

Review of Ohio Bicycle and Pedestrian Planning and Safety Efforts



Performed by
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ATTACHMENTS

ATTACHMENT 1:

ODOT Policy 25-005(P) Transportation Enhancement Program Policy, Effective:
April 17, 2006

ATTACHMENT 2:

Text and Excerpts of the Ohio State Laws

ATTACHMENT 3:

3-7-2005 FHWA OH Division Comment Letter to ODOT RE: ODOT Policy No 20-004(P)

ODOT Policy No 20-004(P) Policy on Accommodating Bicycle
and Pedestrian Travel on ODOT Owned or Maintained Facilities

ATTACHMENT 4:

Write-up of the Efforts of Each MPO

ATTACHMENT 5:

FHWA OH Division Questionnaire to ODOT/MPOs

Response Summary to FHWA OH Division Questionnaire to ODOT/MPOs

ATTACHMENT 6:

USDOT VOLPE CENTER, Transportation Planning Capacity Building Program,
Peer Exchange Report, "Best Practices in Bicycle Facilities Planning" June, 2008

ATTACHMENT 7:

Write-up of Best Practices in Other States

Executive Summary

The Federal Highway Administration Ohio Division Office (Division Office) conducted a review of the bicycle and pedestrian planning efforts at the Ohio Department of Transportation (ODOT) and the Metropolitan Planning Organizations (MPOs) in the state. This review utilized the guidelines of a Quality Improvement Review (QIR) to provide some framework for the review in assessing how the bicycle and pedestrian planning efforts are administered by ODOT along with the MPOs in Ohio, and how improvements may be made accordingly. The approach of the review involved comparing the practices in the State of Ohio (from ODOT and from within all of the MPOs) against those of each of the other 50 States and certain localities nationally who engage in successful practices. The intent of comparing Ohio to these other areas was to highlight those successful practices and assess which practices could be brought to Ohio to improve overall planning efforts. The safety of bicyclists and pedestrians has emerged as a priority for the Division Office as well as for ODOT, the MPOs and local communities through the course of this review. This document describes the range of opportunities to improve conditions for bicycling and walking in terms of planning and safety in Ohio. Based upon the review, several key recommendations to improve the Bicycle and Pedestrian program were identified:

- ODOT should explore working with the State legislators to more clearly define multimodal options such as bicycle and pedestrian accommodations.
- ODOT should consider the development of a Statewide Complete Streets policy that will aid in better planning and project delivery.
- ODOT should consider developing a comprehensive statewide bicycle and pedestrian plan.
- ODOT should establish policy and procedures that would address the Districts' roles and responsibilities in implementing and encouraging comprehensive planning for all modes statewide.
- ODOT should update ODOT Policy No 20-004(P) Policy on Accommodating Bicycle and Pedestrian Travel on ODOT Owned or Maintained Facilities and address the 2005 Division Office comments regarding the policy.
- ODOT/FHWA should develop a module of training to help transportation officials understand federal and State processes, design standards, obligations, etc.

This review has succeeded in conducting an assessment of the bicycle and pedestrian planning as it relates to Program and Procedures, Roles and Responsibilities, State Laws, ODOT's Bicycle and Pedestrian Policies Program and Practices, MPO Planning Efforts, the 2008 FHWA Ohio Division Questionnaire Results, and Safety. The Districts and the MPOs continue to demonstrate their abilities as good managers of the TE Program in terms of project delivery in addition to being good stewards of federal dollars. There is a demonstrated need to improve upon the state of the practice regarding bicycle and pedestrian planning statewide. There is also a need to continue to educate engineers and planners alike in this area. The review has identified opportunities for improvement, as well as best practices in Ohio and around the nation that can be implemented in the state. Safety for these modes of transportation is likewise important, and further improvements to reduce accidents, injuries and fatalities are called for. To address the review objective of assisting ODOT, MPOs and LPAs further develop in the area of bicycle and pedestrian planning and safety, the Division Office will meet with ODOT Central Office, Office of Local Projects and Office of Planning and select MPOs to discuss the above recommendations and determine which can feasibly be addressed, including working jointly with those offices. The Division Office will continue to offer technical assistance and will develop training that can be implemented statewide.

Introduction

On June 9, 1998, President Clinton signed into law the Transportation Equity Act for the 21st Century (TEA-21). This legislation modified Titles 23 and 49 of the United States Code (U.S.C.) and built on the major changes made to federal transportation policy and programs addressed in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA). The legislation included provisions that addressed improvements and changes to the implementation of Transportation Enhancement (TE) activities including bicycle and pedestrian modes of travel. TEA-21 continued the opportunities to achieve priority efforts through further expansion and funding of the TE Program activities initiated under the ISTEA as a sub-component of the Surface Transportation Program (STP). The policy and procedural requirements that apply to the STP program also apply to the provisions for funding and implementation of TE activities. TEA-21 amended 23 U.S.C. 134(h), but it continued to specify that TE activities must be considered for programming as part of the development of metropolitan transportation plans and programs. In addition, 23 U.S.C. 135(f) continued to specify that the statewide transportation improvement program shall reflect the priorities for programming and expenditure of funds, including transportation enhancements. TE activities are federally funded community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure, whereas projects can include creation of bicycle and pedestrian facilities, streetscape improvements, refurbishment of historic transportation facilities, and other investments that enhance communities and access. On August 10, 2005, President Bush signed into law the Safe Accountable, Flexible, Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU). The legislation updated Titles 23 and 49 of the U.S.C. and built on the significant changes made to federal transportation policy and programs by ISTEA and TEA-21. The new legislation had a number of provisions to further develop the planning for, and improve conditions for bicycling and walking and increase the safety of the two modes.

Purpose of the Review

The review was conducted to determine how effective bicycle and pedestrian planning efforts are in Ohio as they relate to the safety of bicyclists, pedestrians and motorists, project delivery and administration of these types of projects regardless of federal funding sources as administered by ODOT and the MPOs. As stewards of federal dollars, the Division Office also decided to do this to obtain a better knowledge of program activity and the existing relationship between ODOT's Central Office, ODOT's District Offices and the MPO's.

Another purpose of this review is to evaluate ODOT's and the various Ohio MPO's policies and procedures for the provision of pedestrian and bicycle accommodations on Federal-aid projects and the cost of these accommodations and projects within Ohio. Consequently, it is important for ODOT to provide a clear message to MPOs and Local Public Agencies (LPA)s, that bicyclists and pedestrians are an important component of road facilities and are eligible for federal funding. This review has the following objectives:

- Identify State and Local personnel responsible for bicycle and pedestrian planning and safety efforts;
- Conduct an assessment of the bicycle and pedestrian planning as it relates to Program and Procedures, Roles and Responsibilities, State Laws, ODOT's Bicycle and Pedestrian

Policies Program and Practices, MPO Planning Efforts, the 2008 FHWA Ohio Division Questionnaire Results, and Safety;

- Compare practices in Ohio to those of Departments of Transportation, MPOs and LPAs with successful practices from around the nation;
- Identify opportunities for improvement;
- Identify successful practices for Bicycle and Pedestrian Planning and Program Development; and
- Assist ODOT, MPOs and LPAs further develop in the area of bicycle and pedestrian planning and safety by offering technical assistance and developing training that can be implemented statewide.

Scope of the Review

This was a review of ODOT and the 17 MPOs for their Bicycle and Pedestrian Planning Efforts for the State of Ohio. This consisted of a review of all available online material for each MPO as well as the State of Ohio, and the City of Columbus who offered interest in this review to better their practices. A comprehensive questionnaire, consisting of various planning related questions pertaining to the subject matter, was prepared in conjunction with ODOT's Central Offices of Safety and Local Programs, as well as with the assistance of MORPC. This questionnaire was then deployed with the assistance of ODOT to each ODOT District Office of Planning for completion by the District Planning Administrator, LPA Coordinator, Environmental Coordinator, or Safety Engineer. At the same time, the instrument was deployed to each of Ohio's MPOs, to select LPAs, and to the FHWA West Virginia Division (and DOT partners) since there are several bi-state MPOs along the Ohio River for informational purposes.

Background

Bicycle and Pedestrian Accommodations and Projects are covered under the authority of 23 USC Sections 109, 217, 315, 402(b)(1)(F), 23 CFR 652, 49 CFR 1.48(b) and Title 55 [LV] Roads – Highways – Bridges as applicable, FHWA Guidance - Bicycle and Pedestrian Provisions of Federal Transportation Legislation (Updated October 22, 2008), FHWA Guidance on Transportation Enhancement Activities published December 17, 1999, 23.U.S.C. and TEA-21 were used as federal guidelines to conduct the review. Parts of the Ohio Revised Code; *Sections 2921.331, 4511.01 – 4511.99, 4513.01 – 4513.37 and 5501.31* addresses bicycle and pedestrian regulations and apply to planning, design, construction and maintenance of bicycle and pedestrian facilities.

Title 23 U.S.C. §217: Bicycle Transportation and Pedestrian Walkways (g) Planning and Design.-- 1) In General.--Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted. 2) Safety considerations.--Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and

pedestrians. Safety considerations shall include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings.

Title 23 CFR 450.208 (a):

Each state shall, as a minimum, explicitly consider, analyze as appropriate and reflect in planning process documents the following factors in conducting its continuing statewide planning process:

...(3) Strategies for incorporating bicycle transportation facilities and pedestrian walkways in appropriate projects throughout the state.

TEA-21 continued the provision in 23 U.S.C. 133(d)(2) requiring 10 percent of the STP funds be set-aside and be only available for TE activities. Section 1201 of TEA-21, amended 23 U.S.C. 101(a) (35), to include additional TE activities. TE projects must be one of 12 eligible activities and must relate to surface transportation. FHWA's TE guidance allows only certain activities which can be funded utilizing TE funds. The activities related to bicycle and pedestrian facilities include: 1) Pedestrian and bicycle facilities—New or reconstructed sidewalks, walkways or curb ramps; bike lane striping, wide paved shoulders, bike parking and bus racks; off-road trails; bike and pedestrian bridges and underpasses. 2) Pedestrian and bicycle safety and educational activities—Campaigns promoting safety awareness; safety training activities and classes; training materials such as videotapes, brochures and maps.

In an effort to clarify the law and provide state and local lawmakers, planners and designers with an appropriate framework for bicycle and pedestrian activities, USDOT produced the guidance: *Design Guidance Accommodating Bicycle and Pedestrian Travel: A Recommended Approach, A US DOT Policy Statement Integrating Bicycling and Walking into Transportation Infrastructure*. This document is a policy statement intended to encourage public agencies, professional associations, advocacy groups, and others to adopt this approach as a way of committing themselves to integrating bicycling and walking into the transportation mainstream. The Policy Statement was drafted by the U.S. Department of Transportation in response to Section 1202 (b) of TEA-21 with the input and assistance of public agencies, professional associations and advocacy groups.

The Design Guidance incorporates three key principles:

1. a policy statement that bicycling and walking facilities will be incorporated into all transportation projects unless exceptional circumstances exist;
2. an approach to achieving this policy that has already worked in State and local agencies; and
3. a series of action items that a public agency, professional association, or advocacy group can take to achieve the overriding goal of improving conditions for bicycling and walking.

In a recent memorandum transmitting program guidance on bicycle and pedestrian issues to FHWA Division Offices, the Federal Highway Administrator Thomas J. Madison Jr., on October 22, 2008 wrote that "We expect every transportation agency to make accommodations for bicycling and walking a routine part of their planning, design, construction, operations and maintenance activities." The program guidance itself makes a number of clear statements of intent:

- Congress clearly intends for bicyclists and pedestrians to have safe, convenient access to the transportation system and sees every transportation improvement as an opportunity to enhance the safety and convenience of the two modes.

- "Due consideration" of bicycle and pedestrian needs should include, at a minimum, a presumption that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities.
- To varying extents, bicyclists and pedestrians will be present on all highways and transportation facilities where they are permitted and it is clearly the intent of TEA-21 that all new and improved transportation facilities be planned, designed and constructed with this fact in mind.
- The decision not to accommodate [bicyclists and pedestrians] should be the exception rather than the rule. There must be exceptional circumstances for denying bicycle and pedestrian access either by prohibition or by designing highways that are incompatible with safe, convenient walking and bicycling.

Providing access for people with disabilities is a civil rights mandate that is not subject to limitation by project costs, levels of use, or "exceptional circumstances". While the Americans with Disabilities Act of 1990 (ADA) and Section 504 of the Rehabilitation Act of 1973 does not require pedestrian facilities in the absence of a pedestrian route, it does require that pedestrian facilities, when newly constructed or altered, be accessible to persons with disabilities.

Observations:

Program and Procedures

Bicycle and pedestrian planning and safety are requirements of SAFETEA-LU, and fall within the purview of several of the major federal programs. Primarily, bicycle and pedestrian efforts have been delegated to the State and MPO TE Program as per the 23 U.S.C. 133(d)(2) requiring 10 percent of the STP funds be set-aside and be only available for TE activities. The remaining funds expended towards bicycle and pedestrian planning and safety typically come from funds dedicated to Safety, CMAQ funds, STP funds, recreational trails funds, Safe Routes to School and other program area funds to lesser extents. Overall, this review is not intended to be a review of all of ODOT's program areas, and ODOT largely complies with the principals of the regulations governing the expenditure of funds as documented in reviews conducted by other members of the Division Office.

As detailed in the Division Office 2005 TE QIR, the ODOT Central Office of Local Projects is still minimally involved with the TE Program managed by the MPOs. *ODOT Policy 25-005(P) Transportation Enhancement Program Policy*, Effective: April 17, 2006 sets the tone for implementation of the TE Program. A copy of this policy is in Attachment 1. *ODOT Policy 25-005(P)* covers only ODOT managed TE projects and not projects funded by sub-allocations to the MPOs. Furthermore, TE activities, such as stand-alone TE projects, must comply with all applicable environmental and other federal requirements. Nevertheless, procedures to capture a unified program, which would include the TE process for the MPOs, do not exist. This review has found that this is an area that warrants attention as found in the results of the questionnaire discussed in a later section.

As stated in the Division Office 2005 TE QIR, as managers of the TE Program, 12 of the 17 MPOs have written procedures that describe the process for TE projects, are consistent with the FHWA guidance, and meet federal requirements. These MPO's procedures also describe their internal processes for selecting TE projects and managing TE funds. For that reason, the Division Office

would like to commend the 12 MPOs for their efforts and accomplishments in managing and documenting program procedures for their program areas. Ohio's procedures are further described in the sections that follow.

Roles and Responsibilities

As administrator of the Federal-aid program, ODOT is required to administer the TE Program, as well as other programs which fund accommodations for bicyclists and pedestrians and the federal dollars provided for it. The state sub allocates 10% of their TE Program dollars to the MPOs for eligible projects. As such, the ODOT Central Offices of Local Projects, and Systems Planning & Program Management share responsibilities of working with the ODOT Districts and the MPOs in administering this program. The Office of Local Projects is responsible for program management and addressing issues such as project eligibility determinations. ODOT's Central Office of Systems Planning & Program Management has the mission statement to perform statewide condition and needs analyses on Ohio's road network and manages ODOT's capital programs in a fiscally responsible manner to assure the best use of Ohio's transportation resources. This office is responsible for ensuring the planning process is carried out and the federal dollars are used for the programs receiving the funding, and has responsibility for statewide planning and metropolitan planning. The ODOT Central Office of Systems Planning & Program Management also has responsibility for management of the Safety Program. This review found that various offices within ODOT's Central Office, beyond the offices mentioned above, tend to view bicycle and pedestrian planning and safety as strictly a TE activity, and not a viable transportation mode thereby minimizing importance of these modes in project implementation.

The primary duty of the ODOT District Offices is to program projects and to manage projects through the Project Development Process (PDP). Each District Office has a Planning Office, Production Office, Construction Office and Highway Management Office, each with its own role to play in the PDP. Each District Office has an LPA coordinator whose job it is to work with and oversee projects within the development process. The LPAs however, are encouraged to, but are not forced to strictly follow with all elements of ODOT's PDP. The LPA Coordinator is assigned to either the District Planning Office or Production Office. Other personnel from the District are likewise heavily involved in the PDP for projects to include Environmental staff and Capital Planning staff from the Planning Office, Project Engineers and Right-of-Way Specialists from the Production Office, and Project Engineers from the Office of Construction. These individuals all coordinate on project development and scoping for various projects, regardless of the projects being ODOT-Let or LPA-Let. The findings of this review is that the level of understanding of the requirements and practices regarding bicycle and pedestrian planning and safety varies greatly across the spectrum of personnel from various District Offices. One area of possible improvement, identified as a result of this review, involves training various personnel at the District Offices as to their roles and responsibilities in an effort to standardize implementation statewide of bicycle and pedestrian projects and measures.

The relationships between the MPOs and the ODOT District offices are established and generally are very successful. Conducting this review provided the opportunity for the Division Office to observe the level of involvement of ODOT Central Office contacts and ODOT District's contacts with the MPOs. The relationships between ODOT's District Office and the MPOs are generally efficient and dependable. As a result, the MPOs are generally very pleased with the relationship

they have developed with the ODOT District Offices. In most MPO areas the District TE or LPA coordinators are working hand in hand with the MPOs through the TE process.

While the primary duty of the MPOs is transportation planning within the metropolitan planning area, they also share the responsibility of administering the TE Program for their urbanized area. This is done by the MPOs working with local sponsors, determining project eligibility, project evaluation, project ranking and final allocation of funding. Part of their responsibilities involves the development of bicycle and pedestrian planning efforts for their respective regions. Other capital program expenditures utilized for bicycle and pedestrian accommodations along with safety improvements are handled by their respective ODOT program manager and follow the procedures in place for each.

During the review, it was discovered that there appears to be a low level of involvement and communication between the Office of Local Projects and the MPOs for bicycles and pedestrian planning and safety, although there has been relatively good communication between the Office of Local Projects and the District Offices. It was noted that communication and site visits from ODOT Central Office of Local Projects to the MPOs have been less frequent than the MPOs would like to see. The ODOT Central Office of Systems Planning & Program Management has done a very good job of coordinating with the Districts and MPOs for including TE projects in the TIP and STIP processes and other funding aspects of the program. However, program issues have been delegated to the Office of Local Projects, from which coordination and guidance has been minimal, as was the case in 2005 during the TE QIR. It was reported to us that the Office of Local Projects does not have sufficient staff to take on what they deem as additional responsibilities, pursuant to bicycle and pedestrian planning and safety. It is recommended that ODOT address a lack of communication or involvement between the Office of Local Projects and the MPOs, regarding bicycle and pedestrian planning and safety as it has continued, as a point of concern from the 2004 TE QIR performed by this office. FHWA encourages the Office of Local Projects to develop a stronger relationship with the MPOs in implementing the TE Program at the MPO level. Through the course of the review, it was determined that there is generally good communication with the ODOT Central Office of Safety and outside partners. It was the Office of Safety that engaged the Division Office on this review, provided review comments for the questionnaire during its development, initiated ODOT's Pedestrian and Bicycle Workgroup, and started to offer the bicycle and pedestrian planning and design National Highway Institute (NHI) courses in the winter of 2008, as well as taking a continued noted interest in this topic.

As stated, in the Division Office 2005 TE QIR, field reviews of TE projects are an important part of the MPO's process. The MPO TE coordinators have established working relationships with local and community officials. In addition to knowing the proposed construction, ODOT depends on the knowledge of the MPO TE coordinators for familiarity with the community and program area to determine program eligibility. However, field reviews are not as consistent or frequent in the smaller MPO planning areas as in the larger MPO planning areas. In the medium to larger size MPOs, the TE coordinator works closely with ODOT Districts in conducting project field reviews for eligibility and scope of work purposes. Working together as a team, the District and MPO coordinator are able to see the proposed project first hand and provide project an evaluation for later discussion and review for the sub-committee selection.

It is recommended that the Division Office and ODOT should develop and provide training to those individuals that are involved in the project development processes involving bicycle and pedestrian

improvements. This would be done in order to ensure consistency in the understanding of roles and responsibilities and requirements for accommodation regarding non-motorized traffic modes. Training would also serve to ensure consistency in the planning and project delivery process across the state in terms of bicycle and pedestrian practices and projects. Based on concerns of various MPOs and LPAs, ODOT staff needs to more fully embrace its existing bicycle and pedestrian accommodation policy across the board within the various Districts and Central Office. ODOT's bicycle and pedestrian accommodation policy also indicates that no training is required for the TE Program. This review has found disparities in the understanding of bicycle and pedestrian planning and safety across the board. The responses to the questionnaire and the interest shown in the ODOT Office of Safety's training initiatives indicate that additional training is warranted. The Division Office, the ODOT Office of Safety, several MPOs and District offices have requested the development of more Bicycle and Pedestrian planning process seminars and workshops with emphasis on both planning and safety. It is recommended that ODOT/FHWA develop a module of training for LPAs to better help them understand the federal and State processes, design standards, obligations, etc.

State Laws

The State laws of Ohio provide for the construction and operation of bicycle and pedestrian facilities within the state. However, in aggregate, the laws offer a hindrance to the purchase of right-of-way throughout the State. The Ohio State laws also do not clearly define multimodal transportation facilities. This most often hinders accommodations for bicycles and pedestrians in terms of roadway improvements such as the construction of bike lanes, and sidewalks.

The Constitution of the State of Ohio (1947 with amendments to 2008): Article XI: Finance and Taxation; *Use of motor vehicle license and fuel taxes restricted*; §5a states: "No moneys derived from fees, excises, or license taxes relating to registration, operation, or use of vehicles on public highways, or to fuels used for propelling such vehicles, shall be expended for other than costs of administering such laws, statutory refunds and adjustments provided therein, payment of highway obligations, costs for construction, reconstruction, maintenance and repair of public highways and bridges and other statutory highway purposes..." This measure in the Ohio Constitution prohibits the use of tax revenues from being used for non-highway purposes. This is often deemed by planners and engineers as a leading reason to not accommodate bicyclists and pedestrians. This is further supported in the Ohio Revised Code (ORC) 5501.05 prohibiting use of highway funds for non-highway purposes whereas; "Moneys appropriated to the Department of Transportation and derived from fees, excises, or license taxes relating to the registration, operation, or use of vehicles on public highways, or to fuels used for propelling such vehicles, shall not be expended for any purpose other than as provided in Section 5a of Article XII, Ohio Constitution, and such moneys may be expended only for expenses directly chargeable to the purposes set forth in such section."

The following provisions in the ORC further define Ohio law and subsequent policy. ORC 5501.31 Director of Transportation - powers and duties. "The director may purchase or appropriate property necessary for the location or construction of any culvert, bridge, or viaduct, or the approaches thereto, including any property needed to extend, widen, or alter any feeder or outlet road, street, or way adjacent to or under the bridge or viaduct when the extension, widening, or alteration of the feeder road, street, or way is necessary for the full utilization of the bridge or viaduct, or for any other highway improvement... the director may purchase property from a willing seller as required for the construction and maintenance of bikeways and bicycle paths or to replace, preserve, or

conserve any environmental resource if the replacement, preservation, or conservation is required by state or federal law". This part of the ORC is often cited as a hindrance to the construction of sidewalks or bike lanes within the limits of the roadway by several ODOT Districts and MPOs.

One important note in Ohio law is the definition of transportation facilities, and how bicycle and pedestrian accommodations are addressed or not by said definitions. ORC Chapter 5501: Department of Transportation Definitions "(A) "Transportation facilities" means all publicly owned modes and means of transporting people and goods, including the physical facilities, garages, district offices, and other related buildings therefore, and including, but not limited to, highways, rights-of-way, roads and bridges, parking facilities, aviation facilities, port facilities, rail facilities, public transportation facilities, rest areas, and roadside parks And (C) "Road" or "highway" includes all appurtenances to the road or highway, including but not limited to, bridges, viaducts, grade separations, culverts, lighting, signalization, and approaches on or to such road or highway."

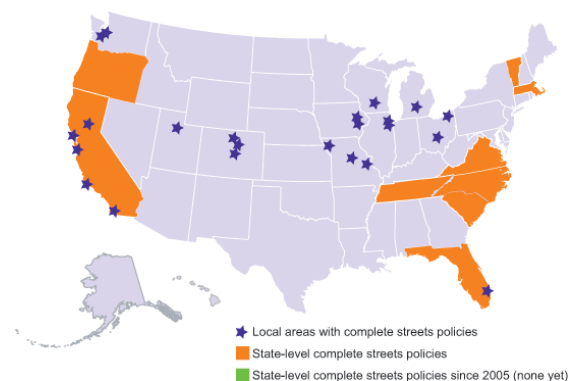
The overall recommendation in reviewing Ohio's State laws is to encourage ODOT and the MPOs to work with the State Legislature to more clearly define multimodal options such as bicycle and pedestrian accommodations, and clarify for transportation officials how to deliver programs and projects associated with bicyclists and pedestrians, specifically regarding the purchase of right-of-way and the use of tax revenues from being used for what is currently understood by some as for non-highway purposes. This could help meet the objective of delivering a truly multimodal transportation system easier. Some other states have actually defined multimodal facilities in their specific definition of what a transportation facilities are in order to clarify planning, funding, design, construction and maintenance of those facilities. A review of other states with sound State laws is found in a later section of this report under *Review of Practices from Around the Nation*. The text and excerpts of the Ohio State laws discussed above is found in Attachment 2.

ODOT's Bicycle and Pedestrian Policies, Programs and Practices

The Governor's Office of the State of Ohio recently convened a Task Force to evaluate the Transportation Priorities for Ohio. The findings of the Task Force were released in January, 2009 and have brought to light several key points for multimodal development and accommodation:

- Need to view bicycle and pedestrian facilities as integral transportation facilities instead of transportation enhancements as a mode of transportation.
- Develop Statewide Complete Streets Policy.
- Develop a Statewide Transportation Futures Plan that is performance-based with clear, measurable goals and identified results and develop standards and goals for bicycle and pedestrian transportation systems that reflect the population densities of the areas to be served.
- Increase problem identification and infrastructure planning for bicycle and pedestrian facilities and expand "share-the-road" education programs to educate motorists about the rights of bicycles and pedestrians.

Many of the priorities identified above were echoed strongly in the results of the questionnaire executed as part of this evaluation. In particular, the “Complete Streets” concept is important, particularly as population density increases, and is reflected accordingly in the results of the questionnaire. We recommend that the State consider the development of a Statewide Complete Streets policy that will aid in better planning and project delivery. The map to the right shows cities/regions and states that have currently adopted Complete Streets policies. We recommend that ODOT consider collaborating with the MPOs and Ohio Department of Natural Resources (ODNR) in the work that they have done in order to fully develop a comprehensive statewide bicycle and pedestrian plan in line with the provisions of SAFETEA-LU. More than one MPO and District Office recommended that Bicycle and Pedestrian Planning needs to be emphasized to a greater extent statewide



Bicycle and Pedestrian projects are typically considered in Ohio to be TE activities, and have historically been funded with State or Federal TE funds as community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. TE projects can include creation of bicycle and pedestrian facilities, streetscape improvements, refurbishment of historic transportation facilities, and other investments that enhance communities and access. As such, these types of projects are most often found within the LPA administered project process. ODOT does on occasion construct these projects in areas outside MPO boundaries, or where transportation enhancements are warranted or requested on an ODOT project. Other non gas tax sources of funding have been identified and have likewise been used across the State of Ohio for recreational trails and bicycle and pedestrian facilities from sources such as the State Issue 1 dollars, State Capitol Improvement Program through Ohio Public Works Commission and the Local Transportation Improvement Program, ODNR and from non governmental private foundations and grant sources. The planning efforts for all of these disparate sources have been documented to be coordinated as an overall comprehensive planning effort in the Dayton, Columbus, and Cincinnati areas to one degree or another by the respective MPOs and or certain of the municipalities within those respective regions.

