A-38047

GRANT APPLICATION SUMMARY SHEET

Grant Name: Active Transportation Program: Pedestrian Signals 18-21

Department: PUBLIC WORKS

Grantor: U.S. DEPARTMENT OF TRANSPORTATION

Pass-Through Grantor (If applicable): GREATER N'VILLE REG. COUNCIL

Total Applied ~~$1,650,000.00~~ 1,350,000.00 (VW)

Metro Cash Match: $300,000.00

Department Contact: Laura Hardwicke
862-7185

Status: NEW

Program Description:
Pedestrian signal, crossing, and improvements at the following intersections: Nolensville at Old Hickory Blvd; Lebanon Pike at Andrew Jackson Parkway; Bell Road at Hickory Hollow Parkway; 21st Ave at Church Street; Vietnam Veterans Boulevard at Conference Drive; Elm Hill Pike at Royal Parkway; Charlotte Ave at White Bridge Pike; Nolensville Pike at Haywood Lane; State Route 45 at Rio Vista; DB Todd at Buchanan Street.

Plan for continuation of services upon grant expiration:
Maintenance of facilities included in Metro Public Works responsibilities/budget

APPROVED AS TO AVAILABILITY OF FUNDS:

3/9/18

Director of Finance **Date**

APPROVED AS TO FORM AND LEGALITY:

Jason P. Bobo

Metropolitan Attorney **Date**

APPROVED AS TO RISK AND INSURANCE:

3/9/18

Director of Risk Management Services **Date**

3.9.18

Metropolitan Mayor **Date**

This application is contingent upon approval of the application by the Metropolitan Council.

4680

NASHVILLE AREA
Metropolitan Planning Organization

OFFICIAL USE:

Received by: _____

Date: _____

ACTIVE TRANSPORTATION PROGRAM GRANT APPLICATION — Infrastructure Project

PROJECT NAME	Pedestrian Signal Priorities
LEAD AGENCY	Metro Nashville Public Works
PROJECT TYPE	■ On-Road Improvements ☐ Off-Road Improvements ☐ Amenities/ Enhancements
COUNTIES	■ Davidson ☐ Maury ☐ Robertson ☐ Rutherford ☐ Sumner ☐ Williamson ☐ Wilson
BRIEF DESCRIPTION	The Purpose of Pedestrian Signal Priorities is to swiftly install pedestrian facilities and signalization at the most dangerous intersections throughout Davidson County.

PROPOSED ELEMENT(S)

- ☐ Sidewalks
- ■ Crosswalk(s)
- ■ Signalization/traffic control
- ■ Signage
- ☐ Curb ramp(s)
- ☐ Pedestrian amenities
- ☐ Shortened signal cycle lengths of 90 seconds or less or other pedestrian friendly signal timing
- ☐ Bicycle lane
- ☐ Buffered bicycle lane
- ☐ Bicycle parking (e.g., rack, locker)
- ☐ Shared lane(s)
- ☐ Bike share program
- ☐ Landscaping (e.g., street trees or other features to promote use of walking/bicycling)
- ☐ New greenway
- ☐ Bus/transit stop
- ☐ Transit stop amenities or bus stop pads
- ☐ Wayfinding
- ☐ Turning radius improvements
- ☐ ADA accessibility

PROJECT HISTORY

- ☐ Project in TIP | ID#_____
- ☐ Not in TIP, LRTP Project | ID#_____
- ☐ Existing Project, Not in TIP or Plan
- ■ New Project
- ☐ Other:_____

ATP GRANT FUNDING SUMMARY*

Federal Fiscal Year	*Total Cost*	***ATP Requested***
2018	$	**$**
2019	$1,650,000	**$**1,350,000
2020	$	**$**
2021 (future TIP)	$	**$**
Total	**$**1,650,000	**$**1.350.000

**Please complete the PROJECT BUDGET WORKSHEET form and include any funding from other sources of revenue. **Must not exceed 80% of total cost.*

AGENCY CONTACT INFORMATION

Name	Laura Hardwicke	E-mail	laura.hardwicke@nashville.gov
Title	Grants Coordinator	Phone	615-862-7185
Department	Planning		
Agency/ Organization	Metropolitan Government of Nashville and Davidson County		

This application is contingent upon approval of the application by the Metropolitan Council.

