

Route Development Plan

UNITED STATES ROUTE 12

From Walla Walla (MP 335.30)

to Clarkston (MP 432.62)



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Route Development Plan
United States Route 12
Walla Walla to Clarkston
MP 335.30 to MP 432.62

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ROUTE DEVELOPMENT PLAN
UNITED STATES ROUTE 12: MP 335.30 TO MP 432.62

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Executive Summary

Vision Statement

US 12 will provide safe and efficient transportation for southeastern Washington, moving people and goods both regionally and cross-state. Highway improvements must be balanced with the preservation of this region's wealth of natural, scenic, and recreational areas.

RDP Summary

This *Route Development Plan (RDP)* is a twenty-year plan that enables WSDOT to make informed decisions on future needs. It presents a long-range improvement plan for the eastern portion of United States Route 12 (US 12) in Washington. The study area begins in Walla Walla at MP 335.30, and ends at the west city limits of Clarkston (MP 432.62), at the SR 128 intersection.

US 12 is the major east-west route traveling through southeastern Washington's Asotin, Garfield, Columbia, and Walla Walla Counties. This study section serves the communities of Walla Walla, Waitsburg, Dayton, Pomeroy, and Clarkston, and provides access between southeastern Washington and north central Idaho.

US 12 is a two-lane Principal Arterial for all but the first 5.5 miles of this plan, where it is a divided four lane facility. All but the last mile of the study section has been designated as a Scenic and Recreational Highway. A significant volume of trucks on this route haul lumber, livestock, and grain products to Clarkston and Walla Walla area ports.

The congestion index (level of service) analysis indicates that most of the study portion of US 12 will have an acceptable congestion level throughout the twenty-year planning period. WSDOT strives to maintain a congestion index value of less than 6 in the rural area and less than 10 in urban areas.

RDP Development

This *RDP* was created with the help of an internal Stakeholder Steering Committee including representation from various South Central Region offices. The outside stakeholders who were invited to become involved in the development of this *RDP* included the Palouse RTPO, Benton Franklin Conference of Governments, and the general public. The *RDP* will be updated periodically to keep pace with changing transportation needs and existing conditions.

Implementation of the *RDP*

The *RDP* identifies proposed improvements that support congestion relief, economic initiatives, and safety requirements for the US 12 route during the next 20 years. The major recommended improvements for the US 12 route include the following:

- Construct interchange connection for Myra Road extension
- Provide safety rest areas approximately every 60 miles (explore partnering with Lewis and Clark State Park)
- Revise planned access control from **partial** to **full**, through Walla Walla to Issacs Ave (MP 341.65)
- Analyze future interchanges and grade separations in Walla Walla to preserve spacing requirements
- Reserve the right of way for possible future two-lane bypass of Waitsburg
- Replace bridges as they meet criteria deficiency requirements. Two bridges are currently listed as deficient – Coppei Creek at Waitsburg and Dry Creek.
- Improve closed drainage system at SR 124 intersection in Waitsburg
- Stabilize slopes in a section one mile east of the SR 261 intersection
- Provide channelization at major county road intersections as warranted.

The South Central Region recommends that any improvement work done on this section of US 12 be designed to **Full design level**, recognizing that terrain and environmental issues may limit accomplishing this standard for the entire route. We recommend lanes a minimum of 12 feet wide and paved shoulders a minimum of eight feet wide, except within the city limits of Waitsburg, Dayton, and Pomeroy. Improvements within the three cities (Waitsburg (MP 357.04 to MP 358.34), Dayton (MP 366.42 to MP 367.67), and Pomeroy (MP 402.09 to MP 404.98)), will use **Modified Design Standards**, with a minimum of 12 foot lanes and four foot paved shoulders.

Chapter 1 Introduction

Vision Statement

Vision Statement

US 12 will provide safe and efficient transportation for southeastern Washington, moving people and goods both regionally and cross-state. Highway improvements must be balanced with the preservation of this region's wealth of natural, scenic, and recreational areas.

This *Route Development Plan (RDP)* enables WSDOT to make informed decisions on the future needs for US 12, from Walla Walla to Clarkston. Interested users and affected jurisdictions in the US 12 study area have come together with WSDOT to create the long-range vision for safety and capacity improvements to the route. This plan will be used to provide further detail to the vision of Washington's Transportation Plan, in particular the 2003-2022 *WSDOT State Highway System Plan (HSP)* element.

RDP Summary

This *RDP* is a twenty-year plan that describes the future development of the section of US 12 from the west city limits of Walla Walla (MP 334.30) to the west city limits of Clarkston (MP 432.62); see *Figure 1-1, US 12 Route Development Plan Vicinity Map*. A detailed description of the existing facility is provided as a basis for the present and projected operating conditions of this section of US 12. Improvement strategies are recommended that encourage economic vitality by safely and efficiently moving people and goods. In addition, the historical importance and environmental qualities of the transportation system in the corridor must be protected.

Chapter 2 Highway Location, Classification & Function

Route Location and Study Area

US 12 crosses the state of Washington, beginning at Aberdeen at the junction with US 101, traveling easterly 431 miles, then crossing the Snake River into Idaho at Clarkston. The study area, shown in Figure 1-1, US 12 Route Development Plan Vicinity Map, begins at the west city limits of Walla Walla (MP 335.30) and ends at the west city limits of Clarkston at the SR 128 intersection (MP 432.62). The portion of US 12 under study passes through Walla Walla, Waitsburg, Dayton, and Pomeroy, as well as the unincorporated communities of Dixie, Dodge, and Pataha. Four counties are included in the study area.

The section of US 12 included in this study is 97.32 miles long.

Travel Type

The character of traffic in this route section is mainly **interregional** travel. As the main east-west roadway in the region, US 12 serves farm-to-market needs, providing important access to river ports, railroad transfer facilities, and other local and regional roadways. The route also facilitates inter-state travel between northeastern Oregon and north central Idaho.

