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<b>TO:</b>	<b>CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON MARCH 3, 2014</b>
<b>FROM:</b>	<b>EDWARD SOLDI, P. ENG. DIRECTOR, ROADS &amp; TRANSPORTATION</b>
<b>SUBJECT:</b>	<b>LONDON ROAD SAFETY STRATEGY</b>

<b>RECOMMENDATION</b>
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That on the recommendation of the Director, Roads and Transportation, the following actions **BE TAKEN** with respect to the London Road Safety Strategy:

- (a) the Strategy Report Executive Summary attached hereto as Appendix "A", **BE APPROVED** as the basis for implementation of the Strategy; and,
- (b) the Civic Administration **BE DIRECTED** to begin development and implementation of the City-led road safety action items as identified in Appendix "B".

<b>PREVIOUS REPORTS PERTINENT TO THIS MATTER</b>
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- August 21, 2012 – Civic Works Committee – London Road Safety Strategy
- April 2, 2012 - Civic Works Committee - London Road Safety Strategy
- September 26, 2011- Built and Natural Environment Committee - London Road Safety Strategy
- June 21, 2010 – Environment and Transportation Committee - Road Safety Strategy Development

<b>BACKGROUND</b>
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**Purpose:**

This report presents Committee and Council with the Executive Summary of the London Road Safety Strategy Report. The document provides in detail all the key tasks carried to develop the London Road Safety Strategy and the Action Plan for implementation by the City of London and its partners. Upon Council approval, a Charter will be developed for signing by all member agencies and the study report will be finalized. The main objective of the charter is to ensure all agencies are willing to commit time and/or resources to implementation of the Road Safety Strategy.

The Report Executive Summary is attached in Appendix "A".

<b>DISCUSSION</b>
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In August 2012, the City initiated the London Road Safety Strategy (LRSS) study. The overall objective is the development of a coordinated road safety strategy plan for the City of London and the County of Middlesex which provides direction for future road safety projects and programs. The plan defines a system and a process for setting out the targets, policies, and action plans that will guide the City and its partners in creating safer roads by reducing the number and the severity of motor vehicle collisions.

For the LRSS, a two-tiered approach was implemented as illustrated in the figure below. A small

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Administrative Committee was established containing representatives of the engineering (the City), enforcement (the London Police), and education groups (the Middlesex-London Health Unit - MLHU). A larger Steering Committee was comprised of members of the existing London-Middlesex Road Safety Committee and contained a wide base of participants active in the exercise of improving road safety. The Steering Committee included members from: the London Health Sciences Centre (LHSC), Middlesex County, Ministry of Transportation Ontario (MTO), Ontario Provincial Police (OPP), Western University, Fanshawe College, Young Drivers of Canada, and Canadian Automobile Association (CAA).

**Project Team Structure**



**LRSS - Vision, Mission, and Goal:**

The Vision, Mission and Goal were evaluated and developed to best fit the intentions of the London-Middlesex Road Safety Strategy.

- **Vision:** A path to a safer road environment for all transportation users in London
- **Mission:** To save lives and reduce serious injuries to all transportation users through leadership, innovation, coordination, and program support in partnership with other public and private organizations
- **Goal:** A non-linear 10% reduction of injury and fatal collisions over 5 years

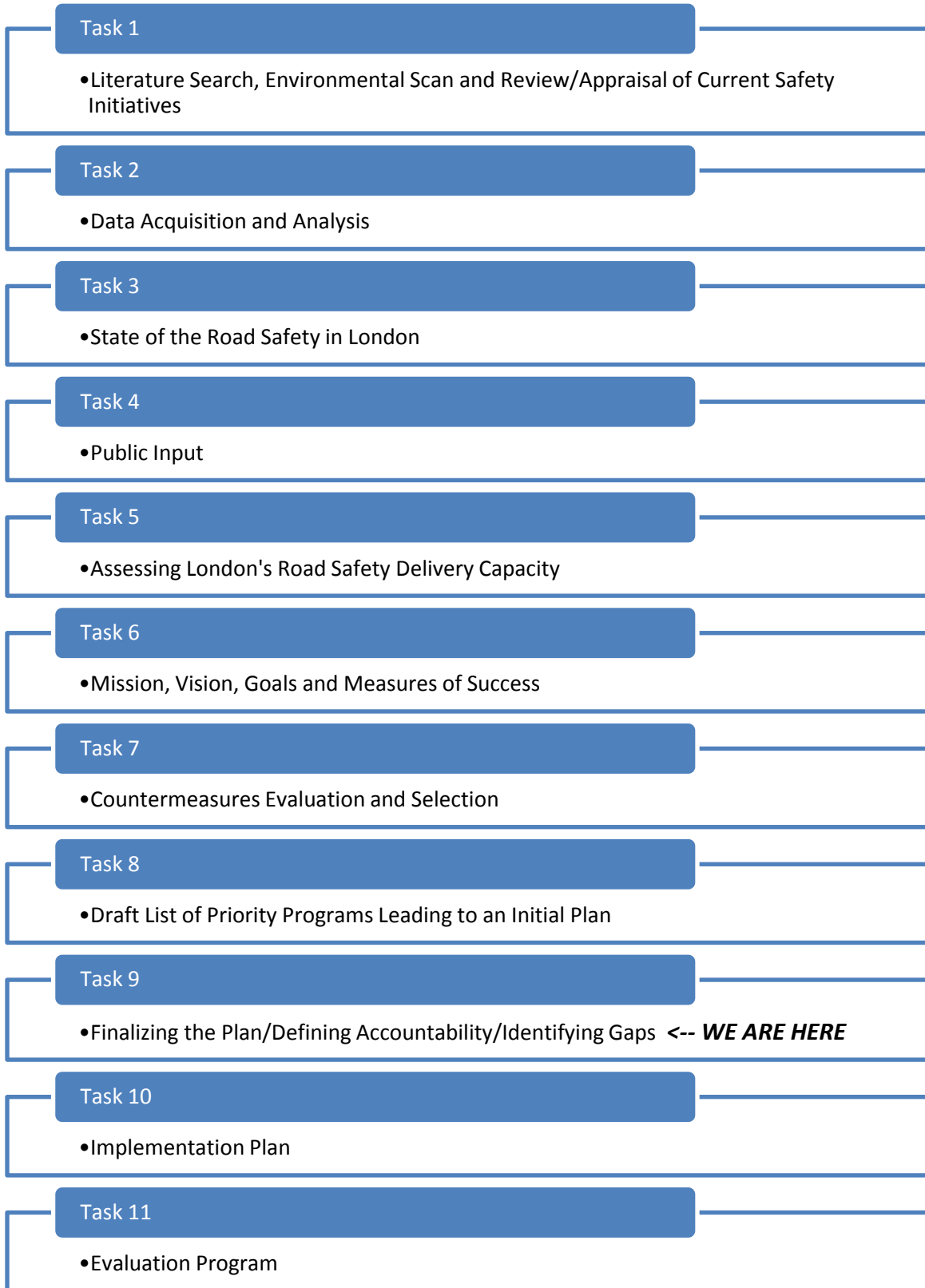
**Development of the London Road Safety Strategy:**

