



**A Report to the  
Audit Committee**

**Mayor**  
Freddie O'Connell

**Nashville Department of  
Transportation and  
Multimodal Infrastructure**  
**Director**  
Diana Alarcon

**Audit Committee Members**  
Burkley Allen  
Tom Bates  
Kevin Crumbo  
Angie Henderson  
Courtney Johnston  
Matthew Scanlan

Metropolitan  
Nashville  
Office of  
Internal Audit

# Audit of Metropolitan Nashville Sidewalk Prioritization

May 16, 2024

# Audit of Metropolitan Nashville Sidewalk Prioritization

## EXECUTIVE SUMMARY

May 16, 2024



### Why We Did This Audit

The audit was conducted due to the importance of sidewalks on public safety, accessibility, and equity within Metropolitan Nashville.

### What We Recommend

- Publicize information regarding the sidewalk program to the Metropolitan Nashville citizenry.
- Implement procedures to reduce sidewalk repair times.
- Create policies and procedures to assist with employee turnover.
- Ensure supporting documentation is maintained for all scored sidewalk projects.

## BACKGROUND

Sidewalk prioritization is the process of determining and assigning importance or order to sidewalk construction projects and repairs. The Nashville Department of Transportation and Multimodal Infrastructure is responsible for prioritization and construction of sidewalks across Davidson County. The linear feet of sidewalks constructed and the cost of sidewalks by calendar year can be seen in Exhibit A below.

### Exhibit A: New Sidewalk Feet Constructed and Cost

Calendar Year	Linear Feet of New Sidewalks	Cost of New Sidewalks
2021	15,842	\$4,949,814
2022	36,948	\$9,544,517

Source: Metropolitan Nashville Cityworks System

## OBJECTIVES AND SCOPE

The objectives of this audit are to determine if the Nashville Department of Transportation and Multimodal Infrastructure has:

- A sidewalk prioritization methodology in place for new sidewalks that effectively and efficiently addresses public safety, accessibility, and equity concerns.
- A methodology in place for the effective and efficient repair and maintenance of sidewalks.
- Effective communication regarding sidewalk prioritization and construction with the public and Metropolitan Nashville Council.

The scope of this audit included all sidewalk prioritization activity between January 1, 2021, through December 31, 2022.

## WHAT WE FOUND

A new sidewalk prioritization methodology was finalized in May 2022 for the Metropolitan Nashville Government. Supporting documentation related to the scoring of projects under the methodology could be improved. A methodology for sidewalk repairs is in place and all repairs reviewed during the audit period were found to be completed. However, the timing of repairs could be improved.

A survey of the Metropolitan Nashville Council and citizenry found that communication about the sidewalk program could be improved. Additionally, the sidewalk program has been challenged by employee turnover, and policies and job specific procedures to protect against sidewalk program interruption from employee turnover are lacking.

## GOVERNANCE

---

Metropolitan Nashville Charter §8.402 defines one of the responsibilities of the Nashville Department of Transportation and Multimodal Infrastructure (NDOT) as the design, construction, maintenance, repair, management, and cleaning of roads, highways, streets, alleys, other public places, bridges, viaducts, and other related structures. This includes the prioritization, construction, and maintenance of sidewalks.

NDOT is managed by an executive director who reports directly to the mayor. On April 29, 2021, former Mayor John Cooper announced an initiative to improve sidewalk construction times by 50 percent and reduce costs by 20 percent within 12 months. Sidewalk performance metrics are reported to the mayor's office.

## BACKGROUND

---

Sidewalks are important within Metropolitan Nashville for many reasons including pedestrian safety, accessibility, economic vitality, and connectivity. A methodology is required to ensure sidewalks are strategically placed within a geographic area. Within Metropolitan Nashville, sidewalks are prioritized, and a sidewalk work plan is developed and implemented.

### New Sidewalk Prioritization

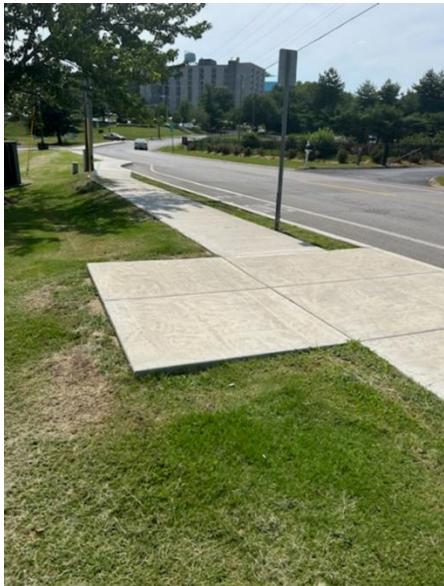
Sidewalk projects are either identified by NDOT or requested from Metropolitan Nashville citizens through the HubNashville website. New sidewalks are funded through the capital budget and are often multiyear projects where funding is spread over multiple years.

