SR 224 - MP 6.59 TO MP 9.90

CHARACTERISTICS

Segment Description:
MP 6.59 lies within the city limits of West Richland. The corridor runs through West Richland and ends at MP 9.90, the intersection of SR 240 in Richland.

County/Counties: Benton
Cities/Towns Included: This corridor runs through West Richland.
Number of lanes in the corridor: 2 to 4
Lane width: 12 to 12 feet.
Speed limit: 40 to 40 mph.
Median width: 0 to 0 feet.
Shoulder width: 4 to 8 feet.

Highway Characteristics:
This section of highway is classified as a urban-minor arterial.

Special Use Lane Information (HOV, Bicycle, Climbing):
Two way left turn lane at milepost 7.57 to MP 9.90.

Access Control Type(s):
From MP 6.59 to MP 9.84 SR 224 is a Managed Access highway that varies from class 3 to class 5. From MP 9.84 to MP 9.90 SR 224 has established Partial Access Control.

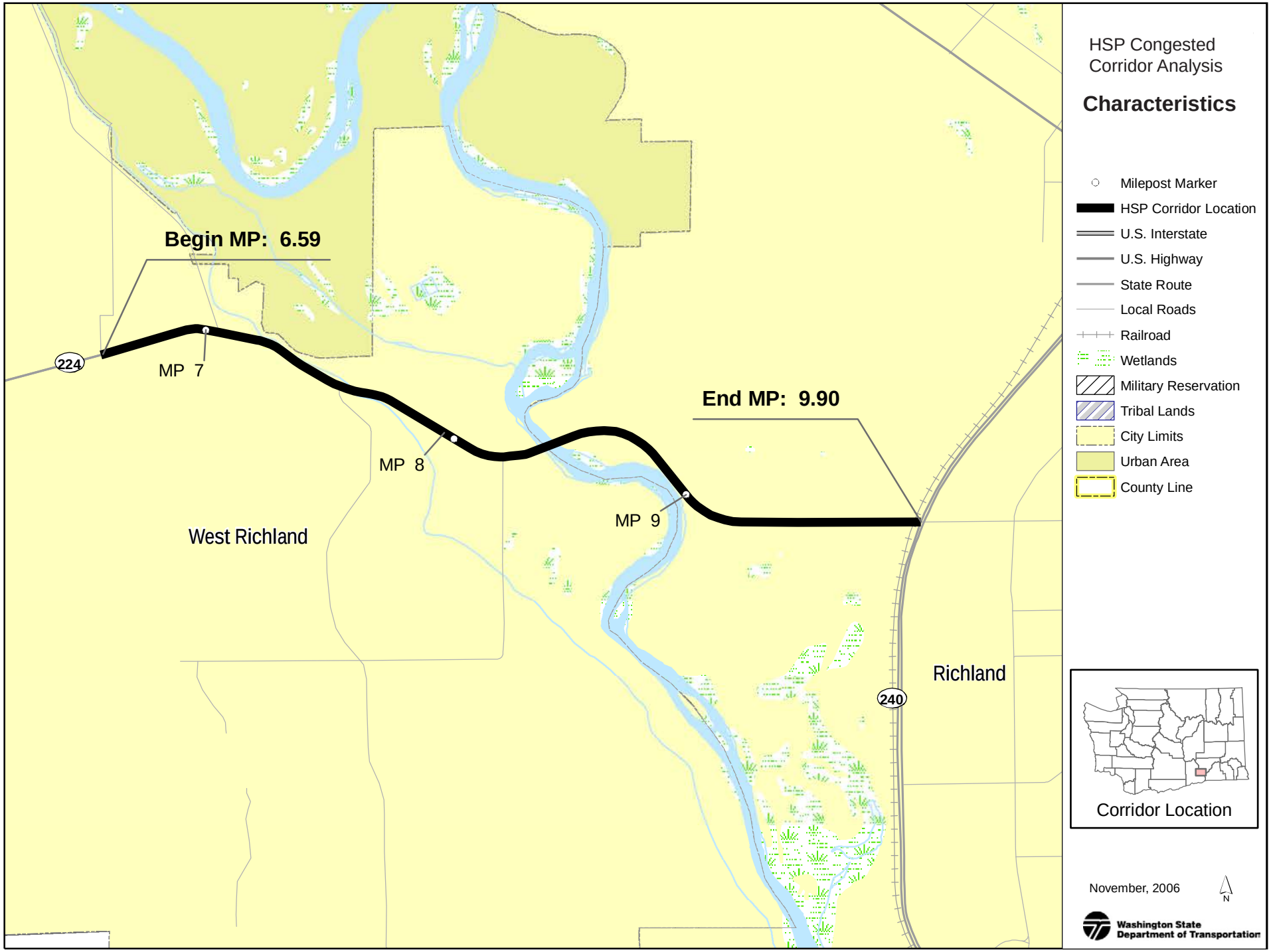
Terrain Characteristics:
The terrain in this section is rolling.