Development of the LRSS consists of eleven (11) major tasks as presented in the chart below and briefly discussed in this report. The basic form of the program follows the traditional state/provincial or municipal approach of analysing collision statistics, identifying the nature of the most severe problems, matching countermeasure programs to address the most severe types and developing delivery strategies.

The first step in finding the Target Areas was to conduct a broad-based literature search and compare it to the City of London and County of Middlesex collision database. The collision data were then analyzed looking for traditional and non-traditional areas of high collision frequency.

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Selection of the Target Areas was not purely data-driven. There were three sources of input to the development of Target Areas: collision data, public input, and initial City input.



To maximize the potential for success, the choice of Target Areas was adjusted based on a number of factors, which include the severity of the collisions, the potential effectiveness of the countermeasures and the capacity of the involved agencies to change or add to their current programs to deliver countermeasures specific to the safety strategy.

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**Public Input:**

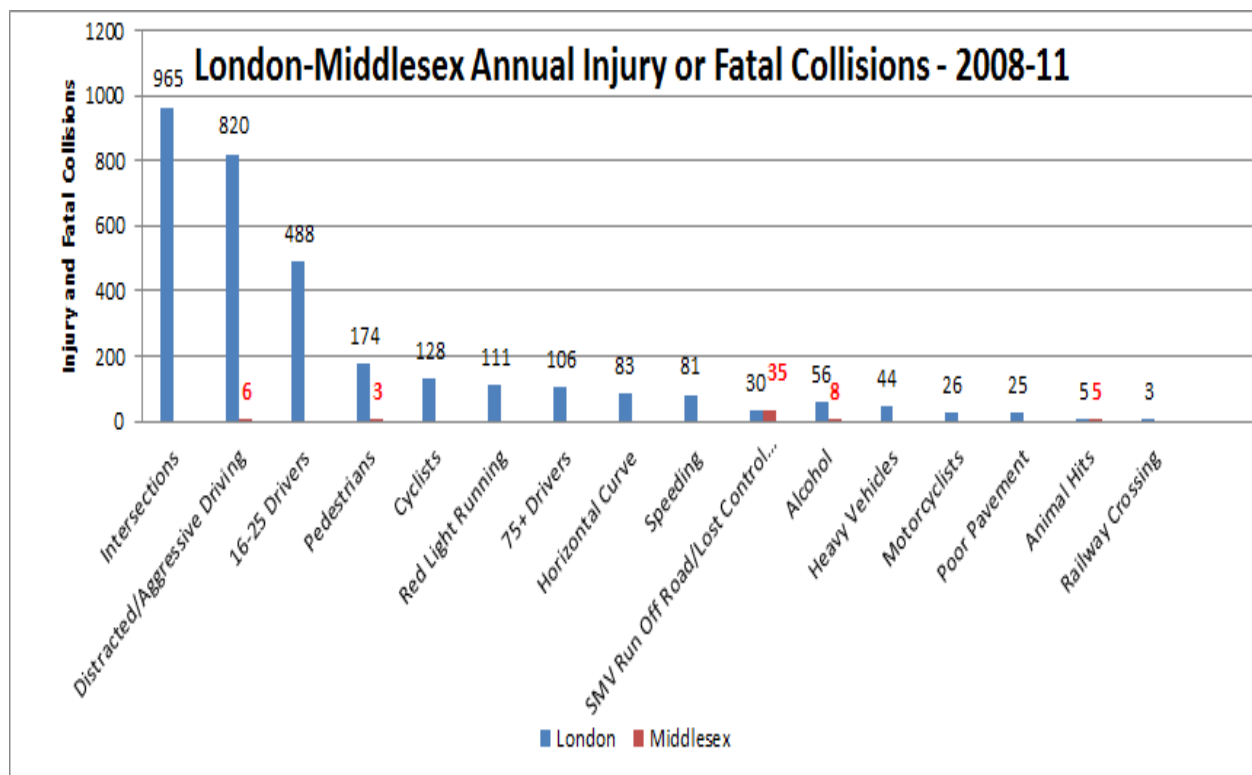
In order to understand public perception of road safety in the City of London and the County of Middlesex, the public’s attitudes and knowledge were assessed by a four-part program. The core of the programme was a questionnaire which covered off a range of topics, many of which paralleled those identified from the data. The questionnaire was first applied to a pilot group of over 500 City of London employees. The pilot test confirmed that the basic questionnaire was satisfactory for the purpose and only very minor changes were made. The questionnaire was then provided to a market research firm which has access to a wide range of participants. The research firm applied the questionnaire to over 1000 residents of the City of London and County of Middlesex. The questionnaire was then placed online by the City and this was advertised through the local newspapers as well as the City of London website. Finally, the City and the consultant conducted an all-day walk-in public information booth at the Western Fair District-London’s Farmers Market. The public were encouraged to fill out hardcopy forms of the questionnaire or go online to access the electronic version.

The conclusion was that the public perception of the safety “problem areas” was consistent with the actual statistics, and no change in the Target Areas was recommended or required. However, one noteworthy finding of the public consultation process was a lack of public recognition of the disproportionately high involvement of young drivers in severe collisions.

