



OTIG

Oregon Transportation
Improvement Group

Newberg-Dundee Transportation Improvement Project



December 12, 2006

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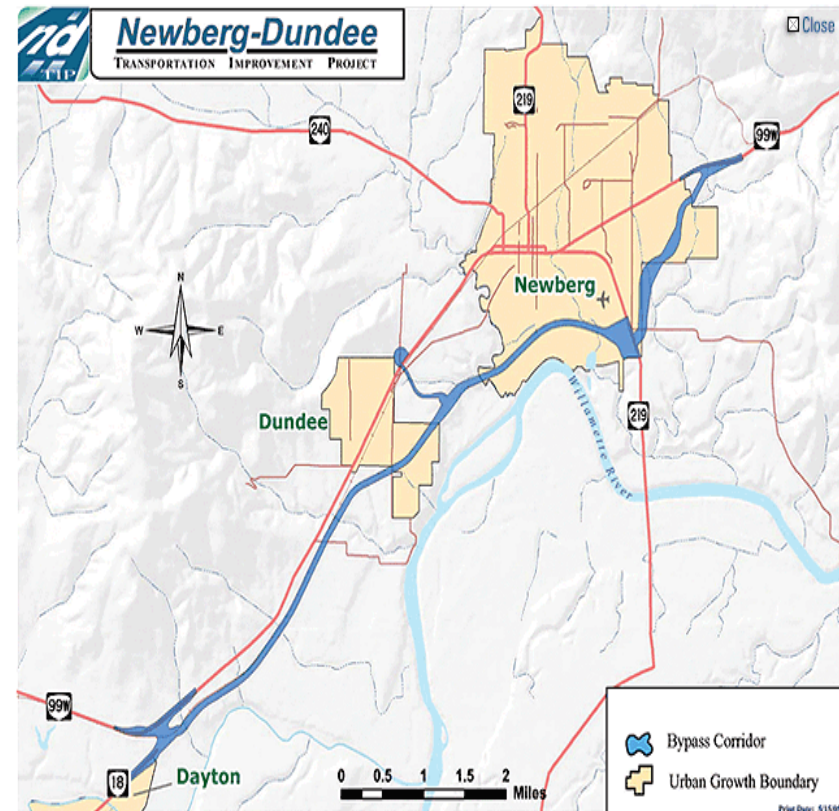
Newberg-Dundee Project: Key Conclusions

- Bypass Tolling is not self supporting and does not cover operating costs
- Pass Through Tolling – capturing all non-resident trips in corridor – could be self-supporting given the target toll levels are implemented
- Extensive consultations with local officials resulted in emerging consensus in several areas:
 - The project is needed and financially feasible
 - Costs need to be brought under control and several areas of potential savings have been identified
 - If the Project proceeds with tolling, any tolling option chosen needs to ensure that the traffic causing the problem pays for the solution – not local residents, visitors or taxpayers
 - While substantive progress has been made, the financing process is at the beginning and a considerable amount of future work is expected



Newberg-Dundee Project: The Issue

- Highway 99W around the towns of Newberg and Dundee experiences unacceptable levels of traffic congestion
- Forecast to experience continued strong traffic growth over the next 20 years
- Low on the list of State's funding priorities
- Lack of sufficient funding at present and in foreseeable future
- Solution – the Bypass



Newberg-Dundee Project: The Solution

- The Bypass proposed for more than two decades
- Key to revitalization of towns and cities along the way
- Importance of the Bypass for
 - Pass through travelers: improvement of mobility, faster, safer and more reliable travel through the area; encouragement to use the Bypass to the benefit of the downtown areas
 - Local citizens: new and important community asset that would remove heavy traffic from town centers allowing local leaders to take additional steps to revitalize the downtown areas and improve the local economy
- Oregon Transportation Improvement Group (OTIG) engaged in the process to deliver, through Newberg-Dundee Transportation Improvement Project, a Bypass to Highway 99W around the towns of Newberg and Dundee

