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League of Illinois Bicyclists

2550 Cheshire Dr., Aurora, IL 60504
www.BikeLIB.org, 630-978-0583, lib@bikelib.org

August 30, 2013

Ms. Bola Delano and Mr. Gabriel Sulkes
Illinois Department of Transportation
100 W Randolph, Suite 6-600
Chicago, IL 60601-3229

Dear Ms. Delano and Mr. Sulkes,

On behalf of the board and members of the League of Illinois Bicyclists, I would like to submit the attached (lengthy) list of detailed policy recommendations for consideration for inclusion in the Illinois Bike Transportation Plan.

We are grateful to you, Sec. Schneider, and Gov. Quinn for the high level of commitment the agency has been demonstrating to bicycling issues. We appreciate the opportunity to provide our suggestions for the plan, and hope that we can continue working together constructively on these policy topics.

We believe that implementing these ideas would significantly improve the safety and convenience for those who bike by choice or by necessity. Also, Illinois' already-impressive ranking among "Bicycle-Friendly States" would surely rise!

Thank you again for your efforts, and for the many good things that IDOT already does!

Sincerely,

Ed Barsotti

Ed Barsotti, Executive Director

Illinois Bicycle Transportation Plan – Recommendations

League of Illinois Bicyclists, August 30, 2013

General recommendations

LIB offers for the plan a range of specific recommendations, below, on various topics within IDOT's span of control.

IDOT and its consultants have done much work comparing IDOT's policies to those in national standards/guidelines and in other states rated highly as "Bicycle Friendly States". LIB supports using these standards, and best practices from other states, to develop recommendations in the plan. For example, Wisconsin's design manual – and its administrative code interpreting its Illinois-like complete streets law – reinforces several of the recommendations, below, with a high level of practical detail.

Road project selection

LIB recommends that IDOT's criteria for prioritizing which state road projects are needed and funded be amended to include a factor for bike and pedestrian current conditions and needs.

Bikeway Warrants

The needs assessment warrants of 17-1.03, introduced in the 1990s, are good. However, for many projects, IDOT districts look primarily to the 25 bicycle ADT warrant, which is hard to predict accurately. To help reduce the uncertainty, while possibly reducing workload from Figure 17-1.A and B analysis, the qualitative statements of section 17-1.04 could be strengthened to be more detailed and definitive. For certain land uses, it can be stated that the warrants would *always* be met.

Bikeway Selection Table

Having the specificity of a table is a big improvement over pre-Complete Streets implementation (2010), when bikeway policy implementation was often severely inadequate – such as one extra foot of lane width on high-speed, high-volume suburban arterials. The table was developed before AASHTO's 2012 bike guide was released. LIB recommends using the updated AASHTO guide, along with other states' best practices and our suggestions, below, to edit the table. Several of our suggestions are meant to make accommodations more feasible and cost-efficient, and thus, more likely to be implemented.

- The table's Rural Roadways' paved shoulder widths are an ideal target (but not minimum) in/near towns or in other locations where less experienced cyclists are expected. Except where there are major destinations, the vast majority of bicyclists away from towns are more experienced and traffic-tolerant. From the latter's perspective, the widths in the table are quite generous. If less width means more likelihood of implementation where only experienced cyclists are expected, then reducing the table's widths to pre-2010 policy values* would be perfectly acceptable. *(*Pre-2010 shoulder widths: 4' between 1000-3000 ADT, 4-6' over 3000 ADT – with 6' for 55 mph roads or >=45 mph roads with heavier truck traffic.)*

- For the Rural cross-section's >44mph, >8000 ADT accommodation, the preferred option should be paved shoulders*, with the sidepath as an allowable secondary option. In most cases, it is unrealistic to expect that local agencies, often townships, would be willing to pay the local match or even maintain a sidepath. There could also be feasibility and "exceptional cost" issues, such as drainage ditches and more required real estate. *(* Paved shoulder widths: 8' ideal and 6' minimum within/near towns, 4-6' away from towns – per pre-2010 values)*
- The Urban Roadways' part of the table calls for off-road sidepaths much more so than does the 2012 AASHTO bike guide. Especially where there are many intersections and crossings – as is usually the case in land uses having lower to moderate speed roads – sidepaths are discouraged by AASHTO, in favor of on-road bikeways. Even for higher ADT roads, AASHTO states that sidepaths *"are not intended to substitute or replace on-road accommodations for bicycles, unless bicycle use is prohibited."*

  To implement these principles, LIB suggests:

  - Adding a statement discouraging sidepaths where there are more than a small number of intersections or driveways – perhaps using 2012 AASHTO guide language – and requiring Bike/Ped Coordinator approval for their use along roadways below 40mph.
  - Making bike lanes the primary recommendation, with sidepath "optional", for the two lower speed, >15000 ADT cases where both are now listed
  - Adding bike lanes as an equal option to sidepaths, for the two 36-44mph, >8000 ADT cases
  - Adding a statement that where an on-road bike accommodation (usually bike lanes) is recommended, a continuous sidewalk should be included on at least one side of the road (ideally, two), for child bicyclists
- For the Urban <30mph, 2000-8000 ADT accommodation, use 14' instead of 13-14' for the width, per AASHTO's 2012 bike guide.
- Sidepaths along roads, except those that are key parts of significant trail systems, rarely have use levels that justify 12' widths. In fact, 8' is adequate for many, in suburban-type locations. We recommend replacing 10-12' with "10' desired, 8' minimum" in the table.
- Similarly, replace 6' bike lane width recommendations with 5-6'.

Secondary or "next highest and best" accommodations

BDE Chapter 17 says: *"If it is determined in the Phase I report that the recommended accommodation in the Facility Selection Table cannot be built without excessive cost, local support, or disruptive ROW considerations then the next highest and best accommodation shall be considered that can achieve the highest safety for the user and best meets the project's cost, local support, and ROW considerations. Selection of next highest and best accommodations shall be determined on a case-by-case basis by the district as many variables will need to be considered".* It seems likely that this process would work best if more extensive guidance on fallback options were included in the BDE, and if the state bike/ped

coordinator were always involved. For example, Wisconsin's manual actually lists a primary urban bike accommodation and (in order of preference) 14 lesser "backups", to handle very specific situations. LIB recommends detailed BDE guidance on secondary or "next highest and best" accommodations, for different scenarios. Simply grading a shelf for future off-road accommodation is definitely inadequate and is a missed opportunity.

Resurfacing projects

While the Complete Streets legislation exempted *"pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders"* from its full accommodation policy, one provision did state that *"bicycle and pedestrian ways may be included in pavement resurfacing projects when local support is evident or bicycling and walking accommodations can be added within the overall scope of the original roadwork".*

A low or no-cost improvement for projects not widening asphalt would be lane striping reconfiguration, where extra lane width could provide the space needed for bike accommodation. LIB recommends that such resurfacing projects be routinely reviewed for feasibility of:

- In-town: bike lanes (preferred) or, as a fallback on multilane roads, wide outside curb lanes with narrower inside lanes
- Out-of-town: paved shoulders

This, of course, may require giving up excess lane width over the desired or even minimum standard. If technically feasible to reconfigure striping for bike accommodation, the districts should present the option to local agencies. At present, it seems local agencies often have to find out about this option on their own, and then request it.

Finally, even through Complete Streets law exempts resurfacing projects from the full policy treatment given to reconstructions and expansions, each resurfacing project should be viewed as an opportunity. Where there is significant need to do so, strongly consider expanding the project scope, if needed, to add accommodations.

Paved shoulders and rumble strips

Paved shoulders on rural cross-section roads benefit not only bike safety, but also motorist safety (run-off-the-road crashes) and road maintenance costs. The BDE Manual calls for paved shoulders where bikeway warrants are met. In addition to warranted roads, LIB supports the addition of paved shoulders on other roads that would not be comfortable for bicycling without them (e.g., Bicycle Level of Service worse than 3.25, away from towns).

Recognizing that this is not possible everywhere, we would prioritize roads connecting at least moderate-sized towns but having no good alternatives (see HSIP discussion, below), and routes or areas of the state with appreciable levels of bicycling activity. Wisconsin (FDM 11-46, section 15.4) provides examples of paved shoulder warrants somewhat broader than IDOT BDE Chapter 17 warrants.

Shoulder rumble strips are a detriment to bicycles, but LIB recognizes their benefits to motorist safety. If not done already, all IDOT districts, the BLR and BDE Manuals, and the HSIP program should adopt District 6's less impactful and FHWA-compliant rumble strip design detail for all locations where rumbles are added to 4-6' paved shoulders – 4" offset from edgeline, 8" width, >=3' clear zone to the right of the rumbles. This would apply regardless of whether the road is specifically designated for bikes, or not.

Our understanding is that the HSIP program currently uses this design – instead of 3' paved shoulders with rumble strips – where the BDE Chapter 17 warrants are met. This is likely too narrow of a trigger for the extra foot and more bike-friendly rumble strips. MAP-21 seems to clearly expand this, in its list of HSIP-eligible projects: "*Installation of rumble strips or another warning device, if the rumble strips or other warning devices do not adversely affect the safety or mobility of bicyclists and pedestrians….*" Based on this, we recommend that all (state and local) HSIP-funded rumble strip or shoulder-with-rumble projects use a minimum of 4-foot shoulders, with the design detail above, as a default. Exceptions can include:

- Locations with grading/terrain that would make 4' shoulders excessively expensive
- Rural roads having a hard-surfaced (paved, or tar and chip) alternative for the whole project length, unless the project's road provides unique access to a significant destination. The alternative road(s) should generally be within 1.5 miles of the project's road, and be reasonably bike-friendly (e.g., AADT <=1000 for 55mph, <=2000 for 30mph – or Bicycle Level of Service better than 3.25).

Shoulders with too much collected debris become unusable for bicyclists, who may ride in the travel lane instead. Besides bewildering motorists, it's a safety issue: overtaking motorists may falsely expect bicyclists to move onto the shoulder when being passed. LIB recommends that IDOT roads with paved shoulders be swept by the districts at least once per year. Priority locations are those where BDE Chapter 17 warrants are met and those IDOT rural roads not having good alternatives, as defined above.

Local cost share recommendation

A big improvement of the 2010 Complete Streets policy was the reduction of the required local agency cost share to 20% - for *off*-road sidepaths and sidewalks. (Bike lanes, rarely implemented before 2010, actually had their local cost share *increased* to 20%.) As a result, more sidewalks and sidepaths have been planned into newer projects. However, from early IDOT district reports, the local match has been the source of project delays and re-engineering – both costing money, perhaps comparable to the 20% match itself(?). Local non-participation has also been the cause for accommodations being omitted entirely or significantly scaled back in adequacy.

In a complete streets policy following best practices, any bicycle or pedestrian facility's cost to local agencies would be "within the overall improvement cost-sharing formula" of the entire road project. For many projects, that equates to 100% state, 0% local. LIB recently found, from discussions with several DOT bike/ped coordinators, that this seems to be the norm in higher-ranking "Bicycle-Friendly States". Instead of separate treatment for bike/ped accommodations, using the same cost share as the overall project would be a truly multi-modal approach *more legally adherent* to the Complete Streets

legislation – which does not specify local agency cost participation refusal as an allowable exception. Finally, when specifically asked about the issue in 2002, then-candidate Pat Quinn fully supported equalizing the cost share. The proposal is LIB's highest priority recommendation for this plan.

Sidewalk construction, and cost share or credit

The issue of building new sidewalks on one or both sides of a road project was not part of the 2010 policy update. Even though sidewalks are not technically bikeways, the bike plan is probably the place to address the issue, since the plan is serving as a de facto Complete Streets review.

LIB's recommendation is for IDOT to adopt FHWA's "New Sidewalk Installation Guidelines" (or similar) to determine where one or two sidewalks should be built, as a function of land use and roadway classification. This table would act similarly to IDOT's bikeway selection table. In almost all places where an on-road bikeway is warranted, so would sidewalks on one or both sides. *(It is accepted bike planning process to provide sidewalks for children, where on-road bikeways exist.)* Where a sidepath is warranted, it would serve as the sidewalk/pedestrian facility, too. Wisconsin provides good, detailed policies on simultaneously addressing both bike and ped accommodations, including situations where "excessive cost" thresholds are met or available space is constrained.

In many higher-speed suburban cases, adding just one continuous sidewalk in a road design would be a tremendous improvement for non-motorized users. If the decision is made not to accept the above "same cost share" proposal in its entirety now, then a minimum, interim recommendation is as follows. For projects for which:

- IDOT bikeway warrants are met,
- no sidewalks currently exist on either side, and
- FHWA's "New Sidewalk Installation Guidelines" suggest that sidewalks be "required" on both sides,

Construct one sidewalk with a local match "within the overall improvement cost-sharing formula" (often, 0%). The local agency would still be required to maintain the sidewalk – common practice, and usually not a big problem, in the states we talked with. If the bikeway selection table calls for either bike lanes or a sidepath, and the local agency approves the accommodation instead of the sidewalk above, their cost share is reduced by a "credit" amount equal to 20% of what that sidewalk would have cost. In this case, if the local agency wants bike lanes and a new sidewalk on one side, the "credit" can only be applied to one of the accommodations. Local cost share for a sidewalk on the other side depends on FHWA's new sidewalk guidelines. Where FHWA suggests sidewalks on both sides as "required", the second sidewalk local cost share could be 20%. If not, then the local cost share could be 100%.

Keeping BDE and BLR manuals current

National standards and guidelines covering bicycle facilities, crossings, etc. have rapidly evolved, especially in the last two recent decades. However, IDOT's BDE and BLR manuals have often not kept pace. This has led to problems in the adequacy and/or appropriateness of some accommodations, in IDOT's approval of some local agencies' designs, and in design policies of local agencies that look to

IDOT for policy guidance. While it may seem redundant to repeat national standard/guideline content in IDOT's manuals, history has shown that it is important to do so.

LIB recommends that significant, bicycle-relevant updates in the MUTCD and the AASHTO bike guide be routinely incorporated into the BDE and BLR manuals. To cover the period of time it takes IDOT to make these specific updates, we recommend general BDE and BLR manual statements accepting design features from the most recent AASHTO bike guide and MUTCD – also including design treatments for which FHWA has granted "interim approval".

The plan consultants have already thoroughly checked whether various design treatments from the manuals above are missing in IDOT's manuals. Some specific treatments we are interested in:

- Shared Lane Markings
- Bicycle boulevards
- Buffered, contra-flow, and left-side bike lanes
- Intersection crossing markings (dotted line extensions, color, bicycle symbols)
- Rectangular Rapid Flash Beacons, hybrid beacon for off-street path crossing (HAWK), active warning beacons
- Bike route wayfinding signage and colored bike facilities

Also, in early 2012, LIB recommended a series of BLR Manual updates. Partially based on these, IDOT proposed BLR updates in early 2013, with LIB feedback sent in a May 1 memo. We recommend incorporating LIB's and IDOT's suggestions, along with others from IDOT's bike plan team, into the BLR.

It may be that the NACTO design guide is still too new to adopt it in its entirety, especially for use in different locations throughout the state. However, LIB recommends that individual treatments from NACTO be given stronger consideration in the BLR variance process (and in IDOT's own designs) than variance proposals not in any manual. We recommend this especially for proposals with strong similarities to formally-evaluated designs in comparable places around the country. A high-profile example is protected bike lanes, which are very analogous to sidepaths. However, PBL's are usually implemented where the usual inherent sidepath intersection problems are reduced, due to better motorist stop line adherence and crosswalk user expectation, tighter turning radii, and other special intersection treatments.

Intersections and refuge islands

Intersection safety was not included in the 2010 Complete Streets policy changes. In both BDE and BLR policy, IDOT gives mixed messages on right-turn corner islands, which improve safety for pedestrians and off-road bicyclists at large, suburban-style intersections having adequate setbacks. LIB recommends acceptance and encouragement of right-turn corner islands in these locations. If necessary, IDOT could take the national lead in researching and developing a Crash Reduction (or Modification) Factor for these, to better justify their use as a safety feature. We also recommend that other best practice designs improving non-motorized user safety at intersections be strongly considered for IDOT's manuals.

Transportation Alternatives Program

Recommendations were previously sent in a multi-organization (including LIB) letter from April 2013, and in a July 2011 meeting and memo. These include:

- Dedicate 80% or more of Transportation Alternatives (or its successor, if similar) dollars to the bicycle/ pedestrian category. Projects should be accessible to bikes.
- Continue a regular grant schedule, with predictable application and announcement dates.
- Continue to pursue process improvements, including those previously suggested, to improve upon Illinois' historically poor state ranking in unobligated balances.
- Assign any federal rescissions and obligation limitation distribution proportionally to apportionment, not to unobligated balances, as much as possible.
- Also, if there are times when the Safe Routes to School program is not running efficiently because of understaffing issues, do not earmark a portion of that year's TAP funds for it.

Highway Safety Plan and 402 Traffic Safety Program

Whether or not the US DOT adopts a specific performance measure for bike safety, LIB recommends that this be adopted at the state level. This would help in prioritizing safety funds' expenditures.

"State representatives of non-motorized users" are now on the list to consult for the Highway Safety Plan, according to MAP-21. We recommend that LIB or Active Transportation Alliance be involved.

We recommend a lengthier, detailed list of proposed education, encouragement, and enforcement strategies and desired programs that could provide more specificity to the priorities for Section 402 bicycle safety funding. One possibility: as proposed to Sec. Schneider and IDOT staff, LIB would gladly donate our time to run a 2014 (and annual) statewide radio ad campaign promoting bicyclist and motorist use of LIB's bikesafetyquiz.com educational resource, using 402 funding for the ad time.

Bicycle/pedestrian coordinator position

After the 2010 Complete Streets policy implementation, the state bike/ped coordinator role gained more authority at the road project level. The coordinator role should be strategically placed within IDOT's organizational structure and staffed with an appropriately-trained, motivated professional, to provide technical expertise on projects and training to peers, and otherwise implement the plan's goals – with credibility and authority. The role is big enough that indirectly-related, non-technical tasks (e.g., Recreational Trails Program paperwork) should be assigned to others.

Technical training for project and design staff and consultants

Mentioned at the July plan input meetings was Minnesota's program and performance measure of training appropriate staff and consultants on bicycle facility design and safety issues. LIB recommends the same for Illinois. In the past, we had offered to partner (at no cost) with IDOT's bike/ped coordinator on trainings at district offices, combining a seminar on design issues with content on relevant IDOT policies. That offer still stands.

State bicycle maps

Continue IDOT's fine tradition of publishing and distributing bicycle maps of its 9 districts, with the following improvements:

- As is done in Kane County's bicycle map, apply corrective terms for paved shoulder width and truck volume percentage to the Bicycle Level of Service formula, for input ranges outside of the BLOS model range of validity. LIB has information on how to do this.
- Use a more intuitive color progression scheme. Also, instead of using BLOS grades A, B, C, D, E, and F as the color levels, assign levels as follows, for a more uniform distribution: A and B, high C (2.50-2.99), low C (3.00-3.49), high D (3.50-3.99), low D through F (over 4.0).
- The trail inset maps currently do not add very much, particularly since resolution and surrounding features' detail do not improve much in them. Detail and resolution should be improved, to justify use of this space. Even if that occurs, some of the trails are not significant enough to warrant the space.
- Bike maps are a great place to convey bike safety information. Prioritize and eliminate some of the other text content and perhaps some inset maps to make room for more bicycle safety information or graphics – as LIB has done in its metro area maps (Rockford, Springfield, Decatur, Champaign-Urbana, and Aurora). At the minimum, prominently promote LIB's www.bikesafetyquiz.com resource on the maps.
- IDOT's bike maps rate roads in IDOT's IRIS database. Generally, in metro areas, IRIS only has a town's busiest roads – often not the roads preferred by local cyclists. Due to this, IDOT's maps are not especially useful in metro areas (especially District 1). As a result, LIB, Active Trans, and others have created metro area and local bike maps to portray more realistic networks of preferred routes. At minimum, these maps should be acknowledged (with links) in IDOT's maps. Ideally, IDOT's maps would incorporate route info from these other maps, if map scales allow.

Accommodation performance measures

Adopting road corridor bike and pedestrian accommodation measures would have applicability in road project prioritization, initial project scoping and budgeting, evaluation of design alternatives and before-after conditions, and review of finished results. Bicycle Level of Service is recommended for on-road adult bicyclist comfort, and is recommended by LIB. We have found Pedestrian Level of Service and the bike section of Multi-Modal LOS less than ideal. From our own Complete Streets audits, we can offer a methodology normalized to a roadway's context with:

- A pedestrian component , based mainly on adherence to FHWA's "New Sidewalk Installation" guidelines
- A bicycle component, based on the higher of a Bicycle Level of Service baseline and possible points for various on-road and/or off-road bikeway types, where used appropriately
- A component for roadway crossings
- A context-sensitive component

Project: IL Bike Transportation Plan - Advisory Group
Company: IDOT

Ders Anderson commented on the message:
Materials for 8/15/13 Advisory Group Meeting

Craig and Jack:

With regard to the IDOT Bike Facility Plan, I would offer these initial comments:
I will submit a more detailed set of comments next week, with maps that indicate several of the state border trail connections that are important.

- IDOT should plan for, and participate when feasible, in regional trail cross-state border connections to the American Discovery Trail, and the NW Indiana trail network connections (at the Stateline Generating Plant on the Lake Michigan Lakeshore, 112th street, 134th Street, and State Road, all connecting into Hammond).
- IDOT should plan for, and participate when feasible, in regional trail connections between Richmond ,Illinois and Genoa City, Wisconsin
- IDOT should fully participate in funding and assuming management of grade-separated trails over state jurisdictional roads in metropolitan areas when such separations add significant safety to pedestrian and bicycle movements. Use criteria should be established which utilizes both auto-traffic counts and pedestrian/bicycle crossing movements.
- The era of rail-to-trail opportunities is nearing an end, as most such opportunities in urban areas, and a significant number of such opportunities in rural areas, have utilized the most easily available corridors. The next generation of potential bicycle/hiking corridors could be focused on the many national and state significant historic trails that traverse Illinois. All of these historic trails either were built upon by the state highway system (eg: the National Road/U.S. 40, or the Galena to Chicago Road/U.S. 20), or these historic trails are crossed by the State Highway system. In the former case, in which the right-of-way, of the highway follows the historic trail corridor, such highways should be improved with wide shoulders, or if the right of way exists, off-road trails. In the latter case, in which a State Highway crosses a historic Illinois trail route, today represented by a county, township, or local road, IDOT should install sign age identifying this historic route.
  Other state highway departments recognize such early trail history (Montana, Wyoming, Nebraska, etc.) and thus play a major role in enhancing the state tourism economy. Illinois has, arguably, a set of the most historic trails in the United States, yet

ignores the opportunity to recognize their value. The attached map, is a very rough approximation of the location of some of these routes. They include: the Lewis and Clark land based trails in Illinois, the Mormon Trail, the Black Hawk route, Lincoln's Court Circuit, the Chicago Galena road, the National Road, the Peoria Galena Road, George Rogers Clark route to Vincennes in the Revolutionary War, the Trail of Tears, the Fort Dearborn/Koshkonong/Ft. Winnebago Trail, etc.

1800sHistoricRoadsANSIF_090113.pdf
13.6 MB

Forest Preserve District
OF WILL COUNTY

Bringing People and Nature Together

17540 W. Laraway Road / Joliet, IL 60433
815.727.8700 / fax 815.722.3608
ReconnectWithNature.org

JOSEPH M. BABICH, President
DONALD GOULD, Vice President
LEE ANN GOODSON, Secretary
STEPHEN M. WILHELMI, Treasurer
MARCELLA M. DEMAURO, Executive Director

September 23, 2013

Mr. Gabriel Sulkes
Office of Planning & Programming
Illinois Department of Transportation
100 W Randolph, Suite 6-600
Chicago, IL 60601-322

RE: Illinois Bicycle Transportation Plan

Dear Mr. Sulkes,

The Forest Preserve District of Will County (District) offers its support and recommendations regarding the development of an Illinois Bicycle Transportation Plan. We realize this is a tremendous challenge and applaud your efforts to accommodate alternative transportation that improves the quality of the air and the lives of citizens of Illinois.

The District manages over 90 miles of bicycle trails; many are along river corridors and abandoned railroads. These linear trails are used for recreation as well as transportation. We believe that if a person forgoes their car and uses a trail to get to where they want to go, whether for business or recreation, the trail is a transportation corridor.

Providing accommodations for bicycling involves a hierarchy of improvement types including off road trails, bike lanes and signed bike routes; guidelines that help determine the best accommodation needed are essential. We support IDOT's Complete Streets Program, which evaluates the need for bicycle and pedestrian accommodations in conjunction with roadway projects. Without funding assistance through programs such as ITEP, CMAQ and IDNR's Bikepath Grant, many of our bicycle trails would not have become a reality.

Will County Trail Plans

The District previously provided IDOT a copy of our existing and proposed trails electronically as a GIS layer. We want you to be aware that this is not a complete vision of our goals for the future and we hope to initiate development for a comprehensive Will County Bikeway Plan in 2014. The following is a list of regional trails that have individual master

plans, many of which involve several agencies dedicated to the planning, construction, and maintenance of these trails.

1. Route 66 : This is a state designated route involving several agencies and coordinated by the Illinois Department of Natural Resources. It has an active route that may change as resources become available to make improvements along roadways and trails. The District's Wauponsee Glacial Trail is identified as part of this route.

2. Rt. 53 Corridor: Several Will County agencies are participating in comprehensive analysis of the Route 53 Corridor between Joliet and Wilmington with bicycle use as one component.

3. Old Plank Road Trail: This existing trail is a major east west spine and is managed by five agencies in Will and Cook Counties.

4. Veteran's Memorial Trail: This is an initiative to provide a bike path along the Veterans Memorial Tollway. Phase I Engineering is underway and involves several agencies including the Illinois State Toll Highway Authority. Several road corridors intersecting this route will be important to provide access to this corridor.

5. I&M Canal Corridor/ Centennial Trail: This is an existing trail that extends statewide from Chicago to LaSalle Peru, with local agencies providing management along sections.

6. DuPage River Trail: This trail is being constructed in sections by local communities and the District; guided by a plan for a continuous trail along the DuPage River from Naperville to Channahon.

7. Rock Run Trail: This is an existing trail in Joliet and Crest Hill that connects to the I&M Canal Trail with a plan to connect to the DuPage River Trail along Black Road (2013 ITEP submittal).

8. Vincennes Trail: This north south trail east of Route 1 is proposed to connect Cook, Will and Kankakee Counties.

9. Normantown Road Trail/Virgil Gilman Trail Extension: This trail is proposed to connect Naperville to Oswego and Aurora and will link the Fox River Trail and DuPage River Trail systems.

10. Spring Creek Greenway Trail: This existing trail follows Spring Creek and is planned to connect to the Veteran's Memorial Trail and additional forest preserve land.

Road Corridors of Interest

The District recognizes that roadway corridors are needed to supplement the trail systems as well as connect trails where no other public land is available. Several roadway corridors have been identified as needing bicycle accommodations. The following list is preliminary and will be expanded with the development of a countywide bikeway plan.

1. Peotone Road/ Illiana Tollway: proposed improvements or new roadway along this route should provide for safe bicycle travel.

2. Route 102 from the Wauponsee Glacial Trail to Kankakee State Park Trail south of Wilmington. Upgrades to 102 would provide for safer connection to these two trail systems.

3. Additional bicycle accommodations are needed in areas underserved by trails (i.e. the center of Will County between Manhattan and Monee).

League of Illinois Bicyclists Policy Recommendations

The District supports the recommendations of the League of Illinois Bicyclists, copied below.

1. Adjust local agency cost shares for bikeways (and sidewalks) added as part of IDOT roadwork, to further ensure these are added where most needed.

2. Adjust IDOT's bicycle accommodation selection table to better match recent national bikeway guidelines, and to improve the likelihood of implementation.

3. Where paved shoulder rumble strips must be added, use recent federal guidelines to provide adequate clear space and longitudinal breaks for cyclists. Sweep paved shoulders occasionally.

4. Update IDOT's design approval manual for local agency roadwork, per LIB suggestions and national guidance, to remove obstacles for towns wanting to be more bike-friendly.

5. Further emphasize bikeway projects when doling out federal "Transportation Alternatives" funding, and specifically list which bike education programs are priorities for funding.

6. Adopt a state performance measure for bicycle safety – this is a key to opening doors for available funds.

Will County Roads

The Forest Preserve District of Will County is a separate agency from the Will County Highway Department and our county has many local township and village road districts. Many of these agencies have been unable to consider bicycle accommodations with their road projects due to limited funding or policy restrictions.

It would be beneficial if all state or federal funded local projects required an analysis of bicycle needs during engineering; and that, at a minimum, provisions for future bicycle accommodations are included in those projects regardless of the current level of funding. In rural areas, a paved 4' shoulder (bicycle accommodation) could also be considered a benefit to the roadway, protecting the edge from damage by farm equipment. Road and bridge repairs should also require an opportunity for early review and consideration of bicycle accommodations. Too often our bridges remain barriers to bicycle travel even after they have been upgraded.

We greatly appreciate the opportunity to provide input in the planning stages of this plan. We look forward to reviewing the draft and wish you the best in completing this challenging and worthwhile project. If you have any questions, please contact me at (815)727-8700.

Sincerely,

Marcella M. DeMauro

Marcella M. DeMauro
Executive Director

cc: Board of Commissioners, Forest Preserve District of Will County
Mr. Larry Walsh, Will County Executive
Mr. Curt Paddock, Will County Land Use Department
Mr. Bruce Gould, Will County Highway Department
Mr. Ed Barsotti, League of Illinois Bicyclists
✓ Mr. Craig Williams, Alta Planning + Design

ACTIVE
TRANSPORTATION
ALLIANCE

9 West Hubbard Street
Suite 402
Chicago, IL 60610-6545

T 312.427.3325
F 312.427.4907
info@activetrans.com
www.activetrans.org

August 14, 2013

Illinois Department of Transportation
C.O. Gabriel Sulkes (gabriel.sulkes@illinois.gov)
Illinois Department of Transportation
2300 S. Dirksen Parkway
Springfield, IL 62764

Fulfilling Bicycling's Promise in Illinois

Comments from the Active Transportation Alliance on the proposed Illinois Bike Transportation Plan

Dear Mr. Sulkes,

The Active Transportation Alliance supports the Illinois Department of Transportation's (IDOT) effort to finalize the first-ever **Illinois Bike Transportation Plan** by the end of 2013. A state bike plan is potentially great news for bicyclists and for our state—which stands to realize biking's many benefits to public health, our environment, and our economy.

If all goes well, the Illinois bike plan could make Illinois truly great for bicycling by providing a unified vision for fulfilling bicycling's crucial role in Illinois's transportation infrastructure. The plan promises to expand the state's bike trail network and link existing bikeways across the state. It could mean the development of new bike facilities whenever existing roadways are improved or new ones built. It could turn IDOT into a catalyst for helping cities and towns already building bikeways on their own. Ideally, it will enhance cycling for all Illinoisans whether in cities, suburbs, rural areas, and everywhere in between.

On behalf of Active Transportation Alliance and our more than 7,000 members across Illinois, I respectfully submit the following comments for your consideration on the proposed Illinois Bike Transportation Plan. We urge you to include the following components in the plan:

1. **Grow a network of "family bikeways".** Illinois has very little space dedicated for cyclists within the public right of way, which means people on bikes typically must ride either amidst moving cars or not ride at all. Most people choose the latter: studies show that only about 10 percent of the population is willing to ride in car traffic; the rest are too frightened by the prospect. For people walking, sidewalks keep them out of car traffic, and the sidewalk network is comparably extensive in most cities. Illinois

lacks similarly extensive network for bikes—the one we have fails to meet the needs of 90 percent of the population.

THE ILLINOIS BIKE PLAN SHOULD: **Prioritize the creation of a network of "Family Bikeways" such as trails, low traffic streets, bike boulevards and protected bike lanes that allow people of all ages, from children to senior citizens, to ride a bike comfortably within and between communities.**

2. **Reverse IDOT's policy of blocking protected bike lanes on state routes.** Chicago is already implementing its own bike plan, the Streets for Cycling Plan, which includes a 645-mile network of bike lanes. One hundred miles of these bike lanes will be of the very best type*: protected* bike lanes, which include a physical barrier that separates bike traffic from moving cars and makes both drivers and riders safer. After New York City introduced protected bike lanes on 9th Avenue in Manhattan, crash injuries for all street users decreased 56 percent. A 2012 study published in the American Journal of Public Health found that the risk of injury is 89 percent lower biking on barrier protected bike lanes compared to major streets with no bike infrastructure.

   Chicagoans are already using protected bike lanes on Milwaukee Avenue and Dearborn Street. But plans for other protected bike lanes hit the skids on streets like Jackson Boulevard and Clybourn Avenue due to IDOT policies that ignore protected bike lanes' track record of reducing crashes in urban areas*.*

   THE ILLINOIS BIKE PLAN SHOULD: **Acknowledge protected bike lanes' record of increased safety on urban roads and facilitate their construction on state routes in Chicago and other cities.**

3. **Boost the efforts of local governments building bikeways.** Many Illinois cities and towns are working hard to make their communities more bikeable but frequently find IDOT's design approval process and design standards to be too inflexible. These municipalities are busy working to create roadways that are safe for all users only to have projects denied approval due to IDOT's rigid enforcement of the Bureau of Local Roads Manual. Frequently, this denial comes with little or no explanation nor offers for collaboration with IDOT on how to realize a design that meets both IDOTs standards and local community goals. Local governments should be able to rely on locally adopted design standards that are

compliant with nationally accepted models such as those published by AASHTO, and NACTO. Yet, these communities often have to seek variances from IDOT's standards just for the portions of their projects that happen to be on state roads. The cumbersome and time consuming variance process places unnecessary costs on the design process and discourages innovation in bike-friendly designs as well as the installation of well-established bike-friendly infrastructure.

THE ILLINOIS BIKE PLAN SHOULD: **Recommend that IDOT a) update its design approval process for local road projects and b) streamline its local project variance process for cities working to implement bike plans or Complete Streets policies.**

4. **Make state routes truly Complete Streets.** It's become a basic tenant of transportation policy that a roadway should serve all of its users—whether those people are travelling by car, transit, bike, or on foot. But IDOT's requirement that local governments provide 20 percent matching funds for the bicycle and pedestrian components of a complete street on state roads—while often requiring no matching funds for the car elements—has discouraged communities from creating Complete Streets. Too often, local governments can't afford the match, and Illinois's roads remain friendly to cars only.

THE ILLINOIS BIKE PLAN SHOULD: **Recommend changes to IDOT's local match policies to no longer requiring matching funds from communities for bicycle and pedestrian projects. In cases where local match funds are required, they should be assessed at equal rates for the biking, walking, transit and car components of the project.**

5. **Ensure bike and pedestrian projects get fair share of federal transportation funds.** MAP-21, the most recent federal transportation funding bill, included the Transportation Alternatives Program to provide funding for states to invest in and enhance facilities for "non-car" modes of transportation. Of the various types of projects for which the federal program allows these funds to be used, projects that build bike and pedestrian infrastructure clearly most maximize the benefits of allowing people to leave their cars behind. We encourage you not to spend TA funds on "environmental mitigation," that is, using the money to mitigate the environmental impacts of road projects. It is already federal law that road projects must mitigate their environmental impact, and the money for

doing so should come from the vastly greater pool of funding used to build roads.

We are grateful that Governor Quinn and IDOT increased the share of funding for bike and pedestrian projects under the former Transportation Enhancements (TE) programs—after the previous administration's drop from historical Illinois averages. However, in the 2012-2013 round of TE grant funding, our state still came in below the national average for the percentage of TE funds allocated to bike and pedestrian projects. In allocating TA funding, IDOT should strive, *at minimum*, to keep funding for bike and pedestrian projects level after accounting for changes in federal program structure between the last two federal transportation bills, such as the change from TE to TA and the merging Safe Routes to School into TA where under TE it was a separate program.

THE ILLINOIS BIKE PLAN SHOULD: **Recommend that IDOT maximize the portion of federal Transportation Alternatives funding it allocates to active transportation projects. No less than 80 percent of available TA funds should be allocated bike and pedestrian infrastructure.**

Again, the Active Transportation Alliance sincerely appreciates IDOT's solicitation of public comments as it works to finalize the Illinois Bike Plan, and we look forward to the completion of this historic document, which we believe to be of profound importance to the future of active transportation in Illinois. We urge you adopt these recommendations for the plan because we believe they are crucial to fulfilling bicycling's promise in our state.

Sincerely,

Ron Burke
Executive Director
Active Transportation Alliance
9 West Hubbard Street, Suite 402
Chicago, IL 60654-6545
312-427-3325 x228

Chicago Metropolitan Agency for Planning

233 South Wacker Drive
Suite 800
Chicago, Illinois 60606

312 454 0400
www.cmap.illinois.gov

September 18, 2013

Via Illinois Bike Transportation Plan Advisory Group Basecamp website:
https://altaplanningdesign.basecamphq.com/

Ms. Bola Delano and Mr. Gabriel Sulkes
Illinois Department of Transportation
100 W Randolph, Suite 6-600
Chicago, IL 60601-3229

Dear Ms. Delano and Mr. Sulkes,

On behalf of the Chicago Metropolitan Agency for Planning, I would like to submit the following comments and recommendations for consideration in the development of the Illinois Bike Transportation Plan.

CMAP believes that a strong commitment at the highest levels to significantly increasing the safety, comfort, and convenience of non-motorized travel in our region – and throughout the state – is crucial to achieving the goals of livability, access and mobility, health, and sustainability outlined in both the Illinois Long Range Transportation Plan and CMAP's GO TO 2040 plan. We are hopeful that the Illinois Bike Transportation Plan will embody those goals and effectively translate them into specific policies, routine design and maintenance practices, funding provisions, and ultimately, real-life projects and programs aimed squarely at increasing cycling and walking as safe, convenient, and popular modes of travel in Illinois.

We would like to thank you for undertaking the Illinois Bike Transportation Plan and for the opportunity to provide our suggestions for it. We look forward to continued collaboration in the development and implementation of this and other plans, projects, and actions that will help put Illinois and our metropolitan area at the forefront of bicycle-friendly places.

COMMENTS/RECOMMENDATIONS

General Comments

We believe that a state bike plan can be most effective when it contains strong policies and procedures developed specifically to empower and guide engineers, planners, and others who have responsibilities for planning, designing, building, and maintaining roadways to routinely

accommodate all roadway users. The Illinois Bike Transportation Plan is an opportunity to more fully institutionalize a Complete Streets or multi-modal approach to the construction and improvement of our roadways and to build better understanding and stronger support, among transportation professionals and among the public at large, for that approach.

In addition to broad goals and objectives and a map of prioritized state routes, the Illinois Bike Transportation Plan should clearly articulate policies that will be effective in ensuring appropriate accommodation of bicyclists and pedestrians in all projects – from scoping through design, construction, and maintenance. The plan should formulate policies that ensure the update of important related documents – other plans and policies, design standards and manuals, programming and project development or delivery processes, as well as funding mechanisms and procedures – to fully support accommodation of bicycle and other non-motorized modes on roadways where such accommodation is, or is anticipated in the future, to be needed or desired.

In addition to clearly-stated goals, the plan should enumerate well-defined, objective performance measures that will allow IDOT, and Illinois residents, to assess progress over time towards increasing and upgrading accommodation for cyclists on roadways, improving conditions for cycling, increasing cycling, increasing cycling safety, and other metrics whereby we can chart our headway in achieving plan goals.

Finally, the plan offers an opportunity to outline and recommend the development of a statewide training program focusing on bicycle and pedestrian facility design, safety issues and countermeasures, and Complete Streets and Context Sensitive Solutions approaches to roadway design. This training will help ensure that staff at IDOT and other agencies more fully understand the importance of – and are more fully prepared and committed to planning, designing, constructing, and maintaining – roads that offer safe and convenient accommodation for cyclists, together with all other roadway users.

Specific Comments

Project scoping and prioritization – CMAP recommends that the Illinois Bike Transportation Plan define a method and process by which IDOT formally considers current bicycle and pedestrian level-of-service and future needs as part of project scoping and in prioritizing roadway projects for funding and construction under the Department's multi-year program.

BDE Manual – The Illinois Bike Transportation Plan presents an opportunity to propose revisions to the BDE Manual, which will advance both the goals and objectives of the Plan and help to more fully implement the State Complete Streets law. Accordingly, we have general and specific recommendations as regards the BDE Manual, which can be articulated and further developed in the Illinois Bike Transportation Plan.

CMAP recommends that the BDE Manual be amended to include more detailed guidance on accommodation of pedestrians, including when, where, and how to provide safe and accessible pedestrian ways and crossings as part of project scoping, design, and construction. We recommend that IDOT follow FHWA, AASHTO, and PROWAG guidance for routine pedestrian accommodation.

In addition, we recommend that, *per* Federal guidance from the Departments of Justice and Transportation (http://www.ada.gov/doj-fhwa-ta.htm), the BDE Manual be amended to clarify that resurfacing is an alteration that requires the installation of curb ramps where street level pedestrian walkways cross curbs.

In addition, we recommend that an additional warrant be added to the "Bikeway Warrants – Needs Assessment" section. This warrant would specify that appropriate accommodations shall be provided when surrounding land use and/or the urban or suburban character of surrounding development warrant such accommodation. The suggested warrant might read:

- The highway project is within an urban or urbanizing area where current or future land use and/or development character suggests that provision of bicycle accommodation is necessary or expedient.

The intent of this additional warrant is to capture the value of advance planning and the cost effectiveness of avoiding the need to retrofitting roads at a later date.

We further recommend that the warrant proposed above be included as an additional question in the series of questions found in section 17-1.04, "Determining Bicycle Travel Demand." This question would read as follows:

8) Is the project located in an urban or urbanizing area where current or future land use and/or development character suggest that provision of bicycle accommodation is necessary, expedient, and/or cost-effective?

In addition, we recommend that the following question also be added to this Section 17-1.04:

9) Does the surrounding community, and/or local agencies representing those communities, express strong desire and support for the accommodation of bicyclists as part of the project?

We recommend that IDOT amend the Bikeway Facility Selection table to be consistent with the latest version of AASHTO's Guide for the Development of Bicycle Facilities, 4th Edition, which was published in 2012. We believe that, in its current form, the Bikeway Facility Selection table may have the effect of hindering accommodation where it is needed, due to the difficulty and high cost of acquiring right-of-way for sidepaths and very wide shoulders. The intent of this recommendation, therefore, is to increase the feasibility and cost-efficiency of providing bicycle accommodation, without compromising safety.

We believe that the table, as it currently exists, recommends sidepaths where, given the context (i.e. design-year ADT / posted speed), either paved shoulders or bike lanes should be the preferred treatment, for example:

- Rural Roads, Posted Speed>44 mph, Design-year ADT > 8000 should have wide (5′ – 8′) paved shoulders as the default or preferred accommodation, rather than a sidepath (which could be listed as an option).

- Urban Roads, Posted Speed<36 mph, Design-year ADT>15000 should list 5′ – 6′ Bike Lanes as the preferred accommodation, rather than a sidepath (which could be listed as an option).
- Urban Roads, Posted Speed<45 mph, Design-year ADT>8000 should list 6′ Bike Lanes as an option, equal to a sidepath.
- Urban Roads, Posted Speed<45 mph, Design-year ADT>15000 should list 6′ Bike Lanes as optional.

In addition, in some cases/contexts, the table calls for paved shoulders along rural roads that may be wider than needed. Generally, 4′ – 6′ shoulders provide sufficient width – with the narrower widths dependent not only on lower speeds and ADT but also on location in more remote areas, and wider widths dependent on higher speeds and ADT, as well as location near rural settlements and/or schools.

In general, we believe that proper selection of bikeway facility type depends upon an evaluation of surrounding land use, development character, community goals, and user type that is more detailed and nuanced than the two broad labels "rural" and "urban" allow. In highly urban areas, 5′ – 6′ bike lanes may be the preferred facility on roads with very high ADT, but where slower traffic is called for or desired; while wide shoulders or a sidepath may be the preferred facility on a different urban road with the same ADT but where higher speeds prevail. Likewise, on remote rural roads far from any settlement, the preferred facility design might be quite different from that used on a rural road in or near a small town or school, where the need to safely accommodate children and seniors comes into play. New guidance from AASHTO, FHWA, and other sources, as well as accepted best practice, acknowledges the importance of these factors in determining facility type.

Regarding the Bikeway Facility Selection table – and the BDE Manual generally – we recommend that IDOT consider updating it with newer facilities types and related treatments/practices that can increase the safety and mobility of non-motorized travelers and should therefore be readily available to engineers when scoping projects and designing accommodation for non-motorized travelers. Specifically, we recommend that, for urban areas (the majority of the CMAP region), IDOT accept some of the newer, more innovative treatments found in NACTO's Urban Bikeway Design Guide as potentially suitable and eligible for installation on local and county roads (BLR variance) and on state routes in IDOT's own designs. Such acceptance is especially important when the treatments in question have been successfully installed, operated, and evaluated as regards safety and suitability in other places.

We recommend that the BDE Manual be amended to include guidance on installation of shoulder or edge-line rumble strips, which fully and safely accommodate cyclists. FHWA and other sources provide design guidance and standards for rumble strip installation that safely accommodates all roadway users.

Local cost share – Chapter 5 of the BDE Manual covers local agency agreements, including cost sharing arrangements for bicycle (and pedestrian) projects. The current share is 80/20 (state/local) for sidepaths, sidewalks, and on-street facilities. We recommend that on-street accommodation (striping and markings) – since they are within the roadway proper, and also relatively low-cost – be considered part of the "overall improvement" and covered at 100%

(state). This recommendation is intended to encourage installation of on-street facilities where appropriate, and is based on our understanding that such facilities were in fact covered at 100% before the 2010 changes to the BDE.

BLR Manual – Like the BDE Manual, CMAP recommends that the BLR Manual also be updated, on a regular basis and in a timely manner, to include new or updated content (guidance and standards) related to the accommodation of bicyclists and pedestrians, which is published in the manuals of national organizations, such as AASHTO, FHWA, ITE, the U.S. Access Board (i.e. Guide for the Development of Bicycle Facilities, 4th Edition , PROWAG, and the MUTCD, among others). Knowledge of and innovations in bicycle and pedestrian facility design, safety measures, and non-motorized transportation generally, is evolving rapidly. The manuals used by IDOT need to be up-to-date and include accepted best practice, treatments, and designs. IDOT and Illinois' planners and engineers need to have a full, contemporary toolbox in order to create Complete Streets.

