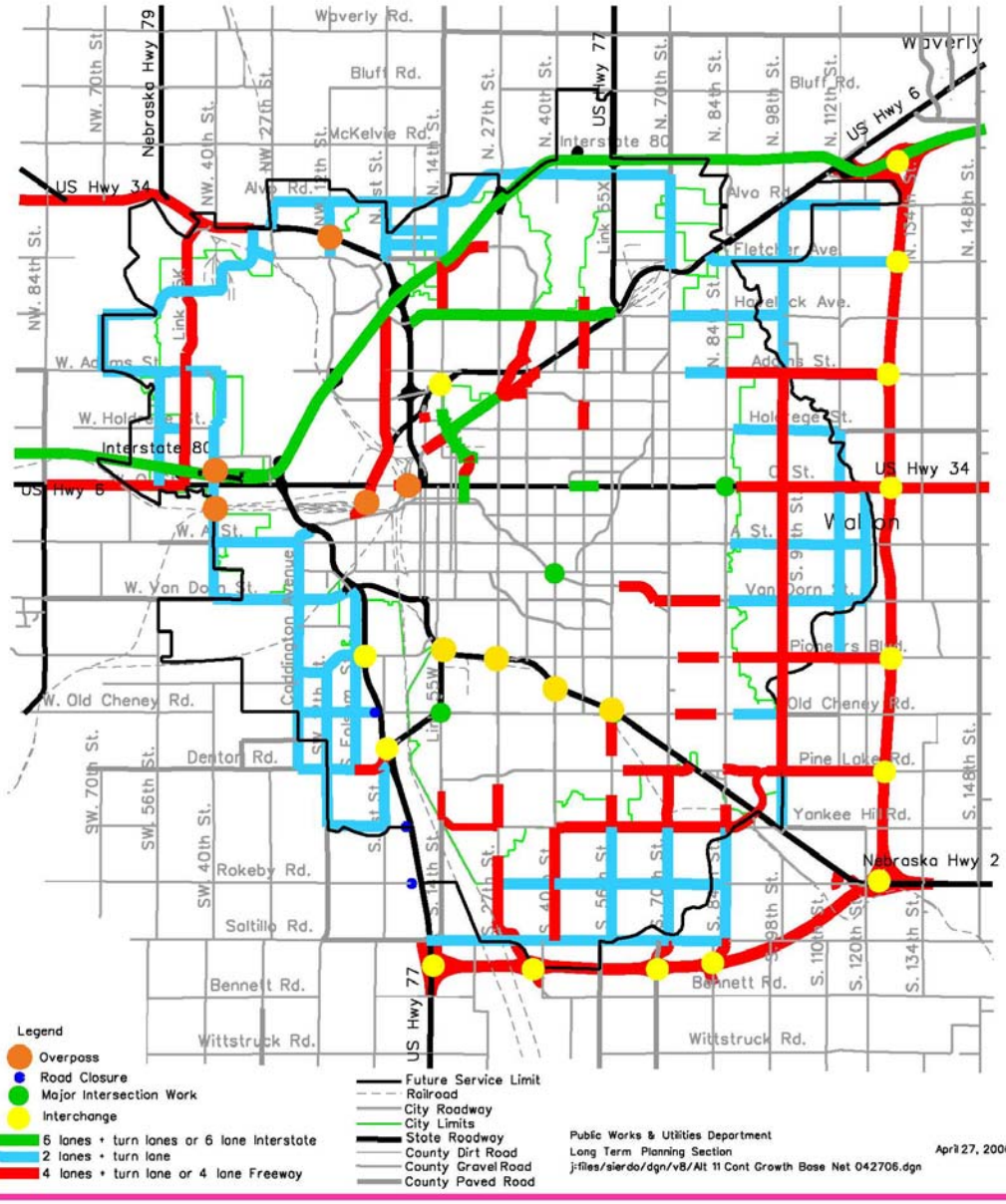
2030 Long Range Transportation Plan Update