Natural Features:
This section allows access to grape growing areas around Benton City and West Richland. The Red Mountain Appellation is along this route.

Adjacent Land Description:
The land uses along this route are varied from commercial and residential closer to downtown to light and heavy industrial, to agriculture and open rangeland.

Environmental Issues:
The surrounding area of this route section are considered to be semiarid with many varieties of small and larger animals and birds that reside there. Some of these species could be threatened or endangered. There are few if any wetland issues in this area.

Major Economic Issues:
There are none defined.


Begin MP: 6.59
End MP: 9.90
MP 7
MP 8
MP 9
West Richland
Richland
224
240
HSP Congested
Corridor Analysis
Characteristics
Milepost Marker
HSP Corridor Location
U.S. Interstate
U.S. Highway
State Route
Local Roads
Railroad
Wetlands
Military Reservation
Tribal Lands
City Limits
Urban Area
County Line
Corridor Location
November, 2006
N
Washington State
Department of Transportation

SR 224 - MP 6.59 TO MP 9.90

ASSETS

Pavement:
There are 12.30 lane miles of Hot Mix Asphalt and 4.25 lane miles of Bituminous Surface Treatment on this segment of SR 224 .

Signal:
There is one signalized intersection.

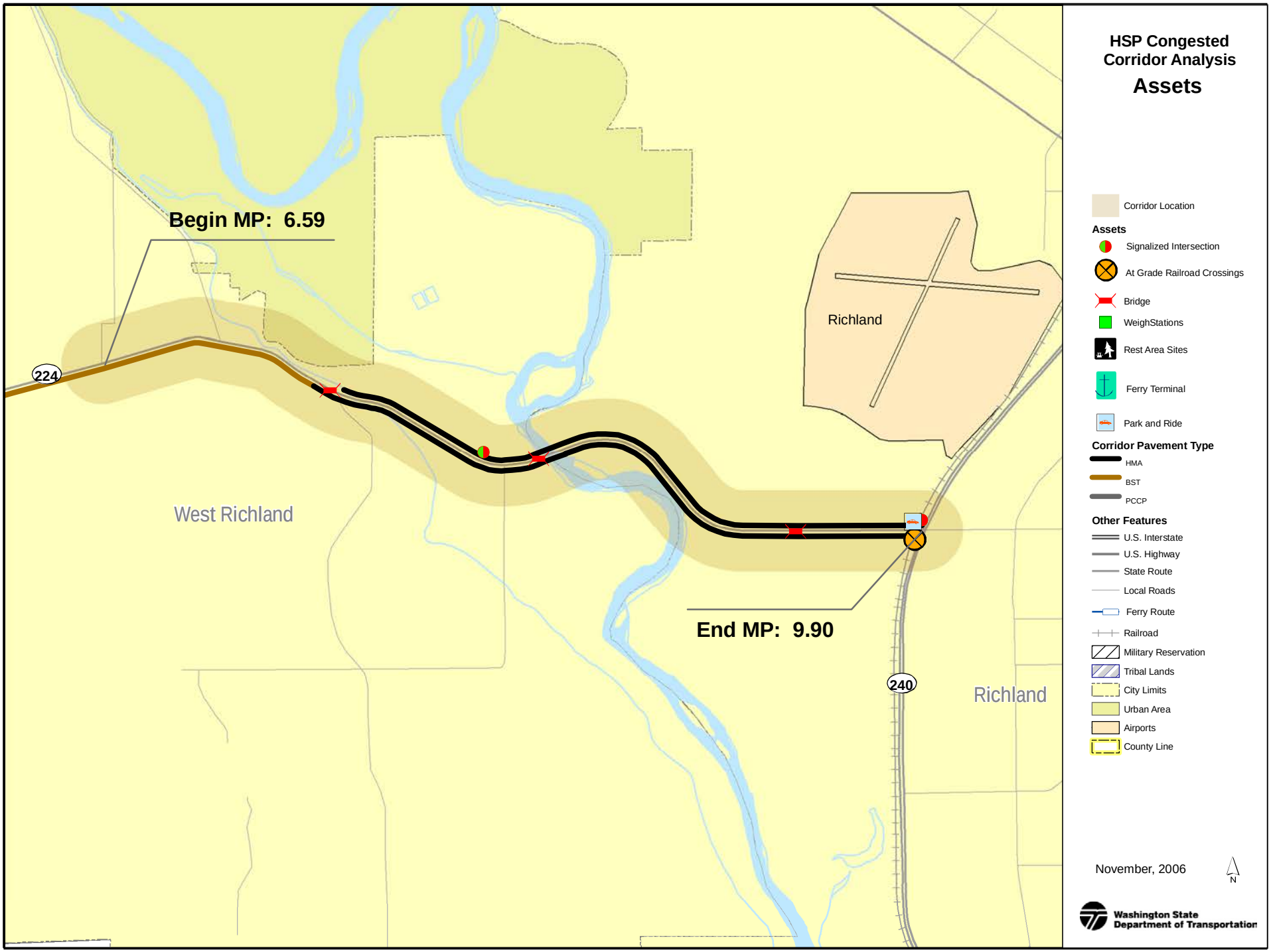
Structures:
There are three structures in this corridor that consist of: one Concrete Culvert, one Concrete Slab and one Pre-Tensioned Concrete Beam.
(Ramps, and locally owned structures (if any exist) are not identified in this section and may not be reflected on maps.)