In 2017, a sidewalk prioritization methodology was developed and included in the WalknBike Plan. The WalknBike Plan is a five-year plan to improve walking and biking conditions throughout the area. The plan includes establishing the methodology for sidewalk prioritization. NDOT updated the sidewalk prioritization methodology in the 2022 WalknBike Plan based on feedback from the community. Sidewalks are prioritized based on four factors: safety, connectivity, access to transit, and health and equity. Each the four factors are awarded a score of up to 25 points with a final score of up to 100 points for each project.

A three-year work plan is developed using the prioritization score and factors such as project cost, feasibility, constructability, and project delivery time. Sidewalk projects can range from shorter rapid design and repair projects that can be completed quickly to longer design and complex projects that can take two to four years to complete. NDOT has moved projects ahead of other projects based on the complexity of the project, immediate safety concerns, or if the project is related the Americans with Disabilities Act. This results in sidewalk projects being completed regardless of the assigned prioritization score.

Examples of new sidewalk construction observed by the Office of Internal Audit can be seen in Exhibits B and C below.

**Exhibit B: Hickory Trail New Sidewalk**



*Source: Office of Internal Audit Observation*

**Exhibit C: Belle Forest Circle New Sidewalk**



*Source: Office of Internal Audit Observation*

**Sidewalk Repairs**

Sidewalk repairs are identified after being observed by NDOT staff or by a citizen notifying NDOT through a HubNashville request. Once requests are confirmed, a sidewalk repair work order is created. Repairs are not completed based on a prioritization process. The sidewalk construction contractor has access to sidewalk repair work orders and will complete the workorders based on the order the repair request is received. Repairs involving safety concerns or noncompliance with Americans with Disabilities Act regulations will take priority. Examples of sidewalk repairs constructed during the audit period can be seen in Exhibit D and Exhibit E below.

**Exhibit D: 2908 Belmont Blvd Sidewalk Repair**



*Source: Office of Internal Audit Observation*

**Exhibit E: 1101 19<sup>th</sup> Avenue Sidewalk Repair**

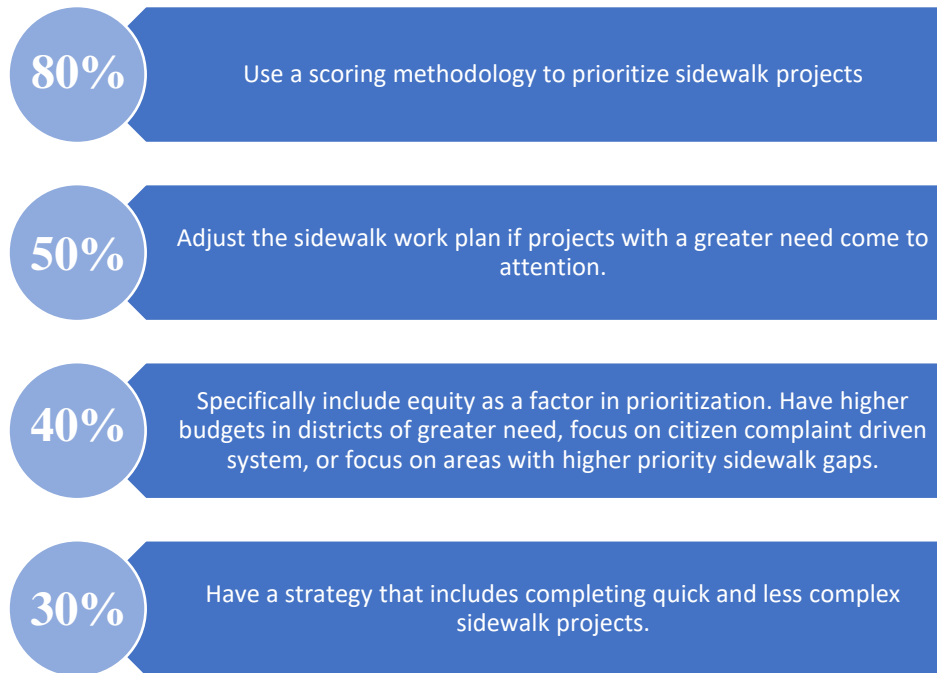


*Source: Office of Internal Audit Observation*

## **Benchmarking**

Benchmarking was performed of 10 cities to determine how comparable Metropolitan Nashville's sidewalk prioritization and construction is to other cities. Cities contacted were: Columbus, OH; Louisville, KY; Orlando, FL; Austin, TX; Charlotte, NC; Minneapolis, MN; Seattle, WA; St. Louis, MO; Des Moines, IA; Portland, OR.

