

APPENDIX F

Concurrency Review & Traffic Impact Study Guidelines

Chelan County requires that development applications meet the County’s requirements related to transportation system impacts and improvements. The County’s Comprehensive Plan and associated Development Regulations set forth the minimum standards for approval of a development application. The requirements cover four elements:

- Transportation Concurrency (if adopted, as proposed)
- State Environmental Policy Act (SEPA)
- Road Standards
- Transportation Impact Fees (if adopted, as proposed)

These review elements are interrelated and build from the basic development application information used to estimate the new traffic generated from a development. The traffic generation information is used to determine if the proposed application meets the County’s concurrency requirements and the potential for adverse traffic impacts under SEPA. The trip generation information also is directly tied to defining the transportation impact fee for the development application.

Attachment A illustrates the transportation-related development review process for Chelan County. The initial phase reviews the application under the County’s Transportation Concurrency requirements. The concurrency review is used to determine if the roadways serving the development meet minimally acceptable performance standards. Concurrency must be able to be achieved prior to review of the development project under SEPA and County Road Standards. Following approval of concurrency and determination that the application meets SEPA and County Road Standards requirements, the application would be considered by the Board of County Commissioners (BOCC) for approval and associated conditions, if applicable. Payment of a Transportation Impact Fee (TIF) may be a requirement of final approval. Potential credits against the TIF may be available to the extent an applicant is required to dedicate right-of-way or construct improvements included in the TIF program as a condition of approval.

Applicability

These Traffic Impact Study (TIS) Guidelines provide a step-by-step process for Chelan County’s development review related to the transportation system. As shown in Table 1, an applicant may not be required to complete all steps of the TIS Guidelines depending on the number of new daily trips estimated to be generated by the proposed development. The County Engineer may, however, override the threshold guidelines for preparation of a TIS in order to address specific potential impacts of a development application. The County Engineer also will consider prior applications and potential for cumulative traffic impacts in establishing the scope for a TIS for a specific development application.

Table 1. General TIS Steps Required based on Daily Traffic Generation

TIS Type	Traffic Generation	Example	Sections to be Completed ¹
I	Ten or fewer daily vehicle trips	1 additional single-family lot	1
II	11 to 199 daily vehicle trips	2 to 199 single-family lots	1, 2, 3
III	200 or more daily trips	200 or more single-family lots	1, 2, 3, 4

1. The County Engineer can modify the steps to be completed based on specific issues and/or potential for cumulative impacts that should be addressed. Per Section 15.30.920(3), the County Engineer shall provide a written explanation for the reasons for changes to the traffic study.

Step 1 — Project Information and Trip Generation

The applicant shall provide the County Engineer, or the engineer's designee, with a summary of the project, which generally includes the following:

- A narrative description of the project
- Location (vicinity map and site plan)
- Type and size of development (number of residential units and/or square footage of building)
- Proposed access locations (including proposed sight distances at access/egress locations)
- Phasing and timing of development
- Horizon year (year of completion and projected full occupancy/build-out)
- Average Daily Traffic (ADT) and PM peak hour trip generation (AM, noon, or school peak may also apply as directed by the County Engineer), if applicable. Trip generation shall be based on the current edition of *Trip Generation*, Institute of Transportation Engineers (ITE) and the ITE Trip Generation Handbook, unless otherwise approved by the County. Assumptions and methodology for internal, link-diverted or pass-by trips must be provided, if applicable.
- Graphic showing distribution and assignment of daily trips for developments estimated to generate more than 10 vehicle trips per day.

Step 2 — Scoping Meeting

The applicant will schedule a meeting with the County Engineer, or the Engineer's designee, to review the project information from Step 1 and define the scope and methodologies of the traffic study, if required. If feasible, the TIS scoping meeting should be scheduled as part of, or in conjunction with, a pre-application meeting as provided for in Chapter 14.08 of the Chelan County Code. For relatively simple development applications, the meetings may be able to be conducted via telephone or email.

The scoping meeting will establish the initial parameters for the traffic study including:

- Approval, or modification, of trip generation
- Approval, or modification, of traffic distribution percentages and assignment routes
- Background growth rates (non-project specific)
- Background or "Pipeline" development projects
- Study area roadways and intersections
- Concurrency road segments and applicable data
- Study methodologies

Step 3—Concurrency Evaluation

For all developments generating 10 or more daily vehicle trips, the applicant will prepare a concurrency evaluation. The concurrency evaluation will summarize the information from Steps 1 and 2. The following outlines preparation of the concurrency evaluation by the applicant and review by Chelan County.

