

Summary of Transportation Systems (Alternatives)⁽¹⁾

ATTACHMENT 2

Transportation System	Highway	Bus Transit	Fixed Guideway
2030 LRTP	<ul style="list-style-type: none"> • 518 lane miles added • HOV/HOT on I-40 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 “loop” projects 	<ul style="list-style-type: none"> • Major regular, express and regional bus expansion • Peak headways 10-15 minutes • Off-Peak headways 20-30 minutes 	<ul style="list-style-type: none"> • Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill
CTP	<ul style="list-style-type: none"> • 703 lane miles added • HOV/HOT on I-40, NC 147, East End Connector, US 70 and I-85 • Triangle Parkway (toll) • US 15-501 freeway • 7 “loop” projects 	<ul style="list-style-type: none"> • Major regular, express and regional bus expansion • Peak headways 5-7 minutes • Off-Peak headways 7-15 minutes • BRT in Chapel Hill • Includes all STAC recommendations 	<ul style="list-style-type: none"> • Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all STAC recommendations
Intensive Highway	<ul style="list-style-type: none"> • 665 lane miles added • HOV/HOT on I-40, I-85 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 “loop” projects 	<ul style="list-style-type: none"> • Minor regular, express and regional bus expansion • Peak headways 15-30 minutes • Off-Peak headways 30-45 minutes 	<ul style="list-style-type: none"> • No fixed guideway service
Intensive Fixed Guideway	<ul style="list-style-type: none"> • 276 lane miles added • No HOV/HOT • Triangle Parkway (toll) • 6 “loop” projects 	<ul style="list-style-type: none"> • Moderate regular, express and regional bus expansion • Peak headways 7-10 minutes • Off-Peak headways 15-20 minutes • BRT in Chapel Hill • Includes all STAC recommendations 	<ul style="list-style-type: none"> • Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all STAC recommendations
Intensive Bus Transit	<ul style="list-style-type: none"> • 324 lane miles added • HOV/HOT on I-40 • Triangle Parkway (toll) • 6 “loop” projects 	<ul style="list-style-type: none"> • Major regular, express and regional bus expansion • Peak headways 5-7 minutes • Off-Peak headways 10-15 minutes 	<ul style="list-style-type: none"> • No fixed guideway service
Moderate Multimodal	<ul style="list-style-type: none"> • 285 lane miles added • No HOV/HOT • Triangle Parkway (toll) • 7 “loop” projects 	<ul style="list-style-type: none"> • Moderate regular, express and regional bus expansion • Peak headways 15 minutes • Off-Peak headways 30 minutes 	<ul style="list-style-type: none"> • Commuter Rail – Burlington to Raleigh; and Selma to Durham

(1) Some helpful definitions: **HOV/HOT** = High Occupancy Vehicle/Toll; lanes that can only be used by vehicles that pay a toll or have at least a specified number of passengers. **Headway** = minutes to wait before next bus arrives. **Peak** = period of highest travel, generally 7am-9am and 4pm-6pm. **BRT** = Bus Rapid Transit, which are buses on a separate roadway. **Fixed Guideway** = transit vehicles on traveling on separate track or roadway. **STAC** = Special Transit Advisory Commission, which was a regional commission that recommended major transit investments.

2035 LRTP and CTP Land Use Scenarios

No.	Name	Description	Purpose	SE Data Changes	Land Use Plan Changes	Control Total Changes
1	Baseline	Uses current land use plans, policies and official actions. Most likely future reality.	Produces adopted LRTP and Air Quality Conformity Determination	None	None	No change -- Use baseline control totals
2	Build-out	Assumes all available land is developed as proposed in existing long range land use plans, policies and official actions.	Identify needs in CTP, which does not have time horizon, and show long range trajectory of current plans	Realize buildout for each TAZ	None	No control totals used because there is no time horizon
3	Constrained Growth	Assume overall slower growth than current forecasts (could include only "existing plus committed" transportation network)	Impact of slower growth because of congestion (reduced mobility)	Decrease development in specified TAZs	Recommend policy changes to reduce overall development	Reduce population and employment control totals
4	Travel Corridors	Increase population and employment development in key <u>corridors</u> (perhaps those identified by Special Transit Advisory Commission)	Impact of new policies that direct development to existing transportation infrastructure	Increase development in identified TAZs, and reduce in other TAZs	Recommended specific policy changes that encourage and permit more development in corridors	No change -- Use baseline control totals
5	Transit Nodes	Increase population and employment development in transit oriented areas (<u>distinct nodes</u>)	Impact of new policies that direct development to existing and appropriate transportation infrastructure	Increase development in identified TAZs, and reduce in other TAZs	Recommended specific policy changes that encourage and permit more development in corridors	No change -- Use baseline control totals

Population

Jurisdiction	Baseline		Buildout		Constrained		Travel Corridors		Transit Nodes	
	2005	2035	Pop.	% Change	Pop.	% Change	Pop.	% Change	Pop.	% Change
Durham (1)	244,022	354,164	545,514	54%	325,325	-8%	354,163	0%	354,164	0%
Orange (2)	44,904	57,649	217,359	277%	50,346	-13%	57,649	0%	57,649	0%
Chatham (3)	34,067	117,130	140,583	20%	75,986	-35%	117,130	0%	117,150	0%
Chapel Hill (4)	58,339	80,483	86,957	8%	72,373	-10%	80,466	0%	80,483	0%
Carrboro	20,858	28,269	28,269	0%	24,626	-13%	28,255	0%	28,269	0%
Hillsborough	12,438	22,380	22,380	0%	21,262	-5%	22,380	0%	22,382	0%
Total	414,628	660,075	1,041,062	58%	569,918	-14%	660,043	0%	660,097	0%

Employment

Jurisdiction	Baseline		Buildout		Constrained		Travel Corridors		Transit Nodes	
	2005	2035	Emp.	% Change	Emp.	% Change	Emp.	% Change	Emp.	% Change
Durham (1)	175,487	282,571	440,830	56%	258,653	-8%	282,583	0%	282,601	0%
Orange (2)	4,290	10,087	34,347	241%	9,204	-9%	10,087	0%	10,087	0%
Chatham (3)	8,199	23,863	47,035	97%	17,606	-26%	23,863	0%	23,853	0%
Chapel Hill (4)	36,702	74,875	82,313	10%	67,735	-10%	74,875	0%	74,923	0%
Carrboro	4,390	6,857	6,945	1%	5,734	-16%	6,856	0%	6,856	0%
Hillsborough	5,679	14,453	14,625	1%	13,916	-4%	14,452	0%	14,426	0%
Total	234,747	412,706	626,095	52%	372,848	-10%	412,716	0%	412,746	0%

(1) Durham County does not include Chapel Hill jurisdiction

(2) Includes parts of Orange County that are not in Carrboro, Chapel Hill and Hillsborough

(3) Includes eastern half of Chatham County

(4) Includes parts of Chapel Hill in Orange County and Durham County

Combinations of Transportation Systems and Land Use Scenarios (1)

No.	Transportation System	Land Use Scenarios				
		Baseline	Constrained	Buildout	Corridor	Transit Nodes
Benchmarks for comparison						
1	2030 Adopted LRTP Currently adopted plan	1a				
2	Comprehensive Transportation Plan Vision Plan to address population and employment buildout beyond the year 2035; no budget constraint	2a		2b		
2035 LRTP Alternatives						
3	Intensive Highway Emphasize highway investment to address transportation needs	3a	3b		3c	
4	Intensive Fixed Guideway Light rail and other grade separated transit	4a			4b	4c
5	Intensive Bus Transit Emphasize bus transit service to address transportation needs	5a			5b	5c
6	Moderate Multimodal Continue current investment trends with some shift to non-automobile modes	6a			6b	6c
7	System Preservation (2) Preserve effectiveness of existing transportation using ITS, TDM, and CMS-TSM projects and policies					

- (1) Each combination of a Transportation System and Land Use Scenario creates an Alternative and will require a unique travel demand model run.
- (2) The Triangle Regional Model (TRM) is not designed to be very sensitive to changes in ITS, TDM, and CMS-TSM projects and policies. Therefore, the System Preservation Alternative will not require additional model runs.

2035 Long Range Transportation Plan LRTP Alternatives Using Baseline Land Use Scenario

	7a	2a	3a	4a	5a	6a	Targets			
	2035 E+C	CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multimodal	Good	Better	Best	
1	Mobility Targets									
1.1	VMT Per Capita (daily miles)	31.6	31.2	32.1	31.4	31.5	31.3	29.1	27.5	24.5
1.2	Total VMT change from 2035 E+C	N/A	-1.1%	1.8%	-0.4%	-0.2%	-0.8%	-5%	-10%	-20%
1.3	VHT per capita (daily minutes)	50.0	42.3	43.7	45.9	46.0	45.4	50.5	47.9	42.5
1.4	Total VHT change from 2035 E+C	N/A	-15.4%	-12.5%	-8.0%	-7.8%	-9.1%	-5%	-10%	-20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	2.8%	2.8%	5.3%	5.7%	5.3%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	22.6	22.6	23.5	23.5	23.5	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.2	16.2	16.4	16.5	16.5	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	18.6	18.5	19.1	19.1	19.2	19	17	15
2	Transit Targets									
2.1	Transit Mode Share (all trips)	2.3%	3.6%	2.8%	3.5%	3.3%	2.9%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 E+C	N/A	77.6%	23.4%	78.3%	61.8%	26.5%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	4.0%	3.1%	3.8%	3.6%	3.2%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.20	0.15	0.19	0.18	0.16	0.29	0.43	0.72
3	TDM Targets									
3.1	Percent SOV Trip Share (all trips)	54.8%	53.5%	54.3%	53.8%	53.9%	54.1%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 E+C	N/A	-1.0%	0.6%	-1.5%	-1.4%	-0.3%	-5%	-10%	-20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.3%	58.1%	57.7%	57.7%	57.9%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	6.7%	6.8%	6.8%	6.7%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 E+C	N/A	0.2%	0.2%	0.0%	0.0%	0.0%	30%	59%	117%
4	Air Quality and Environmental Targets (Guide data is the federal Air Quality Conformity budget)									
4.1	Carbon Monoxide - CO (kg/day)	96,717	97,475	99,257	96,796	97,021	86,533	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	3,294	3,260	3,363	3,285	3,291	2,888			
4.3	Greenhouse Gas Change (community target)	N/A	N/A	N/A	N/A	N/A	N/A	-10%	-20%	-30%
5	Financial/Economics Targets									
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	0.32	0.74	0.62	0.59	1.11	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	N/A	N/A	\$0.20	\$0.18	\$0.16
5.3	Annual Cost of Congestion (in million \$)	730	355	385	537	538	521	1,030	848	666
6	Environment Justice/Land Use Targets									
6.1	Percent of EJ Population within 1/4 mile of transit	72%	80%	77%	78%	77%	77%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	86%	80%	84%	83%	81%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	0.94	0.95	0.95	0.95	0.94	0.94	1.00	0.95	0.90

