

Chattanooga Urban Area Sidewalk-Streetscape Policy Guide



GA

Catoosa
Dade
Walker

TN

Hamilton

PREPARED BY:
Chattanooga Urban Area Metropolitan Planning Organization &
Chattanooga-Hamilton County Regional Planning Agency

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Rehabilitation Act of 1973

29 U.S.C. § 794

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Title VI of Civil Rights Act of 1964

42 U.S.C. § 2000d

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INTRODUCTION

GOAL

The primary goal of this guide is to help municipalities and counties within the Chattanooga Urban Area Metropolitan Planning Organization policy area to provide a transportation system where pedestrians can safely and conveniently walk to destinations within a reasonable distance.

GUIDE PURPOSE

Everyone is a pedestrian at some point and walking is an important mode of transportation. For trips less than one mile, walking ranks second (39% of all trips) to private vehicle trips (55% of all trips) (University of North Carolina Highway Safety Research Center).

This document will serve as a guide for governments to direct their efforts in improving existing and implementing new sidewalks and streetscaping through:

- GIS mapping/Inventory
- Weighted sidewalk criteria ranking matrix
- Maintenance recommendations
- General streetscape standards
- Funding and Implementation

Sidewalks are generally considered any thoroughfare the primary function of which is to serve pedestrian traffic.

The term "sidewalk" is used to refer to sidewalks, safewalks and some multi-use paths. The idea is to present a way to build sidewalks (in whichever form) where they are most needed based on weighted criteria that can be tailored to the interested municipality or county. Streetscaping is a means of making sidewalks a more interesting, safe and comfortable place to walk. This is accomplished by providing not only a walking area but also amenities such as trees, benches, and special pedestrian lighting.

BACKGROUND

SCOPE

The Chattanooga Urban Area Metropolitan Planning Organization (MPO) planning area development pattern varies from a dense land use pattern in the downtown of a mid-size city to a rural county setting with low-density single-family housing scattered throughout. In total, the area comprises almost 800 square miles.

The design of pedestrian facilities is determined by state and local design standards and practices. These standards are often based on publications of the American Association of State Highway and Transportation Officials (AASHTO). The Manual on Uniform Traffic Control Devices (MUTCD) also covers pedestrian facility design. As the Chattanooga MPO area covers two states, four counties and fifteen municipalities, this guide does not cover specific design standards.

This guide will focus on the appropriate level of streetscaping for general areas within the MPO although several municipalities in this study area have streetscaping plans in place.

While this guide primarily provides strategies for placement of appropriate sidewalk and streetscape elements, other aspects to increase pedestrian activity should be considered. Education and encouragement are important tools for promoting pedestrian use by both children and adults.

ORGANIZATIONAL INFORMATION

The Chattanooga-Hamilton County Regional Planning Agency (RPA) oversees the Chattanooga Urban Area Metropolitan Planning Organization (MPO) planning activities. The MPO serves Hamilton County, TN, and the municipalities as well as portions of Catoosa, Dade and Walker counties in North Georgia and its municipalities of Chickamauga, Ft. Oglethorpe, Lookout Mountain, Ringgold and Rossville. The MPO coordinates comprehensive transit planning activities within this area in cooperation with the Tennessee and Georgia Departments of Transportation.

One of the undertakings of the MPO is a unified planning work program that includes a short-term and long-term transportation plan. Federal requirements, as defined by Title 23, United States Code §134, state the importance of MPOs providing consideration of projects and strategies that:

- support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;
- increase the safety and security of the transportation system for motorized and nonmotorized users;
- increase the accessibility and mobility options available to people and for freight;
- protect and enhance the environment, promote energy conservation, and improve quality of life;
- enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

- promote efficient system management and operation; and
- emphasize the preservation of the existing transportation system.

PEDESTRIAN FACILITIES LEGISLATION

Federal transportation policy is to promote the increased use of walking as a transportation mode. Specific legislative requirements are further clarified:

Section 1025 of the ISTEA: “Subject to section 134 of this title, the State shall develop transportation plans and programs for all areas of the State. Such plans and programs shall provide for the development of transportation facilities (including pedestrian walkways and bicycle transportation facilities) which will function as an intermodal State transportation system.” (23 U.S.C. Section 135)

The Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA) in 23 CFR 450.214(3) specify that statewide transportation plans for all areas of the state shall “Contain, as an element, a plan for bicycle transportation, pedestrian walkways and trails which is appropriately interconnected with other modes.”

23 U.S.C.217 (g) identifies planning and design of pedestrian walkways:

(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.

