

Seattle's Sidewalk Maintenance and Repair Program

October 28, 2021

Jane A. Dunkel

David G. Jones, City Auditor

We acknowledge that we are on the traditional land of the first people of Seattle, the Coast Salish People past and present. We honor the land itself and the Coast Salish and Duwamish Tribes with gratitude.



Seattle Office of City Auditor

Seattle's Sidewalk Maintenance and Repair Program

Report Highlights

Background

The City of Seattle (City) has about 2,300 miles of sidewalks. The City is responsible for repairing and maintaining sidewalks adjacent to City property or structures, affected by City utilities, and adjacent to City street trees. The Seattle Department of Transportation (SDOT) estimates that the City is responsible for about 15 to 20 percent of Seattle's sidewalks. The remaining 80 to 85 percent are primarily the responsibility of the adjacent private property owners.

What We Found

Forty-six percent of Seattle's sidewalks are in fair, poor or very poor condition. The City's funding does not meet the needs for sidewalk repair in Seattle, which SDOT conservatively estimated to be \$500 million. As a result, the City prioritizes semi-permanent repairs. Due to the complex enforcement process required by state law, the City does not enforce the law that requires private property owners to fix sidewalks. Other cities offer promising practices to help private property owners meet their responsibilities for sidewalks. SDOT selects sidewalk repair projects carefully but, like in other cities, does not seek public input on how to repair them.

Recommendations

Our report makes seven recommendations, including that SDOT: 1) work with the City Attorney's Office and others to seek changes in state law and local ordinances that would allow a broader range of enforcement options for private property owner sidewalk repair, 2) explore the use of a sidewalk repair ordinance that requires sidewalk repair at the time a property is sold, and 3) implement recommendations from the Seattle City Council requested report: *Policy Recommendations for Sidewalk Repair in Seattle*, June 2020 (2020 Policy Report).

Department Response

SDOT officials concur with the spirit of the recommendations in the audit report. SDOT's written response can be found in Appendix A.



WHY WE DID THIS AUDIT

This audit was conducted in response to Seattle City Councilmember Andrew Lewis' request for our office to review Seattle's sidewalk repair program. Specifically, we were asked:

What does SDOT spend on sidewalk repair?

How does SDOT decide which sidewalks to repair?

To compare the cost of replacing sidewalks to shorter-term fixes.

How does SDOT solicit public input into sidewalk repair projects?

The status of the recommendations in the 2020 Policy Report.

HOW WE DID THIS AUDIT

We researched state and local laws, interviewed SDOT officials and stakeholders, reviewed SDOT reports, analyzed financial and project data, conducted two site visits and an equity analysis, and surveyed five jurisdictions about their sidewalk repair programs.

Seattle Office of City Auditor

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INTRODUCTION

Audit Overview

We conducted this audit at the request of Seattle City Councilmember Andrew Lewis to better understand how the Seattle Department of Transportation (SDOT) manages its sidewalk maintenance and repair program and to follow up on the recommendations in the Seattle City Council requested June 2020 report [Policy Recommendations for Sidewalk Repair in Seattle](#) (2020 Policy Report). Additionally, Councilmember Lewis asked us to review how SDOT incorporates public priorities in the planning and implementation of each sidewalk repair project.

Our audit focused on sidewalk repairs that are funded by SDOT's Sidewalk Safety and Repair Program (SSRP). SDOT officials told us that they also fund sidewalk repairs from their capital budget. For example, in 2019, SDOT repaired sidewalks on Dearborn St., 25th Ave. NE, 6th Ave., Ballard, and near Rainier and Holly as part of capital projects occurring in those areas. SDOT also used other funding sources to support removal of vegetation that was blocking safe passage through city sidewalks. SDOT officials estimate that they spent \$100,000 on removing vegetation in 2019, but said the work varies from year-to-year based on need. These two areas of work are in addition to the sidewalk repairs completed by SSRP. SSRP spent \$6.2 million on sidewalk repair in 2019.

Unlike SSRP activities, SDOT has extensive public input processes to select, plan and implement their capital projects¹. Our audit focused on public input into SSRP activities and does not include an analysis of public engagement processes for capital projects.

In their response to our report, SDOT stated that they concur with the spirit of the recommendations in the audit report (see Appendix A). We thank SDOT for their cooperation on this audit. We also appreciate the input we received from other stakeholders, and officials from other jurisdictions.

¹ For a description of SDOT's community engagement practices used to develop the City's Pedestrian Master Plan, download a copy of the plan [here](#) and see page 6. For more information on SDOT's approach to outreach and engagement for capital projects, see the website [here](#).

Keeping sidewalks in good condition is important

Sidewalks are important for equity, access, mobility, protecting the environment, and promoting health. Safe and accessible sidewalks promote equity because they enable individuals with disabilities, seniors, and those without access to vehicles to get where they need to go, such as school, work, doctor's appointments, libraries, social events, or shopping for everyday necessities². Well maintained sidewalks also encourage walking, which reduces the City's carbon footprint. Additionally, walking improves health: the U.S. Centers for Disease Control and Prevention reports that, nationwide, only half of adults get the physical activity they need to help reduce and prevent chronic diseases.



SDOT staff conducting sidewalk work in 2020. Source: SDOT.

The public complains when sidewalks are not in good condition

In 2019, SDOT received 2,920 complaints from the public about sidewalk conditions. SDOT receives complaints about sidewalks in various ways, including from email and phone calls to the department, in-person meetings, and via the City's Find_It, Fix_It mobile application. Other jurisdictions we spoke to also reported getting sidewalk repair complaints from similar sources. SDOT cleared³ 2,501 complaints in 2019, including complaints carried over from previous years, and 509 were outstanding at year end.

² According to the U.S. Census Bureau, 2019 American Community Survey 1-year estimates, 69,753 (9.3 percent) Seattle residents had a disability, 88,593 were 65 or older (11.8 percent), and 66,529 (19.3 percent) lived in households with no access to a vehicle.

³ Of the cleared SDOT work orders based on complaints, repairs on 1,467 were completed as required, 553 had no work required or couldn't be located, 204 were duplicate work orders, 131 were assigned to the adjacent property owner, 88 were canceled, 41 were referred elsewhere, 14 were fixed with temporary repairs, 2 were voided, and 1 was skipped.

SEMI-PERMANENT REPAIRS PRIORITIZED BECAUSE OF FUNDING GAP

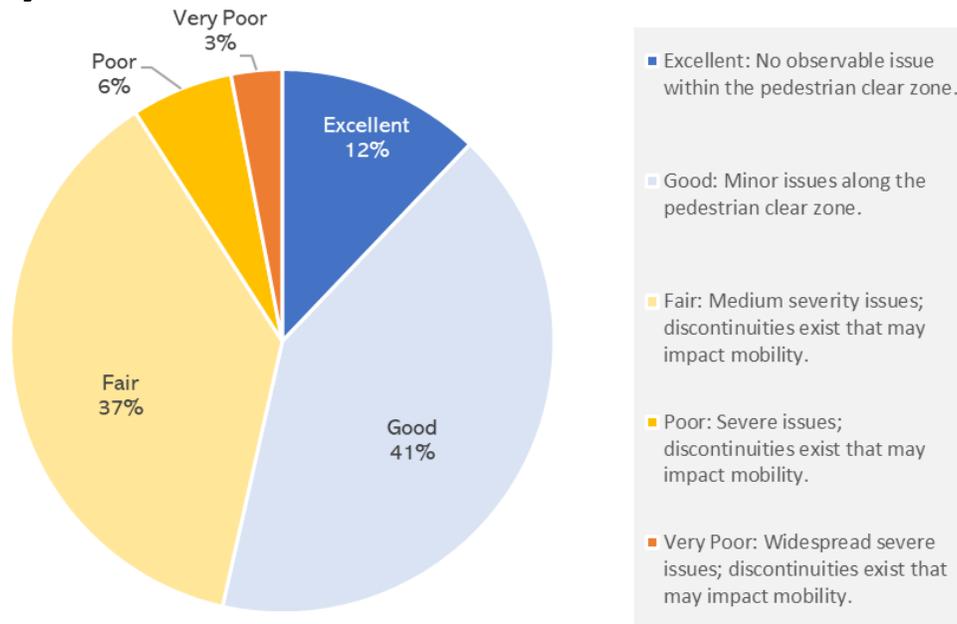
Section Summary

We found that many Seattle sidewalks need repair, and SDOT's 2019 spending for sidewalk maintenance and repair was far below their lowest estimate (\$500 million) of what it would cost to repair all sidewalks within City limits, including sidewalks adjacent to private property, which are generally the responsibility of the private property owner. (Further information about SDOT's estimate is in the body of the report below). Replacing sidewalks can be costly depending on site conditions and the materials used. Preserving street trees is an especially challenging aspect of sidewalk repair. SDOT focuses its limited sidewalk repair resources on semi-permanent repairs and combining efforts with capital projects to leverage funding.

