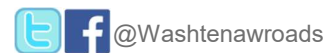


TAP Funding & Partnering with Agencies

Partnering with other agencies to open up new funding opportunities



Presenters

- Michele Ford, P.E.
 - Washtenaw County Road Commission
- Roy Townsend, P.E.
 - Washtenaw County Parks and Recreation Commission

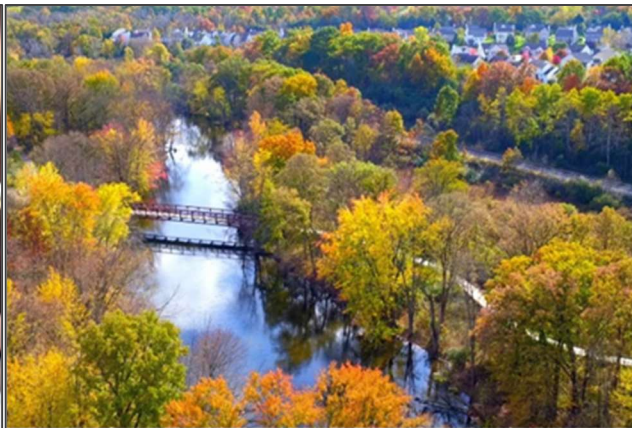
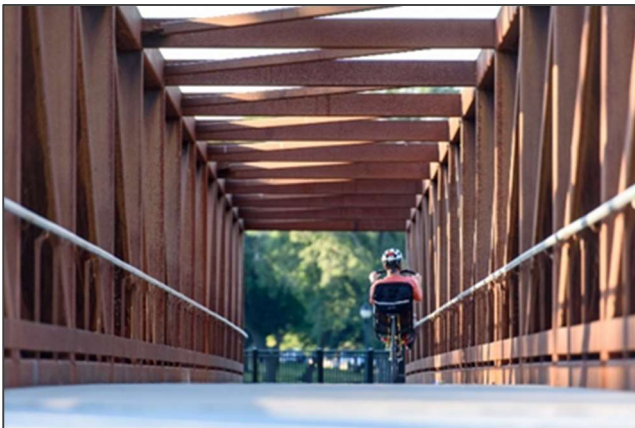
Agenda

- Overview of Border-to-Border Trail
- WCRC & WCPARC Partnership
- Funding
- Designing & Permitting
- Construction
 - Case Study: B2B D2



Popularity of Trails - Michigan

- Over 13,000 miles of state-designated trails
- More than 2,100 miles of multi-use trails
- Trails in nearly every county



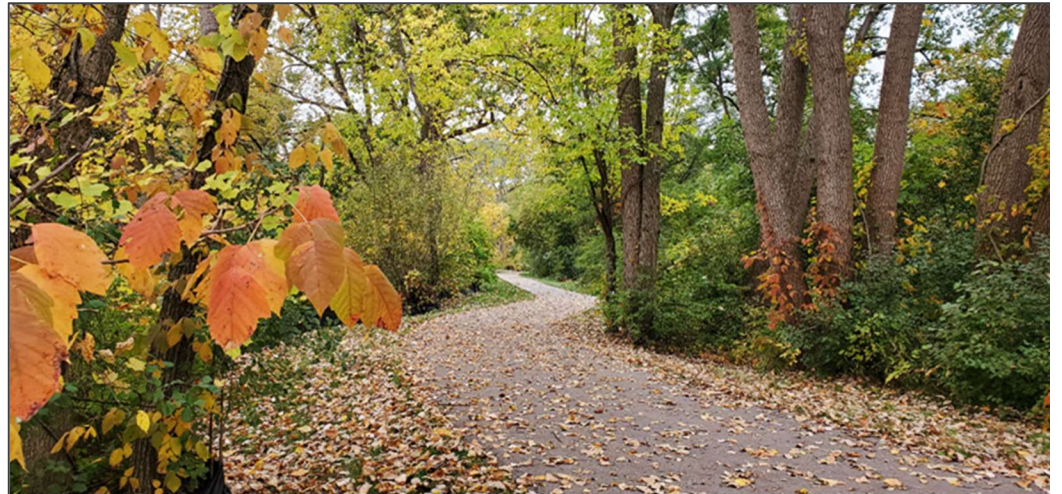
Popularity of Trails - Washtenaw Co.

