

An aerial photograph of a modern, multi-use urban trail. The trail is paved and features yellow and white lane markings. It is surrounded by greenery, including trees and grassy areas. Several people are seen cycling and walking along the trail. The scene is bright and sunny, suggesting a clear day. The trail appears to be a mix of paths for different types of users, including cyclists and pedestrians.

Bicycle and Pedestrian Transportation Report

**City of Milwaukee
Department of Public Works
June 2014**

Pedestrian Transportation



Challenges for Pedestrians

- Aging concrete infrastructure
- Forestry/sidewalk issues
- ADA improvements
- Weather / winter maintenance
- Driver culture



Pedestrian Safety Practices

- Pedestrian Crossing Signs
- Regular, High Visibility Crosswalk Pavement Markings
- School Crossing Signs
- Various Traffic Signal/Beacon Options
- Median Refuge Islands
- Curb Extensions at Key Locations
- Neighborhood Traffic Management Program
- Streetscape Projects



Countdown Pedestrian Signals

- Displays time remaining in flashing red Don't Walk phase before solid yellow caution phase
- Now required for ALL signalized intersections – upgrade when intersection is improved
- Federal Highway Safety Improvement Program (HSIP) grants to upgrade pedestrian signal heads
- ALL City-controlled signals upgraded by end of 2015



Pedestrian Safety Treatment: *Accessible Pedestrian Signals (APS)*

- Verbal messages
- Audible tones
- Vibrating surfaces
- Volume responsive to ambient noise at site
- 21 intersections installed
 - Highland/8th (MATC)
 - Humboldt/Wright
 - UWM Campus (2)
- Primarily by request



Pedestrian Safety Treatment: *Rectangular Rapid Flashing Beacons (RRFB)*





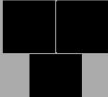



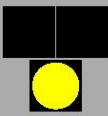

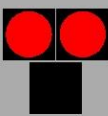

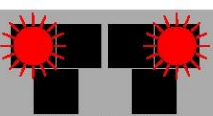

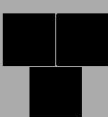

Pedestrian Safety Treatment: *Pedestrian Hybrid Beacon*



Designed for high volume pedestrian crossing where full signals are not warranted

- S. Cesar Chavez Dr. midblock between W. Greenfield and W. Scott
- N. Industrial Drive midblock crossing near Direct Supply

PEDESTRIAN HYBRID BEACON / HAWK SIGNAL SEQUENCE

 DRIVERS		 PEDESTRIANS	
See This	Do This	See This	Do This
 Dark	Proceed with Caution The signal is normally dark	 	Push the Button to Cross Street
 Flashing Yellow	Slow Down, Prepare to Stop A pedestrian has activated the pushbutton	 	Wait Traffic is preparing to stop
 Steady Yellow	Stop If Safe to Do So	 	Continue Waiting Traffic is beginning to stop
 Steady Red	Stop, Remain Stopped Pedestrians are in the crosswalk	 	Start Crossing Look for traffic from both directions prior to crossing
 Alternating Red (Like a Railroad Crossing)	Stop, Proceed with Caution if Crosswalk is Clear	 Flashing Hand & Countdown	Continue Crossing The countdown indicates how much time is left to finish crossing the street
 Dark	Proceed with Caution	 	Push the Button to Cross Street

Short videos on <http://www.dot.state.wi.us/travel/phb/index.htm>

Pedestrian Safety Treatment: *Overhead Yield to Pedestrian Signs*



Pedestrian Safety Treatment: *Pedestrian-Actuated Enhanced LED Xing Sign*

- Bolivar and S. 6th St.
- Local manufacturer provided equipment to test
- No additional locations planned – getting better results from other treatments



Pedestrian Plan

- Federal grant funding
- Late 2014 start
- Huge undertaking
 - Limited data for typical assessment/analysis
 - How to connect with broad range of citizens for quality public input
- City Bicycle/Pedestrian Task Force aiding in scope development