ODOT has established a policy for administering the TE Program. ODOT Policy 25-005(P) TRANSPORTATION ENHANCEMENT PROGRAM POLICY, Effective: April 17, 2006; establishes funding participation and qualifying activities for the use of TE funds for ODOT sponsored projects for state-owned and/or state-maintained facilities, and those projects sponsored by local governments outside the boundaries of MPOs. From a fiscal analysis perspective, ODOT states that the ODOT Funds Management Committee sets the funding amounts for this program and that implementation of the TE policy will have no additional fiscal impact on ODOT. ODOT’s policy also indicates that no training is required for the TE Program. This review has found that disparities exist in the understanding of bicycle and pedestrian planning and safety across the board based upon discussions with various MPOs District Office personnel and the responses to the questionnaire. Interest shown in the ODOT Central Office of Safety’s training initiatives and requests for training by means of the questionnaire results also indicate that additional training is warranted.

Over the past five years, the Division Office has engaged ODOT and a few of the MPOs regarding improvements to bicycle and pedestrian planning to some degree. On March 7, 2005 the Division Office submitted comments to ODOT to address ODOT's proposed Policy No 20-004(P) "Policy on Accommodating Bicycle and Pedestrian Travel on ODOT Owned or Maintained Facilities". At that time, comments were offered for ODOT's consideration in preparing the final document. ODOT subsequently issued the policy on April 26, 2005, with little to none of the Division Office comments being incorporated into the final version. ODOT, the MPOs and LPAs have operated under this policy since that time. The Division Office found through the course of this review that the policy is not universally understood, followed or agreed with by various offices within Central Office, various ODOT Districts, MPOs and LPAs. In revisiting the policy and the Division Office comments, the Division still concurs with the 2005 comments and they are offered again as recommendations. A copy of ODOT Policy 20-004(P) and 3-7-2005 FHWA OH Division Comment Letter to ODOT RE: ODOT Policy No 20-004(P) are in Attachment 3. We recommend that ODOT establish policy and procedures that would address the Districts' roles and responsibilities in implementing and encouraging comprehensive planning for all modes statewide.

In April 2008, ODOT underwent a massive update to their website. The newly crafted site is better organized and provides for more readily accessible information to planners, designers, or laypersons. Since 1992, ODOT states that they have invested \$98 million to improve and modernize pedestrian and bicycle routes across the state. Today, Ohio has more than 3,000 miles of designated bike paths used by an estimated four million bicycle owners and pedestrians. ODOT provides bicycle and pedestrian support to promote and facilitate the increased use of non motorized transportation. This support includes the development of facilities for pedestrians and bicyclists and public educational, promotional, and safety programs for using such facilities. ODOT has produced educational information in the form of a nationally recognized publication titled *Street Smarts About "Bicycling Street Smarts"*. This is noted as a best practice that other states have likewise put in place. However, this review also found that there is a desire for developing additional public education for both cyclists and motorists. The ODOT website can be accessed at:
<http://www.dot.state.oh.us/Divisions/Local/Projects/bicycle/Pages/Default.aspx>

The design of bicycle and pedestrian facilities is determined by State and local design standards and practices. ODOT adopted the American Association of State Highway and Transportation Officials' (AASHTO) Guide to the Development of Bicycle Facilities as its manual. The ASSHTO Guide is supplemented by online cost per mile and design guidance. ODOT offers the following typical sections as well:

- ADA Requirements for Shared Use Paths
- Basics of Bicycle Facility Designs
- Images of Design Issues and Concerns
- Independent Facilities
- Roadway Based Facilities
- Bike Lane Typical Section
- Limestone Typical Section
- Independent Path Typical Section
- Rail-Trail Typical Section
- Rail-Trail Above Grade Typical Section



Although the AASHTO Guides on Bicycles and Pedestrians are universally well regarded, the manuals are not widely available, and are considered cost prohibitive to purchase for smaller MPOs and LPAs. It should be noted that there are anticipated revised and updated versions of the AASHTO bicycle and pedestrian guides are expected within the year. This review found strong desire among the engineering community to develop actual engineering standards to apply to bicycle and pedestrian planning and projects. Other States, such as California and North Carolina are pioneers in this area and ODOT could convene a study group of engineers and planners within the confines of their existing Location and Design Manual development procedures in order to develop such standards. We recommend that ODOT investigate and develop engineering standards regarding bicycle and pedestrian design similar to that of other states such as California for inclusion in the Location and Design Manual. The ODOT guidelines are vague and are not adequate as design Standards. More tools could be provided to engineers through the development of a Location & Design Manual Section concerning Bicycle and Pedestrian Planning and Design. The lack of design uniformity is confusing and results in increased design costs and project delays. We recommend that ODOT's District and Central Office, and the MPOs work together to develop needs-based project level eligibility determinations for proposed bike and pedestrian projects based on continually improved planning efforts. ODOT could consider developing a matrix that would help establish how to prioritize bicycle and pedestrian facilities similar to the travel demand model, but specific to bicyclists and pedestrians. ODOT could develop a means to track and identify the annual usage of bikeways using engineering practices. ODOT could develop or adopt a process to count bicycles on roads as better data on bicycle demand will assist with planning needs.

ODOT states through their website that funds are available for transportation related bicycle and pedestrian facilities through the Transportation Enhancements Program through both ODOT and the state's 17 Metropolitan Planning Organizations. Although this is correct, FHWA allows for a very broad use of funds, such as STP, CMAQ and other program funds for bicycle and pedestrian accommodations, where appropriate.

Ohio Department of Natural Resources

Although clearly not under the oversight of the Federal Highway Administration as an agency, the Ohio Department of Natural Resources (ODNR) offers a statewide planning tool that is too noteworthy to overlook for the purposes of this review. ODNR has produced and has continually updated a statewide ODNR Trails Plan. Taken from their website, "ODNR has updated its Trails Plan to help guide the development and expansion of a statewide system of recreational trails throughout Ohio. The plan recognizes the increasing popularity of all types of trail-related activities and envisions a goal of providing an easily accessible trail opportunity within 10 minutes of all Ohioans. The plan is intended to stimulate a coordinated and strategic approach for creating a system of recreational trails in Ohio by all levels of government and private trail groups and organizations. The ultimate vision of the plan is to link public lands, natural and scenic areas and communities with a multi-modal trail system. The plan will also serve as a guide for allocating resources from the Clean Ohio Trails Fund Program, the federal Recreational Trails Program and other financial assistance programs that can be used for trail acquisition and development. All trails that are planned and developed in Ohio are part of the statewide trail vision. These include projects that many local governments are undertaking to develop local trail systems to provide recreation and alternate transportation opportunities. The intent of this plan is to emphasize major statewide and regional trails and work to incorporate local linkages into the statewide network". It is important to

note that some projects funded with Federal Highway dollars inevitably become part of the aforementioned network. Other States that have taken the approach of incorporating these types of trail networks as part of an overall comprehensive plan have yielded very thorough comprehensive plans. FHWA recommends that ODOT consider collaborating with this sister agency on the work that ODNR has begun in order to fully develop a comprehensive statewide bicycle and pedestrian plan. ODNR's Plan may be found at the following website. <http://ohiodnr.com/default/tabid/11864/Default.aspx>

MPO Planning Efforts

Each of Ohio's MPOs was evaluated first by reviewing their websites or written plans for information regarding bicycle and pedestrian planning efforts. This was followed sending each MPO a questionnaire to obtain additional information regarding their efforts. A few of the MPOs were interviewed regarding their practices. In some cases, the individual MPOs offered additional information or hard copies of their various reports, plans, policies and studies. The Division Office and FTA have previously evaluated MPOs during certification reviews and had found them to be in substantial compliance with current regulations, but not without recommendations for improvement. Since that time, some MPOs such as MOPRC (Columbus) have addressed many recommendations, and have grown considerably in bicycle and pedestrian planning and safety efforts. We recommend that each MPO prepare a comprehensive plan for bicycles and pedestrians in their area. Collaboration with each other and with other entities will be critical to this undertaking. More than one MPO and District Office recommended that Bicycle and Pedestrian Planning needs to be emphasized to a greater extent statewide. Figure 1 on the following page compares best practices amongst the MPOs. A small write-up of the efforts of each MPO is in Attachment 4.

Some of the major findings for improvements of this review for some of the MPOs include:

- AMATS (Akron) should continue to improve upon what has been done to date to develop a more comprehensive approach.
- BOMTS (Wheeling) should take active steps toward bicycle and pedestrian planning and safety.
- BHJ (Stuebenville) should take a fresh look at their bicycle and pedestrian planning and safety efforts using their earlier work as a benchmark.
- Eastgate (Youngstown) could perform a system-wide needs analysis for improvements to their planning efforts.
- KYOVA (Huntington) should continue to develop a more comprehensive bicycle and pedestrian plan for the region.
- RCRPC (Mansfield) needs to begin comprehensive planning for bicyclists and pedestrians and for the safety of the same.
- SCATS (Canton) should at a minimum use the Stark County District Trail Plan as a first step in further developing a comprehensive plan.
- WWW (Marietta) should further identify the true needs of the network in areas in both Ohio and West Virginia where there may be need for better planning from a safety perspective.

The Ohio MPOs with the most comprehensive planning tools were: MORPC (Columbus), MVRPC (Dayton), OKI (Cincinnati), The next best tier of performers were: AMATS (Akron), CCSTCC

(Springfield), Eastgate (Youngstown), ERPC (Sandusky), NOACA (Cleveland), & TMACOG (Toledo).

Figure 1: Showing comparison of Ohio MPOs regarding use of bicycle and pedestrian planning and safety best practices and tools. Full Description of each MPO is found in Attachment 4.

| | AMATS | BOMTS | BHJMP | CCSTCC | EASTGATE | ERPC | KYOVA | LACRPC | LCATS | MORPC | MVRPC | NOACA | OKI | RCRPC | SCATS | TMACOG | WWW |
|--|----------------|----------------|-------|----------------|----------------|------|-------|--------|-------|-------|-------|----------------|----------------|----------------|----------------|--------|----------------|
| Bicycle & Pedestrian Discussion on LRTP | X | X ⁷ | X | X | X | X | X | X | X | X | X | X | X | X ⁷ | X ⁷ | X | X ⁷ |
| Complete Streets Initiatives or Policy | | | | X ² | | | | | | X | | X ⁵ | X ⁶ | | | | |
| Regional Bicycle/Pedestrian Plan | X | | X | X | X ⁴ | X | | | | X | X | X | X | | | X | |
| Ongoing Education Efforts | | | | | | | | | | X | X | X | X | | | X | |
| Bicycle Network Map Developed | X | | X | X ³ | X | | | | | X | X | X | X | | | X | |
| Established Bicycle & Pedestrian Planning Goals | X | | X | X | X | X | | | | X | X | X | X | | | | |
| Counting Program for Bicyclists & Pedestrians &/or Development of Crash Statistics for use in Planning/Engineering | | | | | | | | | X | X | | | | | | | |
| Strong Documented Transit Partnerships & Connectivity such as “Bikes on Buses” | X | | | | | | | | | X | X | X | X | | | | |
| Pedestrian and Bikeways Committee or Similar Formed | | | X | X | X | X | | | | X | X | X | X | | | X | |
| Coordination Between Funding Sources & Planning Efforts | X ¹ | | | X | | | | X | | X | X | | X | | | | |
| Specific Focus on Bicycle & Pedestrian Safety | X | | | X | | X | | X | | X | X | | X | | | X | |
| Developed Inventory or Needs Report | X | | | | X | | | | | X | X | X | X | | | X | |

X¹ Developed to some degree through work shown in Needs Report

X² Beginning to emerge as regional efforts progress

X³ Developed to some degree through work completed as part of regional task force

X⁴ Regional Plan beginning, but focused on particular corridors, not system wide

X⁵ Complete Streets Policies are emerging in Cleveland Area

X⁶ Complete Streets Policies are emerging in Cincinnati Area

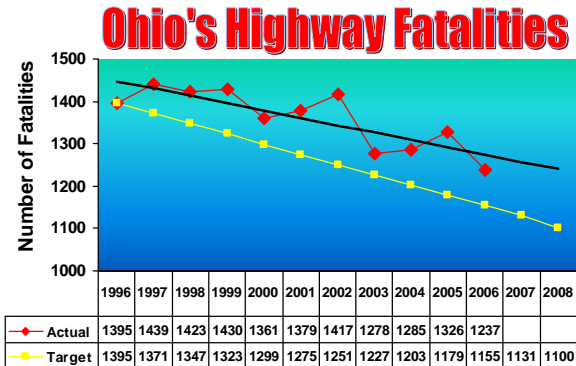
X⁷ The discussion in the LRTP is very weak

Questionnaire Results

As stated previously, a comprehensive questionnaire consisting of various planning related questions pertaining to the subject matter was prepared in conjunction with ODOT's Central Offices of Safety and Local Programs, as well as with the assistance of MORPC. This questionnaire was then deployed with the assistance of ODOT to each ODOT District Office of Planning for completion by the District Planning Administrator, LPA Coordinator, Environmental Coordinator, or Safety Engineer. At the same time, the instrument was deployed to each of Ohio's MPOs as well as to select LPAs and to our West Virginia FHWA and DOT partners for informational purposes since we share duties with several MPOs along the Ohio River. A summary of this questionnaire and a copy of the questions are provided as Attachment 5.

Overall, the results of this exercise revealed that there is a need to develop better statewide planning and engineering standards. There were identified gaps in the program in terms of implementation and understanding across the Districts, MPOs, and LPAs. There is a lack of statewide direction due to a lack of a developed statewide plan on ODOT's part. There is a need to educate engineers and planners as to the federal requirements. It was discovered through direct response and by inference to the actions of others involved in the process, that planners and engineers need to understand that proper planning, safety and accommodation applies at some level to all transportation users, urban, suburban, and rural. Some engineers and planners in Ohio do realize that there are disparities and lack of planning, and are in need of direction in order to do something about it. Some engineers and planners know what needs to be done to a degree, but not how to accomplish it in the framework of the current statewide practices. There are some people who understand their roles, and deliver programs and projects within the parameters set forth by FHWA. There are many who either do not understand their role or do not see the necessity for planning bicycle and pedestrian transportation routes. Some engineers and planners see all bicycle and pedestrian accommodation as non-transportation related, just having a recreational use. There is a lack of understanding of purpose and need for regulations and also a lack of awareness of where to find the guidelines. There was also an apparent lack of understanding of the critical link between sound bicycle and pedestrian planning efforts and safety. Most were not aware of the safety elements required by SAFETEA-LU or they relied on one individual in the organization alone to ensure compliance with the law and regulations. Some ODOT District personnel indicated that often there is little or no consideration of purpose and need, logical termini or cost-benefit for enhancement type projects. Further, ADA requirements and design guidelines are viewed as "optional" by some locals. We recommend that there be inclusion of a brief discussion, basic NEPA Purpose and Need and ADA requirements, into any bicycle and pedestrian planning and safety training sessions developed for the State.

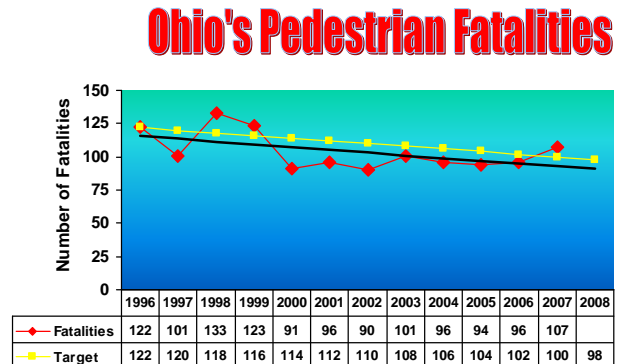
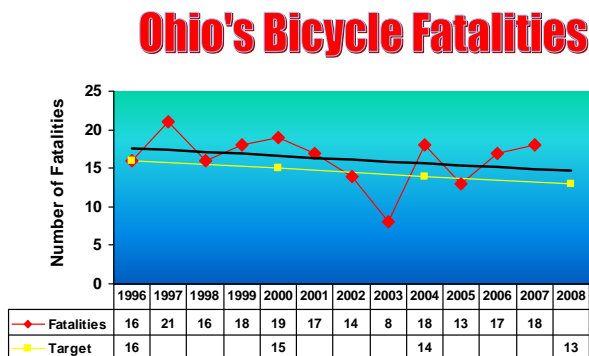
Safety



There is no question that conditions for bicycling and walking need to be improved in every community in the United States. Six thousand bicyclists and pedestrians are being killed nationally in traffic every year. People with disabilities cannot travel without encountering barriers, resulting in two desirable and efficient modes of travel being made difficult and uncomfortable. Although the statistical analysis of total crashes of all modes of travel involving fatalities in Ohio

shows trends that are encouraging, there is always room for improvement when it comes to safety. According to ODOT's Central Office of Safety, in 2006 Ohio had the 11th lowest fatality rate in the nation. Between 2005 and 2007, Ohio experienced an 8.3 percent reduction in total crashes, and a 5.3 percent reduction in fatalities. These improvements saved 71 lives in 2007 and decreased statewide crashes by more than 29,000. There were about 3.2 fatal crashes each day and approximately 3.4 persons were killed each day.

In 2007, there were 2,048 bicycle crashes with about 77% resulting in injuries. There were 16 fatalities. The Ohio Department of Transportation is currently reviewing the state Strategic Highway Safety Plan to develop new strategies and pilot programs that will improve pedestrian and bicycle safety. ODOT's Comprehensive Safety Plan (CHSP) takes a hard look at bicycle and pedestrian safety and addresses it through a detailed look at the statistics. The Plan found that in a 5-year period there were 71 total deaths and 1,202 serious injuries. Nationally, bicycle crashes accounted for 13 percent of all non-motorist traffic fatalities in 2006. During 2006, Ohio had 2,086 traffic crashes and 17 fatalities involving bicycles. Twenty-four percent of those killed were between the ages of 5 and 15. Nationally, 14 percent of bicycle fatalities fell within this age group during 2006. In addition, of Ohio's 17 bicycle fatalities, all 17 people involved, whether riders or passenger, were not wearing a helmet. More than 60 percent of bicycle traffic crashes occurred between the hours of 3 p.m and 7 p.m. Common causes were bicyclists failing to stop at intersections or crossing into traffic, and vehicles striking bicyclists from behind.



According to national studies, on average a pedestrian is killed in a motor vehicle crash every 110 minutes, and one is injured every 2 minutes. In 2006, Ohio had 96 pedestrian fatalities and 592 serious injuries involving motor vehicle crashes. In Ohio the 5-year death total was 487 people with 3,103 serious injuries. Nearly 39 percent of the pedestrians fatally injured were intoxicated. Of the 96 lives lost, 15 were crossing the roadway. Of all pedestrian traffic crashes, 80 percent occurred in urban areas and over 26 percent involved victims between the age of 5 and 15 years old. Pedestrians represent 0.82% of the total crashes in Ohio; however, when involved in a crash, they represent 10.8% of the total fatality rate in the State. The higher incidence of fatalities associated with these types of crashes is indicative of the need for improved bike and pedestrian planning efforts statewide.

Pedestrian and bicycle issues are included in Ohio's Comprehensive Safety Plan (CHSP). In the fall of 2008, ODOT initiated a small work group that is examining bicycle and pedestrian crash data, discuss safety concerns and develop strategies that could be implemented to prevent crashes and encourage road-sharing practices. This group is a formal subcommittee of the CHSP. The work group includes representatives from the Division Office, ODOT, MPOs, county and city representatives, and bicycle organizations representing sport, commuting and recreational riders. ODOT's Pedestrian/Bicycle Workgroup has identified seven draft problem areas, and the causes and solutions for each. These problem areas include: 1) lack of reliable data, 2) bicycle and pedestrian planning weaknesses, 3) lack of adequate education for drivers, 4) cyclists and pedestrians, 5) lack of facility maintenance, 6) lack of adequate funding for facilities or safety improvements, 7) lack of bicycle and pedestrian accommodations throughout the State, 8) and cycling is seen as outside the mainstream as a mode choice in Ohio.

Related to data quality, Ohio and the nation have a problem with a lack reliable data on bicycle use. Causes for this include: 1) lack of standard methodology, 2) lack of equipment or resources and, 3) lack of reporting. Potential solutions for this problem may involve: 1) Research methodologies and equipment needed to conduct counts/address underreporting, 2) use clubs to identify high-use areas for priority, and 3) comb all bicycle crash data for more information.

Bicycle and pedestrian planning are a problem in Ohio. This shortfall may include: 1) lack of further integrate bicycles into transportation planning, 2) making roadways accessible to bikes. Potential causes for this may include: 1) Lack of consistency and definitions in how federal regulations are applied, 2) lack of uniform standards and guidelines, and 3) lack of coordination with land use planning. Potential solutions for this problem may involve: 1) ODOT committee to review policy and process for consistency. Train users on proper implementation, if needed, 2) ODOT committee to consider developing bicycle standards for L&D Manual and expand training, and 3) develop guidelines for MPOs and cities to develop bike plans.

ODOT's Pedestrian/Bicycle Workgroup has found a need for better education in the State. The specifics regarding a need for better education are that drivers, riders, law enforcement, and judges are unfamiliar with the laws governing shared use of the road, and that riders do not always follow safe practices (visibility, helmets, etc.). Potential causes include a lack of information available or public and/or law enforcement attention given to the issue. Potential solutions involve: 1) develop and distribute information materials targeting each audience (Education Credits), 2) develop and promote statewide Share the Road Campaign, 3) distribute Street Smart through BMVs, 4) research ability to modify drivers education curriculum, school curriculum, (Ohio Dept. of Education PE

Coordinator), special drivers plates, 5) research best practices such as Chicago Bicycle Ambassadors, bicycle instruction classes (interactive training web site), 6) develop incentive programs to encourage bicycle safety such as light give-away programs, and 7) research signage programs such as "bikes may use full lane" signs (CA, Chicago); and "share the road" signs in areas where people ride frequently.

ODOT's Pedestrian/Bicycle Workgroup has found issues with facility maintenance in Ohio. This includes things like excessive roadway debris, vegetation and pavement conditions that create safety hazards for cyclists and traffic signals that do not always detect bicycles. Potential causes include a lack of attention or resources to maintain roads and paths at acceptable levels and outdated signal equipment or programming necessary to detect riders. Potential solutions involve: 1) work with bike groups, MPOs and cities across the state to identify high-use areas for routine maintenance and/or safety improvements, 2) provide point of contact or central web site to report maintenance or safety problems, 3) review LPA agreements to explore creating commitments for long-term maintenance once bike projects are funded, and 4) review signal technology and suggest/fund improvements that increase bicycle detection at intersections.

ODOT's Pedestrian/Bicycle Workgroup has found that there is a lack of adequate funding to make safety improvements or build facilities that encourage and support bicycle use. One potential cause of this was identified as a lack of resources for this issue across the state at all levels of government. One potential solution for this issue was to research and compile information on all the funding sources available for these types of projects.

The group found that there is a lack of accommodations resulting in a lack of incentives for bicycle commuting. A potential cause for this was identified as a lack of "end use" facilities such as safe, secure and covered bike racks, showers and changing areas. A potential solution for this was to encourage employers to provide accommodations starting with government agencies.

Lastly ODOT's Pedestrian/Bicycle Workgroup has found that cycling is seen as outside the mainstream in Ohio. A potential cause for this is that cycling lacks respect and acceptance among mainstream and engineering culture, which favors motorized vehicles. A potential solution for this is to attempt change the culture by 1) develop respected and well-known champions to encourage bicycle use, 2) develop ways to quantify bicycle use and its benefits (see data) to build support in engineering community for accommodations and improvements, and 3) summarize top design and maintenance issues from roadway perspective; develop options for accommodating riders (not one-size-fits-all).

The ODOT Pedestrian/Bicycle Workgroup has decided to address these issues and to develop strategies for improving bicycle and pedestrian accommodations and safety across the State. These strategies will be developed and discussed with the appropriate entities, and then implemented where appropriate. ODOT's Pedestrian/Bicycle Workgroup initiated the offering of the bicycle and pedestrian planning and design NHI courses in the winter of 2008.

ODOT's Pedestrian/Bicycle Workgroup strategies for addressing bicycle and pedestrian safety:

- Increase enforcement, education and training in bicycle/pedestrian laws and safety through Ohio's Safe Routes to Schools Program
- Increase problem identification and infrastructure planning for bicycle and pedestrian facilities through Ohio's Safe Routes to Schools Program

- Conduct target enforcement of bicycle/pedestrian traffic laws in high crash zones
- Strengthen penalties/enforcement for marked lane violations that endanger bicyclists and pedestrians
- Conduct law enforcement and judicial awareness seminars to educate these groups in the violations and penalties associated with bicycle/pedestrian related traffic violations
- Improve pedestrian signs and road markings
- Increase enforcement, education and training in bicycle/pedestrian laws and safety through Ohio's Safe Routes to Schools Program
- Increase problem identification and infrastructure planning for bicycle and pedestrian facilities through Ohio's Safe Routes to Schools Program
- Conduct target enforcement of bicycle/pedestrian traffic laws in high crash zones
- Strengthen penalties/enforcement for right-of-way, assured clear distance and marked lane violations that endanger bicyclists and pedestrians
- Conduct law enforcement and judicial awareness seminars to educate these groups in the violations and penalties associated with bicycle/pedestrian related traffic violations.

It is recommended that methods of examining bicycle and pedestrian crashes and injuries be developed by ODOT as well as the implementation of state-wide guidelines for developing Pedestrian Safety Action Plans or Pedestrian Safety Audits. A reasonable safety goal is to work with the post-2008 goal of 1.0 fatality per 100 MVMT by 2011. The post 2008 goals are based on the same reductions as the pre-2008 goals. FY 09 goals would read: Reduce the number of pedestrian fatalities to less than 15. Reduce the number of bicycle fatalities to less than 13. The link for the crash facts reports is http://www.publicsafety.ohio.gov/crashes/crash_facts.asp

Review of Best Practices from Around the Nation

A literature review was conducted on each of the 50 states' practices and procedures regarding bicycle and pedestrian planning and safety efforts by reviewing the Department of Transportation (DOT) websites to evaluate the state of their programs. The review consisted of:

- Looking through the website contents of each DOT to determine if web-based information exists regarding bicycle and pedestrian planning efforts
- If no information was readily available, the state DOT website search tool was used to determine if information existed, but perhaps in a hidden path
- If no information was readily available from this query method, the state was deemed to have planning and safety efforts less than those found in Ohio, and was thus not further investigated or discussed
- The findings of the list of states with sound practices were discussed briefly with the FHWA HQ Bicycle and Pedestrian Coordinator as a sounding board for validity for these purposes.

For those states where information was readily available, bicycle and pedestrian planning efforts were queried, as were the Safe Routes to School Program, design guidance, and any other available tool that would be of benefit to those involved in that state in bicycle and pedestrian planning efforts.

