

Regional Freight Investments Projects

Name of Project: N/NE Columbia Boulevard ITS

Project Definition

Columbia Blvd is a freight corridor. It is a vital link between North Portland and I-5 for freight traffic. It is classified as a Priority Truck Street in the City's Transportational System Plan (TSP). It functions as the primary route access and circulation between Freight Districts along the Columbia Corridor (i.e, Rivergate and Airport Industrial Districts), and Regional Truckways (i.e, I-5 and I-205). They are designated to accomodate high truck volumes and provide high-quality freight access and mobility. N/NE Columbia Blvd is also a federally designated National Highway System (NHS) intermodal Connector Route which are nationally significant roadways that provide access to major intermodal terminals.

Project Description

Facility. NNE Columbia Blvd

The movement of goods along its 10 mile extents is facilitated at intersections through 16 traffic signals at the following intersections:

- NE Columbia Parkway/NE Columbia Boulevard
- NE 82nd Avenue/NE Columbia Boulevard
- NE 80th Avenue/NE Columbia Boulevard
- NE 60th Avenue/NE Columbia Boulevard
- NE 42nd Avenue/NE Columbia Boulevard
- NE Martin Luther King Jr. Boulevard/NE Columbia Boulevard
- N Vancouver Avenue/N Columbia Boulevard
- I-5 Ramp/N Columbia Boulevard
- N Interstate Place/N Columbia Boulevard
- N Argyle Way/N Columbia Boulevard
- N Peninsular Avenue/N Columbia Boulevard
- N Chautauqua Boulevard/N Columbia Boulevard
- N Portsmouth Avenue/N Columbia Boulevard
- N Macrum Avenue/N Columbia Boulevard
- N Upland Drive/N Columbia Boulevard
- N Burgard Road/N Columbia Boulevard
- Beginning facility NE Columbia Blvd and I-205
- Ending facility N Columbia Boulevard at Burgard

Provide a brief description of the project elements.

This project will identify and evaluate ITS alternatives, including the exploration of emerging data from private sector partners, to determine whether there are new techniques that can be used to deliver freight priority at signalized intersection. The Project will also install ITS infrastructure, including system loops, bike count stations, Bluetooth MAC address matching sensors, CCTV cameras, and communications infrastructure. The project will integrate these ITS devices and the traffic signal controllers along each corridor with the City's and ODOT's Transportation Operation Centers.

- City. City of Portland
- County. Multnomah

Base project information

- Corresponding RTP project number for the nominated project.
 - 10342: Columbia Blvd, N/NE (I-205 Burgard): ITS
- Attach a completed Public Engagement and Non-discrimination checklist (Appendix A).

Purpose and need statement

The purpose of this project is to identify and evaluate ITS alternatives, including the exploration of emerging data from the private sector, to determine whether there are new techniques that can be used to deliver freight and transit priority at signalized intersections. The Project will also install ITS infrastructure, including system loops, bike count stations, Bluetooth MAC address matching sensors, CCTV cameras, and communications infrastructure. The project will integrate these ITS devices and the traffic signal controllers along each corridor with the City's and ODOT's Transportation Operation Centers.

Needs addressed by this project include:

1) Reducing travel times for trucks and transit travelling along Columbia Boulevard and improving safety along the corridor by implementing intelligent transportation systems (ITS) including signal priority for trucks, traffic monitoring equipment, and other intersection improvements.

2) Improving safety and efficiency at multi-modal intersections along Columbia Boulevard. Presently, there is no equipment for monitoring or evaluating the performance of the intersections along the corridor.

Description of post implementation measurement of project effectiveness.

1) Installation of hardware to improve the functioning of the intersections along Columbia Boulevard by allowing for trucks and freight to be granted priority, and installation of a variable message signs to warn of vehicle/train conflicts.

2) Installation of closed circuit television cameras and supporting hardware to allow for monitoring and management of traffic along the corridor at four locations:

- 1. N Columbia Blvd at Burgad/Lombard
- 2. N Columbia Blvd at Macrum
- 3. N Columbia Blvd at Peninsular
- 4. N Columbia Blvd at Interstate
- 5. N Columbia Blvd at MLK
- 6. N Columbia Blvd at 42nd/47th and at Columbia Parkway
- 7. N Columbia Blvd at Columbia Parkway

PROECT COST AND FUNDING REQUEST SUMMARY

ITEM NO.	ITEMS OF WORK AND MATERIALS	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL AMOUNT
1	MOBILIZATION	1	LS	\$18,000.00	\$18,000.00
2	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	1		\$19,500.00	\$19,500.00
3	TEMORARY SIGNS	500	SQFT	\$20.00	\$10,000.00
4	FLAGGERS	900	HRS	\$50.00	\$45,000.00
5	FIBER OPTIC CABLE	55,000	LF	\$1.25	\$68,750.00
6	FIBER OPTIC SPLICES	1,735	EACH	\$40.00	\$69,400.00
7	FIBER OPTIC INSTALLATION	1	LS	\$270,000.00	\$270,000.00
8	RADAR DETECTION INSSTALLATION	20	EACH	\$2,800.00	\$56,000.00
9	RADAR DETECTION UNITS	20	EACH	\$4,800.00	\$96,000.00
10	BLUETOOTH INSTALLATION	15	EACH	\$2,800.00	\$56,000.00
11	BROADBAND RADIOS	8	EACH	\$4,600.00	\$36,800.00
12	CAMERAS	10	EACH	\$5,000.00	\$50,000.00
13	CAMERA INSTALLATION	10	EACH	\$2,800.00	\$28,000.00
14	RUGGEDCOM 900G	20	EACH	\$1,450.00	\$29,000.00
15	ATC TRAFFIC CONTROLLERS	20	EACH	\$2,200.00	\$44,000.00
16	CONFIGURE AND TEST RUGGEDCOM EQUIPMENT	20	EACH	\$250.00	\$5,000.00
17	PROGRAM AND TEST ATC CONTROLLERS	20	EACH	\$5,000.00	\$100,000.00

٠	Total project cost : \$1,000,000	
•	RFFA funding request by project phase:	
	(e.g. Project Development, P.E., Environmental, ROW acquisition, Construction)	
	- Project Development	\$100,000
	- PE	\$ 250,000
	- Environmental	\$10,000
	- Construction	\$650,000
٠	Local match or other funds	
	(minimum match = 10.27% of funds requested + match):	\$102,700
	Other funds	\$400,000

Project sponsor agency

Contact information (phone # & email) for:

- Application lead staff Willie Rotich
- Project Manager (or assigning manager) Willie Rotich, willie.rotich@portlandoregon.gov
- Project Engineer (or assigning manager) Willie Rotich, 503-823-7679

Describe the agency's record in delivering federal aid transportation projects on time and budget or whether the lead agency has failed to deliver a federal aid transportation project and if so, why.