- B2B – 55 miles with nearly 40 miles complete
- Some segments have 3,000 – 5,000 weekly users
- Trail network has over one million annual users



Washtenaw County – B2B Overview

- Non-motorized, paved, ADA accessible trail
- Goals:
 - Connect people, parks, and destinations
 - Safety and access for all
- Partnership approach to projects led by the Washtenaw County Parks & Recreation Commission



Washtenaw County – B2B Partners



- **Agencies:**
 - MDOT, MDNR, Huron-Clinton Metroparks,
 - Washtenaw County Road Commission
- **Cities:**
 - Ann Arbor, Chelsea, Dexter, Ypsilanti
- **Townships:**
 - Ann Arbor, Lyndon, Lima, Scio, Sylvan, Ypsilanti
- **Non-Profit Organizations:**
 - Huron Waterloo Pathways Initiative (HWPI)
 - St. Joseph Mercy Health System
 - Eastern Michigan University
 - Washtenaw Community College
 - Huron River Watershed Council

Part of the Iron Belle Trail (IBT)

- Within the County:
 - Ypsilanti, Ann Arbor, Dexter, Chelsea
 - 55 miles (nearly 40 complete or under construction)
- Regional Connections:
 - Northwest to Stockbridge (IBT) then to Jackson
 - Southeast to Lower-Huron Metropark (IBT) then to Lake Erie
 - North to Lakelands Trail near Pinckney



WCRC & WCPARC Partnership

- 20-year history of collaboration
- First B2B segment in 2001
- Since 2016, 14+ miles of new construction

What happened in 2016???

