



## **STAFF REPORT**

April 19, 2008

TO: Planning Commission

FROM: Don Odermott, PE  
Transportation Planning Engineer

RE: Area 69 and Area 71 Urban Growth Boundary Expansions  
Staff Report for Transportation Planning Rule Compliance

### **General Principles:**

Transportation impacts and mitigative responsibilities associated with changes in land use in Oregon are governed by the Transportation Planning Rule, which is found in the Oregon Administrative Rules (OAR Chapter 660, Division 012). Fundamentally, the Transportation Planning Rule (TPR) requires that changes in land use which impart an increased impact on a public transportation system are required to be mitigated by capacity improvements and/or transportation demand management methods which offset impacts imparted to the transportation system. Existing deficiencies within the area impacted by a proposed land use change are required to be improved to meet standards before land use changes can be implemented which would further deteriorate existing deficiencies. Additional deficiencies created by the proposed land use change are required to be mitigated concurrent with the imparting of the impact.

### **Evaluation Methodology of Transportation System Performance and Needs:**

The transportation system in south Hillsboro and the adjacent unincorporated Washington County study area has been addressed by David Evans & Associates in three draft transportation impact analyses. City staff is still undertaking its review of the draft studies and intends for final reports to be available prior to the April 29, 2008, Plan Amendment hearing before the Planning Commission. The three draft studies, listed below, are available in the Appendices as noted:

- Draft Year 2013 Area 69 & 71 Transportation Evaluation (April 21, 2008)
- 2030 No-Build Scenario Preliminary Transportation Evaluation (Dec. 15, 2007)
- 2030 Build Scenario Preliminary Transportation Evaluation (Dec. 24, 2007)

The preliminary reports published in December evaluated transportation system performance in 2030, which is the current modeled study horizon year. The 2030 Build analysis evaluated the impacts of traffic generation from the larger South Hillsboro study area, generally bounded by TV Highway on the north, SW 209<sup>th</sup> Avenue on the east, SW Rosedale Road on the South, and SW 229<sup>th</sup> on the west. An additional growth area was evaluated south of the Witch Hazel UGB

expansion and west of the Reserve Golf Course. The identified transportation system deficiencies resulting from development of the larger study area outside of the current UGB, including Area 69 and Area 71, and required roadway system improvements, are documented in the December 24, 2007 draft report. The identified improvements necessary for serving the broader study area provide critical insight as to the roadway infrastructure necessary to guide infrastructure decisions related to development of Areas 69 and 71.

One example of the insight provided by the 2030 analysis includes the determination that the extension of 234<sup>th</sup> Avenue within Area 71 should be accomplished under an Arterial road standard, contrary to its current adopted Transportation System Plan designation as a Collector road. Insight provided on future traffic demand impacts anticipated with urbanization of areas outside of the current UGB allow for informed current transportation planning decisions on system needs within the UGB. This allows the City of Hillsboro to make decisions to ensure adequate road right of way and infrastructure are planned and constructed which will be compatible with future needs.

Comparison of the 2030 No-Build and 2030 Build analysis results identifies the additional roadway system improvements attributable to development in Area 69, Area 71, and the other Urban Reserve areas located within the broader study area. These improvements, and the off-site improvement costs, will be detailed in the Executive Summary of the final 2030 Build Transportation Evaluation report. Costs for transportation system improvements within the study area, and on the edges of the study area, will be detailed in the South Hillsboro Community Plan final report, prepared by Alpha Community Development for the City of Hillsboro. E.D. Hovee & Company prepared a Memorandum dated February 14, 2008, in which it addressed the transportation and utility system infrastructure costs documented in the South Hillsboro Community Plan, including identifying a range of possible funding strategies to address shortfalls. Leland Consulting Group issued a report entitled South Hillsboro Planning Area Infrastructure Financing Strategy dated April 16, 2008, which proposed a financing strategy to address the funding shortfalls predicted in the E.D. Hovee report. The above referenced reports need to be modified to reflect the final transportation system mitigation as the DEA traffic reports are finalized. It is staff's intent that these final reports, both on transportation system impacts and on the financing of infrastructure, will be made available to the public and to the Planning Commission prior to the April 29, 2008, hearing.