**Data Analysis and Target Areas:**

Initially the analysis of the motor vehicle collision data included all collisions reported to the police in the City of London. However, since the objective of the London Road Safety Strategy is to reduce the number of injury and fatal collisions, the concept of using data based only on injury and fatal collisions was used.

Based on London and Middlesex collision data, the final Target Areas of highest injury or fatal collision occurrence for the road safety program are illustrated in the figure below. There is overlap between the Target Areas, for instance one collision could be a young driver running a red light at an intersection and would be recorded in all three categories.



\* Collision types with two bars indicate City of London data on the left and County of Middlesex data to the immediate right.

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Based on the information provided above, selection of a list of priority programs was integrated by the top six (6) Target Areas:

1. Intersections
2. Distracted and Aggressive Driving
3. Young Drivers [16-25 Age Group]
4. Pedestrians
5. Cyclists
6. Red Light Running

**Plan Priority Programs:**

An iterative evaluation process was conducted and resulted in the selection of a list of priority programs integrated by Target Area (Intersection, Aggressive/Distracted Drivers, Young Drivers, Pedestrian, Cyclist, and Red Light Running), and type of countermeasure (Engineering, Enforcement, and Education/Empathy). The purpose of the iterative exercise was to assess the road safety partners' ability to undertake specific countermeasures to best reflect their ability to deliver the programs. Upon Council approval, it is estimated that these programs would be launched in spring 2014 with all of the components going active within one year of launch.

The focus was on programs that are achievable within the resources available and, according to best projections, will achieve the desired objective of 10% reduction within five years. The following table lists all proposed programs that mostly fall under the Engineering category to be implemented by the City:

Target Area	Countermeasure	Recommended Program Commitment
Intersections	Development of Network Screening	Once every 5 years
	Collision Countermeasure Program	10 locations annually
	Traffic Signal Improvement (Left Turn Phasing) *	5 to 10 intersections per year
	Traffic Signal Visibility Review *	20% annually
	Crosswalk Pavement Marking *	10 to 15 intersections per year
	Advance Street Name Sign Program *	10 intersections per year
Pedestrian General	Pedestrian Refuge Island Program	1 to 2 locations per year
	Pedestrian Facilities Upgrades	5 to 10 high pedestrian activity areas per year
Pedestrian ASRTS	Safe Routes to School Program *	5 to 10 schools per year
	Safe Neighbourhoods *	5 to 10 schools per year
Cyclists	Annual addition of Bike Lanes *	Annual program funded for safety reasons
Red Light Running	Traffic Signals Timing Improvement *	20% of signals annually
	Traffic Signal Sight Distance Review *	Complete all the reviews in 3 years
	Traffic Signals Coordination Improvement *	5 corridors per year
	Red Light Camera Implementation	Initiate Pilot Project

\* The noted countermeasures are currently underway and the commitment is reaffirmed or increased.

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The City of London action items are predominantly engineering programs. The education/empathy and enforcement programs are predominantly led by partner groups such as MLHU, LHSC, Young Drivers of Canada and London Police. A complete list of the 38 action items and their corresponding lead agencies is attached in Appendix “B”.

Leaders (shown in table below) for each of the target area working groups were selected by consensus. The following briefly describes the roles and responsibilities of the leaders:

- The role of the leaders is to facilitate the coordination and communication of activities conducted by the different team members.
- A short list of the expected responsibilities are:
  - Provide a single source of communication between team members,
  - Receive and provide updates regarding events and activities conducted by team members,
  - Facilitate the coordination of events, materials, and/or campaigns to avoid duplication of efforts.

Working Group	Lead	Members
Intersections London	City of London	<ul style="list-style-type: none"> <li>• City of London</li> <li>• London Police Service (LPS)</li> </ul>
Intersections Middlesex	Middlesex County	<ul style="list-style-type: none"> <li>• Middlesex County</li> <li>• OPP</li> </ul>
Distracted/Aggressive Drivers	London Police Service	<ul style="list-style-type: none"> <li>• LPS</li> <li>• Middlesex County</li> <li>• CAA</li> <li>• MLHU</li> <li>• LHSC</li> <li>• MTO</li> <li>• OPP</li> </ul>
Drivers (16-25)	London Health Sciences Centre	<ul style="list-style-type: none"> <li>• LHSC</li> <li>• LPS</li> <li>• Young Drivers of Canada</li> </ul>
Pedestrians General	City of London	<ul style="list-style-type: none"> <li>• City of London</li> <li>• LPS</li> <li>• LHSC</li> </ul>
Pedestrians ASRTS & Safe Neighbourhoods	London Block Parent Program	<ul style="list-style-type: none"> <li>• City of London</li> <li>• London Block Parent Program,</li> <li>• OPP</li> <li>• Thames Region Ecological Association (TREA)</li> </ul>
Cyclists	Middlesex-London Health Unit	<ul style="list-style-type: none"> <li>• LHSC</li> <li>• City of London</li> <li>• Middlesex County</li> <li>• OPP</li> <li>• MTO</li> <li>• TREA</li> <li>• CAA</li> </ul>
Red Light Running City of London	City of London	<ul style="list-style-type: none"> <li>• City of London</li> <li>• LPS</li> </ul>
Red Light Running Middlesex County	Middlesex County	<ul style="list-style-type: none"> <li>• Middlesex County</li> <li>• OPP</li> </ul>

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It is worth noting that a staff report regarding Red Light Cameras is on the Civic Works Committee agenda for March 3, 2014. The Red Light Camera implementation falls under the Red Light Running Working Group as indicated above and would be led by the City.

It is essential that the City and its partners have commitment to implementation of the LRSS in order to achieve the 10% injury collisions reduction target in the City of London and Middlesex County in five years.

The final budget impacts over the next five years will be defined as Civic Administration staff move forward with the action items.

**Next Steps - Implementation Plan:**

Following Council approval of the Executive Summary, the LRSS report will be finalized. The next steps for implementing the strategy include the signing of a charter by member agencies, promotional activities, countermeasure program development and implementation, followed by program success measurement. Budget implications will be communicated where applicable.

