

CITY OF DUNWOODY

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MEMORANDUM

To:Honorable Mayor and City CouncilFrom:Michael Smith, Director of Public WorksDate:March 8, 2010

Subject: Five Year Road Resurfacing Plan

ITEM DESCRIPTION

Approve five year plan for road resurfacing developed by Public Works based on the Pavement Analysis Report presented to Mayor and Council in January 2010.

BACKGROUND

In 2009, Public Works completed a pavement condition assessment of all of the public roads within the city. A primary purpose of this assessment was to provide an objective evaluation of the condition of the city's pavement infrastructure and to develop strategies for future maintenance of that infrastructure. Analysis of the pavement assessment indicated that the city's roads are in overall "fair" condition but that the majority of the roads are beginning to deteriorate at an accelerated rate. The city would need to allocate \$2.5 to \$3 million per year for road resurfacing to improve pavement conditions and begin to reduce the 13% backlog of roads in "poor" condition over a 5 to 10 year period.

PLAN DEVELOPMENT

Public Works developed the five year resurfacing plan beginning with the \$740,000 in the city's budget for fiscal year 2010 and a projected budget of \$2,750,000 annually for fiscal years 2011 through 2014. A table and maps of the plan are attached to this memo. The targeted budget allocation for each year is approximately:

- 70% for roads that provide the greatest user benefit
- 10% for neighborhood streets rated as "poor" or "fair"
- 10% contingency for bidding
- 10% contingency for construction

User benefit is a value assigned to each road based on the pavement condition and the number of users (traffic). Thus, 70% of the budget each year is being directed to the most heavily traveled roads in the worst condition. The 10% allocated for neighborhood streets begins to address the worst low-volume roads within neighborhoods. In most cases, the worst rated neighborhood street for a given year has been selected and connecting streets rated below average within the same neighborhood were included in that same budget year. This simplifies construction and therefore should decrease costs.



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Several contingencies have been included to reflect the uncertainty in projecting asphalt material and construction costs to a five year horizon. Paving costs assume 5% inflation beyond 2010. Additionally, 10% is reserved each year to allow some flexibility for reprioritization as the plan is updated annually and for other changes prior to bidding. Finally, 10% is reserved annually for changes during construction due to unforeseen conditions. As bid documents are prepared each year, optional pricing can be obtained for a list of supplemental streets to be resurfaced out of any remaining reserve funds for that year.

There are a few exceptions in the 2010 and 2011 budget years to the prioritization approach described above. Trowbridge Place, Vernon Lake Drive and Vernon North Drive are included in 2010 because the Georgia Department of Transportation has allocated \$4,900, \$23,000 and \$21,000 respectively to these streets as part of the Local Assistance Road Program (LARP). Also, in 2010 and 2011 money has been budgeted for major patching on sections of Ashford Center Parkway, North Peachtree Road, Chamblee Dunwoody Road and Spalding Drive. These are heavily traveled roads where Public Works has repaired numerous potholes and the pavement is in poor condition over a significant area. Additional repairs are needed beyond the scope of regular road maintenance to extend the life of these sections of road until they can be resurfaced in 2012 or 2013.

ALTERNATIVES

Given the projected level of funding, there are several alternatives to the approach described above:

- 1. Priority could be given entirely on a worst roads first basis
- 2. The percentage of funding allocated for the worst neighborhood streets could be increased
- 3. The 10% allocated for neighborhood streets could be assigned based on worst first only without regard to connectivity

The difficulty with the first alternative is that there are approximately 200 neighborhood streets in the city rated lower than any collector or arterial road. It would take nearly 4 years at the projected funding level to work through these neighborhood streets before resurfacing could be done on any of the higher traffic volume roads in the city. Many sections of these roads would deteriorate to a condition that would be unacceptable to the public and would be more expensive to repair. Some of the same issues on the arterial roads would occur with alternative 2 albeit to a less severe level. Alternative 3 has no affect on the arterial road prioritization and it does address more of the very worst roads but it could increase construction costs.

RECOMMENDED ACTION

Staff recommends approval of the five year resurfacing plan as presented. Upon approval of this plan, public works will begin preparing more detailed construction estimates and bid documents for the streets included in the 2010 plan. It is possible that the list could be modified based on any additional information gathered during preparation for bidding. Therefore, the final list to be included in the bid package each year will be presented to Council for approval prior to bidding.

