

Summary of Key Statistics 26 Mid-Sized Region Transportation Plans

Albany-Schenectady-Troy, NY

- **Demographics and Traffic Data**

○ Base year population	511,000
○ Base year 2002, future year 2030	
○ Percent change in population, base to future	9%
○ Percent change in VMT, base to future	15.2%
○ Congestion trends	
▪ TTI 1995	1.04
▪ TTI 2005	1.08
▪ TTI 2030	1.15
○ Central county percent solo driver work, 2005	81.7%
○ Central county percent transit work, 2005	2.9%
○ Congestion statistics	
▪ Base year: Avg. cong. speed	26-32 mph
Avg. travel time major points	36.4 min
Vehicle-hours/day of “excess delay”	6,605
▪ Future year: Avg. cong. speed	20-23 mph
Average travel time to major points	47.5 min
Vehicle hours/day of “excess delay”	10,878 (about 64% increase)

- **Transportation Improvement Program**

○ Total TIP cost	\$1,251M
○ TIP transit cost	\$145M, 11.6%
○ TIP highway cost	\$845M, 67.5%
○ Transit major projects	
▪ Transit vehicle purchases	\$50.2M
○ Highway major projects	
▪ Albany-Shaker Rd/Watervliet-Shaker-Rd (airport access)	\$45.2M
▪ Batchlerville Bridge rehab	\$35M
▪ SR 7/I-87 Bridge rehab	\$30M
▪ Slingerlands Bypass	\$21.3M
▪ I-787 Clinton Ave. bridge deck	\$12.6M
▪ I-90 ITS system	\$11.5M
▪ I-87 Bridge over Watervliet-Shaker Rd	\$9.2M
▪ Delaware Ave. reconstruction	No cost provided

- **Long Range Plan**

○ Total LRP cost	\$16,383M
○ LRP transit	\$1,995M, 12.2%
○ LRP highway	\$12,816M, 78.2%
○ Transit major projects: NY 5 Bus-rapid-transit service	No cost provided

- Highway major projects
 - Projects evaluated by cost and system user savings, congestion, rehab, air quality reduction, Northway repair (detailed project list not available) No cost provided

- **Other**
 - Inflation Not treated
(Costs and revenues are therefore low)
 - Geographic balance/imbalance for growth Unclear; seems balanced
 - Air quality Major improvements, due to fleet turnover
 - VOC 41.8 tons/day declining to 9.6 with No build, 7.8 Build.
 - NOX 53.3 tons/day declining to 6.4 with No build, 5.7 Build
 - Increases in delay due to growth (These are reductions of about 82-90%)
 - Savings in delay from plans 12,900 veh-hrs/day
 - Difference - 1,000 veh-hrs/day (8% reduction)

- **Assessment**

- **Structural Deficit**

The Albany-Schenectady-Troy NY region predicts a modest 9% increase in population, and a 15.2% increase in VMT over 28 years. About 3% of the region's commuters use transit. Although congestion is modest now, it is expected to increase sharply. With the current plans, the Albany region's congestion delay will increase 64%, travel times will increase 30% and speeds will decline 30%. The transit mode share has fallen 0.5% in just 5 years, from 3.4 to 2.9%. On the other hand, air pollution will decrease 80%, due to fleet turnover.

The TIP totals \$1,251M. It dedicates about 12% of the funds to transit, primarily for bus purchases. The TIP is difficult to read and understand; summary tables would make it more comprehensible.

Albany's LRP for 2030 focuses on urban reinvestment, mixed use, TOD, transit, BRT and park-ride. According to the Plan, "Congestion is one of many important measures, but tradeoffs are necessary." The Plan focuses on creating what is called a "quality region" as the goal of the transportation system investments. The region is unlikely to have enough money to be able to follow through with these LRP goals. The projected plan's cost, \$16B, is not only out of line with the region's size, but it is clearly unfunded and it is not fiscally realistic.

The congestion management plan is quite general, and does not list specific projects. Instead it identifies corridors that need attention and have excess delay. There are just a few major corridors. Albany sees congestion as a minor problem: "*Congestion does not represent a major threat to economic vitality or to overall quality of life. Congestion is generally confined to intersection delay, mid-block delay on some 2-lane routes and ...increasingly common freeway flow breakdowns.*" However, this seems to ignore their own figures, showing a 30-50% increase in travel times and delays.

As a result of these views, the plan is structurally deficient, accounting for only 8% of increased congestion.

Albuquerque, NM

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
○ Base population	692,000
○ Base year 2004, Future year 2030	
○ Percent change in population, base to future	38%
○ Percent change in VMT, base to future	78%
○ Congestion trends	
▪ TTI 1995	1.16
▪ TTI 2005	1.17
▪ TTI 2030	1.30
○ Central county percent solo driver work, 2005	77.7%
○ Central county percent transit work, 2005	1.5%
○ Congestion statistics:	
▪ Base year:	
• Daily VMT per capita	22.2
• Percent PM peak VMT congested	4.3%
▪ Future year:	
• Percent VMT congested, 2015, PM peak	9%
• Increase since 2004 (Base: 61,772)	74%
• Lane-miles congested @ peak hour, 2030	248
• Travel times for key commutes expected to increase by 2030	99%
<ul style="list-style-type: none"> • Transportation Improvement Plan 	
○ Total TIP cost	\$625M
○ TIP transit cost	\$138.2M, 22.1%
○ TIP highway cost	\$453.4M, 72.6%
○ Transit major projects	
▪ Commuter rail O&M	\$42.9M
▪ ABQ Ride, vehicle & equipment purchase	\$49.2M
○ Highway major projects	
▪ I-40 Zuzax to Sedillo	\$22.5M
▪ I-40 & West Central Interchange reconstruction	\$26.6M
▪ I-40 & San Mateo Interchange:	\$45.4M
▪ Coors Blvd, Rio Bravo to Old Coors	\$15.6M
▪ Paseo del Volcan (North section) stage II	\$16.4M
▪ Coors Blvd & Quail Rd intersection	\$19M
<ul style="list-style-type: none"> • Long range plan 	
○ Total LRP cost	\$6,153M
○ LRP transit cost	\$606M, 26.1%
○ LRP highway cost	\$4,246M, 69.0%
○ Transit major projects	
▪ BRT implementation and expansion	No cost provided
▪ Commuter Rail service implementation	No cost provided

- Alvarado Transportation Center-intermodal terminal. No cost provided
 - Highway major projects
 - Reconstruct I-25/Paseo de Norte interchange No cost provided
 - Provide better access for river crossings No cost provided
- **Other**
 - Inflation Included in revenue/expenditure forecasts seems ok
 - Geographic Bal/Imbal for growth In conformance and attainment
 - Air quality In conformance and attainment
 - Increases in delay from growth 55,000 veh-hours/day
 - Savings in delay from plans 15,100 veh-hrs/day (27% reduction)
 - Difference 39,900 veh-hrs/day
- **Assessment**
 - **Systemic Deficit**

The Albuquerque region predicts rapid growth, a 38% population increase and a 78% VMT increase. Congestion is quite modest, but congestion and peak-hour travel times are expected to double.

The TIP is arranged by project funding category followed by project summaries. It contains little text and does not provide enough details. The TIP is transit-heavy relative to usage. Seventy-three percent of funds are dedicated to roads while 22% of the funds are dedicated to transit.

The LRP is one of the very few that includes inflation. Overall its goals are balanced and reasonable. The documents themselves are very thorough. Albuquerque plans to modestly expand road capacity, particularly for river crossings and I-25. The region plans to expand transit through improved service and add commuter rail service to Santa Fe. The LRP is transit-heavy, devoting 22% of funds to a mode that only 1% of commuters use. Although the Plan is transit-heavy, it seems generally reasonable. The Plan discussion is very thorough, with many innovative technical features (e.g. travel time contours by mode).

The congestion management plan indicates that key corridors will be severely congested in 2015, despite committed roadway expansion projects. However, the Plan is short on results.

Only 22% of the projected growth in delay will be covered by Plan actions, leading to substantial increases in congestion even if the Plan is implemented on time. As a result the Plan has a significant systematic deficit.

Austin, TX

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
○ Base year population	1,160,000
○ Base year 2000, Future year 2030	
○ Percent change in population, base to future	137.6%
○ Percent change in VMT, base to future	139.1%
○ Congestion indices:	
▪ TTI 1995	1.18
▪ TTI 2005	1.31
▪ TTI 2030	1.56
○ Central county percent solo driver work, 2005	76.5%
○ Central county percent transit work, 2005	3.8%
○ Congestion statistics, base year	
▪ Base year: roads with congestion	10%
▪ Total hours of delay	58,600
▪ TTI	1.22
▪ Average travel speed	36.1
○ Congestion Statistics, future	
▪ Roads with congestion	3% (+130%)
▪ Total hours of delay	419.6K (+617.81%)
▪ TTI	1.32 (+8.20%)
▪ Average travel speed	31.2 (-13.6%)
<ul style="list-style-type: none"> • Transportation Improvement Program 	
○ Total TIP cost	\$2,932M
○ TIP transit cost	\$152M, 5.2%
○ TIP highway cost	\$2,752M, 93.9%
○ Transit major projects	
▪ Local commuter rail	\$15M
○ Highway major projects	
▪ Widen to 4-lane divided roadway (Hays County)	\$53.2M
▪ SR 195 Widen to 4-lane divided roadway	\$38M
▪ FM 110 - Hays County construct 4-lane divided roadway	\$33.98M
<ul style="list-style-type: none"> • Long Range Plan 	
○ Total LRP cost	\$22,819M
○ LRP transit	\$7,300M, 32.0%
○ LRP highway	\$15,060M, 66.0%
○ Transit major projects	
▪ Austin-San Antonio passenger rail project	\$322M
▪ Commuter rail phase I capital expenses	\$60M
▪ Commuter rail phase II capital expenses	\$185.42M
▪ Regional park and ride facilities/transit centers	\$88.36M
▪ Express bus/rapid bus—fleet replacement	

and amenities	\$20.2M
▪ Local bus—fleet replacement and amenities	\$237.3M
○ Highway major projects	
▪ SR 130, Loop 1 N, SR 45 N, SR 45 SE (Central Texas Turnpike project)	\$90.1M
▪ US 183 A (Central Texas Turnpike project + 2030 planned project)	\$389.6M
▪ Future expansion of SR 130/Loop 1	\$936M
▪ Construction of toll lanes on Loop 360, SR 71/US 290 W, US 183 S, US 290 E, SR 45 SW, SR 71 E (phase II toll projects)	\$1,725.8M
Construction of non-tolled added capacity	\$5,541.1M
• Other	
○ Inflation	not covered
○ Geographic balance/imbalance for growth	generally okay
○ Air quality	expected to improve
○ Increases in daily delay from growth	358,200 veh-hrs/day
○ Savings in delay from plans	75,500 veh-hrs/day (21% reduction)
○ Difference	282,700 veh-hrs/day

• **Assessment**

○ **Systemic Deficit:**

The Austin region expects very rapid growth and a 140% increase in VMT. Congestion is estimated to more than double by 2030. The Plan provides good detail, which is both easy to find and easy to interpret.