Lincoln Area Street and Roadway Improvements **DRAFT**

Alternative 11 Added to the "Continuing Growth Base Network"



Alternative 11

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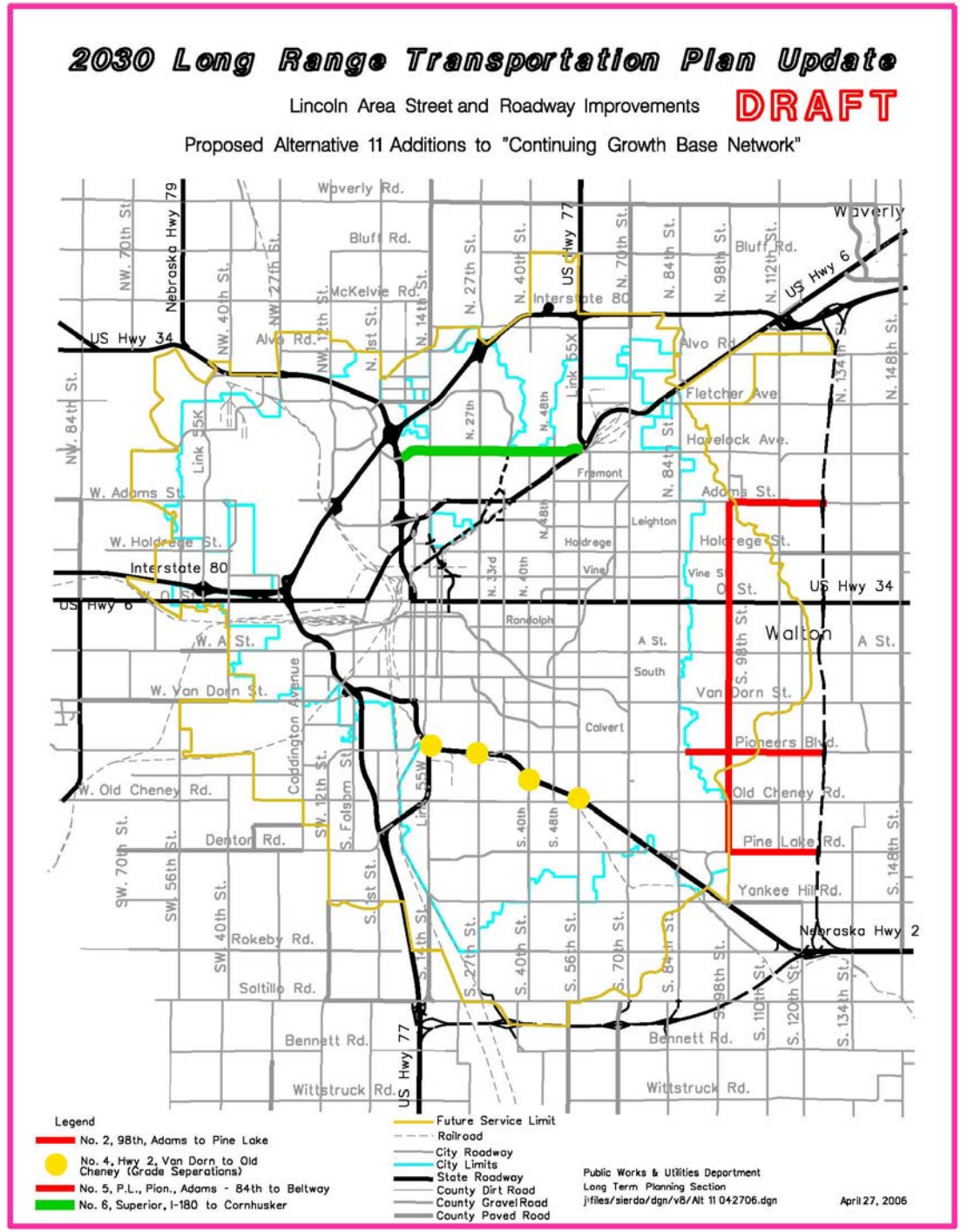