PROPOSAL NARRATIVE (Provide no more than 10 pages, responding to each of the following sections)	
Section 1. **Project Description, Purpose, Need, and Objectives**	Please provide a detailed description of the proposed active transportation project including its purpose, need, and main objectives. Applicants also must describe the following: • Intended audience(s) • Anticipated reach/ size of audience • Expected scope of work • Major tasks/ activities • Final deliverables / products
Section 2. **Benefits to Active Transportation**	Applicants should address how its proposal relates to the following goals: • Provide safe traveling options for pedestrians and cyclists • Provide opportunities for physical activity among users of the region's transportation system • Increase connectivity among a mix of land uses including neighborhoods, schools, jobs, parks and public space, fresh food markets/ grocery stores, retail, entertainment venues, etc. • Provide last-mile connectivity for users of public transportation
Section 3. **Benefits to Region and Local Community**	Describe how the proposed project will benefit the region and affected local communities. Specifically, consider how the project helps to promote: • MPO's regional goals identified in the 2040 RTP, also known as "Middle Tennessee Connected," and • Local neighborhood or community plans. In addition, please describe how the proposed project will help support traditionally underserved or vulnerable populations. Examples include children, seniors, persons with a physical or mental disability, ethnic and minority populations, non-English speaking individuals, low income households, households without a personal automobile, populations with high rates of health disparities and chronic disease, etc.
Section 4. **Proposed Innovation**	Describe how the proposed project incorporates innovative approaches to advancing the region's Active Transportation Program goals such as emerging technologies, creative placemaking practices, or public-private partnerships.
Section 5. **Sustainability of Effort**	Describe this history of the proposed project and how it will be sustained beyond the life of awarded grant funds.
Section 6. **Project Deliverables, Schedule, & Milestones**	Provide a detailed schedule for the completion of the proposed project. Identify and describe key milestones, major tasks and activities, and the final deliverables/ products. Include a description of how the project will be managed and how progress will be tracked to ensure timely and efficient implementation. Include a description of the lead agency's recent experience in successfully implementing similar projects. This description should include the project or projects that were implemented and sufficient detail to demonstrate the project was successfully completed on time and within budget.
Section 7. **Budget Narrative**	Provide a descriptive narrative about the funds needed to complete the proposed project or program. Describe the source of matching funds. Applicants must provide documentation to validate that matching funds are secured and available. Funding is subject to continued compliance with MPO TIP Programming Policies regarding federal obligation deadlines.

APPLICATION CHECKLIST	
Yes, I have reviewed:	■ MPO TIP Programming Policies
Yes, I have included:	■ Detailed project description including purpose and need ■ Project map and supporting illustrations ■ Description of intended users/ audience ■ Estimate of the anticipated number of users/ size of audience ■ Detailed scope of work including description of major tasks/activities ■ List of final deliverables / products ☐ Detailed project schedule including major milestone dates ☐ Detailed project budget including all estimated costs and funding sources ☐ Documentation of matching funds ■ Completed project narrative

Pedestrian Signal Priorities

Section 1: Project Description, Purpose, Need, and Objectives

The Purpose of Pedestrian Signal Priorities is to swiftly install pedestrian facilities and signalization at the most dangerous intersections throughout Davidson County.

Nashville ranks as the 37th most dangerous place nationally for people walking, according to a Dangerous by Design 2016. This report from Smart Growth America calculates a Pedestrian Danger Index, or PDI, for the 104 largest metro areas in the United States as well as all 50 states and the District of Columbia. PDI is a calculation of the share of local commuters who walk to work (the best available measure of how many people are likely to be out walking each day) and the most recent data on pedestrian deaths. While Nashville's PDI score is 92.9 and has had 209 deaths in the last 10 years.

Vision Zero is a road traffic safety project that aims to achieve with no fatalities or serious injuries involving road traffic. To reach this goal, we must improve infrastructure for the most vulnerable users—people walking.

