



Island County Transportation Element Update

Concurrency Program Update

Introduction

Transportation concurrency is a broad concept required by the Washington State Growth Management Act (GMA) adopted in 1990. Jurisdictions planning under GMA are required to develop a comprehensive plan and establish level of service standards for arterials. The objective is to assure that adequate transportation facilities or services are in place to serve new development. Under GMA, local jurisdictions have the discretion in how they define their level of service standards and how to apply transportation concurrency within their growth plans, policies, regulations, and permit systems.

In 1998, the state extended the requirement to establish level of service standards to certain state-owned transportation facilities of “statewide significance”. This applies to particular state highways and ferry routes. For the majority of Washington jurisdictions, the standards set by this requirement need only be used for planning purposes; for counties consisting of islands however, the standards must also be used to determine if concurrency requirements are being met. The consequences of this requirement will be made very clear if and when the county has to deny local development that is consistent with the county’s comprehensive plan strictly due to inadequacies with state-owned transportation facilities. While this has not happened to date, it is anticipated to occur by 2020.

To better understand potential options to prevent such a situation, in 2012 the Island sub-Regional Transportation Planning Organization (RTPO) commissioned Henderson, Young and Associates to prepare a report outlining a variety of potential approaches. These included repealing the requirement to apply state level of service standards to concurrency for counties consisting of islands, pursuing creative changes to make concurrency a more useful tool, and altering the idea of concurrency. Of the approaches presented, the Island sub-RTPO agreed to pursue creative changes that ultimately will be spelled out in a Memorandum of Understanding (MOU) between the Island sub-RTPO and WSDOT.

This report documents the background and development of Transpo Group’s recommended creative changes to the County’s transportation concurrency management program. The recommendations will be presented to the Transportation Element Project Advisory Committee (PAC) for review and discussion. The PAC will then be asked to take the recommendations to the Island sub-RTPO Policy Board for their consideration and approval.

Growth Management Act Requirements

RCW 36.70A.070(6)(b) states that “...local jurisdictions must adopt and enforce ordinances which prohibit development approval if the development causes the level of service on a locally owned transportation facility to decline below the standards adopted in the transportation element of the comprehensive plan, unless transportation improvements or strategies to accommodate the impacts of development are made concurrent with the development....“concurrent with development” shall mean that improvements or strategies are in place at the time of development, or that a financial commitment is in place to complete the improvements or strategies within six years.”

GMA requires counties and cities planning under GMA to establish level of service standards for “all locally owned arterials and transit routes to serve as a gauge to judge performance of the system.” [RCW 36.70A.070(6)(iii)(B)]. The adopted LOS standard is used to determine if the transportation facilities are adequate to accommodate additional growth. If the LOS standards cannot be met, then new development cannot be approved unless improvements or other strategies are identified that allow the standard to be met. GMA provides for a six-year period for the needed improvements or strategies to meet concurrency. The strategies can include other travel modes including public transit, ridesharing, demand management programs, and/or transportation systems management programs.

The primary practice for setting LOS standards in Washington State has been focused on measuring the performance based on automobile travel modes. Non-auto travel modes, such as transit and non-motorized modes (like bicycle and walking), have been largely ignored. Such policies have led to capital investments targeted on improving and building more roads and intersections.

State law does not require that the LOS standards be based only on automobiles. In fact, in 2005 the state legislature passed 25HB1565 which directed Regional Transportation Planning Organizations (RTPOs) to develop strategies for multimodal level of service standards and concurrency programs.

Relationship of Concurrency with Other Development Review Programs

Concurrency is a requirement of the GMA. It is one of four primary tools that agencies use in reviewing transportation system impacts and needs for new development applications. As shown on Figure 1, the other three components include:

- Development Regulations/Frontage Improvements
- State Environmental Policy Act (SEPA)
- Transportation Impact Fees (TIF)

Concurrency

The Washington State Growth Management Act (GMA) (RCW 36.70A.070) requires that infrastructure improvements or strategies to accommodate development be available when the impacts of development occur. For transportation facilities, concurrency is defined in the GMA and the Washington Administrative Code (WAC) to mean that any needed transportation improvements or programs be in place at the time of development or that a financial commitment exists to complete the improvements or strategies within six years. Local governments have a significant amount of flexibility regarding how to set level of service standards and how to apply transportation concurrency within their plans, regulations, and permit systems.