The Division Office additionally participated in a Transportation Planning Capacity Building Program Peer Exchange "Best Practices in Bicycle Facilities Planning" June 13, 2008, sponsored by

the USDOT VOLPE Center and supported by FHWA and Federal Transit Administration's (FTA) Transportation Planning Capacity Building (TPCB) Program. The event was hosted by staff from the Chicagoland Bicycle Coalition and the City of Chicago's Department of Transportation in downtown Chicago, Illinois. This event highlighted best practices from Chicago and around the nation, while highlighting and emphasizing needs here in Ohio. A copy of the report from this event prepared by USDOT is in Attachment 6. Figure 2 on the following page shows a comparison of ODOT with other states and select local DOTs regarding use of bicycle and pedestrian planning and safety best practices and tools. A list of the States and jurisdictions was compiled that had demonstrated at least some concerted effort in developing a successful interaction between the DOT, MPOs and LPAs by providing useful and meaningful information regarding bicycle and pedestrian planning. This list is in Attachment 7.

Successful Practices

This review discovered some best practices around the State of Ohio concerning bicycle and pedestrian planning and safety. These practices are considered a highlight of what is currently done in Ohio, however, is not intended to preclude other practices that may be noted elsewhere in the report, or that may have been overlooked. In April 2008, ODOT updated their website. The newly crafted site is better organized and provides for more readily accessible information to planner, designer, or layperson. ODOT has produced educational information in the form of a nationally recognized publication titled *Street Smarts About "Bicycling Street Smarts"*. This is noted as a best practice that other states have likewise put in place. ODOT produced two design guidelines to assist planners and designers for roadway based facilities and independent facilities which are available on at the websites listed below. These are a step above some other states; however, there is room to grow with them. Regardless, considering that the majority of other states offer no such guidelines, they serve as a best practice.

<http://www.dot.state.oh.us/Divisions/Local/Projects/bicycle/Design%20Guidelines/RoadwayBasedFacilities.pdf>

<http://www.dot.state.oh.us/Divisions/Local/Projects/bicycle/Design%20Guidelines/Independent%20Facilities.pdf>

In the fall of 2008, ODOT initiated a small work group that is examining bicycle and pedestrian crash data, discuss safety concerns and develop strategies that could be implemented to prevent crashes and encourage road-sharing practices.

As managers of the TE Program, 12 of the 17 MPOs have written procedures that describe the process for TE projects. These written procedures are consistent with the FHWA guidance and meet federal requirements. The Division commends the 12 MPOs for their efforts and accomplishments in managing and documenting program procedures for their program areas.

AMATS has identified Transportation enhancement needs in their *2030 Transportation Enhancement Needs* report which consists of all regional and feeder bikeways along with several regional non-bikeway enhancements, resulting in a report that identifies a relatively good snapshot of the system and needs.

LCATS initiated a count program for cyclists and pedestrians. Before the count program it was thought that the paths were used for recreational use only. The idea of performing counts is done by other states and helps serve as the basis for developing sound purpose and need elements.

Figure 2: Showing comparison of ODOT with other States and select Local DOTs regarding use of bicycle and pedestrian planning and safety best practices and tools. Full Description of each State is found in Attachment 7.

| | CALIFORNIA | COLORADO | FLORIDA | GEORGIA | ILLINIOS | MASSACHUSETTS | MINNESOTA | MISSOURI | NORTH CAROLINA | OHIO | OREGON | PENNSYLVANIA | VERMONT | VIRGINIA | WASHINGTON | WISCONSIN | CHICAGO, IL | PORTLAND, OR | WASHINGTON D.C. |
|--|------------|----------------|----------------|---------|----------------|---------------|-----------|----------------|----------------|----------------|--------|--------------|----------------|----------|------------|-----------|----------------|----------------|-----------------|
| Complete Streets Initiatives or Policy | X | | X | | | X | | | X | | X | | X | X | X | | X | X | X |
| State Bicycle/Pedestrian Plan | X | | X | X | | X | X | | X | | X | X | X | X | X | X | X ¹ | X ¹ | X ¹ |
| Ongoing Education Efforts | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Bicycle Network Map Developed | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X | X | X |
| Established Bicycle & Pedestrian Planning Goals | X | | | X | X | X | X | | X | | X | X | X | X | X | X | X | X | X |
| Counting Program for Bicyclists & Pedestrians &/or Development of Crash Statistics for use in Planning/Engineering | X | X | X | | X | | | | X | | | | X | X | X | X | X | X | X |
| Strong Documented Transit Partnerships & Connectivity such as “Bikes on Buses” | X | X ¹ | X ¹ | X | X ¹ | | X | X ¹ | X | X ¹ | X | | X ¹ | X | X | | X | X | X |
| Pedestrian and Bikeways Committees or Similar Formed | X | | | | | X | X | X | X | X | X | X | | X | X | X | X | X | X |
| Coordination Between Funding Sources & Planning Efforts | X | | | X | X | | X | | X | | X | X | | X | X | X | X | X | X |
| Specific Focus on Bicycle & Pedestrian Safety | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| LPA Specific Assistance Offered | X | X | | | X | | X | | X | | | X | X | X | X | X | X | X | X |
| State Laws Reflective of Needs | X | X | X | X | X | X | X | | X | | X | X | X | X | X | X | X ³ | X ³ | X ³ |
| State DOT Policies regarding Accommodation | X | X | X | X | X | X | X | | X | X | X | X | X | X | X | X | X ⁴ | X ⁴ | X ⁴ |
| Established Planning Standards | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Established Engineering Standards | X | X | X | X | X | X | X | | X | | X | | X | X | X | X | X | X | X |
| Survey/Study of Bicycle/Pedestrian Usage | | X | | | | | X | | X | | | | | | X | X | X | X | X |

X¹ In major metropolitan areas

X² Regional Plan

X³ Local Laws

X⁴ Local DOT/Highway Department

MORPC, MVRPC, and OKI are all using best practices across the board, utilizing tools that are used elsewhere nationally. Please refer to Attachment 4 for the write-ups on all Ohio MPOs to further understand what each is doing.

Recommendations for Improvement

As detailed throughout this review, several areas of improvement have been identified. These are summarized in the key recommendations to improve the Bicycle and Pedestrian program as follows:

- The Division Office recommends that ODOT explore working with the legislators to more clearly define multimodal options such as bicycle and pedestrian accommodations, and clarify for transportation officials how to deliver programs and projects associated with bicyclists and pedestrians, specifically the purchase of right-of-way and the use of tax revenues from being used for non-highway purposes.
- The Division Office recommends that ODOT consider the development of a Statewide Complete Streets policy that will aid in better planning and project delivery. ODOT should consider collaborating with the MPOs and ODNR in the work that they have done in order to fully develop a comprehensive statewide bicycle and pedestrian plan in line with the provisions of SAFETEA-LU. More than one MPO and District Office recommended that Bicycle and Pedestrian Planning needs to be emphasized to a greater extent statewide.
- Regarding ODOT Policy No 20-004(P) Policy on Accommodating Bicycle and Pedestrian Travel on ODOT Owned or Maintained Facilities. The Division Office found through the course of this review that the policy is not universally understood, followed or agreed with, by various offices within Central Office, various ODOT Districts, MPOs and LPAs. In revisiting the policy and the 2005 Division Office comments, the Division still concurs with the comments as presented in Attachment 3. The Division Office recommends that ODOT establish policy and procedures that would address the Districts' roles and responsibilities in implementing and encouraging comprehensive planning for all modes statewide.
- The Division Office recommends that training should be provided to ODOT officials involved in the project development process in order to understand the idea of accommodating non-motorized traffic modes in order to ensure consistency in the planning and project delivery process across the state in terms of bicycle and pedestrian practices and projects. Based on concerns of various MPOs and LPAs, ODOT staff needs to more fully embrace its existing bicycle and pedestrian accommodation policy across the board within the various Districts and Central Office. ODOT's bicycle and pedestrian accommodation policy also indicates that no training is required for the TE Program. This review has found that disparities in the understanding of bicycle and pedestrian planning and safety across the board, the responses to the questionnaire, and the interest shown in the ODOT Office of Safety's training initiatives indicate that additional training is warranted. The Division Office, the ODOT Office of Safety, several MPOs and District offices requested the development of more Bicycle and Pedestrian planning process seminars and workshops with emphasis on both planning and safety. It is recommended that ODOT and the Division

Office should develop a module of training to help transportation officials in understanding of federal and State processes, design standards, obligations, etc.

Conclusion

This review has succeeded in conducting an assessment of the bicycle and pedestrian planning as it relates to Program and Procedures, Roles and Responsibilities, State Laws, ODOT's Bicycle and Pedestrian Policies Program and Practices, MPO Planning Efforts, the 2008 FHWA Ohio Division Questionnaire Results, and Safety. The Districts and the MPOs continue to demonstrate their abilities as good managers of the TE Program in terms of project delivery in addition to being good stewards of federal dollars. There is a demonstrated need to improve upon the state of the practice regarding bicycle and pedestrian planning statewide. There is also a need to continue to educate engineers and planners alike in this area. The review has identified opportunities for improvement, as well as best practices in Ohio and around the nation that can be implemented in the state. Safety for these modes of transportation is likewise important, and further improvements to reduce accidents, injuries and fatalities are called for. To address the review objective of assisting ODOT, MPOs and LPAs further develop in the area of bicycle and pedestrian planning and safety, the Division Office will meet with ODOT Central Office, Office of Local Projects and Office of Planning and select MPOs to discuss the above recommendations and determine which can feasibly be addressed, including working jointly with those offices. The Division Office will continue to offer technical assistance and will develop training that can be implemented statewide.

ATTACHMENT 1

**ODOT Policy 25-005(P) Transportation Enhancement Program Policy,
Effective: April 17, 2006**

Approved:

Policy 25-005(P)

Effective: April 17, 2006

Responsible Office: Local Programs

Supersedes Policy: 25-005(P)

Dated: April 1, 2005

Gordon Proctor
Director

TRANSPORTATION ENHANCEMENT PROGRAM POLICY

POLICY STATEMENT:

This policy establishes funding participation and qualifying activities for the use of Transportation Enhancement (TE) funds for Ohio Department of Transportation (ODOT) sponsored projects for state-owned and/or state-maintained facilities, and those projects sponsored by local governments outside the boundaries of Metropolitan Planning Organizations (MPOs). The Enhancement program uses federal funds to creatively integrate transportation facilities into their surrounding communities and the natural environment. ODOT encourages adding enhancements to planned projects rather than stand-alone projects.

This policy does not apply to TE funds administered by MPOs. ODOT suballocates TE funds to MPOs for local government projects within MPO boundaries. MPOs are responsible for policies and criteria for their projects.

For locally-sponsored projects, ODOT will provide up to 80 percent of the eligible costs for construction only (including construction engineering, i.e. testing and inspection) up to a specified maximum. The applicant is required to provide funds for a minimum of the 20 percent nonfederal share of the construction cost, and for all costs associated with the architecture/engineering plans, environmental studies and documentation, right-of-way plans, right-of-way acquisition and environmental remediation, if necessary. Right-of-way acquisition costs are only allowable for specific qualifying activities as provided below.

Proposed TE projects must have a direct relationship to surface transportation, be publicly-owned and on existing publicly-owned property (except for qualifying acquisition activities), be accessible to the general public or targeted to a broad segment of the general public, and be one of the following qualifying activities:

Historic and Archaeological Transportation Enhancements

- Acquisition of historic site
- Historic highway program
- Historic preservation
- Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals)
- Archaeological planning and research
- Establishment of transportation museums

Scenic and Environmental Transportation Enhancements

- Acquisition of scenic easements and scenic sites
- Scenic highway programs including the provision of tourist and welcome center facilities
Landscaping and other scenic beautification

Bicycle and Pedestrian

- Provision of bike lanes, signed routes, separate paths, grade separations, parking facilities, bike-safe grates or other facilities
- Provision of safety and educational activities for bicycles and pedestrians
- Preservation of unused railway corridors for the purpose of creating shared use trails (includes acquisition or construction)

The allocation for the TE Program will be established by ODOT and will be administered by the Division of Local Programs.

AUTHORITY:

23 USC 133

REFERENCES:

This policy supercedes Policy 25-005(P) dated April 1, 2005.

SCOPE:

This policy is applicable to all Districts, Divisions and Offices of the Department; and to all local governments outside of Metropolitan Planning Organization (MPO) boundaries.

BACKGROUND AND PURPOSE:

The TE Program was initiated by Congress in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) for transportation-related activities that are designed to strengthen the cultural, aesthetic, and environmental aspects of the Nations intermodal transportation system.

TRAINING:

None required.

FISCAL ANALYSIS:

The ODOT Funds Management Committee sets the funding amounts for this program. Implementation of this policy will have no additional fiscal impact to ODOT.

ATTACHMENT 2

Text and Excerpts of the Ohio State Laws

The Constitution of the State of Ohio (with amendments to 2008): Article XI: Finance and Taxation; *Use of motor vehicle license and fuel taxes restricted.*

§5a No moneys derived from fees, excises, or license taxes relating to registration, operation, or use of vehicles on public highways, or to fuels used for propelling such vehicles, shall be expended for other than costs of administering such laws, statutory refunds and adjustments provided therein, payment of highway obligations, costs for construction, reconstruction, maintenance and repair of public highways and bridges and other statutory highway purposes, expense of state enforcement of traffic laws, and expenditures authorized for hospitalization of indigent persons injured in motor vehicle accidents on the public highways. (1947)

ORC 5501.31 Director of Transportation - powers and duties. Paragraph 2 & 3

The director may purchase or appropriate property necessary for the location or construction of any culvert, bridge, or viaduct, or the approaches thereto, including any property needed to extend, widen, or alter any feeder or outlet road, street, or way adjacent to or under the bridge or viaduct when the extension, widening, or alteration of the feeder road, street, or way is necessary for the full utilization of the bridge or viaduct, or for any other highway improvement. The director may purchase or appropriate, for such length of time as is necessary and desirable, any additional property required for the construction and maintenance of slopes, detour roads, sewers, roadside parks, rest areas, recreational park areas, park and ride facilities, and park and carpool or vanpool facilities, scenic view areas, drainage systems, or land to replace wetlands, incident to any highway improvement, that the director is or may be authorized to locate or construct. Also incident to any authorized highway improvement, the director may purchase property from a willing seller as required for the construction and maintenance of bikeways and bicycle paths or to replace, preserve, or conserve any environmental resource if the replacement, preservation, or conservation is required by state or federal law. Title to property purchased or appropriated by the director shall be taken in the name of the state either in fee simple or in any lesser estate or interest that the director considers necessary or proper, in accordance with forms to be prescribed by the attorney general. The deed shall contain a description of the property and be recorded in the county where the property is situated and, when recorded, shall be kept on file in the department of transportation. The property may be described by metes and bounds or by the department of transportation parcel number as shown on a right of way plan recorded in the county where the property is located.

ORC 5501.05 Prohibiting use of highway funds for non-highway purposes.

Moneys appropriated to the department of transportation and derived from fees, excises, or license taxes relating to the registration, operation, or use of vehicles on public highways, or to fuels used for propelling such vehicles, shall not be expended for any purpose other than as provided in Section 5a of Article XII, Ohio Constitution, and such moneys may be expended only for expenses directly chargeable to the purposes set forth in such section. The director of transportation may make rules facilitating, to the extent practical under the circumstances, the use of public transportation systems and aviation systems by the handicapped.

ORC CHAPTER 5501: Department Of Transportation Definitions

(A) “Transportation facilities” means all publicly owned modes and means of transporting people and goods, including the physical facilities, garages, district offices, and other related buildings therefore, and including, but not limited to, highways, rights-of-way, roads and bridges, parking facilities, aviation facilities, port facilities, rail facilities, public transportation facilities, rest areas, and roadside parks.

(C) “Road” or “highway” includes all appurtenances to the road or highway, including but not limited to, bridges, viaducts, grade separations, culverts, lighting, signalization, and approaches on or to such road or highway.

(D) “Right-of-way” has the same meaning as in division (UU)(2) of section 4511.01 of the Revised Code.

Ohio’s 21st Century Transportation Priorities Task Force –January 2009

It is logical enough to advocate for improving highway, rail, maritime and air connectivity and capacity, but Ohioans also need improvements in the simplest means of transportation. For example, Ohio has sidewalks throughout its cities, but the sidewalks are not always in the best of condition and may not create a complete network. Ohio also is creating an expanded network of recreational bicycle facilities, some of which can be used for daily commuting. The fact is, Ohio does recognize the need for pedestrian and bicycle facilities; however, these facilities should be viewed as integral parts of the transportation system instead of “transportation enhancements” as they are today.

“Complete Streets” is a growing movement in the United States. It is based on the premise that a complete street includes sidewalks, bike lanes (or wide paved shoulders), special bus lanes, comfortable and accessible transit stops, frequent crossing opportunities, median islands, accessible pedestrian signals, curb extensions and more. “Complete Streets” are designed to balance safety and convenience for everyone using the road. Implementing “Complete Streets” could increase property values and help to improve air quality by providing safe, people-powered transportation choices [Ohio’s 21st Century Transportation Priorities Task Force –January 2009, pp23]

A Statewide Transportation Futures Plan would be performance-based with clear, measureable goals and identified results. It would be developed subject to federal guidelines and have a regular reporting schedule. It would focus on transportation policies, innovation and technology initiatives, investment strategies and ODOT’s advocacy and leadership role. Finally, the plan, which would be developed under the guidance of ODOT’s Division of Planning, would provide the framework for the selection and prioritization of specific transportation projects. Develop standards and goals for bicycle and pedestrian transportation systems that reflect the population densities of the areas to be served. [Ohio’s 21st Century Transportation Priorities Task Force – January 2009 pp 27 & pp28]

It is with the goal of improving transportation safety and moving towards a zero tolerance, “Safety First” policy, that the Task Force recommends the following actions:

Increase problem identification and infrastructure planning for bicycle and pedestrian facilities and expand “share-the-road” education programs to educate motorists about the rights of bicycles and pedestrians. Timeframe: Near Term [Ohio’s 21st Century Transportation Priorities Task Force –January 2009 pp39]

ATTACHMENT 3

**3-7-2005 FHWA OH Division Comment Letter to ODOT RE: ODOT Policy
No 20-004(P)**

**ODOT Policy No 20-004(P) Policy on Accommodating Bicycle
and Pedestrian Travel on ODOT Owned or Maintained Facilities**



U.S. Department
of Transportation

**Federal Highway
Administration**

Ohio Division Office
200 North High Street
Columbus, Ohio 43215

March 7, 2005

In Reply Refer To:
HPD-OH

Mr. Gordon Proctor, Director
Attn: Suzann S. Rhodes, Office of Urban and Corridor Planning
Ohio Department of Transportation
1980 West Broad Street
Columbus, OH 43223

Dear Ms. Rhodes:

The Federal Highway Administration (FHWA) would like to submit comments to address your e-mail titled "Bike/Pedestrian Accommodation Policy". The following comments are offered for your consideration in preparing a final document:

- 1) The policy as currently written does not provide objective standards for the three consideration criteria. Standards should be developed to ensure a consistent application of the policy. For example, would a high level of Average Daily Traffic (ADT) be a reason to exclude bicycle facilities from a highway project, and what would the ADT be? What are "excessively disproportionate costs" for bicycle or pedestrian facilities? When would existing shoulder width, be a reason to not widen the shoulder for bicycle and pedestrian travel accommodations?
- 2) The discussion under "Local Desire and Potential for Use", doesn't mention ODOT solicitation of local opinions regarding the needs for bicycle and pedestrian accommodations. We encourage ODOT to be proactive and solicit public involvement on a project by project basis and, as such, recommend the third bullet be revised to reflect such an approach.
- 3) We recommend a Section VII be added to address an appropriate level of documentation needed to document the basis for the decision on bicycle or pedestrian needs and accommodations. This would assist in ensuring consistent implementation of the policy. Additionally, this documentation could serve as a basis for improving the above noted "objective standards" and in developing best practices statewide.
- 4) We recommend Section III be revised to state that bicycle and pedestrian ways shall be considered in new construction and reconstruction projects in "non-urbanized rural"

areas, so as to be consistent with 23 USC 217 and 23 CFR 450.208. The paragraph could then be expanded to include the criteria for consideration of paved shoulders, etc.

- 5) We recommend adding to the list of Definitions the terms “new construction projects” and “reconstruction projects” as used in several sections of the policy.
- 6) We would also suggest adding the FHWA Design Guidance for Accommodating Bicycle and Pedestrian Travel: A Recommended Approach” to your References list. It is located at <http://www.fhwa.dot.gov/environment/bikeped/Design.htm>.

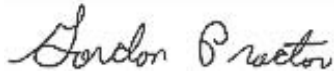
If you have any questions or concerns, please contact the Bicycle/Pedestrian, Planning Coordinator of my staff, Ms. Tashia J. Clemons in the Ohio Division at (614)280-6841.

Sincerely,

//HR//

For: Dennis Decker
Division Administrator

Approved:



Gordon Proctor Director

Policy on Accommodating Bicycle and Pedestrian Travel on ODOT Owned or Maintained Facilities

I. POLICY STATEMENT:

This policy applies to all transportation projects on facilities owned or maintained by the Ohio Department of Transportation (ODOT). Transportation projects on local roadways should look to their corresponding local government or Metropolitan Planning Organization (MPO) to address how bicycle and pedestrian travel will be accommodated on non-ODOT facilities.

A. When developing a transportation improvement project as part of the ODOT Project Development Process (PDP), ODOT will consider and analyze as appropriate how, when and where to accommodate bicycle and / or pedestrian travel within the planning study area. Consideration should be based on three criteria: safety, feasibility, and local desire and potential for use. These decisions will be made and documented concurrent with other decisions made during the ODOT PDP. Each transportation project accommodation will be evaluated on a case by case basis.

1. Safety: In determining the feasibility to safely accommodate bicycle and pedestrian travel, the following will be considered:

- Roadway Average Daily Traffic (ADT);
- Roadway geometric design;
- Roadway lane width and shoulder width;
- Posted speed on the roadway facility; and,
- The safety and suitability of the roadway for bicycle and pedestrian travel under present conditions and after implementation of the transportation improvement.

2. Feasibility: In determining the feasibility to construct a new bicycle/pedestrian accommodation, the following will be considered:

- Right-of-way width or the ability to acquire additional right-of-way width;
- The cost of establishing a new facility compared to its benefit in terms of number of potential users;
- Availability of bicycle/pedestrian access facilities (e.g. public transit service, parking lots, connecting bicycle accommodations, etc.);
- Additional planned transportation improvement projects within the planning study area; and,
- Potential negative environmental impacts.

3. Local Desire and Potential for Use: In determining the desire for a bicycle/pedestrian accommodation by the local community as well as the potential usage of a bicycle/pedestrian accommodation, the following will be considered:

Existing and expected bicycle and pedestrian usage;

Documentation that connectivity will be provided or enhanced between jurisdictions, neighborhoods, commercial, institutional (schools, health care facilities, libraries, cultural facilities) and recreational destinations;

Effect of the improvement upon any existing or planned bicycle/pedestrian system;

Documentation in a planning study or public involvement report of the local desire for a bicycle/pedestrian accommodation to be constructed with the transportation improvement; and,

Identification of the proposed facility in a formally adopted long-range plan such as a Community Comprehensive Plan, a MPO Long-range Transportation Plan or *ACCESS OHIO* the statewide transportation plan.

B. Bicycle and pedestrian accommodation shall be considered in new construction and reconstruction projects in all **urbanized** areas unless one or more of the following conditions are met:

1. Bicyclists and pedestrians are prohibited by law from using the roadway. In this instance, only shared-use paths separated from the roadway will be considered;
2. The cost of establishing the bicycle and pedestrian facility would be excessively disproportionate to the need or probable use; or,
3. Where lack of population or other factors indicate an absence of need.

C. When considering accommodating bicycle and pedestrian traffic in all new construction and reconstruction projects in **non-urbanized rural** areas, paved shoulders should be considered on roadways used by more than 1,000 vehicles per day. This excludes freeways.

D. Rumble strips are not recommended where shoulders are used by bicyclists unless there is at a minimum four feet of clear path in which a bicycle may safely operate.

E. New construction of bicycle/pedestrian accommodations must meet current design standards in III. REFERENCES: Section H in this policy. New construction must also be compliant with the American Disabilities Act (ADA), the National Environmental Policy Act of 1969 (NEPA) and other relevant environmental regulations.

F. All locally initiated requests for bicycle/pedestrian accommodations where no transportation improvement is planned will be referred to the ODOT Transportation Enhancement Program administered by the Office of Local Projects and will be

II. AUTHORITY:

A. Federal Regulations: Federal regulations require state DOTs and MPOs to consider bicycle and pedestrian travel in their planning activities.

1. Title 23 CFR 450.208 (a)

Each state shall, as a minimum, explicitly consider, analyze as appropriate and reflect in planning process documents the following factors in conducting its continuing statewide planning process: (3) Strategies for incorporating bicycle transportation facilities and pedestrian walkways in appropriate projects throughout the state.

2. Title 23 U.S.C. §217: Bicycle Transportation and Pedestrian Walkways

(g) Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with Sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.

(e) Bridges. In any case where a highway bridge deck being replaced or rehabilitated with Federal financial participation is located on a highway on which bicycles are permitted to operate at each end of such bridge, and the Secretary determines that the safe accommodation of bicycle can be provided at reasonable cost as part of such replacement or rehabilitation, then such bridge shall be so replaced or rehabilitated as to provide such safe accommodations.

B. Ohio Revised Code: Sections 2921.331, 4511.01 – 4511.99, 4513.01 – 4513.37 and 5501.31 address bicycle and pedestrian regulations. In general, the public are entitled to use public thoroughfares by the mode of their choice but are prohibited from bicycling or walking on freeways.

1 Section 4511.051 allows bicycle paths to be constructed within freeway right-of-way on a facility that is separated from the roadway and shoulders of the freeway and is designed and appropriately marked for bicycle use.

2 Section 4511.711 states that local authorities are permitted to regulate bicycle operations.

3 Section 5501.31 states that ODOT may purchase land from a willing seller but cannot appropriate property through eminent domain for the sole purpose and use as a bicycle or pedestrian facility.

III. REFERENCES:

A. ODOT's Project Development Process (PDP): A project management and decision making process used to guide all transportation projects from conception and planning through design and construction.

B. Transportation Equity Act for the 21st Century (TEA-21): Section 1202.

C. American Disabilities Act (ADA) Compliance: Section 504 of the Rehabilitation Act of 1973.

D. National Environmental Policy Act of 1969 (NEPA): Sections 101 and 102.

E. ODOT Transportation Enhancement Program Policy: Policy 25-005(P).

F. FHWA Design Guidance for Accommodating Bicycle and Pedestrian Travel.

G. FHWA-RD-92-073: Selecting Roadway Design Treatments to Accommodate Bicycles.

H. Bicycle/Pedestrian Facilities Design Standards:

- 1 The AASHTO "Guide for the Development of Bicycle Facilities."
- 2 The AASHTO "Guide for the Planning, Design and Operation of Pedestrian Facilities."
- 3 ODOT Location and Design Manual – Vol. 1, Section 605, Vol. 2, Section 1004, Section 1006, Vol. 3, Sections 1300 and 1400.
- 4 ODOT Traffic Engineering Manual – Part 9 Bicycle Facilities.
- 5 ODOT Bridge Design Manual – Section 209.9 Bicycle Bridges.
- 6 Ohio Manual of Uniform Traffic Control Devices – Part 9 Traffic for Bicycle Facilities.
- 7 ODOT Policy on the Use of Rumble Strips on Shoulders – Policy Number 322-001(P).
- 8 ODOT Utilities Manual -Sections 8100 and 8200.