The Portland Bureau of Transportation is one of the few local agencies in the state that are fully certified by ODOT to deliver federal aid projects and has extensive experience with delivering such projects – from project development through design engineering and construction. PBOT currently has the staff capable to provide all administrative services related to project management and all technical services related to design engineering and construction management. PBOT staff members are recognized nationally for expertise in ITS topics, including multi-modal traffic signal design, implementation of truck signal priority, and traffic management through ITS.

The following are examples of completed and ongoing ITS projects:

- 1. NE/SE 82nd Avenue ITS (Completed in 2006)
- 2. US 26 Adaptive Traffic Signal System (initiated in 2010)
- 3. Active Corridor Management Project (initiated in 2015)

The following are examples of previously awarded RFFA projects and their status:

- 1) N. Lombard/St. Louis/Ivanhoe/Philadelphia intersection project (Construction Phase completed in 2012)
- 2) N. Portland Rd/Columbia Blvd intersection project (2014/15 RFFA. Planning and Design Phase completed in 2013. Construction Phase funded by STIP and will begin in 2017)

- 3) N. Time Oil Road/Burgard St Intersection Project (2014/15 RFFA. Design Phase 90 percent completed. Construction Phase to begin in late 2016)
- 4) Going to the Island Freight Improvement Project (2014/15 RFFA. Design Phase to be completed in 2017 and Construction completed in 2019)
- 5) South Rivergate Freight improvement Project (2016-18 RFFA. Design Phase to begin in 2016. Project construction will be funded by multiple local and federal funding sources)

Describe how the agency currently has the technical, administrative and budget capacity to deliver the project, with an emphasis on accounting for the process and requirements of federal aid transportation projects.

The bureau currently has the staff capable to provide all the administrative services related to project management and all technical services related to design engineering, and construction management for delivering federal-aid projects. PBOT staff members are recognized nationally for expertise in areas related to the proposed projects including multi-modal traffic signal design, implementation of truck signal priority, and traffic management through ITS

Highest priority criteria

1. What additional sources of funding, and the amounts, will be leveraged by an investment of regional flexible funds in the proposed project?

The City of Portland has received a grant from the Oregon Department of Transportation to construct and implement ITS along the Columbia corridor to improve the ability of the City to monitor and control traffic. Funding from the grant will be used to install fiber optic communications between traffic signals equipment and the City's Advanced Traffic Management System (ATMS). Funds will also allow installation of traffic monitoring cameras at signalized intersections. This work will provide the backbone to the Corridor Pilot, and allow for communication between roadside equipment, traffic signal controllers, and the city's central management system – critical elements to implementing and monitoring the freight priority pilot.

2. Describe the freight vehicle delay problem and how the proposed project will reduce this problem.

The traffic signals throughout the Columbia corridor are neither connected nor timed for the heavy concentration of truck activity that comprise a growing portion of traffic on the corridor. Additional individual performance characteristics and limitations of freight vehicles (e.g., varying stopping distances and acceleration capabilities) cannot be accounted for in current signal operation systems. As a result, travel into and through the corridor can be unpredictable, affecting the many companies that depend on reliable transportation delivery as part of their business model. This project addresses these issues by deploying advanced communication technologies and system operation techniques that dynamically incorporate the unique performance characteristics of freight vehicles and enable safer and more efficient progression of truck traffic through the corridor.

This project will implement the following arterial operation strategies to improve travel time reliability and reduce crashes:

- **Travel Time** Provide expected arrival time estimates to major destinations using real-time traffic conditions.
- **Transit Signal Priority (TSP)** When a bus nears an intersection, a green indication can be displayed earlier than usual or can be extended depending on the estimated arrival time.
- **Truck Signal Priority (TSP)** Similar to transit signal priority, truck signal priority will be provided to trucks by displaying a green indication earlier or extending a current green phase.
- **Upgraded communication system** Provide reliable communication between field devices and traffic operation centers. Along the corridor, communications equipment will be upgraded to connect traffic signals to the (existing) regional central traffic signal system.
- **CCTV Cameras** The corridor will be outfitted with CCTV cameras at key locations to allow remote monitoring from the City of Portland Traffic Operation Center (TOC) and Oregon DOT's Traffic Operation Center (TMOC). Camera images will also be provided to the public through Oregon DOT's award-winning TripCheck traveler information system.
- **Traffic signal controller upgrades** The project will replace the existing traffic signal controllers with the latest advanced transportation controllers. This will provide system managers with signal performance measures, including information about real-time and historical functionality at signalized intersections. Additionally, the new controllers will give system managers the capability to identify operational deficiencies, optimize mobility, and better manage traffic signal timing and maintenance.

3. How will the proposed project increase freight access to industrial lands, employment centers and local businesses, and/or rail facilities for regional shippers?

Improved communications between the corridor's traffic signals and the central traffic system will maintain better coordination between intersections, providing the following benefits:

- Increase reliability of travel times for regional shippers accessing destinations in the corridor;
- Reduce delay of freight and transit users;
- Support efficient movement of goods between adjacent industrial lands, employment centers, and local businesses;
- Promote proactive arterial management through improved arterial performance.
- 4. How will the proposed project help support economic sectors that are low-carbon and resource efficient? How will the proposed project offer economic opportunities for Environmental Justice or underserved communities?

The actions and strategies in this project are intended to help Oregon businesses that offer low-wage positions. The project uses technology and optimized system management approaches to reduce crashes and improve freight, transit and general purpose traffic mobility – actions that may reduce time pressures for low-wage workers and result in more jobs for underserved communities. An additional byproduct of improved management of the transportation network and enhanced traveler information is reduced vehicle idling, smoother traffic flows, and fewer incidents – all outcomes that result in reduced fuel consumption and greenhouse gas emissions.

Higher priority criteria

5. How will the proposed project improve safety? Describe how conflicts between freight vehicles and active transportation or other modes will be removed or mitigated.

