



**METROPOLITAN
TRANSPORTATION
COMMISSION**

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Memorandum

TO: Partnership Technical Advisory Committee

DATE: January 28, 2008

FR: Theresa Romell, Programming & Allocations

RE: DRAFT 25-Year LS&R Capital Maintenance Needs

Overview:

Preliminary calculations of the 25-year Local Street and Road (LS&R) capital maintenance need have been completed and are being made available for review. Only capital maintenance need figures are available at this time. 25-year LS&R revenue and shortfall figures will be made available at a later date. The following table summarizes the total LS&R funding needs region-wide

Preliminary Total Local Street and Road 25-Year Need (In Billions)

	Capital Maintenance	Operations / Other	Total
Need	\$33.4	\$11.2	\$44.6

“Capital Maintenance” consists of activities that extend the useful life of the roadway asset by five or more years. This category can be further broken down into capital maintenance for pavements, capital maintenance for non-pavement assets (sidewalks, storm drains, traffic signals, curb and gutter, etc.), and for locally owned bridges. The “Operations/Other” category consists of routine maintenance (pothole filling, street sweeping and striping, overhead expense, etc.) as well expansion and other miscellaneous LS&R activities. For the purposes of the 25-year Regional Transportation Plan (RTP), the calculation of the LS&R shortfall is primarily concerned with the unmet need for capital maintenance.

Methodology:

Pavement Need

In determining the pavement portion of the capital maintenance need, MTC staff used a combination of information on maintenance treatment costs derived from a survey of local jurisdictions and model runs performed on each jurisdiction's StreetSaver® pavement management system database. Average treatment costs were calculated for each of the nine counties and their jurisdictions. The average costs were inserted into a standardized, regional, “best practices” decision tree. The decision tree was then imported into each jurisdiction's StreetSaver® database prior to running the 25-year unconstrained pavement needs analysis. The costs for pavement maintenance needs were escalated at a 3% annual growth rate. The 25-year total pavement maintenance need for each jurisdiction was then summed at the county level.

Non-Pavement Need

MTC contracted with Nichols Consulting Engineers to develop a model for estimating Non-Pavement need based on information provided by local jurisdictions on non-pavement asset inventory and useful life. One result of their work was that total regional non-pavement replacement costs can be predicted by the inventory of curb and gutter and streetlights. The total regional non-pavement asset replacement cost was then divided by the average of useful life for each of the major non-pavement asset groups in order to estimate an annual maintenance cost. The regional totals were then divided into city non-pavement need and county non-pavement need. The city need was distributed across all jurisdictions based on relative population share and the county need was distributed across the unincorporated jurisdictions based on total lane mileage. San Francisco was considered as a city only.

Local Bridge Need

Staff does not have an estimate of the 25-year local bridge need at this time. MTC is in the process of securing contractor assistance with this effort and will release the need information once it has been developed. Bridge maintenance needs are derived from Caltrans' Pontis Bridge Management System software.

The attachment to this memo contains the draft 25-year capital maintenance need calculated using the methodology described above. Draft projections were distributed in December to local jurisdictions in order to allow them time to review the figures and bring any questions or concerns to MTC staff's attention prior to the figures being finalized.

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DRAFT T2030 LOCAL STREET AND ROAD NEED

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Alameda	\$ 422,721,750	\$ 272,285,751	\$ 150,435,999
Alameda	\$ 323,985,510	\$ 157,187,127	\$ 166,798,384
Albany	\$ 66,472,882	\$ 29,315,946	\$ 37,156,937
Berkeley	\$ 436,715,457	\$ 201,000,309	\$ 235,715,147
Dublin	\$ 141,534,451	\$ 44,829,778	\$ 96,704,673
Emeryville	\$ 32,860,535	\$ 12,551,002	\$ 20,309,533
Fremont	\$ 860,659,509	\$ 391,516,613	\$ 469,142,896
Hayward	\$ 528,670,737	\$ 200,976,435	\$ 327,694,302
Livermore	\$ 329,791,651	\$ 146,168,028	\$ 183,623,623
Newark	\$ 177,736,643	\$ 80,892,332	\$ 96,844,311
Oakland	\$ 1,596,525,605	\$ 675,599,222	\$ 920,926,383
Piedmont	\$ 102,356,656	\$ 77,853,558	\$ 24,503,098
Pleasanton	\$ 304,025,510	\$ 151,631,978	\$ 152,393,532
San Leandro	\$ 342,976,377	\$ 162,409,269	\$ 180,567,108
Union City	\$ 254,819,180	\$ 94,574,904	\$ 160,244,276
COUNTY TOTAL	\$ 5,921,852,453	\$ 2,698,792,251	\$ 3,223,060,202

