Presenters:

• **Glenn A. O’Connor**, Principal of G. O’Connor Consultants Inc., Burlington
Consulting Team Members:

• **G. O’Connor Consultants Inc.**, Project Co-Lead, Burlington
• **CIMA+**, Project Co-Lead, Burlington
• **McKibbon Wakefield Inc.**, Burlington
• **Toole Design Group**, Seattle
• **DMD & Associates**, Vancouver
Learning Outcomes:

This session is intended to provide participants with an understanding of how Hamilton will create a community where people choose to walk.
Hamilton’s Commitment to Improved Mobility Arises From:

• Provincial legislation
• Commitment to the International Charter for Walking (April, 2008)
Step Forward – Purpose:

• 20 year framework to improve Pedestrian Environment, increase opportunity for walking as a transportation mode
• Improve health of communities
• Safe, inclusive, accessible
• Mobility – all modes of walking, running, scooters, wheelchairs and walkers
• Inclusive to all
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- **Significant public input/consultation process.**
- P.I.C. #1, at 4 locations held March/April, 2011.
- P.I.C. #2, at 2 locations held September, 2011.
- On-line interactive “Community Walk” map.
- 478 on-line and paper surveys.
- 1,643 Community walk map views (this is 2x National/USA average).
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- 6 Farmer’s Markets at various locations.
- Community Events: Open Streets Hamilton; & Transportation and
- Living Fair.
- Social media used: Facebook/Twitter.
- Information posted to the City’s website
- **Significant public support received.**
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Summary of Public Comments (Common Themes for Improvement)

Pedestrian Crossings
- Pedestrian activated crossing light
- Longer times to cross at stoplights/pedestrian signals
- Higher visibility and clearly defined pedestrian crossings
- Crosswalks that line up safely

Sidewalks
- More sidewalks, do not take away from enjoyment of nature
- Warm sidewalk to allow two people to walk side by side
- Level ramp into driveways with room to let in sidewalk surface
- Slopes at street corners

Traffic Management
- All way stop and straight, where needed
- Foot bridge, where needed
- Pedestrian Mux and Traffic Free
- Traffic calming

Pedestrian Comfort
- Places for the replenishing of water/food
- Sidewalks, crosswalks and mail boxes plugged or shoved in winter
- Facilities for shared use of scooters and bicycles
- Covered bus shelters at all stops more frequent bus schedule

Environmental Considerations
- Protect and restore natural habitats
- Connection to major transit nodes
- Consideration of natural environments

Other considerations
- Pedestrian ramps for walking/hiking trails
- Fast and ongoing, relevant Master Plans

Community Walk Survey Results and Comment Density

Map 2
Top Six (6) Things Public Told Us.....

1. Comfortable, safe street crossings (intersections/across)
2. Street trees/shade
3. Comfortable, safe sidewalks (corridor/along)
4. Continuous network of sidewalks
5. Public transit system link
6. Links to park/open spaces
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Development Patterns – Context Areas

CONTEXT AREA: NATURAL
CONTEXT AREA: RURAL
CONTEXT AREA: VILLAGE-HAMLET
CONTEXT AREA: URBAN-VILLAGE
CONTEXT AREA: SUBURBAN
CONTEXT AREA: URBAN GENERAL
CONTEXT AREA: URBAN CORE
CONTEXT AREA: DOWNTOWN
CONTEXT AREA: INDUSTRIAL

PEDESTRIAN MOBILITY INFRASTRUCTURE SUCH AS:
- MULTI-USE RECREATIONAL TRAILS
- PAVED SHOULDER

PEDESTRIAN MOBILITY INFRASTRUCTURE SUCH AS:
- RECREATIONAL TRAILS
- STREET TREES
- STREET FURNITURE
- CROSSWALK
- ILLUMINATION
- BIKE LANE

PEDESTRIAN MOBILITY INFRASTRUCTURE SUCH AS:
- SIDEWALKS
- STREET TREES
- STREET FURNITURE
- CROSSWALK
- ILLUMINATION
- BIKE LANE

PEDESTRIAN MOBILITY INFRASTRUCTURE SUCH AS:
- LIMITED SIDEWALKS
- ILLUMINATION

RURAL

URBAN

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Context Area Map – Existing Conditions
Paradigm Shift – A New Pedestrian Approach

• Historic focus of roads on vehicular needs
• Geometric design started at centreline to edges
• Left over space was for cyclists and pedestrians
Paradigm Shift

• Start with requirements for pedestrians and cyclists first
• Work to centreline
• Accommodate recommended improvements using Routine Accommodation
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Routine Accommodation – Decision Making

Operational
- Annual Operations
- HSR
- Collisions
- Warrants
- Street Tree/Furniture Program
- Traffic Signals

Asset Management
- Operations & Maintenance
- Special Projects
- Snow Removal
- Repairs/Maintenance
- Capital

Planning Considerations
- Pedestrian Mobility Advisory Committee
- Smart Commute
- Transit Orientated Design
- Master Plan/StreetScapes
- Culture/Heritage
- Civic Projects
- Open Streets

Communications
- Social Media
- Web
- Newsletter
- Public Outreach Programs
- Stakeholders
- Wayfinding

Legislative
- Provincial Documents
- City Plans/Documents
- Highway Traffic Act (HTA)
- International Charter for Walking
- A.O.D.A.

