Bellevue Pedestrian & Bicycle Implementation Initiative

Transportation Commission
December 10, 2015

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Andreas Piller, Assistant Planner
Transportation Department
City of Bellevue
1) PBII Overview
2) PBII Task 2
3) Public Feedback
4) “CPR” Emphasis
5) “RIP” Deliverable/Timeline
6) Next Steps
Transportation Commission Invited to review & discuss the:

- Draft Map of RIP Candidate Projects and the
- Draft Description of RIP Candidate Project Categories
- Formulated vision, goals, objectives.
- Assessed gaps in the non-motorized network.
- Established performance targets.
2014 Performance Target:

“Within 5 years, implement at least one completed and connected east-west and north-south bicycle route through Downtown Bellevue.”

- 2009 Pedestrian & Bicycle Transportation Plan
2019 Performance Target:

“Within 10 years, implement at least two completed, connected, and integrated north-south and at least two east-west bicycle routes that connects the boundaries of the city limits, and connects to the broader regional bicycle system.”

- 2009 Pedestrian & Bicycle Transportation Plan

Priority Bicycle Corridors
Ped-Bike Implementation Initiative
Council support for a unified and recognizable strategy that:

- Links planning with implementation
- Promotes coordinated solutions (5Es)
- Advances a “Complete Streets” philosophy
- Considers creative & affordable strategies
- Leverages best practices and innovative tools
- Investigates “Vision Zero” techniques
- Advances demonstration projects
- Identifies early-win opportunities
- Balances the needs of various roadway users
- Maximizes construction efficiencies
- Promotes physically separated facilities
- Prioritizes “filling the gaps”
- Engages stakeholders early
Council support for a unified and recognizable strategy that:

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PBII Council Direction
Bellevue City Council

Transportation Commission

Business Organizations
Non-Profit Organizations
Residents, Employees, Students
Colleges, Schools, Transit Agencies

PBII Oversight
1. Ped-Bike Safety Assessment Report
2. Bicycle Priority Corridor Design Report
3. Transit Master Plan Integration Report
4. Implementation/Funding Strategy Report
5. Count Technology Report
7. Performance Management Report
<table>
<thead>
<tr>
<th></th>
<th>PBII Scope of Work</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>Ped-Bike Safety Assessment Report</td>
</tr>
<tr>
<td>2.</td>
<td>Bicycle Priority Corridor Design Report</td>
</tr>
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</table>
1. Assess the remaining gaps in Bellevue’s Bicycle Priority Corridor Network.

2. Assess range of bicycle facility types that could be applied along missing segments, including interim treatments as well as more permanent best practice facilities like protected bicycle lanes.

3. Consider the pros and cons and the associated maintenance needs of each alternative treatment.

4. Arrive at planning level cost estimates and priorities to inform the next round of updates to the City’s Transportation Facilities Plan (TFP) and Capital Investment Program (CIP).
The proposed 2016-2027 TFP includes a Pedestrian-Bicycle Implementation (PBII) Reserve allocation of $22.5M, with indication that the allocation to particular projects (not necessarily limited to the 11 listed in the TFP) will be determined via the ongoing PBII process.
1. TFP-158: SE 16th Street/148th Avenue SE to 156th Avenue SE
2. TFP-173: 108th/112th Avenue NE/ north city limit to NE 12th Street
3. TFP-230: 108th Avenue NE/NE 12th Street to Main Street
4. TFP-232: 164th Avenue NE/SE-NE 18th Street to SE 14th Street
5. TFP-234: Main Street/100th Avenue to 116th Avenue
6. TFP-243: Mountains to Sound Greenway/ Factoria Boulevard to Lakemont Boulevard
7. TFP-244: Eastside Rail Corridor multi-use path/southern city limits to northern city limits
8. TFP-245:140th Avenue NE/NE 24th Street to NE 8th Street
9. TFP-247: Eastgate Way/Richards Road to SE 35th Place
10. TFP-249: Hospital/NE 8th Street Station Access Improvements
11. TFP-251: Coal Creek Parkway/124th Avenue SE to the southern city limits
HOW YOU CAN HELP:
1. Click on “Add Point”
2. Select the type of issue
3. Place your point on the map
4. Answer a few questions, submit comments

Refer to the “Instructions” for more help

MAP LEGEND
Unsafe Behaviors by...