Many Seattle sidewalks need repair and City funding does not meet this need

Slightly more than half of the sidewalks within City limits are in good or excellent condition, but the rest are in a state of disrepair that may affect mobility and may also increase the risk of trip and fall incidents. According to SDOT, 46 percent of the City's 2,300 miles of sidewalks are in fair, poor, or very poor condition (see Exhibit 1 below). Based on SDOT's rating system, sidewalks in fair or poor condition have discontinuities that may affect mobility, while sidewalks in very poor condition have discontinuities that affect mobility. The City is not responsible for fixing all the sidewalks in Seattle. However, the City is responsible for maintaining safe passage on all sidewalks and may be found liable in some trip and fall incidents. This may occur even if the accident was due to sidewalk conditions that are the responsibility of the adjacent private property owner. Exhibit 1 below illustrates the condition of Seattle's sidewalks.

Exhibit 1: Nearly half of Seattle's Concrete Sidewalks are in a State of Disrepair That May Affect Mobility



Note: Figure does not contain the one percent of sidewalks with no rating.
Source: Office of City Auditor analysis of Seattle Department of Transportation data, 2019.

The City only funds a small fraction of the amount that SDOT estimates is needed to remove all utility obstacles, permanently repair sidewalks, remove isolated cross slope issues⁴, and bring sidewalks up to the Americans with Disabilities (ADA) standards (not including curbs and curb ramps)—in other words, the amount needed to bring all sidewalks up to good or excellent condition. SDOT's 2019 spending for sidewalk maintenance and repair was \$6.2 million, which is far below what it would take to repair current issues, called identified observations. SDOT estimates that the amount needed to repair identified observations on all Seattle sidewalks (including those adjacent to private property) and bring them up to ADA compliance standards, is between \$500 million and \$1.3 billion⁵. Observations include things such as uplifts, obstructions, excessive cross slopes, cracks and vegetation overgrowth.

⁴ Cross slope is defined as the slope measured perpendicular to the direction of travel. A minimum slope of one percent should be provided to allow proper drainage. When necessary, the maximum two percent cross slope allowed by ADA standards may be used.

⁵ To obtain these estimates, SDOT analysts assigned a raw cost score to each sidewalk observation. These scores were based on the type of issue observed, its severity, and whether the cost to make the repair would likely be in the high, medium, or low range. Analysts then calculated two estimates for each observation: a low-cost estimate, based on the lowest cost treatment that could be used to fix it, and a high-cost estimate, based on what the cost could be if the repair turned out to be very complex. The low range estimate is \$500 million to fix all observed issues and the high estimate is \$1.3 billion.

Replacing sidewalks with concrete panels is expensive compared to semi-permanent repairs, and can be complex

Replacing sidewalks can be complex and expensive. SDOT officials told us that the average cost per square foot for repairing sidewalks with concrete is \$79.60 per square foot, whereas asphalt repairs only cost \$48.90 per square foot. Several factors add to the complexity and cost of sidewalk replacement and repair.

First, each sidewalk is designed for its specific site, and site conditions⁶ may add to the complexity and cost of a sidewalk replacement project. Second, SDOT officials told us that SDOT does not have any concrete crews dedicated to replacing sidewalks; therefore, they must use regular concrete crews, regardless of the size project they work on. These crews cost \$7,500 per day to mobilize. SDOT officials said that mobilizing these crews is cost effective for street paving projects, but not for sidewalk projects. They noted that creating a concrete crew dedicated solely to sidewalks would not be cost effective, given the workload supported by the current level of funding for sidewalk replacement.

Preserving street trees is especially challenging

Another factor that substantially increases the complexity and cost of sidewalk repair and the sidewalk permitting process is the presence of street trees. While street trees provide many benefits, such as reduced heating and cooling costs, reduction of greenhouse gases, and enhanced quality of life, they are also a common source of sidewalk damage and generate most sidewalk complaints⁷. Street trees also pose ongoing problems as repairs—whether concrete replacement or semi-permanent repairs—may not last because of the unpredictable nature of tree growth and the strength of tree root systems. All five of the cities we surveyed experience challenges with the conflicting issue of preserving street trees while maintaining sidewalks in good condition. Below are four images taken in 2021 showing the impact of street trees on Seattle's sidewalks.

⁶ Some of these factors include, among others: steepness or flatness of the slope, the number of wheelchair ramps required, the presence of mature street trees, drainage needs and other utility issues, the extent of excavation and site preparation required, and traffic control requirements, which can be a significant expense on arterials.

⁷ [Policy Recommendations for Sidewalk Repair in Seattle](#), June 2020, University of Washington Evans School of Public Policy & Governance.

Exhibit 2: Seattle's Street Trees Create Issues for Sidewalk Upkeep and Mobility



Street trees are a problem in Seattle because many trees were planted decades ago without regard to their impact on sidewalks and mobility. Before the Americans with Disabilities Act was passed in 1990, the City allowed property owners to make accommodations for street trees, such as cutting three to four-foot notches out of sidewalks to make space for large trees, which is now considered a substandard practice when it narrows the sidewalk to less than ADA standards. Since the ADA standards were adopted, SDOT has developed standards and guidance for street trees, including the 2014 Street Tree Manual, the 2015 Trees and Sidewalks Operations Plan⁸ and the 2000 Approved Street Tree List. One of the ways to reduce future tree damage to sidewalks is to plant SDOT recommended tree species.

The City of Seattle can be liable for sidewalk injuries

Although the City is investing in the upkeep of its sidewalks, it can still be held liable for sidewalk-related injuries. Under common law, local governments can be held liable for injuries sustained through trips and falls on public rights-of-way, even if under a City ordinance the primary party responsible for the sidewalk is the owner of the private property adjacent to the sidewalk where the trip and fall occurred. Historically, the courts have held that municipalities have a non-delegable duty to maintain sidewalks in a reasonably safe condition for ordinary travel. This is not to say that the abutting

⁸ See website [here](#) to download copies of both the manual and the plan.

property owner is absolved of a duty. Rather, the abutting property owner also has an independent duty to maintain the sidewalk adjacent to their property. In 2019, Seattle spent \$1.4 million in settlements and claims for trips and falls on sidewalks, and in that same year (as pointed out earlier in this report), SDOT spent \$6.2 million⁹ on sidewalk repairs that could help mitigate risks of this kind.

SDOT uses semi-permanent repairs, such as shims and bevels, to mitigate the risk of trips and falls

To maintain safe passage and to try and reduce claims and lawsuits brought against the City for trips and falls on city sidewalks, SDOT uses semi-permanent repairs as mitigation measures. Semi-permanent mitigation measures include installing asphalt shims and beveling sidewalk uplifts (see Exhibit 3 below for an explanation of shims and bevels).

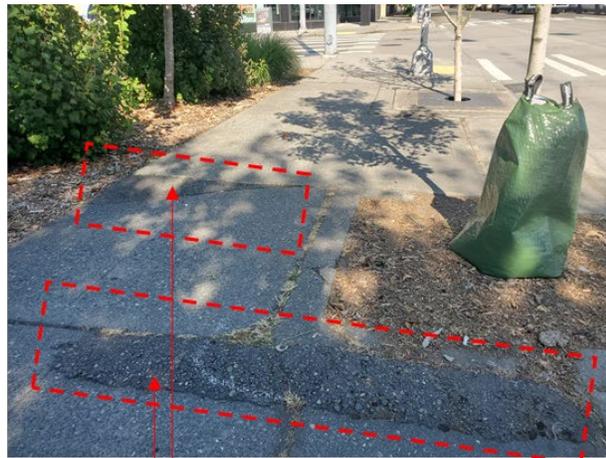
SDOT estimates that the expected useful life of bevels and shims is less than 10 years, whereas concrete sidewalks can last up to 100 years. While these materials may last for differing lengths of time, the performance of any individual sidewalk depends on the kind of uplift or other factors occurring beneath its surface. For example, trees can and do destroy bevels, shims, and concrete sidewalk replacement panels well before the materials have deteriorated. An official from one of the jurisdictions we contacted noted that although they consider shims temporary repairs, due to funding limitations, the shims often remain in place much longer than intended.

Exhibit 3: Examples of Bevels and Asphalt Shims on Seattle Sidewalks



Example of a **bevel**: Edge of sidewalk was ground down so it matches the height of the neighboring concrete panel.

Source: Office of City Auditor.



