Overview of Active Transportation Maintenance Practices in Illinois

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To support the Existing Conditions Assessment for the Illinois Department of Transportation's Active Transportation Plan, Alta Planning + Design developed this memorandum to provide a high-level overview of active transportation maintenance. The memorandum summarizes the resources, responsibilities, and practices pertaining to active transportation maintenance in Illinois.







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Introduction

Active transportation facilities—including sidewalks, bike lanes, shared-use paths and more—are a critical part of a state's transportation system. Just like roads and bridges, these facilities require regular maintenance.

The primary purpose of this memo is to identify and assess the current practices, roles, and responsibilities surrounding the maintenance of active transportation facilities in Illinois. Secondarily, this memo outlines available resources related to funding and winter maintenance. The memo is organized into the following sections:

- > Illinois Maintenance Responsibilities & Resources
- Illinois Municipality Sidewalk Maintenance Examples
- National Sidewalk Maintenance Scan
- > Winter Maintenance Best Practices
- Maintenance Funding

Illinois Maintenance Resources & Responsibilities

Illinois, according to the Illinois Highway Code, defines maintenance as "the performance of all things necessary to keep a highway in serviceable condition for vehicular traffic."¹ This includes active transportation infrastructure; the Illinois Highway Code states that the term "highway" includes "shared-use paths for nonvehicular public travel, sidewalks, bike paths, and all other structures and appurtenances necessary or convenient for vehicular traffic."²

Below are several guiding documents, policies, and practices at the state and federal level that inform maintenance practices for active transportation facilities in Illinois:

State-Level Maintenance Resources & Responsibilities

The Illinois Department of Transportation (IDOT) shares responsibility with other jurisdictions for the maintenance of state highways, including the maintenance of active transportation facilities like bikeways and sidewalks.

Bureau of Local Roads & Streets Manual

The Bureau of Local Roads and Streets Manual (BLRS Manual) is a resource published by IDOT that provides guidance to local agencies, district offices, and consultants preparing plans and

2 Ibid.

¹ https://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=060500050HArt%2E+2+Div%2E+2&ActID=1745&ChapterID=45& SeqStart=1100000&SeqEnd=3200000

reports for local agency projects.³ This manual includes direction on maintenance activities under "Chapter 2: Administrative Policies and Procedures" (updated June 2018), "Chapter 14: Maintenance" (updated December 2018), "Chapter 25: Construction and Maintenance" (updated January 2012), and "Chapter 42: Bicycle Facilities" (updated October 2013). Key takeaways from the manual are as follows:

Responsibility: The manual provides the following guidance on responsibility: "Responsibility for maintenance of bike lane facilities should be determined and agreed upon during the planning process and should be included in the local agency funding agreement, when applicable" (BLRS Manual, 42-4(1). The Bureau of Local Roads and Streets' Highway Jurisdiction Guidelines for Highway and Street Systems is a resource to support jurisdictions in the case of a jurisdictional dispute regarding maintenance responsibilities (BLRS Manual, 2-5-1).

- Legal Authority: The manual outlines the laws that govern IDOT's policies and procedures. This includes the Bikeway Act (605 ILCS 30/0.01 et seq) which provides legal authority for the construction and maintenance of bikeways (BLRS Manual, 2-1-1). A summary of the Bikeway Act as it relates to maintenance can be found in the following section.
- Surface Type: The manual outlines the benefits and drawbacks of a variety of surface types including concrete, Hot Mix Asphalt (HMA), Bituminous Surface Treatment (BST), and crushed aggregate surfaces (BLRS Manual, 42-3(3). Table 1 summarizes these options.

3 <u>https://idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-public-agencies/lpa-project-development-and-implementation/policy-and-procedures/local-roads-and-streets-manual.html</u>

Surface Type	Maintenance Needs	Cost	Other Considerations
Concrete	Lowest maintenance	Highest initial cost	Hard surface that supports users; easy to form to site conditions; advantages in wet soil conditions or areas that may periodically flood; project location may impede access for the large, heavy equipment required.
Hot Mix Asphalt (HMA)	Low maintenance	Higher initial cost	Hard surface that supports users; no erosion; project location may impede access for the large, heavy equipment required.
Bituminous Surface Treatment (BST)	Medium maintenance – potential for bleeding in hot weather	Less expensive than HMA or concrete	Stable surface; loose surface chips may pose safety concern.
Crushed Aggregate Surfaces	High maintenance – require substantially increased maintenance over the life of the project	Least expensive	Permeable surface; subgrade should be properly compacted and a geotextile fabric mat used if the soil is soft or unstable; crushed aggregate surface (i.e., FA 20 or equivalent) should be placed over a base course and properly rolled and compacted.

