Pipeline Trail Master Plan
Final Presentation
September 19th, 2015
The fun began…

February 21st, 2015

Photo Credit: Sean Hurley
Pipeline Trail Master Plan

O’Connor Mokryccke Consultants
May 14th, 2015 meeting
Purpose of the Meeting:
- Share information regarding traffic studies
- Present ideas arising from community requests / wish lists to date

Study Area:
Vision (Hamilton Pipeline Trail):

- Environmental Stewardship
- Recreational Activities
- Connections
- Length of the pipeline
- Safe
Community Comment Themes:

- Walkability
- Greening Corridor
- Recreation
- Connections
- Infrastructure
- Educational
- Art
- Wayfinding
Connections:
Parks as Opportunities:

- What can be done at Parks on the route
- Woodlot on the NE end?

Other Opportunities:

- Nearby streets:
  - Britannia
  - Brampton

Long and Short Term Solutions / Phasing
Safe Crossings for Pedestrians and Cyclists – CIMA
Typical Uncontrolled Street Crossing

Curb Extension or Optical Speed Table (photo below):

- Wc-15 Wc-32t
- Wc-28 Rb-70
- Ra-1 Stop Sign & Stop Bar
- Wc-15 Wc-32t
- Wc-28 Rb-70
- Realign Trail Path (90° with street)

Legend:
- Curb Extension or Optical Speed Table
- Wc-15
- Wc-32t
- Rb-70
- Wc-28
- Ra-1
- STOP
Investigation Required: modifications to existing on-street parking
## Approximate Loss of On-Street Parking / Design Details

<table>
<thead>
<tr>
<th>Location</th>
<th>Parking Reduction</th>
<th>Required Realignment</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>London Street N</td>
<td>None</td>
<td>None</td>
<td>Relocate illumination pole (west side)</td>
</tr>
<tr>
<td>Edgemont Street N</td>
<td>4 west side †</td>
<td>Major</td>
<td>Requires encroachment onto private property</td>
</tr>
<tr>
<td></td>
<td>3 east side †</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Park Row N</td>
<td>3 east side</td>
<td>Minor</td>
<td></td>
</tr>
<tr>
<td>Graham Avenue N</td>
<td>4 west side</td>
<td>Minor</td>
<td></td>
</tr>
<tr>
<td>Houghton Avenue N</td>
<td>3 west side †</td>
<td>Moderate</td>
<td>May require use of parking area of #93 to realign path</td>
</tr>
<tr>
<td></td>
<td>2 east side †</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wexford Avenue N</td>
<td>2 west side †</td>
<td>Moderate</td>
<td>May require use of parking area of #105 and/or #88 (?) to realign path</td>
</tr>
<tr>
<td></td>
<td>2 east side †</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tragina Avenue N</td>
<td>None</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Weir Street N</td>
<td>None</td>
<td>Minor</td>
<td></td>
</tr>
<tr>
<td>Fairfield Avenue</td>
<td>3-4 east side</td>
<td>Minor</td>
<td>Close off south path on west side</td>
</tr>
<tr>
<td>Paling Avenue</td>
<td>2 west side †</td>
<td>Minor</td>
<td>Close off south path on west side</td>
</tr>
<tr>
<td></td>
<td>1 east side †</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

†These locations require only “partial” parking reduction due to parking being restricted only during certain periods of the year and/or month

**NOTE:** LOSS OF 30 PARKING SPACES. CITY WILL NEED TO DISCUSS WITH RESIDENTS.
Conflicts with community desire for crossing. Short and long term approach.
Strathearn Ave to Barton St - Short Term

- No reduction in parking availability expected
- Provide wayfinding signage for pedestrians

Conflicts with community desire for crossing. Short and long term approach.
Brampton St – Short Term

- Optical Speed Table
- Multi-use trail/path
- Bicycle Lanes
- Existing Traffic Signal

To Mahony Ave
Woodward Ave – Short Term

- Woodward Avenue speed limit: 60 km/h
- PXO Type ‘B’ located away from the curve to provide adequate visibility
- New counts required to confirm volumes and warrant in accordance with OTM Book 15
- Current access through Leaside Park or from Glow Avenue
Barton St to Parkdale Ave – Long Term