The project will use advanced technologies to improve safety by reducing crashes in a high-speed corridor. Replacing existing traffic signal controllers with the latest advanced transportation controllers and installing CCTV cameras allows transportation managers to better focus on safety performance measures and identify operational deficiencies that can present safety issues.

6. How will the proposed project reduce air toxics or particulate matter in the project area? What is the current air quality condition of the project area? What strategies (e.g. diesel retrofit trucks, engine change outs, etc.) will be used during construction and after the implementation (e.g. diesel retrofit trucks, etc.) of the project to reduce air pollution?

The project will reduce particulate matter and other airborne pollutants by utilizing ITS to ensure the smoother flow of vehicles along the Columbia Corridor. Emissions from the large volume of freight vehicles travelling along the corridor can be reduced by ensuring that they are not unnecessarily served red indications, which increase emissions from trucks as they slow to a stop, idle, and then accelerate to approximately 40 mph. Reducing the instances of these truck stops will directly reduce these emissions. Additionally, the project will have an indirect, but positive benefit on emissions in the area by ensuring that transit and bike users along the corridor are served as efficiently as possible, thereby reducing the number of private vehicle trips in accordance with the region's modal split goals

7. Describe the EJ communities which are in proximity to the proposed project area. How will the project reduce the impacts of freight movement on these communities (e.g. reduced noise, traffic, land use conflicts, emissions, etc.)?

The primary purpose of this project is to improve freight traffic along the Columbia Boulevard in such a way that it is as environmentally friendly as possible. A key strategy to accomplish this is to utilize ITS solutions to ensure that trucks are moving along the corridor with minimal slowing, idling, and stopping so that the heavy emissions associated with these activities are reduced. This will also slow the pavement degradation along the affected roads, reducing the frequency of necessary roadway maintenance and paving, which are activities that have high emissions associated with them. Further, ensuring that multi-modal intersections that serve trucks, LRT,

bicycles, buses, and pedestrians can accommodate all modes with minimal delays for each group is essential to ensuring continued "greenness" in the freight and shipping industries.

Often the residential areas located closest to industrial areas have higher-than-average populations of low-income and/or minority communities, and this is true of neighborhoods near Columbia corridor. The project is located in North Portland which contains a workforce population with a significantly higher and growing percentage of African-American (12 percent) and Latino populations (24 percent) and lower income households compared with the rest of Multnomah County, which has a 6 percent African-American and 10 percent Latino populations, respectively. Based on U.S. Bureau of Labor Statistics data, the manufacturing, wholesale trade, transportation and construction sectors provide primarily middle-income jobs and play an important equity role in stemming the erosion of middle-income jobs and widening income inequities.

The manufacturing and transportation sectors are a major source of middle-income and upwardmobility jobs for communities of color. In 2008, manufacturing and transportation sectors made up 18% of jobs held by people of color in Multnomah County, compared to 10% of the jobs held by white employees. This project will ensure the continued economic competitiveness of area employers.

8. Describe the freight reliability issues the proposed project is intended to address. What are the anticipated improvements to reliability this project will deliver?

The project will use advanced technologies to improve safety and gain efficiencies in existing infrastructure. Existing signalized intersections will be interconnected to improve reliability, consistency, and improve traffic signal operations for trucks. Truck priority at various signalized intersections will be implemented to facilitate extension of green for approaching trucks, resulting in improved freight reliability

Priority criteria

9. Why may the proposed project not be eligible to receive funding from other potential sources? Is the project of an innovative or unique nature such that it is not eligible or typically funded with large, traditional transportation funding sources such as state trust fund pass through to local agencies, local bridge program, or large state funding programs (Modernization, Bridge, Preservation, etc.), or have any other significant sources of funds?

By leveraging ITS solutions to increase the efficiency of the corridor, this project will increase the effective capacity of an important link for freight and other vehicles without expanding or widening any roads or intersections in this corridor. Additionally, improving the intersections to accommodate demand from other modes such as LRT, buses, and bicycles ensures that alternative modes of transportation remain competitive for travelling through the region.

$10. \ \mbox{Describe how the proposed project reduces the need to expand highway capacity.}$

Traditional models for traffic signal control consider all vehicles in a single class and operate in a simplified mode of operation. This mode of operation is a function of the information collected by the detection and 2019-21 RFFA Regional Freight Investments Application Page | 8

the ability of the traffic signal controller to use advanced data. The use of radar detection presents opportunities for more strategic traffic control decisions for providing preferential treatment for freight vehicles. The most common form of priority is to hold the green for high speed trucks, preventing hard stops and potentially dangerous actions. This detection system also allows for improved indecision zone protection for all vehicles, not just trucks and reduced red-light running. The project will implement truck priority while balancing the impacts to other users. The project will upgrade the controller to the newest traffic control software, fine-tune the operation of radar detection system at the intersection, and explore options and methods to provide improved operation of trucks. Additional monitoring of the intersection operation will be conducted through CCTV camera and special recording device.

11. Describe how the proposed project addresses issues and improves connectivity among multiple freight modes.

Traditional models for traffic signal control consider all vehicles in a single class and operate in a simplified mode of operation. This mode of operation is a function of the information collected by the detection and the ability of the traffic signal controller to use advanced data. The use of radar detection presents opportunities for more strategic traffic control decisions for providing preferential treatment for freight vehicles. The most common form of priority is to hold the green for high speed trucks, preventing hard stops and potentially dangerous actions. This detection system also allows for improved indecision zone protection for all vehicles, not just trucks and reduced red-light running. The project will implement truck priority while balancing the impacts to other users. The project will upgrade the controller to the newest traffic control software, fine-tune the operation of radar detection system at the intersection, and explore options and methods to provide improved operation of trucks. Additional monitoring of the intersection operation will be conducted through CCTV camera and special recording device.

Process

• Describe the planning process that led to the identification of this project and the process used to identify the project to be put forward for funding consideration. (Answer should demonstrate that the process met minimum public involvement requirements for project applications per Appendix A)

In the spring of 2014, PBOT staff began the process of forming a Candidate list of Major Projects for inclusion in the Transportation System Plan (TSP). This process began by considering projects that were included in the 2007 TSP, the 2014 TRP, or other plans adopted since 2007. The TSP Major Project List update process included extensive opportunities for public engagement with projects displayed on the 2035 Comprehensive Plan Proposed Draft Map App starting in June 2014. Members of the public were invited to comment directly through the Map App, and there was extensive community outreach at meetings and events. As noted in our certification of Appendix A – the public engagement plan which included stakeholder analysis and a focus on efforts to engage underrepresented populations. In order to develop the TSP Major Projects list, projects were also evaluated based on criteria that measures the following: safety, neighborhood access, economic benefit, health, equity, climate, costs effectiveness and community support. This evaluation, along with additional public feedback, helped to determine the final TSP Major Projects List.

