

Street Element Alternatives and Performance Measures

Town Center Master Plan and Transportation System Plan Update

TGM 1D-14: Technical Memo #6

DRAFT

May 26, 2016

DRAFT Version 2

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1 INTRODUCTION

This memorandum provides foundation information regarding projects and performance measures for the City of Wood Village Transportation System Plan (TSP) Street Element. The Wood Village TSP was partially updated in 2012 to comprehensively address pedestrian, bicycle and transit facilities. The Street Element was deferred until the East Metro Connections Plan (EMCP), the Arata Road, Halsey, Sandy, and Glisan corridor plans were finished. Now that those planning efforts have concluded, the findings and relevant information of each of these plans will be included in the City's TSP Street Element. In addition, some new transportation projects have been identified as part of the City of Wood Village Town Center Master Plan (TCMP) efforts. These projects will also be identified in the updated TSP Street Element. Finally, the EMCP and TCMP have a few additions to the pedestrian and bicycle project lists in the 2012 TSP.

In total, the Street Element TSP update will address the 4.24 miles of city streets and arterials, including:

- Sandy Boulevard
- 238th Drive
- Halsey Street
- Arata Road
- Wood Village Boulevard
- 244th Avenue
- Glisan Street

This effort also updates the TSP Street Element to conform to the Regional Transportation Functional Plan (RFTP) requirements for performance measures addressing safety, vehicle miles traveled per capita, freight reliability, congestion, walking, bicycling, and transit mode shares. The performance measures included in this memorandum will be used to evaluate and monitor the TSP performance into the future. Much of this analysis and alternatives development was studied and prepared during the EMCP development.

Three previous memorandums prepared as part of this effort will also inform the TSP update.

Memorandum #1: Wood Village Policy and Framework Review – This memorandum provides a summary of all relevant planning efforts that are applicable to both the TCMP and TSP Street Element.

Memorandum #2: Existing and Future Transportation Conditions – This memorandum was written as an early version of the Wood Village TSP Street Element. It summarizes relevant existing and future conditions for the Wood Village transportation system that was prepared as part of other planning studies, including the East Metro Connections Plan (EMCP), the Wood Village 2012 TSP update and the 1999 Wood Village TSP Roadway Element.

Memorandum #5: Town Center Land Use Alternatives and Transportation Concepts – This memorandum presents and evaluates four TCMP land use alternatives and their associated impacts to Economic Development; Accessibility, Safety and Mobility; Community Vitality; Equity; and the Natural Environment. Relevant to the TSP Street Elements are the findings associated with Accessibility, Safety and Mobility.

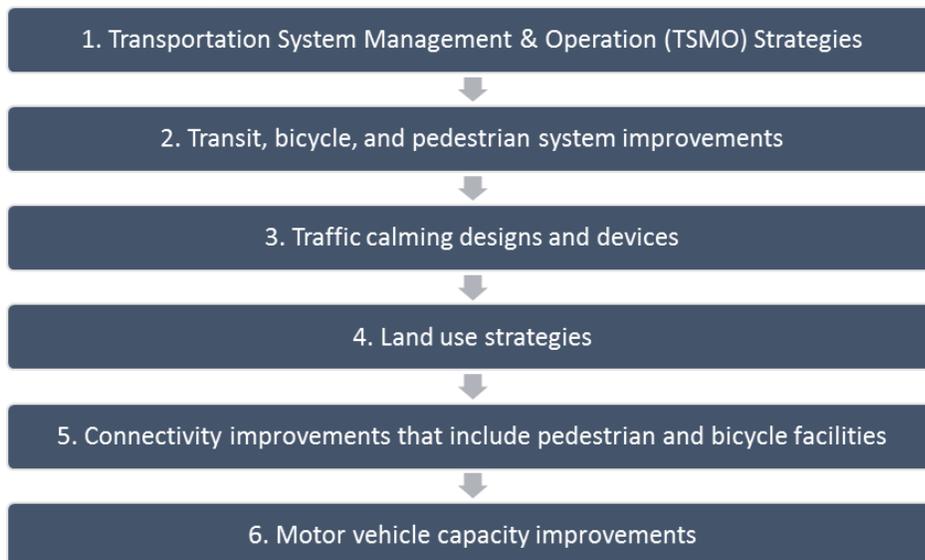
2 IDENTIFYING TRANSPORTATION SYSTEM NEEDS AND SOLUTIONS

As described, several planning efforts conducted previously will contribute to the final Wood Village TSP Street Element. Most significantly, the EMCP identified many of the system needs and solutions that will be incorporated into the Street Element. The Wood Village TSP Street Element was put on hold during the 2012 TSP Update specifically because of the EMCP process and the understanding that it would identify the projects to be incorporated.