IV. SCOPE:

This policy is applicable to all Districts, Divisions and Offices of the Department.

V. BACKGROUND AND PURPOSE:

This policy is in response to federal legislation promulgated as part of the Transportation Equity Act for the 21st Century (TEA-21) stating in Section 1202 "Bicycle transportation facilities and pedestrian walkways shall be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation projects, except where bicycles and pedestrian use are not permitted."

VI. DEFINITIONS:

Average Daily Traffic (ADT): The average number of vehicles that pass a specified point during a 24-hour period.

Bikeway: Any road, street, path, trail or way that is specifically designated as being open to bicycle travel, regardless of whether such facility is signed or designated for the exclusive use of bicycles or to be shared with other transportation modes.

Freeways: Are defined by the Ohio Revised Code as multi-lane divided highways for through traffic with all crossroads grade separated and with controlled access.

Geometric Design: Engineering activities involving standards and procedures for establishing alignments (horizontal and vertical) and cross section (number of lanes, lane width, shoulder width, cross slopes, and super elevation) of a highway.

Non-urbanized or rural area: All areas outside the urbanized area as defined by the US Census.

Planning Study Area: A geographic area that is of sufficient size to include all areas that contribute to the transportation problem and encompass the range of alternative solutions to the problem.

Reconstruction: Full depth replacement, alteration of design elements, lane width, shoulder width or adding lanes (does not include resurfacing, restoration, or rehabilitation.)

Shared-Use Paths/Bicycle Paths/Trails: Facilities physically separated from motorized vehicular traffic by an open space or barrier, either within the highway right-of-way or within an independent right-of-way. Shared-Use paths may be used by a mix of non-motorized users such as bicyclists, walkers, runners, wheel chair users, and skaters.

Urbanized Area: A central area with densely settled surrounding contiguous territory that together has a population of 50,000 or more, as defined by the U.S. Census.

Walkway (Pedestrian walkway): The portion of the public right-of-way that provides a separate area for people to travel by foot.

VII. TRAINING:

Training for the implementation of this policy will be offered as part of the planning process and public involvement process training through the Office of Urban and Corridor Planning.

VIII. FISCAL IMPACT:

Construction and maintenance cost for new bicycle/pedestrian accommodations will depend on the number of facilities developed and maintained. Funding will come from existing capital programs.

ATTACHMENT 4

Write-up of Write-up of the Efforts of Each MPO

Review of Practices for Bicycle and Pedestrian Planning and Safety from MPOs within Ohio

Each of Ohio's MPOs was evaluated first by reviewing their websites or written plans for information regarding bicycle and pedestrian planning efforts. This was followed by sending and receiving the questionnaire to and from them. A few of the MPOs were interviewed regarding their practices. In some cases, the individual MPOs offered additional information or hard copies of their various reports, plans, policies and studies. The Division Office and FTA have previously evaluated MPOs during certification reviews and had found them to be in substantial compliance with current regulations, but not without recommendations. Since that time, some MPOs such as MOPRC have addressed many recommendations, and have grown considerably in bicycle and pedestrian planning and safety efforts. It is recommended that each MPO prepare a comprehensive plan for bicycles and pedestrians in their area. Collaboration with each other and with other entities will be critical to this undertaking. More than one MPO and District Office recommended that Bicycle and Pedestrian Planning needs to be emphasized to a greater extent statewide.

AMATS Akron (Akron Metro Area Transportation Study)

The AMATS *2030 Regional Transportation Plan* (LRTP) recommends \$2.4 billion in highway improvements, \$295 million in public transportation improvements and \$43 million in bicycle and pedestrian improvements. Bicycle and pedestrian facilities and other transportation enhancements are cited as an important part of the transportation system in the Akron metropolitan area. The AMATS partners have been undertaking regional trails connecting the MPO area with adjacent metropolitan areas. The AMATS LRTP indicates that the pedestrian system is the primary transportation mode for short trips within a Central Business District (CBD). AMATS has identified Transportation enhancement needs in their *2030 Transportation Enhancement Needs* report. The 2030 transportation enhancement needs consist of all regional and feeder bikeways along with several regional non-bikeway enhancements. A total cost of \$77.4 million was identified in the report to fulfill all the transportation enhancement needs. The AMATS MPO has taken the approach largely of identifying the bicycle and pedestrian facility network, then to assess each based upon a needs analysis protocol. The result is a report that identifies a relatively good snapshot of the system and needs. What could be improved in this approach is to combine the analysis along with the efforts of the Safe Routes to Schools Program as well as those of the State Department of Natural Resources and other State, local and private efforts to prioritize and comprehensively improve the network overall. This would enable the AMATS area to continue to build upon what has been done to date.

<http://www.ci.akron.oh.us/AMATS/pdf-temps/Bicycle%20and%20Pedestrian%20Needs%20Report.pdf>

BOMTS - Wheeling

From a technical perspective, BOMTS has included the appropriate language per 23 CFR Part 652.11 in their LRTP. This does not however constitute comprehensive planning across all modes within the MPO region. Given that this MPO and member municipalities and areas are small, it is understandable from a practicality standpoint why this approach was selected. An important thing to note within this MPO area is the MPO is a multi-state MPO. Further identification of the true needs of the network in areas in both Ohio and West Virginia where there may be need from a safety perspective may be warranted. The BOMTS LRTP states that

all roadways with the exception of the interstate system can be used for bicycling even though a vast majority is not designed for shared use or signed as a bike route. A limited number of non-motorized facilities exist in some communities. In residential areas, most local streets have sidewalks for pedestrian use. BOMTS supports the use of enhancement program funds for bicycle and pedestrian facilities which contribute to the connectivity and expansion of the existing systems.

<http://www.belomar.org/>

BHJMPC – Steubenville

BHJ's 2025 *Regional Transportation Plan Section 6.0 - Non-Highways Facilities Inventory* Chapter 6.6 BICYCLE/PEDESTRIAN FACILITIES lists two other modal forms of transportation are bicycle and pedestrian facilities. BHJ cites that there are several obstacles which penalize these facilities. First, the overall terrain consists of very steep grades which are not easily traveled by bicycle or walking. Secondly, the street and roadway system is relatively old and were not designed to accommodate both vehicular and bicycle traffic. The streets are narrow and do not have adequate room to accommodate bicycle lanes. Many streets maintain two-way traffic with residential or business parking on both sides. Some streets do not have sidewalks or have sidewalks which are in need of repair. Finally, the employment, commercial, retail, and residential facilities are scattered throughout the region and, in many cases the distances although not excessive in a vehicle, become too far for walking or bicycling on a regular basis. However, there is a growing interest in these types of facilities for recreation and exercise. As part of BHJ's efforts to meet the requirements of TEA-21 and to address an increasing interest in bicycle and pedestrian facilities within the region, the staff initiated a bicycle/pedestrian plan during FY 1997. The staff solicited participation from locally interested citizens and local governments. A task force was established to work with the staff to identify the potential locations of new facilities. This group also assisted in the development of a survey to determine the number and types of people which currently participate in these forms of recreation or transportation. For a more complete discussion of these activities, please refer to the Bicycle/Pedestrian Plan, November 1997. There are several bicycling locations in the region. This will create an integrated trail network along the Ohio River from downtown Wheeling, WV to Wellsburg. Other bicycle and pedestrian facilities have been identified as a priority within the BHJ region through the development of the Bicycle/Pedestrian Trail Plan. Consideration has been given to the development of an interconnected network of trails throughout Brooke County. However, due to the topography and the limited right of way available, a truly interconnected network will be challenging. When completed, it will connect with The Panhandle Trail and then the Montour Trail in the Greater Pittsburgh, PA metropolitan area. Additional initiatives include connecting abandoned rail lines in Harrison, Belmont and Jefferson counties to create a regional trail network in eastern Ohio. This review concludes that although the work done in 1997 is important, BHJ should take a fresh look at their bicycle and pedestrian planning and safety efforts. The earlier work could be used as an important benchmark. ODOT's current Routine Accommodation Policy should be compared against the report, as well as more recent federal guidelines and regulations to bring the planning efforts more up to date.

<http://www.bhjmpc.org/>

CCSTCC - The Clark County-Springfield Transportation Coordinating Committee

CCSTCC's 2030 Horizon Year Transportation Plan Development (2008) Chapter 2 *PEDESTRIAN ACCESS AND BIKEWAYS* identifies that making the area more "pedestrian and

bicycle friendly” as one of the most important issues in the transportation plan. It states that safety programs, user information, and enhancements are needed to facilitate bicycle travel in the area. Bicycle and pedestrian ways are required for all new construction and reconstruction projects per ODOT guidance. Sidewalks, bike lanes and shared-use paths are all considered for inclusion with projects, especially reconstruction or new construction. An extensive regional trail system is coming together in west central and southwest Ohio. The Pedestrian Access issue does not solely imply that sought improvements are only for the use of ambulatory persons. In considering any changes to the pedestrian and bicycle environment improvement will incorporate accessibility for the disabled whenever it is possible. Further, the Americans with Disabilities Act (ADA) guidance require access to the transportation system for all users. Adequate ramps, which are wheelchair accessible and detectable to the visually impaired, are required on all urban reconstruction/construction projects. They developed a multi-purpose trail plan which is one of the programs outlined in the Fiscal Year 2007 PWP’s short range planning work element. This trail plan shall contain information regarding trails that are currently in use, additions to these existing trails, progress from previous plans, and identifying future trail sites. CCSTCC staff worked with the Clark County Trails Task Force to assess the current system and plan for future trails. Current participants in the Task Force include National Trail Parks and Recreation District, the City of New Carlisle, Bethel Township, Mad River Township, the village of Enon, and the general public. In addition, several trail projects have been identified in the Clark County Long Range Transportation Plan. The 2030 Transportation Plan states that making the area more pedestrian and bicycle friendly is one of the most important issues in the plan, and places emphasis on pedestrian and bicyclist safety programs. In addition, the plan states that sidewalks, bike lanes and shared-use paths are all to be considered for inclusion with projects, especially reconstruction or new construction projects. In summary, it is the goal of the Transportation Plan to provide planning for safe and accessible bicycle and pedestrian facilities within Clark County and the city of Springfield. The Transportation Plan has also outlined the goal of an interconnected system of trails that can provide users with destinations all over the county, as well as all over the state. The review found that the steps taken by the CCSTCC are currently adequate, and should continue to be developed. The partnerships with adjacent MPOs are positive and continual refinements to the practices enacted by the MPO will continue to yield positive results for the region.

<http://www.clarktcc.com/>

EASTGATE - Youngstown

Eastgate, as part of the continuing planning process, developed a Regional Bicycle/Pedestrian Transportation Plan for the two county area. It is found in the *Eastgate LRTP Chapter 5 – BIKEWAYS*. Eastgate has committed to the formation of a bikeway committee made up of local officials, park board representatives, members of local bike clubs, and Eastgate staff members to address specific policies, programs and projects. In a continuing effort to implement the Bicycle/Pedestrian Transportation Plan, Eastgate has developed a Regional Bicycle Network Map and corresponding inventory report. Several bikeways as well as numerous programmed projects and general proposals for additional bikeways within the MPO area. Eastgate's plan clearly states that its role is strictly planning related. Four major corridors were considered in the focus for bikeway trail improvements while developing the LRTP. These areas include: The Stavich Bicycle Trail; SR 616 Bike Path; Mill Creek Hike and Bike Trail; and The Great Ohio Lake to River Greenway. A bicycle travel inventory report, based on data collected by the Eastgate Regional Council of Governments during the development of Eastgate’s Regional

Bicycle Network Map, has been completed. Eastgate prepared this material as a planning tool to identify and prioritize conditions along roadways throughout Mahoning and Trumbull counties and document their potential for selective use as bicycle routes. Eastgate's Regional Bicycle Network Map was produced in cooperation with area bicyclists who proposed and recommended that specific routes should be available to provide service between local residential neighborhoods and public or commercial attractions. Eastgate has analyzed and evaluated these recommendations, generally taking into consideration traffic volumes, posted speeds, width of outside lanes and the presence or absence of connectivity at activity centers. Development of the bicycle network was based on 1990 generalized land use and the existing highway network.

Subjective priority has also been assigned to this network based on the following criteria:

- Priority 1: *Route segments that will require major rehabilitation to be conducive to bicycle travel.*
- Priority 2: *Route segments that are somewhat conducive to bicycle travel, but are in need of minor rehabilitation.*
- Priority 3: *Route segments that have been judged to be relatively better for bicycle travel in a given area. This does not imply that planning activities and rehabilitation along these segments are unwarranted.*

Eastgate has opted on an approach to consider improvements on a segment-by-segment basis because conditions along a priority route can vary widely. They have likewise devised a recommended list of improvements based on cyclist experience and items such as roadway pavement condition, paved shoulders, and posted speed limit. The MPO also recommends posting of caution signs in certain areas which are particularly hazardous to bicyclists (underpasses, bridges, highway interchanges and other intersections), or portions of segments where cyclists are temporarily forced onto the roadway because of inadequate paved shoulder conditions. While a good start, Eastgate could take advantage of the experience of some of the other MPOs around the state and nation who have further developed their planning tools. A system wide analysis in addition to a narrow focus on the four mentioned corridors above, and inclusion of targeted routine accommodations for pedestrians in all projects would be important elements to further consider in their planning efforts.

<http://www.eastgatecog.org/TransportationPlanning/tabid/1730/Default.aspx>

ERPC - Sandusky

The Erie Regional Planning Commission formed a subcommittee to study bicycle and pedestrian conditions in Erie County in late 1997. This sub-committee, the Erie County Bicycle and Pedestrian Safety Committee, was comprised of public officials of both County and local governments and members of the community interested in bicycle and pedestrian issues which eventually led to the creation of the Erie County Bicycle and Pedestrian Plan. The plan is comprehensive in that it not only focuses on what Erie Regional Planning Commission can do to improve bicycling and pedestrian conditions in Erie County but also what other County agencies, local governments, local recreation groups, developers and private businesses can do. This was an important effort in comprehensive planning for bicycling and pedestrians. The Committee arrived at seven goals which are necessary to improve bicycling and pedestrian conditions within Erie County.

These seven goals include the following:

1. Promote safer bicycling and pedestrian practices in Erie County.
2. Reduce the number of bicycle and pedestrian related accidents in Erie County.
3. Increase the awareness of local jurisdictions of the bicycle and walking as transportation modes and promote more bicycle and pedestrian facilities planning.
4. Promote bicycle ridership and pedestrian activities in Erie County as recreational activities.
5. Promote the use of pedestrian- and bicycle-friendly engineering practices/standards on roads in Erie County.
6. Secure funding for the construction, installation and maintenance of pedestrian and bicycle facility projects within Erie County.
7. Develop a safe bicycle and pedestrian path and route system throughout Erie County.

They identified that the county has made progress in this endeavor, but that a deficiency of the current trail system has been identified as there are segments that have not been linked into the existing system and do not provide continuity. This compromises the effectiveness of the system. The 1999 Erie County Bicycle and Pedestrian Plan outlined several goals and strategies for developing a safe bicycle and pedestrian pathway system across Erie County. The idea was that this system would provide connections between political subdivisions within the county, major county traffic generators, and bikeways and pedestrian routes in adjacent counties. The City of Sandusky has also recently updated its bike plan. The key to accommodating any new bicycle and pedestrian facilities, especially those that interface with other modes of transportation, is safety. This includes managing the number of conflict points for bicyclists, such as driveways and intersections, and accommodating a consistent typical section throughout the connecting bicycle facilities. ERPC has done a good job at beginning to implement a fairly robust approach to accommodating bicycle and pedestrians involving sound planning with a focus on safety. They need to continue following through with the approach to ensure that their LRTP and other work elements and projects keep this planning effort strong.

<http://www.erie-county-ohio.net/planning/planning.htm>

KYOVA - Huntington, WV

KYOVA has included a section in the LRTP concerning bicycle and pedestrian issues. KYOVAs approach was to hire a consultant to study needs in a limited but highly travelled corridor within the MPO limits. It cites that ISTEA and the more recent TEA-21 legislation have consistently emphasized the development for alternative means of transportation to supplement the existing system of automobile roadways. Consequently, states and local communities are implementing bicycling programs that encourage alternative transportation modes. One of the alternatives is the construction of bicycle pathways. In order to determine the feasibility of developing a bicycle pathway for the Huntington metropolitan area, the KYOVA Interstate Planning Commission contracted with the firm of Site Design, Landscape Architects and Dunn Engineers, Incorporated to jointly study the Feasibility of developing a bicycle pathway from the Kenova area to Huntington terminating at Marshall University. This does not however constitute truly comprehensive planning across all modes within the MPO region. Given that this MPO and member municipalities are small, it is understandable from a practicality standpoint why this approach was selected. An important thing to note within this MPO area is the MPO is a multi-state MPO. Further identification of the true needs of the network in areas in both Ohio and West Virginia where there may be need from a safety perspective may be warranted. It is

recommended that KYOVA continue to develop a more comprehensive bicycle and pedestrian plan for the region.

LACRPC – Lima (Lima-Allen County Regional Planning Commission)

LACRPC addresses bicycle and pedestrian planning in their LRTP in Section 7.1.3 Pedestrian/Bicycle/Trail System Component. The language in this plan discusses the existing bikeway system and reflects the extensive capital improvement program developed by the City of Lima, the JAMPD and the Lima Rotary Club, as well as a state designated bicycle route through Allen County (Defiance Trail). The Plan also supports the combined efforts of the JAMPD, the City of Delphos, the Village of Spencerville and ODNR in recognizing the established Miami-Erie Canal right-of-way for a ped/bike route and to further the Canal's status as part of the Ohio Buckeye Trail System. LACRPC has embraced the concept that establishing safe routes to area schools and other activity centers frequented by students is a recognized concern for parents, educators and public safety advocates and they should be made a community priority. They say that pedestrian safety depends upon a public understanding of accepted methods of efficient traffic control. Pedestrian and other alternatives modes including bicycling or skating often complement other modes of travel. The plan identifies that most public transportation trips begin or end with a walking trip, and many transit users bicycle to or from transit stops. A safe and convenient environment for pedestrians can dramatically increase the number of people walking to offices, stores, or schools during the day. Safe comfortable walking paths enable pedestrians to use as a realistic travel alternative. Recognizing pedestrian safety benefits the long-term health, sustainability and economics of the community and allows policy makers to re-examine funding priorities within and across the transportation system.

LACRPC should continue in these collaborative efforts of working with the stakeholders in their study area. Continuing to identify system needs before they arise and then to address them in this framework is the basis for sound comprehensive planning and will continue to serve the safety needs of the bicyclists and pedestrians in the region.

LCATS – Newark (Licking County Area Transportation Study)

According to LCATS LRTP, Licking County has nearly 30 miles of paved shared use path. The paths are generally 12 feet wide are connected to points of interest and support numerous functions. Licking County takes non-motorized traffic counts in 11 areas along Licking County's shared use path system. They have identified peak hour usage and have found them to be similar to parallel roadways. Since the paths have such similar peak periods, it is believed that the paths are being used as work commute routes. Before the count program it was thought that the paths were used for recreational use only. LCATS has identified disconnects in their trail system. The current path system was designed with no overall plans in place and the paths were each built as stand alone projects. Now the majority of entities in Licking County see a need for a complete comprehensive path plan, but funding to build or maintain the system is difficult to come by and paths are a very low priority in comparison to roadways. Therefore, what local funding that does exist for transportation maintenance is being placed towards roadways, not paths. LCATS states that it takes part in the scope of services for every project it funds. Sidewalks are becoming an increasingly important aspect to transportation. LCATS states that nearly every school district in Licking County stopped busing within two miles of schools. Cities and villages in Licking County are generally making sidewalks a standard part of every major roadway reconstruction

project. The sidewalks include ADA approved curb ramps with appropriate section widths and slopes.

LCATS has demonstrated need and components of comprehensive planning efforts regarding bicycle and pedestrian planning, however they need to take what they have done to the next level. The approach of not developing a comprehensive plan for bicyclists and pedestrians is concerning because as need continues to develop, the planners could be blind to those needs without additional effort. Additionally, with great focus on shared use paths, and to lesser extent sidewalks, they have precluded pedestrian needs on existing routes within the network based upon the information available at the time of this review. This MPO could benefit from a Statewide plan.

MORPC – Columbus (Mid-Ohio Regional Planning Commission)

MORPC has emerged in Ohio as a leader in bicycle and pedestrian planning and safety efforts. They helped create a number of different pedestrian planning documents and tools for various local communities. They have widely educated engineers, planners, politicians and the public regarding bicycle and pedestrian planning and safety. They participated in a USDOT Peer Exchange with Chicago in 2008. Some of the notable products being developed at MORPC and the member communities include:

- Breaking Barriers to Bicycling: Bicycle Lanes Best Practices and Pilot Treatments, Mid-Ohio Regional Planning Commission, October 2005
- 2006 Regional Bicycle Transportation Facilities Plan of the Mid-Ohio Regional Planning Commission, June 2007
- The City of Columbus, Operation SAFEWALKS
- The City of Columbus, Bicentennial Bikeways Plan
- The City of Columbus Pedestrian Thoroughfare Plan
- The City of Columbus Walkable Streets - Report 1 & Report 2
- The City of Columbus, Complete Streets Policy and Posture
- Etna Township Traffic Calming - Presentation

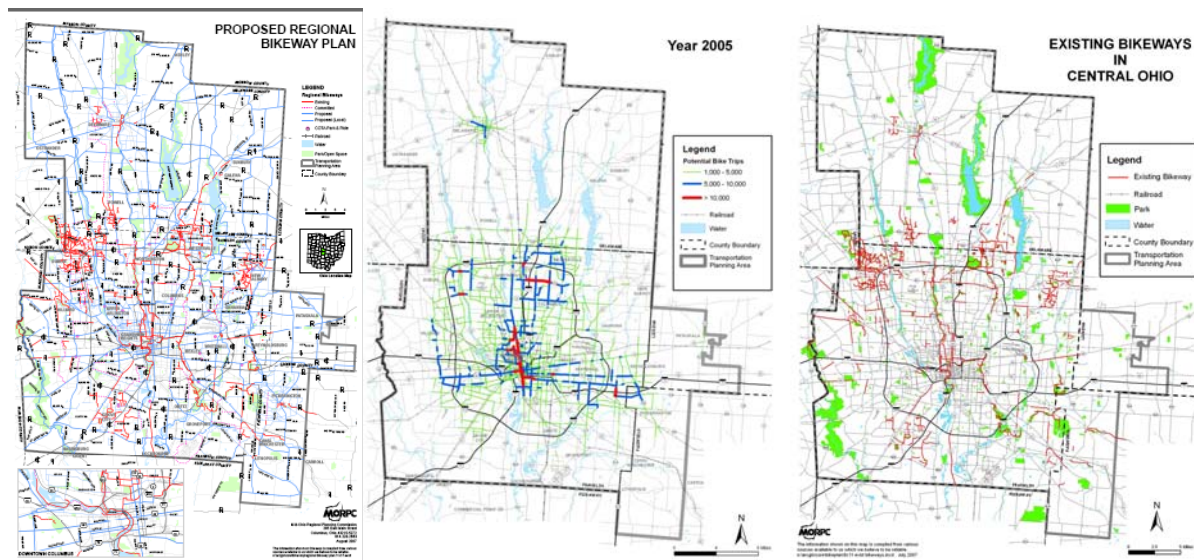
As a result, the planning and engineering elements are working together more with local neighborhoods to perform bicycle and pedestrian planning tools such as walkability surveys. MORPC has acknowledged their responsibilities and has put into place principles based upon (Section 1202) The Clean Air Act Amendments of 1990 (CAAA) and the Americans with Disabilities Act of 1990 (ADA) as reinforcement for the need for bicycle and pedestrian facilities. MORPC has developed several planning products aimed at improving the modes of bicycling and walking, and has worked with or partnered with member communities in order to help them grow likewise.

Breaking Barriers to Bicycling: Bicycle Lanes Best Practices and Pilot Treatments, September 2006 is a compilation of best practices, research and test projects that communities across the nation can review to improve the bicycling environment. This document focuses primarily on bike lanes and the challenges associated with intersection and interchange safety.

Operation SAFEWALKS was created by Mayor Coleman in February 2007. The program signals a more meaningful cooperation between the Departments of Public Utilities and Public Service in how they manage their Capital Improvement Programs to advance pedestrian safety. Issues to be addressed by any projects under Operation SAFEWALKS include:

- Provision of safer pedestrian routes along older arterial roadways
- Installation of storm sewers, curbs and gutters along roadways where flooding occurs
- Resolution of roadway and adjacent property flooding
- Replacement of old roadway pavement

Columbus also prepared a Bicentennial Bikeways Plan. This plan will provide an update to the existing inventory of bicycle facilities and identify, evaluate, prioritize, and recommend future connecting links to create a complete system of bikeways within and connecting to the City of Columbus.



In the quest to build more bikeways in central Ohio, policies are being challenged to ensure bicycles are considered in the planning process. In 2004, the Central Ohio Bicycle Advocacy Coalition challenged the policies of MORPC, to include language in its policy to routinely accommodate bicycle and pedestrians when local communities apply for MORPC-attributable federal funds. MORPC embraces the regional responsibility of providing a transportation system that is seamless and that provides for the needs of all modes of transportation. Recently, the public has requested MORPC to intervene on transportation improvement projects that are occurring in the region but are not utilizing MORPC-attributable federal funds. While MORPC states it cannot guarantee or ensure the inclusion of bicycle and pedestrian facilities in these projects, MORPC has drafted internal guidelines, which will suggest consistent recommendations to the sponsors of such projects. To assist local jurisdictions in ensuring they encourage and consider alternative modes, the regional transportation system goals were revised to reflect the following:

- Goal I: Improve the efficiency and service provided by the regional transportation system

- Goal II: Enhance the safety of the regional transportation system
- Goal III: Develop and redevelop the transportation system to improve the long-term quality of life of citizens and travelers in the region. Protect the transportation-related social, environmental and economic well being of the citizens of the region.
- Goal IV: Protect the investment in the regional transportation system.
- Goal V: Develop and redevelop land and make transportation investments that mutually reinforce appropriate uses of land, multiple modal options for travelers and freight, and the use of existing infrastructure to its optimum level.

As per these MORPC goals, the regional transportation system must be planned and designed to serve all modes effectively, efficiently and safely. MORPC, recognizing the importance of and encouraging the construction of bicycle and pedestrian facilities, wanted to put into place a mechanism that will provide the same or similar intent as the noted guidance.