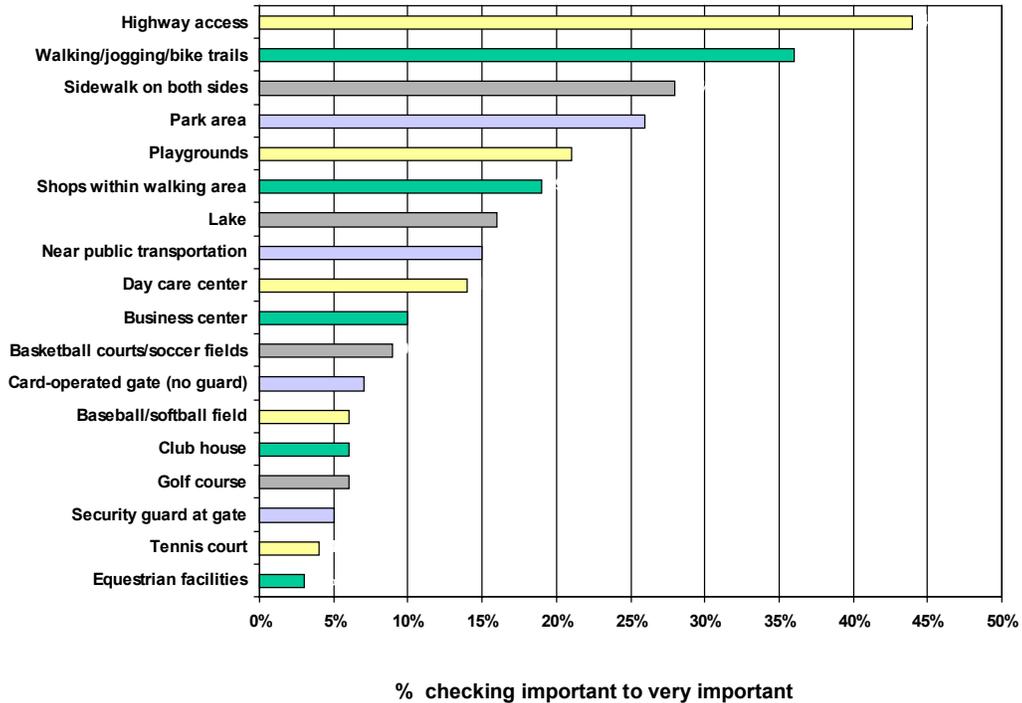
(2) Safety considerations-

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.

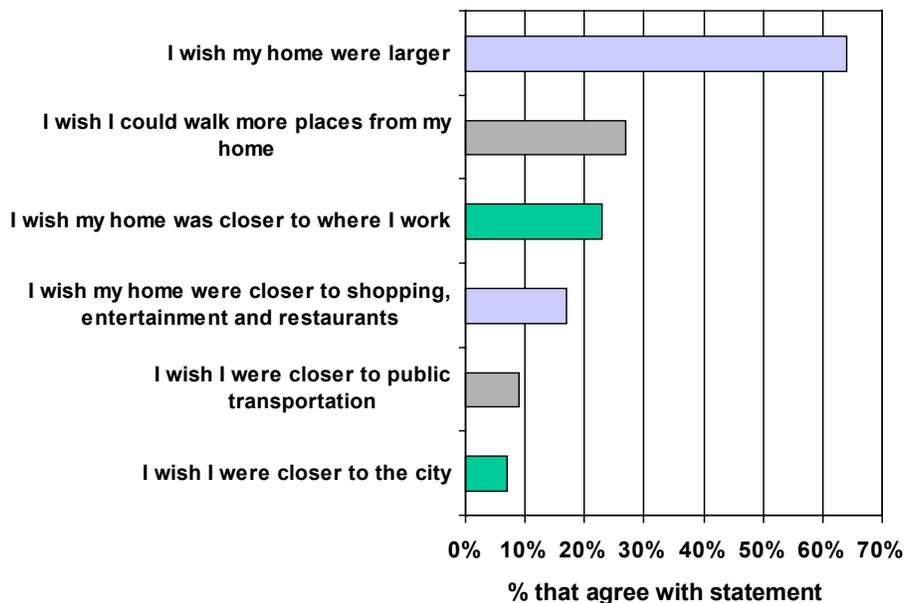
IMPORTANCE OF PEDESTRIAN FACILITIES

In addition to the transportation value, pedestrian facilities offer additional benefits to a community. Encouraging and promoting walking reduces the incidence of chronic disease (including obesity), reduces air and noise pollution and reduces the need for additional roads and parking. Improving conditions for walking also improves the livability of communities as the following graphs show (see next page). A 2002 survey by the National Association of Realtors and the National Association of Home Builders was conducted to provide a better understanding of what drives home purchases. Walking and jogging trails and sidewalks scored highly as community amenities. Also, 27% of survey respondents agreed with the statement that they wish they could walk to more places from their homes.

Importance of Community Amenities



Which of the following statements about homes and neighborhoods do you agree with?



PUBLIC INVOLVEMENT

Public involvement is essential to most planning efforts. As required by federal legislation, public involvement must be sought for the development of transportation plans and programs including those with pedestrian components. This involvement should include input from those individuals who are affected by the proposed transportation program. Two regionally advertised public meetings were held in May 2003. The draft document was also available on the Chattanooga-Hamilton County Regional Planning Agency's website (www.chcrpa.org) before the guide went for adoption before the MPO board in August of 2003.

