



**BUSINESS OF THE CITY COUNCIL
CITY OF MERCER ISLAND, WA**

**AB 4310
June 2, 2008
Regular Business**

**ADOPTION OF SIX YEAR TRANSPORTATION
IMPROVEMENT PLAN**

Proposed Council Action:

Adopt the Six Year Transportation Improvement Plan

DEPARTMENT OF

Development Services Group (Patrick Yamashita)

COUNCIL LIAISON

n/a

EXHIBITS

1. Updated 2009-2014 Detail of Expenditures
2. Updated 2009-2014 Street Fund Balance

APPROVED BY CITY MANAGER

Rich Council 5-29-08

AMOUNT OF EXPENDITURE	\$	n/a
AMOUNT BUDGETED	\$	n/a
APPROPRIATION REQUIRED	\$	n/a

SUMMARY

BACKGROUND

The proposed 2009-2014 Transportation Improvement Plan (TIP) was presented to Council on May 19, 2008. A public hearing was held at that time.

RESPONSE TO COUNCIL DIRECTION

Council directed staff to make a few specific changes to the proposed TIP and/or consider others if possible with the understanding that these changes would affect cashflow and could result in delaying one or more projects to accommodate Council's direction. The changes are highlighted in yellow on Exhibit 1.

1. Town Center Traffic Signals (SE 27th Street at 77th Ave. SE and 78th Ave. SE) [B.3.]

Council expressed unanimous support for construction of the two traffic signals included in the proposed TIP for the town center and directed staff to combine the signals into one project in 2009 from the previous proposal of one each in 2009 and 2011. These are programmed in the updated TIP (Ex. 1) for construction in 2009. The project cost has been reduced from a total of \$1,300,000 in 2009-2011 to \$1,180,000 in 2009. The reduction is based on an expected cost savings through an "economy of scale" by constructing both signals in one construction contract in 2009 and constructing the second signal two years sooner than proposed.

2. ICW/Merrimount Improvements [C.5.] and ICW Overlays [C.8. & C.10.]

Council requested staff provide scaled back versions of Option 1 and Option 3c for continued discussion at tonight's meeting. The estimates discussed previously were for construction only and did not quantify staff related costs such as project management and inspection. The total costs shown below account for all costs associated with the project including staff related costs.

Option 1: A scaled back version of this option includes minimal changes from what was discussed at the May 19th Council meeting. The total project cost is estimated at \$496,000 (2008 dollars) including \$475,000 for engineering, construction, and contingency and \$21,000 for staff project management, inspection, and 1% for the arts. Most of the cost associated with this option is tied to the widening of the narrow lanes to move traffic safely through this intersection. Both staff and the consultant believe the widening is necessary and cannot be left out of this option. Minimal cost savings can be expected by placing the curbing for the traffic islands on top of the asphalt, which will be easily removed when the street is resurfaced and eliminating the proposed landscaping in the traffic islands for now. Landscaping and other enhancements could be deferred to the resurfacing project.

Option 3c: A scaled back version of this option is estimated at a total project cost of \$325,000 (2008 dollars) including \$310,000, for engineering, construction, and contingency and \$15,000 for staff project management, inspection, and 1% for the arts. The scaled back version includes:

- Eliminating the proposed concrete curb and sidewalk on the east side of Island Crest Way. In the near term pedestrian access on the east side of Island Crest Way can be accomplished by grading the shoulder behind the existing asphalt thickened edge and providing gravel as a walking surface to connect the pedestrian crossings to the nearest side street. Enhancements to the walking surface (paved asphalt surface) could be added during the resurfacing project.
- Installing the pedestrian islands for the crosswalks with curbing placed on top of the asphalt which will be easily removed when the street is resurfaced and eliminating the proposed landscaping in the pedestrian islands in the near term. Landscape islands similar to those further to the south on Island Crest Way with landscaping could be added during the resurfacing project.

It is estimated that the cost savings from these changes could result in a construction cost reduction of approximately \$90,000.

The updated TIP includes project [C.5.] which includes the interim improvements at ICW/Merrimount and a future improvement in 2008. This is intended to be a “placeholder” for whichever option the Council approves tonight. It reflects the current costs in 2008 for the interim improvements plus Option 1. This is merely identifying the worst case scenario for budget/cash flow calculation purposes. The actual amount will be based on Council’s selected option. If Council programs the project for 2008, staff will return with an ordinance reflecting a budget increase for 2008 in the next quarterly financial status report to Council.