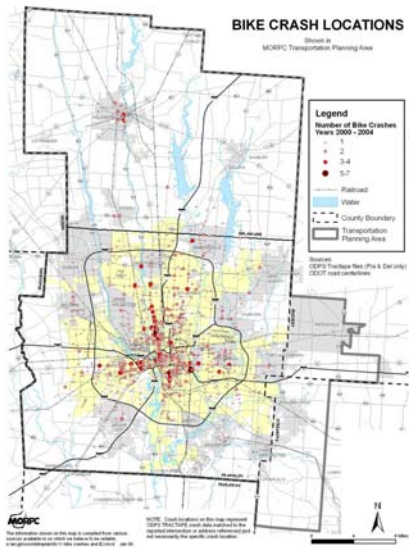
MORPC encourages and supports the inclusion of routine accommodation by providing the following policy:

Project sponsors are required to accommodate bicycles and pedestrians in the planning and design of all proposed transportation projects using MORPC-attributable federal funds. Sponsors using local, state, or other federal funds are encouraged to accommodate bicycles and pedestrians in the planning and design of all proposed transportation projects. All transportation facilities on which bicyclists and pedestrians are permitted by law, including but not limited to streets, roads, highways, bridges, buses, trains, transit stops and facilities, and all connecting pathways shall be designed, constructed, operated and maintained so that all modes and pedestrians, including people with disabilities, can travel safely and independently. Project sponsors are responsible for determining, for each project and within the context of the regional longrange plans, the most appropriate facility or combination of facilities for accommodating bicycling and walking, including but not limited to marked bicycle lanes on the roadway, paved shoulders, wide outside lanes, signed bike routes, shared use paths, sidewalks, bike racks on buses, bicycle parking facilities, marked or raised street crossings (including over- and under-crossings), and pedestrian signals and signs. Providing access for people with disabilities is a civil rights mandate that is not subject to limitation by project costs, levels of use, or “exceptional circumstances”. While the Americans with Disabilities Act does not require pedestrian facilities in the absence of a pedestrian route, it does require that pedestrian facilities, when newly constructed or altered, be accessible. To this end, project sponsors must provide in the written request for federal funding:

Documentation providing for the inclusion of a bikeway and pedestrian facilities in the proposed project seeking MORPC-attributable funds is required by the MPO. Application materials must include a description of the facilities. The existing, committed, and proposed bikeways and pedestrian pathways in the bikeway and pedestrian plans created by MORPC should be considered the priority bikeways and pathways for the Central Ohio community. Planners and designers must

accommodate bicycling and walking in all transportation projects for which MORPC attributable federal funding is requested, regardless of whether or not a bikeway is included and/or designated as a priority in bikeway and pedestrian pathway plans. Below are specific planning and design guidelines to assist project sponsors in the accommodation of bicycles, pedestrians and people with disabilities. Project sponsors shall use these guidelines in planning for and designing their projects. The guidelines will be used by MORPC staff and relevant committees as the proposed project is processed through Project Selection and Planning Review.

MORPC has begun to comprehensively track bicycle and pedestrian crash data, and use it to plan for safety improvements to the overall network as shown on the diagrams below.



One of the greatest challenges facing the bicycle and pedestrian field is the lack of documentation on how many people are cycling and walking and what the demand for cycling and walking would be in various circumstances. Without accurate and consistent figures, it is difficult to measure the positive benefits of bicycle and pedestrian investments, especially when compared to the other types of transportation such as the private automobile. The National Bicycle and Pedestrian Documentation Project was initiated by Institute of Transportation Engineers (ITE) Pedestrian and Bicycle Council (BPC) effort and proposes the following objectives:

1. Establish a consistent national approach to counting and surveying bicycle and pedestrian traffic.
2. Establish a national database of bicycle and pedestrian count information.
3. Use the count and survey information to begin analysis on the correlations between various factors and bicycle and pedestrian activity.

As the lead organizer of the National Documentation project in central Ohio, MORPC has counts from 2005 through 2008 and is continuing to organize volunteers to conduct bicycle and pedestrian counts. In 2004, the Central Ohio Transit Authority (COTA) applied for and received

Congestion Management Air Quality (CMAQ) funds to place bike racks on all COTA buses. COTA recorded a total of 32,261 bike boardings from Memorial Day to Labor Day 2005 and to this day, the program remains strong.

All of the activities and products listed above are part of an ongoing comprehensive effort by the region to better accommodate bicycles and pedestrians from a safety standpoint and a true planning perspective. MORPC should be encouraged to continue to develop itself as a leader in Ohio, and should be looked to by its peers for improvements to their efforts.

http://www.morpc.org/transportation/bicycle_pedestrian/main.asp

MVRPC Dayton (Miami Valley Regional Planning Commission)

MVRPC is another one of the leaders in Ohio in bicycle and pedestrian planning and safety efforts. They have written the Miami Valley Comprehensive Local-Regional Bikeways Plan, and have incorporated Existing Conditions, a Needs Analysis, a Recommended Bikeway Network, Education, and an Encouragement and Enforcement Program, Safe Routes to Schools Cost Options, Funding and Implementation and Design Guidelines into their plan providing for a complete planning framework from which to plan and operate. From a funding perspective, this plan is inclusive of FWHA monies, as well as State and other funding sources that could be brought to bear on different parts of the overall network such as NatureWorks Grants, Land and Water Conservation Fund, Community Development Block Grants, Impact Fees and others. Chapter 8 of the report represents perhaps the most comprehensive planning tool/approach in the State of Ohio in terms of bringing together the total needs of the region, and a look at how to fund the entire system.

The Comprehensive Local-Regional Bikeways Plan provides a broad vision, policy, goals and objectives for improving bicycling in the Miami Valley, Ohio region over the next 20 years. The project was funded by the Miami Valley Regional Planning Commission (MVRPC) with financial support from the Miami Conservancy District, Five Rivers MetroParks, and the Miami County Park District. MVRPC's Long-Range Transportation Plan includes a long list of bikeway projects, and numerous bicycle advisory committees are helping local communities develop connections to the regional bikeway network. This Plan builds on previous work toward developing a safe and attractive bikeway system. Having a unified plan for all jurisdictions in MVRPC's planning area is important for the following reasons:

- Maximize funding sources for implementation
- Improve safety and encourage cycling
- Expand the network and support facilities
- Enhance the quality of life in the Miami valley

The plan's emphasis is to create a regional framework to link the existing regional shared use path system with a network of on- and off-street bikeways bringing local communities together. Through a combination of geographic information system (GIS) based data analysis tools and listening to local communities, a regional bikeway network has been developed. A prioritization process was used to identify priority projects which are presented in detailed project description sheets. MVRPC is a leader in Ohio and has likewise developed a fairly robust approach to addressing bicycle and pedestrian planning and safety. It is recommended that they continue to further develop their plan and to assist the local communities in doing the same.

<http://www.mvrpc.org/tr/altTrans.php>
<http://www.altaprojects.net/mvrpc/>

NOACA – Cleveland (Northeast Ohio Areawide Coordinating Agency)

NOACA's Regional Bicycle Plan is an element of NOACA's 2005 Transportation Plan, *Connections 2030*. It summarizes the progress made on carrying out the strategies of the 1997 Regional Bicycle Plan. NOACA's vision for bicycle transportation was adopted by the Governing Board in March 2008. NOACA produced a Regional Bicycle Plan in 1997 as part of its last transportation plan, *Framework for Action 2025*. This Regional Bicycle Transportation Plan ("Bicycle Plan") is an update of that one for NOACA's current transportation plan adopted in June 2005, *Connections 2030*. They selected five goals that were adopted in the 1997 Bicycle Plan to make cycling a more viable transportation. These are NOACA's goals for bicycle transportation:

1. Create a regional network of safe bikeways and supporting bicycle facilities.
2. Increase bicycle planning and provision of facilities at the local level.
3. Increase bicycle ridership in the region, in particular, for transportation.
4. Promote safer bicycling in the region and reduce accidents.
5. Encourage involvement of the private sector and other support for bicycling for transportation and recreation.

Each goal has associated strategies and many have been implemented. These include conducting bikeway planning and design workshops, producing bicycle transportation maps, and conducting a "Bicycle Friendly Community" campaign. It concludes with an evaluation of how well the system of existing facilities serves bicycle transportation needs. NOACA's Bicycle Plan includes planned and proposed bikeways, points out roads where bicycle accommodation is especially important to link residential areas with jobs, shopping, schools, etc., as well as to provide links between communities. It was created with the assistance of NOACA's five county engineers, planners, and park districts; planners and engineers from the City of Cleveland and other cities that have active bicycle planning programs; ODOT Districts 3 and 12, and the Bicycle Advisory Council (BAC). Implementation of the plan would make the region much more "bicycle friendly." The Bicycle Plan contains NOACA's bicycle planning goals and strategies. The purpose of this Bicycle Plan is to continue to move forward in making bicycles a viable transportation option in the region. NOACA developed an assessment of what the cost would be to provide bikeways over the life of the transportation plan, *Connections 2030*. The Governing Board made a permanent Bicycle Advisory Subcommittee (BASC), which later became the BAC. The BAC is composed of public officials and members of the public. It meets with NOACA staff several times a year to assist with various projects, and it assisted with this plan update. As a result, NOACA is enjoying the benefits of being able to positively identify network needs, and has begun to be able to comprehensively plan for bicyclist and pedestrians throughout implementation of the federal aid program. NOACA works through its Project Planning Review (PPR) process to include bicycle elements on NOACA funded road projects if the project location is included on the Bicycle Facility Priority Plan and this effort should be applauded. However, their bicycle plan lacks any sort of meaningful prioritization of facilities. It is not known whether there is a greater need for bicycle facilities in one location over another. Per the bicycle facility priority plan, many roadways are indicated as "priority" but there is no ranking system within this large "priority plan." The plan could be improved by listing out

specific needed bicycle facilities and ranking the need for these facilities based on specific measurable criteria, as has been done in other MPOs.

<http://www.noaca.org/bicycleplanning.html>

OKI – Cincinnati (Ohio, Kentucky, Indiana Regional Council of Governments)

OKI is one of the leaders in the state with regards to the planning component of this review. The OKI Regional Bicycle Plan is a component of the region's multi-modal Metropolitan Transportation Plan. The Metropolitan Plan contains a summary of the existing bicycle facilities and of the recommendations for improving cycling conditions in the region. The goals of the plan are as follows:

- GOAL 1: Develop a regional bicycle system that is integrated with other transportation systems.
- GOAL 2: Provide a safe, convenient and appealing bicycling environment.
- GOAL 3: Secure adequate funding for bicycle improvements in the region.
- GOAL 4: Encourage and support bicycle safety, education and enforcement programs.

A recognized guide for the design of bicycle facilities is published by the American Association of State Highway and Transportation Officials. This guide contains the statement that “The majority of bicycling will take place on ordinary roads with no dedicated space for bicycles.” It further states that, therefore, “All highways, except those where bicyclists are legally prohibited, should be designed and constructed under the assumption that they will be used by bicyclists”. Consequently, many of the recommendations of this plan are oriented toward improving the region's road system so that the streets can more safely be shared by bicycles and motor vehicles. Recommended improvements, where needed, may vary from signed bike routes, to wide outside lanes or paved shoulders, to striped bike lanes. Particular attention is also directed at improving bridges and viaducts, as these facilities are replaced less often. Bicycles can also augment transit usage. Therefore, the plan recommends bike racks on buses, and improvements to roads serving transit centers. Recommendations also address protected and secure bicycle parking. The construction, extension and connection of these trails are encouraged. The Regional Bicycle Plan recognizes that progress made towards implementing these recommendations must come through initiatives of the local governments in the region. The MPO operates a BAC similar to NOACA. The MPO has identified the funding sources available for enacting their plan, as well as identifying that locals must take responsibility for the operational costs of enacting the planning.

RCRPC – Mansfield (Richland County Regional Planning Commission)

Nothing of note other than in the Comprehensive Plan stating a strategy to promote that the community should plan for parks of the quality, quantity and location to serve the region's needs was to be found in this MPOs efforts. They indicated that the use of parks and recreation facility can improve the community's health and well-being and healthy planning can also be incorporated into community development in the future, with sidewalks, paths and trails connecting residential area, neighborhood shopping areas, and other community features. RCRPC needs to begin comprehensive planning for bicyclists and pedestrians and for the safety of the same.

SCATS – Canton (Stark County Area Transportation Study)

SCATS has much room for improvement regarding bicycle and pedestrian planning. Chapter 3 of their LRTP briefly discusses this topic. They have identified and recognize the value of bikeways and pedestrian facilities and for short-distance transportation as well as for recreation and tourism. They have bikeways proposed as part of the open space trail network along the Ohio and Erie Canal corridor and other future linear greenways in the county in conjunction with the Stark County Park District Trail Plan. At a minimum, the Stark County District Trail Plan could be used as a first step in further developing a comprehensive plan as other areas have done.

TMACOG – Toledo (Toledo Metro Area Council of Governments)

TMACOG has produced a good solid grass roots approach to the needs in their area, facilitated by the MPO. They have produced the guide [Bicycle Facilities Guide For Recreational Riding In Northwest Ohio And Southeast Michigan - 2008-2009](#). The MPO has also developed a map showing the network as it relates to a bicycle user's ability as a cyclist using the now standard A, B and C level of rider. This system of classifying riders and the guide mentioned above in conjunction with the development of a "Proposed Bike Network Concept" map regarding the overall network together provide a sound basis for future comprehensive planning efforts leading to completion of identified needs. It included a complete regional system of connecting bike routes for bicycle transportation. The routes integrated different types of bike facilities including bike lanes, widened outside travel lanes or streets with paved berms, and separate trail facilities. They also identified specific locations as "conflict zones," which are areas of particular interest requiring further study as to the most appropriate improvements. Specific pedestrian and bikeways projects have been included in the fiscally constrained 2035 Plan and the conflict zones have become choke points, highlighting the need for a regional complete streets policy. The TMACOG Pedestrian and Bikeways Committee took an active role in the 2035 Plan development. The committee was asked to review and provide input to the pedestrian and bikeway related problem statements developed by the Passenger Goal Group and to brainstorm and prioritize solutions. The committee also updated the network map. Not every location can be connected with ideal facilities, thus the map identifies streets where minor improvements are needed and others that require more substantial improvements. This review found that TMACOG has begun the work of comprehensive bicycle and pedestrian planning. The MPO should continue to grow and evolve to improve the safety aspect of the planning.

http://www.tmacog.org/Transportation/bike_guide_08_09.pdf

WWW - Parkersburg, WV (Wood-Washington-Wirt Interstate Council)

WWW has room for improvement regarding bicycle and pedestrian planning. Chapter 3 of their LRTP briefly discusses this topic. A variety of bikeways and pedestrian trails exist within the study area. Local and regional trails pass through the urban areas in and surrounding Marietta and Parkersburg. A number of improvements to the transportation system have been considered in the MPO area that would offer enhancements to the transportation system that could improve the scenic quality and character of facilities while also offering new facilities for bicycle and pedestrian use. Given that this MPO and member municipalities are small, it is understandable from a practicality standpoint why this approach was selected. This does not however constitute comprehensive planning across all modes within the MPO region. Routine accommodation, network needs and safety should be given more of a priority. An important thing to note within this MPO area is the MPO is a multi-state MPO. Further identification of the true needs of the

network in areas in both Ohio and West Virginia where there may be need for better planning from a safety perspective may be warranted.

ATTACHMENT 5

FHWA OH Division Questionnaire to ODOT/MPOs

Response Summary to FHWA OH Division Questionnaire to ODOT/MPOs

FHWA Ohio Division Bicycle and Pedestrian Planning Process Questionnaire for Quality Improvement

Job Title: _____

This questionnaire is intended for completion by MPO Staff, ODOT District Planning Administrators or other Staff involved in bike/ped planning activities. Questions stating “level of understanding” can be understood as your comfort level or familiarity, etc. It is intended that the respondent take no more than 30 minutes or so to complete

What is your level of understanding of bicycle/pedestrian planning (in general), i.e., what is the process, how does it fit in with transportation planning, etc.?

What are ODOT’s accepted guidance documents for bike/pedestrian planning/design, where can they be referenced / found and do you apply these to your planning efforts and projects?

What is your level of understanding of ODOT Policy: 20-004(P) Policy on Accommodating Bicycle and Pedestrian Travel on ODOT Owned or Maintained Facilities?

What is your level of understanding of ODOT’s bicycle/pedestrian planning guidance?

What is your level of understanding of Federal laws and regulations pertaining to bike/pedestrian planning?

Does your MPO have a pedestrian/bicycle planning master document or process or some similar planning tool in place?

What are your local LPA’s levels of understanding of bicycle/pedestrian planning in general?

What would you say your local LPA’s level of understanding of ODOT’s accepted guidance documents for bike/pedestrian planning and design is?

Do any of your LPAs have a pedestrian/bicycle planning master document or process or some similar planning tool in place?

FHWA Ohio Division Bicycle and Pedestrian Planning Process Questionnaire for Quality Improvement

If yes to above, is the LPA level planning document incorporated into the Transportation Plan for the MPOs?

What is your familiarity with the Safe Routes to School Program (SRTS)?

Will the Safe Routes to Schools planning efforts being tied locally into any master bicycle/pedestrian efforts in order to more comprehensively plan for these modes of travel?

In the context of the bigger picture, how is bike/ped safety being addressed in accordance with the planning regulations in your area?

How have ped/bike issues been addressed through the MPO's safety plan that ODOT has asked each MPO to develop?

Are Bike/Pedestrian planning efforts reflected in the Safety Plans for your region?

Has the District, MPO or any LPA in your area performed a Pedestrian Safety Action Plan or Pedestrian Safety Audit?

Has there been any level of effort on the part of the District, MPO or LPAs in terms of examining bicycle and pedestrian crashes and injuries?

Do you have any other comments related to bike/ped safety?

How can the bicycle/pedestrian planning process be improved?

FHWA Ohio Division Bicycle and Pedestrian Planning Process Questionnaire for Quality Improvement

Please list any disparities in the planning/design guidance provided to the MPO's/LPAs by ODOT District or Central Office.

Is the decision not to accommodate bicyclists and pedestrians the exception or the rule in your District?

Do you seriously consider bike/ped issues in all projects/planning in your office?

Should the term "Due consideration" of bicycle and pedestrian needs presume that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities in your District?

Should Transportation Enhancement projects be given the same priority and consideration as roadway projects in terms of planning priority for a given area?

What is the definition of excessively disproportionate cost of establishing bikeways or walkways versus what would be to the need or probable use of said facility?

What are the greatest areas of quality improvement that should be considered to standardize the state of the practice regarding bicycle and pedestrian planning/ project implementation in Ohio?

What are the greatest strengths/weaknesses regarding bike/pedestrian projects in Ohio?

FHWA OH Division Questionnaire to ODOT/MPOs with responses

1. What is your level of understanding of bicycle/pedestrian planning (in general), i.e., what is the process, how does it fit in with transportation planning, etc.?

- Accommodations for bicycles and pedestrians should be considered as part of the ODOT PDP for all projects.
- My understanding is limited. My involvement begins at the programming and I am unaware of any formal planning process beyond the MPO's review of funding applications.
- I am not involved in the planning process. Bicycle / pedestrian projects are already planned & have already received funding when they arrive on my desk.
- Bike/ped planning to be considered on local projects at the discretion of the LPA. Bike/Ped issues evaluated at project scope; constructed if R/W & Funding allow.

2. What are ODOT's accepted guidance documents for bike/pedestrian planning/design, where can they be referenced / found and do you apply these to your planning efforts and projects?

- Local Let website
- AASHTO Guide for Development of Bicycle Facilities
- AASHTO Guide for the Planning Design, and Operation of Pedestrian Facilities
- Copies are available at the District Office. Design standards are applied on LPA projects incorporating bike/ped elements
- To the best of my knowledge, ODOT is not usually invited to participate in the planning process for bike/pedestrian projects.

3. What is your level of understanding of ODOT Policy: 20-004(P) Policy on Accommodating Bicycle and Pedestrian Travel on ODOT Owned or Maintained Facilities?

- None
- My understanding is high.
- Our MPO is aware of the details of the stated ODOT Policy and would encourage improved interagency consultations to assist in its implementation.
- I understand them in the context of the Federal guidance of 2000. The policy is weak in considering the requirements for Local Desire and Potential for Use.

4. What is your level of understanding of ODOT's bicycle/pedestrian planning guidance?

- Minimal
- Our level of understanding is that ODOT guidance is very extensive and readily available for review on its web page.
- ODOT has not issued bike/ped planning guidance above or beyond national standards.
- They are resistant to accommodating bike/ped facilities.

5. What is your level of understanding of Federal laws and regulations pertaining to bike/pedestrian planning?

- Nominal.
- ISTEA and SAFETEA-LU require expanded consideration of all modes of travel in the planning and project development process.

- ISTEA mandated state and MPO bike/ped facility planning in long range plans and included eligibility of these facilities in most funding programs. When that didn't have the intended effect, FHWA came out with the Guidance for Bicycle and Pedestrian accommodation following TEA-21. This has been updated in April 2007 following SAFTEA-LU with a section on Mainstreaming Non-motorized transportation with clarification of the intention for "due consideration". Federal policies for "routine Accommodation" are being mainstream as "Complete Streets"
- Our level of understanding of Federal laws and regulations is that bike/ped planning is a vital part of planning a fully functional intermodal transportation system. This has been emphasized at recent FHWA/MPO reviews where FHWA has specifically inquired about bike/ped facility planning efforts.
- Starting with TEA-21 Sec 1202, federal law has required bike and Ped facilities to be considered in all federally funded projects except where bike/ped use is not permitted. FHWA has recommended routine accommodation. ASHTO and DOT have recommended design guidelines.

6. Does your MPO have a pedestrian/bicycle planning master document or process or some similar planning tool in place?

- Yes
- I am uncertain, however, I don't believe so.
- I believe a Master Plan exists. However, I believe the plan is based on information provided by local entities and is more "wish list" than planning tool.
- Don't know.
- We have no pedestrian/bicycle process in place
- Yes - unfortunately given the current economic situation our Bicycle/Pedestrian Planning efforts have all but disappeared

7. What are your local LPA's levels of understanding of bicycle/pedestrian planning in general?

- Some larger LPA's have more knowledge than the smaller ones.
- Don't know.
- Varies: some are pretty sophisticated, but the majority are probably not that knowledgeable
- Good
- Fair at best – The LPAs see B/Ps as solely recreational facility and little consideration is given in planning for B/Ps that actually promote cycling or walking as an alternative transportation method. ODOT and MPOs are working hard to improve the LPAs understanding of the planning process.
- Levels of understanding vary from jurisdiction to jurisdiction. Bicycle and pedestrian plans have typically been regarded as park and recreation plans and facilities.

8. What would you say your local LPA's level of understanding of ODOT's accepted guidance documents for bike/pedestrian planning and design is?

- Most LPAs rely on consultants to design to accepted standards.
- Varies depending on local.
- The Locals are unfamiliar with ODOT's guidance and don't feel that it applies to them.
- In general, they do not understand the need to accommodate bicycles. They typically have an idea of what they want to do with their projects before initial contact with ODOT and the MPOs. They are often opposed to accommodating bicycles because of increased r/w needs and project cost.
- Good
- Poor – This is primarily due to an assumption on the part of LPAs that the pavement is the only component of a multiuse facility. Adding to the confusion are conflicting statements regarding standards for shoulder width, clear zone, etc. and a presumption that design exceptions will be granted. A concise ODOT Bike Design Guide would help to eliminate conflicting statements.

9. Do any of your LPAs have a pedestrian/bicycle planning master document or process or some similar planning tool in place?

- Unknown
- Yes.
- I have never reviewed a master document. However, I have seen references made to a “Master Plan”

10. If yes to above, is the LPA level planning document incorporated into the Transportation Plan for the MPOs?

- Yes.
- Not sure

11. What is your familiarity with the Safe Routes to School Program (SRTS)?

- Minimal
- We are aware of the program, its planning requirements, and the level of funding available.
- We have a good understanding of the SR2S program. We have developed a basic toolbox for use by the local districts, and we have created 60 school-specific transportation guides for future implementation by the districts.
- Very familiar. Followed the program development under SAFETEA-LU, and the state development in our respective states. Have presented the program to state and regional groups and participated in local program development.

12. Will the Safe Routes to Schools planning efforts be tied locally into any master bicycle/pedestrian efforts in order to more comprehensively plan for these modes of travel?

- Yes
- Don't know.
- Provisions of the Safe Routes to Schools program guidance is included in the Columbus Bicentennial Bikeways Plan. Since 2000, Columbus has been building sidewalks along pedestrian routes serving Columbus City Schools, funded at approximately \$1M per year. The SRTS program complements this long-established city initiative.
- I'll have to think about how that would be done.
- What?

13. In the context of the bigger picture, how is bike/ped safety being addressed in accordance with the planning regulations in your area?

- We are meeting basic standards as per SAFETE-LU.
- Our regional crash analysis includes bike and pedestrian crashes, safety is a consideration in the project evaluation process when selecting projects for the Long Range Transportation Plan and funding consideration for both roadway and bike/pedestrian projects. Based on the regional crash analysis approximately one percent of crashes in the MPO involve pedestrians.
- Given the lack of funding available and that our County is mostly a sub-urban environment. The high vehicle travel and low pedestrian travel in our County has made the development of a pedestrian portion of the Safety or TPlan difficult (In the past.) But, significant change is on the way. Within the last year most of the schools districts in our County are not busing within two miles of the schools and not bussing high school students at all. This mass influx in the child aged

- pedestrian population has made pedestrian safety a very high priority at the LPA levels. Ask this question again in two to three years.
- On individual projects, but there is no overall plan.
 - I'm not sure what this means.
 - By encouraging more on-street facilities to be included in roadway projects.
 - The MPO identified accessibility using the presence and condition of sidewalks on the federal functional classification system in 2005. The MPO adopted policy to support sidewalk construction along the functional class system. All pedestrian and bicycle crashes are identified and cataloged to assess demographics and contributing factors. All such crashes are mapped and shared with local stakeholders. The MPO considers such data when prioritizing needs and funding capital improvements.

14. How have ped/bike issues been addressed through the MPO's safety plan that ODOT has asked each MPO to develop?

- We have submitted five accident spots to ODOT for consideration of studies, as was requested, but ped/bike issues weren't addressed.
- We have inventoried pedestrian and bicycle crash data and made the same available to the member agencies.
- I don't know.
- Addressed as necessary
- Facilities reviewed on a project by project basis.
- Primarily through the ADAAG regulations.
- As the MPO we view pedestrian crashes and determine how they occurred. Data queries are utilized.
- As there have been no identified significant bike/ped safety issues within the MPO, they have not been addressed in the safety plan.

15. Are Bike/Pedestrian planning efforts reflected in the Safety Plans for your region?

- Yes, it has its own section
- Unknown, the MPO has no knowledge of specific safety issues or plans. Statistics including bike/ped "crashes" are incorporated into the annual Crash Report. Generally, bike/ped crashes have been too low of a percentage to raise significant concerns. For example, 2007 statistics indicate 9,769 total crashes involving vehicles. Out of those 69 involved pedestrians, 55 bicycles, and 457 animals.
- No plan that I am aware of, its not really a priority. They do not seem to be a priority for ODPS or ODOT/DSRT.
- We don't have Safety Plans, per se; however, bike and ped safety issues are dealt with in the Bike Plan and the transportation plan.
- Yes.
- Question not clear. Why would regional bike/ped planning be funded with a safety project.

16. Has the District, MPO or any LPA in your area performed a Pedestrian Safety Action Plan or Pedestrian Safety Audit?

- No.
- In 2006 the MPO conducted school zone safety studies of all rural schools and several within the City. District forwarded MPOs concerns to AG – never heard back.
- We have performed numerous safety audits in areas on a reactive basis. We the MPO only do these on invitation from the LPA.
- Walkability audits are regularly performed within the MPO region through local governments or communities. These audits include a safety component.

- Don't know.
- Walkability/bikability studies will be conducted while developing SRTS School Travel Plans.

17. Has there been any level of effort on the part of the District, MPO or LPAs in terms of examining bicycle and pedestrian crashes and injuries?

