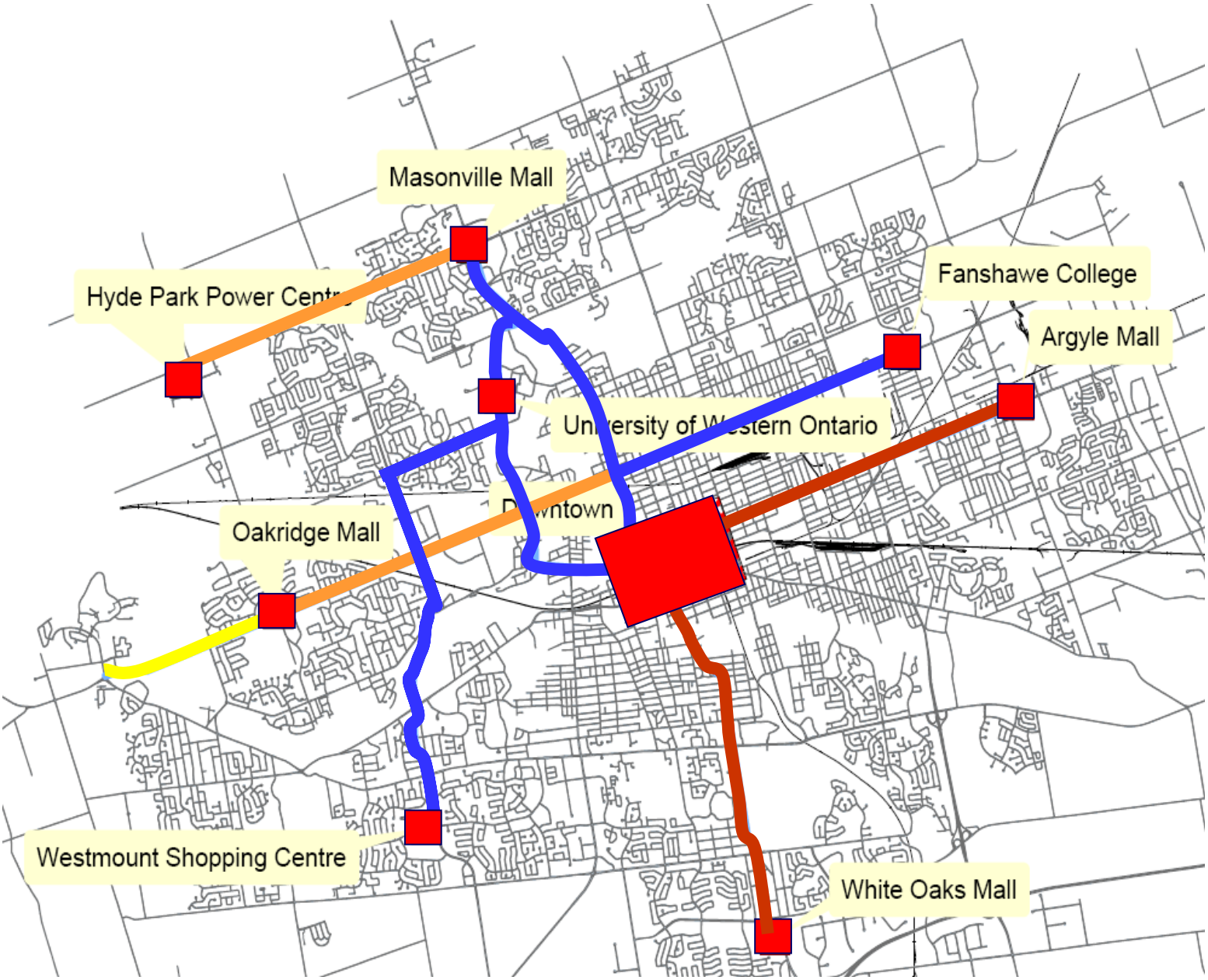
London Transit Commission

Long Term Transit Growth Plan

Overview



Updated September 15, 2008

City of London - Transportation Master Plan

The Transportation Master Plan (TMP), approved by Municipal Council in 2004, establishes the framework for developing a sustainable transportation system for the City of London. The TMP is based upon:

- optimizing existing capacity
- influencing change in trip making characteristics to reduce travel demand
- selecting achievable plans for prioritized expansion, enhancement and improvement
- establishing fiscally responsible plans for prioritized expansion, enhancement and improvement

The TMP was approved with two linked strategies, namely:

In the Capacity Enhancement Strategy, (Base Case) public transit and other alternative modes continue to perform at the status quo (i.e. public transit maintaining current 6.9% mode share target) and the Transportation Master Plan (TMP) continues to function as a roads plan, implemented with 32 roadway enhancement projects over 20 years. This strategy formed the basis for financial planning.