Highlights from the benchmarking include:



Additionally, cities generally are working toward increased funding to support their sidewalk program.

## OBJECTIVES AND CONCLUSIONS

---

1. *Does NDOT have a sidewalk prioritization methodology for new sidewalk construction that effectively and efficiently addresses public safety, accessibility, and equity concerns?*

**Generally, yes.** A sidewalk prioritization methodology was in place based on four factors including safety, connectivity, access to transit, and health and equity. A benchmarking study conducted found that Metropolitan Nashville’s methodology for sidewalk prioritization and construction was in line with other cities. A reviewed sample of completed sidewalk projects during the audit period found that 3 out of 4 projects (75 percent) were constructed based on a prioritization methodology and placed on a workplan. The project that was not prioritized was justified as NDOT took the opportunity to close a sidewalk gap in coordination with Metro Water Services. However, supporting documentation was not provided for sidewalk scores including what individuals performed the scoring, the date the scoring was conducted, and justification for the score. (See Observation C.)

The 2022 WalknBike Plan includes the current workplan for projects prioritized under the plan. However, public transparency could be improved if the backlog of projects from prior years were also included in the WalknBike Plan. (See Observation C.)

A review of Sidewalk Program Reports released by former Mayor Cooper’s Office found the success measure of reducing sidewalk construction times by 50 percent and reducing sidewalk construction costs by 20 percent was being met. However, inaccurate, or inconsistent information was included in the reports. Additionally, whether this success measure will be continued with the new mayoral administration is unclear. (See Observation D.)

NDOT employees supporting the program had turned over during the audit period. Supporting documentation for the scoring methodology could not be providing by current staff because sidewalk program policies and procedures were not in place to protect against staff turnover. (See Observation E.)

2. *Does NDOT have a methodology for the effective and efficient repair and maintenance of sidewalks?*

**Generally, yes.** Sidewalk repair work orders are initiated when repairs are observed in the field by NDOT staff, council members, other Metropolitan Nashville departments, or when a citizen notifies NDOT through a HubNashville request. NDOT determines the priority of repairs, which is typically based on the order the repair request was received. However, repairs involving safety concerns or noncompliance with Americans with Disability Act regulations will be prioritized higher. The sidewalk vendor has access to work orders and is responsible for the completion of repairs. A review of 24 HubNashville requested repair work orders was conducted. All work orders were completed, and 18 repairs were observed by the Office of Internal Audit. However, 6 out of 24 repairs (25 percent) were not completed timely and took over nine months for completion. Additionally, work orders were found to be completed in the sidewalk contractors’ project management system but not closed in Metropolitan Nashville CityWorks system. (See Observation A.)

3. *Is there effective communication regarding sidewalk prioritization between NDOT and the public and Metropolitan Nashville Council?*

**Generally, no.** A survey of the Metropolitan Nashville Council and Metropolitan Nashville citizenry found that communication from NDOT regarding the sidewalk program was lacking and could be improved. The Metropolitan Council Member survey was sent to all council members and responses were received from 17 out of 40 council members (43 percent). The council member survey found general disagreement on understanding the sidewalk prioritization, communicating sidewalk prioritization clearly to citizens, and prioritizing sidewalks equitably. (See Observation B.)

A survey was also sent to Metropolitan Nashville citizens who submitted sidewalk related HubNashville requests during the audit period. The survey found citizens were generally unaware of how sidewalks are prioritized and were not familiar with the sidewalk resources available, including the 2022 WalknBike Plan and Sidewalk Projects Viewer website. Additionally, citizens did not feel their HubNashville requests were addressed timely or that sidewalks were prioritized fairly across Nashville and Davidson County. (See Observation B.)

## AUDIT OBSERVATIONS

---

Internal control helps entities achieve important objectives and sustain and improve performance. The Committee of Sponsoring Organizations of the Treadway Commission, *Internal Control – Integrated Framework (COSO)*, enables organizations to effectively and efficiently develop systems of internal control that adapt to changing business and operating environment, mitigate risks to acceptable levels, and support sound decision making and governance of the organization. The audit observations listed are offered to assist management in fulfilling their internal control responsibilities.

### ***Observation A – Sidewalk Repairs and Maintenance***

Work was not completed on 6 out of 24 (25 percent) sidewalk related work orders within nine months. Sidewalk work orders are generated when repairs are observed from NDOT staff, council members, other Metropolitan Nashville departments, or when a citizen inputs a HubNashville request for a sidewalk repair. NDOT determines the priority of repairs, which is typically based on the order the repair request was received. However, repairs involving safety concerns or noncompliance with Americans with Disability Act regulations will be prioritized higher. The NDOT sidewalk contractor has access to work orders and is responsible for completion of repairs. A listing of all sidewalk repair related HubNashville requests in the audit period was obtained. Reviews and field visits were conducted for 24 randomly selected requests. While all work orders were verified as completed, some repairs were not completed timely. NDOT stated that employee turnover within the sidewalk program impacted the timing of repairs.