Recreational use of US 12 is significant in the summer months as vacationers use the route to access northern Idaho, the Blue Mountains in southeast Washington, fishing on the Snake River, and sightseeing in Hells Canyon. During the winter, US 12 is used to reach the Bluewood Ski area south of Dayton. Tourist traffic is also drawn by the Lewis and Clark trail, which parallels much of US 12 through this region.

Continuity

West of the study area, this route continues as a two-lane facility west and north almost forty miles toward Pasco. US 12 widens to a divided four-lane facility for three miles east of Pasco, and then becomes coincident first with I-182, and then I-82. The section of US 12 from Pasco to the US 12/SR 730 junction is presently partially funded for widening to four lanes. In addition, the Port of Walla Walla is lobbying for funds to continue the four-laning to Walla Walla.

Pasco is also the site of junctions with both north and southbound US 395, connecting to I-90 to the north and I-82 to the south. These connections facilitate inter-state travel between northeastern Oregon and north central Idaho. Some of this traffic comes from Interstate 84 (via Highway 11 and Highway 730) in Oregon to export or import freight and goods to southeastern Washington.



US 12 continues east through Clarkston and across the Snake River into Lewiston, Idaho. The route continues as a two lane facility through most of Idaho, with the exception of a few miles of multilane divided highway in the Lewiston vicinity. US 12 connects with I-90 in Montana and US 95 in Idaho, the major north-south route for western Idaho.

Urban Network

The US 12 route is utilized by several transportation modes and provides access to other types of transportation facilities including river ports, non-motorized facilities, and public transportation services. These transportation facilities are described below.



Marine Ports

There are a number of river ports operating on the upper Columbia and Snake Rivers that are served by US 12, including the ports of Walla Walla, Pasco and Clarkston. Approximately 4,375,000 tons, mostly grain, travel down the Snake River, and approximately 205,000 tons, mostly oil

products and fertilizers, travel up river¹. If barge navigation on the Columbia-Snake rivers were halted, an additional 120,000 rail cars or 700,000 semi-truck loads would be needed each year to handle the freight.²

Non-motorized Facilities

US 12 is classified as a bicycle touring route, with a desirable minimum four foot wide paved shoulder. A bike pathway in Walla Walla parallels US 12 on the north, and connects 9th Avenue to Wellington Avenue.

¹ Snake River Drawdown, Transportation Impact and Alternative Analysis.

² <http://www.portsmarketing.org/pages/Eastmap.htm>

Public Transportation

The Wheatland Express Bus Service travels US 12 Monday through Friday as part of its Pullman to Pasco route. The bus service stops at all the communities along US 12 from Clarkston to Pasco. The schedule was developed in order for riders to arrive in Pasco in time to connect with Greyhound's Seattle bus and Amtrak service. . Walla Walla's Valley Transit does not use US 12 outside the city limits.

Land Use and Zoning

Zoning and land use are reported below by county. Zoning controls what the land can be used for, while land use simply reflects how the land is being used. Zoning is usually more specific and divides a region into industrial, commercial, recreational, residential, and agriculture. There are no areas of major growth or substantial changes in land use anticipated adjacent to the study area of US 12.

City of Walla Walla

The City of Walla Walla Comprehensive Plan 1996-2015 details the projected land use adjacent to US 12 within the Walla Walla urban area. In the area of four-lane limited access divided highway, the land use adjacent to US 12 includes highway commercial, public, residential, industrial and rural conversion. Land use at the east end of the Walla Walla urban area, adjacent to the two-lane facility, is industrial and public , with the Walla Walla Airport lying just north of US 12.

Walla Walla County

The Walla Walla County Zoning Map indicates zoning adjacent to US 12, from the east city limits of Walla Walla (MP 340.78) to the Columbia County line (MP 359.55), is agricultural rural. Two exceptions are the unincorporated town of Dixie (MP 347.51 to 348.29), which is residential, and the incorporated town of Waitsburg (MP 357.04 to 358.34), which has a mix of residential, commercial, and industrial zoning.

Columbia County

The Columbia County zoning map indicates the majority of land surrounding US 12 in Columbia County has a classification of "A-1" (agricultural zone, minimum 40 acres/parcel). The exceptions are small pockets of "R-1" (recreational zone) zoning between the west county line and the City of Dayton (MP 359.55 to 366.51). The City of Dayton is zoned fringe commercial, central commercial, industrial, and urban residential within the city limits and agricultural "A-3" (agricultural zone, min 10 acres/parcel) surrounding the city.

Garfield County

Garfield County has not created a zoning map. Instead, the county has created a land use map indicating the present usage of the land. The land use map indicates that along US 12 the existing land use is rangeland or cropland. The exception is the town of Pomeroy, which is zoned residential and commercial adjacent to US 12.

Asotin County

Asotin County has not created a zoning map. The county uses a land use map, which indicates that US 12 is currently surrounded mostly by rangeland or cropland. The exception is the city of Clarkston, which is zoned service commercial adjacent to US 12.

Highway Classification

Within the study limits of this *RDP*, US 12 has the federal functional classification of a **Rural Principal Arterial (R1)** except within the city limits of Walla Walla (MP 333.35 to MP 341.09), which is classified **Urban Principal Arterial (U1)**. The entire length of US 12 within Washington is designated as a **National Highway System (NHS)** route. The Transportation Commission and the State Legislature designated US 12 to be a **Highway of Statewide Significance (HSS)** in 1999.

This corridor of US 12 has been designated by WSDOT as one of Washington State's **Scenic and Recreational Highways**².