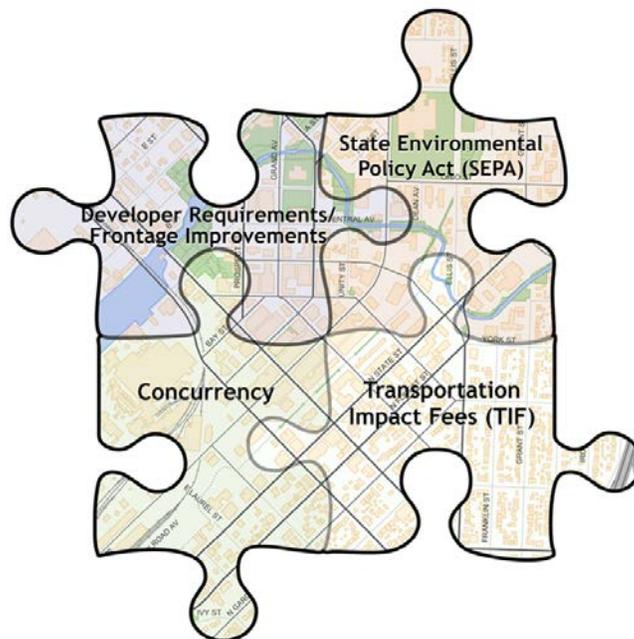


Figure 1. Transportation Development Review Elements

As part of the requirement to develop a comprehensive plan, jurisdictions are required to establish level-of-service standards for arterials, transit service, and other facilities, such as water and sewer. Once a jurisdiction sets a standard, it is used to determine whether the impacts of a proposed development can be met through existing capacity and/or to decide what level of mitigation will be required.

If a “development causes the level of service on a locally owned transportation facility to decline below the standards adopted in its transportation element”, jurisdictions are required to prohibit development approval unless transportation improvements or strategies to accommodate the impacts of development are made **concurrent** with the development. Transportation is the only area of concurrency that specifies denial of development. The Growth Management Hearings Boards reiterated the role of a concurrency program, finding that “the concept of concurrency is not an end in of itself but a foundation for local governments to achieve the coordinated, consistent, sustainable growth called for by the Act”.

(source: Puget Sound Regional Council, Assessing the Effectiveness of Concurrency, 2002)

Concurrency is a tool to insure that transportation facilities are constructed as growth occurs. Concurrency provides a link between land use, transportation, and public investment. The following identifies key requirements for concurrency programs:

- Compliance with GMA
- Local governments have flexibility in applying concurrency and setting LOS standards
- Measured with level of service standards as defined by the County's Comprehensive Plan
- Addresses system-wide impacts
- Developments are not to be approved if development causes the level of service to decline below identified standards, unless strategies are in place to meet the standards within six years
- Mitigation can be allowed, but is not required to be allowed
- Can be implemented as part of SEPA review

State Environmental Policy Act (SEPA)

Washington's State Environmental Policy Act (SEPA), adopted in 1971 (RCW 43.21C), directs state and local decision-makers to consider the environmental consequences of their actions. Implementing regulations, in the form of the SEPA Rules (WAC 197-11) establish uniform requirements for agencies to use in environmental impacts of a proposal. The process also allows review of possible project alternatives or mitigation measures that will reduce the environmental impact of a project. SEPA is typically used to review impacts within the immediate and nearby vicinity, such as vehicular access points, frontage right-of-way improvements and nearby intersections or roadways. SEPA uses the “significant adverse environmental impact” standard as the threshold for triggering mitigation. The intention of SEPA, as applied for transportation, is to mitigate a development's significant adverse impact on the transportation system in terms of capacity and/or operations. The SEPA review also addresses safety, site access points, circulation needs, and impacts on neighborhoods, pedestrians, and transit facilities.