The TIP is primarily highway-focused while the LRP is more transit-focused, which diverts attention from rising congestion. Most of the TIP documents are also in the LRP.

The LRP is very comprehensive. The congestion section of the Plan claims that congestion management is a major goal, but this is not explicitly stated in the vision or strategies. Congestion, however, is discussed often in the LRP. Funding is skewed toward transit, particularly in the LRP.

Austin’s LRP has a more balanced approach to modes (66% roads, 32% transit, 2% other) than many other plans. But the LRP is ambitious, and is likely to fall short, given the anticipated growth. Moreover the Plan will not overcome dramatic growth (137% from 2000-2030) and congestion will increase significantly (TTI from 1.22 to 1.32).

The plans contain only 21% of the savings needed to hold congestion at 2005 levels. Therefore, they contain a substantial systematic deficit.

Bakersfield, CA

• Demographics and Traffic Data	
○ Base population	694,000
○ Base year 2004, Future year 2030	
○ Percent change in population, base to future	58.4%
○ Percent change in VMT, base to future	81.9%
○ Congestion trends	
▪ TTI 1995	1.04
▪ TTI 2005	1.09
▪ TTI 2030	1.17
○ Central county percent solo driver work, 2005	77.4%
○ Central county percent transit work, 2005	2.0%
○ Congestion statistics:	
▪ Base: Kern Co. average travel time	16.15 min (1998)
▪ Average daily trip delay time	63,696 hrs.
▪ Average level of congestion	32,309 hrs.
▪ Maps of congested LOS segments	Reverse commute to LA
▪ Future: Kern Co. average travel time (No Build)	18.14 min.
▪ LRP	17.44 min-/+8%
▪ Average trip delay time	169.696 hrs (+166%)
▪ Average level of congestion	278,714 hrs (+765%)
• Transportation Improvement Program	
○ Total TIP cost	\$692M
○ TIP transit cost	\$95.8M, 13.8%
○ TIP highway cost	\$452.4M, 65.4%
○ Transit major projects: no major initiatives	
○ Highway major projects	
▪ Westside Parkway design	No cost provided
▪ SR 46 corridor	No cost provided
▪ Seventh Rd corridor	No cost provided
• Long Range Plan	
○ Total LRP cost	\$3,947M
○ LRP transit cost	\$112M, 2.8%
○ LRP highway cost	\$3,822M, 96.8%
○ Transit major projects: no major initiatives	
○ Highway major projects	
▪ Westside Parkway	\$176M
▪ Widen SR 56	\$231M
▪ Downtown Parkway	\$125M
▪ State Route 58 Caltrans Interregional Improvement projects	\$223M
▪ Metro Bakersfield	\$798M

- **Other**

- Inflation: not treated
- Air quality: significant improvement is expected due to fleet turnover
- Increases in delay due to growth 29,200 veh-hrs/day
- Savings in delay due to plans 13,200 veh-hrs/day (45% reduction)
- Difference 16,000 veh-hrs/day

- **Assessment**

- **Systemic Deficit**

The Bakersfield region forecasts rapid growth—58% in population and 82% in VMT—and foresees congestion more than doubling by 2030.

The TIP is basically a list of tables, with few sums. The transit sum (except transit operating costs) is available by category and year; adding transit operating costs brings the transit total to 13%. However, statewide TIP funding is at risk given the California budget shortfall.

The LRP has a large funding gap, about ½ the total, and even the funded portion is uncertain. The LRP attempts to deal with funding needs in a tight fiscal environment. The “constrained Plan” produces *more* congestion than at present, but at a cost of \$3.947B. Transit is only \$112M of the total; the Bakersfield region provides a smaller percentage of funding for transit than most regions, but transit funding is still four to five times the percentage of people who commute by transit.

However, if fully implemented the plans would cover only ½ the projected growth in delay. Given the growth, the Plan is pessimistic but probably realistic. The region has a major systematic deficit.

Baton Rouge, LA

• Demographics and Traffic Data	
○ Base year population	611,000
○ Base year 2004, Future year 2029	
○ Percent change in population, base to future	30%
○ Percent change in VMT, base year to future	45%
○ Congestion trends	
▪ TTI 1995	1.04
▪ TTI 2005	1.06
▪ TTI 2030	1.11
○ Central county percent solo drive to work, 2005	83.6%
○ Central county percent transit to work, 2005	1.5%
○ Congestion statistics	None
• Transportation Improvement Plan	
○ Total TIP cost	\$486M
○ TIP transit	\$56.8M, 11.7%
○ TIP highway cost	\$394.5M, 81.1%
○ Transit major projects	none specified
○ Highway major projects	
▪ I-10/I-12 split to Seiger Ln reconstruction and widen	\$56M
▪ Jones Bayou-Hooper Rd (SR 946) widen to 4 lanes	\$36M
• Long Range Plan	
○ Total LRP cost	\$2,232M
○ LRP transit cost	\$965M, 43.2%
○ LRP highway cost	\$1,249M, 56.0%
○ Transit major projects	
▪ Light rail design, planning, & construction	\$128.8M
Annual assistance	\$124.7M
○ Highway major projects	
▪ Widen Perkins Rd from 4 to 5 lanes	\$28M
▪ Reconstruct and Widen I-10 (I-10/I-12 split to Sieger)	\$56M
▪ New two lanes on Central throughway	\$39.7M
▪ I-12 (O'Neal Ln-Pete's Hwy overpass) pavement replacement and widening	\$67M
• I-10, I-110 Improvement	\$50M
• Other	
○ Inflation	Not considered
○ Air quality	Region has defaulted on air quality documents and has been cited
○ Increases in delay due to growth	22,300 veh-hrs/day

- Savings in delay from plans reduction) 7,300 veh-hrs/day (33%)
- Difference -15,000 veh-hrs/day

- **Assessment**

- **Systemic Deficit**

The Baton Rouge Plans have several serious deficiencies. It is difficult to make any conclusions based on the limited data.

Their TIP is not clearly readable, containing only one summary table, which does not include all of the funds; the transit portion is not included.

The LRP does not contain the data needed to evaluate it. There is no VMT or population growth forecast. The Plan calls for spending \$2.2B over 25 years, about \$965M of which is for transit, including LRT. Despite recent funding cuts to transit, the LRP contains a plan to revitalize the transit system.

There is no justification for the proposed projects including those that will reduce congestion. There are no present or future congestion stats given, and there is no CMP. The yearly transit budget is expected to increase 373% by 2029 (from \$12 to \$56.8 million/yr). The LRP proposes to spend about \$965M for LRT and busway service. The Plan is highly skewed toward transit spending about 45% of the total funds. The Plan is unrealistic on the transit side since it depends largely on New Starts money.

While it is challenging to determine much from the limited data, the region definitely has a systematic deficit.

Boise, ID

- **Demographics and Traffic Data**
 - Base year population 554,000
 - Base year 2005, Future year 2030
 - Percent change in population, base to future 76.5%
 - Percent change in VMT, base to future 48.1%
 - Congestion trends
 - TTI 1995 1.03
 - TTI 2005 1.06
 - TTI 2030 1.11
 - Central county percent solo driver work, 2005 79.2%
 - Central county percent transit work, 2005 0.6%
 - Congestion statistics:
 - Base year: 2005 TTI 1.06
 - “Sanderson Index” 5% “high congestion”
 - Future year: 2030 TTI 1.11 est.
 - “Sanderson Index” 23% “high congestion” (50% congested without Plan)

- **Transportation Improvement Program**
 - Total TIP cost \$911M
 - TIP transit \$40.4M, 4.4%
 - TIP highway \$863.4M, 94.7%
 - Transit major projects: none specified
 - Highway major projects
 - I-90 widening-Boise-Nampa No cost provided
 - East River Crossing No cost provided

- **Long Range Plan**
 - Total LRP cost \$6,880M
 - LRP transit cost \$670M, 9.7%
 - LRP highway cost \$6,210M, 90.3%
 - Transit major projects
 - BRT and LRT connecting Boise to Caldwell \$1+B
 - Highway major projects
 - Communities in Motion (CIM) corridors \$2.83B

- **Other**
 - Inflation not covered
 - Geographic balance/imbalance for growth 63% of jobs in the 6-county region are in Ada County.
 - Air quality Sharp improvements for NOX and VOC, flat for CO,

- Increases in delay due to growth
- Savings in delay due to plans

- Difference

but a worsening for PM10
(dust)
20,100 veh-hrs/day
14,200 veh-hrs/day (71%
reduction
5,900 veh-hours/day

- **Assessment**

- **Modest Deficit**

The greater Boise, ID region forecasts a 77% increase in population, but (strangely) just a 48% increase in VMT over 25 years (most regions predict a somewhat higher traffic forecast than population, as wealth increases). The region has a large percentage of solo drivers, and transit shares for commuting are less than 1%. Most growth will be in Ada County, which has 63% of the jobs in the 6-county region. Congestion delay, presently modest, will quadruple, even if the Plan is implemented.

The TIP contains about \$911M in projects including about 4% for transit. There is no major transit initiative for the region. Major highway initiatives include the widening of I-90, nearing completion, and an East River crossing.

The LRP calls for \$8.63B in expenditures but has \$6.88B in projected revenues. A proposed major expansion of the transit system, \$1+B, is largely unfunded. At present the funded portion is about 10% of total LRP costs. So, the Plan has a strong unfunded transit component for the future. Inflation is not covered.

The Congestion Management Plan focuses on roadway capacity.

The major weakness in the Plan is its likely funding shortfall. The highway portion does not consider inflation, and the major parts of the transit portion are unfunded. Nevertheless, if it is completed in a timely fashion, the Plan might come quite close to holding congestion at current levels; it is a modest 29% short of needed savings in delay.

Bridgeport, CT

- **Demographics and Traffic Data**
 - Base year population 224,000
 - Base year 2005, Future year 2035
 - Percent change in population, base to future 6.7%
 - Percent change in VMT, base to future 20%
 - Congestion trends
 - TTI 1995 1.16
 - TTI 2005 1.22
 - TTI 2030 1.39
 - Central county percent solo driver to work, 2005 75.6%
 - Central county percent transit to work, 2005 9.3%
 - Congestion statistics:
 - Base year: Miles congested by LOS, map No numbers provided
 - Future year: Miles congested by LOS, map No numbers provided

- **Transportation Improvement Program**
 - Total TIP cost \$373M
 - TIP transit cost \$183.4M, 49.2%
 - TIP highway cost \$189.1M, 50.8%
 - Transit major projects:
 - New Haven substation \$25M
 - NH RR track bridge \$19M
 - NH RR Station \$28.5M
 - Highway major projects:
 - I-95 Housatonic River Bridge \$105M
 - SR15 resurfacing \$20M
 - SR 30 reconstruction \$9.5M

- **Long Range Plan**
 - Total LRP cost \$2,115M
 - LRP transit cost \$556M, 26.3%
 - LRP highway cost \$1,505M, 71.2%
 - Transit major projects
 - NHRR track improvements and station rehabs No cost provided
 - Highway major projects
 - SR 8 widening No cost provided
 - I-95 lane continuity No cost provided

- **Other**
 - Inflation Assumes 4% annually
 - Air quality Will improve sharply
 - Increases in delay due to growth 28,900 veh-hrs/day
 - Savings in delay from plans 1,100 veh-hrs/day (4 %)

- Difference

reduction)
27,800 veh-hrs/day

- **Assessment**

- **Structural Deficit**

The Bridgeport region expects a relatively slow 7% population growth, but faster employment growth. Traffic will increase about 20% over the next 30 years. The region has a high transit work share, 9.3%, the highest of our 26 regions, due to the number of residents commuting by railroad to nearby New York. Congestion delay is modest at present but will double by 2030.