- MPO – Yes, but minimal
- Unknown, ...
- Yes.
- All types of crashes and injuries are examined in the overall planning process, but not in terms of a specific bicycle/pedestrian crash analysis. Only vehicular traffic at this time
- The Columbus Bicentennial Bikeways Plan and the Walkable Streets study both provide analysis of bicycle and pedestrian crash data along major arterial corridors for the period of 2000 through 2005. In addition, the Bikeways Plan provides analysis for all other city streets for the same time period, but just for bicycle crashes.
- The District has done some of this in response to issues raised by the public concerning unsafe conditions.
- N/A. (Ask the MPO.)
- Not to date.

18. Do you have any other comments related to bike/ped safety?

- No
- A significant portion of pedestrian fatalities and injuries within the MPO have occurred in crosswalks with walk signals in central business districts. Contributing factors appear to be speed and driver inattentiveness/failure to yield when making turns on red. Others incidents are related to impaired function (alcohol or drugs) by pedestrians illegally crossing roads.
- There is also a lack of pedestrian facilities in high density retail areas in unincorporated areas within the MPO, including sidewalks and/or marked crosswalks. This discourages any attempts at bike/ped travel.
- ODOT could publish the top 10 B/P high crash locations within the state and/or per district.
- There is a need for more cyclist and motorist education.
- Our MPO has encouraged project sponsors to provide partial accommodations for bicycles when design standards cannot be met. Is this acceptable?
- There is a great need for public education for both cyclists and motorists. More of the state's highway safety funding should be spent on this in proportion to the bike/ped injuries and fatalities.
- Pedestrian and bicycle safety has been lacking in the state's safety plan. However, a recent re-evaluation of the plan by the state has resulted in increased interest to address non-motorist safety.
- It needs to continue to be emphasized as part of the planning process.
- In general it is and afterthought in the transportation planning process.
- Bicycle and pedestrian type projects do not fit neatly into the established PDP process. The locals often express concerns regarding the need to perform PE. Consistency across Districts and even Departments within Districts is limited regarding design standards.
- So far, we've dealt with bike/ped safety in general rather than focusing specifically on certain locations. For example, by advocating for facilities, recommending them for specific projects that apply for federal aid, training area professionals in bike/ped facility design, advocating for cyclist and motorist education, etc.
- Bicycle and pedestrian accommodation are a component to all City-funded projects, including maintenance activities and day-to-day operations. Bicycle and pedestrian accommodation should also be a component to all state and federal funded projects, including maintenance activities and day-to-day operations. Columbus also follows the FHWA bicycle and pedestrian crash typing procedures. In addition to the engineering components of projects and programs, there should be an increase in educating and sensitizing drivers toward bicycle and pedestrians.

- Some locals do not agree with design standard on striping of shared bike/vehicle route when an exclusive right turn lane is involved. Requires thru bike lane to be located between right turn lane and thru lane placing the bicyclist between cars.
- Perceived safety issues can be as much of a hindrance to utilizing existing facilities as actual safety issues.
- Our local government has made efforts to design bike / pedestrian projects in accordance with generally accepted design standards.
- Not at this time.

19. How can the bicycle/pedestrian planning process be improved?

- More weight behind it during the planning stages
- There could be improved interagency consultation during the planning and design phase to assist in identifying needs. Incorporating consultation for bike/ped accommodation in some form into the ODOT PDP process could be considered.
- It would be helpful if ODOT had easy to access design standards that were clear to both designers and LPAs. The AASHTO Bike Book is approximately \$80, and ODOT and others are required to purchase this book. It should be updated, and made available at no cost to designers. Because bike path projects are becoming more prevalent, a training session on design of bike paths would be of benefit.
- Identify the annual usage of bikeways
 - Count bicycles on roads. Planning needs better data on bicycle demand.
 - Integrate pedestrian facility planning with transit routes to enhance access to and from transit routes.
- Increase funding for enforcement of existing laws.
- Besides the obvious issue of funding, a matrix that would help LPAs and MPO officials determine when/where is the most fiscally responsible areas to place priority bicycle/pedestrian planning and project implementation would be of extreme value. Something similar the travel demand model but specific to pedestrians.
- This would help all levels of transportation develop master bike/ped plans and know when/where to place limited funding. Then the outcome could even be used to determine the return on investment.
- We need a Statewide Plan and direction on how we should be accommodating these needs.
- Grass roots demand for facilities. Better understanding of local planners and officials of need. Better commitment from state DOTs. Education of cyclists, pedestrians and motorists.
- Require that local communities develop and submit plans.
- The development of more Bicycle/Pedestrian planning process seminars and workshops. It needs to be emphasized to a greater extent in all seminars/workshops related to safety.
- Bicycle and pedestrian planning must be a mandate in receiving funding.
- Need to mandate adequate planning, develop statewide design criteria and implementation policy.
- Often there is little or no consideration of purpose and need, logical termini or cost-benefit for enhancement type projects. Further, ADA requirements and design guidelines are viewed as “optional” by locals. The MPOs primary objective is expenditure of the available funds in the programmed fiscal year (balanced budget). In my opinion, planning is limited to maintaining a balanced budget.
- The Design Guidelines are vague and difficult to interpret.
- Our Bicycle Advisory Council often recommends ways that a project proposed by ODOT could better accommodate cyclists, but they don’t seem to take the recommendations seriously.
- Establish requirements for upfront education, encouragement and enforcement for all modes of travel including mass transit, so that all projects are developed with the needs of bicyclists and pedestrians in mind. ODOT should expand its training programs and consultant prequalifications to emphasize pedestrian and bicycle travel needs.
- MPO question.
- No suggestions at this time.
- We like to involve bike/ped advocates in early stages of project development.

- The planning, design, and construction of bike / pedestrian projects is a long process that requires the cooperative efforts of different communities. I believe that our MPO and local communities have worked well together in planning various components of the regional project. State oversight provides some assurance that projects are being properly designed with safety considerations.
- We believe the planning process is adequate for the facility improvements considered and included.

20. Please list any disparities in the planning/design guidance provided to the MPO's/LPAs by ODOT District or Central Office.

- We have not noted any disparities in guidance. However, it would appear to be a low priority compared to other planning elements. It would be unusual to see an emphasis in bike/ped planning considering that all agencies are amending and developing plans to meet gaps identified in SAFETEA-LU requirements.
- There are no official design standards in the normal ODOT design manuals.
- We have not received any direct guidance from our ODOT District or Central Office except for the SR2S program. Guidance regarding SR2S has been consistent between the district and central office.
- Each Bike/Ped facility should be reviewed on its inherent merits/qualities. Current design standards – one size fits all - results in overly expensive and over designed structures.
- None that I know of. ASSHTO green book and ADAAG rules.
- The District has decided to include sidewalks on two bridge replacements in Urban areas. ODOT Central office is designing both projects. Central Office has made several attempts to remove the sidewalks from the bridge to reduce the cost of the project. Central Office needs to be more accommodating for pedestrian issues especially in Urban areas.
- It is my understanding that Eminent Domain may not be used for bicycle facilities. This makes it difficult to include in projects that require strip r/w.
- Other than the facility guidelines adapted from AASHTO, I don't know of such guidance.
- ODOT's Routine Accommodations Policy is ambiguous and doesn't serve the communities.
- I am uncertain.
- The Design Guidelines are vague and it is difficult to interpret what criteria are required vs. strongly recommended vs. suggested.
- Not sure what this means.
- Do not know about ODOT planning/design guidance. However, recent interactions with ODOT on state bridge deck replacement projects in Columbus indicate a gap in understanding of pedestrian and bicycle accommodation between Columbus and ODOT.
- I am not sure of any disparities.
- Right-of-way can not be purchased on most Enhancement projects, but many bike/ped projects require additional right-of-way. Projects can not be funded unless there are no right-of-way issues.
- N/A
- Not aware of any off-hand.

21. Is the decision not to accommodate bicyclists and pedestrians the exception or the rule in your District?

- Our opinion is that it is the exception, in most cases due to the excessive costs involved in making most accommodations. We have noted occurrences where projects have been completed that impair future access and other projects where access has been accommodated only through the insistence of LPAs.
- This is a timely question; Locals in D-7 are debating how to use their limited preservation funding to accommodate B/P on every project; and then how to fund the maintenance of each facility.

- Very vague question. Pedestrian accommodation is primarily up to the LPA. ODOT always accommodates pedestrians if it is the desire of the LPA and the LPA is willing to pay their share. If the LPA does not wish to accommodate pedestrians then ODOT places curb ramps that connect to nothing.
- Most urban jurisdictions accommodated pedestrian facilities as the rule with the exception of the County Engineers. A provision of the Ohio Revised Code prevents County Engineers from building or maintaining pedestrian facilities with roadway use taxes. Most urban jurisdictions also attempt to accommodate bicyclists, however, not at the same level as pedestrian facilities. Typical practice in this Region has been to restrict bike facilities to rail/river corridors as recreation facilities managed by park districts. A potentially dangerous practice is to assume that shared sidewalks are adequate and safe for both pedestrians and cyclists. This has allowed jurisdictions to assume bike demand has been met through rail trails and other off-street facilities and has resulted in the absence of on-street facilities in the Region. We hope to promote a “complete streets” concept in future transportation funding policy.
- They are usually not accommodated.
- It seems to be the rule.
- I don’t think there is a decision not to accommodate bicyclists and pedestrians, but rather, I believe that they are considered only after the project development is underway.
- Yes. “Due consideration” is loosely defined when considering the needs of bicyclists / pedestrians however all projects are reviewed to assure safety within practical confines.
- Exception

22. Do you seriously consider bike/ped issues in all projects/planning in your office?

- Yes, it is always considered; not always accommodated.
- Yes.
- It is part of our Project Development Process; Initially at the field and office review. There needs to be a better effort to ensure that ODOT pre-qualified consultants are aware of the need to consider B/P facilities in design and that ODOT pre-qualified consultants are aware of the standards for B/P facilities.
- We do not develop projects but do encourage jurisdictions to make such considerations through our Comprehensive Local-Regional Bikeway Plan, walkability program, Drive Less Live More initiative, and the project evaluation process. Projects that include or improve multimodal facilities score higher during the project evaluation process.
- Not in all projects.
- Mostly.
- Yes, when appropriate.
- I am uncertain.
- Yes. However, ODOT participation in funding the investigation and construction of such facilities is limited.
- MPO’s review proposed TIP projects and offer comments
- Only with projects when warranted on the basis of safety, feasibility and use/desire.
- For LPA projects in municipalities, local needs drive the consideration of bike/ped accommodation. Funding can be an issue too.
- Yes.

23. Should the term "Due consideration" of bicycle and pedestrian needs presume that bicyclists and pedestrians will be accommodated in the design of new and improved transportation facilities in your District?

- Yes
- The term is sufficient; along with the rest of the guidance.
- There needs to be a better effort to ensure that ODOT pre-qualified consultants are aware of the need to consider B/P facilities in design and that ODOT pre-qualified consultants are aware of the

- standards for B/P facilities. This is particularly important on local let projects, where the local is relying on the consultant for design guidance.
- No. The interpretation of “due consideration” is too broad. We prefer a “complete streets” policy that requires bicycle and pedestrian facilities with a few, narrow but reasonable exceptions.
 - Not locally... again it’s the costs issue!
 - That is more project and roadway specific/dependent than absolute. For example sidewalks at street level along both sides of IR70 would not be a good thing.
 - No, as projects stated above the majority of our projects are Rural resurfacing projects.
 - Yes. The 2008 Regional Bicycle Plan includes a Complete Streets Program intended to do this through our TIP process.
 - It presumes that they be accommodated, but we am not sure that they always are accommodated?
 - Yes. ODOT designs projects in a manner that does not prevent the MPOs and locals from incorporating bicyclist and pedestrian facilities.
 - Don’t know.
 - I think there should be much stronger language regarding bike/ped accommodation that requires their inclusion unless they are infeasible, narrowly defined. The term “due consideration” doesn’t convey this—another phrase would be needed.
 - No. It means those facilities will be considered.
 - No.
 - Bike/ped projects are considered on LPA projects and accommodated when the need is present. On rural low volume roads, the need is not present.
 - No. There are limited financial resources. The understanding of bicycle / pedestrian guidelines and the anticipated costs of accommodating needs should be reviewed by all interested parties to assure that practical decisions are made that review costs and benefits.
 - Whenever possible and practical, bicycle and ped needs are accommodated.

24. Should Transportation Enhancement projects be given the same priority and consideration as roadway projects in terms of planning priority for a given area?

- Bike/ped projects should be given priority in the selection of TE projects (for example, over planting projects or “gateway” type projects).
- Is there any documentation that TE funds are routinely resulting in an economic benefit that exceeds the cost of the project? If not, then TE projects should be given far lower priority than currently.
- TE projects go through the same evaluation process as our other roadway projects. The difference is in the size of the projects. They would be given more priority if the funds were more equal in size.
- Yes.
- That is more project and roadway specific/dependent than absolute. It would also depend on the number of pedestrian/bicyclist that may use the future facility.
- No, our priority should be on maintaining the existing infrastructure.
- No because Enhancement projects can be landscaping, a museum or preservation of a historical site.
- Relatively to the population that uses these type of facilities.
- No, I think that no enhancement project should be able to stand alone. I believe that all enhancement monies should be spent to do exactly what their name entails and that is enhance an existing project already in development.
- No
- In my personal opinion – No.
- Yes. Alternative transportation (bicycle, mass transit, and pedestrian-oriented) projects should be given the same priority as the more traditional roadway projects. MPOs should refrain from awarding TE funds to projects, such as restoring old railroad stations for museum purposes, and not operational type improvements. The policy of MORPC is to reward more points to bicycle and pedestrian improvements.
- No. Bridges/safety projects are the highest priority. Pavement next.

- If possible. Our job is to maintain the infrastructure of the existing system for vehicles, bicycles, and pedestrians. If there is a question on if the money should be spent on resurfacing a current roadway or build a new bike path, the resurfacing would be selected for system preservation.
- To a certain degree, I think they are currently given the same priority.
- Depends on the area. Bike/ped projects provide a critical link within villages, towns and cities. Enhancements are a priority.
- No. There are limited resources and it is my opinion that providing a higher percentage of funding for roadway projects would be a greater benefit to the public.
- They are given that same priority by TMACOG.

25. What is the definition of excessively disproportionate cost of establishing bikeways or walkways versus what would be to the need or probable use of said facility?

- Address on a case by case basis. It is a local decision.
- Unknown, it is assumed that it would be some percentage of the overall project cost. However, in cases where it is determined that it truly is disproportionate, consideration should be made to provide accommodation in sections of projects where future access would be impaired. For example, installing sidewalks in the entire project area might be prohibitively expensive, but installing crosswalks (or the ability to accommodate crosswalks) should be incorporated into the final design. Likewise, freeway overpasses and underpasses should incorporate the ability to accommodate bike/ped access at some point in the future if it is not being accomplished during that particular project.
- Such a definition is inappropriate, as it would be likely to exclude EJ neighborhoods as funded locations. Multi-use trails are more likely to be heavily used for recreational purposes in a higher income area with lower crime rates. Lower income neighborhoods, where multi-use facilities would be important for alternative transportation, would likely have a lower number of users, but its benefit to the individual users would be much higher.
- We understand that over 20% of the roadway project cost is used as a standard for excessive cost for establishing bikeways and walkways, when the projects are combined. We have no information to suggest a different level for this standard.
- A matrix that would help LPAs and MPO officials determine when/where is the most fiscally responsible areas to place priority bicycle/pedestrian planning and project implementation would be of extreme value. Something similar the travel demand model but specific to pedestrians. This would help all levels of transportation develop master bike/ped plans and know when/where to place limited funding. Then the outcome could even be used to determine the return on investment.
- I am not aware that this is defined. Our MPO uses 20%. We prefer to look at the environmental property impacts, and the desire of the local officials and the public.
- We consider more than 20% of total project cost as a cost guideline for exception.
- We use 20 percent over and above the cost of the project regardless of the need or use of the facility.
- It appears that the construction of bikeways or walkways is a costly addition when compared to the actual need or probable use of a facility.
- I am uncertain, however, all planners should be concerned with prudent expenditures of all dollars under their purview.
- What conditions warrant the construction of a new bicycle or pedestrian facility?
- Don't know.
- According to federal guidance, more than 20% of the total project cost. It's been suggested at NOACA that this figure is too high, especially for really large projects and we'll be looking at this question this year and maybe modifying our policy.
- A cost that results in a project becoming non-fundable; a right-of-way impact that causes environmental red flags; or rather than spending excessive funds along the project route, alternate routes could be improved with less cost.

- Must be determined on a project by project basis. Cleveland Metro parks spent \$5M on 2 cable stay ped/bike bridges in Valley View. My opinion excessive. However, an MPO decision.
- A high design/right-of-way/construction cost with a low established need/probable use.
- Money is limited and should go where there is the most need. No consistent way to measure.
- It is my belief that the initial construction cost of trail facilities are disproportionately excessive when compared to the expected need for roadway maintenance projects, however once the trail projects are constructed maintenance costs will be easier to handle. I believe that the construction of the trail facilities will provide long term benefits once the planned projects are complete.
- We don't have a hard and fast rule. Each situation is considered on its own merits.

26. What are the greatest areas of quality improvement that should be considered to standardize the state of the practice regarding bicycle and pedestrian planning/project implementation in Ohio?

- Unfamiliar with state standard practices
- Improved interagency and public/citizen group consultations.
- Inclusive design standards into ODOT's L&D manuals. Greater flexibility in scope changes (i.e., minor ROW acquisition or route changes) to allow for improved facility design when issues are ID'd during preliminary engineering/environmental. ODOT should require mandatory training for applicants prior to applying for funds.
- Implement Evaluation, Education, Encouragement and Enforcement standards across the state.
- Training.
- A matrix that would help ODOT, LPA and MPO officials determine when/where is the most fiscally responsible areas to place priority bicycle/pedestrian planning and project implementation would be of extreme value. Something similar the travel demand model but specific to pedestrians. This would help all levels of transportation develop master bike/ped plans and know when/where to place limited funding. Then the outcome could even be used to determine the return on investment.
- A Statewide Plan
- Complying with the FHWA guidelines. Working with state and local health planning agencies for education projects.
- A true commitment is needed to the construction of bicycle and pedestrian facilities and not just highways.
- Bicycle/Pedestrian Planning needs to be emphasized to a greater extent. Areas that do not presently have a plan should be required to make every effort to include the development of a Bicycle/Pedestrian Plan as a part of their Long Range Plan update process. If they do not have the available staff to perform this task, they should utilize consultant services.
- The areas where the biggest quality improvements can be made are in the funding of these projects in that they should be funded by a mechanism that requires that proper planning is in place and that ODOT should adopt a design standard that eliminates any necessary interpretation of guidelines.
- Funding mechanism requiring planning to warrant the enhancement. Uniform design criteria, not "recommendations". Standardizing design guidelines/criteria. Development of an environmental process for enhancement projects; stop use of "highway" methods and processes on these types of projects. Develop enhancement project contractor pre-qualifications
- For project scoping & plan review purposes, clarify and standardize design standards.
- Right now, each MPO does things differently, as far as I know. The ODOT policies are not that progressive. I'd like to see them substantially strengthened, then enforced throughout the state.
- Ohio should adopt a statewide Complete Streets policy that has few exceptions and statewide guidelines that would standardize the practice.
- Not sure we should "standardize" bike/ped planning/project implementation.
- Not sure
- Educating actual ODOT staff in the process. Use Noise Guidance/training as guidance.
- The establishment of comprehensive pedestrian/bicycle plans on a regional and statewide basis, as appropriate.

- Clear direction on how right-of-way acquisition and project development are to work together.
- Trail projects should stress regional cooperation and planning in accordance with generally accepted design standards. State involvement and the NEPA process should provide some assurance that the overall plan for developing trails facilities is properly completed.
- Ohio must continue to lead by example.

27. What are the greatest strengths/weaknesses regarding bike/pedestrian projects in Ohio?

- Strength: Planning agencies, the public and citizen groups are more aware of the opportunities and need for accommodating additional modes of transportation into planning and construction.
- Strength-Willingness to fund these types of projects.
- Strength: Don't know.
- We have a lot of really great trails in this area. The connectivity between destinations that is being created is great.
- Strength = Active local community involvement;
- Strengths: ODOT Central Office and District personnel who provide assistance to LPA sponsors regarding pedestrian/bicycle project development.
- Strength: Strong Desire and support for bike/ped projects from local governments and citizens.
- The greatest strength is the ability of the MPOs to apply the enhancement funding to established transportation improvement projects.
- The greatest strength is that the public is behind the development of these projects.
- The greatest strength is the statewide system of trails being developed especially in the Dayton and Xenia area.
- Strength: The public wants these facilities
- Strengths – Willingness to move forward in most communities, in this area cooperation of the LPA's, MPO with ODOT District and C/O personnel, the wish to create a more pedestrian friendly environment.
- Required connectivity – Strength.
- We have wonderful recreation trails in our area. The Street Smarts course is a good basis for building on.
- Strengths: Bicycle advocates; MPOs; LPA Coordinator; Central Office (Randy Lane, Sharon Todd)
- Trail projects are generally funded with federal money through the MPO so checks and balances are built into the system that provide some assurance that regional projects are properly completed.
- Weakness-Guidelines are vague.
- Weaknesses: More potential projects than available funding. Right-of-Way becomes complicated.
- Weaknesses: Lack of comprehensive pedestrian/bicycle plans on a regional and statewide basis, as appropriate.
- Weakness = poor, uneducated
- Separate bike/ped path facilities are used for recreational reasons not for work commutes. Feds need to admit this usage and fund from non-highway sources. Only shared facilities (adding 5 ft on pavement for cars and bikes) should be funded with highway monies.
- Bridges need to better accommodate pedestrian and bicycle with possible use of vertical barriers. Columbus is seeing a shift in attitude by ODOT toward accommodation of bicycles and pedestrians. For example, the city's ongoing interactions with ODOT in planning projects in urban areas, with rich environments for non-vehicular travel, and where roadways are constrained by existing development. The 21st Century Task Force is highly visible evidence that ODOT is interested in moving toward greater consideration of bicycles, pedestrians and mass transit.
- I'd say the greatest weakness is that the vast majority of roadways in Ohio do not accommodate bike transportation, and there are many areas where connections are not adequate for pedestrians also.

- Weakness: Bicycle facilities in District 4 appear to serve recreational needs, not transportation needs. (personal opinion)
- We don't have enough of them.
- Needs more emphasis.
- The greatest weakness is the inconsistency in the program. I don't believe the intent of the program was funding stand alone bike/pedestrian type projects... ODOT prequals dictate the use of contractors that can not effectively bid enhancement type projects. Lack of design uniformity confuses consultants and results in increased design costs and project delays. Standard ODOT review and coordination procedures make design/clearance of enhancement projects cumbersome and expensive.
- The greatest weakness is that the DOT has been negligent in establishing rules and regulation to govern these projects from inception to completion. There is no concrete guidance.
- Greatest weaknesses/need is to be able to respond to cyclist identified problems on the road network for adding bike facilities and sidewalks. (For example, state license and gas tax funds can't be used for sidewalks when implementing roadway improvement projects).
- Weakness: There is no overall direction/State Plan on how these facilities should be constructed or included in proposed projects. The public is often opposed to these projects if they impact their property. The public will also argue that these funds should be used for other needs. These needs are not directly funded. The policy states that the funding will come from the existing capitol programs; yet we have been encouraged to reduce the cost of these projects in order to fund more projects.
- Weaknesses – Other than funding, lack of consistency in expectation at each of the adjoining LPA's, inconsistency in R/W widths.
- Weakness - the regulated "over" design of facilities when using federal funds.
- The roadway network is not sufficient, or safe enough, to access the recreation trails or to serve as a transportation alternative, unless and until better motorist and bicyclist education can take place. A weakness of projects is that liability concerns actually prevent jurisdictions from marking bike lanes and creating a safer transportation environment.
- Weaknesses: Local's lack of understanding regarding process, design standards, obligations, etc. ODOT should require mandatory training for applicants prior to applying for funds.
- Weakness: funding for multi-modal projects is primarily derived from one mode of transportation, motor vehicles.
- Sometimes local citizenry is too focused on traditional vehicular traffic and does not recognize the importance of including alternative transportation modes.

ATTACHMENT 6

**USDOT VOLPE CENTER
Transportation Planning Capacity Building Program
– Peer Exchange Report –
“Best Practices in Bicycle Facilities Planning” June, 2008**



Peer Exchanges

Planning for a Better Tomorrow

FHWA/FTA
Transportation Planning Capacity Building

Transportation Planning Capacity Building Program

– Peer Exchange Report –

“Best Practices in Bicycle Facilities Planning”

Location: Chicago, Illinois
Date: June 13, 2008
Exchange Host Agency: Chicagoland Bicycle Coalition / Chicago Department of Transportation
Exchange Participants: Mid-Ohio Regional Planning Commission (MORPC)
Ohio Department of Transportation (ODOT)
Federal Transit Administration (FTA), Region V
Federal Highway Administration (FHWA), Ohio Division Office
U.S. Department of Transportation (DOT), Volpe Center

I. Introduction

This report summarizes proceedings from a one-day Peer Exchange on “Best Practices in Bicycle Facilities Planning” supported by the Federal Highway Administration (FHWA) and the Federal Transit Administration’s (FTA) [Transportation Planning Capacity Building \(TPCB\)](#) Program. The event was hosted by staff from the Chicagoland Bicycle Coalition and the City of Chicago’s Department of Transportation in downtown Chicago, Illinois.

The overall goal of this peer exchange was to improve knowledge of best practices in bicycle facilities planning¹ for transportation planners and engineers in the 11-county Columbus, Ohio, region through both a peer exchange as well as a hands-on experience riding city streets during peak commute hours. 4-hour morning riding tour of Chicago streets was followed by an afternoon presentation on foundations of high-quality bicycle facilities design by long-time Chicago city

¹ The focus of this workshop was on bicycle facilities for everyday transportation, rather than recreational bikeways and trails.

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traffic engineer John LaPlante at the headquarters of the Chicagoland Bicycle Coalition. The Mid-Ohio Regional Planning Commission (MORPC, the MPO for Columbus, OH) had requested the exchange to better support its local jurisdictions ability to comply with the recently adopted Regional Bikeways Plan, as well as MORPC’s “routine accommodation” policy for bicyclists and pedestrians, passed in 2004.

TPCB program staff from the U.S. DOT Volpe Center attended to support the event as well as to document proceedings. The report includes the following sections:

- I. Introduction**
- II. Background**
- III. Overview of Morning Bike Tour**
- IV. How to Develop Bicycle Facilities and Promote Better, Safer Biking**
- V. Key Contacts**
- VI. Attachments**, including full participant list, event agenda, and links to relevant resources/information along with presenter organization websites

II. Background

In 2004, the Mid-Ohio Regional Planning Commission (MORPC)² adopted a “routine accommodation” policy requiring all projects funded through MORPC-attributable fFederal funds to include bicycle and pedestrian facilities. The decision of what specific types of facilities (e.g., bike lanes/paths, bike parking facilities, bike racks on buses, paved shoulders, etc.) should be included in each project, however, was left to the discretion of individual project sponsors and/or developers.

As a result of MORPC’s new policy, communities in its planning region must now routinely plan and construct bicycle and pedestrian facilities as part of larger projects if they want to use MORPC’s fFederal transportation monies to fund those projects. This has led to a number of significant milestones for bicycle planning in the region. For example:

- The Central Ohio Transit Authority (COTA) installed bike racks on all of its buses in 2004 and by 2006 it counted 3,000 bike boardings per month.
- In 2006, MORPC adopted a [Regional Bikeways Plan](#) to guide development of its regional bicycle network.

