

National Capital Region Transportation Planning Board

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MEMORANDUM

TO: Transportation Planning Board

FROM: Ronald F. Kirby
Director, Department of
Transportation Planning

SUBJECT: Response to Comments on the TPB Scenario Study–CLRP Aspirations Submitted
by Harriet Tregoning

DATE: October 15, 2008

The following summarizes the five comments received from Harriet Tregoning, Director of the Office of Planning in the District of Columbia with regard to the CLRP Aspirations Scenario received on September 19th, 2008 and the respective TPB staff responses.

1. Revisit the definition of activity center

“Activity centers, as designated through the 2002 joint process between COG and TPB, are intended to have ‘a mix of jobs, housing and services in a walkable environment’. We do not feel that the 58 activity centers adequately meet these criteria. Three of the five typologies, Employment Centers, Suburban Employment Centers and Emerging Employment Centers do not require any residential presence.”

Formal updates to the activity centers are developed by the COG Planning Directors Technical Advisory Committee, reviewed by the COG Metropolitan Development Policy Committee, and approved by the COG Board of Directors. It is recommended that this issue of changing definitions and selection criteria of activity centers be addressed through that process.

Within the context of the CLRP Aspirations Scenario, the land use component can reflect a jobs/housing balance (indicating mixed use) within activity centers. Therefore, centers currently defined only by their employment density will be assigned a greater concentration of housing and services and will be represented in the TPB travel model as having a walkable environment. An example of this type of land use shift will be provided to the Planning Directors for review.

“There is no express consideration of the characteristics of a walkable environment. The density requirements in the Suburban Employment Centers and Emerging Employment Centers do not describe walkable locations.”

The CLRP Aspirations Scenario can provide the opportunity to identify a walkable density for activity centers based on current walkable centers in the region, which can be used as a goal for

assigning growth. An example of this type of land use shift will be provided to the Planning Directors for review.

2. Improve estimates for bicycling and walking trips

“The model being used for the CLRP Aspirations underestimates walking and bicycling trips.”

Currently, the travel demand model estimates the combined bicycle and walk trips during trip generation for work trips only due to the limitations in sampling non-motorized travel for other purposes. The work trip rates used by the model reflect both motorized and non-motorized travel. The inclusion of non-motorized trips was intended to allow the modeler to relate land use policy (e.g. land use mix, density, etc.) to the level of walking and bicycling, and its explicit effect on the reduction of motorized work travel. For instance, specific area type classifications, which are based on population and employment densities, have associated shares of non-motorized trip productions in the model. However, non-motorized trips are not carried forth into trip distribution and mode choice steps given that the non-motorized trips are extremely dissimilar in spatial scale compared to motorized travel (non-motorized trips predominantly occur within zones, or between adjacent zones).

3. More clearly convey revised growth rates for the region in the land use component

“Tables presenting the expected household and employment shifts for round 7.1/7.2 are misleading. Maps presented at TPB (such as the handout provided 9/17/08) showing red, negative shifts are red flags and do not provide an appropriate overview of expected growth for the region for planning purposes. It is recommended that these maps be amended to show expected growth for 2030 without indicating the ‘shift’.”

The maps presented at the September TPB meeting will be amended to show expected growth in the scenario rather than shifts. However, the tables will continue to be provided as a specific resource for the Planning Directors to determine the appropriateness and feasibility of the proposed shifts.

4. Remove the “Jobs Out” shift from the composite CLRP Aspirations scenario

“Including the Jobs Out shift in the ‘CLRP Aspirations’ runs counter to the TPB’s objectives to reduce VMT, increase transit ridership, and increase walking and biking. The Jobs Out shift is also counter to the other RMAS assumptions, and actually reduces transit trips and walking and bicycling trips.”

The inclusion of the Jobs Out scenario has been raised as an issue at various meetings with arguments for both omitting and including it in the CLRP Aspirations scenario. The Planning Directors Technical Advisory Committee is currently reviewing the proposed land use component of the CLRP Aspirations scenario and will be asked to provide comment on this question to the TPB Scenario Study Task Force.

5. Investigate an improved model that can better address external factors such as rising gas prices.

The model being used by COG to forecast travel demand does not account for behavior changes in response to gas prices. We are therefore likely overestimating single occupancy motor vehicle

trips and undervaluing the impact of land use decisions that encourage walking, bicycling and transit-use. The repercussion is that our region is making decisions based on data we know is inaccurate that may skew investment choices and promote continued growth of VMT. It is recommended that research be conducted on elasticity rates and activity-based models to improve upon the regional model currently being used. There are ample examples of models from other jurisdictions that are able to better account for these types of external factors.

The TPB modeling process has always had the capability to address fuel price, through changes in auto operating cost. Because fuel prices have been fluctuating greatly of late, it is fair to ask what the effects might be of such fluctuations upon travel forecasts.

The TPB has retained competitively-bid consultant assistance during the past three years to provide in-depth scans of practices elsewhere on selected topics pertaining to travel demand modeling. This effort is continuing in FY-2009, with Cambridge Systematics, Inc. (CSI) having won the competitively-bid award. One of the task orders assigned to CSI is to prepare a technical memorandum on the treatment of fuel price changes in travel forecasting models. Initial results of this task order are expected in late fall. A second task order is evaluating an approach under consideration by TPB staff to move toward an activity-based travel model over the coming year.