2010-2014 ROAD RESURFACING PLAN

Street	From	То	Strategy		timated Cost		mulative by Year	Notes	
2010 TROWBRIDGE PLACE VERNON LAKE DR VERNON NORTH DR DUNWOODY CLUB DRIVE WINTERS CHAPEL JOBERRY CT TRAPNELL CT DUNRIDGE CT ASHFORD CENTER PKWY	NORTH CITY LIMITS CHESTNUT RIDGE VERNON LAKE DR VERNON LAKE DR	END TROWBRIDGE DR END WINTERS CHAPEL CHARMANT PL END END END	Mill and Pave Deep Patch and Pave Deep Patch and Pave Mill and Pave Mill and Pave Deep Patch and Pave Deep Patch and Pave Deep Patch and Pave	\$ \$ \$ \$ \$	25,000 113,000 110,000 135,000 106,000 15,000 12,000 18,000 38,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	138,000	GDOT LARP Funding-\$4, GDOT LARP Funding-\$2 GDOT LARP Funding-\$2	3,000
ASHFORD CENTER PRW CHAMBLEE DUNWOODY N PEACHTREE RD Contingency 2011 ROBERTS DR		NERINE CIRCLE TILLY MILL RD	Patching Patching Patching Mill and Pave	\$ \$	38,000 27,000 22,000 0 Total 341,000	A (A) (A) (A) (A) (A) (A) (A) (A) (A) (A	572,000 599,000 621,000 107,000 728,000 341,000		15%
TILLY MILL RD DUNWOODY CLUB DRIVE DUNWOODY CLUB DRIVE DUNWOODY CLUB DRIVE DUNWOODY CLUB DRIVE CHAMBLEE DUNWOODY CHAMBLEE DUNWOODY CHAMBLEE DUNWOODY CHAMBLEE DUNWOODY CHAMBLEE DUNWOODY MOUNT VERNON RD MOUNT VERNON RD MOUNT VERNON RD NANDINA LN N PEACHTREE RD AMBERLY CT N AMBERLY CT S AMBERLY WAY SUDBURY RD AMBERLY DRIVE CLARIDGE CT SPALDING DR	STONINGTON RD WEST CITY LIMIT BEND CREEK RD BALL MILL RD JETT FERRY RD FCOTILLION DR FNERINE CIRCLE	PEELER RD BEND CREEK RD BALL MILL RD JETT FERRY RD HAPPY HOLLOW RD PEELER RD MT VERNON RD ROBERTS DR SAFFRON DR CHAMBLEE DUNWOOD MOUNT VERNON RD BROOKHURST END AMBERLY WAY AMBERLY CT N LAURELWOOD RD SUDBURY RD END CHAMBLEE DUNWOOD	Mill and Pave Mill and Pave Deep Patch and Pave	***	200,000 92,000 95,000 98,000 212,000 193,000 190,000 210,000 135,000 127,000 20,000 78,000 26,000 21,000 16,000 79,000 63,000 15,000 5,000	9 % % % % % % % % % % % % % % % % % % %	541,000 633,000 728,000 826,000 1,038,000	-	
Contingency				-	1 Total	Գ \$ \$	534,000 2,750,000		19%