PLANNING AND RECOMMENDATIONS

MAPPING/INVENTORY

It is beyond the scope of this study to provide a comprehensive inventory of the existing pedestrian infrastructure. However, it is important that the current pedestrian transportation network be examined to determine existing conditions and to identify gaps and deficiencies. The minimum characteristics to be included in the sidewalk inventory include pavement width, sidewalk condition, the presence of shoulders and ditches and other specific problems. Other conditions that could be assessed but require a more extensive survey process include current levels of walking trips, number of injuries and fatalities involving pedestrians, identification of preferable travel corridors, patterns of land use and availability of other transportation options (e.g. bike racks on buses).

A Geographic Information System (GIS) is an important tool in mapping and maintaining this data. Entering this data into GIS allows for a comprehensive view of the pedestrian infrastructure while providing a better means of planning facilities and tracking maintenance concerns.

Beginning in 2004, Coosa Valley Regional Development Council (CVRDC), through a GDOT grant, will begin mapping the sidewalk network in ten counties including Catoosa, Dade and Walker. The MPO will work with Coosa Valley RDC to ensure those three counties receive high priority on the mapping schedule. Also, before the mapping process begins, RPA staff will provide a list of recommended characteristics to be obtained during the field survey process.

Currently, the RPA Comprehensive Planning division is obtaining existing sidewalk placement and condition when an area or neighborhood plan is developed. This assessment may be conducted by staff, a neighborhood organization or by another government agency. Over time, through this process, much of the Hamilton County area will be inventoried.

Other GIS components needed to examine criteria for pedestrian facilities include schools, functional classification of streets, railroads, recreation centers and parks, civic/government buildings, greenways, and shopping centers. Coosa Valley RDC, in conjunction with the Georgia GIS Clearinghouse, provides most of the GIS files needed for the Georgia portion of this project. Missing information in a GIS format for Catoosa, Dade and Walker includes park and recreation locations and existing greenway locations. Hamilton County GIS (HCGIS) and RPA can provide most of the components listed for Hamilton County.

One component in the prioritizing of sidewalks that does not have data readily available in a GIS format is the location of the disabled within our communities. Input resulting from the public process highlighted the need to provide connections for those with mobility impairments.

Recommendations:

Conduct a sidewalk inventory of existing facilities.

Agencies should develop and utilize a comprehensive GIS system, including at a minimum those components listed above, to help plan for the construction of new sidewalks. Coosa Valley RDC and RPA will work to fill gaps in data needs.

SIDEWALK CRITERIA

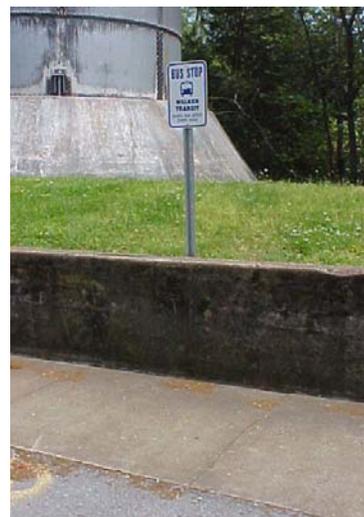
For areas within the MPO, it could be difficult to decide the most appropriate location for pedestrian facilities. In some places an extensive network exists and only gaps need to be filled. Elsewhere, certain locations have very few facilities. Requests for sidewalks are usually accepted from citizens, elected officials, and neighborhood organizations and need to be directed through area planning efforts.

Sidewalks should be part of a system that provides access to goods, services, transit and homes. In order to help prioritize the construction of new facilities and/or repair of existing facilities, a recommended sidewalk selection matrix is provided (Appendix). This matrix takes into consideration a variety of trip generators- desired destinations within the community. Prioritizing certain trip generators works to provide the ability for people to shop, work, attend school and take advantage of recreational opportunities without the need for a private vehicle. Based on this prioritization, the highest priority pedestrian improvements are those where facilities are lacking yet other variables that favor walking are in place. Individual organizations may include all or some of the following trip generators as factors in the selection matrix:

- Schools—Walking to school accounts for at least 1/3 of all pedestrian miles in the U.S. Providing adequate and safe facilities for such trips becomes integral to any plan for sidewalks. Schools include all private and public educational facilities.
- Parks/Recreation Facilities—Includes all public or semi-public parks and recreational facilities
- Development Activity Center—Areas of dense commercial development with a high level of pedestrian activity.
- Greenway Proximity—Greenways are an important component of a comprehensive pedestrian plan. The Chattanooga Master Greenway Plan and the Master Plan for the South and West Chickamauga Creek Greenway are appropriate reference materials.
- Existing Sidewalk Proximity/Connectivity—Examining proposed sidewalks in relation to existing pedestrian facilities places emphasis on a continuous pedestrian system.
- Mass Transit Stop Proximity—Pedestrian connectivity is one component of a multi-modal transportation system. Providing safe routes to alternative transportation options is key to this concept.
- Special Needs Facilities—Generally pedestrians are defined as people who travel on foot or who use assistive devices,



School zone, Chickamauga



*Walker County transit stop,
Chickamauga*

such as wheelchairs, for mobility. (Designing Sidewalks and Trails for Access, 1999) An important component of transportation systems is the consideration of access for disabled citizens.

- Other Factors—Right-of-way, Curb & Gutter, Utilities, Topography
- Other trip generators not addressed in the matrix that may be important to consider include average daily traffic volumes, businesses that have over fifty employees, post offices, city hall and other civic destinations.