Additionally, a review of completed work orders found that work orders were closed in the contractor's project management software but remained open in CityWorks. The discrepancy in status indicates work orders were not accurately reflected in CityWorks. Untimely updates to CityWorks increases the risk that data is inaccurate and not relevant for system users.

Failure to address sidewalk repairs timely could negatively impact public safety and accessibility.

#### *Criteria:*

- *COSO, Control Activities—Principle 1—The organization demonstrates a commitment to integrity and ethical values.*
- *COSO, Control Activities—Principle 4—The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.*
- *COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.*

#### *Assessed Risk Rating:*

**High**

#### *Recommendations for management of Nashville Department of Transportation and Multimodal Infrastructure to:*

1. Establish a goal time frame for sidewalk repair requests to be completed and measured against.
2. Implement procedures for a sidewalk repair methodology to reduce sidewalk repair times.
3. Reconcile the sidewalk vendor's system to CityWorks on a regular basis.



## **Observation B – Sidewalk Prioritization Public Communication**

A survey found that NDOT communication with the Metropolitan Nashville Council and citizenry was not clear and could be improved.

### **Metropolitan Nashville Council Sidewalk Prioritization Survey**

A survey sent to Metropolitan Nashville Council Members gauged the level of communication they received regarding sidewalk prioritization and construction and their understanding of the sidewalk prioritization methodology. The survey had 17 out of 40 council members (43 percent) respond as of July 3, 2023. Council Members were asked for their level of agreement with 8 statements rated from 5 being strongly agree to 1 being strongly disagree. A summary of results can be seen in Exhibit F below.

#### **Exhibit F: Metropolitan Nashville Council Sidewalk Prioritization Survey Results**

<b>STATEMENT</b>	<b>AVERAGE</b>	<b>% AGREED</b>	<b>% DISAGREED</b>
<i>I understand how sidewalk projects are prioritized within Nashville and Davidson County.</i>	2.94	47%	41%
<i>The sidewalk prioritization process is clearly communicated to Metropolitan Nashville citizens.</i>	2.06	12%	71%
<i>I have used the council liaison with the Nashville Department of Transportation for inquiries.</i>	4.53	88%	0%
<i>My concerns around sidewalks in my district are addressed by the Nashville Department of Transportation.</i>	2.82	24%	41%
<i>My constituents regularly contact me with sidewalk concerns.</i>	4.65	100%	0%
<i>I refer to the WalkNBike Plan and/or Sidewalk Project Viewer website to check on the status of sidewalk projects in my district.</i>	3.06	41%	29%
<i>The sidewalk program for Nashville and Davidson County is equitable.</i>	2.65	29%	35%

Source: Office of Internal Audit Survey

### **Metropolitan Nashville Council Sidewalk Prioritization Survey**

A survey was sent to all Metropolitan Nashville citizens that submitted a sidewalk related HubNashville request during the audit period. The survey gauged the citizen’s satisfaction with response timing and NDOT services received and the citizen’s knowledge of sidewalk prioritization methodology. The survey was sent to 700 Metropolitan Nashville citizens and 351 responded (50 percent). Citizens were asked to rate their level of agreement with 7 statements with 5 being strongly agree and 1 being strongly disagree. A summary of results can be seen in Exhibit G below.

## Exhibit G: Metropolitan Nashville Citizens Sidewalk Prioritization Survey Results

STATEMENT	AVERAGE	% AGREED	% DISAGREED
<i>The sidewalk prioritization process is clearly communicated to Metropolitan Nashville Citizens.</i>	2.27	13%	64%
<i>My sidewalk concern was addressed timely by the Nashville Department of Transportation.</i>	2.47	28%	58%
<i>I am satisfied with the service received from the Nashville Department of Transportation.</i>	2.65	28%	49%
<i>I am aware of how sidewalk projects are prioritized within Nashville and Davidson County.</i>	2.21	13%	66%
<i>I have reviewed the WalknBike Plan for Nashville and Davidson County.</i>	2.81	33%	48%
<i>I have reviewed the Sidewalk Project Reviewer website to check the status of sidewalk projects.</i>	2.74	32%	52%
<i>Sidewalk projects are prioritized fairly across Nashville and Davidson County.</i>	2.48	7%	39%

Source: Office of Internal Audit Survey

Survey results indicated communication to both the Metropolitan Nashville Council and the Metropolitan Nashville citizenry was lacking. NDOT had a variety of public resources to support the sidewalk program including the 2022 WalknBike Plan, a sidewalk projects viewer website, the HubNashville website, a Metropolitan Nashville Council liaison, and other plan documents. However, the survey indicated the public may not be aware of the resources available.