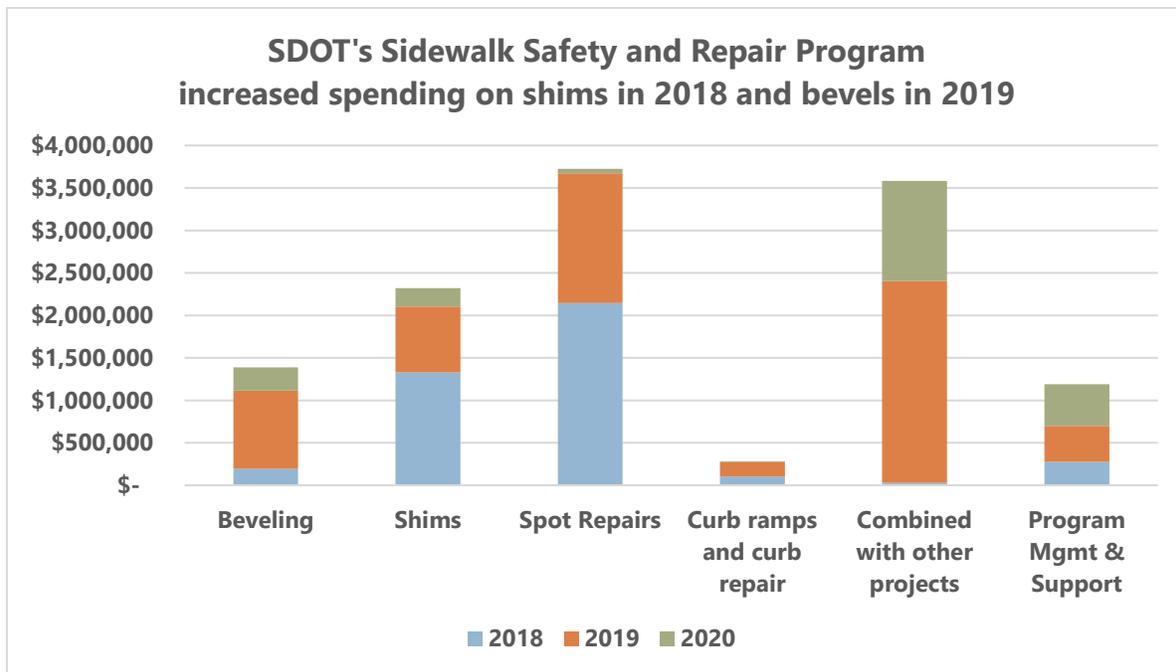
Example of **shims**: asphalt was added so that the height matches the height of the neighboring concrete panel.

⁹ SDOT was able to obtain additional funding for sidewalk repair in 2018 and 2019, so their spending those years was higher than usual. SDOT's average annual spending on the Sidewalk Safety and Repair program from 2010 through 2020, unadjusted for inflation, was \$2.6 million dollars.

SDOT increased spending on semi-permanent sidewalk repairs in 2018 and 2019

SDOT spending on certain sidewalk repairs went up in 2019, but the amount spent on all sidewalk repair returned to base levels in 2020, following the end of the temporary, two-year increase approved by the Seattle City Council. SDOT increased spending on semi-permanent repairs, such as shims and bevels, in 2018 and 2019. SDOT occasionally schedules two-day shim blitzes when they send their asphalt crews to a particular area and repair all the potholes and install all the sidewalk shims needed in the area. This work contributed to the increase in shims in 2018. In 2019, SDOT also increased the sidewalk repair work they did in partnership with other projects. Partnering with other capital projects helps SDOT lower costs by leveraging funding and taking advantage of economies of scale. SDOT increased this partnership work in 2020, but other types of Sidewalk Safety and Repair Program activities decreased from 2019 levels as the temporary two-year increase in funds was no longer in effect.

Exhibit 4. SDOT's Spending on Shims, Bevels, Spot Repairs, Curbs, and Other Projects, 2018 - 2020



*'Combined with other projects' includes projects that are combined with capital projects and certain administrative costs.

Source: Office of City Auditor analysis of Seattle Department of Transportation accounting and expenditure data.

STATE ENFORCEMENT PROCESS IS COMPLEX AND LIMITS CITY'S FUNDING OPTIONS

Section Summary

Seattle provides some guidance to property owners, as shown on the website screenshot in Exhibit 5 on the next page. However, the process required by Washington State law to enforce private property owners' responsibilities for repairing the sidewalks adjacent to their properties is complex and cumbersome. As a result, the law has never been used in Seattle to require adjacent property owners to make or pay for repairs, and property owners have little incentive to repair the sidewalks adjacent to their properties. Other U.S. jurisdictions offer promising practices for enforcing private property owner responsibilities while simultaneously addressing equity concerns. These include, among others, requiring compliance with the law at the point of sale.¹⁰ SDOT called for further evaluation of this program in a 2018 memo to the Mayor, as well as reviewing the enforcement of City code related to sidewalk repair.

State process for enforcing private property owners' responsibilities is complex and limits the City's funding options

Washington State law gives cities the authority to construct and repair sidewalks and to assess the costs of these repairs against the abutting property owner or require the abutting property owner to construct or improve the repair at their own expense (RCW 35.68 *et seq.* and 35.69 *et seq.*)¹¹ Seattle provides some guidance to property owners, as shown on the website screenshot in Exhibit 5 below. However, the process required to enforce the law is cumbersome and requires identification of the costs to be assessed to be placed on the municipality's "assessment roll,"¹² providing notice to the property owner and public, a City Council hearing, and after the hearing, having the City Council, by ordinance, affirm the costs assessed against the abutting property owner. The Seattle Municipal Code, SMC 15.72 *et seq.* follows the requirements in the State law. As

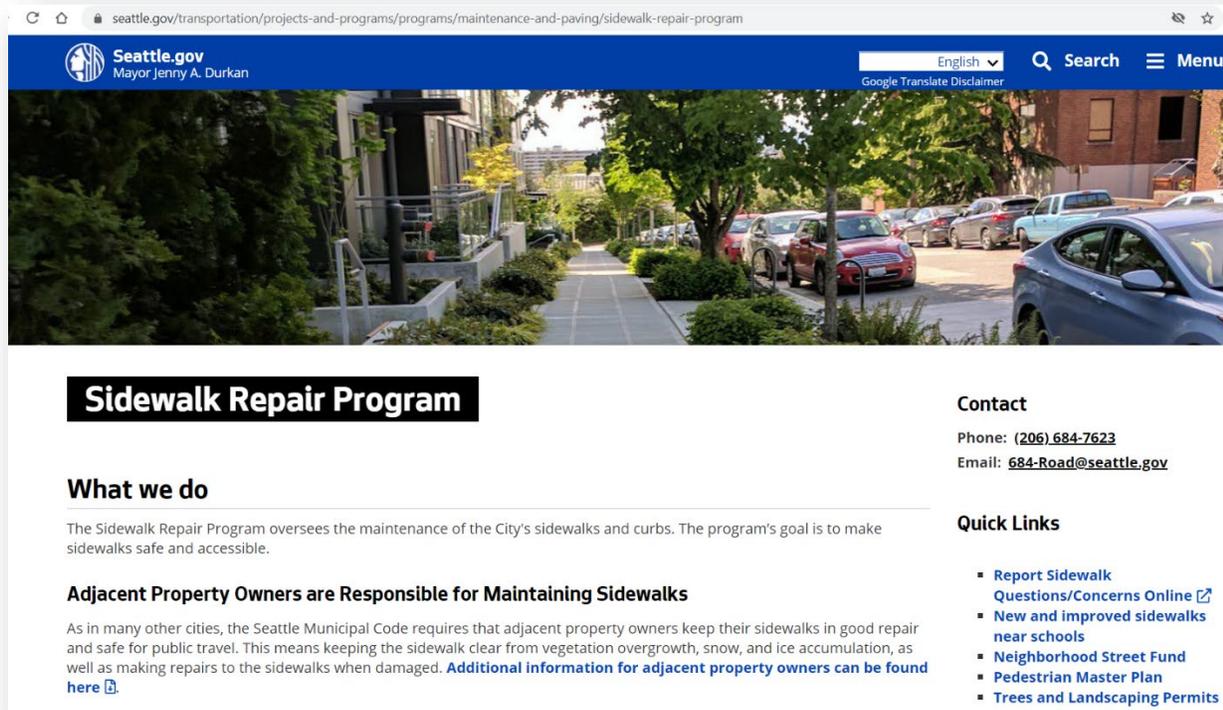
¹⁰ The point of sale is the time and place where a transaction is completed. The City of Oakland's program is considered a point-of-sale program because it requires property owners to obtain a sidewalk inspection, replacement, and compliance certificate before they can transfer title (i.e., sell) their property.

¹¹ Per RCW 35.69.020, two limitations on this law include: 1) property owners will not be charged with any costs of sidewalk construction or reconstruction in excess of 50 percent of the value of their property, and 2) property owners will not be charged any costs of reconstruction if the damage to the sidewalk is a direct result of actions by the city, or its agents, or failure of the city to enforce its ordinances.