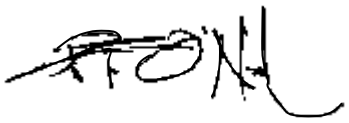
Data related to non-motorized travel – We recommend that the Illinois Bike Transportation Plan include recommendations for potential policies, programs, and procedures related to the collection and dissemination of data relating to non-motorized travel, on a regular and ongoing basis. Such data are not currently being collected. They are however crucial to planning effectively for a multimodal transportation system. As examples of the types of data we have in mind, we offer the following:

- The inclusion of existing and planned bikeways and sidewalks in IRIS and ISIS data
- Ongoing, regular counts that provide estimates of bicyclists and pedestrians traveling along and across state roads – i.e. the equivalent of ADT for bicyclists and pedestrians.
- Inclusion of BLOS and PLOS – or alternatively, multimodal LOS – for roadway segments under state jurisdiction, which could be used to determine project purpose and need, scope, and design.

Priority routes – We recommend that the Illinois Bike Transportation Plan include statewide planning map(s) of 'priority routes' traversing rural areas that currently lack bicycle accommodation, but on which accommodation is needed in order to create a statewide cycling network and to provide some non-motorized access and mobility in such areas. (Urban and suburban areas will need accommodation in nearly all places.) Accommodation on these 'priority routes' will be provided automatically – whether or not any warrants are met – whenever opportunity arises. Accommodation here will likely take the form of paved shoulders (perhaps with signage). These routes should be chosen to connect towns and other destinations, which (longer distance) cyclists may be interested in visiting.

Thank you again, Ms. Delano, for the opportunity to provide recommendations and advice on the development and substance of the Illinois Bike Transportation Plan. We hope that our recommendations will be helpful and contribute in a meaningful way to the success of the plan and its implementation.

Sincerely,



John O'Neal
Bicycle and Pedestrian Program Manager

Illinois Department of
Natural Resources

One Natural Resources Way Springfield, Illinois 62702-1271
www.dnr.illinois.gov

Pat Quinn, Governor
Marc Miller, Director

DATE: September 18, 2013

TO: Mr. Gabe Sulkes, Illinois Department of Transportation and
Mr. Craig Williams and Mr. Jack Cebe, Alta Planning + Design
Attn: jackcebe@altaplanning.com

FROM: Todd Rettig, Director
Office of Realty & Environmental Planning

RE: DNR Input on the State Bicycle Transportation Plan

The Illinois Department of Natural Resources (DNR) appreciates the opportunity to participate as a member of the Bike Transportation Plan Advisory Committee. The public meetings organized by the Illinois Department of Transportation were professional, well-attended and generated considerable interest.

DNR supports efforts to plan for and improve bicycle transportation opportunities for Illinois's residents and visitors. We support a focus on policies, design, and treatments for road-based cycling. We also strongly support off-road trails and advocate they should be given priority focus in the State Bicycle Transportation Plan.

The following are DNR's specific comments:

- Development of off-road trails should continue to be the primary goal. Trail-riding is one of the public's favorite ways to enjoy bike riding, and recreational bicycling will always be a major reason that people get on bikes.

- Off-road trails can and do serve transportation purposes. They can be a backbone of a community transportation network, linking with on-road facilities to connect within and between communities.

- Illinois has many noteworthy state and national trails, i.e., The American Discovery Trail, U.S. Bicycle Route 76, Route 66 Trail, and Grand Illinois Trail, and these should receive more recognition and promotion. Enormous opportunities also exist to establish bicycling corridors along national historic trails and scenic byways which crisscross the state, e.g., the Trail of Tears and National Road. Road improvements and signage should be routinely programmed for these trails which greatly enhance the state's tourism economy.

- Trail networks should always be a means to transport citizens to Illinois' abundant parks, forests and other types of green space, wherever possible, for recreational, quality-of-life, educational, tourism and related economic development purposes.

We also suggest that the plan address these specific actions:

- Improve the State's ability to convert abandoned railroad corridors to trail-based transportation opportunities.

- Improve the effectiveness of the State's already excellent grant programs - Illinois Transportation Enhancement Program and Recreational Trails Program – administrative efforts must continue to streamline the coordination processes, so that projects can be completed without any routine delays.

Thank you for providing the opportunity for meaningful input in this planning process

SSC RPC Springfield-Sangamon County Regional Planning Commission

To: Gabriel Sulkes, IDOT; Craig Williams and Jack Cebe, Alta Planning + Design

From: Norm Sims, Executive Director

Date: September 18, 2013

Re: Illinois Bike Transportation Plan Advisory Group Outreach – Request for Comments

1. What organization do you work for and what is its primary purpose?

The Springfield-Sangamon County Regional Planning Commission (SSCRPC) serves as the joint planning body for the City of Springfield and Sangamon County. Along with this on-going responsibility, the Planning Commission staff works with many other public and semi-public agencies throughout the area to promote orderly growth and redevelopment, conducting numerous research studies and planning projects each year. The SSCRPC also serves as staff to the Springfield Area Transportation Study, the Metropolitan Planning Organization (MPO) for the greater Springfield area, and serves as a voting member of that body.

2. Why is bicycling important to your organization or your constituents?

A major function of the SSCRPC is to serve as the Metropolitan Planning Organization for the Springfield metropolitan planning area, but transportation issues are integral to all of our planning activities including the development of comprehensive plans for partnering cities and villages. All modes of transportation are important in these efforts.

3. What do you see as the critical elements in accommodating the near and long term needs of the bicycling community?

- Recreational bicyclists desire facilities that provide an interesting and safe opportunity to ride short and long distances for fun and exercise. An *interconnected network of off-road trails* is a critical element to support recreational bicycling, an activity that contributes to the quality of life in a community and attracts visitors.
- Bicycling as a travel mode is utilized by many people in our area (and the state) either by choice or by necessity. An *interconnected network of bicycling facilities* is a critical element to allow people to travel to the same destinations that people travel by car over an interconnected road network. These facilities would ideally include the off-road trail network, bike lanes, paved shoulders, and sidepaths. When needed shared lane markings and wayfinding signs could also be incorporated into the network.
- The development of a built environment friendly to pedestrians and bicyclists is critical to the development and redevelopment of both urban and rural areas. The *availability of public funds to both plan and develop* an interconnected and well-maintained network of bicycling facilities is critical to redevelopment of the urban core, as well as the long-term stability and sustainability of areas surrounding the urban core.
- A final critical element is *cooperative, continuing, and coordinated planning* among all jurisdictions. The development of interconnected networks can only be accomplished with the joint efforts of communities, counties, the state, park districts, and other implementing jurisdictions.

4. What factors should be considered when bikeway projects are selected for funding?

Conformance with bicycle plans for the area.

5. Is the Department doing enough to support bikeway improvements? If not, what suggestions do you have?

In recent years IDOT District 6 has adjusted several road project designs to add bikeway improvements. District staff members have participated in the development of local bicycle plans and have been helpful resources to local communities in bicycle project issues. DPIT has also provided grant funding to add bicycle racks to SMTD buses. IDOT Bureau of Railroads has not always been supportive of assuring bikeways are considered in rail projects however.

A more recent and relevant issue arises from the Department's decision regarding the allocation of Transportation Alternative Program (TAP) funding under MAP-21. As bicycle trails and facilities are often funded through TAP, the distribution of these funds is relevant to an MPOs ability to provide the elements described under question 3, above. Presently MPOs in Metropolitan Planning Areas with populations between 50,000 and 199,000 do not receive a direct allocation of these funds, unlike the case with MPOs with populations of 200,000 or more. This leaves the smaller MPOs with limited ability to bring their bicycle transportation plans to fruition in any coordinated and continuing way. We suggest that IDOT reconsider its current policy regarding the allocation of TAP funds so as to provide the MPOs with populations of less than 200,000 with a direct allocation, based upon the same per capita dollar share allocation as the larger MPOs, so that these funds are better planned, programmed and phased to meet local needs. We believe that this would create greater effectiveness and efficiency in the use of these funds, advancing both state and local bicycle transportation planning and implementation.

6. How important do you feel the U.S. Bicycle Route System is to the State of Illinois and how much emphasis should the Department put on coordinating and mapping out a connecting route through Illinois?

It appears that much work has already been done in relation to the U.S. Bicycle Route System in Illinois with the identification of the Route 66 Bicycle Trail, Mississippi River Trail, and the Grand Illinois Trail. Continuing to support a national, interconnected bicycle network is very important.

7. Are you aware of any innovative funding mechanisms other states or communities have used to fund bikeway projects?

Not at this time.

8. What would be an appropriate goal or a mission statement for a State Bike Transportation Plan?

Goal: To coordinate state bicycle planning throughout Illinois with communities, park districts, MPOs, and other local planning/implementing bodies.
Goal: To develop an interconnected bicycle network throughout the state that integrates with existing and planned local bicycle networks.
Goal: To provide all MPOs with allocated access to the public capital needed to encourage the development of these facilities in cooperative, continuing and coordinated way.
Goal: To support local bicycle plans.
Goal: To develop the Route 66 Bicycle Trail.
Goal: To connect bicycle routes in Illinois with those in surrounding states.

9. What other issues do you consider to be critical to the development of a State Bike Transportation Plan?

- IDOT staff dedicated to overseeing implementation of the State Bike Transportation Plan.
- Continuation of the Illinois Bike Transportation Plan Advisory Group or establishment of another group to work with IDOT and IDNR on implementation of the Plan.

Illinois Department of
PUBLIC HEALTH

Pat Quinn, Governor
LaMar Hasbrouck, MD, MPH, Director

525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • www.idph.state.il.us

October 16, 2013

Ann L. Schneider, Secretary
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, IL 62764-0001

Dear Secretary Schneider:

The Illinois Department of Public Health (Department) is pleased to provide this letter of collaboration and support for the Illinois Bikeway Plan proposed by the Illinois Department of Transportation (IDOT) in accordance with federal and state mandates to plan for and construct trails and roadways for cyclists, pedestrians, and people with disabilities and to make the vision of bikeable communities a reality.

The Department works through partnerships to promote prevention and improve public health systems that maximize the health and quality of life of people of Illinois. Given the link between transportation planning decisions and health, it is essential that public health professionals participate in informing the development of transportation policies. The Department is committed to serving as an active partner with IDOT and other agencies to improve and increase opportunities and access to safe environments for physical activity; reinvigorating communities; and creating healthier residents. The Department pledges our support and assistance in directing the continuing development and execution of the Illinois Bikeway Plan. Promoting and supporting bicycling in the State is not just a transportation issue but one that also improves health, recreation and quality of life as well as addressing social justice.

Chronic disease programs have provided health education and chronic disease prevention services to a multitude of Illinois residents in previous years, primarily through community-based initiatives such as the Department's We Choose Health Initiative. We Choose Health is a multi-year Department initiative to encourage and support the implementation of proactive health programs that fall under three categories: Healthy Eating and Active Living; Smoke-free Living; and Healthy and Safe Built Environment. We Choose Health provides funding to 21 grantees, covering 60 counties and impacting almost 3 million people. The Illinois Bikeway Plan supports the goal of that We Choose Health Initiative addressing "improving community built environments to increase opportunities for physical activity and safe transportation."

Partnering on the further development and implementation of the Illinois Bikeway Plan also enhances the Department's efforts to implement built environment programs that promote Complete Streets, Safe Routes to Schools and Joint Use Agreements.

Transportation policies are public health policies. They can transform desolate, sprawled, and dangerous areas into thriving communities where people can travel, play, exercise, and interact freely. Transportation policies also provide a variety of transportation choices and encourage active transportation that can make a difference for communities overwhelmed with preventable injuries, chronic disease and premature deaths to address those issues and allow their residents to live to their fullest potential. The Department fully supports IDOT's Illinois Bikeway Plan and is pleased to be an active partner in this endeavor to transform transportation for tomorrow's healthy communities.

Sincerely,

LaMar Hasbrouck, MD, MPH
Director

cc: Tom Schafer, IDPH, Office of Health Promotion
Leticia Reyes-Nash, IDPH, Division of Health Policy
Conny Mueller Moody, IDPH, Division of Chronic Disease Prevention and Control
Gabriel Sulkes, IDOT, Office of Planning and Programming

Illinois
Department of Commerce
& Economic Opportunity
Pat Quinn, Governor

November 22, 2013

Ms. Bola Delano and Mr. Gabriel Sulkes
Illinois Department of Transportation
100 W Randolph, Suite 6-600
Chicago, IL 60601-3229

Re: Illinois State Bike Plan

Dear Ms. Delano and Mr. Sulkes,

On behalf of the Illinois Office of Tourism, I would like to applaud your organization for developing the Illinois Bike Transportation Plan. We are excited about the opportunity the bike plan provides to the communities throughout the state by linking historic trails to a larger trail network and the partnership between communities. The plan will provide a blue print for communities to use to increase the safety and convenience for bicyclists adding to the quality of life for our citizens and providing an opportunity for the visitors to enjoy the serene areas of our state.

Our office recently launched "Off-Road Illinois" Trip Starters featuring trips by foot, wheel and paddle as an option on our website, www.enjoyillinois.com . Visitors can sort by Events, Explore, Running, Biking, Paddling, Hiking and Climbing and Outfitters. This new addition to the website has been very popular, and we expect it to increase visitation within our state. Last year we had a record-breaking 101 million visitors to Illinois and these visitors generated more than $33.5 billion in economic impact. These travel and tourism expenditures generated employment for nearly 300,000 Illinoisans and generated nearly $2.5 billion in state and local taxes. We are optimistic that we will see record-breaking numbers again in 2013.

Again, we would like to thank you for undertaking the Illinois Bike Transportation Plan. We look forward to working with you on getting more visitors out on these Illinois trails.

Sincerely,

Jen Hoelzle
Director, Illinois Office of Tourism

ILLINOIS
MILE AFTER MAGNIFICENT MILE

Illinois Alliance to Prevent Obesity

December 10, 2013

Ms. Bola Delano and Mr. Gabriel Sulkes
Illinois Department of Transportation
100 W Randolph, Suite 6-600
Chicago, IL 60601-3229

Dear Ms. Delano and Mr. Sulkes,

On behalf of the Illinois Alliance to Prevent Obesity, I am writing to submit general support for the development of the Illinois Bike Transportation Plan and its ultimate goal of providing IDOT with policies, best practices and strategic direction for implementing a sustainable, multimodal vision for Illinois.

As a matter of introduction, the Illinois Alliance to Prevent Obesity (IAPO) is a statewide coalition comprised of stakeholders working for a state-level response to the obesity epidemic. IAPO works to shape and advance solutions to reverse dangerous obesity trends. IAPO supporters believe that Illinois must respond to the obesity epidemic by developing coordinated systems, policy improvements and investment on the scale of the problem. We believe IDOT's concerted effort to include a Bike Transportation Plan within the overall preparation of the state's Long Range Transportation Plan demonstrates leadership and recognizes the importance of bicycles to Illinois residents from the daily bike commuter to the recreational bike user.

We believe you will agree there is little doubt of the dynamic relationship between the way we build transportation systems and people's health. The member organizations of IAPO - in addition to highly respected national authorities on health, such as the Centers for Disease Control and Prevention and the Robert Wood Johnson Foundation- have identified promoting bicycle-friendly communities as a key strategy in combating obesity and obesity-related disease. By enabling and encouraging safe bicycling into the daily routine of average Illinoisans, we create more opportunities for people to attain the recommended levels of physical activity each and every day.

The plan aligns with and encompasses the ideals IAPO is striving to reach through its transportation-related objectives, which are noted below, and its overall primary goal to ensure that trends in obesity in Illinois are stable by 2015 and moving downward by 2018. As you move forward in developing Illinois' Bike Transportation Plan, we hope you will include strategies that relate to our objectives:

A. Develop initiatives through public/private partnerships to build and maintain parks, playgrounds and **bike**/walking paths that are safe and attractive for playing in close proximity to residential areas – particularly in underserved and low-income communities throughout Illinois.

B. Develop and implement Safe Routes to School programs to ensure that students can safely walk or **bike** to and from school. Assess the impact of these policies on active transportation mode share and on traffic crash rates at schools.

Convened by

Illinois Public Health Institute

954 W. Washington Blvd., Ste. 405, MB 10
Chicago, IL 60607

T: (312) 850-IPHI (4744)
F: (312) 850-4040

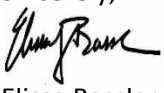
http://www.iphionline.org

C. Adopt policies, incentives, facility improvements and worksite locations that enable and encourage **biking**, walking and public transit for daily commuting and work-based travel.

D. Promote adoption and implementation of Complete Streets policies at state, county and municipal levels to ensure that streets are designed, built and maintained to serve all road users, including pedestrians, **bicyclists**, transit users and motorists. Assess the impact of these policies on active transportation mode share and on traffic crash rates. Adopt and promote policies which provide access to safe spaces for physical activity and modify the environment to allow employees to incorporate activity into the workday.

In closing, we believe the connection between transportation and health is indisputable. Historically, transportation systems have been designed to accommodate non-active modes of transportation, namely the car. Unnecessary congestion and air pollution have become customary and our waistlines are growing. Obesity has now edged out tobacco as public enemy No. 1 in our lifetime. Luckily, IDOT and other state leaders are attempting to create healthier, more connected communities — where there are safe places to walk, bicycle and play within walking distance of home or work.

Sincerely,



Elissa Bassler, Executive Director
Illinois Alliance to Prevent Obesity
Illinois Public Health Institute

CNU
CONGRESS FOR THE NEW URBANISM

140 S. Dearborn St.
Suite 404
Chicago, IL 60603

312.551.7300
312.346.3323 *fax*

cnu.org

January 21, 2014

Ms. Bola Delano and Mr. Gabriel Sulkes
Illinois Department of Transportation
100 W Randolph, Suite 6-600
Chicago, IL 60601

Dear Ms. Delano and Mr. Sulkes,

The Congress for the New Urbanism (CNU) supports the Illinois Department of Transportation's efforts to create a statewide bike plan and its continued commitment to increasing multimodal transportation options in the state. Designing streets primarily for the rapid movement of the automobile has made most roadways unsafe for bicyclists and pedestrians. More egregious, however, is the damage this design has done to our cities and towns, causing them to lose value and social vitality. As a leading organization promoting walkable, mixed-use neighborhood development, sustainable communities and healthier living conditions, CNU believes a statewide bike plan falls in line with our aim to improve quality of life by shifting street design hierarchy to accommodate more than just automobiles. This plan endeavors to ensure Illinois street networks are multimodal; CNU commends IDOT for their efforts.

Furthermore, we feel the Illinois DOT's bike plan aligns appropriately with the FHWA-endorsed street design manual *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*, produced jointly by CNU and the Institute of Traffic Engineers (ITE). Along with the use of this manual, we hope a statewide bike plan will further boost efforts to provide local engineers and planners with the tools needed to successfully advocate for flexibility in street design. We are pleased that IDOT is taking steps to ensure urban streets allow for multiple modes of transportation as well as a safe, comfortable, and attractive environment for people.

CNU support the efforts made by the Illinois Department of Transportation thus far to accommodate all forms of transportation and we look forward to our ongoing collaboration to promote the principles of good urban street design.

Sincerely,

John Norquist
President & CEO
Congress for the New Urbanism

Appendix B - FHWA and IDOT Interviews

Interview Sample Questions

- What do you think works well with the current bike/Complete Streets policies and procedures and what doesn't?
- How could the policies and procedures be improved?
- What tools do you need? For example:
    - Would improved guidelines on where bicycle facilities are (or are not) warranted be helpful?
    - Would improved guidelines on where certain types of bicycle facilities should occur be helpful? For example, a more detailed and sophisticated design selection matrix?
    - Are there design treatments you'd like to see added to the Design Manual?
    - What tools would be helpful? For example, a BLOS calculator or a demand analysis tool?
- What changes or clarifications and procedures do you need to in order to help make decisions on the integration of bicycle transportation options into roadway projects?
- What training do you think would be helpful?
    - Training on design considerations and warrants?
    - Training on innovative facilities and best practices?
- Is there information that the Central Office would be best to provide?
- What recommendations would you like to see come out of the plan?
- What do you think the future of bicycle transportation planning in Illinois should look like?

District Interviews Summary

Below is a summary of feedback gathered during district interviews. Topics are broken down into topics and sorted by the number of times they were mentioned across all interviews. The number of I's following a bullet indicate the number of times the topic was mentioned in the interviews, bullets with no I's were only mentioned once.

Design

- Design Guidance Topics:
    - Design guidance should clearly specify the difference between urban and rural contexts –IIIIII
    - Address appropriate design for sidepaths.
        - What are design options?

        - What are other options if sidepaths are unfeasible because of ROW constraints or the number of driveways present? - IIIII
            - Desire improved guidance for sidepaths that conflict with driveways. - III
            - Desire improved guidance on providing alternate routes. - III
            - Desire improved guidance on substituting on-road facilities.
    - Policies and Design Guidelines in chapter 17 should be clean and clear and in-line with rest of manual. - IIII
    - Design guidance should address lane width for inclusion of bike facilities. - III
        - When are 11' and 10' lanes acceptable so that bike facilities will fit?
    - Design guidance should allow for bicycle directional markings on shoulders.
    - Design guidance should consider including innovative facilities that are supported by use in similar geographies.
    - Design guidance should include additional considerations in facility selection table such as roadway volume and bicycle user comfort.
    - Design guidance should address to what extent Complete Streets should be on every roadway.
        - Does it make sense to have differing degrees of accommodations per roadway/land use type?
        - Complete Streets guidance needs more context.
    - There is a need for intersection details and design guidance.
    - Additional design guidance is needed to address accommodations for bikes on structures.
    - Additional design guidance is needed to address bike lane to sidepath/trail transitions.
    - Design guidance on the use of Hybrid Beacons would be helpful.
    - Additional design guidance is needed to address the design of Rumble Strips.
        - Guidance on wide vs. narrow Rumble Strips
        - Where to use Intermittent or "skip" patterns.
        - Where centerline only rumble strips are permitted.
    - Sidepaths
        - Need ADA clarification on Multi-Use facilities.
        - Can IDOT use aggregate surfaces for multi-use paths?
        - What minimum offset and taper are considered safe?
    - Additional design guidance is needed for bicycle facilities adjacent to parking lanes.
    - Accommodating Bikes through work zones.
        - What's the minimum accommodation?
        - It would be helpful to have examples of acceptable detour routes.
    - Shoulder widths.
        - Should we use shoulder widths greater than 4'?
    - Design of safety rails

  - Signal timing with bicycle/ped crossings
  - Burying or extending the gutter pan for added bike lane width.
  - Parallel lefts and refuges at bicycle and pedestrian crossings.
  - Flood protection for bicycle facilities (esp. Sidepaths)
- Should the districts include shelves for multi-use paths or sidewalks in all cases regardless of whether these facilities get funded and built? - I
- How do we address urban areas that want facilities that aren't supported in the Manual.
- Tools that would help districts identify the cost early in the project would be helpful.
- Current phase 1 design checklist needs to include bike accommodations.

Policy

- There is a desire for clarification or better methods of measuring warrants. - IIIIIII
  - Latent demand forecasting and counting should be addressed. - IIIIIII
- There is a desire for clarification on urban vs. rural areas. –IIIIII
  - Currently there is no definition in Chapter 17
- The project selection matrix should account for nearby alternate routes. - IIIIII
- Funding is usually the restriction for acceptance by communities, especially if there isn't local support or they don't understand the reasoning for a project. This is an issue that should be addressed - IIIII
  - If IDOT is to be truly multi-modal, it should accept the total cost of bike and pedestrian facilities.
  - IDOT could have dedicated funding source for bicycle projects and this could possibly be paid by bicyclists – IIII
  - IDOT could encourage local tax addendum programs for funding.
  - IDOT should provide clear definition on what is an unjustifiable bicycle project expense - II
- Complete Streets Resolution/Opt out - IIII
  - Engagement of communities on the issue of bicycle/ped facilities should be addressed at the beginning of the project. Communities should be given a deadline to respond so it doesn't hold up projects. - III
  - It is doing good by getting more projects on the ground, but communities that are hesitant to commit or sign a resolution are holding up others. - III
- Complete Streets Policy vs. Safety Project/3R Policy. The 2'-3' shoulder policy and rumble strips conflicts with CS policy. – IIII
  - Some districts have been told that 3R overrides bicycle policy.
- There should be more guidance on road diets. Where they are warranted and what are appropriate designs. - III
- The project selection matrix and funding policies give preference to bicycle paths and shoulders over bike lanes. - III
  - Locals have to pay for striped bike lanes.
  - They often opt for shoulders over bike lanes.

- Districts need more guidance on addressing logical termini for bike accommodations in safety improvements and spot improvements. – III
    - Can bike and pedestrian improvements be extended for some projects to make termini more logical for them?
    - Should districts include wayfinding signage for bicyclists when a facility ends abruptly?
    - Biking and walking generators are often different than driving generators. How do they fit into this?
- How do we address Complete Streets on projects that were already in progress before the Complete Streets bill? – II
- What is the department's policy for bike accommodations on structures? - I I
- Relationship between CSS and CS
    - If locals don't want CS, are we supposed to do it anyway? - II
- Rumble strips
    - Who should make the call on inclusion of rumble strips and the type (currently it is the engineers)
    - Rumble strips are not mentioned in chapter 17
- Information on bicycle accommodations is lengthy, scattered and sometimes contradictory. It would be helpful if it were more succinct and organized.
- Project matrix doesn't work for urbanized areas with limited ROW. What are acceptable alternatives in this situation?
- The change of policy is increasing the number of projects with bicycle and pedestrian accommodations.
- Address bike facilities on rural roads; are accommodations and considerations important/necessary on all rural roads?
    - Defining a priority state touring network may be a way to address this.
- Tollway projects that affect other roads should be held accountable for Complete Streets as well
- It would be beneficial if IDOT had a dedicated bicycle and pedestrian division.
- Performance Measures:
    - How do we balance BLOS, PLOS, and LOS? What is an acceptable LOS decrease? Would MMLOS be a good tool to address this?
    - IDOT needs to adopt a standard BLOS tool for the department to use; many different ones exist and are used.
- 3P projects are exempt from Complete Streets. However, resurfacing efforts are a prime time to get in bike facilities. Some districts utilize 3P to add bicycle facilities, others do not.
- How do we accommodate significant regional facilities such as the Grand Illinois Trail when they intersect state routes?
- Bob Nelson in District 5 has developed a Bicycle Travel Assessment (BTA) form that they utilize in all roadway projects as well as a BLOS and Bicycle Compatibility Index spreadsheet (based on the HCM model). Similar tools could be developed for statewide use.

- How do districts address consistency of facility types in and out of jurisdictions? For example, if a jurisdiction opts out of a sidepath that runs between jurisdictional boundaries, how does this affect the overall design?

Public Involvement/Relations

- Improved public outreach would be beneficial. - II
    - Would it be possible to gather input through public representatives instead?
- A database of local plans would be helpful.
- Local plans would be more helpful if they included prioritization, facility types and funding.
- In some areas there is a negative public perception with trails.
- IDOT could require representation on local Bike/Ped advisory committees (such as in dist. 5) to keep abreast of what's happening locally
- Communities should be aware that a bike plan helps with ITEP applications.
- Some communities are afraid of the liability of adding bicycle accommodations.
    - They should know that a bike lane is just a special travel lane.
    - They don't like the idea of children along busy roads.

Education

- Video tutorials/webinars would be helpful. - II
- Training needs to be available to all staff including consultants, construction and maintenance. - II
- An internal inter-departmental forum, resource sharing site would be helpful.
- Some districts not familiar with tools such as BLOS, the Bicycle Compatibility Index, etc.
- More frequent training needed (some districts said they have good training available).
- The success of bicycle transportation depends on public and departmental education.

Communication

- Having readily available resources/personnel at the central office is key to good accommodations. - II
- The central office should give clear direction on addressing multi-modal considerations – is IDOT more of a division of highways or a true department of transportation?
    - The old mentality is that locals are required to take care of bicycle and pedestrian accommodations.
- Chapter 17 should discuss innovative practices, but maybe not recommend them until they are proven.
- Some districts are not familiar with who makes design decisions.
- It would be good to have bike accommodations on bridges tracked in ISIS. It would also be good to have sidewalk info in IRIS. Right now, districts have to keep their own updates.
- There should be a full-time bicycle pedestrian coordinator in the central office.

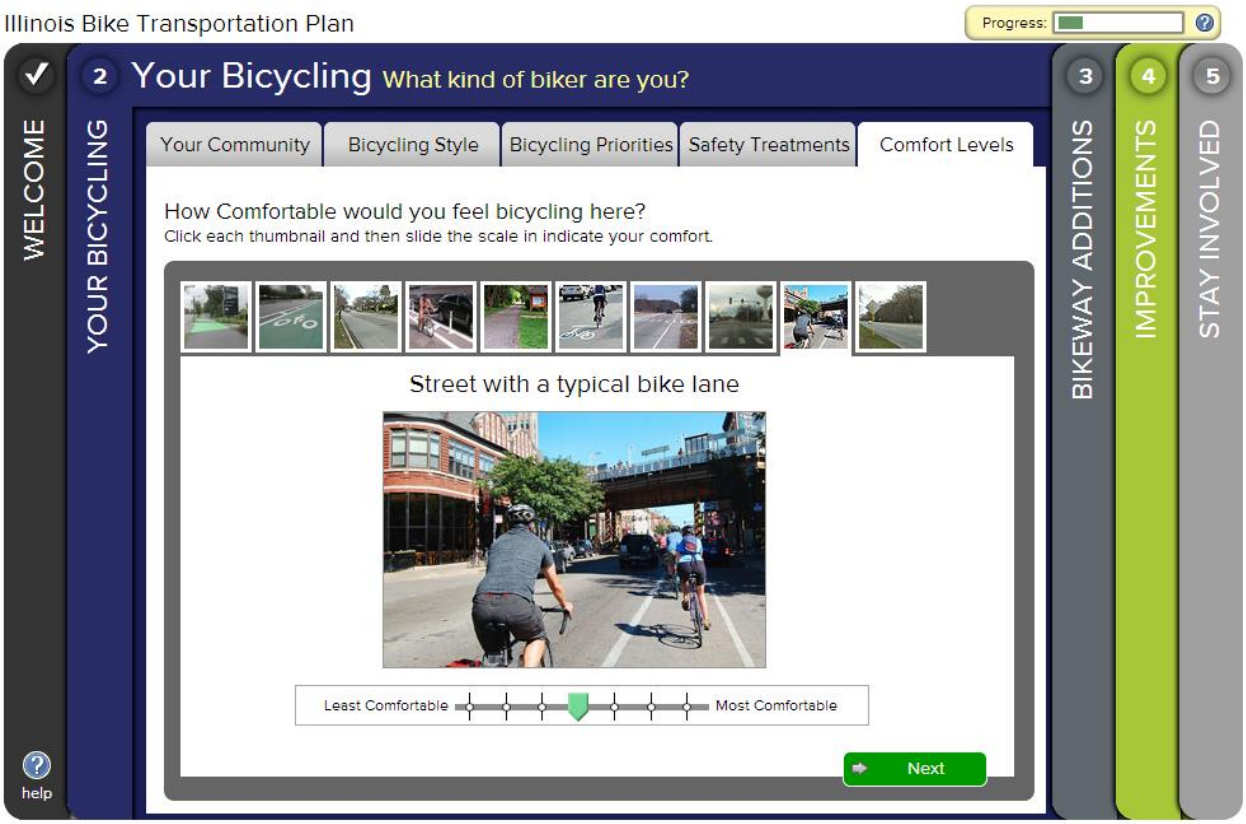
Appendix C-- MetroQuest Survey Results
MetroQuest Public Survey I Results

Introduction

The MetroQuest Public Survey was developed as a valuable tool to identify the bicycling-related needs, preferences, and desires of Illinoisans. Throughout the months of July, August and September 2013, nearly 2,800 people completed the MetroQuest survey to share their input on bicycling in the State of Illinois. Roughly 86% of respondents (2,401 individuals) completed the survey online, while 14% (397 individuals) completed the survey in-person at one of the public or transportation professionals meetings held throughout the state. The feedback received through this survey can help determine future bikeway system improvements, preferred facility types, significant user groups, locations of bicycling activity, and other important information that will help shape the Plan.

Overview/Format

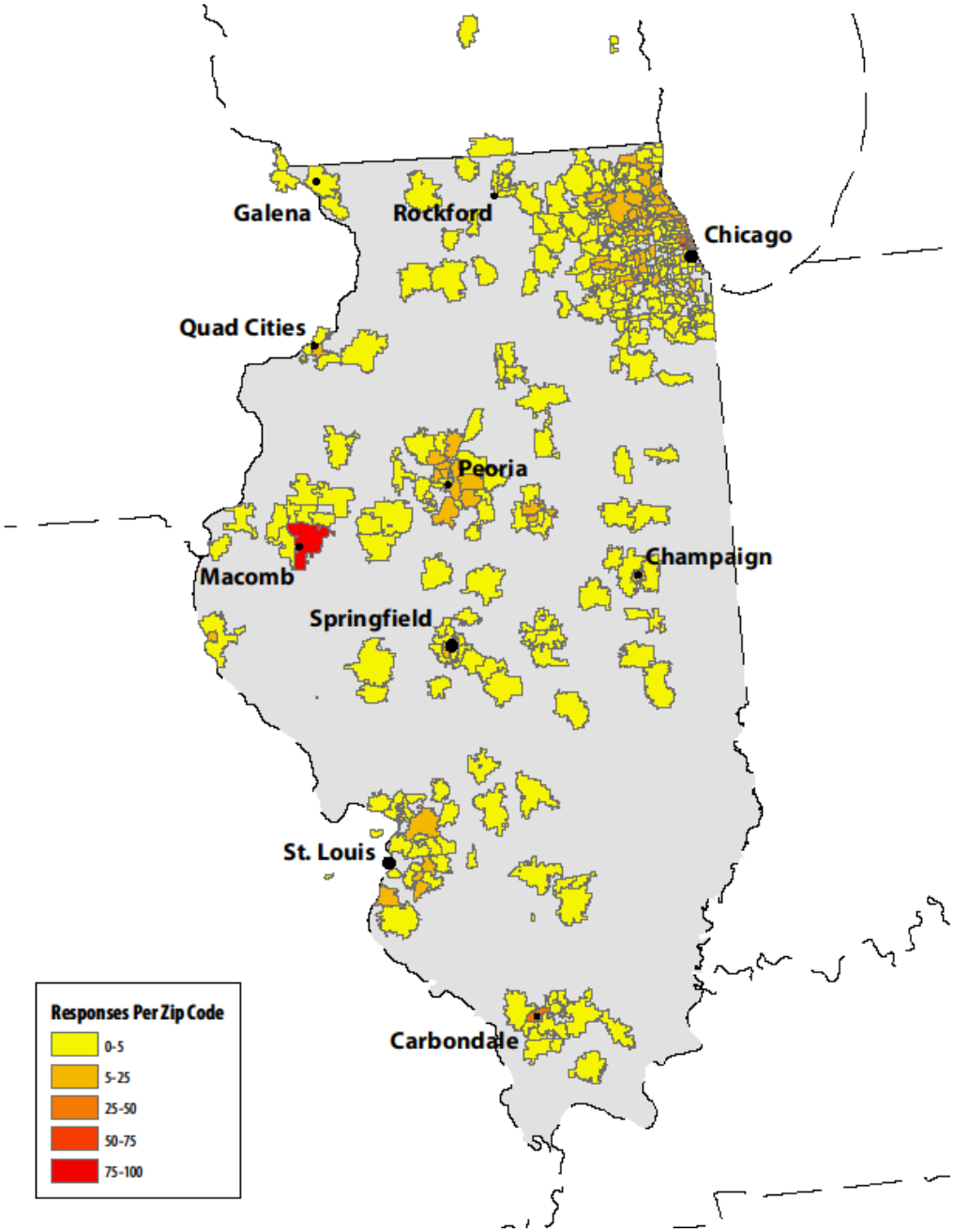
As previously mentioned, the primary format of the survey was in the form of an online, interactive tool available on the plan's website. Paper surveys were developed from this online tool for the public outreach meetings and manually entered into the survey at a later date. Public comments about the format of the survey were largely positive, lauding the graphically appealing layout and ease of use. A screenshot of the online tool can be seen below:


Illinois Bike Transportation Plan
Progress:
WELCOME
YOUR BICYCLING
2 Your Bicycling What kind of biker are you?
Your Community
Bicycling Style
Bicycling Priorities
Safety Treatments
Comfort Levels
How Comfortable would you feel bicycling here?
Click each thumbnail and then slide the scale in indicate your comfort.
Street with a typical bike lane
Least Comfortable
Most Comfortable
Next
help
3 BIKEWAY ADDITIONS
4 IMPROVEMENTS
5 STAY INVOLVED

Survey Results

Location

Survey responses were distributed widely across the state, as the following map shows. While survey responses were mostly from in-state participants, the MetroQuest location tracker showed that people from all over the Nation and the world visited the website. While a large majority of respondents were concentrated in urbanized areas, especially those where outreach meetings were held, many responses were received from more rural areas of the state as well. Nearly 2,000 respondents entered their zip code information, accounting for roughly 2/3 of participants.

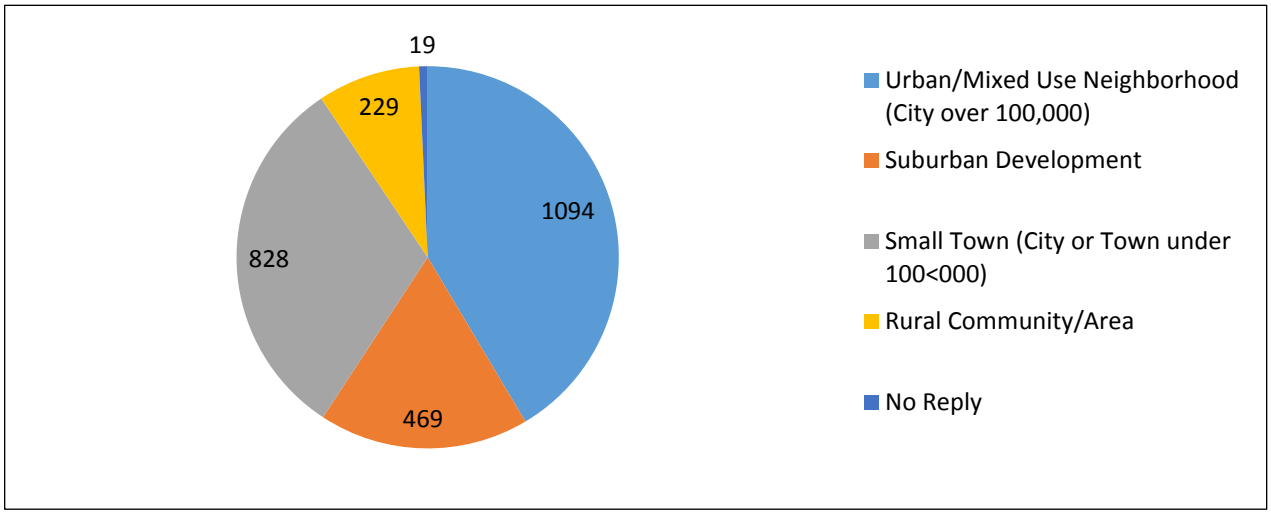


Community Type

The type of community in which one lives presents different challenges and opportunities for bicycling. In dense, urban areas, a greater mixture of land uses and a gridded street network provide bicyclists with shorter trip distances and a variety of route options. However, heavier traffic volumes and high speeds on major arterials, especially those that lack bicycle facilities, can discourage bicycling, particularly for longer trips. In rural areas, longer distances between destinations and a lack of bicycle facilities on many rural routes can discourage bicycling. However, minimal traffic volumes on many rural roads can create a welcoming, serene environment for recreational and touring cyclists.

The first question asked respondents: "What type of community do you live in?" As illustrated in Figure 1, more than four out of every ten respondents (41%) indicated that they live in an urban/mixed use neighborhood (in a city over 100,000). At 31%, the second largest category of respondents are those who live in a small town or city of 100,000 people or less, followed by suburban development (18%), and finally rural community/area (9%). With 40% of respondents identifying as living in a small town or rural community, these categories are overrepresented when compared to Illinois' population distribution. Regardless, the responses still indicate that there is a great deal of interest from residents of all community types.

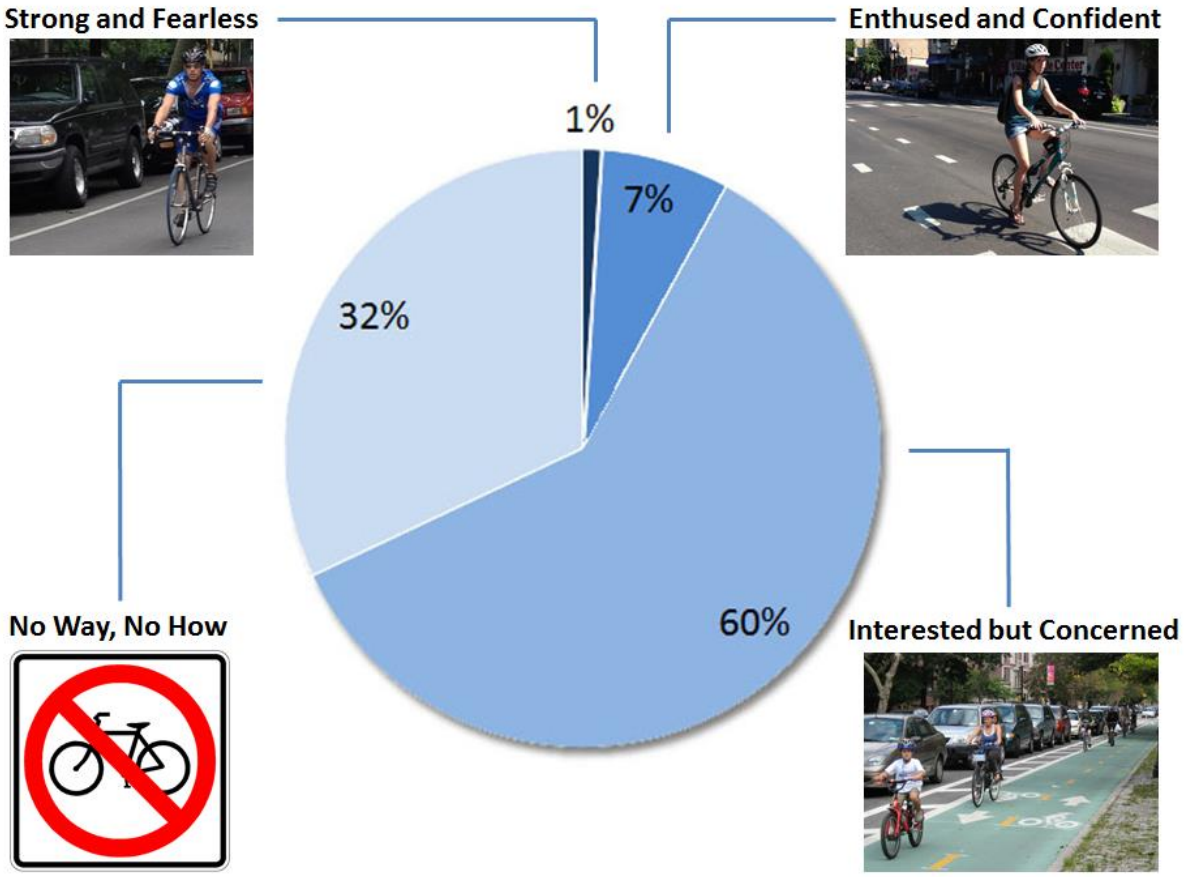
Figure 1: Community Type



Types of Cyclists

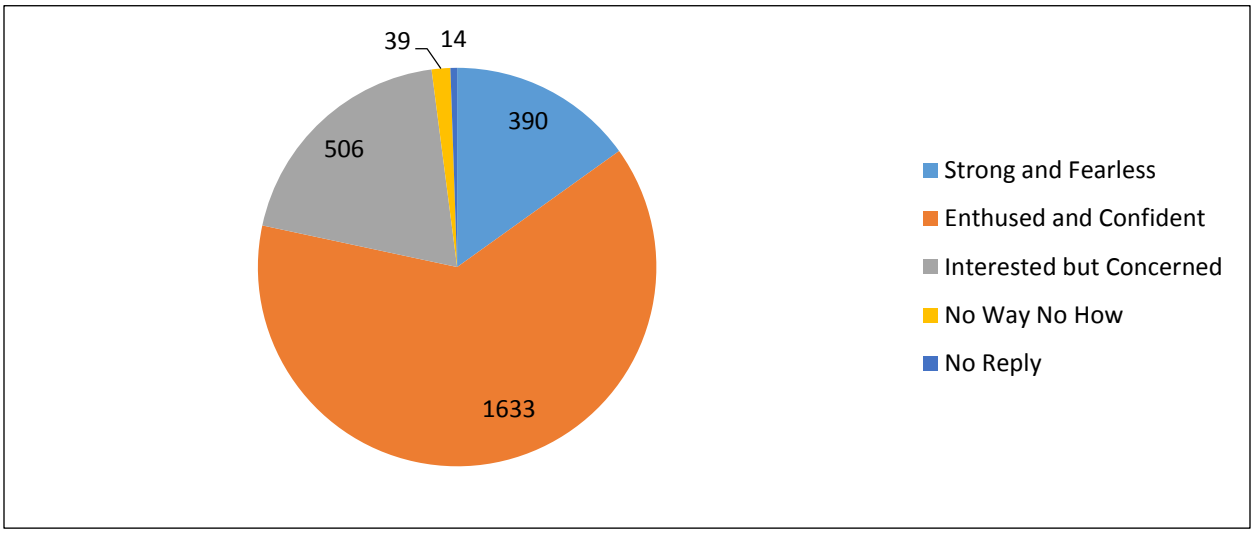
Cyclists are often divided into categories based on their preferences and needs. There are four common types of cyclists: the Strong and Fearless; the Enthused and Confident; the Interested but Concerned; and the "No Way No How". These groups are based on level of comfort on different roadway types, interest in cycling, and current cycling patterns. The Strong and Fearless are comfortable riding in all traffic situations, regardless of the presence of bicycle facilities. The Enthused and Confident are comfortable sharing the roadway with automotive traffic, but prefer doing so operating on their own facilities like bicycle lanes and cycle tracks. The Interested but Concerned enjoys bicycling, is interested in bicycling, but is timid about biking in traffic. Given their

interest, this group can become more regular cyclists when presented with educational opportunities, encouragement programs, and additional bicycle facilities. As such, they represent a significant audience for whom this Plan has been developed. The fourth and final group is the "No Way No How", representing about one third of the population. This group has no desire to bicycle, due to lack of interest, physical limitations, or other external factors. The image below shows the typical distribution of the four types of cyclists based on Roger Geller's 2006 study "Four Types of Cyclists":



When survey respondents were asked what type of cyclist they consider themselves, 78% self-identified as Strong and Fearless or Enthused and Confident, suggesting that people who already bike on a regular to semi-regular basis comprise an overwhelming majority of survey respondents. Roughly 20% of respondents consider themselves Interested but Concerned, while only 2% have no interest whatsoever in riding a bicycle. The Interested but Concerned represent a significant target audience for the development of bicycle facilities, as they are most apt to change their transportation habits and bicycle more on local roadways if bicycle facilities can provide the requisite level of separation, safety and comfort (real and perceived). Figure 2 illustrates the grouping of survey respondents into each of these categories.