The distance between many neighborhoods and trip generators is greater than most people typically walk. Most people are willing to walk ¼ mile to their destination. Based on this, a ¼ mile distance from the generator- school, park, commercial area, greenway- scores the highest in priority in the sidewalk selection matrix.

Once all projects are ranked based on their weighted criteria, the highest scoring projects may be considered specifically for available funding. An additional level of consideration is important as a project may score highly for placement but due to certain constraints may not be an appropriate choice (i.e. timing may not be right, conflicts with another development).

In retrofitting places that do not currently have a continuous pedestrian system, high priority should be placed on connections to schools, parks, public buildings and transit opportunities.

Much of our MPO area contains less densely developed rural areas. Based on criteria in the sidewalk matrix, certain pedestrian facilities in these rural areas might not score highly due to their distance from trip generators. Where sidewalks are not warranted yet facilities are deemed necessary, paved shoulders are generally considered adequate for pedestrian use. Shoulders should not be considered as suitable for more than occasional pedestrian use however. They act as a roadway enhancement that sometimes improves roadway conditions for walking.

Further consideration should be given to providing creative solutions to “typical” sidewalk development. For instance, pervious pavement is a cement-based product that has a porous structure that allows water to pass through the pavement. It has been used worldwide for decades as a paving material for stormwater mitigation. Also, railroad corridors (National Rails-to-Trails Conservancy Program), stream corridors (multi-use greenway paths) and utility corridors all provide facility space that otherwise might go unused due to development constraints.

Recommendation:

Agencies should use the criteria and weighting found in the appended matrix as a suggestion for prioritizing new sidewalk development. In order to be applicable to all communities, the matrix can be tailored to each community’s needs. Some

may want to add/remove specific criteria or place higher importance on one than another.

MAINTENANCE

Streets are usually well maintained and are patched, resurfaced and swept; yet, often sidewalks are ignored. Sidewalks too require maintenance. Poorly maintained sidewalks can threaten the safety of pedestrians and even limit access for some users. The Campaign to Make America Walkable (1997) identified the following maintenance issues:

- 1) Missing sections of sidewalks (gaps in key walking routes)
- 2) Poor sidewalk surfaces (i.e. uneven or broken concrete)
- 3) Bad sidewalk maintenance (i.e. overhanging bushes or trees)

Other common problems are settled areas in the pathway, tree root damage, vegetation overgrowth and obstacles blocking the sidewalk, all of which are components that can be tracked through a GIS system. GIS is an important tool to provide a comprehensive view of maintenance needs.

Most cities assign property owners the responsibility for the upkeep of the sidewalks adjacent to their property even though sidewalks are a part of the public right-of-way. Active reinforcement of citizen maintenance extends to issues such as sweeping, limb and debris removal after a storm, and removal of vegetation. If walking is to be encouraged as a mode of transportation, a clear pathway must be maintained. If citizens are responsible for sidewalk upkeep, responsible maintenance practices must be enforced and landowners made aware of the requirements.

Citizens often report maintenance problems. This might be the only method that some municipalities currently have of being aware of repair needs. Local governments might consider surveying sidewalks in regular cycles. Larger municipal bodies often have a pavement management program that may be expanded to survey sidewalks to identify conditions. As the physical deterioration of sidewalks is a continuing process, an ongoing system of evaluation is needed, whether it is yearly or on a rotating schedule.

The most critical maintenance problems to correct are trip hazards. These flaws are not only a safety issue but also a liability concern. Particularly pressing repair areas are those with high pedestrian use and those near parks and schools. Having funding available to maintain, while at the same time expanding, the pedestrian infrastructure is critical to the success of this transportation mode.

Maintenance issues arise not only for sidewalks but also for other features of the pedestrian realm such as street furniture and planting strips. An ordinance, such as in the example below, can specifically state those items that are part of the sidewalk that specifically require attention:

“Each person in the city shall keep the sidewalks, tree wells in sidewalks, gutters, public rest areas and public alleys in front of and adjacent to any building, tenement, room or real property owned, occupied, possessed or managed by him, or under his supervision and control, clean and clear of mud, filth, dirt, debris, trash, litter and other substances, and weeds and grass, and shall also keep any grass median area between the property line and the street in front of or adjacent to any such property mowed and free from filth, debris, trash, litter and weeds, and shall also keep the sidewalks in front of and adjacent to any such property free and clear of any accumulation of snow and ice which presents a hazard to pedestrians.”

In this regulation, the term “sidewalk” has been expanded to include more than just the walking surface. The picture below demonstrates what the sidewalk may contain:



Furnishings Zone

Frontage Zone

Pedestrian Travelway

Curb Zone

If a business or business association has agreed to purchase street furniture it may be appropriate that the maintenance of such furniture be the responsibility of the purchaser. An understanding of the maintenance responsibility for all aspects of the sidewalk area is integral to the existing infrastructure and any additions to it.

Recommendation:

Existing legislative policies for citizen sidewalk maintenance should be promoted and enforced. If needed, a complete review of current sidewalk standards should be undertaken. Strengthen or develop policies and practices on standards of maintenance of sidewalks, planting strips and street furniture.

