

## SR 240 - MP 38.91 TO MP 43.17

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### **CHARACTERISTICS**

#### **Segment Description:**

This route segment begins at MP 38.91 in Benton County and ends at MP 43.17 also in Benton County. It roughly follows the border between Kennewick and Richland.

**County/Counties:** Benton

**Cities/Towns Included:** This corridor passes through the cities of Kennewick and Richland.

**Number of lanes in the corridor:** 4 to 6

**Lane width:** 12 to 12 feet.

**Speed limit:** 60 to 60 mph.

**Median width:** 70 to 70 feet.

**Shoulder width:** 8 to 10 feet.

#### **Highway Characteristics:**

This section of SR 240 has a functional classification of Urban Principal Arterial and carries a T-2 freight designation transporting 6,900,000 tons of freight annually.

#### **Special Use Lane Information (HOV, Bicycle, Climbing):**

There are no special use lanes.

#### **Access Control Type(s):**

SR 240 in this area is a Fully Controlled Limited Access Facility.

#### **Terrain Characteristics:**

There is level to rolling terrain.

#### **Natural Features:**

This section allows access to the Hanford Reservation, the Saddle Mountain Wildlife Area and the Hanford Reach of the Columbia River for recreational uses.

#### **Adjacent Land Description:**

This section is adjacent to residential, commercial, Light and heavy industrial and recreational uses.