Figure 2: Cyclist Type



Priorities for improving Bicycling in Illinois

Creating an environment that supports bicycling takes more than simply adding signage, striping and pavement markings. It takes a holistic approach including system improvements, education and outreach, design and policy adjustments, data collection and analysis, and funding in order to yield environmental and behavioral results. When asked their priorities for improving bicycling in the State of Illinois, respondents were asked to rank these five priorities from most to least important. The results indicate that physical improvements are still seen as the most significant means to improve bicycling conditions. System improvements received the highest average score from respondents, followed by design and policy.

Priority	Overall Rank	Average	Times Ranked
System Improvements	1	1.73	2045
Design and Policy	2	1.99	1975
Education and Outreach	3	2.13	979
Funding	4	2.14	1580
Metrics and Data Collection	5	2.50	147

Treatments

Bicycle facility design is a rapidly evolving field. Protected bike lanes, green pavement, bike boxes, and many other treatments have been designed and tested to create a welcoming environment for bicyclists and to increase awareness of and respect for their place on the roadway. When asked to rank their top 5 preferred treatments according their ability to contribute to a safer bicycling environment from a list of various treatments, respondents chose protected bike lanes (2.03 average rank), standard bike lanes (2.04), wayfinding signage (3.18), green pavement (3.27), and bicycle intersection markings (3.42) as their top five responses. Protected bike lanes and standard bike lanes both represent bicycle facility types, and their high rankings reflect respondents' desires for separated bikeways that provide a degree of comfort, safety, and convenience that are not afforded cyclists through other spot treatments included in this list.

Wayfinding signage is an important component of any bicycle network and can be used to guide cyclists to daily destinations (schools, libraries, parks) or to tourist destinations (state parks, local attractions, sports venues, etc.). Generally speaking, respondents value wayfinding signage for its potential to support a safer, more connected bicycle network. Both green pavement and bicycle intersection markings represent more recent developments in bikeway design, and their high ranking may suggest two things. First, Illinoisans believe in their ability to create a safer bicycling environment and encourage more people to choose bicycling for transportation. Second, intersections can be dangerous. With multiple turning movements and conflict points, both cyclists and motorists may be confused as to where cyclists belong as they traverse an intersection. The presence of intersection markings may alleviate this confusion and identify predictable paths for cyclists.

Treatment	Overall Rank	Avg. Position	Times Ranked
Protected Lanes	1	2.03	1898
Bike Lanes	2	2.04	2016
Wayfinding Signage	3	3.18	1076
Green Pavement	4	3.27	1219
Bicycle Intersection Markings	5	3.42	1297
Crosswalks	6	3.42	782
Bicycle Signals	7	3.54	762
Bike Box	8	3.58	804
Hybrid Beacons	9	3.65	428
Active Warning Beacon	10	3.70	522

Comfort Level by Facility/Roadway Type

Comfort level varies by volume and speed of motor vehicles, presence of bicycle facilities, separation from motor vehicles, roadway and lane widths, the number of curb cuts and intersections, and many other factors, all filtered through an individual bicyclist's own perceptions, experiences, skills and knowledge. When asked to rank a number of facility and/or roadway types according to their level of comfort bicycling on each, respondents generally favored facilities/roadways with greater separation from motor vehicles. The highest average ranking was for off-road trails, which are commonly utilized by cyclists of all skill and experience levels, as well as pedestrians, in-line skaters, and other recreational users. With an average ranking of 6.41, the highest ranked roadway facility was the protected bike lane / cycle track option, followed by a green bike lane and/or buffered bike lane (6.12), sidepath adjacent to the roadway (6.09) and a street with a typical bike lane (5.31). Each of these four on-road bicycle facilities provides some level of separation from motor vehicle traffic, either through striping, physical barriers, or both.

The five facilities/roadways with the lowest scores are those with the least amount of separation from motor vehicle traffic or the greatest speed differential between bicyclists and motor vehicles. The roadway types with the lowest average scores are two-lane roads with wide outside lanes (with an average score of 2.16) and no shoulders, and four- to six-lane arterials with no bicycle facilities (1.74).

Street Scenario	Rank	Avg. Position	Total Responses
Off-Road Trail	1	6.57	2361
Protected Bike Lane/Cycletrack	2	6.41	2347
Green Bike Lane and/or Buffered Bike Lane	3	6.12	2284
Sidepath adjacent to Roadway	4	6.09	2269
Street with a Typical Bike Lane	5	5.31	2142
Residential Street with No Bicycle Facilities	6	4.79	2045
Street with Shared Lane Markings (AKA Sharrows)	7	4.06	2048
Rural Road with a Paved Shoulder	8	4.00	2133
2 Lane Road, Wide Outside Lane and No Shoulder	9	2.16	2276
4-6 Lane Arterial, No Bicycle Facilities	10	1.74	2312

Facility Additions by Roadway Type

The application of a bicycle facility along an existing roadway requires a thorough knowledge of the roadway's characteristics and context and a strong grasp of potential bicycle facility types and treatments. Survey respondents may not be roadway designers or engineers, but their selection of bicycle facilities for different roadway types can provide a telling glance at the perceptions and preferences of current and prospective bicyclists. This survey question asked respondents to choose the least-separated bicycle facility type that would need to be applied to a particular roadway type in order for them to feel safe and comfortable bicycling on it. Each particular roadway type is listed below, along with an accompanying picture and table of the results.

Rural Road with No Shoulders

When presented with a rural road with no shoulders, more than half of all respondents (54.5%) indicated that paved shoulders would need to be provided before they would feel safe and comfortable riding that roadway. Of the five options presented, three represented bicycle facility types, while one of the remaining two options was to leave the roadway as is. More than 85 percent of respondents selected a bicycle facility type, while only 12.7% chose to leave the roadway as is.

Improvement	Total Responses	% Selected
I Wouldn't Bike on This Road Regardless of Treatment	39	1.6
Leave As Is	317	12.7
Sidepath	363	14.6
Buffered Bike Lane	413	16.6
Paved Shoulder	1357	54.5

Main Street

This main street picture represents a common sight in many small towns and cities throughout Illinois. More than 86% of respondents indicated that a bike lane (48.3%) or buffered bike lane

(38.6%) would have to be present before they felt safe and comfortable bicycling on a main street like that shown above. In contrast, only 5.7% would feel safe and comfortable bicycling on this roadway as is.

Improvement	Total Responses	% Selected
I Wouldn't Bike on This Road Regardless of Treatment	18	0.7
Leave As is	142	5.7
Sidepath	165	6.7
Buffered Bike Lane	956	38.6
Bike Lane	1196	48.3

Four to Six Lane Arterial

The four to six lane arterial roadway was identified in the prior question as respondents' least desirable roadway type on which to bicycle. It is therefore no surprise that only 27 people (1.1% of respondents) indicated that they would feel safe and comfortable bicycling on this roadway. Almost 6% of respondents would not ride on this roadway regardless of the presence of facilities or the degree of separation from motor vehicles. Over three quarters of respondents believed the addition of a bike lane (12.8%), buffered bike lane (26.4%), or buffered bike lane (38.5%) would be required before they felt safe and comfortable on a four to six lane arterial, while an additional 15.3% would only bike if a sidepath were present.

Improvement	Total Responses	% Selected
Leave as Is	**27**	**1.1**
I Wouldn't Bike on This Road Regardless of Treatment	**148**	**5.9**
Bike Lane	**317**	**12.8**
Sidepath	**379**	**15.3**
Buffered Bike Lane	**657**	**26.4**
Protected Bike Lane	**956**	**38.5**

Local Road in Subdivision

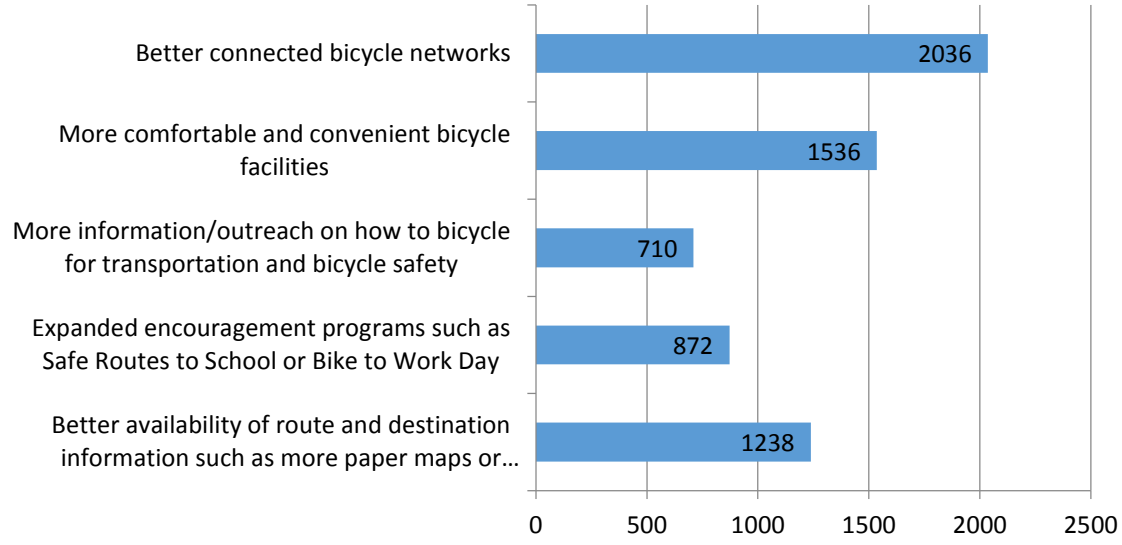
Of all the roadway types presented in this question, bicycling on a local road in a subdivision or neighborhood was perceived as the least dangerous of all. More than one in every three respondents would feel safe and comfortable riding on this type of road in its present condition. An additional 31.4% would prefer the addition of shared lane markings, while 22% would require the addition of bike lanes to feel safe and comfortable bicycling on this roadway.

Improvement	Total Responses	% Selected
I wouldn't bike on this Road Regardless of Treatment	9	0.4
Sidepath	58	2.3
Buffered Bike Lane	233	9.4
Bike Lane	543	22.0
Shared Lane Markings	776	31.4
Leave As is	851	34.5

While each roadway type presented respondents with a unique situation, in every case except for one (local road in subdivision), the majority of respondents would not feel safe or comfortable riding a bicycle on these roadways without the additional separation provided by a dedicated bikeway.

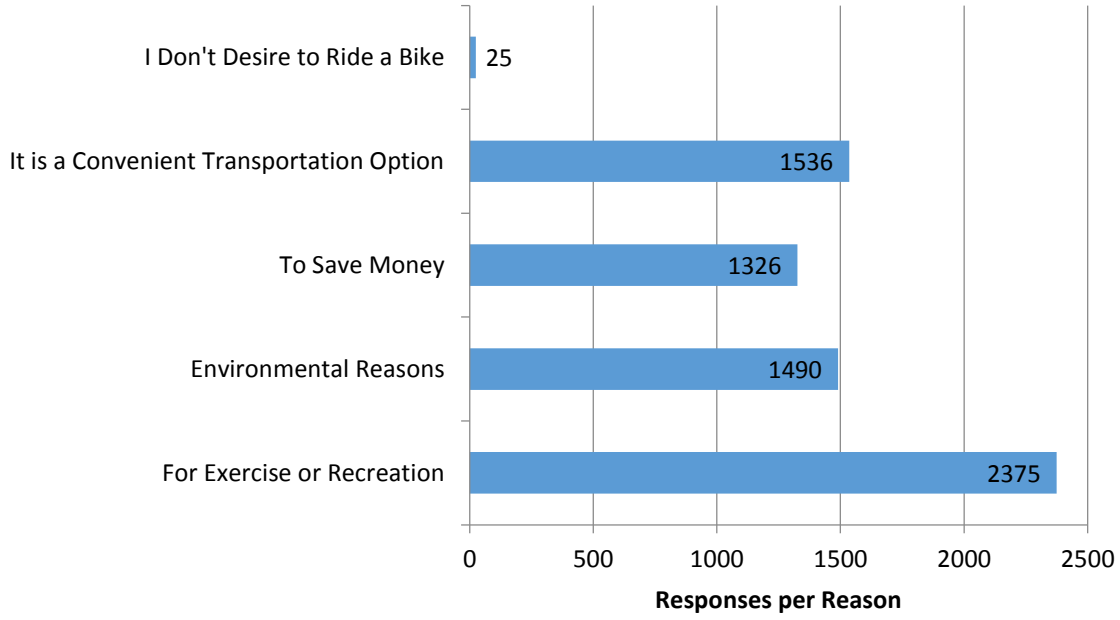
Policies, Programs and Projects

Local and state governments across the country offer a wide variety of policies, programs, and projects to encourage citizens to bicycle for transportation, recreation, or both. Respondents were asked which policies, programs and projects would encourage them, their family and their friends to bike more often. Each respondent could select all answers that applied. Better connected bicycle networks and more comfortable and convenient bicycle facilities were the most selected answers, while bicycle safety information, encouragement programs, and route information were less likely to effectively encourage respondents to bicycle more often. These responses build on previous questions and solidify respondents' desire for more bicycle facilities as the key to improving the bicycling environment in the State of Illinois.



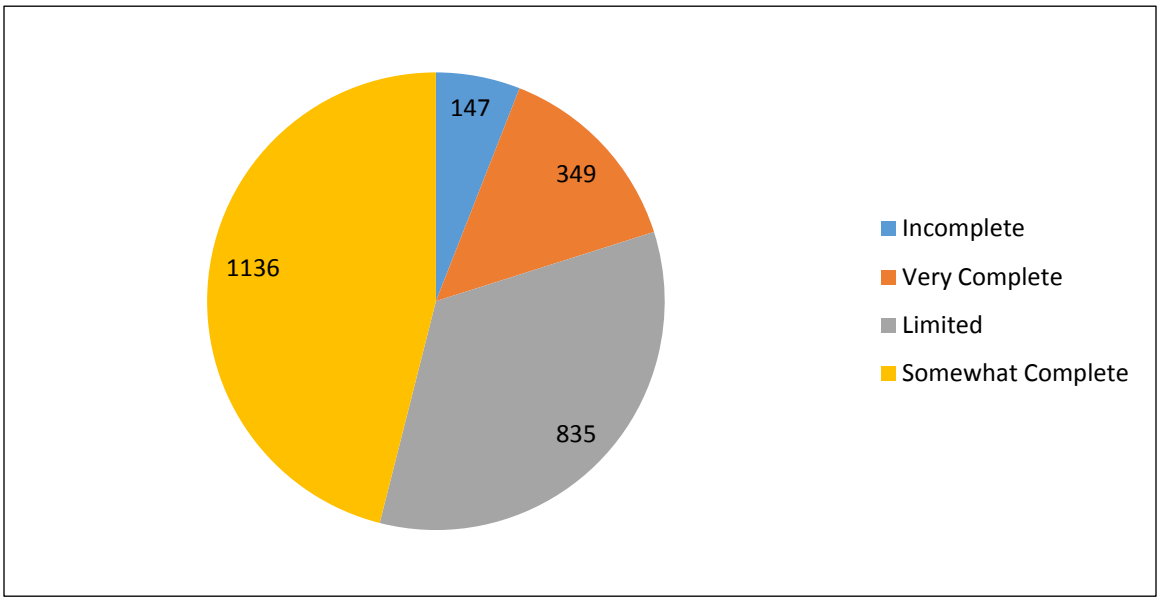
Why ride

People bike for a myriad of reasons – to save money, to protect the environment, to exercise or lose weight, to train for athletic competitions, to get to and from work, and even just for fun. When asked to select all applicable reasons for which they choose to bike, most respondents indicated exercise or recreation, while a significant number choose to bicycle for its convenience as a transportation option.



Completeness of Local Bikeway Network

A limited or fractured bikeway network can significantly discourage bicycling, especially for those who consider themselves Interested but Concerned bicyclists. While bicycle networks vary in terms of completeness across the state, only 14% of respondents feel their local bicycle network is very complete. Conversely, 40% find their local bicycle network is either incomplete or limited. The remaining 46% feels their network is somewhat complete, most likely indicating that they can get to most places they need to on a daily basis, but acknowledge some of the gaps, barriers and limitations of the bikeway system.



Barriers to Biking

Bicycling barriers can come in many shapes and sizes. Traffic issues, lack of facilities, trip distances, roadway conditions and maintenance, lack of available route information – all of these barriers are real and impactful to cyclists in Illinois. The survey asked respondents to rank five barriers from one to five, with five being the most significant. Average survey rankings indicate that survey respondents feel traffic safety (with a score of 1.67) and lack of bicycle facilities (1.75) are the two most significant barriers to bicycling. These responses again echo the theme of a need for more facilities and greater separation.

Barrier	Overall Rank	Average	Times Ranked
Traffic Safety	1	1.67	1395
Lack of Facilities	2	1.75	1314
Distance	3	2.06	937
Maintenance	4	2.61	658
Lack of Information	5	3.50	389

Bike Trip Planning Factors

There are a number of relevant factors people take into account when planning a trip, whether by bicycle, foot, transit or car. Each individual may weigh certain factors more heavily than others. The survey asked respondents to rank ten bike trip planning factors in order of importance. Average rankings based on all responses show route safety as the most important factor with an average score of 4.55. The second most important factor identified was traffic along the route (4.27), followed by conditions of bikeways (3.99) and proximity to where I live (3.85).

Factor	Overall Rank	Response Average	Times Ranked
Safety of the Route	1	4.55	2461
Traffic along the Route	2	4.27	2437
Conditions of Bikeways	3	3.99	2433
Proximity to Where I Live	4	3.85	2408
Directness of the Route	5	3.54	2413
Trip Distance	6	3.41	2413
Scenery/Atmosphere along the Route	7	3.26	2420
End of Trip Accommodations (Place to Lock-Up, Showers)	8	2.93	2406
Destinations along the Route	8	2.93	2397
Directional and Informational Signs along the Route	10	2.77	2389

Open-ended responses

The last two questions asked participants to describe their favorite bicycling experience in the past and their vision for bicycling in the future. The following two sections give a brief overview of these responses.

Bicycling memory

This question asked: "When you think about a time when you have really enjoyed bicycling, what stands out for you as a memory or explanation for why you enjoyed it so much?" The following image depicts the words that appeared the most in responses, with the size of the word indicating its frequency.

Some of the large words include: traffic; trail, trails, path and paths; safe; and scenery. This could indicate things worth considering when planning bicycle infrastructure and routes in Illinois.

Vision for bicycling in Illinois

The final question asked participants **"**what is your vision for bicycling in Illinois**?"** The following image depicts the words that appeared the most in responses, with the size of the word indicating its frequency.

Some of the large words include: bike and bikes, transportation, lanes (mostly referring to bike lanes), routes, education, protected, connected, safe and safety, trails and paths. This exercise, in addition to the other feedback presented within this report, can give us good insight as to what participants would like to improve about bicycling in Illinois.

Survey Shortcomings

As with any survey developed and distributed to gain insight into a population's opinions, experiences, and desires, the MetroQuest Public Survey possesses a number of shortcomings that must be taken into account when analyzing the data and drawing conclusions. While methods of distribution, sample size and characteristics, and respondent biases impact the data, the survey results should not be discounted based on these limitations.

Distribution Methods

The survey was made available online through the project website and at the public meetings held in July and August of 2013. Through social media, email distribution lists, and other online communications, IDOT, local municipalities, advocacy organizations, and other interested parties encouraged their constituents and contacts to complete the online survey. While these distribution methods yielded a high number of responses, the methods themselves possess inherent limitations in reaching the target population, which can be broadly defined as Illinoisans and those who visit or

travel through the state. Some Illinoisans may not have access to the internet or live close to the public meeting locations, and therefore could not complete the survey. While this may be a small portion of the population, these intended survey respondents may still have valuable insight into the transportation needs of residents and visitors of the state.

Self-Selection Bias

Self-selection bias occurs when survey respondents can decide for themselves whether or not they want to take a survey. Those with greater subject knowledge or interest are overrepresented, and the survey results do not accurately reflect or represent the entire target population. In the case of this survey, 78% of respondents self-identified as *strong and fearless or enthused and confident* cyclists, while only 2% self-identified as *no way, no how*. These percentages do not represent the population's bicycling habits as a whole. A similar survey of residents of the Portland, OR region found that the *no way, no* how group represented nearly one third of the population.[1] People who already bicycle and are interested in bicycling have a greater interest in completing this optional survey, and their numbers represent a significantly higher proportion of the survey respondents than of the target population as a whole, which skews the data. While this may present challenges in determining the needs of those who do not bicycle regularly or at all, this population group of regular cyclists do provide valuable insight into current cycling conditions, commonly used roads and routes, local barriers to bicycling, challenges and hardships, and other information and ideas that can only be gained through a cyclists' perspective.

Social Desirability Bias

Survey respondents often have a tendency to answer survey questions in a manner that will be viewed favorably by others, and therefore their actual behaviors and beliefs are not accurately captured by the survey and reflected in the results. This social desirability bias is evident in respondents' answers to the question regarding bicyclist type. Individuals may want to give the impression that they are more skilled and experienced bicyclists who are not afraid to bicycle on any type of roadway or in heavy volumes of traffic, and therefore self-identify as *strong and fearless* or *enthused and confident* cyclists. Fifteen percent self-identified as *strong and fearless*, 63% self-identified as *enthused and confident*, yet only 20% self-identified *as interested but concerned*. When compared to similar surveys developed to identify cyclist type, the portion of *strong and fearless* and *enthused and confident* are considerably higher, while the portion of *interested but concerned* is much lower.[2]

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[1] Dill, Jennifer and McNeil, Nathan. *Four types of cyclists? Testing a typology to better understand bicycling behavior and potential* (Portland State University: 2012).

[2] Jennifer Dill and Nathan McNeil's *Four types of cyclists? Testing a typology to better understand bicycling behavior and potential* (Portland State University: 2012), the authors utilize Roger Geller's construct of cyclist types as a basis for examining the current and potential cyclist's behaviors and desires with respect to bicycling, level of comfort, and bicycle infrastructure. Their findings, based on a telephone survey of a random phone survey of adults in the Portland, OR region (characterized by a high bicycling mode share), reveal that the *strong and fearless* group of cyclists represent less than 1% of the population; the *enthused and confident* only 7%, the *interested but concerned*, 60%; and the *no way, no how* 33%.

Summary

IDOT plays a significant role in shaping the bicycling environment in the State of Illinois, from system improvements to funding to design and policy changes. When asked their priorities for bicycling-related improvements, respondents put system improvements and design and policy improvements at the top of the list, reflecting their desire for a larger, safer, and more connected network of bicycle facilities. Respondents also identified traffic safety as the greatest barrier to bicycling, and route safety as the most important factor when planning a bike trip. Of the possible facility types and improvements that could be made to enhance the bicycling environment, survey respondents prefer greater separation through protected bike lanes, buffered bike lanes, cycle tracks, and off-road trails. While the survey may not have captured as many responses from the "interested but concerned" group of bicyclists, who represent a key target audience for their potential to become more regular cyclists, the survey results still indicate that even more experienced cyclists desire a bicycle network that is safer, larger, more connected, and comprised of facilities that provide a greater degree of separation from motor vehicle traffic than currently provided.

MetroQuest Public Survey II Results

Introduction

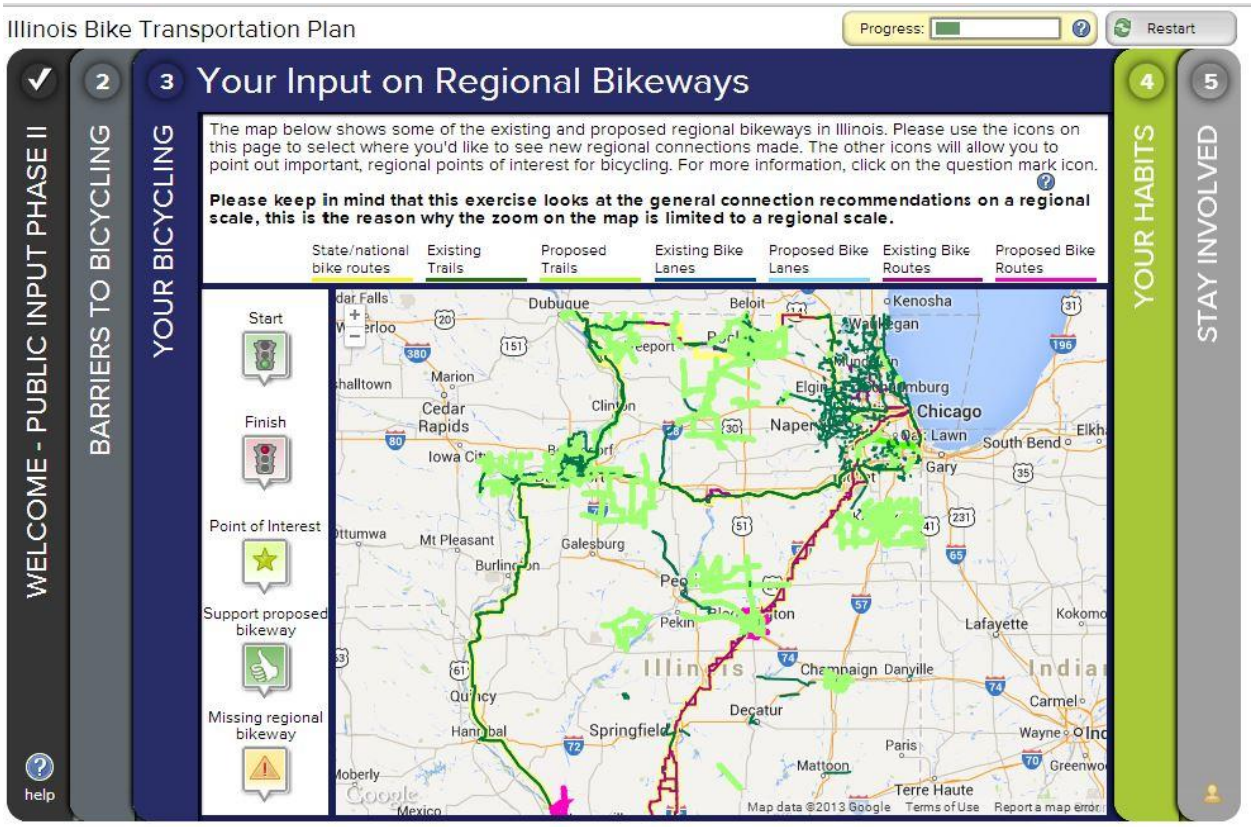
The MetroQuest Public Input Phase II was developed as a continuation of the initial MetroQuest Public Survey. In the first Public Survey, Illinoisan respondents were asked to identify their bicycling-related needs, preferences, and desires. This second phase of input asked Illinoisans to specifically assess where they saw the need for improved bicycle related infrastructure and amenities to be located throughout the state, in order to improve regional bicycle connections in Illinois. Respondents were asked to list current barriers to cycling in the State as well as describe their current cycling habits. This information was then used to help recommend bicycling connections and improvements throughout the State of Illinois. During the months of October and November 2013, a total of nearly 1,270 respondents provided feedback online.

Overview/Format

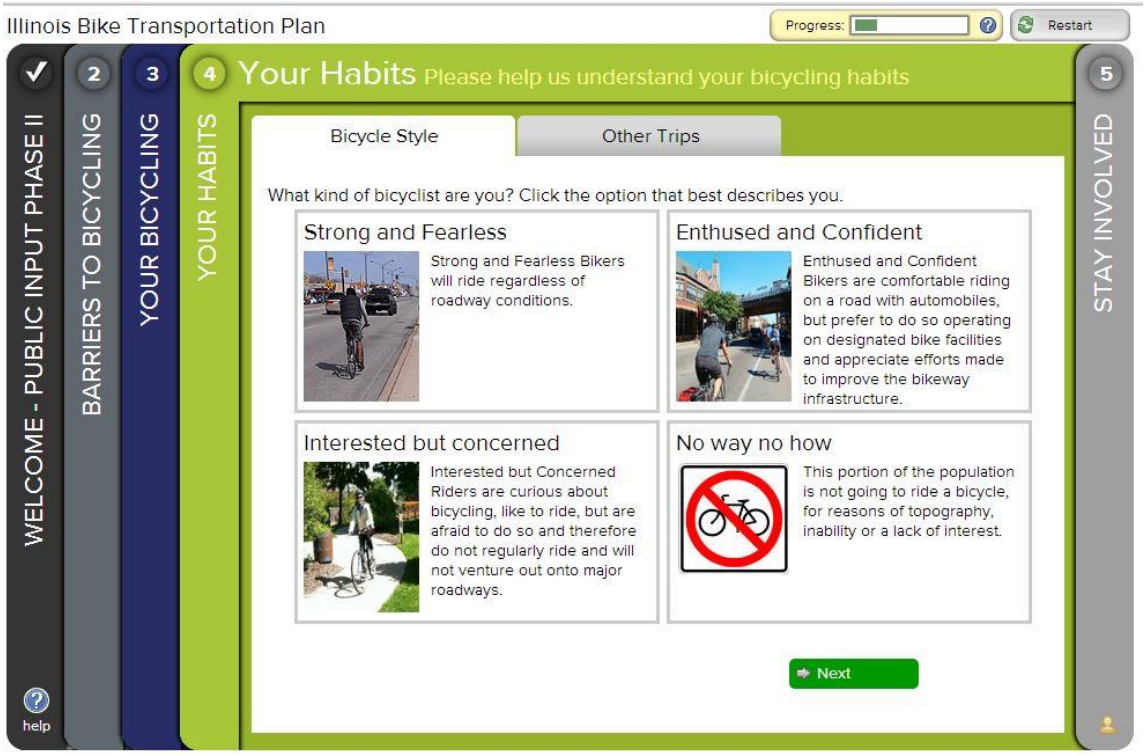
The means of data collection for Phase II of the public survey was done primarily through the use of an online, interactive tool available through the plan's website. A screenshot of the online tool can be seen below.

The online tool allowed respondents to drag icons from the left side of the screen onto the map to mark intersection designs which impede cycling, links needed, traffic speed issues, lack of bikeways, and lack of bike parking.

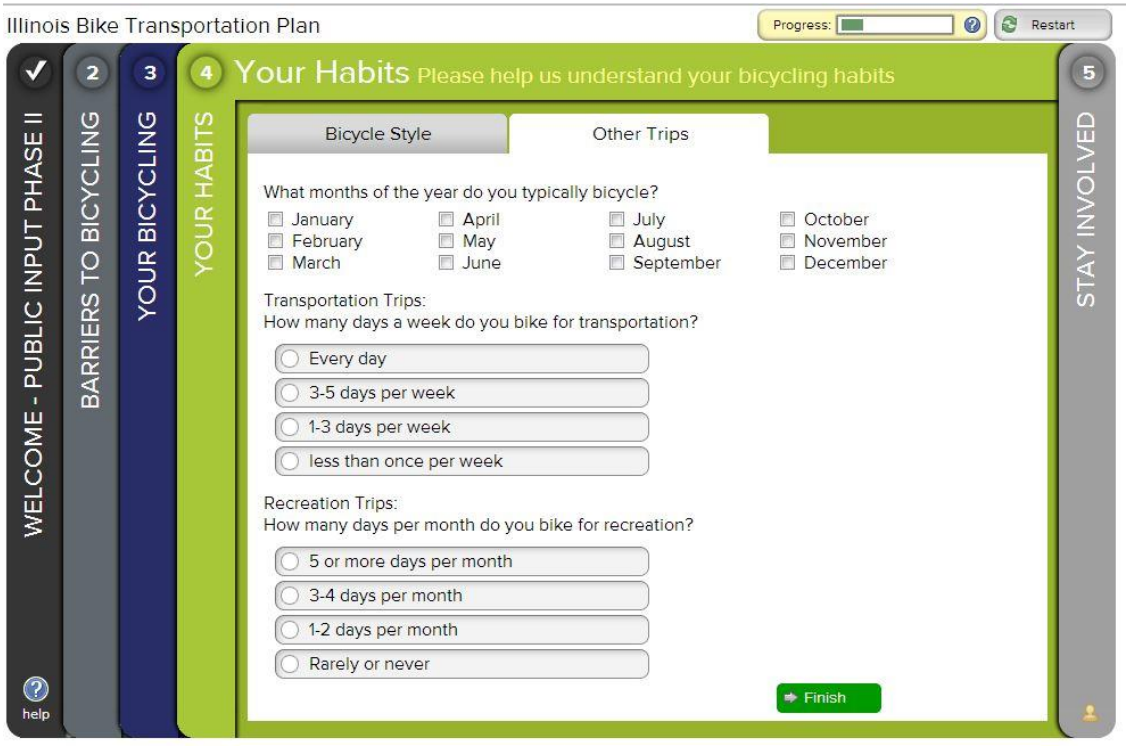
The second section of the online survey asked users to provide their input on regional bikeways. The tool provided a map of existing and proposed statewide bikeways. Those surveyed were asked to identify on the map regional connections needing improvement or that currently lack bikeways. Respondents could show routes on the map in need of improvement by placing a starting point and finish point for the identified routes needing bikeway connections. Users were also encouraged to highlight points of interest as well as show support for proposed bikeways by placing their respective icons on the map. A screenshot of this section of the survey is shown below:



The final section of this survey sought to gain perspective on the cycling habits of those completing the surveys. The survey asked "What kind of bicyclist are you?" Responders then selected from the following options the description that best fit they style of bicycling.



In order to further understand the bicycling habits of those completing the survey, respondents were asked to provide information regarding their bicycling trips. These included which months they preferred to bicycle, frequency of trips taken by bicycle for transportation, and their frequency of recreational bicycling trips.



Survey Results

Location

Survey responses were distributed widely across the state. While survey responses were mostly from in-state participants, the MetroQuest location tracker showed that people from all over the Nation and the world visited the website. While a large majority of respondents were concentrated in urbanized areas, especially those where outreach meetings were held, many responses were received from more rural areas of the state as well.

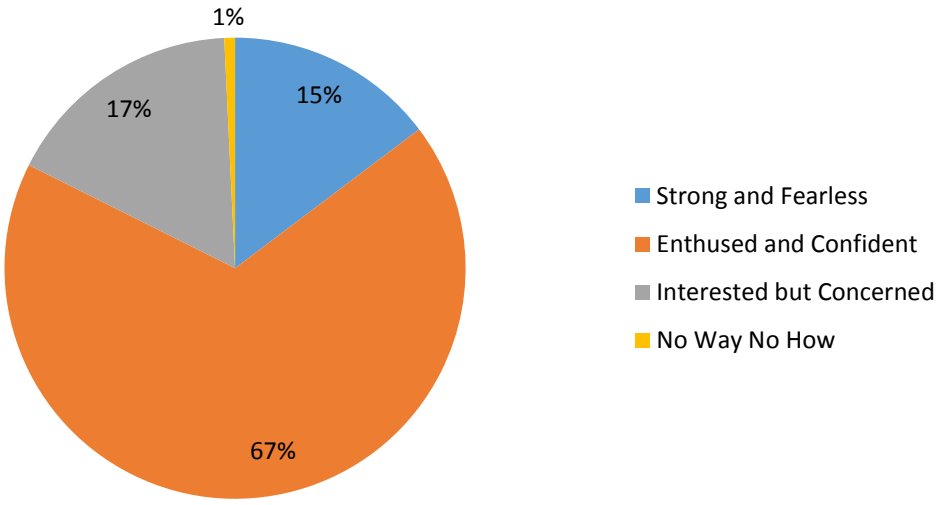
Types of Cyclists

Respondents of the online survey were asked various questions, similar to those in the first online survey, in order to assess the types of cyclists providing input and recommendation for the plan. Respondents were asked to identify themselves into one of the provided categories that best described their riding style. A description of each of these cyclist types is listed on page 3 of this Appendix with the results of the first MetroQuest survey.

When survey respondents were asked what type of cyclist they consider themselves, 82% self-identified as Strong and Fearless or Enthused and Confident, suggesting that people who already bike on a regular to semi-regular basis comprise an overwhelming majority of survey respondents.

Figure 3: Cyclist Type

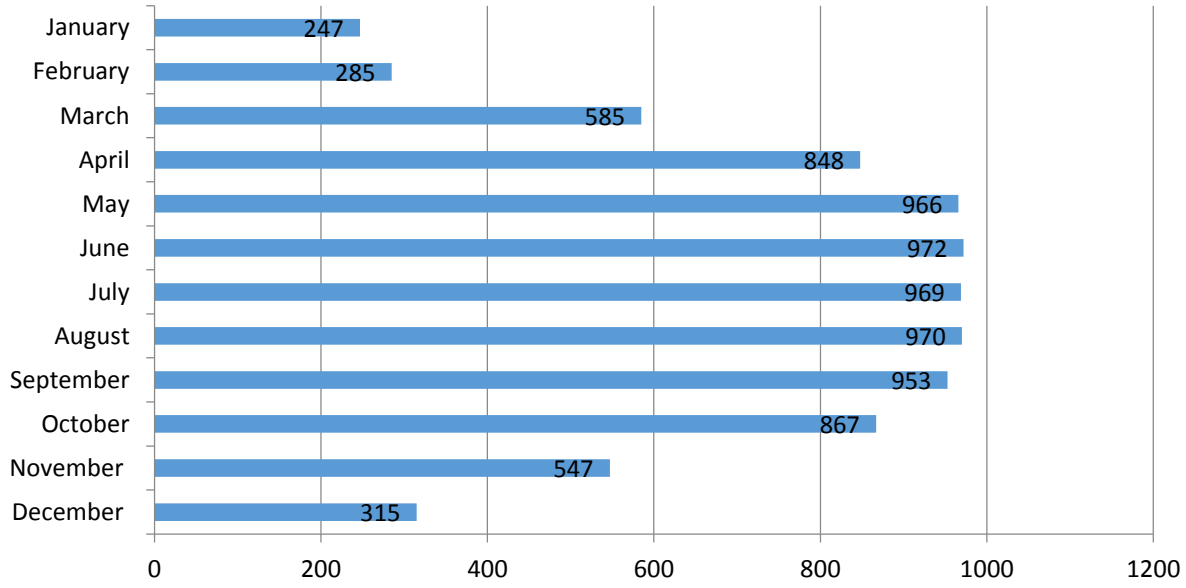
Roughly 17% of respondents consider themselves Interested but Concerned, while only 1% have no interest whatsoever in riding a bicycle. The Interested but Concerned represent a significant target audience for the development of bicycle facilities, as they are most apt to change their transportation habits and bicycle more on local roadways if bicycle facilities can provide the requisite level of separation, safety and comfort (real and perceived). Figure 2 illustrates the grouping of survey respondents into each of these categories.



Monthly Cycling Preferences

Survey Respondents were asked a series of questions pertaining to their cycling habits. The first of these asked, "What months of the year do you typically bicycle?" The results showed that most Illinoisans preferred to cycle in the warmer months of the year, most notably from April to October. The results do however show that many respondents, nearly 25% enjoy cycling throughout the year including the winter months. This information can be used to make recommendations for bikeway facilities that provide year round accommodations for cyclists in the State of Illinois. Figure 3 illustrates the number of cyclists who identified themselves as cyclists during each respective month of the year.

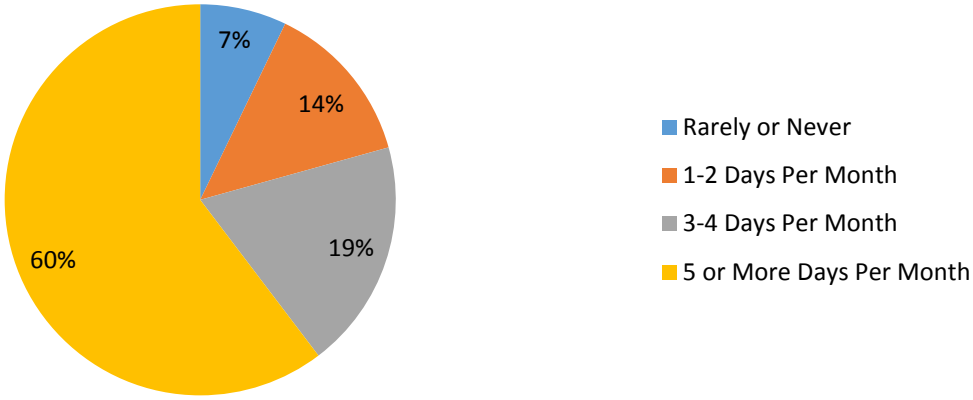
Figure 3: Cyclist Preferences for Each Month of the Year



Transportation Trips

Survey respondents were asked "How many days a week do you bike for transportation." Over 90% of those surveyed reported using a bicycle for transportation during at least one day per month. Only 7% of respondents stated that they rarely or never utilize a bicycle as a form of transportation. These statistics highlight the demand for alternative forms of transportation which new and improved bikeways will help provide. Figure 4 shows the complete breakdown of responses from those surveyed.

Figure 4: Recreation Frequency

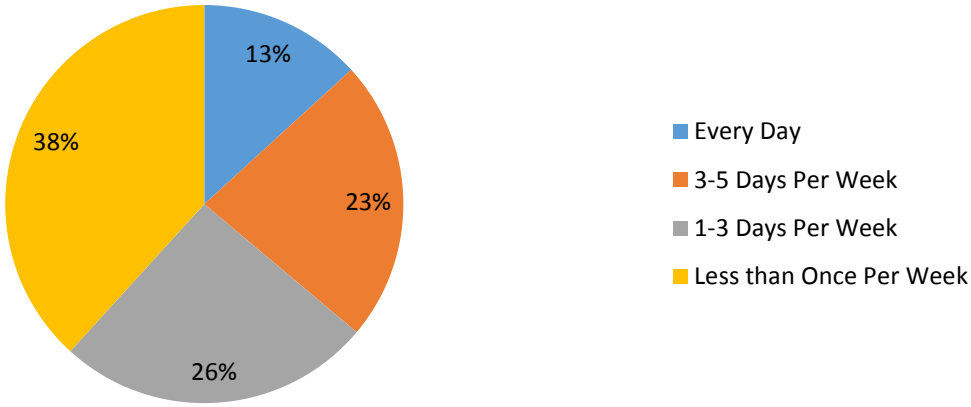


Recreational Trips

The survey asked respondents "How many days per month do you bike for recreation." A total of 62% surveyed said they biked for recreation at least one day per week. 38% of those surveyed reported biking less than one day per week for recreation. Bikeways provide excellent recreational amenities which help improve the overall health of the state. The complete breakdown of responses

Figure 5: Transportation Frequency

The frequency that survey respondents indicated they biked for transportation is indicated below in Figure 5.



Barriers to Bicycling

The online survey tool allowed respondents to list locations and routes in which they have experienced barriers to bicycling in the State. These barriers were broken down into five categories which included: Intersection design impedes cycling, link needed, traffic speed, lack of bikeways, and lack of bike parking. These locations were then mapped to show which areas had multiple reports of bicycling barriers and where they were located throughout the state. The following maps, figures 6-10, illustrate the locations of each reported barrier as reported by users of the online survey tool. Each map reflects one of the five categories of barriers listed above. Areas on the map showing few reports of barriers are illustrated in light yellow while areas showing high concentrations reported are illustrated in red. Each individual red dot reflects a reported barrier to bicycling. Examples of some of the barriers described by Illinoisans included the lack of appropriate bicycle facilities, excessive traffic speed, and impassible intersections to name a few.

Input on Regional Bikeways

Feedback on the need for improved regional bikeways was also gained from the online survey tool and through posters located at the public and transportation professionals meetings. In this section users were encouraged to provide feedback in four categories including: locations in need of regional bikeways, points of interest, show support for proposed bikeways, and highlighting regional bikeways that may be missing from the system. This information was then used similarly to the data in the prior survey section in order to provide plan recommendations which will help improve these connections. The following maps, figures 11-14, illustrate areas representing the four categories listed above. Density of user input is represented in the same manner as the previous data set, with light yellow representing areas with few recommendations and red illustrating areas with multiple reports of needed connections, points of interest, support for proposed bikeways, or regional greenways missing from the map at the time of the survey. The survey proved that residents of the state would like to see improvements made throughout all parts of the state, but particularly between many of the major cities. Routes between the Quad Cities, Peoria, Bloomington, and Champaign showed high demand for improved bikeways as well as the northeast corner of the state surrounding Chicago. Much of this demand for bikeways can be attributed to the high number of points of interest along these routes.

Summary

The feedback from these surveys provided a great deal of valuable information on which areas of Illinois roadways are in need of improvement. This information is valuable to the process of this plan in that it provides real user feedback and suggestions by those who use these routes in many of their trips by bicycle. The information taken from this survey was compiled and then used to create network recommendations for the State of Illinois Bicycle Transportation Plan. The "barriers for bicycling" data was provided to the Department for use in future bikeway planning efforts. The information obtained in the cycling habits sections of the survey show that new and improved bikeways, as recommended in this plan, will continue to help promote a healthy Illinois while helping the state meet its future transportation needs.