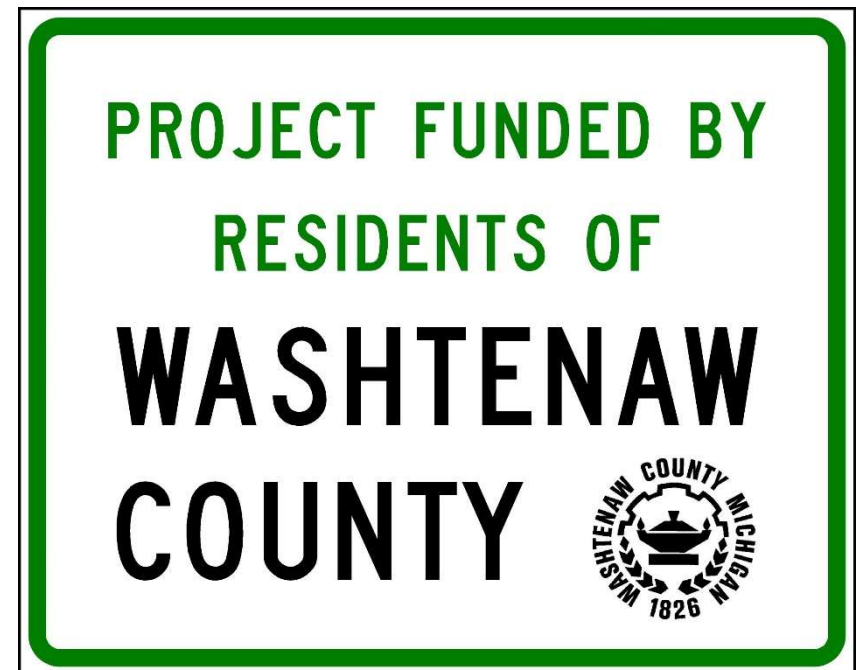


2016: 4-year Washtenaw Co. Millage

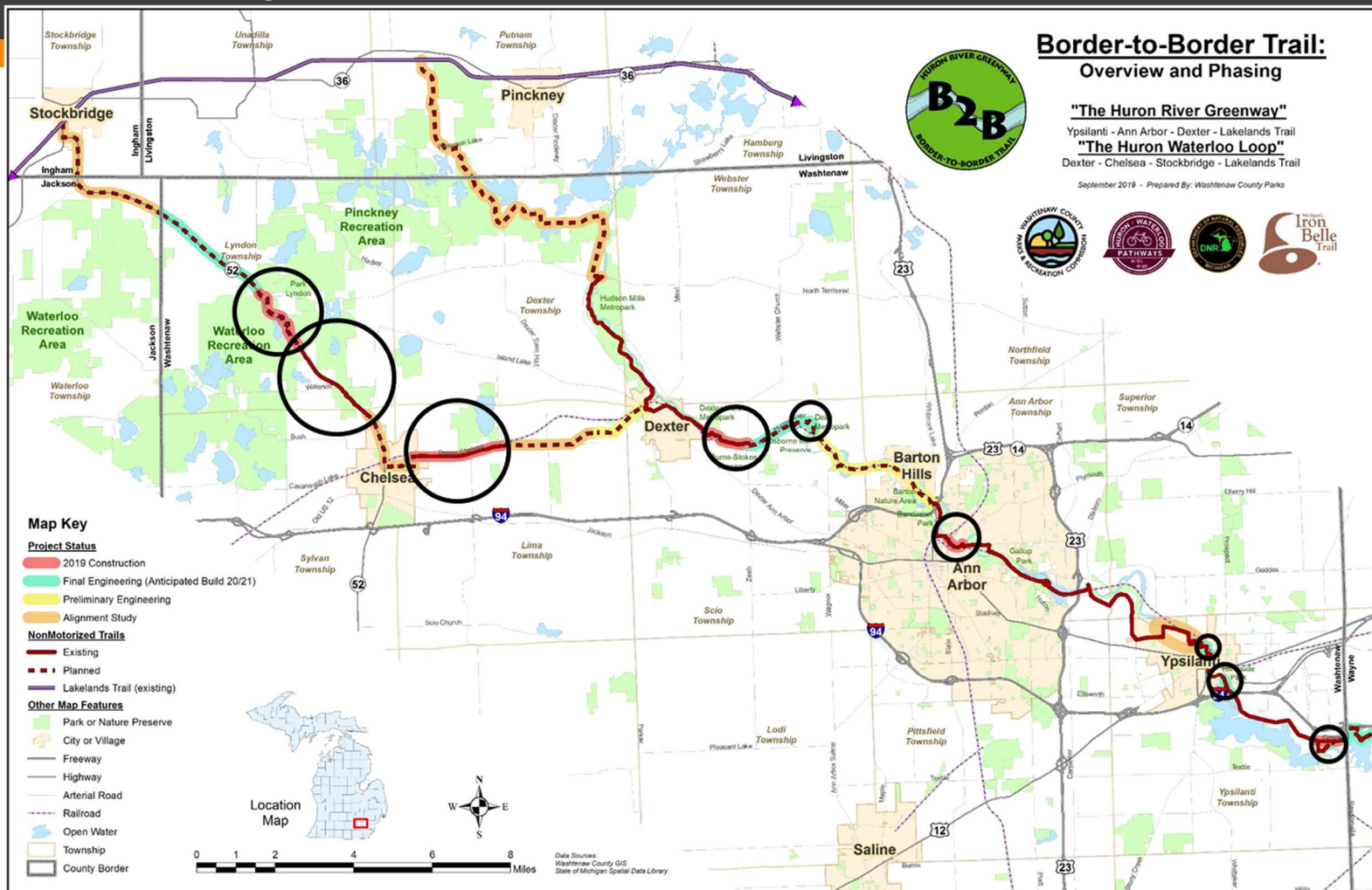
- County-Wide Millage
 - 80% Roads
