

Northern Virginia Transportation Authority

The Authority for Transportation in Northern Virginia

TECHNICAL ADVISORY COMMITTEE

Wednesday, May 15, 2024, 7:00 p.m. 2600 Park Tower Drive, Suite 601 Vienna, Virginia 22180

Meeting will be held in the First Floor Conference Room

The meeting will be livestreamed on NVTA's YouTube Channel¹

AGENDA

I. Call to Order/Welcome

Chair Boice

Action

II. Summary Notes of March 20, 2024, Meeting Recommended action: Approve meeting notes

Discussion/Information

- III. FY2024-2029 Six Year Program Update Dr. Nampoothiri, Senior Manager
- IV. Preliminary Deployment Plan for Regional BRT System
 Mr. Jasper,
 Principal
- V. NVTA Update Ms. Backmon, CEO

Adjournment

VI. Adjourn

Next Meeting: June 20, 2024, 7 p.m.

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¹ If technical difficulties arise, the meeting may be audio or video recorded. Any recordings will be made available on the <u>Technical Advisory Committee Meetings</u>' webpage.



TECHNICAL ADVISORY COMMITTEE

Wednesday, March 20, 2024, 7:00 p.m.

Northern Virginia Transportation Authority
Fully Virtual Meeting on Zoom
Live-streamed on YouTube

MEETING SUMMARY

I. Call to Order/Welcome

- The meeting was conducted virtually over Zoom. Chairman Boice called the meeting to order at 7:03 p.m.
- Attendees:
 - TAC Members: Randy Boice, Karen Campblin, Michelle Cavucci, Kerianne Masters, Amy Morris, Frank Spielberg, Shangjiang Zhu, and Armand Ciccarelli
 - NVTA Staff: Monica Backmon, CEO; Keith Jasper, Principal, Transportation Planning and Programming; Sree Nampoothiri, Senior Manager; Harun Rashid, Planning Analytics Manager; and Ian Newman, Regional Transportation Planner.
 - Others: None. The meeting was also live streamed on YouTube.

II. Summary Notes of February 21 2024, Meeting

• Motion to approve the summary notes of the February 21, 2024, meeting was made by Mr. Spielberg. Seconded by Dr. Zhu. The motion passed unanimously.

III. Approve the Revised CY2024 Meeting Calendar

• Motion to approve the Revised CY2024 Meeting Calendar was made by Ms. Morris. Seconded by Ms. Cavucci. The motion passed unanimously. The June meeting date is Thursday, June 20, 2024, and this change is due to the fact that the regular date of Wednesday, June 19, 2024, is a federal and Virginia state holiday.

IV. FY2024-2029 Six Year Program Update

- Dr. Nampoothiri, Senior Manager, Transportation Planning and Programming at NVTA, presented on the following topics:
 - 1. NVTA's project selection process' multiple components

- 2. The summary of all applications by jurisdictions/agencies and primary mode
- 3. Projects' ranking on Congestion Reduction Relative to Cost (CRRC) criterion
- 4. TransAction rating for the 24 project applications
- 5. Long Term Benefit
- 6. An evaluation summary table of quantitative and qualitative measures
- 7. Sample project description forms and an overview of the FY2024-29 SYP schedule
- Concerning the second topic above, Dr. Zhu asked for further clarification about the Smart & Connected Vehicle Infrastructure project, since connected and autonomous vehicles are not yet on the market. Dr. Nampoothiri responded that this project is expected to enhance infrastructure and vehicle communication technology at various corridors, including signal phase and timing data. Mr. Spielberg asked for clarification concerning the name of the roadway for the "Old Lee Highway Multimodal Improvements" project. Mr. Spielberg wondered if "Old Lee Highway" remains the name of the roadway. Dr. Nampoothiri mentioned that this is a recurring project for NVTA, and it was originally entitled, "Old Lee Highway" but it is now entitled, "Blenheim Boulevard," and it has carried over as the same name in this Six-Year Program.
- Concerning the fourth topic above, Chair Boice clarified that the funding
 decisions have to give priority to CRRC since there have been questions in the
 past where a criterion has the word "congestion" in it but may have a lower
 weight than other components. Dr. Nampoothiri confirmed this is still the case.
 Ms. Cavucci asked if the weights used for the TransAction Rating change from
 plan to plan or were they approved prior to TransAction plan updates and held
 constant. Dr. Nampoothiri answered that the weights are revised every
 TransAction plan update.
- On the fifth topic listed above, Mr. Spielberg mentioned that NVTA ought to have a label on the Y-axis on the graph being presented on the FY2022-27 Long Term Benefit. Dr. Nampoothiri responded that the Y-axis is the percentage, concerning each of the three variables presented and labeled on the X-axis. These variables are revenue share, combined benefit share (trip-based) and combined benefit share (performance-based). Chair Boice commented that the projects in Prince William County appear to have relatively more benefit share, which is unsurprising since these projects in Prince William County needed to occur to increase the mobility of the region and noticed that he sees a trend of benefit shares improving as NVTA continues to fund multimodal projects. Dr. Nampoothiri added that geographic and modal balance also played key roles in keeping the balance.