Table 1: Bikeway Surface Types and Maintenance Considerations

> Use of Motor Fuel Tax: The manual explicitly states how, and to what degree, municipalities, counties, townships, and road districts can use Motor Fuel Tax funds for the maintenance of bicyclist and pedestrian infrastructure (BLRS Manual, 14-1-6). More information on this can be found in the funding section of this memo.

Illinois Bikeway Act

Passed in 1994, the Bikeway Act was Illinois' first bicycle-related law.⁴ It provided legal authority for both the construction and maintenance of bikeways, of which is defined as follows:

Bikeway: "(1) a shared facility whereby both vehicles and bicycles may operate on the through lanes, parking lanes or shoulders of a street or highway, (2) a pathway on a street or highway right-of-way, on public land other than a street or highway right-of-way, or on lands not owned by a municipality, local unit of government, county, or the State of Illinois or one of its agencies or authorities by agreement with the owner for a minimum duration of 20 years."⁵

In terms of maintenance, the law outlines that IDOT will establish and maintain a statewide bikeways program, and with IDOT approval, counties, municipalities, conservation districts, park districts, and forest preserve districts can reconstruct, maintain, alter, and improve bikeways.

Federal Active Transportation Maintenance Policies & Guidance

Policies and resources at the federal level that guide maintenance of active transportation facilities include the following:

- Americans with Disabilities Act (ADA) and Public Right-of-Way Accessibility Guidelines (PROWAG): Signed into law in 1990, the ADA protects the civil rights of people with disabilities. Under the ADA, the US Access Board published the final rule on the minimum guidelines for the accessibility of pedestrian facilities in the public right-of-way (PROWAG).⁶ PROWAG includes guidance on maintenance, operations, and alterations to ensure facilities are accessible and usable to people with disabilities.
 - Manual on Uniform Traffic Control Devices (MUTCD): This manual provides guidance on traffic control devices to ensure consistency, safety, and efficiency across the country. It includes specific requirements for the maintenance of bicyclist traffic control devices (Section 9A.04), which state that "all signs, signals, and markings, including those on bicycle facilities, should be properly maintained to command respect from both the motorist and the bicyclist. When installing signs and markings on bicycle facilities, an agency should be designated to maintain these devices."⁷

The latest versions of both PROWAG and the MUTCD were issued in late 2023. The final implementation of these guidelines will occur in the coming years.

Active Transportation Asset Management

In 2019, Federal Highway Administration (FHWA) required that each state department of transportation develop and submit a transportation asset management plan that outlines how it plans to operate, maintain, and improve its physical assets. FHWA does not require state departments of transportation to address active transportation facilities.⁸

^{4 &}lt;u>https://idot.illinois.gov/transportation-system/transportation-management/planning/active-transport-projects/bike-plan.</u> <u>html</u>

⁵ https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=1750&ChapterID=45

^{6 &}lt;u>https://www.federalregister.gov/documents/2023/08/08/2023-16149/accessibility-guidelines-for-pedestrian-facilities-in-</u> <u>the-public-right-of-way</u>

^{7 &}lt;u>https://mutcd.fhwa.dot.gov/</u>

⁸ https://journals.sagepub.com/doi/10.1177/03611981221087239

IDOT's Transportation Asset Management Plan is a strategic planning document that sets the priorities for the operations and maintenance of the state's vast network of highways and bridges. While the Illinois Highway Code states that the term "highway" includes shared-use paths for nonvehicular public travel, sidewalks, and bike paths,⁹ these facilities are not included within the Transportation Asset Management Plan.¹⁰ IDOT does inventory its curb ramps and is in the process of inventorying its bikeways, at this time, IDOT does not have a systematic approach to evaluating the condition of all active transportation facilities on state highways. A recent survey publication from the Institute of Transportation Engineers noted that an emerging best practice in sidewalk maintenance is conducting a complete inventory of sidewalks as part of an asset management system."

As mentioned above, IDOT is in the process of creating a Bicycle Facility Inventory System; an online, interactive map database that includes helpful information about bicycle lanes, paths, trails, and their associated characteristics.¹² This system will better allow IDOT and other agencies to include bicycle infrastructure more prominently in future projects.

