Multimodal Concurrency Study
(2SHB 1565, 2005 Session)

Methodology for Evaluating Effectiveness of Multimodal Concurrency Strategies

Task 6: Technical Memo

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PREFACE

In order to provide a framework for evaluating and assessing the outcomes of various multi-modal concurrency strategies developed in Task 7, this technical memo draws upon and summarizes the broad variety of local and regional multimodal concurrency objectives identified previously in Task 5 (Primary, Multimodal, Regional vs. Local). This background blends these various objectives, essentially criteria unto themselves, into a subsequent set of secondary and other criteria that will be used to conduct the evaluation of alternative strategies for multimodal concurrency applications.

OBJECTIVES AND EVALUATION CRITIERA FOR MULTIMODAL CONCURRENCY

While almost all participants in the concurrency process agree with the basic, legally defined end goal of concurrency ("to ensure that public infrastructure supports development as it occurs"), opinions diverge significantly about how to approach and define "acceptable level of service (LOS)" and "travel accommodation" as well as how to fund the transportation improvements that will allow jurisdictions to meet their concurrency goals.

Issues with transportation concurrency arise only when development within a jurisdiction reaches the point at which the transportation levels of service adopted by that jurisdiction have been, or will be, exceeded by proposed development. At that point, a jurisdiction has three distinct choices:

- deny/stop development
- provide (fund) additional transportation facilities and/or services or
- change the adopted LOS standard to accept lower levels of transportation system performance.

How each jurisdiction chooses among these alternatives is a function of the political view of growth within that jurisdiction.

Many jurisdictions are happy to see new development. They use concurrency either as one more way to extract mitigation from developers to help build additional transportation facilities or as a gate keeper to limit the speed with which development occurs so that planned transportation projects, funded by existing sources, can be implemented to serve that growth.

Other jurisdictions (or specific interest groups within those jurisdictions) use concurrency to limit development to levels below those adopted in their comprehensive plans. This usually occurs where the implications of those comprehensive plans on transportation

system performance were not adequately understood at the time the plans were adopted, or where the political acceptability of congestion relative to new growth has changed since the comprehensive plan was adopted.

Still other groups see the concurrency system as a way of funneling growth to specific geographic areas within their jurisdiction, either by changing the cost of development (lowering costs in areas where development is currently desired, raising costs in areas where growth is currently to be discouraged) or by changing a developer's ability to obtain permits.

This range of desired outcomes from concurrency caused the project team to further explore the intended objectives for a multimodal concurrency system. The following section discusses what the project consultation and advisory committees described as being the desired objectives of a revised concurrency system.

PRIMARY OBJECTIVES

The following objectives were considered to be the primary reasons that jurisdictions are interested in developing and applying a multimodal transportation concurrency system.

Control the Timing of Development

The legislative code indicates that limits on development caused by an inability to meet adopted level of service standards are intended to be temporary, as additional transportation services are expected to be implemented to serve the adopted land-use plan.[1] Therefore, one objective of concurrency is to simply control the timing of development. This objective assumes that existing funding sources will eventually be available to increase transportation services and thus permit additional development that is acceptable within adopted comprehensive plans.

Support Transportation System Funding

Unfortunately, limits in transportation funding have frequently prevented many jurisdictions from adding the transportation system capacity necessary to maintain their adopted performance standards. As a result, some jurisdictions have used their concurrency systems to help generate additional developer contributions toward transportation system improvements. Thus, a second common objective of the concurrency systems implemented by jurisdictions is to provide a mechanism for generating additional transportation system funding. These funds can be used both to increase the number of transportation improvements and to increase the speed with which desired transportation system improvements are implemented.

[1] The assumption is that the land-use and transportation plans have been cooperatively developed and that the transportation system will at some point in the future be expanded to meet the needs of the adopted land-use plan. WAC 365-195-510 (4) states: "To the extent that any jurisdiction uses denial of development as its regulatory response to the absence of concurrency, consideration should be given to defining this as an emergency for the purposes of the ability to amend or revise the comprehensive plan."