2035 Long Range Transportation Plan Comprehensive Transportation Plan (CTP) Alternatives

		7a	2a	2b	Targets		
		2035 ENC	Baseline	Buildout	Good	Better	Best
1	Mobility Targets						
1.1	VMT Per Capita (daily miles)	31.6	31.2	32.2	29.1	27.5	24.5
1.2	Total VMT change from 2035 E+C	N/A	-1.1%	49.4%	-5%	-10%	-20%
1.3	VHT per capita (daily minutes)	50.0	42.3	55.1	50.5	47.9	42.5
1.4	Total VHT change from 2035 E+C	N/A	-15.4%	61.3%	-5%	-10%	-20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	2.8%	15.9%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	22.6	25.7	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.2	18.3	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	18.6	21.8	19	17	15
2	Transit Targets						
2.1	Transit Mode Share (all trips)	2.3%	3.6%	2.4%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 E+C	N/A	77.6%	108.4%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	4.0%	2.6%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.20	0.13	0.29	0.43	0.72
3	TDM Targets						
3.1	Percent SOV Trip Share (all trips)	54.8%	53.5%	53.8%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 E+C	N/A	-1.0%	-1.8%	-5%	-10%	-20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.3%	58.9%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	8.0%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 E+C	N/A	0.2%	69.3%	30%	59%	117%
4	Air Quality and Environmental Targets (Guide data is the federal Air Quality Conformity budget)						
4.1	Carbon Monoxide - CO (kg/day)	96,717	97,475	98,416	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	3,294	3,260	3,343			
4.3	Greenhouse Gas Change (community target)	N/A	N/A	N/A	-10%	-20%	-30%
5	Financial/Economics Targets						
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	0.74	0.62	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	\$0.20	\$0.18	\$0.16
5.3	Annual Cost of Congestion (in million \$)	730	355	1283	1,030	848	666
6	Environment Justice/Land Use Targets						
6.1	Percent of EJ Population within 1/4 mile of transit	72%	80%	81%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	86%	82%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	0.94	0.95	0.94	1.00	0.95	0.90

2035 Long Range Transportation Plan Highway Intensive Alternatives

		7a	3a	3b	3c	Targets		
		2035 ENC	Baseline	Constrained	Corridor	Good	Better	Best
1	Mobility Targets							
1.1	VMT Per Capita (daily miles)	31.6	32.1	32.4	31.9	29.1	27.5	24.5
1.2	Total VMT change from 2035 E+C	N/A	1.8%	-7.0%	0.8%	-5%	-10%	-20%
1.3	VHT per capita (daily minutes)	50.0	43.7	42.7	43.3	50.5	47.9	42.5
1.4	Total VHT change from 2035 E+C	N/A	-12.5%	-22.6%	-13.5%	-5%	-10%	-20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	2.8%	2.4%	2.9%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	22.6	21.4	21.9	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.2	15.7	15.9	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	18.5	17.9	18.2	19	17	15
2	Transit Targets							
2.1	Transit Mode Share (all trips)	2.3%	2.8%	3.0%	2.8%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 E+C	N/A	23.4%	18.5%	25.4%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	3.1%	3.4%	3.2%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.15	0.16	0.16	0.29	0.43	0.72
3	TDM Targets							
3.1	Percent SOV Trip Share (all trips)	54.8%	54.3%	54.4%	54.3%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 E+C	N/A	0.6%	-9.5%	-0.9%	-5%	-10%	-20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	58.1%	58.0%	58.2%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	6.7%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 E+C	N/A	0.2%	-10.8%	1.1%	30%	59%	117%
4	Air Quality and Environmental Targets (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	96,717	99,257	90,464	97,612	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	3,294	3,363	3,084	3,330			
4.3	Greenhouse Gas Change (community target)	N/A	N/A	N/A	N/A	-10%	-20%	-30%
5	Financial/Economics Targets							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	0.74	0.74	0.74	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	\$0.20	\$0.18	\$0.16
5.3	Annual Cost of Congestion (in million \$)	730	385	287	383	1,030	848	666
6	Environment Justice/Land Use Targets							
6.1	Percent of EJ Population within 1/4 mile of transit	72%	77%	79%	79%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	80%	80%	82%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	0.94	0.95	0.95	0.95	1.00	0.95	0.90

2035 Long Range Transportation Plan Fixed Guideway Alternatives

		7a	4a	4b	4c	Targets		
		2035 ENC	Baseline	Corridor	Transit Nodes	Good	Better	Best
1	Mobility Targets							
1.1	VMT Per Capita (daily miles)	31.6	31.4	31.2	31.7	29.1	27.5	24.5
1.2	Total VMT change from 2035 E+C	N/A	-0.4%	-1.2%	-0.5%	-5%	-10%	-20%
1.3	VHT per capita (daily minutes)	50.0	45.9	45.6	46.6	50.5	47.9	42.5
1.4	Total VHT change from 2035 E+C	N/A	-8.0%	-9.0%	-7.7%	-5%	-10%	-20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	5.3%	5.5%	5.7%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	23.5	22.7	23.4	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.4	16.2	16.4	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	19.1	18.7	19.0	19	17	15
2	Transit Targets							
2.1	Transit Mode Share (all trips)	2.3%	3.5%	3.6%	3.6%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 E+C	N/A	78.3%	80.7%	83.2%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	3.8%	3.9%	3.9%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.19	0.20	0.20	0.29	0.43	0.72
3	TDM Targets							
3.1	Percent SOV Trip Share (all trips)	54.8%	53.8%	53.8%	53.6%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 E+C	N/A	-1.5%	-2.8%	-2.0%	-5%	-10%	-20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.7%	57.8%	57.5%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.8%	6.9%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 E+C	N/A	0.0%	0.9%	1.7%	30%	59%	117%
4	Air Quality and Environmental Targets (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	96,717	96,796	95,333	96,068	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	3,294	3,285	3,257	3,275			
4.3	Greenhouse Gas Change (community target)	N/A	N/A	N/A	N/A	-10%	-20%	-30%
5	Financial/Economics Targets							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	0.62	0.62	0.62	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	\$0.20	\$0.18	\$0.16
5.3	Annual Cost of Congestion (in million \$)	730	537	533	553	1,030	848	666
6	Environment Justice/Land Use Targets							
6.1	Percent of EJ Population within 1/4 mile of transit	72%	78%	80%	81%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	84%	85%	85%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	0.94	0.95	0.95	0.95	1.00	0.95	0.90

2035 Long Range Transportation Plan Bus Transit Alternatives

		7a	5a	5b	5c	Targets		
		2035 ENC	Baseline	Corridor	Transit Nodes	Good	Better	Best
1	Mobility Targets							
1.1	VMT Per Capita (daily miles)	31.6	31.5	31.4	31.4	29.1	27.5	24.5
1.2	Total VMT change from 2035 E+C	N/A	-0.2%	-0.8%	-0.8%	-5%	-10%	-20%
1.3	VHT per capita (daily minutes)	50.0	46.0	45.8	45.8	50.5	47.9	42.5
1.4	Total VHT change from 2035 E+C	N/A	-7.8%	-8.5%	-8.5%	-5%	-10%	-20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	5.7%	5.5%	5.5%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	23.5	22.7	22.7	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.5	16.3	16.3	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	19.1	18.8	18.8	19	17	15
2	Transit Targets							
2.1	Transit Mode Share (all trips)	2.3%	3.3%	3.4%	3.4%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 E+C	N/A	83.7%	87.2%	87.2%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	3.6%	3.7%	3.7%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.18	0.19	0.19	0.29	0.43	0.72
3	TDM Targets							
3.1	Percent SOV Trip Share (all trips)	54.8%	53.9%	53.8%	53.8%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 E+C	N/A	-1.4%	-1.5%	-1.5%	-5%	-10%	-20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.7%	57.8%	57.6%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.8%	6.9%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 E+C	N/A	-1.1%	1.0%	0.5%	30%	59%	117%
4	Air Quality and Environmental Targets (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	96,717	97,021	95,693	95,693	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	3,294	3,291	3,268	3,268			
4.3	Greenhouse Gas Change (community target)	N/A	N/A	N/A	N/A	-10%	-20%	-30%
5	Financial/Economics Targets							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	0.59	0.59	0.59	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	\$0.20	\$0.18	\$0.16
5.3	Annual Cost of Congestion (in million \$)	730	538	539	539	1,030	848	666
6	Environment Justice/Land Use Targets							
6.1	Percent of EJ Population within 1/4 mile of transit	72%	77%	79%	79%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	83%	84%	84%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	0.94	0.94	0.95	0.95	1.00	0.95	0.90