+ Trail runs approximately 500 metres through industrial property
+ Pedestrians and cyclists required to cross Parkdale Ave N along with an existing railway crossing to continue along the trail
+ Recommended installation of an optical speed table for pedestrians and cyclists to cross roadway to the north and south of railway crossing

**Legend:**
- **Yellow** Multi-use trail/path
- **Green** Signed Bicycle Route
- **Optical Speed Table**
- **Existing Railway Crossing**
- Trail runs approximately 550 metres through industrial property
- Large property acquisition by the City required to extend trail
- Consider installation of a IPS along the Brampton St crossing (pending new count and pedestrian delay study)
- Road crossings likely to need optical speed tables
Woodward Ave – Long Term

- Trail runs approximately 340 metres
- Approximately 130 metres run through industrial property which requires City acquisition
- Installation of PXO ‘B’ along Woodward Ave for pedestrians to cross and continue along existing sidewalks
- Woodward Ave contains existing bike lanes in both northbound and southbound directions for cyclists using the trail
- Road crossings would likely need optical speed tables
Wayfinding: Vertical Elements

Consistent with other municipal signage
Wayfinding: Vertical Elements
- Important for areas like Andy Warburton & Mahony Parks
- Other places where the trail needs to be diverted
Wayfinding: Ground Elements

Pavement markings or specialty pavements

Natural elements
Plant Materials:

Cues in plant materials (seasonal)

Ribbon of colour identifying the trail
Plant Materials: Horticultural / manicured vs. naturalized

These naturalized gardens require maintenance

Urquhart Butterfly Garden

Victoria Park Butterfly Garden
Plant Materials: Large Scale Naturalization vs. Small Gardens

Naturalized / native species
Low maintenance
- 6 km of trail
- Brampton Street
Low Impact Development:

Principles:
- Reduce runoff speed, volume, and improve water quality
- Ecosystem based approach
- An integration of neighbourhood open space, vegetation, and natural hydrogeological function
- Permeable pavements and accessibility
- Natural materials
- Rain gardens
- Bioswales
- Some segments have catch basins
Aesthetics: Walls of the Outdoor Rooms
(Existing Conditions)
Aesthetics: Walls of the Outdoor Rooms

Ownership & Maintenance Issues
Lighting

- Two concepts: A) solar powered B) A/C powered system

- Luminaire style
  - Most solar luminaires have a contemporary appearance
  - Most heritage style luminaires have a higher percentage of light trespass, few solar options

- Engineers are preparing sample layouts for the first two trail segments: London Street to Park Row, as a prototype

- Criteria: pedestrian safety and security; light trespass; durability

- With costing
Seating:

Themed Metal Bench
Customized: white oak leaves

Benches as Public Art, such as on James Street N

Wood / Casual Seating

Natural Stone: Oasis Garden, McMaster University
Aesthetics: Thematic Connections to Neighbourhood or the Trail
Balanced Healthy Community:

- Play along the way: stand alone, small pieces might be considered
- Community gardens
- Rest stops
- Personal safety / sight lines
- Fitness stations
Trail Entrance at London Street (Existing Conditions)

Potential Encroachment
PROPOSED IMPROVEMENTS

CREATE A SEPARATE PEDESTRIAN ENTRANCE

- MOW STRIP
- DECORATIVE PRIVACY FENCING
- EXISTING CONDITIONS (DASHED RED LINE)
- POTENTIAL ENCROACHMENT
- PLANTING AREA
- SOD
- Removed Diseased Tree
- Pipeline Trail Signage

SHARED VEHICULAR & PEDESTRIAN & TRAIL ENTRANCE (EXISTING)

Parking Recommendations

Identified as planting area by community
Existing Conditions:

- Improvements to accessibility
- Re-route trails to avoid catch basins
- Control vehicles with boulders vs. curbing
PROPOSED IMPROVEMENTS

