IV. Findings for Inadequate Facilities

In their report to the Planning Board, staff will present findings for each of the categories identified below and make recommendations relating to the adequacy of the transportation facilities. The Planning Board will use these findings and recommendations, along with comments and recommendations from the public, MCDOT, SHA, and incorporated cities and towns within the County, to make its finding as to the adequacy of public facilities for the proposed development.

A. Transportation Solutions

If the applicant's traffic study identifies a condition that exceeds the congestion standard for that policy area, staff will notify the applicant, MCDOT and/or SHA so that they can develop a feasible solution to mitigate the impact. The Planning Board may select traffic mitigation agreements, non-automobile transportation facilities, or physical road improvements, alone or in combination, as the required means to relieve local congestion. Priority will be given to non-physical improvements in MSPAs and CBDs (see Section VI).

The current Growth Policy seeks to reduce congestion in areas where it may already be unacceptable. It stipulates that in policy area where local area conditions exceed the congestion standard the development may only be approved if the applicant agrees to mitigate the LATR impact by either:

- a sufficient number of trips to bring the local area condition to within the congestion standard, or
- a number of trips equal to 150 percent of the CLV impact attributable to the development. Any type of mitigation listed in this document or acceptable to the Planning Board can be used to achieve this goal.

If physical improvements are to be considered in MSPAs and CBDs, priority consideration will be given to improving the most congested intersections, even though they may not be in the specific local area of the traffic study. Efforts will be made to combine the resources of two or more developers to provide appropriate transportation improvements, be they physical intersection improvements or other trip mitigation measures.

Once the applicant, planning staff, and MCDOT and/or SHA have identified feasible transportation solutions to obtain adequate local transportation capacity, these solutions will be incorporated as conditions of approval in the Transportation Planning staff report. These solutions could include additional traffic engineering or operations changes beyond those currently programmed, or non-programmed transit or ridesharing activities that would make the overall transportation system adequate.

If an applicant is participating in a traffic mitigation program and/or one or more intersection improvements to satisfy LATR requirements, that applicant shall be considered to have met LATR for any other intersection where the volume of trips generated by the site is less than five Critical Lane Movements.

In the case of developments that elect to use one of the Growth Policy's alternative review procedures, the solutions must be identified and agreed to as above but will not be made conditions of approval.

B. Degree of Local Congestion

Staff will identify the degree of intersection congestion calculated for the peak hour of weekday morning and evening peak periods using the CLV method and the congestion standards by policy area listed in Table 1. For intersections that straddle policy area boundaries, the higher congestion standard shall be used.

In establishing the LATR congestion standards, an approximately equivalent transportation level of service that balances transit availability with roadway congestion in all policy areas of the County is assumed. In areas where greater transit accessibility and use exist, greater traffic congestion is permitted. Table 1, which shows the CLV congestion standard adopted by the County Council for each policy area, is based on this concept.

Staff will present findings comparing the calculated CLVs with the congestion standards of the nearby intersections. If the congestion standards are exceeded under background conditions, an applicant is required to provide a traffic mitigation program (consisting of either or both trip reduction or intersection improvements). The mitigation program should:

- bring the intersection to acceptable levels of congestion, or
- result in improved operating conditions equal to 150 percent of the CLV impact attributable to the development than those that would occur without the applicant's development.

C. Unavoidable Congestion

Transportation Planning staff will identify the degree to which alternate routes to serve the trips associated with the proposed development can be considered (see Section VII.F. Trip Assignment). If there are no appropriate alternate routes to use to avoid the congestion, then it must be assumed that trips from the proposed development will increase the local area congestion. It is not appropriate to anticipate that the trips associated with the development would use local streets other than for site access unless such streets have been functionally classified as being suitable for handling background and site-generated trips, e.g., arterial, business district, or higher classifications.

D. Transportation Demand Management Strategies

As part of the traffic study review and approval staff, in coordination MCDOT, will confirm the degree to which transit, ridesharing, or other TDM activities can be considered to mitigate vehicle trips generated by a development. If there is sufficient potential for serving the proposed development and/or immediate area with transit or ridesharing services, then priority will be given to developing a transit alternative or trip mitigation program to mitigate the development's local and policy area traffic impact. If it is physically or fiscally ineffective for the public agencies to provide transit or ridesharing services, then it must be assumed that trips from the proposed development will increase the local area congestion. In most cases, TDM strategies will be included in TMAgs and monitored over time to ensure effectiveness.

E. Project-Related Traffic

Transportation Planning staff will identify the degree to which local traffic congestion is attributable to the proposed development. Traffic from three sources will be measured: 1) existing traffic, 2) background traffic generated by the sum total of all nearby approved but unbuilt developments, and 3) total trips generated by the proposed development. The more trips the proposed development contributes to local traffic congestion, the greater the assumed severity of local impact.

F. Queuing Analysis

In addition to the CLV analysis, staff may require queuing analysis. The generally accepted practice for evaluating queue lengths in CBDs and MSPAs is to observe the existing maximum queue during the peak hour and add background and site-generated traffic, assuming LATR lane distribution factors, a 25-foot average vehicle length, and a division of hourly approach volumes equally among the number of signal cycles in the peak hour. Alternative methods, such as simulation using software such as Synchro or CORSIM, may be acceptable if simulation parameters are agreed to by staff.

The average queue length in the weekday peak hour should not extend more than 80 percent of the distance to an adjacent signalized intersection, provided the adjacent signalized intersections are greater than 300 feet apart. The 80 percent standard provides a margin of safety for peaking. If adjacent signalized intersections are closer together than 300 feet, the average queue length in the weekday peak hour should not extend more than 90 percent of the distance to the adjacent signalized intersection.