2035 Long Range Transportation Plan Moderate Multimodal Alternatives

		7a	6a	6b	6c	Targets		
		2035 ENC	Baseline	Corridor	Transit Nodes	Good	Better	Best
1	Mobility Targets							
1.1	VMT Per Capita (daily miles)	31.6	31.3	31.5	31.4	29.1	27.5	24.5
1.2	Total VMT change from 2035 E+C	N/A	-0.8%	-0.4%	-1.7%	-5%	-10%	-20%
1.3	VHT per capita (daily minutes)	50.0	45.4	45.3	45.4	50.5	47.9	42.5
1.4	Total VHT change from 2035 E+C	N/A	-9.1%	-9.6%	-10.1%	-5%	-10%	-20%
1.5	Percent of Peak Period VMT at Congestion (V/C > 1)	10.4%	5.3%	5.6%	5.7%	12%	8%	4%
1.6	Average Travel Time (work trips) (daily minutes)	25.8	23.5	22.6	23.2	24	22	20
1.7	Average Travel Time (all trips) (daily minutes)	17.2	16.5	16.2	16.4	15	14	13
1.8	Average Travel Time (all peak trips) (daily minutes)	20.5	19.2	18.7	19.0	19	17	15
2	Transit Targets							
2.1	Transit Mode Share (all trips)	2.3%	2.9%	2.6%	2.6%	3.0%	5.0%	8.0%
2.2	Percent Ridership change from 2035 E+C	N/A	26.5%	10.3%	12.0%	100%	200%	400%
2.3	Transit Mode Share (peak trips)	2.5%	3.2%	2.8%	2.9%	5.0%	8.0%	12.0%
2.4	Daily Transit Trips per Capita	0.13	0.16	0.14	0.14	0.29	0.43	0.72
3	TDM Targets							
3.1	Percent SOV Trip Share (all trips)	54.8%	54.1%	54.0%	53.8%	52.5%	50.0%	44.5%
3.2	Percent SOV Trip Change from 2035 E+C	N/A	-0.3%	-2.6%	-1.8%	-5%	-10%	-20%
3.3	Percent SOV Trip Share (peak trips)	58.8%	57.9%	58.2%	57.9%	78.4%	74.3%	66.0%
3.4	Percent Non-motorized Trip Share (all trips)	6.8%	6.7%	7.0%	6.9%	9%	11%	15%
3.5	Percent Non-motorized trip change from 2035 E+C	N/A	0.0%	0.9%	1.6%	30%	59%	117%
4	Air Quality and Environmental Targets (Guide data is the federal Air Quality Conformity budget)							
4.1	Carbon Monoxide - CO (kg/day)	96,717	86,533	96,955	96,723	5% under budget	10% under budget	20% under budget
4.2	Nitrogen Oxides - NOx (kg/day)	3,294	2,888	3,286	3,233			
4.3	Greenhouse Gas Change (community target)	N/A	N/A	N/A	N/A	-10%	-20%	-30%
5	Financial/Economics Targets							
5.1	Revenue/Cost Gap (Ratio of traditional revenue/cost)	N/A	1.11	1.11	1.11	0.90	0.95	1.00
5.2	Cost per Trip	N/A	N/A	N/A	N/A	\$0.20	\$0.18	\$0.16
5.3	Annual Cost of Congestion (in million \$)	730	521	514	513	1,030	848	666
6	Environment Justice/Land Use Targets							
6.1	Percent of EJ Population within 1/4 mile of transit	72%	77%	79%	80%	65%	75%	85%
6.2	Percent of Employment within 1/4 mile of transit	75%	81%	83%	83%	75%	80%	90%
6.3	EJ Travel Time (ratio of avg.travel time) (EJ/All)	0.94	0.94	0.95	0.95	1.00	0.95	0.90

DCHC MPO Alternatives

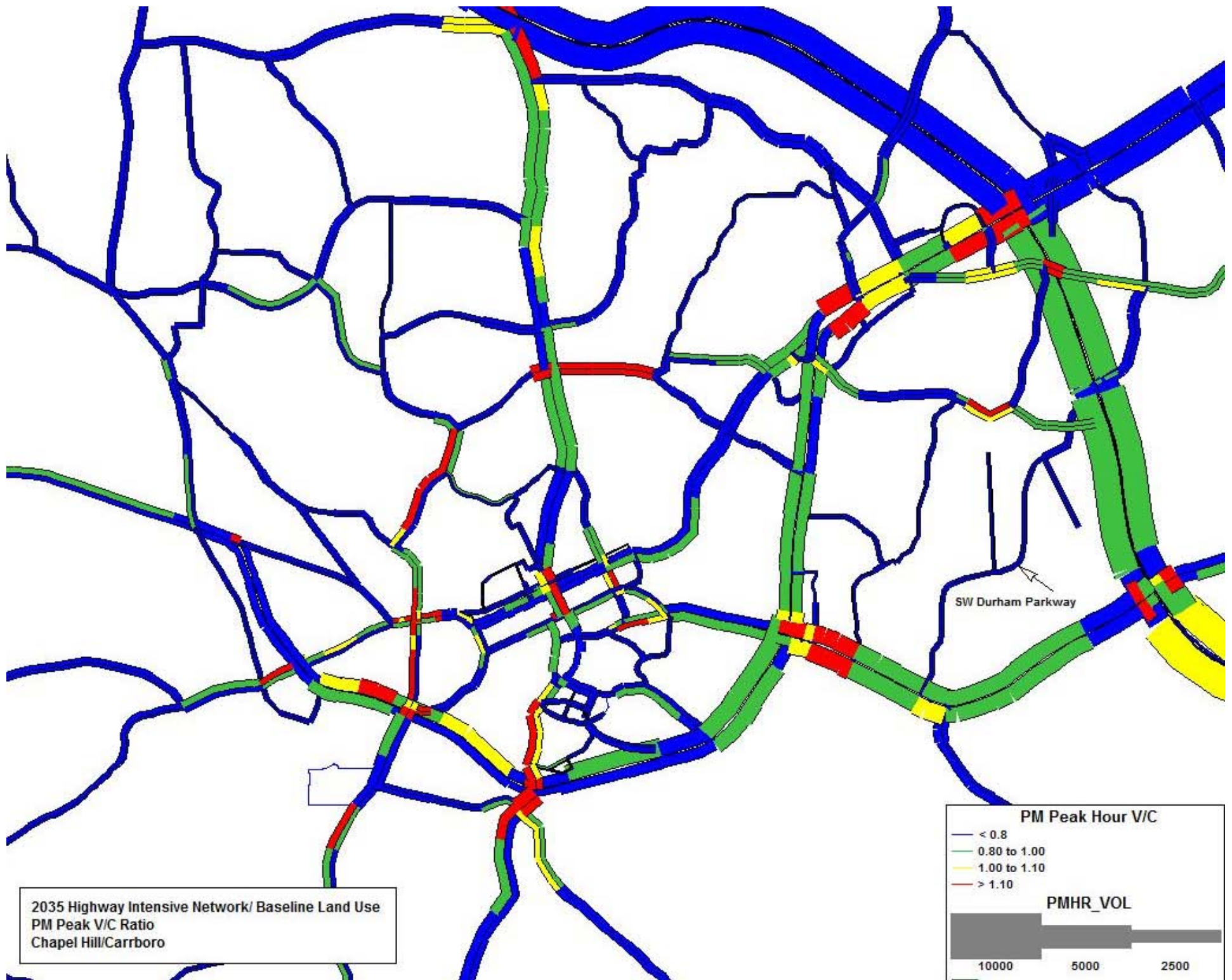
Evaluation Measures -- Baseline vs. E+C

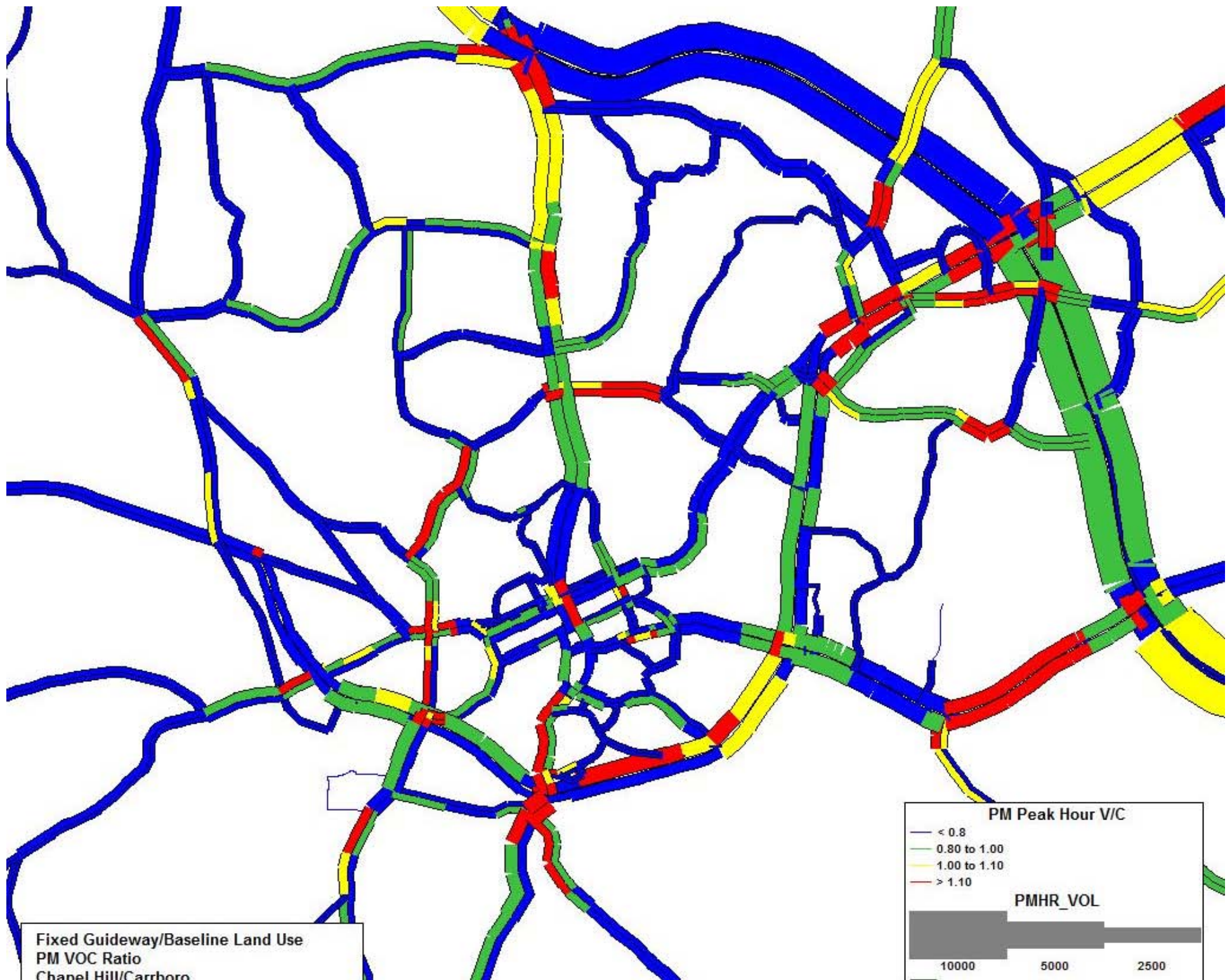
	Measures	2035 E+C	Baseline SE Data					(Percent change from 2035 E+C)					
			CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.	CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.	
1	Performance Measures												
1.1	Total VMT (daily)	17,397,077	17,204,339	17,703,440	17,333,966	17,366,268	17,264,268	-1%	2%	0%	0%	-1%	
1.2	Total VHT (daily)	459,072	388,572	401,467	422,181	423,072	417,458	-15%	-13%	-8%	-8%	-9%	
1.3	Average Speed by Facility (miles/hour)												
1.3.1	- Freeway	57	61	61	59	59	59	7%	6%	4%	4%	4%	
1.3.2	- Arterial	36	40	40	38	38	38	13%	13%	6%	6%	6%	
1.3.3	- All Facility	45	49	49	47	47	48	11%	11%	6%	6%	7%	
1.4	Peak Average Speed by Facility (miles/hour)												
1.4.1	- Freeway	54	60	59	58	57	57	10%	9%	6%	6%	6%	
1.4.2	- Arterial	34	39	39	36	36	36	17%	16%	8%	8%	8%	
1.4.3	- All Facility	42	48	48	45	45	46	14%	14%	7%	7%	8%	
1.5	Average Travel Time - All Trips	17	16	16	16	16	17	-5%	-6%	-4%	-4%	-4%	
1.6	Average Travel Time - Work Trips	26	23	23	23	23	23	-13%	-12%	-9%	-9%	-9%	
1.7	Peak Average Travel Time - All Trips	21	19	19	19	19	19	-9%	-10%	-7%	-7%	-6%	
1.8	Hours of Delay (daily)	112,862	54,365	58,666	81,929	82,216	79,980	-52%	-48%	-27%	-27%	-29%	
1.8.1	CV Hours of Delay (daily)	4,580	2,329	2,566	3,551	3,563	3,377	-49%	-44%	-22%	-22%	-26%	
1.9	Percent of VMT experiencing congestion - All Day												
1.9.1	- Freeway	5.8%	1.9%	1.8%	2.9%	3.3%	3.0%	-67%	-69%	-50%	-43%	-48%	
1.9.2	- Arterial	9.2%	2.2%	2.6%	5.2%	5.3%	5.3%	-76%	-72%	-43%	-42%	-42%	
1.9.3	- All Facility	6.4%	1.8%	1.9%	3.5%	3.7%	3.5%	-72%	-70%	-45%	-42%	-45%	
1.10.	Percent of VMT experiencing congestion - Peak												
1.10.1	- Freeway	10.5%	3.2%	2.9%	5.0%	5.7%	5.0%	-70%	-72%	-52%	-46%	-52%	
1.10.2	- Arterial	13.8%	3.1%	3.4%	7.4%	7.6%	7.5%	-78%	-75%	-46%	-45%	-46%	
1.10.3	- All Facility	10.4%	2.8%	2.8%	5.3%	5.7%	5.3%	-73%	-73%	-49%	-45%	-49%	
1.10.4	Degree of congestion (V/C >1) on designated truck routes	8.4%	2.0%	2.1%	5.5%	5.6%	5.0%	-76%	-75%	-35%	-33%	-40%	
1.10.5	Degree of congestion (V/C >1) on facilities w/bus routes	8.7%	2.1%	2.9%	4.3%	4.9%	4.1%	-76%	-67%	-51%	-44%	-53%	
2	Mode Share Measures												
2.1	Number Mode Choice - <u>All Trips</u>												
2.1.1	- Drive alone (single occupant vehicle -SOV)	1,660,787	1,644,098	1,669,973	1,635,486	1,638,253	1,656,077	-1%	1%	-2%	-1%	0%	
2.1.2	- Carpool (Share ride)	1,095,943	1,107,693	1,112,086	1,090,378	1,095,342	1,109,840	1%	1%	-1%	0%	1%	
2.1.3	- Bus	69,664	97,883	85,115	95,266	101,323	87,345	41%	22%	37%	45%	25%	
2.1.4	- Rail	-	14,086	-	11,752	-	-	0%	0%	0%	0%	0%	
2.1.5	- Non-Motorized (Bike and Walk)	206,552	206,971	206,969	206,616	206,616	206,533	0%	0%	0%	0%	0%	

