BUILDING THE BOILERMAKERS’ BIKING INFRASTRUCTURE

March 8, 2017

Michael Gulich
Director of Campus Master Planning and Sustainability
AGENDA

1. Integrated Bicycle and Pedestrian Infrastructure Plan

2. Purdue Bike Share Program
   - Planning
   - Launch
   - Expansion

3. State Street Redevelopment Project
   Bicycling Facilities
INTEGRATED BICYCLE AND PEDESTRIAN INFRASTRUCTURE PLAN
The Five Es

- **Engineering** – Creating safe and convenient places to ride and park
- **Education** – Giving people of all ages the abilities, skills, and confidence to ride
- **Encouragement** – Creating a strong bike culture that welcomes and celebrates bicycling
- **Enforcement** – Ensuring safe roads for all users
- **Evaluation and Planning** – Planning for bicycling as a safe and viable transportation options
PROJECT OVERVIEW: PURPOSE

Enhance the safety and mobility of students, faculty, staff, and visitors who bike and/or walk to, from, and on campus through the development of a study that outlines a collective vision for bicycle infrastructure improvements and programs and identifies a priority list of projects and potential cost
WHAT WE HEARD: MAJOR THEMES

Engineering
• Separated facilities will lead to fewer conflicts
• Consistency is needed for materials and appearance
• Continuity should be implemented for direct and continuous facilities
• Common sense should be exercised, and facilities should follow a natural/logical path

Education
• How bicyclists, pedestrians and drivers interact together with facilities

Enforcement
• Keep facilities accessible for users by requiring bicycle registration, removing abandoned bikes, etc.
• Proper implementation of Engineering and Education themes is key to reduce the need for Enforcement
EXAMPLES OF BICYCLE FACILITIES

- Bike lane
- Protected bike lane
- Cycle track
- Sharrows
- Shared service drive
- Bike path
BICYCLE AND PEDESTRIAN INFRASTRUCTURE PLAN
**MARTIN JISCHKE DRIVE**

- Two 11’ wide travel lanes
- On-street parallel parking exists along both sides of the street for all but the area adjacent to the Córdova Recreational Sports Center

**Option A (looking north)**

- Add 5’ wide bike lanes on each side of the street
- Remove 59 parking spaces from west side of the street
- Narrow the travel lanes to 10’
BIKE SHARE PROGRAM
PROJECT SCOPE AND FUNDING

**Scope**

Develop a bike share network for Purdue with a minimum of 50 bikes within a distributed network of station locations

**Funding**

Alcoa Foundation provided $75,000 in funding through a grant to the Office of University Sustainability
SMART BIKE VS. SMART DOCK

Smart Bike

Smart Dock
Demand analysis

Dimensions of campus data layered to create overall heat map:

- Weekly student contact hours
- On-campus student housing
- Faculty and staff office locations
- Campus destinations/attractions
- Parking facilities and transit hubs
- Bicycle facilities
PROPOSED SYSTEM DESIGN

- 13 stations
- 130 bikes
SPONSORSHIP/BRANDING: WEBSITE

Purdue has partnered with Alcoa Foundation to bring bike sharing to campus. Bike sharing is a key contributor to the transportation options in our community and is a fun, clean, and convenient way for you to get around town.

To celebrate our launch, Purdue is giving away FREE bike helmets to the first 500 members who sign up for the Purdue Bike Share with a Yearly Membership. Just sign up and we'll contact you with more information about picking up your helmet.
SPONSORSHIP/BRANDING: MOBILE APP
SPONSORSHIP/BRANDING: BIKE STATIONS
LAUNCH EVENT: RIBBON CUTTING CEREMONY
LAUNCH EVENT: PURDUE.EDU WEBSITE
LAUNCH METRICS

- August 2015
- 13 stations
- 50 bicycles

8730 Trips
544 Active Members
50 Bikes

Graph
Map

Aug 3, 2015 to Sep 29, 2015

- 8693 Trips
- 152.5 Avg. Trips / Day
- 1 HR, 19 MINS Avg. Trip Duration
PROGRAM EXPANSION AND METRICS

- August 2016
- 21 stations
- 100 bicycles

![Graph showing trip data between Jan 1, 2016 and Dec 31, 2016]

- Total trips: 38,580
- Active members: 621
- Bikes: 62
BIKE SHARE PROGRAM: NEW FEATURES

**BLUETOOTH™ RING LOCK**
When engaged, the ring lock prevents the rear wheel from spinning, immobilizing the bike.

**DOCKING CABLES**
Two sturdy cables — one securely attached to each station dock, and one retracted inside each bike — plug into the smart lock to keep bikes grounded between trips.

**ON-BIKE KEYPAD**
Riders operate the lock using a compatible smartphone or by entering a single-use code into the on-bike keypad — get a code with the free Zagster app or via text message.
• **6 miles** of *existing* integrated bicycle/pedestrian infrastructure
• **Additional 14.5 miles** of infrastructure *proposed* as a result of the Integrated Bicycle and Pedestrian Infrastructure Plan (20.5 miles total)
• **5 miles** of infrastructure to be *added* from State Street Redevelopment Project (11 miles total) – **80% increase in infrastructure**
BICYCLE FRIENDLY UNIVERSITY - 2015
BICYCLE FRIENDLY UNIVERSITY - 2016
THANK YOU

QUESTIONS

Michael Gulich
Director of Campus Master Planning and Sustainability