

2024 Update

Americans with Disabilities Act (ADA) Transition Plan for Public Works



Kimley » Horn

Table of Contents

Executive Summary	E-1
Legislative Mandate	E-1
Minneapolis Planning Guidance	E-1
Transition Plan Overview	E-3
Plan Recommendations	E-3
Anticipated Schedule	E-6
Chapter 1: ADA Transition Planning in the City of Minneapolis	1-1
ADA Transition Plan: Requirements and Process	1-2
Legislative Mandate	1-2
City of Minneapolis Approach	1-4
Minneapolis ADA Plans	1-4
Public Works' ADA Vision and Approach	1-4
Jurisdictional Responsibilities for Building and Repairing ADA Infrastructure	1-6
Update Process	1-9
Chapter 2: Community Engagement	2-1
Engagement Approach	2-1
Stakeholder Groups	2-1
Public Engagement Opportunities	2-2
Engagement Results	2-3
Key Themes	2-3
Who Did We Hear From?	2-3
What Did Respondents Say?	2-6
From Here	2-11
Chapter 3: Self-Evaluation	3-1
ADA Criteria and Infrastructure Status	3-3
Data Collection	3-7
Areas for Improvement: Evaluating Pedestrian Curb Ramps	3-8



	Traffic Signals	3-9
	ADA Criteria and Infrastructure Status	3-10
	Data Collection	3-10
	Areas for Improvement: Traffic Signal Infrastructure	3-11
	Sidewalks	3-11
	ADA Criteria and Infrastructure Status	3-14
	Data Collection	3-15
	Street Crossings	3-16
	ADA Criteria and Infrastructure Status	3-16
	Data Collection	3-17
	Programs, Policies, and Procedures	3-18
	Conclusion	3-26
C	Chapter 4: Infrastructure Prioritization	4-1
	Framework for Prioritization	4.1
		4-1
	Quantitative Analysis	
	Quantitative Analysis Accessibility Evaluation	4-2
		4-2
	Accessibility Evaluation	4-2 4-2
	Accessibility Evaluation	4-2 4-2 4-2
	Accessibility Evaluation Equity Criteria Qualitative Analysis	4-2 4-2 4-2 4-3
	Accessibility Evaluation Equity Criteria Qualitative Analysis Infrastructure Prioritization	4-24-24-24-24-3
	Accessibility Evaluation Equity Criteria Qualitative Analysis Infrastructure Prioritization Pedestrian Curb Ramps	4-24-24-24-34-3
	Accessibility Evaluation Equity Criteria Qualitative Analysis Infrastructure Prioritization Pedestrian Curb Ramps Qualitative Analysis Results	4-24-24-24-34-6
	Accessibility Evaluation Equity Criteria Qualitative Analysis Infrastructure Prioritization Pedestrian Curb Ramps Qualitative Analysis Results Equity Criteria Results	4-24-24-24-34-34-64-12
	Accessibility Evaluation Equity Criteria Qualitative Analysis Infrastructure Prioritization Pedestrian Curb Ramps Qualitative Analysis Results Equity Criteria Results Prioritization Framework for Other Infrastructure	4-24-24-24-34-64-124-17
	Accessibility Evaluation Equity Criteria Qualitative Analysis Infrastructure Prioritization Pedestrian Curb Ramps Qualitative Analysis Results Equity Criteria Results Prioritization Framework for Other Infrastructure Traffic Signals	4-24-24-24-34-64-124-174-18



Chapter 5: Implementation	5-1
Overview	5-1
Infrastructure Implementation	5-1
Guidance on Pedestrian Curb Ramp Improvements in Resurfacing Projects	5-3
Pedestrian Curb Ramp reconstruction	5-6
Context Specific Design	5-7
Plan Recommendations	5-8
From Here	5-10
Appendix A	A-1
Overview	A-1
Progress Update	A-2
Progress Highlights	A-2
Infrastructure Improvements	A-6
Implementation Challenges	A-7
2022 and Beyond	A-7
Summary of Recommendations and Milestone Progress	A-8
Appendix B	B-1
Overview	B-1
Progress Since the 2022 Plan Update	B-2
Progress Highlights	B-2
Infrastructure Improvements	B-5
2024 and Beyond	B-7
Summary of Recommendations and Milestone Progress	B-8



List of Figures

Ex	ecutive Summary	E-1
	Figure E-1: Signalized intersection with Accessible Pedestrian Signal (APS) and pedestrian pushbuttons	E-1
	Figure E-2: ADA Planning at the City of Minneapolis chart	E-2
Cŀ	napter 1: ADA Transition Planning in the City of Minneapolis	. 1-1
	Figure 1-1: ADA Planning at the City of Minneapolis	1-1
	Figure 1-2: ADA Infrastructure Jurisdiction for Minneapolis Parks and Recreation Board	1-6
	Figure 1-3: ADA Infrastructure Jurisdiction for Hennepin County	1-6
	Figure 1-4: ADA Infrastructure Jurisdiction for Minnesota Department of Transportation	1-7
	Figure 1-5: Jurisdictional Street Responsibility in the City of Minneapolis	1-8
Cŀ	napter 2: Community Engagement	. 2-1
	Figure 2-1: Stakeholder Groups	2-1
	Figure 2-2: Age of Survey Respondents	2-5
	Figure 2-3: Zip Codes of Survey Respondents	2-5
	Figure 2-4: Responses to "Where Should the City Prioritize Improvements"?	2-6
	Figure 2-5: Responses to "What is your biggest obstacle when walking in the City"?	2-7
	Figure 2-6: Pedestrian ramp missing in distance between far sidewalk and existing crossing	2-8
	Figure 2-7: Raised panels on sidewalks and broken sidewalks (particularly at driveways) present barrier to safe walking and rolling	
	Figure 2-8: Sidewalk closures can present unique challenges to the disability community	2-10
Ch	napter 3: Self-Evaluation	. 3-1
	Figure 3-1: Cross Section of Public Right of Way	3-1
	Figure 3-2: Combined Directional pedestrian curb ramps provide two separate ramps at each co	
	Figure 3-3: Fan ramps or Depressed Corner ramps provide one ramp to cross the street in eithe direction	
	Figure 3-4: Typical features of a pedestrian curb ramp at a signalized intersection	3-3
	Figure 3-5: Ramp width, length, and slope	3-3



	Figure 3-6: Detectable warnings alert users that they are approaching the edge of a facility	3-5
	Figure 3-7: Detectable warning surface type	3-6
	Figure 3-8: User interface on City's pedestrian curb ramp information collection application	3-8
	Figure 3-9: Push buttons and pedestrian signal heads are components of Accessible Pedestrian Signals (APS)	3-9
	Figure 3-10: Accessible Pedestrian Signal (APS)	. 3-10
	Figure 3-11: Sidewalk Gap Map	. 3-12
	Figure 3-12: Sidewalk Width Map	. 3-13
	Figure 3-13: Sidewalks are the foundation of the pedestrian network	. 3-14
	Figure 3-14: Sidewalk with tree grate	. 3-14
	Figure 3-15: Typical residential sidewalk section with grass boulevard	. 3-14
	Figure 3-16: Vertical fault due to a settled sidewalk panel	. 3-15
	Figure 3-17: Vertical fault due to a heaved panel, likely from tree roots	. 3-15
	Figure 3-18: Minneapolis' standard pattern for sidewalk crosswalk markings is the Minnesota Zebra	.3-16
	Figure 3-19: Parallel Line Crosswalk	. 3-16
	Figure 3-20: Unmarked Crosswalk	. 3-16
	Figure 3-21: Street crossings are considered to be extensions of the sidewalk	. 3-17
	Figure 3-22: Screenshots of online 311 interfaces	. 3-18
	Figure 3-23: Sidewalk with "Sidewalk Closed" signage while sidewalk is being repaired	. 3-20
	Figure 3-24: Street crossing during winter	. 3-25
Ch	napter 4: Infrastructure Prioritization	. 4-1
	Figure 4-1: Prioritization Framework	4-1
	Figure 4-2: Fan Ramp	4-3
	Figure 4-3: Combined Directional Ramp	4-3
	Figure 4-4: Accessibility Evaluation Categories Map (updated with supplemental data through 2021)	. 4-11
	Figure 4-5: Intersection Score Calculation Example	. 4-12
	Figure 4-6: Map of Non-City Intersections	. 4-14
	Figure 4-7: Map of Intersection Priority Tiers (updated with supplemental data through 2021)	. 4-16



	Figure 4-8: Accessible Pedestrian Signal (APS) Push Button	4-17
	Figure 4-9: Pedestrian Signal Head	4-17
	Figure 4-10: Tree Grate in Sidewalk	4-18
	Figure 4-11: Uneven Sidewalk	4-18
	Figure 4-12: Zebra "Continental" Marked Crosswalk	4-19
	Figure 4-13: Unmarked Crosswalk	.4-19
Ch	apter 5: Implementation	5-1
	Figure 5-1: Department of Justice Definition on Maintenance versus Alterations for Asphalt and Concrete Resurfacing Projects	5-3
	Figure 5-2: Pedestrian Curb Ramp Reconstruction by Funding Source	5-6
Α	ppendix A	A-1
	Figure A-1: Summary of Milestone Progress by Current Status	A-2
	Figure A-2: Example of Manual Data Collection	A-3
	Figure A-3: Staff Demonstrating Data Collection Process with Tablet-based Method	A-4
	Figure A-4: Consultant Staff Demonstrating the GPS/GIS-based Collection Tool	A-4
	Figure A-5: Example of SEGWAY Used to Collect Data	A-4
	Figure A-6: Example of Data Collection Cart	A-5
	Figure A-7: GIS Output Showing Processed LIDAR Data Depicting Compliant and Non-Compliant Sections of Sidewalks and Crossings	A-5
A	ppendix B	B-1
	Figure B-1: Summary of Milestone Progress by Current Status	B-2
	Figure B-2: APS Data Collection Survey Questions Used for Improved Compliance Tracking	B-4



List of Tables

Executive Summary	E-1
Table E-1: Recommendations	E-4
Chapter 1: ADA Transition Planning in the City of Minneapolis	1-1
Table 1-1: ADA Transition Plan Elements	1-2
Chapter 2: Community Engagement	2-1
Table 2-1: Number of Responses and Disability Types	2-3
Chapter 3: Self-Evaluation	3-1
Table 3-1: Summary of Existing Curb Ramp Trend	3-7
Table 3-2: Data Availability of Pedestrian Curb Ramp Features	3-8
Chapter 4: Infrastructure Prioritization	4-1
Table 4-1: Accessibility Evaluation Framework for Pedestrian Curb Ramps	4-4
Table 4-2: Equity Criteria	4-5
Table 4-3: Pedestrian Curb Ramp Accessibility Evaluation Distribution (2012-2017 Per Ramp Inventory with supplemental data through 2021)	
Table 4-4: Corner-Level Accessibility Evaluation Distribution for Pedestrian Curb Ram Pedestrian Curb Ramp Inventory with supplemental data through 2021)	
Table 4-5: Intersection-Level Accessibility Evaluation Distribution for Pedestrian Curb 2017 Pedestrian Curb Ramp Inventory with supplemental data through 2021)	
Table 4-6: Pedestrian Ramp Data, Prioritization, and Funding Status of Intersections I	,
Table 4-7:Intersection Priority Tiers	4-15
Chapter 5: Implementation	5-1
Table 5-1: Capital Programs Used to Implement Accessible Infrastructure	5-1
Table 5-2: Ramp Types and Desirability	5-7
Table 5-3: Recommendations	5-8
Appendix A: 2022 Update	A-1
Table A-1: Recommendation Progress Summary and Revised Timelines	A-8
Appendix B: 2024 Update	B-1





Executive Summary

Figure E-1: Signalized intersection with Accessible Pedestrian Signal (APS) and pedestrian pushbuttons



LEGISLATIVE MANDATE

Enacted in 1990, the Americans with Disabilities Act (ADA) is a civil rights law that prohibits discrimination on the basis of disability and mandates equal opportunity for individuals with disabilities. The City of Minneapolis is obligated to observe all requirements of Title II of the ADA in its policies, practices, services, programs and activities. Title II requires state and local governments with 50 or more employees to develop a Transition Plan to "identify physical obstacles in the public entity's facilities that limit the accessibility of its programs or activities to individuals with disabilities; describe in detail the methods that will be used to make the facilities accessible; and specify the schedule for taking the steps necessary to achieve compliance with this section" (28 CFR § 35.150)1.

MINNEAPOLIS PLANNING GUIDANCE

In 1993, the City of Minneapolis completed and published its ADA Self-Evaluation and Transitional Plan with a focus on improving access to owned

1 https://www.ada.gov/regs2010/titleII_2010/ titleII_2010_regulations.htm and leased facilities supporting government programs, services and activities. In 2012, Public Works developed the <u>Draft ADA Transition</u>

<u>Plan for Public Works</u>² to address programs, policies, procedures, maintenance practices and infrastructure in the City's public right of way. The 2012 Transition Plan led the City to complete an inventory of pedestrian curb ramps and to improve access in the public right of way.

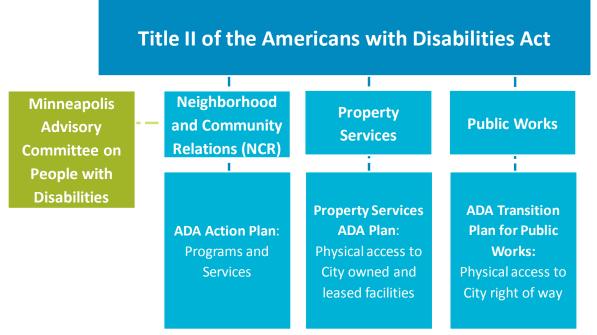
In 2015, the City elected to renew its commitment to the ADA through the development of the ADA Action Plan³, a comprehensive policy document for the City of Minneapolis. The ADA Transition Plan for Public Works (Transition Plan) is one component of the ADA Action Plan and replaces the 2012 Draft ADA Transition Plan for Public Works. The ADA Action Plan also includes the Property Services ADA Plan, which outlines enhancements for spaces that are owned or leased by the City of Minneapolis.



² http://www.minneapolismn.gov/www/ groups/public/@publicworks/documents/ images/wcms1p-093904.pdf

³ http://www.minneapolismn.gov/ncr/services/ WCMSP-183897

Figure E-2: ADA Planning at the City of Minneapolis



The City of Minneapolis is strongly committed to assuring that City programs, services, information and spaces are accessible to its residents and visitors.

CITY OF MINNEAPOLIS ADA ACTION PLAN

The ADA Transition Plan for Public Works is updated regularly to further the City's commitment to the ADA, address emerging demographic and population needs, and support and integrate with other planning efforts.

- This Transition Plan works in conjunction with the ADA Action Plan to address accessibility needs and priorities within the City of Minneapolis' public right of way. The intent of this Transition Plan update is to further the City's commitment to accessibility by identifying accessibility barriers, establishing priorities for improvements, and developing an implementation plan for removing accessibility barriers in the City's public right of way.

Minneapolis residents who are over the age of 65 have a disability⁴. Implementing accessible infrastructure benefits all residents, particularly people with disabilities and an aging population.

Support other planning efforts: This Transition Plan is intended to be a living document that will act as the foundation for other complementary and ongoing planning efforts in the City of Minneapolis. The Minneapolis Transportation Action Plan highlights the needs of pedestrians including people with disabilities. The Vision Zero Action Plan addresses transportation-related safety concerns throughout the city, including those of the disability community and of more vulnerable users such as people walking or biking. Through these and other planning processes, the Public Works Department has laid out a series of priorities, policies, and approaches to address a variety of issues that impact the accessibility of City streets and sidewalks.

and that more than one in three

4 U.S. Census Bureau, 2017-2021 American
Community Survey



TRANSITION PLAN OVERVIEW

The following Transition Plan chapters provide a path forward for improving access in the public right of way for residents and visitors:

- Chapter 1: ADA Transition Planning in the City of Minneapolis. This chapter describes the federal mandate for ADA Transition Plans and describes how this plan meets that mandate for the City of Minneapolis.
- Chapter 2: Community Engagement. This chapter describes the goals, approach, and findings from the community engagement that was conducted for the ADA Transition Plan for Public Works. This engagement influenced the process and recommendations of this and other plans concurrently developed in the City including the Vision Zero Action Plan and the Transportation Action Plan.
- Chapter 3: Self-Evaluation. This chapter describes the current programs, policies, and procedures in place to design, implement, and maintain accessible infrastructure. This chapter also describes the collected data and analysis process used to evaluate whether infrastructure meets accessibility standards and guidelines.
- Chapter 4: Prioritization. This chapter describes the framework for how infrastructure will be programmed for improvements. Prioritization will be based on accessibility criteria as described in the Self-Evaluation (Chapter 3) and equity as defined in the 20 Year Street Funding Plan⁵.
- Chapter 5: Implementation. This chapter describes how and when the improvements will be made to remove barriers and improve access within the City of Minneapolis public right of way.
- Appendix A. This appendix serves to cover any updates and infrastructure improvements made from the time the 2020 ADA Transition Plan was adopted through 2021. This appendix was created for the 2022 update.

 Appendix B. This appendix picks up where Appendix A ends and describes any updates and infrastructure improvements made since the 2022 ADA Transition Plan Update. This appendix was created for the 2024 update.

Technical documentation supplements the information summarized in the chapters.

Supplemental Materials: Inventory Data.
 Data on over 18,000 infrastructure features are kept in an electronic format. This data will be updated periodically as infrastructure is updated and additional data is collected.

PLAN RECOMMENDATIONS

Recommendations for improving access in the public right of way through policies, practices, services, programs and activities are included in the Chapters and summarized in Chapter 5.

The Transition Plan includes twenty recommendations to improve access in the public right of way (Table E-1). These recommendations are not all-inclusive of improvements made through routine construction projects and other policies, programs and practices. Recommendations summarized here are listed by category and in chronological order within each category. Each recommendation's ID corresponds with the order they are discussed in the previous chapters of the report. They are not listed in order of priority or importance.

⁵ https://www2.minneapolismn.gov/government/ departments/public-works/tpp/20-year-plan/



Table E-1: Recommendations

CATEGORY	ID	RECOMMENDATION	TIMELINE AND MILESTONES
Pedestrian Curb Ramps	3.1	Modify the pedestrian curb ramp in-field data collection application to holistically collect all necessary information on pedestrian curb ramps	Complete updates to the data collection process (2020)
Pedestrian Curb Ramps	4.2	Inventory pedestrian curb ramps at intersections with no ramp data (approx. 50 intersections)	 Collect inventory on intersections with no pedestrian curb ramp data after new data collection app is finished (2021) and incorporate into prioritization list
Pedestrian Curb Ramps	4.3	Install pedestrian curb ramps where ramps are missing as intersections are programmed and designed for improvement	Ongoing
Pedestrian Curb Ramps	5.1	Incorporate pedestrian curb ramp construction in the asphalt resurfacing program (PV056) and concrete rehabilitation program (PV108)	Ongoing
Accessible Pedestrian Signals (APS)	3.2	Evaluate Accessible Pedestrian Signals (APS) inventory data and incorporate results into Infrastructure Status section of ADA Transition Plan	 Digitize and analyze inventory data on Accessible Pedestrian Signals (APS) (2020) Incorporate findings into ADA Plan (2021)
Accessible Pedestrian Signals (APS)	3.3	Compare Accessible Pedestrian Signal (APS) data collected to current ADA and Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD) criteria to identify any additional elements to collect and incorporate results into ADA Transition Plan	 Identify data collection improvements for Accessible Pedestrian Signals (APS) (2020) Incorporate findings into ADA Plan (2022) Develop approach to collect additional data if needed (2022)
Accessible Pedestrian Signals (APS)	4.4	Prioritize locations in need of improvement for Accessible Pedestrian Signals (APS) and incorporate results into Prioritization chapter of ADA Transition Plan	 Apply prioritization methodology to Accessible Pedestrian Signal (APS) data and incorporate into Chapter 4 of the ADA Plan (2025)
Accessible Pedestrian Signals (APS)	5.5	Update the timeline and anticipated cost for installing or correcting Accessible Pedestrian Signals (APS)	 Update intersection cost estimates for signalized intersections in need of Accessible Pedestrian Signal (APS) improvements (2025)
Sidewalks and Street Crossings	3.4	Supplement existing data on sidewalks and street crossings by completing a sidewalk and street crossing inventory	 Scope data collection and evaluation pilot into capital project development (2020) Pilot data collection process and evaluation methodology and incorporate into Chapter 3 of the ADA Plan (2021) Establish process for collecting data citywide based on results of pilot (2025-2026)



CATEGORY	ID	RECOMMENDATION	TIMELINE AND MILESTONES
Sidewalks and Street Crossings	4.5	Using new data from inventorying sidewalks, prioritize sidewalk and street crossings barriers using the prioritization framework described in Chapter 4	Prioritize identified barriers for improvement (2027-2028)
Sidewalks and Street Crossings	5.6	Establish an anticipated timeline and cost for addressing sidewalk and street crossing barriers	 Develop an anticipated timeline and cost estimates for addressing sidewalk and street crossing barriers (2027-2028)
Sidewalks and Street Crossings	5.2	Evaluate sidewalk and street crossing data to guide the development of a funding mechanism and/or approach for addressing sidewalk and street crossing barriers if needed	 Update City specifications (annually beginning in 2027) Evaluate need for additional resources (2025-2026)
All Infrastructure	5.3	Improve the mechanism for tracking, inspecting and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all citymanaged or built infrastructure is built according to city specifications, ADA Standards and in alignment with Minneapolis design guidelines	 Update City specifications (annually) Evaluate need for additional resources
All Infrastructure	5.4	Report on improvements to pedestrian curb ramps, Accessible Pedestrian Signals (APS), sidewalks and street crossings annually and update inventories	 Ongoing annually through the "Your City, Your Streets Progress Report" to the Climate & Infrastructure Committee (C&I) and NCR's "ADA Action Plan Report" to the Public Health and Safety Committee (PHS)
Prioritization	4.1	Update the equity component of infrastructure prioritization as the 20 Year Streets Funding Plan is updated	Ongoing (update starting in 2024)
Programs, Policies and Procedures	3.5	In collaboration with 311 and the Neighborhood and Community Relations Departments, evaluate adding an option on the 311 interface for the public to indicate whether a concern is related to accessibility	 Evaluate adding option to indicate access issue (2020) Update software and user testing (2020-2021)
Programs, Policies and Procedures	3.6	Continue to expand departmental knowledge and expertise of ADA topics by attending trainings and classes	Ongoing
Programs, Policies and Procedures	3.7	Review and update existing policies and practices for pedestrian detour design and enforcement annually in coordination with additional direction in the Transportation Action Plan	 Align pedestrian detour design specifications with MNMUTCD standards (annually) Additional changes proposed in Transportation Action Plan (2020)



CATEGORY	ID	RECOMMENDATION	TIMELINE AND MILESTONES
Programs, Policies and Procedures	3.8	Continue to monitor issues and feedback received on parking and operations for scooter, bike share and/or other micromobility options and evaluate the need for program improvements	 Designate additional parking locations for scooter, bike share and/or other micromobility options (Ongoing) Increase and simplify communications on where to park and where to ride (Ongoing) Increase enforcement of micromobility businesses and users (Ongoing) Review and make program improvements (Ongoing)
Programs, Policies and Procedures	3.9	Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by Minneapolis Ordinance 445 and the Pedestrian and Bicycle Winter Maintenance Study; explore modifications to improve access to the public right of way through additional direction in the Transportation Action Plan	 Additional funding allocated for snow and ice corner clearing (2020) Additional improvements proposed in Transportation Action Plan (2020)

ANTICIPATED SCHEDULE

Many process and programmatic improvements are expected to be completed in the next few years, as detailed in *Table E-1*. Infrastructure improvements to pedestrian curb ramps are expected to be complete within 13-17 years at an estimated cost of \$401 million dollars (2024) dollars). Note that this cost estimate is based on the work completed since the adoption of the 2020 plan and current material costs without inflation. Additional information on the anticipated costs and schedules for addressing traffic signals, sidewalks and street crossings will be provided as those inventories are updated and evaluated. This plan, including any corresponding appendices and supplemental materials, is a living document and will be updated periodically as additional inventories are collected and deficient infrastructure in the public right of way is addressed. As part of the Transportation Action Plan (Walking Action 5.7), Public Works is committed to conducting a review of the ADA Transition Plan on a biennial basis to evaluate progress and suggest plan updates in pursuit of improved compliance.



CHAPTER 1

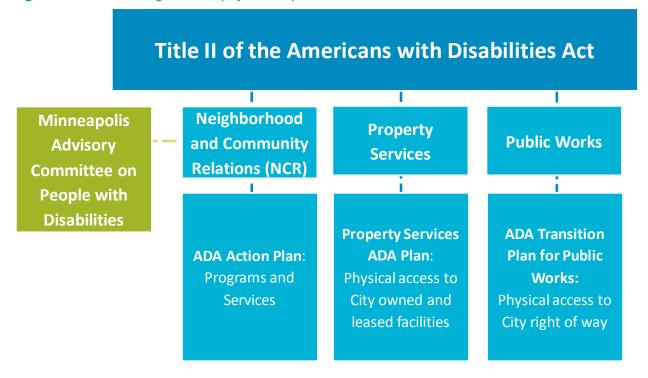
ADA Transition Planning in the City of Minneapolis

The City of Minneapolis is committed to ensuring that City programs, services, information, infrastructure and spaces are accessible to its residents and visitors.

The Americans with Disabilities (ADA) Transition Plan for Public Works (Transition Plan) is a separate, supporting plan that informs the ADA Action Plan. The ADA Action Plan is the City's comprehensive policy document that addresses citywide programs and services and fulfills Title II legal requirements. The Transition Plan works in conjunction with the ADA Action Plan to address accessibility needs and priorities within the City of Minneapolis' public right of way. The public right of way typically includes the sidewalk, boulevard and street.

The intent of this Transition Plan is to further the City's commitment to accessibility by identifying accessibility barriers, establishing priorities for improvements, and developing an implementation plan for removing accessibility barriers in the City's public right of way.

Figure 1-1: ADA Planning at the City of Minneapolis





ADA Transition Plan: Requirements and Process

Over the last five decades, state and federal regulators have enacted increasingly comprehensive protections for people with disabilities. These policies and standards form the foundation for accessibility policies at the local level.

LEGISLATIVE MANDATE

Enacted in 1990, the Americans with Disabilities Act (ADA) is a civil rights law that mandates equal opportunity for individuals with disabilities. Disability is defined by the ADA as a physical or mental impairment that substantially limits one or more major life activities, a person who has a history or record of such an impairment, or a person who is perceived by others as having such an impairment. The ADA prohibits discrimination based on disability in access to jobs, government services, public transportation, public accommodations, and telecommunications. There are five titles of the ADA including:

- Title I: Employment
- Title II: State and Local Government

- Title III: Public Accommodations and Commercial Facilities
- Title IV: Telecommunications Relay Services
- Title V: Miscellaneous Provisions

The City of Minneapolis is obligated to observe all requirements of Title I in its employment practices; Title II in its policies, practices, services, programs, and activities; and any parts of Titles IV and V that may apply to the City. Title III covers activities in places of public accommodations and requires newly constructed or altered places of public accommodations to comply with the ADA Standards.