The TIP totals \$373M, but focuses heavily on maintenance for both transit (NH RR) and highway (I-95). Consistent with its importance to commuting, transit’s share is 49% of the funds. The Bridgeport region’s TIP funds transit and highway about equally, in an area with relatively slow growth.

The LRP focuses on transit, devoting 26% of resources; this is less than some other regions. Major highway projects include the widening of SR 8 and making the number of lanes continuous on I-95. The CMP is a (brief) portion of the LRP. It proposes coordination with the state plan (CT), which focuses on major state routes.

The local CMP proposes specific signalization and intersection work on several local routes, signal modernization and the promotion of transportation demand management strategies. It does not include any specific plans. It likely addresses delay and congested routes.

Given the focus on transit and lack of attention to congestion, it is not surprising that the plans, if fully implemented in a timely fashion, would address only 4% of the projected increase in congestion delay. It seems likely that congestion will increase sharply, and may eventually compete for funds with transit.

Columbia, SC

- **Demographics and Traffic Data**
 - Base population 497,000
 - Base year 2004, Future year 2025
 - Percent change in population, base to future 32.4%
 - Percent change in VMT, base to future 40%
 - Congestion trends
 - TTI 1995 1.04
 - TTI 2005 1.07
 - TTI 2030 1.13
 - Central county percent solo driver work, 2005 80.7%
 - Central county percent transit work, 2005 1.8%
 - Congestion statistics
 - Base year: List of road sections and Planned projects by Volume-capacity ratios No numbers provided
 - Future year: Projects by V/C for “existing and No numbers provided committed” congestion, but no “plan” or congestion map. No numbers provided

- **Transportation Improvement Program**
 - Total TIP cost \$388M
 - TIP transit cost \$2.8M, 13.6%
 - TIP highway cost \$335.5M, 86.4%
 - Transit major projects: none listed
 - Highway major projects
 - Platt Road \$22M

- **Long Range Plan**
 - Total LRP cost \$549M
 - LRP transit cost \$60M, 10.9%
 - LRP highway cost \$484M, 88.1%
 - Transit major projects-none listed
 - Highway major projects
 - 10 bundled projects \$161M

- **Other**
 - Inflation: not treated
 - Geographic balance/imbalance Jobs mostly in suburbs
 - Air quality Attributes reductions to technology
Does not make a future forecast
 - Increases in delay from growth 18,900 veh-hrs/day

- Savings in delay from plans 2,900 veh-hrs/day (15% reduction)
- Difference 16,000 veh-hrs/day

- **Assessment**

- **Structural Deficit**

The Columbia, SC region predicts about a 32% increase in population and a 40% increase in VMT over 20 years. About 1.8% of the region’s commuters use transit. Congestion delay is presently modest, but it is expected to triple.

The TIP for the Columbia region has about \$388M in expenditures, but does not include a summary table. No data on resources vs. expenditures is shown. About 14% of the TIP is dedicated to transit projects, compared with about 2% of commuters.

The LRP appears to be for the period beginning *after* the TIP, since it does not contain the TIP numbers. There is a major focus on congestion, but no supporting data on the effects of the projects. Modest growth is predicted for the region. However the Plan contains only \$161M in projects, and these do not include transit projects, estimated to cost an additional \$200M+. After adding the TIP, the total is about \$549M. The LRP does not show the need for transit. The document contains little data, and no financial table. Compared with other regions, it is largely incomplete.

The CMP (part of the LRP) discussion of congestion is general and does not provide present or future statistics. The Plan implies that the focus of project selection is on congestion reduction and projects that have high variable cost ratio vs. cost.

In summary, this is a very conservative LRP, and hence may be doable. However, it does not consider inflation or maintenance, and its effect on congestion is unknown. The Plan likely lacks sufficient funding. If implemented in a timely fashion, the plans would save only 15% of the predicted growth in congestion delay.

Dayton, OH

- **Demographics and Traffic Data**

○ Base year population	822,100
○ Base year 2000, Future year 2030	
○ Percent change in population, base to future	-2.7%
○ Percent change in VMT, base to future	26.4%
○ Congestion trends	
▪ TTI 1995	1.12
▪ TTI 2005	1.10
▪ TTI 2030	1.15
○ Central county percent solo driver work, 2005	85.8%
○ Central county percent transit work, 2005	1.8%
○ Congestion statistics	
▪ Base year VMT at LOS E, F	1.6%,
▪ Delay	3,580 veh-hrs/day
▪ Future: existing/committed funding	6,290 veh-hrs delay, + 76%
▪ With Plan	4,484 veh-hrs delay, + 25%
▪ Percent of VMT at LOS E, F	1.4%
▪ LRTP VMT at LOS D, E, or F	decreases from 6.2 to 4.5% (about the same as currently)

*Dayton calls its Long Range Plan (LRP) a Long Range Transportation Plan (LRTP)

- **Transportation Improvement Program**

○ Total TIP cost	\$1,614M
○ TIP transit cost	\$394M, 24.4%
○ TIP highway cost	\$1,186M, 73.5%
○ Transit major projects: bus replacements	
○ Highway major projects	
▪ I-75 Downtown	\$399.9M
▪ I-75 Henderson	\$171M
▪ I-75 Phase 1A/Dayton Expansion	\$159M
▪ US 35	\$132M
▪ I-75/US 35	\$92M
▪ US 35	\$80M

- **Long range plan**

○ Total LRP cost	\$4,294M
○ LRP transit cost	\$2,007M, 46.7%
○ LRP highway cost	\$2,268M, 52.8%
○ Transit major projects- Expanded vehicle fleet	No cost provided
○ Highway major projects	
▪ I-75 Phase 2	\$241M
▪ I-75 Phase 1A	\$172M

- I-75 Phase 1B \$42M
- I-75 TIP \$149.3M
- I-70 \$121M

- **Other**

- Inflation Not discussed in any detail
Costs are in current dollars
- Geographic balance/imbalance growth Highway/transit projects concentrated in Montgomery Co. other counties get projects, in line with congestion
- Air quality- Air quality will improve sharply even if Plan is not implemented
- Increases in delay from growth 12,000 veh-hrs/day
- Savings in delay from plans 21,800 veh-hrs/day (182% reduction)
- Difference + 9,800 veh-hrs/day

- **Assessment**

- **Surplus**

The Dayton region forecasts a small *decline* in population but a 19% increase in VMT. This is one of the slowest-growing regions in our study. Most growth will be in the suburbs.

The TIP proposes to spend about 20% of funds on transit, mostly operating costs, for 2% of commuters. The TIP does not contain summary tables in a straightforward form. The dollar totals by mode and region are not presented.

The LRP has almost 50% of the funds for transit, but no large transit initiatives. The LRP plans to expand major urban interstates that are now or will be close to capacity, or need repair from age. The LRP includes considerable spot intersection and arterial widening. However, there would also be a major expansion of the transit vehicle fleet, which uses about 1/2 of the funds. The highway widening will allow the percent of VMT at capacity to be held at about current levels; otherwise it would increase from 4% to 6% of VMT.

The congestion management plan is understood to be the highway portion of the LRP. It has the same costs and the same project count. Therefore, the transit portion is assumed to not influence congestion, yet it receives almost 1/2 of the funds.

The growth forecast is realistic, but the transit “drag” on the money is a problem. The region’s plans for transit are ambitious, relative to its impact. The Plan probably over-states transit’s impact on congestion; a lot has to go right for congestion to be held at just 25% growth in delay hours. Nevertheless, our analysis shows that, if implemented on schedule, the TIP and LRP would probably save more delay than growth will cause.

Des Moines, IA

- **Demographics and Traffic Data**
 - Base year population 456,000
 - Base year 2000, Future year 2030
 - Percent change in population, base to future 64.7%
 - Percent change in VMT, base to future 70%
 - Congestion trends
 - TTI 1995 1.03
 - TTI 2005 1.06
 - TTI 2030 1.11
 - Central county percent solo driver work, 2005 84.5%
 - Central county percent transit work, 2005 1.0%
 - Congestion statistics:
 - Base year: Travel times and traffic volumes No numbers provided
 - Future year: none given None

- **Transportation Improvement Program**
 - Total TIP cost \$201M
 - TIP transit \$60.5M, 30.2%
 - TIP highway \$139.8M, 69.7%
 - Transit major projects
 - DART Transit Hub Facility \$18.8M
 - Preventative Maintenance \$13M
 - Highway major projects
 - SE 6th St - SE 14th St grade & pave \$50M
 - I-35/80/NW 26th St interchange grade & pave \$34M
 - SW 2nd St - SE 14th grade, pave, right of way, traffic signals \$32M

- **Long Range Plan**
 - Total LRP cost \$1,970.1M
 - LRP transit cost \$ 0 M, 0%
 - LRP highway costs \$1,947M, 98.8%
 - Transit major projects-not covered
 - Highway major projects
 - I-235 \$370M
 - NE Belt \$172M
 - NE Mixmaster \$324M
 - I-35 \$37M
 - I-35/I-235 Interchange \$30M

- **Other**
 - Inflation Not accounted for
 - Air quality Non-attainment
 - Increases in delay from growth 19,500 veh-hours/day

- Savings in delay from plans 22,500 veh-hrs/day (115% reduction)
- Difference (surplus) +3,000 veh-hrs/day

- **Assessment**

- **Surplus**

The Des Moines, IA region predicts a 64% increase in population, and a 70% increase in VMT over 30 years. The region is car-oriented, with about 1.5 % of commuters using transit. Congestion is presently mild, but is expected to increase by a factor of three (TTI data).

The TIP's \$201M is allocated 30% to transit, 70% to highways.

The LRP has about \$2B for highway work, and seems to be missing funding for transit operations and capital. Most of the highway funds are for widening of major Interstates and interchanges. There is no data on the effect of these widenings on congestion. It is not clear if the Plan contains transit funds (it appears that it does not); that funding would add about \$375M in operating costs and approximately \$100M in capital costs.

The congestion management plan is general, focusing only on monitoring travel, travel times and traffic volumes. Yet the LRP has a number of major widening projects in it. If implemented in a timely fashion, the Plan would actually save more congestion delay than the predicted increase; therefore it has a mild surplus.

The Plan is generally realistic for highways, but needs more details on transit funding.