Figure 6: Barrier to Bicycling - Lack of Bikeways

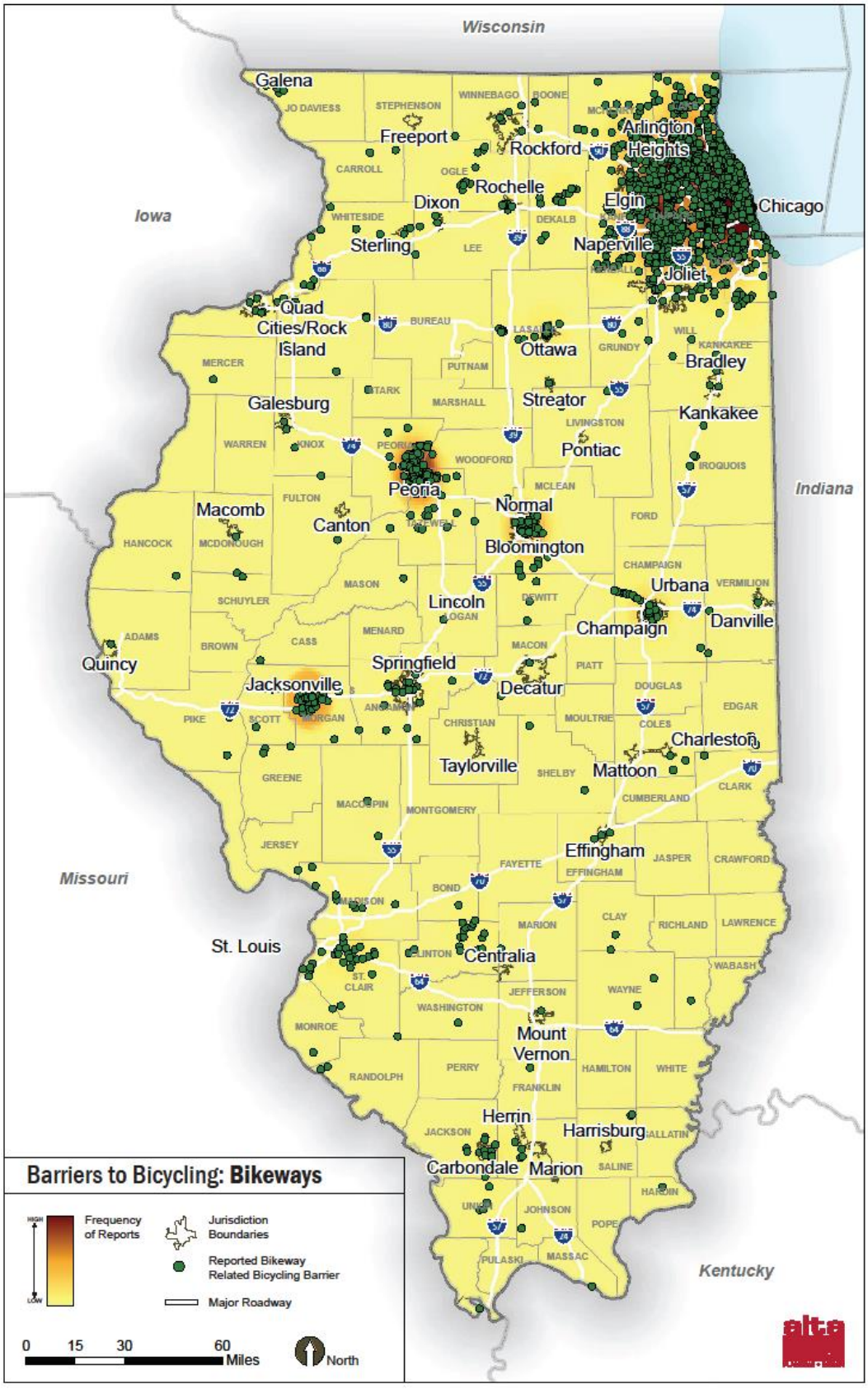


Figure 7: Barrier to Bicycling – Impassable Intersections

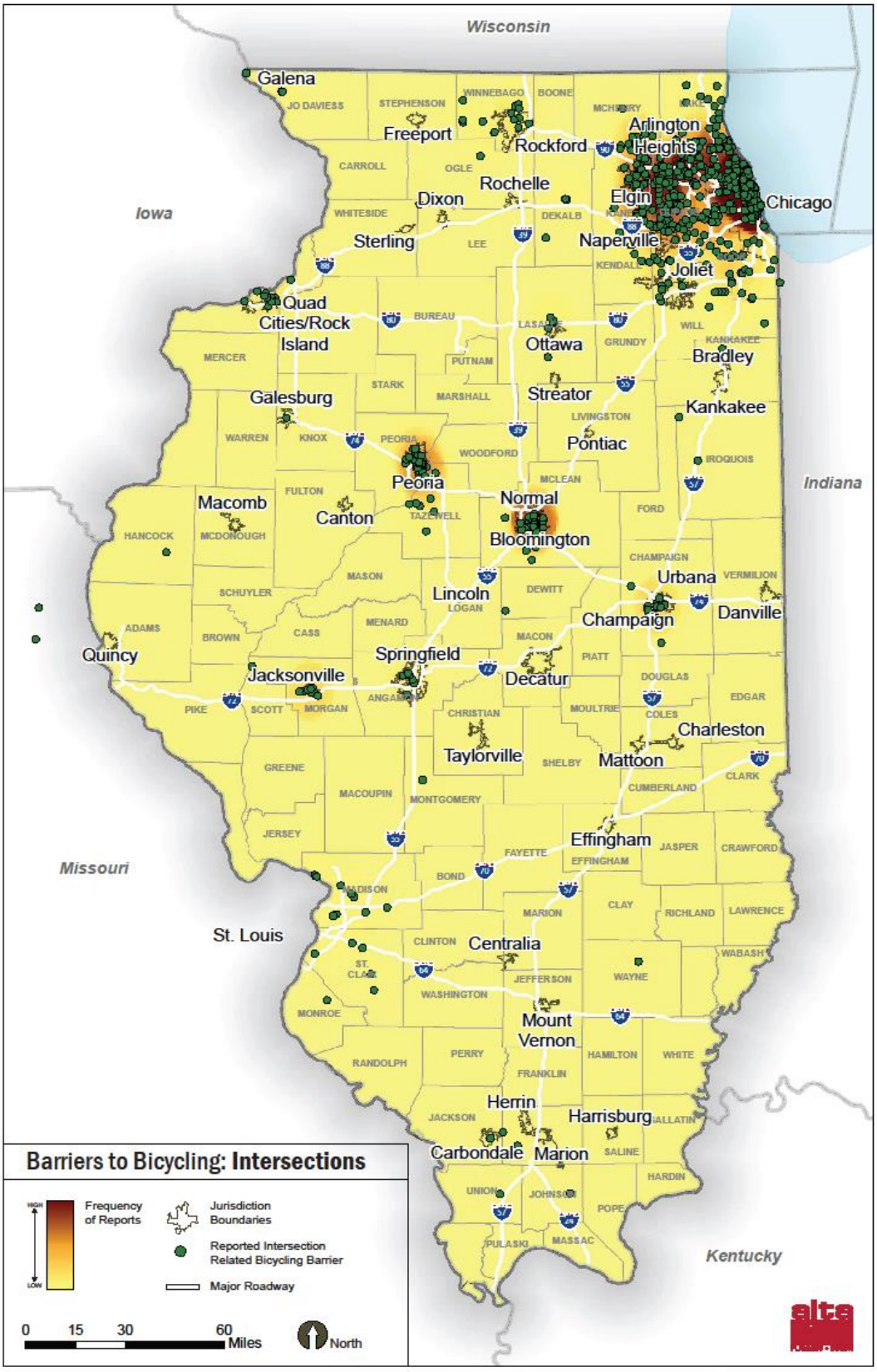


Figure 8: Barrier to Bicycling – Missing Link over a Barrier

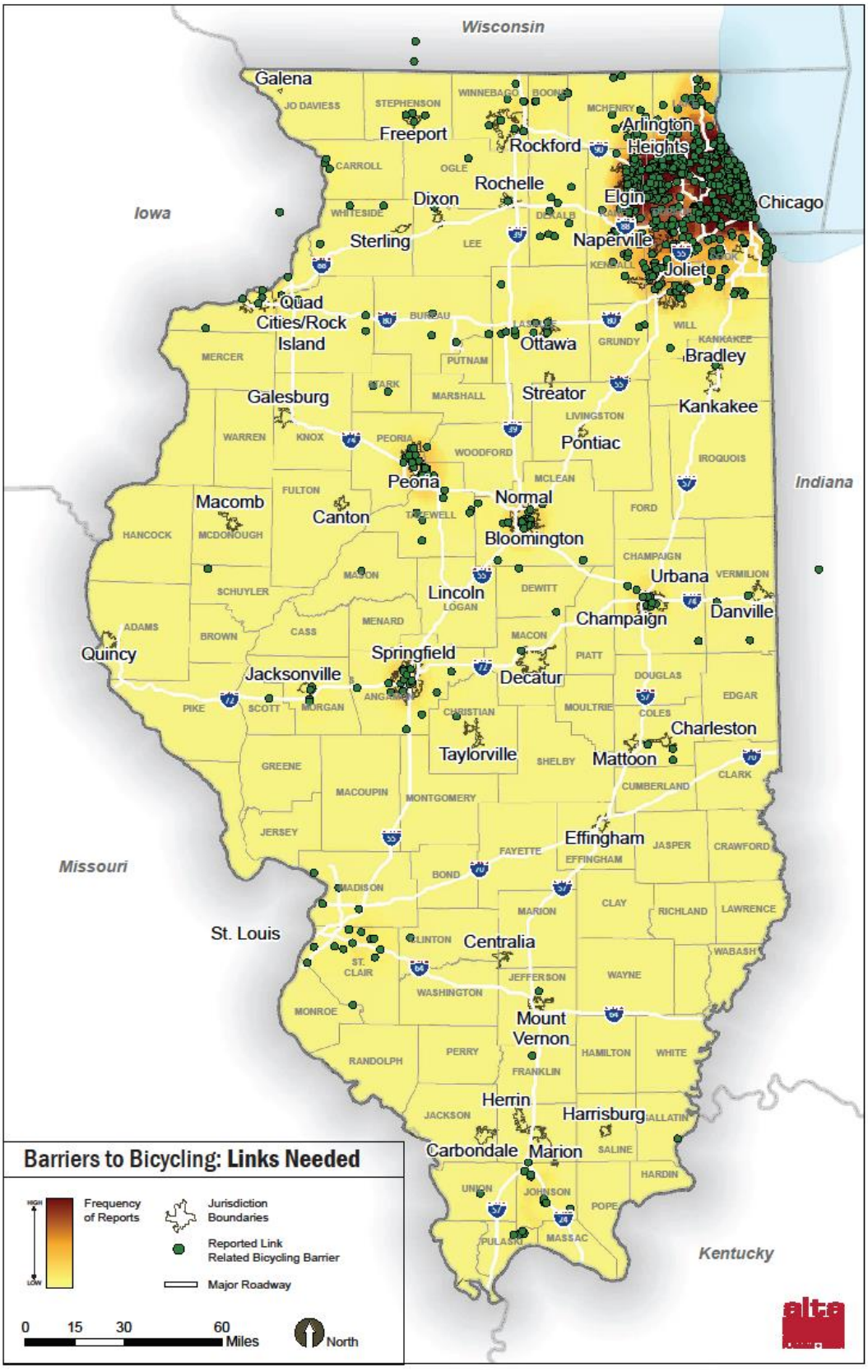


Figure 9: Barrier to Bicycling – Bicycling Parking Needed

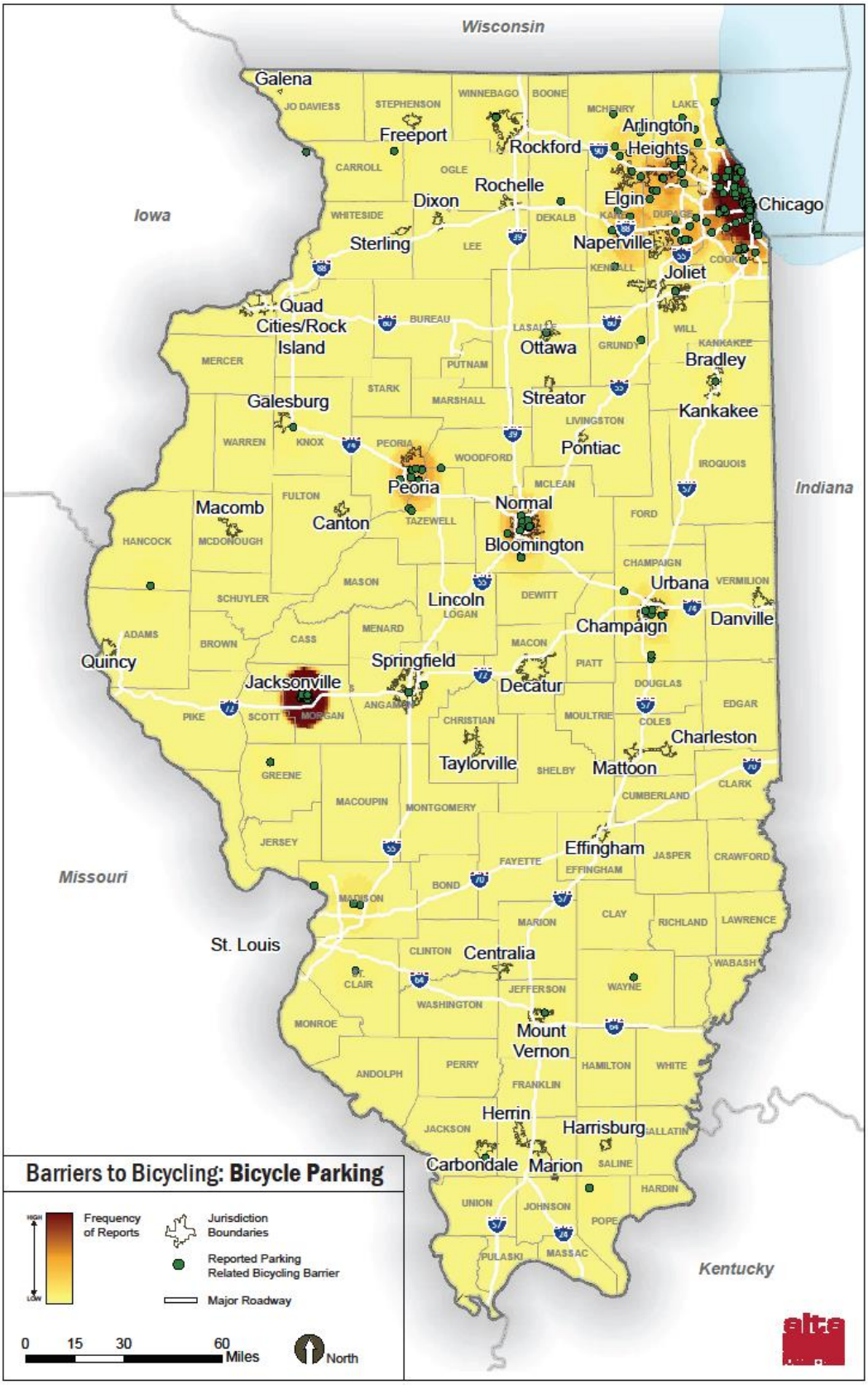


Figure 10: Barrier to Bicycling – Excessive Speed

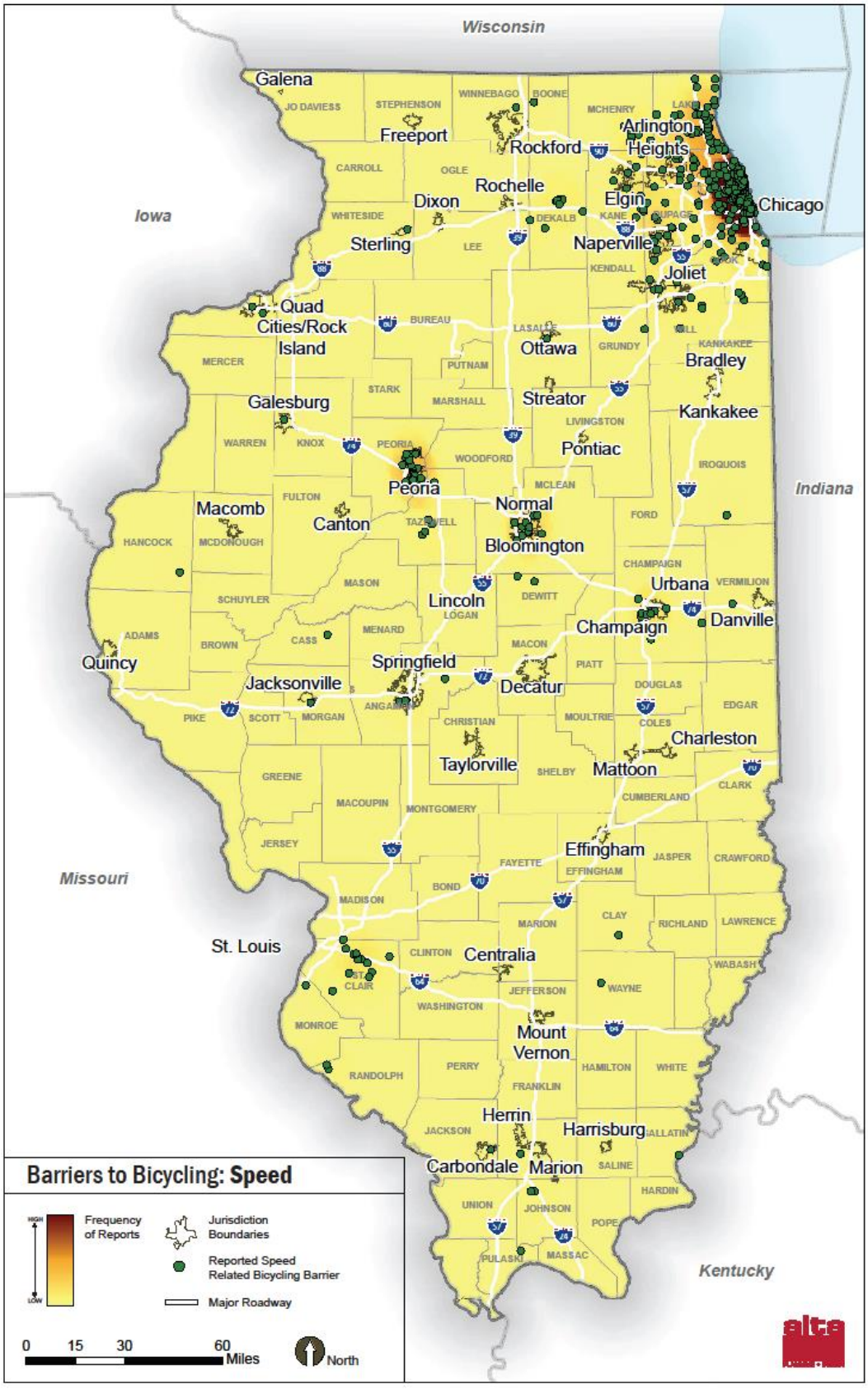


Figure 11: Recommended Regional Connections

Figure 12: Regional Points of Interest

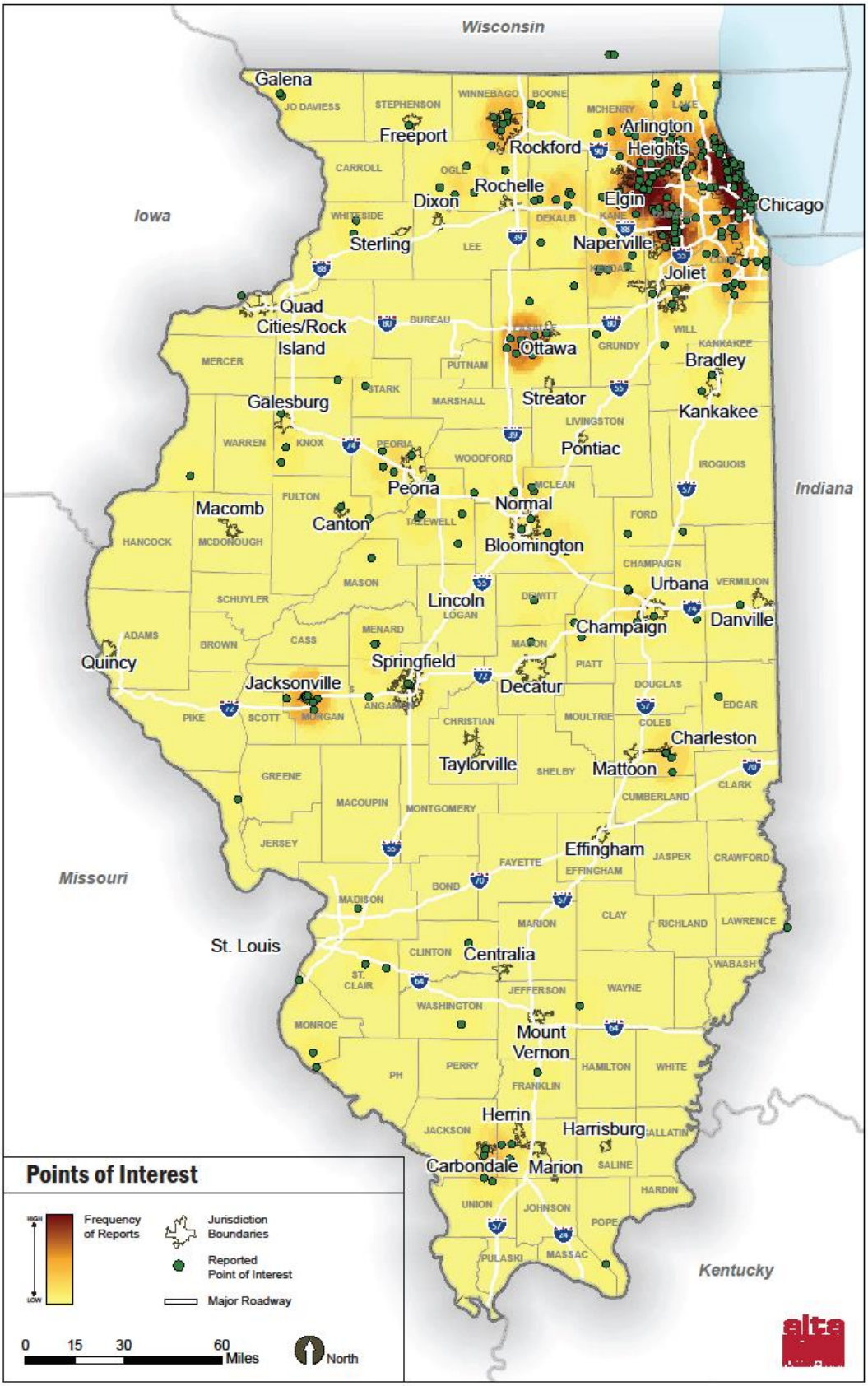


Figure 13: Support for Proposed Bikeways in State Bicycle Inventory

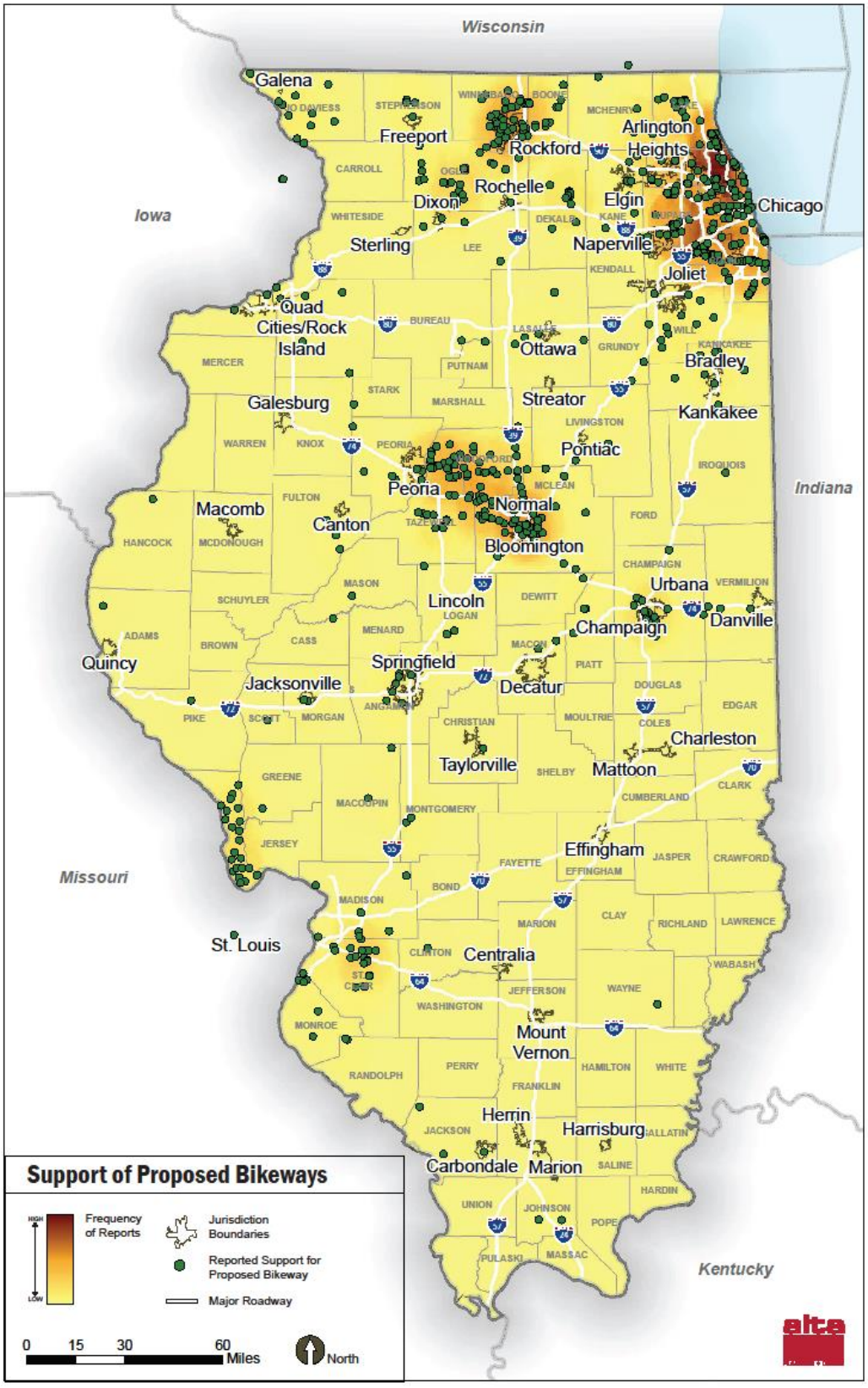
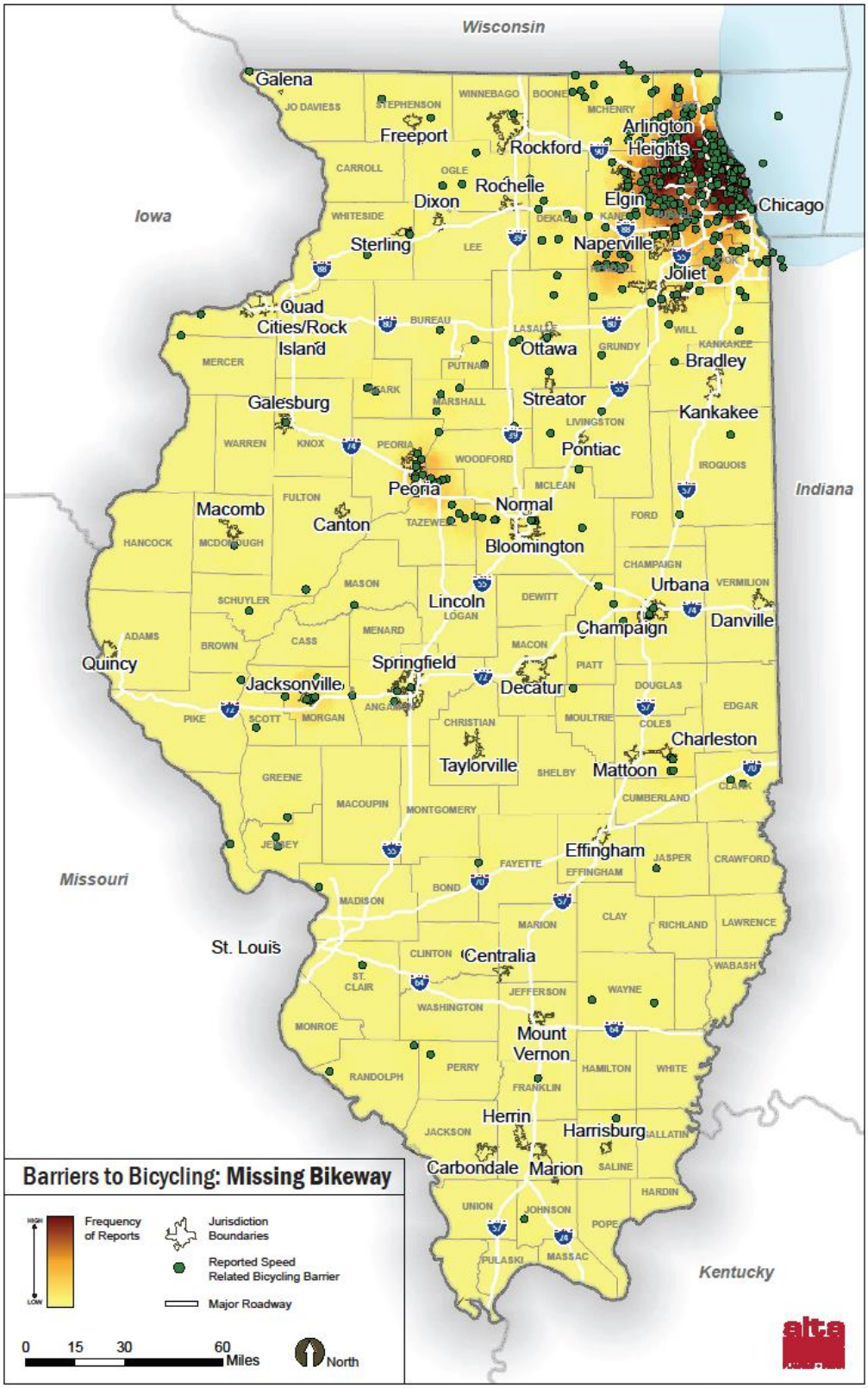


Figure 14: Missing Bikeways in State Bicycle Inventory



Appendix D - Public Meeting Notes

The notes below are from the whole group discussions that occurred during the transportation professional and outreach meetings for the Illinois State Bike Transportation Plan. They are intended to convey the breadth of topics more than priorities. Forthcoming reports of the meetings in each specific district will include all the written comments provided by individuals, providing a more detailed picture of priorities and regional variations. Please note that the discussion springboard questions were modified slightly after the Chicago meetings.

Chicago Transportation Professionals Meeting – 7/9/13

What would you like to see in the Illinois Bike Transportation Plan?

- Education – especially dooring
- Safety, such as Evanston's Green Bike Lanes
- Better connectivity
- Equitable education
- Better plans for keeping bike lanes clean in underserved areas
- Bikers and drivers both need to follow the rules of the road
- Enforce maintenance requirements
- Regular pothole repair, especially on Milwaukee
- Take over all abandoned railroad tracks and turn them into bike paths!
- Improve corridor between Logan Square and Diversey and under the Logan train tracks
- Better maintenance of bike paths/trails
- Add public repair stations around local bike paths
- More bike parking
- Protected bike lanes
- Bikes. Bikes. Bikes.
- Change attitudes of reluctant and stubborn politicians
- Better bike access on Metra trains and CTA
- More bikeable roads in the suburbs
- Stiffer penalties for collisions (motorist-caused)
- Intimidation – stiff fines for obstructing bike lanes
- Insurance
- License requirement
- Bike boulevards
- Traffic calming

Comment Excerpts:

Bikers and drivers both need to follow the rules of the road

More bikeable roads in the suburbs

Reaching out to "no way no how"

District 1 design issues are different than those in the rest of the state

- Partnership with telecom (signal on trails)
- More bike lanes in Chicago!!!
- How to justify spending gas money on bikes
- Will this plan affect protected bike lane policy?
- Consider context (rural, urban, etc.)
- Funding via motorist fees
- DIVVY and Bike Share – especially funding and user fees
- Rural input on advisory group
- Reaching out to "no way no how"
- Explore intersection treatments
- How can IDOT "get out of the way"?
- District 1 design issues are different than those in the rest of the state
- More encouragement
- End of trip accommodations, in part through building codes
- Wisconsin rural road program
- Flexibility in accommodations and funding them, such as IDOT funding off-street trail alternative routes
- Improvement of Chapter 17 framework
- Plan should address enforcement, both for cyclists and motorists
- There should be a pedestrian plan, or at least a section

Chicago Public Meeting – 7/9/13

What are your hopes for the Illinois Bike Transportation Plan?

- Stop blocking protected bike lanes
- Fix the death traps under the highways, such as Logan and Western
- Special viaduct warning signs to be aware of bikes
- More east/west paths, especially north of Belmont
- More suburban protected bike lanes
- More 1-way main roads in the suburbs
- Safe bridges for cyclists
- Bike lockers at Metra stations
- Safe lanes along roadways – preferably protected, as in Amsterdam
- Repaint lanes more frequently
- More bike lanes and signs
- 3-way awareness:
    - Bikes – license 12 and older; school education under 12
    - Pedestrians – trail signs; courteous behavior
    - Cars – more bike awareness in driver's education
- US bike route system

Comment Excerpts:

Stop blocking protected bike lanes

Safe bridges for cyclists

What is "comfortable" versus "safe"?

- Route 66 corridor – finish it
- Never charge for bike parking
- Require helmet and light for night riding
- Long distance lanes and connected routes
- Raised crosswalks or stop lines and traffic calming
- Chicago Streetcar
- Bike awareness in state driver's education
- Upholding the state constitution with an "integrated system
- Let bikers ride public transportation at reduced costs
- Have state bike stores and shops
- Better signage for autos signaling bikers/bike rules
- Flexibility
- Implementation of complete streets

Comment Excerpts:

Why aren't we funding all elements of Complete Streets?

Bike awareness in state driver's education

Group Discussion

- Improved education (schools, driver's education)
- Land use/sprawl
- Intersections
- Access across barriers
- Comfort
- Connectivity, crossing, continuity
- Intermodal (transit to bike)
- Open door with right hand
- Equity in planning and projects
- Why does IDOT oppose protected bike lanes in Chicago?
- Why/when/how will we have enough safety data for protected bike lanes? Can we use Copenhagen's 30-years of data? Is New York City data relevant for Illinois? What other evidence are we looking for?
- Is it important to make us the "most bike friendly state"?
    - Too vague – what are our measures?
    - Remember, we are looking at whole state.
- IDOT has been difficult to work with at the community level
- How do we get fundamental mind shift to use complete streets tools? Speaker referred to 800 kids dealing with no sidewalks near a school.
- Why aren't we funding all elements of Complete Streets?
- Can we get to a more granule level of outreach?
- What is "comfortable" versus "safe"?
- Where can we voice holes in the system?

DeKalb Transportation Professionals Meeting – 7/15/13

Who is riding? Where? Why?

- Serious cyclists on rural roads
- Families in cities
- People with no car
- Students
- On roads with accommodations, such as paved
- University
- Exercise
- Transportation
- Recreation

What needs to be changed or addressed? (includes other observations)

- More facilities
- Safety
- Driver and bicyclist education
- Connectivity: in-town, regionally and to the Great Western Trail
- Money would make things easier
- Permitting processes
- Performance measures, not just lane miles
- Collaboration with local agencies to get projects built
- Data collection on trails and bikeways
- Cross country skiing versus bicycling needs (competition for uses in general)
- Don't just accommodate, incorporate
- Developers are hesitant to fund/build in the area due to development requirements for bikeways
- Stretch the dollar (crushed gravel)
- Leveraging other funds

Comment Excerpts:

Performance measures, not just lane miles

Don't just accommodate, incorporate

Bridges over the Illinois River now include bike accommodations

Connectivity: in-town, regionally and to the Great Western Trail

Success Stories

- Bridges over the Illinois River include bike accommodations
- First trail in Homer Glen
- Private fundraising to make local match in Yorkville

DeKalb Public Meeting – 7/15/13

Who is riding? Where? Why?

- A third of riders are bike club guys – important user group
- "Unseen" bicyclists
- General commuting all over
- Naperville, mostly leisure
- Most people are recreational bicyclists

What are the best things about cycling in Illinois?

- Flat and scenic and lots of paths
- Good organizations and we are looking at improvements. Better than other states and moving forward.

What needs to be changed or addressed? (includes other observations)

- Connectivity
- Improved safety
- Education for all road users, including children
- Yellow signs = "we want cyclists here" such as Bed und Bike in Germany
- No connection between Cortland and Malta
- High school access is needed for children
- Greenway connections between communities
- 5 mile path to nowhere
- DeKalb to Sandwich
- Are we only street oriented?
- We need small links
- Feeder network to trails
- Wayfinding to restrooms and destinations
- Maintenance, especially snow removal
- Enforcement
- Opportunities for long-distance group riders
- Collaboration to foster tourism
- Aggressive drivers
- More work on sidewalks, multi-use paths
- Keep trails open 24/7
- Make people aware of back roads
- Lighting
- Engineers need to ride bikes
- End of trip facilities

Comment Excerpts:

We are better than other states and moving forward

High school access is needed for children

We need small links

There should be opportunities for long-distance group riders

Engineers need to ride bikes

- Tap incentives for funding
- Include bicycling in road test
- MAD program could be adapted for bicyclists
- Construction should accommodate bicyclists

Peoria Transportation Professionals Meeting – 7/16/13

Who is riding? Where? Why?

- Kids
- Sidewalks
- Bike lanes
- Streets
- Access across river
- Route 66 Trail
- Fitness on roads (including interstates and highways)

What needs to be changed or addressed? (includes other observations)

- Inadequate facilities
- Need dedicated trails
- Address connectivity across jurisdictions. Which community is responsible for maintenance?
- Obstacles, such as a bridge bring funded without facilities for walking and biking
- Need to sell to IDOT bureaucracy
- Logical termini
- More complete ROW purchases, such as the Eastern overpass
- Communities need plans to achieve ITEP funding
- Signage – does MUTCD provide proper accommodations?
- Develop guidance for localities (AASHTO Chapter 2)
- Need to follow rules of the road
- Bike advocacy groups are helpful for encouragement, city lobbying, and municipal planning
- Funding
- Loopholes on pre-2010 Complete Streets projects

Comment Excerpts:

Address connectivity across jurisdictions. Which community is responsible for maintenance?

Need to sell to IDOT bureaucracy

Bike advocacy groups are helpful for encouragement, city lobbying, and municipal planning

Develop guidance for localities

Peoria Public Meeting – 7/16/13

Who is riding? Where? Why?

- Lower income riders
- M – EP Trail is for true recreation
- Rural/farm road
- Roads in East Peoria
- Recreation 80%
- Transportation 50%

What are the best things about cycling in Illinois?

- IDOT Bicycle Maps
- Rails to Trails
- More people are riding
- Better education, younger population
- Advocacy organizations

What needs to be changed or addressed? (includes other observations)

- Need more and better defined facilities
- Rock Island Trail should be open 24/7
- People mostly use cars to get to trails
- On-street biking in Peoria is not good
- Would like to ride everywhere if safe
- Would like to ride to work at age 60
- Not enough bike racks
- More education
- More Share the Road signs
- Better enforcement about stopping
- Driver's education
- On-road maintenance
- Accommodations should be included as part of ADA and resurfacing projects
- Cooperation
- Cars are still a priority
- Land use

Comment Excerpts:

Would like to ride to work at age 60

Accommodations should be included as part of ADA and resurfacing projects

Rock Island Trail should be open 24/7

More Share the Road signs

Springfield Transportation Professionals Meeting – 7/17/13

Who is riding? Where? Why?

- Sidewalks, streets, everywhere
- Across the country
- Parks
- Families on trails
- Recreation
- Transportation
- Necessity
- Winter
- Commuters

What are the best things about cycling in Illinois?

- Rails to trails
- Bike lanes – Complete Streets (MacArthur St Extension)
- Bike parking too
- Bike racks on busses
- Archer Road Crossing at Sangamon Valley Trail with microwave sensors
- Passenger rail and pedestrian crossing safety via crossing arms, gates and sidewalks

Comment Excerpts:

Big learning curve; need more projects under our belts

Unfunded mandate--"Another hoop to jump through"

District bike/ped coordinator needs more authority

Project selection matrix needs improvement

What needs to be changed or addressed? (includes other observations)

- Need best practices guidance on trail/railroad crossing design
- Big learning curve; need more projects under our belts
- Lack of resources
- Lack of technical know-how
- Lack of interconnectivity in facility network
- Not enough access points
- 4' shoulder versus 6'-8' requirement
- Unfunded mandate--"Another hoop to jump through"
- District bike/ped coordinator needs more authority
- Streamline facility choices, noting preferred treatments and giving more detailed recommendations
- What is best cost/benefit?
- Shoulders are more suited for rural areas
- Road diets and/or reduced lane width are more suited to urban areas
- Project selection matrix needs improvement
- Revolving loan fund?
- Money doesn't go as far as it used to
- Project coordination to include bike/ped delays road repairs

- Do bike projects in groups, a la ADA, even if it means delay

Springfield Public Meeting – 7/17/13

Who is riding? Where? Why?

- Sidewalk
- Shoulder
- Outside lane
- Recreational use (west and south)
- Country roads (exercise)
- Commuting
- Big increase in cycling-seems to have tripled in the last few years
- Chatham Trail

What are the best things about cycling in Illinois?

- Bike sharing (Chicago)
- Rails to Trails
- Bike lanes (west side of town)
- Trails and interconnectedness
- Wide open country roads: "It's like having bike paths everywhere."
- More good experiences than not on country roads, but people will always be unhappy when you are slowing down traffic

Comment Excerpts:

Wide open country roads: "It's like having bike paths everywhere."

Rumble Strips on shoulders are a good example of how NOT to provide accommodations

No place for bicycles downtown

Is this just for new road projects or can IDOT encourage/require the addition of bike/ped in maintenance projects?

What needs to be changed or addressed? (includes other observations)

- More trail connections
- No place for bicycles downtown
- Too dangerous for road riding
- More trails
- Have to choose a longer commute to ride on trails versus roads
- Need to become a more bicycle-friendly community
- More shoulders on congested roads would help during commute times
- Downtown roads are too dangerous
- Is this just for new road projects or can IDOT encourage/require the addition of bike/ped in maintenance projects? (i.e. resurfacing local roads with IDOT funds)
- Rumble Strips on shoulders are a good example of how NOT to provide accommodations
- Debris on shoulders and bike lanes
- Illinois drivers are more unfriendly than Wisconsin/Minnesota
- Illinois lags behind other states in amount of Enhancement Funds being spent on trails and bicycling. Municipalities lag behind too.

- West Trail needs to be connected to Lincoln sites.
- How does this translate to local municipalities? Is there enforcement?
- Bike lanes to nowhere.
- Where are the teeth in the plan?
- The lake is a barrier

Champaign-Urbana Transportation Professionals Meeting – 7/18/13

Who is riding? Where? Why?

- Everywhere in Champaign-Urbana
- County roads
- Trails
- Campus
- Bike commuters
- Only mode
- All ages, some biking to school
- Lots of recreational riders
- Farmers market
- Parks
- Central Business District
- Families
- Intermodal

Comment Excerpts:

Distracted drivers, bikers, and pedestrians

Have seen an 80-90% increase in biking

Need to build "the last mile"

What are the best things about cycling in Illinois?

- Flat
- Bike all seasons
- Have seen an 80-90% increase in biking
- Relatively low traffic
- Fairly compact
- Trees
- More trails
- IDOT embracing adding bike structure
- Educational component
- More grant money
- Transportation Enhancements saved by Transportation Alternatives Program.
- Cultural attitudes are shifting
- There has been more bike planning
- MPOs have worked to together and made bicycle planning a priority

What are the worst things about cycling in Illinois?

- Driver attitudes
- Distracted drivers/bikers/pedestrians
- Need bigger picture on other modes
- Urban versus rural contexts
- Campuses
- Drivers
- Inconsistency among agencies

Comment Excerpts:

Implementation process is tortuous discouraging ADA and bikes

IDOT is embracing adding bike structure

What needs to be changed or addressed? (includes other observations)

- Implementation process is tortuous discouraging ADA and bikes
- Bike infrastructure should be added to maintenance expenses
- How do we deal with ongoing expenses?
- Should there be a bike funding mechanism?
- Bike are miniscule cost vehicles
- There should be equal prioritization
- End of trip facilities
- Enforcement of laws

Champaign-Urbana Public Meeting – 7/18/13

Who is riding? Where? Why?

- Recreational trails in Decatur
- Families, but not on streets
- Sidewalks
- All over campus
- Left side of lanes.
- Bloomington – Normal Constitution Trail – 42 miles
- Normal B/T
- Bloomington No Plan
- Farmers market
- Commuters
- Necessity
- Amish

Bike Maps

- Format outdated
- Gravel roads are also good and could be counted
- More interactive would be good
- Incorporate local maps
- Show rideable shoulders

What are the best things about cycling in Illinois?

- ITEP – retain it!
- Rumble strips
- Flat
- There are more cyclists
- Grid
- Amtrak options
- Tourism options
- City doing good things

What needs to be changed or addressed? (includes other observations)

- Need recreational map
- Need more talking about bikes
- Not enough bike parking
- Need better driver education
- Police should provide educational outreach
- Better driving test
- Supporting legislation but not known

Comment Excerpts:

Cyclists that don't follow rules

Motor vehicles that don't stop at crosswalks

There should be an IDOT bike hotline

Little things are big things

- Cyclists that don't follow rules
- Lack of enforcement
- B-N: nobody's died so nothing's been done
- Motor vehicles don't stop at crosswalks
- No statewide uniformity
- Subdivision development
- Arterial barriers
- 1-off roads
- Railroad crossing
- Using IDOT as crutch
- IDOT said no bike lane on state highway
- Sensors are hidden; need to press button
- Little things are big things
- Need to know who to talk to at IDOT
- There should be an IDOT bike hotline
- National Routes
- Reduce speed limit to 25 mph
- Need to expect bikes in streets
- Too dangerous to bike to school

St. Louis Metro East Transportation Professionals Meeting – 7/22/13

Who is riding? Where? Why?