¹² Assessment rolls compile a list of tax information for every property in a municipality or county. Information in these documents includes full market value of the parcel and the date in which the valuation was carried out. Under state law and city ordinance, the only mechanism available to municipalities to enforce legal obligations for sidewalk maintenance and repair are to impose liens on the properties of owners who do not repair or pay for the costs of repairing the sidewalks adjacent to their properties. Adding these properties to the City of Seattle's assessment roll is part of imposing a lien on the property.

a result, the ordinance has never been used in Seattle to require adjacent property owners to make or pay for repairs. Property owners have little incentive to repair the sidewalks adjacent to their properties. The combination of an inability to require property owners to make sidewalk repairs and a lack of City budget for sidewalk repairs has resulted in a network of broken sidewalks across Seattle, which reduces or even precludes sidewalk access to pedestrians, particularly those with limited mobility. To better understand the challenges that damaged sidewalks pose for people with disabilities, we conducted a site visit to Lighthouse for the Blind. See Appendix C for a description of that case study.

Exhibit 5: SDOT Explains Adjacent Property Owner Responsibilities on its Website



Given the many demands on City funds and the historical lack of funding for sidewalk repair, an enforcement process that facilitates compliance or incentivizes property owners to fix adjacent sidewalks could result in an increase in needed sidewalk repairs in Seattle. However, changes first need to be made to state law that would allow the City to create a process that facilitates property owner compliance with their responsibilities.

Recommendation 1

The Seattle Department of Transportation should work with the City Attorney's Office, the Office of Intergovernmental Relations, and the Seattle City Council and other Washington jurisdictions to propose changes to RCWs 35.68 *et seq.* and 35.69 *et seq.* and SMC 15.72 *et seq.* to allow for simpler, more streamlined enforcement options so that private property owners meet their legal responsibilities for sidewalks. (Related to recommendation 7.5 in 2020 Policy Report.)

Other U.S. jurisdictions are enforcing private property owner responsibilities for sidewalks and finding

We identified other jurisdictions that have implemented programs to help property owners meet their legal responsibilities for sidewalk repair. For example, the City of Oakland, California adopted a point-of-sale program in July 2019 that is showing promising results. Oakland also offers waivers to low-income property owners who receive notices to repair. Denver, Colorado and Portland, Oregon offer property owners payment plans and financing opportunities.

ways to address equity concerns

SDOT explored some of these same approaches in 2017. Equity considerations are important when developing and implementing funding solutions to assist with compliance and enforcement of sidewalk programs. Specifically, sidewalk repair financing programs and income-based cost-sharing programs or cost waivers for lower-income property owners would help address concerns about equity and ability to pay.

The City of Oakland, California showing results from its Buy, Sell, Repair Ordinance, combined with waivers for low-income property owners

In Oakland, California, as in Seattle, the City is responsible for maintaining sidewalks adjacent to City properties and City street trees, and private property owners are responsible for maintaining sidewalks adjacent to their properties. Oakland officials report that about 85 percent of sidewalk damage in Oakland is "private damage," or damage that is the responsibility of the private property owner adjacent to the sidewalk. In July 2019, the Oakland City Council adopted a Buy-Sell-Repair (BSR) Ordinance (OMC 12.04.380, see Appendix D), which requires that property owners bring sidewalks into compliant condition as a condition of title transfer of real property. The goal of the ordinance was to increase the number of sidewalks repaired in Oakland.

Under Oakland's ordinance, property owners must repair their sidewalks and/or certify the sidewalk is compliant when selling a property, transferring title on a property, or performing a renovation on their lot valued at more than \$100,000. In the ordinance's first year, staff attributed 121 additional locations of sidewalk repair as a result of the ordinance. This is a 62 percent increase over the prior year.

Oakland's BSR ordinance works in conjunction with their regular complaint-based system. Under this system, City staff inspect sidewalks for which they have received a complaint, and if the sidewalk is a private property owner's responsibility, the inspector issues a Notice to Repair to inform the property owner about the damage and potential liability.

To assist low-income property owners, at the same time the Buy-Sell-Repair ordinance was passed, the Oakland City Council approved a resolution that authorized the Oakland Department of Transportation to perform sidewalk repairs at no cost on behalf of low-income property owners, with an initial fund of \$50,000. To receive this benefit (which is in the form of a waiver), a property owner residing in Oakland must present proof of participation in a means-tested program.

Denver and Portland offer financing programs

To assist homeowners in repairing the sidewalks they are responsible for, in 2017 Denver, Colorado established a Sidewalk Repair Revolving Fund, and in 2018, funded it with \$4 million in general fund monies. The program includes a three-year payment plan at a one percent annual interest rate. Four-person households with an average median income of less than \$100,000 receive full subsidies.

Portland, Oregon also has programs to assist property owners with their sidewalk repair responsibilities. These include:

- An efficient, online permitting process for property owners who want to repair their sidewalk, which provides both a repair cost estimate and a permit cost estimate. Portland reports that their turnaround time for permits is two days.
- A financing program for sidewalk repairs that is available to all property owners. Loan terms are five to ten years for up to \$2,500 and 20 years for over \$2,500 in repair costs. Repairs must be conducted by the city. The City of Portland places a lien on the property until the loans are paid in full.

SDOT recommended evaluating Point-of-Sale sidewalk repair programs in 2018

SDOT is aware of these types of programs and has considered them in the past. In a 2018 policy memo to the Mayor, evaluating point-of-sale policies was one of the key policy issues identified for further evaluation. SDOT also recommended reviewing the enforcement of the City code that requires private property owners to maintain and repair the sidewalks adjacent to their properties and evaluating sidewalk cost sharing programs. See Appendix E for more information.

Recommendation 2

To help improve sidewalk conditions in Seattle, the Seattle Department of Transportation should work with the City Attorney's Office to explore the use of a Buy, Sell, Repair Ordinance.

Recommendation 3

To assist property owners in meeting their legal responsibilities to repair the sidewalks adjacent to their properties, in conjunction with enhanced education and enforcement, the Seattle Department of Transportation should implement a sidewalk repair financing program.

Recommendation 4

To help ensure equity, in conjunction with enhanced education and enforcement, the Seattle Department of Transportation should institute an income-based cost-sharing program or cost waiver for lower-income property owners. (Recommendation 7.4 in the 2020 Policy Report.)

PUBLIC INPUT AND SIDEWALK REPAIR PROJECT SELECTION

Section Summary

Like the five jurisdictions we surveyed, SDOT adds sidewalk projects to their list of pending work orders based on complaints from the public, but beyond this, they do not seek public input into whether or how the repair is completed. The City has a process for prioritizing and selecting sidewalk repair projects to help ensure that they are meeting mobility and equity needs. We found that in 2019, SDOT selected its 50 sidewalk replacement projects based primarily on five factors: 1) constructability and cost, 2) condition, 3) geographic and social justice distribution, 4) leveraging with other capital projects, and 5) risk mitigation. We analyzed whether SDOT performed more sidewalk repairs in more advantaged areas of Seattle and found this was not the case.

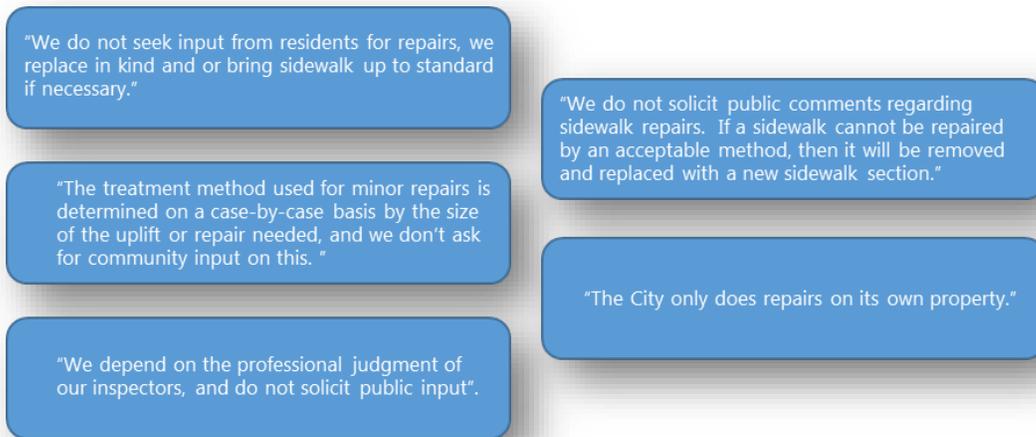
SDOT, like in other cities, does not ask for public input about sidewalk repair projects

An SDOT official told us that SDOT doesn't seek public input about sidewalk repairs (beyond accepting complaints about sidewalk conditions) because they prioritize semi-permanent repairs to maintain safe passage and reduce the risk of liability for trip and falls. The officials said another reason for not seeking public input on how to repair the sidewalk was that SDOT did not have sufficient funds to offer permanent replacement as an option, even if it is the option preferred by the community. SDOT officials told us that, in the absence of the funding necessary to offer different repair options, additional public outreach about planned repairs could lead to adverse impacts, for example, by delaying projects or creating unrealistic public expectations.

