
Transit 6.7m
Platform 2.5m



TTC - TWRC West Don Lands Environmental Assessment URS

VEHICULAR MOVEMENT

| | |
|--|--------------|
| Transit | 6.7m |
| Platform | 2.5m |
| Cars + Trucks (2 through at 3.3m, 1 turn at 3.2m) | 9.8m |
| Bicycles (1 at 1.8m) | 1.8m |
| Total | 20.8m |



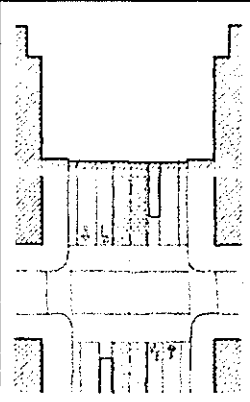
TTC - TWRC West Don Lands Environmental Assessment URS

ADD PEDESTRIAN SPACE

Sidewalks average 38% of ROW
Or
Minimum width at intersections 4.5m
or 5.5 m at Platforms

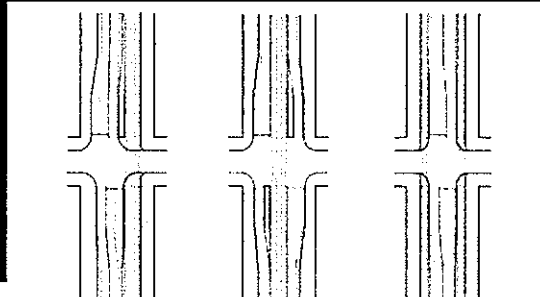
Block right of way width is dictated by whichever is wider, while keeping ROW consistent

Result within 1:1.65 ratio for spatial definition: a big street in the family of streets



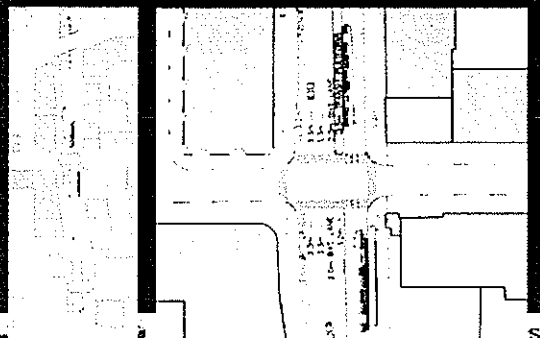
TTC - TWRC West End
Environmental Assessment

ROAD OPTIONS: CHERRY AND FRONT INTERSECTION

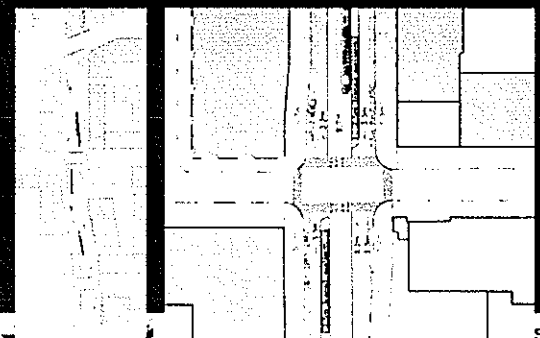


OPTION 3 OPTION 5 OPTION 8


OPTION 3: Transit on East Side



OPTION 5: Transit in Median



OPTION 8: Transit on Both Sides



Short listed alternatives are an improvement over the Master Plan

| Master Plan | #3 Transit on East Side | #5 Transit in Median | #8 Transit on Both Sides |
|---|---|--|--|
| 2 traffic lanes per direction | 1 traffic lane per direction | 1 traffic lane per direction | 1 traffic lane per direction |
| Bike Lanes south of Mill only | Bike Lanes from King St. to Rail Bridge | Bike Lanes from King St. to Rail Bridge | Bike Lanes from Eastern to Rail Bridge |
| 35m to 37m right of way | 33 m +/- | 32 m +/- | 31 m +/- |
| 3.65 m to 4.85 m pedestrian realm / boulevard | 5.9 m to 6.3 m pedestrian realm / boulevard | 4.5 m at Eastern Ave. 5.6 to 6.3 elsewhere | 5.6 m to 5.9 m |