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Contra Costa	\$ 463,890,329	\$ 254,162,079	\$ 209,728,251
Antioch	\$ 418,824,116	\$ 196,844,446	\$ 221,979,671
Brentwood	\$ 169,949,014	\$ 61,548,018	\$ 108,400,996
Clayton	\$ 41,201,619	\$ 17,305,834	\$ 23,895,785
Concord	\$ 427,757,158	\$ 153,980,754	\$ 273,776,405
Danville	\$ 183,357,290	\$ 88,933,367	\$ 94,423,924
El Cerrito	\$ 109,181,999	\$ 57,773,147	\$ 51,408,851
Hercules	\$ 92,508,737	\$ 39,368,821	\$ 53,139,916
Lafayette	\$ 104,428,623	\$ 51,337,469	\$ 53,091,154
Martinez	\$ 185,219,958	\$ 105,030,218	\$ 80,189,740
Moraga	\$ 97,223,580	\$ 61,394,310	\$ 35,829,270
Oakley	\$ 122,809,826	\$ 52,091,071	\$ 70,718,756
Orinda	\$ 126,188,533	\$ 87,362,593	\$ 38,825,940
Pinole	\$ 75,560,204	\$ 32,928,582	\$ 42,631,622
Pittsburg	\$ 282,623,120	\$ 142,976,518	\$ 139,646,602
Pleasant Hill	\$ 145,935,024	\$ 72,532,121	\$ 73,402,903
Richmond	\$ 566,884,772	\$ 336,752,918	\$ 230,131,855
San Pablo	\$ 98,229,329	\$ 29,596,274	\$ 68,633,055
San Ramon	\$ 236,433,062	\$ 107,800,109	\$ 128,632,952
Walnut Creek	\$ 329,114,905	\$ 184,193,100	\$ 144,921,805
COUNTY TOTAL	\$ 4,277,321,200	\$ 2,267,290,077	\$ 2,143,409,451

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Marin	\$ 519,435,905	\$ 386,791,372	\$ 132,644,532
Belvedere	\$ 9,255,318	\$ 4,492,120	\$ 4,763,198
Corte Madera	\$ 40,434,969	\$ 19,456,062	\$ 20,978,907
Fairfax	\$ 30,784,516	\$ 14,438,035	\$ 16,346,481
Larkspur	\$ 69,394,844	\$ 42,528,987	\$ 26,865,857
Mill Valley	\$ 89,279,669	\$ 58,643,593	\$ 30,636,076
Novato	\$ 250,760,254	\$ 134,559,493	\$ 116,200,761
Ross	\$ 11,931,083	\$ 6,658,096	\$ 5,272,987
San Anselmo	\$ 56,875,868	\$ 29,130,072	\$ 27,745,796
San Rafael	\$ 291,608,650	\$ 162,949,100	\$ 128,659,550
Sausalito	\$ 29,160,467	\$ 12,638,885	\$ 16,521,582
Tiburon	\$ 42,358,032	\$ 22,671,328	\$ 19,686,704
COUNTY TOTAL	\$ 1,441,279,575	\$ 894,957,142	\$ 546,322,433