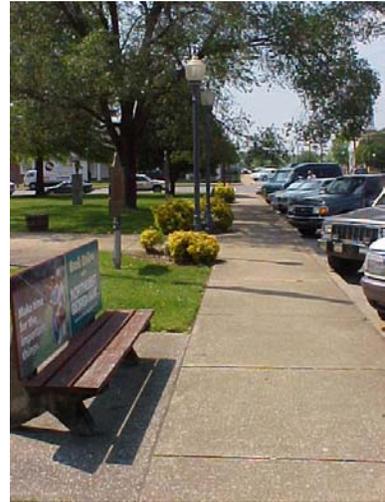
Municipalities and counties are encouraged to track maintenance concerns—at a minimum through citizen and employee reports. Citizens need to be made aware and encouraged to report hazardous sidewalk conditions.

If relying mainly on citizen reports proves to be an unreliable or ineffective system, a method to track maintenance needs can be expanded to include any of the options above.

STREETSCAPING

Well-designed walking environments are enhanced by urban design elements and street furniture such as benches, trash receptacles and pedestrian lights. Another important enhancement is street trees. These components, combined with the sidewalk itself, form a streetscape. Many studies show that an interesting and visually pleasing walk scores highly as important to people. The following components help enhance the pedestrian environment:

- Pedestrian lights—Good lighting makes most people feel safer at night. Quality lighting also makes the pedestrian more visible to motorists while illuminating barriers and potential hazards. Frequency and placement of fixtures may vary depending on pedestrian use and surrounding development patterns. Often banners on pedestrian lights serve as a means of identifying a special place or location or advertising a public event.
- Street furniture (benches/trash and recycling receptacles/information kiosks)—While these items are not strictly necessary to a sidewalk system, they enliven the pedestrian experience and help to provide a sense of community.
- Street trees—People often think of the ideal city street as lined with towering oaks or elms. Street trees not only beautify the environment but also have important environmental benefits. Additionally, trees provide both a physical and psychological separation for pedestrians between the sidewalk and roadway and well-needed shade. Without appropriate planting methods, street trees can cause a multitude of sidewalk maintenance problems. However, wise site planning and preparation, carefully selected high-quality trees and follow-up plant maintenance can minimize the impact of the plantings on the sidewalk infrastructure.
- Crosswalks—Safe pedestrian crossings are key to a quality pedestrian infrastructure. A crosswalk is a path marked off on a street to indicate where pedestrians should cross. Crosswalks can be marked with paint, reflective markings, signs and/or lighting. Where pedestrian use and/or safety concerns are elevated, crosswalk treatment may include stamped and colored concrete and brick pavers. Additional treatments include flashers, pedestrian call buttons and walk/don't walk pedestrian signals.
- Also available are a variety of other design considerations—curb extensions, median pedestrian refuges, on-street parking, planting strips, receptacles, planters, fountains, etc.



*Pedestrian lights
and benches,
Ringgold*



*Crosswalk with stamped
concrete and signal,
Chattanooga*

The intensity of streetscape is closely related to the intensity of land use and pedestrian use. Not all areas within a city or county are appropriate for a full-scale streetscape. It is important that the intensity and character of the streetscape looks and feels appropriate to its location.

Appropriate Public Realm Design Elements

(Refer to Text)

	Sidewalks	Street Trees	Pedestrian Lights	Furniture
Rural	✓			
Suburban: Residential	✓	Private yard		
Suburban: Commercial	✓	Private yard		
Urban: Residential	✓	Private yard	✓	
Urban: Mixed-use	✓	Private yard/ Public ROW	✓	
Downtown/CBD	✓	Public ROW	✓	✓

Rural: Rural areas are generally defined by low-density, single-family residential uses with areas of open space. Sidewalks and crosswalks, if and where appropriate, are most likely the only pedestrian facility elements necessary. Often the composition of the natural environment—with an abundance of trees—causes the planting of street trees for environmental and aesthetic reasons to be unnecessary. In rural areas, urban street elements, such as benches and pedestrian lighting in the sidewalk corridor, are generally out of place.

Suburban—Residential: Suburban areas are characterized by large lot sizes, residential subdivisions and distances between activity generators that discourage pedestrian activity. (Refer to pg. 17 for discussion of sidewalks in subdivisions.) While sidewalks may be appropriate in some locations, low pedestrian use and low density generally make other pedestrian elements unnecessary. Street tree planting, while not discouraged, is not needed for environmental reasons in these areas as open space and residential yards provide needed tree growth.

Suburban—Commercial: In suburban areas, streets with higher traffic volume often have commercial or office development at intersections or lining the length of the roadway. Currently these uses are often developed in an auto-oriented fashion with deep parking lots in front of the building and wide expanses of asphalt. Developers are encouraged to build sidewalks and plant street trees within their commercial developments. They should also continue the tree planting as part of their landscaping along the street front yard. The trees not only provide much needed shade and air quality benefits but also a more pleasant environment. Business organizations may also consider a coordinated tree planning effort. Further consideration should be given to providing a

walkway—whether a traditional concrete sidewalk or a mixed-use path—between commercial developments.