Despite these achievements, MORPC faces several challenges to enhancing bicycle planning efforts for everyday transportation in the region. First, the existing network of non-recreational bicycle facilities is small. Although there are 387 miles of “bikeways”³ in the MORPC planning region, the vast majority of those are shared-use recreational trails running along the several rivers flowing through the region; only 12 miles of striped, on-street bike lanes currently exist. This forces non-recreational cyclists who want or need to use their bikes for everyday transportation to ride along heavily trafficked arterials lacking adequate accommodations for safe/convenient

²MORPC is the Columbus, Ohio region’s federally designated Metropolitan Planning Organization (MPO).

³ “Bikeways” here, refers to any road, path, or way which in some manner is specifically designated as being open to bicycle travel, whether designated for the exclusive use of bicycles or to be shared with other transportation modes.

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cycling. The situation not only presents real safety concerns⁴ but also creates a psychological barrier that prevents many people who would want to use their bikes more often (if appropriate accommodations existed) from doing so.

A second challenge is that relatively few transportation planners and engineers working in MORPC’s planning region, especially in the more suburban communities and counties, have much prior experience with bicycle facilities’ design and construction. Building the familiarity, comfort, and technical capacity of transportation professionals in the MORPC region with high-quality bicycle facilities design and operation could support regional goals to expand and improve the region’s bicycle network. For this reason, MORPC planners and engineers participated in this FHWA/FTA-sponsored peer event with the city of Chicago, a city with extensive experience in this arena, to tour facilities and learn from the Chicago experience.

IV. Overview of Morning Bike Tour

From 7:00 am to noon, the peer exchange group was led on a 16-mile tour of bicycle facilities in and around downtown Chicago. The tour was led by David Gleason, the Managing Bikeways Traffic Engineer for the City of Chicago’s Department of Transportation. It was designed to provide riders with a direct experience riding high-volume urban arterials during the heavily trafficked morning commute hours and expose participants to a wide variety of bicycle facility treatments, including:

- Striped bike lanes
- Colored bike lanes
- Shared bike/bus lanes
- Intersection improvements
- Bus interactions
- Bike parking
- Bike signage
- Bridge treatments
- Traffic-calmed streets

V. How to Develop Bicycle Facilities and Promote Better, Safer Biking

Following the morning bike tour, participants gathered at the headquarters of the Chicagoland Bicycle Federation (CBF) for a presentation on how to select, design, and maintain a network of high-quality bicycle facilities by John LaPlante, a longtime traffic engineer with the City of Chicago. This was followed by conversation with Rob Sadowski, Executive Director of the CBF, on how CBF promotes more and better cycling in the Chicago region through advocacy, outreach, and education.

1: Guide on the Development of Bicycle Facilities

John LaPlante, Vice-President/Chief Transportation Planning Engineer, T.Y. Lin International, Inc.

⁴ For example, between 2000 and 2004 there were more than 1,500 bicycle and motor vehicle crashes in the MORPC planning area.

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Mr. LaPlante previously worked as an engineer and planner for the City of Chicago for 30 years, where he had extensive experience with bicycle and pedestrian facilities design and held positions including Engineer of Traffic Planning, Chief City Traffic Engineer, First Deputy Commissioner of Public Works, and Acting Commissioner of Transportation (where he was responsible for the planning, design, and construction of all roads, bridges, and mass transit facilities in the City of Chicago). Mr. LaPlante is a Fellow of the Institute of Transportation Engineers (ITE), where he now serves as an alternate delegate to the National Committee on Uniform Traffic Control Devices, the committee that develops the Manual on Uniform Traffic Control Devices (MUTCD), and chairs the newly-formed Pedestrian Task Force. He is also the American Public Works (APW) Association representative on the American Association of State Highway and Transportation Officials (AASHTO) Geometric Design Task Force, which prepares the *Greenbook*, and was Chair of the Subcommittee that prepared the most recent edition of AASHTO's Bike Guide.

The intention of Mr. LaPlante's presentation was to serve as an introduction and guide for the first-time developer of bicycle facilities and reinforce the notion that “bikes belong” in all aspects of transportation planning and engineering. The presentation covered several broad topics:

- Planning
- Design
- Operations and maintenance

Mr. LaPlante opened with some historical context. The original push to improve and pave roads in the U.S. in the late 19th and early 20th centuries, known as the “Good Roads Movement,” came from the League of American Wheelman and other recreational and everyday bicyclists demanding improved riding conditions and not from car owners because the automobile was not in wide enough use at that point to spur major infrastructure investments. In this sense, the growing interest today of transportation planners and engineers in “complete streets” – streets that accommodate not only automobiles but all users, including bicyclists and pedestrians – is a case of “back to the future.”

Now, after decades of neglect, advocates for more and better integration of bicycling concerns in transportation planning and engineering are seeing the fruits of their labor. Major design manuals such as the *AASHTO Greenbook*⁵ and the *AASHTO Bike Guide* now stipulate that bicycle needs should be addressed in all types of transportation projects throughout all phases of project development, even on highways (except for those on which bicycle traffic is explicitly prohibited). Mr. LaPlante re-emphasized this point by expressing that, coming from one engineer to another, “If your streets can't handle bikes, pedestrians, buses, cars, and trucks all together, then you're not doing your job because it's not a complete street!”

Increased safety is a major justification for making investments in bicycle facilities. Studies have shown that accommodating bicycles in street design improves safety for everyone. For example, it is possible to reduce bicycle fatality rates in half by simply adding bicycle lanes to existing streets and roads. If planners and engineers do not stripe bike lanes, many bikers will opt for riding on the sidewalk, but sidewalks are five times as dangerous as conventional streets and 10 times more dangerous than streets with bike lanes. Additionally, only 10 percent of bike fatalities are cyclists being hit from behind; the overwhelming majority of fatalities are angle collisions when bicyclists are crossing a street or driveway in a crosswalk or heading the wrong direction down a street against traffic. By striping bike lanes, you can reduce the number of people riding in the wrong direction and on the sidewalk, so in terms of safety, *everyone* benefits from bicycle lanes, not just bike riders. Installing bike lanes has also been found to increase the incidence of bicyclists stopping at red lights, which helps increase bicycle safety in intersections.

⁵ AASHTO stands for the American Association of State Highway and Transportation Officials and most people know its design book as the “Greenbook.”

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Bicycles can be accommodated on streets through good design at the project level; but in order for bicycle planning efforts to be most effective, these projects must be planned and integrated as part of a systems approach. Rather than building bike facilities individually and/or in isolation, Mr. LaPlante emphasized the importance of developing projects that support an overarching vision of a continuous, interconnected bicycle network. The network should include multiple bikeway elements and serve a range of user types and bicycle skills/comfort levels. A common typology describing this range of biking abilities and comfort levels (and mnemonic for remembering them) is found by remembering the “ABCs.”

- “**A**” is for **Advanced Cyclist** – These are the experienced cyclists with a high comfort level who will bike under most traffic conditions and on most street types. Advanced bikers will likely ride even when no bicycle facilities are present, even on heavy volume arterials. As such, they may be the most visible and outspoken bikers in a community before bicycle facilities are developed.
- “**B**” is for **Basic Cyclist** – These are the interested but less experienced adult or teenaged cyclists who are less confident and comfortable biking in traffic without special facilities or provisions. They may feel very comfortable riding on a separated path but are not likely to ride on city streets unless bike lanes or other facilities are present.
- “**C**” is for **Child Cyclist** – These are the least experienced and most vulnerable cyclists who should never ride on heavy volume streets without bicycle facilities, special safety provisions, or parental accompaniment/supervision.

When designing a system, you must plan for and accommodate all three experience/comfort levels. The selection of which facilities to build and where to build them should reflect the existence of all three levels and their varying degrees of comfort and safety using different facility types. Mr. LaPlante explained that only about 5 percent of all bikers fit into the “advanced cyclist” category; 95 percent of cyclists overall are “basic” or “child” cyclists. In order to design a system that meets everyone’s needs, planners and engineers must think more intentionally about how to accommodate bikers with relatively less experience and comfort riding. The most common bicycle accommodations are:

Shared Roadway/Lane – A shared roadway/lane is any corridor that does not prohibit bicycle use but does not have a designated (i.e., painted) bike lane. This is where most bicycle travel currently takes place. Width is a key consideration in whether roadways can accommodate bicycle travel. Widths of 14 or more feet are wide enough for cars and bicycles to be traveling alongside one another in a shared lane. A minimum of 12 feet is needed for on-street car parking to exist next to a bicycle lane.



- **Signed Shared Roadway/Lane** – Shared roadways can be made more bicycle friendly by posting signage designating particular streets as preferred routes for bikes. Signage can be posted next to speed limits, stop signs, etc. along the roadside or painted directly on the street surface. “Sharrows” are an example of the latter; they are stencils painted on the road surface for both motorists and bikers to see, which reinforces the concept of sharing the lane (see *photo*). Ideally, the stencil designs are 36 inches wide and painted 11 feet out from the curb (the entire width



of the shared lane is 14 feet).



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Bike Lanes – Bicycle lanes delineate the right of way for bicyclists, separate from motorists, on new or existing roads. They need to be a minimum of 5 feet wide and are most appropriate to install on urban thoroughfares, rather than in rural areas. Installing bike lanes on existing roads requires reducing the width of the motorists’ travel lane (which, in turn, reduces their travel speeds), which is often referred to as a “road diet.”



riding on.

- **Paved Shoulders** – In rural areas where separate bike lanes may not be possible or feasible, paved shoulders can accommodate bicyclists. Shoulders should be at least 4 feet wide to accommodate bicyclists and can serve as a breakdown lane for motorists as well.
- **Caution about Shoulders** – Rumblestrips are not recommended for shoulders that bicyclists use often. Also, unpaved shoulders are never appropriate for bicyclists to be

Shared-Use Path – Shared-use paths are separated paths designed for cyclists, pedestrians, skaters, wheelchairs, joggers, walkers, and other non-motorized users alike. Canals, waterfront corridors, and old rail lines often provide good opportunities for developing shared-use paths. They can be used for longer distance commuter routes when developed adjacent to residential areas and office parks or lead to/from major employment and residential centers.



Bicycle parking – It’s not enough to provide facilities for riding bikes if, at the end of a trip, there is nowhere for bicycles to park. Whether low-cost U-shaped racks bolted into the sidewalk or higher-cost covered parking stalls, garages, or cages, providing for cyclists’ bicycle parking needs is an essential element for creating an effective bicycle network. The City of Chicago has installed 11,000 racks for parking in its jurisdiction, paid for through Federal Congestion Mitigation and Air Quality (CMAQ) funds. In some cities, developer exactions can be used to have developers fund bike parking installations. Mr. LaPlante and CBF staff recommended that agencies pay attention to the vendor and design they decide to invest in because not all bike racks function equally well.



A summary of the needs and appropriate accommodations for varying bicycle user types is found in the table below:

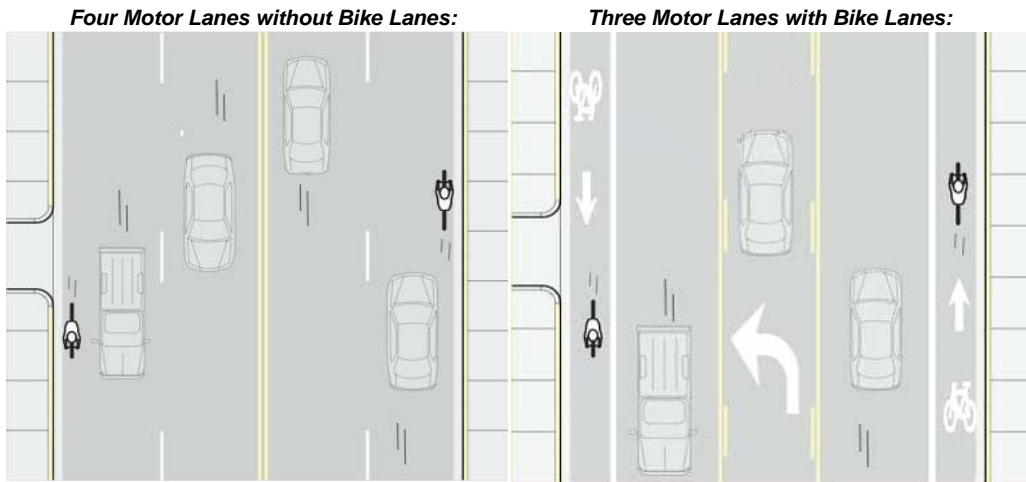
Table I: Bicycle User Types, Needs, and Accommodations:

| Type of Bicyclist | Needs | Accommodations |
|--|---|---|
| A – Advanced (5% of all riders) | <ul style="list-style-type: none"> • Direct access to destinations • Ability to ride at a maximum speed with minimal delays • Sufficient operating space | <ul style="list-style-type: none"> • Enforced speed limits • Wide curb lanes (urban) • Paved shoulders (rural) |
| B – Basic C – Child (combined 95% of all riders) | <ul style="list-style-type: none"> • Comfortable access to key destinations • Low speeds and low volumes • Well-defined separation on roadway | <ul style="list-style-type: none"> • Ensure lower speeds • Bike lanes, paths, or routes • Paved Shoulders |

Mr. LaPlante spent considerable time talking about bike lanes since they are the preferred accommodation for making the vast majority of cyclists comfortable riding on urban arterials. Mr. LaPlante described road diets, which usually involve reconfiguring a four-lane roadway to three lanes with one lane in each direction, a two-way left turn lane, and room left over for bikes and/or parking. Road diets are a “win-win” for all road users and can work successfully on roads with up to 20,000 average daily traffic (ADT) counts. They provide room and legitimacy for bikes on the

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road and significantly reduce crashes. On average, road diets reduce crashes by 50 percent; but on one of his projects, a road diet reduced crashes from 12 to 1 at a particularly difficult intersection. A visual example of a road diet can be found below:



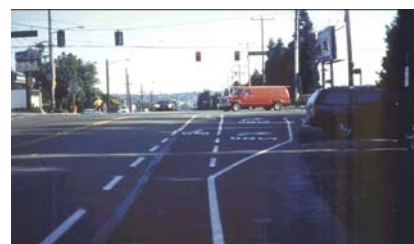
Sometimes, traffic engineers question the feasibility of retrofitting bike lanes into existing road infrastructure because they argue there is insufficient right-of-way (ROW). However, by reducing existing lane widths, Mr. LaPlante explained that engineers can usually find enough ROW to make bike retrofits work. In Chicago, for example, with 44-foot face-to-face roads with 17,000 ADT, they have successfully readjusted lanes with a 5-7-10 retrofit (bike-parking-travel lane). As an additional bonus, crashes went down 10 percent overall and 15 percent at intersections. A recently completed National Cooperative Highway Research Program (NCHRP) study found that on urban arterials with posted speeds of 45 miles per hour or less, there is no difference in crashes on lanes that are 10-, 11-, or 12-foot wide. With these results in mind, Mr. LaPlante emphasized his belief that there is no reason to put a 12-foot lane in an urban area ever again. He recommended that engineers not use 70 miles per hour design standards (i.e., 12-foot lanes) in urban areas on 30 miles per hour streets.

Bike lanes should be a minimum of five feet wide (though four feet is allowed if there is no curb) and run one way with the direction of traffic on the adjacent motor lane. Prior to 1999, a diamond symbol used to be placed inside to designate it as a bike lane, but this is no longer recommended because a diamond shape is also the symbol for a high-occupancy vehicle (HOV) lane and has been known to confuse motorists.



There are a number of maintenance considerations that need to be accounted for when installing bike lanes. In terms of surfacing, the striping wears with time and will need to be kept up, and potholes and pavement imperfections are more damaging and dangerous for bikes than they are for cars. Raised pavement markings should not be used on/near bike facilities as they can get slippery when wet and are dangerous for cyclists. Adequate drainage should be provided to ensure that bike lanes do not get flooded, and old drainage gates should be updated with corrective metal strips placed perpendicularly every 4 inches to make sure they are safe for cyclists. Related to this, railroad crossing should always be designed at a 90-degree angle so that tires do not get stuck in the flange. Also, because bridges with grating are difficult to retrofit, building bike treatments to increase safety early on is strongly recommended.

In most circumstances, you should not extend bicycle lanes through intersections. Similarly, bike lanes should not be



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extended into roundabouts. When properly constructed, single-lane roundabouts slow traffic to 20 mile per hour so it is safe and appropriate for bicycles to share the space. Approaching major intersections with right-only turn lanes, however, often calls for additional striping close to the intersection (see photo to right).

After a discussion of bike lanes, Mr. LaPlante turned his attention to shared-use paths. He explained that there is ongoing debate in the cycling world about which are better for accommodating the needs of inexperienced cyclists--on-street bike facilities or separated shared-use paths. Though it may be counterintuitive, studies show that on-street facilities such as shared lanes are actually safer than separated paths because the visibility to motorists (especially at high-volume intersections with lots of turns) is so much better. For this reason, current design guidelines, such as *AASHTO's Bike Guide*, stipulate that “Shared-use paths should not preclude on-road bicycle facilities, but should be considered as complementary to a system of on-road bike lanes.”

Mr. LaPlante explained that there are a number of overarching considerations and specific factors that participants should consider when developing bicycle networks and facilities in the Columbus, Ohio, region. These considerations include:

- Skill level of users
- Motor vehicle parking
- Barriers (physical, regulatory, cultural)
- Crash reduction
- Directness of routing
- Accessibility of facilities
- Aesthetics and design
- Personal safety/security
- Stops – how/where
- Potential conflicts
- Maintenance of facilities
- Pavement surface quality
- Trucks and bus traffic
- Bridges
- Intersection conditions
- Costs/funding
- State and local law and ordinances
- Education and user support/outreach

More specific factors to address and take into consideration in the selection and development of bike facilities are:

- **Always think about the parking implications of your plans and designs** – Motorist parking is a very politically sensitive issue that must be addressed in any new bicycle facilities planning. If you do not want to spark anti-bike sentiment, Mr. LaPlante recommends not removing any existing parking as part of your bicycle plans and designs. Also, for safety reasons, diagonal street parking is not recommended unless it is back-in parking because it makes it very hard for motorists to see approaching cyclists. On the design side, a minimum of 12 feet of combined bike and parking space is required for safe, comfortable shared-use.
- **Sidewalks are never a good alternative route instead of installing facilities on the street** – The *AASHTO Bike Guide* stipulates that designated use of sidewalks as bike facilities is “unsatisfactory” and, in general, “should not be encouraged.” The only exceptions would be (a) for children, (b) on long narrow bridges, or (c) where there is no safe alternative and curb cuts and stop signs exist at every intersection.
- **Signage is an important component of developing new bicycle facilities** – Signage is useful for helping new cyclists develop familiarity with the overall network and how they can use it to get to multiple destinations. To be effective in urban areas, signage should be placed about every quarter mile and at all turns and major signalized intersections. Be sure it addresses the “Three Ds”: distance, direction, and destination. When installing bike signage for shared roadways, consider taking the following actions:

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- Adjust traffic control devices accordingly
- Remove/restrict/redesign street parking
- Width is also a key consideration in whether roadways can accommodate bicycle travel.
- Improve riding surface to better accommodate bikes
- Increase routine maintenance, especially sweeping (e.g., for glass or other small sharp objects)
- If you are not installing bike lanes, be sure that existing lanes are wide enough to accommodate motorists and bicyclists together



- **Building new bicycle facilities should always be accompanied by education and outreach to the public** – It is critical to reach out and help educate the public about new facilities, both to alert them to where the new facilities exist as well as to demonstrate how best to use them. Many cities are now creating “Bicycle Ambassador” programs that offer free workshops in community centers and schools about how to safely take advantage of urban bike facilities. Often, the education will have to go both ways. For example, one of the biggest risks to cyclists is being “doored” when bike lanes are installed to the left of on-street parking. Cyclists need to learn how to constantly be on the look-out for potential hazards like this, but motorists also need education to be made aware of new bike facilities and remember to always look before opening their car door. In Illinois, the state legislature passed a law to make it illegal to open your car door into a bike lane without looking first, but outreach had to be done to increase drivers’ awareness of this new legal responsibility.⁶

2: Effective Bicycle Outreach and Advocacy

Rob Sadowski, Executive Director, Chicagoland Bicycle Coalition (CBF)

Founded in 1985, the CBF is a 5,000-member non-profit organization whose mission is to improve the bicycling environment in metro Chicago. CBF works to achieve its mission as part of a broad multi-modal coalition that recognizes the synergies between promoting biking, walking, and transit together and brands bicycling as an energy-efficient, economical, and nonpolluting form of transportation as well as a healthful and enjoyable form of recreation. CBF’s 30-plus member staff promotes bicycle safety, education, and facilities through a variety of advocacy and outreach programs. For example, CBF provides all the staffing needed to manage the City of Chicago’s Pedestrian Program and 80 percent of the staff needed for its Bike Program

Encouraging more and better maintenance of existing facilities is an important component of CBF’s work. Bike lanes do not have their own separate maintenance budget and must compete for priority with all the city’s other maintenance needs. To demonstrate needs more effectively, CBF hires people to ride the entire bicycle network and report problems in the inventory to identify where maintenance needs are most critical. In terms of facilities, CBF is also working with the city

⁶ In some instances good design can help lessen the burden of educating motorists, however. For example, Mr. LaPlante noted that when bike lanes were installed on Milwaukee Ave, car traffic shifted two feet to the left almost immediately, without any formal announcement or education outreach or anything!

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to encourage more and better enforcement of existing zoning regulations that require bike parking. CBF is also working to have bike parking accepted as a requirement for buildings to receive Leadership in Energy and Environmental Design (LEED)⁷ Certification.

Outreach and education is another important component of CBF’s work. It has been able to fund a Bicycle Ambassadors Program with Federal Section 402 Safety funds (which do not require a local match). Ambassadors receive training from CBF in bicycle safety and outreach and then provide information and biking support at music festivals in Grant Park and at neighborhood health fairs, block parties, farmers’ markets, and other events. This outreach takes place year round but is particularly concentrated in the summer months. Ambassadors also give bicycle safety demonstrations at day camps, libraries, and city schools, as well as bike-to-work presentations for area businesses. The program has been so successful that there is now a Junior Ambassadors Program where each adult Ambassador is paired with two to three high school students. Because so much of the outreach targets schools and after school programs, Mr. Sadowski felt that, at some point, most kids in the city school district have seen Ambassadors giving presentations on bike riding and bike safety. Chicago has one of the highest rates of helmet use in the country even though there is no ordinance requiring it, and Mr. Sadowski felt that the Bicycle Ambassadors Program is part of the reason for that achievement.

CBF runs a number of other training and outreach programs. Staff and volunteers offer free valet bike parking at many big city events, and CBF is working with the city to expand this to include every sports event that takes place each year. CBF also works with major employers in the Chicago region year round to promote and incentivize bicycling as a commuting option. During the Bike to Work Week that CBF organizes, the Commuter Challenge Program gets companies to compete against one another for the highest percentage of bike commuters.(?) This gets about 10,000 participants a year, but CBF is hoping to expand this if its latest bicycle marketing program proposal is accepted for CMAQ funding by the region’s Metropolitan Planning Organization (MPO). The CBF is hoping to work with the Illinois Secretary of State, who oversees drivers’ licenses, to develop “mobility education,” which would expand upon the traditional driver’s education to include topics on bicycle and pedestrian travel and safety.

CBF is committed to building a strong partnership with the Chicago Police Department to help enforce traffic rules and make the roadway system safer for bicyclists. In order to do so, CBF realized it could not talk about bicycle safety in a vacuum. Most fatalities from crashes are motorists, so in order to appeal to police, CBF frames its work as part of making the overall system safer for everyone, including (not only) bicyclists. CBF is also making the argument with police that: “The more resources you put into traffic management, the more resources you invest in crime prevention.” Mr. Sadowski observed that having more policemen patrolling on bikes has also helped to strengthen this relationship. CBF is currently working with several sheriffs to develop training for their staffs, as well as developing a video that could be used at roll calls.

CBF has also collaborated with the police to organize a “crosswalk sting.” With a grant from the state, CBF paid police to patrol an unsafe crosswalk known to have a particularly high rate of violations. The newspaper gave residents fair warning two days prior, advertising exactly which crosswalks police would be patrolling and when. Yet, in just 2 hours, police handed out more than 200 citations for motorist violations. This made the front page of the newspaper the following morning and was covered on every local news channel, successfully garnering public attention on the issue of bicycle and pedestrian safety.

Mr. Sadowski closed by observing that the time is ripe for renewed attention to bicycle transportation and that cities are well positioned to take advantage of new opportunities to fund the expansion of their bicycle networks through private sources in addition to conventional, public sources. For example, a cap-and-trade system for carbon emissions and credits may be included

⁷ LEED stands for Leadership in Energy and Environmental Design, which is one of the most well-known certifications for designating “green” buildings.

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in Federal energy legislation, and cities could build bike parking and sell resulting emissions reductions⁸ as revenues generating carbon credits. For cities with populations of 200,000 or more, large-scale bike programs like the aggressive Velib Paris can successfully generate mode shift towards bicycles for short city trips at a relatively low cost to the city because they are installed and operated by private companies, which finance them through advertising and street furniture sales.

VI. Key Contacts

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Key Contact: Elizabeth Murphy, Community Planner, USDOT Volpe Center
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Cambridge, MA 02142
Phone: **617-494-3137**
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⁸ These should already be known, Mr. Sadowski suggested, because calculations are used to approximate emissions reduction to justify their CMAQ funding.