A. Applicant Concurrency Evaluation.

- The applicant is required to show that each public roadway segment under Chelan County's jurisdiction which would be impacted by 10 or more daily project vehicle trips, would meet the minimally acceptable concurrency rating score. The County will provide any existing data for impacted road segments and data on background traffic growth (per Step 2). The

applicant will supplement the existing data with more recent information, if necessary. If no data exists regarding a specific roadway segment, the applicant is responsible for collecting such data.

The evaluation will take into account the following traffic components:

- Existing daily traffic
 - Background (non-project specific) growth rates
 - Traffic associated with background, or “pipeline” developments
 - Project traffic
- The concurrency evaluation shall be presented to the County Engineer (or designee) in a brief report or memorandum with a tabular summary showing impacted road segments, project traffic, and concurrency scoring data, and a concurrency assessment for the applications.
 - The County Engineer can determine the concurrency evaluation for some project-impacted road segments based on recent concurrency evaluations prepared, or previously reviewed and approved, by Chelan County, as defined in the scoping meeting. Project traffic impacts on these segments should still be documented to support future concurrency evaluations and reviews.

B. Chelan County Review of Concurrency Evaluation.

- The County Engineer (or designee) will review the concurrency evaluation analysis. If the County Engineer (or designee) determines that there are corrections needed to the evaluation, the applicant will be notified accordingly.
- If any of the impacted road segments do not meet the minimally acceptable concurrency rating, then the County Engineer (or designee) will notify the applicant of such finding. The applicant and County Engineer (or designee) will discuss possible strategies that may be able to resolve the concurrency impacts of the project.
 - Amend the application to reduce the project impacts to below the 10 daily trip threshold.
 - Apply transportation demand management strategies to reduce the impacts.
 - Phase the project to meet concurrency.
 - Provide mitigation to resolve the concurrency deficiency, such as widening the roadway pavement, providing pedestrian facilities, enhancing pavement conditions, or reducing grade impacts.
 - Withdraw the application and resubmit when concurrency can be obtained.
 - Ask for a reconsideration based on updated data.
 - Appeal the determination.

C. Concurrency Approval

- If all impacted road segments are shown to exceed the minimally acceptable concurrency score, then the County Engineer (or designee) will approve concurrency for the application and issue a certificate of concurrency.
- If acceptable concurrency mitigation is defined, then the County Engineer (or designee) will issue the certificate of concurrency with the identified conditions of approval. The concurrency mitigation and conditions of approval will be carried forward with the formal development application and associated review processes.

D. Concurrency Denial

- If acceptable concurrency mitigation is not agreed to by the County and applicant, then the County Engineer (or designee) will provide the applicant a denial of concurrency. The applicant may appeal the denial of concurrency, as outlined in Chapter 15.80 of the Chelan County Code.

Step 4 — Traffic Impact Study for SEPA and Road Standards Evaluation

Following approval of the concurrency evaluation (with or without requirements for concurrency mitigation), some developments will be required to prepare a traffic impact study (TIS). The TIS will address potential transportation impacts of the project under SEPA. It also will address compliance with road standards per the Chelan County Development Standards (Chapter 15.30 of the Chelan County Code). The TIS will build from the project information and scoping meeting outlined in Steps 1 and 2, as well as the concurrency evaluation in Step 3.

Chapter 15.30.940.960 of the Chelan County Code provides specific requirements for the TIS, which are summarized as follows:

A. Site Access Roadways/Driveways

- On-site circulation and connections to other properties and roadways
- Cross-sections of roadways, showing dimensions. Location of adjacent access driveways or roadways near the project access locations also shall be depicted
- Sight distance requirements and adequacy (per Chelan County requirements)
- Level of service analysis for intersection(s)
- Channelization evaluation
- Vehicle storage/queuing analysis
- Traffic control warrants
- Accident analysis (only required for access to arterials and collectors, unless otherwise directed by the County)

B. Existing and Forecast Traffic Volumes

- Provide existing intersection turning movement counts for study time periods (traffic volumes should be less than one year old, unless otherwise approved by the County). The weekday PM peak hour shall be used unless otherwise defined during scoping meeting or per Chapter 15.30.940.
- Future peak-hour intersection turning movement volumes without project traffic based on:
 - Annual background traffic growth factor/rates (cite source/methodology per scoping meeting)
 - Background or “pipeline” traffic from other future development projects (provided by County per scoping meeting)
- Forecast peak hour turning movements for with-project conditions based on trip generation, distribution, and assignments per scoping meeting.

C. Level of Service Analysis

Level of service analyses shall be based on the current edition of *Highway Capacity Manual*, Transportation Research Board, and related software, or methods approved by County. The following criteria should be used in the analysis:

- Evaluate arterial/arterial or arterial/collector intersections impacted by 20 or more peak-hour project trips (or as otherwise identified by the County).