• Concerning the sixth topic listed above, Ms. Cavucci asked if the Long Term Benefit is a quantitative measure. Dr. Nampoothiri responded that it is a quantitative measure based on a model-based analysis, but it is being observed to see if the three metrics that comprise the Long Term Benefit are approximately equal. Therefore, it is shown in a three-category color code. Ms. Cavucci mentioned that Route 234 Operational Improvements application is a purely transportation technology project, and asked why it is being shown with a brownfilled cell. Dr. Nampoothiri highlighted that the light green (slightly underperforming) to brown (slightly overperforming) relative to qualitative measures and Long Term Benefit is not specific to a project but rather to a jurisdiction.

V. NVTA Update

• Mr. Jasper shared the NVTA update. He stated that the NVTA has physically moved to the interim office location pending build-out of the full suite on the sixth floor of 2600 Park Tower Drive, Vienna, VA 22810, which NVTA is hoping to move to in the Summer of 2024. Till then, the TAC can use the conference room facilities of the building, and logistical details on arriving at the building will be shared. Mr. Jasper shared that the need to meet is essentially up to the TAC membership to review this information more before the June 20 meeting when the Committee is expected to make funding recommendations.

VI. Adjourn

• The meeting adjourned at 7:44 p.m. The next meeting will be on May 15, 2024, at 7 p.m. and will be held in-person at NVTA Offices.

FY2024-2029 Six Year Program

Sree Nampoothiri, Senior Manager, NVTA



Technical Advisory Committee May 15, 2024

Project Selection Process



Multiple Components:

1. Eligibility

- TransAction ID; project descriptions will be verified
- Project location
- Governing Body resolution(s)

2. Quantitative Analyses

- Congestion Reduction Relative to Cost (CRRC) initial ranking uses this measure
- TransAction Project Ratings, formerly HB 599 (2012)
- Long Term Benefit (LTB)

3. Qualitative Considerations

- Past performance
- Previous NVTA allocation
- Funding gaps
- External funding (committed sources only)
- Alignment with Core Values
- Geographic/modal balance