VII. Attachments

A: Participant List:

Peer Hosts and Organizers

| Name | Organization | Title | Email |
|------------------|---------------------------------------|--|--|
| John LaPlante | T.Y. Lin International | Vice President | Rlaplante@tylin.com |
| Rob Sadowski | Chicagoland Bicycle Federation | Director | Rob@biketraffic.org |
| David Gleason | Chicago Department of Transportation | Transportation Engineer | Dgleason@cityofchicago.org |
| Bernice Cage | Mid-Ohio Regional Planning Commission | Principal Planner / Bicycle Planner | Bcage@morpc.org |
| Elizabeth Murphy | USDOT / Volpe Center | Community Planner, TPCB Peer Program Coordinator | Elizabeth.murphy@dot.gov |

Mid-Ohio Regional Planning Commission Peer Participants

| Name | Organization | Position | Email |
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| Holly Grimes | ODOT | 740-833-8370 | holly.grimes@dot.state.oh.us |
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| Brian Moore | Burgess and Niple | 614-459-2050 | bmoore@burnip.com |
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| | | | |
|---------------|---------------------|--------------|--|
| Letty Schamp | City of Hilliard | 614-334-2456 | lschamp@cityofhilliard.com |
| Susan Banbury | City of Westerville | 614-901-6665 | susan.banbury@westerville.org |

B: Agenda

Program for Friday June 13, 2008

| Begin | End | |
|----------|---------|---|
| 7:00 am | 7:15 am | Welcome and Introductions |
| 7:15 am | 12:00pm | 16-Mile Riding Tour of Bicycle Facilities in Chicago: <ul style="list-style-type: none"> • Striped bike lanes • Colored bike lanes • Shared bike/bus lanes • Intersection improvements • Bus interactions • Bike parking • Bike Signage • Bridge treatments • Traffic-calmed streets |
| 12:00 pm | 1:00 pm | Lunch and Bicycle Return |
| 1:00 pm | 3:15 pm | John LaPlante – Guide to Developing Bicycle Facilities |
| 3:15 pm | 3:30 pm | Afternoon Break |
| 3:30 pm | 4:00 pm | Rob Sadowski – on “How the Chicagoland Bicycle Federation promotes more, better, and safer bicycling in metro-Chicago” |
| | | End of Peer Exchange |

C: Participant Organization Websites

Mid-Ohio Regional Planning Commission (MORPC)
<http://www.morpc.org/index.asp>

City of Chicago's Department of Transportation (CDOT), Bike program
<http://egov.cityofchicago.org/city/webportal/portalEntityHomeAction.do?entityName=Chicago+Bike+Program&entityNameEnumValue=127>

Chicagoland Bicycle Federation (CBF)
<http://www.biketraffic.org/index.php>

Transportation Planning Capacity Building (TPCB) Program
<http://www.planning.dot.gov>

D. Links to Resources on Bicycle Facilities Planning

Provide links to bicycle planning resources?
The Bicycle and Pedestrian Information Center
<http://www.bicyclinginfo.org/index.cfm>

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TRB's National Cooperative Highway Research Program (NCHRP) Report 500,
*Guidance for Implementation of the AASHTO Strategic Highway Safety Plan: A Guide for
Reducing Collisions Involving Bicycles*

http://www.trb.org/news/blurb_detail.asp?ID=8960

TRB's National Cooperative Highway Research Program (NCHRP) Report 552, *Guidance for
Analysis of Investments in Bicycle Facilities*

http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_552.pdf

FHWA Design Guidance on Accommodating Bicycle and Pedestrian Travel

<http://www.fhwa.dot.gov/environment/bikeped/design.htm>

Draft Manual of Uniform Traffic Control Devices (for public comment)

<http://www.ncutcd.org/>

ATTACHMENT 7

Write-up of Best Practices in Other States

Best Practices for Bicycle and Pedestrian Planning and Safety from Around the Nation

A literature review was conducted on each of the 50 states' practices and procedures regarding bicycle and pedestrian planning and safety efforts by reviewing the Department of Transportation (DOT) websites to ascertain the state of their programs. The review consisted of:

- Looking through the website contents of each DOT to determine if web-based information exists regarding bicycle and pedestrian planning efforts.
- If no information was readily available, the state DOT website search tool was used to determine if information existed, but perhaps in a hidden path.
- If no information was readily available from this query method, the state was deemed to have planning and safety efforts less than those found in Ohio. Based on this review process that particular state was thus not further investigated or discussed.
- The findings of the list of states with sound practices were discussed briefly with the FHWA HQ Bicycle and Pedestrian Coordinator as a sounding board for validity for these purposes.

For those states where information was readily available, bicycle and pedestrian planning efforts were queried, as were the Safe Routes to School Program, design guidance, and any other available tool that would be of benefit to those involved in that state in bicycle and pedestrian planning efforts.

California California has a very robust Statewide bicycle and pedestrian planning effort. Beginning with the State law, California Streets And Highways Code Section 885-886, and Caltrans policy Deputy Directive DD-64 Accommodating Non-Motorized Travel. California also has strong State Planning Guidelines and engineering standards such as the California Highway Design Manual, Chapter 1000, Bikeway Planning and Design. Certain of the LPAs and MPOs have good information likewise in the State. California is widely regarded amongst the top group of performers nationwide in bicycle and pedestrian planning and safety. <http://www.dot.ca.gov/hq/tpp/offices/bike/index.html>

City of Chicago DOT Has good overall planning and design elements. The City also has good legislation that supports and does not contradict the efforts of the planners, engineers or law enforcement activities. Chicago benefited from having had one of the authors of the AASHTO Guide for Development of Bicycle Facilities on staff as a traffic engineer for many years. During the course of this review, MORPC and its LPAs with assistance from the USDOT VOLPE Center conducted a Peer Exchange with Chicago for the purpose of better understanding for the Central Ohio Area. The FHWA Ohio Division Office participated in planning and participating in this peer exchange. Several valuable lessons were learned, and are attached as the USDOT Report in Attachment 3. The Bike 2015 Plan is the City of Chicago's vision to make

bicycling an integral part of daily life in Chicago. The plan recommends projects, programs and policies for the next ten years to encourage use of this practical, non-polluting and affordable mode of transportation. The Bike 2015 Plan has two overall goals:

1. To increase bicycle use, so that 5 percent of all trips less than five miles are by bicycle.
2. To reduce the number of bicycle injuries by 50 percent from current levels.

The City of Chicago has fully developed engineering design guides to assist in the project implementation. They have adopted a Complete Streets Policy defined by the policy statement that "The safety and convenience of all users of the transportation system including pedestrians, bicyclists, transit users, freight, and motor vehicle drivers shall be accommodated and balanced in all types of transportation and development projects and through all phases of a project so that even the most vulnerable – children, elderly, and persons with disabilities – can travel safely within the public right of way." <http://chicagobikes.org/>

Colorado

Colorado is about on par with Ohio in terms of bicycle and pedestrian planning. The state has good planning tools consistent with the AASHTO Guide for Development of Bicycle Facilities. They have opted to adopt the design engineering offered through www.bicyclinginfo.org.

The Colorado Department of Transportation offers an interesting tool for assisting their MPOs and LPAs develop comprehensive planning called the Colorado Guide for the Development of Local & Regional Bicycle & Pedestrian Plans. They state that "All roadways should be designed and constructed under the assumption that bicyclists and pedestrians will use them. Bicycles and pedestrians should be considered in all phases of transportation planning, roadway design, engineering, new construction, reconstruction, capacity improvements and transit projects. The selection of the type of bicycle or pedestrian facility depends on many factors; including vehicular and bicycle traffic characteristics, adjacent land use and expected growth patterns". <http://www.dot.state.co.us/BikePed/index.htm>

Florida

Florida states that "The objective of the Pedestrian and Bicycle Program is to promote conditions for safe and effective travel by foot and bicycle in Florida. The Florida Department of Transportation (FDOT) Safety Office provides policy, planning, technical, and funding expertise in consultation with other FDOT offices and federal and local agencies. Safety Office staff coordinate development and dissemination of information about walking and cycling safety." This approach of tying in safety at an organizational level appears to lead to a better understanding within this DOT that accommodations for bicyclists and pedestrians are more than just LPA activities or transportation enhancements. Florida has developed some good planning and design guides in conjunction with their engineering standards to account for some of the types of concerns experienced in Ohio.

- **Florida Pedestrian Facilities Planning and Design Handbook** - produced for FDOT by the University of North Carolina's Highway Safety Research Center (HSRC)
- **Florida Bicycle Facilities Planning and Design Handbook** - produced for FDOT by HSRC
- **Trail Intersection Design Handbook** - produced for FDOT by HSRC
- **Designing Trail Termini**- produced for FDOT by HSRC

http://www.dot.state.fl.us/safety/ped_bike/ped_bike.shtm

Georgia

Georgia has good overall tools for bicycle and pedestrian planning. Some planning and design resources highlights include:

- Georgia Code amended to accommodate all aspects of bike/ped planning
- Georgia DOT Bike/Ped Design Policy
- Georgia Pedestrian and Streetscape Guide
- Georgia Guidebook for Pedestrian Planning
- 1997 Georgia Bicycle and Pedestrian Plan

Georgia has committed to help citizens and agencies evaluate and improve pedestrian facilities in regions throughout the State of Georgia. The Georgia Guidebook for Pedestrian Planning was developed as a tool to supplement existing assessment procedures. It is not intended as a prescriptive document, but rather as a source of information to help agencies and citizens implement improved pedestrian facilities. Their Guidebook reviews pedestrian prioritization procedures, discusses potential funding sources for pedestrian improvement projects, reviews current pedestrian laws in the State of Georgia, and provides information on how to improve the safety and usability of pedestrian facilities. The State provides for bicycle accommodation (By memo first issued Commissioner Wayne Shackelford, March 1, 2000.) “The Department will accommodate bicycling improvements into all widening and reconstruction projects when there is an existing bikeway or if the project is on an approved Bike Route”.

<http://www.dot.state.ga.us/travelingingeorgia/bikepedestrian/Pages/default.aspx>

Illinois

Illinois has easy to find information such as their Bureau Of Design And Environment Manual, Chapter Seventeen, Bicycle And Pedestrian Accommodations. “When planning transportation improvements, the Department considers the travel needs of all users of a transportation corridor including bicyclists and pedestrians. Bicycle and pedestrian travel demand in the vicinity of a project is determined early in the project planning phase. When sufficient demand is indicated, the Department will provide the appropriate accommodations. The correct application of the criteria and guidelines presented in Chapter 17 will result in consistent designs and subtle roadway design changes that will facilitate bicycle and pedestrian travel. Such changes will provide improved transportation opportunities for both bicyclists and pedestrians”. During the development of highway projects, Illinois gives consideration to accommodating bicyclists and pedestrians. They call for assessing bicycle travel demand during the early planning stage of a project

and have developed warrants for bicycling. Illinois appears to have successfully merged Safe Routes to School as well as other bicycling and pedestrian planning efforts into a comprehensive approach.

<http://dot.state.il.us/bikemap/bikehome.html>

Massachusetts The Massachusetts Bicycle Transportation Plan (2008) provides a comprehensive inventory of existing on-road and off-road bicycle facilities, including shared use paths, projects in the pipeline, and long-term proposals. A 740-mile, seven-corridor Bay State Greenway (BSG) is recommended along with an implementation strategy as well as other programmatic enhancements and interagency initiatives.

The Massachusetts Pedestrian Transportation Plan (1998) noted that Massachusetts is a walking state. Approximately 10.5% of all Massachusetts trips are walking trips, 44% higher than the national average and the fourth highest walking trip-share of any state. The Plan further noted that walking is key to a successful multimodal transportation system, contributes to community quality of life, and enhances personal wellbeing.

Massachusetts passed into law a Bicyclist Safety Bill. Among the many changes the new law makes, it adds police training on bicycle law and dangerous behavior by bicyclists and motorists; explains how a motorist should safely pass a bicycle; explains how a motorist should safely make a turn in front of a bicycle; makes "dooring" (opening a car door into the path of a bicycle or other vehicle) subject to ticket and fine; permits bicyclists to ride two abreast when it does not impede cars from passing; and adds legal protections for bicyclists who choose to ride to the right of other traffic.

These, along with other initiatives, policies, and resources set Massachusetts among the leading states for bicycle and pedestrian planning and safety.

<http://www.mhd.state.ma.us/default.asp?pgid=../common/BikeIndex&sid=level2>

<http://www.massbike.org/>

Minnesota Minnesota provides excellent information regarding bicycle and pedestrian planning and safety. They offer a statewide plan, and have adopted engineering standards applicable to their state. Minnesota provides for bicycle and pedestrian accommodations in roadway projects as supported by Federal Legislation, Minnesota State Statutes and Mn/DOT policy and practice. Mn/DOT translates Federal and State laws for accommodating bicycles and pedestrians into policies and practices through various resources such as:

- Mn/DOT Bikeways Facility Design Manual
- MnDOT Bicycle Modal Plan
- Mn/DOT Highway Project Development Process (HPDP)
- MnDOT Road Design Manual
- Mn MUTCD See Chapter 11-3 (Pedestrian Traffic) and Chapter 11-4 (Bicycle Infrastructure)
- Traffic Control See chapter 9 for Traffic Controls for Bicycle Facilities

and chapter 6, figure 6D-1 for Pedestrian Accessibility Considerations in Temporary Traffic Control Zones Check List.

- Bridges (LFRD Bridge manual) Bridges with bicycle and pedestrian accommodations that cross rivers and interstates and other high volume roads create a connected bicycle and pedestrian network.

<http://www.dot.state.mn.us/peds/>

<http://www.dot.state.mn.us/bike/>

Missouri

Missouri is at about the level of Ohio in terms of bicycle and pedestrian planning activities and available resources. The Missouri Highway Commission approved the creation of the Bicycle and Pedestrian Advisory Committee (BPAC) in 1998. The committee members represent constituencies from across Missouri, including various divisions and districts of MoDOT, other state agencies, metropolitan planning organizations, local governments and bicycle and pedestrian advocacy groups. It is through this group that MoDOT has built a statewide network of partnerships to move bicycle and pedestrian issues forward. From a planning and design perspective, Ohio and Missouri are likewise similar in that instead of establishing their own, they have opted to reference national publications such as the AASHTO guides for bicycles and pedestrians respectively.

http://www.modot.mo.gov/othertransportation/bike_ped/Bikepedintro.htm

North
Carolina

North Carolina is a national leader in bicycle and pedestrian planning. With the passage of comprehensive Bicycle and Bikeway Act of 1974, North Carolina established the first state bicycle program in the nation, which quickly became a national model. The legislation granted authority for the North Carolina Bicycle Program (now the Division of Bicycle and Pedestrian Transportation) to undertake comprehensive bicycle planning and programming. As a part of the North Carolina Department of Transportation (NCDOT), the Division of Bicycle and Pedestrian Transportation (DBPT) works closely with other staff within NCDOT to integrate consideration of bicyclists' and pedestrians' needs into all facets of planning and programming. DBPT also networks with other state agencies and national organizations to develop and implement effective safety and education programs. In 1978, the North Carolina Board of Transportation adopted the nation's most comprehensive set of bicycle policies in response to the enabling legislation of 1974. These policies were unique at that time in that they detailed how the state DOT would institutionalize bicycle provisions into everyday departmental operating functions. They declared "bicycle transportation to be an integral part of the comprehensive transportation system in North Carolina" and formalized the inclusion of bicycle provisions in highway construction projects. In 1991, the policy document was updated to clarify responsibilities regarding the provision of bicycle facilities upon and along the 77,000-mile state-maintained highway system. The newer policy details guidelines for planning, design, construction, maintenance, and operations pertaining to bicycle facilities and accommodations. All bicycle improvements undertaken by the NCDOT are based upon this policy.

The North Carolina Bicycle and Bikeway Act of 1974 established provisions that supports the legal definition that a bicycle is a vehicle defines bicycle facilities as a bona fide highway purpose designates the North Carolina Department of Transportation to carry out the provisions of the article assigns specific duties allows for designation of bicycle facilities along and upon the state's public roadways authorizes the department to spend budgeted funds and other funds from federal, state, local, and private sources establishes the North Carolina Bicycle Committee. The Act directs the NCDOT to perform the following duties: assist local governments with the development of bicycle programs and the construction of bicycle facilities develop policies, procedures, and standards for planning, designing, constructing, maintaining, marking, and operating bicycle facilities and provide for the safety of bicyclists and motorists develop demonstration projects and safety training programs develop and construct a state bikeway system.

NCDOT has developed a unique resource which is now available for researching bicycle and pedestrian crash data in North Carolina. The Interactive Crash Data Tool allows queries of cross-tabulated information by city, county, and other variables. NCDOT has prepared a planning and design manual. They have also intricately connected planning and safety.

<http://www.ncdot.org/transit/bicycle/>

Oregon

Oregon is widely accepted as a National leader for both the planning of bike and pedestrian facilities as well as for being the leader in implementation of projects. Oregon Department of Transportation's website indicates that 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.

To this end, Oregon Department of Transportation has developed the publications Main Street Handbook, and the Oregon Bicycle and Pedestrian Plan which are intended to assist planners and designers of facilities with bicycle and pedestrian planning and safety. Oregon has good laws pertaining to bicycling and pedestrian issues. The Oregon laws more clearly lay the groundwork to fully implement effective bicycle and pedestrian planning and safety than those of Ohio.

<http://www.oregon.gov/ODOT/HWY/BIKEPED/publications.shtml>

http://www.oregon.gov/ODOT/HWY/BIKEPED/laws_regs.shtml

Pennsylvania Pennsylvania (PA) is at about the level of Ohio in terms of bicycle and

pedestrian planning activities and available resources. PA has developed a Statewide Plan for Bicycle and Pedestrians. One interesting note in PA is that PENNDOT does not have to own the Right-of-Way for sidewalk facilities. PA has a policy similar to Ohio's Accommodation Policy titled "PennDOT Policy on Improved Pedestrian Mobility", December 10, 2001. PENNDOT offers in depth bicycle and pedestrian safety information through two websites within the overall DOT website.

<http://www.dot.state.pa.us/bike/web/index.htm?OpenForm>

<http://www.dot.state.pa.us/Pedestrian/web/index.htm?OpenForm>

Portland, OR The City of Portland is one of the best LPAs within the State of Oregon in terms of resources available. They have a well established plan and tools in place which are similar to those and have been emulated by certain of Ohio's MPOs and LPAs.

<http://www.portlandonline.com/transportation/index.cfm?c=44597>

Vermont Vermont is another State with integrated bicycle and pedestrian planning and safety elements. The Vermont Agency of Transportation (VTRANS) has a good planning and design manual entitled VT Pedestrian And Bicycle Facility Planning And Design Manual which has the following key concepts:

- Walking and bicycling are recognized as integral components of Vermont's transportation system.
- All transportation projects in Vermont will be designed and constructed under the assumption that they will be used by pedestrians and bicyclists (except where specifically prohibited such as on limited access highways).
- VTrans will use this manual as the standard for development, design, construction and maintenance of pedestrian and bicycle facilities that are implemented by VTrans or any entity using VTrans and/or Federal-Aid Highway funds.
- This manual uses both preferred and minimum values to provide designers with the greatest possible flexibility in meeting the needs of various non-motorized users.
- Good pedestrian and bicycle facility design begins with sound planning.
- The most important design consideration in addressing pedestrian and bicycle needs is identifying the intended or "design" users for a facility. This determination is critical in guiding project design.
- Integrate pedestrian and bicycle needs into all levels of transportation planning starting at the earliest possible stage.
- Land use planning that provides compact mixed-use development is necessary to result in proximity of origins and destinations that will make walking and bicycling attractive transportation options.
- Pedestrians and bicyclists are very sensitive to indirect or out-of-direction travel. Facilities should be planned to provide the most direct, safe route possible.
- Pedestrian and bicycle planning should be closely linked with transit

planning. The use and function of transit is largely dependent on the presence of adequate pedestrian facilities to provide the connection from the transit system to origins and destinations.

- The users of pedestrian and bicycle facilities will include disproportionate numbers of senior adults and children including those with a wide variety of disabilities. The safety needs of these users are an important design consideration.

VTRANS' Office of Local Transportation Facilities offers the following Bicycle and Pedestrian Program Documents as additional tools for planners and designers.

- Pedestrian & Bicycle Policy Plan
- Bicycle Commuter's Guide
- Pedestrian and Bicycle Planning and Design Manual and Pedestrian and Bicycle Policy Plan
- Share the Road Brochure
- Report on Shared - use Path and Sidewalk Unit Costs

<http://www.aot.state.vt.us/Bicycle.htm>

Virginia

The State Bicycle and Pedestrian Program promotes bicycling and walking throughout Virginia. Virginia Department of Transportation Policy for Integrating Bicycle and Pedestrian Accommodations is similar to Ohio's. The Virginia Bicycle Facility Resource Guide offers planning, design, education, encouragement and funding ideas for bicycle facilities. The VDOT Designated Bicycle and Pedestrian Accommodations list will be used by VDOT project managers to determine accommodations possible on road projects. The Bicycle and Pedestrian Accommodations Decision Process provides designers a process to determine if bicycle / pedestrian accommodations are appropriate for the characteristic of a particular roadway. The Bicycle and Pedestrian Accommodation Decision Process For Construction Projects dated January, 2008 establishes what measures would be appropriate in what situations and offers a basis for planning decisions. It states that "In accordance with the Commonwealth Transportation Board's policy on bicycle and pedestrian accommodation, all projects start with the assumption that some accommodation will be provided". VDOT has implemented engineering standards. Their bicycle facility design guidelines can be found in VDOT's Road Design Manual, Volume 1 Appendix A, Section A-5. Information on sidewalks and curb ramps are available in IIM-LD-55. A number of implementation guidance documents for localities have been compiled to improve communication between agencies and for better planning and accommodation of pedestrians and cyclists under terms of the 2004 policy. Virginia states that "planning is the first step and key ingredient of any successful transportation system. In order for bicycling to become a viable mode of transportation at local, regional, and statewide levels, comprehensive bicycle plans need to be developed and adopted at the local or MPO level to gain regional and statewide significance". VDOT established its Bicycle Advisory Committee (BAC) in 1989 as a forum for open communication and

information exchange between the Department, other state agencies, federal agencies, advocates and citizens regarding bicycling issues across the Commonwealth. One other best practice identified in researching this state was the identification of a review process. The Bicycle Accommodations Review Team (BART) is a multi-disciplinary team within VDOT with knowledge in aspects of bicycle and pedestrian planning, design and safety. BART provides reviews proposed plans to ensure consistency in bicycle and pedestrian facility design. BART reviews highway plans for state-maintained roads that include a bicycle or pedestrian accommodation and TEA-21 funded projects that include a bicycle or pedestrian component. The team, which includes representatives from the State Bicycle and Pedestrian Program, the Location and Design Division and the Traffic Engineering Division, meets regularly to review and comment on pending plans and recommend changes as appropriate. The team also meets on-site with designers and local agencies to discuss design issues.

<http://www.virginiadot.org/programs/bk-default.asp>

Washington Bicycling plays a big role in Washington's transportation. In fact, Washington State was recently named the nation's number one "Bicycle Friendly State" by the League of American Bicyclists. The state law (RCW 47.06.100) calls for the Washington State Bicycle Facilities and Pedestrian Walkways Plan. With so many guidelines, manuals, policies, and standards at both the state and federal level, it is sometimes difficult to sort out which of these apply to your project. The Washington Department of Transportation (WSDOT) has developed design standards in the form of their Design Manual M 22-01, November 2006, Chapter 1020 Bicycle Facilities & Chapter 1025 Pedestrian Design Considerations. WSDOT has set out to count bicyclists and pedestrians on a statewide basis. This documentation project will use a data collection protocol similar to and consistent with the National Bicycle and Pedestrian Documentation Project. They are working with a network of city staff, bicycle club members, and other volunteers to collect counts and document them using this consistent process. As a whole, Washington State offers a very robust bicycling and pedestrian program all around. There are many things that can be learned in Ohio from them.

<http://www.wsdot.wa.gov/bike/>

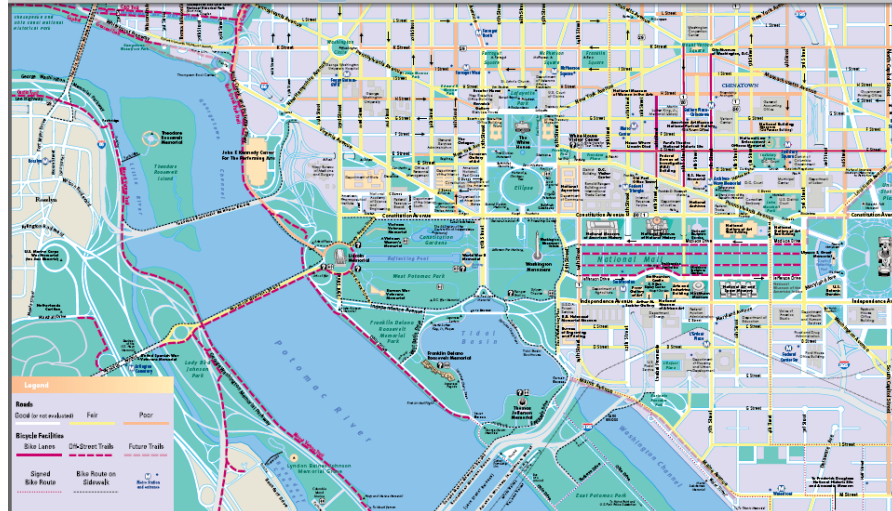
Washington D.C. Washington D.C. has good mapping of routes, design and planning tools. Established by law and appointed by the DC Council, the Bicycle Advisory Council (BAC) advises the Mayor and city government on bicycling issues. The DC Council has enacted several laws regarding bicycling. A free map of DC bicycle routes, lanes, trails, and traffic conditions the "Washington DC Regional Bike Map." is available online. The DC Bicycle Master Plan is part of the District's effort to improve bicycling conditions in the city. Bicycle parking is required for all off-street parking garages and lots. The District government is committed to improving bicycle and pedestrian safety while simultaneously increasing the amount of bicycling and walking. They offer both a Bicycle Crash Summary and a Pedestrian Crash Summary. DDOT has also launched Biking for Kids, pedestrian and bicycle safety classes in DC

elementary schools.

Washington D.C. offers the following publications to assist in bicycle and pedestrian planning, design and safety:

- 2006 Revised Comprehensive Plan, Volume I, Chapter 4: Transportation Element
- Biking To Work in the Washington Area, A Guide for Employers and Employees. Call 800-745-RIDE.
- Metropolitan Branch Trail Brochure
- Safe Streets, a safety information card describing the rights and responsibilities of bicyclists, pedestrians and motorists
- From A to Z by bike, a safety booklet for children and adults
- Biannual Bicycle and Pedestrian Newsletter, Spring 2007
- DDOT's Bicycle Rack Design and Bicycle Rack Placement Guidelines
- Bicycle Parking Guidelines developed by the Association of Pedestrian and Bicycle Professionals.
- Washington D.C. Department of Transportation – Design and Engineering Manual 28-1, CHAPTER 28 - BICYCLE FACILITIES, and Design and Engineering Manual 29-1, CHAPTER 29 - PEDESTRIAN AND AMERICAN DISABILITIES ACT (ADA) FACILITIES

<http://ddot.dc.gov/ddot/cwp/view,a,1245,q,559835.asp>



Washington D.C. Bicycle Map with basic bike level of service and route information

Wisconsin

Wisconsin DOT (WisDOT) reports that bicycling plays an important role in moving people in Wisconsin, many of whom rely on or choose this form of travel for their main means of transportation. Studies show that as many as 5% of commuters in Wisconsin bicycle to work during peak months. WisDOT recently released a state bicycle plan to help communities and individuals develop bicycle-friendly facilities throughout the state. All 14 metropolitan areas in Wisconsin also have their own bicycle and pedestrian plans. Even in a cold-weather state like Wisconsin, pedestrians represent a key transportation

mode. The 2000 U.S. Census found that almost 92,000 people in Wisconsin walk to work on a regular basis, representing 3.5% of all work trips. Since pedestrian travel is an important transportation choice in Wisconsin, WisDOT has produced a Statewide Pedestrian Policy Plan. This 20 year plan considers pedestrian needs and concerns and provides recommendations to address them.

- Wisconsin Bicycle Planning Guidance - This document provides guidelines for Metropolitan Planning Organizations and communities in planning and developing bicycle facilities.
- Wisconsin Bicycle Facility Design Handbook
- Wisconsin Rural Bicycle Planning Guide
- Funding for bicycle and pedestrian projects
- Bicycle and Pedestrian Projects (1993-2007)
- Bicycle Crash Analysis for Wisconsin Using a Crash Typing Tool (PBCAT) and Geographic Information System (GIS)
- The Economic Impact of Bicycling in Wisconsin

Wisconsin is a leader in planning and safety efforts for bicyclists and pedestrians.

<http://www.dot.wisconsin.gov/modes/bicycles.htm>

<http://www.dot.wisconsin.gov/modes/pedestrian.htm>

<http://www.dot.wisconsin.gov/projects/bike.htm>