Title II requires state and local governments with 50 or more employees to identify and remove physical and programmatic barriers in order for people with disabilities to equally access and benefit from an agency's programs, services and activities. *Table 1-1* lists the federal requirements of every Transition Plan and where each of those elements can be found in this Transition Plan. This document addresses the requirements of Title II of the ADA with respect to accessibility within the public right of way.

Table 1-1: ADA Transition Plan elements

REQUIRED ELEMENT	LOCATION IN THIS TRANSITION PLAN
A designation of at least one (1) person, known as the ADA Coordinator, who is responsible for overseeing Title II compliance	Chapter 1
A component of public outreach	Chapter 2
A Self-Evaluation in which barriers to accessibility are inventoried	Chapter 3
A grievance procedure for documenting and responding to accessibility concerns raised by the public	Chapter 3
A prioritization methodology for the removal of barriers	Chapter 4
A schedule for the implementation of accessibility improvements, including a plan to remove barriers and monitor the progress and schedule of barrier removal	Chapter 5

Key Players in Federal Governance of ADA Regulations

ADA regulations governing state and local government services and public accommodations are federally enforced by the United States Department of Justice (DOJ), while the United

States Department of Transportation (USDOT) is legally obligated to implement compliance procedures relating to transportation. The Federal Highway Administration (FHWA) oversees the USDOT requirements in these areas to ensure pedestrians have the opportunity to use the



transportation system in an accessible and safe manner. The U.S. Access Board is a federal agency that promotes equality and inclusion of people with disabilities by creating accessibility guidelines and standards for the built environment, transit vehicles, telecommunications equipment, medical diagnostic equipment, and information technology.

Guidance & Criteria in Federal Governance of ADA Regulations

The most recent standard¹ is the 2010 ADA Standards for Accessible Design, which sets the minimum requirements – both scoping and technical – for newly designed and constructed or altered State and local government facilities, public accommodations, and commercial facilities to be readily accessible to and usable by individuals with disabilities. It is effectuated from 28 CFR 35.151 and the 2004 Americans with Disabilities Act Accessibility Guidelines (ADAAG). The Federal Highway Administration (FHWA) and Department of Justice (DOJ) have recommended using the Proposed Guidelines for Pedestrian Facilities in the Public Right of way (PROWAG) for designing and constructing facilities within the public rights of way as a best practice for accessibility issues in the public right of way not covered by the Department of Justice's or the Department of Transportation's currently adopted standards. The Manual on Uniform Traffic Control Devices (MUTCD) is also incorporated by reference within PROWAG. The City of Minneapolis follows the 2010 ADA Standards for Accessible Design and looks to PROWAG for guidance on how to supplement the 2010 ADA Standards.

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

The Department of Justice's revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 (ADA) were published in the Federal Register on September 15,

2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design, "2010 Standards." On March 15, 2012 compliance with the 2010 Standards was required for new construction and alterations under Titles II and III. March 15, 2012, is also the compliance date for using the 2010 Standards for program accessibility and barrier removal.

PROPOSED GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY (PROWAG)

The U.S. Access Board is developing new guidelines for the public right of way. The Access Board released proposed guidelines for the public right of way in 2002, 2005 and 2011. The 2011 Proposed Guidelines for Pedestrian Facilities in the Public Right of Way (PROWAG) includes guidance on many pedestrian network features, including sidewalks, pedestrian street crossings, pedestrian signals, and other facilities for pedestrian circulation and use within the public right of way. The public comment period for the proposed guidelines closed in 2012. The Board's aim in developing these guidelines is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered. It is expected guidelines for the public right of way will be adopted at some point in the future. Once the Access Board completes its rulemaking, the DOJ and DOT will need to adopt the guidelines into their respective ADA and Section 504 regulations, at which point they will be established as enforceable standards under Title II of the ADA. On August 8th, 2023, the U.S. Access Board published its final rule for PROWAG in the Federal Register. This final rule has not yet been adopted by the Department of Transportation (DOT)/Federal Highway Administration (FHWA) and the Department of Justice (DOJ). Adoption for the PROWAG final rule is anticipated for 2024.

¹ If the start date for construction is on or after March 15, 2012, all newly constructed or altered State and local government facilities must comply with the 2010 ADA Standards for Accessible Design. Before that date, the 1991 Standards (without the elevator exemption), the Uniform Federal Accessibility Guidelines, or the 2010 ADA Standards may be used for such projects when the start of construction commences on or after September 15, 2010.



MUTCD

PROWAG aligns with the Manual on Uniform Traffic Control Devices (MUTCD). Traffic control devices are defined as all signs, signals, markings, and other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, highway, pedestrian facility, bikeway, or private road open to public travel by authority of a public agency or official having jurisdiction, or, in the case of a private road, by authority of the private owner or private official having jurisdiction. The Manual on Uniform Traffic Control Devices is incorporated by reference in 23 Code of Federal Regulations (CFR), Part 655, Subpart F and is recognized as the national standard for all traffic control devices installed on any street, highway, bikeway, or private road open to public travel in accordance with 23 U.S.C. 109(d) and 402(a). The policies and procedures of the FHWA to obtain basic uniformity of traffic control devices is described in 23 CFR 655, Subpart F. The latest edition of the MUTCD was released December 2023.

City of Minneapolis Approach

MINNEAPOLIS ADA PLANS

In accordance with Title II of the ADA, the City of Minneapolis has undertaken a comprehensive evaluation of its policies, programs, and services to ensure the inclusion of people with disabilities.

- In 1993, the City of Minneapolis completed and published its ADA Self-Evaluation and Transitional Plan. As part of this effort, the City conducted a physical assessment of City-owned buildings and leased spaces for compliance.
- In 2012, the Public Works Department developed the Draft ADA Transition Plan for Public Works that addressed the department's policies, programs, and infrastructure within the public right of way, including pedestrian curb ramps, sidewalks, and Accessible Pedestrian Signals (APS) at traffic signals.
- In 2013, an inventory of pedestrian curb ramps in Minneapolis' public right of way was completed.

- In 2015, the Neighborhood and Community Relations (NCR) Department conducted an evaluation of policies, programs, services and activities. This evaluation identified the Director of the Neighborhood and Community Relations Department (or their designee) as the City of Minneapolis ADA Title II Coordinator. This coordinator manages ADA Title II enforcement and compliance within the City's operations, policies and procedures. At the same time as that evaluation, the Finance and Property Services Department completed an ADA assessment of City-owned and leased buildings. This plan is called the Property Services ADA Plan.
- In 2016, the NCR Department developed an ADA Action Plan, which is a comprehensive policy document designed to enhance the City of Minneapolis' programs and services and ensure compliance with the ADA. The ADA Action Plan was approved by City Council in December 2016 and included the Finance and Property Services ADA Transition Plan.
- This document the ADA Transition Plan for Public Works – focuses on the infrastructure within the public right of way, identifies the improvements needed to that public infrastructure, and outlines the priorities, costs, and schedule for addressing the needed improvements.

All of the described Minneapolis ADA Plans are critical to comprehensive ADA compliance for City facilities, programs, services, and activities.

PUBLIC WORKS' ADA VISION AND APPROACH

The City's vision for accessibility is set by the ADA Action Plan:

The City of Minneapolis is strongly committed to assuring that City programs, services, information and spaces are accessible to its residents and visitors.

CITY OF MINNEAPOLIS ADA ACTION PLAN



This Transition Plan update is a crucial step in creating a more accessible and welcoming environment for users of all ages and abilities on our public streets. The Public Works department, through its nine divisions and in coordination with other City departments, strives to create an equitable environment for all; removing accessibility barriers in the public right of way is a priority for the City.

In addition to furthering the City's commitment to the ADA, this Transition Plan is being updated to address emerging demographic and population needs and support and integrate with other planning initiatives.

Address Emerging Demographic Needs

The U.S. Census Bureau estimates that 11% of Minneapolis residents – more than one of every ten people – have a disability, and that more than one in three Minneapolis residents who are over the age of 65 have a disability (2017-2021 American Community Survey). Implementing accessible infrastructure benefits all residents, particularly the disability community and an aging population.

Connection between the Transportation Action Plan and This Transition Plan

This Transition Plan is intended to be a living document that will act as the foundation for other complementary and ongoing planning efforts in the City of Minneapolis.

The City's Transportation Action Plan development began in 2018 and the plan was adopted by City Council in late 2020. The Transportation Action Plan identifies specific actions to undertake through 2030 to implement the transportation goals and policies articulated in Minneapolis 2040,² the City's Comprehensive Plan. Additionally, the Transportation Action Plan supports the City's Complete Streets Policy, Vision Zero Commitment, Climate Action Plan goals, and commitment to equity.

Through this Transition Plan and the Transportation Action Plan, the City addresses a

variety of issues that impact the accessibility of City streets and sidewalks, and lays out a series of priorities, policies and approaches to identify and remove barriers in the public right of way.

Other Parallel Initiatives

Additionally, parallel initiatives work in tandem to provide a welcoming space for all residents, employees, and visitors. The following topics related to livability are being addressed in parallel plans within Public Works:

- The City of Minneapolis Street Light Policy:
 - Updated in 2015, the Street Light Policy supports the City's efforts to provide livable communities and foster urban development. The policy provides clear guidance to elected officials, residents, developers, and the Department of Public Works on all aspects of installation and maintenance for the street lighting system. Pedestrian lighting is included with all street reconstruction projects as part of the capital project costs. As part of the Transportation Action Plan (Walking Action 3.1), the Street Lighting Policy is anticipated to be updated by 2023.
- Minneapolis Pedestrian and Bicycling Winter Maintenance Study:
 - The 2018 study identified alternative winter maintenance options to enhance the quality and consistency of clearing snow and ice from sidewalks and bikeways, to improve safety, accessibility and mobility for people who walk, bike, and use transit facilities in Minneapolis. The study provided a framework for continued conversations with members of the community, interested stakeholders, and policymakers. The study includes information, data and implementation cost considerations for pedestrian and bicycle winter maintenance practices so the City can determine opportunities for continued improvement. As part of the Transportation Action Plan (Walking

² https://minneapolis2040.com



Action 4.11) Public Works is committed to conducting a review and update of the Pedestrian and Bicycling Winter Maintenance Study on a biennial basis.

- Transit stops, streets and intersections under other jurisdictions:
 - The infrastructure evaluation in this Transition Plan is complemented by ADA Transition Plans from other agencies such as the Metropolitan Council, Hennepin County, and the Minnesota Department of Transportation (MnDOT)³.

Jurisdictional Responsibilities for Building and Repairing ADA Infrastructure

There are many public pieces of infrastructure in the City of Minneapolis that are built, owned, and repaired by other agencies. Coordination is required when public right of way within another agency's jurisdiction intersects City streets. *Figure 1-2 through Figure 1-4* provide typical examples of jurisdictional responsibility where another agency's right of way or land intersects City of Minneapolis right of way. Generally, the higher agency assumes responsibility for the street, including sidewalks, crosswalks, traffic signals and pedestrian curb ramps.

Figure 1-2: ADA infrastructure jurisdiction for Minneapolis Parks and Recreation Board* **



Figure 1-3: ADA infrastructure jurisdiction for Hennepin County* **



³ Other agency ADA Transition Plans are available at https://www.hennepin.us/adaplan, and https://www.hennepin.us/adaplan, and https://www.hennepin.us/adaplan, and https://www.dot.state.mn.us/ada/pdf/mndotadatransitionplan.pdf



^{*}This is a general example and may not be the case for all similar intersections.

^{**}Includes building and repairing ADA infrastructure in the public right of way often including but not limited to pedestrian curb ramps, street crossings, and traffic signals. Sidewalks are the responsibility of the adjacent property owner.

Figure 1-4: ADA infrastructure jurisdiction for Minnesota Department of Transportation* **



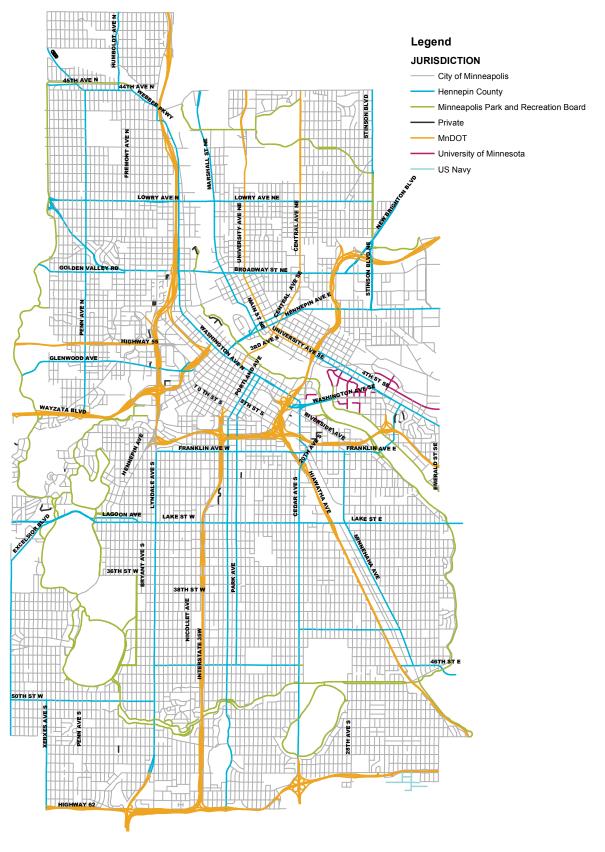
- Streets: Figure 1-5 shows the jurisdiction of streets in the City of Minneapolis as of November 2019. When the right of way of two agencies intersect, the higher agency retains control and jurisdiction of the corresponding intersection. In locations where City of Minneapolis right of way intersects with Minneapolis Parks and Recreation Board streets, trails or parkways, Minneapolis Parks and Recreation Board retains jurisdiction.
- Pedestrian curb ramps: Traditionally, all pedestrian curb ramps at an intersection have been built and repaired by the agency that retains control of the intersection.
- Crosswalks: Marking and repairing crosswalk areas at street crossings are the responsibility of the controlling agency.
- Sidewalks: In Minneapolis, sidewalks are the responsibility of the adjacent property owner (Minneapolis Ordinance 427.90). This responsibility includes construction, repair and maintenance of sidewalks. The City of Minneapolis inspects and orders repairs for damaged sidewalk across the City including sidewalk within other agencies' right of way. Dictating changes to the sidewalk such as widening or correcting cross slope is the responsibility of the agency who controls the right of way.

- Traffic Signals: The traffic signal infrastructure, including accessible pedestrian signals, are owned by the agency that controls the right of way, but traffic signals in Minneapolis are operated by the City of Minneapolis.
- Boulevard trees: Trees in the green space or in tree grates between the sidewalk and the street within the right of way are the responsibility of the Minneapolis Park and Recreation Board.
- Transit Stops and Stations: Transit infrastructure in the public right of way, such as bus stops or METRO stations, is owned by the Metropolitan Council.

Although infrastructure not owned, built or repaired by the City of Minneapolis is not evaluated or prioritized in this Transition Plan, coordination with those agencies will be crucial for the successful implementation of improvements and the removal of barriers citywide. The City will use this plan to further coordination opportunities and share best practices between agencies.



Figure 1-5: Jurisdictional street responsibility in the City of Minneapolis





Update Process

This plan, including any corresponding appendices and supplemental materials, is intended to be a living document and will be regularly reviewed to evaluate progress and suggest plan updates in pursuit of improved compliance within the public right of way (see <u>Walking Action 5.7</u>, <u>Transportation Action Plan</u>).



CHAPTER 2

Community Engagement

Public engagement is a crucial element of ADA Transition Planning. Public Works conducted community engagement over the spring, summer, and fall of 2018 to identify accessibility barriers and develop priorities for improving cityowned infrastructure in the public right of way. Perspectives from people with disabilities were sought after to collect input from those most directly impacted by non-accessible infrastructure. Public Works also met with other agency partners

to share feedback and best practices and to identify opportunities for coordination.

Engagement Approach

STAKEHOLDER GROUPS

Three groups of key stakeholders were identified for the ADA Transition Plan. These groups all had an integral role in guiding the development of the Transition Plan.

Figure 2-1: *Stakeholder groups*

MINNEAPOLIS ADVISORY COMMITTEES

Minneapolis residents or business owners appointed by City Council to advise the Mayor and City Council on various policies, programs, and actions

Three advisory committees were consulted:

- Minneapolis Advisory Committee on People with Disabilities (MACOPD)
- Minneapolis Pedestrian Advisory Committee (PAC)
- Minneapolis Committee on Aging (MACOA)

USER GROUPS AND INDIVIDUALS

Minneapolis residents, business owners, non-profits, or other advocacy groups with missions pertinent to accessible use of public right of way

Over a dozen user groups were invited to participate in the Plan update:

- ARC Greater Twin Cities
- Autism Society of Minnesota
- Blind Inc.
- CanDo Canines
- Commission of Deaf, Deaf-Blind & Hard of Hearing Minnesotans
- Direct Support Professional Association of Minnesota (DSPAM)
- Epilepsy Foundation of Minnesota
- Minneapolis Highrise Representative Council
- Minneapolis Public Schools
- Minnesota Consortium for Citizens with Disabilities
- Minnesota Organization on Fetal Alcohol Syndrome
- Metropolitan Area on Aging
- Our Streets Minneapolis
- Project for Pride in Living (PPL)
- Twin Cities Adaptive Cycling
- Vision Loss Resources

PARTNER AGENCIES

Other governmental agencies with right of way in Minneapolis and parallel Transition Plans

Key ADA staff from various partner agencies were engaged:

- Minneapolis Parks and Recreation Board (MPRB)
- Metro Transit
- Hennepin County
- Minnesota Department of Transportation (MnDOT)



Minneapolis Advisory Committee Purpose and Process: In early 2018, Minneapolis staff introduced the intent to update the Draft 2012 ADA Transition Plan for Public Works to the Advisory Committees and solicited feedback on the scope of the Plan. These committees provided input on barriers and priorities to highlight in the Plan, shared ideas on user groups and individuals to engage during the planning process, and helped promote engagement opportunities during the Transition Plan update process. The Advisory Committees were provided an opportunity to provide feedback during both the 2022 and 2024 ADA Transition Plan updates.

Partner Agency Purpose and Process:

Minneapolis staff met individually with partner agencies to learn about their efforts related to ADA infrastructure and programs and to identify opportunities to better coordinate on ADA improvements.

User Groups and Individuals Purpose and Process: Feedback on mobility challenges from user groups and individuals was captured via in-person meetings as well as through an online survey posted on the Public Works' ADA Transition Plan website. A list-serv collection tool hosted by GovDelivery was also set up to provide an opportunity for interested individuals to sign up for project updates.

PUBLIC ENGAGEMENT OPPORTUNITIES

In addition to the feedback from the three groups of key stakeholders, general public feedback was gathered for this Transition Plan through a survey and through an open house. Both the survey and the open house were promoted through the key Minneapolis Advisory Committees, identified User groups, interested project contacts, Minneapolis social media channels (Facebook, Twitter, and NextDoor), and the City of Minneapolis' news website.

Survey

Process: A survey was developed in May 2018 to solicit input on barriers and priorities. The survey was available on the Public Works' ADA Transition Plan website and could be completed through an online screen-reader friendly version and by downloading to print as a paper version. Survey promotion continued through August 2018 and was available at the open house.

Responses: Between June and August 2018, 313 people responded to the survey and contributed 472 unique comments.

Open house

Process: An open house was held on June 25, 2018 at the Minneapolis Central Library. At the open house, staff presented and had project boards available on the history of the ADA, an overview of Minneapolis' ADA structure, and types of infrastructure in the public right of way. Paper copies and a digital tablet version of the survey were available at the event, and staff led discussions on identifying barriers and priorities for removing barriers in the public right of way.

Attendance: Approximately 20 people attended the open house.



Engagement Results

KEY THEMES

Several key themes emerged from community engagement. While these themes are largely derived from the comments of people who identified as someone with a disability, several themes were reiterated by people who did not identify as someone with a disability.

- Prioritizing improvements where conditions are worst is strongly supported; infrastructure in poor condition should be fixed before infrastructure that is in better condition
- Sidewalks present challenges more frequently than other infrastructure
- Maintenance-related and temporary obstructions were perceived as a common barrier across all infrastructure types, such as snow and ice, overgrown bushes, sidewalk cafes and construction signage and detours
- Sightline issues at pedestrian curb ramps between vehicle drivers and pedestrians were a common barrier for people with disabilities and people without disabilities
- Collaboration with other jurisdictions and agencies to remove accessibility barriers is crucial to providing citywide accessibility
- Street design, especially related to emerging designs require further discussion (e.g., shared streets, tabled intersections, protected bikeway design and integration, roundabouts, and boulevard design)

More information on these themes and on common barriers for each type of infrastructure is described in the following section.

WHO DID WE HEAR FROM?

Survey participants were asked to describe whether they identify as someone with a disability to better understand the needs of people with disabilities. Unless specified, all findings and comments are from people who identified as someone with a disability.

Disability Community Representation

The survey received 313 responses: 178 (61%) participants responded they identified as someone with a disability and 116 (39%) participants identified as someone without a disability. 19 people did not answer this question.

Table 2-1: Number of responses

SURVEY RESPONSES	NUMBER OF RESPONSES	PERCENT OF TOTAL
Person with a disability	178	57%
Person without a disability	116	37%
No answer	19	6%

There are many different types of disabilities. Survey respondents were asked to identify as many categories of disability as was applicable to them so that staff could understand which voices were being heard.

Of those participants who responded as having a disability:

DISABILITY TYPE	PERCENT OF TOTAL
Reported having a physical disability	83%
Reported having a vision-related disability	30%
Reported having a hearing-related disability	17%
Responded that they had a cognitive and/or sensory-related disability	15%
Selected "Other" and provided a description. These descriptions included anxiety, Asperger's, autism, balance, chronic pain, developmental, epilepsy, Post Traumatic Stress Disorder (PTSD), mental health, and not able to walk or difficulties with walking	16%



"Being confined to a wheelchair in Minneapolis is very challenging. It destroys my confidence every day. I feel very confined unless my aide is with me to help with the obstacles. In winter, I'm resigned to staying in the house unless my aide drives me."

--SURVEY PARTICIPANT

ACCESSIBLE INFRASTRUCTURE IS SUPPORTED AND USED BY ALL

Several respondents who did not identify as having a disability specified that they are related to or can sympathize with the disability community in some way:

- they are a caretaker of someone with a disability
- they are aging and have difficulty with muscle strength and balance
- they are temporarily injured or have had a disability in the past
- they have or had young children and found that pushing a stroller presented new challenges when navigating the public right of way

Accessible infrastructure was important for the majority of participants. Many comments received from outside the disability community strongly supported accessible infrastructure.

"I'm not disabled, but I am aging-with the expected decline in hearing sharpness, muscle strength and balance. Safe sidewalks are critical to me--more so everyday!"

--SURVEY PARTICIPANT

"It would be absolutely impossible to navigate the city during winter in a wheelchair. I have come to realize this fact over the past winter when I was pushing a child in a stroller. Very difficult to maneuver for weeks after a major snowfall. I also have grave concerns about the safety of pushing a stroller through our neighborhood (Corcoran) because of cars which use us to bypass traffic on Hiawatha Avenue. Generally, automobiles are ill prepared to avoid pedestrians and bicyclists because of excessive speed and inattention. The city needs traffic calming measures now". --SURVEY PARTICIPANT

"I love this city and am grateful for how responsive it is to issues like the ones this survey is asking about. Thanks for asking! P.S. My adult daughter IS disabled and these issues are even more important to her."

--SURVEY PARTICIPANT



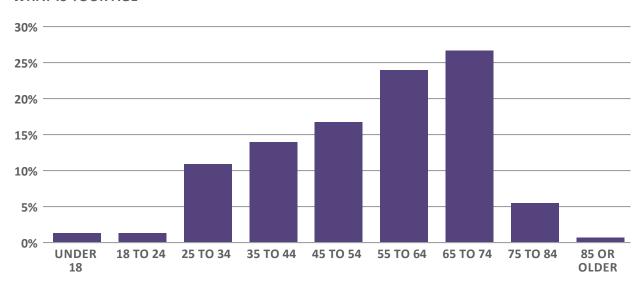
Age

More than half of all respondents (57%) were 55 years or older and 62% of respondents who

identified as having a disability were 55 years or older. The largest age category was 65 to 74 years old (27% of respondents).

Figure 2-2: Age of survey respondents

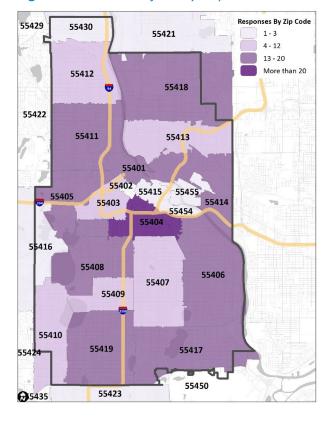
WHAT IS YOUR AGE



Geography

The survey received responses from nearly every ZIP code in Minneapolis and a few responses from participants who live in neighboring cities but likely use infrastructure in Minneapolis.

Figure 2-3: ZIP codes of survey respondents





WHAT DID RESPONDENTS SAY?

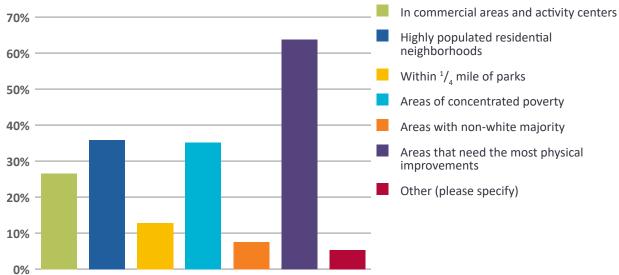
Location Prioritization

Focusing on areas with the most physical need for improvement first when planning improvements was the most strongly supported by survey participants. Other areas that were seen as important to prioritize were in highly populated residential areas, areas of concentrated poverty,

and in commercial areas. *Figure 2-4* shows where people with disabilities indicated that improvements should be prioritized. Because respondents could select more than one option, the total percentages add to more than 100%.

Figure 2-4: Responses to "Where should the City prioritize improvements?"

WHERE SHOULD THE CITY PRIORITIZE IMPROVEMENTS?



Approximately 6% of participants chose "Other". The responses indicated the need to:

- Prioritize infrastructure in specific locations ("37th Ave NE" or "Downtown Minneapolis, Hennepin Avenue!")
- Prioritize highly populated and busy areas such as Nicollet Mall or major corridors and arterial streets
- Prioritize areas with concentrations of elderly people, people with disabilities, and lowincome neighborhoods
- Prioritize improvements in areas with construction or sidewalk cafes
- Prioritize places that present an opportunity to coordinate with other projects, such as street upgrades or new housing

Several respondents questioned the need for making ADA improvements and for prioritizing areas with non-white majorities.