Newberg-Dundee Project: PPP Approach

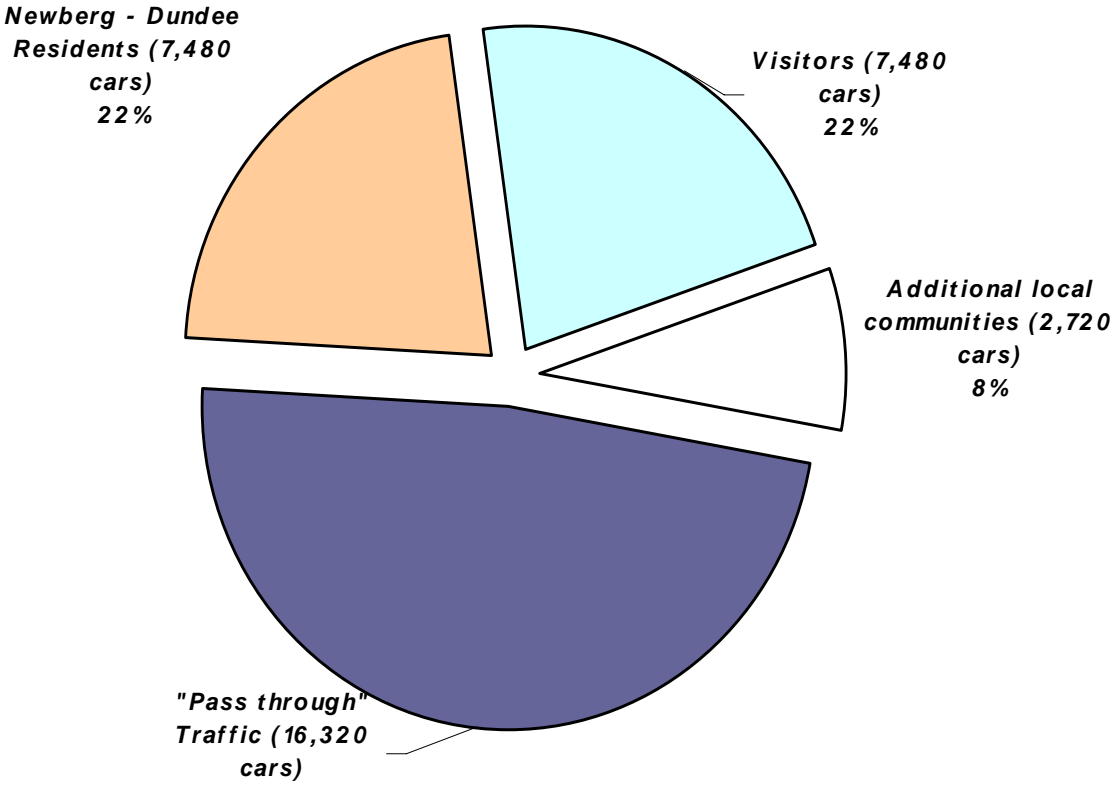
- Actions taken - PPP approach
 - Oregon Department of Transportation (ODOT) entered into agreement with Oregon Transportation Improvement Group (OTIG) to deliver new transportation infrastructure projects to the state years ahead of when they might otherwise be built
- Public sector capital available for highways is limited and government agencies have limited resources to ensure that cost overruns and delays do not occur
- Main Advantages of PPP Approach
 - The contract ensures construction on time and on budget, shielding taxpayers from budget overruns and lengthy construction delays
 - The private sector partner ensures that the design meets the performance standards at the lowest possible construction cost (typically resulting in savings of 15 – 30% relative to State delivery)
 - The private sector partner is responsible for finance, thereby ensuring that interest rate, repayment and other financial risks are not taken by taxpayers
 - The private sector partner operates and maintains the road for 30 years or more to stringent performance standards. The partner is therefore strongly motivated to design a road that will last, and quickly repair any problems