4. Public Comment

Evaluation Summary

	ⁿ Jurisdiction / Agency		on / Agency Project			Primary and Phases for	es for		Past performance (% of expected funds reimbursed		Policy 29 Policy 29 non- non- compliance: # compliance: of projects -		First fiscal		Alignment with Core Values		ore Values	Long		TransAction	TransAction	CRRC (Reduction in		
Application ID		lurisdiction / Agency Project		Primary and supporting modal components	which there is still a funding gap	Local priority	External funds	by 12/3: Continuation Projects	./2023)	# of projects	of projects - SPA within three meetings of fund appropriation	invoices for	year of expected	Year of opening	Equity	Safety	Sustain- ability	Term Benefit	Other		rank (incl. HB	annual person hours of delay / Total project cost in \$1000's)	, CRRC Idlik	
CFC-011	City of Falls Church	City of Falls Church Signal Prioritization Project	∻ □																25.70	9	653.57	1		
ALX-037	City of Alexandria	Smart & Connected Vehicle Infrastructure	常 ▲集太师																21.70	15	277.60	2		
PWC- 042	Prince William County	Route 234 Operational Improvements	<u>হ</u>																29.19	8	240.43	3		
	Fairfax County	Seven Corners Ring Road Improvements	▲ ※ ☆ ☆																66.61	1	114.19	4		
MAN- 003	City of Manassas	Roundabout at Route 28 and Sudley Rd	● ▲□太が																23.34	13	113.76	5		
VRE-017		VRE Backlick Road Station Improvements	<u> </u>																23.92	12	102.62	6		
ALX-032	City of Alexandria	South Van Dorn Street Bridge Enhancements	A A de															Note A	38.61	2	33.00	7		
ALX-033		Alexandria Metroway Enhancements	APA de																32.36	5	25.61	8		
CMP- 001	City of Manassas Park	Route 28-Centreville Road Corridor Improvements	₩ A																15.59	21	24.75	9		
	City of Fairfax	Old Lee Highway Multimodal Improvements	★如 A A															Note B	13.38	23	24.56	10		
ALX-029	City of Alexandria	Safety Improvements at High-Crash Intersections	100 BQA?	ROW, CN															24.25	11	24.07	11		
PWC- 040		Route 234 and Sudley Manor Drive Interchange	事 太命																37.41	3	23.29	12		
PWC- 043	Prince William County	The Landing at Prince William Transit Center	10																20.27	17	17.86	13		
		Route 15 at Braddock Road Roundabout	事点的																15.86	20	16.34	14		
PWC- 044	Prince William County	Triangle Mobility Hub and First/Last Mile Connection Improvements	□ \$ 6%																14.05	22	15.82	15		
	Arlington County	Shirlington Bus Station Expansion	□ \$ 66																18.54	18	14.52	16		
PWC- 041	Prince William	Route 234 Bicycle and Pedestrian Facility Over I-	\$ d€0																4.36	24	13.59	17		
	County City of Fairfax	Northfax Network Improvements: Northfax East-	A \$ t do																32.54	4	13.46	18	N	
LDN-029	Loudoun County	West Road Old Ox Road Widening - Shaw Road to Oakgrove	A Kdo																20.49	16	11.22	19		
FFX-136	Fairfax County	Braddock Road Multimodal Improvements	畫 ★ ♂																					
		Phase II (Humphries Drive to Southampton Drive)																	16.45	19	8.35	20		
	Fairfax County	<u>Improvements</u>	▲ □□太命															Note B	30.96	7	6.26	21	N	
		Sycolin Road Widening - Loudoun Center Place to Crosstrail Boulevard																	22.94	14	5.19	22	N	
	Fairfax County	<u>66)</u>	A ⊋≵do															Note A	31.53	6	2.24	23		
ARL-023	Arlington County	CC2DCA Multimodal Connection (formerly known as CC2DCA Intermodal Connector)	.f.640 量量															Note B	24.99	10	0.96	24		



Project proposed to
Note add dedicated ROW
A for future Bus Rapid
Transit services
All or some phases

of the project were
Note considered fully
B funded with the
previous NVTA
allocation

TransAction Rating



Core Values are built into the performance measures

Goal	Objective	Performance Measure	Weight	Alignment with Core Values
Mobility: Ephanea quality of life of	_f A. Reduce congestion and delay*	A1. Total Person-Hours of Delay in autos	10	Z.
Northern Virginians by improving	,	A2. Total Person-Hours of Delay on Transit	10	<u> </u>
performance of the multimodal transportation system		B1. Duration of Severe Congestion	10	* &
transportation system	B. Improve travel time reliability*	B2. Transit person-miles in dedicated/priority ROW	10	4 🚜
		C1. Access to jobs by car, transit, and bike	10	×
Accessibility: Strengthen the region's economy by increasing	C. Improve access to jobs*	C2. Access to jobs by car, transit, and bike for EEA populations	10	Φ
access to jobs, employees, markets, and destinations for all communities	D. Reduce dependence on driving alone by improving conditions for people accessing transit and using other modes	D1. Quality of access to transit and the walk/bike network	15	T 🚜 ૈ
Resiliency: Improve the transportation system's ability to	E. Improve safety and security of the multimodal transportation system	E1. Potential for safety and security improvements	10	\$
anticipate, prepare for, and adapt to changing conditions and	F. Reduce transportation related emissions	F1. Vehicle Emissions	10	4 🔏
withstand, respond to, and recove rapidly from disruptions.	rG. Maintain operations of the regional transportation system during extreme conditions*	G1. Transportation System Redundancy	5	4 &

Note: Transit may include HOV

* Objectives align with HB599 requirements













Definition

An equitable transportation system <u>ensures fairness</u> in mobility and accessibility, to meet the needs of the region and all travelers, particularly <u>underserved populations</u>. (e.g., low-income, minority, elderly, children, women, people with Limited English Proficiency (LEP), people with disabilities.) It <u>facilitates social and economic opportunities</u> through reliable and affordable transportation options. It recognizes past inequities, commits to addressing them when possible, and <u>actively avoids further injustices</u>.