Recent reports and master plans highlight how to make our streets safer, but implementation is key. If current budget trends continue, it will be years before our most dangerous intersections are upgraded with safer pedestrian infrastructure. The main objective of this project is to leverage local investments and deploy safety elements at ten of Nashville's most dangerous intersections.

Intended audience(s) and Anticipated Reach

This project is intended to serve pedestrians and bicyclists at some of the county's most dangerous intersections. Furthermore, providing adequate facilities for these vulnerable users of active transportation will also improve conditions for motorists at these intersections. The table below illustrates the number of households within walking distance to the 10 intersections in this project. At least 20% of households within a quarter to half-mile radius of the signal improvements are low-income

	Within 0.250 Mile		0.5 Mile	
Name	Total HH	% Poverty	Total HH	% Poverty
Andrew Jackson Pkwy & Lebanon Pike	3040	17.80%	3967	16.94%
Rio Vista Dr & TN-45	1079	55.89%	1387	63.88%
Conference Dr & Vietnam Veterans Blvd	466	51.50%	1316	38.75%
Hickory Hollow Pkwy & Bell Rd	749	38.45%	3602	26.37%
Nolensville Pike & Old Hickory Blvd	4959	35.43%	5338	35.22%
Nolensville Pike & Haywood Ln SB	1209	31.84%	2167	50.53%
21st Ave N & Church St	1176	50.43%	1384	51.01%
Dr DB Todd Jr Blvd & Buchanan St	3545	35.57%	5975	40.59%
White Bridge Pike & Charlotte Ave	1311	33.41%	3231	29.90%
Elm Hill Pike & Royal Pkwy WB	726	19.42%	726	19.42%

Pedestrian Signal Priorities

The anticipated reach is much larger than the communities described above, as each of these intersections have a variety of employment and other destinations that attracts users from outside the immediate vicinity. This is reflected in the Nashville MPO's Multi-Modal Latent Demand Model, illustrated on the attached maps.

Overall in Davidson County, 15.1% of people are considered to be living in poverty based on 2010 Census data. Much of that population is concentrated in areas of the county where multi-modal infrastructure is lacking and where neighborhoods are cut off from one another by major roadways and intersections. The intersections prioritized herein were selected based on Metro Public Works' Pedestrian and Bicycle Safety Audit, a study that looked at intersections with crashes involving pedestrians and bicyclists, as well as areas of the city in most need of intervention to improve the safety of pedestrians and bicyclists.

Expected scope of work

The intersections for this project were selected from the list of 30 Most Dangerous Intersections from Metro Public Work's Pedestrian and Bicycle Safety Pilot Project.

1. Nolensville Pike at Old Hickory Boulevard: improve pedestrian facilities, countdown heads, poles, buttons, and markings.
2. Lebanon Pike and Andrew Jackson Parkway: improve pedestrian facilities, countdown heads, poles, buttons, and markings.
3. Bell Road and Hickory Hollow Parkway: install pedestrian refuge island, provide pedestrian facilities, countdown heads, poles, buttons, and markings.
4. 21st Avenue and Church Street: Rebuild signal and provide pedestrian facilitates. Install raised pedestrian refuge island and add additional signage at the southwest corner.
5. Vietnam Veterans Boulevard and Conference Drive: improve pedestrian facilities, countdown heads, poles, buttons, and markings.
6. Elm Hill Pike and Royal Parkway/Emery Drive: Rebuild signal, install pedestrian facilities, and install overhead flashing beacons with "prepare to stop when flashing" sign. Resurface intersection and rework drainage.
7. Charlotte Avenue and White Bridge Pike: improve pedestrian facilities, countdown heads, poles, buttons, and markings.
8. Nolensville Pike and Haywood Lane: Rebuild sign, provide pedestrian facilities and update signal timing and phasing. Construct sidewalk and retaining wall. Reapply pavement markings and provide additional signage.
9. State Route 45 at Rio Vista: install protected pedestrian crossing
10. ~~DB Todd at Buchannan: improve pedestrian facilities, countdown heads, poles, buttons,~~ and markings.