Newberg-Dundee Project: OTIG Report

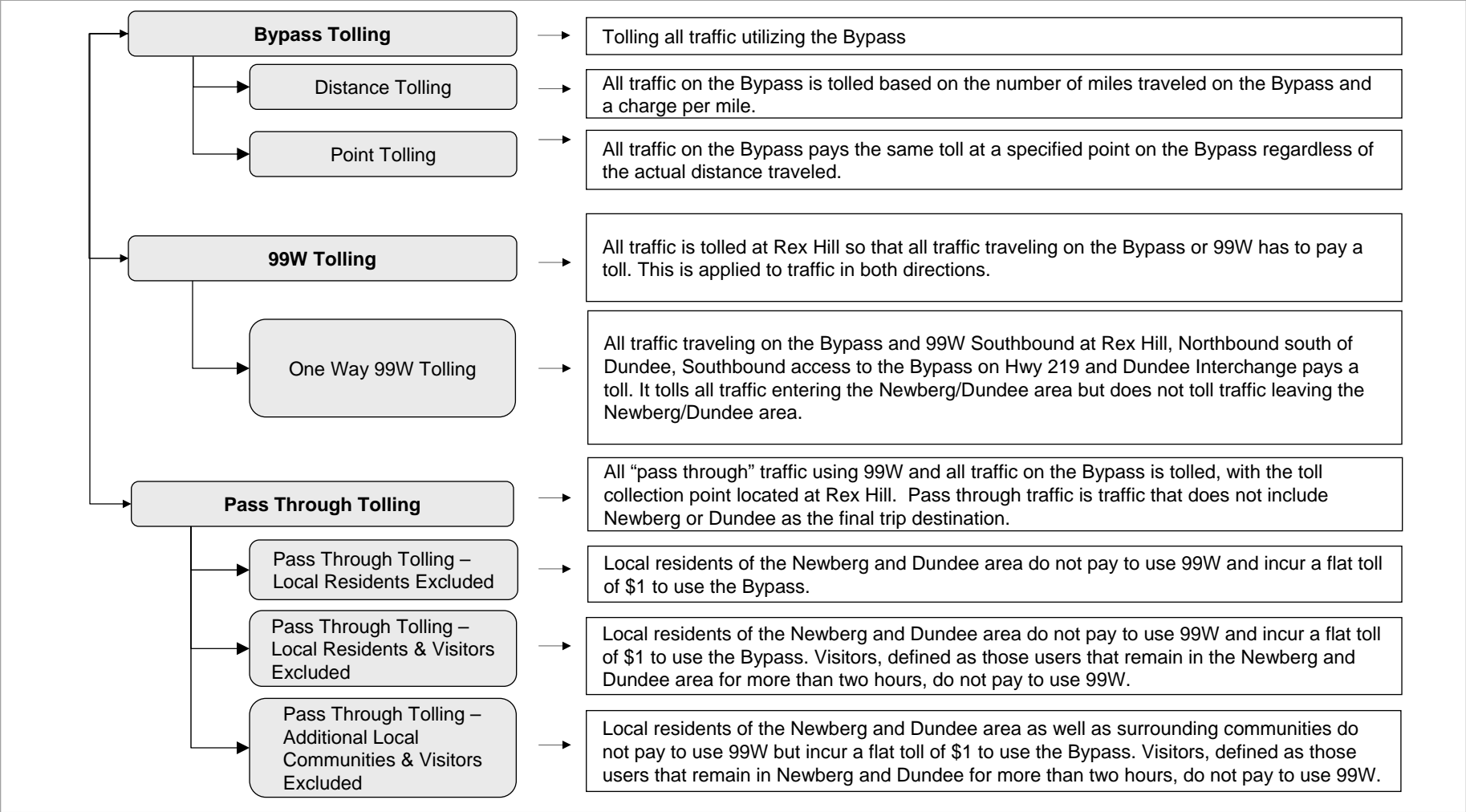
- OTIG report provides analysis of commercial and financial viability of the Project based upon an analysis of cost, available funding and potential revenue parameters
- Concerns of local leaders, residents and travelers carefully considered and built upon in the Report as it
 - Provides options that state and local decision makers can choose for developing the Project
 - Quantifies costs associated with developing, operating, maintaining and financing of the Project
 - Lays out a Menu of Options, including the use of tolls to fund the Project, that ODOT and local officials can use to craft a solution
 - Identifies the target toll levels for various options that would be sufficient to fund the cost to finance, construct, operate and maintain the Bypass

Newberg-Dundee Project: Traffic Mix

Trip Type - Rex Hill Survey (June 2006 origin destination survey)



Newberg-Dundee Project: Tolling Options



Newberg-Dundee Project: Tolling

- Various options examined to fund the Bypass
 - Federal earmarks, gas tax, vehicle registration fees, regional property taxes, land value capture, tolling
- Due to lack of sufficient funding from the rest of the sources, tolling identified as a primary potential source of funding for the Bypass
- With increasing awareness of the funding shortage, tolling gaining support among politicians and their constituents
- Tolls are the most direct user fee for highway transportation
- Tolling as a funding method has a potential to cover a significant portion of the Project costs, especially when complemented with some of the other funding options
- Electronic toll collection systems allow for non-stop toll collection, eliminating the need for toll barriers that impede the flow of traffic

Fast and reliable toll collection mechanism is key to public acceptance of tolling

Route 895 Osborne Br - Electronic toll portal on Route 895 James River Bridge in Virginia ensures travelers a fast, non-stop trip.