In the Transportation Strategy, (BRT Case) public transit and other modes reach assigned targets, along with demand management and road capacity optimization programs, thereby reducing the number of additional road enhancement projects by 13 (each direction). Under this strategy, the following mode shift assumptions were made:

- transit mode share increases from 6.9% to 10% (with 2007 ridership as the base, the increase in mode share requires ridership to increase by 35%, by 2024)
- 10% of auto drivers with a trip length of less than 2 kms. shift to walking
- 10% of auto drivers, with trip length of less than 4 kms, shift to cycling
- 5% of home based work trips during the peak periods shift to carpooling
- road capacity optimization reduces the number of additional lanes required

Meeting the transit growth targets means building a transit system that:

- is effective and efficient in its design and delivery
- is competitively priced and supported by transit friendly land use policies and programs; and
- has long term, sustainable, predictable funding.

Municipal Council, as provided by the TMP, called for the LTC, as next steps, to:

1. identify where, when and how improvements to transit service can be made in order to reach the mode share target
2. identify, in concert with the City, transit priority measures and locations for such measures
3. include concepts and costs as part of LTC's business planning process

In response to the goal (10% transit mode share) and direction of the TMP the LTC developed a Long Term Growth Strategy which included a number of components including recommended Official Plan amendments (as discussed later in this report) as well as an “Enhanced Corridors and Nodes Transit Strategy using a BRT platform. In addition, the LTC adopted and is proceeding with a number of related strategies such as employment of “smart bus technologies” and “infrastructure renewal and expansion”.

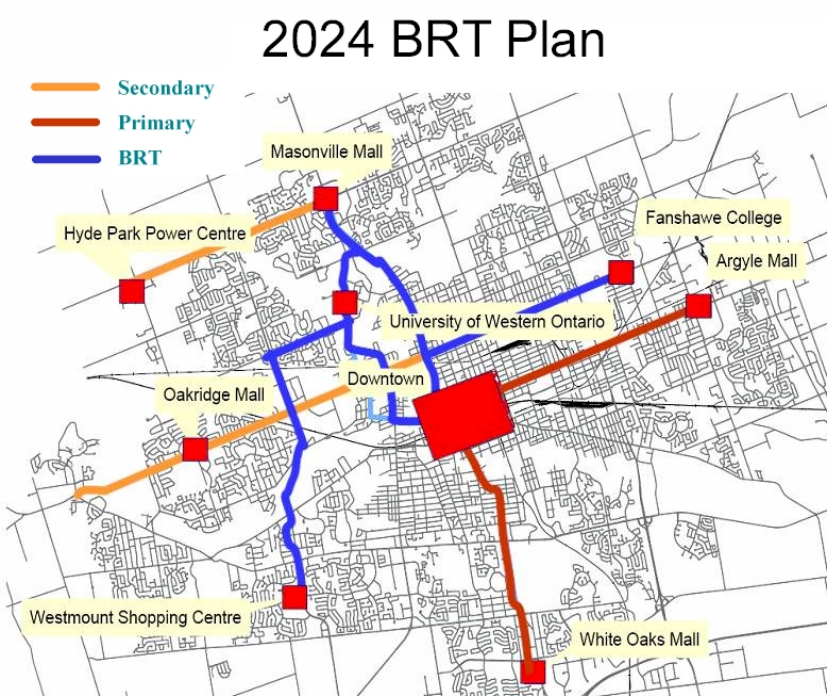
It is critical to recognize that the Long Term Growth Strategy in general and BRT strategy specifically, in addition to being linked and supported by other LTC initiatives, cannot be considered independently of the other objectives of the TMP, the City’s Strategic Plan, Official Plan, and Financial Plan.

London Transit Long Term Growth Strategy

The Long Term Transit Growth Strategy recommends a series of initiatives to assist the City of London and the LTC in meeting the 10% transit mode share target by 2024 as recommended and approved in the 2004 City of London TMP. This represents an aggressive yet achievable increase in transit ridership of approximately 35% to 28.1 million by 2024 from current 2007 ridership level of 20.8 million.