Features Crossed:
This section crosses the Yakima River and an irrigation canal.

ITS Facilities:
There are no intelligent Transportation systems on this corridor.

Railroad Crossings:
There are no at-grade rail crossings within this route segment.

Asset Other:
None Identified.


Begin MP: 6.59
End MP: 9.90
224
240
West Richland
Richland
Richland
HSP Congested Corridor Analysis
Assets
Corridor Location
Assets
Signalized Intersection
At Grade Railroad Crossings
Bridge
WeighStations
Rest Area Sites
Ferry Terminal
Park and Ride
Corridor Pavement Type
HMA
BST
PCCP
Other Features
U.S. Interstate
U.S. Highway
State Route
Local Roads
Ferry Route
Railroad
Military Reservation
Tribal Lands
City Limits
Urban Area
Airports
County Line
November, 2006
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Washington State Department of Transportation

SR 224 - MP 6.59 TO MP 9.90

USAGE

General Origin and Destination Travel Characteristics:
This route section supports a pretty even split of commuter traffic commuting back and forth between Benton City, West Richland and the Hanford and Richland areas and local residents traveling to and from activities in West Richland. Truck traffic is minor and local.

Snow/ice Issues:
There are minor snow and ice issues with existing curbing, intersections, and driveways.

Annual Average Daily Traffic:
Ranges from 11,000 to 21,000.

Significant Seasonal Average Annual Daily Traffic Changes:
At present there is not a significant change seasonally in ADT

General Description of Major Average Annual Daily Traffic Locations:
Traffic volumes increase through the route segment, from 4,700 at the beginning of the segment to 21,000 before the intersection with SR 240.

Freight:

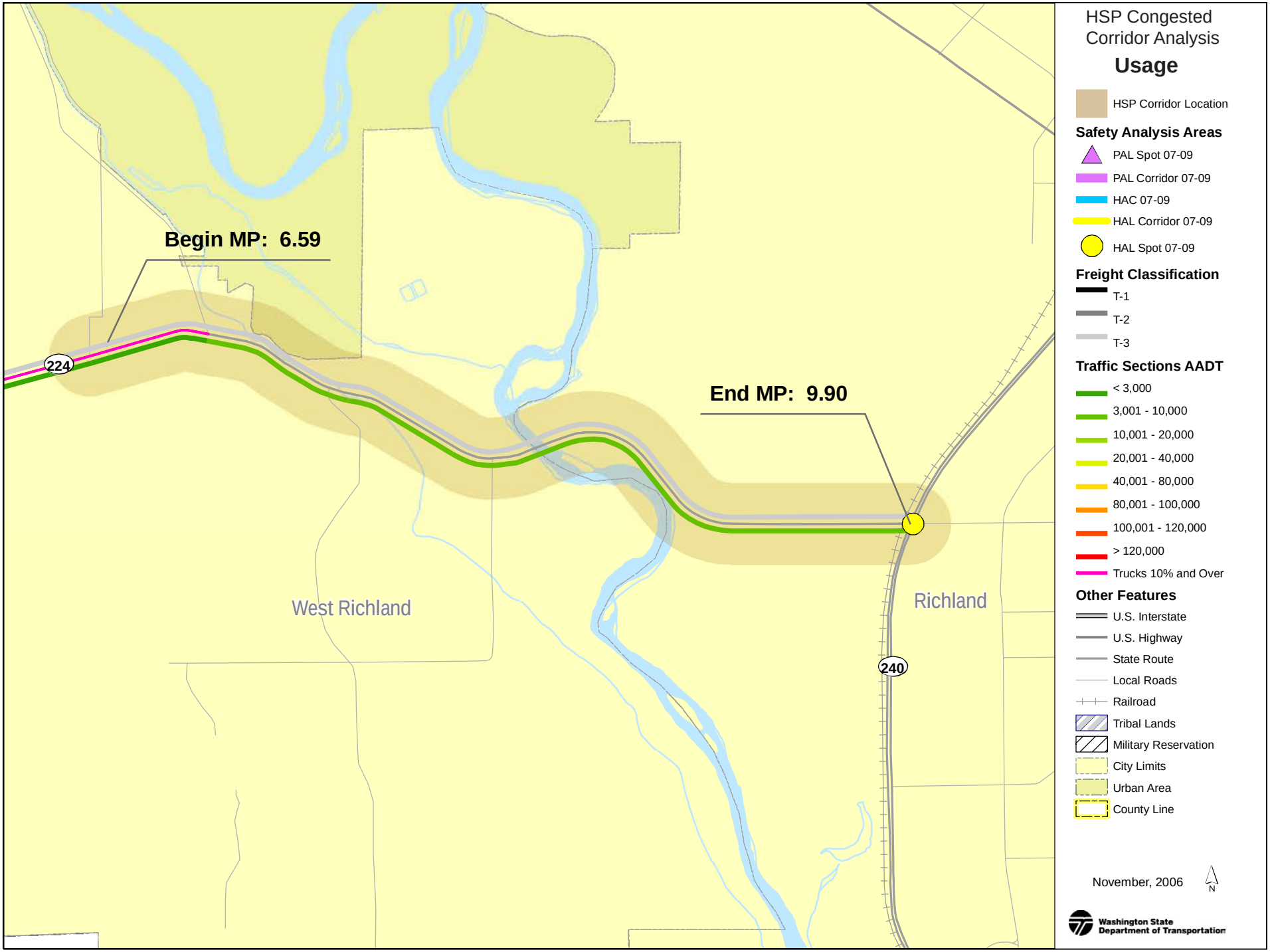
Freight Classification: T3
Yearly Tonnage: 2.0M
Truck Percentage of Annual Average Daily Traffic: 8%

Additional Usage Comments:
There are no additional comments.

Average Annual Societal Cost of All Collisions: Approximately $4.88M

Collisions:

Severe No of Collisions: 3
Less Severe No of Collisions: 67
List Data Years: 2003 to 2005


Begin MP: 6.59
End MP: 9.90
224
240
West Richland
Richland
HSP Congested Corridor Analysis
Usage
HSP Corridor Location
Safety Analysis Areas
PAL Spot 07-09
PAL Corridor 07-09
HAC 07-09
HAL Corridor 07-09
HAL Spot 07-09
Freight Classification
T-1
T-2
T-3
Traffic Sections AADT
< 3,000
3,001 - 10,000
10,001 - 20,000
20,001 - 40,000
40,001 - 80,000
80,001 - 100,000
100,001 - 120,000
> 120,000
Trucks 10% and Over
Other Features
U.S. Interstate
U.S. Highway
State Route
Local Roads
Railroad
Tribal Lands
Military Reservation
City Limits
Urban Area
County Line
November, 2006
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SR 224 - MP 6.59 TO MP 9.90

NEEDS AND STRATEGIES

Preservation

Pavement Condition and Needs:
The bituminous surface treatment section from MP 6.59 to MP 7.44 was last paved in 1999 and was due for resurfacing in 2005.

Pavement Management Strategies:
This section is scheduled for resurfacing as a part of the 2006 region wide chip seal project

Structures Condition and Needs:
There are none described. (This may include ramps and locally owned structures if any exist.)