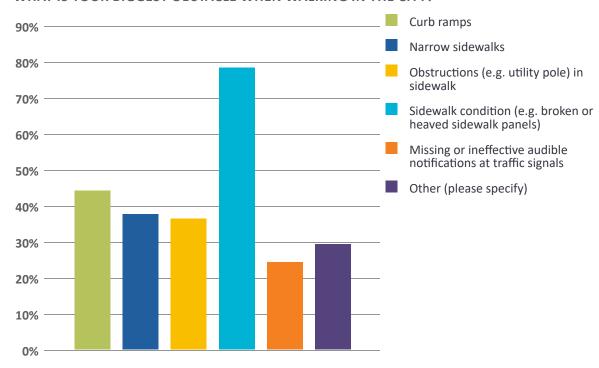
Infrastructure Type Prioritization

Sidewalk conditions presented the largest barrier for people with disabilities (81%) and people without disabilities (69%). Curb ramps (48%), narrow sidewalks (38%) and obstructions in the sidewalk (38%) also presented significant

challenges for people with disabilities. *Figure 2-5* shows the how often each type of infrastructure was selected by people with disabilities. Because respondents could select more than one option, the total percentages add to more than 100%.

Figure 2-5: Responses to "What is your biggest obstacle when walking in the city?"

WHAT IS YOUR BIGGEST OBSTACLE WHEN WALKING IN THE CITY?



More than 30% of respondents left a comment by selecting "Other". The top themes of these comments included:

- Barriers due to snow and ice on sidewalks and at corners (36 responses)
- Drivers failing to yield to pedestrians crossing the street, driving too aggressively or too fast (13 responses)
- Issues with signalized intersections, including not having enough time to cross, needing to push a button to get the walk signal, and having to wait a long time to cross (8 responses)
- Issues with street design, especially wide intersections that are difficult to safely cross (8)

responses)

- Overgrown trees or bushes encroaching into the sidewalk space (7 responses)
- Bicyclists riding on the sidewalk in busy areas or needing to share space with bicycles such as on shared use trails (5 responses)

The next set of questions and results provide insight on which features of different types of infrastructure are most challenging.

Pedestrian Curb Ramps

Pedestrian curb ramps, also commonly referred to as "curb cuts," provide a transition between the sidewalk and the street. The following are key findings related to pedestrian curb ramps.



- Missing pedestrian curb ramps: Missing pedestrian curb ramps present a barrier for people with disabilities (68% of participants with disabilities responded that missing pedestrian curb ramps are a barrier). A majority of people with disabilities encountered these a few times a month or less (65%), but some people reported that they encounter these daily (12%) or weekly (24%).
- Narrow, steep, or ramps with a significant lip: Pedestrian curb ramps that are too narrow, too steep, or have a significant lip at the bottom or at the top of the ramp are a barrier for people with disabilities (these attributes presented a barrier for 60% of respondents).
- Obstructed sightlines: Ramps that are in places where vehicle drivers can't see pedestrians crossing or where pedestrians cannot see oncoming vehicles are a major barrier for people with disabilities (66%) and for people without disabilities (52%).
- Orientation to street crossing: Orientation of the pedestrian curb ramp was a barrier for people with disabilities (59%) and for people without disabilities (38%).
- Most frequent barriers: People with disabilities faced challenges nearly every day or

several times a week related to sightline issues (46%), curb ramps with a significant lip (41%), curb ramps that do not orient the user into the crosswalk (38%) and missing curb ramps (35%).

Sidewalks

Sidewalks presented challenges more frequently than all other infrastructure types. The following are key findings related to sidewalks.

- Missing sidewalk: Missing sidewalks are a barrier for people with disabilities (83%) and people without disabilities (72%).
- Broken or heaved sidewalks: Sidewalk condition was a major issue for people with disabilities (82%) and barriers from broken or heaved sidewalks were encountered twice as frequently as barriers caused by missing sidewalks. Broken or heaved sidewalk includes sidewalks that are cracked or broken, as well as sidewalks with raised or uneven panels.



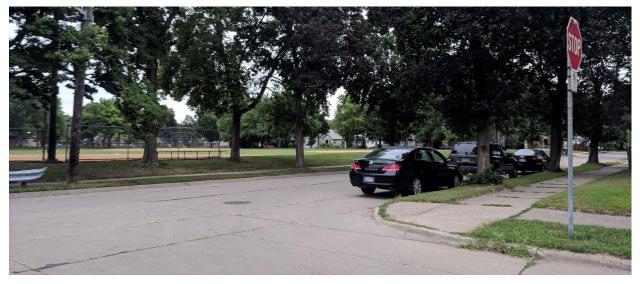




Figure 2-7: Raised panels on sidewalks and broken sidewalks present a barrier to safe walking and rolling





- Temporary obstructions: Sidewalks with seasonal obstructions such as overgrown bushes or trees created a barrier for 65% of participants with disabilities. In the comments, more than a third of all respondents specifically noted that winter maintenance is a major barrier (41%), and several mentioned sidewalk cafes or construction detours as frequent obstructions (12%).
- Narrow or pinched sidewalks: Sidewalks with fixed obstructions like a utility pole, tree, or bus stop that created a "pinch point" (54%) or sidewalks that were too narrow in general (60%) were a barrier for people with disabilities.
- Steepness: Steep sidewalks were a barrier for people with disabilities (61%) but were not as frequent as other barriers (71% of respondents reported that these were encountered a few times a month or less).

Traffic Signals

Barriers at traffic signals were largely related to whether there was enough time allocated to cross intersections. Other key findings regarding intersections with traffic signals are below.

- Crossing time: Not enough time to cross the street was listed as the largest issue for people with disabilities (73%) and people without disabilities (53%).
- Temporary obstructions: Not being able to access the push button due to a temporary obstruction (e.g., construction sign or snow) was a major barrier for people with disabilities

(61%) and people without disabilities (40%).

- Missing push button: Signalized intersections without push buttons were seen as a barrier by over half (53%) of participants with disabilities and nearly half (40%) of participants without disabilities.
- Lack of clarity on push button function: Several people responded that they were unsure whether the push button was intended to trigger a walk indicator or whether the walk indicator appears regardless of whether the button is pushed.

Other Conditions

Several questions focused on other concerns related to accessibility that may not apply directly to whether infrastructure in the public right of way is built to be accessible but can still have a significant impact on the accessibility of the public right of way. Below are the key findings from these questions.

Winter maintenance: Snow or other winter maintenance issues was a major barrier for 93% of respondents with disabilities and 80% of respondents without disabilities. The need for improved winter maintenance on sidewalks and crossing streets was mentioned numerous times in the comments for every question, and generated more comments than any other topic.



"The biggest problem that I have is in the winter. It's not possible for me to do my daily errands and do what I want to do because the snow and the streets have not been cleared."

--SURVEY PARTICIPANT

 Construction: Impacts of construction, especially related to detours and signage in the sidewalk was a major barrier for 80% of people with disabilities and 65% of people without disabilities.

"During construction, temporary walkways, scaffolding, and equipment become obstacles because they are not clearly marked and are difficult to get through."

--SURVEY PARTICIPANT

Behavior and lack of enforcement:

Participants cited behavior, especially driver behavior and the lack of enforcing traffic laws as a major concern when traveling on streets and sidewalks. Common concerns included people driving too quickly, drivers blocking crosswalks and sidewalks, drivers not yielding to pedestrians, and a general need for traffic calming. Bicyclists riding on sidewalks was also mentioned as a concern, though several people with disabilities noted that they use a tricycle as a mobility aid.

"I feel that there is no respect for the person who walks. Regardless of buttons and walk signals, cars go too fast around turns. I have almost been hit multiple times."

--SURVEY PARTICIPANT

lower a ramp: Several people with disabilities cited the need to access the curb without facing obstructions in the boulevard such as flower beds or shrubs. Conversations with members of the disability community after the completion of the survey indicated that scooters and bicycles parked in the boulevard alongside parked cars or left on the sidewalk can present a barrier to accessing the sidewalk if not parked in an appropriate location.



"It would also be really helpful to have more designated drop-off/pick-up zones (where you only stop long enough to let someone in and out) in busy areas so I could safely have enough time to get out of a car if someone is dropping me off downtown to take a bus or get to the skyway. I feel like right now there are pretty much either parking spots that are taken or bus stops, where you can't stop, so there aren't many choices in proximity to the major bus thoroughfares. It's like rich people can use the street frontage downtown for valet drop-off/pick-up for convenience right up alongside major transit routes, but disabled people can't use public space near there to get out of cars safely with our mobility aids."

--SURVEY PARTICIPANT

 Benches: A need for places to rest such as benches or chairs in the public right of way, especially near bus stops and in the Skyway was mentioned several times.

"I am elderly and request that the places where you wait have heated seating especially bus stops. And to make sure they are safe."

--SURVEY PARTICIPANT

- Water pooling on sidewalks or at corners:
 Large puddles on sidewalks were a major issue for 64% of people with disabilities.
- Complex intersections: Complex intersections were a major issue for people with disabilities (63%).

From Here

Community engagement results were used in developing the Accessibility Evaluations for each piece of infrastructure in *Chapter 4: Prioritization*. Additionally, process improvements of *Chapter 3: Self Evaluation* and the recommendations of *Chapter 5: Implementation* highlight the themes and findings from this engagement process.

These results will inform planning efforts beyond this Transition Plan. Future and parallel plans for improving City infrastructure in the City of Minneapolis' public right of way will incorporate these findings to inform recommendations.



CHAPTER 3

Self-Evaluation

In accordance with the City of Minneapolis ADA Action Plan and Title II requirements, Public Works is required to conduct a self-evaluation of programs, policies, and infrastructure within the City's public right of way. The public right of way typically includes streets and sidewalks *Figure 3-1*.

Public Works has identified four infrastructure types for which inventories need to be collected and maintained. These infrastructure types in the public right of way include:

- Pedestrian curb ramps
- Traffic signals
- Sidewalks
- Street crossings

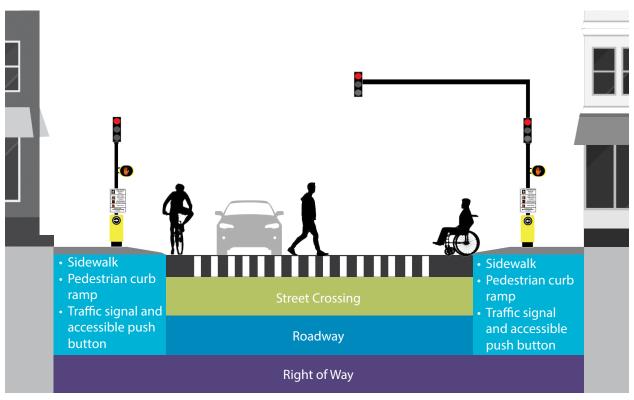
This self-evaluation includes a summary of accessibility features for each infrastructure type, the status, collection, and maintenance plan for

infrastructure inventories, and an evaluation of programs, policies and practices for planning and implementing improvements to deficient infrastructure in Minneapolis' public right of way. More information on improving infrastructure through capital programs is included in *Chapter 5*.

This self-evaluation serves as an update to the 2012 self-evaluation conducted by Public Works and is a component of the City of Minneapolis' ADA Action Plan. Recommendations for improvement were developed from input received through the public engagement process outlined in *Chapter 2* and through discussions with technical staff.

This self-evaluation will be updated periodically as infrastructure inventories and improvements are completed.

Figure 3-1: Public right of way cross-section





Pedestrian Curb Ramps

Curb ramps are the transitions between the sidewalks and street crossings. Pedestrian curb ramps should be provided at legal intersections where sidewalk connections exist. Two types of pedestrian curb ramps are shown in *Figure 3-2* and *Figure 3-3*. More information on these and other types of pedestrian curb ramps and the considerations when designing or selecting ramp types is included in *Chapter 5*. A graphic that details the components of pedestrian curb ramp design are shown in *Figure 3-4*. The City of Minneapolis has over 18,000 pedestrian curb ramps within its jurisdiction. Some corners have more than one curb ramp as shown in *Figure 3-2*.

- Inventory Status: System-wide data was collected in 2012. Data is updated as existing ramps are reconstructed or new ramps are built. With a new pedestrian curb ramp data collection method in 2022, staff was able to identify previously uncounted curb ramps which lead to a more accurate count of ramps in Minneapolis.
- Inventory Update Timeline: Inventory is updated each year for reconstructed or new pedestrian curb ramps.

Figure 3-2: Combined Directional Pedestrian Curb Ramps provide two separate ramps at each corner



Figure 3-3: Fan Ramps or Depressed Corner Ramps provide one ramp to cross the street in either direction



Infrastructure Improvements Background

The City of Minneapolis Public Works Department has been constructing pedestrian curb ramps since 1970. When initially constructed, the pedestrian curb ramps were consistent with the design criteria of that time. However, ongoing modifications to ADA criteria and guidance has resulted in a large number of pedestrian curb ramps that no longer comply with the 2010 Standards or meet best practices for curb ramp design as documented in PROWAG.

Due to existing site and scope constraints, it may not be feasible to meet all ADA criteria at some locations. Ramps at these locations will be rebuilt to the maximum extent feasible, the constraints will be documented, and the ramps will remain in the ADA Transition Plan until other opportunities to address the deficiency arise.

Progress Since City of Minneapolis Draft ADA Transition Plan for Public Works (2012)

Overall, Minneapolis has jurisdiction over 18,000 ramps and has built and/or upgraded more than 4,100 ramps since the 2012 Draft ADA Plan for Public Works was released. More information on infrastructure implementation is included in *Chapter 5*.

Appendix A outlines the progress made since the adoption of the 2020 ADA Transition Plan for Public Works, which includes data from 2019-2020 and was specifically created as part of the 2022 update. Public Works also reports out annually on infrastructure improvements through the Your City, Your Street Progress Report.

Appendix B outlines the progress made since the 2022 ADA Transition Plan Update, which includes data from 2021-2023.





Figure 3-4: Typical features of a pedestrian curb ramp at a signalized intersection

ADA CRITERIA AND INFRASTRUCTURE STATUS

The following items determine whether pedestrian curb ramps comply with the 2010 ADA Standards for Accessible Design (ADA Standards). Criteria from the 2011 proposed Public Right of Way Accessibility Guidelines (PROWAG) are included for reference when the PROWAG criteria differ from the 2010 ADA Standards.

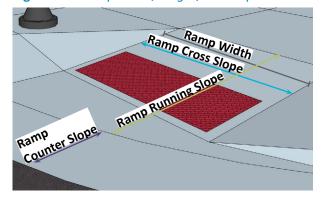
To incorporate best practices for construction, maintenance and to accommodate a range of accessibility needs when designing and constructing pedestrian curb ramps, the City of Minneapolis refers to MnDOT's ADA standards (MnDOT's Standard Plan 5-297.250).

Public engagement results indicated that ramps that are too steep, too narrow, or that have a significant lip present the largest barriers for people with disabilities. These criteria are emphasized in the prioritization methodology for improving pedestrian curb ramps as described in *Chapter 4*.

Pedestrian Curb Ramp Geometry

The ramp is the sloped surface creating a transition between the sidewalk and street or crossing. Pedestrians travel along the length of the ramp between the sidewalk and street.

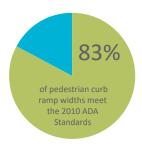
Figure 3-5: Ramp width, length, and slope





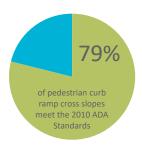
RAMP WIDTH

To adequately serve people who use a wheelchair or other mobility device, ramps need to be three feet wide to meet the 2010 Standards (406.1 and 405.5) and ramps need to be four feet wide to satisfy (PROWAG R304.5.1). Eighty-three (83%) percent of pedestrian curb ramps in Minneapolis meet the 2010 Standards and fifty-eight (58%) satisfy PROWAG width guidance.



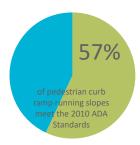
RAMP CROSS SLOPE

Cross slope measures the grade of the surface perpendicular to the direction of travel (the width). To meet the ADA Standards, the ramp cross slope needs to be 2 percent or less (405.3). Seventy-nine (79%) percent of pedestrian curb ramps in Minneapolis meet the 2010 Standards.



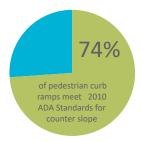
RAMP RUNNING SLOPE

Running slope measures the grade of the surface along the direction of travel (the length). To meet ADA Standards, the ramp running slope needs to be 8.3 percent or less. Fifty-seven (57%) percent of pedestrian curb ramps in Minneapolis meet the 2010 Standards (405.2).



RAMP COUNTER SLOPE

Counter slope measures the grade of the gutter or street surface at the foot of ramp in the direction of travel (the length). To comply with the ADA Standards, the ramp counter slope needs to be 5% or less (406.2). Seventy-four (74%) percent of pedestrian curb ramps in Minneapolis meet the 2010 Standards.



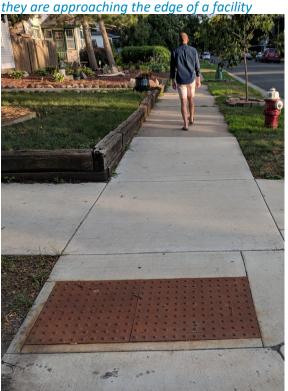
RAMP VERTICAL CHANGES IN LEVEL

Vertical changes in level or vertical discontinuities include any cracks, bumps, or raised lip where the ramp surface is not smooth or flush. To meet the ADA Standards, discontinuities should be 1/4 inch or less (303.2). Discontinuities larger than 1/4 inch but less than 1/2 inch can be beveled if the slope is not greater than 50% (303.3). Ninety-nine (99%) percent of pedestrian curb ramps meet the vertical changes in level standards.



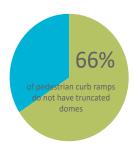
Detectable Warning Surface

Figure 3-6: Detectable warnings alert users that



Detectable warning surfaces alert users with visibility impairments that a change or edge is nearby, such as a crosswalk or transit platform edge. To meet the ADA Standards, pedestrian curb ramps need to include a detectable warning surface (705.1).

Newer pedestrian curb ramps have detectable warning surfaces. Most of the older pedestrian curb ramps have exposed aggregate or smoothed concrete instead of truncated domes (66%) and were often constructed before truncated domes were required.



TYPE

To meet the ADA Standards, detectable warning surfaces need to be made of truncated domes (705.1). For maintenance purposes and to withstand winter conditions, MnDOT has specifically called for the use of cast iron truncated domes.

VISIBILITY

To meet the ADA Standards, detectable warning surfaces need to provide a visual contrast from adjacent walking surfaces: either light-on-dark, or dark-on-light (705.1.3).

WIDTH

Detectable warning surfaces that do not cover the full width of the ramp could be missed by pedestrians. To satisfy PROWAG, detectable warning surfaces need to be the full width of the ramp (PROWAG R305.1.4).



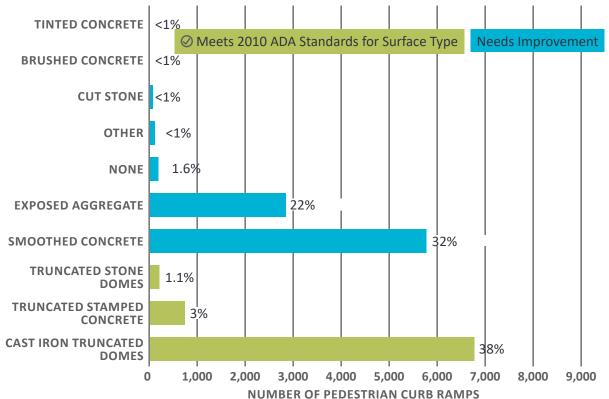


Figure 3-7: Detectable warning surface type updated with 2023 data

Landing and Crossing Area

The flat surface adjacent to the ramp is called the landing area. These areas provide users with a safe space to stop or change their direction of travel. Landings that are too small may make changing direction or adjusting speed challenging for pedestrians using wheelchairs or mobility devices. The 2010 Standards require landings at the top of curb ramps. For ramps without a landing at the top of the ramp, curb ramp flares need to be provided and be no steeper than 8.3% (406.4) in alterations.

LANDING DIMENSIONS

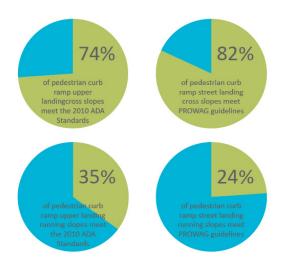
To meet the ADA Standards, landings need to be as wide as the curb ramp and a minimum of thirty-six inches in length (406.4). To satisfy PROWAG, pedestrian curb ramp landings need to be at least four feet in length and width (PROWAG R304.5.5).

CROSS SLOPE & RUNNING SLOPE

To meet the ADA Standards, the cross slope of pedestrian curb ramp landings need to be two percent or less (405.7.1). Additionally, PROWAG guidelines require a clear space in the street crossing (R304.5.5) with a cross slope and running slope of two percent or less (R304.5.3).

- Cross Slope: Seventy-four (74%) percent of pedestrian curb ramp upper landing cross slopes meet ADA Standards. Eighty-two (82%) percent of pedestrian curb ramp street landing cross slopes meet PROWAG guidance.
- Running Slope: Thirty-five (35%) percent of pedestrian curb ramp upper landing running slopes meet ADA Standards. Twenty-four (24%) percent of pedestrian curb ramp street landing running slopes meet PROWAG guidance.





Obstructions

Poles, hydrants, and utility cabinets can create an obstruction if located in the ramp or landing area. Manholes within the pedestrian access route that are not flush (defined as more than 1/4 inch) with the surface of the street or sidewalk are also counted as obstructions.

- Manholes or other utilities are not considered obstructions when located:
 - outside of the pedestrian access route
 - within the pedestrian access route but not causing a vertical elevation change of more than ¼ inches

The majority of pedestrian curb ramps in Minneapolis do not have obstructions. Obstructions are present if five percent of pedestrian curb ramps. The most common cause are poles, followed by manholes, hydrants and utility boxes.

Table 3-1: Summary of existing curb ramp trend

VARIABLE	MEASURE	% NEEDS IMPROVEMENT
Ramp Geometry	Ramp Width	16%
	Ramp Running Slope	43%
	Ramp Cross Slope	26%
Detectable Warning Surface	Туре	66%
Slopes in Waiting & Crossing Areas	Landing Running Slope	65%
	Upper Landing Cross Slope	26%
	Street Running Slopes	76%
	Street Cross Slopes	18%
Obstructions	Obstructions in ramp area	5%

DATA COLLECTION

In 2012, the City of Minneapolis collected pedestrian curb ramp data through an in-field tablet application (shown in *Figure 3-8*). This effort created a citywide database of pedestrian curb ramps. Since that time Public Works has inventoried newly constructed pedestrian curb ramps on an annual basis. That initial effort plus

newly constructed ramp data has resulted in a combined database of over 20,000 data points. Starting in 2020, the City of Minneapolis switched to measuring ramps using a smart electronic level tool and entering ramp information into a new survey format to improve data accuracy.



AREAS FOR IMPROVEMENT: EVALUATING PEDESTRIAN CURB RAMPS

Data Collection Process Improvements

The tablet application has been adjusted over time as the design criteria of pedestrian curb ramps have changed. *Table 3-2* shows

what information is collected on pedestrian curb ramps using the in-field application and recommendations to collect data points.

Figure 3-8: User interface on City's pedestrian curb ramp information collection application

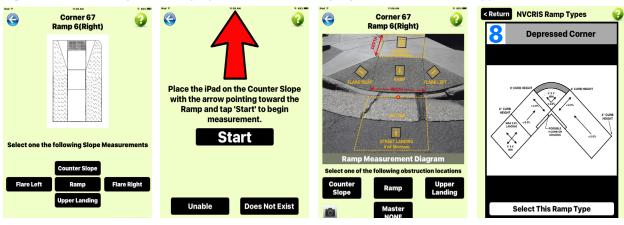


Table 3-2: Data availability of pedestrian curb ramp features

	DES	IGN FEATURES OF PE	EDESTRIAN CURB RAMPS			
VARIABLE	RAMP	DETECTABLE WARNING SURFACE	LANDING	FLARE		
Туре	•	•				
Length	•	•	•			
Width	•	•	•			
Running Slope	•		•	•		
Cross Slope	•		•			
Counter Slope	•					
Obstructions	•		•	0		

KEY:

- Data not necessary for compliance determination
- Adjustments to data collection process recommended
- Data is being collected (no adjustments recommended)

Recommendation 3.1: Modify the pedestrian curb ramp in-field data collection application to holistically collect all necessary information on pedestrian curb ramps

Current data denotes the presence (type) of the detectable warning surface at a pedestrian curb ramp, but the data does not contain any detailed placement information – knowing where along the ramp and how much of the



ramp is covered by the detectable warning strip is a factor in evaluating whether a ramp meets accessibility standards and guidelines.

 It is recommended that the city collect landing length and width alongside the ramp length and width. Indications and cracks are noted both in the pedestrian curb ramp and landing, however, obstructions and cracks for flares are also pertinent pieces of information per PROWAG.

These data collection improvements will be implemented through improvements and updates to the in-field data collection application.

A prioritization framework to identify and correct the ramps with the most need first is detailed in **Chapter 4**.

Traffic Signals

Intersections with pedestrian signals need to have Accessible Pedestrian Signal (APS) equipment including push buttons for accessibility.

A diagram that details the components and features of Accessible Pedestrian Signals (APS) is shown in *Figure 3-10*. There are over 800 traffic signals in the City of Minneapolis. Some are owned by other agencies and operated by the City of Minneapolis.

- Inventory Status: A digital inventory of signals owned or operated by Minneapolis was completed in 2018. The inventory is currently being updated to reflect 2023 data and is anticipated to be completed by mid 2024.
- Inventory Update Timeline: Inventory on APS features is updated every 5 years or as signal systems are rebuilt.

Figure 3-9: Push buttons and pedestrian signal heads are components of Accessible Pedestrian Signals (APS)



The equipment communicates information about the WALK and DON'T WALK status at signalized intersections in visual and non-visual formats such as audible tones and vibrotactile surfaces. More information on the features of APS systems is detailed in *Figure 3-10*.



Figure 3-10: Accessible Pedestrian Signal (APS)



Countdown Timer Indications

Instruction Panel

Visual cues:

- Instructions
- Time remaining to cross

Tactile Cues:

- Raised directional arrow on button
- Raised directional arrow vibrates when walk is on
- Braille on instruction panel

Pushbutton at Accessible Height

- Pushbutton should be mounted between 3.5' and 4' above the sidewalk
- Pushbuttons should be located between 1.5' and 6' from the edge of the curb (10' max)
- Pushbuttons should be located 10' apart

The pushbutton gives verbal cues such as:

- "Wait"
- "Cross"
- "Street name" when the button is held down for a few seconds

ADA CRITERIA AND INFRASTRUCTURE STATUS

The following items determine whether traffic signals with pedestrian signals comply with the Minnesota Manual on Uniform Traffic Control Devices (MNMUTCD) and align with PROWAG guidance.