Additionally, the resources were not easily comparable. The 2017 Sidewalk Plan, a 247-page document, was updated and consolidated into 61 pages for the 2022 WalknBike Plan. Both plans were available on the WalknBike website but vary greatly. The 2017 WalknBike Plan prioritized sidewalks with 12 criteria and had addressed a priority of sidewalk repairs based on a condition inventory. The 2022 WalknBike Plan prioritized sidewalks based on four criteria and does not address the prioritization of repairs outside of having the Americans with Disabilities Act as a top priority.

Comparing the progress made on sidewalk construction between the 2017 WalknBike Plan and 2022 WalknBike Plan was difficult. The 2022 WalknBike Plan referenced several other plans, including Vision Zero, Nashville Next, Metropolitan Nashville Transportation Plan. The amount of information was cumbersome and could be hard for the average citizen to review and gain an understanding of the sidewalk program.

Public perception of the NDOT sidewalk program could be damaged without clear and concise information regarding sidewalk prioritization and construction.

### Criteria:

- COSO, Control Activities—Principle 13—The organization obtains or generates and uses relevant, quality information to support the functioning of internal control.
- COSO, Control Activities—Principle 15—The organization communicates with external parties regarding matters affecting the functioning of internal control.
- COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

*Assessed Risk Rating:*

**Medium**

*Recommendations for management of the Nashville Department of Transportation and Multimodal Infrastructure to:*

1. Communicate to the current Metropolitan Nashville Council with information regarding the sidewalk prioritization methodology, the NDOT liaison contact information, and how to address and forward sidewalk concerns from constituents.
2. Identify ways to consolidate and publicize resources available to the Metropolitan Nashville citizenry.

***Observation C – Sidewalk Prioritization***

Supporting documentation for sidewalk prioritization scoring could be improved. A random sample of four new sidewalk construction projects was tested for prioritization. The testing found that 3 out of 4 projects (75 percent) were constructed based on a prioritization score. The project that was not prioritized was justified as NDOT took the opportunity to close a sidewalk gap in coordination with work already being performed Metro Water Services. Supporting documentation could not be provided for the three projects that were prioritized under the current or previous prioritization methodology.

A maximum 100 points sidewalk score is assigned to new sidewalk construction projects. Up to 25 points are assigned to four factors: safety, sidewalk connectivity, accessibility, and health and equity. Supporting documentation should include the individuals that conducted the scoring, the date the scoring took place, the justification for each score under each of the four factors. Supporting scores with documentation decreases the risk of scores being inconsistent or being changed after the initial scoring is completed.

A work plan is created and included in the WalknBike Plan based on the prioritization scoring of projects and other key factors. The work plan in the 2022 WalknBike Plan includes the projects that were prioritized under the current methodology. However, NDOT will also carry out projects from a backlog that were prioritized under different methodologies and funded in previous years. Public transparency could be improved if those projects were also listed in the WalknBike Plan.

*Criteria:*

- COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.
- 2022 WalknBike Plan

*Assessed Risk Rating:*

**Medium**

*Recommendations for management of the Nashville Department of Transportation and Multimodal Infrastructure to:*

1. Ensure the scoring methodology is documented for all projects, including supporting documentation for the score, the individuals that scored the project, and when the score was completed. Documentation should be retained in accordance with established retention standards.
2. Include a listing of backlog of sidewalk projects in future updates to the WalknBike Plan.

## ***Observation D – Sidewalk Program Success Measurement***

Published data related to sidewalk success was inaccurate. Eight discrepancies were noted between the Sidewalk Program Report published and the underlying data for April 2022 and fiscal year 2023. The discrepancies included different linear feet constructed and different averages for repair costs and new sidewalk construction costs. The Sidewalk Program Report was used to track the success measure of improving sidewalk construction times by 50 percent and reducing costs for construction by 20 percent within 12 months.

Confusion existed between the sidewalk contractor providing the report information, former Mayor Cooper’s Office, and NDOT. Uncertainties were noted around the original baseline for dates and information and whether an additional report would be drafted. Additionally, it is unclear whether the success measure of building sidewalks 50 percent faster and 20 percent cheaper will continue with the new mayoral administration or if a new success measure will be created.

A review of Sidewalk Program Reports verified the success measure of building sidewalks 50 percent faster and 20 percent cheaper was met.

Transparency is damaged when there is not a process in place to ensure all information of the Sidewalk Program Reports is accurate and consistent. Additionally, public trust may be broken if inaccuracies are published.

### *Criteria:*

- COSO, Control Activities—Principle 4—The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.
- COSO, Control Activities—Principle 5—The organization holds individuals accountable for their internal control responsibilities in the pursuit of objectives.
- COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.