<b>CONCLUSION</b>
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The overall objective of the London Road Safety Strategy (LRSS) is the development of a coordinated road safety strategy plan for the City of London and the County of Middlesex which will provide direction for future road safety projects and programs.

A key element of the LRSS is to ensure the greatest possible degree of success by establishing a working committee of agency representatives who were tasked with delivering the program and ensuring that the proposed program was reasonable and possible.

Road Safety Strategy Outcomes are Measureable: reduced collisions and injury severity, improved road safety knowledge, safer roads, and improved quality of life. The goal of the strategy is to achieve a 10% reduction of injury and fatal collisions over 5 years. This represents 155 fewer severe motor vehicle collisions by 2019/2020.

An implementation commitment by all partners in the LRSS is key for the success of the strategy.

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**Acknowledgements:**

This report was prepared within the Transportation Planning and Design Division by Maged Elmadhoon; Manager, Transportation Planning. Special acknowledgement to Joyce Castanza; Public Health Nurse at the Middlesex-London Health Unit for chairing the Steering Committee during the study period. This initiative would not be possible without the ongoing support of the London-Middlesex Road Safety Committee and the City’s partners on the Strategy.

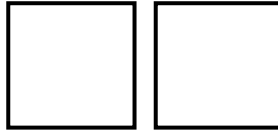
<b>PREPARED BY:</b>	<b>RECOMMENDED BY:</b>
<b>DOUG MACRAE, P. ENG. DIVISION MANAGER TRANSPORTATION PLANNING &amp; DESIGN</b>	<b>EDWARD SOLDI, P. ENG. DIRECTOR, ROADS AND TRANSPORTATION</b>
<b>REVIEWED &amp; CONCURRED BY:</b>	
<b>JOHN BRAAM, P.ENG. MANAGING DIRECTOR, ENVIRONMENTAL &amp; ENGINEERING SERVICES &amp; CITY ENGINEER</b>	

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Attach:      Appendix “A” – LRSS Study Report Executive Summary  
                  Appendix “B” - Working Groups and Action Items

c.              Joyce Castanza, MLHU & London-Middlesex Road Safety Committee  
                  Transportation Advisory Committee c/o Heather Lysynski  
                  CIMA Consultants





## Appendix “A”

### Executive Summary

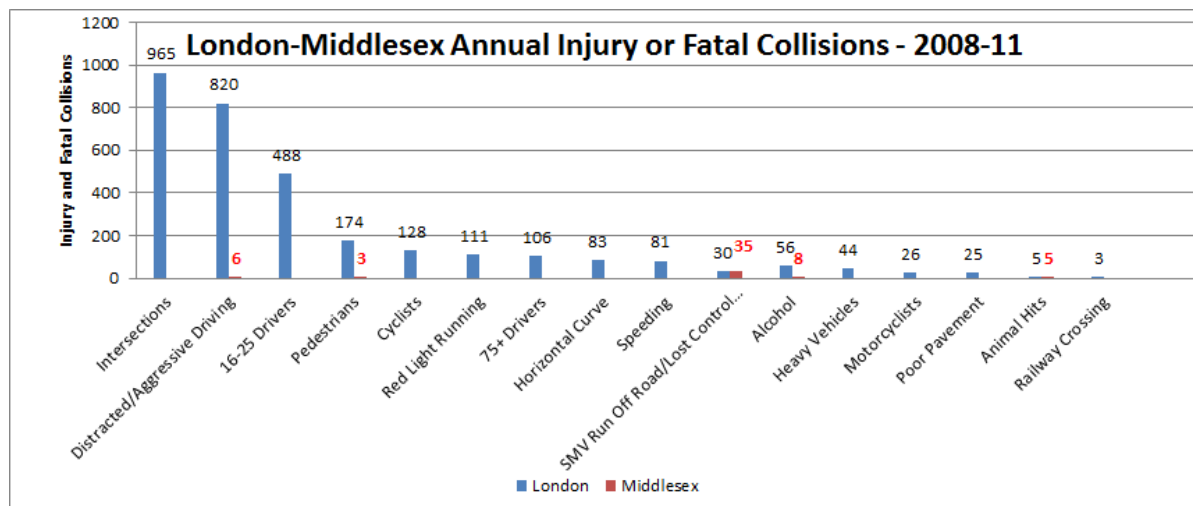
The overall objective of the London Road Safety Strategy (LRSS) is the development of a co-ordinated road safety strategy plan for the City of London and the County of Middlesex which will provide direction for future road safety projects and programs. The plan defines a system and a process for setting out the targets, countermeasures, and actions that will guide the City and its partners in creating safer roads by reducing the number and the severity of motor vehicle collisions.

The project benefitted from already having an active road safety committee in place. The London Middlesex Road Safety Committee (LMRSC) has been active for over sixteen years and contains a wide base of participants in the exercise of improving road safety.

For the LRSS, the Road Safety Committee was expanded by several members and integrated by an Administrative and Steering committees. The majority of decision making was initiated by the Administrative committee, but major decisions were vetted through the Steering committee, which was comprised of the London Middlesex Road Safety Committee, as expanded.

To assess the current status of London’s road safety, an analysis of the collision data contained in the City of London Traffic Engineering Software (TES) database was conducted for the years 2008-2011. The information contained in the database was manipulated to extract specific trends and collision characteristics. As well, a more cursory review was made of the County of Middlesex data.

Since the objective of the London Road Safety Strategy was both to reduce the number and severity of collisions, the concept of using data based only on injury and fatal collisions was discussed with the Administrative committee and the Steering committee. The Committees both concurred with this change. The result of this analysis is presented in **Figure 1**.



**Figure 1 - Areas of highest injury or fatal collision occurrence as found in London and Middlesex collision data (annual average 2008-2011)**

Based on the information provided in **Figure 1**, the main target areas, by injury or fatal collision relevance, are:

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1. Intersections
2. Distracted and Aggressive Driving
3. Drivers [16-25] Age Group
4. Pedestrians
5. Cyclists
6. Red Light Running

While the information collected through the literature search and the analysis of the City of London database provided a strong factual base (data-driven) for the identification and selection of the main emphasis areas, it was understood that public's perception of safety is also a key input to be considered. To understand the public's view of road safety in London, the following approach was undertaken:

1. Develop a set of questions that may reinforce, contradict or expand the findings of the City's database analysis and the literature search,
2. Provide opportunities for public input using an online version of the aforementioned set of questions, and
3. Set-up a one-half day information/questionnaire booth in a local venue in London.