2019-21 RFFA Regional Freight Investments Application

The Portland Freight Committee (PFC) was the bureau's review body for evaluating and recommending candidate freight projects for the 2019-21 Regional Flexible Fund Allocation. The PFC is advisory to the Portland City Council on issues related to freight mobility and its membership includes over 30 representatives of freight service providers, shippers, Port, rail, trade associations and businesses directly related to multi-modal freight activities. In June 2016 the PFC initiated the process of reviewing candidate freight projects which resulted in the selection and recommendation of the following two projects to submit 2019-21 RFFA applications:

- 1) Central City Circulation and Safety Project
- 2) NE Columbia Boulevard ITS Project
- Describe how you coordinated with regional or other transportation agencies (e.g. Transit, Port, ODOT, Metro, Freight Rail operators, ODOT Region 1, Regional Safety Workgroup, and Utilities if critical to use of right-of-way) and how it impacted the project location and design.

The project was identified through a collaborative effort that included the PBOT, the Portland Freight Committee, and other agencies. ODOT's motor carrier division recognizes the importance of this corridor as it provides a link between the state's highway system and N Columbia, and other valuable input was received from the Oregon Governor's Office and the Oregon Solutions Project Team in identifying the N Columbia corridor as a crucial link to maintain the state's economic competitiveness.

The project is also recognized as one of significance by the area freight rail operators UP and BNSF and by the Port of Portland.

August 16, 2016

Councilor Craig Dirksen, Chair Joint Policy Advisory Committee on Transportation (JPACT)



Dear Chair Dirksen:

On behalf of the Portland Freight Committee (PFC) we want to thank you for the opportunity to provide our support on the proposed 2019-21 Regional Flexible Fund Allocation (RFFA) projects. The PFC has served as an advisory group on freight mobility issues to the City of Portland since 2003. Our membership is comprised of over 30 members that include both public and private sector representatives including logistic service providers, shippers, trade associations and various businesses related to multi-modal freight activities including the Port of Portland and the Union Pacific Railroad. The mission of the PFC is to support and enhance the economy of the City of Portland by advancing a balanced and well-managed multi-modal freight network. Beginning in June 2016, the PFC initiated the process of reviewing candidate RFFA projects for the Regional Freight Investments category which resulted in the recommendation of the following two project funding requests:

Central Eastside Access and Circulation Improvements:

The Central Eastside Industrial District (CEID) is one of two industrial sanctuary districts within Portland's Central City and home to various light industrial uses that include manufacturing and production, warehousing and freight movement, and wholesale sales. The Central City 2035 Plan anticipates 9,000 new jobs and 2,500 new households in the CEID and surrounding area over the next 2 decades. The MLK/Grand couplet in the CEID is designated as a Main Roadway Route in the RTP and serves as an important north/south corridor for through truck traffic from the Union Pacific intermodal facility at Brooklyn accessing the freeways and Port facilities. Traffic congestion is significant and causes delays to freight movement, and opportunities to access MLK and Grand from the surrounding industrial areas are limited. As the district grows, investments in the transportation system that reduces both congestion and safety conflicts will be required to accommodate the anticipated growth.

This project proposal will use Regional Flexible Funds to improve freight access and circulation at key choke points by adding four new traffic signals along the MLK/Grand corridor and at NE 16th Ave and Irving St while leveraging a significant local match to improve bikeways leading into and through the CEID, enhancing safety for all modes.

This project includes the following elements:

- Improve traffic flow and freight movement by installing Bluetooth readers, variable message signs and closed circuit television cameras and supporting hardware to allow for monitoring and management of traffic along the MLK/Grand corridor.
- Modify existing traffic signals, add four new traffic signals, and adjust circulation patterns to enhance traffic flow and improve access onto Grand and MLK from surrounding streets within the CEID.
- The City will allocate \$1.6 million in matching System Development Charge funding to add four new traffic signals at SE Ankeny and MLK, SE Salmon and Grand/Washington, and at SE 11th and Ankeny. Additionally, the City is proposing to allocate \$800,000 from the recently approved Heavy Vehicle Use Tax to reconstruct SE Clay Street from SE 1st Ave to SE Grand Ave., for a total of \$2.4 million in local matching funds.

The Portland Freight Committee recommends Central Eastside Access and Circulation Improvement project receive the requested **\$3,002,433** from the Regional Freight Investments category.

Columbia Blvd ITS Improvements

Columbia Boulevard is a vital east-west corridor that stretches approximately 10 miles across the north side of Portland. As a designated National Highway System (NHS) Intermodal Connector it is intended to provide access between major intermodal facilities and the transportation network. It serves as a critical link to and from the interstate system (I-5 and I-205) and Portland International Airport for freight traffic serving industrial areas and Port of Portland container shipping facilities adjacent to the corridor. In addition to linking sea, air, and surface freight hubs, Columbia Boulevard also is home to 60,000 jobs, many of which are middle wage. Providing viable and low cost transportation for workers employed within its proximity through transit is challenging due to the low density land uses characteristic of warehousing, business parks and industrial land that make up the majority of property along the roadway.

This project will identify and evaluate ITS alternatives, including the exploration of emerging data from private sector partners, to determine whether there are new techniques that can be used to deliver freight priority at signalized intersection. The Project will also install ITS infrastructure, including system loops, bike count stations, Bluetooth MAC address matching sensors, CCTV cameras, and communications infrastructure. The project will integrate these ITS devices and the traffic signal controllers along each corridor with the City's and ODOT's Transportation Operation Centers.

The project will address the following needs:

- Reduce travel times for trucks and transit travelling along Columbia Boulevard and improving safety along the corridor by implementing intelligent transportation systems (ITS) including signal priority for trucks, traffic monitoring equipment, and other intersection improvements.
- Improve safety and efficiency at multi-modal intersections along Columbia Boulevard. Presently, there is no equipment for monitoring or evaluating the performance of the intersections along the corridor.