Structures Management Strategies:
There are none identified.

Additional Condition and Needs:
There are none identified.

Additional Management Strategies:
There are none identified.

Improvement

Mobility Condition and Needs:
This section of SR 224 experiences traffic back-ups beginning at 5:30 am Monday through Friday.

Mobility Management Strategies:
By adding two general purpose (GP) lanes and a two way left turn lane (two way left turn lane (TWLTL)) in the existing two lane section traffic will flow more freely.

Safety Condition and Needs:
This section of SR 224 experiences many rear-end type accidents due to slowing traffic caused by congestion and inattentive drivers.

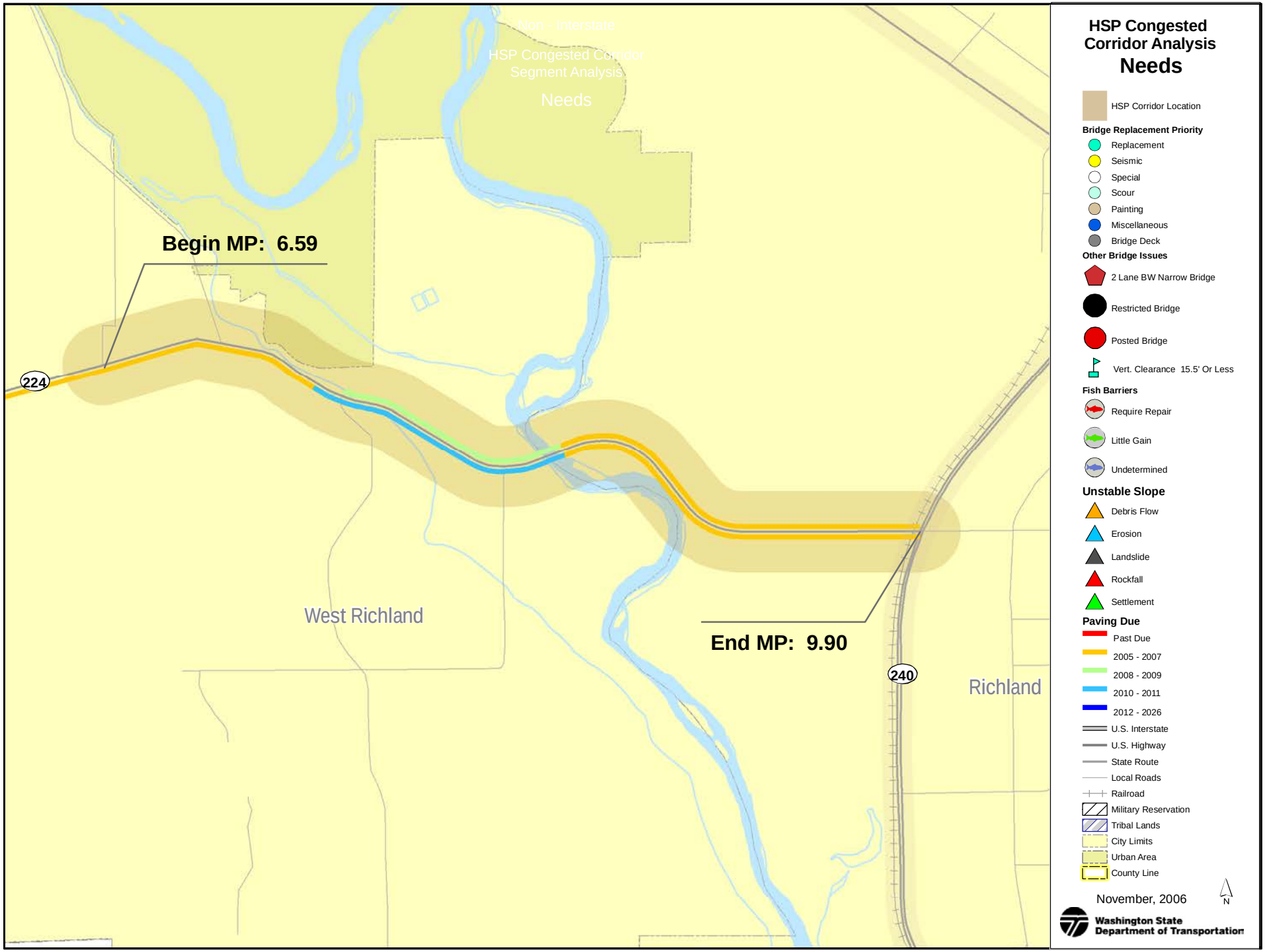
Safety Management Strategies:
Adding a mile of two general purpose lanes and a two way left turn lane (TWLTL) will cause a more free flowing traffic stream and reduce severity of rear-end type collisions.