Bicycle Facilities



Existing Bicycle Facilities

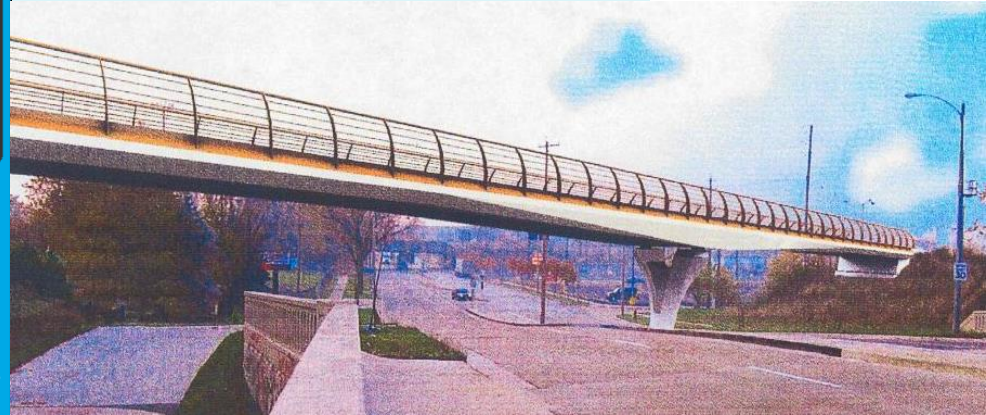
- 114 miles of bike lanes on the 450 mile arterial street network
- 2000+ bike parking racks, 24 bike lockers
- 3.5 miles of City-owned off-street paved trail



Milwaukee By Bike Plan

- Adopted in September 2010 to guide development of bicycle improvements in the City
- Incorporating some facility recommendations through Urban Aid and Local Paving Projects
- Some Federal Grants for standalone projects