Exceptions to the practice prescribed in the preceding paragraph include situations when street trees are involved. In these cases, SDOT will provide three main public input opportunities. For a description of SDOT's public input process when street trees are involved, download a copy of SDOT's Trees and Sidewalks Operations Plan [here](#) (under Background) and see pages 29 and 30.

To see how SDOT's processes compared to other jurisdictions, we surveyed a small sample of other jurisdictions, including: Bellevue, Washington, Denver, Colorado, Oakland, California, Portland, Oregon, and St. Paul, Minnesota. None of these five cities solicit public input on the planning and implementation of sidewalk repairs. Specific quotes from these cities about their sidewalk repair public input policies and practices are shown in Exhibit 6 below.

Exhibit 6: Cities We Spoke with Do Not Solicit Public Input on Sidewalk Repair Projects After Projects are Selected



Source: Office of City Auditor interviews with officials from five U.S. cities.

SDOT allocates sidewalk replacement resources carefully

According to SDOT's website, for a damaged sidewalk to be considered for repair by the SDOT sidewalk repair program it must:

- Be adjacent to City-owned property, or
- City owned trees must be causing the damage.

Damage caused by other City agencies or public utilities is forwarded to the appropriate agency for repair. If the location meets the above criteria, then repair locations for the Sidewalk Repair Program are selected based on the following criteria:

1. Leveraging opportunities with other capital projects
2. Within an urban village
3. Adjacent to an arterial street
4. High Priority Project Areas as identified in the Pedestrian Master Plan
5. Within three blocks of a community or healthcare facility such as a school, park, library, clinic, hospital, or senior housing
6. On a block with a transit stop
7. Geographic and social justice distribution
8. Constructability and cost

SDOT used five factors to select 50 sidewalk replacement projects

We asked SDOT officials why they chose the 50 sidewalk replacement projects they selected in 2019. We wanted to know about sidewalk replacement projects, rather than less permanent repairs, as these have the longest useful life and are generally preferred by the public. We analyzed the data SDOT provided and found that the following five factors contributed to the selection of these projects: 1) constructability and cost, 2) condition rating, 3) geographic and social justice distribution, 4) leveraging with other capital projects, and 5) risk mitigation. Exhibit 7 below shows the number of times and percent each of these factors was considered in the selection process.

Exhibit 7. Factors SDOT Used to Select 50 Sidewalk Replacement Projects in 2019

Selection factor	Number of projects for which factor was a consideration	Percent of projects for which factor was a consideration
Constructability and Cost: School Camera funding available	27	54%
Condition rating: Project meets SDOT criteria for panel replacement repairs (See Sidewalk Repair Program for more information). ¹³	25	50%
Geographic and social justice distribution	23	46%
Leveraging with other capital projects	23	46%
Risk mitigation	3	6%

Source: Office of City Auditor analysis of Seattle Department of Transportation Data.

SDOT considers geographic and social justice distribution when selecting sidewalk repair projects

SDOT officials told us that basing sidewalk repairs solely in response to complaints can lead to inequitable outcomes. To prevent this from happening, SDOT uses Geographic Information Service (GIS) data to program sidewalk work and geographic and social justice distribution as one of their criteria for selecting projects. To test how well this is working, we conducted an analysis to see if better-off parts of the City (i.e., those with a low inequity index¹⁴) were getting more sidewalk projects than other parts of Seattle. We found that there is

¹³ SDOT prioritizes projects using condition ratings and incorporates other factors such as pedestrian generators within a quarter mile of the sidewalk, risk type, mobility impacts, and cost. In this case, 18 of the 25 replaced sidewalks were assessed to be in poor or very poor condition and seven were in fair condition.

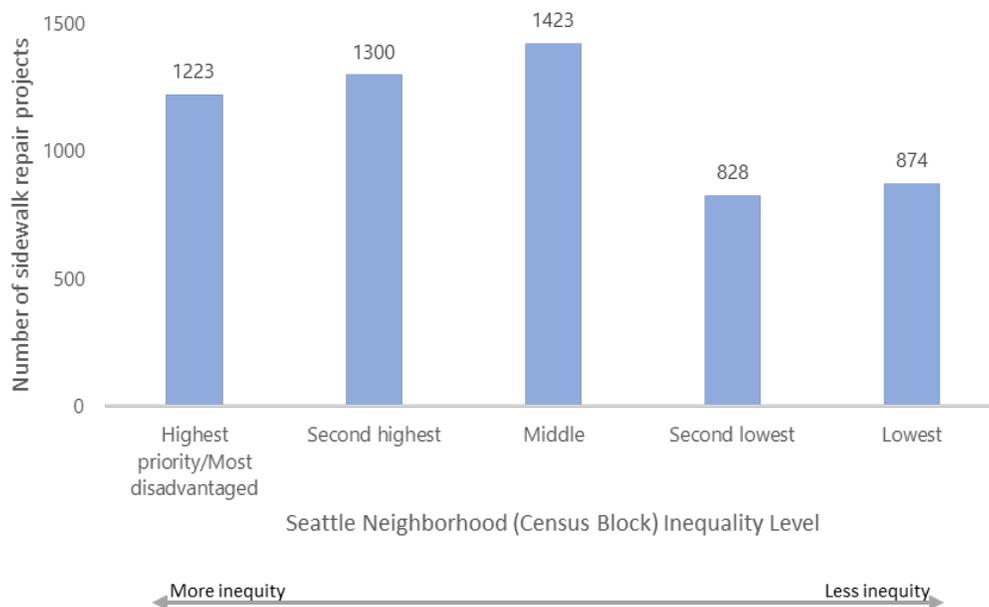
¹⁴ The Racial and Social Equity Index combines information on race, ethnicity, and related demographics with data on socioeconomic and health disadvantages to identify where priority populations make up relatively large proportions of neighborhood residents.

<https://seattlecitygis.maps.arcgis.com/apps/Minimalist/index.html?appid=764b5d8988574644b61e644e9fbe30d1>

Seattle's Sidewalk Maintenance and Repair Program

no statistically significant relationship between the inequity rating of a neighborhood and the number of sidewalk projects that have been done there. In fact, from 2017 to June 2021, slightly more projects were completed in more disadvantaged areas of Seattle, although again this was not a statistically significant difference. This means that the level of inequity in a neighborhood does not predict the number of sidewalk projects in that neighborhood. A comprehensive analysis of sidewalk condition and equity could consider factors such as sidewalk condition ratings by area, and areas of the city that do not have sidewalks. Such an analysis was beyond the scope of this audit.

Exhibit 8. Seattle Sidewalk Projects, All Types, by Neighborhood Inequity Factors, 2017 – June 2021



Source: Office of City Auditor analysis of Seattle Department of Transportation sidewalk project repair data (January 2017- June 2021) and Seattle City Demographer equity index data (2019).

SDOT SHOULD IMPLEMENT RECOMMENDATIONS FROM 2020 POLICY REPORT

**SDOT should implement
the recommendations
from the June 2020
Seattle City Council
requested report**

SDOT has made limited progress implementing recent recommendations that could help address sidewalk maintenance issues, primarily due to the inability to use Seattle Municipal Code 15.72, lack of funding, and COVID-19 impacts. We reviewed the status of the six recommendations made in a June 2020 report [Policy Recommendations for Sidewalk Repair in Seattle](#), (2020 Policy Report) that was requested by Resolution 31908, passed by the Seattle City Council in October 2019.

Exhibit 9. Status of Policy Recommendations for Sidewalk Repair in Seattle

Recommendation	Status	Explanation
1. Implement a five-year shim/bevel plan	Pending*	Shim and bevel blitzes began in 2018. The grid-based work that was supposed to cover the whole City within a five-year time period; is no longer possible to meet that time frame due to challenges of COVID 19. SDOT estimates that an additional \$3 - \$4 million a year would be needed to stay on schedule.
2. Increase property owner awareness and education about sidewalk responsibilities	Pending	This work will be included in outreach efforts related to SDOT’s new permitting system, Accela. Outreach related to winter sidewalk clearance and COVID related business permits were prioritized in 2020-21.
3. Simplify the sidewalk repair permitting process	Pending	SDOT made some improvements in the permitting process along with the launch of the Accela system. With the third release of the system, SDOT wants to get public/user feedback before making further changes to the sidewalk repair permit process in Accela.
4. Institute an income-based cost-sharing program for lower-income property owners	No Action Taken	To implement this recommendation would require: 1) ensuring there is on-going concrete crew capacity to do the reimbursable work and 2) making some code changes with a fee schedule to allow for this.
5. Implement clearer enforcement methods	No Action Taken	The current enforcement mechanism is a lien process and that process method and process are prescribed in WA State law (RCW 35.68) and until this law is changed not much can change.
6. Secure increased and stable funding sources	No Action Taken*	Funding for the Sidewalk Repair program comes from the Levy to Move Seattle and the Real Estate Excise Tax, which have been relatively stable. In 2021, SDOT added \$500,000 in Seattle Transportation Benefit District funds from the new \$20 Vehicle License Fee (VLF) to Sidewalk Repair. Opportunities to secure any other increased funding sources for sidewalk repair and maintenance have been limited, due in part to COVID-related impacts on other sources of revenue.