Examples

- Providing benefits to Equity Emphasis Areas (EEAs)
- Separated and protected bike facilities are installed in EEAs or areas with other underserved populations
- Efforts are made to reduce emissions by using Zero Emissions Buses, or other low-emissions options
- ADA access is prioritized as part of the project, to improve equitable access to destinations and corridors





Definition

A safe transportation system <u>minimizes fatalities and severe injuries</u>, while <u>increasing safe</u>, <u>healthy</u>, <u>and equitable mobility</u> for all. It also addresses community <u>perceptions of safety</u>.

Examples

- Separated and protected bicycle facilities or a trail/shared use path is created.
- Traffic calming measures are introduced to lower travel speeds.
- Pedestrian-scale lighting and wayfinding is incorporated into the project design, to improve perceptions of safety.
- Bus lanes, and bike-pedestrian safety infrastructure such as Leading Pedestrian Intervals (LPIs), High-Intensity Activated Crosswalk (HAWK) or Rectangular Rapid Flashing Beacons (RRFB) are installed as part of the project.
- Intelligent Transportation Systems (ITS) and Transit Signal Priority (TSP) are used to improve travel flow and thus reduce congestion, crashes and emissions





Definition

A sustainable transportation system meets the needs of the present, without compromising the ability of future generations to meet their needs. It considers sustainability to be comprised of three pillars, that focus on <u>economic</u>, <u>environmental</u>, and <u>social impacts</u>, and also addresses the interactions between these.

Examples

- Economic
 - Congestion relief is prioritized to ensure the area is attractive for all.
 - New routes that connect existing regional transit systems or activity centers are established.
- Environmental
 - Zero Emissions Buses and related charging infrastructure are included in the project.
 - Resiliency and system redundancy are considered in projects.
 - Solar charging for Shared Mobility devices (SMDs), permeable surfaces, and storm water management techniques are included in the project.
- Social
 - Place making elements such as community art, wayfinding and lighting, are incorporated.
 - Routes and alignment are selected to prioritize connecting socially significant settings such as government community centers as well as informal community gathering sites.

Guidelines for Applicants



NVTA staff provided a Guidance Document at the beginning of application process, which included Core Value definitions and examples of project elements that will align with Core Values.

Applicants were strongly encouraged to highlight how their candidate projects are aligned with NVTA's Core Values by uploading a *Core Value Statement* with each project application.

- Address each Core Value separately and any interaction between Core Values.
- Highlight any relevant actions or plans the submitting jurisdiction or agency has taken relating to the Core Values.
- Be no more than three pages in length, including graphics or charts.

Evaluation Method

- Evaluation Metho
- Review the application and Core Value Statement
 If a Statement was not provided, NVTA staff reviewed the project application
- Answer the questions for each Core Value:
 - Is the submission S.M.A.R.T.?
 - 1 point for each component
 - Is the submission consistent with NVTA's stated definition of the relevant Core Value?
 - 1 (least consistent) to 5 (most consistent)
 - Does the portion of the submission about this Core Value synergize or detract from the portion of the submission relevant to other Core Value(s)?
 - 1 (least synergistic) to 5 (most synergistic)



Evaluation Method



- Equity-specific (scores 1-5):
 - Does the submission address equity in a meaningful way (that avoids tokenism)?
 - Is the intention to be equitable thoroughly integrated throughout the project?
- Safety-specific (scores 1-5):
 - Does the submission take a comprehensive view of safety?
 - Is safety one of the primary reasons for pursuing this project?
- Sustainability-specific (scores 1-5):
 - Does the application of this Core Value consider the greater regional context?
 - How does the submission compare to established best practices for sustainability?