It is recognized that in order to meet the ridership target, it will be necessary to grow ridership beyond that which would be realized simply from population growth. It will be necessary to build ridership through such initiatives as service improvements (design and delivery), transit priority measures, programs and investment requirements involving all three levels of government. Other initiatives such as transit friendly land use policies in the City's Official Plan and the development of a comprehensive parking strategy are other elements of the LTC Long Term Growth Strategy.

The Long Term Transit Growth Strategy calls for the implementation of an Enhanced Corridors and Nodes Transit Strategy using a BRT platform. The conceptual design is depicted below.



The Enhanced Corridors and Nodes Transit Strategy promotes the use of higher order transit to improve the speed, frequency, comfort, and reliability of transit services on key corridors connecting primary transit nodes and activity generators. This includes connections between the four shopping centre sub terminals, the two post-secondary institutions, as well as two additional strategically located transit nodes and the downtown area.

The BRT platform provides a premium level of service to customers. BRT is defined as "bus services that are, at a minimum, faster than traditional "local bus" service and that, at a maximum, included separated lanes for bus operations." The BRT system for London will feature higher levels of service and operating speeds, a range of transit priority measures, exclusive transit rights-of-way, faster passenger boardings, and a system image that is uniquely identifiable.

The development of the BRT is based on the principles of fiscal responsibility, maximum ridership growth, and public support.

- Fiscal responsibility is achieved by ensuring corridor investments achieve the highest payback in terms of ridership and number of buses benefited. It also means avoiding peaks and valleys of public investment and balancing the financial resources required over the life of the plan in 5-year increments. Simple solutions that are cost effective, tied into existing projects, and are easy to

implement would be the primary focus to avoid some of the risk in moving forward with large investment projects.

- Ridership growth would be maximized by focusing infrastructure investment on well traveled corridors that are or will experience significant population growth over the life of the plan and that experience levels of congestion that would benefit from some level of transit priority solution.
- Public support would be gained by implementing minimal impact transit priority features on corridors first in conjunction with an effective branding and marketing campaign. This will help the public understand the benefits of the service before more intensified infrastructure investments (i.e., exclusive bus lanes) are implemented that may be viewed in a negative manner by some residents.

The following table defines the four intensity levels of the BRT network. The network consists of both corridors that are ready for immediate implementation of BRT services and those that need to be protected for future BRT services. While both types of corridors require some level of investment to build ridership, the nature and magnitude of the investment (i.e. service improvements, transit priority infrastructure, amenities, and marketing) will differ depending on the characteristics of the corridor.

Service Attributes	Base Service	Secondary Service	Primary Service	Dedicated Service
Maximum Headway (minutes)				
Peak	30	15	10	5
Off-Peak (afternoon)	30	30	20	15
Transit Priority Treatment				
Signal Priority	X	X	X	X
Queue Jump		X	X	
HOV			X	
Bus Only Lane				X
Miscellaneous Improvements				
Passenger Amenities		X	X	X
Branding/Marketing		X	X	X

Base Services are defined as a preliminary BRT service that provide basic bus service, with transit priority implemented at intersections where there is significant delay to increase the reliability of schedules. Base services have a low ridership growth potential relative to the other BRT corridors and, therefore, investment to help build ridership should be done slowly to promote fiscal responsibility and should not take preference over other BRT corridors.

Secondary Services provide a higher frequency service that is noticeable to passengers and allows for the provision of higher degrees of investment in transit priority to not only increase schedule reliability but also increase the speed of the service. Transit priority investment in these corridors should occur on a number of intersections to have a sufficient impact on the speed and reliability of service. Improvements to passenger amenities can begin to occur with this type of service in conjunction with a branding initiative that identifies the corridor as a more frequent, reliable, and faster corridor for transit service. The provision of express service should be considered where appropriate.

Primary Services provide up to 10-minute combined peak period service frequencies on a dedicated route(s) spanning the length of the corridor. While there are many routes in LTC's system that already operate at this service frequency, designation as a Primary Service should require part of the service to operate in a semi-exclusive Right-of-Way (ROW) for at least half of the trip or through a series of transit signal priority and queue jump lanes where the provisions of semi-exclusive ROW is not feasible.