GOVERNMENT OF THE DISTRICT OF COLUMBIA
OFFICE OF PLANNING




Office of the Director

MEMORANDUM

TO: Michael Knapp, Chair
TPB Scenarios Task Force

Ronald F. Kirby
Director, Department of Transportation Planning

FROM: Harriet Tregoning 
Director, District of Columbia Office of Planning

DATE: September 19, 2008

SUBJECT: Comments on the TPB Scenario Study – CLRP Aspirations

We see great value in deriving scenarios that can help us make planning decisions to ensure the Washington region remains a competitive and world-class community over the next 30 - 50 years. We are concerned however, that scenarios that do not reflect the true impact of forward thinking land use planning, that underestimate non-motorized trips, that do not consider the effects of rising energy prices, and that do not consider changes in mode choice may actually misguide the allocation of resources and critical decision making.

To date, the CLRP Aspirations scenario has not shown wildly different results from business as usual projections and assumptions about the future. A series of adjustments should be made to the CLRP Aspirations scenario so that the model is a better reflection of the true impacts of our region's policy decisions.

1. Revisit the definition of activity center

Activity centers, as designated through the 2002 joint process between COG and TPB, are intended to have “a mix of jobs, housing and services in a walkable environment”. We do not feel that the 58 activity centers adequately meet these criteria.

- Three of the five typologies, Employment Centers, Suburban Employment Centers and Emerging Employment Centers do not require any residential presence (<http://www.mwcog.org/uploads/pub-documents/blta20031126183601.pdf>). Mixed-use activity centers will have a much greater impact on the TPB goal of reducing VMT. A recent study by the Transit Cooperative Research Program on the effects of transit-oriented development found that TOD housing projects “generated around 47% less vehicle traffic

than that predicted by the ITE manual (3.55 trips per dwelling unit for TOD-housing versus 6.67 trips per dwelling unit by ITE estimates). At Metrorail stations outside the District of Columbia, “vehicle trip generation rates were more than 60% below that predicted by the ITE manual”. The report also highlights the importance of a network of TODs and of having transit-oriented housing tied to transit-oriented employment and shopping (TCRP Report 128: *Effects of TOD on Housing, Parking, and Travel*. 8/1/2008).

- There is no express consideration of the characteristics of a walkable environment. The density requirements in the Suburban Employment Centers and Emerging Employment Centers do not describe walkable locations (Suburban Employment Centers are described as “more-dispersed, lower-density areas, less than 6 square miles...greater than 10 jobs per acre in 2025). Many jurisdictions across the country establish more stringent criteria for activity centers including a balance of jobs and housing and the provision of transit service. Some also include urban form and facility requirements such as percent of sidewalk coverage, and maximum average block length.

2. Improve estimates for bicycling and walking trips

The model being used for the CLRP Aspirations underestimates walking and bicycling trips. More accurate walking and bicycling rates should be developed. Assumptions regarding walking and bicycling rates can be made based on specific criteria regarding employment/housing balance and/or density.

3. More clearly convey revised growth rates for the region in the land use component

Tables presenting the expected household and employment shifts for round 7.1/7.2 are misleading. The Aspirations Scenario Land Use by Jurisdiction: 2030 Households and Employment show a negative household and employment shift for many jurisdictions. While this detail may be important for planning directors in developing projections, it does not accurately reflect the expected growth rates expected for the region – it instead gives the impression that jurisdictions will lose population and employment. The table referenced above should include columns for percentage of growth over the baseline. Maps presented at TPB (such as the handout provided 9/17/08) showing red, negative shifts are red flags and do not provide an appropriate overview of expected growth for the region for planning purposes. It is recommended that these maps be amended to show expected growth for 2030 without indicating the “shift”.

4. Remove the “Jobs Out” shift from the composite CLRP Aspirations scenario

Including the Jobs Out shift in the "CLRP Aspirations" runs counter to the TPB's objectives to reduce VMT, increase transit ridership, and increase walking and biking. The Jobs Out shift is also counter to the other RMAS assumptions, and actually reduces transit trips and walking and bicycling trips. As summarized by Rick Rybeck:

Jobs Out reduced transit trips by 2.4% compared to the CLRP baseline
For comparison

Higher Households increased transit trips by	15.9%
TOD increased transit trips by	7.9%
Households In increased transit trips by	6.5%
Region Undivided increased transit trips by	8.8%

Jobs Out reduced walking and bicycling trips by 1.3% compared to the CLRP baseline
For comparison

Higher Households increased transit trips by	17.8%
TOD increased transit trips by	6.4%
Households In increased transit trips by	6.5%
Region Undivided increased transit trips by	3.5%

5. Investigate an improved model that can better address external factors such as rising gas prices.

The model being used by COG to forecast travel demand does not account for behavior changes in response to gas prices. We are therefore likely overestimating single occupancy motor vehicle trips and undervaluing the impact of land use decisions that encourage walking, bicycling and transit-use. The repercussion is that our region is making decisions based on data we know is inaccurate that may skew investment choices and promote continued growth of VMT. It is recommended that research be conducted on elasticity rates and activity-based models to improve upon the regional model currently being used. There are ample examples of models from other jurisdictions that are able to better account for these types of external factors. The Southern California Area Governments (SCAG) for example has adjusted their energy assumptions to be three times the rate of historic inflation (assumption of the COG model) which still falls short of where energy prices have already gone.

We look forward to continued discussion on these scenarios and appreciate the COG and TPB efforts in this endeavor. I would be very happy to facilitate further conversations with national resources who may be able to assist us. We have the reputation of being one of the country's leading Metropolitan Planning Organizations; this is a critical time for us to exercise that leadership.

HT/cm/cgb