

Small-Scale Improvements for More Bicycle-Friendly Road Projects



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About Ride Illinois...



- Bicycle advocacy (501c3) organization
- Roads, trails, education, policy, legislation
- Bike plan consultant for 20+ towns, advisor as-needed for dozens of others
- What bikeway type is appropriate, where?

Topics



- 1) Context, and analysis tools used
- 2) On-road biking improvements
- 3) Off-road and crossing improvements

Bike-friendly roads – policy level

- Our members' #1 priority
- Seek favorable design policies
 - AASHTO, NACTO guides
 - IDOT bikeway table; D1 guide
 - County examples, city policies
 - Also, pedestrian accommodation

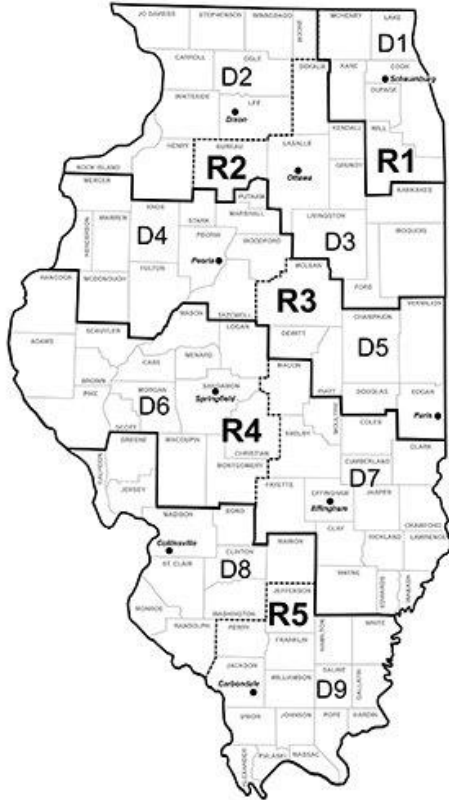


Bike-friendly roads – **project** level

- Also, design input on (priority) upcoming road projects
 - Responsive – IDOT letters
 - Proactive – MYP, CIPs
- Realistic(?) requests



IDOT MYP review

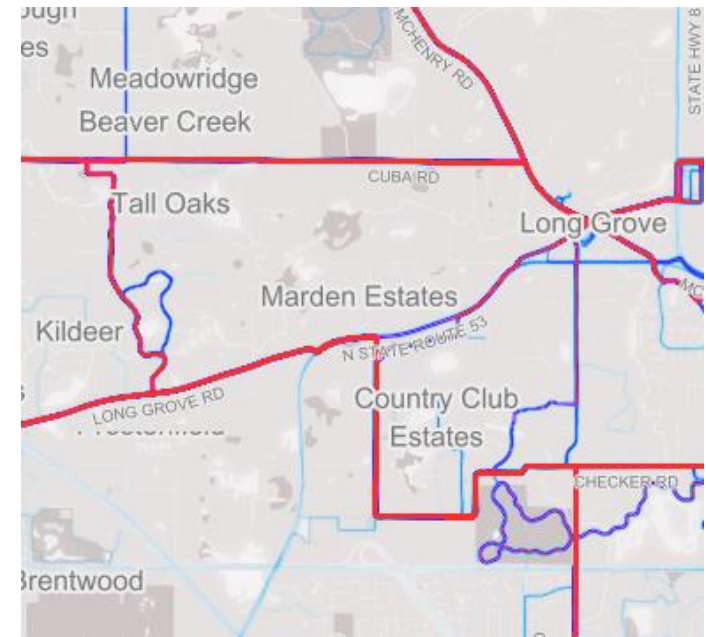


- FY18-23 projects for all districts
(lots of resurfacing, bridges)
- Counties, local CIPs after?

