

# 12043

# 2004-487

PROVISO RESPONSE REGARDING - 150<sup>th</sup> AVE SE - CIP #201896

## ATTACHMENT A.

### PROJECT DESCRIPTION

The Capital Improvement Program (CIP) #201896 - 150<sup>th</sup> Avenue SE Project is a joint project between the City of Bellevue, King County and the Washington State Department of Transportation (WSDOT). An Interlocal Agreement (ILA) between King County and City of Bellevue was executed on October 6, 1996 for the 150<sup>th</sup> Avenue SE project. The project has been funded in King County's Roads Six-Year CIP since 1996 when the City of Bellevue and the County executed an ILA to fund, design, and construct three intersection improvements, including additional turn lanes, and sidewalks. Per the City of Bellevue's request, the 1996 ILA designated the City as the lead agency for the project.

The original cost estimate for the project was presented in Attachment A of the 1996 ILA (See Attachment A of this report) and includes the following project elements located in the City of Bellevue and in unincorporated King County. (Please refer to Attachment B for vicinity map, project limits and location.)

#### Project elements located within City of Bellevue

1. The addition of a northbound right-turn lane and eastbound thru lane at the intersection of 150<sup>th</sup> Avenue SE and SE 37<sup>th</sup> Street (I-90 off-ramp).
2. The addition of a northbound right-turn lane and southbound right on 150<sup>th</sup> Avenue SE between SE 37<sup>th</sup> and SE 38<sup>th</sup> Streets.

#### Project elements located within unincorporated King County

3. The addition of a roadway median on SE 38<sup>th</sup> Street to restrict access to Allen Road.
4. The addition of a northbound left-turn lane and a raised concrete sidewalk on the west side of 150<sup>th</sup> Avenue SE between SE 38<sup>th</sup> Street and Newport Way.
5. The construction of several retaining walls to accommodate the roadway widen for turn lanes at the intersections.

#### Project elements located within City and unincorporated segments of the roadway

6. The addition of a southbound right-turn lane, a northbound right-turn lane, and an eastbound right-turn lane at the intersection of 150<sup>th</sup> Avenue SE and SE 38<sup>th</sup> Street.

### PROJECT JUSTIFICATION

150<sup>th</sup> Avenue SE is classified as a minor arterial, which provides access to unincorporated King County (Eastgate Area), Bellevue, Newport Hills and Interstate-90. Land use characteristics include residential, heavy commercial retail, and office. The average daily traffic along 150<sup>th</sup> Avenue SE between SE 37<sup>th</sup> Street and SE 38<sup>th</sup> Street is 38,000 vehicles per day and 28,000 vehicles per day between SE 38<sup>th</sup> Street and Newport Way. Roadway level of service is expected to degrade by one to two levels of service over the next 5 to 10 years and operate at or near roadway capacity. In addition, queuing on 150<sup>th</sup> Avenue SE

currently results in significant traffic delay during peak travel periods. The proposed 150<sup>th</sup> Avenue SE project will address several of the roadway capacity issues.

The expanded 2002 project scope for the 150<sup>th</sup> Avenue SE project also addresses pedestrian safety and roadway preservation concerns. For example, 150<sup>th</sup> Avenue SE contains a narrow 3-foot wide substandard sidewalk on the east side of the street and no sidewalk on the west side of the street between SE 38<sup>th</sup> Street and Newport Way. Proposed sidewalk improvements are needed to connect residential neighborhoods around Newport Way to the Eastgate Shopping Center and to address concerns of King County residents. Other roadway deficiencies being addressed by the 150<sup>th</sup> Avenue SE project include improvements to two high accident intersections, 150<sup>th</sup> Avenue/SE 37<sup>th</sup> and SE 38<sup>th</sup> Street/Allen Road. The 150<sup>th</sup> Avenue SE/SE 37<sup>th</sup> Street intersection was listed as a City of Bellevue high accident location in 1995 and 1997. The SE 38<sup>th</sup> Street/Allen Road intersection was also listed as a Bellevue high accident location in 1995, 1996, 1998, and 1999. The project addresses preservation of the roadway pavement on 150<sup>th</sup> Avenue SE between SE 37<sup>th</sup> Street and Newport Way that is currently in need of repair.

