

Exhibit D – Project List

City of Portland Street Repair and Safety Improvement Program: Proposed Use of Revenue from Temporary Gas Tax

What is the proposal?

Over the last two years, Portlanders have been engaged in a wide-ranging discussion about how best to fix city streets and make it safer for Portlanders who walk, bike, roll and drive to get around. In recent months, support has grown to give voters the opportunity to vote on creating a temporary Street Repair and Safety Program to finance street repair and safety improvements.

The Vision: \$64 million of additional funding dedicated for **targeted investment** in pavement repair, signal modernization, more crosswalks and safety beacons, better and safer access to schools, transit and community services for **Portland's kids, seniors and families**. Spending from the program will be overseen by a **Citizen Oversight Committee** representing the many communities with a stake in Portland's streets and roads.

The Tool: A temporary 10 cent gas tax that **sunset**s after four years. Voters will have the opportunity to vote on creating the Street Maintenance and Safety Program during the **May 2016 election**.

Why a dedicated program?

- Portland's streets are one of our most valuable public assets. They're worth the targeted investment.
- Invest now to save money later. If we fix our streets today, we'll have better, safer roads and we'll save money over the long term.
- We can't count on DC or Salem. A significant increase in federal or state road and safety funding is unlikely. We would need to create our own local source of funding.

What do Portlanders Think?

Portlanders have been very clear: they want better maintained and safer streets.

- *86% of Portlanders support funding for sidewalks and safety features in places where children need them to get to school and seniors need them to get to transit*
- *77% of Portlanders support for long delayed maintenance that will reduce the future cost of road repair*

The attached draft project list includes long-standing transportation safety and maintenance needs. The safety projects are a subset of the list developed with community input in 2014 and 2015.

Paving Projects:

What is it? At 4,834 lane miles and with a value of over \$6 billion, the pavement system is one of PBOT's biggest responsibilities. Depending on the state of the roadway, treatments for pavement maintenance can range from a seal coating on the surface, to grinding up the top layer of the street and repaving it, to repairing the base layer below the street surface, to eventually tearing up and rebuilding the entire road.

How does it make a difference? Catching pavement wear and tear early really pays off. A seal treatment on a street to protect it from weather damage costs about \$10,000 per lane mile, but if that same street is allowed to fall into such a poor state that it needs to be rebuilt, the costs can exceed \$2 million a lane mile.

Criteria for Project and Location Selection on Busy Streets:

- Prioritize earlier stage maintenance that avoids costly rebuilds
- Prioritize busy streets that carry transit and freight.
- Implement targeted improvements to address severe deterioration in spot locations
- Identify opportunities for efficiencies by combining with planned safety projects or other adjacent work.
- Leverage additional funding from System Development Charges or other sources.

Paving Projects*

SE Foster (82nd to 90th)	\$ 3,000,000
N Denver (Lombard to Watts)	\$ 938,000
N Williams (Stanton to Cook)	\$ 620,000
SW 4th Avenue (Lincoln to Burnside)	\$ 3,423,000
SW Capitol Hwy (Multnomah to Texas)	\$ 1,700,000
NE Halsey (92nd to Weidler)	\$ 2,240,000
SW Vermont (Oleson to Capitol)	\$ 3,150,000
SE 136th (Foster to Division)	\$ 4,010,000
SE 50th (Division to Hawthorne)	\$ 1,450,000
SE Naito (Harrison to Jefferson)	\$ 1,600,000
SW Main (1st to 2nd)	\$ 350,000
NE Alberta (15th to 30th): 4 inch paving overlay	\$ 1,720,000
NE 42nd Ave (Brazee to Wistaria Dr) and NE Wistaria Dr (42nd to Cesar Chavez)	\$ 740,000
Basic Road Repair (citywide): Projects prioritized using Pavemenet Management System	\$ 8,600,000
Contingency	\$ 2,299,000
	\$ 35,840,000

*This paving list is based on current Pavement Management System analysis. It is illustrative of the work that is possible. Modifications will be reviewed with the citizen oversight committee.

Safe Routes to School Projects:

What is it? Portland Safe Routes to School is a partnership between the City of Portland, schools, neighborhoods, community organizations and agencies that make walking, biking and rolling fun, easy, and safe for all students and families. PBOT's Safe Routes to School Program connects with every elementary, K-8 and middle school in Portland to offer education on safe, active ways of getting to school, and to identify and implement needed safety improvements around schools.