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Environmental Assessment

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Next Steps




TTC-TWRG West Don Lands
Environmental Assessment




WEST DON LANDS TRANSIT EA- ANALYSIS OF DESIGN ALTERNATIVES

Alternative Designs for Right-of-Way

| Alt. Name | Location | Station | Prop. Right-of-Way | Proposed Right-of-Way | Proposed Lane | Proposed |
|-----------|----------|---------|--------------------|-----------------------|---------------|----------|
| ... | ... | ... | ... | ... | ... | ... |




TTC-TWRG West Don Lands
Environmental Assessment




WEST DON LANDS TRANSIT EA- ANALYSIS OF DESIGN ALTERNATIVES

Alternative Designs for Right-of-Way


| Alt. Name | Location | Station | Prop. Right-of-Way | Proposed Right-of-Way | Proposed Lane | Proposed |
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| ... | ... | ... | ... | ... | ... | ... |




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Design refinement



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POTENTIAL WIDTH REDUCTIONS

TRANSIT

- Overlap platforms on sidewalk?
- Reduce platform width in street?
- Overlap transit platforms and poles and pedestrian realm?

TRAFFIC


- Reduce lane widths ?
- Eliminate turning lanes?

BICYCLES


- Use 4m "sharo" lanes?
- Merge with turning lanes?

PEDESTRIANS

- Reduce ratio?




TTC-TWRG West Don Lands
Environmental Assessment




Thank you

- Questions / Comments



TTC-TWRG West Don Lands
Environmental Assessment



APPENDIX B-7

Community Liaison Committee (CLC)

September, 2007

Meeting Date: September 27, 2007, 6:00pm
Place: Waterfront Toronto Boardroom
Project Name: EAs for Transit Projects in the Eastern Waterfront

Present:

Project Team (PT)

| | |
|------------------|---------------------------------|
| Bill Dawson | TTC Service Planning |
| Nigel Tahir | Toronto Transportation Planning |
| John Kelly | Toronto Transportation Services |
| Dennis Callan | MRC |
| Hank Wang | MRC |
| Brent Raymond | du Toit Allsopp Hillier |
| Roger du Toit | du Toit Allsopp Hillier |
| Scott Thorburn | URS Canada Inc. |
| John Hillier | du Toit Allsopp Hillier |
| Antonio Medeiros | Waterfront Toronto |
| Alun Lloyd | BA Group |

Community Liaison Committee (CLC)

| | |
|-----------------|---------------|
| Steve Munro | |
| David Fisher | |
| Bob Traver | |
| Helen Riley | On the street |
| Sylvia Pelloran | SNLA |

