Hamilton Street Railway Operational Review

Presentation to
Committee of the Whole
October 29, 2009
Objectives of HSR Operational Review Study

- Study was initiated in August 2008 in response to:
  - Recommendations of the Transportation Master Plan and other City initiatives to increase the role of transit in meeting transportation needs
  - A commitment made to the Amalgamated Transit Union during the last round of Collective Bargaining
- The primary objectives of the HSR Operational Review are:
  - “To provide the City with a plan to improve and develop public transit services in Hamilton over the next five years, consistent with the City’s vision of sustainable development and the Hamilton Transportation Master Plan
  - To ensure public transit services are being operated in a safe, efficient and effective manner, considering the needs of customers, employees and the general public”

Purpose of Presentation

1. Present results of the HSR Operational Review Study
2. Summarize HSR’s past and current performance in relation to influencing trends and peers
3. Provide data on individual route performance
4. Highlight short term transit needs and opportunities
5. Present key recommendations for consideration
Key Study Conclusions

• HSR’s transit services are performing well compared to Peer Group given financial and other constraints:
  – Cost recovery is stable and predictable (farebox ratio has averaged 55% since 2000)
  – Ridership and revenue has increased through 2008, consistent with population growth and rate of service expansion. Declined slightly in 2009 as a result of economic conditions.
  – Transit average fare is low ($1.37 in 2007) and affects ability to invest in and expand transit services.

• Expectation that transit will take on a greater role in the future:
  – New Official Plan focuses on transit nodes and corridors
  – Provincial policies emphasize transit
  – Rapid transit could be a key economic driver, but will require a supportive transit network

Scope of Operational Review

• Covers Conventional services only. Specialized services not reviewed
• Data collection was a large part of the study:
  – Collected boardings and alightings by stop for all routes (Weekday, Saturday, Sunday) – 2,264 stops!
  – Measured travel times for all routes
  – Collected information on fare payment
  – Observed and recorded route delays
• Other tasks included:
  – Route performance assessment
  – Peer Review
  – Stakeholder consultation
  – Market opportunities assessment
  – Review of Marketing program
  – Organizational and staffing review
• Products:
  – Summary report on route statistics including “immediate pressures”
  – Five year transit service plan
### Key Study Conclusions (Cont’d)

- Transit ridership is tied to investment levels, population growth, quality of service delivery, affordability and transit supported policies (e.g. downtown parking fees)
  - There are no magic bullets to grow transit ridership without incurring increased costs or sacrificing minimum service standards
- Opportunities exist to increase service levels, pursue niche markets and reduce revenue leakage through lower rate of discounted fares
- Paradigm shift needed in City thinking and decision making to make transit a priority – recognition that transit and other City department goals are interdependent

**HSR is at a Cross-roads: All policies and plans call for continued growth, but continued financial constraints are a barrier**

### A snapshot of HSR Today

- HSR handles over 70,000 revenue riders per day, 21 million passengers per year
- System comprises 32 regular routes
- 7% residents rely on transit for daily travel
- 85% of residents are within the transit service area
- Transit (including ATS) accounts for approximately 6.5% of the tax levy
- Over 600 people are employed full time or part time by HSR
Guiding Policies

Policies at the federal, provincial and local level point towards the goal of significantly increasing the role of transit:

- **City of Hamilton**
  - Vision 2020 calls for a doubling of transit usage to 100 rides per person per year.
  - Transportation Master Plan has set target of reducing auto vehicle-km by 20% by 2031 – stressed importance of early and incremental improvement
  - New Official Plan embraces transit-oriented development policies

- **Federal/National**
  - Investing billions of dollars in infrastructure, including rapid transit; rewarding communities that have comprehensive strategies
  - The Canadian Urban Transit Association has set a goal for large cities to increase per capita transit ridership by 1.2% per year over next 30 years (or 50% increase overall by 2040)

- **Provincial**
  - Have identified Downtown Hamilton as a focus areas for growth
  - Have set a target to reduce greenhouse gas emissions by 80% by 2050
  - Metrolinx is investing in rapid transit
What Will it Take to Get to 100 rides per capita?