The Portland Freight Committee recommends the Columbia Blvd ITS Improvement project receive the requested **\$600,000** from the Regional Freight Investments category.

Funding these two projects will greatly improve regional freight mobility and employment access along these important regional freight corridors. The Portland Freight Committee appreciates the opportunity to provide our support and we look forward working with Metro in advancing these essential transportation improvements.

Respectfully yours,

lia Welch aihana Ansa

Pia Welch Chair

Raihana Ansary Vice Chair

Portland Freight Committee ■ 1120 SW Fifth Avenue, Room 800 ■ Portland OR 97204

APPENDIX A - ENVIRONMENTAL JUSTICE COMPLIANCE

Public engagement and non-discrimination certification Regional flexible funds 2019-21

Background and purpose

Use of this checklist is intended to ensure project applicants have offered an adequate opportunity for public engagement, including identifying and engaging historically underrepresented populations. Applications for project implementation are expected to have analyzed the distribution of benefits and burdens for people of color, people with limited English proficiency and people with low income compared to those for other residents.

The completed checklist will aid Metro in its review and evaluation of projects.

Instructions

Applicants must complete this certification, including a summary of non-discriminatory engagement (see Section B), for projects submitted to Metro for consideration for 2019-21 regional flexible funding.

Project sponsors should keep referenced records on file in case of a dispute. Retained records do not have to be submitted unless requested by Metro.

Please forward questions regarding the public involvement checklist to regional flexible funds allocation project manager Dan Kaempff at <u>daniel.kaempff@oregonmetro.gov</u> or 503-813-7559.

1. Checklist

Transportation or service plan development

- At the beginning of the agency's transportation or service plan, a public engagement plan was developed to encourage broad-based, early and continuing for public involvement. **Retained records:** public engagement plan and/or procedures
- At the beginning of the agency's transportation or service plan, a jurisdiction-wide demographic analysis was completed to understand the location of communities of color, limited English proficient and low-income populations, disabled, seniors and youth in order to include them in engagement opportunities.

Retained records: summary of or maps illustrating jurisdiction-wide demographic analysis

- Y Public notices included a statement of non-discrimination (Metro can provide a sample). *Retained records: public engagement reports including/or dated copies of notices*
- Throughout the process, timely and accessible forums for public input were provided. **Retained records:** public engagement reports including/or descriptions of opportunities for ongoing engagement, descriptions of opportunities for input at key milestones, public meeting records, online or community survey results

Throughout the process, appropriate interested and affected groups were identified and contact information was maintained in order to share project information, updates were provided for key decision points, and opportunities to engage and comment were provided.
 Retained records: public engagement reports including/or list of interested and affected parties, dated copies of communications and notices sent, descriptions of efforts to engage the public, including strategies used to attract interest and obtain initial input, summary of key findings; for announcements sent by mail or email, documented number of persons/groups on mailing list

Throughout the process, focused efforts were made to engage underrepresented populations such as communities of color, limited English proficient and low-income populations, disabled, seniors and youth. Meetings or events were held in accessible locations with access to transit. Language assistance was provided, as needed, which may include translation of key materials, using a telephone language line service to respond to questions or take input in different languages and providing interpretation at meetings or events.

Retained records: public engagement reports including/or list of community organizations and/or diverse community members with whom coordination occurred; description of language assistance resources and how they were used, dated copies of communications and notices, copies of translated materials, summary of key findings

Public comments were considered throughout the process, and comments received on the staff recommendation were compiled, summarized and responded to, as appropriate.
 Retained records: public engagement reports or staff reports including/or summary of comments, key findings and final staff recommendation, including changes made to reflect public comments

Adequate notification was provided regarding final adoption of the plan or program, at least 15 days in advance of adoption, if feasible, and follow-up notice was distributed prior to the adoption to provide more detailed information. Notice included information and instructions for how to testify, if applicable.

Retained records: public engagement reports or final staff reports including/or dated copies of the notices; for announcements sent by mail or email document number of persons/groups on mailing list

Project development

. /.

This part of the checklist is provided in past tense for applications for project implementation funding. Parenthetical notes in future tense are provided for applicants that have not completed project development to attest to ongoing and future activities.

- At the beginning of project development, a public engagement plan was (is budgeted to be) developed to encourage broad-based, early and continuing opportunity for public involvement. *Retained records: public engagement plan and/or procedures*
- At the beginning of project development, a demographic analysis was (is budgeted to be) completed for the area potentially affected by the project to understand the location of

communities of color, limited English proficient and low-income populations, disabled, seniors and youth in order to include them in engagement opportunities. *Retained records:* summary of or maps illustrating demographic analysis

- Throughout project development, project initiation and requests for input were (will be) sent at least 15 days in advance of the project start, engagement activity or input opportunity. *Retained records: public engagement reports including/or dated copies of notices*
- Throughout project development, public notices included (will include) a statement of nondiscrimination.
 Retained records: public engagement reports including/or dated copies of notices
- Throughout project development, timely and accessible forums for public input were (will be) provided.

Retained records: public engagement reports including/or descriptions of opportunities for ongoing engagement, descriptions of opportunities for input at key milestones, public meeting records, online or community survey results

A Throughout project development, appropriate interested and affected groups were (will be) identified and contact information was (will be) maintained in order to share project information, updates were (will be) provided for key decision points, and opportunities to engage and comment were (will be) provided.

Retained records: public engagement reports including/or list of interested and affected parties, dated copies of communications and notices sent, descriptions of efforts to engage the public, including strategies used to attract interest and obtain initial input, summary of key findings; for announcements sent by mail or email, documented number of persons/groups on mailing list

Throughout and with an analysis at the end of project development, consideration was (will be) given to the benefits and burdens of the project for people of color, people with limited English proficiency and people with low income compared to those for other residents, as identified through engagement activities.

Retained records: staff reports including/or description of identified populations and information about benefits and burdens of the project for them in relation to other residents;

- There was a finding of inequitable distribution of benefits and burdens for people of color, people with limited English proficiency and people with low income
 Submitted records: for a finding of inequitable distribution of benefits and burdens, attach analysis, finding and documentation justifying the project and showing there is no less discriminatory alternative.
- Public comments were (will be) considered throughout project development, and comments received on the staff recommendation were (will be) compiled, summarized and responded to, as appropriate.