Illinois Municipality Sidewalk Maintenance Examples

Illinois' municipal code states that municipalities have the authority to regulate sidewalks specifically, their use, construction, repair, and maintenance, including snow removal.¹³ Many municipalities in Illinois use a cost-sharing approach where municipalities and adjacent property owners share the cost and responsibility of sidewalk repair and replacement.

The following examples demonstrate how some Illinois municipalities approach maintenance responsibility and funding:

City of Chicago – Shared Cost Sidewalk Program

The City of Chicago operates a Shared Cost Sidewalk Program, which is a voluntary program where the City shares the cost of replacing sidewalks with the property owners.¹⁴ This program applies to sidewalks deemed by Chicago Department of Transportation as "in need of replacement" within the public-right-of-way. The program is popular, and only opens once a year for a short window of time to accept new applicants. If a property owner's application is accepted, the approximate cost to the owner ranges from \$600 to \$1,500. Older adults (age 65+) or people with disabilities are eligible to receive a 50% discount.

⁹ https://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=060500050HArt%2E+2+Div%2E+2&ActID=1745&ChapterID=45& SeqStart=1100000&SeqEnd=3200000

¹⁰ https://idot.illinois.gov/content/dam/soi/en/web/idot/documents/transportation-system/reports/opp/transit/idot-2022tamp-fhwa-certified-01-24-23.pdf

¹¹ https://www.ite.org/technical-resources/topics/complete-streets/residential-local-street-sidewalk-survey/

¹² https://idot.illinois.gov/transportation-system/transportation-management/planning/active-transport-projects.html

¹³ https://www.ilga.gov/legislation/ilcs/ilcs4.asp?DocName=006500050HArt%2E+11+Div%2E+84&ActID=802&ChapterID=14& SeqStart=225900000&SeqEn

¹⁴ https://www.chicago.gov/city/en/depts/cdot/provdrs/street/svcs/shared_cost_sidewalkprogram.html

City of Peoria – Sidewalk Maintenance Policy

In the City of Peoria, if the Department of Public Works finds a portion of sidewalk in need of a repair, they will issue a notice to the property owner stating that they must repair said portion of sidewalk.¹⁵ The property owner is responsible for identifying a contractor, and the City will reimburse the property owner for 80% of the cost of the repair as long as the cost is reasonable and not excessive. If the City determines it to be excessive, it will reimburse the owner for 80% of the reasonable cost of repair.

City of Naperville – Sidewalk & Curb Maintenance Program

The City of Naperville runs a Sidewalk Replacement Program and repairs sections of sidewalk it deems in need of repair.¹⁶ The City pays for 50% to 75% of the cost of replacement depending on the type of property: multi-family and commercial (50%), residential property (60%), or multifrontage residential lots (60%). If preferred, the City allows property owners to replace sidewalks through private contractors. The City requires that the sidewalk section meet one of the following conditions:

- Sidewalk must be sunken or risen to a height difference of one inch or more between sections.
- Sidewalk must be broken or separated into three or more pieces.
- Fifty percent or more of the sidewalk surface must be deteriorated.

City of Carbondale – Sidewalk Repair Policy

In the City of Carbondale, if the Director of Public Works or their designee determines that a sidewalk section in need of repair qualifies for the City's replacement program, the City will pay for the entire cost of replacement or repair.¹⁷ If the sidewalk section does not qualify under the replacement program, the City and property owner will equally share the cost of repair. The City has not published the criteria of the City's replacement program.

^{15 &}lt;u>https://library.municode.com/il/peoria/codes/code_of_ordinances?nodeId=CO_CH26STSIOTPUPL_ARTVIISIDROTRI-W_</u> DIVISINERE_S26-23IDEDINO

¹⁶ https://www.naperville.il.us/residents/sidewalk-and-curb-maintenance-program/

¹⁷ https://codelibrary.amlegal.com/codes/carbondaleil/latest/carbondale_il/0-0-0-13104

National Sidewalk Maintenance Scan

In 2022, the Institute of Transportation Engineers issued a Residential Local Street Sidewalk Survey to its members and other transportation professionals and published a summary of the findings.¹⁸ The purpose of the survey was to improve awareness of the best practices for local, residential street sidewalk design, construction, and maintenance. Key findings relevant to these sidewalk maintenance best practices are as follows:

- Agencies are largely responsible for residential local street sidewalks. For example, when asked about responsibility:
 - 83% of respondents stated that an agency was responsible for repairing damaged local residential sidewalks, whereas 40% stated that homeowners were responsible.
 - 71% of respondents stated that an agency was responsible for maintaining local residential street sidewalks, whereas 42% stated that homeowners were responsible.
 - 80% of respondents stated that an agency was responsible for monitoring sidewalk status for repairs, obstructions, and maintenance, whereas 31% stated that homeowners were responsible.¹⁹

Winter Maintenance Best Practices

Illinois is one of many states in the US whose maintenance responsibilities include clearing snow and ice, ensuring that the transportation network is safe and accessible year-round.²⁰ Bike lanes and paths blocked by snow, sidewalks covered in ice, slippery curb ramps, and inaccessible bus stops are common and pose serious safety and access concerns for walking, using mobility assistive devices, and biking. Despite the cold, people walk, roll, and bike year-round reach essential destinations.