Our review, prioritization process

Determine existing conditions, level of need

- **Strava bike heat map**
- Traffic counts
- Google map imagery
- Land use
- Local bike plans
- Crashes
- Local cyclist input



Strava bicycle heat map

- Aggregated bike trips recorded with phone app
- Free version online - labs.strava.com/heatmap
- Detailed data for purchase (e.g., Cook County)



Strava heat map – pros/cons



- Relative level of bike use on specific roads
- Very helpful where no other counts exist
- Primarily spandex-level/traffic-tolerant cyclists
- Casual and necessity cyclists – not so much
- Half of trips recorded are commute trips

Topics



1) Context, and analysis tools used

2) On-road biking improvements

- *Reconfigure existing pavement width*
- *Paved shoulders, rumble strips, signal actuation*

3) Off-road and crossing improvements

US51, Carbondale – retrofit bike lanes



Used “extra” lane width to retrofit bike lanes

SLMs at intersections

“Shared Lane Markings”
where right-turn lanes
interrupt bike lanes

FHWA-approved

NACTO guide for more
intersection treatments





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47th St, Western Springs – road diet



Study a possible 4-to-3 road diet with bike lanes (9800 ADT), extending project limit 1500-ft to 2-4 lane transition



Vincennes Ave, Blue Island – road diet

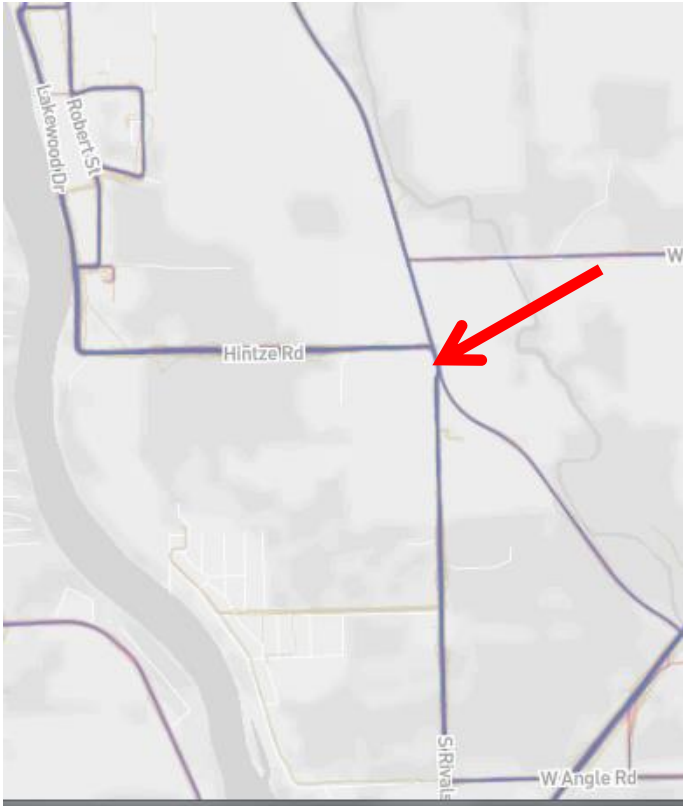
Bike plan calls for 4 lanes-to-3 lanes road diet (5100 ADT), with bike lanes



Urbana 4-3 Road Diet, Before/After



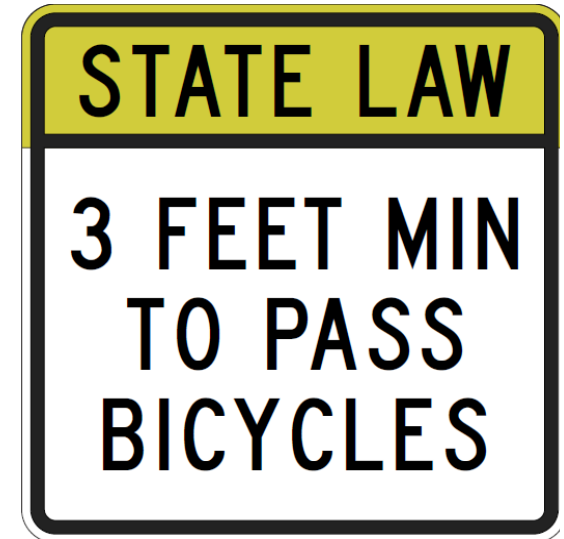
IL102, Wilmington – pave shoulders



Pave 4 to 6-ft of gravel shoulders on a 400-ft connecting segment

3-Foot Law Signs

- A (much) lesser backup
- Popular routes; moderate traffic
- When extra space not possible
- IDOT-approved for local use
- Ride Illinois-initiated requests