- On the street
- Shoulder/highway gutter
- Trails
- Country roads
- Sidewalks
- School
- Work
- Exercise
- Errands, such as grocery and drug store
- Bar hopping
- Recreation

What are the best things about cycling in Illinois?

- Flat
- Good weather ten months out of the year
- Hard surface country/rural roads
- Small towns with grid system and low traffic volume
- Good trail system
- MEPRD – sales tax

What are the worst things about cycling in Illinois?

- Bikes get in the way of farm equipment, which is getting bigger.
- Trails and roads don't connect or connections are on high-speed highways with no facilities
- Some hilly, dangerous country roads
- Lack of knowledge of rules of the road
- Lack of funding
- Decreased acceptance of bikes on the road
- Need to connect to urban areas
- Lack of multi-modal connections
- More arterial roadways and fewer grid-based networks
- Bike racks on busses should be a requirement for state funds
- Railroad crossings not conducive to bikes
- Too long between funding applications and award notifications
- Too long to build the projects
- Lack of presence in county plans
- Horses have no facilities

Comment Excerpts:

Trails and roads don't connect or connections are on high-speed highways with no facilities

Lack of multi-modal connections

Coordinate roadway work with bike/ped improvements

Take advantage of resurfacing projects.

Make sure bike plans are in the system (IRIS)/ build the statewide database.

What needs to be changed or addressed? (includes other observations)

- Make sure bike plans are in the system (IRIS)/ build the statewide database.
- Make sure database stays maintained and updated.
- Coordinate roadway work with bike/ped improvements.
- Context Sensitive Solutions and Complete Streets overlap, leading to repetition. Maybe blend them?
- Improve coordination, communication, and collaboration between municipalities, counties, and other states.
- Need more money. ODOT is an example of dedicated bike/ped funding.
- More community contributions to Complete Streets.
- Bridge the generational divide, which can lead to differences in values and spending priorities.
- "Group Hug" and more education statewide.
- More design flexibility and options such as giving up width on access points.
- Design shelves for future construction.
- Taking advantage of resurfacing projects.
- Communities should be able to opt out more easily.
- Elevate bike/ped consideration or formalize the process for decisions at the county or township level.
- Address liability concerns, particularly "permitted versus intended" users of the ROW.
- Private sector should provide funding and education opportunities. What is their role?

St. Louis/Metro East Public Meeting – 7/22/13

Who is riding? Where? Why?

- Trails
- Schools
- Horse trails
- Roads
- Pool
- Work
- Parks
- Hospitals
- Grocery store
- Sidewalks
- Right outside lane
- Shoulders
- Mainly leisure/fun (60-70%)
- Commuting
- Shopping, but there are problems due to lack of parking and dangerous highways.

- Exercise
- Recreation versus transportation
- Social
- Group rides
- School/university

What are the best things about cycling in Illinois?

- Very nice trails
- Towns are in close proximity to one another
- Feel safe in no traffic areas
- Street crossings are well-marked and relatively safe
- Wealth of advocacy organizations

What are the worst things about cycling in Illinois?

- Summer humidity
- Unmarked trails and street crossings
- Trail maps don't show streets and street maps don't show trails
- Key gaps in the trail network
- Lack of on-road and community connectors
- Limited access points to businesses along trails (shopping, etc.)
- Dogs

What needs to be changed or addressed? (includes other observations)

- Need to build "the last mile" to connect trails to destinations, not just other trails
- Community roads aren't safe
- 90% or more load bikes on cars, because it is too dangerous to use roads, especially the highway system.
- It is especially dangerous for children
- Need to market tourism better
- Speed limits
- Need to educate the general public
- Better route finding aids
- Need a culture change from drivers
- Lack of shoulders and other accommodations require a 30 mile ride to go 7 miles
- Debris on shoulder – need street sweeping
- Oil & chip – fresh tar and gravel
- Horses not allowed on trails
- Lack of pedestrian crosswalks-- especially a problem for children
- Trail hours don't work for commuting in winter months

Comment Excerpts:

Need to build "the last mile" to connect trails to destinations, not just other trails

Need to market tourism better

90% or more load bikes on cars because it is too dangerous to use roads, especially the highway system.

Educate elected officials to the benefits

Supreme Court legislation makes communities afraid of litigation (Boub versus Wayne)

- Snow and ice on trails also an issue
- Need mainstream safety education
- Lack of inter-state connections between Missouri and Illinois
- Manual way to trip traffic signals
- Curbs are a big factor in roadway comfort
- Vehicle drivers and their attitude/behavior are a big factor in comfort
- Texting and driver inattention
- Need protected bike lanes or sidepaths
- Buffered bike lanes
- Rumble strips
- Put a lot of effort into bike facilities on a few major connectors/arterials as opposed to light treatments on a lot of roads.
- Educating elected officials to the benefits
- Speak up to your elected officials
- Resurface Old Collinsville Rd.
- Planning and coordination conversations needed at all levels of government
- Supreme Court legislation makes communities afraid of litigation (Boub versus Wayne)
- Route 66 trail
- Great Circle trail around Lake Michigan
- Amtrak "pigeon drop"

Quad Cities Transportation Professionals Meeting – 7/23/13

Who is riding? Where? Why?

- Trails
- City streets
- Everywhere: on and off roads
- Was along river, now expanding
- Great river trail
- Trails
- Roadways
- Sidewalks
- Recreation
- Commuting
- All kinds: recreation and transportation
- Was recreation, slowly moving to work
- Short commuting

Comment Excerpts:

Emphasized awareness and education

Connections to make long distance cycling more possible

What needs to be changed or addressed? (includes other observations)

- Segregated trails
- Maintenance
- Connections to make long distance cycling more possible
- Education
- Police enforcement
- Designated bikeways, lanes and paths
- Paved shoulders on roads dedicated to bicycles
- Improved and more bicycle lanes
- Emphasized awareness and education

Quad Cities Public Meeting – 7/23/13

Who is riding? Where? Why?

- Bike trails
- Country roads
- Most for recreation

What needs to be changed or addressed? (includes other observations)

- Improve maintenance on local bike trails
- Need to increase number of people who commute to work and school
- Delineate shared downtown areas--pedestrians get confused
- Cities/counties need to restripe on a regular basis
- Who is responsible for clearing vegetation on trails
- Add mile marker posts to aid in emergency rescues
- The Great River Trail signs should have a more visible design
- Encourage businesses to post "bike friendly" or "cyclists welcome" signs
- Repair Great River Trail cave-ins.
- Fix bridge to Sylvan island

Comment Excerpts:

Who is responsible for clearing vegetation on trails?

Hold seminars at large companies to help employees get started with bike commuting

Cities/counties need to restripe on a regular basis

Rockford Transportation Professionals Meeting – 7/25/13

Who is riding? Where? Why?

- East side for recreation, west side for work
- Everywhere
- Roadways, recreational paths, and bike routes
- Recreation, fitness, work, school, etc.
- Mostly on paths but more are riding on the streets
- Trails in parks
- Between communities
- Downtown-work/service
- Children: school, recreation, exercise
- Adults: work, recreation, alternative travel
- Many times on sidewalks which is dangerous

What are the best things about cycling in Illinois?

- Bike paths
- Bikes on busses
- Seeing more biking on neighborhood streets
- Volumes seem to be growing
- Rural roads are great
- Existing trails in good shape
- We have well organized advocacy groups
- Recent administration in IL is positive
- District 2 is integrating bike accommodations into larger projects (this is a legacy of the Complete Streets legislation). Example: For North Main/Route 2, IDOT had identified alternate routes but locals wanted facilities to be on the corridor. This involved acquiring land in the face of a lot of opposition.
- Complete Streets legislation has made things better
- There is real collaboration

What are the worst things about cycling in Illinois?

- Bicyclists on roads can be dangerous
- Bicyclists do not always obey laws
- Liability
- State payments are late (some communities can't float the expense)
- Unfunded mandate
- Frustration with drivers who think they own the road
- Lack of connectivity between streets and trails

Comment Excerpts:

District 2 is integrating bike accommodations into larger projects

Need better buy in at local and county level

Different types of bicyclists have different needs

Paths can be cost-prohibitive. We need better cost estimation tools for paths versus on street

Lots of conflicts on paths

Need more signage

What needs to be changed or addressed? (includes other observations)

- We need to concentrate on bike routes into the country
- Need both trails and on street facilities
- Lots of conflicts on paths
- More education and enforcement of cyclists and motorists
- Need more funding
- Increased bike route network
- Increase number of busses equipped with bike racks
- Bike rental program
- Clearly delineated routes
- K-12 education; needs to be component of driver's education
- State/local partnership for information dissemination
- Stop wrong way riding
- More bike racks in downtown
- Repair/TLC station along Sinnisippi Park Trail, with air and tools for minor work to be performed (wrench, screwdriver attached with cable security)
- Need more signage
- Bureau of Local Roads Manual creates obstacles with national standards
- Boub versus Wayne
- Need better buy in at local and county level
- Lack of visibility to the public
- In IL, bicycles are not considered vehicles
- Focus is often on patching; bicycle facilities are treated as accessories
- Paths can be cost-prohibitive. We need better cost estimation tools for paths versus on street
- Turning needs of trucks creates design challenges
- Different districts have different approaches
- Different types of bicyclists have different needs
- Pedestrians and cyclists need to have separate dedicated spaces
- Bike/ped issues need to be integrated throughout departments, but there also needs to be a strong leader/bike coordinator
- Need to incentivize—maybe workplace based

Rockford Public Meeting – 7/25/13

Who is riding? Where? Why?

- East/west = get to work
- A lot for fun and exercise
- Recreation
- See people on trails, but cars in bike lanes
- DUI cyclists/people with no diving option
- Not much commuting or errands
- Only experienced riders on main roads
- Mostly in neighborhoods
- Bike paths
- Day trips
- Neighborhood
- Squaw Prairie to Belvidere
- Commuting
- Roads and trails
- Prairie Trail and Dole Ave Bike Lane
- Going to the beach
- 5-10% employees commute in summer 2% all year
- Few for transport
- Half in Rockford
- 1/3 in rural areas

Comment Excerpts:

Trail maintenance (funding to create, not maintain)

Adjust local agency cost share so bikeways and sidewalks are included in IDOT projects

Need more interagency coordination—maybe stronger IDNR role?

Take advantage of tourism opportunities

We do not know what we have

What are the best things about cycling in Illinois?

- Gorgeous
- Illinois terrain—hilly and flat
- Bicycle route maps
- Regional trails
- Scenic, low traffic rural roads that are paved
- Have windy roads and hills in Joe Davies
- Biking is free! No trail user fee
- Beautiful country
- Facility options

What are the worst things about cycling in Illinois?

- Inconsiderate drivers
- Driver attitude and awareness
- Lack of shoulders
- Connectivity—trails just end
- Barriers

- Road conditions/upkeep
- Trail maintenance (funding to create, not maintain)
- Rumble strips/rumble strip placement
- Boub versus Wayne/liability—how can IDOT influence?
- Markings can be confusing
- Local match is an issue
- Need more interagency coordination—maybe stronger IDNR role?
- Local police should enforce bicycle regulations
- Shoulders can be better
- Paved paths are lacking
- Roadways are dangerous due to motorists and deteriorating infrastructure
- Pot holes

What needs to be changed or addressed? (includes other observations)

- Better path upkeep
- More signs and distance information
- Fix Boub versus Wayne
- 100% funding for priority trails like the Grand Illinois Trail
- Connect Byron with Stillman Valley via abandoned railroad
- More dedicated paths and trails separated from roadways and busy construction
- Education for both drivers and motorists
- Better east west thoroughfares
- Driver study book should include bicycling info
- Adjust local agency cost share so bikeways and sidewalks are included in IDOT projects
- Adjust IDOT's bicycle accommodation selection table to better match recent national bikeway guidelines
- Use recent federal guidance on rumble strips to provide adequate clear space and longitudinal breaks
- Update IDOT's design approved manual for local agency roadwork per LIB and national guidelines to remove obstacles for towns wanting to be more bicycle friendly
- Further emphasize bikeway projects when doling out fed trans funds
- Adopt a state performance measure for bicycle safety (key to opening doors for available funds)
- Wider shoulders on country roads
- Wider lanes for bikes
- Signs on popular routes warning drivers to watch for cyclists
- Bike lanes/sidewalks on major thoroughfares to make commuting via bike more safe and practical (esp along Alpine and Mulford and Main Street and N. 2nd Ave)
- More bike lanes or bike signs indicating safe roads
- Connectivity to destinations and towns
- Rockford not good for recreation, not even sidewalks

- Land uses too spread out
- Rivers are barriers but there are good paths along them
- Joe Davies/Galena: lots of land, but few paths
- Need economic development in Joe Davies, taking advantage of Galena
- Take advantage of tourism opportunities
- Wisconsin study: $924 million in economic benefits, plus health and manufacturing
- Why do we give free motorist training, but not bicycle education
- Local buy in
- All roads should be complete streets
- Should have user fees
- Need Illinois route info on GPS
- Need more mapping info on paved versus dirt roads
- We do not know what we have

Carbondale Transportation Professionals Meeting – 8/1/13

Who is riding? Where? Why?

- Sports
- Exercise
- Work
- School
- DUIs
- Touring
- Long group rides (25 – 50 miles)
- Recreation
- Groceries
- Casual riders around town
- Most people avoid the high volume streets and prefer county and township roads, but may have to use state roads
- Kids, but not many families
- Children in parents' trailers
- Group riders
- Casual riders
- Transportation

Comment Excerpts:

Most people avoid the high volume streets and prefer county and township roads, but may have to use state roads

Stronger sentencing for hitting cyclists

Don't discount downstate interest by lack of numbers compared to Chicago

What are the best things about cycling in Illinois?

- Terrain – hilly in south, flat up north
- Size of community makes everything accessible (Carbondale and other small towns)
- Tunnel Hill Trail – we need more trail linkages from town to town
- Rails to trails

- Support from healthcare and hospitals – helmet fitting, exercise, etc.

What are the worst things about cycling in Illinois?

- Previous attempts at trail from Murphysboro to Carbondale – all have failed
- Previous attempt at regional plan fell apart – no funding, no regional leadership

What needs to be changed or addressed? (includes other observations)

- Complete Streets policy creates a hodgepodge network of facilities
- What about banking bike/ped projects and allocating those to high-priority projects?
- Money needed for safety – enforcing three foot passing law
- Stronger sentencing for hitting cyclists
- County, chamber, local governments and other players are building momentum, engaging the public
- Rumble strips can create issues – but may be required for federal funding
- How can our region continue to support the plan and pull together information to share with state?
- How will regional and local entities stay involved and coordinate with the state after the plan is complete?
- Bringing bicycling into driver's education – maybe additional programs, events, exam and prep book
- Are roundabouts going to be promoted more by the state? How do roundabouts effect cycling?
- Will there be site-specific recommendations?
- Urban versus rural contexts will be an important consideration
- Don't discount downstate interest by lack of numbers compared to Chicago
- Debris and maintenance
- Consider adding bike trails in multi-year program to map in order to show public what's coming

Carbondale Public Meeting – 8/1/13

Who is riding? Where? Why?

- Murphysboro
- Mt. Vernon
- Carterville
- Union County
- Crab Orchard
- State Highways – 13, 15, 37, 142, 147 – with or without shoulders
- Residential areas
- In town
- Errands
- School
- Giant City Road
- Tunnel Hill
- To Work
- Touring cyclists
- Fitness riders in rural areas
    - Not a lot of kids riding to school: Parents won't let them and schools don't encourage bicycling – provide only one small rack at junior high
- People do drive to trails, but there's only one trail worth driving to

What are the best things about cycling in Illinois?

- Vistas, hills landscapes
- Back roads
- Some rural roads are returning to gravel as funding decreases
- Need better signage for touring routes
- Weather is better in the south end of state
- Positive community – university culture
- When you ride, you can connect better with your environment and nature
- "The best sight I saw on the trail was this: a mother, a father, children and grandma and grandpa. And guess what they were all riding? Bikes!"

Comment Excerpts:

"The best sight I saw on the trail was this: a mother, a father, children and grandma and grandpa. And guess what they were all riding? Bikes!"

Not a single state highway with a sign for Tunnel Hill Trail

Many people know not to ride on the sidewalk, but they do it anyway (because that's where they feel comfortable or you're forced to ride there because you have no other choice

Clearing glass, debris, gravel from shoulders and roads

"I'd be happy if you did 20% of the things we talked about tonight."

Carbondale Public Meeting

What are the worst things about cycling in Illinois?

- Distracted driving

- Equestrian crowd doesn't like sharing the road
- Giant City State Park allows horses on trails but not bikes
- Need more connections to state parks
- Amtrak bicycle policy is terrible – limits number of bikes, doesn't allow recumbent bikes
- No racks on busses
- Traffic signals not sensitive enough to detect bikes and timing not long enough for cyclists to cross major state highways like Highway 13
- Lack of number of bicycles means that motorists aren't comfortable – they need to see more cyclists to be safe
- Some major state highways are just too dangerous to cross (Highway 13)
- 2 people killed on Highway 13
- Lack of communication for cyclists to be involved in planning process – cyclists need more influence in funding decisions; need more opportunities for public comment
- Lack of bike parking
- Deteriorated roads
- Not a single state highway with a sign for Tunnel Hill Trail
- Signage misleading on Hwy 15
- Highway 127 is dangerous
- Bike theft among kids

What needs to be changed or addressed? (includes other observations)

- Get businesses to encourage kids to bike and get the state and city behind it
- Need maintenance tool/mapping tool/issues tool – something like Strava
- Tack popular routes, identify projects
- Law Enforcement Officer in the crowd
    - Frankly I don't bike in this community; I'm afraid of biking
    - I see a lot of sidewalk riding, a lot of wrong way riding
    - Tough to get from A to B without breaking the law
    - Typically, I don't give tickets to cyclists. They usually only get tickets if they cause wrecks
    - Primarily educate cyclists about riding at night without lights
- Not many people understand the rules
- Many people know not to ride on the sidewalk, but they do it anyway (because that's where they feel comfortable or you're forced to ride there because you have no other choice
- Connectivity between trails
- More trails
- Rumble strips ruin shoulders
- More signs to encourage bicycling, bicycle safety, motorist behavior
- Giant City Road to State Park – added rumble strips to middle of shoulder
- Places to get off road and let cars pass
- Clearing glass, debris, gravel from shoulders and roads

- More striping, symbols, barriers – identification and segregation
- Connections to parks and green space
- Educate and indicate to motorists where/how to pass cyclists
- Deal with drainage grates – some are still parallel
- Encourage and promote cycling as viable transportation mode
- Safe connections between shoulders
- Clean shoulders
- Some limited access highways aren't designed for cyclists
- Need street sweepers and maintenance
- Neighborhoods – not enough education for children – especially in impoverished areas
    - Need program to issue helmets to impoverished kids
    - Boys + Girls Blub has bike rodeos, refurbished bike program, helmet fitting – these programs need to be expanded
    - No large sponsored rides – have to go elsewhere. Need to encourage cities to invite these types of rides
- "Thank you. Fight the powers that be and make it happen."
- "I'd be happy if you did 20% of the things we talked about tonight."

Appendix E - Transportation Professionals Survey Results Summary

Introduction

Recognizing the importance of transportation professionals in the development of local, regional, and state-wide bicycle facilities, the Plan team developed a two-page survey to provide a unique input mechanism for planners, engineers, designers, consultants, advocates and other transportation professionals. At each of the nine transportation professionals meetings held throughout the state in July and August of 2013, participants completed the two-page survey pertaining to bicycle facility design and implementation. The survey gauged transportation professionals' familiarity with current IDOT and national design resources, perceptions of current policies and procedures, and desired assistance to support the development of bicycle facilities in their local districts. The following paragraphs detail the survey format, summarize the survey responses, and highlight important regional differences.

Survey Questions

Format

The survey itself consisted of four multi-part questions, each of which asked respondents to rank a number of statements on a scale of one to five.

Familiarity with Design Resources

There are numerous guides and resources available to assist transportation professionals in planning, designing, constructing, maintaining, and even evaluating bicycle facilities. Some resources are adopted as policy guides, while others simply provide supplemental assistance. The first survey question asked respondents to rank their familiarity (on a scale of one to five, five being most familiar) with IDOT BDE and BLR sections pertaining to bicycle facilities, as well as the two most recent editions of AASHTO's *Guide for the Development of Bicycle Facilities*, published in 1999 and 2012.

Survey results indicate that meeting attendees had little to moderate familiarity with each of the three resources listed above. Table 1 on the following page shows average rating for each question ranging between 2.23 and 2.33, which indicates only a small level of familiarity with each document. When analyzed in greater detail, it becomes apparent that a significant proportion of participants had no experience at all with these resources. Forty-four percent had no familiarity with Chapter 17 of the BDE or Chapter 42 of the BLR; 34% have no familiarity with the 2012 AASHTO Bike Guide; and 33% of respondents have no familiarity with the 1999 AASHTO Bike Guide. Conversely, only 14%, 11% and 10% were very familiar with these three documents, respectively. These numbers can be partly attributed to the fact that many participants in the transportation professionals meeting weren't necessarily in a position that would require them to be familiar with these documents. Aside from

IDOT staff members, participants included local and county engineers, local and MPO planning staff, representatives from other offices of state government such as the department of tourism, representatives from local healthcare providers, and local officials.

Table 1: Question One Responses

Use a scale of 1-5 to answer the questions below, with 5 representing "very" and 1 "not at all."							
Answer Options	**1**	**2**	**3**	**4**	**5**	**Rating Average**	**Response Count**
How familiar are you with Chapter 17 of the BDE or Chapter 42 of the BLR? Do you use it in your work?	75	30	21	19	23	2.32	168
How familiar are you with the 2012 AASHTO Guide to Bicycle Facilities?	45	37	26	10	14	2.33	132
How familiar are you with the 1999 AASHTO Bike Guide?	33	22	12	8	8	2.23	83
						answered question	**169**
						skipped question	**16**

Policies and Procedures

There are many organizational and procedural policies that guide the development of bicycle facilities in the State of Illinois. Coordination with local agencies, funding availability, available IDOT resources, training and professional development, and other factors determine how, when, where, and what type of bicycle facilities are built. The second survey question asked respondents to rank their agreement (on a scale of one to five, five being the highest level of agreement) with a number of statements pertaining to organizational and procedural policies. Each of the 18 statements are active in nature, insofar as each one indicates some course of action or change to current policies and procedures pertaining to bicycle infrastructure.

Average ratings for each statement ranged from 3.64 to 4.33, suggested a general level of agreement with the statements listed in the question. The five statements that received the highest average rating are listed below:

- 4.33 - IDOT should build a statewide database of local bicycle (and potentially pedestrian) plans.
- 4.33 – If IDOT is to be truly multi-modal it should include the total cost of bike and pedestrian facilities into the overall project cost.
- 4.18 - IDOT should work to encourage Complete Streets at the local level.
- 4.16 - Funding is often the restriction for acceptance by communities, especially if there isn't local support or they don't understand the reasoning for a project. This issue should be addressed.
- 4.06 - The planning process should engage communities earlier with regards to bike/ped accommodations.

This moderate to high level of agreement with all statements also suggests that transportation professionals feel IDOT should be doing more to support local agencies and IDOT district offices in the planning, design, and funding of local bicycle projects. Four of the five highest-rated statements point to the need for more engagement with local communities at all stages of a project, from conception to completion. Local communities are project partners, and while their involvement may vary from project to project, their understanding and support can make or break a project, particularly if bicycle facilities are a significant component. While some of the statements in this question received higher average rankings, each and every one represents an opportunity for IDOT to improve its ability (and its local partners' abilities) to support bicycling as a viable mode of transportation.

Professional Needs

Transportation professionals make important decisions every day that impact the bicycling environment in the State of Illinois. These important decisions are based on IDOT policy, state and federal standards, AASHTO guidelines, and other important resources, as well as sound engineering judgment. Despite the breadth of guidance available, some decisions and courses of action may require knowledge and experience not available to local professionals. Question three of the transportation professionals survey asks respondents to rate their need for and/or interest in additional guidance, clarification, or information on a number of topics. Each topic was ranked on a scale of one to five, with five indicating the greatest need for and/or interest in additional guidance, clarification or information.

While there was greater disparity between average ratings for each topic than seen in the previous question, the difference between the highest (4.36) and lowest (3.14) average rating was only 1.32 points, suggesting that there is a general need for additional guidance and clarification for all of the topics listed in this question. The five topics that received the highest scores are listed below:

- 4.36 - Funding strategies.
- 4.07 - Design options if sidepaths are unfeasible because of ROW constraints or driveway conflicts.
- 4.06 - How to implement complete Streets with current funding and design environments.
- 3.93 - Guidance on innovative facilities used in other contexts/geographies.
- 3.93 - Methods for determining the most appropriate bicycle accommodation, given road type, land use, density, and alternative routes. For example, are these important/necessary on all rural roads and over all structures?

Funding for bicycle projects is a constant challenge, and the highest average rating of 4.36 suggests that not only is there a lack of information about funding strategies for bicycle projects, but, perhaps more importantly, that there is a desire on the part of local transportation professionals to find more funding strategies to implement bicycle projects throughout Illinois. The topic with the third highest average rating also points to the lack of funding (strategies) as a limiting factor in the development of bikeways, perhaps indicating that professionals see the incorporation of bicycle facilities as a challenge to do more with less (funding).

The other three highest-rated topics dealt with facility selection and design, particularly with respect to the challenges and context of individual projects. Right-of-way constraints; adjacent land uses; roadway type, speed, and volumes; and other factors unique to a particular project have a significant impact on the selection and design of bicycle facilities. Additional resources and decision-making tools can support local professionals in developing bikeways that are sensitive to these factors while still providing an adequate level of service for bicyclists.

Transportation professionals also identified the need for additional information and guidance on innovative bicycle facilities. This suggests a desire on the part of local engineers, planners, advocates, and other transportation professionals to understand the needs and benefits of cutting-edge bikeway designs.

Bicycle Facility Types

As noted above, the evolution of bikeway design has brought with it a great diversity of bicycle facility types. While the body of literature documenting and detailing these bicycle facilities has grown, it has not always reached the end users nearly as quickly. As a result, many transportation professionals lack information regarding standards and guidelines for best practices in bicycle facility types, which can significantly limit facility development and/or bicycle level of service. The final survey question asks transportation professionals to rate their need for and/or interest in design guidance for twenty specific bicycle facility types and design solutions for specific contexts. Each facility type and design solution is rated on a scale of one to five, with five being the highest level of need and/or interest in additional guidance.

The average ratings ranged from 3.29 for safety railings at bicycle facilities, to 4.13 for protected bike lanes. Facility types (bike lanes, protected bike lanes, multi-use trails, bicycle boulevards, etc.), in general, received higher average ratings than design solutions (safety railings at bicycle facilities, trail intersections and access points, signal timing with bike/ped crossings, etc.). The five facility types and design solutions that received the highest scores are listed below:

- 4.13 – Protected bike lanes.
- 4.06 – Standard bike lanes.
- 4.05 – Trails.
- 4.01 – Buffered bike lanes.
- 3.96 – Bicycle friendly shoulders (including rumble strip designs and widths).

Based on the five highest-rated facility types, there is a strong desire for additional guidance for separated facilities, both on-road and off. The high ratings for additional guidance on protected and buffered bike lanes reflects transportation professionals' need for resources to develop innovative facilities, as well as the growing interest in and demand for these innovative facilities, particularly in larger urban areas. Standard bike lanes, bicycle-friendly shoulders, and trails are common throughout the State of Illinois, and their inclusion in the top five highest-rated facility types indicates that, despite their prevalence, local transportation professionals still have a need for additional guidance.

Regional differences

The transportation professionals survey was administered at nine meetings held throughout the State of Illinois, each corresponding to a local IDOT district and/or metropolitan planning organization. When the survey data is cross-tabulated based on location of the meeting that participants attended, some unique regional differences emerge. While the sample size of survey respondents in each location is relatively small (Chicago, the largest with 53; Rockford, the smallest with 9), these regional differences point to specific challenges and contexts in which transportation professionals are operating. Listed below are some of the most telling regional differences that have been extracted from the surveys:

- In the Chicago region, some of the main concerns were with issues surrounding bicycle level of service, and alternative roadway treatments where sidepaths are not feasible.
- In the St. Louis region, guidance on funding, alternatives to sidepaths and the accommodation of bicyclists and pedestrians across bridges and underpasses were most desired.
- Many smaller cities, encompassed by rural areas cited funding strategies as a priority as well as the accommodation of bicyclists and pedestrians on bridges and underpasses. Trails and sidepath design guidance were also a more prominent issue in these areas, likely due to many of these communities being surrounded by large arterial roadways with available rights- of way.
- As would be expected, guidance on bicycle friendly shoulders was more desired in smaller cities and more rural areas.

Summary

IDOT's commitment to improving and maintaining an integrated, multi-modal transportation system will require considerable focus on bicycle transportation. Like IDOT, many transportation professionals strive to make bicycling a part of their transportation networks, yet the limited availability of funding, interagency cooperation and coordination, and the continuing evolution of bikeway design have created hardships in achieving this goal. As local transportation professionals throughout the state work to implement Complete Streets and develop local and regional bikeways, IDOT must find creative funding strategies and new mechanisms and resources with which to support local agencies in the planning, designing, engineering, construction, and maintenance of bicycle facility projects.

Appendix F: Illinois Vehicle Laws Relevant to Cycling

Legislation and enforcement was ranked a four out of a possible five points in the 2013 League of American Bicyclists Bicycle Friendly State scorecard for Illinois. Overall, Illinois has well-defined laws that support and legally protect bicyclists operating on state roadways. Illinois was one of the first states in the nation to pass a "vulnerable users law" in 2010 which imposes harsher legal and financial penalties on drivers causing serious injury and death to pedestrians, bicyclists or motorcyclists when the driver is at fault. Illinois also passed a three-foot passing law in 2007, which protects bicyclists from motor vehicles passing at unsafe distances.

Other laws in Illinois important to promoting a safe environment for bicycling include:

Sec. 11-1407. Opening and closing vehicle doors – This law legally protects bicyclists from "dooring" type injuries, where a bicyclist riding adjacent to a parking lane gets struck as a result of someone opening a car door along the parking lane.

Sec. 11-1505. Position of bicycles and motorized pedal cycles on roadways – This law requires bicyclists to ride as close as practicable to the right of the roadway, but gives them the flexibility to ride in other positions if conditions warrant this.

> **Discussion:** Adding the exception: *when the operator must necessarily drive in a lane other than the right-hand lane to continue on such operator's intended route* could add more flexibility for bicyclists and strengthen this law.

Sec. 11-1505.1. Don't ride more than 2 abreast; stay in one lane – This law allows riders the flexibility to ride two abreast along the roadway so long that it doesn't impede normal traffic operations. This law provides added comfort for bicyclists.

Sec. 11-1507. Lamps and other equipment on bicycles (a) – This law requires that bicyclists use lights on the front and the rear of the bike when operating at nighttime.

(a) Every bicycle when in use at nighttime shall be equipped with a headlight on the front emitting a white light visible from a distance of at least 500 feet to the front and 300 feet to the sides, and a taillight on the rear emitting a steady or flashing red light visible from a distance of at least 500 feet to the rear.

Chicago Bicycle Law Best Practices

The following City of Chicago laws build upon State legislation that is supportive of safe bicycling. These laws could be adopted by the state to further promote safer bicycling statewide.

Chapter 1, 9-4-025 Bicycle Safety Violation Penalty – *The City of Chicago revised laws in 2013 to increase penalties for both motor vehicles and bicyclists violating traffic laws that endanger or harm bicyclists.*

Chapter 1, 9-52 Section 9-52-110 – *This law extends the ban on using a cell phone without a hand's free device to bicyclists.*

Sec. 11-1507. Lamps and other equipment on bicycles (c) – This section of the law currently reads "every bicycle shall be equipped with a brake which will adequately control movement of and stop and hold such bicycle."

> **Discussion:** It could be strengthened by adding specific requirements such as "every bicycle shall be equipped with a brake or brakes which will enable its driver to stop the bicycle within 15 feet from a speed of 10 miles per hour on dry, level, clean pavement."

Sec. 11-704. When overtaking on the right is permitted. – This law was recently amended in May 2013 to clarify that bicyclists may pass vehicles on the right, by adding "this subsection does not apply to devices propelled by human power." The original law stated: "The driver of a 2 wheeled vehicle may not pass upon the right of any other vehicle proceeding in the same direction unless the unobstructed pavement to the right of the vehicle being passed is of a width of not less than 8 feet."

> **Discussion:** Clarifying laws to better accommodate and protect bicyclists acknowledges differences in the way the modes work.

Cell Phone and Distracted Driving Laws – Bus drivers, drivers in school or construction zones, drivers under the age of 19, and drivers currently holding a learners permit are not permitted to drive and talk on a cell phone. In 2013, all drivers were banned from talking on a cell phone without a hands-free device. **Sec. 11-503.5 Distracted Driving Law** permits ticketing of people while driving distracted; there are discussions of even tougher laws against offenders who cause great bodily harm to others. Under new proposals, drivers could be charged with a Class A misdemeanor or a Class 4 felony if another person is greatly injured or killed. Stronger distracted driving laws are beneficial for all drivers.

Section 1-113 (a) Stopping for Pedestrians in Crosswalks – This law requires motor vehicles to stop for pedestrians in crosswalks.

> **Discussion:** While it does not technically apply to bicyclists, they would arguably be protected under the same legislation at locations such as trail crossings, shared use path crossings, or where they are walking their bicycle across a crosswalk. People on bikes not stopping or yielding to pedestrians is also an issue. More education is needed.

Appendix G -- Illinois State Transportation Plan Policies and Action Items

The following are policies and action items identified in the 2012 Illinois Long Range State Transportation Plan. Highlighted policies indicate policies or action items that justify or pertain to the Illinois State Bicycle Plan. Items in parenthesis following highlighted bullets are suggestions on how this policy or action item could be realized.

Guiding Policy: Develop a Sustainable Illinois Transportation System

Action Items:

- Develop a sustainability score card template to be used to measure plans, programs and projects from a multi-modal perspective that considers each phase of the Department's primary work responsibilities.
- Reduce inefficiencies in the environmental permitting processes by establishing an interagency working group with EPA, HPA and FHWA to enhance economic development efforts while still protecting the environment.
- Continue to work with resource agencies to develop best management practices for environmental mitigation.
- Implement reporting mechanism for sustainability performance measures for both internal Department operations and for all IDOT transportation programs.
- Enhance coordination with MPO's to support improved transportation and land use compatibility in urbanized areas and coordinate with affected local jurisdictions on a corridor level when developing project plans.
- Promote sustainable and alternative forms of non- motorized transportation.
- Follow through on recommendations made by the Context Sensitive Solutions Peer Exchange Committee.
- Conduct a detailed analysis for waterway planning.
- Develop and implement an agency-wide training program on the sustainability mission of the Department.

#1 Improve Transportation Safety

Goals:

- Maintain the performance of the Illinois transportation system at a high level to ensure the safety of all users, including transportation operators, passengers, shippers and pedestrians.
- Continue to improve system safety by instituting and supporting safety programs to lower the number of fatalities and life-altering injuries.
- Promote the identification of specific emphasis areas to improve transportation safety through a statewide evaluation of safety problems, performance and multi-stakeholder input.
- Continue to develop comprehensive, coordinated, and communicative safety strategies that focus on engineering, education, enforcement, and emergency medical services for all emphasis areas.
- Promote development of improved and new transportation system design, engineering, and operating technologies to increase system safety. (Cycle Tracks?)
- Promote safe and convenient travel facilities for vulnerable users.
- Provide a continuing program of public information and education to promote safety awareness and implementation of safety practices. (Program Recommendations)
- Cooperate with other agencies to ensure prompt response to crashes on the transportation system and timely resolution of environmental and other problems, such as hazardous waste sites, encountered when improving transportation facilities.

Action Items:

- Enhance coordination between the Safety Plan, Long-Range Transportation Plan, Statewide Programs and Metropolitan Transportation Improvement Programs and Plans. (reflect in bike plan)
- Implement the existing Safety Plan and develop innovative programs to enhance transportation safety.
- Establish procedures and utilize technology to explicitly incorporate safety into the transportation management process to evaluate and improve transportation safety performance. (Crash data recommendations)
- Partner with local, statewide, and federal agencies to monitor and manage the safety performance of the statewide freight system.
- Promote the funding that incorporates clear and measurable traffic safety provisions for all modes.
- Provide annual report on safety performance, safety programs initiated, and priority recommendations to the Secretary by the first Tuesday in November (prior to MYP program development cycle start). (maybe, should include bikes)

#2 Provide a Transportation System that Offers a High Degree of Multi-modal Connectivity, Mobility, and Accessibility

Goals:

- Provide an efficient transportation system that facilitates connectivity and transfers between all feasible modes and between intercity and local transportation systems, and provides access between all areas of the State. (bicycle interconnectivity, bike share?)
- Provide transportation users with the greatest mobility, accessibility, reliability and flexibility possible within available resources. (More funding for bikes)
- Strive to provide and enhance mobility and access to the transportation system for seniors and individuals with disabilities and the traditionally underserved populations, including low-income and minority households. (Bicycling fits into this goal)
- Explore opportunities to expand and enhance appropriate transit, pedestrian and bicycle systems and encourage use of these systems.
- Support human service transportation through public transportation programs focused on meeting the needs of the transportation-disadvantaged, including elderly, disabled, and low-income users.
- Maintain the performance of the Illinois transportation system to provide a high level of reliability to ensure the efficiency and on-time performance of transportation services. (bike facility maintenance)
- Preserve rights-of-way for construction of future transportation facilities.

Action Items:

- Increase modal alternatives on key freight corridors and encourage the development of intermodal facilities where there is market support for such facilities.
- Establish a procedure for monitoring the condition and operational status of National Highway System (NHS) Intermodal Connectors and other last-mile connections to important freight generation sites.
- Provide bikeway and walkway systems that are integrated with other transportation systems.
- Enhance coordination with MPOs, regional planning and local planning entities to improve modal connectivity, mobility, and accessibility.

#3 Provide for Efficient Freight Movement

Goals:

- Facilitate and enhance mobility and connectivity to the transportation system for freight movement.
- Identify international and interstate freight transportation needs and market opportunities
- Identify access needs to water ports, airports, major freight distribution corridors' and intermodal transfer facilities.
- Facilitate an understanding of the importance of freight mobility to the State's economy and quality of life.
- Coordinate with private sector freight stakeholders, metropolitan planning organizations, and other affected parties regarding freight needs and strategies
- Integrate freight considerations in the planning process.
- Maintain and invest in a freight transportation system that supports State, regional, and local economic development goals.
- In cooperation with other State agencies, support policies and programs that enhance the freight transportation system

Action Items:

- Adopt a "Zero Backlog" requirement for the Interstate highway System to support supply chain connectivity, efficiency, flexibility and reliability.
- Coordinate with private sector freight stakeholders, metropolitan planning organizations, and other affected parties regarding freight needs and strategies.
- Work with freight industry partners to help integrate an efficient and reliable freight system.
- Identify and rank freight bottlenecks, corridor constraints or chokepoints, in particular those located on the Strategic Freight System.
- Target short-line rail and port terminals for potential for public-private funding opportunities to expand capacity and upgrade transportation infrastucture to meet growing needs.

#4 Integrate Human Capital into Department Planning, Programs, and Policies

Goals:

- Incorporate human capital planning when designing and implementing policies and programs.
- Develop a workforce planning strategy that identifies current and future human capital needs, including the knowledge, skills, and abilities needed to obtain and retain jobs in the transportation industry.
- Use proven human capital strategies and programs to recruit and retain a diverse and highly skilled workforce.
- Maintain a competent and effective workforce through targeted education, training and employee development.
- Sustain a transportation workforce that represents the diversity of the population of Illinois.
- Develop measures of effectiveness for human capital policies and programs to assess their effectiveness
- Coordinate and partner with educational institutions, industry, organized labor, workforce boards, and other agencies/organizations to address human capital transportation needs.

Action Items:

- Develop a workforce planning strategy that identifies current and future human capital needs, including the knowledge, skills, and abilities needed to obtain and retain jobs in the transportation industry
- Maintain a competent and effective workforce through targeted education, training and employee development.
- Integrate human capital planning with IDOT's annual planning process
- Support the highway construction careers training program. Measure results and work with industry and labor to fine tune the program to make graduates even more competitive.

This could include funding a department (rather than just a coordinator) to oversee the state's bike/ped efforts and/or having coordinators for each district

#5 Preserve and Manage the Existing Transportation System

Goals:

- Preserve existing transportation systems to provide safe, convenient and efficient transportation.
- Maintain comprehensive management systems and performance measures for bridges and structures, highways, traffic congestion, public transportation, airports, safety, and intermodal connections.
- Promote innovative management practices and technologies to ensure the cost-effective expenditure of public funds.
- Ensure that transportation system design and engineering methods are state of the practice and include robust life-cycle cost analysis procedures.

- Explore innovative and sustainable construction techniques, materials, and construction contract arrangements to improve the service life of transportation facilities, gain cost efficiencies, minimize construction time periods and conserve resources
- Encourage dissemination of innovative methods and techniques on system management, design, engineering, materials, construction and construction contracts to local governments and other transportation providers.

Action Items:

- Maintain comprehensive management systems and performance measures for bridges and structures, highways, traffic congestion, public transportation, airports, safety, and intermodal connections.
- Continue investigation and research into new innovative and sustainable materials, construction techniques, and construction contract arrangements to enhance system preservation.
- Achieve and maintain a state of good repair for transportation assets for all modes.
- Enhance coordination with transportation providers and local jurisdictions and agencies regarding transportation infrastructure preservation.

Bicycling fits into this goal. Improving bicycle accommodations and users along roadways increases the overall traffic capacity. Adding shoulders to roadways increases surface life. Smaller roadways lessen construction and maintenance costs.

#6 Address Congestion and Maximize Efficiency and Effectiveness through Transportation Operations

Goals:

- Improve communications with transportation system users to reduce travel times and improve convenience.
- Encourage strategies to reduce reliance of single occupant vehicles where other options are feasible and can be made available.
- Improve public transportation, bicycle and pedestrian opportunities, and implement demand management strategies to better utilize existing transportation systems.
- Strive to integrate all modes to create a high performing intermodal transportation system.
- Continue to effectively manage access to state highway facilities.
- Explore the effectiveness of managed lanes and congestion pricing as strategies to reduce congestion.
- Adapt and enhance existing systems to meet new transportation demands and consider proposed expansion of existing systems or construction of new facilities where mobility in an area is not adequately provided by the existing systems.
- Explore the use of new technologies to improve transportation operations, traveler convenience, and system reliability. (Bike Share) (Bike parking)

Action Items:

- Prepare and complete a statewide congestion Plan.

- Jointly identify opportunities that exist for rideshare parking or HOV lanes.
- Work in collaboration with MPOs to implement Transportation Demand Management planning initiatives.
- Identify key traveler amenities needed to attract and support use of transit related shelters. (bike parking)
- Promote innovative operations and private sector partnering to improve incident and intersection management.
- Develop and implement Managed Lanes policies to increase traffic flow productivity of highway network.

#7 Follow a Comprehensive Transportation Planning Process

Goals:

- Maintain a continuing, cooperative and comprehensive (3-C) state-local transportation planning process that includes and effectively coordinates the transportation plans and programs of the state, metropolitan planning organizations, affected nonmetropolitan officials with responsibility for transportation, affected public agencies, modal and transportation industry representatives, and citizens.
- Promote and provide a meaningful public involvement process that ensures the opportunity for all stakeholders, including the disabled and traditionally underserved communities, to have early and continuing input at major decision points in the transportation planning process.
- Provide public information and education on transportation issues, goals and plans to encourage public awareness and involvement.
- Maintain close working relationships with federal and other Illinois agencies to comprehensively coordinate planning processes, activities, facilities and services.
- Identify transportation needs that extend into adjacent states and promote bi-state/multi-modal cooperative solutions with transportation agencies in adjacent states to ensure coordinated services and maximum cost effectiveness.

Action Items:

- Strengthen existing transportation planning coordination with MPOs, regional planning agencies and local entities.
- Establish joint state-local planning initiative to focus on transportation-land use integration.
- Provide annual district-developed reports that identify potential impacts and funding priority recommendations to the Secretary by the first Tuesday in November (prior to MYP program development cycle start).
- Enhance IDOTs role in transportation planning.

#8 Promote Funding for the Public Component of the Transportation System

Goals:

- Strive to maintain a transportation funding structure that provides adequate resources for demonstrated transportation needs, incorporating federal, state, local and private revenue sources and one that provides equitable funding for all transportation modes and jurisdictions.
- Support joint public-private partnership and private sector initiatives to provide transportation facilities and services that help to reduce public expenditures and maintain the quality, quantity and long-term stability of transportation facilities and services.
- Support joint use of transportation facilities and rights-of way for compatible non-transportation activities and businesses where they are economically feasible.
- Maintain the user-pay principle to fund transportation facilities and services, charging users and other beneficiaries of the transportation system in proportion to the costs they impose and benefits they derive to the maximum extent possible and extend user-pay financing to new technologies.
- Explore toll opportunities and innovative financing methods, including value capture pricing to fund transportation facilities and services.

Action Items:

- Develop thorough needs analyses to assure a clear understanding of funding shortfalls across all transportation modes.
- Support joint public-private partnership and private sector initiatives to provide transportation facilities and services that help to reduce public expenditures and maintain the quality, quantity and long-term stability of transportation facilities and services.
- Explore innovative approaches to funding projects.
- Continue to seek development of new financing mechanisms that contribute to the overall financial adequacy of the public transportation system.
- Plan and manage transportation finance as a means of contributing to state and local environmental, land use and economic objectives.

#9 Target Transportation Investments to Support Economic Development

Goals:

- Support cost-effective transportation investments, including new facilities and expansion of existing systems that enhance the state's comparative economic advantage and expand or retain economic development and employment.
- Continue the fiber development program that is installing fiber-optic cable throughout Illinois as part of the State's Broadband Opportunity Partnership Program.
- Work with transportation providers to improve and maintain transportation services to Illinois industries and business firms.
- Support transportation investments that attract a larger share of international and interstate trade to Illinois.
- Support transportation investments that attract intrastate, interstate and international tourism to Illinois and provide access to recreational, cultural, historic and scenic facilities. (Touring Bicycle Routes, Greenway trails)
- Maintain a continuing dialogue with representatives of all sectors of the Illinois economy to ensure that economic development opportunities and needs are identified.
- Improve access to jobs for employees across the state.