Due to existing site and scope constraints, it may not be feasible to meet all criteria at some locations. These locations will be tracked through updates to the Transition Plan and infrastructure implemented to the maximum extent feasible considering project scope and site constraints.

Ramp Geometrics & Layout

BUTTON SIDE REACH

So that people who use a wheelchair are able to reach the push button, the distance between the clear waiting space and the push button should be between ten inches and twenty four inches (308.3.2) or be ten inches or less (PROWAG R406.3).

Button Specifics

BUTTON HEIGHT

Pushbuttons should be mounted three and a half feet above the sidewalk but not more than four feet (MNMUTCD 4E.8).

BUTTON SIZE

APS push buttons come in several sizes. Buttons should be two inches in diameter or larger (2005 Draft Version of PROWAG Section R306.3.3 Size and Contrast). The 2010 ADA Standards do not have button size criteria for APS pushbuttons but the 2010 ADA Standards specify that operable parts have to be operable with one hand and cannot require tight grasping, pinching, or twisting of the wrist. Additionally, the force required to activate operable parts cannot be greater than five pounds (309.4).

BUTTON LOCATION

The MNMUTCD recommends that pushbuttons be at least ten feet apart, between eighteen inches and six feet but no more than ten feet from the curb, and within five feet from the edge of the crosswalk (MNMUTCD 4E.8).

Tactile Features

VIBROTACTILE ARROW

The MNMUTCD requires that pedestrian signals be accompanied by a vibrotactile arrow indicating the direction of crossing (MNMUTCD 4E.11).

DATA COLLECTION

Because collecting data on traffic signals was not included in the 2012 pedestrian curb ramp inventory, comprehensive citywide data on APS characteristics is not available during this Transition Plan update. Public Works is working to improve the data collection process for signals to ensure the collection of APS characteristics (Recommendation 5.3).



AREAS FOR IMPROVEMENT: TRAFFIC SIGNAL INFRASTRUCTURE

The Traffic and Parking Services Division of Public Works started updating their traffic signal inventory in 2018. This inventory include data on APS equipment information citywide. 443 of the 845 signalized intersections citywide have APS. This includes signals owned by other agencies and operated by the City of Minneapolis.

An overview of capital programs that are used to implement accessible traffic signal infrastructure is detailed in *Chapter 5: Implementation*.

Recommendation 3.2: Evaluate Accessible Pedestrian Signals (APS) inventory data and incorporate results into Infrastructure Status section of ADA Transition Plan

Recommendation 3.3: Compare Accessible Pedestrian Signal (APS) data collected to current ADA and Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD) criteria to identify any additional elements to collect and incorporate results into ADA Transition Plan

Sidewalks

Sidewalks are the foundation of the pedestrian network. Their integrity affects whether and how easily pedestrians can move about the city.

The City of Minneapolis has over 1,600 linear miles of sidewalks along its streets. Additionally, there are more than 500 linear miles of sidewalk in Minneapolis within other agency right of way. Minneapolis has citywide data on that indicates whether or not a sidewalk exists or whether there is a sidewalk gap on one or both sides of a street. The ADA does not require the provision of sidewalks where there are no existing sidewalks but does include standards on evaluating whether existing sidewalks are accessible. While providing sidewalks is not a requirement of the ADA, Minneapolis recognizes the importance of

sidewalks and establishes the need to provide sidewalks through other planning policies and goals including Minneapolis 2040 and the Minneapolis Street Design Guide.

Per Minneapolis Ordinance 427.90, adjacent property owners are responsible for the construction and maintenance of sidewalks. Minneapolis enforces this ordinance and orders repairs of sidewalks through their annual sidewalk repair program. More information on the repair program is available in *Chapter 5*.

In Minneapolis, more than 93% of streets have sidewalks on both sides, nearly 4% have sidewalks on one side, and 3% are missing sidewalks along both sides. The locations of streets that are missing sidewalks on one or both sides is shown in *Figure 3-11*.

Sidewalks are added to streets during street reconstruction projects and as part of private development or utility projects. Additionally, a sidewalk gap program was developed in 2018 to fill sidewalk gaps along public properties or properties that cannot be assessed for sidewalk projects.

Minneapolis also keeps data on the width of sidewalks. The 2010 ADA Standards require pedestrian access routes to be at least 3' wide and 4' wide where a turn is required. PROWAG guidelines use 4' as the minimum width for sidewalks. See page 3-14 for more information on ADA criteria. According to Minneapolis' sidewalk width data, more than 75% of streets have an average sidewalk width of 4' and the majority of these are 6' or wider. Fewer than 1% of sidewalks are less than 4' wide. Nearly 25% either have no sidewalk on one or both sides or are missing width data.

Minneapolis generally requires sidewalks to be wider than the ADA requirements through City standards outlined in the Street Design Guide. The majority of sidewalks (69%) in Minneapolis meet or exceed the recommended sidewalk width of 6' wide as shown in *Figure 3-12*.



Figure 3-11: Sidewalk Gap Map

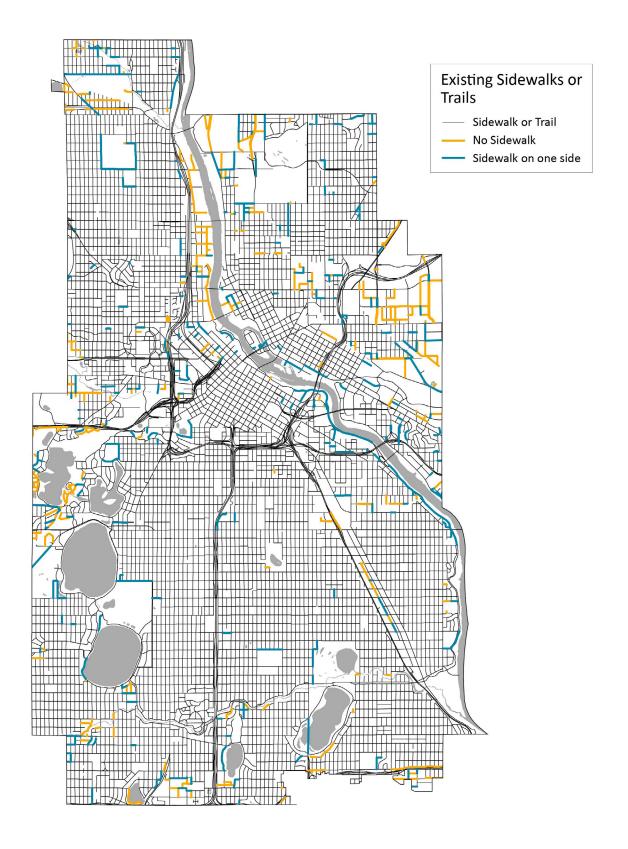
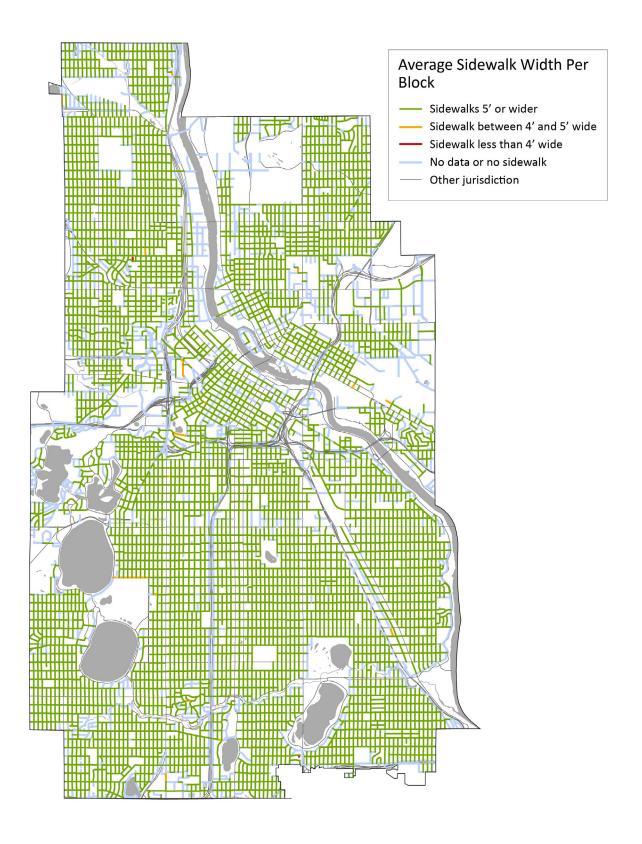




Figure 3-12: Sidewalk Width Map





- Inventory Status: Planning for a sidewalk inventory to supplement and confirm existing data sources is underway. After this inventory is completed, this document will be updated to include the location and number of barriers identified through the inventory, priorities for improvement, and an implementation plan for removing barriers.
- Inventory Update Timeline: An update timeline will be determined based on results of the inventory.

Figure 3-13: *Sidewalks are the foundation of the*

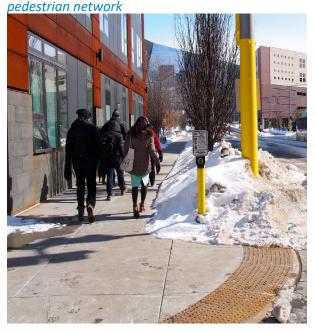
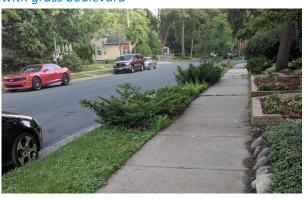


Figure 3-14: Sidewalk with tree grate



Figure 3-15: Typical residential sidewalk section with grass boulevard



ADA CRITERIA AND INFRASTRUCTURE STATUS

The following items determine whether components of sidewalks comply with the 2010 ADA Standards. Additional guidance is included for PROWAG when the proposed guidance differs from the 2010 ADA Standards.

WIDTH

The 2010 ADA Standards require a clear width of walking surfaces to be a minimum of three feet (403.5.1) and four feet where a turn is required (403.5.2). To satisfy PROWAG, sidewalks need to have a continuous width of at least four feet (PROWAG R302.3). The City of Minneapolis calls for much wider sidewalk widths as outlined in the Street Design Guide.

CROSS SLOPE

The 2010 ADA Standards require the cross slope of walking surfaces to be no greater than two percent (403.3). Cross slope is the slope of the sidewalk perpendicular to the direction of travel.

RUNNING SLOPE

Running slope measures the grade of the surface along the direction of travel. The 2010 ADA Standards require that the running slope of walking surfaces be five percent or less (402.2). To satisfy PROWAG, sidewalk running slopes need to be five percent or less (PROWAG R302.5) or follow the street grade.



VERTICAL FAULTS

Vertical faults or changes in level are points where the surface of the sidewalk is uneven, usually due to heaving or settling of panels. To meet the 2010 ADA Standards, changes in level need to be less than ½ inch, and all changes in level between ¼ inch and ½ inch must be beveled or ground down to remove the fault (303.2). Sidewalks with vertical faults are addressed through the city's Defective and Hazardous Sidewalk Program (SWK01). Each year, sidewalks are inspected in an area and flagged for replacement. Figure 3-17 shows a sidewalk panel that has been marked for replacement through the Defective and Hazardous Sidewalk Repair Program. More information on the program can be found in *Chapter 5*.

Figure 3-16: Vertical fault due to a settled sidewalk panel

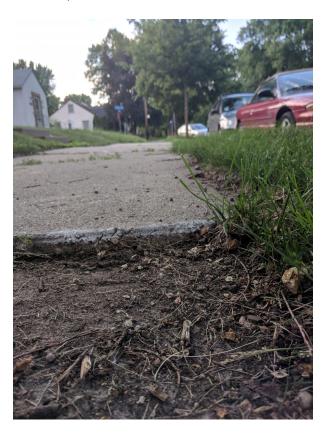


Figure 3-17: Vertical fault due to a heaved panel, likely from tree roots. This panel is marked for replacement through the city's Defective and Hazardous Sidewalk Repair Program (SWK01).



OBSTRUCTIONS

The City does not have a citywide sidewalk dataset that includes obstructions where objects such as poles, fire hydrants or utility cabinets narrow the sidewalk to less than three feet wide or where objects such as tree grates, utility covers or manholes are not flush with the sidewalk (defined as raised more than 1/4 inch).

DATA COLLECTION

The City of Minneapolis has a database of where sidewalks exist citywide, whether the sidewalk exists on one or both sides of the street, and sidewalk width. However, the City does not have a citywide sidewalk dataset that includes running slope, cross slope, vertical faults, or obstructions. These characteristics of sidewalks inform whether sidewalks adhere to ADA criteria.

Recommendation 3.4: Supplement existing data on sidewalks and street crossings by completing a sidewalk and street crossing inventory



Street Crossings

Street crossings provide designated locations for pedestrians to cross streets at intersections and mid-block locations. These are commonly called crosswalks. They operate as an extension of the sidewalk across the street at legal pedestrian crossings. There are two types of crosswalks at street crossings in Minneapolis: Zebra (or Continental) and Unmarked.

- Inventory Status: Minneapolis collects data on the location of marked crosswalks. Additional street crossing data will be included in the scoping of a sidewalk inventory.
- Inventory Update Timeline: An update timeline will be determined based on results of the inventory.

In 2017, Minneapolis adopted the Minneapolis Zebra crosswalk pattern as the new standard for marked crosswalks. The Minneapolis Zebra crosswalk pattern provides a more visible and comfortable crossing compared to parallel line crosswalks.

Figure 3-18: *Minneapolis' standard pattern for crosswalk markings is the Minneapolis Zebra*



Figure 3-19: Parallel line crosswalk



Figure 3-20: Unmarked crosswalk



ADA CRITERIA AND INFRASTRUCTURE STATUS

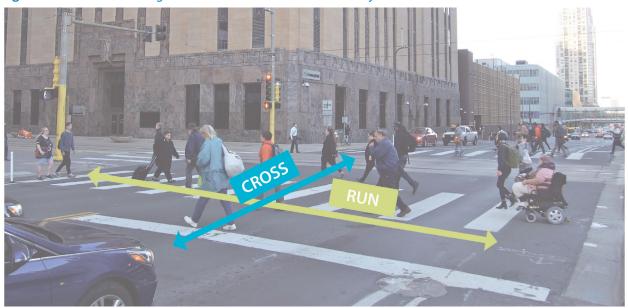
Street crossing width, cross slope, and obstructions inform whether the crossing satisfies ADA criteria.

CROSSWALK WIDTH

Street crossings need to be three feet wide to meet the 2010 ADA Standards (403.5.1) and four feet wide to align with PROWAG guidance (R302.3). Minneapolis standards recommend wider crossings (between six and fifteen feet) depending on the street type.



Figure 3-21: Street crossings are considered to be extensions of the sidewalk



STREET CROSSING GRADE

To meet the 2010 ADA Standards, street crossings need to have a running slope of no greater than five percent and a cross slope no greater than two percent (403.3). To satisfy PROWAG, street crossings at free-flow approaches or at signalized intersections need to have a cross slope of 5 percent or less (PROWAG R302.6.1). Street crossings at yield or stop-controlled intersections need to have a cross-slope of 2 percent or less, except as provided in R302.6.1 and R302.6.2. (PROWAG R302.6.1).

OBSTRUCTIONS

As with pedestrian curb ramps, obstacles in the right of way can make an otherwise navigable street crossing unusable. Manholes that are not flush with the street (defined as more than 1/4 inch) or non-compliant slopes that lead to pooling water at the base of a pedestrian curb ramp can lead to a ramp and street crossing being unusable.

DATA COLLECTION

Currently, the City of Minneapolis does not have a citywide street crossing dataset that identifies street crossing width, grades, and obstructions.



Programs, Policies, and Procedures

There are many programs, policies, and procedures that inform design, implementation, and maintenance of infrastructure for people walking or rolling in the public right of way.

Grievance Procedure

The Public Works Department follows the grievance procedure documented within the City of Minneapolis Americans with Disabilities Act Action Plan (2016-2018):

Disability and accessibility-related grievances are directed to the ADA Title II Coordinator. The coordinator has knowledge and is familiar with the City enterprise infrastructure, operations and leadership. The ADA Title II Coordinator can navigate the system, engage responsible parties overseeing the program, service or policy, and identify a resolution. Grievances can be reported to the ADA Title II Coordinator through 311 and its reporting systems (email, phone call and online) or to the ADA Title II Coordinator directly via mailed letter, email, phone call, or in-person.

The full Grievance Procedure and all application forms are available online¹.

311 Requests

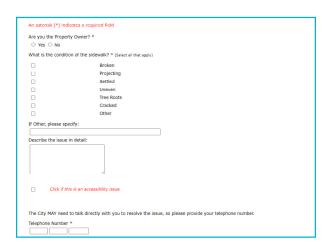
311 is the non-emergency line for access to City services. The public can use 311 to report public infrastructure accessibility issues by calling 311, completing an online form, or through a mobile application.

When using the online form or mobile application, each complaint is organized by topic such as Traffic Signal Issues, Potholes, Street Light Out,

and other items. 311 users can also use 311 to report sidewalk snow and ice complaints. Pedestrian curb ramp or push-button complaints would likely be entered by the user under the sidewalk or signal issue topics, as shown in *Figure 3-22*. If the complaint is regarding an accessibility concern, preparers may check a box at the bottom of the form identifying the complaint as an accessibility issue.

Figure 3-22: *Screenshots of online 311 user interfaces*





¹ Grievance Procedure and forms available at http://minneapolismn.gov/ncr/services/ncr_disability-services.
http://www.minneapolismn.gov/www/groups/public/@publicworks/documents/webcontent/wcmsp-210946.
pdf



SIDEWALK COMPLAINTS

As outlined in *Chapter 1*, sidewalks in the public right of way in Minneapolis are the responsibility of the adjacent property owner. This responsibility includes construction, repair and maintenance of sidewalks including clearing snow and ice (Minneapolis Ordinance 427.90^2 and 445^3). The City of Minneapolis inspects and orders repairs for damaged sidewalk across the City including sidewalk within other agencies' right of way. Sidewalk complaints reported through 311 are visited by a Public Works sidewalk inspector and addressed by a street maintenance crew. If deemed an issue, this team can apply an asphalt patch to provide a short-term fix for tripping concerns. Locations of past sidewalk complaints can be queried within the 311 program.

Sidewalk panels that are heaved or broken are replaced through the City's hazardous and defective sidewalk program which cycles through the city on a recurring basis.

Minneapolis Public Works also responds to snow and ice complaints on public sidewalks. Sidewalk snow and ice complaints are routed to the Sidewalks Department. Public Works completed a <u>Pedestrian and Bicycle Winter Maintenance Study</u> in 2018 to identify issues and opportunities related to winter maintenance and bicycle facilities. More information on the Winter Maintenance Study can be found in the Winter Maintenance section of this report (Page 3-22).

Public feedback received through the ADA Transition Plan indicated that several types of temporary obstructions are difficult to report through 311 due to timing and topics included in the 311 interface. Examples of temporary obstructions include overgrown vegetation, sidewalk café seating and signage that obstructs the sidewalk.

SIGNAL COMPLAINTS

Signal complaints reported through 311 are routed to the Traffic Management Center and are assigned to a signal crew to be addressed. The signal topic area of 311 has an option for users to indicate an issue with a push button.

Recommendation 3.5: In collaboration with 311 and the Neighborhood and Community Relations Departments, evaluate adding an option on the 311 interface for the public to indicate whether a concern is related to accessibility

Communications and Staff Training

Several resources exist for Public Works staff to strengthen their knowledge of the ADA and gain an increased understanding of the challenges and needs of the disability community.

COMMUNICATIONS/PUBLIC INVOLVEMENT STRATEGIES

NCR and the City's Communications Department provide guidance, support, and resources to communicate more effectively with participants that require accessibility accommodations. Principles of public involvement, strategies to ensure innovative and equitable engagement processes, and a commitment to inclusion are detailed in the 2016 Blueprint for Equitable Engagement⁴.

DISABILITY AWARENESS AND ACCESSIBLE CONTENT TRAINING

NCR facilitates training and hosts discussions for communicating effectively with members of the disability community through their Community Connections Learning Lab series.

NCR also offers training on how to create accessible documents and other materials throughout the year.

⁴ http://www.minneapolismn.gov/www/groups/public/@ncr/documents/webcontent/wcmsp-187047.pdf



² https://library.municode.com/mn/minneapolis/codes/code_of_ordinances?nodeId=MICOOR_TIT17STSI_ CH427INGE_ARTIGE_427.90OWBURESI

³ https://library.municode.com/mn/minneapolis/codes/code_of_ordinances?nodeId=MICOOR_TIT17STSI_ CH445SNICRE

DEPARTMENT ADA TRAINING

The City of Minneapolis Public Works Department attends ADA trainings led by MnDOT. Topics include policy, mobility needs, design, and construction. Trainings are offered at the introductory and advanced levels.

Recommendation 3.6: Continue to expand departmental knowledge and expertise of ADA topics by attending trainings and classes

Public Works Operations

There are several temporary or seasonal issues that impact accessibility of infrastructure in the City's public right of way. These topics require collaboration between many Public Works divisions, private contractors and utilities.





TEMPORARY SIDEWALK CLOSURES AND OBSTRUCTIONS

When a sidewalk is temporarily closed for construction or other purposes, an alternative pathway with at least the same level of accessibility as the one it replaces needs to be provided, per the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD Part 6D).

The City requires the party responsible for the sidewalk closure to obtain a permit for any lane or sidewalk closures and may require the responsible party to prepare a traffic control plan that shows how the lane or sidewalk will be closed, the traffic control devices that will be used, and the designated detour depending on the scope of the project.

Sidewalks and streets are sometimes closed for block events, such as National Night Out or other street fair type events. Business Districts and residential block events are required to obtain a permit to close the street, and must provide a 10-foot clear aisle for emergency access.

Public feedback received through the ADA Transition Plan update process indicated that detours and temporary street or sidewalk closures for events are often not easy to navigate for people with disabilities. There was also concern with not knowing when events were to take place, and how to find an alternate route when streets or sidewalks are closed for events. Participants noted that detour signs are sometimes placed in the pedestrian access route creating a temporary obstruction in the sidewalk.



Recommendation 3.7: Review and update existing policies and practices for pedestrian detour design and enforcement annually in coordination with additional direction in the Transportation Action Plan

SHARED MOBILITY - SHARED BIKE AND SCOOTER PROGRAM

The City of Minneapolis has a Shared Bike and Scooter Program (SBSP) that issues licenses to shared mobility companies. License agreements allow companies to rent micromobility vehicles for use in the public right of way. Shared mobility parking is regulated by license agreements with shared mobility partners in compliance with Minneapolis City Ordinance 492⁵. All vehicles must be locked to allowed infrastructure (public bike rack, parking meter hitch, or street signs: except stop and bus stop signs) or in a designated parking zone, parked upright and stabilized with a kickstand when not in use. Vehicles must be parked outside of the pedestrian access route or pedestrian path of travel along the sidewalk. Vehicles must not be parked in any location or manner that will impede normal and reasonable pedestrian traffic and/or access to:

- Pedestrian ramps
- Building/property entrances
- Driveways
- Loading zones
- Disability parking and transfer zones
- Transit stops
- Crosswalks
- Parklets
- Street/sidewalk cafes
- Other street furnishings (benches, parking meters, etc.)
- Underground utility, sewer, or water facilities
- Pedestrian access routes on sidewalks

Vehicles that are parked erroneously can be reported through 311. A City representative will route the issue directly to the appropriate shared mobility partner. Shared mobility partners that fail to respond quickly can be held responsible for failure to follow the parking rules. Shared mobility vehicles can be impounded by the City if necessary, the allowed max number of vehicles allowed from a single partner can be reduced, or partners may have their licenses suspended or revoked. Each licensed shared mobility partner is responsible for obtaining permits and approvals to install shared mobility parking infrastructure.

Recommendation 3.8: Continue to monitor issues and feedback received on parking and operations for scooter, bike share and/or other micromobility options and evaluate the need for program improvements

WINTER MAINTENANCE

Ice, slippery conditions and winter maintenance of infrastructure was noted by the public as a key challenge to walking and rolling through the city during the engagement process for this Transition Plan. The ADA states that "A public entity shall maintain in operable working condition those features of facilities and equipment that are required to be readily accessible to and usable by persons with disabilities by the Act or this part. This section does not prohibit isolated or temporary interruptions in service or access due to maintenance or repairs" (28 CFR §35.133).

The Federal Highway Administration (FHWA) has interpreted this to require that "A public agency must maintain its walkways in an accessible condition, with only isolated or temporary interruptions in accessibility. Part of this maintenance obligation includes reasonable snow removal efforts."

Recognizing the importance of winter maintenance and as a part of the City's ongoing

⁶ Questions and Answers About ADA/Section 504, https://www.fhwa.dot.gov/civilrights/programs/ada/ada_sect504qa.cfm#q31



⁵ https://library.municode.com/mn/minneapolis/codes/code_of_ordinances?nodeId=MICOOR_TIT18TRCO_ CH492LOPOVE

commitment to safe and accessible yearround walking and bicycling, Minneapolis has undertaken a separate effort focused exclusively on winter maintenance to identify issues and opportunities related to winter maintenance of sidewalks and bicycle facilities. In April 2018, Public Works released the Pedestrian and Bicycle Winter Maintenance Study. The Winter Maintenance Study calls for close collaboration between agencies and property owners, especially where bicycle and pedestrian facilities are concerned. As part of the Transportation Action Plan (Walking Action 4.11), Public Works is committed to conducting a review and update of the Pedestrian and Bicycling Winter Maintenance Study on a biennial basis. An updated Winter Walking and Biking Study was finalized in 2024.

The 2018 study outlines existing policies, practices and guidance for winter maintenance of pedestrian facilities, including:

Minneapolis Planning Guidance

The Minneapolis Pedestrian Master Plan establishes a goal of a well-maintained pedestrian system, including Objective 5.1 on page 62: "Ensure effective snow and ice clearing for pedestrians". The plan describes several implementation options to achieve that objective including establishing priorities for sidewalk snow clearing, improving enforcement and monitoring of private property owner responsibilities for snow clearing, and supporting property owners with snow and ice clearing assistance options. Since the Minneapolis Pedestrian Master Plan was completed in 2009, the City has implemented measures to resolve 311 sidewalk shoveling complaints, refine the corner clearing program, address transit stops along with corner clearing, and increase communication around the importance of sidewalk snow clearing. The Minneapolis Pedestrian Master Plan establishes a goal of a well-maintained pedestrian system, including Objective 5.1 on page 62: "Ensure effective snow and ice clearing for pedestrians". The plan describes several implementation options to achieve that objective including establishing priorities for sidewalk snow

clearing, improving enforcement and monitoring of private property owner responsibilities for snow clearing, and supporting property owners with snow and ice clearing assistance options. Since the Minneapolis Pedestrian Master Plan was completed in 2009, the City has implemented measures to resolve 311 sidewalk shoveling complaints, refine the corner clearing program, address transit stops along with corner clearing, and increase communication around the importance of sidewalk snow clearing.