PEDESTRIAN PATHWAY WITH ALLEY CROSSING

PLANTING & WAYFINDING ELEMENT

EXISTING SEAT ROCK

MOW STRIP

EXISTING CONDITIONS (RED LINE)

EXISTING TREES

LOW PLANT MATERIAL (LESS THAN 600mm HIGH) (sight lines)

NATURALIZED AREA

PROPOSED TREES

EXISTING SEAT ROCK

PLANTING & WAYFINDING ELEMENT

MOW STRIP

EXISTING CONDITIONS (RED LINE)

EXISTING TREES

LOW PLANT MATERIAL (LESS THAN 600mm HIGH) (sight lines)

NATURALIZED AREA

PROPOSED TREES
PROPOSED IMPROVEMENTS

- PROPOSED TREES
- MOW STRIP
- NATURALIZED AREA
- EXISTING TREES
- TRAGINA AVE N
- WEIR ST N
- SOD
- PEDESTRIAN ACCESS
- VEHICULAR ACCESS

SHARED PEDESTRIAN & VEHICULAR ACCESS
Existing Conditions:

- Approaching A.M. Cunningham Parkette
PROPOSED IMPROVEMENTS

SWING
- Space is limited
- A regular swing set does not fit
- This swing can accommodate more than one child
- Can accommodate children who cannot sit up

EXISTING TREES

PROPOSED TREES

TRAIL SECTION WITH PLAY EQUIPMENT

Trees on south side / children’s health and well-being / shade
Existing Conditions:
PROPOSED IMPROVEMENTS: Pedestrian Node

EXISTING CONDITIONS

EXISTING TREES

HEXDE PLANTING

PROPOSED TREES

BIKE RACKS/
BARRIER
PIPELINE

SOD

PARKETTE/ REST AREA

TRAIL AT TIM HORTON’S

- Desired crossing conflicts with traffic engineering requirements
- Requires further investigation
Next steps:

• Your comments
• We will incorporate lighting schematics
• Further discussion/refinement of traffic engineering studies
• Refine public art locations
Pipeline Trail Master Plan

Progress Meeting

O’Connor Mokryckee Consultants

June 25, 2015
Update on Kenilworth Avenue Crossing:

Recognizes that the desire of users will be to cross Kenilworth mid-block along the Pipeline Corridor.

Details of this crossing will be dealt with in conjunction with ongoing City initiatives in the area.
Update at Indwell Site:

Reliant on Development Application process.

Re-design trail entrance at Strathearn for pedestrian safety.
Rail Trail Connection:

- Barton Reservoir (Original)
- Modern Reservoir
- Escarpment Rail Trail
- Ottawa St. South
- King Street East
- Sherman Access

Approx. 300m
Connections:

Landscape Restoration Initiative by Hamilton Museum of Steam & Technology
Pedestrian Bridge Over Railway Tracks: Precedent Example 1: Milton Ontario, Opened 2013
Pedestrian Bridge Over Railway Tracks:
Precedent Example 1: Milton Ontario, Opened 2013
Accessible Walkways, Seating at Entrance

Approximate cost: $3.5 million
Example - Pedestrian Bridge at Escarpment:
Example - Pedestrian Bridge at Parkdale:
Pedestrian Bridge Over Railway Tracks: Precedent Example 2: High Line, New York City

Construction costs: Sections 1 & 2: $152.3 million. Annual maintenance costs: $4.5 million. Green Roof Technology including irrigation.
Pedestrian Bridge Over Railway Tracks:
Precedent Example 2: High Line, New York City

Although James Corner has been asked to replicate the High Line in other North American cities, the designer has insisted that the conditions that gave rise to the project are intimately associated with the specific influences that define this part of NYC.
Pedestrian Bridge Over Railway Tracks:
Precedent Example 2: High Line, New York City

“Friends of the High Line is the 501(c)3 non-profit, private partner to the New York City Department of Parks & Recreation who fund virtually all the High Line’s operations by raising contributions, and we work with the City to make sure the High Line is maintained as a great public place for all.”