Urban—Residential: The urban environment sees greater density combined with smaller lot sizes, a network of streets organized as blocks, public transit opportunities and a closer proximity to desired destinations. These factors correspond with an increase in pedestrian use. While many residential streets in the urban area are appropriate for sidewalks based on the activity generator criteria, only certain streets need to be considered for further treatment. Citizens and neighborhood organizations are encouraged to plant and maintain appropriate street trees on their property. The higher level of pedestrian use on major corridors running through urban neighborhoods cause not only sidewalks to be necessary but perhaps also pedestrian level lighting.

Urban—Mixed-use: High-intensity mixed-used nodes within residential areas and mixed-use development in general are prevalent land uses in the urban areas close to the urban core (the area of highest development activity). This results in a higher level of pedestrian activity due to the higher number of activity generators within walking distance of each other and the residential uses. Here, too, sidewalks and pedestrian level lighting is needed on major pedestrian corridors. While many property owners will still have the front yard available to plant trees, some assistance may need to be provided when the only available planting location is on the public right-of-way.

Downtown/CDB: In an area such as the urban core/central business district, frequent pedestrian use and dense multi-level, mixed-use development exist. There are many activity generators such as government buildings and institutional uses. These destinations, along with the commercial and retail businesses often set close to the street, create a situation where a significant level of design treatment may be appropriate. In addition, this is often the most-visited portion of the city by tourists and other non-residents and a welcoming street environment encourages exploration of the city's amenities. These areas can be considered for wide sidewalks, street furniture, street trees and the buffering of pedestrians from the street.

Due to the constraints of these most urban environments and the need to plant trees in specially prepared planters, the planting and maintenance efforts will most likely be directed by an appropriately trained organization.

There are also areas that don't fall into any of these categories easily. For some reason—whether it's a historic designation or an area of particular development or redevelopment focus—certain areas may need special consideration for streetscape. In order to create a certain environment for these unique places, an expanded design treatment can be used to emphasize the importance of these areas and streets. Gateways are good examples of locations or corridors in a city, neighborhood or special district that should be visually appealing to enhance its identity.

Recommendations:

Define areas appropriate for more intensive streetscape.

Encourage citizen, business and non-profit groups to become involved in greening/beautification projects. Provide information on the most appropriate location and type of street tree planting.

Those areas with streetscaping plans in place should consider some of the alternative funding options provided in the Funding and Implementation section.

PROVISIONS FOR SIDEWALKS IN SUBDIVISIONS

The MPO staff asked that methods of providing sidewalks in subdivisions be presented. A review of ordinances and regulations from many municipalities across the country reflect the complexity of this issue. Developers often argue that sidewalk construction drives up home costs without increasing property values and that homeowners don't want to be responsible for maintenance.

In addition, a subdivision developed with sidewalks that connect to nothing because adjacent properties have not been developed does not contribute to a continuous pedestrian network. Related to this is when a builder defers sidewalk construction through phasing of a large project or sidewalks are put in only when a lot is sold or a house built. These scenarios result in a discontinuous sidewalk.

Many municipalities require sidewalks be constructed for new subdivisions and new roadways. In the case of subdivisions, the sidewalk must be built to city standards and then the cost is passed from the developer to the home buyer. The maintenance concern can be resolved by the creation of a homeowners' association that absorbs the cost of sidewalk upkeep. The following are excerpts from zoning or subdivision regulations in which construction of sidewalks in subdivisions is required:

Town of East Harford, CO: The following improvements shall be required except where these Regulations specifically waives the requirement, or when the Commission waives the requirement by specific resolution: paved streets; curbs and sidewalks; water and fire hydrants; sanitary waste disposal; storm drainage; street signs; street lighting; street trees; properly graded lots.

Charlotte, NC: Curbs and sidewalks may be required when deemed necessary by the Planning Commission. When required, they shall be constructed to standards established by the Planning Commission. Graded areas along one side of a street or access road may be required in any district for future construction of pedestrian and/or bicycle access.

The Planning Commission may require, in order to facilitate pedestrian access from roads to schools, parks, playgrounds, recreation and natural areas or other nearby roads and between residential areas and commercial centers, perpetual unobstructed easements at least twenty (20) feet in width. Easements shall be indicated on the plat.

Summit County, OH: A pedestrian circulation system should be designed to assure that pedestrians can walk safely and easily on a site, between properties and activities or special features within the neighborhood open space system. Sidewalks/walkways should connect with off road trails, which in turn should link with potential open space on adjoining undeveloped parcels (or with existing open space on adjoining developed parcels, where applicable).

The sidewalks/walkways shall be maintained by the Owners Association, or other maintenance arrangement approved by the Summit County Planning Commission, with input from the local Township. Deed restrictions for sidewalks/walkways are required to include the following language:

No governmental body is responsible or liable for the care, repair, replacement or maintenance of said sidewalks/ walkways and the Owners Association for such Development shall indemnify, defend and hold harmless all governmental bodies for any and all such claims of any kind or nature that may arise or be related to the sidewalks/walkways.