Alternative 11 Additions

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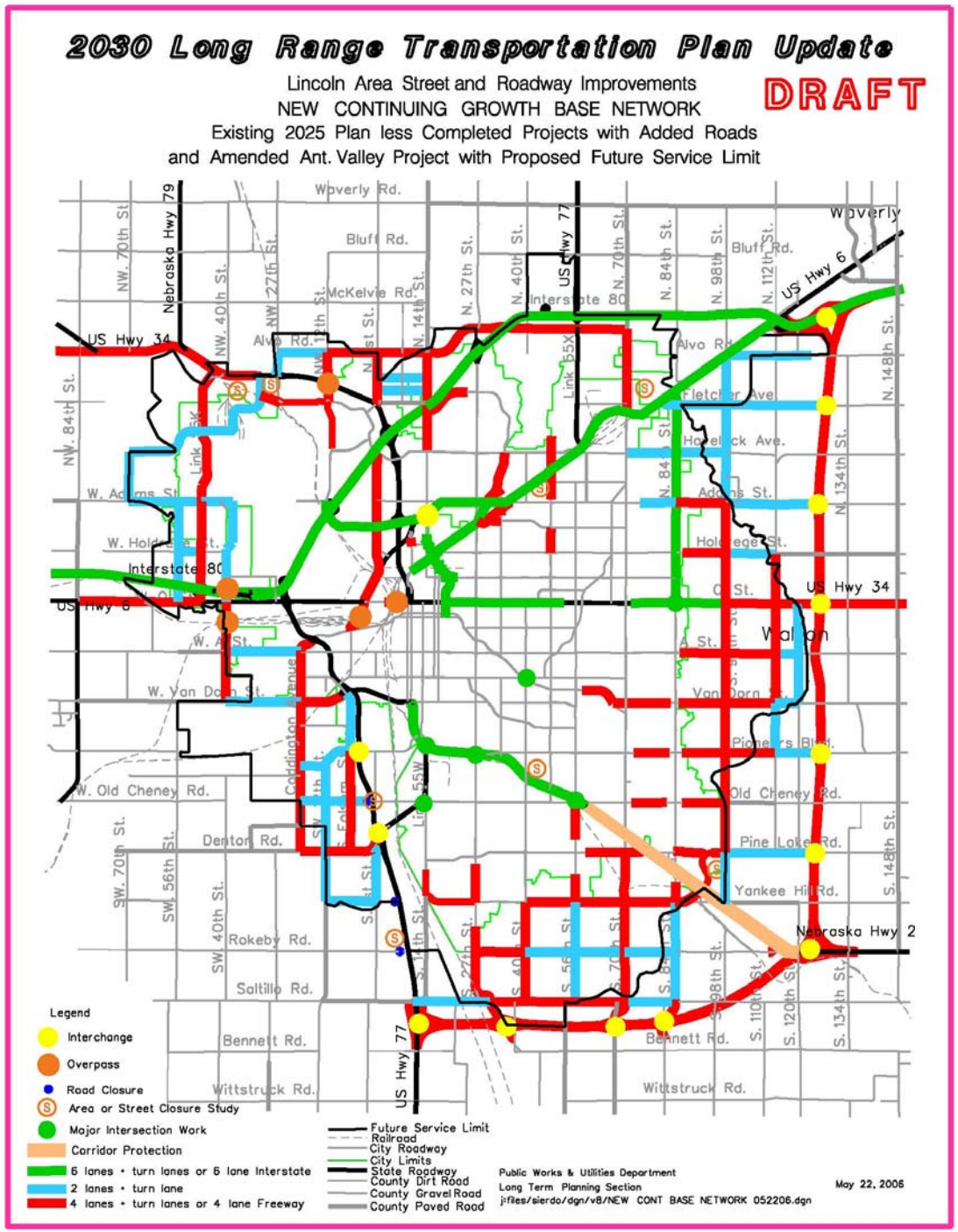