### *Assessed Risk Rating:*

**Medium**

### *Recommendation for management of Nashville Department of Transportation and Multimodal Infrastructure to:*

1. Implement a quality control process for ensuring all information published for the sidewalk program success measurement is accurate. Clarify roles of the contractor, NDOT, and the Mayor’s Office.
2. Consult with the current administration to determine if the same sidewalk success measure will be continued or another measure is to be drafted.

### ***Observation E – Sidewalk Program Employee Turnover and Succession Planning***

NDOT does not have a succession plan for employee turnover. NDOT was created in July 2021 to handle road maintenance, traffic signals, and sidewalk work within Metropolitan Nashville. Several new positions were created to support the new department. Sidewalk program engineers turned over both during the audit period and during the audit itself, including the developer of the 2022 WalknBike Plan scoring methodology. Leadership over the sidewalk program also turned over as a new director and chief engineer began employment during the audit period. Turnover in staff caused delays in getting requested audit items and information.

The Sidewalk Program follows a multiyear plan, and many projects are long-term. Staff changes occur during projects. Without clear documentation, policies, and procedures, the success of the program could be negatively affected.

#### *Criteria:*

- *COSO, Control Activities—Principle 1—The demonstrates a commitment to integrity and ethical values.*
- *COSO, Control Activities—Principle 4—The organization demonstrates a commitment to attract, develop, and retain competent individuals in alignment with objectives.*
- *COSO, Control Activities—Principle 10—The organization selects and develops control activities that contribute to the mitigation of risks to the achievement of objectives to acceptable levels.*

#### *Assessed Risk Rating:*

**Medium**

#### *Recommendation for management of Surplus Property Distribution to:*

1. Develop policies and procedures for the employee roles supporting the sidewalks program.
2. Establish retention requirements for documentation related to the sidewalks program.

## **GOVERNMENT AUDITING STANDARDS COMPLIANCE**

---

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 observations and conclusions based on our audit objectives.

## **METHODOLOGY**

---

To accomplish our audit objectives, we performed the following steps:

- Benchmarked sidewalk prioritization in peer cities.
- Reviewed applicable laws and regulations.
- Interviewed key personnel involved with sidewalk prioritization
- Surveyed Metropolitan Nashville Council Members and citizens.
- Evaluated internal controls currently in place.
- Observed completed new sidewalk construction projects.
- Observed completed sidewalk repair projects.
- Considered risk of fraud, waste, and abuse.

## **AUDIT TEAM**

---

Elizabeth Andrews, CFE, Auditor I

Mary Cole, CPA, CISA, CGFM, CFE, In-Charge Auditor

Seth Hatfield, CPA, CIA, CFE, CCFO, Quality Assurance

Lauren Riley, CPA, CIA, CFE, ACDA, CMFO, Metropolitan Auditor

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

---

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY  
FREDDIE O'CONNELL  
MAYOR

NASHVILLE DEPARTMENT OF TRANSPORTATION  
AND MULTIMODAL INFRASTRUCTURE  
750 S. 5th St. Nashville, TN 37206

May 15, 2024

Ms. Lauren Riley  
Metropolitan Auditor  
Office of Internal Audit  
150 2<sup>nd</sup> Avenue N  
Nashville, TN 37201

### **RE: Audit of Metropolitan Nashville Sidewalk Prioritization**

Dear Ms. Riley,

This letter acknowledges our receipt of the draft audit for Metropolitan Nashville Sidewalk Prioritization and has reviewed the associated observations and recommendations as they relate to the practices of sidewalk project prioritization and work plan development. Please accept my thanks for the thoroughness and attention to detail evident in the audit process, analysis, and subsequent conversation and review. I am now writing to provide a summary of our responses.

As part of our commitment to serving the community efficiently and effectively, the Nashville Department of Transportation (NDOT) has undertaken significant initiatives to enhance our processes and ensure the safety and accessibility of pedestrian pathways.

Establishing clear timeframes for completing sidewalk repair requests has been a priority for NDOT. Through the development of Key Performance Indicators (KPIs) and a systematic approach aimed at reducing response times, we are dedicated to improving our operational metrics. Our goal to reduce the average response time by 10% annually demonstrates our commitment to enhancing the quality of life for residents and visitors.

Furthermore, we have implemented new standard operating procedures (SOPs) and upgraded work management software systems to streamline reporting and tracking processes, leading to reductions in sidewalk repair times. Additionally, the transition to a new work management software system has eliminated the need for reconciling data across multiple tracking systems, enhancing efficiency and accuracy.