Copies to: All

Purpose of meeting: Preferred Alternative

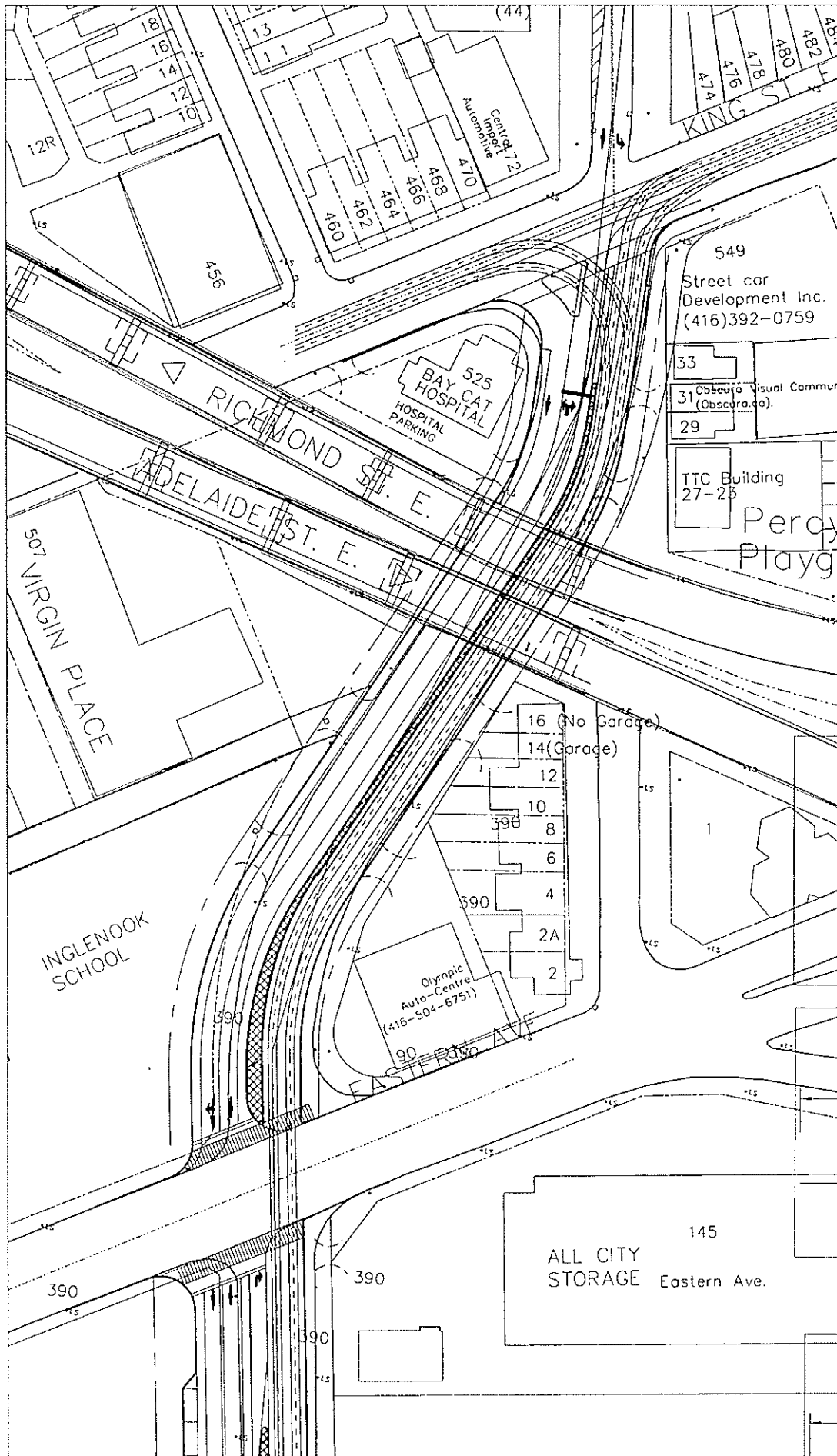
The following is a summary of subjects discussed and conclusions reached at the above meeting. Please advise of any errors or omissions.

| Item | Discussion | Action By |
|------|--|-----------|
| 1. | Review of Minutes | |
| 2. | Update Project Status | |
| 3. | Presentation of Consultation Team on preferred Alternative | |
| 3.1 | Discussion on Flexible Element | |

| Item | Discussion | Action By |
|------|---|-----------|
| | <ul style="list-style-type: none"> ▪ Continuous Road Cross Sections through out the project area ▪ Accommodate parking on west side | |
| | <p>Question: what happens to Sidewalk? How long is the wide of the sidewalks?</p> <p>A: Sidewalks are continuos 5m from face of curb to the property line, however due to restrictions from north of Eastern Avenue to King on Cherry Street the sidewalk width reduces to the 4m on west and 3m on the east side.</p> <p>Question: Why north bound bike lane width is different than southbound bike lane width?</p> <p>A: The consistence cross section of 12.8m allows the design team to have the flexibility with the design.</p> <p>Q: Why do we have 12.8m ROW when the typical ROW around the city is 14m?</p> <p>A:</p> <p>C/Q: Transit Can't be used as pedestrian realm because it is not safe;</p> <p>A: using transit mixed with pedestrian realm on east side will make it looks like a transit mall and there will be a visual difference between the transit area and sidewalk to distinguish the difference between the two areas, however, Safety is the main factor in here. TTC operators will be trained for this type of situations (Transit mixed with pedestrians). They will be trained to operate safely and efficiently. Also, this idea has been used in other places around the work and it had good and safe results.</p> | |
| | <p>Q: How often streetcars are operating?</p> <p>A: There will be street cars every 4-5 minutes in rush hours and longer in other time.</p> <p>C/Q: There should be a barrier between transit and people to make it safe.</p> | |
| 3. | <p>Presentation of Consultation Team on median opportunities</p> <ul style="list-style-type: none"> • Can use public arts in median • Trees in median don't work well in Toronto <p>C: Try to have trees on sidewalk rather than median.</p> <p>A: There is no need to use big trees in median, we can use small bushes or tress in median</p> | |
| 4. | <p>South End</p> <p>C/Q: at the south end residences have noticed the gas odor in that area, would you review it</p> | |