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Napa	\$ 577,470,923	\$ 436,639,978	\$ 140,830,945
American Canyon	\$ 86,290,183	\$ 50,757,920	\$ 35,532,263
Calistoga	\$ 25,802,978	\$ 14,051,243	\$ 11,751,735
Napa	\$ 504,322,869	\$ 333,661,174	\$ 170,661,694
St. Helena	\$ 45,189,784	\$ 31,906,467	\$ 13,283,317
Yountville	\$ 15,541,854	\$ 8,249,662	\$ 7,292,193
COUNTY TOTAL	\$ 1,254,618,591	\$ 875,266,445	\$ 379,352,146

Jurisdiction	Total Need	Pavement Need	NonPave Need
San Francisco	\$ 3,467,451,622	\$ 1,674,671,546	\$ 1,792,780,076
COUNTY TOTAL	\$ 3,467,451,622	\$ 1,674,671,546	\$ 1,792,780,076

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of San Mateo	\$ 216,675,148	\$ 116,653,044	\$ 100,022,104
Atherton	\$ 49,853,472	\$ 33,400,600	\$ 16,452,872
Belmont	\$ 110,252,671	\$ 52,852,695	\$ 57,399,975
Brisbane	\$ 31,849,243	\$ 23,451,030	\$ 8,398,212
Burlingame	\$ 119,293,228	\$ 55,753,625	\$ 63,539,603
Colma	\$ 11,259,354	\$ 7,728,514	\$ 3,530,840
Daly City	\$ 347,893,410	\$ 112,592,743	\$ 235,300,667
East Palo Alto	\$ 128,513,626	\$ 56,190,145	\$ 72,323,481
Foster City	\$ 93,799,936	\$ 26,709,545	\$ 67,090,391
Half Moon Bay	\$ 60,838,904	\$ 32,219,818	\$ 28,619,086
Hillsborough	\$ 58,617,488	\$ 33,965,886	\$ 24,651,602
Menlo Park	\$ 150,916,578	\$ 81,882,342	\$ 69,034,237
Millbrae	\$ 89,724,750	\$ 43,256,415	\$ 46,468,335
Pacifica	\$ 170,822,993	\$ 83,824,251	\$ 86,998,742
Portola Valley	\$ 34,750,196	\$ 24,514,528	\$ 10,235,668
Redwood City	\$ 267,481,113	\$ 96,757,357	\$ 170,723,756
San Bruno	\$ 175,129,516	\$ 81,716,304	\$ 93,413,212
San Carlos	\$ 128,930,408	\$ 65,452,866	\$ 63,477,542
San Mateo	\$ 360,513,821	\$ 148,818,580	\$ 211,695,240
So. San Francisco	\$ 249,492,130	\$ 110,709,952	\$ 138,782,178
Woodside	\$ 44,117,112	\$ 31,784,662	\$ 12,332,450
COUNTY TOTAL	\$ 2,900,725,096	\$ 1,320,234,903	\$ 1,580,490,193

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Santa Clara	\$ 696,618,306	\$ 481,206,012	\$ 215,412,294
Campbell	\$ 164,694,622	\$ 76,594,293	\$ 88,100,329
Cupertino	\$ 253,027,960	\$ 130,762,932	\$ 122,265,028
Gilroy	\$ 193,830,329	\$ 83,784,711	\$ 110,045,618
Los Altos	\$ 103,476,241	\$ 41,184,512	\$ 62,291,729
Los Altos Hills	\$ 46,538,806	\$ 27,461,631	\$ 19,077,174
Los Gatos	\$ 135,112,155	\$ 69,932,363	\$ 65,179,792
Milpitas	\$ 277,840,312	\$ 130,294,204	\$ 147,546,108
Monte Sereno	\$ 14,973,747	\$ 7,072,025	\$ 7,901,723
Morgan Hill	\$ 174,741,725	\$ 89,589,304	\$ 85,152,421
Mountain View	\$ 263,303,552	\$ 100,920,381	\$ 162,383,171
Palo Alto	\$ 283,070,107	\$ 144,285,713	\$ 138,784,394
San Jose	\$ 4,317,780,588	\$ 2,159,663,866	\$ 2,158,116,722
Santa Clara	\$ 385,120,865	\$ 131,915,537	\$ 253,205,328
Saratoga	\$ 117,583,829	\$ 47,984,392	\$ 69,599,437
Sunnyvale	\$ 553,182,372	\$ 252,360,576	\$ 300,821,796
COUNTY TOTAL	\$ 7,980,895,516	\$ 3,975,012,450	\$ 4,005,883,066