Alternative 12

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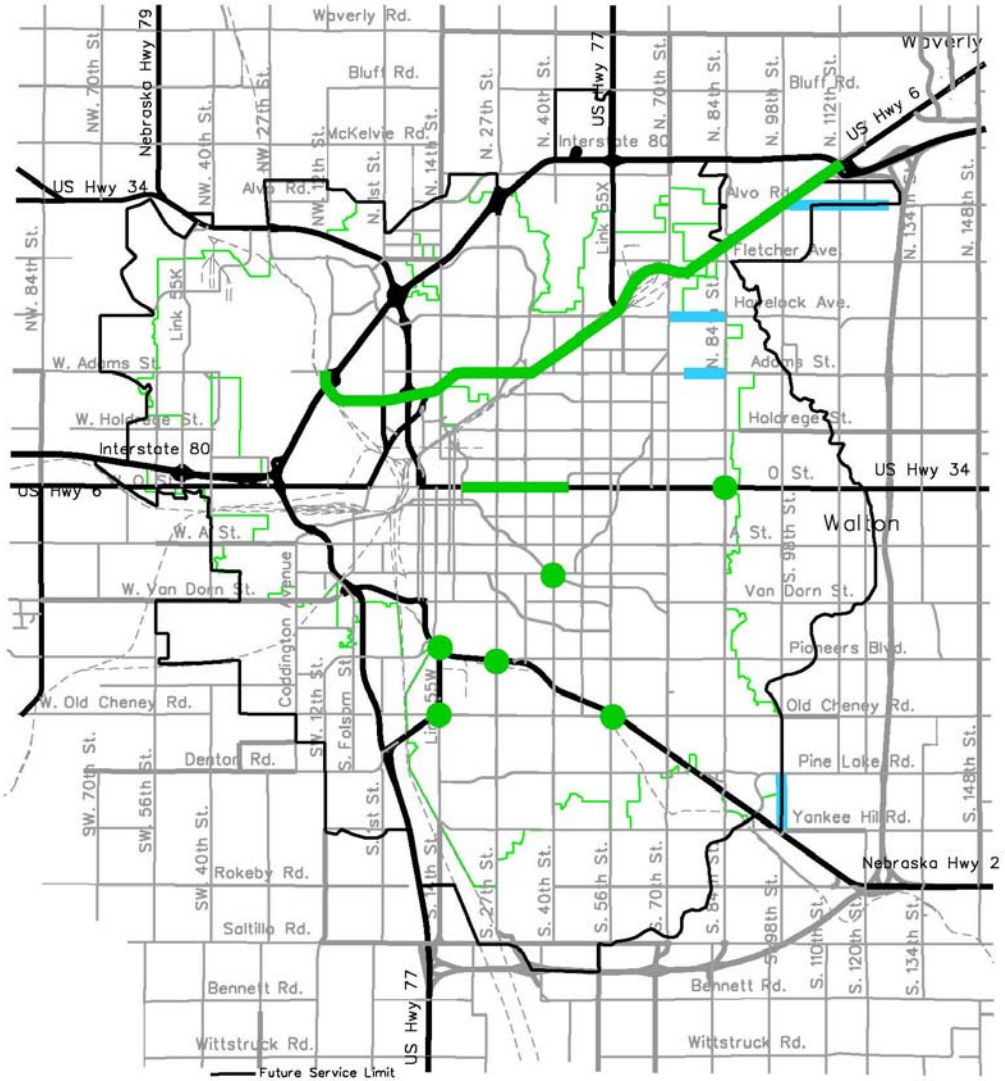
2030 Long Range Transportation Plan Update

Lincoln Area Street and Roadway Improvements

Projects Added to the 2025 (Existing Plan)

DRAFT



Alternative 12 Additions

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Travel Time Comparison

MODEL OUTPUT TRAVEL TIME COMPARISON **5/23/2006**

WORK IN PROGRESS

By traveltime (in minutes)