² WSDOT Heritage Corridors Program

Freight and Goods Transportation System

This section of US 12 is identified as a “**T-3**” route in the Statewide Freight and Goods Transportation System, with between 2.1 and 3.2 million freight tons transported annually³. Major commodities transported in Walla Walla, Columbia, Garfield, and Asotin Counties include wheat, fruit, processed foods, lumber, vegetables, wood chips, and dairy products.

US 12 is considered an all-weather roadway, indicating that the highway is capable of supporting legal loads all year round.

Access Classification

Limiting access to state highways protects the capacity of the highway and improves safety. The access classifications for US 12 are shown in Table 2-2.

South Central Region recommends that the **planned** access classification for the city of Walla Walla (MP 335.51-341.65) be revised to **Full Access Control**.

³WSDOT FGTS 2000 Section Summary.

TABLE 2-2 US 12 Access Classifications ⁴			
Segment Mile Posts	Description Of Segment	*Existing Access Classification	*Planned Access Classification
335.30 – 335.51	Walla Walla	Partial access control	Full access control
335.51-341.65	Walla Walla: W Corporate limits to Airport E Interchange	Partial access control	No change
341.65 - 357.03	G St. to Coppei Creek	Class 1	Partial access control (ultimate alignment MP 355.92 – MP 358.76)
357.03 - 358.35	Waitsburg	Class 5	
358.35 - 366.10	Vic Whisky Creek Rd. to Dayton W. City Limits	Class 1	
366.10 - 367.96	Dayton	Class 5	
367.96 - 372.35	Dayton City Limits to JCT. Old SR 126 Vicinity	Class 1	
372.35 - 376.36	JCT. Old SR 126 Vicinity to Willow Creek Rd	Partial	No change
376.36 - 388.61	Willow Creek Rd Vic to Garfield County Line	Class 1	Partial access control
388.61 - 401.97	Garfield County Line to Asotin County Line	Class 1	
401.97 - 405.04	Pomeroy	Class 5	
405.04 - 406.61	Pomeroy East City Limits to Pataha	Class 3	
406.61 - 421.94	Pataha to Asotin Co. Line	Class 1	
421.94 - 432.53	Asotin Co. Line to Jct. SR 128	Partial	No change

* Refer to Glossary (page A) for definitions.

Chapter 3 Description of Existing Facility

Lanes and Shoulders

Within the city of Walla Walla, US 12 is a four lane divided facility with jersey barrier in the median. US 12 from the east city limits of Walla Walla to Clarkston is a two lane undivided highway. Lane widths within the study area vary from 10.5 ft. to 12 ft. The 10.5 ft. lane width only occurs between MP 378.94 and 380.21, a few miles west of the SR 261 junction. All other locations are 11 foot to 12 foot.

The pavement type is mainly asphalt and bituminous. A small section within Dayton is Portland cement concrete.

Shoulders vary between 0 foot and 10 foot. The 0 foot shoulder is a curbed roadway section within Waitsburg, between MP 357.10 to 357.59. The shoulder surfaces are primarily a combination of bituminous and gravel surfacing.

There are four climbing lanes within the study area of US 12; two are located on the Alpowa grade between Pomeroy and Clarkston, one is north of Dixie, and one is south of the US 12/SR 261 junction Dayton. Refer to plan sheets (Appendix D) for widths and locations. From Walla Walla to Clarkston, 36% of US 12 is striped for no passing zone.

The specific locations of these features are shown on strip maps in Appendix D.

Horizontal and Vertical Alignment

Due to the rural nature of the route and the topography surrounding most of US 12, there are a number of curves from Walla Walla to Clarkston that are signed at advisory speeds below the posted speed limit. Table 3-1 identifies these locations.

The maximum grade on the route (vicinity eastbound Alpowa grade) is over 7%, but continues for less than 1000 feet . There are several grades of over 6% within the study area. Further analysis of the horizontal and vertical alignment will be needed at the project level.

Mile Post(s)	Direction	Advisory Speed
357.33, Waitsburg 357.63, Waitsburg	Eastbound Westbound	15 MPH Curve Warning Sign
356.70 356.94	Eastbound Westbound	40 MPH Curve Warning Sign
412.53 413.14	Eastbound Westbound	45 MPH Curve Warning Sign
334.74, 370.65, 381.94, 411.25, 411.77, 413.40, 414.75, 415.48, 416.24, 417.80	Eastbound	50 MPH Curve Warning Sign
345.32, 371.03, 411.88, 412.64, 413.65, 415.43, 415.93, 416.61, 418.27	Westbound	
351.74, 352.29, 377.13, 380.97, 399.82, 409.85, 413.70, 418.39, 414.70	Eastbound	55 MPH Curve Warning Sign
351.93, 352.52, 377.73, 381.24, 400.03, 410.30, 413.91, 418.93, 413.92	Westbound	

Bridges and Structures

This section of US 12 includes a number of bridges and drainage structures, as listed in Table 3-2. The WSDOT Bridge Office prioritizes structures for repair, rehabilitation, or replacement based on a sufficiency rating, which evaluates the actual structural condition of each structure. The main objectives of the WSDOT Structures subprogram are preserving operational and structural integrity, and reducing the risk of naturally caused catastrophic bridge failures.

Further information regarding these structures is displayed on strip maps in Appendix D.