 Responsibilities for clearing snow and ice from sidewalks

Throughout the city, property owners are responsible for clearing snow and ice from sidewalks that are adjacent to the properties they own. Single family homes and duplexes are given 24 hours after a snowfall has ended to clear snow and ice, while all other properties have four hours after a snowfall has ended to clear snow and ice. City ordinance 445 establishes this time frame.

Agency agreements

There are many MnDOT or Hennepin County roads that are maintained by the City of Minneapolis through respective inter-agency agreements. Agreements are the tool for assigning responsibility for work completion from one agency to another, which often includes some amount of compensation. In cases where sidewalks along these roads are adjacent to private properties, City ordinance 445 still pertains and the private property owners are responsible for clearing the sidewalk. The City clears all sidewalks on bridges and overpasses as part of these agreements.

Corner Clearing Program

The City started a deliberate sidewalk corner clearing program in 1995. The budget at the time provided for some funding to cover the expenses. Over the years, due to financial strains on the budget, the program was operationally refined by re-prioritizing



resources, without any additional funding to address the growing desire for more aggressive corner clearing. In 2015, Public Works proposed and was granted funding to enhance the corner clearing program, focusing on corners along a network of predefined, high priority pedestrian corridors. Corner clearing is prioritized based on a previously established network identified as the Pedestrian Street Lighting Corridor (PLSC). This network was adopted and rebranded as the Pedestrian Priority Corridor (PPC) <u>network</u>, assuming that the lighting corridors also suggested high pedestrian traffic. There are two circumstances that will trigger the initiation of corner clearing activities: an accumulation of 4" or more of snow or a declared Snow Emergency. Corner clearing commences at the completion of the Snow Emergency; this allows the City to remove the windrows left in place after street plowing is completed. If another Snow Emergency is declared before all the corners are cleared, the City resumes corner clearing at the end of the new Snow Emergency, starting with the predefined high pedestrian corridors, as defined by the established Pedestrian Priority Corridors. There is a new Pedestrian Priority Network (PPN) that was developed as part of the TAP, but it has not been adopted for corner clearing yet. Once the priority corners are cleared, crews continue operations until another snow event or until all corners are cleared. Public Works received additional funding in 2020 to address windrows at corners more quickly.

Special Service Districts

A Special Service District is one way for commercial property owners to fulfill their responsibility for sidewalk snow and ice control. In 2017, six of the sixteen Special Service Districts (SSDs) in the City chose to pay contractors for sidewalk snow and ice control, which sometimes includes the removal of snow windrows along the curb, as part of their SSD operating plans. The Downtown Improvement District Special

Service District (DID) also provides snow and ice control on Nicollet Mall sidewalks. These districts must meet City ordinance requirements. Public Works contracts for, and directs the work. The costs of these services are recovered by Public Works through special assessments to the affected SSD property owners.

Transit Stop Facilities

There are approximately 2,860 transit facilities in Minneapolis, including bus stops whether they have shelters or not, transit centers and rail platforms. Clearing snow from bus stops and any adjacent facilities is a shared responsibility of Metro Transit, US Bench Corporation, and adjacent property owners. Metro Transit prioritizes snow removal based on ridership numbers, route locations, and travel routes of people who are disabled. They strive to clear of snow and ice within the first 24 hours after a snow event with accumulation of 1" or more. They perform overnight snow removal activities at light rail stations in downtown only. Adjacent property owners are responsible to clear bus stops that do not have a shelter or a bench, which is approximately 58% of all bus facilities. Property owners clear sidewalks adjacent to their property, and later the City of Minneapolis will create an opening in the snow windrow during its corner clearing program to provide access to the bus stop area. The benches at bus stops without a shelter are owned and maintained by US Bench Corporation. They have their own crew of maintenance workers that clear snow and ice from 700 benches across the city per City ordinance '283.210 - Maintenance of benches' which states "ice and snow shall be removed from the benches and vicinity thereof in such a manner that each bench shall be accessible at all times".

Sidewalk Snow and Ice Clearing Non-Compliance

If sidewalks are not shoveled within the time frame defined in City ordinance 445,



the process for enforcing the snow and ice clearing ordinance may commence. Currently, while the City does proactively conduct some inspections, the enforcement process is primarily complaint driven and relies on the public to report issues through 311. In rare circumstances, when temperatures remain extremely cold for extended periods of time and ice is tightly bonded to pavements, it becomes impossible to remove, in keeping with provisions of City Ordinance 445, and inspectors will issue an order to sand the sidewalk in order to provide temporary traction rather than issue a Notice of Violation (NOV). In 2019, the NOV was renamed an Order to Correct (OTC) to match the nomenclature of notices sent to property owners by Regulatory Services.

When a contractor completes a work order, the property owner is billed for the work and unpaid bills are added to the property tax bill as a special assessment. Property owners are allowed to appeal their bills through an Administrative Hearing or Public Hearing process, and ultimately to District Court. There are occasions that a property owner will clear their sidewalk after a work order is issued but prior to the contractor completing the work order. In this case, the City will compensate the contractor at a rate of 10% of the contractor's bid price; the private property owner is not billed for this cost. In total, the complaint driven process can take anywhere from 6 to 8 or more working days. The timeline resets if another snow event occurs during this timeline. This process was streamlined in 2016 to eliminate an initial physical inspection that would have occurred prior to an NOV (now OTC) being issued. The streamlining has reduced the amount of time between receipt of a 311 complaint and a contractor clearing the sidewalk by two to three working days. Public Works is currently evaluating the benefits of this process, including identifying challenges to foregoing the initial inspection or eliminating the step of issuing an OTC.

Freeze-Thaw Cycles

When temperatures rise above freezing, snow and ice on or adjacent to sidewalks will melt and often flows onto or across the sidewalk. When temperatures drop back below freezing, the remaining water on the sidewalk refreezes and results in icy sidewalk conditions. Similar conditions will result after a freezing rain event. It is estimated that during the winter of 2016-2017, approximately 60-70% of the contractor work orders were due to ice, not snow. Therefore, even without a precipitation event, property owners need to address their sidewalks. City Ordinance 445 allows that if ice cannot be removed due to extreme temperatures, sand may be sprinkled to provide temporary traction until conditions allow for the ice to be removed.

The 2018 Pedestrian and Bicycle Winter Maintenance Study provided a framework for continued conversation with the community, interested stakeholders and policy makers. Several short-term options for augmenting or replacing existing winter maintenance practices are detailed in the report, including:

- Designate a Winter Pedestrian Priority Network
- Implement Sidewalk Clearing Inspection & Enforcement Process Improvements
- Implement Snow and Ice Clearing Assistance Programs for Select Populations
- Develop an Expanded Sidewalk Winter Maintenance Awareness Campaign
- Update and Improve the City's Winter Maintenance Webpage
- Enhance Winter Maintenance Data Collection

In October 2018, staff presented an update to the Winter Maintenance Study on the feasibility, level of service (LOS) expectations, and cost estimates for City-led sidewalk snow plowing. Based on the study findings, staff initiated an expanded winter maintenance awareness campaign, updated the City's Winter Maintenance webpage, and launched the 2018-2019 Proactive Sidewalk Inspection Pilot Project. The Proactive Sidewalk Inspection Pilot Program aimed to collect data on



compliance with Minneapolis Ordinance 445 and improve winter maintenance by piloting proactive enforcement of shoveling laws for homeowners and businesses.

In 2019, staff returned with an update on the results of proactive enforcement and recommended continuing educational campaigns on winter sidewalk snow shoveling rules and responsibilities and continuing proactive enforcement during winter of 2019-2020. To further address community concerns, Public Works received additional budget to accelerate clearing snow and ice at intersection corners.

In 2020, the City adopted the <u>Transportation</u> <u>Action Plan</u>, which includes additional engagement and evaluation of winter maintenance strategies.

The <u>Street Design Guide</u> provides additional guidance surrounding winter maintenance.

In 2023, the City completed the <u>Sidewalk</u> <u>Snow and Ice Removal Legislative Directive report</u>, which outlines the costs and other implementation considerations of a potential City-led sidewalk clearing program. The report also includes an assessment of current snow and ice removal programs and potential snow clearing programs targeted at repeat offenders. <u>Additional details on potential pilot programs for sidewalk snow and ice removal</u> were also presented in 2023. The City Council approved funding in the 2024 to implement four sidewalk snow and ice removal pilots.

In 2024, Public Works finalized an updated Winter Walking and Biking Study. This study consolidates all the City's recent work on winter walking and biking and recommends actions that build off that work.

Figure 3-24: Street crossing during winter



Recommendation 3.9: Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by Minneapolis Ordinance 445 and the Pedestrian and Bicycle Winter Maintenance Study; explore modifications to improve access to the public right of way through additional direction in the Transportation Action Plan

Other Plans and Policies

The City of Minneapolis Public Works has a number of plans and policies in addition to the ADA Transition Plan that support accessibility in the public right of way. The following plans and policies outline aspects of design, maintenance or funding that support accessibility in the public right of way:

- Racial Equity Framework for Transportation (2023)⁷
- Complete Streets Policy (Updated 2021)⁸
- Street Design Guide (2021)⁹
- Transportation Action Plan (2020)¹⁰
- 20 Year Streets Funding Plan (Updated 2018)¹¹

¹¹ https://www2.minneapolismn.gov/government/departments/public-works/tpp/20-year-plan/an



⁷ https://www2.minneapolismn.gov/government/departments/public-works/tpp/racial-equity-framework/

⁸ https://www2.minneapolismn.gov/government/departments/public-works/tpp/complete-streets-policy/

⁹ https://sdg.minneapolismn.gov/

¹⁰ http://go.minneapolismn.gov/

ADA Transition Plan for

- Vision Zero Action Plan (2019)¹²
- Vision Zero Resolution (2017)¹³
- Pedestrian Crash Study (2017)¹⁴

Conclusion

The results from this Self-Evaluation will be used to prioritize infrastructure for improvement based on accessibility findings and equity. The following chapter (*Chapter 4: Prioritization*) describes the framework, methods, and results from that process. All recommendations are summarized in *Table 5-3: Recommendations*.

¹⁴ https://lims.minneapolismn.gov/Download/RCA/2877/Minneapolis-Pedestrian-Crash-Study_2017.pdf



¹² https://www.minneapolismn.gov/government/programs-initiatives/visionzero/vz-action-plan/

¹³ https://lims.minneapolismn.gov/Download/FileV2/18705/18_Vision-Zero_RES-AMENDED.pdf

CHAPTER 4

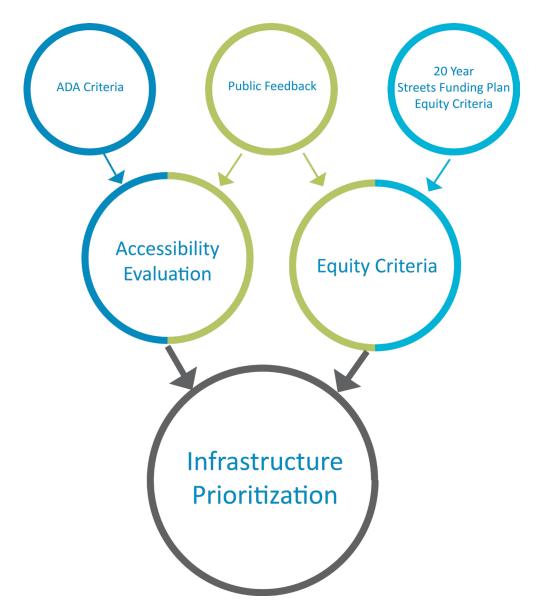
Infrastructure Prioritization

Identified deficiencies in the City's right of way will need to be corrected over time. Due to fiscal and feasibility constraints, not all identified deficiencies can be corrected immediately. A prioritization scheme identifies which types of infrastructure and which locations should be improved first to best serve the needs of Minneapolis residents and visitors.

Figure 4-1: *Prioritization framework*

Framework for Prioritization

Infrastructure prioritization will be a combination of its Accessibility Evaluation and Equity Criteria.





Quantitative Analysis

The quantitative analysis provides an objective data-driven basis for prioritizing infrastructure improvements citywide. Public input informed the data incorporated into the Accessibility Evaluation and the Equity Criteria.

- Feedback on which infrastructure elements create the largest barriers for users was incorporated into the Accessibility Evaluation
- Engagement conducted as a part of the <u>20-Year</u> <u>Streets Funding Plan</u>¹ guided the Equity Criteria that this ADA Transition Plan used to prioritize intersections

The full engagement process and themes heard are covered in detail in Chapter 2.

ACCESSIBILITY EVALUATION

The 2010 ADA Standards, Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD), and the proposed Public Right of Way Accessibility Guidelines (PROWAG) provide criteria and guidance for evaluating whether infrastructure is accessible. The subset of measures used to prioritize infrastructure in this Transition Plan are those which:

- Most greatly affect the usability of the infrastructure
- Present the greatest challenges for people with disabilities as indicated by community engagement

EQUITY CRITERIA

Variables outside of the 2010 ADA Standards, MN MUTCD criteria and PROWAG guidance, such as infrastructure location and context, can help prioritize infrastructure improvements. The 20 Year Streets Funding Plan criteria related to pedestrian mobility and safety and community demographics were utilized to quantify infrastructure equity in this Transition Plan. These criteria were formulated through the public engagement for that planning process and confirmed by the public engagement completed for this Transition Plan.

Recommendation 4.1: Update the equity component of infrastructure prioritization as the 20 Year Streets Funding Plan is updated

Qualitative Analysis

The criteria-based analysis is supplemented by qualitative screening as detailed by the 20 Year Streets Funding Plan. This ensures that infrastructure improvements are coordinated with other projects and opportunities and that available funding is used efficiently and appropriately. Qualitative screening occurs annually.

- Are there other nearby projects that will also be under construction?
- Can projects be combined to reduce disruption or cost?
- Is this the right fix at the right time?
- How does the project fit with known city priorities and goals?

More detail on this process is included in the <u>20</u> <u>Year Streets Funding Plan</u>²

² http://www.minneapolismn.gov/publicworks/20yearplan



¹ http://www.minneapolismn.gov/publicworks/20yearplan

Infrastructure Prioritization

Pedestrian curb ramps have been inventoried, so they can be prioritized using data. Other infrastructure will be prioritized in a similar method once they've been inventoried. The anticipated data collection and evaluation process for traffic signals, crosswalks, and sidewalks, is outlined in *Chapter 3: Self-Evaluation*. The framework for prioritizing that infrastructure suggested in this Transition Plan should be revisited once data is available.

PEDESTRIAN CURB RAMPS

Different styles of pedestrian curb ramps can meet accessibility criteria. Both the combined directional ramp in *Figure 4-3* and fan ramp in *Figure 4-2* can meet ADA criteria and satisfy PROWAG guidelines. More information on common types of pedestrian curb ramps can be found in *Chapter 5*.

Figure 4-2: Fan Ramp

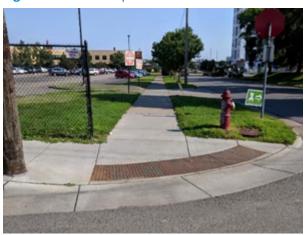


Figure 4-3: Combined Directional Ramp



Accessibility Evaluation

The pedestrian ramp criteria, measures, and points that were used to evaluate accessibility for pedestrian ramps are summarized in *Table* 4-1. The criteria thresholds quantify how closely the pedestrian ramp meets the 2010 ADA Standards and aligns with best practices for pedestrian curb ramp design as outlined in PROWAG. Region-specific guidance from MnDOT is also incorporated in the criteria, such as using truncated domes made of cast iron for maintenance purposes and to withstand winter conditions. Points awarded are reflective of the feedback heard during public engagement: features indicated as the most important such as ramp width, ramp running slope, and whether there is a significant lip at the gutter transition are eligible for more points than other features. Ultimately, pedestrian ramps with the lowest Accessibility Evaluation score have the greatest need for improvement.

Recommendation 4.2: Inventory pedestrian curb ramps at intersections with no ramp data (approx. 50 intersections)



 Table 4-1: Accessibility evaluation framework for pedestrian curb ramps

CRITERIA	WHAT IS MEASURED	THRESHOLD	POINTS AWARDED
Ramp	Ramp Width	48" or More	400
Geometry		47 - 36"	50
		Less than 36"	0
	Ramp Running Slope	8.3% or Less	400
		8.4 - 15%	50
		Greater than 15%	0
	Ramp Cross Slope	2% or Less	100
		2.1 - 5%	50
		5.1% or Greater	0
Detectable	Туре	Cast Iron Truncated Dome	100
Warning Surface		Truncated Dome (not Cast Iron)	70
		No Detectable Warning	0
Slopes in	Landing Running Slope	2% or Less	100
Waiting & Crossing Areas		2.1%-5%	50
crossing / ireas		Greater than 5%	0
	Landing Cross Slope	2% or Less	100
		2.1 - 5%	50
		5.1% or Greater	0
	Street Running Slopes / Ramp Counter Slope	0 - 5%	100
		5.1 - 7%	50
		7.1 or Greater	0
	Street Cross Slopes	2% or Less	100
		2.1 - 5%	50
		5.1% or Greater	0
Obstructions	PAR Obstructions	PAR Greater than 4'	300
		PAR is Between 3' and 4'	100
		PAR is Less Than 3' or Obstruction Exists	0
	1/4" Change in Level	No Changes of Level Over 1/4"	300
		Changes of Level Over 1/4" or Lip at Flowline Over 1/4"	0
TOTAL POSSIB	LE		2,000



Equity Criteria

Table 4-2 describes the criteria and measurement thresholds that are utilized to derive equity scoring in this Transition Plan. This same framework could be applied to each piece of

accessible infrastructure but is only being applied as part of this Transition Plan to pedestrian curb ramps because of availability of data.

Table 4-2: Equity criteria

CRITERIA	WHAT IS MEASURED	THRESHOLD	POINTS AWARDED
Safety	Street Average Crash Rate	>5 crashes per million users per year	12
		2.5 – 4.9 crashes per million users per year	8
		1.0 – 2.5 crashes per million users per year	4
		0-0.9 crashes per million users per year	0
Non-White	Percent of residents that	>50% of residents are people of color	12
Majority	identify as a person of color	> or = to 30% and < or = 50% of residents are people of color	4
		<30% of residents are people of color	0
Low-Income Population	Percent of residents below federal poverty level	>40% of residents have family income <185% of the federal poverty level	16
		> or = to 30% or less than or equal to 40% of residents have family income <185% of federal poverty level	5
		<30% of residents have family income <185% of the federal poverty level	0
	Number of household vehicles per resident over age 16	Street in area with vehicle availability <0.5 household vehicles per driver-age resident	8
		Street in area with vehicle availability 0.51-0.75 household vehicles per driver-age resident	4
		Street in area with vehicle availability > 0.76 household vehicles per driver-age resident	0
Potential	Population density	Street in area with over 20 housing units per acre	6
Users		Street in area with 10.1 - 20 housing units per acre	4
		Street in area with 5.1 - 10 housing units per acre	2
		Street in area with 0-5 housing units per acre	0
	Designated activity centers	Street in regional activity center	6
		Street in Access Minneapolis designated areas	3
Pedestrian	Pedestrian needs identified	Street with sidewalk gap	4
Needs	and mapped in the Pedestrian Master Plan	Street with complex intersection or bridge needs	4
	(non-ADA)	Street with other pedestrian needs	4
Transit	Existing transit routes and	Street with High Frequency Route	2
Needs	improvements identified in the Pedestrian Master	Street on Primary Transit Network	2
	Plan and the Service Improvement Plan	Street in Service Improvement Plan	4
TOTAL POSS	IBLE		80



QUANTITATIVE ANALYSIS RESULTS

Ramp-Level Accessibility Evaluation Results

Based on the Accessibility Evaluation framework in Table 4-1, the average Accessibility Evaluation citywide for pedestrian curb ramps is 74% (Pedestrian Curb Ramp Inventory 2023). A score higher than 60% means that for the most part, the intersection has the critical elements of a pedestrian curb ramps in place: pedestrian curb ramps exist, many ramps have widths greater than 48", there are landing areas, and the ramps are free from obstructions. However, many ramps are missing features that weren't required at time of initial construction, such as detectable warning surfaces and refined grade requirements, which bring their scores down to less than ideal. Table 4-3 divides ramps with different scores into Accessibility Evaluation Categories, details the distribution of pedestrian curb ramp Accessibility Evaluation scores citywide, and recommends

actions for each category. The total number of ramps in *Table 4-3* increased due to the 2021 inventory of previously missing data.

POTENTIAL MISSING RAMPS

The 2012 inventory collected data on existing ramps. It did not include data on where ramps should be installed, such as at the receiving ramps for T-intersections. An approximate number of locations where ramps may be missing was calculated from the number of ramp data points and the estimated minimum number of ramps based on intersection legs. As of 2023, all intersections have been re-inventoried to determine ramp condition and where additional curb ramps are needed. These numbers are reflected in Tables 4-3, 4-4, and 4-5 below.

Table 4-3: Pedestrian curb ramp accessibility evaluation distribution (2012-2017 Pedestrian Curb Ramp Inventory with supplemental data through 2023)

ACCESSIBILITY EVALUATION CATEGORY	DESCRIPTION OF A TYPICAL RAMP	PEDESTRIAN CURB RAMP ACCESSIBILITY EVALUATION RANGE	NUMBER OF PEDESTRIAN CURB RAMPS	PERCENT OF PEDESTRIAN CURB RAMPS	ACTION
Category 1: Meets or exceeds accessibility criteria	Recently reconstructed. Has truncated domes.	100%	1,357	7%	Monitor for declining condition.
Category 2: Good condition	Reconstructed recently or built in an area with few slope or obstruction issues. May or may not have truncated domes.	75-99%	6,909	38%	Prioritize for replacement.



Category 3: Fair condition	Several minor issues or one more significant issue.	60-75%	4,429	24%	Prioritize for replacement.
Category 4: Poor condition	Several issues, typically steep with little to no landing space.	50-60%	3,026	17%	Prioritize for replacement.
Category 5: Very poor condition	Significant lip at curb, narrow opening and often steep	Less than 50%	2,325	13%	Prioritize for replacement.
Category 6: Missing ramp or ramp data point	Curb at sidewalk intersection has no pedestrian curb ramp	0%	2,858	16%	Inventory intersections with potentially missing ramps. Prioritize locations with missing ramps for improvement.
Total			18,119		

Recommendation 4.3: Install pedestrian curb ramps where ramps are missing as intersections are programmed and designed for improvement

evaluation results for pedestrian curb ramps were also summarized by corner. *Table 4-4* details the distribution of Corner-Level Accessibility Evaluations citywide.

Corner-Level Intersection-Level Accessibility Evaluation Results

The Accessibility Evaluation framework provides a way to quantitatively compare individual pedestrian ramps. Many corners in Minneapolis have two ramps. When one ramp is rebuilt, the geometry of the adjacent ramp is often impacted; rebuilding one ramp often necessitates rebuilding the corner. To better inform how many corners would likely need to be addressed in order to address deficient ramps, the accessibility



Table 4-4: Corner-level accessibility evaluation distribution for pedestrian curb ramps (2012-2017 Pedestrian Curb Ramp Inventory with supplemental data through 2023)

ACCESSIBILITY EVALUATION CATEGORY	DESCRIPTION OF A TYPICAL RAMP	CORNER-LEVEL ACCESSIBILITY EVALUATION RANGE	NUMBER OF CORNERS	PERCENT OF CORNERS	ACTION
Category 1: Meets or exceeds accessibility criteria	Recently reconstructed. Has truncated domes.	100%	1,256	8%	Monitor for declining condition.
Category 2: Good condition	Reconstructed recently or built in an area with few slope or obstruction issues. May or may not have truncated domes.	75-99%	6,180	38%	Prioritize for replacement.
Category 3: Fair condition	Several minor issues or one more significant issue.	60-75%	3,968	24%	Prioritize for replacement.
Category 4: Poor condition	Several issues, typically steep with little to no landing space.	50-60%	2,774	17%	Prioritize for replacement.
Category 5: Very poor condition	Significant lip at curb, narrow opening and often steep	Less than 50%	2,120	13%	Prioritize for replacement.



Category 6: Missing ramp or ramp data point	Curb at sidewalk intersection has no pedestrian curb ramp	0%	2,858	16%	Inventory intersections with potentially missing ramps. Prioritize locations with missing ramps for improvement.
Total *Does not include unconfirmed missing ramps			16,298		

Intersection-Level Accessibility Evaluation Results

Public Works generally seeks to address all deficient or missing curb ramps when addressing an intersection with deficient or missing curb ramps. Additionally, to combine and compare the Accessibility Evaluation at the ramp level with an Equity Criteria score at the intersection level, scores for all ramps at an intersection were averaged to calculate priority by intersection.

Intersections that potentially have missing ramps as detailed in Table 4-3 received a 0% Accessibility Evaluation score in addition to the other ramp scores. These scores were averaged together to calculate an overall intersection Accessibility Evaluation score. *Table 4-5* details the distribution of Intersection-Level Accessibility Evaluations citywide. *Figure 4-4* shows the distribution of Accessible Evaluation Categories.

Table 4-5: Intersection-level accessibility evaluation distribution for pedestrian curb ramps (2012-2017 Pedestrian Curb Ramp Inventory with supplemental data through 2023)

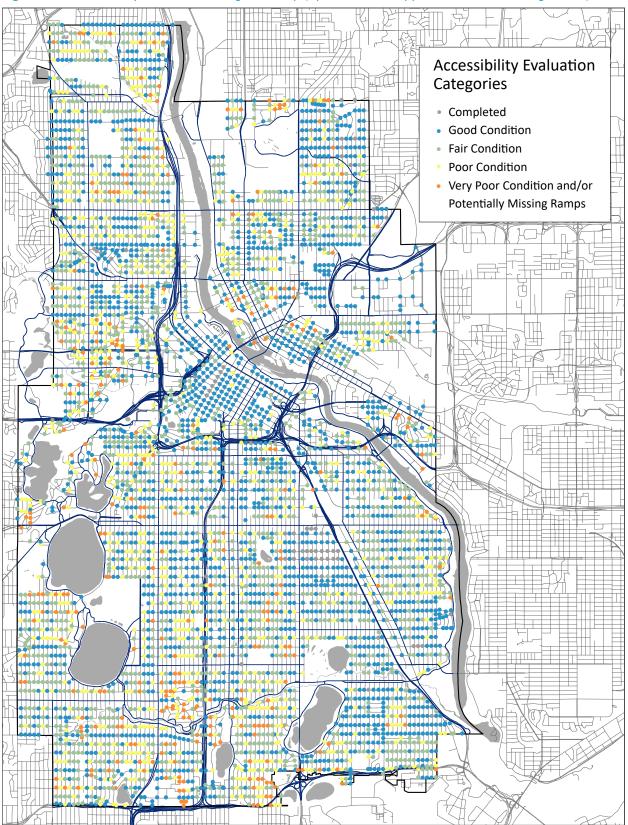
ACCESSIBILITY EVALUATION CATEGORY	DESCRIPTION OF A TYPICAL INTERSECTION	INTERSECTION EVALUATION RANGE		PERCENT OF INTERSECTIONS	ACTION
Category 1: Complete intersection	Recently reconstructed. Has truncated domes.	100%	79	2%	Monitor for deteriorating conditions.
Category 2: Good condition	Majority of intersection reconstructed recently or built in an area with few slope or obstruction issues. May or may not have truncated domes.	75-99%	1,980	41%	Prioritize for improvement via Intersection Priority Tiers and complete inventory if needed.
Category 3: Fair condition	Intersection has several minor issues or one more significant issue.	60-75%	1,569	33%	Prioritize for improvement via Intersection Priority Tiers and complete inventory if needed.