DCHC MPO Alternatives

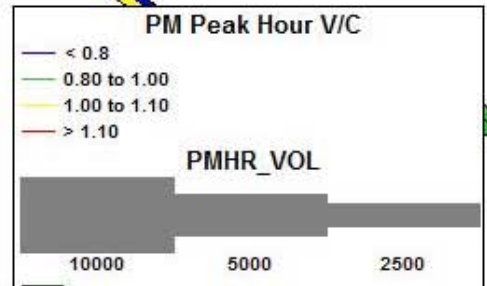
Evaluation Measures -- Baseline vs. E+C

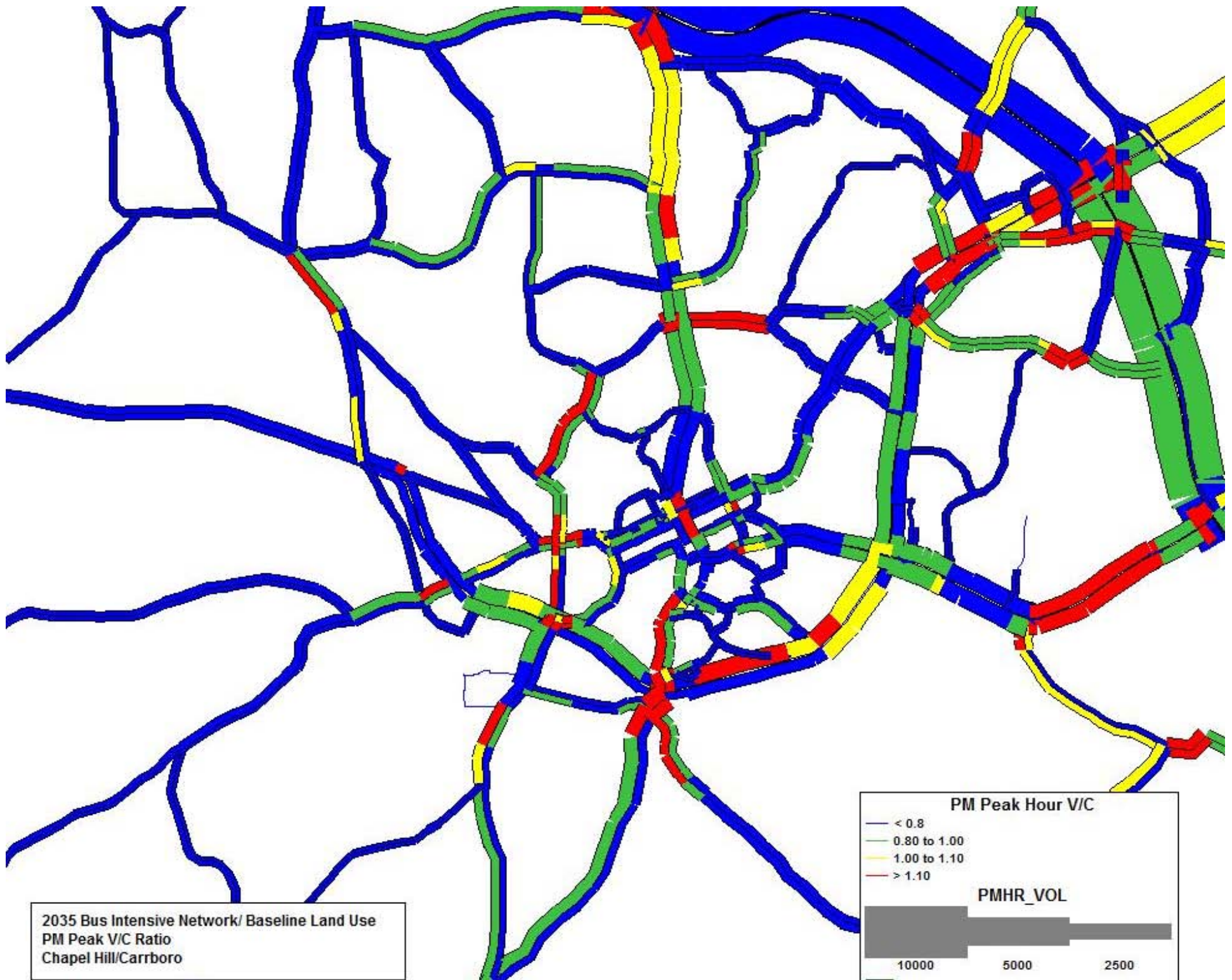
	Measures	2035 E+C	Baseline SE Data					(Percent change from 2035 E+C)					
			CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.	CTP	Highway	Fixed Guideway	Bus Transit	Mod. Multi.	
2.2	Number Mode Choice - <u>Peak Hours</u>												
2.2.1	- Drive alone (single occupant vehicle -SOV)	834,496	833,192	844,070	823,194	824,154	831,906	0%	1%	-1%	-1%	0%	
2.2.2	- Carpool (Share ride)	550,209	562,135	563,600	549,562	551,949	558,949	2%	2%	0%	0%	2%	
2.2.3	- Bus	35,228	49,505	45,174	47,618	51,832	45,738	41%	28%	35%	47%	30%	
2.2.4	- Rail	-	8,279	-	6,851	-	-	0%	0%	0%	0%	0%	
2.2.5	- Non-Motorized (Bike and Walk)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
2.3	Number Mode Choice - <u>Non Work Trips</u>												
2.3.1	- Drive alone (single occupant vehicle -SOV)	1,098,746	1,083,925	1,102,354	1,080,093	1,082,954	1,096,473	-1%	0%	-2%	-1%	0%	
2.3.2	- Carpool (Share ride)	998,378	1,011,159	1,014,171	995,906	1,000,043	1,012,646	1%	2%	0%	0%	1%	
2.3.3	- Bus	53,261	69,047	61,392	67,895	72,103	62,953	30%	15%	27%	35%	18%	
2.3.4	- Rail	-	10,462	-	8,974	-	-	0%	0%	0%	0%	0%	
2.3.5	- Non-Motorized (Bike and Walk)	199,646	200,049	200,047	199,712	199,712	199,632	0%	0%	0%	0%	0%	
2.4	Daily Bicycle and Pedestrian Trips	206,552	206,971	206,969	206,616	206,616	206,533	0%	0%	0%	0%	0%	
3	Transit Measures												
3.1	Average Weekday Transit Ridership												
3.1.1	- TTA (Including Rail)	4,900	37,963	7,649	29,079	9,084	8,181	675%	56%	493%	85%	67%	
3.1.2	- CAT	22,874	20,676	26,059	37,936	39,493	22,512	-10%	14%	66%	73%	-2%	
3.1.3	- CHT	44,990	71,431	55,560	67,194	65,020	55,113	59%	23%	49%	45%	23%	
3.1.4	- DATA	23,312	68,911	38,099	66,833	66,704	47,937	196%	63%	187%	186%	106%	
3.1.5	- NCSU	20,080	19,866	21,148	18,429	17,581	20,043	-1%	5%	-8%	-12%	0%	
3.1.6	- DUKE	14,642	11,526	13,331	11,045	11,498	11,123	-21%	-9%	-25%	-21%	-24%	
3.1.7	- C-Tran	1,557	4,648	1,441	5,515	4,816	2,528	199%	-7%	254%	209%	62%	
3.1.8	Total	132,358	235,025	163,291	236,035	214,200	167,442	78%	23%	78%	62%	27%	
3.2	Rail												
4	Demographics Measures												
4.1	Population	551,362	551,362	551,362	551,362	551,362	551,362	0%	0%	0%	0%	0%	
4.2	Employment	389,249	389,249	389,249	389,249	389,249	389,249	0%	0%	0%	0%	0%	
4.3	Total Daily Trips	3,032,947	3,070,733	3,074,145	3,039,499	3,041,534	3,059,795	1%	1%	0%	0%	1%	
4.4	Total Daily Work Trips	682,913	696,088	696,180	686,918	686,721	688,090	2%	2%	1%	1%	1%	
4.5	Total Daily Non-Work Trips	2,350,033	2,374,644	2,377,965	2,352,580	2,354,813	2,371,705	1%	1%	0%	0%	1%	