*Status is limited largely due to limited funding availability.

As shown in Exhibit 9, we found that three of the 2020 Policy Report’s six recommendations are pending, and no action has been taken on the other three recommendations. We recommend that SDOT implement the 2020 Policy Report’s recommendations one through three.

Recommendation 5

The Seattle Department of Transportation should implement a five-year shim/bevel plan. (Recommendation 7.1 in the 2020 Policy Report.)

- Recommendation 6** The Seattle Department of Transportation should increase property owner awareness and education about sidewalk responsibilities. (Recommendation 7.2 in the 2020 Policy Report.)
- Recommendation 7** The Seattle Department of Transportation should simplify the sidewalk permitting process. (Recommendation 7.3 in the 2020 Policy Report.)

OBJECTIVES, SCOPE, AND METHODOLOGY

Objectives

We conducted this audit at the request of Seattle City Councilmember Andrew Lewis to better understand how the Seattle Department of Transportation (SDOT) manages its sidewalk maintenance and repair program and to follow up on the recommendations in the Seattle City Council requested June 2020 report [Policy Recommendations for Sidewalk Repair in Seattle](#). (2020 Policy Report). Specifically, Councilmember Lewis asked us to review the processes involved in SDOT's sidewalk maintenance program and how SDOT incorporates public priorities in the planning and implementation of each project.

Scope

The scope of this audit included SDOT's sidewalk maintenance budget, expenditure, and program information from the three most recent years when complete and relevant data were available. We also included information gathered from a judgmental sample of peer jurisdictions and the 2020 Policy Report mentioned above. Our analytic work was conducted between December 2020 and June 2021.

Methodology

To accomplish the audit's objectives, we:

- Reviewed state and local laws related to sidewalk repair.
- Interviewed City Attorney's Office personnel regarding state and local laws.
- Reviewed City and external reports about the condition of Seattle sidewalks.
- Analyzed 2018-2020 SDOT budget and expenditure data on their Sidewalk Safety and Repair Program (SSRP).
- Analyzed SDOT data on the 2019 concrete replacement projects funded by the SSRP and why each project was chosen.
- Analyzed 2019 data on the number of complaints SDOT received on sidewalk condition.
- Interviewed SDOT officials who manage SDOT assets, capital projects, and sidewalk repair projects.
- Went on a site visit to an SDOT sidewalk construction project.
- Interviewed members of the Seattle Pedestrian Advisory Board, Neighborhood Greenways, the Seattle Disability Commission, and Lighthouse for the Blind.
- Went on a site visit to the Lighthouse for the Blind.

Seattle's Sidewalk Maintenance and Repair Program

- Conducted an analysis to determine if neighborhood inequity levels could be used to predict the number of SDOT sidewalk repair projects in that neighborhood.
- Interviewed with a small sample of transportation officials from five jurisdictions including: Bellevue, Washington, Denver, Colorado, Oakland, California, Portland, Oregon, and St. Paul, Minnesota. These cities are a judgmental sample and were selected because they fit one or more of the following criteria: similar population size, located in our region or state, had been used as comparisons in other evaluations, or had diverse populations.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

APPENDIX A

Department Response



Seattle
Department of
Transportation

October 15, 2021

Jane Dunkel, Assistant City Auditor
David G Jones, City Auditor
Seattle Office of City Auditor
700 5th Avenue, Suite 2410
Seattle, WA 98104

(sent via email)

Dear Ms. Dunkel and Mr. Jones,

Thank you for conducting this informative audit of Seattle's Sidewalk Maintenance and Repair Program. We appreciate the time you and the audit team took to understand the engineering, legal, communications, and funding challenges related to maintaining and repairing sidewalks in Seattle. We also appreciate the thorough review of the 2020 Sidewalk Repair Policy Recommendations Report prepared by the Evans School for the Seattle Department of Transportation (SDOT).

Within budgetary and staff resource constraints, SDOT's Sidewalk Repair Program supports the maintenance and repair of the City's sidewalks and curbs and works to provide safe and accessible sidewalks by:

- Investigating concerns around the accessibility of sidewalks.
- Implementing temporary mitigation measures, as needed. These include painting sidewalks to alert users to existing issues, placing asphalt shims, beveling sidewalk uplifts, or closing sidewalks as a last resort. We have completed nearly 43,000 sidewalk safety spot improvements over the last three and a half years.
- Determining repair responsibility (i.e. adjacent property owner, City, private utility, or other entity with permitted infrastructure in the right-of-way).
- Permanently repairing sidewalks when it is determined to be the City's responsibility (such as when sidewalks are damaged by City-owned trees) and budget is available.
- Issuing notice to property owners or other entities when it is their responsibility.

We concur with the spirit of the recommendations in the audit report, and would like to offer some additional context related to implementation of some of those recommendations:

- Funding to implement these recommendations must be considered in the context of the City's COVID-19 response and related revenue shortfalls and as SDOT seeks to address infrastructure challenges across asset classes.
- In reporting on the status of the recommendations from the 2020 policy report, the audit report states that there has been "no action taken" to "secure increased and stable funding sources" for sidewalk maintenance and repair. The report notes that we added funding in 2020 and we continue to assess resources available for sidewalk maintenance and repair. Since that time, the Mayor's 2022 Proposed Budget has been released and increases funding in the Sidewalk Safety Repair Program (SSRP) through the new \$20 Vehicle License Fee (VLF) spend plan, adding \$1.1 million for sidewalk repairs and street tree root and limb mitigation in historically underinvested neighborhoods. The \$20 VLF is a reliable and stable funding source for future improvements and

Ms. Dunkel and Mr. Jones

October 15, 2021

Page 2

Mayor Durkan and SDOT have proposed a portion of the revenues be directed to this purpose on a long-term basis for 2022 and beyond.

- Recommendations in the 2020 policy report were made in sequential order, the first of which is the recommendation to implement a five-year shim/bevel plan. We want to provide additional detail on actions over the past few years to address this first recommendation and our overall commitment to mitigate trip hazards and injury risk while improving accessibility via temporary measures such as shimming and beveling at relatively low cost. Since 2018, SDOT developed and prioritized sidewalk spot mitigation grids citywide. In 2021, we evaluated and prioritized grids in high pedestrian areas around transit facilities and areas impacted by the West Seattle Bridge closure, while completing almost 15,000 shims and bevels this year to date alone. Additionally, SDOT has performed significant maintenance approach analysis and prepared our information technology systems to support this effort. The work we have done to develop this program has put us in a position to respond to emerging needs and/or scale up a program as more funding becomes available.

Regarding funding, SDOT has identified a documented need for an additional \$3 million-\$4 million per year to implement a 5-year maintenance plan, including hiring additional SDOT crews to execute shimming activities. Currently, we plan to bevel 700 sidewalks per year with current funding levels (~\$1.4 million). Based on the 2017 assessment, we identified approximately 93,000 vertical height differences, 20,000 obstructions (both vegetation and fixed), 38,000 surface conditions, and 3,600 isolated cross slopes. Shimming and beveling cannot treat all types of observations and are mitigatory solutions. We have used the data models to prioritize and complete spot improvements over the last three and a half years. We will continue to efficiently and effectively implement the spot mitigation program to match available funding and partnership opportunities.

- Additionally, the 2020 policy report recommended SDOT increase property owner awareness and education about sidewalk responsibilities. Using what we learned from the Sidewalk Assessment and the 2020 policy report, we are developing a public facing interactive website called the Sidewalk StoryMap. This tool will help educate property owners about sidewalk maintenance and repair responsibilities, how to obtain a permit for sidewalk repairs and tree root or limb mitigation, asset and observation data, condition ratings, and the Sidewalk Maintenance Program purpose, prioritization factors, and project types. Next steps include internal stakeholder review before reaching out to targeted external stakeholders for feedback. We anticipate publishing the website by Q2 2022.
- Lastly, recommendation 7.3 in the 2020 policy report suggested SDOT simplify the sidewalk permitting process. The bulk of Street Use Permits (including sidewalk repair permits) transitioned to the Accela permitting system in 2020. Accela allows permit applicants to easily submit and monitor permit applications. As part of the Accela roll out, SDOT has created plain language outreach materials to help users interface with this new system. SDOT will also update Client Assistance Memo 2208 (sidewalk repair) to reflect the new Accela system. Finally, we have been working on a Racial Equity Toolkit (RET) that looks at Seattle Municipal Code Title 15 and provides suggestions to make the code and work completed under jurisdiction of the code more accessible to BIPOC businesses. We hope to have this work completed in 2022 and submit potential legislative changes to Council late in 2022.