### **PROJECT HISTORY AND CAUSES OF PROJECT DELAY**

On July 15, 1996, the City of Bellevue entered into a consultant agreement with H.W. Lochner and Associates to prepare a preliminary design plan for the 150<sup>th</sup> Avenue SE project. Initial design work consisted of right-of-way survey, geotechnical engineering, and level-of-service traffic analysis. Evaluations of the environmental impacts of the project were not conducted during the preliminary design of the roadway.

An ILA between King County and the City of Bellevue was executed on October 6, 1996, which designated the city as the lead agency with King County responsible to provide plan review and financial support. At the time, it was the intention of both the City and the County to complete the engineering portion of the project by early 1997, complete right-of-way acquisition by the end of 1997, and commence construction in 1998. Both parties acknowledged in the ILA that right-of-way acquisition and environmental issues might cause some delays and interruptions to the project schedule, but the project needed to be implemented quickly.

In March 1998, the City provided to King County and WSDOT staff a draft engineering report laying out the specific improvements that needed to be made on the ground to accomplish the project scope. The report took approximately one year to prepare and included recommendations for additional project elements, including replacement of existing sidewalks, curbs and gutters; new sidewalk on the east side of 150<sup>th</sup> Avenue SE between SE 38<sup>th</sup> Street and Newport Way; driveway access restrictions to the Eastgate Shopping Center; the addition of a U-turn facility to provide full access to Allen Road; and an examination of the pavement condition of 150<sup>th</sup> Avenue SE.

Between mid-1998 and the end of 2000, the City's staff indicates they were having ongoing discussions with WSDOT and the various permitting agencies about how to design the

storm-water facility, water quality issues, and the potential effect of the ESA listing of Chinook salmon on the 150th Avenue SE project. As the ILA designated project lead, Bellevue was carrying out its responsibilities to design a project that could obtain all necessary permits.

Following the City's resolution of the stormwater and permitting issues, in July 2001, the County's Road Services Division provided to the City its comments on the preliminary design. Once comments from the WSDOT, local residents, business, and the County were received the City of Bellevue's design consultant, H.W. Lochner, completed the final design report. The report was published in February of 2002. Following the publication of the final design report, the City of Bellevue entered into a project design contract with H.W. Lochner for the creation of plans, specifications and estimates (PS&E) for the 150<sup>th</sup> Avenue SE project. In March 2003, H.W. Lochner submitted 50% design plans and specifications for the City and County to review, and in March 2004, H.W. Lochner submitted 90% design plans and specifications for the City and County to review.

In the summer of 2003, between the preparation of the 50% and 90% design plans, the City of Bellevue contracted with the King County Property Services Division to begin property appraisals. To date, the City of Bellevue has acquired easements across 22 parcels and is in active negotiations with 20 other property owners to acquire needed right-of-way.

### **INCREASE IN PROJECT COSTS**

The ILA includes a 4% inflation rate to account for annual inflationary cost impacts to the project cost anticipated during project design and right-of-way acquisition and assuming at the time that construction would begin in 1998. King County's share of the originally scoped project cost estimate of \$3,878,505 (in 1995 dollars) was \$2,062,505 when inflated to 2004 dollars the cost estimate is \$2,935,000 – inflated to 2005 dollars it is \$3,052,000. A brief summary of King County's share of the project costs are presented below:

The following is a summary of project costs shown in Attachment C:

	Original Project Est. in 1995	Updated Cost Due to Inflation (4%)	Current Phased Option Est. (2005) Dollars	Increased Project Costs from Original Est.
Design cost	\$ 319,511	\$ 471,000	\$ 719,854	\$ 248,000
Right of Way cost	\$ 464,951	\$ 688,000	\$ 854,000	\$ 166,000
Construction cost	\$ 1,278,043	\$ 1,893,000	\$ 2,299,816	\$ 406,816
Construction Mgt	Incl. in Constr. Cost		\$ 500,000	\$ 500,000
Total	\$ 2,062,505	\$ 3,052,000	\$ 4,372,816	\$ 1,320,816

Increases in project scope beyond that described in the ILA came about as the result of a 2002 preliminary engineering design report that incorporated citizen input, Bellevue design standards, stormwater treatment, and water quality requirements associated with the listing of Chinook salmon as a threatened species under the Endangered Species Act (ESA). Additions to the project scope included: installation of new sidewalk on the east side of 150<sup>th</sup> Avenue SE between SE 38<sup>th</sup> and Newport Way; a U-turn facility to accommodate unincorporated residents living off of Allen Road; pavement reconstruction for much of 150<sup>th</sup> Avenue SE; relocation of stormwater drainage facilities; and several smaller miscellaneous design elements. In addition, King County's share of right-way costs increased following the plan change to relocate the required stormwater facility from the City of Bellevue to a site located in unincorporated King County.