Subtly Limit Level of Growth

In some jurisdictions, the adopted transportation level of service standards in the concurrency system, combined with the adopted transportation plans, do not allow authorizing development to the full level portrayed and assumed in the adopted comprehensive plan. For these jurisdictions, concurrency becomes a way to limit growth to levels below those adopted in the comprehensive plan without actually changing that plan. Essentially, development is permitted until the transportation level of service standards are reached, after which development is denied.

Focus Development in the Desired Geography

By allowing level of service standards to differ by geographic area within a jurisdiction and/or by prioritizing transportation improvements within specific geographic areas, jurisdictions can also focus allowable development within limited geographic areas. Rather than denying all development, this approach allows continued development in some parts of the city while denying it in others. Such an approach can be closely or loosely tied to the adopted comprehensive plan.

Focus Development through Financial Incentives/Disincentives

A slight variation on the previous objective is to use the cost of necessary transportation system improvements to raise the price of development in one part of the city versus another part, in order to create financial incentives for developing in some areas and corresponding financial disincentives for developing in others.

MULTIMODAL OBJECTIVES

While most jurisdictions have adopted transportation levels of service defined in terms of roadway level of service, the inability to increase roadway capacity because of financial constraints, political constraints, and/or simple lack of available right-of-way has caused many jurisdictions to look for more multimodal solutions to their transportation problems. This fits well within the guidelines of the concurrency legislation, which specifically indicates that transportation level of service should be multimodal. Translation of this desire for multimodal solutions into concurrency system objectives is reflected in several variations of the primary concurrency objectives discussed above.

Channel Development to Increase System Efficiencies

Some jurisdictions would like to use concurrency regulations to permit development where transportation alternatives to the single occupant vehicle (SOV) exist, regardless of (or in combination with) the level of roadway congestion. One form of this approach is to accept higher levels of congestion in geographic areas that contain higher levels of service for non-SOV transportation modes. For example, even if roadway congestion exceeded adopted concurrency standards, additional development would be permitted where completed pedestrian networks and urban design features encouraged walking and biking in lieu of driving a car, or where high quality transit service existed as an alternative to car use. A more stringent version of this approach permits development

only where sufficiently high levels of service for alternative modes of travel exist. The basic objective of these requirements is to increase system efficiencies and the percentage of travel using non-SOV modes.

Support Travel Demand Management Strategies

Some jurisdictions use concurrency systems to require developers to adopt travel demand management (TDM) strategies in order to obtain development permits in geographic areas at or nearing their concurrency standards. In addition to placing specific requirements on developments to encourage multimodal travel, concurrency regulations could be designed to lower the cost of meeting level of service standards by promoting TDM in areas that are well served by multiple modes of travel, as well as increasing the cost of development in areas not well served by multiple modes of travel.

Support Expanded Travel Options

Finally, for jurisdictions looking to reduce traffic congestion levels, multimodal concurrency is viewed as a process to increase the likelihood that new development can be efficiently served by transit, or to expand the transportation options of the growing state/regional population.

REGIONAL VERSUS LOCAL CONCURRENCY OBJECTIVES

Project participants identified the fact that transportation networks must function at both the local and regional levels for the goals of the GMA to be attained. This has created some conflict over the geographic scale at which concurrency should be applied and the entities that should implement concurrency LOS standards. Ideally, concurrency should work at both the local and regional levels. Some suggested approaches to concurrency work at the local level, while others work better at the regional level. It may also be beneficial to develop a two-tiered concurrency process, with one tier designed to function at each geographic scale.

Local Control

Transportation concurrency legislation is currently oriented toward individual jurisdictions. The jurisdiction that controls the land use sets the concurrency standard. This is good from the perspective of local control over land use, which is a key prerogative of local jurisdictions. Thus, a key objective of concurrency is to allow local jurisdictions to maintain control of their own land use and development.

Local control is a very important political issue. And different localities select very different combinations of land use and transportation system performance. The current status of the variations in adopted concurrency procedures suggests the desire for a flexibility that allows different jurisdictions to accommodate their different visions of the desired combination of land development and transportation system performance.