**Existing Transportation System Deficiencies:**

Evaluation of existing traffic operations has been documented in the Draft Year 2013 Area 69 & 71 Transportation Evaluation. The study area evaluated in this report is consistent with the larger study area defined in the 2030 model year traffic studies. As such, it significantly exceeds the standard 10% impact area used in TPR evaluations. The 10% impact area for Area 69 and Area 71, illustrated in Figure 10 of the report, extends east to SW 198<sup>th</sup> Avenue, south to SW Rosedale Road, north to TV Highway, and west to River Road. The analysis, however, extends north to Baseline Road and east to SW 185<sup>th</sup> Avenue.

Based upon the rapid development of the Witch Hazel UGB expansion area, staffs from ODOT, Washington County, Hillsboro, and Metro met and agreed that it would be prudent to evaluate the road system needs attributable to Area 69 and Area 71 development on a shorter term horizon year. This approach would provide better insight on needed improvements concurrent with the anticipated development schedule for these two UGB expansion areas. Thus, in addition to evaluating deficiencies in 2008, the Draft Year 2013 Area 69 & 71 Transportation Evaluation analysis has also evaluated anticipated traffic conditions in the year 2013 without Area 69/71 development (“2013 No-Build”) and with Area 69/71 development (“2013 Build”).

Following is a summary of identified existing deficiencies, including known deficiencies located north of the DEA report’s study area. Also indicated are estimated costs of improvements and anticipated funding source:

<u>Project Description</u>	<u>Estimated Cost (\$M)</u>	<u>Funding Source</u>
Brookwood (TV Hwy to Baseline): Widen to 3-lane	\$10.00	MSTIP-3C
Brookwood (River Rd to Alexander): Widen to 3-lane/roundabout	\$ 2.50	TIF
Brookwood at Cornell: Double Left Turn Lanes on Cornell	\$ 3.10	TIF/MSTIP-4
Cornell at 25 <sup>th</sup> : Double SB Left Turn Lanes	\$ 2.80	TIF
28 <sup>th</sup> Ave. (Main to Grant): Widen to 3-lane	\$ 4.20	TIF
River Rd (Rood Br. to Davis):Widen to 3-lane/new bridge	\$10.00	MSTIP-3C/TIF
Cornelius Pass Rd (Lois to Aloclek): Widen to 5-lane	\$24.50	MSTIP-4
TV Hwy at Century: Add southbound right turn lane	\$ 0.64	TIF
Convert south approach to Lt/Th + Rt		
Modify signal for NB/SB Rt Turn Overlaps		
(if 229 <sup>th</sup> closed) Improve Century to 5-lane operation	\$ 1.80	TIF
Extend Century bike lanes to Alexander		
TV Hwy at 209 <sup>th</sup> : Add eastbound right turn lane	\$ 3.80	TIF
Modify signal for protected lefts on 209 <sup>th</sup>		
Add second southbound thru lane		
Add second northbound left turn lane		
TV Hwy at 198 <sup>th</sup> : Add southbound right turn lane	\$ 0.30	TIF
209 <sup>th</sup> at Kinnaman: Add southbound left turn lane	\$ 0.24	TIF
198 <sup>th</sup> at Kinnaman: Add southbound left turn lane (east leg)	\$ 0.30	TIF
185 <sup>th</sup> (Blanton to Kinnaman): Widen to 3-lane	\$ 5.80	MSTIP-3C
Farmington (170 <sup>th</sup> to Kinnaman): Widen to 5-lane	\$ 1.40	MSTIP-3C
209 <sup>th</sup> at Butternut Ck: Construct 3-lane bridge	\$ 2.00	Road Capital
229 <sup>th</sup> at Butternut Ck: Construct 2-lane bridge	\$ 0.80	MSTIP-3C

Washington County has been discussing and preparing to take to voters a proposed MSTIP-4 package as a 6-year serial levy. It has not been decided yet when, or if, the package will go to the voters within the next 2 years. Should it move ahead, the City of Hillsboro anticipates that its top two priority projects will be the Cornelius Pass Road 5-lane improvement from Lois to Aloclek (see above) and the Century Boulevard extension from Lois to Baseline Road, including the Rock

Creek bridge which is estimated at a cost of approximately \$16.5 million. Improvements identified in the Area 69 and Area 71 traffic analyses consider needed road improvements assuming these MSTIP-4 funded projects are not completed concurrent with Area 69/71 development.