Another issue that arises with subdivision development is the construction of new sidewalks that potentially don't link to a sidewalk system and may not for some time. Often this results in a compromise by requiring the creation of sidewalks in subdivisions within a certain distance of an activity generator:

Knoxville, TN: For the safety of pedestrians and children at play, the Planning Commission may require that sidewalks be provided for access to schools, recreational facilities, commercial establishments, or any other areas where obvious future pedestrian traffic is anticipated. Whenever sidewalks can be connected to existing walks or proposed walks in adjacent areas, such proposed walks should be designed on that side of the street which will make this connection possible.

Gallatin County, MT: Rights-Of-Way for Pedestrians: Rights-of-way for pedestrian walks, not less than ten feet (10') wide, shall be required where deemed essential to provide circulation or access to schools, playgrounds, shopping centers, transportation and other community facilities.

Some areas are using developer incentives such as variances or code waivers as a way to provide sidewalk construction. This is accomplished either through reducing the cost of development or increasing the return on the developer investment. Examples of developer incentives include:

Neutral dedication provisions: Ensure that the dedication of land is "neutral" to the developer and does not cause a reduction in lot size or developable land by allowing dedication of sidewalks (with limitations) to have no effect on the remaining density, setbacks, etc. after the dedication. For example, if a sidewalk were sought at the front of a lot where there is a 30-foot building setback, the zoning code would be modified to allow any dedicated space to count as part of the lot setback, even though it no longer is part of the lot. (Modified from the Northland Trails Vision Plan of Clay and Platte Counties, MO)

Density bonus: This mechanism grants the developer greater density than permitted by a zoning district in exchange for the developer's dedication of the land and construction of a sidewalk. A density bonus may also take the form of reduced requirements for off-street parking and loading, mixed uses, and other modifications commonly allowed within a planned unit development (PUD). For example, Chattanooga and Red Bank have an Open Space Subdivision Design Option that allows for a reduction in the minimum building site area in exchange for a reservation of a portion of the site as open space and the creation of sidewalks.

Planned Development and Conditional Use Permit conditions: Planned development provisions generally allow for an area of land, controlled by a landowner, to be developed as a single entity with a designated number of

dwelling units and square footage of commercial and industrial uses. The plan allows modifications of lot size, bulk, type of use, density, lot coverage and open space, to allow developers to achieve a more flexible design, especially in exchange for a development exaction. Sidewalks can be incorporated as an integral part of the approval procedures so that a condition or factor in granting the approval is whether the developer has provided the pedestrian facilities sufficient to warrant the approval. This method is demonstrated by the City of Chattanooga's Residential PUD requirements that state, "There shall be constructed sidewalks, or an equivalent paved internal pedestrian circulation system."

Reduction in right-of-way width: Currently many municipalities in the MPO area require fifty-foot (50') rights-of-way for new local streets in their subdivision regulations. A reduction to a forty-foot (40') right-of-way in exchange for the developer's construction of sidewalks could be an acceptable alternative.

Some municipalities, such as Charlotte, NC, provide the opportunity for property owners to pay for sidewalk construction in their area. If 51% of owners agree to be assessed the full cost of the construction, the City will construct sidewalks for their neighborhood. All property owners are required to pay for the sidewalks and nonvoluntary property owners have their share assessed to their property taxes.

Another possibility to increase the pedestrian circulation system is the provision of connections or paths (rather than sidewalks built to city standards) from subdivisions to adjoining schools, parks and other activity generators. Subdivision regulations can be amended to either require or recommend these connections, often through an access easement, be incorporated into subdivision development.

Recommendations:

If a standard requirement for sidewalk construction is not desired, a flexible guideline supporting sidewalk development for subdivisions based on the needs of the subdivision and its surrounding land uses should be considered.

If a city or county decides to require new sidewalks in all subdivisions, providing developer alternatives/incentives is encouraged.

FUNDING AND IMPLEMENTATION

Federal and State Funds

Pedestrian projects, under certain provisions, are broadly eligible for funding from almost all the major federal-aid highway, transit and safety programs.

Surface Transportation Program (STP) funds may be used to construct pedestrian walkways.

The National Highway System (NHS) provides funding to construct pedestrian facilities on land adjacent to any highway in the NHS.

Transportation Enhancement Activities (TEAs) are STP funds for multi-modal projects that promote transportation options. Included are “provision of facilities for pedestrians and bicyclists, provision of safety and educational activities for pedestrians and bicyclists” and the “preservation of abandoned railways corridors” (for the use of pedestrian facilities).

Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds are available for pedestrian walkways that benefit air quality by reducing vehicle miles or congestion.

Community Development Block Grants (CDBG) provide eligible metropolitan cities and urban counties with annual direct grants that they can use to revitalize neighborhoods, expand affordable housing and economic opportunities, and/or improve community facilities and services, principally to benefit low- and moderate-income persons. An activity following under these qualifications is the building of public facilities and improvements such as those to sidewalks.

The Arbor Day Foundation, the National Tree Trust and the Tennessee and Georgia Departments of Agriculture and U.S. Forest Service grants are also possible sources of funding.