| Item | Discussion | Action By |
|------|--|-----------|
| | <p>Q: Would you have transit on one side of the bridge and cars on the other side under the railway corridor bridge?</p> <p>A: Physically there is room but operationally there is a difficulty to fit cars on one side and transit on the other, b/c:</p> <ul style="list-style-type: none"> • Streetcars can be designed to be closer to each other but cars need more space between them, <p>C/Q: if operationally we can not make cars to function like this (place cars on one side of the bridge) therefore, the pedestrian realm will not work/operate the way we want them to operate, because operation is here is different than Europe.</p> <p>C: try to make new portal for pedestrian and make the current sidewalk as a bike path, Because pedestrians are more flexible than transit</p> | |
| 4.1 | <p>Constructing a new transit bridge Connection between West Don lands (Cherry Street) and Lower Don is part of the Lower Don Project and they will provide options to connect to north part.</p> <p>Q: What happens to the water tank? A: It will be removed to a different place in future.</p> <p>Q: Building a new bridge is expensive, do you think it will work? A:</p> <ul style="list-style-type: none"> • In this project we try to show the possibilities and try to see if the ways to connect /fit to the bottom • Building a new bridge might look expensive now, but it will be a better option in future and it will work. | |
| 5. | <p>North End</p> <p>Q: What happens to school's historical building? A: We know the issue, and we have it under investigation and we try not to have any impacts on the building.</p> <p>Q: What happens to Cat Hospital? A: we try to work with development, once we work out the WYE configuration at north end (King St. and Sumach St. intersection), and then we try to have a minimum impact in that hospital.</p> | |
| 6. | <p>Questions/Comments</p> <p>Q: ROW in St. Clair is about 6m for trees to grow, and here you have designed for 5m sidewalks, what would happen to the trees? A:</p> <ul style="list-style-type: none"> • The wider street, the wider the sidewalk. In this project we try to fit the | |