 - 20% Non-Motorized (WCPARC)

The pathways helped to sell the millage to residents.

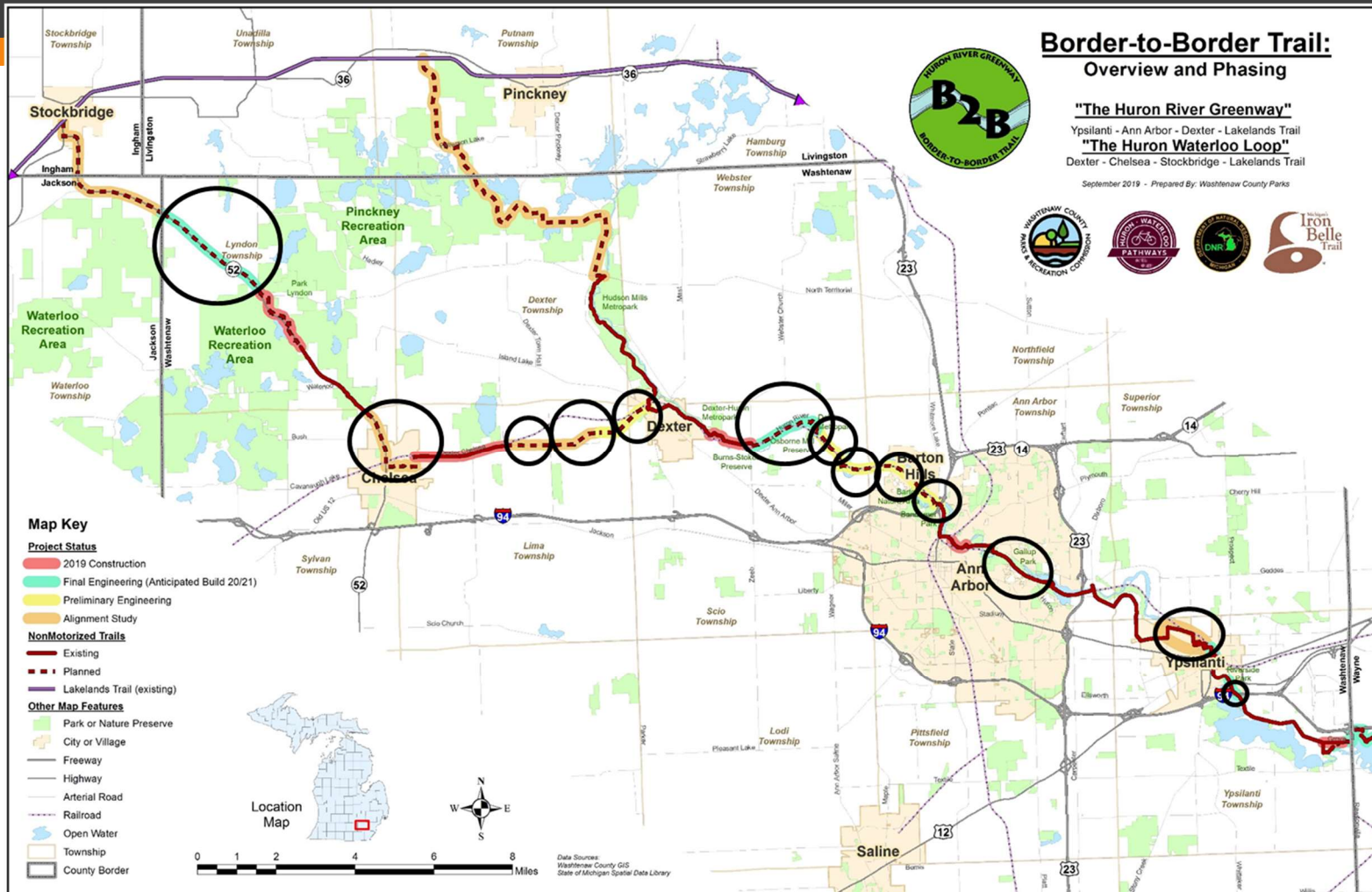
Renewed in 2020 with 76% support!!