Major tasks/ activities

The Prioritized Pedestrian Signal Projects all have existing design and preliminary engineering completed. Upon award, Metro Public Works will make the necessary updates to the existing plans, then create a construction schedule based on concurrent right of way projects, and project readiness. In partnership with Metro Planning Multimodal Transportation Planning &

Pedestrian Signal Priorities

Programming, Walk Bike Nashville and/or the Nashville Civic Design center, Metro Public works will notify the affected communities for each improvement and share corresponding construction schedule. Construction activities will take place during Federal Fiscal Years 2019-2021. Additional outreach and evaluation will follow construction completion and all signal installations.

Final deliverables / products

Improved pedestrian facilities and updated signage at 10 dangerous interactions including

- Install new or improved pedestrian signals at 10 intersections
- Install 1 protected pedestrian crossing along a state route
- Install 1 pedestrian refuge island

Section 2: Benefits to Active Transportation

Because many of the trips Nashville residents take throughout the day (school, grocery store, work, parks, etc.), are under a few miles, they should be able to walk or bike instead of driving. But when infrastructure feels unsafe—including dangerous intersection crossings—many will either drive, or simply not go at all. Households that lack access to a car often miss out on recreational amenities like parks, greenways and community centers.

Neighborhoods and distinct land use areas are often bounded by major arterial streets. The effect of this is that people are forced to drive—or take dangerous risks walking or biking—very short distances. An extreme example that exists around Nashville is people living within a few blocks of a greenway, park, or school, but must get in a car and drive. Providing a safer crossing at those busy intersections allows people to access destinations near where they live and work without driving.

Busy intersections crossing major streets is often the largest barrier preventing people from walking and biking safely in and through Nashville's neighborhoods. This is especially true of transit riders. While they may be able to go long distances on regional bus routes, those routes rarely connect them directly to their final destination. They must either cross those dangerous intersections, or simply drive alone. Even though transit makes a near seamless connection, crossing a busy intersection can make it very unsafe, and dissuade them from getting out of their car.

Section 3: Benefits to Region and Local Community

Many of the project elements address the four main goals from *Middle Tennessee Connected.* Several intersections in the project's scope have existing pedestrian facilities that are not up to today's standards. Therefore, this project reflects the 'fix it first' mentality that is part of maintaining a safe and reliable transportation system. Creating safer intersections for pedestrians gives people alternatives to driving, which is integral to reducing congestion. Encouraging people to walk can also impact public health outcomes related to the built environment. Smart sensors will allow Metro Nashville to track in detail the impact of public investment in pedestrian signals, collecting data that can inform future infrastructure decsiions.

Alignment with Metro Nashville/Davidson County's general plan, NashvilleNext, adopted in 2015 highlights the project's importance and benefits to the local community. Throughout the extensive community planning process and beyond, Nashvillians continuously express their desire to improve walking conditions where they live and work. This project will help address a strong community preference for walkable communities in the local area.

Everyone is a pedestrian at some point; therefore this project has the potential to positively impact a wide array of people. As stated earlier, the households within a quarter to half mile radius of this project range from 20-60% low-income. Moreover, in Tennessee, people of color account for 23% of the population but make up more than 32% of pedestrian fatalities. The pedestrian facility improvements from this project can have a significant impact on the safety of diverse populations.

Section 4: Proposed Innovation

Pedestrian Signal Priorities address a dire need for improved pedestrian facilities at intersections. The interdisciplinary partnership between Metro Public Works, Metro Planning, and Walk Bike Nashville in identifying these intersections and prioritizing projects will set the stage for improved public outreach and engagement as the facilities are installed and evaluated.

Section 5: Sustainability of Effort

These signals were first identified in the 2014 Safety Pilot Study, as part of 30 most dangerous intersections. Recent plans and action agendas have underscored the importance of leveraging other funding sources to achieve vision zero. Gear Up 2020, recommendations from the Urban Land Institute stat that there is really no number more than zero that is acceptable for traffic crashes. We must start by changing our language and admitting publicly that these are not "accidents." 93% of traffic fatalities are caused by driver error. That means that collectively this is in our control. Davidson County has a crash every 26 minutes and pedestrian and bicyclist deaths are at a 20 year high.