A high-speed, non-stop electronic toll portal on SR 417 near Orlando, Florida.

Washington State's new Good To Go! electronic toll collection system for the Tacoma Narrows Bridge will combine non-stop electronic toll collection with a more traditional cash alternative for visitors and other travelers.



Newberg-Dundee Project: Capital Costs

Baseline Project	Cost (millions)
Construction	\$260.0
Construction Engineering	\$21.9
Utilities Relocations	\$4.9
Tolling Infrastructure	\$2.4
Contingency 20%	\$57.8
Subtotal Construction	\$347.0
Design 10%	\$34.7
QA (Design and Construction) 3%	\$11.5
Subtotal Design and Construction	\$393.2
Right of Way	\$100.0
Total	\$493.2

Minimum Cost Project	Potential Savings (millions)
Baseline Project	\$493.2
Interchanges	\$26.20
Rationalize the use of culverts in place of bridges	\$28.10
Reduce earthwork and pavement expenditures through conceptual engineering and testing	\$10.00
Refine the Right of Way estimate	\$14.00
Design and Construction Testing and Monitoring expenditures may be reduced under a PPP approach	\$17.10
Reduce Construction Contingency from 20% to 15%	\$24.10
Total Potential Cost Savings	\$119.50
Minimum Capital Cost	\$373.70

- Note: There are indicators of continuing cost pressure past the report date.
- The minimum construction cost includes reductions due to items that can be postponed until necessary, items that can be further refined by further design and testing and potential savings due to a PPP delivery

Newberg-Dundee Project: Sample Case Capital Costs

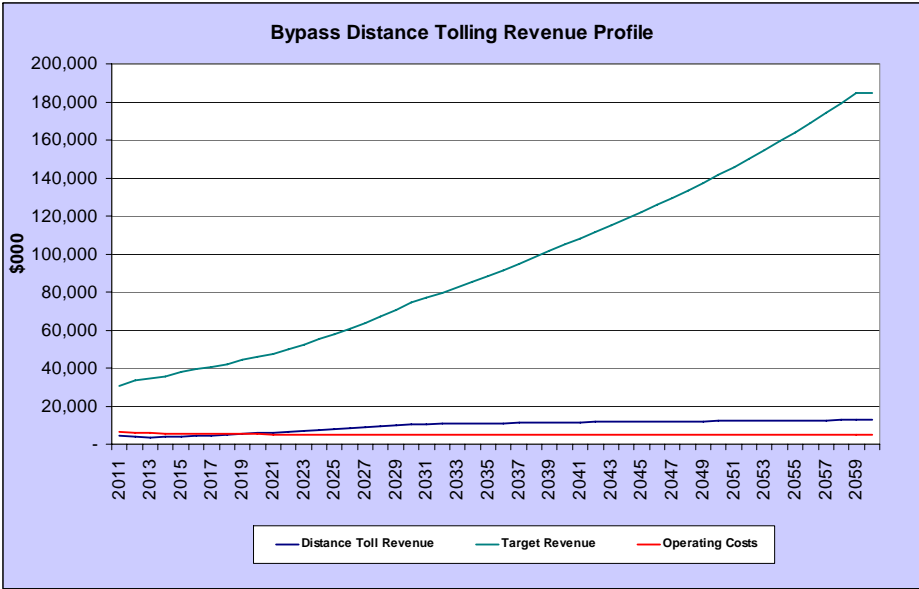
Sample Case Project	Cost (millions)	
Minimum Construction Cost Project	367.7	
Add back Dundee I/C and Truck Climbing Lanes	26.7	
Add back Contingency	4.0	15%
Add back Design/QA	2.9	11%
Add back Contingency Reduction	20.7	
ROW	20.0	
Revised Low Case	442.0	
Base Case	493.2	
Average	467.6	
Less ROW	-100.0	
Tolling Costs	12.0	
Updated Base Case Construction Cost	379.6	

- OTIG has assumed that the Dundee I/C and Rex Hill Climbing lane will proceed immediately and the construction contingency will be maintained at 20% at this stage; 50% of the potential cost savings on the other line items will be realized
- OTIG has further assumed ODOT will fund the purchase of ROW

Newberg-Dundee Project: Bypass Tolling Feasibility

- Bypass Tolling shows low levels of traffic and revenue and is not able to pay for the Project