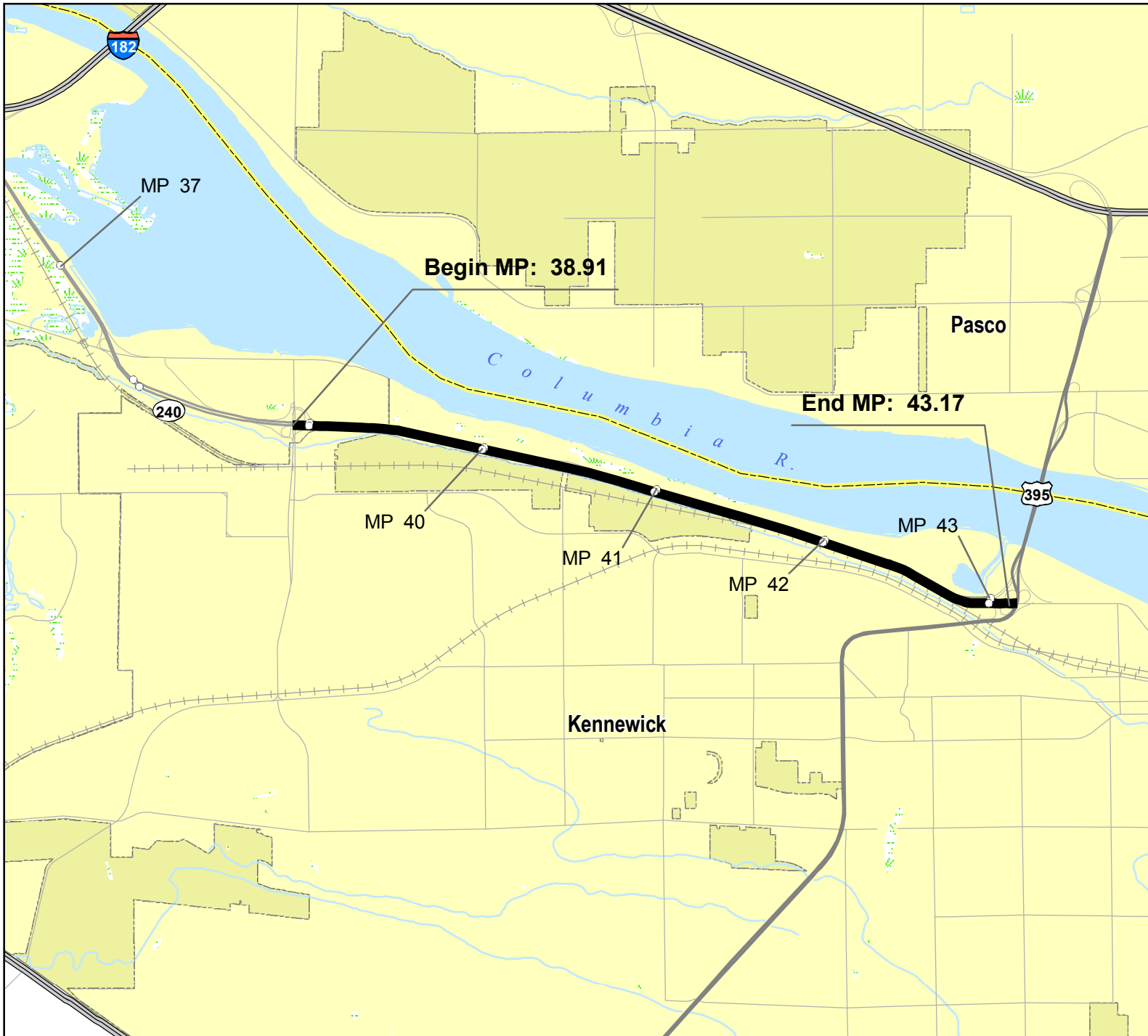
#### **Environmental Issues:**

This section runs through semi-arid area that may be home to small and large animals and birds that may in some cases be endangered.

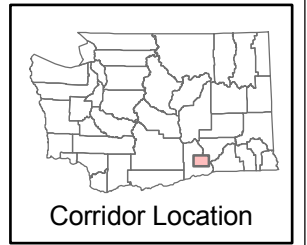
#### **Major Economic Issues:**

There are no major economic issues.

# 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



November, 2006



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### **ASSETS**

#### **Pavement:**

There are 17.04 lane miles of Hot Mix Asphalt on this segment of SR 240.