Dedicated Services provide 5 minute combined peak period frequencies or less on a dedicated route(s) spanning the length of the corridor. At this service frequency, the provision of an exclusive bus lane should span the majority of the corridor, with transit priority treatments in areas where an exclusive bus lane is not feasible

The approach ties the investment of different levels of transit priority, marketing, customer amenities, and service structure to a range of bus service levels. The objective of this approach is to ensure that the branding/marketing of BRT services and infrastructure investment is appropriate to the level of service being provided, thus promoting the principles of fiscal responsibility, maximization of ridership, and public support by outlining an incremental phasing strategy.

Based upon the above the following corridors and general phasing was identified:

Short-term	Medium-term	Long-term
Richmond Street	Oxford Street East	Oxford Street West
Western Road	Wellington Road	Wonderland Road
Dundas Street East		Fanshawe Park Road

The following table sets out the annual incremental capital and operating implications associated with the implementation of the Long Term Transit Growth (Strategy) Plan. As referenced earlier, fiscal responsibility means avoiding peaks and valleys of public investment and balancing the financial resources required over the life of the plan in 5-year increments.

Implementation Strategy – Average Annual Budget Implications

Budget Items	2007-2009	2010-2014	2015-2019	2020-2024
Road Infrastructure/Priority	$0.3M	$12.1M	$11.3M	$10.2M
Bus Fleet	$2.3M	$1.8M	$1.8M	$1.9M
Annual Capital	**$2.6M**	**$13.9M**	**$13.1M**	**$12.1M**
Net Growth in Annual System Operating Costs	$1.1M	$1.7M	$1.7M	$2.1M
Miscellaneous Operating Costs	$0.4M	$0.5M	$0.5M	$0.5M
Annual Net Operating Cost	**$1.5M**	**$2.2M**	**$2.2M**	**$2.6M**

The recommended strategy recognizes that LTC current service is not poised for sustainable growth. Without significant change in service design and delivery, the current service will simply cost more to carry the same or fewer passengers than is currently the case. In the best case, the system growth may keep pace with the population growth.

Business Case Assessment

The development of the Long Term Growth Strategy included a business case assessment of the proposed BRT. The business case assessment included consideration of the economic, environmental and social factors associated with defining and developing a sustainable transportation system for the City of London. The business case assessment compared two transportation system strategies adopted by Municipal Council, namely the Capacity Enhancement Strategy ("Base Case") and the Transportation Strategy (BRT Case). The business case analysis expressed costs and benefits in present value terms over a period of 25 years. As described in the TMP, the assessment combines a reasonable reduction in auto demand with transportation system improvements to optimize the capacity of existing facilities. The assessment concludes that the net combined respective benefits and costs associated with implementing the 25-year BRT Case, would result in a net present value benefit to the City of London, as a whole, of $155.6 million. In other words, implementation of the BRT strategy, in concert with other elements of the

hybrid option, would generate $156 million in total value for the City of London versus the base case. The costing analysis is summarized on the following table.

The following table sets out the cost comparison of the "base case" to the "BRT case" resulting in a net economic (present value) benefit of $155.6 million.

Business Case Assessment Bus Rapid Transit Strategy
Present Value Cost Benefit Assessment (2008-2032) Base Case versus BRT Case

SUMMARY RESULTS (Amounts in Millions)			
ECONOMIC BENEFITS	**Base Case**	**BRT Case**	**BRT Case less Base Case**
Auto Travel Time Savings	$0.0	$ 10.0	$ 10.0
Transit Travel Time Savings	0.0	52.3	52.3
Vehicle Operating Cost Savings	0.0	37.0	37.0
Accident Cost Savings	0.0	89.1	89.1
Emission Cost Savings	0.0	1.3	1.3
Total Economic Benefits	**$0.0**	**$189.8**	**$189.8**
TRANSIT AND ROADWAY COSTS	**Base Case**	**BRT Case**	**BRT Case less Base Case**
Transit Capital Cost	$ 15.9	$ 32.3	$ 16.5
Transit Operating & Maintenance	639.6	742.5	102.9
Transit Priority Cost	0.0	4.3	4.3
Transportation Demand Management Cost	0.0	4.4	4.4
Capacity Optimization Cost	0.0	17.0	17.0
Roadway BRT Capital Cost	0.0	97.8	97.8
Roadway BRT Operating & Maintenance Cost	0.0	0.8	0.8
Roadway Network Capital Cost	400.7	195.3	(205.5)
Roadway Network Operating & Maintenance Cost	7.2	3.2	(4.0)
Total Transit and Roadway Costs	**$1,063.4**	**$1,097.6**	**$ 34.2**
SUMMARY EVUALATION			
Total Economic Benefits Less Total Costs (net present value)			**$155.6**