Category 4: P condition		50-60%	830	17%	Prioritize for improvement via Intersection Priority Tiers and complete inventory if needed.
Category 5 Very Poor ar or Potential Missing Ram	nd/ either has some ramps in poor	Less than 50%	315	7%	Prioritize for improvement via Intersection Priority Tiers and complete inventory if needed.
Total			4,773		
1	1	1	1	I	1



Figure 4-4: Accessibility evaluation categories map (updated with supplemental data through 2023)





EQUITY CRITERIA RESULTS

Equity Criteria scores are used to help prioritize improvements through a racial and economic equity lens. Equity scores were calculated at the intersection level. According to the 20 Year Streets Funding Plan prioritization, a higher Equity score means there is a higher need for improvement. Accessibility scores are the opposite – a low score indicates there is a higher need for improvement. To combine the equity scores and Intersection

Accessibility Evaluation, the equity scores (in percent) were subtracted from 100. The resulting scores for the Accessibility Evaluation and the Equity Criteria were assigned relative weights of 75% and 25%, respectively. This prioritizes locations where ramps are potentially missing or are in poor condition and aligns with the feedback received priorities indicated through public engagement. An example is shown in *Figure 4-5*.

Figure 4-5: *Intersection score calculation example*

INTERSECTION 1

(Int-12258: 35th St E and 13th Ave S)

Accessibility Evaluation Score = 32.6%

Equity Score = 42.5%

Prioritization Score = (0.75*32.6) + 0.25 (100-42.5) = 38.8%

INTERSECTION 2

(Int-14759 56th St W and Newton Ave S)

Accessibility Evaluation Score = 45.4%

Equity Score = 5%

Prioritization Score = (0.75*45.4) + 0.25 (100-5) = 57.8%

RESULT: INTERSECTION 1 SCORES LOWER, AND THEREFORE IS RANKED ABOVE INTERSECTION 2 FOR IMPROVEMENTS.

Intersection Jurisdiction

Jurisdiction informs whether the intersection would be programmed by the City of Minneapolis or needs to be addressed by another agency (e.g., MnDOT, Hennepin County, or MPRB). *Table 4-6* describes the intersection jurisdiction groupings in this Transition Plan. More information on jurisdictional responsibilities is included in *Chapter 1*.

Many non-city intersections play an important role in providing access to destinations for pedestrians. Though Minneapolis does not have control over these intersections, the City will continue to coordinate and support accessibility improvements at non-city intersections in accordance with City priorities and goals. *Figure 4-6* shows where non-city intersections are generally.

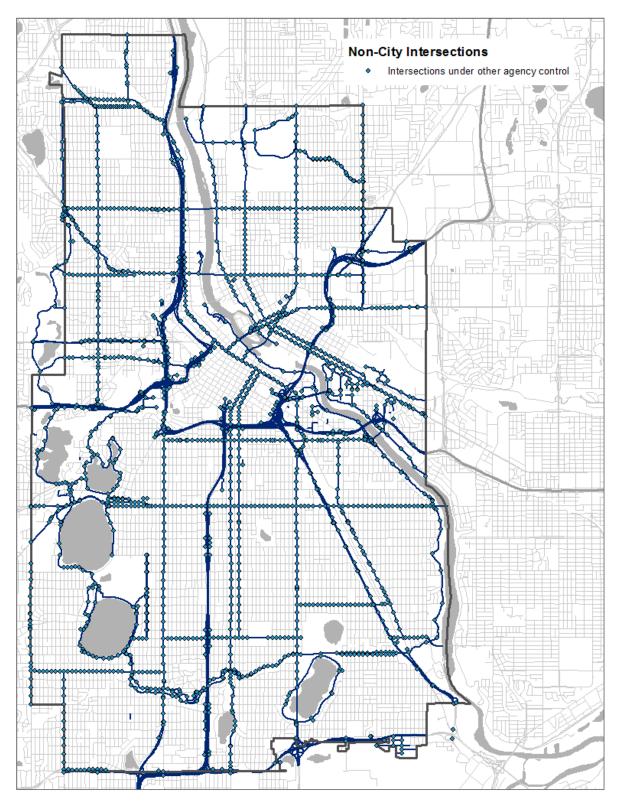


 Table 4-6: Pedestrian ramp data, prioritization, and funding status of intersections by jurisdiction

INTERSECTION JURISDICTION	PEDESTRIAN CURB RAMP DATA STATUS	PRIORITIZATION STATUS	ASSUMED FUNDING STATUS
City Intersections The City of Minneapolis controls all legs of the intersection	Most intersections have complete pedestrian curb ramp data; some intersections have incomplete pedestrian curb ramp data & need to be inventoried.	Prioritization Framework informs intersection prioritization	Included in Chapter 5: Implementation program and project selection
Non-City Intersections Another agency controls the intersection	Pedestrian curb ramp data being collected by other jurisdictions	Not included in Accessibility Evaluations & excluded from prioritization	Partial intersection cost is included in Funding Scenarios & Chapter 5 Implementation based on current maintenance and/or cost share agreements between the agencies. This primarily applies to signalized intersections.



Figure 4-6: *Map of non-city intersections*





Intersection Priority Tiers

The Intersection Accessibility Evaluation and Equity Criteria scores for City intersections were combined to get Intersection Prioritization scores as detailed in *Figure 4-4*. The highest priority intersections are those with the lowest average score. The intersections under City of

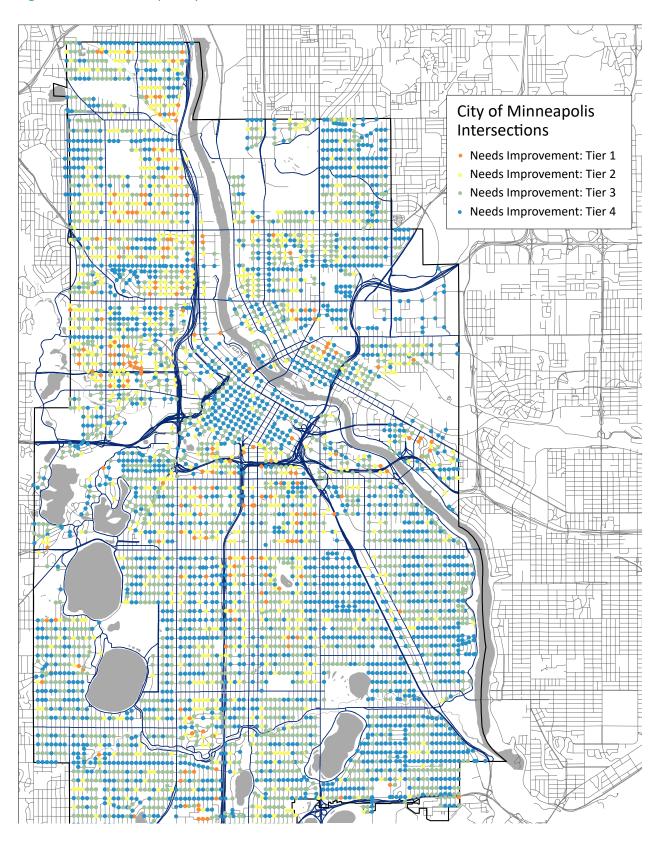
Minneapolis jurisdiction were divided into five Tiers. These Tiers correspond to relative needs of the intersection as determined by the Intersection Prioritization score. Tier 1 intersections have the most need and will generally be prioritized first for improvement. All Tiers are shown in *Table 4-7*.

Table 4-7: *Intersection priority tiers*

TIER	INTERSECTION NEED	NUMBER OF INTERSECTIONS	DESCRIPTION	CITY ACTION	
Intersections with no ramp data	Needs Inventory and/or Improvement	0	City intersections missing a ramp inventory.	City to inventory ramps and prioritize into Tiers.	
			Prioritization Scores are not available.		
Tier 1	Needs Improvement	204	City intersections with the most need:	City to program these intersections for improvement first or as	
			Prioritization Scores are the lowest citywide.	opportunities arise.	
Tier 2	Needs Improvement	788	City intersections with medium need:	City to program these intersections for	
			Prioritization Scores are between 50% and 60%.	improvement once Tier 1 is complete or as opportunities arise.	
Tier 3	Needs Improvement	1,790	City intersections with some need:	City to program these intersections for	
			Prioritization Scores are between 60% and 75%.	improvement once Tier 1 & 2 are complete or as opportunities arise.	
Tier 4	Needs Improvement	1,996	City intersections with the least amount of need:	City to program these intersections for improvement once Tier 1,	
			Prioritization Scores are higher than 75%.	2, and 3 are complete or as opportunities arise.	



Figure 4-7: Intersection priority tiers





Prioritization Framework for Other Infrastructure

Other infrastructure elements must be evaluated for accessibility and prioritized for improvements when data becomes available. The following sections present frameworks for evaluation and prioritization for traffic signals, crosswalks, and sidewalks.

TRAFFIC SIGNALS

Traffic signals with pedestrian signals must have accessible pedestrian signal (APS) equipment to be fully accessible. APS equipment includes audible push buttons and pedestrian signal heads. The equipment functions to communicate information about the WALK and DON'T WALK status at signalized intersections in visual and non-visual formats such as audible tones and vibrotactile surfaces to enable all users to safely cross the street.

Figure 4-8: Accessible Pedestrian Signal (APS) push button



Figure 4-9: Pedestrian signal head



The City of Minneapolis Public Works has conducted an inventory of traffic signals and accessible pedestrian signal (APS) equipment to determine where improvements are needed. Of the approximate 845 signalized intersections within Minneapolis, 443 have APS.

Recommendation 4.4: Prioritize locations in need of improvement for Accessible Pedestrian Signals (APS) and incorporate results into Prioritization chapter of ADA Transition Plan



SIDEWALKS

Sidewalks are the foundation of the pedestrian network, and their integrity affects whether and how easily pedestrians can move about the city. There are over 1,600 miles of sidewalk within Minneapolis right of way and more than 500 miles within other agency right of way.

Although the City of Minneapolis Public Works
Department maintains an inventory of which
street segments have sidewalks, whether
sidewalks exist on one or both sides of the
street and sidewalk widths, the City does not
have a citywide dataset that identifies cross
slope, vertical faults or obstructions. The City
of Minneapolis Public Works Department
is determining an approach to build a more
comprehensive sidewalk dataset for tracking and
planning improvements.

Figure 4-10: Tree grate in sidewalk



Figure 4-11: Uneven sidewalk



Prioritization Framework

The prioritization framework used to prioritize pedestrian curb ramp improvements could also be applied to sidewalk improvements. Sidewalks with identified deficiencies could then be prioritized according to a combined Accessibility Evaluation score and an Equity Criteria score. Public feedback received through this Transition Plan update indicated that sidewalk issues such as vertical faults and broken panels created the most challenges for users. Sidewalks with these deficiencies will be prioritized for improvement through an Accessibility Evaluation score, similar to the prioritization methodology for pedestrian curb ramps.



STREET CROSSINGS

Street crossings provide designated pedestrian crossing locations at street intersections and mid-block locations. In this plan, the term "street crossings" refer to both marked and unmarked street crossing locations.

Figure 4-12: *Minneapolis Zebra marked crosswalk*



Currently, the City of Minneapolis does not have a citywide crosswalk inventory of crosswalk width, running slope, and obstructions.

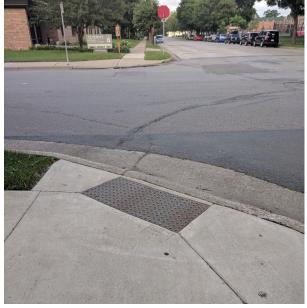
Recommendation 4.5: Using new data from inventorying sidewalks, prioritize sidewalk and street crossing barriers using the prioritization framework described in Chapter 4

From Here

Together, pedestrian curb ramps, traffic signals, sidewalks and street crossings allow pedestrians of all abilities to navigate the city independently. The pieces of infrastructure that have an identified accessibility need will require reconstruction or correction.

The Implementation chapter of this ADA Transition Plan *(Chapter 5)* details existing capital programs for addressing these types of infrastructure.







CHAPTER 5

Implementation

Overview

Based on the pedestrian curb ramp inventory and evaluation criteria described in *Chapters 3* and 4, there are more than 4,700 unsignalized intersections and approximately 350 signalized intersections within the City of Minneapolis' jurisdiction that need improvement to meet the criteria in the 2010 ADA Standards, and/or satisfy PROWAG guidance for pedestrian curb ramps. Additionally, approximately 500 signalized intersections are within another agency's right of way but are partially funded by Minneapolis. These intersections are tracked in other agency's ADA Transition Plans as described in *Chapter 1*.

This chapter describes how infrastructure improvements are made in the City of Minneapolis public right of way.

INFRASTRUCTURE IMPLEMENTATION

Several capital programs are used to implement accessible infrastructure within the public right of way. Some capital programs are geared toward signalized intersections, some capital programs are for pedestrian curb ramps or traffic signals, and some capital programs can be applied in a variety of ways. The City is systematically removing barriers in the public right of way by strategically applying each program to the accessible infrastructure within its scope. This balancing act of how each program is used to implement accessible infrastructure is detailed in *Table 5-1* and each program is discussed in detail in the following section.

This document serves as the Americans with Disabilities Act (ADA) Transition Plan within the City of Minneapolis. In developing this Plan, a self-evaluation was conducted on Minneapolis Public Works programs, policies, procedures, and infrastructure in the public right of way and were reviewed for compliance with ADA standards and guidelines.

Table 5-1: Capital programs used to implement accessible infrastructure

CAPITAL PROGRAM	NAME	PEDESTRIAN CURB RAMPS	TRAFFIC SIGNALS	STREET CROSSINGS	SIDEWALKS
PV104	ADA Ramp Replacement Program	•		**	• *
PV###	Specific Street Reconstruction Projects	•	•	•	•
PV056	Asphalt Pavement Resurfacing Program	•		•	
PV108	Concrete Streets Rehabilitation Program	•		•	



TR021	Traffic Signals	•	•	**	*
TR022	Traffic Safety Improvements	•	•	**	*
SWK01	Defective Hazardous Sidewalks	•			•
SWK02	Sidewalk Gap Programs	•		**	•
BP001	Safe Routes to School Program	•	•	**	•
BP004	Pedestrian Safety Program	•	•	**	•
n/a	Utilities	•		•	•
n/a	Private Development	•	•	•	•

^{*}At ramp approaches to correct grade

ADA Ramp Replacement Program (PV104)

The City's ADA Ramp Replacement program (PV104) funds the systematic replacement of pedestrian curb ramps to satisfy ADA requirements.

While PV104 has historically been used to reconstruct pedestrian curb ramps at both signalized and unsignalized intersections, the program has shifted to focus on improving unsignalized intersections and helping to fund ramp improvements in coordination with other capital projects. Focusing on non-signalized intersections allows the program to respond to community requests for ramp improvements, and address more locations each year than if signalized intersections were included in the program -- rebuilding signalized intersections without accessible push buttons often requires extensive design plans, geometrical changes and electrical work to construct new ramps and add accessible push button pedestals. Improving signalized intersections costs significantly more than improving non-signalized intersections due to the more extensive scope of work. Several capital programs focus on providing

improvements at signalized intersections (TR021, TR022 and street reconstruction projects) as detailed below.

Street Reconstruction

Street Reconstruction projects are identified by various PV numbers in the city's Capital Improvement Program (CIP) (e.g., PV095 4th St N and S Reconstruction). Street reconstruction typically includes replacing all street pavement, correcting curb and gutter and drainage, and replacing sidewalks that are impacted by street construction. Street reconstruction is a large-scale improvement that can address sidewalk needs, pedestrian curb ramps, and crossing and traffic signal improvements.

Asphalt Pavement Resurfacing Program (PV056)

The asphalt pavement resurfacing program (PV056) is responsible for resurfacing approximately 15 miles of residential and Municipal State Aid (MSA) streets per year. Municipal State Aid (MSA) streets is a network of streets within Minneapolis' right of way that typically carry higher traffic volumes and are eligible for additional funding. Street resurfacing



^{**}At gutter pan to correct grade

¹ The numeric code following the infrastructure program refers to the code used in the city's Capital Improvement Program (CIP), as listed in the Minneapolis Capital Budget. http://www.minneapolismn.gov/budget/index.htm

involves milling off the top inches of pavement and applying a new layer of asphalt.

The PV056 program maintains pavement condition, replaces non-functional curb and gutter, improves deficient pedestrian curb ramps and installs pedestrian curb ramps where needed.

Concrete Streets Rehabilitation Program (PV108)

The Concrete Rehabilitation Program (PV108) started in 2017. The Concrete Rehabilitation Program extends the life of concrete streets through pavement maintenance by repairing and sealing joints, repairing cracks, performing grinding of the pavement surface similar to resurfacing, replacing non-functioning curb and gutter, improving deficient pedestrian curb ramps and installing new pedestrian curb ramps where needed.

GUIDANCE ON PEDESTRIAN CURB RAMP IMPROVEMENTS IN RESURFACING PROJECTS

In partnership with the Federal Highway Administration (FHWA), the United States Department of Justice (DOJ) has issued a technical memorandum clarifying the Title II of the Americans with Disabilities Act requirement to provide pedestrian curb ramps when streets are resurfaced¹. That memo states that "projects deemed to be alterations must include curb ramps within the scope of the project", but asphalt and concrete-pavement repair treatments considered to be maintenance do not require pedestrian curb ramps at the time of the improvement. *Figure*5-1 details what scope the DOJ considers to be maintenance and what scope the DOJ considers to be alterations.

Figure 5-1: Department of Justice definition on maintenance versus alterations for asphalt and concrete resurfacing projects

SCOPE DOES NOT REQUIRE PEDESTRIAN CURB RAMP IMPROVEMENTS

Crack Filling and Sealing

Surface Sealing

Chip Seals

Slurry Seals

Fog Seals

Scrub Sealing

Joint Crack Seals

Joint Repairs

Dowel Bar Retrofit

Spot High-Friction Treatments

Diamond Grinding

Pavement Patching

SCOPE REQUIRES PEDESTRIAN CURB RAMP IMPROVEMENTS

Open-graded Surface Course

Cape Seals

Mill & Fill/Mill & Overlay

Hot In-Place Recycling

Microsurfacing/Thin Lift Overlay

Addition of New Layer of Asphalt

Asphalt and Concrete Rehabilitation & Reconstruction

tion & Reconstruction

New Construction

ADA MAINTENANCE

ADA ALTERATIONS



Source: DOJ Briefing Memorandum on Maintenance versus Alteration Projects, 2014.



http://www.azmag.gov/Portals/0/Documents/SC_2014-11-19_Americans-with-Disabilities-(ADA)-Resurfacing-Guidance-Clarification-for-Streets-Roads-and-Highways. pdf?ver=2017-04-06-111715-680

The DOJ and FHWA did not set a deadline for agencies to comply with this information, but the published DOJ briefing directed agencies to "establish a plan to implement this single Federal policy as soon as practical".

Recommendation 5.1: Incorporate pedestrian curb ramp construction in the asphalt resurfacing program (PV056) and concrete rehabilitation program (PV108)

Traffic Signal Funding Program (TR021)

The Traffic Signals Program (TR021) replaces aging and obsolete traffic signal equipment and pedestrian curb ramps at signalized intersections. Intersections are chosen for improvements based on signal age and condition. The City's practice has been that when a signal is rebuilt, pedestrian curb ramps are replaced and APS push buttons are installed.

In 2007, the City evaluated and prioritized all signalized intersections in Minneapolis for accessible pedestrian signals (APS) and began installing APS at the highest priority intersections. The intersection rankings were used to install APS at a few intersections each year. In 2014, when the TR021 program expanded, APS were installed as standard practice on all signal improvements requiring underground work, and therefore standalone APS installations were no longer conducted. The City began an APS inventory in 2018 that will provide data for an assessment of traffic signal accessibility in the city.

Traffic Safety Improvement Program (TR022)

The Traffic Safety Improvements Program (TR022) funds improvements at both signalized and unsignalized intersections. The primary purpose of these funds is to address specific safety issues, but several types of accessible infrastructure improvements may also be included such as enhanced crossings, signal upgrades (including APS equipment), or pedestrian curb ramps.

Sidewalk & Street Crossing Improvement Funding

There are several other programs in the City's CIP that can include accessibility improvements to street crossings, pedestrian curb ramps, and sidewalks. The sidewalk and street crossing improvement programs are focused on some key elements of accessible infrastructure: addressing trip hazards, replacing broken panels, and making new connections.

The current relevant sidewalk and crossing improvement programs in the City's CIP include:

- County and State streets, based on annual sidewalk inspections that cycle through the city. This program includes inspections for broken and hazardous sidewalk panels and orders repairs for broken and heaved panels. Additional funds are allocated to upgrade some pedestrian curb ramps in the repair area.
- Sidewalk Gap Program (SWK02) This program fills sidewalk gaps by installing public sidewalks where they are missing on one or both sides of the street and can include installation of pedestrian curb ramps at the new sidewalk connections.
- Safe Routes to School Program (BP001) This program encourages bicycling and walking for trips to and from school by making traffic calming improvements near schools. In addition to focusing on trips to school, the program also looks to improve the bicycle and pedestrian network in coordination with schools to better connect schools to parks, libraries, and other neighborhood destinations. These improvements have included bicycle boulevards, bike trails, curb extensions, pedestrian curb ramps, durable crosswalks, school crossing signage, pedestrian flashers, traffic diverters, and pedestrian accessible signal upgrades.



Intersection and Crossing Improvement Program (BP004) – This program encourages walking by improving street crossings, with a focus on unsignalized intersections. This program focuses on implementing pedestrian bumpouts, center median refuge islands, and intersection realignments. The program also includes other crossing improvements such as pedestrian curb ramps, curb extensions, pedestrian refuge medians, and accessible pedestrian signal upgrades.

Recommendation 5.2: Evaluate sidewalk and street crossing data to guide the development of a funding mechanism and/or approach for addressing sidewalk and street crossing barriers

Projects by Others

Other government agencies manage right of way within Minneapolis and construct accessible infrastructure. These agencies include Hennepin County, the Minnesota Department of Transportation (MnDOT), and the Minneapolis Parks and Recreation Board. These agencies often coordinate improvements with the City of Minneapolis but ultimately the design, construction, maintenance, operations, and repair of infrastructure is the responsibility of the agency that has jurisdiction unless otherwise determined through inter-agency agreements. The agency with jurisdiction is responsible for tracking and maintaining infrastructure status within their own ADA Transition Plans.

PARTNER AGENCY PROJECTS WITHIN CITY RIGHT OF WAY

Public agency projects sometimes involve improvements in Minneapolis right of way. These improvements are inventoried and tracked with Minneapolis' data inventory tool.

PRIVATE DEVELOPMENT AND UTILITY PROJECTS

Public Works plays a significant role in reviewing construction and detour plans within the public right of way for private development projects

in Minneapolis. Through the Preliminary Development Review (PDR) process, Public Works requires all developers to design and reconstruct impacted public right of way to the standards established in the Minneapolis Street and Sidewalk Design Guidelines. This includes reconstruction of public sidewalks to the minimum (at least) dimensions established for the pedestrian accessible route (PAR), the reconstruction of impacted pedestrian ramps to current ADA standards, and the installation of Accessible Pedestrian Signal (APS) systems. Minneapolis' Street and Sidewalk Design Guidelines often require developers to design and construct public sidewalks with widths well beyond minimum ADA requirements.

Private development projects and private and public utilities that impact the public right of way are required to restore sidewalk, pedestrian curb ramps, street crossings, and traffic signal infrastructure and any other City-owned infrastructure so that the infrastructure complies with current ADA and City standards and functions as a complete system.

Construction by private developers, utilities, and public agency partners has increased in recent years. Tracking the construction and inventorying rebuilt infrastructure built by these entities has been difficult due to challenges with available resources and existing mechanisms.

Recommendation 5.3: Improve the mechanism for tracking, inspecting and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all city-managed or built infrastructure is built according to city specifications, ADA Standards and in alignment with Minneapolis design guidelines



PEDESTRIAN CURB RAMP RECONSTRUCTION

Pedestrian curb ramp reconstruction has increased since 2013. Nearly 1,000 pedestrian curb ramps are reconstructed each year on average using a variety of funding sources (Figure 5-2). Assuming that funding levels remain constant, deficient pedestrian curb ramps and locations that may be missing ramps will be addressed within 13-17 years. This estimate includes adding Accessible Pedestrian Signal systems at signalized intersections as well as upgrading pedestrian curb ramps. The estimated cost to correct the deficient and potentially deficient locations is \$401 million based on average bid tabulations from recent pedestrian curb ramp construction (2024 dollars).

Note that this cost estimate is based on the work completed since the adoption of the 2022 plan and current material costs. The total curb ramps replaced with funding from PV104 witnessed a decrease in 2022 and 2023 due to focusing primarily on curb ramps that had more complex characteristics, which is more costly to design and therefore resulted in fewer constructed ramps (Figure 5-2). Locations will be prioritized based on the prioritization framework outlined in *Chapter*



Figure 5-2: Pedestrian curb ramp reconstruction by funding source

Note: Ramps constructed by private development projects have not been tracked since 2018

*2019-2021 data does not include pedestrian curb ramps built by utilities as this data was not being closely tracked



^{**2023} does not include number of ramps constructed by cooperative projects as this data will not be available until late 2024

Recommendation 5.4: Report on improvements to pedestrian curb ramps, Accessible Pedestrian Signals (APS), sidewalks and street crossings annually and update inventories

Recommendation 5.5: Update the timeline and anticipated cost for installing or correcting Accessible Pedestrian Signals (APS)

Recommendation 5.6: Establish an anticipated timeline and cost for addressing sidewalk and street crossing barriers

CONTEXT SPECIFIC DESIGN

Each intersection is unique, and therefore each pedestrian curb ramp, signal, sidewalk, and street crossing solution is unique. Space constraints, drainage considerations, and the long-term intersection configuration should all be considered when designing accessible infrastructure. Pedestrian curb ramps in particular need a high level of consideration given for a proper design.

The following table describes several pedestrian curb ramp designs and indicates in general when each design might be used. This table does not encompass all of the options for pedestrian curb ramps, but instead outlines the pros and cons of the most common designs.