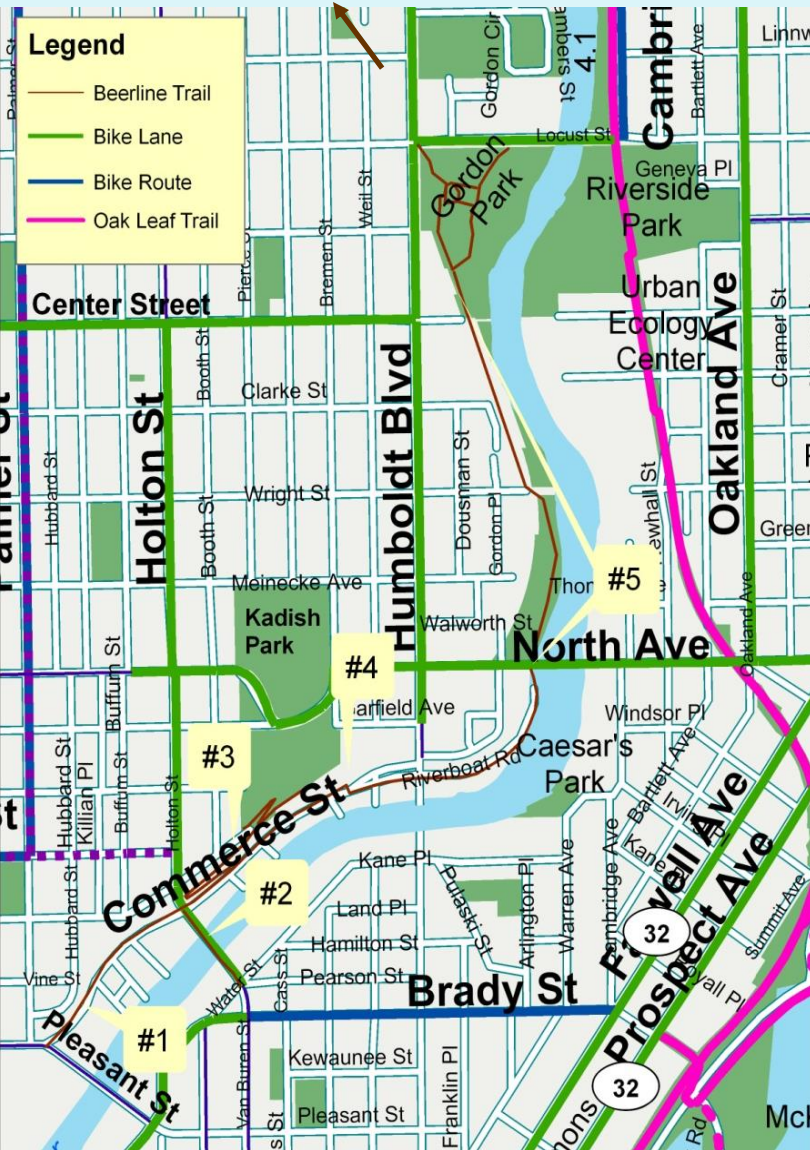
KK River Trail (Part 1) Opened 2013



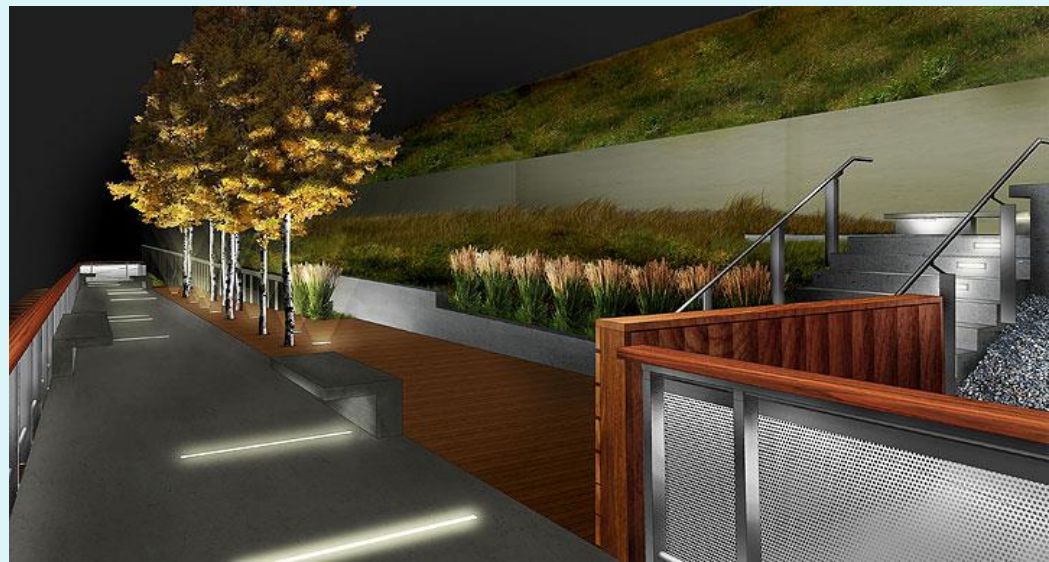
Downtown to Bay View Bicycling Corridor – Parts 1 and 2

- ✓ Raised bike lanes on Bay Street
- ✓ KK River Trail – Lincoln to S. 6th /Rosedale (.85 mile)
- ✓ KK River Trail – Maple to Washington (.60 mile)
- Part 2 – Washington St. to Broadway and Conklin to Russell
 - Design completed – combo of trail/bike lanes
 - Utilities moved
 - Construction starting in 2014

Beerline Trail



- Existing Trail = 2 miles incl. Marsupial
- Trestle restoration completed – 2013
- Keefe to Capitol Extension
 - Design / public involvement underway
 - Right-of-way to be acquired
 - Coordinated w/ ARTery project
 - Construction - 2015



Bicycle Plating on Lift Bridges



- Solid, slip resistant surface
- Cherry, Wells and Water to be retrofitted in Spring 2015 (fed grant)
- Federal grant likely for N. Plankinton (S. 2nd) and N. Emmer Lane (2018)
- All other bascule open deck bridges being addressed through other scheduled projects



More Bicycle Lanes



- Reconstruction projects
- Some paving projects
- “Low hanging fruit locations” with federal CMAQ funds
 - 24 miles (cl) added in 2013