Ft. Collins, CO

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
○ Base year population	500,000
○ Base year 2005, Future year 2035	
○ Percent change in population, base to future	73*%
○ Percent change in VMT, base to future	72%
○ Congestion statistics	
▪ TTI 1995	1.03
▪ TTI 2005	1.06
▪ TTI 2030	1.11
○ Central county percent solo driver work, 2005	77.9%
○ Central county percent transit work, 2005	1.0%
○ Congestion statistics	
▪ Base year: Arterial LOS at E or F	4%
▪ Future year: Arterial LOS at E or F with “No-Build	14%
▪ Future year: Arterial LOS at E or F with “Build”	12%
*Plan says 58%, but household data used show 73%	
<ul style="list-style-type: none"> • Transportation Improvement Program 	
○ Total TIP cost	\$449M
○ TIP transit cost	\$75.9M, 16.9%
○ TIP highway cost	\$350.8M, 78.1%
○ Transit major projects: none listed	
○ Highway major projects	
▪ I-25 Resurfacing	\$18M
▪ US 34 Greeley	\$21M
▪ I25/US 34 Interchange	\$12.1M
<ul style="list-style-type: none"> • Long Range Plan 	
○ Total LRP cost	\$1,276M
○ LRP transit cost	\$384M, 30.1%
○ LRP highway cost	\$821M, 64.4%
○ Transit major projects	
▪ Phased approach to the creation of a “grid” bus system.	No cost provided
○ Highway major projects	
▪ I-25, US 287, US 34	No cost provided
<ul style="list-style-type: none"> • Other 	
○ Inflation	Applies a 33% inflationary factor to 2030 RTP Vision Cost
○ Geographic Bal/Imbal for growth	Major growth between cities, funds are largely within them
○ Air quality	Predicted to slowly improve, region is in attainment.

- Increases in delay from growth 16,700 veh-hrs/day
- Savings in delay from plans 3,800 veh-hrs/day (23% reduction)
- Difference 12,900 veh-hrs/day

- **Assessment**

- **Structural Deficit**

The Ft. Collins region’s numbers show a 73% (58% in Plan text) increase in households and a 72% increase in VMT, rapid growth. Major growth will be between cities, but funds are largely within them. Congestion is presently low but the number of congested arterials is expected to triple from 4% to 14% under the no-build option or to 12% with the Plan. About 1% of commuters use transit in the region.

The TIP, \$449M, reserves about 17% of funds for transit, but contains no major transit initiative. The TIP does not contain a summary table or a comparison of fund sources vs. expenditures.

The Long Range Plan, \$1,276M, spends about 30% of the funds on transit, but does not include any major initiatives. It proposes a phasing in of a “grid” bus system, presumably with much denser transit service. The proposed project includes the Mason Corridor BRT, 5.0 miles, eight stations, eight stops and one transit center. Total capital costs are (\$YOE) \$74.19M. Opening year ridership (2010) is forecast to average 3,900 average weekday boardings, with 400 daily new riders. For this expenditure, this is a very small ridership.

Highway funds are focused on repair and on several major corridor widening/treatments (I-25, US 34, US 287). Nevertheless, congestion is expected to triple even with these actions. The Plan says it needs \$6B to implement all of its projects, but only \$1.275B is available, so it is clearly under-funded. The Plan provides 12 “visions” for key corridors describing what needs to be accomplished. The Plan lacks transit details, given the costs. It does not include a comparison of revenues vs. expenditures.

The CMP is part of the LRP. It recognizes the threat of increasing congestion. But even if implemented in a timely fashion, the Plan would fall almost 77% short in reducing the growth of congestion delay.

Both the TIP (17%) and the LRP (30%) are heavily transit-oriented, but the justification for such large transit expenditures is weak. The Plan is not realistic; \$6B is needed, but only \$1.3B is available. The Plan has a significant structural deficit.

Ft. Myers (Cape Coral), FL

- **Demographics and Traffic Data**

○ Base year population	530,000
○ Base year 2005, Future year 2030	
○ Percent change in population, base to future	61%
○ Percent change in VMT, base to future	90%
○ Congestion trends	
▪ TTI 1995	1.15
▪ TTI 2005	1.12
▪ TTI 2030	1.18
○ Central county percent solo Driver work, 2005	81.7%
○ Central county percent transit work, 2005	0.9%
○ Congestion statistics	
▪ Base year: TTI	1.18
▪ Hours of delay (person-hours day)	2,712
▪ Percent of congested lane-miles	50% (2003—Cape Coral only)
▪ Hours of delay	9.5M
▪ Percent of VMT in LOS conditions	Not shown
▪ Future year	Not shown

- **Transportation Improvement Program**

○ Total TIP cost	\$960M
○ TIP transit cost	\$50.6M, 5.3%
○ TIP highway cost	\$785.4M, 81.8%
○ Transit major projects- none specified	
○ Highway major projects	
▪ I-75 Widening	\$280M
▪ I-75 Airport access	\$156M
▪ SR 7300	\$28M
▪ SR 82	\$98M
▪ US41	\$36M

- **Long Range Plan**

○ Total LRP cost	\$2,166M
○ LRP transit cost	\$467M, 21.6%
○ LRP highway cost	\$1,656M, 76.5%
○ Transit major projects	
▪ Expand bus service from downtown Cape Coral to Edison mall	\$650K
○ Highway major projects	
▪ I-75 Add lanes	\$101M
▪ SR 78 Widening	\$106M
▪ I-75 Interchange/MLK	\$100M
▪ I-75 Widening	\$80M

- Bridge 2L Estero \$49M
- Metro Pkwy widen \$45M
- US 41 Widen/toll \$128M
- Burnt Store Rd widen \$54M

- **Other**

- Inflation Uses 2005 dollars
- Geographic balance/imbalance for growth Seems ok
- Air quality Not discussed
- Increases in delay from growth 25,600 veh-hrs/day
- Savings in delay from plans 24,900 veh-hrs/day (97% reduction)
- Difference 700 veh-hrs/day

- **Assessment**

- **Modest Deficit**

The Ft. Myers region predicts a rapid 61% growth in population, and a rapid 90% growth in VMT over 25 years. Eighty-two percent of the region’s commuters drive alone and about 0.8% take transit. However, congestion increases are expected to be modest, given the attention to capacity improvements.

The TIP has about \$960M in projects, of which about \$51M is for transit, mostly in operating costs. Major highway improvements are Interstate and state route widenings.

The LRP initially says "Roadway expansion cannot be the only solution to congestion." Nevertheless, the focus of much of the Plan is on congestion relief, through a variety of widening and ITS actions. The LRP focuses primarily on road improvements and widening, rather than transit, but transit is nevertheless given 21% of funds. Bus rapid transit is mentioned, but no funding is provided. Most transit funds are dedicated to maintaining existing bus service. Funding for roads and transit will come from tolls, gas taxes and impact fees. The primary focus is on construction, variable (congestion) pricing on key bridges, ITS monitoring and widening of major routes. SR 82 is identified as a "congested corridor" but there are no transit services; the proposal to widen the highway to 8 lanes is "contingent".

If plans are implemented in a timely fashion, they would come close to saving almost all of the increase in delay caused by growth, thus holding congestion at approximately current levels.

Grand Rapids, MI

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
○ Base year population	544,000
○ Base year 2000, Future year 2035	
○ Percent change in population, base to future	42.5%
○ Percent change in VMT, base to future	35.7%
○ Congestion trends	
▪ TTI 1995	1.09
▪ TTI 2005	1.10
▪ TTI 2030	1.19
○ Central county percent solo driver work, 2005	83.7%
○ Central county percent transit work, 2005	1.1%
○ Congestion statistics:	
▪ Base year	
• Avg. cong. speeds by road class:	
○ Rural Interstate	56.2
○ Rural Other	34.9
○ Urban Interstate	53.9
○ Urban Other	30.4
▪ Future year	
• Avg. cong. speeds by road class	
○ Rural Interstate	53.3
○ Rural Other	33.3
○ Urban Interstate	48.6
○ Urban Other	29.9
<ul style="list-style-type: none"> • Transportation Improvement Program 	
○ Total TIP cost	\$276M
○ TIP transit cost	\$47M, 17.0%
○ TIP highway cost	\$213.9M, 77.5%
○ Transit major projects: none listed	
○ Highway major projects	
▪ I-196/I-96 Bridges: recon/widen	\$24M
▪ I-196 Additional lanes	\$25M
▪ I-196/Baldwin new interchange	\$25M
<ul style="list-style-type: none"> • Long Range Plan 	
○ Total LRP cost	\$5,657M
○ LRP transit	\$1,779M, 31.4%
○ LRP highway cost	\$3,878M, 68.6%
○ Transit major projects: Bus Rapid Transit on South Division.	\$33M
○ Highway major projects	
▪ I-196 Widen 4-to-6 lanes	\$35M
▪ College/Fuller/I-196 Interchange, turn lanes	\$30M

- SR 44/37, Preservation and widen \$30M
- Leonard-Cascade widen/preservation, \$130M (2026+)

- **Other**

- Inflation Costs and revenue streams are inflated.
- Air quality Region “non-attainment” for O3, but will improve sharply.
- Increases in delay from growth 33,900 veh-hours/day
- Savings in delay from plans 3,500 (10% reduction)
- Difference 30,400 veh-hours/day

- **Assessment**

- **Structural Deficit**

The Grand Rapids region predicts modest population growth, 42.5%, but (strangely) a smaller increase in VMT. (Most regions predict faster VMT growth than population growth.) The region is highly car-dependent, with just 1.1% of regional commuters using transit. Congestion is presently modest, but is predicted to double. Yet the plans are tilted toward transit, particularly in the LRP.

The TIP, funded at \$276M, dedicates about 17% of funding to transit but includes no major transit projects. Highway funding is focused on major intersection widenings.

The LRP forecasts a \$5.65B need, almost 20 times the TIP. But transit costs, 31% of total, are way out of line with present or future ridership. The Plan proposes a bus-rapid-transit (BRT) line, but provides only \$33M in funding. The proposed South corridor BRT is a 9.8-mile line with 19 stations. Total Capital Costs (\$YOE) are \$36.67M (including \$1.1M in finance charges); the opening year ridership forecast (2012) estimates 7,200 average weekday boardings and 1,300 new daily riders. Further depending on transit, the Plan relies on changes in travel to reduce VMT: “Steps to reduce peak period travel... [and] change when and how people travel will become increasingly important in the future.” Summary tables of costs and revenues are included but not summed. Capacity deficiencies are forecast using the travel demand model and adding road condition deficiencies. The Plan focuses on widening roads with deficiencies in capacity, and remediating condition.

The CMP part of the LRP focuses on road widening, using Volume to Capacity criteria, intelligent transportation systems and intersection capacity analysis. The CMP holds forecast operating speeds at approximately current levels by widening major Interstates and arterials.

The Plan is missing some key costs. It is probably realistic for highways, but it is highly unrealistic for transit. As presently structured, the Plan would eliminate only 10% of the projected increase in delay, leading to major increases in congestion. In addition to being underfunded, the region’s geography (circular) and size preclude major transit use shifts. The Plan needs to be revised and modified to address regional realities.