Council also asked staff to consider modifying the Island Crest Way overlays [C.8. & C.10.] to pave between Merrimount and SE 53rd in 2011 or 2012 ahead of the segment from SE 40th Street to Merrimount. The first overlay project would likely need to be extended north to approximately SE 42nd Street to facilitate transitions between probable lane configurations and other traffic improvements through the Merrimount intersection. This leaves a two block segment for a second phase overlay. The soonest this scenario can be programmed without a significant negative fund balance is 2012 with the small second phase in 2014. This results in a negative balance of approximately \$36,000 assuming ICW/Merrimount Option 1 is selected. If Option 3c is selected, there is no negative balance. Exhibit 1 & 2 reflect this scenario. Such a short second phase is not ideal but the Street Fund cannot accommodate doing both phases in one year. One additional option would be to balance the phases as shown in the May 19, 2008 preliminary TIP but construct the southerly segment first as one or more Council Members mentioned. In the end, pavement condition will be a practical consideration in determining the actual limits and timing of the overlays. The overlays as identified in the May 5, 2008 TIP were based on pavement condition. Staff will monitor and assess pavement condition in the coming years and will inform Council of any significant changes during the annual TIP process.

3. Neighborhood Traffic Calming Program Development

Council Member Jahncke requested additional information regarding what a neighborhood traffic calming program would do.

Currently staff reacts to citizen requests with a quick fix, even though experience and research has shown that not all quick fixes requested by citizens are effective or the best solution. A Neighborhood Traffic Calming Program will provide staff with the tools it needs to address citizen concerns and implement a modification to neighborhood streets to allow motorists, bicyclists, pedestrians and residents to coexist with minimal conflict.

The most common complaints are vehicle speeds, high traffic volumes and parking which can lead to increased pedestrian and bicycle conflicts and an overall decrease in quality of life. Typical requests to address these problems include stop signs, speed limit signs, "no parking" signs, and speed humps which are sometimes appropriate, but not always. As newer families with young children have moved onto the Island and alternative modes of transportation encouraged, staff has experienced an increase in requests to address traffic concerns in neighborhoods.

A component of a Neighborhood Traffic Calming Program will be to incorporate the three E's: Education, Enforcement and Engineering, in developing solutions for a neighborhood. Education alerts people to ways they can help ease traffic problems, such as driving slower in residential areas. Enforcement enlists the help of the Police Department to focus efforts on identified problem areas and increase community awareness of speeding problems. Engineering tools include a variety of traffic calming devices that can reduce speed, decrease volumes and improve safety. Specific tools in these three areas will be identified and a program for how these tools are applied to neighborhoods will be developed.

A phased approach to working with neighborhoods can be implemented where education and enforcement efforts are the focus of the first year while staff assesses the neighborhood and gathers data. Many neighborhoods resolve their traffic problems in the first year. However, if efforts in the first year are unsuccessful, appropriate engineering tools can be applied in a second year.

The development of this program is currently scheduled for 2011. At that time staff will provide Council with updates on the procedures and processes that are being defined and the engineering techniques and tools that are identified as potential solutions that can be applied in the variety of neighborhoods on the Island.

4. Other Adjustments to TIP to Accommodate Council Direction

The following are additional changes made to the TIP due to impacts on cashflow and/or workload in an effort to accommodate Council requested changes described above.

- Residential Street Overlays – Add the 2009 overlays to 2010 project and split the 2012 overlays between 2013 and 2014.
- Town Center Streets Overlay – Move from 2010 to 2011.
- Town Center Streets (80th Ave., SE 29th, and SE 32nd) – Move half of the construction from 2014 to 2015.
- Guardrail Development – Move from 2009 to 2010 and 2011 to 2012.

5. Planning Ahead For East Mercer Shoulders

The updated TIP moves \$75,000 to the 2008 Street Fund budget from 2009 to allow staff to start design of the East Mercer Way Phase 6 project. The timing of this effort will be contingent on securing project management resources. Staff will return with an ordinance reflecting this budget increase in the next quarterly financial status report to Council.

The City Council's adoption of the 2009-2014 TIP tonight marks the end of the formal TIP process for this year. The process began in January with key staff and eventually included involvement from almost every

City department. Staff expended approximately 450 hours preparing the Plan, reflecting the complicated nature of the TIP in the last several years. This significant investment of staff time has been necessary to follow Council direction and maintain a dynamic six-year plan that strives to meet the needs and desires of the citizens of Mercer Island and the City Council Members who represent them.

