

# Corridor Sketch Summary

SR 24: I-82 Jct (Yakima) to SR 243 Jct

Corridor 367

Highway No. 024

Mileposts: 0 to 44.13

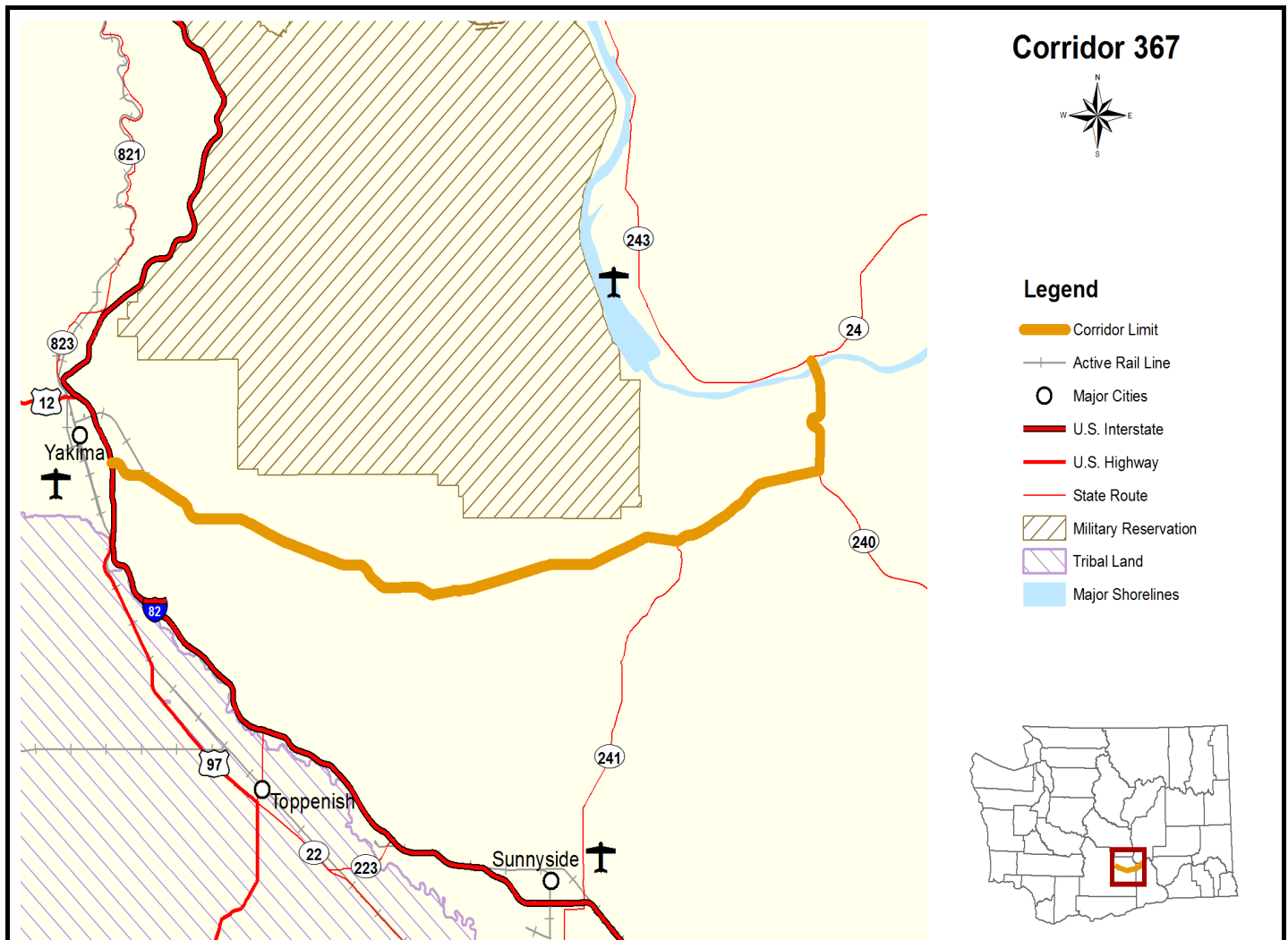
Length: 43.85 miles

## Corridor Description

The SR 24 corridor begins at the Interstate 82 Interchange then crosses the Yakima River and enters the Moxee Valley located between the Yakima Ridge and Rattlesnake Hills. The Moxee Valley is a major irrigated agricultural area including major hop fields, a specialty crop. About four miles east of I-82, SR 24 goes past the City of Moxee. The highway terrain is flat with gentle horizontal curves in places. The ridges are unirrigated and covered with grass, sagebrush, and other desert vegetation. These areas are used for grazing of sheep and cattle. The Moxee Valley extends east for about 18 miles before encountering a two-mile hilly section and the high point on SR 24.