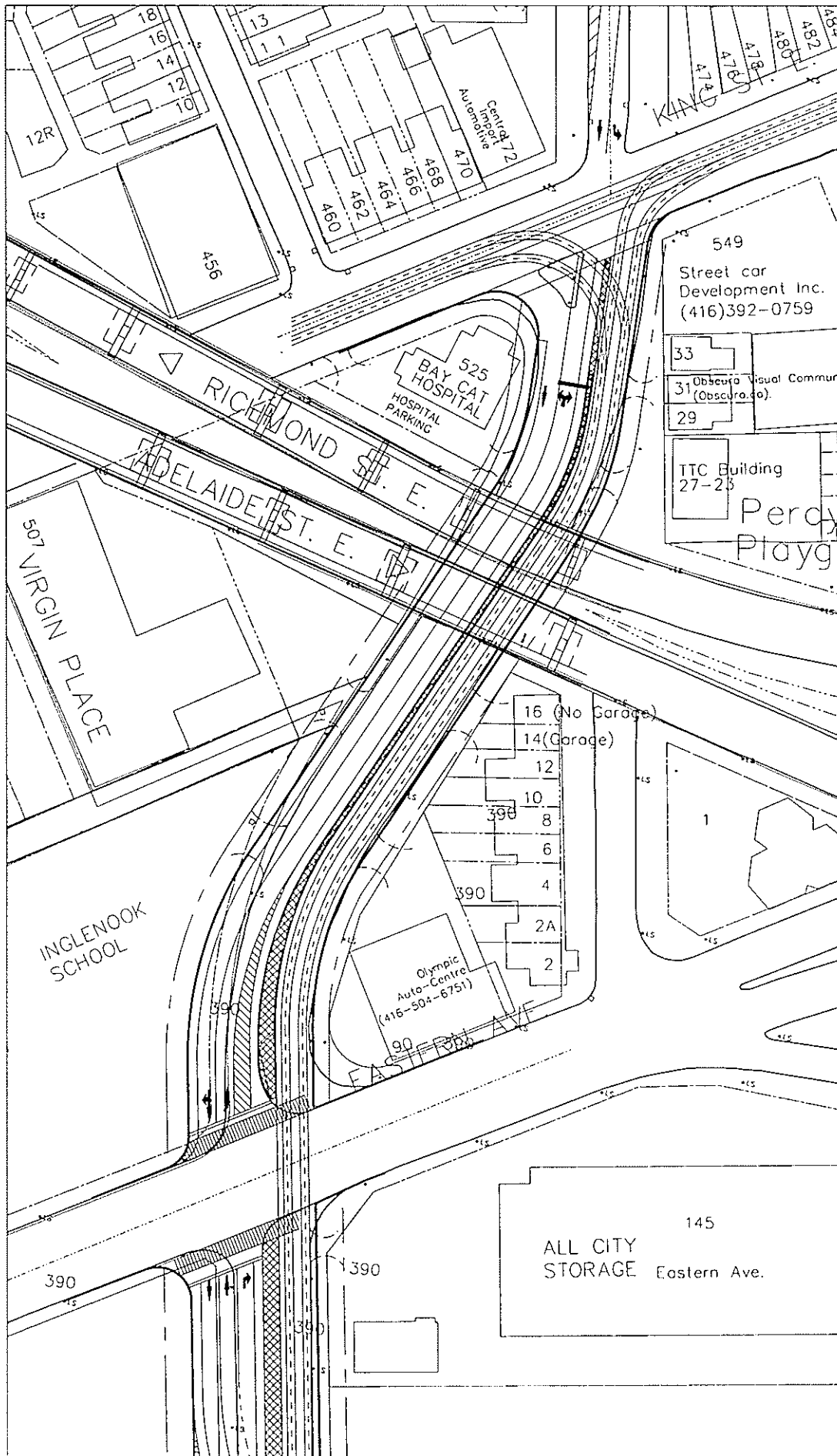
| Item | Discussion | Action By |
|------|---|-----------|
| | <p>ROW width to 32m.</p> <ul style="list-style-type: none"> • Regarding trees in median, we have looked into the effects of environment and design on trees in median and we have found that with the climate, stresses around, and the environment, trees won't grow the way they grow on other places or on sidewalk. <p>C: The right turn lane has been considered as road width and why not use pedestrian realm to accommodate bike lanes into it?</p> <p>A: Bike lane is preferred on street but we can change the material so there is distinguish difference between bike lane and road width to make sure the safety of cyclists on road and also we have to provide a smoother surface for cyclist.</p> <p>Q: Where do utilities go because in future there would be a new development in the area?</p> <p>A:</p> <ul style="list-style-type: none"> • We have to place utilities in places that when new development comes in future, we don't have to take them out and replace them. • Also, in detailed design stage we try to deal with utilities in more detail and because the road will be reconstruct, therefore there will be a good quality design for placing utilities in that area. <p>Q: why the ROW reduced from 35m to 32m, because we want to be cohesive with rest of West Don Lands?</p> <p>A:</p> <p>C: The idea of east side of Cherry Street works as transit mall is something new to Torontonians, therefore it is good to understand all the concepts and operations before construction.</p> <p>Q: About North End: Why don't you move transit through school, perpendicular to king street?</p> <p>A:</p> <ul style="list-style-type: none"> • We tried to look into this as one of the options, and we couldn't fit transit under the two bridges, because they have bad geometry (narrow poles and pier), therefore we cannot fit streetcars in there. • It has design related challenges to fit switches at King Street. • One of the Advantages of the preferred design is to allow for bike lanes to continue to king street both way. | |
| | <p>Minutes Prepared by: Shima Rezazadeh</p> | |