RECOMMENDATION

City Engineer

MOVE TO: Adopt the Six Year Transportation Improvement Plan for 2008-2013, appropriate \$75,000 to start the design of East Mercer Way Phase 6 and appropriate \$541,000 for the Island Crest Way/Merrimount Improvements identified as Project C.5. for 2008 (Option 1).

Alternative: Adopt the Six Year Transportation Improvement Plan for 2008-2013, appropriate \$75,000 to start the design of East Mercer Way Phase 6 and appropriate \$370,000 for the Island Crest Way/Merrimount Improvements identified as Project C.5. for 2008 (Option 3c).

SIX-YEAR TRANSPORTATION PLAN

Detail of Expenditures

2009 - 2014

PROJECTS	COMMENTS	Forecast	Proposed Biennial Budget					
		2008	2009	2010	2011	2012	2013	2014
A. Residential Streets Preservation Program								
1. Residential Street Overlays		40,000	500,000	1,080,000	572,000	606,000	963,000	1,021,500
Sub-total Residential Street Preservation Program		\$40,000	\$0	\$1,080,000	\$572,000	\$0	\$963,000	\$1,021,500
B. Town Center Street Improvements								
1. Town Center Streets - 76th Avenue (SE 27th to 3000 block)		986,036						
2. 78th Avenue SE Town Center Plaza		10,000	20,000					
3. Town Center Traffic Signals (SE 27th Street)	Signals combined per Council on 5-19-08	98,718	1,180,000	20,000	680,000			
4. Town Center Streets - Overlay			50,000	50,000	711,000			
5. Town Center Streets - 80th Ave., SE 29th, and SE 32nd	Construction split between 2014 and 2015 (\$858K est. in 2015)						100,000	810,000
Sub-total Town Center Street Reconstruction		\$1,094,754	\$1,200,000	\$50,000	\$711,000	\$0	\$100,000	\$810,000
C. Arterial Streets Improvements								
1. Pavement Marking		20,000	25,000	25,000	30,000	30,000	35,000	35,000
2. Arterial Preservation Program	Added Crack Sealing Program @ \$20K per year	50,000	70,000	70,000	70,000	70,000	70,000	70,000
3. North Mercer Way (ICW to 76th Ave SE)	Cost Estimate increased based on Design Consultant	700,000						
4. SE 40th Street Corridor Improvement Construction	Cost Estimate increased based on Design Consultant	1,756,638						
5. ICW and SE 44th/Merrimount Intersection Improvements	Includes \$50k for interim impvmts in '08. Placeholder - Actual Costs will be based on Council Decision	541,000		700,000				
6. 72nd Avenue SE (SE 24th to SE 32nd)		30,000	380,000					
7. SE 40th Street (76th Ave to ICW)				50,000	556,000			
8. Island Crest Way (SE 42nd to 53rd Ave) - Phase 1	Project limits extended				160,000	2,184,000		
9. Mercerwood Drive (Gallagher Hill Rd to EMW)						100,000	695,000	
10. Island Crest Way (SE 40th to 42nd) - Phase 2	SE 42nd to 86th Ave. moved forward to 2012 and added to C8						50,000	492,000
Sub-total Arterial Street Improvements		\$3,097,638	\$475,000	\$145,000	\$816,000	\$2,384,000	\$850,000	\$597,000
D. Mercer Ways - Roadside Shoulder Development								
1. Guardrail Development		90,000	50,000	50,000	50,000	50,000		
2. East Mercer Way - Phases 4 and 5		28,100						
3. East Mercer Way - Phase 6 (SE 53rd Pl to SE 70th St) (7500 ft)	Requires hiring contract Project Mgr	75,000	1,125,000					
4. East Mercer Way - Phase 7 (SE 70th to South Tip) (6500 ft)	Requires hiring contract Project Mgr		75,000	1,045,000				
Sub-total Mercer Ways Roadside Development		\$193,100	\$1,200,000	\$1,095,000	\$0	\$50,000	\$0	\$0
E. Pedestrian and Bicycle Facilities								
1. PBF Gap Completion	2008 Funding may be re-directed to ICW Trail (E2)	35,000	35,000	35,000	35,000	35,000	35,000	35,000
2. Safe Routes to School			100,000		100,000		100,000	
3. Island Crest Way (SE 71st to SE 78th) (S11)		100,000						
4. 72nd Avenue SE (SE 24th to SE 32nd St.) (N5)		130,000	115,000					
5. SE 40th Street (76th Ave to ICW) (N11)					124,000			
6. Island Crest Way (SE 42nd to 53rd)	Project limits extended					282,000		
7. Mercerwood Drive (Gallagher Hill Rd to EMW) (N13)							243,000	
8. Island Crest Way (SE 40th to 42nd)	SE 42nd to 86th Ave. moved forward to 2012 and added to C8							29,000
Sub-total Pedestrian & Bicycle Facilities		\$265,000	\$250,000	\$35,000	\$259,000	\$317,000	\$378,000	\$64,000
F. Other Transportation Activities and Management								
1. Street Engineering and Management	Overhead charges added per Council Direction (Mar 3, 2008)	66,180	138,395	146,007	154,037	162,509	171,447	180,877
2. Intersections LOS Analysis		30,000						
3. Mercerway Signage		5,000						
4. PBF Plan		75,000						
5. ROW - Tree Maintenance	Program added per Council Direction (Mar 3, 2008)		120,000	130,000	137,150	144,693	152,651	161,047
6. TIP Support			10,000	10,550	11,130	11,742	12,388	13,070
7. Neighborhood Traffic Calming Program Development					50,000			
Sub-total Other Transportation Projects		\$176,180	\$268,395	\$286,557	\$352,317	\$318,945	\$336,487	\$354,993
TOTAL PROJECT COSTS		\$4,866,672	\$3,393,395	\$2,691,557	\$2,710,317	\$3,069,945	\$2,627,487	\$2,847,493