Retained records: public engagement reports or staff reports including/or summary of comments, key findings and final staff recommendation, including changes made to reflect public comments

Adequate notification was (will be) provided regarding final adoption of the plan, at least 15 days in advance of adoption, if feasible, and follow-up notice was distributed prior to the adoption to provide more detailed information. Notice included (will include) information and instructions for how to testify, if applicable.

Retained records: public engagement reports or final staff reports including/or dated copies of the notices; for announcements sent by mail or email document number of persons/groups on mailing list

2. Summary of non-discriminatory engagement

Attach a summary (1-2 pages) of the key elements of the public engagement process, including outreach to communities of color, limited English and low-income populations, for this project or transportation or service plan.

3. Certification statement

Porth 2 Bureau of Transportation (agency) certifies adherence to engagement and non-discrimination procedures developed to enhance public participation and comply with federal civil rights guidance.

As attested by:

(signature)

Art Pearce, Policy, planny and pro Jects (name and title) manager

(date)

NNE COLUMBIA ITS

APPENDIX A

COST ESTIMATE

ITEM NO.	ITEMS OF WORK AND MATERIALS	ESTIMATED QUANTITY	UNIT	UNIT PRICE
1	MOBILIZATION	1	LS	\$18,000.00
2	TEMPORARY PROTECTION & DIRECTION OF TRAFFIC	1		\$19,500.00
3	TEMORARY SIGNS	500	SQFT	\$20.00
4	FLAGGERS	900	HRS	\$50.00
5	FIBER OPTIC CABLE	55,000	LF	\$1.25
6	FIBER OPTIC SPLICES	1,735	EACH	\$40.00
7	FIBER OPTIC INSTALLATION	1	LS	\$270,000.00
8	DAR DETECTION INSSTALLAT	20	EACH	\$2,800.00
9	RADAR DETECTION UNITS	20	EACH	\$4,800.00
10	BLUETOOTH INSTALLATION	20	EACH	\$2,800.00
11	BROADBAND RADIOS	8	EACH	\$4,600.00
12	CAMERAS	10	EACH	\$5,000.00
13	CAMERA INSTALLATION	10	EACH	\$2,800.00
14	RUGGEDCOM 900G	20	EACH	\$1,450.00
15	ATC TRAFFIC CONTROLLERS	20	EACH	\$2,200.00
16	CONFIGURE AND TEST RUGGEDCOM EQUIPMENT	20	EACH	\$250.00
17	PROGRAM AND TEST ATC CONTROLLERS	20	EACH	\$5,000.00

TOTAL

TOTAL AMOUNT
\$18,000.00
\$19,500.00
\$10,000.00
\$45,000.00
\$68,750.00
\$69,400.00
\$270,000.00
\$56,000.00
\$96,000.00
\$56,000.00
\$36,800.00
\$50,000.00
\$28,000.00
\$29,000.00
\$44,000.00
\$5,000.00
\$100,000.00

\$1,001,450.00

August 24, 2016



Metro Council and JPACT Members 600 NE Grand Avenue Portland, Oregon 97232

Dear Selection Committee:

TriMet is pleased to offer our support for the "Keep Oregon Trade Moving" project proposal submitted by the City of Portland Bureau of Transportation (PBOT) for the Step 2 Green Economy category of Regional Flexible Funds for 2019-2021.

TriMet supports PBOT's proposal to install ITS technology in key regional freight corridors such as Columbia Boulevard where we also operate bus service (in this case, Lines 11-Rivergate/Marine Dr, 70-12th/NE 33rd and 75-Cesar Chavez/Lombard). We are excited about the potential of Connected Vehicle (CV) technology to take Transit Signal Priority (TSP) to the next level, improving transit performance by allowing transit operators to stay on schedule and riders to reach their destinations more quickly and reliably. TriMet and the City of Portland have experience with previous generation TSP technology, and we believe that significant improvements in effectiveness and reliability are possible with this next generation technology. In the Columbia Corridor, this is particularly important for providing access to living wage jobs in our industrial and export sectors, especially for historically underserved communities who disproportionately rely on transit for their mobility needs.

The project would build upon our existing computer-aided dispatch/automatic vehicle location system. This is essential for our transition to latest generation technology and will provide a scalable platform from which to expand implementation in the future. The implementation of CV-based TSP on Columbia Boulevard will allow TriMet to test this technology and prepare for future deployment of additional connected vehicle technology for transit based on these lessons learned. We look forward to working with PBOT and other project partners such as ODOT to collect data and monitor project performance.

In the future, we believe connected vehicle technology will allow transit providers to operate more safely and efficiently to better serve their customers. The "Keep Oregon Trade Moving" project represents an important first step towards that goal. We appreciate your consideration of this application.

Sincerely,

Alan Lehto Director, Planning & Policy

N Vancouver Ave

NE Martin Luther King Blvd

NE 42nd Ave

111111111111



NE Columbia Pkwy

T M

N Vancouver Ave

NE Martin Luther King Blvd

NE 42nd Ave

111111111111



NE Columbia Pkwy

T M

Burgard

N Upland Dr

N Macrum Ave

N Portsmouth Ave

N Tyndall Ave

N Penninsular Ave

N Vancouver Ave

Denning and

NE Martin Luther King Blvd

Treatment Type

- CCTV
- Truck Priority and CCTV
- Truck Priority

Burgard

N Upland Dr

N Macrum Ave

N Portsmouth Ave

N Tyndall Ave

N Penninsular Ave

N Vancouver Ave

Denning and

NE Martin Luther King Blvd

Treatment Type

- CCTV
- Truck Priority and CCTV
- Truck Priority

Summary of non-discriminatory engagement

The City of Portland Bureau of Transportation (PBOT) recognizes that equity is realized when identity -such as race, ethnicity, gender, age, disability, national origin, sexual orientation- has no detrimental effect on the distribution of resources, opportunities, and outcomes for group members in society. PBOT is committed to the fair treatment and meaningful involvement of all people, regardless of income or identity, with respect to the development, implementation and enforcement of plans, policies and procedures in the course of the Bureau's work.

Fair treatment means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies. Meaningful involvement means that: (1) potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment or health; (2) the public's contribution can influence the regulatory agency's decision; (3) the concerns of all participants involved will be considered in the decision making process; and (4) the decision makers seek out and facilitate the involvement of those potentially affected.