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Concession Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
REVENUES															
	\$ '000s														
Resident	484	428	391	420	451	485	521	560	602	646	689	734	783	834	889
Non Resident	2,928	2,609	2,399	2,596	2,809	3,039	3,288	3,558	3,849	4,165	4,438	4,728	5,038	5,367	5,719
Truck 1	266	242	227	251	278	307	340	376	416	459	473	488	502	517	533
Truck 2	570	484	424	436	450	463	477	492	507	522	541	561	582	603	625
Total Revenues	4,248	3,763	3,442	3,704	3,988	4,295	4,627	4,985	5,373	5,793	6,141	6,511	6,904	7,322	7,766
OPERATING COSTS															
	\$ '000s														
Total Costs	6,532	6,032	5,832	5,582	5,582	5,582	5,582	5,582	5,582	5,582	5,582	5,069	5,069	5,069	5,069



Newberg-Dundee Project: 99W Tolling Feasibility

- Full 99W Tolling could cover the cost of the Project
- Target Tolls to achieve a \$50 million funding gap:

Tolling Option	Toll
One Way 99W Tolling	\$2.30 - \$9.90+ (Flat/Variable)
99W Tolling	\$2.00 (Flat) \$4.50 (Variable – Peak) \$1.00 (Variable – Off Peak)

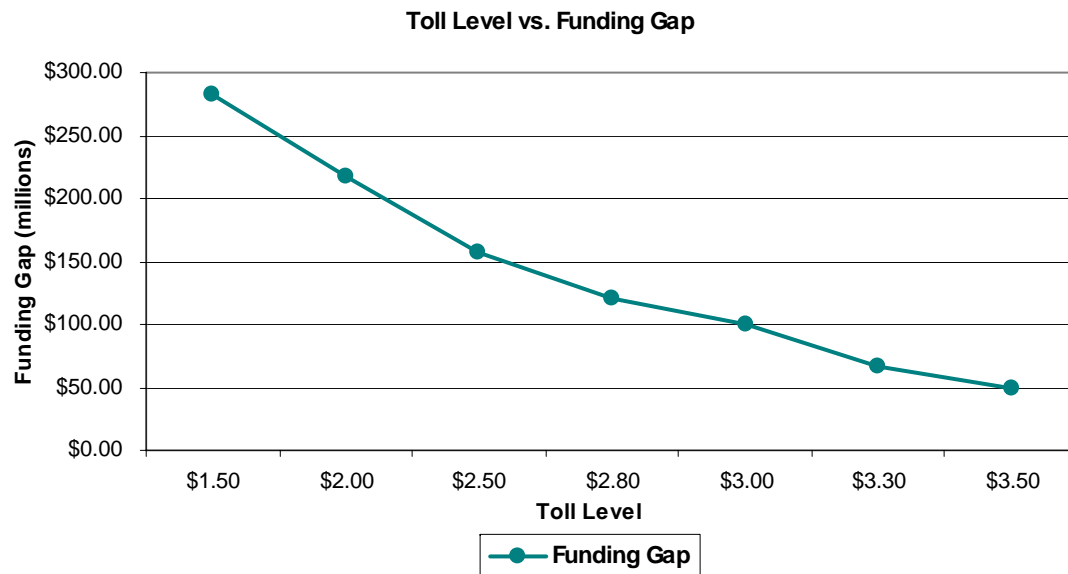
Newberg-Dundee Project: Pass Through Tolling Feasibility

- Pass Through Tolling could cover the cost of the Project given the target toll levels are implemented
 - Option created after meetings with various stakeholder groups
 - Publicly acceptable as it does not penalize local residents, visitors and taxpayers
 - Complex arrangement: will require further study
 - Target Tolls to achieve a \$50 million funding gap:

Tolling Option	Flat Toll	Variable Toll Peak	Variable Toll Off Peak
Pass Through Tolling – Local Residents Excluded	\$2.60	\$4.50	\$1.00
Pass Through Tolling – Local Residents and Visitors Excluded	\$3.50	\$6.10	\$1.30
Pass Through Tolling – Additional Local Communities and Visitors Excluded	\$4.00	\$8.50+	\$1.80

Newberg-Dundee Project: Toll Level vs. Funding Gap

- **Pass Through Tolling – Local Residents and Visitors Excluded**
 - Various levels of toll levels were calculated to show the impact on the size of the funding gap
 - This allows identification of external funding requirements in addition to the ROW expenses and the \$50 million contribution assumed to be provided by ODOT