How does it make a difference? Through a comprehensive approach, Portland's Safe Routes to School program has increased the percentage of students walking and biking to school by 35% since it began in 2006. Improvements in this category of funding will include school crossing improvements, paths and missing connections to school grounds, infilling sidewalk gaps on priority residential streets, and tying in our existing network of bike routes to schools.

Criteria for Project and Location Selection:

- Ability to remove long-standing barriers to safe access to schools
- Alignment with available safety data that demonstrate a need for traffic calming and speed reduction improvements is present
- Potential to benefit underserved communities, in alignment with City equity goals and Portland's Safe Routes to School Policy equity criteria
- Availability of community, school and parent support for providing hands-on instruction on safe walking and bicycling to students and schools with the highest needs
- Type of school: first serve K-8, then expand services to include middle schools



Safe Routes to School

Safety projects at schools that feed David Douglas HS - ex. Sidewalk infill 130th and 135th	\$ 1,080,276
Safety projects at schools that feed into Franklin HS - ex. Traffic calming near Lents ES	\$ 899,310
Safety projects at schools that feed into Roosevelt/Jefferson HS - ex. Crossing N Smith/Burr	\$ 785,655
Safety projects at schools that feed into Grant/Jefferson HS - ex. Traffic Calming near Beverly Clearly ES	\$ 755,862
Safety projects at schools that feed into Cleveland HS - ex. crossing improvements Buckman ES	\$ 730,483
Safety projects at schools that feed into Madison/Jefferson HS - ex. Crossing improvement Lee ES	\$ 695,172
Safety projects at schools that feed into Lincoln HS - ex. Shoulder improvements near Forest Park ES	\$ 681,931
Safety projects at schools that feed into Wilson HS - ex. Crossing improvements near Jackson MS	\$ 664,276
Safety projects at schools that feed Parkrose High School - ex. Sidewalk infill near Sacramento ES	\$ 619,034
Safety projects at schools that feed Reynolds schools - ex. Traffic calming near ES	\$ 559,448
Safety projects at schools that feed Centennial HS - ex. Infill sidewalk ES, pathway connection to ES	\$ 529,655
Subtotal	\$ 8,001,103

Sidewalks:

What is it? Sidewalks offer separation from vehicles in traffic lanes and boost safety, mobility, and access to active travel options. They allow people of all abilities to reach businesses, transit, schools, and other daily destinations.

How does it make a difference? Studies indicate that walkways that are separate from travel lanes can help to prevent up to 88% of crashes involving pedestrians walking along roadways.

Criteria for Project and Location Selection:

- Pedestrian crash history
- Connections to public transit
- Alignment with City equity goals
- Proximity to schools, community centers and key services
- Ability to coordinate with PBOT's Transportation System Plan priorities



Sidewalks

SW Capitol Highway - Multnomah Village to West Portland: leverages SDC/BES \$	\$ 3,310,345
Infill sidewalk NE 148th Ave: Halsey – Glisan	\$ 1,710,345
Infill sidewalk SE 112th Ave: Market – Powell	\$ 783,448
Infill sidewalk NE 102nd Ave: Sandy – I-84	\$ 198,621
Infill sidewalk SE Flavel St: 84th – 92nd	\$ 347,586
Subtotal	\$ 6,350,345

High Crash Corridors:

What is it? PBOT has designated 10 of the busiest streets in the City as High Crash Corridors because of the disproportionate number of crashes that occur along these stretches of Portland’s transportation system. City traffic engineers have identified a number of infrastructure improvements to make these streets safer.

How does it make a difference? PBOT uses a number of engineering practices to improve safety in High Crash Corridors. These improvements can significantly reduce fatalities and injuries by reducing speeding, improving visibility, and addressing user errors at high crash locations.

Criteria for Project and Location Selection:

- Identified as a High Crash Corridor based on PBOT High Crash Corridor study
- Pedestrian, bike and vehicle crash history
- Distance to a protected pedestrian crossing
- Proven safety counter-measure to reduce crashes
- Alignment with City equity goals
- Geographic distribution among and along corridors in traditionally underserved areas



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High Crash Corridors

122nd Avenue Safety Improvements	\$ 2,206,897
NE Sandy Blvd: install pedestrian refuge island and active warnings	\$ 148,966
82nd Avenue: Install larger pedestrian refuge islands, RRFBs, marked crossings	\$ 704,000
SW Beaverton-Hillsdale Hwy: crossing improvements	\$ 145,655
SE Powell Blvd: improve street lighting I-205 to the City limits	\$ 345,379
ODOT Partnership: match safety grants	\$ 389,517
Subtotal	\$ 3,940,414

Crossing Improvements:

What is it? Crossing improvements are a vital component of addressing road safety because intersections are where a variety of modal users cross paths, with the potential for crashes. PBOT evaluates intersections to decide which proven engineering measures can improve street crossings to make them safer for all road users.