2010-2014 ROAD RESURFACING PLAN

2012

MOUNT VERNON RD	WEST CITY LIMIT	NANDINA	Mill and Pave	\$	292,000	\$	292,000		
MOUNT VERNON RD	CHAMBLEE DUNWOO	MANHASSET DR	Mill and Pave	\$	337,000	\$	629,000		
MOUNT VERNON RD	MANHASSET DR	WELLESLEY LN	Mill and Pave	\$	286,000	\$	915,000		
PERIMETER CENTER N	MEADOW LANE RD	ASHFORD DUNWOODY	Reconstruction	\$	198,000	\$	1,113,000		
MEADOW LANE RD	ASBURY SQUARE N	WAL MART SHOPPING	Mill and Pave	\$	133,000	\$	1,246,000		
SHALLOWFORD RD	COTILLION DR	PEELER RD	Mill and Pave	\$	332,000	\$	1,578,000		
CHAMBLEE DUNWOODY F	PEELER RD	NERINE CIRCLE	Mill and Pave	\$	312,000	\$	1,890,000		
LITTLEBROOKE RIDGE	LITTLEBROOKE DR	END	Deep Patch and Pave	\$	12,000	\$	1,902,000	0.687272	727
LITTLEBROOKE WAY	BROOKELAKE DR	END	Deep Patch and Pave		34,000	\$	1,936,000		
LITTLEBROOKE CT	LITTLEBROOKE DR	END	Deep Patch and Pave		17,000	\$	1,953,000		
LITTLEBROOKE LN	LITTLEBROOKE TE	END	Deep Patch and Pave		26,000	\$	1,979,000		
BROOKE FARM TRL	BROOKE FARM DR	END	Deep Patch and Pave		18,000	\$	1,997,000		
LITTLEBROOKE CI	LITTLEBROOKE DR	END	Deep Patch and Pave		16,000	\$	2,013,000		
BROOKE FARM DR	DUNWOODY CLUB DR	LITTLEBROOKE DR	Deep Patch and Pave		186,000	\$	2,199,000		
LITTLEBROOKE TE	BROOKE FARM DR	BROOKELAKE DR	Deep Patch and Pave		17,000	\$	2,216,000	0.7996363	364
Contingency					,	\$	534,000		9%
				201	2 Total	\$	2,750,000		
						•			
2013									
PEELER RD	CHAMBLEE DUNWOODY	ADAMS RD	Mill and Pave	\$	148,000	\$	148,000		
TILLY MILL RD	PEELER RD	N PEACHTREE RD	Mill and Pave	\$	84,000	\$	232,000		
PERIMETER CENTER PLA			Mill and Pave	ŝ	164,000	\$	396,000		
ASHFORD CENTER PKWY		ASHFORD DUNWOODY		\$	305,000	\$	701,000		
ASHFORD DUNWOOD	INTERSTATE 285	PERIMETER CENTER E		\$	510,000	\$	1,211,000		
N PEACHTREE RD	BROOKHURST DR	TILLY MILL RD	Mill and Pave	\$	286,000	\$	1,497,000		
SPALDING DR	CHAMBLEE DUNWOO	WELDSTONE CT	Reconstruction	\$	200,000	\$	1,701,000		
WINTERS CHAPEL	PEELER RD	RIDGEWAY DR	Mill and Pave	\$	359,000	\$	2,060,000		
MANHASSET FARM CT	EAST END	WEST END	Deep Patch and Pave	•	40,000	Ψ \$	2,100,000		
MANHASSET CT	SOUTH END	MANHASSET FARM CT	Deep Patch and Pave		40,000	φ \$	2,147,000		
MANHASSET DR	MANHASSET COVE	MOUNT VERNON RD	Deep Patch and Pave		106,000	Ψ \$	2,253,000		
Contingency				Ψ	100,000	Ψ ¢	497,000	1	8%
Contingency				201	3 Total	φ \$	2,750,000	I	0 /0
				201	Jiotai	Ψ	2,100,000		

2010-2014 ROAD RESURFACING PLAN

2014

PERIMETER CENTER E	ASHFORD DUNWOODY	ASHFORD DUNWOODY	Mill and Pave	\$	593,000	\$ 593,000
VERMACK RD	MANHASSET DR	WOMACK RD	Mill and Pave	\$	170,000	\$ 763,000
VERMACK RD	WOMACK RD	CHAMBLEE DUNWOOD	Mill and Pave	\$	258,000	\$ 1,021,000
CROWN POINTE PK	MEADOW LANE RD	PERIMETER CENTER W	Mill and Pave	\$	108,000	\$ 1,129,000
FONTAINEBLEAU D	HAPPY HOLLOW RD	FONTAINEBLEAU W	Deep Patch and Pave	\$	195,000	\$ 1,324,000
MEADOW LANE RD	SHOPPING MALL S	CROWN POINTE PK	Mill and Pave	\$	187,000	\$ 1,511,000
PEACHFORD RD	DUNBAR DR	N PEACHTREE RD	Mill and Pave	\$	139,000	\$ 1,650,000
TILLY MILL RD	N PEACHTREE RD	WOMACK RD	Mill and Pave	\$	209,000	\$ 1,859,000
WINTERS CHAPEL	CHARMANT PL	PEELER RD	Mill and Pave	\$	190,000	\$ 2,049,000
FONTAINEBLEAU W	WINTERS CHAPEL	FONTAINEBLEAU D	Deep Patch and Pave	\$	11,000	\$ 2,060,000
PEACHFORD RD	N SHALLOWFORD R	DUNBAR DR	Mill and Pave	\$	128,000	\$ 2,188,000
GRENOBLE CT	FONTAINEBLEAU DR	END	Deep Patch and Pave	\$	17,000	\$ 2,205,000
FLEUR DE LIS WA	FONTAINEBLEAU DR	FLEUR DE LIS CT	Deep Patch and Pave	\$	53,000	\$ 2,258,000
Contingency						\$ 492,000
				201	4 Total	\$ 2,750,000

18%























