

Appendix C Applicable Standards and Classifications

Classifications

Table C-1 shows ODOT, City of Phoenix, and Jackson County jurisdiction over the principal roadways in the interchange area and the classification of each roadway segment.¹ As part of the Fern Valley Interchange Project, ODOT plans to accept from Jackson County ownership of Fern Valley Road and N. Phoenix Road between OR 99 and the intersection with the S. Phoenix Road Extension and classify the roadway as a District Highway.

Configuration Standards

Regarding Interstate Highways, the Oregon Highway Plan (OHP) states:

Interstate Highways (NHS [National Highway System]) provide connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. The Interstate Highways are major freight routes and their objective is to provide mobility. The management objective is to provide for safe and efficient high-speed continuous-flow operation in urban and rural areas.²

Regarding Freeways, the OHP states:

- Freeways are multi-lane highways that provide for the most efficient and safe high speed and high volume traffic movement.
 - Interstate Freeways are subject to federal interstate standards as established by the Federal Highway Administration.”
- * * *
- ODOT owns the access rights and direct access is not allowed. Users may enter or exit the roadway only at interchanges.
 - Preference is given to through traffic.
 - Driveways are not allowed.
 - Traffic signals are not allowed.
 - Parking is prohibited.
 - Opposing travel lanes are separated by a wide median or a physical barrier.

¹ “Jurisdiction” means here authority to classify a roadway segment to determine the applicable mobility performance standard. ODOT owns the roadway segments for which Table C-1 shows it as having jurisdiction. However, while Jackson County owns the portions of Fern Valley Road and N. Phoenix Road inside the Phoenix UGB, the City of Phoenix TSP classifications apply to them. For this reason, the City is shown as having jurisdiction over them.

² ODOT, *Oregon Highway Plan* (OHP), updated in June 2006, p. 41.

<http://www.oregon.gov/ODOT/TD/TP/orhwyplan.shtml>.

**Table C-1
ROADWAY JURISDICTION AND CLASSIFICATION**

Facility	Jurisdiction¹	Classification
I-5	ODOT	Interstate Highway, National Highway System, ² Freeway, ³ Statewide Freight Route ⁴
OR 99, couplet segment ⁵	Phoenix	Arterial ⁶
OR 99, outside couplet segment	ODOT	District Highway ⁷
Fern Valley Rd. within Urban Growth Boundary (UGB) before the Fern Valley Interchange Project <ul style="list-style-type: none"> From OR 99 to interchange From interchange to N. Phoenix Rd. 	Phoenix ODOT ⁸ Phoenix Phoenix	Arterial District Highway Arterial Collector ⁶
Fern Valley Rd. within UGB after the Fern Valley Interchange Project <ul style="list-style-type: none"> From OR 99 to N. Phoenix Road From S. Phoenix Rd. to UGB From Pear Tree Ln. to S. Phoenix Rd. 	ODOT Phoenix Phoenix Phoenix	District Highway Arterial Collector Collector
Fern Valley Rd. outside UGB	Jackson County	Minor Collector ⁹
N. Phoenix Rd. within UGB before the Fern Valley Interchange Project	ODOT Phoenix	District Highway Collector ⁶
N. Phoenix Rd. within UGB after the Fern Valley Interchange Project	ODOT Phoenix	District Highway Arterial
N. Phoenix Rd. outside UGB before and after the Fern Valley Interchange Project	Jackson County	Arterial ⁹
S. Phoenix Rd. Extension after the Fern Valley Interchange Project	Phoenix	Collector
Notes ¹ “Jurisdiction” means here authority to classify a facility, not ownership. ODOT, <i>Oregon Highway Plan (OHP)</i> , Updated in June 2006, Highway Classification Maps. ³ Ibid., p. 120. ⁴ Ibid., p. 68. ⁵ The City of Phoenix owns the couplet segment of OR 99 (the Rogue Valley Highway) in downtown Phoenix, i.e., Main Street and Bear Creek Road from 6th Street on the south to just north of the north end of the couplet, including 4th Street and 1st Street between Main Street and Bear Creek Road. See Jurisdictional Transfer Agreement, Rogue Valley Highway, State Highway No. 63 – OR 99 (MP 11.37-12.00), Jackson County, City of Phoenix, January 3, 2006.. ⁶ City of Phoenix Transportation System Plan, p. 87. ⁷ ODOT, OHP, State Highway Classification System map, PDF p. 307. ⁸ Intergovernmental Agreement, Fern Valley Road: Interstate 5 Interchange, Jackson County, between ODOT and Jackson County, December 8, 2004, amended January 17, 2007. ⁹ Jackson County Transportation System Plan, p. 52.		

- Grade separated crossings that do not connect to the freeway are encouraged to meet local transportation needs and to enhance bicycle and pedestrian travel.
- The primary function is to provide connections and links to major cities, regions of the state, and other states.”³

³ Ibid., Action 3A.1, p. 120.

Regarding District Highways, the OHP states:

District Highways are facilities of county-wide significance and function largely as county and city arterials or collectors. They provide connections and links between small urbanized areas, rural centers and urban hubs, and also serve local access and traffic. The management objective is to provide for safe and efficient, moderate to high-speed continuous-flow operation in rural areas reflecting the surrounding environment and moderate to low-speed operation in urban and urbanizing areas for traffic flow and for pedestrian and bicycle movements. Inside STAs, local access is a priority. Inside Urban Business Areas, mobility is balanced with local access.⁴

Mobility Performance Standards

ODOT, the City of Phoenix, and Jackson County prescribe mobility performance standards in volume to capacity (v/c) ratios. For freeways, the v/c ratio is the ratio of peak-hour volumes traveling on a roadway segment compared to the estimated one-hour roadway capacity. There are two separate sets of ODOT v/c standards. One is in the OHP and the other is in the 2003 Highway Design Manual (English) (HDM). ODOT uses the OHP standards for plans and the HDM standards for designs. Table C-2 contains the mobility performance standards applicable to I-5, the Fern Valley Interchange, OR 99, Fern Valley Road, and N. Phoenix Road.