In terms of communication and transparency, NDOT has engaged with the Metropolitan Nashville Council to provide information on sidewalk prioritization methodology and established a structured schedule for updates to foster collaboration and understanding within the community. We have also made strides in consolidating and publicizing resources available to the Metropolitan Nashville citizenry, including the hiring of a Community Engagement Specialist and the development of a Community Engagement Plan.

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

---

To ensure accountability and accuracy, we have implemented quality control processes and consulted with the current administration to determine future metrics of success for the sidewalk program. Additionally, we are committed to documenting and enhancing SOPs for all facets of Department programs and adhering to retention requirements for program documentation.

In conclusion, NDOT remains dedicated to continuously improving our sidewalk program and related processes to better serve the needs of our community. We appreciate the opportunity to address these recommendations and look forward to further collaboration to enhance pedestrian safety and accessibility in Metropolitan Nashville.

Thank you for your attention to these matters.

Sincerely,

Diana W. Alarcon  
Director  
NDOT



## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

We believe that operational management is in a unique position to best understand their operations and may be able to identify more innovative and effective approaches and we encourage them to do so when providing their response to our recommendations.

	Recommendations	Concurrence and Action Plan	Proposed Completion Date
<i>Recommendations for management of the Nashville Department of Transportation and Multimodal Infrastructure to:</i>			
H	<b>A.1</b> Establish a goal time frame for sidewalk repair requests to be completed and measured against.	<p><b>Accept.</b> NDOT fully acknowledges and embraces the importance of establishing clear timeframes for completing sidewalk repair requests. This recommendation aligns with our commitment to serving the community efficiently and effectively. Over the course of the past several months, the Department has invested time and effort into developing Key Performance Indicators (KPIs) to assess the success of our various programs and initiatives.</p> <p>Delving into the data collected from January 1, 2021, to December 31, 2023, we find insights into our current operational metrics. On average, NDOT takes approximately 30 days from the initiation of a repair request to its closure. However, when it comes to more extensive sidewalk repair projects within the same timeframe, this average extends to 129 days from initiation to completion. This effectively helps identify and frame future metrics.</p> <p>NDOT pledges to implement a systematic approach aimed at reducing the average response time for sidewalk repair requests by 10% annually. This commitment underscores our dedication to enhancing the quality of life for residents and visitors alike by ensuring safe and accessible pedestrian pathways.</p>	Complete
H	<b>A.2</b> Implement procedures for a sidewalk repair methodology to reduce sidewalk repair times.	<p><b>Accept.</b> During the audit period, NDOT has developed and implemented new standard operating procedures (SOPs) for sidewalk repairs. These SOPs aim to streamline reporting and work management tracking processes. In tandem with the development of these procedures, NDOT has deployed an upgraded work management software system, which forms part of a broader consolidation of Metro agency resources. The integration of these new SOPs and the accompanying automation within the upgraded software systems is already yielding reductions in sidewalk repair times.</p>	Complete
H	<b>A.3</b> Reconcile the sidewalk vendor’s system to CityWorks on a regular basis.	<p><b>Accept.</b> During the audit period, NDOT has transitioned to a new work management software system as part of the larger ITS software system upgrade known as the CAL initiative. This transition marks a departure from maintaining repair records in two separate, unintegrated systems. Consequently, the need for reconciling data across multiple tracking systems has been eliminated.</p>	Complete

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

	Recommendations	Concurrence and Action Plan	Proposed Completion Date
M	<b>B.1</b> Communicate to the current Metropolitan Nashville Council with information regarding current sidewalk prioritization methodology, the NDOT liaison contact information, and how to address and forward sidewalk concerns from constituents.	<p><b>Accept.</b> NDOT agrees with this recommendation. During the audit period, NDOT presented before the Metro Council Transportation Infrastructure Committee on the sidewalk program and prioritization methodology during two separate meeting dates. This included a discussion during the 5/31/2023 meeting on the NDOT plan for the budget surplus dollars, and a full WalknBike Plan update on 10/16/2023.</p> <p>To facilitate ongoing dialogue and transparency, we are dedicated to formalizing a structured schedule for these updates. By establishing a regular cadence for providing information to stakeholders, NDOT aims to foster continued collaboration and understanding within the community.</p>	9/30/2024
M	<b>B.2</b> Identify ways to consolidate and publicize resources available to the Metropolitan Nashville citizenry.	<p><b>Accept.</b> In response to the recommendation to consolidate and publicize resources available to the Metropolitan Nashville citizenry, NDOT has taken proactive measures to enhance community engagement. Recognizing the importance of accessibility and transparency, NDOT appointed its first-ever Community Engagement Specialist on May 15th, 2023. This specialist is tasked with developing a comprehensive Community Engagement Plan, finalized in September of 2023. Furthermore, the specialist is currently in the process of creating a formal project engagement playbook that will encompass all outward-facing resources of the Department. Scheduled for completion by the end of June 2024, this playbook will set a new standard for consolidating and publicizing resources available to the community, ensuring clarity and accessibility for all citizens of Metropolitan Nashville.</p>	6/30/2024
M	<b>C.1</b> Ensure the scoring methodology is documented for all projects, including supporting documentation for the score, the individuals that scored the project, and when the score was completed. Documentation should be retained in accordance with established retention standards.	<p><b>Accept.</b> NDOT agrees with this recommendation and is currently starting the process of an update to the 2022 WalknBike Plan. This planning process will consolidate all multimodal infrastructure planning activities into a single comprehensive plan. Additionally, NDOT has recently formalized a project charter process that documents the baseline purpose and need of all Department capital projects. This charter process will be updated to include a narrative and supporting documentation for the sidewalk prioritization score.</p>	9/30/2025