Routine Accommodation
City Implementation Considerations

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Toole Design Group
CIMA
G. O’Connor Consultants Inc.
Routine Accommodation

“Is the process where changes to improve pedestrian streetscapes utilize a range of solutions on each and every project.”
Application of Evidence-Based Design

- Applied research based on pedestrian mobility
- Health risks
- Helps makes decisions
- Considers site environment
- Assists decision making
- Used to develop our evaluation system
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POLICY & EVIDENCE BASED
PRACTICE, POLICY & DESIGN

SITUATIONAL SETTING
• How the City does business.

PROBLEM
• Creating safe, interesting pedestrian environments.

Step Forward
PEDESTRIAN MOBILITY PLAN

RESEARCH EVIDENCE
• Chronic diseases
• Physical inactivity
• Obesity/Overweight
• Collision analysis
• Greenhouse gas reductions
• Energy conservation
• Air quality
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## Evaluation of Toolbox Solutions

<table>
<thead>
<tr>
<th>TOOLS &amp; SOLUTIONS</th>
<th>CONTEXT AREAS</th>
<th>EVALUATION CRITERIA</th>
<th>POLICY CONFORMITY</th>
<th>IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Walking Along The Street</strong></td>
<td>Natural</td>
<td>Road</td>
<td>Village Hurt</td>
<td>Urban Village Hurt</td>
</tr>
<tr>
<td>Do Nothing</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
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<tr>
<td>Along roadway</td>
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<td>✓</td>
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<tr>
<td>Wide, Construct, and/or Reconstruct Sidewalks</td>
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<tr>
<td>Provide Sidewalk Buffers</td>
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<tr>
<td>Provide Clearance for All Mobility Levels</td>
<td>✓</td>
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<tr>
<td>Paved Shoulders</td>
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<tr>
<td>Street Trees</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Shoemakers*  
- Modify Design of Sidewalk across Driveway  
- Minimize Driveway Width  
- Prohibit Driveways at Intersections  
- Consolidate Driveways, where possible  
- Provide Right-in, right out access only  
- Road Diet (Reduce No. of Lanes)  
- Lane Diet (Reduce Width of Lanes)  
- Carriageway management  
- Parking Restrictions at Intersections  
- Park Angle Parking

<table>
<thead>
<tr>
<th>Scoring Criteria</th>
<th>Implementation</th>
</tr>
</thead>
</table>
| ≥1 Possible Positive Effect  
| 0 No Effect  
| ≤1 Possible Negative Effect  
| N/A Criteria not applicable (note: Natural, Cultural and Socio-Economic Environment criteria were considered in all cases to meet the intent of the Class EA process) |

*Includes private and public costs*
Potential Toolbox Solutions

**Walking along the Street**
- Improved Sidewalks
- Buffered Medians/Street Trees
- Safer Driveway
- Lane Diet (Narrower Lanes)
- Reverse Angle Parking
- Road Diet (Reduced No. of Lanes)
- Roadside Parking Management
- Restrictions at Intersections

**Crossing the Street**
- Midblock Signals
- High Visibility Crosswalks
- Lighting at Crosswalk
- Reduced Crossing Widths
- No Right on Red
- Better Pedestrian Wait Areas

**Policies**
- Intersection Design/Geometry
- Lighting along Street
- Marked Crosswalk Locations
- Signal Timing

**Potential Toolbox Solutions**

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Summary

• Good engineering invites right use.
• Implementation through Routine Accommodation.
• Objective review and assessment of appropriate toolbox solutions, on a project by project basis.
• Multi-departmental approach to problem solving.
• Consensus based scoring using chart, multiple reviewers.
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Summary

• Scoring/Ranking of toolbox solutions relative to each other.
• Consistent, improved application of solutions.
• No large capital projects, small wins through Routine Accommodation.
• Improved pedestrian mobility, create a better place to walk.
• Establish Pedestrian Mobility Advisory Committee (P.M.A.C.)
Conclusion

• Using the techniques and proposed range of solutions and decision making, will address Provincial Legislation, International Charter for Walking

• Improve opportunities for walking as a Transportation Mode

• Improve health of communities

• Create a community where people choose to walk
Thank You