How does it make a difference? Pedestrian islands, which provide a safe stopping place for pedestrians in the center of a marked crosswalk, have been shown to reduce pedestrian crashes by 46% and motor vehicle crashes by 39%.

Criteria for Project and Location Selection:

- Pedestrian crash history
- Existing distance to a protected crossing
- Ability to boost access to bus and light rail stops
- Alignment with City equity goals
- Proximity to schools, community centers and key services
- Ability to improve access to businesses



Crossing Improvements

NE Glisan & I-205 Ramp Enhancements	\$ 496,552
NE 102nd Avenue corridor treatment	\$ 331,034
Priority Curb Ramps / ADA Transition Plan	\$ 331,034
SW In Motion Crossing priorities	\$ 551,724
SW Naito Parkway Riverfront Access Improvements	\$ 165,517
Street Lighting Infill for Multimodal Safety	\$ 137,931
Safer and More Efficient Rail Crossings (signal to rail coordination)	\$ 441,379
Crossing at NE 122nd/Davis	\$ 137,931
High Crash Corridor - Pedestrian and Bicycle Crossings	\$ 165,517
Safer Access to Bus Shelters	\$ 220,690
NE MLK Jr Blvd: install rapid flash beacons at NE Going, Bryant and Holman	\$ 199,724
NW US 30 Crossing Enhancement (Linton)	\$ 185,379
Subtotal	\$ 3,364,414

Protected Bike Lanes / Routes:

What is it? Protected bike routes provide physical separation between people bicycling and motor vehicle traffic. They can use barriers, on-street parking and grade to create the separation.

How does it make a difference? Protected bike lanes provide safer travel for a wide range of potential users. They improve both the perception and reality of safety. A national study that observed 12,900 people bicycling on protected bikeways found only 5 minor incidents, none of which resulted in a crash. Such bikeways have been found to increase levels of bicycle use.

Criteria for Project and Location Selection:

- Identified as key route in Portland Bicycle Plan for 2030
- Ability to address a significant barrier or connectivity gap
- Ability to increase ridership for all
- Alignment with City equity goals
- Level of priority for neighborhood and other community stakeholders
- Ability to leverage other planned projects and funding and build on previous investments



Protected Bike Lanes / Routes

Central City; fill out the protected bike lane network identified in the Multi-Modal project	\$ 2,834,759
Protected bike lanes/routes stemming from SWIM	\$ 185,379
East Portland In Motion Separated Bike Facilities	\$ 185,379
Subtotal	\$ 3,205,517

Neighborhood Greenways:

What is it? Neighborhood Greenways are residential streets that connect schools and parks, while providing access to business and transit. They feature 20 mph speed limits, painted bike markings, traffic calming features, and safer crossings of busy streets.

How does it make a difference? Greenways offer safer routes for pedestrians and cyclists on calmer residential streets to reduce conflict on busier streets. Despite making up over 60% of Portland's streets, residential streets see about 9% of the city's crashes. The network creates livable neighborhoods which allow all people to walk, bike and play.

Criteria for Project and Location Selection:

- Identified in the 2030 Bike Plan Map, Implementation Criteria and East Portland in Motion Plan
- Need for presence of low-stress transportation route in neighborhood
- Potential to provide a high safety benefit by providing increased modal separation
- Ability to support citywide Portland Plan goals, including Healthy Connected Communities



Neighborhood Greenways**

4M (SE Mill, Market, Main, Millmain) Greenway	\$ 551,724
NE Holladay Oregon & Pacific (HOP) Gateway TC to 132nd	\$ 551,724
NE 7th/9th from Lloyd to Woodlawn Neighborhood	\$ 551,724
Montavilla to Springwater Connector	\$ 551,724
SW/NW 20th Avenue from Raleigh to Jefferson	\$ 199,724
Subtotal	\$ 2,406,621

Alternative Street Design:

What is it? Neighborhoods and businesses across the city have identified local safety priorities that can be addressed by simple fixes and alternative design measures that offer improvements when funds are lacking for more extensive upgrades.

How does it make a difference? Creating safer shoulders by widening and paving the shoulder in places where sidewalks cannot be provided has been shown to reduce pedestrian crashes by 71%.



Safer Shoulders / Ditch Maintenance

BES Partnership - Safer Shoulders (Includes funding SW Stephenson)	\$	891,586
Subtotal	\$	891,586