(source: Washington State Department of Ecology, SEPA Handbook, 2003)

The following summarizes key items of SEPA in the review of development projects:

- Uses “significant adverse impact” standard (not just level of service)
- Broad scope can be used to address capacity, safety, operations, non-motorized impacts and transit
- Reviewed on a development by development basis

- Can be based on level of service standards, which can be different than concurrency
- Can be used to mitigate both on and off-site impacts
- Mitigation can be in the form of constructing improvements or payment of proportionate share of improvement costs
- Pooling of funds is generally not allowed
- Does not require denial of developments if standards are not met

Development Regulations/Frontage Improvements

When properties are subdivided, the permitting agency can require transportation and other improvements needed to promote the public health, safety, and general welfare (RCW 58.17). This includes safe and convenient travel by the public. Frontage improvements and site development regulations help insure that the County street standards are met and that ultimately, new development is served by adequate roads. Developers can be required to construct the site's frontage and on-site roadways based on the County's adopted Road Standards. Frontage improvements apply to both vehicular and non-motorized facilities. Key elements related to addressing impacts to the transportation system include:

- Addresses on-site impacts (access onto public rights-of-way)
- Helps to insure that new development is served by adequate roads
- Developer can be responsible for frontage along public and private roads
- Can be used to address vehicular, transit, and non-motorized facilities serving the site

Transportation Impact Fees

Under the Washington State Growth Management Act (GMA), cities and counties are required to make appropriate provisions for transportation needs and impacts during the review of development proposals. The GMA grants local governments the authority to impose transportation impact fees (TIF) for the purpose of supporting the funding of roadway improvements to ensure that adequate facilities are available to serve new growth and development. Transportation impact fees are assessed by local governments against new development projects to recover a portion of the costs incurred by government in providing the public facilities required to serve the new development. Transportation impact fees are only used to fund road system improvements that are directly associated with new development. They may be used to pay the proportionate share of the cost of public facilities that benefit the new development; however, impact fees cannot be used to correct existing deficiencies in public facilities. In Washington, impact fees are authorized for those jurisdictions planning under the Growth Management Act (RCW 82.02.050 to 82.02.100).

Transportation impact fees are a tool to help mitigate development impacts for system wide traffic impacts. Island County is also considering the implementation of a transportation impact fee program. The following summarizes the key points:

- Applies "growth pays for growth" principal
- Funds must be spent on capacity projects that are designed to serve new growth and not fix existing deficiencies.
- Addresses "system" impacts, not "project" impacts
- Must be generally proportional to impacts of development
- Provides funding for six-year Capital Improvement Program
- Funds must be spent on improvements that generally benefit the developments paying the fee
- Funds assessed for several improvement needs can be "pooled" to address agency's priority projects

Overview of the Work Program

The tasks in developing the Island County Transportation Concurrency Management program include:

- Defining Broad Program Objectives
- Defining and Evaluating LOS Standards and Methods
- Providing Implementation Strategy and Process

These tasks were completed with input from County staff, the PAC, WSDOT and other local planning agencies. The following sections describe the process and outcomes of the work program to update Island County's concurrency program.

Broad Objectives

The broad objectives of the concurrency program are the guiding principles to evaluate potential concurrency management programs. The objectives range from, at a minimum, meeting the requirements of GMA to helping support the County's funding of transportation improvements to serve new growth. The broad objectives defined during this process also included improving conditions for all travel modes consistent with the overall Comprehensive Plan goals and vision. The following points summarize the broad objectives for the program:

- **Passes the legal test** – Develop a program based on accepted transportation planning and engineering principles, and Washington State case law regarding GMA concurrency requirements.
- **Supports land use vision and transportation planning goals** – The program needs to be sensitive to the land use plan and congestion on the state highways and ferry system. The program should consider all available modes of transportation, including transit riders, bicyclists, and pedestrians.
- **Ability to fund improvements** – Define a program that includes realistic projects that can be completed within existing budgets and funding from the program.
- **Implementation with limited resources** – The program should not be model-intensive or create significant additional data collection, monitoring, or evaluation requirements for City transportation planning staff.
- **Easy to understand and communicate** – Be relatively easy to explain to elected officials and the public-at-large.

The program objectives were discussed at several PAC meetings. County staff and the consultant team continued to revisit the objectives based on input from the PAC as program alternatives were being developed. The relationship to impact fee requirements and other development review elements (such as SEPA and frontage improvements) were discussed on several occasions.