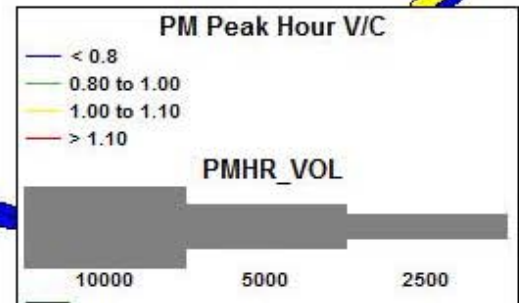


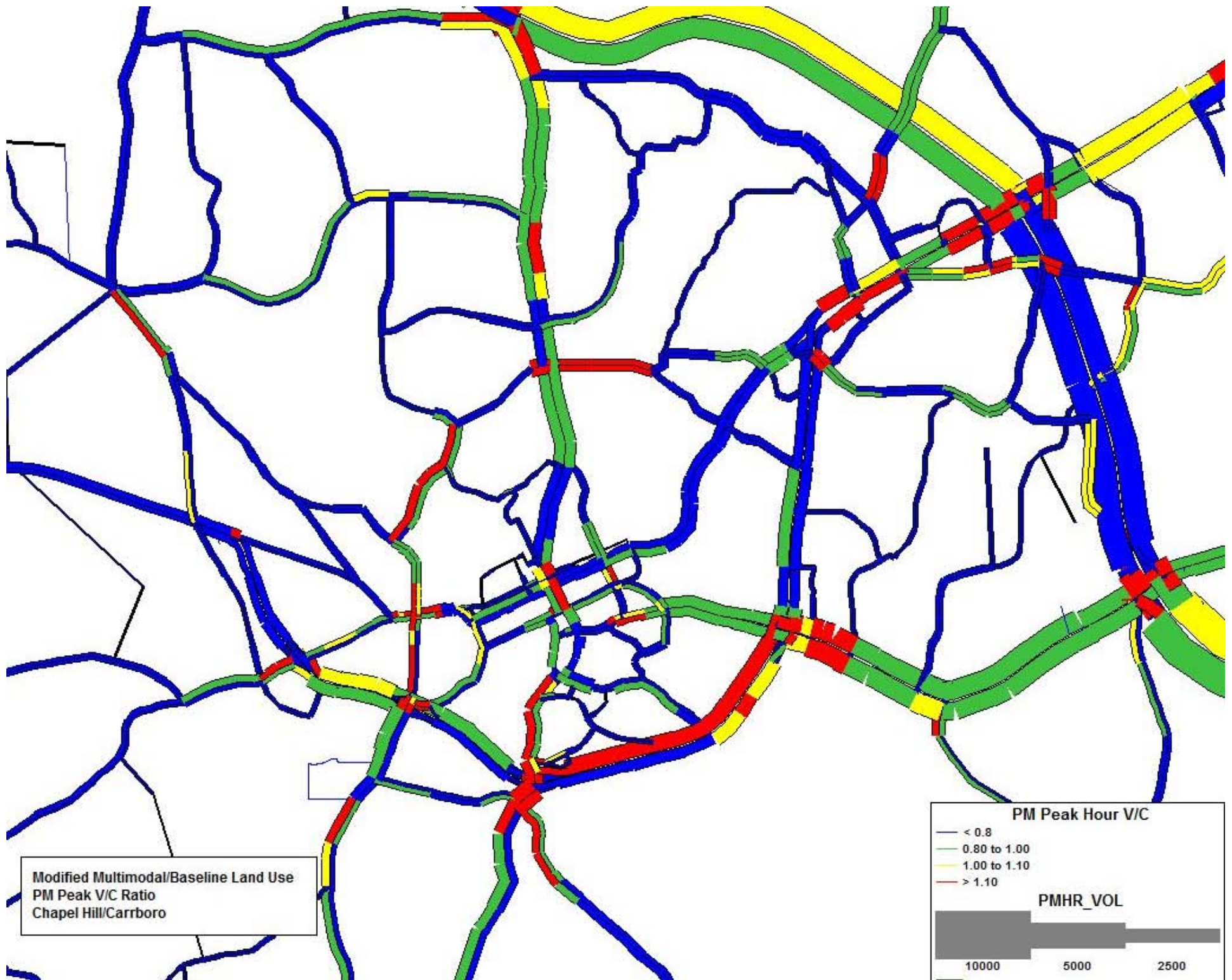
Fixed Guideway/Baseline Land Use
PM VOC Ratio
Chanel Hill/Carrboro



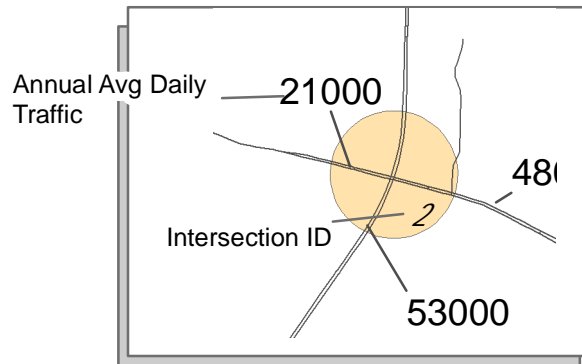
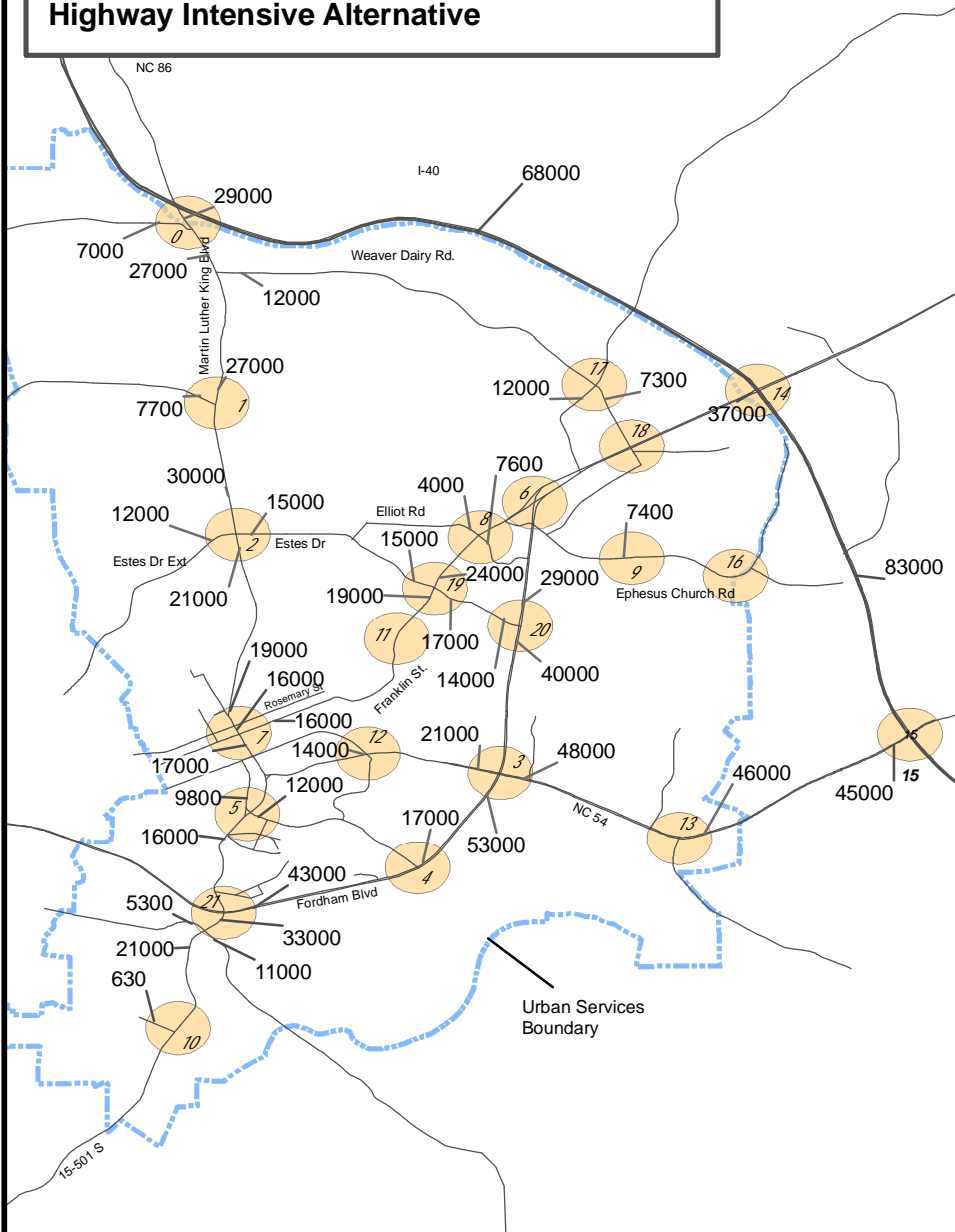


2035 Bus Intensive Network/ Baseline Land Use
PM Peak V/C Ratio
Chapel Hill/Carrboro





Projected Daily Traffic Volumes near Major Intersections
 Chapel Hill in 2035
 With 2007 AADT Counts
Highway Intensive Alternative