Environmental Condition and Needs:
There are none identified.

Environmental Management Strategies:
There are none identified.

Restrictions:
There are none identified.

50-Year Configuration:
During the next 50 years this corridor will continue to infill and become mostly urbanized. The exception to this will likely be the Red Mountain Appelachia that will continue to be a prime grape and wine producing area. The Red Mountain area is expected to draw close to 1,000,000 tourist visitors per year.


Non - Interstate
HSP Congested Corridor
Segment Analysis
Needs
Begin MP: 6.59
End MP: 9.90
224
240
West Richland
Richland
HSP Congested Corridor Analysis
Needs
HSP Corridor Location
Bridge Replacement Priority
Replacement
Seismic
Special
Scour
Painting
Miscellaneous
Bridge Deck
Other Bridge Issues
2 Lane BW Narrow Bridge
Restricted Bridge
Posted Bridge
Vert. Clearance 15.5' Or Less
Fish Barriers
Require Repair
Little Gain
Undetermined
Unstable Slope
Debris Flow
Erosion
Landslide
Rockfall
Settlement
Paving Due
Past Due
2005 - 2007
2008 - 2009
2010 - 2011
2012 - 2026
U.S. Interstate
U.S. Highway
State Route
Local Roads
Railroad
Military Reservation
Tribal Lands
City Limits
Urban Area
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TIERED PROPOSED SOLUTIONS

Minimum Fix

Description:
This low cost proposal will add right turn lanes at intersections at MP 7.56, MP 8.01, and MP 8.10. It will also add signal systems at MP 7.68 and 8.23.

Delay Reduction: None identified.
Collision Reduction: None identified.
Deficient Concrete Lane Miles: None identified.
Total Estimate Cost: $1.4 M

Cost Estimate Explanation:
This estimate is based on adding right turn lanes at intersections, adding signals and interconnecting signals.

Minimum Fix Benefits:
This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $20.3 in safety benefits associated with this project.

Moderate Fix

Description:
This medium cost proposal will add a two way left turn lane (TWLTL) in the two lane section as well as adding two signal systems and right turn lanes at three intersections.

Delay Reduction: None identified.
Collisions Reduction: None identified.
Deficient Concrete Lane Miles: None identified.
Total Estimate Cost: $4.1 M

Cost Estimate Explanation:
This estimate is based on constructing a two way left turn lane (TWLTL) in the two lane section as well as adding two signal systems and right turn lanes at intersections.

Moderate Fix Benefits:
This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $5.9 M in two way left turn lane (two way left turn lane (TWLTL)) benefits and $20.2 M in safety benefits associated with this project.

Maximum Fix

Description:
This maximum cost proposal will add two new GP lanes and a two way left turn lane (TWLTL) in the two lane section as well as adding two signal systems and right turn lanes at three intersections.

Delays Reduction: None identified.
Collisions Reduction: None identified.
Deficient Concrete Lane Miles: None identified.
Total Estimate Cost: $8.4 M

Cost Estimate Explanation:
This estimate is based on constructing two new GP lanes and a two way left turn lane (TWLTL) in the existing two lane section as well as two signal systems and right turn lanes at three intersections

Maximum Fix Benefits:
This project will serve to maintain an acceptable level of service on the facility and to enhance safe operations in areas where turning movements are creating congestion and delay. There are $6.2 M in two way left turn lane (TWLTL) benefits, $57.9 M ingeneral purpose lane benefits and $20.3 M in safety benefits associated with this project.

SR 224 - MP 6.59 TO MP 9.90

Off-System Solutions:

None identified.

Special Studies/Reports:

None identified.

Required Studies

None identified.

Start/Completion Date of Study:

None identified.

ExpectedResults

None identified.