Program Components

The broad program objectives provide the framework for identifying potential alternative strategies for updating the concurrency management program for Island County. The components described in this section can be combined or incorporated in with others to create a program that best suits the needs of the County.

Initially, several potential strategies were developed by the consultant team and discussed with Island County staff and the PAC. These strategies and program components were derived based on a wide range of LOS standards and concurrency methods applications practiced by various

public agencies counties in Washington State. The program components were evaluated against the broad objectives based on level of consistency and discussed during PAC meetings. The summary matrix is contained in Attachment A.

Functional Classification Based Standard

This component compares the vehicular traffic volumes to the vehicular capacity for individual facilities to assess the adequacy of the transportation system serving new development. A roadway functional classification based standard applies LOS standards by the type of roadway using the hierarchy of the functional classification system. This approach is generally focused on measuring the auto mode, but could include an adjustment to reflect the availability of alternative travel modes.

How is concurrency measured?

- Level-of-Service (LOS) for intersections and/or Volume-to-Capacity ratio (V/C) for roadway links
- Time periods may include the AM or PM Peak Hour

How is the program implemented?

- Historical traffic count program to monitor changes in traffic volumes over time
- Data collection required at intersections affected by local developments

Discussion

Advantages

- Similar to Island County's current program so may be easier to communicate to developers/public
- No additional data requirements as compared to current program
- Could include an adjustment for the availability of alternative modes (higher v/c could be allowed based on the level or proximity of transit)
- Transportation Demand Management (TDM) strategies could be implemented to reduce the number of auto trips and help maintain v/c LOS standard.

Disadvantages

- Focused on auto mode. Other modes may play supporting role.
- Requires tool to track development traffic for forecasting auto demand and roadway v/c.

Trip Impact Threshold and Monitoring Program

Establishing a trip impact threshold establishes a minimum trip generation threshold for evaluating concurrency for new developments, while also establishing a monitoring program to periodically assess the cumulative impacts of developments under the threshold. This approach only tests developments exceeding a trip generation minimum threshold and would be combined with other components to measure cumulative impacts.

How is concurrency measured?

- This component does not directly measure concurrency, but rather limits what developments are tested.

How is the program implemented?

- This component measures concurrency for larger developments that generate trips exceeding the trip impact threshold in conjunction with another program component
- The monitoring program could measure facilities against concurrency measures periodically by County staff

Discussion

Advantages

- Only larger developments exceeding the trip threshold are tested for concurrency

Disadvantages

- Requires a monitoring program to account for impacts from smaller developments

Subarea Composite/Average Intersection Delay

The subarea composite/average intersection delay approach evaluates the total delays or average delays at key intersections within a subarea to determine if traffic impacts can be accommodated by the broader transportation network. This approach measures average intersection delay for group of intersections, while the maximum average delay standard is set by roadway segment or subarea.

How is concurrency measured?

- Level-of-Service (LOS) for intersection groups
- Volume-to-Capacity ratio (V/C) for roadway segments

How is the program implemented?

- Recent traffic counts are needed for the group of intersections, either from historical data or new spot counts from developers
- LOS analysis conducted at the group of intersections, not just those with development trips

Discussion

Advantages

- Aggregates individual level of service of several intersections, allowing below standard operations at individual intersections where network alternatives or alternative modes are available.
- Transportation Demand Management (TDM) strategies could be incorporated to reduce the number of auto trips.

Disadvantages

- Primarily focused on auto mode.
- Requires model/tool to track development traffic for forecast traffic demand at intersections.
- Somewhat data intensive depending on the number of intersections.
- Doesn't readily account for shifts in traffic without a travel demand model.

Arterial Travel Time (or Speed)

The Arterial Travel Time (or Speed) approach evaluates travel speeds along selected corridors or roadways based on methodologies in *Highway Capacity Manual*. This approach divides corridors into defined segments and accounts for total travel time along a roadway segment, including delays at intersections.

This approach would involve Island County collecting travel speed data along key arterials and collectors throughout the County. The resulting speeds would be compared to a LOS standard based on the *Highway Capacity Manual* definitions. Under this concurrency concept, new development applications would not be individually tested. Instead, concurrency for new developments within each service area would pass concurrency if the service area met its standards. This is typically known as a plan-based concurrency program. A plan-based travel

speed concept would measure what the traveling public experiences, instead of a more technical measure such as roadway v/c. This type of system also takes into account driver decisions on which route they use based on actual or perceived travel delays.