**Area 69 Transportation System TPR Mitigation Improvements:**

Development assumptions used in the 2013 Build analysis were based upon the number of housing units and the anticipated zoning mix identified in the South Hillsboro Community Plan. Area 69 was modeled to address the impacts of an estimated 1353 dwelling units sited on 206.3 acres stretching along the western side of SW 209<sup>th</sup> Avenue from Farmington Road north to SW McInnis Lane.

Following is a list of identified transportation system improvements necessitated by Area 69 development. This list is limited to those improvements which would be “creditable” as offsets to collected Traffic Impact Fees under County Ordinance 691. Other costs, such as internal Local and Neighborhood Route roadways, would be borne by private investors in developing the land.

<u>Project Description</u>	<u>Estimated Cost (\$M)</u>	<u>Funding Source</u>	
Cornelius Pass Rd.	R.O.W. cost across Area 69 at McInnis	\$ 2.16	Area 69 TIF
209 <sup>th</sup> (TV Hwy to Blanton)	Construct 3-lane improvements	\$ 1.38	Area 69 TIF
209 <sup>th</sup> /Blanton:	Construct 200' TWLTL <sup>1</sup> on south approach	\$ 0.24	Area 69 TIF
209 <sup>th</sup> /Kinnaman:	Construct 200' TWLTL on south approach	\$ 0.19	Area 69 TIF
209 <sup>th</sup> /McInnis:	Construct 3-lane from Butternut Ck bridge to 200' north of McInnis	\$ 0.69	Area 69 TIF
209 <sup>th</sup> (Deline to Butternut Ck. Bridge)	Complete balance of 3-lane	\$ 1.15	Area 69 TIF
209 <sup>th</sup> at Deline	Construct NB left turn lane	\$ 0.80	Area 69 TIF
	Construct traffic signal (50/50 TIF/Private)	\$ 0.30	Area 69 TIF
209 <sup>th</sup> (Deline to Rosedale Rd)	Construct west half-street	\$ 0.34	Area 69 TIF
209 <sup>th</sup> (Rosedale to Farmington)	Complete 3-lane improvements	\$ 1.38	Area 69 TIF
209 <sup>th</sup> at Rosedale	Construct traffic signal	\$ 0.30	Area 69 TIF
209 <sup>th</sup> Rosedale Crk	Box culvert extension	\$ 0.22	Area 69 TIF
Rosedale (Area 69 frontage)	Construct 3-lane improvements	\$ 4.07	Area 69 TIF
Rosedale- Ck Xing	Box culvert	\$ 0.22	Area 69 TIF
Rosedale (Area 69 to River Rd)	Widen to add shoulders for safety	\$ 0.35	Area 69 TIF
198 <sup>th</sup> at Kinnaman:	Realign Kinnaman (west)	\$ 3.50	Area 69 TIF
	Widen Kinnaman to 3-lane at signal		
	Construct traffic signal		

Project Description	Estimated Cost (\$M)	Funding Source
McInnis Lane	South half-street to Neighborhood Route	Private
Parker St.	Local Street (align with Parker Ct.) Connect within Area 69 to Deline	Private
Deline St.	West UGB to 209 <sup>th</sup> as Neighborhood Route	Private
Rosa Rd.	West UGB to 209 <sup>th</sup> as Neighborhood Route	Private
Murphy Lane	West UGB to 209 <sup>th</sup> as Neighborhood Route	Private
Manor Way	West UGB or creek to 209 <sup>th</sup> as Local	Private
Rosedale Accesses	Construct to Local standard (300' min. spacing)	Private