Ms. Dunkel and Mr. Jones
October 15, 2021
Page 3

We look forward to continuing work to improve the way sidewalk repair is conducted, regulated, and funded in Seattle and Washington State. As seen above, we have made progress on the first three of the recommendations from the 2020 Evans School policy report and are happy to share further information as desired.

Thank you again.

Sincerely,



Sam Zimbabwe (Oct 15, 2021 14:51 PDT)

Sam Zimbabwe
Director

APPENDIX B

List of Recommendations

- Recommendation 1** To help improve sidewalk conditions in Seattle, the Seattle Department of Transportation should work with the City Attorney's Office, the Office of Intergovernmental Relations, and the Seattle City Council, and other Washington jurisdictions to propose changes to explore changes to RCWs 35.68 *et seq.* and 35.69 *et seq.* and SMC 15.72 *et seq.* to allow for simpler, more streamlined enforcement options so that private property owners meet their legal responsibilities. (Related to recommendation 7.5 in 2020 Policy Report.)
- Recommendation 2** To help improve sidewalk conditions in Seattle, the Seattle Department of Transportation should work with the City Attorney's Office to explore the use of a Buy, Sell, Repair Ordinance.
- Recommendation 3** To assist property owners in meeting their legal responsibilities to repair the sidewalks adjacent to their properties, in conjunction with enhanced education and enforcement, the Seattle Department of Transportation should implement a sidewalk repair financing program.
- Recommendation 4** To help ensure equity, in conjunction with enhanced education and enforcement, the Seattle Department of Transportation should institute an income-based cost-sharing program or cost waiver for lower-income property owners. (Recommendation 7.4 in the 2020 Policy Report.)
- Recommendation 5** The Seattle Department of Transportation should implement a five-year shim/bevel plan. (Recommendation 7.1 in the 2020 Policy Report.)
- Recommendation 6** The Seattle Department of Transportation should increase property owner awareness and education about sidewalk responsibilities. (Recommendation 7.2 in the 2020 Policy Report.)
- Recommendation 7** The Seattle Department of Transportation should simplify the sidewalk permitting process. (Recommendation 7.3 in the 2020 Policy Report.)

APPENDIX C

Case Study: Lighthouse for the Blind

As part of this audit, we conducted a site visit to the Lighthouse for the Blind, Inc (LFTB). LFTB is a private, not-for-profit social enterprise providing employment, support, and training opportunities for people who are blind, DeafBlind, and blind with other disabilities. LFTB is a successful manufacturing organization with over 60 years of experience in precision machining. They are located on South Plum Street in the Rainier Valley neighborhood of Seattle. For people with diminished or no vision or hearing, being able to navigate sidewalks, cross streets, and ride public transportation are keys to independence and mobility.

On May 13, 2021, audit staff toured the area surrounding LFTB with their staff. This is the area their employees must travel to get to work every day. What follows are some of the examples we noted where sidewalks were in poor condition, or poorly planned to meet the needs of people with disabilities.

Exhibit 10. Example of Sidewalks in Poor Repair from Walking Tour Around Lighthouse for the Blind



Extreme cracking on a segment of sidewalk near Lighthouse for the Blind.



Street tree root structure encroaching on sidewalk near Lighthouse for the Blind.



Street debris encroaching on pedestrian right of way on sidewalk near Lighthouse for the Blind.

LFTB staff described other examples in which SDOT could have: 1) improved its communication about sidewalk projects after the initial public engagement, 2) taken quicker action to address a potentially unsafe condition, or 3) ensured that the final solution was workable for the people who need to use it.

Another stakeholder we interviewed, who is a member of the Seattle Disability Commission and uses a wheelchair, described the difficulties she had trying to negotiate the area around her residence during a time when multiple construction projects were in progress. She noted that lack of access prevented her from leaving her apartment for weeks at a time. She would like to see SDOT improve its coordination of access in and around multiple construction sites in the same area. Like LFTB, she recommended that SDOT use the expertise of people with lived experience of disability, such as some of the members of the Seattle Disability Commission, to ensure street use plans for construction sites meet the needs of people with disabilities.

APPENDIX D

City of Oakland's Buy Sell Repair Ordinance

12.04.380 - Sidewalk inspection, replacement, and compliance certificates.

1. Responsibility. The property owner shall be responsible for inspecting sidewalks and curb ramps, obtaining all required permits, performing all necessary sidewalk and curb ramp repair or replacement, scheduling inspections, obtaining and filing with the City a compliance certificate for the entire sidewalk when one (1) or more of the following events occurs:
 - A. Title Transfer. Prior to transferring title associated with the sale of any real property that contains any structure with a sidewalk. Title transfer means the sale or transfer of an entire real property estate or the fee interest in that real property estate and does not include the sale or transfer of partial interest, including a leasehold. In addition, the following shall not be included: (1) transfer by a fiduciary in the course of the administration of a decedent's estate, guardianship, conservatorship, or trust, (2) transfers from one (1) co-owner to one (1) or more other co-owners, or from one (1) or more co-owners into or from a revocable trust, if the trust is for the benefit of the grantor or grantors, (3) transfers made by a trustor to fund an inter vivos trust, (4) transfers made to a spouse, to a registered domestic partner as defined in Section 297 of the Family Code, or to a person or persons in the lineal line of consanguinity of one (1) or more of the transferors, (5) transfers between spouses or registered domestic partners resulting from a decree of dissolution of marriage or domestic partnership, or a decree of legal separation or from a property settlement agreement incidental to a decree, (6) transfers from property owners to any financial institution as a result of a foreclosure or similar process.
 - B. Construction or Remodeling. Whenever a property owner applies for any permit or other approval needed for construction, remodeling, modification or alteration of any portion of lots adjacent to, abutting, or fronting any portion of a sidewalk area where the cost of the work is estimated to exceed one hundred thousand dollars (\$100,000.00).
 - C. Unsafe Condition Becomes Known. When the property owner becomes aware of an unsafe sidewalk condition, or when the property owner is notified by the City of an unsafe sidewalk condition.
2. Inspections. A self-certification inspection shall be conducted by a contractor holding specified "A," "B," or "C-8" license and a current valid Oakland Business License. A complete copy of the inspection report and written confirmation by the inspector that any repairs or replacements recommended by the inspector have been completed shall be provided to the Department of Transportation.
3. Compliance Certificate. The self-certification inspection report and confirmation of completed repairs or replacement shall be a condition of the issuance of a final compliance certificate for the entire sidewalk. The final compliance certificate must be issued prior to the first close of escrow.
4. Enforcement. Within five (5) years of issuance of the compliance certificate, property owners may be subject to random inspection by the City Inspector. Property owners who falsify the self-certification inspection report and have not performed all necessary sidewalk and curb ramp repair or replacement shall be subject to specified civil penalties and liens.

(Ord. No. 13550, 7-9-2019)

APPENDIX E

March 2018 Policy Memo from SDOT's Interim Director to the Mayor and her Executive Team



City of Seattle
Jenny Durkan, Mayor

Date: 3/12/2018
To: Mayor Jenny Durkan and her Executive Team
From: Goran Sparrman, Interim Director, SDOT
Author: Emily Burns, SDOT

SECTION A: OVERVIEW OF THE ISSUE

Topic/Issue Title: Sidewalk Assessment Project

Please select one Briefing Function:

Briefing Function	ü
General Update Only	<input type="checkbox"/>
Key Policy Impact/Change	<input type="checkbox"/>
Financial Permission Required	<input type="checkbox"/>
Delivery of Information Requested from Mayor or E-Team	<input checked="" type="checkbox"/>
Direction needed on next steps	<input type="checkbox"/>

Objective of this Briefing:

Provide information on SDOT's Sidewalk Condition Assessment in preparation for a council briefing tentatively scheduled for April 17th with the Sustainability and Transportation Committee

Summary of Topic/Issue:

SDOT received a \$400,000 budget addition in 2017 to perform a sidewalk condition assessment of existing infrastructure. SDOT hired 14 interns over the summer to inspect 2,300 miles of city sidewalk using a geographic mapping application. The primary goal of the project was to collect detailed condition information about our sidewalks. Over 34,000 blocks of sidewalk data were validated and updated in SDOT's asset management database and map layers. We collected over 156,000 data points on uplifts, cracking, settlement, vegetation issues, obstructions, and street furnishings.