2.1 CONFORMANCE WITH THE TPR AND THE RTFP

The 2014 Metro's Regional Transportation Functional Plan (RTFP) implements the Transportation Planning Rule (TPR). It outlines a six step approach that TSPs must follow to identifying transportation solutions. TSPs are required to consider lower cost and lower impact solutions, before constructing roadway widening projects to expand motor vehicle capacity.¹ The intent of the approach is to guide agencies toward more cost-effective solutions that maximize the use of existing transportation system capacity, help to encourage multiple travel options, increase street connectivity and promote a more sustainable transportation system. The six-step process is detailed in Figure 1.

Figure 1. RTFP Transportation Solutions



The EMCP process was initiated in 2010 to consider the need for transportation improvements in the East Metro area. Due to the number of needs and concern about the potential costs and impacts of transportation solutions proposed for the East Metro area, the EMCP was focused on identification and prioritization of low-cost and low-impact solutions. Therefore, the process followed to develop the final EMCP conformed to the required RTFP hierarchy of solutions.

¹ Metro Code Chapter 3.08 The Regional Transportation Functional Plan, Ordinance No. 10-1241B, Portland Metro, Adopted June 6, 2010.

2.2 PROJECT IDENTIFICATION PROCESS AND ANALYSIS

The EMCP studied intersection performance, multimodal safety conditions, connectivity and mobility, and travel patterns and mode split using a variety of tools and approaches described in detail with Appendix A of the EMCP Technical Report, including the Metro Regional Transportation Model, 2040 Context Mapping Tool, INDEX Tool, FHWA’s Multimodal Level of Service analytical tool, and FHWA’s Highway Safety Manual.²

The significant existing (2010/2011) and future (2035) year modeling effort was conducted to identify the transportation roadway needs. The analysis revealed multimodal system deficiencies.

Over 120 multimodal transportation projects and solutions were identified. These included the results of previous corridor studies including those listed in the introduction. The EMCP also analyzed bicycle, pedestrian and transit projects identified in the 2012 Wood Village TSP Update. As documented in the EMCP Technical Report, successive reviews and modeling efforts were conducted to identify the minimum new motor vehicle capacity necessary to meet regional and state standards.

Project solutions remaining after initial screenings were evaluated through a framework of 43 objectives grouped within the following seven factors:

- Access and mobility
- Economic development
- Safety and security
- Healthy communities
- Equity
- Natural environment
- Feasibility

In addition, the TCMP planning effort conducted a transportation system needs assessment based on four development scenarios. Findings of the modeling efforts and studies are summarized below in Section 2.3.

2.3 WOOD VILLAGE MULTIMODAL TRANSPORTATION NEEDS AND SOLUTIONS

Transportation challenges in Wood Village are described below with respect to the previous planning studies, as well as the current TCMP effort. The EMCP reviewed multimodal transportation needs and projects identified within previous project efforts and identified new potential solutions. The TCMP identified new transportation solutions to support the town center land use alternatives.

2.3.1 EMCP Project Needs and Solutions for Wood Village

Wood Village is in the heart of the EMCP study area. The two year effort, led by Metro, analyzed present and future transportation needs and opportunities and prioritized solutions/projects for project implementation in accordance with the TPR and RTFP. The EMCP was formally integrated into Metro’s Regional Transportation Plan (RTP) with its adoption in 2014. Adopting the projects into the Wood Village TSP Street Element will bring the Wood Village TSP into conformance with Metro’s RTFP.

² Metro. June 2012. East Metro Connections Plan Technical Report: Multimodal Transportation, Safety and Freight Analysis and Project Prioritization.