Note*

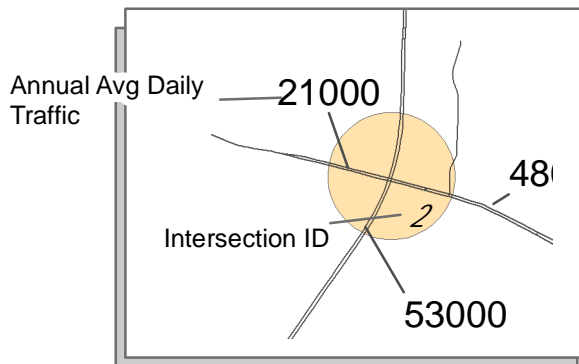
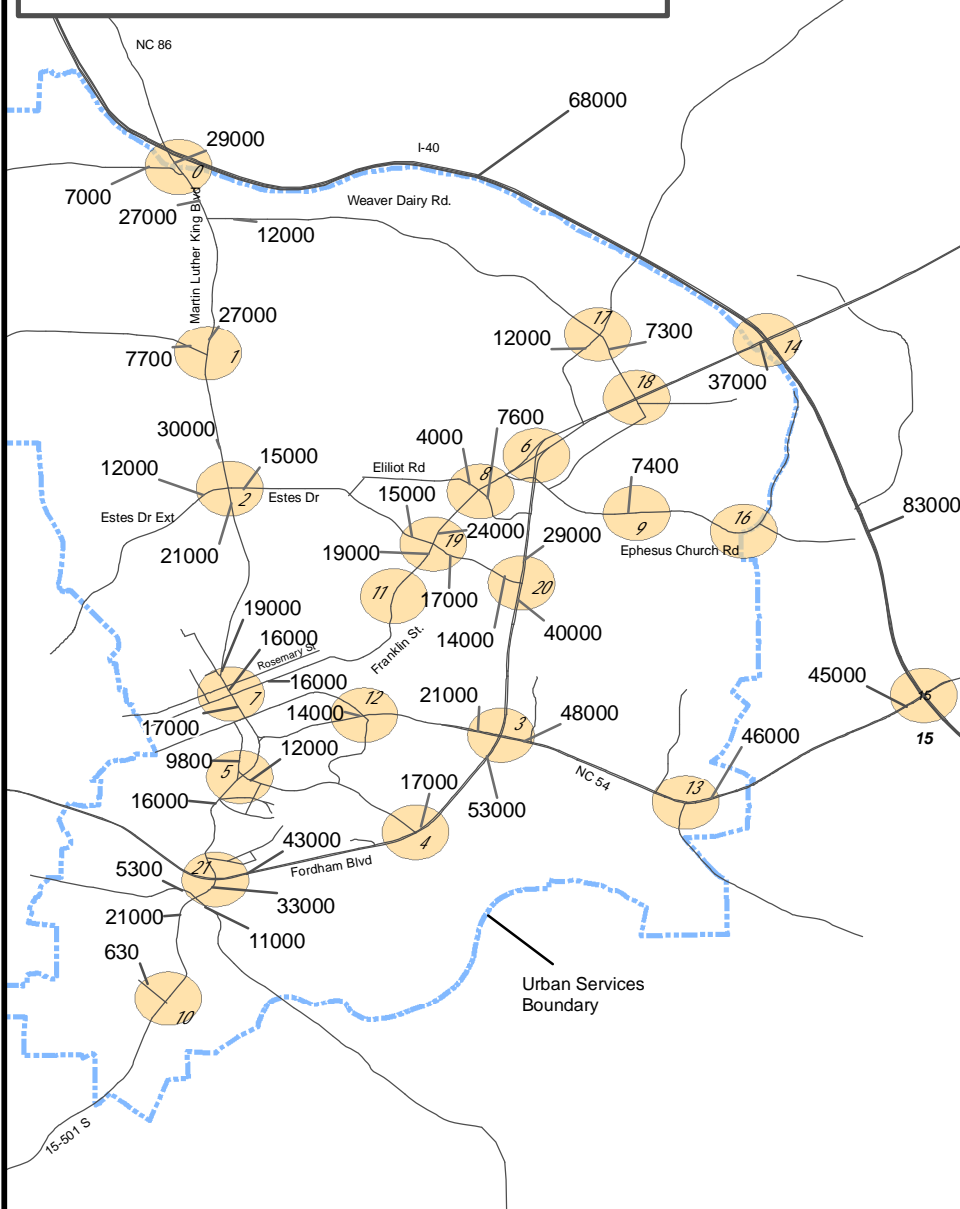
Using major intersections in the town as a reference, .2 mile buffers were created to select road sections in the Triangle Regional Model outputs for various 2035 plan alternatives. In many cases, the model may predict two different volumes for the same road near a given intersection(i.e MLK north and south of Estes Dr) For this map, the average daily total volume of road sections within a buffer are presented in the table.

2035 Model Output

SecID	RdName	Avg Daily Volume
0	MLK Blvd	54501
0	Eubanks Rd.	30372
0	I-40	94670
0	NC 86	36872
1	MLK Blvd	42865
1	Homestead Rd	10600
2	MLK Blvd	38479
2	Estes Dr Ext	22668
2	Estes Dr.	24443
3	Fordham Blvd.n	25628
3	Fordham Blvd.s	26608
3	Hamilton Rd.	4408
3	NC 54	77810
3	NC54/US15-501 Bypass	61476
3	Raleigh Rd.	40417
4	Manning Dr.	18017
4	NC54/US15-501 Bypass	66415
5	Columbia St.	13394
5	Manning Dr.	21855
5	Mason Farm Rd Realig	5520
5	Mason Farm Rd.	5963
5	Pitsboro St.	13808
5	South Columbia St	22494
5	West St.	134
6	Ephesus Church Rd.	11031
6	Fordham Blvd.	43537
6	Franklin St.	44507
6	US 15-501	84817
7	MLK Blvd	36121
7	Cameron Ave.	13955
7	Carr St.	944
7	Church St.	2084
7	Columbia St.	27903
7	Franklin St.	23452
7	Rosemary St.	2841
8	Elliot Rd.	14119
8	Franklin St.	38209
9	Ephesus Church Rd.	11683
10	US 15-501	26721
11	Franklin St.	27446
12	Country Club Rd.	14010
12	Raleigh Rd.	34217
12	Ridge Rd.	3580
12	South Rd.	18715
13	Barbee Chapel Road	23852
13	NC 54	76157
13	SW Durham Pkwy	3813
14	I-40	103731
14	US 15-501	97940
15	I-40	121118
15	NC 54	68726
16	Ephesus Church Rd.	17133
16	Pope Rd.	7134
17	Erwin Rd.	10045
17	Sage Rd.	11177
17	Weaver Dairy Rd	13899
18	Legion Rd.	2202
18	Old Durham Rd.	14983
18	Sage Rd.	17471
18	Scarlete Dr.	6885
18	US 15-501	81545
19	Estes Dr.	10359
19	Franklin St.	28665
19	Estes Dr.	10100
20	Fordham Blvd	44507
21	Culbreth Rd.	9794
21	Howell St.	219
21	Mt. Carmel Church Rd	18124
21	NC54/US15-501 Bypass	35401
21	Purefoy Rd.	2379
21	South Columbia St	31091
21	US 15-501	40746

Projected Daily Traffic Volumes near Major Intersections
Chapel Hill in 2035
With 2007 AADT Counts

Modified Multi-Modal Alternative



Note*

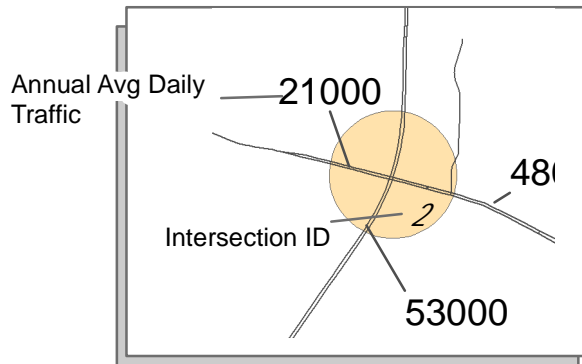
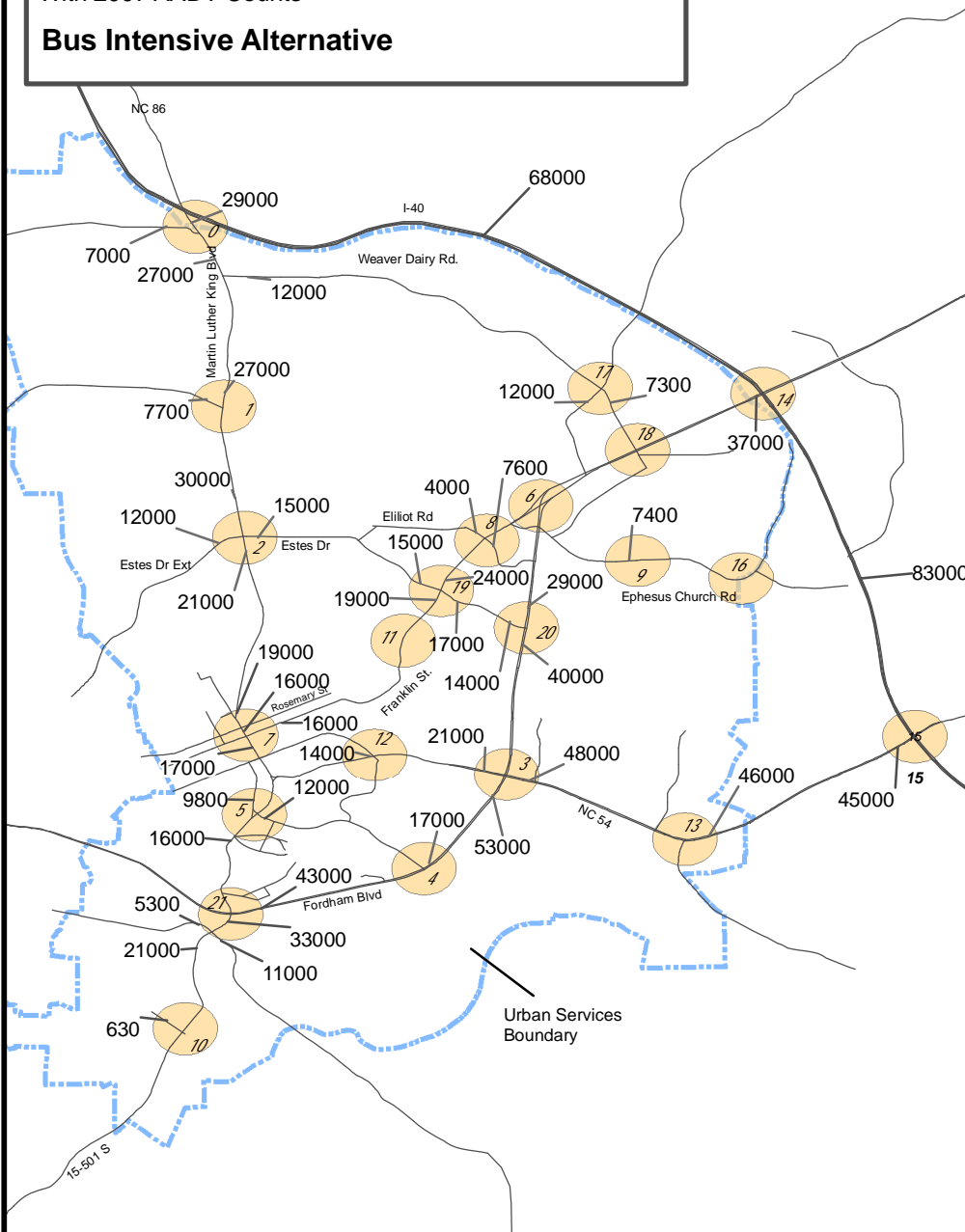
Using major intersections in the town as a reference, .2 mile buffers were created to select road sections in the Triangle Regional Model outputs for various 2035 plan alternatives. In many cases, the model may predict two different volumes for the same road near a given intersection(i.e MLK north and south of Estes Dr) For this map, the average daily total volume of road sections within a buffer are presented in the table.