Citizen/Volunteer Groups

Within the MPO area there are many non-profit and community groups currently dedicated to alternative transportation systems. The Trust for Public Land, the Chattanooga Bicycle Task Force, Greenways Task Force, North Chickamauga Creek Conservancy, South Chickamauga Creek Conservancy, Friends of Chattanooga, and Friends of Mountain Creek are all examples of organizations involved in promoting multi-modal transportation activities.

Another source for implementation could be a tree foundation or a citizens’ tree group. Several cities have organizations in place that use a combination of resources from individuals, corporations and organizations to purchase and maintain trees. The Knoxville Tree Foundation, the Nashville Tree Foundation, Trees Atlanta and Columbia Green (South Carolina) are all examples of organizations dedicated to enhancing the urban forest.

Atlanta's program offers memorials, honorariums and gift dedications of trees for a small purchase price. Trees Atlanta focuses heavily on planting shade trees in the central business district and in the areas between parking lots and streets. The foundation also maintains the trees they plant through a three-year maintenance program. Most of their work is accomplished through an extensive volunteer program although contracted landscapers undertake some projects.

According to Columbia Green's literature, their efforts have expanded from community gardens to beautification of Columbia's streets. The organization sees this as a way of attracting tourists and prospective businesses and increasing the quality of life for residents. Gateways, as entrances to communities, are also an area of focus. Columbia Green provides funding for the city's horticulture departments to buy flowers, shrubs and trees for these important areas of the city. They also oversee a neighborhood beautification grant program as another way to fund projects in public spaces. Organized neighborhood associations who meet certain criteria can apply for a competitive grant.

Links to these organizations are provided below:

www.nashvilletreefoundation.org

www.treesatlanta.org

www.columbiagreen.org

The Iowa Cooperative Extension Service produced a brochure on establishing a community tree program. It is available on-line at <http://www.exnet.iastate.edu/Publications/PM1429A.pdf>.

Adopt-A-Tree programs are another method of greening city streets. Generally, these programs are a partnership between the city and concerned citizens. The trees are planted in the public right-of-way or on public property as they are purchased with city funds. The homeowner or business owner is then responsible for maintaining the tree although in some cases the city remains responsible for upkeep. Guidelines for appropriate planting locations (away from fire hydrants and street corners) help insure the survival of the trees. Depending on the program, either the city provides high quality, easily plantable trees and planting and care instructions or else a city department does the planting. Adopt-A-Tree programs also accept donations. Cities involved in this program include Fort Lauderdale (FL), Champaign (IL) and Kearny (NJ).

Similar to Adopt-A-Tree is Adopt-A-Walk. By mobilizing volunteers, citizens and local businesses take joint responsibility for specific sidewalks.

Corporate Sponsors/Partners

Another method to fund sidewalk development and the enhancements of sidewalks is through corporate partnerships. A sponsorship such as this can provide revenue for improvements while also providing increased service to the community. Partnerships with a business or business association need to involve an understanding of the appropriate amenities to purchase. Street trees, furniture or other public realm improvements should be acceptable to the city. An agreement on maintenance is an important component to the additional enhancements.

A partnership with neighborhoods or groups of residents is another method of undertaking improvement projects. These partnerships often come in the form of grant

programs that provide funds for eligible projects. Applicants must usually provide a match in services, cash, voluntary efforts or materials. The neighborhood must gather support for the project and provide for ongoing maintenance of the project.

Recommendation:

Seeking funding is an important step. Jurisdictions should consider alternative funding sources and utilize the strength of volunteer/citizen organizations. Establishing partnerships with neighborhood and business associations can provide needed improvements at either no cost or much-reduced cost.

APPENDIX

Sidewalk Selection Matrix

Date:

Sidewalk On:

From:

To:

CRITERIA	MEASURE	WEIGHT	RATING
Current Pedestrian Use	Scale of 1 - 10 1 - No Worn Path/No Pedestrians 10 - Worn Path/Many Pedestrians	5	
School Proximity	Scale #1 (See Below)	5	
Public Park/Recreation Facility Proximity	Scale #1 (See Below)	4	
Development Activity Center Proximity	Scale #1 (See Below)	4	
Greenway Proximity	Scale #1 (See Below)	4	
Existing Sidewalk Proximity/Connectivity	Scale #2 (See Below)	3	
Other Factors (Right-of-Way, Curb & Gutter, Utilities, Topo, Etc.)	Scale of 1 - 10 1 - Most Problems 10- Fewest Problems (Determined Subjectively)	3	
Provides accessibility for pedestrians with disabilities	Scale #1 (See Below)- the distance to the nearest disabled resident(s)	3	
Mass Transit Stop Proximity	Scale #1 (See Below)	3	
Consecutive Years on Priority List	consecutive years the specific location has been on the list	2	
Total:			

SCALE #1	
10	0 – 0.25 mile
9	0.25 – 0.5 mile
8	0.5 – 0.75 mile
7	0.75 – 1 mile
no points	> 1 mile

SCALE #2	
10	0 – 0.1 mile
8	0.1 – 0.2 mile
6	0.2 – 0.3 mile
4	0.3 – 0.4 mile
2	0.4 – 0.5 mile
no points	> 0.5 mile

Comments:

- Recommended in an adopted plan
- Future development