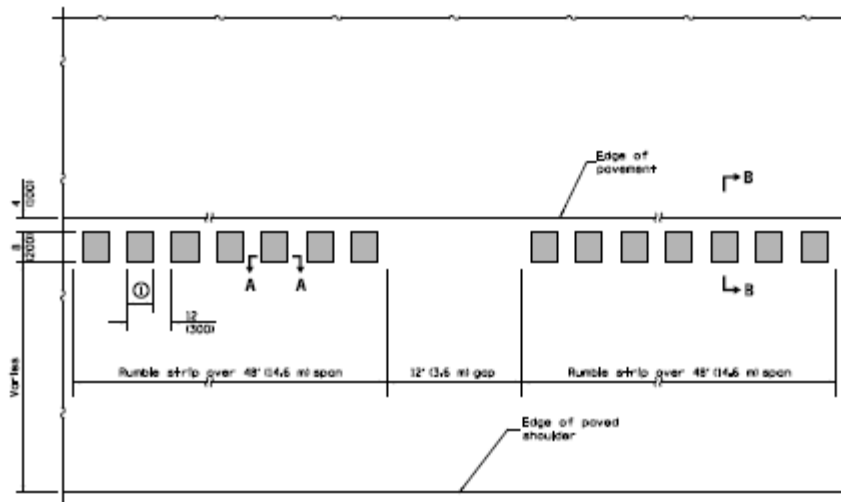


IL171, Willow Springs – fix rumbles



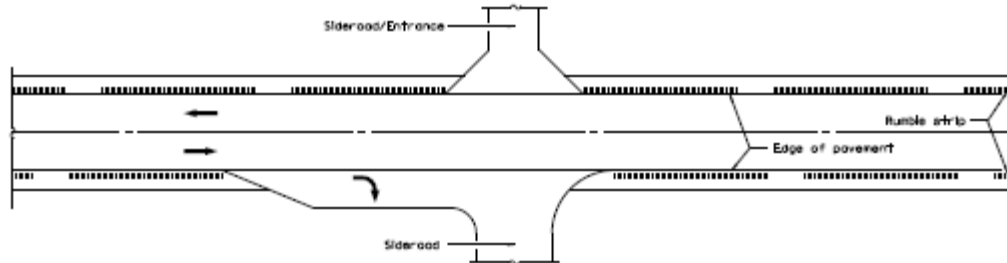
If rumble strips (or stripes) still needed, re-do with at least 3-ft of clear zone

IDOT rumble-strip design #642006



PLAN

① See Section A-A.



4-in from fog line
8-in wide
12-ft gaps in 60-ft

Should leave
> 3-ft clear zone!!

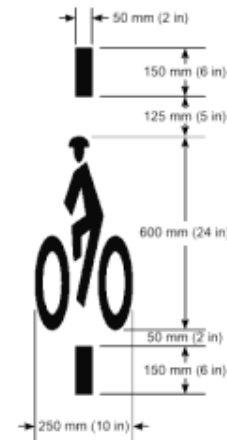
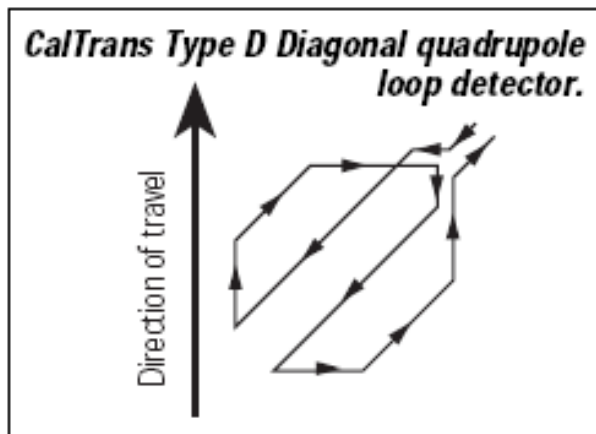
Signal actuation by bikes

- Key, collector-level roads
- Inaccessible ped-buttons?
- On-road not triggering
- Cars far back