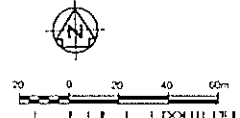
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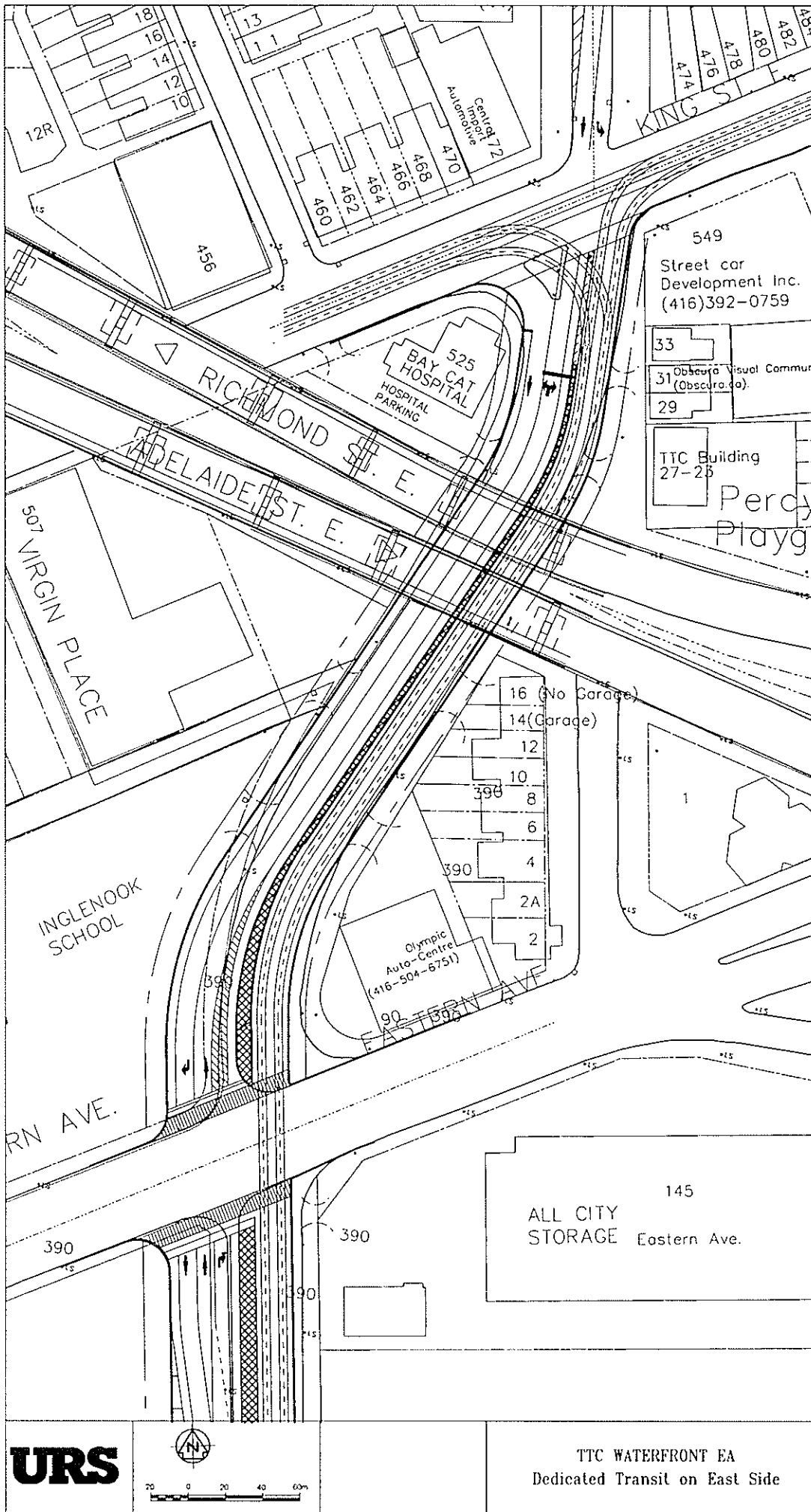
TTC WATERFRONT EA
Dedicated Transit on East Side