Background:

The replacement value of Seattle's sidewalks is over \$5.3 billion dollars, making it one of the city's most valuable assets. SDOT's initial sidewalk inventory was collected in 2007. That inventory included a condition assessment of 25% of the city's sidewalks, all located in urban villages.

Planning for this project began in December 2016 following the budget addition from Councilmember Mike O'Brien, with support from the Seattle Pedestrian Advisory Board (SPAB.) Data collection occurred from May to September 2017. This effort was included in the Age-Friendly Initiative early action items

and supports Pedestrian Master Plan implementation. SDOT used the resources allocated to complete this study on time and on budget. Hiring summer interns, rather than using professional staff or consultants, allowed for a cost-effective approach to completing this project. Remaining funds were used to perform beveling (minor repairs) on priority sidewalks distributed across the city.

The City typically pays approximately \$1 to 2 million annually for sidewalk trip and fall litigation and claims. In evaluating historic claims liability, private property owners and the city may share financial responsibilities. Final determination depends on contributing conditions factors such as tree or utilities and ownership. Many claims settle out of court with a variety of splits in responsibility.

RSJI Analysis & Implications:

The assessment was performed on all areas of the city in an equitable manner. Should the City choose to fund a proactive sidewalk repair program using the data, SDOT could perform maintenance on these assets in a proactive and equitable manner.

Key Policy Issues:

SDOT recommends further evaluation of:

- 1) *Responsibility for sidewalk condition.* Review the enforcement of SMC 15.72 that requires the adjacent property owner take responsibility for sidewalk maintenance and repair.
- 2) *Point of Sale.* This is where the seller of a property is responsible for correcting the sidewalk issues. Exemptions can be made under certain circumstances (inability to pay, short sale, etc.).
- 3) *A Sidewalk Cost Sharing Program.* To date, we have not established a funding mechanism for cost sharing sidewalk repairs with property owners.
- 4) *Property Liens.* SDOT is evaluating existing policies and legal guidance for when the City can issue a property lien based on uncorrected sidewalk issues. We are updating CAM 2208 and may request additional guidance on this action.

Note: There are competing policies regarding tree preservation and ADA accessibility. Funding to achieve the preferred outcomes of both policies has not been provided.

1.

Indicate Legislation and/or Council action:

No legislative or Council action is requested at this time, though the Sustainability & Transportation Committee is eager to hear the results of the assessment, which we are tentatively scheduled to present to them later in April.

SDCI is proposing to amend the Land Use Code to increase accessibility for all users of pedestrian corridors (Pedestrian Access and Circulation, SMC 23.53.006). This would increase curb ramp and sidewalk construction and improve ADA compliance in Urban Villages.

Please give a brief overview of any financial impacts:

[Seattle's Sidewalk Repair Program](#) budget has primarily provided funding to mitigate or repair sidewalks based on criteria in Seattle Municipal Code (SMC) 15.72 specifying shared financial, repair and maintenance responsibilities between the city and abutting property owner. The 2018 budget includes a one-time addition of \$2 million for sidewalk repairs over and above the existing sidewalk repair budget, which is typically \$1.5 million annually. SDOT's Levy to [Move Seattle](#) provides funding for implementing the Pedestrian Master Plan and other capital improvement projects. Funding associated with the Pedestrian Master Plan and other capital projects has not addressed maintenance of sidewalks.

We found 4,700 observations adjacent to City property, not including observations related to trees. We observed that uplifts account for the largest share. For City owned properties, we anticipate a total

repair cost in the range of \$15 to \$38 million, if full panel replacement is necessary. We can apply different treatment applications from low-cost shimming or beveling to full panel replacement, depending on underlying conditions. In certain circumstances, both shimming and beveling are considered interim, "make safe" repairs and are not considered permanent repairs.

Funding required to meet repair and mitigation needs of a \$5 billion sidewalk asset is far greater than the available budget. Initial estimates indicate that it may cost between \$500 million and \$1.33 billion to remove all utility obstacles, permanently repair all sidewalks, and remove isolated cross slope issues. The City is wholly responsible for repairing sidewalks when its infrastructure or trees damage the sidewalk. It is also responsible for maintaining safe passage. To address these requirements, we recommend funding a proactive sidewalk repair and mitigation program that better engages with property owners and prioritizes repairs. Legal opinions suggest this would likely reduce trip and fall injuries, ongoing litigation costs, and claims payments.

Uplifts pose a significant liability to the City from trips and falls. Tree related sidewalk damage is typically the most complex and expensive to repair while also having the highest pedestrian traffic impact. We estimate the cost to address SDOT tree related issues, excluding replacing permanently closed sidewalks, to be between \$43 and \$87 million. Parks-owned tree issues are estimated to cost between \$600,000 and \$1.2 million to repair. SDOT has realized economies of scale by repairing similar issues en masse. If the SDOT Sidewalk Repair program had an annual budget of \$5 million, SDOT would address these issues within approximately 20 to 40 years. The department would evaluate these issues within capital project boundaries for better economies of scale and complete repairs in an equitable manner. This budget would be an addition to the base budget set aside to manage the program and complete needed mitigation measures to reduce the number of uplifts caused by other issues. SDOT is considering submitting a budget request for the 2019 Proposed and 2020 Endorsed budget. The budget request would allocate funds for cost sharing, property lien, and point of sale programs.

Executive Summary Recommendations:

- 1) To make even minimal improvements to the overall sidewalk condition, additional funding is necessary. We will prioritize permanent sidewalk repairs, per SMC 15.72, when the City infrastructure is responsible for tree damage or adjacent to City property.
- 2) With additional funding, SDOT could implement a more robust risk mitigation program by proactively shimming and beveling uplifts. The department will continue its reactive customer service strategy and has improved its business process for response and will add prioritized sidewalk inspections to perform a quality check on the collected data. Implementing a cost share program would provide matching funds to further improve sidewalk conditions.
- 3) Raise awareness of sidewalk responsibilities for property owners including maintenance, repair, applicable ADA regulations, vegetation clearance requirements, and other items in the pedestrian clear zone. We plan to develop an interactive web site and web map once the observation data is sustainably managed.
- 4) Work with SDCI to notify property owners of vegetation issues.
- 5) Implement a three- to five-year capital plan that simultaneously evaluates project opportunities, programs funds, and improves conditions for pedestrians to reduce overall project impacts.
- 6) Add the ADA access barriers to our ADA Transition Plan. While the plan primarily focuses on curb ramps, we will also identify sidewalk obstructions found during this assessment. Sidewalk obstructions should be caught during permitting reviews and prior to construction acceptance.

Propose the timeline and schedule:

- November 2017 - March 2018: Perform shimming or beveling on selected sidewalks, identify CIP project collaboration opportunities, and identify targeted locations for SDOT tree repairs
- March 2018: Publish the Executive Summary
- April - May 2018: Implement a data maintenance tool, publish public maps of observations and tree ownership
- June 2018: Possible submission of a budget request for cost sharing, property lien, and point of sale programs
- 2019: Propose cost sharing, property lien, and point of sale programs; update the Transportation Asset Status and Condition Report

Supporting materials:

Document Name	Document Type (PDF, Word, Excel...)
SDOT Briefing Pipeline Presentation - Sidewalk Assessment 030218	ppt
SidewalkAssessExecSummary_3_2_2018R3	pdf

APPENDIX F

Seattle Office of City Auditor Mission, Background, and Quality Assurance

Our Mission:

To help the City of Seattle achieve honest, efficient management and full accountability throughout City government. We serve the public interest by providing the City Council, Mayor and City department heads with accurate information, unbiased analysis, and objective recommendations on how best to use public resources in support of the well-being of Seattle residents.

Background:

Seattle voters established our office by a 1991 amendment to the City Charter. The office is an independent department within the legislative branch of City government. The City Auditor reports to the City Council and has a four-year term to ensure her/his independence in deciding what work the office should perform and reporting the results of this work. The Office of City Auditor conducts performance audits and non-audit projects covering City of Seattle programs, departments, grants, and contracts. The City Auditor's goal is to ensure that the City of Seattle is run as effectively, efficiently, and equitably as possible in compliance with applicable laws and regulations.

How We Ensure Quality:

The office's work is performed in accordance with the Government Auditing Standards issued by the Comptroller General of the United States. These standards provide guidelines for audit planning, fieldwork, quality control systems, staff training, and reporting of results. In addition, the standards require that external auditors periodically review our office's policies, procedures, and activities to ensure that we adhere to these professional standards.

Seattle Office of City Auditor
700 Fifth Avenue, Suite 2410
Seattle WA 98124-4729
Ph: 206-233-3801
www.seattle.gov/cityauditor