2035 Model Output

SecID	RdName	Avg Daily Volume
0	MLK Blvd	56806
0	Eubanks Rd.	30508
0	I - 40	79144
0	NC 86	37977
1	MLK Blvd	45441
1	Homestead Rd	12886
2	MLK Blvd	39782
2	Estes Dr Ext	22018
2	Estes Dr.	24500
3	Fordham Blvd.	48835
3	Hamilton Rd.	4727
3	NC 54	79473
3	NC54/US15-501 Bypass	52009
3	Raleigh Rd.	44001
4	Manning Dr.	16710
4	NC54/US15-501 Bypass	56289
5	Columbia St.	13780
5	Manning Dr.	25201
5	Mason Farm Rd Realig	561
5	Mason Farm Rd.	4928
5	Pitsboro St.	14264
5	South Columbia St	24405
5	West St.	2510
6	Ephesus Church Rd.	15280
6	Fordham Blvd.	33927
6	Franklin St.	37053
6	US 15-501	64384
7	MLK Blvd	36399
7	Cameron Ave.	14475
7	Carr St.	887
7	Church St.	2111
7	Columbia St.	27520
7	Franklin St.	24662
7	Rosemary St.	2781
8	Elliot Rd.	13694
8	Franklin St.	33883
8	Ephesus Church Rd.	12545
9	US 15-501	27451
11	Franklin St.	26446
12	Country Club Rd.	15079
12	Raleigh Rd.	38747
12	Ridge Rd.	7303
12	South Rd.	18432
13	Barbee Chapel Road	20546
13	NC 54	80454
13	SW Durham Pkwy	6621
14	I-40e	45561
14	I-40w	44284
14	US 15-501n	34159
14	US 15-501s	35318
15	I-40	106457
15	NC 54	74192
16	Ephesus Church Rd.	15036
16	Pope Rd.	8849
17	Erwin Rd.	16863
17	Sage Rd.	11968
17	Weaver Dairy Rd	14922
18	Legion Rd.	8090
18	Old Durham Rd.	17559
18	Sage Rd.	16103
18	Scarlete Dr.	11290
18	US 15-501	53814
19	Estes Dr.	10942
19	Franklin St.	27028
20	Estes Dr.	10923
20	Fordham Blvd.	38842
20	Culbreth Rd.	9455
21	Howell St.	787
21	Mt. Carmel Church Rd	19110
21	NC54/US15-501 Bypass	31442
21	Purefoy Rd.	4089
21	South Columbia St	31614
21	US 15-501	41596

Projected Daily Traffic Volumes near Major Intersections
Chapel Hill in 2035
With 2007 AADT Counts

Bus Intensive Alternative



2035 Model Output

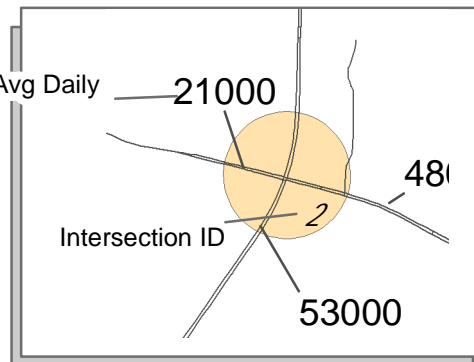
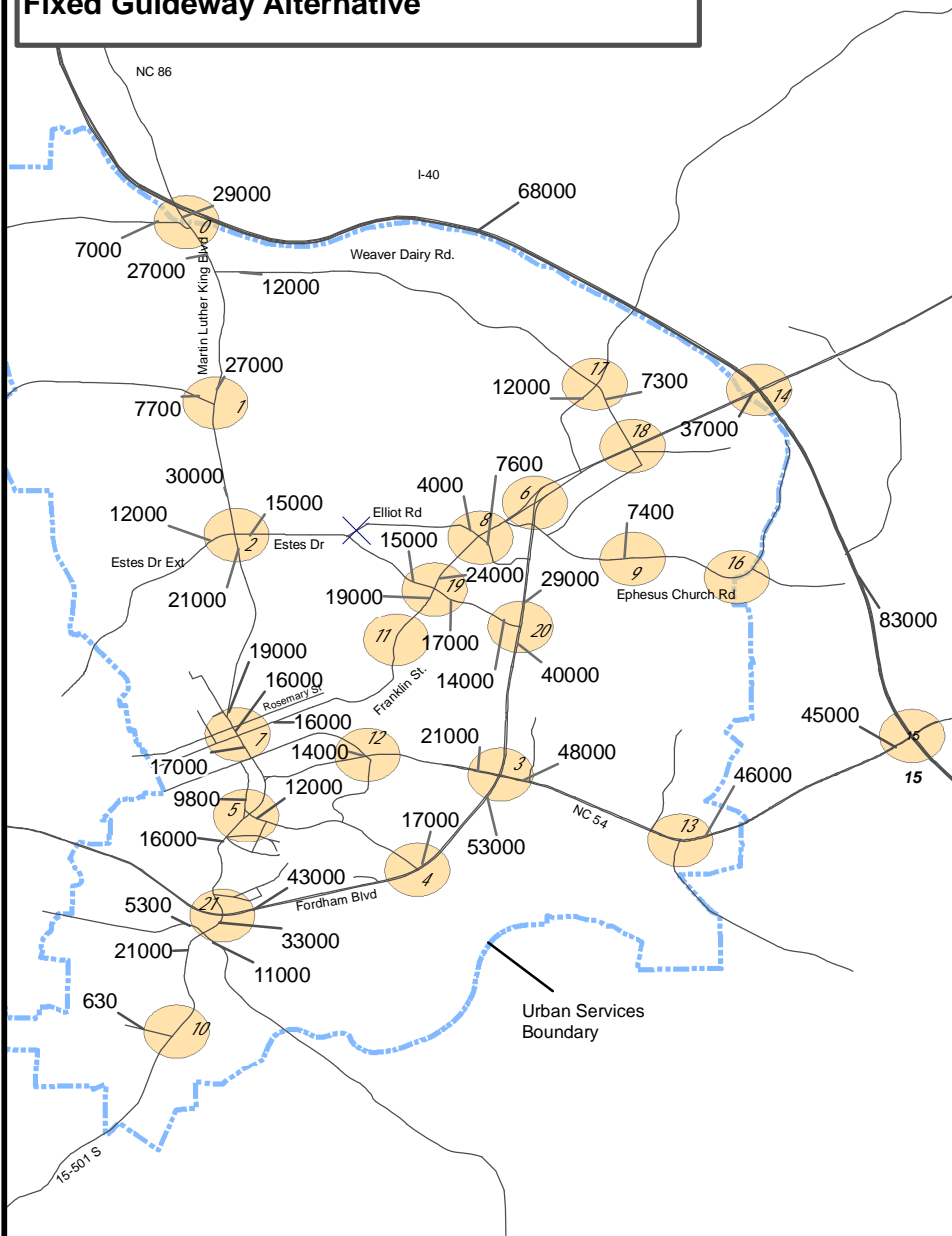
SecID	RdName	Avg Daily Volume
0	MLK Blvd	60082
0	Eubanks Rd.	30779
0	I-40	93257
0	NC 86	38935
1	MLK Blvd	48053
1	Homestead Rd	13043
2	MLK Blvd	40934
2	Estes Dr Ext	20866
2	Estes Dr.	22586
3	Fordham Blvd.	47408
3	Hamilton Rd.	4507
3	NC 54	68040
3	NC54/US15-501 Bypass	49286
3	Raleigh Rd.	40052
4	Manning Dr.	17357
4	NC54/US15-501 Bypass	52826
5	Columbia St.	13722
5	Manning Dr.	24676
5	Mason Farm Rd Realig	528
5	Mason Farm Rd.	4742
5	Pittsboro St.	15103
5	South Columbia St	24904
5	West St.	2309
6	Ephesus Church Rd.	19758
6	Fordham Blvd.	36454
6	Franklin St.n	16799
6	Franklin St.s	18107
6	US 15-501	61287
7	MLK Blvd	36129
7	Cameron Ave.	13764
7	Carr St.	861
7	Church St.	1964
7	Columbia St.	27084
7	Franklin St.	24151
7	Rosemary St.	2631
8	Elliot Rd.	12332
8	Franklin St.	35690
9	Ephesus Church Rd.	14068
10	US 15-501	29161
11	Franklin St.	27901
12	Country Club Rd.	12755
12	Raleigh Rd.	34197
12	Ridge Rd.	6352
12	South Rd.	17356
13	Barbee Chapel Road	22022
13	NC 54	4224
13	NC 54e	29057
13	NC 54w	31532
13	SW Durham Pkwy	3042
14	I-40	104420
14	US 15-501	66562
15	I-40	119156
15	NC 54	53127
16	Ephesus Church Rd.	18314
16	Pope Rd.	9513
17	Erwin Rd.	20676
17	Sage Rd.	13284
17	Weaver Dairy Rd	15522
18	Legion Rd.	15624
18	Old Durham Rd.	20368
18	Sage Rd.	16755
18	Scarlete D.	17506
18	US 15-501	46793
19	Estes Dr.	10324
19	Franklin St.	28587
20	Estes Dr.	10001
20	Fordham Blvd.	45756
21	Culbreth Rd.	9223
21	Howell St.	696
21	Mt. Carmel Church Rd	19259
21	NC54/US15-501 Bypass	29897
21	Purefoy Rd.	3593
21	South Columbia St	31766
21	US 15-501	41661

Note*

Using major intersections in the town as a reference, .2 mile buffers were created to select road sections in the Triangle Regional Model outputs for various 2035 plan alternatives. In many cases, the model may predict two different volumes for the same road near a given intersection(i.e MLK north and south of Estes Dr) For this map, the average daily total volume of road sections within a buffer are presented in the table.