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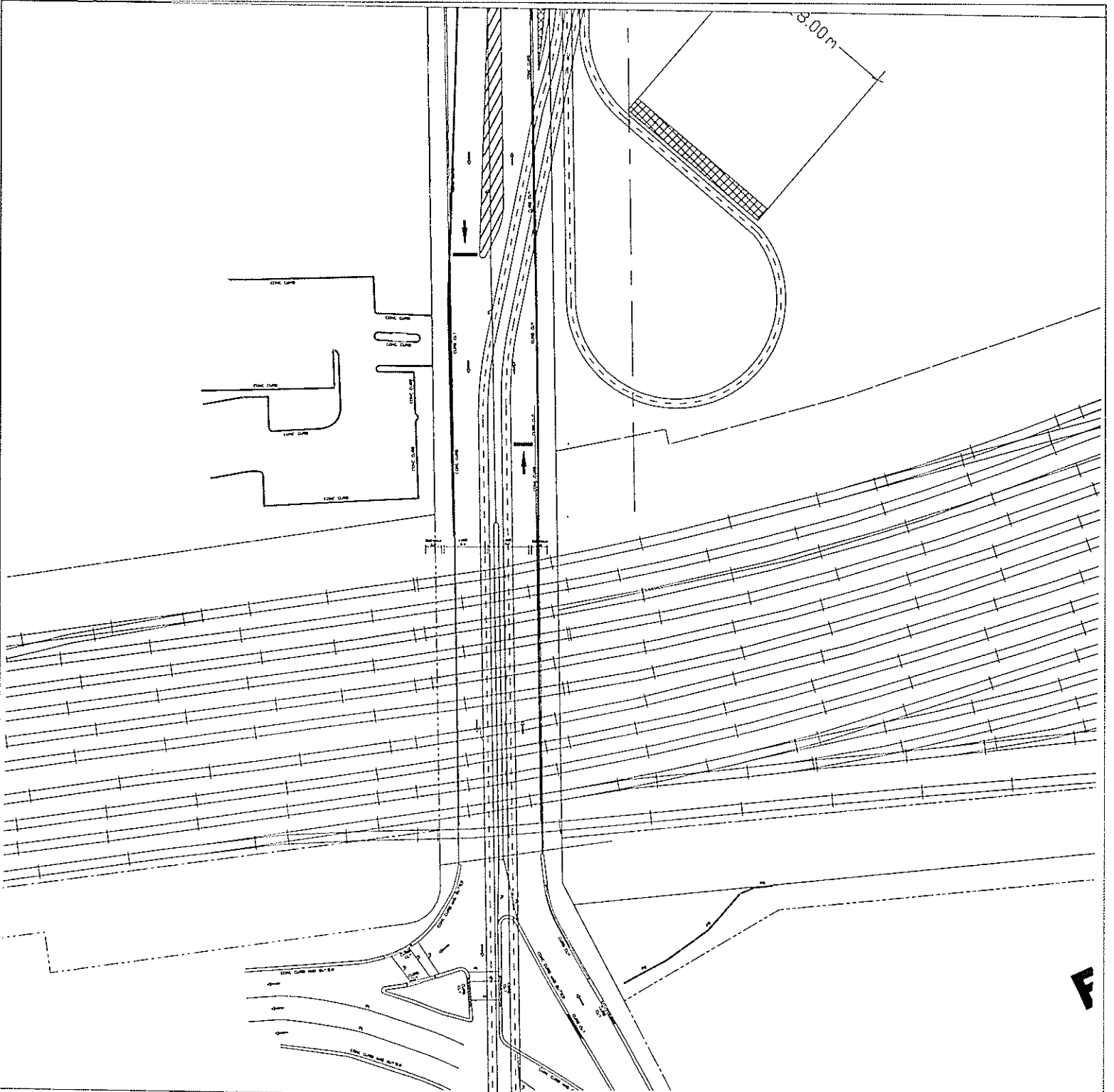
TTC WATERFRONT EA
Dedicated Transit on East Side



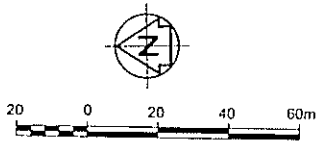
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TTC WATERFRONT EA
Dedicated Transit on East Side

