

Land Use & Climate Change Advisory Committee

Background Information and Research for LUCC Potential Recommendation on Transportation Concurrency

Modifying Transportation Concurrency to encourage compact, mixed and transit-oriented development in urban growth areas will result in a reduction of greenhouse gas emissions, a reduction in per capita vehicle miles traveled, a reduction in our state's dependence on foreign oil, and conservation of resource lands.

The team recommends that communities be encouraged, and assisted, to develop multi-modal concurrency methods for judging the acceptability of proposed developments. These methods should recognize the potential positive benefits to transportation and climate change offered by compact/transit oriented development when development design and the actual availability of transit services will produce the desired reductions in unnecessary personal vehicle travel. The methods should be understandable, based on sound data, and relatively simple to apply. This is a tall order that will require additional work by academia, CTED, WSDOT, AWC, transit providers, RTPs and others to develop multi-model concurrency analysis tools, and assist communities in applying them.

The Committee might want to consider changing the RCWs implementing the GMA. RCW 36.70A.070(6)(a)(iii)(B) addresses using level of service standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system. It already requires regional coordination of standards, and could be amended to also require using a multimodal approach. Similarly, RCW 36.70A.070(6)(b) could be amended to require consideration of multi-modal improvements or strategies to accommodate the impacts of development—currently this is optional.

In addition, it may be desirable to amend the GMA planning goals to clarify that planning for a multimodal system, supported by using multimodal concurrency tests, is now a priority.

Background: The GMA in RCW 36.70A.020 (3) encourages efficient multimodal transportation systems that are based on regional priorities and coordinated with county and city comprehensive plans. In addition, RCW 36.70A.020 (12) provides that comprehensive plans and development regulations ensure that those public facilities and services necessary to support development shall be adequate to serve the development at the time the development is available for occupancy and use without decreasing current service levels below locally established minimum standards.

Recent research demonstrates that compact/transit oriented developments can reduce per capita automobile trips, and by implication vehicle miles of travel (VMT) and greenhouse gas emissions related to travel. The magnitude of the reduction is affected by development design and the accessibility, proximity and availability of mixed land uses and transit services. In addition, properly designed transit oriented developments can actually increase transit ridership over that expected (a transit “bump”) based just on increased population density.

Communities typically analyze the transportation impact of proposed developments by calculating the auto trips likely to be generated by uses in the development based on traditional trip generation factors. The volume of these trips is then compared to the current or planned capacity of the adjacent roadway system to determine if the increased trips will cause an unacceptable reduction in the level of service the roadways can provide. Denser developments appear to cause a greater impact if the old trip factors are used, and if transit availability to satisfy demand for some trips and the trip-reducing attributes of a true transit oriented development are not taken into account. In this way, concurrency could act to discourage compact/transit oriented developments that in fact have the potential to reduce per capita VMT and greenhouse gas emissions.

If compact development is to be targeted into certain areas, the tools used to measure concurrency should be able to capture all modes of transportation available in the area (including transit, walking, biking), not merely be a tool to measure vehicle volume to road or intersection capacity. Concurrency policies and development regulations at the local level should recognize that concurrency can be achieved through a variety of measures, including for example, options such as car pooling, long-term transit passes, zip cars, and transit based improvements, not just traditional measures such as expanding lane capacity and intersection improvements.

The following responds specifically to the 4 questions posed to the group, and the recommendations listed above:

1. What, if any, actions have been taken by local governments to address climate change related to this particular idea?

All cities and counties fully planning under the GMA are required to adopt a transportation concurrency ordinance to deny proposed developments if they cause the level of service on a locally-owned transportation facility to decline below the adopted standard. Some cities have become increasingly sophisticated in implementing this requirement to achieve their comprehensive plan goals. In particular, Bellevue, Bellingham and Redmond are developing new concurrency systems that support their multi-modal transportation approach.

In 2005, the Legislature required regional transportation planning organizations to address multimodal concurrency in regional growth centers during the development of their regional

transportation plans. In 2008, the Legislature followed-up by providing funding for a multimodal concurrency pilot project in Bellevue. Bellevue, the Puget Sound Regional Council and area transit agencies are working together on the project. These agencies intend to develop a scalable methodology for projecting multimodal capacity and demand; a transferable concurrency measurement template; and suggestions for evaluating transit and multimodal improvements. They will also develop transportation demand management strategies, and identify the implications to transit providers of linking transit service planning with local land-use decisions. The Puget Sound Regional Council anticipates using the results of the study to inform its effort to address the 2005 multimodal concurrency requirement for all 35 regional growth centers identified in its regional transportation plan. The pilot project is anticipated to be complete by September of 2009. For more information, contact Kevin O'Neill, 425-452-4064, KONeill@bellevuewa.gov.

Bellingham is currently considering an innovative multimodal concurrency methodology. If the city council adopts the methodology, the level of service standard for determining concurrency will be person trips available in the concurrency service area. The city will calculate person trips available based on arterial and transit capacity, crediting additional person trips available based on the degree of pedestrian and bicycle network completeness in the service area. Bellingham works closely with the Whatcom Transportation Authority (WTA) to coordinate the city's comprehensive plan vision of mixed-use urban villages with the transit authority's strategic plan to connect the villages and employment centers with high-frequency public transit. If the city council adopts the new methodology, city staff will also work closely with the WTA to collect the transit ridership statistics needed to calculate transit Person Trips Available. For more information, contact Chris Comeau, City of Bellingham (ccomeau@cob.org, 360-778-7900).