Action Items:

- Target transportation investments to support business and employment growth and enhance the Illinois economy.
- Promote the expansion and diversification of Illinois' economy through the efficient and effective movement of people, goods, services and information in a safe, energy-efficient and environmentally sound manner.
- Maximize the state's position as a strategic hub for international and domestic trade, visitors, and investment by developing, enhancing, and funding the intermodal system.
- Improve transportation connectivity for people and freight to both established and emerging regional employment centers in rural and urban areas.

#9 Ensure a Compatible Interface of the Transportation System with Environmental, Social, Energy, and Land Use Considerations

Goals:

- Maintain a transportation system and support transportation system improvements that are sustainable, environmentally responsible and support conservation of the state's natural, cultural, historic and aesthetic resources, including renewable resources management and multi-purpose management practices.
- Ensure that sustainability, environmental, social, energy, regional and community, and other nontransportation goals, plans and programs affecting transportation are considered in all phases of the transportation planning process.
- Identify, implement or support investment in transportation facilities and services that effectively address sustainability, social, environmental and energy goals of society.
- Explore innovative methods for mitigating the environmental impacts of transportation facilities and improvements.
- Ensure that transportation decisions consider the effects on land use and development and are consistent with all applicable short-range and long-range land use and development plans.

Action Items:

- Continue to work with resource agencies to develop best management practices for environmental mitigation.
- Continue to work with local planning agencies to develop sustainable transportation projects that support livable communities.
- Develop a Climate Change Adaptation Plan.

#10 Provide a Secure Transportation Infrastructure in Conjunction with the Office of Homeland Security — Illinois Terrorism Task Force

Goals:

- Continue conducting statewide transportation infrastructure safety, security and emergency preparedness assessments.
- Working with federal and state homeland security agencies, continue to prepare for and implement responses to threats.
- Provide training and education and reference materials to appropriate public and private organizations on the security of Illinois transportation systems.
- Develop regional evacuation plans with input from public and private sectors.
- Coordinate with federal, state, county, and local officials and agencies on securing transportation infrastructure.

Action Items:

- Work with Homeland Security to implement its Bridge Security Program.
- Enhance transportation infrastructure buildings security.
- Develop regional evacuation plans with input from public and private sectors.
- Provide transportation security training, education and reference materials to public and private organizations.
- Work with federal and state security agencies to better prepare for and implement responses to threats.

Appendix H- BDE/BLR Review Table & Design Review

BDE and BLR Review Table

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
Illinois BLR - Chapter 6 – Bridge Inventory and Inspections					
		Some districts indicated in interviews that they would like to see bicycle accommodations included in ISIS.			
Illinois BLR - Chapter 31 – Cross Section Elements					
31-1.01(a) Rural		There is no discussion of bicycle accommodation when referring to lane width. This should be a consideration when bicycle accommodations are warranted.			
31-1.01(b) Urban	4. Bicycles. Lane widths may need to be increased to accommodate bicycles; see Chapter 42 for guidance and Chapter 32 for design criteria.	There is no discussion of bicycle facilities other than wide outside lanes. Other bicycle facilities should be included in this section.			
Illinois BLR - Chapter 32 – Geometric Design Tables					
		Typical sections and design tables only include Wide Outside Lanes as bicycle considerations. Wide Outside Lane is referred to as a "Bicycle Lane (shared)" – this conflicts with other instances/definitions of a bicycle lane in the BDE. Design guidance conflicts with tables in Chapter 17 of the BDE; Wide Outside Lanes would not be a design option for these roadways under the facility table in Chapter 17 of the BDE.			
Illinois BLR - Chapter 42 – Bicycle and Pedestrian Accommodations					
24-2.02 Public Coordination		"Trails of Illinois" should be "Trails for Illinois".			
		In general, policy comments are the same as Chapter 17. However, the BLR does address several topics that are left out in the BLR: The BLR provides flexibility in vehicular lane width in both policy and cross-sections, the BLR addresses BLOS and crash data analysis and the BLR provides design guidance on road diets.			
		Bicycle parking is not covered in this chapter. It could be recommended that bicycle parking is to be provided in conjunction with any project that includes on-street vehicle parking stalls.			
	Urban Area. Urban areas are those places identified by the US Bureau of Census as having a population of 50,000 or more.	Under the current definition, this can exclude smaller jurisdictions throughout the state from receiving bicycle and pedestrian accommodations in roadway projects. Rural towns are often very well suited for bicycling due to their gridded street networks, relatively low traffic volumes and slower pace of life. A possible solution to this would be to redefine Urban Area as any incorporated place in Illinois.			
Illinois BDE - Chapter 5 – Local Agency Agreements					

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
5-5.02(o) Bicycle Accommodations	Funding of On-Road Bicycle Lanes and Side Paths.	Five of the districts identified the 20% local cost participation of bike lanes and side paths as being an issue for many jurisdictions, especially smaller ones with limited budgets. While it is an improvement over the previous 50% cost participation for sidepaths, many jurisdictions are still opting out of improvements. Bike lane cost participation has worsened. Several districts suggested that IDOT bear 100% of the cost of bikeway and pedestrian improvements in highway projects such as is the practice in many Peer States such as Washington, New Jersey, Delaware, Massachusetts, Wisconsin, and Minnesota.			
Illinois BDE - Chapter 11 – Phase I Studies					
11-2.02(e) Traffic-Carrying Capacity		The Traffic Carrying Capacity in Phase I studies doesn't include bicycle or Multi-modal LOS considerations. Including more bicycle considerations in the Phase I studies would improve compliance with the Complete Streets policy.			
11-2.02(f) Crash and Skid Reduction Analyses		The Crash Analysis does not include explicit language for bicycle crashes. While all crash types are included when accident data for a particular project is requested, supporting policy language should be incorporated as well. For example the following phrase (p.11-2.6) could be amended to read: The Phase I study should include, as appropriate, the following crash analyses **for all transportation modes** to assist in demonstrating the need for a highway improvement.			
11-2.02(h) Bridge Condition Information		It was mentioned in the district interviews that an inventory of bicycle accommodations on bridges would be useful.			
11-2.04(b) Horizontal Alignment		Although these are e considered in project development, the horizontal alignment portion of Phase I studies should explicitly mention considerations for bicycle facilities, especially sidepaths, as these may influence the final alignment of the project. This will help reiterate the importance of bicycle and Complete Streets considerations.			
11-2.04(d) Cross Section Elements, 11-2.04(e) Intersections and 11-2.04(f) Interchanges		Although bicycle cross section elements are commonly considered in the development of Phase I studies, these sections do not mention Chapter 17. This section could be strengthened by adding references to Chapter 17, reiterating the importance of bicycle and Complete Streets considerations.			
11-2.04(j) Design of 3P and SMART Projects	"Typically the scope of SMART and 3P project includes only ancillary items beyond resurfacing and does not include geometric improvements."	This section does not mention that SMART and 3P projects may be used to incorporate bicycle facilities where they are warranted.			
11-3.02 Logical Termini		Several districts indicated in interviews that logical termini for a highway project and bikeway project are often different. Bicycle connectivity should be addressed in Phase I studies.			
11-4.02(b) Sources of Information		This should take into consideration existing alternative transportation networks as well – this item currently isn't listed here.			
11-5.01 Objective		The objective phase should include an investigation of the pros and cons of different bicycle accommodation designs.			
11-5.03(b) Preliminary Alignments	Use county maps and USGS quad maps in the preparation of base maps for the remaining	Local bicycle plans and transit routes should be indicated on base maps.			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	preliminary alignments. Indicate the following on these base maps:				
11-5.04(b) Sources of Information		This should include information on BLOS of surrounding roadways, bicycle crash data, local and regional bicycle networks (proposed and existing).			
11-5.04(h) Technical Reports		A local bicycle accommodation/connectivity report, which utilizes the bikeways database built for this plan, could be created to help improve fulfillment of IDOT's Complete Street goals.			
11-7.01 Road User Benefit Analysis		The Road User Benefit Analysis should include considerations for improved non-motorized connectivity.			
11-7.03 Value Engineering		The Value Engineering Study should include considerations for improved non-motorized connectivity.			
Illinois BDE - Chapter 12 – Phase I Engineering Reports					
Figure 12-3.A	K. On-Street Parking	This should include bicycle parking.			
	M. Bikeways/Trails 1. Note if route is a recommended road bicycle route or if there is another recommended (alternative) route in the proximity of the improvement.	This should be clarified. The report should note if the route is recommended in local or regional bikeways plans. However, all roads (with limited exceptions) should be accessible by bicycles.			
	5. How project addresses bicycle usage (include specific improvements such as wider lanes, separate path, etc.)	This may not include all areas of the roadway that should be addressed in regard to the accommodation of bicyclists. The project should state how intersections, corridor improvements and access points address bicycling/vehicular/pedestrian conflicts.			
12-3.08(a) 3P and SMART Projects - Report Format and Content		3P and SMART projects can be a cost-effective means of quickly incorporating bicycle accommodations where they are needed. 3P and SMART Project include limited considerations for bicycles. Currently, the 3P project report asks: Do bike accommodations exist along the street or shoulder? Is bike lane resurfacing proposed? And, are new bike accommodations proposed? These reports should ask if bicycle facilities are warranted under current guidance, and what the reasoning for not including them is if they are not.			
Figure 12-3.F - CHECKLIST FOR PHASE I REPORTS	56. Bicycle Accommodations (See Chapter 17). Have accommodations been considered and investigated?	Language is weak in checklist. This could potentially be changed to "Provisions for bicyclist access" or similar to strengthen this.			
Illinois BDE - Chapter 13 – Work Zone Transportation Management Plans					
		Currently there is no information on providing detours for bicyclists through construction projects. This was brought up in district interviews as information that districts wish they had.			
Illinois BDE - Chapter 14 – Intersection Design Studies					
14-3 Data Required for Intersection Design Studies		Intersections can be a barrier for bicyclists if they are not designed with these users in mind. In order to make sure that bicycles are adequately considered in intersection improvements, intersection design studies could take a similar approach to the bicycle travel assessment: looking at bicycling rates in the			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
		area, looking at bicycling generators, looking at existing and proposed bicycling routes, and if necessary, conducting bicycle counts.			
Illinois BDE - Chapter 15 – Interchange Design Studies					
15-2 Interchange Design Studies		Interchanges can be a barrier for bicyclists if they are not designed with these users in mind. In order to make sure that bicycles are adequately considered in intersection improvements, intersection design studies could take a similar approach to the bicycle travel assessment: looking at bicycling rates in the area, looking at bicycling generators, looking at existing and proposed bicycling routes, and if necessary, conducting bicycle counts.			
Illinois BDE - Chapter 17 – Bicycle and Pedestrian Accommodations					
17-1.01 Definitions	6. Urban Area. Urban areas are those places identified by the US Bureau of Census as having a population of 50,000 or more.	The desire for clarification on the definition of urban and rural areas is an issue that was brought up in several district interviews. Under this definition, this can potentially exclude areas within smaller jurisdictions throughout the state from receiving bicycle and pedestrian accommodations in roadway projects – however, bicycle and pedestrian accommodations should be automatically included in all incorporated areas. Rural towns are often very well suited for bicycling due to their gridded street networks, relatively low traffic volumes and slower pace of life. A possible solution to this would be to redefine Urban Area as any incorporated place in Illinois.			
17-1.02 Policies	2. In or within one mile of an urban area, bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any State transportation facility except: a. In pavement resurfacing projects that do not widen the existing traveled way or do not provide stabilized shoulders.	Several districts questioned whether bicycle facilities really should be on every roadway in urban areas. The reasoning for including bicycle and pedestrian accommodations on all warranted urban roadways should be reinforced. Districts also stated that the Complete Streets policy and accompanying regulations lack context. Some districts indicated that they were opting to not widen roadways or add stabilized shoulders in some projects where they are warranted because adding pedestrian and bicycle facilities would make the project infeasible due to cost (due to the need for purchasing additional ROW).			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	An assessment of non-motorized transportation need and the respective appropriate accommodation is central to the fulfillment of this policy. **The location of a project in either urban areas covered in the Highway Code above or non-urban areas is in and of itself insufficient to automatically include or exclude it from consideration. It is still necessary to:**	This language contrasts with the tone of Illinois Highway Code language. The policy reads: "In or within one mile of an urban area, bicycle and pedestrian ways shall be established in conjunction with the construction, reconstruction, or other change of any State transportation facility except…" The tone of the above policy connotes that it is automatic that bicycle accommodations will be included along all urban corridors, unless certain exceptions apply including: lack of significant population or destinations, excessive cost, or exceedingly difficult safety issues. The tone of the policy language to the left could be improved to better reflect the tone of the Complete Streets policy. For example it could alternatively read: "Bicycle considerations will be included in urban and non-urban roadway projects unless the following exceptions are met:" Even if bicycle accommodations are left out due to these exceptions along a corridor, intersections should still permit safe bicycle and pedestrian passage across the corridor where needed.			
17-1.02(a) Exceptions to Consideration of Accommodations	Certain projects, depending on project type or location, can be immediately excluded from consideration of bicycle and pedestrian accommodations. As such, these exceptions require no warrant analyses or needs assessments: Existing pavement resurfacing projects that neither widen the existing traveled way nor provide stabilized shoulders (e.g., SMART, 3P). However, in the development of SMART and 3P projects, consider accommodations that do not change the overall scope of work (e.g., striping changes), but are consistent with Department criteria and the needs of bicyclists; see Section 17-2.02(g).	The language "immediately excluded" may deter designers from "considering accommodations that do not change the overall scope of work." SMART and 3P projects can be a good opportunity to include significant bicycle improvements at minimal cost. The language ("**consider** accommodations") currently does not strongly support this idea.			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
17-1.02(b) Partial Exceptions to Consideration of Accommodations	However, consideration may also be given for new bicycle accommodation on 3-P or SMART projects where local support is evident and the accommodated project remains limited to the overall scope of the original roadwork. For example, reducing traveled way lane widths may provide sufficient space for adding bicycle lanes. Design criteria should be consistent with Section 17-2.01.	SMART and 3P projects can be a great opportunity to include significant bicycle improvements at minimal cost. The language currently does not strongly support this idea ("consideration **may** also be given"). Design standards in section 17-2.01 do not show flexibility in lane widths and bicycle lane width although these are supported in the language.			
17-1.03 Bikeway Warrants - Needs Assessment	The highway or street is designated as a bikeway in a regionally or locally adopted bike plan or is published in a regionally or locally adopted map as a recommended bike route.	This does not include language for planned national bicycle routes.			
	The projected two-way bicycle traffic volume (see Section 17-1.04) will approximate 25 ADT or more during the peak three months of the bicycling season five years after completion of the project.	This issue was brought up in several district interviews. Some districts indicated that they are using the tool from the BLR manual, chapter 42, to determine this number: "If bicycle traffic volume data is not available, the LPA may estimate the bicycle traffic volume by multiplying the highway traffic volume data by the bicycle commuting percentage from census tract data.", but felt like this was an inaccurate metric. The IDOT central office could run corridor analyses for district offices to determine latent demand based on factors such as population, bicycle commute rates, % of car ownership and land use/presence of destinations.			
	The route provides primary access to a park, recreational area, school, or other significant destination.	"Primary access" and "other significant destination" are not clearly defined. Several districts indicated in interviews that logical termini for a highway project and bikeway project are often different. How does this address a bikeway project that won't provide access to significant destinations currently, but may do so in the future following the construction of an extension or connecting route?			
Figure 17-1.A Checklist for Bicycle Travel Generators in Project Vicinity		This list excludes some possible generators such as community centers. "Churches" excludes inclusion of non-Christian places of worship – centers of worship preferred. "Shopping centers" may be interpreted as malls or strip malls – could be changed to shopping destinations.			
17-1.03 Bikeway Warrants - Needs Assessment (Continued)	If independent bikeways or trails are impacted as a result of a highway project, treat such facilities as low-volume roadways in accordance with Chapter 11.	This policy should be located in Chapter 17 for clarity. It is not clear what the low-volume roadway policy is in Chapter 11.			
17-1.04 Determining Bicycle Travel Demand		This section is confusing because it may conflict with warrants presented earlier in the chapter.			
	The concepts of identifying cycling origins and destinations, and thus travel demand, are discussed in the FHWA publication *Selecting Roadway Design*	Several districts indicated that clearer guidance on how to predict bicycle travel demand would be helpful. There are several methods, many of these being very time consuming, listed on the FHWA publication that's referenced.			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	Treatments to Accommodate Bicycles.	The IDOT central office could run corridor analyses for district offices to determine latent demand based on factors such as population, bicycle commute rates, % of car ownership and land use/presence of destinations.			
	Urban and Suburban Areas. Because of the potential for bicycle travel, bicycle accommodation will likely be warranted in the majority of urban and suburban areas, particularly at points of community development that generate, attract, or result in commercial, recreational, or institutional establishments near or along highways.	The Illinois Complete Streets law that states bicycle facilities are warranted within one mile of all urban areas with limited exceptions: "where approved by the Secretary of Transportation based upon documented safety issues, excessive cost or absence of need." Policy language discussing where bicycle facilities are warranted in urban and suburban areas should take a similar tone: assuming first that bicycle facilities are warranted and requiring that project staff document why they aren't warranted where exceptions are made.			
Figure 17-1.D Form For Bicycle Travel Assessment	1) Where would bicyclists cross the project?	The current statement does not require an assessment of crossing safety.			
	5) Does the route provide primary access to a park, recreational area, school, or other significant destination?	"Primary access" and "other significant destination" are not clearly defined.			
	7) Will the projected two-way bicycle traffic volume (see Section 17-1.04) approximate 25 ADT or more during the peak three months of the bicycling season five years after completion of the project.	This issue was brought up in several district interviews. Some districts indicated that they are using the tool from the BLR manual, chapter 42: "If bicycle traffic volume data is not available, the LPA may estimate the bicycle traffic volume by multiplying the highway traffic volume data by the bicycle commuting percentage from census tract data.", but felt like this was an inaccurate metric.			
17-1.04(a) Assessment of Bicycle Travel Within Highway Projects		Several districts indicated in interviews that logical termini for a highway project and bikeway project are often different. How does this address a bikeway project that won't provide access to significant destinations currently, but may do so in the future following the construction of an extension or connecting route?			
17-1.04(b) Bicycle Travel Generators in Project Vicinity	Review and record the potential bicycle travel generators in the vicinity of the project, such as those shown in the checklist in Figure 17-1.A. Note on the checklist the types of generators within 1 mile (2 km) of the project corridor.	Language in BLR is 1.2 mi, these should be consistent			
17-1.07 Funding	Necessary off-roadway accommodations shall be included where they can be accommodated.	Where they can be accommodated is not specific.			
17-2.01 Documentation	After need has been established and the appropriate accommodation has been identified using Figure 17-2.A, it is the responsibility of the district to convey this information to the appropriate local agency.	Three districts stated that bringing a project design to a local government following corridor design often results in the local agency rejecting the design solution (on the premise of cost participation) and results in a redesign of the entire corridor, using additional time.			
	In projects that require local participation, if the local agency chooses not to participate in the bicycle or pedestrian accommodation, the Department will request that that local agency pass a local resolution indicating their non-participation and have this noted in the Phase I report. Proposed resolution	Four districts indicated that the local resolution process has resulted in some significant project delays. Jurisdictions don't want to openly reject bicycle and pedestrian accommodations so they stall on deciding upon the issue. One district suggested creating a response deadline.			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	language is included in Section 17-7. Without local agency participation, the Department will consider the highest and best accommodation feasible.				
	Selection of next highest and best accommodations shall be determined on a case-by-case basis by the district as many variables will need to be considered. This may become an iterative process when considering all project variables.	Currently, the language states that there is no oversight of this process from departmental bicycle/pedestrian experts. This could include a list of district and central office staff who should be included in this process.			
17-2.02(i) Bicycle Routes	Generally, bicycle traffic cannot be diverted to a less direct alternative route unless the favorable factors outweigh the inconvenience to the bicyclist. Roadway conditions such as adequate pavement width, drainage grates, railroad crossings, pavement smoothness, work schedules, and signal responsiveness to bicycles always should be considered before a roadway is identified as a bicycle route.	Guidance on selecting bicycle routes and bicycle route design considerations is limited. While not currently supported, alternate routes can be a good alternative to providing bicycle accommodations on busy roadways with limited ROW if these are convenient and comfortable for bicyclists. However, local bicycle access along busy roadways and safe bicycle crossing still must be taken into consideration. Several districts also voiced this concern.			
17-2.02(g) Additional Considerations for Accommodations on Existing Roadways	Bicycles also can be accommodated on a roadway by marking or re-marking the pavement to increase the width of the curb lane or to add bike lanes. For example, it may be feasible to: -reduce the width of inside traffic lanes in accordance with IDOT and AASHTO criteria; -reduce the median width, especially with the removal of raised curb medians, or the two-way	• The title of the section doesn't clearly explain what's covered in the section. • SMART and 3P projects can be a good opportunity to include significant bicycle improvements at minimal cost. The language ("**can be** accommodated") currently does not strongly support this idea. • Detailed drawings of these concepts depicting a variety of scenarios			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	center turn lane width; -remove parking, possibly in conjunction with providing off-street parking; -reduce the number of traffic lanes (e.g., if one-way couples are created or if a parallel roadway improvement reduces the traffic demand on an adjacent street that is more suited for bicycle travel, subject to analysis of capacity/safety/operational needs); and -where grades for on-road bicycle facilities exceed bike path grades in Figure 17-2.FF, consider using signs to alert bicyclists of upcoming grades.	would help support these concepts and provide design examples.			
Bicycle Parking (not addressed)		Bicycle parking is not covered in this chapter. It could be recommended that bicycle parking is to be provided in conjunction with any project that includes on-street vehicle parking stalls.			
Innovative Facilities (not addressed)		Innovative facility types, typically used in urban areas, are not supported or discussed in the BDE. Several districts recommended that enhanced bicycle facilities being used around the US (such as cycletracks and intersection markings) be discussed in guidance.			
Traffic Calming (not addressed)					
BLOS, MMLOS (not addressed)		No mention of Bicycle Level of Service or Multi-modal level of service as tools to evaluate bicycle comfort and safety in Chapter 17 (although it is mentioned in the BLR manual). Some districts were unaware of what BLOS is. It is possible that this tool could be used to evaluate the impact and need of adding bicycle facilities to a roadway.			
Illinois BDE - Chapter 34 – Cross Section Elements					
34-2.01(a) Width	The use of wider travel lanes generally increases the operational safety and efficiency of the facility. In general, 12 ft (3.6 m) wide travel lanes are preferable for most rural and high-speed urban facilities. Lane widths of 11 ft (3.3 m) are acceptable for restricted urban areas and may be considered on reconstruction projects. Lane widths may need to be increased to accommodate bicycles, see Chapter 17.	The use of wider travel lanes can have negative effects on bicycle comfort and safety. According to Chapter 17, lane width reductions are acceptable in resurfacing or restriping projects as well. Guidance in general does not correspond with design guidance in Chapter 17.			
34-5.05 Other Considerations		This currently does not include considerations for variable lane widths with the purpose of including bicycle accommodations. This could be used as a strategy for reducing ROW requirements with Complete Streets projects.			
Illinois BDE - Chapter 46 – Strategic Regional Arterials					
46-2.12 Pedestrians and Bicyclists	Safe movement and accessibility are key issues for bicyclists and pedestrians. Urban SRA corridors are likely to experience bicyclists and a high volume of pedestrians, which may significantly impact the capacity and operations of the SRA route. One	This policy needs additional language to comply with Illinois Complete Streets Law. Parallel routes are an appropriate accommodation for bicyclists as long as SRA's are designed to allow safe and attractive bicycle access to potential destinations along the route and as long as they permit safe bicycle crossing of the SRA.			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	advantage of urban routes is that there typically are close parallel routes that may be considered for bicycle and pedestrian routes. Identify these parallel facilities as bicycle routes so that the SRA routes can be reserved for vehicular traffic. At major obstacles (e.g., river crossings, canals, railroad bridges, limited access facilities), ensure that adequate provisions are available so that pedestrians and bicyclists have access across these barriers. Chapter 17 provides additional information for bicycle and pedestrian facilities. Chapter 58 provides information on disabled accessibility requirements.				
Illinois BDE - Chapter 47 – Rural Two-Lane/Multi-Lane Highways					
		Typical sections and design tables don't include bicycle considerations. Having common, acceptable types of bicycle accommodations included in standard drawings would help support the idea that "bicycle accommodations are the Department standard, not the exception"			
Illinois BDE - Chapter 48 – Urban Highways and Streets					
		Typical sections and design tables only include Wide Outside Lanes as bicycle considerations. Wide Outside Lane is referred to as a Bicycle Lane (shared) – this conflicts with other instances/definitions of a bicycle lane in the BDE. Design guidance conflicts with tables in Chapter 17, Wide outside lanes would not be a design option for this roadway according to guidance in Chapter 17.			
Illinois BDE - Chapter 49 – 3R Guidelines					
		This chapter currently doesn't reference bicycle considerations or language that allows for flexibility in lane width for the inclusion of bicycle considerations.			
Illinois BDE - Chapter 55 – Work Zone Traffic Control					
55-2.01(d) Pedestrians/Bicyclists	The safe accommodation of pedestrians/bicyclists through the work zone should be addressed early in project development. Whenever possible, work should be done in a manner that does not disrupt existing pedestrian/bicycle facilities; however when such disruption is necessary, the MUTCD requires alternate routes to be provided. Further, the alternate routes shall be detectable and shall include accessibility features consistent with the features present in the existing facility.	The accommodation of bicyclists through work zones is an issue that was brought up in district interviews. Districts requested more detailed guidance and examples of bicycle accommodation through work zones.			
Illinois BDE - Chapter 58 – Special Design Elements					
58-2.03 Design Elements (for off street parking lots)	Bicycle and Motorcycle Storage. Provide bicycle stalls that allow the use of locking devices. Bicycle stalls are typically 2 ft by 6 ft (600 mm by 1.8 m).	This doesn't include a requirement for the number of parking spaces.			

Policy Section	Policy Item	Issue	Priority	Anticipated Impact	Implementation Timeframe
	Motorcycle stalls are 3 ft by 6 ft (1 m by 1.8 m).				

Pedestrian Focused Treatments	FHWA MUTCD (2009)	AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities (2004)	ITE Designing Walkable Urban Thoroughfares : A Context Sensitive Approach (2010)	Illinois Bureau of Design & Environment Manual	Illinois Bureau of Local Roads Manual
Pedestrian Ways				*Note: Ch 17 pedestrian language is extremely limited (2 pages); need significant expansion*	*Note: There is no pedestrian chapter*
Buffered sidewalks	*n/a*	*Included*	*Included*	*n/a*	*n/a*
Pedestrian Scale Lighting	*n/a*	*Included*	*Included*	*n/a*	*n/a*
Street trees	*n/a*	*Included*	*Included*	*n/a*	*n/a*
ADA Curb Ramps	*Approved*	*Included*	*Included*	*Included*	*Included*
Shoulders for Pedestrian Travel	*Approved*	*Included*	*n/a*	*n/a*	*n/a*
Multi-Use Paths	*Approved*	*Included*	*n/a*	*Included*	*Included*
"Sidepaths"	*Compliant*	*Included*	*n/a*	*Included*	*Included*
Un-signalized Crossings					
Midblock Crossings	*Approved*	*Included*	*Included*	*Mentioned but not supported in roadway chapters*	*Mentioned but not supported in roadway chapters*
Marked crosswalks	*Approved*	*Included*	*Included*	*Limited discussion; appears to rely on MUTCD*	*Limited discussion; appears to rely on MUTCD*
Pedestrian Crossing Advanced Warning Signs	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Pedestrian bridges: overpasses and underpasses	*n/a*	*Included*	*n/a*	*Very limited discussion*	*n/a*
In-street pedestrian crossing sign	*Approved*	*Included*	*n/a*	*n/a*	*n/a*
Advance yield/stop lines at crossings	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Raised Crosswalk	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Refuge Island	*Approved*	*Included*	*Included*	*Mentioned but not supported in roadway chapters*	*Mentioned but not supported in roadway chapters*
Two-stage Pedestrian Crossing	*Approved*	*Included*	*Included*	*n/a*	*n/a*
High visibility crosswalks	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Crossing Beacons for use at midblock or unsignalized crosswalks					
Pedestrian hybrid beacon	*Approved*	*n/a*	*n/a*	*n/a*	*n/a*
Conventional Continuous Flashing Warning Beacon	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Active Warning Beacons	*Approved*	*n/a*	*Included*	*n/a*	*n/a*
Rectangular Rapid Flash Beacon	*Interim Approval*	*n/a*	*n/a*	*n/a; mentioned under Roundabouts Ch 36*	*n/a; mentioned under Roundabouts Ch 36*
Signalized Intersections					

Pedestrian Countdown Signal Head	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Pedestrian pushbutton actuators	*Approved*	*Included*	*Included*	*n/a*	*n/a*
"No turn on red" sign	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Leading pedestrian interval	*Compliant**	*Included*	*n/a*	*n/a*	*n/a*
General Roadway Design					
Median island	*Approved*	*Included*	*Included*	*Mentioned in Ch 17 but not supported in roadway chapters*	*Mentioned in Ch 42 but not supported in roadway chapters*
Curb Extension	*n/a*	*Included*	*Included*	*n/a*	*n/a*
Curb radius reductions	*n/a*	*Included*	*Included*	*n/a*	*n/a*
Sight distance considerations	*n/a*	*Included*	*Included*	*Included*	*Included*
Narrow (10') Travel Lanes	*n/a*	*n/a*	*Included*	*n/a*	*n/a*
Road Diet Conversions	*n/a*	*n/a*	*Included*	*n/a*	*n/a*
Single-Lane Roundabouts	*Approved*	*Included*	*Included*	*Included*	*Included*
Multi-lane roundabouts	*Approved*	*Included*	*Included*	*Included*	*Included*
Access Management					
Pedestrian-Friendly Driveways	*n/a*	*Included*	*Included*	*n/a*	*n/a*
Consolidate driveways	*n/a*	*Included*	*Included*	*Included but not in Ch 17 or in support of ped/bike value*	*Included but not in Ch 42 or in support of ped/bike value*
Right-in, right-out Channelization	*n/a*	*Included*	*n/a*	*Included but not in Ch 17 or in support of ped/bike value*	*Included but not in Ch 42 or in support of ped/bike value*
Transit Stop Considerations					
Best practice for transit stop placement	*n/a*	*n/a*	*Included*	*Included*	*Included*
Concrete pads	*n/a*	*Included*	*Included*	*Included*	*Included*
Benches and shelters	*n/a*	*Included*	*Included*	*Included*	*Included*
Lighting	*n/a*	*n/a*	*Included*	*Included*	*Included*
Other					
Low Impact Development/Green Infrastructure	*n/a*	*n/a*	*Included*	*n/a*	*n/a*
Pedestrian Wayfinding Signage	*n/a*	*n/a*	*n/a*	*n/a*	*n/a*
Block Length	*n/a*	*n/a*	*Included*	*n/a*	*n/a*
Traffic Calming					
Mini traffic circles	*Approved*	*Included*	*n/a*	*n/a*	*n/a*
Chicanes	*n/a*	*Included*	*n/a*	*n/a*	*n/a*
Speed humps/tables	*Approved*	*Included*	*Included*	*n/a*	*n/a*
Queueing Streets	*n/a*	*Included*	*n/a*	*n/a*	*n/a*
Woonerf	*Compliant**	*Included*	*n/a*	*n/a*	*n/a*
Full/Partial Closure				*n/a*	*n/a*

Appendix I- Minnesota Statewide Planning & Policy Documents

Summary of Reviewed Documents

Significant State Statutes - Summary of significant points

Highways. Pavement Selection Policies and Procedures - General Information (2-000) Pavement Selection Policies and Procedures (2-013) - Summary of significant points

"Rumble Strips and Stripes on Rural Trunk Highways" Technical Memorandum No. 11-02-T-02 - Summary of significant points

Drainage Manual – Chapter 8 Storm Drainage Systems - Summary of significant points

Legislative Report on Complete Streets - January 2012 - Summary of significant points

Trunk Highway Bridge Improvement Program - January 2012 - Summary of significant points

Trunk Highway. Bicycle and Recreational Vehicle Lanes. Criteria For Desirability Of Lanes - Summary of significant points

Trunk Highway System Bicycle Or Recreational Vehicle Minimum Design Standards - Summary of significant points

Summary of Significant Design/Policy Items

Statutes

Minn. Stat. § 160.264 - Whenever an existing bikeway, pedestrian way, or roadway used by bicycles or pedestrians or the sole access to such is destroyed by any new, reconstructed, or relocated federal, state, or local highway, the road authority responsible shall replace the destroyed facility or access with a comparable facility or access. Replacement is not required where it would be contrary to public safety or when sparsity of population, other available ways or other factors indicate an absence of need for such facility or access.

Minn. Stat. § 165.02 - The road authorities may construct, reconstruct, improve, and maintain bridges whenever they deem bridges to be necessary. Any new or reconstructed bridge may have a separate lane in at least one direction, and may have a lane in both directions, eight feet in width for recreational use. The same may be true for each underpass.

Highways. Pavement Selection Policies and Procedures: General Information (2-000) Pavement Selection Policies and Procedures (2-013)

Cost Participation - MnDOT pays for 100% of costs for bikeways and sidewalks deemed necessary within the trunk highway system ROW and may initiate and be 100% responsible for costs

associated with stand-alone bikeway and pedestrian projects within the trunk highway ROW. Any MnDOT cost participation must be within the trunk highway ROW. All other bikeway and multi-use trail construction will be 100% local responsibility. **(p. 39-40)**

Maintenance of Sidewalks, Bikeways, and Multi-use Trails – Routine maintenance of off-street bikeways is the responsibility of the local unit of government. Routine maintenance of on-street bikeways is the responsibility of MnDOT. Costs for non-routine maintenance (ex. resurfacing projects) will be at the same cost-share level as the initial installation. **(p. 57)**

"Rumble Strips and Stripes on Rural Trunk Highways" Technical Memorandum No. 11-02-T-02

Rumble Strip Use - Shoulder rumble strips are required on all rural highway projects where 4' or wider shoulders are constructed and the speed limit is over 55 MPH. They may also be used along shoulders less than 4' in width.

Rumble Strip Design - In all cases, edgeline rumble stripes may be substituted for shoulder rumble strips and still meet the standards within this Technical Memorandum.

"Shoulder widths that provide less than 4 feet of clear space with rumble strips are not considered adequate to accommodate bicyclists. Where practical and feasible, Districts are encouraged to provide a minimum of a 6 foot paved shoulder where shoulder rumble strips will be placed on trunk highways with existing or potentially significant bicycle travel. **(p.3)**

As stated above and reflected in the attachments, rumble strips as narrow as 8" as well as edgeline rumble stripes may be used at the discretion of the District. Also, while the dimensions in Figures 1 through 4 indicate the typical lateral placement of the shoulder rumble strip, the District has the discretion to deviate from this configuration with input from the State Bicycle Coordinator. Quality control of the lateral placement of rumble strips on these sections must be ensured.

The longitudinal rumble strip pattern for shoulder rumble strips and edgeline rumble stripes on non-freeway segments is to include a 12' gap in each 60' cycle. Refer to Figures 4B and 5B. This remains a standard from the previous two Technical Memoranda that are being combined.

Districts may increase the gap from 12' in downhill sections with the approval of the State Traffic Engineer. **(p. 4)"**

Drainage Manual – Chapter 8 Storm Drainage Systems

Grate Inlets - All grate inlets shall be bicycle safe when used on roadways that allow bicycle travel.

MnDOT Bicycle Modal Plan - MnDOT Policy and Action Plan for Bicycle Transportation

Prioritization - To maximize the cost-effectiveness of future MnDOT investments in bicycle transportation, the following are the prioritized broad categories for safe bicycle accommodation as defined by this plan:

1. All project elements on which bikes are legal within 20 year urbanized areas

2. Projects within 5 miles of Level 3 or larger Regional Trade Centers

3. Minnesota Scenic Bikeways System

4. Other areas where needs exist

Low volume bicycle use in sparsely populated areas should generally be accommodated through cooperative use of available roadway and shoulder areas.

The intent of these priorities is that, if in any given budget year there is insufficient funding to accomplish all bicycle elements or projects that are desired and ready for construction, projects in lower priority categories would not be funded at the expense of those in higher priority categories. **(p. 34)**

Outcome Targets –

1. Bicycle commute rates in Minnesota communities of 5000 or greater population will increase an average of 4% from 2000 levels. **(p. 36)**

2. Fatal and Injury bicycle crash rates are reduced from 2000 rates, contributing to the Toward Zero Deaths program and US DOT goals. **(p. 36)**

3. By 2006: MnDOT will have completed a free right turn traffic calming pilot project as in the *Example 4*, page 56. (B) **(p. 36)**

4. **All** new construction and reconstruction projects in 20 year urban areas, and pavement preservation projects where possible, will include safe and effective bicycle accommodations on those project elements where bicycles are legal, barring exceptional circumstances. (U) **(p. 36)**

5. All crossings of 20-year urban interregional corridor (IRC) improvement projects will include safe and effective bicycle accommodations, barring exceptional circumstances. (U) **(p. 36)**

6. The Minnesota Scenic Bikeways System will be initiated by 2007:6 (R)

a. Partners, roles and contributions will be defined.

b. Minnesota Scenic Bikeways System route concepts will be defined.

c. Target values for miles of tour routes to be identified, signed, and mapped will be established. (p.36)

7. Each district will participate in one or more special bicycle improvement projects per biennium.7 (B) **(p. 36)**

8. Update and unify bike guidance, to be effective and integral, in:

- Minnesota Bicycle Transportation Planning and Design Guidelines (1996)

- Road Design Manual

- Design and Build Manuals

- Bridge Design Manual

- Highway Project Development Process

- Technical Memoranda

- State Aid Manual and Rules

- State Sign Manual **(p.36-37)**

9. Develop, evaluate and institutionalize process for bike-pedestrian reviews of all relevant projects. **(p. 37)**

10. Pilot program for innovative treatments will be developed and launched. **(p. 37)**

11. MnDOT engineers, planners, and transportation specialists and consultants engaged in planning, design, contract management, or cooperative agreements will have completed a one-day bike/pedestrian design training session offered in several locations in the state and using the best available expertise.

- By 2006, 30% will have completed.

- By 2007, 60% will have completed.

- By 2008, 90% will have completed. **(p. 37)**

12.Infrastructure data and data systems will be sufficient to do effective bicycle and pedestrian facility planning. A common vocabulary will be used.

- By 2006, a comprehensive pilot shoulder, bike lane, and bike path inventory will be completed in one district.

- By 2007, comprehensive MnDOT data systems for TH, CSAH, and MSA's will be established.

- By 2009, other partners will have established comparable data systems and data.

- By 2011, MnDOT's comprehensive shoulder and other data will be up to date and managed in a joint effort between MnDOT Transportation Data and Analysis Office and Districts. Shoulder data would include type, width, condition, and rumble strip type. This data is used for mapping purposes, and as baseline data for both maintenance and improvements. **(p. 37)**

Guidance and Definitions for Achieving Select Targets

1. Urban area, urbanized area, "20 year urban areas", and "20 year urbanized areas" are defined to mean those portions of Regional Trade Centers of any size which will meet the density characteristics of Urban Areas or Urban Clusters as defined by the US Census Bureau during the expected useful life of a planned infrastructure improvement in that community. As of 2000, this density definition most essentially means those areas containing one or more block groups or census blocks developed to minimum densities of 1000 people per square mile. This threshold density approximates that of areas of one acre single family lots. The future extent of urbanized areas may be inferred through interpolation or projection of the latest census projections available for subject areas.

For Level 3 or larger Regional Trade Centers, "urban area" et al may also include, at a lower priority, the area five miles beyond that noted above.

The intent of this definition and the policies, measures, and targets related to it is that bicycle infrastructure investments be made in areas where their use is reasonably practical and probable, now and in the future. **(p. 38)**

2. "Other areas where… use levels warrant…" is determined locally and includes recreational areas of the State that attract significant numbers of tourists, plus all projects that fall on Minnesota Scenic Bikeways. **(p. 38)**

3. "Safe accommodations" generally means bike lanes, shoulders, or bike paths consistent with the Minnesota Bicycle Transportation Planning and Design Guidelines (1996). "Effective accommodations" is defined to mean that the facility is well used by the majority of people it could reasonably serve. **(p.38)**

4. "Integral and effective bicycle guidance means that sufficient guidance is made a part of standard road design standards and guidance, and in plan, elevation, cross section, and profile formats, such that resulting facilities are well used by the majority of people they could reasonably serve. **(p. 38)**

5. Paved shoulders on rural segments of all trunk highways are encouraged wherever they can be justified for a variety of purposes. The highest priorities for bicycle shoulders are urban projects and Scenic Bikeways, as outlined by this plan, and expressed on page 36. In other areas with AADT higher than 1000, they may provide some bicycle value as well. Safety for all highway users, including bicyclists, requires that shoulders receive adequate maintenance commensurate with their intended or likely use by bicyclists. For example, those in urbanized areas should receive the highest level of maintenance, on the Minnesota Scenic Bikeways System should receive the next highest level of maintenance, and those on the Trunk Highway System Plan should receive the next highest level of maintenance. **(p. 38-39)**

6. Before the State turns back a road to a county or a county turns back a road to a municipality, a review of the safety and effectiveness of bicycle and pedestrian accommodations should be done, and improvements made where necessary, consistent with policy. **(p. 39)**

7. When a roadway is converted to a controlled access freeway and prohibits bicycles on it pursuant to MS 169.305, that eliminated bicycle access must be replaced by the road authority responsible with a comparable facility, pursuant to MS 160.264. Examples of comparable facilities include a bike path within the right of way of the controlled access freeway, or a well signed alternate route (Treatment 02) on a nearby parallel facility with conditions consistent with MnDOT bikeway design guidelines. **(p. 39)**

8. Exceptional circumstances which permit a plan to omit accommodations for bicycles is defined as the existence of one or more of the following conditions:

a. Where bicyclists are prohibited by law from using the roadway. (Note: In this instance greater effort to accommodate bicyclists elsewhere within the right of way or within the same transportation corridor is necessary.)

b. The cost of establishing bikeways or walkways would be excessively disproportionate to need or probable use. Excessively disproportionate is defined by the FHWA as exceeding twenty percent of the cost of the larger transportation project.11, 12

c. Where sparsity of population or other factors indicate an absence of need.11

d. The existence or development of a duplicate facility serving the same user within a short distance. For example, a parallel facility such as a bicycle bridge exists within one-quarter mile of the proposed facility and already attracts the majority of bicycle traffic. Developing such a bicycle bridge that would attract the majority of bicycle use as part of the MnDOT project can be an alternative to full accommodations on the primary MnDOT facility. **(p. 39)**

9. Exceptions to The MnDOT Bicycle Modal Plan policy provisions must be approved by the Office of Technical Support and be documented with supporting data that indicates the basis for the decision. **(p. 39)**

Supplemental Design Guidance

Regardless of special circumstances, **continuity of condition should be sought wherever possible.** Bicyclists should not be forced to traverse repeated changes in the nature of the travel way. Users should not be expected to repeatedly enter and exit the roadway as they travel a specific route.

Where changes in continuity are necessary, thoughtful *transitions* should be provided to reduce unpredictable behavior and conflicts with other roadway users. Transitions may include signing and signalization, striping, well-positioned and proportioned channelization and ramps, as well as good visibility for all affected users of the roadway. **(p. 53)**

Design Matrix/Guidelines

To most cost-effectively ensure MnDOT's success in the implementation of this Modal Plan, the Bicycle and Pedestrian Unit will be formally included in the project review process. This will be done either by adding the unit to the list of other MnDOT functional units with signoff authority during

the plan review process, or by adding bicycle and pedestrian review to those of the Geometrics and Traffic Engineering offices. **(p. 99)**

A system for regular reporting on progress toward bicycle targets will be developed integral with that for other MnDOT targets. Regular reporting on measures and targets is a valuable way to retain departmental focus, to provide recognition, and to stimulate problem solving in areas that may not be progressing as planned. **(p. 100)**

Local and Regional/MPO Bike Plans

MPOs are federally mandated to plan for bicycles and pedestrians. MnDOT also has a three-fold partnership interest in encouraging and supporting the development of these local and regional bicycle network plans.

First, MnDOT's statutory and leadership responsibility to promote and increase bicycling must, to be effective, be done in partnership with local and regional units of government that control the vast majority of bicycle transportation infrastructure.

Second, to make maximum and most efficient use of bicycle and transit use as congestion and cost management tools also requires these same partnerships, for the same reasons.

And third, while MnDOT's primary and default commitment is to safely accommodate bicycle traffic on all urban infrastructure that it owns where bicycle use is legal, in some cases the precise nature of those investments can be best defined within the context of local and regional bicycle plans. **(p. 100)**

Design Matrix (following page)

Design Strategies Matrix

Design Strategies Matrix: Urban Area Bicycle Treatment Selection[1]

(Treatments 03-10 are numbered in descending order of anticipated preference, for use as available right-of-way (ROW) width decreases.)