Jacksonville, FL

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
<ul style="list-style-type: none"> ○ Base year population 	644,000
<ul style="list-style-type: none"> ○ Base year 2000, Future year 2030 	
<ul style="list-style-type: none"> ○ Percent change in population, base to future 	63.0%
<ul style="list-style-type: none"> ○ Percent change in VMT, base to future 	67.8%
<ul style="list-style-type: none"> ○ Congestion trends <ul style="list-style-type: none"> ▪ TTI 1995 ▪ TTI 2005 ▪ TTI 2030 	1.20 1.21 1.38
<ul style="list-style-type: none"> ○ Central county percent solo driver work, 2005 	81.9%
<ul style="list-style-type: none"> ○ Central county percent transit work, 2005 	1.4%
<ul style="list-style-type: none"> ○ Congestion statistics <ul style="list-style-type: none"> ▪ Base year <ul style="list-style-type: none"> • Hours of delay • Percent System with LOS F • Congested Speed ▪ Future year <ul style="list-style-type: none"> • Hours of delay • Percent System with LOS F • Congestion Speeds 	476K 15.24 28.03 961K, +101.9% 21.37, +40.2% 25.39, -9.4%
<ul style="list-style-type: none"> • Transportation Improvement Program 	
<ul style="list-style-type: none"> ○ Total TIP cost 	\$2,562M
<ul style="list-style-type: none"> ○ TIP transit cost 	\$578M, 22.6%
<ul style="list-style-type: none"> ○ TIP highway cost 	\$1,787M, 69.8%
<ul style="list-style-type: none"> ○ Transit major projects <ul style="list-style-type: none"> ▪ Intermodal hub ▪ Future rapid transit right-of-way 	\$118M \$87M
<ul style="list-style-type: none"> ○ Highway major projects <ul style="list-style-type: none"> ▪ I-95 / J. Turner Butler Blvd, Phase 1 ▪ I-295 / Collins / Blanding ▪ State Road 9B ▪ I-95 ▪ I-10 ▪ I-10 / Marietta Interchange 	\$2,822M \$143M \$143M \$94M \$91M \$80M
<ul style="list-style-type: none"> • Long Range Plan 	
<ul style="list-style-type: none"> ○ Total LRP cost 	\$3,285M
<ul style="list-style-type: none"> ○ LRP transit cost 	\$567M, 17.3%
<ul style="list-style-type: none"> ○ LRP highway cost 	\$2,718M, 82.7%
<ul style="list-style-type: none"> ○ Transit major projects <ul style="list-style-type: none"> ▪ East-Southwest Multi-modal Corridor 	\$434M
<ul style="list-style-type: none"> ○ Highway major projects <ul style="list-style-type: none"> ▪ Interstate improvements 	

• I-10	\$309M
• I-95	\$211M
• I-295	\$158M
▪ Clay-St John's Connector (toll)	\$505M
▪ Matthews Bridge and Expressway	\$218M
• Other	
○ Inflation	Not covered
○ Geographic growth balance/imbalance	Most growth outside center city where road improve. planned.
○ Air quality	Region will improve sharply
○ Increases in delay from growth	116,400 veh-hours/day
○ Savings in delay from plans	19,200 veh-hours/day (16% reduction)
○ Difference	97,200 veh-hours/day
• Assessment	
○ Systemic Deficit	

The Jacksonville region forecasts a 63% increase in population, a 68% increase in VMT and a doubling of congestion. Most growth will be outside the center city where most of the road improvements are planned.

The TIP focuses mostly on highway capacity/flow improvements, which reflects the 1.4% transit share of commuting (2005). However, transit still receives 23% of the funds.

This LRP is very poorly presented, and information on the website is extremely limited. Relative to size, funds are very low (\$3.3B with a gap of \$3B) compared to the TIP (\$5.5B).

The CMP focuses more heavily on highways than transit (TIP: 88% to 8%, LRP: 79% to 21%).

Given the rapid growth, the region is unlikely to stem congestion, or even slow its increase.

Knoxville, TN

- **Demographics and Traffic Data**

○ Base population	598,000
○ Base year 2002, Future year 2030	
○ Percent change in population, base to future	49.6%
○ Percent change in VMT, base to future	41.2%
○ Congestion trends	
▪ TTI 1995	1.03
▪ TTI 2005	1.06
▪ TTI 2030	1.11
○ Central county percent solo driver work, 2005	84%
○ Central county percent transit work, 2005	0.7%
○ Congestion statistic	
▪ Base year	
• VMT with V/C >.84 (LOS D+)	400 K, 1.52%
• VHT delay	65,096, 7% of daily total
▪ Future year	
• VMT @ V/C >.84 (LOS D+)	2078 K, 5.17% of total
• VHT delay	159,441 +1445.

- **Transportation Improvement Program**

○ Total TIP cost	\$797M
○ TIP transit cost	\$228.4M, 28.7%
○ TIP highway cost	\$542.0M, 68.0%
○ Transit major projects	
▪ Preventative maintenance	No cost provided
▪ Construction of central station transit center	No cost provided
○ Highway major projects	
▪ SR-115/US-129, Widen 4 to 6 lanes	\$30.3M
▪ SR-115/US-129, Reconstruct-Widen 4 to 6 lanes	\$60.3M
▪ SR-115/US-129, Widen 4 to 6 lanes	\$60.3M
▪ SR-115/US-129, New 6 lanes	\$88.1M
▪ Campbell Station Rd, Widen 3 to 5 lanes	\$70.0M
▪ I-40, Widen 4 to 8 lanes	\$239M
▪ I-640 Widen 4 to 5 lanes	\$15M
▪ James White Pkwy, New 4 lane	\$78.6M

- **Long Range Plan**

○ Total LRP cost	\$6,050M
○ LRP transit cost	\$1,121M, 18.5%
○ LRP highway cost	\$4,858.3M, 80.3%
○ Transit major projects	
▪ RTAP Buses, park-and-ride lots, transfer centers, BRT system	\$140M
○ Highway major projects	

- SR 475 Knoxville Pkwy, facility design
 - James White Pkwy, extension
 - Pellissippi Pkwy
 - US 321 Widening

- **Other**
 - Inflation

 - Geographic Growth Bal/Imbal

 - Air quality
 - Increases in delay due to growth
 - Savings in delay due to plans

 - Difference

- **Assessment**
 - **Modest Deficit**

No cost provided
 No cost provided
 No cost provided
 No cost provided

4.5% annually and is applied to the mid-point of predefined periods of time. KAT vehicle costs are inflated by 10% every 5 yrs. Road construction project costs are inflated by 4.5% to middle of “network year”. Sevier County projected to grow by a much higher rate than others in region. Expected to improve sharply 23,900 veh-hrs/day
 18,500 veh-hrs/day (77% reduction)
 5,400 veh-hrs/day

The Knoxville region forecasts a 49.7% increase in population and a 41.2% increase in VMT. Sevier County is projected to grow at a much higher rate than other counties in the region. The percent of VMT with a congested V/C ratio is predicted to more than triple from 1.52% to 5.17% *with* the LRP.

Yet, the TIP dedicates about 29% of the funds to transit; this is a high percentage particularly for a system with no plans for LRT. Most of the funds are for operating and/or maintenance of the existing system.

The LRP calls for spending about \$6B over 23 years, about 18% for transit. Major road projects include I-40 widening and several parkway/extensions. A large amount of LRP funding is for transit (capital and operating exp./rev.), yet transit only has a 1% commuter modal share.

Overall, the Plan is better balanced than most. Although the region does have quite enough “savings in delay” in its plans to maintain current level of congestion, the shortfall is modest, and what is planned can be fully covered by projected revenues.

Lancaster, PA

<ul style="list-style-type: none"> • Demographics and Traffic Data 	470,700
<ul style="list-style-type: none"> ○ Base year 2005, Future year 2030 ○ Percent change in population, base to future ○ Percent change in VMT, base to future ○ Congestion trends <ul style="list-style-type: none"> ▪ TTI 1995 ▪ TTI 2005 ▪ TTI 2030 ○ Central county percent solo driver work, 2005 ○ Central county percent transit work, 2005 ○ Congestion statistics <ul style="list-style-type: none"> ▪ Base year: List of intersections and road sections at LOS levels ▪ Future year 	24.4% 30% 1.03 1.06 1.11 81.6% 1.5% No numbers provided None
<ul style="list-style-type: none"> • Transportation Improvement Program 	
<ul style="list-style-type: none"> ○ Total TIP cost ○ TIP transit cost ○ TIP highway ○ Transit major projects <ul style="list-style-type: none"> ▪ Intermodal Center ○ Highway major projects <ul style="list-style-type: none"> ▪ US 30 (York Co.-Mountville B.) Preventative Main. ▪ US 30 (PA 896-PA 41) Environ. Impact statement ▪ PA283@ PA 722 Bridge Recon. and Interch Impr ▪ US 222 (US322-Berks Co.) Preventative Maintenance 	\$332M \$32.1M, 9.7% \$229.6M, 69.2% \$3M \$12M \$13M \$9M \$11M
<ul style="list-style-type: none"> • Long Range Plan 	
<ul style="list-style-type: none"> ○ Total LRP cost ○ LRP transit cost ○ LRP highway cost ○ Transit major projects <ul style="list-style-type: none"> ▪ RRTA Queen Street Station ▪ Keystone rail corridor improvements ▪ CORRIDOR ONE regional rail implementation ▪ County rail station improvements ▪ Paradise rail station construction ○ Highway major projects <ul style="list-style-type: none"> ▪ PA 23 from US 30 to US 322 ▪ US 30 from PA 896 to PA 41 ▪ Fruitville Pike widening ▪ Strasburg Bypass construction ▪ Centerville Road widening from PA 462 to PA 23 	\$2,260M \$206.5M, 9.1% \$1,879M, 83.1% No cost provided No cost provided No cost provided No cost provided No cost provided No cost provided No cost provided No cost provided No cost provided No cost provided
<ul style="list-style-type: none"> • Other 	
<ul style="list-style-type: none"> ○ Inflation 	Partial, 2001 numbers were

- Air quality

adjusted in 2004 but inflation was not considered in future projections

Region is marginal non-attainment for ozone, but sharp improvements are likely due to fleet turnover

- Increases in delay from growth
- Savings in delay from plans
- Difference

12,100 veh-hrs/day
4,600 veh-hrs/day (38% reduction)

- 7,500 veh-hrs/day

- **Assessment**

- **Structural Deficit**

The Lancaster, PA region predicts a 24% increase in population by 2030, and a 30% increase in VMT over 25 years. The region is heavily car-oriented, with only about 1.5% of commuters using transit. Congestion data are limited to base-year LOS lists. Congestion delay is presently modest, but it is predicted to triple (TTI data).

The TIP provides a list of highway and other projects and total funds. About 10% of the \$332M TIP is transit focused, and about 70% is highway-focused. The remainder includes special projects and pedestrian-bike projects.

The LRP relies on smart growth, but its own projections show that most growth will occur in the surrounding towns/suburbs. Most towns have adopted urban growth boundaries that limit growth. About 9% of the LRP is transit-focused, emphasizing more service and system improvements. Sources of additional revenue are noted. No data on air quality are shown.

The Congestion Management Plan contains no specific plans, costs or figures on current congestion. But even if it were funded in a timely fashion, the plan would reduce the predicted increase in congestion delay only by 1/3. In short, the plan focuses too much on issues that are not likely to affect the growing congestion problem.

While the region has modest congestion, the plans do not effectively address congestion. Therefore, the relatively small region’s plans have a significant structural deficit.