“The non-profit caretakers of the High Line.”
http://www.thehighline.org/about
Precedent Example 3: Indianapolis Cultural Trail

Project Cost: $63 million
Construction cost: $48 million
Management & Design costs: $7 million
Maintenance costs: $6 million
Public art costs: 4 million

Funding: $35.5 million federal
& $27.5 private donors.
No state or municipal funding.
Precedent Example 3: Indianapolis Cultural Trail

“The Glick Peace Walk is dedicated to individuals who achieved greatness through peaceful pursuits, and the linear garden allows the Trail user to delve deeper and reflect at each luminary. The Peace Walk includes 12 distinctive sculptural gardens that celebrate the lives and accomplishments of these luminaries.”

http://indyculturaltrail.org/ictart/glick-peace-walk/
Other Precedents Researched

Toronto High Line – Development stage – funding not started.

Emerald Necklace Trail, Boston, MA.

Freedom Trail, Boston, MA.

Downtown Heritage Trail, Washington, DC.
Initial Implementation:

Community Planting, June 2015
Proposed Sub-Projects:

A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

Walkability

• A - Design and implement paved trail surfaces Brampton Street to Grace Avenue
• A - Re-design and replace existing trail walkways. Allocate funds so that trail walkways can be made safe and accessible throughout entire length. Conduct an inventory. Establish a standard width, material layout. *Commence replacements with worst cases first*

• C - Investigate opportunities for industrial trail (Orlick); Grace Avenue to Woodward and PXO; Parkdale to Brampton segment (Parkdale to Rennie is loading dock facility)
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

Infrastructure

- **A** - Remove billboard sign and investigate opportunities to replace with trees, benches and wider sidewalks at Cannon/Britannia intersection
- **A** - Investigate opportunity to paint utility box at Province and Dunsmure
- **A** - Investigate and design trail pavement replacements (ongoing) (see Walkability section)
- **A** - Investigate and implement new site furniture
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

Infrastructure
• **B** - Investigate opportunities to improve bus stop/shelter. Coordinate with HSR and Road projects
• **B** - Investigate and implement replacement lighting
• **B** - Install drop curb ramps throughout 6.0 km length where required as part of component segments to AODA/City of Hamilton Accessibility Standards
A – Short Term 2016 - 2021  
B – Medium Term 2022 - 2027  
C – Long Term 2028 +  

Connections  
• A - Investigate trail entrance on London Street toward a re-design that includes a dedicated pedestrian entry  
• A - Investigate Pipeline crossing of Kenilworth. *The project will pursue a crossing through detailed design (once the Kenilworth Avenue classification is determined in conjunction with other City initiatives). Staff investigation is ongoing*  
• A - Investigate and design urban node at Kenilworth Avenue – Tim Horton’s. Crossing at Fire Station. (under staff review)  
• A - Investigate opportunities for segment between Paling & Strathearn to create a node near Indwell site
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

Connections
• **B** - Investigate and design pedestrian connection at Mahony Park/east side
• **B** - Investigate and design appropriate pedestrian crossing at Parkdale tracks pending funding and legal requirements
• **B** - Investigate connection to the Red Hill Valley trail through the vicinity of the Museum of Steam &Technology (pending investigation of security requirements & coordination with Water/Wastewater facility upgrades)
• **B** - Investigate and design connection from Escarpment Rail Trail to Lawrence Road
• **B** - Improve alley entries to the trail
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

Planting/Greening Corridor
• A - Investigate opportunities for pollinator garden at Brampton Street medians from Strathearn to Woodward
• A - Investigate opportunities for planting areas London-Edgemont / identified community initiative
• A - Find opportunities for planting – trees, shrubs, perennial wildflowers
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

**Park Improvements**

- **A** - Investigate and design features / environmental art (i.e. mounds as artistic landscapes)
- **A** - Investigate and design shade elements at A.M. Cunningham
- **B** - Investigate and design new entrances at Andy Warburton & Mahony Parks (all street frontages)
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

**Wayfinding**

- **A** - Investigate and design cost-effective ground markings to identify the trail, particularly where it diverges from the actual pipeline location (art in public places), possibly in conjunction with re-paving
- **A** - Investigate and design permanent vertical wayfinding elements
- **B** - Implement trail signage pending outcome of City Wayfinding Study
A – Short Term 2016 - 2021
B – Medium Term 2022 - 2027
C – Long Term 2028 +