The business assessment is based upon 100% dollars (i.e. excludes consideration of sources of funding). Municipal funding contributions for the hybrid option (BRT scenario) versus the base case (roads first scenario) must be made clear. Moving forward, it is important to note that there are several sources of funding available to finance the BRT initiative that would not be available or as prevalent in a roads first strategy (Base case scenario). This includes passenger revenues and federal and provincial contributions, which in effect lower municipal investment requirements. The "all in" factors and approach used in the assessment are critical considerations when applying for funding from the senior levels of government. In fact, the model used is that which has been used by other municipal jurisdiction in support of their successful application for Federal and Provincial funding for transit initiatives. The TransDec model used in the assessment was developed for Transport Canada in assessing economic benefits for transit projects.

Linking City of London Transportation Master Plan to Long Term Growth Strategy

Over the period May 2008 to August 2008, both the Commission and Municipal Council adopted a series of resolutions that have the effect of including the Long Term Growth Strategy as a key input in the City's Transportation Master Plan moving to an inclusive transportation strategy for the City of London versus simply as roads strategy the applicable resolution are set out below.

June 9, 2008 resolution of Municipal Council respecting the LTC Long Term Transit Growth Strategy:

> That, on the recommendation of the LTC Long Term Growth Report Working Group, the following actions be taken with respect to the London Transit's Long Term Growth Strategy:
>
> a) the "Bus Rapid Transit" service strategy **BE APPROVED**, as set out in London Transit's Long Term Growth Strategy, for inclusion as the transit service strategy in the City's Transportation Master Plan; and
>
> b) the timely updating of the City's Transportation Master Plan (TMP) with the focus of the update being to identify the "Transportation Strategy" as currently referenced in the 2004 Transportation plan **BE APPROVED** as the principal transportation strategy for the City of London; noting same would be amended to reflect the Bus Rapid Transit strategy and that the Civic Administration will develop a detailed work plan for the updating of the TMP setting out timelines, cost and sources of financing, etc. for presentation and review by the Environment & Transportation Committee at their meeting of July 14, 2008.

May 28, 2008 resolution of the Commission respecting participation in the updating of the Transportation Master Plan:

> a) approved the allocation of $100,000 from the approved 2008 capital budget for transit priority initiatives to support the timely updating of the City's Transportation Master Plan, with the focus of the update being to identify the "Transportation Strategy", as currently referenced in the 2004 Transportation Plan and amended to reflect the Bus Rapid Transit strategy, as the principal transportation strategy for the City of London; and
>
> b) directed the Administration report back to the Commission on the detailed work plan for the updating of the Transportation Master Plan, which will set out timelines, cost and sources of financing, etc. as prepared by the Civic Administration, post approval by Municipal Council of the updating of the Transportation Master Plan.

August 18, 2008 resolution of Municipal Council respecting the updating of the City's Transportation Master Plan:

> a) The following information **BE RECEIVED** in response to Council's direction of June 9, 2008
> (i) The preliminary work plan for the Transportation Master Plan update;
> (ii) A Transportation Master Plan update would require 18 months to complete; and
> (iii) A preliminary cost estimate anticipates a $500,000 cost for this project;
>
> b) a "London Transportation Master Plan Project Steering Committee" (The Steering Team) **BE ESTABLISHED**, comprised of representatives from the City of London Civic Administration and the London Transit Commission Administration;
>
> c) a corresponding project budget **BE CONSIDERED**, in conjunction with the Municipal Council's approval of the 2009 Capital Budget;

d) the Project Steering Team **BE ASKED** to prepare a final "Work Plan" prior to the Municipal Council funding approval and project commencement to better define prospective project funding needs; and

e) the Civic Administration **BE DIRECTED** to allocate funding from the 2008 Operating Budget to permit the commencement of the London Transportation Master Plan update, as soon as possible in 2008; it being noted that the London Transit Commission has approved a contribution from its 2008 capital budget for transit priority measures of $100,000 in order to facilitate an early start to the project.