Louisville, KY

<ul style="list-style-type: none"> • Demographics and Traffic Statistics 	
○ Base population	947,000
○ Base year 2000, Future year 2030	
○ Percent change in population, base to future	19.5%
○ Percent change in VMT, base to future	54.2%
○ Congestion trends	
▪ TTI 1995	1.17
▪ TTI 2005	1.23
▪ TTI 2030	1.36
○ Central county percent solo driver work, 2005	84.4%
○ Central county percent transit work, 2005	2.3%
○ Congestion statistics	
▪ Base year: maps of LOS sections, major sections only, 2000 TTI	1.23
▪ Future year: None given, but the text says they did maps of future congestion by LOS.	No numbers provided
<ul style="list-style-type: none"> • Transportation Improvement Program 	
○ Total TIP cost	\$1,972M
○ TIP transit	\$72M, 3.7%
○ TIP highway	\$1,812M, 91.9%
○ Transit major projects	
▪ TARC Capital Improvement Program: Vehicle maintenance, facility rehabilitation, equipment and vehicle replacement	\$66M
○ Highway major projects	
▪ Construction of 2 new Ohio River bridges	\$395M
▪ I-265 approach work for new bridge over Ohio River	\$104M
▪ Realign and widen US 31E	\$107M
<ul style="list-style-type: none"> • Long Range Plan 	
○ Total LRP cost	\$6,103M
○ LRP transit	\$597M, 9.8%
○ LRP highway	\$5,384M, 88.2%
○ Transit major projects	
▪ TARC Capital Improvement Program	\$340M
▪ Convert bus fleet to ultra low diesel fuel	\$125M
○ Highway major projects	
▪ Construction of 2 new Ohio River bridges	\$1,993M
▪ Reconstruct/widen I-265	\$709M
▪ Reconstruct/widen I-64	\$166M
▪ Reconstruct/widen US 31E	\$120M
▪ Widen I-65	\$120M

- **Other**

- Inflation Not addressed
- Geographic Bal/Imbal for growth Most growth in the 2nd ring; more growth in KY than IN. Sharp improvements, due to fleet turnover.
- Air quality 57,900 veh-hrs/day
- Increases in daily from growth 24,600 veh-hrs/day (42% reduction)
- Savings in delay from plans 33,300 veh-hrs/day
- Difference

- Assessment

- **Systemic Deficit**

The Louisville region predicts modest growth, 19.5% in population and 54% in VMT, but the Plan contains no forecast of congestion.

The TIP provides a poor breakout of costs. The costs of the project spreadsheet had to be added together, and the spreadsheet had to be requested from the MPO. The TIP spends about 4% on transit, and the LRP spends 10% on transit, compared with the 2% of residents who use transit to commute to work. Two of the major projects are freeway river crossings.

The LRP is overly general in nature, but provides a good background of the planning process for the novice. The detail is in the project list, which shows the Plan to be reasonably well balanced with a 90/10 highway-transit split in both the TIP and LRP.

The CMP explains the current congestion problem well and has a reasonable plan to tackle it. There are no projections of congestion into the future nor is there an assessment of the impact that the TIP or LRP will have on congestion. The Plan focuses more heavily on highways than on transit. (TIP: 92% to 4%; LRP: 88% to 10%) Most of the region’s growth will be in the 2nd ring; more growth is forecast in Kentucky than in Indiana. The growth rate in the center of the region will be seven percent.

Generally, the Plan is reasonable. The Plan could more clearly show the expenditure totals. More importantly the plans contain only 36% of the savings needed to hold congestion to 2005 levels.

Madison, WI

- **Demographics and Traffic Data**
 - Base year population 427,000
 - Base year 2005, Future year 2030
 - Percent change in population, base to future 35.8%
 - Percent change in VMT, base to future 34.9%
 - Congestion trends
 - TTI 1995 1.03
 - TTI 2005 1.06
 - TTI 2030 1.11
 - Central county percent solo driver work, 2005 73.6%
 - Central county percent transit work, 2005 4.9%
 - Congestion statistic
 - Base year: Miles of LOS D (2000) 95
 - Miles of LOS E or F 30
(Map of roads congested by LOS)
 - Future year None

- **Transportation Improvement Program**
 - Total TIP cost \$981M
 - TIP transit cost \$313.5M, 32%
 - TIP highway cost \$667M, 68%
 - Transit major projects: Expanded transit service
 - Highway major projects
 - I-94: Mill, overlay, and widen structures \$32.5M
 - I-39/90, reconstruct and expand to 6 lanes \$44M
 - Junction Rd Intersection improvements \$17.5M
 - Washington Ave., reconstruct street and SR 30 Interchange \$17.0M

- **Long Range Plan**
 - Total LRP cost \$4,255M
 - LRP transit cost \$1,591M, 37.4%
 - LRP highway \$2,664M, 62.6%
 - Transit major projects
 - High-capacity fixed guideway transit service is a blend of commuter rail and streetcar, with complementary express busways and connecting local service No cost provided
 - Highway major projects
 - Two US 51 corridors and the US 18/151/West Beltline are being studied for potential capacity expansion, main concern is with exploiting all transit options first before looking at road No cost provided

capacity actions

- **Other**

- Inflation Costs and revenues increase 2.5%/year
- Air quality Sharp improvement predicted
- Increases in delay 11,300 veh-hrs/day
- Savings in delay from plans 8,100 veh-hrs/day (72% reduction)
- Difference 3,200 veh-hrs/day

- **Assessment**

- **Modest Deficit**

The Madison, WI region forecasts a modest 36% increase in population, but a slightly lower 35% increase in VMT, over 25 years. The region has the second-highest transit work share, 4.9%, of all the 26 regions we examined; this is attributed to the high student/university workforce percentage. Further, it calls for a 30% increase in transit use by 2030, which might be achievable. Congestion delay is presently mild, but it is predicted to triple by 2030 (TTI data).

The TIP totals about \$981M, but focuses about 31% of funds on transit service, and about 8% on operations. There is \$667M slated for highway improvements, about 68% of the total.

The LRP proposes to deal with the 36% increase in population by focusing on improving transit service through a major investment in “hybrid” rail/streetcar service along the E-W corridor. This will be supplemented with TSM and ITS actions. The Plan expects congestion to grow; if these proposed plans are insufficient, capacity-expanding actions will be considered. The LRP forecasts a transit share of 32%.

The CMP focuses on congestion location and treatment/reduction through corridor improvements. However, if implemented in a timely fashion, the Plan could potentially save about ¾ of the expected increase in congestion delay, even though the increased transit use, from 4.9% of commuters to about 6.5%, would account for only 1/10 of the growth in traffic.

Aside from the substantial, and unlikely, bet that “hybrid rail” will work, the Plan is reasonably well thought out. However, the region is unlikely to hold congestion flat or slow it. While the Plan calls for later capacity expansions if needed, by then it may be too late.

McAllen, TX

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
○ Base year population	627,000
○ Base year 2005, Future year 2030	
○ Percent change in population, base to future	59.2%
○ Percent change in VMT, base to future	75%
○ Congestion trends	
▪ TTI 1995	1.03
▪ TTI 2005	1.06
▪ TTI 2030	1.11
○ Central county percent solo driver work, 2005	77.4%
○ Central county percent transit work, 2005	0.2%
○ Congestion statistics:	
▪ Base year: List of routes by LOS, TTI	1.06
▪ Future year: Future roads by LOS, TTI no-build	1.11 est.
▪ TTI build	1.06
<ul style="list-style-type: none"> • Transportation Improvement Program 	
○ Total TIP cost	\$310M
○ TIP transit cost	\$13.93M, 4.5%
○ TIP highway cost	\$282.4M, 91.0%
○ Transit major projects: none listed	
○ Highway major projects	
▪ Nolana Rd widening	\$13.5M
▪ SR 107 widening	\$15M
▪ US 281 New 4 lane	\$25M
▪ I-69 unfunded	No cost provided
▪ Proposed new international border crossing.	No cost provided
<ul style="list-style-type: none"> • Long Range Plan 	
○ Total LRP cost	\$1,555M
○ LRP transit cost	\$39.2M, 2.5%
○ LRP highway cost	\$1,453.6M, 93.5%
○ Transit major projects: none listed	
○ Highway major projects	
▪ I-69	No cost provided
▪ New (fifth) international border crossing	No cost provided
<ul style="list-style-type: none"> • Other 	
○ Inflation	Not covered
○ Geographic Bal/Imbal for growth	Most growth in suburbs but most improvements in core
○ Air quality	Acceptable and in compliance

- Increases in delay from growth 14,600 veh-hours/day
- Savings in delay from plans 36,300 veh-hours/day (257% reduction)
- Difference (surplus) +21,700 veh-hours/day

- Assessment

- **Surplus**

In Texas, regions must address the Governor's Mobility Initiative to reduce congestion. McAllen is forecasting a 59% increase in population but a 75% increase in traffic volumes. It has a \$1.5B long-range plan. According to its assessment, it needs \$802M more to reduce severe congestion.

Most of the region's growth is in the suburbs but most of the improvements appear to be in the region's core. The McAllen region's TIP is lacking a highway list and contains no summary tables. However, the percent of funds allocated for transit is relatively low; transit's share of commuting, 0.2%, is the lowest of the 26 regions we reviewed.

The LRP seems to have a significant focus on highways.

The CMP is a very general plan with no specifics on cost, action or impacts.

Our analysis shows that, if implanted in a timely fashion, the TIP and LRP probably contain enough savings to hold congestion at current levels, even with the rapid growth projected. While the Plan has insufficient funds to meet the state's congestion reduction initiative, it will still hold congestion steady.

Ogden, UT

- **Demographics and Traffic Data**
 - Base year population 482,000
 - Base year 2007, Future year 2030
 - Percent change in population, base to future 40.4%
 - Percent change in VMT, base to future 59.5%
 - Congestion trends
 - TTI 1995 1.03
 - TTI 2005 1.06
 - TTI 2030 1.11
 - Central county percent solo driver work, 2005 78.4%
 - Central county percent transit work, 2005 2.1%
 - Congestion statistics
 - Base year: Annual delay per capita, 2006 8.5 hours
 - Future year: Annual delay per capita, 2030, w/LRP 14.5 hours (+71%)

- **Transportation Improvement Program**
 - Total TIP cost \$62.1M
 - TIP transit cost \$2.0M, 3.2%
 - TIP highway cost \$60.1M, 96.8%
 - Transit major projects: none listed
 - Highway major projects (79 generally minor projects in Weber and Davis Co.) No cost provided

- **Long Range Plan**
 - Total LRP cost (SLC total region) \$3,980M
 - LRP transit cost \$280M, 7%
 - LRP highway cost \$3,700M, 93%
 - Transit major projects
 - BRT line 1 Weber State Line \$34M
 - BRT line 2 South Davis Line \$126M
 - Highway major projects
 - North Legacy Corridor through Davis and Weber Counties No cost provided
 - Widening US Highway 89 in Davis County No cost provided
 - Portions of I-15 in Salt Lake, Davis, and Weber Counties No cost provided

- **Other**
 - Inflation Assumes 4% annual inflation rate
 - Geographic Bal/Imbal for growth TIP seems to be low relative to the region's share in Ogden
 - Air quality SLC and Ogden city are

- Increases in delay from growth
- Savings in delay from plans
- Difference (Surplus)

designated non-attainment for several pollutants, but are expected to improve.
 13,200 veh-hours/day
 14,800 veh-hours/day (112% improvement)
 + 1,600 veh-hours/day

- **Assessment**

- **Surplus**

The Ogden urbanized area is part of the greater Salt Lake City region, and its plans are part of the SLC MPO. This assessment, however, deals only with the Ogden portion.