SR 24 then enters the Black Rock Valley and begins a gradual decline, with one exception, all the way to the Columbia River. The Black Rock Valley extends about 10 miles to the junction with SR 241. There are some irrigated agricultural fields as well as unirrigated desert vegetation. Continuing east, SR 24 ascends up a 200-foot+ grade with dry grass-brush hillsides. SR 24 then descends into a valley in the Cold Creek area with irrigated fields intermixed with dry grass and brush fields.

Continuing east, SR 24 reaches the SR 240 junction and turns north descending down a steep grade to the Columbia River plains. SR 24 crosses over the Columbia River on the Vernita Bridge reaching the junction of SR 243 and the end of the corridor.





## Corridor Function

### Current Function

#### YAKIMA to MOXEE (I-82 to FAUCHER RD)

SR 24 is a limited access urban principal arterial from Interstate 82 to Faucher Rd on the east end of Moxee (about five and one-half miles). This section is on the National Highway System and provides one of only two east-west Yakima River crossings between Selah Gap and Union Gap. SR 24 is an important freight route with freight tonnage and volumes heaviest between I-82 and University Parkway/Riverside Rd. SR 24 is signalized and is a commuter route for the City of Moxee, serves industrial facilities in Moxee, and the nearby agricultural lands. In the last 10 years, this area has seen industrial, commercial, and dense residential land development. Moxee’s population has grown nearly five-fold to 3,700 people since 2000.

SR 24 is a four-lane highway from I-82 to University Parkway/Riverside Road with two bridges, and then transitions to a two-lane facility to Faucher Road. The posted speed limit is 35 miles per hour in the I-82 Interchange vicinity and then goes to 55 miles per hour. Traffic volumes on SR 24 peak at 22,000 vehicles per day at the I-82 Interchange then drop to 6,400 vpd at Faucher Rd. Between Yakima and Moxee, SR 24 has eight at-grade public road intersections, each with left-turn channelization. Five of the intersections are signalized and three are stop-controlled. The intersection spacing varies from one-half mile to over one mile. A short-line railroad spur is adjacent to the north side of the highway with an at-grade railroad crossing on Beaudry Road that is within the functional limits of the SR 24/Beaudry Road intersection.

#### MOXEE to COLUMBIA RIVER (FAUCHER RD to SR 243)

SR 24 is a rural principal arterial (38 miles) from Faucher Rd to the Columbia River at the Vernita Bridge. Most of this segment is in Yakima County with a shorter length in Benton County on the eastern end of the study area. It serves the eastern Moxee Valley, Black Rock Valley, and the Hanford Reach National Monument. Historically, the land use has been irrigated agriculture and ranching. It is a valuable freight route for agricultural products and a commuter route to the U.S. Department of Energy Hanford site.

The SR 241 junction occurs at the east end of the Black Rock Valley. Between SR 241 and SR 240, there are existing climbing lanes in each direction up the grade from mp 30.4 to 34.7. SR 24 also intersects SR 240 with access to Hanford and the Tri-Cities. The land drops steeply from SR 240 down to the Columbia River. SR 24 provides one of the few Columbia River crossings via the Vernita Bridge.

The posted speed limit ranges from 55 to 65 miles per hour. Traffic volumes go from 4,500 vehicles per day at Faucher Rd to down to 1,800 at the SR 241 junction before increasing to 4,500 at the Columbia River. Freight volumes and tonnage increase east of the SR 241 junction and peak between SR 240 and the Columbia River. The heaviest freight tonnage occurs between SR 241 and the Columbia River.

### Future Function

SR 24 will continue to be critical as one of two Yakima River crossings between Selah and Union Gaps, and as a primary connection between the cities of Yakima and Moxee. It is will also continue serving the Moxee and Black Rock Valleys, for access through the valleys, to the Hanford Reach National Monument, and as one of the few critical crossings of the Columbia River. SR 24 will continue to be important for agricultural and industrial transport, for commuters to Hanford, and alternate access to the Tri-Cities.

Comments or feedback on function

## Preservation

Policy Goal: To maintain, preserve, and extend the life and utility of prior investments in transportation system and services.

**What's Working Well?**

Only 2% of the pavement is past due for resurfacing.

In 2006, the newly constructed SR 24 Yakima River Bridge has increased resiliency against erosion and floods.

**What Needs to Change Today?**

**What Needs to Change in the Future?**

Comments or feedback on preservation

**Safety**

Policy Goal: To provide for and improve the safety and security of transportation customers and the transportation system.

**What's Working Well?**

The roadway is generally flat to rolling with some longer, steeper grades in the east. SR 24 has several straight sections of highway and the horizontal curves are gentle with large curve radii. Several safety features exist in the study corridor.