#### **Signal:**

There are no signalized intersections located on the route segment.

#### **Structures:**

There are two structures in this corridor that consist of: one Concrete T-Beam and one Post-Tensioned Box Girder. (Ramps, and locally owned structures (if any exist) are not identified in this section and may not be reflected on maps.)

#### **Features Crossed:**

There are no features crossed.

#### **ITS Facilities:**

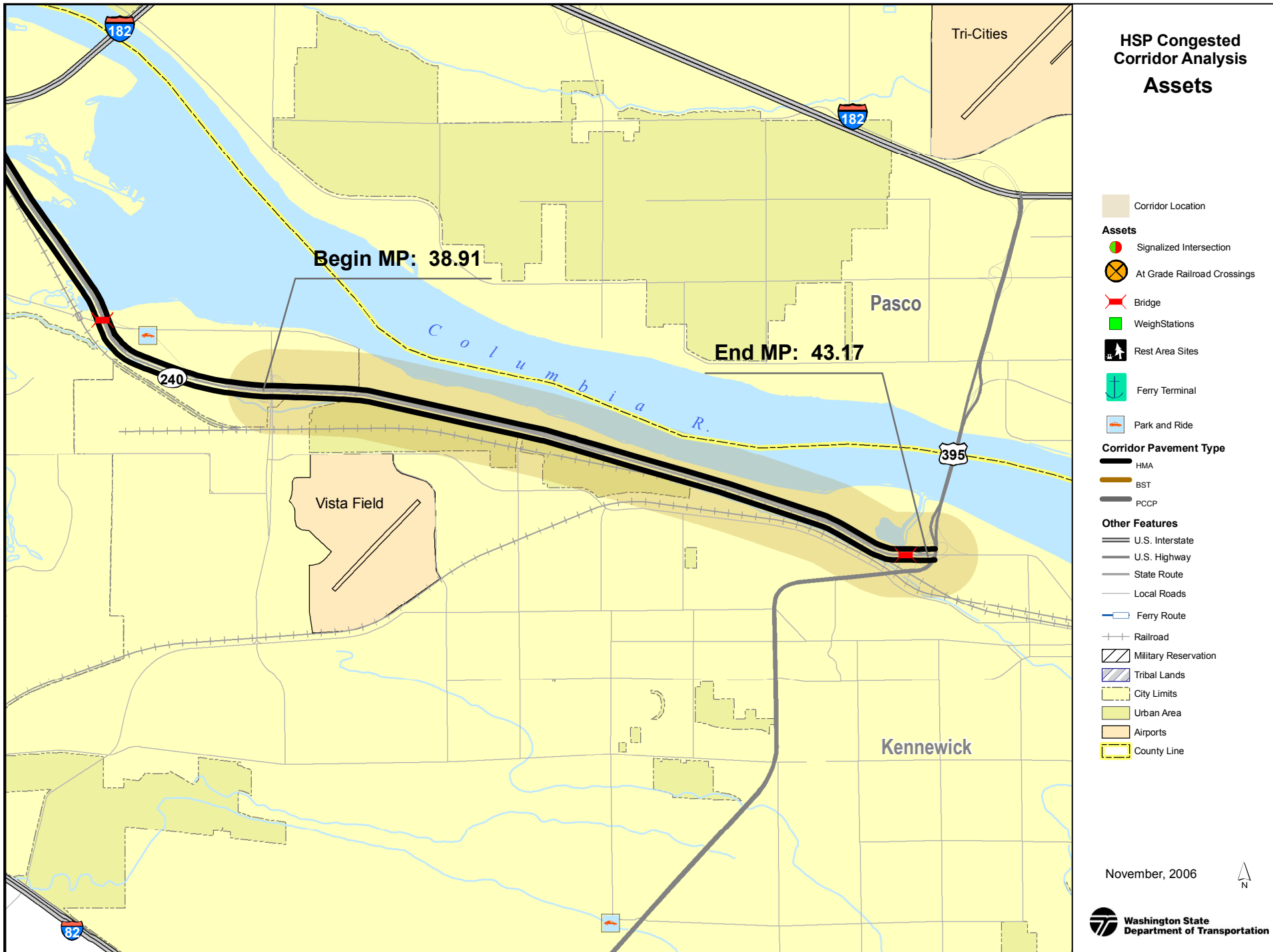
There are no intelligent Transportation systems on this corridor.