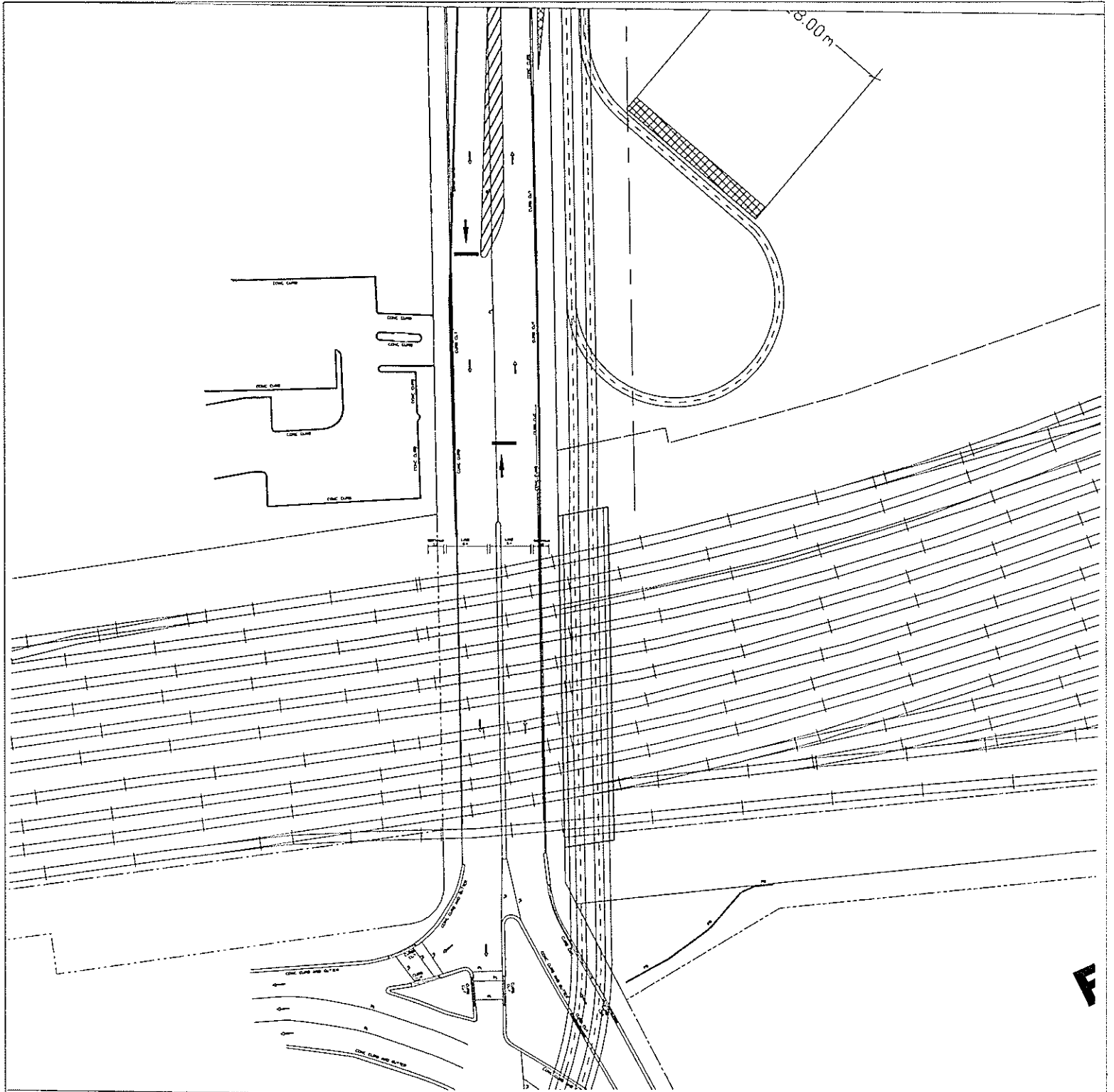


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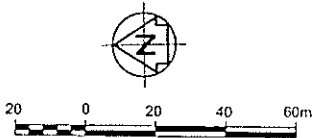


Existing Bridge

TTC WATERFRONT EA
Dedicated Transit East Side



URS



Construct New
Transit Bridge

TTC WATERFRONT EA
Dedicated Transit East Side