- Only three systems in Canada are over this threshold, but many others are close. All have rapid transit of some form.
- Achieving 100 transit rides per capita would require a doubling of service hours and associated funding increases
- HSR should be adding 10-15 buses per year to meet this target by 2021
- Concentrating future population and employment in existing transit corridors and other transit supportive policies can reduce the need for service expansion in meeting target

Historical Trends – Transit Ridership and Service Levels

- Ridership is highly influenced by service levels
6.4

Historical Trends – System Performance

- Cost recovery is stable, but overall performance has been drawn down slightly by the introduction of new services in suburban areas and previously un-served areas within the UTA
- Harmonizing the Transit Collective Bargaining Agreement with the rest of the City has been a financial challenge
- Low average fare inhibits investment in transit such as increased service levels
- Major expenditures unique to Industry (fuel, insurance, etc.)

Historical Trends – Transit Ridership and Urban Growth

- Service levels and ridership growth has generally kept pace with population growth in service area
- Growth in auto trips is outpacing growth in transit trips
Peer Comparison – Ridership per capita

- Hamilton is comparable to other municipalities of similar size in terms of transit ridership per capita
- Levels for Winnipeg (pop 631,000), London (pop 341,000) and Halifax (pop 280,000) represent realistic targets for Hamilton

Peer Comparison – Financial Performance

- Increasing ridership requires greater investment in transit through increase service levels
- Winnipeg, London, Kitchener-Waterloo, and Halifax have all increased their per capita expenditures resulting in higher ridership levels
Peer Comparison – Financial Performance

- Increasing ridership requires greater investment in transit through increased service levels, but this investment typically results in a lower Cost Recovery rate.

**Farebox Recovery Ratio** (ordered by service area population)

- Hamilton’s farebox revenue per ride is lower than many of its peers, particularly within the GTHA.

**Farebox revenue per ride** (ordered by service area population)

*Source: CUTA data*
• 50% of HSR’s ridership comes from the top five routes, which are primarily lower east-west services

• Generally, routes in the former municipalities outside the former City of Hamilton carry substantially less riders, but also have lower service levels
Route Performance Assessment – Financial

- Most routes are performing well in terms of cost recovery.
- Top 15 routes account for 75% of HSR’s gross operating costs, but at a lower per-passerger subsidy.
- Eliminating the worst 5 performing routes would only save 1.3% of HSR’s gross operating costs.

Subsidy per Revenue Passenger, Weekday

**System Average Subsidy:** $2.64 (2007)
Route Performance Assessment - Operations

- Most routes operate within established guidelines for schedule adherence (+ 1 minute to – 3 minutes)
- There are several “choke points” which affect schedule adherence
- Use of personal mobility devices, use of bike racks and increased road construction appear to have affected travel times
- Increased pressure on operators to remain on schedule
- Transit priority measures and display terminals for drivers will help

Schedule Adherence by Route, Weekday

- **Routes 16 ANCASTER and 4 BAYFRONT were omitted due to insufficient sample data.**
- Scheduled trip time equals running time plus recovery time
- 85-90% acceptable standard

Locations of Observed Un-controlled Delay Points

Uncontrolled delays include PMD boardings, bike rack loading, overcrowding, fare disputes, congestion, construction, rail crossing delays, collisions, etc.
Route Performance Assessment – Operations

Locations of Wheelchair Boardings
Route Performance Assessment - Operations

Locations of Bicycle Rack Use
Route Performance Assessment – Operations

- Most routes operate within capacity standards, crowding does occur in peak hours and specific geographic areas (e.g. near McMaster, downtown, other commercial centres, school areas)
- Recent improvements to B-Line and other routes has helped address capacity issue

Route Performance Assessment - Operations

- Many delays are due to congestion or slowdowns through places of high activity
Based on the on-board passenger and travel time surveys, several issues were identified including:

- Congestion “hot spots”
- Moderate overloading of buses at isolated locations or during short time periods
- Routes with much higher than average boardings and alightings by persons requiring additional time
- Incidences of uncontrolled delays (e.g. railway crossings)

In general; however, services operate well and within industry standards for municipalities of comparable size – issues are not unique to Hamilton

Options to address operational issues include:

- Adding additional service hours
- Adjusting schedules
- Modifying route structures
- Signal timing or intersection improvements
- Transit priority measures
- Specialized service overlays
- Real time on-board data management and collection
1. Transit is Key to Hamilton’s Economic Future

A recent study found that a person can save $8,400 per year by taking transit
(APTA News, December 4, 2008)