CASE	Alt. 8	Alt. 9	Alt. 10	Alt. 11	Alt. 12
1	15.77	15.77	15.77	15.77	15.77
2	6.34	6.34	6.34	6.34	6.34
3	8.84	8.84	8.84	8.84	8.84
4	20.84	20.84	20.84	20.84	20.83
5	9.82	9.82	9.82	9.82	9.82
6	9.31	9.31	9.31	9.31	9.31
7	17.83	17.83	17.83	17.83	17.83
8	13.54	13.54	13.54	13.54	13.54

By lengh (in miles)

CASE	Alt. 8	Alt. 9	Alt. 10	Alt. 11	Alt. 12
1	10.21	10.21	10.21	10.21	10.21
2	4.46	4.46	4.46	4.46	4.46
3	6.05	6.05	6.05	6.05	6.05
4	14.97	14.97	14.97	14.97	14.97
5	5.90	5.90	5.90	5.90	5.90
6	5.30	5.30	5.30	5.30	5.30
7	13.55	13.55	13.55	13.55	13.55
8	8.34	8.34	8.34	8.30	8.13

Case Description

	From	To
1	27th & YH	27th & Fletcher
2	W 48th & O	13th & O
3	98th & O	13th & O
4	84th & Havelock	W Denton & SW 40th
5	70th & Pioneers	13th & O
6	66th & Adams	13th & O
7	98th & YH	Airport Exit
8	27th & YH	Gateway Mall

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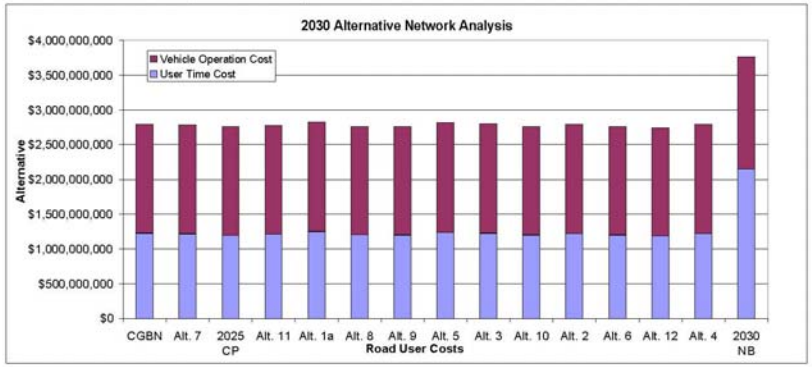
User Cost Analysis

WORK IN PROGRESS — 2030 USER COST SAVINGS — 5/23/2006

Alternative	24 Hour VHT	24 Hour VMT	Hourly Rate* $10.20 2030 Time Savings	IRS Rate** $0.445 2030 Veh Op Savings	2030 Road User Benefits	Roadway Improvement Cost	B/C Ratio
CGBN	328,986	9,622,983	$924,201,243	$52,741,671	$976,942,914	$1,348,686,961	0.724
Alt. 7	327,314	9,621,091	$930,426,099	$53,048,980	$983,475,079	$1,390,517,361	0.707
2025 CP	321,358	9,591,922	$952,600,287	$57,786,754	$1,010,387,041	$1,441,613,361	0.701
Alt. 11	326,126	9,620,461	$934,849,023	$53,151,307	$988,000,330	$1,451,916,561	0.680
Alt. 1a	335,594	9,715,224	$899,599,659	$37,759,427	$937,359,086	$1,395,017,361	0.672
Alt. 8	323,100	9,581,065	$946,114,821	$59,550,203	$1,005,665,024	$1,533,654,161	0.656
Alt. 9	322,250	9,591,017	$949,279,371	$57,933,749	$1,007,213,120	$1,536,561,361	0.655
Alt. 5	332,199	9,697,958	$912,239,244	$40,563,857	$952,803,101	$1,456,416,561	0.654
Alt. 3	328,940	9,671,764	$924,372,501	$44,818,418	$969,190,919	$1,499,230,961	0.646
Alt. 10	322,488	9,579,328	$948,393,297	$59,832,335	$1,008,225,632	$1,580,988,561	0.638
Alt. 2	328,373	9,663,556	$926,483,442	$46,151,602	$972,635,044	$1,538,154,161	0.632
Alt. 6	322,378	9,579,255	$948,802,827	$59,844,192	$1,008,647,019	$1,622,818,961	0.622
Alt. 12	318,940	9,578,909	$961,602,501	$59,900,391	$1,021,502,892	$1,648,568,561	0.620
Alt. 4	327,850	9,661,296	$928,430,571	$46,518,682	$974,949,253	$1,585,488,561	0.615
2030 NB	577,227	9,947,697	($2,149,016,121)	($1,615,754,685)	($3,764,770,806)		