Projected Daily Traffic Volumes near Major Intersections
 Chapel Hill in 2035
 With 2007 AADT Counts

Fixed Guideway Alternative



Note*

Using major intersections in the town as a reference, .2 mile buffers were created to select road sections in the Triangle Regional Model outputs for various 2035 plan alternatives. In many cases, the model may predict two different volumes for the same road near a given intersection(i.e MLK north and south of Estes Dr) For this map, the average daily total volume of road sections within a buffer are presented in the table.

2035 Model Output

SecID	RdName	Avg Daily Volume
0	MLK Blvd	59947
0	Eubanks Rd.	30729
0	I-40	92497
0	NC 86	38738
1	MLK Blvd	47997
1	Homestead Rd	12960
2	MLK Blvd	40871
2	Estes Dr Ext	20751
2	Estes Dr.	22184
3	Fordham Blvd.	46875
3	Hamilton Rd.	4423
3	NC 54	67952
3	NC54/US15-501 Bypass	49418
3	Raleigh Rd.	39704
4	Manning Dr.	16862
4	NC54/US15-501 Bypass	53786
5	Columbia St.	13572
5	Manning Dr.	24041
5	Mason Farm Rd Realig	523
5	Mason Farm Rd.	4787
5	Pitsboro St.	14172
5	South Columbia St	24209
5	West St.	2314
6	Ephesus Church Rd.	20040
6	Fordham Blvd.	35926
6	Franklin St.	33551
6	US 15-501	59520
7	MLK Blvd	35946
7	Cameron Ave.	13695
7	Carr St.	861
7	Church St.	1961
7	Columbia St.	26806
7	Franklin St.	23970
7	Rosemary St.	2796
8	Elliot Rd.	12154
8	Franklin St.	33477
9	Ephesus Church Rd.	13738
10	US 15-501	27483
11	Franklin St.	27534
12	Country Club Rd.	12781
12	Raleigh Rd.	34212
12	Ridge Rd.	6106
12	South Rd.	17418
13	Barbee Chapel Road	21836
13	NC 54	60868
13	SW Durham Pkwy	3034
14	I-40	103540
14	US 15-501	65743
15	I-40	118096
15	NC 54	53847
16	Ephesus Church Rd.	18096
16	Pope Rd.	9315
17	Erwin Rd.	20107
17	Sage Rd.	12995
17	Weaver Dairy Rd	15455
18	Legion Rd.	15824
18	Old Durham Rd.	20209
18	Sage Rd.	15715
18	Scarlette Dr.	17261
18	US 15-501	48388
19	Estes Dr.	10213
19	Franklin St.	28127
20	Estes Dr.	10053
20	Fordham Blvd.	45682
21	Culbreth Rd.	9272
21	Howell St.	615
21	Mt. Carmel Church Rd	19178
21	NC54/US15-501 Bypass	29936
21	Purefoy Rd.	3671
21	South Columbia St	31264
21	US 15-501	41446

Section 3 - Financial Plan

Preliminary Revenue Estimate					
	Comprehensive Trans. Plan	Intensive Highway	Intensive Fixed Guideway	Intensive Bus Transit	Moderate Multimodal
Highway Sources					
Highway Funding Programs	\$ 3,095,599,272	\$ 3,095,599,272	\$ 3,095,599,272	\$ 3,095,599,272	\$ 3,095,599,272
Other-CIP, private, etc.	\$ 237,000,000	\$ 237,000,000	\$ 237,000,000	\$ 237,000,000	\$ 237,000,000
Highway Trust Fund ("Loop")	\$ 621,959,553	\$ 621,959,553	\$ 498,845,607	\$ 498,845,607	\$ 621,959,553
Triangle Parkway (tolls & "gap" funding)	\$ 84,747,784	\$ 84,747,784	\$ 84,747,784	\$ 84,747,784	\$ 84,747,784
Total Highway Revenue (\$ Billions)	\$ 4.0	\$ 4.0	\$ 3.9	\$ 3.9	\$ 4.0
Transit Sources					
Transit Funding Programs	\$ 721,783,746	\$ 721,783,746	\$ 721,783,746	\$ 721,783,746	\$ 721,783,746
New Start (Fixed Guideway)	\$ 294,950,000	\$ -	\$ 294,950,000	\$ -	\$ -
Fares and Other	\$ 218,875,000	\$ 124,125,000	\$ 186,125,000	\$ 156,875,000	\$ 124,125,000
Total Transit Revenue (\$ Billions)	\$ 1.2	\$ 0.8	\$ 1.2	\$ 0.9	\$ 0.8
Total Highway and Transit Revenue (\$ Billions)	\$ 5.27	\$ 4.89	\$ 5.12	\$ 4.79	\$ 4.89
Preliminary Cost Estimate					
	Comprehensive Trans. Plan	Intensive Highway	Intensive Fixed Guideway	Intensive Bus Transit	Moderate Multimodal
Highway Costs					
Highway Capital & Maintenance	\$ 5,433,009,723	\$ 4,887,493,386	\$ 1,725,554,817	\$ 2,585,934,958	\$ 1,901,388,490
Bicycle, TDM, ITS, etc.	\$ 196,197,958	\$ 196,197,958	\$ 196,197,958	\$ 196,197,958	\$ 196,197,958
Total Highway Costs (\$ Billions)	\$ 5.6	\$ 5.1	\$ 1.9	\$ 2.8	\$ 2.1
Transit Costs					
Fixed Guideway (Capital and O&M)	\$ 1,569,800,000	\$ -	\$ 1,569,800,000	\$ -	\$ -
Bus Transit (Capital and O&M)	\$ 9,151,690,647	\$ 1,546,305,187	\$ 4,701,481,896	\$ 5,340,500,669	\$ 2,300,066,801
Total Transit Costs (\$ Billions)	\$ 10.7	\$ 1.5	\$ 6.3	\$ 5.3	\$ 2.3
Total Highway and Transit Costs (\$ Billions)	\$ 16.35	\$ 6.63	\$ 8.19	\$ 8.12	\$ 4.40
Difference (Revenue - Costs)	\$ (11.08)	\$ (1.74)	\$ (3.07)	\$ (3.33)	\$ 0.49
(Note: Negative values in parenthesis)					

Local Options Revenue Estimates Transportation and Infrastructure (values in \$millions)

(Source: Regional Transportation Alliance; updated January 10, 2008)

It is important to note that many of these revenue options would require enabling legislation from the North Carolina General Assembly, and those in which enabling legislation exists, i.e., Sales and Use Tax, and Real Estate Transfer Tax, require a local referendum for approval.

The RTA (Regional Transportation Alliance) is composed of businesses and chambers of commerce that promote solutions to transportation issues in the Triangle Region. The RTA compiles the data for these revenue estimates.

➤ Sales and Use Tax*

	<u>¼% sales tax**</u>	<u>½% sales tax</u>	<u>1% sales tax</u>
Durham:	\$9.3 m	\$18.5 m	\$37.0 m
Orange:	\$2.6 m	\$5.3 m	\$10.5 m
Chatham:	\$1.1 m	\$2.1 m	\$4.2 m
Revenue per year:	\$13.0 m	\$25.9 m	\$51.7 m
Revenue over 25 years:	\$325.0 m	\$647.5 m	\$1,292.5 m
	(2011 through 2035)		

* The statewide Sales and Use Tax rate is currently 4.25%, with the addition of the local rate of 2.5%, there is an overall 6.75% Sales and Use Tax for Durham, Wake and Orange Counties.

** In 2007, the State Legislature authorized an additional Article 39 (point-of-sale-based) local option sales and use tax of ¼%.

➤ Motor Fuels Tax

	<u>1¢ / gal</u>	<u>5¢ / gal</u>	<u>11.9¢ / gal</u>
Durham:	\$1.2 m	\$5.9 m	\$14.2 m
Orange:	\$0.6 m	\$3.1 m	\$7.4 m
Chatham:	\$0.4 m	\$2.0 m	\$4.8 m
Revenue per year:	\$2.2 m	\$11.0 m	\$26.4 m
Revenue over 25 years:	\$55.0 m	\$275 m	\$660.0 m

➤ Vehicle Registration Fee*

	<u>(additional) \$20</u>
Durham:	\$3.8 m
Orange:	\$2.0 m
Chatham:	\$1.3 m
Revenue per year:	\$7.1 m
Revenue over 25 years:	\$177.5 m

* The current cost of vehicle registration renewal is \$20 plus a \$5 Triangle Transit Authority tax. Refer to GS 160A-613, 623-624.

➤ **Rental Car Tax***

	<u>(additional) 5%</u>	<u>(additional) 10%</u>
3 County:	\$8.7 m	\$17.5 m
Revenue over 25 years:	\$217.5 m	\$437.5 m

* Revenue for future Triangle Transit fixed-guideway project(a) are based on a 5% car rental tax levied.

➤ **Real Estate Property Tax**

	<u>\$0.05 / \$100 (0.05%)</u>	<u>\$0.10 / \$100 (0.1%)</u>
Durham:	\$8.7 m	\$17.3 m
Orange:	\$5.5 m	\$10.9 m
Revenue per year:	\$14.2 m	\$28.2 m
Revenue over 25 years:	\$355 m	\$705 m

➤ **Real Estate Transfer Tax**

	<u>\$0.20 / \$100 (0.2%)*</u>	<u>\$0.40 / \$100 (0.4%)**</u>
Durham:	\$5.1 m	\$10.2 m
Orange:	\$2.0 m	\$4.1 m
Revenue per year:	\$7.1 m	\$14.3 m
Revenue over 25 years:	\$177.5 m	\$357.5 m

* The State of North Carolina currently levies a 0.2% tax on any real estate transfer.

** In 2007, the State Legislature authorized an additional 0.4% local option real estate transfer tax.

➤ **Vehicle Property Tax**

	<u>\$0.05 / \$100 (.05%)</u>	<u>\$0.10 / \$100 (0.1%)</u>
Durham:	\$0.8 m	\$1.7 m
Orange:	\$0.4 m	\$0.9 m
Revenue per year:	\$1.2 m	\$2.6 m
Revenue over 25 years:	\$30 m	\$65 m

* Personal/Vehicle property tax must be congruent with Real (Estate) property tax rates per Art. 5 of the NC Constitution

➤ **Income Tax**

	<u>0.10 %</u>	<u>0.25 %</u>	<u>0.50 %</u>
Durham:	\$3.6 m	\$7.4 m	\$14.8 m
Orange:	\$2.6 m	\$5.2 m	\$10.4 m
Revenue per year:	\$6.2 m	\$12.6 m	\$25.2 m
Revenue over 25 years:	\$155 m	\$315 m	\$630 m