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Solano	\$ 558,391,864	\$ 372,309,740	\$ 186,082,124
Benicia	\$ 131,781,927	\$ 69,906,895	\$ 61,875,032
Dixon	\$ 84,437,135	\$ 45,329,704	\$ 39,107,432
Fairfield	\$ 449,355,049	\$ 215,692,354	\$ 233,662,694
Rio Vista	\$ 24,620,436	\$ 7,280,976	\$ 17,339,460
Suisun City	\$ 162,101,608	\$ 100,084,721	\$ 62,016,886
Vacaville	\$ 280,660,947	\$ 66,795,781	\$ 213,865,167
Vallejo	\$ 806,266,713	\$ 537,131,601	\$ 269,135,112
COUNTY TOTAL	\$ 2,497,615,680	\$ 1,414,531,772	\$ 1,083,083,908

Jurisdiction	Total Need	Pavement Need	NonPave Need
County of Sonoma	\$ 1,658,188,995	\$ 1,219,996,320	\$ 438,192,676
Cloverdale	\$ 33,930,395	\$ 15,052,703	\$ 18,877,692
Cotati	\$ 39,017,104	\$ 22,315,987	\$ 16,701,116
Healdsburg	\$ 76,466,027	\$ 50,520,006	\$ 25,946,021
Petaluma	\$ 385,451,332	\$ 259,121,294	\$ 126,330,038
Rohnert Park	\$ 196,026,383	\$ 100,808,962	\$ 95,217,421
Santa Rosa	\$ 898,747,503	\$ 548,578,175	\$ 350,169,328
Sebastopol	\$ 44,517,301	\$ 27,317,479	\$ 17,199,823
Sonoma	\$ 34,797,013	\$ 12,754,199	\$ 22,042,814
Windsor	\$ 115,010,211	\$ 56,424,423	\$ 58,585,788
COUNTY TOTAL	\$ 3,482,152,263	\$ 2,312,889,546	\$ 1,169,262,717

Region	Total Need	Pavement Need	NonPave Need
Alameda	\$ 5,921,852,453	\$ 2,698,792,251	\$ 3,223,060,202
Contra Costa	\$ 4,277,321,200	\$ 2,267,290,077	\$ 2,143,409,451
Marin	\$ 1,441,279,575	\$ 894,957,142	\$ 546,322,433
Napa	\$ 1,254,618,591	\$ 875,266,445	\$ 379,352,146
San Francisco	\$ 3,467,451,622	\$ 1,674,671,546	\$ 1,792,780,076
San Mateo	\$ 2,900,725,096	\$ 1,320,234,903	\$ 1,580,490,193
Santa Clara	\$ 7,980,895,516	\$ 3,975,012,450	\$ 4,005,883,066
Solano	\$ 2,497,615,680	\$ 1,414,531,772	\$ 1,083,083,908
Sonoma	\$ 3,482,152,263	\$ 2,312,889,546	\$ 1,169,262,717
Total	\$ 33,357,290,324	\$ 17,433,646,132	\$ 15,923,644,192

1. Pavement Need is determined utilizing MTC's Pavement Management System software. 108 out of 109 jurisdictions utilize this system
2. Pavement Need calculations utilized standard average unit costs that were calculated for each of the nine counties and their jurisdictions
3. A standard and uniform "best practices" decision tree (maintenance strategy) was utilized in the pavement need calculations for each jurisdiction
4. Non-Pavement needs were estimated for the region as a whole and then distributed to each jurisdiction based on population for cities and lane mileage for counties.