The following is a breakdown of the main project cost increases:

1. Complete redesign and reconstruction of the pavement on 150<sup>th</sup> Avenue SE: The pavement on 150<sup>th</sup> Avenue SE is aging and will continue to deteriorate without a complete pavement reconstruction, which will require excavation, planning and new asphalt. The original estimate called out and budgeted just for asphalt overlay instead of the entire rebuild. This cost is estimated at \$188,000.
2. Installation of U-turn on SE 38<sup>th</sup> Street: The construction of the U-turn for SE Allen Road residents will cost approximately \$35,000.
3. Miscellaneous construction items not included in the original scope of work: These items include: temporary traffic barriers \$55,600; additional drainage facilities, \$19,400; street lighting \$30,000; curb and gutter \$13,000; landscape \$27,000; and multiple smaller items (Sequential arrow signs, Police Officer for traffic control, etc.) \$38,816.
4. Construction Management Costs: Under the phased approach scenario construction management cost is estimated at \$500,000.
5. Additional stormwater drainage facilities and the relocation of the stormwater detention facility: Stormwater facility change will require the purchase of additional right-of-way (approximately \$166,000) plus design costs. The overall additional cost for King County's share of all the design changes is estimated at \$248,000.

### **LIFE-TO-DATE EXPENDITURES**

To date, the City of Bellevue has received payments from King County totaling \$768,743 for its share of the design and right-of-way costs for the 150<sup>th</sup> Avenue SE project. It is projected that the County's future expenditure for the remaining design and right-of-way costs is \$451,000. No construction dollars have been expended to date. A breakdown of the County's costs expended-to-date is presented below:

Jurisdiction	To Date Expenditures Design	To Date Expenditures Right-of-Way	Total Expenditures to Date (Right-of-Way and Design)
King County	\$745,697	\$162,653	\$908,350
City of Bellevue	\$538,000	\$12,000	\$550,000
WSDOT	\$0	\$0	\$0

### **OPTIONS FOR REDUCING COSTS**

The City of Bellevue and King County have analyzed potential alternative project scopes in an effort to reduce the project scope to address the most critical project elements only, and modifications to the project design for each of the alternative scopes in an effort to reduce project costs. Following are the four options that were identified as reasonably possible:

#### **Option One – Construct the critical elements of the 150<sup>th</sup> Ave SE project**

Reduce the scope of the project to only include the most critical elements: safety, preservation and I-90 access. Option one will reduce the construction limits of 150<sup>th</sup> Ave SE to SE 38<sup>th</sup> Street and a point approximately halfway between SE 38<sup>th</sup> Street and Newport Way with the unincorporated segment of the project. This option would construct a U-turn for SE Allen Road residents, a northbound left-turn lane at the intersection of 150<sup>th</sup> Ave SE and SE 38<sup>th</sup> Street and a raised concrete sidewalk on the west side of 150<sup>th</sup> Ave SE and some pavement repair along 150<sup>th</sup> Avenue SE (located in the unincorporated area). Right turn lanes will also be added to the northbound and eastbound directions at the intersection of 150<sup>th</sup> Ave SE and SE 38<sup>th</sup> Street. The intersections of SE 37<sup>th</sup> Street/150<sup>th</sup> Avenue SE (located within the City) and SE 38<sup>th</sup> Street/Allen Road (located primarily within the City) are both locations on Bellevue's High Accident Location priority list. To reduce total project costs, relocation of a stormwater facility from a City location to a less costly site in unincorporated King County is also included in this option. The new stormwater detention facilities would become a shared expense with the City of Bellevue.