AADT	< 5,000 AADT						5,000-10,000 AADT						>10,000 AADT				Limited Access Roadways
Posted Speed	<=30 MPH		31-40 MPH		>40 MPH		<=30 MPH		31-40 MPH		>40 MPH		<40 MPH		>40 MPH		
Vehicular Mix	trucks		trucks		trucks		trucks		trucks		trucks		trucks		trucks		
	<10%	>10%	<10%	>10%	<10%	>10%	<10%	>10%	<10%	>10%	<10%	>10%	<10%	>10%	<10%	>10%	
Functional Class	Collectors ← → Arterials																
01 Bicycle Path/Share Use Path	May be suitable as an alternative to any adjacent roadway with few intersections and >2000 ADDT																
02 Alt Bike Route									Also suitable as an alternative to arterials with >10,000 AADT								
Cross-Section Options (in order of decreasing ROW, and preferance)																	
03 Std Bicycle Lane or Shoulder (>25')													Esp >10,000 AADT				
04 Constrained w/ Parking A (24')																	
05 Constrained w/ Parking B (22')																	
06 — See Pilot Program Treatments —																	
07 Wide Curb Lane (21')																	
Signing & Pavement Marking (≤21')																	
08 — See Pilot Program Treatments —																	
09 — See Pilot Program Treatments —																	
10 — See Pilot Program Treatments —																	
Crossing Treatments																	
11 — See Pilot Program Treatments —																	
12 On/Off Ramp Crossings																	
13 Bicycle & Pedestrian Bridge										These solutions are particularly suitable for high volume and high traffic roadways							
14 Bicycle & Pedestrian Tunnel																	
15 Mixed-Use Path with Barrier																	
16 Raised Bike-Sidewalk on Bridge																	
17 Jersey Barrier Shoulder																	
18 Bus/Van Shuttles																	
Pedestrian Treatment																	
19 Pedestrian Refuges																	
20 Pork Chop Island																	
21 Curb Extension																	
22 — See Pilot Program Treatments —																	
23 Pedestrian signal																	
Scenic Bikeway System																	
24 Scenic Bikeway System Signing																	
Other Treatment Enhancements																	
25 — See Pilot Program Treatments —																	
26 — See Pilot Program Treatments —																	
27 Through Bicycle Lane at Intersection																	
28 Combined Bicycle/Right Turn Lane																	
29 Left Side Bicycle Lane on One-Way																	
30 Signed Shoulder	>4ft	8ft	>4ft	8ft	8ft	8ft	>4ft	8ft	>4ft	8ft	8ft	8ft	>4ft	8ft	8ft	8ft	
31 — See Pilot Program Treatments —																	
32 — See Pilot Program Treatments —																	
33 Rumble Strips																	

Note: 1.) This matrix is designed to complement individual Treatment descriptions in guiding the allocation of available travelway for the health, safety and welfare of all users. Annual average daily traffic (AADT) guidelines are generally based on a two-lane roadway. Speeds shown are posted speeds.See Mn/DOT Bikeways Manual (1996), p 4 (7) for further detail. Treatments 03 through 10 generally appear in order of decreasing preference, and decreasing right of way width. Treatments shown in bold are included in current Mn/DOT standards. Treatments shown in italics are permitted by AASHTO.

2.) Treatments 01 and 02 are best used as *supplements* to one of Treatments 03-10 on the primary roadway. In unusual circumstances, where extremely challenging conditions on the primary roadway make the use of any of Treatments 03-10 not prudent, Treatments 01 or 02 may be used as *substitutes* for any of Treatments 03-10. Particularly in these situations, it is the responsibility of the primary roadway's road authority to ensure the existence of adequate Supplemental Facilities, with the cooperation of the secondary road or trail authorities, as further detailed on page 62.

Recommended Optional Not Recommended

Legislative Report on Complete Streets. January 2012

Statutory recommendations for CS implementation –

• Allow cities and counties with complete streets policies to be exempt from the Minnesota Statute 161 requirement that necessitates a commissioner's speed study before establishing a speed limit other than the statutory defined limit.

• Allow cities and counties with complete streets policies to be exempt from all State Aid design standards.

• Waive the State Aid variance process requirement that requesting agencies assume all liability if the agency has adopted complete streets policies. **(p. 9)**

Trunk Highway Bridge Improvement Program. January 2012

Bicycle and Pedestrian Accommodations - Legislation passed during the 2010 session requires all bridge projects funded under this program in fiscal year 2012 or later must include bicycle and pedestrian accommodations if both sides of the bridge are located within a municipality or the bridge links a pedestrian way, shared-use path, trail or scenic bikeway. Bicycle and pedestrian accommodations are not required if a comprehensive assessment demonstrates that there is an absence of need or there is a reasonable alternative within one-quarter mile of the bridge project. Bicycle and pedestrian accommodations are being implemented in accordance with the requirements of the legislation. **(p. 11)**

Trunk Highway. Bicycle and Recreational Vehicle Lanes. Criteria for Desirability of Lanes.

The Department of Transportation will have sole jurisdiction to establish bicycle or recreational vehicle lanes on the right-of-way of any state trunk highway. The Department of Transportation will be responsible for all designs and construction on all lane facility projects within the right-of-way of any state trunk highway. Any such services performed for other state agencies or local governmental units will be done on a reimbursable basis. The Department of Transportation may provide services for the development of lane facilities for other agencies and local units of government upon request and upon such terms as may be mutually agreed upon. The Department of Transportation will consider building bicycle or recreational vehicle lane facilities during the construction, reconstruction, or improvement of any trunk highway or permit the establishment of such facilities within state trunk highway right-of-way when:

A. a proposed highway project destroys an existing lane of demonstrated or potential use and no desirable alternative is available to the user; or

B. there is no pedestrian or non-motorized access along or across an existing or proposed grade separated or through trunk highway or intersection in an urban area (example: access to the four quadrants created by two intersecting freeways); or

C. there are fringe development areas not meeting the urban district definition along trunk highways that have no non-motorized access (example: residential or commercial development along trunk highways on the outskirts of town); or

D. the facility is part of a comprehensive trail planning process on a local, regional, or statewide basis, and the facility must materially benefit the safety of the traveling public; such as, the elimination of a potential safety hazard caused by anticipated bicycle or recreational vehicle traffic on or near the roadways of a trunk highway (example: heavy bicycle travel along a trunk highway between a town and an outlying school);

E. the highway right-of-way can safely accommodate the facility;

F. there is sufficient projected bicycle or recreational vehicle traffic;

G. the facility cannot be safely and feasibly constructed and utilized outside of the right-of-way (example: no suitable network of adjacent residential streets or existing parallel facilities exist);

H. the facility use does not conflict with existing utilities located on highway right-of-way or adjacent land use;

I. the facility provides commuter transportation; or connects existing or proposed facilities; or connects areas or points of natural, scientific, cultural, historical, educational, or economic interest;

J. multiuse facilities do not conflict with each other or use during more than one season is feasible.

Based upon part 8810.9910, the department will consider the establishment of bicycle or recreational vehicle lanes by use and type in accordance with the traffic volumes and other limitations shown. Exceptions to these traffic volume criteria may be made if good cause can be shown and upon approval of the commissioner of transportation.

As motor vehicle traffic volumes increase the form that a bicycle or recreational vehicle lane may take and traffic control measures (or other physical safety precautions built into the facility) will also increase in physical design and safety standards.

See attachment, following page:

CLASS OF FACILITY AND TRAFFIC LIMITS			BICYCLE OR RECREATIONAL VEHICLE LANE USE								
			BICYCLIST USE					PEDESTRIAN USE & RECREATIONAL VEHICLE USE			
			ROAD DESIGN LIMITATIONS	ROUTE (1)	LANE-NO BARRIER (1)	LANE-WITH BARRIER (2)	PATH (2)	ROAD DESIGN LIMITATIONS	SPECIAL WALKWAY	FACILITY FOR RECREATIONAL VEHICLE
TWO LANE	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	≤ 2,000	≤ 3,000	X	→ 3,000	(R)	N/A	N/A
			(U)	≤ 4,000	≤ 6,000	≥ 6,000	→ 6,000	(U)	N/A	N/A
NO CONTROL OF ACCESS		BICYCLE (A.D.T.)	(R)	≤ 100	≤ 200	X	→ 200	(R)	X	O
			(U)	≤ 100	≤ 200	≥ 200	→ 200	(U)	O	X
MULTIPLE LANE	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	X	≤ 14,000	X	→ 14,000	(R)	N/A	N/A
			(U)	≤ 8,000	≤ 20,000	≥ 20,000	→ 20,000	(U)	N/A	N/A
NO OR PARTIAL CONTROL OF ACCESS		BICYCLE (A.D.T.)	(R)	X	≤ 200	X	→ 200	(R)	X	O
			(U)	≤ 100	≤ 200	≥ 200	→ 200	(U)	O	X
MULTIPLE LANE	AVERAGE DAILY TRAFFIC VOLUME (A.D.T.)	MOTOR VEHICLE (A.D.T.)	(R)	X	X	X	→ 14,000	(R)	N/A	N/A
			(U)	X	X	X	→ 20,000	(U)	N/A	N/A
FULLY CONTROLLED ACCESS		BICYCLE (A.D.T')	(R)	X	X	X	→ 200	(R)	X	O
			(U)	X	X	X	→ 200	(U)	O	X

X - NOT PERMITTED
O - NON CONFLICTING USE

(1) Maximum ADT for Routes and Lanes no barrier.
(2) Minimum ADT for establishment of Lanes with Barrier or Paths.

(R) Rural Section
(U) Urban Section N/A Not Applicable

Trunk Highway System Bicycle Or Recreational Vehicle Minimum Design Standards.

- The vertical clearance between an overhead obstruction and the surface of bicycle or recreational vehicle lanes shall be not less than ten feet (three meters).
- Bicycle facilities shall have a minimum surfaced width of four feet (1.2 meters) for one-way and six feet (1.8 meters) for two-way travel.
- The design speed for bicycle facilities shall not be less than ten mph. For downgrades, design speeds may be in the range of 25 mph or greater.
- The sight distance to any hazard or potential hazard for a bicycle facility shall be a minimum of 50 feet (15.2 meters).
- Bikeway grades should not exceed five percent except for short distances.
- The minimum radius of curvature for bikeways is figured by the formula: R = 1.25 V + 1.5. R = radius of curvature in feet V = velocity in miles per hour.

Appendix J - Oregon Statewide Planning & Policy Documents

Summary of Reviewed Documents

Significant State Statutes and Administrative Rules - Summary of significant points

Oregon Bike and Pedestrian Plan (1995) – Summary of significant points

Oregon Highway Plan (2006) – Summary of significant points

Transportation Safety Action Plan (2011) – Summary of Significant Points

Bicycle and Pedestrian Design Guide (2011) – Summary of Significant Points

State Transportation Improvement Program (2012 – 2015) – Summary of Significant Points

Significant Design/Policy Items

Oregon Revised Statutes (ORSs)

ORS 801.150 "Bicycle."
"Bicycle" means a vehicle that:

(1) Is designed to be operated on the ground on wheels;

(2) Has a seat or saddle for use of the rider;

(3) Is designed to travel with not more than three wheels in contact with the ground;

(4) Is propelled exclusively by human power; and

(5) Has every wheel more than 14 inches in diameter or two tandem wheels either of which is more than 14 inches in diameter. [1983 c.338 §22]

ORS 801.258 "Electric assisted bicycle."
"Electric assisted bicycle" means a vehicle that:

(1) Is designed to be operated on the ground on wheels;

(2) Has a seat or saddle for use of the rider;

(3) Is designed to travel with not more than three wheels in contact with the ground;

(4) Has both fully operative pedals for human propulsion and an electric motor; and

(5) Is equipped with an electric motor that:

(a) Has a power output of not more than 1,000 watts; and

(b) Is incapable of propelling the vehicle at a speed of greater than 20 miles per hour on level ground. [1997 c.400 §2;

1999 c.59 §233]

ORS 801.608 "Vulnerable user of a public way."

"Vulnerable user of a public way" means a pedestrian, a highway worker, a person riding an animal or a person operating any of the following on a public way, crosswalk or shoulder of the highway:

(1) A farm tractor or implement of husbandry without an enclosed shell;

(2) A skateboard;

(3) Roller skates;

(4) In-line skates;

(5) A scooter; or

(6) A bicycle. [2007 c.784 §2]

ORS 352.360 Traffic control on properties under state board; enforcement; fees; use.

(Abridged) <...> (4) All fees and charges for parking privileges and violations are hereby continuously appropriated to the State Board of Higher Education to be used to defray the costs of constructing bicycle racks and bicycle lanes and of traffic control, enforcement of traffic and parking regulations, and maintenance and operation of parking facilities and for the purpose of acquiring and constructing additional parking facilities for vehicles at the various institutions, department or activities under the control of the board, and may also be credited to the Higher Education Bond Sinking Fund provided for in ORS 351.460. Parking fees shall be established at levels no greater than those required to finance the construction, operation and maintenance of parking facilities on the same campus of the institution of the state institution of higher education on which the parking is provided. Notwithstanding ORS 351.072, parking fees or changes in fees shall be adopted by rule of the state board subject to the procedure for rules adopted in ORS 183.310 to 183.550.

ORS 366.460 Construction of sidewalks within highway right of way.

The department may construct and maintain within the right of way of any state highway or section thereof sidewalks, footpaths, bicycle paths or trails for horseback riding or to facilitate the driving of livestock. Before the construction of any of such facilities the department must find and declare that the construction thereof is necessary in the public interest and will contribute to the safety of pedestrians, the motoring public or persons using the highway. Such facilities shall be constructed to permit reasonable ingress and egress to abutting property lawfully entitled to such rights

ORS 366.514 Use of highway fund for footpaths and bicycle trails.

(1) Out of the funds received by the Department of Transportation or by any county or city from the State Highway Fund reasonable amounts shall be expended as necessary to provide footpaths and

bicycle trails, including curb cuts or ramps as part of the project. Footpaths and bicycle trails, including curb cuts or ramps as part of the project, shall be provided wherever a highway, road or street is being constructed, reconstructed or relocated. Funds received from the State Highway Fund may also be expended to maintain footpaths and trails and to provide footpaths and trails along other highways, roads and streets<…>

ORS 381.088 Tolls and franchise fees.
The Department of Transportation may impose and collect tolls and franchise fees for the use of said bridge by all vehicles, pedestrians, public utilities and telecommunications utilities, including power, light, telephone and telegraph wires, and water, gas and oil pipes. [1953 c.389 §2; 1987 c.447 §123]

383.013 Tollway design.
<abridged> (1) The design of each tollway shall at least meet the minimum design standards generally applicable, at the time the Department of Transportation authorizes the tollway, to the state and other units of government authorized to build and own roads, highways, bridges, tunnels, railways and related facilities.

<…>(3) In considering the design of a tollway, the department shall solicit the recommendation of state and local parks departments to consider whether parks or campsites for travelers or bicyclists should be incorporated into the tollway design.

ORS 390.010 Policy of state toward outdoor recreation resources.
The Legislative Assembly recognizes and declares:

<…>

(3) It is in the public interest to increase outdoor recreation opportunities commensurate with the growth in need through necessary and appropriate actions, including, but not limited to, the following:

<...> (h) Provision of trails for horseback riding, hiking, bicycling and motorized trail vehicle riding.

390.962 Criteria for establishing trails; location; statutes authorizing trails for motorized vehicles unaffected.
(1) Upon finding that such trails will meet the criteria established in ORS 390.950 to 390.989 and 390.990 (4) and such supplementary criteria as the department may prescribe, the department is encouraged and empowered to establish and designate Oregon recreation trails:

(a) Over lands owned by the State of Oregon, by the Federal Government or by any county, municipality or other local governmental body, with the consent of the state agency, federal agency, county, municipality or other local governmental body having jurisdiction over the lands involved; or

(b) Over lands owned by private persons, in the manner and subject to the limitations provided in ORS 390.950 to 390.989 and 390.990 (4).

(2) In establishing such trails, the department shall give special recognition to the need for the establishment of recreation trails in or near, or reasonably accessible to, urban areas. Upon the establishment of any such trail, the department shall designate the primary kind of trail it is to be, based upon the mode or modes of travel to be permitted on such trail, including one or more of the following:

(a) Footpath.

(b) Horseback riding trail.

(c) Bicycle path.

(3) Nothing in ORS 390.950 to 390.989 and 390.990 (4) affects any other statute authorizing trails for motorized vehicles which is not inconsistent with ORS 390.950 to 390.989 and 390.990 (4). [1971 c.614 §5]

ORS 807.020 Exemptions from requirement to have Oregon license or permit
<… >

(14)A person may operate a bicycle that is not an electric assisted bicycle without any grant of driving privileges.

(15)A person may operate an electric assisted bicycle without a driver license or driver permit if the person is 16 years of age or older.

ORS 810.150 Drain construction; compliance with bicycle safety requirements; guidelines.
(1) Street drains, sewer drains, storm drains and other similar openings in a roadbed over which traffic must pass that are in any portion of a public way, highway, road, street, footpath or bicycle trail that is available for use by bicycle traffic shall be designed and installed, including any modification of existing drains, with grates or covers so that bicycle traffic may pass over the drains safely and without obstruction or interference.

(2) The department shall adopt construction guidelines for the design of public ways in accordance with this section. Limitations on the applicability of the guidelines are established under ORS 801.030. [1983 c.338 §159]

Statutes Relating to Bicycle (Vehicle) Operation on Roadways and Trails

Oregon Revised Statutes Chapter 811

- 811.050 Failure to yield to rider on bicycle lane; penalty.
- 811.055 Failure to yield to bicyclist on sidewalk; penalty.
- 811.060 Vehicular assault of bicyclist or pedestrian; penalty
- 811.065 Unsafe passing of person operating bicycle; penalty.
- 811.395 Appropriate signals for stopping, turning, changing lanes and decelerating (including bicycles)
- 811.415 Unsafe passing on right; penalty.
- 811.435 Operation of motor vehicle on bicycle trail; exemptions; penalty.
- 811.440 When motor vehicles may operate on bicycle lane.

- 811.490 Improper opening or leaving open of vehicle door; penalty.
- 811.525 Exemptions from requirements for use of lights.
- 811.550 Places where stopping, standing and parking prohibited.
- 811.802 Failure to yield right of way to funeral procession; penalty.

Oregon Revised Statutes Chapter 814

- 814.400 Application of vehicle laws to bicycles
- 814.405 Status of electric assisted bicycle
- 814.410 Unsafe operation of bicycle on sidewalk; penalty
- 814.420 Failure to use bicycle lane or path; exceptions; penalty
- 814.430 Improper use of lanes; exceptions; penalty
- 814.440 Failure to signal turn; exceptions; penalty
- 814.450 Unlawful load on bicycle; penalty
- 814.460 Unlawful passengers on bicycle; penalty
- 814.470 Failure to use bicycle seat; penalty
- 814.480 Non-motorized vehicle clinging to another vehicle; penalty
- 814.484 Meaning of "bicycle" and "operating or riding on a highway
- 814.485 Failure to wear protective headgear; penalty
- 814.486 Endangering bicycle operator or passenger; penalty
- 814.487 Exemptions from protective headgear requirements
- 814.48 Citations; exemption from requirement to pay fine
- 814.489 Use of evidence of lack of protective headgear on bicyclist

Oregon Administrative Rules (OARs)

OAR 660-012Transportation Planning Rule

Discussion:

The Transportation Planning Rule (TPR) implements Oregon Statewide Planning Goal 12, which supports transportation facilities and systems that are safe, efficient, and cost-effective and are designed to reduce reliance on single-occupancy vehicles. The objective of the TPR is to reduce air pollution, congestion, and other livability problems, and to maximize investments made in the transportation system.

Narrative <…>

(c) Where a local government assumes or estimates lower vehicle trip generation as provided in subsection (a) or (b) above, it shall assure through conditions of approval, site plans, or approval standards that subsequent development approvals support the development of a mixed-use, pedestrian-friendly center or neighborhood and provide for on-site bike and pedestrian connectivity and access to transit as provided for in OAR 660-012-0045(3) and (4). The provision of on-site bike and pedestrian connectivity and access to transit may be accomplished through application of acknowledged ordinance provisions which comply with 660-012-0045(3) and (4) or through conditions of approval or findings adopted with the plan amendment that assure compliance with these rule requirements at the time of development approval; and<… >

OAR 660-012-0045 Implementing the transportation planning rule
(B) Bikeways shall be required along arterials and major collectors. Sidewalks shall be required along arterials, collectors and most local streets in urban areas, except that sidewalks are not required along controlled access roadways, such as freeways;

OAR 734-020-0045 Prohibition of Non-Motorized Vehicles on Freeways
(1.) Non-motorized vehicles are prohibited upon the following segments of freeways within the State of Oregon: <… > [1]

(2) The closure of the above sections to non-motorized vehicles shall become effective following the erection of adequate signing.

OAR 734-020-0055 Bicycle Lane Definition
A bicycle lane as defined by ORS 801.155(6) shall be separated from the adjacent roadway by a single, solid eight inch wide white stripe.

OAR 734-020-0060 Design and Construction of Bikeways
(1) The Department of Transportation adopts by reference The American Association of State Highway and Transportation Officials, "Guide for the Development of Bicycle Facilities," (Guide), dated August, 1991, to establish bikeway design and construction standards, to establish guidelines for traffic control devices on bikeways including location and type of traffic warning signs and to recommend illumination standards, all in accordance with and pursuant to ORS 366.514, 184.616, 184.619, and 366.205.

(2) The following constitute supplements and exceptions to the August, 1991 Edition of the "Guide for the Development of Bicycle Facilities":

(a) Signing and Marking:

(A) All bicycle signing and markings on the State Highway System or installed on local city streets or county roads under state contract or agreement shall be in conformance with the current Department of Transportation "Sign Policy and Guidelines for the State Highway System" and the "Traffic Line Manual." Any signing or markings not included in these guidelines or manual, but which is deemed necessary and required for the bicycle facility shall conform to the Manual on Uniform Traffic Control Devices as adopted by the Oregon Transportation Commission;

(B) The standard width longitudinal painted solid line separating the motor vehicle travel way and a bike lane shall be a solid nominal eight-inch wide white stripe as required by OAR 734-020-0055; and

(C) The desirable width for a one-way bike lane on the State Highway System or installed on local city streets or county roads under state contract or agreement is

[1] This administrative rule goes on to list the roadways on which bicycle travel is prohibited. The intent of this rule's inclusion is to show that bicycle travel is not permitted on specifically omitted state roadways.

six feet. Where six feet is not practical to achieve because of physical or economic constraints, a minimum width of four feet may be designated as a bike lane.

(b) Definitions: For the purpose of this rule and the Guide, the definitions on pages two and three of the Guide shall control, rather than any conflicting statutory or rule definitions. Terms not defined in the Guide shall be given their ordinary every day interpretation, even if defined otherwise for use in specific chapters in the Oregon Revised Statutes.

Oregon Bicycle and Pedestrian Plan (1995)[2] [3]

GOAL: To provide safe, accessible and convenient bicycling and walking facilities and to support and encourage increased levels of bicycling and walking.

ACTION 1: Provide bikeway and walkway systems that are integrated with other transportation systems.

STRATEGY 1A. Integrate bicycle and pedestrian facility needs into all planning, design, construction and maintenance activities of the Oregon Department of Transportation, local governments and other transportation providers.

STRATEGY 1B. Retrofit existing roadways with paved shoulders or bike lanes to accommodate bicyclists, and with sidewalks and safe crossings to accommodate pedestrians.

STRATEGY 1C. Provide financial and technical assistance to local governments for bikeway and walkway projects on local streets.

ACTION 2: Create a safe, convenient and attractive bicycling and walking environment.

STRATEGY 2A. Adopt design standards that create safe and convenient facilities to encourage bicycling and walking.

STRATEGY 2B. Provide uniform signing and marking of all bikeways and walkways.

STRATEGY 2C. Adopt maintenance practices to preserve bikeways and walkways in a smooth, clean and safe condition.

ACTION 3: Develop education programs that improve bicycle and pedestrian safety.

STRATEGY 3A. Monitor and analyze bicyclist and pedestrian crash data to formulate ways to improve bicyclist and pedestrian safety.

STRATEGY 3B. Publish bicycling and walking maps and guides that inform the public of bicycle and pedestrian facilities and services.

[2] The 2011 Design Guidelines provide an update to the 1995 Guide.

[3] An update to this plan will begin later in 2013.

STRATEGY 3C. Develop bicycling and walking safety education programs to improve skills and observance of traffic laws, and promote overall safety for bicyclists and pedestrians.

STRATEGY 3D. Develop safety education programs aimed at motor vehicle drivers to improve awareness of the needs and rights of bicyclists and pedestrians.

STRATEGY 3E. Develop a promotional program and materials to encourage increased usage of bicycling and walking.

A.1. ACTION 1 Provide bikeway and walkway systems that are integrated with other transportation systems.

A.1.a. Implementing Strategies 1A & 1B on Rural Highways

STRATEGY 1A. Integrate bicycle and pedestrian facility needs into all planning, design, construction and maintenance activities of the Department of Transportation and local units of government.

STRATEGY 1B. Retrofit existing roadways with wide paved shoulders or bike lanes to accommodate bicyclists, and with sidewalks and safe crossings to accommodate pedestrians.

Bicycle and Pedestrian Improvement Priorities

Sections of rural highways that link schools, parks, residential areas and other trip generators to the nearest urban area will receive high consideration. Some sections may warrant a path for pedestrian use.

Special consideration will be given to rural highways near urban areas (where traffic volumes are relatively high) to facilitate bicycle commuting - wide shoulders will increase safety and encourage more riders. Recreational riders who start their ride from the city will also benefit from wider shoulders.

A.1.b. Implementing Strategies 1A & 1B on Urban Highways

1. As part of road construction projects: ODOT will incorporate needed bicycle and pedestrian facilities on construction, reconstruction and relocation projects, subject to the provisions of ORS 366.514. Facilities may be provided on local streets that provide a better alternative to the highway. Costs may be shared with local jurisdictions on a mutually agreed upon ratio.

2. As part of preservation projects: These projects will be evaluated for their potential for pedestrian and bicycle improvements. These include bringing sidewalks up to ADA standards, constructing missing segments of sidewalks or widening pavement to provide bike lanes. Costs may be shared with local jurisdictions on a mutually agreed upon ratio.

3. By developers as part of the permit conditions: ODOT may require developers to provide needed bicycle and pedestrian facilities when modifications are made to the road.

Incidental projects such as utility work will also be viewed as opportunities to make improvements.

4. With minor betterment projects: ODOT will make improvements such as widening shoulders prior to overlays, constructing short sections of sidewalk and constructing curb cuts and ramps. Costs may be shared with local jurisdictions on a mutually agreed upon ratio. 5. By restriping roads with bike lanes: ODOT will coordinate with local jurisdictions to restripe urban highways with bike lanes after overlay projects, where feasible, or retrofit bike lanes through stripe removal and repainting.

6. As stand-alone bikeway and/or walkway projects (within right-of-way): ODOT, in cooperation with local jurisdictions, will develop projects to construct bikeways and walkways where critical sections are missing. The primary purpose is to provide bicycle and pedestrian facilities. These projects are not generally associated with other highway improvements, but other needs may also be considered. Costs may be shared with local jurisdictions on a mutually agreed upon ratio.

Note: the improvements are not numbered in order of preference or priority.

Table 1: Bikeway and walkway implementation strategies

A.1.c. Priorities for stand-alone bikeway or walkway projects:

1. Urban highways that have nearly complete bikeway and/or walkway systems;

2. Sections of urban highways that have many potential trip generators (schools, residential and commercial areas, etc.);

3. Urban highways that serve as "Main Street" through a community;

4. Sections of urban highways that complete commuter corridors and link local bikeways and walkways;

5. Sections of urban highways that are on transit routes;

6. Spot problem areas with high bicycle or pedestrian crash rates or potential for crashes; and

7. Sections of urban highways that are difficult to cross.

Guidelines for Providing Bikeways and Walkways on Routes Parallel to State Highways

The following guidelines should be used to determine if it is more appropriate to provide facilities on a parallel local street:

1. a. Conditions exist such that it is not economically or environmentally feasible to provide adequate bikeways and walkways on the state highway; or

b. State highway does not provide adequate access to destination points within reasonable walking or bicycling distances; or

c. Bikeways and walkways on the state highway would not be considered safe;

2. Parallel route must provide continuity and convenient access to facilities served by the state highway;

3. Costs to improve parallel route should be no greater than costs to improve the state highway; and

4. Proposed facilities on parallel route must meet state standards for bikeways and walkways.

Performance Measures for Strategies 1A & 1B

1. Projects that meet criteria for accommodating pedestrians and bicyclists

   Baseline: In fiscal year 1993-1994, 97% of projects met these requirements.

   Goal: 100% compliance by 1995.

2. Bikeway and walkway projects that meet adopted criteria

   Baseline: In fiscal year 1993-1994, about 80% of projects met adopted criteria.

   Goal: 100% by 1995.

3. Miles of rural state highways suitable for bicycling

   Baseline: 89% in 1994

   Goal: Add appropriate shoulders to highways as they are constructed or reconstructed.

4. Miles of urban state highways that accommodate pedestrians and bicyclists

   Baseline: In 1994, 32% of urban highways had bike lanes or shoulders, 30% had sidewalks on both sides of the road.

   Goal: By 2005, provide needed bike lanes and sidewalks on 80% of urban highways.

   By 2015, provide needed bike lanes and sidewalks on 100% of urban highways.

B. Financial Considerations

B.1. COSTS

B.1.a. Costs for Rural Highways

The cost of providing paved shoulders as part of highways improvements is incorporated into the overall cost of a project, since shoulders are provided primarily for motor vehicle safety and to reduce long-term maintenance costs.

B.1.b. Costs for Urban Highways

The cost of bicycle and pedestrian facilities is accounted for in urban modernization projects. Examples include sidewalks, pedestrian signals, and the extra width required for bike lanes when these are over and beyond the standard shoulder width for the roadway.

Oregon Transportation Plan (2006)

The provision of safe and accessible bicycling and walking facilities in an effort to encourage increased levels of bicycling and walking is the goal of the Oregon Bicycle and Pedestrian Plan, which is an element of the Oregon Transportation Plan (OTP) that was most recently adopted in September 2006. The plan identifies actions that will assist local jurisdictions in understanding the principals and policies that ODOT follows in providing bike and walkways along state highways. In order to achieve the plan's objectives, the strategies for system design are outlined, including:

- Providing bikeway and walkway systems and integrating with other transportation systems
- Providing a safe and accessible biking and walking environment
- Developing educational programs that improve bicycle and pedestrian safety
- Promoting tourism via bicycle and supporting connections to recreational trails
- Making investments that respond to capacity, safety, operational and maintenance issues for bicycle facilities

The document includes the Policy & Action Plan and the Bikeway & Walkway Planning Design, Maintenance & Safety. The Policy & Action section contains background information, legal mandates and current conditions, goals, actions and implementation strategies ODOT proposes to improve bicycle and pedestrian transportation. The Bikeway & Walkway Planning Design, Maintenance & Safety section assists ODOT, cities and counties in designing, constructing and maintaining pedestrian and bicycle facilities. Design standards are recommended and information on safety is provided.

Oregon Highway Plan (2006)

- Sidewalks, crosswalks, bike paths and marked bike lanes make up Oregon's urban area bicycle and pedestrian system. Highway shoulders serve as bikeways and walkways in rural areas. ODOT, cities and counties plan, construct and maintain Oregon's bicycle and pedestrian networks. Facility planning occurs through state, regional and local transportation system plans.

  Federal and state highway funds and local revenues help fund local government bikeways and walkways. Bicycle and pedestrian facilities within a street, road or highway right-of-way are eligible for funding from the Oregon Highway Fund. ODOT and local governments must spend a minimum one percent of the state Highway Fund they receive on walkways or bikeways. (p. 38)

Policy 4.3 – Creating Communities (p. 61)

Strategy 4.3.2 Promote safe and convenient bicycling and walking networks in communities.

- Fill in missing gaps in sidewalk and bikeway networks, especially to important
- community destinations such as schools, shopping areas, parks, medical facilities and transit facilities.
- Enhance walking, bicycling and connections to public transit through appropriate community and main street design.
- Promote facility designs that encourage walking and biking.

Transportation Safety Action Plan (2011)

Action 98 Increase public education regarding rules for bicycles, scooters, skates, skateboards and personal assistive devices

Increase public education and enforcement efforts regarding the rules of operation for bicycles, scooters, skates, skateboards, personal assistive devices and any new device that is legally permitted on the roadways of Oregon.

Action 99 Increase emphasis on programs that will encourage bicycle travel

Increase emphasis on programs that will encourage bicycle and other alternative mode travel and improve safety for these modes. The following actions should be undertaken:

- Support implementation of the *Oregon Bicycle and Pedestrian Plan* guidelines and goals.
- Support the Bicyclist and Pedestrian Safety Program annual performance plan process, including allocating sufficient funding for achieving those goals.
- Establish a stable funding source to implement and institutionalize bicyclist and alternative mode safety education in the schools with a curriculum that includes supervised on-street training.
- Increase funding for maintenance of bikeways and for programs that make walking and bicycling safe and attractive to children.
- Provide consistent funding for a comprehensive bicyclist and alternative mode safety campaign for all users. Include information to encourage helmet use.
- Raise law enforcement awareness of alternative mode safety issues. Increase enforcement efforts focused on motorist actions that endanger bicyclists, and on illegal bicyclist behaviors.

Action 104 Safety gear with new bicycles

Consider legislation requiring the inclusion of helmets, reflective gear and lighting with new bicycles.

Bicycle and Pedestrian Design Guide (2011)

The document describes the following bicycle facility design philosophy:

> *Well-designed bicycle and pedestrian facilities are safe, attractive, convenient and easy to use. It is wasteful to plan, design and build facilities that are little used, or used irresponsibly because of poor design. Inadequate facilities discourage users and unnecessary facilities waste money and resources.*
> *Bicycle and pedestrian facilities must be considered at the onset of transportation projects and incorporated into the design process at all stages, so potential conflicts with other modes, topography or right-of-way constraints are resolved early on. Bikeways and walkways risk being under-designed if they are considered add-on features.*

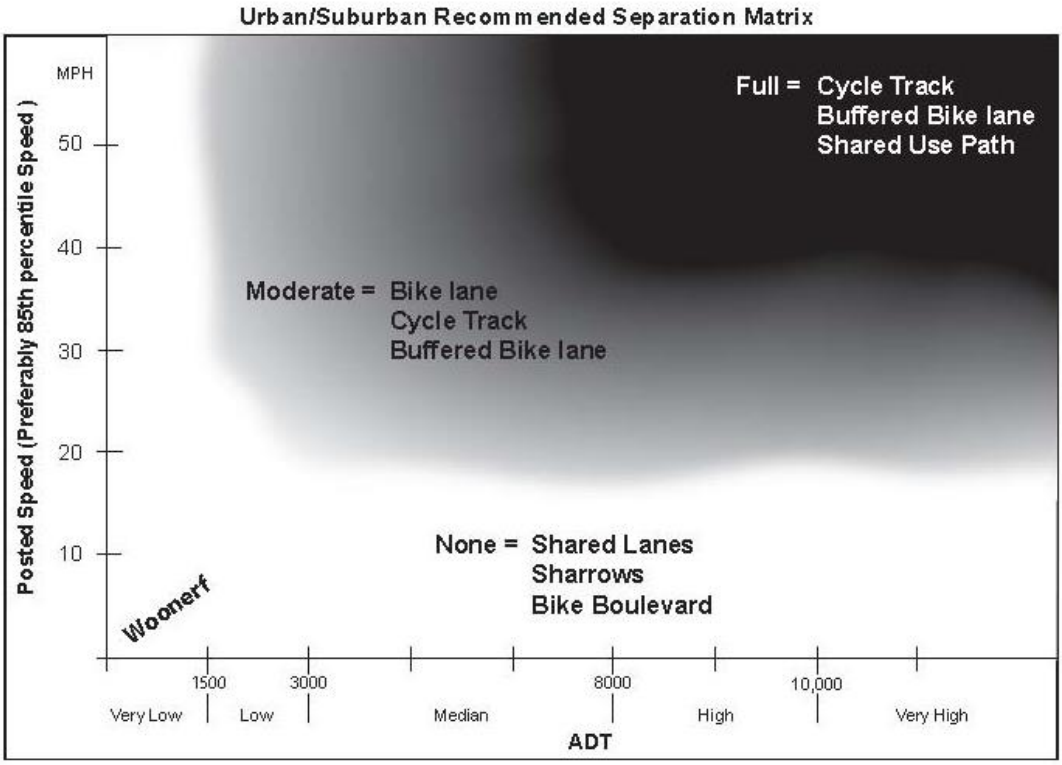
This guide provides information on facility selection and design details for on-road bikeways (including bike lanes and bike boulevards), roadway reconfiguration, bicycle parking, street crossings, intersection treatments, shared use paths and describes potential implementation strategies for each facility type. The guide includes references to innovative facility treatments at a conceptual level that are described in more detail in the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide. Innovative treatments that are referenced by in this guide include:

- Advisory Bike Lanes
- Bike Box
- Bike Left Turn Lane
- Bike Stair Channel
- Bike Passing Lane
- Bicycle Signal
- Bicycle Friendly Transit Stop
- Buffered Bike Lane
- Choker/Separator
- Cycle Track
- Floating Bike Lane
- Green Wave
- Raised Bike Lane
- Skinny Street

The guide recommends against use of the following treatments:

- Sidewalk Bikeways
- Extruded Curbs
- Reflectors and Raised Pavement Markers
- Two-way Bike Lane
- Continuous Right-Turn Lanes

The need for bike facility separation from traffic increases as motor vehicle traffic volumes increase. The chart shown below can be used to determine when what level of separation is needed. When speed and volume intersect in a gray area, use the table on the next page should be used as a decision making guide. It is recommended that all factors present be analyzed. If they overwhelmingly point to an increased or decreased need for separation, the decision is made easier. In situations that are not clear-cut, many other factors should be considered and weighed, along with good judgment. Neither the chart nor the matrix should be used as absolutes.



Separation Context Matrix

Context	Need for Separation
1. Land Use indicators	
Urban Center, CBD	Decreases
Suburban	Increases
Buildings at back of sidewalk	Decreases
Buildings set back from roadway (parking lots front street)	Increases
On Street Parking	Decreases
Short block length	Decreases
Long block length	Increases
2. Traffic speed/volume indicators	
Signal coordination timed at higher than posted speeds	Increases
Signal coordination timed at lower than posted speeds	Decreases
Peak Hourly Traffic Volume greater than 10%	Increases
3. Roadway characteristics	
Wide roadway / multiple travel lanes	Increases
Steep grades: uphill	Increases
Steep grades: downhill	Decreases
4. Bicycling demand indicators	
Popular Route to School	Increases
Provides continuity of bike lanes, routing or trail	Increases
Other high-use indicators	Increases

Average Daily Traffic	< 400	400-1500	1500-2000	> 2000
Rural Arterials	4’	6’	6’	8’
Rural Collectors	2’	5’	6’	8’
Rural Local Roads	2’	5’	6’	8’

Recommended roadway shoulder widths are summarized below.

State Transportation Improvement Program (2012 – 2015)

This program is managed using a combination of projects on state highways, emergency grants, and a statewide competitive grant application process. The program is state-funded and implements ORS 366.514, which requires cities, counties, and ODOT to provide pedestrian and bicycle facilities on all road construction and reconstruction projects. The statute also requires cities, counties, and ODOT to spend no less than 1% of the State Highway Fund (including special appropriations like OTIA funding) on projects that improve bicycle and pedestrian transportation. ODOT’s Bicycle and Pedestrian Program includes three elements: Grants, urban highway pedestrian projects, and quick fixes. Grants are awarded for stand-alone pedestrian and/or bicycle projects on a competitive basis to cities and counties for improvements on city streets or county roads. SWIP (Sidewalk Improvement Program) funds are used to add pedestrian facilities on urban state highways. The Quick Fix Program is for minor improvements to state highways that ODOT Maintenance Districts request on an as-needed, case-by-case basis

Appendix K - Wisconsin Statewide Planning & Policy Documents

Summary of Reviewed Documents

Significant State Statutes and Administrative Rules - Summary of significant points

Bicycle and Pedestrian Facilities Program – Program Summary

Planning for Bicycle Facilities – Summary of significant points

Complete Streets - Administrative Code Trans 75: bikeways and sidewalks in highway projects (2009) – Summary of significant points

Bicycle Crash Analysis for Wisconsin Using a Crash Typing Tool (PBCAT) and Geographic Information System (GIS) (2006) – Summary of significant points

Wisconsin Bicycle Facility Design Handbook (2004) – Summary of significant points

Wisconsin Bicycle Planning Guidance (2003) - – Summary of significant points

Wisconsin County Bicycle Maps (2009) - – Summary of significant points

Wisconsin Department of Transportation Guide for Path/Street Crossings (2011) - – Summary of significant points

Wisconsin State Bicycle Transportation Plan 2020 (1998) – Summary of significant points

Wisconsin Rural Bicycle Planning Guide (2006) – Summary of significant points

Advisory on Installation of Bicyclist Compatible Rumble Strips (Undated Memo) – Summary of Significant Points

Significant Design/Policy Items

Wisconsin Administrative Code

Wis. Admin. Code § 349.23 Authority to designate bicycle lanes and bicycle ways.
(1) The governing body of any city, town, village or county may by ordinance:

(a) Designate any roadway or portion thereof under its jurisdiction as a bicycle lane.

(b) Designate any sidewalk or portion thereof in its jurisdiction as a bicycle way.

(2) A governing body designating a sidewalk or portion thereof as a bicycle way or a highway or portion thereof as a bicycle lane under this section may:

(a) Designate the type and character of vehicles or other modes of travel which may be operated on a bicycle lane or bicycle way, provided that the operation of such vehicle or other mode of travel is not inconsistent with the safe use and enjoyment of the bicycle lane or bicycle way by bicycle traffic.

(b) Establish priority of right-of-way on the bicycle lane or bicycle way and otherwise regulate the use of the bicycle lane or bicycle way as it deems necessary. The designating governing body may, after public hearing, prohibit through traffic on any highway or portion thereof designated as a bicycle lane, except that through traffic may not be prohibited on any state highway. The designating governing body shall erect and maintain official signs giving notice of the regulations and priorities established under this paragraph, and shall mark all bicycle lanes and bicycle ways with appropriate signs.

(c) Paint lines or construct curbs or establish other physical separations to exclude the use of the bicycle lane or bicycle way by vehicles other than those specifically permitted to operate thereon.

(3) The governing body of any city, town, village or county may by ordinance prohibit the use of bicycles and motor bicycles on a roadway over which they have jurisdiction, after holding a public hearing on the proposal.

Wis. Admin. Code § 85.023 Planning for bicycle facilities.

The department shall assist any regional or municipal agency or commission in the planning, promotion and development of bikeways as defined in s. 84.60 (1) (a). The department shall draft model local zoning ordinances for the planning, promotion and development of bikeways and bicycle racks.

Wis. Admin. Code § 85.024 Bicycle and pedestrian facilities program.

(1) In this section, "political subdivision" means a county, city, village or town.

(2) The department shall administer a bicycle and pedestrian facilities program to award grants of assistance to political subdivisions for the planning, development, or construction of bicycle and pedestrian facilities. For purposes of this subsection, "bicycle and pedestrian facilities" do not include sidewalks or street beautification measures. The department shall award from the appropriation under s. 20.395 (2) (ox) grants to political subdivisions under this section. The department may, from the appropriation under s. 20.395 (2) (oq), supplement the amount of these grants. A political subdivision that is awarded a grant under this section shall contribute matching funds equal to at least 20 percent of the amount awarded under this section. Any improvement project for which a political subdivision receives a grant under this section shall be let by contract based on bids and the contract shall be awarded to the lowest competent and responsible bidder.

Wis. Admin. Code § 85.30 Type 1 motorcycle, moped and motor bicycle safety program.

The department shall develop and administer a Type 1 motorcycle, moped and motor bicycle safety program. The program shall include operational skills training, safety education and public awareness

and such other elements as the department deems desirable. The safety education program for Type 1 motorcycles shall include instruction as to the proper eye protection to be worn during hours of darkness. The department may make grants under this program for establishment of courses which further the aims of this program. The department shall adopt rules to implement this section.

Wis. Admin. Code § 85.07 Highway safety coordination.
<…>

(4) Bicycle rules. The department shall publish literature setting forth the state rules governing bicycles and their operation and shall distribute and make such literature available without charge to local enforcement agencies, safety organizations, and schools and to any other person upon request.

Wis. Admin. Code § 85.026 Transportation enhancement activities program.
<…>

(2) Program. The department may administer a program to award grants of assistance to any political subdivision or state agency, as defined in s. 20.001 (1), for transportation enhancement activities consistent with federal regulations promulgated under 23 USC 133 (b) (8). The grants shall be awarded from the appropriations under s. 20.395 (2) (nv) and(nx). The department may, from the appropriation under s. 20.395 (2) (oq), supplement the amount of these grants for grants awarded for transportation enhancement activities involving bicycle and pedestrian facilities eligible for assistance under s. 85.024 (2).

Statutes Relating to Bicycle (Vehicle) Operation on Roadways and Trails

- Wis. Admin. Code § 346.77 Responsibility of parent or guardian for violation of bicycle and play vehicle regulations.
- Wis. Admin. Code § 346.78 Play vehicles not to be used on roadway.
- Wis. Admin. Code § 346.79 Special rules applicable to bicycles.
- Wis. Admin. Code § 346.80 Riding bicycle or electric personal assistive mobility device on roadway.
- Wis. Admin. Code § 346.803 Riding bicycle or electric personal assistive mobility device on bicycle way.
- Wis. Admin. Code § 346.804 Riding bicycle on sidewalk.
- Wis. Admin. Code § 346.805 Riding electric personal assistive mobility device on sidewalk.
- Wis. Admin. Code § 346.82 Penalty for violating sections 346.77 to 346.805.

Bicycle and Pedestrian Facilities Program (BPFP)

Statute: § 85.024

Program objective:

To construct or plan for bicycle or bicycle/pedestrian facility projects. The statutory language specifically excludes pedestrian-only facilities, such as sidewalks, and streetscaping type projects.

Program eligibility:

Projects must meet federal and state requirements. Local governments with taxing authority and Indian Tribal Nations are eligible for funding. State agencies are not eligible for this program. Projects costing $200,000 or more that involve construction are eligible for funding, as are bicycle and pedestrian planning projects costing $50,000 or more. Additionally, the project must be usable when it is completed and not staged so that additional money is needed to make it a useful project. A project sponsor must pay for a project and then seek reimbursement for the project from the state. Federal funds will provide up to 80% of project costs, while the sponsor must provide at least the other 20%.

Administrative Code Trans 75: bikeways and sidewalks in highway projects (2009)

Wisconsin's Pedestrian and Bicycle Accommodations law addressing complete streets was codified in 2009 as State statute SS 84.01(35) and later as administrative rule Transportation 75 (Trans-75). The rule aims to "ensure that bikeways and pedestrian ways are established in all new highway construction and reconstruction projects funded in whole or in part from state funds or federal funds." Exceptions to the law include circumstances when:

- Cyclists and pedestrians are prohibited by law from using the highway.
- The cost of establishing a bikeway or pedestrian way is disproportionate to the probable use of the bikeway or pedestrian way (specifically defined as 20 percent of the total project cost); however, the highway project will spend up to 20 percent of the project costs on establishing bicycle and pedestrian facilities.
- A facility would have excessive negative impacts in a constrained environment, defined as:
    - Reduction of a terrace width to less than 3 feet for more than 50 percent of the total project length.
    - Eliminating structures, improvements or landscaping would dramatically reduce the aesthetic or functionality of the area.
    - A loss or degradation of natural resources, historical or archaeological sites.
- There is an absence of need as indicated by sparse population, traffic volumes or other factors, defined as:
    - Sidewalk – May be omitted in an outlying district defined as "territory near or contiguous to a community where within any 1,000 feet along the highway the buildings average more than 200 feet apart." Sidewalks may also be omitted in an

outlying district or rural area unless land use plans indicate significant development within 10 years.