<sup>1</sup> TWLTL: Two-Way Left Turn Lane (striped median allowing two-stage left turn capacity)

It has been estimated that the development of Area 69 will necessitate the need for \$17.29 Million in TIF/SDC creditable public roadway infrastructure (in 2008 dollars). Remaining roadway infrastructure costs would be borne by private development investment. Under the current Washington County Traffic Impact Fee Ordinance 691, estimated revenue from the Area 69 development program is \$4,330,000. If approved, the proposed Special South Hillsboro Traffic Impact Fee of \$13,000 per single-family dwelling unit would provide \$17,590,000 for use in addressing transportation system deficiencies.

**Area 71 Transportation System TPR Mitigation Improvements:**

Development assumptions used in the 2013 Build analysis, reflected in the number of housing units and public school use in Area 71, were consistent with the anticipated zoning mix identified in the South Hillsboro Community Plan. Area 71 addressed the impact of developing 130 housing units and a 600-student elementary school. The western portion of Area 71 is served by extension of SW 234<sup>th</sup> Avenue while the remainder adjoins SW 229<sup>th</sup> Avenue.

Following is a list of identified transportation system improvements necessitated by Area 71 development. This list is limited to those improvements which would be “creditable” as offsets to collected Traffic Impact Fees under County Ordinance 691. Other costs, such as internal non-Collector/Arterial roadways, would be borne by private investors in developing the land.

Project Description	Estimated Cost (\$M)	Funding Source	
229 <sup>th</sup> (Area 71 frontage)	Construct west half-street	\$ 1.09	Area 71 TIF
229 <sup>th</sup> (at Gordon Creek)	Half-street and box culvert	\$ 0.10	Area 71 TIF
234 <sup>th</sup> (Davis across Gordon Creek)	Construct box culvert for 5-lane Construct 3-lane from Davis to Creek Construct half-street of 3-lane over Ck.	\$ 3.50	Area 71 TIF
234 <sup>th</sup> (Creek to South UGB)	Construct 3-lane in 5-lane R.O.W.	\$ 0.80	Area 71 TIF

It has been estimated that the development of Area 71 will necessitate the need for \$5,490,000 in investment on TIF/SDC creditable public roadway infrastructure (in 2008 dollars). Remaining roadway infrastructure costs would be borne by private development investment. Under the current Washington County Traffic Impact Fee Ordinance 691, estimated revenue from the Area 71 development program is \$500,000. If approved, the proposed Special South Hillsboro Traffic Impact Fee of \$13,000 per single-family dwelling unit (and assuming proportional increase on schools) would provide approximately \$2,000,000 for use in addressing transportation system deficiencies.

**Consideration of Future North-South High Capacity Transportation Corridor:**

Considerable discussion has occurred with the South Hillsboro Stakeholders, the Technical Advisory Committee, and the Hillsboro Chamber of Commerce regarding the need for a future high capacity transportation corridor to serve north-south commute trips resulting from the high employment occurring in the Sunset Corridor. While the 2030 studies undertaken in the South Hillsboro planning efforts indicate that north-south capacity can be maintained on existing and planned facilities through 2030, it is apparent that the arterials are near capacity with very little ability to absorb traffic demand growth beyond 2030. Concerns expressed relate not to the Area 69 and Area 71 UGB expansions, as they still maintain a gap of over 2000' of un-urbanized land between them, but rather focus on the published South Hillsboro Community Plan which does not identify or protect a right-of-way corridor capable of accommodating a north-south high capacity transportation corridor.

As the region undertakes its study of 50-year Urban/Rural land supply, the City of Hillsboro has made a written commitment to the Chamber of Commerce to study north-south high capacity transportation corridor alternatives, including the Cornelius Pass Road corridor, prior to accepting future Urban Growth Boundary expansions between Area 69 and Area 71. The South Hillsboro Community Plan would be used to guide development in Area 69 and Area 71 in the interim, and may be amended in the future should the North-South High Capacity Transportation Corridor Analysis identify the need for such a corridor and, further, identify that the Cornelius Pass Road corridor is the Locally Preferred Alternative.