Illinois' Snow and Ice Removal Act states that property owners or residents are encouraged to clear snow and ice from sidewalks abutting said property.²¹ At the local level, many municipalities for example, Chicago, Champaign, and Rockford have additional legislation in place that requires property owners and residents to clear snow.^{22, 23, 24} Some municipalities' legislation notes that it is unlawful to clear snow and deposit it in the rightof-way, which includes sidewalks and bike lanes and paths.

An example of another state that faces snow and ice removal responsibilities is Minnesota. They have some winter maintenance approaches that may be appropriate to apply in Illinois. In 2018, Minnesota Department of Transportation released their statewide pedestrian system plan, which included a section on sidewalk snow clearing.²⁵ That plan provides guidance and

¹⁸ https://www.ite.org/technical-resources/topics/complete-streets/residential-local-street-sidewalk-survey/

¹⁹ Note - The survey allowed multiple responses so totals exceeded 100%.

²⁰ Note - Recreational use facilities may not receive winter maintenance.

²¹ https://www.ilga.gov/legislation/ilcs/ilcs3.asp?ActID=2084&ChapterID=58

²² https://www.chicago.gov/city/en/depts/cdot/supp_info/sidewalk_snow_removal.html#:~:text=You%20must%20shovel%20 snow%20as,removed%20by%2010%3A00%20am

²³ https://champaignil.gov/public-works/find-a-service/streets-sidewalks/snow-ice-removal/#:~:text=For%20storm%20 events%20with%20more,City%20alleys%20will%20be%20cleared

²⁴ https://www.rockfordil.gov/365/Snow-Ice

²⁵ https://www.dot.state.mn.us/peds/minnesota-walks.html

considerations on three different approaches to snow maintenance for sidewalks:

- > Property Owner Responsibility: This is a common approach in which property owners and/or occupants are responsible for snow clearance. By relying on residents, the jurisdiction creates a model of shared responsibility for sidewalk clearance. The concern with this approach is that for some people—this includes, but is not limited to, older adults, people with disabilities, pregnant people, and people who are experiencing illness or traveling—it is difficult or impossible to clear their sidewalks.
- Partially Municipality-Led: With this approach, property owners and/or occupants are required to clear sidewalks abutting their property, and the jurisdiction is responsible for clearing the snow on a select number of priority sidewalk routes. Criteria for how priority sidewalk routes are determined varies, but it often is related to routes to schools, or areas that experience high volumes of people walking. Rochester, MN (population: 114,011), uses this approach to clear snow and ice in the city.²⁶
 - Note: In July 2023, Chicago City Council passed "Plow the Sidewalks" ordinance (O2023-2104), which requires the City to establish a municipal sidewalk snow and

ice removal pilot program. A working group comprising several City staff members representing the Department of Streets and Sanitation, Transportation, Office of Budget and Management and Mayor's Office for People with Disabilities will establish program guidelines, including the size and selection of the pilot area, by May 2024. Per the ordinance, the working group will consider the following criteria when determining the pilot zones: concentration of people 65 years or older, low-income households, families with children under the age of 5, and persons with disabilities; public transit ridership, number of zero car households, areas of historical disinvestment, and population density.27

Municipality-Led: With this approach, municipalities assume full responsibility for sidewalk snow and ice clearance. This approach is less common primarily because of the cost of implementation, labor (municipal staff or outside contractors) and equipment. This approach can be very beneficial for those who it is challenging or impossible to clear their own snow. Bloomington, MN (population: 85,319), uses this approach to clear its 250 miles of sidewalks.²⁸

26 Ibid.

27 https://chicityclerkelms.chicago.gov/Matter/?matterId=6B59C122-7625-EE11-9CBD-001DD804E11C

28 https://www.dot.state.mn.us/peds/minnesota-walks.html

Maintenance Funding

IDOT Maintenance Funding

IDOT'S BLRS Manual outlines how the Motor Fuel Tax funds can be spent, and by which entities are outlined in Table 2 and Table 3 (BLRS Manual, 14-1-6).²⁹

Maintenance Funding Examples

There are several creative ways to fund maintenance on active transportation infrastructure. Table 4 can serve as a resource for Illinois jurisdictions seeking information on how to raise funds for active transportation maintenance and repair. The communities featured below are from across the United States and demonstrate the wide range of possible approaches.