Signal actuation by bikes

- Existing signals: adjust sensitivity
- Reconstructed/new: better loop, or camera
- Both: marking, sign show trigger point



Topics



1) Context and analysis tools used

2) On-road biking improvements

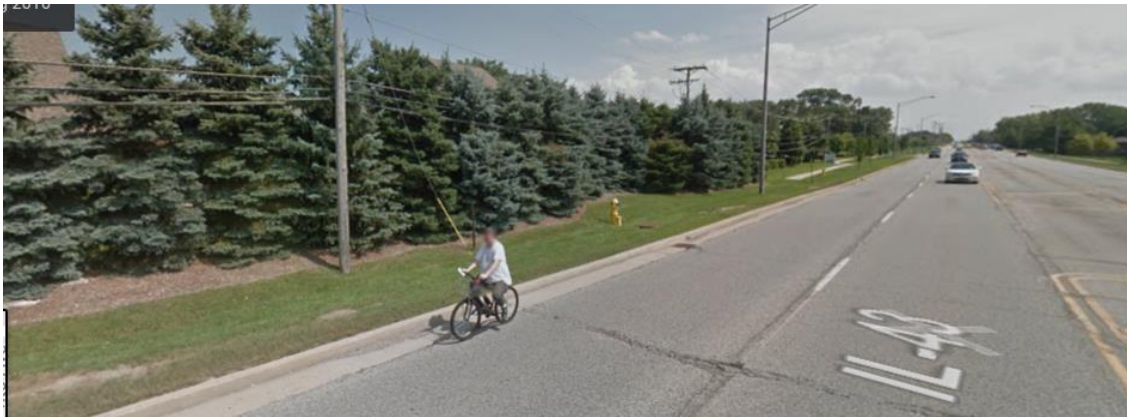
3) Off-road and crossing improvements

- *Sidewalk and crossing gaps, locations*
- *Corner islands, medians, other trail crossing features*

IL1 in Riverdale; IL43 in Tinley Park – Sidewalk or sidepath gaps



Work with local
agency to close
sidewalk gaps



Sidewalks not connecting!