Table 5-2: Ramp types and desirability

RAMP TYPE	RAMP IMAGE	DESIRABILITY	PROS	CONS
1. Combined Directional		Very Desirable	 Provides directionality Aids in snow clearing Can be placed next to vertical obstructions Wayfinding for visually impaired 	 Requires a lot of ROW (needs boulevard), ie. a small curb radius and/or large pedestrian zone
2. Parallel Ramps		Acceptable	Fits in constrained conditions	 Typically not aligned with direction of travel Multiple grade changes required in through walk zone
3. Blended Transition / Depressed Corner/ Fan Ramp		Acceptable , less desirable than bi-directional ramps	 Fits in constrained conditions (little ROW) Ramp is in line with through walk zone 	 Not good in low elevations (drainage concerns) Plows leave snow at front of ramp Easier for vehicles to drive on



4. Single	
Diagonal	Ramp



Undesirable but
acceptable if no
other ramp type
will work

- Fits in constrained conditions
- Not aligned with direction of travel, requires wheeled users to redirect in road
- Plows leave snow at front of ramp
- No space for pedestrian signals

PLAN RECOMMENDATIONS

The Transition Plan includes twenty recommendations to improve access in the public right of way *(Table 5-3)*. These recommendations are not all-inclusive of improvements made through routine construction projects and other policies, programs and practices.

Recommendations summarized here are listed by category and in chronological order within each category. Each recommendation's ID corresponds with the order they are discussed in the previous chapters of the report. They are not listed in order of priority or importance.

Table 5-3: Recommendations

CATEGORY	ID	RECOMMENDATION	TIMELINE AND MILESTONES
Pedestrian Curb Ramps	3.1	Modify the pedestrian curb ramp in-field data collection application to holistically collect all necessary information on pedestrian curb ramps	Complete updates to the data collection process (2020)
Pedestrian Curb Ramps	4.2	Inventory pedestrian curb ramps at intersections with no ramp data (approx. 50 intersections)	 Collect inventory on intersections with no pedestrian curb ramp data after new data collection app is finished (2021) and incorporate into prioritization list
Pedestrian Curb Ramps	4.3	Install pedestrian curb ramps where ramps are missing as intersections are programmed and designed for improvement	Ongoing
Pedestrian Curb Ramps	5.1	Incorporate pedestrian curb ramp construction in the asphalt resurfacing program (PV056) and concrete rehabilitation program (PV108)	Ongoing
Accessible Pedestrian Signals (APS)	3.2	Evaluate Accessible Pedestrian Signals (APS) inventory data and incorporate results into Infrastructure Status section of ADA Transition Plan	 Digitize and analyze inventory data on Accessible Pedestrian Signals (APS) (2020) Incorporate findings into ADA Plan (2021)
Accessible Pedestrian Signals (APS)	3.3	Compare Accessible Pedestrian Signal (APS) data collected to current ADA and Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD) criteria to identify any additional elements to collect and incorporate results into ADA Transition Plan	 Identify data collection improvements for Accessible Pedestrian Signals (APS) (2020) Incorporate findings into ADA Plan (2022) Develop approach to collect additional data if needed (2022)
Accessible Pedestrian Signals (APS)	4.4	Prioritize locations in need of improvement for Accessible Pedestrian Signals (APS) and incorporate results into Prioritization chapter of ADA Transition Plan	 Apply prioritization methodology to Accessible Pedestrian Signal (APS) data and incorporate into Chapter 4 of the ADA Plan (2025)

CATEGORY	ID	RECOMMENDATION	TIMELINE AND MILESTONES
Accessible Pedestrian Signals (APS)	5.5	Update the timeline and anticipated cost for installing or correcting Accessible Pedestrian Signals (APS)	 Update intersection cost estimates for signalized intersections in need of Accessible Pedestrian Signal (APS) improvements (2025)
Sidewalks and Street Crossings	3.4	Supplement existing data on sidewalks and street crossings by completing a sidewalk and street crossing inventory	 Scope data collection and evaluation pilot into capital project development (2020) Pilot data collection process and evaluation methodology and incorporate into Chapter 3 of the ADA Plan (2021) Establish process for collecting data citywide based on results of pilot (2025-2026)
Sidewalks and Street Crossings	4.5	Using new data from inventorying sidewalks, prioritize sidewalk and street crossings barriers using the prioritization framework described in Chapter 4	Prioritize identified barriers for improvement (2027-2028)
Sidewalks and Street Crossings	5.6	Establish an anticipated timeline and cost for addressing sidewalk and street crossing barriers if needed	 Develop an anticipated timeline and cost estimates for addressing sidewalk and street crossing barriers (2027-2028)
Sidewalks and Street Crossings	5.2	Evaluate sidewalk and street crossing data to guide the development of a funding mechanism and/or approach for addressing sidewalk and street crossing barriers	 Update City specifications (annually beginning in 2027) Evaluate need for additional resources (2025-2026)
All Infrastructure	5.3	Improve the mechanism for tracking, inspecting and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all citymanaged or built infrastructure is built according to city specifications, ADA Standards and in alignment with Minneapolis design guidelines	 Update City specifications (annually) Evaluate need for additional resources
All Infrastructure	5.4	Report on improvements to pedestrian curb ramps, Accessible Pedestrian Signals (APS), sidewalks and street crossings annually and update inventories	 Ongoing annually through the "Your City, Your Streets Progress Report" to the Climate & Infrastructure Committee (C&I) and NCR's "ADA Action Plan Report" to the Public Health and Safety Committee (PHS)
Prioritization	4.1	Update the equity component of infrastructure prioritization as the 20 Year Streets Funding Plan is updated	Ongoing (update starting in 2024)
Programs, Policies and Procedures	3.5	In collaboration with 311 and the Neighborhood and Community Relations Departments, evaluate adding an option on the 311 interface for the public to indicate whether a concern is related to accessibility	 Evaluate adding option to indicate access issue (2020) Update software and user testing (2020-2021)



CATEGORY	ID	RECOMMENDATION	TIMELINE AND MILESTONES
Programs, Policies and Procedures	3.6	Continue to expand departmental knowledge and expertise of ADA topics by attending trainings and classes	Ongoing
Programs, Policies and Procedures	3.7	Review and update existing policies and practices for pedestrian detour design and enforcement annually in coordination with additional direction in the Transportation Action Plan	 Align pedestrian detour design specifications with MNMUTCD standards (annually) Additional changes proposed in Transportation Action Plan (2020)
Programs, Policies and Procedures	3.8	Continue to monitor issues and feedback received on parking and operations for scooter, bike share and/or other micromobility options and evaluate the need for program improvements	 Designate additional parking locations for scooter, bike share and/or other micromobility options (Ongoing) Increase and simplify communications on where to park and where to ride (Ongoing) Increase enforcement of micromobility businesses and users (Ongoing) Review and make program improvements (Ongoing)
Programs, Policies and Procedures	3.9	Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by Minneapolis Ordinance 445 and the pedestrian and Bicycle Winter Study; explore modifications to improve access to the public right of way through the Transportation Action Plan	 Additional funding allocated for snow and ice corner clearing (2020) Additional improvements proposed in Transportation Action Plan (2020)

From Here

The City of Minneapolis is committed to removing barriers to accessibility in the city's public right of way and will continue to address deficient infrastructure and other barriers.

The recommended improvements were prioritized and an implementation plan was developed to provide guidance for the City's improvement projects in the coming years. Public outreach was also conducted to aid in the development of the plan.

This Transition Plan is intended to be a living document and will be updated as additional inventory data is collected, infrastructure is prioritized, and barriers are addressed. As part of the Transportation Action Plan, Public Works is committed to conducting regular reviews of the ADA Transition Plan to evaluate progress and suggest plan updates in pursuit of improved compliance.

This Transition Plan is focused on a portion of City of Minneapolis infrastructure and is not intended to be a comprehensive ADA Transition Plan for all City facilities. For more information on other City facilities, programs and policies, please refer to the City of Minneapolis ADA Action Plan and the Property Services ADA Transition Plan on the City of Minneapolis ADA Action Plan webpage.



APPENDIX A: **2022 Evaluation and Update**

originally published March 10th, 2022

OVERVIEW

The ADA Transition Plan for Public Works was adopted in February 2020 and the work to complete the important actions in the plan is ongoing. The 2022 ADA Transition Plan update represents a moment in time to evaluate the ongoing progress and highlight next steps. The goal of this evaluation and update is to:

- Understand the progress made to date on the recommendations outlined in the plan
- Ensure that Public Works is making progress on the recommendations outlined in the plan
- Identify any roadblocks preventing progress, ways to improve workflows, or adjustments that need to be made to the recommendations

Since the adoption of the 2020 ADA Transition Plan for Public Works the Transportation Action Plan (TAP) was approved and adopted by City Council (December 2020). The TAP supports the work outlined in this Plan by addressing a variety of issues that impact the accessibility of streets and sidewalks in Minneapolis and laying out a series of priorities, policies and approaches to identify and remove barriers in the public right of way. As part of the TAP, Public Works has committed to conducting a review of the ADA Transition Plan on a biennial basis (Walking Action 5.7) to evaluate progress and suggest plan updates in pursuit of improved compliance.

There are two primary elements of the 2022 ADA Transition Plan for Public Works update: a redlined version of the 2020 ADA Transition Plan for Public Works and Appendix A, which highlights progress made to date and includes a summary update of all the recommendations and milestones identified in the 2020 plan.

The 2020 ADA Transition Plan for Public Works has been redlined to reflect policy updates that have occurred since the plan was adopted. Along with the redlined document, this appendix provides an overview of the progress made to date on the recommendations and milestones within the plan, highlights some of the key work currently in progress, identifies challenges within this work, and outlines anticipated milestones in the coming years.

This appendix includes a summary table with a progress update for each of the recommendations put forth in the 2020 ADA Transition Plan for Public Works and includes revised timelines for ongoing and upcoming milestones.

PROCESS AND ENGAGEMENT

Public Works created a cross-divisional core team to evaluate the progress made on the recommendations and milestones outlined in the 2020 plan and to identify any challenges faced within this work. A progress update was provided to Public Works leadership through the TAP Steering Committee.

Public Works connected with City advisory committees that were key stakeholders in the development of the 2020 plan including the Pedestrian Advisory Committee (PAC), Minneapolis Advisory Committee on People with Disabilities (MACOPD), and the Minneapolis Advisory Committee on Aging (MACOA) to share key highlights of the ongoing work and an overview of progress since 2020. Since the content of the plan was not dramatically altered, engagement was limited and aimed to inform on progress made to date. Feedback from these groups was received and integrated where possible as part of this update.



PROGRESS UPDATE

The ADA Transition Plan for Public Works outlines 20 recommendations to help identify and remove barriers within the public right of way. Within these 20 recommendations, there are a total of 36 milestones that provide action items needed to complete the recommendations. *Figure A-1*, below, provides a quick glance at the milestone progress as of December 2021. There are a number of milestones that are "not started" yet - this a due primarily to the fact that much of this work is linear and dependent on "in progress" steps to be completed before moving onto the next action steps. *Table A-1*, at the end of this document, includes a full summary of the progress made to date on the 2020 ADA Transition Plan for Public Works recommendations.

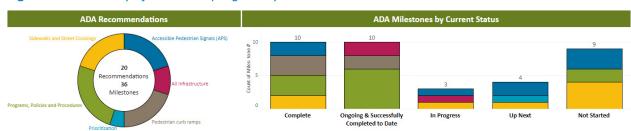


Figure A-1: Summary of milestone progress by current status

PROGRESS HIGHLIGHTS

Public Works is continuously making progress on the recommendations and milestones outlined in the 2020 ADA Transition Plan for Public Works. Below are three highlights of ongoing work to reduce and remove barriers within the public right of way that have had significant progress since the adoption of the 2020 ADA Transition Plan for Public Works. The progress highlights include:

- Dedicated ADA and Right of Way Staff
- Snow and Ice Corner Clearing
- Sidewalk and Street Crossing Inventory Pilot

Dedicated ADA and Right of Way Staff

Recommendation 5.3: Improve the mechanism for tracking, inspecting and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all city managed or built infrastructure is built according to city specifications, ADA Standards and in alignment with Minneapolis design guidelines.

To help support the goals and recommendations of the ADA Transition Plan for Public Works, Public Works is looking to develop an ADA and Right of Way Administrative team. The goal of this team is for increased capacity to manage the use of the right of way to match City goals for equity, safety, and mobility, as well as improve overall coordination between agencies, utilities, private developers and advancing actions contained in the ADA Transition Plan. This includes pedestrian curb ramps, audible pedestrian signals (APS), and proactive inspection of permitted right of way.

As part of the 2022 Mayor's adopted budget, \$120,000 has been identified for staffing resources related to ADA inspection and right of way management.



Snow and Ice Corner Clearing

Recommendation 3.9: Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by Minneapolis Ordinance 445 and the Pedestrian and Bicycle Winter Maintenance Study; explore modifications to improve access to the public right of way through additional direction in the Transportation Action Plan.

Minneapolis has roughly 2,000 miles of sidewalks within the public right of way. City ordinance requires that property owners are responsible for shoveling their public sidewalks. The City enforces the rules by responding to complaints to our 311 system and performs some proactive inspections. Property owners are responsible for clearing snow from the sidewalk and around the corner. The City has acknowledged that Public Works is responsible for clearing the snow that blocks the corners along <u>Pedestrian Priority Corridors</u>.

In 2020, an additional \$300,000 was appropriated by the City Council to further enhance the level of service of corner clearing. These additional, ongoing funds increased the corner clearing completion time on Pedestrian Priority Corridors to two days (down from four or five days) following a Snow Emergency.

Sidewalk and Street Crossing Inventory Pilot

Recommendation 3.4: Supplement existing data on sidewalks and street crossings by completing a sidewalk and street crossing inventory; Milestone: Pilot data collection process and evaluation methodology

During the development of the 2020 ADA Transition Plan for Public Works, Public Works identified a need to update and supplement existing data on public sidewalks within Minneapolis public right of way. In response to this, Public Works conducted a sidewalk inventory pilot from 2020-2021 to explore data collection and analysis methods for evaluating the condition and design of public sidewalks and street crossings in Minneapolis as outlined by *Recommendation 3.4*.

PROJECT SCOPE

There are several different methods for collecting and measuring sidewalk data and no common method is widely accepted as the recommended approach for data collection. Some public agencies deploy staff or interns to collect data, while others rely on contractors and propriety data collection devices. At a minimum, sidewalk data collection should include:

- Non-compliant sidewalk slopes (cross slope and longitudinal)
- Sidewalk widths and obstructions in the pedestrian access route
- Vertical displacements (e.g. raised panels and tripping hazards)
- Sidewalk condition

To better assess and compare the benefits and challenges of several data collection methods, Public Works staff and consultants went into the field to test six different data collection methods.

1. MANUAL DATA COLLECTION

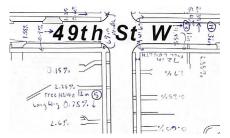
City staff collect sidewalk attributes in-field and enter into database.

Benefits: Low initial costs.

Limitations:

- Data collection and entry is time intensive
- High amount of data susceptible to location and reporting errors
- Difficulty converting analog field measurements into a digital GIS platform

Figure A-2: Example of manual data collection





2. TABLET-BASED COLLECTION

City staff collect sidewalk attributes using a tablet-based system. Data is updated to a cloud-based data management system.

Benefits:

- Low initial costs for equipment and setting up tablet
- Data can be collected by staff and updated as needed
- Can include collecting inventory for other attributes of the public right of way (e.g. pedestrian curb ramps, bus stops, and street crossings)
- Data processing can be done internally

Limitations:

- Data entry and collection is time intensive
- Requires substantial training to ensure staff are collecting data in the same way
- Tablet software still in development

3. GPS/GIS-BASED COLLECTION

Consultant or City staff collect sidewalk data using GPS-based system. Data is updated to a cloud based data management system.

Benefits:

- Data can be collected by staff or consultant team
- Consultant would provide staff training, data analysis and webbased map application for viewing results
- Similar data collection method used by other agency partners such as MnDOT and Hennepin County
- Consultant can include modules for collecting inventory data on other attributes of the public right of way (e.g. pedestrian curb ramps, bus stops, and street crossings)

Limitations:

- High cost for using consultant team to collect data
- Requires some training to ensure staff are collecting data in the same way
- Data entry and collection is time-intensive
- Would still require post-processing work by consultant

4. SEGWAY-BASED DATA COLLECTION

Consultant or city staff collect sidewalk data using three-wheeled SEGWAY.

Benefits:

- Data can be collected much quicker than options 1, 2, and 3 above.
- Minimal post-processing required
- Width of SEGWAY closely imitates width of wheelchair

Limitations:

- Some-what high upfront cost for equipment if purchased
- Will require consultant support for data analysis

Figure A-3: Staff demonstrating data collection process with tablet-based method



Figure A-5: Consultant staff demonstrating the GPS/GIS based collection tool



Figure A-4: Example of SEGWAY used to collect data







5. TERRESTRIAL LIDAR-BASED DATA COLLECTION

Sidewalk attributes are collected with a push-cart outfitted with sensors, including laser scanner, camera, and GPS sensors. Data is collected by walking the cart along the sidewalks. Data is post-processed into sidewalk attributes by the consultant

Benefits:

- Scalable data collection at walking speed and automated processing reduces individual bias
- Width of data collection cart closely imitates the width of a wheelchair
- Offers a process to update sidewalk inventory in the future by either consultant or city staff
- Collecting data is faster than options 1, 2, and 3

Limitations:

- Commitment to City-wide mapping necessary to justify scalable service
- Dependent on consultant data processing

vith 360 degree light Figure A-7: GIS output showing processed LIDAR

med copyed

and copyed

All completed

All completed

All copyed

data depicting compliant and non-compliant

sections of sidewalks and crossings

Figure A-6: Example of

data collection cart

6. AERIAL LIDAR-BASED DATA COLLECTION

Consultant staff collect sidewalk data with 360 degree light detection and ranging instrument (LIDAR). This process creates a highly detailed 3-D model called a "point cloud". Sidewalk attributes and other data can be measured manually using the point cloud. Software to automate the data analysis is available which creates a mapped infrastructure summary (shown to the right)

Benefits:

- Captures highly accurate information of the built environment
- Street crossing data can be collected in addition to sidewalk data
- Collecting data is faster than options 1, 2, and 3

Limitations:

- Collecting point cloud data is very expensive and labor intensive
- Data analysis is an additional cost

NEXT STEPS

Public Works is currently evaluating the scalability, cost and accuracy of the six data collection methods outlined above. This evaluation will inform additional discussion related to conducting a citywide supplementary sidewalk and street crossing inventory (Recommendation 3.4).



INFRASTRUCTURE IMPROVEMENTS

The 2020 ADA Transition Plan included sidewalk and pedestrian ramp data through 2018. The information below summarizes the most up to date infrastructure improvement data available today - 2019 and 2020. The information below also includes data on Accessible Pedestrian Signals (APS) which was not available during the development of the 2020 Plan.

The data outlined below includes improvements completed by the City; however, it does not includes improvements made by private developers, utilities, and other agencies. Per *Recommendation 5.3*, the City is taking steps to improve the mechanism for tracking, inspecting, and inventorying pedestrian curb ramps, APS, and sidewalks built in Minneapolis' public right of way by all agencies, private developers, and utilities to ensure that all built infrastructure is built according to city specifications, ADA standards and in alignment with Minneapolis design guidelines. The data will continue to be updated as new data becomes available.

Infrastructure Improvements since the 2020 ADA Transition Plan

PEDESTRIAN CURB RAMPS

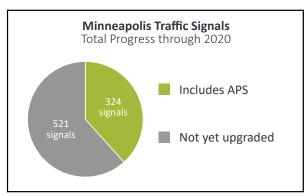


*This does not include ADA pedestrian curb ramps built by other agencies, private developments, or utilities.

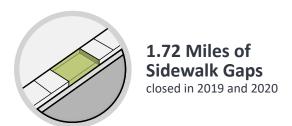


TRAFFIC SIGNALS





SIDEWALKS







Anticipated Cost and Timeline

Infrastructure improvements are expected to be complete within 18-28 years at an estimated cost of \$430 million (2021 dollars). Note that this cost estimate is based on current funding levels, the work completed since the adoption of the 2020 plan and current material costs. Additional information on the anticipated costs and schedules will be provided as infrastructure inventories are updated and evaluated including pedestrian ramps, traffic signals, sidewalks and street crossings.

IMPLEMENTATION CHALLENGES

The ADA Transition Plan was adopted by City Council in February 2020, only a month before COVID-19 impacts began. The year to follow was unprecedented and included challenges related to the pandemic, the death of George Floyd, and staffing and budget impacts. The events of 2020 and 2021 have impacted progress made on the ADA Transition Plan, however, the City is committed to removing barriers to accessibility in the city's public right of way and will continue to address deficient infrastructure and other barriers as we continue forward.

2022 AND BEYOND

Public Works remains committed to addressing and removing barriers in the public right of way through the recommendations outlined in the 2020 ADA Transition Plan for Public Works and beyond. *Table A-1* below provides a summary of the recommendation and milestone progress made to date and includes proposed new timelines for several recommendations. Public Works will continue to review the ADA Transition Plan on a biennial basis, per TAP <u>Walking action 5.7</u>, to evaluate progress and suggest plan updates in pursuit of improved compliance.



SUMMARY OF RECOMMENDATIONS AND MILESTONE PROGRESS

Table A-1: Recommendation progress summary and revised timelines

2020 ADA TRANSITION PLAN				202	2022 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
Pedestrian Curb Ramps	3.1	Modify the pedestrian curb ramp in-field data collection application to holistically collect all necessary information on pedestrian curb ramps	Complete updates to the data collection process (2020)	Complete	-	In-field data collection tool updated and testing completed spring 2021	
Pedestrian Curb Ramps	4.2	Inventory pedestrian curb ramps at intersections with no ramp data (approx. 50 intersections)	 Collect inventory on intersections with no pedestrian curb ramp data after new data collection app is finished (2021) 	Complete	-	Data collection of missing curb ramp data completed November 2021	
			Incorporate into prioritization list (2021)	Complete	-	Missing curb ramp data integrated into Chapter 4: Infrastructure Prioritization	
Pedestrian Curb Ramps	4.3	Install pedestrian curb ramps where ramps are missing as intersections are programmed and designed for improvement	Ongoing	Ongoing & Successfully Completed to Date	Ongoing	All projects are incorporating as needed	
Pedestrian Curb Ramps	5.1	Incorporate pedestrian curb ramp construction in the asphalt resurfacing program (PV056) and concrete rehabilitation program (PV108)	Ongoing	Ongoing & Successfully Completed to Date	Ongoing	Public Works has been expanding efforts to bring more funding for pedestrian curb ramp construction through various capital programs; pedestrian curb ramps recently integrated in the Dight Standish and Corcoran neighborhood 2022 resurfacing projects	



	2020 ADA TRANSITION PLAN			2022 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST
Accessible Pedestrian Signals (APS)	3.2	Evaluate Accessible Pedestrian Signals (APS) inventory data and incorporate results into Infrastructure Status section of ADA Transition Plan	Digitize and analyze inventory data on Accessible Pedestrian Signals (APS) (2020)	Complete	-	APS data has been digitized and includes data through 2018. City staff is in the process of updating the inventory with 2021 data, expected to be complete mid-2022
			 Incorporate findings into ADA Plan (2021) 	Complete	-	APS data has been included in Appendix A
Accessible Pedestrian Signals (APS)	3.3	Compare Accessible Pedestrian Signal (APS) data collected to current ADA and Minnesota Manual on Uniform Traffic Control Devices	Identify data collection improvements for Accessible Pedestrian Signals (APS) (2020)	In Progress	2022	Discussions ongoing for data collection improvements related to APS
		(MN MUTCD) criteria to identify any additional elements to collect	 Incorporate findings into ADA Plan (2021) 	Up Next	2022	Not started; dependent on above action to be completed
	and incorporate results into ADA Transition Plan		 Develop approach to collect additional data if needed (2021) 	Up Next	2022	Not started; dependent on above action to be completed
Accessible Pedestrian Signals (APS)	4.4	Prioritize locations in need of improvement for Accessible Pedestrian Signals (APS) and	 Apply prioritization methodology to Accessible Pedestrian Signal (APS) data 	Not Started	2022	Not started; dependent on Recommendation 3.3.
		incorporate results into Prioritization chapter of ADA Transition Plan	 Incorporate findings into Chapter 4 of the ADA Plan (2021) 	Not Started	2023	Not started; dependent on above action to be completed
Accessible Pedestrian Signals (APS)	5.5	Update the timeline and anticipated cost for installing or correcting Accessible Pedestrian Signals (APS)	 Update intersection cost estimates for signalized intersections in need of Accessible Pedestrian Signal (APS) improvements (2021) 	Not started	2022	Not started; dependent on Recommendation 3.2



2020 ADA TRANSITION PLAN					2022 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
Sidewalks and Street Crossings	3.4	Supplement existing data on sidewalks and street crossings by completing a sidewalk and street	 Scope data collection and evaluation pilot into capital project development (2020) 	Complete	-	Pilot project scoped early 2021	
		crossing inventory	 Pilot data collection process and evaluation methodology (2021) 	In Progress	2022	Data collection process has been completed. City staff is currently evaluating the data collection methods to inform future conversations related to conducting a citywide sidewalk and street crossing inventory	
			 Incorporate process and evaluation methodology into Chapter 3 of the ADA Plan (2021) 	Complete	-	Pilot data collection process and methods are included in Appendix A	
			 Establish process for collecting data citywide based on results of pilot (2022) 	Up Next	2023-2024	Not started; dependent on findings from the pilot data collection process	
Sidewalks and Street Crossings	4.5	Using new data from inventorying sidewalks, prioritize sidewalk and street crossings barriers using the prioritization framework described in Chapter 4	 Prioritize identified barriers for improvement (2022) 	Not started	2025-2026	Not started; Dependent on the completion of Recommendation 3.4	
Sidewalks and Street Crossings	5.6	Establish an anticipated timeline and cost for addressing sidewalk and street crossing barriers	 Develop an anticipated timeline and cost estimates for addressing sidewalk and street crossing barriers (2022) 	Not started	2025-2026	Not started; Dependent on the completion of Recommendation 3.4	
Sidewalks and Street Crossings	5.2	5.2 Evaluate sidewalk and street crossing data to guide the development of a funding mechanism and/or approach for addressing sidewalk and street crossing barriers if needed	 Update City specifications (annually) 	Not Started	Annually	Not started; Dependent on the completion of Recommendation 3.4	
			Evaluate need for additional resources (2020-2021)	Not Started	2025-2026	Not started; Dependent on the completion of Recommendation 3.4	