2.3.1.1 *Capacity and Mobility Issues: 238th/242nd/Hogan Corridor*

The Wood Village I-84 Interchange (exit 16) provides access to main thoroughfares in east metro, including NE 238th/Hogan Drive, Halsey and Glisan streets in Wood Village; further south to Stark and Division; and east and west toward NE 223rd and SW 257th avenues. Significant destinations include Mt. Hood Community College, Gresham Golf Course, and McMenamins Edgefield. Capacity, mobility and accessibility issues are a reality today and will worsen into the future (between 2010 and 2035):

- Westbound I-84 ramp will experience a 36 percent increase in traffic volumes
- Eastbound I-84 ramp will continue to be congested
- Southbound NE 238th Drive will continue to be congested and this condition will spread.
- Southbound outside of the city, 238th Drive will experience nearly a 40 percent increase in traffic and will become constrained
- Northbound on NE 238th Drive will experience a 13 percent increase in traffic congestion over the planning period
- Lack of sidewalks and bike lanes on the hill portion of 238th Drive

Solution: EMCP identifies the 238th/242nd/Hogan corridor as a promising corridor for adaptive signal timing, a TSMO solution (RTP ID 99143).

Solution: EMCP identifies repurposing the climbing lane on NE 238th Avenue between NE Glisan and NE Halsey avenues to construct the roadway to arterial standards, including wider lanes, median/turn lane, and bicycle/pedestrian facilities (RTP ID 99132).

Solution: EMCP identifies widening the intersection at NE 238th and Glisan Avenue to address the capacity issues at the intersection (RTP ID 99132).

Solution: TCMP and TSP effort identifies the need for a study of ramp queuing around the I-84/NE 238th Drive interchange. The study should develop strategies and improvements to reduce system backups onto I-84 and queuing on the off-ramps.

2.3.1.2 *Sandy Boulevard Corridor*

The Sandy Boulevard corridor refinement plan was undertaken to identify land use and transportation solutions to guide new development, redevelopment, and public investment along the street in response to an articulated Corridor Vision. The study identified land use solutions and modeled transportation conditions in future years. This study found that the 223rd Avenue/Sandy intersection would perform below RFTP standards in the future. Other solutions aim to facilitate neighborhood connectivity and to encourage corridor investment. This corridor solution was included in the EMCP analysis.

Solution: The transportation solution to Sandy Boulevard includes reconstruction of the roadway to minor arterial standards, including one 11-foot lane in each direction, adding a 14-foot median/turning lane, and providing 6-foot sidewalks, 6-foot planter strips and 5-foot bicycle lanes on each side of the street (STIP ID 18020).

2.3.1.3 *Halsey Street Corridor*

The Halsey Street Conceptual Design Project was conducted in 2005 and provides a series of street modifications and cross sections to create a consistent look and feel for the corridor. Halsey Street had

been classified as a major arterial street and was designated for five lanes of traffic. However, planning efforts for the Fairview Village project found that there were desires to lower the classification of this street to a three-lane minor arterial street with a focus on multimodal transportation improvements for bicycles, pedestrians and transit. This corridor solution was included in the EMCP analysis.

The cities of Wood Village, Troutdale and Fairview recently obtained a grant to update the concept plan. The design solutions may vary slightly from those identified in 2005, but retaining the project in the TSP Street Element will facilitate a tool for it to be constructed in the future.

Solution: The Halsey Street improvements currently identified in the EMCP include reconstruction of the roadway to minor arterial standards, retaining one lane in each direction, adding a center turn lane/median, and providing sidewalks and bicycle lanes on each side of the street (RTP ID 11287).

2.3.1.4 Arata Road

The Arata Road Conceptual Design Plan was prepared in 2008 to develop a multi-modal street design for Arata Road within the cities of Wood Village and Fairview to accommodate bicycles and pedestrians as well as vehicles. Arata Road has long been identified as a substandard street with safety concerns for pedestrians and cyclists, as well as drainage issues. Construction is expected to begin in spring 2016. This corridor solution was included in the EMCP analysis.

Solution: Arata Road improvements include a complete streetscape between NE 238th Drive and NE 223rd Ave including a sidewalk on the south side and a 10-foot wide concrete shared-use path for pedestrians and bicyclists on the north side. The project will also enhance the existing asphalt paved path connecting the intersection of Arata Road and Wood Village Blvd. to Halsey Street by widening and adding lighting (RTP ID 10387, STIP ID 18019).