#### **Railroad Crossings:**

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

#### **Asset Other:**

None Identified.



### 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

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## **USAGE**

### **General Origin and Destination Travel Characteristics:**

This is basically a commuter route. The street system connecting the individual cities in this area is somewhat cumbersome so many drivers choose the four lane facilities to travel from town to town.

### **Snow/ice Issues:**

There are no sections within this corridor which present a problem for normal snow/ice control.

### **Annual Average Daily Traffic:**

Ranges from 18,000 to 45,000.

### **Significant Seasonal Average Annual Daily Traffic Changes:**

There are minimal seasonal changes in ADT.

### **General Description of Major Average Annual Daily Traffic Locations:**

The high point annual average daily traffic for the route is at Columbia Center Blvd. at 45,000 and the low point is at the junction of US 395 with 18,000.

### **Freight:**

**Freight Classification:** T2

**Yearly Tonnage:** 6.9M

**Truck Percentage of Annual Average Daily Traffic:** 8%

### **Additional Usage Comments:**

There are no additional comments.

**Average Annual Societal Cost of All Collisions:** Approximately \$4.53M

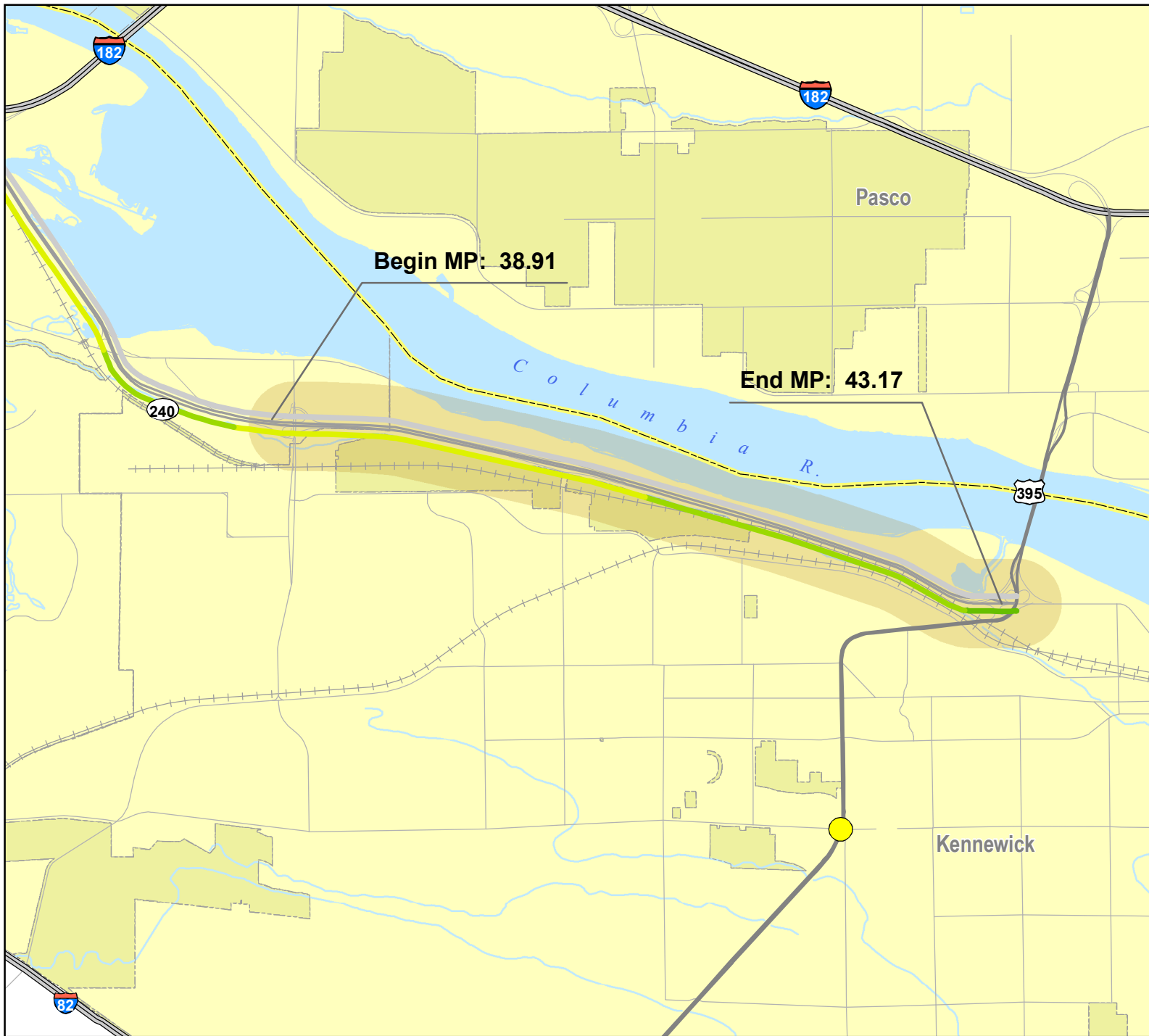
### **Collisions:**

**Severe No of Collisions:** 2

**Less Severe No of Collisions:** 98

**List Data Years:** 2003 to 2005

# 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

## ***NEEDS AND STRATEGIES***

### **Preservation**

#### **Pavement Condition and Needs:**

This section is hot mix asphalt (HMA) last paved in 1998.

#### **Pavement Management Strategies:**

This section was last paved in 1998 and is scheduled for resurfacing in 2010 and 2025.

#### **Structures Condition and Needs:**

Structures may need to be updated as traffic volumes increase. (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 240 has been identified as a Bottleneck and Chokepoint. This section experiences traffic back-ups throughout the day caused by congestion.

#### **Mobility Management Strategies:**

By adding a lane to the eastbound off ramp at Edison Ave. it will allow a double right turn movement and reduce back-ups onto the through lanes. Adding two general purpose lanes to the mainline will reduce back-ups for mainline traffic.

#### **Safety Condition and Needs:**

This corridor experiences many rear-end type collisions due to slowing traffic caused by congestion.

#### **Safety Management Strategies:**

Adding general purpose lanes and ramp improvements to this corridor will reduce the occurrence and severity of rear-end collisions.

#### **Environmental Condition and Needs:**

There are none identified.