Public Art
- A - Determine opportunities for public art
- A - Explore permanent art pieces
- B - Implement public art
Lighting:

Note: The lighting schematics shown on the drawing illustrate a typical spacing which may be applied to the length of the trail. Lighting recommendations by Electrical Consultant are based on trail width, and high performance luminaires with a narrow light distribution.
Lighting:
Lighting:

Lighting is not recommended for trail due to Light Distribution Pattern.
Theme:

Inspiration: Museum Pump Materials
Theme:

Vertical Elements, Public Art
Theme: Ground and Paving Elements
Theme: Ground and Paving Elements
Theme:

Public Art project in Philadelphia celebrating stormwater
Theme: Vertical Surfaces
Theme:

Embedded History, Thunder Bay, ON

Memorial Wall – Flight 800
Theme:

Interpretive pavement: Boston Harbour
Active Transportation Count Locations:

- Existing Trails / Footpaths counts.
- Existing On-Road Bike Route counts.
- Existing sidewalk / alleyway counts.
Industrial Areas: Mahony Park
Potential Long Term Routes
Industrial Areas: Mahony to Parkdale
Potential Long Term Routes
Industrial Areas: Parkdale Tracks
Potential Long Term Routes
Industrial Areas: Parkdale to Rennie
Potential Long Term Routes
Industrial Areas: Rennie to Morley
Potential Long Term Routes
Industrial Areas: Morley to Brampton
Potential Long Term Routes
Industrial Areas: Grace to Woodward
Potential Long Term Routes
Trail Concepts Through Industrial Areas:
Trail Concepts Through Industrial Areas:
Final Master Plan presentation:

Free Family Event (crafts, food, & museum tours, all are welcome)

Saturday, September 19, 2015
2:00 – 4:00 p.m.

Where: Museum of Steam and Technology
900 Woodward Avenue, Hamilton
Public Art Locations:
London Street Trailhead:
Next on the plans:

Pipeline Trail Master Plan
Document will be available Online
On October 19th, 2015

Pipeline Trail and Kenilworth Node

And to all of you thank you:
- Pipeline Trail Community:
  Anne Vallentin
  Ben Babcock
  Bev Wagar
  Cheryl Morrow
  Elizabeth Seidl
  Marcée Groen
  Matt Lowe
  Roberta Prince
  Sean Hurley
  Susan Noakes
  Tammy Heidbuurt
  Tony Lemma, Kenilworth Team Co-team lead

- Other Stakeholders/partners:
  Crown Point Garden Club
  Crown Point Community Planning Team
  Homeside Community Planning Team
  Indwell
  Hamilton Naturalists’ Club
  Environment Hamilton

- Consultant Team:
  O’Connor Mokrycke Consultants:
  Marianne Mokrycke
  Sabrina Piano
  Wes Kindree
  Beth Coughlan
  exp: Dawn Brown
  CIMA:
  Jaime Garcia
  Brian Applebee
  Giovani Bottesini

City Team:
  Councillor Merrulla
  Councillor Green
  Sebastian Stula
  Don Curry
  Alissa Golden
  Kelly Barnett
  Alice Sabourin
  Ken Coit
  Andrea McDonald
  Kirsten McCauley
  Peter Topalovic
  Joe Muto
  Julia van der Laan de Vries
  Daryl Bender
  Alan Kirkpatrick
  Steve Molloy
  Helene Marcotte
  Frank Albrecht
  Officer Steve Mahler
  Deputy Chief Dave Cunliffe
  Deputy James Pittman
  Debra Seabrook
  Janet Oakes
  Dave Ferguson
  Rob Merritt
  Kara Bunn
  Terry Rinaldo
  Alex Moroz
  Udo Ehrenberg
  Mark Bainbridge
  Chris Wilson
  Alan Waterfield
  Melanie Pham
  Cynthia Graham
  Rikki Frith
  Leila Todd