B2B Projects 2016 - 2020



B2B Projects 2021 - 2025



Why Partner? It's all about \$\$

- Transportation Alternative Program (TAP)
 - Federal funds
 - Requires an ACT 51 Agency
 - Mutually beneficial
- Administered as an MDOT LAP project



Funding

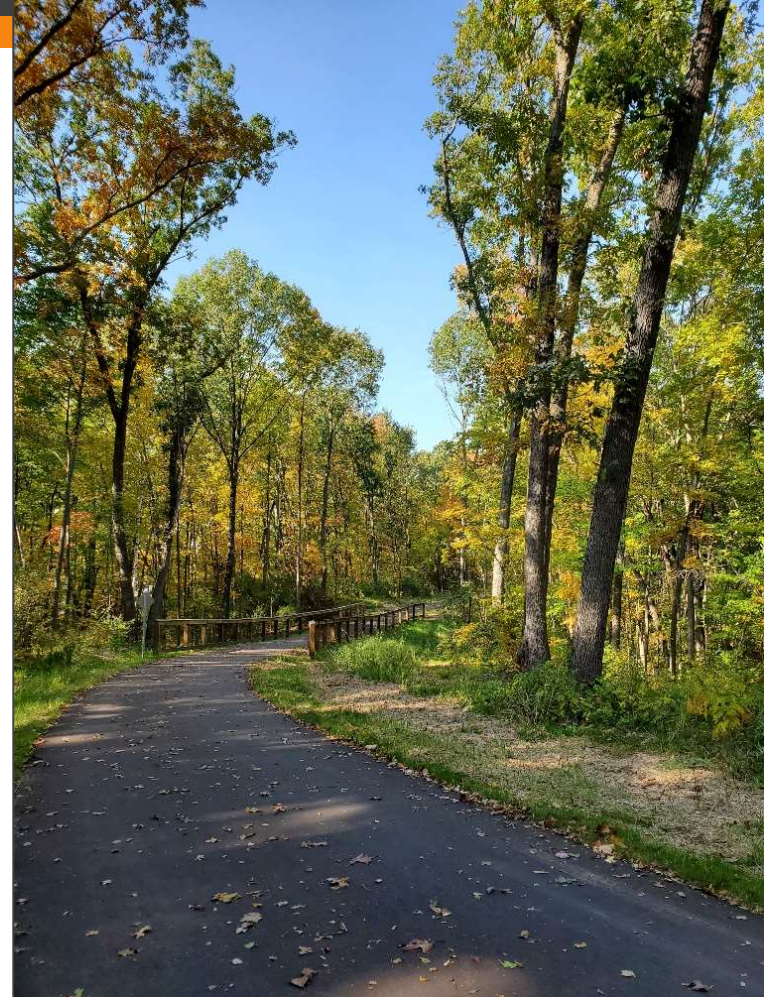
- TAP Funds
 - MDOT
 - SEMCOG
- Local Match
 - Can include private funding or other grants