Bridge Name	MP	Width (ft)	Length (ft)	Built/ Rebuilt Date	Type of Crossing
US 125 Overcrossing	335.90	68	224	1972	Railroad
UP RR Overcrossing	336.05	68	259	1972	Railroad
9th Ave Overcrossing	336.15	78	211	1972	City street
2nd Ave & BN RR Overcrossing	336.52	83	424	1971	Railroad/ City street
Borelske Stadium Pedestrian Overcrossing	336.98	68	81	1971	Pedestrians

TABLE 3-2 Bridges and Structures (continued)

Bridge Name	MP	Width (ft)	Length (ft)	Built/ Rebuilt Date	Type of Crossing
Wellington Ave Overcrossing	338.46	68	164	1971	City street
Airport Gate #1 Road Overcrossing	339.70	68	164	1971	City street
Airport E. I/C & BNRR Overcrossing	340.84	42	474	1971	City street/ Railroad
Dry Creek	344.98	34	45	1915/1969	Water
Dry Creek	347.22	36	54	1954	Water
Dry Creek	347.86	30	98	1920/1969	Water
Drainage relief culvert	353.03	34	8		Water
Drainage relief culvert	354.47	34	6		Water
Coppei Creek	357.04	28	44	1920	Water
Touchet River- Waitsburg	357.68	24	167	1931	Water
Drainage relief culvert	359.15	38	15		Water
Irrigation Ditch	360.28	30.5	21	1900/1926	Water
Touchet River	361.49	36.5	143	1966	Water
Payne Hollow	364.05	38	15	1965	Water
Touchet River Dayton	366.99	48	164	1966	Water
UPRR Overcrossing	367.67	28	142	1977	Railroad
NPRY Overcrossing	367.73	26	269	1933	Railroad
Patit Creek	367.89	24	44	1933	Water
Whetstone Creek	372.57	27	21	1919	Water
Drainage relief culvert	376.20	48	10		Water
Tucannon River	380.52	34	220	1967	Water
Livestock Crossing	383.84	35	6		Cattle
Livestock Crossing	387.53	35	8		Cattle
Pataha Creek	390.61	23	62	1920	Water
Stember Creek	418.61	38.5	97	1964	Water
Chief Timothy Br.	424.99	40	213	1975	Water
Indian Timothy Memorial Bridge – pedestrians only	425		201	1923	Water

Intersections

This ninety-seven mile section of US 12 provides direct connections to five state highways, seventy-nine county roads and sixty-nine city streets. Additional local access is provided to driveways. Details regarding intersection locations are provided in Tables 3-3, through 3-5 and on the plan sheets.



State Route	Milepost	Junction Vicinity
125 Spur	335.30 right	Walla Walla
124	357.59 left	Waitsburg
261	382.26 left	Delaney
127	390.84 left	Dodge
128	432.62 left	Clarkston

City Streets

US 12 passes through the communities of Walla Walla, Dixie, Waitsburg, Dayton, Pomeroy, and Pataha, with numerous intersections within the city/town limits. Table 3-4 lists the number of intersections within the city limits of each community.

TABLE 3-4 Number of intersecting roads within City/Town limits			
Name	City Limits MP		Number of intersections
	West	East	
Walla Walla	335.30*	340.78	6
Dixie	347.51	348.29	10
Waitsburg	357.04	358.34	12
Dayton	366.51	367.96	15
Pomeroy	402.09	404.98	22
Pataha	406.09	406.61	4

*Beginning of RDP

County Roads

There are a number of county roads that branch off of US 12 and provide access to more remote locations of the counties. Table 3-5 lists the number of county road intersections within each county.

TABLE 3-5 Number of intersecting County roads within County limits			
County	County Border MP		Number of intersections
	West	East	
Walla Walla	335.30*	359.55	24
Columbia	359.55	388.61	20
Garfield	388.61	421.94	28
Asotin	421.94	432.62	7

*Beginning of RDP

Intersection channelization

There are 12 channelized intersections between Walla Walla and Clarkston. They are listed in Table 3-6 and shown on the plan sheets.

Mile Post(s)	Intersecting Street	Channelization
335.30	Pine Street/SR 125 Spur	Left and right turn pockets
336.84	Rees Ave	Left and right turn pockets
337.68	Clinton/Lower Waitsburg Rd	Left turn pockets
338.71	Wilbur Ave	Left and right turn pockets
340.56	G Street	Left and right turn pockets
342.23	County Road	Left turn pocket
361.95	Lewis/Clark Trail State Park	Left and right turn pockets
364.45	Road No. 9106	Left turn pockets
367.41	4th Street in Dayton	EB right lane drop
382.26	SR 261	Left turn pockets
390.84	SR 127/Owen Road	Wye connect
425.83	Silcott Road	Left turn pocket

Traffic Control

The traffic control features on this route include traffic signals, yield signs, and one stop sign., as shown in Table 3-7.

Mile Post(s)	Travel Direction	Type of Feature ⁵
367.16, City of Dayton	Both	Emergency Signal
367.25, City of Dayton	Both	Fully actuated signal
390.84b, SR 127 Junction	Westbound	Stop Sign
390.84b, SR 127 Junction	Eastbound	Yield Sign

⁵ WSDOT SR View Program
October 2002

Auxiliary facilities

Rest Stops

There is one rest stop from Walla Walla to Clarkston, at the summit of the Alpowa grade at MP 413.35. The Alpowa Summit rest stop has running water but no sewage treatment facilities.



Weigh Stations

There is one permanent weigh station at MP 342.3 near the Walla Walla Airport, serving both east and westbound traffic.



Truck Escape Ramp

There is a run away truck ramp for eastbound vehicles at MP 417.7, toward the end of the eastbound Alpowa grade. The escape ramp has been used numerous times since it was constructed in 1971.

Interpretive Markers

US 12 parallels much of the route of the Lewis and Clark expedition. There are three historical sites within the study area, and fifteen signs marking the Lewis and Clark Trail. The Chief Timothy Bridge, located just south of US 12 at MP 425, is a historic bridge. The bridge is approximately 100 feet south of the existing alignment and can only carry foot traffic. A heritage marker was placed at this site in the summer of 1995. The two other historical sites (see Table 3-7) both pertain to the Lewis and Clark expedition.