#### **Environmental Management Strategies:**

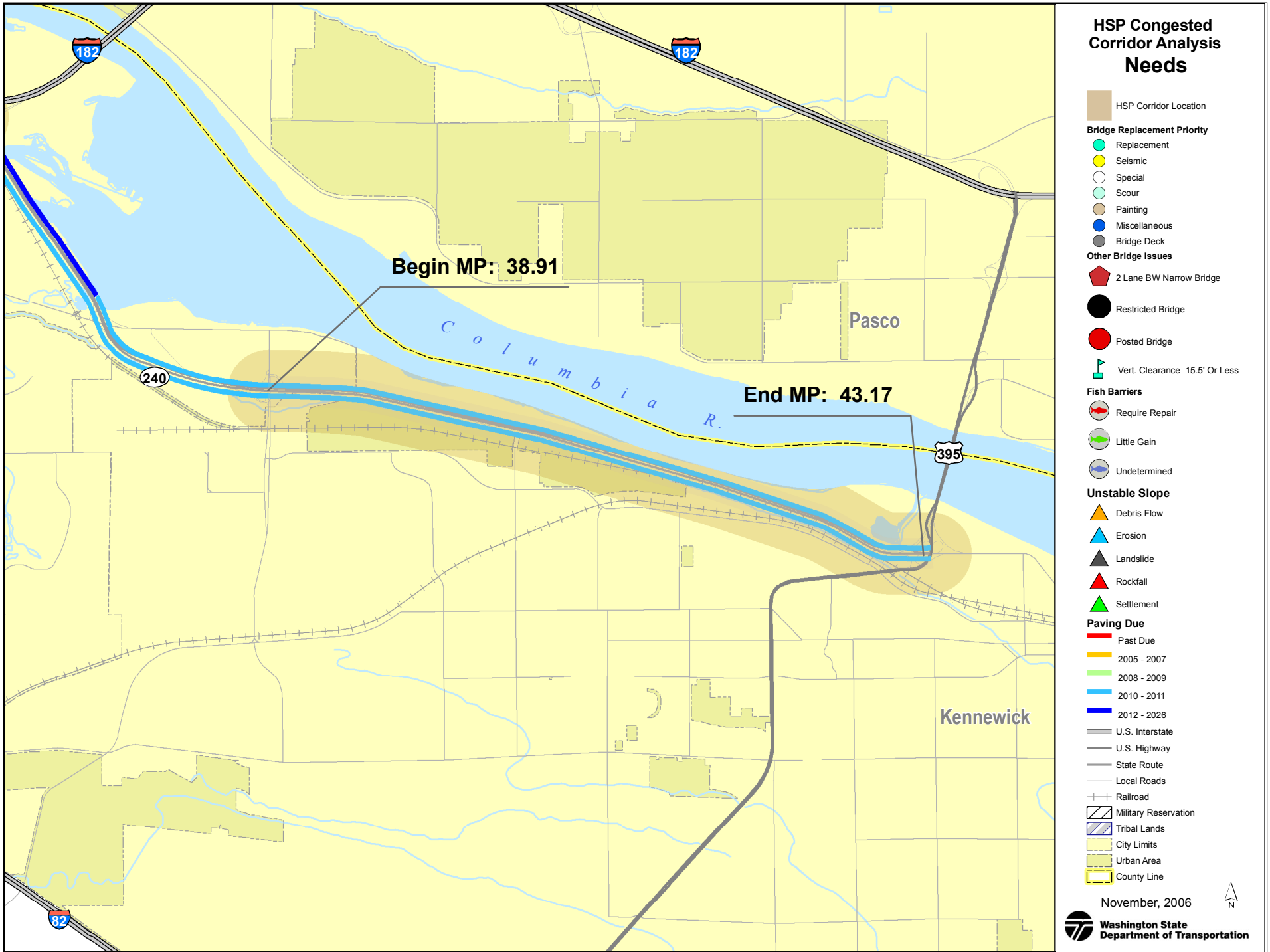
There are none identified.

#### **Restrictions:**

There are none identified.

#### **50-Year Configuration:**

This entire corridor segment roughly follows the boundary between Kennewick and Richland. As the surrounding lands begin to infill with residential and recreational uses the character of the roadway will continue to be congested and in need of further expansion.



## ***TIERED PROPOSED SOLUTIONS***

### **Minimum Fix**

**Description:**

This project will improve the eastbound off ramp connection with Edison St. by adding a lane to the ramp for an additional right turn movement onto Edison. The raised traffic island will be removed so that the existing through, left and right movements will change to a dedicated double right turn with a through and left as the other leg eastbound. A signal would also be added and interconnected with the city system if warrants are met.

**Delay Reduction:** None identified.

**Collision Reduction:** None identified.

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** 1.2 M

**Cost Estimate Explanation:**

The cost estimate is based on adding a lane to the eastbound off ramp as well as a possible signal at the same location.

**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 \$ 1,344,512 in safety benefits associated with this project.

### **Moderate Fix**

**Description:**

None Identified.

**Delay Reduction:** None identified.

**Collisions Reduction:** None identified.

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** None identified.

**Cost Estimate Explanation:**

None identified.

**Moderate Fix Benefits:**

None identified.

### **Maximum Fix**

**Description:**

This project will improve the eastbound off ramp connection with Edison St. by adding a lane to the ramp for an additional right turn movement onto Edison. The raised traffic island will be removed so that the existing through, left and right movements will change to a dedicated double right turn with a through and left as the other leg eastbound. A signal would also be added and interconnected with the city system if warrants are met. This project will also add two general purpose lanes to the mainline from Columbia Center Blvd. to the interchange connection with US 395.

**Delays Reduction:** None identified.

**Collisions Reduction:** None identified.

**Deficient Concrete Lane Miles:** None identified.

**Total Estimate Cost:** \$26.7 M

**Cost Estimate Explanation:**

The cost estimate is based on adding a lane to the eastbound off ramp as well as a possible signal at the same location and two GP lane for the length of the project.