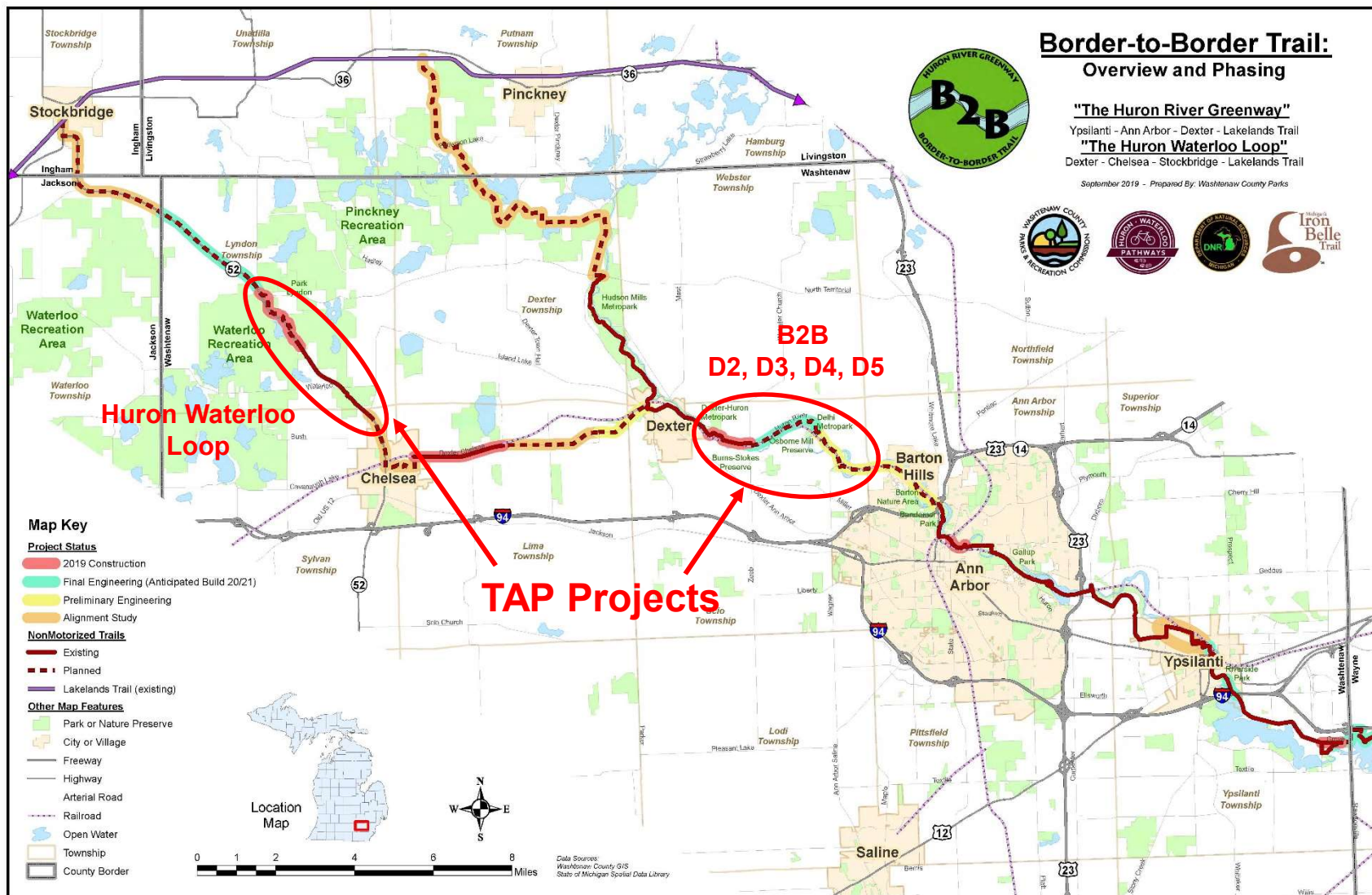


- Road Commission reimbursed for all costs
- Partner (WCPARC) is owner and performs all maintenance

WCRC TAP Projects with the WCPARC

- Huron Waterloo Loop, Phase 1 & 2 – Complete
- Border-to-Border Trail
 - Segment D2 – Complete
 - Segment D3 – Design – GI Submitted
 - Segment D4 – Design – Preliminary
 - Segment D5 – Planning





Don't Be Fooled – These aren't roads

Do not underestimate the complexity

- Public Outreach
- ROW Acquisition
- Permitting
- Design
- Stakeholder
Involvement



Public Outreach – Partner Takes the Lead

The Road Commission takes a supporting role.



The Public LOVES Trails...



...until they're in
their backyard.

Be ready!