The actual measurement of the travel speeds would be auto-based. However, the LOS standards could be established based on the availability of other travel modes. For example, the LOS standards for a service area that has some pre-determined level of transit service (number of routes and/or frequency, etc.) could be set to allow lower average travel speeds compared to a service area with little or no transit service.

The major issue identified for this type of concurrency system component is the level of data collection required. Travel speed studies would need to be conducted for the key corridors on a systematic basis, using statistically valid methods. As development levels and traffic volumes increase, the studies would need to be updated. Forecasting travel speeds for a six year period also has several technical requirements which could require extensive staff time.

How is concurrency measured?

- Travel time expressed by speed in mph (for corridors) based on travel speed data collection or volume-speed functions contained in the *Highway Capacity Manual*

How is the program implemented?

- Travel time runs would need to be collected and periodically monitored

Discussion

Advantages

- Inclusive of different types of transportation improvements along a corridor; intersections, roadway, signal timing, etc.
- Typically applied at subarea and could be assigned different travel time (speed) standards to reflect the different characteristics of a corridor and overall County Comprehensive Plan objectives.
- Transportation Demand Management (TDM) strategies could be incorporated to reduce the number of auto trips.
- General public and relate well to travel time (speed) as a performance metric.
- Easy to understand by public, staff, and decision makers.

Disadvantages

- Measurement is auto-based and mitigation solutions will likely be auto-based.
- Requires travel time data field surveys periodically.

LOS Standard Multimodal Adjustment

The multimodal adjustment provides credit when other modes are available, while LOS Standards would be set allowing lower LOS for areas served by other modes. This approach allows the County to designate individual corridors and assign LOS to each one. The LOS standard is adjusted when transit and/or non-motorized service/facilities are available.

How is concurrency measured?

- Level-of-Service (LOS) for intersection groups
- Volume –to-Capacity ratio (V/C) for roadway segments

How is the program implemented?

- Historical traffic count program
- Historical transit ridership data

Discussion

Advantages

- Standards would be adjusted based on the availability of alternative modes (lower standard would be allowed based on the availability of transit for example).
- Accounts for a range of available travel options.
- No additional data collection requirements.

Disadvantages

- Would allow for more auto congestion where the multimodal adjustment is applied.

Person Trips Capacity

The Person Trips Capacity component accounts for auto, transit, pedestrian, and bicycle modes to estimate the person trips capacity that can be accommodated. This approach measures all modal facilities capacity in person trips or (person miles). The results are combined into total capacity for motorized and non-motorized modes.

How is concurrency measured?

- A motorized component that includes auto and transit modes and is capacity-based and a non-motorized component includes pedestrian and bicycle modes and is facility-based.
- As part of the person trip calculation, weight factors are applied for each travel mode. The factors consider the importance of the mode to the network. Based on the number of person trips, this program uses a check-book method to draw down the available person trips available.

How is the program implemented?

- Historical traffic count program
- Historical transit ridership data

Discussion

Advantages

- Plan-based approach that addresses a range of citywide transportation systems.
- Multimodal approach that includes auto, transit, walking and bicycle modes.
- Supports infill development as it accounts for (and can weight) all transportation choices that are available or desired to serve the community.
- Could be applied citywide or at subarea level.
- Different areas of the County could have alternative LOS standards and weightings for each mode
- Transportation Demand Management (TDM) strategies could be used for a development to obtain bonus points by reducing the number of trips.
- Mitigation could be allowed if concurrency issues were triggered.

Disadvantages

- Requires the County to set level of service standards for modes other than auto, even for modes that the city doesn't control (transit).
- Would require a significant amount of data about each mode of travel (traffic counts, transit ridership, available bicycle facilities, and sidewalk locations). This could be limited to periodic updates.
- Could be staff intensive to administer the program.
- Few examples exist from other jurisdictions where this type of program has been implemented (Bellingham and Redmond have similar programs).

Recommended Concurrency Program Revisions

The recommended concurrency program revisions consist of a combination of several components to determine concurrency for new development applications. The proposed program is described in the following sections.