**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 \$ 31,893,344 in general purpose lane benefits and \$ 18,337,182 in

**Off-System Solutions:**

None identified.

**Special Studies/Reports:**

None identified.

**Required Studies**

None identified.

**Start/Completion Date of Study:**

None identified.

**Expected Results**

None identified.

**Funded Projects within Corridor Limits**

<b>Project No</b>	<b>Title</b>
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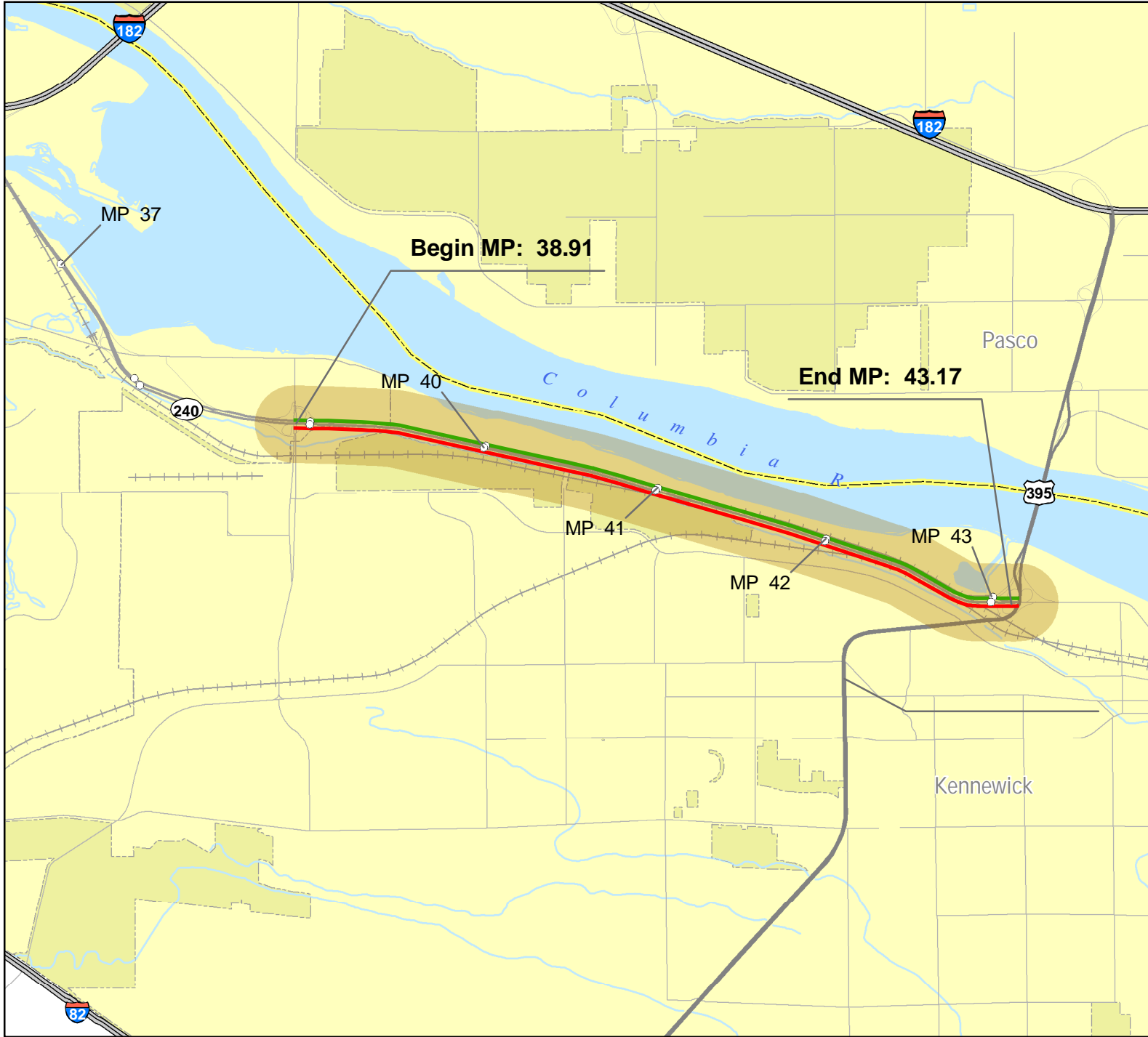
None identified	
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**Additional Comments:**

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