Right-of-Way Acquisition

- Know the rules!!!
- Must meet State/Federal requirements
- Don't promise what you can't deliver
- Go to MDOT LAP ROW with questions



Permitting

- SHPO
- NEPA
- EGLE
- T&E Species
- Other
 - Railroad
 - Natural Rivers



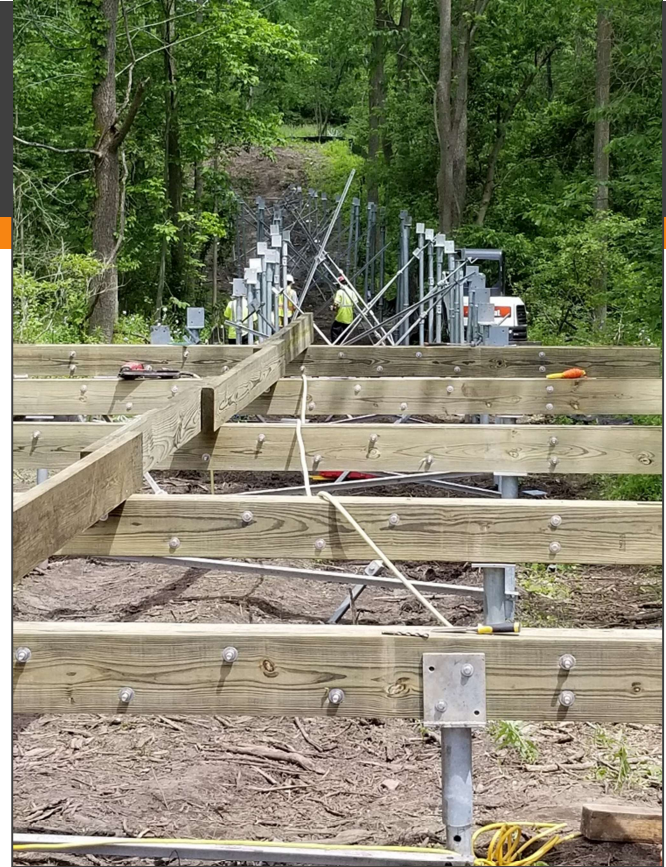
Wetlands

- Same requirements as roads
- Mitigation may be necessary for permanent impacts



Wetlands

- Boardwalks
 - Zero wetlands impact
 - Expensive



- Long-term maintenance issue

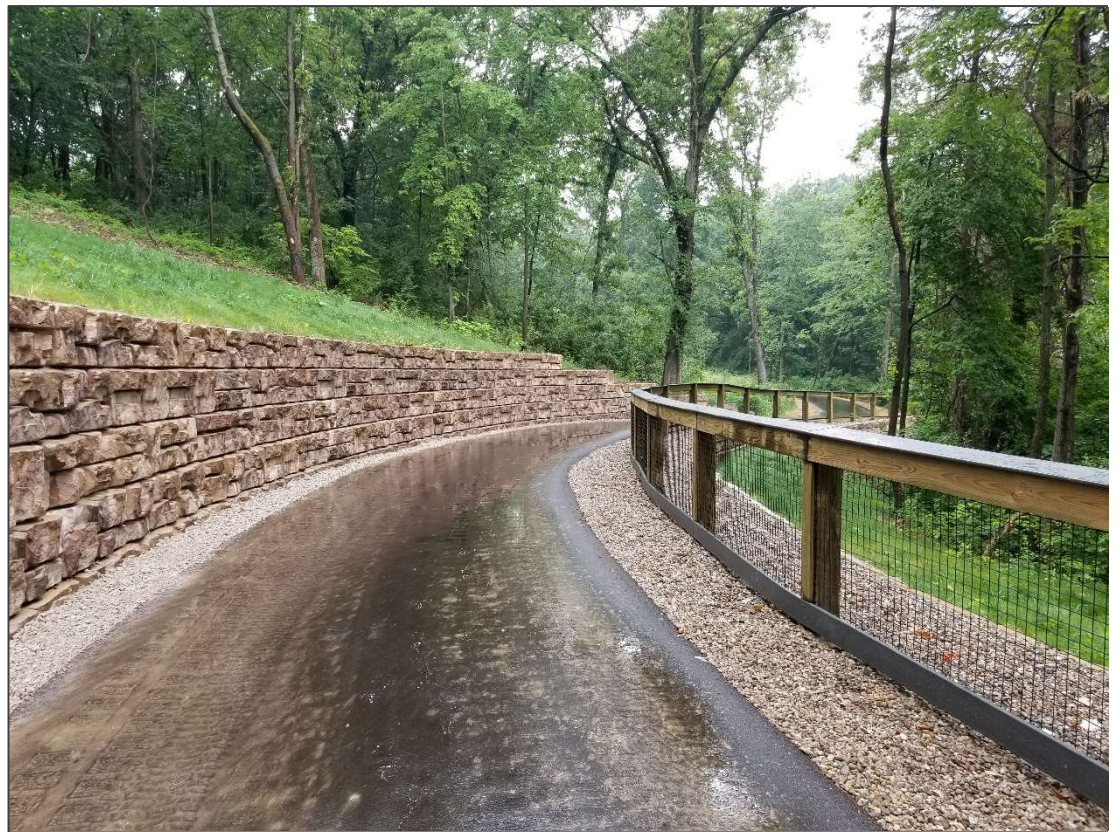
Wetlands - Mitigation



- Creating wetlands - impractical and expensive
- Wetlands bank - possible alternative to boardwalk