Kensington Rd, Arlington Heights – Crossings too far back

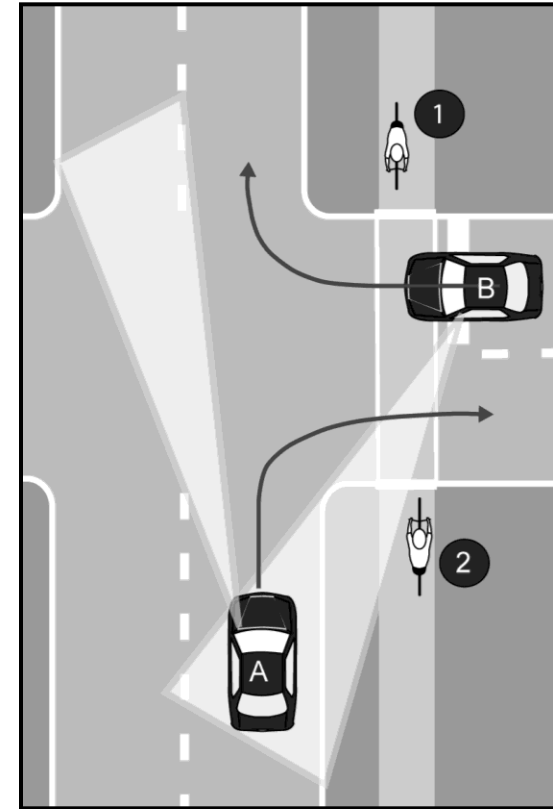


If feasible, work with Village to bring
sidewalk crossings closer to the road

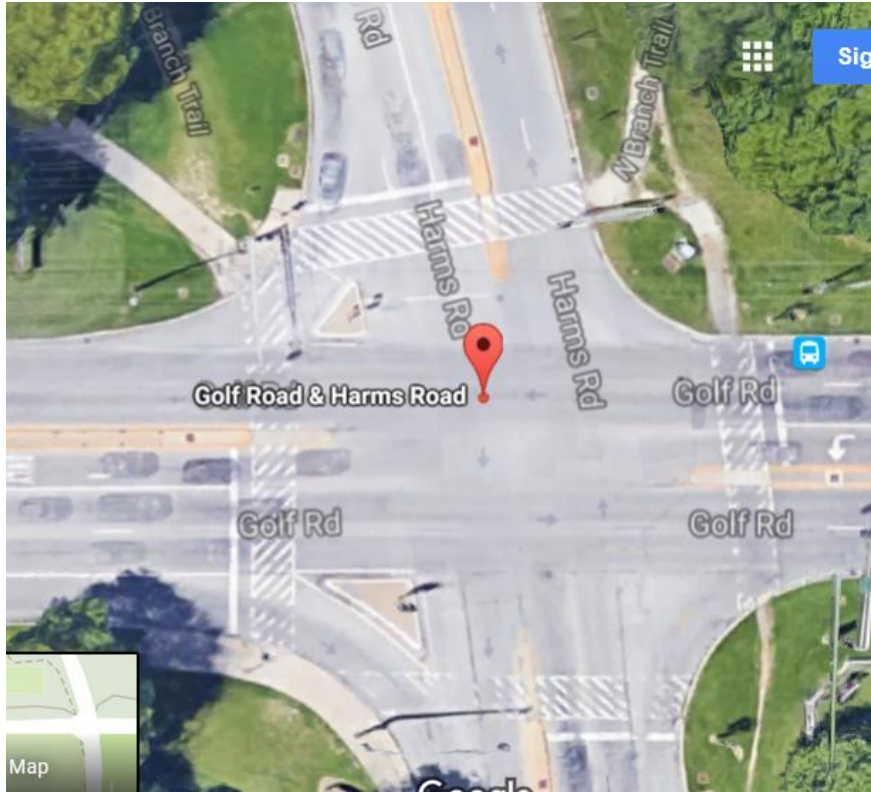
Crossings too far back

Car B (turning right):

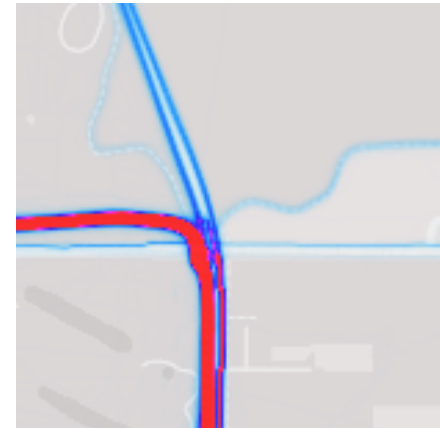
- Rarely stops at stopline, usually in crosswalk or at street edge
- May not even stop
- Often will only look left
- Might see Cyclist 2, less likely to see Cyclist 1



Golf Rd, Niles Twsp – pork chops



Add, expand and use right corner islands for North Branch Trail crossing



Right corner islands

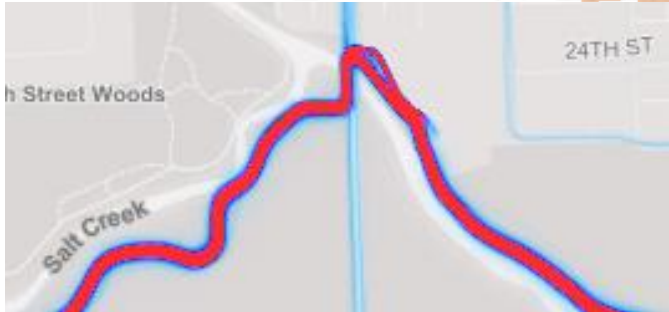


IL43 & 143rd St (by Tinley Park trail)

Add manually-activated Lead Pedestrian Intervals and/or right corner islands



Maple Ave, Brookfield (by Salt Creek Trail) – Crossing improvements



Add automatic-sensing RRFBs* or other beacons.



Eliminate right-turn lane, restripe for median island?

About Ride Illinois...



- Resource for road agencies, consultants
- Review of upcoming road designs
- Advice on selecting on- or off-road bikeways types
- Connection with local cyclists

Questions?



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