Unsafe Accommodations for People...

- People Walking
- People Bicycling
- People Driving

Public Feedback
“Downtown Bellevue is not an area where the faint of heart would choose to ride; that said, it is prime for investment to attract additional riders. What’s needed are safe and inviting bicycle facilities that are separated from the auto.”

- Karen Doherty, Vice President, Puget Sound Area Manager of HDR

Business Community Feedback
“The separated lane is very attractive for safety reasons. My greatest concern is the taking of scarce roadway space for a limited user base.” – Lampe

“Separating the biker from traffic is a given…. We provide it for cars to prevent accidents. We should provide it for bikers given the imbalance in protection.” – Barksdale
Buffer Types and Perceived Comfort

Protected Bicycle Lanes in USA

Number of U.S. protected bike lanes:

The number of protected bike lanes has nearly QUADRUPLED in the U.S. since 2010.

Credit: People for Bikes
Green Lane Project
DENVER’S TWO NEWEST PROTECTED BIKE LANES: FROM ZERO TO FINISHED IN ONE YEAR

December 04, 2015

Michael Andersen, Green Lane Project staff writer

THE RISE OF CURBS: PROTECTED BIKING’S SECOND ACT BEGINS

January 03, 2014

Michael Anderson, Green Lane Project staff writer

Austin workers set modular precast curbs in place on Third Street downtown.
“Advance the implementation of Bellevue’s planned Bicycle Priority Corridors to facilitate continuous bicycle travel along a connected grid of safe facilities throughout the city and the region.”

- PBII Program Principles (2/17/15)
### E-W Priority Bicycle Corridors Completion Status 2013

<table>
<thead>
<tr>
<th>Corridor Designation</th>
<th>Prior 2009 Percent Complete</th>
<th>2013 Percent Complete</th>
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<tbody>
<tr>
<td>EW-1</td>
<td>50.1%</td>
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<tr>
<td>EW-2</td>
<td>20.5%</td>
<td>28.4%</td>
</tr>
<tr>
<td>EW-3</td>
<td>31.5%</td>
<td>43.7%</td>
</tr>
<tr>
<td>EW-4</td>
<td>43.2%</td>
<td>43.2%</td>
</tr>
<tr>
<td>EW-5</td>
<td>46.1%</td>
<td>55.2%</td>
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</table>

### N-S Priority Bicycle Corridors Completion Status 2013

<table>
<thead>
<tr>
<th>Corridor Designation</th>
<th>Prior 2009 Percent Complete</th>
<th>2013 Percent Complete</th>
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<tbody>
<tr>
<td>NS-1</td>
<td>43.3%</td>
<td>54.4%</td>
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<tr>
<td>NS-2</td>
<td>56.6%</td>
<td>68.6%</td>
</tr>
<tr>
<td>NS-3</td>
<td>8.1%</td>
<td>8.1%</td>
</tr>
<tr>
<td>NS-4</td>
<td>47.0%</td>
<td>54.5%</td>
</tr>
<tr>
<td>NS-5</td>
<td>61.5%</td>
<td>61.5%</td>
</tr>
<tr>
<td>NS-6</td>
<td>0.0%</td>
<td>22.6%</td>
</tr>
</tbody>
</table>

**Legend**
- Complete
- Not Complete
- School Properties
- City Parks
- Other Parks

**Connected Solutions**
Source: WSDOT Design Manual M 22-01.12 (November 2015)
Overlay = Connected + Rapid
Signed Routes (No Pavement Marking)
A roadway designated as a preferred route for bicycles.

Shared Lane Markings
A shared roadway with pavement markings providing wayfinding guidance to cyclists and alerting drivers that cyclists are likely to be operating in mixed traffic.

On-Street Bike Lanes
An on-road bicycle facility designated by striping, signing, and pavement markings.