Funded Projects within Corridor Limits

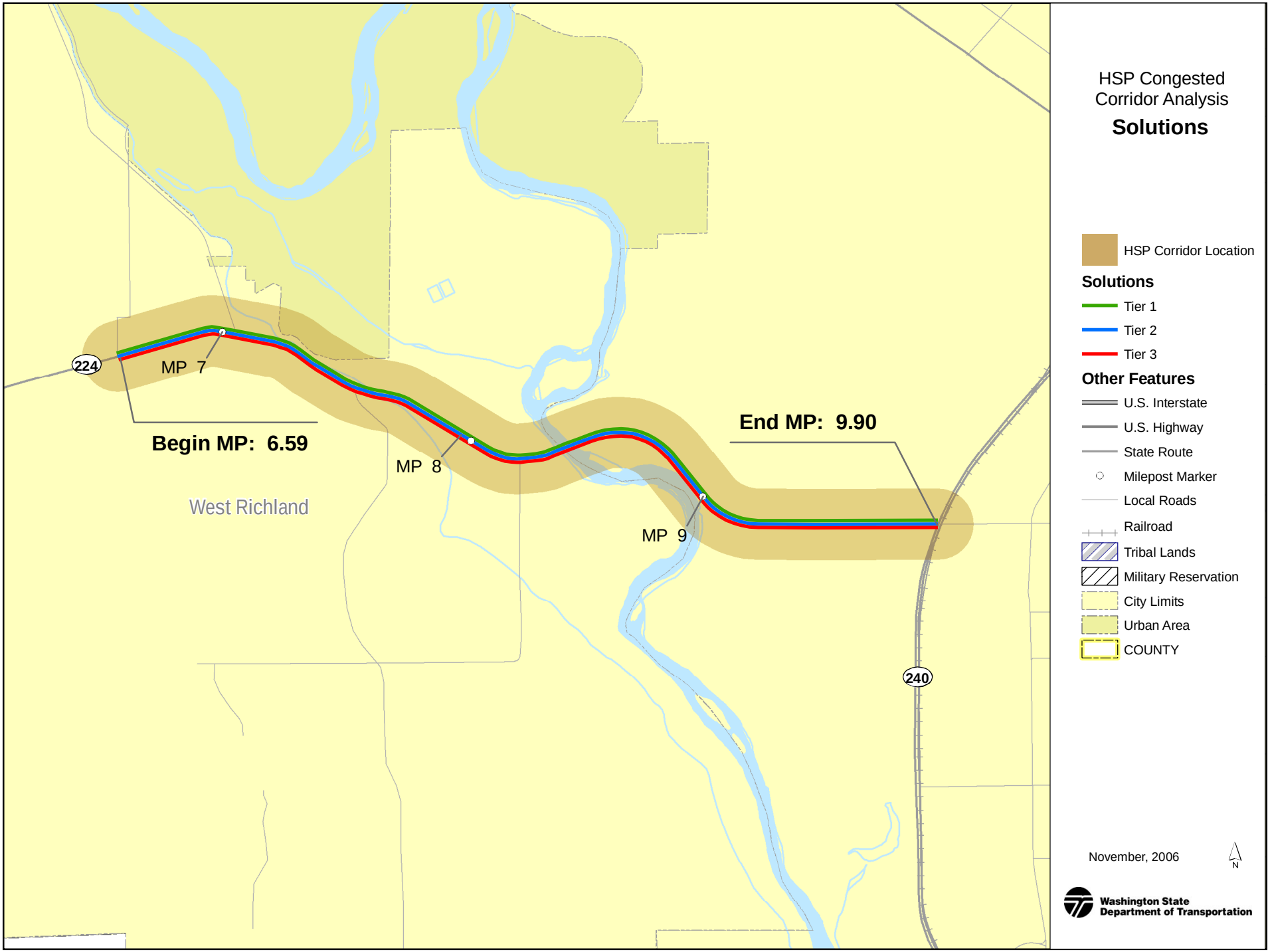
Project No	Title
522402B	SR 224/Yakima River to SR 240 - Paving (HMA)

Additional Comments:

None identified.

Data Sources and Contacts used:

Collision Data Mart
2004 Annual Traffic Report
2005 State Highway Log
2003-2022 Washington State Highway System Plan
Pavement Management System
Geographic Information System


HSP Congested
Corridor Analysis
Solutions
HSP Corridor Location
Solutions
Tier 1
Tier 2
Tier 3
Other Features
U.S. Interstate
U.S. Highway
State Route
Milepost Marker
Local Roads
Railroad
Tribal Lands
Military Reservation
City Limits
Urban Area
COUNTY
224
MP 7
Begin MP: 6.59
MP 8
West Richland
MP 9
End MP: 9.90
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