

## Reconstruction – Interchange 303 to Interchange 307

### No Build and Alternative Build Condition - Volume Growth

Design-year peak hour traffic volumes (2045) were developed for No Build and Alternative 2A, 2B, and 2D utilizing a two percent yearly growth rate on mainline sections and mainline ramps.

The yearly traffic growth of 2% was not applied to local routes. For the no-build scenario and build alternatives, the mainline ramp volume increases were assigned to carry through the local network.

### Alternative Build Condition - Volume Assignment

Volumes were assigned for Alternative 2A, 2B, and 2D using the design year traffic volume projections combined with revised volume reassignments developed for the updated Alternative interchange configurations. All Alternatives carried forward included reassigned volumes due to the removal of Interchange 306.

Traffic volume assignments for proposed new ramps in all alternatives were developed considering both the removal of ramps and regional traffic patterns and current congested areas.

In addition, the I-80 Origin-Destination Study completed in April 2005 (McCormick Taylor) was referenced to use existing interchange-to-interchange travel patterns where possible in the traffic reassignment to new/removed ramp facilities. The relevant tables from the O-D study are also attached for reference.

Detailed information on the traffic assignments at each interchange for the Alternatives is provided below.

### Interchange 303

Under all Alternatives, volumes for Interchange 303 were modified to consider additional traffic reassigned from existing volumes that currently utilize:

- Interchange 302 (PA33) to access PA 611 (to/from large retail developments on PA611 just west of Interchange 303 area)
- Bridge Street to access PA611 (to/from south direction – Main Street)
- Interchange 305 (W Main St) westbound exit to access PA611
- Removal of EB Exit 305 ramps for Alternatives 2D and 2D

The volumes were assigned to the concept of Route 611 (and Stroud mall area) bound traffic having new entrance access to eastbound I-80 and exit access from westbound I-80. Existing congestion at Interchange 302 just west of the project area was considered when assigning volumes to the new Interchange 303 configuration which provides a full movement interchange and also provides for all movements at the interchange terminus at Route 611.

## Interchange 304

Under Alternative 2A, I-80 eastbound and westbound traffic to/from US209 was not developed as the interchange would maintain its existing ramp access under this alternative.

Under Alternatives 2B and 2D, the volumes for Interchange 304 under the alternative scenarios include I-80 eastbound and westbound traffic to/from US209, as well as West Main Street (via US209 Northbound and Southbound access). The volumes were assigned to consider additional traffic reassigned from existing volumes that currently utilizes:

- Interchange 305 W Main St access – eastbound ramps at Interchange 305 are eliminated; most traffic expected to utilize proposed US209 access ramps
- Interchange 302 (PA33) to access PA 611 (to/from large retail developments on PA611 just west of Interchange 303 area)
- Addition of EB on ramp and WB off ramp at Interchange 303
- Bridge Street to access PA611 (to/from south direction)

The proposed I-80 westbound flyover ramp access from US209 northbound volume was determined using traffic patterns from the 2005 O-D study for existing vehicles traveling northbound US209 and exiting at the existing Interchange 305 eastbound exit ramp.

New ramps at Interchange 304 also consider traffic that utilizes Business Route 209 to/from the south and Bridge Street to PA Route 611 and the Stroud Mall area.

#### **Interchange 305**

The volumes for Interchange 305 were modified to consider the elimination of eastbound access ramps under the proposed alternative scenarios, along with traffic reassigned from westbound access that will potentially utilize the Interchange 303 proposed westbound exit. The volumes for Interchange 305 were modified to consider additional traffic reassigned from existing volumes that currently utilize:

- Interchange 305 to access West Main Street (westbound access will be maintained, eastbound access to be eliminated)
- Bridge Street to access PA611 (to/from south direction)
- Interchange 305 (W Main St) westbound exit to access PA611

#### **Interchange 306**

The volumes for Interchange 306 were modified to consider additional traffic reassigned from existing volumes that currently utilizes:

- Interchange 305 to access West Main Street from eastbound exit (to be eliminated) – reassigned volume portion to Interchange 306 exit ramp to Dreher Ave
- Interchange 305 to access West Main Street from eastbound entrance (to be eliminated) – reassigned volume portion to Interchange 306 entrance ramp from Dreher Ave

#### **Interchange 307**

The volumes for Interchange 307 were modified to consider additional traffic reassigned from existing volumes that currently utilizes:

- Interchange 307 (at Park Avenue) to access I-80 eastbound (ramp to be eliminated) - reassigned volume portion to proposed Interchange 307 (Broad Street) entrance ramp to I-80 eastbound