Design – Experience is Key

- Get involved early
- Designer with Trail experience is a MUST
- Know MDOT packaging and bid process
- Consider constructability in design
- Learn from experience



ADA vs. AASHTO Guidelines for Trails

- Ramps
 - Follow MDOT R-28-J
- Cross Slope
 - Max 2%
- Running Slope
 - ADA: Max 8.33%
 - AASHTO: <5% or need resting intervals



B2B Trail Segment D2



B2B Trail Segment D2

Constructability vs. Means & Methods

- Must anticipate how it will be built
- Permit for worst-case scenario



B2B Segment D2



How do we get over there?

- Barge
- Temporary Bridge

Probably going to touch the water and wetlands during construction.

Permit for everything.

B2B Segment D2 – Mussel Survey



B2B Segment D2 – Temporary Bridge



Be Flexible – Area on Peninsula

Changed from
HMA to Concrete.

Allowed for later
placement.

Better long-term
maintenance.



Interesting Construction – B2B D2

Learn from the variety of techniques used to build the different segments of the trails.

- Bridge 1:
 - 200 feet long
 - Build, float with a barge, lift with two cranes.
- Bridge 2:
 - 225 feet long
 - Build and slide with rollers.



Construction — B2B Segment D2 Bridge 1



- Four segments
- Over 500 bolts per connection



Construction — B2B Segment D2 Bridge 1



Assembled on land, floated with a barge across the river

Construction — B2B Segment D2 Bridge 1



Lifted into place using two cranes

Construction — B2B Segment D2 Bridge 1



Construction — B2B Segment D2 Bridge 2

- Delivered with bridge decking
- Five segments assembled on temporary bridge

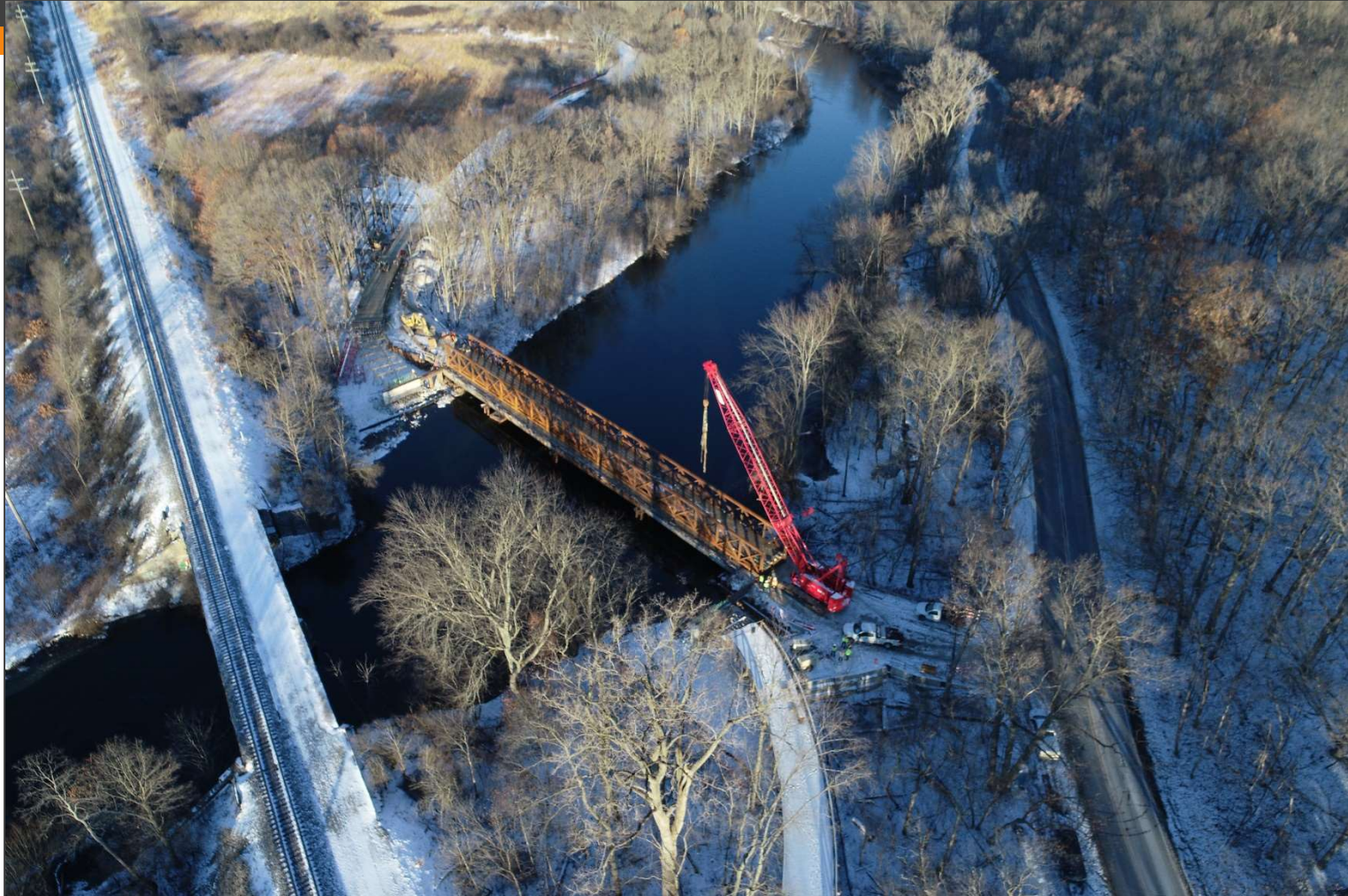


Construction — B2B Segment D2 Bridge 2



Built scaffolding to “slide” the bridge with rollers and a come-along tool

Construction — B2B Segment D2 Bridge 2



Construction — B2B Segment D2 Bridge 2



Shifted a nearly 100-ton bridge approx. 35 feet over 2+ hours

Construction — B2B Segment D2 Bridge 2



Finishing Touches



Popular Even During Construction

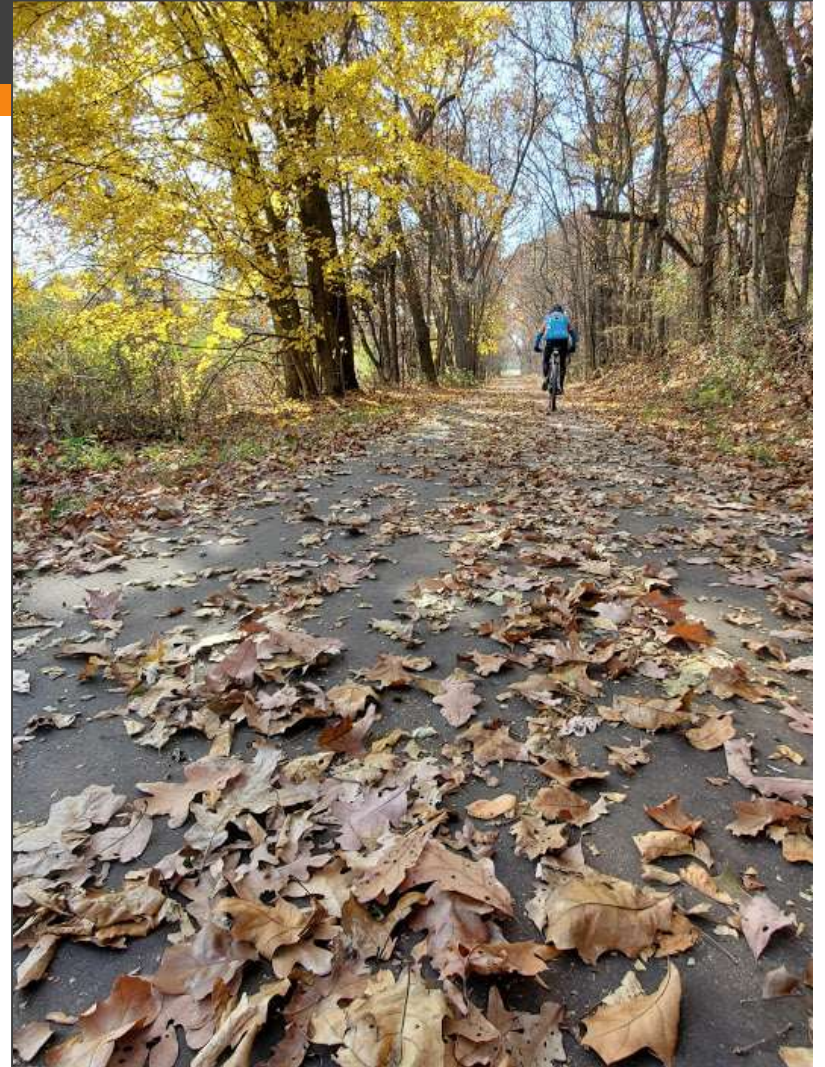


Need to Balance Popularity with Safety



Conclusion

- Popular – the proof is in the numbers
- “Good Press” for the road commission
- Challenging but FUN to work on
- Helped to pass WCRC road millage \$\$\$!





QUESTIONS