LEGEND
VHT=Vehicle Hours of Travel
VMT= Vehicle Miles of Travel
* Hourly Rate - Federal Ave. Wage Rate ($10.20/Hour)
** IRS Rate - Federal Mileage Rate ($0.445/Mile)

This table looks at the expected benefits on a yearly basis for the final year of the plan (2030). Using current 2006 Federal user costs, benefits to road users were calculated by determining the savings over the no-build 2004 network and comparing those to the various alternative networks. The year 2030 benefits were then compared to the total cost of each network to determine a benefit to cost ratio for one year only. Actual benefit to cost ratios for the life of the plan will be much higher.



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User Cost Analysis

WORK IN PROGRESS | 2030 USER COST SAVINGS | 5/23/2006

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Alt. 8	323,100	9,581,065	$946,114,821	$59,550,203	$1,005,665,024	$1,533,654,161	0.656
Alt. 9	322,250	9,591,017	$949,279,371	$57,933,749	$1,007,213,120	$1,536,561,361	0.655
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LEGEND

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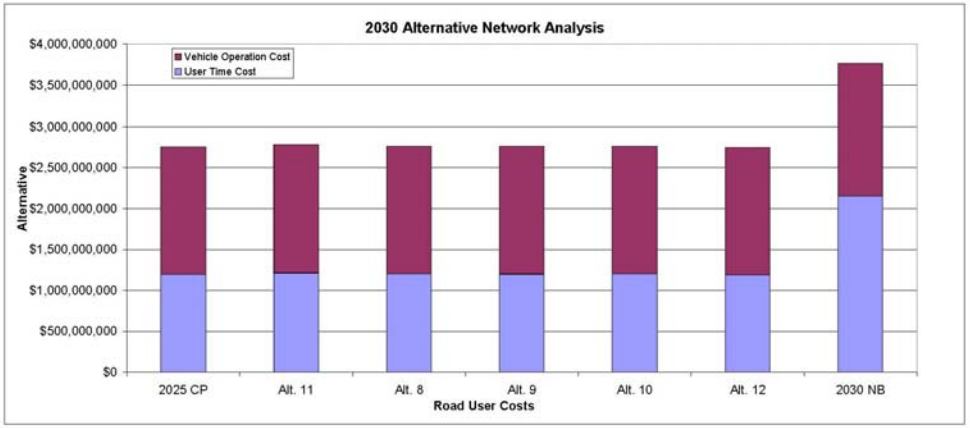