PBOT acknowledges historical injustice and context of local decision-making and supports the equitable distribution of the benefits and burdens of decisions to ensure that those most impacted from decisions have an opportunity to meaningfully participate. PBOT's commitment to non-discriminatory engagement includes supporting special efforts to engage minority, low-income, women, people with disabilities, people with Limited English Proficiency, senior and youth populations.

Non-discrimination policy statement It is the policy of the City of Portland that no person shall be denied the benefits of or be subjected to discrimination in any City program, service, or activity on the grounds of race, religion, color, national origin, English proficiency, sex, age, disability, religion, sexual orientation, gender identity, or source of income. The City of Portland also requires its contractors and grantees to comply with this policy. This is in accordance with Title VI of the Civil Rights Act of 1964 and subsequent federal nondiscrimination directives such as the Federal-Aid Highway Act of 1973, the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Civil Rights Restoration Act of 1987, Americans with Disabilities Act of 1990 (ADA), Executive Order 12898 (Environmental Justice), and Executive Order 13166 (Limited English Proficiency).

Implementation of non-discriminatory engagement PBOT's public engagement plans, policies and practices are guided by and in conformance with the City of Portland Title VI Civil Rights Program and Plan.

In June 2013 the City Council unanimously adopted the Civil Rights Title VI Plan which included the Environmental Justice Policy and Analysis Guidelines. The City of Portland also adopted, by Ordinance, the above Non Discrimination Policy Statement and the Non Discrimination Agreement for Certified Local Agencies. All of the above support implementation of the City of Portland's Civil Rights Code, located in Chapter 23.01 Civil Rights, which was adopted on October 3, 1991 by Ordinance Number 164709.

The City has developed extensive resources and best practices to ensure that the public is meaningfully involved in the decisions it makes. Such involvement is critical to the implementation of the Title VI program. The City Council adopted the following Public Involvement Principles in August, 2010, and is committed to applying them in planning, providing services and decision-making.

- *Partnership:* Community members have a right to be involved in decisions that affect them. Participants can influence decision-making and receive feedback on how their input was used. The public has the opportunity to recommend projects and issues for government consideration.
- *Early Involvement:* Public involvement is an integral part of issue and opportunity identification, concept development, design, and implementation of City policies, programs, and projects.
- *Building Relationships and Community Capacity:* Public involvement processes develop long-term, collaborative working relationships and learning opportunities with community partners and stakeholders.
- Inclusiveness and Equity: Public dialogue and decision-making processes identify, reach out to, and encourage participation of the community in its full diversity. Processes respect a range of values and interests and the knowledge of those involved. Historically excluded individuals and groups are included authentically in processes, activities, and decision- and policy-making. Impacts, including costs and benefits, are identified and distributed fairly.
- *Good Quality Process Design and Implementation:* Public involvement processes and techniques are well-designed to appropriately fit the scope, character, and impact of a policy or project. Processes adapt to changing needs and issues as they move forward.
- *Transparency:* Public decision-making processes are accessible, open, honest, and understandable. Members of the public receive the information they need to participate effectively.
- *Accountability:* City leaders and staff are accountable for ensuring meaningful public involvement in the work of city government.

Additional non-discriminatory policies The Portland Bureau of Transportation has in place a Transportation Title VI Civil Rights Program and Plan to support and ensure implementation of the above policy. The plan's elements that protect against discrimination apply to PBOT, its sub-recipients, contractors and consultants. The Transportation Title VI Civil Rights Program Plan and Ordinance are located on the Portland Bureau of Transportation website at the following web address: www.portlandonline.com/transportation/index.cfm?c=34752

The August 2016 Recommended Draft of the Transportation System Plan (TSP) Stage 2 Update includes specific acknowledgement of the goals and policies of *Chapter 2: Community Involvement* of the adopted City of Portland 2035 Comprehensive Plan. It also identifies 19 additional TSP *Section 3: Community Involvement Objectives*.

Inclusive Outreach and Engagement Strategies To insure participation of Title VI protected groups, and to address physical accessibility, language issues and other accommodations for Title VI protected groups. At a minimum, such strategies shall include:

- Providing for a variety of ways for community members to participate in public processes, including informal meetings/open house presentations and written and oral testimony;
- Ensuring that meeting locations and times are convenient and accessible to all, including low income, minority communities, people with Limited English Proficiency and people with disabilities;
- Seeking out and considering the views of minority and/or low income communities;
- Providing meeting facilities that are accessible to all and specifying in meeting notices that accommodations are available upon request;
- Ensuring equal access to City programs, services and activities by providing reasonable modifications and accommodations upon request; and
- Following all Oregon Public Records and Public Meetings Laws for relevant meetings.

ORDINANCE NO. 187954

*Authorize application to the Metro Regional Government for grants up to \$30 million for eight Active Transportation infrastructure or project development projects and two Regional Freight Investment Projects (Ordinance)

The City of Portland ordains:

Section 1. The Council finds:

- 1. Through the Regional Flexible Funds grant process, the Metro Regional Government is soliciting transportation infrastructure and project development proposals for federal transportation funding that will be available between 2019 and 2021.
- 2. There is approximately \$26 million available region-wide for Active Transportation/Complete Streets projects that support non-auto trips and ensure safe streets designed for all users.
- 3. There is approximately \$7 million available region-wide for Regional Freight Investments projects which support the development of the region's economy through investment in green infrastructure and key freight projects or programs.
- 4. Working with stakeholders, the Bureaus of Transportation and Parks and Recreation identified eight priority Active Transportation projects and two priority freight projects (Exhibit A) for application for Metro Regional Flexible Funds grants.
- 5. The projects identified will help to build critical transportation infrastructure and support multi-modal safety improvements throughout the City of Portland transportation system.
- 6. The projects listed on Exhibit A are consistent with the recently updated Transportation System Plan Project List. The grant application project list was developed with the help of the City's Bicycle, Pedestrian and Freight Advisory Committees and with additional feedback provided by the Transportation Justice Alliance.
- 7. Local match of at least 10.27% will be provided from Transportation and Parks System Development Charges.

NOW, THEREFORE, The Council directs:

- a. The Director of the Portland Bureau of Transportation is hereby authorized to make application to Metro for grants in the amount of up to \$30 million and to document City Council support in the required projects nomination letter.
- b. The Director of the Portland Bureau of Transportation is authorized to provide such information and assurances as are required for the grant period.
- c. The OMF Grants Office is authorized to perform all administrative matters in relation to the grant application, grant agreement or amendments, requests for reimbursement from the grantor, and to submit required online grant documents on the Commissioner-in-Charge's behalf.