Develop Concurrency Service Areas

The development of concurrency service areas (CSAs) allows concurrency issues to be defined by the location of the proposal within the County. This ensures that concurrency evaluations in one part of the County don't stop development in another part of the County where different major transportation facilities are used. The proposed CSAs are to utilize the Island County planning subareas (Camano Island and North, Central, and South Whidbey).

Maintain the Existing Trip Impact Threshold

Following the development of CSAs, a trip impact threshold at a plan-level sets the number of trips that would trigger a concurrency review. The recommended program proposes to maintain the 10 PM peak hour minimum threshold.

Highways of Statewide Significance

For highways of statewide significance (HSS), the recommended program measures concurrency using the arterial travel times for roadways and the WSF standard for ferry runs.

For roadways, concurrency could be determined based on a weighted average of the PM peak hour travel speed for the transportation facilities designated for each concurrency service area. This includes measuring arterial travel time for the following corridors:

North Whidbey

- SR 20 north of Oak Harbor
- SR 20 south of Oak Harbor

Central Whidbey

- SR 20 north of Coupeville to ferry dock
- SR 525 south to Freeland

South Whidbey

- SR 525 from Freeland to Clinton ferry

Camano Island

- SR 532 entire extents

This also includes coordinating with WSDOT to receive recent LOS reports for the Mukilteo-Clinton and Port-Townsend-Coupeville ferry routes.

Functional Classification LOS Standard for non-HSS Intersections

For intersections that are not on HSS facilities, intersection LOS standards are recommended that define LOS standards based on the functional classification of higher-order roadway at the intersection.

- Major Arterials: LOS D
- Secondary Arterials: LOS D
- Collectors: LOS D
- Local Access: no standard defined

SEPA

SEPA would be applied to address project-level safety and operational impacts at both HSS and non-HSS facilities.

Attachment A - Concurrency Program Components – Comparison Matrix

Alternative Name	Functional Classification Based Standard A	Trip Impact Threshold and Monitoring Program B	Subarea Composite/Average Intersection Delay C	Arterial Travel Time (or Speed) D	LOS Standard Multimodal Adjustment E	Person Trips Capacity F
<p>Alternative Description</p> <p>Broad Program Objectives</p>	<p>Applies a LOS standard by facility type using the roadway functional classification system.</p> <ul style="list-style-type: none"> • Focused on auto mode • Federal functional classification system • Define LOS standard by facility type 	<p>Sets a minimum trip generation threshold for testing new developments, while establishing a monitoring program to periodically assess the cumulative impacts of developments under threshold.</p> <ul style="list-style-type: none"> • Only developments exceeding the trip generation minimum threshold are tested • Combine with monitoring program to measure cumulative impacts 	<p>Evaluates the total delays or average delays at intersections in the county or a subarea to determine if a development project's traffic impacts can be accommodated by the transportation system</p> <ul style="list-style-type: none"> • Measures delay of group of intersections • Maximum average delay standard is set by roadway segment or subarea 	<p>Evaluates travel speeds along selected corridors or roadways based on methodologies in <i>Highway Capacity Manual</i>.</p> <ul style="list-style-type: none"> • Corridors can be divided into defined segments • Accounts for total travel time along a roadway segment, including delays at intersections 	<p>Provides credit when other modes are available. Standards would be set allowing lower LOS for areas served by other modes.</p> <ul style="list-style-type: none"> • County designates corridors and assigns LOS to each • Adjust LOS when transit and/or non-motorized service/facilities are available 	<p>Accounts for auto, transit, pedestrian, and bicycle modes to estimate the person trips capacity that can be accommodated.</p> <ul style="list-style-type: none"> • Measure all modal facilities capacity in person trips or (person miles) • Combine into total capacity for motorized and non-motorized modes
1. Passes the legal test	●	●	●	●	●	●
2. Supports land use vision and transportation planning goals	◐	◐	◐	●	●	●
3. Ability to fund improvements	●	●	●	●	●	●
4. Implementation with limited resources	●	◐	◐	◐	◐	○
5. Easy to understand and communicate	●	●	◐	●	◐	○

- Notes:
- More consistency
 - ◐ Consistent
 - Less consistency