The relocated 22nd St traffic signal improves safety by providing increased distance between 22nd St and the I-82 westbound ramps and aligning driveways on opposite sides of SR 24. Shoulders provide facilities for bicycle and pedestrian modes. There are eastbound and westbound truck climbing lanes immediately east of the SR 241 junction. They extend for 4 miles in each direction in the ascending direction between mileposts 30.4 and 34.7. This gives vehicles the ability to safely pass freight trucks and other slower vehicles up a 200-foot+ grade. An eastbound truck turnout has been constructed around milepost 40. There is a safety rest area and a Road Weather Information System (RWIS) located near the Vernita Bridge over the Columbia River.

**What Needs to Change Today?**

A separate bicycle-pedestrian path could be constructed between the Yakima Greenway and the City of Moxee.

SR 24 has a steep five and one-half percent grade up from the Columbia River plains (the Vernita grade). The grade extends for about one mile. To improve safety, a westbound climbing lane could be constructed up the Vernita grade allowing faster traffic to pass safely.

Intelligent Transportation System (ITS) strategies are needed to identify and react to maintenance situations (e.g., snow, ice, fog, dust storms) particularly in the vicinities of the Vernita Bridge and the Vernita Rest Area, and the existing truck climbing lanes.

**What Needs to Change in the Future?**

Comments or feedback on safety

**Mobility**

Policy Goal: To improve the predictable movement of goods and people through Washington State, including congestion relief and improved freight mobility.

WSDOT currently defines congestion for system screening as locations that currently or are projected to operate below 70% of the posted speed limit during peak hour. Statewide analysis is preformed to screen at three time periods: current year, ten year and twenty year.

**What's Working Well?**

There are three well-utilized park-and-ride lots between I-82 and Moxee. The widened Yakima River Bridge (in 2006) increases capacity and reduces delay by providing an additional lane in each direction.

There is an existing climbing lane for 4 miles in each direction in the ascending direction between mileposts 30.4 and 34.7. This gives vehicles the ability to safely pass freight trucks and other slower vehicles up a 200-foot+ grade.

**What Needs to Change Today?**

A separate bicycle-pedestrian path could be constructed between the Yakima Greenway and the City of Moxee.

The mobility screen determined that from University Way to Faucher Rd. is congested (volume-to-capacity > 0.5 for 15hrs.) This is validated through local feedback. The SR 24/Birchfield Road intersection has been identified as falling below 70% of the posted speed limit within the next 20 years. The westbound I-82 ramps and the S 22nd St intersection have long hours with congestion. Additional channelization or improvements may be needed at some intersections as traffic volumes increase.

The entire segment of SR 24 from the University Parkway/Riverside Rd intersection to Faucher Rd have congestion for long hours. Capacity improvements will be needed in this section as development continues. There is local support for extending the four-lane section to Moxee now for about one mile.

**What Needs to Change in the Future?**

SR 24 a steep five and one-half percent grade for about one mile up from the Columbia River plains (the Vernita grade). To improve mobility, a westbound climbing lane could be constructed up the Vernita grade allowing faster traffic to safely pass. The Region has identified this as an important priority.

The three existing park-and-ride lots may need to be expanded or improved.

Additional channelization or improvements may be needed at some intersections as traffic volumes increase. Capacity improvements will be needed from Yakima to Moxee as development continues. There is local support for extending the four-lane section to Moxee. If a separated bicycle-pedestrian path is constructed, there is sufficient pavement width to add an additional through lane just by striping.

Comments or feedback on mobility

**Environment**

Policy Goal: To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment.

**What's Working Well?**

In 2006, the SR 24 Yakima River Bridge was lengthened to accommodate the wider floodplain and floodplain restoration.

The fish passage mp 1.07 has now been corrected and allows fish to pass unimpeded.

No identified fish barriers or chronic environmental deficiencies are in the study corridor. SR 24 is identified as having a moderate climate vulnerability for increased fire dangers. There are no unstable slopes and the seismic risk is low.

The corridor falls outside the Yakima non-attainment areas for both particulates and carbon monoxide.

**What Needs to Change Today?**

**What Needs to Change in the Future?**

Eight miles of SR 24 are a medium priority for habitat connectivity investment and 26 miles are a low priority. The entire corridor is rated moderate for climate impact vulnerability.

Comments or feedback on environment

**Economic Vitality**

Policy Goal: To promote and develop transportation systems that stimulate, support and enhance the movement of people and goods to ensure a prosperous economy.

**What's Working Well?**

SR 24 is important route for freight to cross the Yakima River and the Columbia River. The widened Yakima River Bridge (in 2006) significantly improves economic vitality by providing an additional lane in each direction over the river, and offering greater resiliency for the system.

**What Needs to Change Today?**

The Moxee area is poised for urban industrial, residential, and commercial development. If a separated bicycle-pedestrian path is constructed, there is sufficient pavement width to add an additional through lane just by striping.

**What Needs to Change in the Future?**

SR 24 a steep five and one-half percent grade for about one mile up from the Columbia River plains (the Vernita grade). To improve mobility, a westbound climbing lane could be constructed up the Vernita grade allowing faster traffic to safely pass.

Comments or feedback on economic vitality