2.3.1.5 Wood Village Boulevard

Wood Village Boulevard is a major collector street in the heart of the Wood Village Town Center. Today it extends between Glisan Street and Halsey Road. This recently completed segment of Wood Village Boulevard was completed in 2014, and now provides a major collector roadway from Glisan to Halsey, including 2 travel lanes, center turn lane/ median, sidewalks and bicycle lanes.

2.3.2 Town Center Master Plan

The Wood Village Town Center is over 81 acres and is about half developed with just over 400,000 square feet of development; larger retail outlets occupy the majority of the developed area. There are several roadways already constructed in the Town Center, however the site lacks sufficient connectivity within and through for all modes. The Town Center is bounded to the north by Arata Road, west by 223rd Avenue, south by Glisan Street, and to the east by a wetland. Wood Village Boulevard is the only public arterial street through the Town Center. There are private roadways through the big-box retail parking lots; however, these roadways do not provide for adequate multimodal pedestrian, bicycle or freight accessibility.

The TCMP planning effort has identified two regional entertainment alternatives and two mixed use alternatives which address both land use and transportation. Specific transportation related evaluation criteria of the TCMP support the hierarchy of solutions in the RTFP. They are:

- Block widths range from 225-250 feet, lengths from 250-425 feet and blocks have alleys or rear lanes.
- Local road network accommodates future traffic volumes at v/c of 0.99 or better.
- More people have ½ mile access to schools, recreation facilities, transit and shopping centers.
- Enhance safety and comfort of multimodal travel as measured through pedestrian level of service.

Generally the transportation solutions identified for these two alternative types are summarized as follows. Common elements include:

Solution: Extend NE Park Lane as a main street into the town center from NE 223rd Avenue to Lowes®.

Solution: Town Center Trails, Multi-use Paths and Pedestrian Connections:

- A trail connection from Arata Road south along the edge of the peninsula wetland.
- A trail connection east-west through the proposed residential area between Wood Village Blvd. and the existing wetland at the eastern boundary of the Town Center.
- A trail connection through the remaining wetland areas at the east and southern edges of the site, with some park improvements to make it a community asset and minimize safety concerns.
- A new pedestrian connection between the existing plaza next to Fred Meyer and Multnomah Greyhound Park site.

Differences in the alternatives include:

- **Regional Entertainment (RE) Alternative:** Street block types are generally larger under this alternative. Two main roadways provide main streets to the town center: Wood Village Boulevard, which exists today, and a new road, NE Park Lane, which is an east-west extension of Park Lane from Fairview, across NE 223rd Avenue, through the lower third of the town center district where a private roadway exists today. Construction of the local street network is anticipated to be completed as private property develops. Trails and multi-use paths are identified within the wetland areas and connecting high-pedestrian areas.
- **Mixed Use (MU) Alternative:** Street blocks are generally more fine-grained in this alternative than the RE Alternative. This alternative retains the two main street designations of Wood Village Boulevard and NE Park Lane. Similar to the RE Alternative, construction of the local street network is anticipated to be completed as private property develops.

3 TABLE OF STREET ELEMENT PROJECTS

Table 1 lists the projects identified in relevant planning studies and plans that will be included in the TSP Street Element as well as any new projects identified in as part of the TCMP effort described in Memorandum #5. The 2012 Wood Village TSP Update provides the full lists of bicycle and pedestrian improvements and local street connectivity improvement projects. The project list below is organized by the RTFP Categories in Figure 1.

Table 1. Street Element Projects List

TSP ID*	Project	Start	End	Description	Cost Estimate**	Identified w/in Plan	Funded?	STIP ID	RTP ID***
1. Transportation System Management and Operations (TSMO) Solutions									
tbd	System Management: 238 th /242 nd Transportation Improvements	I-84	NE Glisan Street	Adaptive signal timing and other system management techniques	tbd	• 2012 EMCP	No	n/a	99143
2. Transit, Bicycle and Pedestrian System Improvements									
9	Arata Road Reconstruction	NE 223 rd Avenue	NE 238 th Drive	Construct sidewalks, lighting and landscaping	\$4.47M	• 2015-2018 STIP • 2012 EMCP • 1999 & 2001 TSP	Yes	18019	10387
tbd	Town Center Trails and Multi-use Paths	Arata Road	South along the edge of the peninsula wetland	North-south and east-west trail connection	tbd	• TCMP	No	n/a	Tbd
tbd	Town Center Trails and Multi-use Paths	Wood Village Blvd.	Eastern boundary of the Town Center	A trail connection east-west through the proposed residential area	tbd	• TCMP	No	n/a	Tbd
tbd	Town Center Trails and Multi-use Paths	Town Center		A trail connection through the remaining wetland areas at the east and southern edges of the site	tbd	• TCMP	No	n/a	Tbd