Milepost	Location	Description
409.60	5 miles east of Pomeroy	Three Forks Indian Trail
421.75	4 miles west of Chief Timothy State Park	Ta-moots-tsoo (Chief Timothy) Bridge
431.93	Next to Clarkston Golf & Country Club 1 mile west of SR 128 junction	Lewis and Clark at Clarkston

Terrain

Within the RDP limits US 12 travels over primarily rolling terrain with intermittent areas of level terrain. The segment breaks for the terrain are indicated in Table 3-8.

Segment Mile Posts	Description Of Segment	Terrain ⁶
335.30 - 344.96	Walla Walla to Dixie Vicinity	Level
344.96- 357.04	Dixie vicinity to Waitsburg	Rolling
357.04-367.96	Waitsburg to Dayton	Level
367.96-425.03	Dayton to Silcott Road	Rolling
425.03- 432.62	Silcott Road to SR 128 junction (Clarkston)	Level

⁶ WSDOT TRIPS System State Highway Log, 5/15/01

Roadside Character

The roadside character classifications for the US 12 RDP study area include Rural, Open, Semiurban, and Urban as shown in Table 3-9. The classification descriptions are provided in Appendix A.

Segment Mile Posts	Description Of Segment	Roadside Classification ⁷
335.30-335.57	Westerly Walla Walla	Rural
335.57-337.47	Walla Walla	Semiurban – Walla Walla
337.47-342.43	Walla Walla to Weigh Station Vic	Rural
342.43-347.35	Weigh Station Vicinity to Dixie	Open
347.35-348.75	Dixie	Rural
348.75-356.95	Dixie to Waitsburg	Open
356.95-358.25	Waitsburg	Semiurban – Waitsburg
358.25-366.45	Waitsburg to Dayton	Rural
366.45-367.05	Dayton	Semiurban – Dayton
367.05-367.95	Dayton	Urban-Dayton
367.95-369.15	Dayton to one mile east of town	Rural
369.15-390.87	East of Dayton to SR 127 junction	Open
390.87-394.87	SR 127 junction to ten miles west of Pomeroy	Rural
394.97-399.97	Ten miles west of Pomeroy to one mile east of Tatman Mtn Rd	Open
399.97-402.77	East of Tatman Mtn Rd to Pomeroy	Rural
402.77-403.87	Pomeroy	Urban- Pomeroy
403.87-404.77	Pomeroy	Semiurban – Pomeroy
404.77-408.07	Pomeroy to Mayview Road	Rural
408.07-431.60	Mayview Road Vic to Elm Street	Open
431.60-432.62	Elm Street to Clarkston	Open

⁷ WSDOT Roadside Classification Plan, 1996
October 2002

Right Of Way

The right of way (R/W) widths along US 12 vary considerably. The official right of way maps and deeds should be consulted for the exact widths.

Chapter 4 Operating Conditions

Safety Needs

The Washington State Patrol (WSP) provides accident data, which WSDOT records in the *TRIPS Standard Accident History Detail Report*. WSDOT evaluates the data to determine locations and corridors with high pedestrian accidents (*PAL*), high accident locations (*HAL*) and corridors (*HAC*), and high risk of roadway run-off (*RISK*). The results for the most recent analysis period show no *PAL*'s, *HAL*'s, *HAC*'s, or *RISK* locations within the study limits.

The **At Grade** safety subprogram strives to eliminate major at-grade intersections on multi-lane, divided highways with speeds of 45 mph or more. The current WSDOT identified safety deficiencies within the study area are listed in Table 4-1. The **Signals and Channelization** safety subprogram inventories intersections that meet signal warrants and locations needing channelization. The following table includes the intersections currently on the regionally prioritized list.

Mile Post	Vicinity (all in Walla Walla)	Safety Sub-program
336.85	East Rees/Rees Avenue	At Grade
336.85	East Rees/Rees Avenue	Signals and channelization
337.69	Clinton/Waitsburg Road	At Grade
338.72	Wilbur Avenue	At Grade
338.72	Wilbur Avenue	Signals and channelization
340.53	G Street	At Grade

Contact the WSDOT Program Manager for an updated list of safety deficiencies when Improvement strategies are designed.

Level of Service Analysis

The level of service analysis evaluates the operational conditions within a traffic stream on a roadway. Factors used to determine the level of service include daily traffic volumes, truck percentage, peak hour traffic, the directional factor, and the percent of no-passing zones.

Values for both the congestion index analysis (WSDOT methodology) and the LOS analysis are listed in Table 4-1. These values estimate the current and future operational conditions for the study area of US 12, in the year 2002 and 2022. These values are also recorded on the plan sheets in Appendix D.

TABLE 4-1 US 12 Level of Service Analysis Results

MP's	Vicinity	2002		2022	
		LOS	Congestion Index/ Threshold	LOS	Congestion Index/ Threshold
335.30-335.38	Walla Walla (two lane section)	D	3.6 / 9.5	D	5.2 / 9.5
335.38-335.56	Walla Walla (four lane section)	C	3.0 / 5.5	D	4.2 / 5.5
335.56-340.55	Walla Walla (four lane section)	A	1.2 / 5.5	A	1.7 / 5.5
340.55-347.76	Walla Walla to Dixie	B	1.8 / 5.5	C	2.7 / 5.5
347.76-356.84	Dixie to Middle Waitsburg Road	C	2.7 / 5.5	C	4.1 / 5.5
356.84-357.59	Middle Waitsburg Road to SR 124 (Waitsburg)	C	4.0 / 5.5	C	6.2 / 5.5
357.59-358.76	SR 124 to vic Dewitt Road	C	2.6 / 5.5	D	4.1 / 5.5
358.76-366.60	Dewitt Road to Dayton (vic Pine Street) (four lane section)	B	1.9 / 5.5	C	2.6 / 5.5
366.60-367.41	Dayton (vic Pine Street) to 4 th St (end four lane)	A	2.1 / 5.5	A	3.2 / 5.5
367.41-372.35	Dayton (4 th Street) to vic Upper Whetstone Road	C	2.2 / 5.5	C	3.2 / 5.5
372.35-388.61	Vic. Upper Whetstone Road to Garfield/ Columbia county line	B	1.7 / 5.5	C	2.6 / 5.5
388.61-401.97	Garfield/ Columbia county line to vic. Pomeroy west city limits	B	1.7 / 5.5	B	2.2 / 5.5
401.97-411.26	Vic. Pomeroy west city limits to beginning eastbound Alpowa Grade	C	3.0 / 5.5	C	3.9 / 5.5
411.26-421.94	Beginning eastbound Alpowa grade to Garfield/Asotin county line	B	1.2 / 5.5	C	1.7 / 5.5
421.94-432.61	Garfield/Asotin county line to SR 128/ west city limits Clarkston	B	1.5 / 5.5	B	2.4 / 5.5