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LOS Summary

WORK IN PROGRESS | LEVEL OF SERVICE SUMMARY | 5/23/2006

	2004 Calibrated Model		2030 Land Use on 2004 Network		2030 Land Use on 2025 Network		2030 LRTP Alternative Network 8	
LOS	Mileage	% Distribution	Mileage	% Distribution	Mileage	% Distribution	Mileage	% Distribution
A	879.6	78.24	466.6	41.54	745.1	62.03	739.3	61.56
B	131.4	11.70	90.9	8.09	124.4	10.35	124.9	10.40
C	45.4	4.04	47.1	4.20	81.1	6.75	81.4	6.78
D	24.2	2.16	60.2	5.36	74.3	6.18	81.7	6.80
E	20.0	1.78	62.0	5.52	61.0	5.08	57.4	4.78
F	23.4	2.09	396.6	35.30	115.4	9.61	116.3	9.68
Total	**1,123.4**	**100.00**	**1,123.4**	**100.00**	**1,201.2**	**100.00**	**1,201.0**	**100.00**
FUNCLASS	VMT	VHT	VMT	VHT	VMT	VHT	VMT	VHT
Collector	142,482	5,313	379,340	23,025	253,690	8,890	251,435	8,970
Interstate/freeway	770,415	12,105	1,461,092	53,501	2,042,269	36,514	2,022,342	35,852
Major Arterial	739,133	17,909	1,336,097	47,706	1,930,293	48,366	1,823,084	46,794
Major Collector County	113,908	2,097	537,771	12,889	190,330	3,551	185,898	3,470
Major Collector State	20,016	364	78,453	1,775	42,535	775	45,322	829
Minor Arterial	2,083,068	58,723	4,192,691	200,791	3,389,676	97,253	3,408,598	99,101
Minor Collector	9,455	191	42,721	1,523	21,589	443	22,490	466
Others	57,029	1,161	291,187	180,238	176,841	85,202	177,207	85,497
Principal Arterial (Div)	860,717	19,556	1,516,147	51,435	1,404,336	35,929	1,503,888	37,704
Ramps	69,717	2,168	112,198	4,344	140,363	4,435	140,801	4,409
Total	**4,866,940**	**119,587**	**9,947,697**	**577,227**	**9,591,922**	**321,358**	**9,581,065**	**323,100**
	Number of Veh. Trips	Ave. Trip Time (min)	Number of Veh. Trips	Ave. Trip Time (min)	Number of Veh. Trips	Ave. Trip Time (min)	Number of Veh. Trips	Ave. Trip Time (min)
	906,526	7.9	1,430,109	24.2	1,430,109	13.5	1,430,109	13.6

	2030 LRTP Alternative Network 9		2030 LRTP Alternative Network 10		2030 LRTP Alternative Network 11		2030 LRTP Alternative Network 12	
LOS	Mileage	% Distribution	Mileage	% Distribution	Mileage	% Distribution	Mileage	% Distribution
A	734.0	61.11	742.3	61.69	725.6	60.40	755.1	62.86
B	125.5	10.45	125.3	10.41	129.5	10.78	123.0	10.24
C	87.3	7.27	81.3	6.75	88.9	7.40	85.0	7.07
D	78.8	6.56	77.9	6.47	76.4	6.36	73.7	6.14
E	58.6	4.88	58.0	4.82	61.1	5.08	58.3	4.85
F	116.9	9.74	116.3	9.66	121.9	10.15	106.2	8.84
Total	**1,201.0**	**100.00**	**1,201.0**	**99.80**	**1,203.4**	100.18	**1,201.2**	100.00
FUNCLASS	VMT	VHT	VMT	VHT	VMT	VHT	VMT	VHT
Collector	251,418	8,910	251,711	8,952	257,614	9,149	247,722	8,688
Interstate/freeway	2,043,031	36,386	2,017,226	35,756	2,085,539	37,235	2,012,294	35,543
Major Arterial	1,943,011	48,931	1,842,723	47,121	1,874,682	47,791	1,953,560	48,623
Major Collector County	191,550	3,580	184,081	3,443	194,307	3,630	183,182	3,420
Major Collector State	45,859	839	45,295	828	45,130	824	42,151	768
Minor Arterial	3,336,261	96,864	3,394,206	98,648	3,478,458	101,791	3,341,574	95,397
Minor Collector	22,536	470	22,377	463	21,280	434	21,276	434
Others	179,418	85,165	176,917	85,166	178,717	85,488	178,043	85,225
Principal Arterial (Div)	1,437,426	36,681	1,504,128	37,707	1,329,985	34,930	1,459,913	36,483
Ramps	140,507	4,424	140,660	4,404	154,749	4,854	139,194	4,364
Total	**9,591,017**	**322,250**	**9,579,326**	**322,488**	**9,620,461**	**326,126**	**9,578,909**	**318,940**
	Number of Veh. Trips	Ave. Trip Time (min)	Number of Veh. Trips	Ave. Trip Time (min)	Number of Veh. Trips	Ave. Trip Time (min)	Number of Veh. Trips	Ave. Trip Time (min)
	1,430,109	13.5	1,430,109	13.5	1,430,109	13.7	1,430,109	13.4