	2020 ADA TRANSITION PLAN				2022 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
All Infrastructure	5.3	Improve the mechanism for tracking, inspecting, and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all city-managed or built infrastructure is built according to city specifications, ADA standards and in alignment with Minneapolis design guidelines	Update City specifications (annually)	Ongoing & Successfully Completed to Date	Annually	Language has been updated in the City specifications to include additional information and data collection on pedestrian curb ramps and APS	
			Evaluate need for additional resources (2022)	In Progress	2022	2022 budget includes \$120,000 for staffing resources related to ADA inspection and right of way management	
All Infrastructure	5.4	Report on improvements to pedestrian curb ramps, Accessible Pedestrian Signals (APS), sidewalks and street crossings annually and update inventories	Ongoing annually through the "Your City, Your Streets Progress Report" to the Public Works and Infrastructure Committee (PWI) and NCR's "ADA Action Plan Report" to the Public Health and Safety Committee (PHS)	Ongoing & Successfully Completed to Date	Annually	Your City, Your Streets progress reports submitted to City Council annually	
Prioritization	4.1	Update the equity component of infrastructure prioritization as the 20 Year Streets Funding Plan is updated	Ongoing (update starting in 2022)	Up Next	2022	20 Year Streets Funding Plan update to begin in 2022	
Programs, Policies and Procedures	3.5	In collaboration with 311 and the Neighborhood and Community Relations Departments, evaluate	Evaluate adding option to indicate access issue (2020)	Not Started	2022	Not started	
	adding an option on the 311 interface for the public to indicate whether a concern is related to accessibility	 Update software and user testing (2020-2021) 	Not Started	2022	Not started; dependent on above action to be completed		



	2020 ADA TRANSITION PLAN				2022 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
Programs, Policies and Procedures	3.6	Continue to expand departmental knowledge and expertise of ADA topics by attending trainings and classes	 Ongoing 	Ongoing & Successfully Completed to Date	Ongoing	Public Works staff from all transportation divisions attend trainings and classes as available; Fall 2021 several staff from various Public Works division attended an ADA training focused on ADA compliance, engineering and design, and policy guidance	
Programs, Policies and Procedures	3.7	3.7 Review and update existing policies and practices for pedestrian detour design and enforcement annually in coordination with additional direction in the Transportation Action Plan	Align pedestrian detour design specifications with MNMUTCD standards (annually)	Ongoing & Successfully Completed to Date	Annually	Design specifications are updated to align with MNMUTCD standards as needed	
			Additional changes proposed in Transportation Action Plan (2020)	Complete	-	The Transportation Action Plan was adopted in December 2020 which provides additional direction (<u>Street Operations Strategy 9</u>)	



		2020 ADA TRANSITION PL	.AN	202	2022 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
Programs, Policies and Procedures	3.8	8 Continue to monitor issues and feedback received on parking and operations for scooter, bike share and/or other micromobility options and evaluate the need for program improvements	 Designate additional parking locations for scooter, bike share and/or other micromobility options (2020) 	Ongoing & Successfully Completed to Date	Ongoing	1500 meter hitches for bicycle and scooter parking installed in 2020; On street corrals expansion postponed due to budget cuts; funding requested through ARPA	
			 Increase and simplify communications on where to park and where to ride (2020) 	Ongoing & Successfully Completed to Date	Ongoing	Tracking 311 data, public dashboard created; beginning social media campaign to improve education	
			 Increase enforcement of micromobility businesses and users (2020) 	Ongoing & Successfully Completed to Date	Ongoing	Actively managing and tracking operators to improve compliance in the right of way	
			 Review and make program improvements (annually) 	Ongoing & Successfully Completed to Date	Annually	Review of existing program ongoing; possible program improvements incorporated into RFP for 2022 program and license agreement	
Programs, Policies and Procedures	3.9	3.9 Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by Minneapolis Ordinance 445 and the Pedestrian and Bicycle Winter Maintenance Study; explore modifications to improve access to the public right of way through additional direction in the Transportation Action Plan	Additional funding allocated for snow and ice corner clearing (2020)	Complete	-	In 2020, \$300,000 in additional funds was allocated to help speed up snow and ice corner clearing during snow emergencies. These funds remain in place today.	
						The 2018 Pedestrian and Bicycle Winter Maintenance Study is anticipated to begin being updated in 2022 and will help inform additional progress on this recommendation.	
			Additional improvements proposed in Transportation Action Plan (2020)	Complete	-	The Transportation Action Plan was adopted in December 2020 which supports this work (Walking Strategy 4)	



APPENDIX B: **2024 Evaluation and Update**

OVERVIEW

The <u>ADA Transition Plan for Public Works</u> was adopted in February 2020 and updated in 2022. The work to complete the important actions in the plan is ongoing. The **2024** ADA Transition Plan update represents a moment in time to evaluate the ongoing progress and highlight next steps. The goal of this evaluation and update is to:

- Understand the progress made to date on the recommendations outlined in the 2022 plan
- Ensure that Public Works is making progress on the recommendations outlined in the plan
- Identify any roadblocks preventing progress, ways to improve workflows, or adjustments that need to be made to the recommendations or their associated timelines

Similar to the 2022 ADA Plan update, there are two primary elements of the 2024 ADA Transition Plan for Public Works update: a redlined version of the 2022 ADA Transition Plan for Public Works Update and a new Appendix B, which highlights progress made to date and includes a summary update of all the recommendations and milestones identified in the ADA Transition Plan.

The ADA Transition Plan for Public Works 2022 Update has been redlined to reflect policy updates that have occurred since the last update in 2022. Along with the redlined document, this appendix provides an overview of the progress made to date on the recommendations and milestones within the plan, highlights some of the key work currently in progress, identifies challenges within this work, and outlines anticipated milestones in the coming years.

This appendix includes a summary table with a progress update for each of the recommendations put forth in the ADA Transition Plan for Public Works and includes revised timelines for ongoing and upcoming milestones.

PROCESS AND ENGAGEMENT

Public Works created a cross-divisional core team to evaluate the progress made on the recommendations and milestones outlined in the ADA Transition Plan and to identify any challenges within this work. Updates were provided to Public Works leadership through the Transportation Action Plan (TAP) Steering Committee to get their input and approval on proposed changes.

Public Works connected with City advisory committees that were key stakeholders in the development of the ADA Transition Plan including the Pedestrian Advisory Committee (PAC), Minneapolis Advisory Committee on People with Disabilities (MACOPD), and the Minneapolis Advisory Committee on Aging (MACOA) to share key highlights of the ongoing work and an overview of progress since 2022. Since the content of the plan was not dramatically altered, engagement was focused on informing the progress made to date. Feedback from these groups was received and integrated where possible as part of this update.



PROGRESS SINCE THE 2022 PLAN UPDATE

The ADA Transition Plan for Public Works outlines 20 recommendations to help identify and remove barriers within the public right of way. Within these 20 recommendations, there are a total of 36 milestones that provide action items needed to complete the recommendations. *Figure B-1*, below, provides a quick glance at the milestone progress as of December 2023. *Table B-1*, at the end of this document, includes a full summary of the progress made to date on the ADA Transition Plan for Public Works recommendations.

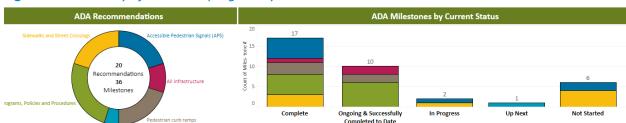


Figure B-1: Summary of milestone progress by current status

Since the adoption of the 2020 ADA Transition Plan for Public Works and the subsequent 2022 Plan update, the ADA and Right of Way (ROW) Administrative team was formed following *Recommendation 5.3* and operates from the Transportation Engineering and Design (TED) division in Public Works. The ROW team was created to help improve the tracking, inspecting and inventorying of infrastructure in the public right of way to ensure ADA compliance. This includes tracking of pedestrian curb ramps, Accessible Pedestrian Signals (APS), and sidewalks. Additionally, this team aims to improve enforcement of the infrastructure built public right of way by both City and non-city entities to ensure ADA compliance. The ROW team's work has been instrumental in completing several recommendations and milestones in the ADA Transition Plan such as:

- Recommendation 3.1: Making improvements to pedestrian curb ramp inventorying and tracking
- Recommendation 3.2: Making improvements to APS inventorying and tracking
- Recommendation 3.3: Identifying data collection improvements for APS compliance

Since the 2022 plan update, seven milestones have been completed that were either previously in progress, up next, or not yet started. As of December 2023, 27 milestones of the 36 total milestones are either complete or ongoing and successfully completed to date. There are seven milestones that have not yet started, the majority of which are dependent on in progress milestones to be completed first.

PROGRESS HIGHLIGHTS

Public Works is continuously making progress on the recommendations and milestones outlined in the ADA Transition Plan for Public Works. Below are three highlights of ongoing work to reduce and remove barriers within the public right of way that have made significant progress since the adoption of the 2020 ADA Transition Plan for Public Works and subsequent 2022 Plan update. The progress highlights include:

- Improvements in ROW Tracking and Monitoring
- Contractor Accountability
- Sidewalk Snow and Ice Removal Pilot



Improvements in ROW Tracking and Monitoring

Recommendation 5.3: Improve the mechanism for tracking, inspecting and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all city managed or built infrastructure is built according to city specifications, ADA Standards and in alignment with Minneapolis design guidelines.

To help support the goals and recommendations of the ADA Transition Plan for Public Works, Public Works created an ADA and Right of Way Administrative team. The primary goal of this team is to increase capacity to manage the use of the right of way to match City goals for equity, safety, and mobility, as well as improve overall coordination between agencies, utilities, private developers and advancing actions contained in the ADA Transition Plan. This includes pedestrian curb ramps, audible pedestrian signals (APS), and proactive inspection of permitted right of way.

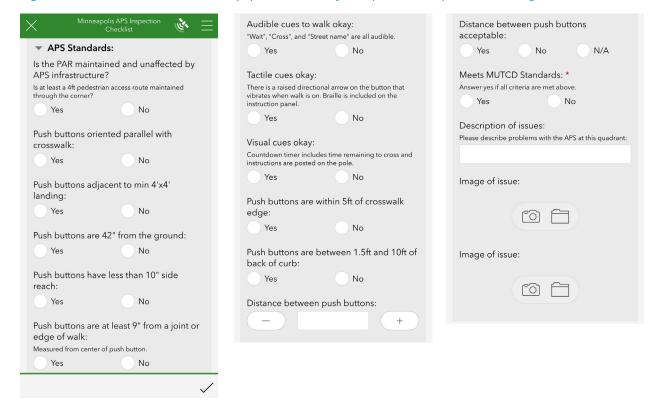
The Public Works ROW team was tasked with repairing the City's ADA pedestrian ramp data and create a new system for tracking all pedestrian ramp data. An innovative, Geographic Information System (GIS) catalog was quickly developed that combined all previous data with new data collection efforts. This led to more accurate data to inform future pedestrian ramp reconstruction efforts. A survey questionnaire was created for staff to enter physical ramp data more efficiently in the field using a tablet, thus effectively capturing ramp compliance information. Through this new data collection methodology, the ROW team corrected a data error backlog of roughly 3,500 pedestrian curb ramps.

Dynamic tracking mechanisms were produced to identify where pedestrian curb ramps are replaced as part of private or public projects in the City ROW. The ROW team is currently working to make this data available to the public. Additionally, the ROW team has developed a training program for interns and Public Works staff to collect accurate pedestrian ramp data to inform future construction projects.

In addition to the updated curb ramp data collection methodology, the ROW team has made improvements to the APS data collection methodology. Previously, the City had been tracking where APS is located but was not tracking more detailed information to know if existing APS met all compliance standards. Over the last year, the ROW team has developed a detailed survey to use during inspections to track specific compliance information per MnDOT compliance standards. *Figure B-2*, below, shows the data that is now tracked for all existing and future APS locations. All compliance data for existing APS locations is anticipated to be complete in 2024.



Figure B-2: APS data collection survey questions used for improved compliance tracking



Contractor Accountability

Recommendation 5.3: Improve the mechanism for tracking, inspecting and inventorying pedestrian curb ramps, Accessible Pedestrian Signals (APS) and sidewalks that are built in Minneapolis' public right of way by private developers, utilities, and other agencies and determine whether additional inspection staff or resources are needed to ensure all city managed or built infrastructure is built according to city specifications, ADA Standards and in alignment with Minneapolis design guidelines.

The ROW team was tasked with improving enforcement of the public ROW by generating guidelines for private contractors on ADA pedestrian ramp construction in the City of Minneapolis. In 2023, the ADA Curb Ramp Design, Construction and Repair Technical Memorandum was created to address curb ramp construction enforcement. If a pedestrian curb ramp is not constructed to meet ADA compliance, the contractor is now required to replace the non-compliant curb ramp. A total of 75 pedestrian curb ramps were tracked in 2023 by private utilities under this guidance. The technical memorandum, utilizing the ADA curb ramp designs and policy guidelines from the Minnesota Department of Transportation (MnDOT), sets the scoping, design, and construction requirements within the City of Minneapolis. Major highlights include:

- Changes to the sidewalk permitting system to better track where the contractors are replacing pedestrian curb ramps in Minneapolis.
- Added requirement for reconstructed corners with potential horizontal or vertical constraints.
 Plans are now mandatory for these corners to give the ROW team the opportunity to review before construction to identify and address any potential issues related to certain utility and development projects.



Sidewalk Snow and Ice Removal Pilot

Recommendation 3.9: Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by <u>Minneapolis Ordinance 445</u> and the Pedestrian and Bicycle Winter Maintenance Study; explore modifications to improve access to the public right of way through additional direction in the Transportation Action Plan.

In February 2023, a <u>Legislative Directive</u> from the Minneapolis City Council's Public Works and Infrastructure Committee (referred to as the Climate & Infrastructure Committee as of 2024) requested a multidisciplinary review of potential City-led sidewalk snow and ice removal programs that could be fully implemented by 2027. A fiscal analysis was administered and calculated the capital and operating costs for this potential program such as snow removal equipment, equipment storage facility, labor costs, operating costs, and snow removal costs where no boulevards for snow storage are present.

The Legislative Directive led to the Sidewalk Snow and Ice Removal Pilot Programs, funded for the 2024-2025 winter season, and are implementable to start as soon as fall of 2024:

- Snow Case Worker Pilot
- Senior Snow Clearing Assistance Pilot
- Snow Ambassador Pilot
- Mobile Team Pilot

Details on the Sidewalk Snow and Ice Removal Pilots were <u>presented to City Council in 2023</u>. The City Council approved funding in the 2024 to implement four sidewalk snow and ice removal pilots.

In 2024, Public Works finalized an updated Winter Walking and Biking Study. This study consolidates all the City's recent work on winter walking and biking and recommends actions that build off that work.

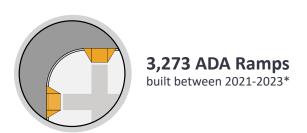
INFRASTRUCTURE IMPROVEMENTS

The 2022 ADA Transition Plan update included sidewalk and pedestrian ramp data through 2020. The information below summarizes the most up to date infrastructure improvement data available through 2023 and where additional tracking is not complete but in-progress. The data outlined below includes improvements completed by the City, utility companies, and other agencies. Per *Recommendation 5.3*, the City is taking steps to improve the mechanism for tracking, inspecting, and inventorying pedestrian curb ramps, APS, and sidewalks built in Minneapolis' public right of way. This is accomplished by all agencies, private developers, and utilities ensuring that all built infrastructure is built according to city specifications, ADA standards and in alignment with Minneapolis design guidelines. The data will continue to be updated as new data becomes available.



Infrastructure Improvements Since the 2022 ADA Transition Plan Update

PEDESTRIAN CURB RAMPS

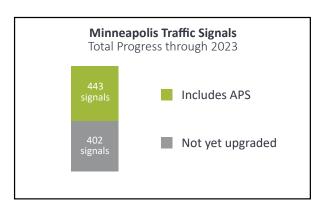


*Does not include ramps built by private developments, ramps constructed in 2021 by utilities (not tracked from 2019-2021), or ramps constructed in 2023 by cooperative projects. Ramp data constructed by cooperative projects are expected to be available by the end of 2024.

Minneapolis Pedestrian Ramps Total Progress through 2023 7,738 ramps Fully or substantially compliant pedestrian ramps 10,381 ramps Not yet upgraded

TRAFFIC SIGNALS





SIDEWALKS





Anticipated Cost and Timeline

Infrastructure improvements are expected to be complete within 13-17 years at an estimated cost of \$401 million (2024 dollars). Note that this cost estimate is based off material costs (and no inflation); the timeline is based off current funding levels and current material costs. Additional information on the anticipated costs and schedules will be provided as infrastructure inventories are updated and evaluated including pedestrian ramps, traffic signals, sidewalks and street crossings.



2024 AND BEYOND

Significant progress has been made since the 2022 ADA Transition Plan Update on both the recommendations and milestones in the ADA Transition Plan as well as on improving ADA infrastructure within the public right of way. Public Works remains committed to addressing and removing outstanding barriers in the public right of way through the recommendations outlined in the ADA Transition Plan for Public Works and beyond. *Table B-1* below provides a summary of the recommendation and milestone progress made to date and includes proposed new timelines for several recommendations. Public Works will continue to review the ADA Transition Plan on a biennial basis, per TAP <u>Walking action 5.7</u>, to evaluate progress and suggest plan updates in pursuit of improved compliance.



SUMMARY OF RECOMMENDATIONS AND MILESTONE PROGRESS

Table B-1: Recommendation progress summary and revised timelines

		2020 ADA TRANSITION PL		2024 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST
Pedestrian Curb Ramps	3.1	Modify the pedestrian curb ramp in-field data collection application to holistically collect all necessary information on pedestrian curb ramps	Complete updates to the data collection process (2020)	Complete	-	In-field data collection tool updated and testing completed spring 2021. Additional inventory tracking systems continue to be updated and managed by the ROW team.
Pedestrian Curb Ramps	4.2	Inventory pedestrian curb ramps at intersections with no ramp data (approx. 50 intersections)	 Collect inventory on intersections with no pedestrian curb ramp data after new data collection app is finished (2021) 	Complete	-	Data collection of missing curb ramp data completed November 2021
			 Incorporate into prioritization list (2021) 	Complete	-	Missing curb ramp data integrated into Chapter 4: Infrastructure Prioritization
Pedestrian Curb Ramps	4.3	Install pedestrian curb ramps where ramps are missing as intersections are programmed and designed for improvement	Ongoing	Ongoing & Successfully Completed to Date	-	All projects are incorporating as needed
Pedestrian Curb Ramps	5.1	Incorporate pedestrian curb ramp construction in the asphalt resurfacing program (PV056) and concrete rehabilitation program (PV108)	- Ongoing	Ongoing & Successfully Completed to Date	-	All projects are incorporating as needed



	2020 ADA TRANSITION PLAN					2024 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST		
Accessible Pedestrian Signals (APS)	3.2	Evaluate Accessible Pedestrian Signals (APS) inventory data and incorporate results into Infrastructure Status section of ADA Transition Plan	Digitize and analyze inventory data on Accessible Pedestrian Signals (APS) (2020)	Complete	-	A digital inventory of APS data has been completed and includes data through 2021. The ROW team is actively working to update.		
			 Incorporate findings into ADA Plan (2021) 	Complete	-	The most up to date APS data has been included in <i>Appendix</i> B		
Accessible Pedestrian Signals (APS)	3.3	Signal (APS) data collected to current ADA and Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD) criteria to identify any additional elements to collect and incorporate results into ADA Transition Plan	 Identify data collection improvements for Accessible Pedestrian Signals (APS) (2020) 	Complete	-	Data collection improvements have been integrated into process		
			 Incorporate findings into ADA Plan (2021) 	Complete	-	Methodology for data collection improvements are included in <i>Appendix B</i>		
			Develop approach to collect additional data if needed (2021)	Complete	-	Approach has been developed; data collection in progress		
Accessible Pedestrian Signals (APS)	4.4	Prioritize locations in need of improvement for Accessible Pedestrian Signals (APS) and incorporate results into Prioritization chapter of ADA Transition Plan	 Apply prioritization methodology to Accessible Pedestrian Signal (APS) data (2022) 	Not Started	2025	Not started; dependent on full APS data collection to be complete		
			 Incorporate findings into Chapter 4 of the ADA Plan (2021) 	Not Started	2025	Not started; dependent on above action to be completed		



2020 ADA TRANSITION PLAN					2024 ADA TRANSITION PLAN UPDATE			
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST		
Accessible Pedestrian Signals (APS)	5.5	Update the timeline and anticipated cost for installing or correcting Accessible Pedestrian Signals (APS)	Update intersection cost estimates for signalized intersections in need of Accessible Pedestrian Signal (APS) improvements (2021)	In Progress	2025	Cost estimates available for signalized intersections that do not currently have APS; additional data collection in progress to track ADA compliance at intersections with APS which will better inform a complete cost estimate		
Sidewalks and Street Crossings	3.4	3.4 Supplement existing data on sidewalks and street crossings by completing a sidewalk and street crossing inventory	 Scope data collection and evaluation pilot into capital project development (2020) 	Complete	-	Pilot project scoped early 2021		
			 Pilot data collection process and evaluation methodology (2021) 	Complete	-	Pilot data collection process and evaluation completed in 2021		
			 Incorporate process and evaluation methodology into Chapter 3 of the ADA Plan (2021) 	Complete	-	Pilot data collection process and methods are included in Appendix A		
			Establish process for collecting data citywide based on results of pilot (2022)	In Progress	2025-2026	Recommendation for citywide data collection process has been identified; implementation dependent on funding availability		
Sidewalks and Street Crossings	4.5	Using new data from inventorying sidewalks, prioritize sidewalk and street crossings barriers using the prioritization framework described in Chapter 4	Prioritize identified barriers for improvement (2022)	Not started	2027-2028	Not started; Dependent on the completion of Recommendation 3.4		
Sidewalks and Street Crossings	5.6	Establish an anticipated timeline and cost for addressing sidewalk and street crossing barriers	 Develop an anticipated timeline and cost estimates for addressing sidewalk and street crossing barriers (2022) 	Not started	2027-2028	Not started; Dependent on the completion of Recommendation 3.4		



	2020 ADA TRANSITION PLAN				2024 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
Sidewalks and Street Crossings	5.2	Evaluate sidewalk and street crossing data to guide the development of a funding	Update City specifications (annually)	Not Started	Annually beginning in 2027	Not started; Dependent on the completion of Recommendation 3.4	
		mechanism and/or approach for addressing sidewalk and street crossing barriers if needed	Evaluate need for additional resources (2020-2021)	Not Started	2027-2028	Not started; Dependent on the completion of Recommendation 3.4	
All Infrastructure	All 5.3 Improve the mechanism for	Update City specifications (annually)	Ongoing & Successfully Completed to Date	-	Language has been updated in the City specifications to include additional information and data collection on pedestrian curb ramps and APS		
		staff or resources are needed to ensure all city-managed or built infrastructure is built according to city specifications, ADA standards and in alignment with Minneapolis	Evaluate need for additional resources (2022)	Complete	-	The ROW management team was established in 2022 to improve the oversight of infrastructure and work within the ROW. This team includes 3 full time positions. Since the formation of this team, significant improvements have been made to ROW data collection systems.	
All Infrastructure	5.4	Report on improvements to pedestrian curb ramps, Accessible Pedestrian Signals (APS), sidewalks and street crossings annually and update inventories	 Ongoing annually through the "Your City, Your Streets Progress Report" to the Climate and Infrastructure Committee (C&I) and NCR's "ADA Action Plan Report" to the Public Health and Safety Committee (PHS) 	Ongoing & Successfully Completed to Date	-	Your City, Your Streets progress reports submitted to City Council annually	



	2020 ADA TRANSITION PLAN				2024 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST	
Prioritization	4.1	Update the equity component of infrastructure prioritization as the 20 Year Streets Funding Plan is updated	Ongoing (update starting in 2022)	Up Next	2024	The City adopted the Racial Equity Framework for Transportation (REF) in 2023; the 20 Year Streets Funding Plan will be updated to be consistent with the REF in 2024	
Programs, Policies and Procedures	3.5	In collaboration with 311 and the Neighborhood and Community Relations Departments, evaluate	Evaluate adding option to indicate access issue (2020)	Complete	-	Completed early 2022.	
		adding an option on the 311 interface for the public to indicate whether a concern is related to accessibility	Update software and user testing (2020-2021)	Complete	-	Accessibility option added; updates will be made as needed to ensure usability	
Programs, Policies and Procedures	3.6	Continue to expand departmental knowledge and expertise of ADA topics by attending trainings and classes	Ongoing	Ongoing & Successfully Completed to Date	-	Public Works staff from all transportation divisions attend trainings and classes as available; As of January 2024, 51 Public Works staff have completed the ADA Online Construction Certification Training	
Programs, Policies and Procedures	3.7	3.7 Review and update existing policies and practices for pedestrian detour design and enforcement annually in coordination with additional direction in the Transportation Action Plan	 Align pedestrian detour design specifications with MNMUTCD standards (annually) 	Ongoing & Successfully Completed to Date	-	Design specifications are updated to align with MNMUTCD standards as needed	
			Additional changes proposed in Transportation Action Plan (2020)	Complete	-	The <u>Transportation Action Plan</u> was adopted in December 2020 which provides additional direction (<u>Street Operations Strategy 9</u>)	



	2020 ADA TRANSITION PLAN					2024 ADA TRANSITION PLAN UPDATE		
CATEGORY	ID	RECOMMENDATION	MILESTONES & TIMELINE	CURRENT STATUS	PROPOSED NEW TIMELINE	MILESTONE PROGRESS: CURRENT AND PAST		
Programs, Policies and Procedures	3.8	feedback received on parking and operations for scooter, bike share and/or other micromobility options and evaluate the need for program improvements	Designate additional parking locations for scooter, bike share and/or other micromobility options (2020)	Ongoing & Successfully Completed to Date	-	240 bike racks have been acquired via donation from Lyft and Nice Ride and have been distributed throughout the city to support the shared mobility program		
			Increase and simplify communications on where to park and where to ride (2020)	Ongoing & Successfully Completed to Date	-	Tracking 311 data, public dashboard created; beginning social media campaign to improve education		
			Increase enforcement of micromobility businesses and users (2020)	Ongoing & Successfully Completed to Date	-	Operations analyst hired to exclusively focus on management of the bike and scooter program including compliance monitoring.		
			Review and make program improvements (annually)	Ongoing & Successfully Completed to Date	-	Review of existing program ongoing; possible program improvements incorporated into RFP for 2024 program and license agreement		
Programs, Policies and Procedures	3.9	2.9 Continue to address seasonal barriers such as snow and ice on sidewalks as outlined by Minneapolis Ordinance 445 and the Pedestrian and Bicycle Winter Maintenance Study; explore modifications to improve access to the public right of way through additional direction in the Transportation Action Plan	Additional funding allocated for snow and ice corner clearing (2020)	Complete	-	In 2020, \$300,000 in additional funds was allocated to help speed up snow and ice corner clearing during snow emergencies. These funds remain in place today.		
						In 2024, the City is implementing a sidewalk snow and ice clearing program.		
			Additional improvements proposed in Transportation Action Plan (2020)	Complete	-	The Transportation Action Plan was adopted in December 2020 which supports this work (Walking Strategy 4)		