On-Street Buffered Bike Lanes
Bike lanes with a painted buffer increase lateral separation between bicyclists and motor vehicles.

Separated Bike Lanes
A separated bike lane is an exclusive facility for bicyclists that is located within or directly adjacent to the roadway and that is physically separated from motor vehicle traffic with a vertical element.

Off Street Trails / Sidewalks
Bicycle facilities physically separated from traffic, but intended for shared use by a variety of groups, including pedestrians, bicyclists, and joggers.
“Paint/Post Ready” Projects

Striped Buffer & Delineator Post
Paint & Delineator Posts
Turtle Bumps
Large Bumps

Oblong Low Bumps
Linear Barrier
Precast Barrier Curb
Parked Cars

Jersey Barriers
Planters
Rigid Bollards
Cast in Place Barrier Curb
Indianapolis, IN

Seattle, WA

Temple City, CA

Cambridge, MA

San Francisco, CA

New York, NY

“Construction” Projects
The Rapid Implementation Program (RIP) strives to fill gaps [Connected] along the Priority Bicycle Corridor (PBC) network, and planned bicycle network, with facilities that appeal to “interested but concerned” bicyclists [Protected]. The RIP approach emphasizes implementation of low cost/short timeframe [Rapid] projects.

**Effectiveness: 2009 Plan targets**
- Connected-Protected-Rapid (CPR) Emphasis
- Bicycle Friendly Community “Silver Level”
- Practical Design: “Right Project, Right Time for the Right Cost, in the Right Way”

**TFP Allocation: $22M**
- Engineering - “Paint/Post Ready” emphasis
- Education, Encouragement, Enforcement, Evaluation

**Timeframe: Years 1-3**
- Start with quickest and most inexpensive improvements (low cost/high impact)
Existing Bicycle Facilities

- **Offstreet Paths**
- **Conventional Bike Lanes**, Both Sides
- **Conventional Bike Lane**, One Side
- **Conventional Sharrows**, Both Sides
- **Wide Shoulders/Shared Lanes**, One or Both Sides
Rapid Implementation Program

- **Offstreet Paths**
- **Protected Bike Lanes**, Both Sides;
- **Protected Bike Lanes**, Both Sides;
- **Ped Path**, One Side
- **Conventional Bike Lanes**, Both Sides
- **Conventional Bike Lane**, One Side;
- **Ped Path**, One Side
- **Conventional Bike Lane**, One Side
- **Neighborhood Greenway**
- **Green-Backed Sharrows**, Both Sides
- **Wide Shoulders/Shared Lanes**, One or Both Sides
Existing Facilities,
Priority Bicycle Corridors

No Facilities,
Priority Bicycle Corridors

Rapid Implementation Program
Rapid Implementation Program
Rapid Implementation Program
**Rapid Implementation Program**

- **Paint & Post Projects**, Priority Bicycle Corridors
- **Major Design/Construction**, Priority Bicycle Corridors
- **Long-Term Design & Funded Construction Projects**
- **Existing Facilities**, Priority Bicycle Corridors
- **No Facilities**, Priority Bicycle Corridors
Paint & Post Projects, Priority Bicycle Corridors

Existing Facilities, Priority Bicycle Corridors

No Facilities, Priority Bicycle Corridors

Rapid Implementation Program
Rapid Implementation Program

- **Paint & Post Projects**, Priority Bicycle Corridors
- **Existing Facilities**, Bicycle Network
- **Existing Facilities**, Priority Bicycle Corridors
- **No Facilities**, Priority Bicycle Corridors
Paint & Post Projects,
Priority Bicycle Corridors