Table 2: Jurisdiction Permission to Utilize Motor Fuel Tax Funds on Bicycle Infrastructure

Entity	Bicycle Paths	Bicycle Parking Facilities	Bicycle Signs and Marking
Municipalities	Х	Х	Х
Counties over 500,000	х	-	Х
Townships	_	_	Х

Table 3: Jurisdiction Permission to Utilize Motor Fuel Tax Funds on Pedestrian Infrastructure

Entity	Maintain and Repair Sidewalks	Fill Short Gaps in Sidewalk Network*
Municipalities	Х	X
Counties	Х	Х
Townships	Х	Х

*Barring there are no issues with sidewalk grades or slopes. If the municipality seeks to use said funds for filling in gaps, it must follow the requirements of the ADA or PROWAG.

²⁹ https://idot.illinois.gov/transportation-system/local-transportation-partners/county-engineers-and-local-publicagencies/lpa-project-development-and-implementation/policy-and-procedures/local-roads-and-streets-manual.html

Table 4: Maintenance Funding Examples

Method	Location	Cost to Taxpayers	Revenue Generated	Additional Details
Sidewalk Mileage Tax	Ann Arbor, MI	Average household pays an additional \$13 per year in their taxes.	\$560,000 annually	In 2011, Ann Arbor, MI, voters overwhelming—60%—approved a sidewalk mileage tax that would raise funds to "address significant sidewalk maintenance that was not being adequately addressed through the City's code requirements, which assigns the responsibility of sidewalk maintenance to the adjacent property owner." ¹ This approach is considered more equitable and effective than relying on adjacent property owners.
Sidewalk Improvement District Program	Rochester, MN	Average residential rate is estimated to be \$57 annually.	N/A	In 2022, Rochester, MN, City council approved a Sidewalk Improvement District program that shifts the cost from the adjacent property owner to the City's community-funded program. ² While this does require a small annual fee to taxpayers, it spreads the cost across the whole community. This is considered a more equitable approach that reduces burden on lower-income property owners. ³
Sidewalk Improvement District Program	lthaca, NY	Estimated to range between \$70 and \$140 annually depending on property classification.	\$840,000 annually	In 2014, Ithaca, NY, passed legislation creating five sidewalk assessment districts. The funds raised through an annual sidewalk assessment fee cover sidewalk replacement and construction, including corner curb cuts. ⁴ This approach is considered a more equitable approach to funding sidewalk maintenance.

Table References

- 1 https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa13037/chap7.cfm
- 2 https://www.rochestermn.gov/government/departments/public-works/sidewalks-paths/sidewalk-replacementmaintenance/sidewalk-improvement-districts
- 3 https://www.health.state.mn.us/communities/physicalactivity/docs/repair.pdf
- 4 https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa13037/chap7.cfm

Method	Location	Cost to Taxpayers	Revenue Generated	Additional Details
Denver Deserves Sidewalks	Denver, CO	N/A—a sidewalk task force is currently refining the fee structure.	N/A—a sidewalk task force is currently refining the fee structure.	In 2022, Denver, CO, voters approved a ballot initiative that shifted the responsibility of sidewalk construction and maintenance away from property owners and on to the City. ⁵
Sidewalk Safety Program – Utility Fees	Corvallis, OR	\$12 annually per household.	N/A—prior to the increase in 2022, the estimated annual revenue was \$150,000.	For more than a decade, Corvallis, OR, has included a sidewalk maintenance fee as part of residents' monthly City Services bill. ⁶ In 2022, City council raised the \$0.80 monthly fee to \$1 to cover the average yearly cost to repair sidewalks. ⁷

Table References (continued)

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^{5 &}lt;u>https://www.denvergov.org/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/</u> Department-of-Transportation-and-Infrastructure/Programs-Services/Pedestrians/Sidewalks

⁶ https://safety.fhwa.dot.gov/ped_bike/tools_solve/fhwasa13037/chap7.cfm

⁷ https://www.corvallisoregon.gov/publicworks/page/sidewalk-safety