Regional System Performance

In spite of the GMA's locally focused concurrency decision process, travel crosses jurisdictional boundaries, and the trips generated in one jurisdiction frequently affect the transportation system performance experienced in neighboring jurisdictions. One limitation of the current concurrency regulations is that regional impacts are neglected for the sake of very strong local control over land use. Ideally, transportation concurrency should also help to reduce regional congestion, encourage the efficient operation of the regional transportation system, and decrease the impacts of development on neighboring jurisdictions. Regional objectives for multimodal concurrency may include reducing per capita vehicle-miles-of-travel (VMT), facilitating the growth of non-motorized travel, decreasing the demand for congested regional roads, and increasing the mode split of shared ride travel.

The outcome of more regional objectives for transportation concurrency would be a change in development cost structure, which would discourage sprawl by increasing the cost of development in outlying areas and encourage infill by reducing the cost of development in urban centers that could be easily and effectively served by transit and other alternative forms of travel.

SECONDARY OBJECTIVES AND CRITERIA (TOUGH TRADE-OFFS)

In addition to the primary objectives presented above, the Advisory and Consultation Groups helped identify a series of criteria for consideration that will be incorporated in the evaluation of alternative multimodal approaches.

Limit the Costs of the Concurrency Process

In addition to the more political or policy oriented objectives discussed above that drive the development and application of concurrency systems, jurisdictions and firms involved in developing and applying those concurrency systems consider a series of more technical objectives. These considerations are less concerned with the desired outcome from the adopted concurrency systems than with the nature of the effort and process required to apply the system and the transparency and credibility of that system.

Developers, who must pay the cost of developing materials necessary to prove compliance with concurrency requirements, have an interest in limiting the cost of performing concurrency analyses, as do jurisdictions, which must both review those development applications and produce their own concurrency compliance reports. Therefore, a secondary objective of any concurrency system is to limit the cost of performing concurrency analyses and reviews. These costs include collecting the necessary data, performing the required analyses, informing the decision making process, producing the relevant reports, and reviewing the entire process in a publicly transparent manner. All things being equal, a concurrency system that costs less to apply is better than one that requires more staff time and resources to maintain. Having said that, an inexpensive system that does not serve the primary interests and objectives of the

jurisdiction is less desirable than a more expensive system that produces the desired results.

Not surprisingly, the project team's review of existing concurrency systems generally found that jurisdictions attempting to use the concurrency regulations to more carefully control their development process tended to have more complex concurrency systems, whereas those relying less heavily on concurrency regulations to control or shape growth tended to select more simplistic, lower cost concurrency systems.

The cost of performing required concurrency computations tends to be driven by the following:

- the quantity of data needed in the analysis (Are only roadway performance data required, or are data needed to reflect all modes of travel?)
- the availability of those data (Are the data already produced/collected as a result of other activities being performed by the developer/agency, or must new data be collected or computed specifically for the concurrency analysis? Are all of the data maintained by the jurisdiction, or must the data be assembled from multiple sources?)
- the complexity of the analyses required (Do new transportation modeling runs need to be performed, or can readily available data be used to meet analysis requirements?).

A corollary to lowering the cost of performing concurrency analyses is that all parties involved in concurrency prefer systems that are easy and fast to apply.

Be Transparent and Easily Understood

Jurisdictions generally prefer that the concurrency system be as transparent and easily understood as possible. A concurrency system that can be easily understood by political decision makers and the public is preferable to one viewed as a "black box." Easy to understand systems encourage better public support and understanding of the decision making process and are less likely to result in major challenges or litigation. They also reduce the cost of development by making it easy for a potential developer to compute the cost of development for a given project. This generally means that the more simplistic the system, the better.

Unfortunately, simple systems also tend to be less flexible and thus act as relatively "blunt instruments" when jurisdictions try to balance development pressures against transportation system performance. Consequently, they tend to give jurisdictions less ability to fine tune developer actions to maximize the transportation performance improvements/land-use benefits obtained from each development and its associated transportation mitigation efforts.

Be Predictable and Credible

The above discussion raises two other key objectives. The concurrency system needs to be predictable and credible. Simplicity tends to make the outcome of an analysis more predictable, but systems that are too simple can lose credibility if that simplicity means

that key factors are not incorporated into the process. (For example, a concurrency system based exclusively on whether the number of roadway lanes called for in the transportation plan existed would be simple, predictable, and easily understood, but it might not be a credible approach to concurrency if the local citizenry were upset with the level of congestion found on those roads.)