Paint & Post Projects,
Bicycle Network

Existing Facilities,
Bicycle Network

Existing Facilities,
Priority Bicycle Corridors

No Facilities,
Priority Bicycle Corridors

Rapid Implementation Program
“CPR” Projects,
New Facilities along Network Gaps

“CPR” Projects,
Upgrades to Existing Facilities

Existing Facilities,
No Changes to Bicycle Network

Existing Facilities,
Priority Bicycle Corridors

No Facilities,
Priority Bicycle Corridors
Rapid Implementation Program

- **New Paint & Post Projects, Priority Bicycle Corridors**
- **Paint & Post Upgrades, Priority Bicycle Corridors**
- **New Paint & Post Projects, Bicycle Network**
- **Paint & Post Upgrades, Bicycle Network**
- **Greenway Projects, Priority Bicycle Corridors**
- **Greenway Projects, Bicycle Network**
- **Greenway Projects, Alternative Routes**
- **Major Design/Construction Projects, Priority Bicycle Corridors**
- **Construction Projects, Bicycle Network**
Existing Bicycle Facilities

- **Offstreet Paths**
- **Conventional Bike Lanes**, Both Sides
- **Conventional Bike Lane**, One Side
- **Conventional Sharrows**, Both Sides
- **Wide Shoulders/Shared Lanes**, One or Both Sides

_BELLEVUE PEDESTRIAN & BICYCLE IMPLEMENTATION INITIATIVE_
Rapid Implementation Program

- Offstreet Paths
- Protected Bike Lanes, Both Sides;
- Ped Path, One Side
- Conventional Bike Lanes, Both Sides
- Conventional Bike Lane, One Side; Ped Path, One Side
- Conventional Bike Lane, One Side
- Neighborhood Greenway
- Green-Backed Sharrows, Both Sides
- Wide Shoulders/Shared Lanes, One or Both Sides
Design Details & Cost Estimates

Maintenance Requirements & Cost Estimates

Next Steps: Cost Estimates
## Benchmarking

### Bellevue, WA

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Silver</th>
<th>Bellevue</th>
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</thead>
<tbody>
<tr>
<td>Arterial Streets with Bike Lanes</td>
<td>45%</td>
<td>34</td>
</tr>
<tr>
<td>Total Bicycle Network Mileage to Total Road Network Mileage</td>
<td>30%</td>
<td>16</td>
</tr>
<tr>
<td>Public Education Outreach</td>
<td>GOOD</td>
<td>SOME</td>
</tr>
<tr>
<td>% of Schools Offering Bicycling Education</td>
<td>43%</td>
<td>0</td>
</tr>
<tr>
<td>Bike Month and Bike to Work Events</td>
<td>GOOD</td>
<td>GOOD</td>
</tr>
<tr>
<td>Active Bicycle Advocacy Group</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Active Bicycle Advisory Committee</td>
<td>YES</td>
<td>VERY</td>
</tr>
<tr>
<td>Bicycle-Friendly Laws &amp; Ordinances</td>
<td>SOME</td>
<td>GOOD</td>
</tr>
<tr>
<td>Bike Plan is Current and is Being Implemented</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>Bike Program Staff to Population</td>
<td>PER 70K</td>
<td>33,600</td>
</tr>
</tbody>
</table>

### Category Scores

<table>
<thead>
<tr>
<th>Category</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering</td>
<td>5/10</td>
</tr>
<tr>
<td>Education</td>
<td>1/10</td>
</tr>
<tr>
<td>Encouragement</td>
<td>4/10</td>
</tr>
<tr>
<td>Enforcement</td>
<td>2/10</td>
</tr>
<tr>
<td>Evaluation &amp; Planning</td>
<td>4/10</td>
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### Key Outcomes

<table>
<thead>
<tr>
<th>Category</th>
<th>Average Silver</th>
<th>Bellevue</th>
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<tbody>
<tr>
<td>Ridership</td>
<td>3.5%</td>
<td>0.50</td>
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<tr>
<td>Safety Measures</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crashes</td>
<td>180</td>
<td>438</td>
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<tr>
<td>Fatalities</td>
<td>14</td>
<td>0</td>
</tr>
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**Bellevue**

*Pedestrian & Bicycle Implementation Initiative*
- **December 10, 2015:** TC Meeting

- **March 2016:** Budget Proposal
  - Engineering
  - Education
  - Encouragement
  - Enforcement
  - Evaluation

- **May 2016:** Draft Report

**Deliverables/Timeline**
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425-452-4077

For Additional Information