- Evaluate existing and future conditions with and without project (other planned developments impacting study area must be factored into the Level of Service [LOS] calculations).
- Assumptions/variations to standard analysis default values shall be noted and justification provided for their use.
- Attach LOS calculation sheets.
- Compare the resulting future with-project LOS to the County's adopted LOS D standard for intersections in Urban Growth Areas (UGAs) or LOS C for intersections in rural areas, including Limited Area of More Intensive Rural Development (LAMIRDs).

D. Safety Analysis

Each TIS shall include an evaluation of safety impacts on adjacent roadways and other travel modes. The evaluation should address existing and potential for future safety impacts including, but not limited to, the following:

- Traffic volumes and composition
- Roadway geometry and grades (including horizontal and vertical curve deficiencies)
- Intersection operations and controls
- Pavement condition
- Drainage
- Sight distance restrictions/clear zones
- Pedestrian and bicycle travel
- Truck traffic and turn radii
- Snow routes

E. Other Travel Modes

The TIS shall include an evaluation of impacts on and potential improvements to other travel modes that serve the site. These may include, but are not limited to, the following:

- Fixed-Route Transit
- Demand, or Dial-a-Ride Transit
- School Bus
- Pedestrian
- Bicycle
- Equestrian

F. Emergency Service Access

As directed by the County Engineer (or designee), the TIS shall include an assessment of emergency service access to the project.

G. Mitigation Recommendations

The TIS should include recommendations to mitigate project impacts consistent with Chelan County Design Standards. Mitigation may include construction of, or contribution toward, improvements to roadways, intersections, non-motorized facilities, traffic controls, transit, and others, as appropriate. Payment of a transportation impact fee, if applicable, also shall be noted.

H. TIS Report

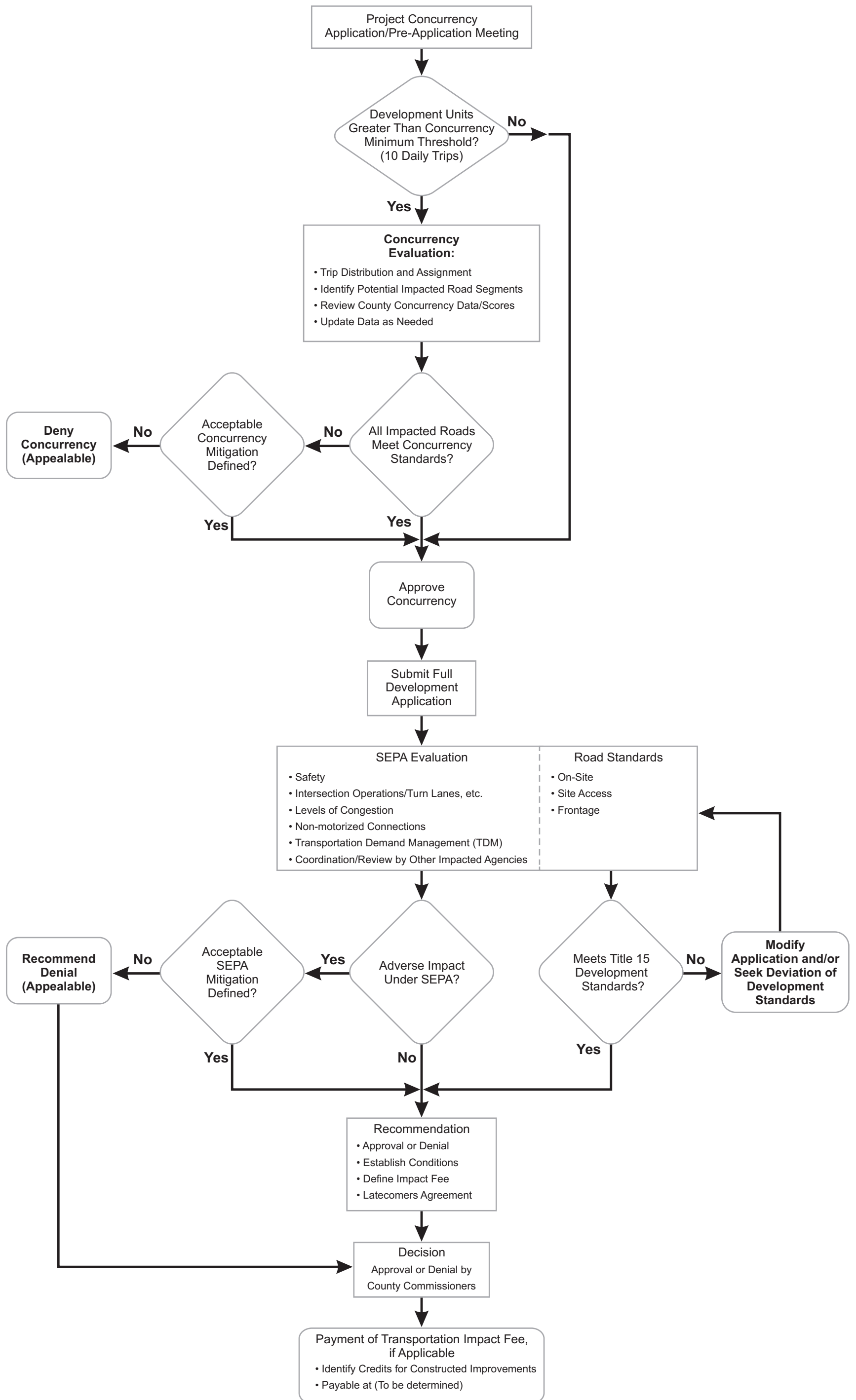
The applicant shall submit the complete Traffic Impact Study to the County Engineer (or designee) at the same time of the submission of an application for the proposed development to the County community development department, per Chapter 14.08 of the Chelan County Code.