Access Spacing Standards

As applied to Fern Valley Road, ODOT access spacing standards require that, unless ODOT approves a “deviation”:

- the distance between a ramp intersection and the first approach on the right, right in/right out only, be no less than 750 feet;
- the distance between a ramp intersection and the first intersection where left turns are allowed be no less than 1,320 feet;
- the distance between the start of the taper for the on-ramp and the last right in/right out approach road be no less than 990 feet.⁵

⁴ Ibid., p. 41.

⁵ ODOT, *Oregon Highway Plan*, Appendix C, Table 16, Minimum Spacing Standards Applicable to Freeway Interchanges with Two-Lane Crossroads.

Table C-2		
ROADWAY JURISDICTION AND MOBILITY PERFORMANCE STANDARDS		
Facility	Jurisdiction¹	Mobility Performance Standard
I-5 Mainline	ODOT	0.80 ²
Interchange ramp terminals, for project design	ODOT	0.75 ³
Interchange ramp terminals, for plans, including IAMPs	ODOT	0.85 ⁴
OR 99, couplet segment	Phoenix	0.95 to > 0.95 ⁵
OR 99, outside couplet segment, for project design	ODOT	0.85 ³
OR 99, outside couplet segment, for plans, including IAMPs	ODOT Phoenix	0.90 ² 0.90 ⁵
Fern Valley Rd. within UGB before Fern Valley Interchange Project, for planning		
<ul style="list-style-type: none"> From OR 99 to interchange From interchange to N. Phoenix Rd. 	Phoenix ODOT Phoenix Phoenix	0.90 ⁵ 0.90 ² 0.90 ⁵ 0.90 ⁵
Fern Valley Rd. within UGB after Fern Valley Interchange Project, for project design		
<ul style="list-style-type: none"> From OR 99 to N. Phoenix Road From S. Phoenix Rd. to UGB From Pear Tree Ln. to S. Phoenix Rd. 	ODOT Phoenix Phoenix	0.85 ³ 0.90 ⁵ 0.90 ⁵
Fern Valley Rd. within UGB from OR 99 to interchange after Fern Valley Interchange Project, for plans, including IAMPs		
<ul style="list-style-type: none"> From OR 99 to N. Phoenix Road From S. Phoenix Rd. to UGB From Pear Tree Ln. to S. Phoenix Rd. 	ODOT Phoenix Phoenix Phoenix	0.90 ² 0.90 ⁵ 0.90 ⁵ 0.90 ⁵
Fern Valley Rd. outside UGB	Jackson County	0.95 ⁶
N. Phoenix Rd. within UGB before the Fern Valley Interchange Project	ODOT Phoenix	0.90 ² 0.90 ⁵
N. Phoenix Rd. within UGB after the Fern Valley Interchange Project, for project design	ODOT	0.85 ³
N. Phoenix Rd. within UGB after the Fern Valley Interchange Project, for plans, including IAMPs	ODOT Phoenix	0.90 ² 0.90 ⁵
N. Phoenix Rd. outside UGB before the Fern Valley Interchange Project		
<ul style="list-style-type: none"> To .66 mi. north of Fern Valley Rd. North of .66 mi. north of Fern Valley Rd. 	ODOT Jackson County	0.90 ² 0.95 ⁶
N. Phoenix Rd. outside UGB after the Fern Valley Interchange Project	Jackson County	0.95 ⁶
S. Phoenix Rd. Extension after the Fern Valley Interchange Project	Phoenix	0.90 ⁵
Notes		
¹ “Jurisdiction” means here authority to classify a facility, not ownership.		
² ODOT, <i>Oregon Highway Plan</i> , Updated in June 2006, Table 6, p. 83.		
³ 2003 Highway Design Manual, p. 10-38, http://www.oregon.gov/ODOT/HWY/ENGSERVICES/hwy_manuals.shtml .		
⁴ ODOT, <i>Oregon Highway Plan</i> , Updated in June 2006, p. 79.		
⁵ City of Phoenix Transportation System Plan, p. 29.		
⁶ Jackson County Transportation System Plan, p. 34.		

The listed standards are based on categorization of the interchange management area as “urban.” Appendix A contains OAR 734-051-0135, which specifies the requirements for deviations from these standards.

As applied to the portion of OR 99 under ODOT jurisdiction (i.e., north of the couplet), ODOT access spacing standards require that unsignalized public and private approaches be spaced at least 350 feet apart to Cheryl Lane (because the posted speed is 30 miles per hour (mph). North of Cheryl Lane, the standard 500 feet (because the posed speed is 45 mph).⁶ As applied to the OR 99 couplet, the City of Phoenix access spacing standard is 400 feet both between driveways and between driveways and public street intersections.⁷ The Jackson County TSP recommends a 150-foot minimum spacing between accesses for roadways classified as Arterial, which includes N. Phoenix Road outside the Phoenix UGB.⁸

⁶ Ibid., Table 15, Access Management Spacing Standards for District Highways. This is the standard for District Highways in urban areas with a posted speed of 30 or 35 mph.

⁷ City of Phoenix Land Development Code, Section 3.3.3(F), page 93, <http://www.phoenixoregon.net/DevelCode.pdf>.

⁸ Jackson County TSP, Table 5-2, p. 58.