TSP ID*	Project	Start	End	Description	Cost Estimate**	Identified w/in Plan	Funded?	STIP ID	RTP ID***
tbd	Town Center Pedestrian Connections	Town Center		A new pedestrian connection between the existing plaza next to Fred Meyer and Multnomah Greyhound Park site.	tbd	• TCMP	No	n/a	Tbd
5. Connectivity Improvements that Include Pedestrian and Bicycle Facilities									
6	Sandy Boulevard Minor Arterial Improvements	NE 223 th Avenue	NE 238 th Drive	Minor arterial improvements include 11-foot vehicle lanes and 5-foot bike lanes in each direction, a 14-foot planted median, and 6-foot landscape strip and 6-foot sidewalks on each side of the road	tbd	• 2001 TSP • 2001 Sandy Boulevard Refinement Plan	No	n/a	n/a
7	Halsey Street Improvements	NE 223 rd Avenue	NE 238 th Avenue	Improve Halsey St to 3 lane minor arterial with center turn lane/median, sidewalk and bicycle lanes, consistent with Halsey Street Conceptual Design Plan	tbd	• 2012 EMCP • 2005 Halsey Street Conceptual Design Project • 1999 & 2001 TSP	No	n/a	11287
15	Reconstruct Halsey St. with Minor Arterial Improvements	NE 238 th Avenue	Historic Columbia River Hwy	Widen Halsey St to 3 lane minor arterial with center turn lane/median, sidewalk and bicycle lanes, consistent with Halsey Street Conceptual Design Plan	tbd	• 2012 EMCP	No	n/a	10385
tbd	Sandy Boulevard Pavement Improvements	NE 230 th Avenue	NE 238 th Drive	Correct substandard conditions on Sandy Blvd as part of a pavement preservation project	\$0.73M	• 2015-2018 STIP	Yes	18020	n/a
tbd	238 th /242 nd Avenue Arterial Improvements	NE Glisan Street	NE Halsey Street	Repurpose climbing lane to construct to arterial standards: provide room for wider lanes, 3 lane road and bicycle/pedestrian facilities	tbd	• 2012 EMCP • 2001 TSP	No	n/a	99132

TSP ID*	Project	Start	End	Description	Cost Estimate**	Identified w/in Plan	Funded?	STIP ID	RTP ID***
tbd	NE Park Lane Extension	NE 223 rd Avenue	Lowes [®]	Reconstruct private service street to main street standards.	tbd	• TCMP	No	n/a	Tbd
6. Motor Vehicle Capacity Improvements									
tbd	NE 238 th /Hogan Drive @ Glisan Intersection Improvements		Intersection	Intersection widening so that Glisan is five lanes through the intersection plus an eastbound right-turn lane	tbd	• 2012 EMCP	No	n/a	99154
tbd	I-84/NE 238 th Drive Interchange Study		Interchange	Comprehensive study of ramp queuing and interchange improvements	tbd	• 2016 TSP	No	n/a	tbd

* This is the designated ID in either the 1999, 2001 or 2012 Wood Village TSP.

** Only funded projects in the STIP have cost estimates.

***Bold = Financially Constrained

4 EVALUATION AND SHORT-TERM PROJECT RECOMMENDATIONS

The short-term project list includes the projects reasonably projected to be completed in the next 6 to 10 years. In order to develop this list, it was necessary to consider the City's potential funding during this period. Based on funding availability, projects were then prioritized by vetting them through the city's goals and policies and EMCP evaluation results.

4.1 TRANSPORTATION FUNDING

The 2012 City of Wood Village TSP as well as the 2001 TSP provide overviews of funding and financing options to fund the identified transportation projects. Some of those funding options are still relevant today and some additional and revised sources have been identified in Memo #5.