Evaluation Method



- Maximum points for each Core Value is 25.
- Three different reviewers score the projects separately.
- Take average of scores by the reviewers for the final score for each Core Value.
- Provide an additional point for applications that provided Core Value Statement (effort)
- Categorized projects based on scores for each Core Value:
 - 17-25: High (green)
 - 9-16: Medium (yellow)
 - 0-8: Low (orange)

Alignment with Core Values: Results



Project	Equity	Safety	Sustain- ability
City of Falls Church Signal Prioritization Project			
Smart & Connected Vehicle Infrastructure			
Route 234 Operational Improvements			
Seven Corners Ring Road Improvements			
Roundabout at Route 28 and Sudley Rd			
VRE Backlick Road Station Improvements			
South Van Dorn Street Bridge Enhancements			
Alexandria Metroway Enhancements			
Route 28-Centreville Road Corridor Improvements			
Old Lee Highway Multimodal Improvements			
Safety Improvements at High-Crash Intersections			
Route 234 and Sudley Manor Drive Interchange			
The Landing at Prince William Transit Center			
Route 15 at Braddock Road Roundabout			
Triangle Mobility Hub and First/Last Mile Connection Improvements			
Shirlington Bus Station Expansion			
Route 234 Bicycle and Pedestrian Facility Over I-95			
Northfax Network Improvements: Northfax East-West Road			
Old Ox Road Widening - Shaw Road to Oakgrove Road			
Braddock Road Multimodal Improvements Phase II (Humphries Drive to Southampton Drive)			
Frontier Drive Extension and Intersection Improvements			
Sycolin Road Widening - Loudoun Center Place to Crosstrail Boulevard			
Route 7 Multimodal Improvements (I-495 to I-66)			
CC2DCA Multimodal Connection (formerly known as CC2DCA Intermodal Connector)			



Note: No application is scored low

Example



VRE Backlick Road Station Improvements

- Extend VRE platform to accommodate 8-car trains

Equity	Safety	Sustainability
 Addresses SMART Details with supporting data on EEA population served tying in with connectivity to employment centers and other transportation systems Consistent with definition Scope is synergistic among Core Values Could have provided traveler origins; public engagement in different phases of the project 	 Consistent with definition Scope is synergistic among Core Values Could have provided quantitative data on safety 	of SMART - Consistent with definition

Example



Northfax Network Improvements

- Road grid connection, intersection improvement, bike-ped facilities

Equity	Safety	Sustainability
- Addresses some components of	- Addresses some	- Addresses some
SMART	components of SMART	components of SMART
- Consistent with definition; some	- Consistent with definition;	- Consistent with
areas missing	some areas missing	definition; some areas
- Synergies are not explained well	- Implicit benefits	missing
(e.g. how will new turn movements	- Could have provided	- Synergies are not
interact with people with disabilities)	quantitative data on safety	explained well (e.g. how
- Could have provided details/data		will new turn movements
		will interact with safety)
		- Implicit benefits
		- Didn't address all three
		pillars of sustainability fully

Example



Route 15 at Braddock Road Roundabout

- Four-legged roundabout, bike-ped facilities

Equity	Safety	Sustainability
- Addresses some components of	- Addresses some	- Addresses some
SMART	components of SMART	components of SMART
- Consistent with definition; some	- Consistent with definition	- Consistent with definition;
areas missing	- Scope directly addresses	some areas missing
- Scope is somewhat competing	several safety features	- Synergies are not
among Core Values (e.g. not clear	- Existing crash hot spot	explained (e.g. how will the
how equity will be improved by	- Provided data	reduced speeds help equity)
safety features)		- Addition of local bike-ped
- Generic response regarding Comp		facilities
Plan		- Didn't address all three
		pillars of sustainability

FY2024-2029 SYP Schedule



- May 1, 2023: Call for regional Transportation Projects issued
- July 28, 2023: Application deadline
- October 27, 2023: Governing body resolution deadline
- Summer/Fall 2023: Eligibility review; one-on-one applicant meetings; coding
- Fall/Winter 2023: Evaluations and review with applicants
- March 2024: Review evaluations with TAC, PCAC, PPC
- March 2024: Anticipated NVTA approval of Public Hearing date
- March 2024: NVTA releases candidate project list and evaluations for public comment
- March 28 to May 19, 2024: Public comment period
- May 9, 2024: NVTA hosts Public Hearing
- June 13, 2024: NVTA briefed on public comments
- June 2024: NVTA staff releases project recommendations for review and endorsement by TAC, PCAC, and PPC (<u>June 25</u>)
- July 11, 2024: Anticipated NVTA adoption of FY2024-2029 SYP

Thank You!