As a result, the desire for simplicity tends to be traded off against more costly and complex systems designed to provide more control over development, its impacts, and the resulting mitigation efforts.

OTHER EVALUATION CRITERIA

In addition to analyzing how well each alternative is expected to succeed at the above objectives, the project team developed a number of other criteria to use in the analysis of the relative merit of alternative approaches to concurrency. These additional evaluation criteria include the following.

Compatibility with the Existing Planning Process

This evaluation criterion examines whether the proposed process uses readily available data or requires large amounts of additional (new) analysis. An approach with a high level of compatibility to existing analytical efforts and the current political decision making framework can be implemented at lower cost and with less political capital than a process that requires new analyses, data sources, and decision making structures. Such approaches make use of existing ordinances, agreements, and working relations, without requiring new organizational infrastructure or regulatory systems. Compatibility tends to increase predictability and to lower the cost both to public and private participants. However, an approach that is too highly compatible with existing analytical and decision making frameworks may be limited and constrained by those frameworks. Compatibility and innovation can be in opposition.

Political Acceptability

This is the degree to which an approach can be adopted in the foreseeable political atmosphere. Approaches that impose significant political costs on one or more interest groups, or that require significant changes to existing legal statutes are viewed as less desirable than those that can be adopted without significant political cost. Approaches that can be adopted within the existing governmental structure are viewed as more politically acceptable than those that require the creation of new governing powers. Alternatives that can be voluntarily adopted by local agencies are viewed as more politically acceptable than those that impose standards or regulations on those jurisdictions.

Sustainability

This is the degree to which an approach is sustainable legally, financially, and structurally.[2] An approach with a high level of sustainability will itself provide or foster the means for its continued implementation. Sustainability is assessed on three levels. An approach will be sustainable legally if it can withstand legal challenge from the private sector, community groups, and (other) local jurisdictions. An approach will be sustainable financially if the cost to implement and maintain it is acceptable to the jurisdiction responsible, either because it funds itself (an ambitious measure) or because its benefits clearly outweigh its costs (a more conservative measure). An approach will be sustainable structurally if it can maintain the political support and working cooperation of the necessary participants (e.g., jurisdictions, transportation agencies, developers).

Cost – In Total and to Specific Groups

The jurisdictions that must design and apply concurrency regulations and the development community that frequently pays to develop the statistics used for monitoring concurrency are both interested in limiting the costs of performing the concurrency calculations. Concurrency systems that are compatible with the existing planning process will, in general, be less expensive than those that require new procedures and data collection systems, or that require very specialized analytical procedures.

Where expenses must be incurred, it is important to understand whether those costs will be incurred by the private or public sectors. This is not important from an overall evaluation standpoint, but it will affect the acceptability of any proposed concurrency system by that group. (That is, the private sector is likely to object to a technically precise system that imposes significant expenses on it, while the public sector may think the merits of such a system are worth the expense – as long as the expense is paid by the private sector.)

Scalability

Concurrency must be applied by both large and small jurisdictions. Some systems may be very applicable to small geographic areas but not to larger geographic areas. Similarly, some approaches may work only at the regional level. This evaluation criterion examines whether the proposed system provides benefits at all scales of urban geography or only for specific types of jurisdictions.

Adaptability to Unique Local Conditions (Versatility)

This evaluation criterion examines whether alternatives can be adjusted to meet the needs of jurisdictions that exhibit a variety of different land-use densities and development patterns. While the previous criterion looks specifically at whether the concurrency system can be applied successfully at different geographic scales, this criterion examines the ability of the alternative to adjust to the specific land uses, transportation system infrastructure and political climate of the participating jurisdictions. For example, can the same basic concurrency system be successfully applied in a suburban city interested in

[2] Note that the alternative interpretation of "sustainable" – that the approach produces sustainable outcomes – is captured under other evaluation criteria.

expanded park-and-ride service, a city with a dense urban core, and a growing ex-urban suburb that requires additional roadway capacity but also wishes to develop facilities for alternative modes of transportation?

Legality and Legislative Requirements

The final criterion is whether implementation of the system requires legislative action or can be accomplished under existing statutes. In addition, the basis for the system must be acceptable under previous case law.

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