The report shall generally be formatted per the outline in Attachment B. The completed report shall be stamped by a professional engineer that prepared or directly supervised the TIS.

I. Chelan County Review

The County Engineer (or designee) will review the TIS for accuracy and completeness per the requirements of Chapter 15.30 of the Chelan County Code. The County Engineer (or designee) will make a determination of completeness of the study within twenty-eight (28) days of submission. If the TIS is deemed incomplete, the County Engineer (or designee) shall identify in writing the specific requirements, needs, and additional information needed to complete the TIS, consistent with County regulations.

If the study is deemed complete, the County will use it and its findings in establishing potential mitigation needs and conditions of approval for the development application, including the appropriate transportation impact fee, if applicable.



Transportation Development Review and Mitigation Flow Chart

ATTACHMENT

Attachment B

Traffic Impact Study Report Outline

The following information shall be included in each traffic impact study report:

1. Cover sheet (include name and location of project, applicant, engineer and date).
2. Engineer's stamp and signature.
3. Table of contents.
4. Scope and purpose.
5. Description of Proposed Development Project.
 - A. Type of development.
 - B. Size of development.
 - C. Location map, including depiction of major streets and intersections in the study area.
 - D. Site plan, including proposed driveways, streets, parking facilities, and internal circulation for vehicles, pedestrians, and bicyclists.
6. Description of the Project Setting.
 - A. Description and map of the existing roadway system within project site and surrounding area.
 - B. Description and map of the location and routes of nearest public transit system servicing the project.
 - C. Description and map showing the location and routes of the nearest bicycle and pedestrian facilities serving the project.
7. Summary of Study Area Existing Conditions.
 - A. Map of study area with ADT of major roads, streets, and intersections.
 - B. Map of study area with weekday and weekend (if applicable) peak hour turning movements.
 - C. Table of existing a.m., p.m. and weekend peak hour levels of service.
 - D. Geometric deficiencies for roadways in the study area.
 - E. Structural condition of roads in the study area.
 - F. Accident rate analysis for the study area.
 - G. Traffic control devices in the study area.
 - H. Roadside safety elements in the study area.
8. Summary of Cumulative Conditions.
 - A. Map of study area with ADT of major roads and streets.
 - B. Map of study area with weekday and weekend (if applicable) peak hour turning movements.
 - C. Table of existing a.m., p.m., and weekend peak hour levels of service.
 - D. Geometric deficiencies in the study area.
 - E. Accident rate analysis for the study area.
 - F. Traffic control devices in the study area.
 - G. Roadside safety elements in the study area.
9. Summary of Cumulative Plus Project Conditions.
 - A. Map of study area with ADT of major roads and streets.
 - B. Map of study area with weekday and weekend peak hour turning movements.
 - C. Table of existing a.m., p.m., and weekend peak hour levels of service.
 - D. Geometric deficiencies in the study area.
 - E. Accident rate analysis for the study area.
 - F. Traffic control devices in the study area.
 - G. Roadside safety elements in the study area.
10. Transit analysis.
11. Parking analysis.
12. Site access analysis.

13. Bicycle and pedestrian analysis.
14. Findings and Recommendations.
 - A. Summary table of peak hour levels of service.
 - B. Findings for development impacts or for no development impacts on levels of service.
 - C. Findings for cumulative development impacts on levels of service.
 - D. Findings of needed improvements.
 - E. Proposed mitigation recommendations.
 - F. Recommended mitigation for roadway geometric deficiencies.
 - G. Recommendations for financing of mitigation measures, including proportionate share recommendations.
 - H. Other recommendations.
15. Appendix.
 - A. Explanation of analysis methods used in the traffic impact study.
 - B. Raw turn data movement counts.
 - C. Level of service calculation worksheets.
 - D. Other information provided. (Res. 2008-130 [part], 8/26/08)