Unless external funding sources are pursued, it is not expected that Wood Village will have the resources to contribute to the TSP solutions through 2035. This TSP assumes that the projects identified within Metro's financially constrained RTP project list are reasonably likely to be funded.

4.2 WOOD VILLAGE TRANSPORTATION GOALS AND POLICIES

The City's existing transportation plans, goals and policies are included in the City's 1999 Comprehensive Plan. The 2012 TSP added new policy statements to comply with the TPR. The goals and policies adopted in 2012 and, as reflected within these planning documents, were not revisited during this planning process and will continue to be used. The Wood Village Transportation Goal and 2012 TSP policies are listed below:

Goal: To help provide for and encourage a safe, convenient, and economical transportation system.

4.2.1 2012 TSP Update Policies:

- Improve/allow more access between Wood Village Town Center and neighborhoods to the east
- Generally improve connectivity in the city
- Ensuring local and county street design consistency with regional street designs
- Allow for "green street" designs
- Increase and improve crossings
- Support measures to improve access management and safety
- Limiting and prohibiting residential driveways on collectors and arterials
- Improve pedestrian and bicycle connections to transit
- Expand parking management techniques as needed in the future
- Consider changes to plan amendment review criteria as needed to address potential transportation system capacity constraints in the future

4.3 PROJECT EVALUATIONS

The 2012 East Metro Connections Plan (EMCP) process ensured the identified projects reasonably addressed the regional targets and performance measures of the 2035 RTP. The *East Metro Connections Technical Report: Multimodal Transportation, Safety and Freight Analysis & Project Prioritization*

provides the project evaluation by the EMCP evaluation metrics identified in Section 2.2. Table 2 is a summary of how the relevant Wood Village projects performed.

Table 2. EMCP Evaluation

RTP ID #	Project	Access and Mobility	Economic Development	Safety	Healthy Communities	Equity	Natural Environment	Feasibility	Total
99143	System Management: 238 th /242 nd Transportation Improvements	2	5	0	0	0	0	9	16
10387	Arata Road Reconstruction	4	6	3	6	8	0	11	38
99129	Wood Village Boulevard Multiuse Path	6	3	3	4	6	-1	11	32
11287	Halsey Street Improvements	0	4	3	0	0	0	9	16
10385	Reconstruct Halsey St. with Minor Arterial Improvements	5	5	1	2	3	2	10	31
99132	238 th /242 nd Avenue Arterial Improvements	3	3	3	3	4	-1	1	16
10398	Wood Village Boulevard Extension	2	5	0	5	7	0	11	30
99154	NE 238 th /Hogan Drive @ Glisan Intersection Improvements	<i>Not evaluated in the technical report.</i>							

Bolded RTP ID are projects within the RTP's Financially Constrained Project List

4.4 SHORT-TERM IMPLEMENTATION ACTIONS

Recommended short term implementation actions were developed by a high level consideration of projects against the City’s adopted goals and policies, the EMCP analysis, and financial feasibility. The actions and projects listed in Table 3 are recommended for inclusion in the City’s Capital Improvement Program list. Additional projects may be identified when the TCMP preferred alternative is selected.

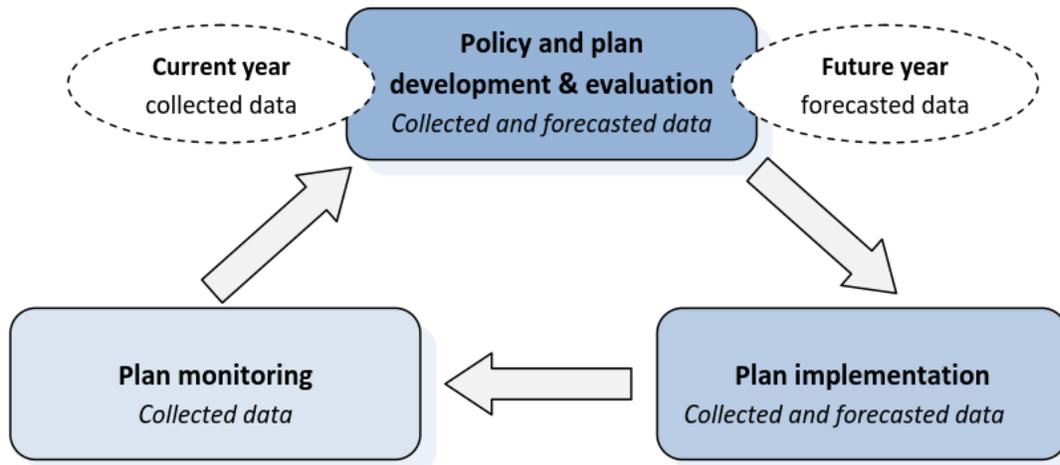
Table 3. Wood Village Proposed Short Term Implementation Actions