The conclusion was that the public perception of the safety "problem areas" was consistent with the actual statistics, as evidenced by the hard data, that no change in the target areas was recommended or required.

In order to choose a Mission, Vision and Goal that best fit the intentions of the London-Middlesex Road Safety Strategy, an evaluation process based on the Delphi Method was conducted. The result of this process was the identification and endorsement of the following Vision, Mission and Goal:

- **Vision:** A path to a safer road environment for all transportation users in London.
- **Mission:** To save lives and reduce serious injuries to all transportation users through leadership, innovation, coordination, and program support in partnership with other public and private organizations.
- **Goal:** A non-linear 10% reduction of injury and fatal collisions over 5 years.

To identify a set of countermeasures that will support the accomplishment of the Goal selected by the London-Middlesex Road Safety Strategy, an evaluation process similar to the one conducted for the determination of the Mission, Vision and Goal was conducted.

For each target area, at least one, but more commonly multiple, countermeasures were proposed. Countermeasures were proposed based on four different types for each target area: Engineering, Enforcement, Education and Empathy.

The first three are traditional approaches, known for many years as the three "E"s. The Empathy approach is a new one that asks road users to try to understand the situation for other, possibly conflicting, users. The classic example is a turning vehicle at a traffic signal not giving sufficient space to an elderly pedestrian – the driver needs to understand the level of discomfort or even fear that can be created.

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All proposed countermeasures were integrated in a Countermeasure List Matrix and presented for discussion to the members of the Administrative and Steering committees who will be tasked with delivering the LRSS, for specific actions which fit within the framework.

Each action identified by the members of the Steering committee were subjected to an evaluation process in order to identify a specific method of measurement for each program as well as the level of implementation (goal) over the initial two to three years of the Strategy.

The result of the evaluation process was the selection of a list of actions integrated by Target Area (Intersection, Pedestrian, Cyclist, Aggressive/Distracted Drivers, Young Drivers and Red Light Running), and Type of Countermeasure (Engineering, Enforcement, and Education/Empathy)

The list of actions was presented for review and discussion to the Administrative committee members assuming that the proposed actions should be launched by spring 2014 with all of the components going active within one year of launch.

Feedback and directions provided by the Administrative committee were integrated into a revised version of the proposed list of actions and provided for discussion to all members of the Steering committee.

All action items considered for implementation are new or reflect an increased level of effort for existing programs. These are also programs which the Steering committee members and agencies realistically believe can be delivered and will be effective – that is, those that can be achieved by the Steering Committee, and that are projected to deliver approximately 155 fewer motor vehicle collisions by around 2019/2020.

Following approval of the Plan the LRSS report will be finalized. As per instructions of the Steering committee the final report will be in a format and style similar to other Road Safety Strategy documents (i.e. City of Seattle), rather than a pure technical document.

The next steps will include:

- Charter development for signing by all member agencies,
- Development of media programs, collision countermeasure programs and enforcement programs as part of two semi-annual meetings, and
- Establishment of an approach to efficiently measure the program success.

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## Appendix “B”

### Working Group – Intersections - London

ACTION 1	
<b>Engineering</b>	Development of Network Screening and High Collision Location Identification
<b>Description</b>	Build filters into City of London’s TES identifying abnormally high collision locations based on type of collision
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Develop SPFs and apply EB method for network screening; use Level of Service of Safety with EB
<b>Program Commitment</b>	Once every 5 years
ACTION 2	
<b>Engineering</b>	Collision Countermeasure Program
<b>Description</b>	Use Prediction model to identify intersections experiencing higher than expected number of collisions
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	10 locations annually which reviewed and assigned remedial actions
<b>Program Commitment</b>	10 locations annually
ACTION 3	
<b>Engineering</b>	Traffic Signals Improvement Program-Left Turn Phasing
<b>Description</b>	Continue to review advance phasing and if protected phase required
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Percent of signals with protected only phases installed per year of all signals
<b>Program Commitment</b>	5 to 10 intersections per year

ACTION 4	
<b>Engineering</b>	Traffic Signal Improvement Visibility Review
<b>Description</b>	Continue to review visibility of downstream signal heads where multiple traffic signal plants are within 250m of each other. Review visibility of signal heads and sight distances at individual and adjacent signal locations

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<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Number of intersections investigated by year; number of signals revised.
<b>Program Commitment</b>	20% annually

**ACTION 5**

<b>Engineering</b>	Crosswalk Pavement Marking Program
<b>Description</b>	Continue to identify which locations would benefit from ladder markings (refer to TAC Pedestrian Traffic Control Guide) - create a criteria to assist in identifying the locations for ladder markings, and for maintenance of markings after installation

<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Number of locations identified for possible ladder markings installation - Number/ percent completed / year
<b>Program Commitment</b>	10 to 15 intersections per year

**ACTION 6**

<b>Enforcement</b>	Pro-active Enforcement Program
<b>Description</b>	Enhanced use of pro-active enforcement strategies- specific to high risk intersections as determined above

<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	1) Enforcement Levels 2) Number of Drivers Charged 3) Change in measure determined by network screening and related reviews
<b>Program Commitment</b>	1) Enforce sites in coordination with network screening results as well as speeding reviews for an agreed upon timeframe 2) Maintain police presence at selected locations for an agreed upon period of time.