NVTA's Core Values and the Six Year Program

In December 2020, the Northern Virginia Transportation Authority (NVTA) approved the below vision statement formalizing NVTA's commitment to its Core Values of Equity, Safety and Sustainability.

"Northern Virginia will plan for, and invest in, a safe, equitable, sustainable, and integrated multimodal transportation system that enhances quality of life, strengthens the economy, and builds resilience."

The Core Values shape how NVTA addresses its vision. The Core Values were first formally incorporated during the development of the Transportation Technology Strategic Plan (TTSP), which was approved by NVTA in May 2021. Subsequently, these Core Values were incorporated in the update to TransAction, which was adopted in December 2022.

Starting with the FY2024-2029 Six Year Program (SYP), each candidate project will be evaluated on how well they align with NVTA's Core Values. This *Guidance for Applicants* document provides further information on how this evaluation will be conducted.

Evaluating Alignment of Candidate Projects with NVTA's Core Values

- Using information included in each project application, notably the project description, NVTA staff will consider how well each candidate project aligns with NVTA's Core Values (individual Core Values and collectively), using the definitions of each Core Value as shown below.
- Using a consistent evaluation process, each candidate project will be given a rating of high, medium, or low consistency with each Core Value. This process is similar to the evaluation of other qualitative considerations in previous SYP update cycles.
- Applicants are strongly encouraged to highlight how their candidate projects are aligned with NVTA's Core Values by uploading a *Core Value Statement* with each project application. More information on Core Value Statements is provided below.

Core Value Statements

Core Value Statements can be uploaded as a supplemental document in the same manner as previous SYP update cycles. The Core Value Statement should:

- Address each Core Value separately and any interaction between Core Values.
- Highlight any relevant actions or plans the submitting jurisdiction or agency has taken relating to the Core Values.
- Be no more than three pages in length, including graphics or charts.

Developing Project Recommendations

NVTA's approach to developing SYP project recommendations is holistic, and takes account of project eligibility, quantitative factors, qualitative considerations (such as Core Value alignment), and public comment.



Definitions and Examples

Equity

An equitable transportation system ensures fairness in mobility and accessibility, to meet the needs of the region and all travelers, particularly underserved populations. (e.g., low-income, minority, elderly, children, women, people with Limited English Proficiency (LEP), people with disabilities.) It facilitates social and economic opportunities through reliable and affordable transportation options. It recognizes past inequities, commits to addressing them when possible, and actively avoids further injustices.

Example of a project application that aligns with NVTA's Equity Core Value

Two jurisdictions are working together to develop a Bus Rapid Transit service that crosses jurisdictional boundaries. It will increase accessibility and mobility for underserved populations by connecting Equity Emphasis Areas (EEAs) in both communities. The buses used in this service will be electric, further helping to reduce transportation emissions, which have disproportionate impacts on disadvantaged communities.¹

Safety

A safe transportation system minimizes fatalities and severe injuries, while increasing safe, healthy, and equitable mobility for all. It also addresses community perceptions of safety.

Example of a project application that aligns with NVTA's Safety Core Value

Citizens cite recurring "near miss" incidents at local intersections in their comments about feeling generally unsafe on certain roads, in response to a community survey. To address both the real and perceived safety issues, Leading Pedestrian Intervals (LPIs)² and signal optimization are included in a corridor improvement project in the area.

Sustainability

A sustainable transportation system meets the needs of the present, without compromising the ability of future generations to meet their needs. It considers sustainability to be comprised of three pillars, that focus on economic, environmental, and social impacts, and addresses the interactions between these.

Example of a project application that aligns with NVTA's Sustainability Core Value

A new shared use path is added to connect an existing region-wide trail network with separated, on-road bike facilities. The segment will minimize the use of natural resources in increasing the number of jobs, housing, and other destinations accessible to people biking and walking. This will also create the possibility of emissions reductions from vehicular trips, protecting air quality and other natural resources for the future.

¹ https://www.transportation.gov/priorities/equity/justice40/transportation-disadvantaged-census-tracts-historically-disadvantaged

² https://highways.dot.gov/safety/proven-safety-countermeasures/leading-pedestrian-interval#:~:text=A%20leading%20pedestrian%20interval%20(LPI,to%20turn%20right%20or%20left.