In 2004, the City of Redmond updated its comprehensive plan, establishing the policy basis for a multimodal transportation concurrency system, known as the "plan-based" approach to concurrency. This policy requires that the funding of programs, construction of facilities, and provision of services occur in proportion to the needs of the city matching the pace of growth. It also ensures that the transportation system explicitly supports achieving the community's vision and policies set forth in the comprehensive plan.

Under Plan-Based concurrency, the city uses mobility units as an expression of the level of mobility. One mobility unit equals one person mile traveled. New development that is consistent with Redmond's comprehensive plan creates mobility unit demand. The city calculates a development's mobility demand based on its design, density, and diversity, as well as its commute-trip reduction strategies. Planned multimodal transportation improvements that serve mobility demand are supplied by the City's transportation facility plan and are expressed as mobility unit supply. These improvements must be available at the time of development, or within six years. As long as there is an adequate mobility unit supply available to meet the mobility unit demand generated by a proposed development, the City issues a certificate of concurrency.

Should a development fail its concurrency evaluation, the developer can mitigate mobility demand by reducing the size of the development, or by undertaking an unfunded transportation

improvement. . Candidate unfunded transportation improvements are listed in the transportation facility plan and include improvements to accommodate motor vehicles, bicycles, or pedestrians, increased public transit service, or support for ridesharing, transportation demand management, and transportation system management programs. For more information, contact Terry Marpert, City of Redmond, tmarpert@redmond.gov, 425-556-2428).

2. What, if any, computer modeling programs or other analytic and assessment tools are available to assist a local government in addressing this idea?

Pursuant to SB 6580, CTED is currently working with a consultant to study currently available models for assessing the impacts of land use decisions on greenhouse gas emissions. These models address the land use/ transportation connection.

In 2007, the California Department of Transportation completed a study assessing the “state of the practice” regarding local-level travel demand models and tools, especially regarding their abilities to effectively analyze land use plans and projects. It evaluated the capabilities of travel demand models, as well as several new software planning tools (PLACE3S, INDEX, and the 4D elasticities post-processor) for assessing land use plans and projects. You can find the study at: http://www.dot.ca.gov/newtech/researchreports/reports/2007/local_models_tools.pdf. Note that each jurisdiction typically must customize and enhance these tools to meet their specific transportation planning and analysis needs.

3. What are the positive and negative impacts of a local government addressing this idea on:

- a. **Affordable housing**
- b. **Employment**
- c. **Transportation costs**
- d. **Economic development**

Adopting multimodal transportation concurrency systems across the state would undoubtedly have an impact on the development of affordable housing, as well as commercial and industrial development. Those impacts, however, are difficult to predict because they will be driven by the details of how each jurisdiction implements its concurrency system to meet its unique policy goals. Depending on the measurements used, the standards adopted, the scale of their application, and the mitigation defined by each jurisdiction, it may make development more or less difficult or costly. It may make it easier to fund some types of transportation projects and harder to fund other types of transportation projects. Jurisdictions use their concurrency systems to achieve different objectives: controlling the timing of development, supporting their transportation system funding, subtly limiting the level of growth in their community, or focusing development in desirable areas.¹ They will undoubtedly continue to use their

¹ Hallenbeck, Mark et al. “Options for Making Concurrency More Multimodal.” Prepared for Puget Sound Regional Council. December, 2006.

concurrency systems toward these diverse ends even if they incorporate multimodal methodologies.

4. Please provide a general assessment of state and local resources needed, financial and otherwise, needed to fully implement the idea.

Multimodal transportation concurrency in Washington was researched in the “Options for Making Concurrency More Multimodal” study funded by the 2005 Legislature. A few cities are already moving toward multimodal transportation concurrency under the existing legal framework using analysis tools already available to local governments. The state could encourage other cities to follow their lead by providing additional technical assistance, model plan policies and ordinances, and/or additional money to local governments.

As noted in the proposal, a number of different organizations could provide technical assistance or develop model plan policies and regulations. The committee may choose to recommend a state agency, which would require additional staffing at either CTED or WSDOT. WSDOT has a direct interest in multimodal transportation concurrency ordinances because it owns or operates some multimodal transportation infrastructure such as ferries, airports, or park-and-ride facilities. The committee may choose to recommend granting money directly to local governments, which could be added to the planning grant resources managed by CTED’s Growth Management Services office.

The committee may choose to recommend involving Regional Transportation Planning Organizations (RTPOs) in the effort to increase the use of multimodal approaches to concurrency. While all RTPOs do not necessarily have in-house technical expertise in concurrency, involving them would introduce a more regional perspective to concurrency which is currently lacking in many areas of the state. State statutes support the role of RTPOs in promoting consistent regional approaches to transportation planning, requiring them to review and certify transportation-related county-wide planning policies and the transportation elements of local comprehensive plans. WSDOT could serve as the conduit for pass-through funding provided to Regional Transportation Planning Organizations.