- There are a number of reasons why Hamilton needs to continue to invest in and improve transit services:
  - High cost of owning and operating private automobile
  - Hamilton has been designated as an Urban Growth Centre and transit is key to achieving the goals associated with this
  - Funding from senior governments is tied to demonstrated progress on ridership growth, local transit supports rapid transit
  - Increasingly, companies are seeking to locate in cities that have high levels of transit accessibility
  - Transit is increasingly being seen as an economic development driver

For these reasons, sustained transit investment coupled with creative solutions are essential to the City’s economic and social vitality.
2. Low “Average” Fares Limit Ability to Increase Service Levels

- HSR average fare is low compared to peer group
- HSR offers a number of discount fares for specialized groups resulting in a lower than average fare per passenger
  - 44% of all passengers have a discounted fare other than an adult monthly pass
  - Policies such as free boardings for persons with personal mobility devices are potentially subject to abuse
- Increasing average fares by 5 cents (3.7%) (through a fare increase or by reducing fare leakage/discounts) translates into approximately $750,000 in annual revenue
- Ideally, discounts for social programs should be treated as such and not funded entirely from HSR budget

3. Opportunities Exist to Re-align Service Levels With Ridership Potential

- Match service levels to passenger demand across different time periods
- Split routes away from core to permit service reductions in areas of lower demand
- Add express routes on James St and Crosstown corridors
- Restructure services to align with travel patterns
- Consider alternative methods of delivering transit service to an area
Potential Route Changes

For Discussion

Route Structure Adjustments

6.4

For Discussion

Service Level Adjustments by Route

Increase
Decrease
Potential Service Changes – Vehicle & Revenue Hour Requirements

- Shifting resources from evening services to base and peak services where resources are required
- Net increase in service hours

**PEAK VEHICLES – EXISTING and PROPOSED**

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<th>Current Vehicles</th>
<th>Proposed Vehicles</th>
<th>Net Change</th>
<th>Percent Change</th>
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<tbody>
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<td>Weekday</td>
<td>161</td>
<td>181</td>
<td>+ 20</td>
<td>12.4%</td>
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<tr>
<td>Saturday</td>
<td>98</td>
<td>102</td>
<td>+ 4</td>
<td>4.1%</td>
</tr>
<tr>
<td>Sunday</td>
<td>61</td>
<td>81</td>
<td>+ 20</td>
<td>32.8%</td>
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</tbody>
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**REVENUE VEHICLE HOURS – EXISTING and PROPOSED**

<table>
<thead>
<tr>
<th></th>
<th>Current Hours</th>
<th>Proposed Hours</th>
<th>Net Change</th>
<th>Percent Change</th>
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<td>2,560</td>
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<td>17.4%</td>
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<td>Saturday</td>
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<td>1,662</td>
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<td>806,910</td>
<td>+ 130,572</td>
<td>19.3%</td>
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4. Some Improvements Come at Low Cost to HSR

- Each full service bus that HSR has in service costs approximately $300,000 per year to operate – if HSR can provide the same service with fewer buses, significant cost savings can be achieved.
  - e.g. implementing transit priority in the King-Main corridor could save multiple buses
  - addressing identified “hot-spots”
- Senior governments have shown interest in funding the capital cost of service improvements
  - e.g. A-Line buses, B-Line improvements
- Improved information systems:
  - e.g. Real time driver information
  - Improved data collection and service monitoring
  - Improved passenger information

5. Adopt Transit Supportive Policies

- The potential for ridership growth can be increased significantly by implementing strong land use policies and other transit-supportive measures

- This includes:
  - Reduced parking requirements
  - Promoting infill development and increased density around transit hubs
  - Controlling sprawl of commercial (i.e. big-box) development
  - Enforcing design guidelines for new development
Closing Remarks

- Overall, HSR provides cost-efficient fixed route transit services which are well-regarded by transit users
- There are isolated areas where services are over-loaded or where on-time performance is difficult to achieve...solutions include adding service and implementing transit priority
- Opportunities exist to re-align service levels to match ridership, but the net cost savings/ridership increases are not large
- HSR cannot act by itself – all departments must look for opportunities to enhance transit use and effectiveness
- Change image of transit from “social service” to “transportation service”; Shift “social” costs of reduced fares to “social services department”
- Council direction is required on how much should be “invested” in transit over next five years to achieve strategic objectives