TSP ID	Project Name	Cost	STIP ID	RTP ID	Reason
9	Arata Road Reconstruction	\$4.47M	18019	10387	This project is currently under construction and performed well in the EMCP evaluation. This project is within the financially constrained RTP and is a priority for funding.
15	Reconstruct Halsey St. with Minor Arterial Improvements	tbd	n/a	10385	This project is within the financially constrained RTP and is a priority for funding.
tbd	System Management: 238 th /242 nd Transportation Improvements	tbd	n/a	n/a	This is a feasible TSMO project that will address a regional bottleneck.
tbd	Sandy Boulevard Pavement Improvements	\$0.73M	18020	n/a	This project is currently identified for funding in the state STIP.
tbd	Town Center Trails and Multi-use paths (Arata Road N-S/E-W)	tbd	n/a	n/a	Would increase multimodal connectivity within and through the Town Center.
tbd	Town Center Trails and Multi-use paths (Wood Village Blvd. E-W)	tbd	n/a	n/a	Would increase multimodal connectivity within and through the Town Center.
tbd	Town Center Trails and Multi-use paths (S/E Town Center)	tbd	n/a	n/a	Would increase multimodal connectivity within and through the Town Center.
tbd	Town Center Pedestrian Connections	tbd	n/a	n/a	Would increase multimodal connectivity within and through the Town Center.
tbd	NE Park Lane Extension	tbd	tbd	tbd	This investment will be instrumental to the connectivity, attractiveness and development of the Town Center.

5 PERFORMANCE TARGETS & MEASURES

Periodic measurement of transportation system performance against targets is necessary to monitor progress towards achieving goals. The RTP presents a cyclical Performance Measurement System. It is the process of plan development and evaluation, plan implementation and monitoring, shown in Figure 2. It is recommended that Wood Village follow this system going forward to better understand the extent to which investments in the transportation system achieve desired outcomes and provide the best return on public investments. The performance measurement system also satisfies benchmarks mandated by the TPR and federal requirements to use performance monitoring as part of the region’s Congestion Management Program (CMP).

Figure 2. RTP Performance Measurement System



The 2014 Metro RTP established new performance measures for safety, congestion, freight reliability, climate change, active transportation, basic infrastructure, clean air, travel, affordability, and access to daily needs as shown in Table 4. These will be used to track progress towards regional goals. The performance targets are aspirational regional goals that Wood Village should contribute to and work toward.

Table 4. 2014 Metro RTP Performance Targets

Measure	Performance Target
Safety	By 2040, reduce the number of fatal and severe injury crashes for pedestrians, bicyclists, and motor vehicle occupants each by 50% compared to 2007 – 2011 average.
Congestion	By 2040, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2010.
Freight Reliability	By 2040, reduce vehicle hours of delay per truck trip by 10 percent compared to 2010.
Climate Change	By 2040, reduce transportation-related greenhouse gas emissions per capita below 2010 levels.
Active transportation	By 2040, triple walking, biking and transit mode shares compared to 2010 modeled mode shares.
Basic infrastructure	By 2040, increase by 50% the miles of sidewalk, bikeways, and trails compared to the regional networks in 2010.
Clean air	By 2040, ensure zero percent population exposure to at-risk levels of air pollution.
Travel	By 2040, reduce vehicle miles traveled per person by 10 percent compared to 2010.
Affordability	By 2040, reduce the average household combined cost of housing and transportation by 25 percent compared to 2010.
Access to daily needs	By 2040, increase by 50 percent the number of essential destinations accessible within 30 minutes by bicycling and public transit for low-income, minority, senior and disabled populations compared to 2005.