**ACTION 7**

<b>Engineering</b>	Advance Street Name Sign Program
<b>Description</b>	Start installing advance street name signs using ClearView font and Upper/Lower case lettering before major intersections

<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Percent of all intersections that will be equipped with signs annually
<b>Program Commitment</b>	10 Intersections per year

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**Working Group – Intersections – Middlesex County**

<b>ACTION 8</b>	
<b>Enforcement</b>	Collision Reduction Strategy-Assessment
<b>Description</b>	The Middlesex County OPP is currently engaged in the Middlesex Collision Reduction Strategy Program. A program that has involved an in-depth analysis of statistics relating to motor vehicle collisions recorded over the previous five years, on OPP patrolled roads located within Middlesex County. This program involves the Middlesex OPP working alongside with community stake holders for traffic safety within the County of Middlesex. The continued support of frontline services and direction of the Middlesex OPP Community Oriented Response (COR) Traffic Team to work with our local partners with the vision of traffic safety through the four E's, Enforcement, Education, Engineering and the Environment.
<b>Agency</b>	Ontario Provincial Police (OPP)
<b>Measures of Effectiveness</b>	The Middlesex OPP will continue identify the ever evolving factors as they relate to traffic collisions and will adapt to those factors with the ultimate goal of traffic and public safety. The Middlesex OPP will continue to target the "Big Four" factors in death and injuries on highways, waterways and trails including: impaired driving, lack of occupant restraint/safety, aggressive driving and distracted driving with the ultimate goal of reducing the loss of life and serious injuries.
<b>Program Commitment</b>	A continued focus on traffic safety and a reduction in property damage, personal injury and fatal collisions at identified high risk intersections.
<b>ACTION 9</b>	
<b>Enforcement</b>	Collision Reduction Strategy-Enforcement
<b>Description</b>	The Middlesex OPP will continue to participate in proactive strategies in locations identified by the Collision Reduction Strategy. Continued support of the mobile speed enforcement sign, RADAR and Laser intercept programs. The OPP will continue to support various RIDE programs located within high risk locations. The Middlesex OPP will continue to participate in various education programs and work with local media for a directed message.
<b>Agency</b>	OPP
<b>Measures of Effectiveness</b>	The Middlesex OPP will continue identify the ever evolving factors as they relate to traffic collisions and will adapt to those factors with the ultimate goal of traffic and public safety. The Middlesex OPP will continue to target the "Big Four" factors in death and injuries on highways, waterways and trails including: impaired driving, lack of

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	occupant restraint/safety and distracted driving with the ultimate goal of reducing the loss of life and serious injuries.
<b>Program Commitment</b>	A continued focus on traffic safety and a reduction in property damage, personal injury and fatal collisions at identified high risk intersections.
<b>ACTION 10</b>	
<b>Engineering</b>	Signage and Safety Standards Consistency
<b>Description</b>	Coordination of County and City standards for signage and safety measures at rural intersections
<b>Agency</b>	Middlesex County
<b>Measures of Effectiveness</b>	Completion of consistent standards and implementation plan for execution of new standards
<b>Program Commitment</b>	Completion of standards
<b>ACTION 11</b>	
<b>Engineering</b>	Signage Replacement Program
<b>Description</b>	Using mobile LiDAR to evaluate reflectivity of signs to prioritize and more efficiently replace faded regulatory and warning signage - best tool is a retroreflectometer which has been specifically designed for measuring sign reflectivity.
<b>Agency</b>	Middlesex County
<b>Measures of Effectiveness</b>	Number or percent of signs evaluated from all signs in county. Percent or number of signs replaced from all signs found faded
<b>Program Commitment</b>	Aim for 20% annually

**Working Group – Distracted and Aggressive Drivers**

<b>ACTION 12</b>	
<b>Engineering</b>	Roadway Alignment Improvement Program
<b>Description</b>	Engineering improvements to horizontal/vertical alignment for reconstruction projects - suggest looking for opportunities to improve coordination with all 3R (or 4R) projects - reconstruction, rehabilitation, resurfacing, etc.
<b>Agency</b>	Middlesex County
<b>Measures of Effectiveness</b>	Percent/number of all 3R projects that were enhanced with safety of curves in mind; e.g., greater radius and flatter alignment and better combination of grades and horizontal curvature, etc.
<b>Program Commitment</b>	Include improvements in all future road reconstruction programs

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ACTION 13	
<b>Enforcement</b>	Unmarked Enforcement of Distracted Driving
<b>Description</b>	Focused initiatives involving unmarked vehicles and/or officers in plain clothes
<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	Number of tickets and warnings issued during focused initiatives compared to numbers issued at other times; comparison of numbers of offence notices and warnings for each type of surveillance undertaken in similar corridors at similar times of day to help determine the best method of detection.
<b>Program Commitment</b>	Conduct 5 focused initiatives per year. Coordinate the initiative with the "Look where you are driving" education campaign if possible so that the initiatives are mutually reinforcing.
ACTION 14	
<b>Education/Empathy</b>	Driver Education Campaign-Tweets
<b>Description</b>	Look where you are driving- can be done by police media tweets
<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	Track the number of media releases, tweets and related interviews
<b>Program Commitment</b>	1) Increase the number of "look where you drive" tweets and media releases by 10% 2) Respond to 80% of related interview requests
ACTION 15	
<b>Education/Empathy</b>	Driver Education Campaign for Distracted/Aggressive Drivers
<b>Description</b>	Collaborate with London Health Sciences Centre and other partners on a distracted driving campaign. This campaign would be part of an integrated program / plan of actions that govern all relevant actions Explore the development of a comprehensive educational campaign focused on distracted/aggressive driving. The initial step will be to review the injury/collision data and other surveillance data (e.g. RRFSS) in order to determine characteristics of the target audience for a campaign (e.g. socio-demographics, risk factors, physical environmental factors, etc.) The second step will be to review research evidence to identify effective campaign strategies for our intended target groups(s). Efforts will be made to coordinate with CAA for possible points of integration in campaign development. Consider the DON'T campaign.
<b>Agency</b>	Middlesex-London Health Unit (MLHU)



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<b>Measures of Effectiveness</b>	Number of presentations / year; 2) average number of participants / presentation. Number of messages /year;2) Frequency of messages/year; 3) Duration of campaign; 4) Reach: Possible short-term Outcomes 1) Prevalence and frequency of self-reported use of talking on a cell phone or other mobile or wireless device while driving (RRFSS);2) Prevalence and frequency of self-reported text messaging or emailing while driving (RRFSS); 3) Number of collisions caused by aggressive/distracted
<b>Program Commitment</b>	Support further efforts to take campaign throughout province through current stakeholder interest. Develop and implement a driver education campaign. Short term and intermediate goals to be determined after program development