INFLATION FACTOR (Applied to Town Center Streets, Arterial Streets and associated Pedestrian and Bike Facilities)	8%	8%	6%	6%	6%	6%
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NOTE: Project cost estimates are preliminary and are subject to change based on final project scope and design.

Detailed engineering estimates are made after City Council and general public input has occurred and been incorporated into the project scope and design.

NOTE: Project costs which have been inflated (Town Center Streets, Arterial Streets, and Pedestrian and Bicycle Facilities) are shown in bold print.

SIX-YEAR TRANSPORTATION PLAN

Street Fund Balance

2009 - 2014

	<i>Forecast</i>	Proposed Biennial Budget					
Revenues	2008	2009	2010	2011	2012	2013	2014
Beginning Fund Balance	\$3,198,248	\$445,753	328,368	\$519,761	\$430,030	\$164,112	\$536,934
Designated for Traffic Signals	46,677	0	0	0	0	0	0
New Revenues							
Real Estate Excise Tax - 2nd Quarter Cent	682,000	1,683,000	1,574,000	2,033,586	1,905,027	2,405,308	2,320,330
Fuel Tax	545,000	563,000	575,000	587,000	599,000	595,000	590,000
Grants - TIB, ISTEAA, STP(U), STEP, CMAQ, and FEMA	805,500		300,000		300,000		300,000
Contributions - Traffic Signals	0	10,010	33,950				
Beautification Fund (Town Center-78th Avenue Plaza)	10,000	20,000					
Interfund Transfer from 2007 Year End Transfer (for EMW Shoulders)		1,000,000	400,000				
Interest Revenue	25,000						
Total New Revenues	2,067,500	\$3,276,010	\$2,882,950	2,620,586	2,804,027	3,000,308	3,210,330
Total Street Fund Revenues	5,312,425	\$3,721,763	\$3,211,318	3,140,347	3,234,057	3,164,420	3,747,264

Expenditures	2008	2009	2010	2011	2012	2013	2014
Residential Streets Preservation Program	40,000	0	1,080,000	572,000	0	963,000	1,021,500
Town Center Street Reconstruction	1,094,754	1,200,000	50,000	711,000	0	100,000	810,000
Arterial Street Improvements	3,097,638	475,000	145,000	816,000	2,384,000	850,000	597,000
Mercerways - Roadside Shoulder Development	193,100	1,200,000	1,095,000	0	50,000	0	0
Pedestrian & Bicycle Facilities	265,000	250,000	35,000	259,000	317,000	378,000	64,000
Other Transportation Projects	176,180	268,395	286,557	352,317	318,945	336,487	354,993
Total Street Fund Expenditures	4,866,672	\$3,393,395	\$2,691,557	2,710,317	3,069,945	2,627,487	2,847,493
Working Capital Reserve	200,000	\$200,000	\$200,000	200,000	200,000	200,000	200,000
Year End Cash	245,753	\$128,368	\$319,761	230,030	(35,888)	336,934	699,770