- Bikeway – Bikeways may be omitted in an outlying district or rural area unless land use plans indicate significant development within 10 years A bikeway may be omitted in an outlying district or rural area that will have less than 750 ADT in the design year and:
  - 2-way bicycle traffic volume is or is expected to be less than 25 per day during peak travel days.
  - The highway is not identified in any government bike transportation plan.
  - The highway does not provide a connection of 1 mile or less between any existing and planned routes.
  - The highway does not provide a connection of 1 mile or less between an existing bikeway and the nearest local road.

- Community refuses to accept maintenance responsibility (with the exception of the National Highway System).

Relevant Plan and Policy Summaries

Wisconsin State Bicycle Transportation Plan 2020 (1998)

This plan provides guidance on the state-owned and state-supported transportation systems in Wisconsin. Policies are divided into *urban* and *intercity* (rural) geographies.

Vision statement

- To establish bicycling as a viable, convenient and safe transportation choice throughout Wisconsin.

Primary Goals

- Increase levels of bicycling throughout Wisconsin, doubling the number of trips made by bicycles by the year 2010.

- Reduce crashes involving bicyclists and motor vehicles by at least 10% by the year2010.

Objectives:

- Objective 1 - Plan and design new and improved transportation facilities to accommodate bicyclists and encourage their use.

- Objective 2 - Expand and improve a statewide network of safe and convenient routes fo bicycle transportation and touring, including safe and convenient access to and through the state's urban areas.

- Objective 3 - Provide consistent safety messages and training to all roadway users by expanding the range of education activities through driver licensing and training, bicycle

- safety education, increasing understanding of traffic laws, and provision of public service information.

- Objective 4 - Improve the enforcement of laws to prevent dangerous and illegal behavior by motorists and bicyclists.
- Objective 5 - Encourage more trips by bicycles by promoting the acceptance and usefulness of this transportation mode.

Intercity (rural)

Route Development and Implementation

- State Trunk Highway Segments were selected based on suitability analysis and their ability to provide connections between communities, a subset were selected as Priority Corridors and should be used as the basis of local bike plans. The following actions should be used to provide high quality bike facilities:
    - Shoulders should be provided when motor vehicle volumes exceed 1,000 vehicles per day
    - On higher-volume roadways with motor vehicle volumes greater than 1,000 vehicle per day and moderate or anticipated higher bicycle volumes, wider shoulders should be provided
    - When motor vehicle volumes are less than 1,000 vehicles per day, not special improvements are necessary
- On all higher-volume rural roadways (generally with motor vehicle volumes exceeding 1,000 per day), paved shoulders should be provided.
- On higher-volume roadways with a moderate number of bicyclists currently using or anticipated to use the roadway, wider paved shoulders should be provided.
- On lower-volume roadways generally no special improvements are necessary to accommodate bicyclists.
- Multi-use paths should be considered when 1) bicyclists cannot be safely accommodated with on-street facilities; or, 2) an opportunity exists to improve the transportation aspects of bicycling by locating a rural bicycle path within an abandoned rail corridor, utility corridor, or river grade.

Urban/Suburban

Philosophy Two-tiered approach: highway design and bikeway planning.

- Bicyclists will use every roadway that they are permitted to use. Therefore, a basic level of urban accommodation is highly desirable to improve bicyclist safety along all roadways and to provide access to destinations along these roadways.

- Since the vast majority of urban streets are currently suitable for bicycling because of their low speeds and traffic volumes, major streets are most in need of improvements. Wider outside lanes (14 feet of usable space) or bicycle lanes are needed.
- The second element of this two-tiered approach is to plan and implement a complementary urban byway system that uses a combination of bike lanes, paths and designated low volume neighborhood streets within key travel corridors.
- Federal regulations and AASHTO guidance form the framework and rational for detailed action statements.

Actions

- Bicycle provisions on all urban arterials should be made in accordance with MPO and community bicycle plans unless costs or adverse impacts of such accommodations or adverse impacts of such accommodations are excessively disproportionate to expected usage.
- On urban collector streets, especially those in Wisconsin's largest metropolitan areas, bicycle provisions for wide curb lanes, bike lanes, or paved shoulders should be made if the costs or adverse impacts are not excessively disproportionate to expected usage.
- On urban State Trunk Highways, where suitable accommodations for bicyclists now exist, new highway improvements will be planned to continue an acceptable level of service and safety for bicyclists.
- On urban State Trunk Highway bridges, bicycle accommodations should be provided unless the cost of such accommodation is considered to be excessively disproportionate to the projected bicycle use. Bicycle accommodations on the roadway approaches to the bridges should be continued across the structures.
- Safe crossings should be maintained or created when bikeways and streets intersect highways. Crossing controls or grade separations (overpass or underpass) should be considered where there are inadequate gaps in traffic for safe bicycle path crossing.
- Intersection design should consider the needs of bicyclists. All intersections should be wide enough for safe bicyclist crossing; signalized intersections should include such treatments as appropriate signal timing, bicycle-sensitive traffic detectors, and push button devices to activate signal changes. An adequate number of bicycle crossings (on-street and grade-separated bicycle underpasses/overpasses) should be considered whenever a limited access highway is built or improved.

Wisconsin Department of Transportation Guide for Path/Street Crossings (2011)

This document identifies and clarifies intersection right-of-way rules at the intersection of bicycle multi-use paths with streets and highways. The document differentiates between bicyclists using a crosswalk along a path facility and those using a crosswalk at a traditional intersection. Generally:

- Bicyclists should obey traffic controls as they encounter them on the path, and proceed through crossings in a manner that is consistent with the safe use of the crosswalk by pedestrians.
- Drivers must yield to pedestrians and bicyclists in the crosswalk, and do everything they can to keep from hitting a pedestrian or bicyclist even if they have failed to meet their obligations.

Bicycle Crash Analysis for Wisconsin Using a Crash Typing Tool (PBCAT) and Geographic Information System (GIS) (2006)

This document is a summary of a WisDOT research project analyzing both the method and results of evaluating the relationship between road and intersection conditions and incidences of bicycle crashes. Its purpose is to support safety improvements and countermeasure designs for inclusion in future plans and projects. Key findings included:

- Crashes between bicyclists and motorists in the State of Wisconsin continue to decrease on an annual basis.
- Four of the top five crash types indicated that the motorist made the critical error that contributed to the crash.
- There were far more urban crashes than rural crashes (94% compared 6%).
- The majority of crashes occurred at intersections (66% compared to 34%).
- There was a high frequency of sidewalk/crosswalk-type crashes (28% of all crashes).
- Crash rates were lower on wider roadways for both local roads and state highways.
- While urban streets had a much higher crash rate, rural highways had a much higher rate of fatalities.

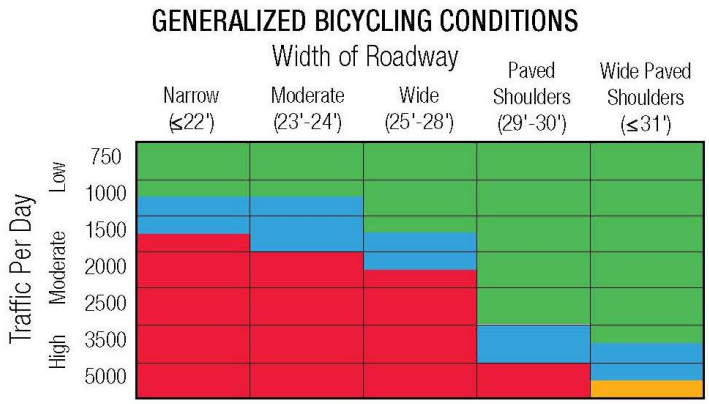
Wisconsin Rural Bicycle Planning Guide (2006)

This reference document is for rural counties and small communities that are creating bicycle plans. It discusses the importance of bicycling as a form of transportation and outlines and describes the bicycle planning process and plan content requirements. The focus of this guide is mostly on the utilitarian and transportation aspects of bicycling and less on recreational uses.

The guide describes the need to plan for various types of cyclsits whose abilities and cycling styles differ based on age, cycling experience, level of fitness, chacteristics of the built environment (e.g., number of routes and types of destinations available), trip purposes and destinations as well as and

attitudes toward traffic. The guide recommends accommodation of experienced cyclists along paved shoulders on major town roads and higher-volume rural roadways and accomodation of less epxeienced cyclists on bike lanes, routes and paths where needs are the greatest (e.g., near schools and parks with nearby homes).

The following table summarizes generalized cycling conditions of state and county highways, based on values and thresholds used for the Wisconsing bike map. The key factors impact this analysis are roadway width and volume. Secondary chacteristics incude truck traffic and percent double yellow centerline (as a proxy for hills). Complete documentation of the analysis methodology is included in the plan appendix.



The table illustrates, in a generalized fashion, how state and county highways were classified by their conditions for bicycling. Traffic and width of roadways are the two primary variables affecting bicycling conditions. Green – Best conditions; Blue – Moderate conditions; Yellow – Higher Volumes, Wider Paved Shoulders; Red – Undesirable Conditions

Wisconsin Bicycle Planning Guidance (2003)

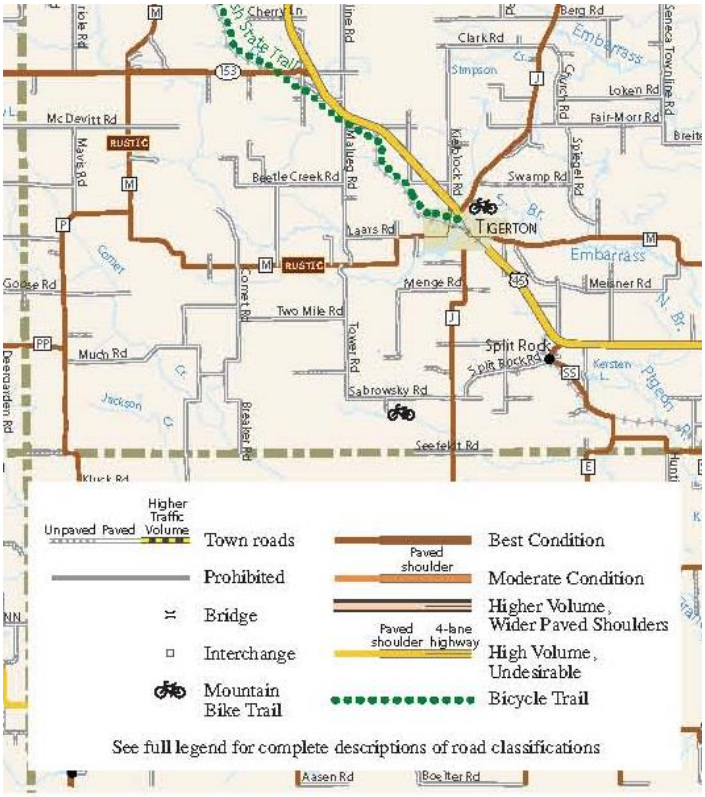
This document is a reference for Metropolitan Planning Organizations (MPOs) responsible for planning in urbanized areas of Wisconsin. It discusses the importance of bicycling for transportation and outlines and describes the bicycle planning process and plan content requirements. Like the Wisconsin Rural Planning Guide, the focus of these guidelines is also on the utilitarian and transportation aspects of bicycling and less on its recreational uses.

Like the Rural Bicycle Planning Guide this plan describes the need to consider multiple user types during facility planning. The 1999 AASHTO Guide for the Development of Bicycle Facilities is described as the basic design reference.

Wisconsin County Bicycle Maps (2009)

These county bike maps provide an assessment of bicycling conditions useful to both cyclists and transportation planners. The conditions for cycling represented on the map are based on the comfort level of an average adult cyclist with at least some experience operating on higher speed roadways. The methodology for assessing cycling conditions is based on the process described in

Appendix A of the Wisconsin Rural Bicycle Planning Guide. An extraction of the Shawano County map is shown below.



Wisconsin Bicycle Facility Design Handbook (2004, Minor updates 2006 and 2009)

This handbook is the primary source for facility design guidance in the state of Wisconsin. It discusses the operating characteristics and needs of bicyclists, and presents the wide range of design options for enhancing a community's bicycle transportation system. The guide covers basic roadway improvements for shared streets, details for on-street bicycle lanes, and the design of shared-use paths. Shared Lane Markings (SLMs), introduced into the 2009 edition of the FHWA Manual on Uniform Traffic Control Devices and in common use around the country, are not included in this guide.

Detailed guidance on the following topics is included in the design guide:

Rural Two-Lane State Trunk Highway Paved Shoulder Width

- Required sightlines
- Requirements to accommodate bicycles
- Bridges and Interchanges
- Surface Maintenance Treatments

- Crossing improvements (including railroads)
- Shared use path characteristics including sightlines and design speeds
- Path-Highway Crossing Guidance for Rural 2-lane Highway Facilities
- Effects of path-roadway separation distance
- Overpass and underpass considerations

Selected topics (basic roadway characteristics) are described in more detail below:

Bicycle and Pedestrian Elements Affecting Complete Streets (11-46-1)
This section of the manual describes in great detail Federal and State requirements for the accommodation of bicyclists and pedestrians and the exceptions. It provides explicit examples on what facilities constitute "safe accommodation," and where these facilities are not warranted due to environmental constraints and cost constraints. The Department states that if these facilities are greater than 20% of the total roadway project cost, then they are not required. It also provides explicit details on how to calculate these costs. Similar language could be applied in Illinois policy to help clarify some of the issues that were discussed in district interviews.

Pavement Quality (2.2)
On older pavements it may be necessary to fill joints, adjust utility covers or, in extreme cases, overlay the pavement to make it suitable for bicycling.

When *new pavement overlays* are added to curbed roadway sections, the old pavement should be milled, if necessary, to allow the new asphalt to meet the gutter pan smoothly. Failure to feather the new overlay into the existing pavement can result in a hazardous longitudinal lip at the edge of the new asphalt.

Paving over a concrete gutter and then considering it usable for bicyclists is generally not satisfactory for Wisconsin climates for several reasons: (1) the joint line will probably come through the new asphalt, causing a longitudinal crack. (2) Paving to the curb may affect the drainage and lower the effective height of the curb. (3) The bicyclist will still need to shy away from the curb.

Chip sealing a road extends the life of the pavement at relatively low cost. Chip sealing can fill joints and smooth out roadway imperfections. However, when applying chip seal coats to existing streets, removal of excess gravel at the earliest possible convenience is important.

Since passing motor traffic sweeps the gravel off to the side of the road, it tends to collect in piles deep enough to cause bicyclists to crash. For this reason, bicyclists will often ride in the area cleared by motorists' tires.

Roadway patching typically follows underground utility work or it may be done to repair potholes and other problems. Pavement replacement should be flush with surrounding pavement, including the adjacent concrete gutter. If possible, longitudinal joints should be located away from the bicyclist's typical path. In addition, patches should not fail within a year.

Overall shoulder width (2.6.2)

In general, the total shoulder width should be between 6 ft and 8 ft. (1.8 m - 2.4 m). The paved portion will be between 3 ft (0.9 m) and 8 ft (2.4 m), depending on traffic conditions (see following section). Often, the standard shoulder requirements discussed in WisDOT Facilities Development Manual (FDM) Procedure 11-15-1 will take priority. More detail on recommended facility width is shown in Table 2.1

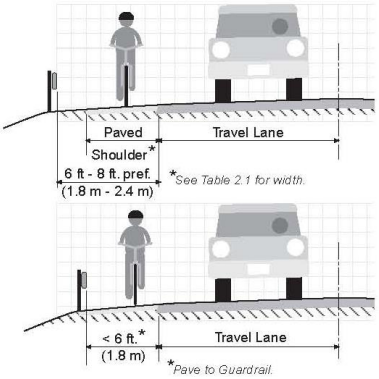
Basic Recommendations (2.6.3)

Table 2.1 provides shoulder paving requirements to accommodate bicycles on rural two-lane State Trunk Highways. Where shoulder bikeways are provided on four-lane divided expressways, the paved shoulder width should be 8 ft. (2.4 m). Where a bike route is planned or located on a County Trunk Highway or town road, the paved width, if any, should be determined by the local government, using the values in Table 2.1 (see following page).

TABLE 2.1: Rural Two-Lane State Trunk Highway Paved Shoulder Width Requirements to Accommodate Bicycles

Motor Vehicle ADT	*Bicycle ADT (or Plan inclusion)*	
	0 - 24	*≥25*[1]
Under 700	0[2]	0[2]
700 - 1500	0-3 ft (0-0.9m)[2]	4 ft (1.2 m)[3]
1501 - 3500	3 ft (0.9 m)[2]	5 & 6 ft (1.5 m)[2][5]
≥3501[4]	4 ft[2]	5 ft (1.5 m)[2][4]

(1) 25 bicycles per day (existing or expected) OR recommended in an adopted transportation plan.
(2) See Figure 5 of Facilities Development Manual (FDM) Procedure 11-15-1 for other shoulder paving standards not related to bicycles. For roadways that do not meet the Bicycle ADT requirement, a 3 ft. (0.9 m) shoulder is typically provided. However, for roadways with ADTs over 3500, a 4 ft. (1.2 m) paved shoulder is highly recommended.
(3) 3 ft. (0.9 m) acceptable where shoulder widths are not being widened and/or ADT is close to bottom of range.
(4) When ADTs exceed 4500, a 6ft paved shoulder is advisable.
(5) A 6 ft. paved shoulder may be highly desirable for maintenance purposes since this class calls for 6 ft. gravel shoulders. Full width shoulder paving is often preferred over leaving only 1 ft. of gravel shoulder.



Guardrails and slopes (2.6.4)

If a guardrail is provided adjacent to the shoulder, there should be between 6 ft. (1.8 m) and 8 ft. (2.4 m) between the guardrail and the travel lane (fig. 2-35). The width of the paved shoulder should be determined based on Table 2.1 or FDM Procedure 11-15-1. If wider paved shoulders are being used, paving the entire shoulder should be considered, especially if the guardrail is only 6 ft. (1.8 m) from the travel lane. Where width is constrained by topography or other factors (fig. 2-35, lower image), there should be as much paved width between the travel lane and the guardrail as practicable. In new construction, a guardrail may not be necessary if a 4:1 cross slope is provided next to the edge of the shoulder.

Grades (2.6.5)

If funding is limited, adding or improving shoulders on uphill sections first will decrease conflicts between fast motor vehicle traffic and slower bicyclists. This includes providing paved shoulders

next to uphill auxiliary lanes (climbing lanes). On the downhill side, bicycles may travel almost as fast as motor vehicles, making extra space less important.

Pavement design and loading (2.6.6)

Shoulders should be smoothly paved and have adequate strength and stability to support occasional motor vehicle tire loads under all weather conditions without rutting or other surface variations. The thickness of shoulder paving should be based on usual design considerations appropriate for each situation, although full-depth pavement is recommended.

Joints between travel lanes and shoulders (2.6.7)

Where it is necessary to add paved shoulders to existing roadways for bicycle use, the area where bicyclists will be riding should be kept free of joint lines. If a wider shoulder (i.e., 8 ft.) is being provided, the joint line will not likely be a serious problem. However, if a narrow shoulder is being added, it is desirable to provide a minimum of 4 ft. (1.2 m) of clear width without a longitudinal joint line.

Advisory on Installation of Bicyclist Compatible Rumble Strips (June 8, 2011)

Rumble strips are depressed or grooved sections that are cut into the roadway surface to delineate the edge of the travel lane next to a shoulder or centerline (longitudinal) or to alert drivers of an upcoming stop sign at an intersection (transverse). When a vehicle travels over the rumble strip, a rumbling noise and vibration is produced that warns the vehicle operator that they are straying from their travel lane. In recent years, rumble strips have been installed on the centerline of some roadways in other states to warn vehicle operators that they are crossing the centerline of the road. The effectiveness of rumble strips is largely dependent on the presence of a shoulder beyond the strip that allows the vehicle operator room to recover.

Longitudinal rumble strips and stripes (strip with pavement marking) have been shown to be highly effective in improving safety and reducing "run off the road" (ROR) crashes in which a vehicle leaves the roadway, as well as head on collisions in which one vehicle crosses over the centerline. Because of this, the Federal Highway Administration has included rumble strips in their list of proven safety countermeasures, and has strongly encouraged states to implement them, particularly on rural two-lane highways.

Bicyclists and Rumble Strips

While rumble strips have been shown to increase safety for motorists, they can have an effect on bicycling conditions:

- Rumble strips are difficult to bicycle across and can lead to a crash by bicyclists.
- Rumble strips on the edge of the road tend to be place d in the shoulder, thereby reducing space that bicyclists typically use on rural highways.
- Debris tends to accumulate more rapidly on shoulders with rumble strips present, which creates additional hazards for bicyclists.

In part due to these factors, the Wisconsin Department of Transportation (WisDOT) has had a longstanding informal policy of not installing rumble strips on non-limited access highways. As a practice, WisDOT had not used rumble strips along 2-lane roadways, except transverse rumbles.

A Change in Policy

For the last five years, 36-40% of Wisconsin fatalities are due to roadway departures, with 90% occurring in rural areas. Based on national research and monitoring of rumbles in other states showing a compelling reduction in crash rates – shoulder rumbles fatal and injury crashes reduced by 29% and center line rumbles reduce head on and sideswipe by 44%. In early 2012, WisDOT began looking at initiatives to improve safety and reduce the number and severity of roadway departure crashes. As WisDOT makes these improvements, the needs of bicyclists are considered. The design and placement of the rumbles along the outside of the roadway are being done in such a way as to minimize the risks to bicyclists.

WisDOT evaluated roadway segments with higher speed (50 mph and greater) and a higher frequency of run-off-the-road crashes to receive rumbles. WisDOT also met repeatedly with the Wisconsin Bike Fed and other stakeholders to seek to minimize the impact of rumble strips on bicyclists and other road users. Based on these discussions, criteria for when and how rumble strips would be installed were developed for initiatives in 2012:

- Rumble strips will only be installed along two-lane rural roadway segments with higher speed (50 mph and greater) and a higher frequency of run-off-the-road crashes; and will not install shoulder rumbles on oversize/overweight routes and areas of Amish horse and buggy travel.
- Edgeline rumble strips would only be installed where at least 3' of paved shoulder is present.
- Geometric changes were made to the typical rumble strip design to reduce the depth and width of the rumbles.
- A 12' gap is placed after every 48' of rumble strip to allow bicyclists to more easily cross over the strip.
- Rumble strips typically will not begin until outside of developed areas to allow cyclists from those communities to make their way to town or county roads that do not have rumble strips.
- Highways that connect popular bicycling routes or trails will be avoided.

Highway segments being improved (resurfaced or reconstructed) in 2012 – 2014 that meet these criteria were identified by the WisDOT regional offices. Edgeline rumble strips will be retrofitted to approximately 40 miles of highway, and centerline rumbles (which have little impact on bicyclists) will be retrofitted to approximately 500 miles of highway. Some segments will not receive rumbles in an effort to balance safety with freight mobility, noise considerations, bicycle accommodations, and Amish horse and buggy travel. WisDOT will also continue work on longer-term policies, resources, education and outreach materials that address the installation and design of rumbles on state highway projects, as well as evaluating the results of this summer's initiatives.

Appendix L – North Carolina Metrics Toolkit & Recommended Project Performance Measures

Table 1. NCDOT Project-specific Performance Categories and Measures

Performance Category	Performance Measure	WalkBikeNC Plan Pillars/Goals	Data	NCDOT Accountability Framework
Mobility: Usage/health	Quality of improvement, measured by pedestrian or bicycle LOS		Requires new collection	Moving People and Goods
Mobility: Usage/health	Percentage of trips made by bicycling and walking on project corridor		Requires new collection	Moving People and Goods
Mobility: Usage/health	Physical inactivity rates and obesity rates in county/city/locale		Readily available	Healthy Communities
Safety	Project would result in safety improvement as quantified by FHWA Crash Reduction Factors		Readily available	Healthy Communities
Mobility: Facilities	Project connects to an existing pedestrian and bicycle facility		Requires data collection	Connectivity
Mobility: Facilities	Project located along or parallel to congested roadway		Readily available	Choices
Mobility: Facilities	Provides direct connection to transit service		Requires data collection	Connectivity
Mobility: Facilities	Project is multi-use path near larger populations		Requires data collection	Connectivity
Mobility/Safety: Planning/Policy	Counties/cities implementing local bike/ped policies		Requires further data collection and organization	Connectivity
Mobility/Safety: Planning/Policy	Compliance with Complete Streets Policy (NCDOT staff)		Requires data collection	Choices
Safety: Education and encouragement programs	Local schools participating in pedestrian and bicycle safety education/encouragement events (Example: Safe Routes to School)		Requires data collection	Healthy Communities
Safety: Education and encouragement programs	Increase in walking and bicycling to local school		Requires data collection	Healthy Communities
Mobility/Safety: Training	Total number of NCDOT staff and local officials participating in education/training/ enforcement for project		Requires data collection	Organizational Responsibility
Economics	Project located in Downtown, "Main Street" area, and/or promotes tourism		Requires data collection	Prosperity
Environment	Project results in local emission reduction		Requires data collection	Resource Protection
Environment	Project connects to trail or park		Readily available	Resource Protection
Mobility: Planning/Policy	Customer pedestrian and bicycle counts		Requires data collection	Accountability

Table 2. Comprehensive Performance Measures Toolbox

WalkBike NC Plan Pillars	Performance Measure	Indication of Progress Towards Desired Change or Outcome	Readily available	Requires collecting/ organizing existing information	May require new data collection program
Mobility	Output				
✦	Cities/MPOs/Counties with existing, and new or updated bike/ped/greenway plans	Increase in number of cities/MPOs/ RPOs/Counties with existing, and new or updated bike/ped/greenway plans	✔		
✦	Percentage of state-owned roadways that have designated on-road bicycle facilities by facility type (bike lanes, shared-lane markings, etc.)	Increase in percentage of roadways with bicycle facilities by type statewide		✔	
✦	Percentage of state-owned roadways that have sidewalks	Increase in percentage of roadways with sidewalk		✔	
✦	Percentage of signalized intersections with pedestrian crossing signals on state roads (within municipalities)	Increase in percentage		✔	
✦	Cities/MPOs/Counties with local bike/ped policies (see online survey results from the WalkBikeNC survey for municipalities)	Increased or enhanced legislation for walking and bicycling (ex. Complete streets ordinances, bike parking minimums, development codes)		✔	
✦	Employee compliance with department's commitment to CS policy and guidelines	Number of employee performance plans with complete streets-compliance annual objectives		✔	
✦	Bike/ped access to transit	Percentage of transit, rail, and ferry hubs with complete access amenities for bike/ped			
✦	Number of NCDOT staff and local officials participating in pedestrian and bicycle design (Complete Streets design) training	Increase in number of people participating in design training	✔		

WalkBike NC Plan Pillars	Performance Measure	Indication of Progress Towards Desired Change or Outcome	Readily available	Requires collecting/ organizing existing information	May require new data collection program
	New pieces of statewide bike/ ped legislation	Increased or enhanced legislation for walking and bicycling (ex. three-foot passing rule, vulnerable roadway user act, etc.)	✔		
	Miles of signed and designated bicycle routes	Increase in number of signed and designated bicycle routes statewide		✔	
	Number of bike share systems, number of bikes/kiosks	Increase in number of bike share systems and number of bikes/kiosks		✔	
	Number and percent of buses/ trains with bike racks	Increase in number and percent of buses/trains with bike racks		✔	
	Number of training sessions on pedestrian and bicycle accommodation and design and number and type of participants (NCDOT staff, consultants, regional planning commissions, and local officials)	Increase in sessions and number of participants		✔	
	Miles of paved shoulders on state-owned roads	Increase in number of shared-use paths on state-owned roadways			✔
	Number of bike racks (existing/ installed, off-street/on-street corrals, secure parking areas/bike stations, bike racks at transit)	Increase in number of bicycle racks and other parking types provided			✔
	State/county/city funds spent on pedestrian/bicycle infrastructure/ programs	Increase in funding			✔
	Grant funding received for pedestrian/bicycle infrastructure/ programs (esp. federal, private partnerships)	Increase in funding			✔

WalkBike NC Plan Pillars	Performance Measure	Indication of Progress Towards Desired Change or Outcome	Readily available	Requires collecting/ organizing existing information	May require new data collection program
	Number of students participating in pedestrian or bicycle safety education programs or events. (e.g., Safe Routes to School, Bike Smart, etc.)	Increase in the number of students participating		✔	
	Student walk/bike mode share (from SRTS schools)			✔	
	New striped crosswalks/RRFBs/ audible pedestrian signals/other crossing treatments installed	Increase in number installed			✔
	New ADA curb ramps upgraded/ installed	Increase in number installed			✔
Safety	Outcome				
✦	Pedestrian and bicycle crash and fatality rates (police-reported pedestrian and bicycle crashes per unit)	Reduction in number of crash and fatality rates	✔		
✦	Pedestrian and bicycle crash and fatality rates (per capita) relative to other states	Reduction in crash and fatality rates relative to other states		✔	
✦	Number of children walking and bicycling to schools	Increase in walking and bicycling to schools			✔
	Total number of pedestrian and bicycle crashes	Reduction in number of crashes	✔		
	Pedestrian and bicycle crashes in areas with low vehicle ownership and low average household income	Reduction in number of crashes		✔	
	Vehicle speeds on identified corridors	Lower vehicle speeds on identified corridors			✔
	Driver and pedestrian awareness of pedestrian laws/compliance (e.g., yielding to pedestrian in crosswalk)	Increase in awareness/compliance			✔

WalkBike NC Plan Pillars	Performance Measure	Indication of Progress Towards Desired Change or Outcome	Readily available	Requires collecting/ organizing existing information	May require new data collection program
Health	Output				
	Number of physical activity education and encouragement programs focused on walking and bicycling, and number of participants	Increase in number of programs and participants		✔	
Health	Outcome				
✦	Physical inactivity rates (BRFSS)	Reduction in rates	✔		
✦	Obesity and diabetes rates (BRFSS)	Reduction in rates	✔		
	Pedestrian and bicyclist deaths as a proportion of total traffic mortality	Decrease in proportion	✔		
	Number of asthma-related emergency room visits	Reduction in asthma-related emergency room visits		✔	
	Number of emergency room visits from bicycle and pedestrian crashed	Reduction in bicycle and pedestrian-related emergency room visits		✔	
	Percentage of North Carolinians reporting walking and bicycling for leisure (BRFSS)	Increase in rates		✔	
	Private bicycle ownership (% of households)	Increase percentage			✔
	Number of minutes per day the average North Carolina resident spends doing pedestrian and bicycle activity (potentially from self-reported physical activity)	Increase in time spent			✔

WalkBike NC Plan Pillars	Performance Measure	Indication of Progress Towards Desired Change or Outcome	Readily available	Requires collecting/ organizing existing information	May require new data collection program
Economics	Output				
	Number of chambers of commerce in NC promoting walking and bicycling as an amenity (using website info)	Increase in number promoting		✔	
	Number of visitors bureaus in NC promoting walking and bicycling as an amenity (using on website info)	Increase in number promoting		✔	
	Number of major walking or bicycling events in NC	Increase in number of events		✔	
	Number of developers in NC promoting walkability and bikability as key features in their developments (based on home builder and realtor surveys)	Increase in number promoting			✔
	New residential or commercial developments near new or existing bicycle/pedestrian infrastructure projects				✔
Economics	Outcome				
✦	Comprehensive return-on-investment measure (small business development, tourism, home prices, individuals)	Increase in return-on-investment			✔
	State ranks high in various livability, tourism, entrepreneurship, and business attractiveness rankings			✔	
	Temporary jobs from new bicycle/ pedestrian infrastructure projects				✔

WalkBike NC Plan Pillars	Performance Measure	Indication of Progress Towards Desired Change or Outcome	Readily available	Requires collecting/ organizing existing information	May require new data collection program
Mobility	Outcome				
✦	Pedestrian and bicycle commute mode share (from ACS)	Increase in pedestrian and bicycle mode share by type of trip (e.g., commuter, shopping, school, etc.)	✔		
✦	Percentage of trips made by bicycling and walking	Increase in percentage of trips made by bicycling and walking	✔		
✦	Cities, businesses and universities designated as Bicycle Friendly	Increase in cities, businesses and universities designated as Bicycle Friendly	✔		
	Number of bike share trips taken	Increase in number of bike share trips		✔	
	Annual statewide bike/ped counts (see case study p. 8-10)	Increase in number walking and bicycling			✔
	Transit ridership	Increasers in transit ridership, especially with new pedestrian and bicycle facilities; Increases in the number of para-transit riders using fixed-route public transit due to improved access to stops and stations			✔
	Number bike/transit trips taken on buses/trains with bike racks	Increase in number bike/transit trips taken on buses/trains with bike racks			✔
	Use of new or experimental facility types				✔
Safety	Output				
✦	Number of schools participating in pedestrian or bicycle safety education programs or events. (e.g., Safe Routes to School, Bike Smart, etc.)	Increase in the number of schools participating	✔		
	Number communities participating in the "Watch for Me NC" safety campaign	Increase in number of communities participating in the "Watch for Me NC" safety campaign	✔		
	Number of bike/ped advocacy groups in NC	Increase in number of bike/ped advocacy groups in NC	✔		

Appendix M – Bicycle Facility Geodatabase Data Field Categories and Feature Classes

The bicycle facility datasets in the State Bikeways Accommodation Database include available information about existing, planned, programmed, and future facilities and facility characteristics. **Table 1** on the following page shows the data fields that will be attributed to the bikeway segments within the GIS database.

By design, the State Bikeways Accommodation Database contains areas of duplicated or overlapping line-work. This is a result of: 1) the decision to include all available datasets, and 2) the fact that jurisdictions may overlap or be nested within other jurisdictions. This is preferable since the purpose of this database is to maintain a record of all existing proposals throughout the state. For efficiency purposes, there are currently no plans to combine datasets or reduce segmentation of existing line work.

Table 1: Data Field Categories Available in Feature Classes

Data Field Name	Possible Entries and Geodatabase Domains	Description
STREET NAME (Optional Field)	[Name]	Name of the roadway that facility is on. This field will be blank for most off-street facilities.
NAME OF FACILITY (Required Field)	[Name]	Name most commonly associated with facility. This field will be blank for most on-street facilities unless they belong to a broader trail system.
SYSTEM DESIGNATION (Optional Field)	US Bike Route 66, Grand Illinois Trail, Mississippi River Trail, US Bike Route 76, US Bike Route 40, American Discovery Trail	What is the facility's broader trail designation? If part of multiple trail networks or other, note in comments field. Blank if none or unknown.
FROM REFERENCE (Optional Field)	[Origin]	From and To reference fields are used to provide additional location information for facilities in regards to their origin and

TO REFERENCE (Optional Field)	[Terminus]	terminus. Facilities are labeled from their north/west (origin) point to their south/east (terminus) point.
STATUS (Required Field)	Existing	Facility is constructed
	Programmed	Funding secured and/or construction underway
	Planned	Part of an adopted plan
	Future	Corridors being considered in future planning exercises
FACILITY TYPE (Required Field)	Bike Lane	Facility is delineated by striping and has supplemental pavement markings and symbols. Includes buffered and protected bike lanes.
	Bike Route	A facility marked with signage and/or pavement markings indicating that it a preferable route for bicyclists. This includes paved shoulders, shared-lane markings and roadways marked with wayfinding signage and/or pavement markings that provide route information to bicyclists.
	Side Path	Designated, paved off-street multi-use facility adjacent and running parallel to a roadway. Must be a minimum 8’ wide.
	Trail	Off-road paved or crushed stone bike trails
	Unknown	Unknown
SURFACE (Optional Field)	Paved	Facility is constructed of durable materials such as concrete or asphalt
	Aggregate	Facility is a graded surface composed of

		compacted limestone or granite screenings.
	Unknown	Unknown
TOTAL WIDTH (Optional Field)	[Value]	Total useable width of facility (bike lane or bike path). A multi-use path would include the outside aggregate strip on both sides and paved area for total width). A value=0 will represent an unknown width or a bike route.
MANAGING AGENCY 1 & 2 (Optional Field)	[Name]	Name of the primary (1) and secondary (2) managing agencies or jurisdictional bodies
COMMENT1 & 2 (Optional Field)	[Date revised, etc.]	Comment fields.

APPENDIX N: DETAILED DESIGN AND MAINTENANCE RECOMMENDATIONS

This Appendix presents the detailed result of a review of IDOT Division of Highways manuals and practices.

PROJECT GOALS LEGEND:

S = Safety
A+C = Access and Connectivity
O = Choices/Transportation Options
C= Collaboration
EJ = Equity/Environmental Justice
H = Public Health and Well-Being
EC = Economic Competitivenesss
E = Environment
CM = Communication

AGENCY ABBREVIATION LEGEND:

OP&P = Office of Planning & Programming
DOH = Division of Highways
BDE = Bureau of Design and Environment
NGO = Non-governmental Organization
BLR = Bureau of Local Roads
SE = Safety Engineering
MPO = Metropolitan Planning Org.
LIB = League of Illinois Bicyclists
DTS = Division of Traffic Safety
DPIT = Public and Intermodal Transportation
RPO = Regional Planning Organization
IDNR = IL Dept. of Natural Resources

Objective/Recommendation	Action Item	Lead Agency(ies)	Partner Agency(ies)	Project Goals
Improve the design approval process for local road projects, especially concerning bicycle accommodations	Streamline Environmental Survey Request and Project Development Report requirements for simple bikeway projects, such as restriping.	IDOT – Highways, BDE, BLR		A+C, S
	Streamline the local project variance process for cities working to implement bike plans	IDOT – Highways, BDE, BLR		A+C, S, EC
	Review applicable variances annually	IDOT—Highways, BDE, BLR		A+C
	Review the documentation requirements for minimal impact Complete Streets improvements	IDOT—Highways, BDE, BLR		A+C
	Provide detailed resources for local agencies and consultants who are preparing Complete Streets project documentation.	IDOT – Highways, BDE, BLR		A+C, S

Objective/Recommendation	Action Item	Lead Agency(ies)	Partner Agency(ies)	Project Goals
Ensure that warrants and triggers are appropriate for bicycling accommodations.	Add the following question to the checklist in Section 17-1.04 of the BDE: "Does the surrounding community, and/or local agencies representing those communities, express strong desire and support for the accommodation of bicyclists as part of the project?"	IDOT – BDE, BLR		A+C, C
	Ensure that District staff have the ability to calculate bicycle traffic volume	IDOT – Highways, BDE, BLR		A+C, S
Update design guidance and policies for bicycle and pedestrian projects and programs within Department manuals	Utilize bicycle-friendly shoulder and rumble strip design guidance in Highway and Safety Improvement Plan (HSIP) and 3R projects.	IDOT – Highways, BDE, BLR		A+C, S
	Review and ensure that the BLR and BDE manuals are current with the 2012 AASHTO Bikeways Design Guide and consider nationally-recognized guidance and standards when updating IDOT design manuals	IDOT – Highways, BDE, BLR		A+C, S
	Incorporate PROWAG guidance on the design of safe pedestrian access ways.	IDOT – Highways, BDE, BLR		A+C, S
	Review existing policy to enable roadway/bridge/intersection improvements can have differing logical termini for pedestrians, bicycles and motor vehicles.			
	The addition of the "Urban Area" definition in Chap 17 has confused some staff that areas under 50,000 are exempt from accommodating bikes. The original intent (in 2000 Ch17) was that populated areas will generate bicycle travel. Replace 'urban' with 'populated' or 'incorporated'. Read: "in or within one mile of an incorporated area." This more appropriately would include all incorporated areas within Illinois.	IDOT – Highways, BDE, BLR		EC, A+C, H, EJ, E, S
	Clearly define an unjustifiable project expense in terms of Complete Streets accommodations in a roadway project. Federal guidance suggests 20% of total project cost.	IDOT – BDE, BLR	FHWA	A+C, S, EC

Objective/Recommendation	Action Item	Lead Agency(ies)	Partner Agency(ies)	Project Goals
	Modify policy so that roadway/bridge/intersection improvements can have differing logical termini for pedestrians, bicycles and motor vehicles.	IDOT - Highways, BDE, BLR		A+C, S
	Update the Complete Street requirement to include complete streets improvements along all corridors that are included in a locally adopted bicycle or pedestrian plan.	IDOT - Highways, BDE, BLR		A+C, S
	Clarify pedestrian and bicycle needs on bridge structures in urban, rural, and transitioning areas that reflect the lifespan of bridges.	IDOT - Highways, BDE, BLR, B&S		A+C, S
	Chapter 17 of the BDE (and Chapter 42 of the BLR) to be organized around land-use contexts: such as urban, suburban, and rural.	IDOT - Highways, BDE, BLR		A+C, S
	Use Plan recommendations to further update all applicable chapters of the BDE & BLR Manuals to reflect State Complete Streets policies and goals.	IDOT – Highways, BDE, BLR		All
	Include official policy statements in areas such as lane widths, jurisdictional liability, and the provision of sidepaths vs. bike lanes.	IDOT – Highways, BDE, BLR		A+C, S
	Per Federal guidance from the Departments of Justice and Transportation (http://www.ada.gov/doj-fhwa-ta.htm), the BDE Manual should be amended to clarify that resurfacing is an alteration that requires the installation of curb ramps where street level pedestrian walkways cross curbs.	IDOT - Highways, BDE, BLR	FHWA, DOJ	A+C, S, EJ
	Incorporate more comprehensive standard review procedures for lane widths and capacity in the design phase of all project types (STIP, SMART, HSIP, 3R, 3P) to see if bicycle facilities can be incorporated at little additional cost.	IDOT - Highways, BDE, BLR		A+C, S, C
	Add bicycle parking requirements to projects with bicycle accommodations where on or off-street vehicle parking is present.	IDOT - Highways, BDE, BLR		A+C
	Clarify latent demand requirement and provide better tools for evaluating latent bicycling demand.	IDOT - Highways, BDE, BLR		A+C, S

Objective/Recommendation	Action Item	Lead Agency(ies)	Partner Agency(ies)	Project Goals
	IDOT policies, practices and standards should be updated within a year of release of new FHWA, AASHTO, and other applicable guidelines.	IDOT – Highways, OP&P	FHWA	A+C, S
	Additional guidance is needed for bicycle facilities adjacent to parking lanes. Guidance may include buffered bike lanes; parking ticks in bike lanes and left-of-center markings; and sharrows	IDOT – Highways, BDE, BLR		A+C, S
	Include innovative facility types supported in MUTCD such as protected lanes, green pavement, etc.	IDOT – Highways, BDE, BLR		A+C, S
	Improve design guidance and policy flexibility to increase potential for selecting reasonable alternate routes for bicyclists. Policy should encourage consistency in bicycle or pedestrian facility type across project segments or jurisdictions. Alternate routes should only be used where it is the best solution in terms of bicyclist comfort and safety and where detours are kept at a minimum. IDOT may need to make adjustments in terms of logical termini and project scope policies.	IDOT – Highways, BDE, BLR		A+C, S
Improve District Bicycle Maps	Improve design guidance for bicycle and pedestrian crossings at intersections including pedestrian/bicycle refuge islands. Revise language in the BDE and BLR manuals to support the use of corner and median refuge islands.	IDOT – Highways, BDE, BLR		A+C, S
	Expand design guidance for mid-block crossings and median refuge islands at mid-block crossings and intersections.	IDOT – Highways, BDE, BLR		A+C, S
	Improve design guidance for sidepaths, including design at intersections and maintenance considerations. Clarify where they are and are not appropriate. This can include details such as benefit of corner islands and using right-in-right-out access management.	IDOT – Highways, BDE, BLR		A+C, S
	Establish criteria for grade-separating trails over state highways.	IDOT – Highways, BDE, BLR		A+C, S
	Improve design guidelines for shoulders and rumble strips to improve these for bike friendliness.	IDOT – Highways, BDE, BLR, SE		A+C, S

Objective/Recommendation	Action Item	Lead Agency(ies)	Partner Agency(ies)	Project Goals
	Expand standard drawings and specifications for common bicycle design treatments in both urban and rural environments. This includes intersection/roadway crossing markings, signal timing and bridges.	IDOT – Highways, BDE, BLR, SE		A+C, S
	Add guidance on burying or extending the gutter pan for added bike lane width.	IDOT – Highways, BDE, BLR		A+C, S
	Improve guidance on the design of safety rails parallel to bicycle facilities.	IDOT – Highways, BDE, BLR, B&S		A+C, S
	Phase I design checklists should include more bicycling considerations.	IDOT – Highways, BDE, BLR		A+C, S
	Provide improved guidance on road diets. In particular, where they are warranted and what are appropriate designs.	IDOT – Highways, BDE, BLR		A+C, S
	Add guidance on appropriate transitions between facility types	IDOT – Highways, BDE, BLR		A+C, S
	Add guidance on wayfinding signage and develop standard signage for designated regionally-significant on-road bicycle routes.	IDOT – Highways, BDE, BLR		A+C, S
	Set minimum BLOS requirements for all roadway projects that include bicycle facilities.	IDOT – Highways, BDE, BLR		A+C, S
	Add guidance on light fixtures and lighting considerations in bikeway design. Consider innovative technology such as solar power.	IDOT- Highways, BDE, BLR		A+C, S
	Add guidance on flood protection.	IDOT—Highways, BDE, BLR		A+C, EJ, S
Improve Department's ability to adequately maintain facilities	Provide better mechanisms for bikeway and Complete Streets upgrades in maintenance projects SMART and 3P	IDOT –Highways	MPO's/RPO's, local governments	A+C, S
	Provide early notification to municipalities of maintenance restriping	IDOT- Highways		A+C, S
	Develop bicycle and pedestrian-specific work zone access guidelines and incorporate these into BDE/BLR Policy Manuals.	IDOT- Highways, BDE, BLR		A+C, S