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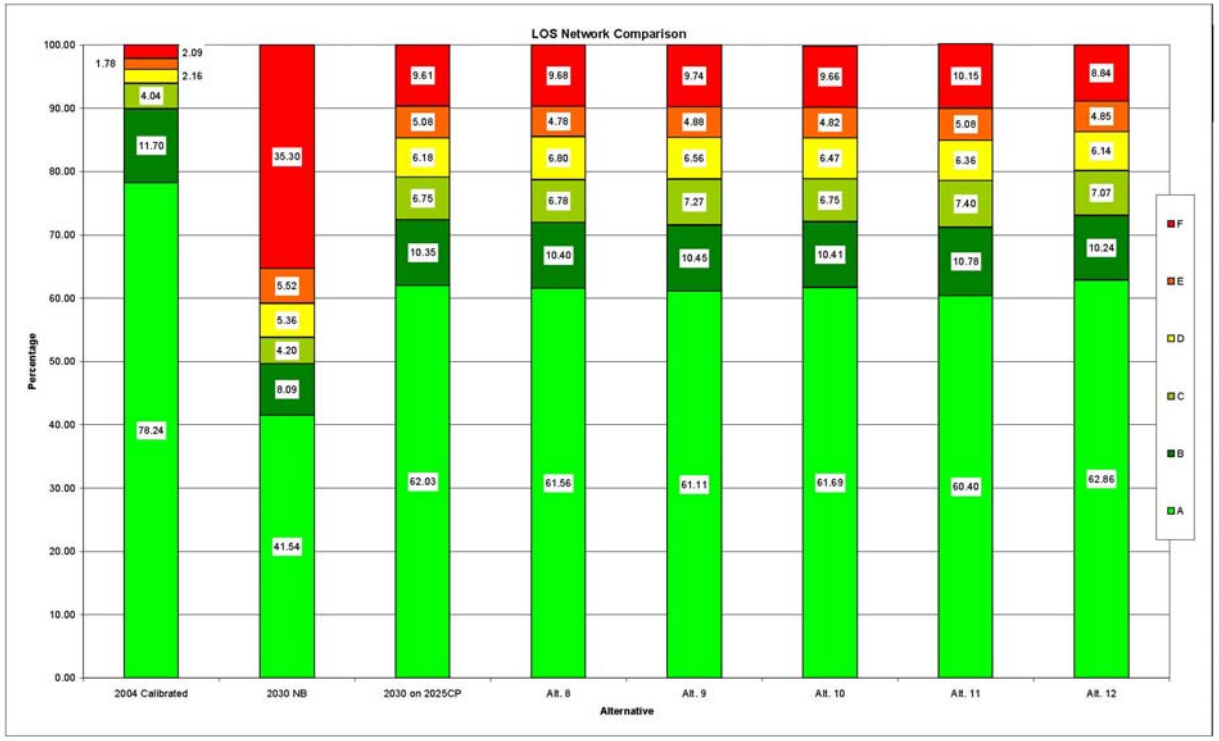
LOS Summary

WORK IN PROGRESS LEVEL OF SERVICE SUMMARY 5/23/2006



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Upcoming Schedule

- **May 31st** – Planning Commission Work Session
- **June 7th** – Planning Commission LRTP Text Workshop

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Questions?

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