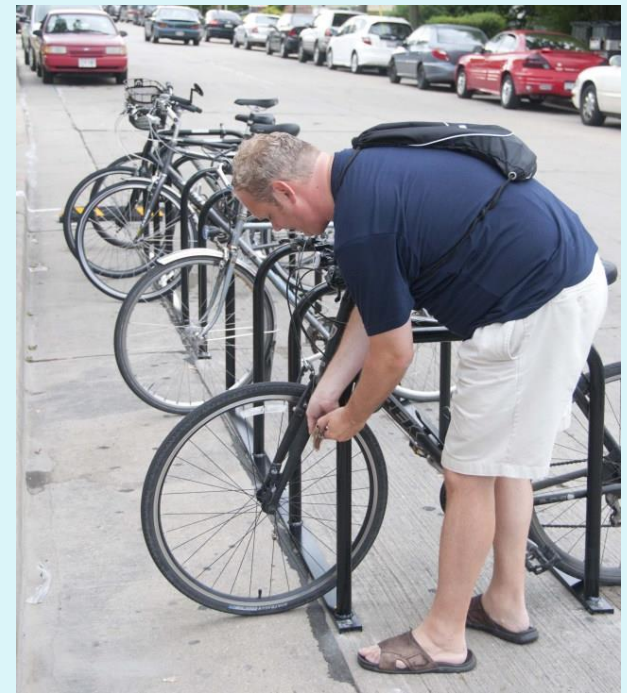
Bicycle Parking



Bicycle Parking

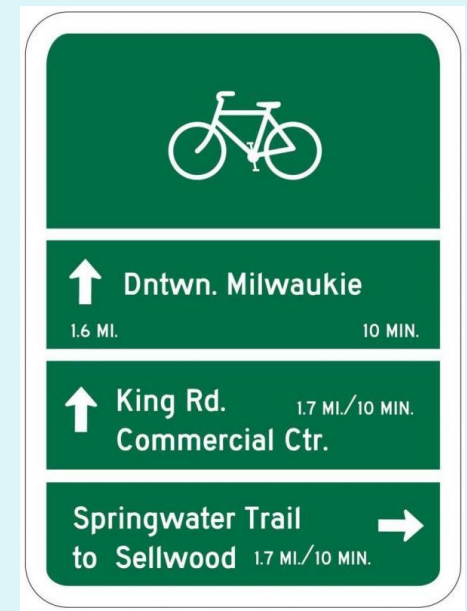
- 2000+ racks in mid-2000's (fed grant)
- 24 bicycle lockers – leasing needs to be revised, maintenance
- Bike corrals – 3 in place, need to establish standards/process
- Maintenance issues!!

- Increasing demand – need to address growing demand
- Planning/DPW collaborating on code update – 2014
- Abandoned Bicycles – process to address
- Education on how to park properly



Looking toward the (Near) Future

- More bicycle lanes
- Better signage (coordinated?)
- More bicycle parking
- Traffic counting (UWM, County partners)
- Improved web content



Bicycle Boulevards

- Lower volume shared streets
- Logical, direct, continuous
- Well signed, marked
- Intersection enhancements
- Minimal delay to person riding
- Attractive to “interested but concerned”
- S. 37th Street – cxn to/from HAST



Green Bike Lane Segments

- Highlight Major Conflict / Cross Over Areas
 - Hampton Ave (EB) at Green Bay
 - W. Lloyd / US 41 accesses
 - Locust/Humboldt



Continued and Emerging Bicycle Transportation Needs

- Bicycle facilities mapping
- Protected bikeways



Public Bike Sharing

- Public / Non-Profit Partnership with Midwest Bike Share
- Public / Private Funding
 - Small Pilot Roll-Out in Summer 2014 (~6 stations)
 - Federal CMAQ Grant in 2015 = \$1.6 million (\pm 30 stations)



Questions / Ideas

The background of the slide features a photograph of two cyclists riding on a paved path. The cyclist in the foreground is wearing a yellow jersey, black shorts, and a blue backpack. The cyclist in the background is wearing a dark jersey and a yellow helmet. In the distance, a large white lighthouse with a dark top is situated on a rocky island in the water. The sky is bright and clear.

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