Newberg-Dundee Project: Public Outreach and Participation

- Concerns of stakeholders, local residents and visitors to the Newberg-Dundee area need to be addressed
 - Downtown revitalization and economic opportunity are key to the Project
 - The heavy pass through traffic that is inhibiting the revitalization should pay for its solution – not local residents and visitors
- OTIG report provides a menu of wide variety of tolling options to address these concerns
- Report provides analysis of opportunities and obstacles to public acceptance
- There is high awareness of the congestion problem and strong local support for building a Bypass
 - Residents are proud of their lifestyle except for traffic
 - Their advice to us: “Get it built!”
- Report points out need for a process to inform, involve and obtain input from public, stakeholders, and local leaders on proposed alternatives
- Report lays out guiding principles and provides a comprehensive plan and process for doing that
- Strong emphasis on keeping local leaders fully in the decision making loop
- Need for a public information, education and participation program in the OR 99W corridor about any potential funding gaps, options for funding the Bypass and the potential use of tolling.

Newberg-Dundee Project: Conclusion

- The Project
 - is needed and the situation will grow worse if no action is taken
 - will expedite downtown revitalization and benefit local economy
 - is feasible as PPP provided that
 - agreement is reached on terms of private and public contribution to the Project and on the acceptable way to toll only pass through traffic
 - the Project stays on track – time is the enemy
- ODOT and OTIG will continue to work productively with local officials and bring the public into the process

Newberg-Dundee Project: Appendices

Appendices



Newberg-Dundee Project: Capital Cost Details

PROJECT ELEMENTS								Baseline
	Dayton IC	Dundee IC	OR 219 IC	Rex Hill IC	Dayton to Dundee	Dundee to OR 219	OR 219 to Rex Hill	
Newberg - Dundee								
Earthwork	\$ 150,000	\$ 180,000	\$ 60,000	\$ 130,000	\$ 17,299,604	\$ 10,550,786	\$ 16,171,988	\$ 44,542,378
Pavement	\$ -	\$ -	\$ -	\$ -	\$ 13,494,492	\$ 6,065,928	\$ 5,890,104	\$ 25,450,524
Ramps and Local Streets	\$ 3,776,100	\$ 4,549,800	\$ 1,441,400	\$ 3,275,300	\$ 3,478,500	\$ 4,946,300	\$ -	\$ 21,467,400
Context Sensitive Design	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 5,000,000
Culverts	\$ -	\$ -	\$ -	\$ 945,000	\$ 4,320,000	\$ 525,000	\$ -	\$ 5,790,000
Bridges	\$ 1,944,000	\$ 6,609,600	\$ -	\$ 6,630,000	\$ 27,462,000	\$ 25,900,000	\$ 21,638,000	\$ 90,183,600
Retaining Walls	\$ 558,000	\$ 558,000	\$ -	\$ 4,953,000	\$ 800,000	\$ 651,000	\$ -	\$ 7,520,000
Drainage	\$ -	\$ 500,000	\$ -	\$ -	\$ 3,149,000	\$ 1,966,000	\$ 1,938,000	\$ 7,553,000
Incidental Items	\$ 417,000	\$ 715,000	\$ -	\$ 179,000	\$ 804,500	\$ 391,700	\$ 382,100	\$ 2,889,300
Landscape	\$ -	\$ -	\$ -	\$ -	\$ 1,041,999	\$ 459,186	\$ 441,525	\$ 1,942,710
Noise Abatement	\$ -	\$ -	\$ -	\$ -	\$ 1,875,000	\$ 3,437,500	\$ 937,500	\$ 6,250,000
General Items	\$ 75,600	\$ 75,600	\$ 75,600	\$ 75,600	\$ 75,600	\$ 75,600	\$ 75,600	\$ 529,200
Construction Subtotal	\$ 7,420,700	\$ 13,688,000	\$ 2,077,000	\$ 16,687,900	\$ 74,800,695	\$ 55,969,000	\$ 48,474,817	\$ 219,118,112
Construction % Items - Add-ons	\$ 1,372,830	\$ 2,532,280	\$ 425,785	\$ 3,421,020	\$ 13,838,129	\$ 10,354,265	\$ 8,967,841	\$ 40,912,149
SUMMARY								
Construction Estimate	\$ 8,793,530	\$ 16,220,280	\$ 2,502,785	\$ 20,108,920	\$ 88,638,824	\$ 66,323,265	\$ 57,442,658	\$ 260,030,261
Construction Engineering (CE)	\$ 742,070	\$ 1,368,800	\$ 207,700	\$ 1,668,790	\$ 7,480,070	\$ 5,596,900	\$ 4,847,482	\$ 21,911,811
Utilities Relocations	\$ 148,414	\$ 273,760	\$ 62,310	\$ 333,758	\$ 748,007	\$ 2,798,450	\$ 484,748	\$ 4,849,447
Toll Plaza Additions	\$ 1,264,939	\$ -	\$ -	\$ 1,264,939	\$ -	\$ -	\$ -	\$ 2,529,878
Subtotal	\$ 10,948,953	\$ 17,862,840	\$ 2,772,795	\$ 23,376,407	\$ 96,866,900	\$ 74,718,615	\$ 62,774,888	\$ 289,321,397
Contingency 20%	\$ 2,189,791	\$ 3,572,568	\$ 554,559	\$ 4,675,281	\$ 19,373,380	\$ 14,943,723	\$ 12,554,978	\$ 57,864,279
Subtotal Construction	\$ 13,138,743	\$ 21,435,408	\$ 3,327,354	\$ 28,051,688	\$ 116,240,280	\$ 89,662,338	\$ 75,329,866	\$ 347,185,677
Design 10%	\$ 1,313,874	\$ 2,143,541	\$ 332,735	\$ 2,805,169	\$ 11,624,028	\$ 8,966,234	\$ 7,532,987	\$ 34,718,568
QA (Design and Construction) 3%	\$ 433,579	\$ 707,368	\$ 109,803	\$ 925,706	\$ 3,835,929	\$ 2,958,857	\$ 2,485,886	\$ 11,457,127
Subtotal Design and Construction	\$ 14,886,196	\$ 24,286,317	\$ 3,769,892	\$ 31,782,562	\$ 131,700,237	\$ 101,587,429	\$ 85,348,738	\$ 393,361,372
Tolling Infrastructure							Right of Way	\$ 86,000,000
							ROW Contingency	\$ 14,000,000
							TOTAL	\$ 493,361,372