The Ogden portion of the region is expected to grow about 40% in population, and 60% in VMT over 23 years. The regional transit work share is predicted to increase about 60%, from 2.1% to about 3.2% for Ogden. Congestion is presently modest but it is predicted to increase 71%.

The TIP is very much a regional document with Ogden-Layton totals included with Salt Lake City. The MPO provided the TIP breakout off-line for the Ogden-Layton area. The TIP totals \$62.1M for the Ogden area (David and Weber Counties), of which \$2.0M (3%) is for transit. The TIP also contains 79 highway projects in Weber and Davis County.

The overall SLC region LRP seems generally reasonable. While it does seek to change some behavior to reduce congestion and promote “walkable communities,” it does recognize that residents seem to prefer commuting by car, and so allocates the bulk of the budget (86.3%) to maintaining/expanding highway capacity. (The transit share of the commuter traffic is 2.1%)

The Ogden-Layton portion of the Salt Lake City regional LRP is difficult to isolate, and many of the trend numbers reflect regional trends rather than those for just the Ogden-Layton urban area. Ogden has \$3.98B, of which \$3.70B is for highways and \$0.28M is for transit. Costs are likely to be low. Two LRT lines are proposed for the Ogden area.

The LRP (for the SLC region) outlines a number of strategies to reduce congestion, some of which are being used and others of which are recommended for future action. Although the CMP recommends green-friendly transportation solutions, the active measures taken to relieve congestion are decidedly highway-focused (adding capacity, incident management and improving flow). Since VMT in this region is growing faster than the population or road capacity, the two solutions for reducing congestion include adding effective capacity or reducing VMT.

If implemented in a timely fashion, the Ogden portion of the SLC plan would save about 14,800 vehicle-hours/day more “congestion delay” than the 13,200 vehicle-hours/day increase in delay caused by growth. Therefore, the plans, if implemented, hold considerable promise to hold congestion at current levels.

Raleigh, NC

- **Demographics and Traffic Data**
 - Base population 728,500
 - Base year 2002, Future year 2030
 - Percent change in population, base to future 95%
 - Percent change in VMT, base to future 124%
 - Congestion trends
 - TTI 1995 1.11
 - TTI 2005 1.18
 - TTI 2030 1.33
 - Central county percent solo driver work, 2005 81.2%
 - Central county percent transit work, 2005 1.0%
 - Congestion statistics:
 - Base year: Percent VMT congested 12.1%
 - Future year: Percent VMT congested 26.3% (+117%)

- **Transportation Improvement Program**
 - Total TIP cost \$2,061M
 - TIP transit cost \$77.8M, 3.8%
 - TIP highway cost \$1,949M, 94.6%
 - Transit major projects
 - No major projects funded, but \$899M in an “unfunded project” (LRT line)
 - Highway major projects
 - I-540 Western Wake Freeway between SR 55 (Morrisville), to SR 55 Bypass (Holly Springs) No cost provided
 - I-540 from US 64 Bypass to I-40 South (Eastern Wake Freeway) No cost provided
 - Triangle Pkwy from SR 147 to McCrimmon Pkwy, I-40 (South) widening from I-440 to SR 42 No cost provided
 - Southern Wake Expressway No cost provided

- **Long Range Plan**
 - Total LRP cost \$8,100M
 - LRP transit cost \$2,174M, 26.8%
 - LRP highway cost \$4,540M, 56.0%
 - Transit major projects
 - LRT line, Raleigh to Durham/Chapel Hill No cost provided
 - Highway major projects
 - I-540 (N. Wake Expressway) No cost provided
 - US 70 (Clayton) Bypass No cost provided
 - US 1 (Upgrade to Freeway) No cost provided
 - I-540 (W. Wake Expressway) No cost provided
 - I-40 (S) Widening (4 to 8 lanes) No cost provided

- **Other**
 - Inflation Not mentioned
 - Air quality (Between 2007 and 2030)
 - NOX Declines from 36,200 kg/d to 9,143, (about 75%)
 - VOC Declines from 16,273 kg/d to 10,378, (about 36%)
 - Increases in delay from growth 113,400 veh-hours/day
 - Savings in delay from plans 53,900 veh-hours/day (48% reduction)
 - Difference 59,500 veh-hours/day

- **Assessment**

- **Systemic Deficit**

The Plan covers just the Raleigh area, omitting any discussion about nearby Durham and Chapel Hill (a separate MPO); all three cities comprise one big region. The two MPOs do use an integrated travel model.

The region predicts a 95% increase in population, a 118% increase in VMT and a more than doubling of congested VMT. This is one of the fastest growing regions in the country. The Plan seems to assume roads are a necessary evil and capacity additions are only a "cosmetic cure" for congestion. But the focus of congestion relief is on road construction.

The TIP is much less clear than the LRP and has much less detail. Costs are there, but need to be “rolled up” by the reader. TIP expenditures are in line with mode share.

LRP funding tilts towards transit. Considering the modal split, the plan spends relatively little on roads.

The region actively monitors congestion through traffic counts, includes congestion as a factor in project prioritizing and considers multiple strategies (capacity additions, managed lanes, incident response teams) to resolve it.

The Plan’s vision is optimistic. Funds are insufficient for capacity expansion, given the growth in the region, and disproportionate focus on transit investment. The short-term expenditure picture is better than the long-term picture.

Richmond, VA

<ul style="list-style-type: none"> • Demographics and Traffic Data 	
○ Base year population	827,000
○ Base year 2000, Future year 2026	
○ Percent change in population, base to future	39.8%
○ Percent change in VMT, base to future	33.1%
○ Congestion trends	
▪ TI 1995	1.09
▪ TTI 2005	1.09
▪ TTI 2030	1.15
○ Central county percent solo driver work, 2005	82.7%
○ Central county percent transit work, 2005	2.1%
○ Congestion statistics	
▪ Base-2001, percent of roads congested	59%
▪ TTI	1.10
▪ Annual hours/delay per capita in 2005	10
▪ Average congested speed in 2005	36.84
▪ Average congested speed in 2023	35.54 (-3.7%)
<ul style="list-style-type: none"> • Transportation Improvement Program 	
○ Total TIP cost	\$1,984M
○ TIP transit cost	\$93.7M, 4.7%
○ TIP highway cost	\$1,836.9M, 92.6%
○ Transit major projects: GRTC Maintenance Facility	\$40.0M
○ Highway major projects	
▪ SR 288 Widening	\$65.7M
▪ SR 288 New section	\$194.4M
▪ I-95 New interchange	\$76.8M
▪ I-95 Widening	\$59.4M
▪ I-64 Widening/rehab	\$74.6M
▪ I-64/I-295 Interchange mod	\$60.1M
<ul style="list-style-type: none"> • Long Range Plan 	
○ Total LRP cost	\$6,300M
○ LRP transit cost	\$1,240M, 19.7%
○ LRP highway cost	\$4,738M, 75.2%
○ Transit major projects	
▪ Proposed light rail	\$1,165M
○ Highway major projects	
▪ Powhite Pkwy (SR 76) widen	\$120M
▪ I-95 rehab	\$59M
▪ Patterson-Parham Rd interchange	\$61M
<ul style="list-style-type: none"> • Other 	
○ Inflation	Not addressed
○ Geographic Bal/Imbal for growth	Most growth in 2 nd ring, city

- Air quality
- Increases in delay from growth
- Savings in delay from plans
- Difference

has very slow growth.
Moderate non-attainment for ozone: in conformity, air quality will improve sharply
31,700 veh-hours/day
18,900 veh-hours/day (60% reduction)
12,800 veh-hours/day

- **Assessment**

- **Systemic Deficit**

The Richmond region has a generally realistic plan. However, population growth is forecasted to be faster (39.8%) than traffic growth (33.1%), which is unlikely. Most growth is expected to occur in the suburban ring.

The TIP estimates a total expenditure of \$1.98B, of which about 5% is for transit. However the TIP provides a poor breakout of costs.

The Long-Range Plan extensively addresses the current situation but provides much less detail on the future. The LRP does not "sell" the need to spend \$6.3B nor explain what taxpayers receive for this expenditure. The Plan is more balanced than many, although transit gets 19.6% of the spending even though only 2.1% of workers use it.

The Congestion Management Plan explains the situation but provides little detail on the analysis used. There is no assessment of the impact that the TIP or LRP will have on congestion. The region's plan focuses more heavily on highways than transit (TIP: 93% to 5%; LRP: 75% to 20%).

The Plan is reasonable although it is poorly written and presented. However, the Plan's congestion savings would be only 60% of the projected growth in delay, leading to increased congestion in the future.

Rochester, NY

- **Demographics and Traffic Statistics**
 - Base population 665,000
 - Base year 2002, Future year 2027
 - Percent change in population, base to future 11%
 - Percent change in VMT, base to future 16.5%
 - Congestion trends
 - TTI 1995 1.05
 - TTI 2005 1.07
 - TTI 2030 1.13
 - Central county percent solo driver work, 2005 85.7%
 - Central county percent transit work, 2005 2.0%
 - Congestion statistics
 - Base year
 - Maps showing volume/capacity 2002 >0.90
 - Network average speeds by functional class
 - Future
 - Maps showing volume/capacity 2027 >0.90
 - Highways slightly more congested in 2025 than in 2002 with no build

- **Transportation Improvement Plan**
 - Total TIP cost \$686M
 - TIP transit cost \$80.3M, 11.7%
 - TIP highway cost \$605.7M, 88.3%
 - Transit major projects
 - Renaissance Square: downtown transit center No cost provided
 - Highway major projects
 - I-90/I-390 Interchange \$26.9M
 - Jeff Rd, SR 252 \$22.0M
 - I-390 (SR 15A) \$19.4M

- **Long Range Plan**
 - Total LRP cost \$1,961M
 - LRP transit costs \$196M, 10.0%
 - LRP highway costs \$1,219M, 62.2%
 - Major projects: not listed

- **Other**
 - Inflation Not covered
 - Geographic Bal/Imbal for growth No, most projects are within the Monroe Co area
 - Air quality Plan shows 80% reductions

- Increases in delay from growth
- Savings in delay from plans
- Difference

in pollution; this is not attributed to Plan, but the implication is there.
30,100 veh-hours/day
3,100 veh-hours/day (10% reduction)
27,000 veh-hours/day

- Assessment

- **Systemic Deficit**

The Rochester region’s transportation plans have only a limited amount of information, even lacking basic tables showing future growth of population, employment or traffic. Both the TIP and LRP have minimal summary info without modal breakouts. The Plan lacks detail, given the weak upstate NY economy. There is no discussion of how the projects or the Plan would assist with economic recovery.

The TIP has some limited modal detail. The projects tend to be geared toward preservation/expansion.