London Transit Administration will serve on the project Steering Committee. Further to the approval of the Long Term Growth Strategy by Municipal Council, LTC Administration has had initial discussions with Ministry of Transportation staff on the issue of Provincial support/approval for the Long Term Growth Strategy. Further discussions with the Province will be held to ensure all necessary information is provided to garner Provincial support before meeting with Federal government representatives.

Link to City of London – Municipal Council's Strategic Plan

In June of 2007, Council approved the first edition of the 2007-2010 Council Strategic Plan. This plan includes 8 Community Strategic Priorities which set out the direction of the organization based upon the community's hopes, dreams and aspirations for London. The London Transit Commission's Long Term Growth Strategy aligns with one of these Strategic Priorities – Progressive Transportation System.

The definition statement and goal statement of the Progressive Transportation System Strategic Priority follow:

***Definition Statement*:** Building and co-coordinating an efficient and effective transportation network

Goal Statement: Our goal is to ensure that people have affordable alternatives for accessible, convenient and safe transportation

The Strategic Priorities provide the high level of the Council Strategic Plan and Administration has been doing some preliminary work to further define the strategic direction of Council over its term. This includes developing strategic objectives and confirming strategic initiatives, measures and targets for each of the 8 Community Strategic Priorities, including Progressive Transportation System.

Administration met with interested individual Council members to obtain input about strategic objectives, measures and targets and has also reviewed current City master and strategic plans and Council resolutions to develop a draft set of strategic objectives, initiatives, measures and targets to bring to Council for discussion. These draft objectives were considered by the Working Group during the reconciliation process. The draft Community Strategic Objectives will be discussed with Council at the Committee of the Whole meeting on June 12, 2008.

Draft Strategic Objectives in the area of Progressive Transportation System are:

- Develop and maintain an integrated, effective and accessible multi-modal transportation system (roads, bike lanes, sidewalks, pathways and public transit);
- Develop programs and land use patterns which support the use of alternative modes of transportation.

The LTC Long Term Growth Strategy aligns with the first draft Strategic Objective and the initiatives flowing from the strategy will be able to be linked to this strategic objective. The table below shows an example of how LTC strategic initiatives will be mapped to the Council Strategic Plan.

Community Strategic Priority	Draft Community Strategic Objectives	Draft LTC Strategic Initiatives
Progressive Transportation System	Develop and maintain an integrated, effective and accessible multi-modal transportation system (roads, bike lanes, sidewalks, pathways and public transit);	▪ Development of Long Term Growth Strategy for Public Transit – including BRT strategy ▪ Linking of the Long Term Growth Strategy to Key City of London Plans ▪ Supporting initiatives: Smart Bus Technology; Satellite Facility ▪ Annual transit service plans
	Develop programs and land use patterns which support the use of alternative modes of transportation	▪ Develop Transit Supportive Land Use Patterns

Link to City of London – Official Plan

Land use and transportation planning must be integrated to ensure transit-supportive and oriented development with appropriate land use densities, which balance the economic, social and environmental priorities of the municipality. Land use is a key determinant of transportation choices. Land use that is supportive of transit service will attract a much larger pool of potential riders without having to invest as high a cost in the level of service, as that which occurs in an area that is not transit supportive.

Creating transit supportive development can be completed through a series of policies and practices that influence urban structure, mix of land uses, density of development, distances to transit facilities/services, corridors/right-of-way, and pedestrian amenities. This reflects the notion that encouraging transit-supportive development is not a matter that can be dealt with by focussing on one subject alone (e.g. density). Rather, it requires a system of policies working together to encourage high-quality, transit-supportive communities.

In 2006, London City Council initiated the Official Plan Review in accordance with the *Planning Act* requirements that Municipal Councils determine the need to undertake a review of their Official Plan at least every five years. The issues identified for review included the following:

- Growth Forecasts/Land Needs
- Commercial Policies Review
- Residential Intensification and Infill
- Affordable Housing
- Urban Design/Creative Cities Task Force
- Transportation Policies Review
- Environmental Policies/Schedule “B”

As part of the review process, the recommendations set out in the Long Term Growth Strategy related to the Official Plan were provided as input to the review process. The majority of the Long Term Growth Strategy recommendations submitted focused on the land needs, residential intensification and transportation topics, noting that transit-supportive policies are well referenced throughout all sections of the plan.