Additional information regarding the level of service analysis is discussed in Appendix A, and the specific values for this route are shown in a strip map format in Appendix D. Further information regarding the LOS analysis methodology can be found in the Transportation Research Board's Highway Capacity Manual, released in late 2000.

Chapter 5 Route Improvements and Estimates

RDP Standards

This section of US 12 serves as the major east-west route through southeastern Washington's Asotin, Garfield, Columbia, and Walla Walla counties. The route serves the communities of Walla Walla, Waitsburg, Dayton, Pomeroy, and Clarkston, and provides access between southeastern Washington and western Idaho. Due to the regional importance of this principal arterial route, we recommend that any improvements to the study section of US 12 be made to **Full Design Level standards**, with 12 ft lanes and 8 ft paved shoulders. The segment of US 12 in Waitsburg is exempt from full design standards – with the recommendation of **Modified Design Level standards**, with 12 ft lanes and 4 ft paved shoulders.

Route Improvements and Estimate Summary

Proposed route improvements that support capacity improvements, economic initiatives, and safety requirements for the US 12 study area during the next 20 years are listed in Table 5-1. Improvements identified by WSDOT, Benton-Franklin-Walla Walla Regional Transportation Planning Organization, and the Palouse Regional Transportation Planning Organization are included. The designer should seek the most current update of the HSP to identify any improvements or deficiencies that may have been included in subsequent updates.

It is important to note that these improvements are conceptual planning solutions and their project scopes will be refined once they reach the programming and design level phases.

TABLE 5-1 Route Improvement Solutions					
MP's	Vicinity	Type of Solution	Solution	Included In:	Estimated Cost (Millions)
335-370	Dayton Vic (MP 361)	Economic Initiatives	Construct Safety Rest Area	2003-'22 HSP	\$2.07
335.30	Pine St/ SR 125	Mobility	Phase 1: Partner in building 2 lane Myra Road connection to US 12	2003-'22 HSP □	\$7.21
335.30	Pine St/ SR 125	Mobility	Phase 2: Construct interchange, partner in widening Myra Rd connection to four lanes	2003-'22 HSP □	\$57.74
335.51-341.65	City of Walla Walla	Mobility	Acquire all access rights – implement fully controlled limited access		unknown
336.85-336.86	E. Rees/ Rees Ave	Safety	σ Construct grade separation	2003-'22 HSP □	\$2.51
337.69	Lower Waitsburg Rd/Clinton St	Safety	σ Construct grade separation	2003-'22 HSP	\$1.25
338.72-338.73	Wilbur Ave	Safety	σ Interim solution: install traffic signal. Ultimate: construct interchange	2003-'22 HSP	\$10.00
338.46-339.79	Wellington Ave to Airport Rd	Urban Bicycle	Extend existing bike pathway	2003-'22 HSP □	\$0.11
340.53-340.55	G Street	Safety	σ Construct interchange	2003-'22 HSP	\$10.85
344.97-344.98	Dry Creek Bridge 12/657	Preservation	Replace bridge	2003-'22 HSP □	\$1.07
355.92-358.53	Waitsburg vicinity	Mobility	Construct two lane bypass of Waitsburg	2003-'22 HSP □	\$9.82

□ indicates solution also listed in Regional Transportation Plan for Benton-Franklin-Walla Walla Regional Transportation Planning Organization

σ Analyze future interchanges and grade separations in Walla Walla urban area to preserve interchange spacing.

MP's	Vicinity	Type of Solution	Solution	Included In:	Estimated Cost (Millions)
357.04-357.71	Waitsburg Vicinity	Economic Initiatives	Widen shoulders to minimum 4 ft for bike touring route	2003-'22 HSP ☐	\$0.15
357.04-357.05	Coppei Creek Bridge 12/666 (Waitsburg)	Preservation	Replace bridge	2003-'22 HSP ☐	\$0.98
357.57-357.61	US 12/SR 124 intersection	Maintenance concern	Correct storm water runoff deficiencies	Maintenance ☐	\$0.05
366.66-367.02	Dayton Vicinity	Economic Initiatives	Widen shoulders to minimum 4 ft for bike touring route	2003-'22 HSP	\$0.13
372.72	Johnson Hollow Road	Maintenance concern	Improve intersection for better sight distance	Maintenance	\$0.05
398.84	Tatman Mtn. Road	Safety	Improve intersection sight distance – provide left turn channelization	Palouse RTP	\$0.05
402.87	Pomeroy	Economic Vitality	Provide new two-lane roadway to Port Industrial site	Palouse RTP	\$0.50 (local agency project)
403.40-403.63	Pomeroy	Safety	Improve intersections	Palouse RTP	\$0.03
405.59	Brown Gulch (Fairgrounds) Road	Safety	Improve intersection	Palouse RTP	\$0.31
419.98	Clayton Road	Safety	Increase sight distance by flattening slope	Palouse RTP	\$0.02
335-432	Walla Walla to Clarkston	Economic Initiatives	Complete Lewis & Clark projects with transportation benefits	2003-'22 HSP	\$5.21