Newberg-Dundee Project: Lifecycle Costs

Item	Total PV of Lifecycle Costs
Pavement	\$14.6
Bridges	\$0.8
Other Elements	\$2.1
Tolling Infrastructure	\$8.2
Total Lifecycle Cost Estimate	\$25.7

- Total lifecycle costs for the concession period are presented on a present value basis, discounting each year's nominal costs into 2006 dollars to account for inflation and the cost of capital for the Project. The discount rate utilized is 7%.

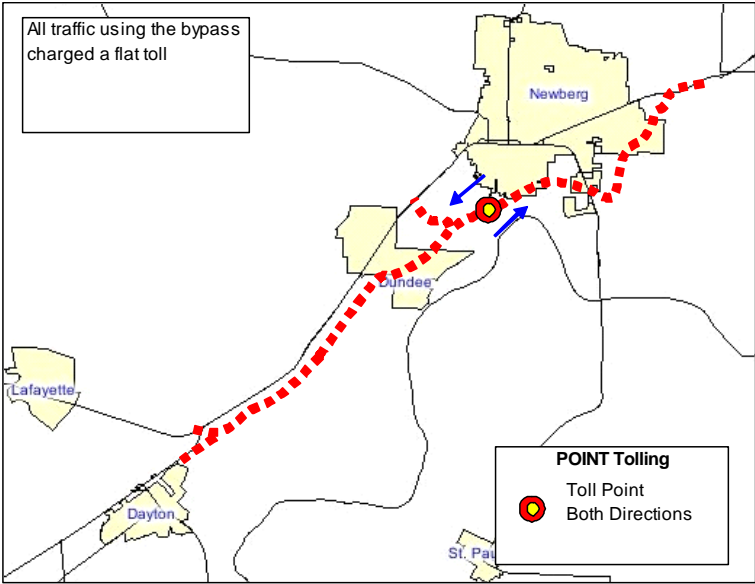
Newberg-Dundee Project: O&M Costs

Item	Annual Cost of O&M Opening Year	Annual Cost of O&M Year 5	Total PV of O&M Costs
Insurance	\$1.5	\$1.5	\$25.4
Management, Office and Tolling Staff	\$1.8	\$1.6	\$23.0
Routine and Cyclic Works	\$0.6	\$0.6	\$10.0
Personnel, Vehicles & Equipment	\$0.4	\$0.4	\$7.2
Policing	\$0.3	\$0.3	\$4.2
Inspection, Survey & Testing	\$0.1	\$0.1	\$1.8
Other	\$1.8	\$1.1	\$19.0
Total O&M Cost Estimate	\$6.5	\$5.6	\$90.6