This option will not include the improvements at the intersection of 150<sup>th</sup> Ave SE and Newport Way, as this intersection is not a high accident location. King County maintenance records indicate the signal works adequately at this time. This option will delete the reconstruction of the eastside sidewalk from Newport Way to SE 38<sup>th</sup> Street. It will also limit driveway closures for the Shell gas station at the Eastgate Shopping Center. King County's share of the total project cost of Option 1 is estimated to be \$2.7 million (2005 dollars).

### **Option Two – Phased Construction of the 150<sup>th</sup> Avenue SE project**

This is a phased approach, which would first construct the most critical elements of the project within the County's current Roads Six-Year CIP and delay construction of the remaining improvements to a later time. Project elements in the unincorporated segment of the road corridor that would be delayed include widening/adding turn lanes to the intersection of 150<sup>th</sup> Avenue SE/Newport Way, and extension of the west side sidewalk to the 150<sup>th</sup> Avenue SE/Newport Way intersection. The scope of the first phase of work (Phase A) would consist of the critical elements proposed as Option 1. The scope of Phase B of Option 2 would include 150<sup>th</sup> Avenue SE constructing, the balance of the west side sidewalk from SE 43<sup>rd</sup> Street to a point approximately halfway between SE 38<sup>th</sup> Street and Newport Way and adding a southbound right turn, northbound through lane, and westbound left turn lane to the intersection of 150<sup>th</sup> Avenue SE/Newport Way. King County's total project cost for Option 2 – Phase A is currently estimated at \$2.7 million - total County project costs for the Option 2 Phase A and Phase B is \$4.4 million.

### **Option Three – Pavement Repair Only**

This option would reduce the scope of the entire project in the unincorporated segment of 150<sup>th</sup> Avenue SE (the segment located south of SE 38<sup>th</sup> Street) to pavement repair only. A recent roadway condition inspection and analysis by staff indicate 150<sup>th</sup> Avenue SE pavement conditions range from fair to poor on the west outside travel lane, and fair on the inside lane. The pavement repair option would grind away the failing asphalt and apply a three-inch pavement overlay of the entire unincorporated segment of 150<sup>th</sup> Avenue SE. This option would extend the pavement's useful life for another 10 years. This interim measure would preserve the roadway and ensure existing roadway safety for an estimated cost to the County of \$250,000.

### **Option Four– No Build**

This option is a "no build" approach to the unincorporated segment of 150<sup>th</sup> Avenue SE. The roadway would be folded into the County's existing Countywide Pavement Overlay CIP Project to address the failing pavement. There also is a small section of the unincorporated roadway on Newport Way SE at 150<sup>th</sup> Avenue SE that would be analyzed and priority ranked for guardrail installation – the cost of which would be addressed in the Countywide Guardrail CIP Project.

# Attachment A: Original Agreement

## PW-R-105 150th Agreement with King County Agreement # 23233

Expense Estimates - In 1995 Dollars	SE 36th to 38th - Widen Lanes & modify Intersections	SE 38th to Newport Wy - Sidewalk	Newport Wy Turn Lanes	Total
Construction Contract	848,870	536,520	597,540	1,980,930
ROW	1,129,000	38,000	235,000	1,402,000
Engineering	211,718	134,130	149,385	495,233
<b>Total</b>	<b>2,187,588</b>	<b>708,650</b>	<b>981,925</b>	<b>3,878,163</b>

Funding - In 1995 Dollars	SE 36th to 38th - Widen Lanes & modify Intersections	SE 38th to Newport Wy - Sidewalk	Newport Wy Turn Lanes	Total
King County	372,000	709,000	982,000	2,063,000
Bellevue	1,816,000	0	0	1,816,000
<b>Total</b>	<b>2,188,000</b>	<b>709,000</b>	<b>982,000</b>	<b>3,879,000</b>
King County %	17.00%	100.00%	100.00%	53.18%

King County by Area	SE 36th to 38th - Widen Lanes & modify Intersections	SE 38th to Newport Wy - Sidewalk	Newport Wy Turn Lanes	Total	% of total phase cost
Construction Contract	143,983	536,520	597,540	1,278,043	64.52%
ROW	191,951	38,000	235,000	464,951	33.16%
Engineering	35,996	134,130	149,385	319,511	64.52%
<b>Total - '95 Dollars</b>	<b>371,930</b>	<b>708,650</b>	<b>981,925</b>	<b>2,062,505</b>	