The LRP has such limited details it is impossible to analyze.

This Plan monitors and calculates, but does not reduce congestion. The plans are tilted toward transit, but not as strongly as other regions. Most projects within the Rochester area are in Monroe County. Overall the region predicts slow growth. The Plan seems basically realistic, although it fails to consider inflation and provides little detail.

Salem, OR

- **Demographics and Traffic Data**
 - Base year population 203,000
 - Base year 2000, Future year 2031
 - Percent change in population, base to future 48%
 - Percent change in VMT, base to future 39.8%
 - Congestion trends
 - TTI 1995 1.07
 - TTI 2005 1.09
 - TTI 2030 1.17
 - Central county, percent solo driver work, 2005 76.2%
 - Central county, percent transit work, 2005 ACS 2.5%
 - Congestion statistics:
 - Base year: 7.58 miles “congested,” 3.5% of arterials
 - Future year: 60.05 miles, a 9-fold increase

- **Transportation Improvement Program**
 - Total TIP cost \$227M
 - TIP transit cost \$39.1M, 17.2%
 - TIP highway cost \$178.8M, 78.7%
 - Transit major projects: none listed
 - Highway major projects
 - Portland Rd NE urban standards and widening \$18M
 - McGilcris St widening \$17M

- **Long Range Plan**
 - Total LRP cost \$435M
 - LRP transit cost \$48M, 10.9%
 - LRP highway cost \$384 M, 88.1 %
 - Transit major projects
 - Convert radial “pulse” system to a system of neighborhood circulators. No cost provided
 - Highway major projects
 - Capacity increases: additional travel, turning lanes. The Plan includes goals only; there is no specific project list for any mode
 - However the backup spreadsheets show major projects for
 - I-5 Kuebler Interchange \$120M
 - SR 22/Cordon Rd \$20M
 - Portland Rd NE \$18M
 - McGilcris St \$17M
 - Willamette River Crossing (Right-of-way) \$20M

- **Other**
 - Inflation Not covered (2006\$ are used)

- Geographic Bal/Imbal for growth
Plan predicts most growth within the urban growth boundary at a higher density than most small cities.
- Air quality
Sharp improvements
- Increases in delay due to growth
8,900 veh-hrs/day
- Savings in delay due to plans
4,000 veh-hrs/day (45% reduction)
- Difference
4,900 veh-hrs/day

- **Assessment**

- **Structural Deficit**

Oregon law requires that MPO plans have a 5% reduction in VMT/capita by 2025, and a 10% reduction by 2035. Regions are also geographically constrained by urban growth boundaries. The Salem region is forecasting a 40% increase in population growth, versus a (likely low) 40% increase in VMT. (Most regions predict a greater increase in traffic than population). The region predicts most growth will occur within the urban growth boundary, resulting in a higher density than most small cities. This may explain why the VMT forecast is lower than the population forecast. About 2.5% of commuters in the region use transit. However, congestion delay, which is mild at present, is predicted to double (TTI data). The local plans also predict a very large nine-fold increase in congested road mileage.

The region’s TIP, at \$227M, has 17% of funds reserved for transit service, although no major changes are planned in the short run. Highway projects cost \$178.8M, 79% of the total.

The LRP says that adding highway capacity is not the way to solve transportation problems. It says metro residents cannot continue to rely only on the automobile to get around, and the region needs to “diversify” its travel options and preserve existing road system. Adding highway capacity may not meet these needs. But the LRP focuses primarily on capacity expansion.

After the failure of local transit initiatives, the Plan focuses on capacity expansion but retains a transit “vision” of a system of neighborhood circulators. The LRP devotes \$435.3M (constrained), mostly for capacity increases. Inflation is not considered. A larger “illustrative” plan, \$937M, is also capacity-focused. There are no new transit initiatives proposed. The Plan predicts a nine-fold increase in congestion with “no-build” and does not show a “build” forecast, but says that congestion will be worse.

The plans are basically realistic in spite of the anti-car rhetoric. The Plan attempts to balance Oregon laws for VMT reduction with the realities that people overwhelmingly use cars for their commute. The Plan includes no inflation calculations so costs might be low. However, even if fully implemented in a timely fashion, the plans would cover only about ½ of the projected increase in congestion delay.

Spokane, WA

- **Demographics and Traffic Data**
 - Base year population 441,600
 - Base year 2005, Future year 2030
 - Percent change in population, base to future 27.6%
 - Percent change in VMT, base to future 41%
 - Congestion trends
 - TTI 1995 1.05
 - TTI 2005 1.04
 - TTI 2030 1.07
 - Central county percent solo driver work, 2005 79%
 - Central county percent transit work, 2005 2.5%
 - Congestion statistics
 - Base year: Reference to base maps showing LOS for roads and intersections, V/C >0.75 (congested) No numbers provided
 - Future year: 2030 Build and No-Build maps w. roads and intersections by LOS No numbers provided

- **Transportation Improvement Program**
 - Total TIP cost \$452M
 - TIP transit cost \$37.2M, 8.2%
 - TIP highway cost \$357.8M, 79.2%
 - Transit major projects
 - Preventative maintenance is the biggest item
 - Highway major projects
 - North Spokane Corridor design and ROW No cost provided
 - US 395-from US 2 to Wandermere construct 4 lanes, bike path, No cost provided
 - I-90 bridge stability tests No cost provided
 - New Havana St. bridge construction over BNSF rail tracks No cost provided

- **Long Range Plan**
 - Total LRP cost \$9,684M
 - LRP transit cost \$398M, 4.1%
 - LRP highway \$9,266M, 95.7%
 - Transit major projects
 - Smart Bus technology on fixed route fleet \$42.3M,
 - Spokane Regional Light Rail project implementation \$334.6M
 - Highway major projects
 - North Spokane Corridor \$7.6B
 - Hatch Rd Bypass \$288M

- **Other**

- | | |
|--|--|
| <ul style="list-style-type: none"> ○ Inflation
 ○ Geographic Bal/Imbal for growth ○ Air quality
 ○ Increases in delay from growth ○ Savings in delay from plans
 ○ Difference | <p>Costs increased to mid-year of expenditure, but may not be calculated correctly (see LRP)</p> <p>okay</p> <p>Region is in attainment (acknowledges effect of improved vehicle emissions)</p> <p>7,500 veh-hrs/day</p> <p>6,300 veh-hrs/day (84% reduction)</p> <p>1,200 veh-hrs/day</p> |
|--|--|

- **Assessment**

- **Modest Deficit**

The Spokane region predicts a 28% increase in population and a 41% increase in VMT over 25 years. The region is quite car-oriented in its travel, with about 2.5% of commuters using transit. Although congestion delay is presently mild, it is predicted to increase about 50% (TTI data). Congestion is predicted to increase, even with the Plan expenditures.

The TIP totals about \$425M, and devotes about 8% of funds for transit. But the major projects are road widening and bridge repairs and preservation/maintenance projects. A major corridor initiative, the North Spokane Corridor, is funded for right-of-way and design.

The LRP calls for multimodal service in its vision and its top goal is “land use.” System preservation is not mentioned as a goal. The Plan is very high-priced, \$9.7B, compared to similar regions. The LRP has about 4% of funds dedicated to transit. It calls for a LRT/streetcar initiative but devotes only \$334M to build a four-mile line. Such a system is inconsistent with the Plan’s overall goals.

There are no specific plans, costs or figures on current congestion. However, the LRP calls for a major road initiative, the North Spokane Corridor, for \$7.6B, a very large sum, and almost 80% of the total plan budget is this one item.

The Plan’s major problem is the availability of funds for the North Spokane Corridor. It is highly unlikely that an initiative of this magnitude could be funded in a region of this size, particularly given other state needs. In that regard, the Plan is probably unrealistic. However, if completed in a timely fashion, the Plan could save up to 85% of the predicted increase in congestion, but given the fiscal reality, this seems unlikely to be achieved.

Tulsa, OK

- **Demographics and Traffic Data**
 - Base year population 551,000
 - Base year 2000, Future year 2030
 - Percent change in population, base to future 23%
 - Percent change in VMT, present to future 32.8%
 - Congestion trends
 - TTI 1995 1.07
 - TTI 2005 1.09
 - TTI 2030 1.16
 - Central county percent solo driver work, 2005 83.6%
 - Central county percent transit work, 2005 0.8%
 - Congestion statistics
 - Base-2000 30% VMT "congested", Average speed 36.8 mph
 - Future-2030: Average speed 37.5 mph
(slight improvement with Plan implemented)

- **Transportation Improvement Program**
 - Total TIP cost \$482M
 - TIP transit cost \$35M, 7.3%
 - TIP highway cost \$440M, 91.3%
 - Transit major projects: bus purchases, but unfunded No cost provided
 - Highway major projects
 - I44 widening \$117M
 - Reconstruction SR 193/I-44 Interstate \$32M
 - Expand US 169-SR 1244-SR 266 Interchange No cost provided
 - Expand Memorial Drive No cost provided
 - Creek Tpke-111th St No cost provided

- **Long Range Plan**
 - Total LRP cost \$3,694M
 - LRP transit cost \$717M, 19.4%
 - LRP highway cost \$2,889M, 78.2%
 - Transit major projects
 - Proposed commuter rail service in "Broken Arrow" corridor, SE No cost provided
 - Highway major projects
 - Widening 2 expressways to 8 lanes, 2 more to 6 lanes No cost provided

- **Other**
 - Inflation Not mentioned
 - Geographic Bal/Imbal for growth Most attention is east and south
 - Air quality Region in conformity,

- Increases in delay from growth
- Savings in delay from plans

- Difference

predicted to continue to improve sharply
24,700 veh-hrs/day
22,600 veh-hrs/day (91% reduction)
2,100 veh-hrs/day

- **Assessment**

- **Modest Deficit**

The Tulsa region forecasts a 23% modest population growth and slightly faster VMT growth over 30 years. Most growth is likely to be east and south of the city. The region is heavily car-oriented, with just 0.8% of residents commuting by transit. The Plan relies on capacity improvements. Congestion delay is presently modest, but it is predicted to double over 30 years, to 16% of free-flow travel time.

The TIP is generally complete, but may be fiscally unbalanced since federal funds (\$288M) in the Plan do not equal federal funds in tables (\$440M), and state matches appear to be missing. The planned transit expenditures are unfunded, but total 7% of the budget.

The Long Range Plan proposes to expand the highway system to meet projected capacity needs, by adding capacity to major expressways and arterials, removing bottlenecks, focusing on maintenance and adding several new interchanges. It also seeks to add commuter rail if funding is available. The LRP has significant (19%) funding for the commuter rail line. The Plan may be financially unbalanced since some major projects are unfunded.

The region’s congestion measures are in flux. The earlier 2001 plan had several measures while this Plan has two. There are no data on the actual amount of congestion (other than the VMT estimate) or specific plans to relieve it. The Plan generally discusses incident management options.

Even with this proposed 19% expenditure for the commuter rail line the Plan contains nearly enough savings in delay to offset projected growth in delay. So, if implemented in a timely fashion it stands a good chance of holding congestion at current levels. However, the Plan needs to explain the difference between federal funding amounts, provide info on state matches and create new congestion measures.