☐ indicates solution also listed in Regional Transportation Plan for Benton-Franklin-Walla Walla Regional Transportation Planning Organization

Chapter 6 Public Involvement and Consistency

Stakeholder Involvement

This *RDP* was created with the help of an internal Stakeholder Steering Committee including representation from **Construction, Environmental, Maintenance, Materials, Planning, Program Management, Project Development, Real Estate Services, Traffic, and the Regional Administrator.**

External Stakeholders were involved in the development of this *RDP* early in the planning process. Both the **Palouse RTPO** and the **Benton-Franklin-Walla Walla RTPO** discussed the progress of this project at their monthly meetings, which included representation from the **cities and towns throughout Asotin, Columbia, Garfield and Walla Walla counties.** This *RDP* was presented to the RTPO member agencies for their review, comment, and verification of consistency with the RTPO Transportation Plans and local comprehensive plans.

The *RDP* was also presented to the **general public** and **local business owners** at local open houses on July 9 and 10, 2002, for public input and comments on the plan. WSDOT responded to each of the public comments on the *RDP*.

The *RDP* will be updated periodically to keep pace with changing transportation needs and existing conditions. It is important to keep the stakeholders involved during future updates of this *RDP* and as improvement solutions are being implemented.

Consistency with Other Plans

Development of this *RDP* is consistent with local plans of jurisdictions that the US 12 route travels through. These plans include

- Walla Walla County Comprehensive Plan 2000-2020,
- Asotin County Comprehensive Plan and Zoning Ordinance,
- Comprehensive Plan for Garfield County and the City of Pomeroy – 1995,
- Columbia County Comprehensive Plan – 1995,
- City of Walla Walla Urban Comprehensive Plan and EIS – 1995-2015,
- Benton-Franklin-Walla Walla RTPO’s Regional Transportation Plan,
- Palouse RTPO’s Regional Transportation Plan,
- WSDOT’s Highway System Plan – 2003-2022,
- WSDOT’s Washington Transportation Plan – 2003-2002

Appendix A: *Definitions and Glossary*

Federal Functional Classification

A roadway's functional classification indicates its character and the traffic service it provides. The functional classifications used on highways, from highest to lowest classification, are **Interstate, principal arterial, minor arterial, and collector**. The higher functional classes give more priority to through traffic and less to local access.

Freight and Goods Transportation System

The transportation commission, in cooperation with cities, counties, and regional transportation planning organizations, designated the Freight and Goods Transportation System (FGTS). Routes are classified by total tonnage of freight carried each year with the designations shown below:

- **T-1:** Over 10 million tons
- **T-2:** 4 million to 10 million tons
- **T-3:** 300,000 to 4 million tons
- **T-4:** 100,000 to 300,000 tons
- **T-5:** Over 20,000 tons in 60 days

Highways of State-wide Significance

The Highways of State-wide Significance (**HSS**) include highways, arterials, and ferry routes that connect major communities across the state and support the state's economy. State highways not classified as HSS facilities are referred to as Regionally Significant State Highways, or "**non-HSS**" facilities.

Limited Access

Limited Access Facilities are those where access rights have been legally acquired, usually purchased, from the abutting property owners by the State. The WSDOT Master Plan for Limited Access Highways lists both established and planned limited access sections for state routes, and designates the type of limited access – full, partial or modified.

Access Managed Facilities are those where the State permits abutting property owners access according to spacing and use guidelines based on the identified access management classification of the highway. Access management intends to provide coordinated vehicle access to the state highway system that is consistent with the local land uses.

Typical characteristics of access management classifications are:

Class 1: High speeds and volumes, long trips, serving interstate, interregional, and intercity travel. Service to abutting land is subordinate to service of major traffic movements. One mile intersection spacing, minimum private connection spacing at 1320 feet, or one per parcel. Restrictive where multi-lane is warranted.

Class 2: Medium to high speeds and volumes, medium to long trips, serving interregional, intercity, and intra-city travel. Service to abutting land is subordinate to service of traffic movement. Restricted to intersections spaced one-half a mile apart, minimum private connection spacing at 660 feet, or one per parcel. Restrictive where multi-lane is warranted.

Class 3: Moderate speeds and volumes, short trips, balance between land access and mobility, serving intercity, intra-city and intercommunity travel. Used where land use is less than maximum build-out, but development potential is high. Restricted to intersections spaced one-half a mile apart, less with signal progression analysis, and minimum private connection spacing at 330 feet.

Class 4: Moderate speeds and volumes, short trips, balance between land access and mobility, serving intercity, intra-city and intercommunity travel. Used where land use is less than maximum build-out, but development potential is high. Restricted to intersections spaced one-half a mile apart, less with signal progression analysis, and minimum private connection spacing at 250 feet.

Class 5: Low to moderate speeds, moderate to high volumes, short trips serving intra-city and intercommunity travel. Service to land access dominant function. One quarter mile intersection spacing, less with signal progression analysis, and minimum private connection spacing at 125 feet.

Level of Service Analysis

As part of the development of Washington's Transportation Plan (WTP), WSDOT has developed the travel delay methodology for evaluating transportation system performance. In 1999, the Washington State Transportation Commission adopted a congestion relief policy underlying the development of the WTP. It states that WSDOT's improvement strategies should:

"... improve travel time reliability and reduce travel delay for people and freight on the state highway system. These improvements should be measurable and noticeable to the public."

The travel delay methodology is a performance measurement tool to determine current and future 24-hour congestion conditions on state highways. Highway segments with capacity deficiencies are identified in the Highway System Plan list of needs.