### Working Group - Drivers (16-25)

ACTION 16	
<b>Education/Empathy</b>	Young Drivers Education Campaign-Distracted and Impaired
<b>Description</b>	Continued focus on education related to distracted driving, impaired driving by alcohol and drug in secondary schools. Currently LPS works with BOBFM on distracted driving campaigns and presentations - an integrated program with related actions is needed including schedule of meetings/form development for feedback at the end of the session
<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	1) Number of requests and presentations 2) Measure of effectiveness will be based on results from the feedback form
<b>Program Commitment</b>	1) Respond to 100% of presentation requests 2)Hand-out a feedback form at the end of every presentation
ACTION 17	
<b>Education/Empathy</b>	Young Drivers Education Campaign-Skill Building
<b>Description</b>	Young Drivers of Canada provides training for skill building, cognitive assessment and development, training for Co-drivers and resources for G1 & G2 drivers
<b>Agency</b>	Young Drivers of Canada (YDC)
<b>Measures of Effectiveness</b>	Number of local issues included in the resources available to novice drivers via YDC
<b>Program Commitment</b>	Support and train novice drivers towards a goal for these drivers to drive collision free throughout the process from G1 to full G.

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ACTION 18	
<b>Education/Empathy</b>	Young Drivers Education Campaign-Inexperience in Driving
<b>Description</b>	Discusses youth and inexperience in driving – may be included in the redesign - need to integrate this strategy with engineers working with traffic control and redesign of geometric elements
<b>Agency</b>	London Health Sciences Centre (LHSC)
<b>Measures of Effectiveness</b>	Number of engineering decisions benefitted or modified thanks of YDC input
<b>Program Commitment</b>	TBD
ACTION 19	
<b>Education/Empathy</b>	IMPACT(Impaired Minds Produce Actions Causing Trauma)
<b>Description</b>	Program targeting youth (ages 15-19) discussing and presenting the consequences of high risk behaviour including aggressive and distracted driving. A new added component this year has been a family member fatally injured distracted driver speaking to students.
<b>Agency</b>	LHSC
<b>Measures of Effectiveness</b>	1) number of presentations/year;2) total number of participants at the venues / year 3) student questionnaires
<b>Program Commitment</b>	Decrease risk taking behaviour in youth. Increase knowledge and awareness, change perception, attitudes and behaviours regarding high risk behaviours and injury.

**Working Group – Pedestrian General**

ACTION 20	
<b>Engineering</b>	Pedestrian Refuge Island Program
<b>Description</b>	Pedestrian Refuge Islands using existing criteria
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Number of locations identified for pedestrian refuge islands - Number/ percent completed / year
<b>Program Commitment</b>	1 to 2 locations per year
ACTION 21	
<b>Education/Empathy</b>	Collision Data Improvement Program-Pedestrians
<b>Description</b>	LHSC ED/Admissions data available on pedestrian injury - develop a plan for data sharing between the sources
<b>Agency</b>	LHSC

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<b>Measures of Effectiveness</b>	Achievement of dataset modification and sharing
<b>Program Commitment</b>	Incorporate modification into data collection and ultimately design programming around comprehensive data.
<b>ACTION 22</b>	
<b>Engineering</b>	Pedestrian Facilities Upgrades, OTC Book 15, AODA, TAC Pedestrian Traffic Control Guide
<b>Description</b>	Use all of the referred to resources to evaluate how to make conditions safer for all pedestrians
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Number of corridors evaluated for pedestrian safety concerns. Number/ percent of those that were mitigated by traffic calming policy / TAC Guide with a program in place to measure speeds (and pedestrian use of new facilities, if applicable) 6 months and 12 months after implementation of strategies
<b>Program Commitment</b>	Identify 5 to 10 areas a year which generate a significant number of pedestrians
<b>ACTION 23</b>	
<b>Enforcement</b>	Pedestrian Crossing Enforcement Strategy
<b>Description</b>	Targeted enforcement strategies for pedestrians who cross the road in contravention of the act or applicable by-law - develop a plan of action prioritizing the locations to enforce-pedestrian enforcement should be used as a supplement to education and awareness countermeasures
<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	1) Enforcement time at two high risk pedestrian corridors enforcement at areas determined to be high risk locations.
<b>Program Commitment</b>	Increase enforcement time by 5% at two high risk pedestrian corridors as determined by the city, where enforcement has been determined to be the most appropriate mitigation strategy

**Working Group – Pedestrian ASRTS & Safe Neighbourhoods**

<b>ACTION 24</b>	
<b>Engineering</b>	Safe Routes to School Program
<b>Description</b>	Active and Safe Routes to School program to review local issues around schools
<b>Agency</b>	City of London

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<b>Measures of Effectiveness</b>	Introduction of curb extensions, parking zones, ladder markings, etc
<b>Program Commitment</b>	5 to 10 schools per year
<b>ACTION 25</b>	
<b>Education/Empathy</b>	Safe Neighbourhoods
<b>Description</b>	A generic set of questions and answers have been produced which are circulated through the school newsletter educating parents and staff on the pros and cons of perceived solutions to traffic concerns. A walkabout is done at every school with parents, police, teachers and engineering to review identified safety concerns.
<b>Agency</b>	City of London
<b>Measures of Effectiveness</b>	Through working with the school nurse and the parents review effectiveness of programs. Program has expanded from 5 pilot schools to 15 schools due to positive response from parents and teachers.
<b>Program Commitment</b>	5 to 10 schools per year
<b>ACTION 26</b>	
<b>Education/Empathy</b>	Active and Safe Routes to School (ASRTS)
<b>Description</b>	ASRTS is a community partnership. Continue with school travel plans using an educational quick-start school planning manual for all schools interested in a comprehensive strategy to meet the needs for safety and active transportation at their school. This document contains links to safety curriculum and walking and cycling safety messages. Surveys for family and students help to establish a baseline in which to establish interventions such as walking campaigns, street improvements and school infrastructure changes as well as a living document to engage parents, staff and children in its delivery over time..
<b>Agency</b>	MLHU
<b>Measures of Effectiveness</b>	1) number of manuals delivered/year; 2) number of school travel plans
<b>Program Commitment</b>	Establish 5 to 10 school travel plans
<b>ACTION 27</b>	
<b>Education/Empathy</b>	Safe Routes to elementary and secondary school program by Middlesex OPP in Middlesex County
<b>Description</b>	Continued partnership between the Middlesex OPP and Thames Valley District School Board to work to support local school programs and educate the youth.