In 2016, Metro Public Works created the Mayor's Intersection Improvement Program. Cedarmont Drive at Old Hickory Boulevard and Andrew Jackson Parkway at Old Lebanon Dirt Road have been completed. Construction at four additional intersections is underway, and MPW will continue to allocate resources toward the program until more dangerous intersections are addressed per year. The work straightens awkward street alignments, improves lighting, upgrades signals, and adds sidewalks and high-visibility crosswalks.

The program is data-driven, targeting intersections with identified crash problems. Intersections targeted for improvement are locations marked by the greatest and most severe crashes involving the most vulnerable users (cyclists and pedestrians).

Specific goals from *Moving the Music City,* Nashville's 3-year transportation action agenda include:

Pedestrian Signal Priorities

- Metro Public Works will adopt four-leg, high visibility crosswalks as its default marking design at intersections.
- To improve safety at high-crash and other busy intersections, Metro Public Works will implement new traffic-signal timing strategies, such as leading pedestrian intervals, and giving pedestrians a head start over turning traffic

Section 6: Project Deliverables, Schedule, & Milestones

The project is well poised to complete on time and budget because it does not require additional right-of-way acquisition, is candidate for categorical NEPA exemption, and preliminary engineering documents have already been completed.

October – December 2018
Review existing plans and update accordingly. Prioritize construction schedule in concert with other right of way projects. Work with Metro Planning and nonprofit partners to communicate construction schedule to surrounding communities

January – September 2019
Construction and installation of pedestrian signals and facilities at 10 identified intersections

October 2019
Project close out and evaluation

Section 7: Budget Narrative

All funds will be used for the construction and installation of pedestrian signal and related facilities to improve safety. Documentation from the Metro Public Works Director Mark Sturtevant validating matching funds inclusion in fiscal year 2019 Capital Improvement Budget requests, subject to Metro Council approval is included. Metro Public Works recognizes that funding is subject to continued compliance with MPO TIP Programming Policies regarding federal obligation deadlines.

NASHVILLE AREA
Metropolitan Planning Organization

OFFICIAL USE:
Received by: _____
Date: _____

ACTIVE TRANSPORTATION PROGRAM *BUDGET WORKSHEET*				PROPOSAL NAME:	Pedestrian Signal Priorities	
FISCAL YEAR	PROPOSED PHASE/ TASK/ ACTIVITY	ATP FUNDS REQUESTED	LOCAL MATCH (20%)	OTHER FUNDING*	*Sources of Other Funding	TOTAL FUNDING
	Nolensville and Old Hickory	$ 80,000.00	$ 20,000.00	$		$ 100,000.00
	Lebanon Pike and Andrew Jackson Parkway	$ 40,000.00	$ 10,000.00	$		$ 50,000.00
	Bell Road and Hickory Hollow Parkway	$ 80,000.00	$ 20,000.00	$		$ 100,000.00
	21st Ave and Church Street	$ 40,000.00	$ 10,000.00	$		$ 50,000.00
	Vietnam Veterans and Conference Drive	$ 160,000.00	$ 40,000.00	$		$ 200,000.00
	Elm Hill Pike and Royal Parkway	$ 200,000.00	$ 50,000.00	$		$ 250,000.00
	Charlotte Ave and White Bridge Pike	$ 240,000.00	$ 60,000.00	$		$ 300,000.00
	Nolensville Pike and Haywood Lane	$ 240,000.00	$ 60,000.00	$		$ 300,000.00
	State Route 45 and Rio Vista	$ 40,000.00	$ 10,000.00	$		$ 50,000.00
	DB Todd Blvd and Buchanan	$ 80,000.00	$ 20,000.00	$		$ 100,000.00
	Indirect Cost	$ 150,000.00	$ -	$		$ 150,000.00
		$	$	$		$ -
		$	$	$		$ -
		$	$	$		$ -
		$	$	$		$ -
	TOTAL	$ 1,350,000.00	$ 300,000.00	$ -		$ 1,650,000.00

**Programmed funding is subject to MPO TIP Programming Policies which establish deadlines for the obligation of funds.