On Highways of Statewide Significance, the congestion index (annual average daily traffic divided by hourly capacity ratio) is used to determine the level of congestion deficiency. Values of **6** for rural highways and **10** for urban highways were established as the deficiency thresholds for capacity improvements. Compared to traditional measures, these values equate roughly to LOS "D" operation in urban areas and LOS "C" in rural areas.

The traditional method of determining level of service is based on the Transportation Research Board's Highway Capacity Manual. This methodology gives LOS values from A through F. LOS A is the highest level of traffic operations and is characterized by virtual free flowing traffic. The levels are scaled down so that LOS E represents flows that approximate capacity, and LOS F characterizes vehicle volumes on the roadway exceeding capacity. For LOS F conditions, flow is sporadic and occasionally completely stopped.

Daily Traffic Volumes

The number of vehicles that pass a given point in both directions during a specific period of time is recorded to determine Annual Average Daily Traffic Volume⁸ (AADT). The traffic counts are adjusted using various factors such as seasonal, axle, and historical counts for the previous four years.

Truck Volumes (T-Factor)

The volume of truck traffic, which also includes large recreational vehicle traffic, is displayed as a percentage of truck traffic as compared to total traffic during the peak hour, which is referred to as the T-Factor⁹. The peak hour period is defined as the maximum hourly traffic during the day from actual counts.

K-Factor

The K-factor is defined as the percentage of the annual average daily volume occurring in the peak hour. The peak hour is the highest volume hour for the twenty-four hour period.

Peak Hour Factor

The peak hour factor is a measure of traffic demand fluctuation within the peak hour. The hourly volume during the peak hour is divided by four times the peak 15-minute flow during the peak hour.

Directional Factor (D-Factor)

The percent of traffic volume in the SR 129 route during the peak hour period in the peak direction, as compared to the total daily traffic volume, is the directional factor or D-Factor¹⁰ (%D). The directional factor is also referred to as the peak hour split percent. The peak hour is defined as the maximum hourly traffic during the day from actual counts.

Growth Factors

Growth factors are determined by the Traffic Data Office, and supplemented by information from the local jurisdictions.

⁸ WSDOT TRIPS Traffic Count History

⁹ WSDOT TRIPS Traffic Count History

¹⁰ WSDOT TRIPS Traffic Count History

National Highway System

The National Highway System (NHS) is an interconnected system of principal arterial routes that serves interstate and interregional travel, meets national defense requirements, and serves major travel destinations.

Roadside Character

The roadside character describes the general character of the landscape from the pavement edge to the right-of-way boundaries, from the user's perspective. Roadside character is either natural, which includes **Forest** and **Open**, or built, which includes **Rural**, **Semiurban**, or **Urban**. The *WSDOT Roadside Classification Plan, 1996*, documents the classification process for all WSDOT highways.

The goals of the Roadside Classification Plan are to:

- Promote transportation safety and management efficiency.
- Minimize environmental and social impacts of transportation facility construction and maintenance.
- Facilitate protection and restoration of Washington's natural environment and cultural heritage within state highway roadsides.
- Promote cooperation and communication in roadside management.

Safety Programs

Pedestrian Accident Location (PAL) is the designation given to a highway section typically less than 0.25 miles where a two year analysis of pedestrian accident history indicates that the section has a significantly higher than average accident and severity rate.

High Accident Location (HAL) is the designation given to a highway section typically less than 0.25 miles where a two year analysis of collision history indicates that the section has a significantly higher than average collision and severity rate.

High Accident Corridor (HAC) is the designation given to a highway corridor (one mile or greater in length) where a five-year analysis of collision history indicates that the section has higher than average collision and severity factors.

RISK is the designation given to a highway location where geometrics, traffic volumes, and speed limits indicate a high probability of run-off-the-road accidents.

Scenic and Recreational Highway System

The Scenic and Recreational Highways Act of 1967 established the Scenic and Recreational Highways Program in response to the national interest in the highway beautification movement.

Federal funding is available for recognized Scenic and Recreational highways to develop the scenic byway programs and to accomplish corridor planning for maintaining the intrinsic qualities of the corridor.

Appendix B: *Design Matrix*

Full Design Standards will be in effect for most of the study area of US 12.

Modified Design Standards will govern improvements to US 12 in the Waitsburg vicinity: MP 357.04 to MP 358.34.

The following page shows the design matrix in effect at the time this RDP was approved.

Appendix C: Environmental / Maintenance Concerns

Major Environmentally Sensitive Areas

The following photographs illustrate some of the major environmentally sensitive areas that are typical to this section of US 12. Several of these sites also present chronic maintenance concerns. Despite the overall dry nature of this part of our state, there are wetlands, creeks, and rivers adjacent to many portions of the study section of US 12. When route improvements are being scoped or designed, the South Central Region's Environmental Office should be contacted for a more thorough and updated environmental assessment.



Dry Creek Bridge
MP 344.96



Mud Creek wetlands area
MP 348.50



Touchet River Bridge – frequent
scouring problems
MP 361.49



Lewis and Clark State Park
MP 362



Wetlands adjacent to US 12
MP 369



Alpowa Rest Area
MP 413

Major Maintenance Concern Areas

The following photographs show areas within the RDP study area that require a great deal of attention by our maintenance forces. When route improvements are being scoped or designed, the South Central Region Maintenance Office should be contacted for a more thorough and updated assessment.



1 Culvert crossing with cleaning and flooding problems
MP 359.2



2 Culvert with annual cleaning problems
MP 359.2



3 Timpey Road – frequent flooding and environmentally sensitive area
Washed out 3 times in past 40 years
MP 362



4 Johnson Hollow Road - sight distance problem
MP 370.8



5 Unstable slope
MP 383.2

Appendix D: Route Development Plan Sheets

The following sixteen sheets present a detailed look at the elements described in the previous chapters.