



Date: December 7, 2007  
 To: North Bethany TAC and SWG Groups  
 From: Andrea Vannelli and Laurie Harris, Planning Division  
 Copy: Joe Dills, Otak; Lorelei Juntunen, ECONorthwest  
**Subject: Preliminary Concept Plan Infrastructure Costs**

The following memorandum presents an overview of the infrastructure cost estimates at the transition from the concept plan to the comprehensive / community planning phase. Table 1 identifies the estimated capital costs for each infrastructure need based on refined cost estimates from the concept planning work. Where noted, some capital costs have yet to be refined pending additional studies and details and assumptions about each of the cost estimates are included in the notes section, beginning on page two. Attachment 1 summarizes the funding gap, based on the estimated capital costs and existing revenue sources.

The cost estimates for each infrastructure type are preliminary and are subject to revision as the concept plan is refined in phase two of the planning process, the comprehensive / community planning phase. The comprehensive / community planning phase will focus on refining the concept plan and financing plan, and preparing implementing ordinances for adoption by the County Board of Commissioners.

**Table 1. Cost Estimates for Infrastructure (in millions of dollars)**

Infrastructure Type	Estimated Capital Costs	Source
Roads <sup>1</sup>		DKS Associates, <i>Technical Memorandum #3</i> , July 5, 2007
Existing UGB/Rural	\$131.3	
UGB Expansion Area	\$157.7	
Water <sup>2</sup>	\$15.6	CH2MHill <i>Water Supply &amp; Transmission Pipeline Concept Design</i> , July 3, 2007
Schools <sup>3</sup>	\$90 - \$111	Beaverton School District <i>North Bethany UGB: Project Educational Infrastructure Costs</i> , October 7, 2007
Affordable Housing <sup>4</sup>	\$23	Galbreath Associates, <i>Affordable Housing Report of the North Bethany Plan</i> , July 3, 2007
Sanitary Sewer <sup>5</sup>	\$13.5 <sup>a</sup>	Otak, October 10, 2007 draft technical memo
Storm Sewer <sup>6</sup>	\$13.8 <sup>a</sup>	ECONorthwest, <i>Technical Memo #1</i> , July 15, 2007
Parks & Open Space <sup>7</sup>	\$38.7 <sup>a</sup>	THPRD, November 2007
Fire & EMS <sup>8</sup>	\$10.0 <sup>a</sup>	ECONorthwest, <i>Technical Memo #1</i> , July 15, 2007
Public Safety <sup>9</sup>	\$0 <sup>a</sup>	ECONorthwest, <i>Technical Memo #1</i> , July 15, 2007
Civic Building <sup>10</sup>	\$20 <sup>a</sup>	Washington County, January 2007
Civic Space <sup>10</sup>	\$5 <sup>a</sup>	Washington County, January 2007
Transit <sup>11</sup>	Not calculated	ECONorthwest, <i>Technical Memo #1</i> , July 15, '07
<b>Total</b>	<b>\$518.7 – \$539.7</b>	

<sup>a</sup> The county prepared these initial cost estimates in 2006. Refined cost estimates are pending additional studies.

Notes

<sup>1</sup> **Roads**

These cost estimates are for arterials and collectors only; construction and right of way costs for local and neighborhood streets are not included. See Table 2 for a breakdown of costs. The Technical Memorandum #3 prepared by DKS Associates identifies road projects that are not included in the cost estimates. These include:

- Proportionate cost shares for the increment of improvement projects beyond the 2030 Baseline to serve North Bethany
- Intersection mitigations
- Off-site improvements such as the Bethany Boulevard US 26 overpass

In addition, the cost estimate assumes that stormwater from roads will be managed through a piped system whereas the planning team is considering an open conveyance management approach. See the storm sewer note for more information about stormwater costs.

**Table 2. Road Infrastructure Costs by Road Classification and Project Cost**  
(in millions of dollars)

Road Infrastructure	Existing UGB & Rural	UGB Expansion Area <sup>a</sup>
Road Classification		
Arterials	Not calculated by road classification	\$63.9
Collectors		\$93.7
<b>Total</b>		<b>\$157.6</b>
Project Cost		
Right of Way	\$32.9	\$65.8
Construction, Design, & Other	\$98.4	\$91.9
<b>Total</b>	<b>\$131.3</b>	<b>\$157.7</b>

<sup>a</sup> Costs are for arterials and collectors only (local streets not included)

<sup>2</sup> **Water**

The estimate reflects construction, engineering, and administrative costs for the primary system. The cost estimate does not include:

- Local connections and associated appurtenances
- Property and easement acquisition
- Permitting

<sup>3</sup> **Schools**

The Beaverton School District used the most recent housing variety program (Otak memo dated September 10, 2007) to estimate the number of students who will be living in North Bethany. The projected enrollment was the basis for determining land and building costs allocated to North Bethany. The range is provided because BSD has two models to project enrollment for the study area: district-wide and specific to land north of highway 26. The \$90 million estimate is generated from the district-wide model. The model for lands north of Highway 26 assumes a greater number of students from single family dwellings. This model projected an additional 418 students from single family residential, hence the greater estimate at \$111 million.