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<b>Agency</b>	OPP
<b>Measures of Effectiveness</b>	Percent of schools visited
<b>Program Commitment</b>	A continued focus on traffic and pedestrian safety

### Working Groups - Cyclists

ACTION 28	
<b>Enforcement</b>	Cyclist Crossing Enforcement Strategy
<b>Description</b>	Targeted enforcement strategies for cyclist who cross the road in contravention of the act or applicable by-law - develop a plan of action prioritizing the locations to enforce-cyclist enforcement should be used as a supplement to education and awareness countermeasures
<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	1) Enforcement time at two high risk cycling corridors enforcement at areas determined to be high risk locations.
<b>Program Commitment</b>	Increase enforcement time by 5% at two high risk cycling corridors as determined by the city, where enforcement has been determined to be the most appropriate mitigation strategy
ACTION 29	
<b>Engineering</b>	Collision Data Improvement Program-Cyclists
<b>Description</b>	LHSC ED/Admissions data available on cyclist injury - develop a plan for data sharing between the sources
<b>Agency</b>	LHSC
<b>Measures of Effectiveness</b>	Achievement of updating of dataset/custom analysis of the bicycle collisions
<b>Program Commitment</b>	Incorporate modification into data collection and ultimately design programming around comprehensive data.
ACTION 30	
<b>Engineering</b>	Annual addition of Bike Lanes
<b>Description</b>	Following the Bicycle Master Plan the City annually adds dedicated bike lanes to major roads
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Review where collisions involving cyclists are occurring to prioritize implementation of future lanes

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<b>Program Commitment</b>	Annual program funded for safety and environmental reasons
<b>ACTION 31</b>	
<b>Education/Empathy</b>	Share the road signage and educational project in the city of London and Middlesex County
<b>Description</b>	Middlesex County, City of London, Middlesex-London Health Unit, and London Middlesex Road Committee are planning a new Share the Road educational campaign for West London and Middlesex County to educate both drivers and cyclist about sharing the roads to be launched spring 2014.
<b>Agency</b>	MLHU
<b>Measures of Effectiveness</b>	Number of signs, number of key messages, frequency of messages, duration of campaign
<b>Program Commitment</b>	Develop and implement a share the road educational campaign after Middlesex County approval. Outcome evaluation to be determined during program development. Determine if this project will be implemented in other areas of Middlesex County.

**Working Group – Red Light Running - City of London**

<b>ACTION 32</b>	
<b>Engineering</b>	Traffic Signals Improvement Program-Signal Timing
<b>Description</b>	Continue to review signal clearances and extensions
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Percent of signals with modified clearance times per year of all signals identified for RLR program
<b>Program Commitment</b>	20% of signals annually
<b>ACTION 33</b>	
<b>Engineering</b>	Traffic Signal Sight Distance Review
<b>Description</b>	Continue to review clearances and sight distances at high right angle collision locations
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Number of intersections investigated/ year; number of intersections upgraded.
<b>Program Commitment</b>	To complete all reviews within 3 years with parallel implementation of strategy to gain positive effects

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**ACTION 34**

<b>Engineering</b>	Traffic Signals Improvement Program-Signal Coordination
<b>Description</b>	Continue to Optimize and Co-ordinate signal timing
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Percent of signals or corridors with coordinated timing per year of all signals or corridors identified for RLR program
<b>Program Commitment</b>	5 corridors per year

**ACTION 35**

<b>Engineering</b>	Red Light Camera Implementation
<b>Description</b>	Subject to results of review, install Red Light Camera Equipment at selected locations
<b>Agency</b>	City of London - Transportation
<b>Measures of Effectiveness</b>	Number of red light camera equipment installed per year. Number of incidents collected per location
<b>Program Commitment</b>	Initiate a pilot project.

**ACTION 36**

<b>Enforcement</b>	Pro-active Enforcement Program-Red Light Running
<b>Description</b>	Use of co-ordinated enforcement strategy with use of both plain clothed and uniformed officers- develop a program to integrate actions with the engineering program
<b>Agency</b>	London Police Service
<b>Measures of Effectiveness</b>	1) Enforcement time at one high risk intersection. 2) Reduction in red light violations over base line levels as determined with the assistance of City Of London engineers (ie. repeated measures by student observations/ use of cameras)
<b>Program Commitment</b>	1) Increases the amount of enforcement time by 5% at sites identified as high risk intersections related to red light violations. 2) Reduce the number of red-light violations by 5% at one specific high risk location.

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**Working Group – Red Light Running Middlesex County**

<b>ACTION 37</b>	
<b>Engineering</b>	Traffic Signals Improvement Program-LED Signals
<b>Description</b>	Use of LED signals to provide better visibility of red light - suggest developing an integrated identification and implementation program with all other strategies related to RLR
<b>Agency</b>	Middlesex County
<b>Measures of Effectiveness</b>	Percent of signals with new LED per year of all signals identified for RLR program
<b>Program Commitment</b>	Aim for 10% (2 or 3 intersections) annually
<b>ACTION 38</b>	
<b>Enforcement</b>	Pro-active Enforcement Program-High Risk Intersections
<b>Description</b>	Enhanced use of proactive enforcement and education at high risk intersections as identified in the Middlesex Collision Reduction Strategy - develop a program to integrate actions with the engineering program
<b>Agency</b>	OPP
<b>Measures of Effectiveness</b>	The Middlesex OPP will continue identify evolving factors as they related to traffic safety and will adapt to those factors with the ultimate goal of traffic safety.
<b>Program Commitment</b>	A continued focus on traffic safety and a reduction in property damage, personal injury and fatal collisions at identified high risk intersections.