New policies were added to Chapter 18 -Transportation of the Official Plan to identify transit nodes and corridors and to add a new Figure to the Plan identifying the corridors and nodes network. Other policies were added regarding land uses along identified corridors, connections between the pedestrian circulation system and transit routes, and the design of the road network in new developments to promote transit circulation and transit service within neighbourhoods.

Amendments were adopted by Municipal Council on March 3, 2008 as part of the approval of the updated Official Plan. The updated Official Plan is subject to a statutory review by the Province, which should be in force and effect by the end of 2008.

Link to City of London – Financial Plan

With the updating of both the City Transportation Master Plan and Official Plan to reflect the direction of London Transit's Long Term Growth strategy in general and the BRT specifically the only remaining outstanding linkage is to the City's Financial Plan. This will happen as a matter of course as the updated Transportation Master Plan with appropriate linkage to other key plans, is used as the basis for preparing future financial plans, including the sources of financing.

A number of challenges will exist with the financial plan when it is presented:

1. Affordability – master plans tend to show fully the needs and desires of the service providers. The needs of taxpayers are realized at the time the impact on budget planning occurs (financial plan). Taking the current financial plan, and adding the Bus Rapid Transit requirements (assuming 2/3 financial support from senior levels of government), will require an additional investment of at least $4 million more per year for transit alone; noting the impact (positive or negative) on the roads budget has not yet been determined. The business case suggests that there are net benefits to the community to implement this strategy. The financial plan dealing with implementing the BRT strategy suggests additional investment in transportation will be required by local taxpayers. The decision point for Council is: should that additional investment come from the taxpayer (increased taxes), or by reducing/redirecting resources from other parts of the budget

2. If it is the latter, which services should be reduced? Balancing between the levels of investment suggested in each service against other, equally valid, service demands.

On a going forward basis to assist Municipal Council in dealing with these decisions:

- The budget will be presented in a service based view (bundling); for example, transportation - roads, transit, parking, foot paths and bike paths. This will allow Council to see the total investment in transportation services (which for capital will form close to 50% of the plan by 2017).

- The new Development Charges Background Study will be complete by mid 2009. It is hoped that changes brought forward as a result of various other initiatives will allow greater use of growth funds to fund growth projects, creating more capacity in the rate supported funding to accommodate additional works. In addition, Council must continue to seek changes to Development Charges legislation to ensure government grants are directed solely to the improvement/expansion of services rather than reducing the financial support of development charges. The changes sought include:

    - moving from a retrospective standard for transit based on the previous 10 years to a standard based upon the same process as used for roads, (i.e. not limited by the 10 year historical service standard) but rather on a 10-year going forward capital program and 20-year forecast plan.

- eliminating the 10 per cent statutory reduction for transit. The 10% reduction, while a statutory requirement, is arbitrary in nature. A more equitable approach would be to treat transit growth capital costs in the same manner as the growth capital costs for other services such as Fire and Police and Infrastructure Services (water, roads and sewers) noting the 10% does not apply to such services.

- amending the requirement to offset capital growth costs by the receipt of related funding from the provincial and federal governments, to include specific program reference, or eliminating the requirement completely.

Further it is expected that many of the reviews/assessments completed as part of the 2008 development charge review will be key inputs to updating the TMP.

- The outcome of discussions with the senior levels of government should be known. Accessing funding from the senior levels of government (for transit), municipalities will need to have in place a well defined transit/transportation strategy supporting a sustainable environment that is linked in terms of objectives and direction to similar strategies of the senior levels of government. Other municipalities that have made application for funding using the same or similar approach as envisioned for London received on average approximately 66% funding for related capital investment requirements. Specifically, municipalities will have to demonstrate:

  - They have a supported defined transportation plan and related implementation strategy *(to be addressed with the updating of TMP)*;
  - that land-use and transportation planning are integrated to ensure that development supports transit and is oriented toward it, that is public transit is used to facilitate and shape growth *(addressed as part of the Official Plan update process*);
  - a commitment to developing a sustainable transportation system with public transit as a focal, including a commitment to share in the funding *(linked to the City's Strategic Plan; updated TMP and resulting link to the Financial Plan)*; and
  - the plan provides a critical business (cost/benefit) case assessment that considers such factors as congestion management, environmental impact, social impact (community access by all residents, and economic impact" (c*ompleted as part of the Business Case Assessment)*