<sup>4</sup> **Affordable Housing**

The cost estimate reflects the deferred tax receipts from property tax abatement and urban renewal bonds for ownership and rental affordable housing. The housing program assumes that an urban renewal district will provide tax increment financing to financially support a land trust. The cost estimate does not assume administrative and program costs to oversee existing county affordable housing programs or implementation of land use regulations targeted towards affordable housing.

### <sup>5</sup> **Sanitary Sewer**

The \$13.5 million estimate is based on the initial cost estimates prepared by the county. In July, 2007, CH2MHill released cost estimates for three different sewer system scenarios. The estimates for the three scenarios were each within the \$10 million dollar range for construction, engineering & administration. Since CH2MHill presented their memo, Clean Water Services has hired a consultant to prepare a revised study for the sewer system. Revised cost estimates are pending the completion of this study.

### <sup>6</sup> **Storm Sewer**

This cost estimate is the result of draft work and subject to additional review. Estimate does not include costs for right-of-way facilities associated with roads, nor for local street or individual property LIDAs. It is the intent of the project management team to coordinate with CWS to produce a cost comparison for a conventional piped versus the open conveyance regional system. The results of the revised estimates will influence the initial storm sewer estimate as well as the cost estimates for road construction.

### <sup>7</sup> **Parks and Open Space**

These costs reflect Tualatin Hills Park and Recreation District's estimate to bring the North Bethany area to district-wide service levels. The estimate represents costs for all of the park and trail elements depicted on the September 2007 draft concept plan, including five neighborhood parks, one community park (split into two locations), park blocks, linear park feature and civic space. The estimates also cover the cost of a base level of development of the parks and trails (including associated features such as skate parks, restrooms, parking lots, etc.).

### <sup>8</sup> **Fire and Emergency Medical Services**

The \$10 million estimate is for construction of a new fire station to serve the North Bethany area (and adjacent areas). The cost of real estate is not included in this figure. Confirmation of this figure is pending.

### <sup>9</sup> **Public Safety**

As of fall 2006, the county does not anticipate the need for new police infrastructure to provide services to the North Bethany community.

### <sup>10</sup> **Civic Building and Public Space**

The county estimates that a new public building would cost approximately \$20 million and the design and development of a public space would cost as much as \$5 million. (Note the acquisition cost of the civic space—intended as an urban park/plaza feature—is covered in the estimate for parks.) Possible public building uses or combination of uses could include a library, community center, or other municipal-level services and activities.

### <sup>11</sup> **Transit**

The initial cost estimates prepared in 2006 did not include costs for transit since the residential densities were unknown, and therefore the ability of TriMet to serve North Bethany was uncertain. Now that a proposed concept plan and housing variety program are further refined the viability of transit and the associated costs are pending further study.

## Preliminary Development Cost Estimates for North Bethany

October 11, 2007

Infrastructure Type	Estimated Capital Costs	Customary Revenue Source <sup>1</sup>	Approximate Coverage	Remaining Gap
Roads				
Existing UGB/Rural	\$131.3	TIF (new capacity)	~15% (\$16M)	\$115.3
		MSTIP (existing capacity)	n/a	
		R&O 86-95 (safety)	100% of need	
UGB Expansion Area	\$157.7	n/a		\$157.7
Water	\$15.6	SDCs	100%	- 0 -
Schools	\$90 - \$111	GO bonds	100%	- 0 -
Affordable Housing	\$23	grants, non-profit efforts	n/a	\$23
Sanitary Sewer	\$13.5	SDCs, CWS developer agreements, developer construction	100%	- 0 -
Storm Sewer	\$13.8 <sup>2</sup>	SDCs developer construction	100%	(tbd, based on comparison of two different approaches)
Parks	\$38.8	SDCs, GO bonds	100%	- 0 -
Fire & EMS	\$10.0	GO bond	100%	- 0 -
Public Safety	\$0	n/a		- 0 -
Civic Building and Space	\$20	n/a		\$20
Civic Space	\$5	n/a		\$5
Transit	Not calculated			- 0 -
<b>Total</b>	<b>\$518.7 – \$539.7</b>			<b>\$321</b>

<sup>1</sup> Current implementation practice customarily provides this approximate coverage.

<sup>2</sup> Represents regional system component only (i.e., does not include costs for individual site or right-of-way storm or LIDAs).