## APPENDIX A – MANAGEMENT RESPONSE AND ACTION PLAN

	Recommendations	Concurrence and Action Plan	Proposed Completion Date
M	<b>C.2</b> Include a list of the backlog of sidewalk projects in future updates to the WalknBike Plan.	<b>Accept.</b> NDOT currently maintains a record of all sidewalk projects through an interactive Geographic Information System (GIS) accessible on the Department's website ( <a href="https://cfms.nashville.gov/Sidewalks/Home/InteractiveMap">https://cfms.nashville.gov/Sidewalks/Home/InteractiveMap</a> ). This tracker comprehensively catalogs all sidewalk projects outlined in both previous and current iterations of the WalknBike Plan. Moving forward, NDOT is committed to continuously improving and enhancing this tracker to ensure transparent access to information on projects at various stages, including those in backlog, planning, engineering, or construction phases.	9/30/2024
M	<b>D.1</b> Implement a quality control process for ensuring all information published for the sidewalk program success measurement is accurate.	<b>Accept.</b> NDOT concurs with the recommendation. In February 2024, NDOT brought on staff a data analyst to oversee all program performance measurements. Among the responsibilities of this staff member is the coordination of quality control processes with program staff. Furthermore, performance data will be centralized and published from a single source to mitigate the risk of inconsistencies.	3/31/2025
M	<b>D.2</b> Consult with the current administration to determine if the same sidewalk success measure will be continued, or another measure will be developed.	<b>Accept.</b> NDOT has and is currently continuing to consult with the Mayor's Office on future metrics of success of the sidewalk program. This has also been part of an agency wide strategic planning effort. Future metrics will include KPIs measuring the total linear feet of sidewalk deployed annually, as well as leading measures for each stage of project delivery.	9/30/2024
M	<b>E.1</b> Develop policies and procedures for the employee roles supporting the sidewalk program.	<b>Accept.</b> NDOT agrees with this recommendation. During the audit period, NDOT began documenting and enhancing Standard Operating Procedures (SOPs) for all facets of Department programs. This information is being utilized for NDOT's APWA certification, and available for all employees on the Department SharePoint site. Each of these policies will be reviewed annually for future improvements.	Complete
M	<b>E.2</b> Establish retention requirements for documentation related to the sidewalk program.	<b>Accept.</b> NDOT agrees with the recommendation and will internally reinforce and continue to follow standard Metro Nashville Records Disposition Authorization (RDA) policy for the proper retention of all sidewalk program documentation.	Complete

## APPENDIX B – ASSESSED RISK RANKING

Observations identified during the course of the audit are assigned a risk rating, as outlined in the table below. The risk rating is based on the financial, operational, compliance or reputational impact the issue identified has on the Metropolitan Nashville Government. Items deemed “Low Risk” will be considered “Emerging Issues” in the final report and do not require a management response and corrective action plan.

Rating	Financial	Internal Controls	Compliance	Public
<b>HIGH</b>	Large financial impact >\$25,000  Remiss in responsibilities of being a custodian of the public trust	Missing, or inadequate key internal controls	Noncompliance with applicable Federal, state, and local laws, or Metro Nashville Government policies	High probability for negative public trust perception
<b>MEDIUM</b>	Moderate financial impact \$25,000 to \$10,000	Partial controls  Not adequate to identify noncompliance or misappropriation timely	Inconsistent compliance with Federal, state, and local laws, or Metro Nashville Government policies	Potential for negative public trust perception
<b>LOW/ Emerging Issues</b>	Low financial impact <\$10,000	Internal controls in place but not consistently efficient or effective  Implementing / enhancing controls could prevent future problems	Generally complies with Federal, state, and local laws, or Metro Nashville Government policies, but some minor discrepancies exist	Low probability for negative public trust perception
<b>Efficiency Opportunity</b>	An efficiency opportunity is where controls are functioning as intended; however, a modification would make the process more efficient			