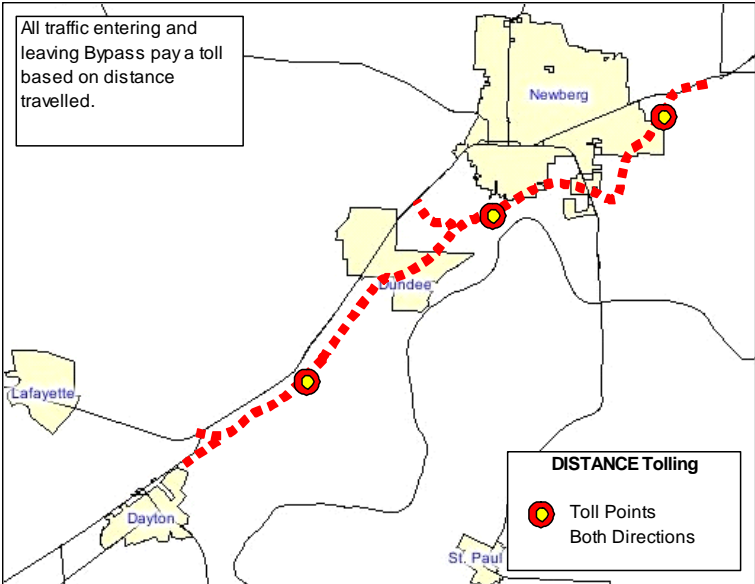
- Total O&M costs for the concession period are presented on a present value basis, discounting each year's nominal costs into 2006 dollars to account for inflation and the cost of capital for the project. The discount rate utilized is 7%.

Newberg-Dundee Project: Toll Collection Points

Point Toll

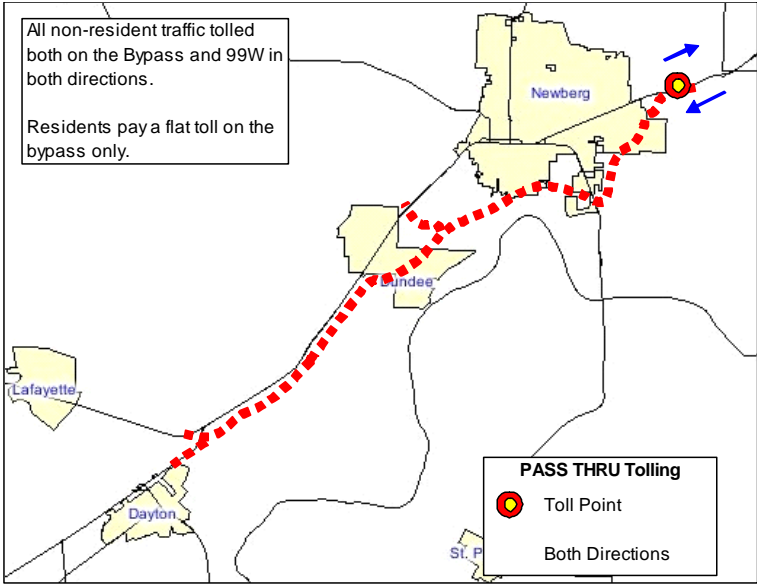


Distance Toll



Newberg-Dundee Project: Toll Collection Points

Pass Thru Tolling



One Way Tolling



Newberg-Dundee Project: Financing Assumptions

- Combination of private equity financing, debt, and some public sector participation is required to fund the Project

Financial Parameter	Value
Concession Length	50 years from completion
Target Equity IRR	13.50%
Type of Debt Financing	Private Activity Bonds (tax exempt) with a spread of 0.60% over the benchmark rate
Target DSCR to achieve an investment grade credit rating	1.40x
Public Sector Subsidy	\$50 million
Ramp up Traffic Volume	80% in Year 1; 90% in Year 2; 100% in Year 3 onwards
Ramp up Reserve	\$18 million, released evenly over 3 years
Financial Advisory Fee	1.00% of debt, equity and quasi equity
Debt Arranging Fee	0.50% of total debt
Debt Underwriting Fee	0.50% of total debt
Federal Tax Rate	35.00%
Oregon Tax Rate	6.60%
Consumer Product Index (CPI)	2.50% per annum
Construction Start Date	January 1, 2008 with a construction completion date of January 1, 2011