Section 2. The Council declares that an emergency exists because the grant applications are due immediately; therefore, this ordinance shall be in full force and effect from and after its passage by the Council.

Passed by the Council: AUG 17 2016

Commissioner Steve Novick Prepared by: Mark Lear:CK Date Prepared: 08/02/16

Mary Hull Caballero

AUDITOR OF THE CITY OF PORTLAND

By Auran Parrow

Deputy

Page 2 of 2

Agenda No. ORDINANCE NO. 187954

:24

Title

*Authorize application to the Metro Regional Government for grants in the amount of up to \$30 million for eight Active Transportation infrastructure or project development projects and two Regional Freight Investment Projects. (Ordinance)



AGENDA	FOUR-FIFTHS AGENDA	COMMISSIONERS VOTED AS FOLLOWS:		
TIME CERTAIN Start time:			YEAS	NAYS
Total amount of time needed: (for presentation, testimony and discussion)	1. Fritz	1. Fritz	\checkmark	
	2. Fish	2. Fish		
	3. Saltzman	3. Saltzman	\checkmark	
REGULAR Total amount of time needed: <u>20 minutes</u>	4. Novick	4. Novick	\checkmark	
	Hales	Hales	\checkmark	

V140

95**9**

Active Transportation Projects	Description	Maximum Grant
Name (Alphabetical) Brentwood-Darlington Safe Routes to School: Sidewalk Infill & Neighborhood Greenway	Brentwood-Darlington is a neighborhood with numerous sidewalk gaps and substandard bicycle facilities. This project would provide sidewalk infill on SE Duke St and SE Flavel St. from 52 nd Ave to 82 nd Ave; a neighborhood greenway on Knapp and Ogden from 32 nd to 87 th ; and a pedestrian/bicycle connection to the Springwater Corridor on 87 th Ave, south of Flavel.	\$3,500,000
Connected Cully, Phase 2: NE 72 nd Ave Pedestrian/Bicycle Parkway	Provide a high-quality pedestrian and bicycle parkway along NE 72 nd Ave through the heart of Cully. This project will connect Cully residents to nearby commercial areas and schools, provide multimodal accessibility to parks and green space in Cully and Roseway, and will connect to the future 70s Neighborhood Greenway to the south. The project would construct a multi-use path in the center of the heritage parkway median from Sandy to Prescott, separated pedestrian and bicycle pathways from Prescott to Sumner, and a shared pathway from Sumner to Killingsworth. The project will also include lighting, street trees, and place-making elements.	\$4,000,000
David Douglas Safe Routes to School: Sidewalk Infill on 117 th , 130 th , and Mill	This project would fill important sidewalk gaps on key walking routes in the David Douglas School District. The project would construct sidewalk infill on SE 130 th Ave from Stark to Division, SE Mill St from 130 th to 148 th , and SE 117 th Ave from Stark to Division.	\$3,500,000
Hillsdale Town Center Pedestrian Connections: Sidewalk Infill on SW Beaverton-Hillsdale Hwy	Provide better pedestrian facilities and access to Hillsdale Town Center, the Red Electric Trail, transit and schools by constructing sidewalk infill on SW Beaverton-Hillsdale Highway between Dosch and 18 th Avenue/Hillsdale Town Center and on Dosch from Beaverton-Hillsdale Highway to Flower.	\$3,500,000
Jade & Montavilla Connected Centers Project	Construct multi-modal improvements on key pedestrian and bicycle routes within and connecting to the Jade District and Montavilla Neighborhood Centers. Several improvements have been identified through the Portland Local Action Plan for the Powell-Division Transit and Development Project and additional improvements will be identified through coordinated planning efforts by ODOT, PBOT and BPS along the 82 nd Ave. Corridor.	\$4,000,000

NE Halsey Safety & Access to Transit	NE Halsey is a High Crash Network street and a street TriMet has identified for more frequent future transit service. This project would focus on the 82 nd Ave MAX Station Area and would provide signal improvements, intersection redesigns, bus stop improvements and high-priority crossings on NE Halsey between 47 th and 92 nd , a bikeway on Halsey from 65 th to 92 nd , and multi-use path connection from the 82 nd Ave. MAX station to the future I-205 undercrossing.	\$3,000,000
N. Portland Greenway Trail: Baltimore Woods Segment	This project will provide better active transportation connections to nature and also to Rivergate jobs by construct 1.8 miles of high quality bikeway improvements in the St. Johns neighborhood to complete a trail gap between Pier Park and Willamette Greenway. The improvements will include bicycle lanes, sidewalks, neighborhood greenways and off-street pathways.	\$3,000,000
Outer Stark and Outer Halsey Complete Streets Project Development	Outer Stark and Outer Halsey are both High Crash Network streets that need to be fundamentally redesigned as Complete Streets to achieve Vision Zero goals and allow for multimodal accessibility to transit and commercial areas such as Gateway and Rosewood. This project development grant will be used to help determine the most effective infrastructure improvements and roadway designs to increase safety and provide transit, schools, services and employment access improvements to community members.	\$300,000

Regional Freight Investment Projects

Name (Alphabetical)	Description	Maximum Grant Request
Central Eastside Circulation and	Drawing on themes identified in the Central City	\$3,500,000
Safety Enhancement Project	2035 Southeast Quadrant Plan, improve freight	
	movement through the Central Eastside and	
	reduce mode conflict. ITS improvements would	
	include new traffic signals at MLK and	
	Washington, Grand and Washington, 16 th and	
	Irving and additional locations and protected left	
	turns at Stark and Washington and Clay and	
	Mill.	
Columbia Blvd. ITS for Freight	The traffic signals throughout the Columbia Blvd.	\$750,000
	corridor are neither interconnected nor timed for	
	the heavy concentration of truck activity that is	
	present in the corridor. The individual	
	performance characteristics of freight vehicles is	
	not accounted for in current signal operations.	
	As a result, travel through the corridor is	
	unpredictable, negatively affecting the	
	companies that depend on delivery as a part of	
	their business. Smart Technologies and	
	advanced communications infrastructure will	
	allow active management of the corridor to	
	improve conditions for freight and enable safer	
	and more efficient progression of truck traffic.	