### Billing Details

Construction Contract	1,278,043	To the extent possible, contractor will prepare 2 schedules to keep County and City costs separate. City will bill County 100% of County costs after paying contractor.
ROW	464,951	City will bill the County for 100% of ROW costs associated with properties located within King County.
Engineering	319,511	City will bill the County for 64.52% of total Engineering costs.
<b>Total (in '95 dollars)</b>	<b>2,062,505</b>	

Expense estimates are taken from cost estimates prepared by KPG dated 1/26/95. These figures were used to prepare Attachment A





ATTACHMENT C

Location	Improvements	Agency	Original Project Estimate (In 95 \$, Per Interlocal Agreement)	Original Project Estimate Inflated by 4% (in 05 \$ per Interlocal Agreement)	Increased Project Costs	Option 2: Phased Construction Project Estimate (2005 \$)	Option 1: Critical Elements Project Estimate (2005 \$)
150th Ave / SE 37th L-50 off-ramp	Add SB LT lane, NE RT lane, and EB thru lane	Bellevue	N/A (incl. in cost below)				
150th Ave (SE 37th- SE 38th)	Add thru lane in each direction (NB and SB)	Bellevue	Design \$ 176,000.00 ROW \$ 937,000.00 Construction \$ 703,000.00 Total \$ 1,816,000.00	D \$ 261,000.00 R \$ 1,367,000.00 C \$ 1,040,000.00 Total \$ 2,668,000.00 (Bellevue/MSDOCT)	D \$ 134,000.00 R \$ (595,000.00) C \$ 892,000.00 Total \$ 531,000.00	D \$ 385,000.00 R \$ 781,000.00 C \$ 2,032,000.00 Total \$ 3,218,000.00	D \$ 385,000.00 R \$ 781,000.00 C \$ 1,732,000.00 Total \$ 2,818,000.00
150th Ave (SE 38th)	1. Add SB RT lane (includes with improvement above) 2. Add NB LT lane, and EB RT lane 3. Operational and/or physical improvements to manage access off from Allen Rd	Bellevue King County King County	1. N/A (incl. in cost above). 2. D \$ 38,000.00 R \$ 192,000.00 C \$ 154,000.00 Total \$ 372,000.00 3. None	D \$ 53,000.00 R \$ 284,000.00 C \$ 213,000.00 Total \$ 550,000.00	D \$ 248,000.00 R \$ 166,000.00 C \$ 409,816.00 CM* \$ 500,000.00 Total \$ 1,320,816.00	D \$ 719,000.00 R \$ 854,000.00 C \$ 2,289,816.00 CM** \$ 500,000.00 Total \$ 4,372,816.00	D \$ 719,000.00 R \$ 870,516.00 C*** \$ 1,084,888.00 CM**** \$ 192,933.00 Total \$ 2,647,115.00
150th Ave (SE 38th - Newport)	Add sidewalk on west side	King County	D \$ 134,000.00 R \$ 38,000.00 C \$ 537,000.00 Total \$ 709,000.00	D \$ 193,000.00 R \$ 59,000.00 C \$ 763,000.00 Total \$ 1,015,000.00	* Additional \$ 500,000 for Construction Management	** Additional \$ 500,000 for Construction Management	Remarks: *** KC will pay only half of the ROW cost for the detention facility **** 1. KC will not pay for utility relocation cost 2. KC will pay maximum of 2.5 % of construction cost for landscaping 3. KC will pay only half of the construction cost for the detention facility ***** Assuming CM cost is about 20% of total construction cost
150th Ave /Newport Way	Add SB RT lane, WB LT lane, and NB thru lane	King County	D \$ 149,511.00 R \$ 234,951.00 C \$ 597,043.00 Total \$ 981,505.00	D \$ 220,000.00 R \$ 348,000.00 C \$ 885,000.00 Total \$ 1,453,000.00			
Sub Total for King County			\$ 2,062,505.00	\$ 3,052,000.00	\$ 1,320,816.00	\$ 4,372,816.00	\$ 2,647,115.00
Total Project Cost			\$ 3,878,505.00	\$ 5,740,000.00	\$ 1,850,816.00	\$ 7,590,816.00	\$ 5,566,115.00